



EVINRUDE[®]
Johnson[®]



Electric Start Kit for 9.9 and 15 H.P. Outboard Motors

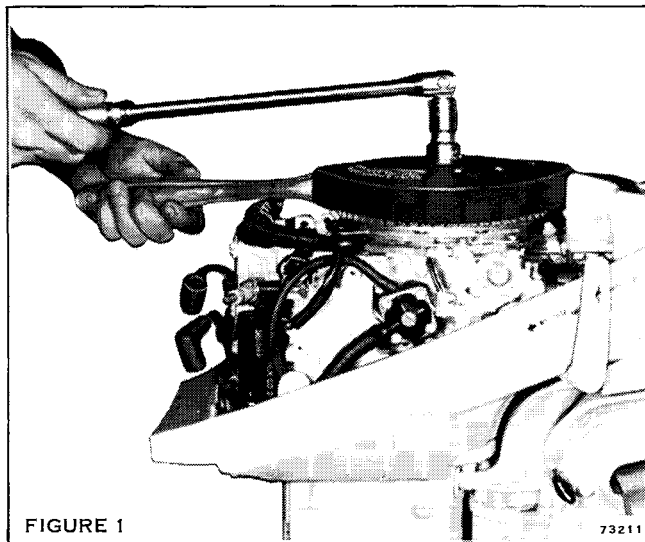
(Does not charge batteries)

PURPOSE

This kit allows the conversion of 1977 thru 1992 (EN) 9.9 or 15 HP manual start motors to electric starting. If battery charging or remote starting is required, see the *Evinrude®/Johnson®* Genuine Parts Catalog for the correct kit part numbers.

INSTALLATION

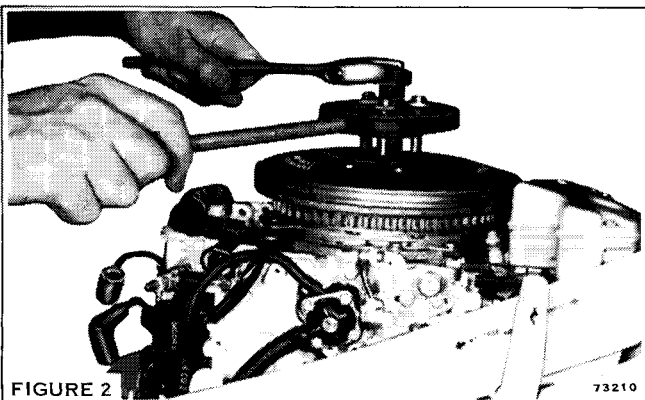
1. Remove high tension leads from spark plugs.
2. Remove flywheel nut. See Figure 1.



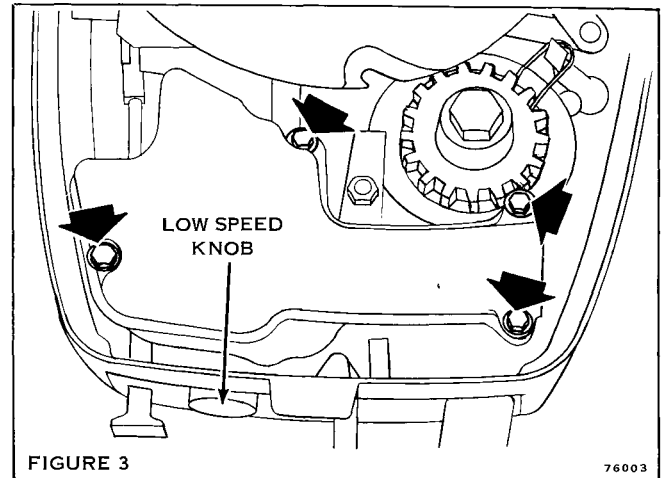
3. Remove flywheel using

Universal Puller,

P/N 378103. See Figure 2.

