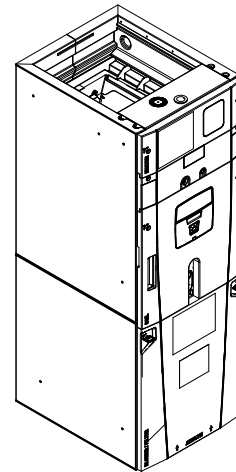


Installation, Operation, and Maintenance

Variable Speed Air Handlers Convertible 2 to 5 Ton

TAM9A0A24V21DB
TAM9A0B30V31DB
TAM9A0C36V31DB
TAM9A0C42V41DB
TAM9A0C48V41DB
TAM9A0C60V51DB



Note: "Graphics in this document are for representation only. Actual model may differ in appearance."

Note: For use with BAYEA series heaters ONLY

▲ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

SAFETY SECTION

Important — This document contains a wiring diagram, a parts list, and service information. This is customer property and is to remain with this unit. Please return to service information pack upon completion of work.

⚠ WARNING

HAZARDOUS VOLTAGE!

Failure to follow this Warning could result in property damage, severe personal injury, or death.

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized.

⚠ CAUTION

GROUNDING REQUIRED!

Failure to inspect or use proper service tools may result in equipment damage or personal injury. Reconnect all grounding devices. All parts of this product that are capable of conducting electrical current are grounded. If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

⚠ WARNING

LIVE ELECTRICAL COMPONENTS!

Failure to follow this Warning could result in property damage, severe personal injury, or death.

Follow all electrical safety precautions when exposed to live electrical components. It may be necessary to work with live electrical components during installation, testing, servicing, and troubleshooting of this product.

⚠ WARNING

PRESSURIZED REFRIGERANT!

Failure to follow this Warning could result in personal injury

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

⚠ CAUTION

SHARP EDGE HAZARD!

Failure to follow this Caution could result in property damage or personal injury.

Be careful of sharp edges on equipment or any cuts made on sheet metal while installing or servicing.

⚠ WARNING

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.

Important: Panel damage can occur with prolonged exposure to POE lubricants. Air handler front panels that come in contact with POE oil must be washed immediately with soapy water.

Important: The TAM9 air handlers are only compatible with BAYEA** internal electric heaters.

Note: Representative illustrations only included in this document. Most illustrations display the upflow configuration.

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Installer Guide Notes

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 upon completion of work

Important: These instructions do not cover all variations in systems nor provide for every possible contingency to be met in connection with the installation. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to your installing dealer.

See TAM9 Service Facts document for information on reading the Display, Air Flow Tables and Troubleshooting Flowcharts.

Important: The low voltage wire harness is shipped in the supplied document pack.

Note: The manufacturer recommends installing ONLY A.H.R.I. approved, matched indoor and outdoor systems. Some of the benefits of installing approved matched indoor and outdoor split systems are maximum efficiency, optimum performance, and the best overall system reliability.

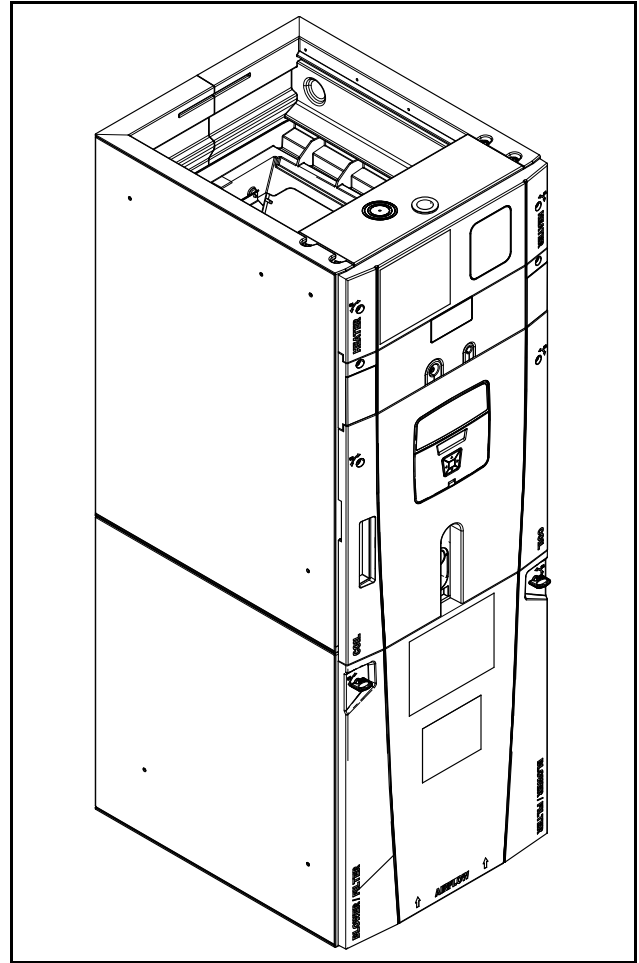
Note: Condensation may occur on the surface of the air handler when installed in unconditioned spaces, verify that all electrical and refrigerant line penetrations on the air handler are sealed completely.

The TAM9 air handlers will only use the following internal electric heaters:

BAYEAAC04BK1	BAYEAAC10LG1
BAYEAAC04LG1	BAYEAAC10LG3
BAYEAAC05BK1	BAYEABC15BK1
BAYEAAC05LG1	BAYEABC15LG3
BAYEAAC08BK1	BAYEABC20BK1
BAYEAAC08LG1	BAYEACC25BK1
BAYEAAC10BK1	

Note: Duct heaters cannot be applied with this air handler.

Note: The heater size needs to be configured in the Configuration Menu.



PRODUCT SPECIFICATIONS

MODEL	TAM9A0A24V21DB	TAM9A0B30V31DB	TAM9A0C36V31DB
RATED VOLTS/PH/HZ.	200 — 230/1/60	200 — 230/1/60	200 — 230/1/60
RATINGS ^(a)	See O.D. Specifications	See O.D. Specifications	See O.D. Specifications
INDOOR COIL — Type	Plate Fin	Plate Fin	Plate Fin
Rows — F.P.I.	3 — 14	3 — 14	3 — 14
Face Area (sq. ft.)	3.67	5.04	5.50
Tube Size (in.)	3/8	3/8	3/8
Refrigerant Control	EEV	EEV	EEV
Drain Conn. Size (in.) ^(b)	3/4 NPT	3/4 NPT	3/4 NPT
DUCT CONNECTIONS	See Outline Drawing	See Outline Drawing	See Outline Drawing
INDOOR FAN — Type	Centrifugal	Centrifugal	Centrifugal
Diameter-Width (In.)	11 x 8	11 x 10	11 x 10
No. Used	1	1	1
Drive — No. Speeds	Direct — Variable	Direct — Variable	Direct — Variable
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
No. Motors — H.P.	1 — 1/2	1 — 1/2	1 — 1/2
Motor Speed RPM	Variable ECM	Variable ECM	Variable ECM
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
F.L. Amps	3.0 — 4.1 ^(c)	3.0 — 4.1 ^(c)	3.0 — 4.1 ^(c)
FILTER			
Filter Furnished?	No	No	No
Type Recommended	Throwaway	Throwaway	Throwaway
No.-Size-Thickness	1 — 16 x 20 — 1 in.	1 — 20 x 20 — 1 in.	1 — 22 x 20 — 1 in.
REFRIGERANT	R-410A	R-410A	R-410A
Ref. Line Connections	Brazed	Brazed	Brazed
Coupling or Conn. Size-in. Gas	3/4	3/4	7/8
Coupling or Conn. Size-in. Liq.	3/8	3/8	3/8
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	51 x 20 x 24.5	56.8 x 23.5 x 24.5	58 x 25.5 x 24.5
Uncrated	49.9 x 17.5 x 21.8	55.7 x 21.3 x 21.8	56.9 x 23.5 x 21.8
WEIGHT			
Shipping (Lbs.)/Net (Lbs.)	126/116	150/138	157/146

^(a) These Air Handlers are AHRI certified with various Split System Air Conditioners and Heat Pumps (AHRI STANDARD 210/240).

^(b) 3/4" Male Plastic Pipe (Ref.: ASTM 1785-76)

^(c) Check motor nameplate for actual FLA

PRODUCT SPECIFICATIONS

MODEL	TAM9A0C42V41DB	TAM9A0C48V41DB	TAM9A0C60V51DB
RATED VOLTS/PH/HZ.	200 — 230/1/60	200 — 230/1/60	200 — 230/1/60
RATINGS ^(a)	See O.D. Specifications	See O.D. Specifications	See O.D. Specifications
INDOOR COIL — Type	Plate Fin	Plate Fin	Plate Fin
Rows — F.P.I.	4 — 14	4 — 14	4 — 14
Face Area (sq. ft.)	5.04	5.96	5.96
Tube Size (in.)	3/8	3/8	3/8
Refrigerant Control	EEV	EEV	EEV
Drain Conn. Size (in.) ^(b)	3/4 NPT	3/4 NPT	3/4 NPT
DUCT CONNECTIONS	See Outline Drawing	See Outline Drawing	See Outline Drawing
INDOOR FAN — Type	Centrifugal	Centrifugal	Centrifugal
Diameter-Width (In.)	11 x 10	11 x 10	11 x 10
No. Used	1	1	1
Drive — No. Speeds	Direct — Variable	Direct — Variable	Direct — Variable
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
No. Motors — H.P.	1 — 1/2	1 — 3/4	1 — 1
Motor Speed RPM	Variable ECM	Variable ECM	Variable ECM
Volts/Ph/Hz	208–230/1/60	208–230/1/60	208–230/1/60
F.L. Amps	3.0 — 4.1 ^(c)	5.0 — 6.1 ^(c)	6.4 — 7.5 ^(c)
FILTER			
Filter Furnished?	No	No	No
Type Recommended	Throwaway	Throwaway	Throwaway
No.-Size-Thickness	1 — 22 x 20 — 1 in.	1 — 22 x 20 — 1 in.	1 — 22 x 20 — 1 in.
REFRIGERANT	R-410A	R-410A	R-410A
Ref. Line Connections	Brazed	Brazed	Brazed
Coupling or Conn. Size-in. Gas	7/8	7/8	7/8
Coupling or Conn. Size-in. Liq.	3/8	3/8	3/8
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	58 x 25.5 x 24.5	62.8 x 25.5 x 24.5	62.8 x 25.5 x 24.5
Uncrated	56.9 x 23.5 x 21.8	61.7 x 23.5 x 21.8	61.7 x 23.5 x 21.8
WEIGHT			
Shipping (Lbs.)/Net (Lbs.)	162/150	174/162	175/163

^(a) These Air Handlers are AHRI certified with various Split System Air Conditioners and Heat Pumps (AHRI STANDARD 210/240).

^(b) 3/4" Male Plastic Pipe (Ref.:ASTM 1785–76)

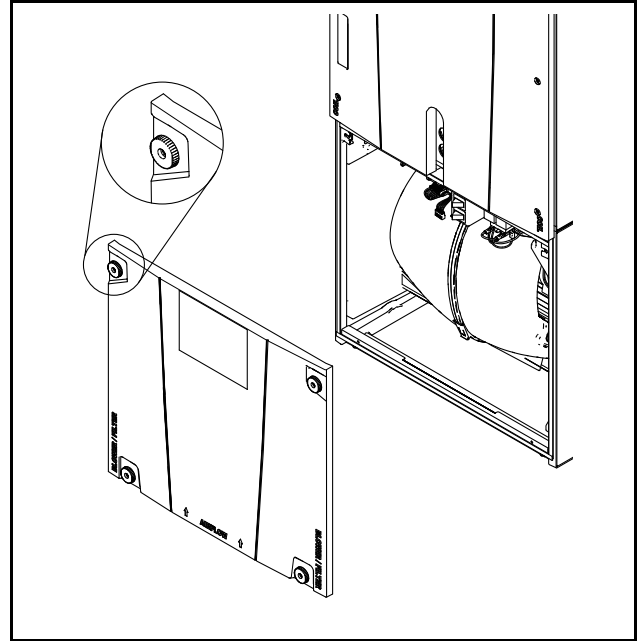
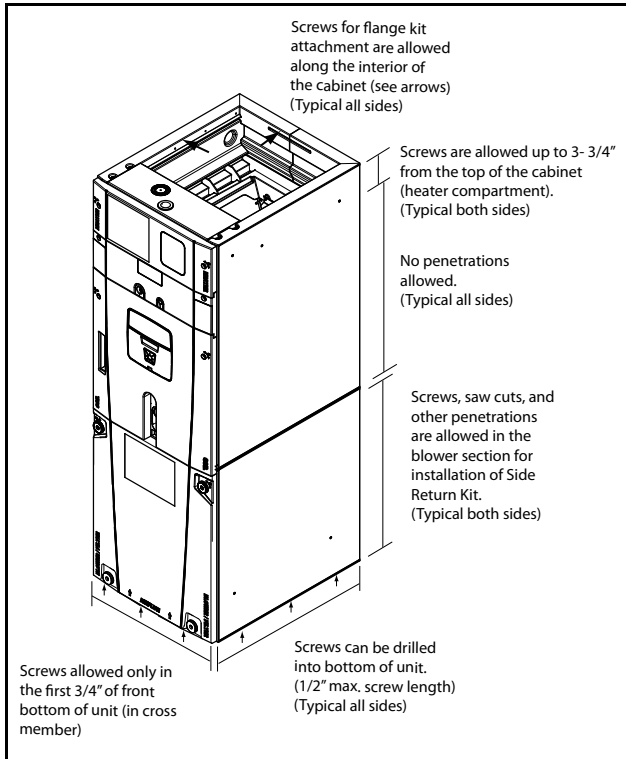
^(c) Check motor nameplate for actual FLA.

Unit Design

Cabinet Penetration

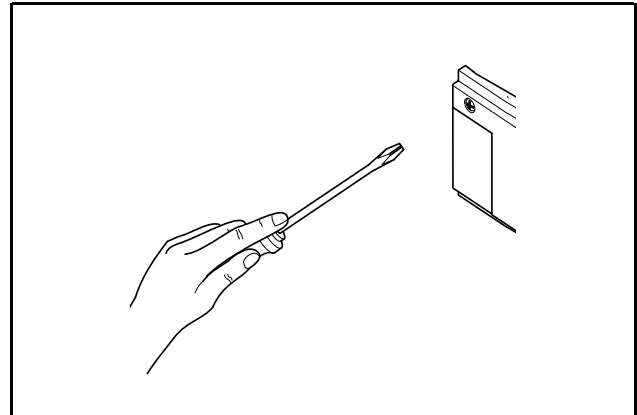
Important: Due to the unique design of this unit, which allows the electrical wiring to be routed within the insulation, do not screw, cut, or otherwise puncture the unit cabinet in any location other than the ones illustrated.

Important: Under no conditions should metal strapping be attached to the unit to be used as support mechanisms for carrying or suspension purposes.



The Coil, Line Set, and Heater panels are removed using Phillips head screws.

Removal requires #3 Size Phillips



Panel Removal

The unit contains four (4) access panels: Blower/Filter, Coil, Line Set, and Heater.

The Blower/Filter panel is removed using 1/4 turn thumb screws.

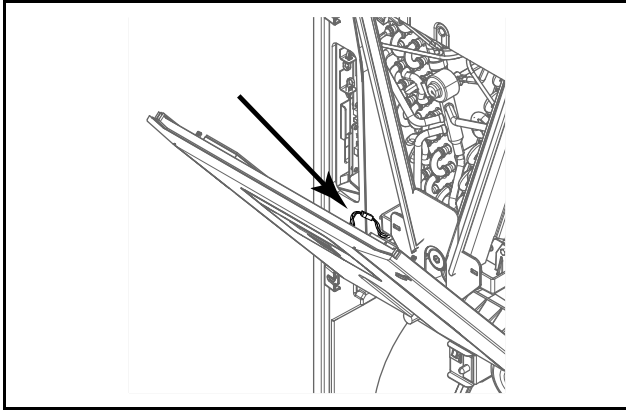
1. Turn thumb screws on Blower/Filter panel.
2. Pull top of panel out, away from cabinet.
3. Lift panel up out of channel.
4. Set aside.

Coil and Heater panels must be removed prior to removing the Line Set panel.

To remove Coil Panel:

1. Turn screws on Coil panel.
2. Rotate bottom of panel away from cabinet.
3. Disconnect the plug from the door to the unit.
4. Remove panel from channel.
5. Set aside.

Unit Design



Removal of the Line Set panel is required for all refrigerant line brazing and some condensate line assembly depending on your orientation.

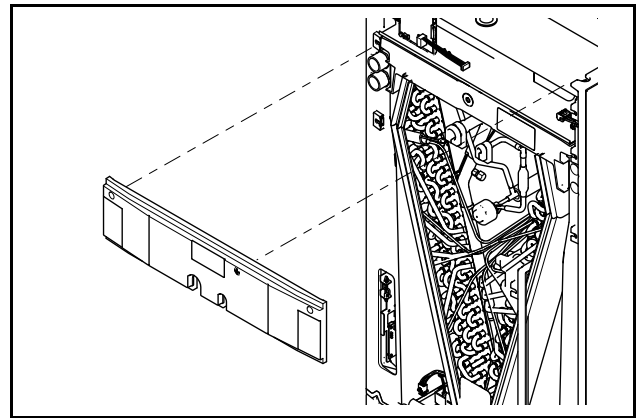
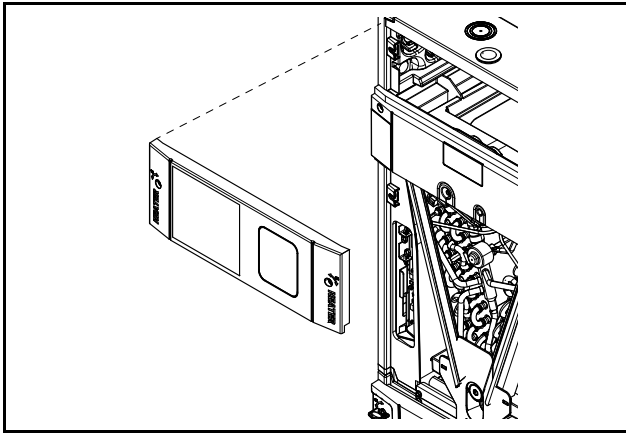
To remove Line Set panel:

1. Remove both Heater and Coil panels.
2. Turn screws on Line Set panel.
3. Pull panel straight out, away from cabinet.
4. Set aside.

Note: After replacing all panels, loosen the Line Set panel screws approximately 1/4 – 1/2 turn. This will improve the seal between the Heater Panel and Line Set panel.

To remove Heater Panel:

1. Turn screws on Heater panel.
2. Pull panel straight out, away from cabinet.
3. Set aside.



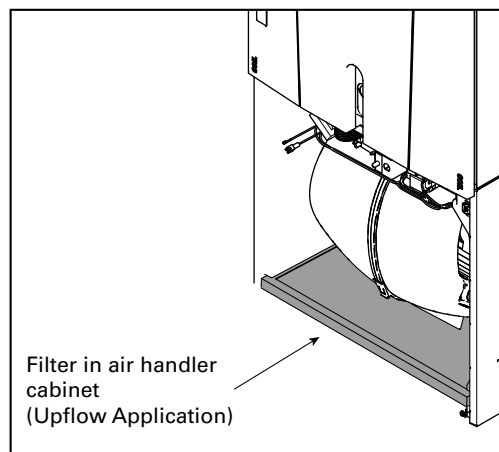
Filters

Table 1. Filter Considerations

- A filter must be installed within the system.
- A filter channel is provided in the unit at the bottom of the Blower/Filter compartment.
- For customer ease of filter maintenance, it is recommended that a properly sized remote filter grill(s) be installed for units that are difficult to access. Airflow should not exceed the maximum rated velocity of the filter being used.

Table 2. Filter Sizes

Cabinet Size *	A	B	C
Filter Size	16 x 20	20 x 20	22 x 20
* Cabinet size is indicated by the 7th digit in model number.			



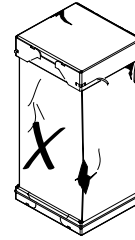
Unit Install Preparation

1. Check for damage and report promptly to the carrier any damage found to the unit.

Note: If the unit must be transported in a horizontal position, it must be laid on its back (marked "REAR" on carton).

Note: After unit is removed from the carton, verify coil is pressurized. Carefully remove the liquid line plug. If no pressure is released, check for leaks.

Note: Remove the cardboard from the bottom of the blower. Cut the tie wrap and remove the foam shipping block located at the motor.



Optional Accessories

Accessory Number	Description	Fits Cabinet Size (a)
BAYEAAC04BK1	Electric Heater, 4kW, Breaker, 24V Control, 1 Ph	A to C
BAYEAAC04LG1	Electric Heater, 4kW, Lugs, 24VControl, 1 Ph	A to C
BAYEAAC05BK1	Electric Heater, 5kW, Breaker, 24V Control, 1 Ph	A to C
BAYEAAC05LG1	Electric Heater, 5kW, Lugs, 24VControl, 1 Ph	A to C
BAYEAAC08BK1	Electric Heater, 8kW, Breaker, 24V Control, 1 Ph	A to C
BAYEAAC08LG1	Electric Heater, 8kW, Lugs, 24VControl, 1 Ph	A to C
BAYEAAC10BK1	Electric Heater, 10kW, Breaker, 24V Control, 1 Ph	A to C
BAYEAAC10LG1	Electric Heater, 10kW, Lugs, 24VControl, 1 Ph	A to C
BAYEABC15BK1	Electric Heater, 15kW, Breaker, 24V Control, 1 Ph	B to C
BAYEABC20BK1	Electric Heater, 20kW, Breaker, 24VControl, 1 Ph	C
BAYEACC25BK1	Electric Heater, 25kW, Breaker, 24V Control, 1 Ph	C
BAYEAAC10LG3	Electric Heater, 10kW, Lugs, 24VControl, 3 Ph	A to C
BAYEABC15LG3	Electric Heater, 15kW, Lugs, 24V Control, 3 Ph	B to C
BAYSUPFLGAA	Supply Duct Flange A	A
BAYSUPFLGBA	Supply Duct Flange B	B
BAYSUPFLGCA	Supply Duct Flange C	C
BAYRETLGAA	Return Duct Flange A	A
BAYRETLGBA	Return Duct Flange B	B
BAYRETLGCA	Return Duct Flange C	C
BAYSRKIT100A	Side Return Kit	A to C
BAYFLR1620A	High Velocity Filter Kit, 16" x 20" x 1" (10 filters)	A
BAYFLR2020A	High Velocity Filter Kit, 20" x 20" x 1" (10 filters)	B
BAYFLR2220A	High Velocity Filter Kit, 22" x 20" x 1" (10 filters)	C
TASB175SB (b) (c)	Plenum Stand with integrated sound baffle A	A
TASB215SB	Plenum Stand with integrated sound baffle B	B
TASB235SB	Plenum Stand with integrated sound baffle C	C
MITISRKIT01A	Side Return Kit with 16" x 20" Filter	A to C
BAYFRKIT175	Front Return Kit for 17.5" Cabinet	A
BAYFRKIT210	Front Return Kit for 21.0" Cabinet	B
BAYFRKIT235	Front Return Kit for 23.5" Cabinet	C
TAYBASETAMA	Downflow Sub-Base Kit	A to C
BAYBAFKT175A (d)	Sound Baffle Kit for 17.5" Cabinet	A
BAYBAFKT215A	Sound Baffle Kit for 21.0" Cabinet	B
BAYBAFKT235A	Sound Baffle Kit for 23.5" Cabinet	C
TASSBK175 (e) (f)	Sound Baffle Kit for 17.5" Cabinet	A
TASSBK210	Sound Baffle Kit for 21.0" Cabinet	B
TASSBK235	Sound Baffle Kit for 23.5" Cabinet	C
BAYICKSKIT01A	Internal Condensate Switch Kit	A to C
BAYHHKIT001A	Horizontal Hanger Kit	A to C
BAYUVCLK001A	UV Lights	A to C
BAYLVKIT100A	Low Voltage Conduit Entry Kit	A to C
BAYSPEKT200A	Single Power Entry Kit	A to C
BAYWAAA05SC1AA	Hydronic Coil — 50,000 BTUH — Slide-in	A to A
BAYWABB075SC1AA	Hydronic Coil — 70,000 BTUH — Slide-in	B to B
BAYWACC085SC1AA	Hydronic Coil — 80,000 BTUH — Slide-in	C to C
BAYWACC115SC1AA	Hydronic Coil — 100,000 BTUH — Add on	C to C
BAYWAKIT24VAC	Hydronic Heater Relay Kit — (used in Communicating mode only)	A to C
BAYINSKT175A	Solcoustic® Liner Kit for 17.5" cabinet	A
BAYINSKT215A	Solcoustic® Liner Kit for 21.5" cabinet	B
BAYINSKT235A	Solcoustic® Liner Kit for 23.5" cabinet	C
BAYCNDPIP01A	3/4" PVC Threaded Pipe Kit foam Seal (10 per box)	A to C
BAYAHEMIKIT001A	EMI/EFI Air Handler Electronic noise kit for variable speed blower motor	A to C

(a) A Cabinet is 17.5" wide, B Cabinet is 21.5" wide, C Cabinet is 23.5" wide.

(b) Contact your distributor for information.

(c) In open air applications, the plenum stand with sound baffle provides sound reduction.

(d) Mounts inside air handler filter channel.

(e) In return plenum applications, use TASSBK for sound reduction.

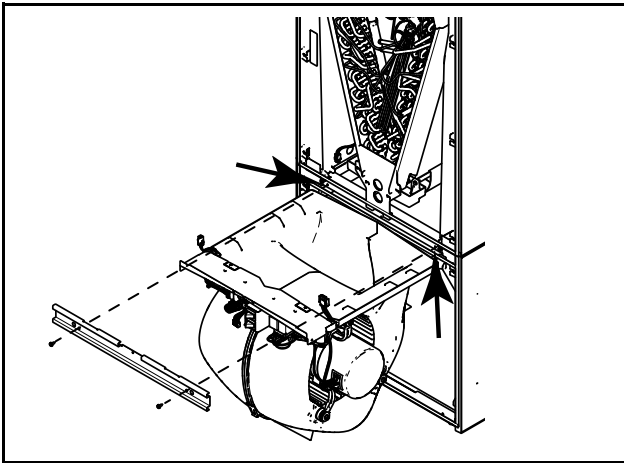
(f) Mounts to TASB original plenum stand without integrated baffle.

Optional Cabinet Disassembly

Note: If the unit must be transported in a horizontal position, it must be laid on its back (marked "REAR" on carton).

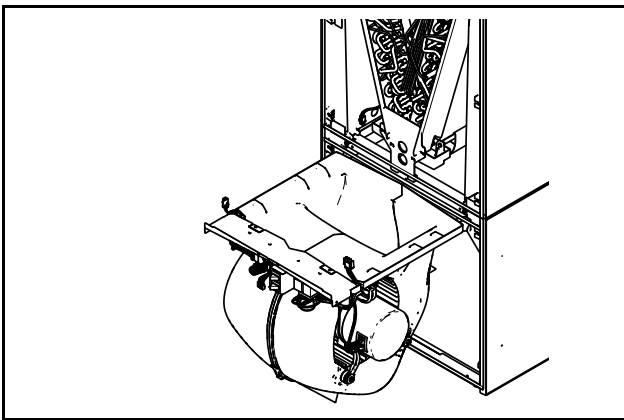
Note: To reassemble cabinet, follow the steps in reverse order. Ensure electrical connections are secure and the plug clips are engaged.

1. Remove all four front panels.
2. Remove the two screws on the seal bar and pull the seal bar straight out.
3. Disconnect all wiring connections routed to the blower assembly.



4. Slide Blower assembly out of unit using built-in blower support channels and set aside.

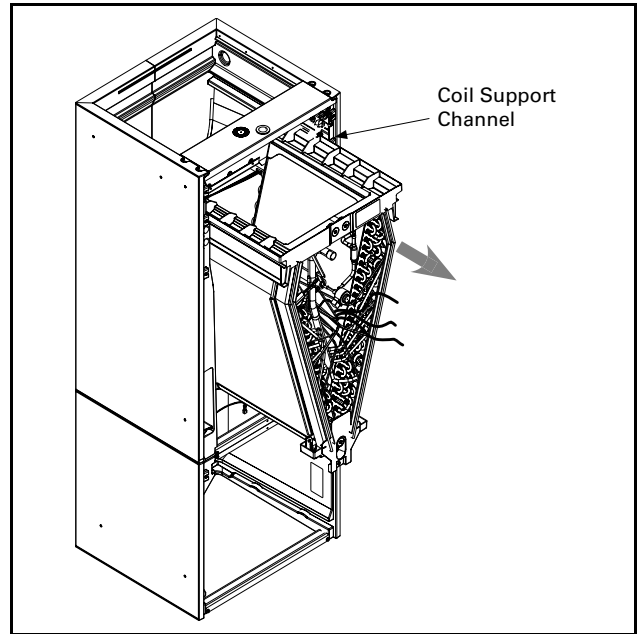
Note: Remove the cardboard from the bottom of the blower. Cut the tie wrap and remove the foam block located at the motor.



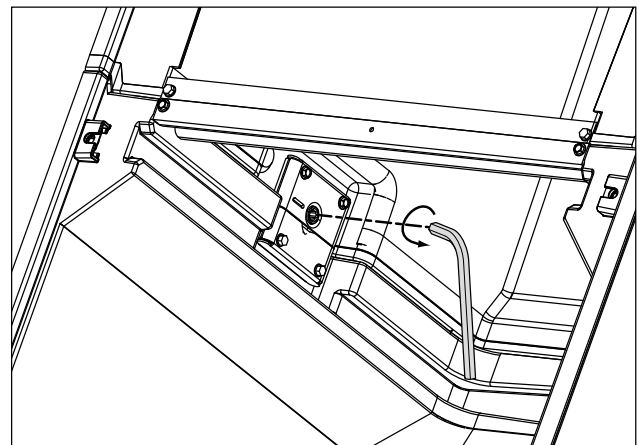
5. Disconnect wires to the EEV motor and sensors. Cut the wire ties on those wire harnesses if necessary and replace after re-installing.

