Q8AC

Manual V1.0

2026.07



ToolkitRC

www.toolkitrc.com

ToolkitRC CO.,LTD

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Introduction

Thank you for purchasing and using the Q8AC battery charger. Please read this manual carefully before use.

Key Points

 Tips  Important  Information

Further information

To make sure you get the best experience using this product, please stay updated on news, information, and firmware updates about the Q8AC by visiting: www.toolkitrc.com/q8ac.

Safety

1,The Q8AC accepts an input voltage of 100–240V AC. Ensure that the power supply voltage meets this range.

2,Do not use this product in hot, humid, flammable or explosive environments.

3,Please use this product under supervision to prevent accidents.

4,When not using this product, please unplug the input power.

5,When using the charging function, set the current to match the battery; never set the current too high, as this may damage the battery.

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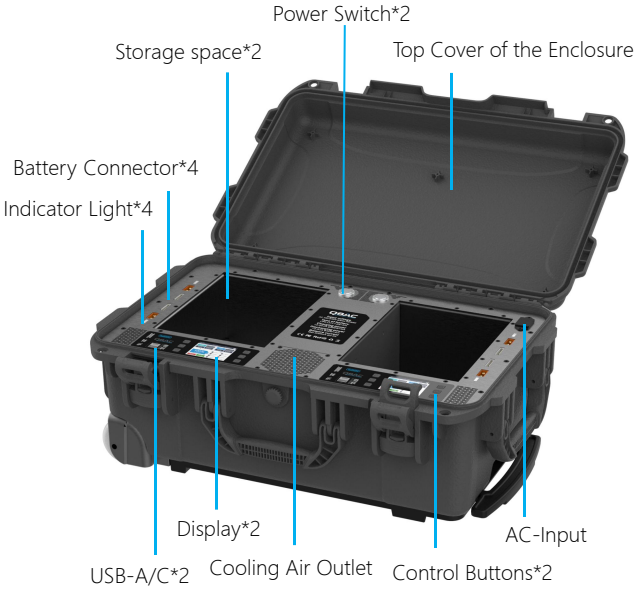
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Product description

The Q8AC is a 4-channel balanced charger in a suitcase-style design. It features a built-in battery storage compartment and can charge and discharge 4 batteries simultaneously. Its IPS high-brightness display provides a more intuitive readout.

- Supports charging, discharging, and balancing management for LiPo and LiHV batteries (1–8S)
- AC 100–240 V, maximum input power of 2200 W.
- Charging current: Up to 20A @ up to 500W*4.
- Discharge power: Up to 3.0 A @ up to 30 W*4.
- Charging accuracy: ±10mV.
- Balance current: Maximum 2000 mA.
- Built-in 65W USB-A and USB-C fast charging.
- The cutoff voltage for lithium-ion batteries is adjustable.
- Multilingual system that allows you to switch to any language you need.
- Features firmware upgrade capability.

Get to Know the Q8AC



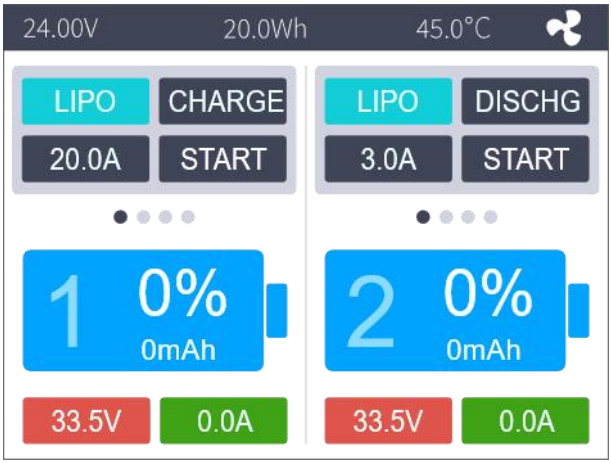
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Quick start

1，Connect a power source with a voltage of 100–240 V AC to the input port in the upper-right corner of the Q8AC.

2，The display shows the startup logo and remains on for 2 seconds.

3，After startup is complete, the display shows the main interface as follows:



4，Press the △▽ briefly,Move the cursor to select a setting.

