

Installing the Envoy Communications Gateway

Read and follow all warnings and instructions in this Guide and in the *Envoy® Communications Gateway Installation and Operation Manual* at <http://www.enphase.com/support>. Use this guide as a quick reference during installation and setup of the Envoy.

1

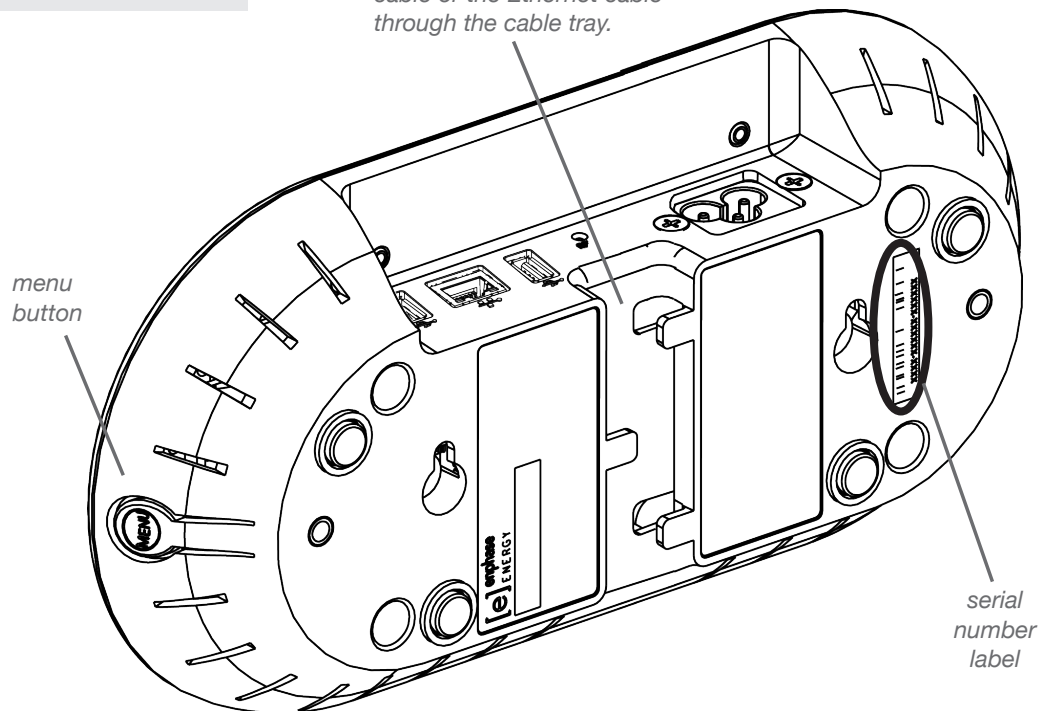
Find the Envoy Serial Number

The serial number label is on the back of the Envoy, near the left mounting bracket.

- You can use the Enphase Installer Toolkit to scan the serial number. For more information, refer to <http://enphase.com/products/arraygun>.
- Or you can peel the label from the Envoy and affix it to the installation map.

Note: If needed, you can find an installation map at the back of the Enphase Microinverter manual.

DO NOT route the power cable or the Ethernet cable through the cable tray.



Warning. Envoy warranty void if cover removed. No serviceable parts inside. Refer servicing to qualified personnel.

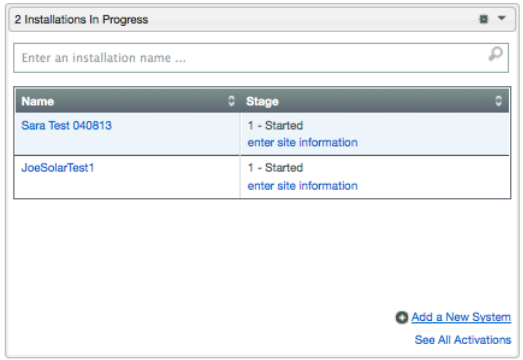
2

Register the Envoy

Register the Envoy at the Enlighten website: <https://enlighten.enphaseenergy.com>.

a. Log in to Enlighten

- At the installer dashboard, click **Add a New System**.



b. Enter System Activation Information

- Enter the System, Installer, Owner, and Location information.
- Enter the Envoy serial number.

c. Select the Grid Profile

Once you select your **Country**, the Grid Profile menu appears.

- Select the appropriate profile from the **Grid Profile** menu.
- Click **Save** to submit the form.

