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## PCM Update for QC4v Engines to Improve Overspeed Protection and Correct the Fuel Level Display

### NOTICE

This service bulletin supercedes Service Bulletin 2012-01, dated January 2012. This update accomplishes the updates in 2012-01 and includes updates to fix fuel level display inaccuracies.

### Scope

Worldwide

### Models Affected

Models Covered	Serial Number Or Year
1100	0M967739 and below
1350	0M967739 and below

### Situation

All QC4v products (1100 and 1350) manufactured before November 07, 2011, have an overspeed calibration function, that allows the engine to dramatically exceed the intended overspeed limit. This can happen when the engine load is suddenly reduced with the throttle advanced, and the propeller leaves the water. This event could cause severe valve train and engine damage.

On QC4v products (1100 and 1350) manufactured before March 14, 2012, (including product updated by dealers for service bulletin 2012-01), the VesselView display, or the fuel level gauges will show fuel remaining in the tank when the fuel tank is empty. The fuel used data is correct, however, because it is separate from the fuel level function.

### Correction

If the engine serial number is in the range for this fix campaign, check the engine history in MercNET to see if the FIX CAMP (P-2012-04) is closed. If closed, no further action is required. If the FIX CAMP is open, follow the procedure in this bulletin and complete a warranty claim.

Ensure that the G3 diagnostic tool is updated to version 1.3.7 or newer; then, update the calibration of the engine PCM to:

- Cal. ID: MR10p5AAI\_009\_QC4\_1100\_P\_001 for the 1100 products for serial numbers 0M967364 and below
- Cal. ID: MR10p5AAI\_010\_QC4\_1100\_P\_001 for the 1100 products for serial numbers 0M967365 to 0M967739
- Cal. ID: MR10p5AAI\_009\_QC4\_1350\_P\_001 for the 1350 products for serial numbers 0M967364 and below
- Cal. ID: MR10p5AAI\_010\_QC4\_1350\_P\_001 for the 1350 products for serial numbers 0M967365 to 0M967739
- MR10p5AAI\_010\_QC4\_1350CA\_P\_001 for 1350 serial numbers 0M967365 to 0M967739 registered in the State of California

Update the engine PCM before operating the boat.

On multiple engine applications, and after updating the PCMs, set the engine location using the G3 diagnostic tool.

Calibrate the fuel tank settings in the SmartCraft display.

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## Warranty

**United States and Canada:** Mercury Marine will credit the dealer for the cost of the labor.

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

- Engine serial number
- Labor: 0.5 hour
- Flat rate code: SB05
- Part code: 731
- Failure code: 40

**International:** Follow the instructions issued by the Marine Power International Office or by an authorized Marine Power Distributor.

## Owner Notification

All registered owners with the affected engine models will receive a letter from Mercury Marine. This letter will explain the situation and request that they contact their local dealer to schedule a time to have correction listed in this service bulletin completed.

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Dear Mercury Racing Sterndrive Owner

Thank you for your purchase of a Mercury Racing sterndrive engine. Mercury Racing is dedicated to providing superior reliability and customer satisfaction. As part of our commitment, we have determined that it is necessary to recalibrate the propulsion control module (PCM), to insure the reliability of your Mercury Racing engine.

**What is the condition?**

Mercury Racing has identified a problem within the calibration of the propulsion control module (PCM) which controls the operating system on your Mercury Racing sterndrive engine. The overspeed calibration function could allow the engine to dramatically exceed the intended overspeed limit. This could take place when the engine load is suddenly reduced with the throttle advanced as when the propeller comes to the surface of the water at higher speeds. This event could cause severe valve train and engine damage.

Mercury Racing has identified a second problem within the calibration. The VesselView display for fuel level and fuel level gauges operating will show fuel remaining in the tank when the fuel tank is empty. This could result in your boat running out of fuel. The fuel used data displayed on the VesselView for the 1100 and 1350 products is accurate, and can be used to gauge the amount of fuel remaining when compared to the amount of fuel pumped into the boat's fuel tank. Use this calculation only if the boat must be used prior to recalibrating the PCM.

**What will Mercury Marine do?**

Any MerCruiser Qualified Mercury Marine dealer can perform the required propulsion control module (PCM) recalibration at no charge to you.

**What should you do?**

Please contact your MerCruiser Qualified Mercury dealer at the earliest date possible, and prior to operating your boat. Mention Racing Service Bulletin 2012-04 to schedule an appointment to have the propulsion control module (PCM) on your Mercury Racing sterndrive engine recalibrated. To locate your nearest MerCruiser Qualified Mercury dealer, please use the Dealer Locator in the Mercury Marine website: [www.mercurymarine.com](http://www.mercurymarine.com). If you do not have access to the Internet, please call Mercury Technical Service at 1-920-929-5040 to locate your nearest MerCruiser Qualified Mercury dealer.

**Please present this notice to your dealer when you bring your boat in for your service appointment.**

**What if you have other questions or if you no longer own this engine?**

Please contact your MerCruiser Qualified Mercury dealer or call Mercury Racing Customer Service at 1-920-929-5040 between 7:30 a.m. and 4:30 p.m., CST.

We have sent this notice in the interest of your continued satisfaction with our product, and we sincerely regret any inconvenience this may cause you.

Thank you for boating with Mercury Racing a division of Mercury Marine.

Mercury Racing Service