DIN-CENCN-2/DIN-CENCN-2-POE
Ethernet to Cresnet® Bridge

QUANTITY	PRODUCT	PART NUMBER
12	Connector, 4-Pin	2020555
2	Connector, 2-Pin	2003574

DO Install the Device

1. Place the top of the DIN-CENCN-2's rail mount over the top of the DIN rail.

2. Tilt the bottom of the DIN-CENCN-2 toward the DIN rail until it snaps into place.

NOTE: When mounting DIN rail products, it may be necessary to use a flat-head screwdriver to pull the DIN rail release tab while snapping the device onto the DIN rail.

NOTE: Certain third-party DIN cabinets provide space for an informational label between each DIN rail row. Crestron's Engraver software (version 4.0 or later) can generate appropriate labels for all Crestron DIN rail products.

Top

DIN Rail
(Not Supplied)
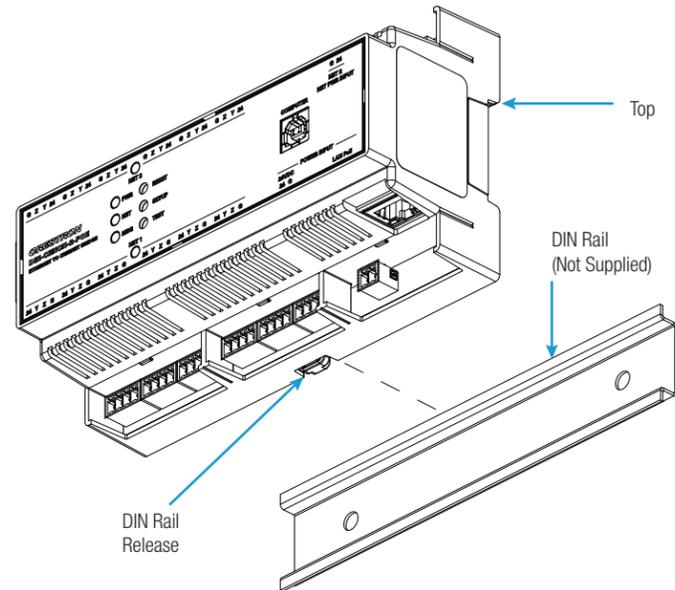
DIN Rail
Release

NOTE: To remove the DIN-CENCN-2 from the DIN rail, use a small, flat object (i.e., a flat-head screwdriver) to pull the DIN rail release and tilt the bottom of the DIN-CENCN-2 away from the DIN rail.

DO Make Connections

The DIN-CENCN-2 has two Cresnet® subnets (NET 1 and NET 2) that consist of six 24 Y Z G connections. Each subnet is able to handle 20 Cresnet devices. Each subnet can independently assign NET ID 3 to 22. Having two separate subnets prevents under-power, mis-wire, or slow performance problems. This bridge alleviates these problems by limiting the number of devices per subnet, providing diagnostic capability, and providing a high speed backbone to the processor to limit latency.

Make the necessary connections. Apply power after all connections have been made.

WARNING: Prior to connecting the device, turn off the power at the circuit breaker. Failure to do so may result in serious personal injury or damage to the device. Restore power after all connections have been made.

CAUTION: Connecting this device to the wrong type of load or short-circuiting the load can cause severe product damage. Each load should be tested to identify a short-circuit condition prior to wiring the load to the module.
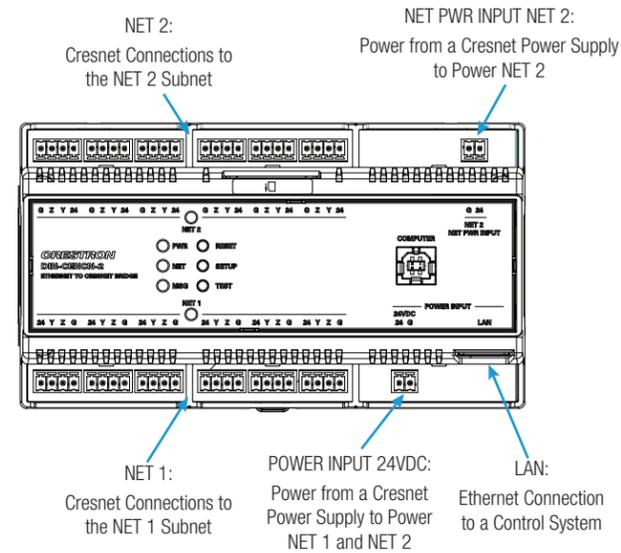
NOTE: Use copper wire only.

When making NET 1, NET 2, 24VDC POWER INPUT, and NET 2 NET PWR INPUT connections, strip the ends of the wires approximately 7/16 in (11 mm). Use care to avoid nicking the conductors. Tighten the connector to 5 in-lb (0.5 to 0.6 N-m). The wire gauge should be 14 to 26 AWG.

