

- **AIR CONDITIONING—EVAPORATOR CORE—“ON-VEHICLE” LEAK TEST REQUIRED FOR WARRANTY CLAIM**

**Article No.  
95-13-1**

- **AIR CONDITIONING—“ON-VEHICLE” EVAPORATOR CORE LEAK TEST REQUIRED FOR WARRANTY CLAIM**

**FORD:** 1992-1993 FESTIVA  
 1992-1994 TEMPO  
 1992-1997 CROWN VICTORIA, ESCORT, MUSTANG, PROBE, TAURUS,  
 THUNDERBIRD  
 1994-1997 ASPIRE  
 1995-1997 CONTOUR  
 1992-1996 BRONCO  
 1992-1997 AEROSTAR, ECONOLINE, EXPLORER, F-150-350 SERIES, F-47,  
 RANGER  
 1995-1997 WINDSTAR

**LINCOLN:** 1992 MARK VII  
 1992-1997 CONTINENTAL, TOWN CAR  
 1993-1997 MARK VIII

**MERCURY:** 1992-1994 CAPRI, TOPAZ  
 1992-1997 COUGAR, GRAND MARQUIS, SABLE, TRACER  
 1995-1997 MYSTIQUE  
 1993-1997 VILLAGER

This TSB article is being republished in its entirety to correct the referenced Step for the cleaning procedure.

### **ISSUE**

An “on-vehicle” air conditioning evaporator core leak test is required before replacing any A/C evaporator core within the warranty period.

### **ACTION**

Perform the “on-vehicle” air conditioning evaporator core leak test before replacing the evaporator core. Refer to the following Evaporator Core Leak Test Procedure.

### **EVAPORATOR CORE LEAK TEST PROCEDURE**

#### **NOTE**

**ALL FITTINGS REQUIRED TO PERFORM THE LEAK TEST ARE INCLUDED IN TEST ADAPTER KIT D93L-19703-B OR EQUIVALENT.**

### **CAUTION**

**DISCONNECT THE LIQUID LINE AND SUCTION ACCUMULATOR FROM THE EVAPORATOR CORE TUBES. DO NOT LEAK TEST AN EVAPORATOR CORE WITH THE SUCTION ACCUMULATOR ATTACHED TO THE CORE TUBES. REFRIGERANT OUTGASSING FROM OIL AND DESICCANT IN THE ACCUMULATOR WILL INDICATE A FALSE LEAK CONDITION.**

1. Verify that the manifold gauge set is capable of holding vacuum.
  - a. Connect the RED and BLUE hoses together using a 1/4” (6.35mm) flare coupling.
  - b. Connect the gauge set YELLOW hose to a known good vacuum pump.
  - c. Turn the vacuum pump ON and open both gauge set valves.