System Activation form

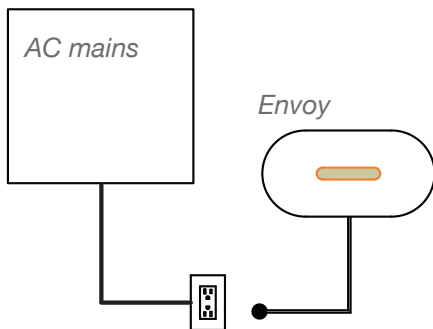
Warning: The microinverters will not export power until the Envoy is installed and detects all the microinverters at the site. The grid profile must also be set and propagated to the microinverters.

For more information on Grid Profiles, see the *Envoy Communications Gateway Installation and Operation Manual* at: <http://www.enphase.com/support>.

3

Find a Location for the Envoy

- Locate an electrical outlet that is indoors and close to the AC mains.
- Place the Envoy so that its AC cord can reach this outlet.
- Plug the AC cord into a dedicated wall outlet.



Warning: Do not plug the Envoy into a power strip, surge protector, or uninterruptible power supply (UPS). These devices impede power line communications.

4

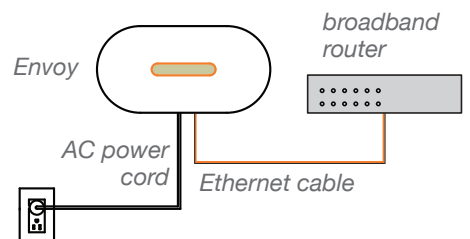
Connect to the Internet

Connect to a broadband router using one of the following three methods:

Warning: Do not remove power from the Envoy if the LCD displays: "Upgrading. . . Do Not Unplug."

Method A: Ethernet Cable

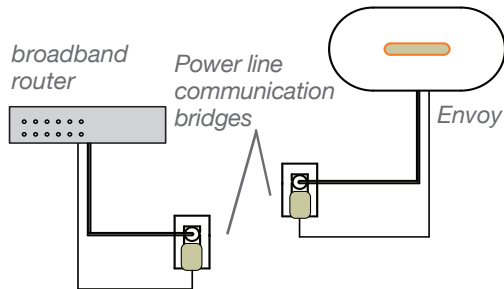
- Plug the Ethernet cable into the Ethernet port on the Envoy.
- Plug the other end of the cable into a port on the broadband router.



Method B: Power Line Communication Bridges (Order EPLC-02, EPLC-03 or EPLC-04 separately.)

Use power line communication bridges *if* the Envoy needs to be located away from the broadband router.

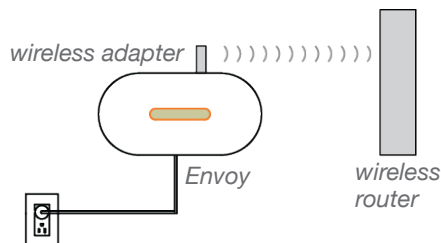
- Plug one of the bridges into the same AC outlet as the broadband router and attach an Ethernet cable to the bridge.
- Plug the other bridge into an AC outlet near the Envoy and attach the Ethernet cable to the bridge.
- Press and hold the Envoy menu button; release the button when the LCD displays **Get New IP Address**.



Method C: Wi-Fi (Enphase Wireless Adapter) (Order WF-01 separately.)

Requires a wireless router.

- On the Envoy, verify that no Ethernet cable is plugged into the Envoy RJ45 port.
- Plug the Enphase wireless adapter into the left USB port (looking at Envoy from the front).
- Verify that the startup message on the LCD screen reads "R3.8" or later.
 - If not, upgrade the Envoy by connecting the Envoy Ethernet port to the broadband router with the Ethernet cable that came with the Envoy.
 - After the upgrade completes, remove the Ethernet cable from the Envoy.
- Press and hold the WPS button on the wireless router for two seconds. On many routers, the WPS button flashes at this point.
- Return to the Envoy. Press and hold the Envoy menu button. Release the Envoy menu button when the LCD displays **Enable Wi-Fi WPS**.
- Within two minutes an updated IP address appears on the Envoy LCD screen. This IP address begins with a "W" to indicate a wireless connection.
- If the connection fails, see *Troubleshooting* **a**.

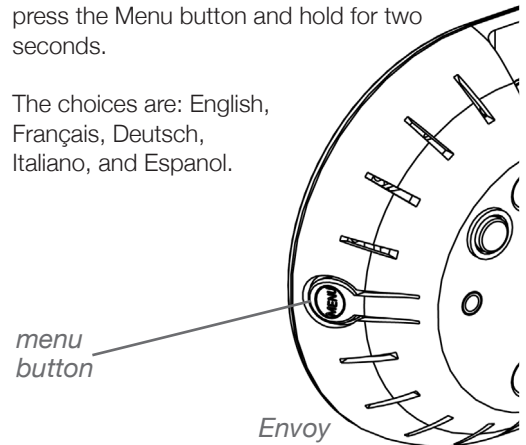


5

Select the Language

During start up, the Envoy LCD panel will scroll through the available language settings. When you see the setting you prefer, press the Menu button and hold for two seconds.

