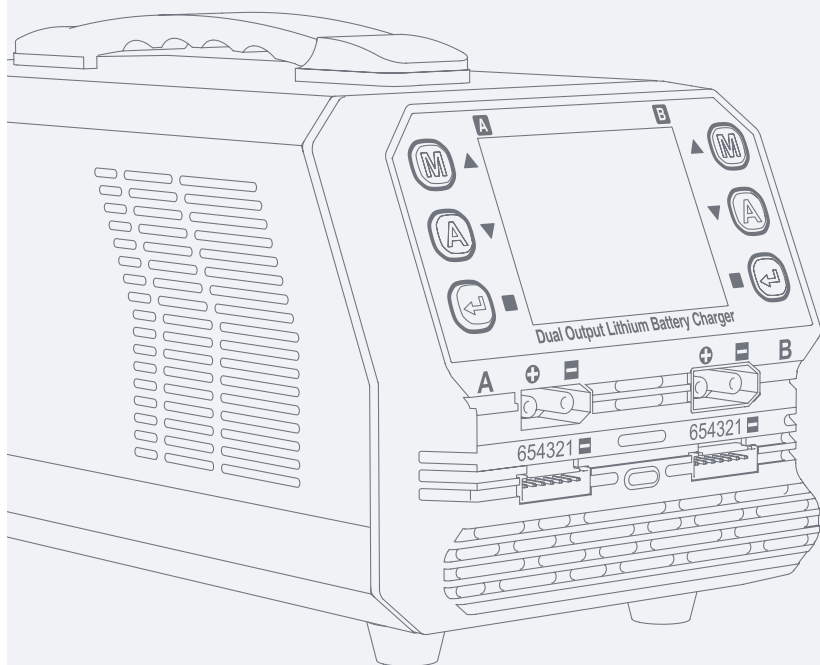


SKYRC

Instruction Manual

v. 79



PC1080neo

Dual Output Lithium Battery Charger

Introduction

Congratulations on choosing the SkyRC PC1080neo Charger!

PC1080neo is a dual-channel lithium battery charger capable of simultaneously charging two 6S lithium batteries.

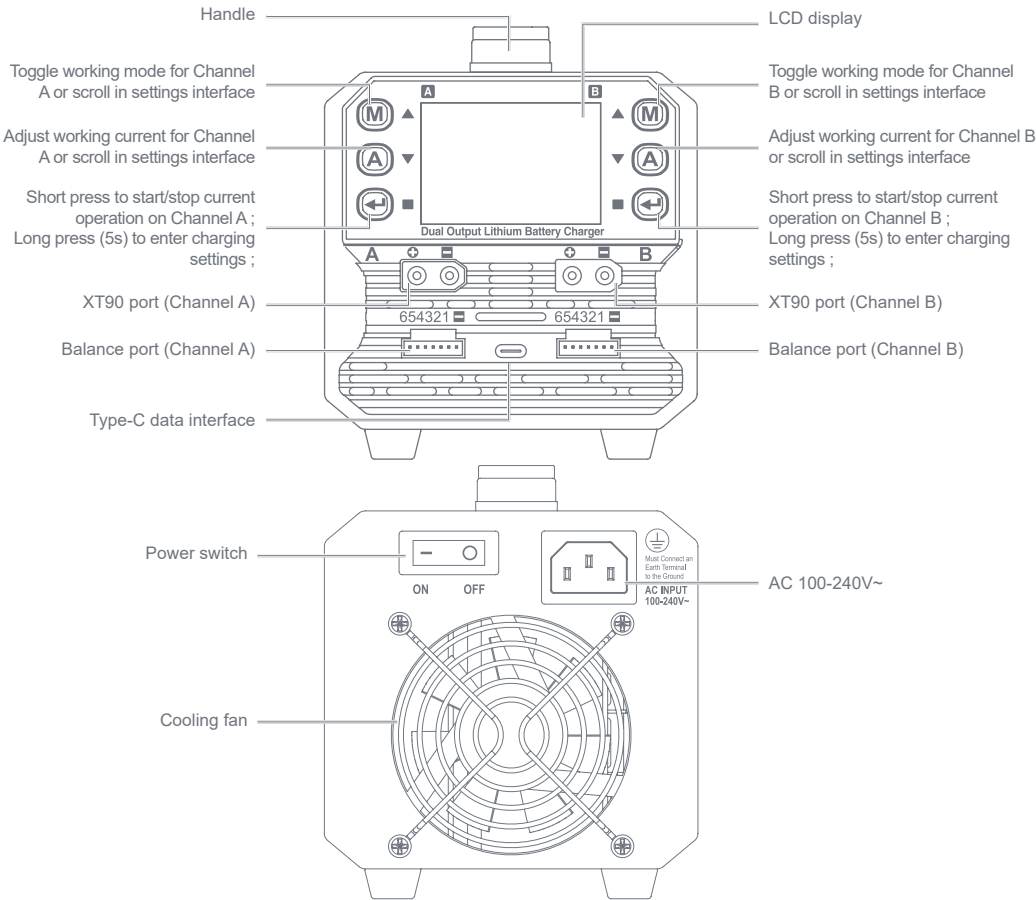
It supports multiple charging modes, including:

