

# 8M0047215/16

## GEN III COOL FUEL SERVICE KITS

**IMPORTANT:** This document guides our dealers, boatbuilders, and company service personnel in the proper installation or service of our products. If you have not been trained in the recommended servicing or installation procedures for these or similar Mercury Marine products, have the work performed by an authorized Mercury Marine dealer technician. Improper installation or servicing of the Mercury product could result in damage to the product or personal injury to those installing or operating the product. Always refer to the appropriate Mercury Marine manual for component removal and installation instructions.

**IMPORTANT:** After completing installation, place these instructions with the product for the owner's future use.

| Models Covered                                            |
|-----------------------------------------------------------|
| All MerCruiser MCM and MIE Engines With Gen III Cool Fuel |

### Components Contained in Kits

#### 8M0047215—Complete Gen III Cool Fuel Assembly

| Qty. | Description                       | Part Number |
|------|-----------------------------------|-------------|
| 1    | Gen III Cool Fuel assembly        | NSS         |
| 2    | 3/8-18 NPT plastic barbed fitting | 8M2010476   |
| 1    | Adapter, hex, 3/8 in.             | 88517       |

#### 8M0047216—Gen III Cool Fuel Lower Housing

| Qty. | Description                       | Part Number |
|------|-----------------------------------|-------------|
| 1    | Gen III Cool Fuel lower housing   | NSS         |
| 2    | 3/8-18 NPT plastic barbed fitting | 8M2010476   |
| 1    | Adapter, hex, 3/8 in.             | 88517       |

### Gen III Cool Fuel Module Service Kit

#### General Information

The new Gen III Cool Fuel module has improved hose connections and replaces the original production Gen III Cool Fuel module. New Gen III Cool Fuel modules and Gen III Cool Fuel lower housing kits will service engines with the original and new versions of the Gen III Cool Fuel module. Additional parts are required when replacing modules or lower housing kits on engines with original production Gen III Cool Fuel modules.

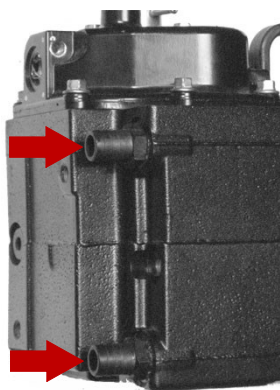
Engines built after the serial numbers listed in the table below have the new Gen III Cool Fuel module and do not require additional parts when replacing the fuel module or fuel module lower housing.

Engines built before the serial numbers listed in the table below will require a new orifice meter assembly when replacing the fuel module or fuel module lower housing. Refer to **Additional Parts Required** when ordering fuel module kits or fuel module lower housing kits for engines built before the serial numbers listed in the table below.

| Engine Family                                | Serial Number |
|----------------------------------------------|---------------|
| MCM 5.0L MPI, 350 MAG and 377 MAG—Bravo only | 1A343749      |
| MCM 496 MAG and 496 MAG H.O.                 | 1A349420      |
| MIE 5.7L MPI and 6.2L MPI                    | 1A091623      |
| MIE 8.1L and 8.1L H.O.                       | 1A380210      |

1. Refer to the instructions in the appropriate MerCruiser engine service manual for Gen III Cool Fuel module removal and installation.
2. Refer to the instructions in the appropriate MerCruiser engine service manual if changing the lower housing of the Gen III Cool Fuel module.
3. Apply Perfect Seal to the threads of the plastic barbed fitting.

4. Install the inlet and outlet plastic barbed fitting into the Gen III Cool Fuel module housing. Tighten to the specified torque.



