

# INSTRUCTION MANUAL

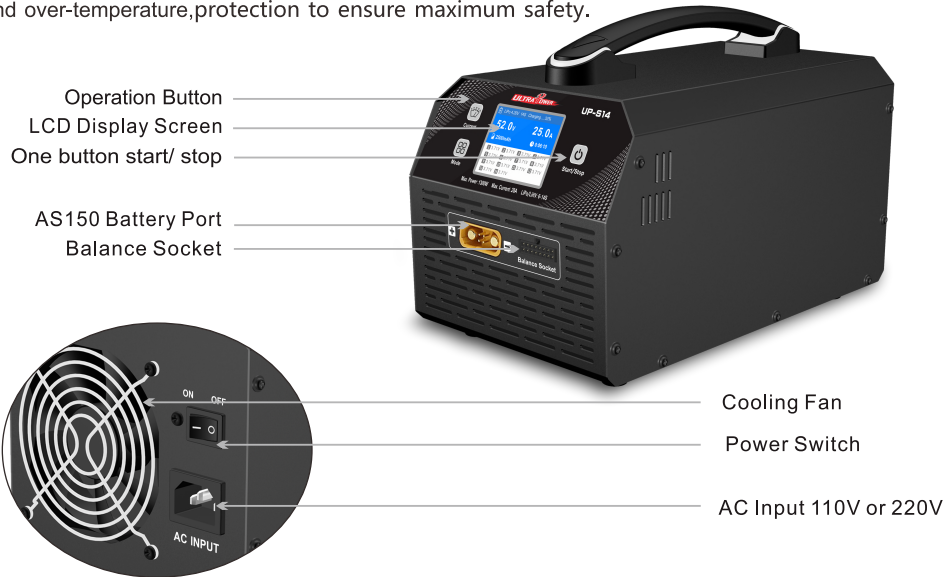
Single Channels LiPo/LiHV Charger For Big Drones

ULTRA POWER

UP-S14

## Product Description

UP-S14 is a single-channel smart charger, can support LiPo/LiHV battery( 4.20V,4.35V,4.40V,4.45V) and also intelligent battery, it can charge & storage 6S-14S LiPo/LiHV battery packs with "one-button charge" function, easy to use. In addition, UP-S14 has over-voltage, over-current, reverse polarity, and over-temperature, protection to ensure maximum safety.



## Specification

Input Voltage: AC 110V or 220V

Charge Power: AC 220V Max.1300W  
AC 110V Max.1000W

Discharge Power: 70W

Balance Current: Max.1.5A/cell

Charge Current : 10A/15A/20A/25A/28A

Battery Type: LiPo / LiHV / Intelligent Battery

Battery Cell Count: 6-14S

Working Mode: Charge / Storage / Charge Hub

Dimension: 260X150X140 mm

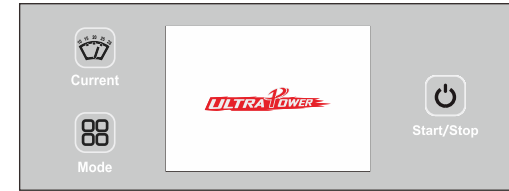
Net Weight: 3.4KG

## Features

- Support 6-14S LiPo/LiHV battery ( 4.20V/4.35V/4.40V/4.45V ) / Intelligent Battery.
- Charging current is adjustable: 10A/15A/20A/25A/28A.
- Three working modes: Charge / Storage/ Charge Hub.
- Memorizing last charging current.
- Multiple protection function: over-voltage, over-current, reverse polarity, and over-temperature protection.

## Operation Procedure

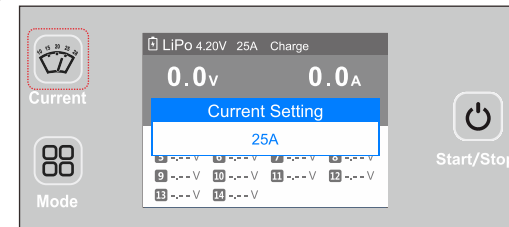
1. Power on: Connect to the power source and turn on the power switch. The indicator will illuminate for 2 seconds, and the LCD display screen will show LOGO on the start-up page for 2 seconds, and then it will enter into the standby page



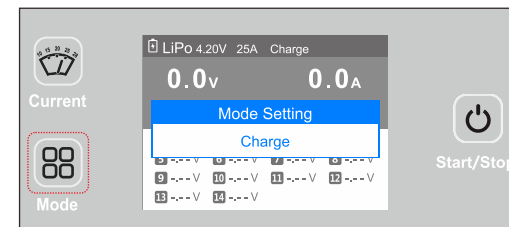
2. Battery connection: Please connect your batteries and charger according to below picture.



- 1) Connect to the battery
  - 2) Connect to the balance socket.
3. Setting the charging parameter.

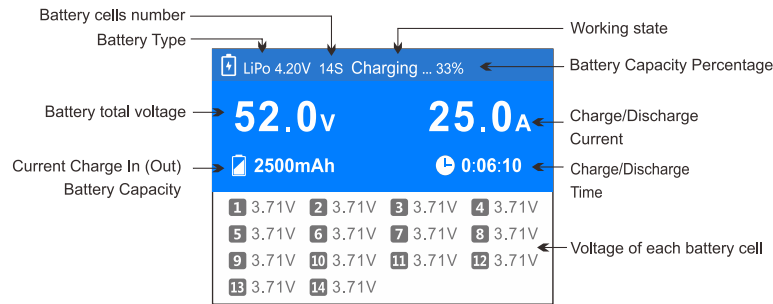


- 1) Press button to choose the appropriate current, 10A,15A,20A,25A,28A. When press the button within 3 seconds without any operation, then save selected current setting. (Normally, we suggest to charge with 1C charge current).

