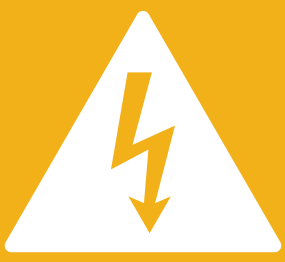
emporia

VUE

Smart Home
Energy Monitor

Installation Guide



WARNING! The Emporia Vue requires installing sensors inside your home's electrical panel and working around dangerous voltage that could lead to injury or death. Emporia recommends that installation be performed by a licensed electrician or other qualified professional in accordance with the regional electrical code where it is being installed.

Improper installation or use of the equipment can be dangerous or even fatal. In no event shall Emporia be liable to you or any third party for any damages, either direct or indirect, arising from or related to any personal injury as a result of your failure to follow the safety information and instructions in this Installation Guide.

Safety information

- Personal protective gear should be worn when installing the Emporia Vue.
- Do not use the Emporia Vue in any manner other than specified in this installation guide.
- Do not attempt to open, disassemble, or repair any of the components of the Emporia Vue.
- If you believe any of the Emporia Vue components may have been damaged, do not attempt to use them.
- Do not install the Emporia Vue in environments with explosive gas or vapors; nor in damp or wet environments; nor in direct sunlight; nor where temperatures are consistently below -40° F (-40° C) or above 122° F (50° C).

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support@emporiaenergy.com
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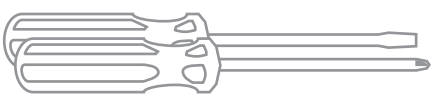
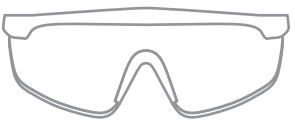
Before you get started

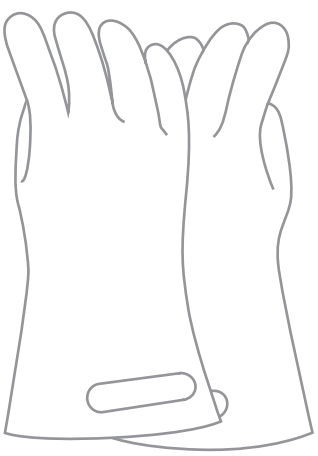
The Emporia Vue is installed in your home's electrical panel. You'll turn off the main breaker, which will shut off all of the power in your home. **However, the service mains will remain dangerously energized**. The following items may help with safe installation. It's also helpful to perform the installation with a friend.



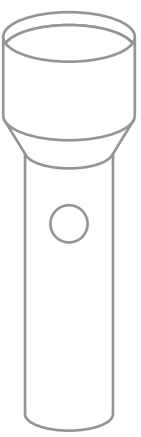
Phillips and flathead screwdrivers



Protective eyewear



Protective gloves



Alternative light source

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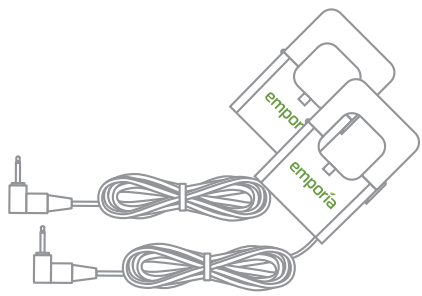
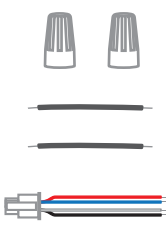
What's in the box

Your new Emporia Vue contains the following items. If you believe that any of these items may have been damaged for any reason, do not attempt to use them and call support immediately.

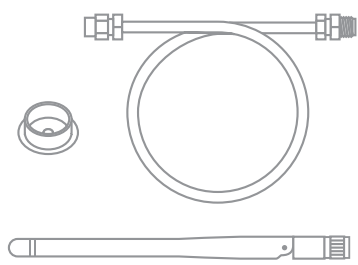
Energy monitor



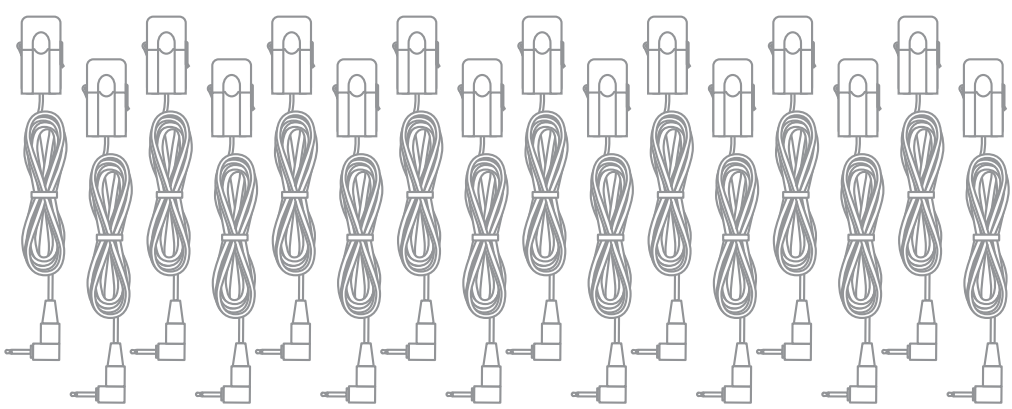
Two or three 200A current sensors
(depending on bundle)



