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› Hiyiton C6X2 Dual LiPo Battery Charger Instruction Manual

## Hiyiton C6X2

# Hiyiton C6X2 Dual LiPo Battery Charger Instruction Manual

Model: C6X2

## 1. INTRODUCTION

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The Hiyiton C6X2 Dual LiPo Battery Charger is an advanced, dual-channel smart balance charger and discharger designed for various battery types, including LiPo, Li-ion, LiFe, LiHV, NiMH, NiCd, and PB. It features independent channels for simultaneous charging, multiple operating modes, and integrated safety protections to ensure efficient and secure battery management.

## 2. SAFETY PRECAUTIONS

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- Always ensure someone is supervising the charger during use to avoid accidents.
- Do not use the product in hot or humid environments. Keep away from flammable liquids and gases.
- When using the charging function, set the current to match battery performance. Do not set too high a current to avoid damaging the battery.
- When not in use, power off the charger and remove the battery.
- Each channel can only charge one battery at a time.
- Do not charge hot batteries.
- Confirm the charging battery and mode are correct before charging.
- Do not charge two different batteries on one channel.
- Always select the correct battery type.
- Do not use AC and DC inputs simultaneously.

## 3. PACKAGE CONTENTS

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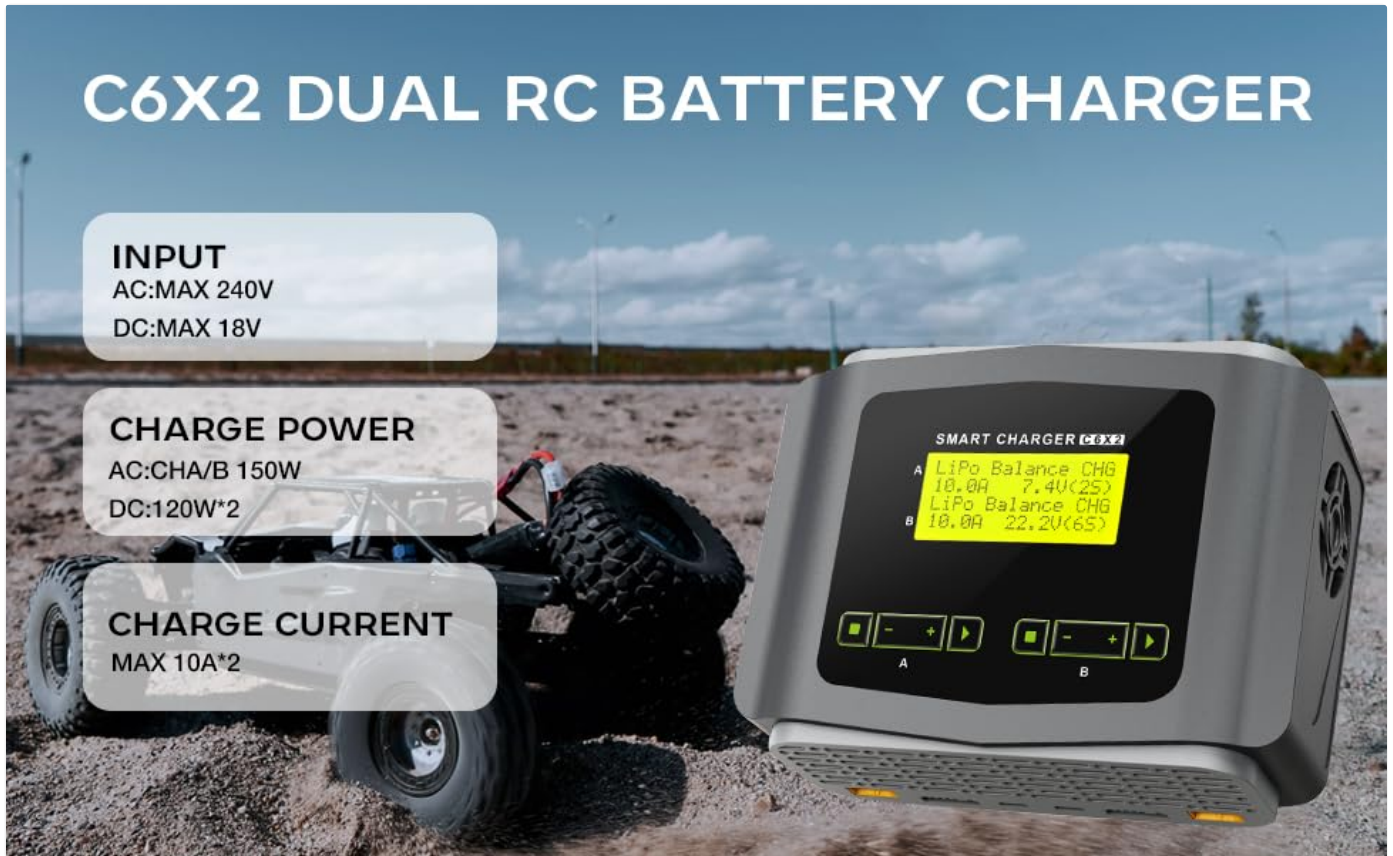
Verify that all items are present in the package:

