

INSTALLATION MANUAL

Multi-position, Upflow, and Horizontal DX and Chilled Water Coils

The following list includes important facts and information regarding the electric furnace and its inclusions.

1. Coil size varies by model
2. Coils are for A/C or Heat Pump operation
3. Coils are designed for multi position, upflow and horizontal application

NOTE: The coil and its components listed on the A/C and Heat Pump equipment sticker were listed in combination as a system by UL for the United States and Canada.

SAVE THIS MANUAL FOR FUTURE REFERENCE



This is a safety alert symbol. When you see this symbol on labels or in manuals; be alert to the potential for personal injury.

Understand and pay particular attention to the signal words **DANGER, WARNING, or CAUTION.**

DANGER: indicates an **imminently** hazardous situation, which if not avoided, **will result in death or serious injury.**

WARNING: indicates a **potentially** hazardous situation, which if not avoided, **could result in death or serious injury.**

CAUTION: indicated a **potentially** hazardous situation, which if not avoided, **may result in minor or moderate injury.** It is also used to alert against unsafe practices and hazards involving property damage.

WARNING

Improper installation may create a condition where the operation of the product could cause personal injury or property damage.

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for assistance; or for additional information consult a qualified contractor, installer, or service agency.

WARNING

FIRE OR REFRIGERANT HIGH PRESSURE HAZARD

Failure to follow the safety warnings exactly could result in serious injury, death, or property damage.

A fire or refrigerant high pressure hazard may result causing property damage, personal injury or loss of life.

CAUTION

This product must be installed in strict compliance with the installation instructions and any applicable local, state, and national codes including, but not limited to; building, electrical, and mechanical codes.

IMPORTANT

The Clean Air Act of 1990 bans the intentional venting of refrigerant (CFC's and HFC's) as of July 1, 1992. Approved methods of reclaiming must be followed. Fines and/or incarceration may be levied for non-compliance

Safety Requirements

This coil should be installed in accordance with all national and local building/safety codes and requirements, local plumbing or waste water codes, and other applicable codes. In the absence of local codes, install in accordance with the following codes.

- Standard for the Installation of Air Conditioning and Ventilating Systems (NFPA 90A)
- Standard for the Installation of Warm Air heating and Air Conditioning Systems (NFPA 90B)
- All local codes (State, City, and Township)

NOTE: All applicable codes take precedence over any recommendation made in these instructions.

Summit assumes no responsibility for coils that are installed in violation of any code or regulation.

1. Refer to the coil name plate for the capacity of the coil. Check the air handler model number, and then see the dimensions page of this instruction to be sure the coil is the correct coil for the air handler. Be sure the coil is installed according to the above listed codes or the instructions in this manual.
2. The blower and duct system must be properly sized in order to provide adequate cooling and heating performance. Select the correct motor speed tap on the furnace blower to give the required CFM needed for rated cooling capacity. Return air filters of generous size must be provided, in order to avoid contaminating the coil, blower and ductwork, or
3. It is essential that the indoor coil and outdoor unit be properly matched and that the flowrator in the coil be equipped with the proper orifice. A flowrator piston with an orifice size that is too small will cause starving and one that is too large will cause flooding of the coil with refrigerant.

NOTE: Improper sizing of orifice or incorrect charge will result in inefficient operation. See more details in

4. These models **ARE NOT** UL listed or approved for installation into a **Manufactured (Mobile) Home**.
5. Provide clearances for servicing ensuring service access is allowed for the DX, chilled water and, hot water coils.

WARNING

Hot water from a boiler used to satisfy heating requirements can be heated to temperatures of 180°F. Parts containing water this hot can scald very quickly. Use extreme caution when servicing or performing maintenance on any parts containing hot water.

6. Failure to carefully read and follow all instructions in this manual can result in malfunction that can lead to, death, personal injury, and/or property damage.
7. Installing and servicing cooling or hot water coils can be hazardous due to high pressure, sub zero refrigerant temperatures and/or hot water.
8. Only trained and qualified personnel should install repair or service heating/cooling coils. Untrained service personnel can perform basic maintenance functions such as cleaning of exterior surfaces and replacing the air filters. Observe all precautions in the manuals and on the attached labels when working on this appliance.
9. These instructions cover minimum requirements and conform to existing national standards and safety codes. In some instances these instructions exceed certain local codes and ordinances, especially those who have not kept up with changing home and/ or HUD construction practices. These instructions are to be followed and are the minimum requirement for a safe installation.
10. The size of the coil should be based on an acceptable heat loss and heat gain calculation for the structure. ACCA, Manual J or other approved methods may be used.

