#### Split System Uncased Indoor Coils

# Installation Instructions



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Read the Installation Instructions supplied with furnace/air handler and observe all safety requirements outlined in instructions and/or furnace/air handler markings before proceeding with installation of the coil. These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local and national codes require licensed installation/service personnel for this type of equipment. Read all instructions carefully before starting the installation.

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#### **1. GENERAL INFORMATION**

These C-series coils are designed for upflow and downflow applications. They are equipped with brazing stub refrigerant connections for easy installation. Horizontal conversion kits are available. Refer to the Specifications Table below for more information.

Read the installation manual supplied with the outdoor unit for refrigerant line connection procedure, required line sizes, and other information pertaining to the system installation.

- Make certain that the air delivery of the furnace/air handler is adequate to handle the static pressure drop of the coil, filter, and duct work.
- When applicable check the coil's orifice size and confirm that it is suitable for application with the intended outdoor unit.
- Where precise forming of the refrigerant lines is required, a copper tubing bender designed for the size lines used 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 through the raw edges of holes.
- 5. Coil enclosure and suction line must be insulated.
- 6. Coil must be level for proper condensate drainage.

**NOTE:** 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 Coil Specifications for recommended CFM and allow for pressure drop across the coil and filters.

#### 2. COIL INSTALLATION

#### **Upflow Furnace:**

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Electric furnaces may be connected to more than one supply circuit.

- 1. Disconnect all electrical power to the furnace.
- If needed, make a plate to adapt the coil to the furnace/air handler air discharge opening.
- 3. Install the coil and level it as needed to allow proper condensate drainage.
- Make a plenum to enclose the coil or drop the duct directly over it. Insulate as required. (See Figure 2)
- 5. Seal the enclosure as required to minimize air leakage.
- 6. Connect the refrigerant lines as outlined in the Refrigerant Lines section.

**Downflow/Horizontal** — These coils may be installed in downflow or horizontal applications. Installation of the coils in these applications only requires that the coil be securely mounted and that the proper horizontal drain kit be added. Refer to the Specifications section for the proper kit numbers.

**NOTE:** If the coil is installed horizontally, a horizontal drain kit must be used.

#### 3. VERIFY PRESSURIZATION

	NING:	
•	NITROG	EN
	HEALTH	1
	FLAMMABILITY	r <b>O</b>
	REACTIVITY	0
$\sim$ $\langle$	0 Minimal Hazard 1	Slight Hazard

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.

#### **VERIFY PRESSURIZATION:**

- Test by depressing Schrader valve and listen for escaping gas
- If no pressure is found, test coil for leak
  - If no leak is found, install coil
  - If leak is found, clearly mark leak location and return coil to your distributor for processing

#### 4. REFRIGERANT LINE CONNECTIONS

### WARNING:



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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.

#### Line Connections:

- Remove the valve cap from the end of the 1. liquid line. Relieve all pressure from the coil by depressing the valve.
- Remove the valve core and valve core holder 2. on the liquid line. DO NOT reuse the valve, threaded valve holder or O-ring.
- It is recommended to wrap a wet rag around 3. the suction line between the sensing bulb and the line set braze joint before applying anv heat.
- 4. Unbraze and remove the cap on the suction line.
- Properly dispose of all removed parts. 5.
- When included, install condensation 6 deflector and lock washer onto TXV. Condensation deflector is to be installed so that any condensation collecting on the TXV is directed away from the cabinet insulation and towards the drain pan. Fix TXV into position using nut. See Figure 3. Condensation deflector is not required if TXV is not installed directly on cabinet.
- 7. Cut the line set tubing to the proper length. Be sure that the tubing has been sized in accordance with the outdoor unit specifications.
- Inspect both refrigerant lines. The ends 8. of the lines must be round, clean, and free of any burrs.
- 9. Insert the suction line set tube into the coil suction tube stub until it bottoms out.
- 10. Slip the nut from the schrader valve holder onto the liquid line - check for correct orientation. Insert liquid line into liquid line stub until it bottoms out. Liquid line stub is shipped with the coil. but is not attached.

