

Installer's Guide



Cased Aluminum "Convertible" Coils

Models:

A4MXA1824AC6HA	A4MXB4248AC6HA
A4MXB1832AC6HA	A4MXC4248AC6HA
A4MXA3036AC6HA	A4MXD4248AC6HA
A4MXB3642AC6HA	A4MXC4260AC3HA
A4MXC3642AC6HA	A4MXD4260AC3HA

ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES

IMPORTANT— This Document is **customer property** and is to remain with this unit. Please return to service information pack upon completion of work.

⚠ WARNING

WARNING (Medium/high pressure)
Contains Refrigerant!

System contains oil and refrigerant under high pressure. Recover refrigerant to relieve pressure before opening the system. See unit nameplate for refrigerant type. Do not use non-approved refrigerants, refrigerant substitutes, or refrigerant additives.

Failure to follow proper procedures or the use of non-approved refrigerants, substitutes, or refrigerant additives could result in death, serious injury, or equipment damage.

A. GENERAL

⚠ WARNING

This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

These coils are designed for use in combination with a heat pump or cooling outdoor section using **R-410A REFRIGERANT**.

The A4MX equipment has been evaluated in accordance with the Code of Federal Regulations, Chapter XX, Part 3280 or the equivalent, "Suitable for Mobile Home use." The height of the Furnace, Coil and discharge duct work must be 7 ft. or less.

Inspect the coil for shipping damage. Notify the transportation company immediately if the coil is damaged.

B. APPLICATION INFORMATION

1. FURNACE AND COIL

The coil **MUST BE** installed downstream (in the outlet air) of the furnace.

2. INDOOR UNIT AIRFLOW

Indoor unit must provide the required airflow for the heat pump or cooling combinations approved for these coils.

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NOTE:

OPTIONAL DOWNFLOW GASKET INSTALLATION: For unusually humid applications that expect prolonged operation above 70% RH, it is recommended to use the **BAYGSKT001A0** gasket kit to prevent water from forming on the bottom of the drain pan and dripping into the supply ductwork.

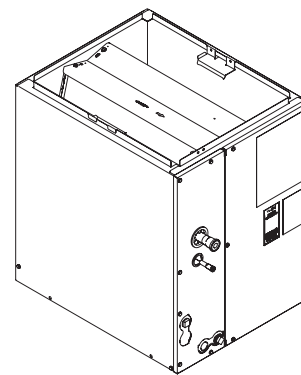


Figure 1

IMPORTANT: Review your installation requirements. Check the table on the outline drawings and note all dimensions for your coil before beginning the installation.

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C. ACCESSORY PARTS

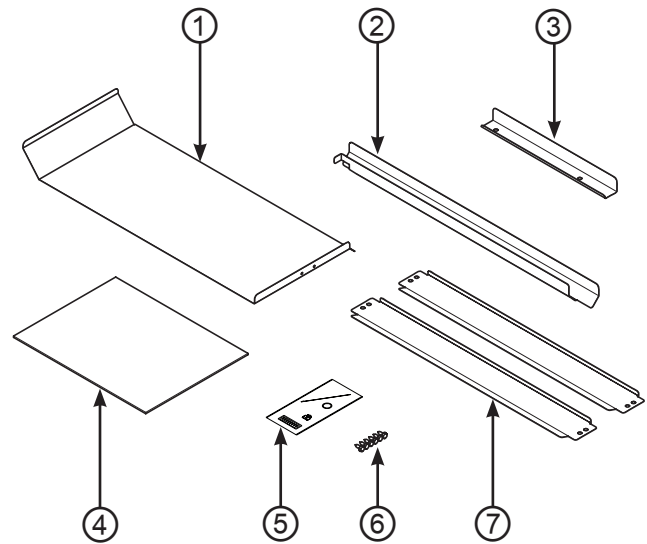
Open and inspect the contents shipped with the coil for damage or missing items.

Each kit will contain:

Item	Qty	Description
1	1	Splash Guard
2	1	Splash Guard Bracket
3	1	Hairpin Baffle
4	1	Installer's Guide
5*	1	Orifice Kit
6	1	Screws
7**	2	Downflow Baffles

* Item not shipped with A4MXC/D4260

** Shipped with A4MXC4260, A4MXD4260 only



D. RECOMMENDATION

If a coil is part of the total system installation, use the Installer's Guide packaged with the furnaces, outdoor sections, and thermostat for physically installing those components.

⚠ CAUTION

Caution: This coil is pressurized with 8-12 psig of dry air. Do not stand directly in front of the coil connections when removing sealing plugs. If no pressure is released, check for leaks.

E. FURNACE IN UPFLOW POSITION

- UPFLOW COIL CONVERSION: While not required, optional removal of some coil components will maximize airflow efficiency.
 - Remove the coil by sliding the coil out of the coil enclosure.
 - Optional but recommended: Remove the factory installed two-piece baffle assembly from the top of the coil by removing the 5/16" hex head screws. See Figure 2. Replace only the top baffle using the same screws previously provided.
 - Optional for maximum efficiency: Remove the horizontal drain pan from the coil and discard.
- UPFLOW GAS FURNACE
 - Apply gasket material (duct seal field supplied) to ALL mating surfaces between the furnace and the coil case.
 - Set the coil case on top of the furnace. Connect the ductwork to the coil case using field supplied screws.
 - Secure the coil case to the furnace and seal for air leaks as required.

