



OUTBOARDS SERVICE Bulletin



Suggested Routing:

☐ Service ☐ Sales ☐ Parts

Date: April 12, 2010

No. 2010-02(S)

MODELS: Evinrude® E-TEC® 15 – 300 HP
outboards

SUBJECT: Damaged Wiring Resulting from
Improper Rigging or Faulty Connections

Dear Evinrude/Johnson® Dealers:

This communication is to inform Evinrude and Johnson dealers of potential damaged wiring resulting from improper rigging or faulty connections.

PROBLEM

When the amperage capacity of smaller gauge wiring is exceeded, the wiring overheats and melts. Current flowing through a circuit will follow another return ground path, when there is a faulty connection to the proper return ground path of that circuit.

The green wire of the trim and tilt sending unit and the bonding lead assembly are designed for corrosion protection. They can become a return ground path if the main battery cable ground connection is faulty. This can cause wiring to melt when:

- The operator presses the trim and tilt switch, activating the trim and tilt system.
- The operator turns the key switch to the start position, activating the starter motor.
- Alternator or battery charging current flows through the circuit (engine running).

Refer to diagram on next page.

Accessory wiring in the boat can melt and engine damage can occur when excessive electrical current follows an unintended path through the boat, the wiring of boat accessories, a jackplate or the steering system. This condition can be caused by:

- Reversed polarity of battery cables.
- Reversed polarity of accessory wiring.
- Improper accessory wiring.
- Improper accessory fuse protection.
- A short circuit in an accessory.

PREVENTION

Refer to the appropriate Service Manual for service procedures. Inspect the battery and battery cables. Look for loose battery cables on the battery and engine.

IMPORTANT: Make sure engine battery cable ground screws or studs are clean and tight.

Look for corroded terminals and cables. Replace all corroded terminals and cables. After installing cables on the engine, apply *Liquid Neoprene* to prevent corrosion.

Connecting Battery Cables

Before connecting battery cables, be sure to:

- Secure all batteries to battery mounting tray or battery box
- Identify battery cables for each battery (multiple battery installations)
- Identify polarity of battery cables
- Identify polarity of accessory cables
- Check accessories have correct fuse protection
- Check accessories are correctly wired

Install battery cables on the starter solenoid and main ground screw or stud. Tighten connections securely. Apply *Liquid Neoprene* to prevent corrosion.

Install a starwasher on the threaded battery terminal.

IMPORTANT: Connect the battery positive (+) cable to the battery positive (+) post FIRST. Connect the battery negative (–) cable to the battery negative (–) post LAST.

Install the outboard battery cables first, then cables from accessories. Install a hex nut to secure cables. DO NOT use wing nuts.

Tighten connections securely. Apply *Triple Guard* grease to prevent corrosion.

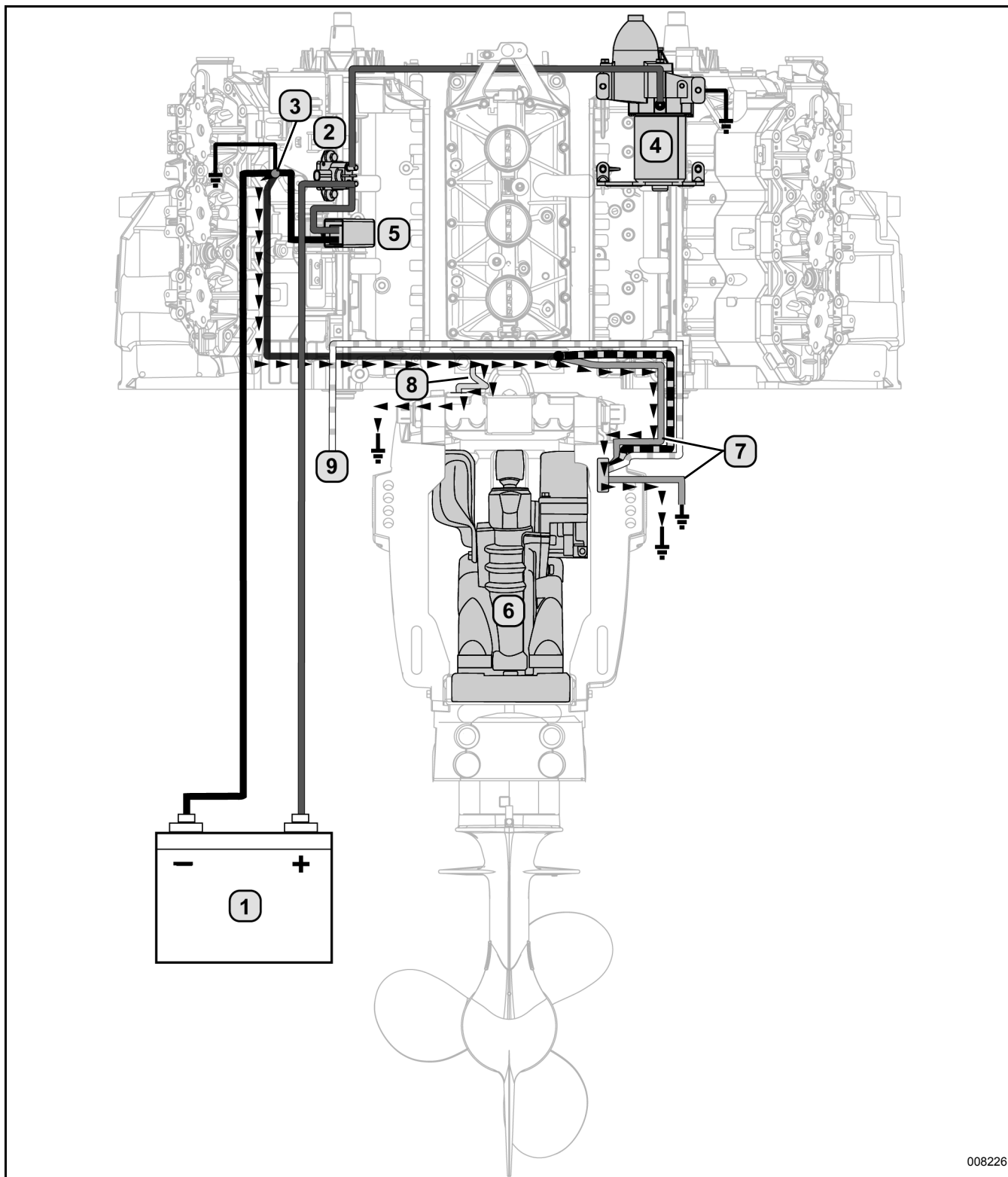
Install battery box cover, or install protective cover on connections and terminals.

NOTICE Failure to follow service manual guidelines can result in melting the green wire of the trim and tilt sending unit, the bonding lead assembly, and other engine or boat wiring damage.

Failures of this nature are NOT due to defects in material or workmanship and are NOT covered by the BRP Limited Warranty.



The arrows show the return ground path when there is a faulty connection of the main battery cable ground.



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| 1. Battery | 6. Trim and tilt hydraulic unit |
| 2. Starter solenoid | 7. Trim and tilt sending unit green wire |
| 3. Main engine ground | 8. Bonding lead assembly (powerhead to steering arm to swivel bracket) |
| 4. Starter motor | 9. To trim and tilt gauge |
| 5. Trim and tilt relay | |