

# TEU-201 BK (for TWIN MOTOR)

## TAMIYA ELECTRONIC SPEED CONTROLLER



■ Thank you for purchasing the TEU-201BK. This is a forward and reverse electronic speed controller (ESC) that uses a high frequency drive system, and is designed to control high-output Tamiya twin-mo-

tor radio-controlled models. Make sure to read these instructions and in particular the safety precautions below as breakage and accidents due to improper use will void your warranty.

Pay close attention to the following safety precautions as improper use can damage the product and void your warranty or lead to property damage and personal injury.

### ⚠ WARNING

- This ESC is intended for use with R/C models that operate on the ground. Do not use with other models.
- Connect receiver to ESC and servos securely. Failure to do so may lead to connectors becoming loose due to vibrations while running.
- Never operate any R/C model in electrical storms.
- Avoid operating your model in rain or through standing water. Water in the receiver may cause loss of control.
- Disconnect and remove the battery pack when the model is not being used. If left connected, the model may run out of control, and it may also cause fires or damage to the battery pack.
- Keep receiver, battery pack and model, etc. out of reach of small children.

### ⚠ CAUTION

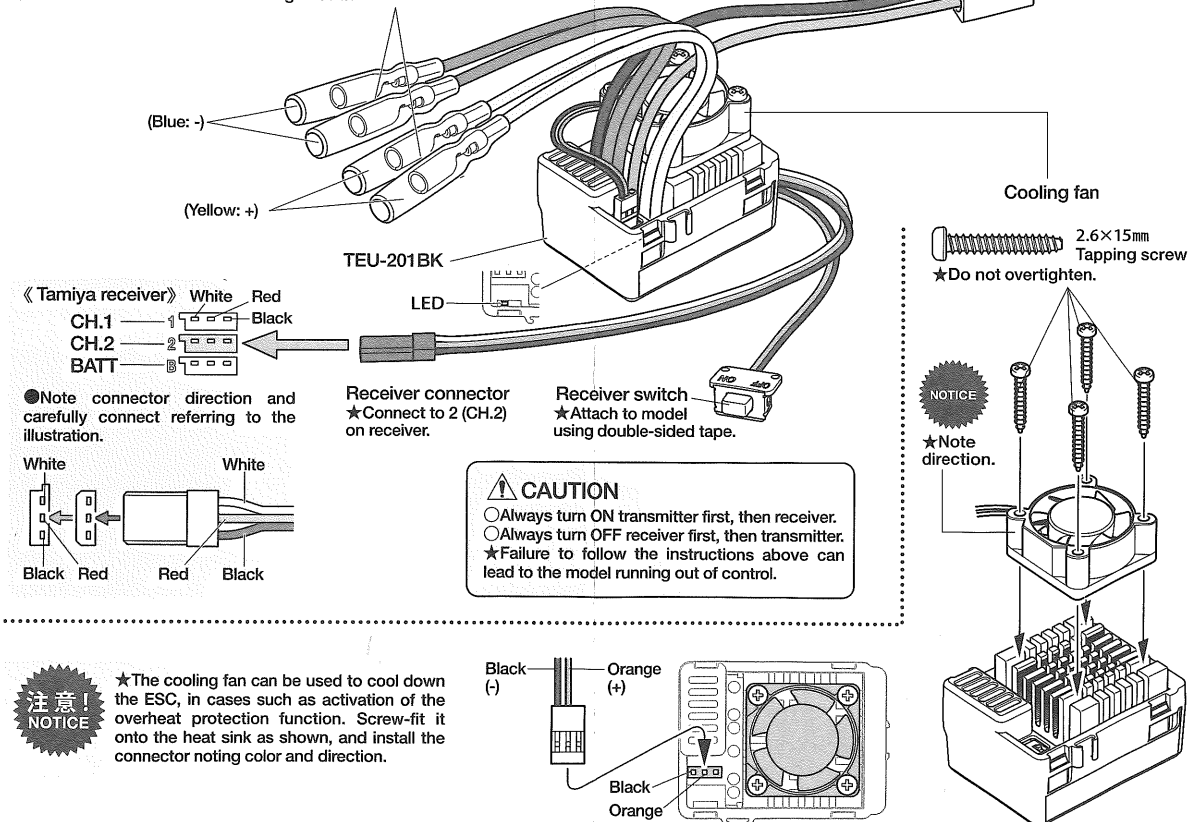
- Make sure polarity is correct when connecting battery pack and motor, to prevent damage to ESC and other R/C equipment.
- Continuous operation may damage battery connectors. Motor, ESC and other equipment may become extremely hot during or after operation and can cause burns if touched.
- Never short circuit battery or motor cables as it may damage R/C equipment and the model.
- This product contains precision electronic equipment. Shocks, impact, water and humidity are all possible causes of damage and should be avoided.
- Do not disassemble or modify the ESC. This ESC is only for use with designated battery packs and motors. Use of other products may cause damage.
- Never operate an R/C model on roads or streets, in crowded areas, or where forbidden.
- Never connect a brushless motor to this ESC.

