



**EVINRUDE
Johnson**

ELECTRIC START KIT P/N 5034022 INSTALLATION INSTRUCTIONS FOR JOHNSON® OUTBOARDS 9.9/15 HP 4-STROKE MODEL-YEAR 2003 AND NEWER ONLY

For safety reasons, this kit must be installed by an authorized *Evinrude/Johnson* dealer. These installation instructions contain information that can help prevent personal injury and damage to equipment. Understand the following symbols before proceeding:

	DANGER	
Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.		

	WARNING	
Indicates a potentially hazardous situation which, if not avoided, CAN result in severe injury or death.		

	CAUTION	
Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate personal injury or property damage. It also may be used to alert against unsafe practices.		

TO THE OWNER

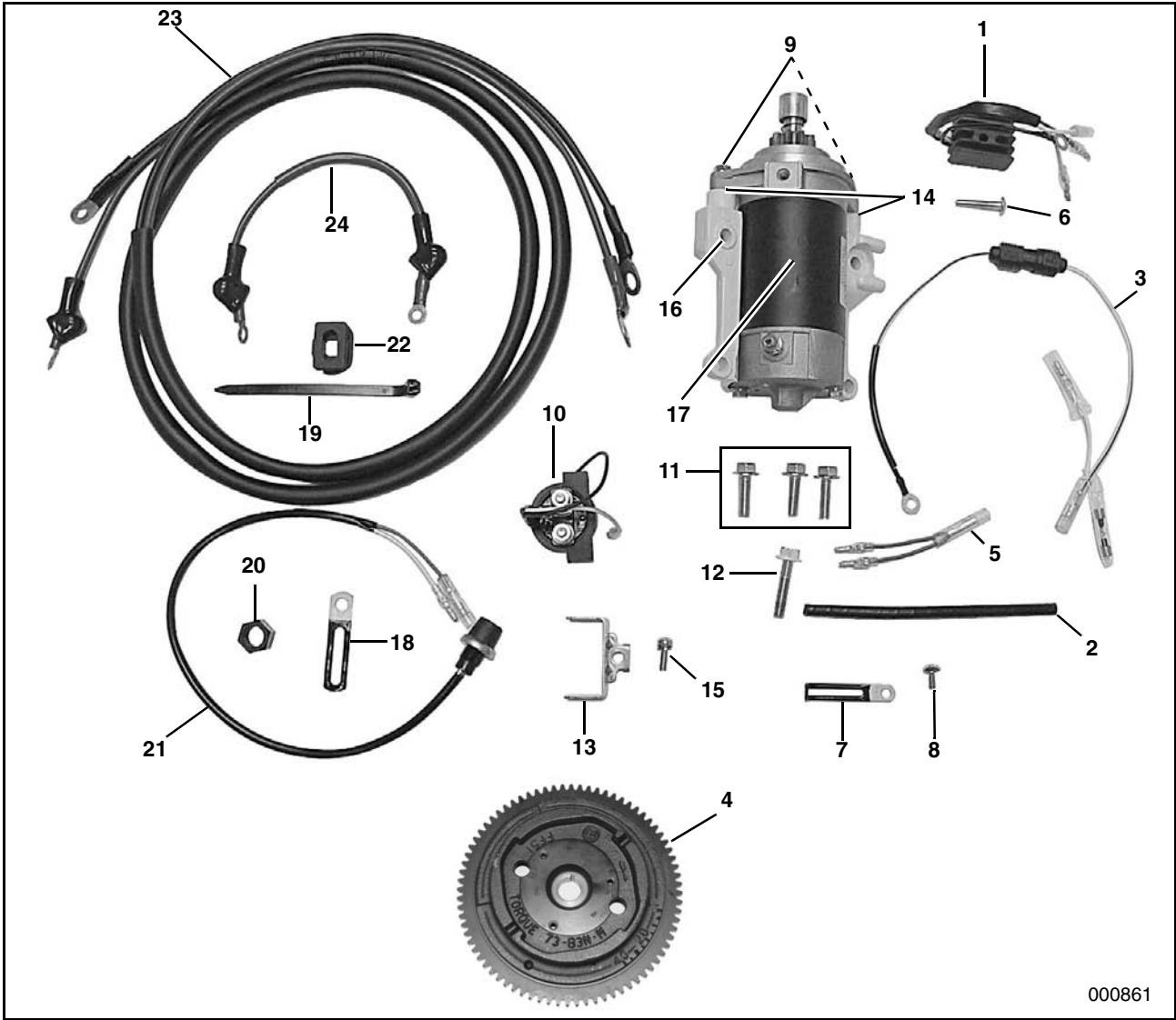
The assembly procedures outlined in this sheet should be performed by a skilled technician. If you have questions, see your DEALER. Save these instructions in your owner's kit. This sheet contains information important to the future use and maintenance of your engine.

