 Printable View (215 KB)	
TSB 07-14-1	<ul style="list-style-type: none"> • DAMAGED SPARK PLUG ELECTRODE/MIL DTC P030X
Publication Date: June 27, 2007	

FORD: 2006-2007 Freestar
MERCURY: 2006-2007 Monterey

ISSUE:

Some 2006-2007 Freestar and Monterey vehicles may experience a melted or damaged spark plug electrode, malfunction indicator lamp (MIL) with diagnostic trouble codes (DTC's) P030X, rough idle, engine knock/ping on acceleration. Pre-ignition (which yields these symptoms) may be caused by water entering the powertrain control module (PCM).

ACTION:

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

1. Remove PCM from vehicle. Refer to Workshop Manual (WSM), Section 303-14.
2. Remove the PCM cover by carefully bending back the four (4) retaining clips holding the galvanized metal cover to the top plate. (Figure 1)

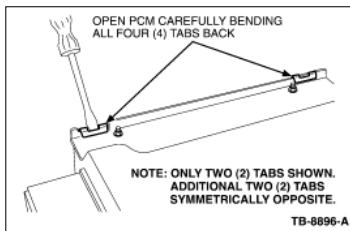


Figure 1 - Article 07-14-1

3. Look for evidence of water within the PCM (liquid water, rust, water stains or deposits). (Figure 2) If found - obtain a replacement PCM before continuing on to Step 4. If no water is found, continue on to step 4 with the vehicle's original PCM.

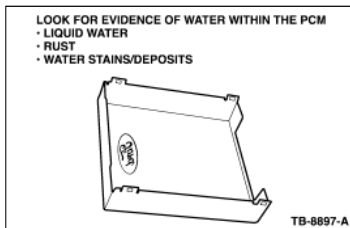


Figure 2 - Article 07-14-1

4. Set the PCM top plate in a clean, dry location where the circuitry will be protected from damage.
5. With the PCM cover removed, drill a 1/4" hole on each of the four (4) corners of the PCM cover. Get as close to the corner as possible. (Figure 3)

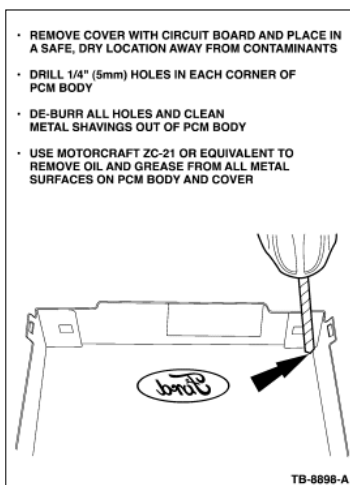


Figure 3 - Article 07-14-1

6. De-burr the edges on both inside and outside surfaces. (Figure 3) Be sure to vacuum off all chips and wipe off all metal dust and any machining oil.
7. Clean the surfaces of the PCM cover with Motorcraft ZC-21 (Metal Surface Cleaner) or equivalent. Also clean the edges of the PCM top plate. The

- metal surfaces must be completely clean before proceeding to Step 8.
8. Apply Motorcraft TA-29 Ultra Silicone Sealant to all edges depicted. (Figure 4, 5, 6, 7) Proceed directly to Step 9 - do not let the sealant skin over.

NOTE: Motorcraft TA-32 can NOT be used since its constituents may damage the PCM circuitry.

