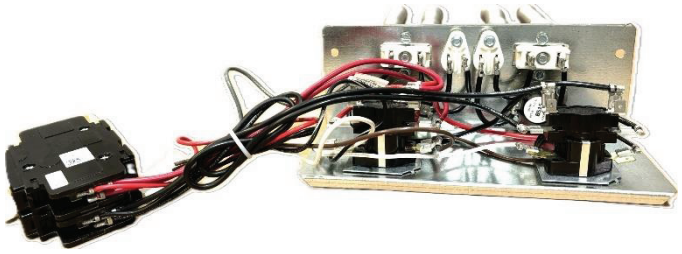
Installer’s Guide

Supplementary Electric Heaters for 5TDM Air Handlers

BAYHTR1705BRKA
BAYHTR1710BRKA
BAYHTR1715BRKA
BAYHTR1720BRKA



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.

September 2025 **AHR-SVN002A-EN**

Introduction

Read this manual thoroughly before operating or servicing this unit.

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

Warnings, Cautions, and Notices

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

The three types of advisories are defined as follows:

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

Important Environmental Concerns

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

Important Responsible Refrigerant Practices

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

⚠ WARNING

Proper Field Wiring and Grounding Required!

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

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

⚠ WARNING

Personal Protective Equipment (PPE) Required!

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

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

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

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⚠ 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

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

Follow National Building Codes!

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

This product designed and manufactured to permit installation in accordance with the National Electric Code, NFPA No. 90A and 90B, and any other local codes or utilities requirements. It is the installer's responsibility to verify that product is installed in strict compliance with national and local codes. Manufacturer will not take responsibility for any damage caused due to installations violating regulations.

⚠ WARNING

Check for Safety Devices!

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

Do not bypass safety devices.

⚠ WARNING

Safety Hazard!

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

Only qualified personnel with adequate electrical and mechanical experience must repair the unit. The manufacturer or seller is not responsible for any interpretation or resulting liability.

⚠ CAUTION

Sharp Edges!

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

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

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General Information

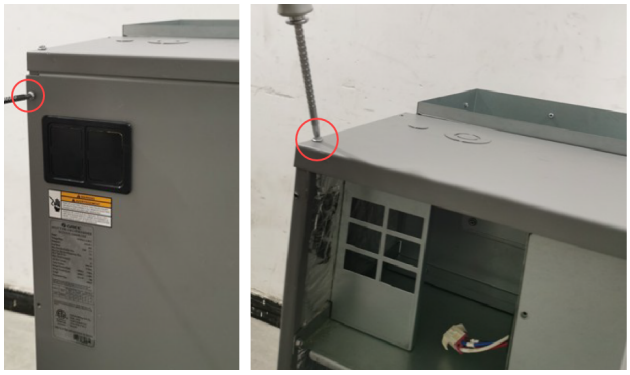
Table 1. Heater compatibility

	5TDM5B03AC21SA	5TDM5C04AC31SA	5TDM5D06AC41SA	5TDM5D07AC51SA
BAYHTR1705BRKA	X	X	X	X
BAYHTR1710BRKA	X	X	X	X
BAYHTR1715BRKA		X	X	X
BAYHTR1720BRKA			X	X

Installation

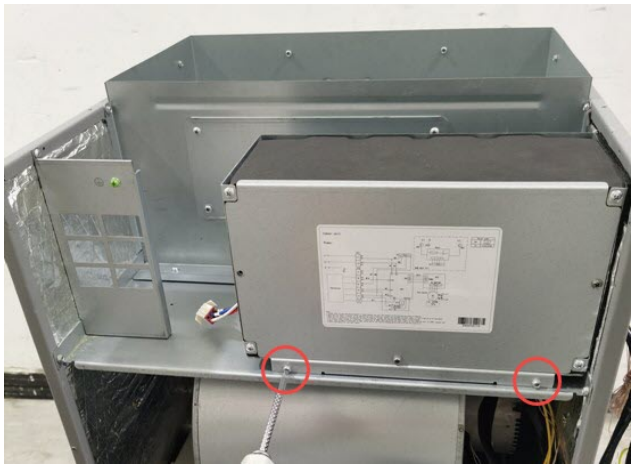
1. Remove the front panel and upper access panel from the air handler.

