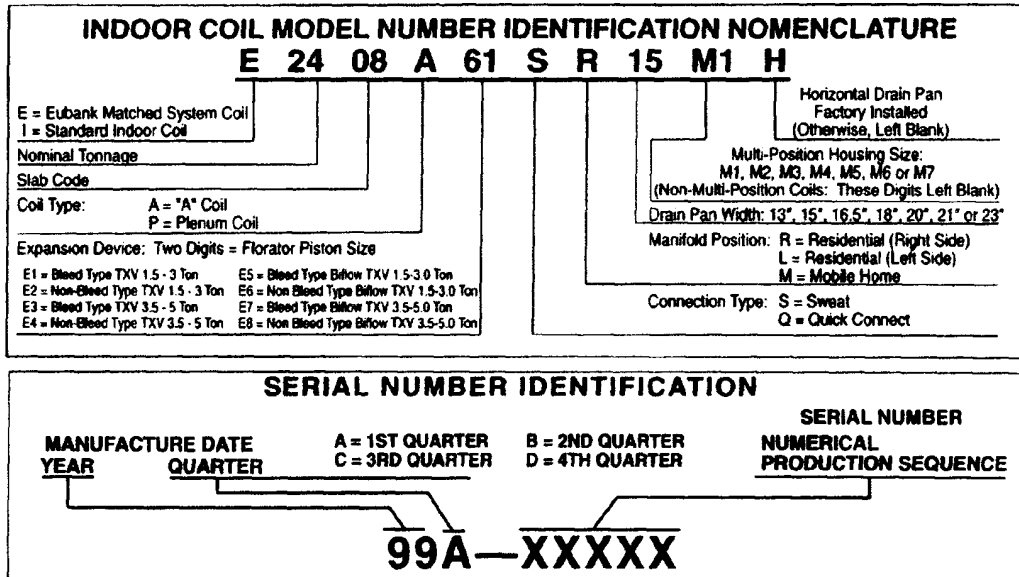


INSTALLATION INSTRUCTIONS EVAPORATOR COILS AND ACCESSORIES



NOTE TO INSTALLER

These instructions are for the use of qualified individuals specially trained and experienced in installation of this type equipment and related system components. Installation and service personnel are required by some states to be licensed. Persons not qualified shall not install this equipment nor interpret these instructions.

WARNING

Improper installation may damage equipment, can create a hazard, and will void the warranty.

NOTE

The words "SHALL" and "MUST" indicate a requirement which is essential to satisfactory and safe product performance. The words "SHOULD" and "MAY" indicate a recommendation or advice which is not essential and not required but which may be useful or helpful.

DANGER

Before performing any work on this equipment, the power supply must be turned OFF at the household service box to avoid the possibility of shock, injury or damage to equipment.

WARNING; DANGER OF EXPLOSION, BODILY INJURY OR DEATH

PRECHARGED AIR CONDITIONING COMPONENTS CONTAIN A REFRIGERANT UNDER HIGH PRESSURE, TO AVOID POSSIBLE PERSONAL INJURY, DO NOT PUNCTURE TUBING OR OTHER SYSTEMS PARTS. DO NOT EXPOSE SYSTEM PARTS TO HIGH TEMPERATURES. WHEN THIS EVAPORATOR COIL IS INSTALLED WITH A FURNACE, DO NOT OPERATE FURNACE FOR HEATING UNTIL AFTER THE REFRIGERANT LINES HAVE BEEN CONNECTED BETWEEN THE COIL AND OUTDOOR UNIT.

PRELIMINARY REQUIREMENTS

A. LOCAL CODES: The installer shall comply with all local codes and/or regulations. Such codes and/or regulations should take precedence over any recommendations contained herein.

B. Exterior surface of coil housing may sweat when unit is installed in non-air conditioned space such as an attic or garage. The installer must insulate the cabinet with 1" fiberglass insulation or supply a full size auxiliary drain pan for these applications.

C. CAUTION: When coils are used with air handlers or furnaces and installed above a finished ceiling or living area, or down flow applications, an auxiliary sheet metal condensate drain pan must be fabricated and installed under entire unit. Never locate the coil in return duct to a gas or oil furnace. Provide a service inlet to the coil for inspection and cleaning. Keep the coil pitched toward the drain connection.