2 wire nuts,
2 extra wires, and
wire harness



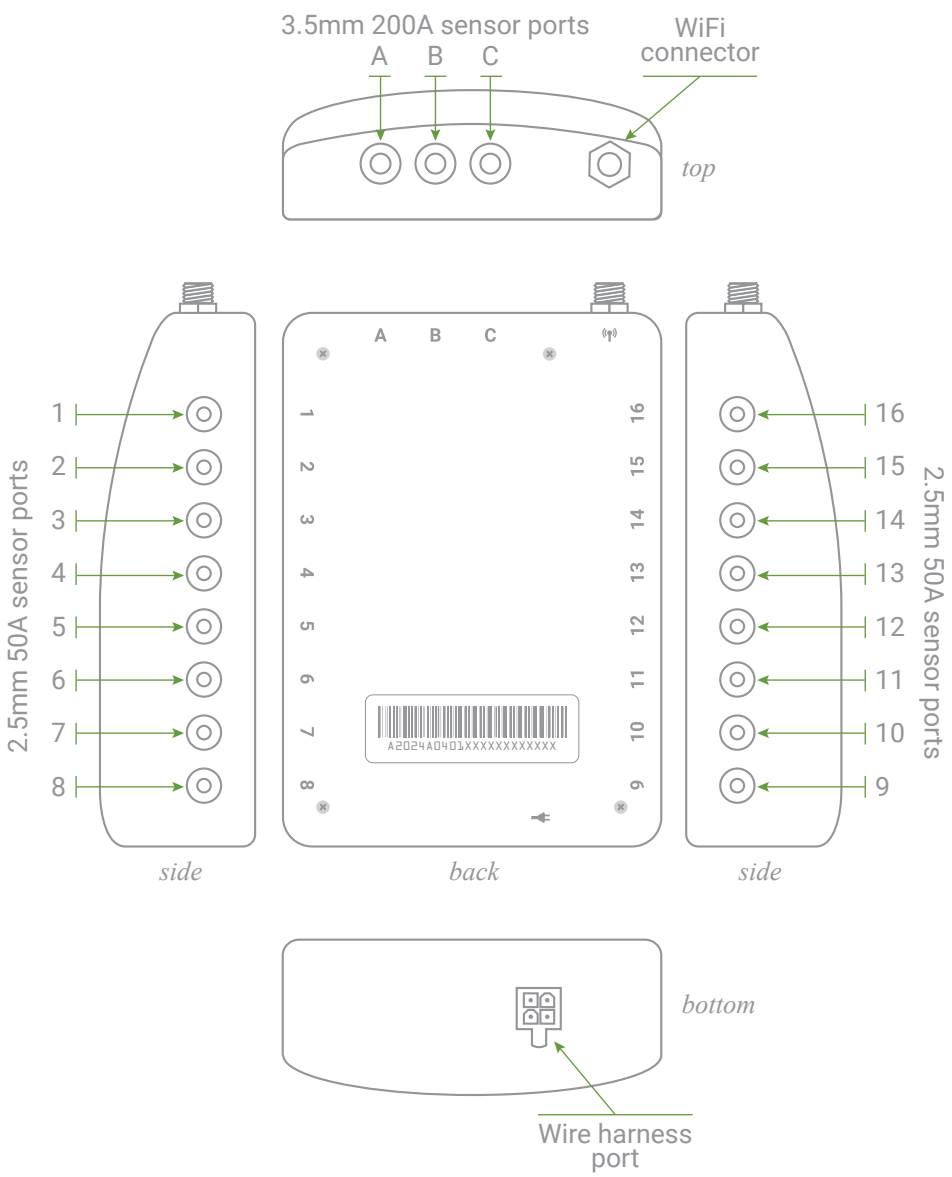
Knockout plug,
WiFi cable,
and antenna



Up to sixteen 50A current sensors
(depending on bundle)

Energy monitor connections

The energy monitor is the hub of the Emporia Vue. The 3.5mm A, B, and C ports on the top of the monitor are the inputs for the 200A main sensors (your bundle may only have included two). The coaxial connector for the WiFi cable is also on the top. The 2.5mm 1 through 16 ports on the sides of the monitor are the inputs for the 50A sensors (your bundle may have come with 16 or 8 sensors, or none at all). The port for the wiring harness is located on the bottom of the monitor. All of the ports are clearly labeled on the back of the energy monitor.



Step 1: Get the App

Use your phone to check the signal strength of your Wi-Fi network next to the electrical panel in your home. Low/no signal may require a Wi-Fi extender for the Vue to work. Download the **Emporia Energy app** onto your phone or tablet from the Apple App Store, from Google Play, or from emporiaenergy.com/app. **Create an account** and **begin the setup process**.

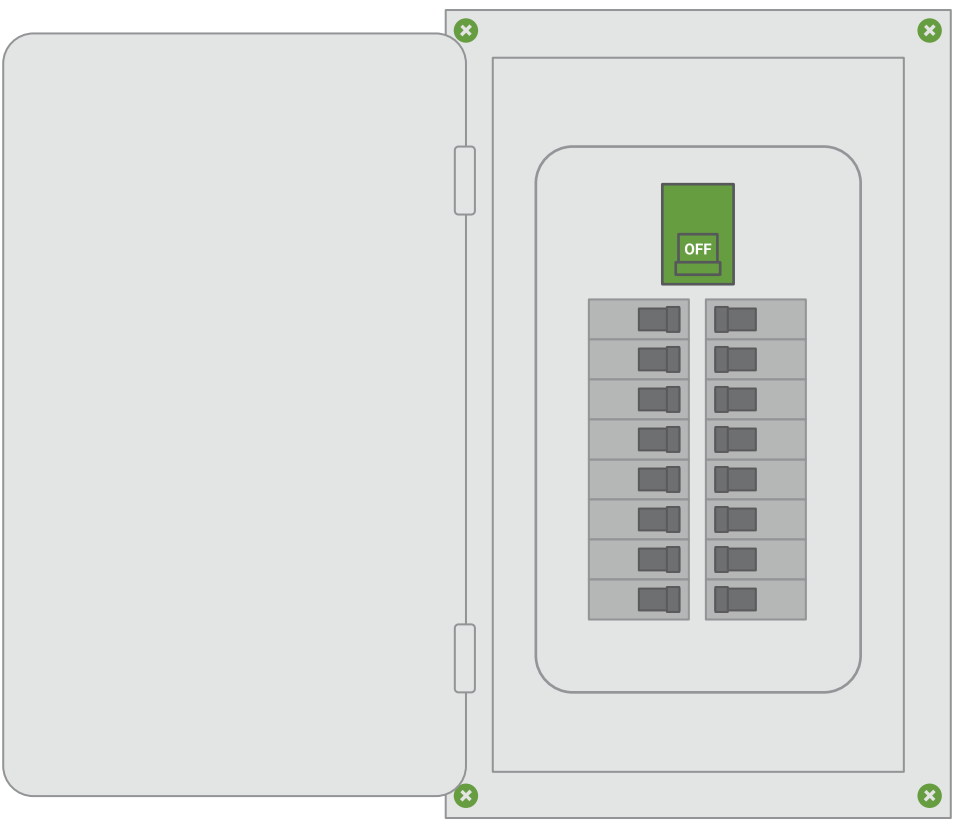
Download on the App Store

GET IT ON Google Play

emporiaenergy.com/app

Step 2: Turn off the main breaker and remove the cover

In your electric panel, turn off the main breaker, although it may be located elsewhere in your house or you may not even have one. This turns off all the circuits in your home. Next, remove any screws holding the cover to the panel and remove the cover to access the circuit breakers and **the live service mains!**



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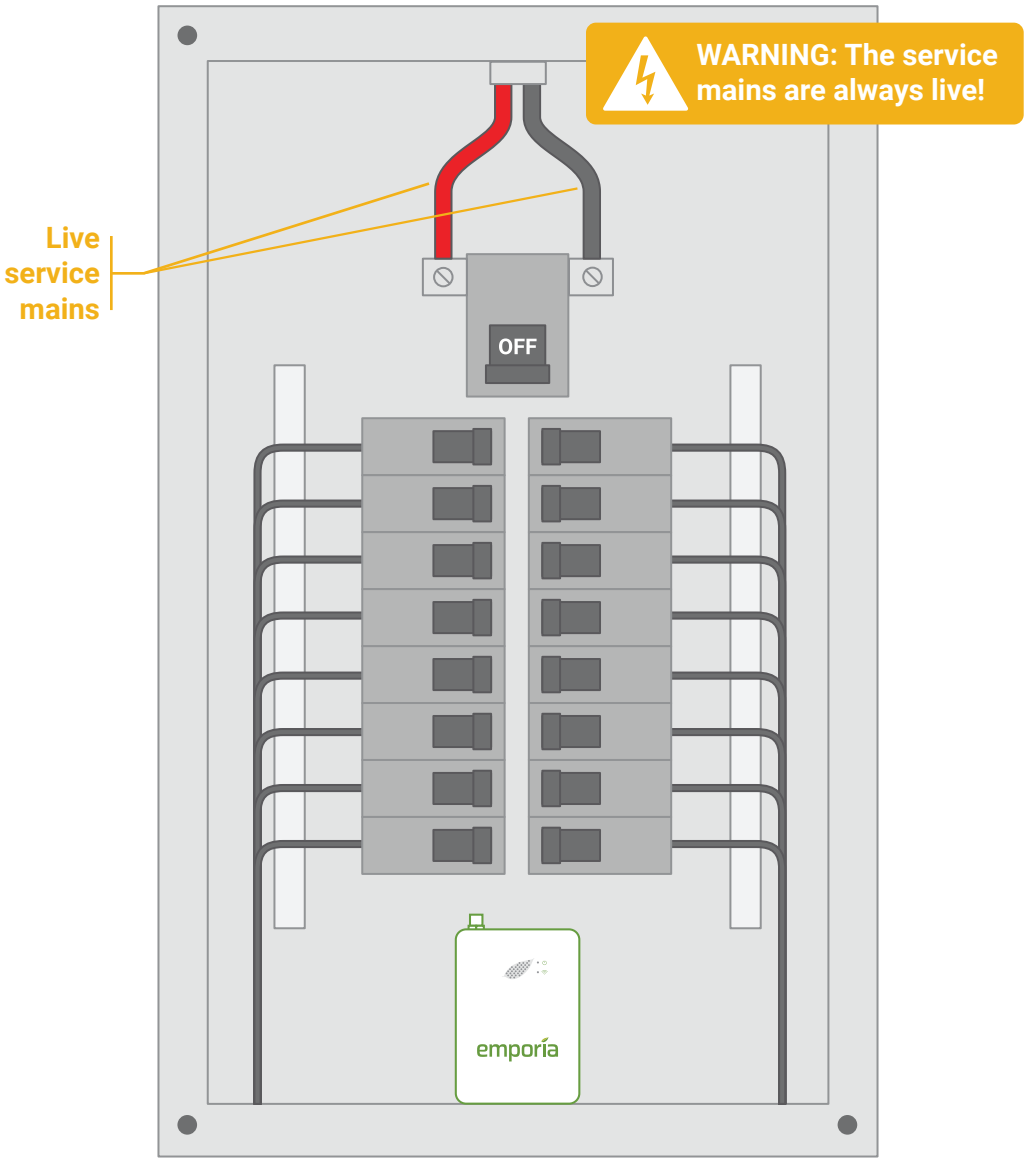
Step 3: Find a place for the monitor

