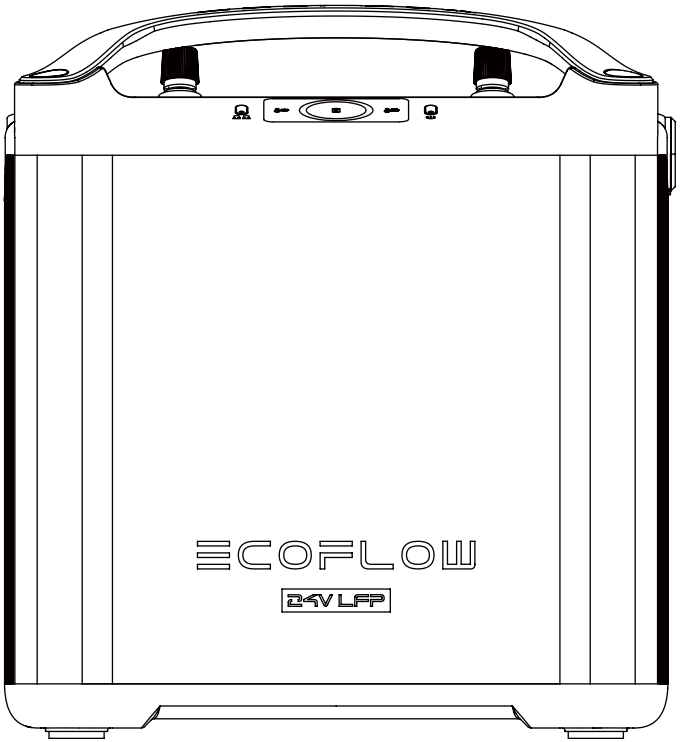
ECOFLOW

User Manual

EF-1500 External Battery



WARNING

1. Keep dry and do not expose to high heat. Do not disassemble, puncture or subject the product to strong external force.
2. Recycle and dispose of the product in accordance with local regulations.
3. While moving the product, pay attention to safety. Do not crush your foot.
4. The 24V column is for output only. Do not connect it to an external battery directly or directionally.
5. Do not short-circuit any exposed parts. Children and people who are intellectually disadvantaged should only use the product under supervision.

Contact us:
support@ecoflow.com
www.ecoflow.com

Glossary

The following terms are used in this document to indicate various levels of potential harm when operating this product and other important information.

NOTICE

The procedures, if not properly followed, can create a possibility of physical property damage BUT little or no possibility of injury.

CAUTION

The procedures, if not properly followed, can create the possibility of physical property damage AND a possibility of serious injury.

⚠ WARNING

The procedures, if not properly followed, can create the possibility of property damage, collateral damage, or serious injury OR create a high possibility of serious injury.

⚠ WARNING

Read the ENTIRE user manual to become familiar with the features of this product before operating. Failure to operate the product correctly can result in damage to the product or personal property and cause serious injury. EcoFlow will not assume any legal responsibility. Never use parts other than those provided or recommended by EcoFlow. DO NOT install or use the product in any way without following the instructions provided by EcoFlow. Otherwise, you cannot get the free after-sales service from EcoFlow. These Safety Guidelines include instructions for safety, operation and maintenance. It is important to read and follow all the instructions and warnings in the user manual prior to assembly, setup or use.

Product Safety Guidelines

⚠WARNING

Improper use may result in fire, or property rights and personal injury. Be sure to use the product according to the following safety rules and guidelines.

Product Use:

1. DO NOT expose the product to any liquids. Do not immerse the product in water or wet the product. DO NOT leave the batteries out in the rain or near a source of moisture. Otherwise, it might potentially be resulting in the battery catching on fire, and possibly leading to an explosion.

2. Never use NON- EcoFlow batteries. Go to http://www.EcoFlow.com to purchase new batteries. EcoFlow takes no responsibility for any damage caused by non-EcoFlow batteries.

3. Never install or remove other modules from the R600 when it is turned on. Do not plug or unplug other modules when the power of the product is turned on, otherwise the power interface may be damaged.