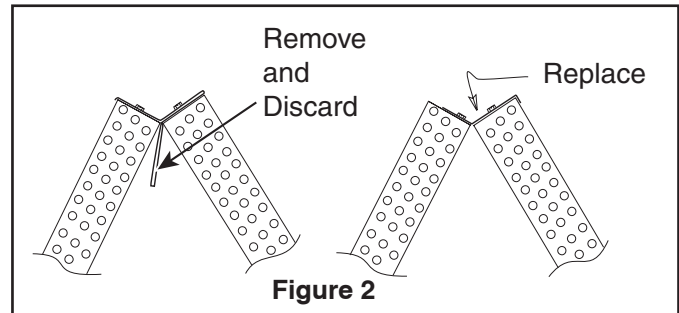


Figure 2

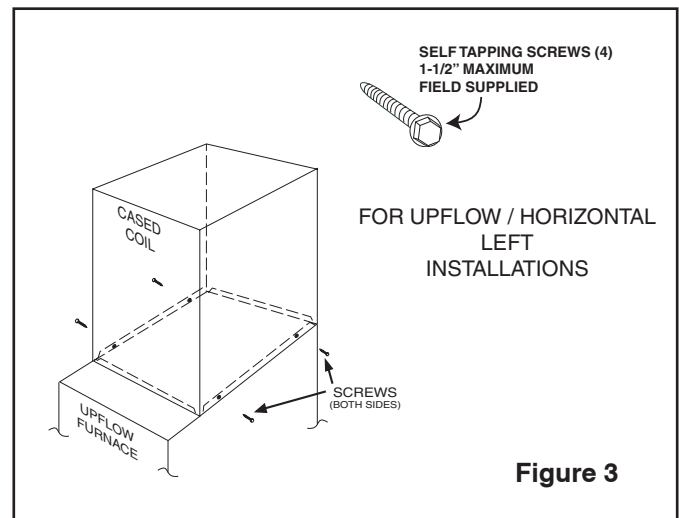


Figure 3

Secure alignment between the furnace and coil cabinet using field-provided self-tapping screws (see Figure 3). For S-series furnaces, bend furnace duct flanges outward for cased coil alignment. Drill screws into furnace duct flange through clearance alignment holes located near bottom of coil cabinet. The coil is always placed downstream of the furnace airflow.

F. FURNACE IN DOWNFLOW POSITION

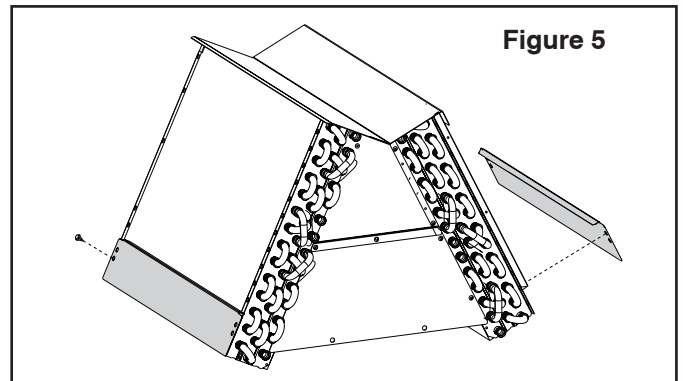
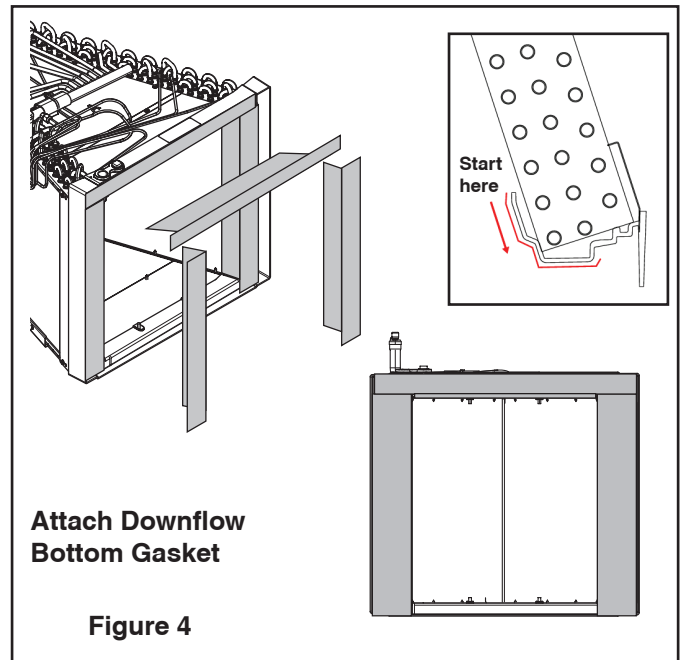
1. **DOWNFLOW COIL CONVERSION:** While not required, optional removal of some coil components will maximize airflow efficiency.
 - a. Remove the coil by sliding the coil out of the coil enclosure.
 - b. Optional but recommended: Remove the factory installed two-piece baffle assembly from the top of the coil by removing the 5/16" hex head screws. See Figure 2. Replace only the top baffle using the same screws previously provided.
 - c. Optional for maximum efficiency: Remove the horizontal drain pan from the coil and discard.
 - d. On A4MXC4260 and A4MXD4260, installing the water diverter baffles is required for downflow conversion. Install the two outer water baffles closest to the drain pan using the provided 5/16" hex head screws. See Figure 5.

2. **DOWNFLOW GASKET INSTALLATION (OPTIONAL):** For unusually humid applications that expect prolonged operation above 70% RH, it is recommended to use the BAYGSKT001A0 gasket kit to prevent water from forming on the bottom of the drain pan and dripping into the supply ductwork.
 - a. Lay the coil on its back side.
 - b. Locate the 4" wide gasket material found in BAYGSKT001A0.
 - c. Attach the 4" gasket material to three sides of the bottom of the drain pan as shown. Make sure to start by matching up the edge of the gasket material to the inner edge of the drain pan by the coil fins and working outwards.
 - d. The gasket material can be cut or ripped easily so that it can be tailored to fit. The gasket material must cover the three sides along the entire length of the coil as shown in Figure 4.

