

Installer's Guide

Replacement Coils

Includes coil models

COL32491, 32492, 32493, 32494, 32495, 32496,
COL32499, 32500, 32501, 32502, 32503, 32504

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

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

These instructions do not cover all variations in systems nor provide for every possible contingency to be met in connection with the installation. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to your installing dealer or local distributor.

1. Safety

WARNING

This information is intended for use by individuals possessing adequate backgrounds of electrical and mechanical experience. Any attempt to repair a central air conditioning product may result in personal injury and/or property damage. The manufacture or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

WARNING

RISK OF FIRE!

In systems using flammable refrigerants, observe all safety instructions and markings with the air handler. Ensure all safety devices are in place and functional. To be repaired only by trained professional. Do not puncture refrigerant tubing. Dispose of properly in accordance with federal or local regulations..

WARNING

PRESSURIZED REFRIGERANT!

Failure to follow this warning could result in personal injury.
System contains oil and refrigerant under high pressure. Recover refrigerant to relieve pressure before opening the system. Do not use non-approved refrigerants, refrigerant substitutes, or refrigerant additives.

WARNING

WARNING!

This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to www.P65Warning.ca.gov.

WARNING

LIVE ELECTRICAL COMPONENTS!

Failure to follow this warning could result in property damage, severe personal injury, or death.
Follow all electrical safety precautions when exposed to live electrical components. It may be necessary to work with live electrical components during installations, testing, servicing, and troubleshooting of this product.

CAUTION

Extreme caution should be exercised when opening the Liquid Line Service Valve. Turn counterclockwise until the valve stem just touches the rolled edge. No torque is required.

CAUTION

SHARP EDGE HAZARD!

Failure to follow this caution could result in property damage or severe personal injury.
Be careful of sharp edges on equipment or any cuts made on sheet metal while installing or servicing.

WARNING

COIL IS PRESSURIZED!

- Coil is pressurized with approximately 8-12 psi dry air and factory checked for leaks.
- Carefully release the pressure by removing the rubber plug on the liquid line.
- If no pressure is released, check for leaks.

Replacement Coil		Air Handler Model	Retrofit Accessories
Uncoated	Coated		
COL32491	COL32492	TEM3A0B18, 24, 30, 36; TEM4*0B18, 19, 24, 30, 36; 5TEM4B02; A4AH4P18, P24, P30, P36, E24; A4AH5E19, A4AH6E19; A5AHC002	Lineset Panels
COL32493	COL32494	TEM3A0C42, 48; TEM4A0C37, C42, C48; A4AH4P37, E42A, E48A; 5TEM4D04, D05; A5AHC004, C005	Horizontal Drain Pan Extension
COL32495	COL32496	TEM4A0B31; TEM6A0B24, 30; TEM8A0B24, 30; 5TEM4B03; 5TEM6B02, B03; A4AH4E30; A4AH5V24, V30, E31; A4AH6V24, V30, E31; A5AHC003; A5AHV002, V003	Lineset Panels
COL32499	COL32500	TEM3A0C60; TEM4A0C60; A4AH4E60A; TEM6A0C48H41SA, 60H51SA; TEM8A0C48V41DA, 60V51DA; TEM4B0C37; TEM4A0C43; TEM6A0C36, 42; TEM8A0C36, 42; 5TEM4D06; 5TEM6D04, D05; A4AH6V36, V42, E43; A4AH4E36, E37, E42B; A4AH5V36, V42, E43; A5AHC006; A5AHV004, V005	Horizontal Drain Pan Extension Top Baffle Extensions Lineset Panels
COL32501	COL32502	TEM6A0D48, 60; TEM8A0D48, 60; A4AH6V48A1D, V60A1D	26.5" Cabinet Retrofit Kit Top Baffle Extensions
COL32503	COL32504	TEM4A0C49, 61; TEM4B0C60; TEM6A0C48H41SB, 48H41SC, 60H51SB, 60H51SC; TEM6B0C60, TEM8A0C48V41DB 48V41DC, 60V51DB, 60V51DC; TEM8B0C60; 5TEM4D07; 5TEM6D06, D07; A4AH6E49, E61, V48A1C, V60A1C; A4AH4E48B, E60B; A4AH5E49, E61, V48, V60; A5AHC007; A5AHV006, V007	Horizontal Drain Pan Extension Top Baffle Extensions Lineset Panels

2. Inspection

1. Unpack all components of the replacement coil assembly.
2. Check carefully for any shipping damage. If any damage is found, this must be reported immediately and a claim made against the transportation company.
3. Check to be sure all components are in the package. Any missing components should be reported to your supplier at once and replaced with authorized components only.

3. General Information

These instructions are designed for installing a replacement coil into a previously installed air handler.

The air handler may be installed in one of the following orientations: upflow, downflow, horizontal left or horizontal right.

Actual air handler units and coil configurations may differ from models depicted.

NOTE: All legacy Apex A and N coils will be replaced with square-cut A-coils.

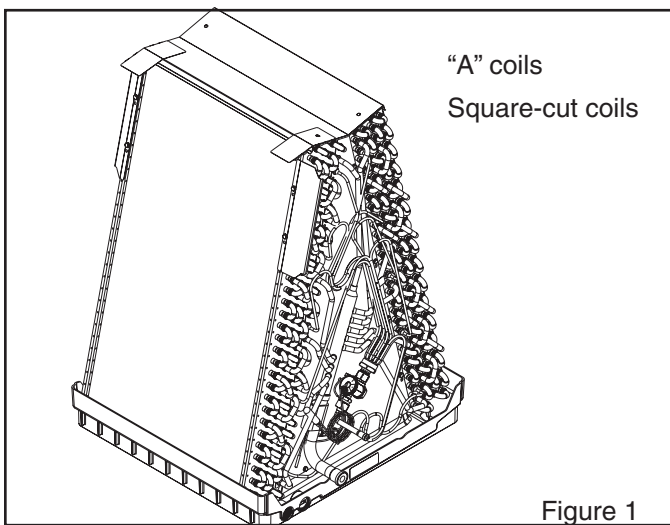
3.1 Common Preparation Steps

⚠ WARNING

RISK OF FIRE!

