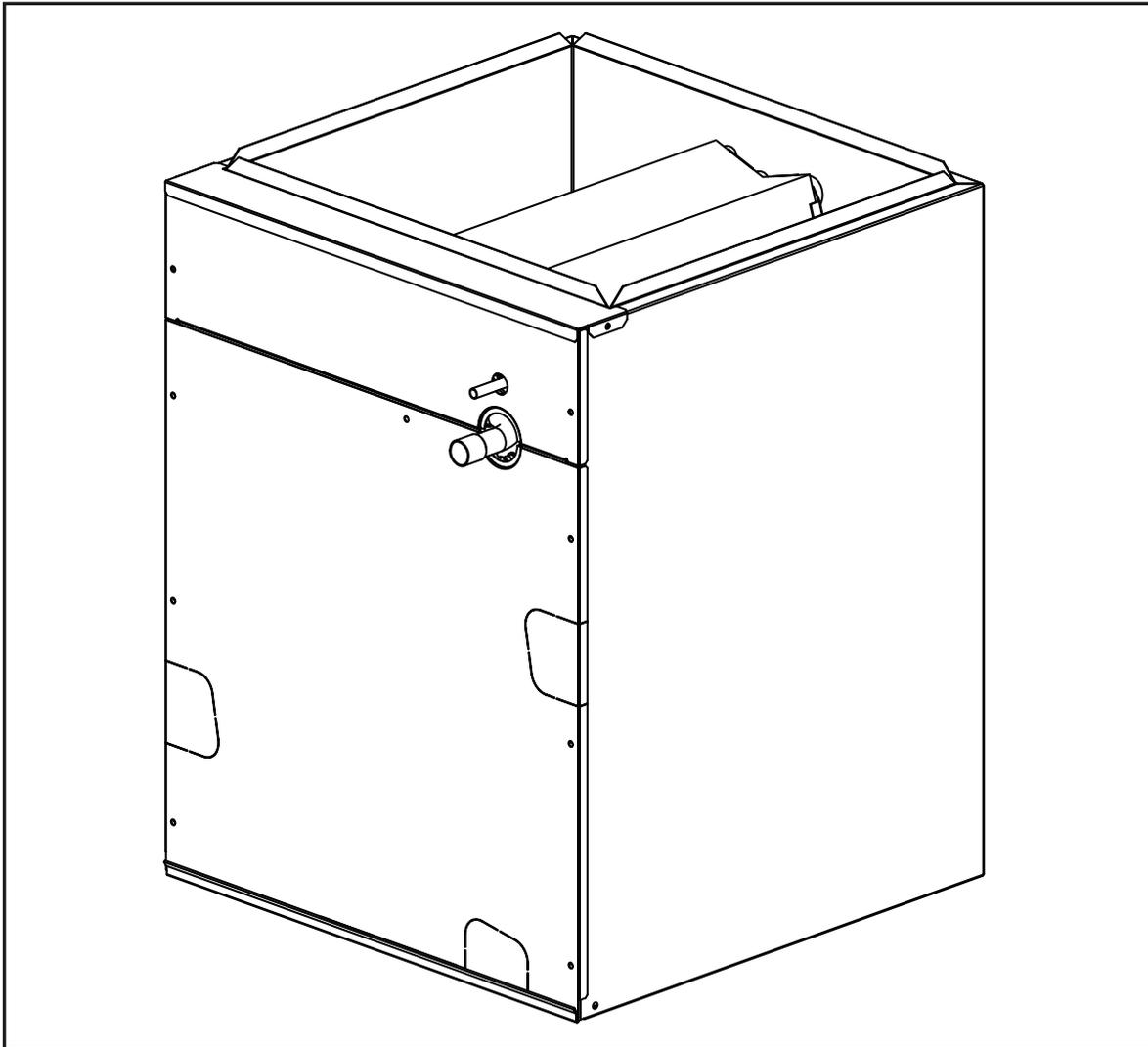


Split System Indoor Coils for iQ Drive® Systems

Installation Instructions



CAUTION:

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. **Qualified installer must have specific IQ Drive™ system training.** 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

IQ™ cased coils are designed for upflow applications or horizontal applications. Coils are equipped with braze type refrigerant connections for easy installation.

