INSTALLATION INSTRUCTIONS

Split System Indoor CASED FLEX Coils

SAFETY INFORMATION

IMPORTANT: Please read all instructions before servicing this equipment. Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored. **WARNING** indicates a potentially hazardous situation that if not avoided, could result in personal injury or death. **CAUTION** indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

⚠ WARNING:

Read the Installation Instructions supplied with the furnace/air handler. Always observe all safety requirements outlined in this manual and on the furnace/air handler markings before installing the coil.

⚠ WARNING:

Improper installation, service, adjustment, or maintenance may cause explosion, fire, electrical shock or other hazardous conditions which may result in personal injury or property damage. Unless otherwise noted in these instructions, only factory authorized kits or accessories may be used with this product.

⚠ WARNING:

PROPOSITION 65 WARNING: This product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

	TXV KIT P/N	SIZE OF A.C. OR HEAT PUMP
R22 REFRIGERANT	920662A	1.5 ton or 2 tons
	920663A	2.5
	920664A	3
	920665A	3.5
	920666A	4
	920667A	5
R410A REFRIGERANT	920668A	1.5 ton or 2 tons
	920669A	2.5
	920670A	3
	920671A	3.5
	920672A	4
	920673A	5

Table 1. TXV Kit Part Numbers

GENERAL INFORMATION

Cased flex coils are designed for upflow, downflow, or horizontal applications and are equipped with braze type refrigerant connections for easy installation. See Table 1 to determine the proper kit based on the refrigerant type and tonnage of the unit.

- Optional cooling/heating equipment must be properly sized and installed in accordance with the furnace manufacturer's specifications and approved recommendations.
- "Heating Only" furnace air circulators may have to be replaced with multi-speed Heating/Cooling blowers to upgrade the air delivery (CFM) when an add-on coil is installed. Refer to Table 2 (page 2) for coil specifications and recommended CFM and allow for pressure drop across the coil and filters.
- Verify that the air delivery of the furnace/air handler is adequate to handle the static pressure drop of the coil, filter, and duct work.
- If precise forming of refrigerant lines is required, a copper tubing bender is recommended. Avoid sharp bends and contact of the refrigerant lines with metal surfaces.
- Refrigerant lines should be wrapped with pressure sensitive neoprene or other suitable material where they pass against sharply edged sheet metal.
- Horizontal installations require a horizontal drain pan kit to be installed. See Table 2 for part number.

COIL INSTALLATION

⚠ WARNING:

Shut off all electrical power to the furnace and outdoor condensing unit before performing any maintenance or service on the system.

⚠ CAUTION:

The coil must be level to ensure proper condensate drainage. An unlevel installation may result in structural damage, premature equipment failure, or possible personal injury.

Upflow Installations

1. Disconnect all electrical power to the furnace.
2. Install the coil case on the furnace air discharge opening. If needed, use a coil case adapter kit to match them together. See Figure 1 (page 3) for case dimensions.
3. Seal the enclosure as required to minimize air leakage.
4. Connect the refrigerant lines as outlined in the Refrigerant Line Connection section.

Downflow Installations

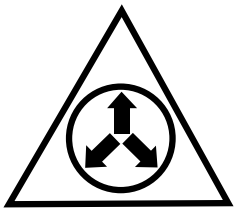
These coils may be installed in downflow applications. It is required that the furnace and coil cabinets are securely mounted together before setting in place. Fossil fuel applications require the coil to be placed in the supply air stream only.

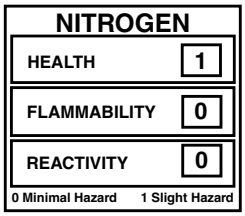
Horizontal Installations

Standard coils may be installed in the horizontal position. It is required that the furnace and coil cabinets are securely mounted together and that a horizontal drain pan kit be installed. See Table 2 for proper kit number.

Refrigerant Line Connections

⚠ WARNING:





This coil is pressurized with Nitrogen. Avoid direct face exposure or contact with valve when gas is escaping. Always ensure adequate ventilation is present during the depressurization process. Any uncertainties should be addressed before proceeding.

1. Remove the cap (Figure 2, page 3) from the end of the liquid line.
2. Verify pressurization by depressing the Schrader valve on the end of the liquid line. Listen for any escaping gas. If there is no pressure, test the coil for leakage.
   - If leakage is found, clearly mark the location of the leak and return the coil to the distributor for processing.
   - If no leaks are found, the coil may be installed.
3. Depress the valve to relieve all pressure from the coil.
4. Remove and discard the valve core and valve core holder on the liquid line. **NOTE:** Do not reuse the O-ring, valve, or threaded valve holder.
5. Remove the grommet from the suction line, making note of its orientation and fit.
6. Remove the coil access door.
7. Remove the cap from the suction line.
   NOTE: Depending on the manufacturing date, it may be necessary to unbraze or cut off a copper cap, or remove a rubber plug from the suction line.
8. Install the Thermal Expansion Valve (TXV). **Please follow the instructions supplied with the kit.** See Table 1 for kit part numbers.

