

# Basic Refrigeration Circuit

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1. What should be the state of the refrigerant in the suction line?

- Subcooled Gas
- Saturated Vapor
- Superheated Vapor
- Superheated Liquid
- Flash Gas

Question 1 of 12

2. The part that is pointed at by the black arrows is a...



- Discharge Line Muffler
- Liquid Line Drier
- Accumulator
- Receiver
- Start Cap
- Reversing Valve Booster

Question 2 of 12

3. The Discharge line travels between the....

- Compressor and the TXV
- The Metering Device to the compressor
- Earth and Space
- Receiver and the metering device

○ Compressor and condenser

Question 3 of 12

4.

This is a Cutaway of a...



○ Compressor

○ Suction Drier

○ Receiver

○ Spaceship

○ Accumulator

○ Compressor Booster

Question 4 of 12

5. A \_\_\_\_\_ can often be confused with a liquid line drier because they can look similar

○ Muffler

○ Accumulator

○ Compressor

○ Expansion Valve

○ Can of beans

Question 5 of 12

6. Which is the correct order of refrigerant states starting with the discharge line

○ Superheated Vapor, Condensing vapor / liquid mix, Subcooled liquid, Flash Gas, Superheated Vapor

- Condensing vapor, Flash gas, Subcooled Liquid, Superheated vapor
- Hot gas bypass, Freon Transfer, Liquid sublimation, Condensation
- Liquid, Vapor, Subcooled vapor, Superheated Liquid

Question 6 of 12

7.

What is the weakness of a fixed orifice metering device?

- Freezes too easy
- High Head Pressure
- Does not adjust to a wide range of load conditions
- Too Mouthy
- Low suction

Question 7 of 12

8. Which line would generally be slightly warmer than outdoor ambient (during cooling mode)?

- Suction Line
- Discharge Line
- Expansion Line
- Liquid Line
- Freon Line

Question 8 of 12

9. Why is the compressor discharge line hot?

- Because the compressor is hot
- The Second law of thermodynamics
- Temperature increases when volume decreases and pressure increases
- Humidity

Question 9 of 12

10. When the temperature of a \_\_\_\_\_ gas goes up, its volume goes\_\_\_\_\_.

- Uncontained, Up
- Contained, Down
- To 11
- Uncontained, Down

Question 10 of 12

11. Bonus Question: You Find a TXV System Running high head

pressure, low suction pressure, high superheat, high subcool and low evaporator air temperature split. What category of failure do you most likely have?

- Indoor air flow
- Compressor Pumping Issue (Low compression ratio)
- TXV failing closed or other restriction
- Low on Charge
- Overcharge
- Dirty Condenser Coil
- Frozen Evaporator Coi

Question 11 of 12

12.

The “High Side” of the refrigerant circuit is made up of the

- Compressor, TXV and Suction Line
- Evaporator, Metering Device, Liquid Line
- Compressor, Discharge Line, Condenser, Liquid Line
- Cheech Valve, Chong Capacitor

Question 12 of 12

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