When making power connections to the DIN-CENCN-2, use a Crestron power supply.
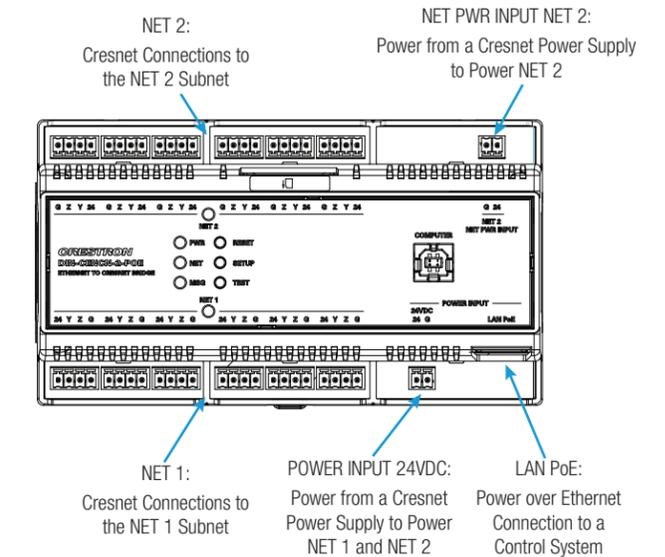
Hardware Hookup

NET 2:
Cresnet Connections to
the NET 2 Subnet

NET PWR INPUT NET 2:
Power from a Cresnet Power Supply
to Power NET 2

NET 1:
Cresnet Connections to
the NET 1 Subnet

POWER INPUT 24VDC:
Power from a Cresnet
Power Supply to Power
NET 1 and NET 2

LAN:
Ethernet Connection
to a Control System

Hardware Hookup with LAN PoE

NET 2:
Cresnet Connections to
the NET 2 Subnet

NET PWR INPUT NET 2:
Power from a Cresnet Power Supply
to Power NET 2

NET 1:
Cresnet Connections to
the NET 1 Subnet

POWER INPUT 24VDC:
Power from a Cresnet
Power Supply to Power
NET 1 and NET 2

LAN PoE:
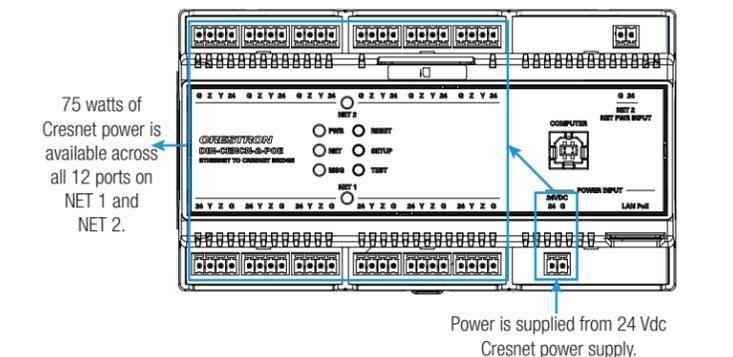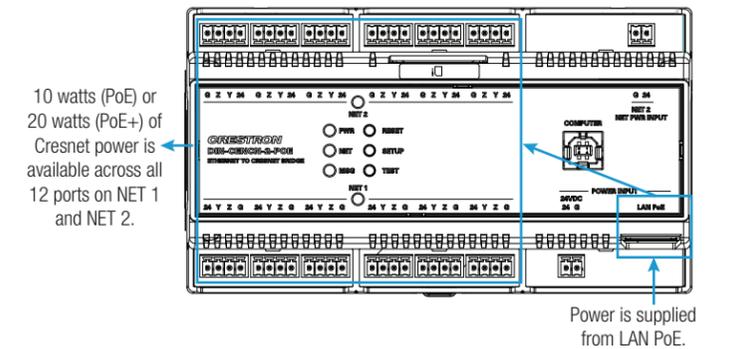Power over Ethernet
Connection to a
Control System

DO Connect Power

The DIN-CENCN-2 passes power from the connected power supply to the NET 1 and NET 2 segments. The DIN-CENCN-2 receives power through any connection to the POWER INPUT 24VDC, NET 2 NET POWER INPUT, or LAN PoE (if available); power usage of the DIN-CENCN-2 does not affect power output to NET 1 and NET 2.

If the power usage of the connected devices exceeds the specifications below, the DIN-CENCN-2 disconnects power.

- When powered by PoE Class 0 only, no 24 Vdc Cresnet power supplies are connected, and there is 10 watts of Cresnet power available across all ports on NET 1 and NET 2. The total Cresnet load across all NET 1 and NET 2 ports combined cannot exceed 10 watts.

- When powered by PoE+ Class 4 only, no 24 Vdc Cresnet power supplies are connected, and there is a total of 20 watts of Cresnet power available across all ports on NET 1 and NET 2. The total Cresnet load across all NET 1 and NET 2 ports combined cannot exceed 20 watts.

- If a single 75 watt 24 Vdc Cresnet power supply is connected to the 24VDC POWER INPUT, then there is a total of 75 watts of Cresnet power available across all ports on NET 1 and NET 2. The total Cresnet load across all NET 1 and NET 2 ports combined cannot exceed 75 watts.

10 watts (PoE) or
20 watts (PoE+) of
Cresnet power is
available across all
12 ports on NET 1
and NET 2.

