EcoFlow Battery Instructions

Document last updated: 10/31/2024

Created by Cassandra Bowers

Center for Inclusive Design and Engineering (CIDE)
UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS

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How to Use the EcoFlow Delta 2 Max

We will go over the basics of how to use an EcoFlow Delta 2 Max battery to power important medical devices during power outages.

- Unpacking your battery
- Choosing where to place your battery
- How to plug in and charge your battery
- How to use your battery
- How to read the LCD screen

The same information is provided in the How to Use the EcoFlow Delta 2 Max video.

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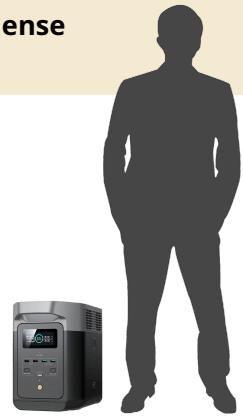
Unpacking Your Battery

Be prepared: The EcoFlow Delta 2 Max battery is very dense and heavy.



It weighs 50 lbs, which is the same as a large bag of dog food or a mini-fridge.

When the battery arrives, you may need assistance to lift and carry it inside your home.

Note: once you've plugged in the battery and confirmed that it's and charging, feel free to throw the shipping box away.

Now let's go over what comes in the box:

Delta 2 Max Battery

User Manual & Warranty Card

AC Charging Cable

The AC charging cable charges the battery from your wall outlet. This is the cable you will likely use the most.

Car Charging Cable

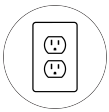
DC Charging Cable

The car and DC charging cables have more specific uses, and depending on your needs, you may not use them. We'll explore these cables further in the module about How to Use Your Battery to Survive in Place.

Choosing a Location

When choosing a location to place your battery, remember these crucial DOs and DON'Ts.

Do



Plug the battery directly into a wall outlet

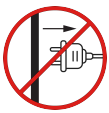
Choose a location where the battery can always remain plugged in and fully charged. That way, you'll have immediate backup power available if the power goes out.

Place the battery in the room with your important devices, ideally with your devices already connected to it. That way, your devices will have immediate backup power if the power goes out.

Don't

Don't place the battery in an extremely hot or cold environment. For example: near a fireplace, in the garage, or in direct sunlight

Don't plug the battery into a power strip, extension cord, or surge protector



Don't leave the battery unplugged, as you won't be ready for unexpected power outages. The battery is economical, so leaving the battery plugged in should add less than $1.50 to your electricity bill per month.

Don't place the battery in a separate room from where you'll need the power. This will make it more challenging to power your devices if the power goes out.

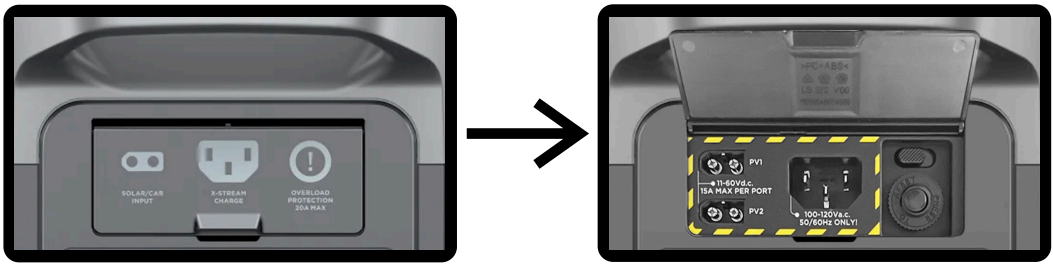
Charging the Delta 2 Max

On the back of the battery, you'll find a cover that flips open. This reveals the AC input port, where you'll plug in the battery for charging.

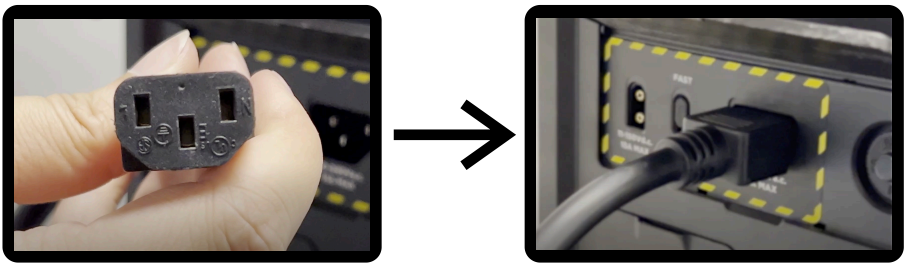
1 **Find a wall outlet**

2 **Plug the AC charging cable into the wall outlet**

3 **Lift the flap covering the AC Input Port**



4 **Plug the other end of the AC charging cable into the battery**



Please note: There are additional ways to charge your battery: using a solar panel or plugging it into your car while the engine is running.

How to Use the Delta 2 Max to Power Devices

First, let's go over the front of the battery.

On the front, you'll find ports that can power and charge smaller devices. You can choose whatever port matches the cable on your device.

Power

USB On/Off

This button will turn the power to the USB ports on or off. If you plug in your devices and they are not receiving power, make sure this is set to "On."

Main power button

This turns the entire battery on and off.

Output Ports

2x USB-A

These ports are for charging and powering devices, like smartphones and tablets.

2x USB-A Fast Charging

These ports allow for faster charging times than standard USB-A ports.

2x USB-C

These ports can charge and power devices that require more power, like laptops.

Please note: All of the ports on the EcoFlow Delta 2 Max have on/off buttons. They will not provide power to your devices unless you turn them on.

Now we'll go over the back of the battery.

On the back, you'll find the AC ports, as well as output ports for specific situations and devices.

Power

AC and DC(12V) On/Off*

These buttons will turn the power to the AC and DC ports on or off. If you plug in your devices and they are not receiving power, make sure this is set to "On."

AC Input Toggle

This is a slider that allows you to adjust how quickly the device will charge, which you can toggle between 400 and 1800 watts.

Car/Solar Input Ports

These ports can be used to charge the battery using your car or solar panels.

Output Ports

6x AC Ports

These sockets look and function like regular wall outlets. They allow you to power various devices and appliances, from small electronics to larger items like refrigerators and power tools.

DC & Car Ports

These ports are only useful for specific situations and devices; most users will never use them.

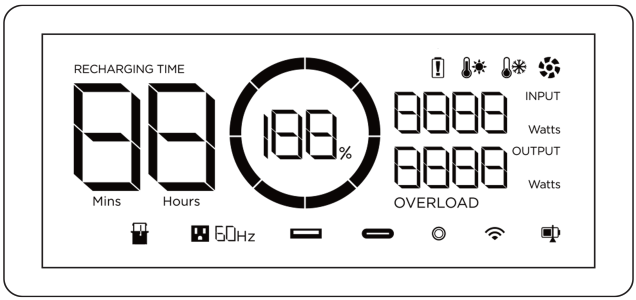
***Please note:** If nothing is powered by these ports for 12 hours, they will automatically shut off. You will need to turn the ports back on before powering your devices.

Reading the LCD Screen

Let’s go over how to read the LCD screen on your battery.

In general, the battery's LCD screen shows the current status of your battery.

Please note: the display will turn itself off after five minutes. To turn it back on, tap the main power button.

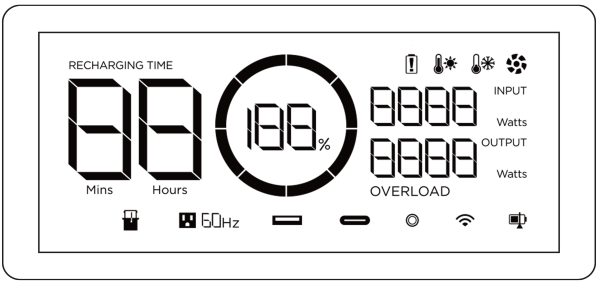


Battery percentage: This tells you what percentage of the battery’s capacity is remaining. The circle around the battery will rotate when the battery is successfully charging.

Please note: If the battery isn’t charging, disconnect all inputs and outputs. Then, press and hold the main on/off button until you hear a beep and see the word 'OFF' appear on the screen. The display will refresh. At this point, you can verify if the device is now charging.

Remaining charging/discharging time: When plugged in, "Recharging" will tell you how long until the battery is fully charged. During a power outage, "Discharging" will tell you how much battery power you have left.

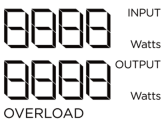
Please note: depending on what devices you are powering, the amount of time remaining will vary greatly. The battery's remaining time estimate becomes accurate only after you connect and power on your devices. Once you've done this, the estimate automatically updates to display the remaining time.



