

Universal Wireless Gateway - ER, SG, and infiNET EX® Wireless Networks

The CEN-GW1 and CENI-GW1 are universal wireless gateways that communicate with Crestron® SG (Sub GHz), ER (Extended Range), and infiNET EX® wireless devices. A single CEN-GW1 creates SG, ER, and infiNET EX® wireless networks to facilitate 2-way communication between a Crestron® control system and a network of Crestron wireless remotes, keypads, lighting dimmers, motorized shades, thermostats, door locks, and other wireless devices.

NOTE: The CEN-GW1 and CENI-GW1 are functionally similar. For simplicity within this guide, the term "CEN-GW1" is used except where noted.

The CEN-GW1 is powered via PoE (Power over Ethernet) or with an optional power pack ([PW-2407WU](#), sold separately).



In the Box

- 1 CEN-GW1 or CENI-GW1, Universal Wireless Gateway
- Additional Items**
- 1 Bracket, Mounting, Integrated DIN Rail Clip (4519035)
- 1 Antenna, EX/ER, 2.4 GHz, 1/4 Wave, Reverse Polarity, Female (2001016)
- 1 Cable, Ethernet, CAT5e, 5 ft (1.52 m) (2022311)
- 2 Screw, 6-32 x 3/8 in., Pan Head, Phillips (2007225)

CEN-GW1 Only

- 1 Antenna with Yellow Stripes, SG, 916 MHz, 1/2 wave, Reverse Polarity, Female (2055721)

CENI-GW1 Only

- 1 Antenna with Gray Stripes, SG, 868 MHz, 1/2 wave, Reverse Polarity, Female (2055720)



Determine the Installation Location

Install the CEN-GW1 in a location that will provide optimum performance. Consider the following when determining the installation location:

NOTE: For additional information, refer to the [Installation and Setup of Crestron RF Products Best Practices Guide \(Doc. 6689\)](#).

- Place the gateway at least 15 ft (4.6 m) from other SG (Sub GHz), infiNET EX gateways, Crestron ER gateways, or Wi-Fi® access points.
- Place multiple gateways on different RF channels.
- Place the gateway at least 6 ft (1.8 m) from the nearest Bluetooth® device.

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Installation

Install the CEN-GW1 on a wall, DIN rail, rack, or pole.

- **Wall:** [Wall](#)
- **DIN Rail:** [DIN Rail](#)
- **Rack:** To install in a rack, use the [RMK-IFE-1U](#) (sold separately).
- **Pole:** To install on a pole, use the [PLMK-IFE-101](#) (sold separately).

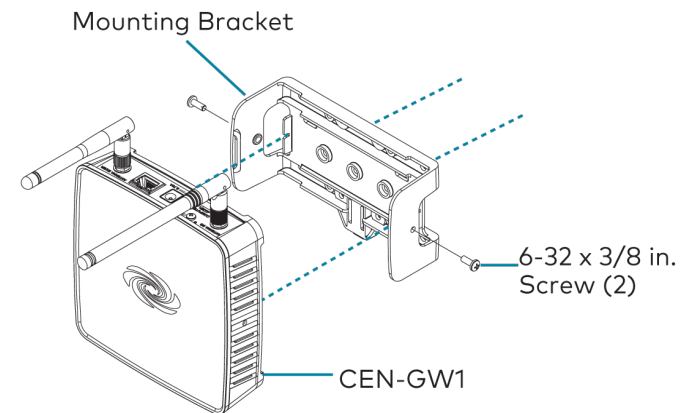
NOTES:

- This product must be installed and used in accordance with appropriate electrical codes and regulations.
- This product must be installed by a qualified electrician.

Wall

To mount the CEN-GW1 to a wall:

1. Secure the mounting bracket to a vertical, flat wall using screws that are appropriate for the wall material (not included).
2. Insert the CEN-GW1 into the mounting bracket until it snaps into place.
3. Secure the CEN-GW1 to the mounting bracket. Insert a 6-32 x 3/8 in. screw into each side of the mounting bracket and tighten using a Phillips screwdriver.



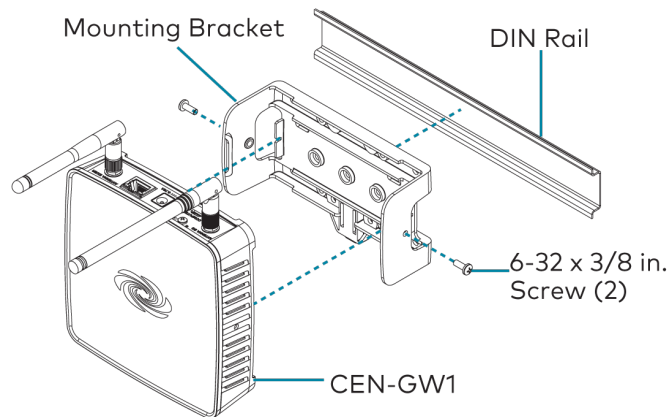
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DIN Rail

To mount the CEN-GW1 to a DIN rail:

1. Hang the mounting bracket on the top of the DIN rail and press the bottom toward the DIN rail until it snaps into place.
2. Insert the CEN-GW1 into the mounting bracket until it snaps into place.
3. Secure the CEN-GW1 to the mounting bracket. Insert a 6-32 x 3/8 in. screw into each side of the mounting bracket and tighten using a Phillips screwdriver.

