

8 Amps Switching-Mode UBEC (2-5S)

1. Why do you need UBEC?

The 8A-UBEC (2-5S) is a switching-mode DC-DC regulator supplied with 2-5S Lipo battery pack; it outputs a consistent safe voltage for your receiver, gyro, servos and other electronic equipments. Compared with the linear mode BEC, the efficiency of the switching-mode BEC is much higher especially when the input voltage is higher than 14.8V (4S Lipo). So the switching-mode BEC is strongly recommended when the RC model uses high voltage battery pack (more than 4S Lipo or 12 cells NiMH). The UBEC is very suitable for big scale RC helicopters and big fixed-wing aircrafts.

2. Specification:

- 2.1. **Output voltage:** 5.2V/8A or 6V/8A (Selectable by the switch).
- 2.2. **Output current:** Continuous 8A, burst 15A.
- 2.3. **Input:** 5.5V-21V (2-5S Lipo or 5-15 cells NiMH).
- 2.4. **Size:** 62mm*27.5mm*10mm (length*width*height)
- 2.5. **Weight:** 24.5g

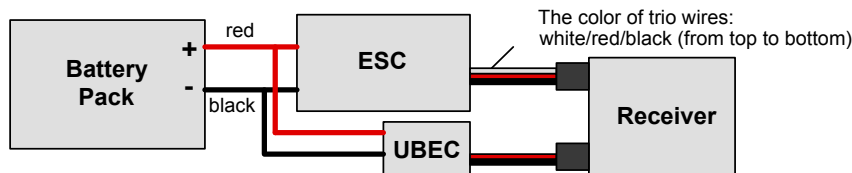
3. Features:

- 3.1. Equipped with the advanced switching-mode DC-DC regulator IC.
- 3.2. The output current is big enough for all electronic equipments in RC model.
- 3.3. A metal shield covers all the electronic components, and a ferrite ring filter is attached with the output wire which significantly reduces the electromagnetic interference.
- 3.4. A LED shows the working status, it lights when the output is in normal range.
- 3.5. Accessory: A step-down voltage regulator of 0.7V down (from 6.0V to 5.3V).

4. Wiring:

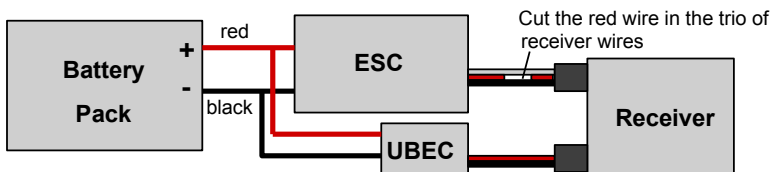
4.1. When ESC hasn't built-in BEC

No change is needed for the ESC, just connect the input wires of UBEC to the battery, and plug the output lead (connector) of the UBEC into one spare channel of the receiver.



4.2. When ESC has built-in BEC

You must disable the built-in BEC of the ESC (that is, cut the red wire in the trio of Rx (receiver) wires).



Suggestion: You can use a sharp screwdriver to take the pin (with red wire) out from the BEC connector of the ESC, and then insulate it with a bit of electrical tape for further use, so you needn't cut the red wire by this method.



Take the pin with red wire out

5. Attentions

- 5.1. Although we have tried our best to reduce the electromagnetic interference caused by this switching-model UBEC, but it still may cause some interference to receiver. So please install the UBEC far away from the receiver (The distance > 5cm is recommended).
- 5.2. The input polarity must be correct; otherwise the UBEC will be damaged immediately. Please check the polarity carefully before connecting the battery pack.

6. How to Use the UBEC?

- 6.1. Change the output voltage
The voltage is changeable by using the output-voltage selection switch.
- 6.2. Working status indicator (LED)
The LED shows the status of the output. It lights when the UBEC works normally. If it couldn't light, please check the battery connections.
- 6.3. About the 0.7V step-down voltage regulator
The 0.7V step-down voltage regulator is necessary for the servos cannot work with 6V (including Futaba servo 9241, 9251, 9253, 9254, 9255, 9256 and etc). It changes the voltage from 6V to 5.3V. When the UBEC output is set to 6V, please connect the 0.7V step-down regulator between the receiver and the above servos.
If a servo can work with 6V input, then the 0.7V regulator is unnecessary.