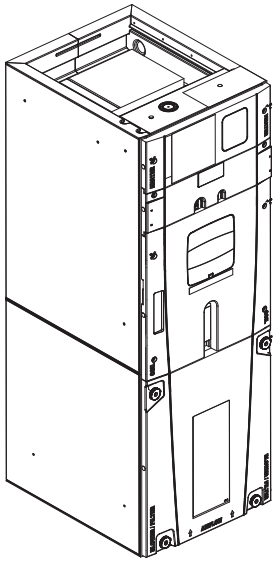
Installation, Operation, and Maintenance

Variable Speed Air Handlers, Convertible, 2 to 5 Ton

5TAMXB02AV21DB
5TAMXC03AV31DB
5TAMXD04AV31DB
5TAMXD05AV41DB
5TAMXD06AV41DB
5TAMXD07AV51DB



Notes:

- *Graphics in this document are for representation only. Actual model may differ in appearance.*
- *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.

March 2026

AHR-SVX007C-EN

Introduction

Read this manual thoroughly before operating or servicing this unit.

This document is customer property and is to remain with this unit. Return to the service information pack upon completion of work.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

⚠ WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.
NOTICE	Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING

Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury.

All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state/national electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury.

Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, MUST follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- **Before installing/servicing this unit, technicians MUST put on all PPE required for the work being undertaken (Examples; cut resistant gloves/ sleeves, butyl gloves, safety glasses, hard hat/ bump cap, fall protection, electrical PPE and arc flash clothing). ALWAYS refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.**
- **When working with or around hazardous chemicals, ALWAYS refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labelling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.**
- **If there is a risk of energized electrical contact, arc, or flash, technicians MUST put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, PRIOR to servicing the unit. NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

⚠ WARNING

Follow EHS Policies!

Failure to follow instructions below could result in death or serious injury.

- **All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.**
- **Non-Trane personnel should always follow local regulations.**

⚠ WARNING

Cancer and Reproductive Harm!

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.

⚠ WARNING

Safety Hazard!

Failure to follow instructions below could result in death or serious injury or property damage.

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

Do not allow children to play or climb on the unit or to clean or maintain the unit without supervision.

⚠ WARNING

Safety Hazard!

Failure to follow instructions below could result in death or serious injury or property damage.

Connect the air handler to an outdoor unit suitable for use with R-454B refrigerant only.

⚠ WARNING

Hazardous Voltage!

Failure to disconnect power before servicing could result in death or serious injury.

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Verify that no power is present with a voltmeter.

⚠ WARNING

Grounding Required!

Failure to follow instructions below could result in death or serious injury, or property damage.

- **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

Risk of Fire — Flammable Refrigerant!

Failure to follow instructions below could result in death or serious injury, and equipment damage.

- **To be repaired only by trained service personnel.**
- **Do not puncture refrigerant tubing.**
- **Dispose of properly in accordance with federal or local regulations.**

⚠ WARNING

Live Electrical Components!

Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

When it is necessary to work with live electrical components, have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks.

⚠ WARNING

Refrigerant under High Pressure!

Failure to follow instructions below could result in an explosion which could result in death or serious injury or equipment damage.

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

⚠ CAUTION

Corrosion Hazard!

Failure to follow instructions below could result in personal injury or equipment damage.

To prevent shortening its service life, do not use air handler during the finishing phases of construction or remodeling. The low return air temperatures can lead to the formation of condensate. Condensate in the presence of chlorides and fluorides from paint and other components creates a corrosive condition which may cause rapid deterioration of the cabinet and internal components.

⚠ CAUTION

Coil Damage!

Failure to follow instructions below could result in minor to moderate injury or coil damage.

Confirm coil is pressurized with 8–12 psi dry air and factory-checked for leaks. Carefully release the pressure by removing the rubber plug on the liquid line. If no pressure is released, check for leaks.

⚠ CAUTION

Sharp Edges!

Failure to follow instructions below could result in minor to moderate injury.

The service procedure described in this document involves working around sharp edges. To avoid being cut, technicians MUST put on all necessary Personal Protective Equipment (PPE), including gloves and arm guards.

Copyright

Trademark

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Revision History

Updated stepper motor tables and images.

Table of Contents

General Information

Diagnostic Mobile App

The Diagnostics Mobile App is available by scanning a QR code located inside this unit or by searching for the Link Diagnostics App in the App Store.

Notes:

- *This unit can be used in Link Communicating mode or 24 volt mode.*
- *Use Diagnostics App to configure blower delays, and accessories in 24 volt mode.*

Standard Features

- Multi-position (upflow, downflow, horizontal left, and horizontal right) with integrated horizontal pans
- Sweat-eliminating double-wall foamed waterproof cabinet system with minimum R-4.2 insulating value (average value R-8.2)
- Modular cabinet
- Smooth, cleanable interior surfaces with no loose fibers
- Link™ Communicating or 24V control
- Vortica® blower with polarized plug connections and integrated slide deck for easy removal
- Variable-speed ECM motor with soft-start fan motor operation
- Aluminum coil with integrated slide deck for easy removal
- Electronic Expansion Valve (EEV) with low ambient and low superheat compressor protection
- Molded in 1” standard filter rail
- Bottom return from factory with side return option
- Meets the minimum leakage requirements for the Florida and California building codes

Optional Accessories

- 4, 5 ,8, 10, 15, 20, and 25 kW Single phase electric heaters
  - Circuit breakers available on single phase 4, 5, 8, 10, 15, 20, and 25 kW heaters
  - Lugs available on single phase 4, 5, 8, and 10 kW heaters
  - Lugs available on three phase 10 and 15 KW heaters
- Single point power entry kit (for 15 and 20 KW heaters)
- Slide in hot water coils
- Low-voltage conduit entry kit
- Side return kit
- Horizontal hanger kit
- Internal condensate switch kit
- UVC light kit with safety switch and polarized plug connections
- Sound reduction kits
- Plenum stand kits
- Supply duct flange kits
- Downflow sub-base kit
- CleanEffects Whole House Air Cleaners - EFD175DLAH000B, EFD215DLAH000B, EFD235DLAH000B

Note: *See “Optional Accessories,” p. 21 for more details.*

Installation Recommendations and Notes

ALL Phases of this installation must comply with NATIONAL, STATE and LOCAL CODES!

Important:

- *Installation of this unit shall be made in accordance with the National Electric Code, NFPA No. 90A and 90B, and any other local codes or utilities requirements.*
- *This Air handler does not require repositioning of the coil or drain pan for any application. Horizontal left, horizontal right, and downflow applications require repositioning of the refrigerant sensor. See “Four-Way Conversion,” p. 27 section for details.*
- *The 5TAMX air handlers are only compatible with BAYEA** internal electric heaters.*
- *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*
- *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.*
- *The 24 volt low voltage wire harness is shipped in the supplied document pack.*

Notes:

- *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."*
- *Condensation may occur on the surface of the air handler when installed in an unconditioned space. When units are installed in unconditioned spaces, verify that all electrical and refrigerant line penetrations on the air handler are sealed completely.*
- *The manufacturer recommends installing ONLY AHRI 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.*
- *There is no declared maximum altitude for operating the appliance.*
- *Charging of the refrigerating system shall be according to the instructions provided by the manufacturer of the outdoor unit.*
- *Representative illustrations only included in this document. Most illustrations display the upflow configuration.*
- *Duct heaters cannot be applied with this air handler.*
- *The heater size will be automatically configured by installing a resistor in the Electric heat harness located in the electric heat compartment and will be included with the BAYEA heater.*

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."*

Information on Servicing

All replacement parts shall be in accordance with the manufacturer's specifications.

Prior to Beginning Work

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the following shall be completed prior to conducting work on the system:

- Work shall be undertaken under a controlled procedure to minimize the risk of a flammable gas or vapor being present while the work is being performed.
- All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided.
- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e., non-sparking, adequately sealed or intrinsically safe.
- If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO_2 fire extinguisher adjacent to the charging area.
- No person carrying out work in relation to a refrigerating system which involves exposing any pipe work shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.
- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.
- The following checks shall be applied to installations using flammable refrigerants:
  - marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;
  - refrigerating pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

Repairs to Electrical Components

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance.

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment, so all parties are advised.

Initial safety checks shall include:

- that capacitors are discharged; this shall be done in a safe manner to avoid possibility of sparking;
- that no live electrical components and wiring are exposed while charging, recovering or purging the system;
- that there is continuity of earth bonding.

Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

Detection of Flammable Refrigerants

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

The following leak detection method is deemed acceptable for all refrigerant systems:

- Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of

the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.

Example of leak detection fluids is **bubble method**.

If a leak is suspected, all naked flames shall be removed/ extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.

Removal and Evacuation

When breaking into the refrigerant circuit to make repairs - or for any other purpose - conventional procedures shall be used. However, for flammable refrigerants it is important that best practice be followed, since flammability is a consideration. The following procedure shall be adhered to:

- safely remove refrigerant following local and national regulations;
- evacuate;
- purge the circuit with inert gas (optional for A2L);
- evacuate (optional for A2L);
- continuously flush or purge with inert gas when using flame to open circuit;
- and open the circuit.

The refrigerant charge shall be recovered into the correct recovery cylinders if venting is not allowed by local and national codes. For appliances containing flammable refrigerants, the system shall be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants.

This process might need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems.

For appliances containing flammable refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum (optional for A2L). This process shall be repeated until no refrigerant is within the system (optional for A2L). When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.

The outlet for the vacuum pump shall not be close to any potential ignition sources, and ventilation shall be available.

Charging Procedures

In addition to conventional charging procedures, the following requirements shall be followed.

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- Ensure that the refrigerating system is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not already).
- Extreme care shall be taken not to overfill the refrigerating system.

Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

See installation instructions below for further details.

Recovery

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.

When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e., special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of the flammable refrigerant. If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition.

The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. When oil is drained from a system, it shall be carried out safely.

Decommissioning

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all

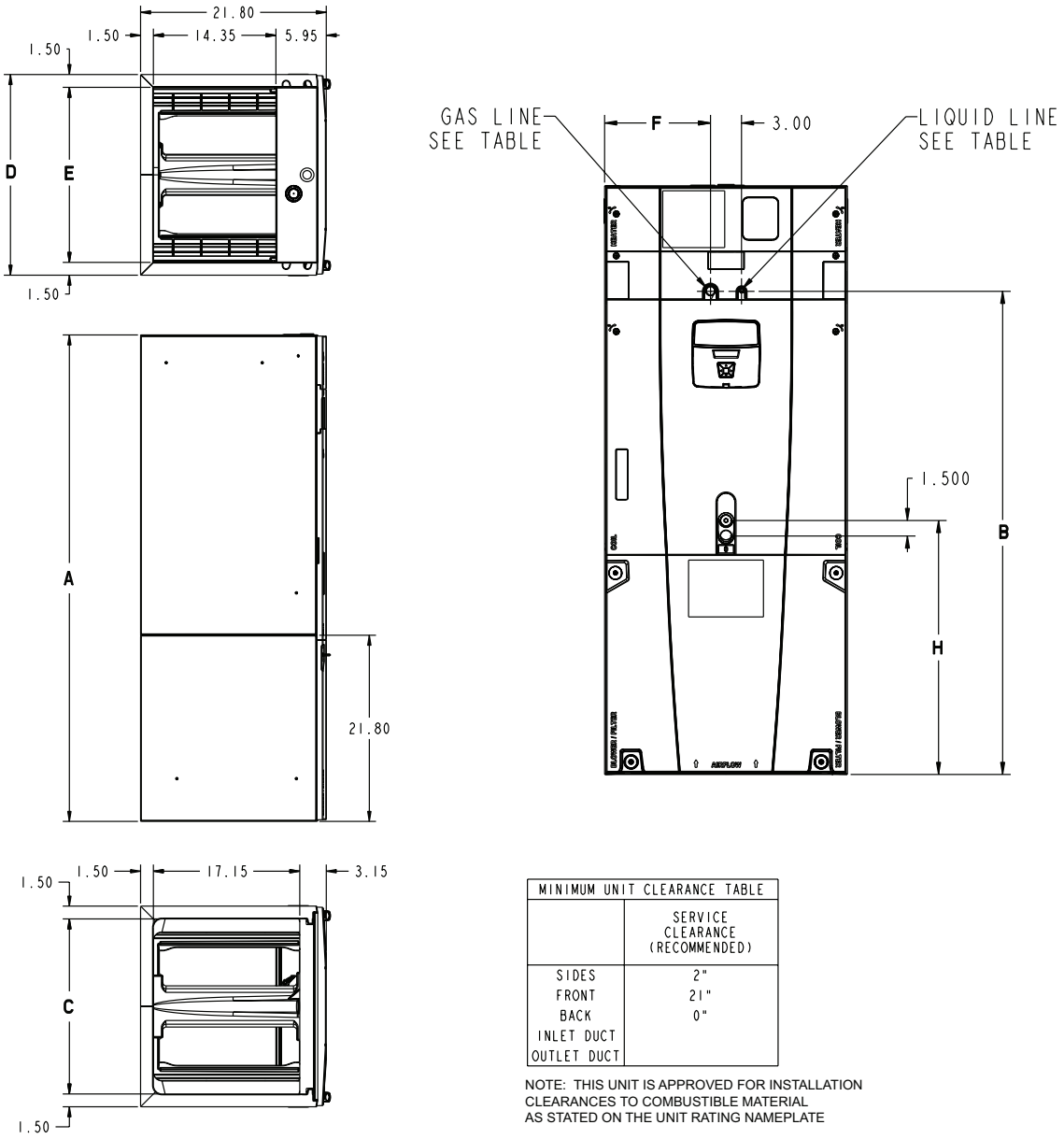
its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.

1. Become familiar with the equipment and its operation.
2. Isolate system electrically.
3. Before attempting the procedure, ensure that:
   a. mechanical handling equipment is available, if required, for handling refrigerant cylinders;
   b. all personal protective equipment is available and being used correctly;
   c. the recovery process is supervised at all times by a competent person;
   d. recovery equipment and cylinders conform to the appropriate standards.
4. Pump down refrigerant system, if possible.
5. If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
6. Make sure that cylinder is situated on the scales before recovery takes place.
7. Start the recovery machine and operate in accordance with instructions.
8. Do not overfill cylinders (no more than 80 % volume liquid charge).
9. Do not exceed the maximum working pressure of the cylinder, even temporarily.
10. When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
11. Recovered refrigerant shall not be charged into another refrigerating system unless it has been cleaned and checked.

Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed. For appliances containing flammable refrigerant, ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

Dimensional Data

Figure 1. Dimensions



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

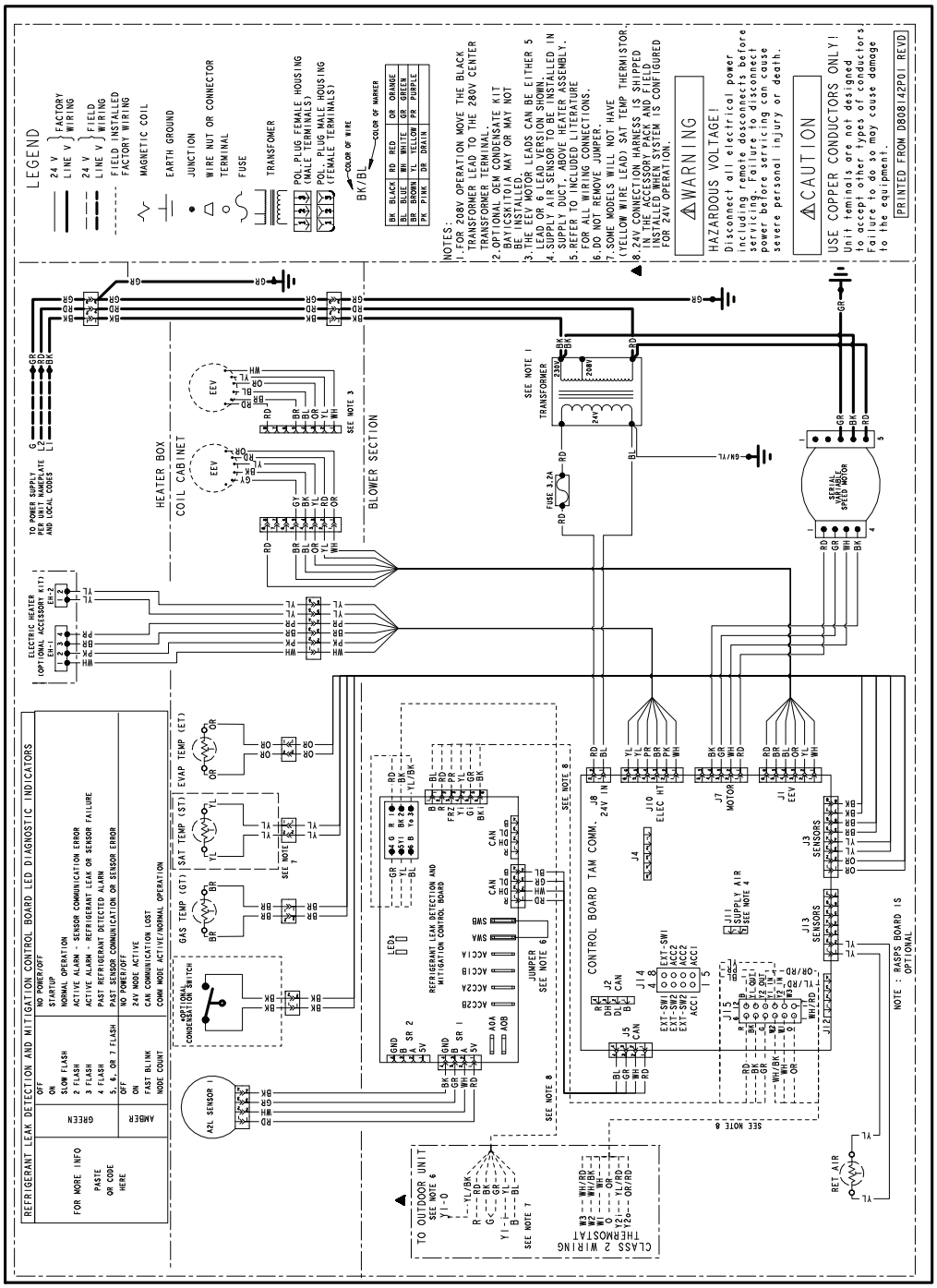
NOTE: THIS UNIT IS APPROVED FOR INSTALLATION CLEARANCES TO COMBUSTIBLE MATERIAL AS STATED ON THE UNIT RATING NAMEPLATE

Table 1. Unit dimensions

Model Number	A	B	C	D	E	F	H	Flow control	Gas line braze	Liq line braze
5TAMXB02	49.9	39.6	14.5	17.5	14.5	7.3	24.4	EEV	3/4	3/8
5TAMXC03	55.7	45.5	18.4	21.3	18.4	9.2	24.8	EEV	3/4	3/8
5TAMXD04	56.9	46.7	20.5	23.5	20.5	10.3	24.2	EEV	7/8	3/8
5TAMXD05	61.7	51.5	20.5	23.5	20.5	10.3	24.5	EEV	7/8	3/8
5TAMXD06	61.7	51.5	20.5	23.5	20.5	10.3	24.9	EEV	7/8	3/8
5TAMXD07	61.7	51.5	20.5	23.5	20.5	10.3	24.9	EEV	7/8	3/8

Wiring Diagram

Figure 2. Wiring diagram



Note: *For refrigerant leak detection and mitigation control board diagnostic flash codes, see Table 5, p. 17 and Table 6, p. 17.*

Figure 3. Link communicating low voltage connection diagrams

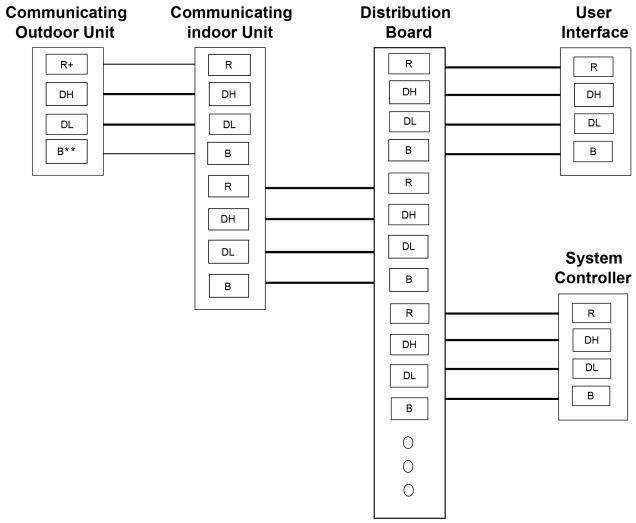


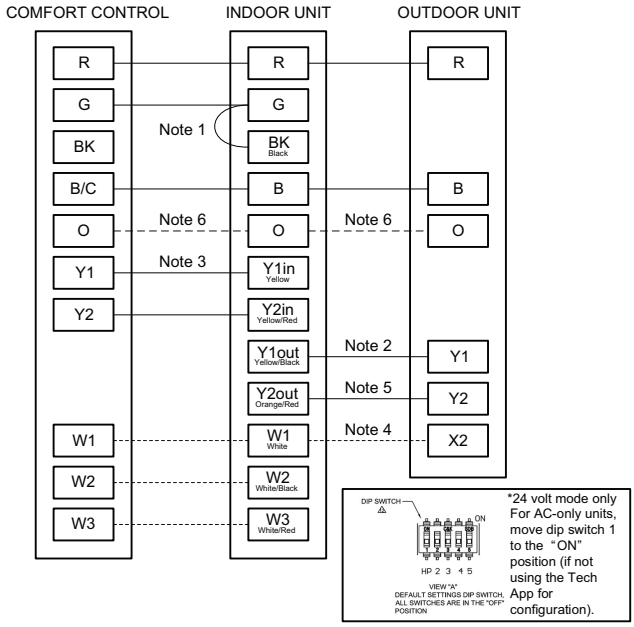
Table 2. Wire colors

R	Red
DH	White
DL	Green
B	Blue

Notes:

- ** — Accessory terminals are dry contact outputs only.*
- *+ R connection to the outdoor unit is required only in applications utilizing an outdoor loadshed device or when using SmartCharge.*
- *** — B connection to the outdoor unit is optional for 2 wire outdoor applications, but is recommended in other applications.*
- *Wire colors are for illustration purposes only. If using a different color, ensure it lands at the correct terminal throughout all of the communicating control wiring.*
- *Drawing is for reference only. Wiring can be done in many different ways.*

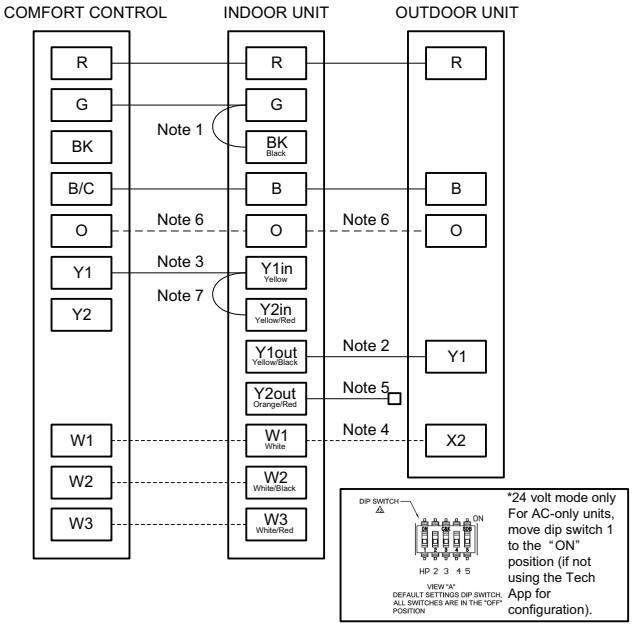
Figure 4. 24 volt low voltage wiring - 24v multi- stage system, AC or HP



Notes:

- *Separate BK and G wires when using the BK functionality from the thermostat or a humidistat.*
- *Y-in and Y-out connections must be made as shown for refrigerant leak mitigation, freeze protection, and internally mounted condensate overflow circuits to function properly.*
- *3rd party condensate switch should break the Y1-in circuit between the thermostat and indoor unit.*
- *X2 is necessary if not using select Trane or American Standard thermostats.*
- *For single-stage outdoor units, use Y1-out and cap off Y2-out wire.*
- *Only needed for heat pump operation.*
- *For instructions on connecting 24V harness to control boards, see "Low Voltage Connection Instructions," p. 47.*

Figure 5. 24 volt low voltage wiring - 24v single- stage system, AC or HP



Notes:

- *Separate BK and G wires when using the BK functionality from the thermostat or a humidistat.*
- *Y-in and Y-out connections must be made as shown for refrigerant leak mitigation, freeze protection, and internally mounted condensate overflow circuits to function properly.*
- *3rd party condensate switch should break the Y1-in circuit between the thermostat and indoor unit.*
- *X2 is necessary if not using select Trane or American Standard thermostats.*
- *For single-stage outdoor units, use Y1-out and cap off Y2-out wire.*
- *Only needed for heat pump operation.*
- *For single-stage indoor airflow operation, must connect Y1-in and Y2-in for full airflow.*
- *For instructions on connecting 24V harness to control boards, see "Low Voltage Connection Instructions," p. 47.*

Table 3. 5TAMX 24 volt wire harness colors

R	Red		Y2out	Orange/Red
B	Blue		G	Green
O	Orange		BK	Black
Y1in	Yellow		W1	White
Y2in	Yellow/Red		W2	White/Black
Y1out	Yellow/ Black		W3	White/Red

Refrigerant Leak Detection System

For all tables contained in this section of the manual, the refrigerant charge is the total system charge which is marked on the system according to the instructions provided by the manufacturer of the outdoor unit.

