

- **CLIMATE CONTROL—REPEAT HEATER CORE FAILURE**
- **COOLING SYSTEM—REPEAT HEATER CORE FAILURE**

**Article No.
01-15-6**

- FORD:** 1985-1994 TEMPO
 1985-1997 THUNDERBIRD
 1985-2002 CROWN VICTORIA, ESCORT, MUSTANG
 1986-2002 TAURUS
 1988-1993 FESTIVA
 1993-1997 PROBE
 1994-1997 ASPIRE
 1995-2000 CONTOUR
 2000-2002 ESCORT ZX2, FOCUS
 2002 THUNDERBIRD
 1985-1990 BRONCO II
 1985-1996 BRONCO
 1985-1997 F-250 HD, F-350
 1985-2002 ECONOLINE, F-150, RANGER
 1986-1997 AEROSTAR
 1988-1997 F SUPER DUTY
 1991-2002 EXPLORER
 1995-2002 WINDSTAR
 1997-2002 EXPEDITION
 1999-2002 SUPER DUTY F SERIES
 2000-2002 EXCURSION
 2001-2002 ESCAPE, EXPLORER SPORT TRAC, EXPLORER SPORT
- LINCOLN:** 1985-1992 MARK VII
 1985-2002 CONTINENTAL, TOWN CAR
 1993-1998 MARK VIII
 2000-2002 LS
 1998-2002 NAVIGATOR
- MERCURY:** 1985-1994 TOPAZ
 1985-1997 COUGAR
 1985-2002 GRAND MARQUIS
 1986-2002 SABLE
 1991-1999 TRACER
 1995-2000 MYSTIQUE
 1999-2002 COUGAR
 1993-2002 VILLAGER
 1997-2001 MOUNTAINEER

Article No. 01-15-6 Cont'd.

ISSUE

Some vehicles may exhibit (repeat) heater core leaks. This may be caused by a chemical reaction called electrolysis. Electrolysis involves an ion exchange between the heater core and engine coolant which can result in a breakdown of the heater core material. This is similar to the operation of a battery.

ACTION

Check for electrolysis on any vehicle with a heater core failure. If electrolysis is verified, flush the coolant and follow additional steps as required. Refer to the following Service Procedure for details.

SERVICE PROCEDURE

Electrolysis Inspection

If there is a condition of a heater core leaking or repeat heater core leak, check for electrolysis using the following procedure:

1. To check for electrolysis use a DVOM set on DC volts. Place the positive probe of the meter in the engine coolant and the negative probe on the negative battery post.
2. Adjust engine throttle to 2000 RPM to properly get coolant flow and true electrolysis voltages.
3. If more than .4V is recorded, flush the coolant and recheck (follow guidelines in TSB 98-23-16 for Cougar). See Coolant Fill Procedure below to remove trapped air on 4.6/5.4/6.8L modular engines.

NOTE

EXPORT MARKETS, BE SURE THE WATER IS DESALINATED.

4. If there is still excessive voltage present in the coolant, check the engine to body/battery grounds. Also, verify proper grounding of any aftermarket electrical/electronic equipment which has been installed into the vehicle. Improperly grounded electrical devices can cause electrolysis to occur.

5. If the condition is still present after the grounds have been checked, it may be necessary to add extra grounds to the heater core and engine. A hose clamp can be used to secure a 16 AWG stranded copper wire to the heater core inlet tube. The other end should be secured to an EXISTING FASTENER on the body sheet metal. Extra grounds to the engine should be attached between EXISTING FASTENERS on the engine and body sheet metal. Verify continuity of any added grounds to the negative battery terminal.
6. If the condition is still present, add a restrictor (part F1UZ-18D406-A) on the inlet hose with the arrow facing the direction of coolant flow (toward heater core). Cut the line and install with 2 hose clamps. It is important that the restrictor be installed in the right direction of flow and as close to the engine block as possible (not near the heater core itself).

Coolant Fill Procedure

At times, in order to completely remove any trapped air in the cooling system of vehicles equipped with 4.6/5.4/6.8L modular engines, it may be necessary to use the following procedure:

1. Disconnect the heater hose at the right front or rear of the engine.
2. Remove the thermostat and housing.
3. Using the thermostat opening, carefully fill the engine with the proper clean coolant mixture until observed at the engine side heater hose connection.
4. Reconnect the heater hose and reinstall the thermostat and housing.
5. Fill the degas bottle to the coolant fill level mark.
6. Run the engine until it reaches normal operating temperatures.
7. Select max heat and max blower speed on the climate system.

NOTE

IF THE HEAT OUTPUT IS INSUFFICIENT, OR THE ENGINE DOES NOT REACH NORMAL OPERATING TEMPERATURES, VERIFY PROPER THERMOSTAT OPERATION AND REPEAT PROCEDURE IF REQUIRED.

PART NUMBER	PART NAME
F1UZ-18D406-A	Restrictor

OTHER APPLICABLE ARTICLES: 98-23-16
WARRANTY STATUS: INFORMATION ONLY
OASIS CODES: 208000, 208999, 402000