MERCURY MerCruiser

Service Bulletin

Bulletin No. 2000-14R1

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

▲ = Revised August 2004. This bulletin supercedes the previous bulletin 2000-14.

Black Sensor Failures in MEFI-3 Mercury Distributors

Models

Models	Serial Number
MCM V6 4.3L EFI Sterndrive Engines	0L360000 - 0M019879
MCM V8 305/350 cid EFI / MPI Sterndrive Engines	0L331599 - 0L335999
MCM V8 305/350 cid EFI / MPI Sterndrive Engine	0L340000 - 0M019762
MIE 350 Mag MPI Ski and Inboard engines	0L302200 - 0L671800

NOTE: *Black Scorpion Ski engines are not affected by this problem because they use the Delco EST ignition system.*

SITUATION

Two ignition problems have been reported with the black sensor used on these model engines. They are; "a no start condition" or "a rough running condition". The most common problem is the "no start condition".

▲ CORRECTION

No Start Condition: Before looking anywhere else on these engines, check for spark at the ignition coil. If there is no spark, the most likely cause is a failed ignition sensor in the distributor. Troubleshooting Chart in Service Bulletin 99-2 or the latest service manuals that cover MEFI-3 on these engines can be used also.

Rough Running Condition: The engine will not run very well above idle RPM. Sometimes it takes several minutes of running time before this condition occurs. Check all the common causes for an engine to run rough, such as fouled spark plugs. If these all check good, replace the sensor.

The two most common causes of these sensor failures are:

1. A voltage spike has occurred in the ignition system.
2. Heat has caused the sensor to warp and either come in contact with the rotor /sensor wheel or move too far away from the rotor / sensor wheel.

IMPORTANT: The battery cable terminals should be the type that clamps around the battery post, not wing nut terminal connectors. If wing nut connectors are used at the battery post, remove the wing nut connectors and replace with a lockwasher and hex nut.

Make sure the distributor sensor bullet connectors are seated firmly into the engine harness bullet connectors after changing the sensor.

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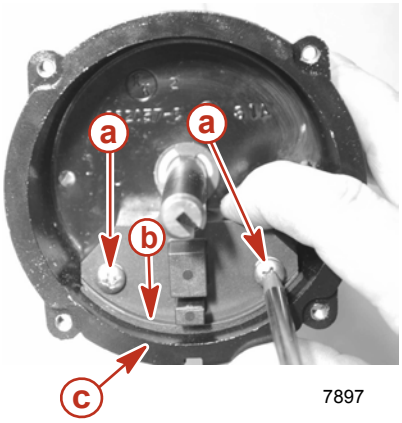
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IMPORTANT: To make sure that the "fingers" on the rotor / sensor wheel do not touch the sensor when the engine is cranked. Carefully follow the installation directions provided below.

▲ INSTALLATION

During installation, push the sensor outward until the rubber gasket is slightly compressed against the distributor housing then tighten the sensor mounting screws.

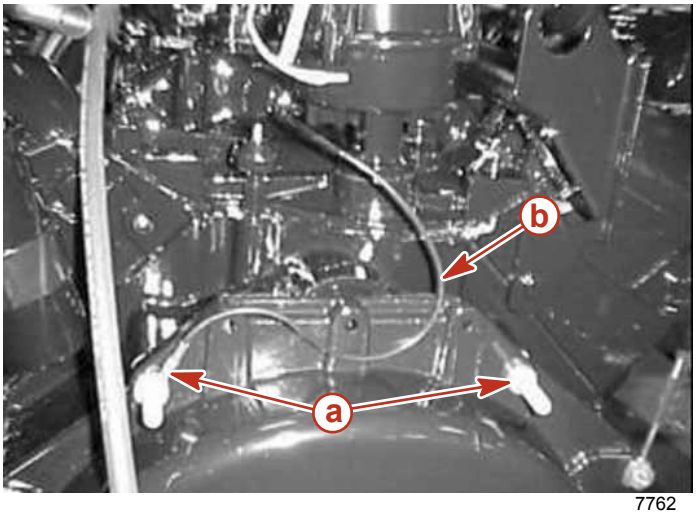


7897

a - Mounting Screws
b - Rubber Gasket On Sensor
c - Distributor Housing

Make electrical connections as follows:

1. Connect Bullet Connectors.
2. Connect ground (center) wire to main engine ground stud on flywheel housing.



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a - Ground Stud
b - Ground Wire

PARTS REQUIRED

Part Number	Description
▲ P/N 87-892150A02	Sensor Assembly-Distributor

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Part Number	Description
P/N 13524A6[1.]	V6 Rotor / Sensor Wheel
P/N 13524T1[1.]	V8 Rotor / Sensor Wheel

1. Order these parts only if damaged during removal.

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