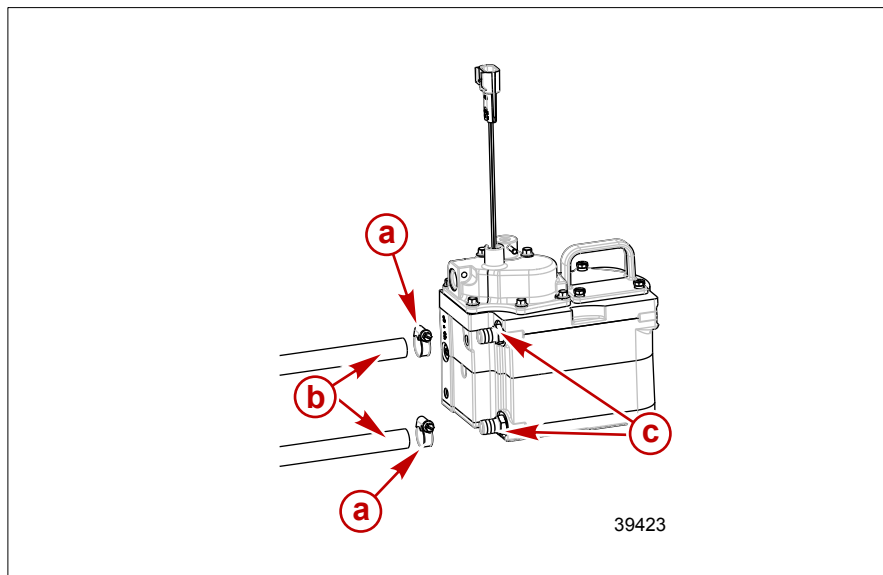
40058

**Plastic barbed fitting**

| Tube Ref No.                                                                         | Description  | Where Used                     | Part No.    |
|--------------------------------------------------------------------------------------|--------------|--------------------------------|-------------|
|  19 | Perfect Seal | Plastic barbed fitting threads | 92-34227Q02 |

| Description            | Nm | lb-in. | lb-ft |
|------------------------|----|--------|-------|
| Plastic barbed fitting | 19 | 168    | –     |

5. If replacing the orifice meter assembly, cut and discard the hose clamps.  
 6. Install the supplied hose clamps on the large cooling hoses and attach to the new orifice meter assembly, if replacing.  
 7. Install the supplied hose clamps on the water hoses of the orifice meter assembly and connect the hoses to the inlet and outlet barbed fittings on the Gen III Cool Fuel module.



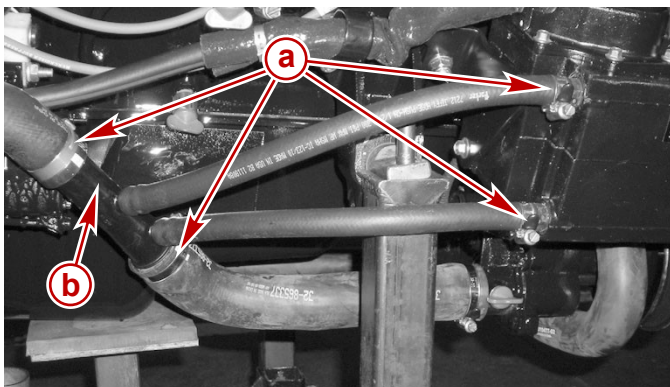
- a** - Hose clamp  
**b** - Water hose  
**c** - Barbed fittings

8. Tighten the hose clamps to the specified torque.

| Description | Nm  | lb-in. | lb-ft |
|-------------|-----|--------|-------|
| Hose clamp  | 4.5 | 39.8   | –     |

## Orifice Meter Assembly Identification

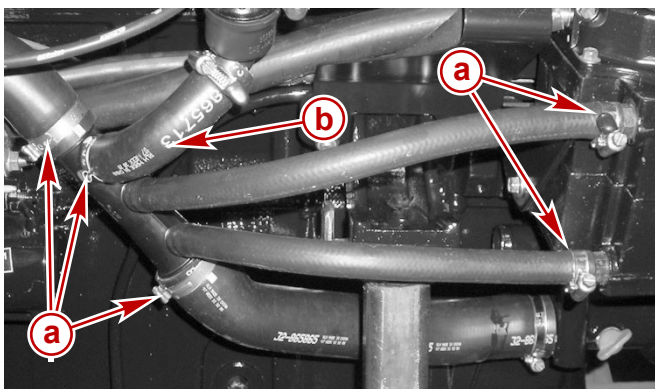
**NOTE:** The smaller diameter water hoses pressed onto the orifice meter assembly do not require hose clamps.



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### 2 bib orifice meter

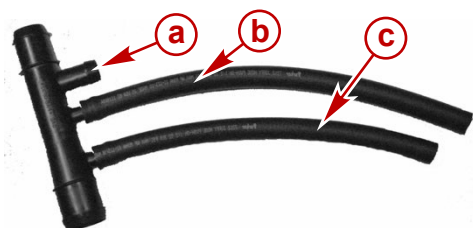
- a -** Hose clamps
- b -** Orifice meter assembly



40126

### 3 bib orifice meter

- a -** Hose clamps
- b -** Third bib



40057

### 3 bib orifice meter and hose assembly shown (2 bib similar)

- a -** Third bib—absent on 2 bib orifice meter and hose assembly
- b -** Hose from the Cool Fuel module
- c -** Hose to the Cool Fuel module