4. The batteries should be used at temperatures between-10℃ and 60℃ . Use of batteries in environments above 60℃ can lead to fire or explosion. Using batteries below-10℃ will severely reduce the product's performances. Allow the batteries to return to a normal operating temperature before use.

5. DO NOT use the batteries in strong electrostatic or electromagnetic environments. Otherwise, the battery control board may malfunction and cause a serious accident during use.

6. Never disassemble or puncture a battery in any way. Otherwise, it may leak, catch on fire, or explode.
7. DO NOT use a machine if it was involved in a crash or a heavy bump.
8. If the product falls into water during use, take it out immediately and put it in a safe and open area. Maintain a safe distance from it until it is completely dry. Never use it again and dispose of it properly as described in the Battery Disposal section below. If the product catches fire, it is recommended to use fire extinguishing equipment in the following order: water or water mist, sand, fire blanket, dry powder, carbon dioxide fire extinguisher.
9. DO NOT put the machine in a microwave oven or in a pressurized container.
10. DO NOT put the loose cells in a pocket, bag or drawer where they may short-circuit against other items or where the battery terminals could be pressed against each other.
11. Do not hit the machine. DO NOT place heavy objects on the machine.
12. If there is dirt on the machine interface, use a dry cloth to clean it. Otherwise it will cause poor contact and result in energy loss or inability to charge.13. Do not use the output port as an input port or vice versa as this may damage the device.

Product Charging

1. Always use a EcoFlow approved charge cable. EcoFlow takes no responsibility if the machine is charged using a non EcoFlow charge cable.
2. When charging, please place the machine on the ground and away from any flammable or combustible materials. To prevent accidents, never leave the machine unattended during charging.
3. DO NOT charge a battery immediately after a long heavy load, because the battery's temperature may be too high. DO NOT charge a battery until it cools down to near room temperature. The battery may be unable to charge under a temperature outside the range of 0 to 40℃. The ideal charging temperature range is 22 to 28℃.

Product Storage and Transportation:

1. Keep the machine out of the reach of children. If children accidentally swallow parts, please seek medical assistance immediately.
2. If a low-battery warning appears after use, charge the battery for long-term storage. Otherwise, long-term storage may cause damage to the battery inside the product. The battery of the machine will enter hibernation mode if depleted and stored for a long period. Recharge the machine to bring battery out of hibernation.
3. DO NOT to place the machine near a heat source, such as a car in direct sunlight, a fire source, or a heating stove.
4. Store the machine in dry environment. DO NOT place the machine in water or where it may leak.
5. Keep the machine away from metal objects such as spectacles, watches, jewelry, and hairpins when storing or transporting.
6. Never transport a machine with battery power level higher than 30%.

Product Battery Disposal:

1. Dispose of the product batteries in specific recycling boxes only after a complete discharge. Batteries are hazardous chemicals, therefore DO NOT dispose them in ordinary trash. Strictly follow your local regulations regarding the disposal and recycling of batteries.
2. Dispose of a battery immediately if it cannot be powered on after over-discharging.

Product Maintenance:

1. Never store the batteries of the machine in environments below -20℃ or above 60℃.
2. Battery life may be reduced if not used for a long time.
3. Fully charge and discharge the battery at least once every 3 months to maintain battery health.

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EF-1500 USE CARE AND SAFETY GUIDE