At the bottom of the screen, there are several icons that show which ports are currently on.

AC output **USB-A output** **USB-C output** **12V DC output**

If you plug something in and it doesn't begin to charge, you can check on this screen to see whether those ports are on or off.



Input power and Output power: These show how much power is going in or out of the battery. This can be useful if you want to know how much power in wattage your devices are using.

Wi-Fi status: This shows whether the battery is connected to the internet. This is important if you are using the EcoFlow app to control your battery.

There are a few more icons that can help you keep track of the battery's health but shouldn't be relevant to normal use. We'll go over these icons and how to solve other common issues in more detail in Warranty and Troubleshooting.

How to Use the EcoFlow Delta Pro

We will cover the basics of how to use an EcoFlow Delta Pro battery to power important medical devices during power outages.

- Unpacking your battery
- Choosing where to place your battery
- How to plug in and charge your battery
- How to use your battery
- How to read the LCD screen

The same information is provided in the How to Use the EcoFlow Delta Pro video.

Please note: the EcoFlow Delta Pro is a complex battery with many different features. We won't cover everything, so please refer to your user manual if you have further questions.

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Unpacking Your Battery

Be prepared: The EcoFlow Delta Pro battery is very dense and heavy.

It weighs about 100 lbs, similar to a large dog breed like a Great Dane or a large cooler filled with ice.

When the battery arrives, you may need assistance to lift and carry it inside your home.

Note: once you've plugged in the battery and confirmed that it's and charging, feel free to throw the shipping box away.

Now let's go over what comes in the box:

Delta Pro Battery

User Manual & Warranty Card

AC Charging Cable

The AC charging cable charges the battery from your wall outlet. This is the cable you will likely use the most.

Car Charging Cable

DC Charging Cable

The car and DC charging cables have more specific uses, and depending on your needs, you may not use them. We'll explore these cables further in the module about How to Use Your Battery to Survive in Place.

Choosing a Location

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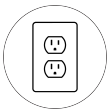

Plug the battery directly into a wall outlet

Choose a location where the battery can always remain plugged in and fully charged. That way, you'll have immediate backup power if the power goes out.

Place the battery in the room with your important devices, ideally with your devices already connected to it. That way, your devices will have immediate backup power if the power goes out.

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Don't place the battery in an extremely hot or cold environment. For example: near a fireplace, in the garage, or in direct sunlight

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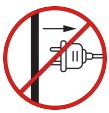

Don't leave the battery unplugged, as you won't be ready for unexpected power outages. The battery is economical, so leaving the battery plugged in should add less than $1.50 to your electricity bill $1.50 a month.

Don't place the battery in a separate room from where you'll need the power. This will make it more challenging to power your devices if the power goes out.

Charging Your Delta Pro

On the back of the battery, you'll find a cover that flips open. This reveals the AC input port, where you'll plug in the battery for charging.

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2 **Plug the AC charging cable into the wall outlet**

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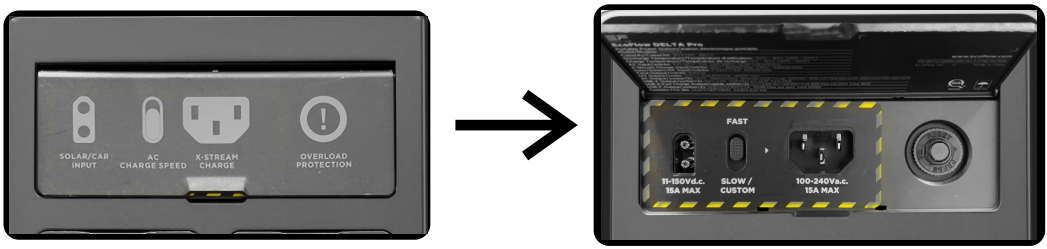

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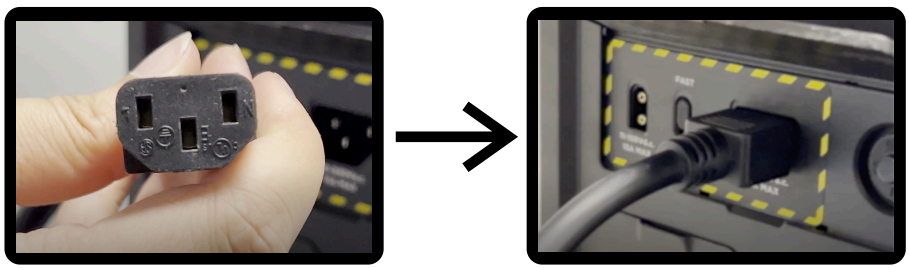

Please note: There are additional ways to charge your battery: using a solar panel or plugging it into your car while the engine is running.

How to Use Your Delta Pro to Power Devices

First, let's go over the front of the battery.

The front panel of the battery has all the more commonly used output ports for charging and powering your devices. You can choose whatever port matches the cable on your device.

Power

Main power button

This turns the entire battery on and off.

AC On/Off

This button will turn the power to the USB ports on or off. If you plug in your devices and they are not receiving power, make sure this is set to “On.”

Output Ports

4x USB-A

These ports are for charging and powering devices, like smartphones and tablets. The fast charge ports allow for faster charging times.

2x USB-C

These ports can charge and power devices that require more power, like laptops.

4x AC 20A/1x AC 30A

The 20A AC sockets look and function like regular wall outlets for powering various devices and appliances. The 30A AC socket is typically used with RVs or trailers.

Please note: The AC and DC ports on the EcoFlow Delta Pro have on/off buttons. They will not provide power to your devices unless you turn them on. If nothing is using power from these outlets for 12 hours, they will turn off automatically.

Now we'll go over the features of the side panel.

Power & Pairing

DC(12V) On/Off

This button will turn the DC ports on or off. If you plug in your devices and they are not receiving power, make sure this is set to “On.”

Bluetooth & Remote Pairing

These all provide options for pairing the EcoFlow app or a remote (sold separately) with your battery. For more information, see your user manual or our Battery Facts section.

Output Ports

Anderson Port

An alternative DC port, commonly used to power RVs and trailers for camping.

DC & Car Ports

These ports are only useful for specific situations and devices; most users will never use them.

Now, let's go over the features of the back of the battery.

Power/Charging

AC Charge Speed Switch

This toggle controls how quickly your battery charges when plugged into a wall socket.

Extra Battery Ports

If you own multiple EcoFlow batteries and want to link them together, you can use these ports to do so.

Input Ports

Solar/car Charging Port

This port allows you to charge the battery from a solar panel or car.

X-Stream Charging Port

You can charge the battery by using this port and your AC cable to plug the battery into a standard wall socket.

Reading the LCD Screen

Let’s go over how to read the LCD screen on your battery.

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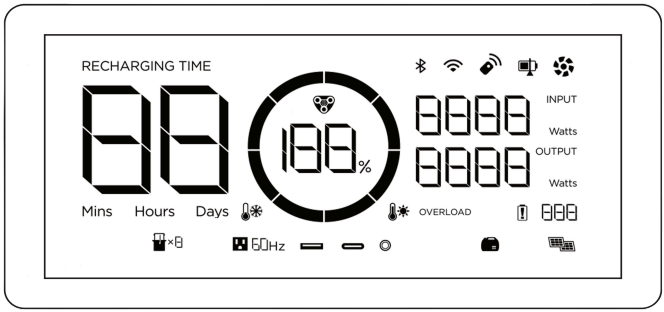

Battery percentage: This tells you what percentage of the battery’s capacity is remaining. The circle around the battery will rotate when the battery is successfully charging.

Please note: If the battery isn’t charging, disconnect all inputs and outputs. Then, press and hold the main on/off button until you hear a beep and see the word 'OFF' appear on the screen. The display will refresh. At this point, you can verify if the device is now charging.

Remaining charging/discharging time: When plugged in, "Recharging" will tell you how long until the battery is fully charged. During a power outage, "Discharging" will tell you how much battery power you have left.

