

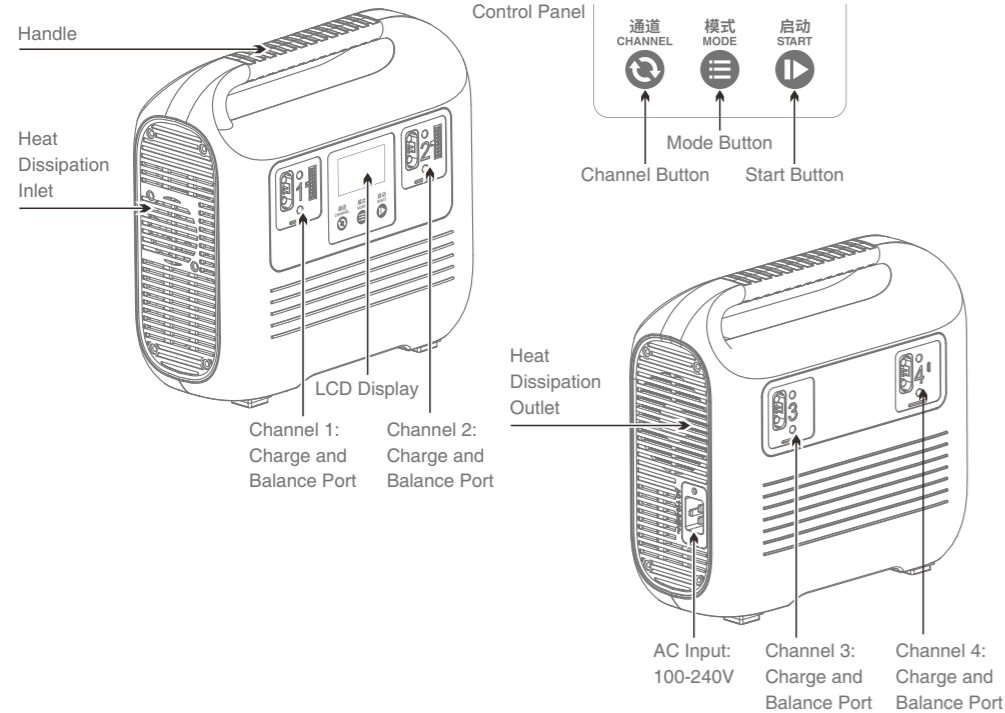
Instruction Manual Version: 1.0

2500W Intelligent & Fast Quattro 12/14S Battery Charger



INTRODUCTION

PC2500 is a smart charger that integrates CAN communication for smart batteries and ordinary lithium batteries. It can connect four batteries at the same time. The charger's maximum output power is up to 2500W, with three modes of Fast(Fast Charge)/Charge(Slow Charge)/Storage. The charger can recognize the batteries with customized CAN communication instantly. Charging is convenient and straightforward with a better user experience.



FEATURES

- Customizable for CAN communication
- Support 4 packs of 12S or 14S LiPo batteries
- Maximum Output Power of 2500W
- Support 4 packs of 12S LiHV batteries
- English & Chinese switchable UI
- Three working modes of Fast Charge, Charge, and Storage
- Battery Voltage Meter
- Maximum safety of short circuit protection, reverse polarity & over-temperature protection

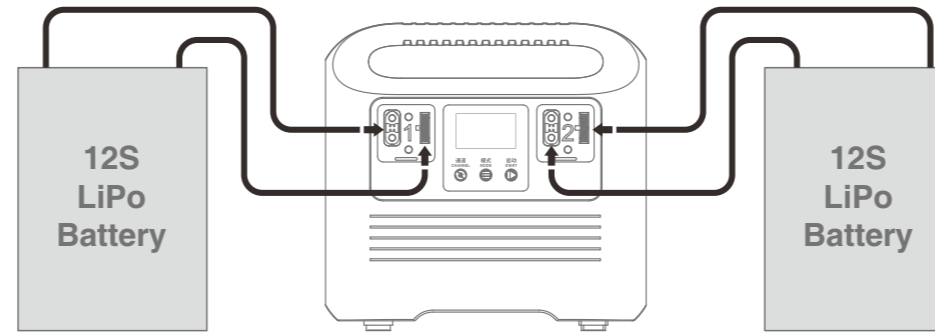
OPERATIONS

Please make sure the AC power is well-grounded before using, and strictly follow the operating procedures below: The charger can connect up to 4 batteries.

- 1) Power on: Connect AC power, the charger will beep once, and the fan will start to rotate during self-check;
- 2) Select the language: Initial-Use: short-press the MODE button, choose the preferred language in the interface, then press the START button to confirm. Routine charging: long-press the MODE button for 10 seconds to enter the language selection interface.