These coils are equipped with ESX step motor expansion valve which provides precise flow control for maximum efficiency and reliability.

The ESX valve is controlled to maintain constant superheat in a wide range of conditions via a pressure transducer and a temperature sensor installed on the coil suction header.

These coils are also equipped with a coil temperature sensor to monitor coil temperature during dehumidification mode of system operation.

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.

1. Refer to the Installation Instructions of the outdoor unit for connection of the additional components of the IQ drive system.
2. 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.

2. COIL SPECIFICATIONS

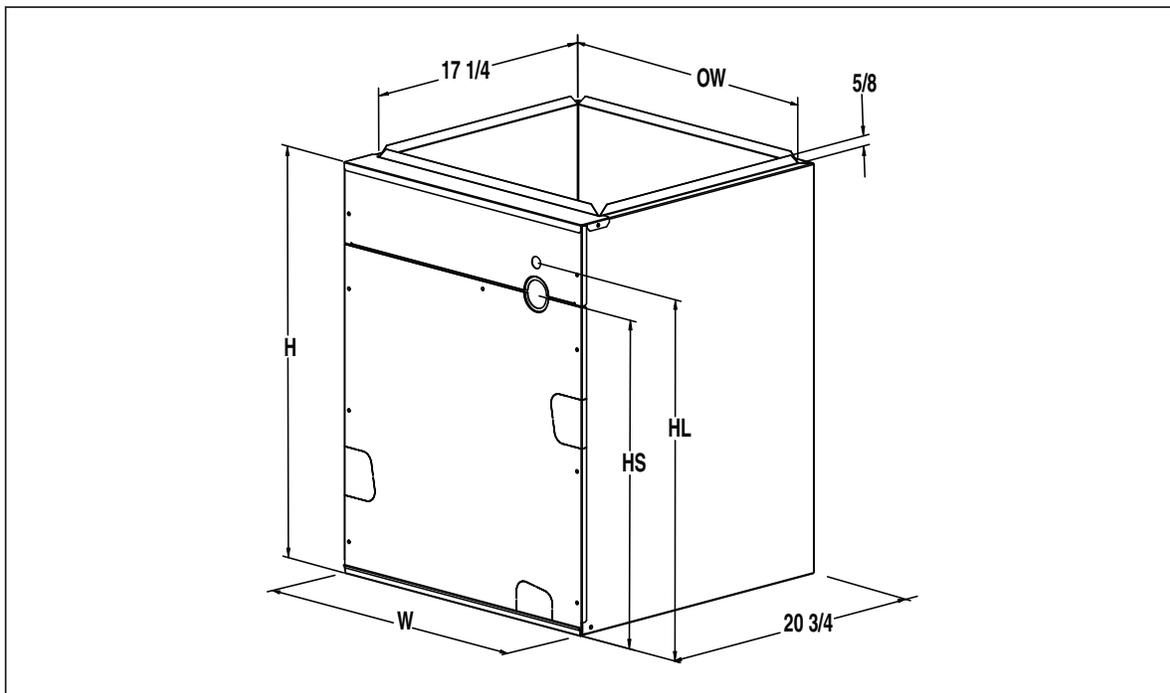


Figure 1.

