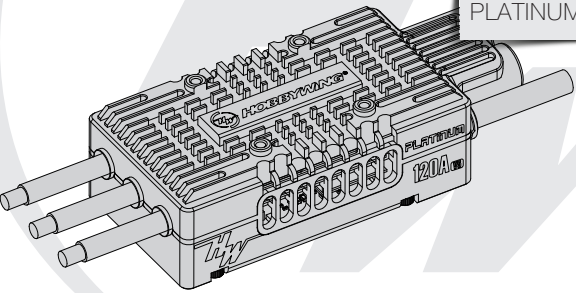




Thank you for purchasing this HOBBYWING product! Please read this declaration carefully before use, once you start to use, we will assume that you have read and agreed with all the content...

USER MANUAL PLATINUM Brushless Electronic Speed Controller PLATINUM 120A V5



20240523

HW-SMA006DUL

02 Warnings

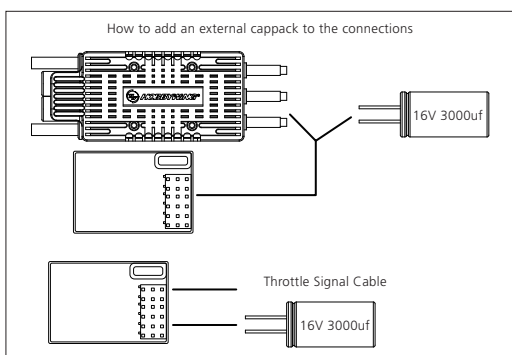
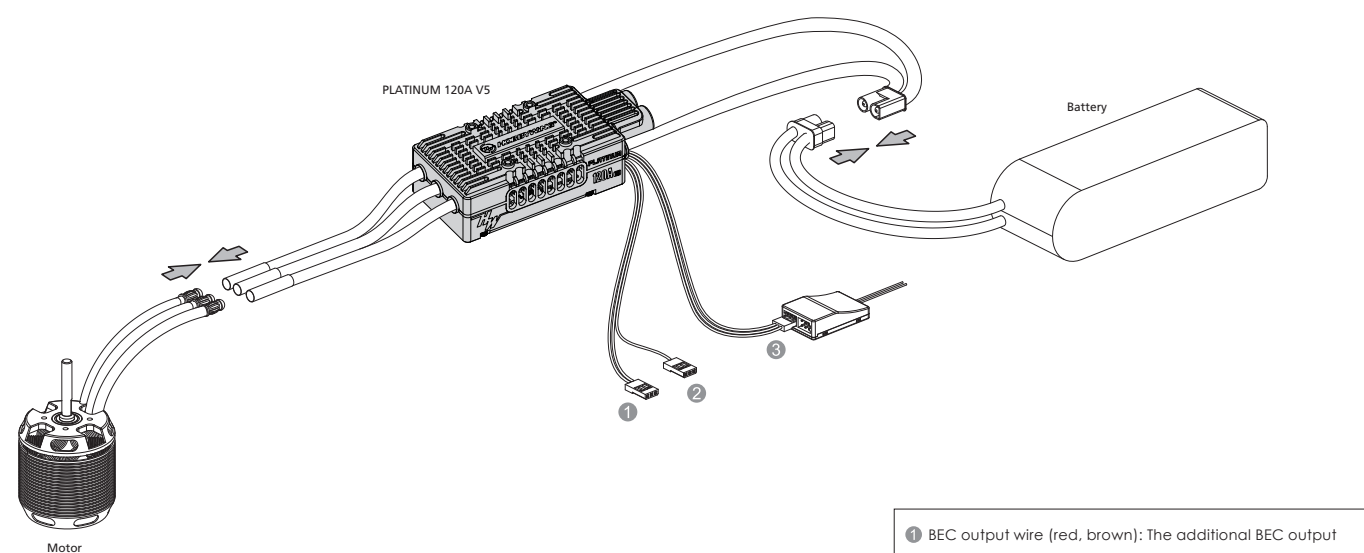
- Before using this product, read the instruction manual carefully. Ensure that all components are used correctly to avoid any damage of the ESC and other components of the system.

03 specifications

Table with 2 columns: Model, PLATINUM 120A V5 120A150A. Rows include Continuous/Peak current, Input voltage, BEC, Input/Output wires, Independent parameter programming interface, LED light, Size/Weight, and The scope of application.

04 User Guide

1 Wiring diagram



- BEC output wire (red, brown): The additional BEC output wire is plugged into the receiver battery dedicated channel or any available channel.

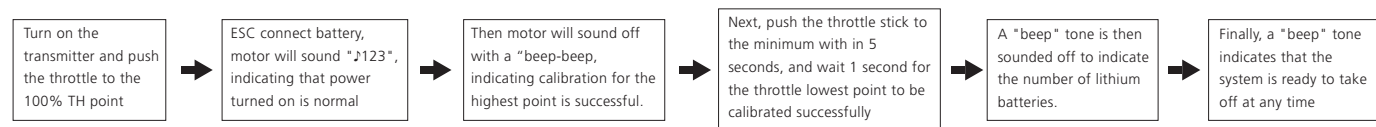
2 External Capacitor Module (also called Capped) Wiring (Optional)

For this ESC, its BEC load capacity may be insufficient when using high power servos. In that case, we suggest connecting the stock external capacitor to the BEC's output end (i.e. any idle channel on the receiver \*note 1) in parallel.

3 Normal boot process



4 Throttle stick calibration operation method



- ESC default throttle range is 1100µs-1940µs (Futaba standard). The throttle range should always be re-calibrated for the first time or when transmitter have been replaced.

05 ESC programming and Data checking

- The ESC parameters can be programmed specifically to meet different flight needs.

1 Use Multifunction LCD program box to program ESC parameters (need to purchase separately)

Wiring diagram and setting methods for using a Multifunction LCD program box to program ESC parameters.

2 Use OTA Module to program ESC parameters (sold separately)

Wiring diagram and setting methods for using an OTA module to program ESC parameters.

06 Programmable parameter items and instructions

1 Programmable parameter items and parameter values

Table with 2 columns: Item, Value. Lists parameters like Flight mode, LiPo cells, Cutoff Voltage, etc.

\*\*\* in the form below indicate factory defaults.

2 Programmable parameters project description

- 1.1. Fixed-wing mode: Suitable for fixed-wing. In this mode, the throttle has to be more than 5% to start the motor and the throttle response is linear.

07 Speed Governor Function

1 Explanation for ESC Speed-governing

Establish the "Motor RPM-Throttle Amount Curve" via the speed standardization, and then set the throttle amount to some fixed value on the transmitter, in that condition, the motor will output the RPM corresponds to the throttle amount and keep rotating at that speed.

2 RPM Standardization

Theory of RPM Standardization and procedures. Includes diagrams of throttle curves and graphs showing RPM vs Throttle.

3 How to Set the Speed-governing Function

- The best throttle amount (set in the Helicopter "Store Governor" mode) of the ESC ranges from 70% to 90%, so please try to set the throttle amount (set in the Helicopter "Store Governor" mode) within this range.

Formula: Main Blades' RPM (at the 100% throttle) = Max. RPM \* (Motor Poles + 2) / Drive Gear Ratio. Includes a diagram of a throttle curve.

08 Warning Tones and Protection

1 LED indicators and warning notes

Table with 4 columns: Protection, Tone, LED indicator, Instruction. Lists warning tones like 'BB, BB, BB, BB...' and their meanings.

2 Protection function description

- Abnormal power-on voltage protection: The ESC enters a protective state once the input voltage detected is not in the operating range.