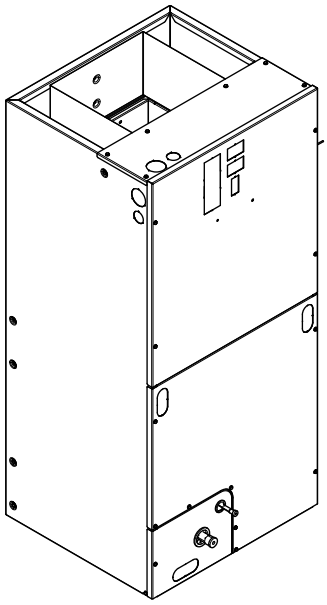
Installation, Operation, and Maintenance

Variable Speed Convertible Air Handlers
2 – 5 Ton

5TEMCB02AV21DA
5TEMCB03AV31DA
5TEMCD04AV31DA
5TEMCD05AV41DA
5TEMCD06AV41DA
5TEMCD07AV51DA



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

Note: *The 5TEMC series air handler is designed for installation in a closet, utility room, alcove, basement, crawlspace or attic. These versatile units are applicable to air conditioning and heat pump applications. Several models are available to meet the specific requirements of the outdoor equipment. Field installed electric resistance heaters are available.*

Note: *This unit can be used in Link Communicating mode or 24 volt mode.*

Note: *Use Diagnostics App to configure blower delays, accessories, ect. in 24 volt mode.*

⚠ 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.

October 2024

18-GF80D1-1A-EN

SAFETY SECTION

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

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

⚠ WARNING

SAFETY HAZARD!

This air handler shall only be connected to an outdoor unit suitable for use with refrigerant R-454B.

⚠ WARNING

HAZARDOUS VOLTAGE!

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

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

⚠ CAUTION

GROUNDING REQUIRED!

Failure to inspect or use proper service tools may result in equipment damage or personal injury.

Reconnect all grounding devices. All parts of this product that are capable of conducting electrical current are grounded. If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

⚠ WARNING

SAFETY HAZARD!

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

⚠ WARNING

RISK OF FIRE!

Flammable refrigerant used. To be repaired only by trained service professional. Do not puncture refrigerant tubing.

Dispose of properly in accordance with federal or local regulations. Flammable refrigerant used.

⚠ WARNING

LIVE ELECTRICAL COMPONENTS!

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

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

⚠ WARNING

PRESSURIZED REFRIGERANT!

Failure to follow this Warning could result in personal injury

System contains oil and refrigerant under high pressure. Recover refrigerant to relieve pressure before opening the system. Do no use non-approved refrigerants or refrigerant substitutes or refrigerant additives.

⚠ CAUTION

SHARP EDGE HAZARD!

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

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

⚠ CAUTION

HAZARDOUS VAPORS!

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

Equipment corrosion damage. To prevent shortening its service life, the air handler should not be used 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, varnish, stains, adhesives, cleaning compounds, and cement creates a corrosive condition which may cause rapid deterioration of the cabinet and internal components.

⚠ CAUTION

COIL IS PRESSURIZED!

- **Coil is pressurized with approximately 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.**

⚠ WARNING

SAFETY HAZARD!

This appliance 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.

⚠ WARNING

WARNING!

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

Important: *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.*

Important: *Air handlers do not require repositioning of the coil, drain pan, or refrigerant sensor for upflow applications. Horizontal left applications require sensor repositioning only. Horizontal right and downflow applications require coil, drain pan, and sensor repositioning. See coil conversion instructions section for details.*

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

Note: *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.*

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

Note: *There is no declared maximum altitude for operating the appliance.*

Note: *Charging of the refrigerating system shall be according to the instructions provided by the manufacturer of the outdoor unit.*

Features

Table 1. Standard Features

- MULTI-POSITION UPFLOW, DOWNFLOW, HORIZONTAL LEFT AND HORIZONTAL RIGHT
- PAINTED FINISH ON GALVANIZED STEEL EXTERIOR WITH FULLY INSULATED CABINET THAT MEETS R4.2 VALUE
- STURDY POLYCARBONATE DRAIN PANS
  - These air handlers have factory installed drain pans and are shipped for upflow applications
- 208/230 VAC OPERATION
- VARIABLE-SPEED DIRECT DRIVE BLOWER
- FACTORY INSTALLED R-454B THERMAL EXPANSION VALVE
- ALL ALUMINUM COIL
- BOTTOM RETURN
- MEETS THE MINIMUM LEAKAGE REQUIREMENTS FOR THE FLORIDA AND CALIFORNIA BUILDING CODES

Table 2. 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)
- SUPPLY DUCT FLANGE KIT
- DOWNFLOW SUB-BASE KITS - TAYBASE185, TAYBASE235, TAYBASE260
- SLIM FIT FILTER BOX KIT - BAYSF1185AAA, BAYSF1235AAA, BAYSF1265AAA
- Breaker Seal Kit - TEMBRKSEALKT01A
- Downflow Condensate Management Kit - BAYTEMDFKT1A
- CleanEffects Whole House Air Cleaners - EFD175DLAH000B, EFD215DLAH000B, EFD235DLAH000B
- Supply Air Temperature Sensor - BAYSENSC360

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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.

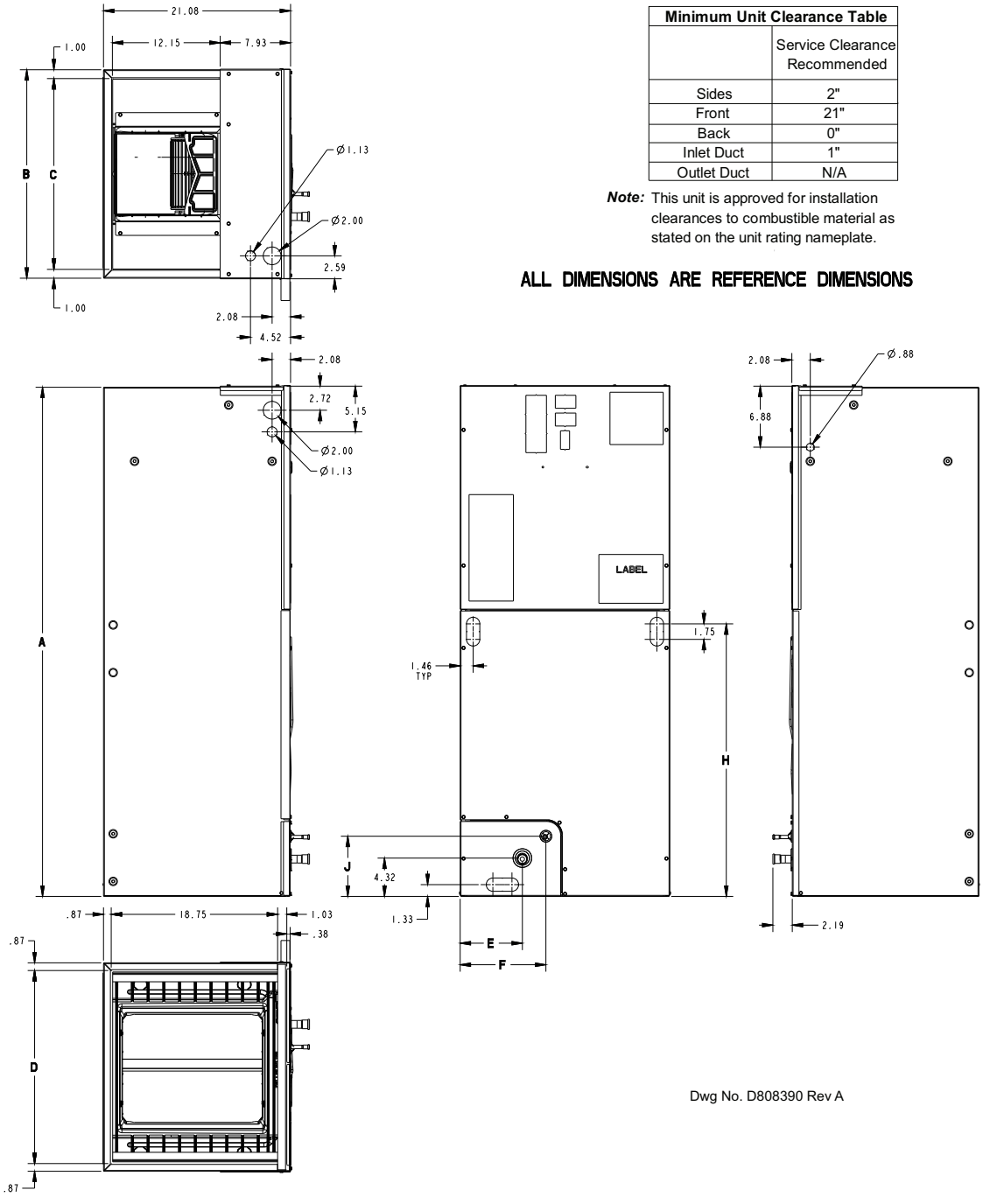
Decommissioning

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.

Outline Drawing



Minimum Unit Clearance Table	
	Service Clearance Recommended
Sides	2"
Front	21"
Back	0"
Inlet Duct	1"
Outlet Duct	N/A

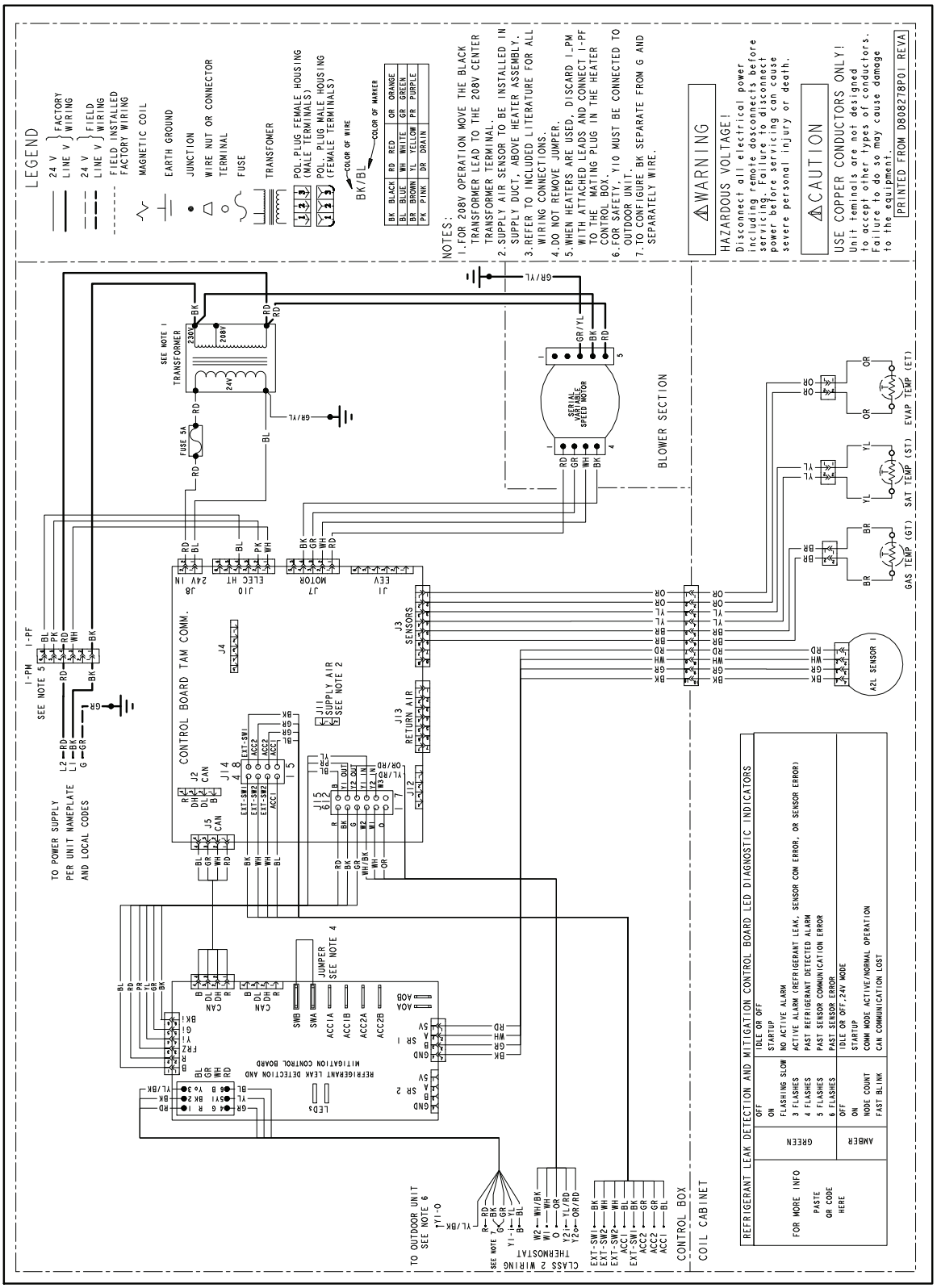
Note: This unit is approved for installation clearances to combustible material as stated on the unit rating nameplate.

ALL DIMENSIONS ARE REFERENCE DIMENSIONS

Dwg No. D808390 Rev A

PRODUCT DIMENSIONS										
Air Handler Model	A	B	C	D	E	F	H	J	Flow Control	Gas Line Braze
5TEMCB02, 03	46.77	18.50	16.50	16.75	5.43	7.08	20.07	5.76	TXV	3/4
5TEMCB04, 05	51.27	23.50	21.50	21.75	7.01	9.66	24.58	6.76	TXV	7/8
5TEMCB06, 07	57.40	23.50	21.50	21.75	7.01	9.66	30.71	6.76	TXV	7/8
All dimensions are in inches										

Wiring Diagram



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 used. To be repaired only by trained service professional. Do not puncture refrigerant tubing.
Dispose of properly in accordance with federal or local regulations. Flammable refrigerant used.

⚠ WARNING

LEAK DETECTION SYSTEM!

LEAK DETECTION SYSTEM installed. Unit must be powered except for service.

