



# Brodak F2B Hornet ESC Instruction Manual BH-1866



**Thank you** for purchasing the Brodak F2B Hornet ESC. This is a purpose-built unit made to our specifications by HengTuo Innovation. This is a new generation of sensorless speed controllers, with the latest user friendly software design, for ALL types of brushless motors. Please read and pay careful attention to the following instructions before you start to work with your motor and controller.

### Warnings:

*Please use caution!* Model aircraft equipped with high power motor can kill. High power motor systems can be very dangerous. High currents can heat wires and batteries, causing fires and burning skin or anything. Follow the wiring connection carefully! Always fly at the approved field. Never fly over or near spectators. Even though this controller is equipped with a safety arming program, you should still be cautious when connecting the main battery.

- Always connect the motor battery pack just before flight and disconnect it immediately after landing.
- Once the motor battery pack is connected, handle the model with extreme care!
- Ensure that you are well clear of the propeller at all times.
- Rotating propeller is extremely dangerous!
- Even when the receiver (BEC) switch is “OFF”, please remember the motor battery pack may still be connected.
- Handle the model with extreme care and stay clear of the propeller!
- Do not use more battery packs than rated ones or 4-5 servos.
- Do Not use bad, damaged, cracked or bulged battery.
- Over-heat protection function is built-in the ESC. When the temperature reaches 212°F/100°C during the operation of ESC, the motor speed (RPM) will immediately reduce; it will automatic recover when the temperature under 212°F/100°C.
- Do Not connect the motor battery to the wrong polarity, the controller will be seriously damaged.



### Specifications:

Continuous Current	Burst	Peak Current	BEC Type	BEC Output		Battery Cell		Size(mm)	Weight
				5.0V	4A	2-6LiPo	5-18NC		
40A	50A	100A	SBEC	5.0V	4A	2-6LiPo	5-18NC	52*25*11	43

### Wire Connection:

The Brodak F2B ESC has 4mm bullet connectors on the motor wires and a “T” connector for the battery. The ESC is equipped with a “JR” servo connector which is designed to connect to the #BH-1883 FM Hornet Timer the BROWN wire socket on the servo harness goes to the pin on the timer marked GRND (ground). This connector is also used when programming the ESC using the #BH-1882 Programming Card.

### Installing the Controller:

Install the controller in the model so that it is free from vibration and shock, using Velcro or double sided foam tape. **Make sure** there is sufficient cooling for the motor and controller by ducting air through cooling holes from outside airflow. Failure to do it, will cause damage to the motor or controller.

### Normal Start Up:

With the timer and motor connected, when you connect the battery you should here the ESC beep twice, indicating the brake is active, then it should beep once for every cell in your battery pack. Thus for a 4-cell pack it will beep 4 times. After it is initialized you can push the START button on your timer to initialize the start-up sequence.

### Factory Program Settings:

The Brodak F2B comes pre-programmed with the following settings:

Brake:----- ON	Low voltage cutoff type: ---REDUCE POWER
Battery Type: -----LI-POLY AUTO	Timing: -----AUTO
Motor Rotation: -----NORMAL	Frequency:----- 16KHz
Soft Start: -----ENABLED	Heli Governor Mode: -----ON

### How to Re-Program Your Controller:

The easiest and most direct way to change the program settings is to use the Programming Card (BH-1882) available from Brodak. The ESC can also be reprogrammed using an RC transmitter & Receiver. Contact Brodak to have them email a copy of the programming instructions using a transmitter.