

Castle Creations CC010-0163-00

Castle Creations Talon 60 Electronic Speed Control Instruction Manual

[Overview](#) [Setup](#) [Operation](#) [Introduction](#) [Safety Information](#) [Product](#)
[Maintenance](#) [Troubleshooting](#) [Specifications](#) [Warranty & Support](#)

1. INTRODUCTION

This manual provides essential instructions for the safe and effective use of your Castle Creations Talon 60 Electronic Speed Control (ESC). The Talon 60 is designed for small to medium-sized RC aircraft, including 360-450 size helicopters and .32 - .60 range airplanes, supporting up to 1400 watts on 6S LiPo power. Please read this manual thoroughly before installation and operation to ensure optimal performance and safety.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety guidelines can result in property damage, serious injury, or death.

- Always disconnect the battery from the ESC when not in use.
- Ensure all wiring connections are secure and properly insulated to prevent short circuits.
- Never operate the ESC with damaged wires or connectors.
- Keep hands, tools, and loose clothing away from rotating propellers and motors.
- Operate RC models in open areas, away from people, animals, and property.
- Monitor ESC and motor temperatures during operation. Excessive heat can indicate an issue.
- Use only compatible batteries and motors as specified for the Talon 60.
- This product is not a toy. Adult supervision is required for users under 18 years of age.

3. PRODUCT OVERVIEW

3.1 Key Features

- **Application:** Ideal for small scale or aerobatic helis (360-450 size) and scale, sport, and aerobatic planes (.32 - .60 range) requiring up to 1400 watts on 6S LiPo power.
- **Governor Mode:** Direct entry governor mode allows precise RPM setting using the Castle Link USB adapter (sold

separately) and Castle Link Programming Suite.

- **Battery Eliminator Circuit (BEC):** Integrated 20A peak power, 8A continuous power BEC with user-selectable 6V or 8V output (default 6V).
- **Telemetry Capable:** Supports telemetry with optional Castle Creations Telemetry Link (#010-0152-00 for Futaba, #010-0148-00 for Spektrum) and compatible radio systems.
- **Power System Alerts:** Provides notifications for conditions such as over-temperature, excessive load, and locked head speed.

3.2 What's Included

- Castle Creations Talon 60 6S 25.2V 60A Electronic Speed Control (ESC)
- Instruction Manual (this document)