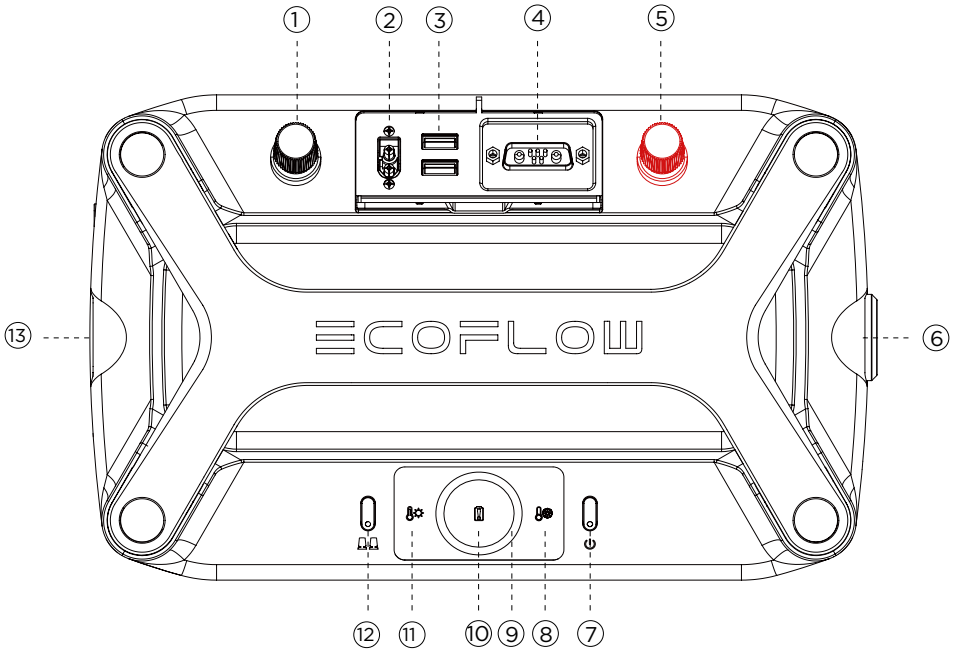
Congratulations!

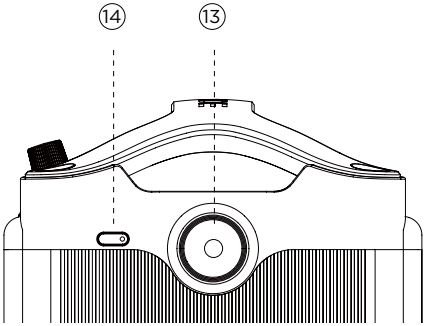
You are no the owner of an external battery pack for the best lithium battery generator in the world! This pamphlet is intended to help you operate the device. Please take some time to read it before using the battery pack. The information contained in this pamphlet will help you master the use of the external battery pack for the lithium battery generator.

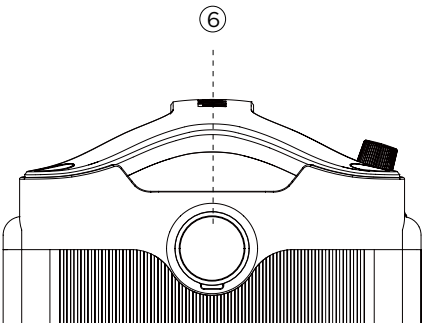
NOTICE

To turn EF-1500 on/off, you need to press and hold the Power Button. Before connecting it to R600 PRO, make sure that EF-1500 is turned off. To enable the 24V +/- power supply interface, press and hold the 24V +/- ON/OFF button while EF-1500 is turned on. Before using the 24V terminal, make sure that all the wires are connected properly. We will not be responsible for any damage to the device due to wrong connection. Get to know your EF-1500. Follow this step-by-step introduction to each of EF-1500's ports, buttons, display screens and more.

EF-1500'S FEATURES







1. 24V- M6 Negative Terminal
2. Solar Charge/Car Charge Input Port
3. USB-A Output Port
4. Expansion Power Port
5. 24V+ M6 Positive Terminal
6. Car Outlet (13.6V, 10A)
7. Power Button & LCD Display Screen
8. Low Temperature Warning Indicator
9. Battery Level Indicator
10. Battery Warning Indicator
11. High Temperature Warning Indicator
12. 24V +/- ON/OFF Button
13. LED Light
14. LED Light Switch

1/5. 24V+/24V- M6 Terminals

This group of terminals is used to connect to an external 24V inverter or 24V DC power supply and supports a maximum external output of 1500W external output. The M6 terminals supports M6 and M8 connection wires. Users have to buy the wires separately. The 24V terminal does not support input from a third-party DC adapter. Do not force charge the terminal. Otherwise, the protection mechanism of the device will be triggered. Please connect the 24V terminal according to the correct polarity to prevent damage to EF-1500. To use the 24V terminal, connect the wire and tighten it. Check if the connection is correct before turning on the 24V +/- ON/OFF button. It is recommended that the external 24V inverter or 24V DC supply equipment be soft-started. It is recommended to turn on the 24V power first, and then start the external inverter or 24V power supply.