In systems using flammable refrigerants, observe all safety instructions and markings with the air handler. Ensure all safety devices are in place and functional. To be repaired only by trained professional. Do not puncture refrigerant tubing. Dispose of properly in accordance with federal or local regulations.

1. Pump down or recover the refrigerant in the system.
2. Turn off high voltage power to the unit.
3. Remove the condensate drain lines from the indoor coil. Be prepared to catch any water that might be in the drain line and drain pan.
4. Disconnect the refrigerant lines to the indoor coil. Be sure to protect the refrigerant lines so debris does not enter the piping system.
5. Remove the air handler's front panels. Retain all screws to reinstall panels in a later step.



4. Upflow, Downflow, Horizontal Coil Installation

4.1 Coil Removal

1. If your air handler is equipped with a refrigerant detection system sensor, remove and disconnect sensor. Retain to reinstall in the same position later.
2. Remove the center brace and the two coil retaining brackets. See Figures 2 and 4.
3. On the "N" coil only, remove the shipping bracket if present. See Figure 4.
4. Remove coil assembly from the air handler by sliding assembly outward. See Figure 5.
5. Remove and retain the horizontal drain pan to reinstall later. See Figure 5.

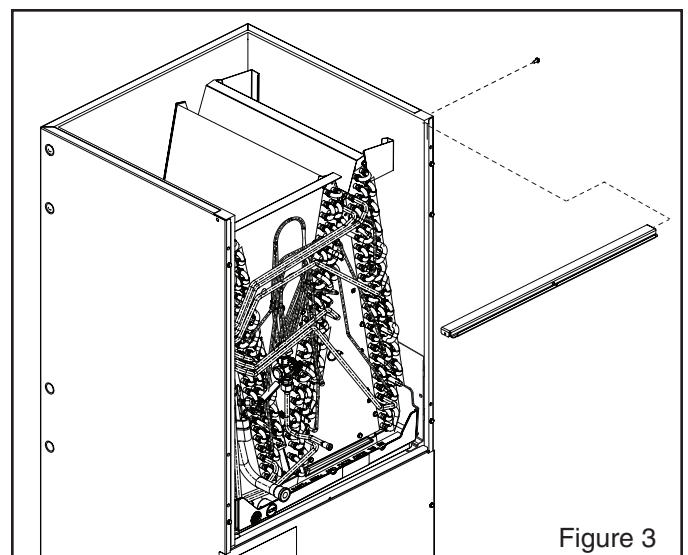
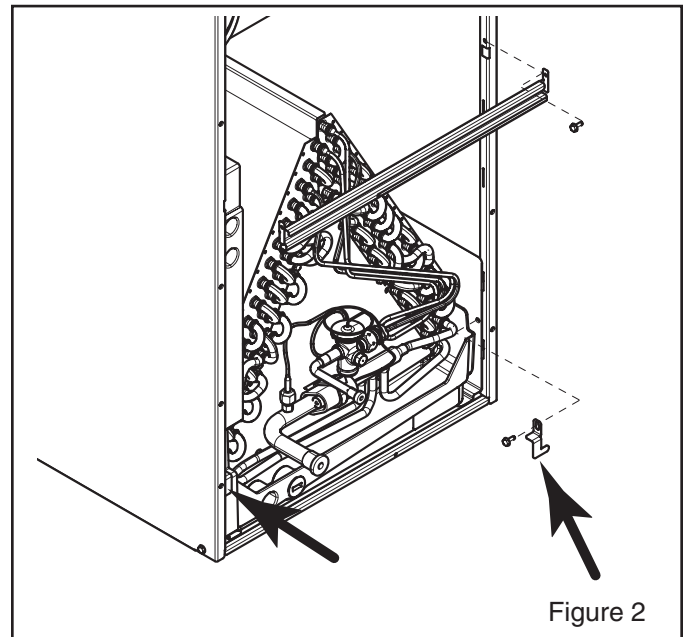
4.1.1 Downflow Coil Removal

1. For downflow "N" coil replacement, remove lower horizontal cross brace. See Figure 3.
2. On the "N" coil only, remove the shipping bracket if present. See Figure 4.
3. Remove coil assembly from the air handler by sliding assembly outward. See Figure 5.

NOTE: The "N" coil replacement is taller than the "N" coil, see Figure 19. Some modification may be necessary to the unit or the return ductwork in downflow applications.

4.1.2 TXV Removal (if equipped)

1. Remove TXV sensing bulb and equalizer fitting.
2. Remove TXV sensing bulb.
3. Loosen and remove TXV outlet fitting from distributor assembly.
4. Protect the TXV assembly set so that debris does not enter. Retain to reinstall later.