D. NOTE: For elimination of possible water blow-off and maximum performance, coil should be sprayed thoroughly with liquid detergent, such as 409, and rinsed with clean water before installation. If coil is not sprayed with detergent, approximately 50 hours of break-in time is required before equivalent performance is obtained.

E. Coil refrigerant connections are available with either sweat or quick-connect connections. On quick-connect models use a back-up wrench when connecting suction and liquid line fittings.

CONDENSATE DRAIN PLUMBING

Coils are provided with a 3/4" male pipe drain fitting, a 1/2" male pipe emergency drain fitting, two 1/2" plugs and one 3/4" plug. Install these fittings using teflon tape or pipe dope and tighten securely. Do not over tighten these fittings, it could result in damage to the drain pan. For downflow, or any installation where condensate overflow could create a hazard or water damage, the 1/2" emergency drain fitting must be used. The emergency drain must be left open. If the emergency drain has to be piped away from the air handler, its outlet must be installed in a location that would allow any drainage to be immediately noticed.

NOTE: FAILURE TO COMPLY CAN DAMAGE EQUIPMENT AND CREATE A HAZARD.

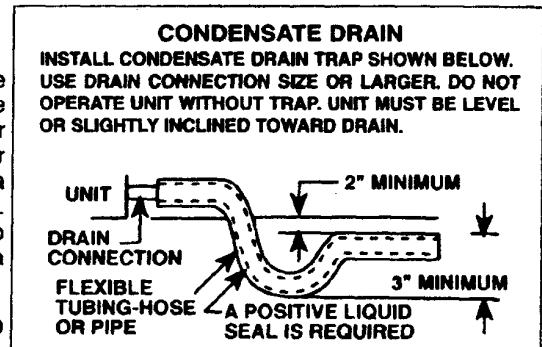


Figure 1

1. Do not connect the drain line to a closed sewer. Run line to an open drain.
2. Never terminate an open sewer or drain connection within the return air duct, platform or return plenum.
3. Pitch the drain line at least 1/4" per foot away from the drain pan.
4. If condensate drain connection is on the negative side of the blower, a trap must be installed to insure positive drainage. (See Fig. 1).
5. Condensate drain lines should not be reduced in size from the connection size supplied.
6. The drain line should be insulated where necessary, to prevent sweating and damage due to condensate forming on the outside surface of the line.
7. Test condensate drain line with water before operating system.

HEAT EXCHANGER CLEARANCE

For gas furnace applications, refer to furnace installation instructions for proper heat exchanger clearance.

EXPANSION VALVE COILS

Field Installed Expansion Valves

1. Disassemble the flow rater body and remove the piston from the distributor. Be sure to save the o-ring in the tale piece.
2. Install the expansion valve between the tale piece and the distributor as shown in figure 2. Be sure to install the o-rings as shown in figure 2.

Factory and Field Installed Expansion Valves

3. On factory installed expansion valve the txv's sensing bulb is not installed to the coil's vapor line. The bulb and capillary tubing should be routed outside of the coils casing making sure the capillary tube will not be directly against sharp casing edges. The bulb should be installed after the vapor and liquid line is soldered and leak checked to prevent subjecting the bulb to excessive heat. To assure accurate sensing and the best performance the bulb should be placed on the upper half of the vapor line at the two or ten o'clock position and at least 6" from the coil manifold as shown in figure 2.
4. Attach the bulb securely with the copper strap provided.
5. Insulate the bulb thoroughly with a suitable insulation material such as cork tape.

