INSTALLER'S GUIDE

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

Models:
2TXCA024AC3HMA
2TXCB036AC3HMA

"Cased" Coils — Reversible Airflow

A. GENERAL

These coils are designed for use in combination with a heat pump or cooling outdoor section using R-22 (2TXC) REFRIGERANT. These coils may be converted for use with a horizontal furnace as well.

The 2TXC equipment has been evaluated in accordance with the Code of Federal Regulations, Chapter XX, Part 3280 or the equivalent. “Suitable for Mobile Home use” The height of the Furnace, Coil and discharge duct work must be 7 ft. or less.

These coils are designed for use in a vertical installation with either up or down airflow used in combination with a heat pump or cooling outdoor section. They may be converted for use with a horizontal furnace as well.

This equipment has been evaluated in accordance with the Code of Federal Regulations, Chapter XX, Part 3280 or the equivalent. “Suitable for Mobile Home use.” The height of the Furnace, Coil and discharge duct work must be 7 ft or less.

Inspect the coil for shipping damage. Notify the transportation company immediately if the coil is damaged.

B. APPLICATION INFORMATION

1. FURNACE AND COIL

The coil MUST be installed downstream (in the outlet air) of the furnace.

These coils fit all non-condensing furnaces without any adapters in vertical upflow, downflow, or horizontal application. They fit the condensing furnaces in upflow, downflow, or where the furnace is placed on its left side for horizontal airflow.

2. INDOOR UNIT AIRFLOW

Indoor unit must provide the required airflow for the heat pump or cooling combinations approved for these coils.

C. RECOMMENDATION

If these coils are part of the total system installation, then use the Installer's Guide packaged with the furnaces, and outdoor sections, and thermostat for physically installing those components.

D. INSTALLING THE TXC COILS

1. UPFLOW GAS FURNACE

a. Be sure the furnace is turned off and the flue pipe is removed if it is in the way.

b. Apply gasket material (duct seal field supplied) to ALL mating surfaces between the furnace and the cased coil.

c. Set the cased coil on top of the furnace.

d. Reinstall the flue pipe (If removed).

2. UPFLOW GAS FURNACE - Add-on Cooling

a. Turn furnace power OFF and remove the flue pipe if necessary.

b. Disconnect and remove a sufficient portion of the supply ductwork to provide clearance for the cased coil.

c. Install the cased coil following the Installation Instruction section D-1 of these instructions.

d. Reconnect the ductwork to the cased coil.

e. Replace the furnace flue pipe if it has been removed and fasten it securely.

f. Turn the furnace power ON.

FOR VERTICAL INSTALLATIONS OF UPFLOW AND DOWNFLOW FURNACES

STANDOFFS (4) DRILL SCREWS (4)

Figure 2

Standoffs and screws (See Figure 2) are included with the cased coils for attachment to the furnace. There are clearance alignment holes near the bottom of the furnace and coil wrappers and drill screws are used to engage the top flanges. The standoff is inserted into the cabinet alignment hole (See Figure 3). The drill screws are inserted through the standoffs then screwed into the flange. The coil is always placed downstream of the furnace airflow. The

IMPORTANT: Review your installation requirements. Check the table on the outline drawing on page seven and note all dimensions for your cased coil before beginning the installation.
above instructions apply if the coil is on top of an upflow furnace or underneath a downflow furnace. The coil and furnace must be fully supported when used in the horizontal. The standoffs and screws are strictly for securing alignment, not for support in horizontal.

3. DOWNFLOW GAS FURNACE
When a cased coil is used with a downflow furnace, a subbase is not required between the cased coil and combustible flooring.

a. Place the cased coil on the furnace supply air opening using the same methods described for coil placement on upflow furnace discharge air opening.

b. Set the furnace on top of the cased coil, making sure that the back side of the discharge opening is snug up against the duct flange at the top rear of the cased coil.

c. Secure the cased coil to the plenum with two sheet metal screws.

d. Secure the cased coil to the furnace with the four standoff spacers and drill screws as described in previous section.

4. DOWNFLOW GAS FURNACE -- Add On Cooling
a. Turn the furnace power OFF, remove the flue pipe, and disconnect the fuel and power lines.

b. Raise the furnace to provide sufficient clearance to mount the cased coil beneath it. Modifications will be required to the existing return air ductwork to permit the furnace to be raised.

c. Install the cased coil, following the steps outlined under section D-3, titled “Downflow Gas Furnace”.

d. Reconnect the flue pipe and the fuel and power lines.

e. Turn the furnace power ON.

E. FURNACE IN HORIZONTAL POSITION
The noncondensing furnaces may be laid on either side for horizontal application and the condensing furnaces may be placed only on their left side for horizontal installation. The coil is placed downstream of the furnace, with the auxiliary drain pan on the lower side of the cased coil. The flange between the furnace and the cased coil is used for alignment only — not support.

Connection brackets are included with this cased coil to provide alignment between the downflow/horizontal furnace and the cased coil for horizontal installation. (See Figures 4 and 5)

Caution: Both the coil and furnace must be fully supported. Do not attempt to suspend the coil using the brackets.

