

## ABOUT THE HYDRA COBRA 5HV

<b>Motors</b>	Please note that while the Hydra Cobra 5HV is capable of handling incredible amounts of 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 Hydra Cobra 5HV, and the batteries.
<b>Prop Size</b>	Always start with a smaller prop size. If you wish to change the prop, motor, or battery, check your temperatures often on the first run. If the electronics get too hot, decrease the prop pitch or diameter, or reduce the pack voltage.
<b>Programming</b>	The Hydra Cobra 5HV features a fully programmable Castle feature set using the included FREE Castle Link V4 USB adapter and freely downloadable NEW Castle Link Windows™ software. (Windows 10+ required). It also offers convenient transmitter programming for six common adjustable settings including cutoff voltage and drag brake. During the optimization of your setup it is critical to check motor and ESC temperatures after making adjustment. We recommend the use of the data log as you progress with the feel and power of the vehicle.
<b>Data Logging</b>	The Hydra Cobra 5HV features data logging. 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 the Castle Link USB adapter. You will be able to inspect many parameters including battery voltage, motor RPM, ESC temperature, and more. Additional information about using data logging features can be found in the Driver's Ed Guide ("Data Logging").



**castlecreations.com**

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

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

**Website:** [castlecreations.com](https://castlecreations.com)

# HYDRA COBRA 5HV

WATER-COOLED MARINE SPEED CONTROL

## QUICK START GUIDE



**OVERPOWERING RC SINCE 1997**

**castle**

## HYDRA COBRA 5HV SPECIFICATIONS

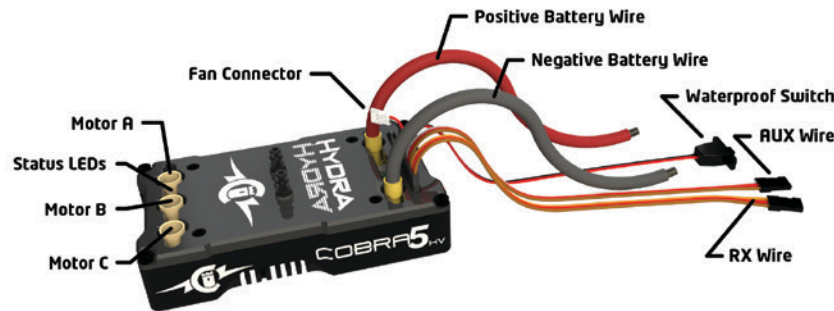
<b>Application Guidelines</b>	Hobby boats up to 50"
<b>Input Voltage Range</b>	Min: 6S LiPo, Max: 12S LiPo, 50.4V
<b>BEC Specs</b>	5.0V - 8.5V adj. in 0.1V incr. (20A Peak), default 5.5V
<b>Sensors</b>	Yes, with optional Sensor Harness (P/N 011-0108-00)
<b>Product Use Statement</b>	<ul style="list-style-type: none"> <li>• Applying voltages higher than 50.4V will cause irreparable damage to your controller.</li> <li>• <b>WARNING:</b> You must disconnect the AUX wire from your radio before connecting to Castle Link. Failure to do so may result in damage to your Castle Link and/or computer.</li> <li>• The Hydra Cobra 5HV is a high-performance controller; you must use high-discharge cells in your high-performance application to ensure vehicle performance (see Driver's Ed Guide, "A Word About Batteries").</li> <li>• The Hydra Cobra 5HV requires the use of connectors designed for 150+ amps continuous. Ex. Castle 6.5mm polarized or 8mm bullet (Driver's Ed Guide, "Connectors and Power Wiring").</li> <li>• The Hydra Cobra 5HV is not intended for human or animal propulsion.</li> </ul>

\*Failure to adhere to the Product Use Statement constitutes a violation of the warranty agreement, and will result in non-warranty service fees to repair or replace damaged products.

## 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. Plug in the RX wire into throttle (#2) and AUX wire into auxillary (#3/#4).
5. 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:

<https://www.castlecreations.com/cobra5hv>

You can also use your smart device's camera and this QR code to open the link.



## RECEIVER CONNECTION

<b>RX Wire</b>	Plug the RX wire into the throttle (#2) channel on your receiver.
<b>AUX Wire</b>	<p>The AUX wire allows you to adjust a setting "on-the-fly" using an auxiliary channel on your receiver. The AUX wire function is disabled by default and is programmable via Castle Link. Plug this wire into the auxiliary (#3/#4) channel on your receiver.</p> <p><b>❗ You MUST connect the AUX wire to an open channel on your receiver even if you are not using the Auxiliary function.</b></p>

## 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>• • Reverse</li> </ul>

\*Default Setting

## AUDIBLE ALERT REFERENCE

• •	Start Fail
• —	Low Voltage Cutoff
— •	Over-Current
• • •	Sensors Lost
• • —	Radio Glitch
• — •	Over-Temperature
• — —	Excessive Load
— • •	AUX Wire Radio Glitch
— • —	BEC Over-Temperature