SAFETY PRECAUTIONS

Before You Begin
This chapter contains important safety precautions that must be followed before attempting to install, service, or maintain electrical equipment. Carefully READ and FOLLOW the safety precautions outlined below BEFORE working with CURB power hub.

⚠️ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH
- Only qualified electrical workers should install this equipment. Such work should be performed only after reading this entire set of instructions.
- NEVER work alone.
- Before performing visual inspections, tests, or maintenance on this equipment, disconnect all sources of electric power. Assume that all circuits are live until they have been completely de-energized, tested, and tagged. Pay particular attention to the design of the power system. Consider all sources of power, including the possibility of backfeeding.
- Turn off all power supplying the power hub and the equipment in which it is installed before working on it.
- All circuit-breakers powering the power hub must meet the relevant requirements of IEC 60947-1 and IEC 60947-3.
- Always use a properly rated voltage sensing device to confirm that all power is off.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. In the USA, see NFPA 70E.
- Before closing all covers and doors, carefully inspect the work area for tools and objects that may have been left inside the equipment.
- Use caution while removing or installing panels so that they do not extend into the energized bus; avoid handling the panels, which could cause personal injury.
- The successful operation of this equipment depends upon proper handling, installation, and operation. Neglecting fundamental installation requirements may lead to personal injury as well as damage to electrical equipment or other property.
- Equipment should be used as specified by this manual, otherwise protection provided by equipment may be impaired.
- NEVER bypass external fusing.
- The power hub should be installed in a suitable electrical and fire enclosure.

Failure to follow this instruction will result in death or serious injury.

Check package for contents:
1 - CURB power hub
1 - HomePlug adapter
1 - Cat-5 Ethernet cable
3 - Voltage wires (red, orange, white)
1 - Voltage wire connecting block
3 - CT clamp connecting blocks
2 - Large (100A) CT clamps
2 - Medium (50A) CT clamps
8 - Small (30A) CT clamps
HAZARD CATEGORIES AND SPECIAL SYMBOLS

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠️ DANGER

DANGER indicates an immediately hazardous situation which, if not avoided, will result in death or serious injury.

⚠️ WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, can result in death or serious injury.

⚠️ CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, can result in minor or moderate injury.

⚠️ CAUTION

CAUTION, used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, can result in property damage.

CLASS B FCC STATEMENT

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 measurers:

- 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.

This Class B digital apparatus complies with Canadian ICES-003.

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support@energycurb.com
HARDWARE SETUP

1. Connect the HomePlug Receiver
   • Plug HomePlug receiver directly into wall outlet. (*NOTE: power strips with surge suppression, GFI outlets, & GFI circuit breakers may cause HomePlug to fail to communicate.*)
   • Connect Ethernet cable from HomePlug receiver to a LAN port on router.

2. Label & record circuit breaker panel details *(optional)*
   If monitoring one breaker panel:
   • Find main breaker panel for the house, not sub-panel.
   • Label only breakers that will be clamped in the panel using the provided green # stickers.

3. Identify and record all circuit phases
   • Remove cover from panel.
   • Label breaker that will power the CURB hub.
   • Label all circuits with an A sticker that match phase with the HomePlug circuit.
   • Label all the other circuits with a B sticker.
   (Stickers are only needed for monitored circuits)

   **HOW-TO Identify the Phase of the circuits you plan on monitoring.**
   • Using a Multi-meter, find 0 VAC between the circuit you plan on monitoring, and the Main leg coming into the panel. *NOTE: If you read 240VAC you are not on the same phase as the main and the circuit.*
   • Label that circuit “A” and the corresponding main “A”.
   • Repeat these steps for the “B” Phase circuits you plan on monitoring.

4. Connect, Power Up CURB and Check Connection
   • Find the CURB voltage connector.
   • Switch OFF the main breakers.
   • Connect white neutral wire from neutral rail to white “N” port.
   • T-connect red power wire from red CURB breaker to red “A” port.
   • T-connect orange power wire from any orange “B” breaker to orange “B” port.
   • Connect the wired CURB voltage connector to CURB.
   • Switch ON the main breakers.
   • Check connection to devices as listed below:

   **Check Connectivity on Curb Hub:**
   • Red Light: Solid light shows connection to HomePlug
   • Green Light: Flashing light shows data transfer

   **Check Connectivity on HomePlug Receiver**
5. Connect current sensors and configure software

- Find the connector with the Red and Orange circuit block connectors labeled A-F:
  - Red: Block 1 / Phase A
  - Orange: Block 2 / Phase B
- Measure the Main Consumption of the house:
  - Attach the 100amp CT clamps to the A port on both Block 1 and Block 2
  - Clamp the CT clamps to the corresponding phase legs of the main power
- Measure the Solar
  - Attach the 50amp CT clamp to one leg of the solar and connect to the corresponding phase block
- Measure the other large consumers of power
  - Attach the remaining 50amp and 30amp CT clamps to the other large loads in the home and the corresponding phase blocks.
  - See Curb Priority Circuit Guide below on choosing the correct circuits to measure
- Fill out the Curb Hub Configuration Matrix:
  - Record each CT with their corresponding position on terminal block with the circuit’s name, CT size and whether or not a multiplier for a 240 VAC circuit is needed on the provided Hub Configuration Matrix (Appendix A)
- Complete the software setup using information from Appendix A

