

HEAT PUMP COIL REPLACEMENT KIT

INSTALLATION INSTRUCTIONS FOR ALUMINUM COIL REPLACEMENT KITS USED WITH HEAT PUMPS

Shipping and Packing List

Package 1 of 1 contains:

- 1 – Coil assembly
- 1 – Bag assembly
 - 1 – 3/4" coupling
 - 1 – 7/8" coupling
 - 1 – TXV Teflon washer

Check the replacement coil for shipping damage. If you find any damage, immediately contact the last carrier.

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer or equivalent, service agency, or the gas supplier.

CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

WARNING

To prevent personal injury, as well as damage to panels, unit or structure, observe the following:

While installing or servicing this unit, carefully stow all removed panels so that the panels will not cause injury to personnel, objects or nearby structures. Also, take care to store panels where they will not be subject to damage (e.g., being bent or scratched).

WARNING



Electric Shock Hazard! – Disconnect all power supplies before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

General

Verify that the new coil has holding charge. Remove the cap from the discharge line and press the valve core. The coil should have approximately 10 psi dry air holding charge. If there is no charge, repressurize the coil and check for leaks.

Verify that the liquid and discharge manifold position matches that of the existing coil before removing original coil. Take care not to damage the liquid line stub.

Installation

IMPORTANT

The stub of the coil must be secured if any adjustments to the liquid line are needed. Do not allow it to move.

CAUTION

Before attempting to perform any service or maintenance, turn the electrical power to unit OFF at disconnect switch.

- 1 - Disconnect all power to the unit.
- 2 - Reclaim the refrigerant from the unit.
- 3 - Remove access panel, side (louvered) panels, top panel, and corner posts. Remove the screws that attach the coil endplate to the control box and compressor enclosure. Keep the screws.
- 4 - Disconnect the Chatleff-style threaded connection between the coil distributor and outdoor expansion valve. Take care to preserve as much of the factory lubricant used on this joint as possible.

NOTE - This lubricant (Loctite 8009 heavy-duty anti-seize lubricant) is used to help prevent the male aluminum distributor threads and brass female nut threads from wearing due to friction between the sliding surfaces.

- 5 - Remove the TXV sensing bulb from the vapor line. Cut the vapor line between the copper/aluminum joint and the reversing valve using the replacement coil as a guide. The connection must be a minimum of 3" from the copper/aluminum joint. Allow sufficient line length to make final connection. See figure 1 for coils with the vapor manifold on the right side of the coil and figure 2 for coils with the vapor manifold on the left side of the coil for replacement coil joint location.

- 6 - Remove the existing coil.
- 7 - Install the replacement coil assembly.
- 8 - Allow the holding charge to escape by pressing the valve core.

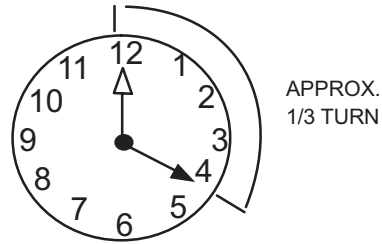
⚠ IMPORTANT

When brazing in the field copper-to-copper joints for the replacement coil, cut and braze a minimum of 3" from the factory copper-to-aluminum joints. Apply a wet cloth to the copper-to-aluminum joints and the pressure switch to prevent heat damage. See figures 1 and 2.

- 9 - Carefully measure and cut the unit vapor line at the desired replacement vapor line connection, a minimum of 3" from the copper/aluminum joint. On coils with the vapor line manifold on the right side of the coil, the vapor line joint will be made using the coupling provided with the replacement coil, see figure 1. On coils with the vapor manifold on the left side of the coil, the vapor line connection will be made using the swagged vapor line connection on the replacement coil J-tube, see figure 2.
- 10 - Make the vapor line braze joint using the coupling as shown in figure 1 on coils with the manifold on the right side of the coil. On coils with the vapor line manifold on the left side of the coil, make the vapor line braze joint at the swagged J-tube connection as shown in figure 2. Protect the copper/aluminum joint which has low temperature alloy (flows at 700°F) on the replacement coil using wet rags as shown in figures 1 and 2.
- 11 - Remove the Chatleff fitting stub from the replacement coil distributor. Reconnect the TXV Chatleff fitting to the new coil distributor using the provided Teflon washer. Include as much of the original factory lubricant on the threads as possible when making the connection. See figure 3.