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!

If installing the unit in any other orientation other than upflow, the refrigerant sensor must be relocated. See Unit Conversion Instructions, p. 35.

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 3, p. 10. 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 3. 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

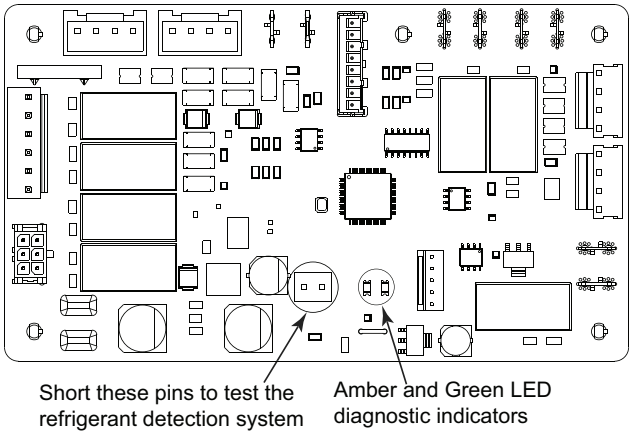
Note: *All 5TEMC model air handlers have been factory configured to provide sufficient airflow to dilute leaked refrigerant.*

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 1, p. 11 below.

Figure 1. Refrigerant Leak Detection 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 "Field Wiring," p. 17 section of this manual.
- The diagnostic indicators on the mitigation control board should be checked against the diagnostic codes given in Table 4, p. 11 below.
- Scan the QR code below for more information on field troubleshooting of the refrigerant leak detection system.

Table 4. MCB Diagnostic Code Table

Amber LED	COMM Condition
Off	No Power/Off
On	24V Mode Active, Normal Operation
Node Count	Communication Mode is Active, Normal Operation
Fast Blink	CAN Communication lost

Green LED	Status Condition
Off	No Power/Off
On	24V Mode Active, Normal Operation
Slow Blink	Normal Operation
3 Flash	Active Mitigation Alarm - Refrigerant Leak Detected, Loss of Sensor Communication or Sensor Failure
4 Flash	Past Refrigerant Leak Detected, Normal Operation
5 Flash	Past Sensor Communication Error, Normal Operation
6 Flash	Past Sensor Failure or Error, Normal Operation

Note: *All past alarm flash codes will remain present for 30 days post occurrence.*

Installation Instructions

1. **Unpacking**

   Carefully unpack the unit and inspect the contents for damage. If any damage is found at the time of delivery, proper notification and claims should be made with the carrier.

   Check the rating plate to assure model number and voltage, plus any kits match with what you ordered. The manufacturer should be notified within 5 days of any discrepancy or parts shortage.

2. **Location**

   The air handler should be centrally located and may be installed in a closet, alcove, utility room, basement, crawl space or attic. Minimum clearances must be met.

   Important: *The downflow sub-base may be required with electric heat applications. See minimum clearance table.*

   Equipment shall be installed in such a way which reduces the likelihood of ignition of leaked refrigerant.

⚠ 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.**

   The unit should be installed in a level position to ensure proper condensation drainage. Up to an additional 1/4" rise over the width or depth of the unit is allowed to create additional sloping towards the drain. Unit must be positioned between level and ¼" rise, sloping toward the drain connections.

   When the unit is installed in a closet or utility room, the room should be large enough, and have an opening to allow replacement of the unit. All servicing is done from the front and a clearance of 21" is needed for service unless the closet door aligns with the front of the air handler.

   If you are installing the unit in an unconditioned space such as an attic or crawl space, you must ensure that the area provides sufficient air circulation to prevent moisture collection on the cabinet during high dew point conditions. A drain pan must be installed under the entire unit when it is installed in or above a finished ceiling or in an unconditioned space.

3. **Duct Work**

⚠ WARNING

Risk of Fire!

Failure to follow this warning could result in serious injury, death, or property damage. Auxiliary devices which may be a potential ignition source, such as hot surfaces or electric switching devices, shall not be installed in the connecting ductwork unless they have been approved by the manufacturer or declared suitable with the refrigerant used.

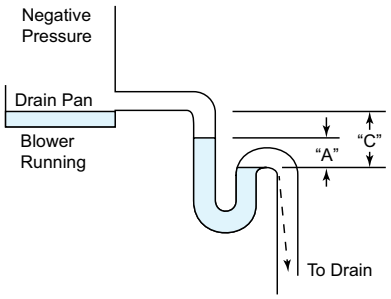
   The duct work should be installed in accordance with the NFPA No. 90A "Installation of Air Conditioning and Ventilating systems" and No. 90B "Residential Type Warm Air Heating and Air Conditioning Installation."

   The duct work should be insulated in accordance with the applicable requirements for the particular installation as required by HUD, FHA, VA the applicable building code, local utility or other governing body.

4. **Condensate Drain**

   The unit is supplied with primary and auxiliary condensate drains that have 3/4" NPT connections. The primary drain must be trapped outside the unit and piped in accordance with applicable building codes.

   The figure shows the operation of a properly designed trap under normal operating conditions when the blower is running and the condensate is draining. Note the difference in height of the water column must at least equal the normal negative static pressure existing during operation between the cooling coil and blower. It is advisable to have the difference in water column height somewhat greater than the normal maximum operating static to allow for greater static caused by dirty filters or for the bounce of the water column on start up.



Proper operation of condensate trap under normal operating conditions.

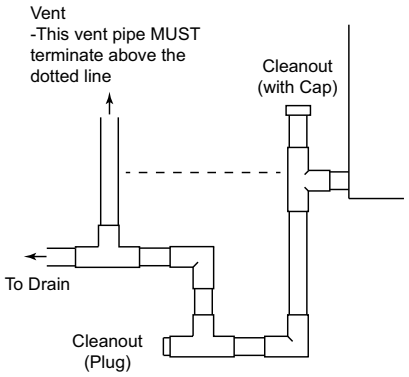
"A" height of water column equals negative static pressure existing in system.

"C" dimension should at least equal two times the maximum negative static pressure that can occur in system.

Do not reduce the drain line size less than the connection size on the drain pan. Condensate should be piped to an open drain or to the outside. All drains must pitch downward away from the unit a minimum of 1/4" per foot of line to ensure proper drainage.

Important:

- *If cleanout Tee is used, stand pipe must be sealed/capped.*
- *If a vent Tee is used, it must be downstream from the trap.*



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

5. **Refrigerant Piping**

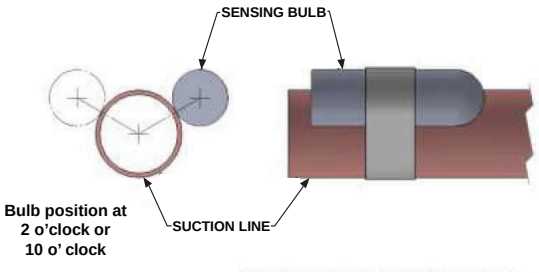
Pipe-work including piping material, pipe routing, and installation shall include protection from physical damage in operation and service, and be in compliance with national and local codes and standards. All field joints shall be accessible for inspection prior to being covered or enclosed.

There is a holding charge of dry air in the indoor coil that will be evacuated when the sealing plugs are removed.

To protect the TXV, remove the TXV bulb from the tubing inside the unit before brazing the line set connections. Painted areas of the unit must be shielded during brazing to protect the finish.

After brazing, replace the TXV bulb and insulate it using the provided adhesive-backed insulation.

Note: *For optimal performance, the TXV bulb can be located and insulated on the vapor line outside the unit. Pass the bulb and line through an opening in the line set panel. Place the bulb at the 10 or 2 o'clock position on the line, relative to the floor.*

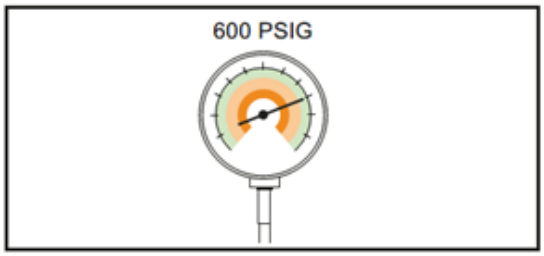


The two flammable refrigerant red warning tags on the line set connections should be removed prior to brazing and replaced once brazing is complete.

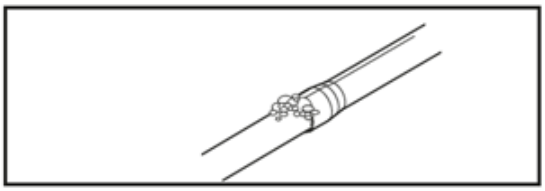
After completion of field piping for split systems, the field pipework shall be pressure tested with nitrogen and then vacuum tested prior to refrigerant charging, according to the following requirements:

Pressure test:

- 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).



- 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.
- Check for leaks by using a soapy solution at each field-made joint.

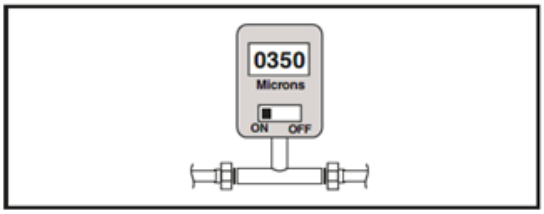


Note: *Remove nitrogen pressure and repair any leaks before continuing.*

Vacuum test:

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

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



- 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.
- Once evacuation is complete, blank off the vacuum pump and micron gauge, and close the valve on the manifold gauge set.

All procedures for charging the system with refrigerant shall be according to the instructions provided by the manufacturer of the outdoor unit.

Important: *Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks.*

After charging the system, all indoor field-made joints of the field piping shall be checked for refrigerant leaks using an electronic leak detector calibrated for R-454B having a sensitivity of 5 grams per year or better.

6. **Metering Device**

   All units are shipped and installed with an internally-checked, non-bleed TXV designed for air conditioning or heat pump operation. Some outdoor models may require a start assist kit. See outdoor unit for more information.

7. **Blower**

   This unit is supplied with a variable speed motor with a direct drive blower wheel which can obtain various air flows. The unit is shipped with factory set cooling and heating air flows. Performance tables are available for additional airflow settings. Disconnect all power to the unit before making any adjustments to the airflow settings. Be sure to check the air flow and the temperature drop across the evaporator coil to ensure sufficient air flow.

   Note: *For optimal performance, seal the seams of the front panels using an appropriate tape to reduce air leakage.*

8. **Wiring**

   Consult all schematic and pictorial wiring diagrams of this unit and the outdoor equipment to determine compatibility of wiring connections and to determine specific requirements.

   All field wiring to the air handler should be installed in accordance with the latest edition of the National Electric Code NFPA No. 70 and any local codes. Check rating plates on unit for rated volts, minimum circuit ampacity and maximum over current protection. Supply circuit power wiring must be 75 degree C (167 degree F) minimum copper conductors only. Copper supply wires shall be sized to the National Electric Code or local code requirements, whichever is more stringent.

   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.

   The unit is shipped wired for 230/240 Volt AC 60 HZ 1 Phase Operation. If the unit is to be operated at 208 VAC 60HZ, follow the instructions on the indoor unit wiring diagram to change the low voltage transformer to 208 VAC operation (Ensure unit is properly grounded).

   Class 2 low voltage control wiring should not be run in conduit with power wiring and must be separated from power wiring unless class 1 wire with proper voltage rating is used.

   Low voltage control wiring should be 18 Awg, color coded (105 degree C minimum). For lengths longer than 100ft., 16 Awg wire should be used. Make certain that separation of control wiring and power wiring has been maintained.

9. **Air Filter**

   To protect the coil, blower and other internal parts from excessive dirt and dust an air filter must be installed before air enters the evaporator coil. A remote filter must be installed. Consult the filter manufacturer for proper sizing and maximum velocity requirements.

Important: *Air filters shall meet the test requirements in UL 900.*

10. **Thermostat**

Note: *When in communicating mode, the system controller (SC360) controls indoor airflow.*

Install the thermostat on an inside wall, away from drafts, lights or other heat sources in a location that has sufficient air circulation from other rooms being controlled by the thermostat.

11. **Sequence of Operation**

TEMC 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

Note: *When in communicating mode, the system controller (SC360) controls indoor airflow.*

Note: *Use variable speed outdoor Sequence of Operation in conjunction with the 5TEMC 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.
2. 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.
3. 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. 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.
3. 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.

Defrost

1. The OD unit will initiate defrost and send a message to the AHC.
2. Electric 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.

12. **Operational and Checkout Procedures**

To ensure proper function of the Refrigerant Leak Detection System, all procedures in the "Refrigerant Leak Detection System," p. 10 section of this manual must be verified.

To obtain proper performance, all units must be

operated and charge adjustments made in accordance with procedures found in the Service Facts document of the outdoor unit.

After installation has been completed, it is recommended that the entire system be checked against the checkout list located at the back of this document. See "Checkout Procedures," p. 41.

13. **Maintenance**

    The system air filter(s) should be inspected, cleaned or replaced at least monthly. Make certain that the access panels are replaced and secured properly before placing the unit back in operation. This product is designed for dependable service; however, periodic maintenance should be scheduled and conducted by trained professional service personnel. This service should be conducted at least annually, and should include testing and inspection of electrical and refrigerant components. The heat transfer surface should be cleaned. The blower motor is permanently lubricated for normal operating conditions.

Field Wiring

5TEMC 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.

