01 Safety Notes

This product is NOT a toy and it is for use by adults and teens over 16 only, so please keep it out of children's reach. Please keep the following points in mind; otherwise, it may damage the product and cause property loss and physical injuries to you.

• Never leave this product unattended when it is powered on. In any problem occurs, the product may cause fire and personal property damage.
• Please check wire connections between the ESC & the motor carefully before the connection, to avoid any possible mistake.
• Never move the motor while the moving parts are well installed, before the connections, as short circuits may damage the motor.
• Never allow others to handle or move the computer liquids to get inside the product or other electronic parts, as these liquid may contain harmful residues for electrical circuits. If that really happens, please turn off the device immediately.
• Never hold through metal tools of such power equipment (like ESC, motor, battery, etc) and classify to preserve the power system configuration, as the short circuit may be caused in this case.
• Never disassemble the motor before the product installation. Under nonstandard conditions, overloaded-μH field may cause damage to the motor.
• Make sure all the parts are well connected, as misalignment or poor connection may lead to abnormal control, damage or other unpredictable problems.
• Keep all the temperature of the motor can shift expose (90°C), otherwise the motor is likely to be damaged and (or) the motor will be demagnetized.

02 Features

• The use of a lead motor magnet added aluminum base and double insulated winding, high precise bearings, and motor with a strong structure guarantees outstanding performance and super durability.
• The built-in hall sensor non-separable end bell combined with a high precision and balanced motor guarantees the user a smooth and linear power on demand.
• The 3D designed between the end bell and rotor helps to product run near to the motor case and power dust enter from the motor case.
• The detachable structure design for easy cleaning and maintenance can effectively pristine the entire life of this Justock motor and improves its operating efficiency.
• This motor is perfectly matched with the XR-Justock ESC for all zero timing spec racing and also compatible with other Hobbywing Electronic Speed Controllers including other brands.
• The built-in Hall sensor non-adjustable end bell combined with a high precision and balanced rotor guarantees the user a smooth and linear power on demand.
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03 Specifications

<table>
<thead>
<tr>
<th>PH</th>
<th>Model</th>
<th>KV (at 5V)</th>
<th>HV (at 20V)</th>
<th>Size</th>
<th>Weight</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH048008</td>
<td>Justock-3650-G2-1.10-ST</td>
<td>1450</td>
<td>3850</td>
<td>Ø=35.9mm</td>
<td>157W</td>
<td>17.4g (1/10 On-road)</td>
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<tr>
<td>PH048010</td>
<td>Justock-3650-G2-1.10-ST</td>
<td>1570</td>
<td>3950</td>
<td>Ø=35.9mm</td>
<td>175W</td>
<td>17.9g (1/10 On-road)</td>
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<tr>
<td>PH048011</td>
<td>Justock-3650-G2-1.40-ST</td>
<td>2200</td>
<td>5500</td>
<td>Ø=35.9mm</td>
<td>215W</td>
<td>30.7g (1/10 Off-road)</td>
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<tr>
<td>PH048012</td>
<td>Justock-3650-G2-1.60-ST</td>
<td>3000</td>
<td>7000</td>
<td>Ø=35.9mm</td>
<td>257W</td>
<td>45.3g (1/10 Off-road)</td>
</tr>
</tbody>
</table>

04 Installation & Connection

1. To Install the Motor

1) Screws used for installation are 3mm in diameter & 6mm in length. Before mounting the motor onto the vehicle, please ensure that all the screws are applicable to avoid damaging the motor. In general it's ok to adopt screws which are 3mm in diameter and shorter than 6mm in length, the specific length up to the class size.

2) Be Careful with the Motor output wires as they are the motor’s power lines. If the wrong socket is plugged, damage would result. Then connect them to the correct direction to the sensor ports of the motor & ESC respectively. Warning: In such a case, the wire sequence of the ESC and motor will be different. Follow the rules of A-B-C and C-B-A. Do not change the wire sequence.

3) While if the ESC is a sensorless one, then connect the motor and the ESC according to the above way may cause the motor to rotate in the opposite direction, because definitions of phase (#A / #B / #C) are different among manufacturers, at this time you only need to swap any of the two connections.

2. Gear Ratio(s) Suggested

The below table shows some rough data about gear ratios (these recommended ratios are reference values when setting the ESC to the Zero Timing mode. If you don't know how to set the suitable gear ratio, please begin with a large ratio i.e. small gear set and then adjust or repeat, until with the above advice who are using the same type power unit for basic information.

<table>
<thead>
<tr>
<th>Battery</th>
<th>3250</th>
<th>4000</th>
<th>5000</th>
<th>6000</th>
</tr>
</thead>
<tbody>
<tr>
<td>4WD</td>
<td>1/10</td>
<td>5.1:1</td>
<td>5.2:1</td>
<td>5.3:1</td>
</tr>
<tr>
<td>6WD</td>
<td>1/10</td>
<td>5.0:1</td>
<td>5.1:1</td>
<td>5.2:1</td>
</tr>
</tbody>
</table>

05 Gear Selection

If it is very important to select the reasonable gear ratio, as inappropriate selection may cause great loss to users. Please select the correct gear ratio according to the following points!

1. Operating Temperature of the Motor

During the operation, the motor temperature should be lower than 90°C (194°F). Temperatures above 90°C will demagnetize the magnet and may hit the coils and eventually damage the ESC (because of strong current). Therefore, the motor should stay cool enough to prevent direct to select the right gear ratio.

2. Principle of Gear Selection

To avoid potential risks, caused by overheating, which may lead to ESC/motor damage or malfunction, please start with the most effective way to prevent over-heat is to select the right gear ratio.

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06 Assembly and Disassembly

For prolonging the motor life and raising its efficiency, we recommend users to check the bearing, and clean the motor regularly, and the specific interval depends on the usage frequency and terrains. Please follow the assembly diagram below to assemble the motor, and disassemble in reverse order.

ATTENTION

Thank you for purchasing the Justock 3650 G2.1 brushless motor(s) for RC cars! The high performance system can be very dangerous, so please read this manual carefully before using and ensure that you understand everything before installation. We recommend users to check the bearing, and clean the motor regularly, and the specific interval depends on the usage frequency and terrains. Please follow the assembly diagram below to assemble the motor, and disassemble in reverse order.

ATTENTION