



Current / Voltage Module Extended Range (CVMXR) for POWERLOGIC® Circuit Monitor Series 4000

INTRODUCTION

The current and voltage connections are housed in the separate current/voltage module extended range (CVMXR), which is attached by Allen-head screws and plugged into the circuit monitor at the factory. All metering data is acquired through this module, which allows up to 600 Vac direct connection. The CVMXR can detect and capture up to 100 amperes on directly connected loads for up to one second, or 20 amperes on directly connected loads continuously. The CVMXR is an IEC 60687 0.5S class module. Some applications for the CVMXR include motor starts or other events with large inrush current characteristics. This document describes how to replace the module.

The circuit monitor is calibrated in the factory at the time of manufacture and normally does not need to be recalibrated. However, in special cases where annual calibration is specified by the user, the module can be removed and sent to the factory for recalibration without removing the entire circuit monitor. If you need to do this, replace the module (part no. CVMXR) with a spare while the other is being calibrated.

SAFETY PRECAUTIONS

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, BURN, OR EXPLOSION

- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm that power is off.

Failure to observe these instructions will result in death or serious injury.

TOOLS REQUIRED

- 3 mm Allen wrench
- Phillips-head screwdriver

REPLACING THE MODULE

To remove and reinstall the module, follow these instructions and refer to Figure 1 on the back of this sheet.

1. If the circuit monitor is connected to power, turn OFF all power to the circuit monitor. To do this:
 - a. Disconnect the metered voltage by removing the fuses from the potential transformer (PT) or from the voltage disconnect.
 - b. Short circuit the current transformer (CT) secondaries to disconnect the metered current.
 - c. Remove the control power from the circuit monitor and to any I/O device.
 - d. Always use a properly rated voltage sensing device to confirm that power is off.
2. Remove the terminal cover by loosening its three M3 mounting screws.
3. Ensure that the voltage and current input wiring is labeled accurately.
4. Remove the voltage and current input wires.
5. Loosen the three Allen-head screws of the module until they disengage.

- Pull the module straight up until it disengages from the circuit monitor, as shown in Figure 1.

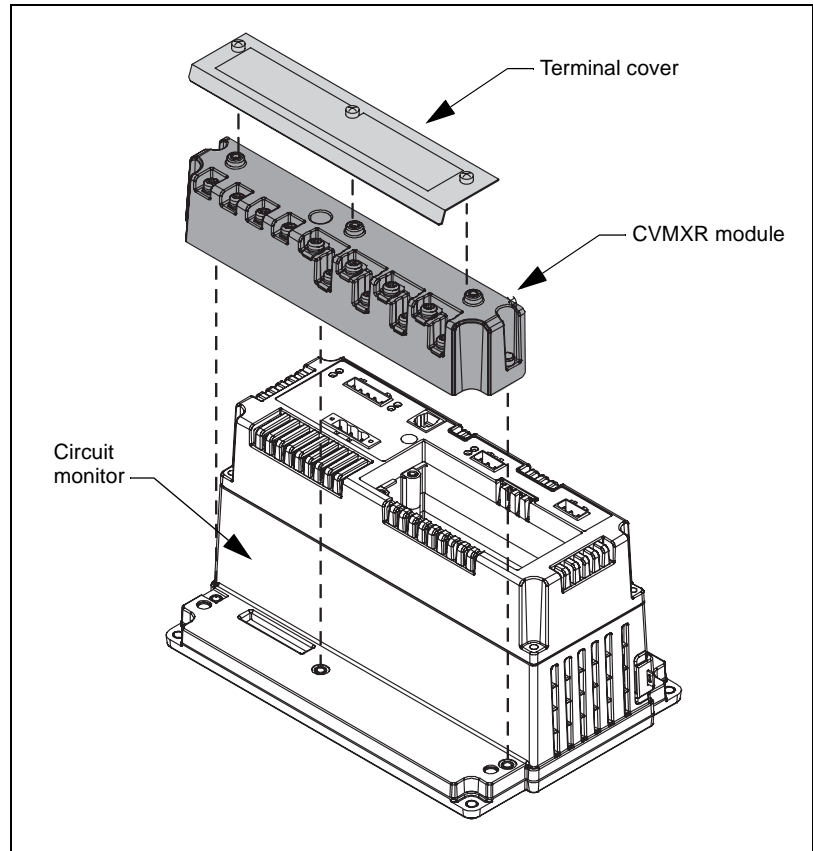


Figure 1: Removing and installing the module

- Align the replacement module with the mounting holes on the circuit monitor.
- Seat the module, and tighten the three Allen-head screws until snug.
- Reconnect the voltage and current input wires.
- Re-install the fuses to the PT, and reconnect the CT and PT leads.
- Re-install the terminal cover. Tighten the three M3 screws until snug (maximum torque 1–2 lbs/in [0.113–0.226 Nm]). Do not overtighten.
- Restore control power to the circuit monitor. To do this:
 - Reconnect control power to the circuit monitor and I/O devices.
 - Remove the short on the CT shorting block.
 - Re-install the voltage input fuses.
- Run the Wiring Error Test to verify that the module is wired properly. From the display Main Menu select Diagnostics > Wiring Error Test. For detailed instructions, refer to the installation manual that shipped with your circuit monitor.

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. This document is not intended as an instruction manual for untrained persons. No responsibility is assumed by Square D for any consequences arising out of the use of this manual.