⚠ WARNING

Risk of Fire — Flammable Refrigerant!

Failure to follow instructions below could result in death or serious injury, and equipment damage.

- **To be repaired only by trained service personnel.**
- **Do not puncture refrigerant tubing.**
- **Dispose of properly in accordance with federal or local regulations.**

⚠ WARNING

Leak Detection System Installed!

Failure to follow instructions below could result in death or serious injury or equipment damage.

The unit is equipped with electrically powered safety measures and must be powered at all times after installation, except during servicing, to detect any leak.

To ensure safety of the building occupants, the air handler is equipped with a refrigerant leak detection system. The system is comprised of a refrigerant sensor and a mitigation control board. The system automatically detects leaks in the indoor coil and initiates actions to mitigate the risk of ignition of the leaked refrigerant, including:

- Turning on the blower of the indoor unit to dilute leaked refrigerant;
- Fully opening any zoning dampers, when applicable;
- Turning off the compressor of the outdoor unit;
- De-energizing potential sources of ignition connected to the system;
- Energizing an audible alarm, if so equipped.

Examples of potential ignition sources that are de-energized include electrostatic air cleaners.

⚠ WARNING

Risk of Fire!

Failure to follow instructions below could cause a fire which could result in death, serious injury, and equipment damage.

Relocate the refrigerant sensor if installing the unit in any other orientation other than upflow.

Refrigerant sensors for refrigerant leak detection systems shall only be replaced as specified by the manufacturer.

Minimum Conditioned Space

The installer must verify that the total space conditioned by the system is large enough to safely dilute any leaked refrigerant in the event of a refrigerant leak of the indoor coil.

The minimum space conditioned by the appliance shall be according to Table 4, p. 16. The conditioned space includes any parts of the space connected via an air duct system. The altitude of installation is the altitude above sea level of the site where the equipment is installed.

Table 4. Minimum space conditioned by the appliance

	Altitude (ft)								
	sea level-2,000	2,001-4,000	4,001-6,000	6,001-8,000	8,001-10,000	10,001-12,000	12,001-14,000	14,001-15,000	above 15,000
Charge (lb)	Minimum Conditioned Space (ft^2)								
4	63	66	70	74	79	85	91	94	98
5	79	83	88	93	99	106	113	118	122
6	95	100	105	112	119	127	136	141	147
7	110	116	123	130	138	148	159	165	171
8	126	133	140	149	158	169	181	188	196
9	142	149	158	167	178	190	204	212	220
10	158	166	175	186	198	211	227	235	245
11	173	183	193	205	218	232	249	259	269
12	189	199	211	223	237	254	272	282	294
13	205	216	228	242	257	275	295	306	318
14	221	232	246	260	277	296	318	330	343
15	236	249	263	279	297	317	340	353	367
16	252	266	281	298	317	338	363	377	392
17	268	282	298	316	336	359	386	400	416
18	284	299	316	335	356	380	408	424	440
19	299	315	333	353	376	402	431	447	465
20	315	332	351	372	396	423	454	471	489

Airflow Adjustment

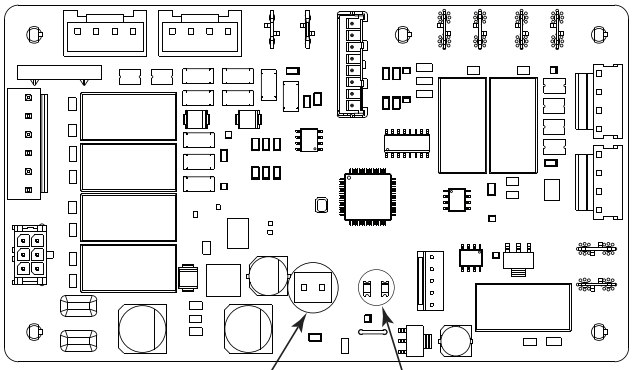
Note: *All 5TAMX model air handlers have been factory configured to provide sufficient airflow to dilute leaked refrigerant.*

Verification of Mitigation Actions

After installation, the installer must verify that the refrigerant leak detection system actuates all mitigating actions listed above.

The test can be initiated by shorting the two test pins on the header of the mitigation control board inside of the unit. The mitigating actions will continue for approximately 5 minutes. See Figure 6, p. 17 below.

Figure 6. Mitigation control board



If any of the mitigating actions are not actuated by the system during the test, please check the following:

- All field wiring connections should be checked against the diagrams in the "Wiring Diagram," p. 13 section of this manual.
- The diagnostic indicators on the mitigation control board should be checked against the diagnostic codes given in Table 5, p. 17 below.
- Scan the QR code below for more information on field troubleshooting of the refrigerant leak detection system.

Figure 7. QR code

Table 5. MCB diagnostic code – for Software V07.1 and earlier

Condition	Green LED
Idle or Off	Off
Startup	On
No Active Alarm	Slow Flash
Active Alarm (Refrigerant Leak, Sensor Communication Error, or Sensor Error)	3 Flash
Past Refrigerant Detected Alarm	4 Flash
Past Sensor Communication Error	5 Flash
Past Sensor Error	6 Flash
Condition	**Amber LED**
No Power/Off	Off
24V Mode Active	On
Communication Mode is Active/ Normal Operation	Node Count
CAN Communication lost	Fast Blink

Table 6. MCB diagnostic code – for Software V9.1 and later

Condition	Green LED
Off	No Power/Off
On	Startup
Slow Flash	Normal Operation
2 Flash	Active Alarm - Sensor Communication Error
3 Flash	Active Alarm - Refrigerant Leak or Sensor Failure
4 Flash	Past Refrigerant Detected Alarm
5, 6, or 7 Flash	Past Sensor Communication or Sensor Error
Condition	**Amber LED**
No Power/Off	Off
24V Mode Active	On
Communication Mode is Active/ Normal Operation	Node Count
CAN Communication lost	Fast Blink

Notes:

- *For 24V systems, the software version can be determined by looking at the printed label on the control board.*
- *For communicating systems, the software version can be found in the UI or Tech App.*

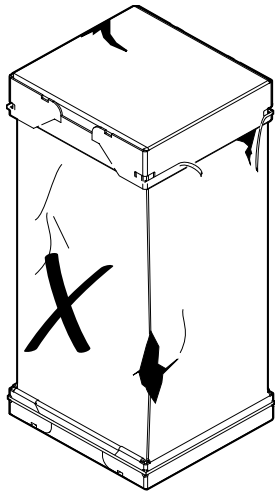
Unit Install Preparation

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

Notes:

- *If the unit must be transported in a horizontal position, it must be laid on its back (marked "REAR" on carton).*
- *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.*
- *Remove the cardboard from the bottom of the blower. Cut the tie wrap and remove the foam shipping block located at the motor.*

Figure 8. Unit install preparation



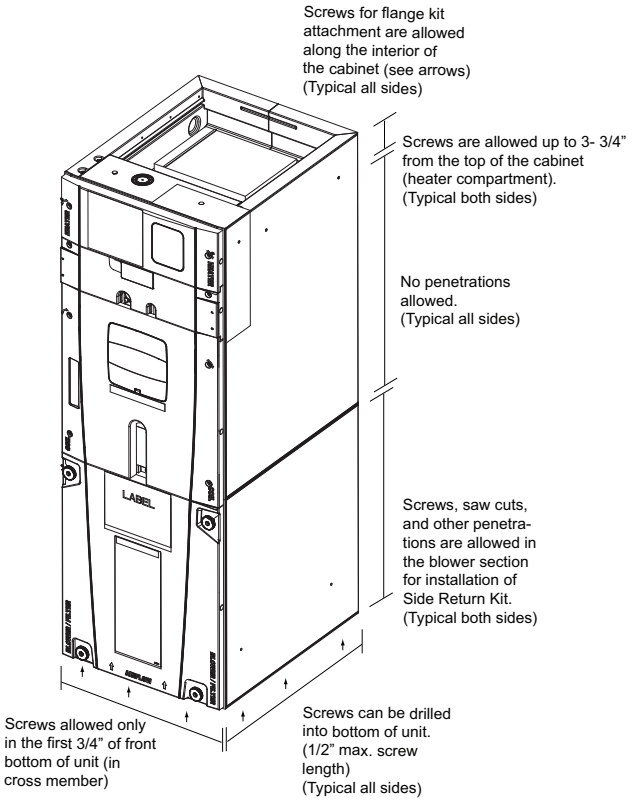
Unit Design

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

Figure 9. Cabinet penetration



Remove Panel

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

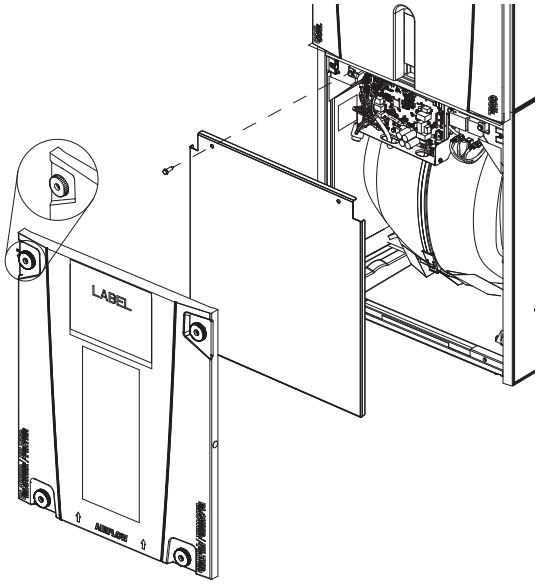
The Blower/Filter panel is removed using thumb screws.

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.

The Block off plate is removed with a 5/16-in. nut driver.

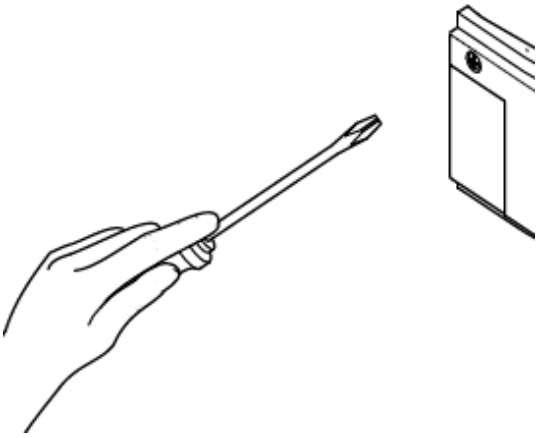
1. Remove the two 5/16-in. screws at the top of the block off plate.
2. Pull top of panel out, away from cabinet.
3. Lift panel up and off mounting bosses at the bottom.
4. Set aside.

Figure 10. Removing the blower/filter panel



The Coil, Line Set, and Heater panels are removed using Phillips head screws. This requires #3 Size Phillips.

Figure 11. Using head screws



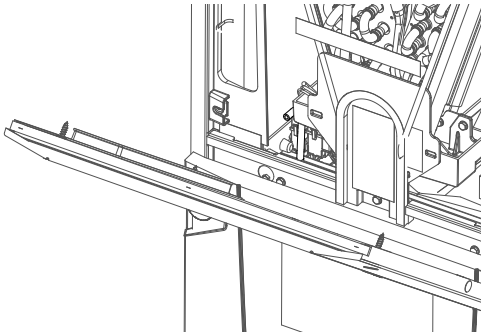
Coil and heater panels must be removed prior to removing the line set panel.

To remove the coil panel:

1. Turn screws on coil panel.
2. Rotate bottom of panel away from cabinet.
3. Remove panel from channel.

4. Set aside.

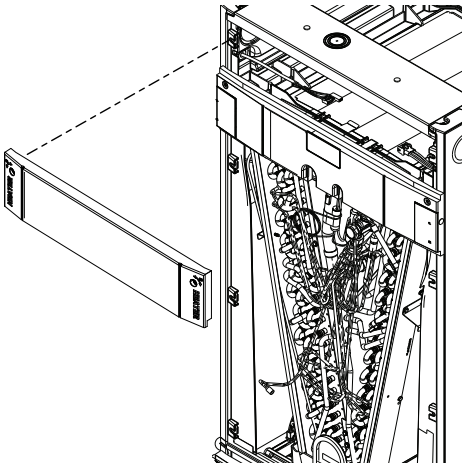
Figure 12. Removing the coil panel



To remove the heater panel:

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

Figure 13. Removing the heater panel



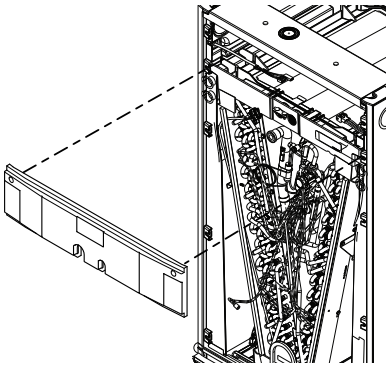
Removing the line set panel is required for all refrigerant line brazing and some condensate line assembly depending on your orientation.

To remove the line set panel:

1. Remove both the 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.*

Figure 14. Removing the line set panel



Optional Accessories

Table 7. Optional accessories

Accessory Number	Description	Fits Cabinet Size (inch)
BAYEA(AC/13)04BK1 [a]	Electric Heater, 4kW, Breaker, 24V Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)04LG1 [a]	Electric Heater, 4kW, Lugs, 24V Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)05BK1 [a]	Electric Heater, 5kW, Breaker, 24V Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)05LG1 [a]	Electric Heater, 5kW, Lugs, 24V Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)08BK1 [a]	Electric Heater, 8kW, Breaker, 24V Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)08LG1 [a]	Electric Heater, 8kW, Lugs, 24V Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)10BK1 [a]	Electric Heater, 10kW, Breaker, 24V Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)10LG1 [a]	Electric Heater, 10kW, Lugs, 24V Control, 1 Ph	17.5, 21.0, 23.5
BAYEA(AC/13)10LG3 [a]	Electric Heater, 10kW, Lugs, 24V Control, 3 Ph	17.5, 21.0, 23.5
BAYEA(BC/23)15BK1 [a]	Electric Heater, 15kW, Breaker, 24V Control, 1 Ph	21.0, 23.5
BAYEA(BC/23)15LG3 [a]	Electric Heater, 15kW, Lugs, 24V Control, 3 Ph	21.0, 23.5
BAYEA(BC/23)20BK1 [a]	Electric Heater, 20kW, Breaker, 24V Control, 1 Ph	21.0, 23.5
BAYEA(CC/33)25BK1 [a]	Electric Heater, 25kW, Breaker, 24V Control, 1 Ph	23.5
BAYSUPFLGAA	Supply Duct Flange 17.5 -in.	17.5
BAYSUPFLGBA	Supply Duct Flange 21.0 -in.	21.0
BAYSUPFLGCA	Supply Duct Flange 23.5 -in.	23.5
BAYRETFLGAA	Return Duct Flange 17.5 -in.	17.5
BAYRETFLGBA	Return Duct Flange 21.0 -in.	21.0
BAYRETFLGCA	Return Duct Flange 23.5 -in.	23.5
BAYSRKIT100A	Side Return Kit	17.5, 21.0, 23.5
BAYFLR1620A	High Velocity Filter Kit, 16 -in. X 20 -in. X 1 -in. (10 filters)	17.5
BAYFLR2020A	High Velocity Filter Kit, 20 -in. X 20 -in. X 1 -in. (10 filters)	21.0
BAYFLR2220A	High Velocity Filter Kit, 22 -in. X 20 -in. X 1 -in. (10 filters)	23.5
TASB175SB [b] [c]	Plenum Stand with Integrated Sound Baffle 17.5 -in.	17.5
TASB215SB	Plenum Stand with Integrated Sound Baffle 21.0 -in.	21.0
TASB235SB	Plenum Stand with Integrated Sound Baffle 23.5 -in.	23.5
TAYBASETAMA	Downflow Sub-Base Kit	17.5, 21.0, 23.5
BAYBAFKT175 [d]	Sound Baffle Kit for 17.5 -in. Cabinet	17.5
BAYBAFKT215 [d]	Sound Baffle Kit for 21.0 -in. Cabinet	21.0
BAYBAFKT235 [d]	Sound Baffle Kit for 23.5 -in. Cabinet	23.5
TASSBK175 [b][e] [f]	Sound Baffle Kit for 17.5 -in. Cabinet	17.5
TASSBK215 [b][e][f]	Sound Baffle Kit for 21.0 -in. Cabinet	21.0
TASSBK235 [b][e][f]	Sound Baffle Kit for 23.5 -in. Cabinet	23.5
BAYICSKIT01A	Internal Condensate Switch Kit	17.5, 21.0, 23.5
BAYHHKIT001A	Horizontal Hanger Kit	17.5, 21.0, 23.5

Table 7. Optional accessories (continued)

Accessory Number	Description	Fits Cabinet Size (inch)
BAYUVCLK001A	UVC Lights	17.5, 21.0, 23.5
BAYLVKIT100A	Low Voltage Conduit Entry Kit	17.5, 21.0, 23.5
BAYSPEKT200A	Single Point Power Entry Kit	21.0, 23.5
BAYWAAA05SC1AA	Hydronic heater, 17.5 -in. cabinet, no control, slide-in	17.5
BAYWABB07SC1AA	Hydronic heater, 21.0 -in. cabinet, no control, slide-in	21.0
BAYWACC08SC1AA	Hydronic heater, 23.5 -in. cabinet, no control, slide-in	23.5
BAYWACC11SC1AA	Hydronic heater, 23.5 -in. cabinet, no control, external	23.5
BAYWACNTKT05	Relay Kit for use with BAYWAAA05SC1A	17.5
BAYWACNTKT07	Relay Kit for use with BAYWABB07SC1A	21.0
BAYWACNTKT08	Relay Kit for use with BAYWACC08SC1A	23.5
BAYWACNTKT11	Relay Kit for use with BAYWACC11SC1A	23.5
BAYINSKT175A	Solcoustic® Liner Kit - 17.5 -in. Cabinet	17.5
BAYINSKT215A	Solcoustic® Liner Kit - 21.5 -in. Cabinet	21.0
BAYINSKT235A	Solcoustic® Liner Kit - 23.5 -in. Cabinet	23.5
BAYCNDPIP01A	3/4 -in. PVC Threaded Pipe Kit Foam Seal (10 per box)	17.5, 21.0, 23.5
BAYSENSC360	Supply Air Temperature Sensor	17.5, 21.0, 23.5

(a) Model number may have either of the pairs of characters in parenthesis.
(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

Notes:

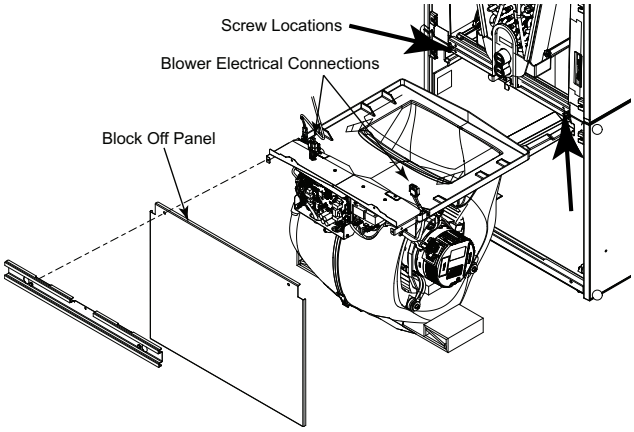
- *If the unit must be transported in a horizontal position, it must be laid on its back (marked "REAR" on carton).*
- *To reassemble cabinet, follow the steps in reverse order. Ensure electrical connections are secure and the plug clips are engaged.*

1. Remove all four front panels.
2. If applicable, remove the two screws on the seal bar and pull the seal bar straight out.
3. Remove the two screws on the block off panel and pull the panel straight out.
4. Disconnect all wiring connections routed to the blower assembly.

   Notes:

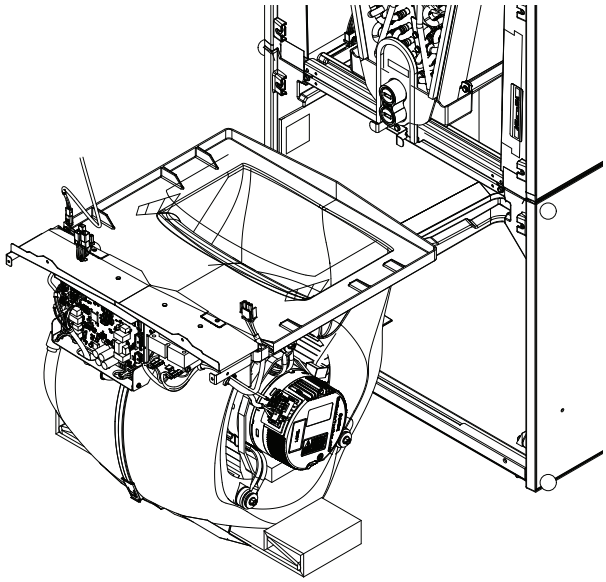
   - *Remove the cardboard from the bottom of the blower. Cut the tie wrap and remove the foam block located at the motor.*
   - *If system is installed prior in the horizontal position, remove the refrigerant sensor and clip before sliding blower out. See "Four-Way Conversion," p. 27.*

Figure 15. Remove the panels



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

Figure 16. Slide blower assembly

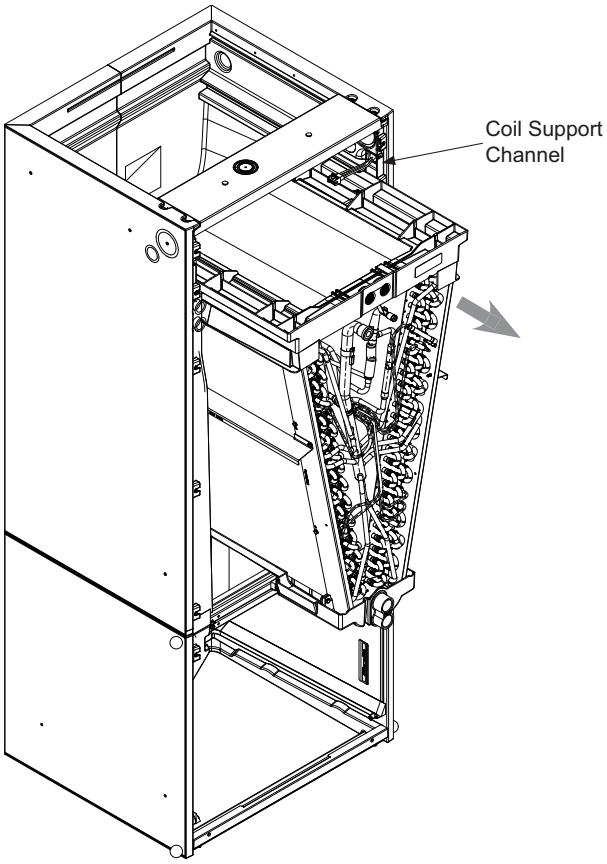


6. Disconnect wires to the EEV motor and sensors. Cut the wire ties on those wire harnesses if necessary and replace after re-installing.

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

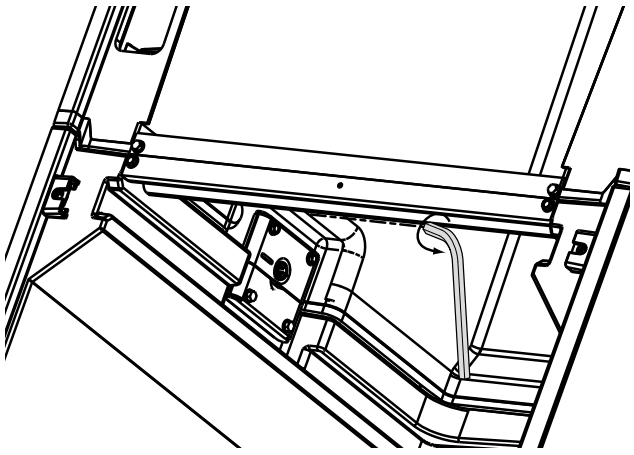
7. Slide coil assembly out of unit using built-in coil support channels and set aside

Figure 17. Slide coil assembly



8. 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.