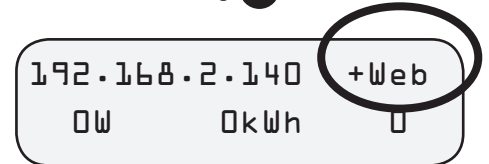
The choices are: English, Français, Deutsch, Italiano, and Espanol.



6

Check the Internet Connection

Look for the **+ Web** indication. If it does not appear within 5 minutes after connecting to the broadband router, see *Troubleshooting* **b**.



7

Install the Microinverters and Modules

- Install the PV modules and microinverters as directed by the installation manuals. For Enphase installation manuals, go to <http://www.enphase.com/support>.
- Use the ArrayGun to scan the microinverters. For more information, go to <http://enphase.com/products/arraygun>.
- As an alternative, you can manually build the map: Peel the removable serial number label from each microinverter and affix it to the respective location on the map.

Refer to the Enphase Microinverter installation and operation manual for information on microinverter installation and commissioning.

8

Check the Envoy's Progress

An automatic device scan will detect the microinverters when the DC and AC connections are completed and the AC circuit is energised.

a. Check the Power Line Communications

- Check the number of bars shown on the Envoy LCD (Level/Devices screen). If fewer than three bars are shown, see *Troubleshooting* **c**.



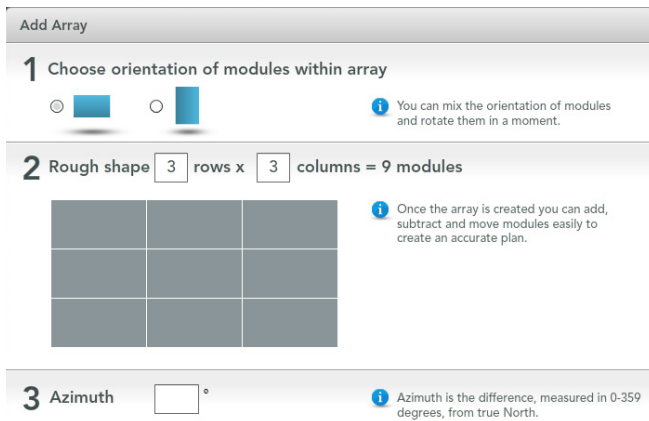
b. Stop the Scan When All Devices are Detected

- Check that the Envoy LCD shows a complete device count after about 30 minutes. If it does not, see *Troubleshooting* **d** and **e**.
- Once all devices have been detected, disable the Envoy's device scan:
 - Press and hold the Envoy menu button (on the right side of the Envoy).
 - Release the menu button when the LCD displays **Disable Device Scan**.

9

Build the Virtual Array in Enlighten

- Log in to Enlighten.
- Use Array Builder to create the virtual array using the installation map as your reference.
- To see the Array Builder demo, go to <http://enphase.com/support/videos>.



- You can now view System Performance in Enlighten.

Troubleshooting

a Wi-Fi Connection Issue

If Wi-Fi connection fails, retry the connection steps as the connection window may have timed out.

Remember that metal enclosures or obstructions impede wireless communication.

If you remove the wireless adapter, wait 15 seconds before reinserting it.

b Internet Connection Issue

If, after 15 minutes, you see **-Web** instead of **+Web**, make sure that the broadband router is operational. Check that other devices at the site can access the Internet.

If the broadband router is operational, press and hold the Envoy menu button. Release the button when the LCD displays **Get New IP Address**. Wait for 5 minutes.

If this fails, unplug the Envoy, wait for 20 seconds, and plug it back in. Wait 5 minutes for connection.

c Power Line Communication Level is Low

If the number of bars is fewer than three as a result of a communication check, relocate the Envoy to the AC outlet closest to the AC mains. (You may also need to use power line communication bridges if the AC mains is remote from the router).

d Device Detection Slow

If, after 30 minutes (longer for large installations), the device count shown is lower than the number of microinverters installed, or if the number of bars is between zero and two, relocate the Envoy to the power outlet closest to the AC mains.

e Device Detection Stalled

If the number of bars is three or more, but the Envoy has not detected all of the installed microinverters within 30 minutes (longer for large installations), contact Enphase Customer Support.