

CASTLE CREATIONS COBRA 10 FEATURES AND SPECIFICATIONS

FEATURES		
- Cobra 10 is designed for use in 1:10 scale vehicles weighing up to 7lbs and 1:8 scale buggies geared for off road racing weighing up to 9lbs. 32-Bit Processing power for smoother motor control and improved response time. - Improved thermal performance with CRYO-DRIVE™ technology. - Enhanced Data Logging includes: - Double the maximum sample frequency of older generations. 8x increased logging time of older generations. - ESC electrical motor timing. - Max G-FORCE via onboard accelerometer. - Looping feature prevents interruptions in data log recording. - Additional tuning features include: - New HILL HOLD feature enhancing drag brake strength for better grip on steep inclines. - Separate brake and reverse curves. - Highly adjustable internal BEC. (5.0V - 8.0V adjustable in 0.1V increments) - Auxiliary wire functionality for "on-the-fly" adjustments using transmitter. - Improved motor pitch with outrunner motors. - Sensored Only, Brushed and SmartSense™ Running Modes. - Access to tuning options and firmware updates for free with Castle Link V4 USB programmer included with purchase. Now with USB-C connector! (Requires Windows 10 or higher) - Audible alerts for easy diagnosis of common issues such as motor-over-temperature and low-voltage cutoff. - Includes 250mm direct connect sensor wire, eliminating the need for the Castle Sensor harness adapter - ESC is housed in a rugged CNC aluminum case and potted in waterproof epoxy to protect the electronics and promote efficient heat transfer and all-weather usage. - Mounting holes located in bottom of aluminum case for installation into vehicle. (M2.5 threaded) - We’ve packaged the Cobra 10 with 16 different Castle 4 -POLE 12-SLOT motor options to overpower a wide range of 1:10th scale vehicles. - The COBRA 10 is proudly designed and manufactured in Olathe, Kansas, USA, and backed by the Castle Creations one-year warranty.		
TECHNICAL SPECIFICATIONS		
Application Guidelines:	Cobra 10 is designed for use in 1:10 scale vehicles weighing up to 7lbs and 1:8 scale buggies geared for off road racing weighing up to 9lbs.	
Input Voltage Range:	MIN: 2s LiPo, MAX: 6s LiPo (25.2 V)	<i>Note: While the Cobra 10 ESC is capable of up to 25.2V, the included motor may only be capable of lesser voltage. Always use the lesser of the two values.</i>
BEC Specifications:	5.0V - 8.0V adjustable in 0.1V increments; (8A Peak); default 5.5V	
Operating Environment:	Waterproof* design allows for use in nearly any environment.	
Running Modes:	SmartSense Brushless, Sensored Only, Brushed	
Brake:	Proportional	
Reversible:	Yes, but may be disabled for racing.	
On/Off Switch:	Yes, waterproof	
Cooling Fan:	Yes, factory equipped (25mm), fully removable**, temperature controlled	
Size:	55.9mm x 38.3mm x 36.7 mm (2.2" x 1.51" x 1.44")	
Weight (with no battery connector):	4.02oz (114g)	

