HORIZONTAL TWO-WAY COIL

INSTALLATION INSTRUCTIONS

Goodman Manufacturing Company, L.P. © 2005-2006
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www.goodmanmfg.com -or- www.amana-hac.com
P/N: IO-285B Date: June 2006

Important Safety Instructions

The following symbols and labels are used throughout this manual to indicate immediate or potential safety hazards. It is the owner's and installer's responsibility to read and comply with all safety information and instructions accompanying these symbols. Failure to heed safety information increases the risk of personal injury, property damage, and/or product damage.

⚠ WARNING

Hazards or unsafe practices could result in property damage, product damage, severe personal injury or death.

⚠ CAUTION

Hazards or unsafe practices which may result in property damage, product damage, personal injury or death.

⚠ WARNING

HIGH VOLTAGE!

Disconnect ALL power before servicing. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

⚠ WARNING

ONLY individuals meeting the requirements of an "Entry Level Technician" as specified by the Air Conditioning and Refrigeration Institute (ARI) may use this information. Attempting to install or repair this unit without such background may result in product damage, personal injury, or death.

Shipping Inspection

Upon receiving the product, inspect it for damage from shipment. Shipping damage, and subsequent investigation is the responsibility of the carrier. Verify the model number, specifications, electrical characteristics, and accessories are correct prior to installation. The distributor or manufacturer will not accept claims from dealers for transportation damage or installation of incorrectly shipped units.

Codes & Regulations

This product is designed and manufactured to comply with national codes. Installation in accordance with such codes and/or prevailing local codes/regulations is the responsibility of the installer. The manufacturer assumes no responsibility for equipment installed in violation of any codes or regulations.

The United States Environmental Protection Agency (EPA) has issued various regulations regarding the introduction and disposal of refrigerants. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. Should you have any questions please contact the local office of the EPA.

Replacement Parts

When reporting shortages or damages, or ordering repair parts, give the complete product model and serial numbers as stamped on the product. Replacement parts for this product are available through your contractor or local distributor. For the location of your nearest distributor consult the white business pages, the yellow page section of the local telephone book or contact:

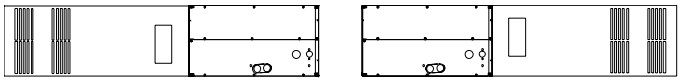
SERVICE PARTS DEPARTMENT
GOODMAN MANUFACTURING COMPANY, L.P.
2550 NORTH LOOP WEST, SUITE 400
HOUSTON, TEXAS 77092
(713) 861 – 2500

Pre-Installation Instructions

Carefully read all instructions for the installation prior to installing product. Make sure each step or procedure is understood and any special considerations are taken into account before starting installation. Assemble all tools, hardware and supplies needed to complete the installation. Some items may need to be purchased locally. Make sure everything needed to install the product is on hand before starting.

Application Information

Install this coil upstream (discharge air) of the furnace. This coil is bi-directional coil and can be installed in either the left or right direction. The coil is factory shipped for right side application. Determine the coil direction by the side that allows the best access.



RIGHT APPLICATION LEFT APPLICATION

Figure 1

Front View (for Right & Left Hand Application)

To reverse from right to left application, relocate the front rail to the back, and the back rail to the front. Then attach flanges to the discharge side of the unit.

If the coil and furnace combination are not similar in depth and width, use a field-supplied transition to center the furnace and coil openings. The supplied Z-bracket attachment should be used to attach the coil to a narrower Goodman or Amana®

furnace when the furnace is one size smaller than the coil (i.e. coil height = 17.5-inches and furnace width = 14-inches) (See figure 3).

Duct Flange Attachment

1. Remove the shipping bracket spanning the A-Coil apex to the rear of the wrapper on all models prior to installation.

2. The bottom duct flange for the supply plenum side is shipped unattached. Carefully insert the flange into bottom rail and use a 5/16" screw to attach at the middle of the flange.