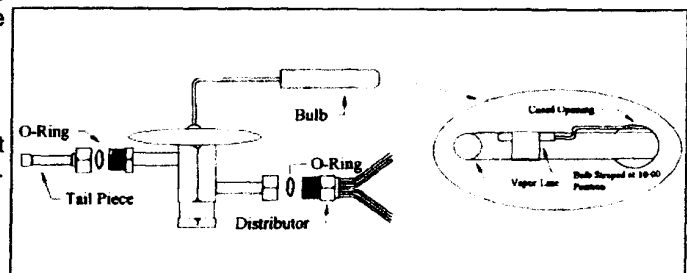
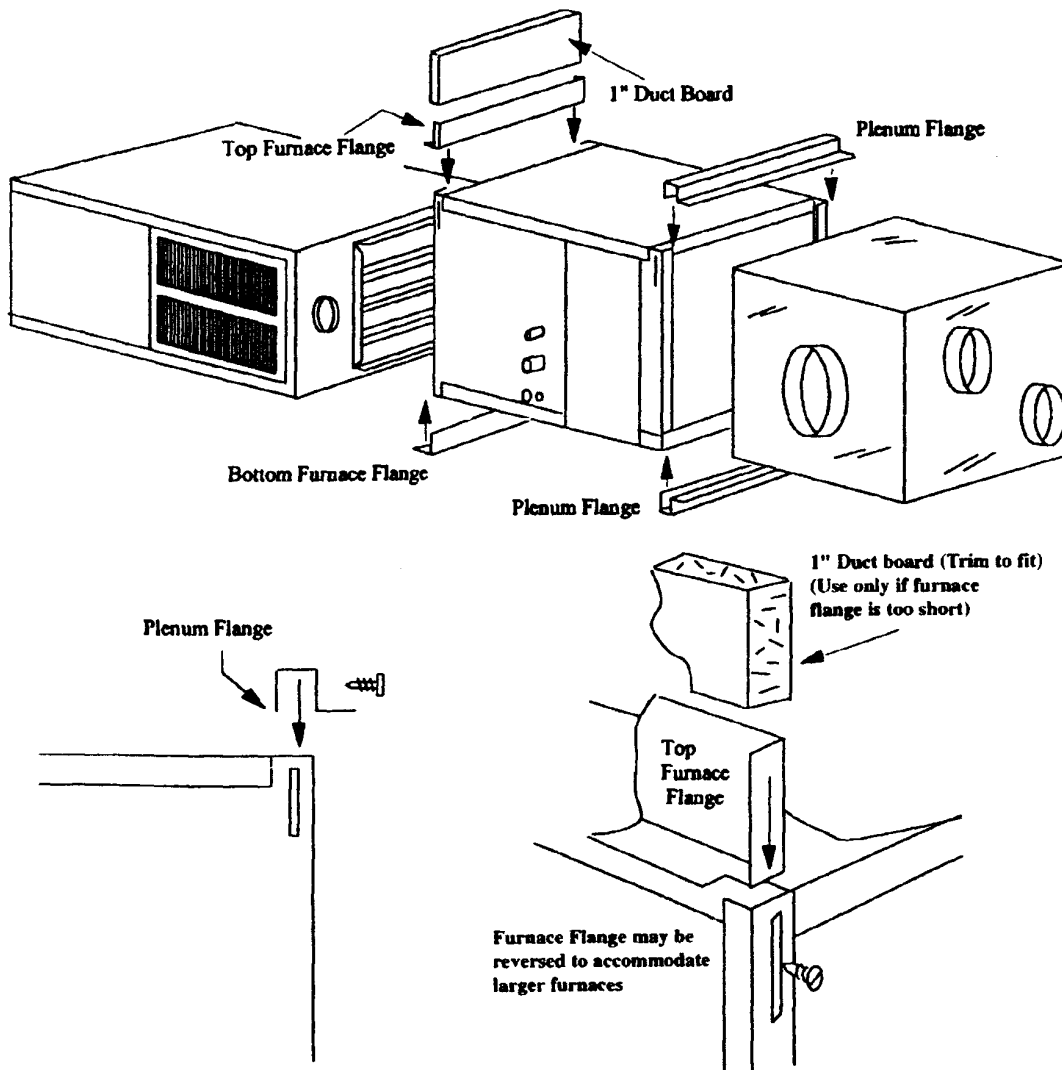


