These instructions must be read before any installation.

<table>
<thead>
<tr>
<th>WARNING</th>
<th>Your safety and the safety of others are very important. We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is the safety alert symbol. This symbol alerts you to potential hazards that can kill or hurt you and others. All safety messages will follow the safety alert symbol and signal word. These signal words mean the following:</td>
<td></td>
</tr>
<tr>
<td>DANGER</td>
<td>You can be killed or seriously injured if you don’t immediately follow instructions.</td>
</tr>
<tr>
<td>WARNING</td>
<td>Indicate a potentially hazardous situation, which, if not avoided, could result in death or serious injury.</td>
</tr>
<tr>
<td>CAUTION</td>
<td>Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. Caution may also be used to alert against unsafe practices.</td>
</tr>
<tr>
<td>NOTICE</td>
<td>Indicates a statement of company policy as the message relates directly or indirectly to the safety of personnel or protection of property.</td>
</tr>
<tr>
<td>IMPORTANT</td>
<td>More detailed information concerning the statement of company policy as the message relates directly or indirectly to the safety of personnel or protection of property.</td>
</tr>
</tbody>
</table>

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

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40228K016

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Save these instructions for future reference
General

Evaporator coils are designed for use with AC condensing units or heat pump units. These instructions are intended as a general guide and do not supersede local codes in any way. Consult with local authorities having jurisdiction before installation. This installation must comply with all local and state laws as well as national electrical codes for the U.S. or Canada where applicable.

Verify the efficiency performance requirements, such as SEER, EER, and/or HSPF, are appropriate with the matched condensing or heat pump units. Check outdoor unit manufacturer for proper line sizing.

Air Leakage
All indoor cabinets MUST be taped after installation to seal against any air leaks. System performance and efficiency will be reduced if air leakage exists.

Air Filters
Properly-sized air filters MUST be installed on all return air ducts. If air filters are not used or maintained regularly as required, equipment damage can occur, system capacity and efficiency will be reduced and the warranty coverage may be void.

Filter Dryer
A new filter dryer MUST be installed on all systems. The filter dryer is typically shipped with the outdoor unit; if not, add one. Do not install more than one filter dryer in the system; it can reduce the system capacity and efficiency.

Metering Device
The indoor coils are shipped with either a piston or expansion valve (TXV) based on the coil model. The selection of the metering device type and size must follow the outdoor unit technical specification and the AHRI listing.

Pistons
The piston shipped with the indoor coil may not be the correct size for the outdoor unit being installed. The outdoor unit specification gives the correct size and the correct piston is usually shipped with the outdoor unit.

To replace the piston with another piston, perform the following procedure:

1. Loosen the piston housing hex nut on coil liquid tube. Use TWO wrenches to avoid damage to the distributor tubes.
2. Replace the existing piston with the new piston
3. Always use a new Teflon O-ring
4. Re-assemble the housing and torque to 10-20 ft-lb using TWO wrenches
Expansion Valves (TXV)

Factory shipped coils with installed TXV are available. TXV kits are also available to convert a piston-shipped coil to a TXV coil; the kit part number is specific to the outdoor model (see the outdoor unit technical specification).

For proper TXV installation, follow the installation instruction provided with the TXV kit in addition to the following procedure:

1. Loosen the piston housing hex nut on coil liquid tube. Use TWO wrenches to avoid damage to the distributor tubes.
2. Replace the existing piston with the new TXV
3. Always use a new Teflon O-ring
4. Re-assemble the housing and torque to 10-20 ft-lb using TWO wrenches
5. Connect the external equalizer tube to the equalizer port on the suction line and tighten to 8 ft-lb
6. Attach the TXV bulb at the 10 to 2 o’clock position on the suction line outside the cabinet no more than one foot from the coil
7. Insulate the bulb

Refrigerant Line Sets

- Line set size must be selected per the outdoor unit instructions
- Brazed connections MUST be purged with nitrogen during brazing
- Service valves MUST be wrapped with wet rag during brazing
- Line sets MUST be sealed at all times until brazed to prevent contaminants
- Suction line MUST be insulated

System Vacuum

After brazing and before releasing/adding charge into the system, the system MUST be evacuated to at least 500 microns with a refrigeration vacuum pump. After evacuation, shut off the pump and monitor the vacuum gauge to ensure that the system is holding the vacuum. When it is time to release the charge from the outdoor unit into the system, always slowly open the suction service valve first before opening the liquid service valve.
System Charging
The system MUST be charged per the outdoor unit installation instructions.

