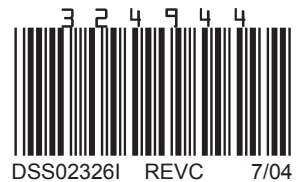




EVINRUDE[®]
Johnson[®]



5" EXTENSION KIT

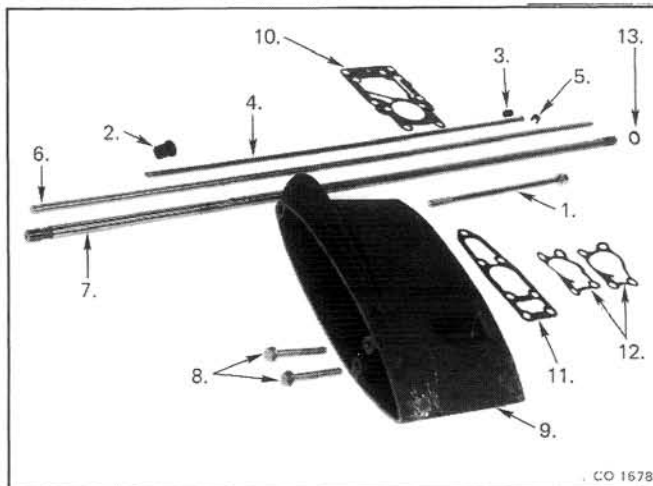
Installation Instructions

PREFACE

This kit is used on 1980 and later Johnson[®] and Evinrude[®] 4.5 short shaft outboards. It adds 5" to the length of the lower unit to permit use on boats with 20" transoms.

CONTENTS OF KIT

Ref. No.	Part No.	Description	Qty.
1	308744	Screw-Extension to Exhaust Housing	2
2	321129	Grommet-water tube-Lower	1
3	323286	Grommet-water tube-Upper	1
4	324601	Water tube - Long	1
5	324604	Retainer-water tube	1
6	324621	Shift Rod - Long	1
7	324635	Driveshaft - Long	1
8	324645	Screw-Gearcase & Extension to Exhaust Housing	1
9	324947	Gearcase Extension	1
10	324611	Gasket-Exhaust Housing to Powerhead	1
11	324637	Gasket-Gearcase Cover	1
12	325040	Gasket-Impeller Housing	2
13	303191	O-Ring Driveshaft	1

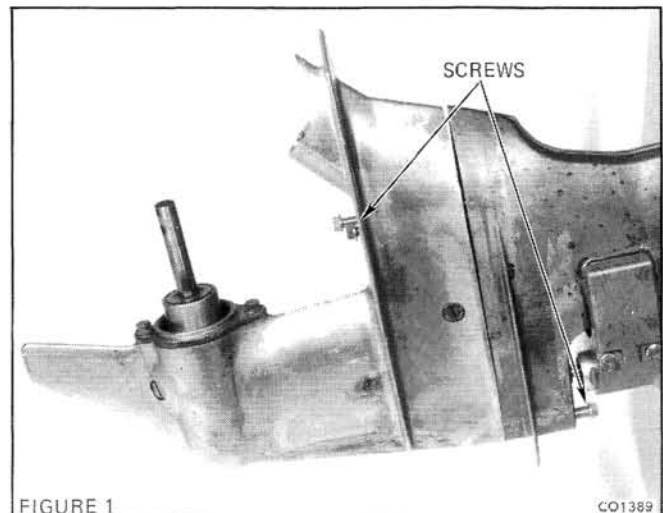


SAFETY WARNING

TO PREVENT ACCIDENTAL STARTING OF ENGINE, REMOVE MOTOR COVER, DISCONNECT SPARK PLUG LEADS AND POSITION THEM AWAY FROM SPARK PLUG.

