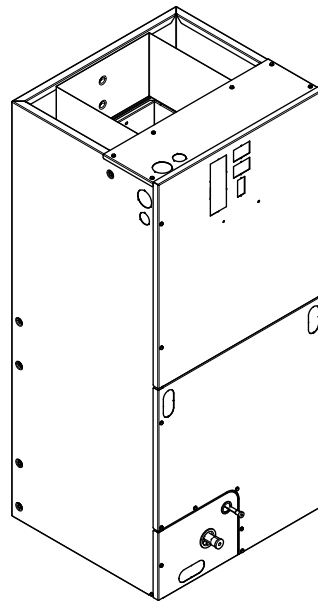


Installation, Operation, and Maintenance

Variable Speed Convertible Air Handlers 2 to 5 Ton

5TEMCB02AV21DA
5TEMCB03AV31DA
5TEMCD04AV31DA
5TEMCD05AV41DA
5TEMCD06AV41DA
5TEMCD07AV51DA
5TEMCD07BV51DA



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

⚠ 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.

Introduction

Read this manual thoroughly before operating or servicing this unit.

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

Warnings, Cautions, and Notices

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

The three types of advisories are defined as follows:



WARNING

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



CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

NOTICE

Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

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

Important Responsible Refrigerant Practices

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

⚠ WARNING

Proper Field Wiring and Grounding Required!

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

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

⚠ WARNING

Personal Protective Equipment (PPE) Required!

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

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

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

⚠ WARNING**Follow EHS Policies!**

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

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

⚠ WARNING**Cancer and Reproductive Harm!**

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

⚠ WARNING**Safety Hazard!**

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

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

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

⚠ WARNING**Safety Hazard!**

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

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

⚠ WARNING**Hazardous Voltage!**

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

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

⚠ WARNING**Grounding Required!**

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

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

⚠ WARNING**Risk of Fire — Flammable Refrigerant!**

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

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

⚠ WARNING**Live Electrical Components!**

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

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

⚠ WARNING**Refrigerant under High Pressure!**

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

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

⚠ CAUTION**Sharp Edges!**

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

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

⚠ CAUTION

Corrosion Hazard!

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

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

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Revision History

Content restructured and streamlined.

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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 CO₂ 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.

Charging Procedures

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.

General Information

Diagnostic Mobile App



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

Notes:

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

Standard Features

- Multi-position upflow, downflow, horizontal left, and horizontal right
- 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 Florida and California building codes

Optional Accessories

- 4,5,8,10,15,20, and 25 KW single phase electrical 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
- Supply duct flange kit - BAYTEMSPFG1A
- 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

Pre-Installation

Installation Recommendations

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.

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.*

Notes:

- *Air handlers have been evaluated in accordance with the Code of Federal Regulations, Chapter XX, Part 3280 or the equivalent. "SUITABLE FOR MOBILE HOME USE."*
- *Condensation may occur on the surface of the air handler when installed in an unconditioned space. When units are installed in unconditioned spaces, verify that all electrical and refrigerant line penetrations on the air handler are sealed completely.*
- *The manufacturer recommends installing ONLY 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.*
- *There is no declared maximum altitude for operating the appliance.*
- *Charging of the refrigerating system shall be according to the instructions provided by the manufacturer of the outdoor unit.*

Refrigerant Leak Detection System

For all tables in this section, the refrigerant charge is the total system charge marked on the system per the outdoor unit manufacturer's instructions.

⚠ WARNING

Risk of Fire — Flammable Refrigerant!

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

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

⚠ WARNING

Leak Detection System Installed!

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

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

To protect building occupants, the air handler includes a refrigerant leak detection system consisting of a refrigerant sensor and mitigation control board. It automatically detects indoor coil leaks and initiates actions to reduce the risk of leaked refrigerant ignition, including:

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

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

⚠ WARNING

Risk of Fire!

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

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

For instructions on relocating the refrigerant sensor, see ["Unit Conversion Instructions," p. 20.](#)

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 must be according to [Table 1, p. 11](#). 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 1. Minimum space conditioned by the appliance

Charge (lb)	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
	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 air handler models have been factory configured to provide sufficient airflow to dilute leaked refrigerant.

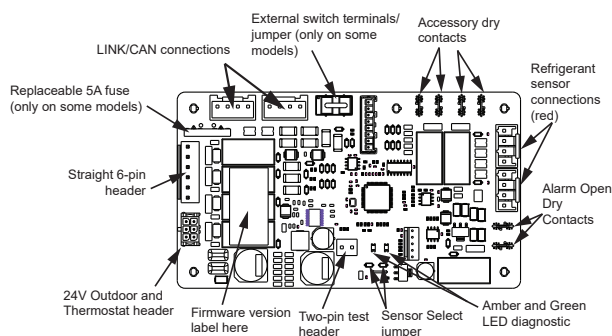
Verification of Mitigation Actions

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

Test Pins: Force Test (see the following figure).

Initiate the test by shorting the two test pins on the mitigation control board header inside the unit. The mitigating actions continue for two minutes while the jumper remains in place. The control resumes normal operation after two minutes or when the jumper is removed.

Figure 1. Mitigation control board



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

- All field wiring connections should be checked against the diagrams in Field Wiring.

- The diagnostic indicators on the mitigation control board should be checked against the diagnostic codes given in the diagnostic tables [Table 2, p. 12](#) and [Table 3, p. 12](#).

Troubleshooting the Refrigerant Leak Detection System

Before replacing either the mitigation control board (MCB) or the refrigerant sensor, use the troubleshooting guidance provided to properly diagnose any issues. Suspected issues with refrigerant leak detection system can be investigated via a combination of system symptoms, MCB LED diagnostic indicators, and/or LINK alerts.

For safe operation, any issues related to detected refrigerant leaks, loss of communication between any refrigerant leak detection system components, or sensor self-reported measurement errors will result in the system automatically entering mitigation mode for at least 5 minutes and until any present issues are resolved.

For LINK communicating systems, troubleshoot using the alert history in the Tech App or UI.

For 24V systems, use the tables below to troubleshoot the refrigerant detection system. With the system powered, locate the MCB in the control compartment of the unit. See [Figure 1, p. 11](#).

After completing any troubleshooting steps, verify all issues are resolved by clearing the MCB alert history and verifying normal operation. To clear the alert history, short the two test pins on the MCB while cycling power to the unit.

For more information on troubleshooting the refrigerant leak detection system, scan the QR code below.

Figure 2. QR code



Table 2. Green LED MCB diagnostic indicator definitions

Green LED Status	LED Status Definition
SLOW FLASH	MCB, sensor operating normally
OFF	MCB is OFF
ON	MCB start-up
3 FLASH	- Sensor 1 or sensor 2 reporting a refrigerant leak within the last 5 minutes - Sensor 1 or sensor 2 self-reporting open/short fault, value out of range error, or temp/humidity out of range error within last 5 minutes - MCB test pins shorted/jumped, mitigation test active - MCB external switch contacts open
2 FLASH	- Sensor 1 (or sensor 2 if Sensor Select jumper is cut) not communicating with MCB - Duplicate sensor (either two primary sensors or two secondary sensors) detected within last 5 minutes - Sensor 2 (secondary sensor) configured without sensor 1 (primary sensor) if Sensor Select jumper is not cut.
4 FLASH	- Sensor 1 or sensor 2 reported a leak within the past 30 days - Sensor 1 or sensor 2 self-reported value out of range error or temp/humidity out of range error within the past 30 days
5 FLASH	- Sensor 1 or sensor 2 communication with MCB interrupted within the past 30 days - Duplicate sensor (either two primary sensors or two secondary sensors) detected within the past 30 days
6 FLASH	Sensor 1 or sensor 2 reported an open/short fault within the past 30 days.

Notes:

- If there is an active alarm, only the active alarm will be displayed.
- If there are multiple active alarms, only the alarm of the highest row in the tables shown above will be displayed.
- If there are no active alarms but there have been in the past 30 days, all alarm history flash codes will be flashed in the order of the table above.

Table 3. Amber LED MCB diagnostic indicator definitions

Amber LED Status	LED Status Definition
ON	MCB in 24V control mode
OFF	MCB is OFF
SLOW FLASH	MCB in LINK communicating mode and flashing LINK device count
FAST FLASH	MCB has lost communication with LINK System Controller

Table 4. LINK MCB diagnostic indicator definitions

LINK Alert	LINK Alert Definition
202.01	Sensor 1 communication with the MCB interrupted.
202.04	Sensor 2 communication with the MCB interrupted (if Sensor Select jumper is cut)
202.03	Sensor 1 reported a refrigerant leak
202.06	Sensor 2 reported a refrigerant leak
202.02	Sensor 1 reported a self-reporting open/short fault
202.05	Sensor 2 reported a self-reporting open/short fault
203.00	MCB test pins shorted/jumped
202.07	External switch terminals on the MCB are open
202.00	MCB communication with the AHC interrupted
203.01	Duplicate sensor (either two primary sensors or two secondary sensors) detected

Table 5. Troubleshooting refrigerant detection system by system symptoms

Symptom	Troubleshooting Steps
Indoor blower runs continuously or runs when not called by thermostat.	See flash code and alert troubleshooting tables.
Outdoor unit does not turn on when called by the thermostat.	See flash code and alert troubleshooting tables.
Outdoor unit runs without the indoor blower running or when not called by thermostat.	- Verify low-voltage field connections are wired per Field Wiring Diagram - Verify Yo and Yi are not wired together. - If third-party power-stealing thermostat is configured, install pull-down resistor per thermostat manufacturer's instructions (if included) or connect common/B to thermostat (if possible).

Table 5. Troubleshooting refrigerant detection system by system symptoms (continued)

Symptom	Troubleshooting Steps
Indoor blower will not run on a first-stage compressor cooling or heating call.	- Verify Ext. Sw. A and B terminals (if equipped) are jumped together per unit Wiring Diagram - See flash code and alert troubleshooting tables.
System issue is not observable or actively present.	See flash code and alert troubleshooting tables.