3. DOWNFLOW GAS FURNACE

When a coil is used with a downflow furnace, a subbase is not required between the coil case and combustible flooring.

- a. Place the coil case on the furnace supply air plenum.
- b. Secure the coil case to the plenum.
- c. Set the furnace on top of the coil case, making sure that the back side of the discharge opening is snug up against the duct flange at the top rear of the coil case.
- d. Secure the coil case to the furnace and seal for air leaks as required.



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G. FURNACE IN HORIZONTAL RIGHT POSITION

⚠ CAUTION

Both the coil and furnace must be fully supported. Do not attempt to suspend the coil using the brackets.

Note: when installing onto an S-Series furnaces in horizontal right or downflow configuration the flanges will be bent downward.

1. HORIZONTAL RIGHT COIL CONVERSION:
S-Series upflow furnaces can be horizontal left or right. For legacy furnaces, the non-condensing furnaces may be laid on either side for horizontal application. The condensing downflow/horizontal right and upflow/horizontal left furnaces may only be rotated onto their left side.

While not required, optional removal of some coil components will maximize airflow efficiency.

- a. Remove the coil by sliding the coil out of the coil enclosure.
- b. Optional but recommended: Remove the factory installed two-piece baffle assembly from the top of the coil by removing the 5/16" hex head screws. See Figure 2. Replace only the top baffle using the same screws previously provided.

IMPORTANT:
The A4MX cased coil must be placed downstream of the furnace. See Figure 7 for proper orientation.

2. When the non-condensing Upflow/Horizontal furnace is placed on its right side for right airflow, the furnace top flange meets the cased coil top flange. The coil flange fits inside of the furnace flange. See Figure 6 and 8.
3. Use field-supplied self-drilling screws to connect the coil to the furnace. Seal all gaps between the furnace and coil.

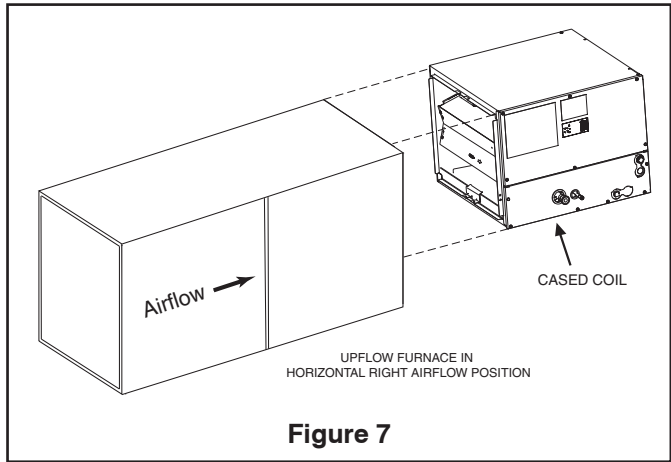


Figure 7

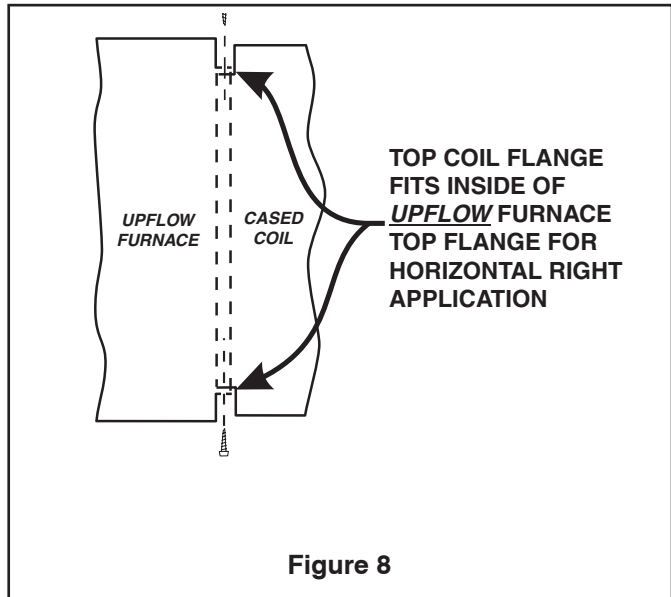


Figure 8

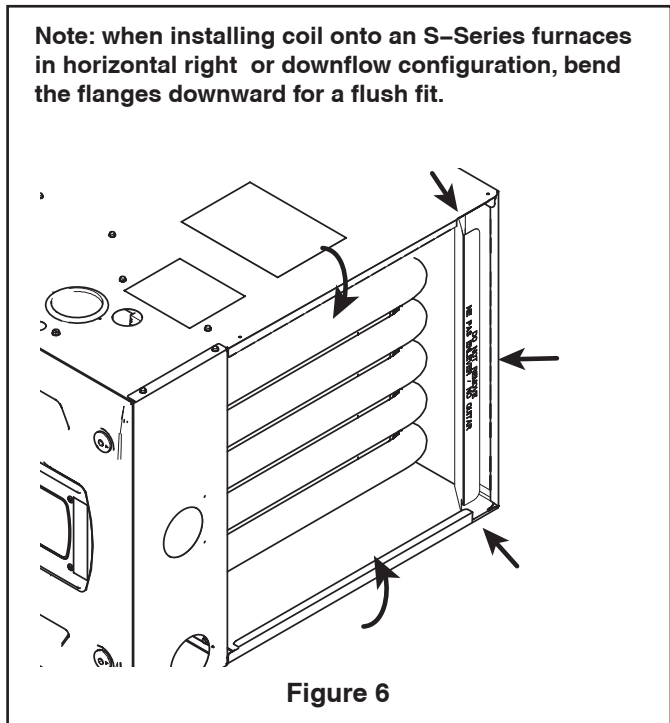


Figure 6

H. FURNACE IN HORIZONTAL LEFT POSITION

⚠ CAUTION

Both the coil and furnace must be fully supported. Do not attempt to suspend the coil using the brackets.

