

Highlighted areas are the minimal required data points for technical assistance

# Trouble Shooting System Checklist

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

Company Name: \_\_\_\_\_ Phone or E-mail Contact Info: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Readings at Compressor Discharge Outlet

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

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

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

### Readings at Compressor Suction Inlet

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

### Readings at Compressor Suction Inlet

Reason for Prior Failure: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Readings at Condenser

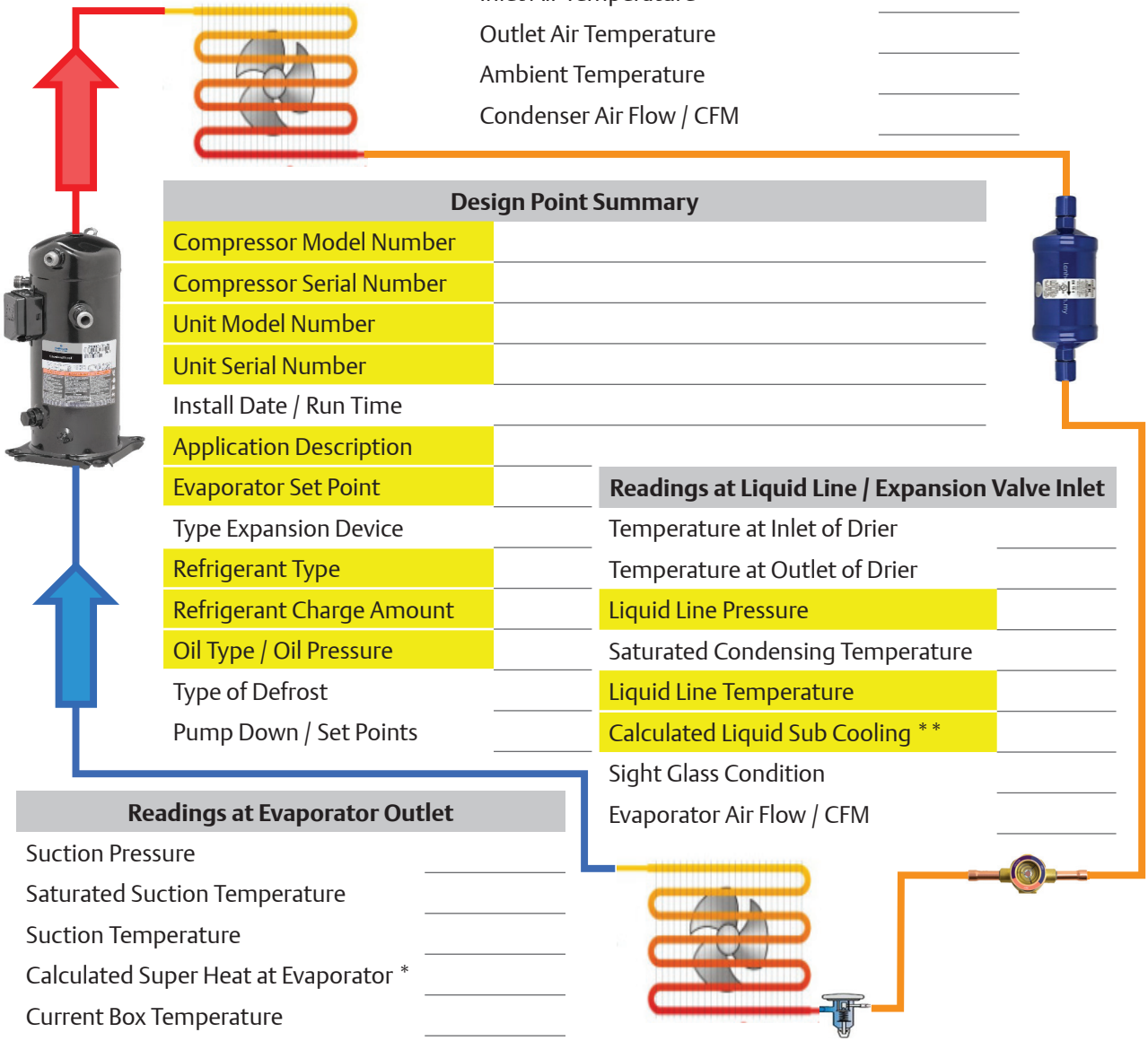
Inlet Air Temperature \_\_\_\_\_  
 Outlet Air Temperature \_\_\_\_\_  
 Ambient Temperature \_\_\_\_\_  
 Condenser Air Flow / CFM \_\_\_\_\_

### 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 / Oil Pressure \_\_\_\_\_  
 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 Evaporator Outlet

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

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

System Problem	Discharge Pressure	Suction Pressure	Superheat	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	↑	↑	↓	↓	↑