- 3) Select the battery type: Press and hold both the MODE & START buttons simultaneously for three seconds to select the battery type: LiPo or LiHV.
- 4) Connect the Battery: please follow the diagram below to connect the battery. (The charger will automatically detect the battery cells)



- 5) Select the Charge Mode: Fast Charge or Charge, and long-press the START button for three seconds to start charging. Note: 12S and 14S batteries cannot be charged simultaneously under the Charge mode; short-press the START button to stop charging or exit this abnormal state.

Charging Channel	Elapsed Time	Battery Percentage	
CH 1	05:18	39%	
Single Cell Voltage	3.83	3.82	3.83
	3.82	3.83	3.82
	3.83	3.82	LiPo
	3.83	0.00	0.00
Charge Mode	CHG	20A	45.9V
Charge Current			Total Pack Voltage

Channel 1	①	100% DONE	Channel 1: Battery Percentage
Channel 2	②	78% CHARG	Channel 2: Battery Percentage
Channel 3	③	53% CHARG	Channel 3: Battery Percentage
Channel 4	④	29% CHARG	Channel 4: Battery Percentage

Charging Channel	①	32%	Battery Percentage
Battery Type	LiPo	78mAh	Charged Capacity
	FAST	45.0A	45.6V
	Charge Mode	Charge Current	Total Pack Voltage

BATTERY MAINTENANCE

If a Lithium battery will not be used for a long time, it's highly recommended to charge or discharge the single-cell battery to $3.8V \pm 0.05V$ with the STORAGE mode to extend the battery life. If the battery voltage is lower than $3.8V \pm 0.05V$ per cell, the charger will charge it to $3.8V \pm 0.05V$ per cell in the STORAGE mode; If the battery voltage is higher than $3.8V \pm 0.05V$ per cell, the charger will discharge the battery to $3.8V \pm 0.05V$ per cell in the STORAGE mode. Select the STORAGE mode and long-press the START button for three seconds to start maintaining the battery. Short-press the START button to stop charging or exit any abnormal state.

CH1	SETTING		
3.74	3.74	3.74	3.74
3.74	3.74	3.74	3.74
3.74	3.74	3.74	LiPo
3.75	0.00	0.00	LiPo
FAST	WATTING...		

Long-press the START button for three seconds to start

CH1	02:28	28%
3.80	3.80	3.80
3.80	3.80	3.80
3.80	3.80	LiPo
3.80	0.00	0.00
STO	DONE...	

①	32%
LiPo	78mAh
STO	5.9A 45.6V

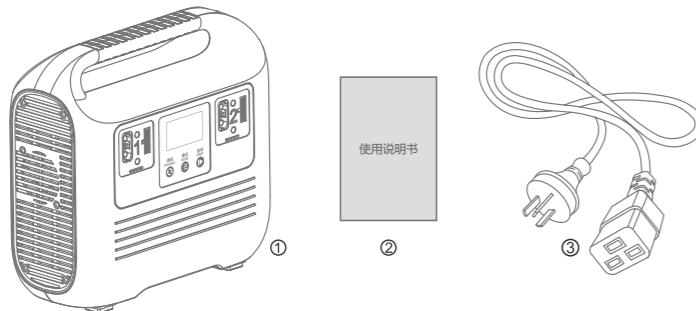
BATTERY TYPE SELECTION

Press and hold both the MODE & START buttons simultaneously for three seconds to select the correct type: LiPo or LiHV.



IN THE BOX

- ① PC2500 Charger *1
- ② Instruction Manual *1
- ③ IEC C19 AC Power Cord *1



TROUBLESHOOTING

Message	Problems	Solution
Charging Malfunction (ERR:)	MAIN PORT BROKEN	Check if the connection between battery and charger is correct
	COMM BROKEN	Communication Error
	CELL VOLT DIFF	1) The voltage difference is higher than 300mV between the highest and the lowest cell when the single-cell voltage is higher than 3.8V. 2) The voltage difference is higher than 300mV, and the connection is not good: please connect again.
	BAL PORT ERROR	Connect again or change the balance cable or battery to charge again.
	BAL PORT OVER	The voltage difference is too high between the main and balance port: change a shorter balance cable to try again.
	HI POWER TEMP	The charger worked overload; please wait until the charger temperature drops.
	AC INPUT ERROR	Check if the input voltage is too high or too low
	BAT TEMP PROT	Please wait until the battery temperature drops.
REV POLARITY	Check if the battery cable polarity is connected reversely.	

SPECIFICATIONS

- Input: 100-240V/50-60HZ
- AC220V Charge Current:
 - Fast Charge: max. 45A single channel
 - Charge: max. 20A single channel, max. 45A multi channels in total
- AC120V Charge Current:
 - Fast Charge: max. 1200W single channel
 - Charge: max. 20A single channel, max. 1200W multi channels in total
- Cells: LiPo 12S/14S LiHV 12S
- Working Mode: Fast charge / Charge / Storage
- Main Port Storage Discharge Power: 75W Max.
- Balance Port Storage Discharge Power: 80W Max.
 - (The current will be adjusted based on the balance port's temp)
- Storage Cut-off Voltage: 3.8V/Cell
- Size: 294mm×139mm×282mm
- Weight: 5.6KG
- AC220V Output Power: 2500W
- AC120V Output Power: 1200W

WARNING AND SAFETY PRECAUTIONS

These warnings and safety notes are particularly important. Please follow the instructions for maximum safety. Otherwise, the charger and the battery can be damaged, or at worst, it can catch fire.