<table>
<thead>
<tr>
<th>Priority</th>
<th>Name</th>
<th>Poles</th>
<th>Balanced Load?</th>
<th>Notes:</th>
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<tr>
<td>1</td>
<td>AC Compressor</td>
<td>2</td>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>Electric Vehicle</td>
<td>2</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Electric Hot Water Heater</td>
<td>2</td>
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<td></td>
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<tr>
<td>2</td>
<td>Pool Pump</td>
<td>2</td>
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<td>2</td>
<td>Sub Panel</td>
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<td>Need to measure both legs</td>
</tr>
<tr>
<td>2</td>
<td>Electric Clothes Dryer</td>
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<td>Furnace</td>
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<tr>
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</tr>
<tr>
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<td>Cooktop/Range/Oven</td>
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<td>No</td>
<td>Need to measure both legs</td>
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<td>Dishwasher</td>
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</tr>
<tr>
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<td>Fridge / Freezer</td>
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<td>N/A</td>
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</tr>
<tr>
<td>3</td>
<td>Whole House Fan</td>
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<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>
SOFTWARE CONFIGURATION

On your phone, tablet or laptop, go to:

http://connect.energycurb.com

Enter the serial number found on the back of the device:

Model No. 00615
Serial No. ddjum8t

1. Set the Location
   a) Change the location to: Customer Last Name – Job # (Smith - #345632) or other established naming convention
   b) Fill in the customer address
   c) Check the Solar, Wind, Battery boxes based on the home setup
   d) Click “Next: Clamp” at bottom of screen
2. Clamp Inputs – Overview

- **Circuit Type:**
  - Main (toggle +/- to ensure positive reading when solar is not actively producing)
  - Production (breaker-side or line-side solar)
  - Consumption
- **CT Clamp Size:**
  - 100A (Large)
  - 50A (Medium)
  - 30A (Small)
  - Others (Thin 100A, Mini, etc..)
- **Name:**
  - Label the circuit *(visible to customer)*
- **Multiplier:**
  - If you are only measuring 1 leg of a two-pole balanced load, you need to double the output by selecting “Double pole”

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**Important Notes for Solar:**
- CT clamps can be installed in either direction to help ease installation.
- Both A and B “Mains” must read positive when solar is off.
- To confirm:
  - Turn solar off
  - Toggle +/- until output for Watt is positive on block Phase A and B Main CT Clamps

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Note: “Toggle +/-” is only available on mains. Consumption and Production circuits automatically display dynamically.
3. Handoff to Customer

4. Check Your Work
   - Double-check each clamp for secure closure.
   - Double-check each wire for secure connection to the CURB.

5. Tidy Up
   - Before closing panel, organize and tidy up wires on each side of the breaker panel.
   - Take a high-res photo of the open panel and email it to sales@energycurb.com with the serial number and customer name as the subject line.
   - Close the panel cover.
   - Add CURB sticker to panel cover.
   - Call CURB Support 844-629-2872 if you have any issues.

EXAMPLE

- **Mains:**
  - 100 Amp CT on both A and B phases
  - Circuit type: Main
  - +/- Toggle “checked” to read positive when no solar production
- **Solar:**
  - 50 Amp CT
  - Circuit type: Production (Breaker Side)
  - Multiplier: Double
- **Consumption Circuits:**
  - AC 1, 50 Amp CT, Consumption, Double Pole
  - Hot H2O, 30 Amp CT, Consumption, Double Pole
  - Furnace, 30 Amp CT, Consumption, Single Pole

**Note:** Setting the Circuit number is optional but helpful for troubleshooting
MAINTENANCE AND TROUBLESHOOTING

Introduction
CURB does not contain any user-serviceable parts. If the CURB power hub requires service, contact your local sales representative. Do not open the power hub. Opening the power hub voids the warranty.

Getting Technical Support
Please refer to the Technical Support Contacts provided in the CURB shipping carton for a list of support phone numbers by country. In the United States, contact CURB customer support by calling (844) 629-2872 or sending an email to support@energycurb.com.

Troubleshooting
Troubleshooting tips can be found at http://energycurb.com/support. The information outlines potential problems and their possible causes. It also describes checks you can perform or possible solutions for each. After referring to this table, if you cannot resolve the problem, contact your local CURB sales representative for assistance.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

• This equipment must be installed and serviced only by qualified electrical personnel.
• Turn off all power supplying this equipment before working on or inside.
• Always use a properly rated voltage sensing device to confirm that all power is off.
• Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E.
• Carefully inspect the work area for tools and objects that may have been left inside the equipment.
• Use caution while removing or installing panels so that they do not extend into the energized bus; avoid handling the panels, which could cause personal injury.

Failure to follow this instruction will result in death or serious injury.
# HUB CONFIGURATION WORKSHEET

<table>
<thead>
<tr>
<th></th>
<th>CURB Display Name</th>
<th>Multiplier (Y/N?)</th>
<th>CT Size</th>
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<tr>
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<td></td>
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Serial #: 
Hub Name: 
Address: 
Notes: