

# Trouble Shooting System Checklist

This form is to be used to submit system information to help develop solutions to system issues.

Company Name: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_

Phone or E-mail Contact info: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Readings at Compressor Discharge Outlet**

Discharge Pressure \_\_\_\_\_  
 Saturated Discharge Temperature \_\_\_\_\_  
 Discharge Temperature \_\_\_\_\_  
 Calculated Discharge Super Heat \_\_\_\_\_  
 DLT Design Limit \_\_\_\_\_

**Readings at Condenser**

Inlet Air Temperature \_\_\_\_\_  
 Outlet Air Temperature \_\_\_\_\_  
 Ambient Temperature \_\_\_\_\_

**Compressor Electrical Readings (1 or 3 phase)**

Voltage(s) \_\_\_\_\_  
 Amperage(s) \_\_\_\_\_  
 Winding Resistance \_\_\_\_\_  
 System Controller \_\_\_\_\_  
 Any Alarms or Trips \_\_\_\_\_  
 Oil Level in Sight Glass \_\_\_\_\_

**Design Point Summary**

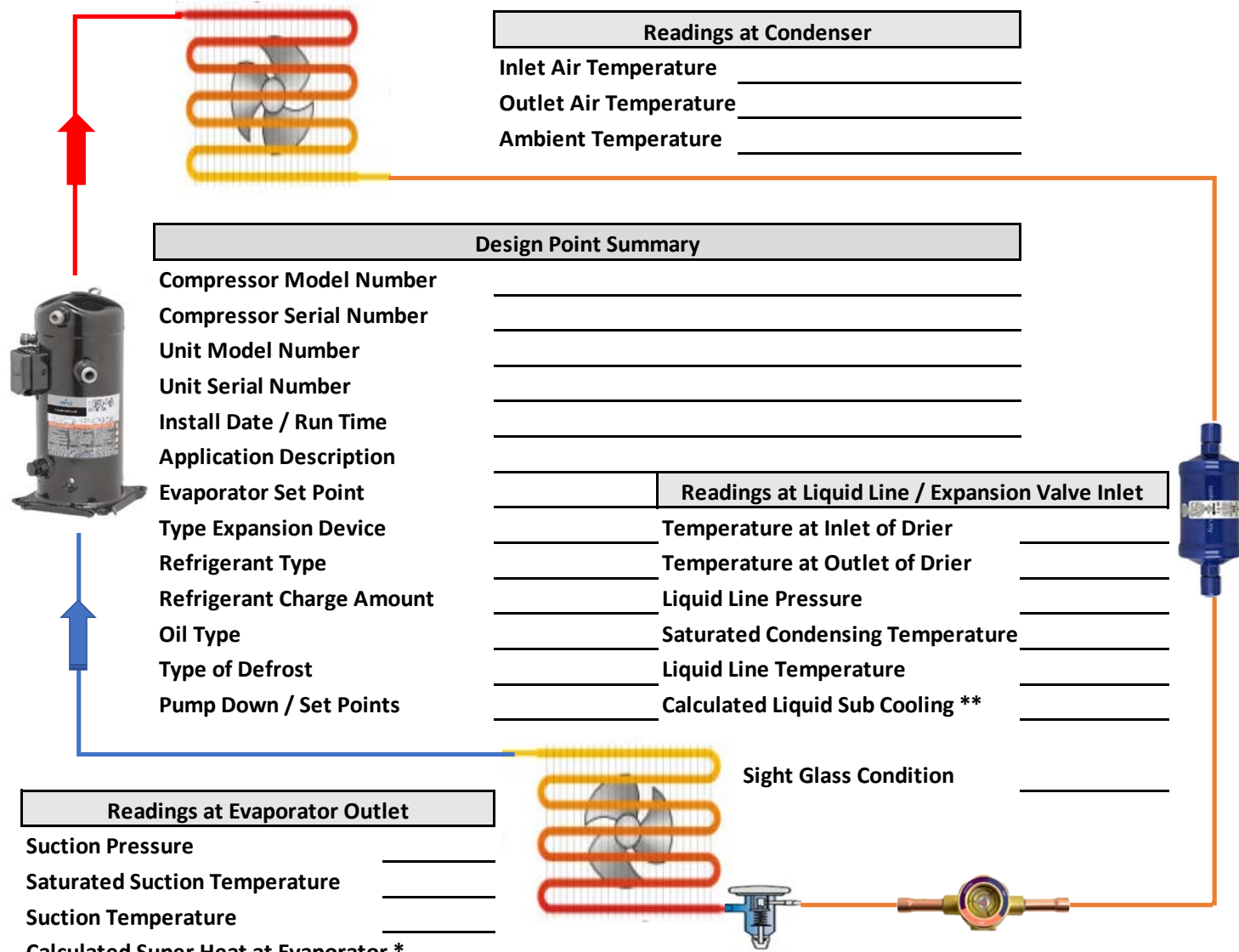
Compressor Model Number \_\_\_\_\_  
 Compressor Serial Number \_\_\_\_\_  
 Unit Model Number \_\_\_\_\_  
 Unit Serial Number \_\_\_\_\_  
 Install Date / Run Time \_\_\_\_\_  
 Application Description \_\_\_\_\_  
 Evaporator Set Point \_\_\_\_\_  
 Type Expansion Device \_\_\_\_\_  
 Refrigerant Type \_\_\_\_\_  
 Refrigerant Charge Amount \_\_\_\_\_  
 Oil Type \_\_\_\_\_  
 Type of Defrost \_\_\_\_\_  
 Pump Down / Set Points \_\_\_\_\_

**Readings at Liquid Line / Expansion Valve Inlet**

Temperature at Inlet of Drier \_\_\_\_\_  
 Temperature at Outlet of Drier \_\_\_\_\_  
 Liquid Line Pressure \_\_\_\_\_  
 Saturated Condensing Temperature \_\_\_\_\_  
 Liquid Line Temperature \_\_\_\_\_  
 Calculated Liquid Sub Cooling \*\* \_\_\_\_\_

**Readings at Compressor Suction Inlet**

Suction Pressure \_\_\_\_\_  
 Saturated Suction Temperature \_\_\_\_\_  
 Suction Temperature \_\_\_\_\_  
 Calculated Super Heat \* \_\_\_\_\_  
 Compressor Sump Temperature \_\_\_\_\_  
 Low Pressure Cut Out Set Point \_\_\_\_\_



**Other System Related Notes**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Readings at Evaporator Outlet**

Suction Pressure \_\_\_\_\_  
 Saturated Suction Temperature \_\_\_\_\_  
 Suction Temperature \_\_\_\_\_  
 Calculated Super Heat at Evaporator \* \_\_\_\_\_  
 Current Box Temperature \_\_\_\_\_

\* Suction pressure converted to temperature minus suction temperature  
 \*\* Liquid pressure converted to temperature minus liquid line temperature



System Problem	Discharge Pressure	Suction Pressure	Super Heat	Sub Cooling	Amps
Overcharged	↑	↑	→	↑	↑
Undercharged	→	→	↑	→	→
Liquid Restriction (Drier)	→	→	↑	→	→
Low Evaporator Airflow	→	→	→	↑	→
Dirty Condenser	↑	↑	↑	↑	↑
Low Outside Ambient Temperature	→	→	→	↑	→
Inefficient Compressor	→	↑	↑	↑	→
TXV Bulb Loose	↑	↑	→	→	↑
TXV Bulb Lost Charge	→	→	↑	↑	→
Poorly Insulated TXV Bulb	↑	↑	→	→	↑