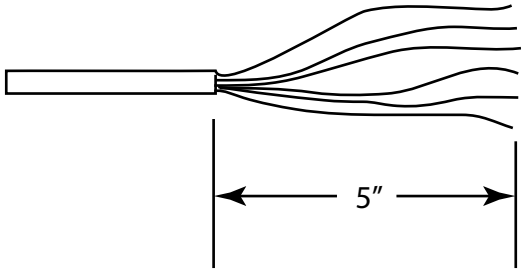
Table 5. Low Voltage Maximum Wire Length

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

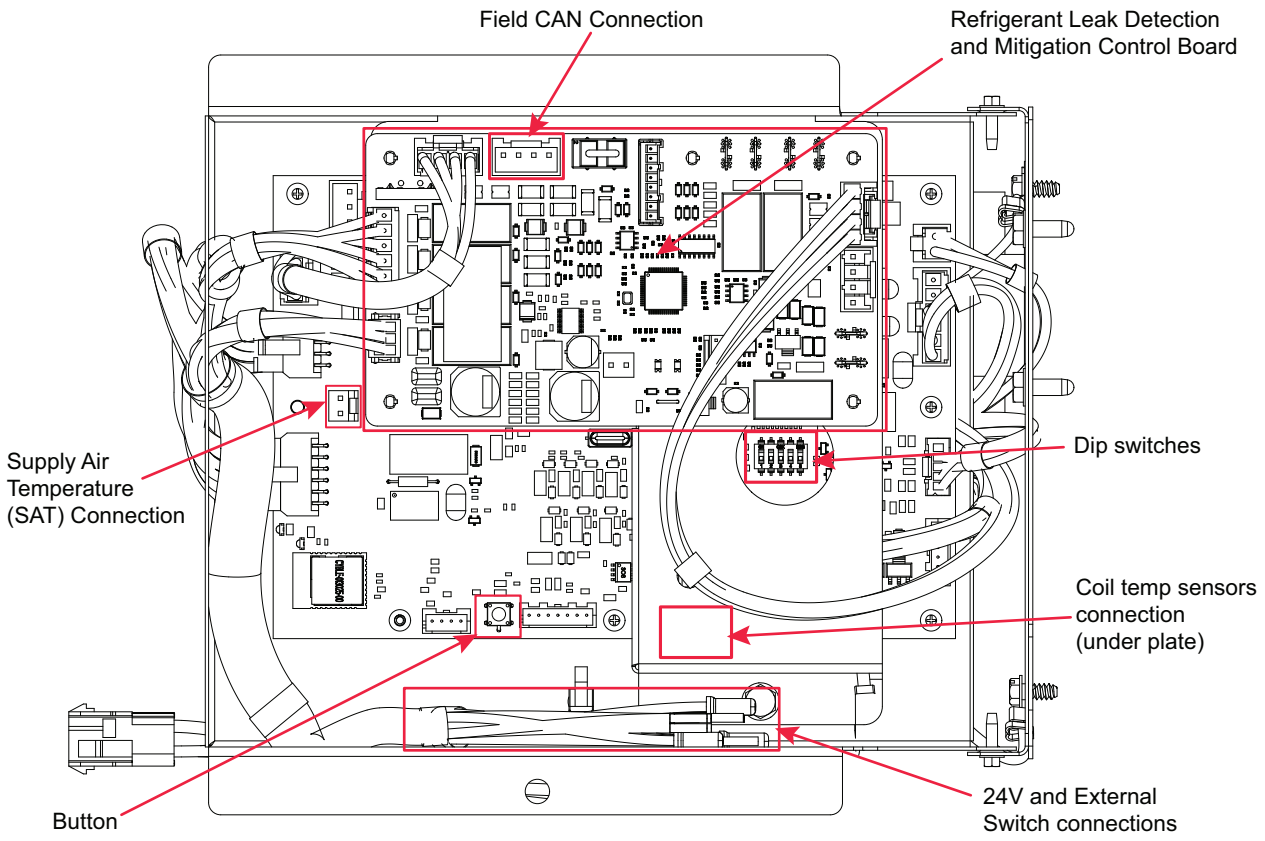
Table 6. Low Voltage Hook-up Instructions

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

1. Remove the external sheathing of the wiring approximately 5”.



2. Secure the sheathed wiring to the control box using the factory supplied wire ties attached to the control box.



3. **Mount Supply Air Temperature Sensor**

The Supply Air Temperature (SAT) Sensor must be mounted a minimum of 8" above the edge of the supply duct (additional distance is preferred when possible). Locate the SAT Sensor in an area of the discharge air duct where less air turbulence is expected. Avoid dead air areas where representative discharge air temperatures may not exist.

The plug on the SAT Sensor harness plugs directly onto the AHC Board.

Note: *Supply Air Temp Sensor (SAT) is used in Link Communicating mode and is optional in 24 volt mode.*

Note: *Supply Air Temp Sensor (SAT) ships with SC360 System Controller.*

Note: *Supply Air Sensor kit is BAYSENSC360.*

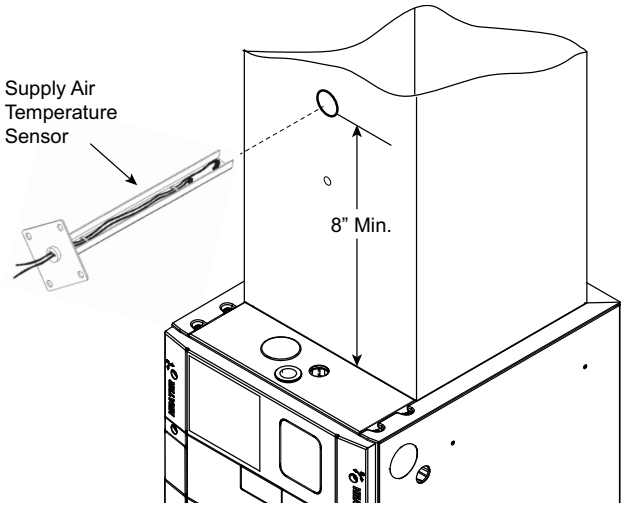


Table 7. Link Communicating Low Voltage Wire Connectors

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

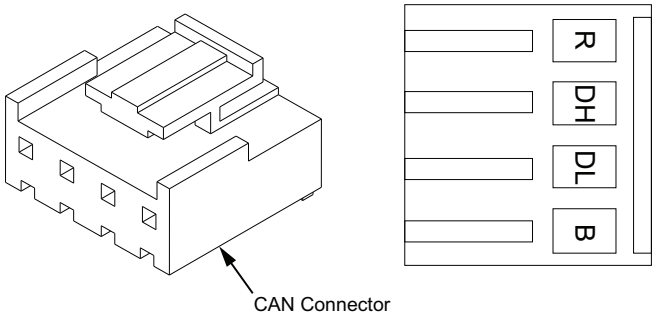
Wire Colors	
R	Red
DH	White
DL	Green
B	Blue

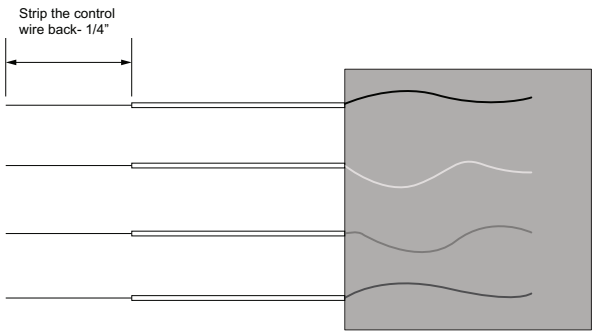
Do the following to make the connections from the actual thermostat wire to the connector.

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".
2. Insert the wires into the connector in the correctly colored locations.
3. **When you feel it release, allow each wire to slide in further.**
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.
6. 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.

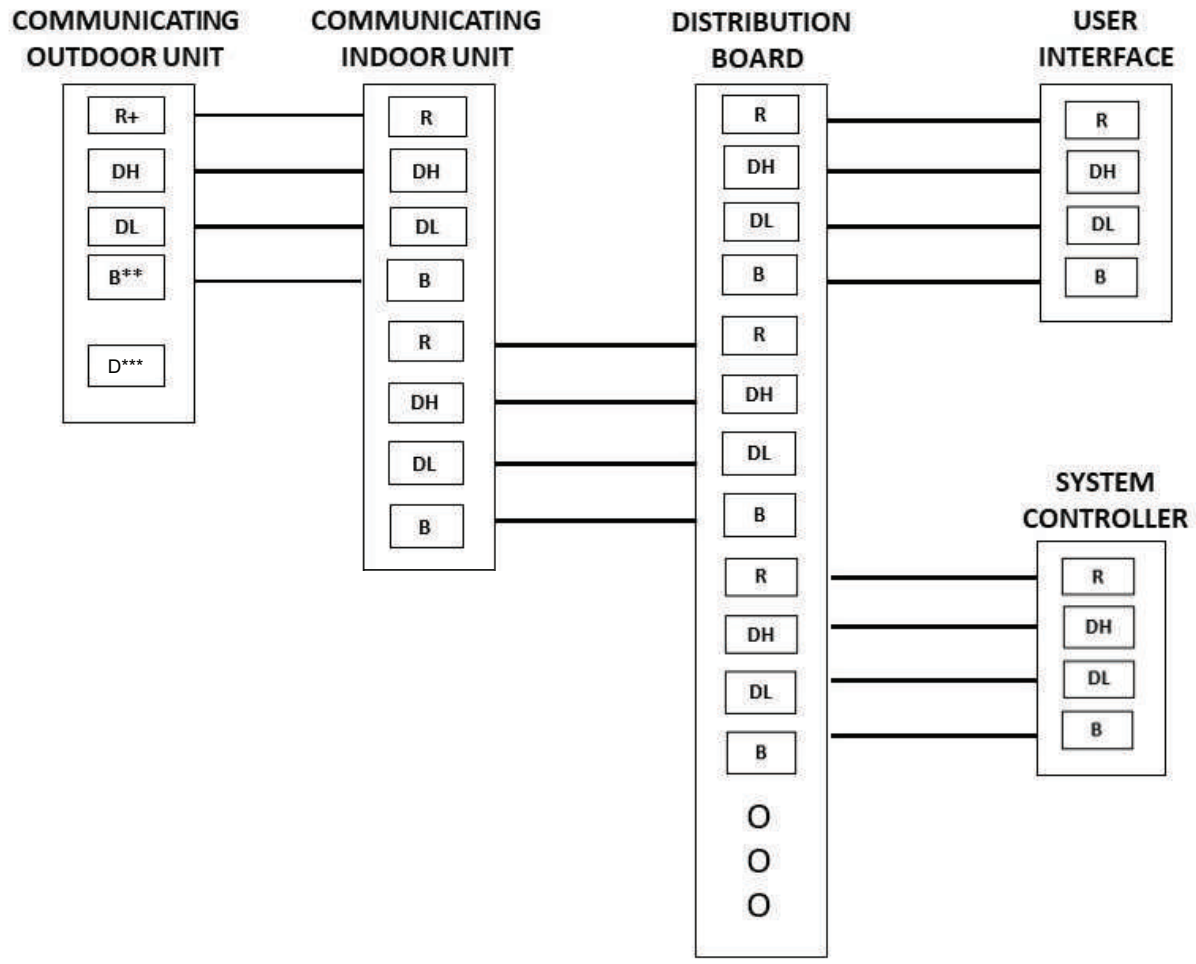
Connect the CAN connector into the male coupling on the low voltage harness at the Outdoor unit.





Note: *For use with 18 ga. solid core thermostat wire.*

Table 8. Link Communicating Low Voltage Hook-Up Diagrams



Wire Colors	
R	Red
DH	White
DL	Green
B	Blue

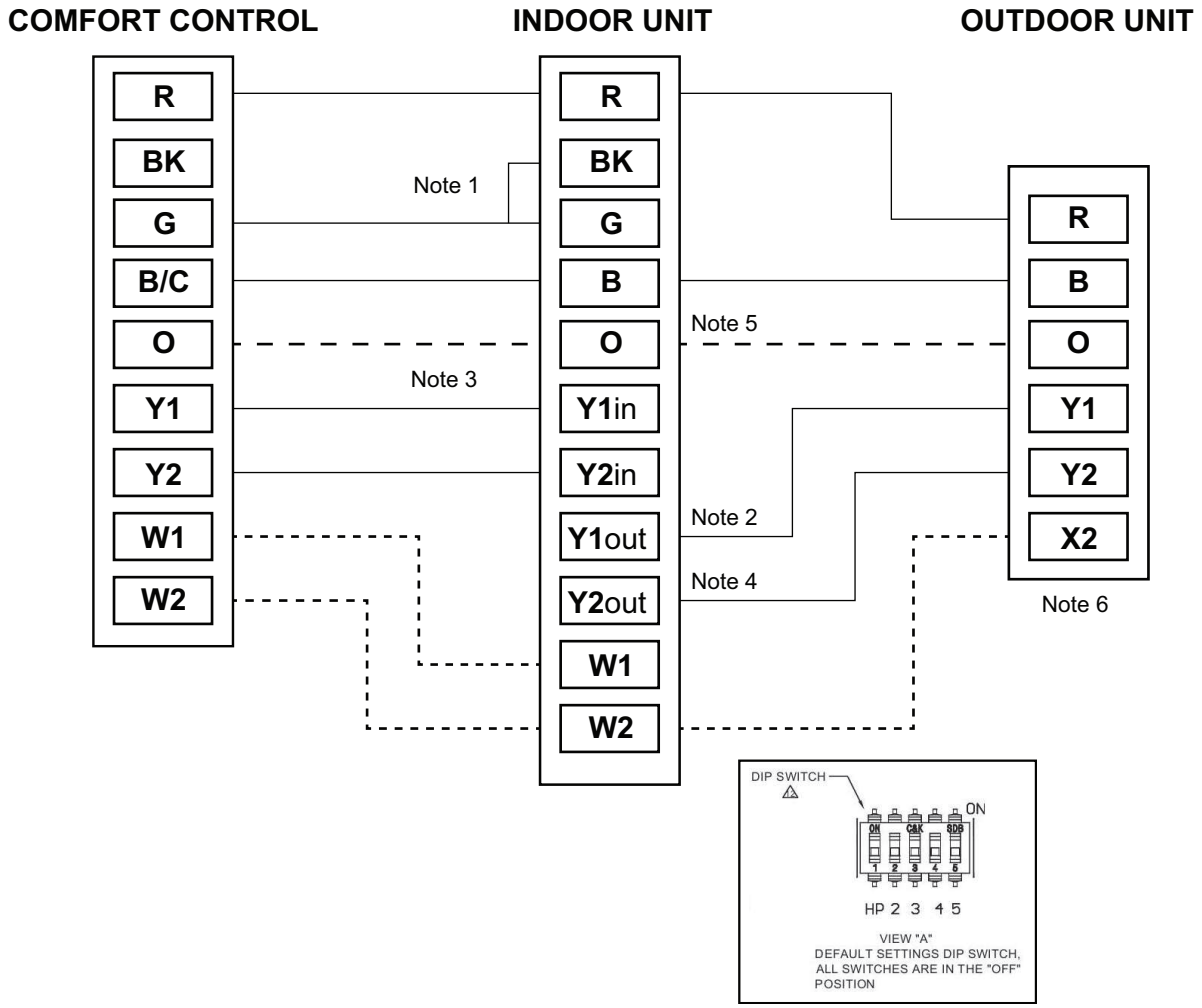
Note:

—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.

