

# CAEN-BLOCK-CENCN-2-POE

## Ethernet to Cresnet® Bridge for CAEN Automation Enclosures Installation & Operation Guide



### Description

The Crestron® CAEN-BLOCK-CENCN-2-POE is an Ethernet to Cresnet bridge that provides control with a Crestron Automation Enclosure (CAEN). The device is controlled and powered by LAN PoE (Power over Ethernet). The CAEN-BLOCK-CENCN-2-POE can control and power all modules in the cabinet and also the devices on the Cresnet network. *CAEN-BLOCK-CENCN-2-POE Specifications*

SPECIFICATION	DETAILS
Power	
Power over Ethernet	IEEE 802.3at Type 1 PoE and Type 2 PoE+ Powered Device; refer to "Minimum Power Ratings"
Cresnet Power	24 Vdc; refer to "Minimum Power Ratings"
Minimum Power Ratings	
Input Source	
PoE Class 0 (12.95 W) using an 802.3at Type 1 (or 802.3af) PSE	10 W Power to Load (NET B)
PoE+ Class 4 (25.5 W) using an 802.3at Type 2 PSE	20 W Power to Load (NET B)
24 Vdc Power Input*	75 W Power to Load (NET B)
Environmental	
Temperature	32° to 104 °F (0° to 40 °C)
Humidity	10% to 90% RH (noncondensing)
Enclosure	Metal, gray, surface-mount module with (2) integral mounting flanges; installs in a Crestron CAEN, CAEN-MLO, or CAENIB enclosure
Available Power Supplies** (sold separately)	PWE-4803RU CEN-SWPOE-16 CNPWS-75 CNPWSI-75

\* The 24 Vdc power supply must be capable of delivering 75 W to the load when plugged in alone or while in conjunction with the PoE or PoE+.

\*\* If another power supply is used, the power supply must be UL or cUL Listed or have equivalent NRTL certification with the minimum power ratings shown, have an LPS output, and be rated for use in an ambient temperature of 40 °C.

**NOTE:** The equipment is only to be connected to PoE networks without routing to outside plants.

### 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

**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!

**NOTE:** 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 CAEN-BLOCK-CENCN-2-POE, ensure the device is using the latest firmware. Check for the latest firmware for the CAEN-BLOCK-CENCN-2-POE at [www.crestron.com/firmware](http://www.crestron.com/firmware). Load the firmware onto the device using Crestron Toolbox™ software.

**NOTE:** Unless otherwise indicated, the lighting system specified in this guide is modular, requiring assembly in the field by a licensed electrician, in accordance with all national and local codes.

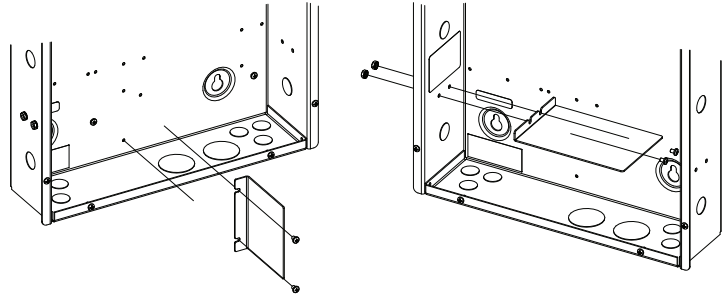
If an assembled UL Listed panel is required, Crestron offers this service through its UL Listed panel shop. This includes complete in-factory system configuration and assembly by Crestron for an additional fee.

