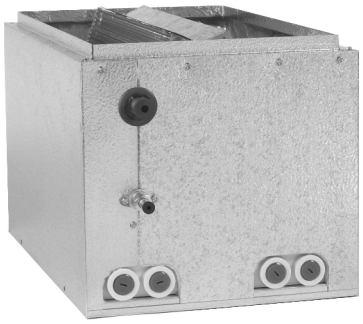
Advanced Distributor Products®

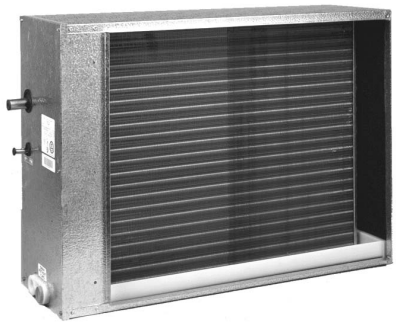
HealthySolutions™ Premium Evaporator Coils by ADP

With HYDROTEC™ Drain Pans

July, 2007

Evaporator Coil Installation Instructions





General

ADP evaporator coils are designed for use with 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.

Receiving

Check coil for shipping damage. If you should find damage, immediately contact the last carrier. Verify contents.

WARNING!

Coils are shipped with a 10 psi dry air holding charge. Puncture rubber plug on suction line to release charge before removing plugs. Note: The absence of pressure does not verify a leak. Check the coil for leaks before installing or returning it to your local wholesaler.

WARNING!

Product contains fiberglass wool.
Disturbing the insulation in this product during installation, maintenance or repair will expose you to fiberglass wool. This material may cause respiratory, skin, and eye irritant. Breathing this may cause lung cancer. (Fiberglass wool is known to the State of California to cause cancer.)

IMPORTANT

The Clean Air Act of 1990 bans the intentional venting of refrigerant (CFC's and HFC's) as of July1, 1992. Approved methods of reclaiming must be followed. Fines and/or incarceration may be levied for non-compliance.

Part # 96654002

2175 West Park Place Blvd., Stone Mountain, GA 30087
www.adpnow.com
adp.feedback@adpnow.com

Configuration

Verify the capacity and SEER requirements (if applicable) are appropriate with the matched condensing or heat pump units.

Coils are suited for R22 and R410A refrigerants and can be used with or without a TXV.

HA, **HE**, **CU** or **CT** (first letter may differ to reflect a particular cabinet color) series coils are set up for upflow/downflow applications and can be factory configured with optional side drain pan for horizontal applications. Vertical drain pans have drain connections on the right and left side and the refrigerant connections can be ordered for either left or right side.

Mutiposition coils (with factory installed horizontal drain pan) can be configured for upflow, counterflow or horizontal installations. The HH, CR, CS6, CS7 & CS8 slab coils are set up for horizontal application only.

CAUTION!

When an evaporator coil is installed in an attic or above a finished ceiling, an auxiliary drain pan should be provided under the unit as specified by most local building codes.

CAUTION!

Drain pans are made of a polymer that can withstand temperatures up to 450 deg F.
Maintain 3" clearance on oil or drum type heat exchangers, and 1 ½" on sectionalized heat exchangers.

Installation - It is recommended that the coil be washed with a coil cleaner to remove any residual oil that may have been left from the manufacturing process.

Upflow-A coils

Position the coil on the outlet of the furnace using sheet metal screws. Coil should be level, or pitched slightly toward the drain connection. Select a blower speed that will allow 350-450 CFM per ton.

Counterflow (Downflow) –A coils

Position the coil on the outlet of the furnace using sheet metal screws. Coil should be level, or pitched slightly toward the drain connection. **Airflow should be set to 350 CFM per ton**. Refer to engineering guide for limitations. If coil model is HE50, counterflow air seals are required (contact distributor).

Multiposition A Coils -Standard Horizontal Application

Position the coil on the outlet of the furnace using sheet metal screws as shown in **Figure 1** (top). Coil should be level, or pitched slightly toward the drain connection. **Airflow should be set to 350 CFM per ton**. Install splashguard (included) onto the coil outlet. Bottom flange of guard should rest on pan and sides screwed to the duct flanges. **See page 5 for detail Splashguard instructions**.

