

Home Panel with EV Outlets Installation Manual



DISCLAIMER

The ZENDURE Home Panel with EV Outlet (referred to as Home Panel) must be installed by a licensed electrician, who should be familiar with all electrical codes, electrical wiring practices and experience working with home electrical systems. Any accident, damage or personal injury caused by incorrect installation is the sole responsibility of the user.

Read all safety guidelines, warnings and other product information in this manual carefully, and read any labels or stickers attached to the product before using. Users take full responsibility for the safe usage and operation of this product. Familiarize yourself with relevant regulations in your area. You are solely responsible for being aware of all relevant regulations and using Zendure products in a way that is compliant.

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1. Before You Begin

The information contained herein is subject to change without notice.

For the latest version, please visit

https://zendure.com/pages/download-center.

2. Specifications

General			
Weight	≈ 16.8kg		
Dimensions	353 x 205 x 610mm		
Max connected Battery Capacity	64,380Wh (SSS) or 46,080Wh (LFP)		
Wireless Type	Bluetooth, Wi-Fi		
Mounting Type	Wall Mount		
Maximum # of Circuits	4		
Rated Relay Module Current	63A x4		
Rated System Voltage	230VAC,400VAC(Grid Mode only)		
Max Total Input Current	63A x4		
Rated Max SuperBase V Input	7400W Max (3700W x2)		
SuperBase V Charging Power	7200W Max (3600W x2)		
Operating Humidity (RH)	5-85%		

3. Safety Guidelines

3.1 Instructions

- 1. The product must be installed by a licensed electrician.
- The Home Panel defaults to Grid Mode. For safety, do not access or disconnect any load circuits when there is an internal fault. Power down those loads and contact a licensed electrician or Zendure technical support.
- 3. Do NOT unplug fuses while Home Panel is energized, or may cause damage to the Home Panel.
- 4. All upstream breakers feeding into Home Panel should be non-AFCI or non-GFCI. AFCI or GFCI protection should be downstream of the Home Panel using AFCI/GFCI breakers or outlets.
- 5. Do not use around strong static electricity or magnetic fields.
- 6. Do not install or operate the product outdoors or expose to moisture or submerge it in liquid. Only clean the ports with a dry cloth.
- Do not block or obstruct the cooling fan during use or place the product in an unventilated or dusty area.
- Do not install or operate the product in extreme temperatures. Do not dispose of the product in heat or fire.
- 9. Do not use the product if it is damaged or appears to be damaged. Do not disassemble the product. Consult official Zendure channels when service or repair is required. Incorrect disassembly or reassembly may result in a risk of fire or injury to persons.
- 10. Do not connect the relay lines to circuit breakers higher than their current rating. Doing so can result in damage to the relay modules.
- Adhere to all local and national safety regulations for installation and use.
- 12. This product is designed for residential use only. Keep out of reach of children and pets.
- 13. The maximum total current for all input circuits under the Grid Mode is 63A x4.

3.2 Warnings

- To completely de-energize the product, the user MUST open the upstream breakers as well as physically unplug all SuperBase Vs. Failure to do so may cause a shock hazard.
- 2. Home Panel by itself does not provide an AFCI (Arc Fault Circuit Interrupter) or GFCI (Ground Fault Circuit Interrupter) function. Consult a licensed electrician for AFCI or GFCI solutions.
- The Home Panel MUST be completely de-energized before being serviced. Electrical equipment should be serviced by authorized personnel only.

