

What To Do When

You Know You Need More **R-22** Refrigerant

Do Not Use For Units Equipped With **R-410a**

Vapor Charging (Use Vapor Charging ONLY When The Charge Has To Be Topped Off)

Charge vapor only into the suction (low pressure) side of the system. System should be running and the refrigerant cylinder should be right side up (valve on top of refrigerant cylinder).

Charge using manufacturer's charging information if known; if not known,

1. Charge **fixed restrictor** systems using the superheat chart provided in this seminar.
2. Charge **TXV** systems using the subcooling method (covered in A/C II)

Problems with vapor charging,

1. Tank pressure decreases while charging vapor into the suction side of the system. When tank pressure = system suction pressure, the charging process stops. Putting the tank into a tub of **warm water** helps by increasing tank pressure temporarily. ***DO NOT*** heat the tank with a torch and be careful not to heat a tank at all if it is full: danger of explosion exists.
2. Process is slow.

Liquid Charging (Use Liquid Charging ONLY When The Unit Is Empty) — Pull Vacuum 1st.

Charge liquid into the high side of the system ONLY, unless you have a ***Charge Faster** type device on your gauge set. System must be off (not running) and the refrigerant cylinder should be upside down (valve on bottom of tank). You cannot charge liquid into the high side of a system when it's running because the high side system pressure is higher than the tank pressure. *You cannot charge liquid into the low side because you will slug the compressor with liquid refrigerant and ruin the compressor.*

Charge using manufacturer's charging information if known; if not known,

1. Charge system by weight if known (be sure to add drier capacity)
2. Charge **fixed restrictor** systems using the **superheat** chart provided in this course.
3. Charge **TXV** systems using the **subcooling** method used in this course (covered in A/C II)

You can charge liquid into the low side of a system if you have an approved metering device connected to your gauges. This will eliminate the problem of the tank pressure decreasing while you are adding refrigerant to the system. However, this practice can shorten the bearing life on some semi-hermetic compressors.

The product shown in the seminar is a ***Charge Faster**.