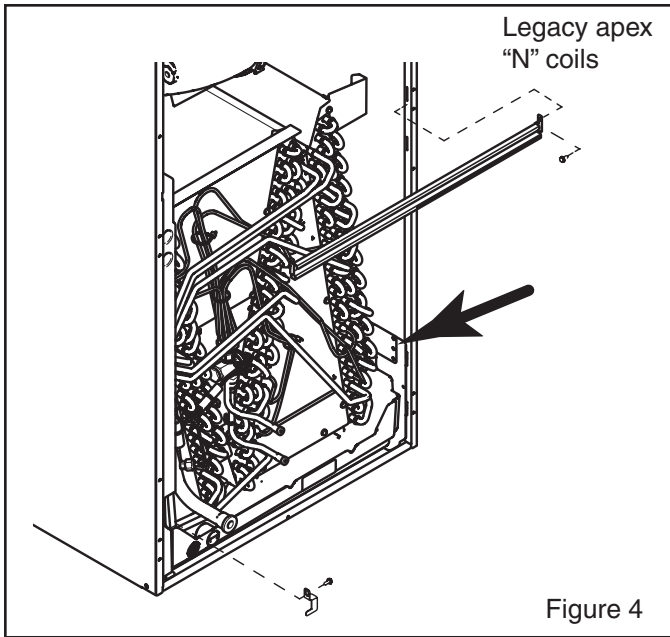


Figure 4

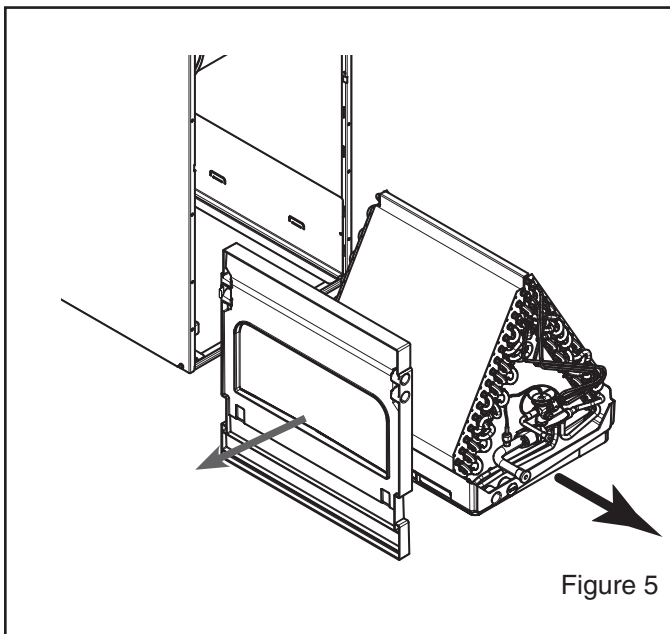


Figure 5

4.1.3 Orifice Metering Device Removal (if Equipped)

1. Remove the Schrader valve from the equalizer port using a Schrader removal tool.
2. Loosen and remove copper liquid line tube fitting from distributor assembly.
3. Remove orifice metering device from inside distributor.
4. Protect Schrader valve and orifice metering device from debris. Retain both to reinstall later.

4.2 Install Retrofit Kit for 26.5" Wide Cabinets

This retrofit kit will be installed when it is shipped with the replacement coil only. This kit is only applicable for 26.5" wide cabinets.

Kit Contents:

Small Bracket Qty. 2	
Large Bracket Qty. 1	

NOTE: Install the brackets always on the right side of the coil assembly.

1. Remove kit contents from packaging.
2. Install two (2) small brackets, each on the front and rear side bottom of the coil assembly. See Figure 6.
3. Install the large bracket between the two (2) small brackets, align the mounting holes and secure using the screws supplied with the kit. See Figure 7.

See Figure 8 for the assembled view of the coil assemblies.