### Replace the Divider

**NOTE:** Class 1 and Class 2 wiring must be separated. Ensure that the correct divider is used.

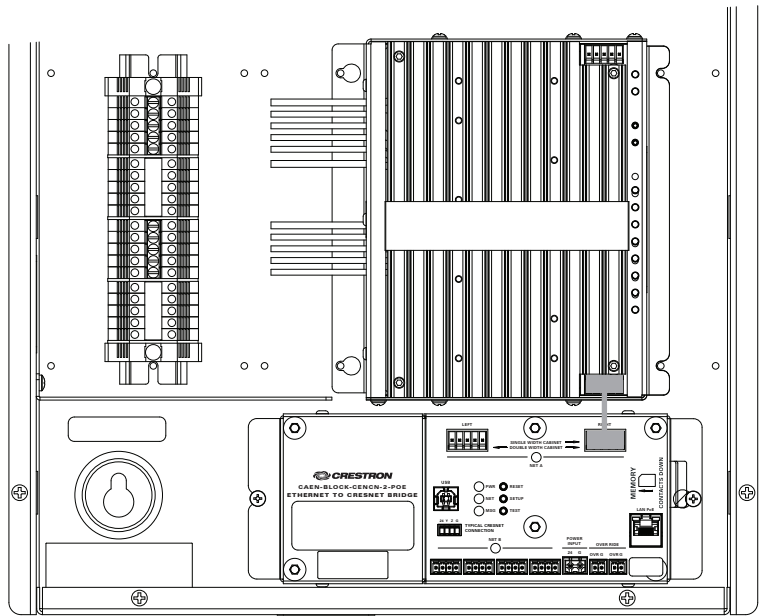
Replace the divider.

1. Remove the two screws that secure the divider in the enclosure. Discard the screws and the divider.
2. Using the supplied screws and nuts, secure the new divider to the side of the enclosure.

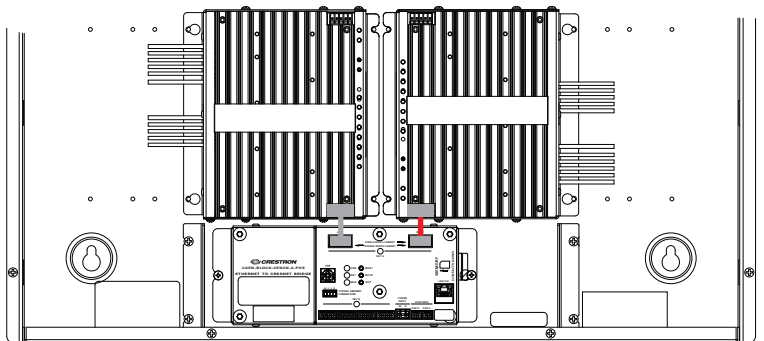


### Mount and Wire the CAEN-BLOCK-CENCN-2-POE

Mount the CAEN-BLOCK-CENCN-2-POE in accordance with all national and local codes. Use the two 8B x 1/4" screws, supplied, to attach the CAEN-BLOCK-CENCN-2-POE to an enclosure. The first illustration below shows the CAEN-BLOCK-CENCN-2-POE mounted in a single-wide enclosure; the second illustration shows the double-wide enclosure.