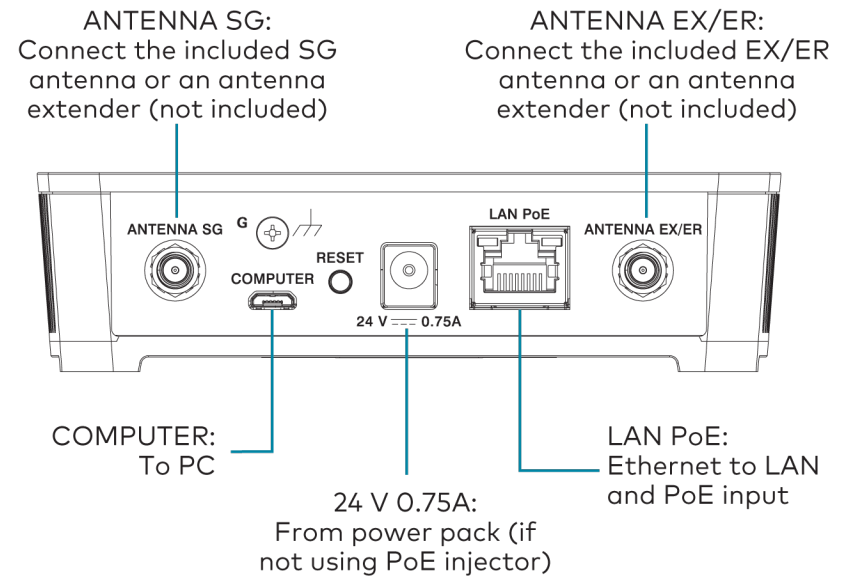
NOTE: Do not use the included screws to mount the bracket to the bottom of the CEN-GW1. Doing so will prevent removal of the CEN-GW1 from the DIN rail.



Make Connections

Make the Power, Ethernet, and Antenna connections.

Turn on power to the CEN-GW1 after all connections have been made. Use Crestron power supplies for Crestron equipment.



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PoE Connection

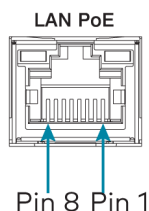
Use a PoE switch ([CEN-SW-POE-5](#) or [CEN-SWPOE-16](#)) or injector ([PWE-4803RU](#)) (all sold separately) to provide power and Ethernet communications.

To connect using a PoE connection:

1. On the CEN-GW1, connect the CAT5e cable to the **LAN PoE** port.
2. On the PoE switch or injector, connect the other end of the CAT5e cable to a **PoE** port.

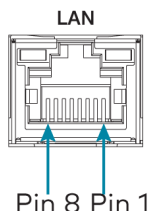
NOTE: Arrows denote internal pin assignments of the **LAN PoE** and **LAN** ports.

LAN PoE Pin Assignment



Pin	Signal
1	Data Pair 1
2	Data Pair 1
3	Data Pair 2
4	+ VDC
5	+ VDC
6	Data Pair 2
7	- VDC
8	- VDC

LAN Pin Assignment



Pin	Signal
1	Data Pair 1
2	Data Pair 1
3	Data Pair 2
4	No Connection
5	No Connection
6	Data Pair 2
7	No Connection
8	No Connection

Separate Power and Ethernet Connections

Use a wall-mount power pack ([PW-2407WU](#), sold separately) to provide power and the CAT5e cable for Ethernet communications.

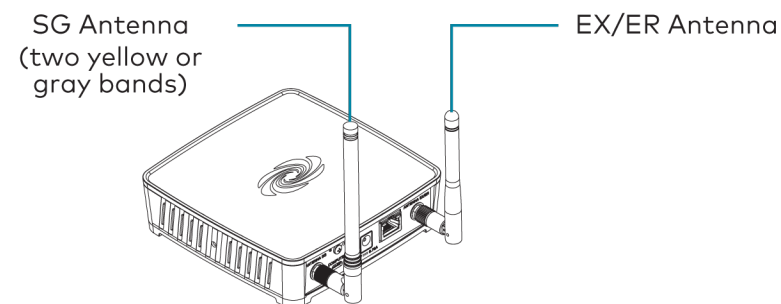
To connect using separate power and Ethernet connections:

1. On the CEN-GW1, connect the power pack to the **24 V 0.75A** port.
2. On the CEN-GW1, connect the CAT5e cable to the **LAN PoE** port.
3. Connect the other end of the CAT5e cable to a LAN port on a network switch.