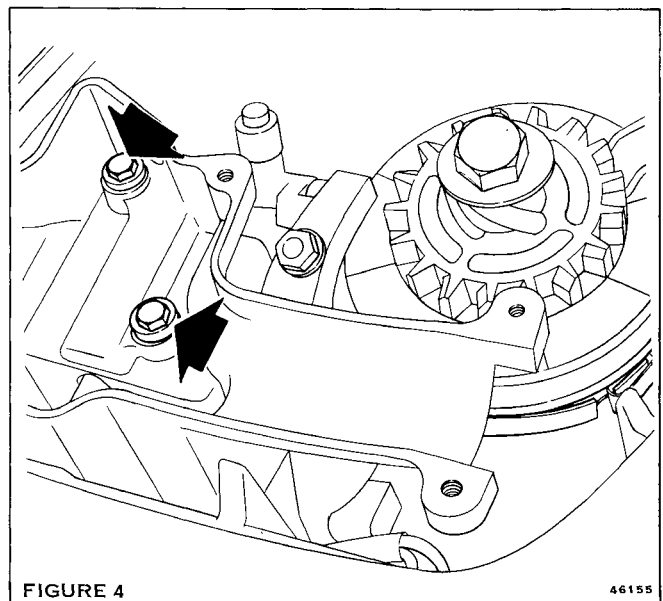


4. Note low speed knob position; turn knob to "centered" position, and remove knob. See Figure 3.



5. Remove air silencer cover, Figure 3, and air silencer base. Figure 4.

6. If battery charging Kit, P/N 173358 is already installed on motor, remove battery cable supplied in that kit from motor. Heavier cables supplied in this kit are required to carry starter current.

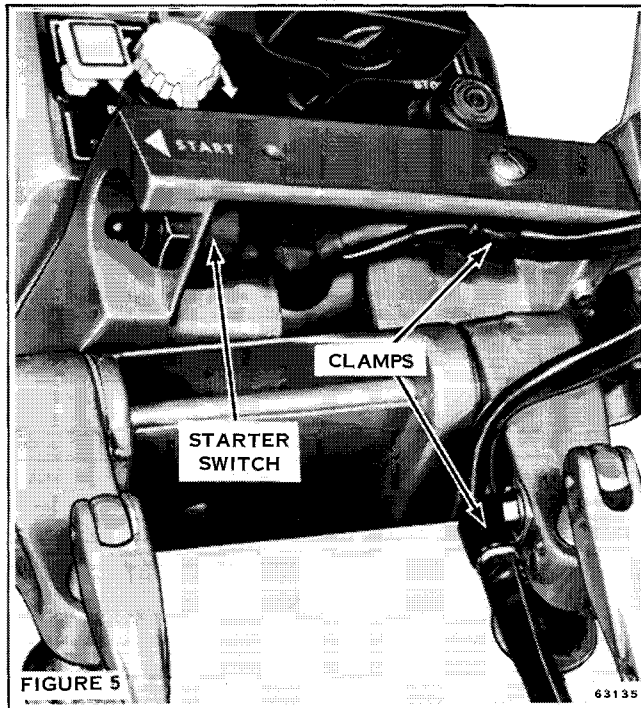


PRODUCT REFERENCES AND ILLUSTRATIONS

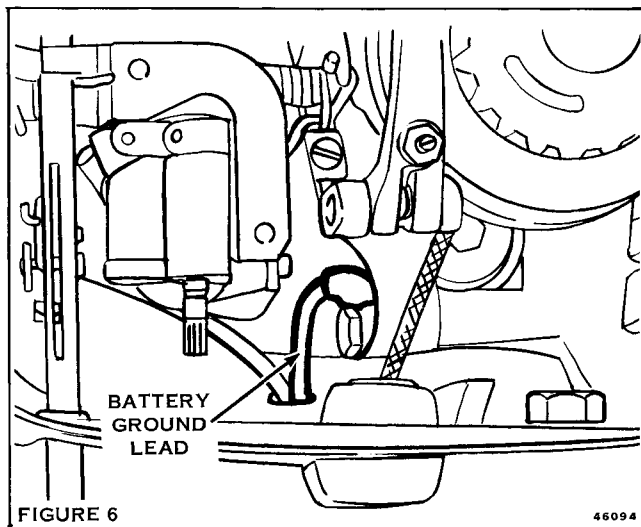
WHEN REFERENCE IS MADE IN THESE INSTALLATION INSTRUCTIONS TO A BRAND NAME, NUMBER, PRODUCT OR SPECIFIC TOOL, AN EQUIVALENT PRODUCT MAY BE USED IN PLACE OF THE REFERRED TO PRODUCT UNLESS SPECIFICALLY STATED OTHERWISE. EQUIVALENT PRODUCTS WHICH ARE USED MUST MEET ALL CURRENT U.S. COAST GUARD SAFETY REGULATIONS AND ABYC-BIA STANDARDS TO AVOID HAZARDS.

