

# **WATER/MOISTURE IN COP WELLS—DTC P0301-P0308—3.9L ENGINE—VEHICLES BUILT THROUGH 5/1/2004**

**TSB 05-16-2**

## **FORD:**

2002-2005 Thunderbird

## **LINCOLN:**

2000-2005 LS

This article supersedes TSB **02-16-2** to update the vehicle model years, and the Service Procedure.

### **ISSUE**

Some 2000-2005 Lincoln LS and 2002-2005 Thunderbird vehicles equipped with the 3.9L engine and built through 5/1/2004, may exhibit a misfire condition and possible diagnostic trouble codes (DTCs) P0301-P0308. This may be caused by water or moisture in the coil on plug (COP) and coil wells, due to water leaking past the foam seal of the cowl panel grill.

### **ACTION**

First verify water or moisture is present in the coil wells by removing the ignition coil covers, refer to section 303-07B of 2005 Lincoln LS Workshop Manual. If signs of water or moisture are present refer to the following Service Procedure. If there are no signs of water or moisture, perform normal diagnostics as outlined in the PC/ED Manual.

### **SERVICE PROCEDURE**

#### **NOTE**

REFERENCE SECTION 303-07B OF 2005 LINCOLN LS WORKSHOP MANUAL THROUGHOUT THIS PROCEDURE AS NEEDED. DO NOT USE EARLIER VERSIONS OF THE WORKSHOP MANUAL.

#### **COIL SERVICE**

1. Disconnect the eight (8) ignition coil electrical connectors.
2. Remove the eight (8) ignition coil bolts.

#### **NOTE**

WHEN REMOVING THE IGNITION COILS, A SLIGHT TWISTING MOTION WILL BREAK THE SEAL AND EASE REMOVAL.

3. Remove the ignition coil and inspect the boots for damage and replace as required.
4. Using shop air, blow (dry) out water from coils and coil wells.
5. Apply Silicone Brake Caliper Grease and dielectric compound (XG-3-A) or equivalent, to the inside of the ignition coil boot.
6. Reinstall ignition coils and tighten bolts to 44 lb-in (5 N•m).
7. Reconnect the ignition coil electrical connectors.
8. Install new ignition coil covers (XW4Z-12025-AD). Refer to Section 303-07B of the 2005 Lincoln LS Workshop Manual.

#### **COWL PANEL GRILLE AND FOAM SEAL SERVICE**

1. Remove the cowl panel grille refer to section 501-02 of the 2005 Lincoln LS Workshop Manual.
2. Remove the foam seal and discard (Figure 1).
3. Clean foam-sealing area using Bug and Tar Remover (ZC-42) or equivalent.
4. Install a new foam seal (5W4Z-54021A46-A), centering the seal on the hole of the cowl panel grille (Figure 1).

**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 supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

## TSB 05-16-2 (Continued)

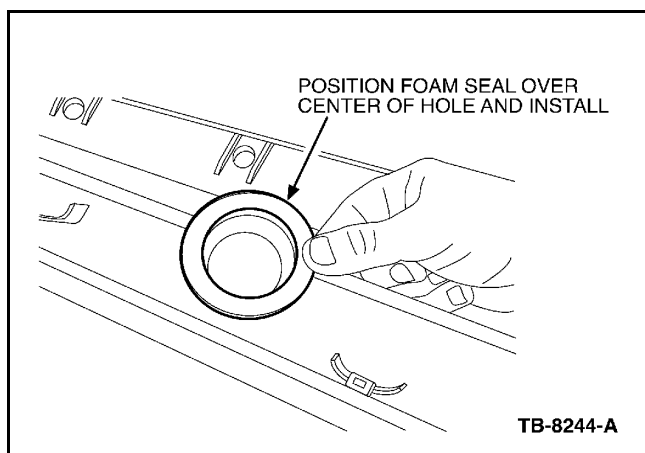


Figure 1 - Article 05-16-2

5. Reinstall the cowl panel grille. Refer to Section 501-02 of the 2005 Lincoln LS Workshop Manual.
6. Clear all DTCs.
7. If misfire is still present perform normal diagnostics per the PC/ED Manual.

PART NUMBER	PART NAME
XW4Z-12025-AD	Coil Cover
5W4Z-54021A46-A	Foam Seal
XG-3-A	Silicone Brake Caliper Grease
ZC-42	Bug and Tar Remover

**OTHER APPLICABLE ARTICLES:** 04-16-1

**WARRANTY STATUS:** Eligible Under Provisions Of  
New Vehicle Limited  
Warranty Coverage

OPERATION	DESCRIPTION	TIME
051602A	2000-2005 Lincoln LS 3.9L, 2002-2005 Thunderbird 3.9L: Clean, Inspect, And Seal, Coil Well Area Following Procedure (Do Not Use With 12650D64A, 12650D64B, 12650D64C, 12650D64D, 12650D64T)	1.7 Hrs.

### DEALER CODING

BASIC PART NO.  
12025

CONDITION  
CODE  
42