IMPORTANT TORQUE INFORMATION

Torque lubricated connection between Chatleff nut and aluminum distributor to 12-16 ft-lbs (approx. 1/3 turn). **DO NOT** over-tighten this connection.



If the fastener is over-tightened, the threads can begin to yield, inducing friction between mating surfaces.

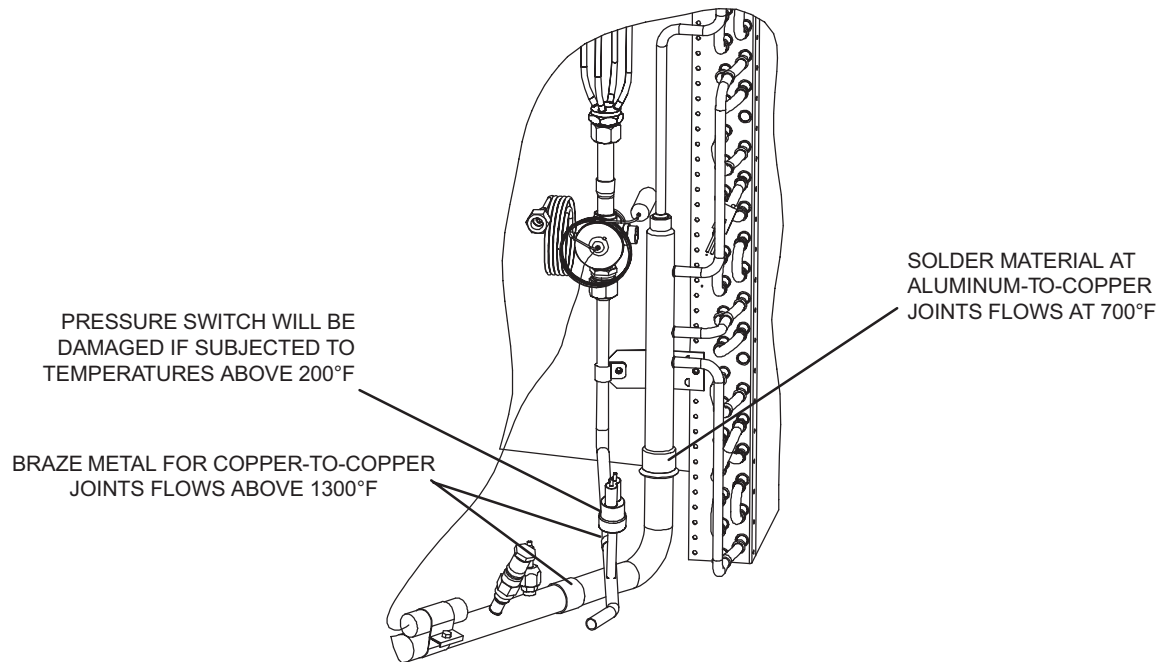
- 12 - Replace the screws that attach the coil endplate to the control box and compressor enclosure.
- 13 - Replace the corner posts, side (louvered) panels and top panel.
- 14 - Refer to the unit installation instructions for leak testing, evacuation and start-up procedures. Charge the unit as outlined in the installation instructions or according to the charging sticker.
- 15 - Once installation of the replacement coil is complete, confirm that all refrigerant tubing and wiring is properly routed away from other wiring and sharp metal edges.
- 16 - Start the compressor and observe the discharge line. Verify that there is minimal vibration between the shock loop and the manifold on the outdoor coil's discharge line.
- 17 - If there is visible motion, apply weight kit (catalog number 42K95) to the discharge line. Install the weight kit on the horizontal run after the shock loop or other suitable area to achieve acceptable results. Rotate the weight kit on the tubing to change vibration characteristics.

NOTE - Visible motion could result in a future failure of the replacement coil.

- 18 - Replace access panel.

