

HOBBYWING Xerun D10 10.5T

HOBBYWING Xerun D10 10.5T Motor Instruction Manual

Model: Xerun D10 10.5T | Brand: HOBBYWING

1. SAFETY PRECAUTIONS

The HOBBYWING Xerun D10 10.5T sensored brushless power system is powerful. Improper usage can be dangerous and may damage the product and related devices. Please read and understand all instructions before use.

- **Electrical Insulation:** To prevent short circuits, ensure all wires and joints are properly insulated before connecting the motor to other devices.
- **Liquid Contact:** Never allow the motor or other electronic components to come into contact with water, oil, fuel, or other electro-conductive liquids. If contact occurs, immediately stop use and allow the product to dry completely.
- **Power Configuration:** Before using this unit, review the manuals for all power devices and the chassis to ensure a rational power configuration.
- **Pinion Gear:** Never apply full throttle if the pinion gear is not mounted. High RPMs under no-load conditions can damage the motor.
- **Secure Connections:** Connect all devices carefully. Poor connections can lead to improper vehicle control or component damage.
- **Soldering:** When soldering motor wires, limit soldering time to within 5 seconds to prevent overheating damage. A soldering iron with at least 60W power is recommended.
- **Overheating:** Discontinue use immediately if the motor casing temperature exceeds 100°C (212°F). High temperatures can damage the motor and demagnetize the rotor. Activating the 'Motor Thermal Protection' feature on your Electronic Speed Controller (ESC) is recommended.

2. PRODUCT OVERVIEW

The HOBBYWING Xerun D10 10.5T Motor is a high-performance sensored brushless motor designed for remote-controlled vehicle applications, particularly drifting. It features a robust design for consistent power delivery and precise control.



Image 1: Exploded view and assembled view of the HOBBYWING Xerun D10 10.5T Motor. The image displays the internal rotor (PN: 30820430) with its shaft, the stator windings, the sensor board (with number 281006840), and the black motor casing with gold accents and 'XERUN' branding. The three gold connection terminals (A, B, C) are visible on the casing.

3. SPECIFICATIONS

Feature	Specification
Model	Xerun D10 10.5T
KV (No-load)	4600KV
LiPo Cells	2-3S
Rotor Type	(2) Pole Stock Rotor (Φ 7-12.2*24.1-BUT*-L1)
Weight	157g (7.7 ounces)
Diameter / Length	Φ =35.7mm (1.41") L=52.6mm (2.07")
Shaft Diameter / Length	Φ =3.175mm (0.125") L=15.0mm (0.591")
Speed	4600 RPM

Feature	Specification
Horsepower	60 Watts
Material	Stainless Steel
Product Dimensions	4 x 2 x 3 inches
Model Number	30401134
UPC	088718519793

4. SETUP

4.1 Motor Mounting

Securely mount the motor to your vehicle's motor mount using appropriate screws. Ensure the motor is aligned correctly with the transmission to prevent unnecessary wear on gears and bearings.

4.2 Wiring Connections

- Motor to ESC:** Connect the three motor phase wires (A, B, C) to the corresponding output terminals on your Electronic Speed Controller (ESC). Ensure correct polarity and secure connections.
- Sensor Cable:** Connect the sensor cable from the motor's sensor port to the sensor port on your ESC. This cable is crucial for sensored operation, providing smooth low-speed performance.
- Battery Connection:** Connect your battery pack to the ESC according to the ESC manufacturer's instructions.

4.3 Pinion Gear Installation

Install the pinion gear onto the motor shaft. Ensure the pinion gear meshes correctly with the spur gear, allowing for a small amount of play (backlash) to prevent binding and premature wear. Tighten the pinion's grub screw securely onto the flat spot of the motor shaft.

5. OPERATING

5.1 Initial Power-Up

Before applying power, double-check all connections. Power on your transmitter first, then the vehicle's ESC. Observe for any unusual noises or movements.

5.2 ESC Settings

Refer to your ESC's instruction manual for optimal settings. It is highly recommended to activate the 'Motor Thermal Protection' feature on your ESC to prevent motor damage from overheating. Adjust timing and other parameters as needed for your specific application and driving style.

6. MAINTENANCE

- Cleaning:** Regularly clean the motor to remove dirt, dust, and debris. Use compressed air or a soft brush. Avoid using liquids that could damage internal components.
- Inspection:** Periodically inspect all wires and connections for signs of wear, fraying, or corrosion. Check the motor bearings for smooth operation; replace if they feel rough or noisy.

- **Storage:** Store the motor in a clean, dry environment away from extreme temperatures and direct sunlight.

7. TROUBLESHOOTING

If you encounter issues with your HOBBYWING Xerun D10 10.5T Motor, consider the following common troubleshooting steps:

- **Motor Not Spinning:** Check all wiring connections between the motor, ESC, and battery. Ensure the sensor cable is properly connected. Verify ESC and transmitter are correctly bound and calibrated.
- **Overheating:** Check for proper gear mesh (pinion/spur). Ensure the motor is not over-gearred for the application. Verify adequate airflow for cooling. Confirm ESC thermal protection is enabled.
- **Inconsistent Performance:** Inspect sensor cable for damage. Check for loose connections. Ensure battery is fully charged and capable of delivering sufficient current.
- **Unusual Noises:** Check for debris inside the motor. Inspect bearings for wear. Verify pinion and spur gear mesh.

For further troubleshooting, consult the manual for your Electronic Speed Controller (ESC) as many motor-related issues can stem from ESC settings or malfunctions.

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official HOBBYWING website or contact your authorized HOBBYWING dealer. Keep your purchase receipt as proof of purchase for any warranty claims.