1. HORIZONTAL LEFT COIL CONVERSION:

S-Series upflow furnaces can be horizontal left or right. For legacy furnaces, the non-condensing furnaces may be laid on either side for horizontal application. The condensing downflow/horizontal right and upflow/horizontal left furnaces may only be rotated onto their left side. Connection brackets for coil/furnace alignment are included with the furnaces.

a. For horizontal left applications, the hairpin baffle must be installed.

1. Remove the coil by removing the front panels and sliding the coil out of the coil enclosure.

2. Using the provided 5/16" hex head screws, install the hairpin baffle shipped with the coil onto the rear of the left coil slab as close to the coil apex as possible. Location of the hairpin baffle will vary by coil model. See Figure 9.

3. Slide the coil back into the enclosure and attach panels.

a. In horizontal left, the *A4MX* coil case is rotated so the apex of the coil is away from the furnace and the auxiliary drain pan is now on the lower side.

b. The two piece baffle ships installed on the coil and is required for horizontal left applications.

c. The base of the coil enclosure is placed flush against the downflow/horizontal furnace. Upflow/horizontal condensing furnaces have the coil match the top flange.

d. For downflow furnaces with no duct flange, there are three brackets included which are used to align and connect the furnace and coil together. See Figure 10.

e. Two brackets are used to attach the rear of the coil and furnace and one bracket is used to attach the front. The rear brackets will use existing screws on the coil enclosure (two on each side at the bottom). Each of the rear brackets will be attached with the wide side of the bracket resting on the top and bottom of the horizontal coil and furnace (see Figure 11). Four additional screws will be used to attach each rear bracket.

f. The front bracket is positioned as close to the center as possible with the narrow edge against the coil enclosure and the wide edge against the furnace. Two screws each are driven into the coil enclosure and furnace.

g. There is a 2 piece splash guard packaged with the coil for horizontal left coil installation only. First, insert the splash guard bracket in the drain pan channel. The splash guard has a bend which is inserted into the front channel of the horizontal drain pan on the outlet air side of the coil case. The guard is then rotated downward until it rests in the drain pan. One sheet metal screw is driven through the coil case duct flange on the front side and into the splash guard side hole. See Figure 12.

h. Secure alignment between the furnace and coil cabinet using field-provided self-tapping screws (see Figure 3). For S-series furnaces, bend furnace duct flanges outward for cased coil alignment. Drill screws into furnace duct flange through clearance alignment holes located near bottom of coil cabinet. The coil and furnace must be fully supported when used in the horizontal position. These screws are strictly for securing alignment, not for support in horizontal. The coil is always placed downstream of the furnace airflow.

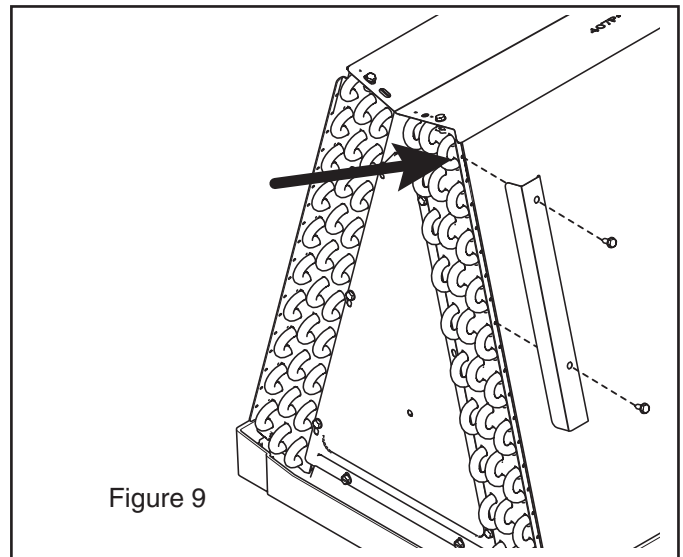
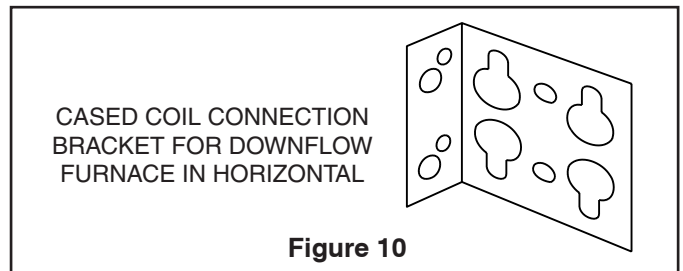
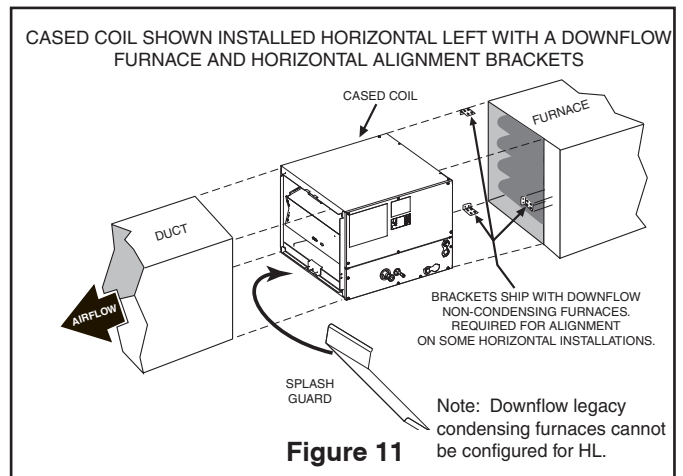