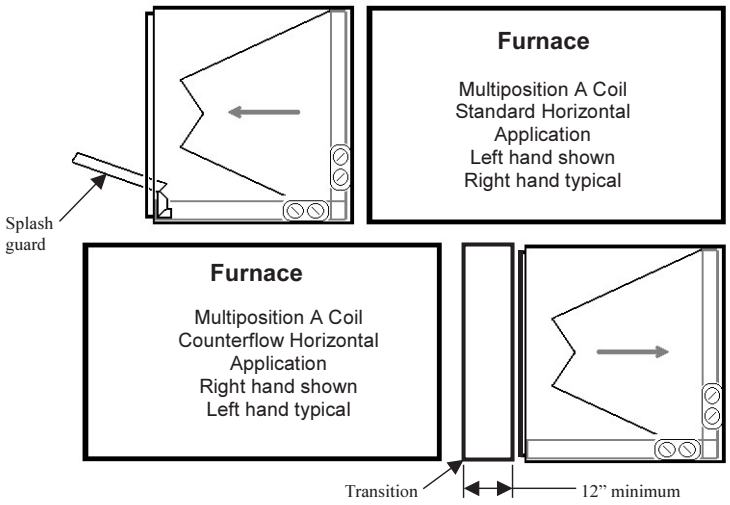


Figure 1

Multiposition A Coils -Counterflow Horizontal Application

A transition between the furnace outlet and coil of a minimum of 12 inches is required using sheet metal screws as shown in **Figure 1** (bottom**)**. Coils that are 20" or less in height and are installed in a cabinet with a height of 25 ½ " or greater do not require a transition, all other coil models require this transition. Coil should be level, or pitched slightly toward the drain connection. **Airflow should be set to 350 CFM per ton**. Refer to engineering guide for limitations. It is recommended to add Silicone caulk between drain pans to prevent water carryover. Splashguard not required for Counterflow Horizontal Application. **Note: Coil is also field convertible from left to right or right to left**. **See page 6 for detail instructions.**

Refrigerant Piping

Refrigerant connections are 3/8" ODF Liquid and 3/4" ODF (18-36 MBTU) or 7/8" ODF (42-60 MBTU) suction. Check outdoor unit manufacturer for proper line sizing.

Refrigerant Flow Controls

Coils can be configured with a standard florator assembly on the liquid line that will accept a field installed TXV or with factory installed TXV.

Note: Cased coils with florator assemblies are shipped with a cap and nut over the threaded fitting. Remove the nut slowly, allowing charge to escape, and secure liquid line stub (attached to cabinet) to florator assembly with nut.

Factory Installed Valves

As shipped from the factory, the TXV installed in each coil is chosen for the nominal BTUH capacity of the coil. **For optimum performance and superheat, ADP recommends the sensing bulb be relocated to the main suction line within one foot of the suction line connection. The sensing bulb should be positioned at 8 or 4 o'clock and insulated.**

CAUTION!

All TXVs, excluding R-22 A/C non-bleed, ranges are from 1.5 to 3 ton and 3.5 to 5 ton. TXVs set up for 3-ton coil models cannot be used on a 3.5-ton coil model or higher without a TXV change. TXVs set up for 5 ton models can be used down to 3.5-ton models only.

R-22 A/C non-bleed TXV ranges are from 1.5 to 2 ton, 2.5 to 3.5 ton, and 4 to 5 ton. Please ensure that the proper TXV is used for ranges listed above.

IMPORTANT

If coil contains a Non Bleed TXV and is used with a condensing unit containing a reciprocating compressor- a hard start mechanism will be required on the outdoor unit.

CAUTION!

When changing expansion valve, the TXV **MUST** match the refrigerant type and capacity of the condensing unit. Failure to do so will result in poor performance and possible compressor damage. All coils must be matched properly as listed in the ARI directory.

CAUTION!

Soldering suction fitting with the TXV bulb mounted close to the connection could cause damage to the valve.

Available kits for R-22 and R-410A refrigerants at various cooling capacity ranges (MBTUH). See kit instructions for change out and/or installation.

