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Propulsion Control Module (PCM) Recalibration for Float Switch Vibration - 135–350 Verado

NOTICE
Revised July 2018. This bulletin supersedes the previous bulletin number 2011-17 December 2011.

NOTICE
The procedures outlined in this service bulletin are to be completed by Verado Qualified Mercury Outboard Dealers equipped with a CDS Recalibration Kit and a Computer Diagnostic System (CDS).

Models Affected

Models Covered	Serial Number Or Year
135/150/175/200 Verado 4 Cylinder	1B812286 and below
200/225/250/275/300 Verado 6 Cylinder	1B812284 and below
350 SCi	1B828489 and below

Scope

Worldwide

Situation

Mercury Marine has developed a new calibration in the propulsion control module (PCM) for engines experiencing float switch vibration problems. This new calibration changes the refill frequency of the fuel supply module (FSM) of the above listed models. The previous calibration refilled the FSM after the engine consumed 150 grams of fuel. When that volume of fuel is consumed, the fuel float switch can momentarily be suspended in the air and, due to certain conditions described below, may vibrate up the float switch stem and provide an inaccurate float switch "high" reading. When this occurs, the FSM will not refill and the engine will momentarily run out of fuel. The new calibration refills the FSM after the engine consumes 60 grams of fuel. This change ensures that the float switch always remains in contact with fuel.

Under conditions that create higher levels of vibration, the engine may experience a loss of performance at or above 3000 RPM. The customer may report that the engine appears to be running out of fuel, stalling, or low on power. If the engine is being monitored when the situation is happening, the float switch will read "high," but the observed fuel pressure on a mechanical gauge will be lower than the calculated fuel pressure displayed on the CDS.

Some vessel situations that can cause a false float reading are as follows:

- Propeller imbalance
- Harmonics between the outboard and the boat
- Operation in rough or choppy bodies of water

NOTE: Correct any propeller imbalance if found, perform this recalibration before replacing the FSM float switch.

Correction

The revised PCM calibration will refill the FSM when the engine has consumed 60 grams of fuel. This revised refill rate will keep the FSM float switch in contact with fuel, isolating it from vibration.

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Qualified dealerships can perform this recalibration on affected engines if they have an operational CDS Recalibration Kit. The recalibration will be done by using the CDS recalibration kit and CDS version 9.05 or above (8M0063115). Contact Mercury Technical Service and arrange to send in the PCM for recalibration if you do not already have an operational CDS Recalibration Kit.

The revised ECM calibration sticker will indicate that the PCM is calibrated with the 60 gram refill rate. Below is an example of how the sticker will look after it is printed. Engines that are below the serial numbers listed previously should be inspected for this calibration sticker if the engine is exhibiting the previously mentioned issue.

225 Verado DTS - EPA 2.6 Liter - 60g FSM 8M0048302-R
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47004

Tools Required

CDS Recalibration Kits are no longer available. Existing operational kits may continue to be utilized to perform the required update. CDS G3 is not able to perform the calibration update on the affected engines.

CDS Recalibration Kit Components

Qty.	Description	Part Number
1	USB security token ¹ .	NA
1	Reflash cable (connects to SmartComms)	84-822560A15
1	PCM adapter cable (connects to PCM)	84-884358T01
1	Set of Avery 8160 white labels	Avery 8160
1	Set of Avery 8662 clear labels (covers the white label)	Avery 8662
1	Instruction sheet	90-899959

NOTE: This table is listed for reference only. Contact Mercury Technical Service and arrange to send in the PCM for recalibration if you do not already have an operational CDS Recalibration Kit.

Dealer Outboard Inventory

Outboards in dealer stock do not need to be reworked prior to sale. Only outboards with the previously mentioned issue require recalibration.

Warranty

Special Instructions

If the engine being recalibrated is covered under regular warranty or Mercury Product Protection (MPP), complete a claim on MercNET and file it with the appropriate warranty flat rate codes listed below. If the engine is not covered under regular warranty or an extended service contract (MPP), please contact Mercury Technical Service at 920-929-5884.

NOTE: If one engine on a multiple engine boat is exhibiting the previously mentioned issue, upgrade the PCM calibration of all outboards on the boat.

IMPORTANT: All units of a multiple outboard boat should be listed on the same warranty claim. Enter the serial number of the first outboard in the Serial No: field of the claim. List the remaining outboard serial numbers of the boat at the beginning of the Description of Failure: field of the claim.

Mercury Marine will credit the dealer for the cost of labor. Complete a warranty claim listing:

- Outboard serial number

Single Outboard Package

- Labor: 0.6 hour
- Warranty flat rate code: SB06
- Part code: 731
- Failure code: 00

1. The USB security token is preprogrammed with your dealer number and will only work with the CDS unit registered with the same dealer number.

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- or -

Dual Outboard Package

- Labor: 0.9 hour
- Warranty flat rate code: SB09
- Part code: 731
- Failure code: 00

- or -

Triple Outboard Package

- Labor: 1.2 hours
- Warranty flat rate code: SB10 and SB02
- Part code: 731
- Failure code: 00

- or -

Quad Outboard Package

- Labor: 1.5 hours
- Warranty flat rate code: SB10 and SB05
- Part code: 731
- Failure code: 00

U.S. and Canada

Complete and process the claim via MercNET or return a warranty claim form.

International

Follow instructions issued by the Marine Power International office or by an authorized Marine Power Distributor.

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