TO THE INSTALLER

Give this sheet to the owner. Advise the owner of any special operation or maintenance information contained in the instructions. This kit is designed for specific applicable models only. It is not recommended for units other than those for which it was sold.



CONTENTS OF KIT



Ref	P/N	Name of Part	Qty	Ref	P/N	Name of Part	Qty
	5034022	ELECTRIC START KIT *		17	5033145	MOTOR, STARTER	1
1	5030356	RECTIFIER ASSY	1	5032338	HOLDER, BRUSH-START *	1	
2	5030832	TUBE	1	5032342	BOLT *	1	
3	5032043	CASE ASSY, FUSE	1	5032343	AMATURE *	2	
4	5032726	FLYWHEEL ASSY	1	5032344	PINION ASSY, STOP *	1	
5	5033155	LEAD, NEUTRAL LIMIT	1	5032346	WASHER *	1	
6	5033301	SCREW, Rectifier	1	5033146	PINION ASSY *	1	
7	5030135	CLAMP, Fuse case	1	5034020	SWITCH ASSY, STARTER *	1	
8	5033302	SCREW, Fuse case	1	5030589	STARTING CABLE SET *	1	
	5034019	MOTOR ASSY, START *	1	18	5032824	CLAMP, Battery	1
9	5030002	BOLT	2	19	5030589	CLAMP (length: 125 mm)	1
10	5030783	RELAY ASSY	1	20	5031828	NUT (14 x 1.5 x 13 mm)	1
11	5030995	BOLT	3	21	5032044	SWITCH ASSY	1
12	5030997	BOLT	1	22	5033148	GROMMET	1
13	5032048	BRACKET	1	23	5033149	CABLE ASSY, STARTER	1
14	5032308	PIN	2	24	5032683	BATTERY CABLE	1
15	5032310	SCREW	1	* Not shown			
16	5032725	BRACKET, STARTER MOTOR	1				

IMPORTANT: Only the parts listed here are required for correct starter assembly and installation.

PRE-INSTALLATION PROCEDURES



WARNING



To prevent accidental starting while servicing, twist and remove all spark plug leads.

Refer to the wiring diagram in the service manual for wire routings.

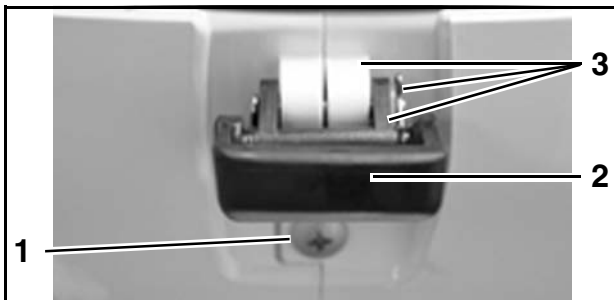
Remove lower pans by first removing motor cover, motor cover seal, and three screws.



1. Motor cover seal
2. Screws (3)

000870

Remove rear screw. Remove retaining clip, washer, pin and latch.



1. Rear screw
2. Latch
3. Retaining clip, washer, and pin

000855

Remove both screws found inside front of motor cover pans.



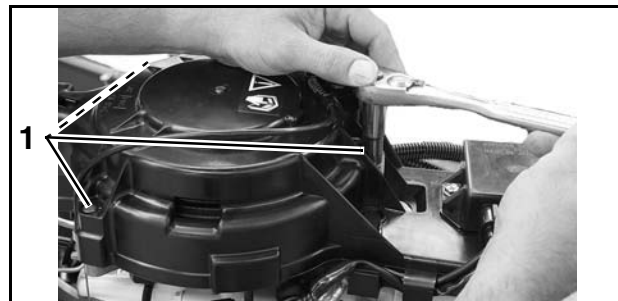
1. Screws

000862

Remove port side pan and set aside to prevent damage.

Removing recoil starter

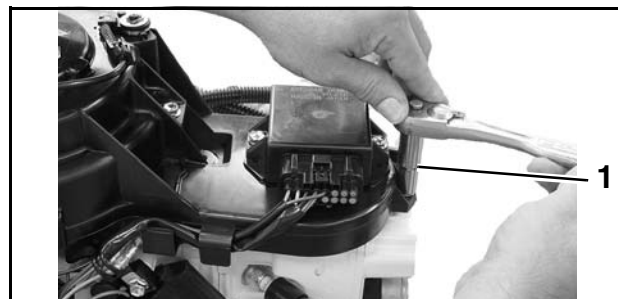
Remove bolts.