5，Press the ○ briefly,confirm Selection.

6，Press the △▽ briefly,edit the settings.

7，When the cursor is on the [Start] menu,press the ○ button twice briefly to start operation.

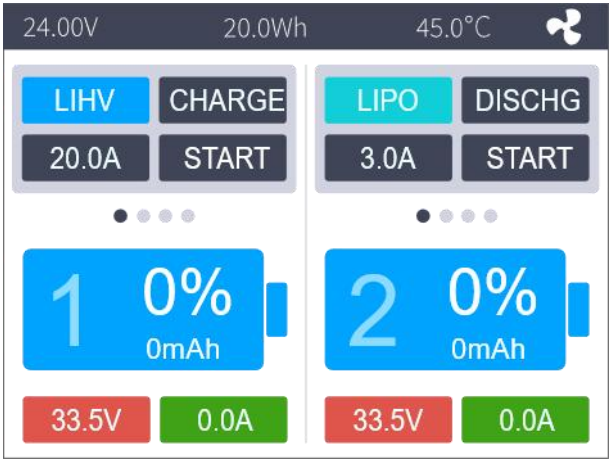
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8，Press and hold the △ button,Switch to the Information Page.

9，Press and hold the ▽ button,access the system settings menu (when the charger is idle).

1,Battery Type Settings

After turning on the device, briefly press the△▽button to move the cursor to the battery type menu. Briefly press the ○ button once; the cursor will turn dark blue. Set the battery type by briefly pressing the △▽button to change it (【LiPo】 or 【LIHV】). The display will appear as shown below.



The charger supports charging both LiPo and LiHV batteries. After selecting the category that matches your battery, press the ○ button once briefly to confirm the selection.

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Warning :

1, Charging the wrong type of battery may damage the battery and the charger, and could pose a fire hazard. Please be sure to choose the correct type.

2, Do not use this product to charge batteries whose type is not specified.

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Glossary:

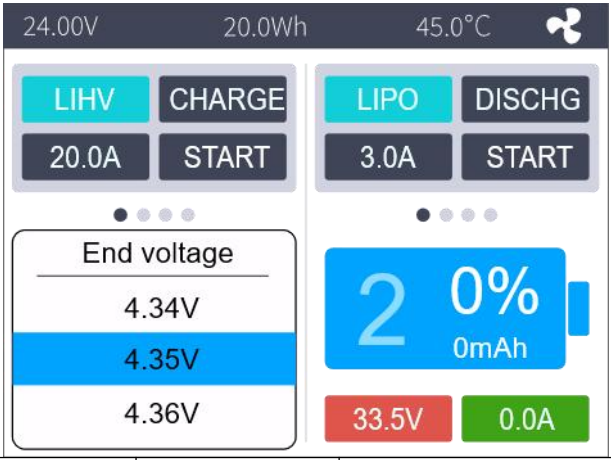
1, LiPo: Commonly referred to as lithium-polymer batteries, these have a nominal voltage of 3.70 V and reach 4.20V when fully charged.

2, LiHv: Commonly referred to as high-voltage lithium-ion batteries, these have a nominal voltage of 3.80 V and reach 4.35V when fully charged.

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2,Voltage Settings

When the cursor is on the battery type option, press and hold the ◯ button to display the end-of-charge voltage setting option, as shown in the figure below:



LiPo	Voltage Range	Default value
Charging	4.00V-4.25V	4.20V
Discharge	2.90V-3.70V	3.30V
Storage	3.75V-3.95V	3.85V
LiHv	**Voltage Range**	**Default value**
Charging	4.10V-4.50V	4.35V
Discharge	3.00V-3.80V	3.40V
Storage	3.85V-4.05V	3.95V

