

Acouto 3115 900kV

Acouto 3115 900kV Brushless Motor Instruction Manual

For RC FPV Drones

1. INTRODUCTION

Thank you for choosing the Acouto 3115 900kV Brushless Motor. This motor is engineered for high performance, efficiency, and durability, making it an ideal choice for 9, 10, and 11-inch RC FPV drones. This manual provides essential information for the safe and effective installation, operation, and maintenance of your new motor. Please read this manual thoroughly before use to ensure optimal performance and longevity of the product.

2. SAFETY INFORMATION

While this product is designed with safety in mind, it is an electronic component that requires careful handling. Please observe the following safety guidelines:

- Always disconnect power before installing, removing, or performing maintenance on the motor.
- Ensure all wiring connections are secure and correctly polarized to prevent short circuits and damage.
- Avoid contact with rotating parts during operation. Keep fingers, hair, and loose clothing away from the motor.
- Operate the motor within its specified voltage and current limits to prevent overheating and damage.
- Keep the motor away from water, moisture, and extreme temperatures.
- This product is not a toy. Keep out of reach of children.
- Dispose of electronic waste responsibly according to local regulations.

The manufacturer states that this product does not pose a safety risk to users under normal operating conditions.

3. PRODUCT OVERVIEW

The Acouto 3115 900kV Brushless Motor offers a blend of power, efficiency, and quiet operation for your FPV drone. Its robust construction ensures reliability in demanding flight conditions.



Figure 3.1: Overview of the Acouto 3115 900kV Brushless Motor.

Key Features:

- **High Performance:** Utilizes advanced electronic commutation technology for powerful output, high efficiency, and notable power density.
- **Durable Metal Construction:** Crafted from superior metal materials, ensuring longevity and resistance to abrasion, reducing maintenance frequency.
- **Low Noise Operation:** Eliminates mechanical contact common in traditional motors, significantly reducing operational noise for quieter flights.
- **Energy Efficient:** Designed for optimal efficiency, consuming less energy, making it an environmentally conscious choice for FPV drones.
- **Easy Control:** Features a direct control system with quick response times for precise management of speed and position, enhancing practicality for pilots.

4. PACKAGE CONTENTS

Please verify that all items listed below are included in your package:

- 1 x Acouto 3115 900kV Brushless Motor
- 4 x Mounting Screws
- 1 x Propeller Nut
- 1 x Washer



Figure 4.1: Acouto 3115 900kV Brushless Motor with included mounting hardware.

5. SETUP AND INSTALLATION

The Acouto 3115 900kV Brushless Motor is designed for straightforward installation. Follow these steps to integrate it into your RC FPV drone:

1. **Preparation:** Ensure your drone frame is compatible with 3115 size motors and has appropriate mounting holes. Gather necessary tools, including a screwdriver and any required thread-locking compound.
2. **Mounting the Motor:** Align the motor's mounting holes with those on your drone's arm. Secure the motor using the provided 4 screws. Apply a small amount of thread-locking compound to the screw threads to prevent loosening due to vibrations. Do not overtighten the screws.
3. **Wiring Connections:** Connect the three motor wires to your Electronic Speed Controller (ESC). The order of connection determines the motor's rotation direction. If the motor spins in the wrong direction, swap any two of the three wires. Ensure connections are soldered securely and insulated properly.
4. **Propeller Installation:** Once the motor is mounted and wired, install the propeller onto the motor shaft. Place the washer, then the propeller, and secure it with the provided nut. Ensure the propeller is oriented correctly for thrust. Tighten the nut firmly but do not overtighten to avoid damaging the propeller or motor shaft.



Figure 5.1: Bottom view of the motor, illustrating the mounting hole pattern.

6. OPERATION

After successful installation, the motor is ready for operation. Always perform a pre-flight check before each use.

- **Initial Power-Up:** Connect the drone battery. Listen for the ESC's initialization tones.
- **Motor Direction Check:** Carefully arm your drone (without propellers attached for safety) and gently increase throttle to check if all motors spin in the correct direction as required by your flight controller configuration. Adjust wiring if necessary (refer to Setup and Installation).
- **Flight:** Once motor directions are confirmed and propellers are securely attached, you can proceed with flight. Operate the drone within safe limits and avoid prolonged maximum throttle to prevent overheating.
- **Post-Flight Check:** After each flight, inspect the motors for any signs of damage, loose connections, or excessive heat.

7. MAINTENANCE

Regular maintenance will help ensure the longevity and optimal performance of your Acouto brushless motor:

- **Cleaning:** Periodically clean the motor to remove dust, dirt, and debris that can accumulate in the stator and bearings. Use compressed air or a soft brush.
- **Bearing Inspection:** Check the motor bearings for smooth operation. If you notice any grinding or excessive play, the bearings may need replacement.
- **Screw Tightness:** Regularly check all mounting screws and propeller nuts to ensure they are tight. Vibrations can cause them to loosen over time.
- **Wire Integrity:** Inspect motor wires for any signs of fraying, cuts, or damaged insulation. Repair or replace damaged wires immediately.
- **Storage:** When not in use, store the motor in a dry, cool place away from direct sunlight and corrosive materials.

8. TROUBLESHOOTING

If you encounter issues with your motor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Motor not spinning	No power, loose connection, faulty ESC, damaged motor winding.	Check battery connection. Inspect all wiring. Test with a different ESC or motor if possible.
Motor spinning in wrong direction	Incorrect wire connection to ESC.	Swap any two of the three motor wires connected to the ESC.
Motor making unusual noise or vibrating excessively	Damaged propeller, bent motor shaft, worn bearings, loose mounting screws.	Inspect propeller for damage. Check motor shaft for straightness. Replace bearings if worn. Tighten mounting screws.
Motor overheating	Overloading, incorrect propeller size, insufficient cooling, faulty ESC.	Use appropriate propeller size. Ensure adequate airflow. Check ESC settings and health. Avoid prolonged high throttle.

9. SPECIFICATIONS

Detailed technical specifications for the Acouto 3115 900kV Brushless Motor:

Feature	Detail
Item Type	Brushless Motor
Brand	Acouto
Model	3115 900kV
Material Type	Metal
Application	9, 10, 11-inch RC FPV Drones
Product Dimensions	9.98 x 6.99 x 3.99 cm
Product Weight	118 g
Package Dimensions	10 x 7 x 4 cm
Number of Units	1
Assembly Required	No (for the motor itself)
Battery Operated	No
Manufacturer	Acouto
Manufacturer Reference	Acoutoa76x4c8gfb
ASIN	B0FSKQGLPJ
Recommended Age	18 months and above (as per product listing)
Available Since	September 25, 2025

10. WARRANTY AND SUPPORT

Specific warranty details for the Acouto 3115 900kV Brushless Motor are not provided in the product information. For warranty claims or technical support, please refer to the retailer or manufacturer's official website where the product was purchased. Keep your proof of purchase for any warranty-related inquiries. For further assistance, you may visit the [Acouto Store on Amazon](#).