Table 6. Troubleshooting refrigerant detection system by flash codes

LE-D	LED Status	Troubleshooting Steps
GR-EEN	SLOW FLASH	Normal operation for refrigerant detection system, and there are no active alerts or alerts in the past 30 days.
	ON	Normal operation until MCB boot sequence is complete. Boot sequence takes approximately one minute.
	2 FLASH	- Inspect wiring harness between MCB and sensor for damage, loose or corroded pins, or open/shorted wires within the harness - Verify sensor power input by measuring 5VDC between red and black wire terminals on refrigerant sensor connector at MCB. - Verify the Sensor Select jumper is not cut/broken (unless second sensor is configured). - If a second sensor is configured, verify that a primary and a secondary sensor are used and that the Sensor Select jumper is cut.
	3 FLASH	- Remove any shorts from the two-pin test header of MCB. - Verify Ext. Sw. A and B terminals (if equipped) are jumped together per unit Wiring Diagram. - Verify MCB functional response to sensor input by unplugging sensor and verifying flash code changes to 2 FLASH. - Cycle power to sensor by unplugging and plugging back in (hot swap). If flash code changes to a past sensor communication interruption alert (5 FLASH) then the power cycle cleared the alert. - Verify sensor is not responding to a leak. While connected and powered, remove sensor from inside of unit for at least 5 minutes and check if active refrigerant alarm stops and changes to a past refrigerant leak alert. - Check indoor coil assembly for leaks and repair/replace any leaking components.
	4 FLASH or 6 FLASH	- Confirm sensor is operating correctly. Alarm can be triggered by spraying sensor with canned air duster. Operation is confirmed when alarm changes to 3 FLASH. See QR code for field troubleshooting for detailed procedure. - Check indoor coil assembly for leaks and repair/replace any leaking components.
	5 FLASH	Inspect wiring harness between MCB and sensor for damage, loose or corroded pins, or open/shorted wires within the harness.
AM-BER	ON	Normal operation for any 24V system control configuration.
	SLOW FLASH	Normal operation for any LINK communicating system control configuration.
	FAST FLASH	Inspect wiring harness between MCB and AHC for damage, loose or corroded pins, or open/shorted wires within the harness.

Table 6. Troubleshooting refrigerant detection system by flash codes (continued)

LE-D	LED Status	Troubleshooting Steps
BO-TH	OFF	- Replace indoor unit fuse and/or MCB fuse (if equipped) if either is blown. - Confirm 18 to 30VAC between R and B on the straight 6-pin header (24V systems) or 4-pin CAN header (LINK systems). If not, repair unit transformer or wiring.

Table 7. Troubleshooting refrigerant detection system by LINK alerts

LINK Alert	Troubleshooting Steps
202.01	Inspect wiring harness between MCB and sensor for damage, loose or corroded pins, or open/shorted wires within the harness.
202.04	- Verify the Sensor Select jumper is not cut/broken (unless second sensor is configured). - Inspect wiring harness between MCB and sensor for damage, loose or corroded pins, or open/shorted wires within the harness.

Table 7. Troubleshooting refrigerant detection system by LINK alerts (continued)

LINK Alert	Troubleshooting Steps
202.03 or 202.06	Check indoor coil assembly for leaks and repair/replace any leaking components.
202.02 or 202.05	Confirm sensor is operating correctly. Alarm can be triggered by spraying sensor with canned air duster. Operation is confirmed when alarm changes to 3 FLASH. See QR code for field troubleshooting for detailed procedure.
203.00	Remove any shorts from the two-pin test header of MCB.
202.07	Verify Ext. Sw. A and B terminals (if equipped) are jumped together per unit Wiring Diagram.
202.00	- Confirm wiring connection between MCB and AHC per wiring diagram. • Replace indoor unit fuse and/or the MCB's fuse (if equipped) if either is blown. - Confirm 18 to 30VAC input voltage between R and B on the 4-pin CAN header of the MCB. If not, repair unit transformer or wiring.
203.01	If a second sensor is configured, verify that a primary and a secondary sensor are used and that the Sensor Select jumper is cut.

Dimensional Data

Figure 3. Dimensional data

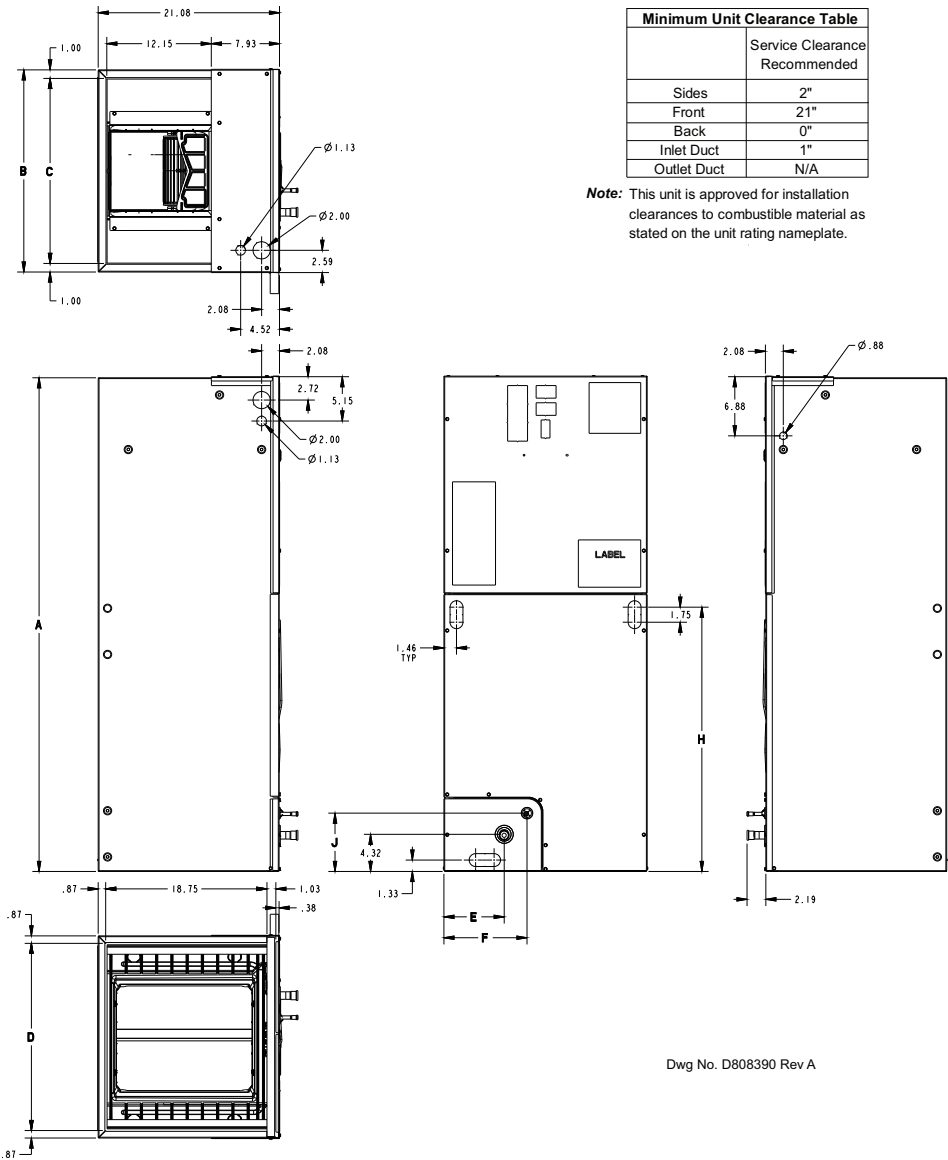


Table 8. Product dimensions (inch)

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
5TEMCD04, 05	51.27	23.50	21.50	21.75	7.01	9.66	24.58	6.76	TXV	7/8
5TEMCD06, 07	57.40	23.50	21.50	21.75	7.01	9.66	30.71	6.76	TXV	7/8

Installation — Mechanical

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!

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

Confirm 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 must be equipped with an effective flame arrest.
- All indoor field-made joints of the field piping must be checked for refrigerant leaks after charging using an electronic leak detector calibrated for R-454B with sensitivity of 5 grams per year or better.
- The room must be constructed to avoid stagnation or fire hazard in the event of a refrigerant leak.

The unit should be installed in a level position to allow proper condensation drainage. Up to an additional 1/4-inch 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 1/4-inch 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-inch 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 the safety precautions could result in serious injury, death, or property damage.

Only approved auxiliary devices listed in this manual and declared suitable with the refrigerant must be installed in the connecting ductwork. Devices that may be potential ignition sources, such as hot surfaces or electric switching devices, must not be installed unless 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."

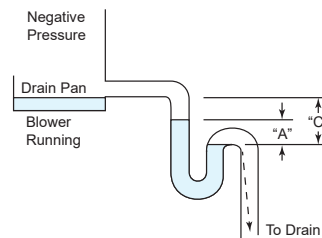
The duct work should be insulated in accordance with the applicable requirements for the particular installation as required by HUD, FHA, VA the applicable building code, local utility or other governing body.

4. Condensate Drain

The unit is supplied with primary and auxiliary condensate drains that have 3/4-inch 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.

Figure 4. Condensate drain



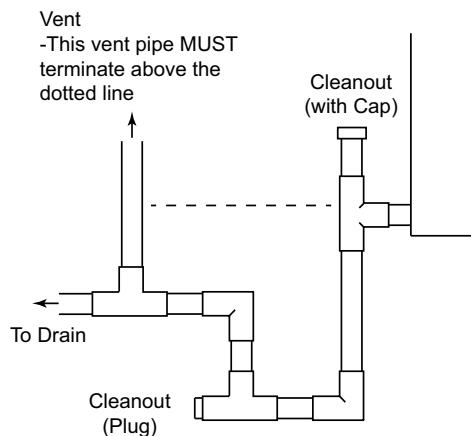
Do not reduce the drain line size less than the connection size on the drain pan. Condensate should

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.

Figure 5. Condensate drain



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.

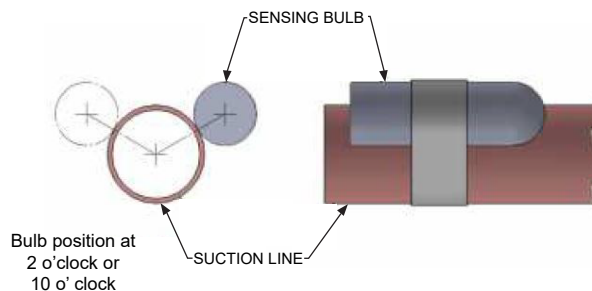
There is a holding charge of dry air in the indoor coil that will be evacuated when the sealing plugs are removed.

