

Installation Guide: XAF, XAH, XAU, and XAM Series - Full Cased and Uncased Coils for Cooling and Heat Pumps

XAF - full-cased upflow or downflow, XAH - full-cased horizontal left or right, XAU - uncased upflow or downflow, and XAM - full-cased multi-position

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General

Read all sections of this guide and keep it for future reference.



WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov.

This installation guide covers the following:

- Installation of XAF, XAH, and XAM coils with furnaces or JMET and JMVT modular air handlers
- Installation of XAU coils with 80+% AFUE furnaces and 90+% AFUE furnaces

XAF, XAH, XAM, and XAU coils have sweat connect fittings. The coils are shipped with a low psi nitrogen charge. See [Figure 1](#) and [Figure 2](#).

Certification



Assembled at a facility with an ISO 9001:2015-certified Quality Management System



Safety



This is a safety alert symbol. When you see this symbol on labels or in manuals, be alert to the potential for personal injury.

Understand and pay particular attention to the signal words **DANGER**, **WARNING**, or **CAUTION**.

DANGER indicates an **imminently** hazardous situation, which, if not avoided, **will result in death or serious injury**.

WARNING indicates a **potentially** hazardous situation, which, if not avoided, **could result in death or serious injury**.

CAUTION indicates a **potentially** hazardous situation, which, if not avoided **may result in minor or moderate injury**. It is also used to alert against unsafe practices and hazards involving only property damage.



WARNING

Improper installation may create a condition where the operation of the product could cause personal injury or property damage. Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual for assistance. For additional information, consult a qualified installer or service agency.



CAUTION

This product must be installed in strict compliance with the enclosed installation instructions and any applicable local, state, and national codes including but not limited to building, electrical, and mechanical codes.



WARNING

The furnace area must not be used as a broom closet or for any other storage purposes, as a fire hazard may be created. Never store items such as the following on, near, or in contact with the furnace.

1. Spray or aerosol cans, rags, brooms, dust mops, vacuum cleaners, or other cleaning tools
2. Soap powders, bleaches, waxes or other cleaning compounds; plastic items or containers; gasoline, kerosene, cigarette lighter fluid, dry cleaning fluids or other volatile fluid

3. Paint thinners and other painting compounds

4. Paper bags, boxes, or other paper products

Never operate the furnace with the blower door removed. To do so could result in serious personal injury and/or equipment damage.



WARNING

This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children must be supervised to ensure that they do not play with the appliance.

NOTICE

To ensure a correct match for this indoor product, refer to the current *Tabular Data Sheet* for the outdoor equipment selected for the system application. If the indoor product model is not listed in the *Tabular Data Sheet* included with the outdoor unit, to access the current version of the *Tabular Data Sheet*, go to the *Residential Equipment & Supplies* section at www.simplygettingthejobdone.com or scan the QR code provided on the outdoor unit rating plate.

NOTICE

If applying this coil with an oil furnace, a 6 in. long section of duct is required between the furnace leaving air opening and the entering air end of the coil.

Inspection

On receiving a coil, do the following:

- Check the coil to ensure it is still under pressure as shown in [Figure 1](#) or [Figure 2](#).
- Inspect the coil for possible damage during transit. If damage is evident, note the extent of the damage on the carrier's delivery receipt. Make a separate request for inspection by the carrier's agent in writing. Consult your local distributor for more information.
- Check the drain pan for cracks or breakage.

Figure 1: Pressure check - XAF, XAH, and XAM

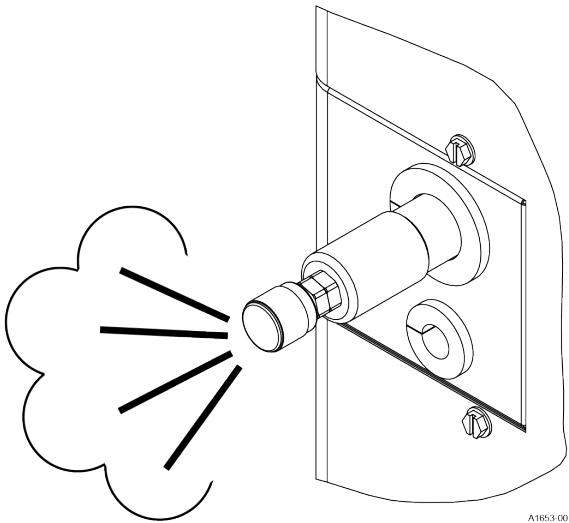
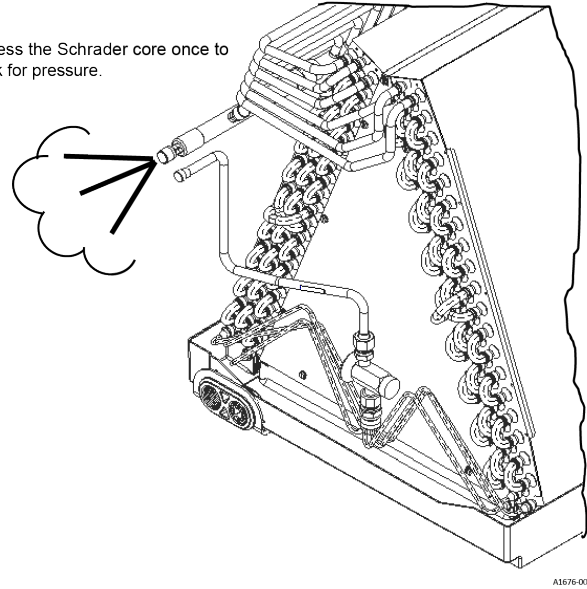


Figure 2: Pressure check - XAU

Depress the Schrader core once to check for pressure.



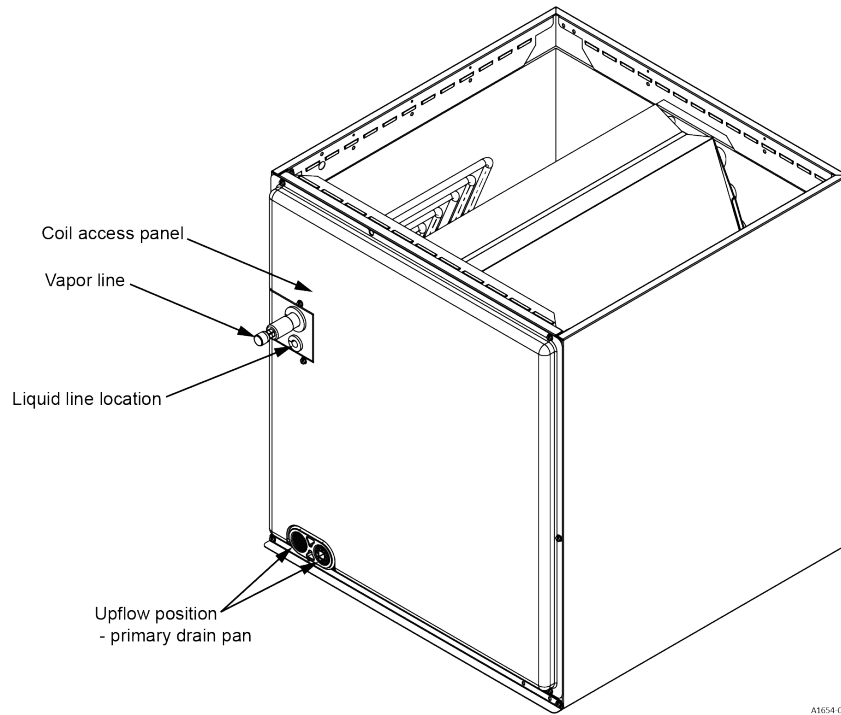
- ① **Note:** Verify that the coil is under pressure when received. Depress the Schrader valve core once to check for pressure.

Clearances

During installation, it is important to be aware of required clearances. See [Table 1](#), [Table 2](#), [Table 3](#), and [Table 4](#) for dimensions for indoor coils. Provide clearances for the following:

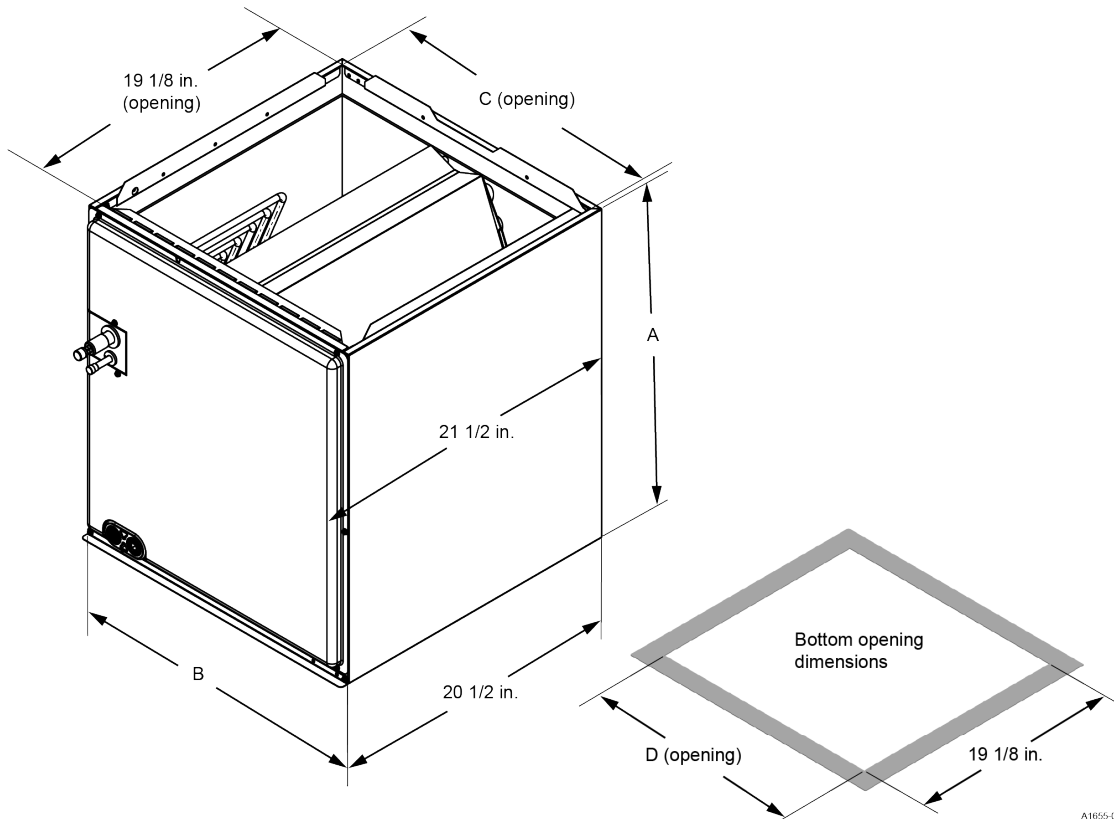
- Refrigeration piping and connections
- Maintenance and servicing access, including access for cleaning the coil
- Condensate drain line
- Removal of the coil assembly

Figure 3: Component location - XAF upflow or downflow full-cased coil



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Figure 4: Dimensions - XAF upflow or downflow full-cased coil



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Table 1: Dimensions - XAF upflow or downflow full-cased coil

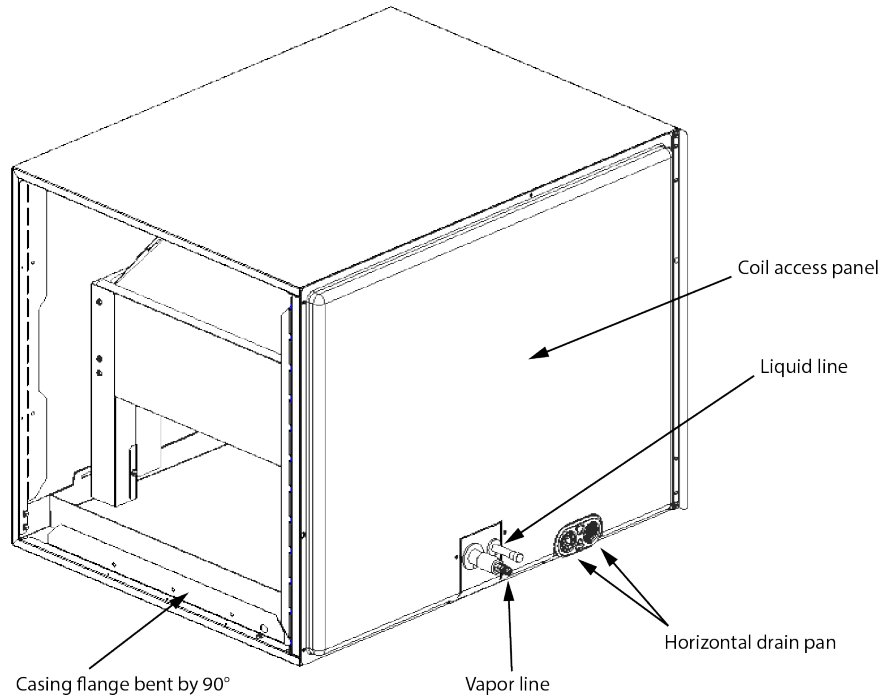
Models	Dimensions				Refrigerant connections line size	
	Height	Width	Opening widths		Liquid (in.)	Vapor (in.)
	A (in.)	B (in.)	C (in.)	D (in.)		
XAFA18AXXN1*	19 1/2	14 1/2	13 1/2	13 1/2	3/8	3/4
XAFA18ABAN1	19 1/2	14 1/2	13 1/2	13 1/2		
XAFB18AXXN1*	19	17 1/2	16 1/2	16 1/2		
XAFB18ABAN1	19	17 1/2	16 1/2	16 1/2		
XAFA24BXXN1*	21 5/8	14 1/2	13 1/2	13 1/2		
XAFA24BBAN1	21 5/8	14 1/2	13 1/2	13 1/2		
XAFB24BXXN1*	23	17 1/2	16 1/2	16 1/2		
XAFB24BBAN1	23	17 1/2	16 1/2	16 1/2		
XAFB30CXXN1*	25 5/8	17 1/2	16 1/2	16 1/2		
XAFB30CBAN1	25 5/8	17 1/2	16 1/2	16 1/2		
XAFC30CXXN1*	23	21	20	20		
XAFC30CBAN1	23	21	20	20		
XAFA30DXXN1*	25 1/2	14 1/2	13 1/2	13 1/2		
XAFA30DBAN1	25 1/2	14 1/2	13 1/2	13 1/2		
XAFB36DXXN1*	25 5/8	17 1/2	16 1/2	16 1/2		
XAFB36DBAN1	25 5/8	17 1/2	16 1/2	16 1/2		
XAFB36DBCN1	25 5/8	17 1/2	16 1/2	16 1/2		
XAFC36DXXN1*	23	21	20	20		
XAFC36DBAN1	23	21	20	20		
XAFC36DBCN1	23	21	20	20		
XAFB36EXXN1*	25 5/8	17 1/2	16 1/2	16 1/2		
XAFB36EBCN1	25 5/8	17 1/2	16 1/2	16 1/2		
XAFC42EXXN1*	25	21	20	20		
XAFC42EBAN1	25	21	20	20		
XAFC42EBCN1	25	21	20	20		
XAFD42EXXN1*	25	24 1/2	23 1/2	23 1/2		
XAFD42EBCN1	25	24 1/2	23 1/2	23 1/2		
XAFC48FXXN1*	27	21	20	20		
XAFC48FBAN1	27	21	20	20		
XAFC48FBCN1	27	21	20	20		
XAFD48FXXN1*	27	24 1/2	23 1/2	23 1/2		
XAFD48FBAN1	27	24 1/2	23 1/2	23 1/2		
XAFD48FBCN1	27	24 1/2	23 1/2	23 1/2		
XAFC60GXXN1*	33	21	20	20		
XAFC60GBAN1	33	21	20	20		
XAFC60GBCN1	33	21	20	20		
XAFD60GXXN1*	32 3/4	24 1/2	23 1/2	23 1/2		
XAFD60GBAN1	32 3/4	24 1/2	23 1/2	23 1/2		
XAFD60GBCN1	32 3/4	24 1/2	23 1/2	23 1/2		
XAFC60HXXN1*	37 1/4	21	20	20		
XAFC60HBCN1	37 1/4	21	20	20		
XAFD60HXXN1*	37 1/4	24 1/2	23 1/2	23 1/2		
XAFD60HBCN1	37 1/4	24 1/2	23 1/2	23 1/2		
XAFD60JXXN1*	32 3/4	24 1/2	23 1/2	23 1/2		
XAFD60JBCN1	32 3/4	24 1/2	23 1/2	23 1/2		

Note:

- * denotes coil models available with a factory-installed thermostatic expansion valve (TXV).
- Refrigerant line sizes may require larger lines for extended line lengths. Refer to *Application Data part number 247077*.