- LiPo/LiHV/Li-ion Fast Charge
- LiPo/LiHV/Li-ion Balance Charge
- LiPo/LiHV/Li-ion Storage Mode
- LiPo/LiHV/Li-ion Charging Hub Mode (Supports G630neo Charging Hub)

Built-in short circuit protection, reverse connection protection and over-temperature protection, multiple safety protection to ensure stable and reliable charging!

Easy to operate, supports multiple languages (including Japanese, English, Chinese, Spanish, Russian, German, French and Korean), travelling around the world, hassle-free and easy to use.

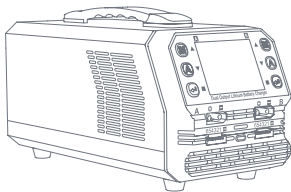
Please read the operating instructions and safety guidelines carefully before use to ensure proper and safe operation.



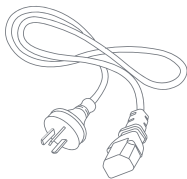
Features

- Supports two 6S LiPo (Lithium Polymer) batteries;
- Supports LiHV with an ultra-wide adjustable voltage range of 4.25V to 4.50V;
- Records LiPo's the last charging setting;
- Enhanced protections: Short-Circuit Protection, Reverse Polarity Protection, and Over-Temperature Protection;
- Adjustable charge current;
- Adjustable cut-off voltage;
- Battery voltage detection;
- Battery internal resistance detection;
- Multiple languages: Japanese, English, Chinese, Spanish, Russian, German, French and Korean;
- Firmware upgradable via Type-C;

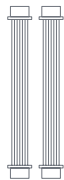
In the Box



PC1080neo Charger *1



AC power cord*1

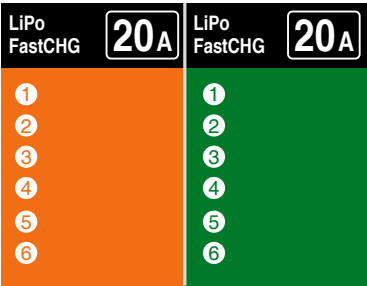


Balance extension cable *2

Power and Battery Connection

1、Connecting to power source

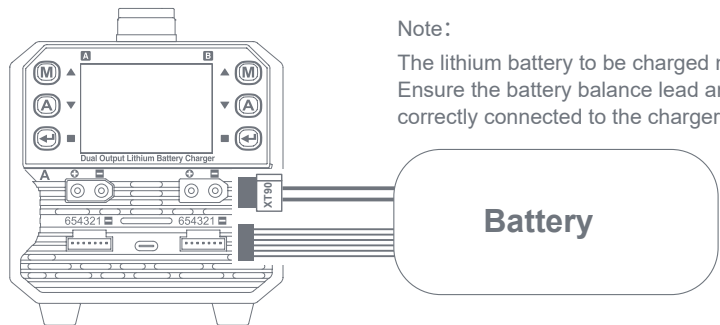
Connect to a power source and turn on the power switch. The LCD screen will display as shown below:



Power and Battery Connection

2、Connecting the battery

Connect the batteries to the PC1080neo charger as shown below:



Note:
The lithium battery to be charged must be a 6-cell pack.
Ensure the battery balance lead and charging lead are correctly connected to the charger.

WARNING: To prevent short circuits, always connect the charger to power first via the AC port at the back, then connect the battery to the Charge Port at the front. When disconnecting, reverse the sequence.

3、Select charge mode

Short press the (M) button to select the charging mode: LiPo/LiHV/Li-ion Fast Charge, LiPo/LiHV/Li-ion Balance Charge, or LiPo/LiHV/Li-ion Storage.

LiPo FastCHG	20A	LiPo Bal. CHG	20A
1 3.81V		1 3.81V	
2 3.89V		2 3.89V	
3 3.79V		3 3.79V	
4 3.77V		4 3.77V	
5 3.75V		5 3.75V	
6 3.80V		6 3.80V	

LiPo
FastCHG

LiPo
Bal. CHG

LiPo
Storage

LiHV
FastCHG

LiHV
Bal. CHG

LiHV
Storage

Note: Use this function with caution. Charging the wrong battery type may cause damage, fire, or explosion.