GENERAL COIL INSTALLATION

CAUTION

ALL SUMMIT COILS ARE SHIPPED FROM OUR FACTORY PRESSURIZED WITH NITROGEN. THEY DO NOT CONTAIN ANY HCFC22

Most Summit Coils are equipped with a schrader valve port to allow field installation of thermal expansion valve without having to sweat it in. This schrader valve can also serve the useful purpose of checking for leaks prior to installation. Unscrew the schrader valve cap and press the depressor.

IF THERE IS NO NITROGEN PRESSURE PRESENT, THE COIL MAY HAVE DEVELOPED A LEAK DURING SHIPMENT AND SHOULD BE RETURNED TO THE POINT OF PURCHASE FOR EXCHANGE.

If pressure is present, then go ahead and relieve the pressure in the coil by continuing to depress the schrader valve. When there is no pressure then cut off the ends of the copper tubes. In a Summit non-schrader version coil, relieve pressure by punching a hole with a pointed instrument in the end of the suction line (large copper) tube BEFORE cutting the ends off.

Inspection

IF THERE IS NO NITROGEN PRESSURE PRESENT, THE COIL MAY HAVE DEVELOPED A LEAK DURING SHIPMENT.

As soon as the coil is received, it should be inspected for possible damage during transit. If damage is evident, the extent of the damage should be noted on the carrier's freight bill. A separate request for inspection by the carrier's agent should be made in writing. Before installing the air handler you should check the cabinet for screws or bolts which may have loosened in transit. There are no shipping or spacer brackets which need to be removed before startup.

See local Distributor for more information. Mortex Products, Inc assumes no liability for freight damage.

GENERAL INFORMATION

INTRODUCTION

Summit Indoor Coils are designed specifically for use with various models of residential gas or electric furnaces or air handlers in downflow, upflow or horizontal applications.

These instructions are primarily intended to assist qualified individuals trained and experienced in the proper installation of this type of equipment. Some state codes require installation and service personnel to be licensed. Refer to authorities having jurisdiction for additional guidance.

NOTE: EFFICIENCY AND CAPACITY RATINGS ARE LISTED IN CURRENT AHRI DIRECTORY FOR SUMMIT COILS MIX-MATCHED WITH MANY BRANDS OF OUTDOOR CONDENSING OR HEAT PUMP UNITS. AIR CONDITIONING COIL MIX MATCHES ARE LISTED IN INDOOR COIL MANUFACTURER AIR CONDITIONING SECTION. HEAT PUMP COIL MIX MATCHES ARE LISTED IN INDOOR COIL MANUFACTURER HEAT PUMP SECTION.

Where ratings require addition of an expansion valve, kits are available that can normally be added to Summit coils in the field without cutting or brazing. See instructions for coil with expansion valve.

BE SURE THAT THE FLOWRATOR PISTON HAS BEEN REMOVED FROM FLOWRATORS DISTRIBUTOR BODY PRIOR TO INSTALLATION OF EXPANSION VALVE.

For optimum performance and efficiency of air conditioning or heat pump coils, adjust system charge and/or superheat as recommended by outdoor unit manufacturers. Procedures will differ between manufacturers

It is recommended that coil be sprayed with liquid detergent thoroughly and rinsed thoroughly before installation to assure proper drainage of condensate from the coil fins to eliminate water blow off and to assure maximum coil performance. If not sprayed, approximately 50 hours of break in time is required to achieve the same results.

Always be sure coil is installed level or sloped slightly toward primary and secondary (the higher of the two) drain fittings.

Connect both drain lines to open drain, but never to a closed sewer. Pitch drain lines away from drain pan. Always, test drain lines with water before operating. Reduction in size of the drain lines is not recommended.

CONDENSATE DRAIN PIPING:

The air handler "A" coil drain pan has two 3/4" NPT female primary and two secondary connections (left or right hand). Horizontal pan has two 3/4" NPT female, one primary and one secondary. Piping from each fitting used is to have 1-1/2" minimum trap and each run in such a manner as to provide enough slope for adequate drainage to a visible area. Do not pipe these two fittings together into a common drain. Cap unused connection.