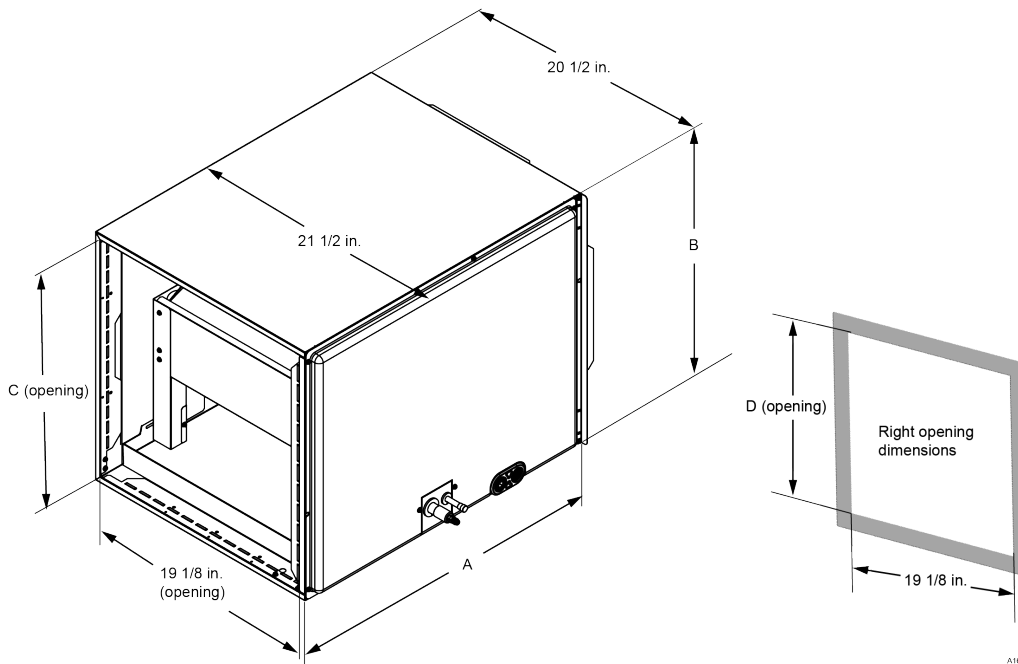
- The adapter fitting must be field installed for any refrigeration piping sizes not shown in the table.
- Refer to the *Technical Guide* for the outdoor unit for the correct refrigeration piping size.

Figure 5: Component location - XAH full-cased horizontal left or right coil



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Figure 6: Dimensions - XAH full-cased horizontal left or right coil



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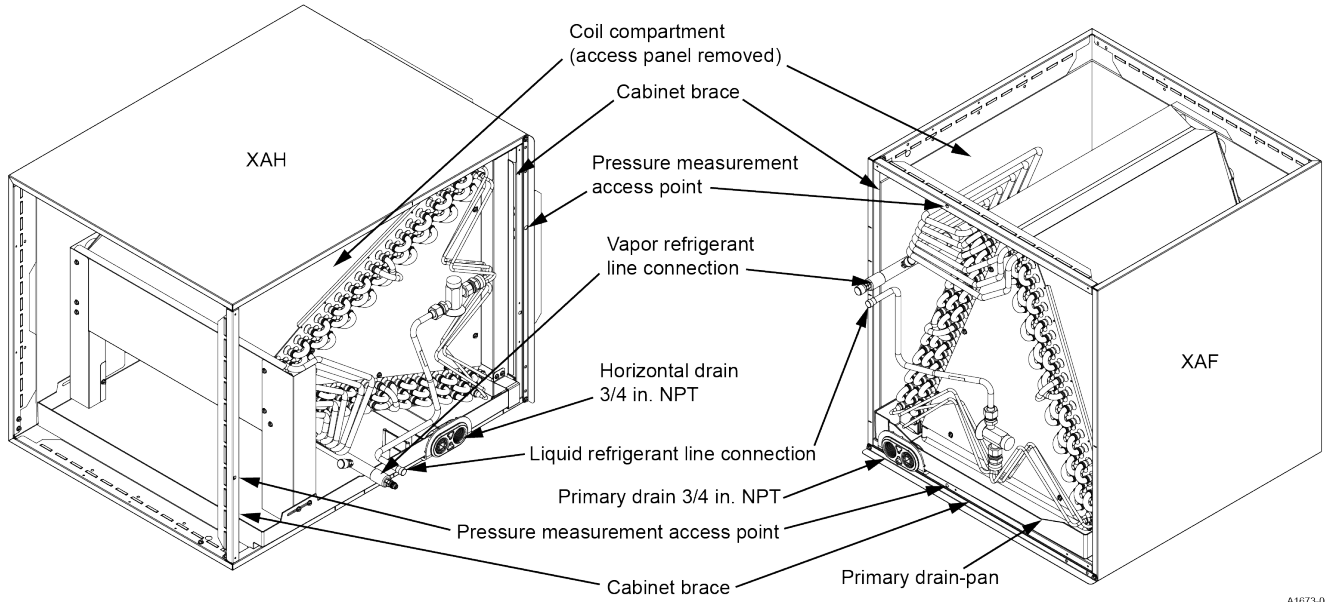
Table 2: Dimensions - XAH full-cased horizontal left or right coil

Models	Dimensions				Refrigerant connections line size	
	Height	Width	Opening widths		Liquid (in.)	Vapor (in.)
	A (in.)	B (in.)	C (in.)	D (in.)		
XAHA18AXXN1*	23	14 1/2	13 1/2	13 1/2	3/8	3/4
XAHA18ABAN1	23	14 1/2	13 1/2	13 1/2		
XAHA24BXXN1*	23	14 1/2	13 1/2	13 1/2		
XAHA24BBAN1	23	14 1/2	13 1/2	13 1/2		
XAHB24BXXN1*	23	17 1/2	16 1/2	16 1/2		
XAHB24BBAN1	23	17 1/2	16 1/2	16 1/2		
XAHB30CXXN1*	25 5/8	17 1/2	16 1/2	16 1/2		
XAHB30CBAN1	25 5/8	17 1/2	16 1/2	16 1/2		
XAHC30CXXN1*	27	21	20	20		
XAHC30CBAN1	27	21	20	20		
XAHB36DXXN1*	25 5/8	17 1/2	16 1/2	16 1/2		
XAHB36DBAN1	25 5/8	17 1/2	16 1/2	16 1/2		
XAHB36DBCN1	25 5/8	17 1/2	16 1/2	16 1/2		
XAHC36DXXN1*	27	21	20	20		
XAHC36DBAN1	27	21	20	20		
XAHC36DBCN1	27	21	20	20		
XAHC42EXXN1*	28 3/4	21	20	20		
XAHC42EBCN1	28 3/4	21	20	20		
XAHD42EXXN1*	32 3/4	24 1/2	23 1/2	23 1/2		
XAHD42EBCN1	32 3/4	24 1/2	23 1/2	23 1/2		
XAHC48FXXN1*	33	21	20	20		
XAHC48FBAN1	33	21	20	20		
XAHC48FBCN1	33	21	20	20		
XAHD48FXXN1*	32 3/4	24 1/2	23 1/2	23 1/2		
XAHD48FBAN1	32 3/4	24 1/2	23 1/2	23 1/2		
XAHD48FBCN1	32 3/4	24 1/2	23 1/2	23 1/2		
XAHC60GXXN1*	37 1/4	21	20	20		
XAHC60GBAN1	37 1/4	21	20	20		
XAHC60GBCN1	37 1/4	21	20	20		
XAHD60GXXN1*	37 1/4	24 1/2	23 1/2	23 1/2		
XAHD60GBAN1	37 1/4	24 1/2	23 1/2	23 1/2		
XAHD60GBCN1	37 1/4	24 1/2	23 1/2	23 1/2		
XAHC60HXXN1*	39	21	20	20		
XAHC60HBCN1	39	21	20	20		
XAHD60HXXN1*	39	24 1/2	23 1/2	23 1/2		
XAHD60HBCN1	39	24 1/2	23 1/2	23 1/2		
XAHD60JXXN1*	37 1/4	24 1/2	23 1/2	23 1/2		
XAHD60JBCN1	37 1/4	24 1/2	23 1/2	23 1/2		

Note:

- * denotes coil models available with a factory-installed thermostatic expansion valve (TXV).
- Refrigerant line sizes may require larger lines for extended line lengths. Refer to application data part number 247077.
- The adapter fitting must be field installed for any refrigeration piping sizes not shown in the table.
- Refer to the *Technical Guide* for the outdoor unit for the correct refrigeration piping size.

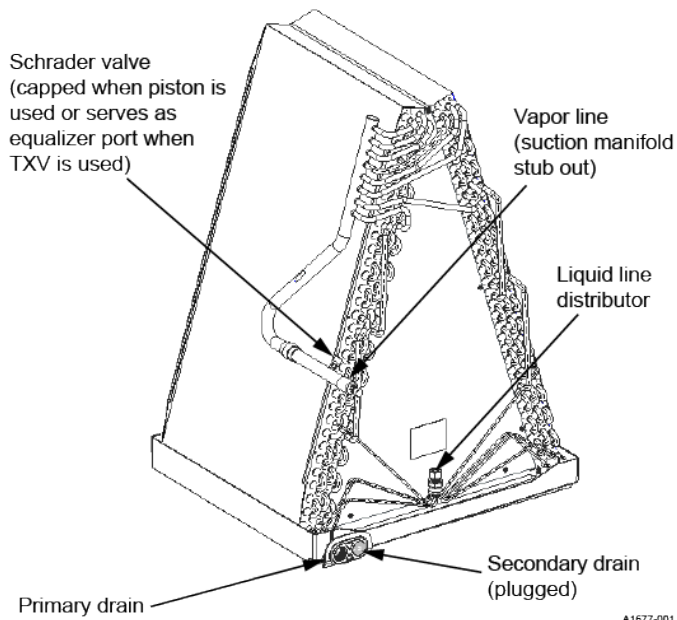
Figure 7: Component location with access panel removed - XAF and XAH coils



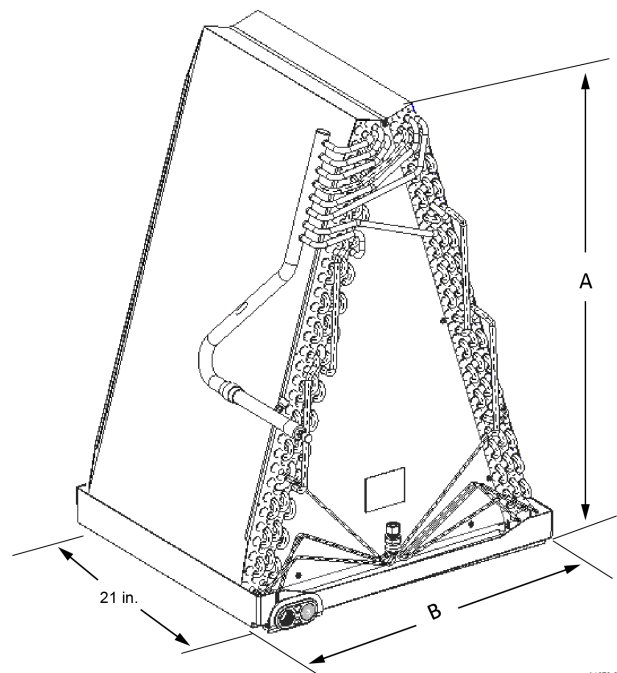
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Figure 8: Component location - XAU uncased upflow or downflow coil

Figure 9: Dimensions - XAU uncased upflow or downflow coil



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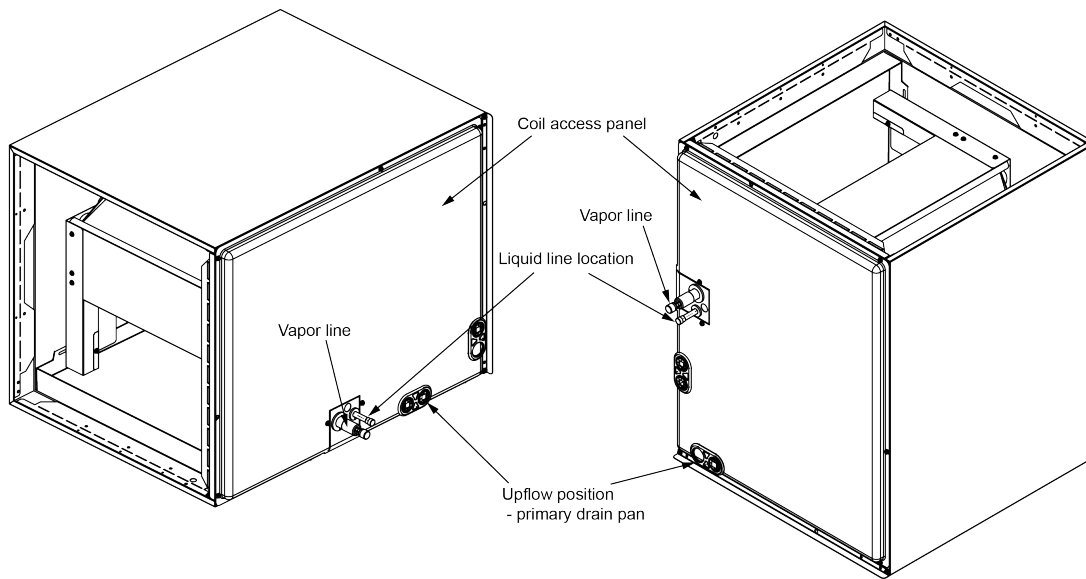
Table 3: Dimensions - XAU uncased upflow or downflow coil

Models	Dimensions		Refrigerant connections line size	
	Height	Width	Liquid (in.)	Vapor (in.)
	A (in.)	B (in.)		
XAUA18AXXN1	16 5/8	13	3/8	3/4
XAUA24BXXN1	18 3/4	13		
XAUB30CXXN1	21 1/4	16		
XAUB36DXXN1	21 1/2	16		
XAUC42EXXN1	23	19 1/2	7/8	
XAUC48FXXN1	25	19 1/2		
XAUC60GXXN1	29 1/4	19 1/2		
XAUD60GXXN1	28 3/4	23		
XAUD60HXXN1	33	23		

Note:

- Refrigerant line sizes may require larger lines for extended line lengths. Refer to application data part number 247077.
- The adapter fitting must be field installed for any refrigeration piping sizes not shown in the table.
- Refer to the *Technical Guide* for the outdoor unit for the correct refrigeration piping size.

Figure 10: Component location - XAM full-cased horizontal left or right coil



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Figure 11: Dimensions - XAM full-cased horizontal left or right coil

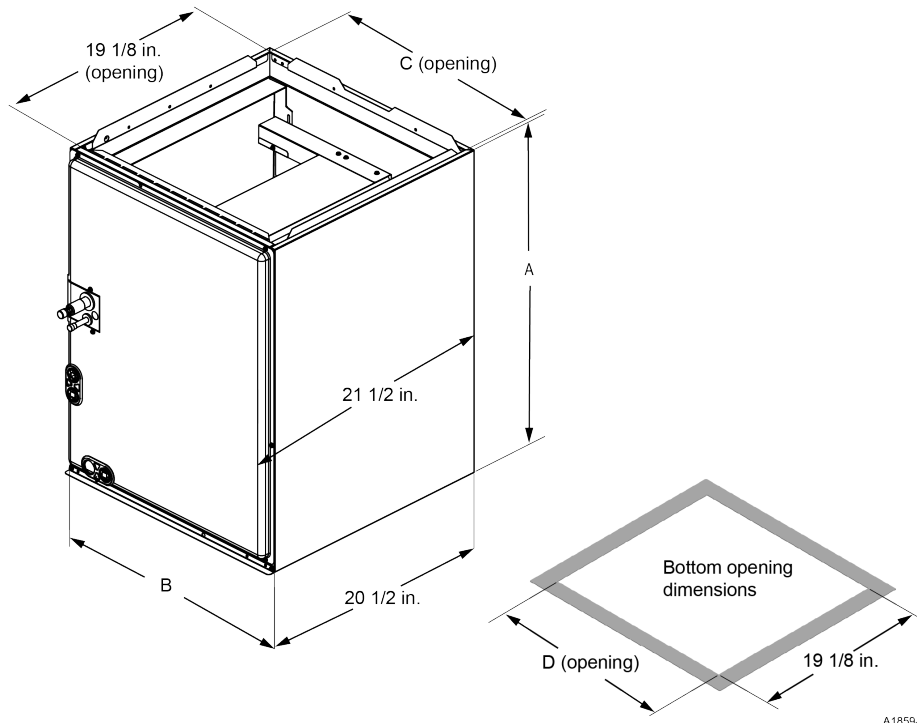


Table 4: Dimensions - XAM full-cased multi-position coil

Models	Dimensions				Refrigerant connections line size	
	Height	Width	Opening widths		Liquid (in.)	Vapor (in.)
	A (in.)	B (in.)	C (in.)	D (in.)		
XAMB24DE1N1	25 5/8	17 1/2	16 1/2	16 1/2	3/8	3/4
XAMB36DE2N1	25 5/8	17 1/2	16 1/2	16 1/2		
XAMC36DE2N1	27	21	20	20		
XAMC48HE3N1	39	21	20	20		7/8
XAMD48HE3N1	39	24 1/2	23 1/2	23 1/2		
XAMC60HE4N1	39	21	20	20		
XAMD60HE4N1	39	24 1/2	23 1/2	23 1/2		

Note:

- Refrigerant line sizes may require larger lines for extended line lengths. Refer to application data part number 247077.
- The adapter fitting must be field installed for any refrigeration piping sizes not shown in the table.
- Refer to the *Technical Guide* for the outdoor unit for the correct refrigeration piping size.