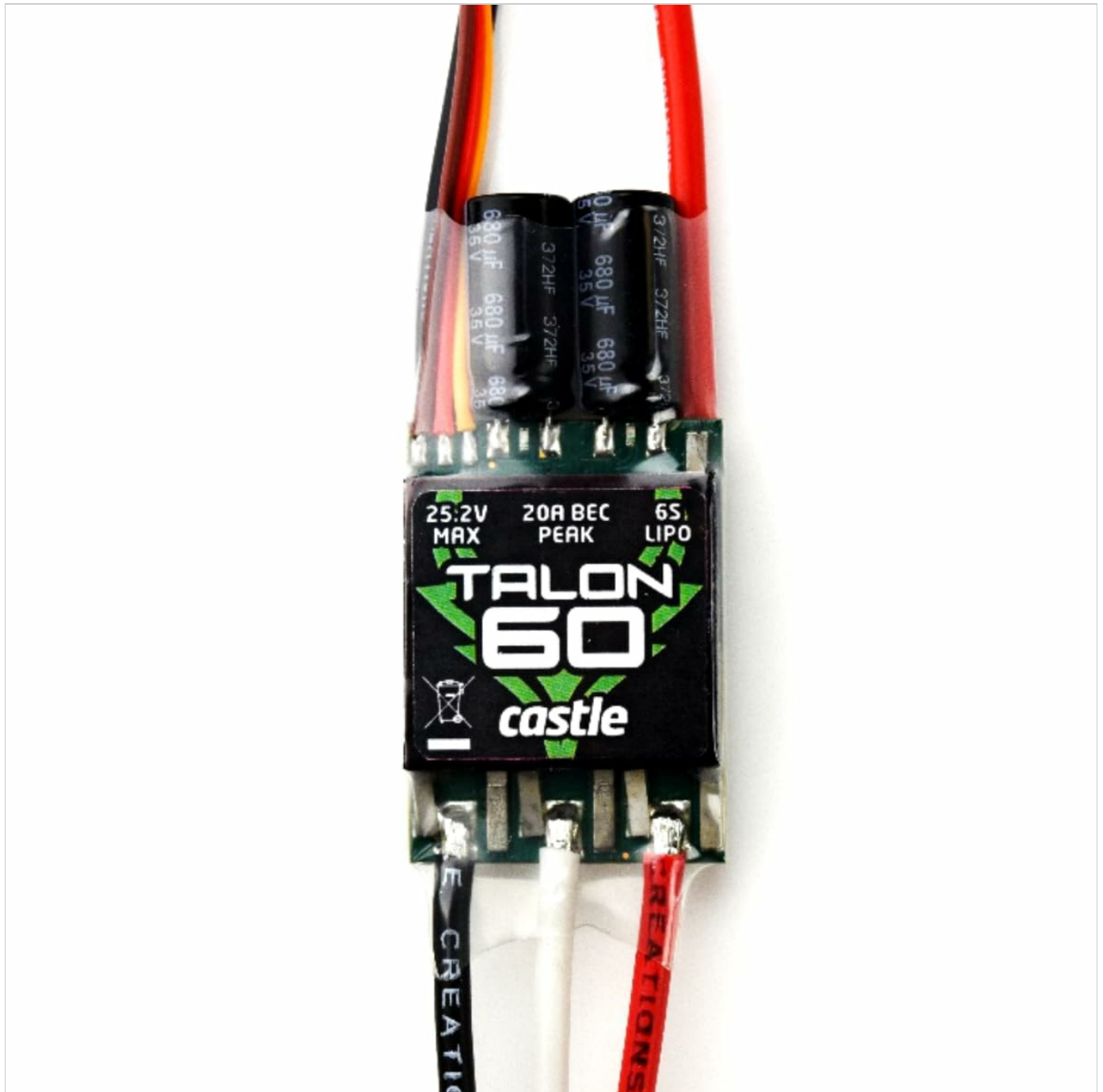


Image: The Castle Creations Talon 60 Electronic Speed Control unit.

4. SETUP

4.1 Requirements

- Compatible Battery: 2-6S LiPo (up to 25.2V)
- Compatible Brushless Motor
- Battery and Motor Connectors (appropriate for your application, not included)
- RC Receiver and Transmitter
- Castle Link USB adapter (for advanced programming, sold separately)

4.2 Wiring and Installation

Carefully connect the Talon 60 ESC to your motor, battery, and receiver. Ensure correct polarity for battery connections. The three motor wires can be connected in any order; if the motor spins in the wrong direction, swap any two motor wires. Connect the ESC's throttle lead to the throttle channel of your RC receiver.

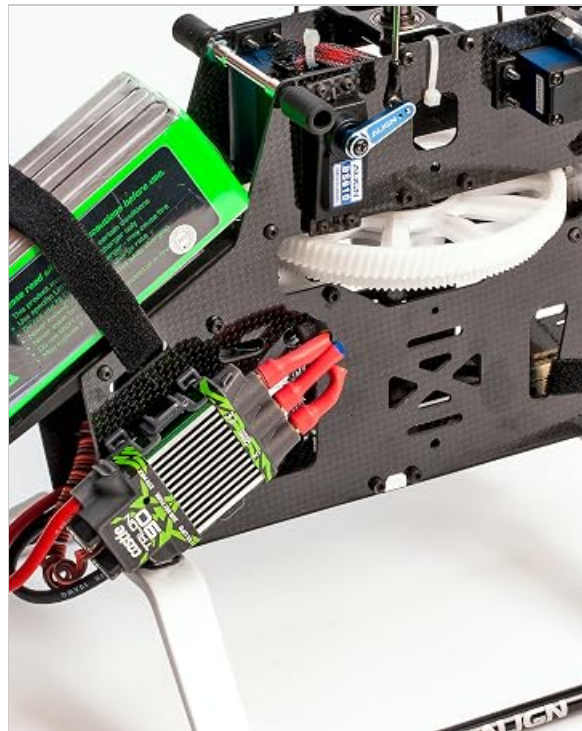


Image: An Electronic Speed Control (similar to Talon 60) installed within an RC helicopter chassis, showing wiring connections.

