

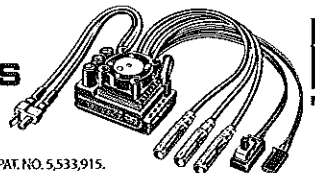
TAMIYA BRUSHLESS ESC-01

TBLE-01 TAMIYA R/C SYSTEMS

Forward/Reverse Type

WITH DEANS CONNECTOR FOR TAMIYA LF BATTERIES

THIS PRODUCT CONTAINS A DEANS® ULTRA PLUG® CONNECTOR, U.S. PAT. NO. 5,533,915.



Thank you for purchasing the Tamiya Brushless ESC 01. This forward/reverse electronic speed controller (ESC) is designated exclusively for use with Tamiya Brushless Motors. In addition to many functions, this ESC comes standard with a DEANS connector which can handle a large current output. Read carefully and fully understand instructions prior to use. Make sure to read the following safety precautions as breakage and accidents due to improper use will void your warranty.

★Compatible receiver: TAMIYA, SANWA, KO, FUTABA, JR
Use transmitter in normal setting mode. ESC may lose control in high-response mode.

Tamiya Brushless ESC 01 (TBLE-01) Specifications
 ESC: Forward / Brake / Reverse
 Max. continuous current: 100A
 Input Voltage: 6.6 - 7.2V
 Dimensions: 30.0 x 42.0 x 31.0mm
 Weight: 80g
 BEC: 5.0V / 3.0A
 Protection System: Overheat / Overload / Low voltage
 Compatible Motor: Tamiya Brushless Motor 01 Series (TBLM Series)
 Drive Frequency: 16kHz

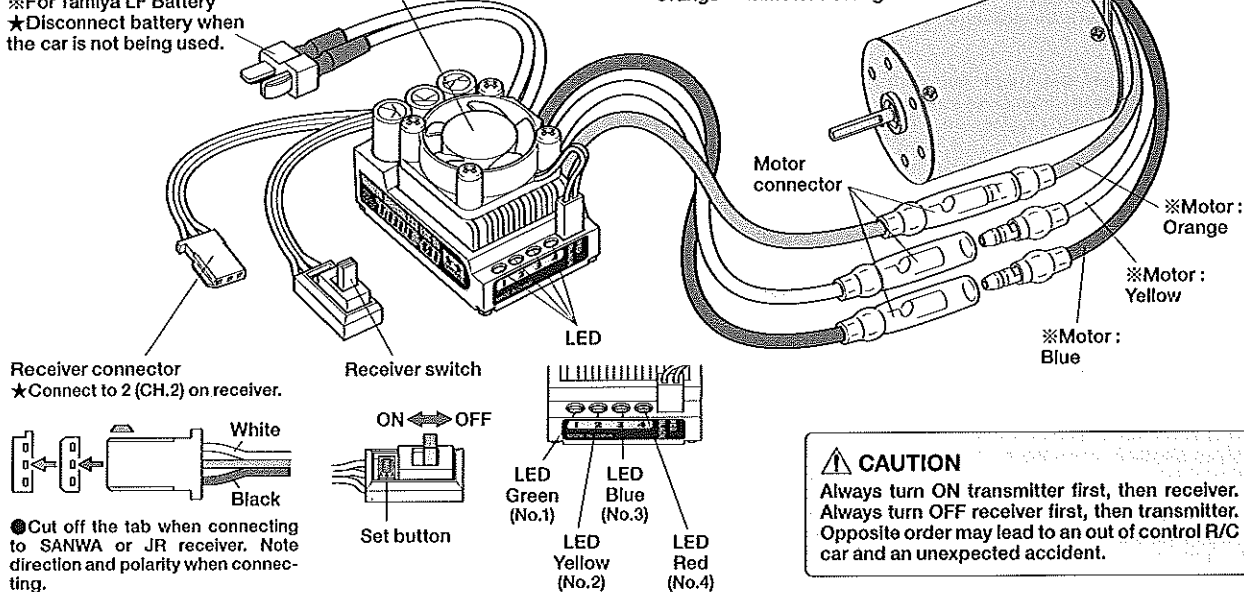
«Part names»

DEANS connector
 ※For Tamiya LF Battery
 ★Disconnect battery when the car is not being used.

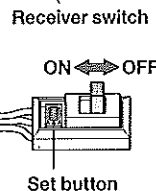
Cooling fan
 ●It will operate while the receiver switch is turned on.

○Connection (Motor connector)

Blue = ※Motor: Blue
 Yellow = ※Motor: Yellow
 Orange = ※Motor: Orange



Receiver connector
 ★Connect to 2 (CH.2) on receiver.