Limitations

Install the coil in accordance with all national and local safety codes. See [Table 5](#) or [Table 6](#).

Table 5: XAF, XAH, and XAU coil airflow limits

Coil size	Outdoor unit (ton)	CFM limits	
		Minimum	Maximum
18	1 1/2	525	675
24	1 1/2	525	675
	2	700	900
30	2	700	900
	2 1/2	875	1125
36	2 1/2	875	1125
	3	1050	1350
42	3	1050	1350
	3 1/2	1225	1575
48	3	1050	1350
	3 1/2	1225	1575
	4	1400	1800
60	4	1600	1800
	5	1750	2250

Table 6: XAM coil airflow limits

Coil size	Outdoor unit (ton)	CFM limits	
		Minimum	Maximum
24	2	200	900
36	3	300	1350
48	4	400	1800
60	5	500	2000

Installation overview

1. Before installation, review the installation aids available in [Installation verification](#). During installation, use the installation aids to verify that tasks are completed as required. See [Figure 7](#) for an overview of components and their location.
2. Install the coil metering device as required. See [Using a coil equipped with an EEV: XAM coils](#).
3. Install the coil. See [Installing the coil: XAF, XAH, and XAM coils](#) or [Installing the coil: XAU coils](#).
4. Connect the duct system. See [Connecting the duct system](#).
5. Connect the condensate drain lines. See [Connecting the condensate drain](#).
6. Connect the refrigerant lines. See [Connecting refrigerant lines](#).
7. Clean the coil. See [Cleaning the coil](#).
8. Check and adjust airflow as required. See [Adjusting the air system](#).
9. Instruct the homeowner as needed. See [Installation verification](#).

Using a coil metering device

You must install a TXV (flex coil models) in the field, unless you are using a coil with a factory-installed TXV or a coil equipped with an electronic expansion valve (EEV). See [Using a coil equipped with an EEV: XAM coils](#). Refer to the *Technical Guide* for outdoor units for information on the TXV required for the indoor coil. It is best practice to install the TXV kit before installing the coil and brazing the refrigeration piping.

- ⓘ Note:** Do not install the TXV sensing bulb until you have completed the brazing and the piping has cooled.

For TXV installation, refer to the *Installation Manual* provided with the TXV kit and see [Installing a TXV](#).

Some outdoor sections require a TXV. Do not install the Schrader valve core if a TXV is installed, because the TXV equalizer line attaches to the equalizer connection port or suction line port.

CAUTION

COIL UNDER PRESSURE

Verify that pressure has been released by depressing Schrader valve core shown in [Figure 1](#) and [Figure 2](#). The coil requires a metering device to be added. Refer to outdoor unit documentation for the correct TXV to use.

NOTICE

To prevent moisture and contaminants from entering the system, the coil must not be open to atmosphere for extended periods of time. If the coil cannot be brazed into the refrigeration system during a routine installation period, the ends must be temporarily closed or plugged. For a short term delay, use masking tape over the ends of the copper tubing to close the tube from the air. For a longer term delay, use plugs or caps. There is no need to purge the coil if this procedure is followed.

Installing a TXV

About this task:

The following are basic steps for installing a TXV kit on XAF, XAH, XAM, or XAU coils. For detailed instructions, refer to the *Installation Manual* provided with the TXV kit.

- Important:** Refer to the *Technical Guide* or *Tabular Data Sheet* for the outdoor section to determine the correct TXV kit to use on this product.

CAUTION

Outdoor unit model numbers ending with an H have a factory-installed hard start kit, required when installing a TXV. Outdoor unit model numbers with no H ending may require a hard start kit. Refer to the *Technical Guide* or *Tabular Data Sheet* for the outdoor unit.

1. Relieve the holding charge by depressing the Schrader valve core on the suction manifold stub out.
2. When the holding charge is completely discharged, loosen and remove the Schrader valve core.
3. Place a backup wrench on the distributor, and loosen and remove the brass distributor nut. Retain the brass nut for use on the liquid line. Keep the PTFE washer in place and discard the sealing disk.
4. Install the TXV onto the distributor assembly with the supplied fittings. Ensure the PTFE washer is seated in the distributor. Hand tighten and turn an additional 1/4 turn to seal. See [Figure 12](#).

- ⓘ Note:** Do not overtighten the fittings.

CAUTION

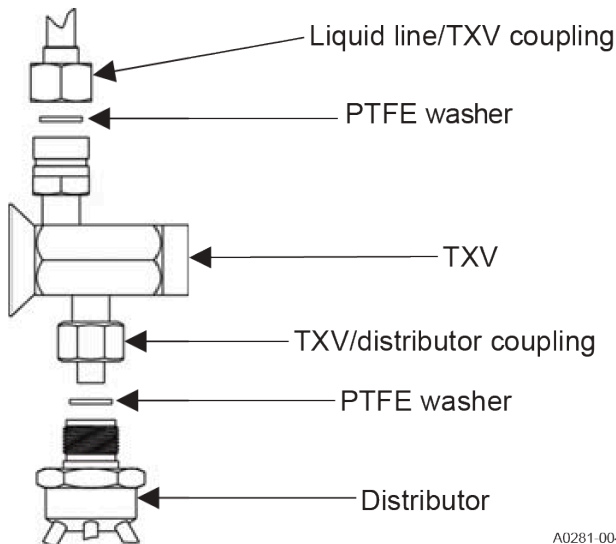
Do not over torque. Do not use slip joint pliers. This will distort the aluminum distributor and the brass fitting (potentially causing leaks).

- Slide the nut removed in Step 3 over the supplied liquid line. Place the supplied PTFE washer from the TXV kit in place on the TXV and install the liquid line to the top of the TXV. Adjust the distributor assembly so the liquid line aligns with the hole in the access panel. See [Figure 12](#). Hand tighten the liquid line and apply an additional 1/4 turn to seal.

CAUTION

The Schrader valve core **must not** be installed into the suction line TXV equalizer line fitting. Poor system performance or system failure could result.

Figure 12: TXV installation



- Install the TXV equalizer line onto the vapor line by hand tightening the 1/4 in. SAE coupling nut to the equalizer fitting and apply an additional 1/3 turn to seal. See [Figure 13](#).

CAUTION

Mount the TXV temperature sensing bulb after the vapor line is brazed and sufficiently cooled.

- Route the temperature sensing bulb tube for the TXV toward the vapor line header and the TXV equalizer tube connection port on the vapor line header.
- Install the TXV bulb to the vapor line near the TXV equalizer tube connection port, using the bulb clamps supplied with the TXV assembly. Ensure that the bulb is making maximum contact. See [Figure 13](#) and [Figure 14](#) and adhere to the following:
 - Install the TXV bulb on the vapor line suction header near the TXV equalizer tube connection port. Ensure that the bulb is installed at a 10 o'clock or 2 o'clock position.
 - Insulate the TXV bulb using the thermal insulation provided to protect it from the effect of the surrounding ambient temperature. Cover the bulb completely to insulate it.

Figure 13: TXV bulb and equalizer line installation

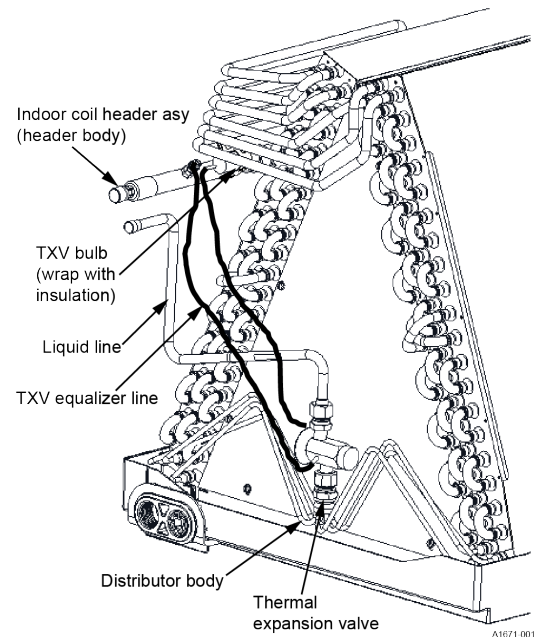
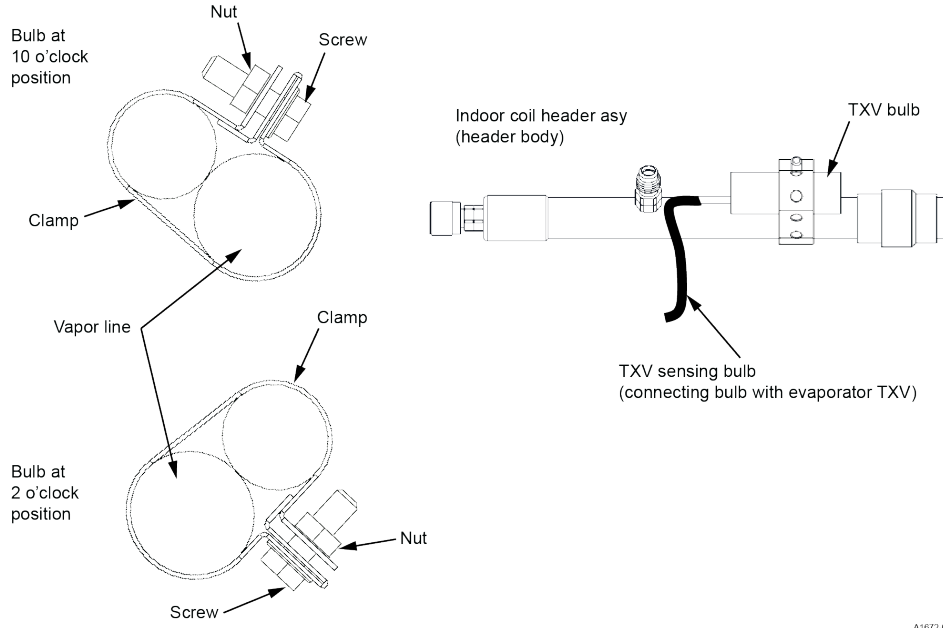


Figure 14: Correct bulb location for TXV



- When the refrigeration piping is installed, leak test the system.

Using a coil equipped with an EEV: XAM coils

XAM coils equipped with an EEV are available for use with a fully modulating matched system. The EEV and controls are factory-installed. See [Figure 19](#). You only have to connect the communication 4-wire cable included to the communicating 4-pin connector on the furnace or modular blower control board. See [Figure 15](#) to [Figure 17](#) for the connection diagrams, and see [Figure 18](#) for the wiring diagram.

Figure 15: Modulating gas furnace EEV connection

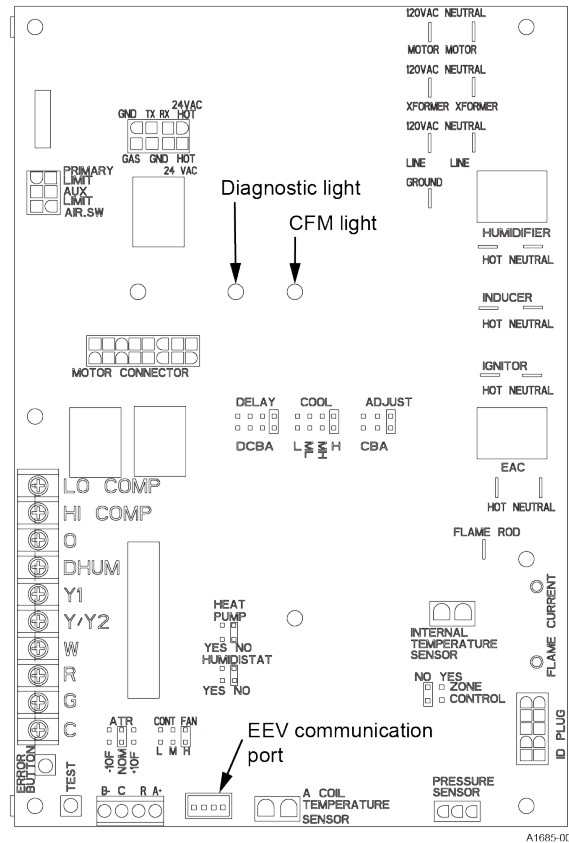


Figure 16: Variable speed gas furnace EEV connection

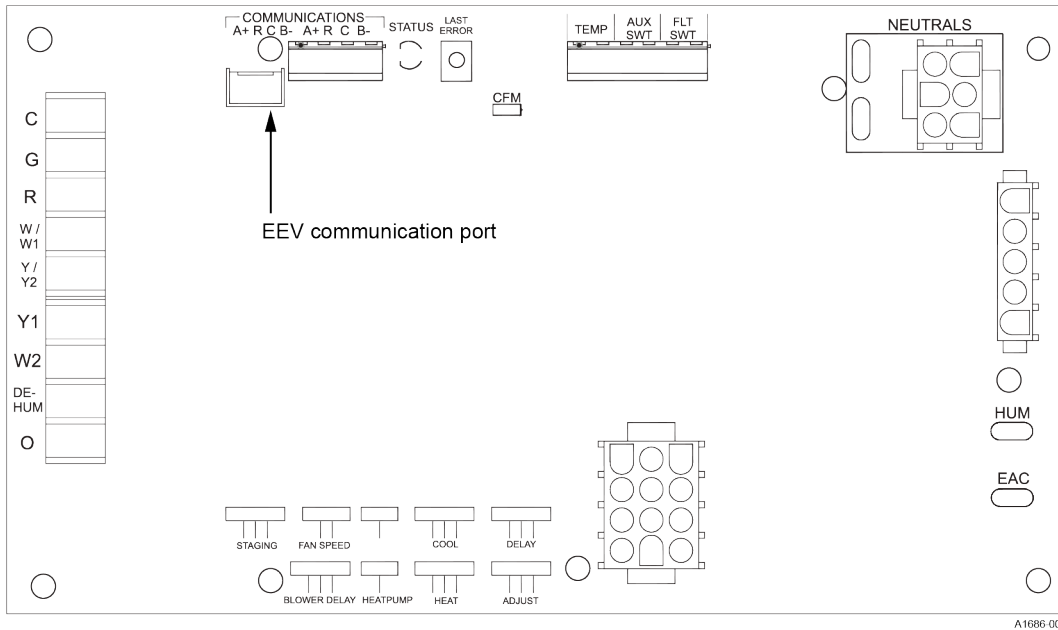


Figure 17: Variable speed modular blower EEV connection

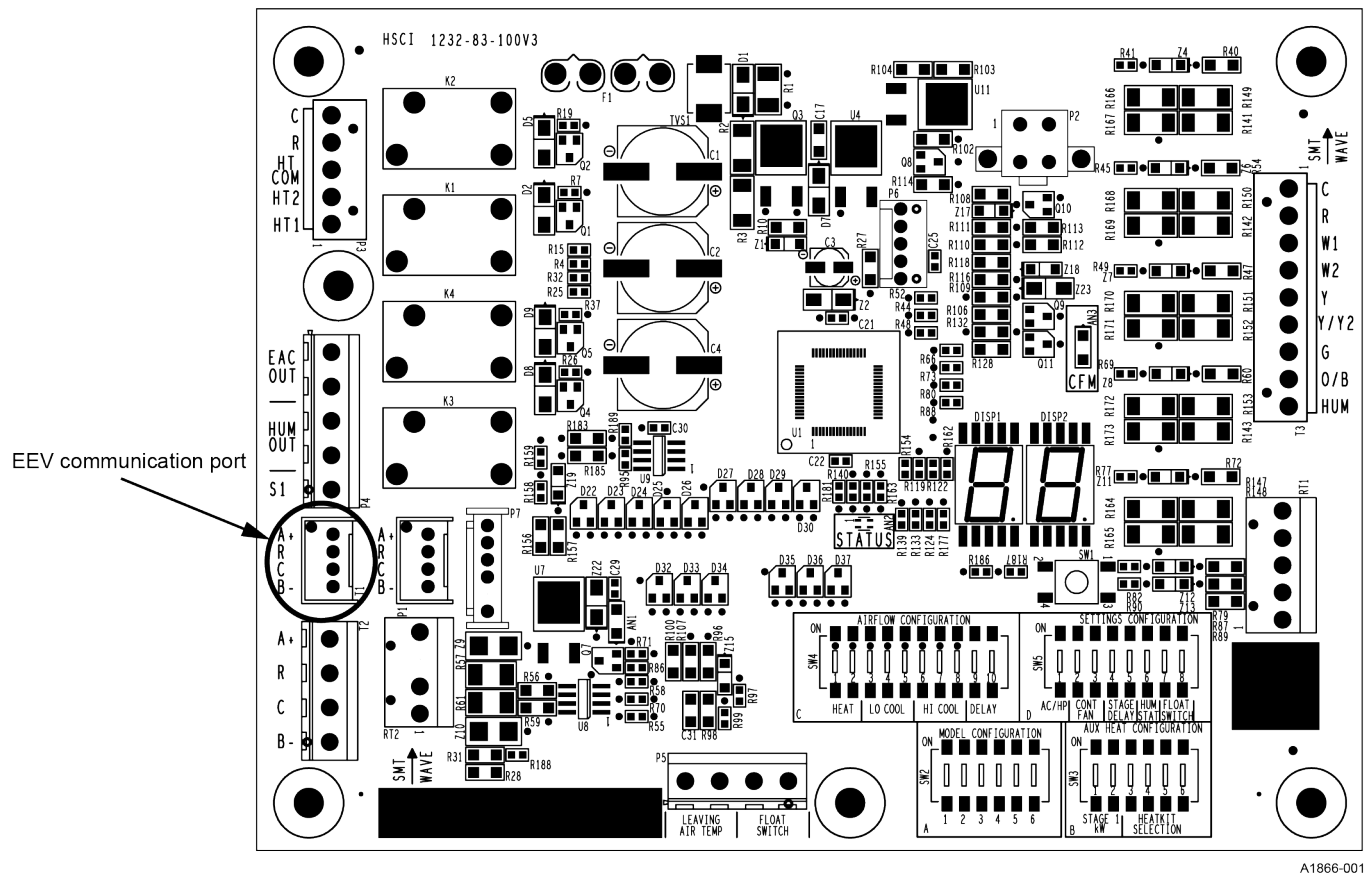
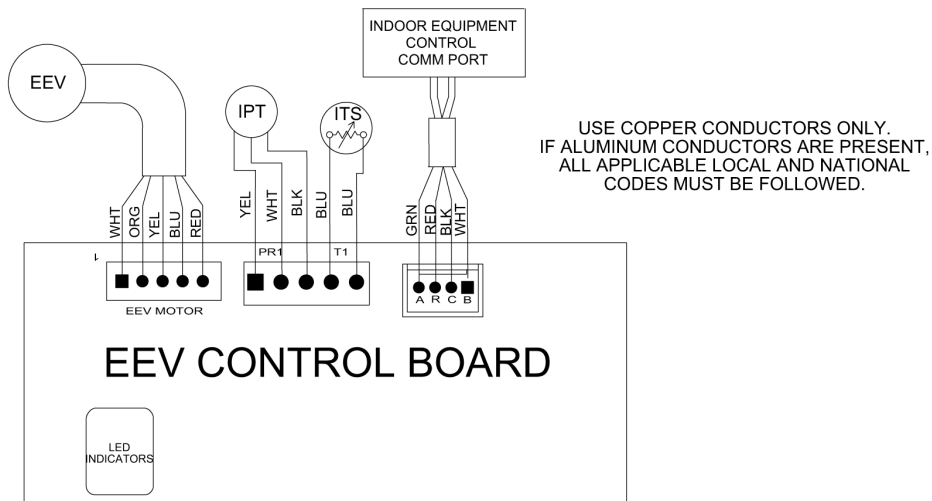