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.

Figure 6. TXV sensing bulb



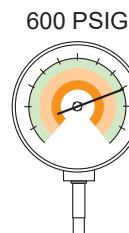
The two flammable refrigerant red warning tags on the line set connections should be removed prior to brazing and replaced once brazing is complete.

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:

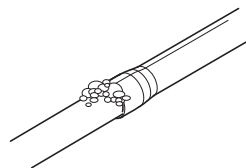
- Using dry nitrogen, pressurize the field piping and indoor coil to the lower of the maximum operating pressures listed on the name plates of the indoor and outdoor units (likely 600 psi).

Figure 7. Maximum operating pressure



- 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.

Figure 8. Leak check



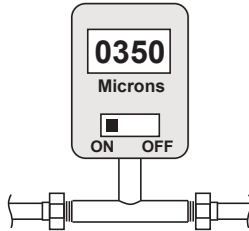
Note: Remove nitrogen pressure and repair any leaks before continuing.

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.

Figure 9. Micron gauge



- 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. Check the air flow and the temperature drop across the evaporator coil to confirm 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. (Confirm 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

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.

Abbreviations

- AHC = Air Handler Control

Notes:

- When in communicating mode, the system controller (SC360) controls indoor airflow.
- 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.

- 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.
- 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

- 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.
- 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.
- 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)

- 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.
- 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.

- 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

- 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.
- 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

- The OD unit will initiate defrost and send a message to the AHC.
- Electric heat will be energized to help temper the air.

Freeze Protection

- 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.
- The indoor blower motor will continue running to aid in defrosting the coil.
- After 5 minutes, the OD will be turned back on.

12. Operational and Checkout Procedures

To confirm proper function of the Refrigerant Leak Detection System, all procedures in the “,” 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. 39.

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.

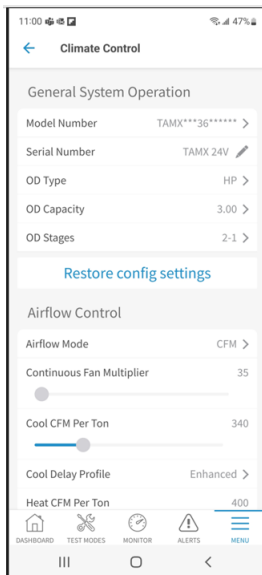
Replacement AHC Configuration – 24 Volt Mode

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.

Figure 10. Method #1: diagnostic mobile app



Button Press AHC Configuration Method: Method #2

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.

Table 9. Configuration for replacement AHC

Step	Manual Program Unit Model Size	Red LED Status
1	Hold BLE button for 5 seconds and release.	Red LED will be off
2	1 Red flash that indicates system is ready to program.	1 Red LED flash alerts user that it is now able to program
3	If configuration is present, Red LED will flash based on the configuration.	Red LED will be off if no configuration is present
4	5 quick Red LED flashes.	5 quick Red LED flashes
5	Start programming by clicking BLE button.	7 press - 5TEMCB02AV21DA 8 press - 5TEMCB03AV31DA 9 press - 5TEMCD04AV31DA 10 press - 5TEMCD05AV41DA 11 press - 5TEMCD06AV41DA 12 press - 5TEMCD07AV51DA 19 press - 5TEMCD07BV51DA
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.

Unit Conversion Instructions

⚠ WARNING

Risk of Fire!

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

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

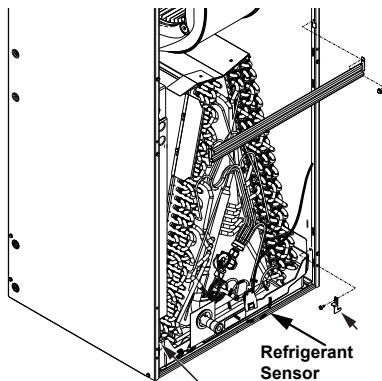
Horizontal Left

Important: For horizontal applications, airflow restrictions apply for condensate blow off. See Performance Data tables..

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

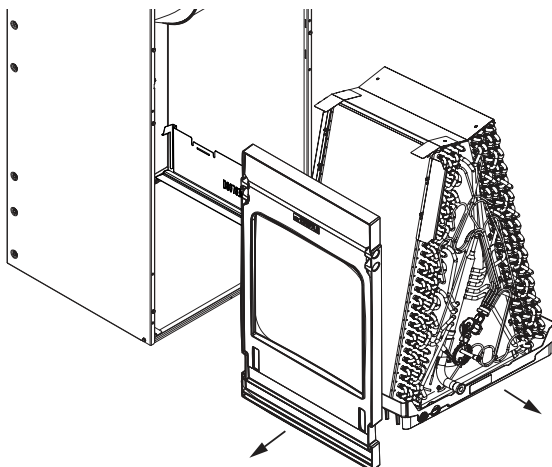
1. Remove the front panels from the air handler. The coil and line set panel do not need to be separated.
2. Remove the fasteners on both sides of the coil. Retain the coil containing brackets and screws. See [Figure 11, p. 21](#)
3. See for coil bracket options. Proceed to [Step 11](#), if using coil support brackets without tabs. Proceed to [Step 4](#), if using coil support brackets with tabs.
4. Remove the two screws holding the center horizontal bracket and rotate out of place. Retain parts. See [Figure 11, p. 21](#)

Figure 11. Horizontal bracket and refrigerant sensor



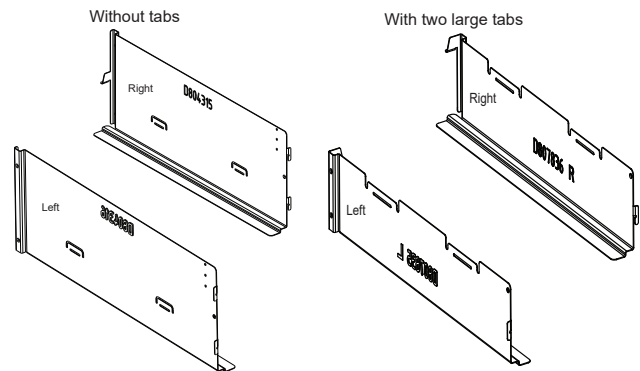
5. Pull refrigerant sensor up and away from the primary drain pan and remove it from the pan. Detach the sensor and clip from the wire harness and move it out of the way.
6. Slide the Coil assembly out.

Figure 12. Coil assembly and horizontal drain pan



7. Bend the two tabs on the right coil support bracket. Tabs should be bent inward so they are parallel to the bottom flange.

Figure 13. Coil support brackets

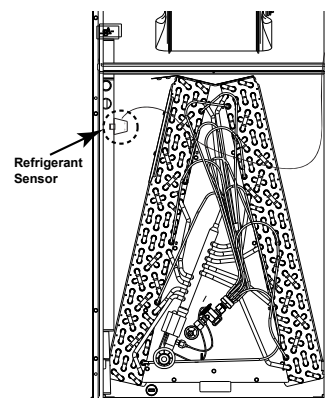


8. Slide the coil assembly back into the air handler cabinet.

Important: When reinstalling coil in [Step 8](#), it is important that the coil corner locks in place under the rear tab in the side bracket to support the coil weight horizontally. There are 2 additional tabs for added support.

9. Replace the center horizontal bracket from [Step 4](#).
10. Replace coil retaining brackets and screws from [Step 2](#).
11. Secure sensor to secondary pan using provided clip. Sensor should be positioned close to secondary drain lines.
12. Position extra wire length in the secondary drain pan.

Figure 14. Horizontal left refrigerant sensor location



13. Replace all panels.

Downflow

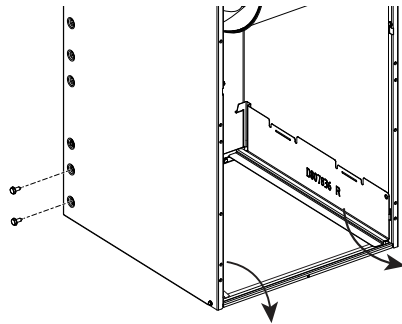
Important: For downflow applications, airflow restrictions apply for condensate blow off. See [“Airflow Adjustment,” p. 11](#).

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

1. Remove the front panels from the air handler. The coil and line set panel do not need to be separated.

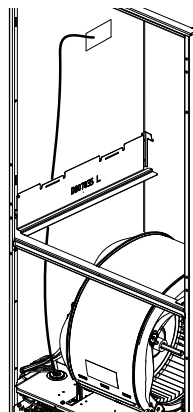
2. Remove the fasteners on both sides of the coil. See [Figure 11, p. 21](#).
3. Remove the two screws holding the center horizontal bracket and rotate out of place. Retain parts. See [Figure 11, p. 21](#).
4. Pull refrigerant sensor up and away from the primary drain pan and remove it from the pan. 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. See [Figure 12, p. 21](#).
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 15. Coil support brackets



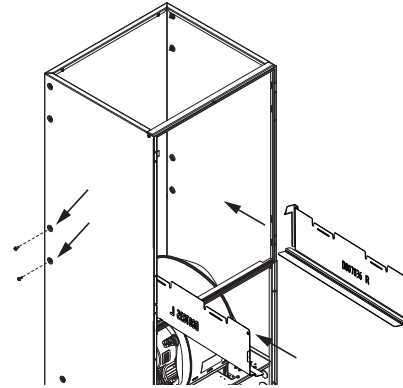
8. Rotate the unit into the downflow orientation.
9. Pre-drill four clearance holes in the cabinet at dimples located below the location the screws were removed for the coil support brackets. There are two holes per side. See [Figure 17, p. 22](#) for hole locations.
10. Replace the center horizontal 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 16. Refrigerant sensor wire harness



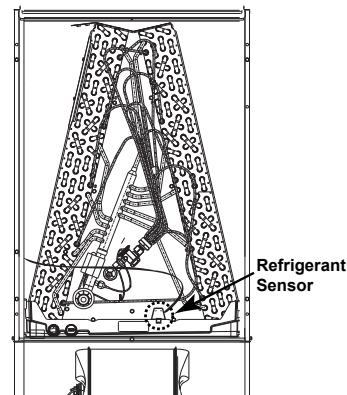
12. Secure each bracket with the screws that were previously removed.

