

<p>Article No. 03-3-8</p>	<ul style="list-style-type: none"> • DRIVEABILITY—DIAGNOSTIC TROUBLE CODES (DTCS) P0171/P0174 STORED IN MEMORY—VEHICLES EQUIPPED WITH 3.8L ENGINE • MALFUNCTION INDICATOR LAMP (MIL)—MIL ILLUMINATED WITH DIAGNOSTIC TROUBLE CODES (DTCS) P0171/P0174 STORED IN MEMORY—VEHICLES EQUIPPED WITH 3.8L ENGINE • LAMP—MALFUNCTION INDICATOR LAMP (MIL) ILLUMINATED WITH DIAGNOSTIC TROUBLE CODES (DTCS) P0171/P0174 STORED IN MEMORY—VEHICLES EQUIPPED WITH 3.8L ENGINE
---	--

FORD: 1999-2000 WINDSTAR

Article 01-1-12 is being republished in its entirety to update the Service Procedure.

ISSUE

Some vehicles may exhibit a check engine light on and lean Diagnostic Trouble Codes (DTC's) P0171/P0174 (system too lean bank 1 or 2) stored in memory. This may be caused by a loose fitting on the fuel pressure regulator vacuum line on the intake manifold end and/or leaking isolator bolts/port gaskets in the lower to upper intake manifold mounting area.

ACTION

Diagnosis may indicate that the vacuum line from the intake manifold to the fuel pressure regulator is loose at the manifold. This may be due to oil contamination. If so, replace the vacuum line and install a new design LH service valve cover. An excessive vacuum leak may also be present due to leakage around the Isolator bolt assemblies (9S479) that fasten the lower tray/spacer (of the upper intake manifold) to the lower (aluminum) intake manifold. Refer to the following Service Procedure for details.

SERVICE PROCEDURE

1. Perform normal diagnostics for P0171/P0174 check engine light concerns.

2. Inspect the vacuum line from the intake manifold to the fuel pressure regulator for looseness, leaks and/or oil contamination and replace vacuum line (XF2Z-9E498-DD) if required. Also install a new LH Valve Cover (3F2Z-6582-BA) if required (Refer to Workshop Manual Section 303-01 Valve Cover-LH).

NOTE

CHECK THE LH VALVE COVER TO SEE IF IT HAS ALREADY BEEN UPDATED TO THE LATEST LEVEL AND MAY NOT HAVE TO BE REPLACED. REMOVE THE PCV VALVE AND RUBBER GROMMET FROM THE VALVE COVER AND LOOK THROUGH THE HOLE AT THE INTERNAL SHEET METAL BAFFLE. THE NEW STYLE VALVE COVER LOWER PORTION OF THE BAFFLE SHOULD HAVE A SMALL (3/16" DIAMETER) HOLE IN IT. IF IT DOES, IT IS THE CORRECT UPDATED VALVE COVER AND DOES NOT REQUIRE REPLACEMENT.

3. Check all potential lean code contributors including:
 - Correct Baro (Mass Air Flow (MAF)) reading (158.9 Hz at sea level)
 - Relative injector flow between all injectors
 - Vacuum leaks (brake booster, vacuum hoses/plumbing, Vapor Management Valve (VMV), Intake Manifold vacuum nipples/gaskets)

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.

CAUTION

DO NOT USE SMOKE DETECTION, PROPANE GAS, OR CARB CLEANER TO TEST FOR VACUUM LEAKS. (CARB OR BRAKE CLEANER MAY CAUSE IMRC BEARING FAILURE). SOME LEAKAGE FROM THE IAC OR EGR VALVE AND IMRC SEALS IS NORMAL. DO NOT REPLACE THESE PARTS.

4. If no concerns are found, replace only Port Gaskets (9H486) and Isolator Bolt Assemblies (9S479). Do not replace any other intake parts (black plastic or aluminum) or the lower intake gaskets, 9439 and 9A424/425. Refer to Workshop Manual section 303-01, Intake Manifold-Upper.
5. Check Heated Exhaust Gas Oxygen (HEGO) switching, wiring, and fuel pump pressure/volume.


6. Reset KAM. Start engine, idle for at least 10 minutes. Check SHRTFT and LONGFT at normal idle. SHRTFT and LONGFT at less than 13% is acceptable and no further service is necessary.
7. Reprogram the PCM with the latest appropriate calibration.

NOTE

IF NO CONTRIBUTORS EXIST, THE CONDITION COULD BE DUE TO WARM AMBIENT TEMPERATURES AND THE USE OF WINTER GRADE FUELS WHICH HAVE VERY HIGH VOLATILITY AND MAY BOIL IN THE FUEL LINES (VAPOR LOCK) DURING A SHORT HOT SOAK. OXYGENATED FUELS WILL AGGRAVATE THIS CONDITION. IF NON-OXYGENATED FUEL IS NOT AVAILABLE, USE MID/HIGH OCTANE FUELS WHICH HAVE LOWER VOLATILITY AND MAY HELP ALLEVIATE THE CONDITION.

PCM CALIBRATION INFORMATION						
Application	Old Part Number (-12A650-)	Tear Tag	New Part Number (-12A650-)	Old Calibration	New Calibration	NGS/WDS Qualifier
1999-2000 3.8L 49S LEV	XF2F-ME	ZHT2	YU7Z-EC	9LMA-BEE	9LMA-BEE	WDS B20 Release or Later
1999-2000 3.8L Calif. ULEV	XF2F-HE	NQE2	YU7Z-FC	9LMA-BDE	9LMA-BDE	WDS B20 Release or Later
1999-2000 3.8L Calif. ULEV - CAT. RED	YF2F-AB	FGJ2	YU7Z-GC	0A31AS0B05	0A31AS0B05	WDS B20 Release or Later

Obtain an Authorized Modifications Decal (FPS 8262 - obtainable through DOES II, 25/pkg) and list the date, dealer number, and summary of modifications performed. Select a prominent place adjacent to the Vehicle Emission Control Information Decal suitable for installing the Authorized Modifications Decal. Clean the area, install the decal, and cover it with a clear plastic decal shield.

		AUTHORIZED MODIFICATIONS	
THE FOLLOWING MODIFICATIONS HAVE BEEN MADE:			
<i>Reprogrammed Powertrain Control Module (PCM) Per TSB 03-3-8</i>			
THESE MODIFICATIONS HAVE BEEN APPROVED, AS APPROPRIATE, BY EPA AND CARB.			
DEALER NUMBER:		DATE:	
CHANGE AUTHORITY:			
FPS 8262 9/78	FORD MOTOR COMPANY	PRINTED IN U.S.A.	

Article No. 03-3-8 Cont'd.

PART NUMBER	PART NAME
XF2Z-9E498-DD	Vacuum Line Fitting
3F2Z-6582-BA	Valve Cover - LH
XF2Z-9H486-AA	Port Seal - Pkg. of 6 (1 Pkg. Req. Per Repair)
XF2Z-9S479-AA	Isolator Bolt Assembly - Pkg. of 2 (4 Pkgs. Req. Per Repair)

OTHER APPLICABLE ARTICLES: 00-21-8
SUPERSEDES: 01-1-12
WARRANTY STATUS: INFORMATION ONLY
OASIS CODES: 403000, 404000, 499000, 698298