DISASSEMBLY

1. Remove three screws from gearcase to exhaust housing. See Figure 1.



2. Remove gearcase from exhaust housing and lay it aside.

3. Remove low speed knob, clip on choke and shut off valve lever, then remove lever.

4. Remove two screws that hold the twist grip cable, throttle arm and pulse pack in place. See Figure 2.

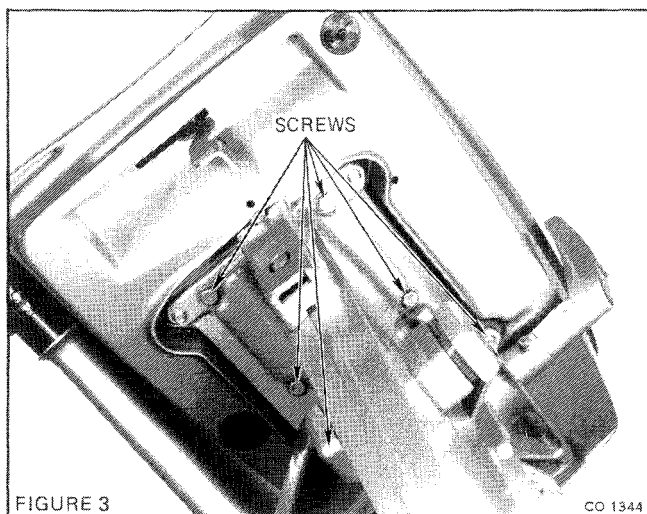
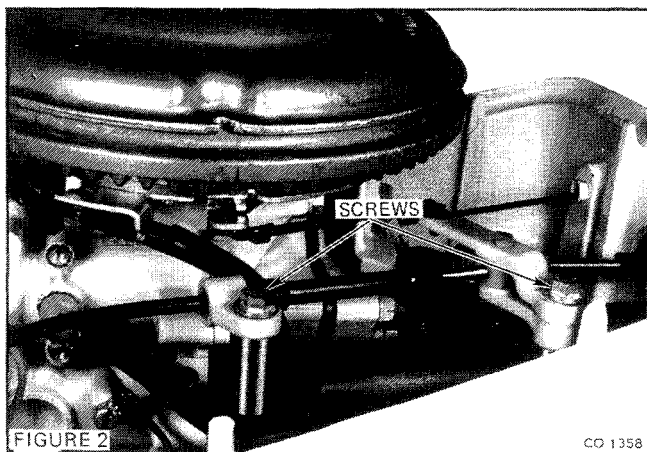
5. Remove six screws under powerhead. See Figure 3.

6. Lift powerhead with inner exhaust tube and water line attached from exhaust housing.

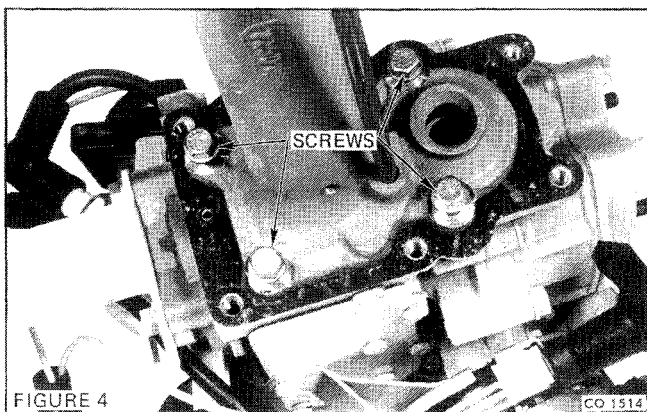
Product Reference & Illustration

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. If correct 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.

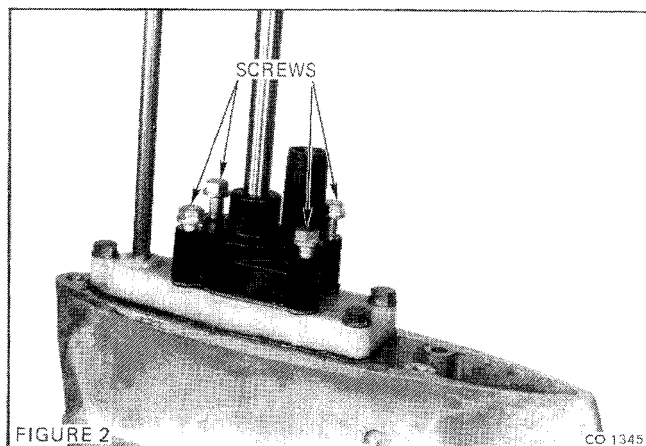
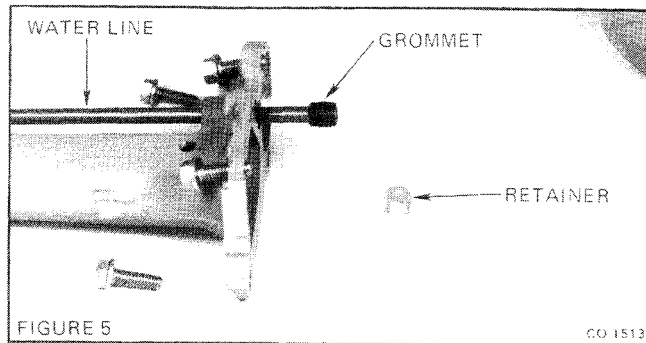


