



**EVINRUDE<sup>®</sup>**  
**Johnson<sup>®</sup>**

## Brush Kit For Electric Trolling Motor

Part No. 582407

### Installation Instructions

#### Preface

The brush kit will allow dealers to offer brush replacement on all Evinrude<sup>®</sup> and Johnson<sup>®</sup> 12 and 24 Volt Trolling Motors. The kit consists of a brush set and two pieces of shrink tubing.

#### Installation Procedure

1. Remove two screws from propeller end of motor and remove motor from commutator head. Remove brush holder. See Figure 1.

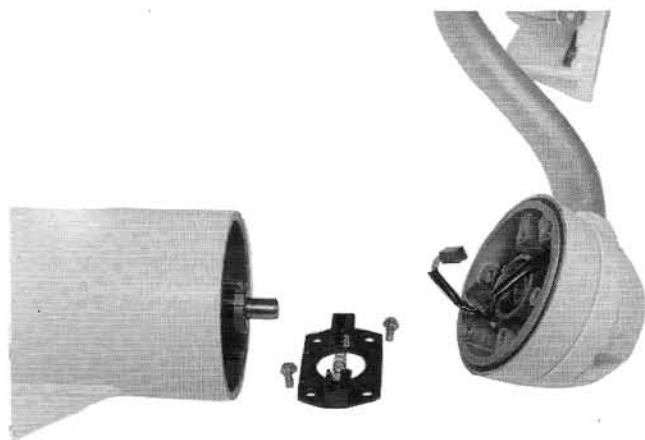


Figure 1

COA4056

2. Cut top (long) brush lead in commutator head approximately 7/8 inch (22 mm) from epoxy end. See Figure 2.
3. Cut and remove 1/4 inch (6 mm) of insulation from end of lead to allow room for soldering.
4. Remove remaining insulation sleeve from old brush and install on new brush with long lead. Be sure that at least 1/4 inch (6 mm) of wire protrudes past insulation.
5. Cut new shrink tube from kit to 1-1/4 inches (32 mm). Slip over insulated sleeve on new brush.

6. Spread brush end of lead open by holding loose end and about 1 inch (25 mm) up the lead. Push ends toward each other to spread the center open. Cut about 1/8 inch off the end of the wire and insert an awl or center punch to spread the wire. See Figure 3.

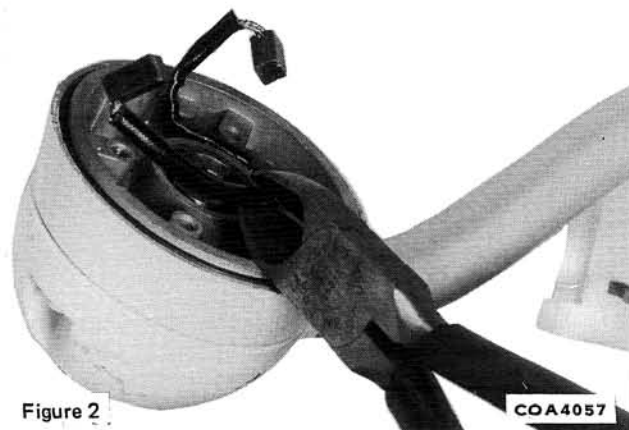


Figure 2

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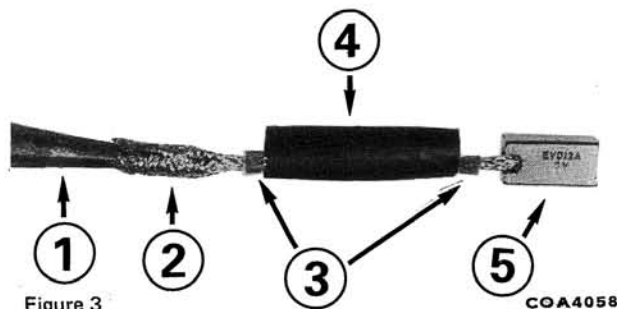


Figure 3

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1. Tip of Awl
2. Brush Lead Being Spread Open
3. Insulation Sleeve
4. Heat Shrink Tube
5. New Brush



Note

When installed bottom short lead should be approximately 2-7/8" and top long lead 3-1/2" from end of brush to epoxy end.

#### Product Reference & Illustration

When reference is made to a brand name, product or specific tool, an equivalent product may be used in place of the referred to product. Substitute products used must have equivalent characteristics, including type, strength, and material. Incorrect substitution may result in product malfunction and possible injury to the operator and/or passengers.

All photographs and illustrations used may not necessarily depict actual models or equipment, but are intended only for reference. Specifications used are based on the latest product information available at the time of publication.

7. Insert lead from commutator head into new lead. Tighten new lead over lead from commutator and secure using rosin core solder. See Figure 4.

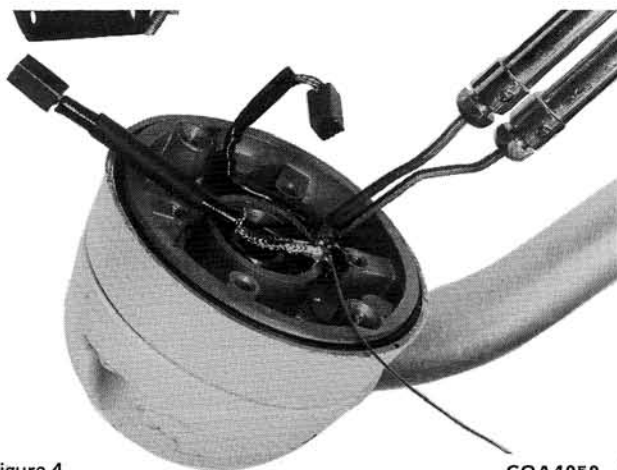


Figure 4

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8. Slide shrink tube over solder joint and over insulation and apply heat from a heat gun to shrink tube over insulation and solder joint. See Figure 5.



Figure 5

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9. Cut short bottom lead and insulation on commutator head similar to steps 2 and 3.

10. Prepare new (short) brush lead as in steps 4 thru 6.
11. Solder with rosin core solder and apply shrink tube as in steps 7 and 8.
12. Reinstall brush holder. Install brushes with groove for wire up. Tie them in place with fine wire or string. See Figure 6.

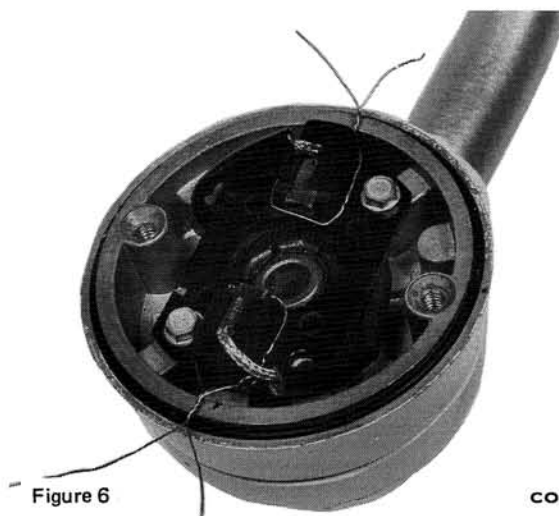


Figure 6

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13. Lubricate the armature shaft with one drop of SAE-10 oil. Be sure sealing surfaces are clean.
14. Hold propeller shaft end cap securely to frame assembly. Align and insert end of armature shaft into bushing in commutator end of motor. Align thru bolts with self centering holes in commutator end cap. Tighten thru bolts securely.
15. Test forward and reverse operation of the motor for a few seconds.



Note

Reversing brushes will set motor to run opposite of direction indicated on switch.