

1 Overview

The EE4080 IP gateway combines the functionality of an Inovonics receiver with the flexibility of an IP appliance, receiving EchoStream data and outputting messages directly to an IP-based application.

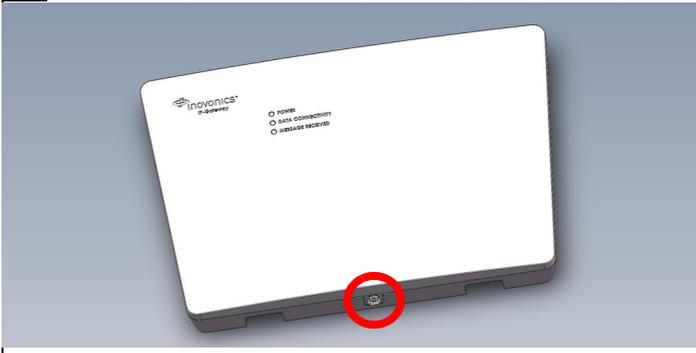
2 Installation

1 Review all installation instructions, as well as section 3, “Tips and Notes” on page 2, before beginning installation to ensure you are familiar with the process and have everything you need to install the IP gateway.

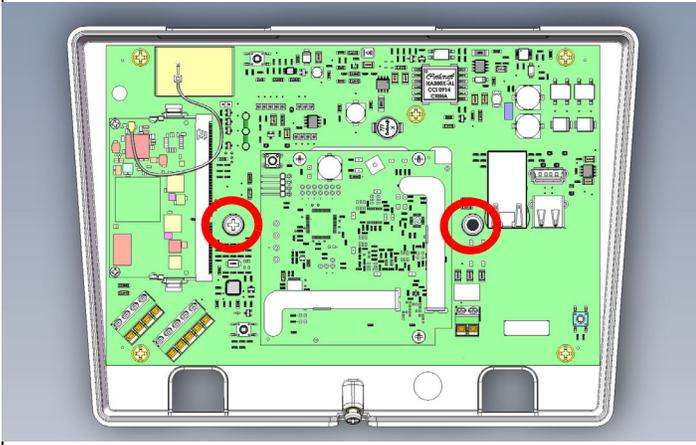
2 Record the following information for future reference:

- Record the appropriate MAC addresses from the label on the back of the housing.
- Record the eight-character alphanumeric authorization code from the label on the lower right-hand portion of the printed circuit board, just above the Inovonics logo.

3 Use a Phillips screwdriver to open the IP gateway housing.

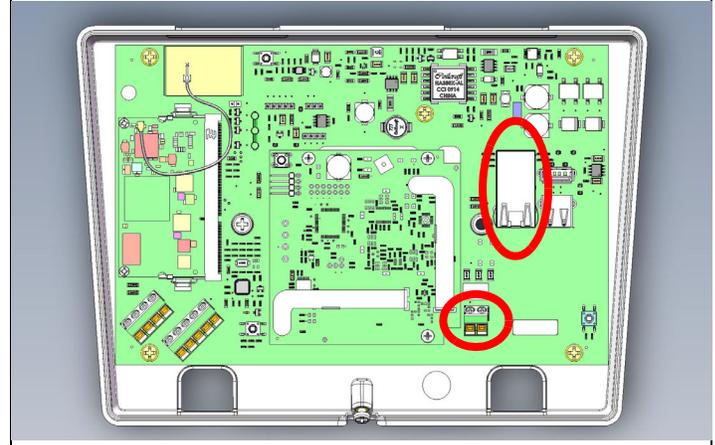


4 Use the included screws and drywall anchors to flush-mount the IP gateway.



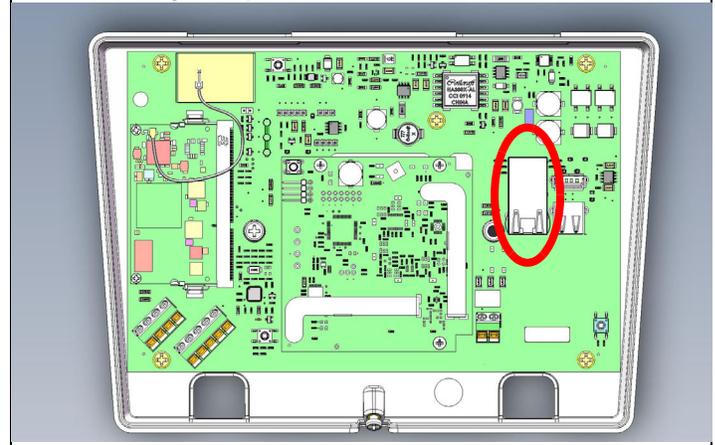
5 Connect power to the IP gateway, routing cabling through the IP gateway housing knockout.