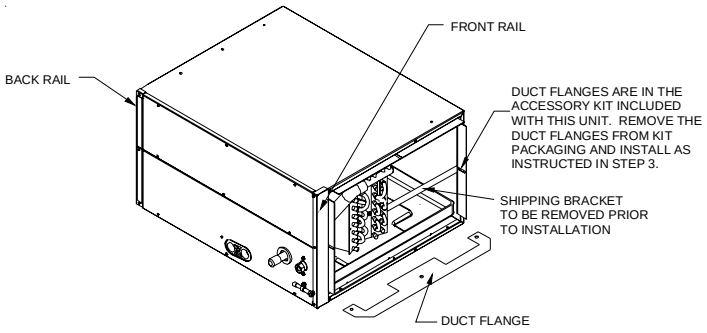


Figure 2
Horizontal Right Application

3. Using the hardware and brackets provided, attach the coil to the furnace then attach the plenum to the coil (Figure 3).

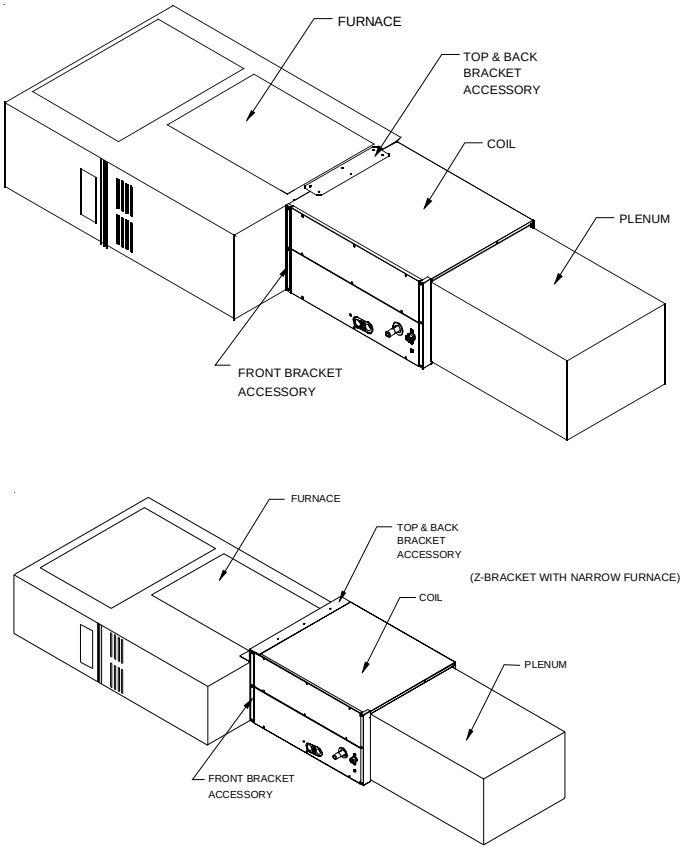


Figure 3
Installation of Furnace, Coil and Plenum

Using tape or mastic seal between the coil and furnace and the coil and plenum.

Condensate Drain Piping

When coils are installed above ceilings, or in other locations where damage from condensate overflow may occur, it is MANDATORY to install a field fabricated auxiliary drain pan under the coil cabinet enclosure. Drain lines from the auxiliary pan must be installed and terminated so that the homeowner can see water discharges.

Primary condensate drain connections are located in the drain pan at the bottom of the coil/enclosure assembly. Use the female (3/4 fpt) threaded fitting that protrudes outside of the enclosure for external connections.

1. Ensure drain pan hole is NOT obstructed.
2. To prevent potential sweating and dripping on finished space, it may be necessary to insulate the condensate drain line located inside the building. Use Armaflex® or similar material.

A Secondary Condensate Drain Connection, now called for by many building codes, has been provided. Pitch the drain line 1/4" per foot to provide free drainage. Install a condensate trap to ensure proper drainage.

CAUTION

If secondary drain is not installed, the secondary access must be plugged.

WARNING

Do not use this coil on OIL furnaces or any application where the temperature of the drain pan may exceed 300ºF. A field fabricated metal drain pan should be used for these type of applications. Failure to follow this warning may result in property damage and/or personal injury.

