

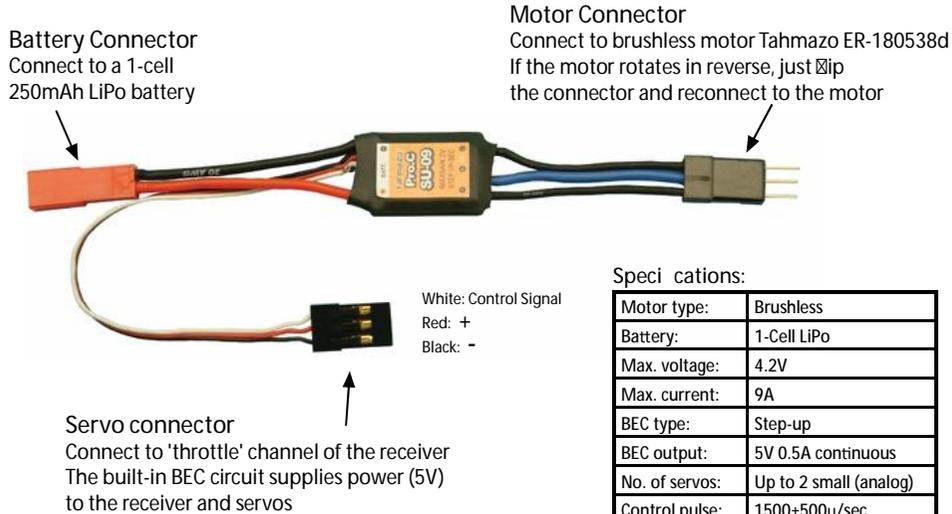


# Tahmazo Pro.C SU-09 Speed Controller

## Instruction Manual



Thank you for purchasing the Tahmazo Pro.C SU Series Electric Speed controller (ESC). The ultra-compact Tahmazo Pro.C SU-09 series employs a built-in Battery Eliminator Circuit (BEC) that can provide a step-up stable power supply of 5V to the servos or receiver battery from a 1-cell battery. This ESC is designed for its simple handling as no programming is required.



### Specifications:

Motor type:	Brushless
Battery:	1-Cell LiPo
Max. voltage:	4.2V
Max. current:	9A
BEC type:	Step-up
BEC output:	5V 0.5A continuous
No. of servos:	Up to 2 small (analog)
Control pulse:	1500±500µ/sec
Dimensions:	15.5x4x5.5mm
Weight:	6g

Note: This Tahmazo Pro.C SU-09 ESC is available in 2 versions - with brakes and without brakes. The version is indicated on the label of the ESC.

### 1) Getting Ready for use

#### 1.1) Transmitter setting:

- Set the throttle channel's travel adjustment (ATV or EPA) to 100%.
- Set the throttle channel's trim and sub-trim to neutral or zero.
- Set the throttle channel's reversing switch to reverse if you are using a Futaba transmitter. The throttle reversing switch may need to be set normal for other brands of transmitters.

#### 1.2) Heat dissipation in aircraft:

Proper cooling of the ESC is important when mounting it onto the aircraft. Its mounting position is to be considered carefully for optimum heat dissipation. It should not be wrapped (eg: with a sponge) in anyway as this will also affect its performance. Overheating can cause damage to the circuit components.

#### 1.3) Connection of battery power

- The ESC is designed for use with a 1-cell battery. The same battery powers both the motor and receiver.
- Always switch on the transmitter first before connecting the battery to the ESC.

### 2) About beep Sound

- 2.1) The beeping sound helps you in determining the status of the ESC when connected with a battery. The beeping sound is emitted from the motor and it will not sound if the ESC is not connected to it.
- 2.2) If the motor produces 5 continuous beeps upon connection, please check the transmitter's throttle lever position and sub-trim.
- 2.3) Safe start feature - To prevent motor from operating when the battery is connected, the ESC must be 'armed' every time the battery is connected. The motor should not rotate unless the ESC is armed. To arm the ESC, move the throttle to the lowest (OFF) and wait for a short beep followed by a long beep. The motor should rotate now when the throttle stick is moved from the lowest position.

### 3) Proper usage

Before mounting the propeller, check the following:

- 3.1) Good ventilation of the ESC for proper cooling.
- 3.2) Do not connect a LiPo battery that is more than one cell (3.7V).
- 3.3) Ensure that the ESC is connected in the correct polarity with the battery.
- 3.4) Ensure that the battery is not loosely connected as a sudden disconnection will affect the operation of the ESC and motor.
- 3.5) After the operation, disconnect the battery from the ESC first before switching off the transmitter.
- 3.6) Remove the battery immediately after using. LiPo battery can drain itself while connected to the ESC and this can damage it.
- 3.7) Do not put a load of more than 0.5A to the ESC as this will damage the built-in BEC. Note the number of servos used and the current consumption.
- 3.8) Do not expose the ESC to water.
- 3.9) Do not throw any objects into the propeller when the motor is spinning. Do not put your fingers near as there is risk of serious accident or injury.

### 4) ESC operation

- 4.1) Connect the motor to the ESC, then to the receiver together with the servos.
- 4.2) Switch on the transmitter.
- 4.3) Move the transmitter's throttle stick to the lowest position.
- 4.4) Connect a fully charged battery to the ESC.
- 4.5) The motor will beep once with a proper connection.
  - (a) If the motor do not sound, the connection may not be done correctly (see Section 2.1).
  - (b) Continuous 5 beeps upon connection. The transmitter throttle lever may not be at the lowest position (see Section 2.3).
- 4.6) The motor will rotate when the throttle lever is moved from the lowest position.
- 4.7) If the motor is rotating in reverse, you can reverse the direction of rotation by flipping and reconnecting the motor and ESC.
- 4.8) Switch off the transmitter and remove the battery from the ESC when you have finished.

### Service Procedures

For servicing of your Pro.C SU series ESC, you can send it to our dealer nearest to you, or post paid and insured to:

Tahmazo Products Pte Ltd  
 126 Joo Seng Road.  
 Goldpine Industrial Building  
 #08-03. Singapore 368355  
[service@tahmazo.com](mailto:service@tahmazo.com)  
[www.tahmazo.com](http://www.tahmazo.com)

Please include your address and email address with the speedcontroller. Speedcontroller that operates normally when received by Tahmazo Products will be charged a minimum service fees and return shipping charges.