



Installation Instructions

Frame-Mounted Tracer Summit™ BMTX BCU

Order Numbers: BMTX001CAD000 (CE, Without Modem), BMTX001CAD001 (CE, With Modem), BMTX001EAD000 (UL, Without Modem), BMTX001EAD001 (UL, With Modem)

3270 3422

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.

January 2021

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1 Warnings, Cautions, and Notices

Read this manual thoroughly before operating or servicing this unit. 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-including industry replacements for CFCs such as HCFCs and HFCs.

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.

2 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 electrical codes.

WARNING
Personal Protective Equipment Required!
Installing/servicing this unit could result in exposure to electrical, mechanical and chemical hazards. Before installing/servicing this unit, technicians MUST put on all Personal Protective Equipment (PPE) recommended for the work being undertaken. ALWAYS refer to appropriate SDS sheets and OSHA guidelines for proper PPE. When working with or around hazardous chemicals, ALWAYS refer to the appropriate SDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection and handling recommendations. If there is a risk of arc or flash, technicians MUST put on all necessary Personal Protective Equipment (PPE) in accordance with NFPA70E for arc/flash protection PRIOR to servicing the unit. Failure to follow recommendations could result in death or serious injury.

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.

The frame-mounted Tracer Summit BMTX building control unit (BCU) can be used to replace controllers in existing equipment or it can be mounted in new equipment or custom enclosures.
Note: This BMTX board requires Tracer Summit V17 software. (17.077 BCU image or higher. This board will not function properly with lower BCU images.)

All other BMTX BCU's that are connected to the site must be upgraded to the new BCU image at the same time this board is installed. The new BCU images are available to download from the proprietary Trane® Intranet software downloads web site. Failure to follow this instruction will result in the BCU board not working

Operating Environment

Ensure that the operating environment conforms to the specification listed below.

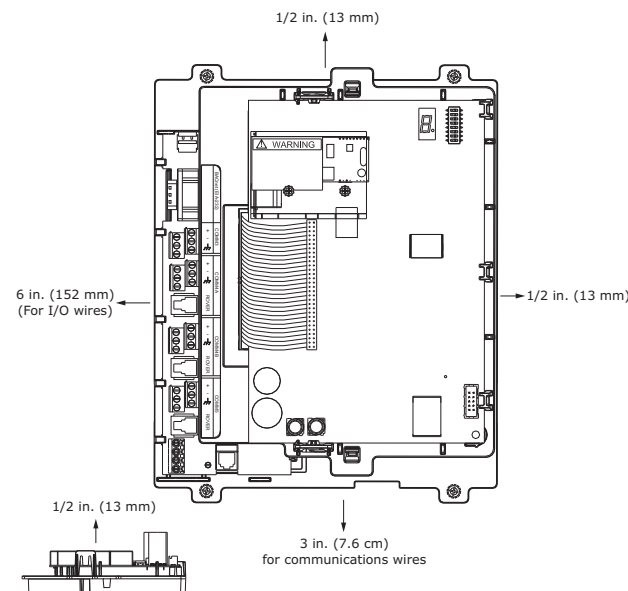
Temperature:	From 32°F to 122°F (0°C to 50°C)
Humidity:	10-90% non-condensing
Power Requirements:	18 - 32 Vac (24 Vac nominal), 50 or 60 Hz 76VA
Altitude:	6,500 ft (2,000 m)
Installation:	Category 3
Pollution:	Degree 2
Location:	Near controlled equipment to reduce wiring Where public access is restricted to minimize possible tampering/vandalism

4 Enclosure Requirements

- Before installing the frame-mounted BCU, ensure that the enclosure or mounting space meets the following minimum requirements:
- Minimum clearance shown in the illustration below.
 - 24 Vac dedicated power supply.
 - Compliance with National Electrical Code™ (NEC) and applicable local electrical codes for high-voltage power wiring to the enclosure.

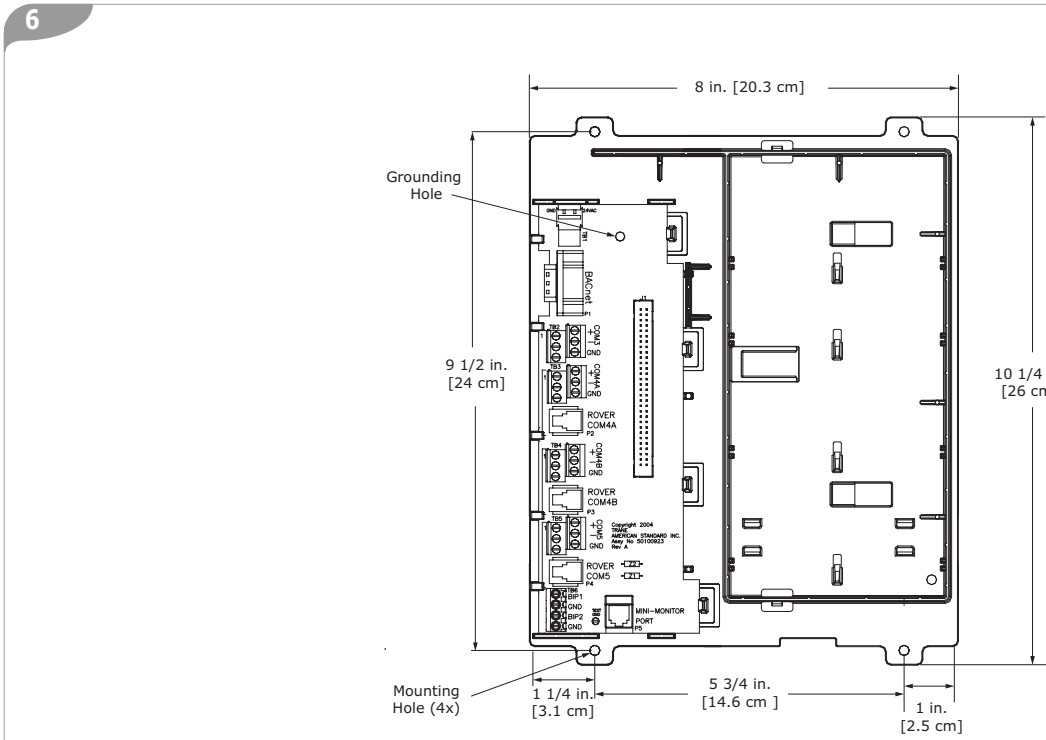
Minimum Clearances

Ensure that the selected location provides ample space for the minimum clearance as shown below.



5 Installing the Termination Board

- Remove the BCU from its packaging and separate the top and bottom frames.
 - Using the bottom frame (with the termination board) as a template, mark the location of the four mounting holes and the grounding screw on the mounting surface.
 - Note:** If the mounting surface is metal and earth grounded, mark the location of the termination board ground hole. If not, go on to Step #3.
 - Important:** If you are installing the BCU inside a plastic enclosure, attach the metal backing plate (included in the kit) to meet the CE requirements. If you are installing the BCU inside a metal enclosure and the ground screw is properly installed, it is not necessary to attach the metal backing plate.
 - Set aside the BCU and then drill holes for #8 (4 mm) screws at the marked locations.
 - Drill a 1/8 inch diameter pilot hole for the supplied grounding screw.
 - Secure the controller to the mounting surface with the enclosed using #8 (4 mm) screws (not supplied) in the mounting holes.
 - Secure the BCU to the mounting surface with #8 (4 mm) screws (not supplied).
 - Provide the earth-to-ground connection by:
Drilling a pilot hole at the termination board ground hole and then installing a #8 (4 mm) screw through the ground hole. With this option, the surface on which the bottom frame is mounted must be earth grounded.
- or —**
Wiring a ground connection from the 24 Vac common bus termination to earth ground. Common bus terminations are found on the board at 24 Vac INPUT POWER.

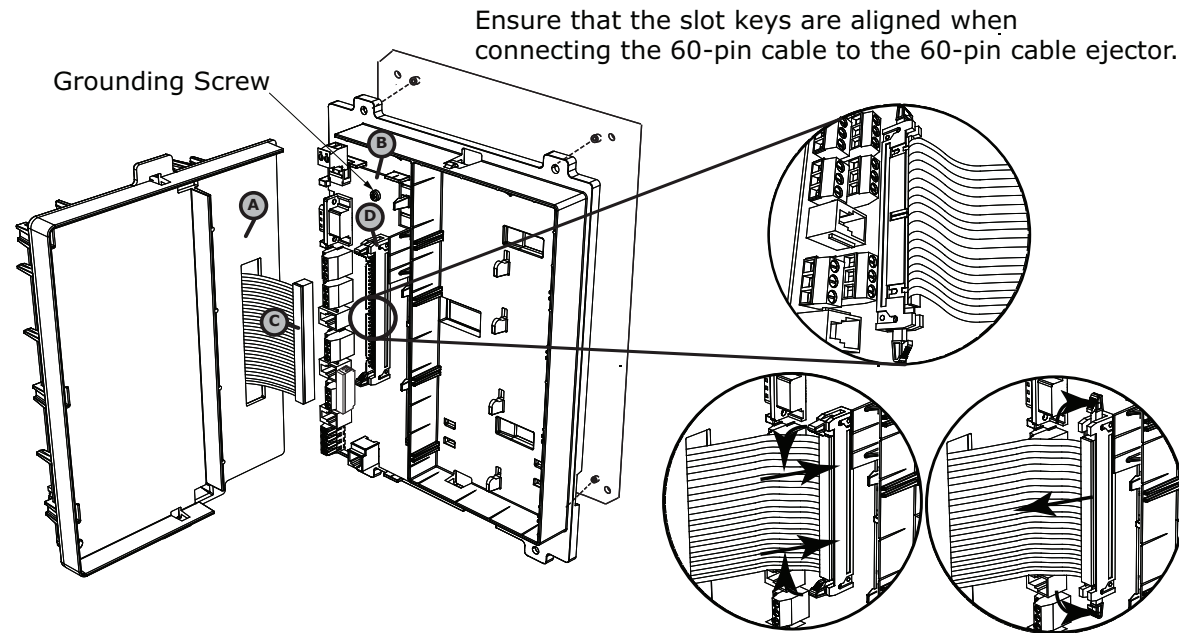


NOTICE
Avoid Equipment Damage!
Start and then remove each screw to ensure metal shards are not present before mounting the bottom frame and termination board. Self-tapping sheet-metal screws can result in loose metal shards which may damage the board or cause it to malfunction.

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Installing the Main Circuit Board

To begin, verify that the 24 Vac power cable is not connected to the termination board and then install the main circuit board as shown below. The installation steps begin in the next panel.



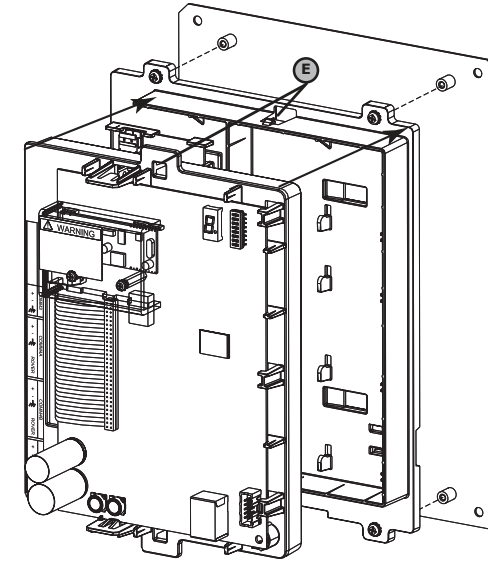
Important: The 60-pin cable ejector is designed to eject the 60-pin cable when disconnecting. Refer to the right inset above.

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Installation Procedure

1. Hold the circuit board (A) at a 90° angle to the termination board (B) as shown in previous panel.
2. Connect the 60-pin cable (C) to the 60-pin cable ejector slot (D) by pressing down firmly on the cable until the ejector tabs collapse and snap over the ends of the cable (previous panel).
3. Align the snaps on the top frame (E) with the mounting locks located at opposite ends of the bottom frame.

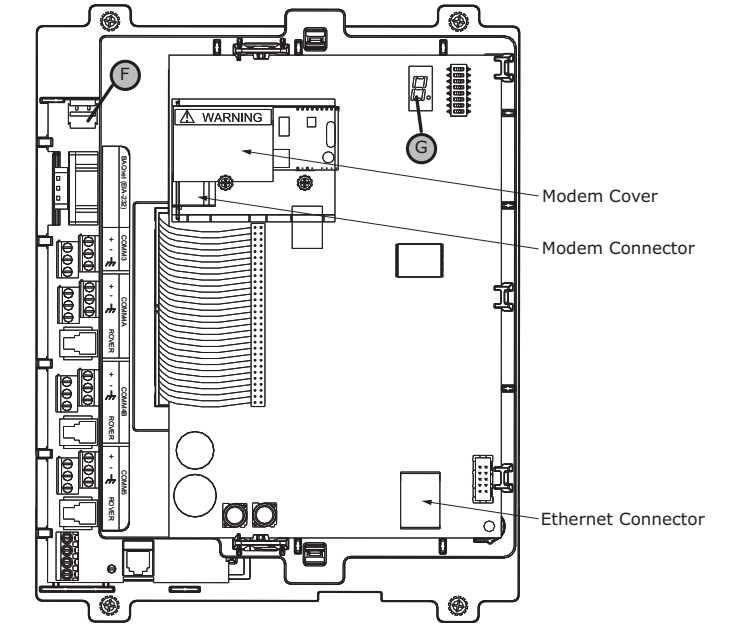
Note: The snaps are located on the back of the top frame and are not visible in the illustration below.



NOTE: Modem cover is the only component of units that meets CE requirements.

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4. Using the tabs that are at both ends of the top frame, push the two frames together in the direction indicated by the arrows. You will hear a click when the two frames connect.
5. Connect the 24 Vac power cable to the termination board (F) as shown in below figure. The green status LED will light (G).
6. Connect the Ethernet cable to the Ethernet connector on the circuit board.
7. Connect the telephone cable to the modem connector on the circuit board.



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Agency Listings and Compliance

The European Union (EU) Declaration of Conformity is available from your local Trane® office.

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