## Additional Parts Required

### Engines with Closed Cooling

| Engine Family                                                            | Serial Number Or Year | Order 2 Bib Orifice Meter Part Number |
|--------------------------------------------------------------------------|-----------------------|---------------------------------------|
| Sterndrive 5.0L, 350, and 377 MPI models equipped with Gen III Cool Fuel | 1A343749 and below    | 865317T02                             |
| Inboard 5.7L and 6.2L MPI models equipped with Gen III Cool Fuel         | 1A091623 and below    |                                       |
| Scorpion 350 and 377 models equipped with Gen III Cool Fuel              | 1A091623 and below    |                                       |

## Engines with Seawater Cooling

| Engine Family                                                            | Serial Number Or Year | Order 3 Bib Orifice Meter Part Number |
|--------------------------------------------------------------------------|-----------------------|---------------------------------------|
| Sterndrive 5.0L, 350, and 377 MPI models equipped with Gen III Cool Fuel | 1A343749 and below    | 865208T02                             |
| Inboard 5.7L and 6.2L MPI models equipped with Gen III Cool Fuel         | 1A091623 and below    |                                       |
| Scorpion 350 and 377 models equipped with Gen III Cool Fuel              | 1A091623 and below    |                                       |

## MCM 496 and MIE 8.1 Models

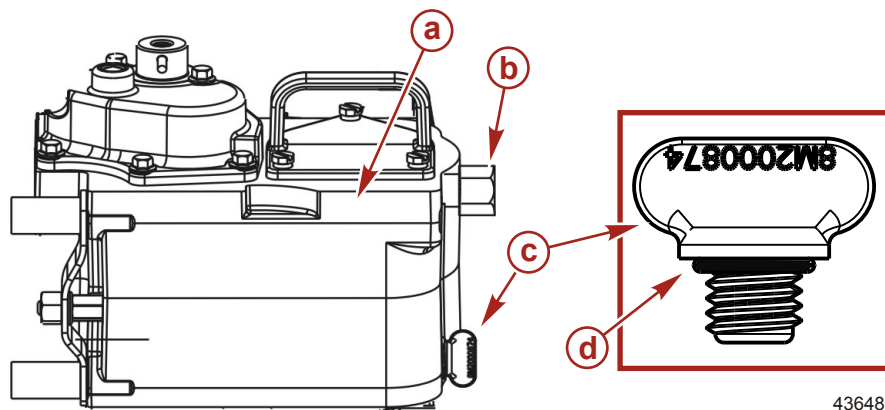
| Engine Family                                              | Serial Number Or Year | Order 3 Bib Orifice Meter Part Number |
|------------------------------------------------------------|-----------------------|---------------------------------------|
| All Sterndrive 496 models equipped with Gen III Cool Fuel  | 1A349420 and below    | 865208T02                             |
| All inboard 8.1L models equipped with Gen III Cool Fuel    | 1A380210 and below    |                                       |
| All Tow Sports 8.1L models equipped with Gen III Cool Fuel | 1A380210 and below    |                                       |

## Draining Water from the Gen III Cool Fuel Module

1. Remove the drain plug from the Gen III Cool Fuel module and allow the water to completely drain from the module.
2. Inspect the drain plug and the O-ring for damage. Replace if needed.
3. Apply Perfect Seal to the threads of the drain plug.

| Tube Ref No.                                                                           | Description  | Where Used            | Part No.    |
|----------------------------------------------------------------------------------------|--------------|-----------------------|-------------|
|  19 | Perfect Seal | Threads of drain plug | 92-34227Q02 |

4. Tighten the drain plug until the O-ring makes contact with the module housing; then rotate the drain plug another 180°.



- a - Gen III Cool Fuel module
- b - Fuel in-line fitting
- c - Drain plug
- d - O-ring

43648

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## New Gen III Cool Fuel Module

### Models Affected

All MerCruiser sterndrive and inboard engines equipped with Gen III cool fuel systems.

| Models Covered                                                              | Serial Number      |
|-----------------------------------------------------------------------------|--------------------|
| All sterndrive 5.0, 350, and 377 MPI models equipped with Gen III cool fuel | 1A343749 and below |
| All sterndrive 496 models equipped with Gen III cool fuel                   | 1A349420 and below |
| All inboard 5.7 and 6.2 MPI models equipped with Gen III cool fuel          | 1A091623 and below |
| All inboard 8.1 models equipped with Gen III cool fuel                      | 1A380210 and below |
| All Scorpion 350 and 377 models equipped with Gen III cool fuel             | 1A091623 and below |
| All Tow Sports 8.1 MPI models equipped with Gen III cool fuel               | 1A380210 and below |