Antenna

To connect the antennas:

- Attach the EX/ER antenna to the ANTENNA EX/ER connector. The EX/ER antenna is shorter than the SG antenna.
- Attach the SG antenna to the ANTENNA SG connector. The SG antenna has two yellow (CEN-GW1) or gray (CENI-GW1) bands around the top and is longer than the EX/ER antenna.



To extend an antenna, use [ANT-EXT-10](#) (sold separately).

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Assign the RF Channel

Before use, assign an RF channel for SG wireless communications and an RF channel for infiNET EX and ER wireless communications. To select the best RF channel, perform an energy scan. For details, refer to [Settings](#) in the product manual.

To assign the RF channel on the gateway, use the Web UI or the EasyConfig tool in Crestron Toolbox™ software. For details, refer to [Configure the Gateway](#) or [Crestron Toolbox Help](#).

When selecting an RF channel for SG wireless communications, consider the following:

- Each SG wireless gateway in the space must use a different RF channel.
- SG devices set their RF channel to match the RF channel set on the gateway. If the SG RF channel on the gateway is changed, the SG device automatically updates its RF channel to match the gateway.
- SG devices do not operate within the Wi-Fi® wireless spectrum.

When selecting an RF channel for infiNET EX® and ER wireless communications, consider the following:

- infiNET EX and ER wireless communications use the same RF channel.
- The default and recommended RF channel is 15.
- infiNET EX devices set their RF channel to match the RF channel set on the gateway. If the infiNET EX and ER RF channel on the gateway is changed, the infiNET EX device automatically updates its RF channel to match the gateway.
- ER devices must have their RF channel assigned manually prior to joining the network. If the infiNET EX and ER RF channel on the gateway is changed, the ER device must have its RF channel manually changed to match the gateway.

- infiNET EX and ER operate within the Wi-Fi® wireless spectrum. For best performance, do not select an RF channel that is within a Wi-Fi channel. Refer to the table below for details.

RF Channel(s)	Within Wi-Fi Channel	Adjacent to Wi-Fi Channel
11 - 14	1	-
15 (Default, Recommended)	-	1, 6
16 - 19	6	-
20 (Recommended)	-	6, 11
21 - 24	11	-
25	-	11
26	-	-

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Acquire Devices

Crestron SG, infiNET EX, and ER devices communicate with a CEN-GW1 after they are acquired by the gateway. A device can be acquired by only one gateway.

NOTES:

- Prior to acquiring devices, assign the RF channel on the gateway using the Web UI or the EasyConfig tool in Crestron Toolbox™ software. For details, refer to [Configure the Gateway](#) or [Crestron Toolbox Help](#).
- Before adding ER devices, set the RF channel on the device to match the channel assigned to the gateway.
- After turning on the CEN-GW1, wait 15 seconds before entering **Acquire** mode.
- In an environment with multiple gateways, only one gateway should be in **Acquire** mode at a time.
- Enter **Acquire** mode on the gateway before entering **Acquire** mode on the device.

To acquire an SG, infiNET EX, or ER device:

NOTES:

- If the gateway is part of a Crestron Home™ OS system, the Crestron Home Setup app must be used to enter and exit **Acquire** mode. For details, refer to [Pair Crestron Wireless Device with a Gateway](#) in the [Crestron Home OS](#) product manual.
- SG wireless devices enter **Acquire** mode on first power up and subsequent power ups if they are not Acquired by a gateway. Do not power on the device until the gateway is in **Acquire** mode.

1. On the CEN-GW1, press **ACQUIRE** to enter **Acquire** mode. The **ACQUIRE** LED turns on to indicate that the gateway is in **Acquire** mode and that it is ready to acquire devices. While in **Acquire** mode, the gateway will discover and acquire SG, infiNET EX, and ER devices.

NOTES:

- Alternatively, use the Web UI or Crestron Toolbox™ software to enter and exit **Acquire** mode.
 - The gateway exits **Acquire** mode after 3 hours. To change the timeout period, use the Web UI or Crestron Toolbox™ software.
2. For SG wireless devices that are not Acquired by a gateway, power on the device.
 3. On the SG, infiNET EX, or ER device, enter **Acquire** mode. The device exits **Acquire** mode when it is acquired by the gateway. For additional details, refer to the device's manual.
 4. On the CEN-GW1, press **ACQUIRE** to exit **Acquire** mode. The **ACQUIRE** LED turns off.

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Configure the Gateway

Configure the gateway using the web user interface. For details, refer to the [Configuration](#) section in the CEN-GW1 product manual.



Reboot

To reboot the gateway, press and hold **RESET** for 8 seconds.



Factory Reset

To factory reset the gateway, press and hold **SETUP** until the **SETUP** LED flashes 6 times. The gateway will reboot.

New admin credentials will need to be created after the factory reset process.



Visit the Product Page

Scan the QR code to visit the product page.

CEN-GW1



www.crestron.com/model/6511027

CENI-GW1



www.crestron.com/model/6511029

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Additional Information

Original Instructions

The U.S. English version of this document is the original instructions.
All other languages are a translation of the original instructions.

Regulatory Model: M201913001

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