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- d. Operate the vacuum pump for 1 minute and close both gauge set valves. The low side gauge should indicate approximately 30" of vacuum.
  - e. Allow the gauge set, with vacuum applied, to sit for at least 30 minutes.
  - f. If the gauge reading drops during that time, the gauge set hose connections, gauges, or valves are leaking and should be repaired before proceeding with the leak test.
2. Clean the evaporator core tube fittings.
    - a. For threaded connections, wipe any dirt or debris from the sealing surfaces with a clean lint-free rag.
    - b. If the evaporator core tube fittings are the female Spring Lock design, check the inside of each fitting for scratches, corrosion, or debris from deteriorated O-rings.
    - c. If scratches, corrosion, or debris are found, the leak test results may not be accurate unless the fitting is properly cleaned. Refer to Step 3 for cleaning procedure.
  3. Clean the Spring Lock fittings as follows:
    - a. Remove any surface residue from the inside of the female Spring Lock Coupling by polishing with 400 grit emery cloth or equivalent.
    - b. Polish the female surface by using a twisting motion so that any scratches made will not cross the O-ring sealing surface. See Figure 1.
    - c. Perform additional polishing of surface using 600 grit emery cloth or equivalent.
    - d. Remove all residue from the polishing operations by wiping the fittings with a lint-free rag.
  4. Connect the appropriate test fittings from Test Adapter Kit D93L-19703-B, or equivalent, to the evaporator tube connections.
  5. Connect the RED and BLUE hoses from the manifold gauge set to the test fittings on the evaporator core. Connect the YELLOW hose to a known quality vacuum pump.
- NOTE**  
**THE AUTOMATIC SHUTOFF VALVES ON SOME GAUGE SET HOSES DO NOT OPEN WHEN CONNECTED TO THE TEST FITTINGS. IF AVAILABLE, USE HOSES WITHOUT SHUTOFF VALVES. IF HOSES WITH SHUTOFF VALVES ARE USED, CHECK TO BE SURE THE VALVE OPENS WHEN ATTACHED TO THE TEST FITTINGS OR INSTALL AN ADAPTER WHICH WILL ACTIVATE THE VALVE. THE TEST IS NOT VALID IF THE SHUTOFF VALVE DOES NOT OPEN, ONLY THE HOSE WILL BE TESTED.**
6. Open both gauge set valves and start the vacuum pump.
    - a. Turn the A/C system blower on low to allow the vacuum pump to operate for a minimum of 45 minutes after the gauge set low pressure gauge indicates 30" Hg. The 45 minute evacuation is necessary to remove any refrigerant from oil left in the evaporator core.
    - b. If the refrigerant is not completely removed from the oil, outgassing will occur and degrade the vacuum and appear as a refrigerant leak.
  7. If the low pressure gauge reading will not drop to 30" Hg when the valves on the gauge and manifold set are open and the vacuum pump is operating, close the gauge set valves and observe the low pressure gauge. If the pressure rises rapidly to zero, a large leak is indicated. Recheck the test fitting connections and gauge set connections before replacing the evaporator core.

8. The following information is helpful in determining if a leak is present.
- If the low pressure gauge reading rises 10 or more inches of vacuum from the 30" position in 10 minutes, a leak is indicated.
  - If a very small leak is suspected, wait 30 minutes and observe the vacuum gauge.
  - If a small amount of vacuum is lost, operate the vacuum pump with the gauge valves open for an additional 30 minutes with the system blower on low to remove any remaining refrigerant from the oil in the evaporator core. Then, recheck for loss of vacuum as outlined.
  - If a very small leak is suspected, allow the system to sit overnight with vacuum applied and check for vacuum loss.

**NOTE**

**ALWAYS REMEMBER THAT A LEAKING FITTING, GAUGE SET OR HOSE CONNECTION WILL APPEAR AS A LEAKING EVAPORATOR CORE.**

9. If the evaporator core does leak, as verified by the above procedure, install a new evaporator core. Follow the appropriate Service Manual procedure.

**OTHER APPLICABLE ARTICLES: NONE**

**SUPERSEDES: 94-10-7**

**WARRANTY STATUS: INFORMATION ONLY**

**OASIS CODES: 208000, 208200, 290000**

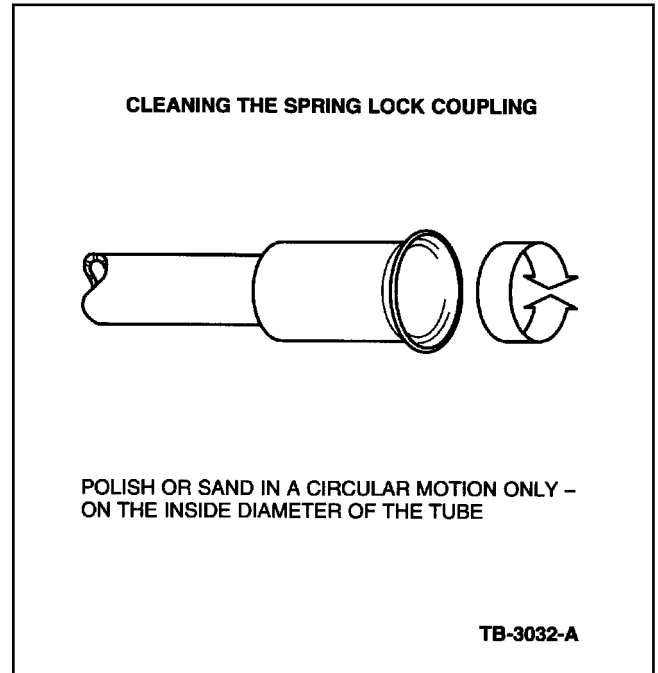


Figure 1 - Article 95-13-1