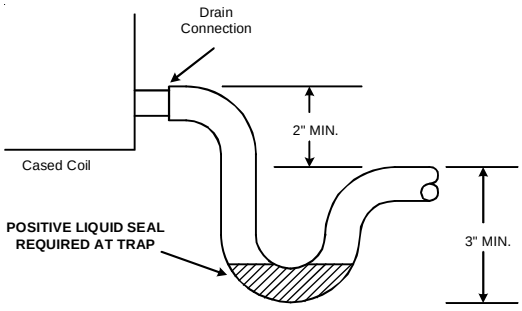


Figure 4

Refrigerant Lines

WARNING

A quenching cloth is strongly recommended to prevent scorching or marring of the equipment finish when welding close to the painted surfaces. Use brazing alloy of 5% minimum silver content.

All cut ends are to be round, burr free, and cleaned. Any other condition increases the chance of a refrigerant leak. Use a pipe cutter to remove the closed end of the spun closed suction line.

To avoid overheating after brazing, quench all welded joints with water or a wet rag.

For the correct tubing size, follow the specification for the condenser/heat pump

WARNING

The coil is shipped under pressure. Follow these instructions to prevent injury.

Special Instructions

This coil comes equipped with a check style flowrator for refrigerant management. For most installations with matching applications, no change to the flowrator orifice is required. However, in mix-matched applications, a flowrator change may be required. See the Goodman piston kit chart or consult your local distributor for details regarding mix-matched orifice sizing. If the mix-match application requires a different piston size, change the piston in the distributor on the indoor coil before installing the coil and follow the procedure shown below.

1. Loosen the 13/16 nut ***1 TURN ONLY*** to allow high pressure tracer gas to escape. No gas indicates a possible leak.
2. After the gas has escaped, remove the nut and discard the black or brass cap.
3. Remove the check piston to verify it is correct and then replace the piston. See piston kit chart in instructions.
4. Use a tube cutter to remove the spin closure on the suction line.
5. Remove the tailpiece clamped to the exterior and **slide the 13/16 nut into place.**
6. Braze tailpiece to the line set liquid tube.

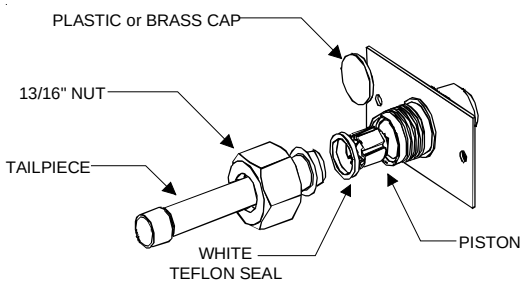


Figure 1

7. Insert the suction line into the connection, slide the insulation and the rubber grommet at least 18" away from the braze joint. Braze suction line.
8. **AFTER THE TAILPIECE HAS COOLED**, confirm position of the white Teflon® seal and hand tighten the 13/16 nut.
9. Torque the 13/16 nut to 10-30 ft-lbs. or tighten 1/6 turn.

CAUTION

Excessive torque can cause orifices to stick. Use the proper torque settings when tightening orifices.

10. Replace suction line grommet and insulation.

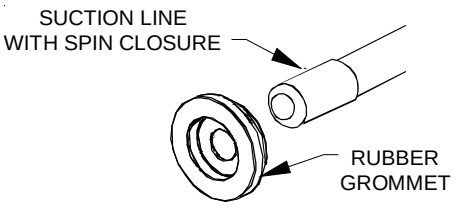


Figure 2

11. Check fittings for leaks after complete installation. Evacuate and charge on the low side.

NOTE: With the piston in the distributor, the seal end should point inside the distributor body and should not be seen when looking into the end of distributor. Make sure the piston is free to rotate, and move up and down in the distributor body.

IMPORTANT: Note 2 in the Goodman piston chart does not apply to CH coils.

NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE

Quality Makes the Difference!

All of our systems are designed and manufactured with the same high quality standards regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run tested before it leaves the factory. That's why we know. . .**There's No Better Quality.**

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