Figure 9



CASED COIL CONNECTION BRACKET FOR DOWNFLOW FURNACE IN HORIZONTAL

Figure 10



CASED COIL SHOWN INSTALLED HORIZONTAL LEFT WITH A DOWNFLOW FURNACE AND HORIZONTAL ALIGNMENT BRACKETS

Figure 11

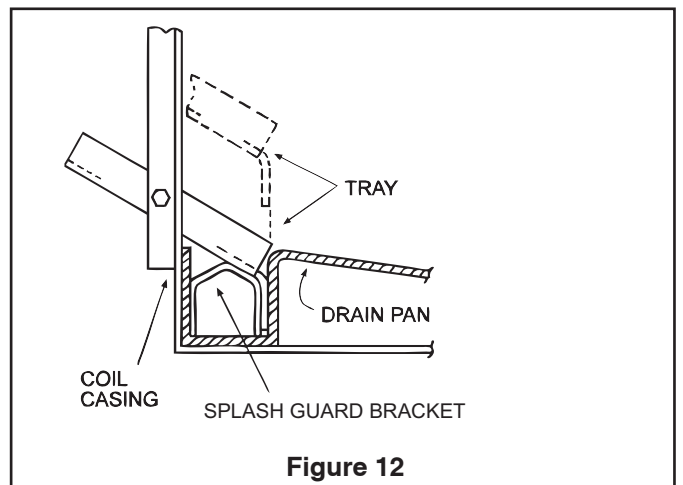


Figure 12

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I. METERING DEVICE

A4MX 1.5-4 ton coils include a factory installed orifice. Orifice size may need to be changed depending on the equipment match. See outdoor unit for more information.

A4MX 5-ton coils are supplied with an internally-checked, non-bleed TXV designed for air conditioning or heat pump operation. This factory supplied TXV is suitable for tonnages down to 3.5 tons. Some outdoor models may require a start assist kit.

Factory Included Metering Device

COIL MODEL	NOMINAL TONS	FACTORY INSTALLED ORIFICE SIZE	ADDITIONAL INCLUDED ORIFICE SIZES
A4MXA1824AC6HA	2	0.057	0.052
A4MXB1832AC6HA			0.052, 0.064, 0.068
A4MXA3036AC6HA	2.5	0.064	0.057, 0.068
A4MXB3642AC6HA	3	0.068	0.064, 0.077
A4MXC3642AC6HA			0.064, 0.077
A4MXB4248AC6HA	3.5	0.077	0.068, 0.082
A4MXC4248AC6HA	4	0.082	0.077
A4MXD4248AC6HA			0.077
A4MXC4260AC3HA*	5	TXV	none
A4MXD4260AC3HA*			none

* The TXV is the best option for these coils and does not require a change regardless of outdoor model match.

Orifice change

Use the table below to determine if the factory installed orifice needs to be changed.

Example. The A4MXC3642AC6HAA coil comes with a 0.068 orifice installed. If the coil is matched with a 3.5 ton outdoor unit, the orifice needs to be replaced with the included 0.077 orifice.

Orifice Size Table

Outdoor Unit Capacity (Tons)	Indoor Unit Orifice Size (R-410A) (a)	Indoor Unit Fixed Orifice Replacement Part Kit Number
1.5	0.052	BAYORIACHP0052
2	0.057	BAYORIACHP0057
2.5	0.064	BAYORIACHP0064
3	0.068	BAYORIACHP0068
3.5	0.077	BAYORIACHP0077
4	0.082	BAYORIACHP0082

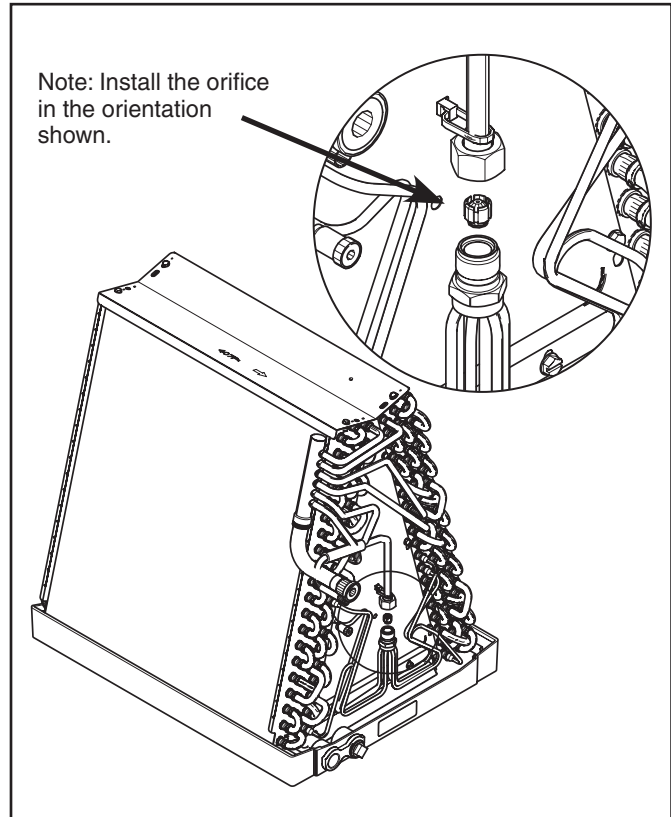
(a) Sizes are for both R-410A and R-22 refrigerants.

Orifice change

The orifice is accessed by removing the front panel. Use a back-up wrench when disconnecting the fitting. Remove the old orifice using the wire tool supplied with the kit. Install the new orifice and tighten fitting. Make sure to use a back-up wrench when tightening fitting.

Note: The wire tool ships with the orifice replacement kits.

Note: This unit can be applied in both 410A and R22 applications when the correct fixed orifice is installed.



Accessory TXV Kit

Reference the 4AYTXVH4 accessory table for TXV replacement kits. See TXV kit for installation instructions.

The following TXV kits are available as part of matched systems in the AHRI directory for when improved system ratings are required.