Condensate Drain
Coils are equipped with multiple drain connections. Determine the drain connections to be used and note the difference between the primary (green) and secondary (red) openings. Drain plugs are provided for all openings; remove and discard the appropriate plugs with 1/2” drive ratchet and verify that remaining plugs are tight (2.5 ft-lbs). Attach drain line to pan with 3/4” male pipe thread PVC fittings. Hand tight is adequate - do not over tighten and do not reduce drain line size.

Route drain line(s) so they will not be exposed to freezing temperatures and do not interfere with accessibility to the coil, air handling system or filter. The drain should be pitched downward 1” per 10” with a 2” trap as close to the coil as possible. If line makes a second trap, or has an extended run before termination, a vent tee should be installed after the trap closest to the pan. See Figure 3.

If the coil is located in or above a living space where damage may result from condensate overflow, a separate 3/4” drain must be provided from the secondary drain connection. Run this drain to a place in compliance with local installation codes where it will be noticed when unit is operational. Condensate flowing from the secondary drain indicates a plugged primary drain. Prime the trap with water. Test line for leaks. Test water flow with unit in operation. An auxiliary drain pan should also be installed under the unit as specified by most local building codes.

Upflow Installation

• When the indoor coil is installed with a furnace unit, it is highly recommended to use the same width coil as the furnace
• Install coil with slight slope towards the drain connection
• Remove auxiliary (horizontal) drain pans from the coil cabinet for upflow installation

![Figure 4. Upflow Installation](image)

WARNING

The drain pan is made of material that can withstand 450°F. However, the clearance between the furnace and the drain pan must be 4 inches for an oil furnace or 2 inches for a gas furnace.

• Apply foil face tape around the entire cabinet to prevent air leaks and insulate the suction line

Downflow Installation

• When the indoor coil is installed with a furnace unit, it is highly recommended to use the same width coil as the furnace
• Install coil with slight slope towards the drain connection
• Remove auxiliary (horizontal) drain pans from the coil cabinet for downflow installation
• Airflow face velocity above 350 ft/min is not recommended due to potential for water blow-off

![Figure 5. Downflow Installation](image)

WARNING

Water shields must be installed on all downflow applications on the inside of the drain pan on both sides of the coil (downflow kit).

IMPORTANT

Use foil face tape to secure the top edge of the coil insulation to the cabinet to prevent delamination and air flow blockage.
• Apply foil face tape around the entire cabinet to prevent air leaks

Figure 6. Water Shield Installation

Horizontal Installation
• For installation above ceilings, a secondary drain pan with overflow switch must be installed and must comply with local codes
• When the indoor coil is installed with a furnace unit, it is highly recommended to use the same width coil as the furnace
• Install coil with slight slope towards the drain connection and level with the furnace
• Do not remove auxiliary (horizontal) drain pans from the coil cabinet. Position the drain pan according to the horizontal position installation (right or left position). It is most preferred and most efficient that the outlet of the furnace be facing the bottom of the coil instead of the top of the coil

• Install splash guard at the coil outlet as shown (included with horizontal coils)
• Air flow should be set for 350 CFM per ton or as rated for the matched system

Figure 7. Horizontal Left Installation

Figure 8. Horizontal Right Installation

Horizontal Conversion (Right or Left)
See Figure 10
• Remove front panels (1) and slide coil outside the cabinet
• Remove horizontal pan (3) and re-install on the opposite side
• Remove top plate (4) and reverse the position of the diverter plate (5) as shown. This will allow the water to slope downwards towards the middle of the coil inside the horizontal drain pan

Figure 10. Horizontal Conversion
The water diverter plate (5) must be positioned downwards facing the direction of air flow. Failure to do so can cause water blow off and possible structure damage.

**Figure 9. Position Water Diverter Plate**

- Replace the top plate (6) and seal any air gaps
- Cut front flange (7) and fold back to allow access to the horizontal drain connections
- Install the coil back into the cabinet and the piping panel (10)
- Knock out new access openings for the drain lines (11)
- Install the door and seal any unused holes (8 & 12) to prevent air leakage
- Install splash guard at the coil outlet as shown to prevent water blow off

**Splash Guard Installation**

Fasten splash guard to duct flanges with (4) sheet metal screws, (2) on each side. Screws can be installed from the inside or outside.

Angle splashguard to ensure proper water drainage back into horizontal drain pan.

Splashguard should overlap the horizontal drain pan by at least 4”.

**Figure 11. Splash Guard Installation**

- Apply foil face tape around the entire cabinet to prevent air leaks and insulate the suction line