7. Remove four screws from inner exhaust tube to powerhead. See Figure 4.

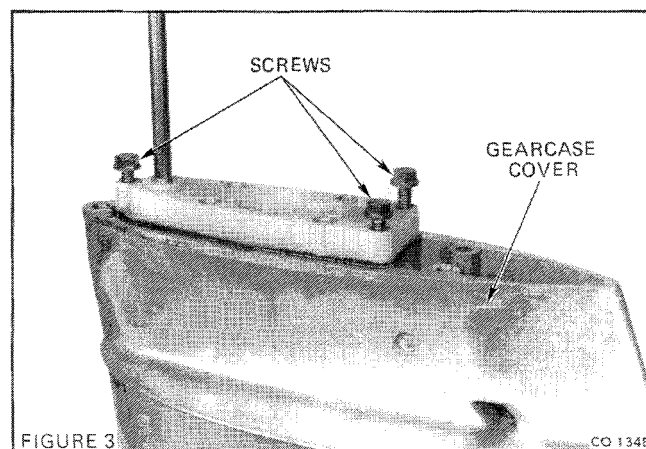


8. Remove plastic retainer, water line and grommet from inner exhaust tube. See Figure 5.

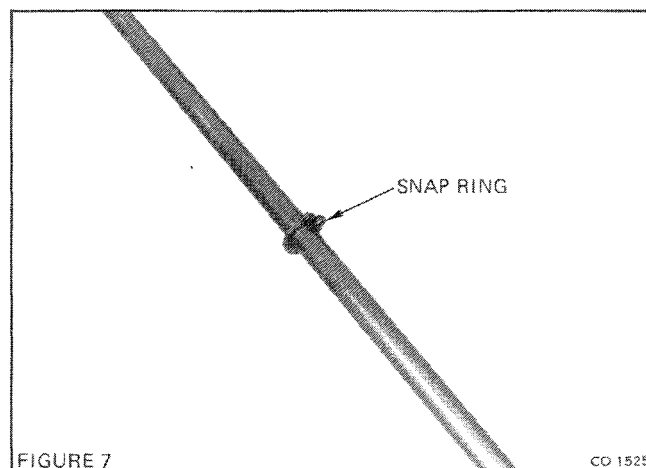
9. Drain oil from gearcase. Remove four screws from water pump housing. Remove pump parts and driveshaft. See Figure 6.



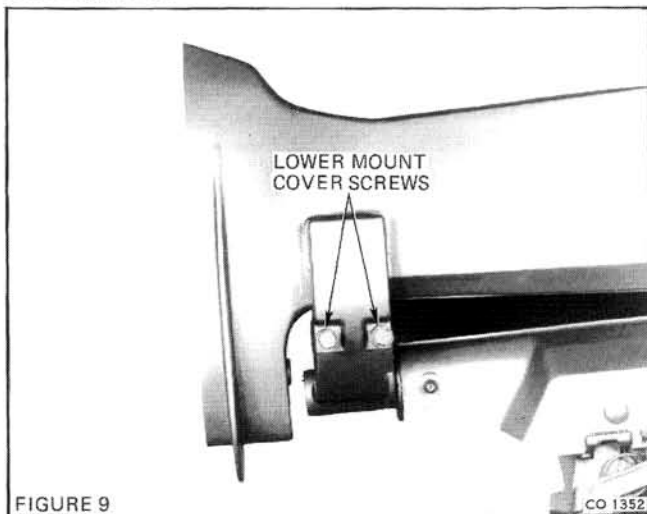
10. Remove three screws from gearcase cover. Remove cover and shift shaft. See Figure 7.



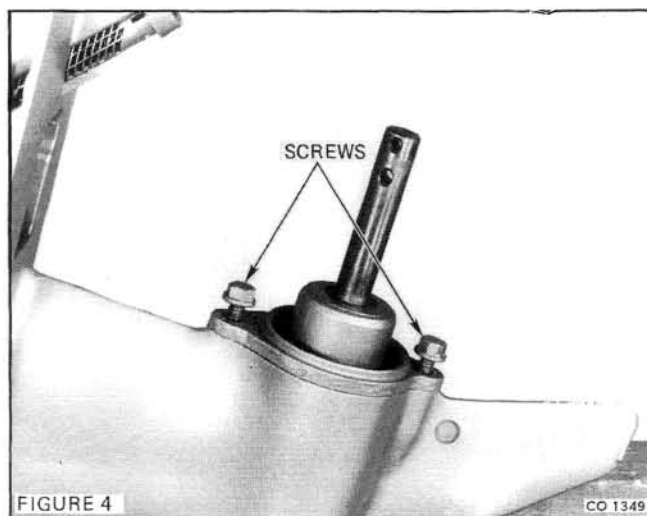
11. Remove snap ring from short shift rod and install on new long shift rod. See Figure 8.