Downflow/Horizontal with Left Airflow
When the downflow/horizontal furnace is placed on its right side for horizontal left airflow, there is not a flange available. The coil base is placed flush against the bottom of the furnace.
a. There are three brackets included which are used to connect the furnace and coil together. The connection will use two existing screws on the coil enclosure (one on each of the sides toward the back near the drain pan) and the remaining screws needed are included with the brackets.

b. Two rear brackets are used and one front bracket. Each of the rear side brackets will be attached by two additional screws. One in the coil enclosure and one in the furnace.

c. The front bracket is positioned with the **narrow** edge against the coil enclosure and the **wide** edge against the furnace bottom for downflow furnaces and offset from the flue pipe for upflow furnaces in the horizontal position. Two screws each are driven into the coil enclosure and furnace.

**Upflow/Horizontal Right Airflow**

When the noncondensing Upflow/Horizontal furnace is placed on its right side for right airflow, the furnace top flange meets the cased coil top flange. The coil flange fits inside of the furnace flange. See Figure 6.

There are three holes in the furnace top flange which can be used for pilot holes to connect and align the furnace and coil. There are self drilling screws included which can be used for this connection. Seal all gaps between the furnace and coil.

**F. INSTALLING REFRIGERANT LINES**

The following steps are to be considered when installing the refrigerant lines:

a. Determine the most practical way to run the lines.

b. Consider types of bends to be made and space limitations.

NOTE: Large diameter tubing sizes will be difficult to rebend once it has been shaped.

c. Determine the best starting point for routing the refrigerant tubing --INSIDE OR OUTSIDE THE STRUCTURE.

d. Provide a pull through hole of sufficient size to allow both liquid and gas lines to clear. The location of this hole (if practical) should be just above the wall plate which is resting on the foundation.

e. Be sure the roll of tubing is of sufficient length.

f. Uncoil the tubing - do not kink or dent. If the line set is prefabricated with fittings, the Quick-Attach fittings with the pressure tap always connects to the outdoor unit, and the indoor fittings must be removed.

g. Route the tubing making all required bends and properly secure the tubing before making final connections.

NOTE: These lines must be isolated from the structure and the holes must be sealed weather tight after installation.
G. FIELD FABRICATED INTERCONNECTING LINES

a. The following procedure should be used for connecting tubing to the coil or the Outdoor Unit.

b. More information concerning the installation of refrigerant lines is covered in the Installers Guide packaged with the outdoor unit. Evacuation, leak testing and brazing procedures are included in those instructions before starting the installation of refrigerant lines.

BRAZING TO EVAPORATOR SECTION

NOTE: Torque specification for TXV equals 1/6 turn passed finger tight. Make sure to backwrench when tightening.

IMPORTANT: Do not unseal refrigerant tubing until ready to cut and fit refrigerant lines.

There is only a holding charge of dry air in the indoor coil, therefore no loss of operating refrigerant charge occurs when the sealing caps are removed.

NOTE: 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.

1. Remove the sealing cap from the indoor coil suction line. The suction line is soft brazed for easy removal.
2. Field supplied tubing should be cut square, round and free of burrs at the connecting end. Clean the tubing to prevent contaminants from entering the system.
3. Run the refrigerant tubing into the stub tube sockets of the indoor unit coil.

PAINTED AREAS OF THE UNIT MUST BE SHIELDED DURING BRAZING.

4. Braze and evacuate according to indoor and outdoor installation instructions.
5. Flow a small amount of nitrogen through the tubing while brazing.
6. Use good brazing technique to make leakproof joints.
7. Minimize the use of sharp 90° bends.
8. Insulate the suction line and its fittings.
9. Do NOT allow un-insulated lines to come into contact with each other.

CAUTION: Do not open refrigerant valve at the outdoor unit until the refrigerant lines and coil have been evacuated.

H. LEAK CHECK

1. Using a manifold gauge, connect an external supply of dry nitrogen to the gauge port on the liquid line. See Figure 10.
2. Pressurize the connecting lines and indoor coil to 150 PSIG maximum.
3. Leak check brazed line connections using soap bubbles. Repair leaks (if any) after relieving pressure after relieving pressure.
4. Evacuate and charge the system per the instructions packaged with the outdoor unit.
CLEANING THE COIL

The three piece door (4-piece on 24.5” wide models) allows removal of the outer casing doors without interference from refrigerant or condensate lines. Once the outer doors are removed the re-routed tubing allows the split inner coil panels to be easily removed. The inside and outside of the coil can be easily cleaned with a brush and vacuum.

I. CONDENSATE DRAIN PIPING (Figure 11)

Condensate drain connections are located in the drain pan at the bottom of the coil/enclosure assembly. The female threaded fitting protrudes outside of the enclosure for external connection.

1. The drain hole in the drain pan must be cleared of all insulation.
2. Insulate the drain line to prevent sweating and dripping. Use armaflex or similar material.

Since the manufacturer has a policy of continuous product improvement, it reserves the right to change specifications and design without notice.
Since American Standard Inc. has a policy of continuous product and product data improvement, it reserves the right to change specifications and design without notice.

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