1. Bolts

000936

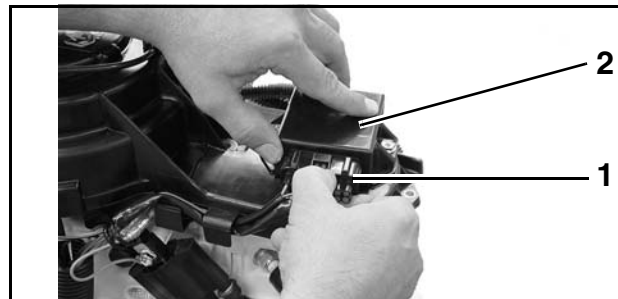
Remove bolt.



1. Bolt

000937

Remove electrical connector from CDI unit by depressing tab and gently pulling off.

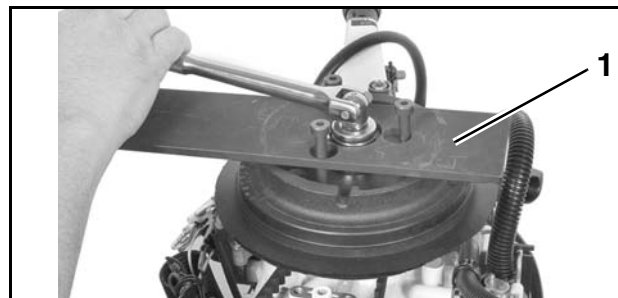


1. Electrical connector
2. CDI unit

000938

Removing flywheel

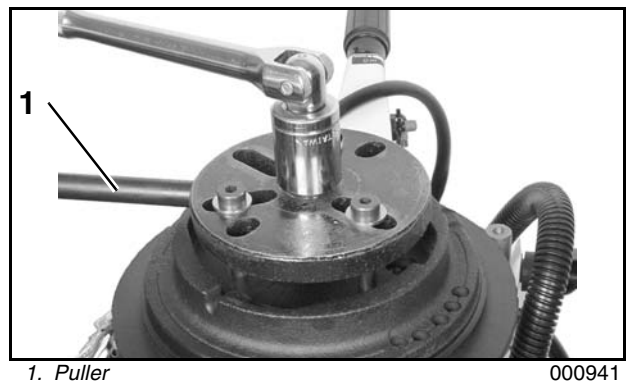
Using a flywheel holder to prevent flywheel from turning, remove nut with a socket wrench by turning counterclockwise. Remove nut and washer and set aside for later use.



1. Flywheel holder

000942

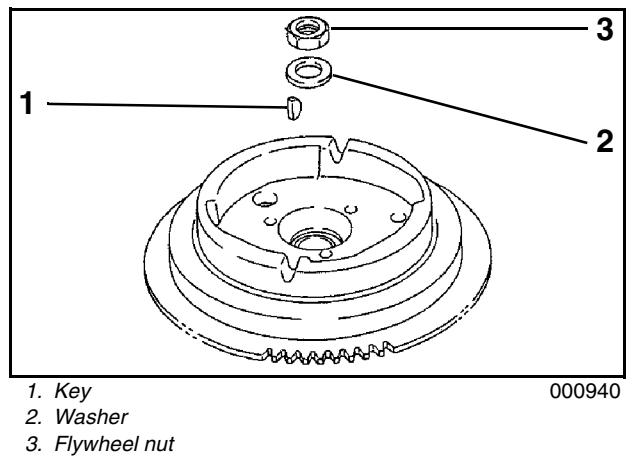
Using a suitable puller, remove flywheel and set aside.



Installing new flywheel

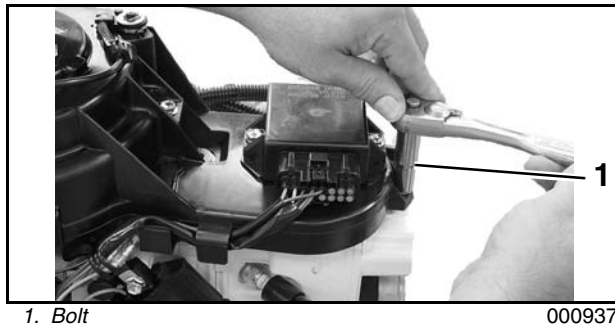
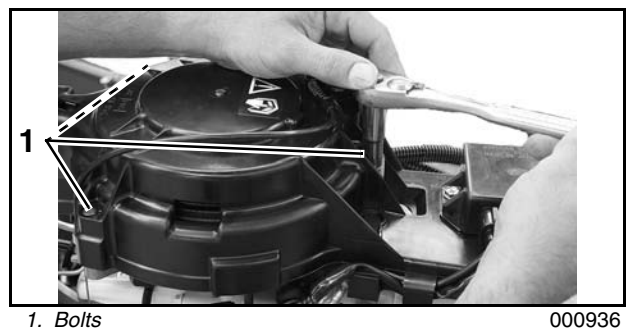
Ensure key is still in place in crankshaft and place new flywheel on crankshaft, aligning slot in flywheel with key.