**NOTE:** Engines equipped with the Gen II Cool Fuel System are not affected.

### Situation

A new Gen III cool fuel module is being introduced to replace the existing Gen III module. Engines with serial numbers above the range listed are equipped with the new module from the factory. The primary difference between the designs is the method of connecting the cooling water hoses to the module. Refer to the Mercury Electronic Parts Catalog (EPC) for replacement modules for engines with serial numbers above the ranges listed.

For models in the defined serial number ranges listed see all of the information presented in this service bulletin.

### Correction

The new style module will replace any older style module for service needs. In order to use the new module on earlier applications, the cooling water hoses and various fittings must be replaced. Kits are available to accommodate the various possible hose configurations. Order the Gen III Cool Fuel Module with pumps and filter, or a lower module housing only along with the proper hose kit for installation. One module and one kit are required per engine.

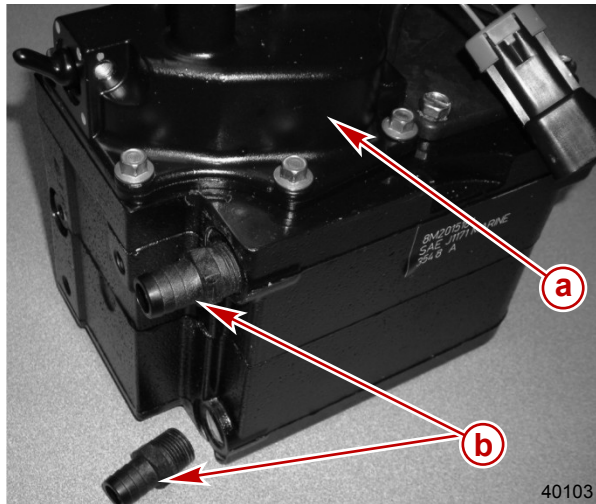
| Replacement kits                                  |           |
|---------------------------------------------------|-----------|
| Complete Gen III module with pumps and filter     | 864650A13 |
| Lower Gen III module housing (no pumps or filter) | 864650A14 |
| Two bib hose kit                                  | 865317T02 |
| Three bib hose kit                                | 865208T02 |

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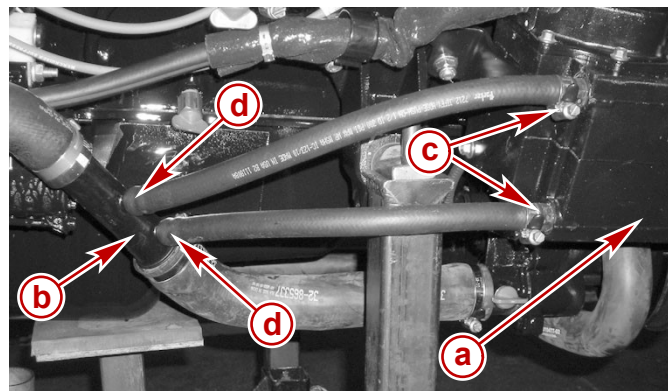
## New Gen III Cool Fuel Module—General Information

Threaded hose barb fittings are supplied with the new Gen III cool fuel module. The threads on the barbed hose fittings and the threaded bore must be coated with Perfect Seal. Any removal of the fitting will require resealing the threads. Refer to the instruction sheet with the module for additional installation information.



- a** - Gen III cool fuel module
- b** - Barbed hose fitting

The hose connections at the module must be secured with hose clamps. The hose connections at the restrictor are friction fit and are preassembled at the factory.



- a** - Gen III cool fuel module
- b** - Restrictor
- c** - Hose clamp
- d** - Hose connection at restrictor

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## Warranty

**US and Canada:** The Gen III Cool Fuel Module has been redesigned as part of our ongoing product improvement activities. This is not a recall. If a failure occurs to a Gen III pump under normal warranty terms, Mercury will cover the cost of the new kit. Submit a warranty claim through your normal warranty-processing channel, listing the actual part numbers used.

**International:** Follow the instructions issued by your Marine Power International office or by your distributor.

## Old Parts

**USA and Canada:** Normal procedure

**International:** Follow the instructions issued by your Marine Power International office or by your distributor.

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