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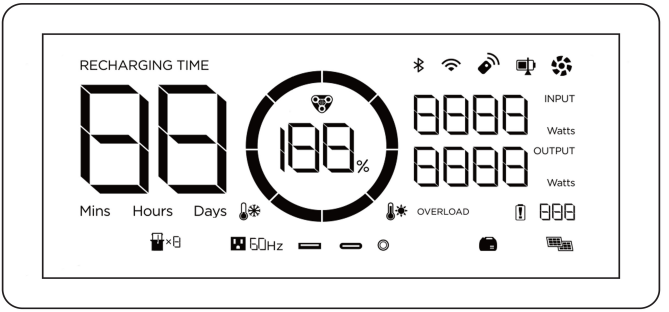

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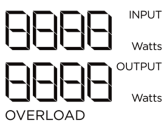


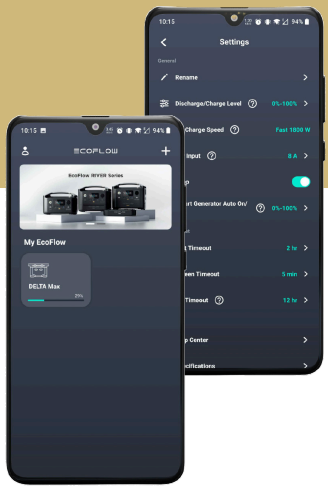
Input power and Output power: These show how much power is going in or out of the battery. This can be useful if you want to know how much power in wattage your devices are using.

Wi-Fi status: This shows whether the battery is connected to the internet. This is important if you are using the Ecoflow app to control your battery.

There are a few icons that can help you keep track of the battery's health. For more information, refer to your user manual or our section on Warranty and Troubleshooting.

There are also several icons that will tell you when devices are connected to your battery. They won't be relevant for most users. For more information on these icons, refer to your user manual.

EcoFlow App Overview



In this section, we will go over the basics of how to use the EcoFlow App. We'll cover:

- What is the EcoFlow App?
- EcoFlow App Set Up
- Quick App Tour
- Important App Functions

If you want more in-depth instructions on how to use the EcoFlow app, you can look at EcoFlow's User Manual.

Depending on your situation, the Ecoflow app may or may not be a useful tool for you. All of the essential functions can also be done in-person with the battery.

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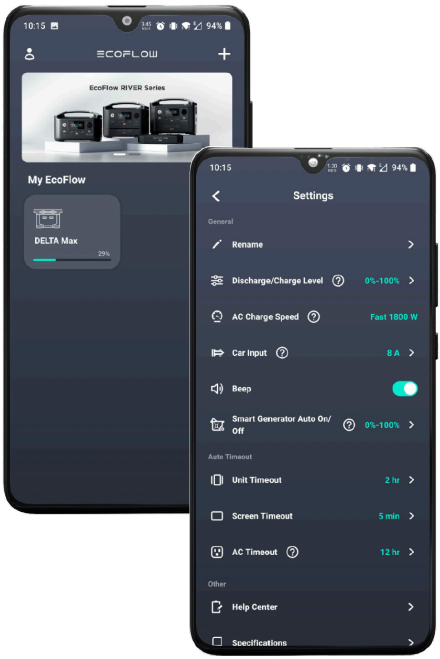
What is the EcoFlow App?

The EcoFlow app allows you to remotely monitor and control your battery from your smartphone using a Bluetooth or Wi-Fi connection.

Features include:

- Use your phone to control the battery while within range of Bluetooth or Wi-Fi
  - This includes turning the battery on and off, as well as adjusting a variety of settings
- Receive an alert if your battery is running low
- Remotely monitor your battery power level if you need to leave your home during an emergency
- Remotely monitor the battery from another location as a caretaker



Please note: In order to access and control the battery remotely, the battery must be connected to your Wi-Fi.

This means that **during a power outage, your internet router will need to be plugged into the battery or another source of power before you leave your house.**

If service from your internet provider goes down, you will not be able to access the battery remotely.

EcoFlow App Set Up

The EcoFlow app allows you to remotely monitor and control your battery from your smartphone using a Bluetooth or Wi-Fi connection.

There are three different ways you can connect to your battery:

Bluetooth

This will allow you to connect to and control your battery from the EcoFlow app while within Bluetooth range of your battery.

Once you are connected via Bluetooth, you can also adjust your IOT and Direct Connection settings.

This is most useful for monitoring and controlling your battery while at home.

IOT Connection

This will allow you to connect to and control your battery from the EcoFlow app remotely.

The IOT connection allows your phone to communicate with the battery through your home Wi-Fi, even if you are using data or a different internet connection.

This is most useful for controlling your battery when you are not at home.

Direct Connection

Also called Wi-Fi Hotspot Connection; not available with the Delta Max 2

This will create a wireless connection between the battery and the EcoFlow when your phone is not connected to the internet.

This is most useful for monitoring and controlling your battery while at home as an alternative to Bluetooth. Users may also use this while camping.

Let's go over how to download and connect with the EcoFlow App!

You will want to do this while your phone is within Bluetooth range of your battery and connected to your home W-Fi network.

1. **Download the app** by using the QR code on the battery or looking up the Ecoflow app in your app store.

2. **Create an account or log in to the app** using an email and password

3. **Connect via Bluetooth**

   If you are within Bluetooth range and the battery is on, your battery should pop up automatically.

   If it doesn't, you can click on the "+" icon in the top right of the screen and search for available Bluetooth devices. Select your battery model to start pairing.

   If it's connected successfully, you'll receive the "You're linked" message.

4. **Set up your Wi-Fi connection**

   Once the Bluetooth connection or Wi-Fi hotspot connection is successful, the page will automatically jump to the "Internet Setup" page.

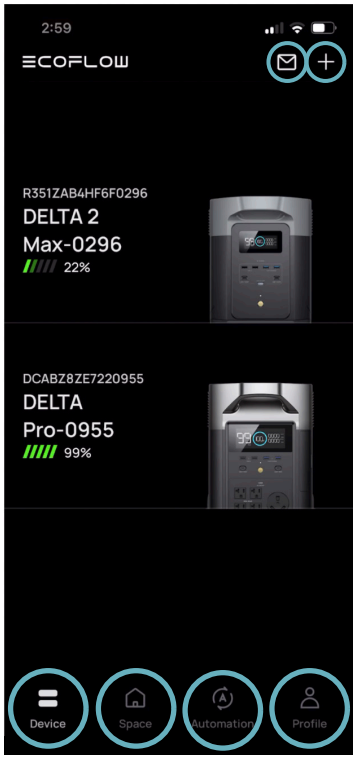
   You can continue to select the name of the home Wi-Fi and enter the correct Wi-Fi password to complete the IoT connection.

If you have an EcoFlow Delta Pro battery, you can also use your Bluetooth connection or the IOT reset button to switch between an IOT and Direct connection.

For more information, you can watch this video on How to Log In And Connect To The EcoFlow App or refer to the EcoFlow App User Manual

Quick App Tour

Now, let's do a quick tour of the home screen and functions of the app.



The **plus sign** will let you add new batteries by scanning the barcode on your device. This will only be relevant if you're having trouble with connecting using bluetooth.

The **mail envelope** is where notifications will appear, like if you require an update or your battery is running low on power.

Device will bring you to this home screen, where you can view, monitor, and control your batteries.

Space is used for setting up a more complex system in which multiple batteries are interconnected with each other. You likely won't need to use this feature.

Automation* allows you to automate certain commands, like turning the battery off or on at specific times. Some users may find this useful, but we recommend only using this feature if you are very confident in your tech skills.

***Please note:** Setting up automations can be tricky to do correctly. It can be dangerous if you forget or mismanage your settings, as your battery and devices might lose power while you are using them.

Profile lets you check for app updates and has links to Ecoflow's FAQ and tech support page.

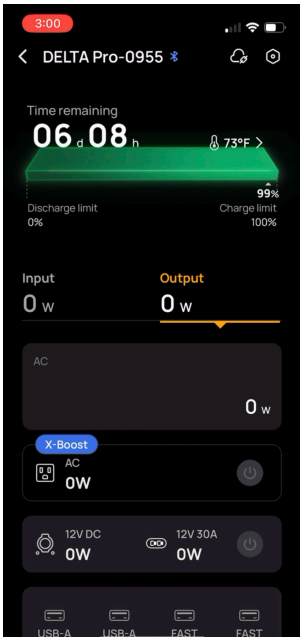
Important App Functions

For most users, the two most important functions are within the "Device" and "Profile" sections. We'll go over the "Device" section here.

Device:

Once you've added your battery or batteries, they will appear when you open the app or click on "Device" in the bottom menu.

From here, you can monitor and control your batteries remotely.



For more details about the information and settings available here, check out these videos:

How to Use The EcoFlow App with DELTA Pro

How to Use the EcoFlow App with DELTA Max

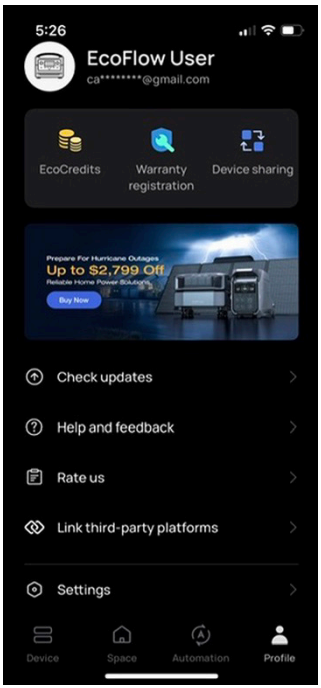
The most important functions are:

monitoring how much power you have left	→	so you know when you should start making plans to evacuate
lowering the charging speed	→	can make the battery last longer during an emergency
turning the AC ports on and off*	→	can help save power when you don't need to power any devices

***Please note:** We recommend leaving your AC ports on at all times to avoid forgetting to turn them back on, but in certain scenarios having control may be beneficial

Profile:

Here, you can access warranty registration, check for updates, or find help for common issues.



The **Help and Feedback** menu items will take you to an **FAQ** and an **App Guide** to answer basic questions.

If you go to **Settings** then **About**, there are links to the Ecoflow website and tech support.

If you go to **Settings** then **Network Diagnosis,** the app will run a diagnostic to help find any problems with your Wi-Fi connection.

Warranty & Troubleshooting

This section includes instructions for:

- Warranty Registration
- Troubleshooting Common Issues
- Contacting EcoFlow's Tech Support

More specifically, we will cover how to register for the warranty if you received a battery through the CIDE's Surviving In Place (SIP) program and answer troubleshooting questions we've frequently received from users.

***Please note:** The SIP program does not have access to the official location and date of purchase or the receipt. You can still register for the warranty with your serial number.

The batteries for the SIP program were purchased by SafeWare Inc. If you are asked for this information for tech support or warranty reasons, you will need to reach out to SafeWare.

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Warranty Registration

You can register your battery for the 24-month warranty using the EcoFlow website or the EcoFlow App.

If you received a battery through the Survive In Place (SIP) program, follow these steps:

1. **Locate the serial number on your battery**

   EcoFlow Delta Pro battery: Open the flap to the right of the LCD screen. There should be a sticker with the serial number on the bottom of the flap.

   Ecoflow Delta 2 Max battery: You should find a sticker with the serial number on the top of the battery.

2. **Go to the website listed on the warranty card:** https//warranty.ecoflow.com

3. **Select "United States"** as your country or region

4. **Log in or create an EcoFlow account** by providing your email address and a password

5. **Enter the following information on the warranty registration page**

   If you are not taken to the warranty registration page automatically, go to Home -> Support -> Activate Warranty in the menu

   Serial Number: enter the number on your device
   Product Name: select either the Delta Pro or Delta 2 Max depending on which battery you received
   Purchased from*: select "EcoFlow Online Store"
   Purchase date*: you can select the current date or date you received the battery
   Phone number: enter your phone number
   Receipt/Order Proof*: Take a photo of the battery with the serial number visible and upload it here

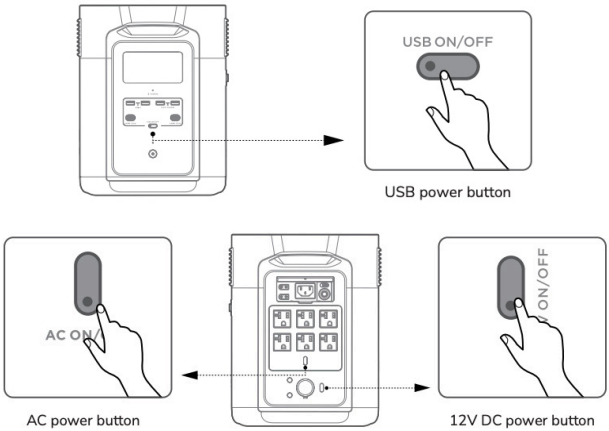
You can also register for the warranty using the Ecoflow app!
Open the app, click on "Profile" then "Warranty Registration" and fill out the prompts.

Troubleshooting

My battery is fully charged, and I plugged in my devices. Why isn't it working?

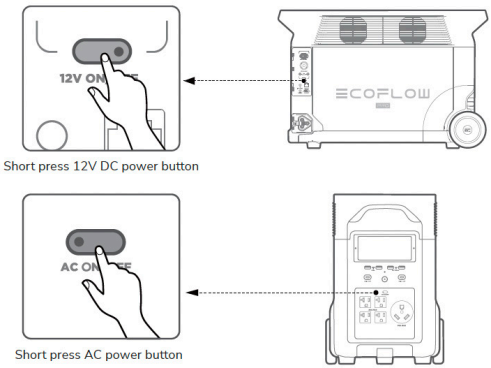
Ecoflow Delta 2 Max battery: All outlets have an on/off button. When turned off, the outlets will not provide power.

If turning the outlets on doesn't work, there may be a bigger issue with your battery. Check the LCD screen for any flashing icons and/or contact tech support.



Ecoflow Delta Pro battery: The AC and DC outlets have an on/off button. When turned off, the outlets will not provide power.

If turning the outlets on doesn't work, there may be a bigger issue with your battery. Check the LCD screen for any flashing icons and/or contact tech support.



Please note: After 12 hours without anything plugged into the AC ports, the AC power button will shut down automatically. You will need to turn the ports on again before they will power devices.

If the DC or USB ports are left on, the device will not shut off automatically. Please shut them off manually to avoid accidentally draining power from the device.

There is an icon flashing on my LCD screen. What does it mean?

If there is an icon flashing on your LCD screen, that usually means there is a problem with your battery. The “Troubleshooting” page of your user manual can help you identify the issue (included here):

Indicator	Problem	Solution
OVERLOAD (Flashing)	USB-A Overload Protection	Resume normal operation by removing the electrical device connected to the USB-A port.
OVERLOAD (Flashing)	USB-C Overload Protection	Resume normal operation by removing the electrical device connected to the USB-C port.
(Flashing)	USB-C High Temperature Protection	After the product cools down, it will resume normal operation automatically.
RECHARGING TIME (Flashing)	High Temperature Charge Protection	Charging can be resumed automatically after the battery cools down.
(Flashing)	High Temperature Discharge Protection	The power supply can be resumed automatically after the battery cools down.
RECHARGING TIME (Flashing)	Low Temperature Charge Protection	Charging can be resumed automatically after battery temperature rises above 5°C (41°F).
(Flashing)	Low Temperature Discharge Protection	The power supply can be resumed automatically after the battery temperature rises above -12°C (10°F).
60Hz OVERLOAD (Flashing)	AC Output Overload Protection	Normal operation will be resumed automatically after you remove the overloaded device and restart the product. Electrical appliances should be used within rated power. (Refer to X-Boost instructions to get more details about power limitations).
60Hz (Flashing)	AC High Temperature Protection	Please confirm whether the fan inlet and outlet are blocked, if not, normal operation will be resumed automatically after the product temperature drops.
60Hz (Flashing)	AC Low Temperature Protection	Normal operation will be resumed automatically after the product is used at optimum environmental temperatures.
(Flashing)	Fan Blockage	Please check if the fan is blocked by foreign materials.
OVERLOAD (Flashing)	Car Charger Overload Protection	The product will resume normal operation automatically after you remove the device connected to the car charger.
(Flashing)	Car Charger High Temperature Protection	After the product cools down, it will resume normal operation automatically.
(Stays on)	Battery Failure	Contact EcoFlow customer service.

⚠ If the alarm prompt shows on the product LCD screen during use and does not disappear after a restart, please stop using it immediately (do not try to charge or discharge). If you require any other assistance, please contact EcoFlow Customer Service.

Contacting Tech Support

Depending on the issue, there are a few options for contacting tech support.

On the EcoFlow website, you can go to the "Support" page to access their FAQs, or click on the chat icon. The chat icon will connect you with a chatbot who can answer basic questions.

If you have a more complex issue that cannot be answered by the chatbot, you can reach out to EcoFlow's tech support:

Call +1 (800)-368-8604 (Mon-Fri 9am-7pm EST)

Email support@ecoflow.com

Please note: The SIP program has received feedback that tech support may ask for proof of purchase. The batteries for the SIP program were purchased by SafeWare Inc. If you require this information, you will need to reach out to SafeWare.

If you are having problems with EcoFlow's tech support, you can consider reaching out to the online EcoFlow community. There are two online communities that are provided on EcoFlow's website:

The EcoFlow Official Club on Facebook

The Ecoflow Community on Reddit

Please note: While these communities are linked to on EcoFlow's support page, any advice or instructions provided are unofficial, and they may or may not be correct. Use caution and common sense when asking for help.

How to Use Your Battery to Survive in Place

In this section, we will go over the following steps to effectively incorporate your EcoFlow battery into your emergency plan for power outages.

Step 1: Set Up Your Battery

Step 2: Identify What Devices You'll Need

Step 3: Calculate Your Power Needs

Step 4: Prioritize Your Power Needs

Step 5: Make a Plan for Extended Outages

Backup battery power plays a crucial role in providing electricity during emergencies when the main power grid fails.

- Backup battery power allows for necessary devices and systems like lighting, communication devices, and medical equipment to continue working.
- Having a minimum 72-hour supply of backup battery power gives you time to assess the situation, seek assistance, and make necessary arrangements until regular power is restored.

We will cover general strategies to extend the amount of time you can survive in place during a power outage. **If you have questions about your specific medical needs or devices, please contact your healthcare provider or medical device manufacturer.**

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Created by Cassandra Bowers

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Step 1: Set Up Your Battery

Make sure you understand how the battery works and choose a convenient location to set it up.

We cover this information in more depth in How to Use the Ecoflow Delta 2 Max and How to Use the Ecoflow Delta Pro.

Here are a few important reminders as you set up your battery:

- The batteries are very heavy, so you may need help with unpacking and setting up your battery
- Turn on the AC ports and leave them on; that way the battery is ready to power your larger devices
- Choose a location where:
  - The battery can remain plugged in to a wall outlet at all times
  - It is in the room with your most important devices; preferably with your devices already connected to it
  - This way, you'll have immediate backup power when you need it with no interruption
- If you are planning to use the EcoFlow app to remotely monitor and control your battery, make sure your internet router is also connected to your battery.

Step 2: Identify which devices you'll need in an emergency

Set up your Power Prioritization Worksheet

As you read this section, we recommend filling out this Power Prioritization Worksheet to help you prioritize your power needs.

There are three ways you can access this worksheet:

1. Download the Microsoft Excel document and fill it out on your computer
2. Make a copy of the document and fill it out using Google Spreadsheets
3. Print it out and fill it out by hand

Once you've filled out the worksheet, we recommend printing it out and storing it with your battery. That way, you can easily reference it as needed during an emergency.

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Power Prioritization Worksheet

Device Name	Days/Week Used	Hours/Day Used	Hours of Power Used	Internal Battery	External Battery	Other Battery	Alternate Charging	Low Tech Solution	Priority

Now, we'll review common home medical devices that you may need to power during an emergency.

You can use this list as a starting point to help you identify the devices you'll need in an emergency. You can add the devices that apply to you to your Power Prioritization Worksheet and write in additional devices as needed.

- Apnea Monitors
- Augmentative and Alternative Communication (AAC) Devices/Software
- Automatic Door Openers
- Chair Lifts
- Continuous Positive Airway Pressure (CPAP) Machines
- Bi-level Positive Airway Pressure Machines (BiPAP)
- Continuous Glucose Monitors (CGMs) and Insulin Pumps
- Defibrillators
- Dialysis Machines
- _____
- _____
- _____
- _____
- Elevators/Stair Lifts
- Feeding Tubes and Pumps
- Hospital Beds/Air Mattresses
- Infusion Pumps
- Intravenous Pumps (IVs)
- Medical Refrigeration
- Nebulizers
- Oxygen Concentrators
- Power Wheelchairs/Scooters
- Suctioning Devices
- Vacuum-assisted closure (VAC)
- Ventilators
- _____
- _____
- _____
- _____
- _____

Please note: if you are intending to use the Ecoflow app to remotely monitor your battery, Wi-Fi is crucial, and the router should be plugged into the battery. Depending on the location of your router, you may need an extension cord to connect it to the battery.

Now, we'll go over other considerations for what you'll need to survive in place during an emergency.

The **C-MIST Framework** is a tool for identifying needs that must be considered in planning for a disaster or emergency. C-MIST stands for Communication, Maintaining Health, Independence, Support & Safety, and Transportation.

We'll go over each of these categories and ask brainstorming questions to help you consider what you'll need during an extended power outage.

ASPR, 2021 https://www.phe.gov/Preparedness/planning/abc/Pages/at-risk.aspx

Communication

What devices do you use for communication? E.g. smart phone, laptop

What do you need to communicate with your personal support network and emergency services?

Maintaining Health

Other than those listed on the first page of this section, what devices do you need to help you stay healthy while surviving in place?

What do you need to monitor and maintain your health? E.g. medication reminders, blood pressure cuff, pulse oximeter

What do you need to minimize preventable health conditions? E.g. first aid kit, hygiene kit, clean water, ways to prepare food

Independence

What do you (or those you care for) need to remain independent?

Do you use mobility devices, assistive technology, or vision/communication aids? E.g. power wheelchair, mobility scooter, hearing aids, cochlear implants, speech generating device, smart home devices

Safety & Support

What do you need to keep yourself safe during a power outage? E.g. emergency lighting, flashlights, smoke detectors, digital alarms/reminders

Transportation

What do you need to access personal transportation and navigation? E.g. cell phone, smart phone

Do you have a car? What do you need in order to load your belongings and essential medical devices into your vehicle? E.g. garage door openers, keyless entry devices

Step 3: Calculate your power needs

Using the list of devices you've created, consider the following factors that will impact how long your battery(s) will last:

Number of devices
If you have a larger number of devices that you need to power, your battery won't last as long.

Days per week & hours per day
If you use a device continuously, it will draw more power. If you use it intermittently, it will use less power.

Please note: Devices may use different amounts of power depending on how they are being used. Think of an appliance like an electric kettle or a blender. When it's plugged in but not in use, it uses barely any power. When you are boiling water or making a smoothie, it uses a lot more power while in use.

Battery availability
Consider all types of batteries available to you and their capacity. This can include internal batteries, external batteries, Ecoflow batteries, etc.

Settings: active vs resting
Some respiratory devices will pull different amounts of power depending on whether they are set for active or resting use.

Elevation
Elevation impacts air pressure. If you are using a respiratory device (e.g. a BiPAP or ventilator), higher elevation means using a higher setting and higher battery draw.

High levels of pressure, high respiratory rate, and High Positive End-Expiratory Pressure (PEEP) will all require a higher power draw. To extend your battery's life during a power outage, check with your respiratory therapist to find out the lowest levels you can safely use with your device. Write that information down and attach it to your device so that during an emergency, you can safely change the settings.

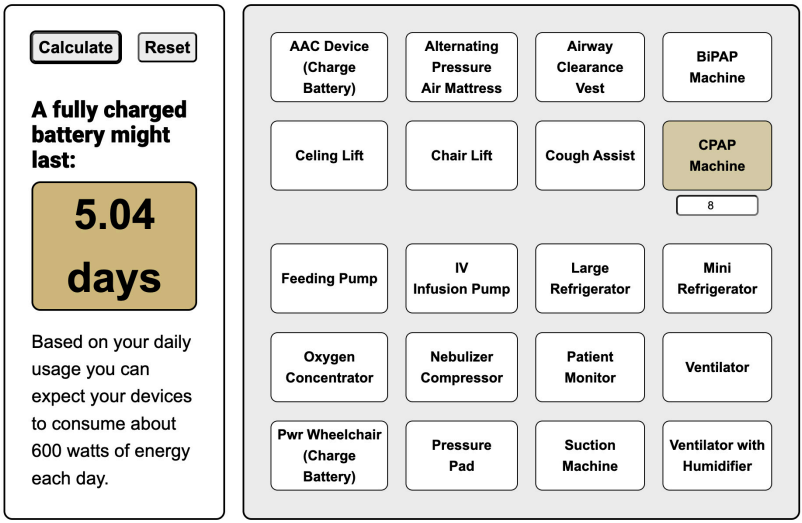
Please note: There are a variety of other circumstances that can impact how long your power will last and how long you can survive in place during a power outage. Things like the weather, access to food, age of battery, or the reason for the power outage can impact how long you can stay at home.

While this section can help you estimate how long you have before you need to evacuate, it is only an estimate. It is important to have an evacuation plan in place in case something unexpected comes up.

Next, let's estimate how much power you need and how long you can survive in place using your EcoFlow battery.

Option 1: Use our Power Calculator

Our Power Calculator allows you to select the medical devices you need to power and how long you'll need to power them each day. It then calculates how long a fully charged battery will last, which can give you an idea of how long you will have before you need to recharge your battery or evacuate.



