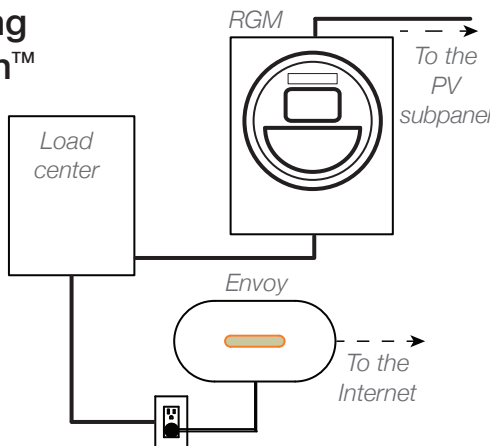


# QUICK INSTALL GUIDE

## RGM for Enphase Metering and Management Solution™

The model i210+ single phase, watt-hour, revenue grade meter (RGM) measures energy production from the array. The RGM sends data to the Envoy Communications Gateway™, which then forwards the data to Enlighten™ over the Internet.



### Before Installing the RGM

Install the PV modules, microinverters, Envoy and form 2S socket before installing the RGM.

- Install the socket near the load center
- Wire the socket so that the top meter contacts connect to all circuits from the array.
- If there is more than one solar branch circuit, you need a dedicated subpanel on the array side of the RGM.
- **Verify that the solar backfeed breaker in the main load center is not energized.**
- Activate (register) the system at <http://enlighten.enphaseenergy.com>, following the guidelines set for your organization.

### Installing the RGM

#### 1 Install the ZigBee Stick

- Plug the ZigBee USB Stick into a USB port on the Envoy.



**DANGER:** Risk of electrical shock. Take care when installing the RGM and Form 2S socket.

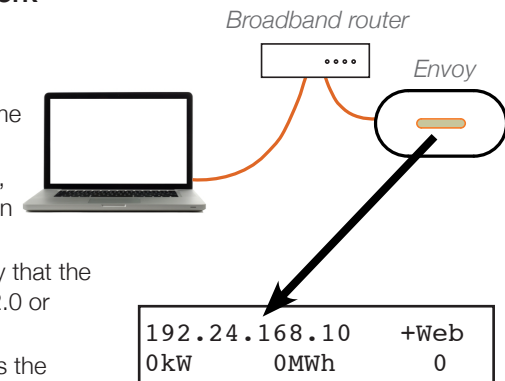
**WARNING:** Wire the socket so that the top meter contacts connect to the array. Otherwise, power produced will register as consumed.

**WARNING:** Do not reuse an RGM in a second installation. An RGM permanently retains information from its original installation and cannot be reset.

2

#### Configure the ZigBee Network on the Envoy

- Open an Internet browser on a computer connected to the same local network as the Envoy.
- In the browser address window, enter the IP address displayed in the LCD screen of the Envoy.
- On the Envoy home page, verify that the current software version is R3.2.0 or greater.
- Click **Administration** to access the Administration menu. Log in.  
Username: **admin**  
Password: **admin**
- From the Administration menu, select **ZigBee Device Configuration**.
- Under Add New ZigBee Device, enter the Device EUI64 code (16 characters) from the **face** of the RGM. This is the MAC address.
- Enter the Device Install Code (20 characters) from the **back** of the RGM.
- Click **Add Device**. The page then shows the message "Install code accepted for ZigBee device. Device scan started."



RGM face

RGM back

**System Administration > ZigBee Device Configuration**

Envoy ZigBee USB Stick Configuration

EUI64	Channel	Extended Pan Id	Firmware Version
0024460000010d1b	20	0000001c338a4e30	01.10.07

Add New ZigBee Device

Device EUI64:  Device Install Code:

**Add Device**

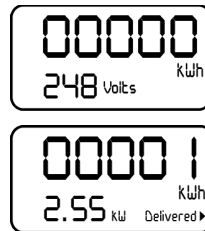
### 3 Install the RGM

- Ensure that the solar backfeed breaker in the main load center is off.
- Orient the current and potential terminals (extending from the back of the RGM) with the socket jaws.
- Plug the RGM into the form 2S socket.
- **Wait until step 6** before installing the meter band and lock.



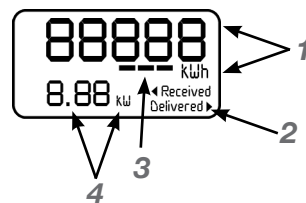
### 4 Power Up the RGM

- Turn on the solar backfeed breaker in the main load center and verify that the RGM LCD indicates power is on.
- Check that the lower left display on the RGM shows approximately 240 Volts.
- It may take up to five minutes after the solar circuit is turned on before the RGM shows solar production (during daylight hours). The RGM LCD lower left display will indicate the kW being produced by the system. Check that the lower right display shows "Delivered".



#### How to Read the RGM Display

1. kWh display
2. Energy flow direction indicator:  
A correctly wired RGM shows energy "Delivered" rather than "Received".
3. Indicates energy flow rate
4. Display toggles between Volts and instantaneous power (kW)



### 5 Verification

- After approximately five more minutes, check that the Envoy LCD screen reads:

Meter status:  
OK

- If the Envoy does not show a connection to the RGM after ten minutes, double-check that the EUI64 code from the meter faceplate exactly matches the code as typed at the Envoy interface on the ZigBee Device Configuration page.
- If the code was entered incorrectly, select and unmanage the incorrect EUI64, then add a new device with the correct EUI64 and Install Code.
- If the code is correct, you may need to install a repeater. If you do not have one, order part number RGM-RR-01.

### 6 Complete the RGM Installation

- Install the meter band and secure it.

**NOTE:** For detailed installation and troubleshooting information, see the *Enphase Metering and Management Solution Manual* at <http://www.enphase.com/support/downloads/>.

#### FCC Statements

This device complies with Part 15 of the FCC rules. Operation is subject to the following two 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.

**WARNING:** To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20cm (8 inches) or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operations at closer distances than this are not recommended.

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