TXV and Coil Matches

Coil Model	Accessory TXV Kit Number
A4MXA1824AC6HA	4AYTXVH4A1830A
A4MXB1832AC6HA A4MXA3036AC6HA A4MXB3642AC6HA A4MXC3642AC6HA A4MXB4248AC6HA	4AYTXVH4A3042A
A4MXC4248AC6HA A4MXD4248AC6HA A4MXC4260AC3HA A4MXD4260AC3HA	4AYTXVH4A4860A

J. MAXIMUM AIRFLOW SETTING, CFM

NOTE:

Water blow-off could occur in certain installation positions if the airflow setting exceeds the maximum values listed.

Maximum airflow setting, CFM		
Coil	Upflow	Horizontal Left
A4MXA1824AC6HA	900	800
A4MXB1832AC6HA	1125	1000
A4MXA3036AC6HA	1350	1125
A4MXB3642AC6HA	1350	1200
A4MXC3642AC6HA	1350	1200
A4MXB4248AC6HA	1800	1600
A4MXC4248AC6HA	1800	1600
A4MXD4248AC6HA	1800	1600
A4MXC4260AC3HA	2250	2000
A4MXD4260AC3HA	2250	2000
Coil	Downflow	Horizontal Right
A4MXA1824AC6HA	750	900
A4MXB1832AC6HA	925	1125
A4MXA3036AC6HA	1200	1350
A4MXB3642AC6HA	1100	1350
A4MXC3642AC6HA	1100	1350
A4MXB4248AC6HA	1475	1800
A4MXC4248AC6HA	1475	1800
A4MXD4248AC6HA	1475	1800
A4MXC4260AC3HA	1850	2250
A4MXD4260AC3HA	1850	2250

NOTE:

Units with factory shipped TXV may run high superheat (15-25F) by design when measured at the OD unit.

K. INSTALLING / BRAZING REFRIGERANT LINES

⚠ CAUTION

Do NOT open refrigerant valve at the outdoor unit until the refrigerant lines and coil have been brazed, evacuated, and leak checked. This would cause contamination of the refrigerant or possible discharge of refrigerant to the atmosphere.

1. The following steps are to be considered when installing the refrigerant lines:

- a. Determine the most practical way to run the lines.
- b. Consider types of bends to be made and space limitations.
- c. Route the tubing making all required bends and properly secure the tubing before making final connections.

NOTE: Refrigerant lines must be isolated from the structure and the holes must be sealed weather tight after installation.

IMPORTANT:

Do not unseal refrigerant tubing until ready to fit refrigerant lines.

There is only a holding charge of dry air in the indoor coil, therefore no loss of operating refrigerant charge occurs when the sealing plugs are removed.

NOTE:

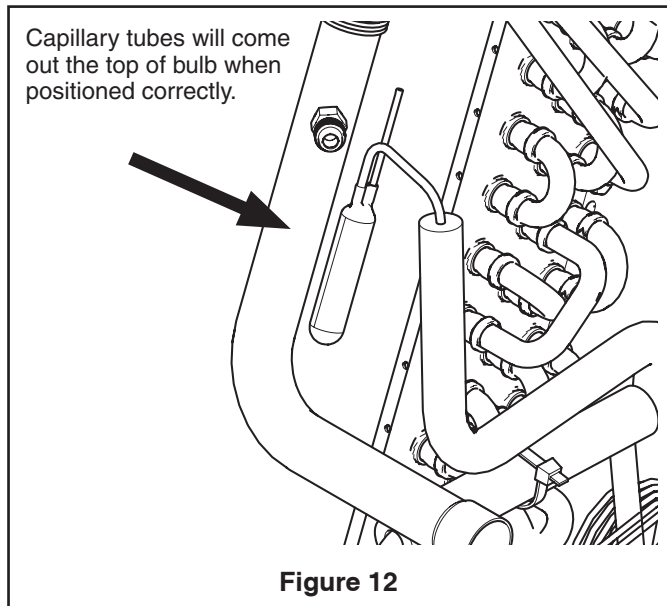
Where applicable, the TXV bulb MUST be protected (wrapped with wet rag) or removed, while brazing the tubing. Overheating of the sensing bulb will affect the functional characteristics and performance of the comfort coil.

1. Remove both rubber plugs from the indoor coil.
2. Field supplied tubing should be cut square, round and free of burrs at the connecting end. Clean the tubing to prevent contaminants from entering the system.
3. Run the refrigerant tubing into the stub tube sockets of the indoor unit coil.

UNIT PANELS MUST BE SHIELDED DURING BRAZING.

4. Flow a small amount of nitrogen through the tubing while brazing.
5. Use good brazing technique to make leakproof joints.
6. Minimize the use of sharp 90 degree bends.
7. Insulate the suction line and its fittings.
8. Do NOT allow un-insulated lines to come into contact with each other.

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When replacing the bulb and bulb clip, reinstall the bulb in the proper orientations. See Figure 12.

9. For models with a TXV, wrap the TXV with insulation after the bulb clip has been installed.

L. LEAK CHECK

1. Using a manifold gauge, connect an external supply of dry nitrogen to the gauge port on the liquid line.
2. Pressurize the connecting lines and indoor coil to 150 PSIG maximum.
3. Leak check brazed line connections using soap bubbles. Repair leaks (if any) after relieving pressure.
4. Evacuate and charge the system per the instructions packaged with the outdoor unit.

M. CONDENSATE DRAIN PIPING

Condensate drain connections are located in the drain pan at the bottom of the coil/enclosure assembly. The female threaded fitting protrudes outside of the enclosure for external connection. A field fabricated trap is not required for proper drainage due to the positive pressure of the furnace; however, it is recommended to prevent efficiency loss of conditioned air.