Figure 17. Coil support brackets and clearance holes



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

Figure 18. Downflow refrigerant sensor location



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.
16. Replace all panels.

Horizontal Right

Important: For horizontal applications, airflow restrictions apply for condensate blow off. See [“Performance Data,” p. 31](#) tables in this manual.

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

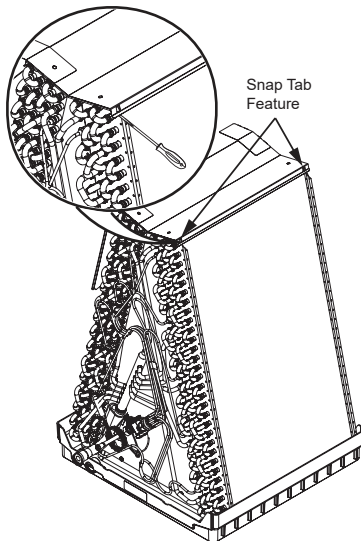
1. Remove the front panels from the air handler. The coil and line set panel do not need to be separated.
2. Remove the fasteners on both sides of the coil. Retain the coil retaining brackets and screws.
3. Remove the two screws holding the center horizontal bracket and rotate out of place. Retain parts.

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.
5. Make note of the horizontal drain pan orientation (up/down).
6. Slide the coil assembly out. See [Figure 12, p. 21](#).

Important: For horizontal right applications on some models, the top panel assembly of the coil must be rotated for proper condensate management. See and .

7. If rotating the top panel assembly is required, 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 19. Top baffle



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 20. Top baffle and water diverter brackets

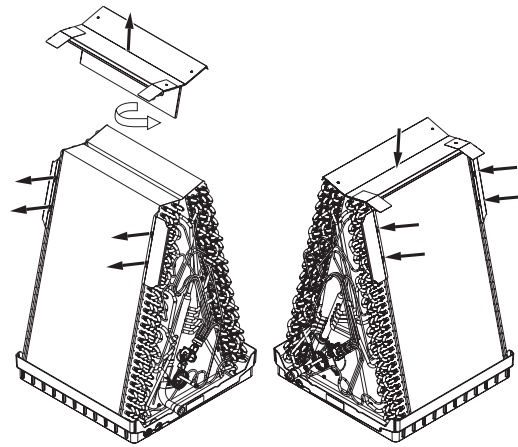


Figure 21. 5TEMCB02AV21DA/5TEMCB03AV31DA

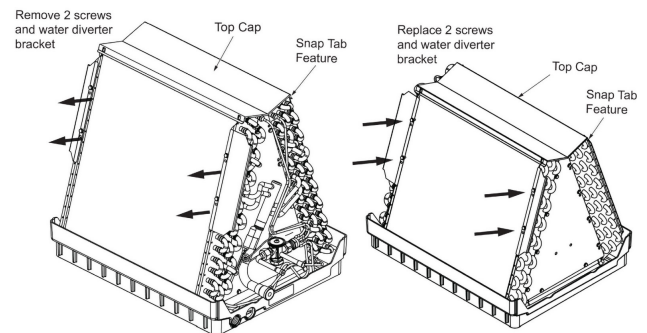
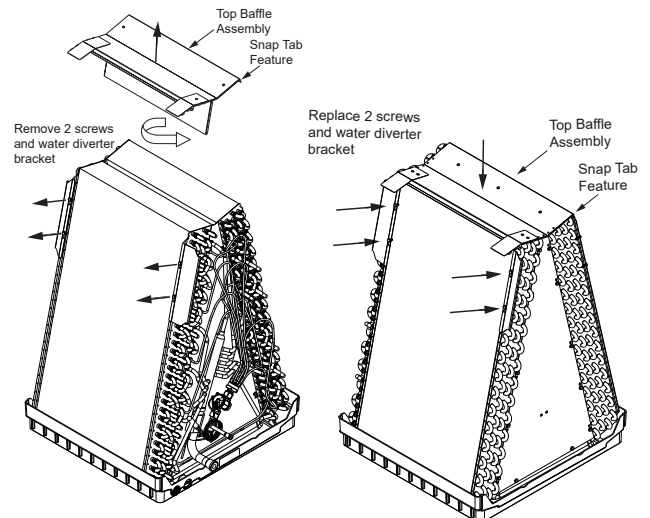


**Figure 22. 5TEMCD04AV31DA/5TEMCD05AV41DA/
5TEMCD06AV41DA/5TEMCD07AV51DA/
5TEMCD07BV51DA**

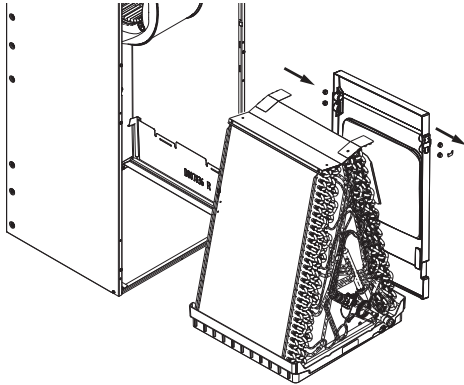


11. To allow the horizontal pan to slide in on the right, cut and remove the zip tie holding the sensor wire harness on the right side of the coil cabinet.
12. Relocate the horizontal drain pan from the left side of the coil to the right side.

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.

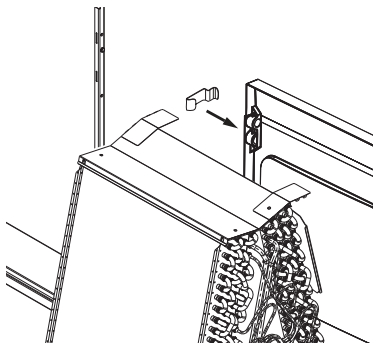
Important: When reinstalling coil in [Step 17](#), it is important that the coil corner locks in place under the rear tab in the side bracket to support the coil weight horizontally. There are two additional tabs for added support.

Figure 23. Coil assembly and horizontal drain pan



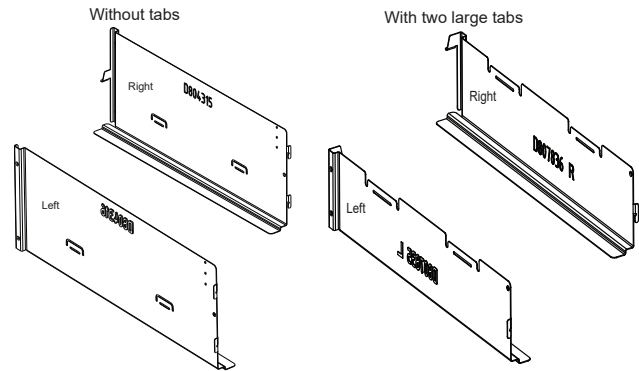
14. Reinstall the drain pan support bracket. The bracket should be located between the two drain plugs as shown.

Figure 24. Drain pan support bracket



15. See [Figure 25, p. 24](#). Proceed to [Step 17](#), if using coil support brackets as shown in . Proceed to [Step 16](#), if using coil support brackets shown in .
16. Bend the two tabs on the left coil support bracket. Tabs should be bent inward so they are parallel to the bottom flange.

Figure 25. Coil support brackets

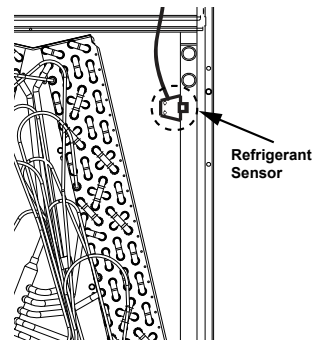


17. Slide the coil assembly back into the air handler cabinet.

Important: Make sure that the coil corner locks in place under the rear tab and two additional tabs along the length of the drain pan in the side left bracket to support the coil weight in the horizontal right position.

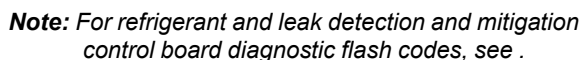
18. Replace the center horizontal bracket using screws removed earlier in [Step 3](#).
19. Replace the two coil retaining brackets removed in a previous step.
20. Rotate unit into horizontal right position.
21. Install sensor onto secondary drain pan using the provided clip. Sensor should be positioned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

Figure 26. Horizontal right refrigerant sensor location



22. Replace all panels.

Figure 27. Wiring diagram



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.

Low Voltage Maximum Wire Length

The following 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.

Table 10. Low voltage maximum wire length

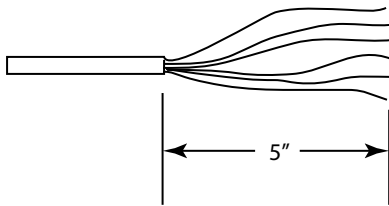
Control Wire — Communicating	
WIRE SIZE	MAX. WIRE LENGTH
18 AWG	500 FT. Combined
Control Wire — 24 Volt	
WIRE SIZE	MAX. WIRE LENGTH
18 AWG	100 FT. Combined

Low Voltage Connection Instructions

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.

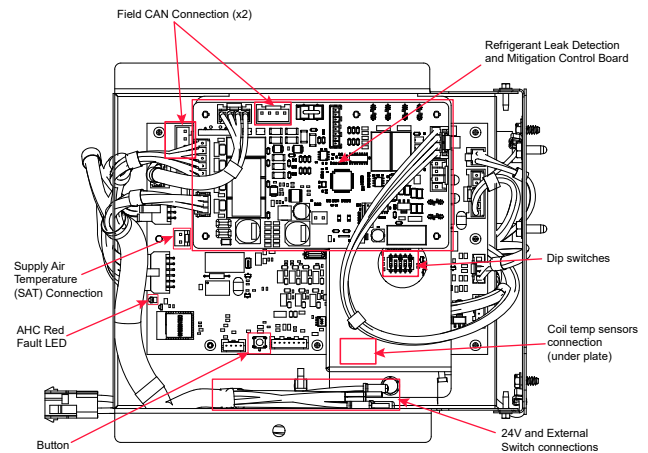
1. Remove the external sheathing of the wiring approximately 5-inch.

