![TRANE®]

Installation Instructions

Tracer® BACnet® Terminator
Ordering Number: X13651524-01

Packaged Contents:
- Two (2) Tracer® BACnet® terminators.
- Two (2) wire cables with power connectors.
- One (1) copy of the installation instructions.

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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.

BACnet® Wiring Guidelines

- Use 18 AWG, 24 pF/ft, communication wire (Trane purple wire).
- BACnet® wiring must use daisy-chain configuration.
- Maximum length is 4,000 ft (1219 m).
- Maintain polarity across the BACnet® communication link.
- Limit each link to 60 controllers or 120 total controllers per Tracer® SC.
- All Tracer® SC BACnet® links must be properly terminated; use a BACnet® terminator at each end of the link.

Note: *Trane devices operate on BACnet® MS/TP (Multidrop serial bus/token passing) communication links. MS/TP is a type of local area network. It is wired using shielded twisted pair wire.*

BACnet® Link Configuration and Power Wiring

The Tracer® BACnet® terminator is a powered device that must be connected to either 24 Vac or 24 Vdc power.

Figure 1 illustrates valid daisy-chain configurations and Tracer® BACnet® terminator locations. Figure 2 illustrates the most common application, which is connecting to the IMC bus to power the module. Wire cables are supplied for this application.

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Note: *Refer to the label on the Tracer® BACnet® terminator for power requirements when connecting the Tracer® BACnet® terminator to non-Trane devices.*
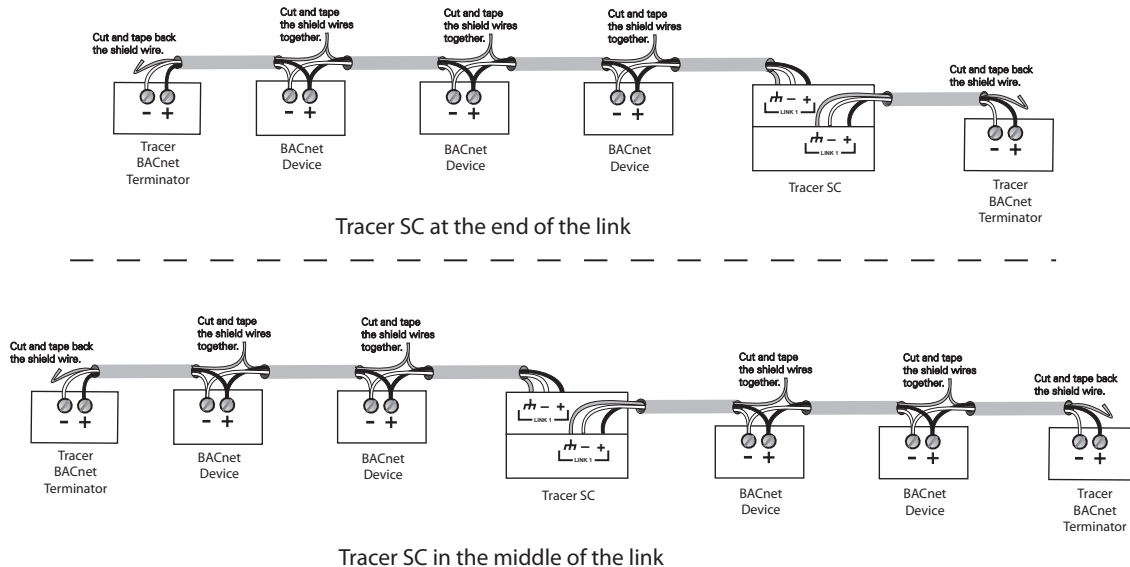
Communication Wiring

Follow these guidelines when installing communication wiring:

- The communication wire shield must be connected to the ground terminal of the link termination block at the Tracer® SC. The Tracer® SC provides the ground for the BACnet® link.
- It is best practice to tape back the shield conductor at the terminator and each end of the link as illustrated in Figure 1.

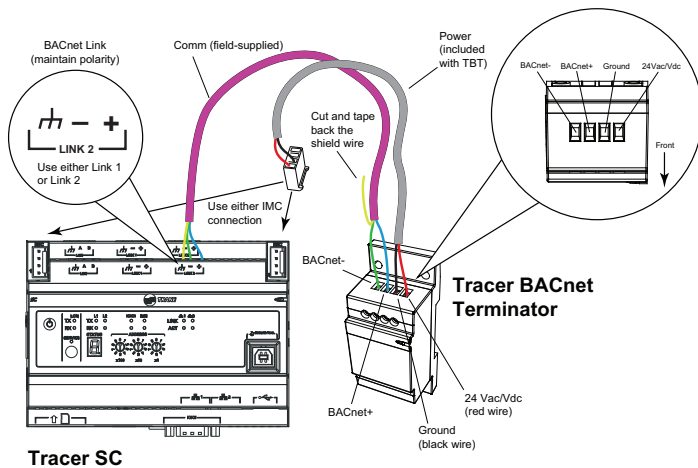***Important:*** *Never connect the shield conductor to ground at the Tracer® BACnet® terminator.*

- Tie shield conductors together and tape back at each BACnet® device between the Tracer® SC and the BACnet® terminator.
- BACnet® communication wiring can be terminated on LINK 1 or LINK 2 on the Tracer® SC.

Figure 1.   Communication link configurations for Tracer® SC and Tracer® BACnet® terminator

Tracer SC at the end of the link

Tracer SC in the middle of the link

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Figure 2. Tracer® BACnet® terminator connected to a Tracer® SC

Note: If an IMC terminal is not available when connecting to a BACnet® device, it may be necessary to install a 24 Vac power supply or run power from another 24 Vac or 24 Vdc source.

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Installation Options

The Tracer® BACnet® terminator can be installed onto a DIN rail or directly inside of an enclosure.

Option 1: Install the Tracer® BACnet® terminator onto a DIN rail

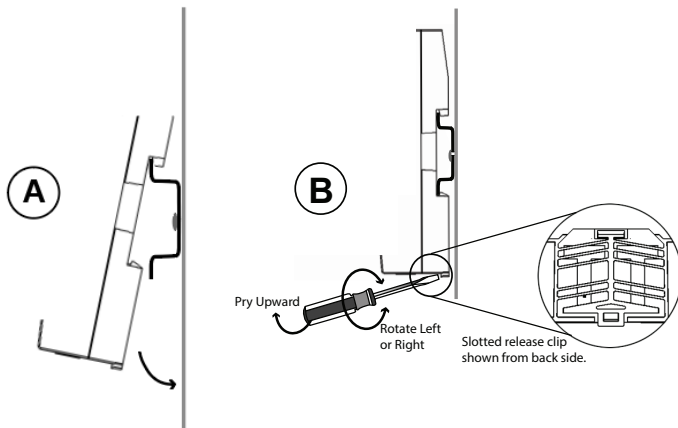| NOTICE |
| --- |
| **Equipment Damage!**
Do not use excessive force to install the Tracer® BACnet® terminator onto a DIN rail. Excessive force could result in damage to the plastic enclosure. |

To install the device:

1. Hook device over top of a DIN rail (see Figure 3).
2. Gently push on lower half of device in the direction of the arrow until the release clip snaps into place.

To remove or reposition the device:

1. Disconnect all connectors before removing or repositioning.
2. Insert screwdriver into slotted release clip and gently pry upward on the clip with the screwdriver (see Figure 3).
3. While holding tension on the clip, lift device upward to remove or reposition.
4. If repositioned, push on the device until the release clip snaps back into place to secure the device to the DIN rail.

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Figure 3. Installation: option 1

Option 2: Install the Tracer® BACnet® terminator inside an enclosure

Note: Two #8 pan-head sheet metal or two wood screws (3/4 to 1 in.) are required for installation.
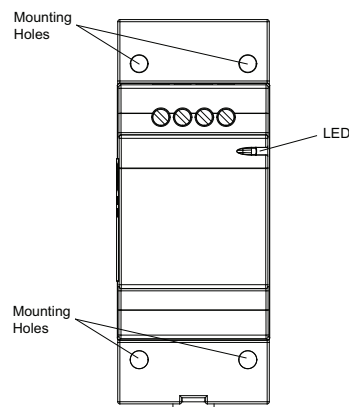
To install the device:

1. If necessary, mark and drill holes in the enclosure.
2. Drill holes suitable for #8 pan-head sheet metal or wood screws (3/4 to 1 in.).
3. Mount the device, matching the mounting holes with the predrilled holes in the enclosure.
4. Secure with screws.

   The Tracer® BACnet® terminator has four mounting holes. Only two screws are required for proper installation.

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Figure 4. Installation: option 2

Important: The LED on the front of the Tracer® BACnet® terminator indicates that the unit is powered. If the LED is not illuminated solid green, the device may not have been wired correctly.