

## EZRUN USER MANUAL

Sensored Brushless Motor  
EZRUN 1626SD

20240415

HW-SMB462DUL01



Thank you for purchasing this HOBBYWING product! Improper usage can be dangerous and may damage the product and related devices. We strongly recommend reading through this user manual before use and strictly abide by the specified operating procedures. We shall not be liable for any liability arising from the use of this product, including but not limited to reimbursement for incidental or indirect losses. We do not assume any responsibility caused by unauthorized modification of the product. We have the right to change the product design, appearance, performance and use requirements without notice.

## 01 Warnings

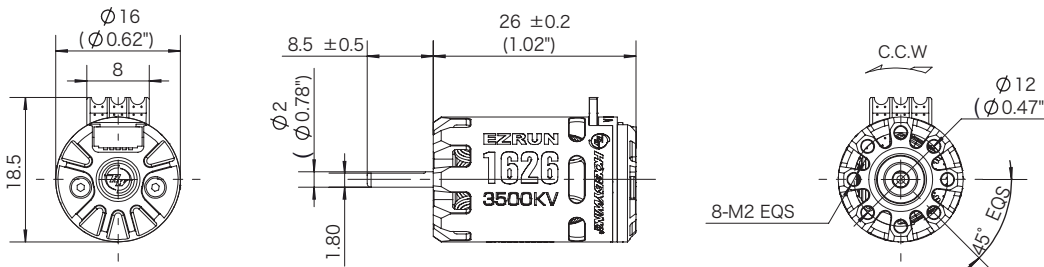
- Read the manuals of all the items being used in the build. Ensure gearing, setup, and overall install is correct and reasonable.
- It is important to ensure that all wires & connectors soldered are properly secured to avoid short circuits from happening. A good soldering station is recommended to do such a job to ensure connections are properly soldered.
- Never apply full throttle if the pinion is not installed. Due to the extremely high RPMs without load, the motor may get damaged.
- Stop usage if the motor exceeds 100°C/212°F. High temperature will damage the motor and cause the rotor to weaken.

## 02 Features

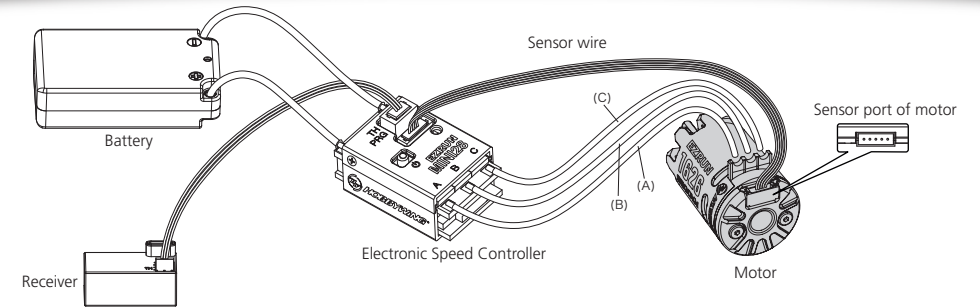
- Specially designed for 1/28 mini car, when matched with Hobbywing EZRUN MINI28 esc, it has perfect compatibility, and provides better performance and more delicate manipulating feel.
- The front and rear ends of the motor are designed with large openings structure to provide better heat dissipation for the motor.
- Built in high-precision Hall sensor combined with the high precision and balanced rotor to ensure excellent linearity of the motor.
- The internal PCB is a 4-layer board, and the ABC wiring position is reinforced by punching holes, prevent the soldering spot from falling off after multiple soldering.

## 03 Specifications

Model	KV	LiPos	No-load Current (A)	Diameter/Length (mm)	Shaft Diameter/Length (mm)	Bearing size (mm)	Poles	Weight (g)	Applications
EZRUN-1626SD-3500KV	3500KV	2S	0.4A	φ=16mm (0.63in)	φ=2.0mm (0.08in)	D5*D2*T2.5	2	18g	1/28 Mini
EZRUN-1626SD-5000KV	5000KV		0.5A						
EZRUN-1626SD-6500KV	6500KV		0.6A	L=26mm (1.02in)	L=8.5mm (0.33in)				
EZRUN-1626SD-Drift-4000KV	4000KV		0.4A	1/28 Mini Drift					



## 04 Installation & Connection



### 1. Installation of the motor

There are 8 motor mounting holes in M2 specification, and the mounting holes are 2.5mm in depth, before installing the motor on the vehicle, please carefully confirm whether the specification of the screws is appropriate according to the thickness of the motor mounting plate to avoid damage to the motor due to too long screws.

### 2. How to Connect the Motor to an ESC

- When connecting the motor and esc, please pay attention to the marked three-phase position of A, B and C to ensure that the three wires of the motor and esc are connected correspondingly. Otherwise, it cannot run normally and even damage the esc and motor. That is: Wire A of the esc matches wire A of the motor, wire B of the esc matches wire B of the motor, wire C of the esc matches wire C of the motor.
- Connecting the sensor cable to the motor and esc.

### 3. Inspection

Before powering on the esc, please check the motor installation and the order of all connections.

## 05 Gearing

Reasonable selection of gear ratio is very important. Improper gear ratio may cause damage. You can select the gear ratio according to the following points!

### 1. The operating temperature of the motor

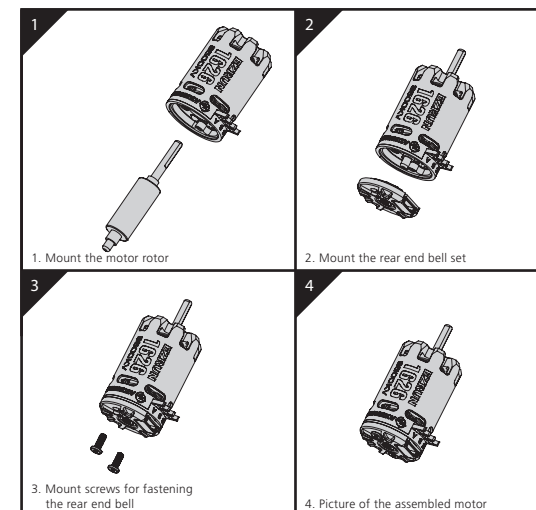
The motor temperature should be lower than 100 degrees Celsius (212 degrees Fahrenheit) in operation. High temperature may cause the magnet to get demagnetized, the coil to melt and short circuit, and the ESC to get damaged. A suitable gearing ratio can effectively prevent the motor from overheating.

### 2. The principle of selecting gear ratio

To avoid the possible damage to ESC and motor caused by the overheating, please start with a small pinion/a big FDR and check the motor temperature regularly. If the motor and ESC temperature always stays at a low level during the running, you can change a larger pinion/a lower FDR and also check the motor temperature regularly to ensure that the new gearing is suitable for your vehicle, local weather and track condition. (Note: For the safety of electric devices, please check the ESC and motor temperature regularly.)

## 06 Assembly and Disassembly

In order for the motor to have longer service life and higher efficiency, we suggest to regularly check the bearing and clean the dirt in the motor. The specific time depends on the frequency of using the motor and the site conditions. When installing, please follow the steps in the following assembly drawing; when disassembling, follow the reverse steps.



### Parts List