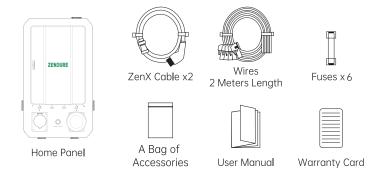
4. Important Tips

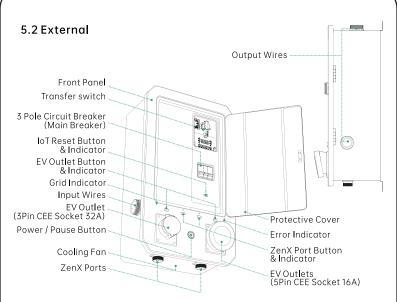
Complete the following steps to de-energize the Home Panel

- Open all connected upstream circuit breakers and make sure the Grid Indicator are off.
- 2. Turn off SuperBase Vs, unplug them off the Home Panel and ensure the ZenX Port Indicators are off.
- 3. The alarm will sound if the Home Panel is energized while the Front Panel is open. Please ensure that the unit is de-energized and the alarm has stopped.

5. Product Features

5.1 What's in the Box





1. Dual Power Automatic Transfer Switch

When the main breaker of the Home panel fails, the Transfer Switch will automatically Switch the two power supplies to the load: Grid Mode or Backup Mode.

Grid Indicator and ZenX Port Indicators

There are three power source indicators on the Home Panel, one for the grid, two for the SuperBase Vs. If any of these indicators are illuminated, Home Panel is energized from that source and, therefore, cannot be opened to be serviced.

3. ZenX Port and Button

There are two ZenX ports on the bottom of Home Panel. They connect SuperBase Vs to the Home Panel through the ZenX Cable (one for each SuperBase V). Press the corresponding buttons to make SuperBase Vs ready for output or charging.

4. FV Outlet and Button

There are two outlets on the Home Panel for EV charging. Currently, they are only available in Grid Mode, and it's recommended work together with Zendure Mobile EV Charger (not included).

5. IoT Reset Button and Indicator

This button can be used to reset the pairing and connect to Wi-Fi network.

6. Error Indicator

This indicator is normally off if no fault is present inside. It will turn red if there is a fault in the product. Users can go to the Zendure app for detailed information. If there is an issue, please contact customer support for assistance.

7. Power / Pause Button and Indicator

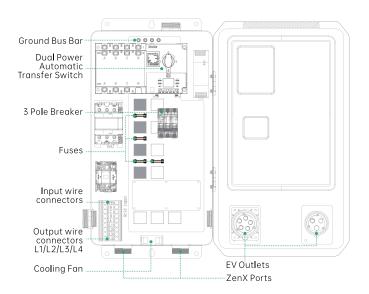
The button will turn ON/OFF the $\,4\,$ load circuits, while you can still have network connection.

* This is the only "quick disconnect" that can be used to manually cut all power in an emergency. AC in and SuperBase V in still energize.

8. 3 Pole Circuit Breaker

The 3-pole circuit breaker as main breaker for single-phase or three-phase circuit input , separately powering SuperBase V1, SuperBase V2 and EV Outlets

5.3 Internal



1. Ground Bus Bar

The ground bus bar should be connected to the ground bus bar in the main electrical panel. The panel casing is connected to this ground. NOTE: Please follow local code requirements with regard to bonding neutral and ground. Bonding should be done at the first means of disconnect, which is the main electrical panel, NOT the Home Panel.

2. Output Wire Connectors

These are the wire connectors for output hot wires going to the load.

3. Fuses

They are overcurrent protection fuses. Each fuse can be individually replaced without affecting other circuits. De-energize the Home Panel before replacing any module.

4. Input Wire Connectors

These are the wire connectors for hot wires coming from the circuit breakers in your main panel.

5. Cooling Fan

The cooling fan is activated under extreme operating conditions to reduce the ambient temperature inside of the unit.

