TECO

# Electronic Speed Controller Spec & User Manual

Thanks for purchasing our Electronic Speed Controller (ESC).
High power system for RC model is very dangerous, please read this manual carefully.

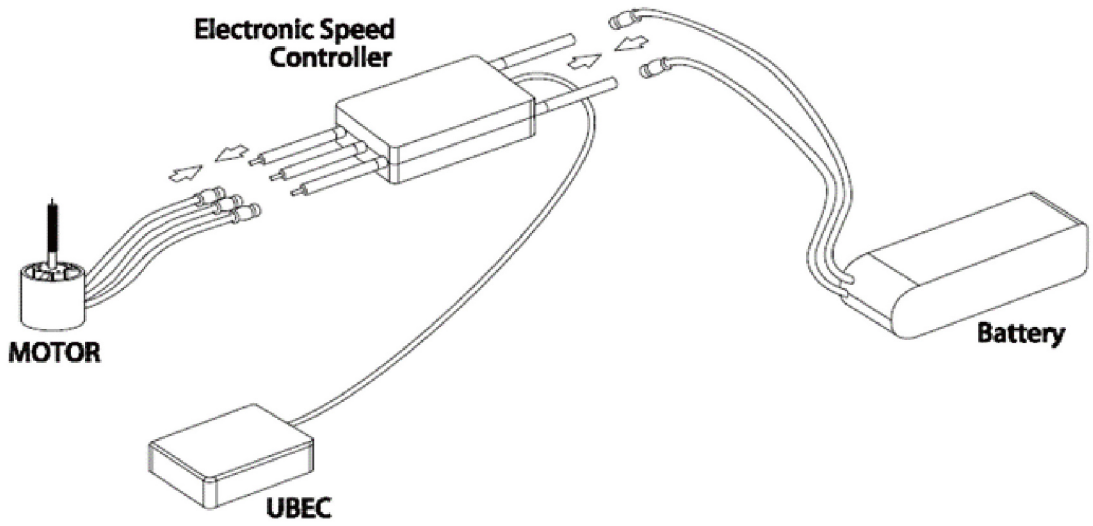
## Specifications

| Model | ES2602006 | ES2606006 | ES2604012 | ES2606012 |
|---|---|---|---|---|
| Input | 4-6S LiPo (14.8~25.2V) | 4-6S LiPo (14.8~25.2V) | 8-12S LiPo (30~52V) | 8-12S LiPo (30~52V) |
| Rated Current | 20A | 60A | 40A | 60A |
| Peak Current | 30A (10 seconds) | 80A (10 seconds) | 80A (10 seconds) | 130A (3s) |
| Communication | PWM / Dshot 300/600 | | | |
| BEC | No | | | |
| Size (mm) | 60(L)*28(W)*17(H) | 69.5(L)*28(W)*17(H) | 83(L)*38(W)*17(H) | 84.7*42*20.2mm |
| Weight (excluding wiring) | 11g | 13g | 25g | 55.5g |

## Throttle Calibration

Please calibrate the throttle range when you use a new ESC.

## Wiring Diagram



## Throttle Range Setting

**Step. 1**

Turn on the transmitter, and push the throttle stick to the top position.

**Step. 2**

Connect the receiver to the battery, and ensure the transmitter and receiver are well bound, then turn on the ESC.

**Step. 3**

After the motor emits three short “Beep-Beep-Beep” push the throttle stick to the bottom position within 3 seconds, and motor emits a long “Beep".

* If the throttle stick is not pushed to the bottom position, motor will emit short beeps. In that case, you need to recalibrate.

## Protections

- **Start-Up Failure Protection:**
  If the motor fails to start within 1 seconds of throttle application, the ESC will cut off the output power. To attempt a restart, the throttle stick must be reset to the bottom position.
- **Over-Heat Protection:**
  When the ESC's operating temperature exceeds 100°C, it will automatically reduce output power to a maximum of 40%. This self-protection mechanism ensures the motor retains enough power to prevent a crash. Full power will gradually be restored once the temperature returns to a safe level.
- **Throttle Signal Loss Protection:**
  The ESC will reduce output power if the throttle signal is lost for 1 second. If the signal loss persists for 2 seconds, the output power will be cut off completely to ensure safety.
- **Overload Protection:**
  If the motor experiences a sudden, abnormal increase in load (typically caused by a motor stall), the ESC will immediately cut off power or initiate an automatic restart to prevent hardware damage.

## Trouble Shooting

| Trouble | Possible | Action |
|---|---|---|
| After power on, motor does not work, no sound is emitted. | The connection between battery pack and ESC is not correct. | Check the power connection. Replace the connector. |
| After power on, motor does not work, such an alert tone is emitted."beep-beep-, beep-beep-,beep-beep-" (Every "beep-beep-" has a time interval of about 1 second). | Input voltage is abnormal, too high or too low. | Check the voltage of battery pack. |
| After power on, motor does not work, such an alert tone is emitted: ”beep-, beep-, beep- "(Every "beep-" has a time interval of about 2 second). | Throttle signal is irregular. | Check receiver and transmitter. Check the cable of throttle channel. |
| After power on, motor does not work, such an alert tone is emitted: "beep-, beep-, beep-” (Every "beep-" has a time interval of about 0.25 second). | The throttle stick is not in the bottom (lowest) position. | Move the throttle stick to bottom position. |
| The motor runs in the opposite Direction. | The connection between ESC and the motor need to be changed. | Swap any two wire connections between ESC and motor. |