4、Select charge current

Short press the (A) button to set the desired working current: 1-20A adjustable,

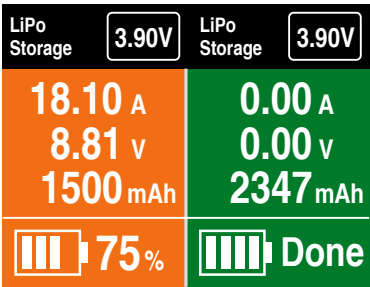
LiPo Bal. CHG	15A	LiPo Bal. CHG	20A
1 3.81V		1 3.81V	
2 3.89V		2 3.89V	
3 3.79V		3 3.79V	
4 3.77V		4 3.77V	
5 3.75V		5 3.75V	
6 3.80V		6 3.80V	

Storage Mode

If a lithium battery will not be used for an extended period, it is highly recommended to charge or discharge it to 3.9V per cell using STORAGE mode to extend its lifespan.

If the battery voltage exceeds 3.9V per cell, the charger will discharge it;

if the voltage is below 3.9V per cell, the charger will charge it under STORAGE mode.

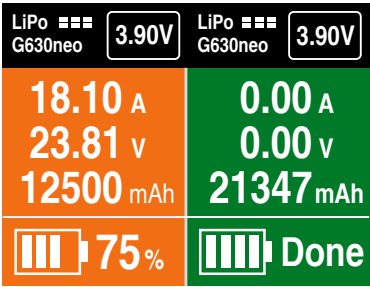


Charging Hub Mode (Works with G630neo)

The G630neo Charging Hub is an automatic charging management system device that expands each charge port to 6 slots, allowing two ports to connect up to 12 lithium batteries. It charges the batteries in sequence based on their remaining power level, from highest to lowest. The system intelligently detects battery levels and automatically switches to the next battery once the current one is fully charged.

- Long press the (M) button for 3 seconds to enter G630neo mode.
- Short press (M) button to switch battery type between LiPo/LiHV/Li-ion.
- Short press (A) button to select the current: 10A/15A/20A.

*The G630neo Charging Hub should be purchased separately.



Cut-off Voltage Setting

PC1080neo allows you to customize the cutoff voltage:

Long press the Confirm/Start button for 5 seconds to enter System Settings. Then, navigate to Task Settings and select LiHV Default Cutoff Voltage , LiPo Default Cutoff Voltage or Li-ion Default Cutoff Voltage. Choose your desired cutoff voltage and return to save the settings.

> Task Parameters

LiHV Default Cut-off V

4.45 V

LiPo Default Cut-off V

4.25 V

Safety Timer

120 Min

Max. Capacity

30000 mAh

Hoiding Voltage

Off

> Task Parameters

LiHV Default C

4.43

LiPo Default C

4.44

Safety Timer

4.45

Max. Capacity

4.46

Hoiding Voltage

4.47

Caution: Ensure the cutoff voltage matches the battery’s specifications. Incorrect settings may damage the battery and could result in fire or explosion.

Language Setting

PC1080neo supports six languages: Japanese, English, Chinese, Spanish, Russian, German, French and Korean. To change the language, long-press the Confirm/Start button for 5 seconds to enter System Settings, then navigate to Language and select your preferred option. Return to save the settings.

System Setting

System Setting

>

Task Parameters

>

Language/语言

English

User Guide

>

System Info

>

Factory Reset

>

Back

Restore Factory Settings

- 1. Long press the Confirm/Start Button for 5 seconds to enter the system settings.
- 2. Select Restore Factory Settings and confirm by choosing YES.

System Setting

 System Setting >

 Task Parameters >

 Language/语言 English

 User Guide >

 System Info >

 Factory Reset

 Back

Errors Explained

In the event of a fault, PC1080neo will display an error message indicating issues such as connection problems or battery mismatches. Refer to the table below for troubleshooting solutions based on the error code.

Error Message	Explanation
Cell Error!	The cells do not match!
Cell Volt Diff.!	The voltage difference between each cell is high!
Balance Connection Break!	The balance connection is incorrect!
Fully Charged!	The battery is fully charged already!
Overcharge!	The battery is overcharged!
Time Limit!	The program has timed out!
Capacity Limit!	Charging has reached the set limit.
Over Load!	The charger is overloaded!
Internal Temp. Too High!	The internal temperature is high!

Specifications

Operating Voltage	AC Input	100V~240 V
Charge Power		1080W (540W × 2) ±10%
Battery Type/Cells	LiPo/LiHV/Li-ion	6S
Cut-off Voltage	LiPo	4.15~4.25V/Cell (default: 4.20V)
	LiHV	4.25V~4.50V/Cell (default: 4.35V)
	Li-ion	4.05V~4.25V/Cell (default: 4.20V)
Storage Voltage	LiPo	3.85V ±0.05V/CELL
	LiHV	3.90V ±0.05V/CELL
	Li-ion	3.80V ±0.05V/CELL
Charge Current		1~20A
Storage Discharge Power	Balance ports	30Wx2
Balance Current	LiPo/LiHV/Li-ion	Max. 2.1A
Size		255x124.5x120mm
Weight		2.43kg

Conformity Declaration

PC1080neo satisfies all relevant and mandatory CE directives and FCC Part 15 Subpart B.