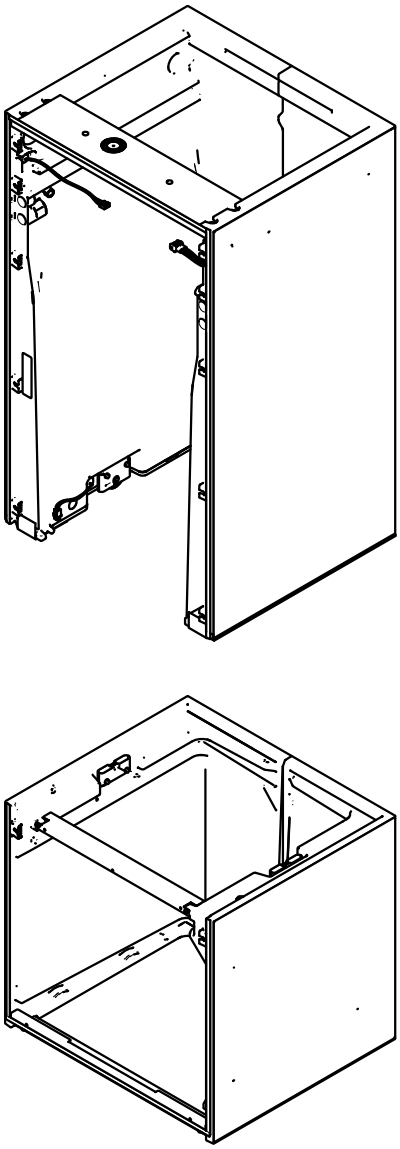
Figure 18. Loosen the locking mechanism



9. Lift the coil section up and away from the blower section. Set aside.

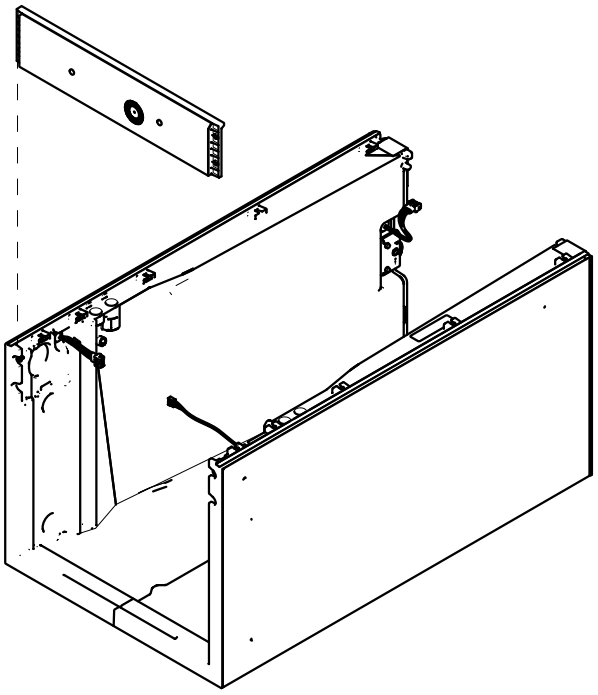
   Note: *When separating the two cabinet pieces, make sure the gasket remains intact.*

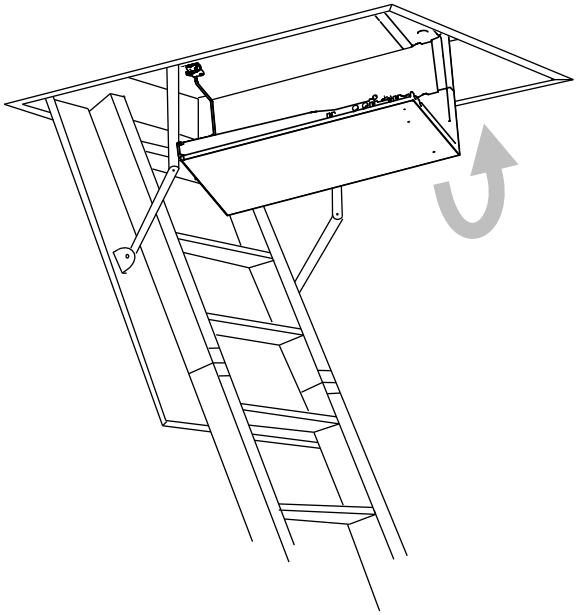
Figure 19. Separating cabinet pieces



10. 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.

Figure 20. Removing the top panel





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

Placing Unit at Location

⚠ WARNING

RISK OF FIRE!

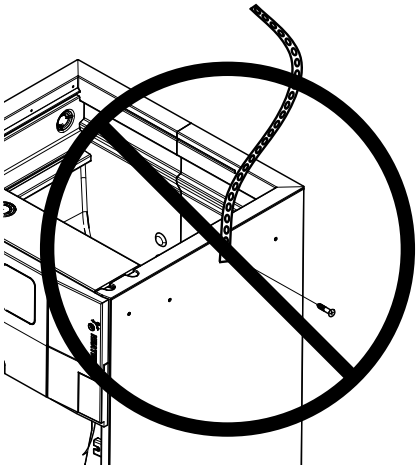
The following requirements apply to the room where the air handler is installed:

- **All combustion appliances located in the same room that have continuous pilot lights are equipped with an effective flame arrest.**
- **All indoor field-made joints of the field piping have been checked for refrigerant leaks after charging using an electronic leak detector calibrated for R-454B having a sensitivity of 5 grams per year or better.**
- **The room is constructed to ensure that should any refrigerant leak it will not stagnate and create a fire hazard.**

1. Carry the unit to the installation location
2. Reassembly by reversing the steps listed in "Optional Cabinet Disassembly," p. 23 if disassembly was required. If cut, wire ties that held the sensor wiring must be replaced.

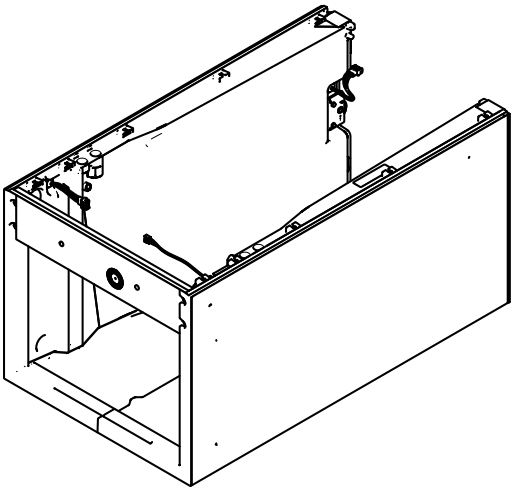
Important: *Under no conditions should metal strapping be attached to the unit to be used as support mechanisms for carrying or suspension purposes.*

Figure 21. No metal strapping on the unit for carrying

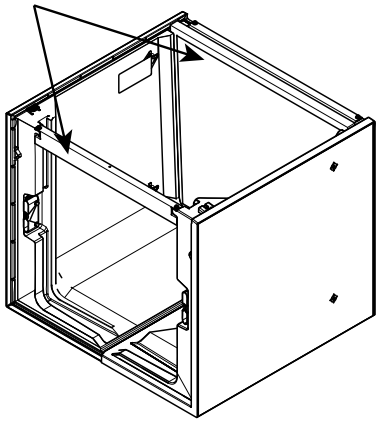


Approved Carrying: Hold by the cross members within the cabinet or unit top plate and use as handles for lifting and carrying the coil and blower sections.

Figure 22. Approved carrying



Cross Members



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 and the A2L sensor accordingly.

Notes:

- *The air handlers are shipped from the factory suitable for four-way application.*
- *Entry for low voltage connections is allowed on either side of cabinet.*

Figure 23. Upflow and downflow configuration

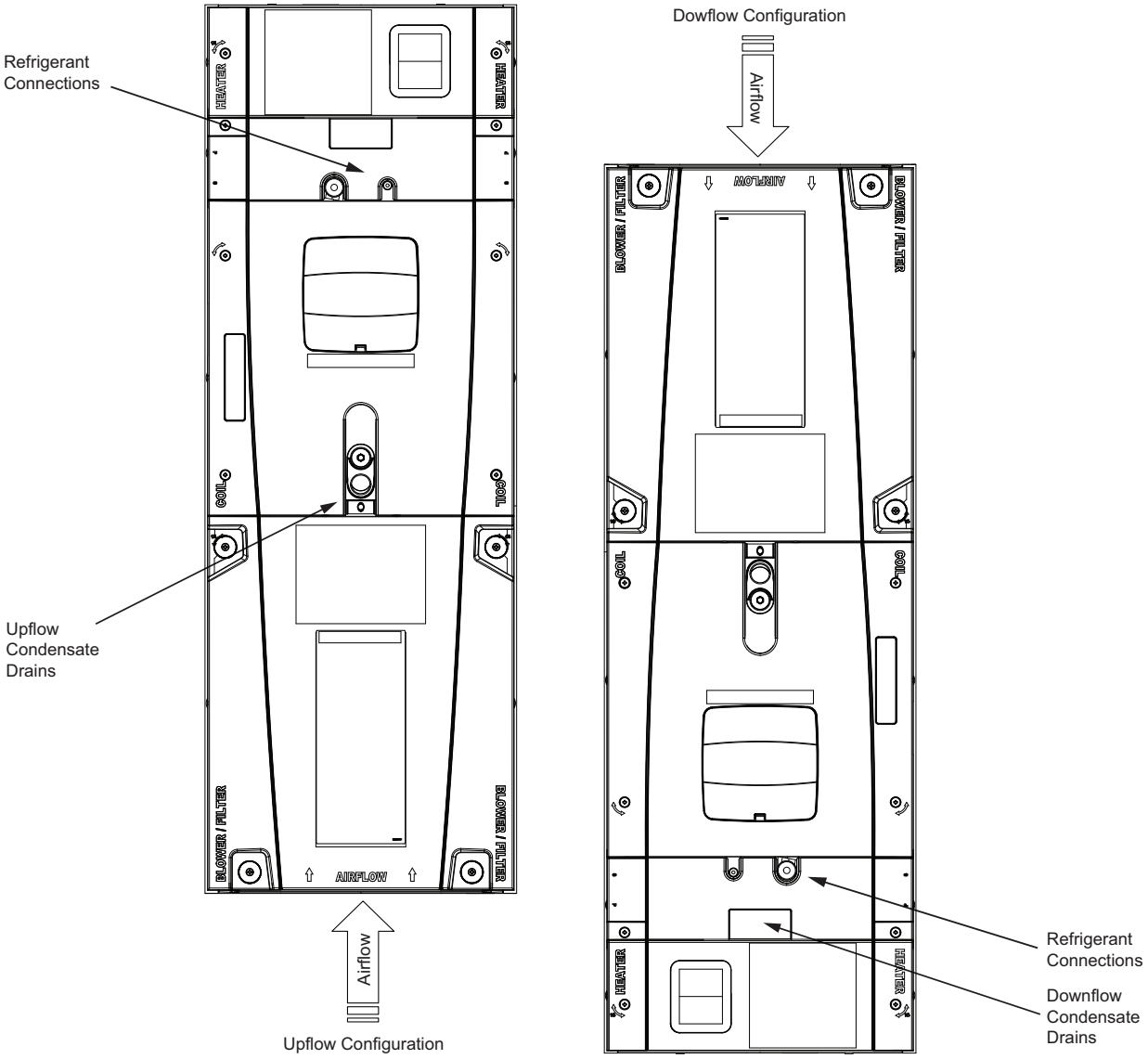
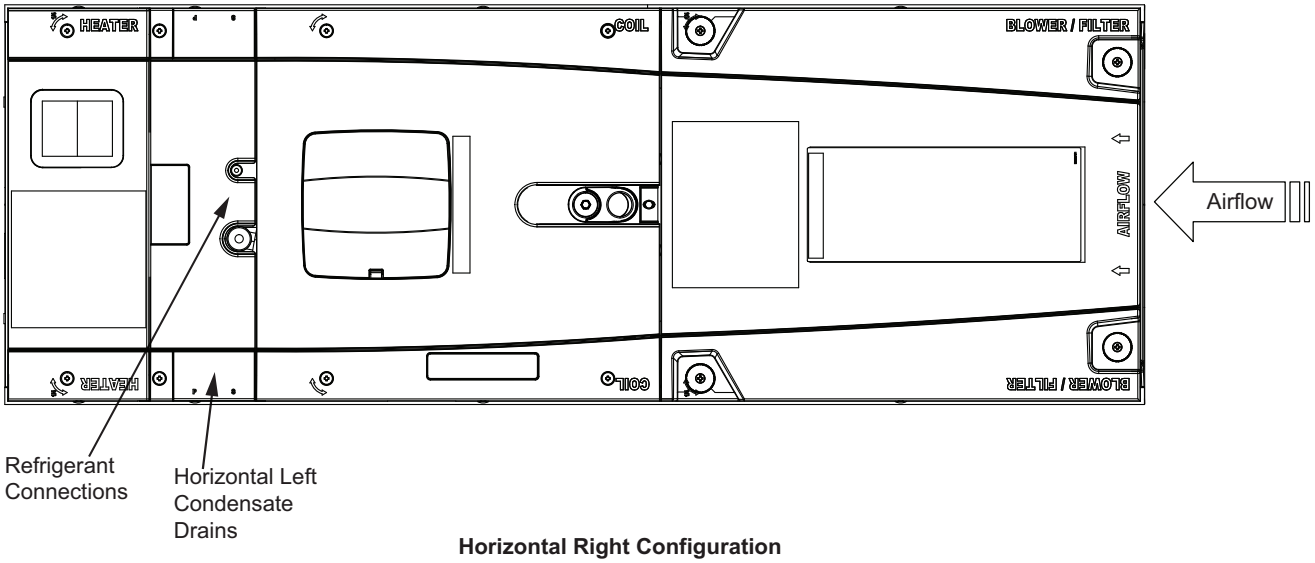
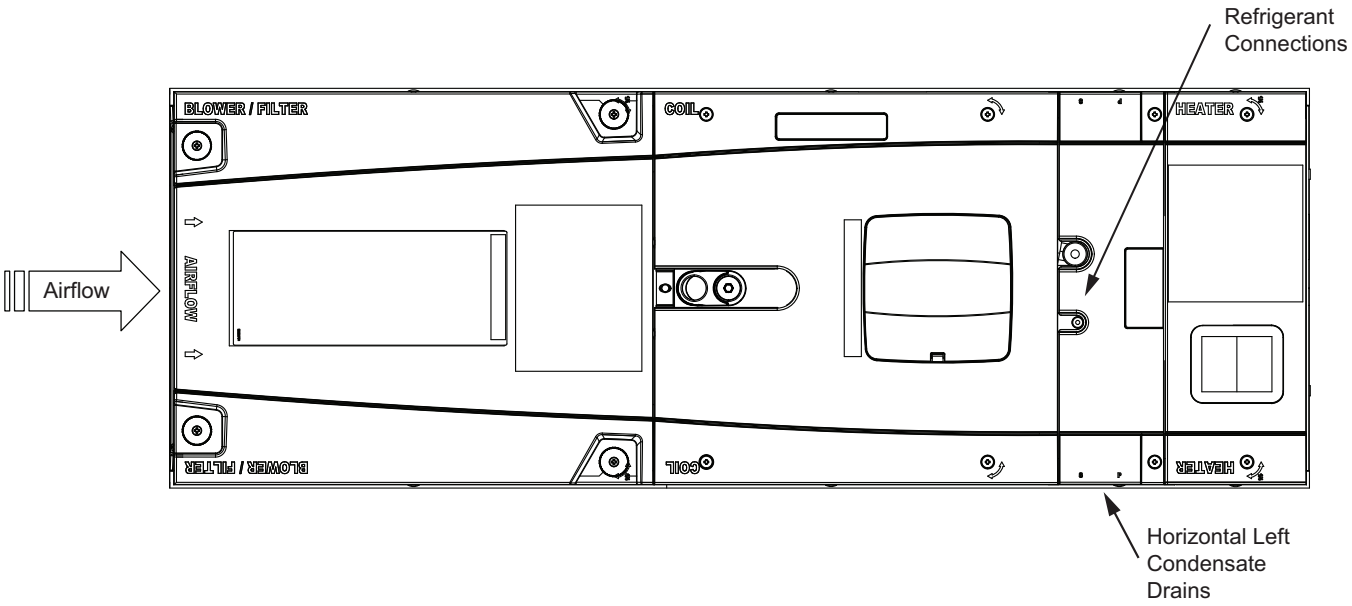


Figure 24. Horizontal left and right configuration

Horizontal Left Configuration



Horizontal Right Configuration

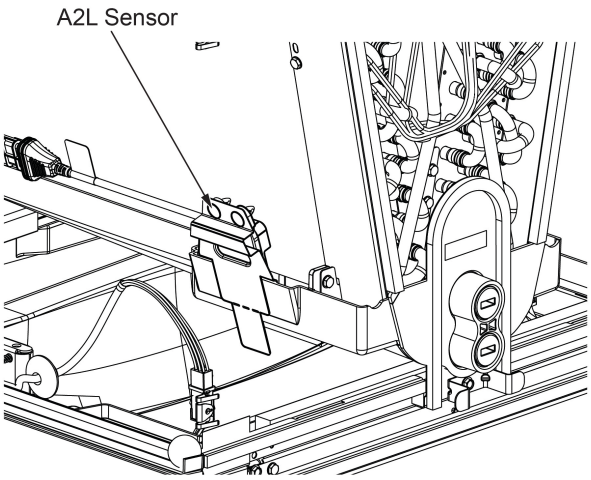


Horizontal Sensor Relocation

Note: *The A2L sensor does not need to be relocated for upflow applications. It comes installed from the factory in the upflow position.*

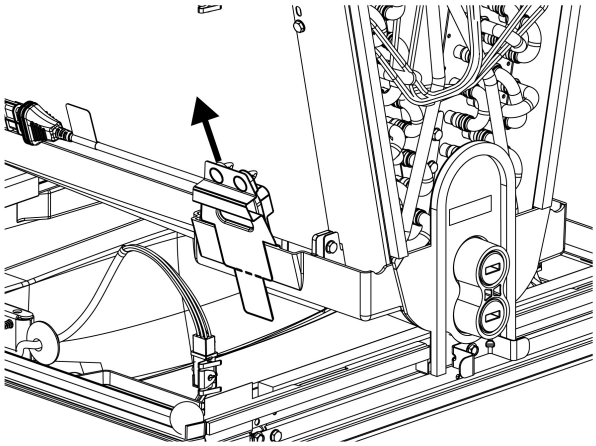
1. Remove the coil panel and locate the A2L sensor on the upflow drain pan.

Figure 25. Refrigerant sensor location (as shipped)



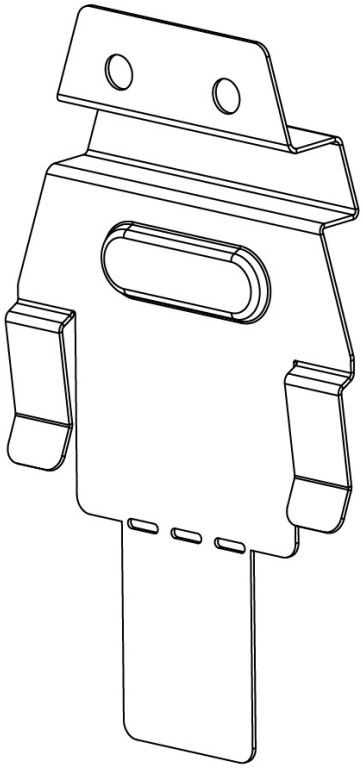
2. Remove the A2L sensor from the drain pan by pulling directly up.

Figure 26. Remove the sensor



3. Bend and break off tab of the refrigerant sensor clip along perforation.

Figure 27. Refrigerant sensor clip

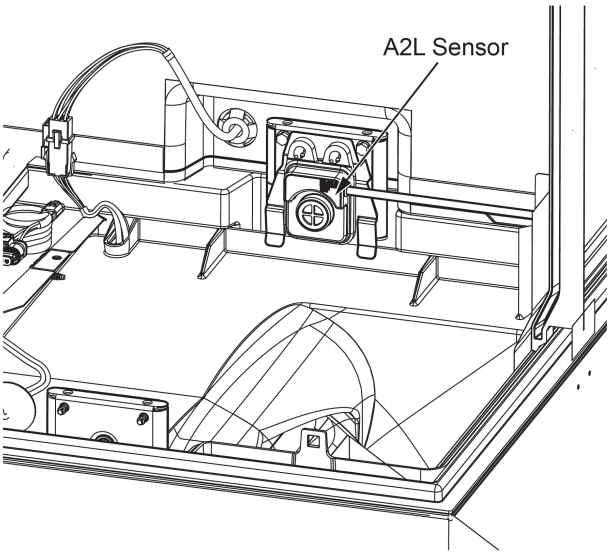


4. Clip the sensor onto the blower deck just in front of the roto latch.

   Notes:

   - *For horizontal right applications, clip the sensor on the right side of the unit.*
   - *For horizontal left applications, clip the sensor on the left side of the unit.*
   - *If the blower needs to be removed after this point, the A2L sensor will need to be removed and set aside before the blower is removed.*

Figure 28. Sensor location for horizontal orientation

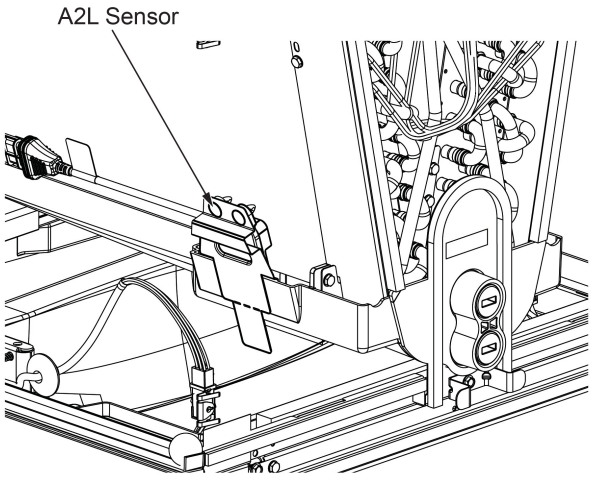


Downflow Sensor Relocation

Note: *To avoid damaging the refrigerant sensor, sensor should be relocated only after field braze joints have been completed.*

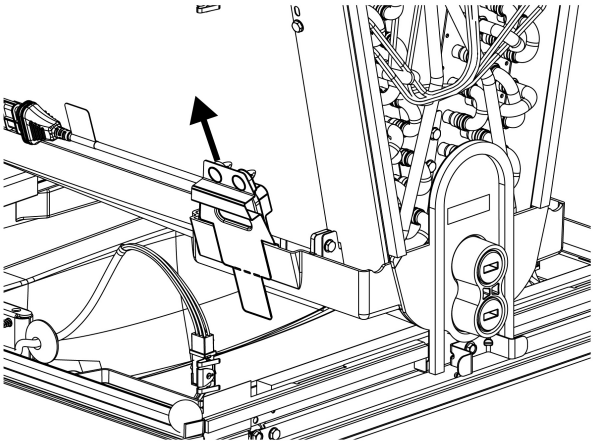
1. Remove the coil panel and the line set panel. Locate the A2L sensor on the upflow drain pan.

Figure 29. Refrigerant sensor location (as shipped)



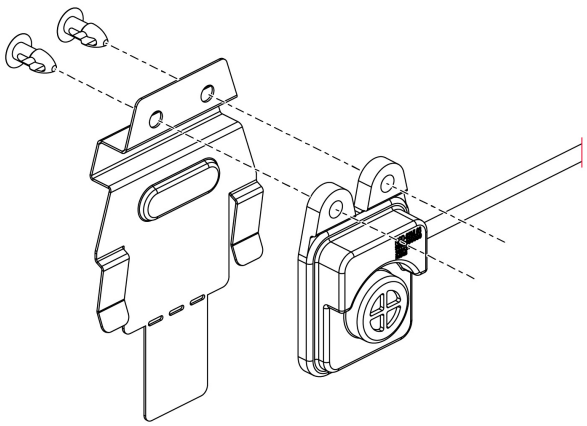
2. Remove the A2L sensor from the drain pan by pulling directly up.

Figure 30. Remove the sensor



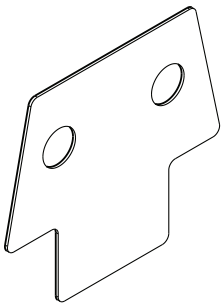
3. Remove the A2L sensor from the metal bracket by removing the plastic push pins. Keep the push pins as they will be used later.

Figure 31. Remove the refrigerant sensor for its bracket



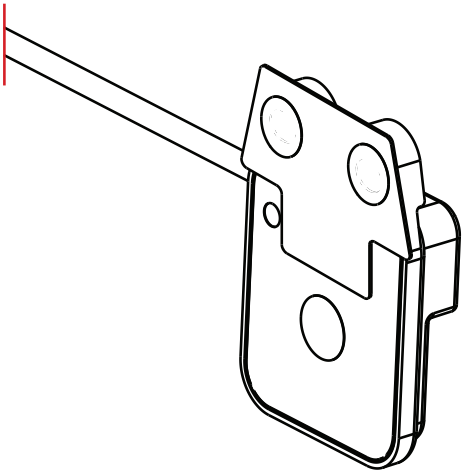
4. Locate the downflow sensor bracket in the documentation package.

Figure 32. Refrigerant sensor bracket for downflow orientation



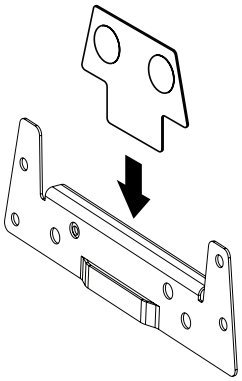
5. Secure the A2L sensor to the downflow bracket using the push pins.

Figure 33. Downflow refrigerant sensor bracket attached to the sensor



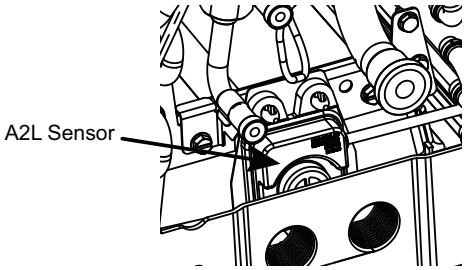
6. Place the tab of the downflow bracket into the slot on the coil support.