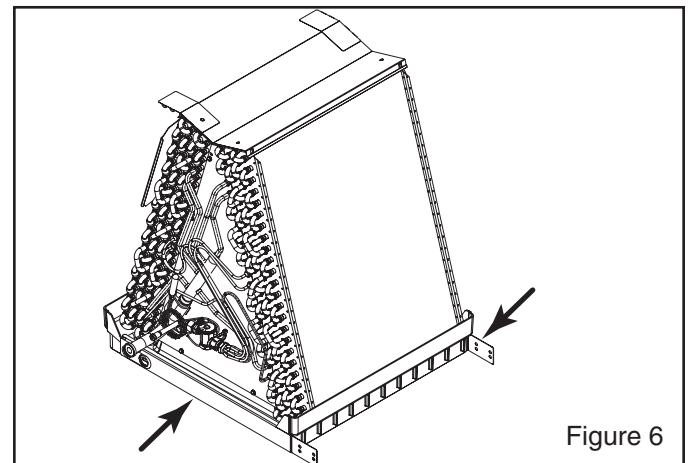


Figure 6

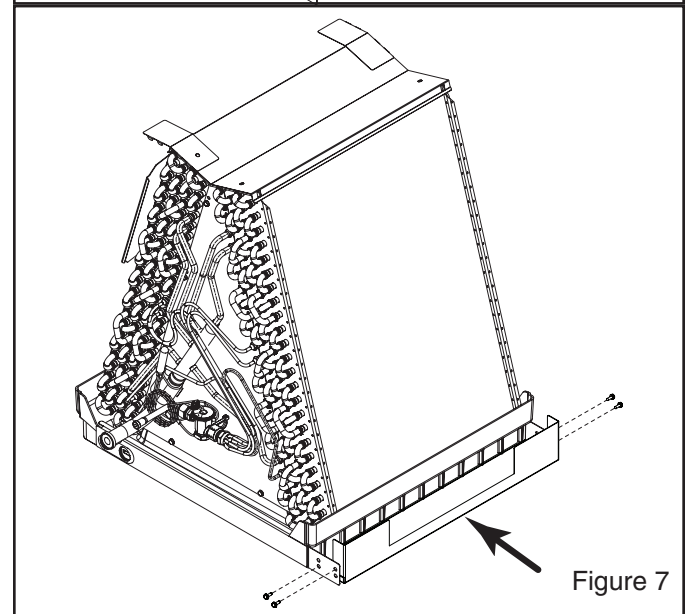


Figure 7

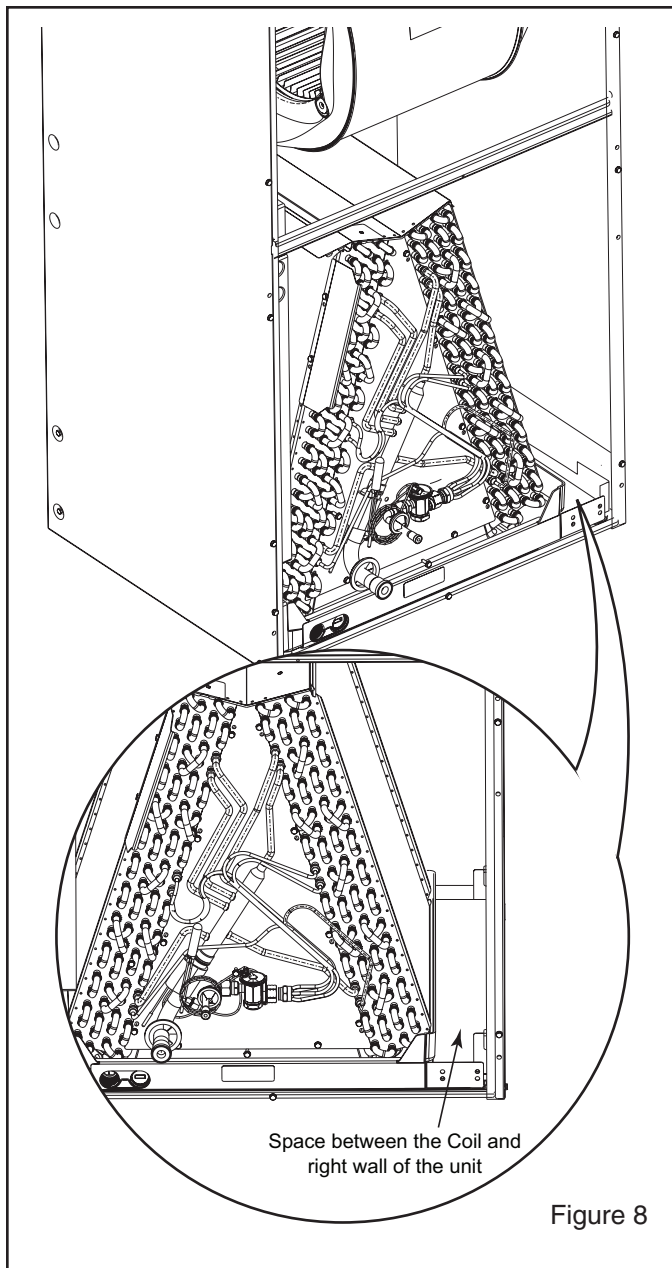


Figure 8

4.3 Install Replacement Coil

Note: All legacy Apex A and N coils will be replaced with square-cut A-coils.

1. Remove replacement coil from packaging.
2. Remove rubber plug from suction line connection.

4.3.1 Reinstall TXV (if previously equipped)

1. Using back-up wrench, remove mechanical fitting from distributor.
2. Remove existing O-ring from the outlet of the TXV and replace with the new O-ring supplied with the replacement coil.
3. Install TXV assembly and hand tighten the mechanical fitting. Use back-up wrench and tighten assembly firmly. Do not over tighten.

4. Install external equalizer and hand tighten the fitting. Use back-up wrench and tighten assembly firmly. Do not over tighten.
5. Install TXV sensing bulb on the suction manifold. Wrap sensing bulb with the new insulation provided with the replacement coil. Use tie wrap to secure.

4.3.2 Reinstall Orifice Metering Device (if previously equipped)

1. Using back-up wrench, remove mechanical fitting from distributor.
2. Remove existing o-ring from the copper liquid line tube and replace with the new o-ring supplied with the replacement coil.
3. Install orifice metering device inside distributor.
4. Install copper liquid line tube on the distributor and hand tighten the mechanical fitting. Use back-up wrench and tighten assembly firmly. Do not over tighten.
5. Reinstall Schrader valve in the external equalizer port on the suction manifold. Replace cap.

4.3.3 Coil Installation for Upflow Applications

1. Attach the horizontal drain pan to the replacement coil and slide the assembly into the unit. See Figure 9.
2. Reinstall coil retaining brackets and horizontal brace(s). See Figure 10.
3. If equipped, reinstall refrigerant sensor in same location as before and reconnect. See Figure 10.

4.3.4 Coil Installation for Horizontal Left Applications

Note: Some replacement coils ship with a horizontal drain pan extension. For horizontal left or right applications, install horizontal drain pan extension when applicable. See Figure 11.

1. Attach the horizontal drain pan with extension to the replacement coil and slide the assembly into the unit. See Figure 12.
2. When included and applicable, install top baffle extensions. See Figure 13.
3. Reinstall the coil retaining brackets. See Figure 14.

NOTE: Replacements for "N" coils will ship with an additional retaining bracket that will be required for horizontal left installations.

4. Reinstall horizontal brace(s). See Figure 14.
5. If equipped, reinstall refrigerant sensor in same location as before and reconnect. See Figure 14.