Connectors:	4.0mm female bullets for motor connection, matching 4.0mm male bullets required
Items Needed for Operation:	A high current connector designed for high-powered electric systems, rated for 70+ amps, such as Castle 6.5mm Polarized Connectors, Castle 4.0mm Polarized Connectors, Traxxas® Power Connectors, or Deans® Ultra Plugs soldered to the battery leads.
Product Use Statements:	The Cobra 10 is not intended for drag racing applications. *Although Cobra 10 is waterproof, it is not intended for operation while completely submerged in liquid. Always rinse the ESC and motor with clean water after exposure to corrosives or dirt. While the motor and controller may be waterproof, we suggest users confirm that the rest of their vehicle, including the batteries, servos, radio and chassis are also waterproof before exposing them to liquids of any kind. **The cooling fan must be removed prior to driving in wet conditions. It is not waterproof.
Recommended Motors:	We recommend Castle 1406, 1410, 1412 and 1415 Sensored motors and some 15 series for e-buggy setups. Our 4-POLE 12-SLOT designs boasts exceptional EFFICIENCY and produces LESS HEAT . The OPTIMIZED design eliminates the need for mechanical timing adjustments and our sensor alignment method delivers uniform timing and torque in both directions, automatically. These motors are REBUILDABLE design allows users to replace front end bell/bearing assembly or rotor/shaft assembly.
Programmability:	Fully programmable Castle feature set using the included FREE Castle Link V4 USB adapter and freely downloadable NEW Castle Link 2 Windows™ software. (Windows 10+ required)
Castle Link Mobile App (B-Link):	In Development
Telemetry Link:	Not compatible.
Tech Tips:	• Cobra 10 setups frequently hit 100+ amps in peaks and not all LiPos are created equal. Surge ratings should never be used to determine a pack's suitability for a brushless application. Recommended battery capacity for 1:10th and 1:8th scale vehicles is 5000mAh. We recommend using 30C continuous discharge or higher LiPo batteries (or high quality 25C batteries such as Traxxas® Power Cell). • Our experience suggests using only mild gear ratios with NiMH cells. Do not attempt to use NiMH cells in extreme setups. • Applying voltages higher than 25.2V will cause irreparable damage to ESC.

U.S. Patent # 7400103, 7492122, 7579796, 7740516, 8287328, 8678875, and 8905814 B2 - Other patents pending.