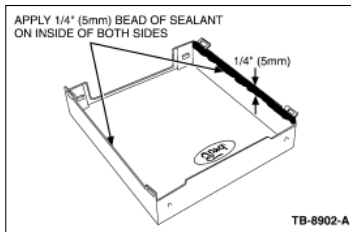


Figure 4 - Article 07-14-1

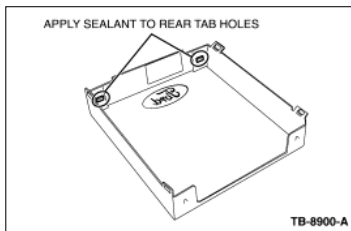


Figure 5 - Article 07-14-1

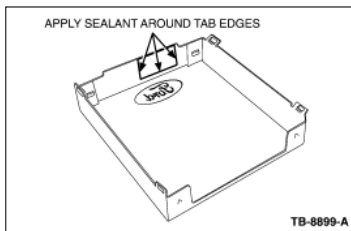


Figure 6 - Article 07-14-1

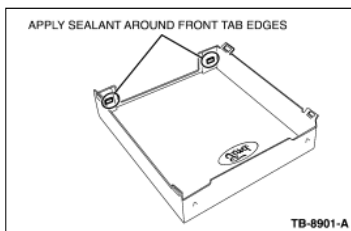


Figure 7 - Article 07-14-1

9. Carefully blow off the PCM internals with filtered, dry air at 5-10 PSI (34-kPa) to ensure all components are dry and clean.
10. Reassemble the PCM, and bend the retaining clips back fully. Make sure a full seal is created around the top edge of the PCM - add sealant as required. (Figure 8)

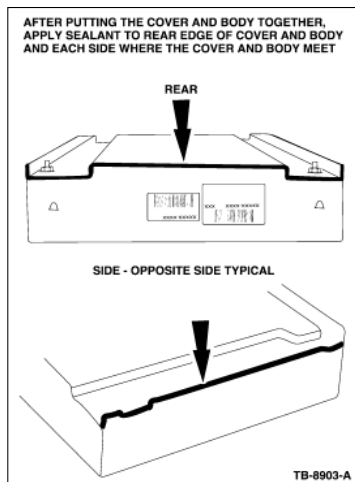


Figure 8 - Article 07-14-1

- Apply Motorcraft TA-29 Ultra Silicone Sealant around all four sides of the gray header where it meets the PCM sheet metal. (Figure 9)

NOTE: ALLOW 1 HOUR FOR SEALANT TO DRY PRIOR TO INSTALLING PCM.

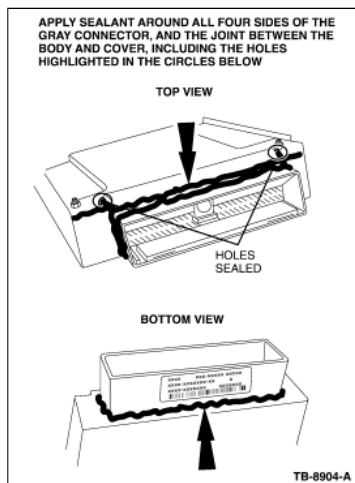


Figure 9 - Article 07-14-1

- Install the PCM in the vehicle. Refer to WSM, Section 303-14.
- Reprogram the powertrain control module (PCM) to the latest calibration using IDS release 49.9 and higher or 50.1 and higher. This new calibration is not included in the VCM 2007.7 DVD. Calibration files may also be obtained at www.motorcraft.com.

PART NUMBER	PART NAME
TA-29	Motorcraft® Ultra Silicone Sealant
ZC-21	Motorcraft® Metal Surface Cleaner

WARRANTY STATUS:

Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage
 IMPORTANT: Warranty coverage limits/policies are not altered by a TSB. Warranty coverage limits are determined by the identified causal part.

OPERATION	DESCRIPTION	TIME
071401A	2006-2007 Freestar/Monterey: Check DTCs, Inspect PCM For Water Intrusion, Modify PCM Following Service Procedure (Do Not Use With 12650D, 12650D6, 12650D84, 15607B, 15607C)	1.0 Hrs.
071401B	2006-2007 Freestar/Monterey: Check DTCs, Inspect PCM For Water Intrusion, Replace And Modify New PCM Following Service Procedure, Program PATS Keys (Do Not Use With 12650D, 12650D6, 12650D84, 15607B, 15607C)	1.2 Hrs.

DEALER CODING

BASIC PART NO.	CONDITION CODE
12A650	04

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supercede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

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