Power is supplied
from LAN PoE.

75 watts of
Cresnet power is
available across
all 12 ports on
NET 1 and
NET 2.

Power is supplied from 24 Vdc
Cresnet power supply.

- If two separate 75 watt 24 Vdc Cresnet power supplies are connected, one to the 24VDC POWER INPUT and the other to the NET 2 NET PWR INPUT, then there is 75 watts of Cresnet power available across all ports on NET 1, and 75 watts of Cresnet power available across all ports on NET 2. The total Cresnet load across all ports on NET 1 cannot exceed 75 watts, and the total Cresnet load across all ports on NET 2 cannot exceed 75 watts.

Power is supplied from 24 Vdc Cresnet power supply.

75 watts of Cresnet power is available across all 6 ports on NET 2.

75 watts of Cresnet power is available across all 6 ports on NET 1.

Power is supplied from 24 Vdc Cresnet power supply.
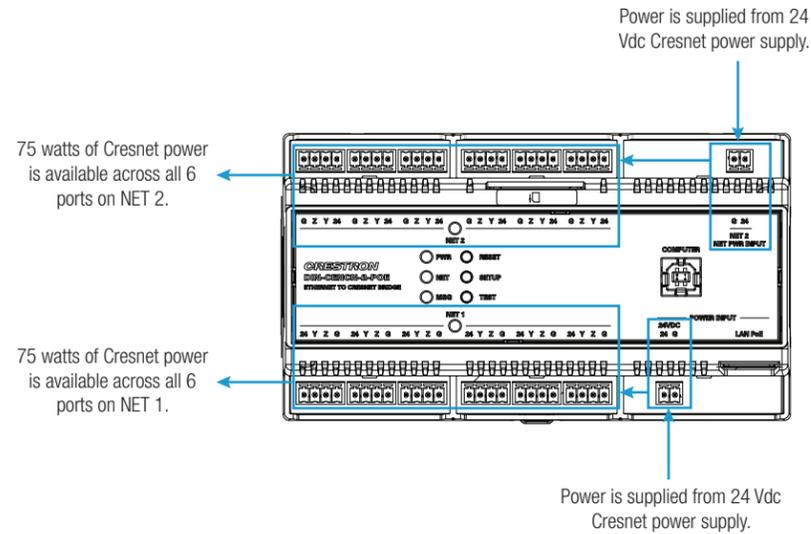
- If a single 75 watt 24 Vdc Cresnet power supply is connected to the NET 2 NET PWR INPUT, with no power supply connected to the 24VDC POWER INPUT, then there is 75 Watts Cresnet power available across all ports on NET 2 only. If, in addition, a PoE or PoE+ power source is connected to the LAN PoE POWER INPUT port, then there is 10 watts (PoE) or 20 watts (PoE+) Cresnet power available across all ports on NET 1.

Power is supplied from 24 Vdc Cresnet power supply.

75 watts of Cresnet power is available across all 6 ports on NET 2.

10 watts (PoE) or 20 watts (PoE+) of Cresnet power is available across all 6 ports on NET 1.

Power is supplied
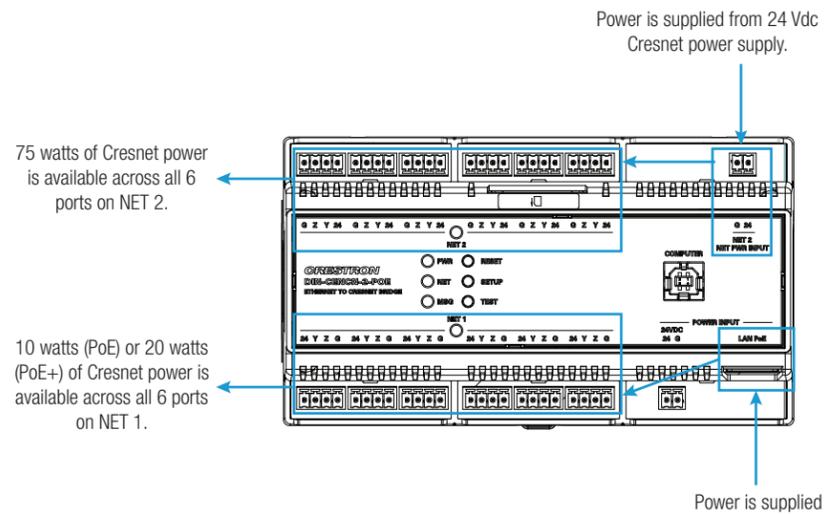
DO Perform Functions

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	Y Short to 24V
Error code 1-3	Y Short to Ground
Error code 2-1	Broken Z Wire
Error code 2-2	Z Short to 24V
Error code 2-3	Z Short to Ground
Error code 3-1	Z Short to Y
Error code 3-2	Y and Z crossed

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.

DO Learn More

Visit the website for additional information and the latest firmware updates. To learn more about this product, use a QR reader application on your mobile device to scan the QR image.

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DOC. 7702A (2044595) 09.15
Specifications subject to change without notice.