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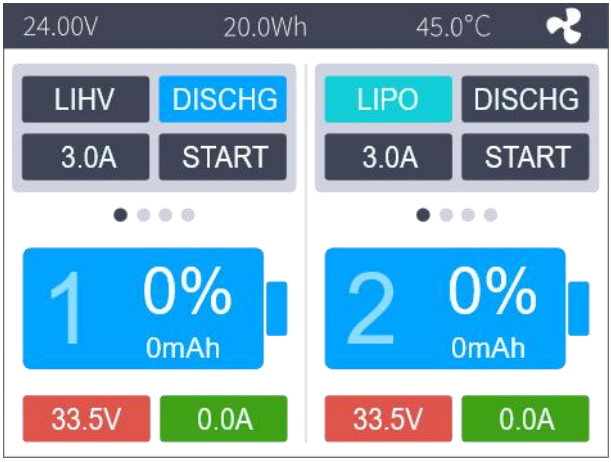
1,If you are unfamiliar with the battery's characteristics, do not adjust the cut-off voltage. Setting the voltage too high may damage the battery or pose a fire hazard.

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3,Operating Mode Selection

Press the △▽ button briefly to move the cursor to the operating mode menu. Press the ○ ,button once; the cursor will turn dark blue. Select an operating mode ([Charging], [Storage], [Discharging]), then press the ○ button once to confirm and apply the setting.

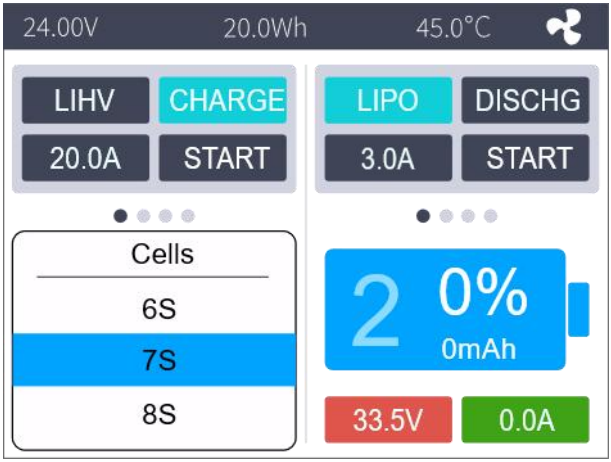
As shown in the figure below:



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4,Number of Battery Strings Setting

Press the △▽ button briefly to move the cursor to the "Operating Mode" menu; press and hold the ○ button to display the battery string selection menu, then adjust the number of battery strings.



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Tips:

1,If the battery has balance wire connectors, connect them to the device, and it will automatically detect the number of series. If there are no balance wire connectors, you must manually set the number of series corresponding to the battery before the device will start operating.

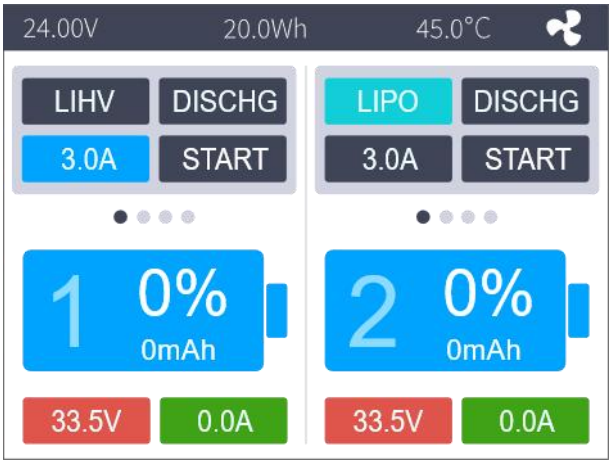
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5,Charging Current Settings

Briefly press the △▽ button to move the cursor to the [Current] field. Briefly press the ○ button once; the cursor will turn dark blue, and you can then adjust the operating current.

Supports charging and battery storage; maximum current: 20A

Supports discharging, storing discharged power, and a maximum current: 3A



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Tips:

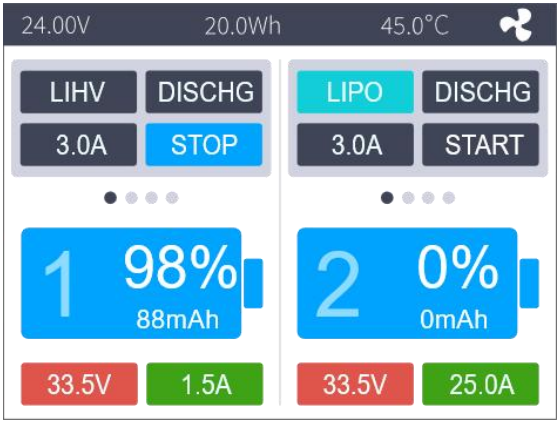
1,Set the charging rate to 1–2C based on the battery capacity.