IMPORTANT

OBSERVE THE FOLLOWING PRECAUTIONS TO PREVENT DAMAGE TO ALUMINUM SOLDER JOINTS OR THREADED CONNECTIONS WHEN REPLACING AN ALUMINUM OUTDOOR COIL



TO PREVENT DAMAGE TO ALUMINUM JOINTS, WET RAGS AND / OR THERMAL TRAP PASTE MUST BE APPLIED TO THE AREAS HIGHLIGHTED BELOW BEFORE BRAZING. WET RAGS MUST BE LEFT ON PROTECTED AREAS UNTIL BRAZED JOINTS HAVE COOLED DOWN TO AMBIENT TEMPERATURE TO PREVENT MIGRATION OF HEAT INTO THE ALUMINUM SOLDERED JOINTS OR PRESSURE SWITCH.

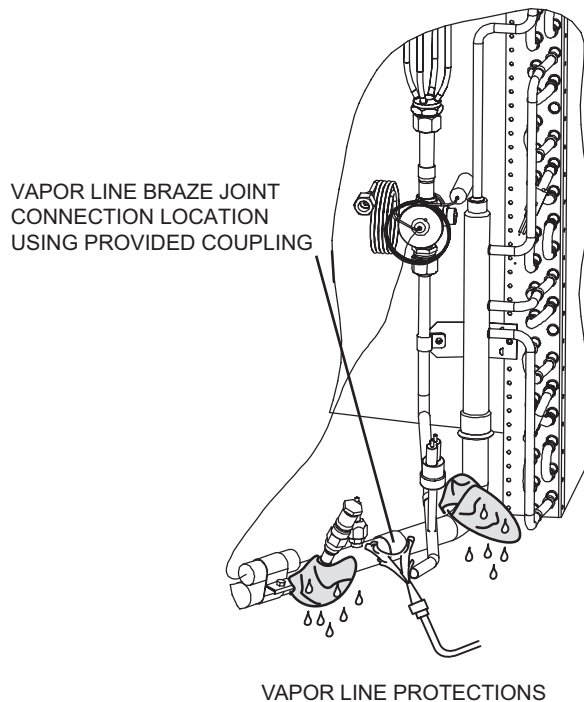


FIGURE 1. Replacement Coils with Vapor Manifold Located on Right Side of Coil

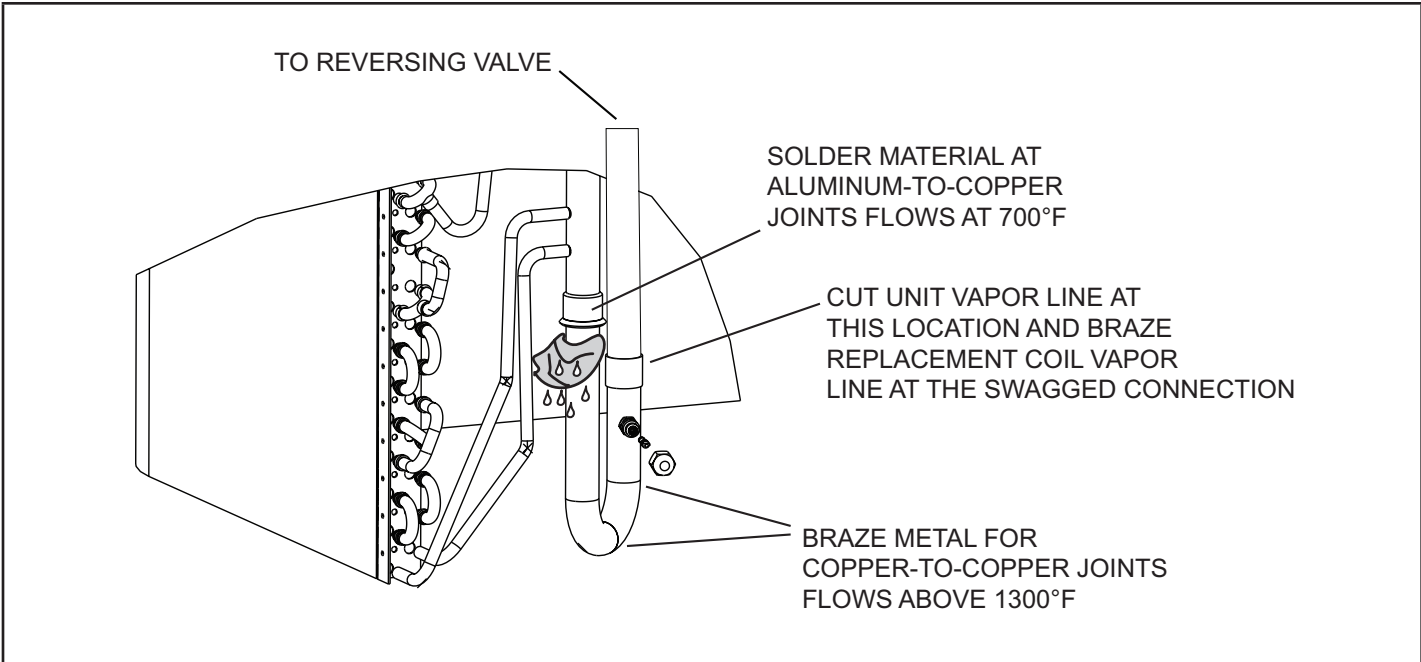


FIGURE 2. Replacement Coils with the Vapor Manifold and J-Tube Located on the Left Side of the Coil

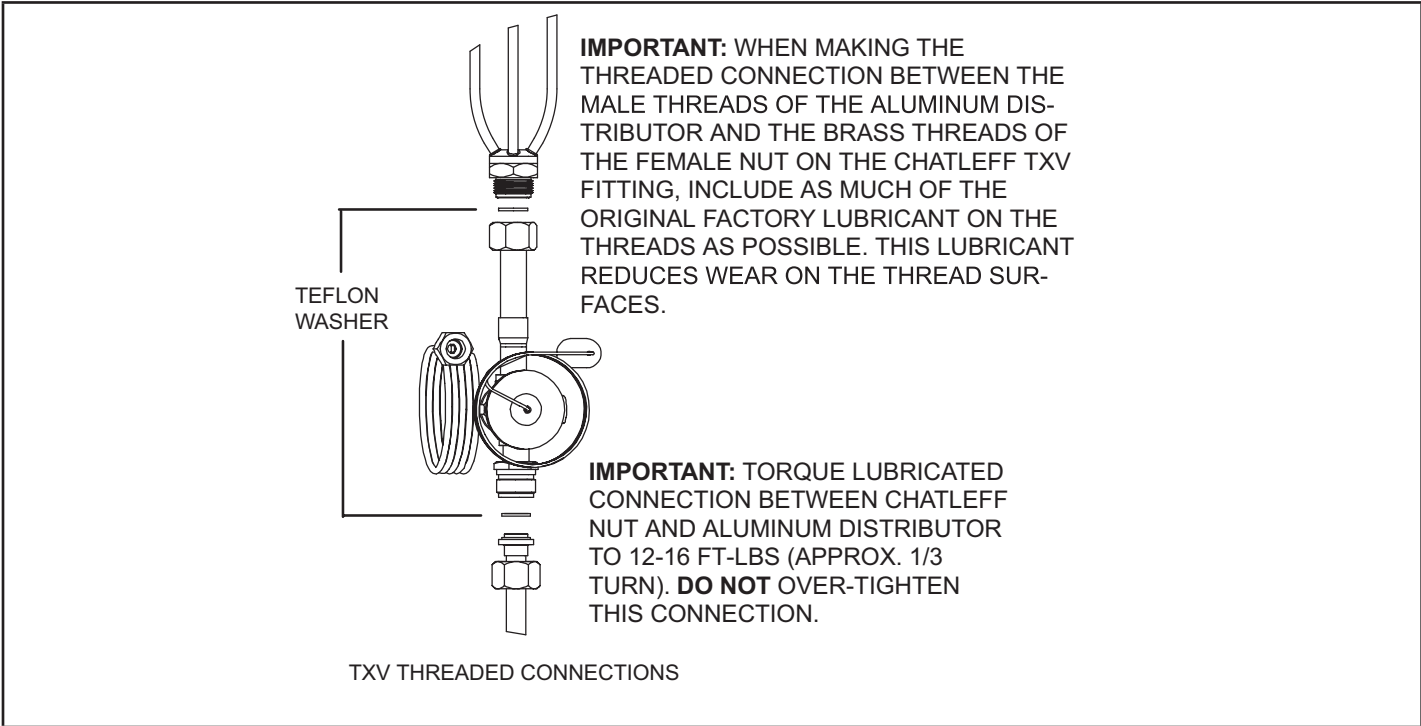


FIGURE 3. Replacement Coil Expansion Valve to Distributor Connection Detail