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

Refer to the [Conquest BAC-5051E BACnet Router](#) data sheet for router specific information on the web at kmccontrols.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**.

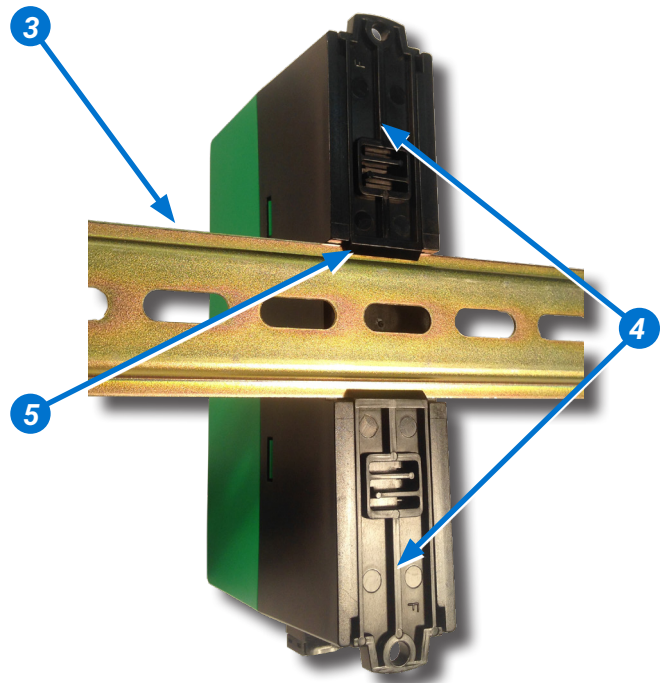


NOTE: Pull out each DIN Latch mounting tab one click to be 6 inches on center for mounting.

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 of the **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

8. Connect an **Ethernet cable** **6** to the **10/100 ETHERNET** port.



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

CONNECT BACNET MS/TP NETWORK

9. 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).

10. Connect the –A terminals in parallel with all other –A terminals on the network.
11. Connect the +B terminals in parallel with all other +B terminals on the network.
12. Connect the shields of the cable together at each device using a wire nut or the S terminal on the controllers.
13. 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 OFF position.

14. If the router is at either end of a BACnet MS/TP network, turn the **EOL switch** **8** to **ON**.

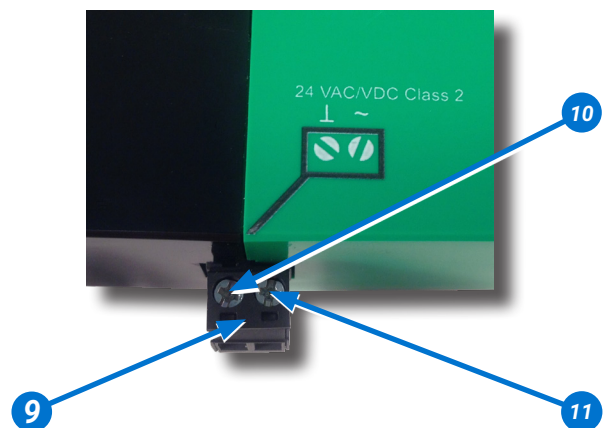
CONNECT POWER

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.

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



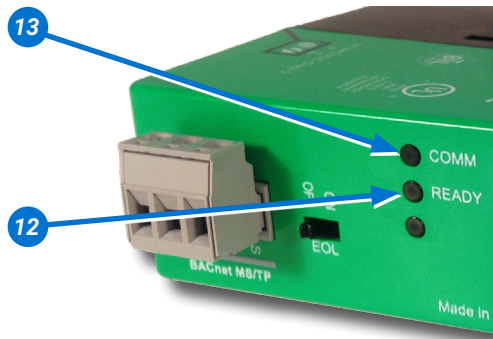
POWER & COMMUNICATION

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.

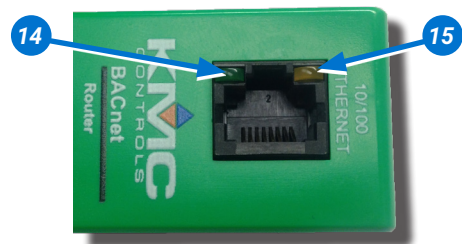
NOTE: If neither the green Ethernet LED nor the amber Ethernet LED is ON, check the power and network cable connections.

GREEN ETHERNET LED 14

- ◆ The green Ethernet LED stays lit when the router is connected to the network.
- ◆ The green Ethernet LED is OFF when the router is not powered or not communicating with the network.

AMBER ETHERNET LED 15

- ◆ The amber Ethernet LED flashes when the router is communicating with the network.
- ◆ The 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 version 9 or later or an HTML5 supported web browser) using the routers IP address (192.168.1.252).

Refer to the Router Application Guide for more configuration information.

REPLACEMENT PARTS PART NUMBER

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

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