For example: For a battery with a capacity of 2000mAh, a charging current of 2.0–4.0A is appropriate.

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Charging Operations

Press the △▽ button briefly to move the cursor to the [Start] position. Press the button twice briefly, and the corresponding channel on the charger will begin operating, as shown in the left channel of the figure below:



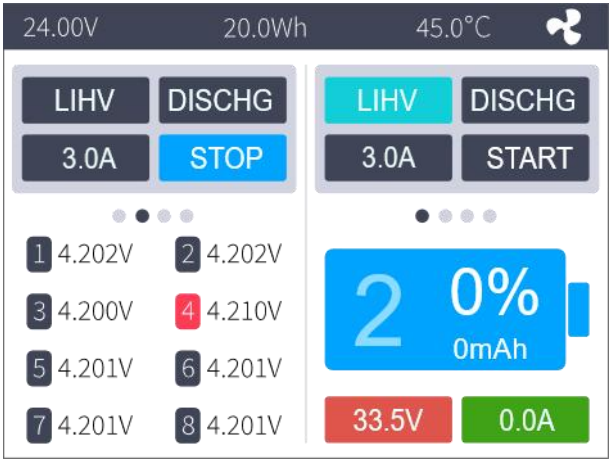
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Tips: 1,During charging, please ensure that someone is present at all times to address any abnormalities promptly.

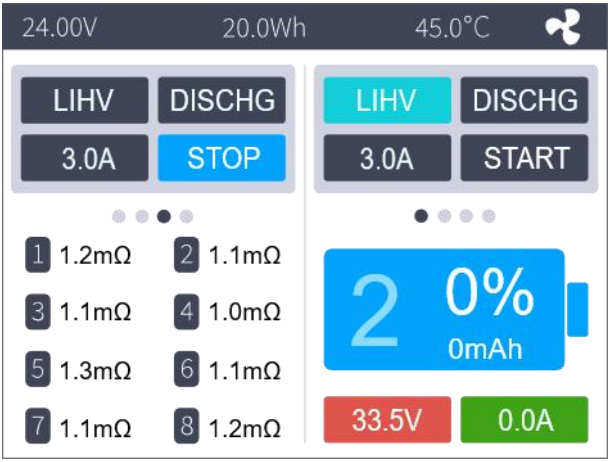
2,Once charging is complete, remove the battery and connect a new one; the device will then continue to operate according to the configured parameters. Please verify that the number of cells detected matches the actual number.

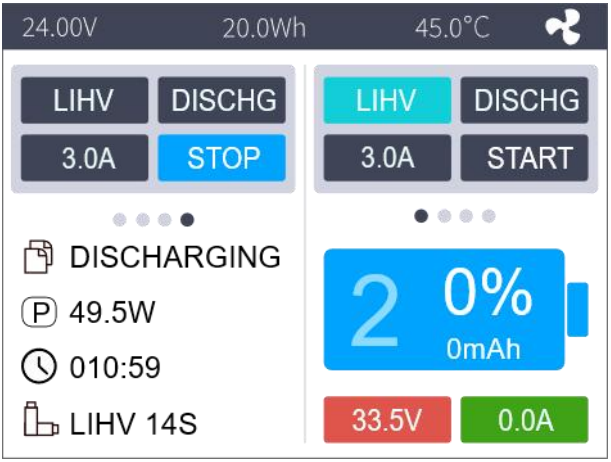
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After starting the operation, briefly press the △▽ button to switch to the information page, where you can view the voltage, internal resistance, and operating status of the corresponding channel. As shown in the three figures below:



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To end the charging or discharging process, select [Stop] and briefly press the button once to stop the operation.

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When charging is complete or an error occurs during charging, a pop-up message will appear and an alert sound will play.

Description of displayed content:

24.0V:Enter the input voltage.

20Wh:Input power consumption.

45℃:Internal temperature of the charger.

DISCHARGING:Current channel operating mode.

49.5W:Current channel operating power.