- 1 × Hiyiton C6X2 Dual LiPo Battery Charger
- 2 × Balance Extension Cords
- 2 × 3-in-1 Convert Cables to XT60

- 1 × AC Power Cord
- 1 × DC Power Cord
- 1 × XT60 to EC5 Cable
- 1 × User Manual

## 4. PRODUCT OVERVIEW

Familiarize yourself with the components and ports of your C6X2 charger.



**Figure 1:** Top and Back View of the C6X2 Charger. Labels include CH A operation button, Display, CH B operation button, Heating fan, XT60 main port, Balance port, PC Link, DC input XT60 (11-18V), AC input (100-240V), and On/off key.



**Figure 2:** Front and Back View of the C6X2 Charger. Labels include On/off key, DC input XT60 (11-18V), AC input (100-240V), Cooling fan, XT60 main port, Balance port, PC Link, and control buttons for STOP, CHOOSE, and ENTER/START for both channels A and B.

## 5. SETUP

Follow these steps to connect your charger and battery for operation.



**Figure 3:** Visual guide for connecting the charger and battery.

1. **Connect Power:** Correctly connect the AC input port of the power supply to a wall outlet using the provided AC cord. Alternatively, use the DC input XT60 port with a compatible DC power source (11-18V). Ensure the power switch is in the OFF position before connecting.
2. **Connect Balance Extension Cord:** Plug the balance extension cord into the appropriate balance port on the charger.
3. **Connect Battery:** Connect your battery's main power lead to the XT60 main port and its balance lead to the balance extension cord. Ensure the balance interface is inserted correctly on the right side.
4. **Power On:** Flip the On/off key to the ON position. The LCD screen will illuminate.
5. **Select Battery Type and Program:** Use the operation buttons (-, +, START/ENTER, STOP/RETURN) to navigate the menu and select the correct battery type (LiPo, Li-ion, LiFe, LiHV, NiMH, NiCd, PB) and desired program (e.g., Balance Charge, Storage).
6. **Set Parameters:** Adjust charging current and voltage parameters as needed for your specific battery.
7. **Start Charging:** Long press the "START" button for about 2 seconds to enter a confirmation display. Press the "START" button briefly again to begin charging.

## 6. OPERATING MODES

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The C6X2 charger offers various modes to suit different battery management needs:

- **Balance Charge:** Charges the battery while balancing the voltage of individual cells, extending battery life and ensuring safety.
- **Normal Charge:** Standard charging mode.
- **Fast Charge:** Charges the battery at a higher rate for quicker turnaround, though it may not fully balance cells.
- **Storage Charge:** Charges or discharges the battery to a specific voltage level optimal for long-term storage, preserving battery health.
- **Discharge:** Discharges the battery to a user-defined voltage.
- **Cycling:** Performs a series of charge/discharge cycles for NiMH/NiCd batteries to optimize performance.
- **Battery Meter:** Displays real-time battery status, including cell voltage and overall pack voltage.

### Battery Compatibility

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The C6X2 charger is compatible with a wide range of battery types:

- **LiPo:** 3.7V-22.2V (1S-6S)
- **LiFe:** 3.2V-19.2V (1S-6S)
- **Li-ion:** 3.7V-22.2V (1S-6S)
- **LiHv:** 3.8V-22.8V (1S-6S)
- **NiMH:** 1.2V-18V (1S-15S)
- **NiCd:** 1.2V-18V (1-15S)
- **PB:** 2-20V (1-10S)

# WIDE BATTERY TYPE COMPATIBILITY

Have one charger for all of your battery packs



Figure 4: The C6X2 charger supports a wide range of battery chemistries and cell counts.

## 7. KEY FEATURES

- **Smart Dual-Channel Charging:** Two independent channels allow simultaneous charging of different batteries.
- **High-Power Parameters:**
  - AC input max power: 150W (CH1+CH2=150W, dividable), 100-240V
  - DC input max power: 240W (CH1+CH2=240W), 11-18V
  - Charge current: 0.1-10A\*2
  - Discharge power: 10W
  - Discharge current: 0.1-2A\*2
- **Intelligent Safety Protections:** Includes over-voltage, over-temperature, over-current, short-circuit, and over-charge protection, plus voltage sensitivity and temperature control.
- **Memory Settings:** Each channel stores 20 memory settings for convenience and safety.
- **Synchronous Rectification:** Conversion efficiency up to 99%.
- **Resistance Detection:** Accurately measures battery resistance.
- **Capacity Cut-Off:** Charges according to set capacity (mAh) and time, then automatically shuts down.
- **Voltage Check:** Quickly and conveniently reads the voltage of each cell.

