

Complete the following steps to install a Conquest™ BAC-5051AE BACnet Router.

Refer to the **Conquest BAC-5051AE BACnet Router** data sheet for router specific information on the web at kmcccontrols.com.

INSTALL CONTROLLER

NOTE: Complete steps 1–2 to install the router with screws.
Complete steps 3–7 to install the router on a 35 mm DIN rail.

NOTE: Install the router in a metal UL approved energy management equipment panel.

1. Position the router so the removable color coded **terminal blocks** **1** are easy to access for wiring.

NOTE: The black terminals are for power. The gray terminals are for communication.

2. Screw a #6 sheet metal screw through the mounting tab of the DIN Latch on each end of the **router** **2**.

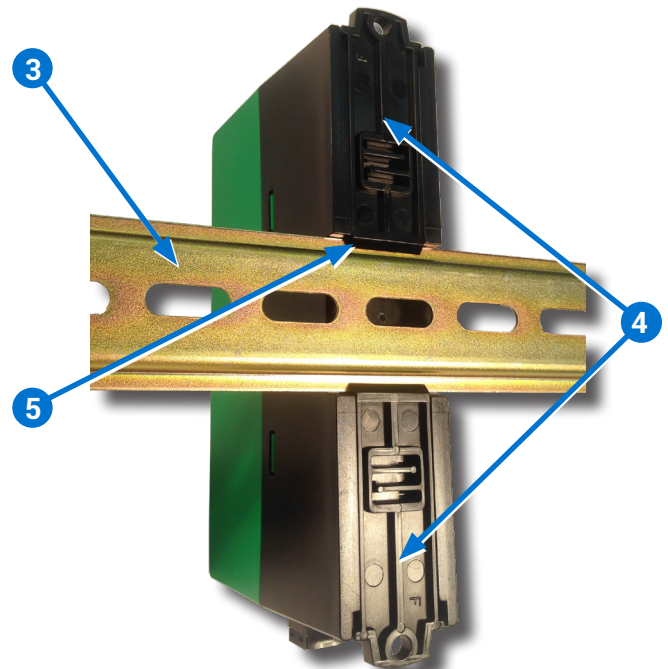


NOTE: Pull out each DIN Latch mounting tab one click to be 6 inches on center for mounting.

NOTE: Complete steps 3–7 to install the router on a 35 mm DIN rail.

3. Position the **DIN rail** **3** so that when the router is installed the color coded terminal blocks are easy to access for wiring.
4. Pull out one **DIN Latch** **4** until it clicks once.
5. Position the router so the top **tab** **5** of the DIN release rests on the DIN rail.
6. Lower the router against the DIN rail.
7. Push in both **DIN Latch** **4** to engage the DIN rail.

NOTE: To remove the router, pull the DIN Latch until it clicks once and lift the router off the DIN rail.



CONNECT ETHERNET NETWORK

- Connect an **Ethernet cable** or **cables** **6** to the **10/100 ETHERNET** port(s).



NOTE: Ethernet cable should be a CAT 5 or better and a maximum of 328 feet (100 meters) between devices.

CONNECT BACNET MS/TP NETWORK

- Wire the network to the **gray BACnet MS/TP terminal block** **7**.



NOTE: 18 gauge AWG shielded twisted pair cable with maximum capacitance of 51 picofarads per foot (0.3 meters) for all network wiring (Belden cable #82760 or equivalent).

- Connect the **-A** terminals in parallel with all other **-A** terminals on the network.
- Connect the **+B** terminals in parallel with all other **+B** terminals on the network.
- Connect the shields of the cable together at each device using a wire nut or the **S** terminal on the controllers.
- Connect the cable shield to a good earth ground at **one end only**.

NOTE: For principles and good practices when connecting an MS/TP network, see **Planning BACnet Networks (Application Note AN0404A)**.

SELECT END OF LINE (EOL)

NOTE: The EOL switch is shipped from KMC in the **ON** position.

- If the router is at either end of a BACnet MS/TP network, ensure that the **EOL switch** **8** is **ON**.

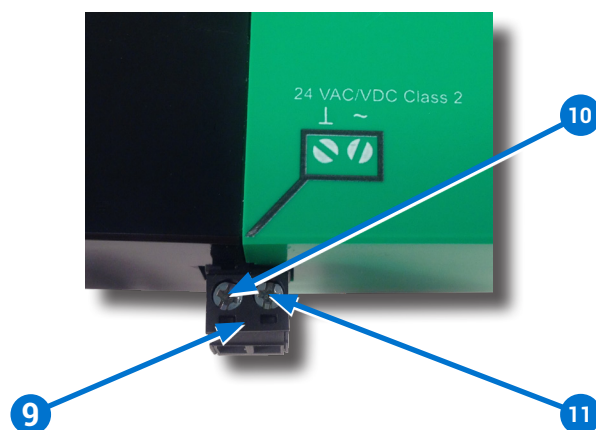
CONNECT POWER

NOTE: Follow all local regulations and wiring codes.

NOTE: Use either shielded connecting cables or enclose all cables in conduit to maintain RF emissions specifications.

NOTE: Connect a 24 VAC, Class-2 transformer capable of supplying 8 VA to the **black power terminal block** **9** of the router.

- Connect the neutral side of the transformer to the router's **common terminal** **10**.
- Connect the AC phase side of the transformer to the router's **phase terminal** **11**.



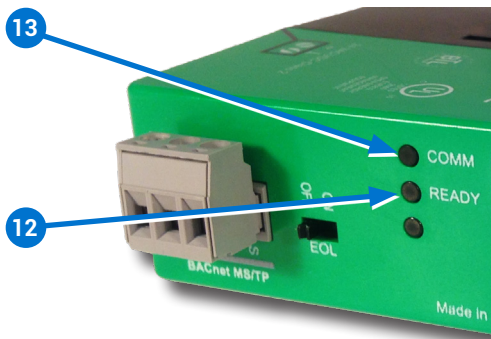
POWER & COMMUNICATION

The **status LEDs** indicate power connection and network communication.

NOTE: If neither the green READY LED nor the amber COMM LED is ON, check the transformer fuse, power, and connections to the router.

GREEN READY LED 12

- The green READY LED flashes once per second, indicating running.



AMBER BACnet MS/TP COMM LED 13

- The amber COMM LED flashes at a one-half-second rate when looking for other devices to pass the token.
- The amber COMM LED flickers as it receives and passes the token over the BACnet MS/TP network.

ETHERNET LEDs

The **Ethernet status LEDs** indicate network connection and communication speed.

NOTE: If neither the green Ethernet LED nor the amber Ethernet LED is ON, check the power and network cable connections.

GREEN ETHERNET LEDs 14

- A green Ethernet LED stays illuminated when the router is connected to the network.
- A green Ethernet LED is OFF when the router is not powered or not communicating with the network.

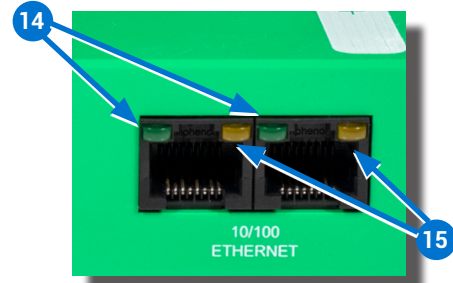
AMBER ETHERNET LEDs 15

- An amber Ethernet LED flashes when the router is communicating with the network.
- An amber Ethernet LED is OFF when the controller is communicating with the network at 10 Mbps.

ROUTER SET UP

Set up and configuration of the router is done through a web browser (Internet Explorer 9 or later or an HTML5 supported web browser) using the router's factory default IP address (192.168.1.252).

Refer to the **Application Guide** for information



on how to change the IP address and for more configuration information.

REPLACEMENT PARTS..... PART NUMBER

Replacement Pack of Conquest controller terminal blocks and DIN clips.....HPO-9901

IMPORTANT NOTICES



CAUTION: This electronic device is sensitive to ESD (electrostatic discharge) that can cause the device to stop communicating. Use proper static prevention when handling, installing or servicing.

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