furitek MicroSilk 2025 (Axial SCX24 Edition)

Furitek MicroSilk 2025 Brushless Power System Instruction Manual

For Axial SCX24, TRX-4M, and Redcat Ascent-18 RC Crawlers

1. Overview

The Furitek MicroSilk 2025 is a specialized brushless power system designed for 1/24 and 1/18 scale RC crawlers, including the Axial SCX24, TRX-4M, and Redcat Ascent-18. This system combines the MicroPython brushless Electronic Speed Controller (ESC) with the high-performance Mini KMD V2 brushless motor to provide enhanced power, precision, and smooth operation in a compact form factor.

Key features include:

- **Brushless Power System:** Offers improved efficiency, torque, and durability compared to brushed systems.
- **Upgraded Mini KMD V2 Motor:** Engineered for high torque, smooth operation, and efficient power delivery, suitable for challenging terrains.
- **Ultra-Compact Design:** Both the MicroPython ESC and Mini KMD V2 motor are designed to fit seamlessly into the limited space of compatible RC models.
- **Upward Wire Configuration:** The MicroPython ESC features a unique wire layout to maximize space efficiency.
- **Powerful 5A BEC:** A built-in 5A Battery Eliminator Circuit (BEC) ensures reliable power delivery to any servo.
- **Smoothness and Control:** Advanced brushless algorithms provide precise crawling and throttle response.

2. Safety Information

This product is not intended for use by children. Adult supervision is required during installation and operation. Always ensure proper ventilation and avoid operating the system in wet conditions unless explicitly stated as waterproof. Disconnect the battery when not in use to prevent accidental operation or damage.

3. Setup and Installation

3.1 Unpacking and Component Identification

Your Furitek MicroSilk 2025 system includes the MicroPython ESC and the Mini KMD V2 motor. Ensure all components are present before proceeding with installation.

Image: The Furitek MicroPython ESC and Mini KMD V2 Motor, along with connecting wires.

3.2 Connecting the System

1. **Motor to ESC Connection:** Connect the three motor wires to the corresponding three wires on the MicroPython ESC. Ensure a secure connection.
2. **ESC to Receiver Connection:** Plug the signal cable from the MicroPython ESC into Channel 2 (throttle) on your RC receiver.
3. **Servo to Receiver Connection:** Connect your steering servo's signal cable to Channel 1 on your RC receiver.
4. **Battery Connection:** Connect your 1-2S LiPo battery to the battery input on the MicroPython ESC.

Image: The compact Furitek MicroPython ESC, showing its wire connections.

3.3 Receiver Binding and Calibration

Before first use, ensure your receiver is properly bound to your transmitter. Refer to your transmitter and receiver manual for specific binding procedures. Once bound, calibrate the ESC with your transmitter's throttle range according to the ESC's instructions (typically involves holding full throttle, then full brake, then neutral during power-up).

Your browser does not support the video tag.

Video: This video demonstrates common questions and instructions for an SCX24 RC ESC and brushless motor kit, including connection and binding procedures.

4. Operating Instructions

Once the system is installed and calibrated, power on your transmitter first, then connect the battery to the ESC. The ESC will initialize. You can then control your RC crawler using the transmitter. The MicroSilk system is designed for smooth and precise throttle control, ideal for crawling over obstacles.

4.1 Advanced Tuning (Optional)

The MicroPython ESC may offer advanced tuning options via a dedicated mobile application. This allows for fine-tuning parameters such as drag brake, throttle curves, and motor timing to optimize performance for specific terrains or driving styles. Refer to the Furitek website or app documentation for detailed instructions on using the tuning app.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your MicroSilk system:

- **Cleaning:** Periodically clean the ESC and motor to remove dirt, dust, and debris. Use a soft brush or compressed air. Avoid using liquids directly on electronic components.
- **Connection Checks:** Regularly inspect all electrical connections for looseness or damage. Secure any loose connections.
- **Motor Inspection:** Check the motor for any signs of wear or damage. Ensure the motor shaft spins freely.
- **Gear Mesh:** If applicable, ensure proper gear mesh between the motor pinion and the transmission gears to prevent premature wear.

6. Troubleshooting

If you encounter issues with your MicroSilk system, consider the following troubleshooting steps:

- **No Power:**
  - Check battery charge level and connections to the ESC.
  - Ensure the ESC is switched ON.
- **Motor Not Responding or Erratic Behavior:**
  - Verify the receiver is correctly bound to the transmitter.
  - Confirm the ESC signal cable is plugged into the correct channel (Channel 2) on the receiver.
  - Check motor wire connections to the ESC.
  - If the motor is cogging or overheating, check for mechanical binding in the drivetrain or incorrect ESC settings (e.g., drag brake too high, motor timing).
- **Bluetooth Connectivity Issues (for app tuning):**
  - Ensure the ESC is powered on and within range of your mobile device.
  - Try restarting the app and the ESC.
  - Check your device's Bluetooth settings.
- **Missing Hardware:**
  - If any small parts, such as mounting screws (e.g., M2x12 for motor mount), are missing from the package, contact the seller or Furitek support for assistance.

If these steps do not resolve the issue, contact Furitek customer support for further assistance.

7. Specifications

Feature	Specification
Product Dimensions	3 x 3 x 3 inches
Item Weight	1.6 ounces
BEC Output	5V / 3A
Battery Compatibility	1-2S LiPo
Motor Type	Brushless
Manufacturer	Furitek

8. Warranty and Support

For warranty information, product support, or to inquire about replacement parts, please contact Furitek directly through their official website or the retailer from whom the product was purchased. Keep your proof of purchase for any warranty claims.