Note: If cut, wire ties that held the sensor must be replaced after the coil is placed back into the cabinet.

6. Slide Coil assembly out of unit using built-in coil support channels and set aside

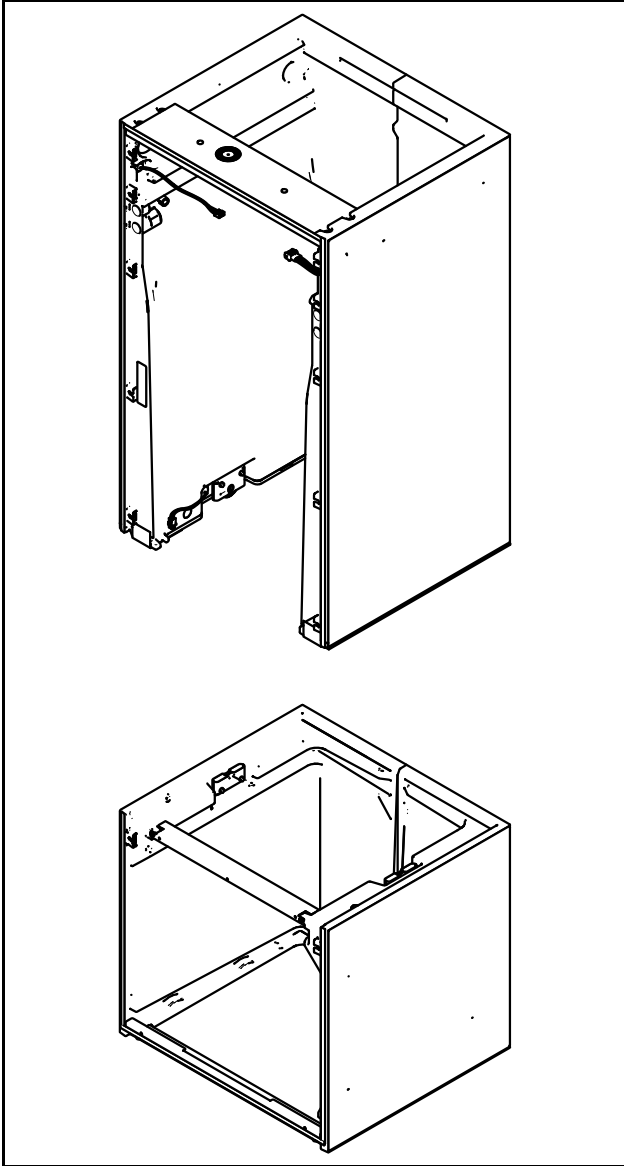


7. Use a 5/16 Allen wrench on the locking mechanism on each side of the bottom half of the cabinet to loosen the locking mechanism. The locks loosen by turning counter-clockwise approximately 3/4 of a turn.

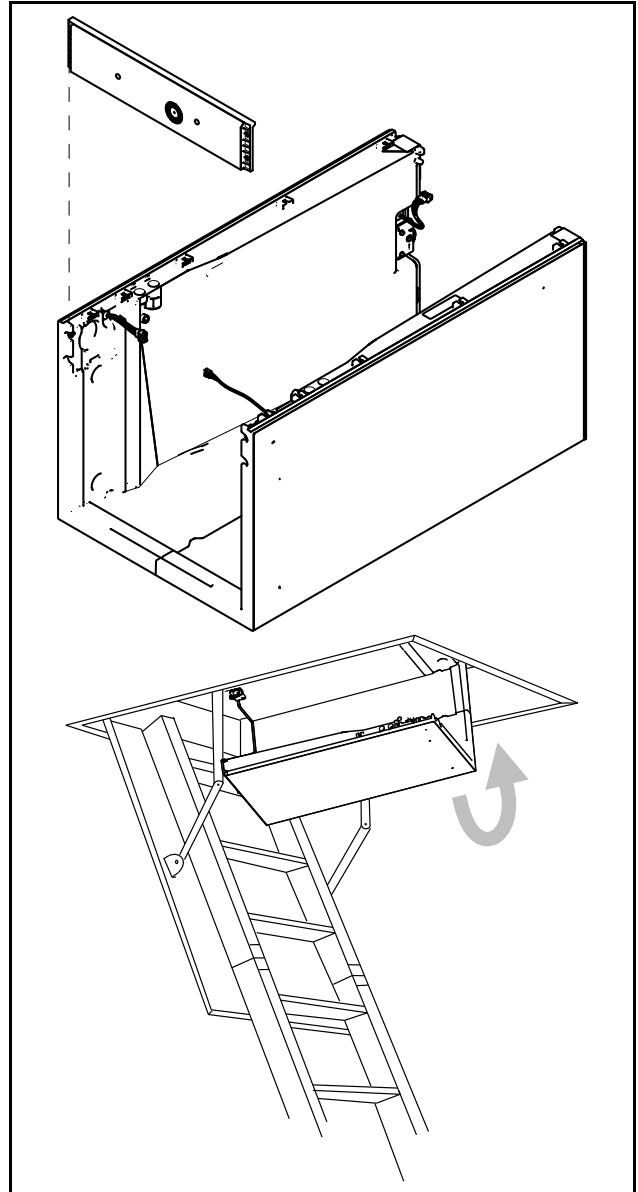


8. Lift the Coil section up and away from the Blower section. Set aside.

Note: When separating the two cabinet pieces, make sure the gasket remains intact.



9. For extremely tight spaces where the cabinet needs to be rotated through a small opening, remove the top panel and all cross members. Use a manual driver to avoid stripping screw holes.

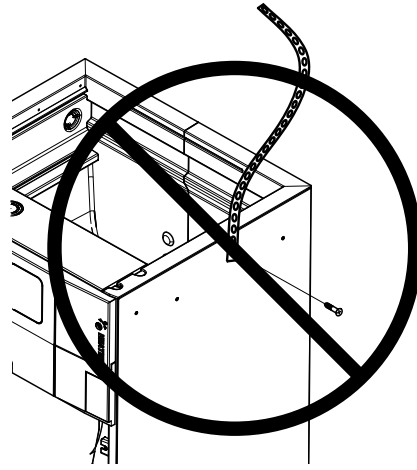


10. Continue preparation by following the proper carrying procedures shown in the next section.

Placing Unit at Location

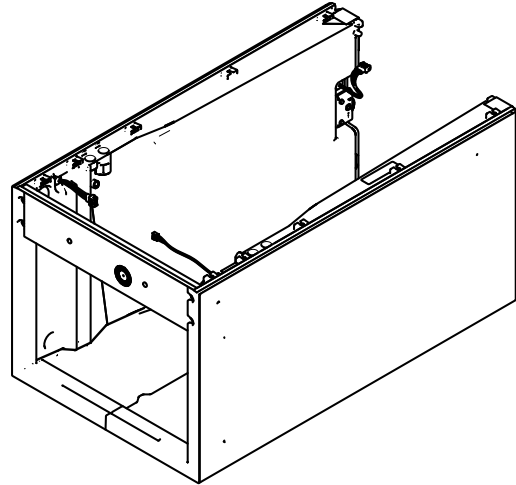
1. Carry the unit to the installation location
2. Reassembly by reversing the steps listed in Section 4 if disassembly was required. If cut, wire ties that held the sensor wiring must be replaced.

Important: Under no conditions should metal strapping be attached to the unit to be used as support mechanisms for carrying or suspension purposes.

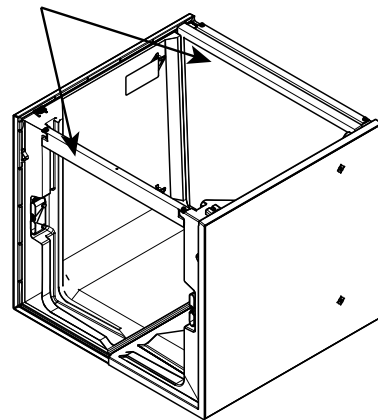


Approved Carrying:

- Hold by the cross members within the cabinet or unit top plate and use as handles for lifting and carrying the coil and blower sections.



Cross Members

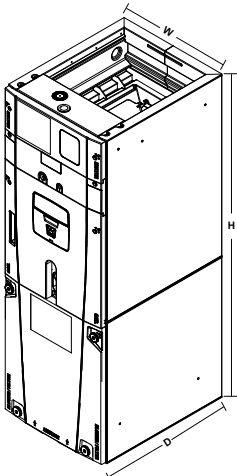


Unit Location Considerations

Table 3. Unit Dimensions and Weight

MODEL NUMBER	H x W x D (inches)	Coil and Heater Compartment Height * (inches)	Unit Net Weight (pounds)
TAM9A0A24V21DB	49.9 x 17.5 x 21.8	28.1	116
TAM9A0B30V31DB	55.7 x 21.3 x 21.8	33.9	138
TAM9A0C36V31DB	56.9 x 23.5 x 21.8	35.1	146
TAM9A0C42V41DB	56.9 x 23.5 x 21.8	35.1	150
TAM9A0C48V41DB	61.7 x 23.5 x 21.8	39.9	162
TAM9A0C60V51DB	61.7 x 23.5 x 21.8	39.9	163

* Blower compartment height is 21.8 inches.

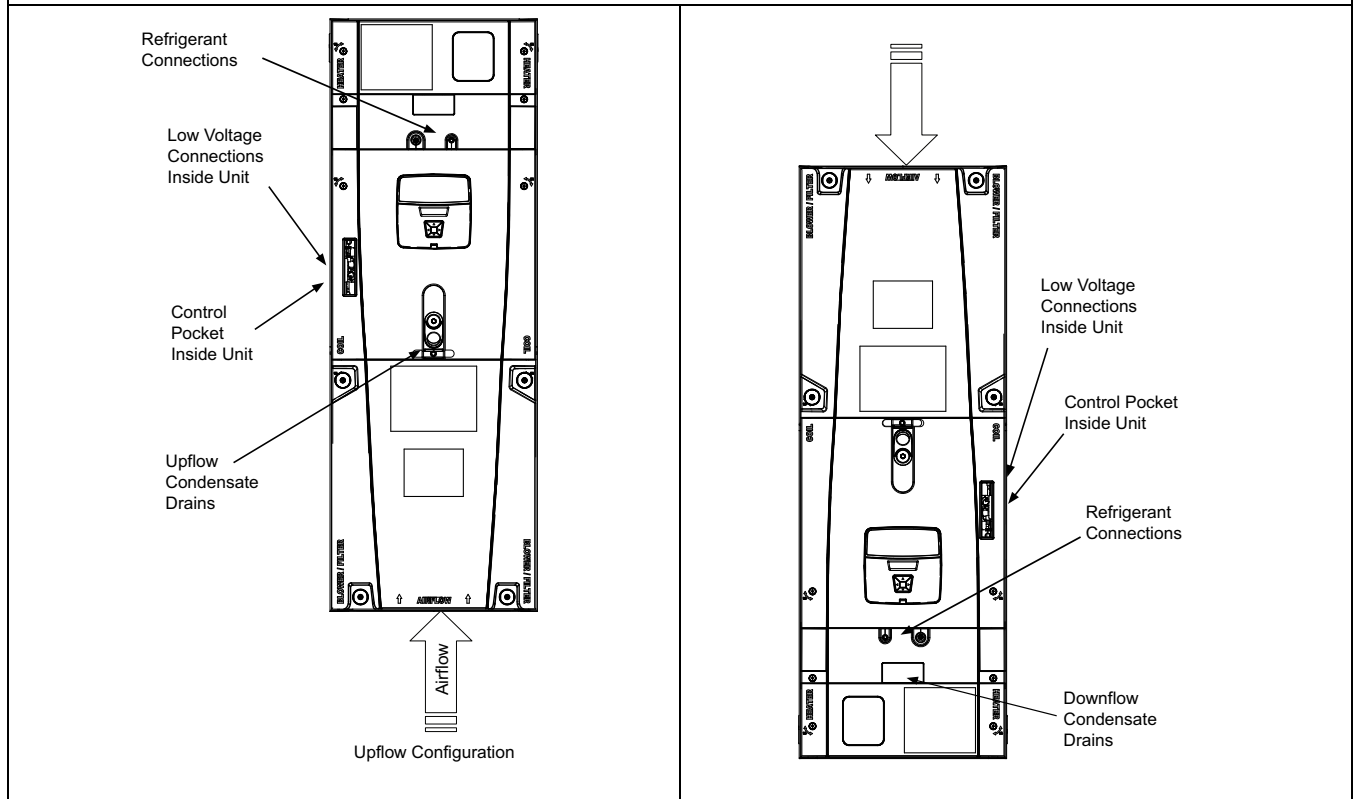


Four-Way Conversion

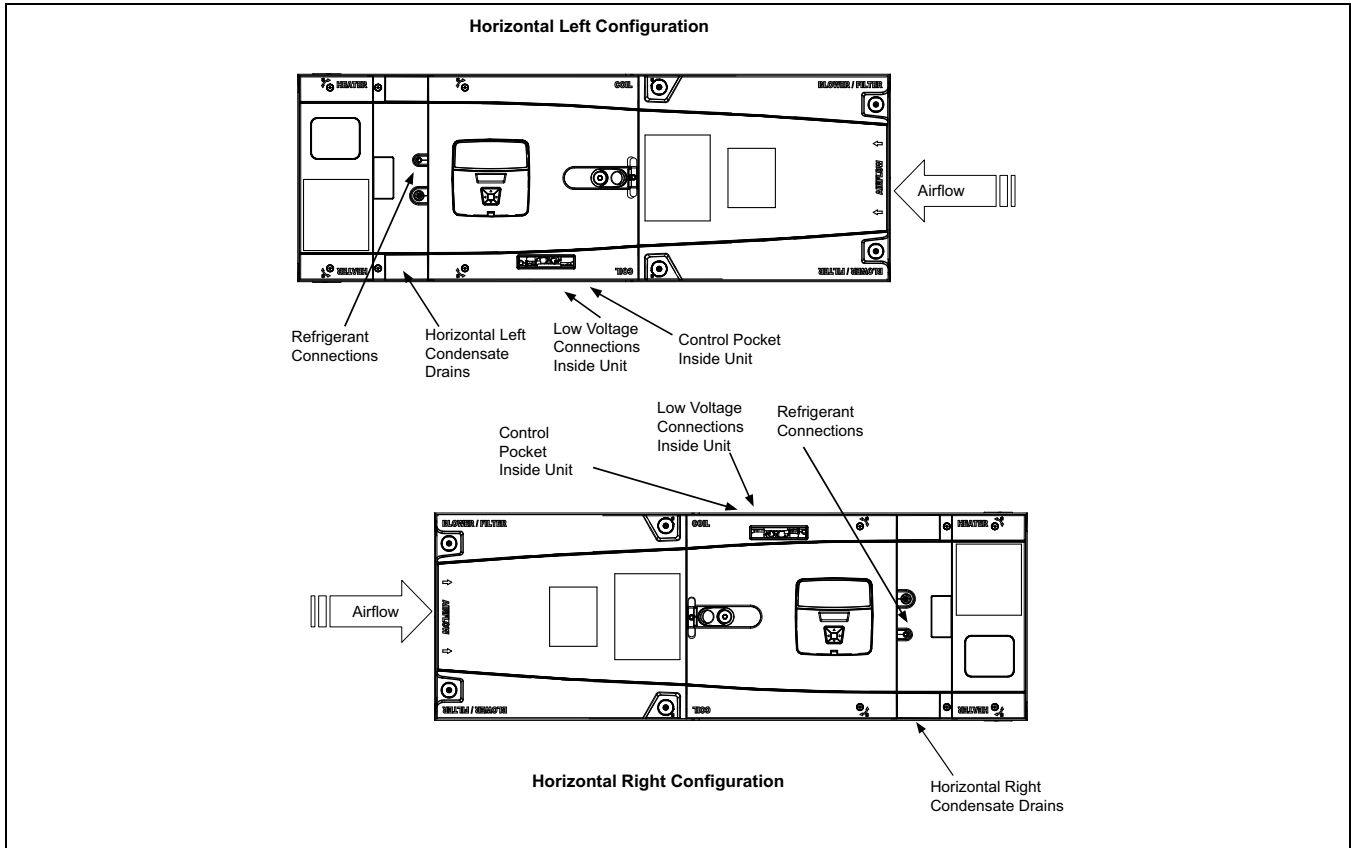
To place the unit in the configuration your application requires (upflow, downflow, horizontal right, or horizontal left), simply turn the unit to that orientation. Remember to adjust the badge accordingly.

Note: The air handlers are shipped from the factory suitable for four-way application.

Note: Entry for low voltage connections is allowed on either side of cabinet.



Unit Location Considerations

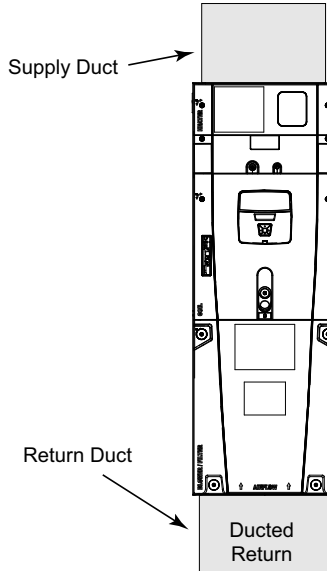


Ducted and Non-Ducted Return Applications

Table 4. Non-Ducted Applications

<div style="background-color: black; color: white; padding: 5px; text-align: center; font-weight: bold;"> ⚠ CAUTION </div> <p style="font-weight: bold; margin-top: 5px;">HAZARDOUS VAPORS!</p> <p>Failure to follow this Caution could result in property damage or personal injury. Hazardous vapors can be distributed throughout the conditioned space and equipment damage can result. Do not install an air handler with a non-ducted return in the same closet, alcove, or utility room as a fossil fuel device.</p> <p>Non-Ducted Return Installations:</p> <ul style="list-style-type: none"> Installation in a closet, an alcove, or a utility room without a return duct requires the use of a plenum accessory kit as it uses the area space as a return air plenum. Minimum clearances to combustible materials and service access must be observed (see outline drawing). This area may also be used for other purposes, including an electric hot water heater, but in no case shall a fossil fuel device be installed and/or operated in the same closet, alcove, or utility room. Review local codes to determine limitations if the unit is installed without a return air duct. 	<p>Supply Duct</p> <p>Plenum Accessory with Safety Guard</p> <p>Non-Ducted Return</p>
---	---

Table 5. Ducted Return Installations.

<p>Ducted Return Installations:</p> <ul style="list-style-type: none"> Installation in an attic, garage, or crawl space with ducted supply and return air is appropriate. Minimum clearances to combustible materials and service access must be observed (see outline drawing). 	 <p>The diagram shows a vertical cross-section of an air handler unit. At the top, a grey rectangular box is labeled 'Supply Duct' with an arrow pointing to it. Below this is the air handler unit, which contains various internal components like coils and fans. At the bottom, another grey rectangular box is labeled 'Ducted Return' with an arrow pointing to it. The entire unit is shown within a rectangular frame representing the installation space.</p>
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Additional Unit Preparation Considerations

For proper installation the following items must be considered prior to moving the unit to its installation site:

- Pursuant to Florida Building Code 13-610.2A.2.1, this unit meets the criteria for a factory sealed air handler.
- If a side return is needed for your application, the side return **MUST** be prepared prior to moving the air handler to its installation location. See the Side Return Kit #BAYSRKIT100A Installer Guide for detailed instructions, if used.
- When the air handler is located adjacent to the living area, the system should be carefully designed with returns which minimize noise transmission through the return air grill. Although the air handler is designed with large blowers operating at moderate speeds, any blower moving a high volume of air will produce audible noise which could be objectionable when the unit is located very close to a living area. It is often advisable to route the return ducts under the floor through the attic. Such design permits the installation of air return remote from the living area (i.e. central hall).
- Study the unit’s outline drawing and dimensions prior to selecting the installation site. Note in advance which electrical conduit entry points and condensate drain holes are to be used, so that proper clearance allowances can be made for installation and future maintenance.
- Installation of the air handler must be made prior to, or at the same time as, the installation of the

outdoor unit in order to allow access for refrigerant lines.

- Consider the overall space needed when external accessories are used, additional height and width requirements may exist.
- These units are not approved for outdoor installation.
- These units must be installed in the proper air flow direction.
- Any third-party heater accessories or hydronic coils must be downstream of the unit.

Note: No atomizing style humidifier is allowed in the return plenum with the use of this unit.

- Excessive bypass air may cause water blow-off, which will adversely affect system operation and air cleaner performance. To verify bypass airflow, follow the Bypass Humidifier Pre-Installation Checkout and Set-Up Procedures available through your local distributor. Ask for publication number 18-CH37D1-* Steam and Flow-through Fan Power Duct-mounted Humidifiers. Follow the humidifier installation instructions. These should only be installed on the supply air side of the system.

Note: The air handlers have been evaluated in accordance with the Code of Federal Regulations, Chapter XX, Part 3280 or the equivalent. "SUITABLE FOR MOBILE HOME USE."

Note: This unit is certified to UL 1995. The interior cabinet wall meets the following:

- UL94-5VA Flame Class Listed
- UL723 Steiner Tunnel Listed for 25/50 Flame/Smoke
- UL746C Listed for Exposure to Ultraviolet Light, Water Exposure and Immersion

Setting the Unit – Vertical Installation

Table 6. Considerations

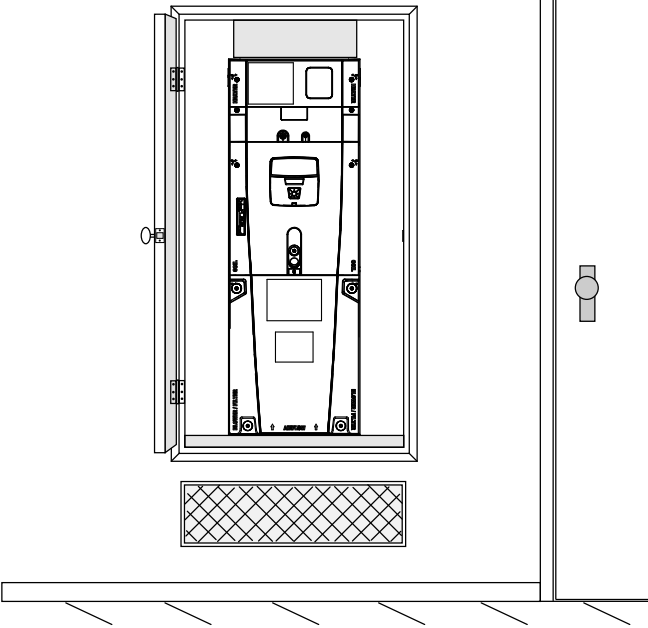
<p>Provide a minimum height of 14 inches for proper unrestricted airflow below the unit. Allow a minimum of 21 inches clearance in front of the air handler to permit maintenance and removal of filter.</p> <ul style="list-style-type: none"> Position unit on suitable foundation. If a manufacturer approved accessory is not used, a frame strong enough to support the total weight of the unit, accessories, and duct work must be provided. Isolate unit from the foundation using a suitable isolating material. <p>Note: The following sound insulation kits are available to lessen objectionable sound. BAYINSKT175A for use with 17.5" cabinets BAYINSKT215A for use with 21.5" cabinets BAYINSKT235A for use with 23.5" cabinets</p>	 <p style="text-align: center;">Typical Closet Installation</p>
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Table 7. Upflow Installation

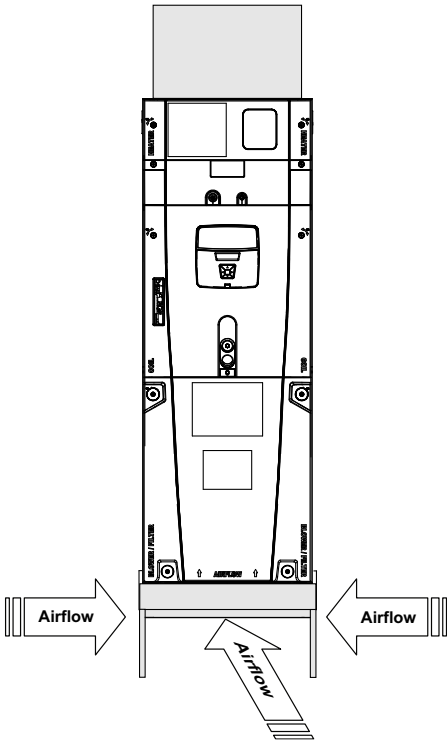
<p>TASB Installation</p> <p>1. Install the TASB plenum stand with integrated sound baffle using the TASB instructions.</p> <p>Note: Kit is used for open air applications.</p> <p>TASB175SB for use with 17.5" cabinets TASB215SB for use with 21.5" cabinets TASB235SB for use with 23.5" cabinets MITISRKIT1620 — Side return kit with 16" x 20" filter</p> <p>Contact your distributor for more information.</p> <p>Note: The following sound insulation kits are available to lessen objectionable sound. BAYINSKT175A for use with 17.5" cabinets BAYINSKT215A for use with 21.5" cabinets BAYINSKT235A for use with 23.5" cabinets</p>	 <p style="text-align: center;">Typical TASB Installation</p>
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Table 8. Plenum Installation

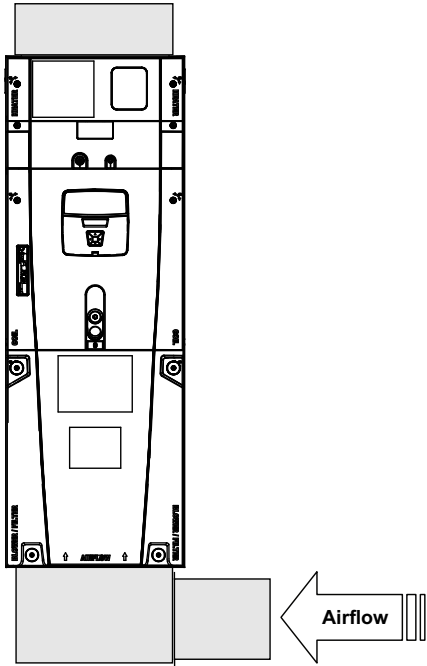
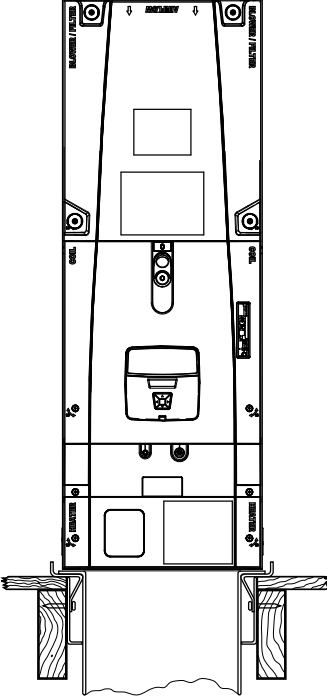
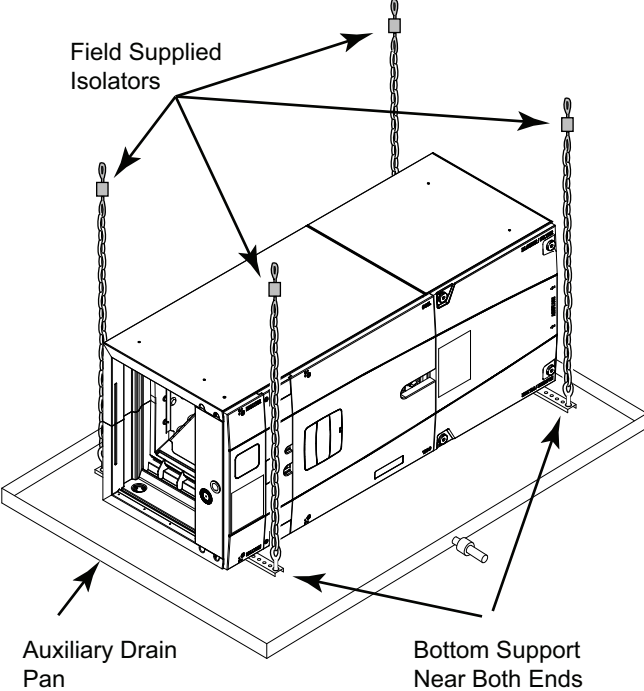
<p>2. Assemble the plenum using the plenum’s Installer Guide.</p> <p>On units with sheet metal returns: Return plenum must be flanged. Sheet metal drill point screws must be 1/2” in length or shorter.</p>	 <p style="text-align: center;">Typical Plenum Installation</p>
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Table 9. Downflow Installation

<ul style="list-style-type: none"> • Downflow installation must comply with national, state, and local codes. <ol style="list-style-type: none"> 3. Prepare the location site as appropriate for your application and per national, state, and local code requirements. 4. Set the unit in position. 	 <p style="text-align: center;">Typical Downflow Installation</p>
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Setting the Unit – Horizontal Installations

Table 10. Considerations

<p>Important: Due to the unique design of this unit, which allows the electrical wiring to be routed within the insulation, do not screw, cut, or otherwise puncture the unit cabinet in any location other than the ones illustrated in this Installer Guide or in an approved accessory's Installer Guide.</p> <p>Important: Make certain that the unit has been installed in a level position to ensure proper draining.</p> <p>Important: Under no conditions should metal strapping be attached to the unit to be used as support mechanisms for carrying or suspension purposes.</p> <ol style="list-style-type: none"> 1. Support the unit from the bottom (near both ends). The service access must remain unobstructed. <ol style="list-style-type: none"> a. Approved bottom support methods are rail, u-channels (Unistrut®), or other load bearing materials. b. The unit must be isolated carefully to prevent sound transmission. Field supplied vibration isolators are recommended. <p>Important: The unit can only be supported from the bottom unless using kit BAYHHKIT001A. Do not drill or screw supports into any area of the cabinet.</p> <p>Note: Do not allow the unit to be used as strain relief.</p> <ol style="list-style-type: none"> 2. Install an auxiliary drain pan under the horizontal air handler to prevent possible damage to ceilings. <ol style="list-style-type: none"> a. Isolate the auxiliary drain pan from the unit and from the structure. b. Connect the auxiliary drain pan to a separate drain line and terminate according to local codes. 	 <p>The diagram illustrates the installation of a horizontal air handler unit. It shows the unit resting on a platform. Four chains, labeled 'Field Supplied Isolators', are attached to the top of the unit and extend upwards. Below the unit, an 'Auxiliary Drain Pan' is positioned. At the bottom corners of the unit, 'Bottom Support Near Both Ends' are indicated. Arrows point from the text labels to the corresponding parts in the diagram.</p> <p>Note: BAYHHKIT001A Hanging Bracket Kit may be ordered separately.</p> <p>Important: The BAYHHKIT001A may not be used if the cabinet has been altered per Installer Guide 18-GJ58D1-5A-EN</p>
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Connecting the Duct work

Table 11. Duct Connection Considerations

Important: Due to the unique design of this unit, which allows the electrical wiring to be routed within the insulation, do not screw, cut, or otherwise puncture the unit cabinet in any location other than the ones illustrated in this Installer Guide or in an approved accessory's Installer Guide.