ALL PHOTOGRAPHS, ILLUSTRATIONS, AND SPECIFICATIONS USED IN THESE INSTALLATION INSTRUCTIONS MAY NOT NECESSARILY DEPICT ACTUAL MODELS OR EQUIPMENT, BUT ARE INTENDED FOR REFERENCE ONLY AND ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF PUBLICATION.

Attach starter switch and cable assembly to steering bracket. See Figure 5. Install grommet in lower motor cover, and insert two red leads and black battery ground cable thru steering bracket access hole and lower motor cover grommet. Torque starter switch nut to 4-5 lb. ft. (5-7 N·m).

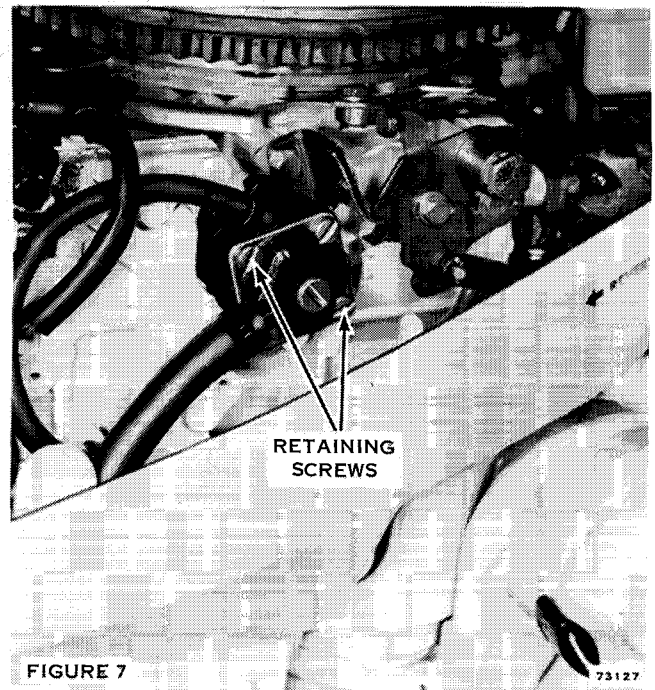


7. Secure black battery ground cable (12V-) under starter interlock bracket screw. Coat screw with Black Neoprene Dip, P/N 909570. See Figure 6. Route red leads around starboard side of motor.

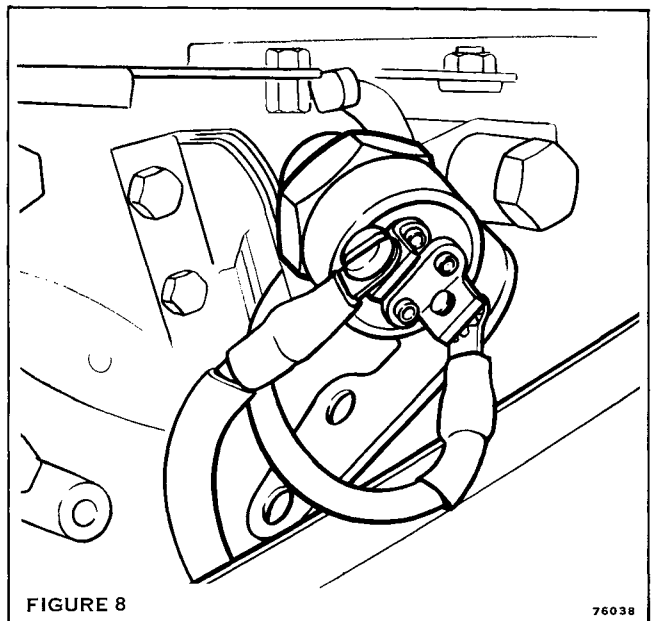


8. Secure battery cables and large clamps to inside port stern bracket and under steering bracket. See Figure 5. Position cable with enough slack for full turning and tilting, and squeeze clamps shut.