Figure 18: Wiring diagram - EEV



EEV CONTROL
LED DIAGNOSTIC CODES

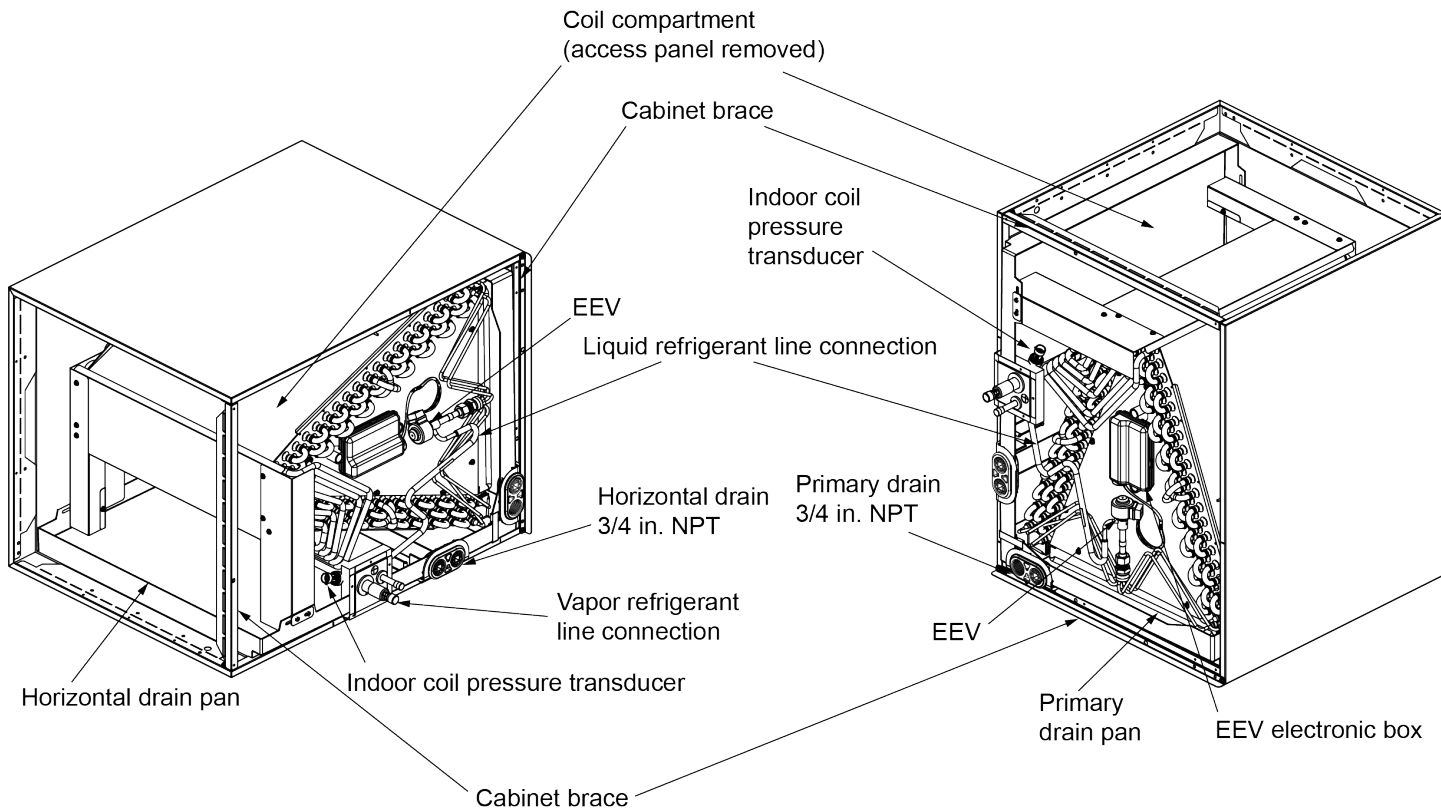
LAMP COLOR	LAMP CONDITION	DESCRIPTION
NO LAMP	N/A	Control failure OR No power to the control
RED	ON	Normal operation, No active faults
RED	1 Flash	Invalid pressure transducer
RED	2 Flashes	Invalid suction temperature
RED	3 Flashes	EEV fully open while in superheat mode
RED	4 Flashes	Suction pressure out of range
RED	5 Flashes	No RS-485 communication
GREEN	ON	EEV Opening
YELLOW	ON	EEV Closing

LEGEND

IPT - INDOOR COIL PRESSURE TRANSDUCER
ITS - INDOOR COIL TEMPERATURE SENSOR
EEV - ELECTRONIC EXPANSION VALVE

5292155-UWD-B-0117

Figure 19: XAM coil with an EEV installed



A1860-001

Installing the coil: XAF, XAH, and XAM coils

It is important to understand the following to install XAF, XAH, and XAM coils correctly:

- How to use the duct flanges if needed
- The requirements for different installation applications

Using the duct flanges: XAF, XAH, and XAM coils

About this task:

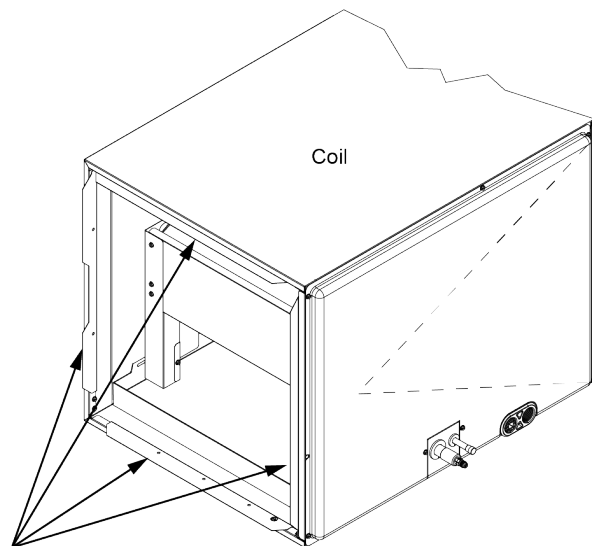
Duct flanges are built into the coil cabinet or shipped with the coil (XAH and XAM only). If duct flanges are necessary, complete the following steps:

1. **Note:** If you do not use the duct flanges, leave them as received from the factory, folded down or uninstalled.
 1. For **integrated duct flanges**, fold the flanges outward and secure the flanges in place using screws as shown in [Figure 20](#). For **field-installed duct flanges** (XAH and XAM only), attach the flanges (shipped in the bag with the coil) as shown in [Figure 21](#).
 2. Use the tie plates to secure the coil to the furnace or modular air handler as shown in [Figure 22](#), [Figure 23](#), [Figure 24](#), or [Figure 25](#).

NOTICE

For horizontal applications, the coil cabinet can be installed so that it is slightly pitched toward the front or drain connection end of coil. Ensure that the horizontal pan drains water adequately before completing the unit installation.

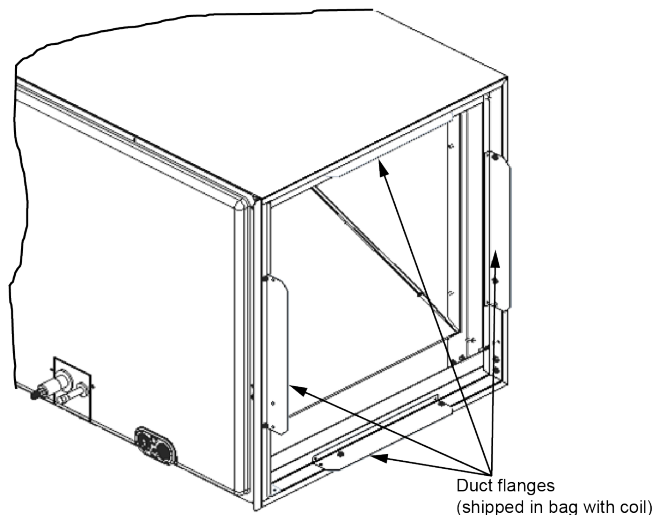
Figure 20: Duct flanges - XAF ,XAH, and XAM coils



Flanges bent by 180°
on casing and brace

A1687-001

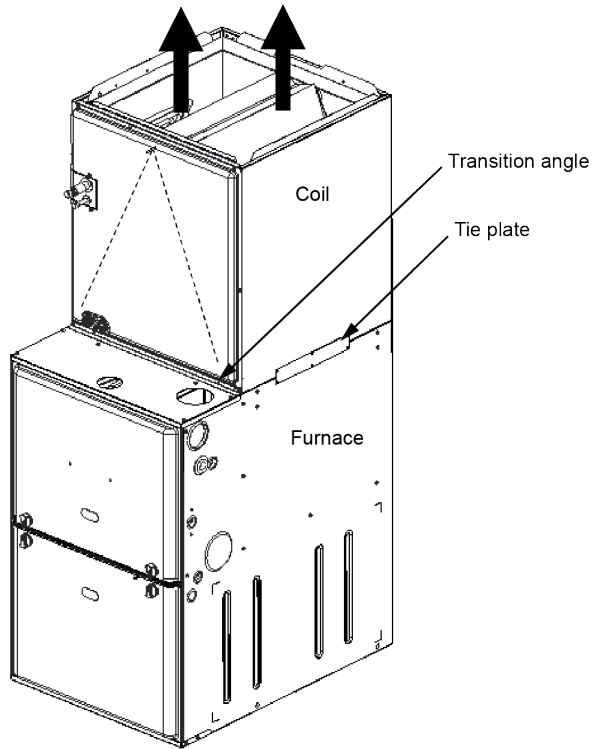
Figure 21: Field-installed duct flanges - XAH and XAM coils only



Duct flanges
(shipped in bag with coil)

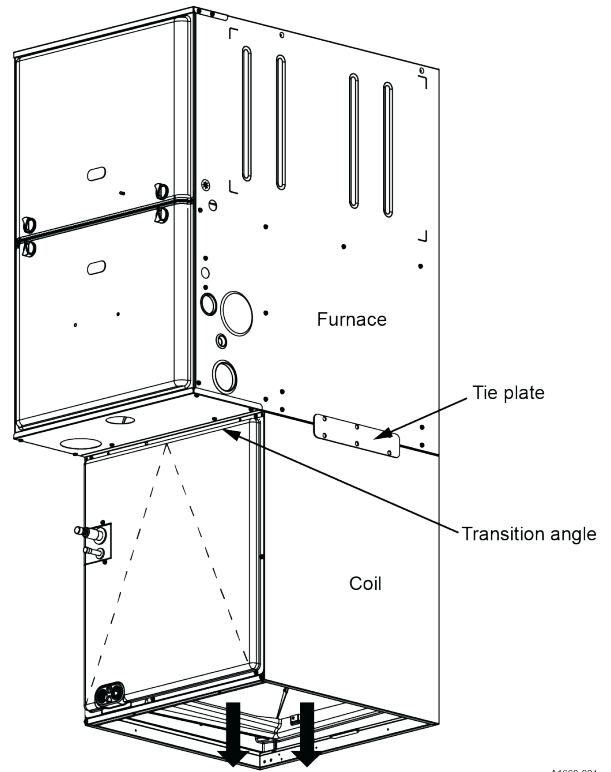
A1658-001

Figure 22: Vertical upflow applications with furnaces



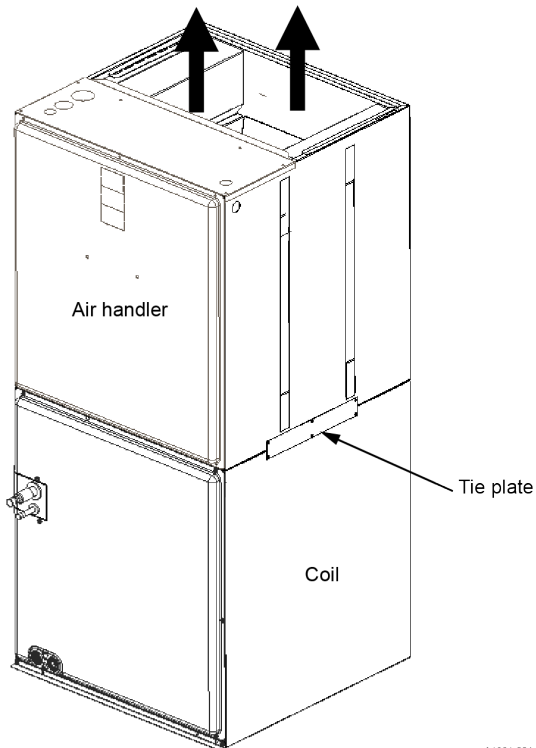
A1659-001

Figure 24: Vertical downflow applications with furnaces



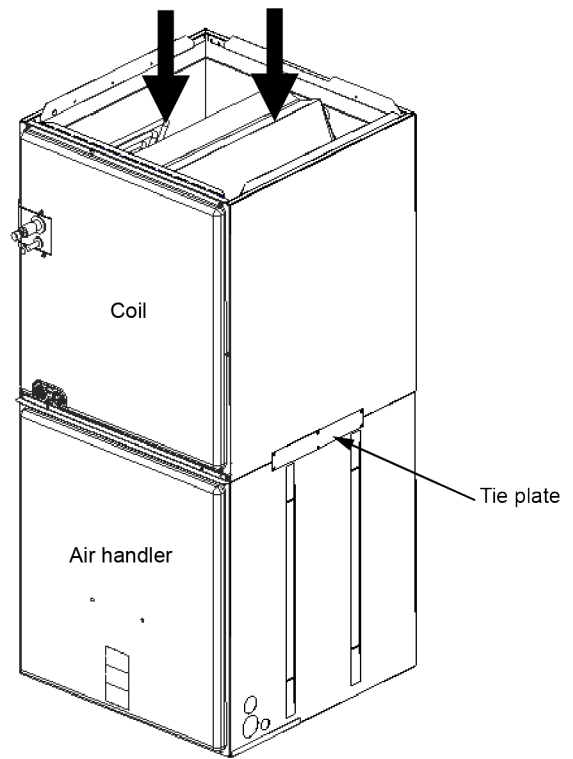
A1660-001

Figure 23: Vertical upflow applications with modular air handlers



A1661-001

Figure 25: Vertical downflow applications with modular air handlers



A1662-001

Positioning the unit in horizontal applications: XAH and XAM coils

- Set the unit so it is sloped 1/4 in. toward the drain plug.

Repositioning the transition angle for downflow or horizontal right application with a furnace: XAF, XAH, and XAM coils

About this task:

The coil cabinet has a factory-installed transition angle on the bottom front side of the cabinet. For downflow or horizontal right applications with a furnace, you must reposition this angle to the top front side of the cabinet.