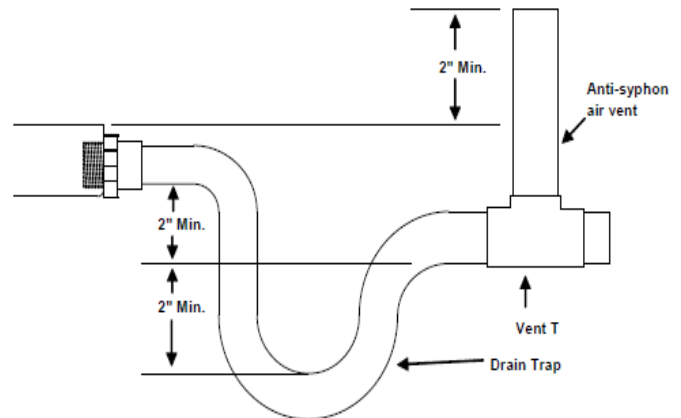


Figure 1: The TXV Bulb Best Placement

A WATER TRAP is recommended on all coil applications, but IS REQUIRED ON PULL THROUGH INSTALLATIONS ON ELECTRIC FURNACES. FAILURE TO PROVIDE CAN RESULT IN IMPROPER DRAINAGE OR POTENTIAL SHOCK HAZARD.

CAUTION

IT IS MANDATORY TO USE AN EMERGENCY AUXILIARY DRAIN PAN WITH ANY COIL OR AIR HANDLER INSTALLED IN AN ATTIC OR ABOVE A FINISHED CEILING.

IT MUST HAVE ITS OWN DRAIN LINE (A WATER TRAP IS NOT NECESSARY) WITH ITS OUTPUT INTO AN OPEN DRAIN (NOT A CLOSED SEWER).

IT SHOULD ALLOW EASY VISUAL INSPECTION SO THAT IF CONDENSATE FLOW IS SEEN THE HOMEOWNER KNOWS THAT THE COIL DRAIN PAN LINES ARE PLUGGED AND NEED MAINTENANCE.

Refrigerant piping is critical on any coil installation when the outdoor unit is to be located below the level of the coil. For proper piping design considerations, refer to the guidelines furnished by the manufacturer of the outdoor unit.

Check all field installed refrigerant connections with electronic leak detector, halide torch, or soap bubbles.

Refer to installation instructions provided with the outdoor unit, furnace or air handler and line sets for completion of system installation.



Figure 2: Typical "A" Coil with TXV
SPECIAL INSTRUCTIONS FOR COILS WITH THERMAL EXPANSION VALVES (TXV)

Thermal expansion valve (TXV) have a built in check valve making them A/C and heat pump capable. Hard start kit may be required on non-bleed TXV's. The external equalizer line attached to the TXV has a female flare nut with built in Schrader valve depressor that attaches to the Schrader valve port provided on coils.

A thermostatic expansion valve (TXV) is built around a thermostatic element separated from the valve body by a diaphragm. It's purpose is to regulate the rate at which refrigerant flows into the evaporator.

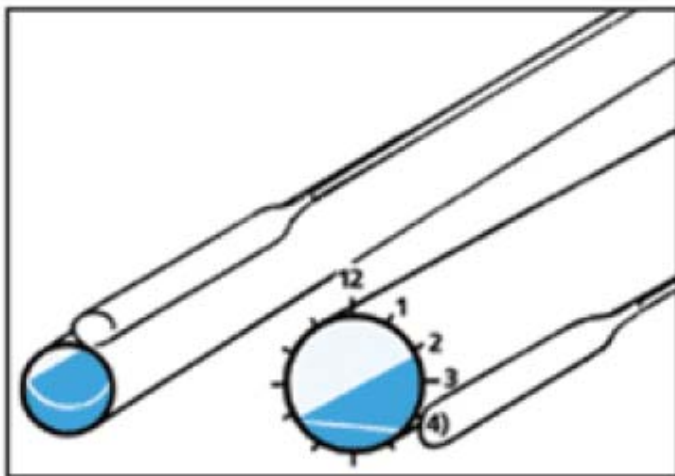


Figure 3: The TXV Bulb Best Placement

The bulb is best mounted on a horizontal suction line tube and in a position corresponding to between 1 o'clock and 4 o'clock. The location depends on the outside diameter of the tube.

Note: The bulb must never be located at the bottom of the suction line due to the possibility of oil laying in the bottom of the pipe causing false signals.

The bulb must be able to sense the temperature of the superheated suction vapor and must therefore not be located in a position that will expose it to extraneous heat/cold.

