MERCURY MerCruiser

Service Bulletin

☑ Warranty Information ☐ Service Information Bulletin No. 2004-02

☐ Parts Information

Circulate to: ☐ Sales Manager ☐ Accounting ☑ Service Manager ☑ Technician ☑ Parts Manager

Official Notification U. S. Federal Boat Safety Act

Required Engine Harness Wiring Change to 470 Type Engines with Belt Driven Alternator Kit P/N 804916A 1

Models Affected

Models Affected	Serial Number or Year
MCM 470	4625580-6916778
MCM 485	5685394-6170296
MCM 488	6170297-6917367
MCM 170	6916779-0B434940
MCM 165	0B434941-0B774251
MCM 190	6917368-0B436390
MCM 180	0B436391-0B775248
MCM 3.7L	0B774252 and Above
MCM 3.7LX	0B775249 and Above
MIE 470	5515754 and Above

Situation

The RED wire from the belt driven alternator in the kit should not be connected to the wires in the engine's harness, as outlined in the wiring instructions that came with these Alternator Kits.

Starter Motor Identification

Determine if the engine has a Prestolite or Delco Starter Motor.

Engines with Prestolite Starter Motors:

- Used on engines S/N 4625580-6218036.
- Did not have a Solenoid mounted directly on the Starter Motor.
- Some engines that originally had a Prestolite Starter Motor may have been converted to use a Delco Starter Motor.

Engines with Delco Starter Motors:

- Used on engines S/N 6218037 and above.
- Has a solenoid mounted directly on the Starter Motor.

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Correction

IMPORTANT: Make sure the wiring ring terminals used are insulated over wire crimp and that the wire is soldered to terminal. Use only electrical grade (resin flux) solder.

IMPORTANT: Ammeter at helm will not work after this wiring. A battery meter, if desired, may have to be installed at the customer's expense.

IMPORTANT: Refer to MerCruiser Service Manual 3 (90-95693), Section 3A for starter motor identification and Section 3F for engine color code wiring diagrams.

After determining which type of starter motor and engine harness wiring color code, follow instructions outlined for that system.

Prestolite Starter Motor (pre BIA engine harness color code) and a fuse on solenoid.

1. Cut the belt driven alternator's RED 8 AWG wire at the spliced connection to the engine harness' RED and RED/WHT wires.
2. Strip cut end of alternator's RED wire and install a 1/4 in. ring terminal for 8 AWG wire.
3. Connect the alternator's RED 8 AWG wire with the 1/4 in. ring terminal to the 55A or 90A fuse terminal that has the engine harness RED wire connected to it.
4. Cut the splice off of the engine harness' RED and RED/WHT wires.
5. Separate these 2 wires and insulate and tape each wire back separately.

Prestolite Starter Motor (BIA engine harness color code) without a fuse on solenoid.

1. Cut the belt driven alternator's RED 8 AWG wire at the spliced connection to the engine harness' RED/PUR and ORN wires.
2. Strip cut end of alternator's RED wire and install a 1/4 in. ring terminal for 8 AWG wire.
3. Remove nut from solenoid's large terminal (that has the RED battery cable connected to it).
4. Install new 90A fuse (P/N 88-79023A91) to the large terminal, then reinstall and tighten the nut.
5. Slide new rubber boot (P/N 85-79695) onto the alternator's RED 8 AWG wire with the 1/4 in. ring terminal, then connect the wire to the 90A fuse terminal.
6. Install and tighten securely new 1/4-28 nut (P/N 11-826711 9) to fuse terminal, and then slide rubber boot over this fuse terminal.
7. Cut the splice off of the engine harness' RED/PUR and ORN wires.
8. Separate these 2 wires and insulate and tape each wire back separately.

Delco Starter Motor (BIA engine harness color code) with a fuse on starter motor solenoid.

NOTE: *Refer to 470R or 488R with 90A fuse at Delco Starter Motor (Orange Wire) wiring diagrams in Number 3 MerCruiser Service Manual, Section 3F when working on these model engines*

1. Cut the belt driven alternator's RED 8 AWG wire at the spliced connection to the engine harness' RED/PUR and ORN wires.
2. Strip the cut end of the alternator's RED wire and install a 1/4 in. ring terminal for 8 AWG wire.

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3. Connect the alternator's RED 8 AWG wire with the 1/4 in. ring terminal to the 90A fuse terminal that has the engine harness ORN wire connected to it. Before making connection, remove the engine harness' ORN wire from fuse's terminal.
4. Cut the ring terminal off of the removed ORN wire, then insulate and tape it back.
5. Cut the splice off of the engine harness' RED/PUR and ORN wires.
6. Separate these 2 wires and insulate and tape each wire back separately.

Delco Starter Motor (BIA engine harness color code) without a fuse on starter motor solenoid.

1. Cut the belt driven alternator's RED 8 AWG wire at the spliced connection to the engine harness' RED/PUR and ORN wires.
2. Strip the cut end of the alternator's RED wire and install a 1/4 in. ring terminal for 8 AWG wire.
3. Remove the nut from starter motor solenoid's large terminal (that has the RED battery cable connected to it).
4. Remove the ORN wire that is attached to this large solenoid terminal. Do not remove the RED wire.

NOTE: *Some 470 R and 488R engines did not have an ORN wire attached to the starter motor solenoid.*

Install new 90A fuse (P/N 88-79023A91) to the large terminal, then reinstall and tighten the nut.

6. Slide new rubber boot (P/N 85-79695) onto the alternator's RED 8 AWG wire with the 1/4 in. ring terminal, then connect the wire to the 90A fuse terminal.
7. Install and tighten securely new 1/4-28 nut (P/N 11-826711 9) to fuse terminal, and then slide rubber boot over this fuse terminal.
8. Cut the ring terminal off of the removed ORN wire, then insulate and tape it back.
9. Cut the splice off of the engine harness' RED/PUR and ORN wires.
10. Separate these 2 wires and insulate and tape each wire back separately.

Part Numbers

Description	Part Numbers
90 A Fuse	88-79023A91
1/4-28 Nut	11-826711 9
Insulator Boot	85-79695
1/4 in. Ring Terminal	Obtain Locally

Warranty

Mercury Marine will credit the dealer for the cost of parts and labor.

Mercury Marine will not pay for a battery meter and its' installation.

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IMPORTANT: This alternator kit has been sold by several different companies other than Mercury Marine. Because of this, either of the following must be included with the warranty claim.

- **A copy of the boat owner's bill of sale for the sale or installation of this Alternator Kit.**
- **A copy of the invoice from Mercury Marine to the dealer for this Alternator Kit.**

Submit a warranty claim through your normal warranty-processing channel, listing:

- MerCruiser serial number.
- Flat Rate Code and Labor – ME59 0.5.
- Part Code – 333.
- Failure Code – 39.

Old Part or Parts:

- **USA and Canada**: Scrap.
- **International**: Follow instructions issued by your Marine Power International office or by your distributor.

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