2. Solar Charge/Car Charge Input Port

Supports a maximum of two 110W solar panels in parallel, but the input of the device itself will be limited to 200W; also supports 12V/24V car charge up to 10A (remember to start the engine, otherwise, the car battery may be drained).

3. USB-A Output Ports

Charge a wide array of devices such as your iPhone, tablet, GoPro, speakers, or anything else that charges through USB Port. The USB Output Indicator Light will automatically light up when a USB port is in use.

4. Expansion Power Port

This port is used to connect R600 PRO to a computer. An expansion power cable is required to charge, discharge and upgrade the port. It supports a maximum of 500W charging and 600W discharging of EF-1500.

6. Car Outlet (13.6V, 10A)

The 13.6V button controls the R600's car charger output and two direct current (DC) outputs. The car charging port supports a maximum current output of 10A, which can be used for general car electrical appliances. It can also be used to charge a lead-acid battery of a small car. It can fully charge a 12V lead-acid battery (please do so under the supervision of a professional).

7. Power Button & LCD Display Screen ON/OFF Power Indicator

Press and hold the power button to turn the EF-1500 on and off. When the EF-1500 is turned on, the display will light up. To turn on or off the display screen and keep the EF-1500 running, short press the power button. When none of the ports are in use, the USB Output Indicator Light will start to blink. This shows that the EF-1500 is in idle mode. After being in idle mode for 5 minutes, the EF-1500's display will go to sleep. At this time, the robot will continue to draw power from its battery. After being in idle mode for 30 minutes, the EF-1500 will automatically turn off itself.

8. Low Temperature Warning Indicator

When the ambient temperature is too low (below minus 20 degrees Celsius), the blue low temperature warning light will flash. Please move the device to a location with a suitable temperature (-10 degrees Celsius to 60 degrees Celsius) for the device to function normally. When the ambient temperature is below 0 degrees Celsius while the device is being charged, the blue low temperature warning light will flash as well. Please move the device to a location with a suitable temperature (0 degrees Celsius to 45 degrees Celsius) for the device to charge normally.

9. Battery Level Indicator

The battery life is indicated by five lights. When the device is being charge, the lights will flash in sequence. When the battery is malfunctioning, all five lights will flash together at the same time.

10. Battery Warning Indicator

When the battery malfunctions, the battery warning indicator will light up. Try resolving the issue by restarting the device. Alternatively, please contact customer service.

11. High Temperature Alarm Indicator

When the ambient temperature is too high (above 60 degrees Celsius), the red high temperature warning light will flash. Please move the device to a location with a suitable temperature (-10 degrees Celsius to 60 degrees Celsius) for the device to function normally. When the ambient temperature is above 45 degrees Celsius while the device is being charged, the red high temperature warning light will flash as well. Please move the device to a location with a suitable temperature (0 degrees Celsius to 45 degrees Celsius) for the device to charge normally.