18-36 Bleed A/C TXV (R-22)	65540600
42-60 Bleed A/C TXV (R-22)	65540700
18-29 Non-Bleed A/C TXV (R-22)	99167524
30-47 Non-Bleed A/C TXV (R-22)	99167536
48-60 Non-Bleed A/C TXV (R-22)	99167548
18-36 Non-Bleed A/C-HP TXV (R-22)	65616201
42-60 Non-Bleed A/C-HP TXV (R-22)	65616202

18-36 Non-Bleed A/C TXV (R-410A)	65026401
42-60 Non-Bleed A/C TXV (R-410A)	65026400
18-36 Non-Bleed A/C-HP TXV (R410A)	65616601
42-60 Non-Bleed A/C-HP TXV (R-410A)	65616602

Condensate Drain

CAUTION!

All coils are provided with a secondary drain fitting. It should be trapped and piped to a location that will give the occupant a visual warning that the primary drain is clogged.

Coils are equipped with multiple drain connections. Determine the drain connections to be used and note the difference between the primary and secondary openings.

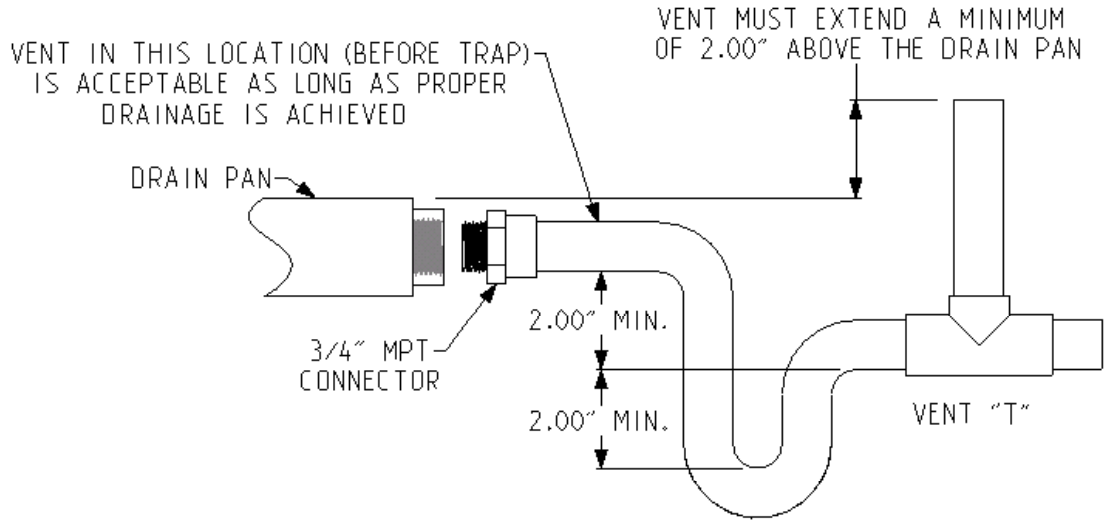
Drain plugs are provided for all openings, remove and discard the appropriate plugs with ½" drive ratchet and verify that remaining plugs are tight. (2.5 Foot-lbs)

Attach drain line to pan with ¾ " male pipe thread PVC fittings. Hand tight is adequate - **Do not over tighten!**

Do not reduce drain line sizes.

Route drain(s) line 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.

If the coil is located in or above a living space where damage may result from condensate overflow, a separate ¾" 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.



SPLASHGUARD INSTALLATION INSTRUCTIONS

Prime the trap with water. Test line for leaks. Test water flow with unit in operation.

Figure 1

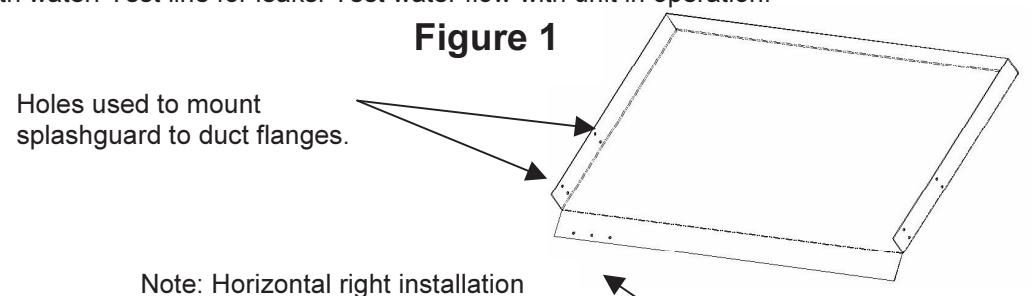


Figure 2

Note: Housing not shown for clarity.