Figure 28. External sheathing



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

Figure 29. Sheathed wiring in the control box



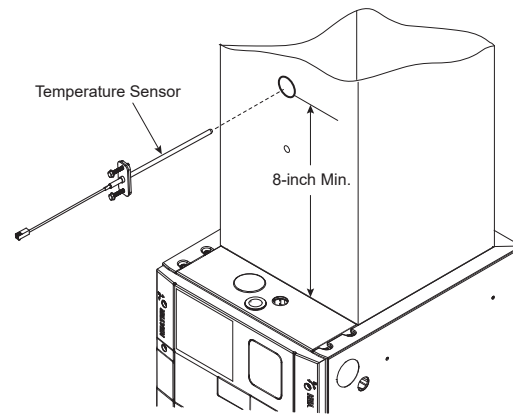
3. Mount Supply Air Temperature Sensor

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.

Notes:

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

Figure 30. Mount supply air temperature sensor



Link Communicating Low Voltage Wire Connectors

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

Table 11. Wire colors

Wire Colors	
R	Red
DH	White
DL	Green
B	Blue

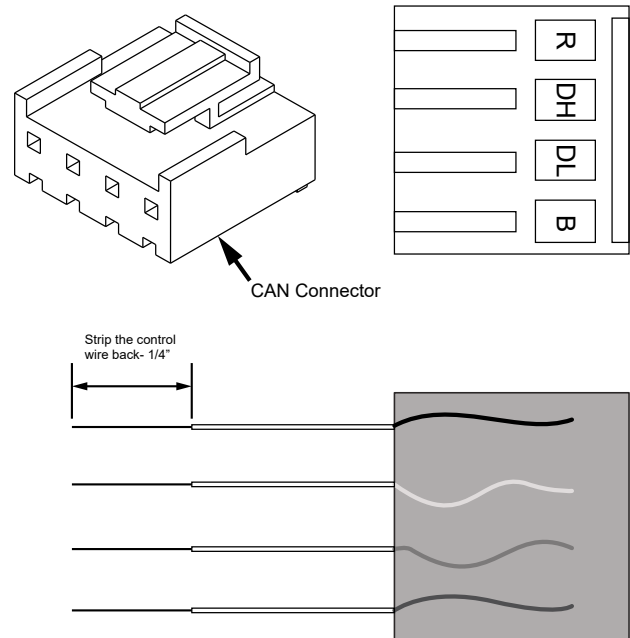
Do the following to make the connections from the actual thermostat wire to the connector.

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-inch.
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, verify 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.

Figure 31. Connect the can connector into the male coupling on the low voltage harness



Fault Reporting

The Air Handler Control (AHC) will show active faults and store historical faults in 24 volt mode. In 24 volt, the AHC will report active faults continuously and will report at the last four faults stored after a power cycle of the unit. See the LED flash code or Diagnostics Mobile App for fault code identification. In Link Communicating mode, faults will report to the UX360 User Interface Service Menu and Diagnostics Mobile App.

Table 12. Red LED fault codes

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

Link Communicating Low Voltage Connection Diagrams

Figure 32. Link communicating low voltage connection diagrams

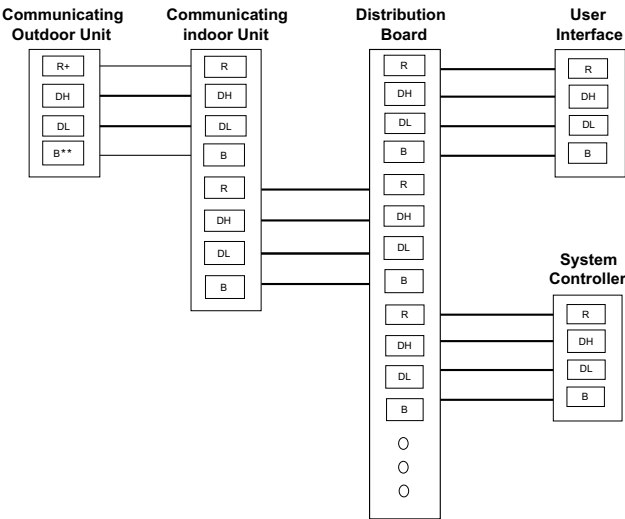


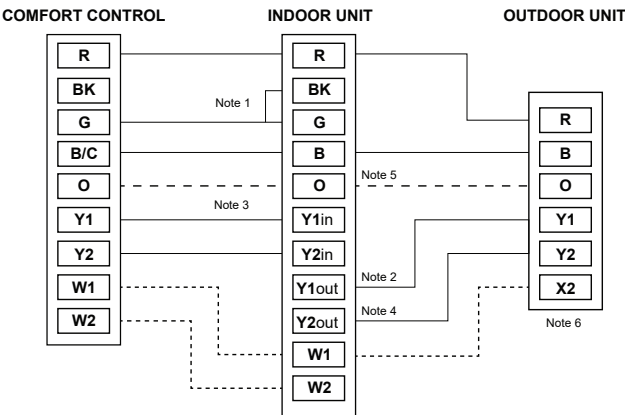
Table 13. Wire colors

Wire Colors	
R	Red
DH	White
DL	Green
B	Blue

Notes:

- Wire colors are for illustration purposes only. If using a different color, verify 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.

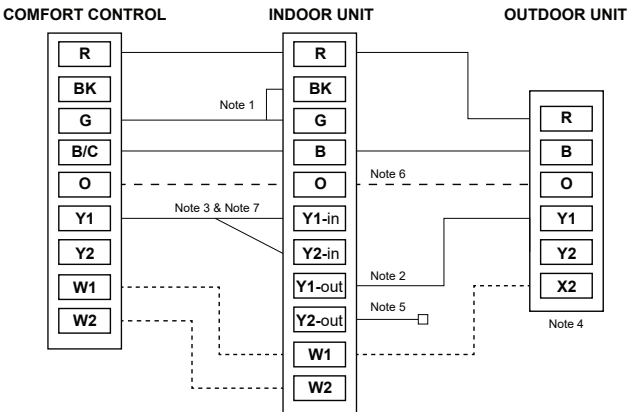
Figure 33. 24 volt low voltage wiring - 2 stage cooling or heat pump with 5TEMC variable speed air handler



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.
7. For AC only units, move DIP switch 1 to the ON position (if not using tech app for configuration, and for 24 volt mode only). See Figure 35, p. 29

Figure 34. 24 volt low voltage wiring - 1 stage cooling or heat pump with 5TEMC variable speed air handler



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.
8. For AC only units, move DIP switch 1 to the ON position (if not using tech app for configuration, and for 24 volt mode only). See

Figure 35. DIP switch settingr

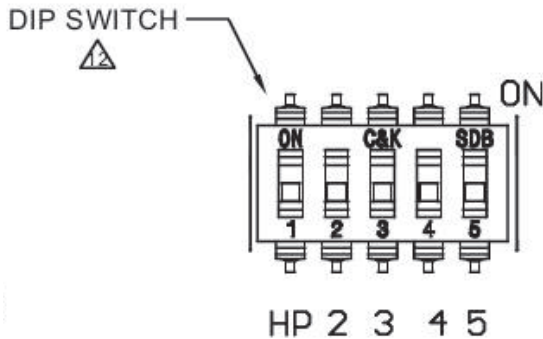


Table 14. 5STEMC 24 volt wire harness colors

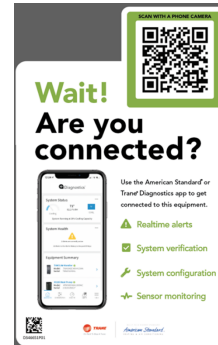
R	Red
B	Blue
O	Orange
Y1in	Yellow
Y2in	Yellow/Red
Y1out	Yellow/ Black
Y2out	Orange/Red
G	Green
BK	Black
W1	White
W2	White/Black

Get the App

The Diagnostics Mobile App can be found in your device App Store when searching for Trane Diagnostics or

American Standard Diagnostics. A QR code can be scanned which sends you directly to the location:

Figure 36. Diagnostics mobile App



External Switches and Accessories

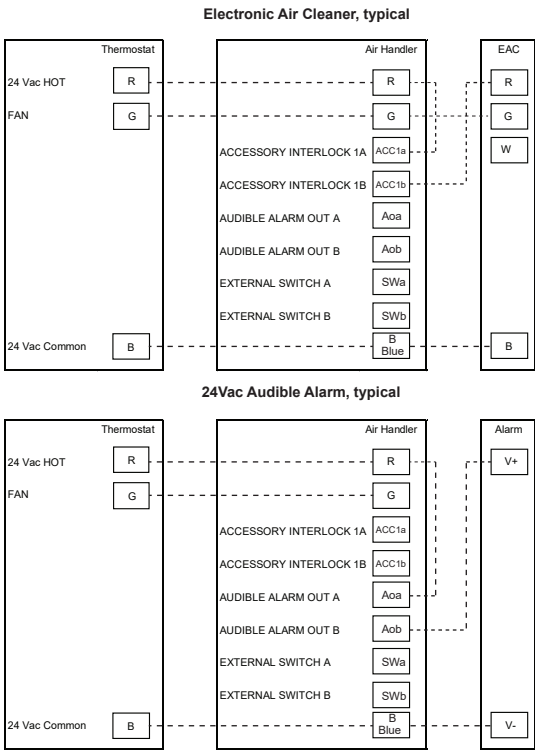
The following optional connections are available on the mitigation control board. See [Figure 37, p. 30](#).

- 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-inch (Aoa/Aob) or 1/4-inch (ACC1, ACC2) female spade connections.