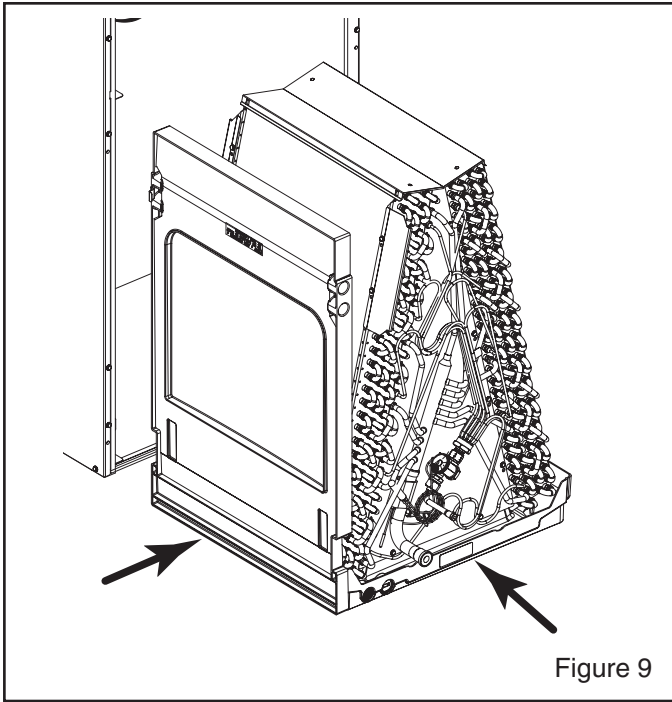


Figure 9

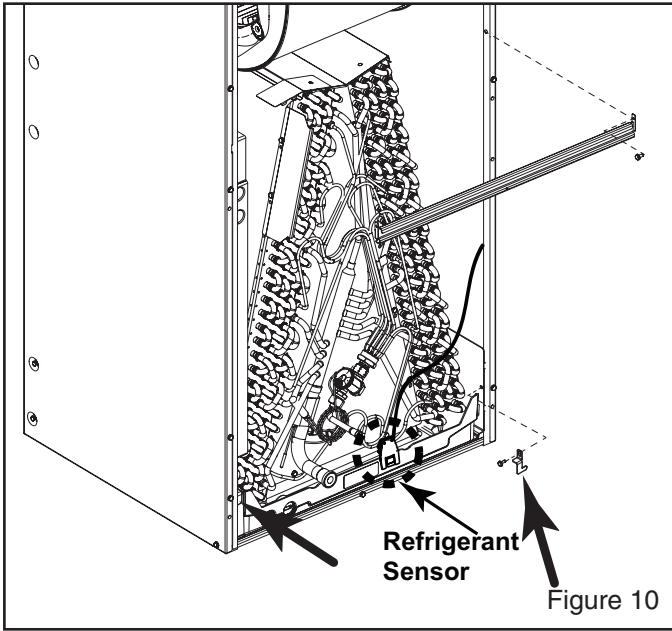


Figure 10

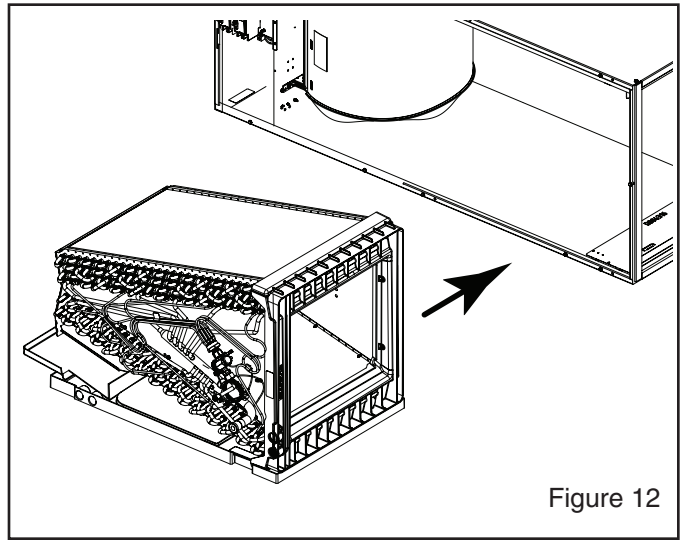


Figure 12

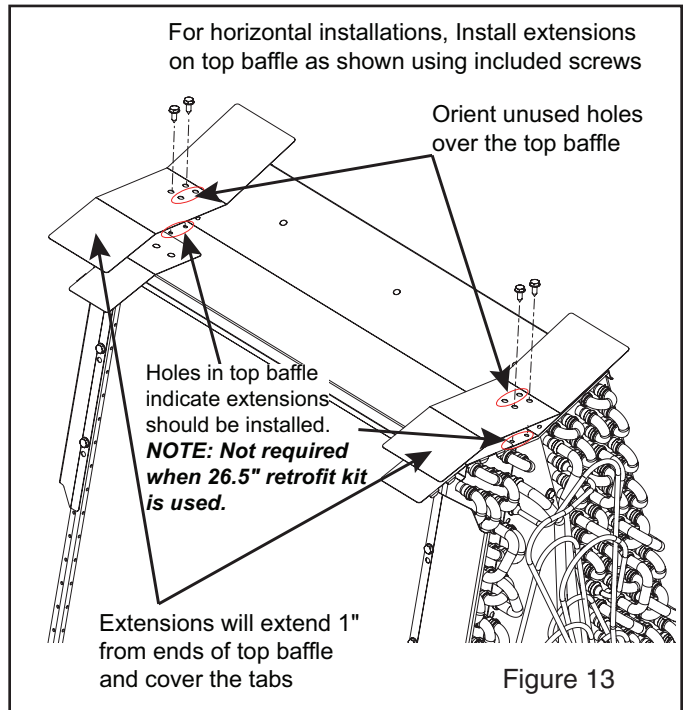


Figure 13

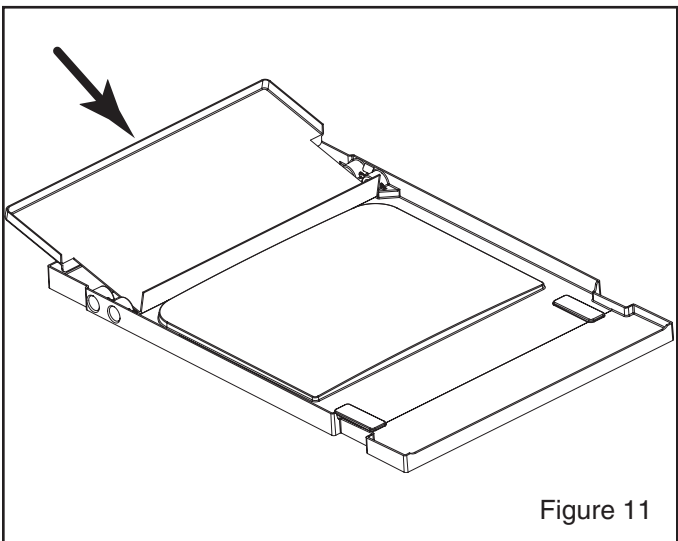


Figure 11

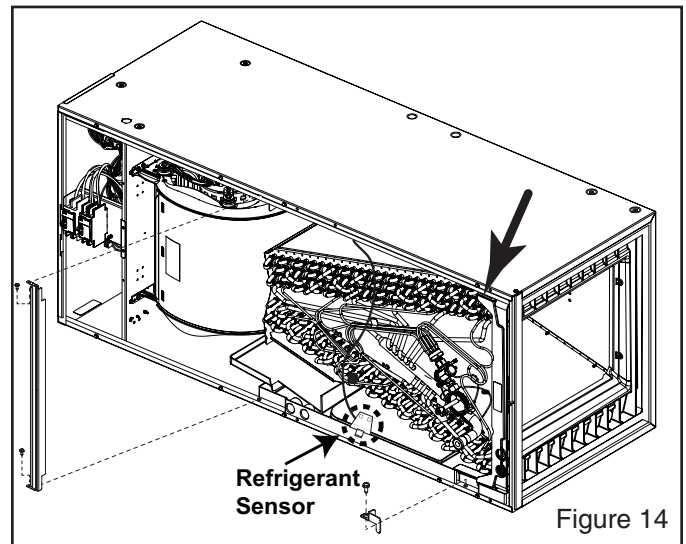
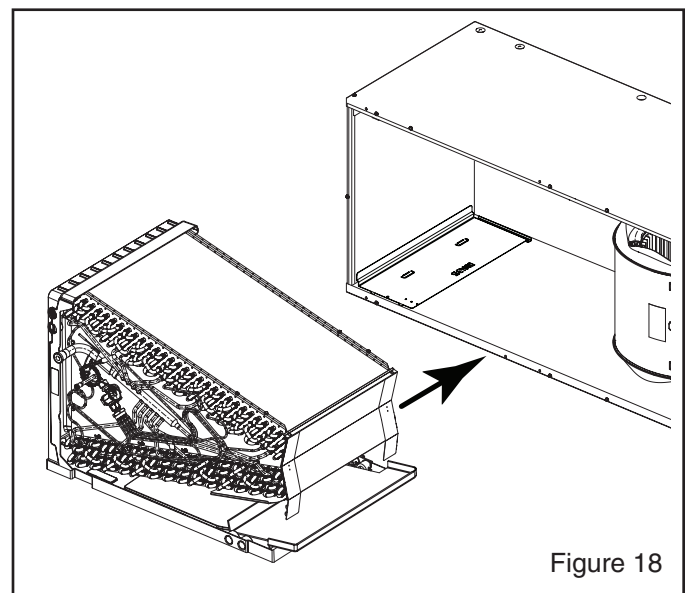
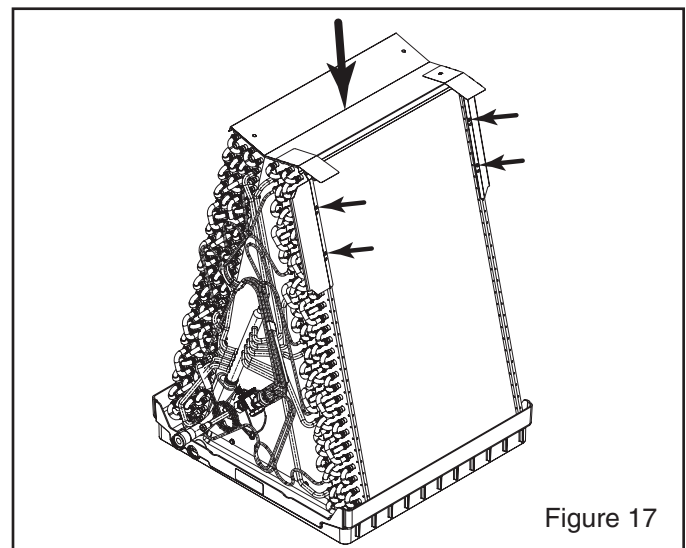
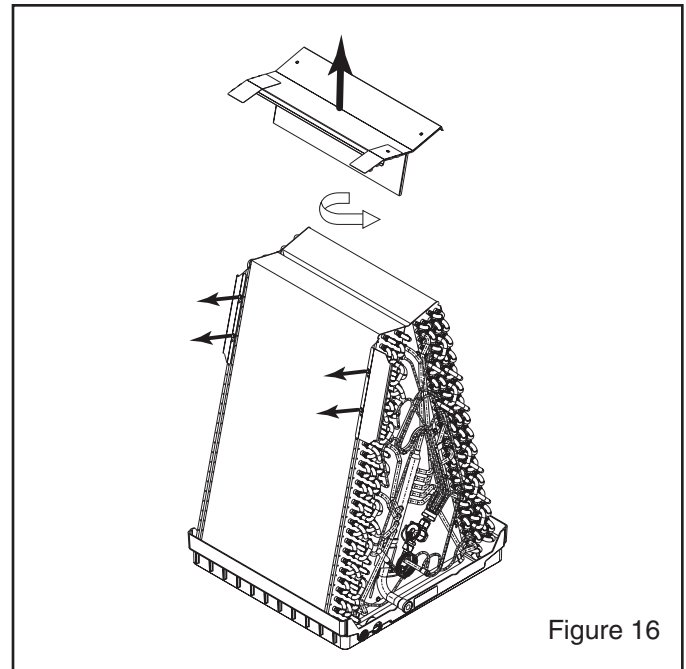
