Instruction

Thank you for purchasing the "QUICRUN-2435, QUICRUN-3656, QUICRUN-4074" brushless motor(s) for RC cars! The high power system can be very dangerous, so please read this manual carefully before using and strictly follow the operating procedures in use. In that we have no control over the installation, use and maintenance of this product, no liability shall be assumed nor accepted for damages, losses or costs resulting from the use of this product. Besides, we own the right to change the product design, appearance, functions and operational requirements without any notifications.

Safety Notes

This product is not a toy and it is for use by adults and teens over 14 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 users.

1. Never leave this product unsupervised when it is powered on. If any problem occurs, the product may cause a fire and jeopardize peripheral devices.
2. Please insure all the wires and interconnecting pieces are well insulated before the connection, as short circuits may damage the product.
3. Please read through manuals of each power equipment (like ESC, motor, battery, etc) and chassis to ensure the power system configuration is rational before the use, as the incorrect power system configuration may result in overload and eventually damage the equipments.
4. Prohibit the full throttle operation before installing the pinion. Under non-loaded circumstances, over-high RPM may cause damage to the motor.
5. Make sure all the parts are well connected, as misconnection or poor connection may lead to abnormal control, damage or other unpredictable problems.
6. Never let the temperature of the motor can (shell) exceeds 90℃ (194℉), otherwise the motor will be damaged and the rotor will be demagnetized.

Installation & Connection

1. To Install the Motor

1) Three types of screws used for installation: M2.6 (diameter=2.6) and M3 (diameter=3.0) for Motor 2435 (this motor has 3 pairs of screw holes on the front end bell, 2 pairs are 2.6mm in diameter, and 1 pair is 3.0mm in diameter); M3 (diameter=3.0mm) for Motor 3656/4074.
2) Depth of screw holes: QUICRUN-2435<=4mm, QUICRUN-3656<=5mm, QUICRUN-4074<=7mm.
3) 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 use screws, 2.6mm or 3mm in diameter (M2.6/M3) and less than 6mm in length, to install motor QUICRUN-2435; 3mm in diameter (M3) and shorter than 8mm in length for installing motor QUICRUN-3656; 3mm in diameter (M3) and less than 10mm in length for mounting motor QUICRUN-4074; and the specific length is up to the respective chassis size.

2. To Connect the Motor

Three power wires need to be connected to the motor, and they often differ in colors: Phase wire A is Blue, Phase wire B is Yellow and Phase wire C is Orange. Please note the ESC mark while connecting ESC output wires to motor power wires and ensure connections are: A-A, B-B and C-C.

Note 1: As definitions of triple-phase (#A/#B/#C) are different among manufacturers, connect the motor and the ESC according to the above method may cause the motor rotates in the opposite direction, at this time you only need to swap any of two wire connections.

3. Checkup

Recheck the installation and all the connections carefully before turning on the power.

Specifications

Model	PN	KV (No-load)	LiPo Cells	Resist. * (Ω)	No-load Current (Amp)	Max. Output Power (W)	Current at the Point of M.O.P * (Amp)	Outer Diameter /Length (mm)	Diameter of the Shaft /Length of the Projecting Part * (mm)	Poles	W.T.* (g)	Applicable
QUICRUN-2435	30404010001	4500KV	2~3	0.0498	1.5	150	33	24.0/36.5	2.00/14	2	73	1:18,1:16 On/Off-road/Truck /Monster
QUICRUN-3656	30404020001	3800KV	2~3	0.0055	2.3	420	110	36.0/56.0	3.17/16	4	232	1:10 On/Off-road/Truck /Monster
QUICRUN-4074	30404030001	2000KV	2~6	0.0065	3.1	2600	160	39.8/73.8	5.00/20	4	393	1:8 Truck/Monster

Note 2: (Resist. = Resistance, M.O.P = Maximum Output Power)

1) The maximum output power is the test value obtained when the voltage is 7.4V for motor QUICRUN-2435 & motor QUICRUN-3656, and 22.2V for motor QUICRUN-4074, the ESC timing is set to 0°. It is neither the maximum input power nor the rated power. The calculation formula used here is: RPM x Torque / 9550.
2) The value of the maximum output power is always lower than the value of the input power. Therefore, it's meaningless to compare the maximum output power mentioned in the form above with the input power of motors of other brands. Besides, values in the form above may differ from the test data of other factories because of different test benches.
3) The input current at the point of the maximum output power is useful for the load configuration and the ESC selection; here we strongly suggest users not make the load quota bigger than the "maximum output power point", that means please don't make the input current larger than the current at the maximum output power point.

Gear Selection (IMPORTANT!)

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℃ (194℉). Temperatures above 90℃ will demagnetize the magnet & may melt the coils and eventually damage the ESC (because of strong current). Therefore, the most effective way to prevent over-heat is to select the right gear ratio.

