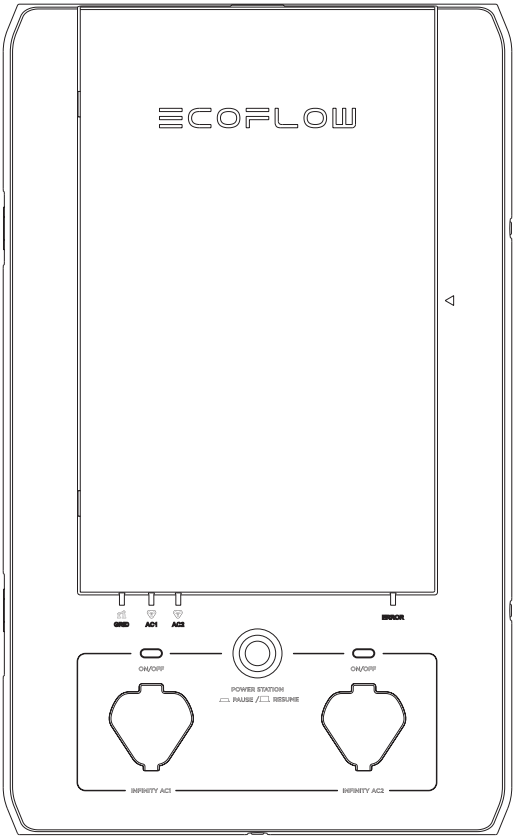
ECOFLOW

Smart Home Panel

User Manual



DISCLAIMER

Read all safety tips, warning messages, terms of use, and disclaimers carefully. Refer to the terms of use and disclaimer at **https://ecoflow.com/pages/terms-of-use** and stickers on the product before use. Users take full responsibility for all usage and operations. Familiarize yourself with the related regulations in your area. You are solely responsible for being aware of all relevant regulations and using EcoFlow products in a way that is compliant.

INTRODUCTION

The EcoFlow Smart Home Panel (referred to as SHP) is a smart load side transfer switch. It works as a fast-charging docking station for the DELTA Pro in grid mode and can switch up to 10 downstream load circuits between the grid and the home backup system. It also allows you to monitor and control these circuits anywhere, anytime, using the EcoFlow app.

The EcoFlow SHP meets the National Electrical Code Article 702.6 standards for Optional Standby Systems.

This manual explains the usage of the Smart Home Panel. Additional information describing how this product is installed and used is available at **www.ecoflow.com.**

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1. Safety Instructions

1. The product must be installed by a licensed electrician and verified by local AHJ (Authority Having Jurisdiction, i.e., your city, town, county or state).
2. The SHP defaults to grid mode when not powered. 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 EcoFlow technical support.
3. This product is not intended to be used as a service disconnect. To completely de-energize the product, the user MUST open the upstream breakers as well as physically unplug all DELTA Pros. Failure to do so may present a shock hazard.
4. DO NOT unplug relay modules while SHP is energized, because unplugging the relay module while the SHP is energized may cause damage to the relay modules and SHP.
5. Smart Home Panel by itself does not provide an AFCI (Arc Fault Circuit Interrupter) function. AFCI or GFCI protection may be available with an external AFCI accessory. Consult EcoFlow support for AFCI or GFCI solutions.
6. All upstream breakers feeding SHP should be non-GFCI/AFCI. GFCI and AFCI protection should be downstream of the SHP using GFCI/AFCI breakers or outlets. Follow NEC or local electrical codes for AFCI or GFCI installation. An additional accessory panel to aid with installation of AFCI circuits may be available from EcoFlow.
7. Do not use the product near a heat source, such as a fire or furnace. Do not place flammable gases or liquids (e.g. Gasoline) near the device.
8. If there is a loud noise in the relay module, there may be a ground fault downstream of the SHP. The user should clear the fault and replace the relay module before resetting the SHP for normal use.
9. Do not use the SHP if the Short-Circuit Current Rating (SCCR) at the electrical service entrance is above 10kA.
10. Do not install or operate the product outdoors or in damp/wet conditions.
11. Do not install or operate the product in extreme temperatures.
12. Do not use the product if it is damaged or appears to be damaged.
13. Do not connect the relay channels to circuit breakers higher than their current rating. Doing so can result in damage to the relay modules.
14. The split-phase mode should be used for multi-wire circuits (MWBC, circuits sharing a balanced neutral), and the circuits split across the two phases appropriately.
15. Adhere to all local and national safety regulations for installation and use.
16. If an overcurrent fault (breaker tripped) occurs, the corresponding relay module must be replaced to ensure safe operation in the future.
17. This product is designed for residential use only.
18. Upstream circuit breakers protect the SHP only in grid mode. Only use circuit breakers with a fault current interruption capability of 10kA or greater, 4ms or 5kA, 8ms.
19. The maximum total current for all input circuits under the grid mode is 160A.

The SHP MUST be completely de-energized before being serviced

Complete the following to de-energize the SHP

1. Open all connected upstream circuit breakers and make sure the Grid Power Indicators are off.
2. Turn off DELTA Pro(s) from the SHP and ensure the DELTA Pro Power Indicators are off.
3. The alarm will sound if the SHP is energized while the front cover is open. Please ensure that the unit is de-energized and the alarm has stopped

⚠DANGER

1. Multiple sources power this equipment.
2. Electrical equipment should be serviced by authorized personnel only.
3. This equipment is not intended to be used as a service disconnect breaker.
4. Upon losing power, this product automatically switches to the power station.
5. This equipment and downstream load can only be de-energized by opening all upstream breakers and physically unplugging all DELTA Pros.

2. Specifications

Product Info

Weight	20 lb (9 kg)
Dimensions	19.7x11.8x4.7 in (500x330x120 mm)
Mounting Type	Wall Mount
Standard Connector	EcoFlow Infinity Port
Type of enclosure	Type 1
Warranty Description	5 Years
Maximum # of Circuits Controlled	10
Rated System Voltage	120V/240V
Rated Relay Module Current	15A, 20A, 30A
Rated Max DELTA Pro Input	7200W Max (2x3600W)
DELTA Pro Charging Power	6800W Max (2x3400W)
Max Connected Battery Energy	21.6 kWh (6x3.6kWh)
Temperature Range	-4 °F ~ 113 °F (-20 °C ~ 45 °C)

System Info

1 Pro Connected	
Phases	Single Phase 120V
Max Backup Power	3600W
Max Backup Energy	10.8kWh
Max Solar Input	1600W

2 Pros Connected	
Phases	Single Phase 120V/Split Phase 240V
Max Backup Power	7200W
Max Backup Energy	21.6kWh
Max Solar Input	3200W

3. Getting Started

3.1 General Usage

The Smart Home Panel provides several key functions:

1. Automatic Power Backup:

With a DELTA Pro and Extra Battery, Uninterrupted Power Source (UPS) mode starts in less than 20ms.

2. Energy Scheduling Function:

Through the EcoFlow App, user can schedule charging and discharging of the connected DELTA Pros. Using this function, DELTA Pro can work with AC-coupled solar system and the grid to increase return on investment for both solar and battery systems.

3. Energy Management function:

The Smart Home Panel can monitor and control up to 10 frequently used home circuits. Users can monitor the energy use and apply strategies to reduce energy bills and extend the usable time during a blackout.

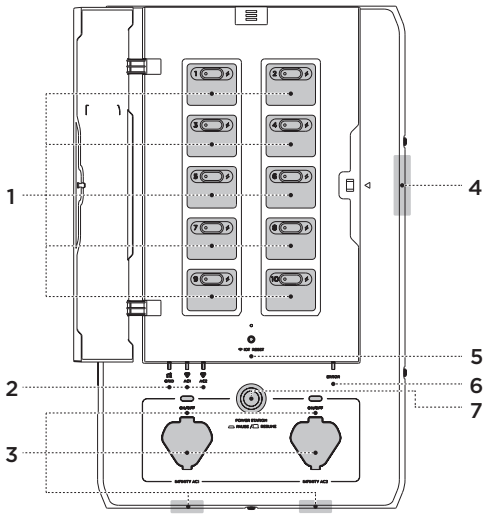
4. Fast Charging Station for DELTA Pro:

The SHP serves as a fast-charging station for the DELTA Pro(s) at home. Users can charge the DELTA Pro at a maximum of 3400W, giving that a 30A circuit breaker is used for charging.

5. Integrated System Control:

Use the EcoFlow app to monitor and control all EcoFlow appliances can work together to offer more power.

3.2 Product Details



1. Load Circuit Control Board

The SHP can be set up to control a total of 10 load circuits, circuits 1, 3, 5, 7, 9 on the left and 2, 4, 6, 8, 10 on the right. There is a button allowing users to manually reset each circuit relay if there has been an overcurrent event on the circuit. An indicator lamp on the button turns red if there is a fault in that circuit.
A lightning bolt indicator for each load circuit is illuminated if that load circuit is energized through one of the sources (grid or power station).

2. Grid Indicator and Infinity Port Indicator

There are three energization indicators on the SHP, one for the grid, two for the DELTA Pros. If any of these indicators are illuminated, SHP is energized from that source and, therefore, cannot be opened to be serviced.