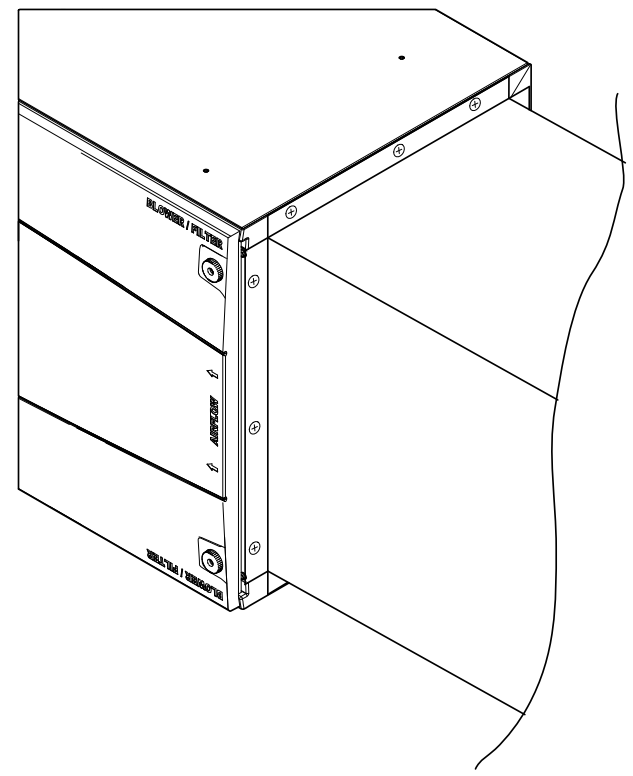
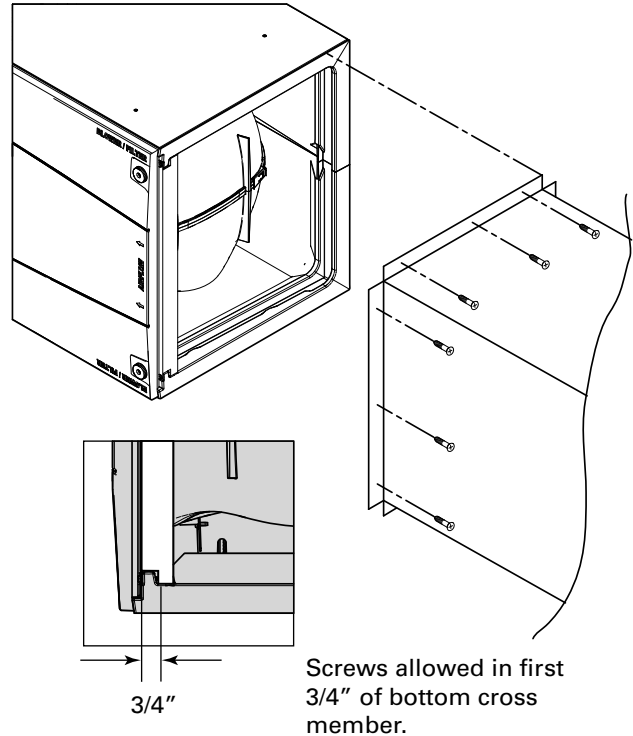
Important: Under no conditions should metal strapping be attached to the unit to be used as support mechanisms for carrying or suspension purposes.

Important: On units with sheet metal returns: Return air plenum must be flanged. Sheet metal drill point screws must be 1/2" in length or shorter.

- The supply and return air ducts must be connected to the unit with non flammable duct connectors.
- See the Outline drawing for sizes of the duct connections.
- After the ducts are secured, seal around the supply and return ducts to prevent air leakage.
- Insulate all duct work that will be outside of conditioned spaces.
- Convertible Duct Flange Kits are available to connect the supply plenum or for mounting on the discharge opening to provide a "flush fit" for 1-1/2" duct board applications.
- If front or rear return is required, the air handler must be elevated — placed on a pedestal or plenum and duct must be connected to this pedestal or plenum.
- If side return is required, the Side Return Kit # BAYSRKIT100A accessory must be used. A remote filter will be required.
- To ensure maximum efficiency and system performance, the existing supply and return duct system static pressures must not exceed the total available static pressure of the air handler. Reference ACCA Manual D, Manual S and Manual RS along with the air handler Product Data and Service Facts for additional information.

Note: Side return is not approved without Side Return Kit # BAYSRKIT100. More than one Side Return Kit may be necessary depending on the application. Refer to the Installation Guide in BAYSRKIT100 for approved duct connections, sizing, number, transitions, and accessory application.

Note: Duct work must be supported as appropriate. See National and local codes for guidelines. Do not depend on the unit to support duct work.



Refrigerant Line

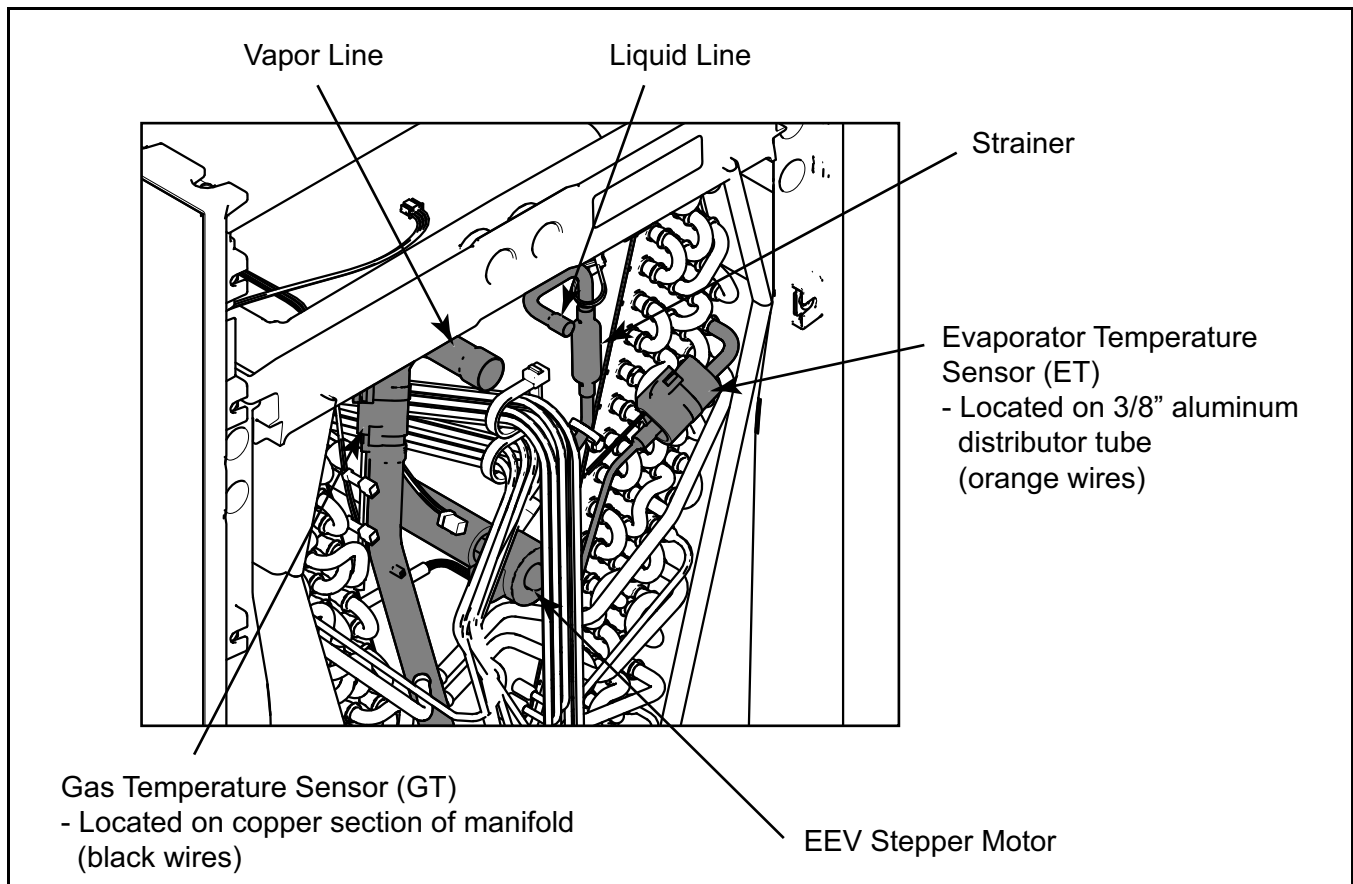
Table 12. Refrigerant Line Connection Sizes

Model	Vapor Line Connection	Liquid Line Connection
TAM9A0A24V21DB	3/4	3/8
TAM9A0B30V31DB	3/4	3/8
TAM9A0C36V31DB	7/8	3/8
TAM9A0C42V41DB	7/8	3/8
TAM9A0C48V41DB	7/8	3/8
TAM9A0C60V51DB	7/8	3/8

Notes:

1. This table indicates the tubing connection diameters at the indoor coil. A field supplied reducing coupling may be required.
2. All AHRI listed systems are tested with 25 feet of refrigeration tubing; the rated tubing diameters are located in the electronic performance data system.
3. If the refrigeration lines exceed 60 feet in linear length and/or if alternate size refrigeration tubing is present at the job, please consult SS-APG006-EN or 32-3312** (latest version)

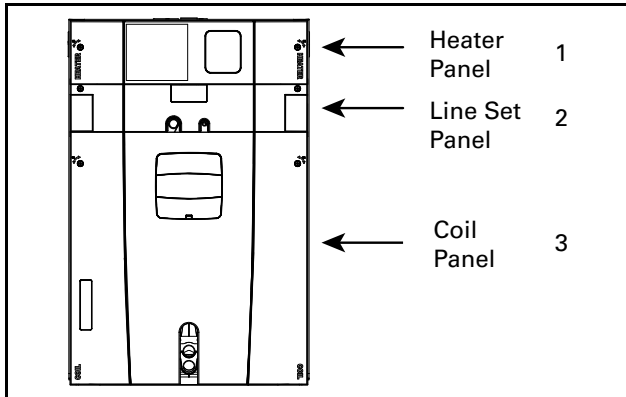
Refrigerant System Layout



Refrigerant Line Brazing

Braze the Refrigerant Lines

1. Remove Heater, Coil, and Line Set panels.

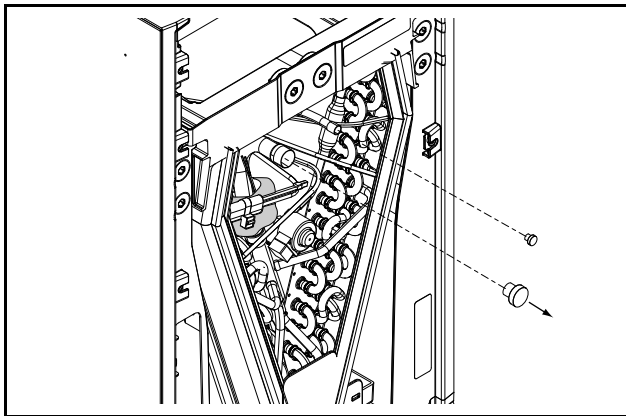


Important: Do NOT unseal coil refrigerant connection stubs until ready to make connections.

Important: Heat Sensitive Sensors. The Gas Temperature Sensor must be removed or a wet rag must be wrapped around the suction line between the Sensor and the braze joint to protect it from failure due to overheating.

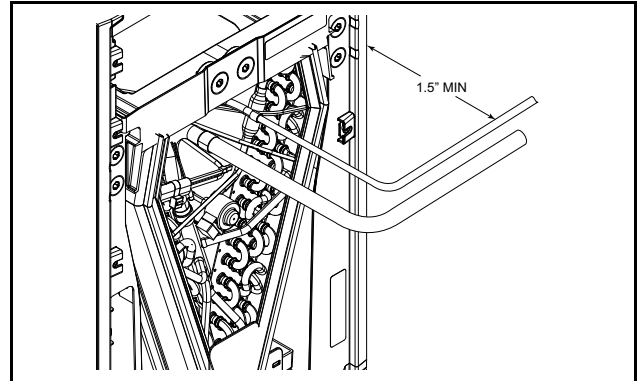
2. Remove the sealing plug from the indoor coil suction line.
3. Remove the sealing plug from the indoor coil liquid line.

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.



4. Connect, but do not braze field line set to indoor coil.
 - a. Allow a minimum of 1.5 inches of refrigerant line set before using an elbow coupling.

Important: Service access to the auxiliary heater must remain unobstructed.

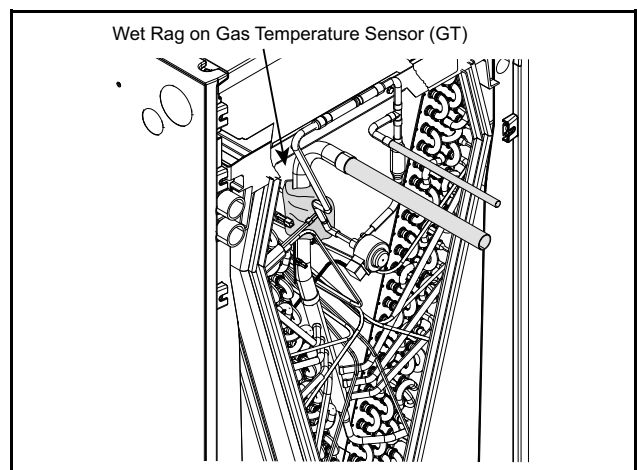


Important: Heat Sensitive Sensor. The temperature Sensor must be removed or a wet rag must be wrapped around the suction line between the Sensor and the braze joint to protect the Sensor from failure due to overheating.

5. Braze refrigerant line connections.
 - a. Pull back the insulation before brazing the suction line.
 - b. Wrap the Gas Temperature Sensor (GT) with a wet rag.
 - c. Braze the refrigerant line connections.

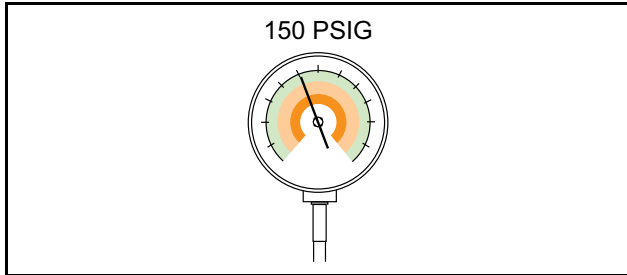
Important: Care must be taken during brazing to avoid damage to unit components and wiring.

Note: The suction line must be insulated prior to brazing the line set to the air handler stubs.

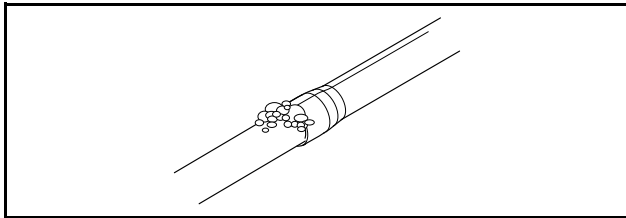


6. Pressurize the refrigerant lines and evaporator coil to 150 PSIG using dry nitrogen.

Refrigerant Line Brazing

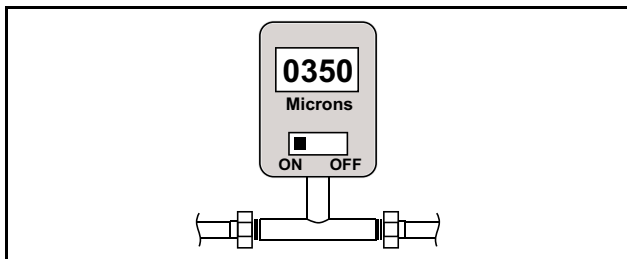


7. Check for leaks by using a soapy solution or bubbles at each brazed location.



Important: Do not open the service valves until the refrigerant lines and indoor coil leak check and evacuation are complete.

8. Evacuate until the micron gauge reads no higher than 350 microns, then close off the valve to the vacuum pump.



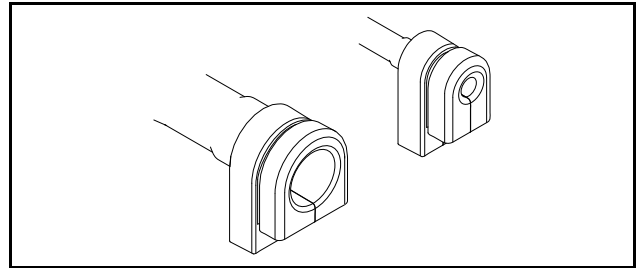
9. Observe the micron gauge. Evacuation is complete if the micron gauge does not rise above 500 microns in one (1) minute.
- Once evacuation is complete blank off the vacuum pump and micron gauge, and close the valves on the manifold gauge set.

Note: Charge system using Outdoor unit's Installer Guide or Service Facts.

Note: Use soapy water to wipe any refrigerant oil off the panels.



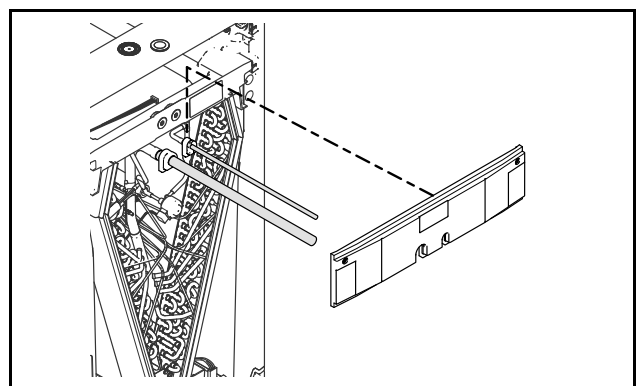
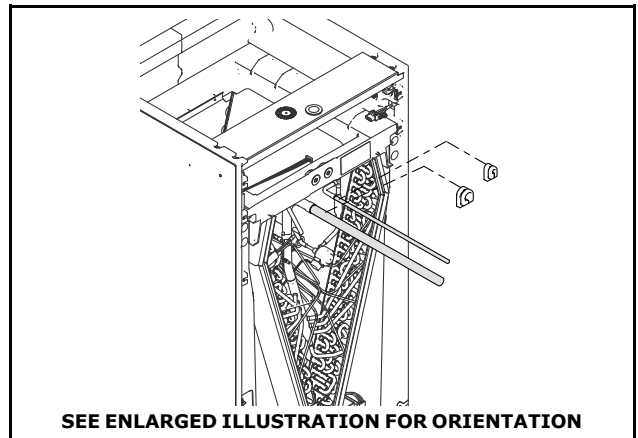
10. Replace the Line Set panel.



- Allow time for tubing to cool.
- Install grommets to line set piping in orientation shown.

Note: A slight amount of dish soap can be used to aid in the installation of the grommets. Remove any excess from the tubing and grommet after the grommet is installed.

- Slide the bottom of the Line Set panel down over the refrigerant lines and grommets. The grommets will seal the line openings.
- Tighten screws on the Line Set panel.



Condensate Drain Piping

Condensate Drain Piping Considerations

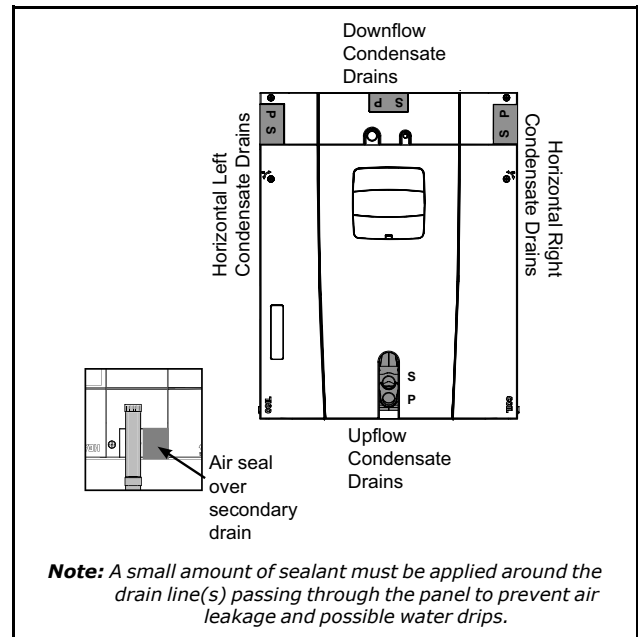
- Condensate drain plumbing must comply with national, state, and local codes.
- Route condensate drain lines away from air handler so they do not interfere with access panels.
- Slope the drain lines downward a minimum of 1/4" per foot, support per local codes.
- Do not use reducing fittings in the condensate drain lines.
- Do not connect the drain line to a closed drain system.
- Do not use a torch or flame near the plastic drain pan coupling.
- A P-trap is not required for proper drainage due to the positive pressure of the air handler; however, it is recommended to prevent efficiency loss of conditioned air.

Connect Condensate Drain Piping

Note: Downflow and horizontal orientations require the Coil panel to be removed in order to make the drain connections.

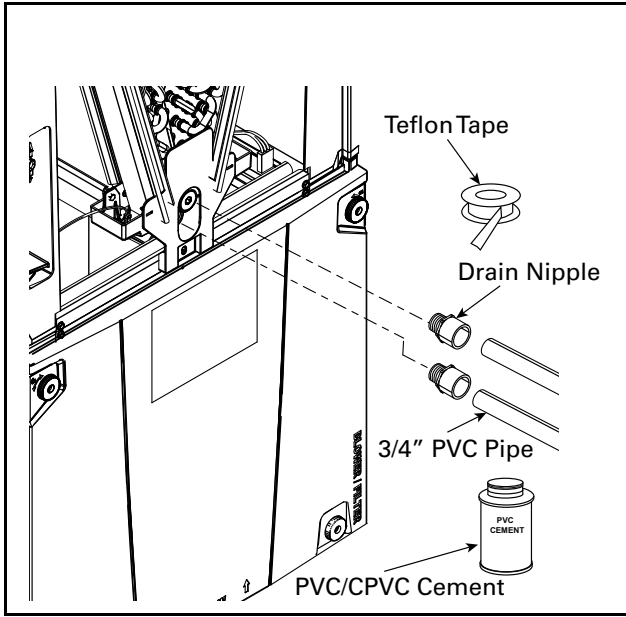
Note: Make certain that the unit has been installed in a level position to allow for proper draining.

1. Select the drain connections that are oriented for your application.
2. Prepare the condensate drain connections.
 - a. From the factory, the unit comes with plugs in both upflow condensate drains and an additional plug in the documentation packet.
 - b. For upflow applications, remove upflow condensate plug(s) and connect condensate piping.
 - c. For all other applications, do not remove upflow condensate plugs. Remove the cover from the needed condensate drain connections and connect condensate piping.
 - d. If the secondary condensate opening is not used, plug the condensate opening with the fitting supplied in the documentation pack. Use scissors to cut the air seal in half and re-install over the unused opening.

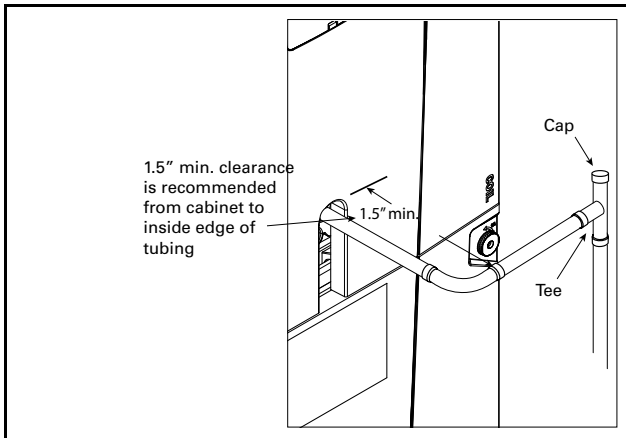


- **Dry fit and test clearance for coil panel removal before applying PVC/CPVC cement.**
 - **Use Teflon tape on the air handler drain line connections. Do not use pipe joint compound or PVC/CPVC cement on drain nipple.**
 - Hand tighten the drain pipe.
 - 3. For upflow installations, connect 3/4" PVC pipe to the threaded drain nipple with PVC/CPVC cement. 3" minimum clearance to the condensate piping is needed for coil panel removal. Thread the assembly into the primary drain connection (repeat for the secondary drain connection if used).
 - a. Remove panel and insert the 3/4" nipples.
 - b. Reinstall the panel.
 - c. Connect the condensate lines to the nipples.
- Important:** For Horizontal and Downflow installations, the following order must be observed:
- Note:** A small amount of sealant must be applied around the drain line(s) passing through the panel to prevent air leakage and possible water drips.

Condensate Drain Piping

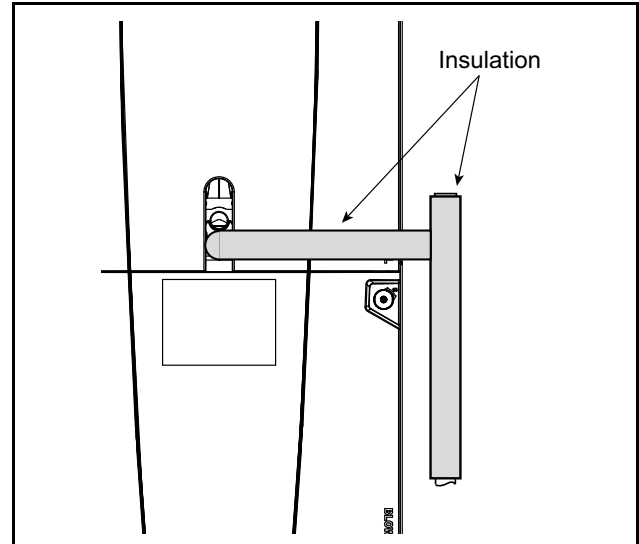


4. Install a clean-out tee in the primary drain line for future maintenance. It is recommended that you install a cap on the top of the tee.



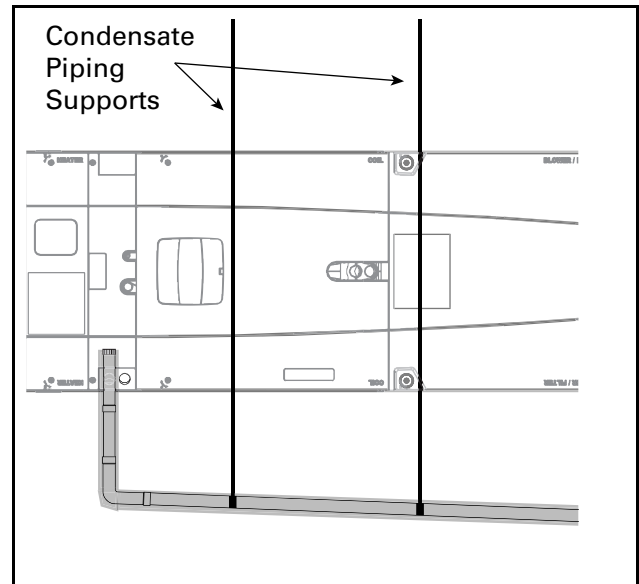
5. Insulate the primary drain line to prevent sweating where dew point temperatures may be met. (Optional depending on climate and application needs.)

Provide a means of drainage to prevent winter freeze-up of condensate line (Optional depending on climate and application needs).



6. Support the condensate piping outside the unit per local codes for proper drainage and to prevent sagging.

Allow 1/4" of downward slope for each foot of pipe.



Sequence of Operation

Abbreviations

- AFC = Airflow Control
- EVC = Expansion Valve Control
- EEV = Electronic Expansion Valve

Note: When used with variable speed outdoor units, indoor airflow and EEV starting position is controlled by the outdoor unit IVSC through the data line between the units.

Note: Use variable speed outdoor Sequence of Operation in conjunction with the TAM9 Sequence of Operation.

The installing and servicing technician should have an understanding of the sequence of operation to be able to properly setup and diagnose functions of the air handler.

See unit, electric heat, and field wiring diagrams for additional information.

Continuous Fan

Important: If the indoor air exceeds 60% relative humidity or simply feels uncomfortably humid, it is recommended that the indoor fan only be used in the AUTO mode.

1. When a fan request is received from the thermostat, the AFC sends a command to the serial communicating blower motor to run. Airflow can be adjusted through the thermostat.
2. Humidity Control – When enabled at the thermostat, this feature will disable any blower off delays and disable continuous fan mode when the humidity is above the dehumidification setpoint. This will help prevent coil condensation from being evaporated back into the air stream.

Cooling Mode

1. When a request for 1st stage cooling is received, the AFC sends a command to the serial communicating blower motor to run at 1st stage cooling airflow. (Delay profiles from the thermostat may change blower motor timing and actual airflow demand)
2. The EVC will receive input from the two temperature sensors and start to control 1st stage superheat. .
3. When a request for 2nd stage cooling is received, the AFC sends a command to the serial communicating blower motor to run at 100 % cooling airflow.
4. The EVC will now control superheat for 2nd stage.
5. When a request for cooling is removed, the AFC will turn off the blower motor after any user selected fan-off delays have expired.

Note: Delay profiles from the thermostat may change blower motor timing and actual airflow demand.