	F24-A	F36-A	F24-B	F36-B	F42-B	F48-C	F60-C	F48-D	F60-D
Nominal Capacity, Min BTUH	18,000	30,000	18,000	30,000	36,000	36,000	48,000	36,000	48,000
Nominal Capacity, Max BTUH	24,000	36,000	24,000	36,000	42,000	48,000	60,000	48,000	60,000
Metering Device	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nominal Airflow, Min (CFM)	800	1,000	800	1,000	1,200	1,200	1,600	1,400	1,600
Nominal Airflow, Max (CFM)	800	1,000	800	1,200	1,400	1,600	2,000	1,600	2,000
W - Width (in.)	14 1/2	14 1/2	17 1/2	17 1/2	17 1/2	21	21	24 1/2	24 1/2
H - Height (in.)	26 3/4	26 3/4	26 3/4	26 3/4	26 3/4	30 1/4	30 1/4	30 1/4	30 1/4
HL - Height of Liquid Line (in.)	23 1/2	23 1/2	23 1/2	23 1/2	23 1/2	27	27	27	27
HS - Height of Suction Line (in.)	21 1/2	21 1/2	21 1/2	21 1/2	21 1/2	25	25	25	25
Connection - Liquid Line	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Connection - Suction Line	3/4	3/4	3/4	3/4	3/4	7/8	7/8	7/8	7/8
Horizontal Drain Kit	920265	920265	920265	920266	920266	920267	920267	920267	920267

Table 2. Coil Specifications

9. Route and cut both lineset tubes to proper length in accordance with the outdoor unit specifications. Verify the ends are round, clean, and free of any burrs.
10. Place the grommet on the suction line of the lineset. **NOTE:** DO NOT install grommet in the door cutout at this point. Allow sufficient distance to braze joint.
11. Connect the suction and liquid lineset tubes.
12. Braze the individual connections with dry nitrogen flowing through the joints. This will prevent internal oxidation and scaling from occurring.
13. Install the grommet in the door cutout. Verify the grommet is evenly aligned around the tube and securely positioned in the door cutout.
14. Evacuate the system of moisture and non-condensables to prevent low efficiency operation or damage to the unit. The suggested range of evacuation is 250 - 500 microns.
15. Charge the system with refrigerant. **Please Refer to the outdoor unit installation manual for additional charging instructions.**
16. Check the system for leaks, including the lineset and the brazed joints. **NOTE:** Apply a soap and water solution on each joint or union with a small paintbrush. If bubbling is observed, the connection is not adequately sealed.
17. Install the coil access door and apply power to the unit.
18. Properly dispose of all removed parts.

Condensate Drain

⚠ CAUTION:

The coil must be level to ensure proper condensate drainage. An unlevel installation may result in structural damage, premature equipment failure, or possible personal injury.

- Methods for disposing of condensate vary according to local codes. Refer to local codes or authority having jurisidiction for restrictions and proper condensate disposal requirements.
- All condensate pans have primary and secondary drain connections to meet FHA requirements. If the application is located in or above a living space where damage may result from condensate overflow, a separate 3/4 inch drain must be provided from the secondary drain connection and a secondary drain pan must be installed

