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› E-flite 50 AMP Brushless ESC EFLA1050 Instruction Manual

E-flite EFLA1050



E-flite 50 AMP Brushless ESC EFLA1050 Instruction Manual

Model: EFLA1050

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation of your E-flite 50-Amp Switch-Mode BEC Brushless Electronic Speed Controller (ESC) with EC3 connector. Please read this entire manual carefully before installation and use to ensure proper function and to prevent damage or injury.

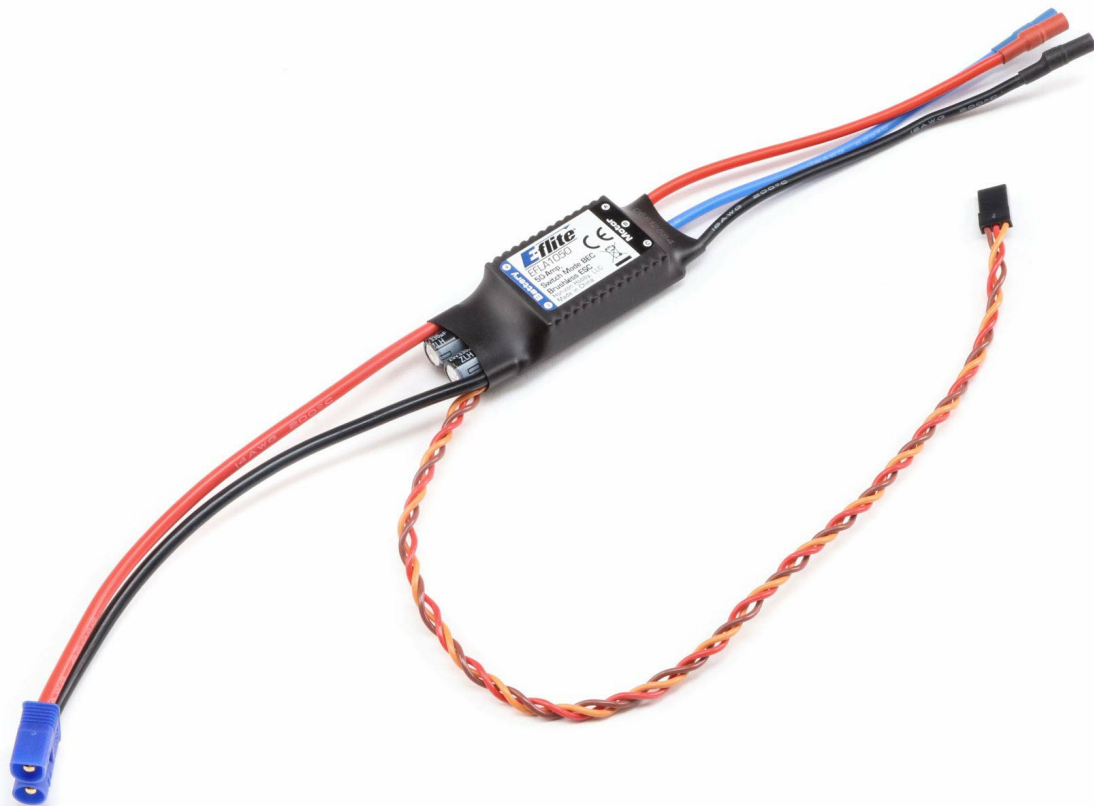


Image 1.1: The E-flite 50 AMP Brushless ESC (EFLA1050) with EC3 connector. This component regulates motor speed in RC aircraft.

2. SAFETY INFORMATION

WARNING:

Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property, and cause serious injury. This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Horizon Hobby, LLC. The product manual contains instructions for safety, operation, and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup, or use, in order to operate correctly and avoid damage or serious injury.

- Always ensure all connections are secure and correct before powering on.
- Never operate the ESC with damaged wiring or connectors.
- Keep hands and loose clothing away from rotating propellers when the ESC is powered.

- Ensure adequate ventilation for the ESC during operation to prevent overheating.
- Use only batteries and motors compatible with the 50-Amp rating of this ESC.