Heat pump (compressor only)

1. When a request for 1st stage heat is received, the AFC sends a command to the serial communicating blower motor to run at 1st stage heating airflow.
2. Humidifier contacts close on demand from thermostat.
3. The EVC will drive the EEV to the heating position and refrigerant will flow in the reverse cycle.
4. When a request for 2nd stage mechanical heat is received, the AFC sends a command to the serial communicating blower motor to run at 100 % heating airflow.
5. When a request for heat pump is removed, the AFC will turn off the blower motor after any user selected fan-off delays have expired.

Note: Delay profiles from the thermostat may change blower motor timing and actual airflow demand.

Electric Heat

1. When a request for electric heat is received, the AFC will energize the on board 24 volt relays per the amount of heat requested from the thermostat and the size of the heater installed.
2. The AFC sends a command to the serial communicating blower motor to run proper airflow and close the blower interlock relay on the EHC.

Hydronic Heat

1. When a request for hydronic heat is received, the AFC will energize the on board W1 relay.
2. The AFC sends a command to the serial communicating blower motor to run at the requested CFM.

Defrost

1. The OD unit will initiate defrost and send a message to the AFC.
2. The AFC will communicate to the EVC that the OD is in defrost and the EVC will start to control the correct superheat.
3. Electric or hydronic heat will be energized to help temper the air.

Freeze Protection

1. The EVC control has the ability to sense when the indoor coil is beginning to ice. If this event should occur, the AFC will send a message to de-energize the OD unit.
2. The indoor blower motor will continue running to aid in defrosting the coil.

Sequence of Operation

3. After 5 minutes, the OD will be turned back on. (*CONT900 and the 1st release of the *ZONE950 will disable the indoor blower motor and OD unit for 30 minutes)

Unit Test Mode

Unit Test Mode will exit if any demand is given to the unit.

To enter Unit Test Mode:

1. Set System Switch on comfort control to Off.
2. Scroll to the Control Menu on the Display Assembly.
3. Scroll down to the Unit Test selection and push the "Enter" button.

Sequence of Unit Test Mode (OD unit is not energized during the Unit Test Mode)

1. EVC drives the EEV motor to the 1st stage position for 5 seconds.
2. EVC drives the EEV motor to the 2nd stage position for 5 seconds.
3. AFC energizes the blower at 50% and then continues to ramp until it reaches 100% cooling airflow.
4. Humidifier contacts close when the blower starts.
5. AFC energizes the W relays in 10 second intervals. The blower remains at 100% air flow.
6. All relays de-energize and the blower shuts off five seconds after the last bank of heat is energized.

Note: *If an error occurs during the Unit Test Mode, the Fault LED will flash a code and continue the test.*

Electrical – Low Voltage

Table 13. Low Voltage Maximum Wire Length

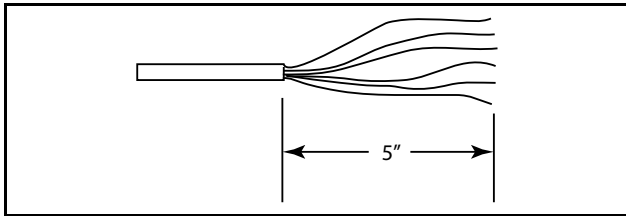
<p>The Low Voltage Maximum Wire Length table defines the size and combined total maximum length of the low voltage wiring from the outdoor unit, to the indoor unit, and to the thermostat.</p> <p>Note: <i>The use of color coded low voltage wire is recommended to simplify connections between the outdoor unit, the control, and the indoor unit.</i></p>	Control Wire – Communicating	
	WIRE SIZE	MAX. WIRE LENGTH
	18 AWG	500 FT. Combined
	Control Wire – 24 Volt	
	WIRE SIZE	MAX. WIRE LENGTH
	18 AWG	100 FT. Combined

Low Voltage Hook-up Instructions

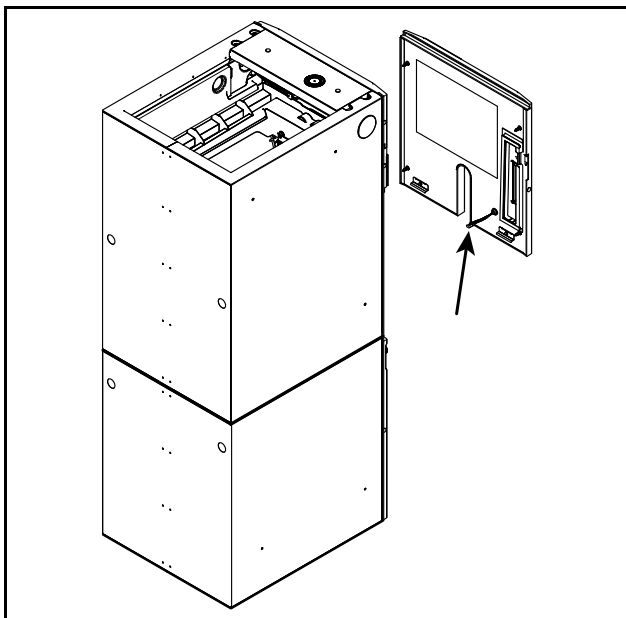
Note: *Strain relief must be provided on the inside of the air handler cabinet for the low voltage wiring. Field supplied thermostat wired may be wire tied as a bundle to the existing strain relieved low voltage pigtail leads in the air handler unit.*

1. Route control wiring to unit. Remove the external sheathing of the wiring approximately 5".

Note: *Optional Low Voltage Conduit Entry Kit number BAYLVKIT100A is available.*

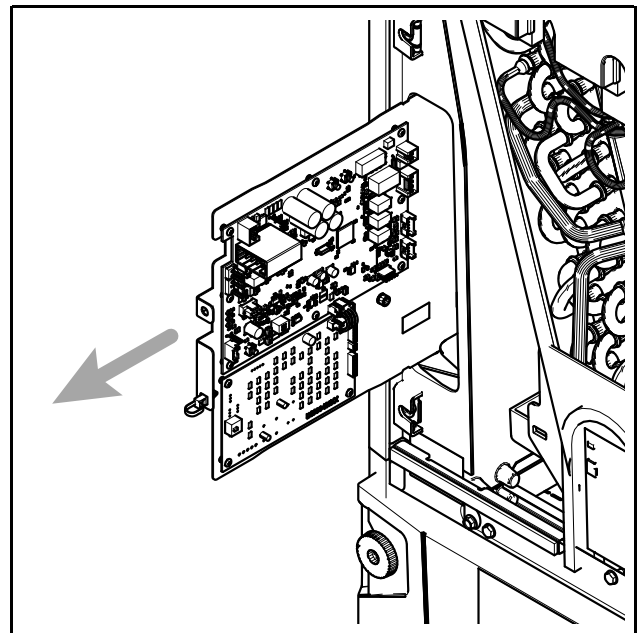


2. Remove Coil panel by turning the Phillips head door fasteners, rotating the door away from the cabinet, disconnecting the plug, and removing.



3. Remove the control board from the control pocket by sliding the control pocket mounting plate out until the first stop is reached.
4. Install the low voltage wire harness.

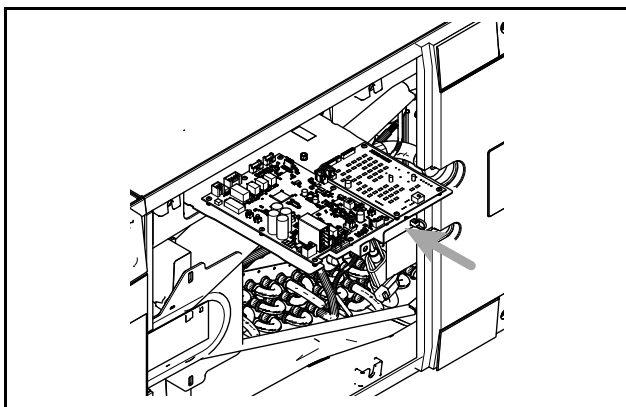
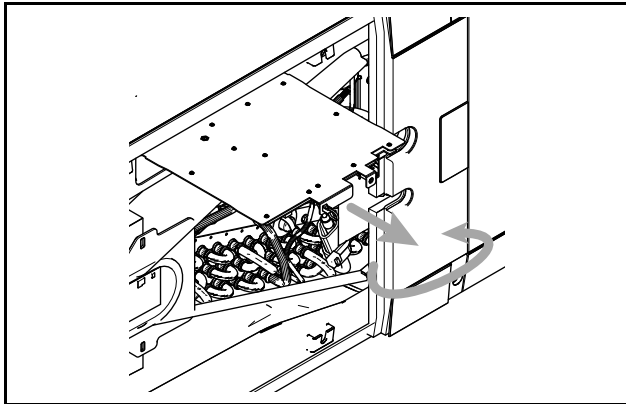
Important: *The low voltage wire harness is shipped in the supplied document pack.*



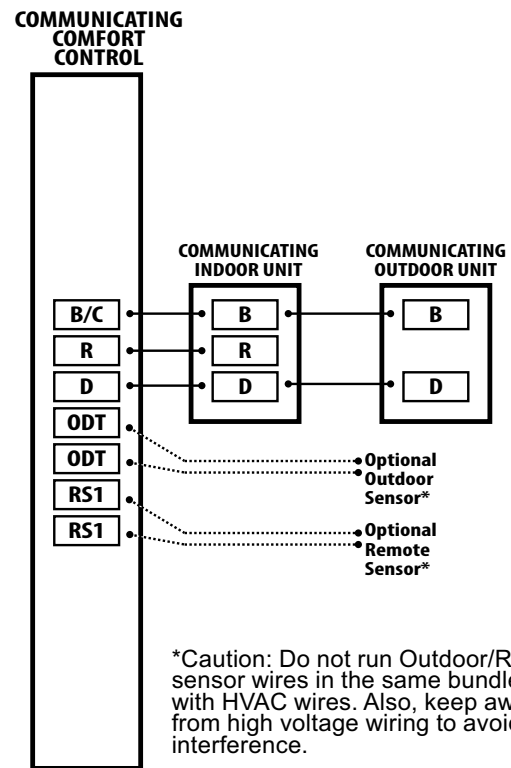
For Horizontal Right Installations Only

5. Remove the control board completely from the control pocket. Rotate the control board 180 degrees. Place the control board 2–3 inches back into the control pocket.
6. Make connections per hookup diagrams.

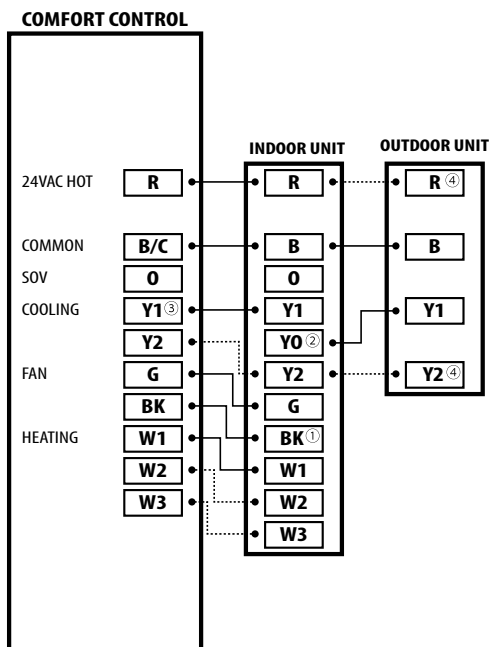
Important: *After wires have been connected or service performed, the control board MUST be rotated back to the original orientation before inserting into cabinet control pocket.*



Communicating Controls Wiring Diagram



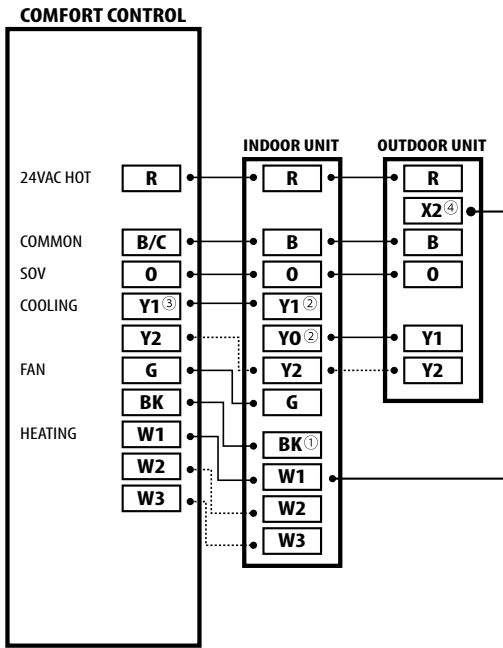
1 OR 2 STAGE COOLING WITH TAM9/TAMG VARIABLE SPEED AIR HANDLER



NOTES:

1. Cut the BK jumper on the AFC when using the BK functionality from the thermostat.
2. Y1 and YO connections must be made as shown for freeze protection and internally mounted condensate overflow circuits to function properly.
3. 3rd party condensate switches should break the Y1 circuit between the thermostat and AFC.
4. Y2 connections at outdoor unit are required only for two stage units.

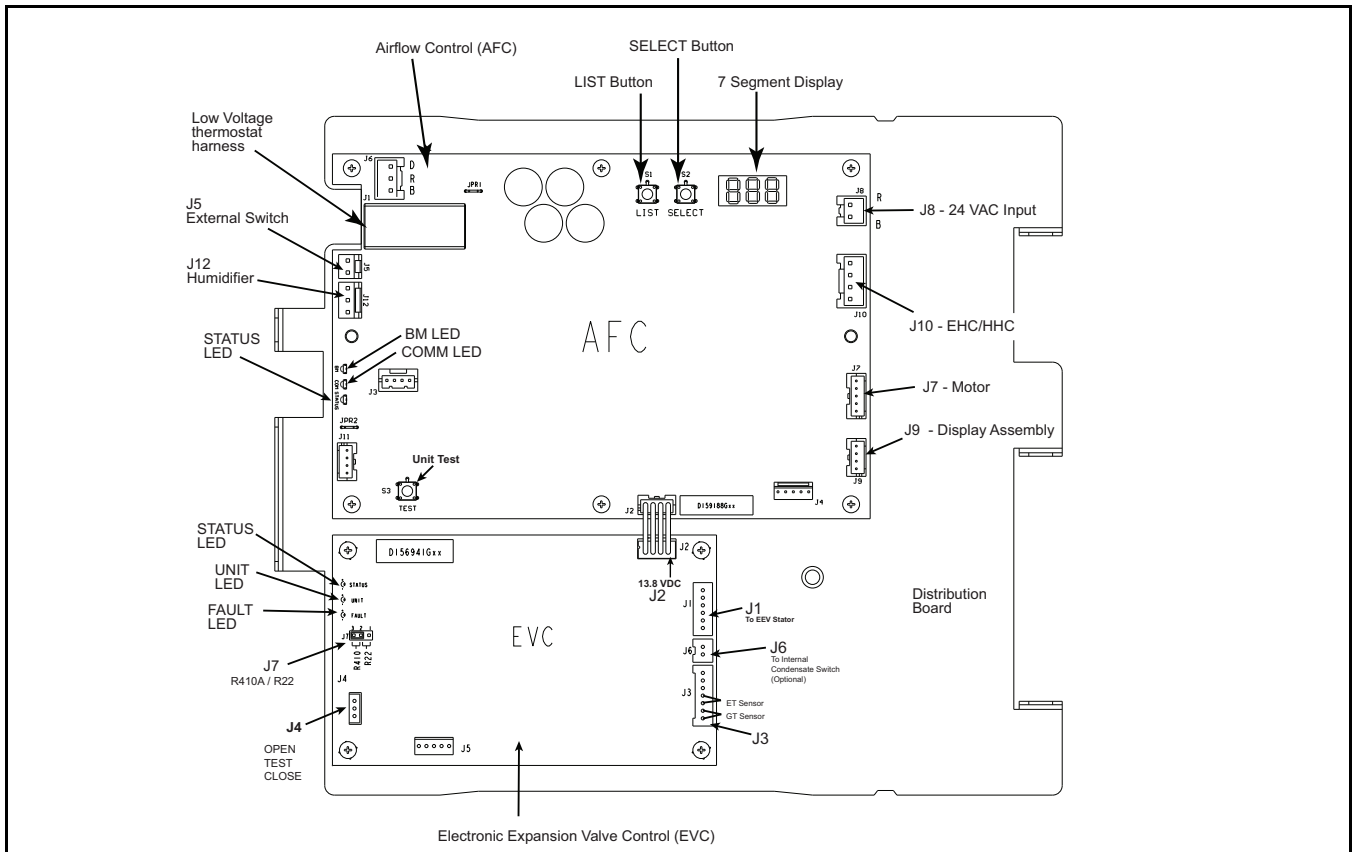
1 OR 2 STAGE HEAT PUMP WITH TAM9/TAMG VARIABLE SPEED AIR HANDLER



NOTES:

1. Cut the BK jumper on the AFC when using the BK functionality from the thermostat.
2. Y1 and YO connections must be made as shown for freeze protection and internally mounted condensate overflow circuits to function properly.
3. 3rd party condensate switches should break the Y1 circuit between the thermostat and AFC.
4. Connection to X2 is not required when using the 402, 624, 824, or relay panel controls.

7. Secure the sheathed wiring to the control pocket mounting plate using the factory supplied wire ties attached to the tabs as shown.

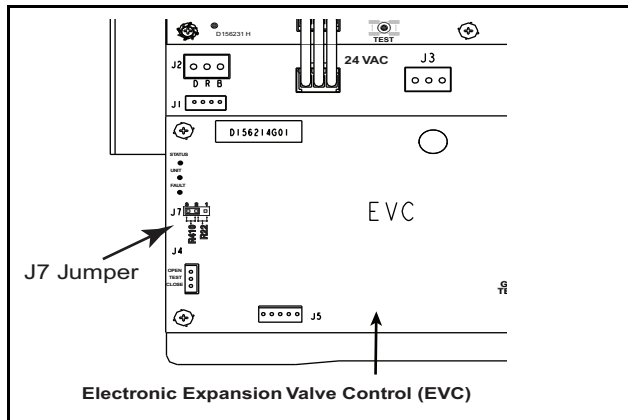


Electrical — Low Voltage

8. Set Jumper and Dip Switches

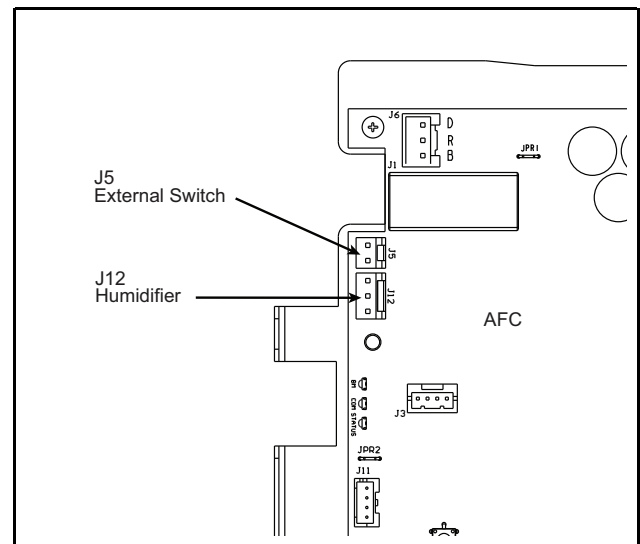
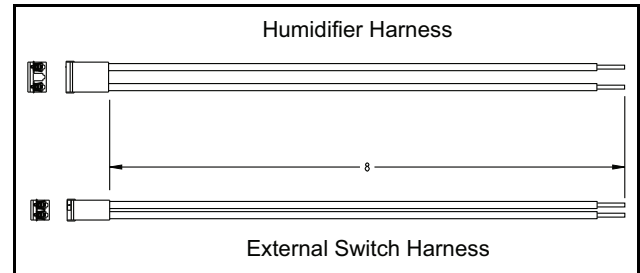
- Set the system refrigerant to either R410A or R-22 using the Refrigerant Jumper located on the Expansion Valve Control board (EVC) in the Control Pocket.
- Factory default is R410A.

Note: The power must be shut off and then re-applied in order for the EVC to recognize the change.



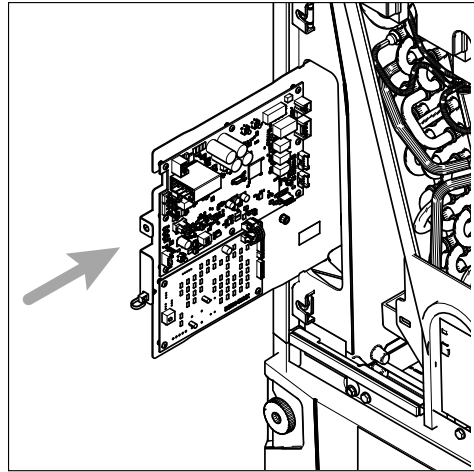
Humidifier and External Switch

When connecting a humidifier or an external switch to the air handler, locate the harness(es) in the doc pack. The plug on the harness will plug into the AFC control board.

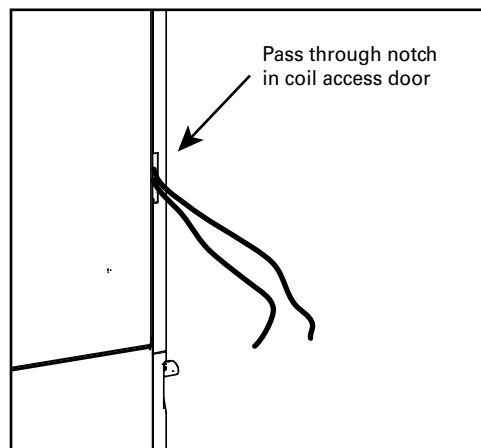
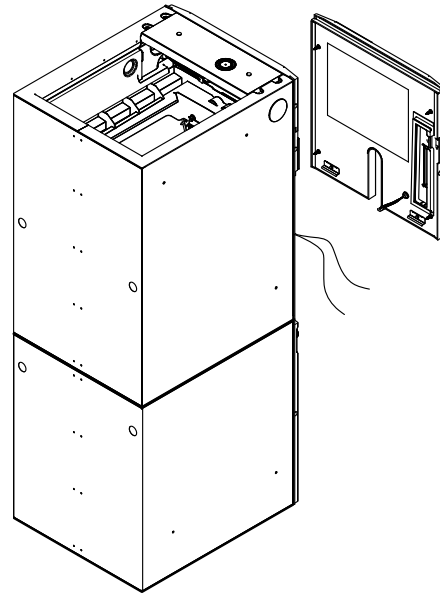


Control Panel Reinstallation

1. Slide control plate assembly into the control pocket until fully seated. The control plate should be flush with the outer edge of the unit.



2. Replace coil panel making sure that the wires are located within the wire pass-through provided in the panel.



Electrical – High Voltage

High Voltage Power Supply

The high voltage power supply must match the equipment nameplate.

Power wiring, including ground wiring must comply with national, state, and local codes.

Field wiring diagrams for supplementary electric heaters are shipped with the heaters.

⚠ WARNING

LIVE ELECTRICAL COMPONENTS!

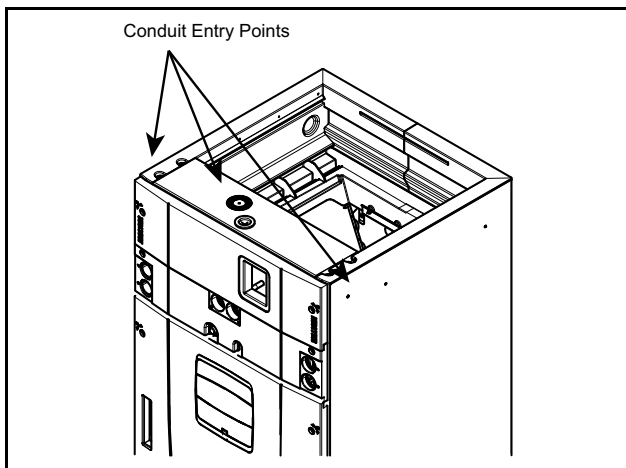
Failure to follow this Warning could result in property damage, severe personal injury, or death.

Follow all electrical safety precautions when exposed to live electrical components. It may be necessary to work with live electrical components during installation, testing, servicing, and troubleshooting of this product.

Make Electrical Connections

1. Route High Voltage wiring to unit.
2. Select a conduit entry point. Drill a hole for the desired conduit size up to 1-1/2" diameter. A locating target is identified on these units.
 - a. Select the entry point you will use to bring in your high voltage wiring.

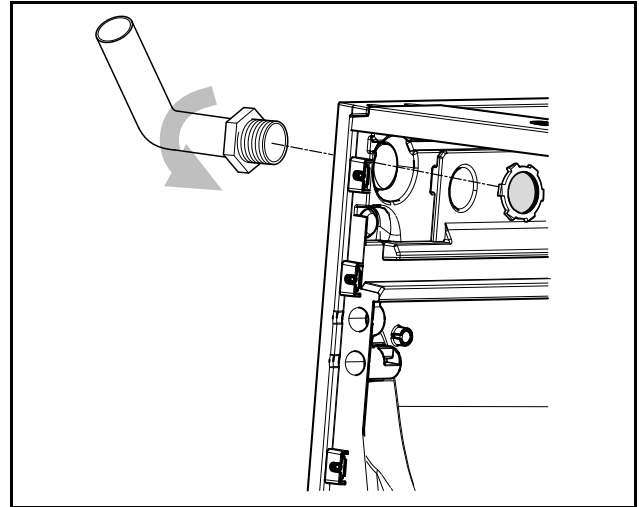
Note: When drilling access through cabinet do not drill into any internal components. Remove internal components before drilling through cabinet, if possible. Damage to the air handler or heater could result.



3. Route conduit (if used) to the entry point and connect.

- a. Use one hand to secure the conduit nut from inside of the heater compartment.
- b. Connect a field supplied 3/4" or 1-1/2" conduit to conduit nut.

Note: Reducing bushings may be required for your application.

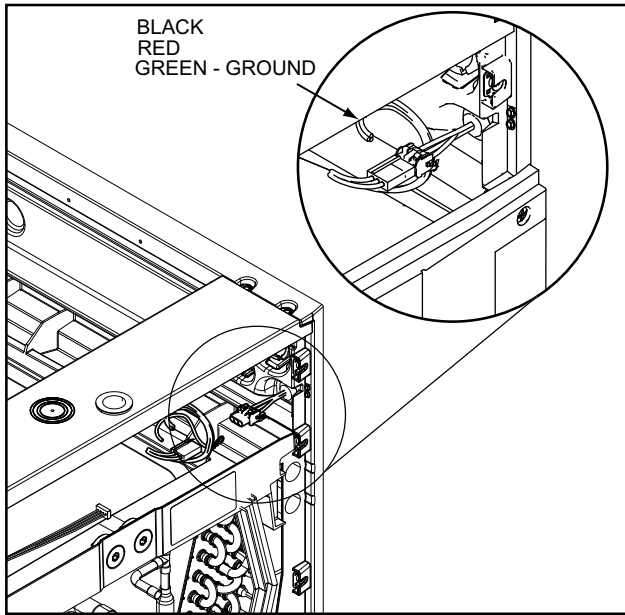


4. If an electric heater **IS NOT** being installed, remove the pigtail harness from the documentation pack and connect it to the plug on the inside of the Heater Compartment in the cabinet.

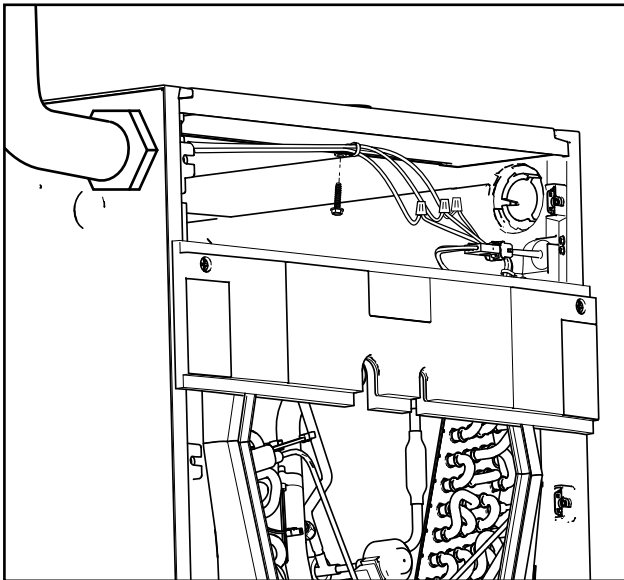
If an electric heater **IS** being installed, see the Installer's Guide shipped with the electric heater.

Note: The electrical heater size needs to be set in the Configuration Menu.

Connect L1, L2, and ground wiring to pigtail harness in Heater Compartment using wire nuts. The incoming ground wiring will mate up with the green wire shown in the illustration.

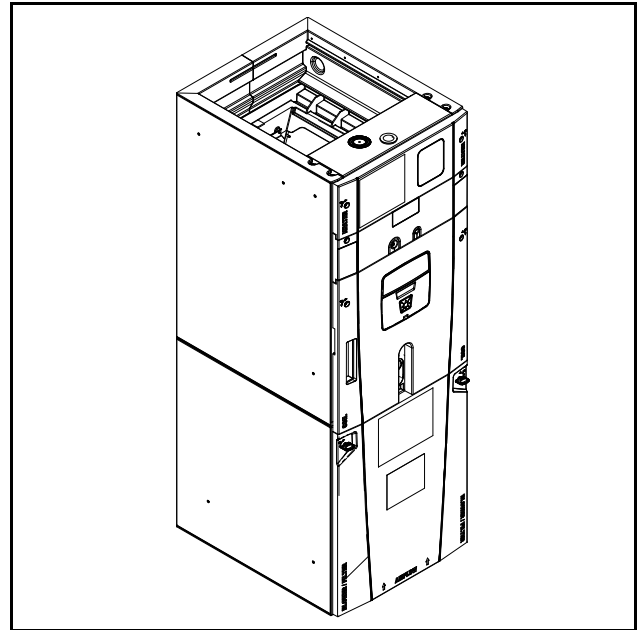


5. If the L1, L2, and ground wires enter the case from the left side, use a field supplied 1/2" – 5/8" maximum length screw and wire tie to hold the wires to the top center of the Heater Compartment.