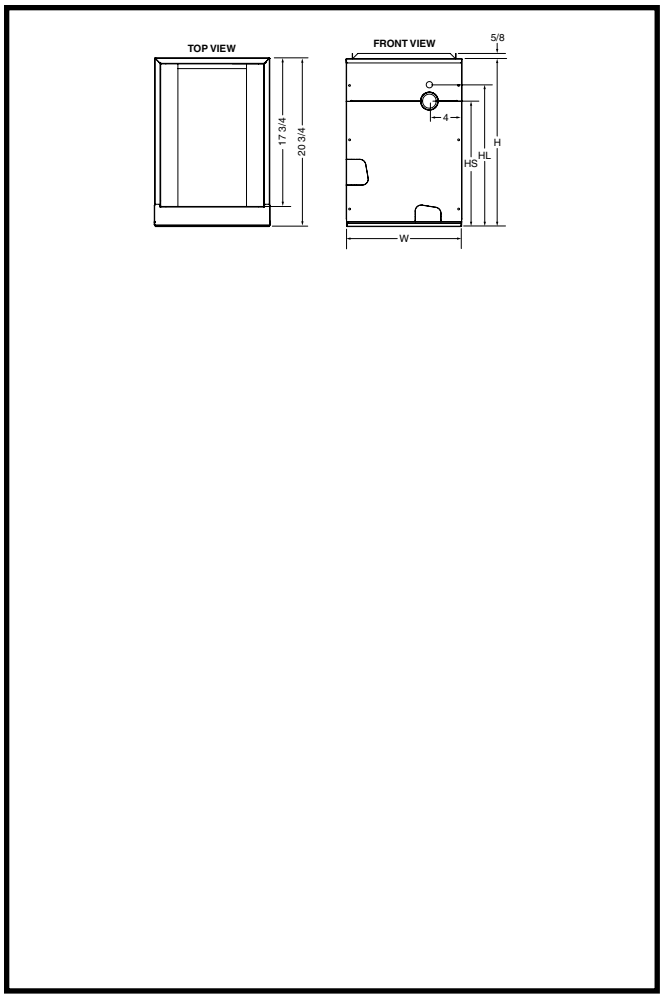


Figure 1. Coil Dimensions

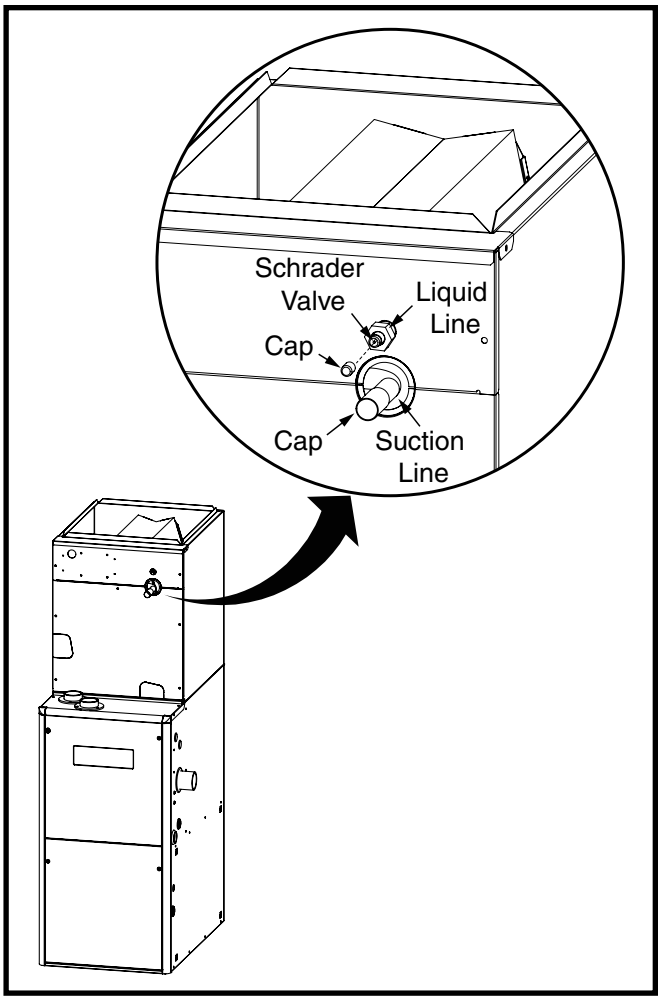


Figure 2. Suction & Liquid Line Locations

under the entire unit. Run secondary drain lines to a place where they are noticeable if used.

- The coil condensate pan is designed with 3/4" NPSC drain connections. Use a PVC or similar material fitting to attach the drain line to the pan. **NOTE:** The fitting should be hand tightened only. Overtightening may crack the drain pan and cause condensate to leak.
- The drain pan MUST be drained with field supplied tubing and looped to form a trap. **IMPORTANT:** Failure to install a trap may result in condensation overflowing the drain pan, resulting in substantial water damage to surrounding area.
- Prime the trap with water. Insulate the drain if it is located in an unconditioned space, and test the condensate line for leaks. Consult local codes for additional restrictions or precautions.
- Route the lines to a suitable drain, avoiding sharp bends and pinching of the lines. The drain should maintain a minimum horizontal slope in the direction of discharge of not less than 1" vertical for every 10 ft of horizontal run.
- During system checkout, inspect the drain line and connections to verify proper condensate drainage.

Air Filter

Air filters are not supplied as an integral part of this coil; however, a filter must be installed upstream of the coil and inspected frequently. When the filter becomes clogged with dust or lint, it should be replaced (disposable type) or cleaned (washable type). It is recommended that filters be inspected and replaced at least twice during the year. Generally it is best to replace or clean the filters at the start of each heating and cooling season.

Panels

Reinstall all inner and outer panels of the coil case and furnace that were previously removed.

MAINTENANCE & SERVICE

⚠ WARNING:

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD

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

Improper servicing could result in dangerous operation, serious injury, death or property damage.

- **Before servicing, disconnect all electrical power to air handler.**
- **When servicing controls, label all wires prior to disconnecting. Reconnect wires correctly.**
- **Verify proper operation after servicing.**

⚠ CAUTION:

Do not operate the system without a suitable filter in the return air duct system. Always replace the filter with the same size and type.

To ensure optimum performance and to minimize possible equipment failure, the following maintenance tasks should be performed periodically on this equipment:

1. The air filter installed with the system should be checked and cleaned or replaced twice per year.
2. Check the coil, drain pan, and condensate drain line for cleanliness at the start of each heating and cooling season. Clean as needed.

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The installer performing this work assumes all responsibility for this installation. These instructions are primarily intended to assist qualified individuals experienced in the proper installation of these components. Some local codes may require licensed installation/service personnel for this type of equipment. Safety should always be the deciding factor when installing this product and using common sense plays an important role as well. Improper installation of the components or failure to follow safety warnings could result in serious injury, death, or property damage. After completing the installation, return these instructions to the Homeowner's Package for owner-user's future reference.

709005C (Replaces 709005B)