Locate a place within your electrical panel for your Vue energy monitor. Your breaker box may be oriented differently, but the monitor is small and designed to fit easily in the box. Find a place that works for you.



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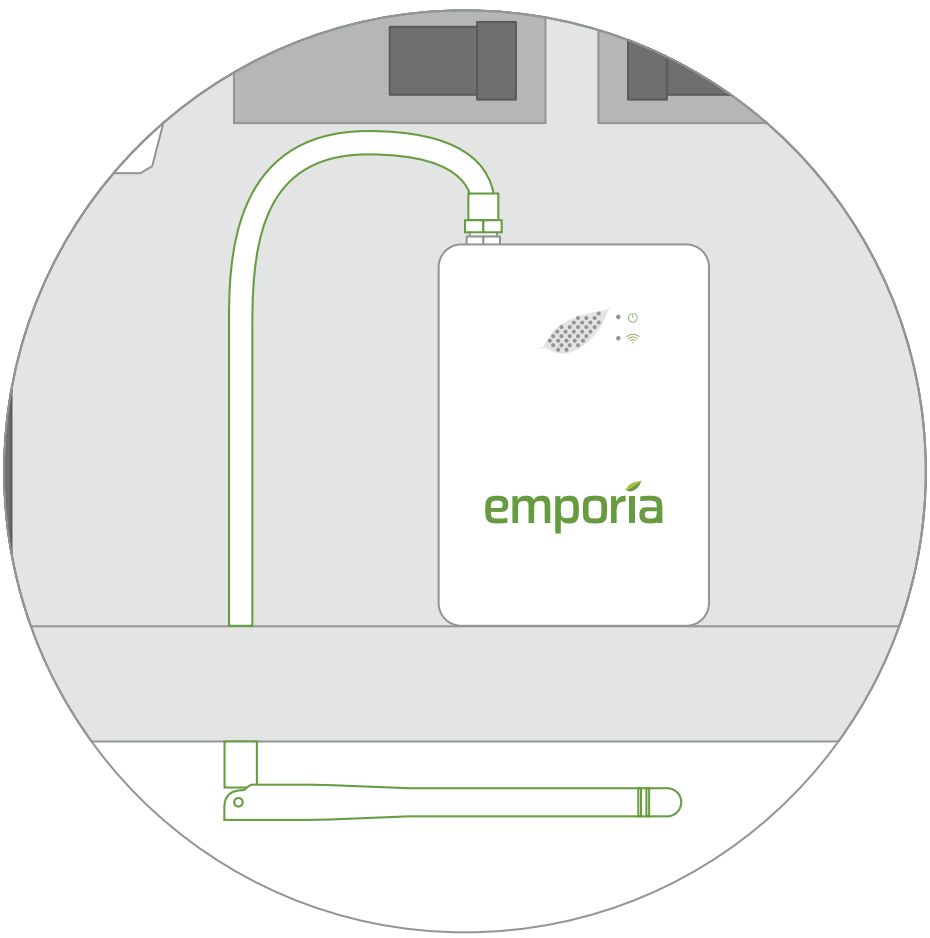
Step 4: Mount the antenna

Use a screwdriver to remove a knockout from inside the electrical panel. Connect the cable to the antenna and mount it with the knockout plug through the hole. It's ok to install the antenna inside of a wall. Screw the cable to the top of the energy monitor in the jack marked . If possible, orient the antenna in the same direction as the antenna on your WiFi router.