6. Installation Checklist

No.	Checklist	Status	
Befo	ore installation		
1	Determine the installation location. The Home Panel is rated to IP20, therefore, it needs to be installed away from direct sunlight, rain, snow and moisture.		
2	Determine the distance between the Home Panel and main electrical panel.		
3	Confirm the number of loads to be connected to Home Panel. You can connect up to 10 single pole load circuits.		
4	Determine whether the upstream circuit breakers of the selected loads require AFCI or GFCI protection. Consult a licensed electrician for AFCI or GFCI solutions.		
5	Determine and gather required materials. Home Panel can support up to 1 1/4-inch conduit. Ensure that necessary adjustment factors (for number of conductors) are accounted for and that wire ampacity is sized appropriately. For longer runs it is recommended that you use separate conduits for the input and output wires.		
Durir	ng installation - Circuit breaker		
1	It's recommended to connect to the upstream 63A circuit breakers. Failure to do so may cause overcurrent protection to fail.		
2	The ampacity rating of wiring used should match the circuit current. Using an undersized cable may cause overheating and even a fire.		
3	All upstream breakers should be non-AFCI or non-GFCI. Any AFCI/GFCI breakers need to be moved downstream of the Home Panel.		
During installation - Wiring			
1	With a multimeter in continuity setting, confirm that the hot wire in of each Home Panel circuits is not shorted to neutral.		
2	With a multimeter in continuity setting, confirm that the hot wire in of each Home Panel circuits is not shorted to ground.		
Com	Commissioning		
1	Make sure the SuperBase Vs are enabled and that the power button is on (green light).		
2	Close the upstream breaker of Home Panel and energize the Home Panel AC input. The Grid Indicator (white) will turn on if there is no fault.		

3	Turn each branch circuit breaker back on one by one and check the indicator status of each circuit and power indicator. The indicators will stay white.	
4	If you haven't done so already, download the Zendure app. For first time users, the app will lead through a commissioning process to setup the Home Panel.	
5	Follow the instructions in the app to conduct device wiring testing. If the device wiring testing fails, correct the wiring following the prompts in the app and re-run the wiring test.	
6	Connect the SuperBase Vs and Home Panel using the ZenX Cable. Turn on the SuperBase Vs, then press the ZenX Port button on the Home Panel to enable each SuperBase V.	
7	Switch the power supply from Grid Mode to Backup Mode (SuperBase V) for each circuits via the app. Check whether the switchover is successful and there are no errors reported on the app. Follow the instructions on the app to fix the errors if any.	
8	Set up the charging for SuperBase V on the app (if AC grid charging is desired), check whether the SuperBase V is recharged successfully and there are no errors reported on the app. Follow the instructions on the app to fix the errors if any.	

7. Installation Steps

7.1 Preparation

Tools required:

- 1. Level
- 2 Drill
- 3. Screwdrivers
- 4. Pliers
- 5. Wire cutters, nuts, harness
- 6. Conduit, Conduit whip
- 7. Tape measure
- 8. Multimeter, Voltage detector
- 9. Purchase one new 3-pole 63A circuit breakers or 4 single pole 63A circuit breakers if necessary. (NOTE: these breakers may be required to be handle tied per rules.)

Warning:

Installation of this product involves high voltage. Please hire a licensed electrician to perform the installation.

Once you have determined the load circuits that you want to back up, fill out the table below. The numbering arrangement is the same as the Home Panel.

7.2 Mounting

Position the Home Panel center to center to your main electrical panel. Please follow the local safe electrical clearance distance. Make sure you also check the length of the flexible conduit.





1. Open the Front Panel

2. Tighten the centered screws at the top and bottom



3. Tighten other 4 screws with the level.

7.3 Wiring

All wires come labeled in the box, 4 input wires, labeled "1 in - 4 in" connected to the 63A circuit breakers, 4 output wires, labeled "1 out - 4 out" connecting to the load hot wires, one neutral wire connecting to the neutral bus bar in the main electrical panel and one ground wire connecting to the ground bus bar in the main electrical panel. Users should connect all input, output, neutral and ground wires to their designated connectors inside the Home Panel.

The maximum current for each load circuit is 63A. The current rating for

appropriately.

Position the Home Panel center to center to your main electrical panel and measure the length of wires needed. Please follow the local safe electrical

each circuit should not be exceeded. Please plan the load circuits

clearance distance.

All wires come in the box are 2m, you may use your own wires with the right length instead of the included wires.