- If using line power, connect a power supply to the power terminal blocks per the power supply manufacturer’s instructions. See section 5, “Specification” on page 3 for details.
- If using Power over Ethernet (PoE), connect one end of a RJ45 Ethernet cable to the RJ45 Ethernet jack, and connect the other end to a PoE capable network switch. Ensure 10/100BASE-T Ethernet with Dynamic Host Configuration Protocol (DHCP) network management protocol.



6 If using line power, connect one end of a RJ45 Ethernet cable to a RJ45 Ethernet jack, and connect the other end to your LAN to establish Internet connectivity.

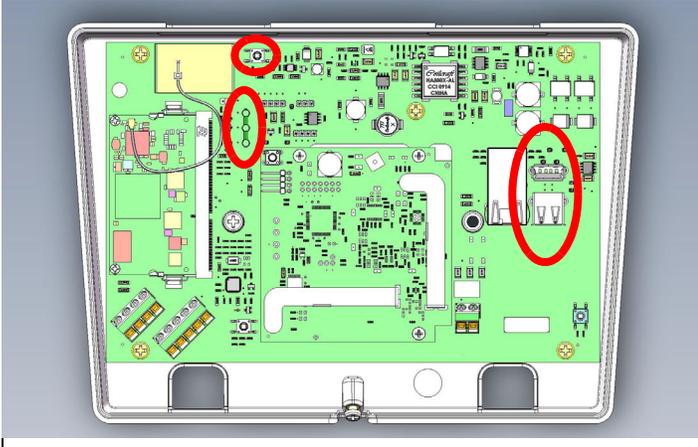
- Ensure 10/100BASE-T Ethernet and DHCP network management protocol.



Note: Steps 7 through 11 are generic configuration instructions for the IP gateway. For instructions for your individual license, see the *E*4080 IP Gateway Amazon Web Services MQTT Quick Start Tech Note* or the *E*4080 IP Gateway BACnet/IP Quick Start Tech Note* available in the documentation library at www.inovonics.com.

7 If using an existing EE4080 configuration file, open the configuration file and proceed to step 10; if using a new EE4080 configuration file:

- a. Press the IP gateway's reset button.
- b. Wait for the green LED to flash.
- c. Insert a USB flash drive into either of the IP gateway's USB ports.
- d. When the red LED is solidly lit, remove the USB drive.
- e. Insert the USB drive into a PC.



8 On your PC, open the configuration file from the USB drive.

- It will be named en4080-XX-config-YYYYMMDD-HHMMSS.yaml, where XX is the last two hex digits of the Ethernet MAC address, as shown on the label on the back of the house, and YYYYMMDD-HHMMSS is the current date and time.

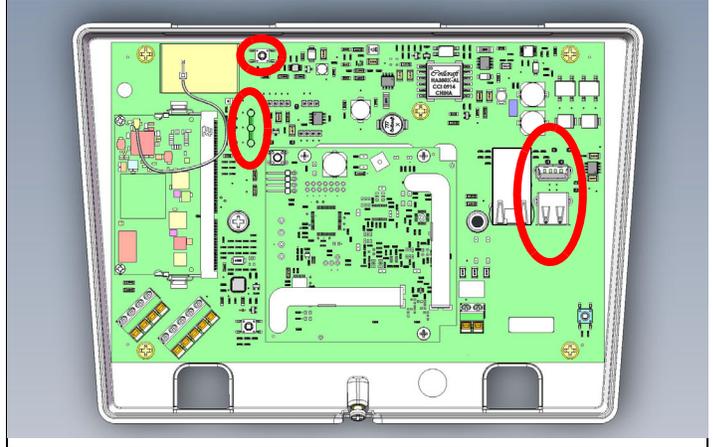
9 Enter the configuration information into the .yaml file:

- Enter TXIDs for the transmitters and any repeaters to be registered to the IP gateway, referring to and overwriting the examples provided in the file, separated by commas.
- Enter the desired host name of the remote server where the IP-based application is running.
- As desired, change the default port from port 5500 to another port.
- Configure the network connectivity as desired. By default, only Ethernet is enabled with DHCP; WiFi is disabled. See quickstart guides for configuration details.