—Drawing is for reference only - wiring can be done many different ways.

Table 9. 24 Volt Low Voltage Wiring

Figure 2. 2 Stage Cooling or Heat Pump with 5TEMC Variable Speed Air Handler

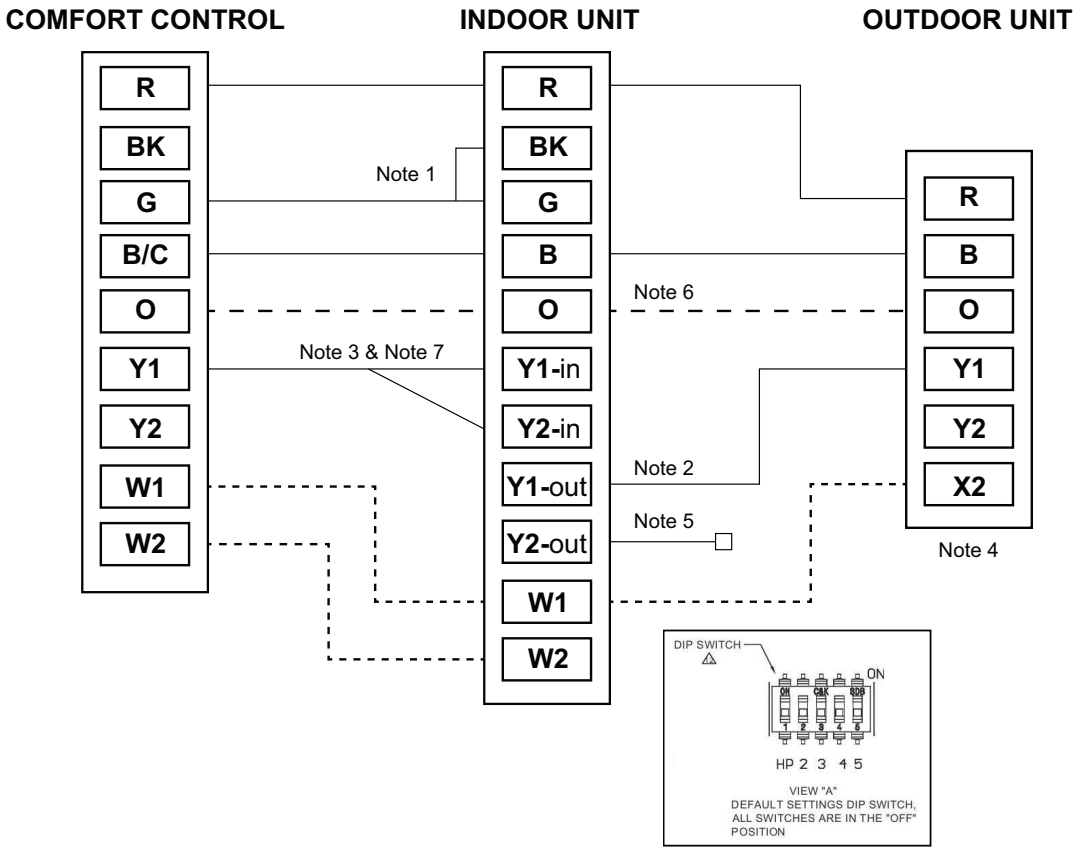


For AC only units, move dip switch 1 to the ON position.*
*if not using tech app for configuration.

Notes:

1. *Separate the BK and G wires when using the BK functionality from the thermostat or a Humidistat.*
2. *Yin and Yout connections must be made as shown for freeze protection, internally mounted condensate overflow, and refrigerant leak detection circuits to function properly.*
3. *3rd party condensate switch should break the Y1-in circuit between the thermostat and AHC.*
4. *Y2-out connections at outdoor unit only required for two stage units and should be capped off when not in use.*
5. *Only needed for heat pump operation.*
6. *X2 is necessary if not using select Trane or American Standard thermostats.*

Figure 3. 1 Stage Cooling or Heat Pump with 5TEMC Variable Speed Air Handler



For AC only units, move dip switch 1 to the ON position.*
*if not using tech app for configuration.

Notes:

1. *Separate the BK and G wires when using the BK functionality from the thermostat or a Humidistat.*
2. *Yin and Yout connections must be made as shown for freeze protection, internally mounted condensate overflow, and refrigerant leak detection circuits to function properly.*
3. *3rd party condensate switch should break the Y1-in circuit between the thermostat and AHC.*
4. *X2 is necessary if not using select Trane or American Standard thermostats.*
5. *For single speed operation, use Y1-out and cap off Y2-out wire.*
6. *Only needed for heat pump operation.*
7. *For single stage outdoor operation, must connect Y1–in and Y2–in for full airflow.*

5TEMC 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		

Table 10. GET THE APP:

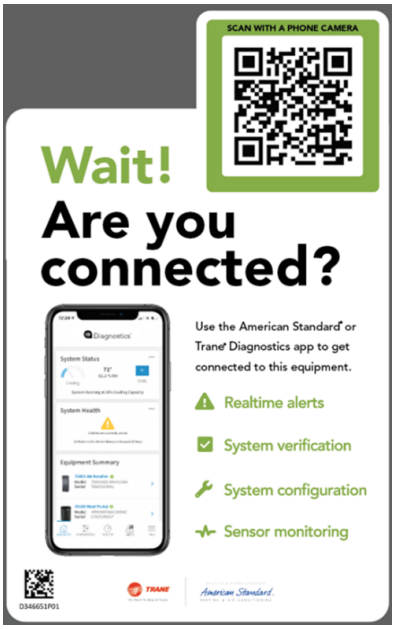
The Diagnostics Mobile App can be found in your device App Store when searching for Trane Diagnostics or American Standard Diagnostics. A QR code can be scanned which sends you directly to the location:	

Table 11. External Switches and Accessories

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

Use stripped wire connections in control box when connecting a humidifier, external switch, or other accessory to the air handler.

- 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.

Note: *See step 2 of* ***Low Voltage Hook-up Instructions*** *for switch location.*

Note: *Accessories can be configured in the UX360 User Interface or Diagnostics Mobile App.*

Note: *Accessories need configured using the Diagnostics Mobile App in 24 volt mode. There are no defaults in 24 volt mode.*

The following optional connections are available on the mitigation control board (see hook-up diagrams Figure 4, p. 24):

- ACC1 and ACC2 accessory connections. Use when connecting an accessory to the air handler that could be considered a source of ignition (ex. electronic air cleaner).
- Aoa/Aob audible alarm connections. Use when configuring an audible alarm on the refrigerant detection system of the air handler.

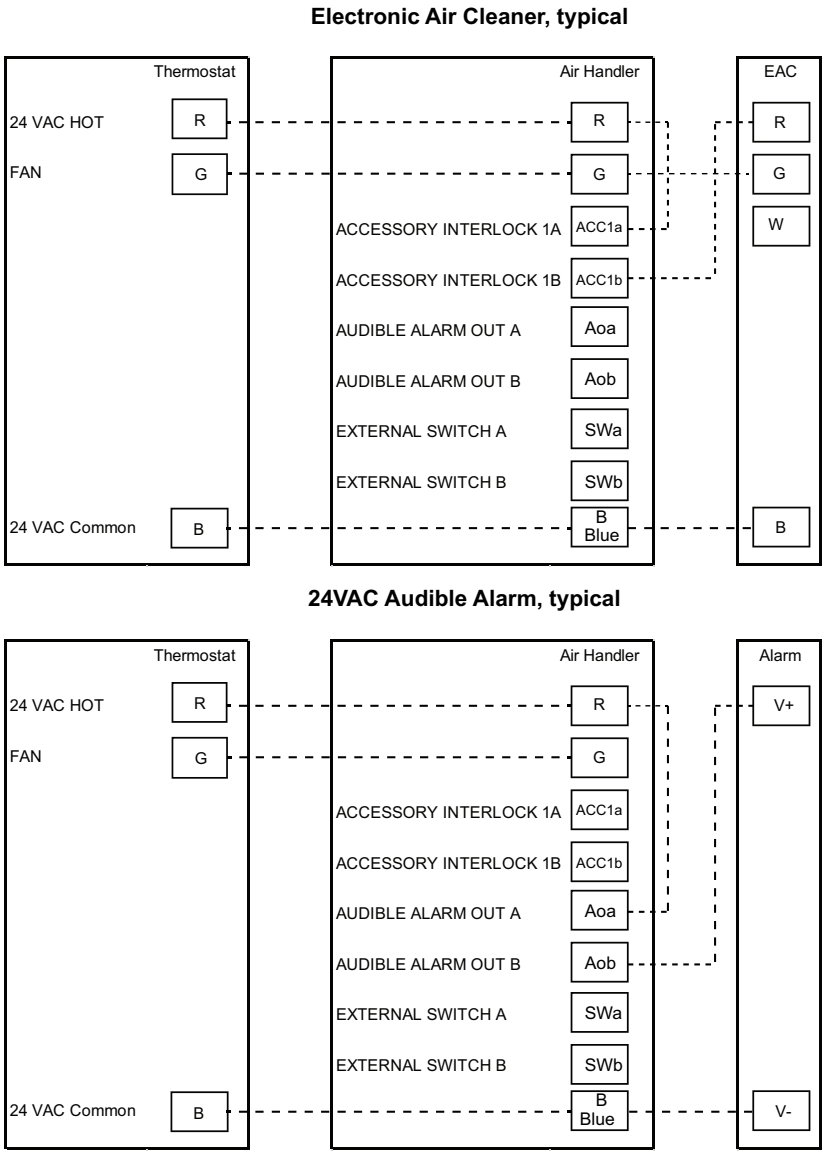
ACC1, ACC2, and Aoa/Aob are dry contacts and need source voltage provided from either the accessory or the unit's control wiring.

Connect using field-supplied 3/16" (Aoa/Aob) or 1/4" (ACC1, ACC2) female spade connections.

SCAN ME

Scan QR code to view instructional videos on field wiring for CleanEffects or AccuClean electronic air cleaners.

Figure 4. Accessories Diagram



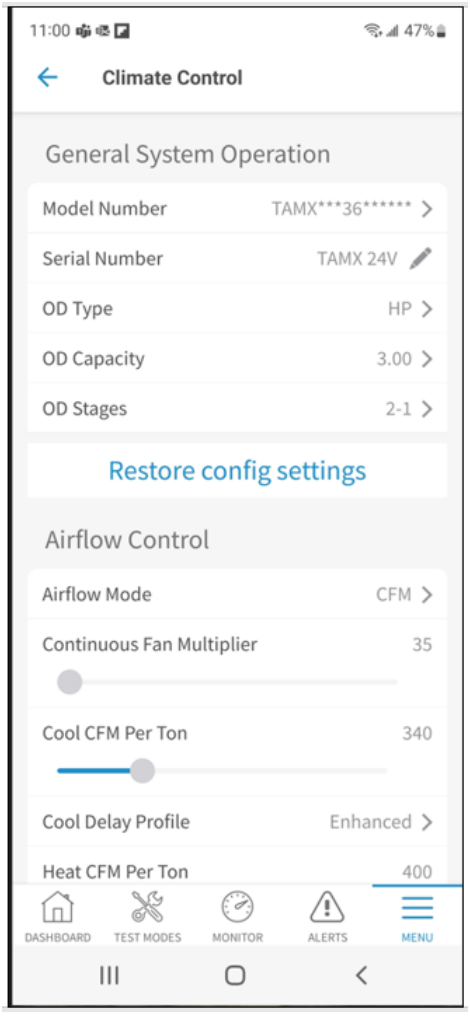
Replacement AHC configuration – 24 volt mode

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.

Only 1 of these methods should be used.

Method #1:



Button Press AHC Configuration Method: Method #2

Table 12. Configuration for Replacement AHC

Replacement AHC will need to 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.		
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.	7 press - 5TEMCB02AV21DA 8 press - 5TEMCB03AV31DA 9 press - 5TEMCD04AV31DA 10 press - 5TEMCD05AV41DA 11 press - 5TEMCD06AV41DA 12 press - 5TEMCD07AV51DA
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.

