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E-flite EFLM4115



E-flite BL15 Brushless Outrunner 850kV Motor (EFLM4115) Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your E-flite BL15 Brushless Outrunner 850kV Motor, model EFLM4115. This motor is designed as a replacement component for specific 1.2m Warbird aircraft models, excluding EFL8475/8450. Please read this manual thoroughly before installation and operation to ensure proper function and longevity of the product.



Image 1: E-flite BL15 Brushless Outrunner 850kV Motor. This image displays the black cylindrical motor with three colored wires (red, black, yellow) extending from one end, terminating in gold bullet connectors. The motor casing features the E-flite logo and model number

2. SAFETY PRECAUTIONS

Operating electric motors in remote-controlled aircraft requires adherence to safety guidelines to prevent injury or damage. Always observe the following:

- **Propeller Safety:** Always ensure the propeller is securely attached and balanced. Keep hands, face, and loose clothing clear of the propeller when the motor is connected to power.
- **Battery Handling:** Use only recommended battery types and capacities. Incorrect battery usage can lead to overheating, fire, or explosion.
- **ESC Compatibility:** Ensure your Electronic Speed Controller (ESC) is compatible with this brushless motor and can handle the required current.
- **Wiring:** Double-check all wiring connections for correct polarity and secure fit. Loose connections can cause intermittent power or damage.
- **Heat:** Motors and ESCs can become hot during operation. Allow components to cool before handling after use.
- **Environment:** Operate RC aircraft in open areas, away from people, animals, and obstacles.
- **Age Recommendation:** This product is recommended for users aged 14 years and up.

3. SETUP AND INSTALLATION

Follow these steps for proper installation of your E-flite BL15 motor:

1. **Mounting the Motor:** Securely attach the motor to the aircraft's motor mount using appropriate screws and hardware. Ensure the motor is aligned correctly and does not interfere with other components.
2. **Connecting to ESC:** Connect the three motor wires to the corresponding three wires on your Electronic Speed Controller (ESC). The order of connection may affect motor rotation direction. If the motor spins in the wrong direction, swap any two of the three motor wires.
3. **Propeller Installation:** Attach the propeller to the motor shaft. Ensure the propeller is balanced and installed with the correct orientation for thrust. Tighten the propeller nut securely, but do not overtighten.
4. **ESC Calibration:** Refer to your ESC's instruction manual for proper calibration with your radio transmitter. This ensures correct throttle range and motor response.
5. **Pre-Flight Check:** Before the first flight, perform a thorough check of all connections, propeller security, and motor function at low throttle.

4. OPERATING INSTRUCTIONS

Once installed and calibrated, the E-flite BL15 motor operates in conjunction with your ESC and radio system. Always ensure your aircraft is ready for flight before applying power.

- **Power-Up Sequence:** Connect the flight battery to the ESC. Listen for the ESC's initialization tones. Ensure your throttle stick is at the lowest position before connecting the battery.
- **Throttle Control:** Gradually increase the throttle to spin the propeller. Observe the motor's smooth operation and listen for any unusual noises.
- **Flight Operation:** During flight, manage throttle input smoothly. Avoid sudden, extreme throttle changes that can stress the motor and ESC.
- **Monitoring:** Pay attention to motor sound and aircraft performance. If any unusual behavior is observed, land immediately and inspect the system.
- **Cool Down:** After each flight, allow the motor and ESC to cool down before handling or recharging batteries.

5. MAINTENANCE

Regular maintenance ensures the longevity and reliable performance of your motor.

- **Cleaning:** Keep the motor free from dirt, dust, and debris. Use a soft brush or compressed air to clean the motor's exterior and cooling vents.
- **Inspection:** Periodically inspect the motor for any signs of wear, damage, or loose connections. Check the motor shaft for bends and the propeller for cracks or nicks.
- **Bearings:** The motor bearings are sealed, but excessive dirt or impact can affect them. If you notice increased noise or resistance, the bearings may need inspection or replacement by a qualified technician.
- **Storage:** Store the motor in a clean, dry environment, away from extreme temperatures and direct sunlight.

