Installing Tracer Summit® UCM Communication Cards
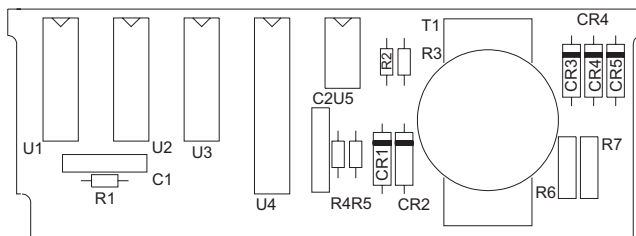
Types of UCM communication cards

This installation sheet describes the unit control module (UCM) communication options cards available and how to install them in the Tracer Summit building control unit (BCU) (BMTS), the modular BCU (BMTW), or the remote monitoring unit (RMU).

There are five types (options) of UCM communication cards available for various communications protocols. Each card supports a separate link of continuously scanned UCMs. The modular BCU (BMTW) and the RMU support all five options, but the BCU (BMTS) only supports options 1 through 4. In addition to supporting option 5, the modular BCU (BMTW) also supports four module slots versus only three on the BCU (BMTS). The next five sections provide specific information for each option.

Option 1: isolated Comm2 card

The isolated Comm2 card, shown in Figure 1, is used for unit control panel 1 (UCP1) communications only. This isolated link is used with UCP1 chillers (CVHE, CVAD, RTHA, and CVHB).
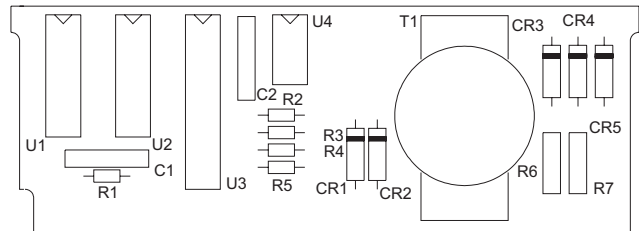
Figure 1: Isolated Comm2 UCM communication card, P/N 4020 0905, board no. 50100756—red

Option 2: isolated Comm3 card

The isolated Comm3 card, shown in Figure 2, is used for communications with programmable control modules (PCMs) and thermostat control modules (TCMs). This isolated communications link is presently used for most UCMs. For Tracer Summit Version 1, this link supports PCMs and TCMs.
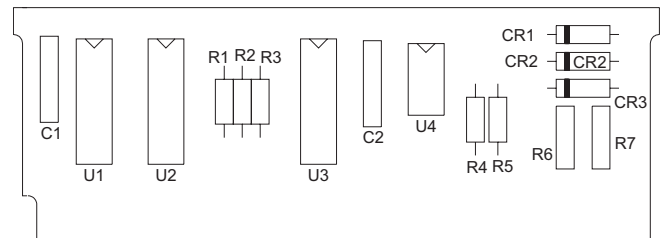
Figure 2: Isolated Comm3 UCM communication card, P/N 4020 0906, board no. 50100737—green

Option 3: non-isolated Comm3

The non-isolated Comm3 card, shown in Figure 3, is used only for variable air volume (VAV) applications. This non-isolated communications link is used for connecting Trane VAV UCM 1.
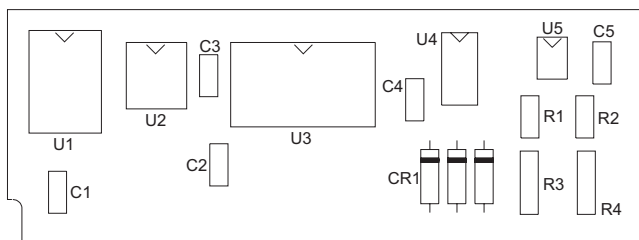
Figure 3: Non-isolated Comm3 UCM communication card, P/N 4020 0907, board no. 50100738—red

Option 4: non-isolated Comm4 card

The non-isolated Comm4 card, shown in Figure 4, is used for UCP2 and universal programmable control module (UPCM) communication.
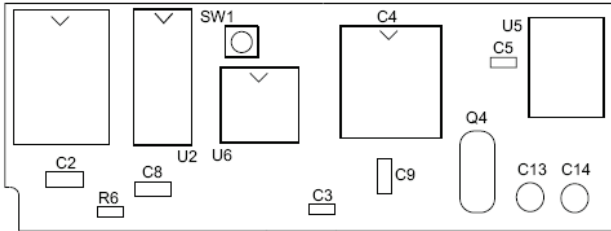
Figure 4: Non-isolated Comm4 UCM communication card, P/N 4020 0908, board no. 50100757—green

Option 5: Comm5 card

The Comm5 card, shown in Figure 5, is used for devices that communicate via the LonMark communication protocol (for example, ComfortLink 10, ComfortLink 20, ComfortLink loop controller).

Figure 5: Comm5 UCM communication card, P/N 4020 1124, board no. 50100857—green

The option cards fit into module slots P2, P3, P4, and P5 on the modular BCU (BMTW) logic board (see Figure 6). The BCU (BMTS)uses module slots P7, P8, and P9 (see Figure 7), and the RMU logic board uses slots P7 and P8 (see Figure 8). On all the boards, the UCM communication cards can be arranged in any order (except for Tracer® remote station (TRS) interface applications).

The BCU is shipped with these cards in place; it is pre-configured based on the model number used in the order. Refer to Figures 6, 7, and 8 for module slot positions and corresponding terminal block wiring connections.

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Note:
Before you begin, ensure that you have the correct UCM card by checking the part number on the label, the color of the card, and its physical characteristics with Figures 1 through 5.

To insert a card:

1. Align the card with the electronic components facing toward the bottom of the BCU, and then slowly insert the card into the module at a 45-degree angle until the card is seated.

2. Slowly move the card from the 45-degree angle to 0 degrees (horizontal), leaving the card perpendicular to the BCU or RMU logic boards (see Figures 6, 7, and 8).

3. Secure the card using the two clips on each side of the module.

Note:
To remove the card, release the two clips and reverse the insertion process.

⚠CAUTION:

Running input/output wires in the same conduit or wire bundle with any AC power wires could cause the BCU to malfunction due to electrical noise.
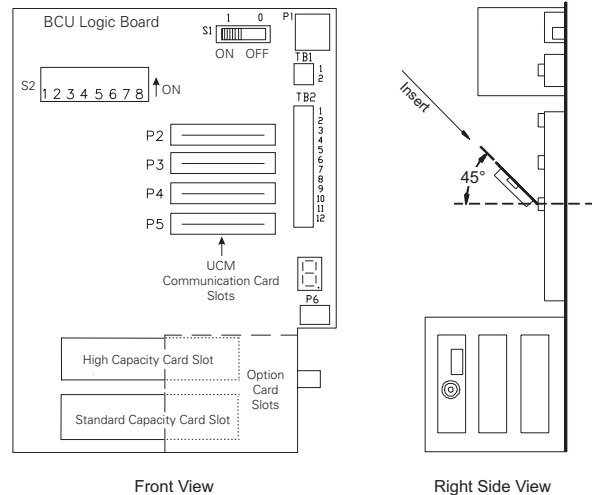
Figure 6: The modular BCU (BMTW) logic board

Front View   Right Side View

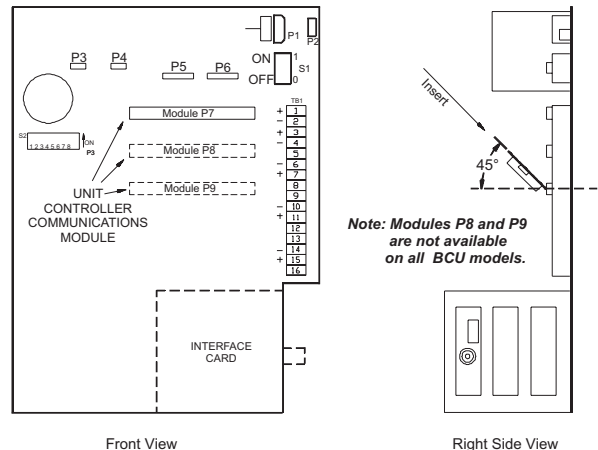**Figure 7:** The BCU (BMTS) logic board

Front View   Right Side View

Figure 8: The RMU logic board

Top Down View