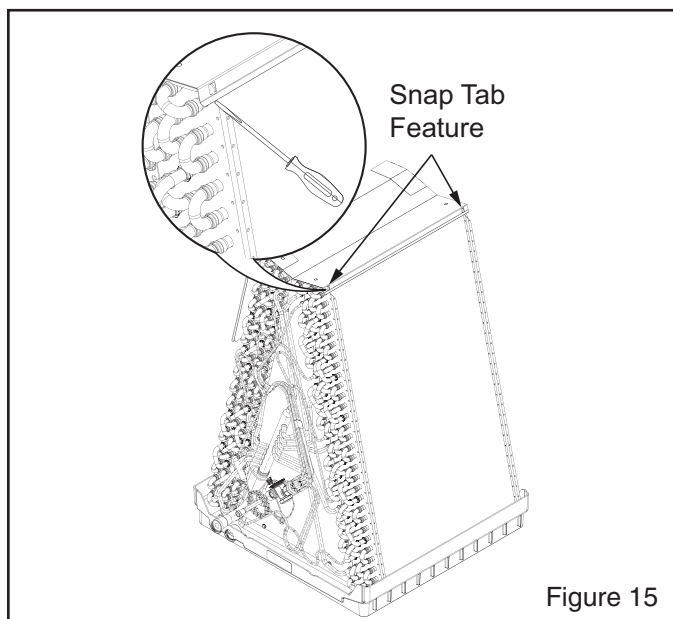


Figure 14

4.3.5 Coil Installation for Horizontal Right Applications

NOTE: For Horizontal Right applications, ON SOME MODELS the top panel assembly of the coil must be rotated for proper condensate management before installing the replacement coil assembly into the unit. If the replacement coil models does not have a gull wing and tabs in the top panel assembly, skip the Steps 1 to 3.

