Thank you for purchasing HOBBYWING XERUN 4268/4274 Sensored Brushless Motors. High power motor can be very dangerous, so please read through this manual carefully. Given 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. Any claims arising from the operating, failure or malfunction etc. will be denied. We assume no liability for personal injury and/or consequential damages resulting from our product or our workmanship. As far as is legally permitted, the obligation to compensation is limited to the invoice amount of the affected product.

01 Warnings

- Never leave the unit unpowered when it is powered on.
- All wires and connections should be well insulated. Short circuits can possibly damage the products.
- Avoid incorrect connections between the electronic speed controller (ESC) and the motor.
- Never allow this product to come in contact with water, oil, fuel or other electro-conductive liquids. If this happens, stop the use of your product immediately and let it dry carefully.
- Avoid overtightening the motor due to wrong or too aggressive gear ratio. Different ESCs have different internal timings, follow the ESC instructions.
- Never apply full throttle to the throttle pin is not installed. Due to the extremely high RPMs without load, the motor can get damaged.
- Always wipe up all the parts of the equipment carefully. If any of the connections come loose as a result of vibration, your model RC may lose control.
- Never allow the motor case to get over 100 degrees Celsius (212 degrees Fahrenheit) because the magnets may get demagnetized by high temperature.

02 Features

- Bullets are clipped for being easily identified by HOBBYWING ESCs. When pairing with HOBBYWING ESCs (i.e. XRO Plus), the motor can work in the “Sensored” mode at all times with great output linearity after its identified by the ESC. And the Turbo timing is allowed to be activated for higher output.
- Magnetic stop on the rotor prevents the motor from signal interference and guarantees its super stability in the “sensored” mode.
- Low cogging torque for smooth and stable low-speed running of the vehicle.
- Selectable mechanical timing of 20 to 40 degrees for different power output.
- 30 to 40 degrees if you want to activate the Turbo timing. And the timing can be within 20 to 40 degrees.

03 Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>PN</th>
<th>KV (No-load)</th>
<th>LPM</th>
<th>R. (±%)</th>
<th>No-load Current</th>
<th>Dimension (mm)</th>
<th>Shaft (±) (mm)</th>
<th>Pole</th>
<th>W (g)</th>
<th>Applicable</th>
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<tbody>
<tr>
<td>XERUN-4268SD-1000KV-G2</td>
<td>30401903</td>
<td>1000KV</td>
<td>2-6S</td>
<td>0.175</td>
<td>3.6A</td>
<td>0=42/6=18</td>
<td>D=5/L=18.5</td>
<td>4</td>
<td>320g</td>
<td>1/8th Monster Truck, SCT, Buggy and Touring Car</td>
</tr>
<tr>
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<td>1500KV</td>
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<td>4.5A</td>
<td>0=42/6=18</td>
<td>D=5/L=18.5</td>
<td>4</td>
<td>325g</td>
<td>1/8th Monster Truck, SCT, Buggy and Touring Car</td>
</tr>
<tr>
<td>XERUN-4268SD-2000KV-G2</td>
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<td>2000KV</td>
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<td>0.191</td>
<td>4.6A</td>
<td>0=42/6=18</td>
<td>D=5/L=18.5</td>
<td>4</td>
<td>328g</td>
<td>1/8th Monster Truck, SCT, Buggy and Touring Car</td>
</tr>
<tr>
<td>XERUN-4268SD-2500KV-G2</td>
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<td>2500KV</td>
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<td>0.197</td>
<td>5.6A</td>
<td>0=42/6=18</td>
<td>D=5/L=18.5</td>
<td>4</td>
<td>340g</td>
<td>1/8th Monster Truck, SCT, Buggy and Touring Car</td>
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<tr>
<td>XERUN-4268SD-3000KV-G2</td>
<td>30401904</td>
<td>3000KV</td>
<td>2-6S</td>
<td>0.225</td>
<td>7.1A</td>
<td>0=42/6=18</td>
<td>D=5/L=18.5</td>
<td>4</td>
<td>360g</td>
<td>1/8th Monster Truck, SCT, Buggy and Touring Car</td>
</tr>
</tbody>
</table>

04 Installation & Connection

- Install the motor in its mount using M3 & M4 screws no longer than 8mm. (*M3: 4PCS, M4: 2PCS)
- There are 3 power wires coming from the ESC: Red, Black and Orange. Connect the power wires between the ESC and motor, please make sure that you match ESC Wire A to Motor Phase A, ESC Wire B to Motor Phase B and ESC wire C to Motor Phase C. (This is VERY important).
- When using Sensored ESC, make sure the sensor cable is clean and reliable. Connect the sensor cable to both ESC and motor in the correct direction.
- When using Sensorless ESC, keep any two wires if the motor runs in reverse.
- Double check you have all the connections correct before turning on the ESC (see connection diagram as below).

05 Timing Adjustment

- With the motor direction set to CCW, take the graduation/value after “CCW” on the motor case as the starting point when adjusting the timing. (With the reversed triangle pointing at a certain direction, the small/Big/large the value, the small/Big/large the timing. The timing is 30 degrees in picture 1)
- With the motor direction set to CW, take the graduation/value after “CW” on the motor case as the starting point when adjusting the timing. (With the reversed triangle pointing at a certain direction, the small/Big/large the value, the small/Big/large the timing. The timing is 30 degrees in picture 2)
- When using Sensorless ESC, make sure the small/large the value is correct and reliable. Connect the sensor cable to both ESC and motor in the correct direction.
- When using Sensorless ESC, keep any two wires if the motor runs in reverse.

06 Gearing

Attention! The motor temperature should be lower than 100 degrees Celsius (212 degrees Fahrenheit) in operation. Because high temperature may cause the magnets to get demagnetized, the coil to get melt and the motor can get damaged. A suitable gearing can effectively prevent the motor from overheating.

07 Assembly and Disassembly

Mount the motor rotor
Mount the back end bell set
Mount screws for fastening the back end bell
Picture of the assembled motor

The XERUN 4268/4274 is very strong in construction but also easy to disassemble for maintenance.

We recommend you check the bearings and clean the motor at regular intervals—depend on the frequency of usage and the track surface. Please follow the steps in below to assemble the motor. When disassembling the motor, the sequences are reversed.