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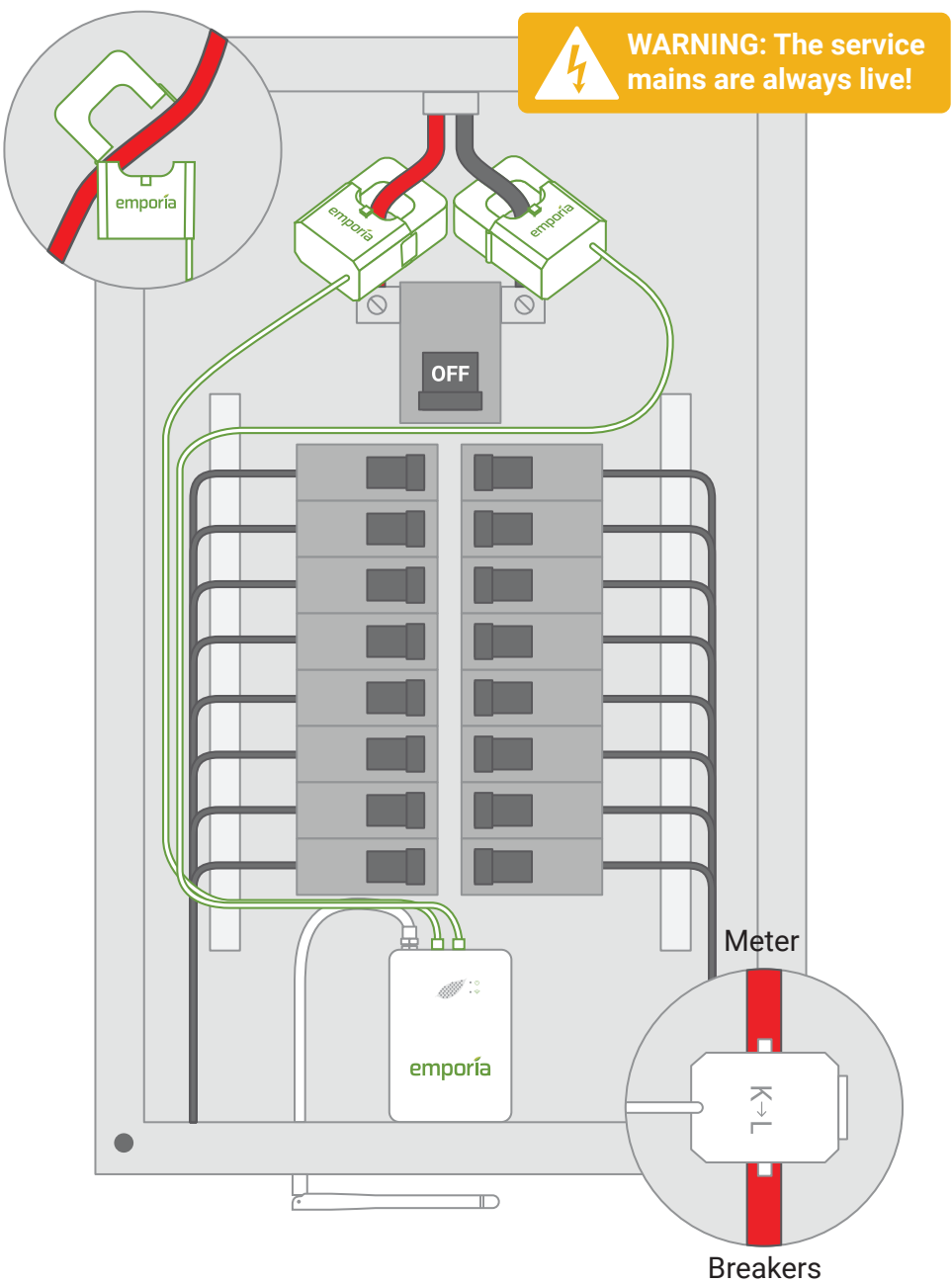
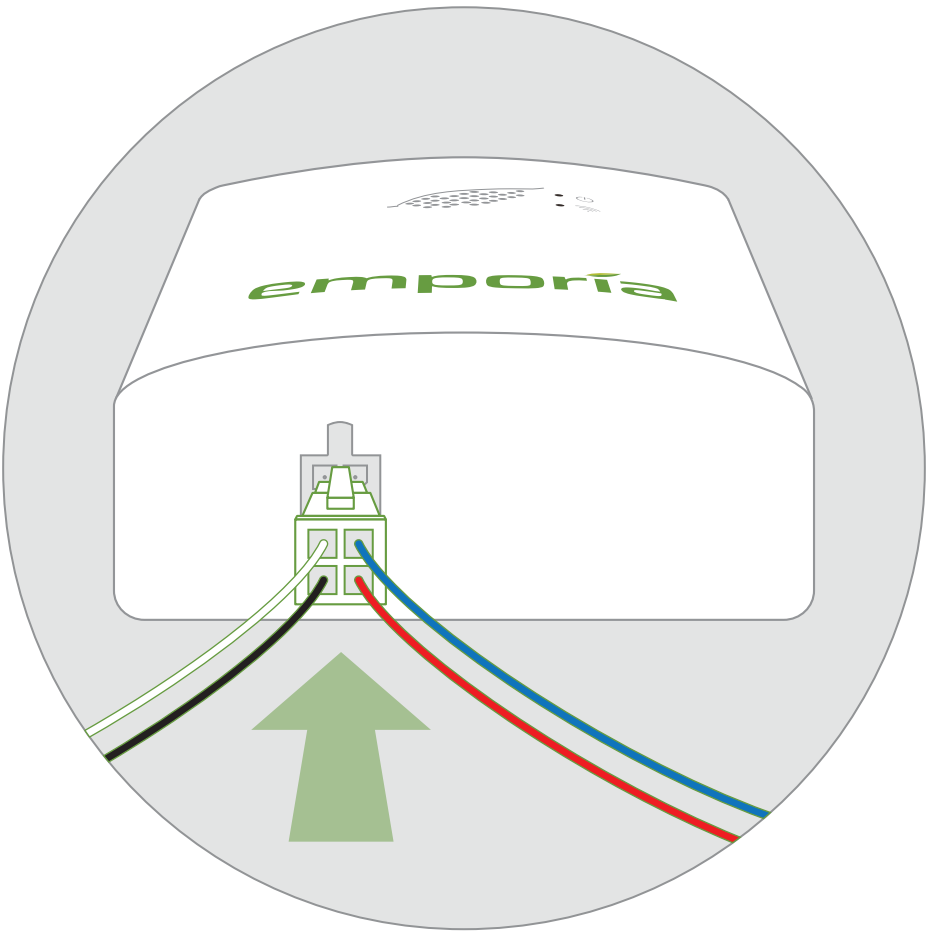
Step 5: Plug in and connect the 200A current sensors

Your system will have 1, 2, or 3 main service cables (a typical 2-main system is shown below). Open the clasps on the sensors and place each sensor clamp around one of the main service cables. Then shut the clasps to secure the sensors. **IMPORTANT! The K→L imprint on the bottom of the sensors should point toward the breakers.** Then, insert the 200A current sensor plugs into the ports on the top of the energy monitor.



Step 6: Plug in the wire harness

Insert the power supply wiring harness into the bottom of the energy monitor until it clicks into place securely. **The wire harness allows for single-phase power and three-phase voltage sensing**: White connects to Neutral, Black provides power and voltage sensing, and Blue and Red enable voltage sensing only.



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Step 7: Wire the wire harness to a breaker and neutral bus

The wire harness will be connected differently depending on whether or not you have enough empty 15A breakers as well as the number of 200A clamps you installed in Step 5. Go to the step below based on your system. If you're unsure, **call Emporia Support and we'll help you through it.**

Step 7(a) Common in N. American Homes

- Two empty breakers
- Two 200A sensors

Step 7(b) Common in N. American Homes

- No empty breaker
- Two 200A sensors

Step 7(c) Uncommon in N. American Homes
Common in N. American Commercial systems

- Three empty breakers
- Three 200A sensors

Step 7(d) Uncommon in N. American Homes
Common in N. American Commercial systems

- No empty breaker
- Three 200A sensors

Step 7(e) Uncommon in N. American Homes

- One empty breaker
- One 200A sensor

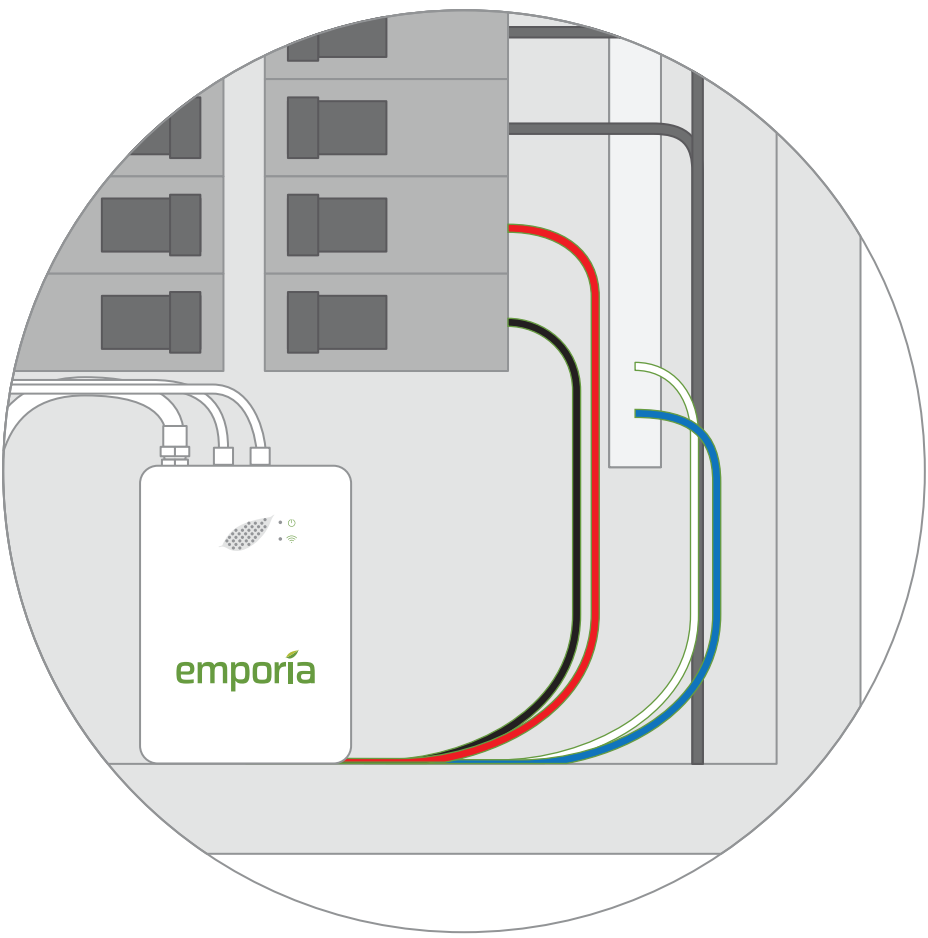
Step 7(f) Uncommon in N. American Homes

- No empty breaker
- One 200A sensor

Step 7(a): Two empty breakers and two 200A sensors

Common in N. American homes

Secure the White and Blue wires from the wire harness to the neutral bus bar. Turn off two vertically adjacent (stacked) single pole 15A breakers and secure the Black and Red wires from the harness to each of the hot leads from each breaker.



