

## ABOUT THE COPPERHEAD 10

<b>Motors</b>	Please note that while the Copperhead 10 is capable of handling significant power, your motor must also be up for the task. Always run your motor within the manufacturer's specs. Monitor motor, battery, and controller temps carefully and never let the motor get above 100° C (212° F). Excessive heat in the motor can damage the motor, the Copperhead 10, and the batteries.
<b>Gearing</b>	Always start with stock gearing. If you wish to change the gearing, motor, or battery, check your motor temperature often on the first run. If the motor gets too hot, increase the spur size, reduce the pinion size, or reduce the pack voltage.
<b>Programming</b>	The Copperhead 10 is programmable via transmitter (see <i>Driver's Ed Guide</i> ) or settings may be programmed via computer with a Castle Link USB adapter (coupon for free adapter included in package). You can also program with a mobile device using a Castle B•Link Bluetooth® Adapter (sold separately). See the Drivers' Ed Guide for more instructions on transmitter programming and the Castle Link system (" <i>Tuning with Castle Link</i> " and " <i>Transmitter Programming</i> ").
<b>Data Log Lite</b>	The Copperhead 10 features <i>Data Log Lite</i> . You will be able to measure and record important power system information during your race, turn-by-turn. After your run, you can download and analyze this log using Castle Link. You will be able to inspect many parameters including battery voltage, motor RPM, ESC temperature and more. <i>Data Log Lite</i> maximizes use of memory space by providing access to the most important data available. Additional information about using the data logging features can be found in the Driver's Ed Guide (" <i>Data Logging</i> ").



## COPPERHEAD 10 SPECIFICATIONS

<b>Application Guidelines</b>	1/10 <sup>th</sup> scale RC Hobby vehicles weighing up to 7.5lbs.
<b>Input Voltage Range</b>	Min: 2S LiPo, Max: 4S LiPo, 16.8V (Do not use 4S LiHV)
<b>BEC Specifications</b>	Selectable, 5.5V or 7.5V (6A peak), default 5.5V.
<b>Sensors</b>	Yes, with pre-installed Motor Sensor Harness (dust cover included in package).
<b>Product Use Statement</b>	<ul style="list-style-type: none"> <li>• Applying voltages higher than 16.8V will cause irreparable damage to your controller.</li> <li>• The Copperhead 10 is a high-performance controller; you must use high-discharge cells in your high-performance application to ensure vehicle performance (see <i>Driver's Ed Guide</i>, "<i>A Word About Batteries</i>").</li> <li>• The Copperhead 10 requires the use of connectors designed for 50+ amps continuous. Ex. Castle 4.0mm Polarized Connectors (<i>Driver's Ed Guide</i>, "<i>Connectors and Power Wiring</i>").</li> <li>• The Copperhead 10 is not intended for human or animal propulsion.</li> <li>• Failure to adhere to the <i>Product Use Statement</i> constitutes a violation of the warranty agreement, and will result in non-warranty service fees to repair or replace damaged products.</li> </ul>



