



A/C Checklist

Work Order # _____ Customer _____

Year ____ Make _____ Model _____ VIN _____

System Type: Expansion Valve ____ Orifice Type ____ Size ____ Color ____

OEM Specs: R12__ R134 __ HFO1234yf__ Capacity _____

Visual Inspection:

- | | | | |
|------------------------|---------|---------------------------|---------|
| 1. Leaks | Y__ N__ | 6. Clutch engagement | Y__ N__ |
| 2. Condenser fins bent | Y__ N__ | 7. A/C working good | Y__ N__ |
| 3. Condenser air flow | G__ B__ | 8. Belt Condition | G__ B__ |
| 4. Fan Blades | G__ B__ | 9. Electrical Connections | G__ B__ |
| 5. Sealing Caps | Y__ N__ | 10. Fan Operational | Y__ N__ |

HVAC Controls	Yes	No
Vent		
Bi-level		
Floor		
Defrost:		
Blower Noise		
Air Volume		
Blower Speed		
Compressor Noise		

Sealant Test: Pass ____ Fail ____

Refrigerant Identifier Results

HC% ____ R12% ____ R134A% ____

R22% ____ O2% ____

Static Pressure: ____/____

Ambient Temp: _____

Duct Temp: _____

DTCs _____

Load % _____

Scan Data: TPS Voltage: Min _____ Max _____ Baro _____ IAT _____ ECT _____

Verify Data: TPS Voltage: Min _____ Max _____ Baro _____ IAT _____ ECT _____

Power steering pressure switch: On __ Off__ (Turn wheel completely, verify switch operation)

A/C Permission: Withheld _____ Allowed _____



Temperature Testing

Work Order # _____ Customer _____

Testing Parameters:

- Operating Temp / Idle Speed / All doors open / A/C Max Cold / Blower speed high

Condenser Drop

— 20°F Minimum

— 50°F Maximum

Evaporator Outlet (orifice tube type)

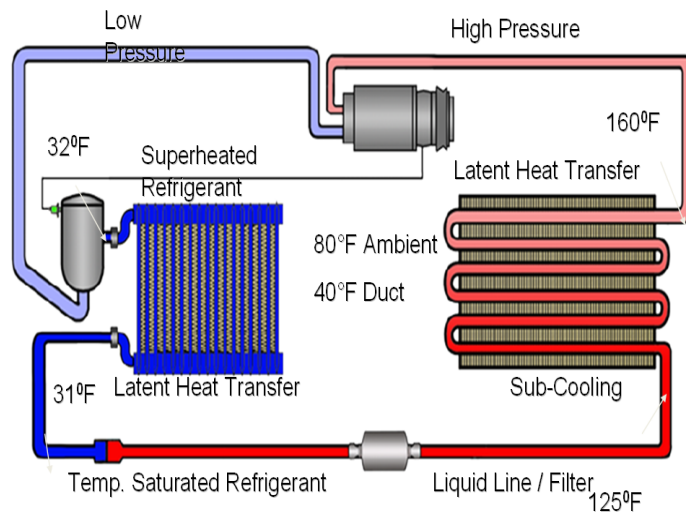
— -5°F To +5°F Range

— 0°F ideal

Duct Air Drop

— 30°F Minimum

Consistent For All Systems



Measure temp drop

across:

Condenser / Evaporator / Ambient/Duct

Condenser Inlet Temp: _____ Outlet Temp: _____ Difference: _____

Evaporator Inlet Temp: _____ Outlet Temp: _____ Difference: _____

Ambient Temp (measured 16 to 18 inches in front of condenser) _____

Duct Temp (duct closest to evaporator) _____ Difference: _____

Clutch Coil Test Voltage at coil: _____ Voltage Drop/Coil to Batt. _____

Clutch/Coil Amps: _____ Coil Resistance (ohms): _____



Gauge Readings

Work Order # _____ Customer _____

Performance Testing

- Based on OEM Parameters
- Verify System Design Pressures are met
- Run to Simulate Highway Operation
- Confirms Optimum Duct Performance

Performance Test

- Engine at 2,000 RPM
- Operating Temp
- Doors closed
- A/C Max (Recirc.)
- Blower Speed High
- External blower fan in front of car



TXV Cycling
Clutch

Normal Operating Pressures		
Low Side	15 - 35	PSI*
High Side	150 - 285	PSI**

Idle	
Low Side	_____
High Side	_____

CCOT

Normal Operating Pressures		
Low Side	15 - 46	PSI *
High Side	150 - 285	PSI **

Performance Test	
Low Side	_____
High Side	_____

VDTXV

Normal Operating Pressures		
Low Side	25 - 35	PSI *
High Side	150 - 285	PSI**

Gauge Reading Tips:

Compressor Malfunction

- Low Side Gauge - High (55 - 85)
- High Side Gauge - Low (100 - 140)

Insufficient Cooling of Condenser or Over Charge

- Low Side Gauge - High (35 - 50)
- High Side Gauge - High (270 - 360)

Refrigerant Restriction

- Low Side Gauge - Zero to negative
- High Side Gauge - Low (60 - 70)

Calculate compressor ratios R12 - 5 or 6 to 1, R134a - 7 or 8 to 1

* System Stabilized **Varies With Temperature & Humidity