Performance Data

5TEMCB02AV21DA AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
1.5 tons	290 CFM/ton	CFM Watts	430 / 538 50 / 39	430 / 415 75 / 48	430 / 264 95 / 43	430 / NA 110 / NA	430 / NA 145 / NA	290 CFM/ton	CFM Watts	434 34	419 64	419 96	403 130	384 167
	350 CFM/ton	CFM Watts	520 / 620 60 / 53	520 / 514 90 / 64	520 / 398 120 / 61	520 / NA 135 / NA	510 / NA 175 / NA	350 CFM/ton	CFM Watts	521 44	512 77	514 112	500 153	485 196
	400 CFM/ton	CFM Watts	590 / 688 75 / 67	590 / 593 105 / 80	590 / 493 140 / 80	590 / NA 160 / NA	590 / NA 205 / NA	400 CFM/ton	CFM Watts	595 56	589 91	595 127	584 173	573 222
	450 CFM/ton	CFM Watts	670 / 758 85 / 85	670 / 671 125 / 100	660 / 581 160 / 102	660 / NA 190 / NA	660 / NA 235 / NA	450 CFM/ton	CFM Watts	668 71	667 107	675 145	668 196	660 250
2 tons	290 CFM/ton	CFM Watts	570 / 670 60 / 63	570 / 573 90 / 76	570 / 469 125 / 75	570 / NA 165 / NA	568 / NA 215 / NA	290 CFM/ton	CFM Watts	575 53	569 87	573 123	561 167	549 215
	350 CFM/ton	CFM Watts	690 / 781 85 / 91	690 / 696 120 / 107	690 / 609 160 / 110	690 / 518 210 / 98	680 / NA 259 / NA	350 CFM/ton	CFM Watts	693 76	693 113	702 152	696 204	689 259
	400 CFM/ton	CFM Watts	790 / 875 110 / 122	790 / 798 150 / 140	790 / 720 195 / 145	780 / 639 250 / 137	780 / 555 301 / 115	400 CFM/ton	CFM Watts	791 103	795 143	805 184	803 240	798 301
	450 CFM/ton	CFM Watts	890 / 971 145 / 161	890 / 899 185 / 181	880 / 827 235 / 189	880 / 754 295 / 184	880 / 680 347 / 184	450 CFM/ton	CFM Watts	889 138	895 181	902 226	899 284	891 347
2.5 tons †	290 CFM/ton	CFM Watts	720 / 823 90 / 104	720 / 741 140 / 120	710 / 659 170 / 124	710 / 573 220 / 115	710 / 481 260 / 91	290 CFM/ton	CFM Watts	717 82	718 120	728 159	723 212	717 269
	350 CFM/ton	CFM Watts	870 / 963 140 / 157	860 / 892 182 / 177	873 / 819 235 / 185	860 / 746 280 / 180	850 / 671 330 / 161	350 CFM/ton	CFM Watts	865 128	871 170	879 214	876 272	869 335
	390 † CFM/ton	CFM Watts	958 / 1075 147 / 170	975 / 1000 203 / 195	946 / 878 269 / 211	871 / 711 342 / 197	802 / 617 403 / 189	390 † CFM/ton	CFM Watts	958 138	979 192	957 257	878 336	822 406
	400 CFM/ton	CFM Watts	980 / 1100 157 / 181	993 / 1019 213 / 205	958 / 889 280 / 219	875 / 714 357 / 205	801 / 616 418 / 196	400 CFM/ton	CFM Watts	980 146	998 202	969 268	882 351	821 422
	450 CFM/ton	CFM Watts	980 / 1100 157 / 181	993 / 1019 213 / 205	958 / 889 280 / 219	875 / 714 357 / 205	801 / 616 418 / 196	450 CFM/ton	CFM Watts	980 146	998 202	969 268	882 351	821 422

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

5TEMCB03AV31DA AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
1.5 tons	290 CFM/ton	CFM	430 / 538	430 / 415	430 / 264	430 / NA	430 / NA	290 CFM/ton	CFM	434	419	419	403	384
		Watts	50 / 39	75 / 48	95 / 43	110 / NA	145 / NA		Watts	34	64	96	130	167
	350 CFM/ton	CFM	520 / 620	520 / 514	520 / 398	520 / NA	510 / NA	350 CFM/ton	CFM	521	512	514	500	485
		Watts	60 / 53	90 / 64	120 / 61	135 / NA	175 / NA		Watts	44	77	112	153	196
	400 CFM/ton	CFM	590 / 688	590 / 593	590 / 493	590 / NA	590 / NA	400 CFM/ton	CFM	595	589	595	584	573
		Watts	75 / 67	105 / 80	140 / 80	160 / NA	205 / NA		Watts	56	91	127	173	222
	450 CFM/ton	CFM	670 / 758	670 / 671	660 / 581	660 / NA	660 / NA	450 CFM/ton	CFM	668	667	675	668	660
		Watts	85 / 85	125 / 100	160 / 102	190 / NA	235 / NA		Watts	71	107	145	196	250
2 tons	290 CFM/ton	CFM	570 / 670	570 / 573	570 / 469	570 / NA	568 / NA	290 CFM/ton	CFM	575	569	573	561	549
		Watts	60 / 63	90 / 76	125 / 75	165 / NA	215 / NA		Watts	53	87	123	167	215
	350 CFM/ton	CFM	690 / 781	690 / 696	690 / 609	690 / 518	680 / NA	350 CFM/ton	CFM	693	693	702	696	689
		Watts	85 / 91	120 / 107	160 / 110	210 / 98	259 / NA		Watts	76	113	152	204	259
	400 CFM/ton	CFM	790 / 875	790 / 798	790 / 720	780 / 639	780 / 555	400 CFM/ton	CFM	791	795	805	803	798
		Watts	110 / 122	150 / 140	195 / 145	250 / 137	301 / 115		Watts	103	143	184	240	301
	450 CFM/ton	CFM	890 / 971	890 / 899	880 / 827	880 / 754	880 / 680	450 CFM/ton	CFM	889	895	902	899	891
		Watts	145 / 161	185 / 181	235 / 189	295 / 184	347 / 184		Watts	138	181	226	284	347
2.5 tons	290 CFM/ton	CFM	720 / 823	720 / 741	710 / 659	710 / 573	710 / 481	290 CFM/ton	CFM	717	718	728	723	717
		Watts	90 / 104	140 / 120	170 / 124	220 / 115	260 / 91		Watts	82	120	159	212	269
	350 CFM/ton	CFM	870 / 963	860 / 892	873 / 819	860 / 746	850 / 671	350 CFM/ton	CFM	865	871	879	876	869
		Watts	140 / 157	182 / 177	235 / 185	280 / 180	330 / 161		Watts	128	170	214	272	335
	390 CFM/ton	CFM	969 / 1087	985 / 1011	993 / 921	992 / 809	1000 / 770	390 CFM/ton	CFM	969	989	1004	999	1026
		Watts	143 / 166	198 / 191	262 / 205	329 / 189	399 / 187		Watts	134	188	250	323	402
	400 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400 CFM/ton	CFM	993	1013	1028	1023	1049
		Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194		Watts	142	197	261	335	416
	450 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	450 CFM/ton	CFM	993	1013	1028	1023	1049
		Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194		Watts	142	197	261	335	416
3 tons †	290 CFM/ton	CFM	868 / 974	884 / 907	891 / 826	893 / 729	894 / 688	290 CFM/ton	CFM	868	888	901	900	917
		Watts	111 / 128	163 / 156	220 / 173	281 / 162	345 / 162		Watts	103	154	211	277	347
	350 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350 CFM/ton	CFM	993	1013	1028	1023	1049
		Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194		Watts	142	197	261	335	416
	390 † CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	390 † CFM/ton	CFM	993	1013	1028	1023	1049
		Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194		Watts	142	197	261	335	416
	400 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400 CFM/ton	CFM	993	1013	1028	1023	1049
		Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194		Watts	142	197	261	335	416
	450 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	450 CFM/ton	CFM	993	1013	1028	1023	1049
		Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194		Watts	142	197	261	335	416

- † Factory Setting
- 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 1000 CFM due to condensate blowoff.

- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

5TEMCD04AV31DA & 5TEMCD05AV41DA AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
2.5 tons	290 CFM/ton	CFM Watts	735 / 837 59 / 72	727 / 702 96 / 90	700 / 593 138 / 105	673 / 415 176 / 123	660 / 415 215 / 148	290 CFM/ton	CFM Watts	735 59	727 96	700 138	673 176	660 215
	350 CFM/ton	CFM Watts	883 / 972 82 / 103	884 / 849 124 / 123	882 /746 170 / 138	881 / 657 223 / 152	870 / 577 270 / 168	350 CFM/ton	CFM Watts	883 82	884 124	882 170	881 223	870 270
	400 CFM/ton	CFM Watts	1007 / 1084 109 / 136	1016 / 971 154 / 158	1033 / 874 204 / 174	1020 / 788 269 / 187	1010 / 711 320 / 200	400 CFM/ton	CFM Watts	1007 109	1016 154	1033 204	1020 269	1010 320
	450 CFM/ton	CFM Watts	1133 / 1198 143 / 177	1146 / 1093 192 / 202	1176 /1001 246 / 220	1140 / 919 321 / 233	1130 / 845 375 / 244	450 CFM/ton	CFM Watts	1133 143	1146 192	1176 246	1140 321	1130 375
3 tons	290 CFM/ton	CFM Watts	878 / 993 82 / 108	879 / 872 123 / 129	876 / 771 169 / 144	874 / 682 221 / 157	865 / 602 270 / 173	290 CFM/ton	CFM Watts	878 82	879 123	876 169	874 221	865 270
	350 CFM/ton	CFM Watts	1057 / 1154 122 / 160	1068 / 1045 168 / 184	1091 / 952 220 / 201	1070 / 869 289 / 213	1060 / 793 340 / 225	350 CFM/ton	CFM Watts	1057 122	1068 168	1091 220	1070 289	1060 340
	400 CFM/ton	CFM Watts	1209 / 1289 168 / 216	1223 / 1190 219 / 243	1255 / 1102 277 / 262	1210 / 1024 355 / 276	1190 / 952 410 / 287	400 CFM/ton	CFM Watts	1209 168	1223 219	1255 277	1210 355	1190 410
	450 CFM/ton	CFM Watts	1364 / 1426 230 / 287	1375 / 1334 286 / 317	1393 / 1253 350 / 339	1340 / 1179 429 / 355	1330 / 1110 480 / 367	450 CFM/ton	CFM Watts	1364 230	1375 286	1393 350	1340 429	1330 480
3.5 tons	290 CFM/ton	CFM Watts	1022 / 1123 113 / 148	1031 / 1012 158 / 172	1050 / 917 209 / 188	1030 / 832 275 / 201	1030 / 756 325 / 213	290 CFM/ton	CFM Watts	1022 113	1031 158	1050 209	1030 275	1030 325
	350 CFM/ton	CFM Watts	1235 / 1312 178 / 227	1249 / 1214 229 / 254	1242 / 1128 288 / 274	1230 / 1050 367 / 288	1220 / 978 420 / 299	350 CFM/ton	CFM Watts	1235 178	1249 229	1242 288	1230 367	1220 420
	400 CFM/ton	CFM Watts	1416 /1471 254 / 314	1424 / 1383 313 / 263	1399 / 1303 378 / 368	1380 / 1230 455 / 385	1370 / 1163 510 / 398	400 CFM/ton	CFM Watts	1416 254	1424 313	1399 378	1303 455	1370 510
	450 CFM/ton	CFM Watts	1601 / 1618 356 / 420	1591 / 1536 423 / 454	1547 / 1462 497 / 480	1500 / 1394 553 / 500	1390 / 1330 520 / 514	450 CFM/ton	CFM Watts	1601 356	1591 423	1547 497	1500 553	1390 520
4 tons †	290 CFM/ton	CFM Watts	1168 / 1276 155 / 209	1182 / 1175 204 / 235	1182 / 1087 260 / 254	1170 / 1007 337 / 268	1160 / 935 390 / 279	290 CFM/ton	CFM Watts	1168 155	1182 204	1182 260	1170 337	1160 390
	350 † CFM/ton	CFM Watts	1416 / 1492 254 / 326	1424 / 1404 313 / 357	1399 / 1325 378 / 381	1380 / 1252 455 / 398	1370 / 1185 510 / 411	350 † CFM/ton	CFM Watts	1416 254	1424 313	1399 378	1380 455	1370 510
	400 CFM/ton	CFM Watts	1628 / 1616 373 / 435	1614 / 1535 441 / 468	1534 / 1461 517 / 492	1500 / 1393 568 / 510	1390 / 1329 520 / 524	400 CFM/ton	CFM Watts	1628 373	1614 441	1534 517	1500 568	1390 520
	450 CFM/ton	CFM Watts	1714 / 1605 431 / 435	1686 / 1525 505 / 468	1550 / 1452 584 / 492	1500 / 1385 617 / 510	1390 / 1321 520 / 570	450 CFM/ton	CFM Watts	1714 431	1686 505	1550 584	1500 617	1390 520

- † Factory Setting
- 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 1700 CFM due to condensate blowoff.

- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

5TEMCD06AV41DA & 5TEMCD07AV51DA AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
3 tons	290 CFM/ton	CFM Watts	864 / 1015 80 / 96	856 / 883 119 / 121	851 / 772 170 / 141	850 / 676 217 / 160	820 / 590 276 / 182	290 CFM/ton	CFM Watts	864 76	856 119	851 168	843 219	822 276
	350 CFM/ton	CFM Watts	1037 / 1179 120 / 137	1037 / 1059 170 / 164	1040 / 957 224 / 185	1030 / 866 265 / 204	1030 / 784 334 / 221	350 CFM/ton	CFM Watts	1037 110	1037 158	1040 213	1039 271	1032 334
	400 CFM/ton	CFM Watts	1184 / 1317 160 / 180	1187 / 1207 215 / 209	1193 / 1110 275 / 233	1180 / 1024 325 / 251	1190 / 945 380 / 268	400 CFM/ton	CFM Watts	1184 149	1187 200	1193 260	1196 324	1197 393
	450 CFM/ton	CFM Watts	1334 / 1457 205 / 232	1336 / 1354 265 / 265	1343 / 1263 335 / 290	1340 / 1181 395 / 310	1340 / 1105 460 / 327	450 CFM/ton	CFM Watts	1334 198	1336 254	1343 318	1348 388	1353 461
3.5 tons	290 CFM/ton	CFM Watts	1015 / 1147 115 / 128	1000 / 1025 160 / 155	1000 / 921 205 / 176	1000 / 829 255 / 194	1000 / 746 309 / 212	290 CFM/ton	CFM Watts	1003 103	1002 149	1004 203	1002 260	992 322
	350 CFM/ton	CFM Watts	1210 / 1341 165 / 188	1210 / 1231 220 / 218	1210 / 1136 280 / 241	1210 / 1050 335 / 260	1210 / 971 395 / 277	350 CFM/ton	CFM Watts	1209 157	1212 208	1218 269	1222 334	1224 403
	400 CFM/ton	CFM Watts	1380 / 1503 195 / 252	1380 / 1403 285 / 286	1390 / 1314 355 / 312	1390 / 1233 420 / 332	1390 / 1159 485 / 349	400 CFM/ton	CFM Watts	1384 217	1386 275	1393 340	1397 412	1402 487
	450 CFM/ton	CFM Watts	1560 / 1667 295 / 332	1560 / 1575 365 / 369	1570 / 1492 440 / 398	1570 / 1416 515 / 421	1579 / 1345 595 / 439	450 CFM/ton	CFM Watts	1563 293	1563 362	1566 429	1566 507	1564 588
4 tons	290 CFM/ton	CFM Watts	1140 / 1304 145 / 175	1140 / 1192 200 / 204	1140 / 1095 255 / 227	1140 / 1008 310 / 246	1150 / 929 365 / 263	290 CFM/ton	CFM Watts	1144 138	1147 188	1152 247	1155 309	1154 376
	350 CFM/ton	CFM Watts	1380 / 1525 220 / 262	1380 / 1426 285 / 295	1390 / 1338 355 / 322	1390 / 1257 420 / 343	1390 / 1183 485 / 360	350 CFM/ton	CFM Watts	1384 217	1386 275	1393 340	1397 412	1402 487
	400 CFM/ton	CFM Watts	1590 / 1711 305 / 356	1590 / 1621 380 / 267	1590 / 1539 455 / 356	1590 / 1464 535 /267	1600 / 1394 610 / 466	400 CFM/ton	CFM Watts	1589 305	1588 376	1591 444	1589 522	1585 604
	450 CFM/ton	CFM Watts	1790 / 1898 410 / 474	1790 / 1816 495 / 597	1800 / 1741 585 / 548	1800 / 1670 670 / 575	1810 / 1604 760 / 597	450 CFM/ton	CFM Watts	1800 419	1794 509	1791 575	1773 660	1745 749
5 tons †	290 CFM/ton	CFM Watts	1430 / 1571 240 / 283	1440 / 1475 310 / 318	1440 / 1388 375 / 345	1440 / 1309 445 / 367	1440 / 1236 515 / 384	290 CFM/ton	CFM Watts	1435 237	1436 297	1442 364	1446 437	1450 514
	350 † CFM/ton	CFM Watts	1740 / 1851 380 / 442	1740 / 1767 465 / 482	1750 / 1690 550 / 514	1750 / 1619 635 / 541	1760 / 1552 720 / 562	350 † CFM/ton	CFM Watts	1747 388	1742 472	1740 539	1728 623	1707 710
	400 CFM/ton	CFM Watts	2000 / 2087 540 / 619	2000 / 2012 635 / 663	2010 / 1942 735 / 700	1980 / 1873 810 / 729	1870 / 317 810 / 378	400 CFM/ton	CFM Watts	2015 559	2007 679	1995 739	1951 810	1877 810
	450 CFM/ton	CFM Watts	2260 / 2141 745 / 686	2210 / 2068 810 / 729	2100 / 1999 810 / 766	1980 / 903 810 / 359	1870 / 315 810 / 405	450 CFM/ton	CFM Watts	2125 641	2117 779	2100 810	2038 810	1932 810

- † Factory Setting
- 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 1800 CFM due to condensate blowoff.
- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

Electrical Data

Note: *Heater size needs to be set in Configuration Menu.*

Table 13. Electrical Data

5TEMCB02AV21DA HEATER DATA											
Heater Model No.	No. of Circuits/ Phases	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater				2.8 *	4	15			2.8 *	4	15
BAYHTR1504BRK BAYHTR1504LUG	1/1	3.84	13100	16.0	24	25	2.88	9800	13.8	21	25
BAYHTR1505BRK BAYHTR1505LUG	1/1	4.80	16400	20.0	29	30	3.60	12300	17.3	25	25
BAYHTR1508BRK BAYHTR1508LUG	1/1	7.68	26200	32.0	44	45	5.76	19700	27.7	38	40
BAYHTR1510BRK BAYHTR1510LUG	1/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1517BRK Circuit 1 [a]	2/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1517BRK Circuit 2		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYHTR3510LUG	1/3	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30
BAYHTR3517LUG	1/3	14.40	49100	34.6	46	50	10.80	36900	30.0	41	45
* = Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

Table 14. Electrical Data

5TEMCB03AV31DA HEATER DATA											
Heater Model No.	No. of Circuits/ Phases	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater				3.9 *	5	15			3.9 *	5	15
BAYHTR1504BRK BAYHTR1504LUG	1/1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYHTR1505BRK BAYHTR1505LUG	1/1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYHTR1508BRK BAYHTR1508LUG	1/1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40
BAYHTR1510BRK BAYHTR1510LUG	1/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1517BRK Circuit 1 [a]	2/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1517BRK Circuit 2		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYHTR3510LUG	1/3	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
BAYHTR3517LUG	1/3	14.40	49100	34.6	48	50	10.80	36900	30.0	42	45
* = Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

Table 15. Electrical Data

5TEMCD04AV31DA, 5TEMCD05AV41DA HEATER DATA											
Heater Model No.	No. of Circuits/ Phases	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater				3.9 *	5	15			3.9 *	5	15
BAYHTR1504BRK BAYHTR1504LUG	1/1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYHTR1505BRK BAYHTR1505LUG	1/1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYHTR1508BRK BAYHTR1508LUG	1/1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40
BAYHTR1510BRK BAYHTR1510LUG	1/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1517BRK Circuit 1 [a]	2/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1517BRK Circuit 2		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYHTR1523BRK Circuit 1 [a]	2/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1523BRK Circuit 2		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYHTR3510LUG	1/3	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
BAYHTR3517LUG	1/3	14.40	49100	34.6	48	50	10.80	36900	30.0	42	45
* = Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

Table 16. Electrical Data

5TEMCD06AV41DA, 5TEMCD07AV51DA HEATER DATA											
Heater Model No.	No. of Circuits/ Phases	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater				5.7 *	7	15			5.7 *	7	15
BAYHTR1504BRK BAYHTR1504LUG	1/1	3.84	13100	16.0	27	30	2.88	9800	13.8	24	25
BAYHTR1505BRK BAYHTR1505LUG	1/1	4.80	16400	20.0	32	35	3.60	12300	17.3	29	30
BAYHTR1508BRK BAYHTR1508LUG	1/1	7.68	26200	32.0	47	50	5.76	19700	27.7	42	45
BAYHTR1510BRK BAYHTR1510LUG	1/1	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYHTR1517BRK Circuit 1 [a]	2/1	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYHTR1517BRK Circuit 2		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYHTR1523BRK Circuit 1 [a]	2/1	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYHTR1523BRK Circuit 2		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYHTR1525BRK Circuit 1 [a]	4/1	6.00	20500	25.0	38	40	4.50	15400	21.6	34	35
BAYHTR1525BRK Circuit 2		6.00	20500	25.0	31	35	4.50	15400	21.6	27	30
BAYHTR1525BRK Circuit 3		6.00	20500	25.0	31	35	4.50	15400	21.6	27	30
BAYHTR1525BRK Circuit 4		6.00	20500	25.0	31	35	4.50	15400	21.6	27	30
BAYHTR3510LUG	1/3	9.60	32800	23.1	35	40	7.20	24600	20.0	31	35
BAYHTR3517LUG	1/3	14.40	49100	34.6	50	60	10.80	36900	30.0	44	45
* = Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

Minimum Airflow CFM

5TEMCB02AV21DA, 5TEMCB03AV31DA		
Heater	**Minimum Heater Airflow CFM**	
	With Heat Pump	Without Heat Pump
BAYHTR1504+++, BAYHTR1505+++	650	600
BAYHTR1508+++, BAYHTR1510+++	850	700
BAYHTR1517BRK, BAYHTR3517LUG	1000	850
BAYHTR3510LUG	850	700

5TEMCD04AV31DA, 5TEMCD05AV41DA		
Heater	**Minimum Heater Airflow CFM**	
	With Heat Pump	Without Heat Pump
BAYHTR1504+++, BAYHTR1505+++	675	675
BAYHTR1508+++, BAYHTR1510+++, BAYHTR1517BRK, BAYHTR3510LUG	950	900
BAYHTR3517LUG	1050	950
BAYHTR1523BRK	1500	1300

5TEMCD06AV41DA, 5TEMCD07AV51DA		
Heater	**Minimum Heater Airflow CFM**	
	With Heat Pump	Without Heat Pump
BAYHTR1504+++, BAYHTR1505+++	900	800
BAYHTR1508+++, BAYHTR3510LUG	1200	1000
BAYHTR1510+++	1350	1000
BAYHTR1517BRK, BAYHTR3517LUG	1400	1100
BAYHTR1523BRK	1430	1300
BAYHTR1525BRK	1850	1600

Note: *Heater model number digits "+++" are LUG or BRK.*

Heater Pressure Drop Table

Airflow CFM	Number of Racks					Heater Racks	
	1	2	3	4		Heater Model	No. of Racks
	Air Pressure Drop — Inches W.G.					BAYHTR1504	1
1800	0.02	0.04	0.06	0.14		BAYHTR1505	1
1700	0.02	0.04	0.06	0.14		BAYHTR1508	2
1600	0.02	0.04	0.06	0.13		BAYHTR1510	2
1500	0.02	0.04	0.06	0.12		BAYHTR1517	3
1400	0.02	0.04	0.06	0.12		BAYHTR3510	3
1300	0.02	0.04	0.05	0.11		BAYHTR3517	3
1200	0.01	0.04	0.05	0.10		BAYHTR1523	4
1100	0.01	0.03	0.05	0.09		BAYHTR1525	4
1000	0.01	0.03	0.04	0.09			
900	0.01	0.03	0.04	0.08			
800	0.01	0.03					
700	0.01	0.02					
600	0.01	0.02					

Unit Conversion Instructions

⚠ WARNING

RISK OF FIRE!

If installing the unit in any other orientation other than upflow, the refrigerant sensor must be relocated.

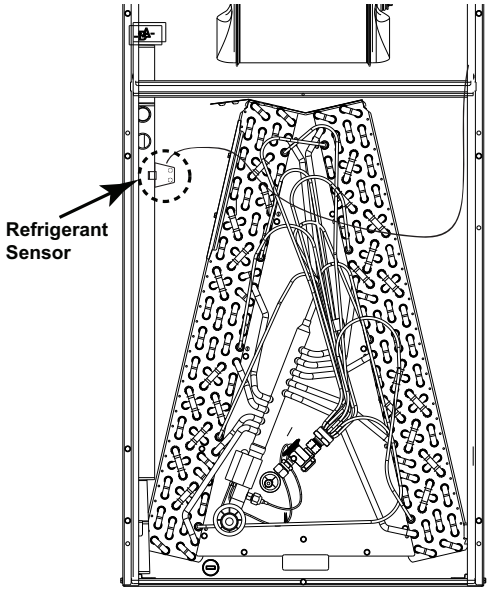
Horizontal Left Sensor Relocation

Important: *For horizontal applications, airflow restrictions apply for condensate blow off. Refer to Air Flow Performance Tables in this manual.*

Follow the conversion steps when installing the air handler in horizontal left configuration.

1. Remove the front panels from the air handler. The coil and line set panel do not need to be separated.
2. Pull refrigerant sensor and clip up and away from the primary drain pan and remove it from the pan. Secure sensor to secondary pan using provided clip. Sensor should be positioned close to secondary drain lines.
3. Position extra wire length in the secondary drain pan.

Figure 5. Horizontal Left



4. Replace all panels.

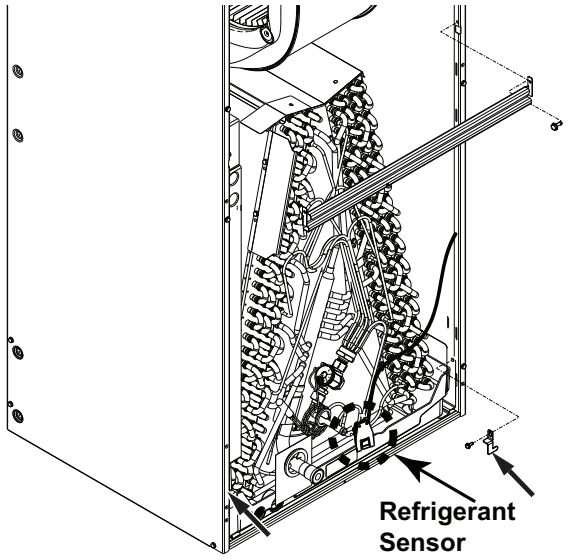
Downflow

Important: *For downflow applications, airflow restrictions apply for condensate blow off. Refer to Air Flow Performance Tables in this manual.*

Follow the conversion steps when installing the air handler in downflow configuration.

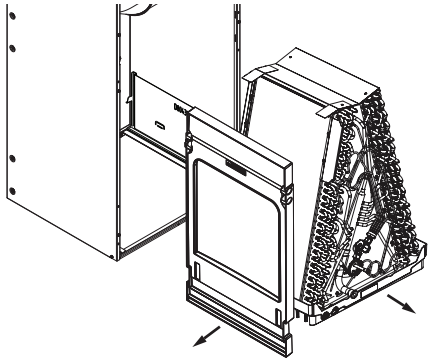
1. Remove the front panels panel from the air handler. The coil and line set panel do not need to be separated.
2. Remove the fasteners on both sides of the coil.
3. Remove the two screws holding the center horizontal bracket and rotate out of place. Retain parts.

Figure 6. Downflow



4. Pull refrigerant sensor up and away from the primary drain pan and remove it from the pan. Detach the sensor and clip from the wire harness and move it out of the way.
5. Slide the coil assembly out. Remove and discard the horizontal drain pan.

Figure 7. Downflow



6. On both sides of the cabinet, remove the screws that hold the coil support brackets and retain for later use. Seal the holes to prevent air leakage.
7. Rotate and lift the two coil support brackets to remove from front slots in cabinet.