3. Infinity Port and Enable Button

There are two infinity ports on the SHP, which can be either on the bottom of the SHP (default), or relocated to the front. They connect DELTA Pros to the SHP through the Infinity Cable (one for each DELTA Pro). Once plugged in, SHP and DELTA Pro will try to establish connection through communication and SHP's control circuitry may be powered via DC current from the DELTA pro. Press the enable button located near the infinity port (labeled "AC 1" or "AC2" to make DELTA Pro ready for output.

4. Panel Open Alarm System

When the DELTA Pro load circuits are energized, an alarm will sound if the front panel cover is opened. To de-energize the product, all upstream breakers must be opened and both DELTA Pros must be unplugged.

5. IOT Reset Button and Indicator

This button can be used to turn on the Bluetooth hotspot for 5 minutes for the user to connect.

6. Error Indicator

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

7. Power Station Pause/Resume Button

The pause button will physically isolate the 10 load circuits and lock out both connected DELTA Pros. A signal from the SHP will tell the DELTA Pros to stop outputting power. Please note that this does not substitute for a service disconnect, nor does it substitute for the de-energization procedure required before servicing.

NOTE

This is the only “quick disconnect” that can be used to manually cut all power in an emergency. AC in and Pro in still energize.

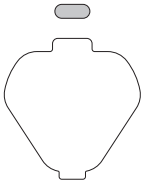
3.3 Hardware Functions

Power Indicators

If the grid power light is on, the SHP is receiving grid power. If the DELTA Pro light is green but flashing slowly, it indicates that DELTA Pro is connected but not ready for output. When the light is static and green, DELTA Pro is ready for power output.

Power Station Enable/Disable Button

When DELTA Pro is connected using the Infinity Port, press the enable button once to prepare the unit. Press it again to put DELTA Pro into sleep mode. Holding down the SHP enable button for 3 seconds will start charging the connected DELTA Pro.



Power Station Pause/Resume Button

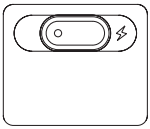
DELTA Pro is electrically disconnected from the SHP output when this button is held down. SHP output is cut. To safely disconnect, the user should still physically disconnect DELTA Pro from the SHP.

IOT Reset Button and Light

This light is usually off. When the button is pressed once, the light flashes green, and SHP Bluetooth allows pairing for five minutes. If the user pairs with the SHP, the light stays green. If nothing pairs with the SHP, Bluetooth goes into sleep mode, and the light turns off.

Circuit Control

The circuit control consists of three parts, the circuit index number, the reset button, and the power indicator. The reset button is used to reset the circuit if there has been a fault in that circuit. If that circuit is white, it is powered by the grid power and green when powered by the DELTA Pro. The lightning-shaped power indicator indicates whether that load circuit is energized or not.



Error Indicator

If there is no fault with the SHP, this light is off. It will flash red if there is any fault in the product. Check the App for a fault diagnostic report and reach out to an EcoFlow customer support representative for help.

⚠Note

If there is a relay module fault, only the faulty channel will default back to grid mode. For other faults, all channels may default to grid mode.

3.4 APP

Control and monitor EcoFlow portable power stations and the SHP remotely with the EcoFlow App.

Download at: **https://download.ecoflow.com/app**

Privacy Policy

By using EcoFlow Products, Applications, and Services, you consent to the EcoFlow Terms of Use and Privacy Policy, which you can access via the "About" section of the "User" page on the EcoFlow App or the official EcoFlow website at **https://ecoflow.com/pages/terms-of-use** and **https://ecoflow.com/pages/privacy-policy**.

4. FAQ

1. Can the SHP connect to a solar roof system?

For DC coupled solar panel system, currently, only portable solar panels with the correct output parameters can be connected to the system. See the DELTA Pro manual for supported solar panel specifications.

2. Does the SHP support split phase 240V output?

Yes, it does up to 30 amps, 7200W. This requires two DELTA pros and two infinity cables.

3. What's the maximum number of DELTA Pros and Extra Batteries that can be connected to the SHP?

A maximum of 2 DELTA Pros and 4 extra batteries can be connected, with a total of 7200W output power and 21.6kWh of energy.

4. Can multiple Smart Home Panels be used simultaneously in one house?

Yes.

5. Can I manually switch between grid and backup power?

Yes, through the EcoFlow app.

6. How many circuits can SHP manage?

A maximum of 10 single phase circuits or 5 split phase circuits.

7. Does the SHP have any protection functions?

Yes. There is a relay based overcurrent and over-temperature protection system in both the grid and backup mode. There is also a fuse for fault protection in the backup mode only.

8. Is there an AFCI function provided by the SHP?

No, an additional accessory needs to be purchased to house an AFCI breaker.

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