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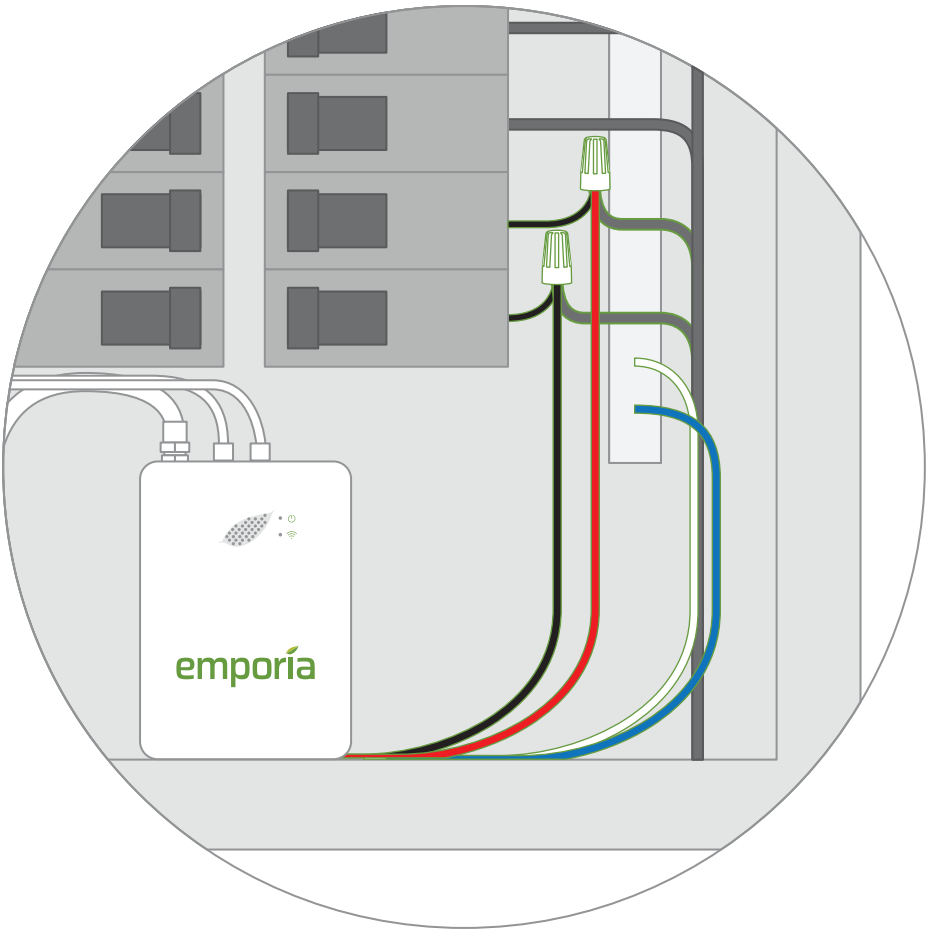
Step 7(b): No empty breaker and two 200A sensors

Common in N. American homes

Secure the White and Blue wires from the wire harness to the neutral bus bar. Turn off two vertically adjacent (stacked) 15A single pole breakers and remove their wires. Connect one of the breaker wires to the Black harness wire and an extra wire with a wire nut. Next, connect the second breaker wire to the Red harness wire and an extra wire with a wire nut. Then secure each of the extra wires to the two breaker poles.



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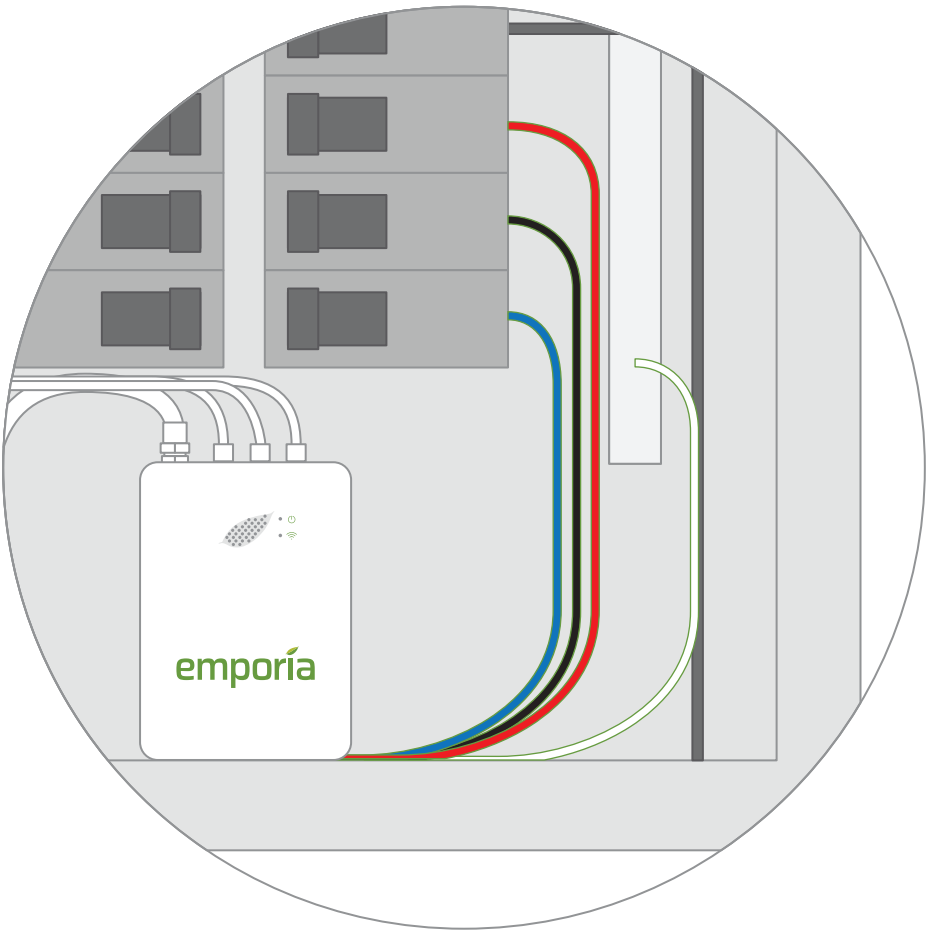
Step 7(c): Three empty breakers and three 200A sensors

Uncommon in N. American homes

Common in N. American commercial systems

Secure the White wire from the wire harness to the neutral bus bar. Turn off three vertically adjacent (stacked) 15A single pole breakers and secure the Black, Red, and Blue wires from the harness to each of the hot leads from each breakers.