《Component names》 ★ Use this ESC in place of that in your R/C system.

#### Motor connectors

Designated for use with motors up to and including Sport-Tuned (Type 540) Motors x2.

★ Use two motors of the same specifications – do not mix different types of motors. Some types may be incompatible due to the model gear ratio, and some models (Clod Buster chassis) are not compatible with motors that feature advanced timing such as Sport-Tuned motors. Use motors designated in the R/C model manual.



#### 《Setting up》

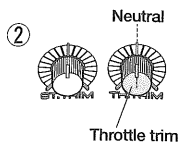
★ The ESC performs neutral self-setup every time it is turned on: the throttle trigger position is defined as neutral and is used as the base for high point positions. Please note that with some transmitters and setups (e.g. with unequal forward and reverse trigger ranges), the trigger may reach its limit before the high point, not letting the model reach top speed.

#### Neutral self-setup

① Connect cables in accordance with R/C model instructions.

② Put throttle trim in central position.  
★ If being used, reset dual rate and EPA functions and switch from high response to normal mode, referring to the transmitter instruction manual.

★ Clod Buster chassis models require the transmitter throttle reverse switch on R (Reverse). (Some transmitters may differ.)

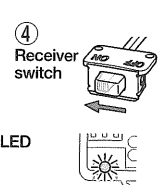
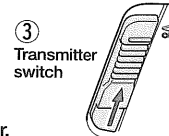


③ Turn on transmitter.

④ Turn on receiver. The LED lights up briefly accompanied by a short beep tone, followed by a longer illumination and beep tone.

★ A beep only sounds when a motor is connected. If the transmitter is incorrectly set up, or throttle/trim are not in neutral, the LED will flash and a continuous beep is emitted.

⑤ The LED goes out, signifying completion of setup.



LED

Illumination and beep tone (short)

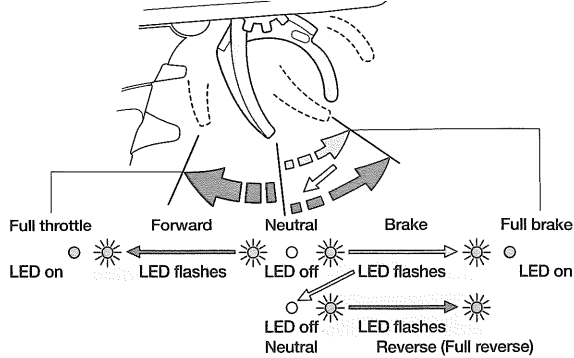
Illumination and beep tone (long)



## Throttle Operation and LED

●The LED remains off while the throttle trigger is in neutral position, flashes when the trigger is moved forwards or backwards, and lights up when trigger reaches full throttle or brake. It flashes when the model is in full reverse.

