



ElectroCraze 100S-BD V2

Single Channel 100A Bidirectional Brushed Motor Controller

Maximum-power single-motor control for combat robots, heavy vehicles & industrial platforms

PRODUCT OVERVIEW



The **ElectroCraze 100S-BD v2** is a single-channel ultra-high-current bidirectional brushed motor controller designed for the most power-intensive RC and robotics applications. Operating across **12–40V (3S–10S LiPo)**, it delivers an exceptional **100A continuous with 115A peak** output. With an integrated 7.4V BEC, signal loss protection, and a robust heat-shrink protected PCB, the 100S-BD v2 is the ultimate choice for heavy combat robots, large industrial RC systems, and high-performance ground vehicles that demand uncompromising power and reliability.

SPECIFICATIONS

Model	ElectroCraze 100S-BD v2
Input Voltage	12V – 40V (3S to 10S LiPo)
Output Current (Cont.)	100 A
Output Current (Peak)	115 A
Signal Input	Standard Servo Input
Signal Range	1100 – 1900 μ s
Throttle Centre	1460 – 1540 μ s
Dead Band (From Centre)	40 μ s
BEC Output	7.4V 300 mA max
Input Wire	12 AWG Silicone Wire (Red & Black)
Output Wire	14 AWG Silicone Wire (Green)
Dimensions	66.9 × 47.9 × 24.9 mm (excl. wires)
Weight	94 g (incl. wires)

KEY FEATURES

[100A] 100A Continuous Output

Extreme sustained power for the most demanding motors

[115A] 115A Peak Current

Handles massive burst loads without fault or shutdown

[DL] Directional Lighting

White and Red light for directional Indication

[FP] Fan Port

Dedicated Fan port (JST connector 7.4V 300mA)

[SL] Signal Loss Protection

Safely cuts motor output on RC signal interruption

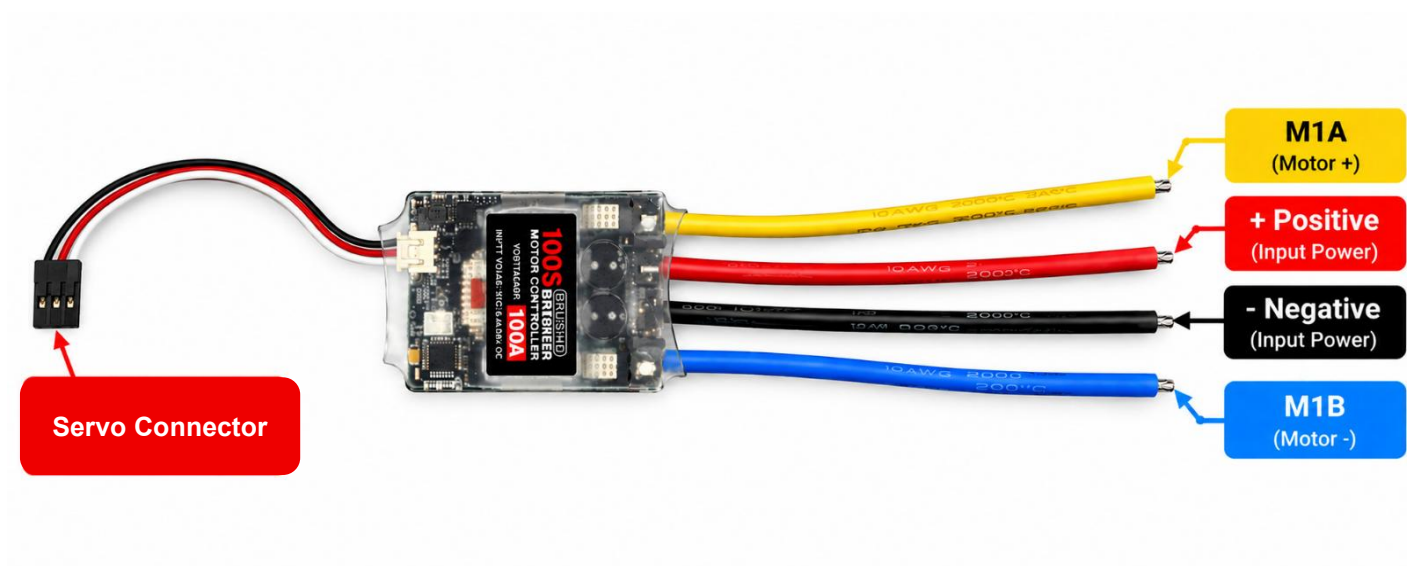
[BEC] Integrated 7.4V BEC

Powers receiver directly — no separate BEC required

LED INDICATOR STATUS

LED Colour	LED Status	Meaning
Green	Solid	Valid Power — controller powered on
Blue	Solid	Valid Signal — RC signal received & active
Green (solid) + Blue (blink)	Alternate	Power OK but no RC signal received
White	Solid	Forward
Red	Solid	Reverse

WIRING SUMMARY

**POWER INPUT**

Red → Positive (+)
Black → Negative (-)

MOTOR OUTPUT (CH1)

Yellow (M1A) → Motor (+)
Blue (M1B) → Motor (-)

RC Servo Cable: Connect servo connector to your receiver for drive control. Verify ground (Black), 5V (Red), and signal (White) pin alignment with receiver. Re-bind transmitter/receiver if signal is not detected on power-on.

APPLICATIONS

Heavy Combat Robots

High-Power RC Vehicles

Industrial RC Systems

Heavy Robotic Platforms

RC Boats & Submarines

Large-Scale RC Crawlers

ADVICE & WARNINGS

- **Check Battery Polarity:** Always verify wiring before connecting power. Reversed polarity causes irreversible and permanent damage to the controller.
- **Input Voltage Range:** Designed for 12V–40V only. Voltages above 40V will cause permanent damage. Always confirm battery cell count before connecting.
- **Controller Temperature:** The board becomes very hot at high currents. Do not touch immediately after use or place near low-melting-point materials.
- **Do Not Insulate:** Never wrap in insulating materials — free airflow is essential to sustain the 100A continuous current rating without thermal shutdown.
- **Prevent Short Circuits:** Keep all conductive materials away from the PCB. At 100A, instantaneous shorts can cause severe damage before any protection can respond.
- **Secure Against Vibration:** Stabilize heavy PCB components such as power capacitors with silicone or epoxy — critical in combat robot or high-vibration builds.

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