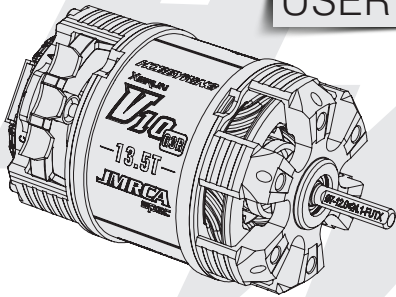


# XERUN V10 G3R JMRCA USER MANUAL



20190628



Thanks for purchasing Hobbywing XERUN V10 G3R JMRCA motor. This sensed brushless power system is very powerful, any improper usage can be dangerous and may damage the product and related devices. Please take your time and read through the following instructions before you start using the motor. We have the right to modify the product design, appearance, features and usage requirements without notification. We, Hobbywing, are only responsible for our product cost and nothing else are result of using our product.

## 01 CAUTIONS

- To avoid short circuits, ensure that all wires and joints must be well insulated before connecting the motor to related devices.
- Never allow this product or other electronic components to come in contact with water, oil, fuel or other electro-conductive liquids. If it happens, stop the use of the product immediately and let it dry carefully.
- Read through the manuals of all power devices and chassis and ensure the power configuration is rational before using this unit.
- Never apply full throttle if the pinion gear is not mounted on, because (under the no-load circumstances) high RPMs may get the motor damaged.
- Please connect all the devices carefully, you may not control the vehicle properly or encounter some unpredictable issues like damaged components if any poor connection exists.
- To avoid possible damage (result from overheat) to the product, please control the soldering time within 5 seconds when soldering the motor wires (a soldering iron with the power of at least 60W is needed).
- Stop immediate usage once the casing of the motor exceeds 100°C/212°F as high temperature may damage the motor and cause the rotor to demagnetize. Hobbywing recommends activating the "Motor Thermal Protection" (of the ESC).

## 02 FEATURES

- The built-in high precision Hall sensor combined with the high precision and balanced rotor guarantee outstanding linearity of the motor.
- The motor case is designed to be easy to dismantle for maintenance purposes and for the replacement of common wearing parts.
- The special shell design which makes the stator core expose to the air maximizes cooling. Big holes on the end plates further help reduce heat.
- The use of high-performance stator core, heat(200°C)-resistant wire, heat(180°C)-resistant rotor with strong structure, world-class high precision and high strength bearings, and copper solder tabs with super current endurance guarantees outstanding performance and super durability.
- It's compliant with JMRCA rules, and certificated by RoHS, CE, FCC and etc.

## 03 SPECIFICATIONS

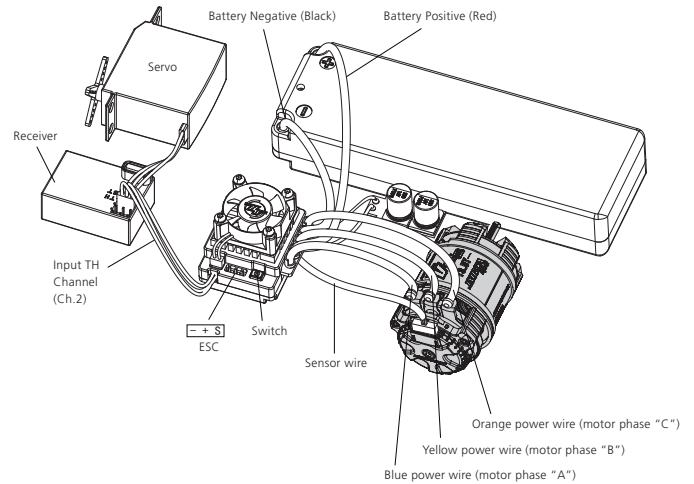
PN	Model (Turns)	KV (No-load)	LiPos	Resistance (Ω)	No-load Current (A)	Max. Output Power (W)	Current @Max. Output Power (A)	Diameter/Length (mm)	Shaft Diameter/Length (mm)	Stock Rotor	Poles	Weight (g)	Applications
30401127	13.5T	3280	2-3S	0.0275	1.4	315	49	Ø=35.8mm (1.41in)	Ø=3.17mm (0.125in)	Ø7-Ø12.0*24.1-FUT	2	161 (5.68oz)	1/10 <sup>th</sup> STOCK Class Racing
30401128	17.5T	2540		0.0445	1.1	259	42	L=51.7mm (2.04in)	L=13.0mm (0.51in)	Ø7-Ø12.2*24.1-FUT		161 (5.68oz)	
30401129	21.5T	2020		0.0655	1	185	32					160 (5.64oz)	1/10 <sup>th</sup> STOCK Class Racing & Rock Crawler

Notes:

- The KV value is measured when no load is applied to the motor, the motor timing is set to the value by default and the ESC timing is set to Zero.
- Never allow the motor to get overheat, because high temperatures may affect its performance. Please let the motor cool down before using it again in case that it gets too hot.
- The input current corresponding to the maximum output power can be instructive for load configuration & ESC selection, we strongly suggest not allowing the load to be higher than the input current corresponding to the maximum output power.

