

EVAPORATOR COIL INSTALLATION INSTRUCTIONS

COIL SERIES 96, 97, 98 MFD HSG GAS AND ELECTRIC FURNACES AIR CONDITIONING AND HEAT PUMP

INTRODUCTION:

Mortex Evaporator Coils are designed specifically for use with manufactured housing furnaces, either gas downflow or electric downflow or upflow. You can not use plastic pans in upflow fuel burning furnaces.

These instructions are primarily intended to assist qualified individuals trained and experienced in the proper installation of this type equipment. Some state codes require installation and service personnel to be licensed. Refer to authorities having jurisdiction for additional guidance. (All national, state, and local codes must be followed.)

NOTE: MORTEX COILS, BLOWERS, AND OTHER ACCESSORIES INSTALLED WHEN AIR CONDITIONING IS ADDED TO MANUFACTURED HOUSING FURNACES WILL COMPLY TO HUD REGULATIONS REQUIRING THIRD PARTY APPROVALS. EFFICIENCY AND CAPACITY RATINGS AS REQUIRED BY HUD ARE LISTED IN CURRENT ARI DIRECTORY FOR MORTEX COILS MATCHED WITH MANY BRANDS OF OUTDOOR UNITS. THESE INDOOR COIL RATINGS ARE BASED ON AIR QUANTITIES CONSISTENT WITH THOSE THAT ARE ENCOUNTERED IN TYPICAL MANUFACTURED HOUSING AIR CONDITIONING APPLICATIONS.

INSTALLATION WITH ELECTRIC FURNACE:

Typical electric furnace installation consists of a coil without cabinet installed on top of a downflow furnace or the coil inside a cavity on either a downflow or upflow furnace.

The following Mortex installation kits are unique to manufactured housing air conditioning and these or equivalent kits are required to complete the installation.

1. Filter-Electric (95-1741-00) is required when using Mortex Coils on all Nordyne electric furnaces without cavities. Evcon furnace filters are normally adequate.
2. Coil Support Bracket Kit (99-3420-00) is required to support coils in Evcon furnaces. Furnace Insulation Kit (99-9104-00) should be ordered as needed.
3. Furnace Insulation Kits are required to insulate interior of Nordyne furnaces. E()EH use kit 99-9101-02, FEHA use kit 99-9105-00.
4. Mortex coil cavity for Nordyne electric furnaces are available as an option.

Installation procedure.

1. Turn off electrical power to the furnace by turning off breaker in house panel. **CAUTION: Furnace may be connected to more than one supply circuit. Do not use furnace disconnect only. Check power at furnace to insure power is off.**
2. Remove filter at top of furnace cabinet if Nordyne furnace.
3. Remove refrigerant line knockout at top of Nordyne furnace or install Support Bracket on Evcon.
4. Install insulation if needed.
5. Attach drain pan gasket provided with coil to underside of coil pan and center evaporator coil on furnace. See figure A.

6. Attach filters to sides of coil per filter instructions if Nordyne furnace.
7. Cut out floor opening for refrigerant lines and drain hose.
8. Connect drain hose to condensate fitting. See figure B. **All pull through furnaces must have a condensate trap in the drain line.**
9. Connect refrigerant lines and make sure all connections are tight without leaks.
10. With the coil in place seal off any openings at top or bottom of furnace to prevent air leakage or air bypass.
11. Turn power on to furnace.
12. Replace front door.

INSTALLATION WITH GAS FURNACE:

Typical gas furnace installation consists of a coil without cabinet installed in the cavity of a downflow furnace. Coil with plastic pan is not suitable for upflow gas.

The following Mortex installation kits are unique to manufactured housing air conditioning and these or equivalent kits are required to complete the installation.

1. Filter-Universal Gas Kit (95-2054-00) as required.

Installation procedure:

1. Turn off electrical power to furnace.
2. Remove the lower front panel of the furnace, and re-route any gas piping in front of coil compartment as required to install coil.
3. Remove the coil cover panel(s).
4. Remove knockouts in front left bottom of furnace for routing of refrigerant lines and condensate drain.
5. Attach drain pan gasket provided (see figure A) to underside of coil pan and center coil in coil cavity.
6. Connect drain hose to condensate pan fitting, securing with clamp. See figure B.
7. Remove knockouts from coil cover panel(s), cut fiberglass insulation covering openings and reinstall cover.
8. Install notched cover plates over refrigerant lines using rubber grommets to seal around lines and screw together with provided screws. Using provided self taping screws fasten plate to furnace cover. **Caution: make sure screws do not penetrate coil tubes.** On coils less than 18 tubes high use the third plate to cover opening above notched plate.
9. Connect refrigerant lines and make sure all connections are tight.
10. Reconnect the gas piping if it was disconnected and seal off any openings at bottom of furnace. National, state and local codes must be followed.
11. Install Filter.
12. Turn on gas/electrical supply and make final system check.
13. Replace front door.

