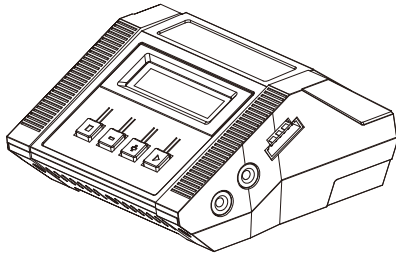


SplashDrone 3+ Smart Balance Charger User Manual for firmware V3.16



WARNING:

The SplashDrone 3+ utilizes high voltage LiHV battery technology in the drone battery.

The battery charger supplied with the SplashDrone 3+ is only suitable for charging SwellPro LiHV batteries and the LiPo batteries for the SplashDrone 3+ remote controller.

Charging non-LiHV, low voltage LiPo drone batteries (including the batteries for the older SplashDrone 3) with the LiHV charger is dangerous and may cause the battery to catch fire or explode.

V 2.41
2020.05

SwellPro
www.swellpro.com

Please check www.swellpro.com for the latest version of this manual.

1. Foreword

Thank you for purchasing this SwellPro product, please read the entire contents of this manual thoroughly, to comprehensively familiarize yourself with the product before using it.

The safety precautions in this manual are only intended to supplement local safety regulations.

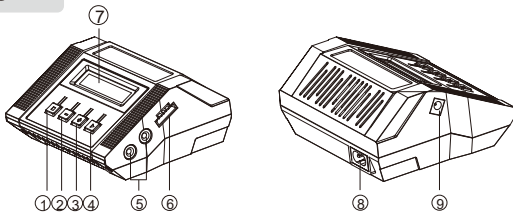
2. Important Precautions



1. Do not use this product in direct sunlight, rainy or moist environments.
2. This product should be kept away from dangerous materials such as heat source, high pressure, water, flammable gas and corrosive agents. Operate the charger in a suitable environment 5 °C ~ 45 °C.
3. Ensure the charger has sufficient ventilation(recommended >50cm).
4. Do not cover the product or battery during operation. Do not place the battery on top of the charger.
5. Do not charge non-rechargeable lithium batteries or incompatible batteries.
6. During operation, the charger and battery should be placed on a strong anti-flammable and non-conductive surface. Do not charge batteries on a car seat, carpet or other similar surfaces.
7. Only charge compatible batteries. Charging incompatible batteries is a fire risk.
8. Do not charge or discharge a battery that has been physically damaged.
9. Do not disconnect the input line during charging. After charging has completed, disconnect the battery and then the input line.
10. Keep the charger clean and dry.
11. Do not modify or disassemble this product.
12. Avoid using this product during thunderstorms.
13. Do not allow children under the age of 14 to use the charger.
14. Do not short-circuit or disassemble a battery.
15. NEVER LEAVE A LITHIUM BATTERY UNATTENDED DURING CHARGING OR DISCHARGING.
16. In the event of fire, disconnect the charger and use a dry powder fire extinguisher to fight the fire.

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3. Charger



- | | | |
|----------------|----------------------|---|
| 1. Mode Switch | 4. Start/Confirm | 7. LCD Screen |
| 2. Decrease | 5. Main Output | 8. AC Input |
| 3. Increase | 6. Balance Interface | 9. DC Input (for connection to a car charging port) |

WARNING:

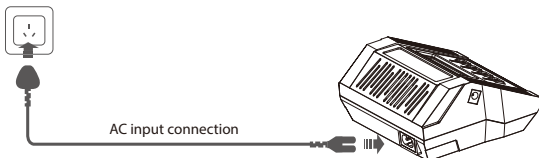
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4. Connection instructions

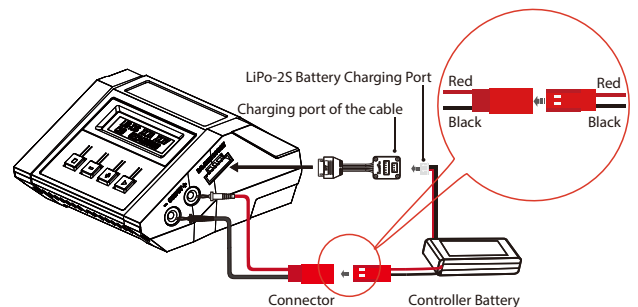
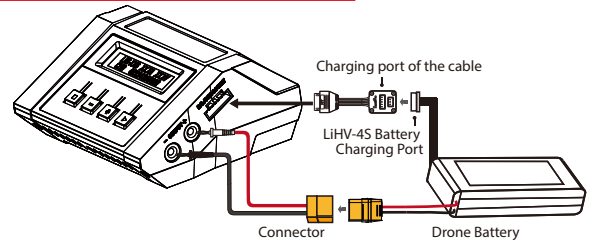
1. The charger can be connected to an AC outlet (100~240V AC) or to a suitable high-current DC source 11~18V such as a car charging port or cigarette lighter adapter.



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2. Connect either a LiPo-2S battery or LiHV-4S (HIGH VOLTAGE).

Never charge a normal Lipo-4S battery with this charger, as the high voltage will damage the battery and can be a fire risk.