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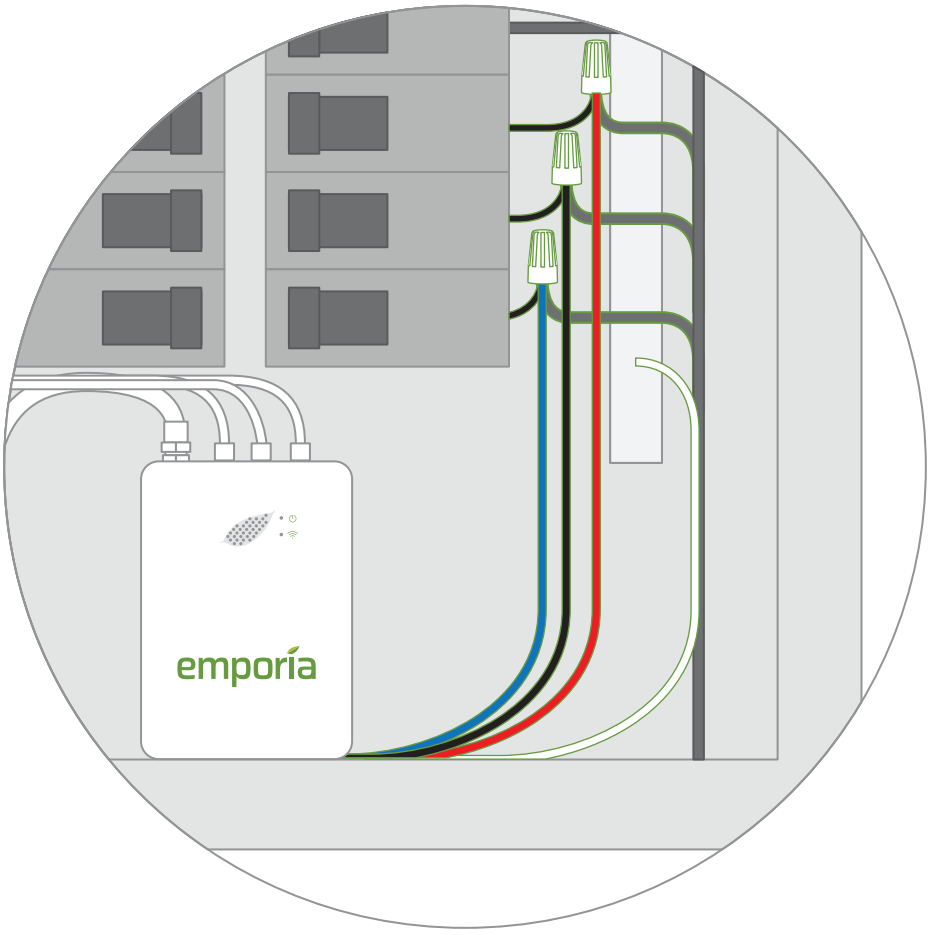
Step 7(d): No empty breaker and three 200A sensors

Uncommon in N. American homes

Common in N. American commercial systems

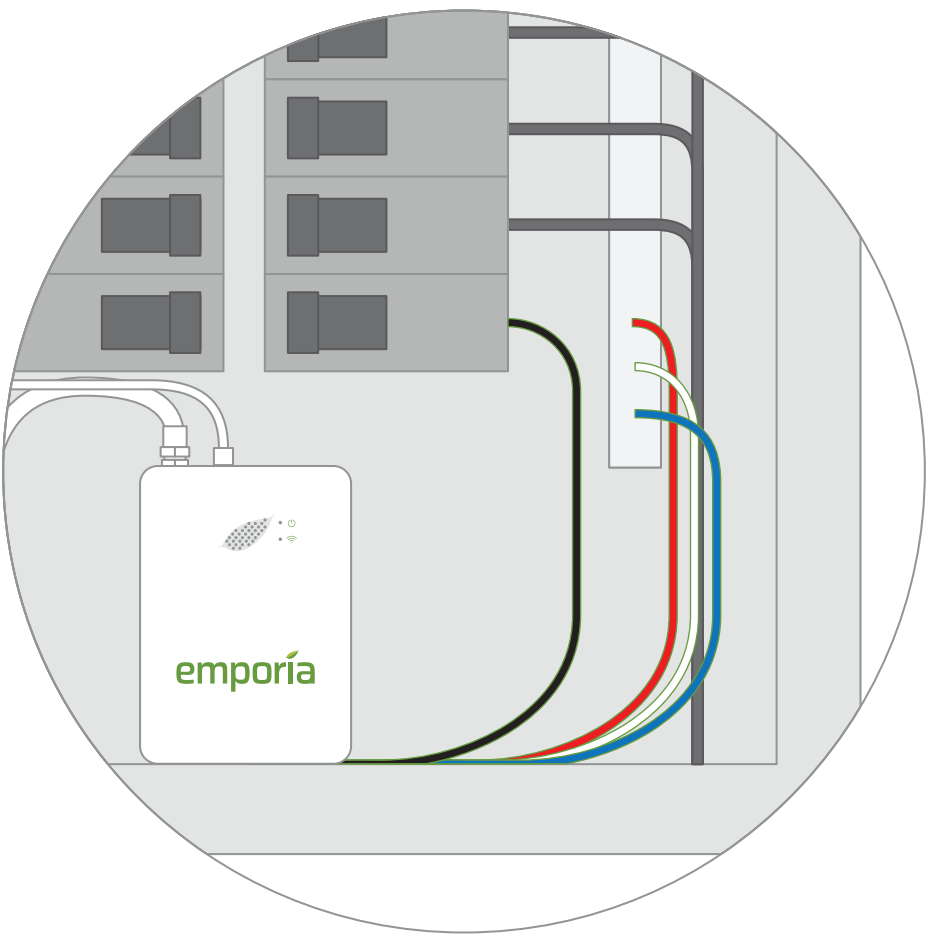
Secure the White wire from the wire harness to the neutral bus bar. Turn off three vertically adjacent (stacked) 15A single pole breakers and remove their wires. Connect one of the breaker wires to the Black harness wire and an extra wire with a wire nut. Next, connect the second breaker wire to the Red harness wire and an extra wire with a wire nut. Next, connect the third breaker wire to the Blue harness wire and an extra wire with a wire nut. Then secure each of the extra wires to the three breaker poles.



Step 7(e): One empty breaker and one 200A sensor

Uncommon in N. American homes

Secure the Red, White, and Blue wires from the wiring harness to the neutral bus bar. Turn off an empty 15A breaker and secure the Black wire from the harness to the hot lead from the breaker.



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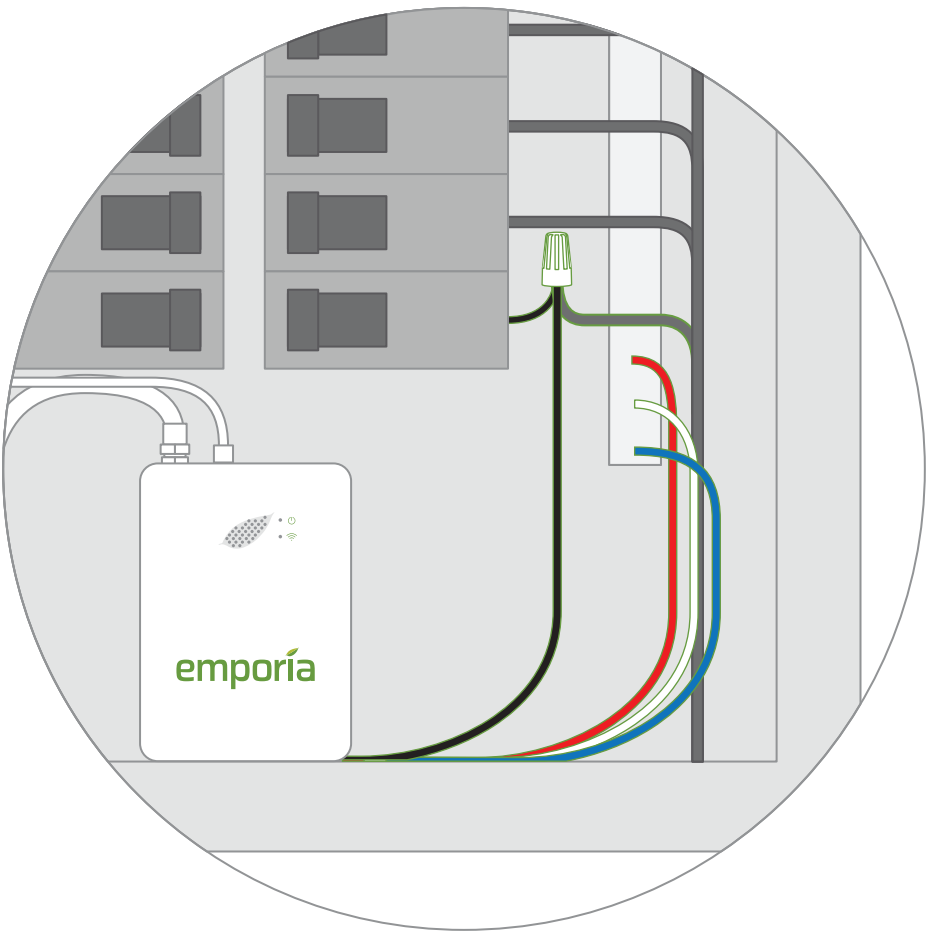
Step 7(f): No empty breaker and one 200A sensor

Uncommon in N. American homes

Secure the Red, White, and Blue wires from the wire harness to the neutral bus bar. Turn off a 15A breaker and disconnect its wire. Connect that wire to the Black wire from the harness and the piece of extra wire with the wire nut. Then secure the extra wire to the breaker.



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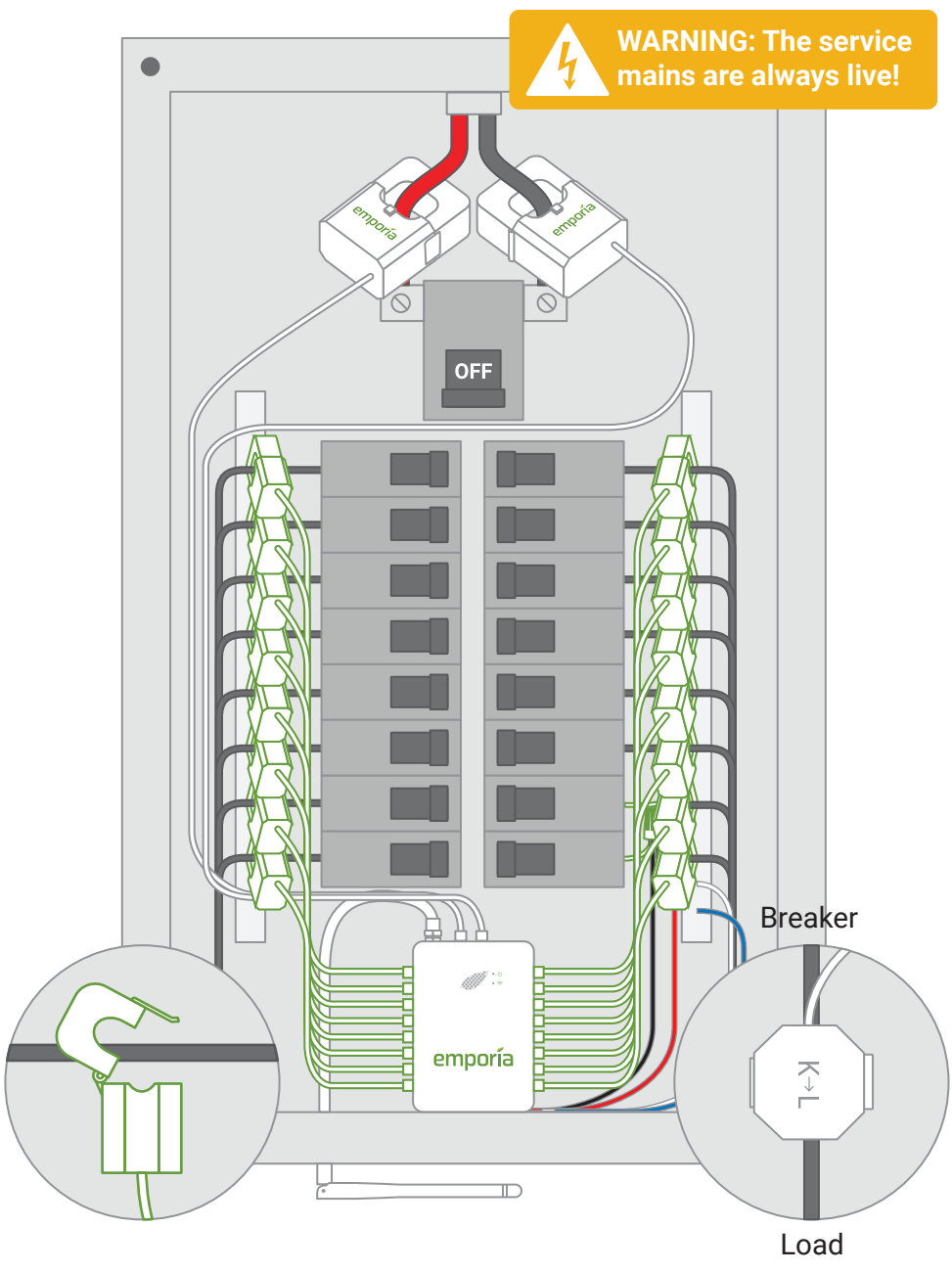
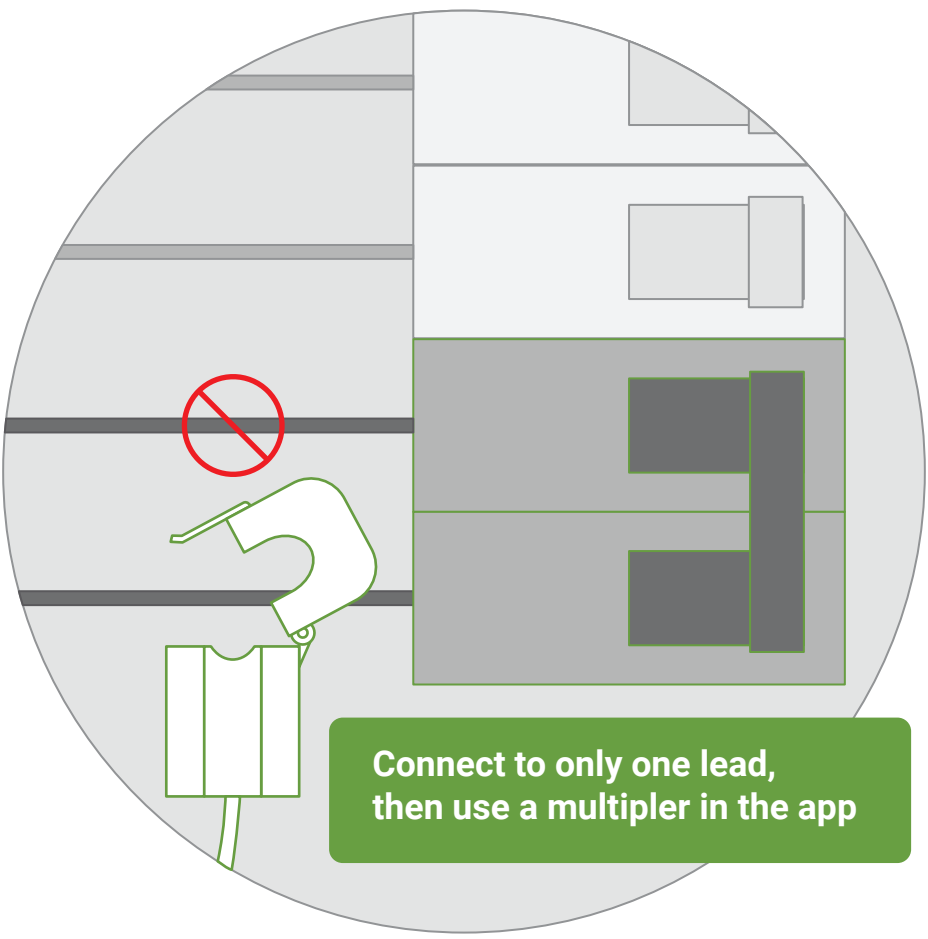
Step 8: Plug in and connect the 50A current sensors

If your Vue has 50A sensors, open the clasps on the 50A sensors and place each sensor clamp around the hot leg from the breaker you wish to monitor. Then shut the clasps to secure the sensors. **IMPORTANT! The K→L imprint on the bottom of the sensors should point away from the breakers.** Then, insert the plugs attached to them into the 2.5mm ports on the sides of the energy monitor. Note the port numbers so you can name the circuits in the app.