Be sure that the expansion valve provided is the proper size and type required to achieve rating. If a non-bleed type valve is to be used, the outdoor unit must be equipped with a hard start kit allowing the outdoor unit to start under load. Check with our factory if necessary.

How the TXV Controls Superheat

The thermostatic expansion valve (TXV) is a precision device designed to regulate the rate at which liquid refrigerant flows into the evaporator. This controlled flow is necessary to prevent the return of liquid refrigerant to the compressor.

The TXV separates the high pressure and low-pressure sides of a refrigeration or air conditioning system. Liquid refrigerant enters the valve under high pressure, but its pressure is reduced when the TXV limits the amount of refrigerant entering the evaporator.

Remember: the TXV controls only one thing: the rate of flow of liquid refrigerant into the evaporator. The TXV is not designed to control air temperature, head pressure, capacity, suction pressure, or humidity. Attempts to use the TXV to control any of these system variables will lead to poor system performance and possible compressor failure.

The TXV responds to the temperature of refrigerant gas as it leaves the evaporator. This temperature is detected by the sensing bulb, which is located near the evaporator outlet. The TXV also responds to the refrigerant pressure within the evaporator, which is transmitted to the TXV by an equalizer line. By responding to these variables, the TXV maintains a predetermined superheat within the evaporator. This is how the TXV keeps the system in balance and operating properly. To understand how this works, we must have a clear understanding of superheat.

The TXV controls superheat by controlling the flow of liquid refrigerant. As it does this, it also reduces refrigerant pressure. Liquid refrigerant enters the TXV under high pressure. As the flow of liquid refrigerant is reduced, its pressure drops. The refrigerant leaving the TXV is now a combination of low-pressure liquid and vapor.

As the flow is restricted, several things happen:

- The pressure on the liquid refrigerant drops;
- A small amount of the liquid refrigerant is converted to gas, in response to the drop in pressure;
- This "flash gas" represents a high degree of energy transfer, as the sensible heat of the refrigerant is converted to latent heat;

- The low-pressure liquid and vapor combination moves into the evaporator, where the rest of the liquid refrigerant "boils off" into its gaseous state as it absorbs heat from its surroundings.

Changes in gas temperature at the evaporator outlet are detected by the sensing bulb, which then causes the valve pin to move in or out, regulating the flow of refrigerant through the TXV. In this way, the valve allows just enough refrigerant into the evaporator, to maintain the correct level of superheat in the suction line.

The TXV controls superheat by varying the size of the orifice through which the refrigerant flows. The pin angle, the size of the stroke (typically 0.015- to 0.035-in.) and the diameter of the orifice itself all affect how much refrigerant can pass through the valve. In addition, all valves have some leakage around the valve pin, although this is normally kept within acceptable limits.

It's important to remember that valve capacity is a function of the orifice diameter, pin angle, and stroke. Adjusting the superheat spring doesn't change valve capacity.

Trouble Shooting:

The thermostatic expansion valve (TXV) is like the carburetor in your car's engine. It opens and closes to allow the correct amount of refrigerant into your system. When the TXV isn't working properly, the efficiency of your unit is crippled. If you suspect you have a faulty TXV, perform these tests:

First, connect your gauges to the system and check that the refrigerant pressures, subcooling and superheat are where they should be (for pressures settings, refer to unit's pressure chart; for subcooling (usually around 10°F) and superheat (between 8°F-12°F) follow manufacturer's specification sheet.

Check to see if airflow through the system is good. There should be no dirty coils or air filters. Also check for proper CFMs readings across the system.

Make sure there's the right amount of refrigerant charge in the system (this step may require weighing out the refrigerant in the system). Once you've added or removed charge as necessary, check the pressures, subcooling and superheat again. If there is no change then it is probably the TXV. Check the evaporator coil and remove the TXV's sensing bulb from the suction line.

Check the subcooling, superheat and pressures again. If there's no change, that's a further indication of a TXV problem. Another test is to put the sensing bulb in ice water and checking the pressures, superheat, and subcooling again. If they don't change, it's a bad TXV.

When a non-bleed expansion valve (TXV) is specified in a Summit AC or HP Rating, the following assumptions are made:

- The TXV is a field or factory installed accessory to be field or factory installed in accordance with recommended TXV practice.
- The combination of this non-bleed valve and the compressor in the outdoor unit results in a system that operates with a loaded condition on startup.

- The outdoor unit is capable of starting against this loaded condition or a hard start kit is to be field installed.

APPLICATION DATA:

R72DB0003 (R-410A) 15%-Bleed Non-Adjustable-1.5-2.5 Ton

“D” Valve Letter Code

R72DB0004 (R-410A) 15%-Bleed Non-Adjustable-3.0-5.0 Ton

“Y” Valve Letter Code

Inlet Fitting Male Rotalock / Outlet Fitting Female swivel nut.

R72DB0044 (R-410A) Non-Bleed Adjustable - 3.0-6.0 Ton

“Z” Valve Letter Code

Inlet Fitting Male Rotalock / Outlet Fitting Female swivel nut.

TXV TROUBLE SHOOTING:

Changing parts might be the first reaction, BUT...

1. May not be necessary and...
2. Does not always solve the problem.

SUPERHEAT AND SUCTION PRESSURE

LOW SUCTION PRESSURE – HIGH SUPERHEAT

POSSIBLE CAUSES:

1. Undersized valve
2. High superheat adjustment
3. Evaporator pressure drop – no external equalizer
4. External equalizer location – needs to be located on suction line after the last feeder tube.
5. Restricted or capped external equalizer
6. Low refrigerant charge
7. Plugged dryer or strainer
8. Low pressure drop across valve:
 - a. Plugged dryer or strainer
 - b. Low condensing temperature

HIGH SUCTION PRESSURE – LOW SUPERHEAT

POSSIBLE CAUSES:

1. Oversized valve
2. TXV seat leak
3. Low superheat adjustment
4. Bulb installation:
 - a. Poor thermal contact
 - b. Warm location
5. Bad compressor – low capacity
6. Incorrectly located external equalizer line – needs to be located on suction line after the last feeder tube.

LOW SUCTION PRESSURE – LOW SUPERHEAT

POSSIBLE CAUSES:

1. Low load:
 - a. Not enough air
 - b. Dirty air filters
 - c. Air too cold
 - d. Coil icing or frosting
2. Poor air distribution
3. Improper compressor evaporator balance – coil too big or small or incorrect balance on heat pump systems.

- Oil is trapped in the evaporator

Check these things before removing the TXV

- Remove the sensing bulb and hold in your hand. The high side pressure should drop and low side pressure should increase as the TXV opens.
- Loosen the flare nut on the TXV external equalizer tube that is connected with a flare nut on the suction line. If you get a lot of pressure when the nut has been loosened then tighten the nut. If you get a slight pressure or no pressure; the Schrader valve stem is not being depressed. Install a anti blow back fitting to the external equalizer line of the TXV to depress the Schrader valve stem and check for proper operation of the TXV.

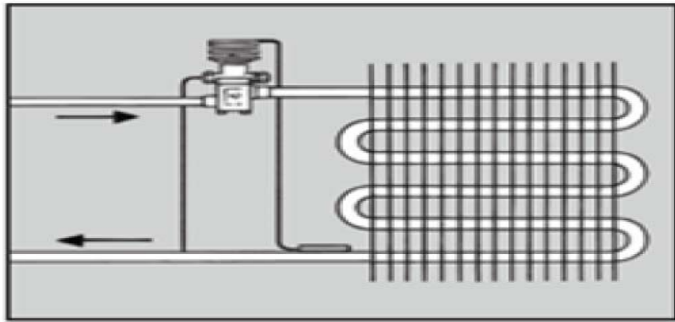


Figure 4: The TXV Sensing Bulb Location

INSTALLATION NOTES:

With reference to the Figure 7, the TXV assembly is to be installed between the distributor and the existing liquid line

⚠ WARNING

Coil is pressurized with nitrogen. Relieve pressure before installing TXV by depressing Schrader valve on coil manifold.

Field Installed

- After coil pressure has been relieved, turn the female swivel nut counter-clockwise to remove.
- If Flowrator Distributor Assembly is being replaced by a TXV, remove the piston orifice from the flowrator distributor assembly using a small diameter wire or paper clip..
- Attach the TXV by connecting the female swivel nut on TXV outlet to the flowrator distributor (aligning Teflon seal first) and **torque swivel nut to 10-30 ft. lbs.**
- Attach liquid line with female swivel nut to male rotalock fitting on TXV inlet (Aligning Teflon seal first) and **torque swivel nut to 10-30 ft. lbs.**
- Remove the cap on Schrader valve port on coil manifold. Attach equalizer tubing with 1/4" female flare nut that includes depressor to this male Schrader port. **Torque nut to 10-30 ft. lb**
- Install the TXV bulb to the suction manifold of coil or the suction line using the two bulb clamps furnished with kit.
 - Bulb should be installed on a horizontal run of the manifold if possible. On line less than 7/8" OD the bulb

may be installed on top of the line. With 7/8" OD and over, the bulb should be installed in a position at about 4 or 8 o'clock.

- If bulb installation is made on a vertical run, the bulb should be located at least 6 inches from any bend, and on the tubing side opposite the plane of the bend. On vertical bulb installations, the bulb should be positioned with the bulb capillary tube at the top.
 - The bulb should be insulated using thermal insulation to protect it from the effect of the surrounding ambient temperature.
- After completing installation of TXV (including equalizer tube), it will be necessary to leak check the coil and evacuate the coil through the service access fittings of liquid and suction line valves.

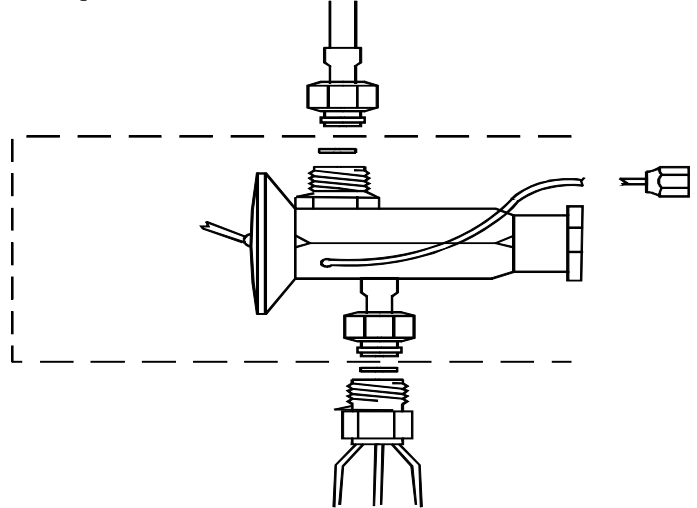


Figure 5 Typical TXV Connections

SPECIAL INSTRUCTIONS FOR COILS WITH FLOWRATOR DISTRIBUTOR ASSEMBLIES

The sizing of the orifice piston should be based strictly on the rated capacity of the outdoor unit and coil match.

Summit provides capacity performance ratings that match both same size and upsized coils with specific manufacturer's outdoor units. At the Summit distributor's request, the orifice piston is selected and installed in each coil for the specific range of cooling capacities likely to be encountered. The factory installed orifice piston size is marked on the flowrator distributor assembly and on the front of the coil carton.

When using this coil with an outdoor unit of another capacity, select an orifice piston from the table below if the capacity range for the coil and outdoor unit to be used differs.

Failure to install the proper orifice piston can lead to poor system performance and possible compressor damage. A variation of one piston size is not normally critical. Summit reserves the right to substitute a factory installed piston one size smaller or greater if the piston size ordered is out of stock.

A selection of replacement orifice pistons is available from your Summit supplier.

FLOWRATOR TO TXV CONVERSION:

While thermal expansion valves can be factory installed, they are normally available in kit form for field installation. For kit

version, follow the installation instructions provided with the kit. Normally these can be field installed before system is charged without requiring cutting and brazing. **BE SURE FLOWRATER PISTON HAS BEEN REMOVED FROM THE FLOWRATER DISTRIBUTOR BODY PRIOR TO INSTALLATION OF EXPANSION VALVE.**

ORIFICE PISTON REPLACEMENT:

If the flowrator distributor assembly is being used the piston is to be installed as shown in Figure 9 in the distributor body then the existing liquid line attached to the flowrator distributor.

1. After coil pressure has been relieved, turn the female swivel nut counter-clockwise to remove.
2. Remove the piston from the flowrator distributor fitting using a small diameter wire or paper clip. **ALWAYS REMOVE PISTON FROM DISTRIBUTOR BODY WHEN TXV IS INSTALLED).**
3. Replace the orifice piston with the correct piston for the coil you are using. Make sure the tapered end of the piston is facing the feeder tubes on the distributor body.
4. **Turn the female swivel nut on clockwise the flowrator distributor (aligning Teflon seal first) and torque swivel nut to 10-30 ft. lbs.**
5. After completing the replacement of the orifice piston, it will be necessary to leak check the coil and evacuate the coil through the service access fittings of liquid and suction line valves.

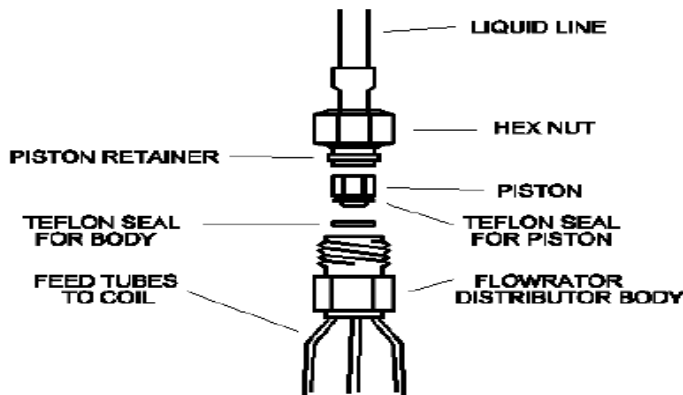


Figure 6: Flowrator Distributor

SPECIAL CONSIDERATIONS FOR SELECTING HEAT PUMP COILS

The selection of indoor heat pump coils is much more critical than selection of indoor coils for air conditioning units. The differences are as follows:

1. Only indoor coils with flowrators or expansion/check valve flow control devices may be used with outdoor heat pump units. These devices permit reversing refrigerant flow in the coils when changing from cooling to heating. **CAP TUBE COILS MUST NOT BE USED WITH HEAT PUMP.**
2. Mix-matching of indoor coils for heat pumps demands that the heat rejection capacity, internal volume, and equivalent orifice of the mix-match coil be at least equal to that of the smallest internal volume matched coil recommended by outdoor unit manufacturer for that outdoor unit.

3. It is important that selection be based on Summit's recommendation for a specific coil with a specific orifice to be used with an outdoor heat pump unit of a specific make, series, and model number.
4. Failure to conform to proper selection requirements will affect efficiency, charging, and reliability and may result in damage to the system.
5. The mix-matching of specific indoor heat pump coils with specific outdoor heat pump units as certified in the Summit heat pump section of the current AHRI Directory will assure proper and efficient operation of heat pump systems.

SPECIAL INSTRUCTIONS FOR CHARGING HEAT PUMP COILS

Specific detailed instructions for refrigerant charging of a heat pump system as recommended by the outdoor unit manufacturer should be followed. These instructions will differ between manufacturers, but in general are as follows:

WITH FLOWRATOR IN INDOOR COIL, USE SUPERHEAT METHOD IN COOLING MODE.

Measure following values from system: outside ambient temperature, suction pressure at gauge, suction line temperature at compressor. **Adjust charge to achieve recommended superheat.**

WITH EXPANSION/CHECK VALVE IN INDOOR COIL, USE LIQUID LINE PRESSURE METHOD OR SUBCOOLING METHOD IN COOLING MODE.

Measure following values from system: outside ambient temperature, indoor wet bulb temperature, liquid line head pressure at gauge. **Adjust charge to achieve recommended liquid line head pressure or subcooling.**

If the installer encounters a problem using the outdoor manufacturers suggested charging method he should contact the factory for assistance.

SPECIAL INSTRUCTIONS FOR HORIZONTAL AND 4-WAY

⚠ CAUTION

IT IS MANDATORY TO USE AN EMERGENCY AUXILIARY DRAIN PAN WITH ANY COIL INSTALLED IN AN ATTIC OR ABOVE A FINISHED CEILING.

The "M" (4-Way Multi-Position) Series coils are designed to eliminate the need for a transition between the coil and furnace in most new applications. In blow through applications, the furnace and coil must be sufficiently attached to allow uniform air distribution across the coil surface. If this cannot be achieved with a direct connection, then a minimum of 18" length transition must be field supplied between the furnace and coil housing.

"M" (4-Way Multi-Position) Series coils are factory supplied for all positions: right to left, left to right, upflow, and

downflow. When fastening the coil to the furnace, care should be taken to insure no internal damage to coil or furnace.

On some "M" Series coils where the air enters the open end of the "A" and the apex of the coil is downstream from the air inlet, a condensate blow off guard is provided to be attached to the horizontal drain pan to catch any condensate blow off.

BE SURE TO CAP THE UNUSED DRAIN FITTINGS!