Figure 34. Downflow refrigerant sensor bracket placement



7. Unbundle refrigerant sensor harness. Neatly route across front of coil using field-supplied wire ties. Connect harness to refrigerant sensor.

Figure 35. Refrigerant sensor installed in downflow orientation



Ducted and Non-Ducted Return Applications

Non-Ducted Return Installations

⚠ CAUTION

Hazardous Vapors!

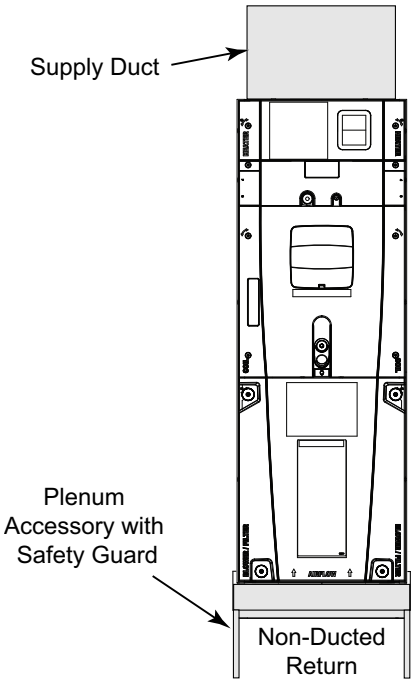
Failure to follow instructions below could result in minor to moderate injury or property damage.
Do not install an air handler with a non-ducted return in the same closet, alcove, or utility room as a fossil fuel device.

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.

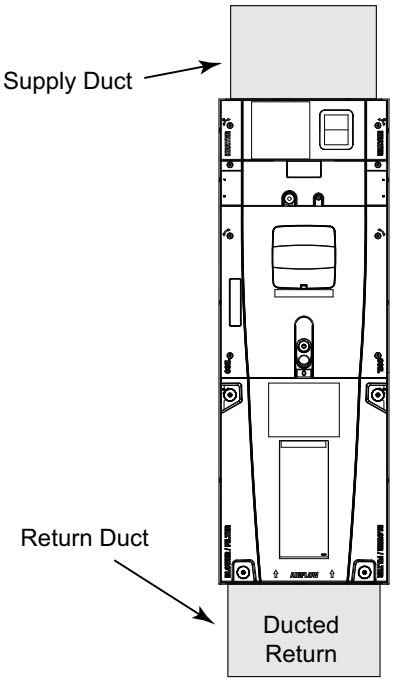
Figure 36. Non-ducted return installations



Ducted Return Installations

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).

Figure 37. Ducted return installations



Setting the Unit — Vertical Installation

Provide a minimum height of 14 -in. for proper unrestricted airflow below the unit. Allow a minimum of 21 -in. clearance in front of the air handler to permit maintenance and removal of filter.

- 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.

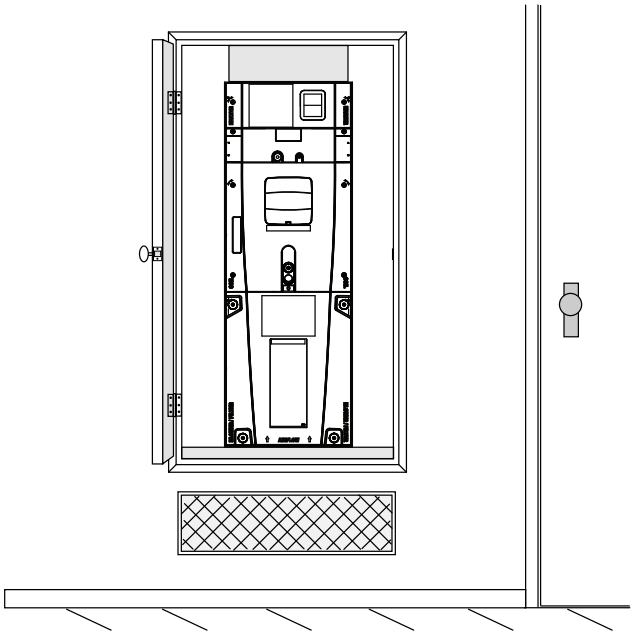
Note: *The following sound insulation kits are available to lessen objectionable sound.*

BAYINSKT175A for use with 17.5 -in. cabinets

BAYINSKT215A for use with 21.5 -in. cabinets

BAYINSKT235A for use with 23.5 -in. cabinets

Figure 38. Typical closet installation



1. Install the TASB plenum stand with integrated sound baffle using the TASB instructions.

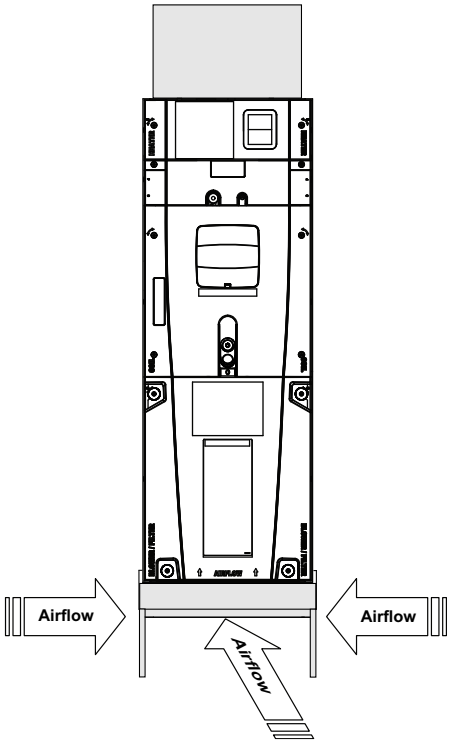
   Note: *Kit is used for open air applications.*

   - TASB175SB for use with 17.5 -in. cabinets
   - TASB215SB for use with 21.5 -in. cabinets
   - TASB235SB for use with 23.5 -in. cabinets
   - MITISRKIT1620 — Side return kit with 16 -in. x 20 -in. filter

   Contact your distributor for more information. The following sound insulation kits are available to lessen objectionable sound.

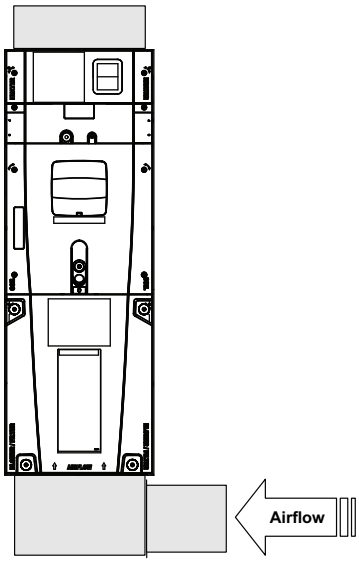
   - BAYINSKT175A for use with 17.5 -in. cabinets
   - BAYINSKT215A for use with 21.5 -in. cabinets
   - BAYINSKT235A for use with 23.5 -in. cabinets

Figure 39. Typical TASB installation



2. Assemble the plenum using the plenum's Installer Guide. On units with sheet metal returns, return plenum must be flanged. Sheet metal drill point screws must be 1/2 -in. in length or shorter.

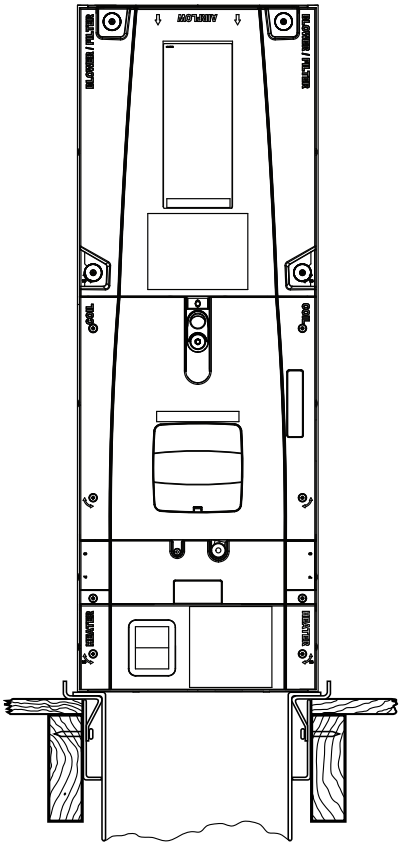
Figure 40. Typical plenum installation



3. Prepare the location site as appropriate for your application and per national, state, and local code requirements and set the unit in position.

   Note: *Downflow installation must comply with national, state, and local codes.*

Figure 41. Typical downflow installation



Setting the Unit — Horizontal Installations

Important:

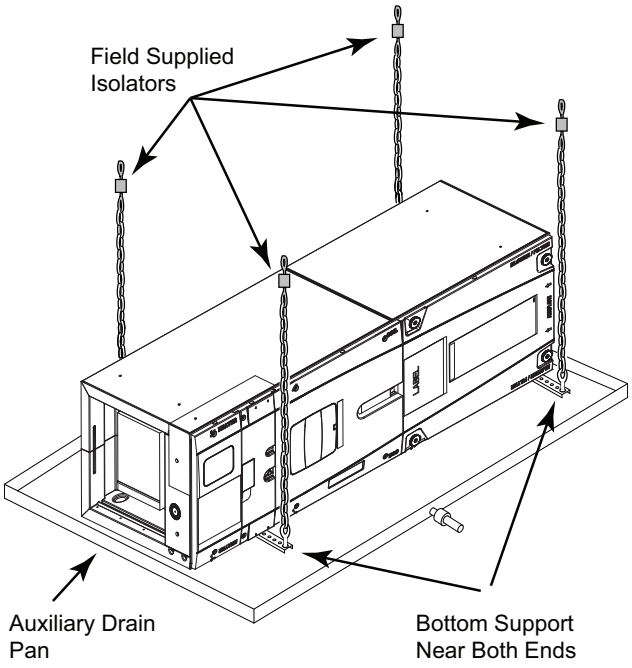
- *Due to the unique design of this unit, which allows the electrical wiring to be routed within the insulation , do not screw, cut, or otherwise puncture the unit cabinet in any location other than the ones illustrated in this Installer Guide or in an approved accessory's Installer Guide.*
- *Make certain that the unit has been installed in a level position to ensure proper draining.*
- *Under no conditions should metal strapping be attached to the unit to be used as support mechanisms for carrying or suspension purposes.*

1. Support the unit from the bottom (near both ends). The service access must remain unobstructed.
    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.

    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.*

    Note: *Do not allow the unit to be used as strain relief.*
2. Install an auxiliary drain pan under the horizontal air handler to prevent possible damage to ceilings.
    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.

Figure 42. Auxiliary drain pan installation



Note: *BAYHHKIT001A Hanging Bracket Kit may be ordered separately.*

Important: *The BAYHHKIT001A may not be used if the cabinet has been altered per Installer Guide 18–GJ58D1–1*

Connecting the Duct work

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.*
- *Under no conditions should metal strapping be attached to the unit to be used as support mechanisms for carrying or suspension purposes.*
- *On units with sheet metal returns: Return air plenum must be flanged. Sheet metal drill point screws must be 1/2 -in. 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 -in. 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 for additional information.

Notes:

- *Side return is not approved without Side Return Kit # BAYSRKIT100. More than one Side Return Kit may be necessary depending on the application. See the Installation Guide in BAYSRKIT100 for approved duct connections, sizing, number, transitions, and accessory application.*
- *Duct work must be supported as appropriate. See National and local codes for guidelines. Do not depend on the unit to support duct work.*

Figure 43. Duct connection considerations

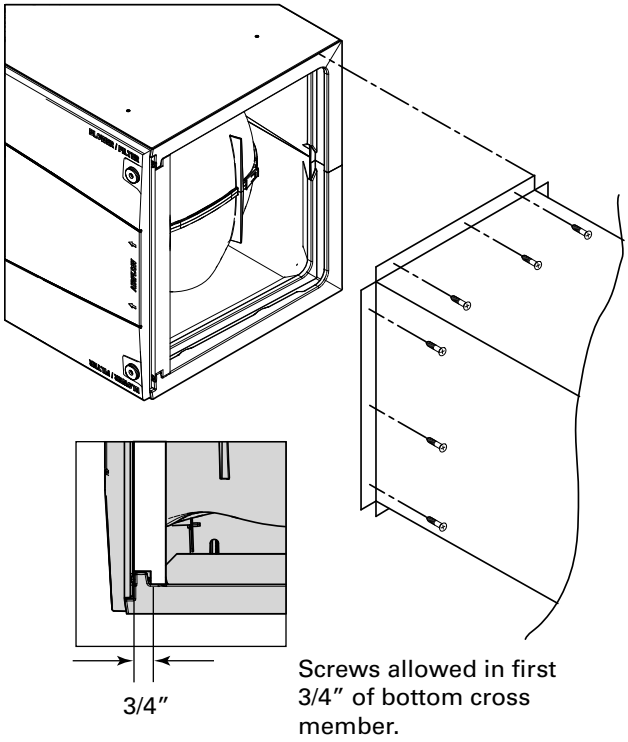
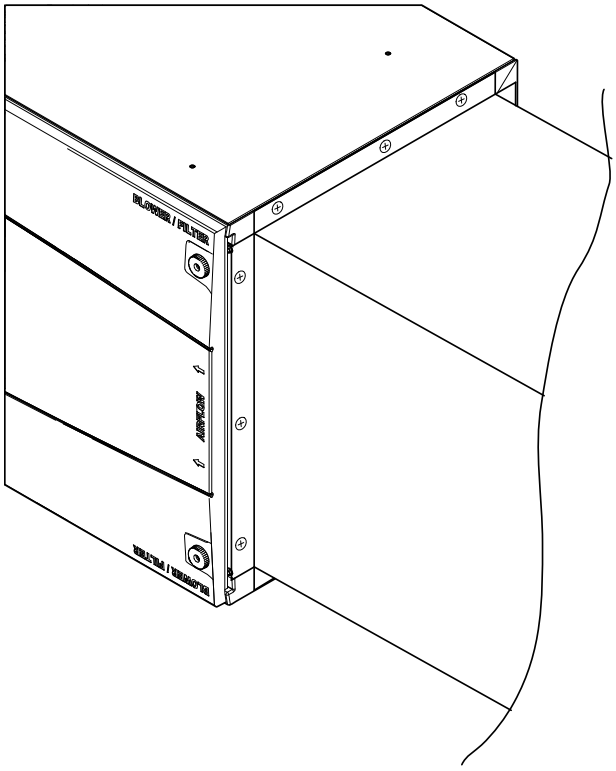


Figure 44. Duct connection considerations



Refrigerant Line

Table 8. Refrigerant line connection sizes

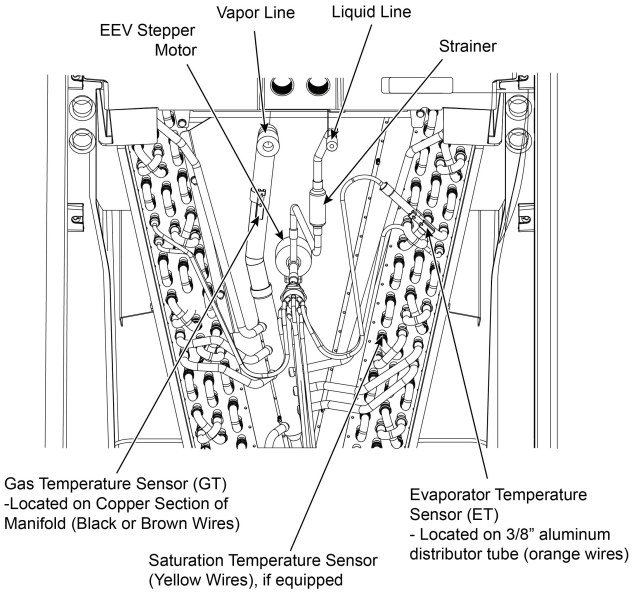
Model	Vapor Line Connection	Liquid Line Connection
5TAMXB02	3/4	3/8
5TAMXC03	3/4	3/8
5TAMXD04	7/8	3/8
5TAMXD05	7/8	3/8
5TAMXD06	7/8	3/8
5TAMXD07	7/8	3/8

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 Refrigerant Piping Manual for Small Split Cooling and Heat Pump Systems Application Guide (SS-APG006*–EN) or 32–3312** (latest version)*

Refrigerant System Layout

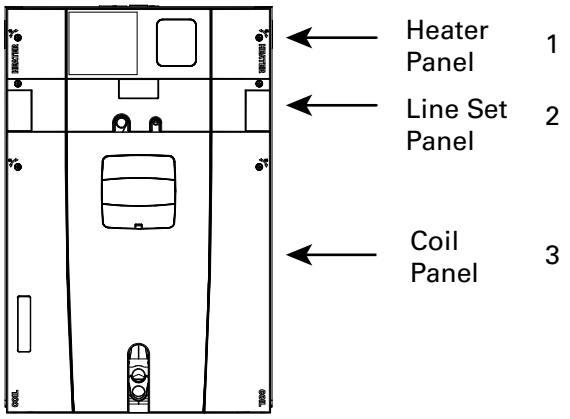
Figure 45. Refrigerant system layout



Refrigerant Line Brazing

1. Remove the heater, coil, and line set panels.

Figure 46. Remove the panels



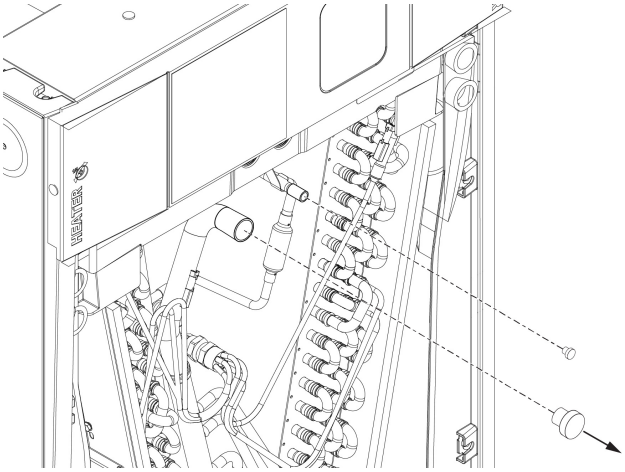
Important:

- *Do not unseal coil refrigerant connection stubs until ready to make connections.*
- *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.

Note: *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.*

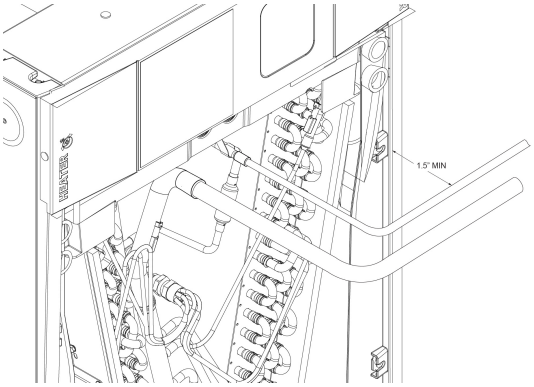
Figure 47. Remove the sealing plug



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.*

Figure 48. Refrigerant line set spacing



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.*

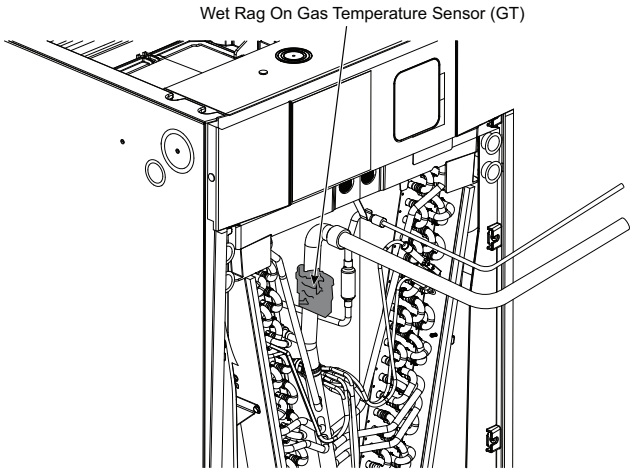
5. Braze refrigerant line connections.
   a. Pull back the insulation before brazing the suction line.
   b. Wrap the Gas Temperature Sensor (GT) with a wet rag.
   c. Braze the refrigerant line connections.

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

Notes:

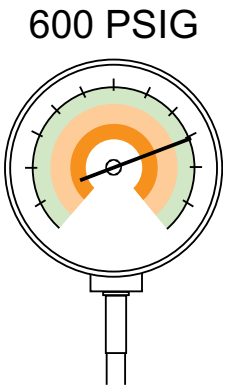
- *If system is installed in downflow, refrigerant sensor must be relocated after brazing. See "Four-Way Conversion," p. 27.*
- *The suction line must be insulated prior to brazing the line set to the air handler stubs.*

Figure 49. Braze refrigerant line connections



6. Using dry nitrogen, pressurize the field piping and indoor coil to the lower of the maximum operating pressures listed on the name plates of the indoor and outdoor units (likely 600 psi).
7. The test pressure after removal of the pressure source shall be maintained for at least one (1) hour with no decrease of pressure indicated by the test gauge, with the test gauge resolution not exceeding 30 psi.

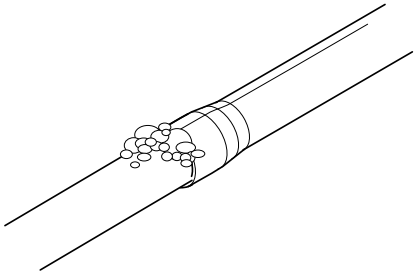
Figure 50. Operating pressures



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

Note: *Remove nitrogen pressure and repair any leaks before continuing.*

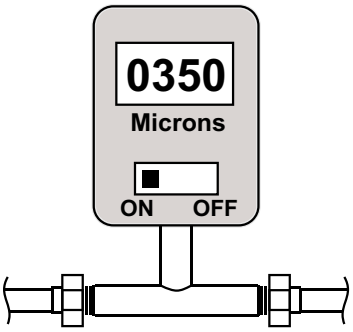
Figure 51. Check leaks



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

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

Figure 52. Micron gauge



10. Observe the micron gauge. Evacuation is complete if the micron gauge does not rise above 500 microns in one (1) minute and 1500 microns in ten (10) minutes.
    a. Once evacuation is complete blank off the vacuum pump and micron gauge, and close the valves on the manifold gauge set.

    Notes:

    - *Charge system using Outdoor unit's Installer Guide or Service Facts.*
    - *Use soapy water to wipe any refrigerant oil off the panels.*

Figure 53. Micron gauge

11. Replace the line set panel.
    a. Allow time for tubing to cool.
    b. 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.*

    c. Slide the bottom of the Line Set panel down over the refrigerant lines and grommets. The grommets will seal the line openings.

d. Tighten screws on the Line Set panel.

Figure 54. Grommet line set

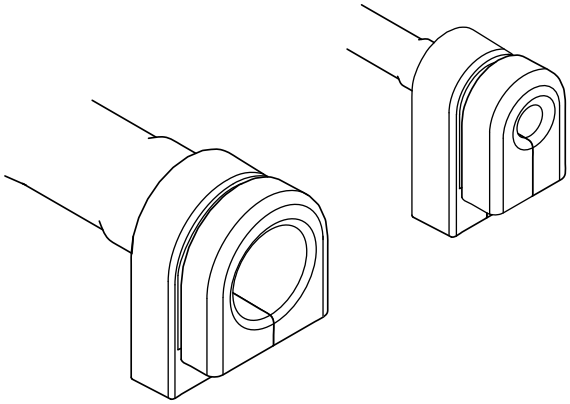
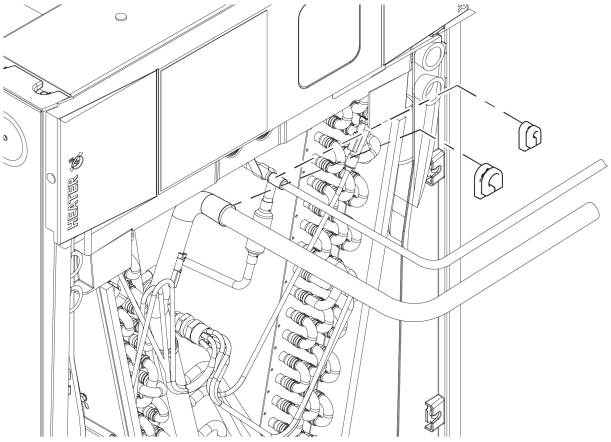
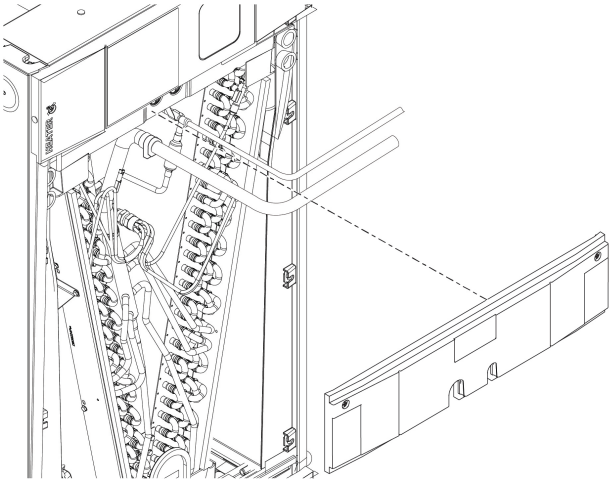


Figure 55. Grommet line set



SEE ENLARGED ILLUSTRATION FOR ORIENTATION

Figure 56. Grommet line set



Condensate Drain Piping

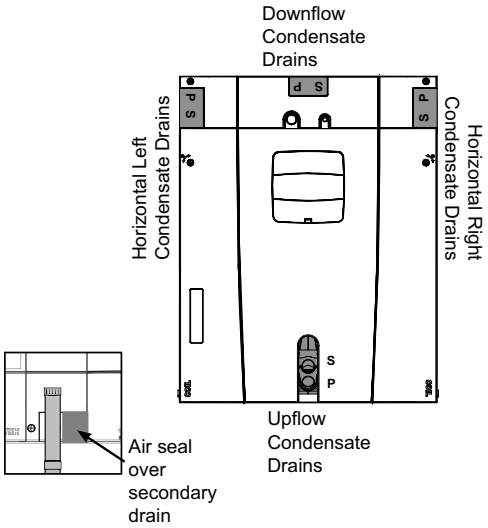
- Condensate drain plumbing must comply with national, state, and local codes.
- Route condensate drain lines away from air handler so they do not interfere with access panels.
- Slope the drain lines downward a minimum of 1/4 -in. per foot, support per local codes.
- Do not use reducing fittings in 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.