12. 24V +/- ON/OFF Button

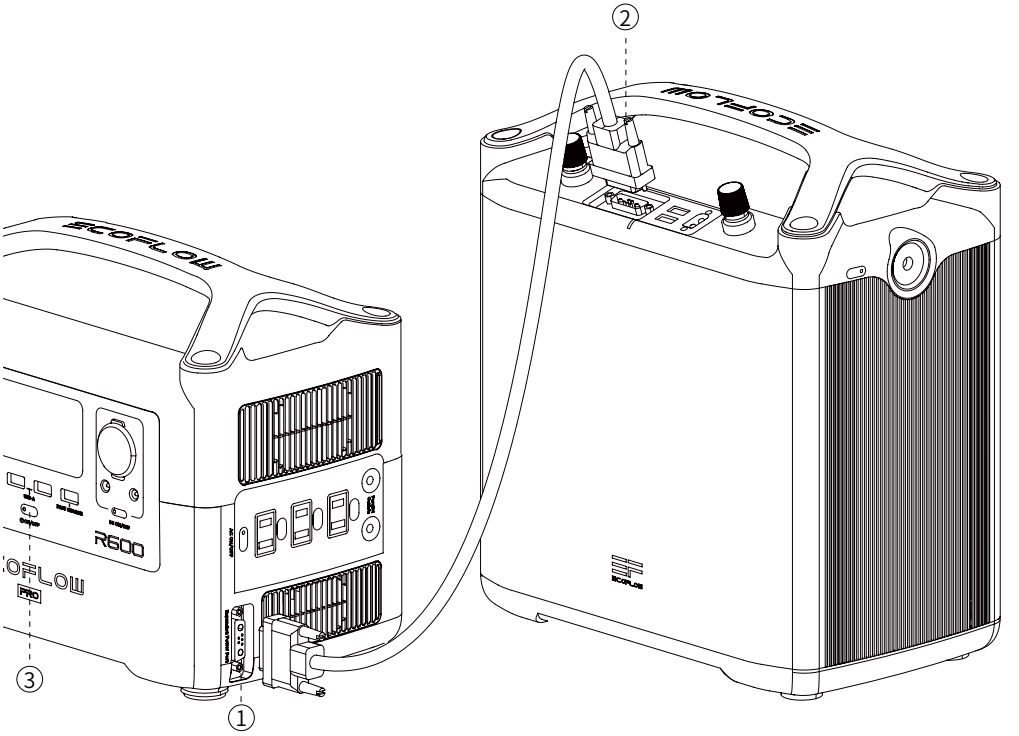
Press and hold the button to turn the 24V+/- on and off. To use the 24V terminal, connect the wire and tighten it. Check if the connection is correct before turning on the 24V +/- ON/OFF button.

13/ 14. LED Light/Switch

The LED light has three levels of brightness: low light, strong light and SOS rescue signal flash. Press once to turn on low light; press again to turn on strong light; press one more time to turn on the SOS rescue signal flash; finally press again to turn off the LED light. During this period, long press can turn off the LED directly.

R600 PRO TO EF-1500 CONNECTION

Get the R600 PRO, EF-1500 and expansion power cable ready. Then turn off the power of R600 PRO and EF-1500. Follow the steps below. If the devices are not turned off, they cannot be successfully connected.
1. Open the soft cover below the AC port of R600 PRO to expose the expansion power port. Connect the expansion power cable to the port. Tighten the screws on both sides of the port to secure the connection.
2. Open the dust cover of EF-1500 to expose the expansion power port. Connect the other end of the expansion power cable to the port. Tighten the screws on both sides of the port to secure the connection.
3. Turn on the power button of R600 PRO, followed by that of EF-1500. If the display of R600 PRO shows the expansion battery pack icon, the connection is successful. When connecting the devices for the first time, it is recommended to fully charge them first. Fully charge R600 PRO and EF-1500 and ensure that the voltage of both devices are consistent to maximize the performance of EF-1500.



SOLAR PANEL CONNECTION

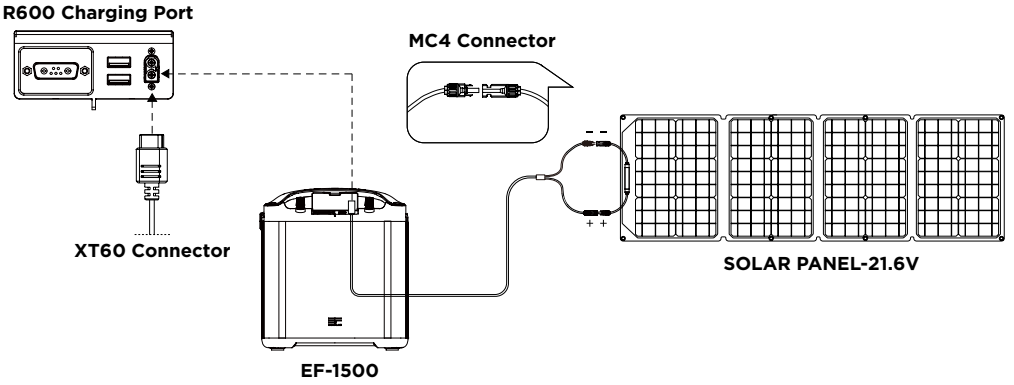
How to recharge the EF-1500 using solar panels?