10: 59:Current lane operating time.

LIHV 8S:Current channel battery type.

33.5V:Current main terminal voltage of the channel.

0.0A:Current Channel Operating Current.

0mAh:Current input/output capacity of the channel battery.

1 4.200V:Voltage of the first cell.

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4 4.210V:Voltage of the 4th Cell (The battery in this device is currently being balanced.)

-.--V :No battery connected.

1 1.2mΩ:Internal resistance of the first cell.

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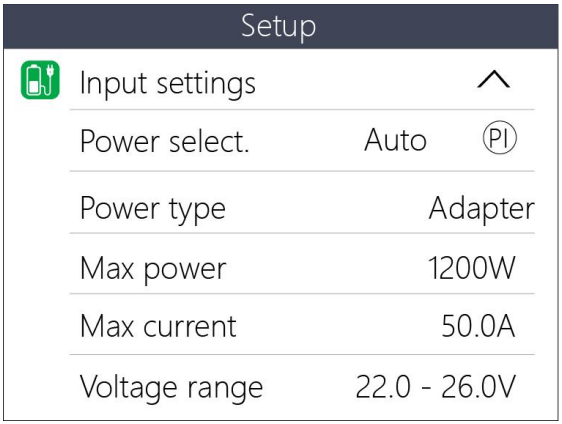
8 1.2mΩ:Internal resistance of the 4th cell.

System Settings

When the charger is idle, press and hold the button to access the system settings menu. The settings are as follows:

Back: Exit the Settings page and return to the main screen.

Input power: The settings for the input power are shown in the figure below.



Power select: Default Internal Power Supply [PI].

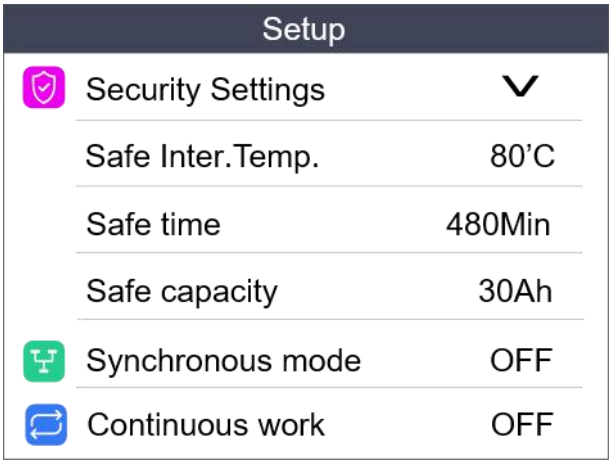
Power type: The current power source is an internal adapter.

Max power: The maximum power the adapter can provide during charging.

Max current: The maximum current the adapter can supply during charging.

Voltage range: Effective voltage range of the internal adapter.

Security Setting: Work-related safety settings. See the image below.

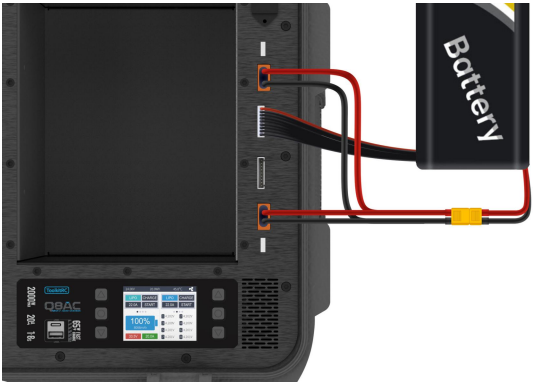


Safe Inter.Temp: If the temperature exceeds this value, the equipment will stop operating. (50-80℃)

Safe time: Maximum continuous charging time; the device will stop working if this time is exceeded. (60-999Min/OFF)

Safe capacity: Maximum capacity for continuous charging; operation will stop if this limit is exceeded. (1-100Ah/OFF)

Synchronous mode: When this feature is enabled, the two channels can be combined to charge the same battery through the main port, with a maximum current of up to 40A. As shown in the figure below:



Continuous Operation: Once this feature is enabled, if you remove a fully charged battery and insert the next one, charging will automatically begin according to the settings for the previous set of batteries.