castlecreations.com

540 North Rogers Road, Olathe, KS 66062  
(913) 390-6939 (ext. #1 Support, #2 Service)

**Product Support:** [castlecreations.com/contact-support](http://castlecreations.com/contact-support)

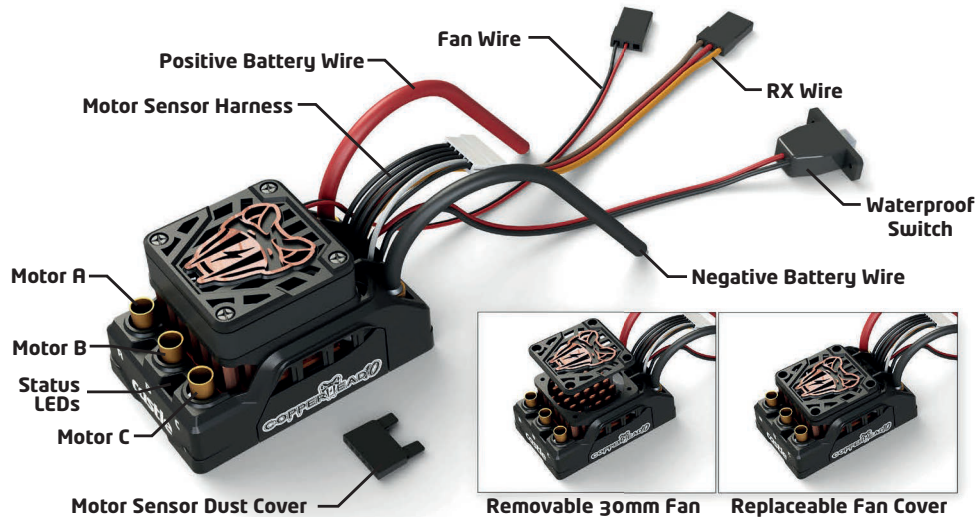
**Service:** [castlecreations.com/contact-service](http://castlecreations.com/contact-service)

**Website:** [www.castlecreations.com](http://www.castlecreations.com)

## GETTING STARTED

1. Solder a high quality battery connector to the ESC (see *Driver's Ed Guide "Connectors and Power Wiring"*).
2. Mount the ESC and motor into the vehicle.
3. Connect motor to the ESC (see *Driver's Ed Guide, "Motor Wiring"*).
4. Install the sensor dust cover or connect the motor sensor harness and wire (necessary to retain the RX wire).
5. Plug in the RX wire into throttle (#2) and fan wire into auxiliary (#3/#4).
6. Calibrate your ESC to your radio. (See below).

**YOU ARE NOW READY TO GO!**



## THROTTLE CALIBRATION

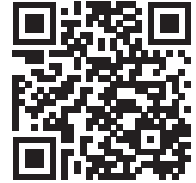
1. Radio on, battery plugged in, ESC off.
2. Hold full throttle, turn ESC on (green LED).
3. When red LED flashes, go to full reverse.
4. When yellow LED flashes, go to neutral.
5. Armed and ready!



## DRIVER'S ED GUIDE

For more detailed information regarding Getting Started, Throttle Calibration, using Castle Link, or Transmitter Programming, please read the Driver's Ed Guide by visiting: [www.castlecreations.com/CH10DEG](http://www.castlecreations.com/CH10DEG)

Or scan this QR code with your smart device to open the link.



### TRANSMITTER PROGRAMMING REFERENCE

- |                                                                                                                                                      |                                                                                                                                                            |                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>1. Brake/Reverse Type</b> <ul style="list-style-type: none"> <li>• With Reverse*</li> <li>• Without Reverse</li> <li>• Crawler Reverse</li> </ul> | <b>3. Brake Amount</b> <ul style="list-style-type: none"> <li>• 25%</li> <li>• 50%*</li> <li>• 75%</li> <li>• 100%</li> </ul>                              | <b>5. Motor Type</b> <ul style="list-style-type: none"> <li>• Brushless*</li> <li>• Brushed Reversing</li> </ul> |
| <b>2. Voltage Cutoff</b> <ul style="list-style-type: none"> <li>• Auto-Lipo*</li> <li>• None</li> </ul>                                              | <b>4. Drag Brake</b> <ul style="list-style-type: none"> <li>• Disabled*</li> <li>• 10%</li> <li>• 20%</li> <li>• 30%</li> <li>• Crawler Full On</li> </ul> | <b>6. Motor Direction</b> <ul style="list-style-type: none"> <li>• Normal*</li> <li>• Reversing</li> </ul>       |

\*Default Setting

### AUDIBLE ALERT REFERENCE

• •	Start Fail
• -	Low Voltage Cutoff
• • •	Sensors Lost
• • -	Radio Glitch
• - •	Over-Temperature
- • -	BEC Over-Temperature
• • • •	Data Log Full Warning
- - •	Motor Over-Temperature

**NOTE:** Not intended for operation while submerged in liquid. If unit is operated in wet conditions, rinse with fresh water to remove dirt or corrosives, then fully dry unit. Fan is not water resistant. Remove the fan from the ESC before exposure to liquids.