- ① **Note:** For installation with a modular air handling unit, remove the transition angle and discard it.
1. Remove the two screws that fasten the transition angle to the bottom front side of the cabinet.
 2. Remove the two screws from the top front side of the cabinet.
 3. Remove the transition angle, rotate the transition angle 180° end for end, and secure the transition angle to the top front side of the cabinet.

Horizontal right and left applications: XAH and XAM coils

See the following figures for an illustration of horizontal right and left applications of XAH and XAM coils with furnaces and modular air handlers.

Figure 26: XAH and XAM horizontal right application with furnace

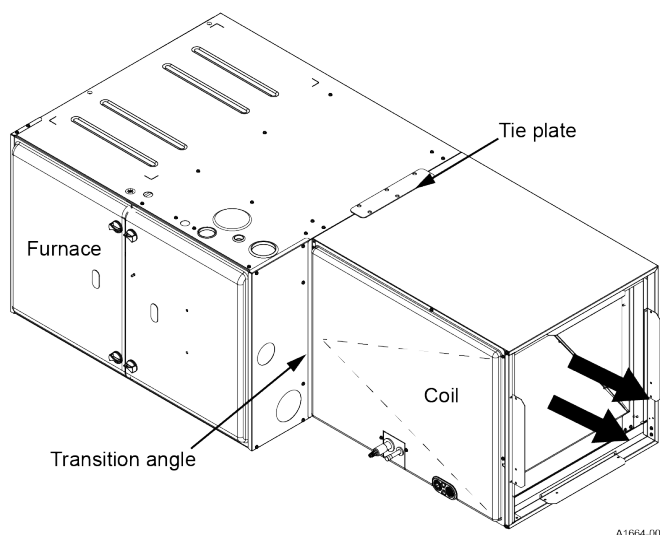
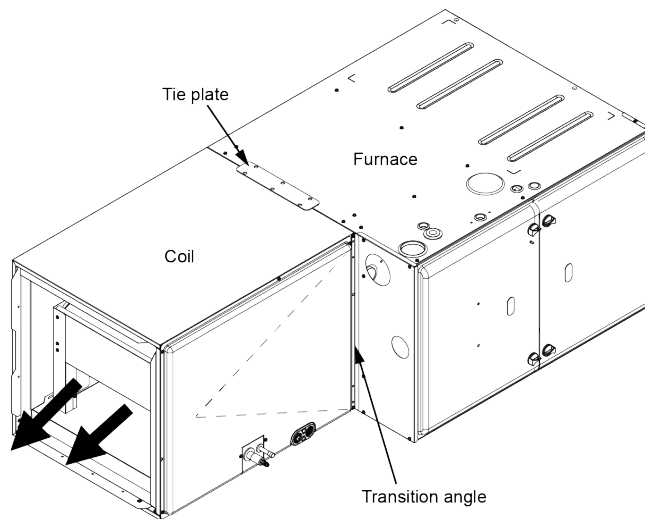
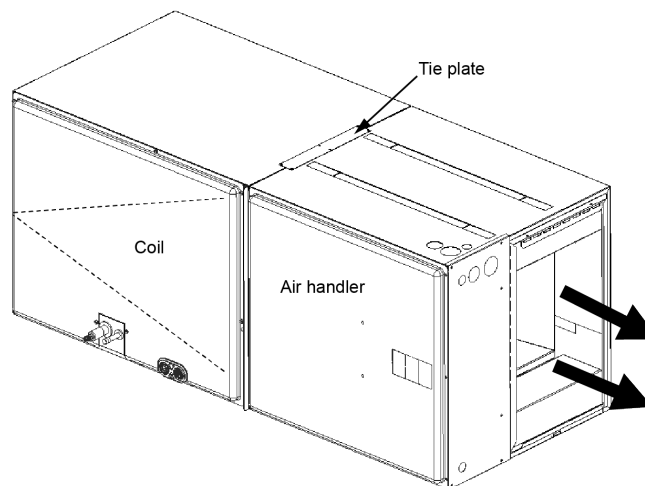


Figure 27: XAH and XAM horizontal left application with furnace



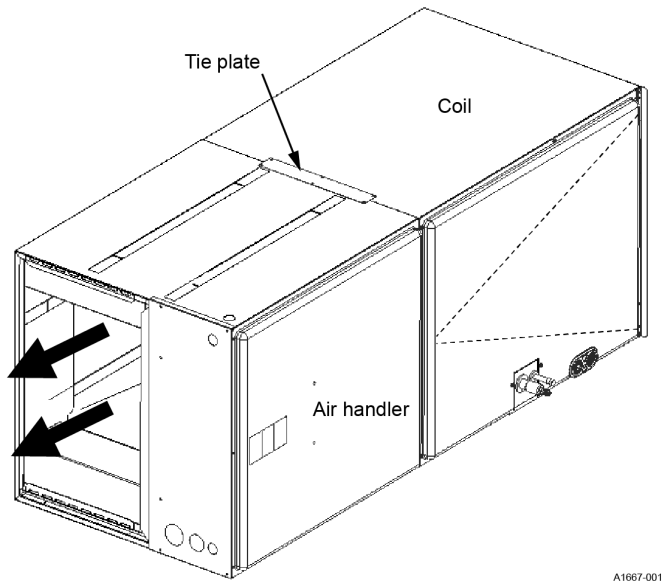
A1665-001

Figure 28: XAH and XAM horizontal right application with modular air handler



A1666-001

Figure 29: XAH and XAM horizontal left application with modular air handler



NOTICE

XAH coils that have a three-row or four-row heat exchanger configuration have the risk of condensate blowing off of the heat exchanger fins into the outlet ductwork in horizontal right applications that require high airflow. The attachment of the provided extension pan is required to mitigate the risk of condensate blow off. The three-row and four-row heat exchanger models are XAH***D, XAH***E, XAH***F, XAH***G, XAH***H, and XAH***J.

Complete the following steps to install the horizontal right drain pan extension:

1. Install the L-shaped bracket to hold the horizontal right drain pan extension into place with two screws as shown in [Figure 30](#).
2. Install the horizontal right drain pan extension with four screws as shown in [Figure 30](#). Install the horizontal right drain pan extension onto the coil cabinet from the outside of the cabinet before duct work attachment. Alternatively, it can be installed through the coil cabinet opening itself if the coil door is removed and coil sub-assembly is slid out of the cabinet.
3. Slide the coil back into the casing if the coil was removed for horizontal right drain pan extension installation. See [Figure 31](#) for the resulting assembly.

Figure 30: XAH horizontal right drain pan extension

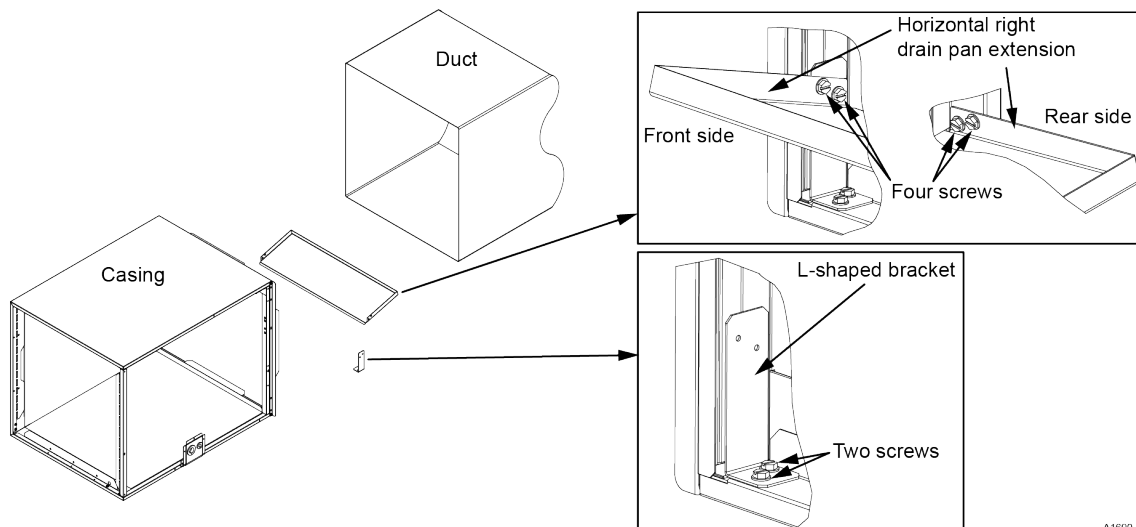
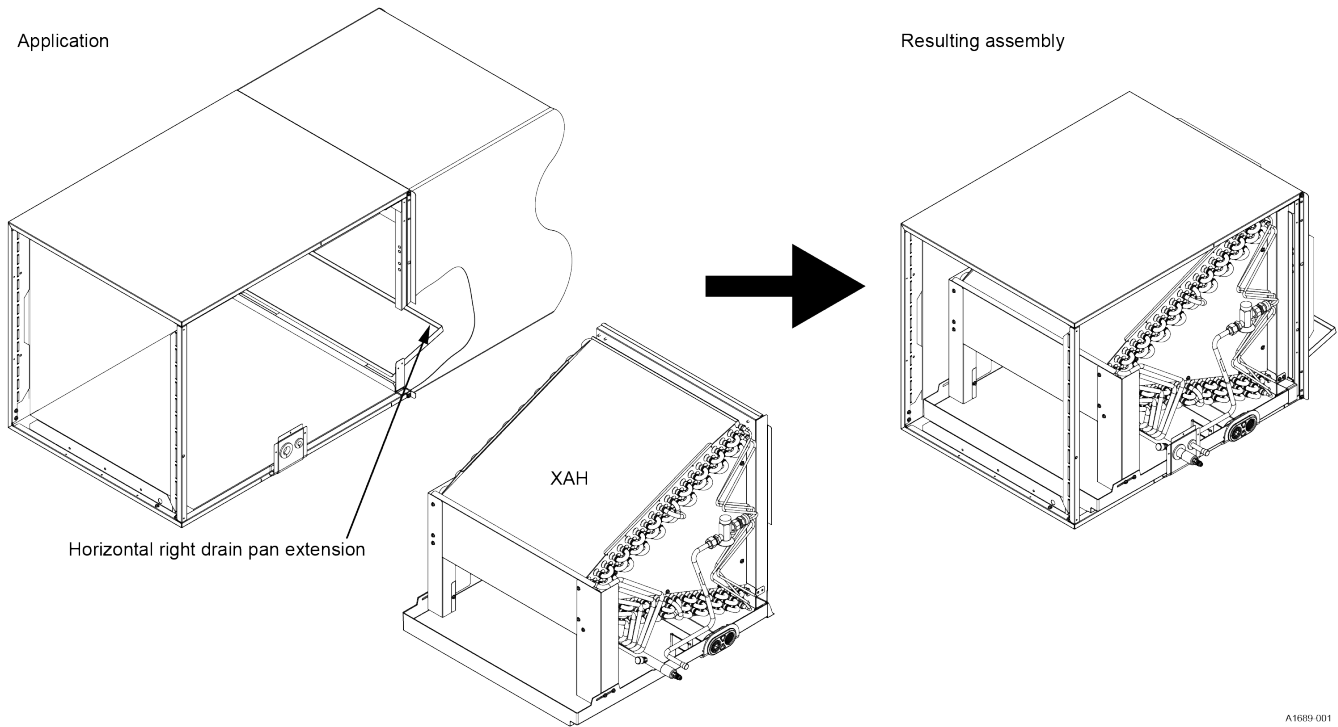


Figure 31: XAH horizontal right drain pan extension assembly



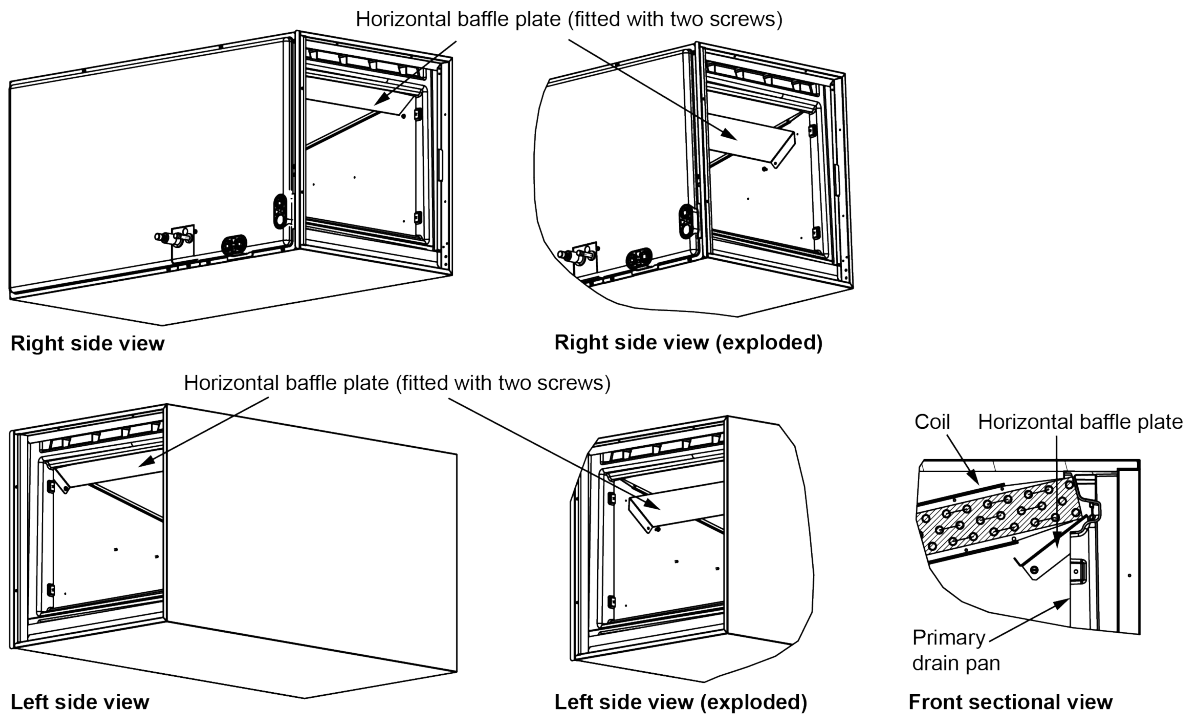
Installing a horizontal baffle plate - XAM

If installing the unit in a horizontal right airflow application, a horizontal baffle plate may be required. This only applies to the XAMC48 and XAMC60 models.

About this task:

Follow the following steps and see [Figure 32](#) to install a horizontal baffle plate:

Figure 32: Horizontal baffle plate installation - XAM



1. With the coil removed from the cabinet and laying on its horizontal drain pan, locate the pre-drilled holes in the front and rear coil delta plates.
2. Insert the horizontal baffle plate into the end of the coil. Insert one end of the horizontal baffle plate into the top side of the primary drain pan.
3. Secure the horizontal baffle plate in place with two screws, one in the front delta plate and one in the rear delta plate.

Installing the coil: XAU coils

About this task:

XAU coils are uncased upflow or downflow coils designed for installation with a matching upflow or downflow furnace.

These uncased coil installation instructions apply to Johnson Controls Ducted Systems furnace models with a supply air plenum of the size shown in [Table 7](#) based on the cabinet width of the furnace.

Table 7: Outer duct work dimensions

Coil size	Width (in.)	Depth (in.)
A	13 1/2	19 1/2
B	16 1/2	19 1/2
C	20	19 1/2
D	23 1/2	19 1/2

If the plenum is fabricated in two pieces, it is best practice to use duct locks (for example, Pittsburgh lock or snap lock) on the back side of the plenum. Three standard S-Locks are fabricated and required for coil door installation. Fabricate and install all duct work for housing an uncased coil in accordance with local and/or national codes.

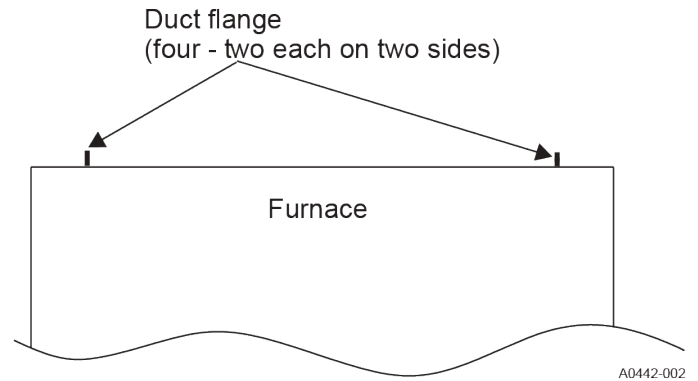
The following installation steps are provided only for reference for those who want to follow them. Experienced sheet metal duct work technicians can choose to follow their own practices, provided those practices comply with local and/or national codes.

This includes the standards of the National Fire Protection Association for Installation of Air-Conditioning and Ventilating Systems, NFPA No. 90B.

Note: This procedure outlines how to install an XAU coil and refers briefly to connecting the duct system, installing a coil metering device, and connecting refrigerant lines. See [Connecting the duct system](#), [Using a coil metering device](#), [Installing a TXV](#), and [Connecting refrigerant lines](#) for more detailed instructions on these tasks.