GENERAL COIL INSTALLATION NOTES:

1. For optimum performance and efficiency, adjust system charge or expansion valve super heat as recommended by outdoor unit manufacturer.
2. For coils equipped with flowrators, use the specific orifice piston size as recommended by outdoor unit manufacturer for the specific outdoor unit application.
3. Coil should be sprayed with liquid detergent thoroughly before installation to assure elimination of water blowoff and for maximum performance. If not sprayed, approximately 50 hours of break in time is required to achieve results.
4. Always be sure coil is installed level and that it drains toward drain fitting. Connect drain line to open drain but never to a closed sewer. Pitch drain line away from drain pan. Always test drain line with water before operating.
5. Check all field installed refrigerant connections with electronic leak detector, halide torch, or soap bubbles. Follow line set instructions when making quick-connect fittings connections.
6. Refer to installation instructions provided with the outdoor unit, Mortex heating and cooling blower package and Mortex line sets for completion of system installation.
7. Furnace must have sufficient air delivery to handle outdoor/indoor combination requirements as listed in ARI. Over blowing indoor coil may cause water blowoff that may result in shock hazard.
8. **Shock Hazard – A water trap must be installed on any furnace that pulls the air across the indoor coil.**
9. Never install an indoor coil on the inlet of a fuel burning appliance.
10. If a coil requires a non-bleed expansion valve it will be listed in ARI with an x as the 6th digit. Mortex assumes the outdoor unit operates with a loaded condition on start-up and the compressor can start under these conditions.
11. Fill in data on the Furnace Air Conditioning Accessory Label provided listing all model numbers and certification authorities. Install this label in furnace vestibule. **The HUD requirements are not met unless the data is entered and the label is attached to furnace showing certification authority for the approvals of blower and coil.**

WARNING

THE USE OF COMPONENTS NOT TESTED IN COMBINATION WITH SPECIFIC MAKES AND MODEL FURNACES MAY MAKE THE EQUIPMENT IN VIOLATION OF STATE CODES, MAY CREATE A HAZARD AND MAY RUIN THE EQUIPMENT. IN ADDITION, THE NATIONAL MOBILE HOME CONSTRUCTION AND SAFETY STANDARDS ACT AND ITS REGULATIONS REQUIRE THE USE OF COMPONENTS TESTED OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY IN ALL

MANUFACTURED HOMES CONSTRUCTED OR SOLD SUBJECT TO THAT ACT.

Figure A Drain Pan Gasket

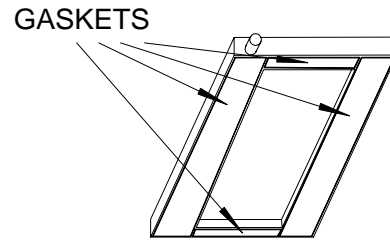


Figure B Drain Hose

FOR VERSION "A"
 INSTALLATION OF COLLAPSIBLE HOSE ON SINGLE CONDENSATE DRAIN CONNECTION
 CAUTION—BEFORE INSTALLING COIL IN FURNACE, SEE FIGURE 1.

Diagram for Version A shows a drain pan with a connector. A section of collapsible hose is being attached to the connector. A dimension of 7/8" is indicated for the hose section. A label 'CUT HERE' points to the shoulder of the hose. Below the diagram, it says 'FIGURE 1' and 'WRAP WITH ELECTRICAL TAPE'. To the right, a note says 'Trap made with field supplied tape. Stretch hose and form trap.'

CUT PORTION OF HOSE OFF ON ONE END AT SHOULDER AS SHOWN ABOVE. WRAP 2 OR 3 TIMES AROUND THE PAN CONNECTOR WITH ELECTRICAL TAPE FOR A LEAK-TIGHT FIT. SLIP SMALLER 7/8" I.D. SECTION OF HOSE ON TO DRAIN CONNECTION. SECURE WITH HOSE CLAMP.

FOR VERSION "B"
 TWO FITTINGS ARE SHIPPED IN THE ACCESSORY PACKAGE TO BE USED WITH THE MOBILE HOME PLASTIC PAN THE 90 DEG ELL CAN BE SCREWED IN THE LEFT DRAIN FITTING (MAIN) TO TURN DOWN AND EXIT FURNACE ENCLOSED DRAIN HOSE WILL SLIP OVER THE FITTING OR A STANDARD PVC FITTING CAN BE USED IF CODE REQUIRES RIGHT DRAIN CONNECTION HAS A WEB IN IT TO PREVENT FLOW UNLESS A SECONDARY DRAIN IS REQUIRED A STRAIGHT FITTING IS SHIPPED IN THE ACCESSORY PACKAGE TO BE USED FOR THE AUXILIARY DRAIN WHERE REQUIRED. KNOCK OUT WEB AND INSERT FITTING. TURN DOWN WITH A STANDARD 3/4 IN PVC ELL
 INSTALLATION OF COLLAPSIBLE HOSE ON SINGLE / AUX. CONDENSATE DRAIN CONNECTION
 CAUTION—BEFORE INSTALLING COIL IN FURNACE, SEE FIGURE 2.

Diagram for Version B shows a drain pan with a 90-degree elbow fitting. A section of collapsible hose is being attached to the fitting. A dimension of 1" is indicated for the hose section. A label 'CUT HERE' points to the shoulder of the hose. Below the diagram, it says 'FIGURE 2'. To the right, a note says 'Trap made with field supplied tape. Stretch hose and form trap.'

SLIP 1" I.D. SECTION OF HOSE ON TO 90 DEG. DRAIN FITTING. HOSE IN SOME CASES IS VERY TIGHT BUT WILL STRETCH AS IT IS WORKED ON. IF HOSE CAN BE LEFT ON DURING INSTALLATION PUT PROVIDED CLAMP ON AT THIS TIME. IF HOSE MUST BE REMOVED TO COMPLETE INSTALLATION MAKE SURE IT IS STRETCHED TO ALLOW FOR EASIER REATTACHMENT.

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