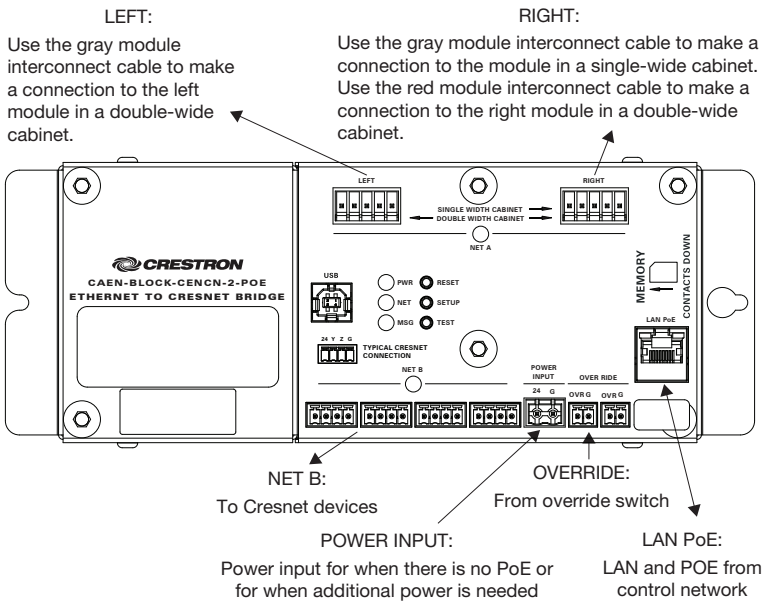


**NOTE:** When installing the CAEN-BLOCK-CENCN-2-POE in a single-wide enclosure, use the gray module interconnect cable to make the connection between the module and the RIGHT port on the CAEN-BLOCK-CENCN-2-POE.



**NOTE:** When installing the CAEN-BLOCK-CENCN-2-POE in a double-wide enclosure, use the red module interconnect cable to make the connection between the right module and the RIGHT port on the CAEN-BLOCK-CENCN-2-POE. Use the gray module interconnect cable to make the connection between the left module and the LEFT port on the CAEN-BLOCK-CENCN-2-POE.

Make connections as called out in the following illustration.



## Operation

The following describes the basic operation of the CAEN-BLOCK-CENCN-2-POE.

### TEST Button

Press the TEST button to perform a hardware test of the device. The device reports errors via blink patterns. The device displays error codes using the NET or MSG LED on the interface. The LED blinks a specific pattern to indicate an error.

For example, when a 3-3 LED blink pattern occurs, the LED blinks three times, pauses for 1 second, blinks three times, pauses for 5 seconds, and then repeats until the error is corrected. When a 2-1 LED blink pattern occurs, the LED blinks two times, pauses for 1 second, blinks once, pauses for 5 seconds, and then repeats this code until the error is corrected.

#### NET LED Feedback

LED PATTERN	ERROR STATE
Error code 1-1	Broken Y Wire
Error code 1-2	Short to 24 V and Y
Error code 1-3	Short to Ground and Y
Error code 2-1	Broken Z Wire
Error code 2-2	Short to 24 V and Z
Error code 2-3	Short to Ground and Z
Error code 3-1	Short Y to Z
Error code 3-2	Y and Z crossed
Error code 3-3	Y and Z unbalanced

#### MSG LED Feedback

LED PATTERN	ERROR STATE
Error code 1-1	Com issue Ethernet
Error code 1-2	Com issue NET A
Error code 1-3	Com issue NET B
Error code 2-1	Com issue Ethernet and Cresnet
Error code 2-2	POE low voltage
Error code 2-3	EXT 24V low voltage
Error code 3-1	Overload NET A
Error code 3-2	Overload NET B
Error code 3-3	Overload NET A and NET B

### SETUP Button

Press the SETUP button to enter Autodiscovery mode via Ethernet.

### RESET Button

Press the RESET button to perform a hardware reset.

This product is Listed to applicable UL® Standards and requirements tested by Underwriters Laboratories Inc.

Ce produit est homologué selon les normes et les exigences UL applicables par Underwriters Laboratories Inc.



#### Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:(1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

**CAUTION:** Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### Industry Canada (IC) Compliance Statement

CAN ICES-3(B)/NMB-3(B)

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).

Crestron, the Crestron logo, Cresnet, and Crestron Toolbox are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. UL and the UL logo are either trademarks or registered trademarks of Underwriters Laboratories, Inc. in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

This document was written by the Technical Publications department at Crestron.

©2017Crestron Electronics, Inc.

Crestron Electronics, Inc.  
15 Volvo Drive Rockleigh, NJ 07647  
Tel: 888.CRESTRON  
Fax: 201.767.7576  
[www.crestron.com](http://www.crestron.com)

Installation & Operation Guide - DOC. 7873C  
(2047083)  
03.17

Specifications subject to  
change without notice.