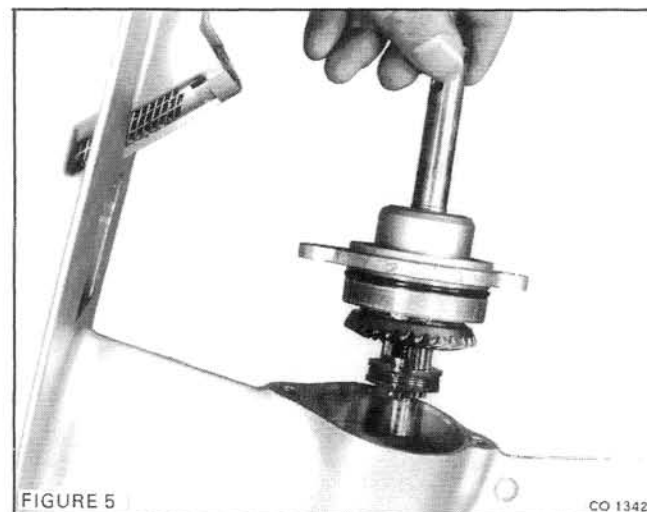
12. Remove lower mount cover screws and covers. See Figure 9.



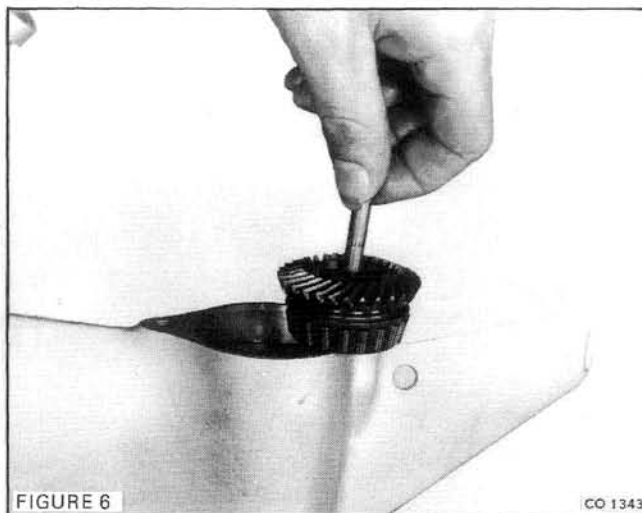
13. Remove two screws from gearcase head. See Figure 10.



14. Remove propeller shaft and gearcase head with reverse gear and clutch dog assembly. The shifter pin may fall from end of propeller shaft. If not, remove it. See Figure 11.



15. Remove forward gear and bearing by using propeller shaft or a bar of same diameter and rotate the forward gear and bearing around pinion gear to remove. See Figure 12.

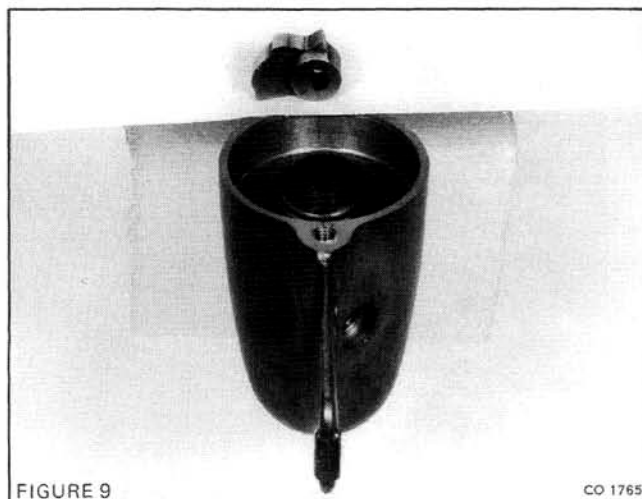


REASSEMBLY PROCEDURE

Clean all gasket surfaces and parts before reassembly.

Dip all screw threads in Gasket Sealing Compound (P/N 317201) for reassembly.

1. Position shift cam in forward end of gearcase. At the same time install shift rod from top of gearcase and insert into shift cam. See Figure 13.