★To reverse: brake, pushing the throttle trigger over halfway. Return it to the neutral position, then push it again to reverse. Reverse will not engage if the trigger is not first pushed over halfway.



## CAUTION

●Components such as ESC, motor, battery pack and cables emit noise due to large amounts of electric current. Putting the receiver and antenna near such devices may lead to interference causing loss of control. The receiver and antenna must not touch the ESC, and the antenna must not cross over with ESC cables. Carbon fiber or metal chassis may also cause interference.

## Protection Functions

This ESC has three protection functions.

**Overheat protection:** If the ESC overheats due to overuse or excessive load, power to the motor is cut off. Let the ESC cool down and it will restart.

**Low voltage protection:** If battery voltage is too low, the motor will slow then stop and the LED will flash slowly. Install a fully-charged battery pack to resume use.

**No-signal protection:** If the throttle signal is lost, the motor will stop and the LED will flash quickly. The motor will start again when signal is reacquired.

《Troubleshooting》 ★Before sending your ESC for repair, check it in reference to the table below.

Symptom	LED pattern	Cause & Solution
★Continuous beep tone when turned on.	☀ quick flash	● Neutral self-setup failure. Check that transmitter is set up correctly and throttle trigger and trim are in neutral position.
★Motor is inoperational.	☀☀ slow flash	● Low voltage protection function is active. Install a fully-charged battery pack.
	☀ quick flash	● No-signal protection function is active. Check transmitter is on, and that ESC and receiver are connected.
	☀☀ repeating double flash	● Overheat protection function is active. Turn off the model and wait for the ESC to cool down.
	○ off	● Motor cables are disconnected, or motor is broken. If connectors are OK, change the motor. ● No power. Check that model is turned on and battery has sufficient charge.
★Model stops upon sudden acceleration, etc.	LED operates normally	● Battery pack power is low. Install a fully-charged battery pack.
★Model moves differently to commands.	LED operates normally	● Transmitter reverse switches are in the incorrect position. Change reverse switch position.
		● Motor mechanical timing has been altered. Reduce or remove timing.
		● Motor connectors are not correctly connected. Re-connect correctly, noting color (blue and yellow).

★Never use electronic components that limit current flow such as Schottky diodes, as they can cause counter-current when the model is in reverse and damage the ESC. Remove them if they are already installed.

★Specifications differ between products for Japanese and overseas markets.

※Specifications are subject to change without notice.

### 《Specifications》

- ★Compatible receiver: ground-use R/C model receivers
- Compatible with twin motors (maximum 2) ※Do not use with a single motor.
- Compatible motor: Sport-Tuned Motor or Tamiya brushed motors of 25 turns and above
- Control system: high-frequency system ●Functions: forward, reverse and brake
- Output: forward 100%, reverse 75% ●Max. continuous current (FET spec): 80A
- Power supply voltage: 6.6V - 7.2V ●Drive frequency: 8kHz
- Receiver output voltage: BEC 6.0V/4A ●Weight: 77.5g
- Dimensions: 47.0 x 36.5 x 26.5mm (47.0 x 36.5 x 39.0mm including cooling fan)

★Contact your local Tamiya dealer for any questions regarding this ESC including parts, defects and repairs.

[www.tamiya.com](http://www.tamiya.com)

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## 保証規定

★Effective in Japan only.

この保証書により、表記の製品を下記の通り保証いたします。なお、この保証書は日本国内でのみ有効です。

- 1) この保証書はタミヤ エレクトロニクススピードコントローラー TEU-201BK (ツインモーター用) を保証するものです。
- 2) お買い上げ日から3ヶ月 (90日) 以内に、正しい使用状態で発生した故障は、無料修理いたします。修理を依頼される場合はその故障状況をできるだけ詳しく教えて下さい。修理箇所を早く確実に知ることができると、修理期間が短くなります。(修理を依頼される場合は、必ずこの保証書を修理品に添えて、お買い上げ店、または株式会社タミヤカスタマーサービスにお送りください。

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