



BLUETTI Charger 2 – Quick FAQ Guide

This FAQ is divided into five sections: General, Features, Solar, Car, and Scenario Usage. We recommend identifying which category your question falls under first, then going to the corresponding section to quickly find the specific question you need.

Contents

General	1
What are the key upgrades compared to Charger 1?	1
The specific functions of each port (e.g., ALT, CHG, PV, BAT)	2
Do I need to replace the cables for the upgrade?	2
Is third-party power supported?	2
Can Charger 2 charge only an expansion battery?	2
Can Charger 2 simultaneously charge the expansion battery and power station?	2
What is the gauge (AWG) of the standard charging cable included with the Charger 2 for connecting to BLUETTI power stations?	3
When BLUETTI power station and expansion battery are connected to Charger 2, why can't they be linked through the expansion port?	3
Does the DC Hub remain powered by the BLUETTI battery (P090D) when the vehicle ignition is off?	3
How can I keep the DC Hub working properly when the engine is off?	3
When should I use the PV port, and when should I use the P090D port?	3
At maximum output, how long can Charger 2 run before thermal throttling (derating) occurs?	4
How can I use Charger 2 to reverse charge a vehicle battery from the power station?	4
Feature	5
How is charging power distributed between the power station and the expansion battery?	5
You can adjust the charging priority between the expansion battery and the portable power station in the app.	5
What is Reverse Charging?	5
What is required to use the reverse charging feature?	5
When should I use Pulse Maintenance Mode, and how long should I use it each time?	5
Which battery chemistries does Charger 2's "ALT" port support for reverse charging?	6
What is the maximum current for reverse charging?	6

Car	7
Is it safe for my vehicle's alternator?	7
Is it safe for the vehicle battery?	7
How does Charger 2 adjust power based on engine RPM to prevent overload?	7
Is a D+ signal cable provided?	7
How do I connect the D+ port?	7
Solar	8
Does the solar input remain active when the vehicle is turned off?	8
What is the MPPT maximum voltage (Voc)?	8
Is the SolarX 4K cable (P120D) compatible with connecting Charger 2 to the B300S battery via the BAT port?	8
Scenario Usage	8
If an Expansion Battery is connected to the BAT port, can it charge the Elite series via the CHG port, without connecting to the vehicle battery?	8

General

What are the key upgrades compared to Charger 1?

- ★ Added PV support
- ★ Added expansion battery support
- ★ Added reverse power supply
(supported only when an expansion battery is connected)



	Charger 2 ^{NEW}	Charger 1
Output	1.200 W	560 W
Vehicle Input	800 W	560 W
PV Input	600 W	×
Emergency Jumpstar Charging	800 W	×
Supported Auxiliary Battery	Apex 300, AC200L, AC200MAX, B300K, B500K, B300, B230	×
DC Output	12 V/24 V, 600 W MAX. (via DC Hub)	×
Short-Circuit Protection	Fuse (Replaceable)	Circuit Breaker
Best Use	Long-distance, Extended travel, Solar-ready users Dual charging,	Beginners, Short trips, Charge while driving,

The specific functions of each port (e.g., ALT, CHG, PV, BAT)

ALT: Driving charging input / reverse power supply output port

CHG: Portable power station charging port

PV: PV input port

BAT: Expansion battery connection port (bidirectional)

Do I need to replace the cables for the upgrade?

Seamless Transition — Easy upgrade, no rewiring required

Simply remove Charger 1 and install Charger 2 using the same cables.

Is third-party power supported?

Charger 2 is compatible with all BLUETTI power stations, as well as third-party power stations or solar generators that use MC4 connectors for solar charging. Please note that in rare cases, third-party power stations may experience an unstable charging rate.

Can Charger 2 charge only an expansion battery?

Yes. Both driving charging and PV input can charge the expansion battery. When input power is limited, you can adjust the charging priority between the expansion battery and the portable power station in the app.

Can Charger 2 simultaneously charge the expansion battery and power station?

Yes.