Notes:

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

Figure 57. Condensate drain piping



Notes:

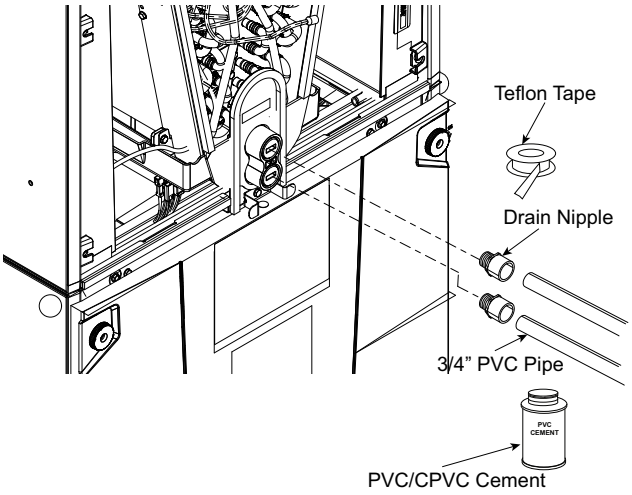
- *A small amount of sealant must be applied around the drain line(s) passing through the panel to prevent air leakage and possible water drips.*
- *Dry fit and test clearance for coil panel removal before applying PVC/CPVC cement.*
- *Use Teflon tape on the air handler drain line connections. Do not use pipe joint compound or PVC/CPVC cement on drain nipple.*
- *Hand tighten the drain pipe.*

3. For upflow installations, connect 3/4 -in. PVC pipe to the threaded drain nipple with PVC/CPVC cement. 3 -in. 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 -in. 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:*

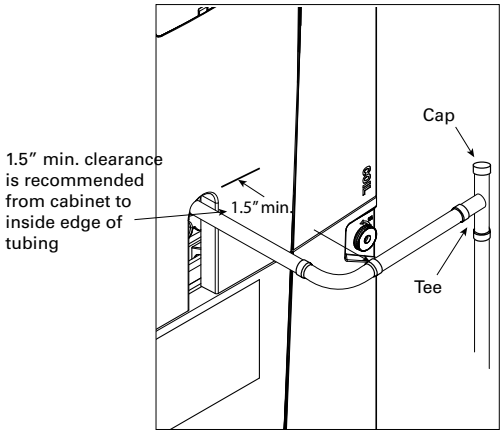
Note: *A small amount of sealant must be applied around the drain line(s) passing through the panel to prevent air leakage and possible water drips.*

Figure 58. Connecting PVC pipe



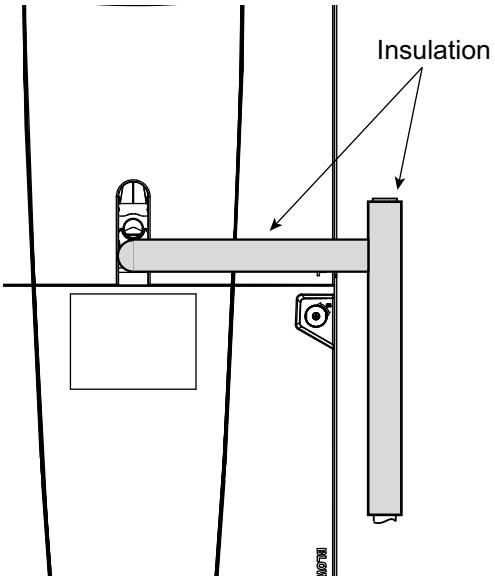
4. Install a clean-out tee in the primary drain line for future maintenance. It is recommended that you install a cap on the top of the tee.

Figure 59. Install a clean-out tee



5. Insulate the primary drain line to prevent sweating where dew point temperatures may be met. (Optional depending on climate and application needs).
6. Provide a means of drainage to prevent winter freeze-up of condensate line (Optional depending on climate and application needs).

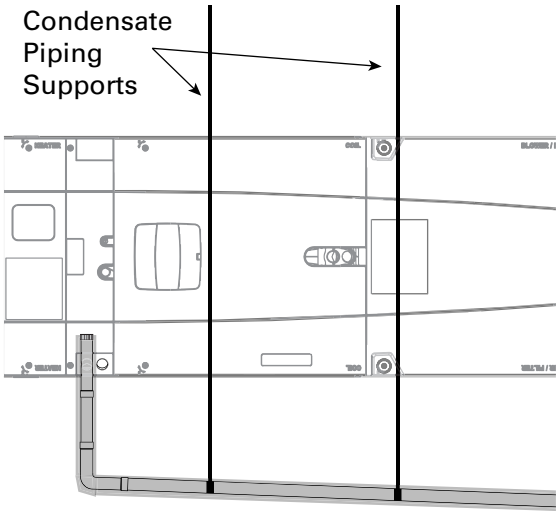
Figure 60. Insulation



7. Support the condensate piping outside the unit per local codes for proper drainage and to prevent sagging. Allow 1/4 -in. of downward slope for each foot of pipe.

Note: *If using downflow or horizontal drain lines, A2L sensor is required to be relocated. See "Four-Way Conversion," p. 27for more details.*

Figure 61. Condensate piping support



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, sate, and local codes.

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

To allow disconnection of the air handler from the power supply, a disconnection from the supply mains having a contact separation in all poles must be incorporated into the fixed wiring in accordance with national, state, and local codes.

⚠ WARNING

Live Electrical Components!

Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

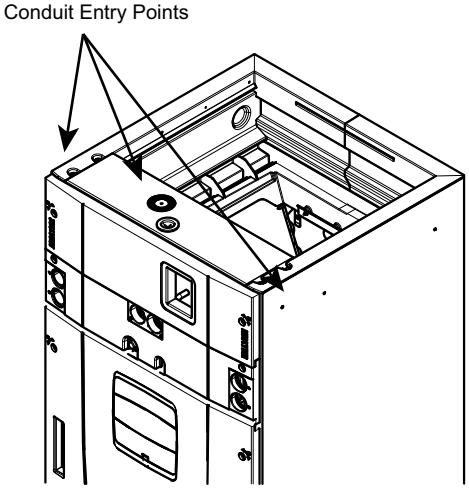
When it is necessary to work with live electrical components, have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks.

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 -in. 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.*

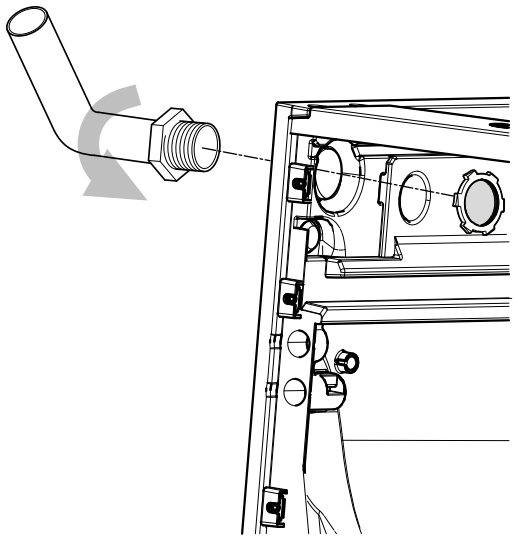
Figure 62. Conduit entry point



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 -in. or 1–1/2 -in. conduit to conduit nut.

   Note: *Reducing bushings may be required for your application.*

Figure 63. Connecting the conduit

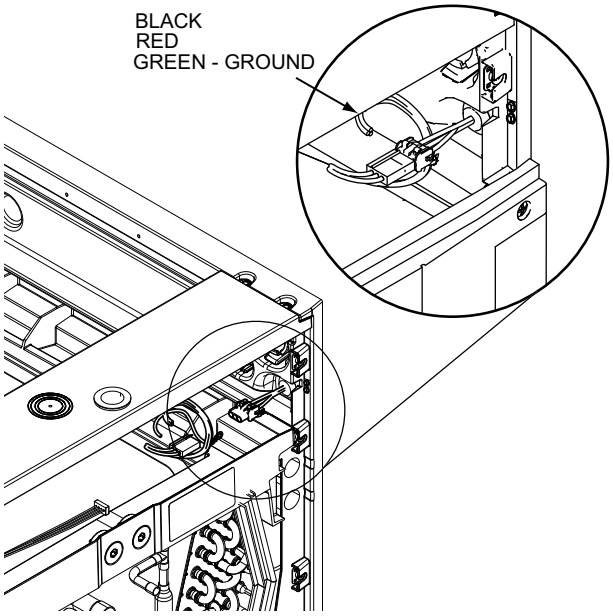


4. If an electric heater IS NOT being installed, remove the pigtail harness from the documentation pack and connect it to the plug on the inside of the Heater Compartment in the cabinet.If an electric heater IS being installed, see the Installer's Guide shipped with the electric heater.

Note: *The heater size will be automatically configured by installing a resistor in the Electric heat harness located in the electric heat compartment and will be included with the BAYEA heater.*

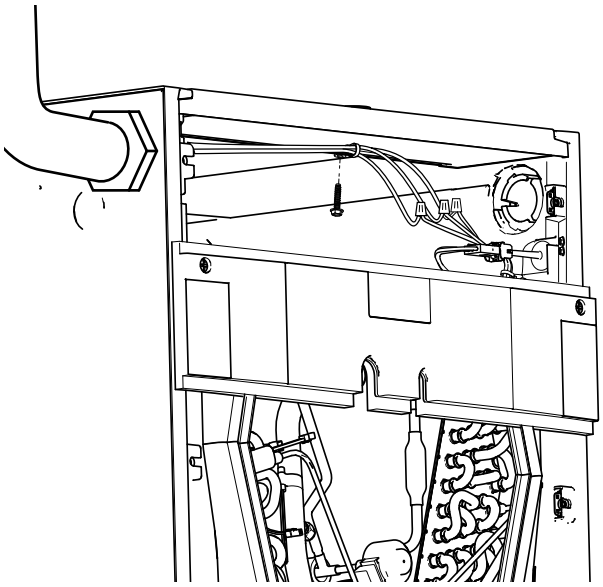
5. Connect L1, L2, and ground wiring to pigtail harness in Heater Compartment using wire nuts. The incoming ground wiring will mate up with the green wire shown in the illustration.

Figure 64. Ground wiring



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

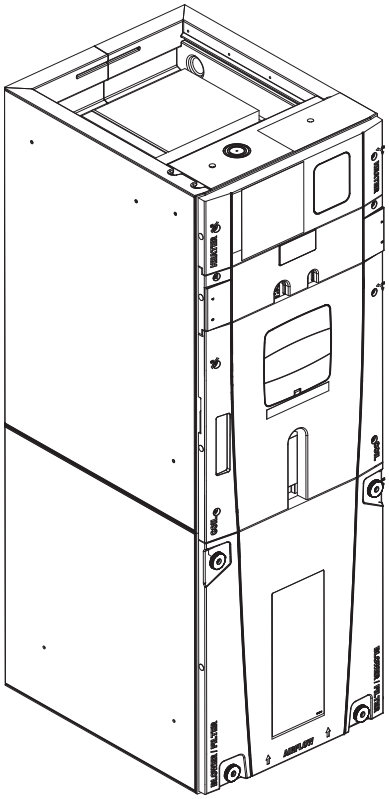
Figure 65. Holding the ground wires



7. 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.*

Figure 66. Reinstalling the panels

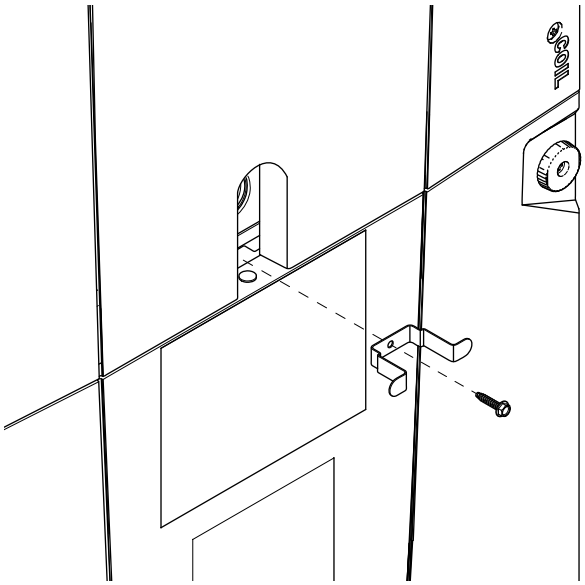


8. Remove screw and coil bracket from documentation packet.
9. Place the coil panel bracket into position and use screw to secure the coil panel bracket and seal plate to the support bar.

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

Figure 67. Coil panel bracket



Electrical — Low Voltage

5TAMX can be used in either Link Communicating mode or 24 Volt mode. In Link Communicating mode, all configurations are made by using the configuration menu in the User Interface (UX360) or from the Diagnostic Mobile App. In 24 Volt mode, basic operation is configured from the factory with no defaults for accessories. All configurations for blower delays, accessories etc., need accomplished using the Diagnostic Mobile App.

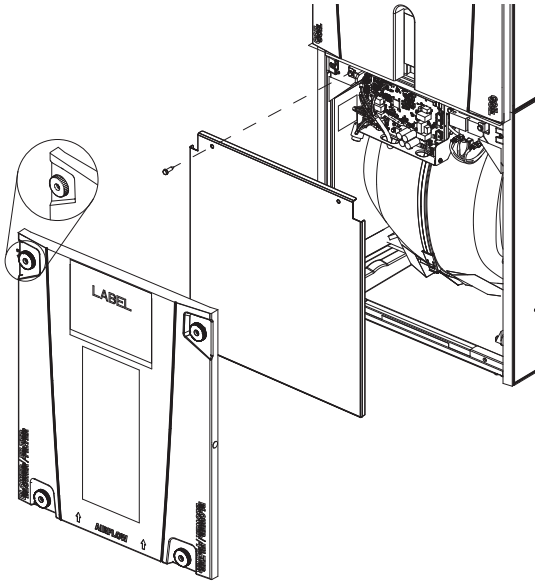
Table 9. Low voltage maximum wire length

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. ***Note:*** *The use of color coded low voltage wire is recommended to simplify connections between the outdoor unit, the control, and the indoor unit.*	**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 Connection Instructions

1. Remove the Blower panels by removing the four fasteners and then pulling away from the cabinet to remove.
2. Remove the block off plate by removing the two 5/16 -in. screws at the top and pulling the top out and up off the support bosses at the bottom.

Figure 68. Remove the blower panel

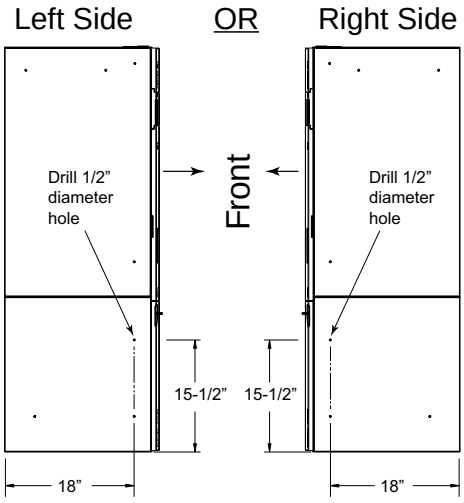


3. For low voltage entry, drill a 1/2 -in. diameter hole in side of blower cabinet at location shown on illustration. If needed for additional accessory wiring, a second hole may be drilled 2 -in. below the first. Two 3/8 -in. bushings are supplied in the doc pack.
4. Route control wiring to unit and insert low voltage wiring.

   Notes:

   - *After the LV wires have been inserted through the new hole, the hole must be sealed.*
   - *If a side return kit is used, the LV entry must be on the opposite side of the air handler.*
   - *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.*

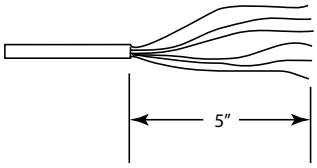
Figure 69. Low voltage wiring



Note: *Strain relief must be provided on the inside of the air handler cabinet for the low voltage wiring. Field supplied thermostat wires may be either wire tied to the control box or routed through the adhesive hook supplied in the doc pack.*

5. Remove the external sheathing of the wiring approximately 5 -in.

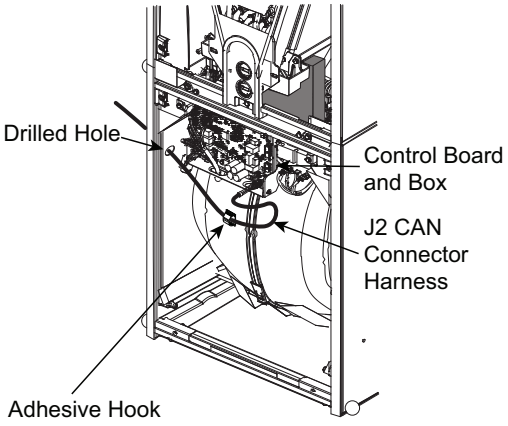
Figure 70. External sheathing



6. Perform the following steps for low voltage wire routing based on the communicating mode or 24V mode.
   - **Communicating Mode**
     a. Press and stick adhesive hook to front face of blower and turn the hook to provide strain relief if wires were tugged.

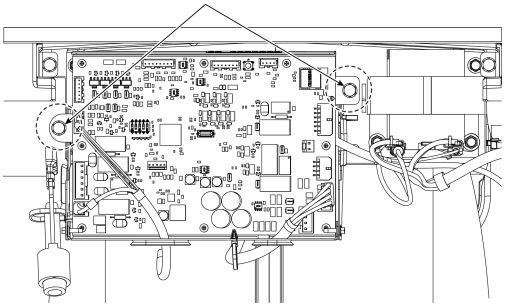
     Note: *For communicating mode, route the low voltage wiring through cabinet wall before terminating with included color-coded CAN connectors. (The CAN connector will not fit through the 1/2 –in. drilled hole.).*

Figure 71. Attach adhesive hook



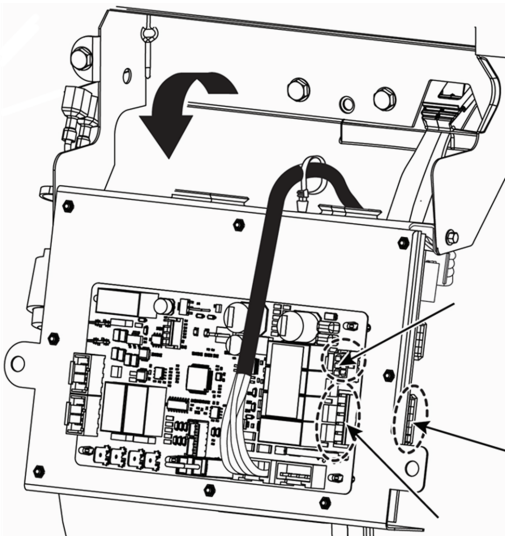
- **24V Mode**
  a. Remove the two screws and gently flip down the hinged control box to access the mitigation control board on the back.

Figure 72. Access the mitigation control board



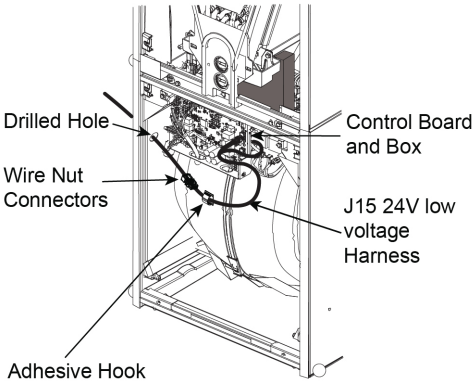
b. Install the 24V harness by plugging it into the three headers on the two control boards as shown. Route the wiring as indicated and close the control box and replace the screws.

Figure 73. Flipped down control box



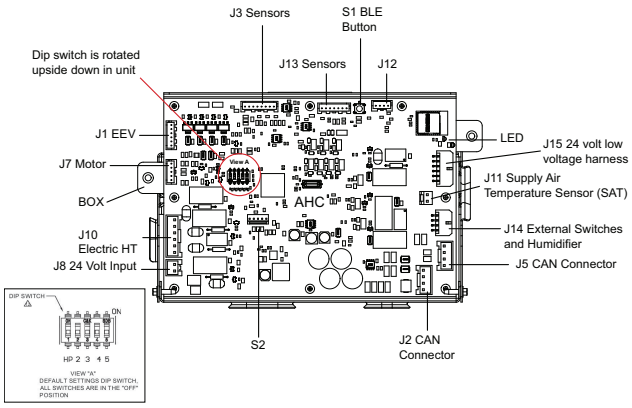
c. Press and stick adhesive hook to front face of blower and turn the hook to provide strain relief if wires were tugged.

Figure 74. Attach adhesive hook



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

Figure 75. Control board

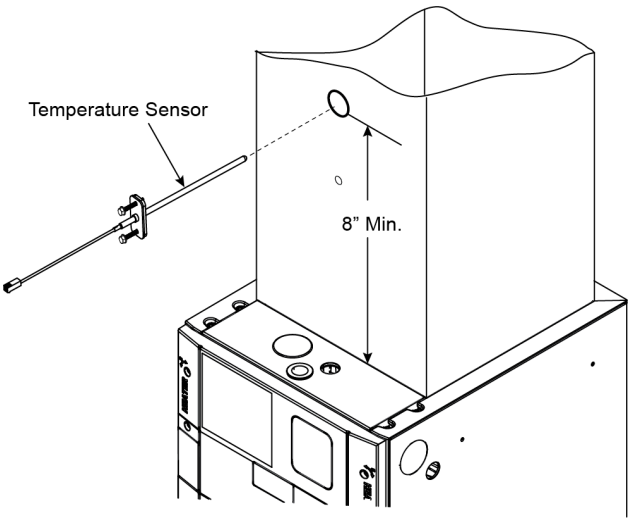


8. Mount the Supply Air Temperature (SAT) Sensor at least 8 inches above the supply duct edge, preferably higher, in an area with minimal air turbulence and away from dead air zones without discharge air temperature. Plug the SAT Sensor harness directly into the AHC Board. See Figure 75, p. 49.

Notes:

- *Supply Air Temp Sensor (SAT) is used in Link Communicating mode and is optional in 24 Volt mode.*
- *Supply Air Temp Sensor (SAT) ships with SC360 System Controller.*
- *Supply Air Sensor kit is BAYSENSC360.*

Figure 76. Supply Air Temperature Sensor



Link Communicating Low Voltage Wire Connectors

Link mode uses simple connectors for low voltage connections. These connections are color coded which makes the installation easier and quicker.

Table 10. Wires color coded

R	Red
DH	White
DL	Green
B	Blue

Do the following to make the connections from the actual thermostat wire to the connector.

Note: *These connectors are necessary at the communicating outdoor unit, communicating indoor unit, distribution board(s), system controller and communicating accessories.*

1. Strip the Red, White, Green, and Blue thermostat wires back 1/4 -in.

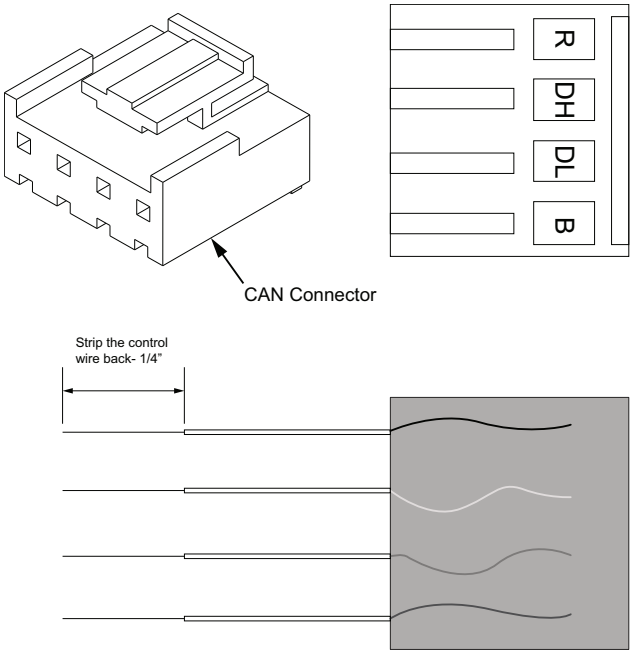
2. Insert the wires into the corresponding colored locations in the connector.
3. Allow each wire to slide in further when you feel it release
4. Pull back on the wires individually and slightly and check if the wires are seated properly. If each wire does not pull out for all four wires, the connection is complete.
5. Connectors are ONE TIME USE. If a 18 ga. Thermostat wire gets broken off inside of the connector, the connector will need replaced.

