

## ESC-25A User manual (#17135)

Thanks for purchasing our Electronic Speed Controller (ESC). Wrong use and operation may cause personal injuries and damages on the equipment due to the strong power at the starting of the product. We strongly recommend customers to read the specification carefully before using the product and operate the product strictly in accordance with the operating provisions. We assume no responsibilities generated from the application of the product, including but not limited to liabilities for damage of incidental losses or indirect losses. Meanwhile, we assume no responsibilities generated from the disassembly and modification by users themselves and assume no responsibilities caused by products from the third party.

We have the right to alter products including appearance, performance parameter and operating requirement without advanced notice. We make no guarantee, declaration or promise on whether product is suitable for specific purpose of users.

### 【Features】

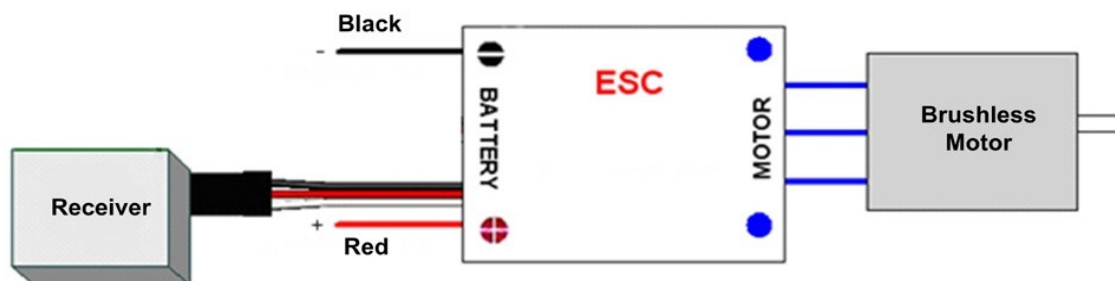
- ▶ High performance microprocessor brings out the best compatibility with all kinds of motors and the highest driving efficiency.
- ▶ 3 start modes: Normal / Soft / Very-Soft.
- ▶ Separate voltage regulator IC for microprocessor to get a better anti-jamming capability.
- ▶ Multiple protection features: Low-voltage cut-off protection.
- ▶ The output of the built-in BEC 5V.
- ▶ **Program Card** is supported. Very easy to program the ESC at home or at the field.

Notice:

The ESC with BEC supply. The output voltage is 5V. The load current is 2A.

### 【The introduction of the connection in the ESC】

In order to avoid short circuit and leakage, the joint are connected by thermal shrinkable pipe to ensure insulation.



### 【The function of electric speed controller for brushless motor】

1. Reset to factory default.
2. Brake types(OFF/ON).
3. Cut-off Types(Soft-cut/Cut-off).
4. Cut-off Voltage(Low/Middle/High).
5. Start Mode(Normal/Soft/Very-Soft).
6. Timing Mode(Low/Middle/High).
7. Cell(Auto/2/3/4).

### 【The operation steps of programming in ESC for brushless motor】

1. Turn off the ESC and disconnect the throttle lead from the receiver.
2. Connect the throttle lead from the ESC to the 3 pin signal connector on the Program Card. (If the ESC is without BEC, please also connect a 4.8V-6V battery to 3 pin batt.connector.)
3. Turn on the ESC to apply power to both ESC and Program Card.
4. All current settings will be displayed on the correspond LEDs.
5. Press up/down button to move between settings.
6. Press left/right button to change the value for that setting.
7. Press Load Default button to return to default setting (if necessary).
8. Press OK button to save this setting.

9. Turn off the ESC and disconnect the throttle lead from Program Card and connect it back to the receiver.

- A) Brake: Off/On  
Off: the propeller stops naturally when the throttle works under the smallest position.  
On: the propeller stops immediately when the throttle works under the smallest position.
- B) Cut-Off: Soft-cut/Cut-off  
Soft-cut: Soft Cut (Gradually reduce the output power)  
Cut-off: Immediately stop the output power.
- C) Cut-off Voltage: Low/Middle/High  
For normal voltage ESC (supports 2-4 cells Lipo), the Low / Middle / High value for each cell is: 2.85V / 3.15V / 3.30V
- D) Start Mode: Normal/Soft/Very-Soft  
The initial acceleration of the "Soft" and "Very-Soft" modes are slower than "Normal" mode, usually it takes 3 second for "Soft" mode or 8 seconds for "Very-Soft" mode from 0% throttle advance to full throttle. After startup, if the throttle is closed (throttle stick is moved to the bottom position) and opened again (throttle stick is moved upwards) within 3 seconds, the restart will be temporarily changed to "Normal" mode to get rid of the chances of a crash caused by slow throttle response. This special design is useful for aerobatic flight.
- E) Timing Mode: Low/Middle/High  
Usually, low timing value is suitable for most motors. But there are many differences among structures and parameters of different motors so please try and select the most suitable timing value according to the motor you are just using. The correct timing value makes the motor run smoothly. And generally, higher timing value brings out higher output power and higher speed.
- F) Cell: Auto/2/3/4  
For normal voltage ESC (supports 2-4 cells Lipo), the values are Auto / 2S / 3S / 4S.

#### **【Recovery to factory default setting】**

1. Brake: Off
2. Cut-off Type: Cut-off
3. Cut-off Voltage: Middle
4. Start Mode: Normal
5. Timing Mode: Middle
6. Cell: Auto

#### **【 Setting Throttle Range】**

1. Disconnect the throttle lead from the receiver.
2. Apply Power to ESC.
3. Full Throttle
4. Connect the Throttle lead to the receiver.
5. One Beep sound.
6. Minimum Throttle.
7. Another Beep sound.