Each type of device requires a different amount of power, which is measured in watts. Our Power Calculator knows the approximate wattage that each of these devices requires.

To save power during an outage, we recommend turning off your devices or unplugging them from your battery when not in use.

Please note: These are only estimates. During a power outage, be sure to check your battery's time and power remaining regularly.

Option 2: Conduct your own power audit

Follow these steps:

1. **Fully charge your battery**
2. **Unplug the battery from the wall outlet**
3. **Use the battery to power the devices on the list you've created for 24-48 hours**
4. **Based on how much power you've used and how much you have left, calculate how long you'd be able to safely remain at home before recharging the battery or evacuating**

If there are devices that you use intermittently or your usage varies, you may want to run this experiment more than once to get an accurate estimate of your needs.

If your power audit reveals that your battery will not last for at least 72 hours during a power outage, please review Step 4 carefully to help you prioritize your device usage.

Important note: Use caution, especially if you have critical medical devices that you need overnight.

If you overload the battery, it will automatically shut itself off. Consider unplugging less important devices overnight to ensure you don't lose power.

Check the remaining battery time carefully before going to sleep. If you have less than 24 hours of power left, stop your power audit and plug in your battery and devices as normal.

Step 4: Prioritize your power needs & consider alternative solutions

In this section, we'll cover strategies to help you extend the amount of time you can stay at home during a power outage.

As mentioned earlier, your EcoFlow battery should provide enough power for you to survive in place for **at least 72 hours** before needing to evacuate.

1. **Consider the power needs of your devices**
2. **Consider alternative power sources**
3. **Prioritize devices to power with your EcoFlow battery**

By the end of this section, you should be able to decide:

- Which devices are **top priority** and need to be plugged into your EcoFlow battery
- Which devices are **lower priority** and can be unplugged from your EcoFlow battery to preserve power
- Which devices can use an alternative power source or a different low-tech solution

1 Consider the power needs of your devices

To help extend the amount of time you can survive in place, please consider the following:

For each device on your Power Prioritization Worksheet:

How often do you require this device? How many days of the week, and for how many hours each day?

If you don't need the device at all times, consider turning it off or unplugging it from your battery.

Does this device have an internal battery? How many minutes or hours can the device work before it needs to be plugged in? Or, how many times can it be used?

If yes, keep devices with an internal battery fully charged. That way, you can delay needing to power them with your EcoFlow battery for as long as possible.

Is this device able to accept a rechargeable or non-rechargeable external battery?

If yes, keep a spare external battery for the device fully charged. That way, you can delay needing to power them with your EcoFlow battery for as long as possible.

Are there any other ways you can power or charge the device other than plugging it into the wall outlet or your EcoFlow battery?

Depending on the devices you need, consider using portable chargers, power banks, power stations, solar chargers, and/or hand crank power generators. This can help the power in your EcoFlow battery last longer.

Are there any low-tech or alternative solutions to addressing your basic needs and safety?

Lighting: LED flashlight & batteries, battery powered lantern, light sticks
Cooking: Propane grill/ camping stove, spare tanks
Shelter: Appropriate clothing for the temperature, spare blankets/ screens for windows
Water: One gallon of water per person per day for 10 days
News & Communication: Hand crank/solar radio, handheld UHF/VHF band transceivers & batteries
Sanitation: Bathtub full of water, spare 5-gallon bucket with toilet lid, trash bags, cat litter

2 Consider alternative power sources

Smaller electronic devices

Examples: cell phones, tablets, e-readers, and laptops

For smaller devices, you can purchase a variety of small external batteries with USB-A or USB-C ports. Similar to your Ecoflow battery, you can leave these batteries plugged in at all times so they're available in case of an emergency. Options include:

Portable chargers: These are typically small, lightweight devices that can fit in a pocket or purse. Depending on what you get, they usually have enough power to recharge a smartphone 1-3 times.
Approximate price range: $10-$50

Power banks: These are typically a little larger and hold more power than a portable charger. Depending on what you get, they usually have enough power to charge multiple devices, including smartphones, tablets, and laptops.
Approximate price range: $20-$180.

Portable power stations: These are large external batteries that can power and charge a variety of devices. This includes the EcoFlow battery line, though there are less powerful options that are smaller and cost less.
Approximate price range: $150-$2,500

You can also use renewable sources of power:

Solar chargers: These are small solar panels that come in a variety of shapes and sizes. While they don't have the capacity to power larger devices or recharge your EcoFlow battery, they can provide power for smaller devices in an emergency.
Approximate price range: $20-$150

Hand crank generators: These are devices with a crank on the side that you can turn by hand. They come in a variety of sizes, and can be used to power small devices during an emergency.
Approximate price range: $10-$180.

Medical devices with internal batteries

Examples: ventilators, oxygen concentrators, feeding systems

If your device has an internal battery, keep it plugged in and fully charged at all times. Check your user manual for whether your device has an internal battery and how long it should last. Note that the age of the battery may impact how long it can last.

Medical devices with external batteries

Examples: some ventilators, power wheelchairs and scooters

If you have a medical device that can accept an external battery, consider purchasing an external battery and keeping the external battery plugged in and charged at all times.

You can check your user manual and/or contact the vendor of your device to see if your medical device can accept an external battery and what type is recommended.

Typically, these batteries work like car batteries and can be hooked up to a trickle charger. Make sure to set up a maintenance schedule to monitor the battery to make sure it's fully charged and functioning properly.

3 Prioritize which devices to power with your EcoFlow battery

Top Priority: Essential Medical Devices

The top priority is being able to power essential medical devices for at least 72 hours.

If you have calculated your power needs and your battery isn't sufficient to power your devices for at least 72 hours, consider alternative power sources for lower-priority devices or other strategies to lower the power needs for your battery.

During a power outage, keep a close eye on your remaining battery life and unplug lower-priority devices as needed.

High Priority: CMIST

Review your list of devices necessary for Communication, Maintaining Health, Independence, Support & Safety, and Transportation.

Prioritize any of these devices that cannot use an alternative power sources or a low-tech solution.

Low Priority: Non-essential devices

Deprioritize any devices that are not necessary to survive in place.

Deprioritize any devices that have a low-tech alternative or can use an alternative power source.

Deprioritize any devices that are not medically necessary and do not address any of your CMIST needs.

Please note: During a power outage, **monitor your battery's remaining time closely**. This will vary greatly as you plug in devices or turn them on/off. Make a plan that is flexible enough to meet your needs, even if unexpected circumstances arise.

Make an **evacuation plan that includes the minimal number of hours you need before you have to evacuate**. You will need enough time to pack necessary belongings and medical supplies and get to a location that can power the equipment you need.

Step 5: Make a plan for extended power outages

What if the power outage lasts longer than 72 hours?

Power outages can be unpredictable, so it's important to be prepared in case the power outage lasts more than 72 hours.

1. **Make an emergency evacuation plan**
2. **Make a plan for recharging your EcoFlow battery**

Emergency preparedness tips:

Make sure you are signed up to receive emergency alerts from your county and city jurisdictions.
During an emergency, emergency managers will set up evacuation shelters and provide updates on the news or via alerts. These alerts will include the location of the evacuation shelters. These evacuation shelters provide power, food, showers, and support services.

Consider registering with your local power company for a "medical alert flag."
If your power company does a power shut off for safety reasons, you will be notified with enough time to make alternative plans.
Please note: This does not get you priority to turn your power back on or a warning for unplanned power outages.

Consider installing a power disruption alarm to alert you when the power goes out.
This can be especially important if you rely on medical devices while you are asleep.

1 Make an emergency evacuation plan

As a rule of thumb, you should evacuate when you only have 4 hours of power left in your Ecoflow battery.

However, if you rely on medical devices overnight, you may need to evacuate earlier. Do not go to sleep with less than 12 hours of battery left.

We recommend that you:

Create a list of important addresses and phone numbers, and keep it on your fridge or another accessible place

- Speak with your friends, family members, neighbors, and/or other community members to create a personal support network for emergencies
- Ensure that accessible and safe transportation is available to you
- Make sure you are signed up to receive emergency alerts from your county and city jurisdictions. During an emergency, emergency managers will set up evacuation shelters and provide updates on the news or via alerts. These alerts will include the location of the evacuation shelters.
  - These evacuation shelters provide power, food, showers, and support services.

If you need to evacuate with your medical devices:

- Print out or write down the instructions for use and attach them to your device
- Make a list of all the necessary components and label them so nothing gets left behind

If you'd like more information on creating an emergency evacuation plan, you can check out the CIDE's Emergency Preparedness Services course!