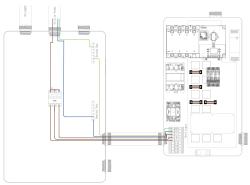
Step:

- Turn off the main breaker as well as the 63A circuit breakers intended to be connected in the main electrical panel and use a voltage detector or voltmeter to make sure the system is fully de-energized.
- 2. Remove the front cover of the main electrical panel. Keep in mind that the grid side of the main panel (upstream of the main breaker) is still energized.
- 3. Attach both top and bottom conduit to the Home Panel and main electrical panel.
- 4. Pull all wires (Input, output, neutral and ground) from the Home Panel to the main electrical panel.
- Connect the neutral wire and the ground wire to the neutral and ground bus respectively.
- 6. Remove the hot wires from the circuit breakers. Connect each load hot wire to the corresponding output wire from the Home Panel (for example, the output wire labeled "1 out" means it's the output for channel 1). Make sure they are connected to the right numbers as planned.
- 7. Repeat step 6 for all 3 load circuits.

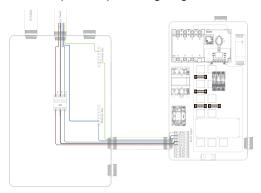
Input wiring diagram

6AWG hot wires, 6AWG neutral wire and 12AWG ground wire are recommended.

single-phase Input wiring diagram



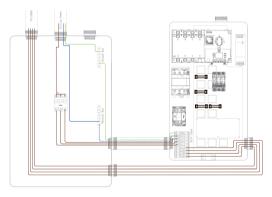
Three-phase Input wiring diagram



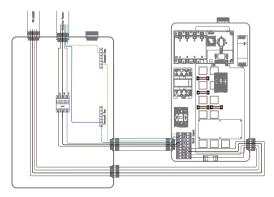
Output wiring diagram

6 AWG hot wires are recommended.

single-phase Output wiring diagram



Three-phase Output wiring diagram



Note: Three-phase output is divided into 2 groups Group 1 is a three-phase ABC 3 firewire output of 400V Group 2 is a single-phase A firewire output of 230V(Start the SBV and output from this group line)

8. System Commissioning

- After you have connected all wires accordingly, clean up all the wires and tie them using a wire harness. Close the Front Panel and tighten the screws to secure the door. Label the circuit names accordingly on the Home Panel.
- 2. Download the Zendure app, connect a SuperBase V to the Home Panel without pressing the ZenX Port button.
- 3. Press the IoT Reset button for network connection. For first time users, the app will lead through a commissioning process to setup the Home Panel. Simply follow the steps to complete the process. Once you have finished the commissioning process on the app, you are ready to energize the Home Panel.
- 4. After completing the device wiring test, press the ZenX Port button for the connected SuperBase V. The ZenX Port indicator should turn green. Watch for any abnormal signs and fault indication.
- 5. If there is no sign of fault, turn the main breaker back on and then turn the 63A circuit breakers back on and watch for any fault indication.
- 6. If the device wiring testing reports any errors, or if there are any errors, please resolve the issues following the message shown on the App or contact our customer support. You can leave your Home Panel as long as there is no indication of electrical or other type of sign for a fault. The default mode for Home Panel is grid power so it will not affect your use of power.
- 7. If there is no sign of error, congratulations! Here you go.

Warnina:

The Home Panel defaults to Grid Mode when without power, which means the load is automatically connected to the grid power if no power is supplied to the Home Panel or it's started for the first time. Please make sure energization of load circuits do not endanger any person or incur any property damage before closing the main breaker.

9. Firmware Update, Voice Control

Firmware Update

When using it for the first time, please check and update to the latest firmware. Zendure App supports over-the-air (OTA) update.

Voice Control

Home Panel is easy to integrate with your existing Google or Alexa voice assistant. Just say the word for hands-free status and controls.

Read the Zendure App user guide and access the download link here: https://app.zendure.com/download



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