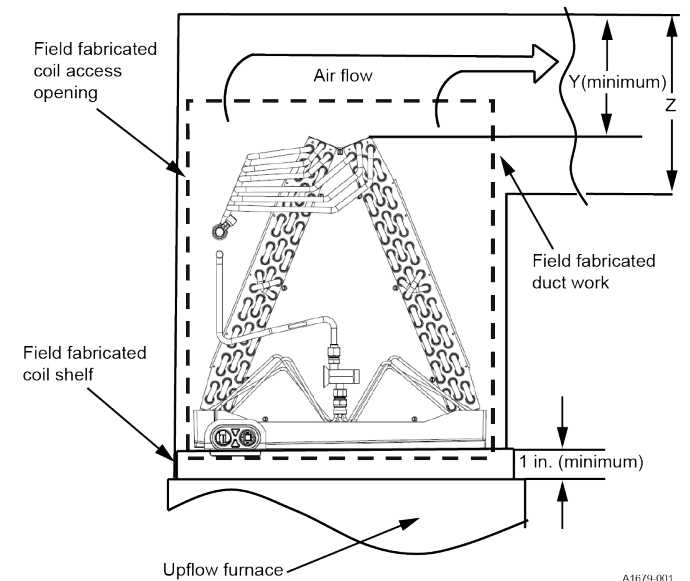
1. Fold all four duct flanges on the furnace to the upward position as shown in [Figure 33](#).

Figure 33: Duct flanges



2. Fabricate the duct work to house the coil in accordance with [Figure 34](#) and [Figure 35](#).

Figure 34: Upflow coil installation



NOTICE

Dimension Y must be at least 2/3 of dimension Z. See [Figure 34](#).

Table 8: Coil projection dimensions - XAU coils

Coil size	Dimension Y (in.)	Dimension Z (in.)
XAUA18A	3 1/2	5 1/4
XAUA24B	4 1/2	6 3/4
XAUB30C	4 1/2	6 3/4
XAUB36D	5 1/2	8 1/4
XAUC42E	6 1/2	9 3/4
XAUC48F	6 1/2	9 3/4
XAUC60G	9	13 1/2

Table 8: Coil projection dimensions - XAU coils

Coil size	Dimension Y (in.)	Dimension Z (in.)
XAUD60G	9	13 1/2
XAUD60H	9	13 1/2

3. Install the plenum on the furnace and secure with screws through the 1/2 in. flange out on the plenum.

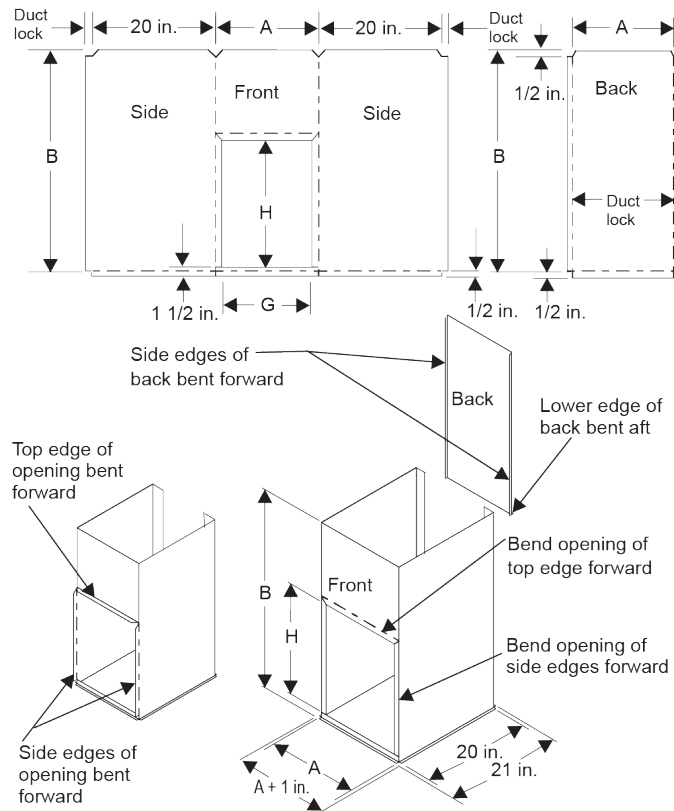
4. Cut an opening in the front of the supply air plenum. See [Figure 34](#), [Figure 35](#), [Table 8](#), and [Table 9](#) for coil and coil access dimensions.
5. Using a folding tool and hand seamer, bend the sides and top edges of the cut opening forward from the plenum at a 90° angle. See [Figure 35](#).

Table 9: Duct work dimensions (in.) - XAU coils

Coil model	Cabinet width	Cabinet height	Coil shelf opening width pre-form	Panel height	Duct connector lower	Duct connector upper	Opening width pre-form	Opening height pre-form
	A (in.)	B (in.) (minimum)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)	H (in.)
XAUA18A	13 1/2	22	9 1/2	19	19 1/2	13	11 1/2	18
XAUA24B	13 1/2	24	9 1/2	21	21 1/2	13	11 1/2	20
XAUB30C	16 1/2	26	12 1/2	23	23 1/2	16	14 1/2	22
XAUB36D	16 1/2	26	12 1/2	23	23 1/2	16	14 1/2	22
XAUC42E	20	28	16	25	25 1/2	19 1/2	18	24
XAUC48F	20	30	16	27	27 1/2	19 1/2	18	26
XAUC60G	20	34	16	31	31 1/2	19 1/2	18	30
XAUD60G	23 1/2	34	19 1/2	31	31 1/2	23	21 1/2	30
XAUD60H	23 1/2	38	19 1/2	35	35 1/2	23	21 1/2	34

Note: All dimensions are in inches. See [Figure 35](#), [Figure 36](#), and [Figure 38](#).

Figure 35: Duct work coil installation and access fabrication



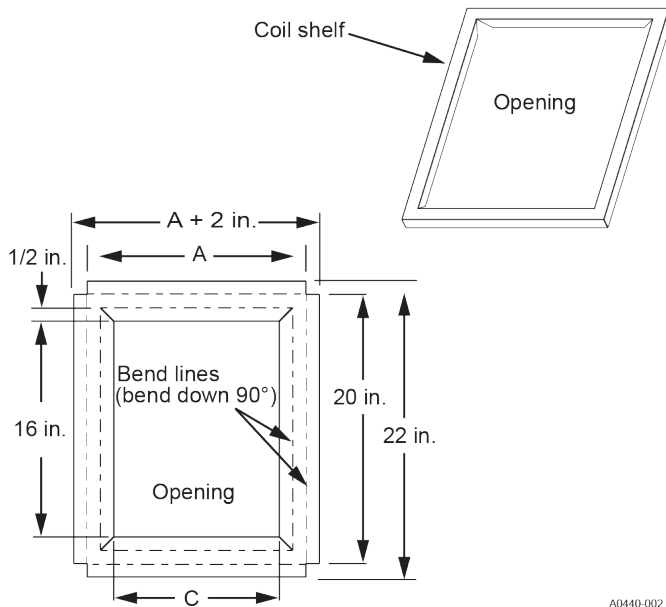
A0438 002

① **Note:** See [Table 9](#) for the dimension of each capital letter shown in [Figure 35](#).

6. Fabricate a coil shelf using a flat piece of metal. See [Figure 36](#).

① **Note:** See [Table 9](#) for the dimension of each capital letter shown in [Figure 36](#).

Figure 36: Coil shelf



7. Install the coil shelf through the plenum opening so that the duct flanges on the furnace support the coil shelf. See [Figure 37](#). Install the coil shelf level or pitched slightly toward the drain end (high in the back, low in the front). Ensure that the pitch does not exceed 1/4 in. per length of coil.

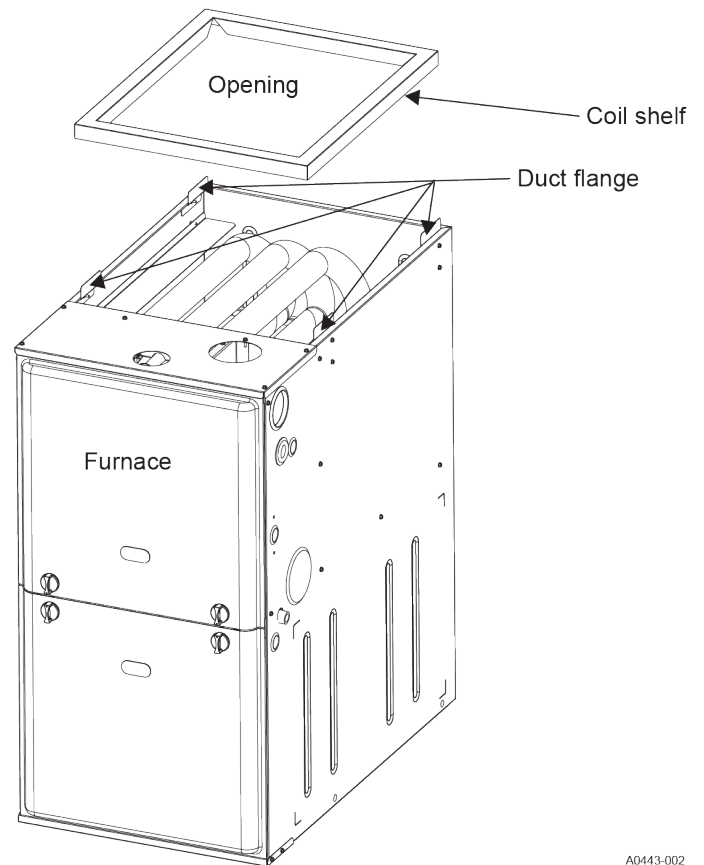
8. Install the appropriate metering device (TXV). See [Installing a TXV](#) for detailed instructions.

9. Install the coil through the plenum opening, and position the coil onto the coil shelf over the furnace opening as shown in [Figure 34](#).

① **Note:** If using a TXV, do not attach the bulb to the suction line until brazing is complete and the piping has cooled.

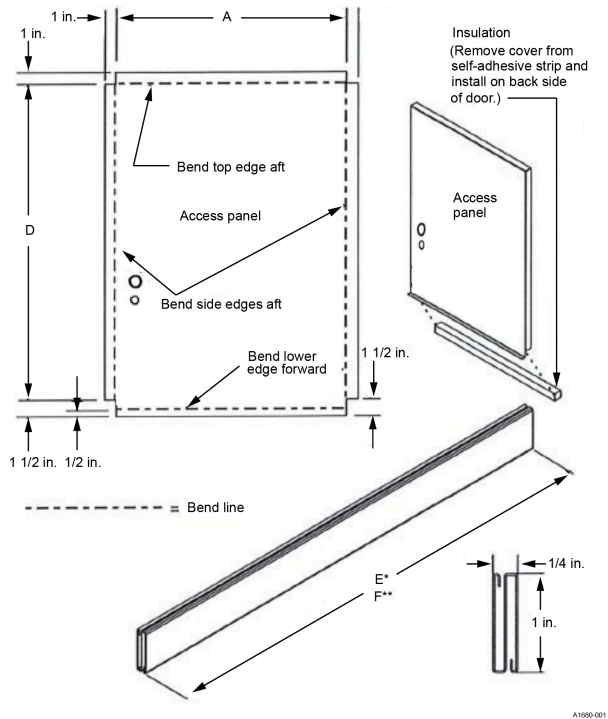
10. Fabricate a coil access panel as shown in [Figure 38](#) using the letter measurements in [Table 9](#). Before making any bends or cuts, use the paper template provided in [Figure 47](#) to mark the drain and refrigeration piping openings on the coil access panel.

Figure 37: Coil shelf installation position



11. Fabricate three standard S-Locks for coil access panel installation. See [Figure 38](#) and [Table 9](#) for the designated sizes. Install standard S-Locks onto the sides and top edges of the plenum access opening.
12. Install the coil access panel onto the plenum. Screw the coil access panel in place at the bottom 1/2 in. flange and the top flange at the top S-Lock.
13. Complete brazing of the refrigeration piping connections. See [Connecting refrigerant lines](#) for detailed instructions. Allow the piping to cool before installing the vapor line gasket and TXV temperature bulb if applicable.

Figure 38: Access panel and standard S-Lock



Note:

- See [Table 9](#) for the dimension of each capital letter.
- * On the front duct work access opening, use one S-Lock on each side edge.
- ** On the front duct work access opening, use one S-Lock on the upper edge.

14. If a TXV is installed on the coil, attach the TXV sensing bulb to the vapor line.
15. Check for air leakage around the access door and between the duct work and upflow furnace. Seal any leaks appropriately, using duct mastic or silicon sealant to seal all openings.

Critical coil projection: XAU coils

Position the coil assembly in the duct so that a minimum distance is maintained between the top of the coil and the top of the duct. See [Table 8](#).

Connecting the duct system

You can handle air supply and return in several ways. Use the option best suited to the installation. You can use upflow, horizontal, or downflow applications.

Adhere to the following:

- The vast majority of problems encountered with heating and cooling systems can be linked to incorrectly designed or installed duct systems. To help ensure a successful installation, correctly design and install the duct system.

- Use flexible duct connectors to minimize the transmission of vibration or noise into the conditioned space.

WARNING

For XAF, XAH, and XAM coils, use 1/2 in. screws to connect duct work to cabinet. If pilot holes are drilled, drill only through field duct and unit flange.

- Where the return air duct is short or sound may be a problem, use acoustical duct liner inside the duct. You must insulate duct work that runs through an unheated space during the heating season or an uncooled space during the cooling season. It is best practice to use a vapor barrier to prevent absorption of moisture from the surrounding air into the insulation.
- Correctly size the supply air duct by using a transition to match the unit opening. Suspend all ducts using flexible hangers and never fasten ducts directly to the structure. Fabricate and install duct work in accordance with local and/or national codes. This includes the standards of the National Fire Protection Association for Installation of Air Conditioning and Ventilating Systems, NFPA No. 90B.

CAUTION

Equipment should never be operated without filters.

Connecting the condensate drain

Adhere to the following:

- Pitch all drain lines 1/4 in./ft away from the unit drain pan and make sure that the drain lines are no smaller than the coil drain connection.
- Route the drain line so that it does not impede access to the coil, furnace, air handling system, or filter and is not exposed to freezing temperatures.
- Instruct the homeowner that the indoor coil drain pan must be inspected and cleaned regularly to prevent odors and ensure proper drainage.

NOTICE

For XAF, XAH, and XAM coils, when the coil is installed in an attic or above a finished ceiling, an auxiliary drain pan must be provided under the coil as is specified by most local building codes.

- Install the coil level or pitched slightly toward the drain end. Suggested pitch must not exceed 1/4 in./ft of coil.
- Note that you can remove drain plugs using a standard 3/8 in. drive socket ratchet.
- If the coil has a secondary drain, pipe it to a location that gives the occupant a visual warning that the primary drain is clogged. If a secondary drain is not used, you must plug the secondary drain. See [Figure 43](#), [Figure 44](#), [Figure 45](#), or [Figure 46](#).



CAUTION

Avoid double trapping.



CAUTION

Threaded drain connections should be hand tightened, plus no more than one turn.

- Do not use PTFE tape, pipe thread compound, or other sealants. Use of a sealant can cause damage and premature failure of the drain pan.

NOTICE

If the coil is installed in a draw-through application (modular blower), the installer must trap the primary and secondary drain line. If the secondary drain line is not used, it must be plugged.

Connecting refrigerant lines



CAUTION

Coil is under inert gas pressure. Relieve pressure from coil by depressing Schrader core at end of suction manifold stub out.



CAUTION

Dry nitrogen should always be supplied through the tubing while it is being brazed, because the temperature required is high enough to cause oxidation of the copper unless an inert atmosphere is provided. The flow of dry nitrogen should continue until the joint has cooled. Always use a pressure regulator and safety valve to insure that only low pressure dry nitrogen is introduced into the tubing. Only a small flow is necessary to displace air and prevent oxidation.

NOTICE

Avoid handling aluminum coil components after handling the copper refrigeration piping or other tubing without first cleaning hands.

NOTICE

Route the refrigeration piping to the coil in a manner that does not obstruct service access to the coil, air handling system, furnace flue, or filter.

1. Make suction and liquid line connections outside of the cabinet. Leave the tubing connection panel attached to the cabinet. Remove the coil access panel for brazing. The lines are expanded to receive the field refrigeration piping tubes for most outdoor unit matches.
2. Remove the grommets where tubes exit the cabinet to prevent burning them during brazing. In some units, the vapor line grommet may be shipped as a loose part with the unit.

3. Cut the end of the suction tube using a tube cutter. Place the tube cutter as close as possible to the end of the tube to allow as much depth as possible for the connection and brazing of the suction line. To ensure the suction line fits into the connection, deburr the stub out (including inner pressure protrusion from cutting).
4. If the coil has a factory-installed TXV or EEV, go to Step 5 **or** if the coil does not have a factory-installed TXV or EEV, install the TXV kit. See [Using a coil metering device](#) and [Installing a TXV](#) for detailed instructions.
5. If the coil has a factory-installed TXV or EEV, remove the liquid line copper cap that is soft soldered onto the outside of the 3/8 in. stub protruding from the front of the coil cabinet tubing panel as follows:
 - a. Screw a sheet metal screw into the center of the cap.
 - b. Apply a small amount of heat to the cap while pulling on the screw using slip joint pliers.

► **Important: For EEV equipped coils only**

The EEV in this unit is shipped in the closed position to protect the valve during transportation.

Before brazing, do the following:

- i. Connect the communication cable from the coil to the communication port on the furnace or modular blower control board.
- ii. Connect and apply line power to the field wiring terminals of the furnace or modular blower and ensure the board is powered for 60 s. This ensures the EEV control board cycles the valve to an open position. This allows nitrogen to flow through the system during brazing.

NOTICE

If power cannot be applied to the EEV control board prior to brazing refrigeration piping, a tool is available to manually operate the EEV. An EEV manual operating tool can be purchased from Source 1 as part number S1-02649686000. Six revolutions of the tool opens the valve fully.

6. Insert liquid and suction lines into the coil connections at the coil cabinet tubing panel.

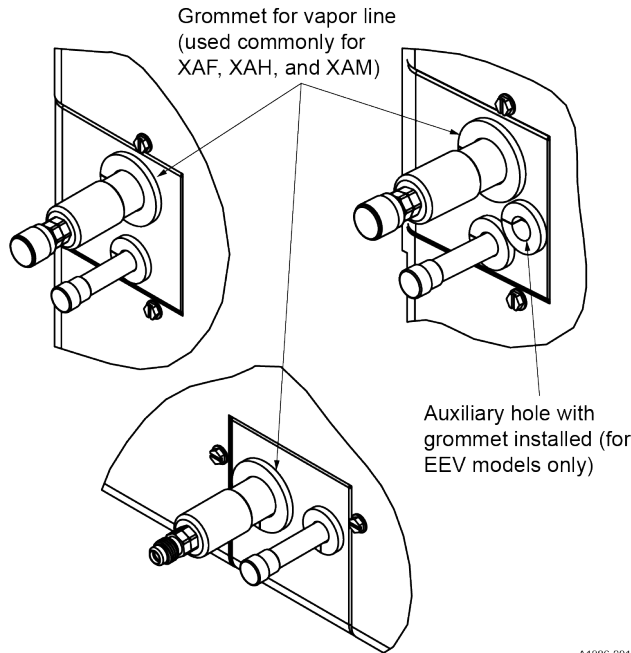
7. Wrap a water-soaked rag around the coil connection tubes inside the cabinet to avoid transferring excess heat to the coil, TXV, EEV, and temperature sensor if the coil is equipped with an EEV.
8. Purge the refrigerant lines with dry nitrogen during brazing.

NOTICE

All indoor coil connections are copper-to-copper and must be brazed with a phosphorous-copper alloy material such as Silfos-5 or equivalent. **Do not** use soft solder.

9. Braze the suction and liquid lines and allow the joints to cool.
10. If using an EEV, route the EEV control communicating cable through the auxiliary hole and install the grommet included in the loose parts kit.
11. Secure the sensing bulb and equalizer line capillary tubes with nylon cable ties to prevent leaks from the tubes rubbing.
12. Re-attach the grommets to the lines carefully to prevent air leakage. In some units, the vapor line grommet may be shipped as a loose part with the unit. See [Figure 39](#).
13. Refer to the *Installation Manual* for the outdoor unit and complete the leak check, evacuation, and charging according to the instructions provided. Check all field brazed joints and metering device connections.
14. Attach the coil access panel to the cabinet.
15. Ensure that lines are sound isolated by using appropriate hangers or strapping.

Figure 39: Vapor line grommet



Cleaning the coil

CAUTION

Ensure adequate precautions are taken to protect electrical components and structure from liquid.

If the coil needs to be cleaned, clean the coil with water or use Evap-Green by Nu-Calgon as an alternative to water. Evap-Green is the only pH neutral coil cleaner approved for use when correctly diluted.

① **Note:** Rinse coils thoroughly after use of Evap-Green for cleaning.

Adjusting the air system

About this task:

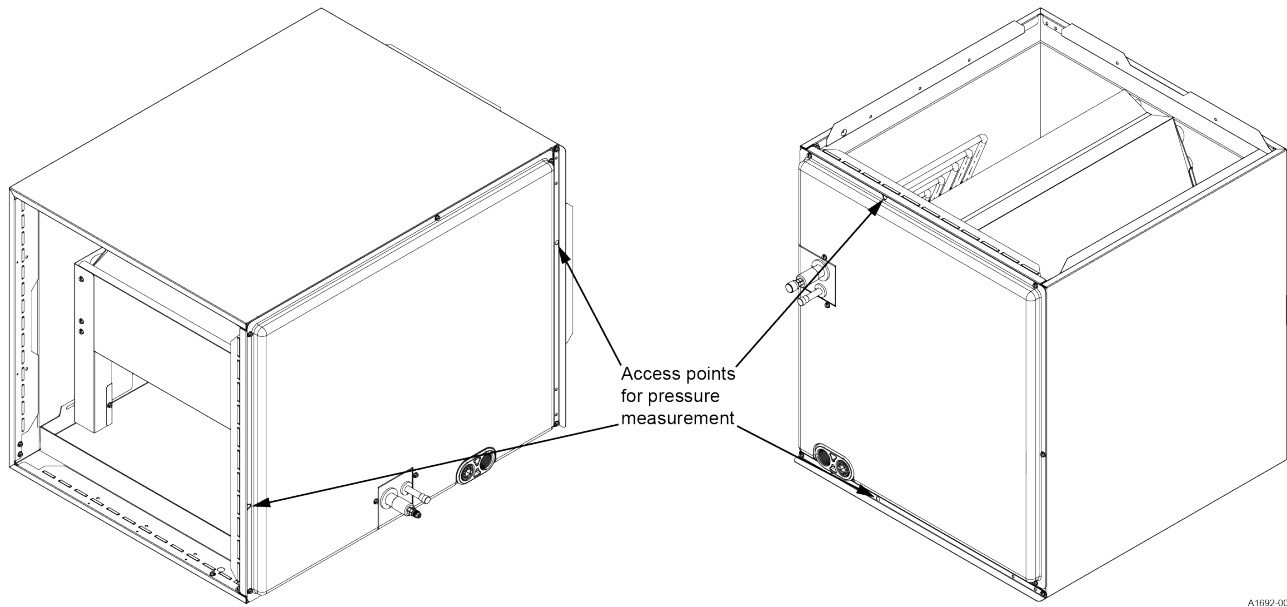
You must check and adjust airflow as required. Refer to the furnace or modular air handler instructions for more information. To check the CFM, you measure the static pressure drop across the coil using a portable manometer and static pressure tips. The entering and leaving air end of the XAF, XAH, and XAM coils have provisions for inserting a 1/4 tube for a pressure measurement using a manometer. These access points are for reference only. See Figure 40.

NOTICE

Table 10 to Table 13 have **dry coil** data. Run the system indoor fan only for approximately 15 min before taking measurements to assure a dry coil.

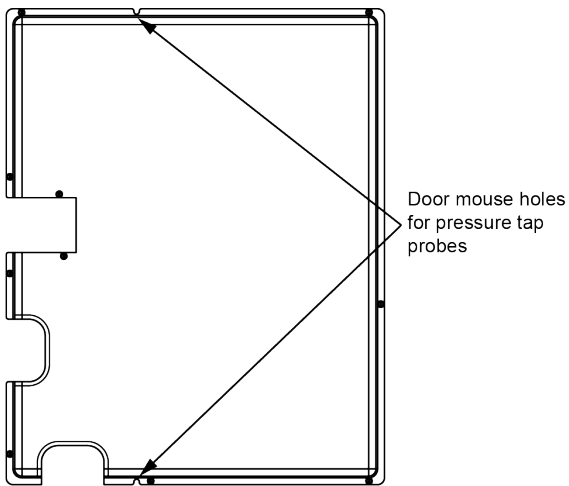
1. Prepare the coil for static pressure drop measurements: ensure that the coil is dry.
2. With the indoor blower running at the appropriate speed for equipment operation, use a scratch awl to puncture or pierce the insulation material in the appropriate cabinet brace depending on the indoor coil location. Insert the static pressure tips and capture the internal coil pressure drop.
3. See the relevant coil airflow data in Table 10 to Table 15 to determine the airflow and make the necessary adjustments to keep the CFM within the airflow limitations of the coil.
4. After capturing airflow data and selecting the correct blower speed, seal the holes appropriately to prevent air leakage.

Figure 40: Pressure measurement access points



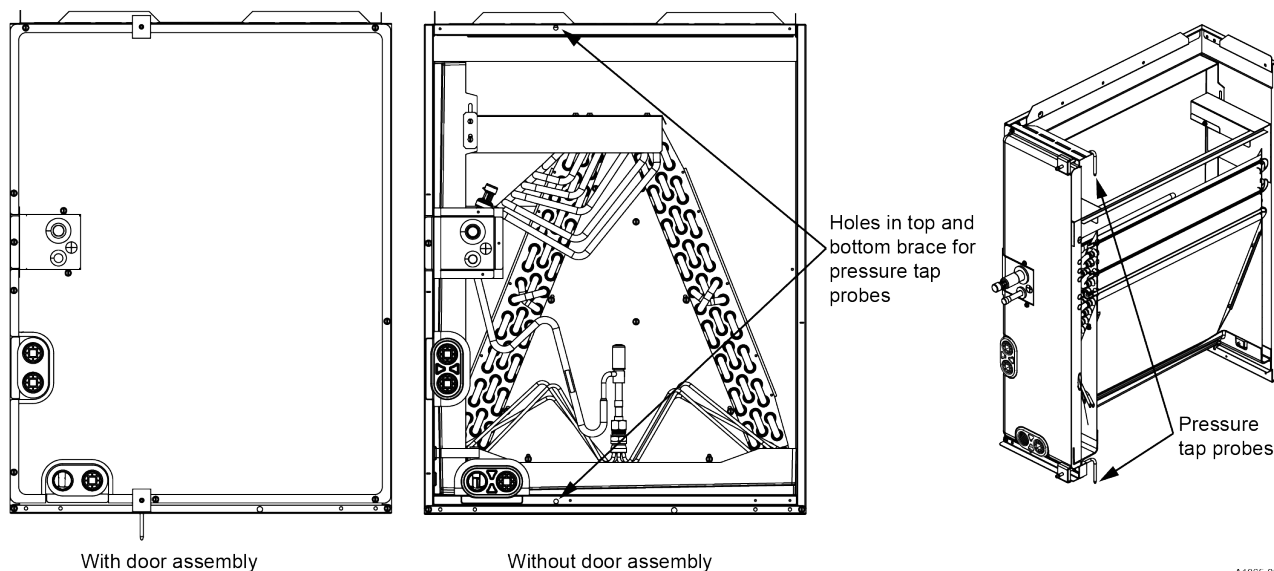
A1892-001

Figure 41: Door mouse holes



A1864-001

Figure 42: Pressure tap tips



A1865-001

Table 10: XAF airflow data (CFM)

Models	CFM								
	400	600	800	1000	1200	1400	1600	1800	2000
Coil pressure drop (in. W.C.)									
XAFA18A	0.05	0.11	0.18	—	—	—	—	—	—
XAFB18A	0.04	0.07	0.13	—	—	—	—	—	—
XAFA24B	0.05	0.11	0.19	0.28	—	—	—	—	—
XAFB24B	0.03	0.07	0.11	0.16	—	—	—	—	—
XAFB30C	0.04	0.07	0.11	0.15	0.21	—	—	—	—
XAFC30C	0.03	0.06	0.08	0.12	0.16	—	—	—	—
XAFA30D	0.06	0.12	0.20	0.29	—	—	—	—	—
XAFB36D	0.03	0.06	0.11	0.16	0.23	0.30	—	—	—
XAFC36D	0.02	0.05	0.10	0.14	0.20	0.25	—	—	—
XAFB36E	0.03	0.07	0.11	0.16	0.23	—	—	—	—
XAFC42E	0.02	0.04	0.08	0.11	0.16	0.21	0.27	—	—
XAFD42E	0.02	0.05	0.07	0.10	0.13	0.17	0.21	—	—
XAFC48F	0.01	0.04	0.07	0.10	0.14	0.19	0.24	0.30	—
XAFD48F	0.02	0.04	0.06	0.08	0.11	0.15	0.19	0.23	—
XAFC60G	0.01	0.03	0.05	0.08	0.12	0.16	0.22	0.27	0.33
XAFD60G	0.01	0.02	0.04	0.06	0.09	0.12	0.15	0.19	0.23
XAFC60H	0.02	0.04	0.06	0.09	0.12	0.16	0.21	0.26	0.31
XAFD60H	0.01	0.03	0.05	0.06	0.09	0.11	0.15	0.18	0.22
XAFD60J	0.01	0.03	0.06	0.08	0.12	0.18	0.22	0.26	0.31

Note:

- Airflow data is for dry coil conditions only, tested without filters.
- For optimal performance, total system external static pressures of 0.2 in. W.C. to 0.6 in. W.C. are recommended. Applications above 0.6 in. W.C. are not recommended.

Table 11: XAF airflow data (CFM) - downflow

Models	CFM								
	400	600	800	1000	1200	1400	1600	1800	2000
	Coil pressure drop (in. W.C.)								
XAFA18A	0.07	0.16	0.26	—	—	—	—	—	—
XAFB18A	0.05	0.11	0.19	—	—	—	—	—	—
XAFA24B	0.06	0.13	0.23	0.34	—	—	—	—	—
XAFB24B	0.05	0.09	0.16	0.24	—	—	—	—	—
XAFB30C	0.05	0.09	0.15	0.21	0.29	—	—	—	—
XAFC30C	0.04	0.07	0.11	0.16	0.22	—	—	—	—
XAFA30D	0.08	0.18	0.29	0.43	—	—	—	—	—
XAFB36D	0.04	0.09	0.16	0.24	0.33	0.45	—	—	—
XAFC36D	0.03	0.07	0.11	0.16	0.23	0.31	—	—	—
XAFB36E	0.05	0.10	0.16	0.24	0.34	—	—	—	—
XAFC42E	0.03	0.06	0.11	0.15	0.22	0.28	0.38	—	—
XAFD42E	0.03	0.06	0.09	0.13	0.17	0.23	0.29	—	—
XAFC48F	0.02	0.05	0.09	0.13	0.19	0.27	0.34	0.43	—
XAFD48F	0.02	0.05	0.08	0.11	0.15	0.20	0.26	0.33	—
XAFC60G	0.02	0.04	0.08	0.12	0.17	0.23	0.30	0.38	0.47
XAFD60G	0.01	0.03	0.06	0.09	0.13	0.17	0.23	0.28	0.34
XAFC60H	0.03	0.05	0.09	0.13	0.18	0.24	0.32	0.40	0.49
XAFD60H	0.02	0.04	0.06	0.09	0.13	0.16	0.21	0.27	0.33
XAFD60J	0.02	0.04	0.07	0.11	0.16	0.22	0.28	0.34	0.42

Note:

- Airflow data is for dry coil conditions only, tested without filters.
- For optimal performance, total system external static pressures of 0.2 in. W.C. to 0.6 in. W.C. are recommended. Applications above 0.6 in. W.C. are not recommended.

Table 12: XAH airflow data (CFM) - horizontal left

Models	CFM								
	400	600	800	1000	1200	1400	1600	1800	2000
	Coil pressure drop (in. W.C.)								
XAHA18A	0.07	0.14	0.21	—	—	—	—	—	—
XAHA24B	0.06	0.13	0.21	0.30	—	—	—	—	—
XAHB24B	0.05	0.09	0.14	0.20	—	—	—	—	—
XAHB30C	0.04	0.08	0.13	0.19	0.26	—	—	—	—
XAHC30C	0.04	0.07	0.11	0.14	0.20	—	—	—	—
XAHB36D	0.05	0.11	0.18	0.25	0.36	0.49	—	—	—
XAHC36D	0.04	0.07	0.12	0.16	0.23	0.31	—	—	—
XAHC42E	0.03	0.07	0.11	0.15	0.22	0.28	0.37	—	—
XAHD42E	0.03	0.06	0.09	0.13	0.18	0.23	0.30	—	—
XAHC48F	0.03	0.06	0.09	0.13	0.19	0.25	0.32	0.40	—
XAHD48F	0.02	0.04	0.06	0.09	0.12	0.16	0.21	0.25	—
XAHC60G	0.02	0.05	0.08	0.12	0.17	0.23	0.30	0.37	0.45
XAHD60G	0.02	0.04	0.06	0.09	0.13	0.16	0.21	0.26	0.32
XAHC60H	0.02	0.05	0.08	0.12	0.17	0.23	0.30	0.37	0.46
XAHD60H	0.02	0.04	0.06	0.08	0.12	0.16	0.20	0.25	0.30
XAHD60J	0.03	0.06	0.09	0.13	0.17	0.22	0.29	0.35	0.43

Note:

- Airflow data is for dry coil conditions only, tested without filters.
- For optimal performance, total system external static pressures of 0.2 in. W.C. to 0.6 in. W.C. are recommended. Applications above 0.6 in. W.C. are not recommended.

Table 13: XAH airflow data (CFM) - horizontal right

Models	CFM								
	400	600	800	1000	1200	1400	1600	1800	2000
	Coil pressure drop (in. W.C.)								
XAHA18A	0.07	0.14	0.23	—	—	—	—	—	—
XAHA24B	0.06	0.13	0.21	0.31	—	—	—	—	—
XAHB24B	0.05	0.09	0.15	0.20	—	—	—	—	—
XAHB30C	0.04	0.08	0.13	0.18	0.25	—	—	—	—
XAHC30C	0.04	0.07	0.11	0.15	0.20	—	—	—	—
XAHB36D	0.05	0.11	0.17	0.25	0.35	0.48	—	—	—
XAHC36D	0.04	0.07	0.12	0.16	0.23	0.30	—	—	—
XAHC42E	0.03	0.07	0.11	0.15	0.21	0.28	0.37	—	—
XAHD42E	0.03	0.06	0.09	0.13	0.17	0.22	0.29	—	—
XAHC48F	0.03	0.06	0.10	0.14	0.20	0.26	0.34	0.43	—
XAHD48F	0.00	0.04	0.06	0.09	0.13	0.17	0.22	0.27	—
XAHC60G	0.03	0.06	0.09	0.13	0.19	0.25	0.33	0.41	0.50
XAHD60G	0.02	0.04	0.07	0.09	0.13	0.18	0.23	0.28	0.34
XAHC60H	0.03	0.06	0.09	0.13	0.19	0.25	0.33	0.40	0.49
XAHD60H	0.02	0.04	0.06	0.09	0.13	0.17	0.22	0.27	0.33
XAHD60J	0.03	0.06	0.10	0.14	0.19	0.25	0.33	0.40	0.49

Note:

- Airflow data is for dry coil conditions only, tested without filters.
- For optimal performance, total system external static pressures of 0.2 in. W.C. to 0.6 in. W.C. are recommended. Applications above 0.6 in. W.C. are not recommended.

Table 14: XAU airflow data (CFM)

Models	CFM								
	400	600	800	1000	1200	1400	1600	1800	2000
	Coil pressure drop (in. W.C.)								
XAUA18A	0.05	0.11	0.18	—	—	—	—	—	—
XAUA24B	0.05	0.11	0.19	0.28	—	—	—	—	—
XAUB30C	0.04	0.07	0.11	0.15	0.21	—	—	—	—
XAUB36D	0.03	0.06	0.11	0.16	0.23	0.30	—	—	—
XAUC42E	0.02	0.04	0.08	0.11	0.16	0.21	0.27	—	—
XAUC48F	0.01	0.04	0.07	0.10	0.14	0.19	0.24	0.30	—
XAUC60G	0.01	0.03	0.05	0.08	0.12	0.16	0.22	0.27	0.33
XAUD60G	0.01	0.02	0.04	0.06	0.09	0.12	0.15	0.19	0.23
XAUD60H	0.01	0.03	0.06	0.08	0.12	0.18	0.22	0.26	0.31

Note:

- Airflow data is for dry coil conditions only, tested without filters.
- For optimal performance, total system external static pressures of 0.2 in. W.C. to 0.6 in. W.C. are recommended. Applications above 0.6 in. W.C. are not recommended.

Table 15: XAU airflow data (CFM) - downflow

Models	CFM								
	400	600	800	1000	1200	1400	1600	1800	2000
	Coil pressure drop (in. W.C.)								
XAUA18A	0.07	0.16	0.26	—	—	—	—	—	—
XAUA24B	0.06	0.13	0.23	0.34	—	—	—	—	—
XAUB30C	0.05	0.09	0.15	0.21	0.29	—	—	—	—
XAUB36D	0.04	0.09	0.16	0.24	0.33	0.45	—	—	—
XAUC42E	0.03	0.06	0.11	0.15	0.22	0.28	0.38	—	—
XAUC48F	0.02	0.05	0.09	0.13	0.19	0.27	0.34	0.43	—

Table 15: XAU airflow data (CFM) - downflow

Models	CFM								
	400	600	800	1000	1200	1400	1600	1800	2000
	Coil pressure drop (in. W.C.)								
XAUC60G	0.02	0.04	0.08	0.12	0.17	0.23	0.30	0.38	0.47
XAUD60G	0.01	0.03	0.06	0.09	0.13	0.17	0.23	0.28	0.34
XAUD60H	0.02	0.04	0.07	0.11	0.16	0.22	0.28	0.34	0.42

Note:

- Airflow data is for dry coil conditions only, tested without filters.
- For optimal performance, total system external static pressures of 0.2 in. W.C. to 0.6 in. W.C. are recommended. Applications above 0.6 in. W.C. are not recommended.

Table 16: XAM airflow data (CFM)

Models	CFM								
	400	600	800	1000	1200	1400	1600	1800	2000
	Coil pressure drop (in. W.C.)								
XAMB24D	0.04	0.07	0.11	0.15	0.20	—	—	—	—
XAMB36D	0.04	0.07	0.11	0.15	0.20	—	—	—	—
XAMC36D	0.05	0.11	0.17	0.25	0.35	0.48	—	—	—
XAMC48H	0.03	0.06	0.09	0.13	0.19	0.25	0.33	0.41	0.50
XAMD48H	0.02	0.04	0.07	0.09	0.13	0.18	0.23	0.28	0.34
XAMC60H	0.03	0.06	0.09	0.13	0.19	0.25	0.33	0.41	0.50
XAMD60H	0.02	0.04	0.07	0.09	0.13	0.18	0.23	0.28	0.34

Note:

- Airflow data is for dry coil conditions only, tested without filters.
- For optimal performance, total system external static pressures of 0.2 in. W.C. to 0.6 in. W.C. are recommended. Applications above 0.6 in. W.C. are not recommended.

Instructing the homeowner

When the installation is complete, do the following:

- Assist the homeowner with registering the unit warranty using the warranty card included with the unit or (preferably) online at www.upgproductregistration.com. It is best practice to complete a start-up sheet showing the critical readings of the unit at the time of commissioning. This startup sheet can be uploaded as part of the online registration process.
- Instruct the homeowner that the indoor coil drain pan must be inspected and cleaned regularly to prevent odors and ensure sufficient drainage.

Installation verification

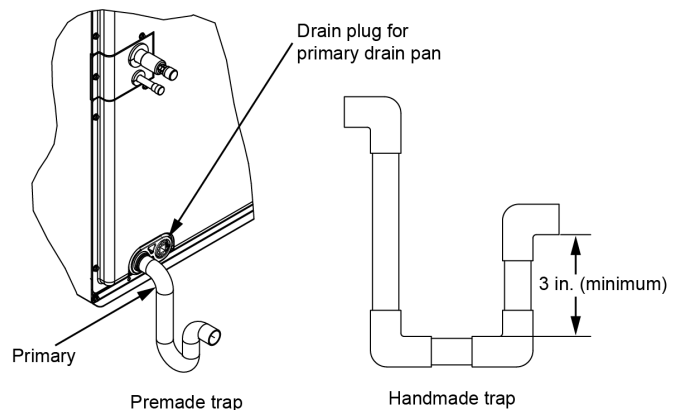
Before installation, review the installation aids that follow. During installation, use these installation aids to verify that tasks are completed as required.

TXV checklist

- Is the coil metering device installed correctly?
- Is the correct TXV installed according to the *Technical Guide* or *Tabular Data Sheet* for the outdoor section?
- Is the TXV temperature bulb positioned correctly?

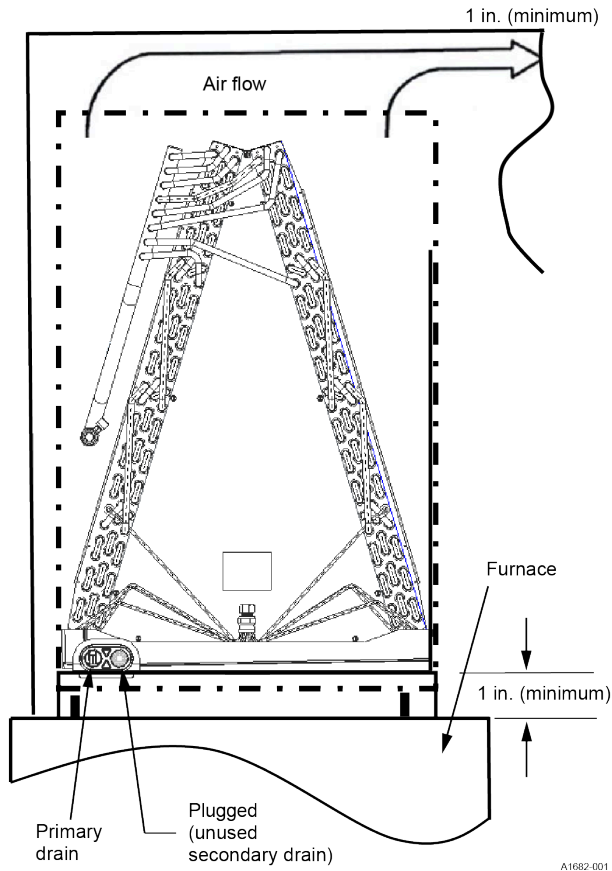
- Is the TXV temperature bulb insulated?
- Is the equalizer line connected?

Figure 43: Drain traps



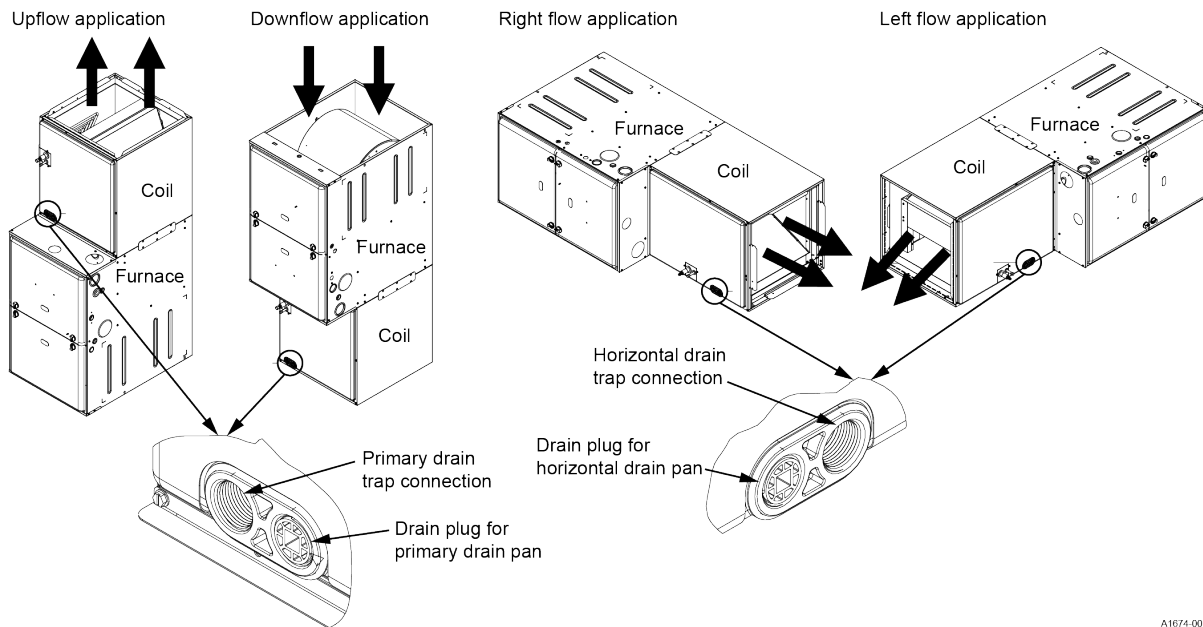
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Figure 44: Location of trapped and plugged drain connections - XAU



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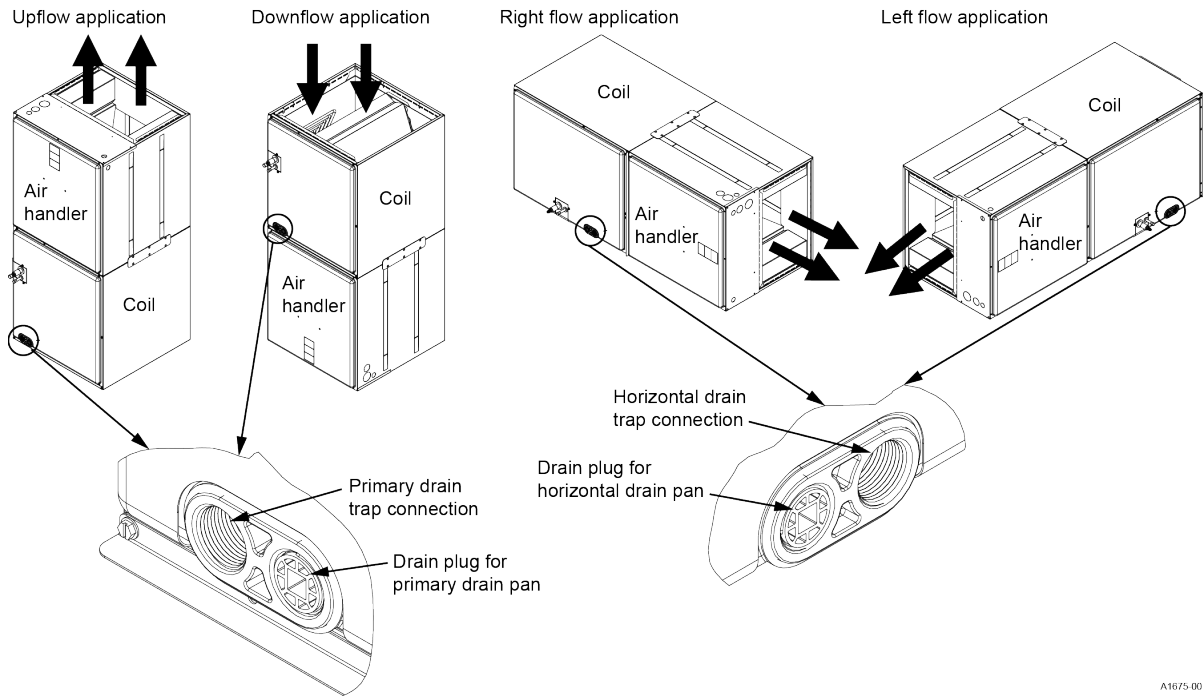
Figure 45: Location of coil trapped and plugged drain connections with furnace - XAF, XAH, and XAM



A1674-001

① **Note:** Verify that all drains are tapped or plugged.

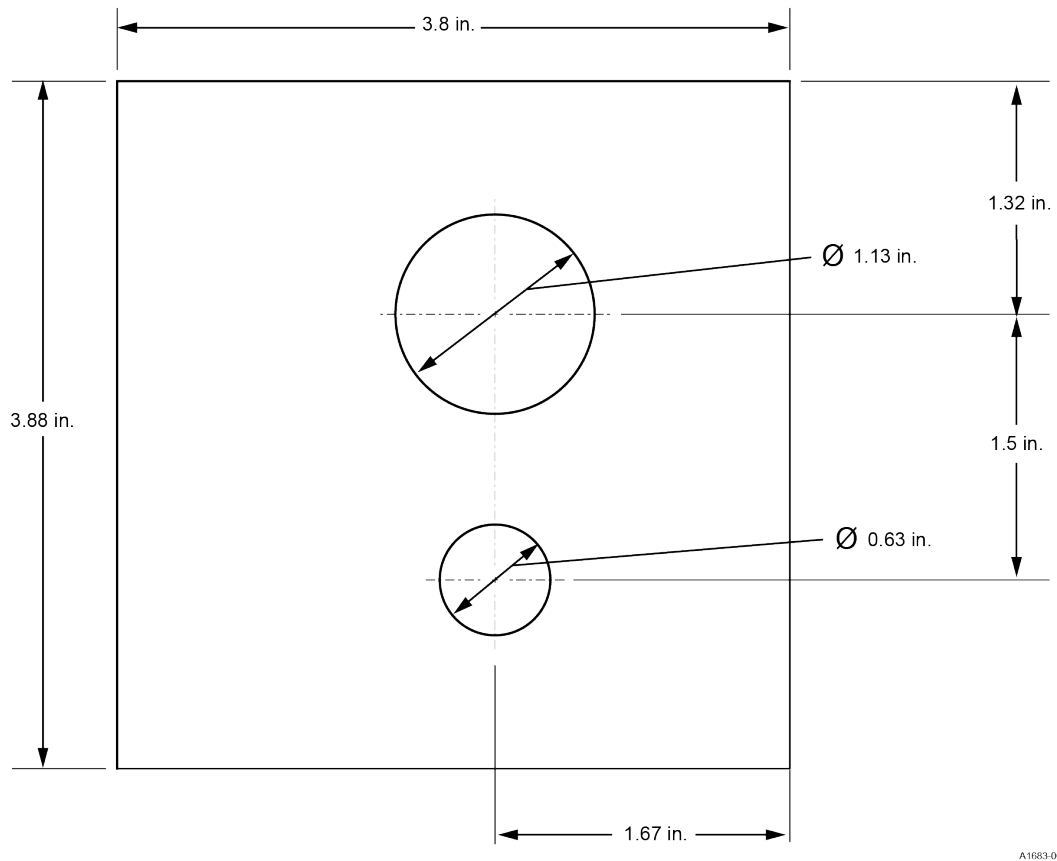
Figure 46: Location of coil trapped and plugged drain connections with modular air handler - XAF, XAH, and XAM



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① **Note:** Verify that all drains are tapped or plugged.

Figure 47: Template for drain and refrigerant lines on coil access door



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