Place washer and flywheel nut on threads of crankshaft and torque to 50.5 ft. lbs. (70 N·m).



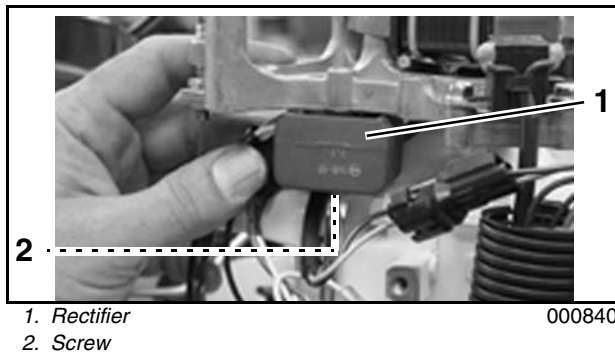
Installing recoil starter

Replace recoil housing and secure with four bolts previously removed. Tighten securely.

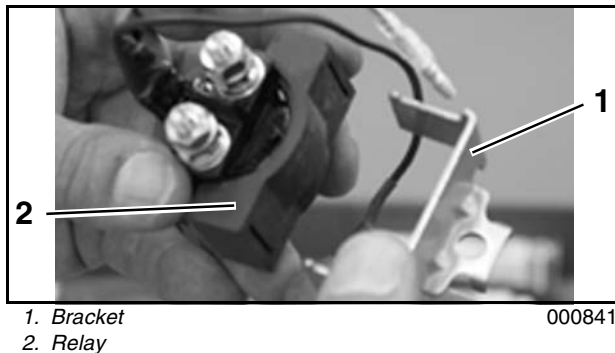


STARTER INSTALLATION

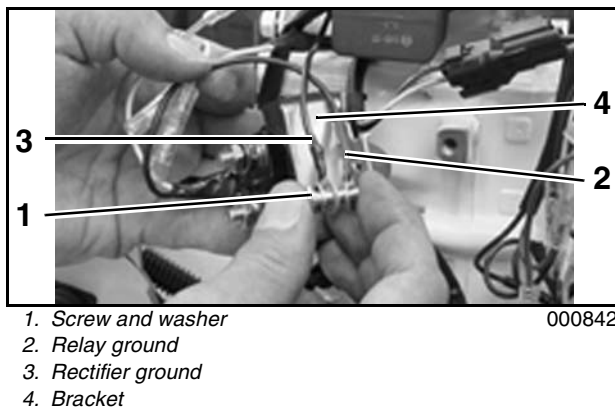
Install rectifier as shown using screw supplied.



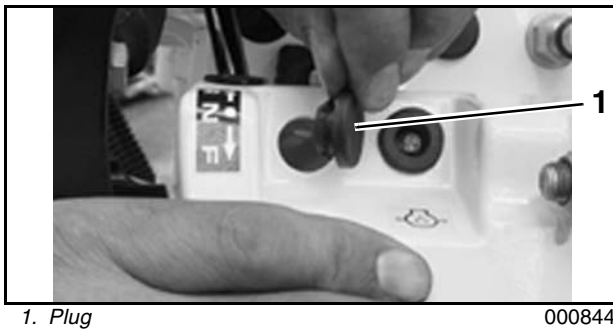
Install bracket into relay.



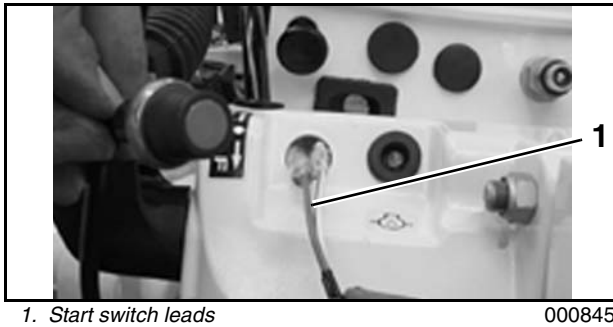
Place washer on screw and place relay ground lead terminal and rectifier ground lead terminal on screw. Insert screw through hole in bracket and start screw in threaded hole in boss on side of crankcase. Ensure bracket is squarely seated on boss and tighten screw securely.



