

Installer's Guide

Thermal Expansion Valve Installation

ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES

IMPORTANT — This Document is **customer property** and is to remain with the unit. Please return to service information pack upon completion of work.

General Information

This Thermostatic Expansion Valve Kit may be used on any indoor air handler that is equipped with a current thermostatic expansion valve with an external check valve and brazed fittings listed in the application chart provided in this Installer's Guide. This kit can be used with split system heat pumps and air conditioning systems.

Thermostatic Expansion Valve Kits are field installed. Match the specified air handler units listed in the application chart provided in this Installer's Guide.

This TXV kit will normally be used when a different refrigerant is going to be used in the air handler than what is indicated on the unit name plate. The TXV type must always match the refrigerant type used in the outdoor unit.

Kit Identification

Confirm the TXV kit type is approved to be used with the units listed in the application chart provided in this Installer's Guide. See application chart on page 3 to verify proper kit and air handler model number. The first character in the kit model number indicates that the type of refrigerant that the valve can be used with. Example a 4AYTXVH3J3131AA is an R-410 valve.

The "3" in the eighth digit in the model number identifies the valve as a non-bleed TXV. When this TXV kit is installed with an outdoor unit that contains a reciprocating compressor, the outdoor unit must be equipped with a hard start kit if not factory installed. If the outdoor unit contains a scroll compressor, the installation of a hard start kit may be required.

Inspection

Check carefully for any shipping damage. Any such damage must be reported to, and claims made against the transportation company immediately. Any missing parts should be reported to your supplier at once and replaced with authorized parts only.

Installation Instructions

Removal of Existing TXV

1. Recover system charge, complying with EPA regulations. Skip this step if the air handler has never been installed.
2. Remove the sensing bulb from the suction line manifold by removing the clamp.
3. Un-braze the TXV to be replaced.
4. Un-braze external equalizer line. See figure 4.
5. Minimize the amount of movement of the liquid and distributor tubes to prevent work hardening.

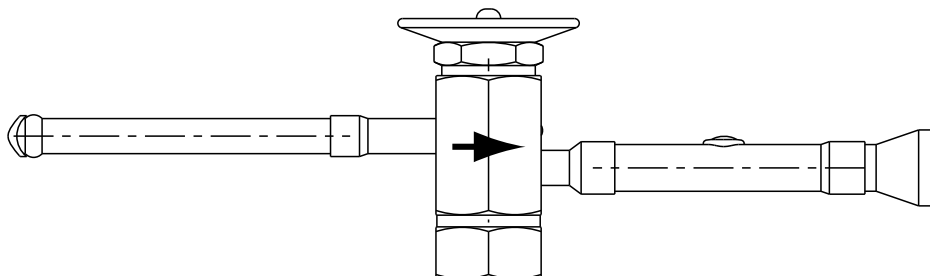


Figure 1. TXV Body and Direction of Flow

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Installation of New TXV

6. Wrap valve body with a wet rag prior to installing the replacement TXV. See figure 2. The valve should only be installed in the direction of flow as indicated on the valve body. See figure 1.
7. Use a Dry Nitrogen Purge and Brazing Alloy without flux when brazing the copper connection, flow dry nitrogen into either valve pressure tap port at the outdoor unit, through the tubing and out the other port while brazing.

IMPORTANT: Braze using accepted good brazing techniques.

IMPORTANT: Follow good refrigeration practices. Replacing the liquid line filter drier is recommended if the system has been commissioned. This is not necessary if this kit is being installed on a new air handler if the outdoor unit has never been commissioned.

8. To re-braze the equalizer line, insert the equalizer between 1/4" & 3/8", into the existing hole in the gas line, being careful not to kink or bottom it out. Only a small amount of brazing alloy is required to make a secure and leak proof joint. See figure 4.
9. Clamp the TXV bulb to the gas line as illustrated in figure 3. The entire length of the bulb must be in firm contact with the gas line. The remote bulb tubing must not be allowed to touch a surface colder than the remote bulb location. The remote bulb tubing must be isolated from rubbing any other components. Insulate the bulb with the supplied insulation in the kit.
10. Pressurize with dry nitrogen and leak test all joints to insure no leaks exist. Evacuate system to a minimum 500 microns.
11. Position all capillary tubes over the drain pan to assure that any condensate that may form and drip from them is collected in the drain pan.
12. Charge to a minimum of 50 psig static pressure. Start system and charge to appropriate level per the charging method recommended in the Outdoor Unit Installer's Guide or Service Facts.
13. Check the Alternative Refrigerant Type box on the Air Handler using a permanent marker once the TXV kit installation is completed.

IMPORTANT: Install the caution label (figure 5) on the front panel of the unit.