   Note: *Wire colors are for illustration purposes only. If using a different color, ensure it lands at the correct terminal throughout all of the communicating control wiring.*

6. Connect the CAN connector into the male coupling on the low voltage harness at the Outdoor unit.

This air handler has two dedicated CAN Connector headers on the Air Handler Control (AHC) board. In Link communicating mode, both of them are in the communicating loop. It does not matter which one goes to the thermostat, System Controller, distribution board, outdoor unit or any other Link accessory.

Figure 77. CAN connector



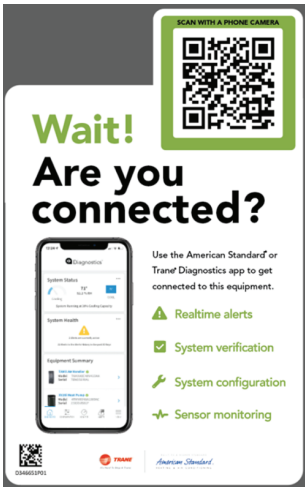
Notes:

- *For use with 18 ga. solid core thermostat wire.*
- *Note: For connections to the AHC, do not add color-coded connectors to the thermostat wire until after it has been pulled inside the blower compartment. (The CAN connector will not fit through the 1/2 -in. drilled hole.)*

Get the App

The Diagnostics Mobile App can be found in your device App Store when searching for Trane Diagnostics or American Standard Diagnostics. A QR code can be scanned which sends you directly to the location:

Figure 78. Get the app



External Switches and Accessories

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 AHC control board.

- External switch 1 and 2 do have 24 Volts AC source voltage and are to be connected to Normally Closed (NC) contacts on the external device.
- Accessory 1 and 2 are dry contacts and need source voltage provided from either the accessory or internally.

The external switches and accessories can be configured through the Smart Thermostat or the Diagnostics Mobile App.

Notes:

- *Accessories can be configured in the UX360 User Interface or Diagnostics Mobile App in Link communicating mode ONLY.*
- *Accessories need configured using the Diagnostics Mobile App in 24 Volt mode. There are no defaults in 24 Volt mode.*

Figure 79. External switches and accessories

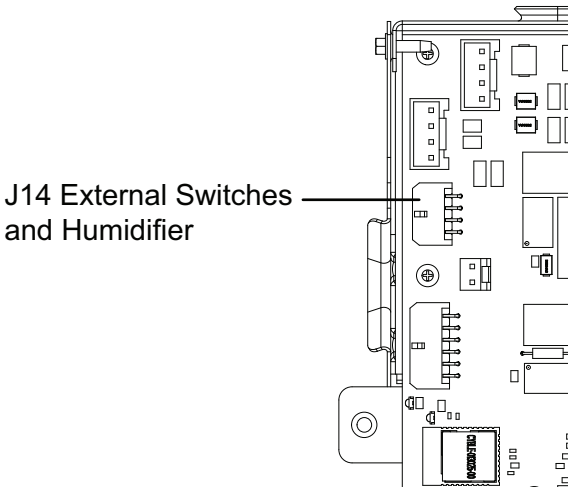


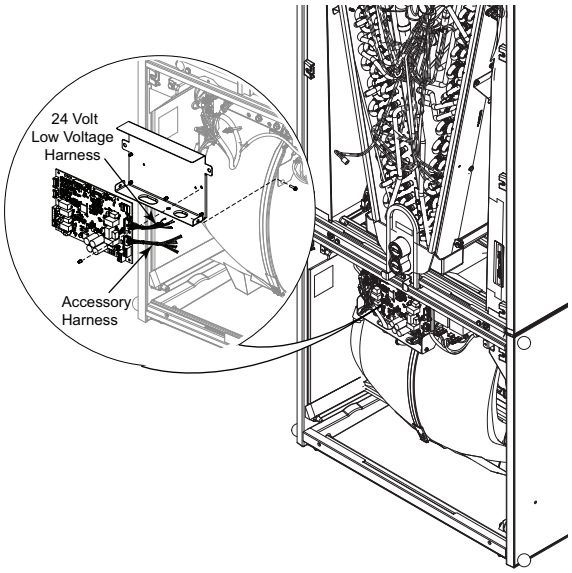
Table 11. External switches and accessories

Wires	Switches/Accessory
Black Wires	**Ext Switch 1** External condensate, Smoke Detector
White Wires	**Ext Switch 2** External condensate, Smoke Detector
Blue Wires	**Accessory 1** EAC, Humidifier (Fan assist/ Bypass) Steam Humidifier
Green Wires	**Accessory 2** EAC, Humidifier (Fan Assist/ Bypass) Steam Humidifier

Accessory Harness Installation

The accessory configurations can be done at either the UX360 User Interface in communicating mode or from the Diagnostics Mobile App. The accessories must be configured from the Diagnostics Mobile App in 24 Volt mode.

Figure 80. Accessory harness installation



Replacement AHC Configuration – 24 Volt Mode

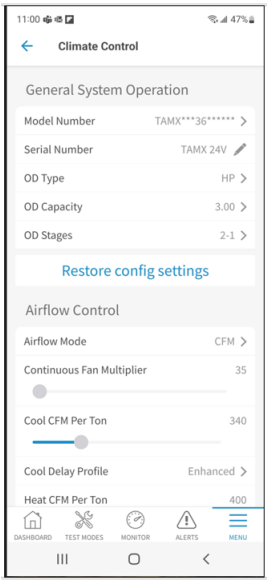
Replacement AHC boards need programmed and will not run without configuration **IN 24 Volt Mode**. There are 2 ways to perform the configuration. 1 of the methods is required to get the unit running. Combining 2 or more methods will result in unwanted operation.

1. The most complete configuration will be accomplished using the Diagnostics Mobile App. In this app, there are configurations for the model number, blower delays and accessories.
2. There is a Button Press method is to configure the size of the Air Handler and is accomplished by pressing the S1 button on the bottom of the control board in a sequence explained in this document.

Note: *Only 1 of these methods should be used.*

Method #1:

Figure 81. Method #1: diagnostic mobile app



Button Press AHC Configuration Method: Method #2

Replacement AHC must be configured for unit size. Airflow will be set at 400 cfm/ton based on unit size configuration.

These configurations can be done through the Diagnostics Mobile App with no manual steps or can be done manually without the Diagnostics Mobile App.

Table 12. Configuration for replacement AHC

Step	Manual Program Unit Model Size	Red LED Status
1	Hold BLE button for 5 seconds and release.	Red LED will be off.
2	1 Red flash that indicates system is ready to program.	1 Red LED flash alerts user that it is now able to program.
3	If configuration is present, Red LED will flash based on the configuration.	Red LED will be off if no configuration is present.
4	5 quick Red LED flashes.	5 quick Red LED flashes.
5	Start programming by clicking BLE button.	13 press - 5TAMXB02A 14 press - 5TAMXC03A 15 press - 5TAMXD04A 16 press - 5TAMXD05A 17 press - 5TAMXD06A 18 press - 5TAMXD07A
6	After the last button press, Red LED will flash 1 time to acknowledge programming.	Red LED will now flash the number of times you pressed to confirm your configuration. If you programmed the wrong size, within 2 seconds, start step 5 over.
7	Red LED will announce successful programming.	Red LED will turn on for 5 seconds announcing the configuration has been stored in NV memory correctly. Red LED will be on for only 2 seconds if not stored properly. Programming is complete.

Replacement AHC Configuration — LINK Communicating Mode

The system controller (SC360) will load important parameters in communicating mode and no interaction is necessary when replacing the AHC. If the AHC and the System Controller (SC360) need replaced at the same time- contact your local FSR or technical support agent.

Product Specifications

Table 13. Models – 5TAMXB02AV21DB, 5TAMXC03AV31DB, and 5TAMXD04AV31DB

Model	5TAMXB02AV21DB	5TAMXC03AV31DB	5TAMXD04AV31DB
Family Description	R-454B Variable Speed Air Handler	R-454B Variable Speed Air Handler	R-454B Variable Speed Air Handler
Application Configuration	4-Way	4-Way	4-Way
RATED CAPACITY RANGE (BTUH)	18K - 24K	18K - 30K	24K - 42K
SYSTEM CONTROL TYPE	Link Communicating or 24V	Link Communicating or 24V	Link Communicating or 24V
POWER CONN. - V/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Max Breaker Size, Without Electric Heater (Amps)	15	15	15
Max Breaker Size, With Electric Heater (Amps) [a] [b]	60	60	60
COIL TYPE	All-Aluminum Plate Fin	All-Aluminum Plate Fin	All-Aluminum Plate Fin
Refrigerant Type	R-454B	R-454B	R-454B
Refrigerant Control	EEV	EEV	EEV
Refrigerant Line Connection - Gas (in.)	3/4	3/4	7/8
Refrigerant Line Connection - Liquid (in.)	3/8	3/8	3/8
BLOWER TYPE	Direct Drive Centrifugal	Direct Drive Centrifugal	Direct Drive Centrifugal
Configuration	Blow Through	Blow Through	Blow Through
Dimensions (Diameter x Width (in.))	11 x 8	11 x 10	11 x 10
Motor Type	Variable Speed	Variable Speed	Variable Speed
Nominal CFM [c]	800	1000	1200
Speed (RPM)	1050	1050	1050
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Full Load Amps	3.9	3.9	3.9
FILTER RACK (YES, NO)	Yes	Yes	Yes
Dimensions (Length x Width (in.))	16 x 20 x 1	20 x 20 x 1	22 x 20 x 1
DUCT CONNECTIONS	L x W	L x W	L x W
Supply (in.)	14.5 x 14.35	18.4 x 14.35	20.5 x 14.35
Return (in.)	14.5 x 17.15	18.4 x 17.15	20.5 x 17.15
DRAIN CONN. SIZE (IN.)	3/4 NPT	3/4 NPT	3/4 NPT
DIMENSIONS	H x W x D	H x W x D	H x W x D
Uncrated (in.)	49-7/8 x 17-1/2 x 21-3/4	55-3/4 x 21-1/4 x 21-3/4	56-7/8 x 23-1/2 x 21-3/4
Crated (in.)	51-3/8 x 20-1/2 x 25-3/4	57-1/4 x 24-1/4 x 25-3/4	58-1/2 x 27-1/2 x 25-3/4
WEIGHT - SHIPPING/NET (LBS.)	126/120	150/142	163/153

[a] Maximum overcurrent protection is dependent on which electric heater is installed. See Heater Attribute Data, p. 61.
[b] If installing system outside of the United States, accessory electric heaters may not be installed.
[c] For CFM versus external static pressure (in. w.c.), see Installation, Operation, and Maintenance manual.

Table 14. Models – 5TAMXD05AV41DB, 5TAMXD06AV41DB, and 5TAMXD07AV51DB

Model	5TAMXD05AV41DB	5TAMXD06AV41DB	5TAMXD07AV51DB
Family Description	R-454B Variable Speed Air Handler	R-454B Variable Speed Air Handler	R-454B Variable Speed Air Handler
Application Configuration	4-Way	4-Way	4-Way
RATED CAPACITY RANGE (BTUH)	36K - 48K	42K - 60K	42K - 60K
SYSTEM CONTROL TYPE	Link Communicating or 24V	Link Communicating or 24V	Link Communicating or 24V
POWER CONN. - V/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60
Max Breaker Size, Without Electric Heater (Amps)	15	15	15
Max Breaker Size, With Electric Heater (Amps) [a] [b]	60	60	60
COIL TYPE	All-Aluminum Plate Fin	All-Aluminum Plate Fin	All-Aluminum Plate Fin
Refrigerant Type	R-454B	R-454B	R-454B
Refrigerant Control	EEV	EEV	EEV
Refrigerant Line Connection - Gas (in.)	7/8	7/8	7/8
Refrigerant Line Connection - Liquid (in.)	3/8	3/8	3/8
BLOWER TYPE	Direct Drive Centrifugal	Direct Drive Centrifugal	Direct Drive Centrifugal
Configuration	Blow Through	Blow Through	Blow Through
Dimensions (Diameter x Width (in.))	11 x 10	11 x 10	11 x 10
Motor Type	Variable Speed	Variable Speed	Variable Speed
Nominal CFM [c]	1400	1600	2000
Speed (RPM)	1050	1050	1050
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
Full Load Amps	3.9	5.7	6.9
FILTER RACK (YES, NO)	Yes	Yes	Yes
Dimensions (Length x Width (in.))	22 x 20 x 1	22 x 20 x 1	22 x 20 x 1
DUCT CONNECTIONS	L x W	L x W	L x W
Supply (in.)	20.5 x 14.35	20.5 x 14.35	20.5 x 14.35
Return (in.)	20.5 x 17.15	20.5 x 17.15	20.5 x 17.15
DRAIN CONN. SIZE (IN.)	3/4 NPT	3/4 NPT	3/4 NPT
DIMENSIONS	H x W x D	H x W x D	H x W x D
Uncrated (in.)	61-3/4 x 23-1/2 x 21-3/4	61-3/4 x 23-1/2 x 21-3/4	61-3/4 x 23-1/2 x 21-3/4
Crated (in.)	63-1/4 x 27-1/2 x 25-3/4	63-1/4 x 27-1/2 x 25-3/4	63-1/4 x 27-1/2 x 25-3/4
WEIGHT - SHIPPING/NET (LBS.)	174/164	176/166	180/170

[a] Maximum overcurrent protection is dependent on which electric heater is installed. See Heater Attribute Data, p. 61.
[b] If installing system outside of the United States, accessory electric heaters may not be installed.
[c] For CFM versus external static pressure (in. w.c.), see Installation, Operation, and Maintenance manual.

Airflow Performance Tables

Table 15. Model – 5TAMXB02AV21DB

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 Watts	407 / 546 22 / 40	430 / 403 51 / 48	398 / NA 77 / NA	347 / NA 103 / NA	255 / NA 133 / NA	290 CFM/ton	CFM Watts	416 22	426 49	401 76	330 101	291 134
	350 CFM/ton	CFM Watts	534 / 630 39 / 57	549 / 531 71 / 68	542 /360 103 / 73	509 / NA 132 / NA	445 / NA 156/ NA	350 CFM/ton	CFM Watts	532 37	550 69	542 101	507 129	434 152
	400 CFM/ton	CFM Watts	617 / 697 54 / 72	633 / 617 90 / 86	632 /501 125 / 96	604 / NA 156 / NA	559 / NA 181 / NA	400 CFM/ton	CFM Watts	660 62	680 99	679 136	658 169	614 197
	450 CFM/ton	CFM Watts	691 / 762 72 / 91	710 / 693 111 / 106	707 /602 148 /119	688 / 478 183 / 127	649 / NA 212 / NA	450 CFM/ton	CFM Watts	690 69	710 108	709 145	690 180	651 208
2 tons	290 CFM/ton	CFM Watts	593 / 680 54 / 68	613 / 595 85 / 81	607 /470 119 /90	583 / 208 150 / 94	527 / 132 175 / 138	290 CFM/ton	CFM Watts	593 48	613 82	608 116	582 147	527 172
	350 CFM/ton	CFM Watts	717 / 783 79 / 98	733 / 717 118 / 114	733 /632 157 /127	714 / 519 192 / 136	678 / 355 222 / 143	350 CFM/ton	CFM Watts	714 75	734 115	734 153	716 189	679 218
	400 [a] CFM/ton	CFM Watts	810 / 868 108 / 128	827 / 811 152 / 146	827 /740 194 / 161	813 / 652 233 / 173	782 / 543 265 / 182	400[a] [b] CFM/ton	CFM Watts	862 122	881 168	884 213	874 254	849 290
	450 CFM/ton	CFM Watts	903 / 954 144 / 165	918 / 902 192 / 182	920 /839 238 /201	909 / 764 280 / 215	884 / 674 316 / 224	450 CFM/ton	CFM Watts	899 136	917 184	921 231	912 273	889 310
2.5 tons	290 CFM/ton	CFM Watts	741 / 820 86 / 110	757 / 759 126 / 127	757 / 681 166 /141	739 / 582 202 / 152	705 / 452 232 / 159	290 CFM/ton	CFM Watts	738 81	757 122	758 162	742 198	707 229
	350 CFM/ton	CFM Watts	880 / 947 134 / 162	896 / 895 182 / 181	896 / 832 226 /198	885 / 757 267 / 211	859 / 665 302 / 221	350 CFM/ton	CFM Watts	876 127	895 174	898 220	888 261	864 297
	400 CFM/ton	CFM Watts	996 /1059 188 / 220	1011 / 1011 241 / 240	1014 / 954 291 / 257	1006 / 887 336 / 271	985 / 807 375 / 280	400 CFM/ton	CFM Watts	1064 215	1083 272	1089 326	1084 375	1066 418
	450 CFM/ton	CFM Watts	1120 / 1180 260 / 297	1135 / 1134 319 / 317	1137 / 1081 373 /334	1129 / 1019 422 / 347	1108 / 946 463 / 355	450 CFM/ton	CFM Watts	1115 244	1133 304	1139 360	1133 410	1116 453
3 tons	290 CFM/ton	CFM Watts	875 / 943 132 / 160	891 / 891 179 / 179	892 / 891 224 / 196	880 / 751 265 / 209	854 / 659 300 / 218	290 CFM/ton	CFM Watts	871 125	890 172	894 217	883 259	859 295
	350 CFM/ton	CFM Watts	1045 / 1106 215 / 248	1060 / 1059 270 / 268	1063 / 1004 321 / 285	1055 / 939 369 / 299	1035 / 862 409 / 308	350 CFM/ton	CFM Watts	1040 202	1058 257	1064 310	1059 358	1041 401
	400 CFM/ton	CFM Watts	1200 / 1257 315 / 354	1212 / 1211 376 / 374	1212 / 1159 432 / 390	1200 / 1099 480 / 402	1129 / 1030 481 / 409	400 CFM/ton	CFM Watts	1291 368	1302 432	1300 487	1220 478	1138 470
	450 CFM/ton	CFM Watts	1358 / 1403 447 / 484	1333 / 1359 482 / 502	1256 / 1308 472 / 517	1177 / 1251 466 / 527	1095 / 1187 460 / 531	450 CFM/ton	CFM Watts	1355 422	1360 483	1286 476	1208 468	1128 462

- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- In horizontal and downflow applications, airflow should be limited to 800 CFM due to condensate blowoff.
- Torque mode will reduce airflow when static is above approximately 0.3-in. water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter.

5TAMXB02AV21DB Minimum Heating Airflow Settings

Model No.	BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1 BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	BAYEA(13/AC)08BK1 BAYEA(13/AC)08LG1	BAYEA(13/AC)10BK1 BAYEA(13/AC)10LG1	BAYEA(13/AC)10LG3	BAYEA(23/BC)15BK1	BAYEA(23/BC)15LG3	BAYEA(23/BC)20BK1
5TAMXB02AV21DB	638/713	639/900	675/900	600/713	—	—	—
Without heat pump / with heat pump — see air handler nameplate for approved combinations							

[a] Factory setting

[b] Factory heating default setting is 430 CFM/ton.

Table 16. Model – 5TAMXC03AV31DB

Outdoor multiplier (tons)	Cooling airflow setting	Airflow power	External static pressure (constant CFM / constant torque)					Heating airflow setting	Air-flow 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 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	349 97	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	457 146
	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	559 165
	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	649 186
2 tons	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	533 160
	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	677 193
	400 [a] 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	788 226
	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	895 263
2.5 tons	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	706 201
	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	868 253
	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	1008 257	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	1139 314	1128 366
3 tons	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	863 252
	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	1053 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	1198 403
	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	1314 472

- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- In horizontal and downflow applications, airflow should be limited to 1200 CFM due to condensate blowoff.
- Torque mode will reduce airflow when static is above approximately 0.35-in. water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter.

5TAMXC03AV31DB Minimum Heating Airflow Settings

Model No.	BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1 BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	BAYEA(13/AC) 08BK1 BAYEA(13/AC) 08LG1	BAYEA(13/AC) 10BK1 BAYEA(13/AC) 10LG1	BAYEA(13/AC) 10LG3	BAYEA(23/BC) 15BK1	BAYEA(23/BC) 15LG3	BAYEA(23/BC) 20BK1
5TAMX-C03AV31DB	723/808	723/1020	765/1020	680/808	765/1063	850/1105	—
Without heat pump / with heat pump — see air handler nameplate							

[a] Factory setting

Table 17. Model – 5TAMXD04AV31DB

Outdoor multiplier (tons)	Cooling airflow setting	Air-flow power	External static pressure (constant CFM / constant torque)					Heating airflow setting	Air-flow 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	CFM Watts	605 / 747 31 / 48	573 / 565 59 / 58	553 / 306 88 / 62	548 / NA 120 / NA	546 / NA 153 / NA	290 CFM/ton	CFM Watts	606 31	574 58	557 87	551 119	549 152
	370 CFM/ton	CFM Watts	755 / 880 50 / 70	745 / 738 85 / 85	737 / 575 121 / 93	738 / 367 160 / 97	735 / NA 197 / NA	350 CFM/ton	CFM Watts	720 43	705 77	695 111	694 148	691 184
	400 CFM/ton	CFM Watts	810 / 929 58 / 80	804 / 797 97 / 96	800 / 650 136 / 106	802 / 478 176 / 111	802 / 231 216 / 120	400 CFM/ton	CFM Watts	810 56	805 95	800 134	803 174	802 214
	450 CFM/ton	CFM Watts	900 / 1011 75 / 98	900 / 893 118 / 117	902 / 764 162 / 129	905 / 624 207 / 136	906 / 462 251 / 140	450 CFM/ton	CFM Watts	900 72	900 115	903 159	906 204	907 248
2.5 tons	290 CFM/ton	CFM Watts	742 / 891 48 / 72	729 / 752 82 / 87	722 / 592 118 / 96	721 / 394 155 / 99	720 / NA 193 / NA	290 CFM/ton	CFM Watts	742 46	731 81	722 117	722 154	720 191
	370 CFM/ton	CFM Watts	922 / 1055 80/ 109	923 / 942 124 / 128	927 / 820 170 / 142	930 / 690 215 / 150	931 / 546 260 / 154	350 CFM/ton	CFM Watts	877 68	877 110	876 152	880 196	880 239
	400 CFM/ton	CFM Watts	989 / 1118 95 / 127	995 / 1012 143 / 148	1002 / 899 193 / 163	1008 / 779 242 / 173	1010 / 652 290 / 177	400 CFM/ton	CFM Watts	989 90	995 139	1000 188	1008 258	1008 285
	450 CFM/ton	CFM Watts	1103 / 1228 125 / 162	1117 / 1131 181 / 185	1129 / 1028 238 / 203	1137 / 921 294 / 215	1137 / 809 346 / 221	450 CFM/ton	CFM Watts	1102 119	1116 175	1127 231	1137 288	1138 340
3 tons	290 CFM/ton	CFM Watts	872 / 1009 70 / 97	871 / 890 111 / 116	871 / 761 154 / 128	874 / 620 197 / 135	874 / 457 240 / 139	290 CFM/ton	CFM Watts	871 67	872 109	871 151	874 195	875 237
	370 [a] CFM/ton	CFM Watts	1089 / 1214 121 / 157	1102 / 1116 176 / 180	1114 / 1013 232 / 198	1121 / 905 287 / 209	1122 / 791 339 / 215	350 CFM/ton	CFM Watts	1033 101	1043 152	1051 204	1059 257	1061 307
	400 CFM/ton	CFM Watts	1175 / 1298 147 / 188	1193 / 1205 208/ 212	1208 / 1107 270 / 231	1215 / 1006 329 / 244	1211 / 899 382 / 251	400 [a] CFM/ton	CFM Watts	1171 139	1191 200	1205 262	1215 322	1212 376
	450 CFM/ton	CFM Watts	1329 / 1447 204/ 253	1353 / 1361 276 / 279	1366 / 1270 345 / 299	1363 / 1176 406 / 313	1343 / 1077 456 / 321	450 CFM/ton	CFM Watts	1324 192	1349 264	1364 334	1364 396	1347 448
3.5 tons	290 CFM/ton	CFM Watts	1002 / 1131 98 / 130	1009 / 1026 147 / 152	1017 / 914 198 / 167	1023 / 797 248 / 177	1024 / 671 296 / 182	290 CFM/ton	CFM Watts	997 92	1010 143	1016 197	1022 248	1027 293
	370 CFM/ton	CFM Watts	1270 / 1391 181 / 227	1293 / 1302 249 / 252	1308 / 1210 316 / 272	1311 / 1113 377 / 286	1297 / 1012 429 / 293	350 CFM/ton	CFM Watts	1196 146	1217 210	1231 272	1241 334	1234 387
	400 CFM/ton	CFM Watts	1383 / 1499 227 / 278	1407 / 1414 303 / 305	1416 / 1325 372 / 325	1406 / 1233 431 / 340	1380 / 1136 478 / 348	400 CFM/ton	CFM Watts	1379 214	1404 289	1415 360	1330 378	1390 473
	450 CFM/ton	CFM Watts	1579 / 1669 326 / 375	1583 / 1587 402 / 402	1567 / 1502 464 / 423	1474 / 1413 475 / 437	1357 / 1320 468 / 444	450 CFM/ton	CFM Watts	1499 268	1508 342	1586 460	1504 478	1390 472

- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- In horizontal and downflow applications, airflow should be limited to 1400 CFM due to condensate blowoff.
- Torque mode will reduce airflow when static is above approximately 0.35-in. water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter.