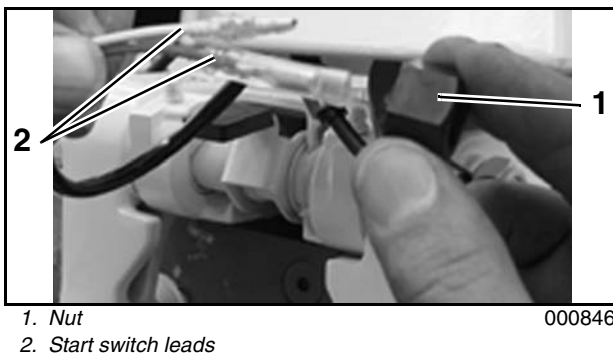
Remove plug in front engine handle bracket.



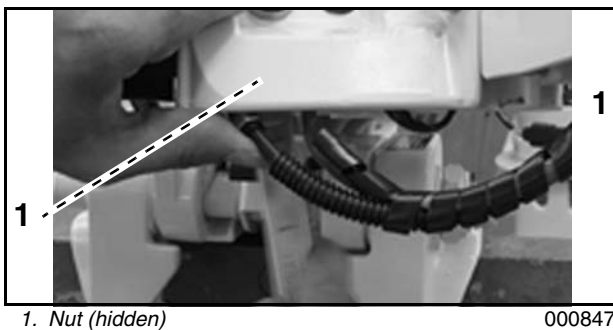
Route start switch leads through hole in bracket.



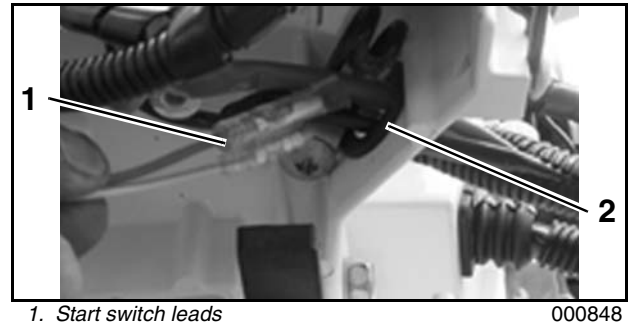
Install nut on switch leads and hand tighten.



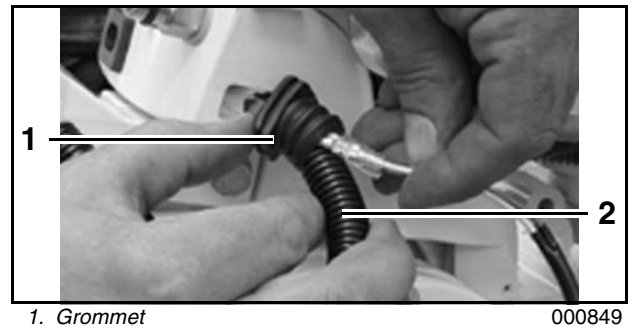
Gently tighten nut with wrench.



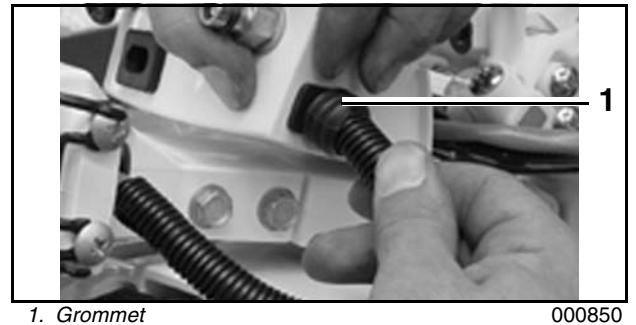
Insert leads through grommet in port side of bracket.



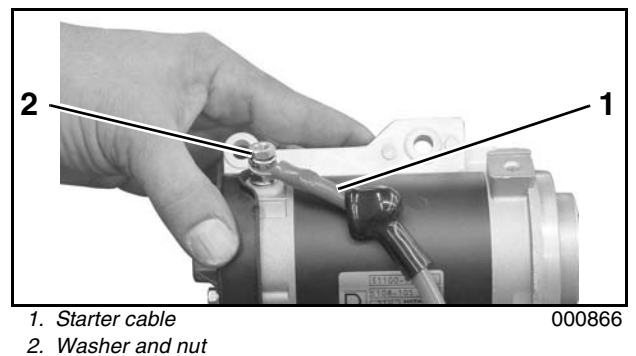
Route leads through grommet into port side of control panel. Prying grommet from panel first allows for easier installation. Slip wires inside of split loom sleeve.