Figure 1. Remove front panel and access panel



2. Disassemble the electrical box.

Figure 2. Disassemble electrical box



3. Remove the electrical box.

Figure 3. Remove electrical box

4. Disassemble the metal plate at the mounting hole of the electric heater by removing two screws.

Figure 4. Disassemble metal plate

5. Install the electric heater to the metal plate position that was disassembled in “Step 4.,” p. 5

Figure 5. Install electric heater

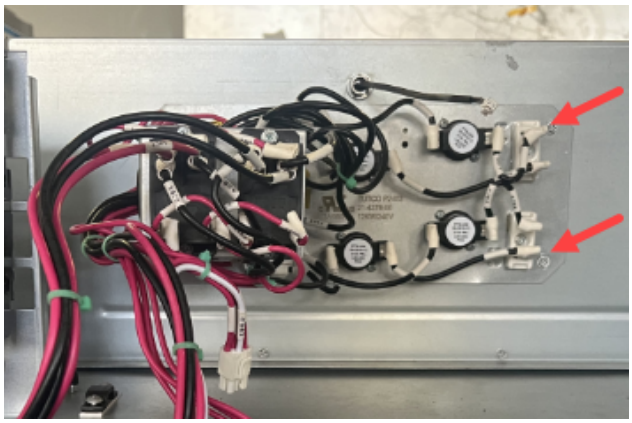
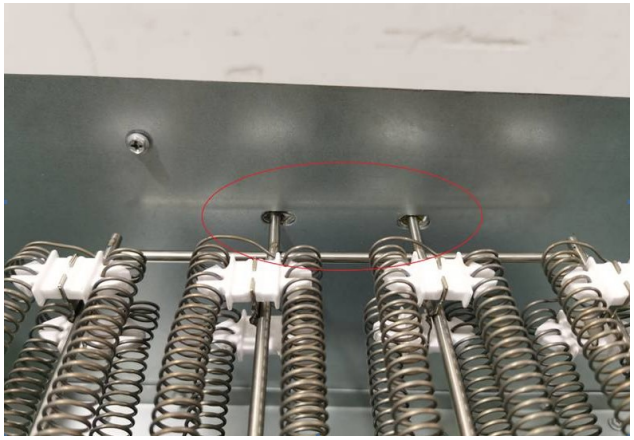


Figure 6. Electric heater bracket



6. Install the breaker:
   a. Life the buckle.
   b. Hold the breaker basket.
   c. Put down the buckle to fix the breaker into place.

Figure 7. Install breaker

7. (Optional) jumper bar:
   a. Remove the cover of the jumper bar.
   b. Install the jumper bar to the circuit breakers.
   c. Re-install the jumper bar cover.
   d. Apply the appropriate nameplate label included with the single point power entry kit (see Figure 7, p. 6) directly over the accessory heater model on the air handler rating nameplate as shown in Figure 8, p. 6. Sample shown is for 15 kW heater in Figure 9, p. 7.