To connect a single solar panel, please refer to the following instructions. The connection of a single solar panel and two solar panels in parallel are shown. The EF-1500 can support a 10-25V DC input. When the input exceeds 25V, the EF-1500's overvoltage protection will be triggered. Excessive voltage may damage the product. User should follow these instructions. EcoFlow will not be responsible for providing free repair services for any damage to the product caused by connecting too many solar panels to the product or incorrect connection, even during the warranty period.

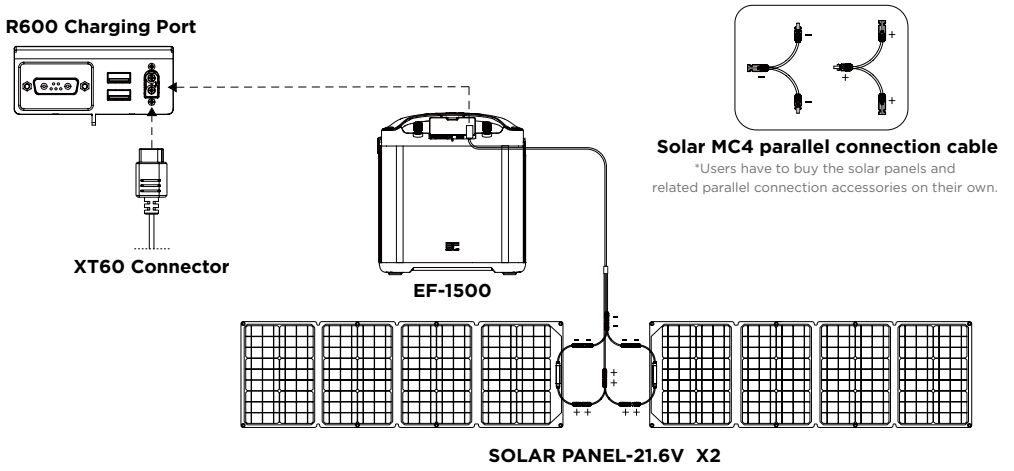
1. Serial/Chainable connection (recommended)

Users can connect a solar panel (series connection is not supported) as shown in Example 1. Connect the panels to the MC4 port and connect them to our MC4 to XT60 conversion cable. Connect the XT60 cable to the EF-1500's XT60 input to charge the device. Users can connect up to 2 sets of solar panels in parallel to the MC4 port as shown in Example 2. If you want to connect 2 pieces of solar panels, you can connect the 2 sets of solar panels in parallel. Connect them our MC4 to XT60 conversion cable. Connect the XT60 cable to the EF-1500's XT60 input to charge the device. The parallel connection cable is an optional accessory that is purchased separately.