Figure 37. Accessories diagram



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

Figure 38. Instructions for CleanEffects or AccuClean electronic air cleaners



SCAN ME

Performance and Electrical Data

Performance Data

Table 15. Model – 5STEMCB02AV21DA

5STEMCB02AV21DA Airflow Performance																		
Outdoor Multiplier (Tons)	Cooling Airflow Setting	Airflow Power	External Static Pressure (Constant Cfm / Torque)				Constant CFM Mode / Constant Torque Mode				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	430 / 415	430 / 264	430 / NA	430 / NA	290 CFM/ton	CFM Watts	434 / 34	419 / 64	419 / 96	403 / 130	384 / 167				
	350 CFM/ton	CFM Watts	520 / 620	520 / 514	520 / 398	520 / NA	510 / NA	350 CFM/ton	CFM Watts	521 / 44	512 / 77	514 / 112	500 / 485	485 / 196				
	400 CFM/ton	CFM Watts	590 / 688	590 / 593	590 / 493	590 / NA	590 / NA	400 CFM/ton	CFM Watts	595 / 56	589 / 91	595 / 127	584 / 173	573 / 222				
	450 CFM/ton	CFM Watts	670 / 758	670 / 671	660 / 581	660 / NA	660 / NA	450 CFM/ton	CFM Watts	668 / 71	667 / 107	675 / 145	668 / 196	660 / 250				
	290 CFM/ton	CFM Watts	85 / 85	125 / 100	160 / 102	190 / NA	235 / NA	290 CFM/ton	CFM Watts	575 / 53	569 / 87	573 / 123	561 / 167	549 / 215				
2 Tons	350 CFM/ton	CFM Watts	690 / 781	690 / 696	690 / 609	690 / 518	680 / NA	350 CFM/ton	CFM Watts	693 / 69	693 / 103	702 / 184	696 / 240	689 / 301				
	400 CFM/ton	CFM Watts	85 / 91	120 / 107	160 / 110	210 / 98	259 / NA	400 CFM/ton	CFM Watts	76 / 79	113 / 795	152 / 805	204 / 803	259 / 798				
	450 CFM/ton	CFM Watts	790 / 875	790 / 798	790 / 720	780 / 639	780 / 555	450 CFM/ton	CFM Watts	103 / 103	143 / 143	184 / 184	240 / 240	301 / 301				
	290 CFM/ton	CFM Watts	890 / 971	890 / 899	880 / 827	880 / 754	880 / 680	290 CFM/ton	CFM Watts	889 / 138	895 / 181	902 / 226	899 / 284	891 / 347				
	350 CFM/ton	CFM Watts	145 / 161	185 / 181	235 / 189	295 / 184	347 / 184	350 CFM/ton	CFM Watts	717 / 717	718 / 120	728 / 159	723 / 212	717 / 269				
2.5 Tons †	400 CFM/ton	CFM Watts	90 / 104	140 / 120	170 / 124	220 / 115	260 / 91	400 CFM/ton	CFM Watts	82 / 82	120 / 120	159 / 212	212 / 269	269 / 335				
	450 CFM/ton	CFM Watts	870 / 963	860 / 892	873 / 819	860 / 746	850 / 671	450 CFM/ton	CFM Watts	865 / 128	871 / 170	879 / 214	876 / 272	869 / 335				
	390 † CFM/ton	CFM Watts	958 / 1075	975 / 1000	946 / 878	871 / 711	802 / 617	390 † CFM/ton	CFM Watts	958 / 138	979 / 192	957 / 257	878 / 336	822 / 406				
	400 CFM/ton	CFM Watts	147 / 170	203 / 195	269 / 211	342 / 197	403 / 189	400 CFM/ton	CFM Watts	980 / 980	998 / 202	968 / 268	882 / 351	821 / 422				
	450 CFM/ton	CFM Watts	157 / 181	213 / 205	280 / 219	357 / 205	418 / 196	450 CFM/ton	CFM Watts	146 / 146	202 / 202	268 / 268	351 / 351	422 / 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-inch water column. • All heating modes default to Constant CFM. • Cooling airflow values are with wet coil, no filter.																		

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

Table 16. Model – 5STEMCB03AV31DA

STEMCB03AV31DA Airflow Performance																			
Outdoor Multiplier (Tons)	Cooling Airflow Setting	Airflow Power	External Static Pressure (Constant Cfm / Constant Torque)					Constant CFM Mode / Constant Torque Mode					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			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	434	419	419	403	384					
	350 CFM/ton	Watts	50 / 39	75 / 48	95 / 43	110 / NA	145 / NA	350	Watts	34	64	96	130	167					
	400 CFM/ton	Watts	60 / 53	90 / 64	120 / 61	135 / NA	175 / NA	400	Watts	44	77	112	153	196					
	450 CFM/ton	Watts	590 / 688	590 / 593	590 / 493	590 / NA	590 / NA	450	Watts	595	589	584	573	573					
	450 CFM/ton	Watts	75 / 67	105 / 80	140 / 80	160 / NA	205 / NA	450	Watts	56	91	127	173	222					
	450 CFM/ton	Watts	670 / 758	670 / 671	660 / 581	660 / NA	660 / NA	450	Watts	668	667	675	668	660					
2 Tons	290 CFM/ton	CFM	85 / 85	125 / 100	160 / 102	190 / NA	235 / NA	290	CFM	71	107	145	196	250					
	350 CFM/ton	Watts	60 / 63	90 / 76	125 / 75	165 / NA	215 / NA	350	Watts	53	87	123	167	215					
	400 CFM/ton	Watts	690 / 781	690 / 696	690 / 609	690 / 518	680 / NA	400	Watts	693	693	702	696	689					
	450 CFM/ton	Watts	85 / 91	120 / 107	160 / 110	210 / 98	259 / NA	450	Watts	76	113	152	204	259					
	400 CFM/ton	Watts	790 / 875	790 / 798	790 / 720	780 / 639	780 / 555	400	Watts	791	795	805	803	798					
	450 CFM/ton	Watts	110 / 122	150 / 140	195 / 145	250 / 137	301 / 115	450	Watts	103	143	184	240	301					
2.5 Tons	290 CFM/ton	CFM	890 / 971	890 / 899	880 / 827	880 / 754	880 / 680	290	CFM	889	895	902	899	891					
	350 CFM/ton	Watts	145 / 161	185 / 181	235 / 189	295 / 184	347 / 184	350	Watts	138	181	226	284	347					
	400 CFM/ton	Watts	720 / 823	720 / 741	710 / 659	710 / 573	710 / 481	400	Watts	717	718	728	723	717					
	450 CFM/ton	Watts	90 / 104	140 / 120	170 / 124	220 / 115	260 / 91	450	Watts	82	120	159	212	269					
	350 CFM/ton	Watts	870 / 963	860 / 892	873 / 819	860 / 746	850 / 671	350	Watts	865	871	879	876	869					
	400 CFM/ton	Watts	140 / 157	182 / 177	235 / 185	280 / 180	330 / 161	400	Watts	128	170	214	272	335					
3 Tons †	290 CFM/ton	CFM	969 / 1087	985 / 1011	993 / 921	992 / 809	1000 / 770	290	CFM	969	989	1004	999	1026					
	350 CFM/ton	Watts	143 / 166	198 / 191	262 / 205	329 / 189	399 / 187	350	Watts	134	188	250	323	402					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142	197	261	335	416					
	350 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	350	Watts	993	1013	1028	1023	1049					
	400 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	400	Watts	142	197	261	335	416					
3 Tons †	290 CFM/ton	CFM	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	290	CFM	993	1013	1028	1023	1049					
	350 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	350	Watts	142	197	261	335	416					
	400 CFM/ton	Watts	993 / 1114	1008 / 1035	1017 / 943	1015 / 828	1022 / 787	400	Watts	993	1013	1028	1023	1049					
	450 CFM/ton	Watts	152 / 176	208 / 200	273 / 214	341 / 196	413 / 194	450	Watts	142									