Test criteria	Test purpose	Result
EN 55014-1	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	Conform
EN 55014-2	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 2: Immunity Product Family Standard	Conform
EN 60335-1	Household and similar electrical appliances - Safety - Part 1: General requirements	Conform
EN 60335-2-29	Household and similar electrical appliances – Safety – Part 2-29: Particular requirements for battery chargers.	Conform
EN 61000-3-2	Electromagnetic compatibility (EMC) – Part 3-2: – Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	Conform
EN 61000-3-3	Electromagnetic compatibility (EMC) - Part 3-3: Limitation of voltage supply systems for equipment with rated current ≤ 16 A.	Conform
FCC Part Subpart 15B	Title 47 Telecommunication PART 15 - RADIO FREQUENCY DEVICES Subpart B - Unintentional Radiators	Conform



This symbol means that when the product has reached the end of its useful life and cannot be used, you must dispose of it separately from general household waste, taking the charger to your local waste collection center or recycling center. Applicable to all EU Member States and other European countries with separate waste collection systems.

Warning

These warnings and safety instructions are extremely important. Please strictly follow the instructions in the manual to ensure safety. Improper operation may damage the charger and battery, and in severe cases, may cause a fire.

- Do not use the charger unattended. If any abnormal function occurs, immediately stop charging and refer to the manual to identify the cause.
- Keep the charger away from dust, moisture, rain, high temperatures, direct sunlight, and strong vibrations. Do not drop or impact the charger.
- The charger supports an AC input voltage of 100-240V.
- Place the charger on a heat-resistant, non-flammable, and insulated surface. Do not place it on car seats, carpets, or similar locations. Ensure that flammable or explosive materials are kept away from the charger's operating area.
- Ensure that you fully understand the specifications of the battery being charged/discharged and that the charger settings match the battery.

Incorrect settings may damage both the charger and the battery. Overcharging may cause a fire or even an explosion.

Do not charge or store the following types of batteries:

- Battery packs composed of different models (including those from different manufacturers).
- Batteries that are already fully charged or only slightly discharged.
- Batteries that can no longer be charged (may cause explosions).
- Batteries with special charging technology requirements.
- Damaged or defective batteries.
- Batteries with built-in combination circuits or protection circuits.
- Batteries installed in other devices or connected to additional components.
- Rechargeable batteries not confirmed by the manufacturer as suitable for the charger's current capacity.

Before starting the charging process, always check the following three points:

- Have you selected the appropriate program settings?
- Have you set the correct charging current?
- Are all connections secure? Ensure there is no poor contact in the wiring.

During charging, the amount of energy delivered to the battery can be calculated by multiplying the charging current by the charging time. The allowable charging current varies depending on the type and performance of the battery, and this information is typically provided by the battery supplier. If the supplier does not explicitly state that the battery can be charged at a high rate, please use the normal charging rate.

Connecting the battery to the charger terminals: The red wire is the positive terminal, and the black wire is the negative terminal. Due to differences in wire and connector resistance, the charger cannot detect the internal resistance of the battery pack. For the charger to function properly, the connector must have a sufficiently large conductor cross-section and high-quality gold-plated terminals.

Refer to the battery manufacturer's manual for charging methods, and follow their recommended charging current and time. This is especially critical for lithium batteries, which must be charged strictly according to the manufacturer's instructions.

- Pay close attention to the wiring of lithium batteries.
- Do not disassemble the battery pack arbitrarily.

It must be emphasized that lithium battery packs can be connected either in series or in parallel. When connected in parallel, the total battery capacity is calculated by multiplying the capacity of a single cell by the number of cells, while keeping the total voltage constant. If the voltage is unbalanced, it may cause a fire or even an explosion. Therefore, we generally recommend charging lithium batteries in series.

The charger is suitable for individuals aged 14 and above. Those with behavioral or mental disabilities, or those lacking experience, should use the charger under supervision or guidance. Children should not play with the charger. Children should not clean or maintain the charger without supervision.

If the power cord is damaged, please return it to the manufacturer, supplier, or a qualified technician for replacement to avoid potential hazards.

Liability Exclusion

This charger is designed and approved exclusively for use with the types of the battery 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, and 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 the invoice value of those SkyRC products that 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 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:

The warranty service is valid in China only.

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 users directly. If you have any questions which are not mentioned in the manual, please feel free to send email to info@skyrc.com

The content is subject to change without notice;
please refer to our website for the latest version!



<https://www.skyrc.com>

If you have any questions about this document, please contact SkyRC by sending a message to **support@skyrc.com**

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