

CEN-GWEXER

infiNET EX and Extended Range (ER) Gateway Installation Guide



infiNET EX



Description

The Crestron® CEN-GWEXER is a 2-way RF wireless transceiver designed for use with infiNET EX® and ER (Extended Range) wireless devices. A single CEN-GWEXER gateway enables an entire wireless network of Crestron remotes, keypads, lighting dimmers, motorized shades, thermostats, door locks, and other devices to communicate with a Crestron control system.

Additional Resources

Visit the product page on the Crestron website (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

NOTES: Observe the following points:

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

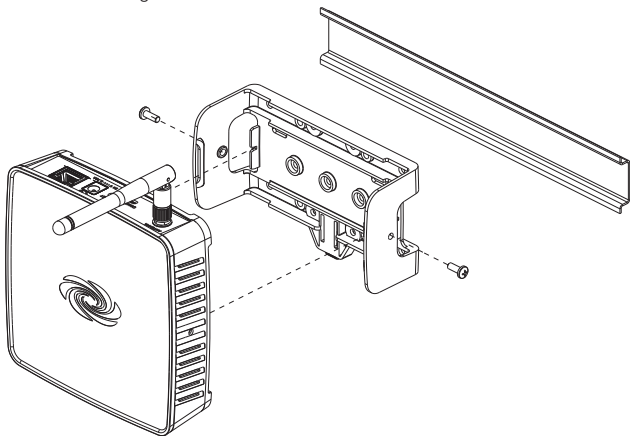
NOTE: Before using the CEN-GWEXER, ensure the device is using the latest firmware. Check for the latest CEN-GWEXER firmware at www.crestron.com/firmware. Firmware is loaded onto the device using Crestron Toolbox™ software.

The CEN-GWEXER can be mounted to a DIN rail or any vertical, flat surface. It can also be placed on any flat, level surface. Refer to the illustrations below for DIN rail or any vertical, flat surface mounting examples.

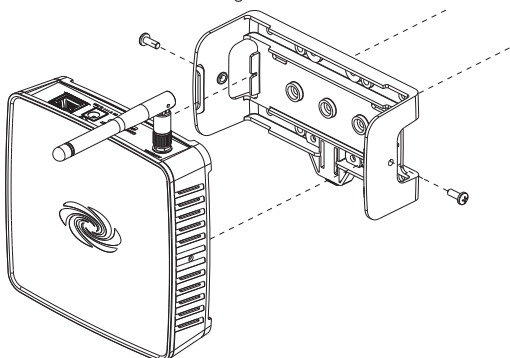
NOTE: Do not install this gateway within 15 feet (3 meters) of other infiNET EX gateways, Crestron ER gateways, or Wi-Fi access points.

NOTE: The CEN-GWEXER can also be rack mounted. For rack mount installation, refer to the RMK-IFE-1U Installation Guide (Doc. 7627) at www.crestron.com/manuals.

DIN Rail Mounting



Vertical Flat Surface Mounting



NOTE: Do not use the supplied screws to mount the bracket to the bottom of the CEN-GWEXER if the device will be mounted on a DIN rail. Removing the CEN-GWEXER from the DIN rail will not be possible.

For optimum performance when installing multiple CEN-GWEXERs near each other:

- Do not place multiple gateways on the same channel.
- Place gateways on adjacent channels at least 12 feet (3.7 meters) apart.
- Place gateways on nonadjacent channels at least 3 feet (0.9 meters) apart.

For optimum performance when installing a CEN-GWEXER:

- Place gateways at least 12 feet (3.7 meters) from the nearest Wi-Fi® access point.
- Place gateways at least 6 feet (1.8 meters) from the nearest Bluetooth® device.

For more information, refer to the Best Practices for Installation and Setup of Crestron RF Products Reference Guide (Doc. 6689) at www.crestron.com/manuals.

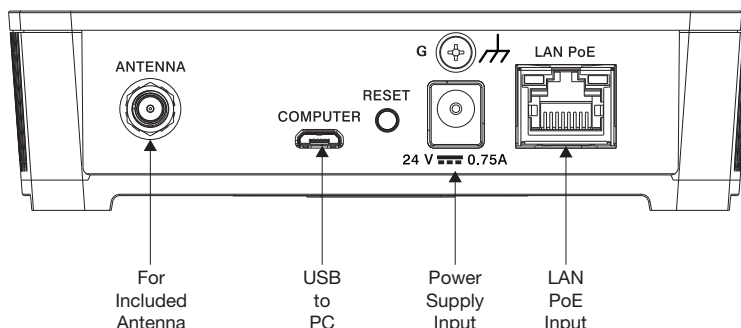
Make Connections

Make the necessary connections as called out in the illustrations that follow. Apply power after all connections have been made.