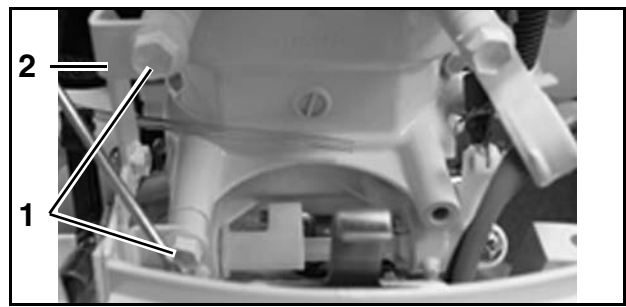
Carefully reinsert grommet into side of panel.



Place starter cable, washer and nut on stud, orient cable as shown and tighten nut.



Remove the two bolts and spacers from throttle cable bracket and move bracket aside.



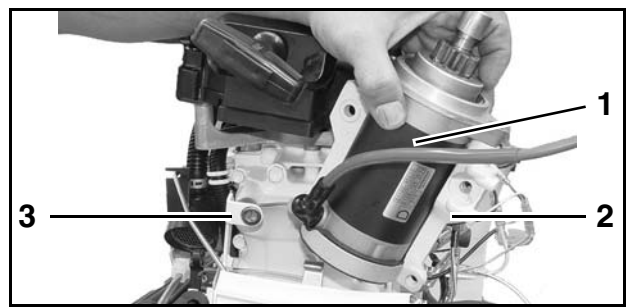
1. Bolts and spacers (removed)
2. Throttle cable bracket

Remove bolt, clamp, and spacer.



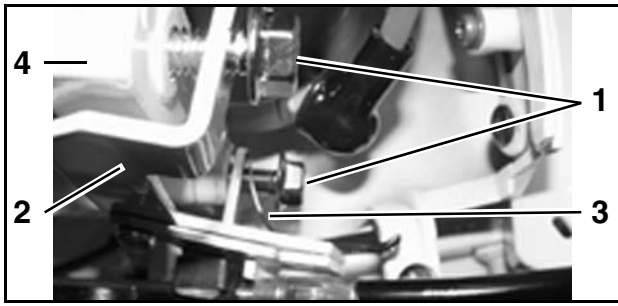
1. Bolt
2. Clamp
3. Spacer

Insert starter motor and starter bracket assembly in place with throttle cable bracket in front of starter bracket assembly.



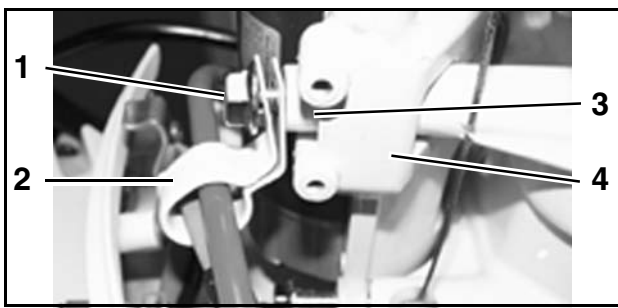
1. Starter motor
2. Starter bracket assembly
3. Throttle cable bracket

Use **new** supplied bolts to secure throttle cable bracket. Install bolt in top hole through throttle cable bracket and starter bracket assembly and another bolt through clamp, throttle cable bracket, and then through starter bracket.



1. Bolts
2. Throttle cable bracket
3. Clamp
4. Starter bracket assembly

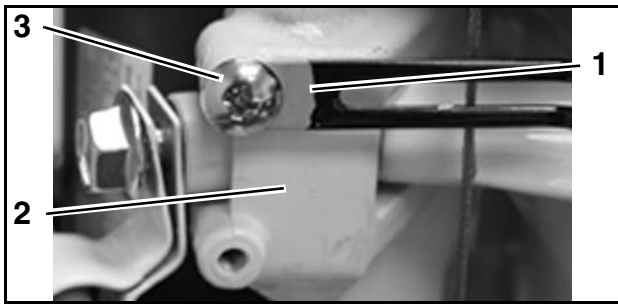
Install the longest of the bolts through clamp and spacer, then through starter bracket. Install remaining bolt through starter bracket.



1. Longest bolt
2. Clamp
3. Spacer
4. Starter bracket

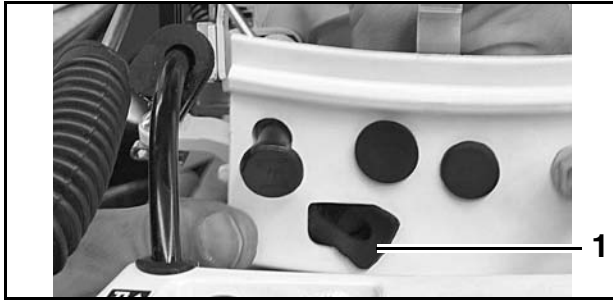
IMPORTANT: Leave mounting bolts finger tight until after battery cable is routed.

Secure clamp to starter bracket using screw. Position as shown and tighten securely.



