

CEN-RFGW-EX infiNET EX® & ER Wireless Gateway



DO Choose an Installation Location

For optimum performance when installing a CEN-RFGW-EX near another CEN-RFGW-EX, keep the following in mind:

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

For optimum performance when installing a CEN-RFGW-EX, keep the following in mind:

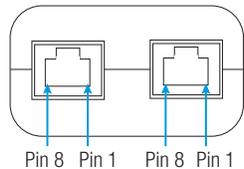
- Gateways should be placed at least 12 feet (3.7 meters) from the nearest Wi-Fi® access point.
- Gateways should be located at least 6 feet (1.8 meters) from the nearest Bluetooth® device.

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.

DO Connect the PoE Injector

If using a CEN-RFGW-EX-PWE, use the following procedure to connect the power injector. Otherwise, proceed to “DO Connect the Device.”

LAN PoE and LAN Connector Pin Assignments



LAN PoE Pins	LAN Pins
1. Data Pair 1	1. Data Pair 1
2. Data Pair 1	2. Data Pair 1
3. Data Pair 2	3. Data Pair 2
4. +Vdc	4. No Connection
5. +Vdc	5. No Connection
6. Data Pair 2	6. Data Pair 2
7. -Vdc	7. No Connection
8. -Vdc	8. No Connection

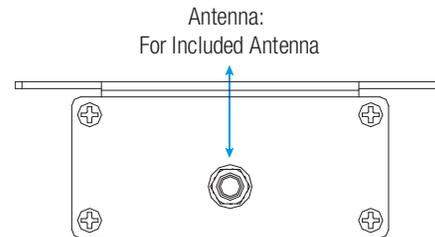
NOTE: In the listing of LAN PoE and LAN pins in the previous image, arrows denote internal pin connections.

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

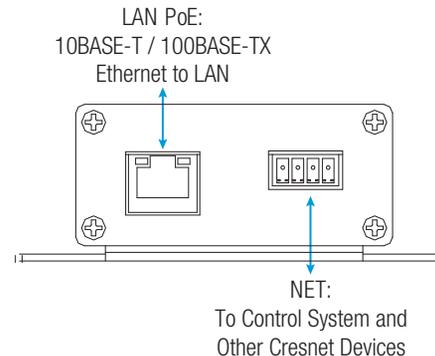
DO Connect the Device

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

Hardware Connections for the CEN-RFGW-EX (Top View)



Hardware Connections for the CEN-RFGW-EX (Bottom View)



DO Check the Box

QTY	PRODUCT	COLOR	PART NUM.
1	Antenna, 2.4 GHz, 1/4 Wave, Reverse Polarity, Female		2001016
1	Connector, 4-Pin		2003576

Items for the CEN-RFGW-EX-PWE only

1	Cable, Ethernet, CAT5e, 5' (1.52 m)	Black	2022311
1	PoE Injector, PWE-4803RU		2021163
1	Power Cord, 6'7" (2 m)		2001134

NOTE: If PoE is not available, use the NET port for power only.

When making connections to the CEN-RFGW-EX, 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-5 or ANT-EXT-10 Antenna Extender (both sold separately).

DO Configure the Device

Assign the Operating Channel

The operating channel of the CEN-RFGW-EX must be set prior to operation using Crestron Toolbox™. The CEN-RFGW-EX can operate on one of 16 channels. The default RF channel is 15.

For optimum performance when installing a CEN-RFGW-EX in a Wi-Fi environment, do not set the CEN-RFGW-EX to a channel within a Wi-Fi channel band. Crestron recommends channel 15 or channel 20.

- 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.



Assign the RF Channel

Each gateway can communicate with up to 100 devices on the same channel. Crestron's RF devices can be divided into two categories: infiNET EX® devices and Crestron Extended Range (ER) devices. With infiNET EX devices, RF channel assignment is automatic. Each ER device must have an RF channel assignment that matches the RF channel assignment of the gateway.

There are 16 possible channels ranging from 11 to 26.

Set the RF channel from a PC via Crestron Toolbox. To set an RF channel in Crestron Toolbox, select **Functions > infiNET EX Gateway** (or **Functions > High Power RF Gateway**). Refer to the Crestron Toolbox Help file and search for "infiNET EX Gateway" (or "High Power RF Gateway") for more details.

Acquire the Device

Crestron infiNET EX devices and Crestron ER devices can communicate with a CEN-RFGW-EX only if they have been acquired by that CEN-RFGW-EX. Acquire mode can be activated using Crestron Toolbox (recommended) or the **ACQUIRE** button on the CEN-RFGW-EX.

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-RFGW-EX.

NOTE: In an environment with multiple gateways, only one gateway should be in Acquire mode at a time.

NOTE: The CEN-RFGW-EX must be placed in Acquire mode before an infiNET EX device is placed in Acquire mode.

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

1. Press **ACQUIRE** on the CEN-RFGW-EX to enter Acquire mode. The accompanying LED illuminates to indicate the unit is ready to link to infiNET EX devices and ER devices.
NOTE: Acquire mode automatically deactivates after 1 hour. This default timeout period can be changed from Crestron Toolbox.
2. Bring the infiNET EX device or the 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 is automatically acquired by the gateway within 2 minutes.
3. Repeat step 2 for each infiNET EX device and each ER device to be acquired.
4. Press **ACQUIRE** on the CEN-RFGW-EX to exit Acquire mode. The LED turns off.

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.

Crestron Electronics
15 Volvo Drive, Rockleigh, NJ 07647
888.CRESTRON | www.crestron.com



CE As of the date of manufacture, the product has been tested and found to comply with specifications for CE marking.

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.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential 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, et (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 persons and must not be collocated in conjunction with any other antenna or transmitter.

The specific patents that cover Crestron products are listed at <http://www.crestron.com/legal/patents>.

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

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

Crestron, the Crestron logo, Crestron Toolbox, infiNET EX, and the infiNET EX logo are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. Bluetooth is either a trademark or registered trademark of Bluetooth SIG, Inc. in the United States and/or other countries. Wi-Fi is either a trademark or registered trademark of Wi-Fi Alliance 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.

©2015 Crestron Electronics, Inc.