1. The drain hole in the drain pan must be cleared of all insulation.
2. Insulate the primary drain line to prevent sweating where dew point temperatures may be met. (Optional depending on climate and application needs)
3. Connect the secondary drain line to a separate drain line (no trap is needed in this line).

Outline Drawing for models: A4MXA1824AC6HAA, A4MXB1832AC6HAA, A4MXA3036AC6HAA, A4MXB3642AC6HAA, A4MXC3642AC6HAA, A4MXB4248AC6HAA, A4MXC4248AC6HAA, A4MXD4248AC6HAA, A4MXB4248AC6HAA, A4MXC4260AC3HAA, A4MXD4260AC3HAA

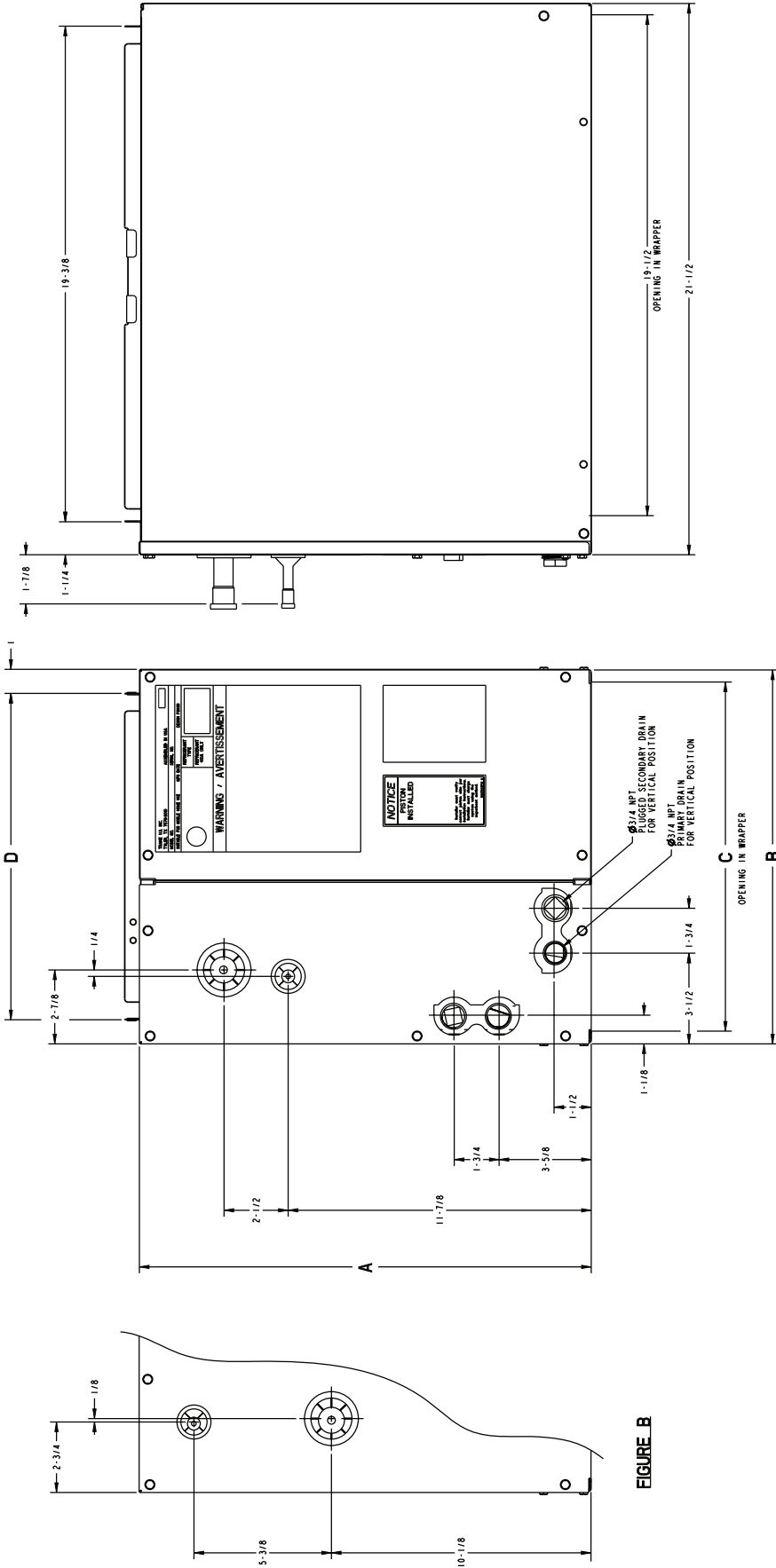


FIGURE A

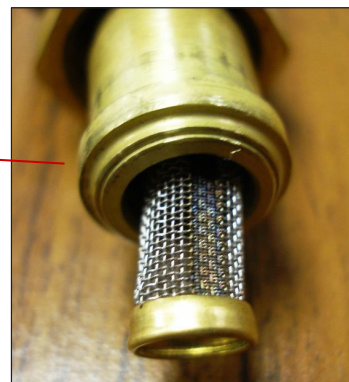
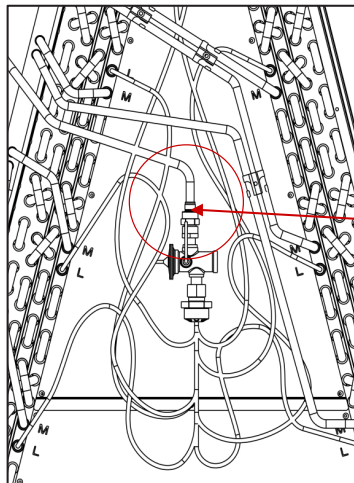
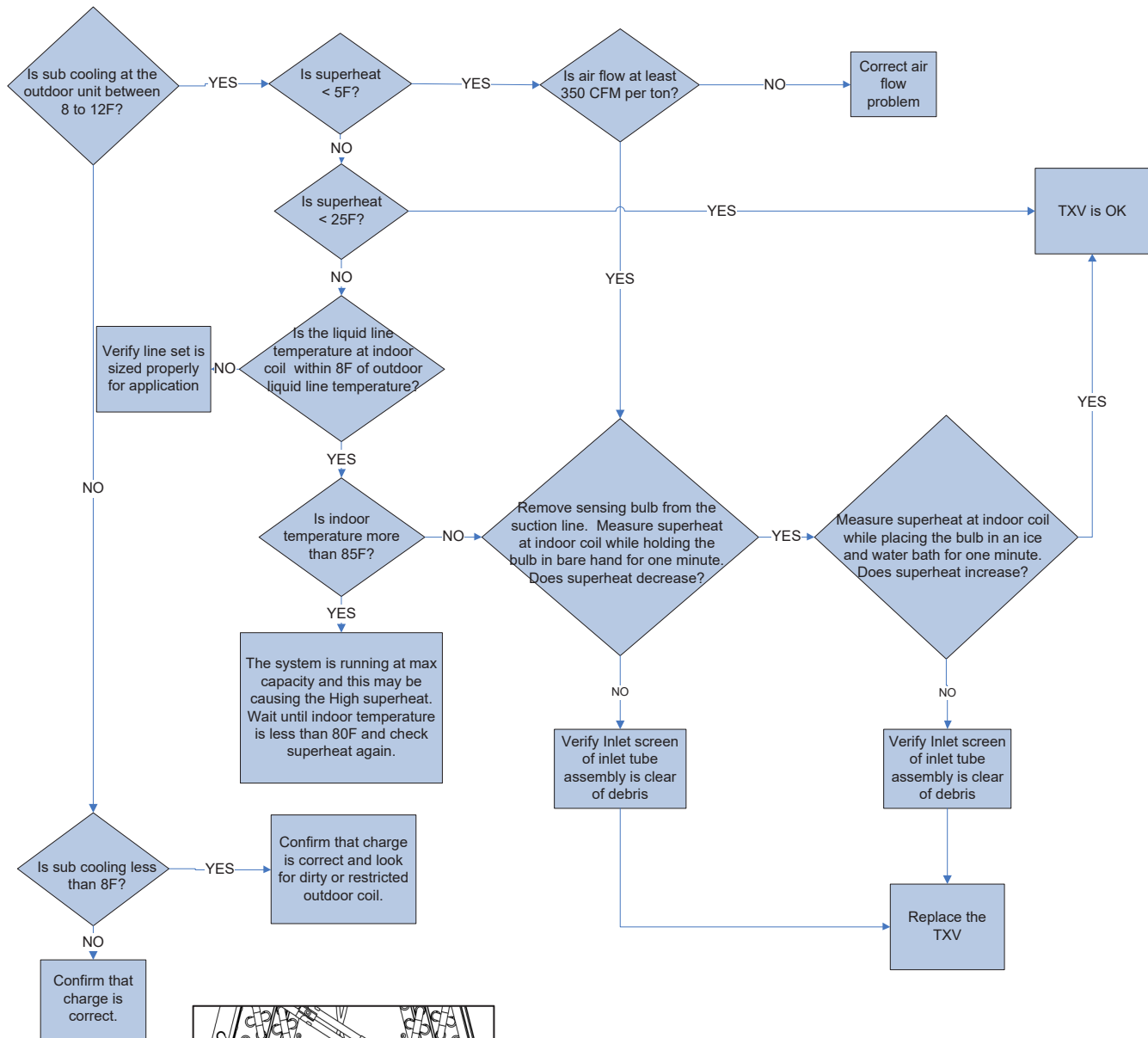
From Dwg. D346409 RevA

MODEL	A4MXA1824AC6HAA	A4MXB1832AC6HAA	A4MXA3036AC6HAA	A4MXB3642AC6HAA	A4MXC3642AC6HAA	A4MXB4248AC6HAA	A4MXC4248AC6HAA	A4MXD4248AC6HAA	A4MXC4260AC3HAA	A4MXD4260AC3HAA
SEE FIGURE	FIGURE A	FIGURE B	FIGURE A	FIGURE A	FIGURE A	FIGURE A	FIGURE A	FIGURE A	FIGURE A	FIGURE A
SHIPPING WEIGHT (LBS.)	44	50	49	58	60	63	69	72	78	81
REFRIGERANT CONTROL	FCVY (FLOW CONTROL/CHECK VALVE)									