5TAMXD04AV31DB Minimum Heating Airflow Settings

Model No.	BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1 BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	BAYEA(13/AC) 08BK1 BAYEA(13/AC) 08LG1	BAYEA(13/AC)10BK1 BAYEA(13/AC)10LG1	BAYEA(13/AC) 10LG3	BAYEA(23/BC) 15BK1	BAYEA(23/BC) 15LG3	BAYEA(23/BC) 20BK1
5TAMX-D04AV31DB	876/979	876/1236	927/1236	824/979	927/1288	1030/1339	1236/1442
Without heat pump / with heat pump — see air handler nameplate							

[a] Factory setting

Table 18. Model – 5TAMXD05AV41DB

Outdoor multiplier (tons)	Cooling airflow setting	Airflow power	External static pressure (constant CFM / constant torque) 0.1	0.3	0.5	0.7	0.9	Heating airflow setting	Airflow power	External static pressure 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
3 tons	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
	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
3.5 tons	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 [a] 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
	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[a] 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
4 tons	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
	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

- 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-in. water column.

- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter.

5TAMXD05AV41DB Minimum Heating Airflow Settings

Model No.	BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1 BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	BAYEA(13/AC) 08BK1 BAYEA(13/AC) 08LG1	BAYEA(13/AC) 10BK1 BAYEA(13/AC) 10LG1	BAYEA(13/AC) 10LG3	BAYEA(23/BC) 15BK1	BAYEA(23/BC) 15LG3	BAYEA(23/BC) 20BK1
5TAMX-D05AV41DB	978/1093	978/1380	1035/1380	920/1093	1035/1438	1150/1495	1380/1610
Without heat pump / with heat pump — see air handler nameplate							

[a] Factory setting

Table 19. Model – 5TAMXD06AV41DB

Outdoor multiplier (tons)	Cooling airflow setting	Airflow power	External static pressure (constant CFM / constant torque)					Heating airflow setting	Air-flow 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 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 72	900 118	893 159	883 197	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 112	1073 164	1070 213	1062 257	1049 295
	400 CFM/ton	CFM Watts	1205 /1314 145 / 176	1212 / 1222 203 / 206	1213 / 1128 259 / 229	1208 / 1029 309 / 244	1199 / 926 354 / 249	400 CFM/ton	CFM Watts	1207 154	1212 212	1212 266	1206 315	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 206	1352 270	1354 331	1352 387	1344 436
3.5 tons	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 103	1040 154	1037 202	1028 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 162	1235 221	1236 276	1230 326	1220 371
	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 226	1400 293	1403 356	1400 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 310	1572 386	1576 457	1574 521	1567 577
4 tons	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 141	1176 198	1174 251	1168 299	1157 341
	350 [a] 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 226	1400 293	1403 356	1400 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 [a] CFM/ton	CFM Watts	1586 325	1597 402	1601 474	1599 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 459	1801 544	1800 620	1766 665	1667 655
4.5 tons[b]	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 189	1310 252	1311 310	1309 355	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 290	1570 367	1575 439	1575 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 428	1799 515	1801 594	1794 663	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 605	1975 656	1863 643	1757 634	1660 628

- 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-in. water column.
- In horizontal and downflow applications, airflow should be limited to 1800 CFM due to condensate blowoff.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter.

5TAMXD06AV41DB Minimum Heating Airflow Settings

Model No.	BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1 BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	BAYEA(13/AC)08BK1 BAYEA(13/AC)08LG1	BAYEA(13/AC)10BK1 BAYEA(13/AC)10LG1	BAYEA(13/AC)10LG3	BAYEA(23/BC)15BK1	BAYEA(23/BC)15LG3	BAYEA(23/BC)20BK1	BAYEA(33/CC)25BK1
5TAMX-D06AV41-DB	1063 / 1188	1063 / 1500	1125 / 1500	1000 / 1188	1125 / 1563	1250 / 1625	1500 / 1750	1625 / 1813
Without heat pump / with heat pump — see air handler nameplate								

[a] Factory setting
[b] Not an actual OD size

Table 20. Model – 5TAMXD07AV51DB

Outdoor multiplier (tons)	Cooling airflow setting	Air-flow power	External static pressure (constant CFM / constant torque) 0.1	0.3	0.5	0.7	0.9	Heating airflow setting	Air-flow power	External static pressure 0.1	0.3	0.5	0.7	0.9
3.5 tons	290 CFM/ton	CFM Watts	1040 / 1151 94 / 119	1068 / 1056 151 / 148	1075 / 941 203 / 168	1066 / 799 247 / 175	1046 / 607 283 / 165	290 CFM/ton	CFM Watts	1039 95	1065 151	1071 203	1063 247	1045 283
	370 CFM/ton	CFM Watts	1312 / 1343 171 / 178	1332 / 1264 236 / 210	1336 / 1174 296 / 235	1329 / 1068 349 / 250	1314 / 945 392 / 251	350 CFM/ton	CFM Watts	1247 150	1266 213	1270 270	1263 321	1248 363
	400 CFM/ton	CFM Watts	1408 / 1496 206 / 238	1425 / 1426 274 / 273	1429 / 1346 337 / 301	1423 / 1256 393 / 319	1410 / 1154 440 / 325	400 CFM/ton	CFM Watts	1407 206	1423 274	1426 337	1421 392	1409 439
	450 CFM/ton	CFM Watts	1565 / 1650 274 / 312	1579 / 1585 348 / 348	1584 / 1512 416 / 378	1580 / 1432 477 / 398	1569 / 1343 529 / 407	450 CFM/ton	CFM Watts	1564 274	1578 348	1582 416	1578 476	1569 529
4 tons	290 CFM/ton	CFM Watts	1186 / 1304 131 / 164	1208 / 1223 192 / 196	1213 / 1128 248 / 220	1206 / 1018 297 / 234	1189 / 887 337 / 233	290 CFM/ton	CFM Watts	1185 131	1206 192	1210 248	1203 297	1187 337
	370 CFM/ton	CFM Watts	1480 / 1514 235 / 245	1495 / 1444 306 / 280	1499 / 1365 372 / 308	1495 / 1277 430 / 327	1482 / 1177 479 / 334	350 CFM/ton	CFM Watts	1407 206	1423 274	1426 337	1421 392	1409 439
	400 CFM/ton	CFM Watts	1587 / 1689 285 / 332	1602 / 1625 360 / 369	1606 / 1554 429 / 399	1602 / 1475 490 / 420	1592 / 1399 543 / 430	400 CFM/ton	CFM Watts	1587 285	1600 360	1604 428	1601 490	1592 543
	450 CFM/ton	CFM Watts	1770 / 1873 386 / 443	1784 / 1813 468 / 481	1789 / 1747 543 / 512	1788 / 1675 612 / 534	1782 / 1597 671 / 546	450 CFM/ton	CFM Watts	1770 385	1783 467	1788 543	1788 611	1782 671
4.5 tons[a]	290 CFM/ton	CFM Watts	1322 / 1431 174 / 211	1340 / 1358 240 / 245	1345 / 1274 300 / 271	1338 / 1179 353 / 288	1323 / 1069 397 / 292	290 CFM/ton	CFM Watts	1321 174	1338 240	1342 300	1336 352	1322 396
	370 [b] CFM/ton	CFM Watts	1646 / 1667 315 / 320	1660 / 1602 392 / 357	1665 / 1530 463 / 386	1662 / 1451 527 / 407	1653 / 1363 582 / 417	350 CFM/ton	CFM Watts	1564 274	1578 348	1582 416	1578 476	1569 529
	400 CFM/ton	CFM Watts	1770 / 1873 386 / 443	1784 / 1813 468 / 481	1789 / 1747 543 / 512	1788 / 1675 612 / 534	1781 / 1597 671 / 546	400 [b] CFM/ton	CFM Watts	1770 385	1783 467	1788 543	1788 611	1782 671
	450 CFM/ton	CFM Watts	1989 / 2099 535 / 612	2004 / 2042 627 / 650	2012 / 1980 712 / 681	2013 / 1913 788 / 703	2009 / 1842 855 / 716	450 CFM/ton	CFM Watts	1989 534	2003 626	2011 711	2014 788	2011 856
5 tons	290 CFM/ton	CFM Watts	1452 / 1557 224 / 265	1469 / 1489 294 / 301	1473 / 1413 358 / 329	1468 / 1327 415 / 348	1455 / 1231 463 / 356	290 CFM/ton	CFM Watts	1452 224	1467 294	1471 358	1466 415	1454 463
	370 CFM/ton	CFM Watts	1817 / 1826 415 / 451	1831 / 1765 499 / 451	1837 / 1698 576 / 481	1837 / 1624 647 / 503	1831 / 1544 708 / 515	350 CFM/ton	CFM Watts	1723 357	1736 437	1741 511	1740 578	1734 636
	400 CFM/ton	CFM Watts	1964 / 2073 516 / 590	1978 / 2015 607 / 629	1986 / 1953 690 / 660	1987 / 1886 766 / 682	1983 / 1814 832 / 695	400 CFM/ton	CFM Watts	1964 515	1978 606	1985 690	1988 766	1985 833
	450 CFM/ton	CFM Watts	2231 / 2347 741 / 842	2245 / 2292 842 / 879	2252 / 2233 934 / 908	2252 / 2171 1015 / 930	2185 / 2104 1024 / 941	450 CFM/ton	CFM Watts	2232 741	2245 842	2252 934	2252 1016	2186 1023

- 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-in. water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter.
- In horizontal and downflow applications, airflow should be limited to 1800 CFM due to condensate blowoff.

5TAMXD07AV51DB Minimum Heating Airflow Settings

Model No.	BAYEA(13/AC)04BK1 BAYEA(13/AC)04LG1 BAYEA(13/AC)05BK1 BAYEA(13/AC)05LG1	BAYEA(13/AC)08BK1 BAYEA(13/AC)08LG1	BAYEA(13/AC)10BK1 BAYEA(13/AC)10LG1	BAYEA(13/AC)10LG3	BAYEA(23/BC)15BK1	BAYEA(23/BC)15LG3	BAYEA(23/BC)20BK1	BAYEA(33/CC)25BK1
5TAMX-D07AV51-DB	1063 / 1188	1063 / 1500	1125 / 1500	1000 / 1188	1125 / 1563	1250 / 1625	1500 / 1750	1625 / 1813
Without heat pump / with heat pump — see air handler nameplate								

[a] Not an actual OD size

[b] Factory setting

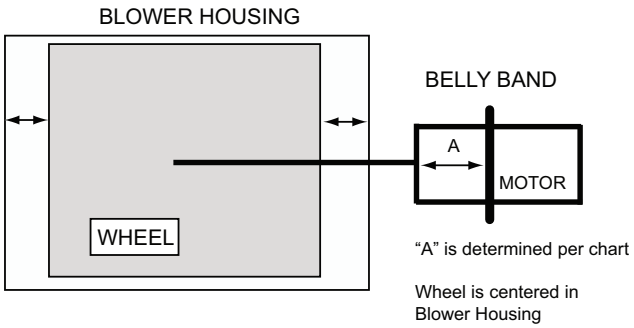
Heater Attribute Data

Notes:

- *Heater size will be announced when using the resistor that is being provided with the BAYEA heater. Heater can also be configured in the UX360 User Interface or Diagnostics Mobile App.*
- *Heater model numbers may have additional suffix digits.*

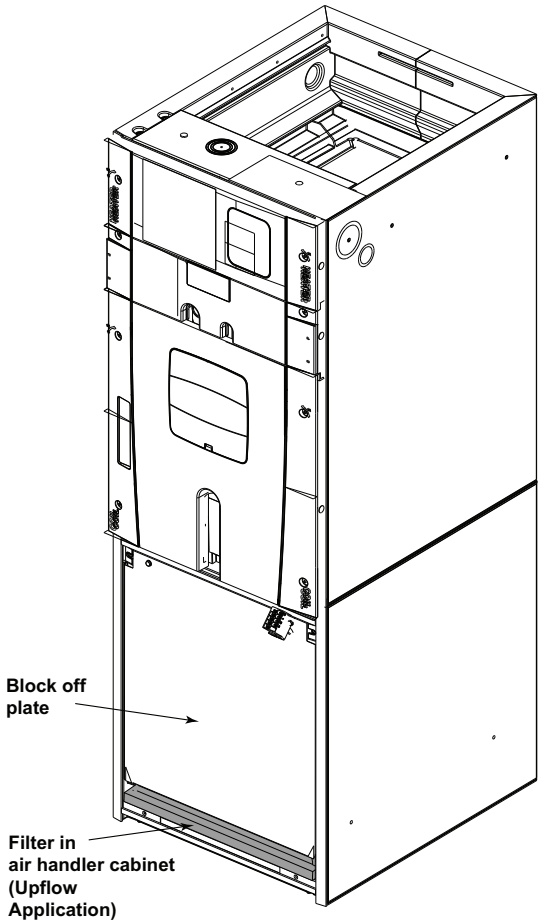
Distance from Belly Band to Shaft Face of Motor for Minimum Vibration

Figure 82. Blower housing



MODEL	DIM " A "
5TAMXB02	2–3/8
5TAMXC03	2–3/8
5TAMXD04	2–3/8
5TAMXD05	2–3/8
5TAMXD06	2–3/8
5TAMXD07	2–3/8

Figure 83. Filter considerations



Filters

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.

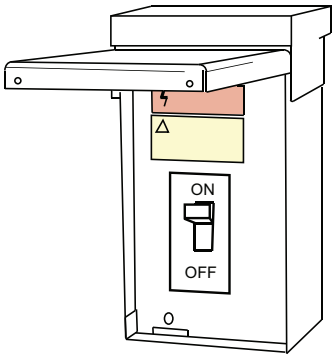
Table 21. Filter sizes

Cabinet Width	17.5 -in.	21.0 -in.	23.5 -in.
Filter Size	16 x 20	20 x 20	22 x 20

System Start Up

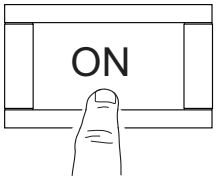
1. Verify all panels are securely in place and all wiring is properly dressed and secured.

Figure 84. Turn power ON



2. Turn on electrical power disconnect(s) to apply power to the indoor and outdoor units.
3. Set the system thermostat to ON.

Figure 85. Set thermostat ON



Fault Reporting

The Air Handler Control (AHC) will show active faults and store historical faults in 24 volt mode. In 24 volt mode, the AHC will report active faults continuously and will report the last four faults stored after a power cycle of the unit. See the LED flash code or Diagnostics Mobile App for fault code identification.

In Link Communicating mode, faults will report to the UX360 User Interface Service Menu and Diagnostics Mobile App.

Figure 86. Fault reporting

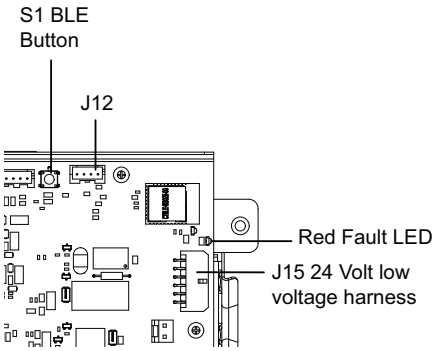


Table 22. RED LED fault codes

Flash Code	Alarm Group	Alarm
2	Equipment Missing, Mismatch or Configuration Issue	No Model Number, Bad Model Number, No Valid Configuration
3	Blower Issue	Blower Communication, Low or No Airflow, Blower Motor Power High, Blower Motor Mismatch
4	EEV Issue	Coil is shorted or open, Valve Stuck, ET, GT, Low SH, High SH
5	Sensor Issue	SAT Sensor out of range, RA Static Pressure Sensor out of range
6	Indoor Heat Issue	CFG1–Electric Heat not detected, CFG2–Electric Heat not configured
7	External Switch	Switch 1 or Switch 2
8	Condensate Issue	—
9	Frost Issue	—

Unit Test Options

24 Volt Mode

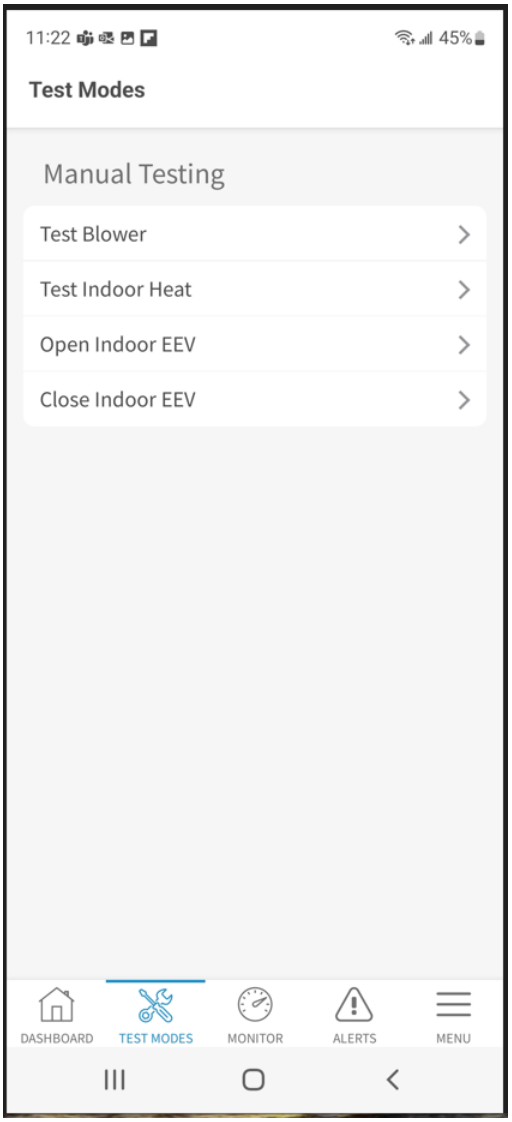
Internal test can only be triggered using the Diagnostic Mobile App. There is not a local way to run any test mode manually. Tests available from the Diagnostics Mobile App are:

The monitor menu in the Diagnostic Mobile App will show important information while in test modes that prove the test is successful.

- **Test Blower** allows the user to select a specific airflow to run the blower at. It is selectable from a slider and is dynamic and will speed up or slow down as the user moves the slider.
- **Test Indoor Heat** will test the different stages of indoor heat to prove they are working.
- **Open Indoor EEV** test will open the TAMX EEV fully for 30 seconds. This can be verified by watching the monitor screens during this test.
- **Close Indoor EEV** test will close the TAMX EEV completely for 90 seconds. If the system is running, you will see the refrigerant pressures react to a closed valve and will likely fault on low pressure.

All tests can be stopped during the test and do not need to finish.

Figure 87. Test modes



Link Communicating Mode

All test modes can be run from the User Interface (UX360) or the Diagnostics Mobile App.

ET / GT and Supply Air Temperature Sensor

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

Return Air Temperature Sensor

Table 24. Thermal resistance and voltage table

TEMP ^{0}F	*TEMP ^{0}C*	*THERMISTOR RESISTANCE (OHMS)*	*Volts DC at J13 pins 1&2 (pin to pin)*
40	4.4	25452	1.85
45	7.2	22198	1.70
50	10.0	19405	1.55

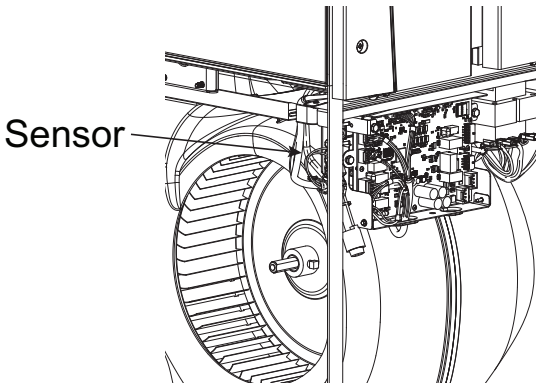
Table 24. Thermal resistance and voltage table (continued)

TEMP ^{0}F	*TEMP ^{0}C*	*THERMISTOR RESISTANCE (OHMS)*	*Volts DC at J13 pins 1&2 (pin to pin)*
55	12.8	17002	1.41
60	15.6	14930	1.28
65	18.3	13138	1.17
70	21.1	11586	1.06

Table 24. Thermal resistance and voltage table (continued)

TEMP ^{0}F	*TEMP ^{0}C*	*THERMISTOR RESISTANCE (OHMS)*	*Volts DC at J13 pins 1&2 (pin to pin)*
75	23.9	10238	0.96
80	26.7	9065	0.87
85	29.4	8043	0.78
90	32.2	7150	0.71
95	35.0	6368	0.64
100	37.8	5682	0.58
105	40.6	5079	0.53
110	43.3	4548	0.48
115	46.1	4079	0.43
120	48.9	3665	0.39
125	51.7	3298	0.35

Figure 88. Return air temperature sensor



Stepper Motor Tables

Note: *For use with low and high superheat troubleshooting.*

Figure 89. Stepper motor for 5TAMXD04

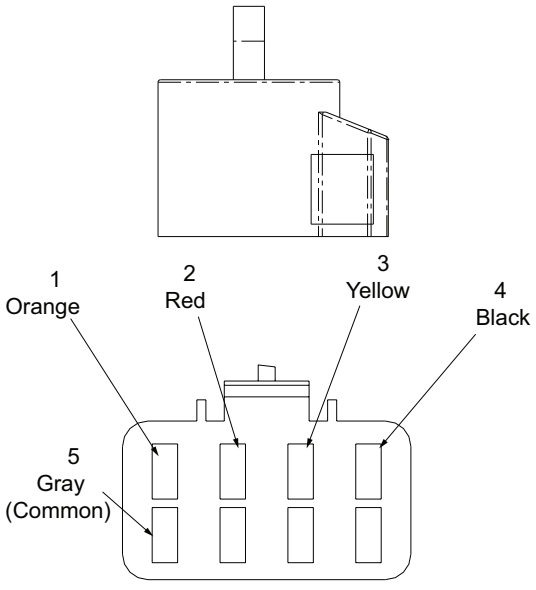


Table 25. Stepper motor troubleshooting for 5TAMXD04

Common Terminal	To Terminal	Measurement
Gray	Orange	46 ohms
Gray	Red	46 ohms
Gray	Yellow	46 ohms
Gray	Black	46 ohms

Figure 90. Stepper motor for 5TAMXD05, D06, D07

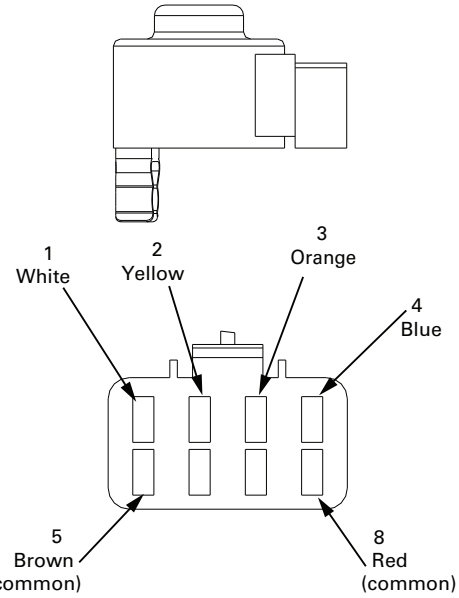


Table 26. Stepper motor troubleshooting for 5TAMXD05, D06, D07

Common Terminal	To Terminal	Measurement
Brown	Blue	46 ohms
Brown	Yellow	46 ohms
Red	Orange	46 ohms
Red	White	46 ohms

Figure 91. Stepper motor for 5TAMXB02, C03

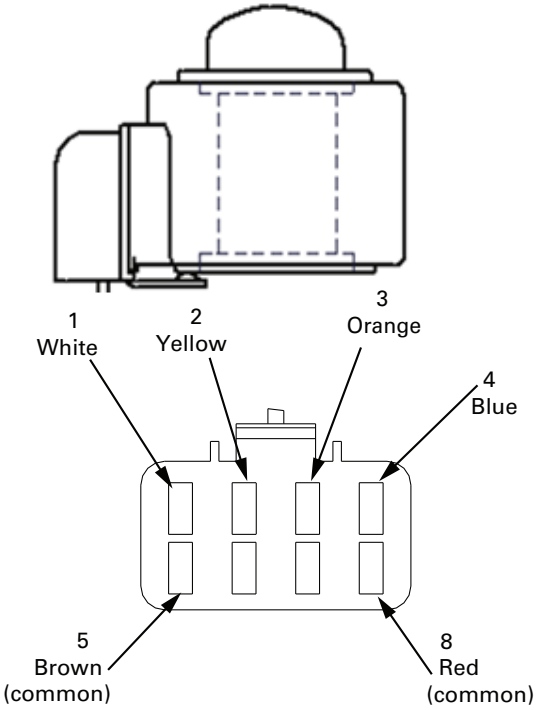


Table 27. Stepper motor troubleshooting for 5TAMXB02, C03

Common Terminal	To Terminal	Measurement
Brown	White	46 ohms
Brown	Orange	46 ohms
Red	Yellow	46 ohms
Red	Blue	46 ohms

Sequence of Operation

5TAMX can be used in either Link Communicating mode or 24 Volt mode. In Link Communicating mode, all configurations are made by using the configuration menu in the User Interface (UX360) or from the Diagnostic Mobile App. In 24 Volt mode, basic operation is configured from the factory with no defaults for accessories. All configurations for blower delays, accessories etc., need accomplished using the Diagnostic Mobile App.