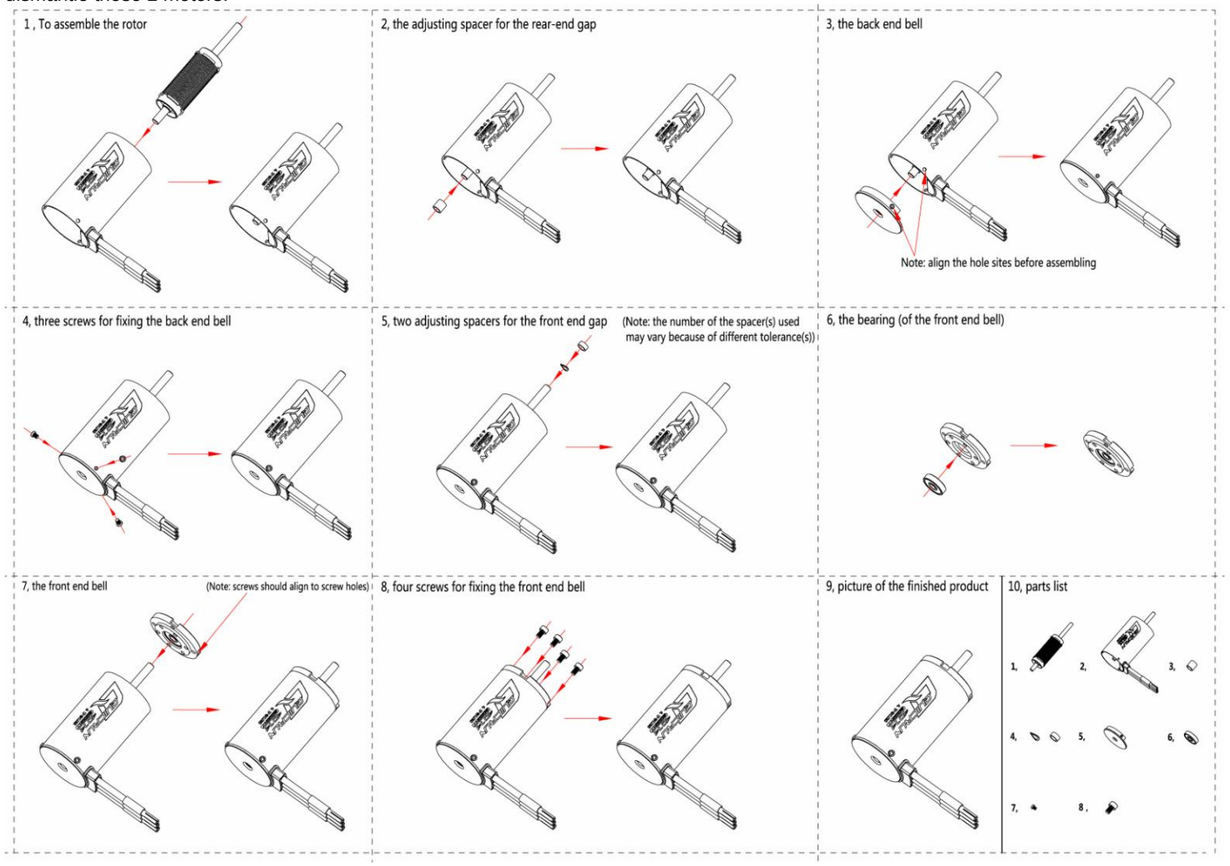
2. Principle of Gear Selection

To avoid potential risks, caused by overheating, which may lead to ESC/motor damage or malfunction, please start with very small pinion and check ESC & motor temperatures frequently throughout a run. This is the only way to guarantee that you are not causing excessive heating. If Motor and the ESC temperatures remain stable and low in the running, then you can slowly increase the pinion (with more teeth) while again monitoring the temperatures to determine the safe gearing for your vehicle and motor. Because the climate and track conditions always change, please keep monitoring ESC & motor temperatures to protect your electronics from damage.

Maintenance

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 (of motor QUICRUN-4074) below to assemble the motor, and disassemble in reserve order.

Note 3: Because of different craftsmanship, neither QUICRUN-2435 nor QUICRUN-3656 is rebuildable or tunable. Please do not try to dismantle these 2 motors.



(For high-resolution assembly diagram, please visit our website at: www.hobbywing.com)

Parts List（of QUICRUN-4074 motor）

As shown in the diagram above, the QUICRUN-4074 motor includes:

1) Motor Rotor x 1pcs
2) Motor Shell x 1pcs
3) Adjusting Spacer (Washer) for the Rear-end Gap x 1pcs
4) Adjusting Spacer (Washer) for the Front End Gap x 2pcs
5) Back End Bell x 1pcs
6) Bearing x 1pcs
7) Screws for Fastening the Back End Bell x 3pcs (M2.50x3.0mm)
8) Screws for Fixing the Front End Bell x 3pcs (M3.0x5.0mm)