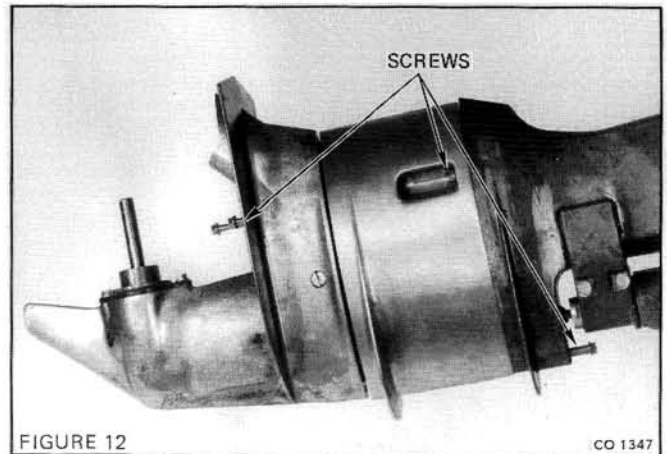
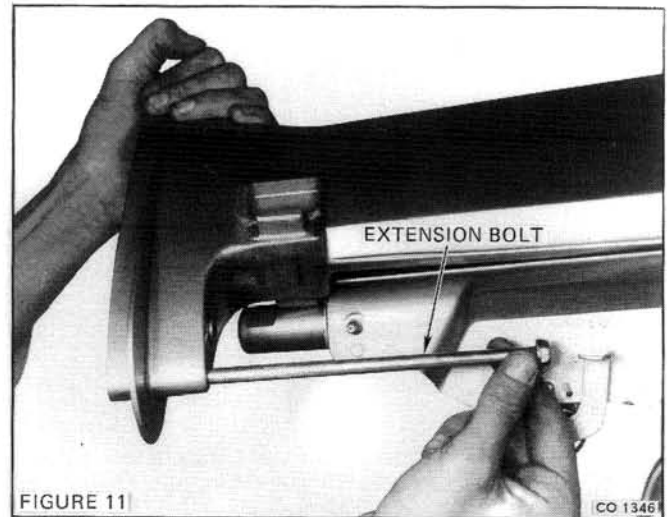
2. Install forward gear by rotating it around pinion gear into position.

3. Install shift pin with flat end into propeller shaft. Install propeller shaft assembly with reverse gear and gearcase head into gearcase and install two screws. Torque to 60-80 in. lbs. (7-9 N·m).

4. Apply Gasket Sealing Compound to both surfaces of all gaskets.

5. Install gasket and gearcase cover with three screws and tighten to proper torque - 60-80 in. lbs. (7-9 N·m).
6. Install driveshaft, gasket and water pump plate gasket. Use Needle Bearing Grease to hold impeller pin to driveshaft. Lubricate impeller with oil and slide over driveshaft on drive pin. Install impeller cup in pump housing. Install water pump assembly on driveshaft and rotate driveshaft so impeller will enter pump housing. Install screws. Torque screws 60-80 in. lbs. (7-9 N·m).
7. Install water pump grommet into water pump. Lubricate with oil.
8. Install new o-ring supplied in groove on upper end of driveshaft.
9. Lubricate water tube grommet with oil. Slide grommet on water tube. Insert water tube in exhaust tube. Install retainer over water tube. Install gasket to powerhead. Secure exhaust tube to powerhead with four screws. Torque screws to 60-80 in. lbs. (7-9 N·m).
10. Install powerhead to exhaust housing with six screws. Torque screws 60-80 in. lbs. (7-9 N·m).
11. With the mid-section of the engine hanging on a stand, tip it to the port and lift up on the lower part of the exhaust tube and install extension bolt. See Figure 14.
12. Assemble lower mount covers and screws. Torque screws 60-80 in. lbs. (7-9 N·m).
13. Install gearcase extension to exhaust housing. Apply Adhesive M, P/N 318535, to mounting flanges of gearcase extension.
14. Install gearcase to extension. Make sure water line enters in grommet in water pump. Push up on gearcase. Move the shift handle so shift rod will engage in shift gear under powerhead. Also rotate

flywheel so driveshaft will engage in crankshaft. Install the two long bolts from gearcase to extension and torque one large bolt in front 120-140 in. lbs. (14-16 N·m) and torque rear bolt to 60-80 in. lbs. (7-9 N·m). See Figure 15.



15. Fill gearcase with HI-VIS™ gearcase lubricant and connect spark plug wires to spark plugs.
16. Run engine in test tank to check all systems for proper operation before returning to Service.