4.3 Initial Configuration (Castle Link)

For optimal performance and to customize settings such as BEC voltage (6V or 8V), throttle curves, and governor mode parameters, it is highly recommended to use the Castle Link USB adapter and the free Castle Link Programming Suite software on a Windows PC. This allows for precise tuning to match your specific aircraft and flying style.

5. OPERATING INSTRUCTIONS

5.1 Powering On and Arming

1. Ensure your transmitter is powered on and the throttle stick is at its lowest position.
2. Connect the battery to the Talon 60 ESC.
3. The ESC will emit a series of tones indicating cell count and arming status. Wait for the arming tone before advancing the throttle.

5.2 Governor Mode

The Talon 60 features a direct entry governor mode. Once configured via Castle Link, you can input your desired RPM

directly. The ESC will then maintain this RPM under varying load conditions, providing consistent power for aerobatics and stable flight.

5.3 Telemetry Integration

If you have purchased the optional Castle Creations Telemetry Link, follow its specific instructions for integration with your compatible Futaba or Spektrum radio. This allows real-time monitoring of critical data such as battery voltage, ESC temperature, and motor RPM directly on your transmitter.

5.4 Power System Alerts

The Talon 60 is designed to provide alerts for certain power system conditions. These may include audible tones or LED indicators for:

- **Over-temperature:** Indicates the ESC is operating at an unsafe temperature.
- **Excessive Load:** Suggests the motor or propeller combination is drawing too much current.
- **Locked Head Speed:** Relevant for helicopters, indicating an inability to maintain target RPM.

Refer to the Castle Link software for detailed explanations of alert codes and recommended actions.

6. MAINTENANCE

The Talon 60 ESC is designed for durability, but regular inspection and basic maintenance are crucial for longevity:

- **Visual Inspection:** Periodically check the ESC for any signs of physical damage, frayed wires, or melted insulation.
- **Cleanliness:** Keep the ESC free from dirt, dust, and moisture. Use compressed air or a soft brush to gently clean cooling fins if present.
- **Connections:** Ensure all connectors (battery, motor, receiver) are clean and securely seated. Loose connections can cause intermittent power or damage.
- **Firmware Updates:** Check the Castle Creations website regularly for firmware updates. Updating your ESC's firmware via Castle Link can improve performance and add new features.

7. TROUBLESHOOTING

If you encounter issues with your Talon 60 ESC, consider the following common troubleshooting steps:

- **No Power/No Response:**
 - Check battery charge level.
 - Verify all battery and receiver connections are secure and correct.
 - Ensure the transmitter is on and bound to the receiver.
- **Motor Not Spinning/Stuttering:**
 - Check motor wire connections for continuity and proper seating.
 - Ensure the motor is not physically obstructed.
 - Recalibrate the ESC's throttle range with your transmitter.
- **Motor Spins in Wrong Direction:**
 - Swap any two of the three motor wires connected to the ESC.
- **Overheating:**
 - Ensure adequate airflow around the ESC.

- Check if the motor/propeller combination is too large or drawing excessive current.
- Verify battery C-rating is sufficient for the power demands.

- **Inconsistent Performance:**

- Connect to Castle Link and review all programmed settings.
- Check for radio interference.

For more detailed diagnostics and advanced troubleshooting, connect your ESC to the Castle Link software. The software provides diagnostic data and allows for comprehensive parameter adjustments.

8. SPECIFICATIONS

Feature	Specification
Input Voltage Range	2-6S LiPo
Max Continuous Amperage (Full Throttle)	60A
Max Voltage	25.2V
BEC Voltage	User selectable: 6V or 8V (default 6V)
BEC Output	20A peak, 8A continuous
Dimensions (Width)	1.19 inches (30.2 mm)
Dimensions (Length)	2.56 inches (65 mm)
Dimensions (Height)	0.41 inches (10.6 mm)
Weight (with wires)	2.05 oz (57g)
Weight (without wires)	1.09 oz (31g)
Model Number	CC010-0163-00

9. WARRANTY AND SUPPORT

9.1 Limited Warranty

The Castle Creations Talon 60 ESC comes with a **one-year limited warranty** through Castle Creations, effective from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage resulting from misuse, abuse, modification, improper installation, or accidents. Please retain your proof of purchase for warranty claims.

9.2 Customer Support

For technical assistance, warranty claims, or additional information, please visit the official Castle Creations website or contact their customer support directly. Detailed contact information and support resources can be found on their website.

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.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

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