What is the gauge (AWG) of the standard charging cable included with the Charger 2 for connecting to BLUETTI power stations?

6 awg.

When BLUETTI power station and expansion battery are connected to Charger 2, why can't they be linked through the expansion port?

When Charger 2's CHG port and BAT port are connected to a power station and a battery pack separately, using an expansion cable to directly connect the power station and the battery pack will create a current loop between Charger 2, the power station, and the battery pack. This may cause system errors.

Does the DC Hub remain powered by the BLUETTI battery (P090D) when the vehicle ignition is off?

When the vehicle is turned off, if the PV input is not sufficient to supply the Charger 2 DC Hub, the DC Hub cannot be activated. This depends on the DC Hub load power. Officially, it is recommended to use the DC Hub when the BAT port is connected.

How can I keep the DC Hub working properly when the engine is off?

It is recommended to use the DC HUB with a battery pack connected to the BAT port, so that when the alternator stops, the BAT can continue powering the DC HUB.

When should I use the PV port, and when should I use the P090D port?

The PV port is used to connect solar panels. The BAT port is used to connect the P090D battery pack. A diagram is provided in the user manual.

At maximum output, how long can Charger 2 run before thermal throttling (derating) occurs?

Charger 2 will reduce its power output if it exceeds 75°C, and will not resume normal operation until it cools down to 65°C

How can I use Charger 2 to reverse charge a vehicle battery from the power station?

The power station only supports reverse-charging the vehicle battery via the P090A port, through Charger 2's ALT port.

Feature

How is charging power distributed between the power station and the expansion battery?

You can adjust the charging priority between the expansion battery and the portable power station in the app.

What is Reverse Charging?

Using the expansion battery to top up the vehicle battery via Charger 2 Reverse charging and its limitations. It can only be enabled when an expansion battery is connected.

What is required to use the reverse charging feature?

It can only be enabled when an expansion battery is connected.

When should I use Pulse Maintenance Mode, and how long should I use it each time?

This function is recommended when the vehicle starter battery has been left unused for a long time, or after it has been drained. The recommended single-use duration is 30 minutes.

Which battery chemistries does Charger 2's "ALT" port support for reverse charging?

Reverse charging is currently supported for Lead-Acid, AGM, and Lithium Batteries.

What is the maximum current for reverse charging?

The maximum reverse-charging output is 8 0 0 watts.

Car

Is it safe for my vehicle's alternator?

Yes, it only uses surplus power from the alternator and does not add any extra load.

Is it safe for the vehicle battery?

Yes, the Charger 2 uses intelligent algorithms to prevent battery damage. It automatically shuts off when the voltage reaches a certain level, preventing damage to or depletion of the battery.

How does Charger 2 adjust power based on engine RPM to prevent overload?

Charger 2 assess this based on the vehicle battery voltage. If the battery voltage is unstable, it is judged that the engine RPM is too low to support high-power charging, and the output will be derated.

Is a D+ signal cable provided?

It is not provided, but you can purchase the connecting cable separately. The connector specifications are: 2-pin, 5.08 mm, 24 AWG. For detailed wiring instructions, please refer to the Charger 2 support video.

How do I connect the D+ port?

BLUETTI will release an official tutorial video later.

Solar

Does the solar input remain active when the vehicle is turned off?

Yes, it will work with BLUETTI units. Third-party units are generally not supported because their MPPT startup voltage is not guaranteed. However, if your vehicle has a separate parking/auxiliary battery, some third-party power stations may work.

What is the MPPT maximum voltage (Voc)?

50 V (Voc max.)

Is the SolarX 4K cable (P120D) compatible with connecting Charger 2 to the B300S battery via the BAT port?

They are not the same — the cable thickness is different. The SolarX 4K cable can be used with Charger 2 (the pinout has been confirmed to match). However, the Charger 2 cable is too thin and must not be used with SolarX 4K.

Scenario Usage

If an Expansion Battery is connected to the BAT port, can it charge the Elite series via the CHG port, without connecting to the vehicle battery?

Yes.