

USER MANUAL

TURNIGY SERIES

SENSORLESS BRUSHLESS

SPEED CONTROLLER

FOR

CAR AND TRUCK

【DECLARATION】

Thanks for purchasing "TURNIGY" series Electronic Speed Controller (ESC). High power system for RC model can be very dangerous, so please read this manual carefully. In that we have no control over the correct use, installation, application, or maintenance of our products, no liability shall be assumed nor accepted for any damages, losses or costs resulting from the use of the product.

【FEATURES】

1. Specially designed for RC car and truck, with excellent start-up, acceleration and linearity features.
2. Compatible with sensorless brushless motor.
3. 3 running modes suitable for different applications ("Forward with brake" mode, "Forward/Backward with brake" mode and "Rock crawler" mode).
4. 4 steps of maximum reverse force adjustment.
5. Proportional ABS brake function with 4 steps of maximum brake force adjustment, 8 steps of drag-brake force adjustment and 4 steps of initial brake force adjustment.
6. 9 start modes ("Punch") from "Soft" to "Very aggressive" to be suitable for different chassis, tires and tracks.
7. Multiple protection features: Low voltage cut-off protection for lithium or nickel battery / Over-heat protection / Throttle signal loss protection / Motor blocked protection.
8. 8 steps of timing adjustment.
9. User programmable. Several program methods are supported, such as: The "SET" button on the ESC, the digital LED program card. The program card is pocket-sized and it have friendly user interface to be easily used.
10. Waterproof and dustproof.

【SPECIFICATIONS】

Model	TURNIGY-18A-SL	TURNIGY-25A-SL	TURNIGY-35A-SL	TURNIGY-60A-SL
Cont. Current	18A	25A	35A	60A
Burst Current	50A	90A	190A	380A
Resistance	0.01 ohm	0.005 ohm	0.0015 ohm	0.0007 ohm
Suitable Car	1/18, 1/16 car			1/10 car
Suitable Brushless Motor	2 cells Lipo	On-road: $\geq 12T$	On-road: $\geq 9T$	On-road: $\geq 5.5T$
	6 cells NIMH	Off-road: $\geq 18T$ 2030 size motor	Off-road: $\geq 12T$ 3650 size motor	Off-road: $\geq 8.5T$ 3650 size motor
Battery	3 cells Lipo	On-road: $\geq 18T$	Off-road: $\geq 12T$	Off-road: $\geq 8.5T$
	9 cells NIMH	Off-road: $\geq 24T$ 2030 size motor	Off-road: $\geq 18T$ 3650 size motor	Off-road: $\geq 13T$ 3650 size motor
	4-9 Cells NIMH or 2-3 Cells Li-Po			
	1) For 4-6 cells NIMH or 2 cells Lipo: You needn't change the fan combined with the ESC;			
	2) For 7-9 cell NIMH or 2 cells Lipo: You must change the fan combined with the controller because it cannot work with such a high voltage, so please choose a high voltage fan or supply the fan from the receiver (+5V); (*Note1)			
BEC Output	6V/1A		6V/1.5A	
Motor Type	Sensorless Brushless Motor			
Dimension	31.5* 24* 15	31.5* 27.5* 16	31.5* 27.5* 24 (The height of fan is not included)	
Weight	19g (W/O wires)	23g (W/O wires)	30g (W/O wires) 32g (W/O wires)	

Note 1: For information about the high voltage cooling fan, please refer to the brief introduction on page 3.

【BEGIN TO USE THE NEW ESC】

1. Connect the ESC, motor, receiver, battery and servo according to the following diagram "+" and "-" wires of the ESC are connected with the battery pack, and #A, #B and #C are connected with the motor wires. The "SET" button is used for programming the ESC. The control cable of the ESC (two wires with black, red and white color) is connected with the throttle channel of the receiver (Usually CH2). The #A, #B, #C wires of the ESC can be connected with the motor wires freely (without any order), if the motor runs in the opposite direction, please swap any two wire connections. Note: You can use the transmitter to set the throttle channel to the "Reverse" direction, and then the motor will run oppositely. Please calibrate the throttle range again after changing the direction of throttle channel.