Coil Model C6BH (1)	E36-B	E36-C	E48-C	E48-D
Nominal Capacity BTUH (2)	36,000	36,000	48,000	48,000
Nominal Airflow (CFM)	1,200	1,200	1,600	1,600
W - Width (in.)	17 1/2	21	21	24 1/2
H - Height (in.)	26 3/4	26 3/4	30 1/4	30 1/4
HL - Height of Liquid Line (in.)	23 1/2	23 1/2	27	27
HS - Height of Suction Line (in.)	21 1/2	21 1/2	25	25
Connection - Liquid Line	3/8	3/8	3/8	3/8
Connection - Suction Line	3/4	7/8	7/8	7/8

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

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

Table 2. C6 Coil Specifications

3. 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.
 4. Refrigerant lines should be wrapped with pressure sensitive neoprene or other suitable material where they pass through the raw edges of holes.
 5. Coil must be level for proper condensate drainage.
- ### 3. COIL INSTALLATION
- Upflow Furnace —**
1. Disconnect all electrical power to the furnace.
 2. Remove door and close off plate.
 3. Remove the drain pan provided for horizontal application. Install the coil and level it as needed to ensure proper condensate drainage. (See Figure 2)
 4. Connect the refrigerant lines as outlined in the Refrigerant Lines section. **NOTE:** Use extra care not to damage sensor and transducer.
 5. Route all wires from valve, sensors and transducer thru the strain relief bushing (provided) and insert the bushing into the hole in the close-off plate. Replace the close-off plate and the door.
 6. Use the harness wrap provided to enclose wires and bring thru the oval opening on appropriate side of the furnace. Refer to the wiring diagram provided with the outdoor section and or gas furnace kit to connect to valve controller and interface board.
 7. Seal the enclosure as required to minimize air leakage.

