HVAC SERVICE SHEET

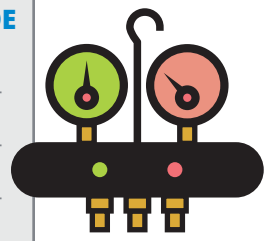
Presented by: Chadwell Supply

Use this service sheet to collect readings to diagnose an issue. Compare results to the standard range of values below.

MANIFOLD GAUGE PRESSURES:
The low side operating pressure range links to specific saturation temperatures from the pressure/temperature chart.

SYSTEM PRESSURE RANGE: LOW SIDE

SAT	38F – 52F
R-410A	#113. – #152. Psig
R-454B	#103. – #145. Psig
R-32	#116. – #152. Psig

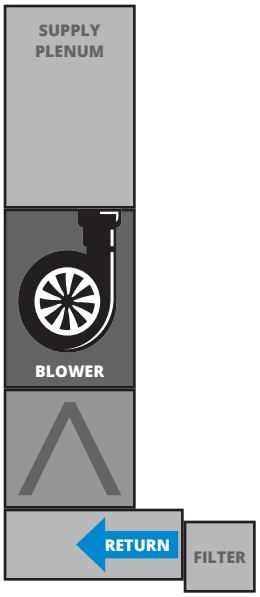


TEMPERATURE SPLIT INDOOR UNIT

Measure the temperature in the return duct and subtract the measured temperature from the supply duct.

15F – 18F Max 20F

Anything above 20F difference is a possible sign of low airflow or charge issue.



TXV SUPER HEAT RANGE

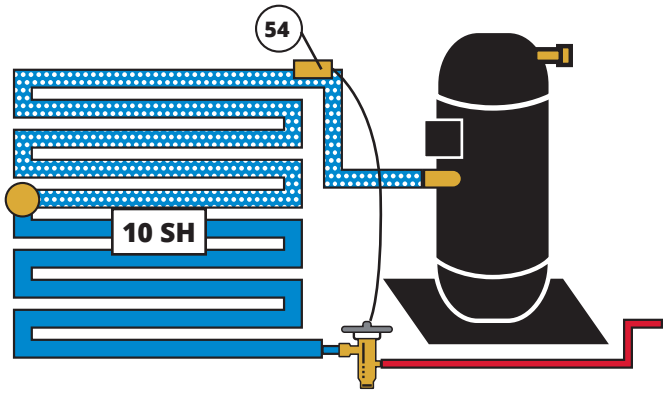
Evaporator Saturation Temp (Pressure converted to Temp) minus suction pipe temp measured 6 inches outside the evaporator.

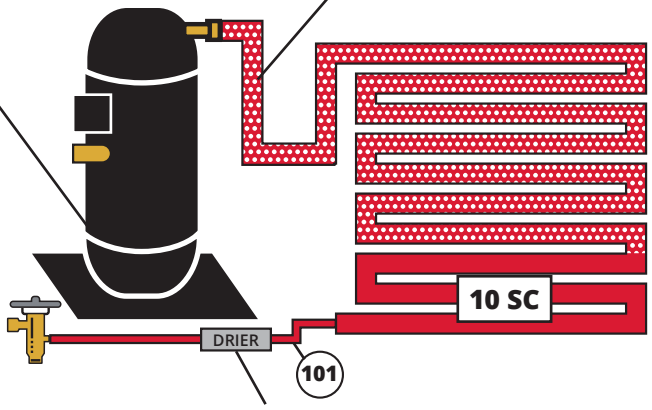
8F – 12F

Using a clamp-on temperature sensor. Measure the suction pipe temp just after the TXV Sensing Bulb.

TOTAL SUPERHEAT
20F at the compressor crankcase or bottom.

DISCHARGE TEMP RANGE
145F – 185F Max 200F
Above 200 is an issue.





SUPER HEAT (SH)
Higher SH = More Vapor
Higher SH = Less Liquid

SUBCOOLING (SC)
Higher SC = More Liquid
Higher SC = Less Vapor

Filter driers should have no temperature drop across them. **1 degree** is tolerable but a plan to replace it should be scheduled.

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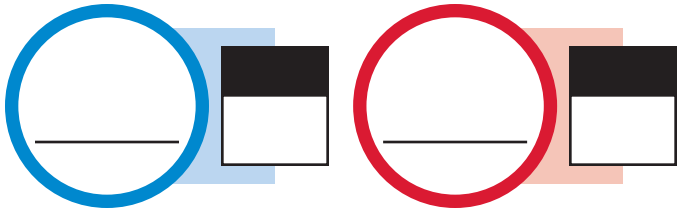
FORMULA FOR SUPER HEAT

_____ Vapor Line Temp.

− _____ Minus Sat Temp.

= _____ Equals Super Heat



Low PSIG

High PSIG

FORMULA FOR SUB COOLING

_____ Sat Temp.

− _____ Minus Liquid Line Temp.

= _____ Equals Sub Cooling

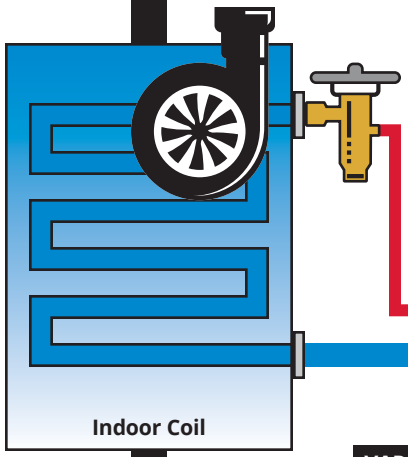
KEY

SH HIGH + SC HIGH = RESTRICTION
SH HIGH + SC LOW = LOW CHARGE
SH LOW + SC HIGH = OVER CHARGE
SH LOW + SC NORMAL = LOW LOAD/CFM

INSIDE TEMP. LEAVING

DB: _____

WB: _____



INSIDE TEMP. LEAVING

DB: _____

WB: _____

TECHNICIAN: _____

DATE: _____

LIQUID LINE TEMP.

LIQUID LINE TEMP.

DRIER

VAPOR LINE

VAPOR LINE TEMP.

MODEL #: _____

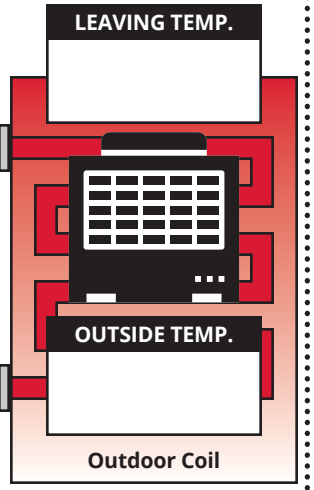
SERIAL #: _____

UNIT #: _____

PROPERTY: _____

LEAVING TEMP.

OUTSIDE TEMP.



REVERSING VALVE

HOT GAS LINE TEMP.

VOLTS: _____

AMPS:

C: _____

S: _____

R: _____

SELECT ONE

◯ Heat Mode

◯ Cool Mode

SUPPLY AIR STATIC PRESSURE

1. Supply SP: _____

2. Return SP: _____

For more HVAC Resources visit:
ChadwellSupply.com/PK-HVAC

ChadwellSupply.com | 888.341.2423 | 888.341.7330