Setup	
Continuous work	OFF
Work completed	END
Balance start Vol	Always
Backlight	10
Buzzer	6
Language	English

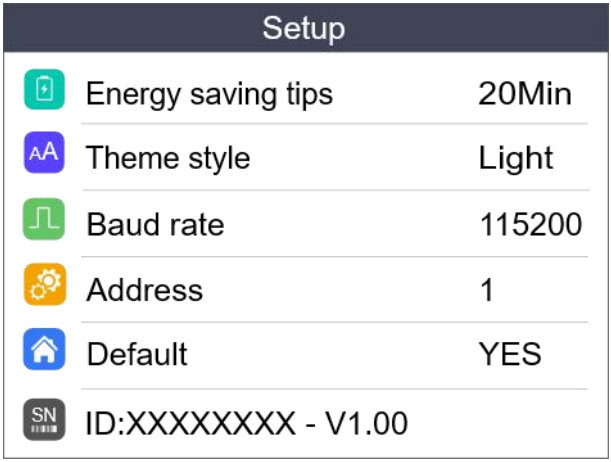
Work completed: End when charging is complete or switch to trickle charging

Balance start Vol: Set the voltage at which the battery begins equalization relative to the full-charge voltage; the default is "full range."

Backlight: The display's backlight brightness can be adjusted from level 1 to 10.

Buzzer: Buzzer sound settings: You can choose from 1 to 7 different tones.

Language: System display language. You can choose from multiple languages, including English and Chinese.



Energy saving tips: When the machine is idle, a reminder will appear indicating when to turn it off to save energy.

Theme style: You can choose between two styles: dark and light.

Baud rate: Communication Rate Between the Master and Slave

Address: The address code for this unit.
Default: Reset all settings to their factory defaults.
ID: The equipment's unique serial number as assigned at the factory.

Other Features

1，Cascade Synchronization Mode

The Q8AC supports cascaded operation between the left and right channels. In the system settings, set either the left or right communication address to 0; this channel will act as the master, while the other channel, set to any value between 1 and 15, will act as the slave. When the master's battery parameters are adjusted, the slave will synchronize with the master accordingly.

2，Firmware Update

Follow the upgrade instructions: Connect the Q8AC to your computer using the USB cable included in the box. Your computer will recognize a USB drive named "Toolkit." Download the upgrade file (app.upga) from the official website and overwrite the file on the USB drive to update the firmware.

3，Automatic Continuous Charging

Once a battery is fully charged, if you remove it and connect the next battery, the device will automatically continue charging. You can enable or disable this feature in the settings menu.

4,USB Fast Charging

The Q8AC features built-in USB fast charging, with a maximum charging power of 65W.

5,Manual Voltage Calibration

Press and hold the▽button to the left of the channel you want to calibrate to turn on the device and enter the manual voltage calibration mode. Use a voltmeter to measure the actual voltage of each battery cell, move the cursor to the corresponding voltage value, and adjust the voltage value to match the voltmeter reading to complete the calibration. Once calibration is complete, move the cursor to "Save." After the value is successfully saved, you can exit or turn off the device.

Specification

Charging	Input Voltage	AC100.0-240.0V@MAX2200W
	Battery Type	LiPo LiHV @1-8S
	Resistance Test	1-100mR @1-8S
	Balance Current	2000mA @2-8S
	Balancing Accuracy	±10mV
	Charging Power	1.0-20A@500W x2 Asynchronous Mode
		1.0-40A@1000W Synchronization Mode
	Discharging Power	1.0-3.0A@30W x2 Internal Discharge
		1.0-6.0A@60W x2 Synchronous Discharge Mode
	USB Output	5.0-20.0V @Max65W Update(Only USB-C)PD(Only USB-C) QC PPS AFC FCP SCP PE SFCP
Interaction	LCD	IPS 2.8″ 320x240px
	Operations	Buttons
Products	Dimensions	610mm*400mm*255mm
	Weight	13kg
Individual packing	Dimensions	645mm×430mm×280mm
	Weight	15kg
Packing List		Q8AC Charger × 1 USB-A to C Cable × 1 Quick Start Guide × 1 AC Input Cable x 1