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

Table 17. Models – 5TEMCD04AV31DA and 5TEMCD05AV41DA

5TEMCD04AV31DA and 5TEMCD05AV41DA Airflow Performance															
Outdoor Multiplier (Tons)	Cooling Airflow Setting	Airflow Power	External Static Pressure (Constant Cfm / Constant Torque)					Heating Airflow Setting		Constant CFM Mode / Constant Torque Mode	Airflow Power	External Static Pressure			
			0.1	0.3	0.5	0.7	0.9	Setting	0.1			0.3	0.5	0.7	
3 Tons	290	CFM	864 / 1015	856 / 883	851 / 772	850 / 676	820 / 590	290	CFM		CFM	864	856	851	843
	CFM/ton	Watts	80 / 96	119 / 121	170 / 141	217 / 160	276 / 182	CFM/ton	Watts		Watts	76	119	168	219
	350	CFM	1037 / 1179	1037 / 1059	1040 / 957	1030 / 866	1030 / 784	350	CFM		CFM	1037	1037	1040	1039
	CFM/ton	Watts	120 / 137	170 / 164	224 / 185	265 / 204	334 / 221	CFM/ton	Watts		Watts	110	158	213	271
	400	CFM	1184 / 1317	1187 / 1207	1193 / 1110	1180 / 1024	1190 / 945	400	CFM		CFM	1184	1187	1193	1196
	CFM/ton	Watts	160 / 180	215 / 209	275 / 233	325 / 251	380 / 268	CFM/ton	Watts		Watts	149	200	260	324
3.5 Tons	450	CFM	1334 / 1457	1336 / 1354	1343 / 1263	1340 / 1181	1340 / 1105	450	CFM		CFM	1334	1336	1343	1348
	CFM/ton	Watts	205 / 232	265 / 265	335 / 290	395 / 310	460 / 327	CFM/ton	Watts		Watts	198	254	318	388
	290	CFM	1015 / 1147	1000 / 1025	1000 / 921	1000 / 829	1000 / 746	290	CFM		CFM	1003	1002	1004	1002
	CFM/ton	Watts	115 / 128	160 / 155	205 / 176	255 / 194	309 / 212	CFM/ton	Watts		Watts	103	149	203	260
	350	CFM	1210 / 1341	1210 / 1231	1210 / 1136	1210 / 1050	1210 / 971	350	CFM		CFM	1209	1212	1218	1222
	CFM/ton	Watts	165 / 188	220 / 218	280 / 241	335 / 260	395 / 277	CFM/ton	Watts		Watts	157	208	269	334
4 Tons	400	CFM	1380 / 1503	1380 / 1403	1390 / 1314	1390 / 1233	1390 / 1159	400	CFM		CFM	1384	1386	1393	1397
	CFM/ton	Watts	195 / 252	285 / 286	355 / 312	420 / 332	485 / 349	CFM/ton	Watts		Watts	217	275	340	412
	450	CFM	1560 / 1667	1560 / 1575	1570 / 1492	1570 / 1416	1579 / 1345	450	CFM		CFM	1563	1563	1566	1566
	CFM/ton	Watts	295 / 332	365 / 369	440 / 398	515 / 421	595 / 439	CFM/ton	Watts		Watts	293	362	429	507
	290	CFM	1140 / 1304	1140 / 1192	1140 / 1095	1140 / 1008	1150 / 929	290	CFM		CFM	1144	1147	1152	1155
	CFM/ton	Watts	145 / 175	200 / 204	255 / 227	310 / 246	365 / 263	CFM/ton	Watts		Watts	138	188	247	309
5Tons †	350	CFM	1380 / 1525	1380 / 1426	1390 / 1338	1390 / 1257	1390 / 1183	350	CFM		CFM	1384	1386	1393	1397
	CFM/ton	Watts	220 / 262	285 / 295	355 / 322	420 / 343	485 / 360	CFM/ton	Watts		Watts	217	275	340	412
	400	CFM	1590 / 1711	1590 / 1621	1590 / 1539	1590 / 1464	1600 / 1394	400	CFM		CFM	1589	1588	1591	1589
	CFM/ton	Watts	305 / 356	380 / 267	455 / 356	535 / 267	610 / 466	CFM/ton	Watts		Watts	305	376	444	522
	450	CFM	1790 / 1898	1790 / 1816	1800 / 1741	1800 / 1670	1810 / 1604	450	CFM		CFM	1800	1794	1791	1773
	CFM/ton	Watts	410 / 474	495 / 597	585 / 548	670 / 575	760 / 597	CFM/ton	Watts		Watts	419	509	575	660
5Tons †	290	CFM	1430 / 1571	1440 / 1475	1440 / 1388	1440 / 1309	1440 / 1236	290	CFM		CFM	1435	1436	1442	1446
	CFM/ton	Watts	240 / 283	310 / 318	375 / 345	445 / 367	515 / 384	CFM/ton	Watts		Watts	237	297	364	437
	350 †	CFM	1740 / 1851	1740 / 1767	1750 / 1690	1750 / 1619	1760 / 1552	350 †	CFM		CFM	1747	1742	1740	1728
	CFM/ton	Watts	380 / 442	465 / 482	550 / 514	635 / 541	720 / 562	CFM/ton	Watts		Watts	388	472	539	623
	400	CFM	2000 / 2087	2000 / 2012	2010 / 1942	1980 / 1873	1870 / 317	400	CFM		CFM	2015	2007	1995	1951
	CFM/ton	Watts	540 / 619	635 / 663	735 / 700	810 / 729	810 / 378	CFM/ton	Watts		Watts	559	679	739	810
5Tons †	450	CFM	2260 / 2141	2210 / 2068	2100 / 1999	1980 / 903	1870 / 315	450	CFM		CFM	2125	2117	2100	2038
	CFM/ton	Watts	745 / 686	810 / 729	810 / 766	810 / 359	810 / 405	CFM/ton	Watts		Watts	641	779	810	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 1700 CFM due to - Torque mode will reduce airflow when static is above approximately 0.3-inch water column. - All heating modes default to Constant CFM. - Cooling airflow values are with wet coil, no filter.															

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

Table 18. Models – 5TEMCD06AV41DA, 5TEMCD07AV51DA, and 5TEMCD07BV51DA

5TEMCD06AV41DA, 5TEMCD07AV51DA, and 5TEMCD07BV51DA Airflow Performance														
Outdoor Multiplier (Tons)	Cooling Airflow Setting	Airflow Power	External Static Pressure (Constant Cfm / Constant Torque)				Heating Airflow Setting	Airflow Power	Constant CFM Mode / Constant Torque Mode					
			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	864 / 1015	856 / 883	851 / 772	850 / 676	820 / 590	290 CFM/ton	Watts	864	856	851	843	822
	350 CFM/ton	Watts	80 / 96	119 / 121	170 / 141	217 / 160	276 / 182	CFM/ton	Watts	76	119	168	219	276
	400 CFM/ton	CFM	1037 / 1179	1037 / 1059	1040 / 957	1030 / 866	1030 / 784	350 CFM/ton	Watts	1037	1037	1040	1039	1032
	450 CFM/ton	Watts	120 / 137	170 / 164	224 / 185	265 / 204	334 / 221	400 CFM/ton	Watts	110	158	213	271	334
	400 CFM/ton	CFM	1184 / 1317	1187 / 1207	1193 / 1110	1180 / 1024	1190 / 945	400 CFM/ton	Watts	1184	1187	1193	1196	1197
3.5 tons	290 CFM/ton	Watts	160 / 180	215 / 209	275 / 233	325 / 251	380 / 268	CFM/ton	Watts	149	200	260	324	393
	350 CFM/ton	CFM	1334 / 1457	1336 / 1354	1343 / 1263	1340 / 1181	1340 / 1105	450 CFM/ton	Watts	1334	1336	1343	1348	1353
	400 CFM/ton	Watts	205 / 232	265 / 265	335 / 290	395 / 310	460 / 327	CFM/ton	Watts	198	254	318	388	461
	450 CFM/ton	CFM	1015 / 1147	1000 / 1025	1000 / 921	1000 / 829	1000 / 746	290 CFM/ton	Watts	1003	1002	1004	1002	992
	350 CFM/ton	Watts	115 / 128	160 / 155	205 / 176	255 / 194	309 / 212	350 CFM/ton	Watts	103	149	203	260	322
4 tons	290 CFM/ton	CFM	1210 / 1341	1210 / 1231	1210 / 1136	1210 / 1050	1210 / 971	CFM/ton	Watts	1209	1212	1218	1222	1224
	350 CFM/ton	Watts	165 / 188	220 / 218	280 / 241	335 / 260	395 / 277	400 CFM/ton	Watts	157	208	269	334	403
	400 CFM/ton	CFM	1380 / 1503	1380 / 1403	1390 / 1314	1390 / 1233	1390 / 1159	400 CFM/ton	Watts	1384	1386	1393	1397	1402
	450 CFM/ton	Watts	195 / 252	285 / 286	355 / 312	420 / 332	485 / 349	CFM/ton	Watts	217	275	340	412	487
	450 CFM/ton	CFM	1560 / 1667	1560 / 1575	1570 / 1492	1570 / 1416	1579 / 1345	450 CFM/ton	Watts	1563	1563	1566	1566	1564
5 tons †	290 CFM/ton	Watts	295 / 332	365 / 369	440 / 398	515 / 421	595 / 439	CFM/ton	Watts	293	362	429	507	588
	350 CFM/ton	CFM	1140 / 1304	1140 / 1192	1140 / 1095	1140 / 1008	1150 / 929	290 CFM/ton	Watts	1144	1147	1152	1155	1154
	400 CFM/ton	Watts	145 / 175	200 / 204	255 / 227	310 / 246	365 / 263	CFM/ton	Watts	138	188	247	309	376
	450 CFM/ton	CFM	1380 / 1525	1380 / 1426	1390 / 1338	1390 / 1257	1390 / 1183	350 CFM/ton	Watts	1384	1386	1393	1397	1402
	450 CFM/ton	Watts	220 / 262	285 / 295	355 / 322	420 / 343	485 / 360	CFM/ton	Watts	217	275	340	412	487
5 tons †	290 CFM/ton	CFM	1590 / 1711	1590 / 1621	1590 / 1539	1590 / 1464	1600 / 1394	400 CFM/ton	Watts	1589	1588	1591	1589	1585
	350 CFM/ton	Watts	305 / 356	380 / 267	455 / 356	535 / 267	610 / 466	CFM/ton	Watts	305	376	444	522	604
	400 CFM/ton	CFM	1790 / 1898	1790 / 1816	1800 / 1741	1800 / 1670	1810 / 1604	450 CFM/ton	Watts	1800	1794	1791	1773	1745
	450 CFM/ton	Watts	410 / 474	495 / 597	585 / 548	670 / 575	760 / 597	CFM/ton	Watts	419	509	575	660	749
	450 CFM/ton	CFM	1430 / 1571	1440 / 1475	1440 / 1388	1440 / 1309	1440 / 1236	290 CFM/ton	Watts	1435	1436	1442	1446	1450
5 tons †	290 CFM/ton	Watts	240 / 283	310 / 318	375 / 345	445 / 367	515 / 384	CFM/ton	Watts	237	297	364	437	514
	350 † CFM/ton	CFM	1740 / 1851	1740 / 1767	1750 / 1690	1750 / 1619	1760 / 1552	350 † CFM/ton	Watts	1747	1742	1740	1728	1707
	400 CFM/ton	Watts	380 / 442	465 / 482	550 / 514	635 / 541	720 / 562	CFM/ton	Watts	388	472	539	623	710
	450 CFM/ton	CFM	2000 / 2087	2000 / 2012	2010 / 1942	1980 / 1873	1870 / 317	400 CFM/ton	Watts	2015	2007	1995	1951	1877
	450 CFM/ton	Watts	540 / 619	635 / 663	735 / 700	810 / 729	810 / 378	CFM/ton	Watts	559	679	739	810	810
5 tons †	290 CFM/ton	CFM	2260 / 2141	2210 / 2068	2100 / 1999	1980 / 903	1870 / 315	450 CFM/ton	Watts	2125	2117	2100	2038	1932
	450 CFM/ton	Watts	745 / 686	810 / 729	810 / 766	810 / 359	810 / 405	CFM/ton	Watts	641	779	810	810	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
- Torque mode will reduce airflow when static is above approximately 0.3-inch water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter.

† 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-inch water column.
 • All heating modes default to Constant CFM.
 • Cooling airflow values are with wet coil, no filter.