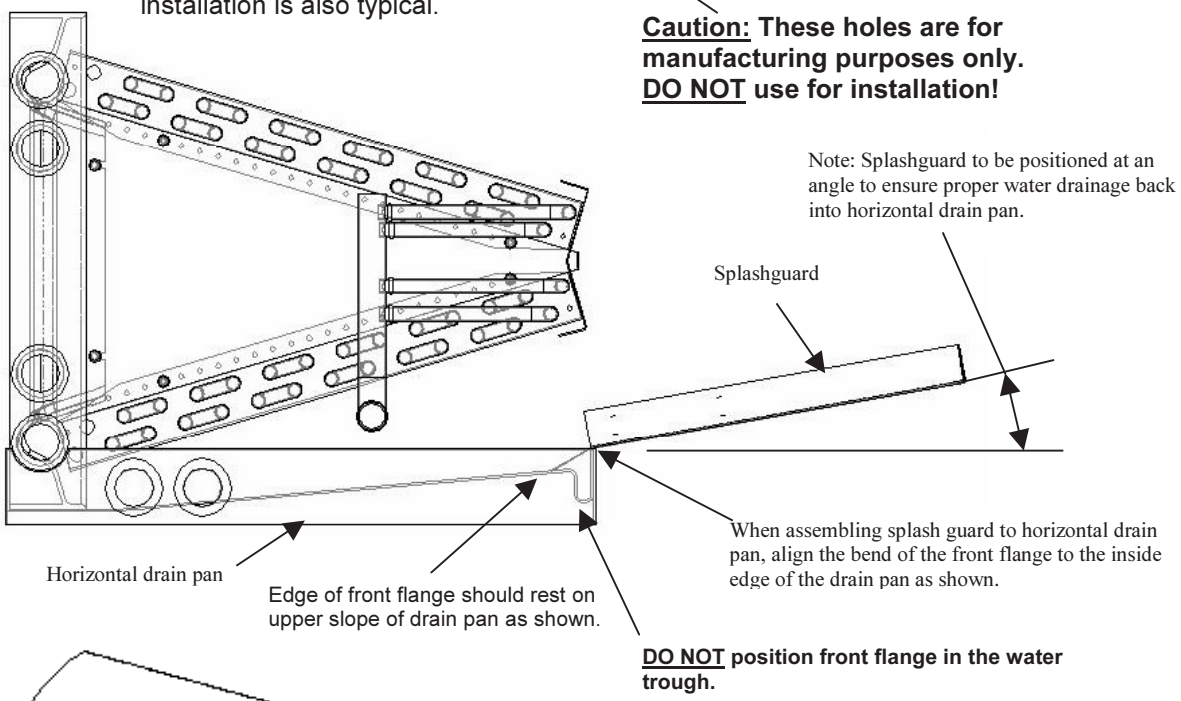
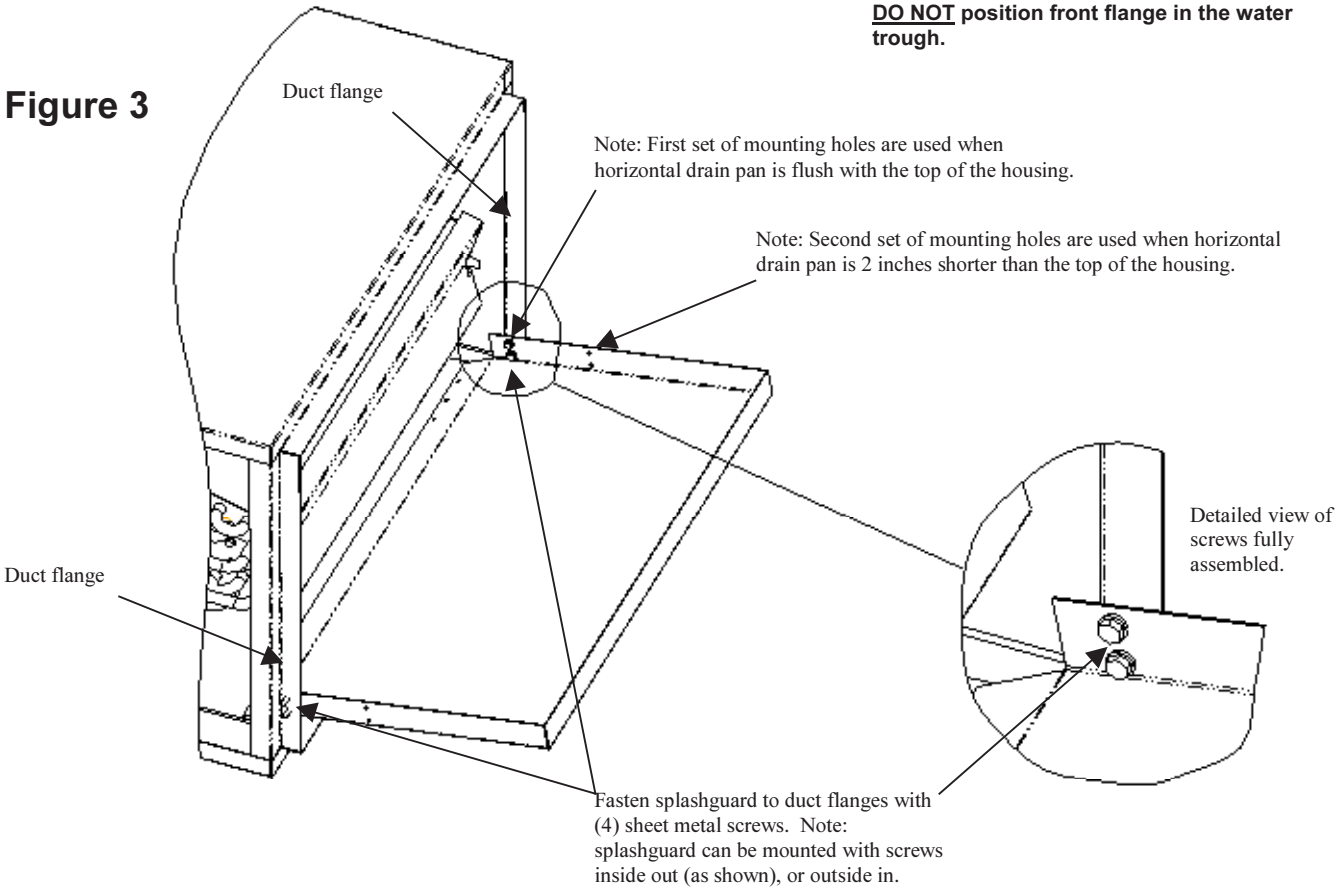