6. Reinstall all panels before starting the air handler

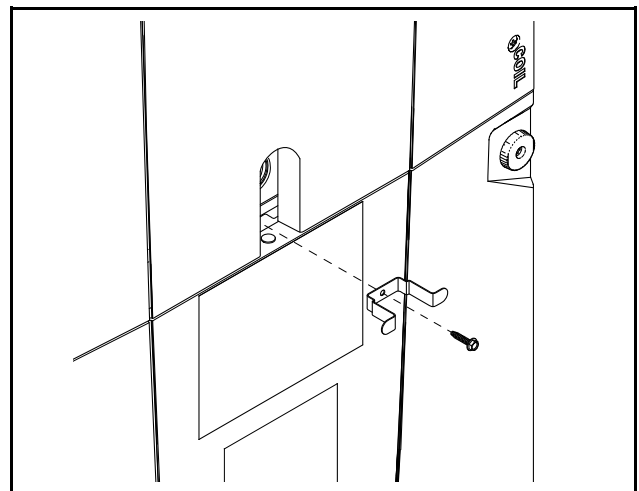
Note: After replacing all panels, loosen the Line Set Panel screws approximately 1/4 – 1/2 turn. This will improve the seal between the Heater Panel and Line Set Panel.



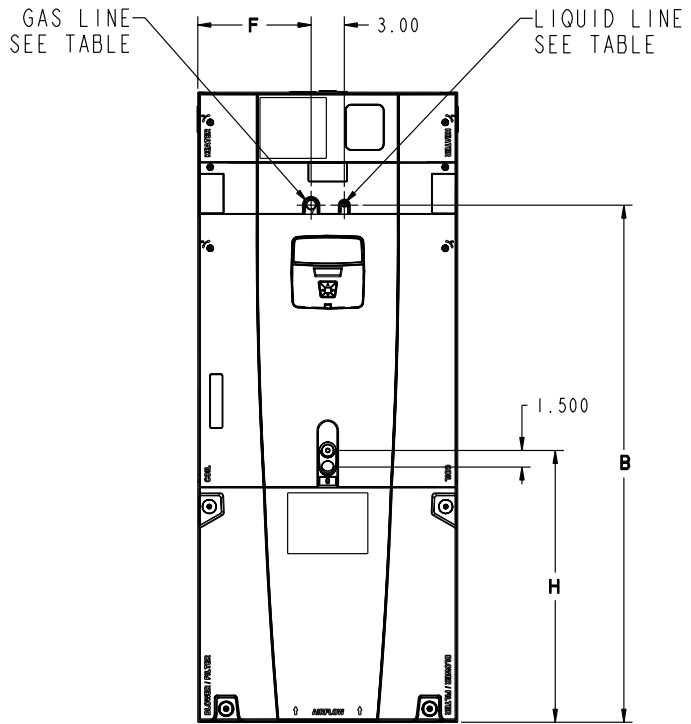
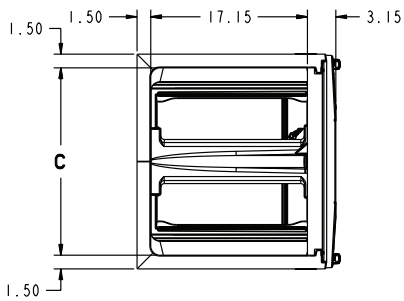
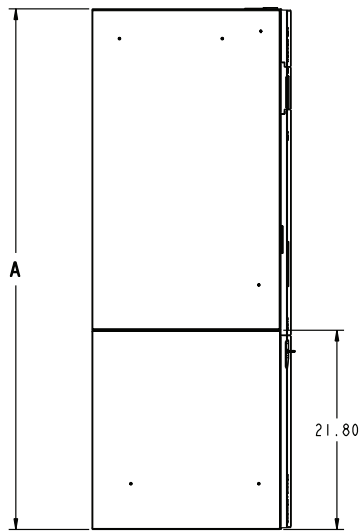
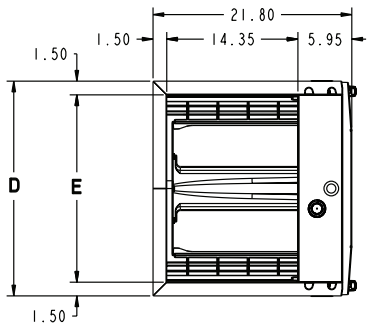
7. Remove screw and coil bracket from documentation packet.
8. Place the coil panel bracket into position and use screw to secure the coil panel bracket and seal plate to the support bar.

Important: The Coil Seal Plate and screw secure the coil in the center of the air handler. Failure to follow these steps can prevent the Coil Panel from being easily replaced on the unit.

Important: The Blower Panel may be removed if needed to help align the new screw with the seal plate and crossmember.



Outline Drawing

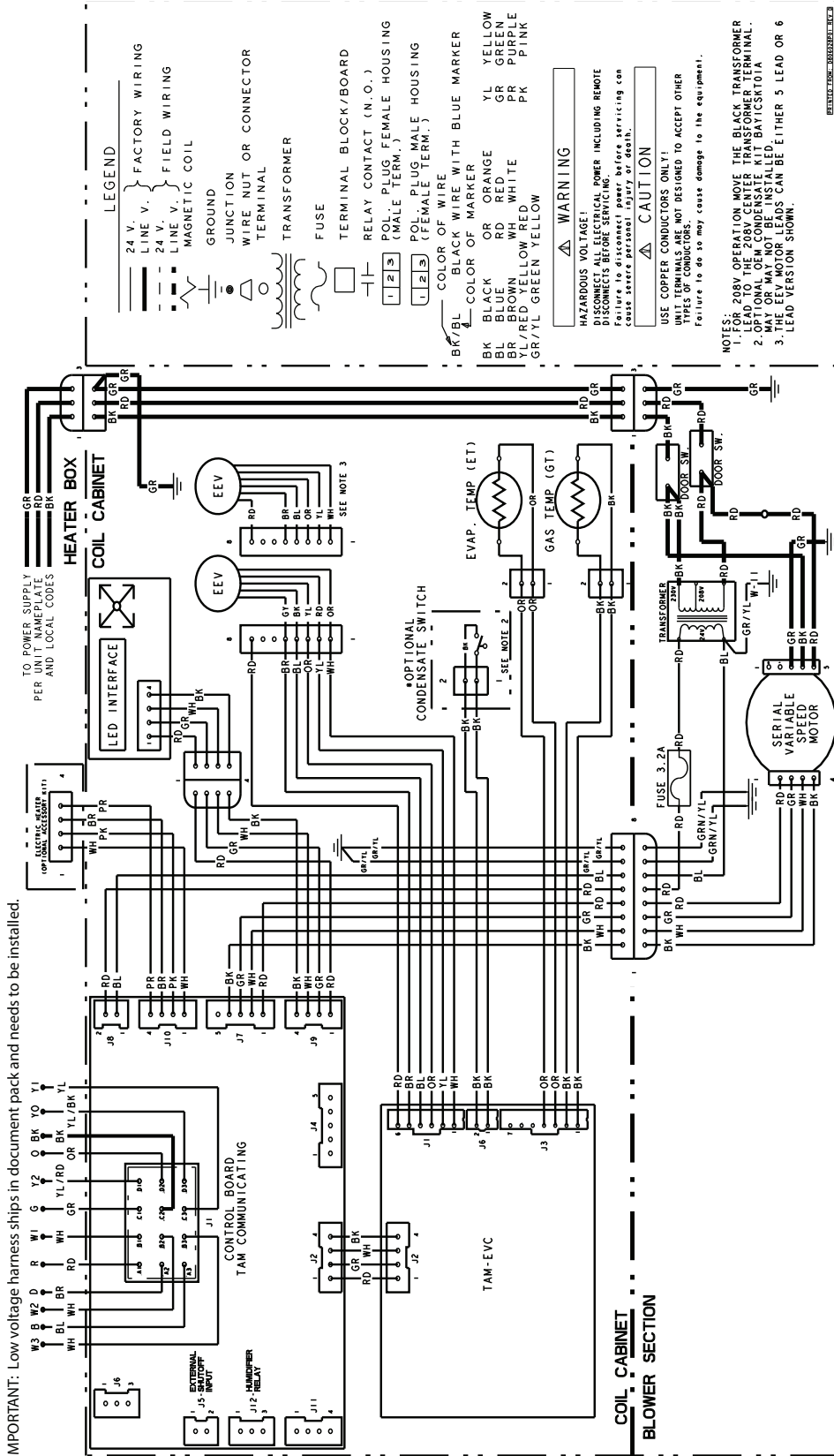


MINIMUM UNIT CLEARANCE TABLE	
	SERVICE CLEARANCE (RECOMMENDED)
SIDES	2"
FRONT	21"
BACK	0"
INLET DUCT	
OUTLET DUCT	

NOTE: THIS UNIT IS APPROVED FOR INSTALLATION CLEARANCES TO COMBUSTIBLE MATERIAL AS STATED ON THE UNIT RATING NAMEPLATE

Model Number	A	B	C	D	E	F	H	FLOW CONTROL	GAS LINE BRAZE	LIQ LINE BRAZE
TAM9A0A24V21DB	49.9	39.6	14.5	17.5	14.5	7.3	24.4	EEV	3/4	3/8
TAM9A0B30V31DB	55.7	45.5	18.4	21.3	18.4	9.2	24.8	EEV	3/4	3/8
TAM9A0C36V31DB	56.9	46.7	20.5	23.5	20.5	10.3	24.2	EEV	7/8	3/8
TAM9A0C42V41DB	56.9	46.7	20.5	23.5	20.5	10.3	24.5	EEV	7/8	3/8
TAM9A0C48V41DB	61.7	51.5	20.5	23.5	20.5	10.3	24.9	EEV	7/8	3/8
TAM9A0C60V51DB	61.7	51.5	20.5	23.5	20.5	10.3	24.9	EEV	7/8	3/8

Wiring Diagram



Air Flow Performance Tables

TAM9A0A24 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM/ Constant Torque)				HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE					
			0.1	0.3	0.5	0.7			0.9	0.1	0.3	0.5	0.7	0.9
1.5 tons	290 CFM/ton	CFM	407/546	430/403	398/NA	347/NA	255/NA	290 CFM/ton	CFM	416	426	401	330	291
		Watts	22/40	51/48	77/NA	103/NA	133/NA		Watts	22	49	76	101	134
	350 CFM/ton	CFM	534/630	549/531	542/360	509/NA	445/NA	350 CFM/ton	CFM	532	550	542	507	434
		Watts	39/57	71/68	103/73	132/NA	156/NA		Watts	37	69	101	129	152
	400 CFM/ton	CFM	617/697	633/617	632/501	604/NA	559/NA	400 CFM/ton	CFM	660	680	679	658	614
		Watts	54/72	90/86	125/96	156/NA	181/NA		Watts	62	99	136	169	197
	450 CFM/ton	CFM	691/762	710/693	707/602	688/478	649/NA	450 CFM/ton	CFM	690	710	709	690	651
		Watts	72/91	111/106	148/119	183/127	212/NA		Watts	69	108	145	180	208
	290 CFM/ton	CFM	593/680	613/595	607/470	583/208	527/132	290 CFM/ton	CFM	593	613	608	582	527
		Watts	54/68	85/81	119/90	150/94	175/138		Watts	48	82	116	147	172
2 tons †	350 CFM/ton	CFM	717/783	733/717	733/632	714/519	678/355	350 CFM/ton	CFM	714	734	734	716	679
		Watts	79/98	118/114	157/127	192/136	222/143		Watts	75	115	153	189	218
	400 † CFM/ton	CFM	810/868	827/811	827/740	813/652	782/543	400 (e) CFM/ton	CFM	862	881	884	874	849
		Watts	108/128	152/146	194/161	233/173	265/182		Watts	122	168	213	254	290
	450 CFM/ton	CFM	903/954	918/902	920/839	909/764	884/674	450 CFM/ton	CFM	899	917	921	912	889
		Watts	144/165	192/182	238/201	280/215	316/224		Watts	136	184	231	273	310
	290 CFM/ton	CFM	741/820	757/759	757/681	739/582	705/452	290 CFM/ton	CFM	738	757	758	742	707
		Watts	86/110	126/127	166/141	202/152	232/159		Watts	81	122	162	198	229
	350 CFM/ton	CFM	880/947	896/895	896/832	885/757	859/665	350 CFM/ton	CFM	876	895	898	888	864
		Watts	134/162	182/181	226/198	267/211	302/221		Watts	127	174	220	261	297
2.5 tons	400 CFM/ton	CFM	996/1059	1011/1011	1014/954	1006/887	985/807	400 CFM/ton	CFM	1064	1083	1089	1084	1066
		Watts	188/220	241/240	291/257	336/271	375/280		Watts	215	272	326	375	418
	450 CFM/ton	CFM	1120/1180	1135/1134	1137/1081	1129/1019	1108/946	450 CFM/ton	CFM	1115	1133	1139	1133	1116
		Watts	260/297	319/317	373/334	422/347	463/355		Watts	244	304	360	410	453
	290 CFM/ton	CFM	875/943	891/891	892/891	880/751	854/659	290 CFM/ton	CFM	871	890	894	883	859
		Watts	132/160	179/179	224/196	265/209	300/218		Watts	125	172	217	259	295
	350 CFM/ton	CFM	1045/1106	1060/1059	1063/1004	1055/939	1035/862	350 CFM/ton	CFM	1040	1058	1064	1059	1041
		Watts	215/248	270/268	321/285	369/299	409/308		Watts	202	257	310	358	401
	400 CFM/ton	CFM	1200/1257	1212/1211	1212/1159	1200/1099	1129/1030	400 CFM/ton	CFM	1291	1302	1300	1220	1138
		Watts	315/354	376/374	432/390	480/402	481/409		Watts	368	432	487	478	470
3 tons	450 CFM/ton	CFM	1358/1403	1333/1359	1256/1308	1177/1251	1095/1187	450 CFM/ton	CFM	1355	1360	1286	1208	1128
		Watts	447/484	482/502	472/517	466/527	460/531		Watts	422	483	476	468	462
	<ul style="list-style-type: none"> † Factory Setting Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower. Torque mode will reduce airflow when static is above approximately 0.3" water column. All heating modes default to Constant CFM. Cooling airflow values are with wet coil, no filter 													
	TAM9A0A24 Minimum Heating Airflow Settings													
	MODEL NO.	BAYEAAC04BK1 BAYEAAC04LG1 BAYEAAC05BK1 BAYEAAC05LG1	BAYEAAC08BK1 BAYEAAC08LG1	BAYEAAC10BK1 BAYEAAC10LG1	BAYEAAC10LG3	BAYEAAC15BK1	BAYEAAC15LG3	BAYEAAC20BK1						
	TAM9A0A24	638/713	638/900	675/900	600/713	-	-	-						
	WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE FOR APPROVED COMBINATIONS													

(e) Factory heating default setting is 430 CFM/ton

TAM9A0B30 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE													
OUTDOOR MULTIPLIER (TONS)	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)				HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE						
	COOLING AIRFLOW SETTING	AIRFLOW POWER	0.1	0.3			0.5	0.7	0.9	0.1	0.3	0.5	0.7
1.5 tons	290 CFM/ton	CFM Watts	492 / 581 22 / 30	442 / 397 45 / 41	408 / NA 71 / NA	353 / NA 98 / NA	221 / NA 129 / NA	290 CFM/ton	CFM Watts	485 21	437 44	393 69	300 130
	350 CFM/ton	CFM Watts	576 / 664 30 / 40	553 / 515 58 / 54	527 / NA 87 / NA	493 / NA 117 / NA	472 / NA 150 / NA	350 CFM/ton	CFM Watts	574 29	545 56	517 85	489 115 146
	400 CFM/ton	CFM Watts	644 / 730 38 / 49	633 / 598 70 / 65	612 / 403 102 / 72	590 / NA 134 / NA	563 / NA 167 / NA	400 CFM/ton	CFM Watts	643 37	624 67	605 99	583 132 165
	450 CFM/ton	CFM Watts	711 / 794 47 / 60	708 / 673 83 / 77	691 / 510 118 / 86	678 / NA 154 / NA	656 / NA 189 / NA	450 CFM/ton	CFM Watts	709 45	698 80	684 115	669 151 186
	290 CFM/ton	CFM Watts	627 / 713 36 / 47	611 / 576 66 / 62	589 / 369 98 / 68	568 / NA 130 / NA	542 / NA 163 / NA	290 CFM/ton	CFM Watts	625 35	603 64	582 95	559 127 160
2 tons †	350 CFM/ton	CFM Watts	734 / 815 51 / 64	730 / 698 87 / 82	717 / 541 124 / 91	705 / NA 161 / NA	684 / NA 197 / NA	350 CFM/ton	CFM Watts	731 49	722 84	710 120	696 157 193
	400 † CFM/ton	CFM Watts	822 / 898 66 / 81	824 / 792 107 / 101	817 / 657 149 / 112	811 / NA 191 / NA	797 / NA 231 / NA	400 (a) CFM/ton	CFM Watts	817 63	815 103	811 145	801 186 226
	450 CFM/ton	CFM Watts	910 / 982 85 / 102	916 / 884 131 / 123	916 / 763 178 / 136	914 / 610 226 / 140	904 / NA 270 / NA	450 CFM/ton	CFM Watts	902 80	907 126	908 172	904 219 263
	290 CFM/ton	CFM Watts	755 / 860 54 / 73	753 / 749 92 / 91	742 / 606 130 / 102	732 / 397 168 / 104	712 / NA 205 / NA	290 CFM/ton	CFM Watts	753 52	745 88	735 126	723 164 201
	350 CFM/ton	CFM Watts	887 / 985 80 / 102	893 / 887 125 / 124	891 / 767 170 / 137	888 / 614 217 / 141	876 / NA 260 / NA	350 CFM/ton	CFM Watts	881 75	884 120	884 165	879 210 253
2.5 tons	400 CFM/ton	CFM Watts	998 / 1094 107 / 134	1010 / 1003 160 / 158	1017 / 895 213 / 173	1018 / 765 266 / 179	1008 / NA 315 / NA	400 CFM/ton	CFM Watts	989 100	1001 152	1008 205	1000 306
	450 CFM/ton	CFM Watts	1116 / 1212 143 / 176	1135 / 1126 205 / 201	1147 / 1027 267 / 219	1148 / 911 325 / 227	1134 / NA 376 / NA	450 CFM/ton	CFM Watts	1104 133	1124 194	1136 255	1128 314 366
	290 CFM/ton	CFM Watts	883 / 981 79 / 101	888 / 882 124 / 122	887 / 762 169 / 136	881 / 608 214 / 140	870 / NA 257 / NA	290 CFM/ton	CFM Watts	877 74	880 118	879 164	874 208 252
	350 CFM/ton	CFM Watts	1043 / 1140 120 / 150	1059 / 1051 177 / 174	1068 / 947 233 / 190	1069 / 823 288 / 197	1059 / NA 339 / NA	350 CFM/ton	CFM Watts	1034 112	1049 168	1058 224	1061 279 330
	400 CFM/ton	CFM Watts	1190 / 1304 170 / 203	1214 / 1221 238 / 231	1226 / 1126 304 / 251	1223 / 1016 364 / 261	1201 / 886 414 / 261	400 CFM/ton	CFM Watts	1177 157	1201 224	1215 291	1215 352 403
3 tons	450 CFM/ton	CFM Watts	1355 / 1471 241 / 282	1376 / 1391 318 / 311	1375 / 1302 386 / 333	1353 / 1201 441 / 345	1296 / 1086 472 / 345	450 CFM/ton	CFM Watts	1338 221	1363 299	1368 369	1350 427 472

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.35" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0B30 Minimum Heating Airflow Settings

MODEL NO.	BAYEAAAC04BK1 BAYEAAAC04LG1 BAYEAAAC05BK1 BAYEAAAC05LG1	BAYEAAAC08BK1 BAYEAAAC08LG1	BAYEAAAC10BK1 BAYEAAAC10LG1	BAYEAAAC10LG3	BAYEABC15BK1	BAYEABC15LG3	BAYEABC20BK1
TAM9A0B30	723/808	723/1020	765/1020	680/808	765/1063	850/1105	-

WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE

(a) Factory heating default setting is 430 CFM/ton

Air Flow Performance Tables

TAM9A0C36 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE													
OUTDOOR MULTIPLIER (TONS)	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)				AIRFLOW POWER	HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE					
	0.1	0.3	0.5	0.7				0.9	0.1	0.3	0.5	0.7	0.9
2 tons	290 CFM/ton	573/565	553/306	548/NA	546/NA	290 CFM/ton	CFM	606	574	557	551	549	
	370 CFM/ton	745/738	737/575	738/367	735/NA	350 CFM/ton	CFM	720	705	695	694	691	
	400 CFM/ton	804/797	800/650	802/478	802/231	400 CFM/ton	Watts	43	77	111	148	184	
	450 CFM/ton	900/893	902/764	905/624	906/462	450 CFM/ton	Watts	56	95	134	174	214	
2.5 tons	290 CFM/ton	729/752	722/592	721/394	720/NA	290 CFM/ton	CFM	742	731	722	722	720	
	370 CFM/ton	871/890	871/761	874/620	874/457	350 CFM/ton	Watts	46	81	117	154	191	
	400 CFM/ton	995/1012	1002/899	1008/779	1010/652	400 CFM/ton	Watts	68	110	152	196	239	
	450 CFM/ton	1103/1228	1117/1131	1129/1028	1137/921	450 CFM/ton	Watts	90	139	188	258	285	
3 tons †	290 CFM/ton	871/890	871/761	874/620	874/457	290 CFM/ton	CFM	871	872	871	874	875	
	370 † CFM/ton	1089/1214	1102/1116	1114/1013	1122/905	350 CFM/ton	Watts	67	109	151	195	237	
	400 CFM/ton	1175/1298	1193/1205	1208/1107	1215/1006	400 (a) CFM/ton	CFM	1033	1043	1051	1059	1061	
	450 CFM/ton	1329/1447	1353/1361	1366/1270	1363/1176	450 CFM/ton	Watts	101	152	204	257	307	
3.5 tons	290 CFM/ton	1002/1131	1009/1026	1017/914	1024/797	290 CFM/ton	CFM	997	1010	1016	1022	1027	
	370 CFM/ton	1270/1391	1293/1302	1308/1210	1311/1113	350 CFM/ton	Watts	92	143	197	248	293	
	400 CFM/ton	1383/1499	1407/1414	1416/1325	1406/1233	400 CFM/ton	CFM	1196	1217	1231	1241	1234	
	450 CFM/ton	1579/1669	1583/1587	1567/1502	1474/1413	450 CFM/ton	Watts	146	210	272	334	387	

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.35" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0C36 Minimum Heating Airflow Settings						
MODEL NO.	BAYEAC04BK1 BAYEAC04LG1 BAYEAC05BK1 BAYEAC05LG1	BAYEAC08BK1 BAYEAC08LG1	BAYEAC10BK1 BAYEAC10LG1	BAYEAC10LG3	BAYEABC15BK1 BAYEABC15LG3	BAYEABC20BK1
TAM9A0C36	876/979	876/1236	927/1236	824/979	927/1288	1236/1442
WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE						

(a) Factory heating default setting is 420 CFM/ton

TAM9A0C42 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
2.5 tons	290 CFM/ton	CFM Watts	747/905 48/77	743/764 87/94	742/591 127/102	741/342 168/106	739/NA 207/NA	290 CFM/ton	CFM Watts	744 51	741 90	740 130	738 170	734 209
	370 CFM/ton	CFM Watts	937/1072 80/118	942/956 129/139	946/823 179/151	947/655 227/155	944/458 273/155	350 CFM/ton	CFM Watts	889 76	892 123	894 169	894 215	890 259
	400 CFM/ton	CFM Watts	1006/1136 95/138	1014/1027 148/159	1020/903 201/173	1022/760 253/178	1019/586 302/177	400 CFM/ton	CFM Watts	1006 103	1016 156	1018 209	1019 160	1016 308
	450 CFM/ton	CFM Watts	1122/1247 125/176	1135/1146 185/200	1143/1035 245/216	1146/911 303/224	1142/768 357/223	450 CFM/ton	CFM Watts	1124 136	1135 196	1142 256	1144 313	1140 366
	290 CFM/ton	CFM Watts	885/1026 70/106	889/904 116/125	891/763 163/136	892/590 209/139	889/341 254/143	290 CFM/ton	CFM Watts	884 75	887 121	889 168	889 214	885 257
3 tons	370 CFM/ton	CFM Watts	1108/1233 121/171	1120/1132 181/195	1128/1019 240/210	1131/893 297/218	1128/747 350/217	350 CFM/ton	CFM Watts	1053 115	1062 171	1067 227	1069 280	1066 330
	400 CFM/ton	CFM Watts	1194/1316 147/204	1208/1220 212/229	1218/1115 276/246	1221/999 337/255	1215/868 393/256	400 CFM/ton	CFM Watts	1196 160	1209 225	1218 289	1219 349	1212 403
	450 CFM/ton	CFM Watts	1343/1463 200/272	1361/1374 275/300	1371/1279 348/320	1368/1175 413/331	1352/1061 469/334	450 CFM/ton	CFM Watts	1347 220	1363 295	1371 367	1366 430	1342 480
	290 CFM/ton	CFM Watts	1020/1149 99/142	1028/1041 152/164	1034/919 206/178	1037/779 259/183	1034/609 308/182	290 CFM/ton	CFM Watts	1020 107	1028 160	1033 214	1173 327	1031 315
	370 + CFM/ton	CFM Watts	1287/1408 179/245	1304/1317 250/272	1314/1218 320/291	1315/1110 384/301	1304/981 441/303	350 CFM/ton	CFM Watts	1220 169	1234 236	1243 301	1244 362	1236 417
3.5 tons †	400 CFM/ton	CFM Watts	1395/1514 221/299	1413/1427 300/328	1421/1334 374/348	1415/1233 440/361	1369/1124 480/364	400 + CFM/ton	CFM Watts	1440 244	1416 322	1421 395	1411 458	1355 475
	450 CFM/ton	CFM Watts	1584/1687 313/405	1593/1605 399/435	1576/1518 467/458	1474/1425 477/472	1350/1326 468/477	450 CFM/ton	CFM Watts	1589 347	1592 428	1545 474	1434 473	1315 463
	290 CFM/ton	CFM Watts	1156/1302 135/197	1169/1205 197/222	1178/1098 259/239	1181/981 319/248	1174/848 383/249	290 CFM/ton	CFM Watts	1157 147	1169 209	1177 271	1179 330	1174 383
	370 CFM/ton	CFM Watts	1487/1618 288/359	1500/1534 369/389	1496/1445 441/411	1445/1350 481/425	1319/1248 470/429	350 CFM/ton	CFM Watts	1400 244	1416 322	1421 395	1411 458	1335 475
	400 CFM/ton	CFM Watts	1616/1728 363/433	1614/1646 443/464	1543/1543 475/475	1423/1423 472/472	1301/1301 463/463	400 CFM/ton	CFM Watts	1615 363	1615 444	1545 474	1431 471	1313 462
4 tons	450 CFM/ton	CFM Watts	1711/1711 432/432	1621/1621 456/456	1514/1514 465/465	1393/1393 460/460	1273/1273 453/453	450 CFM/ton	CFM Watts	1716 430	1629 453	1528 462	1411 458	1297 452

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.35" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0C42 Minimum Heating Airflow Settings

MODEL NO.	BAYEAC04BK1 BAYEAC04LG1 BAYEAC05BK1 BAYEAC05LG1	BAYEAC08BK1 BAYEAC08LG1	BAYEAC10BK1 BAYEAC10LG1	BAYEAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1
TAM9A0C42	978/1093	978/1380	1035/1380	920/1093	1035/1438	1150/1495	1380/1610

WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE

Air Flow Performance Tables

TAM9A0C48 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE													
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)				HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7			0.9	0.1	0.3	0.5	0.7
3 tons	290 CFM/ton	CFM Watts	894 / 1018 69 / 91	900 / 897 114 / 114	896 / 767 157 / 130	886 / 622 195 / 137	871 / 445 229 / 136	290 CFM/ton	CFM Watts	893 / 900 72 / 118	883 / 893 159 / 197	864 / 230	
	350 CFM/ton	CFM Watts	1067 / 1180 106 / 132	1073 / 1078 158 / 160	1072 / 972 208 / 180	1065 / 859 252 / 192	1053 / 738 292 / 194	350 CFM/ton	CFM Watts	1068 / 1073 112 / 164	1070 / 1062 257 / 295	1049 / 295	
	400 CFM/ton	CFM Watts	1205 / 1314 145 / 176	1212 / 1222 203 / 206	1213 / 1128 259 / 220	1208 / 1029 309 / 244	1199 / 926 354 / 249	400 CFM/ton	CFM Watts	1207 / 1212 154 / 212	1212 / 1206 315 / 359	1196 / 359	
	450 CFM/ton	CFM Watts	1343 / 1451 193 / 232	1352 / 1367 259 / 264	1355 / 1280 320 / 289	1353 / 1190 377 / 305	1346 / 1098 427 / 313	450 CFM/ton	CFM Watts	1344 / 1352 206 / 270	1352 / 1344 331 / 387	1344 / 436	
	290 CFM/ton	CFM Watts	1034 / 1149 98 / 123	1041 / 1044 149 / 150	1038 / 934 197 / 170	1031 / 817 240 / 181	1018 / 690 279 / 182	290 CFM/ton	CFM Watts	1034 / 1040 103 / 154	1037 / 1028 202 / 244	1014 / 281	
	350 CFM/ton	CFM Watts	1228 / 1336 152 / 185	1235 / 1246 212 / 215	1236 / 1153 268 / 238	1232 / 1056 319 / 253	1224 / 955 365 / 259	350 CFM/ton	CFM Watts	1229 / 1235 162 / 221	1236 / 1230 276 / 326	1220 / 371	
3.5 tons	400 CFM/ton	CFM Watts	1389 / 1498 212 / 253	1399 / 1415 280 / 286	1403 / 1331 343 / 311	1401 / 1244 402 / 328	1395 / 1154 455 / 336	400 CFM/ton	CFM Watts	1392 / 1400 226 / 293	1403 / 1400 356 / 413	1394 / 465	
	450 CFM/ton	CFM Watts	1558 / 1669 290 / 343	1570 / 1592 367 / 377	1575 / 1514 439 / 404	1575 / 1434 505 / 422	1568 / 1351 563 / 432	450 CFM/ton	CFM Watts	1561 / 1572 310 / 386	1576 / 1574 457 / 521	1567 / 577	
	290 CFM/ton	CFM Watts	1168 / 1298 133 / 170	1175 / 1205 191 / 200	1175 / 1109 244 / 223	1170 / 1010 293 / 237	1160 / 905 336 / 242	290 CFM/ton	CFM Watts	1168 / 1176 141 / 198	1174 / 1168 251 / 299	1157 / 341	
	350 † CFM/ton	CFM Watts	1389 / 1517 212 / 262	1399 / 1436 280 / 295	1403 / 1352 343 / 321	1401 / 1266 402 / 338	1395 / 1177 455 / 346	350 CFM/ton	CFM Watts	1392 / 1400 226 / 293	1403 / 1400 356 / 413	1394 / 465	
	400 CFM/ton	CFM Watts	1583 / 1714 303 / 370	1595 / 1639 382 / 546	1601 / 1562 455 / 431	1600 / 1483 521 / 450	1593 / 1401 580 / 459	400 † CFM/ton	CFM Watts	1586 / 1597 325 / 402	1601 / 1599 474 / 538	1591 / 595	
	450 CFM/ton	CFM Watts	1790 / 1918 429 / 511	1800 / 184 8515 / 546	1808 / 1775 594 / 573	1793 / 1701 663 / 592	1698 / 1625 660 / 601	450 CFM/ton	CFM Watts	1794 / 1801 459 / 544	1800 / 1766 620 / 665	1667 / 655	
4.5 tons**	290 CFM/ton	CFM Watts	1301 / 1429 177 / 222	1310 / 1344 241 / 253	1312 / 1256 300 / 278	1309 / 1165 355 / 294	1302 / 1071 404 / 302	290 CFM/ton	CFM Watts	1302 / 1310 189 / 252	1311 / 1309 355 / 403	1301 / 403	
	350 CFM/ton	CFM Watts	1558 / 1688 290 / 354	1570 / 1613 367 / 389	1575 / 1535 439 / 415	1575 / 1455 505 / 434	1568 / 1373 563 / 444	350 CFM/ton	CFM Watts	1557 / 1570 290 / 367	1575 / 1575 439 / 505	1569 / 563	
	400 CFM/ton	CFM Watts	1790 / 1918 429 / 511	1800 / 1848 515 / 546	1801 / 1775 594 / 573	1793 / 1701 663 / 592	1698 / 1625 660 / 601	400 CFM/ton	CFM Watts	1789 / 1799 428 / 515	1801 / 1794 663 / 659	1701 / 659	
	450 CFM/ton	CFM Watts	2018 / 2018 605 / 605	1973 / 1973 656 / 656	1857 / 1857 645 / 645	1749 / 1749 637 / 637	1651 / 1651 631 / 631	450 CFM/ton	CFM Watts	2018 / 1975 605 / 605	1863 / 1757 643 / 634	1660 / 628	
	<ul style="list-style-type: none"> † Factory Setting ** Not an actual OD size Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower. Torque mode will reduce airflow when static is above approximately 0.4" water column. 												
	TAM9A0C48 Minimum Heating Airflow Settings												
MODEL NO.	BAYEAC04BK1 BAYEAC04LG1 BAYEAC05BK1 BAYEAC05LG1	BAYEAC08BK1 BAYEAC08LG1	BAYEAC10BK1 BAYEAC10LG1	BAYEAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1	BAYEACC25BK1					
TAM9A0C48	1063 / 1188	1063 / 1500	1125 / 1500	1000 / 1188	1125 / 1563	1250 / 1625	1500 / 1750	1625 / 1813					
WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE													

TAM9A0C60 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
3.5 tons	290	CFM	1040/1151	1068/1056	1075/941	1066/799	1046/607	290	CFM	1039	1065	1071	1063	1045
	CFM/ton	Watts	94/119	151/148	203/168	247/175	283/165	CFM/ton	Watts	95	151	203	247	283
	370	CFM	1312/1343	1332/1264	1336/1174	1329/1068	1314/945	350	CFM	1247	1266	1270	1263	1248
	CFM/ton	Watts	171/178	236/210	296/235	349/250	392/251	CFM/ton	Watts	150	213	270	321	363
	400	CFM	1408/1496	1425/1426	1429/1346	1423/1256	1410/1154	400	CFM	1407	1423	1426	1421	1409
	CFM/ton	Watts	206/238	274/273	337/301	393/319	440/325	CFM/ton	Watts	206	274	337	392	439
	450	CFM	1565/1650	1579/1585	1584/1512	1580/1432	1569/1343	450	CFM	1564	1578	1582	1578	1569
	CFM/ton	Watts	274/312	348/348	416/378	477/398	529/407	CFM/ton	Watts	274	348	416	476	529
	290	CFM	1186/1304	1208/1223	1213/1128	1206/1018	1189/887	290	CFM	1185	1206	1210	1203	1187
	CFM/ton	Watts	131/164	192/196	248/220	297/234	337/233	CFM/ton	Watts	131	192	248	297	337
4 tons	370	CFM	1480/1514	1495/1444	1499/1365	1495/1277	1482/1177	350	CFM	1407	1423	1426	1421	1409
	CFM/ton	Watts	235/245	306/280	372/308	430/327	479/334	CFM/ton	Watts	206	274	337	392	439
	400	CFM	1587/1689	1602/1625	1606/1554	1602/1475	1592/1399	400	CFM	1587	1600	1604	1601	1592
	CFM/ton	Watts	285/332	360/369	429/399	490/420	543/430	CFM/ton	Watts	285	360	428	490	543
	450	CFM	1770/1873	1784/1813	1789/1747	1788/1675	1782/1597	450	CFM	1770	1783	1788	1788	1782
	CFM/ton	Watts	386/443	468/481	543/512	612/534	671/546	CFM/ton	Watts	385	467	543	611	671
	290	CFM	1322/1431	1340/1358	1345/1274	1338/1179	1323/1069	290	CFM	1321	1338	1342	1336	1322
	CFM/ton	Watts	174/211	240/245	300/271	353/288	397/292	CFM/ton	Watts	174	240	300	352	396
	370 †	CFM	1646/1667	1660/1602	1665/1530	1662/1451	1653/1363	350	CFM	1564	1578	1582	1578	1569
	CFM/ton	Watts	315/320	392/357	463/386	527/407	582/417	CFM/ton	Watts	274	348	416	476	529
4.5 tons **†	400	CFM	1770/1873	1784/1813	1789/1747	1788/1675	1781/1597	400 †	CFM	1770	1783	1788	1788	1782
	CFM/ton	Watts	386/443	468/481	543/512	612/534	671/546	CFM/ton	Watts	385	467	543	611	671
	450	CFM	1989/2099	2004/2042	2012/1980	2013/1913	2009/1842	450	CFM	1989	2003	2011	2014	2011
	CFM/ton	Watts	535/612	627/650	712/681	788/703	855/716	CFM/ton	Watts	534	626	711	788	856
	290	CFM	1452/1557	1469/1489	1473/1413	1468/1327	1455/1231	290	CFM	1452	1467	1471	1466	1454
	CFM/ton	Watts	224/265	294/301	358/329	415/348	463/356	CFM/ton	Watts	224	294	358	415	463
	370	CFM	1817/1826	1831/1765	1837/1698	1837/1624	1831/1544	350	CFM	1723	1736	1741	1740	1734
	CFM/ton	Watts	415/451	499/451	576/481	647/503	708/515	CFM/ton	Watts	357	437	511	578	636
	400	CFM	1964/2073	1978/2015	1986/1953	1987/1886	1983/1814	400	CFM	1964	1978	1985	1988	1985
	CFM/ton	Watts	516/590	607/629	690/660	766/682	832/695	CFM/ton	Watts	515	606	690	766	833
5 tons	450	CFM	2231/2347	2245/2292	2252/2233	2252/2171	2185/2104	450	CFM	2232	2245	2252	2252	2186
	CFM/ton	Watts	741/842	842/879	934/908	1015/930	1024/941	CFM/ton	Watts	741	842	934	1016	1023
	<ul style="list-style-type: none"> † Factory Setting ** Not an actual OD size Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower. Torque mode will reduce airflow when static is above approximately 0.4" water column. If the air handler is applied in downflow or horizontal configurations, the airflow should not exceed 2000 CFM. Airflow above 2000 CFM could result in water blow-off. All heating modes default to Constant CFM. Cooling airflow values are with wet coil, no filter. 													
	TAM9A0C60 MINIMUM HEATING AIRFLOW CFM — HEATER MATRIX													
	MODEL NO.	BAYEAC04BK1	BAYEAC08BK1	BAYEAC10BK1	BAYEAC10LG1	BAYEAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1	BAYEACC25BK1				
	TAM9A0C60	1063 / 1188	1063 / 1500	1125 / 1500	1000 / 1188	1125 / 1500	1125 / 1563	1250 / 1625	1500 / 1750	1625 / 1813				
	WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE													

Heater Attribute Data

Note: Heater size must be set in Configuration Menu.

TAM9A0A24V21DB											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	4.1 **	5	15	-	-	4.1 **	5	15
BAYEAAC04+++1	1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYEAAC05+++1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYEAAC08+++1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	40	40
BAYEAAC10+++1 (a)	1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	34	35	7.20	24600	20.0	30	30

Note: ** Motor Amps

(a) Heater not qualified for 208V when installed in horizontal left position without Heat Pump

TAM9A0B30V31DB											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	4.1 **	5	15	-	-	4.1 **	5	15
BAYEAAC04+++1	1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYEAAC05+++1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYEAAC08+++1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	40	40
BAYEAAC10+++1	1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	34	35	7.20	24600	20.0	30	30
BAYEABC15LG3	1-3 PH	14.4-0	42000	34.6	48	50	10.80	36900	30.0	43	45
BAYEABC15BK1 - Circuit 1 (a)	2	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEABC15BK1 - Circuit 2		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

Note: ** Motor Amps

(a) MCA and MOP for circuit 1 contains the motor amps

Heater Attribute Data

TAM9A0C36V31DB											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	4.1 **	5	15	-	-	4.1 **	5	15
BAYEAAC04++1	1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYEAAC05++1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYEAAC08++1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	40	40
BAYEAAC10++1	1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	34	35	7.20	24600	20.0	30	30
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	48	50	10.80	36900	30.0	43	45
BAYEABC15BK1 - Circuit 1 ^(a) BAYEABC15BK1 - Circuit 2	2	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEABC20BK1 - Circuit 1 ^(a) BAYEABC20BK1 - Circuit 2	2	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45

Note: ** Motor Amps

^(a) MCA and MOP for circuit 1 contains the motor amps

TAM9A0C42V41DB											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	4.1 **	5	15	-	-	4.1 **	5	15
BAYEAAC04++1	1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYEAAC05++1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYEAAC08++1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	40	40
BAYEAAC10++1	1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	34	35	7.20	24600	20.0	30	30
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	48	50	10.80	36900	30.0	43	45
BAYEABC15BK1 - Circuit 1 ^(a) BAYEABC15BK1 - Circuit 2	2	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEABC20BK1 - Circuit 1 ^(a) BAYEABC20BK1 - Circuit 2	2	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45

Note: ** Motor Amps

^(a) MCA and MOP for circuit 1 contains the motor amps

Heater Attribute Data

TAM9A0C48V41DB											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	6.1 **	8	15	-	-	6.1 **	8	15
BAYEAAC04++1	1	3.84	13100	16.0	28	30	2.88	9800	13.8	25	25
BAYEAAC05++1	1	4.80	16400	20.0	33	35	3.60	12300	17.3	29	30
BAYEAAC08++1	1	7.68	26200	32.0	48	50	5.76	19700	27.7	42	45
BAYEAAC10++1	1	9.60	32800	40.0	58	60	7.20	24600	34.6	51	60
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	37	40	7.20	24600	20.0	33	35
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	51	60	10.80	36900	30.0	45	45
BAYEABC15BK1 - Circuit 1 (a) BAYEABC15BK1 - Circuit 2	2	9.60	32800	40.0	58	60	7.20	24600	34.6	51	60
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEABC20BK1 - Circuit 1 (a) BAYEABC20BK1 - Circuit 2	2	9.60	32800	40.0	58	60	7.20	24600	34.6	51	60
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEACC25BK1 — Circuit 1 (a) BAYEACC25BK1 — Circuit 2 BAYEACC25BK1 — Circuit 3	3	9.60	32800	40.0	58	60	7.20	24600	34.6	51	60
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

Note: ** Motor Amps

(a) MCA and MOP for circuit 1 contains the motor amps

TAM9A0C60V51DB											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	7.5 **	9	15	-	-	7.5 **	9	15
BAYEAAC04++1	1	3.84	13100	16.0	29	30	2.88	9800	13.8	27	30
BAYEAAC05++1	1	4.80	16400	20.0	34	35	3.60	12300	17.3	31	35
BAYEAAC08++1	1	7.68	26200	32.0	49	50	5.76	19700	27.7	44	45
BAYEAAC10++1	1	9.60	32800	40.0	59	60	7.20	24600	34.6	53	60
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	38	40	7.20	24600	20.0	34	35
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	53	60	10.80	36900	30.0	47	50
BAYEABC15BK1 - Circuit 1 (a) BAYEABC15BK1 - Circuit 2	2	9.60	32800	40.0	59	60	7.20	24600	34.6	53	60
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEABC20BK1 - Circuit 1 (a) BAYEABC20BK1 - Circuit 2	2	9.60	32800	40.0	59	60	7.20	24600	34.6	53	60
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEACC25BK1 (b) - Circuit 1 (a) BAYEACC25BK1 - Circuit 2 BAYEACC25BK1 - Circuit 3	3	9.60	32800	40.0	59	60	7.20	24600	34.6	53	60
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

Note: ** Motor Amps

(a) MCA and MOP for circuit 1 contains the motor amps

(b) Heater not qualified for 208V when installed in horizontal left position without Heat Pump

Note: See Product Data or Air Handler nameplate for approved combinations of Air Handlers and Heaters.

Note: Heater model numbers may have additional suffix digits.

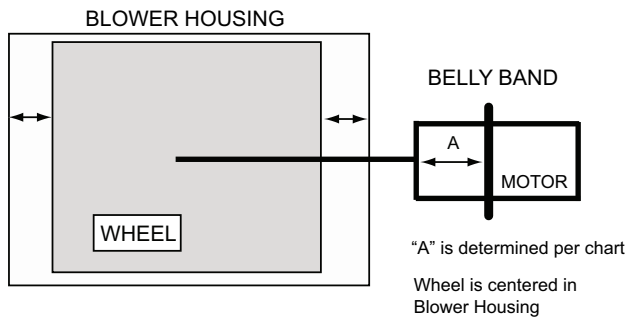
Subcooling Adjustment

System Matched with:	Indoor Unit Model No.	Outdoor Unit Model No.	Subcooling
Single Compressor 2-Stage HP	TAM9A0B30V31DB	4A6H6024E/G, 4TWX6024E/G 4A6H7024, 4TWX8024	9 °
	TAM9A0C36V31DB	4A6H6036E/G, 4TWX6036E/G 4A6H7036, 4TWX8036	10 °
	TAM9A0C48V41DB	4A6H6048E/G, 4TWX6048E/G 4A6H7048, 4TWX8048	8 °
Single Compressor 2-Stage AC	TAM9A0B30V31DB	4A7A6024E/G, 4TTX6024E/G 4A7A7024, 4TTX8024	8 °
	TAM9A0C36V31DB	4A7A6036E/G, 4TTX6036E/G 4A7A7036, 4TTX8036	8 °
	TAM9A0C48V41DB	4A7A6048E/G, 4TTX6048E/G 4A7A7048, 4TTX8048	8 °
Two Compressor 2-Stage HP	TAM9A0B30V31DB	4A6Z0024A, 4TWZ0024A,	9 °
	TAM9A0C36V31DB	4A6Z0036A/B, 4TWZ0036A/B	10 °
	TAM9A0C48V41DB	4A6Z0048A/B 4TWZ0048A/B	12 °
	TAM9A0C60V51DB	4A6Z0060A, 4TWZ0060A	12 °
Two Compressor 2-Stage AC	TAM9A0B30V31DB	4A7Z0024A, 4TTZ0024A	9 °
	TAM9A0C36V31DB	4A7Z0036A/B, 4TTZ0036A/B	11 °
	TAM9A0C48V41DB	4A7Z0048A/B, 4TTZ0048A/B	12 °

Notes:

1. Variable Speed Outdoor units must be charged per the outdoor unit instructions.
2. All other matches must be charged per the nameplate charging instructions.

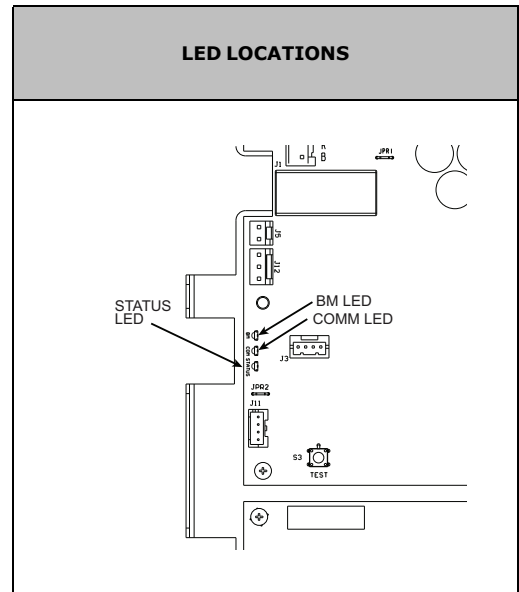
DISTANCE FROM BELLY BAND TO SHAFT FACE OF MOTOR FOR MINIMUM VIBRATION



MODEL	DIM " A "
TAM9A0A24V21DB	2-3/8
TAM9A0B30V31DB	2-3/8
TAM9A0C36V31DB	2-3/8
TAM9A0C42V41DB	2-3/8
TAM9A0C48V41DB	2-3/8
TAM9A0C60V51DB	2-3/8

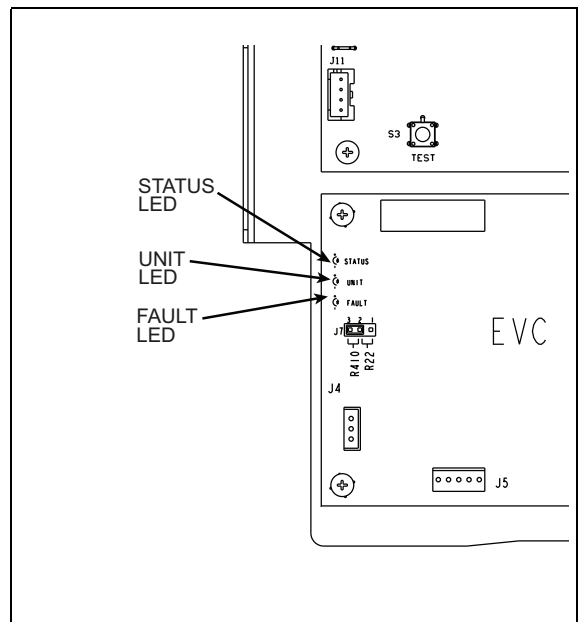
TAM9 LED Codes

AFC BM (Bit Master) LED (GREEN)	DESCRIPTION
ON in Communicating Mode Off in 24 Volt Mode	Normal Operation
AFC COMM LED (AMBER)	DESCRIPTION
Device Count in Communicating Mode Off in 24 Volt Mode	Number of communicating devices ^(a)
AFC STATUS LED (GREEN)	DESCRIPTION
On solid for 2 seconds after power up, then 1 flash per second. Reference the 7 SEG display for airflow.	Normal operation



^(a) Examples: communicating thermostat, communicating air cleaner, etc.

EVC STATUS LED (GREEN) (Non Heat Pump Systems)	DESCRIPTION
Flash	
1	Cool mode selected / No active call
2	Active call for 1st stage cooling
3	Active call for 2nd stage cooling ^(a)
EVC STATUS LED (GREEN) (Heat Pump Systems)	DESCRIPTION
Flash	
1	Cool mode selected / No active call
2	Active call for 1st stage cooling or defrost
3	Active call for 2nd stage cooling or defrost
4	Heat mode selected or Thermostat system switch off
5	Active call for 1st stage heating
6	Active call for 2nd stage heating



^(a) Single stage OD systems will report 2nd stage flash codes

EVC UNIT LED (BLUE)	DESCRIPTION
1 Flash	Normal (1 flash every 4 seconds)
Rapid	Communication Busy Error (2 flashes per second)
SOLID ON	Communications cannot be established with the AFC
OFF	No Power

EVC FAULT (RED)	DESCRIPTION	POSSIBLE CAUSES
OFF	No fault	
1	Stepper Motor coil has an open circuit or intermittent short	Faulty EEV motor / wiring harness
2	Control has detected an internal failure (Replace EEV control, EVC)	Verify EEV motor & harness resistance. EEV motor drive, motor feedback, or 12v failure
3	Evaporator Temperature Sensor (ET) input out of range (Verify resistance, 5VDC output from control) ^(a)	Sensor open / shorted, unplugged, wiring harness problem. Verify 5VDC output from control
4	Gas Temperature Sensor (GT) input out of range (Verify resistance, 5VDC output from control)	Sensor open / shorted, unplugged, wiring harness problem. Verify 5VDC output from control
5	Stepper Motor Coil is shorted ^(b)	Faulty EEV motor / wiring harness
6	Valve is not responding to a change in position. (Possible stuck valve)	Possible stuck valve, check ET/GT calibration
7	High superheat (Low charge or restriction)	System low on charge, liquid line restriction, ET/GT sensor calibration
10	Low superheat (Check airflow, possible stuck valve) ^(c)	Stuck valve, ET/GT sensor calibration, restricted distributor line that ET is connected to, check valve leaking
11	Condensate drain switch activated for 100 seconds (Check condensate switch and drain)	Condensate line clogged, clean switch
13	Indoor frost protection activated. TAM9 unit will disable all operation for 5 minutes to allow coil defrost.	Low / incorrect airflow, low refrigerant charge, ET sensor calibration. Normal for low ambient cooling
14	Internal communication fault (All operation is terminated) (Cycle power & check wire terminations)	Verify harness continuity between J2 of the EVC and J4 of the Distribution Board
15	Configuration fault (All operation is terminated) (Cycle power & check if PM error is present)	Check if PM error is present, cycle power to the unit
16	Outdoor status fault (All operation is terminated)	Cycle power to the unit, replace EVC if error persists

^(a) EEV will try to go to a safe position, cooling attempt allowed
^(b) Cooling Disabled
^(c) Cooling attempt allowed, 5 consecutive Y calls with same condition disables cooling.

7-Segment Display Fault Codes

Fault Codes can be read from the 7 segment display on the air handler AFC board.

Note: For the TAM9 air handler, all of the fault codes can be read from the CDA.

The diagram shows the AFC board layout. At the top, there are two buttons labeled 'LIST Button' and 'SELECT Button', with arrows pointing to their respective locations on the board. To the right of these buttons is a '7 Segment Display'. Below the buttons are two circular components labeled 'F1' and 'F2' with 'LIST' and 'SELECT' labels. On the left side, there is a connector labeled 'J1'. On the right side, there are several other connectors labeled 'J10', 'J7', and 'J8'. The board is labeled 'AFC' at the bottom center.

TAM9 ALERT CODE ADDENDUM

Alert Code	Alert Group	Display Assembly Text	A/TCONT900	A/TZONE 950	Notification Level	AFC Fault Code	EVC Fault Code	Code Alert Description	Possible Cause
19	Twinning fault	TWIN ERR	ERR19	ERR 19.0	Information	15		Air handler twinning error	More than one ID unit connected on the communicating bus is not allowed
90	Communication busy fault	SYS COM CRC	N/A	N/A	Information	3.3		Excessive communication errors	R & B to thermostat reversed polarity
91	Communication inactive fault	SYS COMM ERR	ERR91	ERR 91.02	Critical	3.2		Loss of Heat/Cool demand message	Open / Shorted data line / CCM communication error
91	Communication inactive fault	NO SYS CLK	ERR91	ERR 91.03	Critical	3.1		Loss of Bit Master	Control fault, replace AFC
106	External shutdown fault	EXT SW OPEN	ERR106	ERR 106.0	User Display	13		External shutdown input open error	External float switch, other device open
114	ID motor error	ID MTR ERR	ERR114	ERR 114.02	User Display	2.1		Motor HP is < than PM value (Operation not allowed)	Incorrect VS motor or PM installed
114	PM bad or missing fault	PM MISSING	ERR114	ERR 114.03	Critical	1.2		PM missing with good local copy (Operation allowed)	PM error
114	PM bad or missing fault	PM MISSING	ERR114	ERR 114.06	Critical	1.1		PM missing with no local copy (Operation not allowed)	PM error
114	ID motor error	MTR PWR HI	ERR114	ERR 114.07	User Display	2.4		Motor HP is > than PM value (Operation allowed)	Incorrect VS motor or PM installed
123	Demand configuration fault	EH CFG1 ERROR	ERR 123	ERR 123.0	User Display	6.1		Electric heat configuration error	AFC configured for zero stages of indoor heat and received a W call.
123	Demand configuration fault	EH CFG2 ERROR	ERR 123	ERR 123.0	User Display	6.2		Electric heat configuration error	AFC received a higher W request than AFC was configured for.
155	Indoor electronic expansion valve motor fault	EEV MTR ERR	ERR155	ERR 155.0	User Display	5.1	5	EEV motor fault has been detected for 8 consecutive times and valve is locked out	Faulty EEV motor / wiring harness
155	Indoor electronic expansion valve motor fault	EEV MTR ERR	ERR155	ERR 155.01	User Display	5.1	1	EEV electric motor current indicates open or short	Faulty EEV motor / wiring harness
156	System low on charge fault	SYSTEM1 ERR	ERR156	ERR 156.0	User Display	5.1	7	System 1 - High superheat	System low on charge, liquid line restriction, ET/GT sensor calibration
157	Condensate fault	CONDESAT FLT	ERR157	ERR 157.0	Critical	5.1	11	Condensate overflow condition detected on EVC	Condensate line clogged
159	Unit Bus fault	AFC COMM ERR	ERR159	ERR 159.0	Critical	4.4	14	AFC communication error	Wire harness between AFC and distribution board
159	Unit Bus fault	EVC COMM ERR	ERR159	ERR 159.03	User Display	4.2	14	EVC communication error	Wire harness between EVC and distribution board
159	Unit Bus fault	CDA COMM ERR	ERR159	ERR 159.04	Information	4.3		Display Assembly communication error	Wire harness between Display Assembly and distribution board
160	Indoor EEV control configuration error	CONFIG FLT	ERR160	ERR 160.0	User Display	5.1	15	Configuration group index or evap temperature sensor type are not configured	PM programming or internal communication error
161	Evaporator temperature sensor fault	ET SEN ERR	ERR161	ERR 161.0	User Display	5.1	3	Indoor coil temperature sensor reading is out of range, indicates open or short	Sensor open / shorted, unplugged, wiring harness problem
161	Gas temperature sensor fault	GT SEN ERR	ERR161	ERR 161.01	User Display	5.1	4	Indoor coil temperature sensor reading is out of range, indicates open or short	Sensor open / shorted, unplugged, wiring harness problem

TAM9 ALERT CODE ADDENDUM

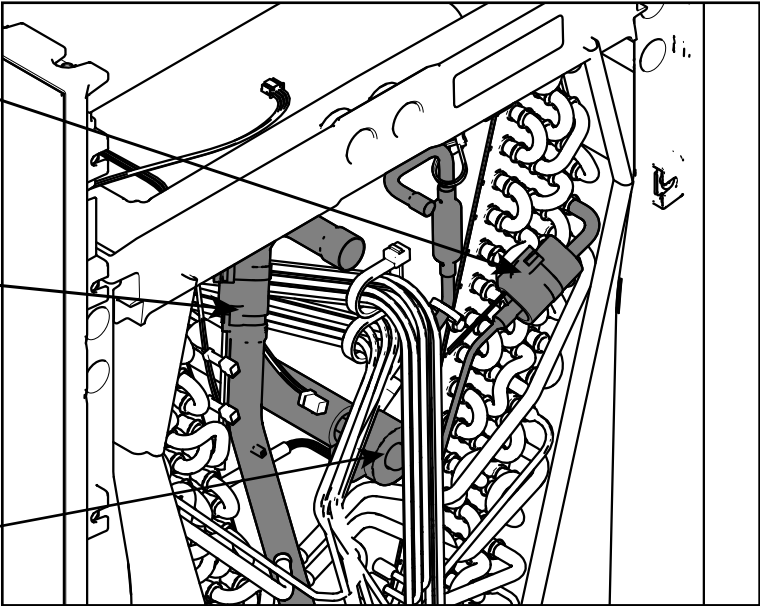
Alert Code	Alert Group	Display Assembly Text	A/TCONT900	A/TZONE 950	Notification Level	AFC Fault Code	EVC Fault Code	Code Alert Description	Possible Cause
163	Indoor EEV control fault	EEV CNTL FLT	ERR163	ERR 163.0	User Display	5.1	2	EEV electric motor drive or feedback or 12 V failure detected	EEV motor drive or motor feedback or 12v failure, wiring harness
164	Indoor EEV fault	EEV CLSE ERR	ERR164	ERR 164.0	User Display	5.1	6	EEV migrated to 'Close' position but superheat is not at the desired set point, valve is not responding to a change in position	Possible stuck valve, ET/GT sensor calibration
164	Indoor electronic expansion Valve fault	EEV OPEN ERR	ERR164	ERR 164.01	User Display	5.1	6	EEV migrated to 'Open' position but superheat is not at the desired set point, valve is not responding to a change in position Possible	Possible stuck valve, ET/GT sensor calibration
166	Superheat is flooding fault	SYSTEM4 ERR	ERR166	ERR 166.0	User Display	5.1	10	System 4 - Low superheat	Stuck valve, ET/GT sensor calibration, restricted distributor line that ET is connected to. leaking indoor check valve
167	Indoor electronic expansion valve control is not controlling because outdoor status is unknown	OD DATA MISS	ERR167	ERR 167.0	User Display	5.1	16	OD status unknown to EVC	If Comm LED on OD unit is flashing the correct device count, replace AFC
171	Communication inactive fault	BLW COMM ERR	ERR171	ERR 171.0	Critical	2.2		Blower Communication is not detected	Faulty wiring harness, VS motor
172	Display Assembly stuck key	KEY FAULT	ERR172	ERR 172.0	User Display	5.2		Display Assembly has a stuck key	Faulty Display Assembly
Notes: <ol style="list-style-type: none"> 1. COMM LED (amber) will flash the number of communicating devices connected. 2. BM LED should be ON Solid when power is applied. 3. STATUS LED will be on solid for 2 seconds after power up, then flash once per second in normal operation. Reference the 7 SEG display for air flow. 4. UNIT LED (blue) will flash once every four seconds when communications are normal. 5. All tables and charts refer to the CDA menus. 6. The AFC board has a 7 segment display. 									

