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FORM
 9113
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Modular Motor Installation

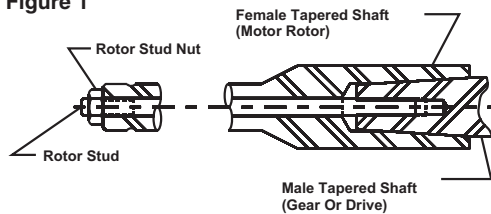
⚠ WARNING

- Disconnect and lock-out power before installation and maintenance. Working on or near energized equipment can result in severe injury or death.
- Do not operate equipment without guards in place. Exposed equipment can result in severe injury or death.
- Read and follow all instructions carefully.

Assembly Of Motor Module To Gear Or Drive Module

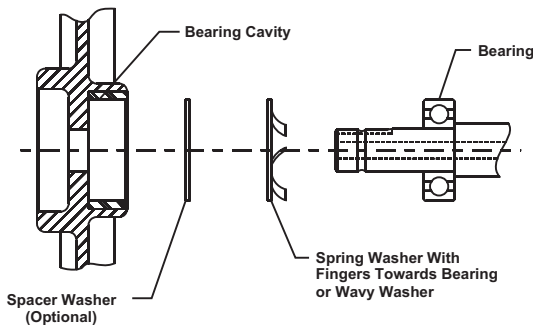
- 1.) If replacement of motor is required, see steps A-D.
 - 2.) Thoroughly clean all tapered bores, tapered shafts and all registers of rust preventative and/or oil and grease using a petroleum solvent. (Stoddard solvent, mineral spirits, kerosene, naphtha etc.)
- Notice:** Do not lubricate the female taper of the motor or the male taper of the reducer shaft. Lubrication could cause the connection to slip in service.
- 3.) Prior to assembling motor module rotate input shaft of gear or drive module by hand. Listen and feel for any unusual noise or mechanical interference to help ensure it is in good working order.

Figure 1



- 4.) Do not discard rotor stud from old assembly if replacing motor. Standard motor rotor studs may not work if an accessory has been previously added.
- 5.) Mount motor rotor to gear or drive shaft and insert rotor stud into shaft. Hand tighten rotor stud. (Note: be sure nut is on the shortest thread end of the rotor stud).
- 6.) Mount frame assembly to drive register, install motor short end bracket and fully tighten motor bolts to drive.
- 7.) 56 and 140T frame motors have spring washers and may have shims behind the short end bearing. If removed, they should be replaced in position as shown in Figure 2.

Figure 2



⚠ CAUTION

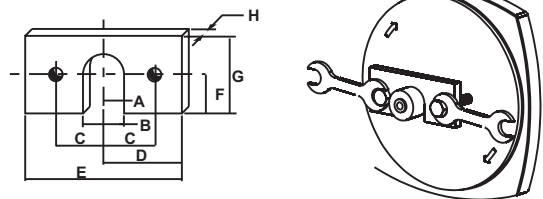
- Periodic inspections should be performed. Failure to perform proper maintenance can result in premature product failure and personal injury.
- All electrical work should be performed by qualified personnel and compliant with local and national electrical codes.

- 8.) Rotor stud can now be fully tightened by holding exposed motor shaft with a spanner wrench. Tighten rotor stud to specified torque.
- 9.) Mount fan on shaft and install snap ring or tighten bolt. Install fan cover guard.

Motor Frame	Stud Size	Tightening Torque
56 - 140T	1/4 - 20	10 - 12 ft lb
180T	3/8 - 16	37 - 40 ft lb

Removal Of Modular Motor - Breaking Tapered Fit

Figure 3



Frame	F	G	H	Tap Size
56-180T	1	2	1/4 - 3/8	3/8-16 UNC

Frame	A	B	C	D	E
56-180T	17/32	1 1/16	2 1/8	2 5/8	5 1/4

- Remove all modular unit parts except the tapered assembly from the drive unit. Loosen the nut from the rotor stud of the tapered shaft connection.
- Fabricate a tool per the diagram and table of dimensions given above.
- Place the tool slot over the male taper such that when two bolts are threaded onto the tool and tightened, force will be applied to the tapered shaft, tending to separate the taper. After the separating force is applied, a mild tap with a mallet on the OD of the motor shaft will break the fit.
- See step 2