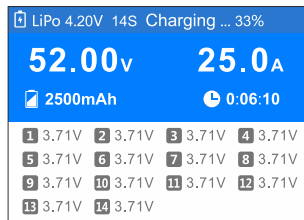


- 2) Press button to choose the mode you need, three working modes : Charge / Storage/ Charge Hub, the default mode is charge mode. When press the button within 3 seconds without any operation, then save selected current setting.
- 3) Long press for 2 seconds until heard " beep" sound, the indicator will turn into red color, now the charger is under charging process.  
Stop: If you want to stop in working process, please press button.

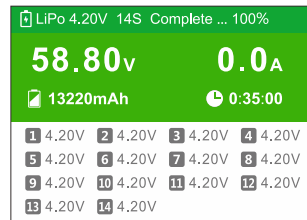
## Charging status



2.4" IPS color screen display, real-time display of the channel work status, can be judged by the interface color charging status.



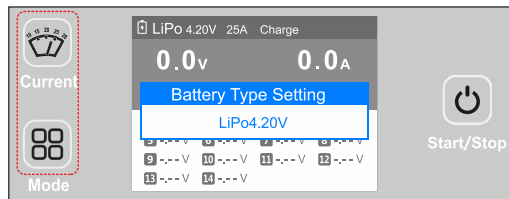
Charging (Blue)



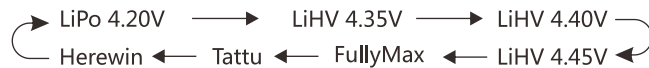
Charging completed (Green)

## Battery type setting

⚠ Please use this function carefully, using the wrong type of battery charging will cause battery undercharge or overcharge, overcharge may cause fire, or even explosion.



Press the current key and the mode key simultaneously for one second, wait until the window interface on the above appears, then press these two keys again simultaneously to select the desired battery type. Press the 'Start' button within 5 seconds without any operation, then the selection is successful.



## Storage Mode ( Maintenance Mode )

If the lithium battery is not used for a long time, it is recommended to use the battery storage mode to charge/discharge the lithium battery voltage to 3.80V to extend the battery life. When the battery voltage is higher than 3.80V/cell, the charger discharges the battery, at this time, the discharge current is about 1.5A due to the limitation of discharge power. When the battery voltage is lower than 3.80V/cell, the charger charges the battery.

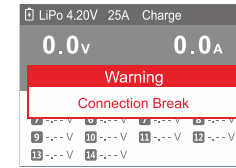
Press the "Mode" button, choose the Storage mode.

Long press the "Start/Stop" button, enter into the Storage mode.

## Important Information Tips

If the charger detects the following abnormal conditions, and the LCD screen will have a fault indication, the specific information and cause analysis are as follows.

Fault message	Cause analysis
Connection Break	No battery connection : Check if the main battery port and the charger are connected properly.
Reverse Polarity	Battery polarity is reversed: Check the main battery port for proper polarity.
Cell Voltage High	Balance port voltage abnormal: Check whether the battery balance port and charger and connection are normal; test whether the battery voltage is normal.
INT. TEMP High	Temperature protection: whether the fan rotation is normal; whether the external ambient temperature is too high.
Over Load!	Current overload protection, charging current exceeds 30A, charging will be interrupted.
Time Out!	When the battery is charged for more than 3 hours in the constant voltage phase, charging will stop.
BMS Warning	Alarm markers appear in smart battery communication data with BMS.



## Important warnings and safety tips

⚠ Please note the following warnings, if improper use of the charger, will cause damage to the charger and battery, serious fire.

- Do not use the charger unattended. If there is any abnormal use of the function, please interrupt the charging and check the manual and contact the relevant technical personnel.
- Make sure the charger is away from moisture, exposure to sunlight, rain and strong vibration.
- Before connecting to the power supply, please check carefully that the input voltage of the charger is AC 110V/220V, and make sure that the input voltage of the charger itself and the voltage of the external power supply are the same.
- Our charger default battery type is lithium battery "LiPo 4.20V", before charging and connecting the battery, carefully check to ensure that the battery type charged and the charger settings are the same.

## Disclaimers

The charger is designed to work only with the types of batteries listed in this manual. If the user uses the charger for purposes other than those listed in the manual, the company will not be responsible for the use of the charger. We cannot be held responsible if the user uses the charger for purposes other than those listed in the manual. We cannot determine whether you have read the operating instructions carefully before use, nor can we control how you use and store the product. We have no control over the way you use and store this product. For these reasons, we disclaim all liability for any damage/loss caused by or in connection with improper use or operation of the charger. For these reasons, we disclaim all liability for any damage/loss caused by or in connection with improper use or operation of the product. We will not be liable for any direct or indirect damage caused by our products within the limits of the law. The amount of the invoice on the purchase of the product shall prevail.

## Warranty and after-sales service

We provides one year warranty from the date of purchase. Within one year, our company will repair the product for you free of charge. Due to customer improper use or self-modification caused by any damage, our company will not provide free repair services. If you have a problem with your product within the warranty period, please contact us first, for products that exceed the warranty period or do not belong to the free repair, our company will also be enthusiastic to serve you.



ULTRA POWER TECHNOLOGY LIMITED

www.ultrapower.hk

0755-23283358

info@ultrapower.hk