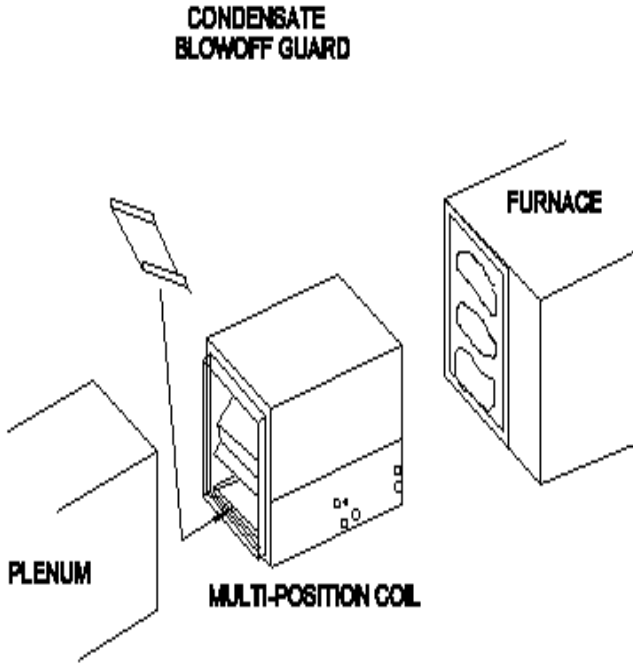


Figure 7: CONDENSATE BLOWOFF GUARD

"M" (4-Way Multi-Position) Series coils are provided flat on both ends with separate flange that can be located on either end as desired to change air direction through coil. Air may blow into apex or open end of coil.

On those coils used for downflow or reverse flow applications the top cap shipped must be removed and repositioned as shown (Figure 9). On reverse flow the two-piece pan must be caulked to seal between the pans and prevent air from blowing water out of horizontal pan.

The air pressure drop is much higher so air can blow water out between the pans in the corners of the "A" end plate. Seal seam between horizontal pan and "A" coil pan by caulking mating surface on horizontal pan and setting "A" pan in it. Center "A" pan in horizontal pan and add screws at corners.

Figure 8 shows how to hold the coil in place while reassembling pan. All air leaks must be stopped, it is recommended that opposite hand coil be ordered to allow air to enter bottom of "A" on coil.

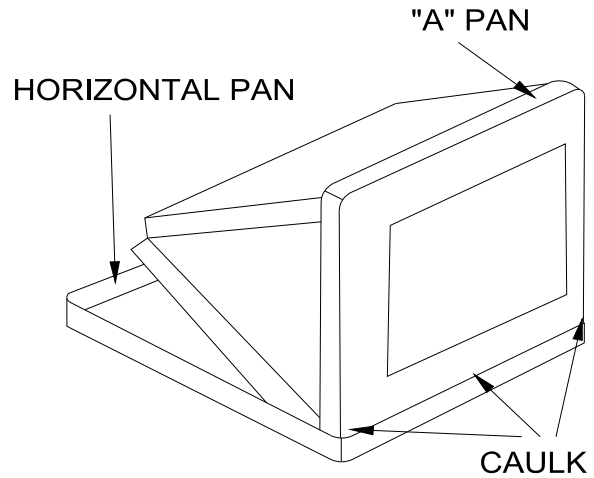


Figure 8: HORIZONTAL "A" COIL PLACEMENT
CONTACT US FOR HELP OR FOR ANY COMMENTS ON OUR PRODUCTS.

As we strive to better serve our customers like you, we are always ready to help you. We also welcome any comments from our customers concerning quality and improvements that could be made to our products. Please call or write us.

Thank you for the purchase of our product.

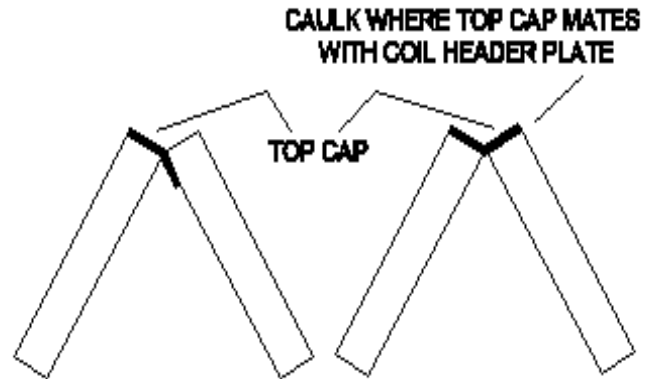


Figure 9: "A" COIL CALKING & TOP CAP POSITION

Subject to change without notice
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Revision Date: May 4, 2017

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Supersedes: