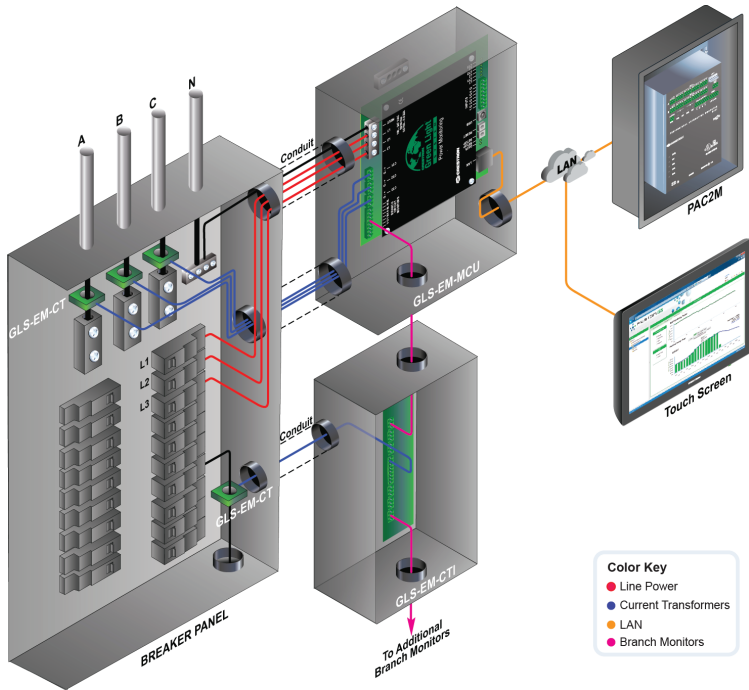




**Introduction**

The Crestron® GLS-EM-MCU must be connected to a breaker panel, control system, and other accessories in order to properly function. The diagram below illustrates the installation and wiring necessary for the GLS-EM-MCU to be connected to GLS-EM-CTs and GLS-EM-CTIs. Refer to the "Installation" and "Wiring" sections that follow for additional details.

**Typical Application Diagram**



**Additional Resources**

Visit the product page on the Crestron website ([www.crestron.com](http://www.crestron.com)) for additional information and the latest firmware updates. Use a QR reader application on your mobile device to scan the QR image.



**Installation**

Attach the GLS-EM-MCU to a mounting surface using four standard screws. Once the unit is properly secured to the mounting surface, the units must be properly wired.

**WARNING:** To avoid fire, shock, or death, turn off the power at the circuit breaker or fuse and test that the power is off before wiring!

**NOTES:** Observe the following points:

- Install and use this product in accordance with appropriate electrical codes and regulations.
- A licensed electrician should install this product.

**NOTE:** Before using the GLS-EM-MCU, ensure the device is using the latest firmware. Check for the latest firmware for the GLS-EM-MCU at [www.crestron.com/firmware](http://www.crestron.com/firmware). Load firmware onto the device using Crestron Toolbox™ software.

**Wiring**

The information that follows describes the necessary wiring for the GLS-EM-MCU to be connected to GLS-EM-CTs and GLS-EM-CTIs. It also describes the wiring to connect third-party pulse monitors.

**NOTE:** To prevent wire noise, make sure that the maximum distance between a GLS-EM-MCU or GLS-EM-CTI and a GLS-EM-CT does not exceed 50 feet (~16 meters).

**Run Power**

Run power from the line feeds of the breaker panel and connect to LINE 1, LINE2, and LINE 3 ports on the GLS-EM-MCU. Ensure that the current transformer connected to the first feed is connected to CT1 and the line power is connected to LINE 1. Repeat using the second and third feed entering the breaker panel.