3. SETUP AND INSTALLATION

3.1 Component Identification

The E-flite 50 AMP Brushless ESC features three main sets of wires:

1. **Battery Input Wires:** Thick red and black wires with an EC3 connector. Connect these to your flight battery.
2. **Motor Output Wires:** Three wires (typically black, blue, yellow) for connection to the brushless motor.
3. **Receiver/BEC Output Wire:** A single servo-style connector (usually black, red, white/orange) that plugs into the throttle channel of your receiver. This also provides power to the receiver and servos via the integrated Switch-Mode BEC.

3.2 Wiring Connections

1. **Connect to Motor:** Connect the three motor output wires from the ESC to the three wires of your brushless motor. The order of these wires determines the motor's rotation direction. If the motor spins in the wrong direction after initial setup, swap any two of these three wires.
2. **Connect to Receiver:** Plug the servo-style connector from the ESC into the throttle channel (typically channel 3) of your RC receiver. Ensure the polarity is correct (signal, positive, negative).
3. **Mount the ESC:** Securely mount the ESC in your aircraft, ensuring good airflow for cooling. Use double-sided foam tape or zip ties. Avoid mounting near sensitive electronics or where it could be exposed to excessive vibration or heat.
4. **Connect to Battery: IMPORTANT:** Only connect the EC3 battery connector to your flight battery **AFTER** all other connections are made and your transmitter is turned on with the throttle stick at its lowest position.

4. OPERATING INSTRUCTIONS

4.1 Initial Power-Up and Arming

1. Ensure your RC transmitter is turned ON and the throttle stick is at its lowest position (throttle cut engaged if available).
2. Connect the flight battery to the ESC's EC3 connector.
3. The ESC will emit a series of beeps indicating the number of LiPo cells detected (e.g., three beeps for a 3S LiPo).
4. After the cell count beeps, the ESC will emit a final confirmation tone, indicating it is armed and ready for operation. If no arming tone is heard, ensure the throttle stick is at its lowest position and check your transmitter's throttle trim settings.

4.2 Motor Direction Check

After arming, slowly advance the throttle to check the motor's rotation direction. If the propeller spins in the incorrect direction for your aircraft, disconnect the battery, then swap any two of the three motor wires connected to the ESC. Reconnect the battery and re-check.

4.3 Normal Operation

Once armed and motor direction is confirmed, you can operate your aircraft normally. Always monitor battery voltage and ESC temperature during flight. The ESC features low voltage cutoff protection to prevent over-discharge of your LiPo battery.

5. MAINTENANCE

- **Inspection:** Regularly inspect the ESC, wires, and connectors for any signs of damage, fraying, or corrosion.

- **Cleaning:** Keep the ESC clean and free from dust, dirt, and moisture. Use a soft brush or compressed air for cleaning.
- **Storage:** Store the ESC in a cool, dry place away from direct sunlight and extreme temperatures.
- **Firmware:** Check the E-flite website periodically for any available firmware updates for your ESC model.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Motor does not arm/no beeps	Throttle stick not at lowest position; throttle trim too high; incorrect receiver connection.	Ensure throttle stick is fully down. Lower throttle trim. Check ESC to receiver connection and polarity.
Motor spins in wrong direction	Incorrect motor wire connection order.	Swap any two of the three motor wires between the ESC and motor.
Motor stutters or runs intermittently	Loose motor connections; damaged motor or ESC; low battery voltage.	Check all motor connections. Inspect motor and ESC for damage. Charge or replace battery.
ESC overheats	Insufficient airflow; motor/propeller too large; excessive current draw.	Improve ventilation. Use a smaller propeller or motor with lower current draw.

7. SPECIFICATIONS

Feature	Detail
Model Number	EFLA1050
Continuous Current	50 Amps
BEC Type	Switch-Mode BEC
Battery Connector	EC3
Product Dimensions	11.5 x 4 x 0.51 inches
Item Weight	2.08 ounces
Recommended Age	14 years and up
Manufacturer	E-flite

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official E-flite website or contact Horizon Hobby, LLC directly. Keep your proof of purchase for any warranty claims. You can find more information and support resources on the [E-flite Brand Store](#).

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question