**OBTAINING TARGET SUPERHEAT VALUE**

**WET BULB TEMPERATURE OF evaporator entering air**

1. **Turn on with zero pressure. Gauge will automatically calibrate to “Zero” for altitude and atmospheric pressure changes.**
2. **Wet the sock with water and slip on to sensor. Mount on the building return air grill or air return line of blower to measure the indoor wet bulb temperature.**
3. **Turn on the furnace fan to create a flow of air across the wet sock for 5 minutes. The final number will be your wet bulb temperature.**

**Sample Superheat Chart (Located on condensing unit. For older models contact manufacturer)**

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<thead>
<tr>
<th>OUTDOOR TEMP</th>
<th>50</th>
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**TEMPERATURE SENSOR (Located on condensing unit. For older models contact manufacturer)**

1. Find the outdoor temperature and evaporator entering air wet-bulb temperature on chart. The target superheat value is at the intersection of the two.
2. If you have to do repairs, recheck your temperatures.
3. Make your connections and toggle the gauge to show SUPERHEAT. For system refrigerants other than R-22, plug in matching Refrigerant Key.
4. Very slowly add or refrigerant to lower superheat or remove refrigerant to raise superheat until the gauge displays the target value.

**CHARGING BY THE SUBCOOLEING METHOD**

**APPLICATIONS**

- Refrigeration Systems
- High Efficiency Residential
- Large Commercial A/C Rooftop Packages Up To And Over 100 Tons

1. Connect the gauge to the A34000 tee fitting on the high liquid side of the manifold as shown.
2. Install the Temperature Sensor on the liquid line next to the liquid service valve and plug into gauge.
3. For system refrigerants other than R-22, plug in the matching Refrigerant Key into the gauge.
4. Toggle the gauge display to show SUBCOOLEING.
5. Very slowly add or remove refrigerant until the gauge displays the required Subcooling value.

**SYSTEMS WITH TXV AND NO RECEIVER**

**TESTING FOR CHARGE**

1. **Turn on the gauge.**
2. **For refrigerants other than R-22, plug in the matching Refrigerant Key.**
3. **Toggle the display to show Superheat or Subcooling.**
**REFRIGERATION APPLICATIONS**

**SETTING FOR THERMOSTAT CONTROLLED CASES AND COOLERS**

Without plug-ins, turn on the gauge and zero the display by holding the lower button. Plug in the Temperature Sensor only and toggle to "Temperature."

**A/C & REFRIGERATION APPLICATIONS**

**CHECKING TXV SETTING**

The objectives of the TXV superheat setting is to prevent liquid refrigerant floodback to the compressor and to optimize system operation by the use of a selected setting.

The two temperature method of measuring superheat is not recommended because it can produce a wrong superheat measurement, due to the effect of temperature glide of the blended refrigerants and variations in evaporator pressure drop.

**NEW RESIDENTIAL A/C SYSTEMS**

For new installations of residential A/C systems, the precharge will not provide an accurate amount of refrigerant charge because of the variation in the length of liquid and suction line connecting to the "A" coil.

**RETROFITTING SYSTEMS**

Retrofitting systems to a new refrigerant can change the TXV superheat setting. The superheat setting should be checked before and after retrofitting to be sure the superheat is right for the equipment.

**REPLACEMENT ITEMS**

- R22: R411A
- R134A: R410A
- R23: R413A
- R290: R414B
- R401A: R416A
- R404A: R417A
- R407C: R418A
- R407A: R419A
- R409A: R420A
- R409B: R421A
- R410A: R422B

**Accessories**

- SS 454: 6" Temperature Sensor
- SS 455: Plastic Casing Case
- SS 456: Socks (5)

**Technical service:** 800-323-0811
E-Mail: sales@jbind.com
Web Site: www.jbind.com

**Part No.: 10737-308**
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