SEE COMBO PART NUMBERS AND APPLICATION INFORMATION BELOW

	Item #	Description	UPC	SHAFT	DIAMETER	LENGTH	APPLICATION
BASHER	010-0174-01	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1406-4600KV SENSORED MOTOR	819326013072	1/8" (3.175MM)	1.42" (36mm)	49.5mm	Ideal for 1/10th scale touring cars, buggies and stadium trucks up to 5lbs. up to 3s LiPo. It can also be used in 1/10th scale 2WD Short Course Truck on 2s LiPo <i>(geared conservatively)</i> .
	010-0174-02	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1406-5700KV SENSORED MOTOR	819326013089	1/8" (3.175MM)	1.42" (36mm)	49.5mm	Ideal for 1/10th scale touring cars, buggies and stadium trucks up to 5lbs. up to 3s LiPo. It can also be used in 1/10th scale 2WD Short Course Truck on 2s LiPo <i>(geared conservatively)</i> .
ON ROAD	010-0174-03	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1406-6900KV SENSORED MOTOR	819326013096	1/8" (3.175MM)	1.42" (36mm)	49.5mm	Ideal for 1/10th scale touring cars 2WD buggies up to 4lbs. on 2s LiPo. <i>It is not recommended for 2WD or 4WD short course trucks.</i>
	010-0174-04	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1406-7700KV SENSORED MOTOR	819326013102	1/8" (3.175MM)	1.42" (36mm)	49.5mm	Ideal for 1/10th scale touring cars 2WD buggies up to 4lbs. on 2s LiPo. <i>It is not recommended for 2WD or 4WD short course trucks.</i>
CRAWLER	010-0174-05	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1406-1900KV SENSORED MOTOR	819326013119	1/8" (3.175MM)	1.42" (36mm)	49.5mm	Ideal for low speed crawling or trail running in vehicles weighing up to 9lbs on 3s or 4s; it can also be used in more aggressive setups like rock racing and extended hill climbing on vehicles up to 5lbs.
	010-0174-06	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1406-2280KV SENSORED MOTOR	819326013126	1/8" (3.175MM)	1.42" (36mm)	49.5mm	Ideal for low speed crawling or trail running in vehicles weighing up to 9lbs on 2s to 4s; it can also be used in more aggressive setups like rock racing and extended hill climbing on vehicles up to 5lbs
	010-0174-07	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1406-2850KV SENSORED MOTOR	819326013133	1/8" (3.175MM)	1.42" (36mm)	49.5mm	Ideal for low speed crawling or trail running in vehicles weighing up to 9lbs on 2s to 4s; it can also be used in more aggressive setups like rock racing and extended hill climbing on vehicles up to 5lbs
	010-0174-08	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1406-3800KV SENSORED MOTOR	819326013140	1/8" (3.175MM)	1.42" (36mm)	49.5mm	Ideal for low speed crawling or trail running in vehicles weighing up to 9lbs on 2s-3s; it can also be used in more aggressive setups like rock racing and extended hill climbing on vehicles up to 5lbs. It can also be used in 2WD buggies, stadium trucks and 4WD touring cars; equivalent in RPM output to approximately a 10.5 turn.
SCT	010-0174-09	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1410-3800KV SENSORED MOTOR	819326013157	1/8" (3.175MM)	1.42" (36mm)	52.7mm	Perfect for short course trucks running on 2s LiPo and weighing up to 6.5 lbs; it can be run on a 3s LiPo with very conservative gearing and keep a close eye on temperatures. It is a cooling running torque animal for lighter 1/10th scale 2WD stadium trucks and buggies running up to a 3s LiPo.
	010-0174-10	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1410-3800KV 5MM SENSORED MOTOR	819326013164	5MM	1.42" (36mm)	52.7mm	Perfect for short course trucks running on 2s LiPo and weighing up to 6.5 lbs; it can be run on a 3s LiPo with very conservative gearing and keep a close eye on temperatures. It is a cooling running torque animal for lighter 1/10th scale 2WD stadium trucks and buggies running up to a 3s LiPo.
	010-0174-11	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1412-2100KV SENSORED MOTOR	819326013171	1/8" (3.175MM)	1.42" (36mm)	62.5mm	Perfect for 2WD and 4x4 short course trucks, monster trucks and rock racers running up to 4s LiPo and weighing up to 6.5 lbs. It is a cooling running torque animal for lighter 1/10th scale 2WD stadium trucks and buggies running up to a 4s LiPo.
	010-0174-12	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1412-2100KV 5MM SENSORED MOTOR	819326013188	5MM	1.42" (36mm)	62.5mm	Perfect for 2WD and 4x4 short course trucks, monster trucks and rock racers running up to 4s LiPo and weighing up to 6.5 lbs. It is a cooling running torque animal for lighter 1/10th scale 2WD stadium trucks and buggies running up to a 4s LiPo.
	010-0174-13	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1412-3200KV SENSORED MOTOR	819326013195	1/8" (3.175MM)	1.42" (36mm)	62.5mm	Perfect for 2WD and 4x4 short course trucks, monster trucks and rock racers running up to 3s LiPo and weighing up to 6.5 lbs; it can be run on a 4s LiPo with very conservative gearing and keep a close eye on temperatures. It is a cooling running torque animal for lighter 1/10th scale 2WD stadium trucks and buggies running up to a 4s LiPo.
	010-0174-14	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1412-3200 5MM KV SENSORED MOTOR	819326013201	5MM	1.42" (36mm)	62.5mm	Perfect for 2WD and 4x4 short course trucks, monster trucks and rock racers running up to 3s LiPo and weighing up to 6.5 lbs; it can be run on a 4s LiPo with very conservative gearing and keep a close eye on temperatures. It is a cooling running torque animal for lighter 1/10th scale 2WD stadium trucks and buggies running up to a 4s LiPo.
MT	010-0174-15	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1415-2400KV SENSORED MOTOR	819326013218	1/8" (3.175MM)	1.42" (36mm)	69.5mm	Perfect for 1/10th scale 2WD and 4WD short course trucks and rock racers weighing up to 6.5lbs and running on 3s or 4s LiPo. It will have huge amounts of torque, low temperatures, and incredible speed making this the perfect combo for hardcore bashing and driveshaft snapping power.
	010-0174-16	COBRA 10 6S MAX, 25.2V MAX, 8A PEAK BEC W/1415-2400KV 5MM SENSORED MOTOR	819326013225	5MM	1.42" (36mm)	69.5mm	Perfect for 1/10th scale 2WD and 4WD short course trucks and rock racers weighing up to 6.5lbs and running on 3s or 4s LiPo. It will have huge amounts of torque, low temperatures, and incredible speed making this the perfect combo for hardcore bashing and driveshaft snapping power.