e.g.1

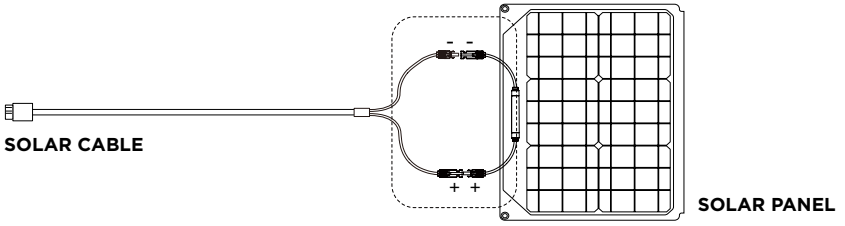


e.g.2

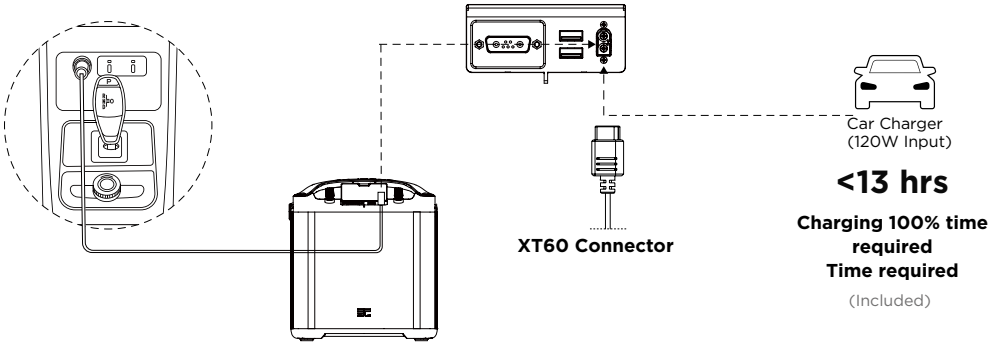


2. R600 supports the use of third party solar panels (DIY solution)

Users can buy universal solar panels of MC4 connection standard on their own to power R600, as long as the voltage and current (10-25V DC, 10A max) comply with the specifications of R600, the panels will be able to recharge R600 through the MC4 to XT60 conversion cable. However, EcoFlow will not be responsible for providing free repair services for any damage to the product caused by the quality issue or improper operation of the third party solar panels, even during the warranty period.



IN-VEHICLE CHARGING CONNECTION



<13 hrs

Charging 100% time required
Time required

(Included)

TECHNICAL SPECIFICATIONS

General Specs	
Net Weight	32 lbs (14.5kg)
Dimensions	11.3 x 32.4 x 7.2in (28.8 x 21.7 x 18.5cm)
Capacity	1536Wh (25.6V)
Testing and certification	UL CE FCC RoHS

Outputs	
USB-A Output (x2)	5V DC, 2.4A, 12W Max, per port
Car Power Output (x1)	136W, 13.6V DC, 10A Max
24V+/- Output	24-29.2Vdc 1500W Max
Expansion Power Port	600W Max

Input	
Solar Charge Input	200W 10-25V DC 12A Max
Car Charger(Example 2)	12V/24V DC 10A Max
Expansion Power Port	500W Max

Battery	
Cell Chemistry	Lithium Iron Phosphate
Discharge Temperature	14-140°F +/-5°F(-10-60°C +/-3°C)
Charge Temperature	32-113°F +/-5°F(0-45°C +/-3°C)
Shelf Life	1 Year (after fully charged)
Life Span	3500 Cycles (80%)

FAQs

How do I care for EF-1500?

The EF-1500 is versatile, so it is likely that simple cleaning will be required from time to time. Use dry, non-abrasive cloth to wipe. If you want to wipe more cleanly, we recommend that you use a special detergent for mobile phone and computer screen. DO NOT expose the product to large amounts of water!

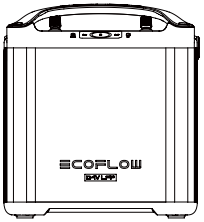
How do I store EF-1500?

Please store EF-1500 in a dry place and avoid direct contact with water. In order to extend battery life, if long-term storage is required, please charge it to 30% -50%, then turn off the main switch and store at room temperature.

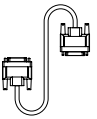
How do I use EF-1500 safely?

Please use EF-1500 under temperature conditions within its operating temperature range. Using EF-1500 outside the optimal operating temperature range may cause EF-1500 to exceed its safe and effective working limits. DO NOT immerse EF-1500 in water. EF-1500 is not waterproof. Doing so will void the warranty.

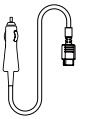
WHAT'S IN THE BOX



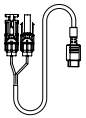
EF-1500



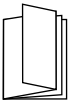
Expansion Power Cable



Car Charge Cable (Input)



Solar Charge Cable (MC4 to XT60 Input)



User Manual and Warranty Card