1. Clamp
2. Starter bracket
3. Screw

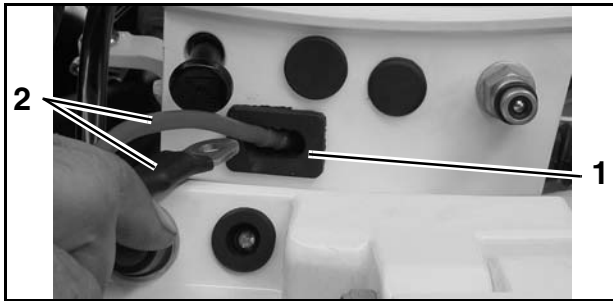
Remove rectangular plug from front of instrument panel.



1. Plug

000867

Insert rectangular grommet in hole and route battery cables through grommet.

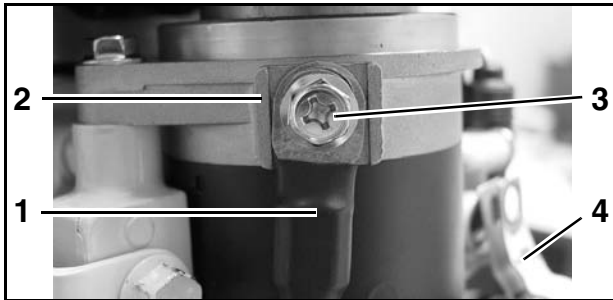


1. Grommet

000851

2. Battery cable assembly

Connect battery negative (–) cable to mounting boss on top of starter with screw and tighten securely. Bend clamp over cable to secure.



1. Battery negative (–) cable

000863

2. Mounting boss

3. Screw

4. Clamp

Route the starter cable and stop switch harness through the clamp along with battery cable.



1. Starter cable

000869

2. Stop switch harness

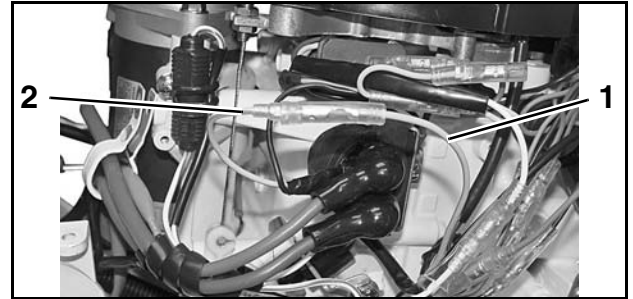
3. Clamp

4. Battery cable

Torque starter mount bolts to 12 to 14 ft. lbs.

IMPORTANT: Start switch lead assembly may be too short to route through clamp but will be secured after wiring procedures are completed.

Unplug neutral limit lead (yellow/green) from connector and attach to starter relay connector (yellow/green).



1. Neutral limit (yellow/green)

000868

2. Starter relay connector (yellow/green)

Disconnect neutral limit lead (brown) from CDI unit (brown).

Connect neutral limit switch (brown) to female bullet terminal of Y-adapter (brown). Connect Y-adapter terminal to CDI unit (brown). Connect the other adapter lead to start switch (brown).



1. Neutral limit switch

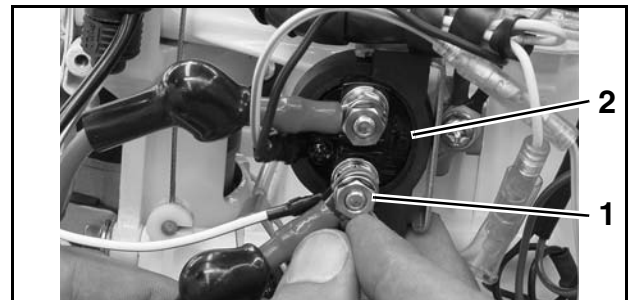
000864

2. Y-adapter (brown)

3. CDI unit (brown)

4. Start switch (brown)

Remove nut and washer from lower stud of starter relay.

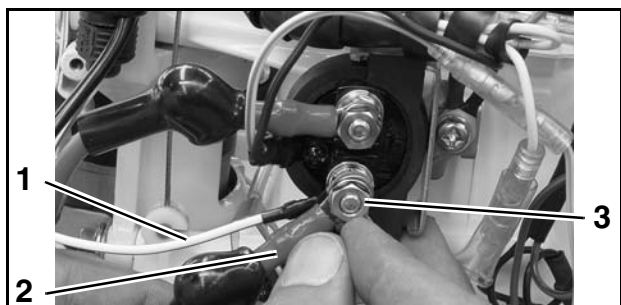


1. Nut and washer

000853

2. Starter relay

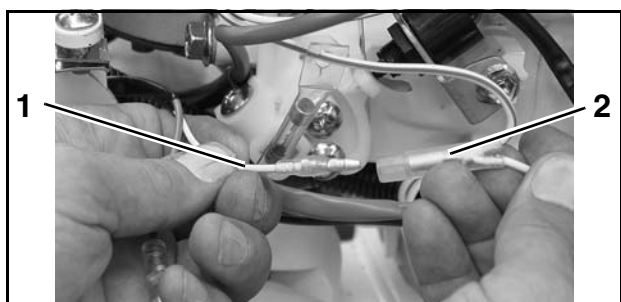
Locate fuse case assembly and place white/red ring terminal lead on lower stud then attach battery cable positive lead (red) and fasten using washer and nut. Tighten securely.



1. Fuse lead (white/red)
2. Battery cable (positive)
3. Washer and nut

000853

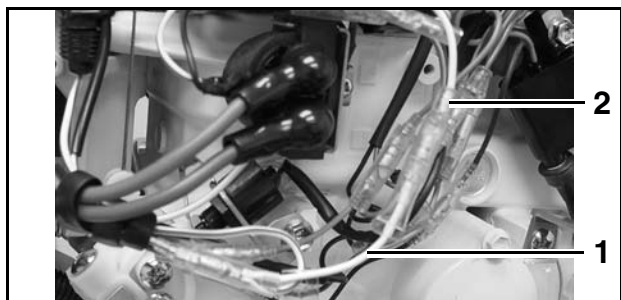
Attach fuse lead connector to white/red lead connector of starter switch.



1. Fuse lead (white/red)
2. Starter switch connector (white/red)

000854

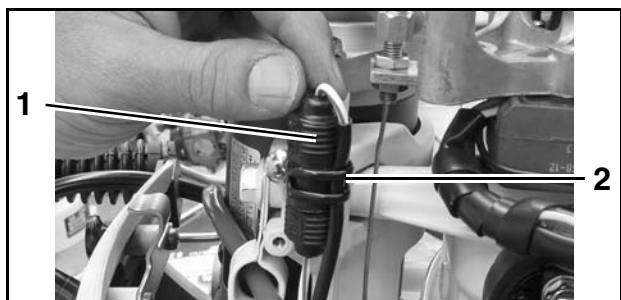
Attach white lead connector to white lead connector of rectifier assembly.



1. Lead connector (white)
2. Rectifier connector (white)

000865

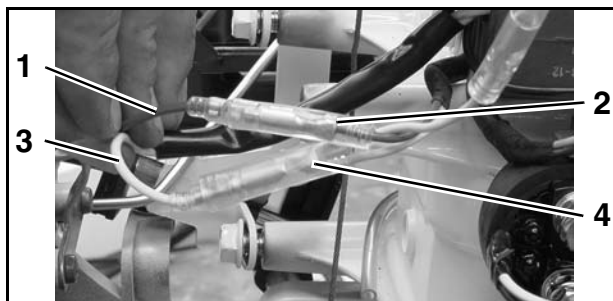
Secure fuse holder with clamp as shown.



1. Fuse holder
2. Clamp

000852

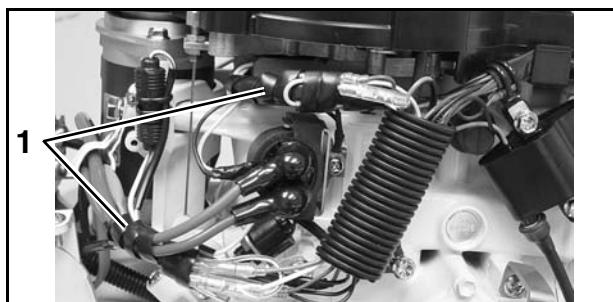
Connect stator leads to rectifier leads. Red stator lead to red rectifier lead and yellow stator lead to yellow rectifier lead.



1. Stator (red)
2. Rectifier (red)
3. Stator (yellow)
4. Rectifier (yellow)

000843

Using loom supplied in addition to loom removed from stator leads, wrap all wiring.



1. Loom

000860

⚠
WARNING
⚠

Special care must be taken to ensure all wiring is secured from contact with any moving parts. Avoid outboard damage and injury by keeping wiring away from shift lever/lockout assembly.

Replace lower engine covers and reinstall spark plug leads.

After replacing lower engine covers, run the outboard and test to ensure proper operation of electric start features such as start in-gear protection, emergency stop switch, and battery charging.

⚠
WARNING
⚠

Inspect and verify correct operation of start in-gear protection. Failure to check work can lead to outboard damage or personal injury.

IMPORTANT: Advise owner to refer to the Operator's Guide for electric start operating instructions.