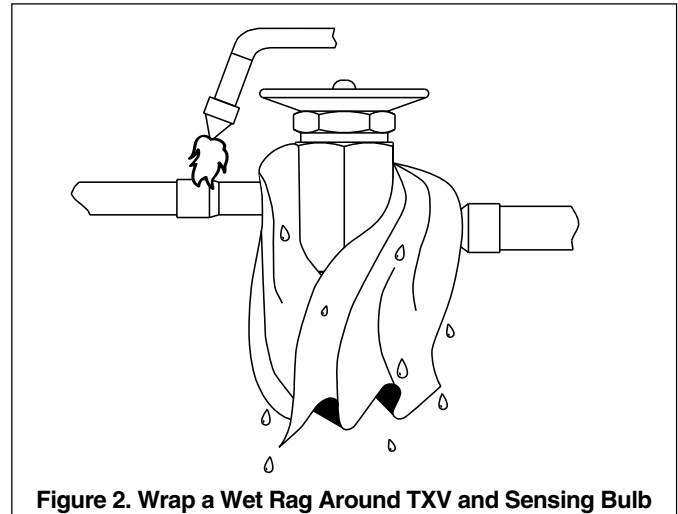
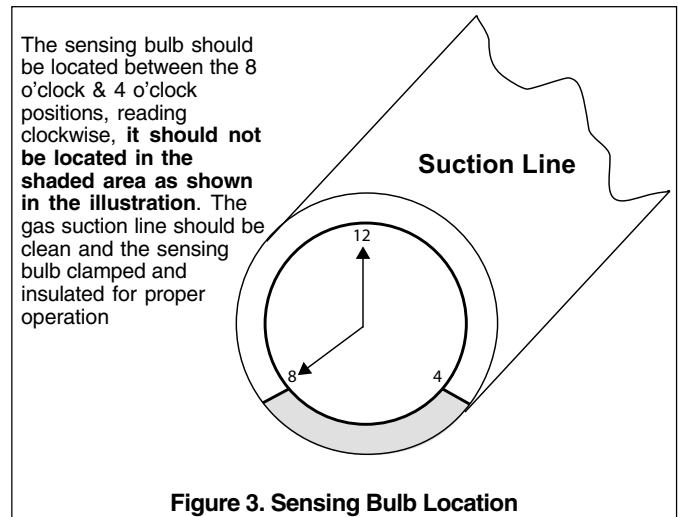


Figure 2. Wrap a Wet Rag Around TXV and Sensing Bulb



The sensing bulb should be located between the 8 o'clock & 4 o'clock positions, reading clockwise, it should not be located in the shaded area as shown in the illustration. The gas suction line should be clean and the sensing bulb clamped and insulated for proper operation

Figure 3. Sensing Bulb Location

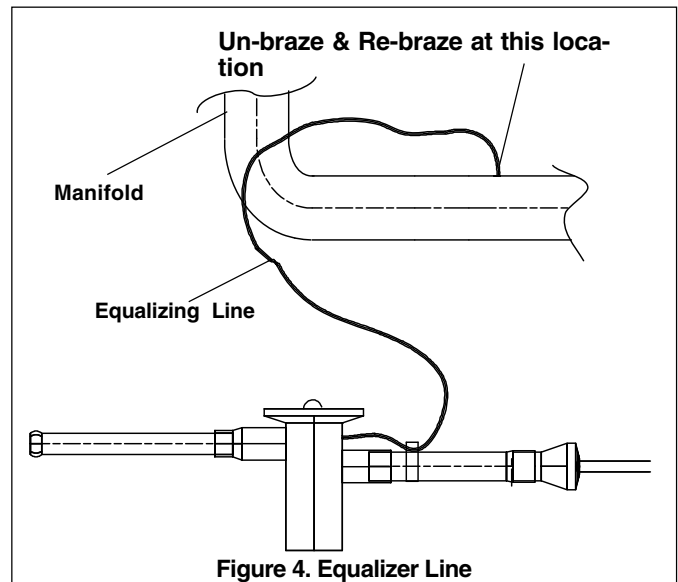
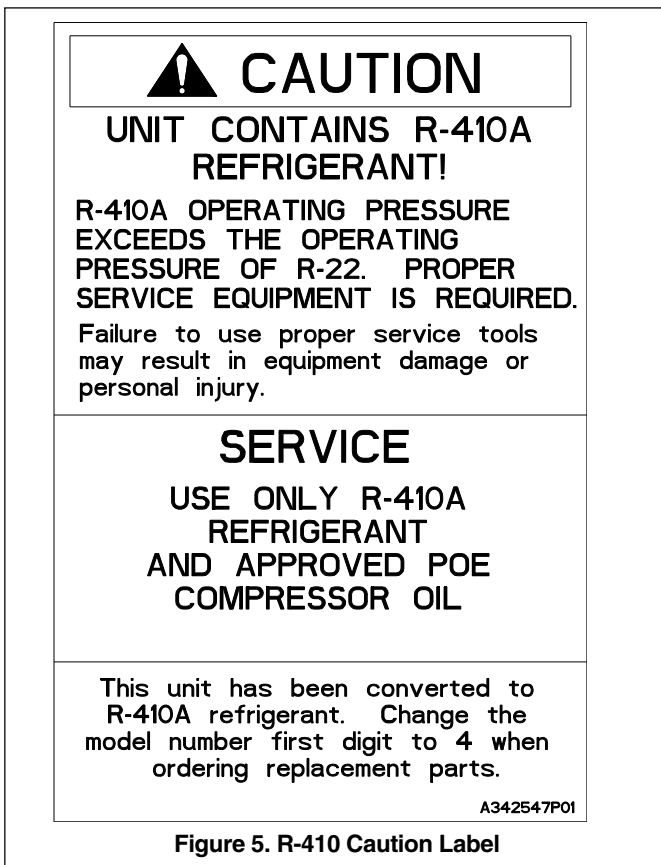


Figure 4. Equalizer Line



Application Chart

Air Handler Unit	TXV Kit
2TEE3F31A1000A	4AYTXVH2J3131AA
2TEE3F37A1000A	4AYTXVH2J3737AA
2TEE3F40A1000A	4AYTXVH2J4040AA
2TEE3F49A1000A	4AYTXVH2J4949AA
2TEE3F65A1000A	4AYTXVH2J6565AA

Trane
6200 Troup Highway
Tyler, TX 75707

For more information contact
your local dealer (distributor)



04/09

Since the manufacturer has a policy of continuous product and product data improvement, it reserves the right to change design and specifications without notice.