HEIGHT "A" (IN.)	17-5/8	17-5/8	22-1/2	22-1/2	22-1/2	26-7/8	26-7/8	26-7/8	30-3/4	30-3/4
OVERALL WIDTH "B" (IN.)	14-1/2	17-1/2	14-1/2	17-1/2	21	17-1/2	21	24-1/2	21	24-1/2
OVERALL WIDTH "C" (IN.)	13-5/8	16-5/8	16-5/8	16-5/8	20-1/8	16-5/8	20-1/8	26-5/8	20-1/8	26-5/8
TOP OPENING "D"	12-3/4	15-3/4	12-3/4	15-3/4	19-1/4	15-3/4	19-1/4	22-3/4	19-1/4	22-3/4
GAS CONNECTION	3/4									
LIQUID CONNECTION	3/8									
MATCHED FURNACE WIDTH (NO ADAPTER REQUIRED)	14-1/2	17-1/2	14-1/2	17-1/2	21	17-1/2	21	24-1/2	21	24-1/2
DRAIN PAN	PLASTIC									

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Before starting, insure the blower wheel, indoor and outdoor coils are clean.

Troubleshooting Indoor TXV / Cooling Mode



About Trane and American Standard Heating and Air Conditioning

Trane and American Standard create comfortable, energy efficient indoor environments for residential applications. For more information, please visit www.trane.com or www.americanstandardair.com

The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

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