Sensor Locations

Evaporator Temperature
Sensor (ET)
- located on 3/8" Aluminum
distributor tube
(orange wires)

Gas Temperature
Sensor (GT)
- located on copper
section of manifold
(black wires)

EEV Stepper Motor



Stepper Motor Tables

— For use with Low and High Superheat Troubleshooting

Table 1 — For use with FIG 1		
Common Terminal	to Terminal	Measurement
Gray	Orange	46 ohms
Gray	Red	46 ohms
Gray	Yellow	46 ohms
Gray	Black	46 ohms

Table 2— For use with FIG 2		
Common Terminal	to Terminal	Measurement
Brown	Blue	46 ohms
Brown	Yellow	46 ohms
Red	Orange	46 ohms
Red	White	46 ohms

FIG 1

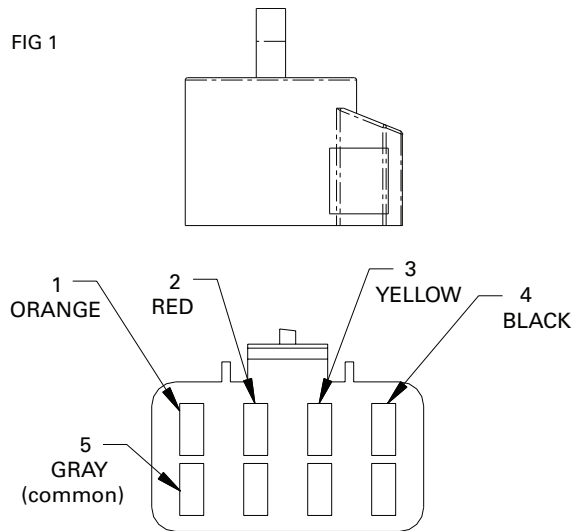
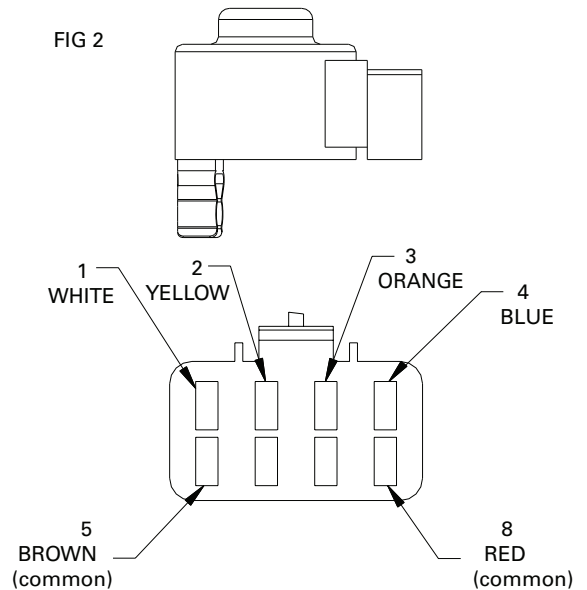


FIG 2



EEV TEST OPTIONS

Electronic Expansion Valve Test Option 1

Access the Unit Test option through Display Assembly under the Control Menu.

Electronic Expansion Valve Test Option 2

Note: Close Valve and Open Valve Tests are active in any mode of operation

Test Pins: OPEN, CLOSE, TEST (See J4 on EVC Board)

Close Valve Test - Touch CLOSE pin to TEST pin.

EEV drives closed (5 seconds max) and stays closed for 1.5 minutes (90 seconds).

- 1) Status LED will be flashing.
 - 2) Gauges should indicate suction pressure dropping.
- Valve is working.
 - LPCO may trip.

Note: : *The Close Valve Test will exit after 1.5 minutes (90 seconds) and will not reinitiate (requires a break and make to initialize). To clear faults stored in memory, apply a jumper between Close and Test pins for 10 seconds.*

Open Valve Test - Touch OPEN pin to TEST pin.

EEV drives open (5 sec max) and stays open for 30 seconds.

1. 1) Status LED will be flashing.
 2. Temperature probe should indicate superheat falling.
- Valve is working.

Note: : *If jumper is left on pins, the OPEN VALVE TEST will be cleared after 30 seconds and will not reinitiate (requires a break and make to reinitialize).*

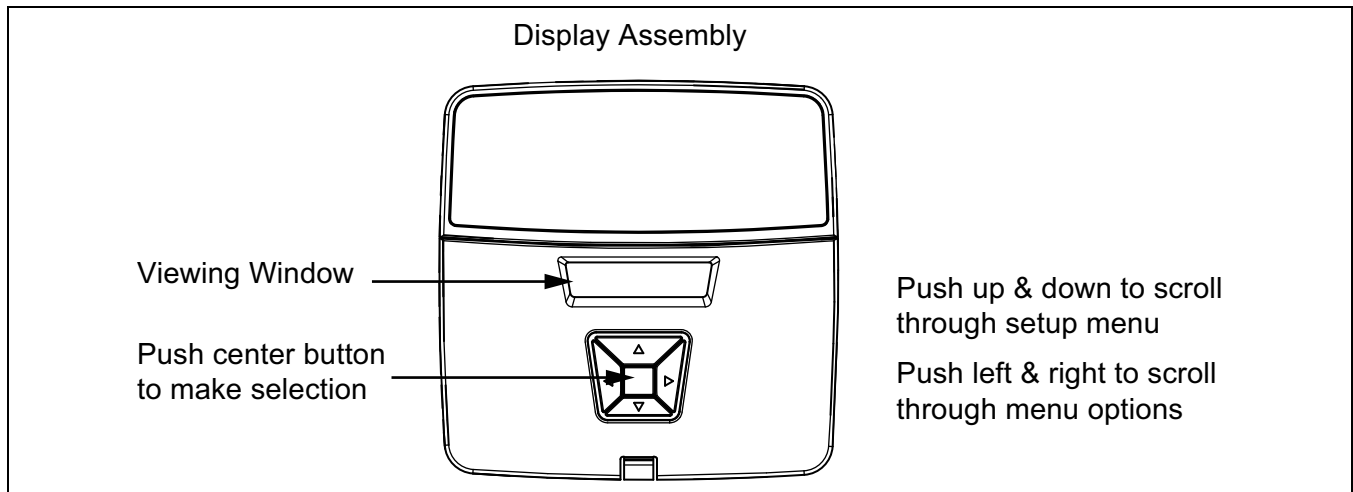
Exit Test Mode - The Open Valve Test or Closed Valve Test can be cancelled by momentarily jumping to the opposite mode Test pin. The system will return to normal super heat control.

ET / GT and Supply Air Temperature Sensor

Table 14. Thermal Resistance and Voltage Table

TEMP F	TEMP C	THERMISTOR RESISTANCE (OHMS) *	Volts DC at plug J3 EVAP TEMP (ET) Orange to Orange GAS TEMP (GT) Black to Black	TEMP F	TEMP C	THERMISTOR RESISTANCE (OHMS) *	Volts DC at plug J3 EVAP TEMP (ET) Orange to Orange GAS TEMP (GT) Black to Black	TEMP F	TEMP C	THERMISTOR RESISTANCE (OHMS) *	Volts DC at plug J3 EVAP TEMP (ET) Orange to Orange GAS TEMP (GT) Black to Black
20	-6.67	45075.79	1.89	64	17.78	13476.21	1.17	108	42.22	4752.65	0.50
21	-6.11	43763.76	1.88	65	18.33	13138.29	1.15	109	42.78	4649.14	0.49
22	-5.56	42494.36	1.88	66	18.89	12809.93	1.13	110	43.33	4548.19	0.48
23	-5.00	41266.06	1.87	67	19.44	12490.82	1.11	111	43.89	4449.73	0.47
24	-4.44	40077.41	1.86	68	20.00	12180.67	1.09	112	44.44	4353.70	0.46
25	-3.89	38926.99	1.85	69	20.56	11878.94	1.07	113	45.00	4260.02	0.45
26	-3.33	37813.46	1.84	70	21.11	11585.67	1.06	114	45.56	4168.63	0.44
27	-2.78	36735.53	1.83	71	21.67	11300.63	1.04	115	46.11	4079.48	0.43
28	-2.22	35691.94	1.82	72	22.22	11023.53	1.02	116	46.67	3992.49	0.42
29	-1.67	34681.49	1.81	73	22.78	10754.14	1.00	117	47.00	3907.61	0.41
30	-1.11	33703.02	1.79	74	23.33	10492.21	0.98	118	47.88	3824.78	0.40
31	-0.56	32755.43	1.78	75	23.89	10237.51	0.96	119	48.33	3743.96	0.40
32	0.00	31837.65	1.77	76	24.44	9989.83	0.95	120	48.89	3665.67	0.39
33	0.56	30948.64	1.75	77	25.00	9748.93	0.93	121	49.44	3588.08	0.38
34	1.11	30087.41	1.74	78	25.56	9514.63	0.91	122	50.00	3512.92	0.37
35	1.67	29253.02	1.72	79	26.11	9287.72	0.89	123	50.56	3439.56	0.36
36	2.22	28444.53	1.71	80	26.67	9064.99	0.88	124	51.11	3367.95	0.36
37	2.78	27661.07	1.69	81	27.22	8849.27	0.86	125	51.67	3298.03	0.35
38	3.33	26901.79	1.67	82	27.78	8639.38	0.84	126	52.22	3229.76	0.34
39	3.89	26165.86	1.66	83	28.33	8435.31	0.83	127	52.78	3163.10	0.34
40	4.44	25452.49	1.64	84	28.89	8236.36	0.81	128	53.33	3098.01	0.33
41	5.00	24760.93	1.62	85	29.44	8042.90	0.80	129	53.89	3031.44	0.32
42	5.56	24090.44	1.60	86	30.00	7854.60	0.78	130	54.44	2972.36	0.31
43	6.11	23440.31	1.58	87	30.56	7671.30	0.77	131	55.00	2911.73	0.31
44	6.67	22809.87	1.57	88	31.11	7492.86	0.75	132	55.56	2852.50	0.30
45	7.22	22198.45	1.55	89	31.67	7319.12	0.74	133	56.11	2794.65	0.30
46	7.78	21605.43	1.53	90	32.22	7149.96	0.72	134	56.67	2738.13	0.29
47	8.33	21030.19	1.51	91	32.78	6985.24	0.71	135	57.22	2682.92	0.28
48	8.89	20472.15	1.49	92	33.33	6824.82	0.69	136	57.78	2928.98	0.28
49	9.44	19930.75	1.47	93	33.89	6668.58	0.68	137	58.33	2576.27	0.27
50	10.00	19405.43	1.45	94	34.44	6516.41	0.67	138	58.89	2524.77	0.27
51	10.56	18895.66	1.43	95	35.00	6368.17	0.65	139	59.44	2474.44	0.26
52	11.11	18400.95	1.41	96	35.56	6223.77	0.64	140	60.00	2425.25	0.26
53	11.67	17920.80	1.39	97	36.11	6083.08	0.63	141	60.56	2377.18	0.25
54	12.22	17454.74	1.37	98	36.67	5946.01	0.61	142	61.11	2330.20	0.25
55	12.78	17002.31	1.35	99	37.22	5812.44	0.60	143	61.67	2284.27	0.24
56	13.33	16563.08	1.33	100	37.78	5682.28	0.59	144	62.22	2239.38	0.24
57	13.89	16136.61	1.31	101	38.33	5555.43	0.58	145	62.78	2195.49	0.23
58	14.44	15622.51	1.29	102	38.89	5431.80	0.56	146	63.33	2152.59	0.23
59	15.00	15320.36	1.27	103	39.44	5311.29	0.55	147	63.89	2110.64	0.22
60	15.56	41929.80	1.25	104	40.00	5193.82	0.54	148	64.44	2069.63	0.22
61	16.11	14550.46	1.23	105	40.56	5079.31	0.53	149	65.00	2029.52	0.21
62	16.67	14181.97	1.21	106	41.11	4967.66	0.52	150	65.56	1990.31	—
63	17.22	13824.00	1.19	107	41.67	4858.80	0.51	Values should be within +/- 5%			

Display Assembly / Human Interface



Display Assembly General Notes

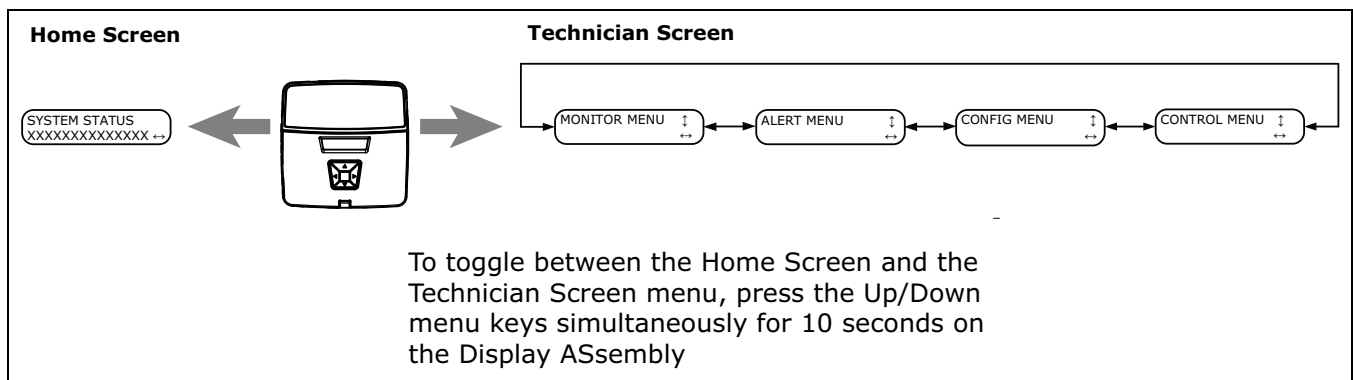
- Home Screen

- The System Status is shown continuously on the Home Screen. The System Status will alternate with fault information if there is an active fault. Low level faults do not appear on the Home Screen.

- Technician Screens

- To Enter the technician menu section, press the Up/Down menu keys simultaneously for 10 seconds.

- To Exit the technician menu section, press the Up/Down menu keys simultaneously for 10 seconds.
- To move to the top of any menu tree, press the Left/Right menu keys simultaneously for 1-2 seconds. Press the Left/Right menu keys a second time for 1-2 seconds to return to the Home Screen.
- While in a technician menu, after 5 minutes of inactivity, the Home Screen will be displayed. This time can be increased to 20 minutes by pressing the Enter menu key for 2-3 seconds.



TAM9 – Technician Menu and Configuration tree

Table 15. CDA Home Screen

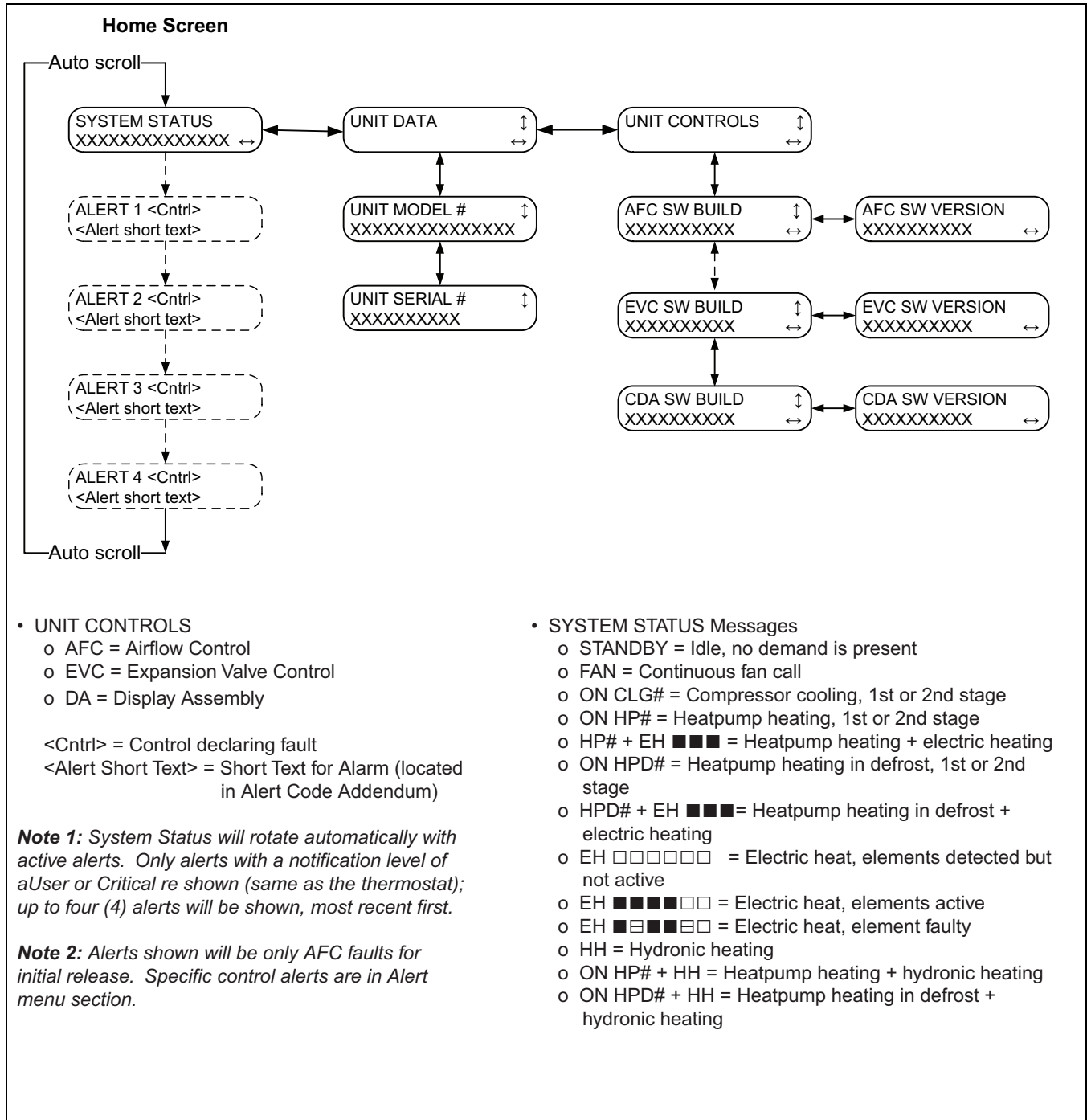


Table 16. CDA Monitor Menu

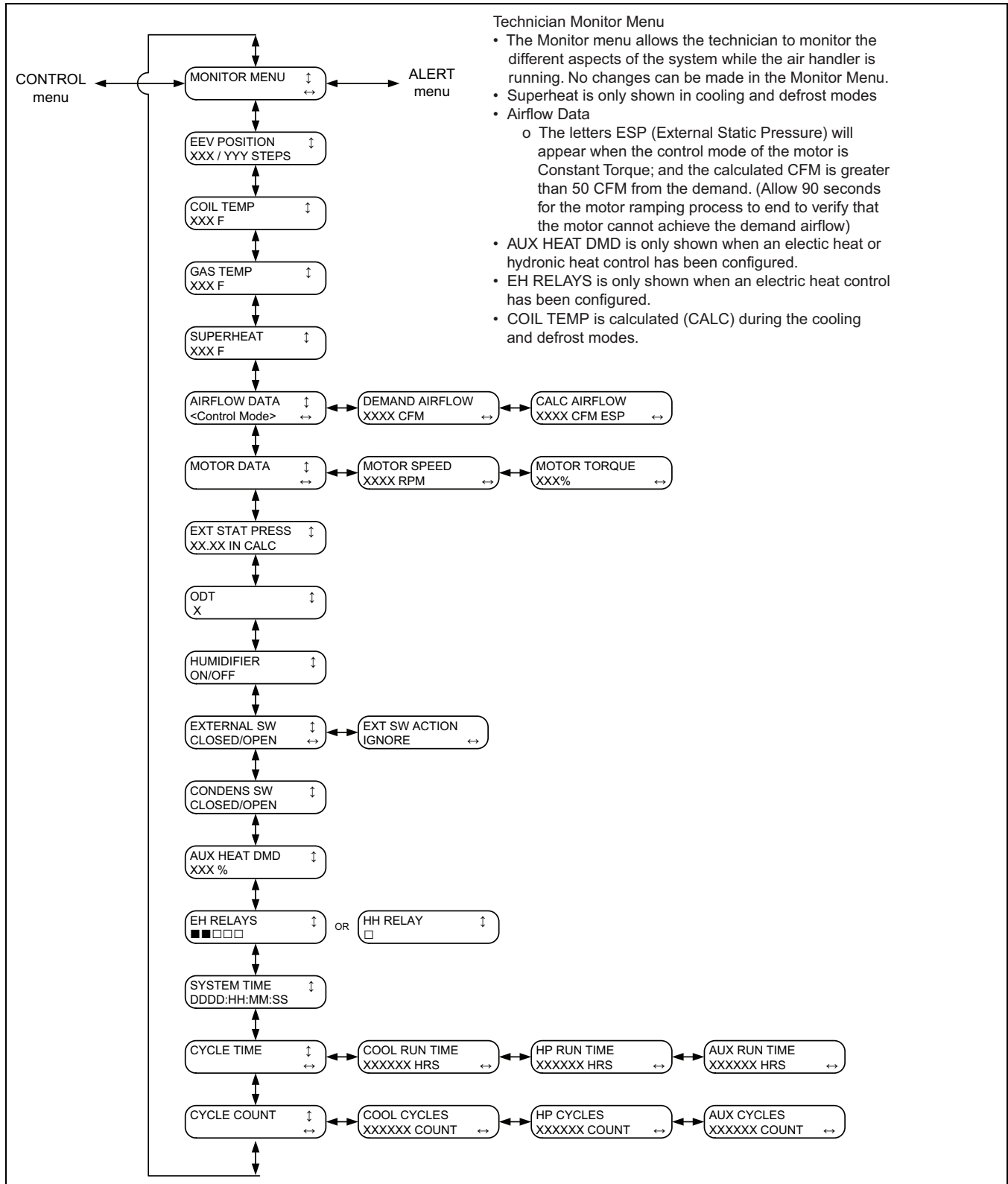
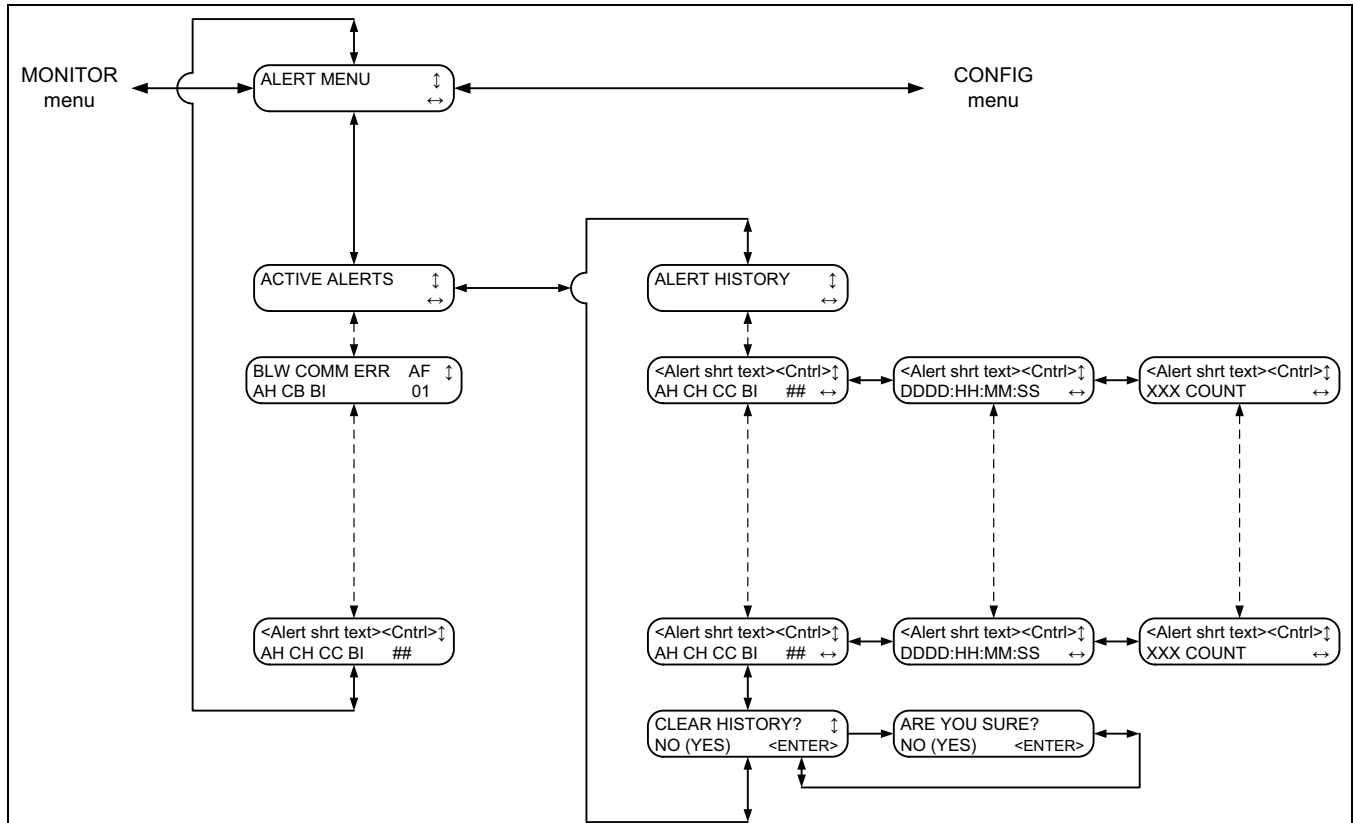


Table 17. CDA Alert Menu



- The Alert menu allows the technician to view active and historical faults that have occurred. Alerts are grouped by the control declaring the fault.
 - o AFC
 - o EVC
 - o DA
 - The first line of text contains the description of the fault and the component that reported it. The abbreviations for the components are:
 - o AF = Air Flow control
 - o EV = Expansion Valve control
 - o DA = Display Assembly
 - The second line of text contains any action that may take place because of the fault and the order that the faults occurred. Some faults will shut-down all or part of the system. See the System Actions below.
 - o AH = Auxiliary Heat is prohibited (electric or hydronic)
 - o CH = Compressor Heat is prohibited
 - o CC = Compressor Cooling is prohibited
 - o CB = Compressor Heat and Cooling is prohibited
 - o BI = Blower operation is prohibited*
 - * Applies only to states that are prohibited
 - Timestamp (DDDD:HH:MM:SS)
 - o The elapsed time the fault occurred from when the unit was installed.
 - COUNT
 - o The number of times the fault has occurred.
- Note:** When the fault history is cleared, the COUNT will also be cleared.