Figure 8. Downflow

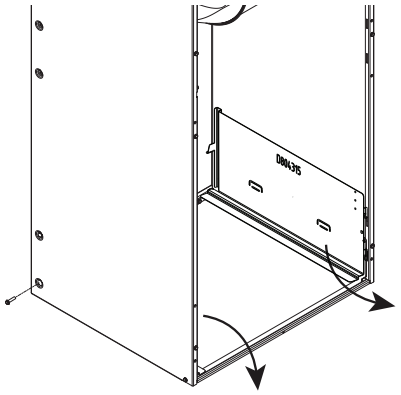
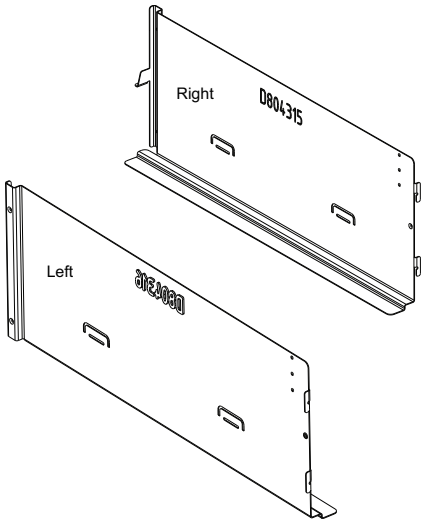
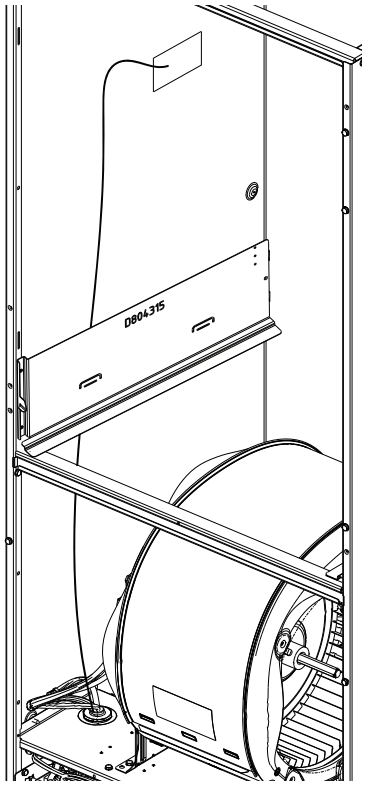


Figure 9. Downflow



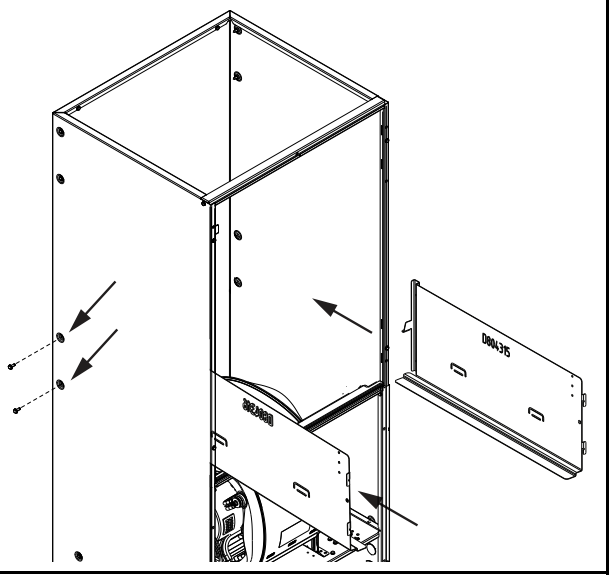
8. Rotate the unit into the downflow orientation.
9. Pre-drill four clearance holes in the cabinet at dimples located below the location the screws were removed for the coil support brackets. There are two holes per side. See location of holes.
10. Replace the center horizontal bracket removed in Step 3. Use the screws retained from Step 3 to attach.
11. Place coil support brackets into the slots and rotate into place. Push downward to lock into place. Refrigerant sensor wire harness should be routed between coil support bracket and the insulation.

Figure 10. Downflow



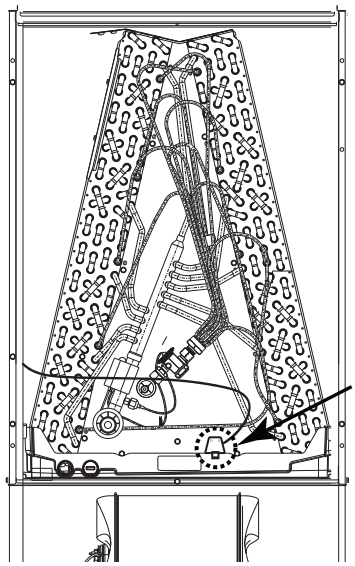
12. Secure each bracket with the screws that were previously removed.

Figure 11. Downflow



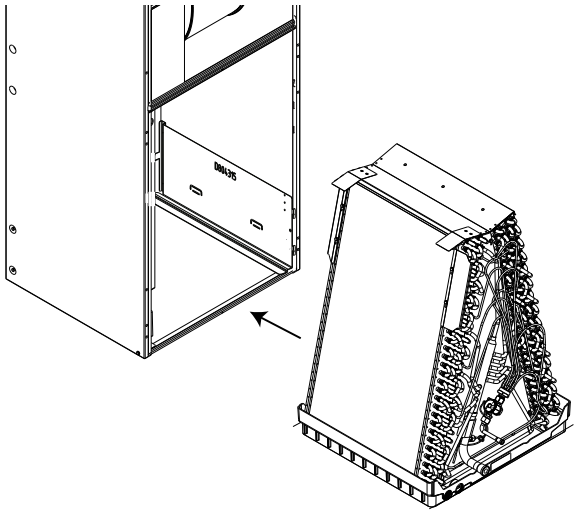
13. Slide the coil assembly back into the air handler cabinet as shown.

Figure 12. Downflow



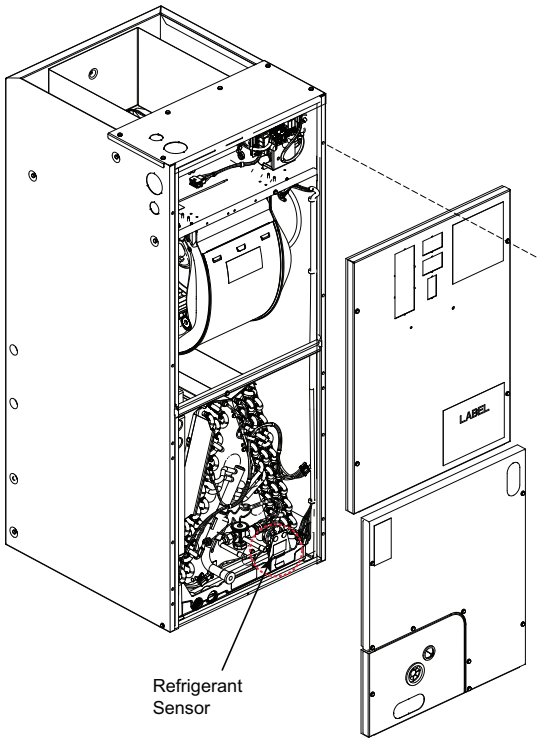
14. Clip refrigerant sensor back onto primary drain pan (as shown in figure above) and reconnect the sensor to the wire harness. Position extra wire length next to the coil.
15. Remove the appropriate knock out for the condensate piping.

Figure 13. Downflow



16. Replace all panels.

Figure 14. Horizontal Right



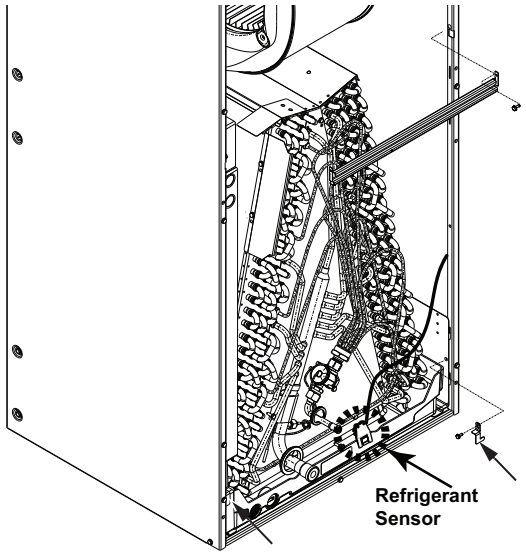
Horizontal Right

Important: *For horizontal applications, airflow restrictions apply for condensate blow off. Refer to Air Flow Performance Tables in this manual.*

Follow the conversion steps when installing the air handler in horizontal right configuration.

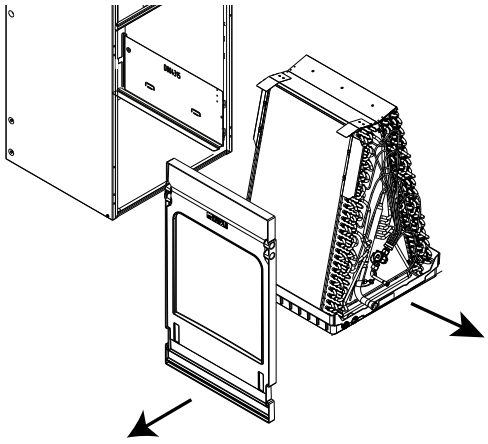
1. Remove the front panels from the air handler. The coil and line set panel do not need to be separated.
2. Remove the fasteners on both sides of the coil. Retain the coil retaining brackets and screws.
3. Remove the two screws holding the center horizontal bracket and rotate out of place. Retain parts.
4. Pull refrigerant sensor up and away from the primary drain pan and remove it from the pan. Detach the sensor and clip from the wire harness and move it out of the way.

Figure 15. Horizontal Right



5. Make note of the horizontal drain pan orientation (up/down).
6. Slide the coil assembly out.

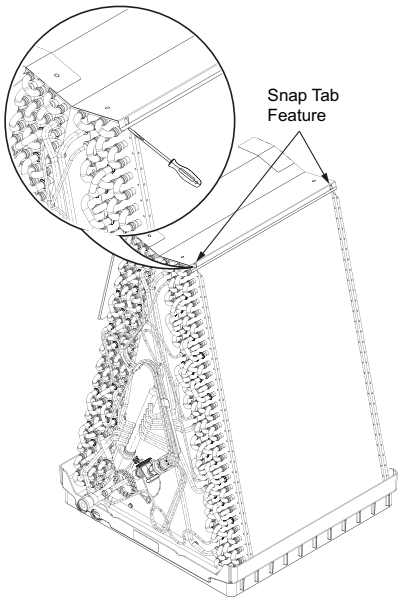
Figure 16. Horizontal Right



Important: *For Horizontal Right applications, ON SOME MODELS the top panel assembly of the coil must be rotated for proper condensate management.*

7. On the right side of the top baffle, position a flathead tip underneath the top baffle flange and pivot the screwdriver downward to release the front tab as shown below.
8. Repeat for right rear tab to release top baffle assembly from coil.

Figure 17. Horizontal Right



9. Rotate 180 degrees and snap all four corner tabs to lock in place.
10. Remove left side water diverter brackets and screws and reinstall on the right side.

The coil slabs are different and the mount hole locations will vary. See the illustrations on the following pages that correspond to the unit tonnage to see the correct mounting position of the water diverter bracket.

Important: *The water diverter brackets are not symmetrical and will vary by tonnage.*

