

# SUPERHEAT OPTIMIZER SYSTEM (SUPERHEAT SENSOR SYSTEM)

## FIELD - CONTRACTOR INSTRUCTION Low & Medium Temperature Refrigerated Display Cases and Walk-In Boxes

### Installation and Insulation

1. All OEM & refrigeration contractor liquid lines in any & all refrigerated spaces for low & medium temperature cases or walk-in coolers / freezers, must be insulated. Included are:
  - Liquid lines (refrigeration contractor's & case manufacturer's, inside the case)
  - Liquid line headers
  - Liquid line strainer filters
  - Hand shut-off valves
2. TXV bulb strap bolts MUST be on the opposite side of the sensor from the TXV bulb. Check ALL TXV bulb clamps for snugness / tightness

3. Display Cases - superheat sensors are bi-directional and must be installed on a 45° angle to the horizontal plane with the outlet of the sensor at the top. Superheat sensors should have TXV bulbs attached at 5 o'clock or 8 o'clock positions
4. Walk-In Boxes - the superheat sensor, which is bi-directional, may be positioned in either the vertical or horizontal position before the heat exchanger or any suction line trap. The superheat sensor DOES NOT have to be installed at a 45° angle
5. Please ensure the heat exchanger(s) and superheat sensor(s) are insulated, as well.

### TXV Set-Up Procedure

Use your low-side gauge attached to the suction access fitting at each evaporator and an electronic thermometer (capable of accepting Type K Thermocouples). Set the TXV superheat to between 3° F and 5° F. This is to be done while

maintaining a minimum 10° F higher temperature reading at the thermocouple that is attached to the suction line (on the compressor side of the heat exchanger) than the temperature found at the thermocouple fastened to the TXV bulb (on the superheat sensor)

If any questions should arise with the above instructions/specifications, contact:

**FresherSource**  
**ENERGY SOLUTIONS INC.**

343 Roselawn Avenue  
Toronto, Ontario, M4R 1G2

T (416) 544-8008  
F (416) 544-8005

info@fresherSource.com

## THERMOCOUPLES

Follow all other OEM & contractor instructions