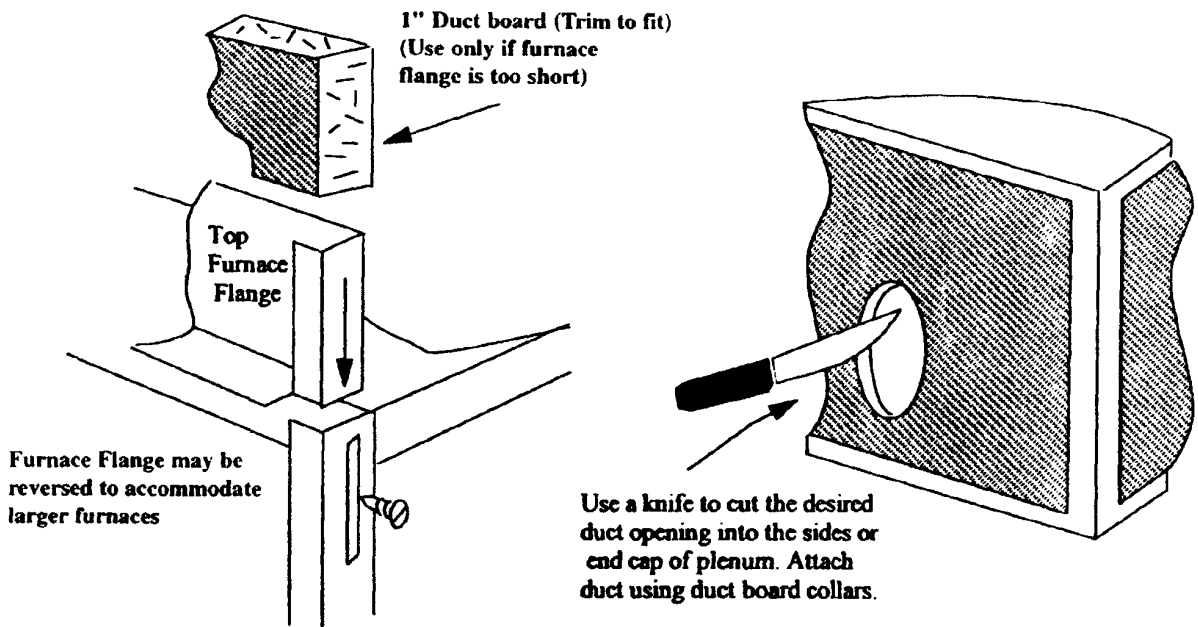
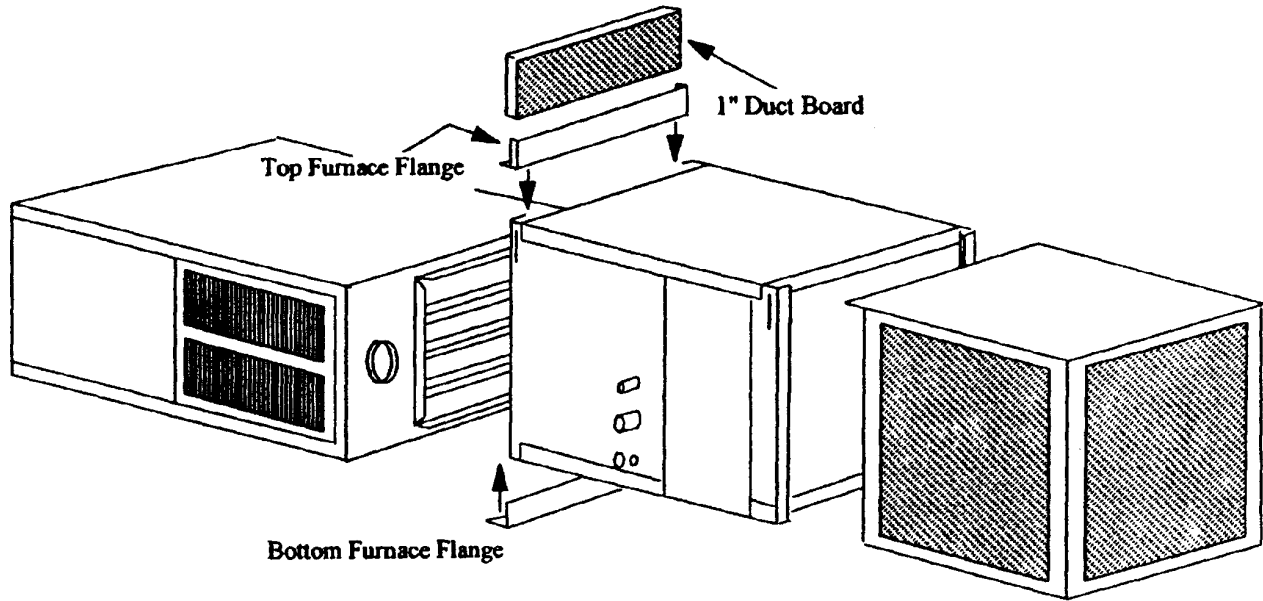
Figure 2

INSTALLATION INSTRUCTIONS FOR HORIZONTAL COIL WITH AND WITHOUT DETACHABLE PLENUM

1. Determine if installation is a left or right hand installation. (Coil is shipped in the preferred left hand position. If a right hand installation is needed, reverse flanges.)
2. Arrange and screw flanges.
3. Set furnace on top of bottom furnace flange.
4. Slide the top furnace flange into position and screw to the furnace. (On smaller furnaces 1" duct board may need to be trimmed to fit).
5. Attach plenum to the coil.
6. Seal furnace and plenum to coil to meet local code requirements.
7. Connect drain lines to meet local code requirements.
8. For installations in a non-conditioned space, a full-size auxiliary drain pan must be used.



HORIZONTAL COIL WITH DETACHABLE PLENUM



Q MODEL EVAPORATOR COILS

1. For models with quick connect fittings installed into A Series Air Handlers or coil housings, 3 screws for each fitting and one metal bushing is provided with each Q model coil.
2. To install the suction line fitting onto the coil access panel:
 - A. Install the fitting into the suction line hole.
 - B. Line up the 3-holes around the fitting with the bracket behind the fitting and install the screws. Refer to Fig. 11.
3. To install the liquid line fitting into the coil access panel:
 - A. Slip the metal bushing onto the fitting.
 - B. Install the fitting into the liquid line hole.
 - C. Line up the 3 holes around the fitting with the bushing and bracket behind the fitting and install the screws. Refer to Fig. 12.

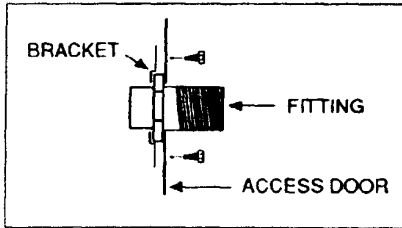


Figure 11

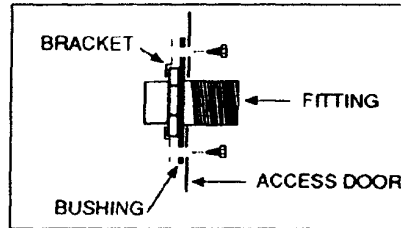
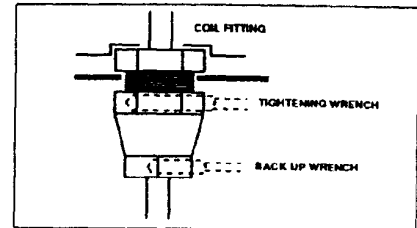


Figure 12



Q MODELS COMPRESSION FITTING CONNECTIONS

1. Remove dust caps and plugs.
2. If necessary, carefully wipe coupling seals and threaded surfaces with a clean cloth to prevent the inclusion of dirt or any foreign materials in the system.
3. Lubricate male half diaphragm and synthetic rubber seal with refrigeration oil. Thread coupling halves together by hand to insure proper mating of threads;
4. It is imperative that the properly located backup wrenches be used when tightening these couplings. Failure to do so will cause internal restrictions and leaky fittings. Hold backup as shown below for coil fittings. Use proper size wrenches (on coupling body hex and on union nut) and tighten until coupling bodies "bottom" or a definite resistance is felt.
5. Using a marker or ink pen, mark a line lengthwise from the coupling union nut to the bulk head. Then tighten an additional 1/4 turn to insure the formation of a leakproof joint. If a torque wrench is used, the following torque values are recommended:

COUPLING SIZE	FT. LBS.
-6	10-12
-10	35-45
-11	35-45
-12	50-65

Due to constant improvement, all specifications are subject to change without notice.