Figure 8. Single point power supply

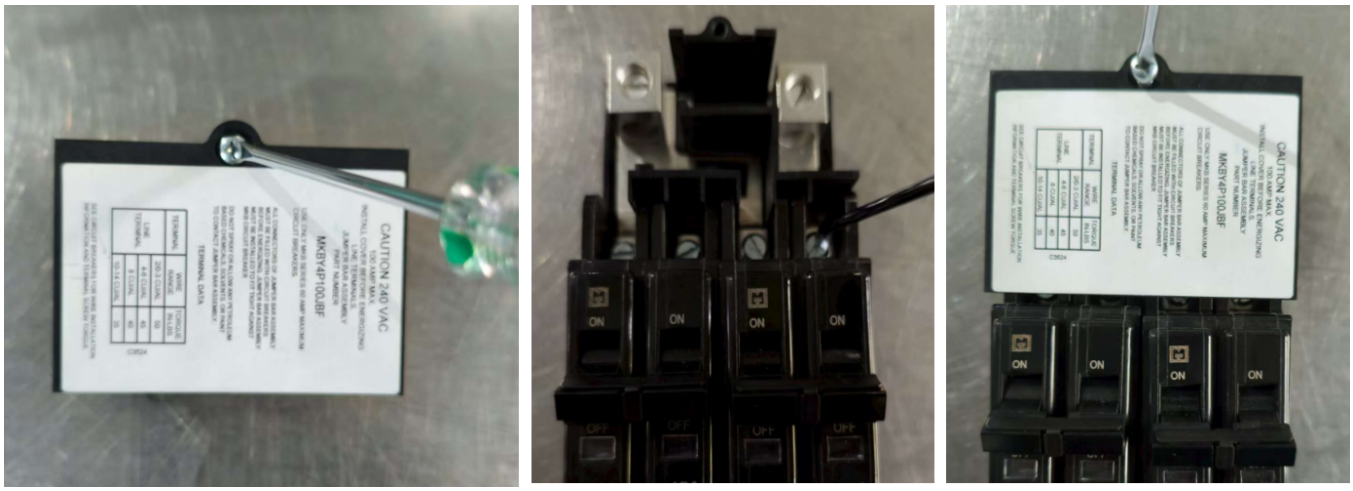
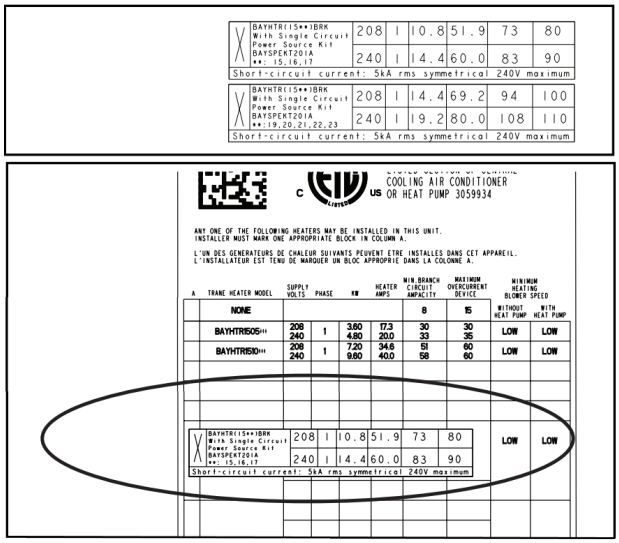


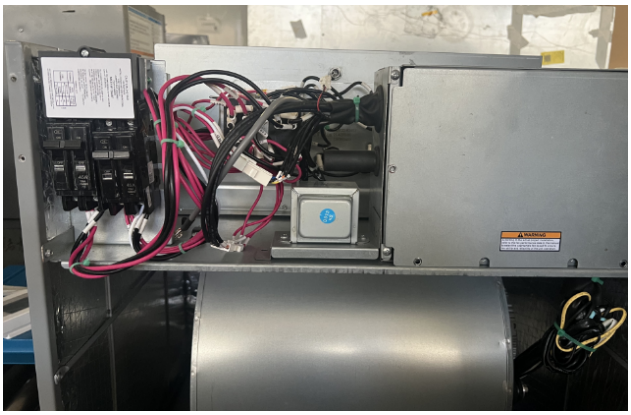
Figure 9. Nameplate label



Note: *If a single point power supply its NOT used, the jumper bar needs to be removed to separate the two power sources.*

8. Install the electrical box back to the original position, and connect the electrical heater terminal and relay terminal.

Figure 10. Connect electrical terminal and relay terminal



9. Reattach the front panel and upper panel to the air handler.

Wiring Diagrams

Figure 11. 5 kW wiring diagram

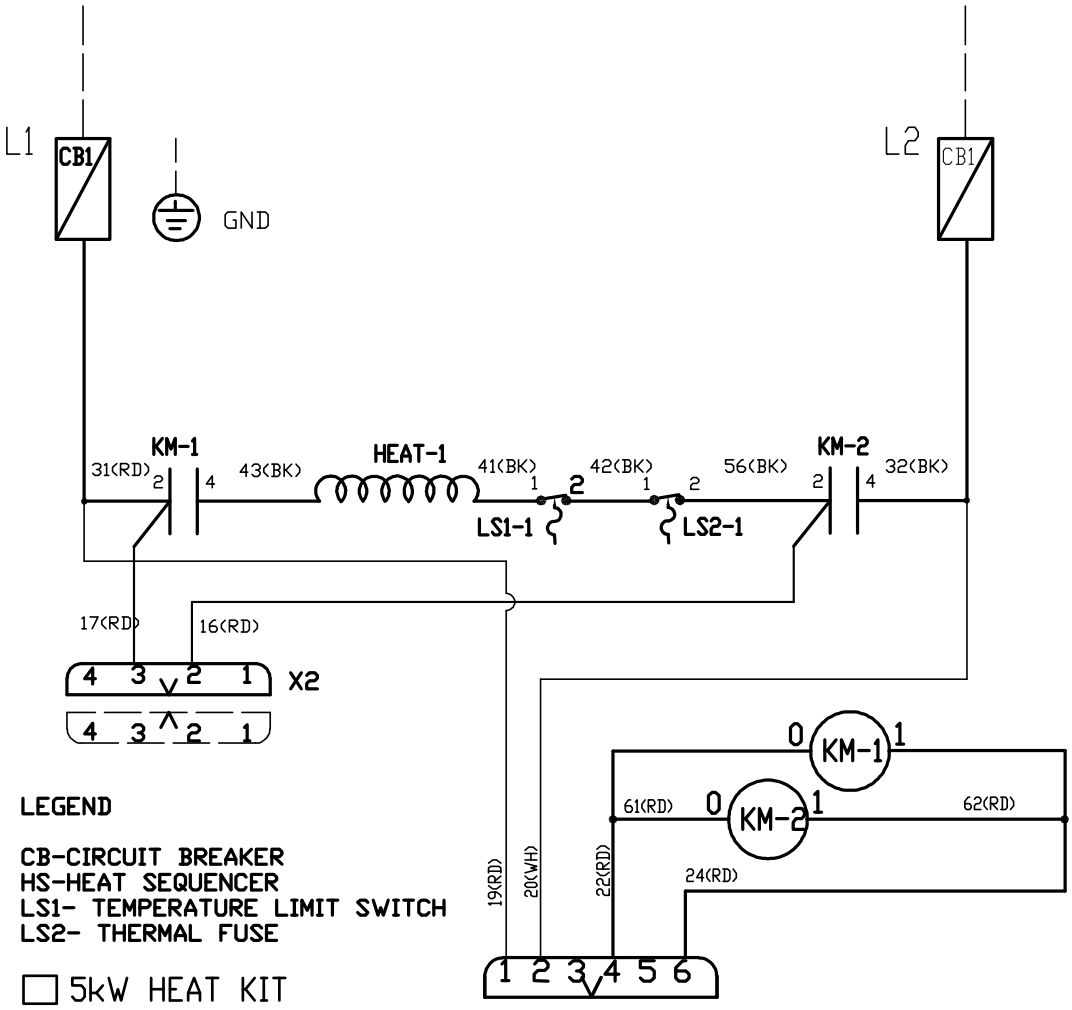


Figure 12. 10 kW wiring diagram

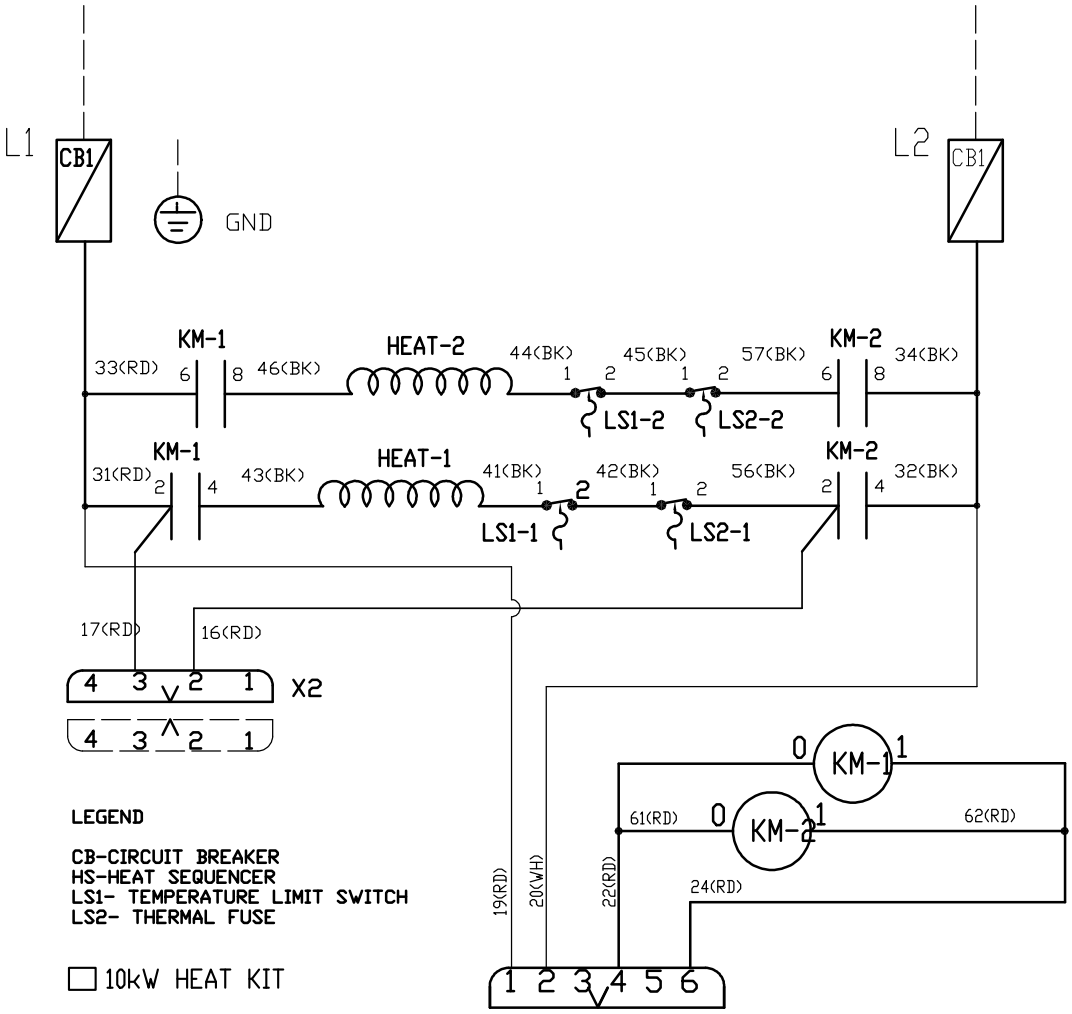


Figure 13. 15 kW wiring diagram

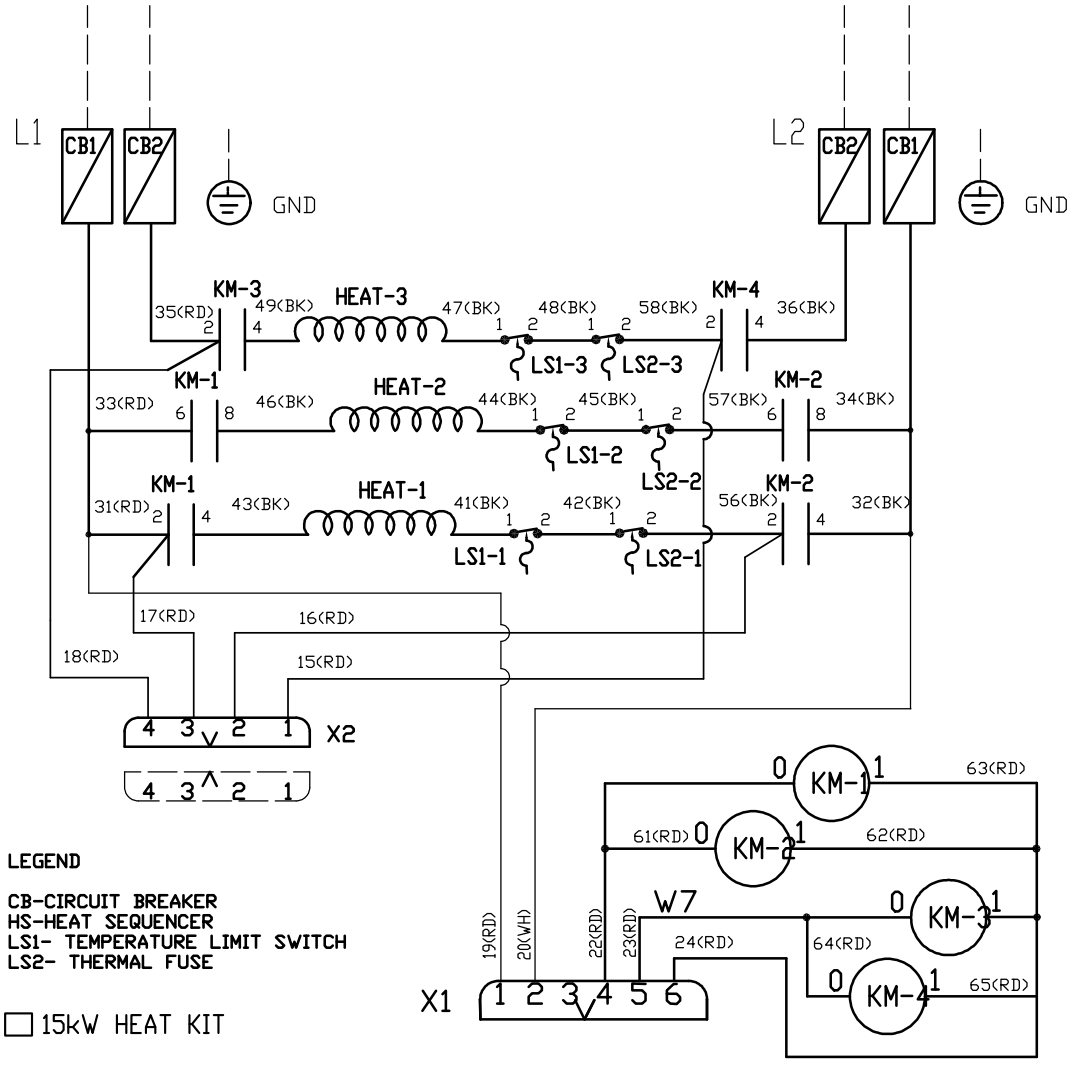
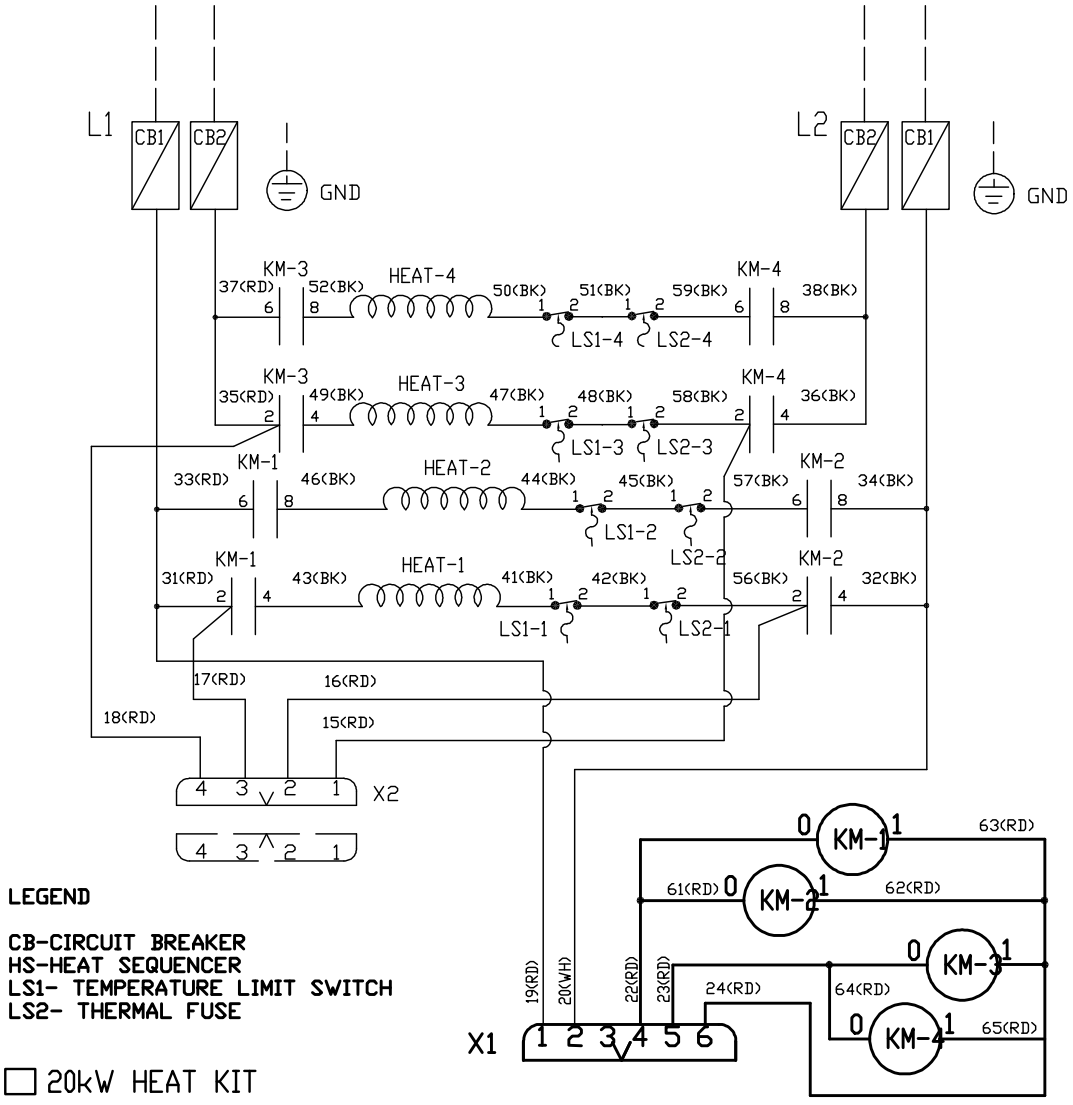


Figure 14. 20 kW wiring diagram



Heater Tables

Table 2. 5TDM5B03AC21SA

Heater Model	Supply Voltage	Phase	KW	Heater Amps	Minimum Circuit Ampacity	Maximum Overcurrent Protection	Minimum Blower Speed (with and without heat pump)	External Static Pressure Test Ranges	Min. Clearance to Combustible Surface	Re. Air Handler use (ton)
BAYHTR1705BRKA	208 230	1	5	18/20	28/29.9	30/30	900 CFM	0–1.0 in. W.C.	60 in.	2 / 3 / 4 / 5
BAYHTR1710BRKA	208 230	1	10	36/40	50/55	60/60	900 CFM	0–1.0 in. W.C.	60 in.	2 / 3 / 4 / 5

Table 3. 5TDM5C04AC31SA

Heater Model	Supply Voltage	Phase	KW	Heater Amps	Minimum Circuit Ampacity	Maximum Overcurrent Protection	Minimum Blower Speed (with and without heat pump)	External Static Pressure Test Ranges	Min. Clearance to Combustible Surface	Re. Air Handler use (ton)
BAYHTR1705BRKA	208 230	1	5	18/20	28/31	30/35	930 CFM	0–1.0 in. W.C.	60 in.	2 / 3 / 4 / 5
BAYHTR1710BRKA	208 230	1	10	36/40	51/56	60/60	930 CFM	0–1.0 in. W.C.	60 in.	2 / 3 / 4 / 5
BAYHTR1715BRKA	208 230	1	15	36+18/40 +20	51+23/56 +26	60+25/60 +30	930 CFM	0–1.0 in. W.C.	60 in.	3 / 4 / 5
BAYHTR1715BRKA[a]	208 230	1	15	54/60	74/82	80/90	930 CFM	0–1.0 in. W.C.	60 in.	3 / 4 / 5

[a] With single-point wiring

Table 4. 5TDM5D06AC41SA and 5TDM5D07AC51SA

Heater Model	Supply Voltage	Phase	KW	Heater Amps	Minimum Circuit Ampacity	Maximum Overcurrent Protection	Minimum Blower Speed (with and without heat pump)	External Static Pressure Test Ranges	Min. Clearance to Combustible Surface	Re. Air Handler use (ton)
BAYHTR1705BRKA	208 230	1	5	18/20	31/33	35/35	1470 CFM	0–1.0 in. W.C.	60 in.	2 / 3 / 4 / 5
BAYHTR1710BRKA	208 230	1	10	36/40	53/58	60+60	1470 CFM	0–1.0 in. W.C.	60 in.	2 / 3 / 4 / 5
BAYHTR1715BRKA	208 230	1	15	36+18/40 +20	51+23/56 +25	60+25/60 +30	1470 CFM	0–1.0 in. W.C.	60 in.	3 / 4 / 5
BAYHTR1715BRKA[a]	208 230	1	15	54/60	76/83	80/90	1470 CFM	0–1.0 in. W.C.	60 in.	3 / 4 / 5

Table 4. 5TDM5D06AC41SA and 5TDM5D07AC51SA (continued)

BAYHT-R1705BR-KA	208 230	1	5	18/20	31/33	35/35	1470 CFM	0–1.0 in. W.C.	60 in.	2 / 3 / 4 / 5
BAYHT-R1720BR-KA	208 230	1	20	36+36/40 +40	53+45/58 +50	60+50/60 +60	1470 CFM	0–1.0 in. W.C.	60 in.	4 / 5
BAYHT-R1720BR-KA[(a)]	208 230	1	20	72/80	98/108	100/110	1470 CFM	0–1.0 in. W.C.	60 in.	4 / 5

(a) With single-point wiring

Notes

About Trane and American Standard Heating and Air Conditioning

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

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

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Supersedes (New)

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