6. TROUBLESHOOTING

If you encounter issues with your E-flite BL15 motor, consult the following table for common problems and solutions.

Problem	Possible Cause	Solution
Motor does not spin or stutters.	Loose wire connection, incorrect ESC calibration, damaged motor/ESC, low battery.	Check all wire connections. Recalibrate ESC. Test with a fully charged battery. Inspect motor and ESC for visible damage.
Motor spins in the wrong direction.	Incorrect motor wire connection to ESC.	Swap any two of the three motor wires connected to the ESC.
Motor or ESC overheats.	Over-propped, insufficient cooling, damaged motor/ESC, battery issues.	Ensure propeller size is within recommended limits. Check for adequate airflow. Inspect components for damage. Use appropriate battery.
Reduced power or efficiency.	Damaged propeller, worn bearings, low battery voltage, ESC issues.	Inspect and replace damaged propeller. Check battery charge. Consult ESC manual for diagnostics.

7. SPECIFICATIONS

Feature	Detail
Brand	E-flite
Model Number	EFLM4115
Model Name	FBA_EFLM4115
Motor Type	Brushless Outrunner
kV Rating	850kV (RPM per Volt)
Item Weight	0.18 Kilograms (6.3 ounces)
Product Dimensions	3.3 x 2.5 x 2.2 inches
Country of Origin	China

Feature	Detail
UPC	605482597323
Manufacturer	Horizon Hobby
Recommended Age	14 years and up

8. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation included with your purchase or contact your retailer. E-flite products are supported by Horizon Hobby.

For additional support, product information, or to explore other E-flite products, please visit the official E-flite store:

[E-flite Official Store](#)

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Related Documents - EFLM4115

	<p>E-flite Heli 700 Brushless Outrunner Motor 500Kv (EFLM60700A) User Instructions</p> <p>Detailed instructions and specifications for the E-flite Heli 700 Brushless Outrunner Motor, 500Kv (EFLM60700A). Includes safety guidelines, operating procedures, warranty information, and compliance details.</p>
	<p>E-flite Draco 2.0m Instruction Manual</p> <p>Comprehensive instruction manual for the E-flite Draco 2.0m RC aircraft, covering assembly, setup, operation, safety, and troubleshooting. Features SAFE Select and AS3X technology for enhanced flight control.</p>
	<p>E-flite Ultrix 600mm RC Airplane Instruction Manual</p> <p>Comprehensive instruction manual for the E-flite Ultrix 600mm RC airplane, covering setup, pre-flight checks, flight modes (SAFE and AS3X), operation, maintenance, troubleshooting, and warranty information. It is designed for hobbyists and requires careful adherence to safety guidelines.</p>

	<p><u>Horizon Hobby E-flite Apprentice STS 1.5m RC Airplane Instruction Manual</u></p> <p>Comprehensive instruction manual for the Horizon Hobby E-flite Apprentice STS 1.5m RTF Basic and BNF Basic RC airplane. Covers assembly, operation, safety, SAFE technology, GPS upgrades, troubleshooting, and maintenance.</p>
	<p><u>E-flite 30-Amp Pro Switch-Mode BEC Brushless ESC (V2) - Instruction Manual</u></p> <p>This manual provides detailed instructions for the E-flite 30-Amp Pro Switch-Mode BEC Brushless ESC (V2) (EFLA1030BC), covering its features, specifications, programming options, safe operation, troubleshooting, and warranty information.</p>
	<p><u>E-flite T-28 1.1m BNF Basic & PNP: Bedienungsanleitung</u></p> <p>Umfassende Bedienungsanleitung für das ferngesteuerte Modellflugzeug E-flite T-28 1.1m, erhältlich in den Ausführungen BNF Basic und PNP. Enthält detaillierte Anleitungen zu Montage, Einrichtung, SAFE Select-Technologie, Flugtipps und Wartung für sicheren Betrieb.</p>