# HOW TO CONNECT THE CHARGER?

- 1 Correctly connect the AC input port of the power supply.
- 2 Connect the balance extension cord
- 3 Battery connected to balance extension cord
- 4 Long press the "Start" button for about 2 seconds to enter a confirmation display. Press the "Start" button briefly again to start the charger.

**Please insert the balance interface on the right side**

Figure 5: The C6X2 charger incorporates multiple protection features for safe operation.

	<p><b>SYNC CHARGING MODEL</b> Provide a maximum current of <math>10A \times 2</math></p>	<p><b>SAFETY TIMER</b> Turn off the charger automatically according to the schedule you set.</p>	
	<p><b>RESISTANCE DETECTION</b> Accurately measure battery resistance.</p>	<p><b>SAFETY TIMER</b> Turn off the charger automatically according to the schedule you set.</p>	
	<p><b>CAPACITY CUT-OFF</b> After setting the capacity (mAh), the charger will charge according to your target capacity (mAh) and timed automatically shut down.</p>	<p><b>VOLTAGE CHECK</b> Can quickly and conveniently read the voltage of each cell, saving the cost of buying a voltage checker.</p>	

Figure 6: Advanced features for optimized battery charging and monitoring.

## 8. ERROR MESSAGES

The charger's LCD screen may display the following error messages:

Message	Description / Solution
INPUT VOLTAGE TOO HIGH	Input voltage is higher than 18V. Check the power supply, then restart the charger.
INPUT VOLTAGE TOO LOW	Input voltage is lower than the value of LOW INPUT VOLTAGE CUT-OFF. Check the power supply, then restart the charger.
REVERSE POLARITY CHECK	Reverse polarity detected. Check the connection between the charger and the battery, correct the connection, then restart the work.
BATTERY CHECK DISCONNECT	Battery is disconnected. Check the connection between the charger and the battery, then restart the work.
BATTERY CHECK OVER VOLTAGE	Total voltage of the battery is over the termination voltage control (TVC). Check the battery and the TVC setting, then restart.
BATTERY CHECK LOWER VOLTAGE	Total voltage of the battery is over the termination voltage control (TVC). Check the battery and the TVC setting, then restart.
BATTERY CHECK CELL COUNT ERROR	Cell count detected by the charger is different from the setting. Check battery cell count and reset the cell count of the work.
BATTERY CHECK OVER CELL VOLTAGE	Cell voltage of the battery pack is over the termination voltage control (TVC). Check the battery and the TVC setting, then restart.
BATTERY CHECK LOWER CELL VOLTAGE	Cell voltage of the battery pack is lower than the termination voltage control (TVC). Check the battery and the TVC setting, then restart.
FULL BATTERY	Battery full, no need to charge.
OVER TEMP CUTOFF	External temperature is higher than the setting value, cutoff.
OVER CAPACITY CUTOFF	Capacity is over than the setting value, cutoff.
SAFETY TIME OUT CUTOFF	Time is up to the setting value of Safety Timer, cutoff.

## 9. SPECIFICATIONS

Feature	Detail
Model	C6X2
Input Voltage	AC: 100-240V (150W max, dividable)   DC: 11-18V (240W max)
Charge Current	0.1-10A × 2
Discharge Current	0.1-2A × 2
Discharge Power	10W
Battery Compatibility	LiPo/Li-ion/LiFe/LiHv (1-6S), NiMH/NiCd (1-15S), PB (1-10S)
Product Dimensions	5.6 x 6.8 x 2.4 inches
Item Weight	2 pounds

## 10. TROUBLESHOOTING

- **Charger not powering on:** Ensure the AC or DC power cord is securely connected and the On/off switch is in the ON position. Check the power source.
- **Battery not charging:** Verify that the correct battery type and charging program are selected. Check all connections,

including main power and balance leads, for secure contact. Refer to the "Error Messages" section for specific warnings.

- **Slow charging:** Ensure the charging current is set appropriately for your battery's capacity. If charging two batteries, the total power is shared, which might reduce individual charging speeds.
- **Charger beeping or fan running loudly:** This is often normal during operation, especially under high load, indicating active cooling or a warning. Refer to the error messages for specific beeping patterns.
- **Display not working:** Check power connections. If the issue persists, contact customer support.

## 11. WARRANTY AND SUPPORT

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The Hiyiton C6X2 Dual LiPo Battery Charger comes with dedicated customer support. For any questions or assistance, 24/7 customer support is available.

Please refer to your purchase documentation for specific warranty terms and contact information.