Minimum Airflow CFM

Table 19. Models 5TEMCB02AV21DA and 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

Table 20. Models 5TEMCD04AV31DA and 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

Table 21. Models 5TEMCD06AV41DA, 5TEMCD07AV51DA, and 5TEMCD07BV51DA

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

Heater Pressure Drop Table

Table 22. Heater pressure drop

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

Electrical Data

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

Table 23. Model – 5TEMCB02AV21DA

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 ^(a)	4	15	—	—	2.8 ^(a)	4	15
BAYHTR1504BRK	1/1	3.84	13100	16.0	24	25	2.88	9800	13.8	21	25
BAYHTR1504LUG	1/1	4.80	16400	20.0	29	30	3.60	12300	17.3	25	25
BAYHTR1505BRK	1/1	7.68	26200	32.0	44	45	5.76	19700	27.7	38	40
BAYHTR1505LUG	1/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1508BRK	1/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1508LUG	1/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1510BRK	1/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1510LUG	1/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1517BRK	1/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
Circuit 1 ^(b)	2/1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYHTR1517BRK		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
Circuit 2	1/3	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30
BAYHTR3510LUG	1/3	14.40	49100	34.6	46	50	10.80	36900	30.0	41	45

^(a) Motor Amps

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

Table 24. Model – 5TEMCB03AV31DA

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 ^(a)	5	15	—	—	3.9 ^(a)	5	15
BAYHTR1504BRK	1/1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYHTR1504LUG	1/1	4.80	16400	20.0	29	30	3.60	12300	17.3	25	25

Table 24. Model – 5TEMCB03AV31DA (continued)

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			
BAYHTR1505BRK	1/1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYHTR1505LUG											
BAYHTR1508BRK	1/1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40
BAYHTR1508LUG											
BAYHTR1510BRK	1/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1510LUG											
BAYHTR1517BRK Circuit 1 ^(b)	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

(a) Motor Amps

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

Table 25. Models – 5TEMCD04AV31DA and 5TEMCD05AV41DA

5TEMCD04AV31DA and 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 ^(a)	5	15	—	—	3.9 ^(a)	5	15
BAYHTR1504BRK	1/1	3.84	13100	16.0	25	25	2.88	9800	13.8	22	25
BAYHTR1504LUG											
BAYHTR1505BRK	1/1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYHTR1505LUG											
BAYHTR1508BRK	1/1	7.68	26200	32.0	45	45	5.76	19700	27.7	39	40
BAYHTR1508LUG											
BAYHTR1510BRK	1/1	9.60	32800	40.0	55	60	7.20	24600	34.6	48	50
BAYHTR1510LUG											
BAYHTR1517BRK Circuit 1 ^(b)	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 ^(b)	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

(a) Motor Amps

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

Table 26. Models – 5TEMCD06AV41DA and 5TEMCD07AV51DA

5TEMCD06AV41DA and 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 ^(a)	7	15	—	—	5.7 ^(a)	7	15
BAYHTR1504BRK	1/1	3.84	13100	16.0	27	30	2.88	9800	13.8	24	25
BAYHTR1504LUG											
BAYHTR1505BRK	1/1	4.80	16400	20.0	32	35	3.60	12300	17.3	29	30
BAYHTR1505LUG											
BAYHTR1508BRK	1/1	7.68	26200	32.0	47	50	5.76	19700	27.7	42	45
BAYHTR1508LUG											
BAYHTR1510BRK	1/1	9.60	32800	40.0	57	60	7.20	24600	34.6	50	50
BAYHTR1510LUG											
BAYHTR1517BRK Circuit 1 ^(b)	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

Performance and Electrical Data

Table 26. Models – 5TEMCD06AV41DA and 5TEMCD07AV51DA (continued)

5TEMCD06AV41DA and 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			
BAYHTR1523BRK Circuit 1 ^(b)	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 ^(b)	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

(a) Motor Amps

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

Table 27. Model – 5TEMCD07BV51DA

5TEMCD07BV51DA 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	—	—	—	6.9 ^(a)	9	15	—	—	6.9 ^(a)	9	15
BAYHTR1504BRK BAYHTR1504LUG	1/1	3.84	13100	16.0	29	30	2.88	9800	13.8	26	30
BAYHTR1505BRK BAYHTR1505LUG	1/1	4.80	16400	20.0	34	35	3.60	12300	17.3	30	30
BAYHTR1508BRK BAYHTR1508LUG	1/1	7.68	26200	32.0	49	50	5.76	19700	27.7	43	45
BAYHTR1510BRK BAYHTR1510LUG	1/1	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60
BAYHTR1517BRK- Circuit 1 ^(b)	2/1	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60
BAYHTR1517BRK- Circuit 2 ^(b)		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYHTR1523BRK- Circuit 1 ^(b)	2/1	9.60	32800	40.0	59	60	7.20	24600	34.6	52	60
BAYHTR1523BRK- Circuit 2 ^(b)		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYHTR1525BRK- Circuit 1	4/1	6.00	20500	25.0	40	40	4.50	15400	21.6	36	40
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	37	40	7.20	24600	20.0	33	35
BAYHTR3517LUG	1/3	14.40	49100	34.6	51	60	10.80	36900	30.0	45	50

(a) Motor Amps

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

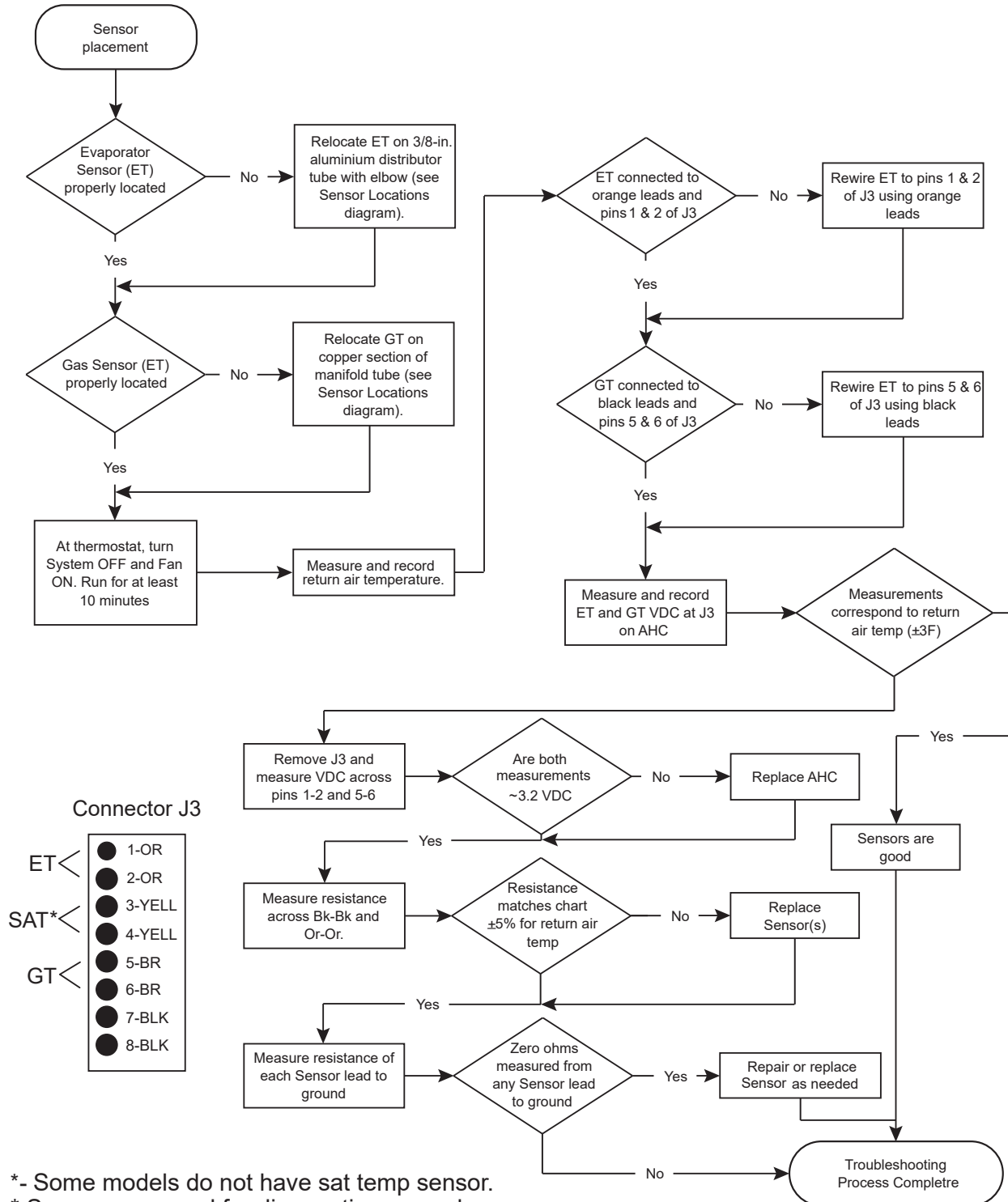
Checkout Procedures

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

- ☐ All wiring connections are tight and properly secured.
- ☐ Voltage and running current are within limits.
- ☐ All refrigerant lines (internal and external to equipment) are isolated, secure, and not in direct contact with each other or structure.
- ☐ All braze connections have been checked for leaks. A vacuum of 350 microns provides confirmation that the refrigeration system is leak free and dry.
- ☐ If unit is installed in any orientation other than upflow, refrigerant sensor is properly relocated.
- ☐ Final unit inspection to confirm factory tubing has not shifted during shipment. Adjust tubing if necessary so tubes do not rub against each other or any component when unit runs.
- ☐ Ductwork is sealed and insulated.
- ☐ All drain lines are clear with joints properly sealed. Pour water into drain pan to confirm proper drainage. Provide enough water to confirm drain trap is primed.
- ☐ Supply registers and return grilles are open, unobstructed, and air filter is installed.
- ☐ Indoor blower and outdoor fan are operating smoothly and without obstruction.
- ☐ Indoor blower motor set on correct speed setting to deliver required CFM. Blower and fan set screws are tight.
- ☐ Cover panels are in place and properly tightened.
- ☐ System functions safely and properly in all modes.
- ☐ 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

Figure 39. Sensor check to verify sensor placement and operation



Notices

FCC Notice

Contains FCC ID: WAP3025

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

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

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

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

IC Notice

Contains IC ID: 7922A-3025

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne 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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