1. On the right side of the top baffle, position a flat head screw driver tip underneath the top baffle flange and pivot the screwdriver downward to release the front tab. See Figure 15.
 2. Repeat for right rear tab to release top baffle assembly from coil.
 3. Rotate the top baffle 180 degree and snap all four corners to lock in place. See Figures 16 and 17.
 4. Remove left side drip rails and screws and reinstall on the right side. See Figures 16 and 17.
 5. Attach the horizontal drain pan with extension to the replacement coil and slide the assembly into the unit. See Figure 18.
- NOTE:** Some replacement coils ship with a horizontal drain pan extension. For horizontal left or right applications, install a horizontal drain pan extension when applicable. See Figure 11.
6. When included and applicable, install top baffle extensions. See Figure 13.
 7. Reinstall the coil retaining brackets and horizontal brace(s). See Figure 19.
 8. If equipped, reinstall refrigerant sensor in same location as before and reconnect. See Figure 19.



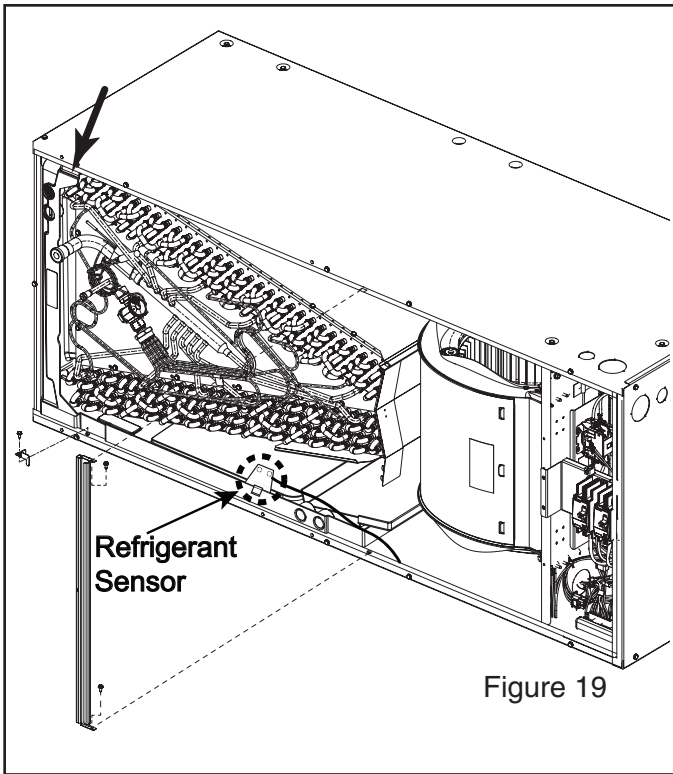


Figure 19

4. If equipped, reinstall refrigerant sensor in same location as before and reconnect. See Figure 21.

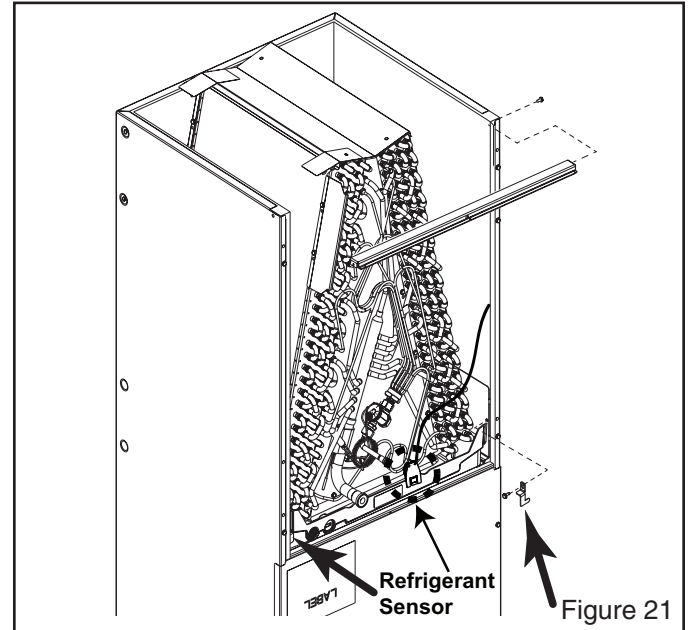


Figure 21

4.3.6 Coil Installation for Downflow Applications

1. Slide the replacement coil into the unit. See Figure 20.

NOTE: Some modifications to the unit or return air duct work may be required for downflow applications.

2. Reinstall coil retaining brackets. See Figure 21.

NOTE: Step is optional for downflow coil replacements.

NOTE: For the “N” coils there is only one coil retaining bracket on the unit. Additional retaining bracket shipped with the replacement coil.

3. Reinstall lower horizontal brace(s). See Figure 21.

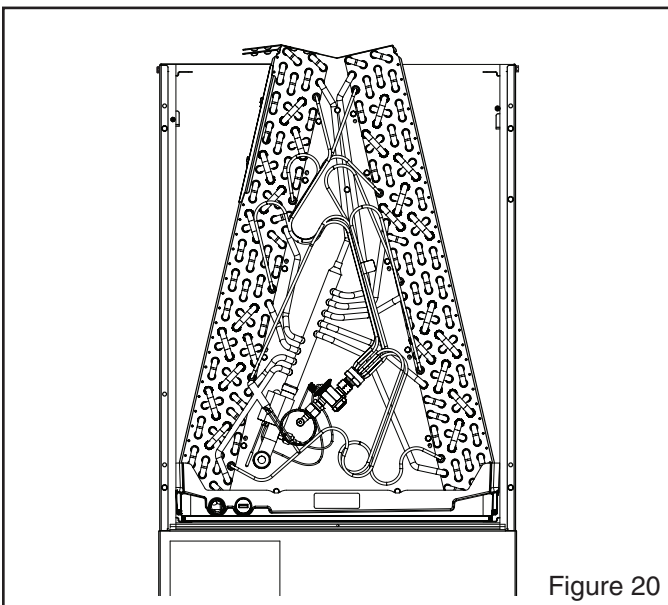


Figure 20

3. Reinstall coil and blower panels.

NOTE: Some replacement coil orders will ship with multiple replacement line set panels. When necessary, install the applicable panel and discard the remaining panels.