Figure 3



FIELD CONVERSION FOR HORIZONTAL AIRFLOW

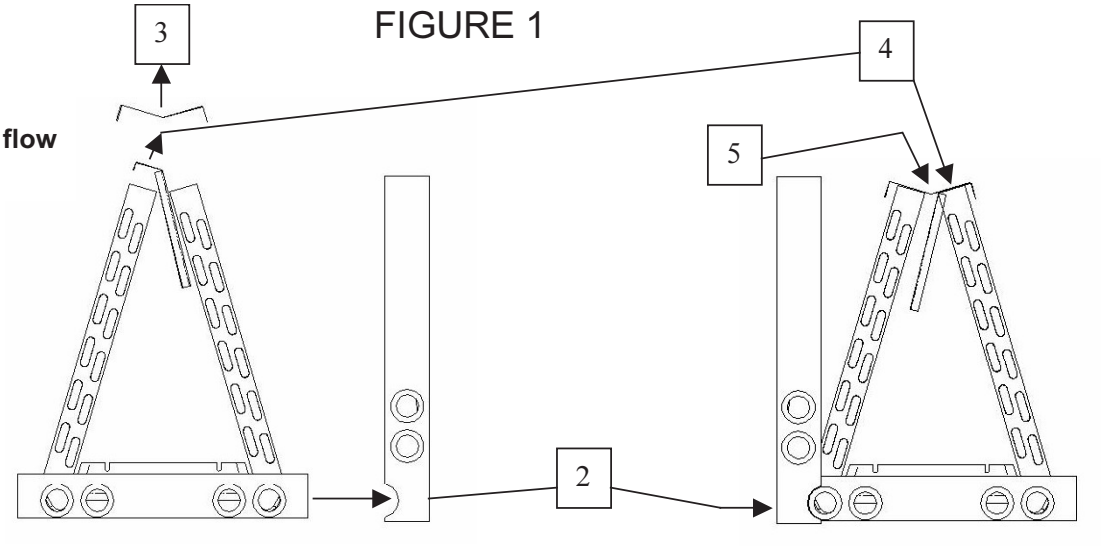
Note: Horizontal right to horizontal left conversion shown. Horizontal left to horizontal right conversion is typical. Models beginning with *E41 and *A91 are not field convertible. (* Reflects different cabinet color options.)