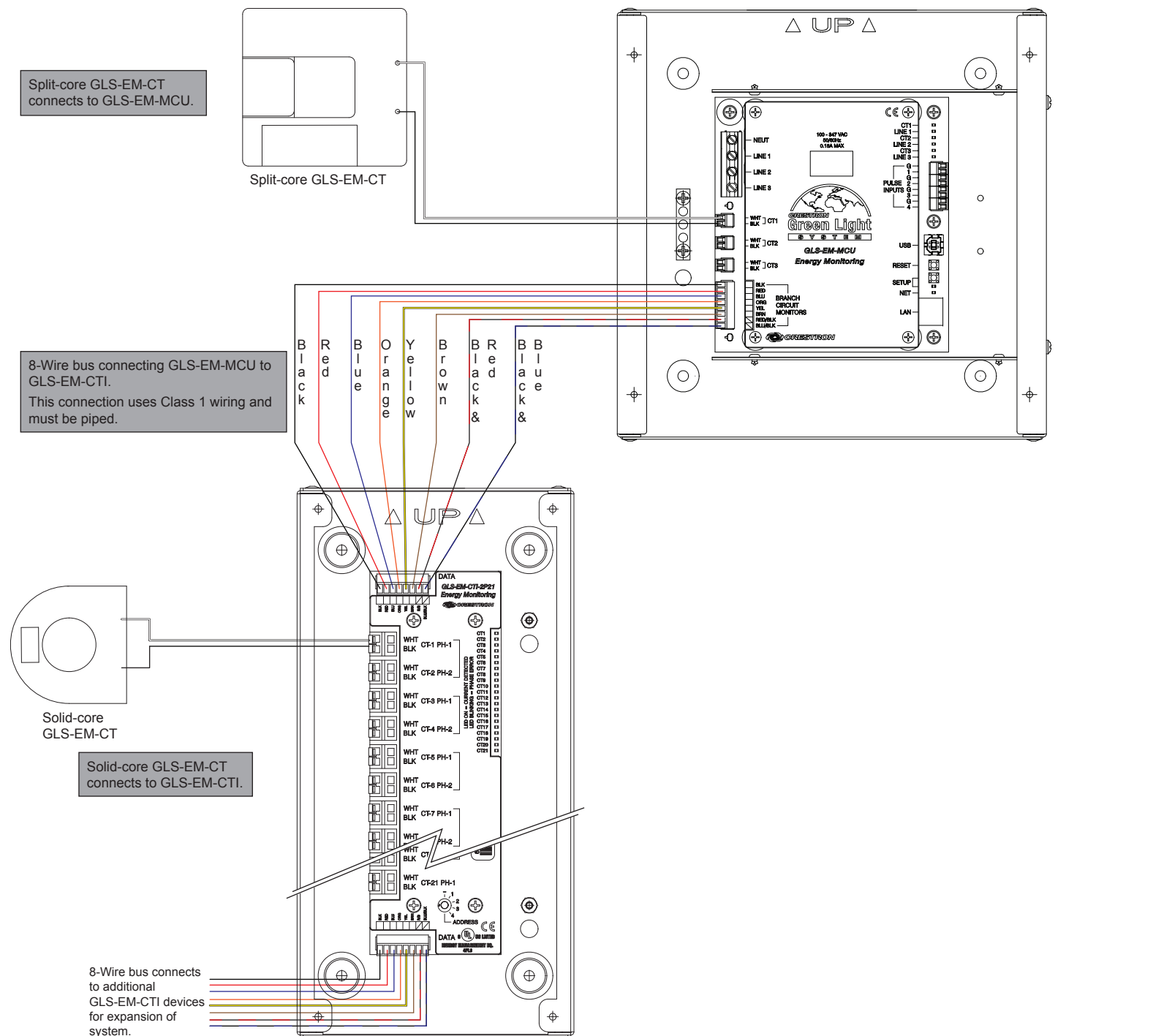
Connect the neutral connector on the breaker panel to the neutral (NEUT) port on the GLS-EM-MCU. Refer to the "Typical Application Drawing" for wiring details.

**Wire GLS-EM-CT Devices**

Connect the GLS-EM-CT devices to the CT1, CT2 and CT3 ports on the GLS-EM-MCU. Ensure that the white wire is connected to the port labeled WHT and the black wire is connected to the port labeled BLK. The appropriate CT1, CT2, or CT3 LED illuminates if properly wired. If the device is incorrectly wired, the respective LED blinks. Refer to the illustration that follows for details.

**Wire GLS-EM-CTI Bus and Passthrough (Optional)**

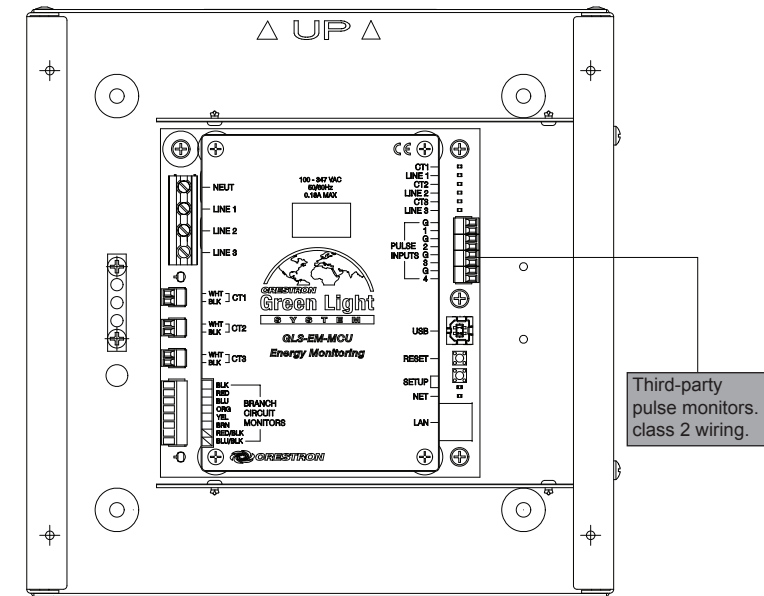
Use the supplied bus wire to connect the BRANCH CIRCUIT MONITORS port of the GLS-EM-MCU to the port of the GLS-EM-CTI. Ensure that the wires are connected to the proper terminals between the two units. If additional GLS-EM-CTIs are to be used, use the bus wire to connect up to four GLS-EM-CTI devices.



**Wire Third-Party Pulse Monitors**

Attach third-party pulse monitors to the ports labeled PULSE INPUTS 1 through 4.

**NOTE:** The pulse inputs have 10 kΩ, 3.3 Vdc, internal pull-ups.



**Connect to Control System**

The GLS-EM-MCU connects to a control system via an Ethernet LAN. Connect an Ethernet cable to the LAN port of the GLS-EM-MCU and the other end to the LAN or directly to a control system.

The product warranty can be found at [www.crestron.com/warranty](http://www.crestron.com/warranty).

The specific patents that cover Crestron products are listed at [patents.crestron.com](http://patents.crestron.com).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

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