

# EXPANSION VALVE KITS

## INSTALLATION INSTRUCTIONS

© 2004, 2006, 2009 Goodman Manufacturing Company, L.P.  
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### ATTENTION INSTALLING PERSONNEL


As a professional installer you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair it is possible to place yourself in a position which is more hazardous than when the unit is in operation.


Remember, it is **your** responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

 **WARNING**

**HIGH VOLTAGE !**  
DISCONNECT ALL POWER BEFORE SERVICING.  
MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



### SHIPPING INSPECTION

Upon receiving the product, inspect it for damage from shipment. Shipping damage, and subsequent investigation is the responsibility of the carrier. Verify the model number, specifications, electrical characteristics, and accessories are correct prior to installation. The distributor or manufacturer will not accept claims from dealers for transportation damage or installation of incorrectly shipped units.

### CODES & REGULATIONS

This product is designed and manufactured to comply with national codes. Installation in accordance with such codes and/or prevailing local codes/regulations is the responsibility of the installer. The manufacturer assumes no responsibility for equipment installed in violation of any codes or regulations.

### PRE-INSTALLATION INSTRUCTIONS

**IMPORTANT:** Piston must be removed from the Flowrator Distributor Assembly for proper Expansion Valve operation.

#### Piston Removal:

1. Loosen the 13/16 nut **1 TURN ONLY** to allow high pressure tracer gas to escape. No gas indicates a possible leak.
2. After the gas has escaped, remove the nut and discard the black or brass cap.
3. Remove the check piston and seal and discard.
4. Use a tube cutter to remove the spin closure on the suction line.
5. Remove the tailpiece clamped to the exterior.
6. *For Applications requiring a Field-Installed Access Fitting (see Figure 1 on following page).*
  - a. Braze the appropriate equalizer stub to suction line field connection on coil. Slide grommet and insulation back before brazing. Plan fitting position for convenient connection to 1/4" flare nut on equalizer tube.
  - b. Braze suction line tubing (line set) to the stub.
  - c. Reinstall the suction line grommet and insulation.

*For Applications NOT Requiring A Field-Installed Access Fitting (see Figure 2 on following page).*

- a. Braze the suction line field connection on coil. Slide grommet and insulation back before brazing and feed the valve equalizer line through the grommet.
- b. Reinstall the suction line grommet and feed the equalizer line through the opening.

### INSTALLATION INSTRUCTIONS

1. Connect expansion valve outlet with new seal supplied with kit to flowrator body. Make sure the seal is in place.

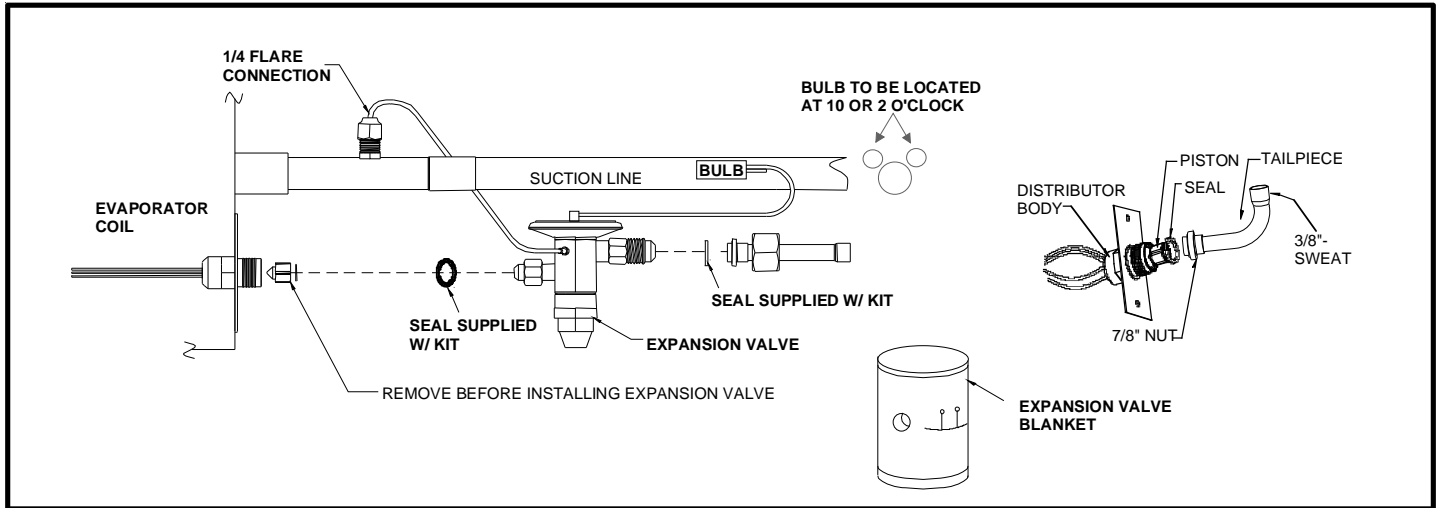
**NOTE DIRECTION OF FLOW** (Fluid is flowing towards the evaporator coil).

