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**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.

**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/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 Labeling 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.

**3 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.

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**4 Introduction**

The Tracer Summit™ BMTX retrofit kit includes a frame mount BMTX, adapter plate, wall transformer, and a model number label. (The installation steps are the same for both order numbers listed above.)

**Note:** This BMTX board requires Tracer Summit v17 software (17.077 BCU image or higher). The board will not function properly with lower BCU images.

**Note:** All other BMTX BCUs 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.

**Note:** The figures in this document show the BMTX with modem option. The Tracer Summit™ BMTX retrofit kit can be installed in Tracer 100™ (T100) models EMTF, EMTG, EMTH, or EMTI.

The following instructions assume that proper retrofit project management, retrofit planning, updated as-built drawings, and site backups have been completed prior to the retrofit installation.

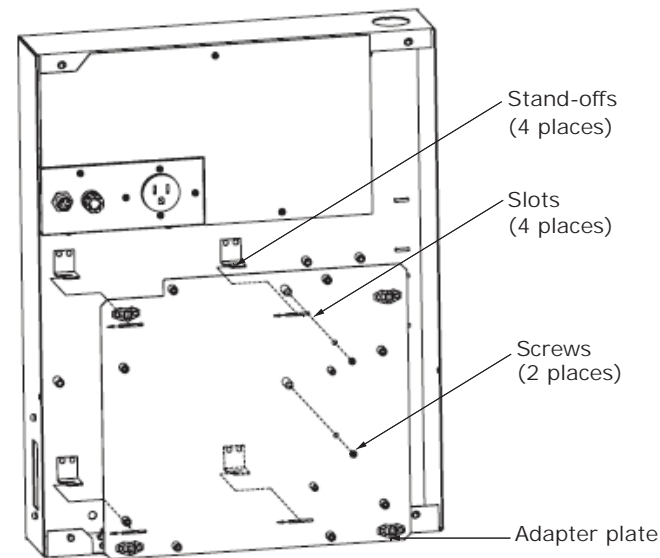
**Removing the Existing T100 Board**

1. Remove the cover from the T100 enclosure.
2. Turn the power switch to OFF.
3. Disconnect power cable J1 from the T100 termination logic board.
4. Tag and disconnect any communication link (comm link) wires from the TB3 terminator.
5. Disconnect and remove the optional US Robotics modem (if present).
6. Disconnect the RS232 cable from the terminator (if present) and remove the cable from the T100 enclosure.
7. Remove the screws securing the T100 main logic board and remove the board.
8. Remove the screws securing the T100 termination board and remove the board.

**5 Installing the Adapter Plate**

1. Orient the adapter plate as shown in Figure 1, p. 1. Align the slots with the stand-offs, then press the plate down over the stand-offs and slide it to the right.
2. Secure the adapter plate with the screws provided.

Figure 1. Installing the adapter plate



**6 BMTB Installing the BMTX Frame Mount**

1. Plug the new wall transformer into the power receptacle and route the wall transformer power cable as shown in Figure 2.
2. Mount the BMTX frame mount to the adapter plate using the screws supplied.

**Note:** The BMTX frame mount will be mounted upside down compared to how it is oriented in an actual BMTX enclosure. This helps position the termination board on the right side for wiring.

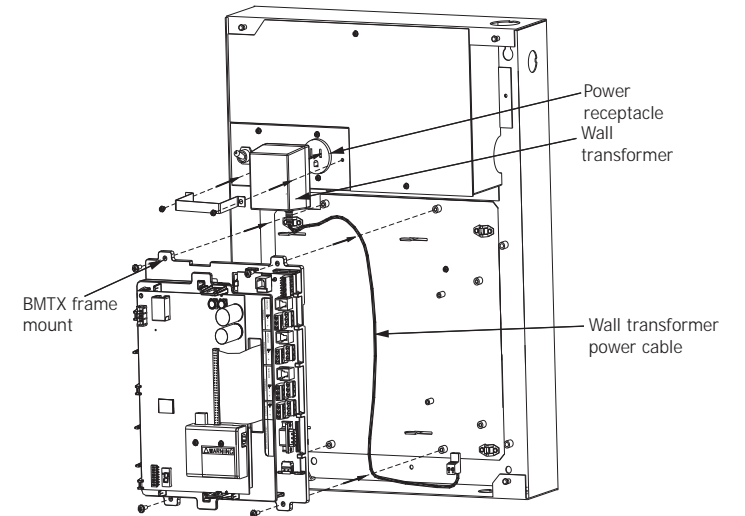
3. Unsnap and fold open the BMTX frame mount to access the grounding screw located just below the 60-pin ribbon cable (refer to Figure 3). Securely tighten the grounding screw.
4. Connect the comm link wire pairs that were removed earlier to the appropriate BMTX comm link terminals.
5. Connect the phone line (if present) that was removed earlier to the P10 jack.

**Note:** If the site requires a Tracer Summit Workstation, route the new Ethernet cable into the T100 enclosure and connect to the BMTX Ethernet port.

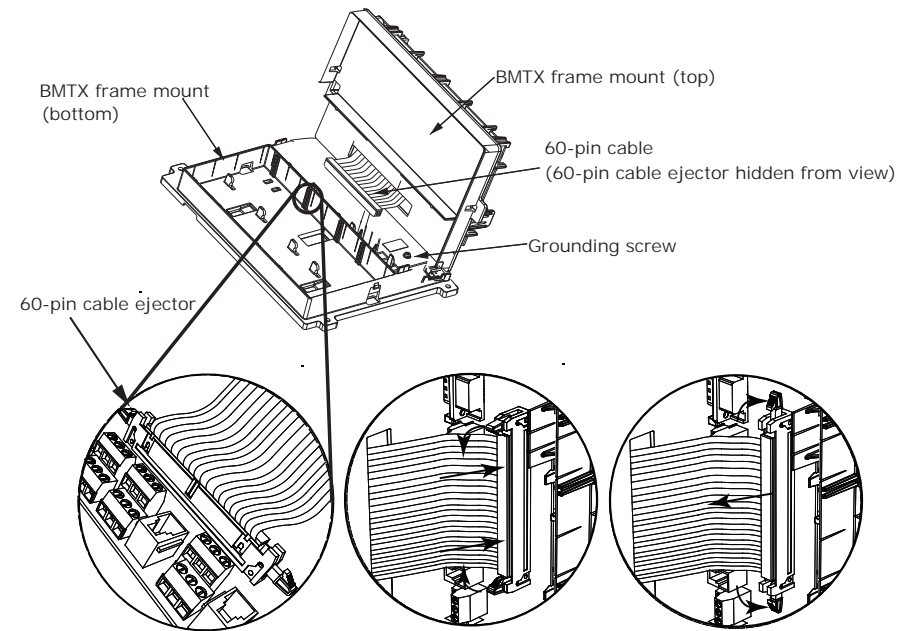
6. Connect the wall transformer power cable to the TB1 connector on the termination board (refer to Figure 4). This will cause the BMTX to turn on if the power is already connected. If not, connect the power at this time.
7. Observe the BCU seven-segment display on the logic board. It should count down from "8" and display a -P.

**7 Note: This will be displayed upside down.**

Figure 2. Installing the BMTX frame mount



**Figure 3. Accessing the grounding screw**



*Important:* Ensure that the slot keys are aligned when connecting the 60-pin cable to the 60-pin cable ejector as shown in the left inset above. When reconnecting, press down firmly on the 60-pin cable until the 60-pin cable ejector tabs collapse and snap over the ends of the cable. When disconnecting, the 60-pin cable ejector is designed to eject the 60-pin cable.

### Applying the Model Number Label

1. Apply the model number label onto the label placeholder located on the adapter plate as shown below in figure.
2. Replace the T100 enclosure cover. The BMTX BCU is now ready to be programmed for the site.

**Figure 4. Installing the BMTX frame mount**