Table 18. CDA Config Menu

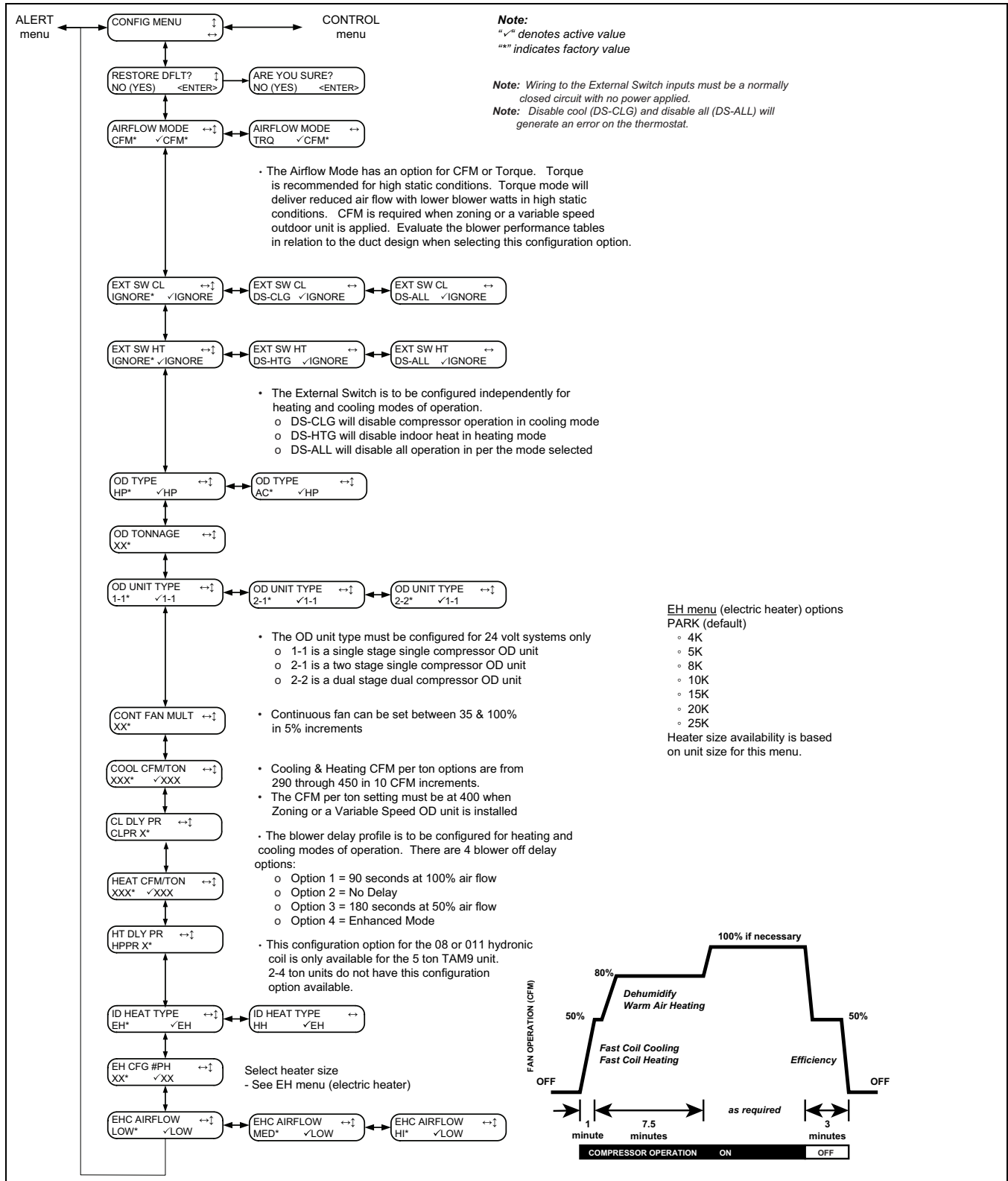
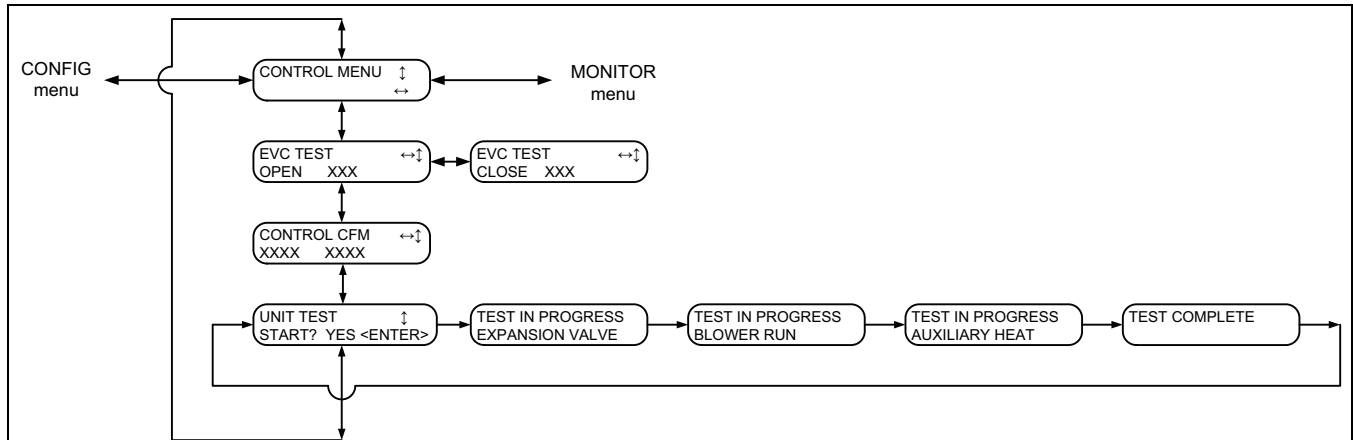


Table 19. CDA Control Menu



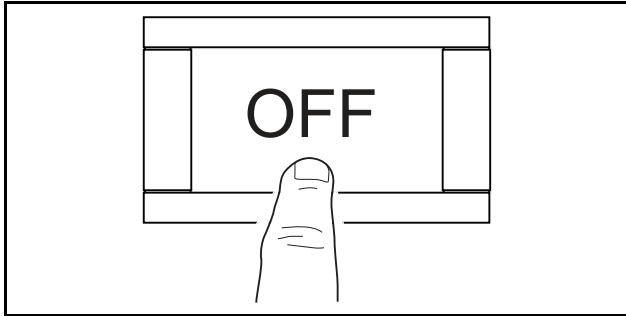
- EVC TEST: Scroll to desired test and push the <Enter> key.
 - o OPEN - When selected, the EEV will drive to the full open position (OPEN 500).
 - o CLOSE - When selected, the EEV will drive to the closed position (CLOSE 056).
- CONTROL CFM: Press <Enter> key to initiate control.
 - o First value is current selection, Second value is actual airflow.
 - o Use left or right menu keys to decrease or increase airflow in 100 CFM increments.
 - o Press ENTER to initiate new CFM demand. Actual airflow is updated every six seconds.
- UNIT TEST: Press <Enter> key to initiate test. (Unit must be in Standby or Idle mode)
 - o Once test is started, the screen update automatically and navigation is not allowed.
 - o UNIT TEST may only be interrupted by a thermostat demand or turning off the power.

NOTE: EVC TEST and/or AUX HEAT TEST will be skipped if the associated control(s) id?are not discovered.

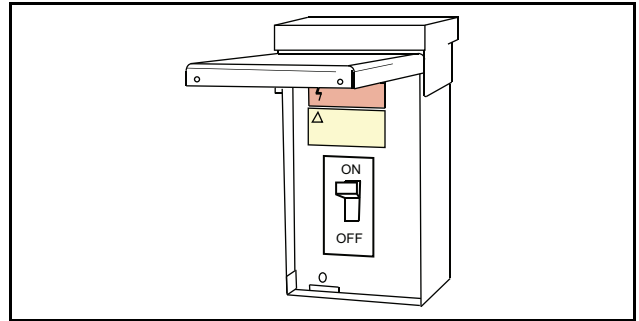
Start Up

System Start Up

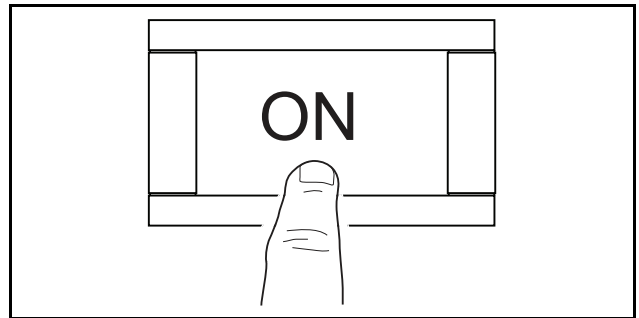
1. Make sure all panels are securely in place and that all wiring has been properly dressed and secured.
2. Set the system thermostat to OFF.



3. Turn on electrical power disconnect(s) to apply power to the indoor and outdoor units.



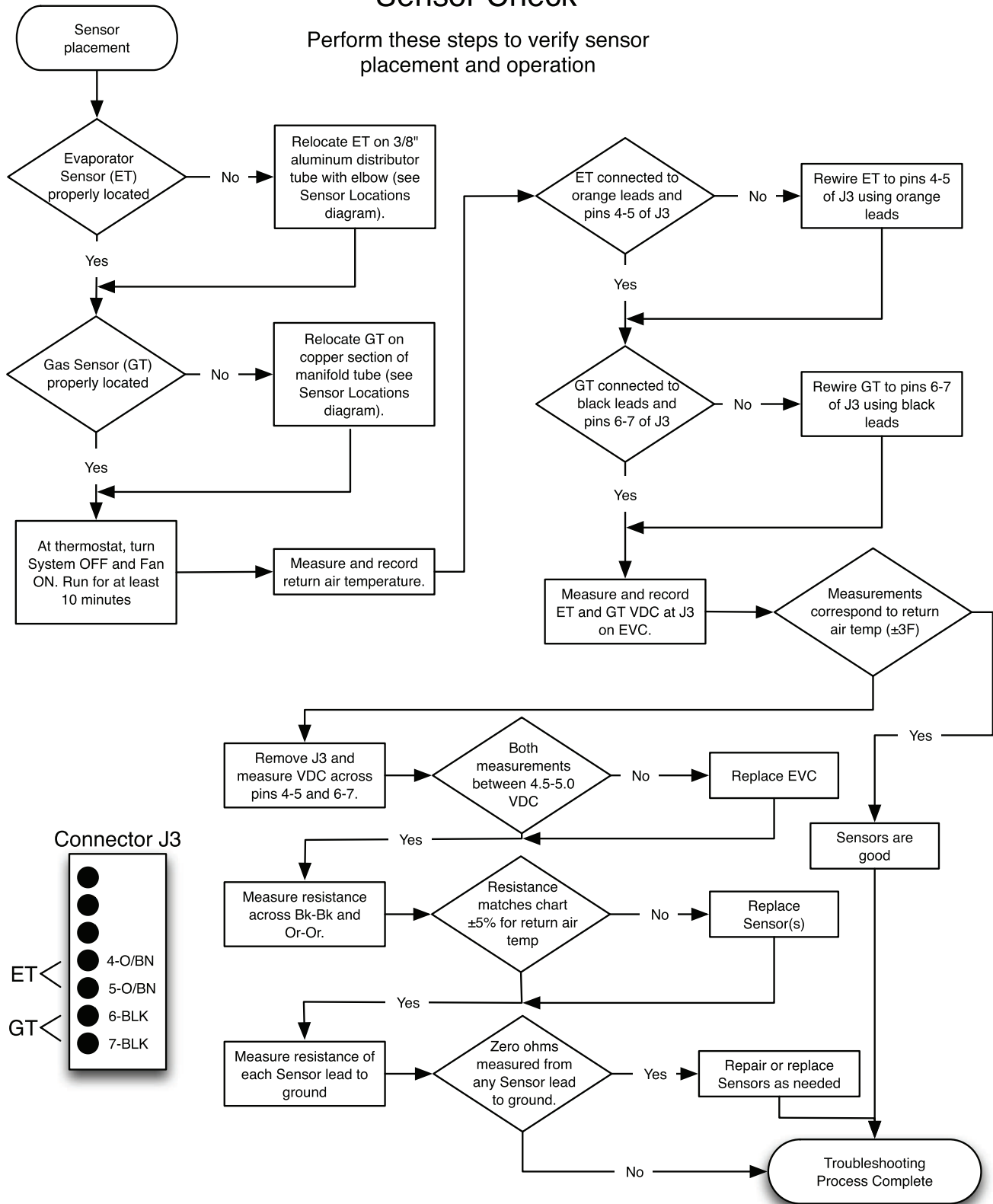
4. Set the system thermostat to ON.



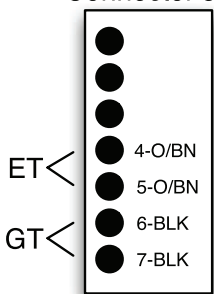
Troubleshooting

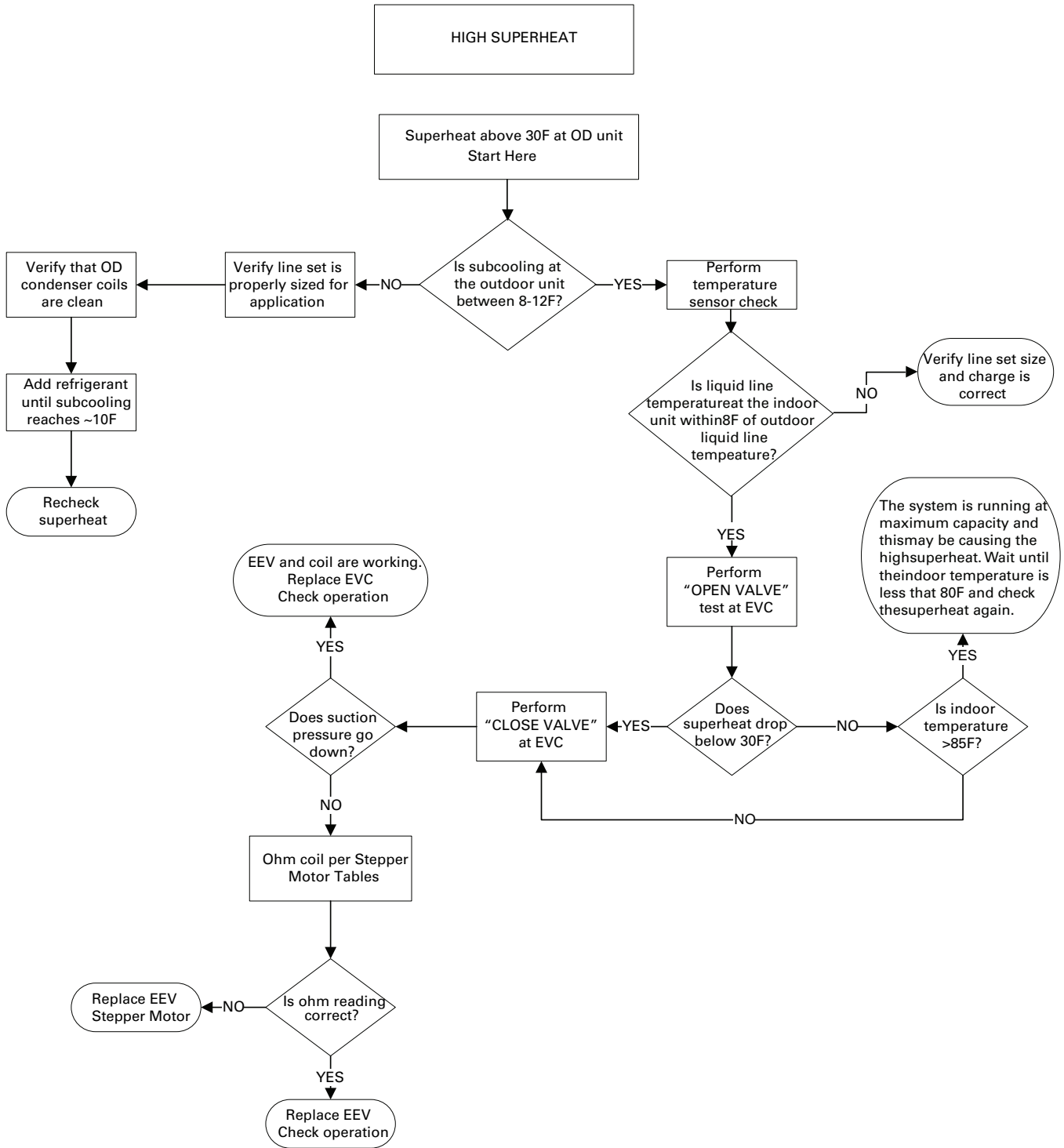
Sensor Check

Perform these steps to verify sensor placement and operation



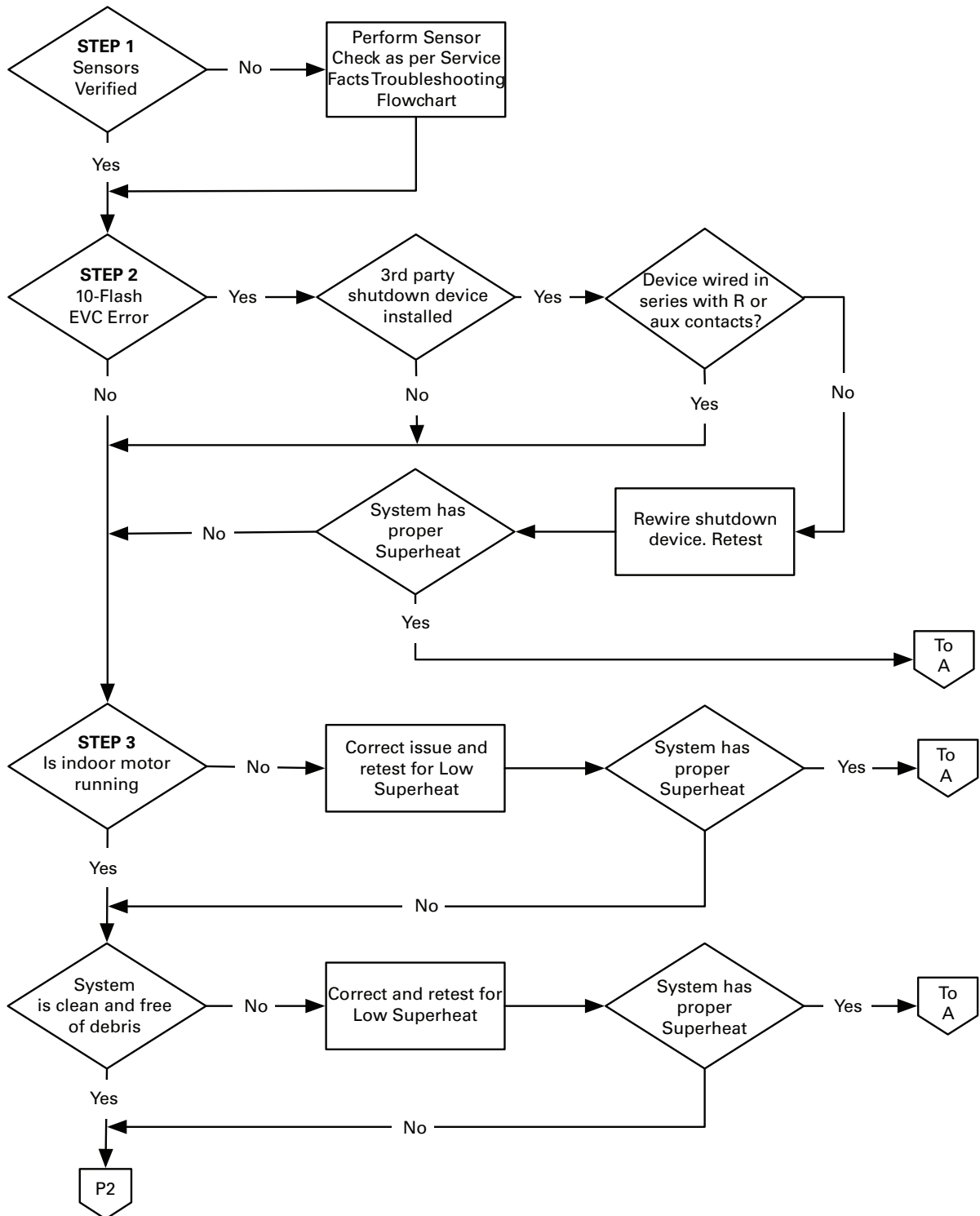
Connector J3



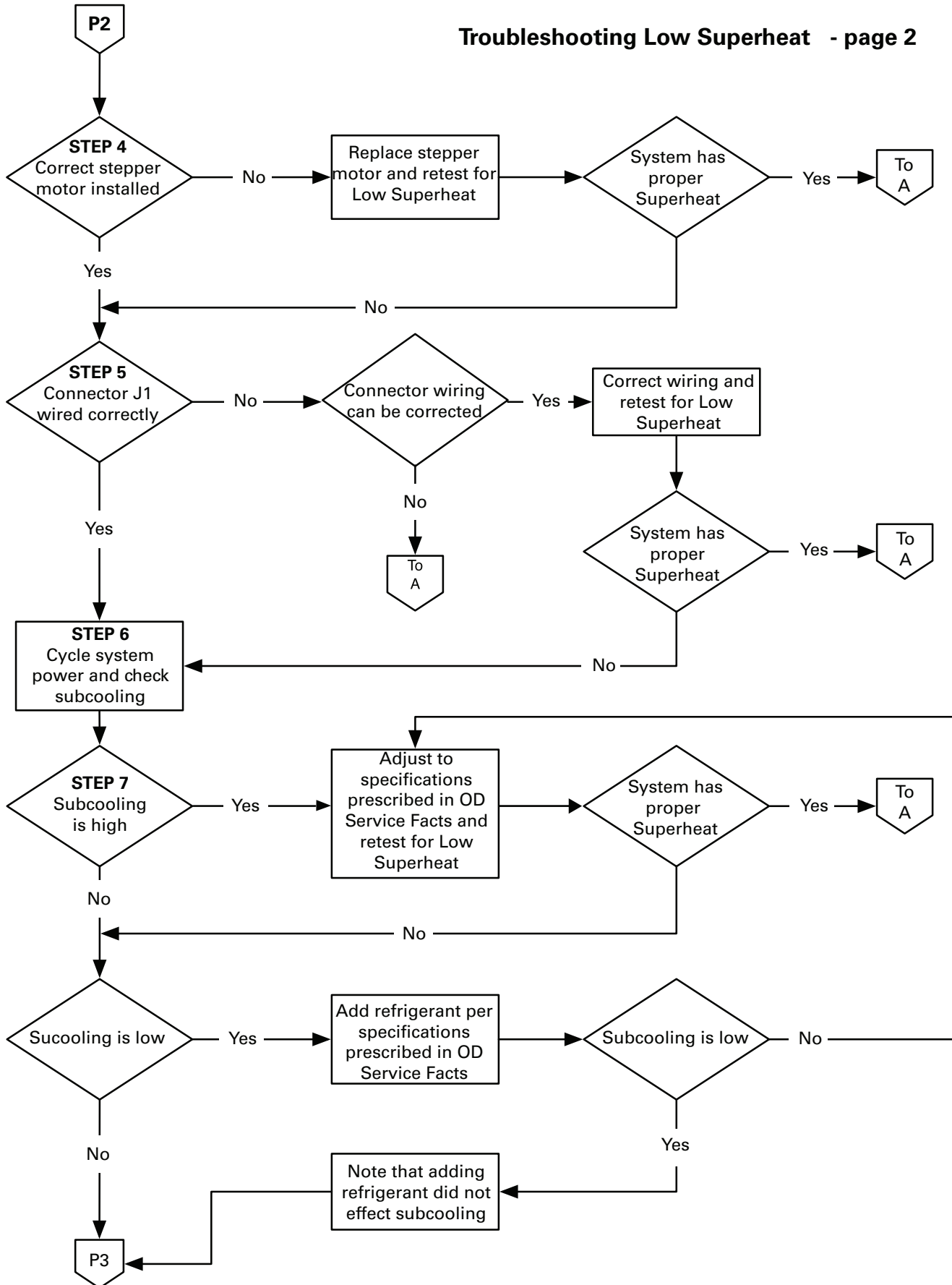


Troubleshooting Low Superheat

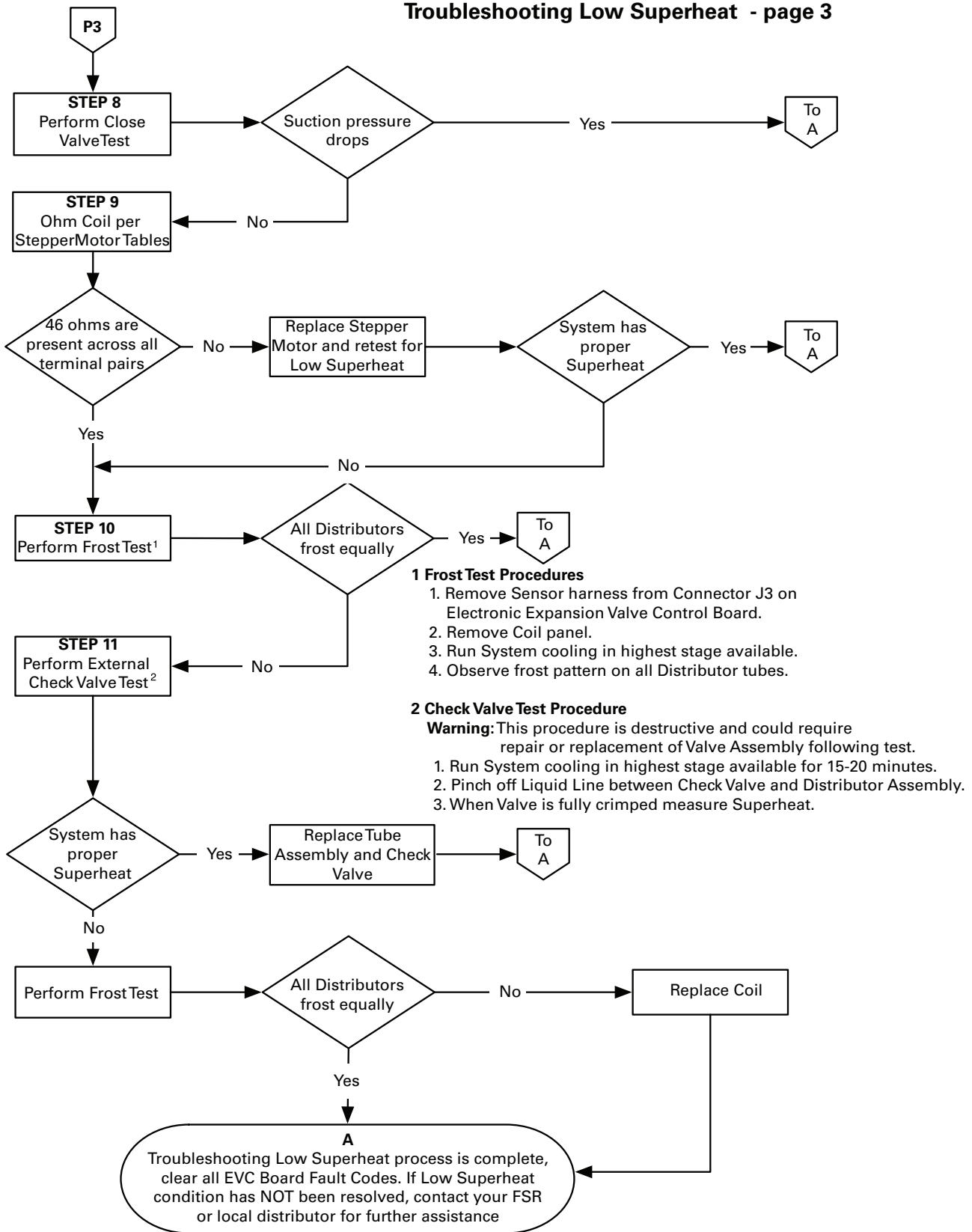
Perform these steps if Superheat is less than 3°F



Troubleshooting Low Superheat - page 2



Troubleshooting Low Superheat - page 3



Fault Reporting

Fault Reporting

Control boards in this unit store active and historical faults. Each control board will report active faults continuously and will report the last four faults stored after a power cycle of the unit. See Fault Table in the Service Facts for list of fault codes.

The active and historical faults can also be accessed through the Alert Menu in the Display Assembly.

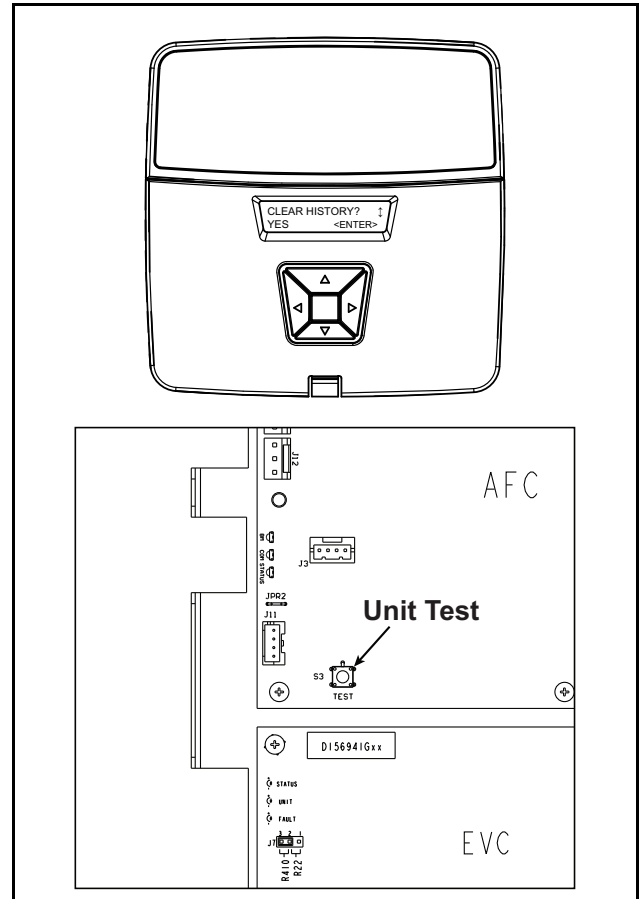
Clearing Fault History

Option 1:

1. Scroll to the Alert Menu in the Display Assembly.
2. Scroll to the Alert History section.
3. Scroll to the Clear History selection and push the Enter key. At the "Are You Sure" question, push the Enter again.

Option 2:

1. Press and hold the Unit Test Button for 10-12 seconds.
2. Release the Unit Test button and wait 5 seconds.
3. Cycle 230VAC power to the unit. (the blower panel can be removed to achieve this)



Checkout Procedures

The final phase of the installation is the system Checkout Procedures. The following list represents the most common items covered in a Checkout Procedure. Confirm all requirements in this document have been met.

<ul style="list-style-type: none"><input type="checkbox"/> All wiring connections are tight and properly secured.<input type="checkbox"/> Voltage and running current are within limits.<input type="checkbox"/> Heater size has been configured in the Configuration Menu.<input type="checkbox"/> All refrigerant lines (internal and external to equipment) are isolated, secure, and not in direct contact with each other or structure.<input type="checkbox"/> All braze connections have been checked for leaks. A vacuum of 350 microns provides confirmation that the refrigeration system is leak free and dry.<input type="checkbox"/> Final unit inspection to confirm factory tubing has not shifted during shipment. Adjust tubing if necessary so tubes do not rub against each other or any component when unit runs.<input type="checkbox"/> Ductwork is sealed and insulated.<input type="checkbox"/> All drain lines are clear with joints properly sealed. Pour water into drain pan to confirm proper drainage.	<ul style="list-style-type: none"><input type="checkbox"/> Supply registers and return grilles are open, unobstructed, and air filter is installed.<input type="checkbox"/> Indoor blower and outdoor fan are operating smoothly and without obstruction.<input type="checkbox"/> Indoor blower motor set on correct speed setting to deliver required CFM.<input type="checkbox"/> Cover panels are in place and properly tightened.<input type="checkbox"/> For gas heating systems, manifold pressure has been checked and all gas line connections are tight and leak free.<input type="checkbox"/> For gas heating systems, flue gas is properly vented.<input type="checkbox"/> System functions safely and properly in all modes.<input type="checkbox"/> Owner has been instructed on use of system and given manual.
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