2. **Slide the 13/16 nut into position.** Braze tailpiece to the liquid tube (line set).
3. **AFTER THE TAILPIECE HAS COOLED,** position the seal and hand tighten the nut.
4. Torque the 13/16 nut to 10-30 ft/lb. or tighten 1/6 turn.
5. Connect equalizer tube with 1/4 flare nut to suction line fitting on the equalizer stub (as shown in Figure 1) or coil suction manifold (as shown in Figure 2) and torque to 12-14 ft/lb.

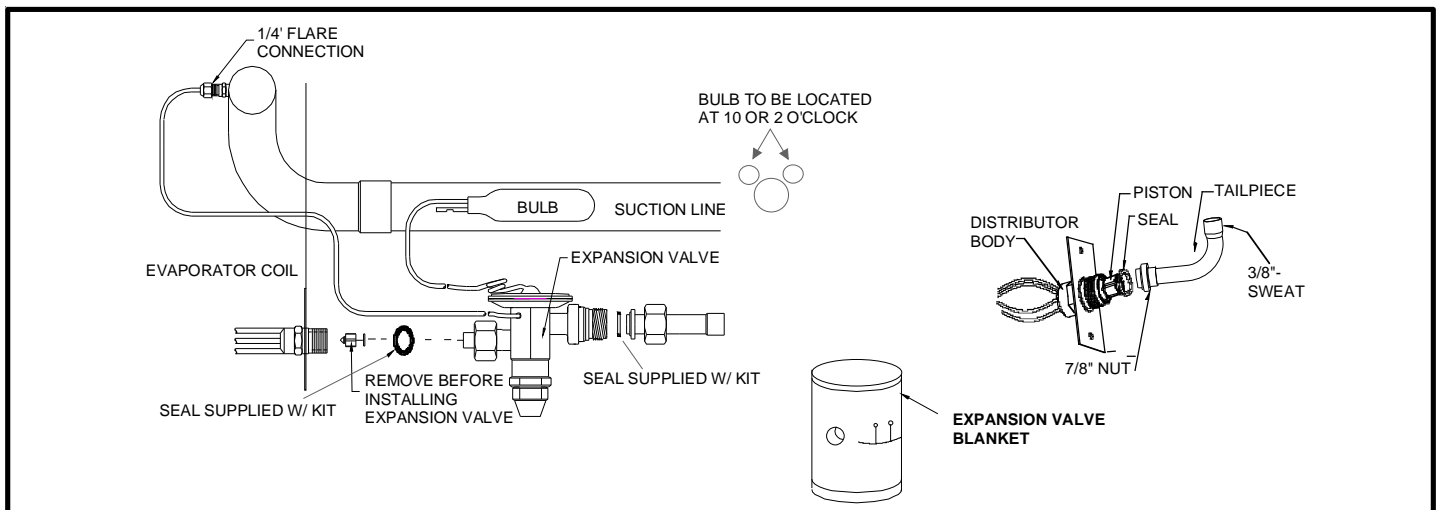


6. Secure expansion valve bulb to suction line with banding straps provided at the 10 o'clock or 2 o'clock position.  
**IMPORTANT:** Insulate the bulb and adjacent area.
7. Check for leaks.
8. Enclose expansion valve with the supplied expansion valve blanket.
9. During the superheat adjustment on the TXV, the torque applied on the nut cannot exceed 25 in-lbs

**FIGURE 1: Applications Requiring A Field Installed Access Fitting**



**FIGURE 2: Applications NOT Requiring A Field Installed Access Fitting**



**NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE**

### Quality Makes the Difference!

All of our systems are designed and manufactured with the same high quality standards regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run tested before it leaves the factory. That's why we know. . . **There's No Better Quality.**

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