Temperature Diagnostic Flow Chart A – Condenser Sub Cooling Test

Measure Condenser Inlet Line Temperature in from of Condenser. Measure Condenser Outlet and Inlet Line Temperatures as Close as Possible to the Condenser. Note: Some Systems Place the Orifice Tube Close to the Condenser, Measure In Front of the Orifice Tube. The Temperature Drop Difference Should Fall Between 20°F and 50°F. If Out of Range, Follow the Diagnostic Flow Chart. If Within Range, Go to Diagnostic Chart B.

Less Than 20°F

Within Acceptable Range

More Than 50°F

Check Condenser for Air Flow
Bent Fins
Debris on Condenser or Between Radiator and Condenser
Inspect For External Air Flow

Refer to Diagnostic Temperature Chart B

Clean and Retest

No Debris

Check: Fan Clutch Operation
Electric Cooling Fan Operation
Electric Condenser Fan Operation (If Equipped)
Fan Shroud for Damage
Seals between Radiator and Condenser
Missing/Damaged Air Dams
Test Cooling System

No Problems

Repair & Retest

Test for:
Internal Contamination (Black Death)
Refrigerant Overcharge
Incorrect Condenser Installed
Condenser Installed Upside Down

Check for Low Refrigerant Charge
Test Refrigerant for Contamination (Non-Condensable Gases - Air)
Test Condenser for Internal Restrictions

R134a Systems Condensers Must Be Replaced
Ford Systems Condensers With Black Death Must Be Replaced

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