Modular FCR Brakemotor Installation

⚠ WARNING

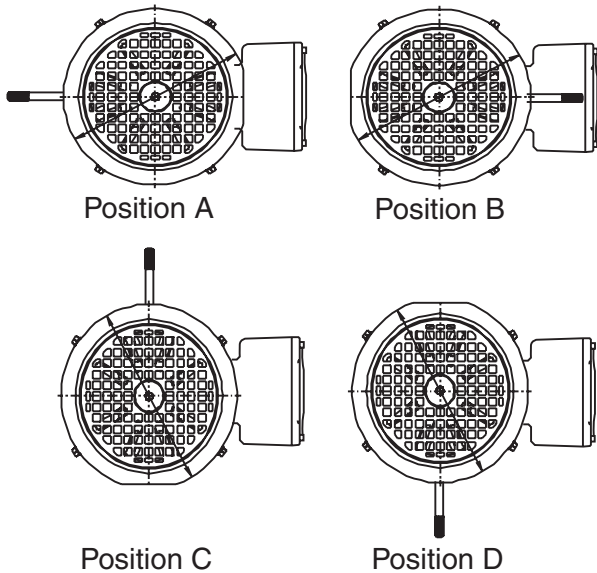
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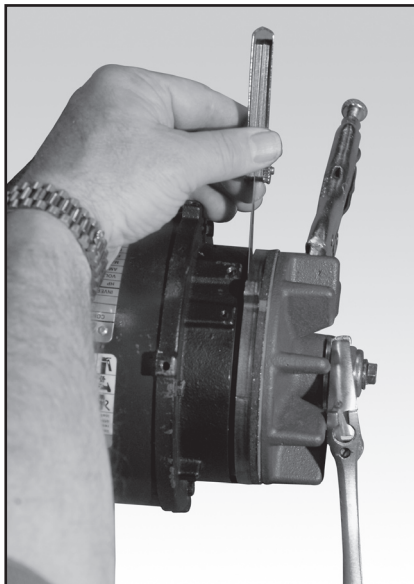
Assembly of CTPB/CTIPB Brakemotor to Gear

- 1.) If replacement of brakemotor is required, see Form #9055.
- 2.) Check sales order from customer for required location of manual brake release lever in relationship to the motor conduit box. If position A or B is required, rotate the brake 90 degrees CCW.



- 3.) Proceed to follow steps 2 – 8 on the reverse side of this document, assembling complete brakemotor onto the gear module at one time. Hold fan while tightening rotor stud nut. **Photo 1**

- 4.) Set brake air gap >0.4mm but <0.5mm using feeler gauges of these thicknesses and tightening the fan nut slowly while continuing to hold fan stationary. See Photo #1 right.



- 5.) Install O-Ring into "gap" where feeler gauge was removed.
- 6.) Install manual release lever yolk onto flat double-tapped "ears" of the brake bracket, so threaded hole for manual release is positioned at the "o'clock" location desired by your customer. See Photos #2 and #3 below.

Photo 2

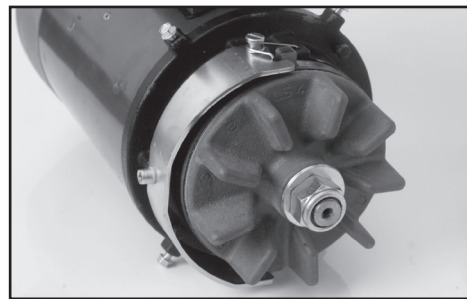
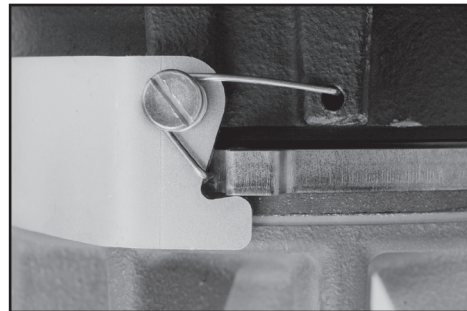
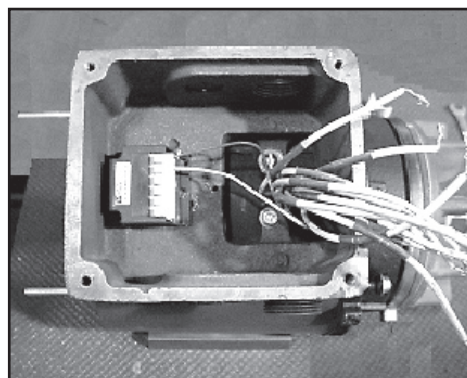


Photo 3



- 7.) Install fan cover guard, aligning removable plug in guard with the threaded opening of the release yolk (where release lever can be mounted).
- 8.) Assemble conduit box with rectifier onto the motor frame, and connect 2 leads from the brake (white and red leads) into the rectifier terminals marked "+" and "-". See Photo #4 below.

Photo 4



Removal of CTPB/CTIPB Brakemotor from Gear

Refer to FCR Brakemotor Manual Form #9055 for removal instructions.