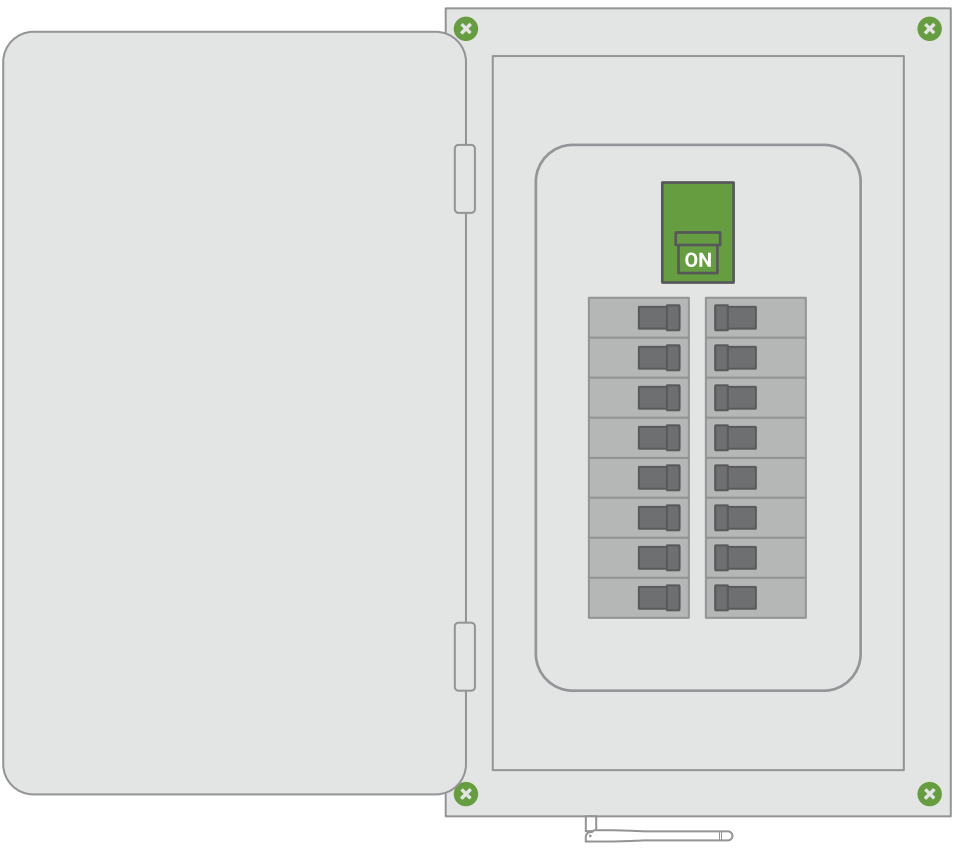
Step 8 (continued): A note about multi-pole breakers

If you wish to monitor 2- or 3-pole breakers, you can either use one sensor on each pole, or you can use a single sensor. To use a single sensor, clasp the clamp around either one of the hot leads coming off the breaker (it doesn’t matter which). You’ll then be able to input a circuit multiplier in the app to double or triple the reading by entering a “2” or “3.” We don't recommend multiplers for unbalanced loads, such as subpanels.



Step 9: Replace the cover and turn on all breakers

Secure the cover to the box with any screws you removed in Step 2. Next, flip any breakers that you turned off during installation to restore power to the circuits in your home. You should hear a power up tone from the Vue to confirm it has power. Then, close the panel.



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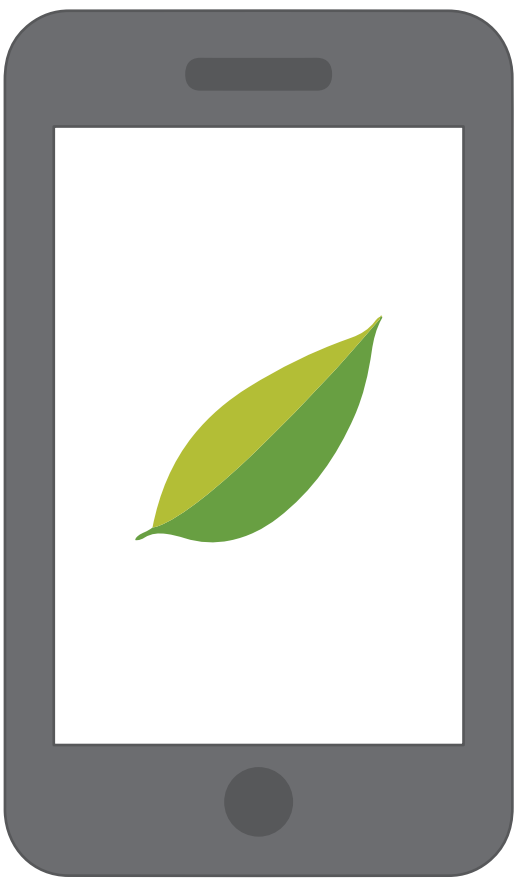
Step 10: Complete setup

Tap the button in the app to indicate that you've installed your Emporia Vue, heard its power up tone, and you're ready to proceed. Your phone will connect via Bluetooth to the system and then you'll connect to a nearby Wi-Fi router. Make sure you have your Wi-Fi name and password.



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Troubleshooting Tips

The Emporia app is not finding my Vue after I've installed it.

- Ensure the Vue has power:
  - Check for a green power light.
  - Listen for a startup tone.
  - Check the wire harness is secure and wired properly.
  - Check that the main breaker is turned on.
  - Check that the breaker powering the Vue is turned on.
- Ensure your phone can connect to the Vue.
  - Check your phone's Bluetooth is on.
  - If you're using an Android, turn on Location Services for your phone to properly scan for Bluetooth devices.
- Ensure the Vue's Wi-Fi antenna has been installed properly.
  - Check the antenna is properly screwed into the energy monitor
  - Ensure the antenna is outside of the electric panel. It's ok if it is inside a wall, just ensure it's not inside the metal box.
- Try power cycling the breaker to which the Vue is connected.
- Try restarting the Emporia App.
- Try rebooting your phone.

The Emporia Energy app isn't getting real-time data from the Emporia Vue

- Ensure all current sensors are securely fastened around ttheir respective cables in your electric panel.
- Check the current sensors are securely plugged into the energy monitor in ports.

Technical Details

Energy Monitor

Power supply input: 100-240VAC 50-60Hz
Power usage: < 3 Watts
Wi-Fi: 2.4 GHz 802.11b/g/n
Operating conditions: -40° -122° F (-40° - 50° C)
0-80% RH

200A Current Sensors

Max current: 200A
Cable length: 1 m
Inside diameter: 26 mm

50A Current Sensors

Max current: 50A
Cable length: 1 m
Inside diameter: 10 mm

The Vue energy monitor and current sensors are considered a system designed for field installation in a switch enclosure as per section 312.8(B) of the 2017 National Electrical Code (NEC) regarding Power Monitoring Equipment. The Vue is considered a non-invasive load monitor (NILM) and as a non-permanent fixture, it is acceptable to install in an electrical panel.

The Emporia Vue Smart Home Energy Monitor contains FCC ID: 2AS6P-EMCTV2 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. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Caution: Any changes or modifications not expressly approved by Emporia void the user's authority to operate the equipment.