If no other options are available and you need to evacuate, call 911.

2 Make a plan to recharge your EcoFlow battery during an extended power outage

There are a few options for recharging your battery during a power outage.

Recharging your battery at a public building

You can take your Ecoflow battery with its AC charging cord to certain public buildings to plug it into a wall outlet and charge it.

Libraries, rec centers, and certain grocery outlets or hotels may allow you to charge your battery. However, it's important to **contact them ahead of time** to make sure they will allow you to use their wall outlets.

Clinics, hospitals, fire stations, evacuation shelters, or warming/cooling centers are also options.

- Some **hospitals** may allow you to use their outlets, but most will want to admit you.
- For **fire stations**, you can go as long as there is staff, but if they get called away you will have to leave.
- Again, it's important to contact them ahead of time to make sure you can use their wall outlets.

Since the batteries are heavy, **you may need assistance to help you move the battery** to a location where you can plug it in and charge it

Recharging your EcoFlow Delta Pro using an EV charging station

If you have the Ecoflow Delta Pro, you can pay to charge it at an EV charging station.

Please note: The Ecoflow Delta Max 2 cannot use EV charging stations.

Recharging your battery using solar panels

You can purchase a 1600 watt solar panel to recharge your Ecoflow battery. These are expensive, so make sure to check with the manufacturer to make sure the solar panel you purchase will work with your EcoFlow battery.
Approximate cost: $600-$5,000.

Recharging your battery from your car

You can also charge your Ecoflow battery from your car while it is on and running. However, we **do not recommend** this strategy, as it will charge slowly and you may run out of gas or drain your car battery before you get a useful amount of power.

EcoFlow Delta 2 Max Battery Facts

This section includes:

- An overview of the ports, buttons, and switches on the EcoFlow Delta 2 Max battery
- The features and specifications of the EcoFlow Delta 2 Max battery

Uninterrupted Power Supply (UPS) & Pass Through Power
Pass Through Power means that you can plug the battery into the wall, then plug your devices into the battery. The battery can charge itself and provide power to your devices at the same time.

UPS means that the battery will switch from wall power to the power backup system seamlessly when the power goes out.

Combined, these features mean that you can safely rely on the battery to provide power to essential medical devices during a power outage.

Eco-friendly
Unlike a back-up generator, a backup battery doesn't produce fumes or use a combustible engine.

Economical
The battery does not require much power to charge. It should add less than $1.50 a month to your electricity bill to keep it plugged in and charged at all times.

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Created by Cassandra Bowers

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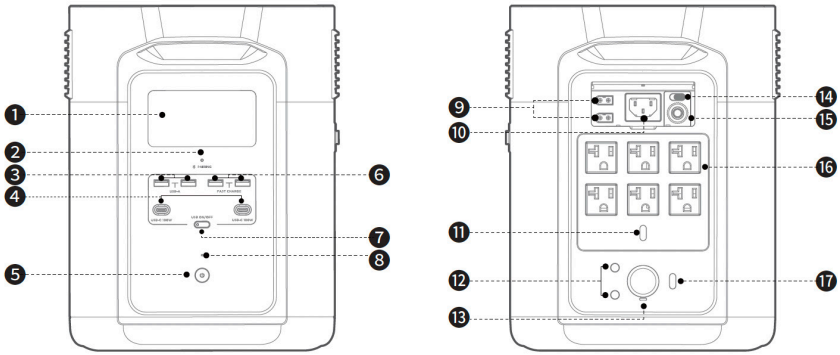
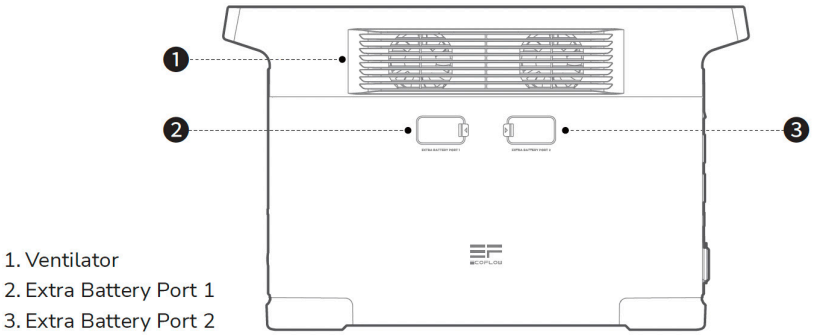
Delta 2 Max Overview



1. **LCD Screen:** Provides information about your battery
2. **Bluetooth pairing indicator:** When flashing, the device is ready for Bluetooth pairing
3. **USB-A output port:** Charges or powers smaller electronic devices like smartphones, tablets, and computers
4. **USB-C output port:** These ports can charge and power devices that require more power than a USB-A port, like laptops
5. **Main power button:** Turns the entire battery on and off
6. **USB-A fast charging output port:** Powers smaller electronic devices like smartphones, tablets, and computers; can charge devices more quickly than standard USB-A ports
7. **USB power button:** Turns the USB ports on and off
8. **Main power indicator:** Light indicates whether the battery is on or off
9. **Solar/car charging input port:** Allows you to charge the battery from a solar panel or car
10. **X-Stream charging input port:** You can charge the battery by using this port and your AC cable to plug the battery into a standard wall socket
11. **AC power button:** Turns the AC ports on and off
12. **DC5521 output port:** This port powers any devices that require a DC5521 port
13. **Car outlet port:** Powers any devices that use a car outlet (i.e., a cigarette lighter style charger)
14. **AC charging speed switch:** This toggle controls how quickly your battery charges when plugged into a wall socket
15. **Overload protection switch:** If the battery overloads, it will automatically shut itself off for safety purposes; if the battery overloads, you'll need to reset it to turn the battery back on
16. **AC output sockets:** Functions like a standard wall outlet. You can use them to power most electronic devices
17. **12V DC power button:** Turns the DC ports on and off



1. Ventilator
2. Extra Battery Port 1
3. Extra Battery Port 2

1. **Ventilator:** The battery will vent warm air through the ventilator to prevent overheating
2. **Extra Battery Ports:** If you own multiple batteries and want to link them together, you can use these ports to do so

Features & Specs

Battery Features

Feature	Specs	What this means (plain language explanation)
Type of battery	LiFePO4 (Lithium Iron Phosphate)	As compared to other common types of power backup systems, this type of battery lasts longer and is more resilient, which is important in emergency situations.
Cycle life	3,000	This is the number of times the battery can be charged. This means the battery should last approximately 10 years.
Depth of discharge	100%	This is how much the battery can be drained without causing damage over time. You can safely fully drain the battery.
Stability	68-122 degrees Fahrenheit	This is how the battery performs at elevated temperatures: it does not overheat; not flammable. However, prolonged exposure to extreme temperatures can cause damage; store the battery in a cool and dry place when not in use.
Battery Management System (BMS)	N/A	The EcoFlow battery has extra safety features including; over-current, over-voltage, under-voltage, and over-temperature protection, and the cells come in an explosion-proof stainless steel casing.
Uninterrupted Power Supply (UPS)	N/A	The UPS feature means that the battery will switch from wall power to the power backup system seamlessly when the power goes out
App Control	EcoFlow App	App control is the ability to view and change settings on the power backup system from a mobile device
LCD Display	N/A	The LCD display provides information about the remaining battery capacity

Charging speeds

AC Wall Power	1800 watts	When plugged into a wall outlet, the battery should take 1.5 hours to fully charge.
Solar Panels	1600 watts	When plugged into a solar panel, the battery should take 2.5 hours to fully charge.
DC Charging (car battery)	120 watts	When plugged into a running car, the battery will take 20+ hours to fully charge (not recommended).
Wall + Solar combined charging	3400 watts	When plugged into both a wall outlet and a solar charger at the same time, the battery should take 1.1 hours to fully charge.

Outlets and ports for powering devices

AC Outlets	6 x 120V, 16.5A	AC outlets look and function like a standard wall outlet. You can use them to power most electronic devices.
USB Outlets	2 x 100 watt USB-C (Really Fast) 2 x 18 watt USB-A (Fast) 2 x 12w USB-A	USB ports are standard cable connections for charging and powering smaller electronic devices like smartphones, tablets, and computers.
DC Outlets	1 x 12V, 3A	DC outlets are a less standard outlet that can be used for specific devices.