- ⚠ Never leave the charger unattended when it is connected to its power supply. If any malfunction occurs, TERMINATE THE PROCESS AT ONCE and refer to the operation manual.
- ⚠ Keep the charger well away from dust, moist, rain, heat, direct sunshine and vibration.
- ⚠ The allowable AC input voltage is AC 100-240V. Please make sure the electric generator can provide stable voltage and power if using outdoors. The significant voltage fluctuation will damage the charger; please use a voltage regulator if needed.
- ⚠ This charger and the battery should be put on a heat-resistant, non-inflammable and non-conductive surface. Never place them on a car seat, carpet, or the like. Keep all the inflammable and volatile materials away from the operating area.
- ⚠ Make sure you know the battery's specifications to ensure it meets this charger's requirements. If the charger is programmed incorrectly, the battery and charger may be damaged. It can cause fire or explosion due to overcharging.
- ⚠ Never attempt to charge or discharge the following types of batteries
 - 1) A battery pack that consists of different types of cells (including different manufacturers);
 - 2) A battery already fully charged or just slightly discharged;
 - 3) Non-rechargeable batteries (Explosion hazard);
 - 4) A battery requires a different charge technique;
 - 5) A faulty or damaged battery;
 - 6) A battery fitted with an integral charge circuit or a protection circuit;
 - 7) Batteries installed in other devices or connected to other parts;
 - 8) Batteries that are not expressly stated by the manufacturer to be suitable for the currents the charger delivers during the charging process.
- ⚠ Please bear in mind the following points before charging:
 - 1) Did you select the appropriate program suitable for the battery type you are charging?
 - 2) Did you set up adequate current for charging?
 - 3) Have you checked that all connections are firm and secure? Make sure there are no intermittent contacts at any point in the circuit.

① Charging

- 1) During the charging process, a specific quantity of electrical energy is fed into the battery. The charge capacity is calculated by multiplying charge current by charge time. The maximum permissible charge current varies depending on the battery type or its performance and can be found in the battery manufacturer's information. Only batteries expressly stated to be capable of quick-charge are allowed to be charged at rates higher than the standard charge current.
 - 2) Connect the battery to the terminal of the charger. Red is positive and black is negative. Due to the difference between cable and connector resistance, the charger cannot detect the battery pack's resistance. The charger's essential requirement to work properly is that the charge lead should be of adequate conductor cross-section and that high-quality connectors that are typically gold-plated should be fitted to both ends.
 - 3) Always refer to the battery manufacturer's manual about charging methods, recommended charging current and charging time. Especially, the lithium battery should be charged strictly according to the charging instruction by the manufacturer.
 - 4) Special attention should be paid to the connection of lithium batteries.
 - 5) Do not attempt to disassemble the battery pack arbitrarily.
- ⚠ The charger is not suitable for children under 14 years old. People with behavior disturbance, mental disorder, or no experience should use it under supervision and guidance. Children are forbidden to play with it. They are also NOT allowed to clean and maintain the device without supervision.

EXCLUSION OF LIABILITY

This charger is designed and approved exclusively for use with the battery types stated in this Instruction Manual.

SkyRC accepts no liability of any kind if the charger is used for any purpose other than that stated.

We are unable to ensure that you follow the instructions supplied with the charger. We have no control over the methods you employ for using, operating and maintaining the device.

For this reason, we are obliged to deny all liability for loss, damage or costs which are incurred due to the incompetent or incorrect use and operation of our products, or which are connected with such operation in any way. Unless otherwise prescribed by law, our obligation to pay compensation, regardless of the legal argument employed, is limited to only the invoice value of those SkyRC products which were immediately and directly involved in the event in which the damage occurred.

WARRANTY AND SERVICE

We guarantee this product to be free of manufacturing and assembly defects for a period of one year from the time of purchase. The warranty only applies to material or operational defects, which are present at the time of purchase.

During that period, we will repair or replace free of service charge for products deemed defective due to those causes.

This warranty is not valid for any damage or subsequent damage arising as a result of misuse, modification or as a result of failure to observe the procedures outlined in this manual.

Note:

1. The warranty service is valid in China only.
2. If you need warranty service overseas, please contact your dealer in the first instance, who is responsible for processing guarantee claims overseas. Due to high shipping cost, complicated custom clearance procedures to send back to China. Please understand SkyRC can't provide warranty service to overseas end user directly.
3. If you have any questions which are not mentioned in the manual, please feel free to send email to info@skyrc.com



All specifications and datas are subject to change without notice.

Manufactured by
SKYRC TECHNOLOGY CO., LTD.
www.skyrc.com

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