Figure 18. Horizontal Right

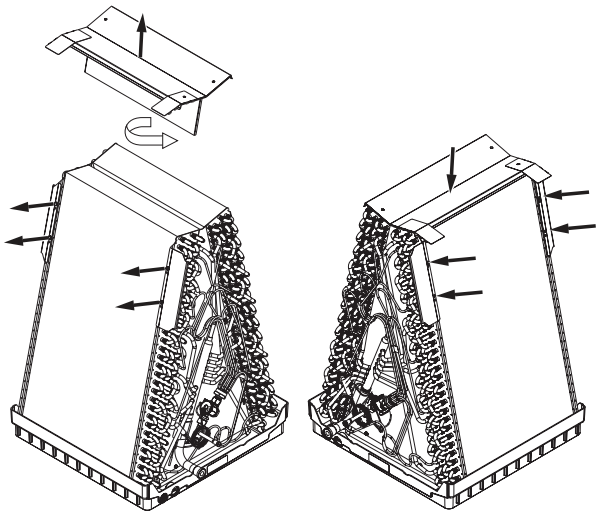


Figure 19. 5TEM6B02AV21SA/ 5TEM6B03AV21SA

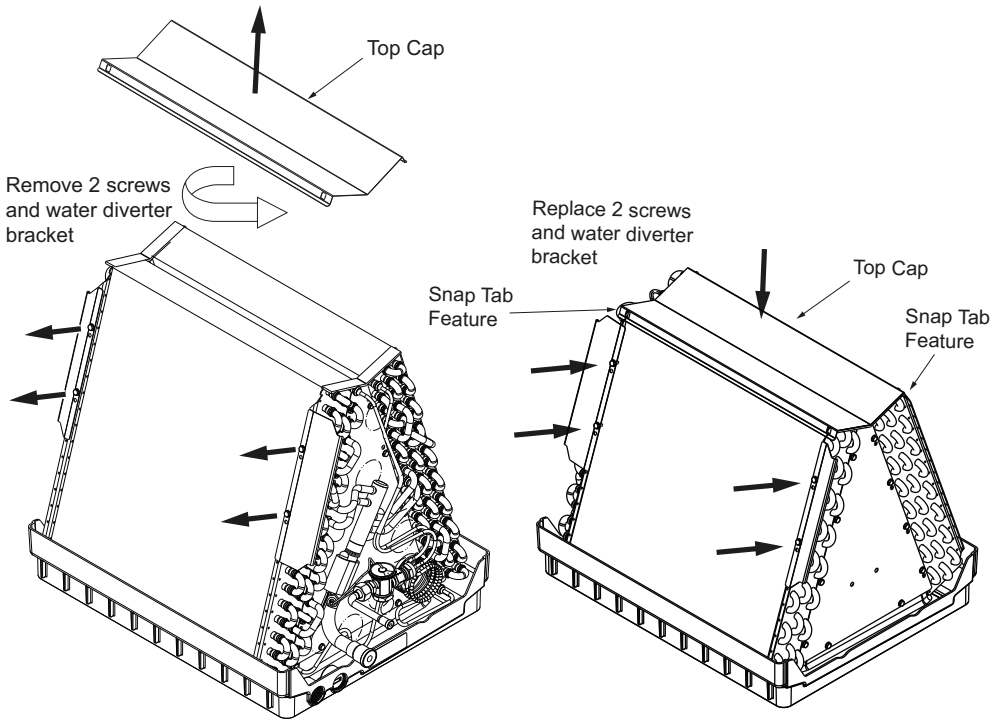
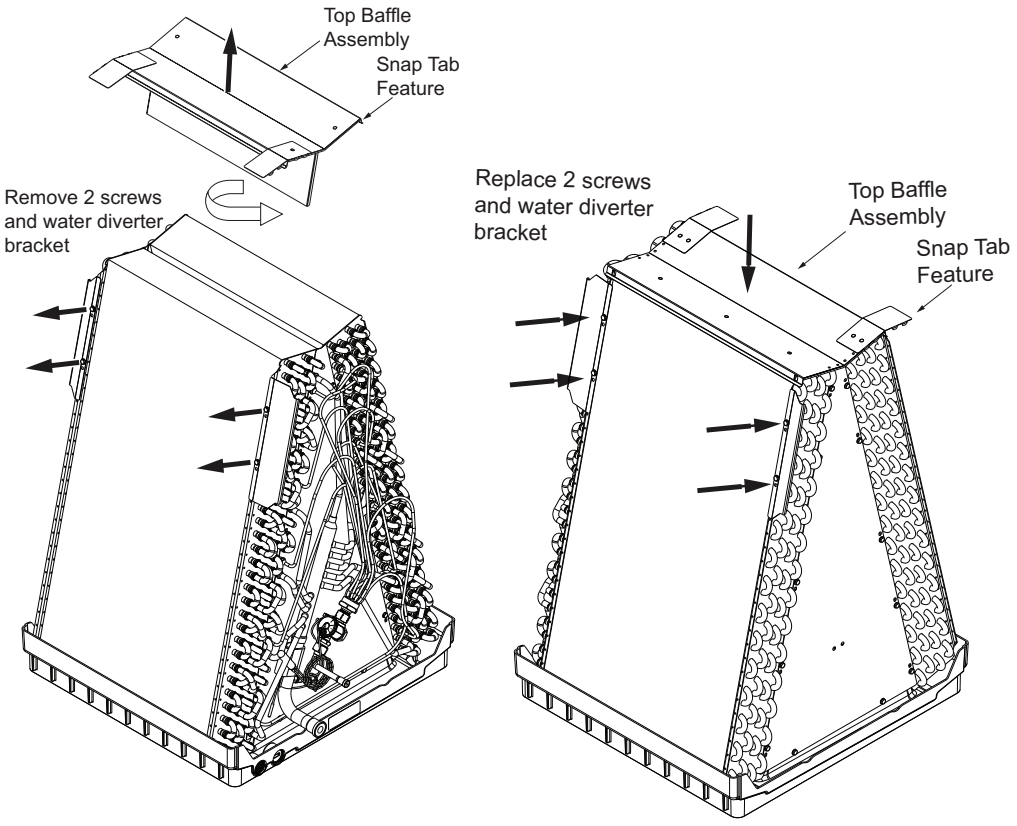


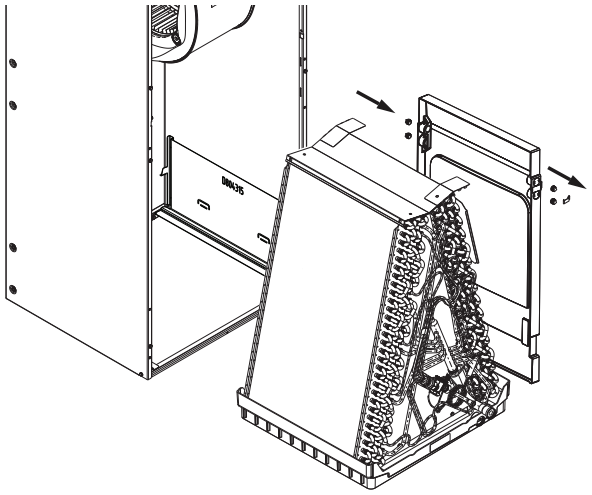
Figure 20. 5TEM6D04AV31SA/ 5TEM6D05AV41SA/ 5TEM6D06AV41SA/ 5TEM6D07AV51SA



11. To allow the horizontal pan to slide in on the right, cut and remove the zip tie holding the sensor wire harness on the right side of the coil cabinet.
12. Relocate the horizontal drain pan from the left side of the coil to the right side.
13. Remove the drain pan support bracket. Do not discard. Remove the two drain plugs from the front of the drain pan and insert them in the drains at the rear of the drain pan.

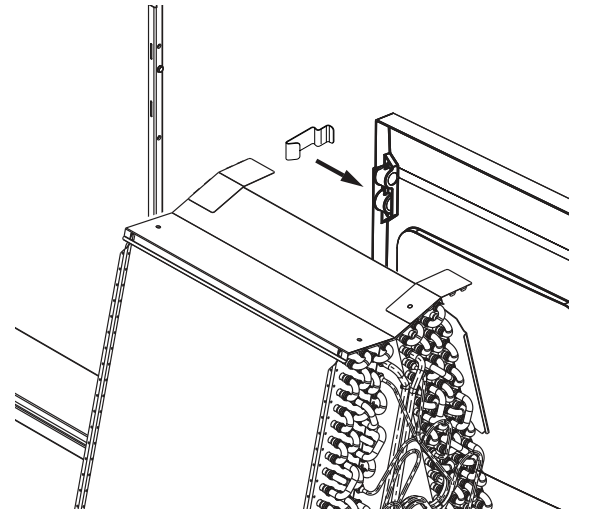
Important: *When reinstalling coil in Step 13, it is important that the coil corner locks in place under the tab in the side bracket to support the coil weight horizontally.*

Figure 21. Horizontal Right



14. Reinstall the drain pan support bracket. The bracket should be located between the two drain plugs as shown.

Figure 22. Horizontal Right

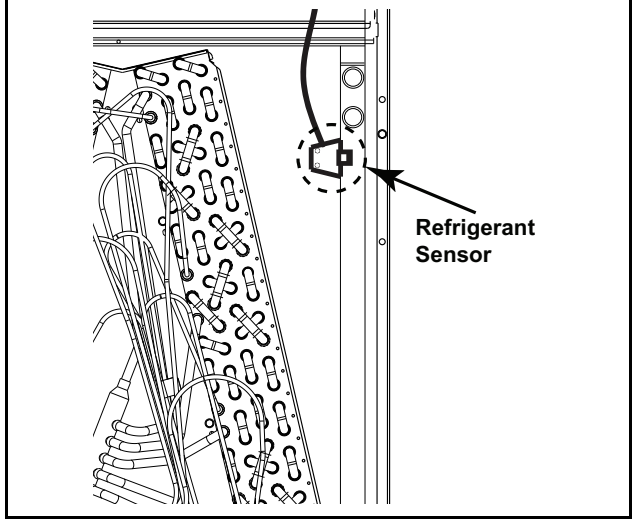


15. Slide the coil assembly back into the air handler cabinet.

Important: *Make sure that the coil corner locks in place under the tab in the side left bracket to support the coil weight in the horizontal right position.*

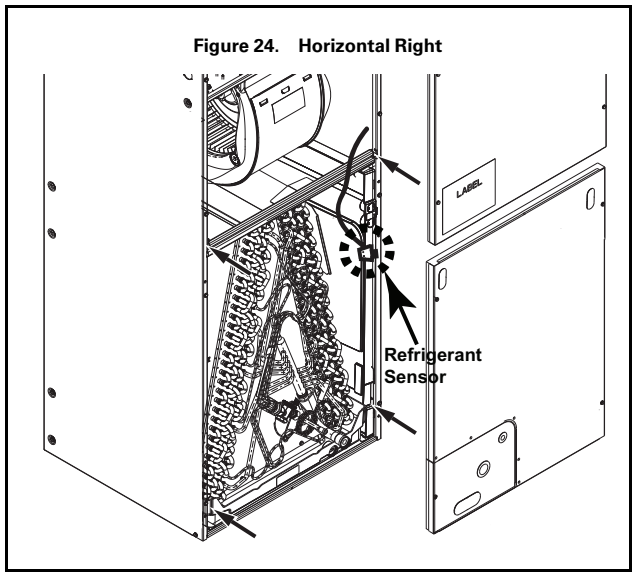
16. Replace the center horizontal bracket using screws removed earlier in Step 3.
17. Replace the two coil retaining brackets removed in a previous step.
18. Rotate unit into horizontal right position.
19. Install sensor onto secondary drain pan using the provided clip. Sensor should be positioned close to the drain lines. Reconnect the sensor to the wire harness and position extra wire length in the drain pan.

Figure 23. Horizontal Right



20. Replace all panels.

Figure 24. Horizontal Right

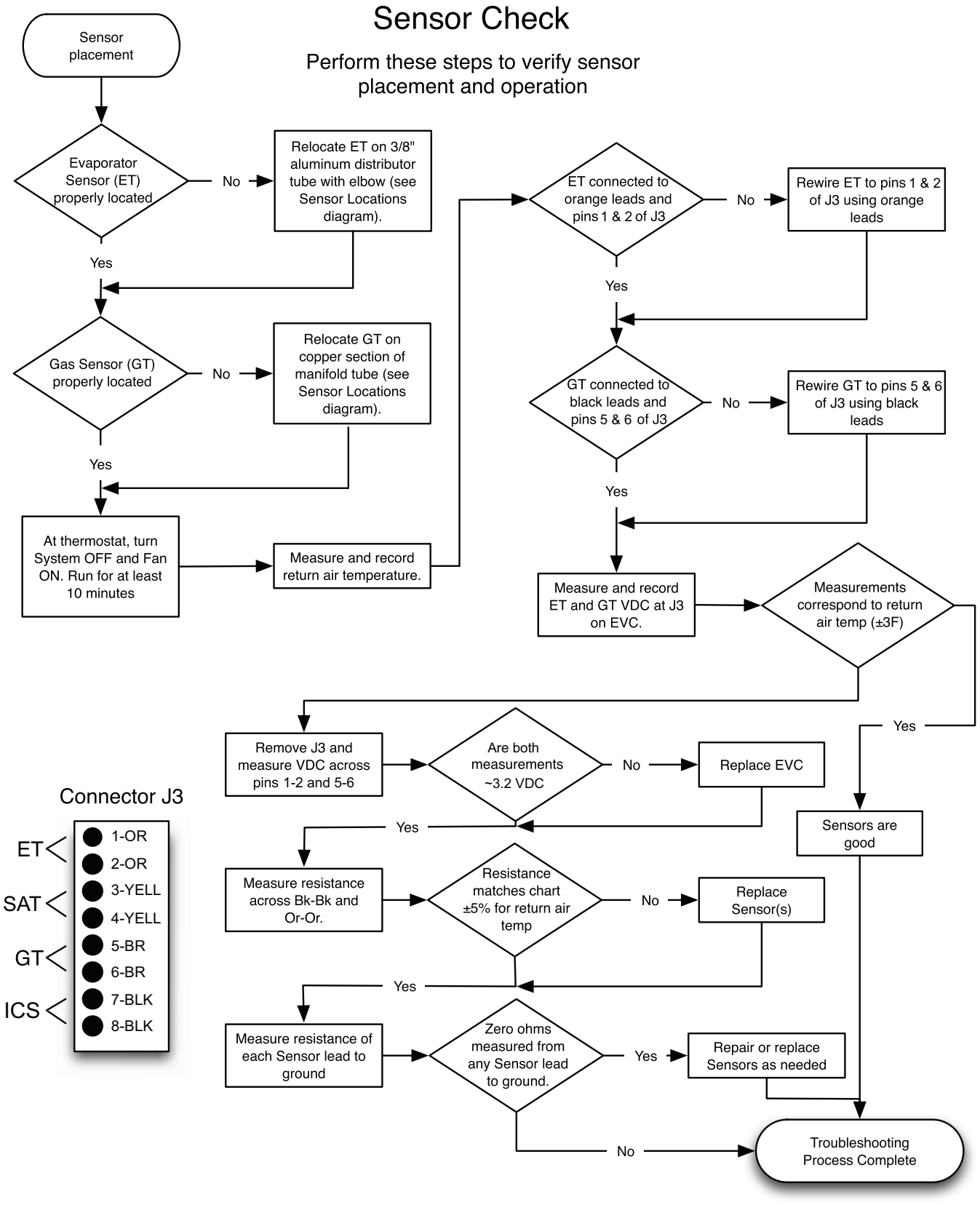


Checkout Procedures

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.	☐ All drain lines are clear with joints properly sealed. Pour water into drain pan to confirm proper drainage. Provide enough water to ensure drain trap is primed.
☐ Voltage and running current are within limits.	☐ Supply registers and return grilles are open, unobstructed, and air filter is installed.
☐ All refrigerant lines (internal and external to equipment) are isolated, secure, and not in direct contact with each other or structure.	☐ Indoor blower and outdoor fan are operating smoothly and without obstruction.
☐ All braze connections have been checked for leaks. A vacuum of 350 microns provides confirmation that the refrigeration system is leak free and dry.	☐ Indoor blower motor set on correct speed setting to deliver required CFM. Blower and fan set screws are tight.
☐ If unit is installed in any orientation other than upflow, refrigerant sensor is properly relocated.	☐ Cover panels are in place and properly tightened.
☐ 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.	☐ System functions safely and properly in all modes.
☐ Ductwork is sealed and insulated.	☐ Refrigerant leak detection system mitigating actions are verified.
	☐ All refrigerant safety procedures have been verified.
	☐ Owner has been instructed on use of system and given manual.

Troubleshooting



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, and (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.

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Supersedes (New)