1. Before charging, check and make sure the terminals and wires of the battery pack are not damaged.
2. When connecting the battery, always check that the positive (red) and negative (black) wires are connected correctly and the connector plugs are connected to the same color ports on the charger.
3. In order to avoid short circuits, connect the banana connector cable to the charger first, and then connect the battery. When disconnecting, disconnect the battery first, then disconnect the charger.
4. **Only one battery can be charged at a time.**

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5. Operation Instructions

LIPO BAL-CHG 2S
10S 1A

1. Standby

After the charger is powered on, it will enter into standby mode. Connect the battery and the balance port. The charger will automatically detect the connected battery type.

LIPO BAL-CHG 2S
10S 2A

2. Charging Current selection

After entering the main interface, you can press the "INC" and "DEC" buttons to set the charging current value. Check that the selected current does not exceed the battery specifications. Then press the "START" button to confirm the set value.

If there is no action in 10 seconds, the charger will automatically recommend a charging current according to the number of cells and capacity. The 10-second countdown will be displayed in the lower left corner of the current setting interface. The settings buttons will reset the countdown timer.

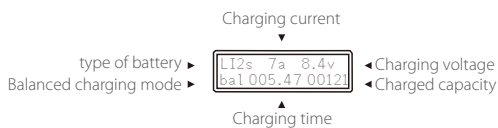
START
> 2 Seconds

LI2s 7a 8.4v
bal 005.47 0012l

3. Start charging

Press and hold the "START" button for 2 seconds to start the charging program. When in charging mode, the "INC", "DEC" and "ENT" buttons are not available. Press the "ESC" to stop charging.

6. Interface Description



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Error messages:

When the charger is used incorrectly or there is a fault, the charger will prompt an error message for the user to view. As shown below:

| | |
|------------------|---|
| CONNECT BREAK! | The battery has been disconnected from the charger. |
| CELLS IMBALANCE! | The cells of the battery are unbalanced. The battery cannot be charged. |
| OVERHEATING! | The charger has overheated. Power off the charger and allow it to cool. |
| OVER CAPACITY! | The connected battery cannot be charged. |
| POLARITY REVERSE | The battery has been incorrectly connected. Check all connections. |
| HIGH VOLTAGE! | The input voltage is too high. The battery cannot be charged. |
| HIGH CELL VOLT! | The battery voltage is too high. The battery cannot be charged. |
| CELLS ERROR! | The connected battery has an incompatible number of cells. |
| SAFETY TIMER! | The connected battery has not charged in a safe time. |
| SETTINGS CHANGED | The selected setting has been changed successfully. |
| SHORT CIRCUIT! | The charger output has been short-circuited. |
| POWER SUP FAULT! | The input supply is unacceptable. |
| SELF TEST FAULT! | The charger's self-test has failed. The charger cannot be used. |

7. Battery Storage

- ⚠ Lithium batteries must not be stored for more than a few days fully charged. Storing lithium batteries fully charged reduces their life and their capacity.
- ⚠ If the 4S battery is fully charged, you can use the drone to discharge the battery to about 15.3V and disconnect the battery before storing the battery.

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⚠ If the 2S battery is fully charged, you can use the remote control to discharge the battery to about 7.5V and disconnect the battery before storing the battery.

⚠ Batteries stored for an extended period of time without use should be charged and discharged for maintenance every 3 months.

8. Specifications

| | |
|---------------------|--|
| Input | AC input 100-240V DC output 11V-18V |
| Output Power | 100W |
| Battery types | LiPo, LiHV |
| Charging Current | 2-10A |
| Battery Numbers | LiPo-2S, LiHV-4S |
| Balance Current | 400mA/cell |
| Input Protection | Overcurrent |
| Output Protection | Overvoltage, undervoltage, short circuit, overheating, short circuit, reverse connection |
| Working Temperature | 5-45°C |
| Size | 130*115*61mm |
| Weight | 380g |

Note: The product specifications mentioned in this manual are for reference only. This manual is correct at the time of release, and is subject to change without notice.

9. Warranty & After Sale Service

- The product is covered by a 12-month warranty.
- Warranty repairs are free of charge for one year from the date of purchase. If the customer is unable to provide valid proof of purchase, the date will be based on the internal date code of the charger.

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- For repairs after the first 12 months of use, the cost will be charged as appropriate, and the customer shall bear the round-trip shipping costs.

Warranty does not cover damage due to neglect or incorrect usage of the charger including:

- Product damage caused by failure to use a suitable input voltage as required.
- Damage caused by not following the instructions.
- Any man-made, accidental impact or other force majeure that causes damage to the product.
- Modification, disassembly or modification of the internal circuit of this product without the approval of the company.
- Water immersion or intrusion, moisture or other foreign matter entering the product and causing damage.
- Aging, bumps and scratches on the surface of the product.

⚠ The user is responsible for any consequences caused by the operation of the charger. SwellPro is not liable for the costs beyond the cost of the product and reserves the right to modify the terms of this warranty which is subject to change without notice.

10. Version Information

Version Comments

- 1.0 Pre-release Manual for Smart Balance Charger
- 2.0 New Manual for Smart Balance Charger
- 2.1 Added Charging connection Controller Battery
- 2.3 Updated the Manual
- 2.4 Updated Connection Instructions for the Manual
- 2.41 Added software version

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