Abbreviations

- AHC = Air Handler Control
- EEV = Electronic Expansion Valve

Notes:

- *When in communicating mode, the system controller (SC360) controls indoor airflow and EEV starting position.*
- *Use variable speed outdoor Sequence of Operation in conjunction with the 5TAMX 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 AHC 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 set point. 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 AHC sends a command to the serial communicating blower motor to run at 1st stage cooling airflow. (Delay profiles found in the UX360 User Interface or Diagnostics Mobile App may change blower motor timing and actual airflow demand)
2. The AHC 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 AHC sends a command to the serial communicating blower motor to run at 100 % cooling airflow.
4. The AHC will now control superheat for 2nd stage.
5. When a request for cooling is removed, the AHC will turn off the blower motor after any user selected fan-off delays have expired.

Note: *Delay profiles found in the UX360 User Interface or Diagnostics Mobile App may change blower motor timing and actual airflow demand.*

Heat Pump (Compressor Only)

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

Note: *Delay profiles found in the UX360 User Interface or Diagnostics Mobile App may change blower motor timing and actual airflow demand.*

Electric Heat

1. When a request for electric heat is received, the AHC 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 AHC sends a command to the serial communicating blower motor to run proper airflow and close the blower interlock relay on the AHC.

Hydronic Heat

1. When a request for hydronic heat is received, the AHC will energize the on board W1 relay.
2. The AHC 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 AHC.
2. The AHC will communicate to the EEV that the OD is in defrost and the EEV will start to control the correct superheat.
3. Electric or hydronic heat will be energized to help temper the air.

Freeze Protection

1. The AHC control has the ability to sense when the indoor coil is beginning to ice. If this event should occur, the AHC will send a message to de-energize the OD unit.
2. The indoor blower motor will continue running to aid in defrosting the coil.
3. After 5 minutes, the OD will be turned back on.

5TAMX has the ability to use the Diagnostics Mobile App to access internal features. The Diagnostics Mobile App connects to the unit through a Bluetooth Low Energy (BLE) connection using an onboard radio which talks to a app that is loaded to the technician's smart phone or tablet device.

The Diagnostics Mobile App can be found in the device app store when searching Trane Diagnostic or American Standard Diagnostics or by scanning a QR code that is located on the inside of the blower door.

24 Volt Mode

Diagnostics Mobile App is available to read fault codes and to monitor live internal operation. Diagnostics Mobile App is necessary to configure accessories and external switches. If you choose to configure blower delays or to change CFM/ton etc., this will need done from the Diagnostics Mobile App.

Replacement Air Handler Control boards are generic and need to be configured. The Diagnostics Mobile App is the easiest way to accomplish this by simply choosing the model number of your unit in the configuration menu. The unit will then run with the correct blower speeds and EEV control etc. As a backup- there is a button press method for programming the unit size. This information is included in this units Service Facts and in the Installation Guide for the replacement Air Handler Control board. For 2 stage outdoor units, 1st stage airflow will be 70% of maximum airflow. Unit comes defaulted for HP operations and can be changed to AC by moving dipswitch #1 from OFF to ON. All other adjustments/ configurations need completed using the configuration menu in the Diagnostics Mobile App.

The BLE Radio will be on continuously until 24 hours after the user setup wizard has been completed inside the Diagnostics Mobile App. To turn the radio back on, simply push the S1 switch 1 time and is located on the bottom of the AHC. It will stay on for 24 hours and then automatically turn off.

Link Communicating Mode

The BLE radio on the Air Handler Control board is 1 of 3 radios in the complete system and is used as an access point for the Diagnostics Mobile App. The Diagnostics Mobile App will continually monitor which radio provides the best signal strength and automatically switch to that stronger signal live. In communicating mode, the Diagnostics Mobile App Monitor Menu will show complete system operation. Diagnostics Mobile App can be used to configure accessories and external switches as well as run test modes, read active and historical faults and configure several unit parameters.

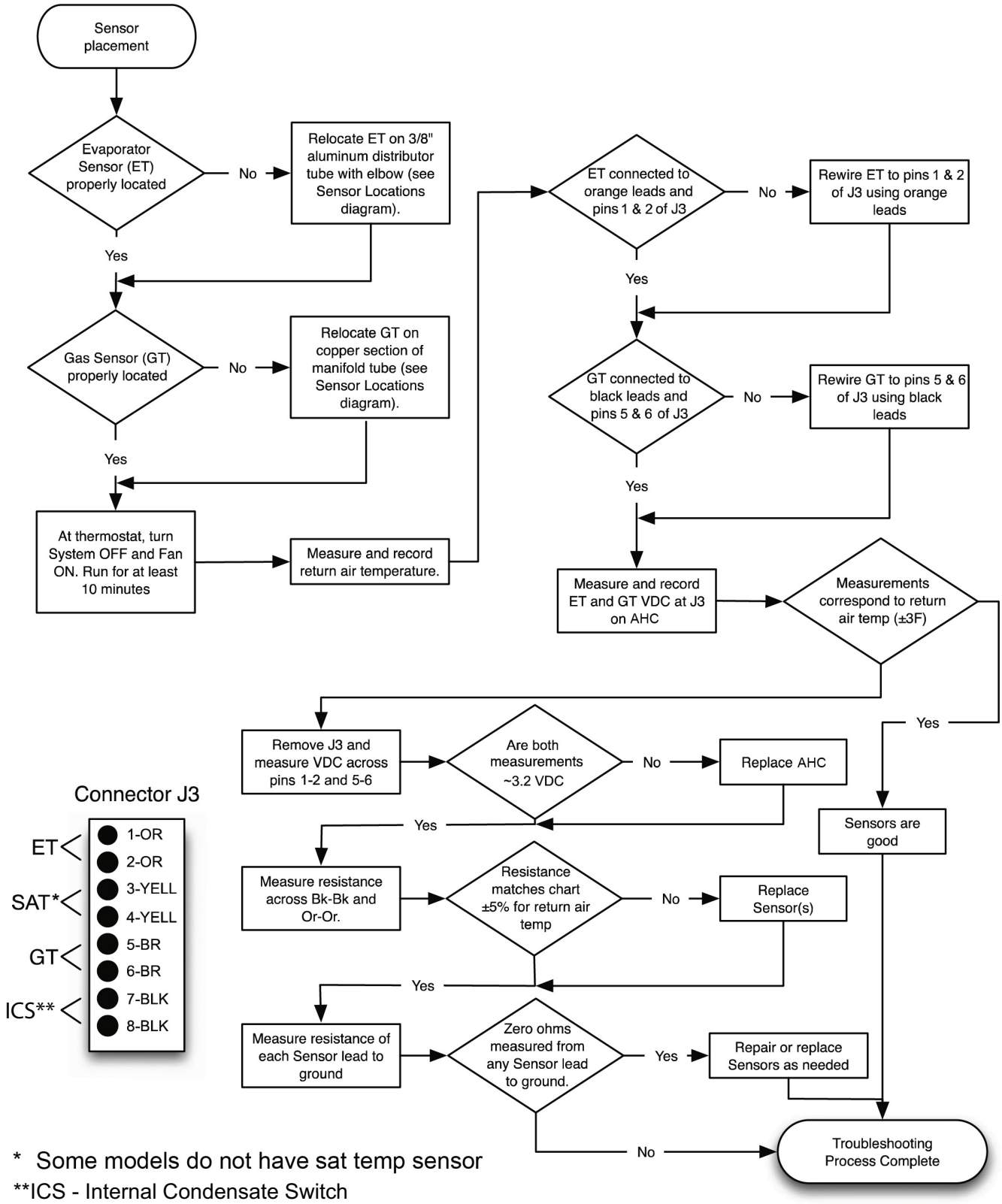
Checkout Procedures

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.

- ☐ All wiring connections are tight and properly secured.
- ☐ Voltage and running current are within limits.
- ☐ Heater size resistor installed in the electric heat harness if used.
- ☐ All refrigerant lines (internal and external to equipment) are isolated, secure, and not in direct contact with each other or structure.
- ☐ All braze connections have been checked for leaks. A vacuum of 350 microns provides confirmation that the refrigeration system is leak free and dry.
- ☐ 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.
- ☐ Ductwork is sealed and insulated.
- ☐ All drain lines are clear with joints properly sealed. Pour water into drain pan to confirm proper drainage.
- ☐ Supply registers and return grilles are open, unobstructed, and air filter is installed.
- ☐ Indoor blower and outdoor fan are operating smoothly and without obstruction.
- ☐ Indoor blower motor set on correct speed setting to deliver required CFM.
- ☐ Cover panels are in place and properly tightened.
- ☐ For gas heating systems, manifold pressure has been checked and all gas line connections are tight and leak free.
- ☐ For gas heating systems, flue gas is properly vented.
- ☐ System functions safely and properly in all modes.
- ☐ Owner has been instructed on use of system and given manual.

Troubleshooting

Figure 92. Sensor check to verify placement and orientation



* Some models do not have sat temp sensor

**ICS - Internal Condensate Switch

Figure 93. Troubleshooting high superheat at air handler

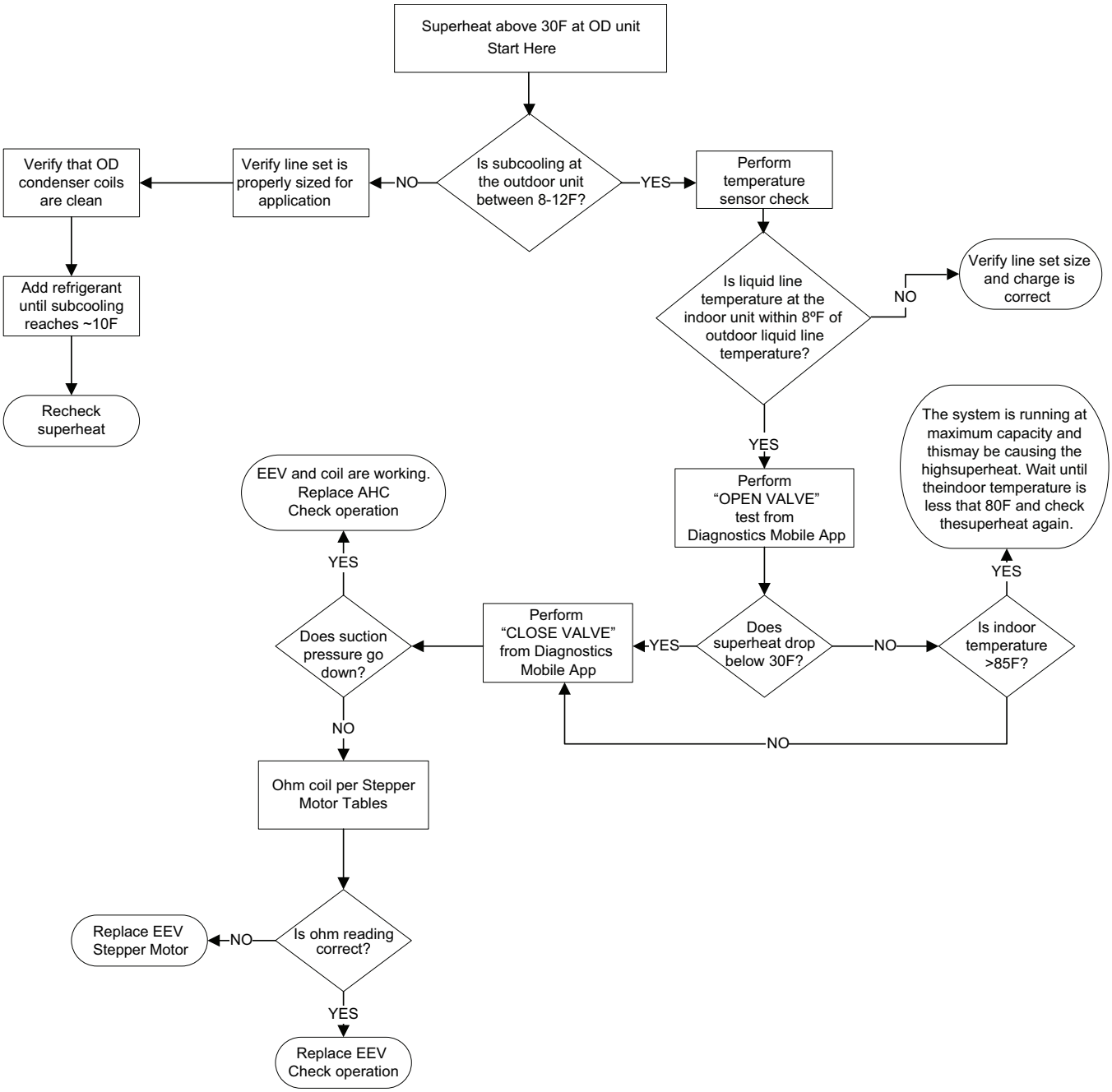


Figure 94. Troubleshooting low superheat at air handler

Note: *Perform these steps if superheat is less than 3°F.*

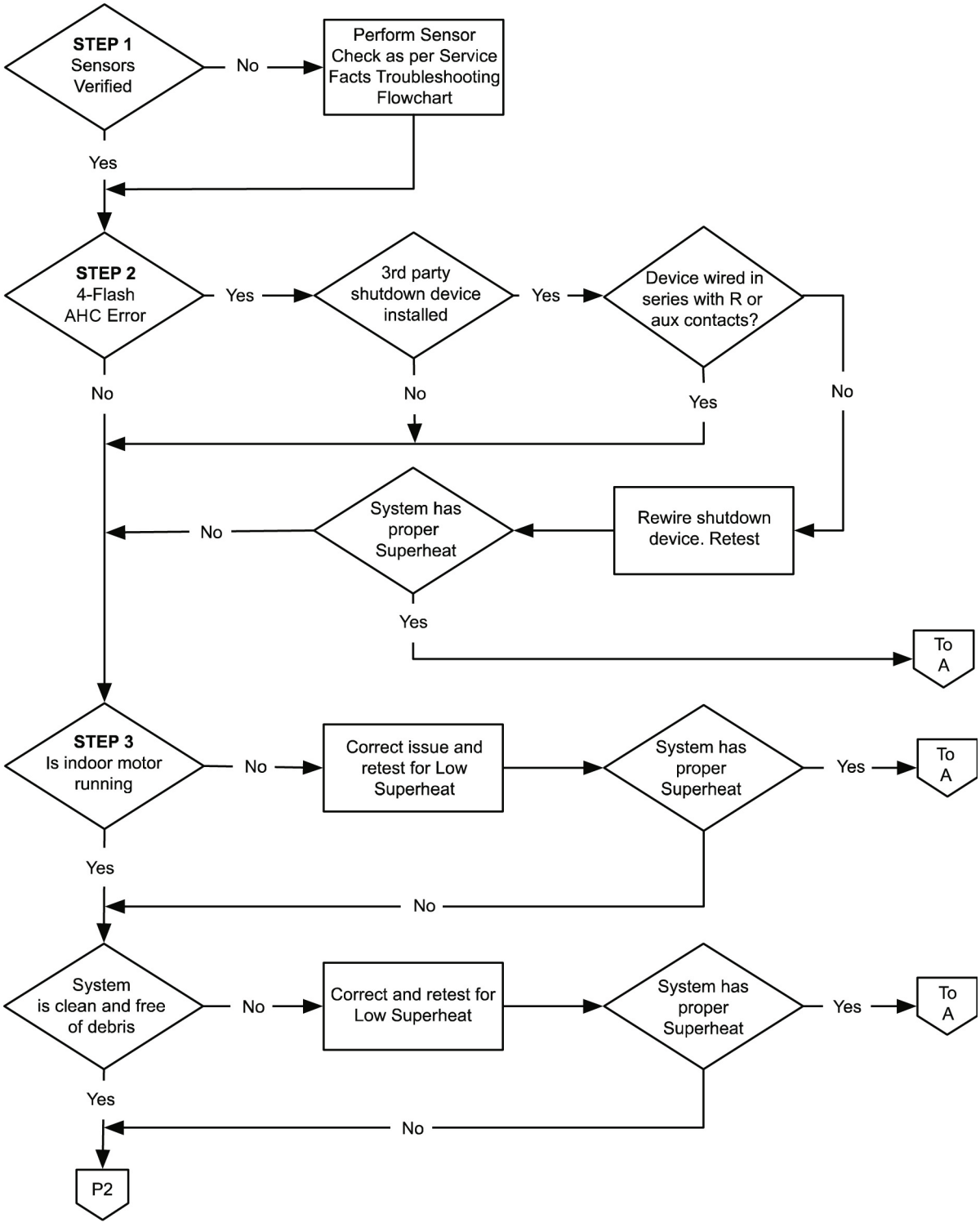


Figure 95. Troubleshooting low superheat at air handler

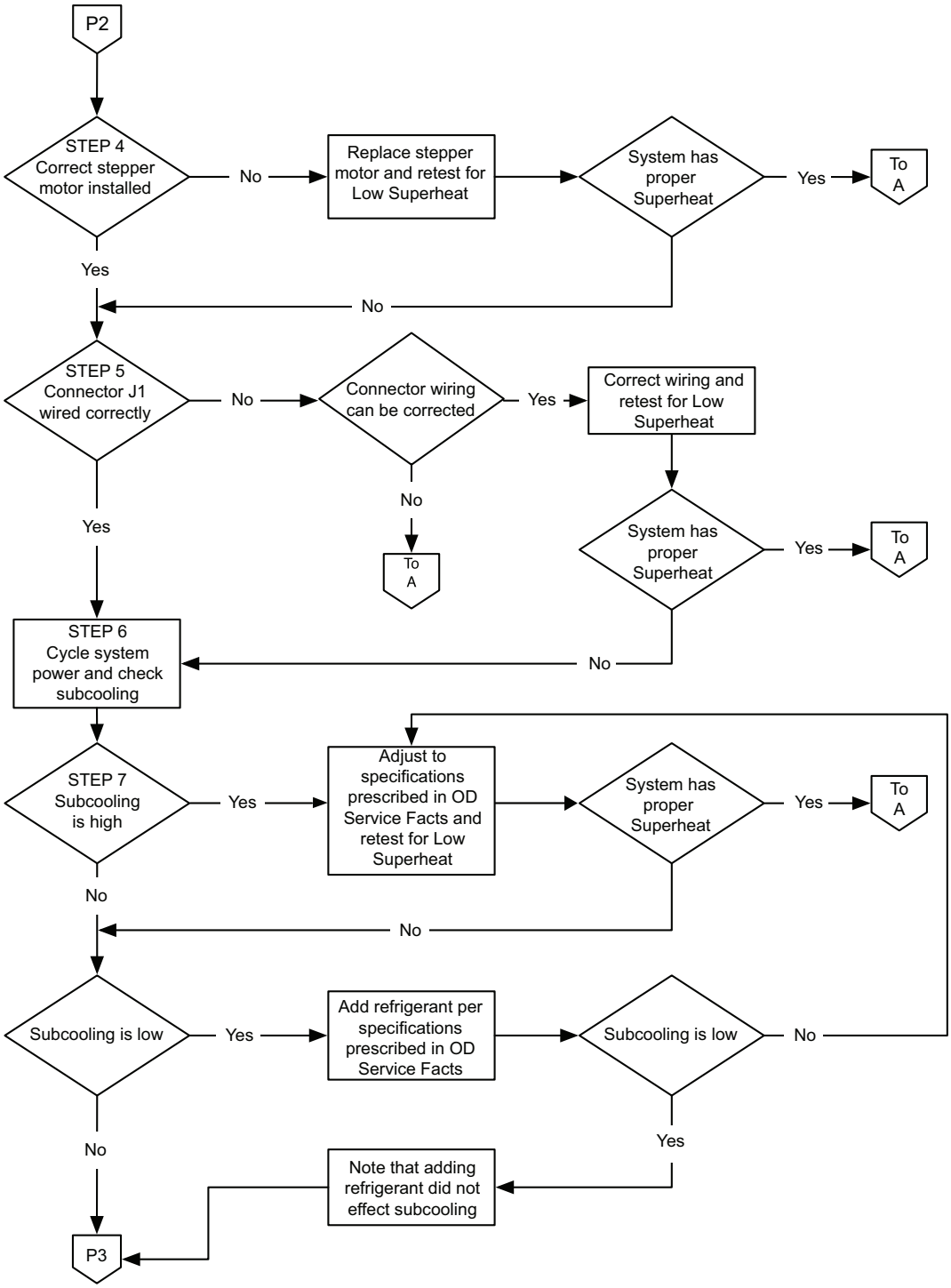
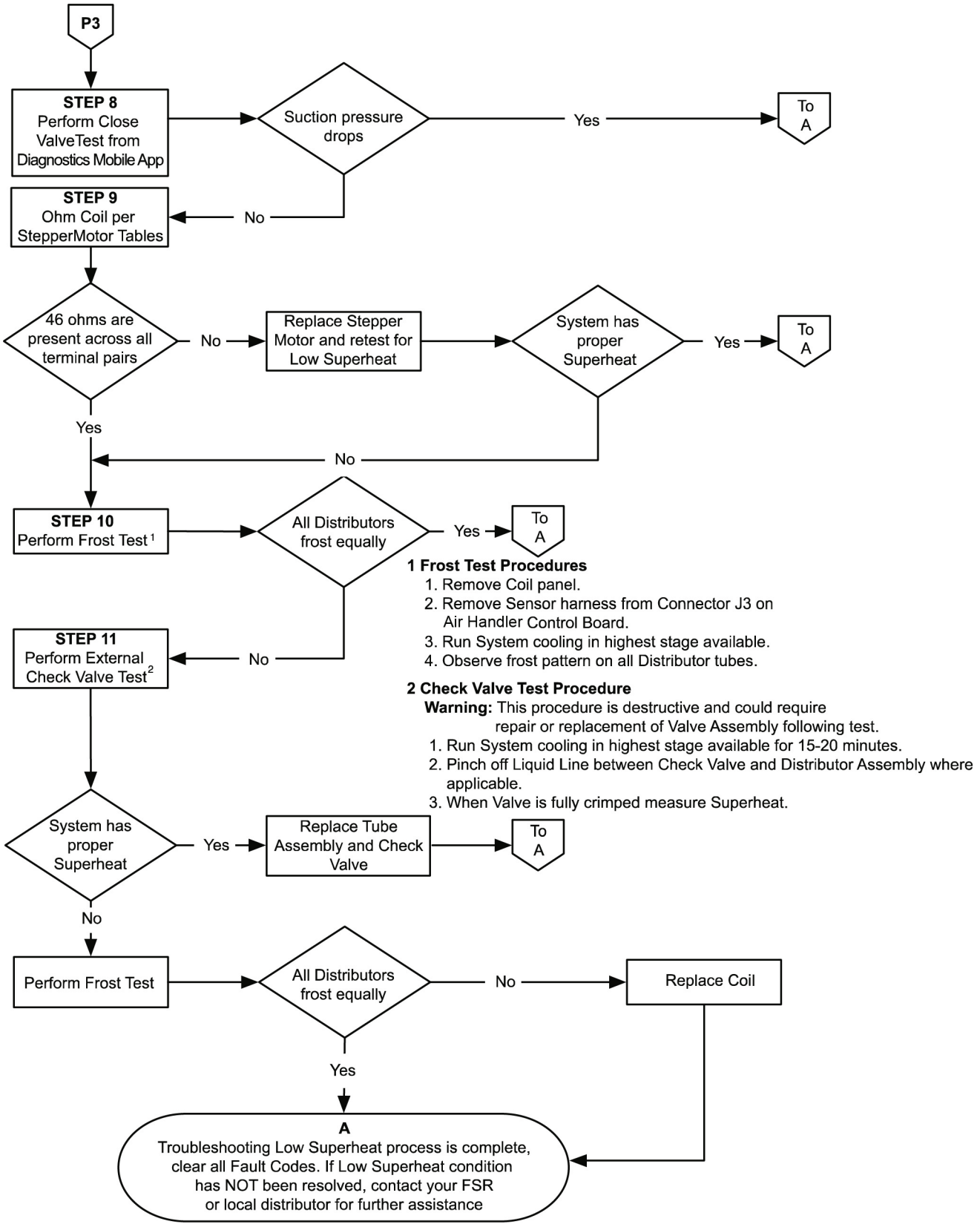


Figure 96. Troubleshooting low superheat at air handler



Notices

FCC Notice

Contains FCC ID: WAP3025

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. *This device may not cause harmful interference.*
2. *This device must accept any interference received, including interference that may cause undesired operation. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter. This equipment has been tested and found to comply with the limits for Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.*

- *Reorient or relocate the receiving antenna*
- *Increase the separation between the equipment and receiver*
- *Connect the equipment into an outlet on a circuit different from that to which the receiver is connected*
- *Consult the dealer or an experienced radio/TV technician for help*

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IC Notice

Contains IC ID: 7922A-3025

This device complies with Industry Canada license exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de license. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil de doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Notes

About Trane and American Standard Heating and Air Conditioning

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

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