9. Remove fuel pump retaining screws and move fuel pump aside. See Figure 7.

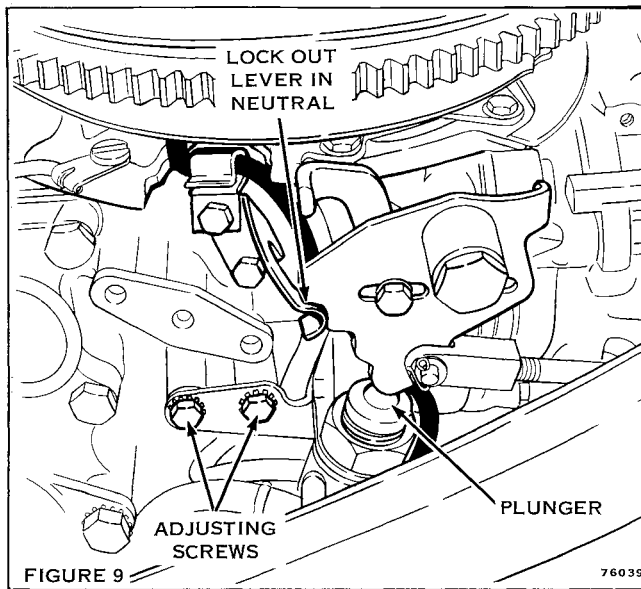


10. Attach starter switch lead with larger ring terminal to vacant neutral start switch terminal with 10-32 x 1/4 inch screw supplied. See Figure 8. Coat both terminals with Black Neoprene Dip, P/N 909570.

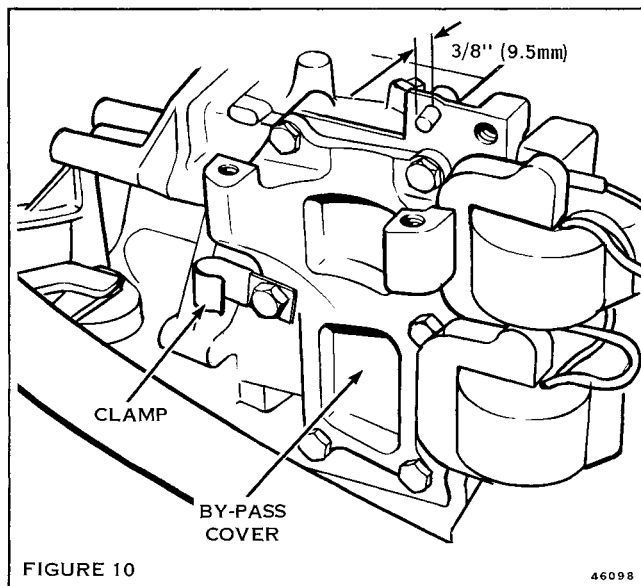


11. Shift motor into neutral. Loosely attach neutral start switch with 10-24 x 1/2 inch screws supplied. See Figure 9. Route neutral start switch-to-starter lead over rear of motor to portside. Center switch plunger on lockout lever lobe. Position switch with plunger depressed 3/32 - 1/8 inch, and tighten screws. A test light or meter connected to battery red cable (12V+) and neutral start switch output lead should show continuity in neutral with starter switch depressed and no continuity in forward or reverse. Switch must not bottom or bind when shifting. Adjust as required.