NOTE: When making connections to the CEN-GWEXER, use Crestron power supplies for Crestron equipment.

NOTE: The antenna must be attached directly to the antenna connector. It can be extended with an optional ANT-EXT-10 Antenna Extender (sold separately).

Hardware Connections for the CEN-GWEXER



If using a CEN-RFGW-EX-PWE, perform the following.

1. Attach the supplied ac power cord to the IEC 320 connector on the PoE (Power over Ethernet) injector.
2. Use a CAT5 cable to connect the LAN port of the PoE injector to the LAN.
3. Use a CAT5 cable to connect the LAN POE port of the PoE injector to the LAN PoE port of the CEN-GWEXER.
4. Insert the other end of the power cord into an active ac outlet.

NOTE: In the listing of LAN PoE and LAN pins in the following image, arrows denote internal pin connections.

LAN PoE and LAN Pin Assignments

LAN PoE	LAN PoE Pins	LAN	LAN Pins
	1. Data Pair 1 2. Data Pair 1 3. Data Pair 2 4. +Vdc 5. +Vdc 6. Data Pair 2 7. -Vdc 8. -Vdc		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

Assign the RF Channel

The RF channel of the CEN-GWEXER must be set prior to operation. The CEN-GWEXER can operate on channels 11 through 26. Crestron recommends using RF channel 15 or 20. The default RF channel is 15.

For optimum performance when installing a CEN-GWEXER in a Wi-Fi environment, do not set the RF channel within a Wi-Fi channel band. Refer to the information below when choosing the RF channel in a Wi-Fi environment.

- Gateway channels 11 through 14 are within the Wi-Fi channel 1 band.
- Gateway channel 15 is adjacent to Wi-Fi channels 1 and 6.
- Gateway channels 16 through 19 are within the Wi-Fi channel 6 band.
- Gateway channel 20 is adjacent to Wi-Fi channels 6 and 11.
- Gateway channels 21 through 24 are within the Wi-Fi channel 11 band.
- Gateway channel 25 is adjacent to Wi-Fi channel 11.
- Gateway channel 26 is neither within nor adjacent to any Wi-Fi band.

NOTE: Crestron's RF devices can be divided into two categories: infiNET EX devices and Crestron Extended Range (ER) devices. infiNET EX devices automatically set their RF channel assignment to match the gateway's channel, whereas ER devices must have their RF channel manually assigned to match the gateway's channel.

Use Crestron Toolbox to set the CEN-GWEXER's RF channel. From the "System Info" window, select **Functions > infiNET EX Gateway** from the menu bar. Refer to the Crestron Toolbox Help file for details.

Acquire Devices to the Gateway

Crestron infiNET EX and ER devices can communicate with a CEN-GWEXER after it has been acquired by a CEN-GWEXER. A device can be acquired to only one gateway. Acquire mode can be activated using Crestron Toolbox or the **ACQUIRE** button on the front panel.

- NOTE:** Use Crestron Toolbox to set the RF channel before starting the acquire process. The default RF channel is 15. (ER devices must be configured to match the channel setting on the gateway.)
- NOTE:** Acquire mode can be activated approximately 15 seconds after power is applied to the CEN-GWEXER.
- NOTE:** In an environment with multiple gateways, only one gateway should be in Acquire mode at a time.
- NOTE:** The CEN-GWEXER must be placed in Acquire mode before an infiNET EX device is placed in Acquire mode.

To acquire an infiNET EX or ER device via the **ACQUIRE** button on the CEN-GWEXER, perform the following procedure:

1. Press **ACQUIRE** on the CEN-GWEXER to enter Acquire mode. The acquire LED lights to indicate that the unit is ready to acquire infiNET EX and ER devices.
- NOTE:** Acquire mode automatically deactivates after 1 hour. The timeout period can be changed from Crestron Toolbox.

2. Bring the infiNET EX or ER device within range of the gateway, and place it in Acquire mode as described in its manual. Once it enters Acquire mode, the device will be acquired within 2 minutes.
3. Repeat step 2 for each infiNET EX or ER device that needs to be acquired.
4. Press **ACQUIRE** on the CEN-GWEXER to exit Acquire mode. The acquire LED turns off.

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

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference and (2) this device must accept any interference, including interference that may cause undesired operation of the device radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Industrie Canada (IC) Déclaration de conformité

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

To satisfy RF exposure requirements, this device and its antenna must operate with a separation distance of at least 20 centimeters from all persona and must not be colocated in conjunction with any other antenna or transmitter.

The product warranty can be found at www.crestron.com/warranty.

The specific patents that cover Crestron products are listed at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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