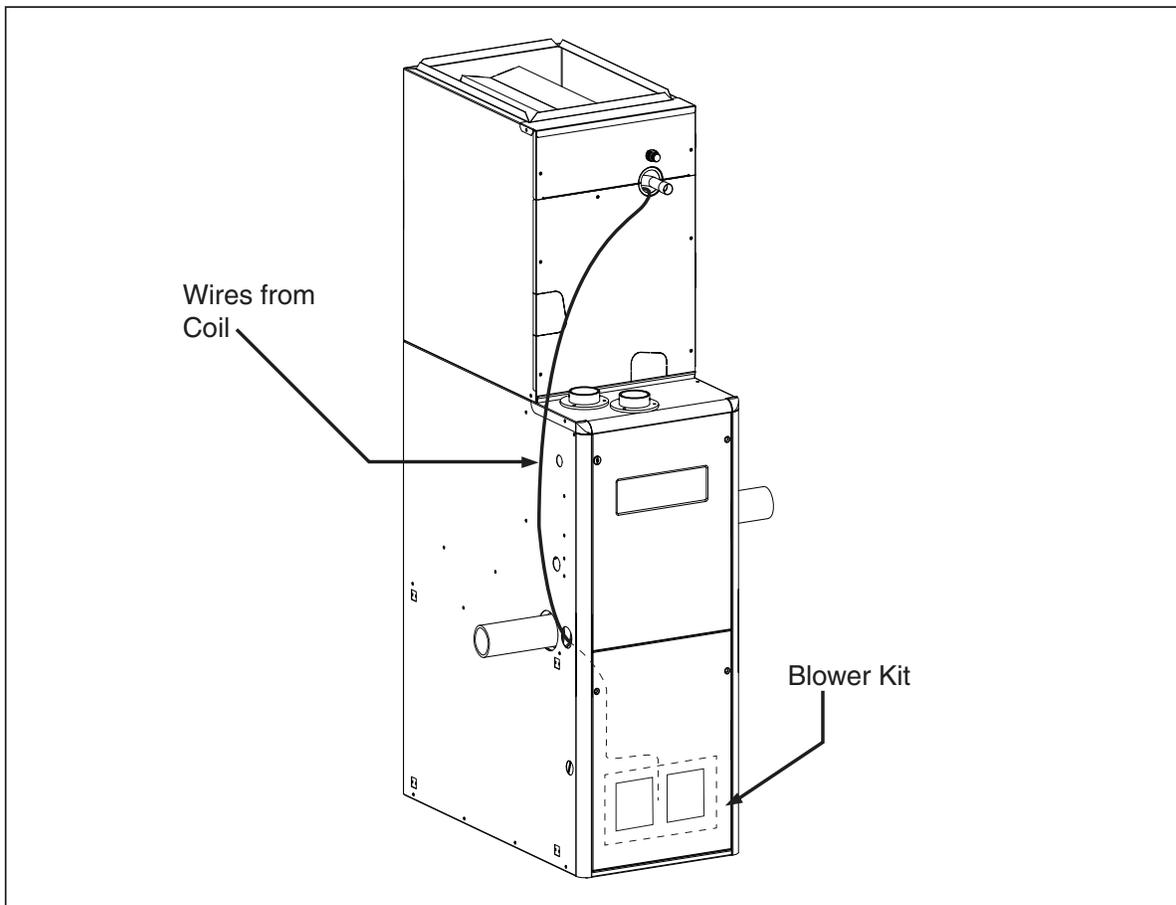


Figure 2. Upflow Furnace Application

To Configure Horizontal Ready Coils for Horizontal LEFT Installations:

- 1) Remove the coil access door.
- 2) **IMPORTANT:** Remove the plug from one of the threaded holes in the horizontal drain pan. Completely remove the webbing located in the threaded holes of the horizontal drain pan. If webbing is not removed, the drain will not function properly and ceiling damage may occur.
- 3) Insert a plug (from the horizontal drain pan) into the open and unused drain hole in the drain pan at the bottom of the unit to block bypass air.
- 4) Remove the corresponding drain line knock-out from the coil access door to allow access to the horizontal drain.
- 5) Replace the door.

To Configure Horizontal Ready Coils for Horizontal RIGHT Installations:

- 1) Remove the coil access door. Unscrew the line-set tube close-off plate from the front left cabinet rail.
- 2) Slide the coil and drain pan assembly out of the unit.
- 3) **IMPORTANT:** Remove the plug from one of the threaded holes in the horizontal drain pan. Completely remove the webbing located in the threaded holes of the drain pan. If webbing is not removed, the drain will not function properly and ceiling damage may occur.
- 4) Remove the sheet metal hairpin covers (if supplied) from the back of the coil and discard.
- 5) Place the horizontal drain pan on the opposite side of the coil. On units with 2 sets of knockouts, remove the other set of knockouts in the coil spacing plates and insert support rod.
- 6) Insert a plug (from the horizontal drain pan) into the open and unused drain hole in the drain pan at the bottom of the unit to block bypass air.
- 7) Slide the coil and the horizontal drain pan assembly back into the unit. Reattach the tube close off plate.
- 8) Remove the corresponding drain line knock-out from the coil access door to allow access to the horizontal drain.
- 9) Replace the door.

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

4. REFRIGERANT LINE CONNECTIONS

Line Connections:

1. Remove the protective caps from the coil and refrigerant line set and also remove the hole grommets and tube close-off insulation from around the tubes.
2. Cut the line set tubing to the proper length. Be sure that the tubing has been sized in accordance with the outdoor unit specifications.
3. Inspect both refrigerant lines. The ends of the lines must be round, clean, and free of any burrs.
4. Insert the line set tubes into the coil tube stubs until they bottom out.
5. Braze the individual connections with dry nitrogen flowing through the joints to eliminate internal oxidation and scaling.



CAUTION:

It is recommended to wrap a wet rag around both the pressure transducer and sensor while brazing to prevent damage to these components unique to the IQ Drive™ System.

6. Check the assembly for leaks with dry nitrogen.
7. On horizontal applications 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.

NOTE: Sensor bulb must be secure and insulated.

5. COMPLETING THE INSTALLATION

Condensate Drain:

 **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.

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 hand tightened only. **Overtightening may crack the drain pan and cause 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.

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.

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

Refrigerant Charging — These cased 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 charges and instructions.

6. MAINTENANCE AND SERVICE

 **WARNING:**

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 performance and to minimize possible equipment failure, the following periodic maintenance should be performed 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.

 **CAUTION:**

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.

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

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