Capacity & efficiency

Capacity	2048 watt hours	This is how much energy the battery can technically store.
Efficiency	1863 Wh (~88%)	This is the power the battery can actually provide. In other words, this is how much power you can expect to be able to use from a fully charged battery.
Power	2400 Watts	This is the amount of power output the battery can sustain until it runs out of charge.
Surge Power	4800 Watts	This is the maximum power output for short bursts. If the surge exceeds 4800 watts, the battery will automatically shut off.
Expandable	6,100 Wh	You can purchase and connect additional batteries to increase your total power capacity.

EcoFlow Delta Pro Battery Facts

This section includes instructions for:

- An overview of the ports, buttons, and switches on the EcoFlow Delta Pro battery
- The features and specifications of the EcoFlow Delta Pro battery

Uninterrupted Power Supply (UPS) & Pass Through Power
Pass Through Power means that you can plug the battery into the wall, then plug your devices into the battery. The battery can charge itself and provide power to your devices at the same time.

UPS means that the battery will switch from wall power to the power backup system seamlessly when the power goes out.

Combined, these features mean that you can safely rely on the battery to provide power to essential medical devices during a power outage.

Eco-friendly
Unlike a back-up generator, a backup battery doesn't produce fumes or use a combustible engine.

Economical
The battery does not require much power to charge. It should add less than $1.50 a month to your electricity bill to keep it plugged in and charged at all times.

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Center for Inclusive Design and Engineering (CIDE)
UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS

READY RESPOND RECOVER

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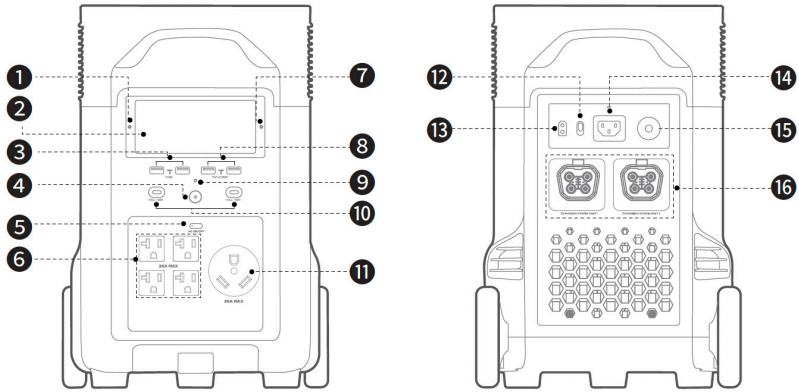
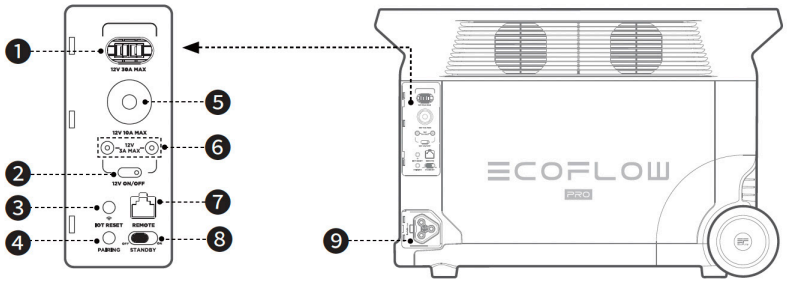
Department of Health Care Policy & Financing

Delta Pro Overview



1. **Ambient light detector:** Automatically adjusts brightness of the LCD screen
2. **LCD screen:** Provides information about your battery
3. **USB-A output port:** Charges or powers smaller electronic devices like smartphones, tablets, and computers
4. **Main power button:** Turns the entire battery on and off
5. **AC power button:** Turns power to the AC ports on and off
6. **AC output socket:** Functions like a standard wall outlet; you can use these ports to power most electronic devices
7. **Pairing indicator:** When flashing, the device is ready for Bluetooth pairing
8. **USB-A fast charging output port:** Powers smaller electronic devices like smartphones, tablets, and computers; can charge devices more quickly than standard USB-A ports
9. **Main power button indicator:** Light indicates whether the battery is on or off
10. **USB-C 100W output port:** These ports can charge and power devices that require more power than a USB-A port, like laptops
11. **AC output socket:** This socket is different from a regular wall outlet; it's typically used with RVs or trailers
12. **AC charge speed switch:** This toggle controls how quickly your battery charges when plugged into a wall socket
13. **Solar/car charging input port:** This port allows you to charge the battery from a solar panel or car
14. **X-Stream charging input port:** You can charge the battery by using this port and your AC cable to plug the battery into a standard wall socket
15. **Overload protection switch:** If the battery overloads, it will automatically shut itself off for safety purposes; if the battery overloads, you'll need to reset this switch to turn the battery back on
16. **Extra battery port:** If you own multiple batteries and want to link them together, you can use these ports to do so



1. **Anderson port:** An alternative DC port, commonly used to power RVs and trailers for camping
2. **12V DC power button:** Turns power to the DC ports on and off
3. **IOT button:** You can use this button to connect with the app, or to switch between an IOT and a direct connection
4. **Pairing button:** If you have a remote control (sold separately), you can pair it with the battery by pressing this button
5. **Car outlet:** Powers any devices that use a car outlet (i.e., a cigarette lighter style charger)
6. **DC5521 output port:** Powers any devices that require a DC5521 port
7. **Remote control port:** If you have a remote control (sold separately), you can connect it with an ethernet cable here
8. **Bluetooth standby switch:** With this switch turned on, you can control the battery from the EcoFlow app even when the battery's power is off (when on, this will slowly drain the battery)
9. **Infinity port:** If you have an infinity cable (sold separately), you can use this port to connect it directly to a Smart Home Panel

Features & Specs

Battery Features

Feature	Specs	What this means (plain language explanation)
Type of battery	LiFePO4 (Lithium Iron Phosphate)	As compared to other common types of power backup systems, this type of battery lasts longer and is more resilient, which is important in emergency situations.
Cycle life	3,500	This is the number of times the battery can be charged. This means the battery should last approximately 10 years.
Depth of discharge	100%	This is how much the battery can be drained without causing damage over time. It's recommended that you only drain it 80-90%, but you can drain it 100% occasionally without damage.
Stability	68-122 degrees Fahrenheit	This is how the battery performs at elevated temperatures: it does not overheat; not flammable. However, prolonged exposure to extreme temperatures can cause damage; store the battery in a cool and dry place when not in use.
Battery Management System (BMS)	N/A	The EcoFlow battery has extra safety features that prevent it from short-circuiting or causing fires. The battery cells also come in an explosion-proof stainless steel casing.
Uninterrupted Power Supply (UPS)	N/A	The UPS feature means that the battery will switch from wall power to the power backup system seamlessly when the power goes out.
App Control	EcoFlow App	App control is the ability to view and change settings on the power backup system from a mobile device.
LCD Display	N/A	The LCD display provides information about the remaining battery capacity

Charging speeds

Feature	Max input	What this means (plain language explanation)
AC Wall Power	1800 watts	When plugged into a wall outlet, the battery should take 2.7 hours to fully charge.
Solar Panels	1600 watts	When plugged into a solar panel, the battery should take 3 hours to fully charge.
DC Charging (car battery)	120 watts	When plugged into a running car, the battery will take 25+ hours to fully charge (not recommended).
Wall + Solar combined charging	3400 watts	When plugged into both a wall outlet and a solar charger at the same time, the battery should take 2 hours to fully charge.

Outlets and ports for powering devices

Feature	Specs	What this means
AC Outlets	4 x 120V, 20A 1 x TT-30, 30A	AC outlets look and function like a standard wall outlet. You can use them to power most electronic devices.
USB Ports	2 x 100 watt USB-C (Really Fast) 2 x 18 watt USB-A (Fast) 2 x 5v/3A USB-A	USB ports are standard cable connections for charging and powering smaller electronic devices like smartphones, tablets, and computers.
DC Outlets	1 x 12V, 10A 1 x 12V, 30A (Anderson Outlet)	DC outlets are a less standard outlet that can be used for specific devices. The DC outlets included on this battery are Anderson outlets, and are commonly used to power RVs and trailers for camping.

Capacity & efficiency

Feature	Specs	What this means
Battery capacity	3600 watt hours	This is how much energy the battery can technically store.
Efficiency	3,170 watt hours (~88%)	This is the power the battery can actually provide. In other words, this is how much power you can expect to be able to use from a fully charged battery.
Power	3600 watts	This is the amount of power output the battery can sustain until it runs out of charge.
Surge Power	7600 watts	This is the maximum power output for short bursts. If the surge exceeds 7600 watts, the battery will automatically shut off.
Expandable	25,000 Wh	You can purchase and connect additional batteries to increase your total power capacity.