4. Protect TXV bulb before brazing line set connections.

Important: TXV bulb MUST be protected (wrapped with wet rag) or removed, while brazing the tubing. Overheating of the sensing bulb will affect the functional characteristics and performance of the comfort coil. See Figure 22.

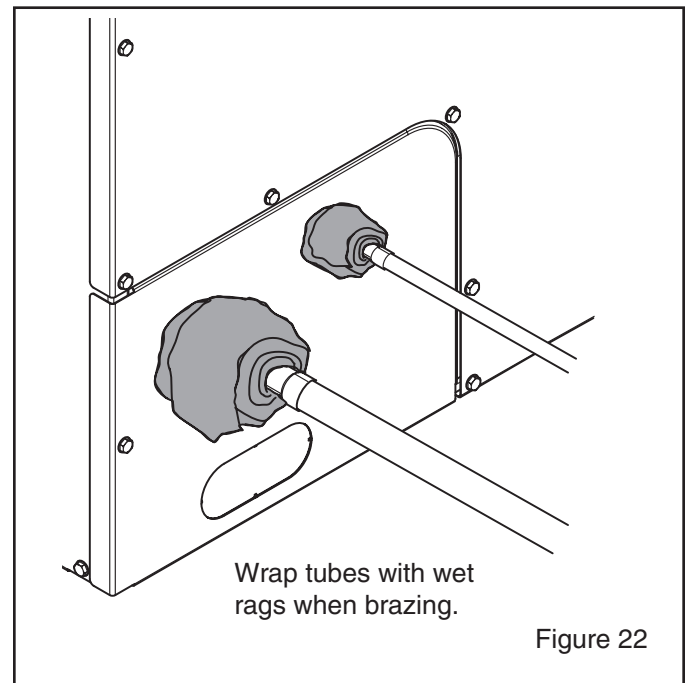


Figure 22

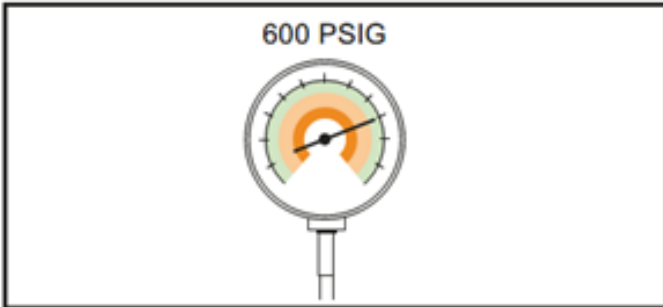
5. Check the field made brazed connections for leaks.

For systems using flammable refrigerants, use the following procedure:

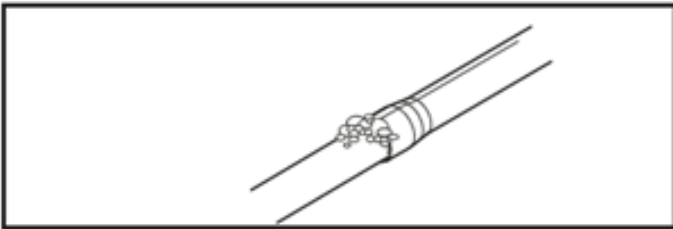
After completion of field piping for split systems, the field pipework shall be pressure tested with nitrogen and then vacuum tested prior to refrigerant charging, according to the following requirements:

Pressure test:

- Using dry nitrogen, pressurize the field piping and indoor coil to the lower of the maximum operating pressures listed on the name plates of the indoor and outdoor units (likely 600 psi).



- The test pressure after removal of the pressure source shall be maintained for at least one (1) hour with no decrease of pressure indicated by the test gauge, with the test gauge resolution not exceeding 30 psi.
- Check for leaks by using a soapy solution at each field-made joint.

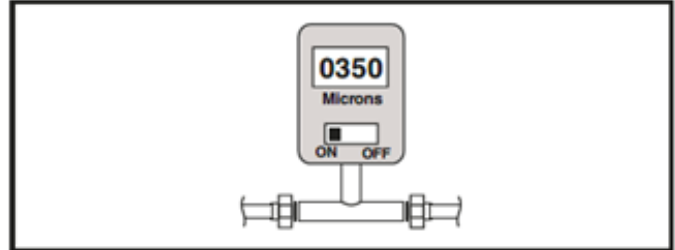


Note: Remove nitrogen pressure and repair any leaks before continuing.

Vacuum test:

Important: Do not open the service valves until the refrigerant lines and indoor coil leak check and evacuation are complete.

- Evacuate until the micron gauge reads no higher than 350 microns, then close off the valve to the vacuum pump.



- Observe the micron gauge. Evacuation is complete if the micron gauge does not rise above 500 microns in one (1) minute and 150 microns in ten (10) minutes.
- Once evacuation is complete, blank off the vacuum pump and micron gauge, and close the valve on the manifold gauge set.

All procedures for charging the system with refrigerant shall be according to the instructions provided by the manufacturer of the outdoor unit.

Important: Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks.

After charging the system, all indoor field-made joints of the field piping shall be checked for refrigerant leaks using an electronic leak detector calibrated for R-454B having a sensitivity of 5 grams per year or better.

About Trane and American Standard Heating and Air Conditioning

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The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

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Supersedes (New)