## 04 INSTALLATION & CONNECTION

- The three output wires (on the ESC) need to be soldered onto the motor, the wires are differentiated by colors. In general, Blue/Yellow/Orange represents phase A/B/C respectively. Please note the following points when mounting or connecting the motor.
- The M3 screws with the length (not longer than 8mm) are needed when mounting the motor onto your vehicle.
- Please pay attention to the relevant marks (on the ESC) when soldering/connecting those output wires to the motor and make sure that you will strictly follow the wiring order (between the ESC & the motor) of "A-A, B-B, and C-C".
- Please ensure the sensor cable is clean and undamaged when you're using a sensored ESC. You need to pay attention to the two connectors on the cable when connecting the ESC to the motor.
- Re-check all the connections between the ESC & the motor and ensure that they are all correct (as shown in the diagram) before turning on the ESC.



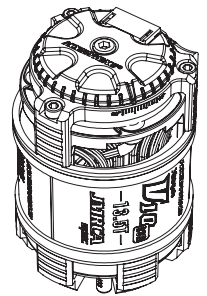
## 05 TIMING ADJUSTMENT

The V10 G3R JMRCA motors provide a wide range of adjustable mechanical timings, the following are the methods & principles you can follow when adjusting the timing.

- You can adjust the motor timing after unfastening the screw on the rear end plate. Please adjust the timing as needed according to the mark (white lines) at the rear end of the motor and fasten the screw after the adjustment. For obtaining the optimal performance, you can change the output range and characteristic of your power system through adjusting the motor timing. And the timing is 40 degrees by default.

As shown in the picture, turn the rear end plate clockwise can reduce the timing and turn it counter-clockwise can increase the timing.

- Increasing the timing can increase the motor speed (/RPM), while that also increases the motor temperature and reduces the efficiency. A high(er) timing usually requires a high(er) ratio.
- Please ensure your ESC is properly programmed before setting the motor timing. For detailed information about ESC programming, please refer to the user manual of the ESC.
- After the timing adjustment, please ensure that your motor will not get overheat after running a whole pack (i.e. LiPo). You can get the information about the motor temperature via a infra-red temperature gun or the LCD program & a laptop (with the Hobbywing USB Link APP installed) or the WiFi module & smart phone (with the Hobbywing WiFi Link App installed). If the temperature is too high, please let the motor cool down first and then test again. If the temperature is still too high, then please reduce the timing or increase the FDR (that is to replace the pinion gear with fewer teeth or spur gear with more teeth.).

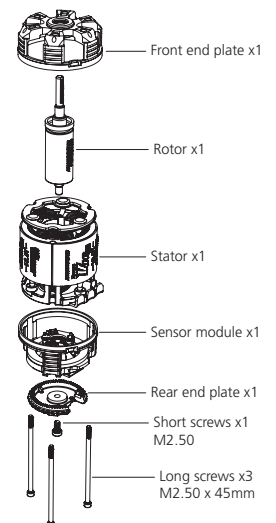
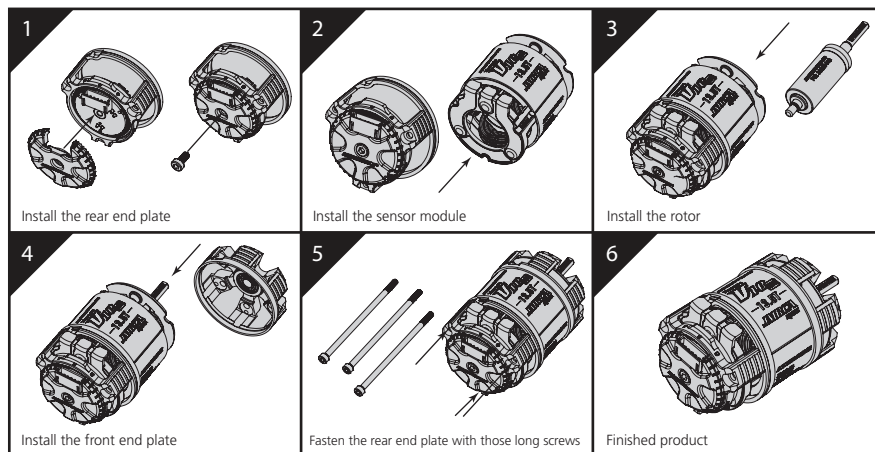


## 06 ASSEMBLY & DIS-ASSEMBLY

The XERUN V10 G3R JMRCA Motor is very strong in construction but also easy to disassemble for maintenance.

We recommend checking the bearings and cleaning the motor periodically.

Please follow the steps (as shown below) to assemble the motor. When disassembling the motor, the sequences are reversed.



## 07 PARTS LIST

The V10 G3R JMRCA motor contains the following parts:

Front End Plate x 1Pcs	Sensor Module x 1Pcs	Long Screws (M2.50 x 45mm) x 3Pcs
Rotor x 1Pcs	Rear End Plate x 1Pcs	Sensor Wires (80mm, 200mm) x 2Pcs
Stator x 1Pcs	Short Screws (M2.50) x 1Pcs	