12. Attach clamp under shift lock detent screw and close clamp on starter cable. See Figure 9.



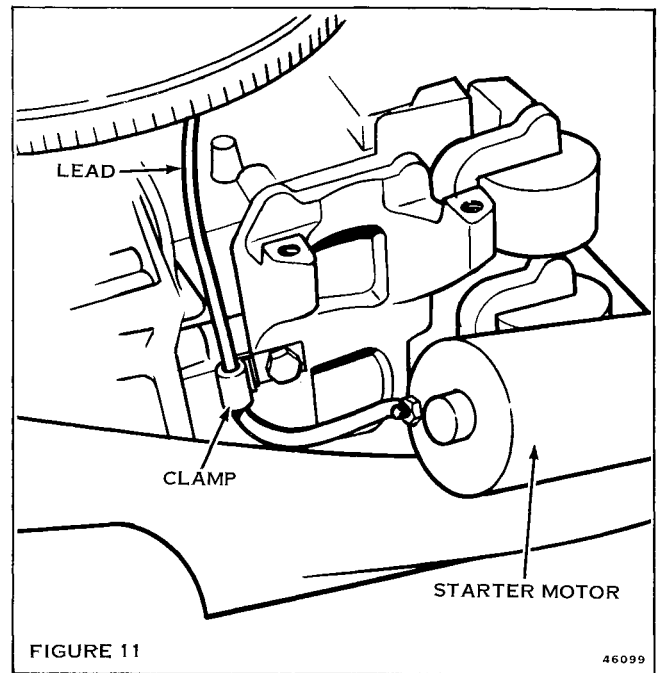
13. Remove old by-pass cover and gasket. Using Gasket Sealing Compound, P/N 317201, or equivalent, install new gasket and by-pass cover from kit with clamp under screw as shown in Figure 10. Install dowel pin in hole in block with approximately 3/8 inch protruding on by-pass cover side. See Figure 10.



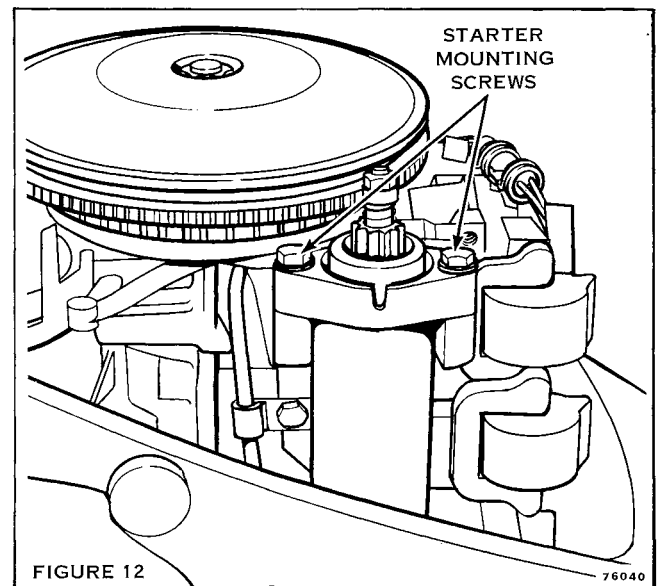
14. Attach lead to starter motor stud. Coat terminal with **Black Neoprene Dip**, P/N 909570. See Figure 11. Close clamp on starter lead.

15. Mount starter to by-pass cover with screws and washers supplied. Tap starter firmly against by-pass cover before tightening screws. See Figure 12.

16. If battery charging Kit No. 173358 is not being installed, fold back extra starter switch red lead and tape securely. If battery charging kit is used, attach lead to terminal block as directed in kit instructions.



17. Clean flywheel taper and crankshaft taper with trichloroethane or similar solvent. Apply Gasket Sealing Compound, or equivalent, to crankshaft threads only. Install flywheel and nut. Torque nut to 45-50 lb. ft. (61-68 N·m). See Figure 12.



18. Install air silencer base, Figure 4, and air silencer cover, Figure 3.

19. Install low speed knob in "centered" position and turn to initial position. See Figure 3.

20. Connect cables to 12 volt battery and check that motor will not crank in forward and reverse, and will in neutral. Adjust as required.

21. Connect high tension leads to spark plugs, and test starting and shifting functions in test tank or on boat.