●Cut off the tab when connecting to SANWA or JR receiver. Note direction and polarity when connecting.

CAUTION
 Always turn ON transmitter first, then receiver. Always turn OFF receiver first, then transmitter. Opposite order may lead to an out of control R/C car and an unexpected accident.

«Installation»

- Attach the speed controller with double-sided tape to a protected area in the event of a crash. Attach the speed controller so that you have easy access to the switch and buttons.
- Please note that parts such as ESC, motor, battery, and wires 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. The antenna must not cross over with cables from the ESC. Cables should be tied up. Carbon or metal chassis may also transfer interference.
- Set the antenna cable to run vertically up and away from the receiver. Avoid contact with parts made of carbon fiber or metal. Even if the antenna cable is too long, do not wrap it around the antenna. Refer to the instructions included with the R/C unit.
- Attach the speed controller where it can get enough ventilation. This will increase the performance and the life of all the electronic components.

- Tamiya Brushless ESC has protection against overheating, overloading and low voltage. If the speed controller faces overload, the motor will shut off for protection. Allow the speed controller to cool down in that case. If you experience frequent shutdowns, check the following.
 - ★Correct gear ratio (refer to motor manual for gearing recommendations)
 - ★Motor output is too high or motor is damaged.

«LED Indicator»

LED shows the settings and state of the speed controller.
 ★LED will not show neutral and highest point settings.
 Reverse function on LED/Green (No.1) turns on
 Reverse function off LED/Yellow (No.2) turns on
 Battery cutoff activated LED/Red (No.4) flashes
 ★Depending on usage conditions, the speed controller may activate the low voltage protection and stop your car before the red LED light that indicates low battery voltage flashes.

⚠ DANGER • WARNING

- Pay close attention to the following safety precautions as improper use can destroy the product and void your warranty or lead to property damage and personal injuries.
- This speed controller is intended for use with R/C models that operate on the ground. Do not use with other models.
 - Do not leave the speed controller while it is switched on or connected to the battery. If a defect occurs, it could start a fire.
 - Do not disassemble or modify.
 - Avoid incorrect connections or connections with reversed polarity.
 - Do not allow the speed controller and other electronic components to come in contact with water, oil, fuels or other electro-conductive liquids. If this happens, stop using the speed controller immediately

- and allow to dry.
- Do not use a Schottky diode on the motor.
- Disconnect and remove battery from the model when not in use.
- Always turn on transmitter first, then turn on the speed controller. If not, the receiver could receive interference signals, start full acceleration and damage your model. Make sure to turn off in reversed sequence.
- Always wire up all the parts of the equipment carefully. If any of the connections come loose due to vibration, you could lose control of your model.
- Do not apply full throttle if the motor is not securely installed as it may damage the motor.

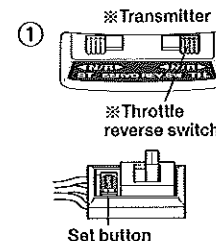
«Factory Settings»

Factory setting is pre-set profile 5.
 Battery cutoff NiCd/NiMH (Value 1)
 Reverse function On (Value 2)
 Reverse 25%
 Brake 30% (Value 3)
 Neutral brake 10% (Value 3)
 Deadband 3% (Value 2)

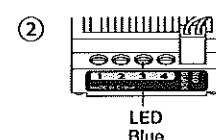
«Neutral Setup»

Ensure that the speed controller is not connected to the battery and is turned off. Remove motor pinion and ensure that the wheels of the model are free to rotate.

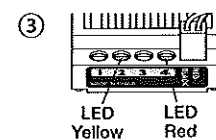
- ① Connect battery to the ESC. Always turn on the transmitter first, then turn on the receiver. Position throttle trim to neutral and reverse switch to reverse.
 ★If your transmitter is capable of programmed settings such as ABS or acceleration function, turn off all settings.



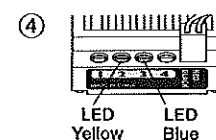
- ② Turn the receiver switch on while pressing the set button on the receiver switch. LED/Blue (No.3) will turn on.



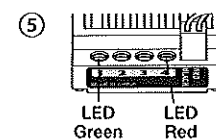
- ③ Apply full throttle and LED/Yellow (No.2) and LED/Red (No.4) will flash. Hold full throttle until LED/Yellow (No.2) and LED/Red (No.4) turn on, and then return to neutral.



- ④ Apply full brake and LED/Yellow (No.2) and LED/Blue (No.3) will flash. This may take time. Hold full brake until LED/Yellow (No.2) and LED/Blue (No.3) turn on, and then return to neutral.



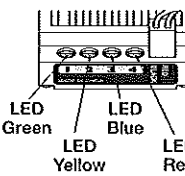
- ⑤ Return throttle to neutral position. LED/Green (No.1) and LED/Red (No.4) will flash. This may take time. Setup will complete when LED lights turn off.



Turn off the speed controller. The setting will be activated when it is turned on again.
 ★The settings will be stored after the completion of all the setups, therefore each setting cannot be stored separately.
 ★The settings will not be stored if the speed controller is turned off during setup. The previous settings will remain.
 ★Setup has to be done again if you change the transmitter.
 ★If the speed controller does not operate after being turned on again, the neutral setup may have failed. Adjust throttle trim on transmitter or start setup procedures again from the first step.

«Mode Programming»

This speed controller has pre-set mode programs which enable you to adjust the settings to your requirements.



- ① Press and hold the set button. LED will turn on and show the modes to be set up. The mode will change every 2 seconds (ⓐ) to (ⓑ)), and LED light pattern will also change. Release the set button at your desired setting mode to enter setup. If the set button is pressed and held until it passes the last mode, the blue (yellow, if the reverse function is off) LED will turn on, and it will go back to normal mode if you release the set button.

- ② When in setup mode, LED will flash and be ready for the program setting. Press the set button once to increase the setting value by one, and it returns to number 1 after the highest number (Count the number of flashes of the LED to check the stored value). For example, press the set button twice at value 3 to change the setting to value 5.

- ③ Press and hold the set button for 2 seconds to store the setting. LED lights will illuminate from left to right when the setup is completed. Turn the ESC off/on again to activate the new settings.
 ★If the set button is not pressed in the setup mode for 10 seconds, the setting is not stored and it will return to normal mode.

«a» Battery Cutoff Setting (LED/Red)

Set a	1	2	3
Battery Type	Ni-Cd / Ni-MH	Unavailable	Off

★If the battery voltage drops under the setting value, the motor will shut off to protect the battery.

«b» Reverse Function (LED/Blue)

Set b	1	2
Reverse	Off	On

«c» Brake Setting (LED/Blue, Green)

Set c	1	2	3	4	5	6	7	8	9	10
Output(%)	10	20	30	40	45	50	55	60	65	70

«d» Neutral Brake Setting (LED/Blue, Yellow)

Set d	1	2	3	4	5	6	7	8	9	10
Output(%)	Off	5	10	15	20	25	30	35	40	45

★We recommend to use Set 1 (off) for on-road touring cars.

«e» Deadband Setting (LED/Blue, Red)

Set e	1	2	3	4	5
%	2	3	4	5	6

★Neutral zone setting

«f» Pre-set Profiles (LED/Green, Yellow, Blue, Red)

★5 pre-set profiles are available. Use one as a base and adjust each setting to match your requirements.

Set f	1	2	3	4	5
Battery Cutoff a	Select	Select	Select	Select	Ni-Cd/Ni-MH
Reverse Function b	Off	On	On	Off	On
※Reverse Setting(%)	0	50	50	0	25
Brake Setting c	30	30	40	40	30
Neutral Brake d	15	10	15	OFF	10
Deadband e	3	3	4	4	3

※Use different pre-set profiles to change reverse setting value.
 ★If you choose pre-set profile 1,2,3 or 4, set the battery type to Ni-Cd/Ni-MH or Off in Battery Cutoff Setting.

«Trouble Shooting» ★Before sending your speed controller in for repair, check it again using the diagram below.

Symptom	Cause	Remedy
Motor does not work. No brake control.	★Set-up error. ★Motor defective. ★Wiring problem. ★Speed controller defective. ★Heat protection activated.	●Perform set-up procedure again. ●Replace motor. ●Check wire and plugs. ●Contact your local Tamiya dealer. ●Allow the speed controller to cool down.
Disturbed control. No control.	★Improper position of speed controller and/or receiver. ★Improper receiver antenna position.	●Try different installation positions. ●Try different antenna positions.
Speed controller overheats or switches off frequently.	★Insufficient cooling. ★Drive train problems. ★Incorrect gear ratio.	●Create better ventilation by making cooling slits in the body. ●Check rotating area of chassis. Reassemble if required. ●Use correct gear ratio.

Contact your local Tamiya dealer for any questions regarding this speed controller including parts, defects and repairs.
 ★Send the product with detailed description of the malfunction to Tamiya Customer Service for repair request (Effective in Japan only).