10 Save the configuration file onto the USB drive as en4080-config.yaml.

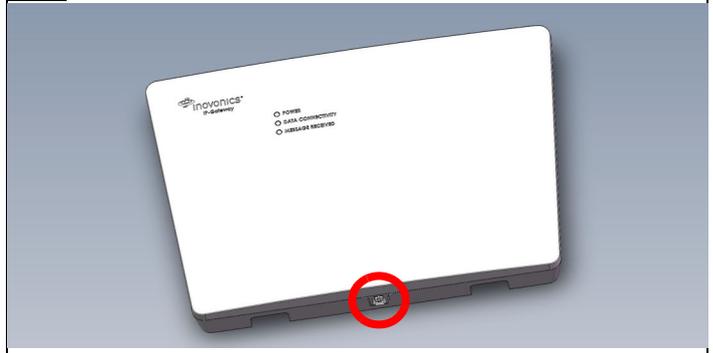
11 Load the configuration file onto the IP gateway:

- a. Safely eject the USB drive from the PC.
- b. Press the IP gateway's reset button.
- c. Wait for the green LED to flash.
- d. Insert the USB flash drive into either of the IP gateway's USB ports.
- e. When the red LED is solidly lit, indicating the gateway has finished processing the configuration file, remove the USB drive.



Note: If the red LED is not solidly lit, the yaml file did not load. Please check formatting, ensure you are using Notepad ++ or a similar yaml editor and use a yaml validator such as yamllint.com.

12 Use a Phillips screwdriver to close the IP gateway housing.



Once the IP gateway is functional and all transmitter TXIDs have been registered, the LEDs will function as follows:

- Green: Blinks when powering up; solid when power up is complete.
- Orange: Blinks while establishing an IP connection; solid when IP connected.
- Red: Blinks upon message receipt from any transmitter.

3 Tips and Notes

3.1 Installation Notes

- These products are designed to be maintained by professional technicians.
- Products are tested for indoor use.
- Inovonics recommends registering and testing end devices prior to installation, using a floor plan or something similar to indicate installation locations. Consider marking or applying descriptive labels to the end device cases to ensure proper installation. Conduct a site survey with an Inovonics survey kit prior to installation to assist with RF gateway, repeater and end device placement.
- Use a brand name USB flash drive with a FAT32 (vfat) filesystem for configuration.
- The IP gateway configuration file is YAML formatted. See yaml.org for details.

- If using line power, keep cable length to less than 3 meters to minimize noise pickup.
- To resolve connectivity issues, check for loose/disconnected cabling, ensure power to Ethernet routers and/or switches, and connect a laptop to the Ethernet cable attached to the IP gateway's RJ45 port and attempt to open a web site. If you are still unable to establish an Internet connection, contact a facility IT representative.
- Metal will reduce radio frequency (RF) range. Mount the IP gateway in a location removed from metal, including duct work, wire mesh screens, IT closets, metal boxes, and etc. For additional information, see the "EchoStream Device Installation Recommendation" tech note at www.inovonics.com.
- The EchoStream system should be tested regularly to ensure operation. To test, place the system in test mode, activate an end device, and ensure an appropriate response.

7 Open Source Software Notice and Information

To obtain the source code under GPL, LGPL, MPL, and other open source licenses that is contained in this product, please contact Inovonics technical services. In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are also available.

4 Questions

	(800) 782-2709; (303) 939-9336
	support@inovonics.com
	www.inovonics.com
	For product and installation videos visit us at www.inovonics.com/videos or use the QR code below.
	

If you have any problems with this procedure, contact Inovonics technical services:

- E-mail: support@inovonics.com.
- Phone: (800) 782-2709; (303) 939-9336.

5 Specification

Dimensions: 243 mm x 169 mm x 31 mm (9.556" x 6.65" x 1.208").

Power requirement: 12-14V AC intrinsically safe power supply capable of supplying at least 20VA, or a 12-15V DC power supply capable of supplying at least 15W; IEEE 802.3af-2003 and current safety standard (e.g. IEC 60950-1 or IEC 62368-1) compliant PoE supply (e.g. injector or network switch).

Ethernet 10/100 BASE-T, DHCP, static IP.

RF frequency range: EchoStream: 868 MHz; Wi-Fi® and Bluetooth®: 2.400 GHz to 2.485 GHz.

RF power (WiFi): Up to 17.5 dBm.

Operating environment Temperature: 0°F to 60°C; humidity: Up to 90% non-condensing.

Firmware Revision: 90549, v3.00 (EE4000 embedded receiver).

Countries in which Inovonics European products can be distributed:

Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

6 Simplified Declaration of Conformity

Hereby, Inovonics declares that the radio equipment type EE4080 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following Internet address: www.inovonics.com