- 11. It is recommended to wrap a wet rag around the suction line between the sensing bulb and the lineset braze joint before applying anv heat.
- 12. Braze the individual connections with dry nitrogen flowing through the joint to eliminate internal oxidation and scaling.
- 13. Fasten nut to secure the liquid line to the bulkhead fitting. No O-Ring is required.
- 14. Check the assembly for leaks.
- 15. On horizontal applications of models with TXV valve, re-position the sensing bulb on the suction line so it is in the 4 o'clock or 8 o'clock position on the suction tube.

#### 5. COMPLETING THE INSTALLATION

# **CAUTION:**

The indoor coil must be checked to ensure a level installation. Failure to do so may result in improper condensate disposal, causing structural damage, premature equipment failure, or possible personal injury.

#### Condensate Drain -

1. The coil condensate pan is furnished with 3/4" NPSC drain connections. Use a PVC or similar material fitting to attach the drain line to the pan. The fitting should be only hand tightened.

Overtightening may crack the drainpan and create a condensate leak.

- 2. Connect the drain line and run to a suitable drain avoiding sharp bends and pinching of the line. Install a condensate trap and prime with water.
- 3. During the system checkout, inspect the drain line and connections to verify proper condensate disposal.
- 4. Perform any necessary adjustments to the coil components to ensure that all drip points fall within the outline of the drain pan.

Air Filter — Air filters are not provided 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). The filter should be inspected and replaced or cleaned at least twice during the year, generally at the start of each heating and cooling season.

Close-Off Plates and Panels - Install the necessary air close-off plates around the refrigerant lines and drain line where required. Reinstall all inner and outer panels of the furnace/ air handler that were previously removed to install the indoor coil.

**Refrigerant Charging**—These indoor coils are not factory charged with refrigerant.

It will be necessary to evacuate the indoor coil and line set prior to charging. Refer to the outdoor unit installation manual for detailed charging instructions.

#### 6. MAINTENANCE AND SERVICE

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Ensure that all electrical power to the furnace and outdoor (condensing) unit is off before performing any maintenance or service on the system. To ensure optimum system performance and to minimize the possibility of equipment failure, the following periodic maintenance should be performed on the coil:

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

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



# 7. COIL SPECIFICATIONS

# C6 COIL SPECIFICATIONS

Coil Model CEBA CEBU (1)(2)	T24-A	T30-A		T24-B	T30-B		T36-B	T42-B	T36-C	T42-C	T48-C	T60-C	T42-D	T48-D	T60-D
	X24-A	X30-A	X35-A	X24-B	X30-B	X35-B	X36-B	X42-B	X36-C	X42-C	X48-C	X60-C	X42-D	X48-D	X60-D
Nominal Capacity BTUH (3)	24,000	30,000	36,000	24,000	30,000	36,000	36,000	42,000	36,000	42,000	48,000	60,000	42,000	48,000	60,000
Metering Device	TXV	TXV	ТХV	TXV	ТХV										
Nominal Airflow (CFM)	800	1,000	1,000	800	1,000	1,200	1,200	1,400	1,200	1,400	1,600	2,000	1,400	1,600	2,000
W - Width (in.)	12 3/4	12 3/4	12 3/4	16	16	16	16	16	19 1/2	19 1/2	19 1/2	19 1/2	23	23	23
H - Height (in.)	19	19	19	19	19	19	24 3/4	24 3/4	23 3/4	23 3/4	28 3/4	28 3/4	24	28 1/4	28 1/4
HL - Height of Liquid Line (in.)	17 1/2	17 1/2	17 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2	23 1/2	27	27	27	27	27
HS - Height of Suction Line (in.)	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	21 1/2	21 1/2	21 1/2	21 1/2	25	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	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	3/4	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8
Metering Device	TXV	TXV	ТХV	TXV	TXV	TXV	TXV	ТХV	TXV	TXV	TXV	TXV	TXV	ТХV	TXV
Horizontal Drain Kit (4)	920265	920265	920265	920265	920265	920265	920266	920266	920266	920266	920267	920267	920267	920267	920267

(1) Refer to sales specification sheets for Listed/Certified combinations of equipment and required accessories.

(2) X in the model description designates factory installed TXV for R-410a refrigerant.

T in the model description designates factory installed TXV for R-22 refrigerant.

(3) Refer to the current ARI Directory for certified ratings of split systems.

(4) Not required for "H" horizontal ready coils.



Figure 3. Condensation Deflector Positioning

#### INSTALLER: PLEASE LEAVE THESE INSTALLATION INSTRUCTIONS WITH THE HOMEOWNER



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