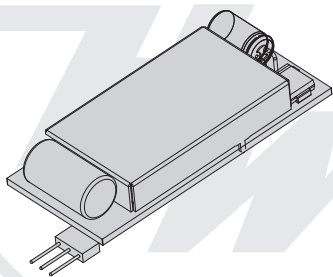




Thank you for purchasing this HOBBYWING product! Please read this declaration carefully before use, once you start to use, we will assume that you have read and agreed with all the content. Brushless power systems can be very dangerous and any improper use may cause personal injury and damage to the product and related devices, so please strictly follow the instruction during installation and use. Because we have no control over the use, installation, or maintenance of this product, no liability may be assumed for any damage or losses resulting from the use of the product. We do not assume responsibility for any losses caused by unauthorized modifications to our product. Besides, we have the right to modify our product design, appearance, features and usage requirements without notification. We, HOBBYWING, are only responsible for our product cost and nothing else as result of using our product. Regarding the possible semantic difference between two different versions of declaration, for users in mainland China, please take the Chinese version as standard; for users in other regions, please take the English version as standard.

UBEC
10A 3-14S



20210406

01 Warnings

- Read through the manuals of all power devices and aircraft and ensure the power configuration is rational before using this unit, as improper power configuration will overload the motor and damage the unit.
- When installing the unit, relevant operations like soldering, connecting will be needed, so please ensure all wires and connections are well insulated before connecting the unit to related devices, as short circuit will damage the unit. When soldering relevant wires of the unit, please use a soldering iron with sufficient power to do the soldering, as poor connection may cause the unit to function abnormally or other unpredictable issues like damage to the device.
- Always keep your aircraft away from unsafe elements like obstacles, crowd, high-voltage power lines. Please fly your aircraft in the working environment as regulated in this manual. Although there are some protections, improper use may still cause permanent damage to the unit.
- Always disconnect and remove the battery after use. As long-time contact will cause the battery to completely discharge and result in damage to the battery or the unit. This will not be covered under warranty.

02 Introduction

The UBEC is an external DC voltage regulator. It works in switch-mode. It can obtain the DC voltage suitable for the receiver and other devices from a 3-14s LiPo battery pack and stably provide 10A output current. The UBEC can easily supply power to various equipment on the remote control model and is suitable for fixed wing aircraft.

03 Features

- It has metal shield to help heat dissipation and reduce electromagnetic interference;
- High efficiency DC-DC regulator chip for transfer efficiency of over 90%.
- Adjustable output voltage (6.0V/7.4V/8.4V) applicable for servos with different voltages.
- Multiple protections including over-current, (output end) short circuit and overheat.
- LED indicator for indicating the work status of the UBEC.

04 Wiring

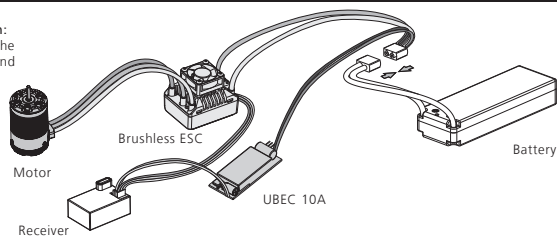
Model	UBEC 10A
Main Input Voltage	3-14S LiPo
Output Voltage	6.0V /7.4V /8.4V
Output Amperage	Continuous Current: 10A, Peak Current: 25A
Weight	35g
Size	55*25*12mm

05 User Guide

1 Connection diagram

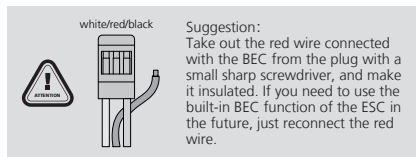
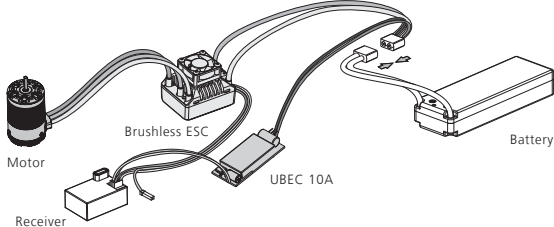
1. The using method when brushless ESC has no built-in BEC function:

At this time, no changes need to be done to brushless ESC, as long as the input end of UBEC is paralleled with the battery pack, and the output end is inserted into any idle channel of the receiver.



2) The using method when brushless ESC has built-in BEC function:

At this time, it is necessary to disconnect the BEC output of the brushless ESC, which is to disconnect the red wire between the brushless ESC and the receiver, and then connect the input end of UBEC with the battery pack in parallel, and insert the output end into the idle channel of the receiver.



2 Voltage output adjustment

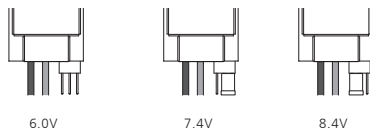
The output voltage can be adjusted in three levels (6.0V/7.4V/8.4V) through short-circuit the wire jumper with different pins.

The setting method of each voltage output level is shown in the figure:

- 1) 6.0V: Do not short-circuit any pin;
- 2) 7.4V: Short-circuit the two pins far away from the Input wires;
- 3) 8.4V: Short-circuit the two pins close to the Input wires.

Note:

Due to the characteristics of BEC, BEC may not be able to output 8.4V voltage stably with the reduce of battery voltage when connected to 3S LiPo (The output voltage will reduce with the battery voltage). Therefore, it is suggested to use 8.4V output with 4S LiPo.



06 Other information

1. The Red LED is used for indicating the work status of the UBEC. If the Red LED turns on, it means that the UBEC outputs normal voltage; if the Red LED is not on, then please check the following issues:
 - 1) Whether the input wire of main battery power supply is well connected;
 - 2) Whether the output end is short circuited;
 - 3) Whether the load of output end exceeds the maximum output current allowed by BEC.
2. The switch-mode UBEC may produce some electromagnetic interference during working and affect some receivers with poor performance (especially the old-fashioned AM and FM receivers). To ensure the normal operation of the receiver, please keep the UBEC over 5cm away from the receiver when mounting the UBEC.
3. When the current exceeds 25A, BEC will automatically cut off the power supply and restart.
4. Temperature protection: when the temperature exceeds 150°C, BEC will automatically stop power supply, and it will recover automatically when the temperature drops.