10 Seer Condensing Unit/Coil Flowrator Usage

Condenser Model	Normal Capacity (Tons)	Required Flowrator (see note 1)	Matched Coil Usage						
			Full Cased	Width	Part Number	Uncased	Width	Part Number	Matching Oil Furnace Casing
C1018-1	1 1/2	0.053	E1802A53SR1308 No Change Necessary	14 1/2	29290	E1802A53SR13	13	29280	N/A
						E2408A59SR13 Requires Change to .053 Flowrator	13	29285	N/A
C1024-1	2	0.059	E3009A63SR1308 Requires Change To .059 Flowrator	14 1/2	29291	E2408A59SR13 No Change Necessary	13	29285	N/A
			E3009A63SR1630 Requires Change To .059 Flowrator	17 1/2	29293	E3009A63SR13 Requires Change to .059 Flowrator		29281	N/A
			E3009A63SR20 Requires Change to .059 Flowrator	20	29275		29340		
C1030-1	2 1/2	0.063	E3009A63SR1308 No Change Necessary	14 1/2	29291	E3009A63SR13 No Change Necessary	13	29281	N/A
			E3009A63SR1630 No Change Necessary	17 1/2	29293	E3009A63SR15 No Change Necessary	15	29282	N/A
			E3612A70SR1310 Requires Change To .063 Flowrator	14 1/2	29292	E3009A63SR20 No Change Necessary	20	29275	29340
			E3612A70SR1632 Requires Change To .063 Flowrator	17 1/2	29294	E3612A70SR16 Requires Change to .063 Flowrator	16	29283	N/A
			E3612A70SR2057 Requires Change To .063 Flowrator	21	29296	E3612A70SR20 Requires Change to .063 Flowrator	20	29276	N/A
			E3612A70SR2375 Requires Change To .063 Flowrator	24 1/2	29299				
C1036-1	3	0.07	E3612A70SR1310 No Change Necessary	14 1/2	29292	E3612A70SR16 No Change Necessary	16	29343	N/A
			E3612A70SR1632 No Change Necessary	17 1/2	29294	E3612A70SR20 No Change Necessary	20	29276	29341
			E3612A70SR2057 No Change Necessary	21	29296				
			E3612A70SR2375 No Change Necessary	24 1/2	29299				
C1042-1	3 1/2	0.078	E4814A84SR1632 Requires Change To .078 Flowrator	17 1/2	29295	E4814A84SR18 Requires Change to .078 Flowrator	18	29284	N/A
			E4814A84SR2059 Requires Change To .078 Flowrator	21	29297	E4814A84SR20 Requires Change to .078 Flowrator	20	29277	29341
"C1048-1, 3"	4	0.084	E4814A84SR1632 No Change Necessary	17 1/2	29295	E4814A84SR18 No Change Necessary	18	29284	N/A
			E4814A84SR2059 No Change Necessary	21	29297	E4814ASR20 No Change Necessary	20	29277	29341
			E6026A94SR2059 Requires Change To .084 Flowrator	21	29298	E6026A94SR20 Requires Change to .084 Flowrator	20	29278	29341
			E6016A94SR2375 Requires Change To .084 Flowrator	24 1/2	29300				
"C1060-1, 3"	5	0.094	E6026A94SR2059 No Change Necessary	21	29298	E6026A94SR20 No Change Necessary	20	29278	29341
			E6016A94SR2375 No Change Necessary	24 1/2	29300	E6016A94SR23 No Change Necessary	23	29287	N/A

Key to Reference Numbers

E 60 26 A 94 S R 20 59 — Housing Code (Cased Coils Only)

Manufacturer Code: E
 Nominal Capacity: 60
 "A" Coil: 26
 Residential Right Manifold Position: A
 "Sweat" Connection: 94
 Drain Pan Width: S
 Flowrator Piston Size: R
 Manufacturer's Unit Code: 20
 Flowrator Piston Size: 59

NOTES:

#1 Correct Flowrator is supplied with all condensing units - located in instruction packet
 #2 Coils are supplied with Flowrator for their rated capacity with a 10 Seer condenser - Example: E36 coil has a nominal 3 ton, 10 Seer Flowrator.