SEE FIGURE 1 FOR STEPS 1 THRU 5

1. Remove front panels from unit, and pull the coil assembly from the housing.
2. Remove the horizontal drain pan, and re-install it to the opposite side of the coil. Note: horizontal drain pan must have drain plugs closed in the rear of the unit.
3. Remove the top cap.
4. Remove the water diverter, and re-install it to the opposite slab.
5. Replace the top plate, and apply sealant to seal any air gaps.

Note: Unit shown in up flow position.

FIGURE 1

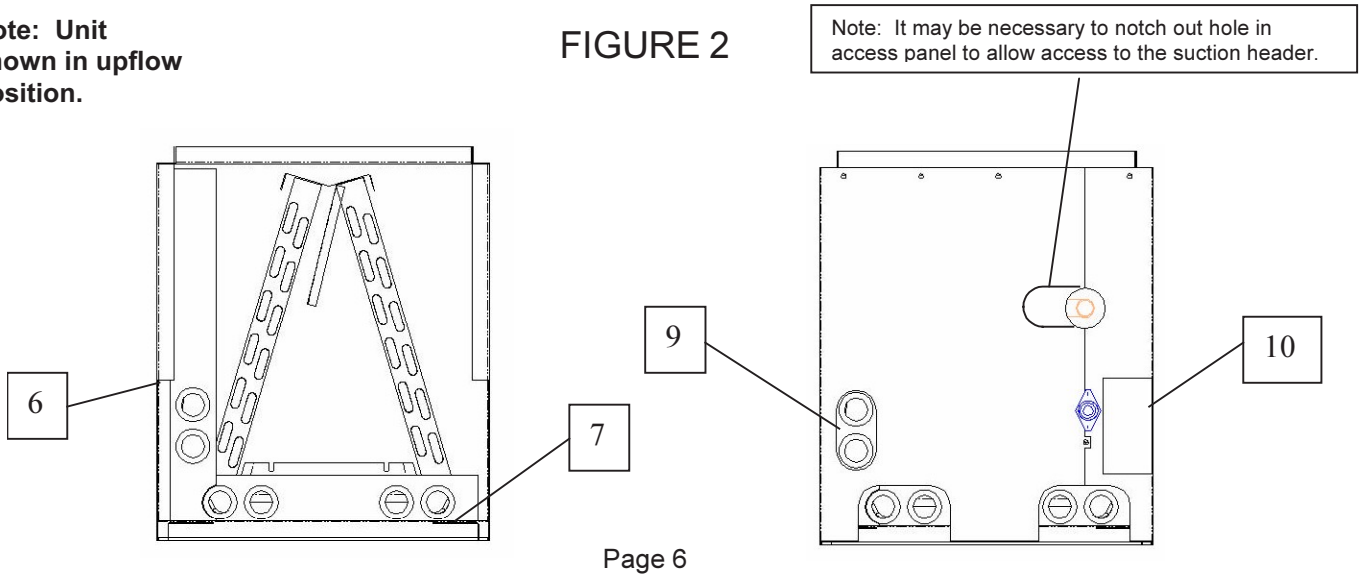


SEE FIGURE 2 FOR STEPS 6 THRU 10

6. Before re-inserting the coil assembly, cut the front flange on the housing and fold it back to allow access to the horizontal drain connections.
7. Slide the coil assembly back into the housing. Note: If unit is equipped with a sheet metal housing adapter, it will have to be moved to the opposite side of the housing.
8. Re-install the piping panel to the housing.
9. Cut a hole in the access panel to allow access to the horizontal drain connections, and re-install the access panel to the housing.
10. Seal old drain connection hole in the piping panel to prevent air leakage.

Note: Unit shown in upflow position.

FIGURE 2



Advanced Distributor Products

2175 West Park Place Boulevard
Stone Mountain, Georgia 30087
www.adpnow.com
adp.feedback@adpnow.com