

USER MANUAL

SENSORLESS BRUSHLESS SPEED CONTROLLER FOR CAR MODEL NO: □ 60A

DECLARATION

This is Electronic Speed Controller (ESC) for car. High power system for RC model is very dangerous, so please read this manual carefully. Since we can't control over the correct use, installation, application, or maintenance of our products, we've no liability shall be assumed nor accepted for any damages, losses or costs resulting from the use of the product. Any claims arising from the operating, failure of malfunctioning etc. will be denied. We assume no liability for personal injury, consequential damages resulting from our product or our workmanship.

FEATURES

1. Water-proof and dust-proof for all-weather races; (Note: please uninstall the cooling fan before using this ESC in water; Clean and dry it soon after the use for avoiding the connectors get rusty.)
2. Specially designed for RC car with excellent start-up, acceleration and linearity features.
3. Compatible with sensorless brushless motor.
4. The strong resistant current capability, excellent heat dissipation.
5. Multiple protection features: Low voltage cut-off protection for lithium or nickel battery / Over-heat protection / Throttle signal loss protection / Motor blocked protection/
6. Easily programmed and compatible with pocket-sized program card.

CONNECTIONS



Connect to Battery



Connect to motor



Connect to Receiver



Switch

Specifications

Model	60A
Cont. Current/ Burst Current	60A / 360A
Motor Type	Sensorless Brushless Motor For 2S Lipo or 6 cells NiMH: 1. on-road: 3650-size or smaller motor with the KV<4300 2. Off-road / Buggy / Monster: 3650-size or smaller motor with the KV<3300 For 3S Lipo or 9 cells NiMH: 1. On-road: 3650-size or smaller motor with the KV<3300 2. Off-road / Buggy / Monster: 3650-size or smaller motor with the KV<2600.
Suitable Car	1/10 car
Resistance	0.0007ohm
Battery	2~3 cells Lipo / 4~9 cells NiMH
BEC Output	5.0V/2A(analog mode)
Dimensions / Weight	51x36x36mm /80g

uctions:

Connect BEC wires with the receiver

2. Connect motor wires with ESC

3. Turn on the transmitter

4. Connect battery pack with ESC then switch on the ESC.

5. When the connection of motor and battery is finished, the motor emits "Beep-Beep" tone.

6. When the throttle stick is in the neutral position, the motor re-emits "Beep-Beep" tone.

7. The ESC is workable.

Troubleshooting:

1. If after power on, motor can't work, no sound is emitted, please check the connections between battery pack and motor.

2. If after power on, LED flashes, please check the voltage of battery pack, which should be from 5V~13V.

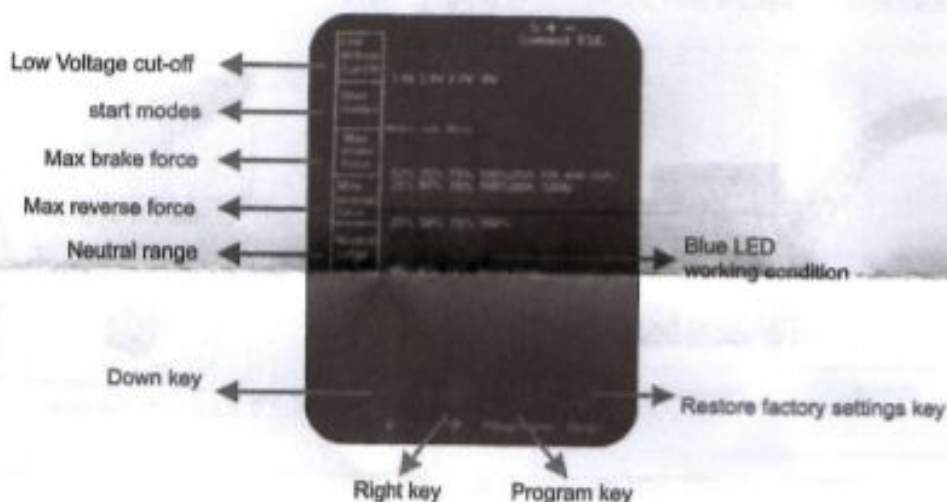
3. If the motor emits a "Beep-Beep" tone Only, please check all the connections: BEC wires, transmitter and receiver, throttle signal wires, etc. please check the transmitter TH.TRIM and adjust it to the motor re-emits "Beep-Beep" tone

4. If the car can't be speed up, please check either voltage of the battery pack is too low or the temperature of ESC is too high. If the voltage of the battery pack is too low, please replace the battery pack. If the temperature of ESC is too high, please check all connections. If not, please push the button EPA on your remote control.

5. If the car stops suddenly while in working state, please check the motor's connections, and the roadblock.

6. If the car runs in the opposite direction, which the transmitter is available, please swap two wire connections between the ESC and the motor.

Programme card Appearance description:



1: **Low Voltage Cut-Off:** The function is mainly to prevent the lithium battery pack from over discharging. When using lithium battery pack, please set the suitable value for low-voltage protection as your like. WARNING: Never use the default value "Non-protection" for lithium battery! 3.1V, 2.9V, 2.7V, Non-Protection(default value 3.1V).

2: **3 start modes** (Also called "Punch") from "soft" to "very aggressive" (default value Medium)

3: **Maximum brake force:** (25A, 45A, 60A)50%, 25%, 75%, 100%(default value 50%), (80A, 120A)25%, 50%, 75%, 100%(default value 25%).

4: **Maximum reverse force:** 25%, 50%, 75%, 100%(default value 25%)

5: **Neutral range:** 9%(narrow), 6%(Normal), 12%(Wide) (default value 9%)

Programme card Method:

1. Connect BEC wires with the program car then turn on the ESC. (80A, 120A press the keys to be not put)

2. The Blue LED flashes for 2 times then LED off, that is, the connecting program car with ESC is successful, and the Red LED on presents the current value of that item. Otherwise, the connecting is failed.

3. Please press the Key "↓" to select different programs

4. Please press the Key "→" to select different value of the current program

5. Please press the Key "Program" to confirm above selections, the Blue LED on immediately and has gone out within 5 seconds, that is, this process is successful.

6. Please press the Key "Reset" to reset the factory setting.

3650/3660/F540 WATERPROOF BRUSHLESS MOTOR

FEATURES:

- 4 Pole 12 Slot Hi-torque Motor Design
- CNC Machined 6061 T6 Billet Aluminum HeatSink Can
- High Purity Copper Windings Maximizes Efficiency
- High RPM ABEC5 Oversized Bearings
- Universal Fit, fits all 1/10th brushless cars-multi-mounting system for M3 screws
- Precision balanced rotor, smoothness for best reliability and maximum RPM
- Stator - Super Thin (0.35mm) Laminations
- Removable/replaceable Rotor
- Precision Engineered for Maximum Energy Conversion



Product	KV (RPM/Volt)	Watts	Max voltage	Max Amps	Rotor Poles	IO	Resistance	Max RPM	Motor size	Weight (g)	Shaft (mm)	Length of extend shaft	Connector
3650	3000	900	<13V	68A	4	1.5A	0.0025	50000	Ø16x50mm	213	Ø3.175	15mm	4.0mm gold
3650	3100	900	<16V	56A	4	1.4A	0.0115	50000	Ø16x50mm	213	Ø3.175	15mm	4.0mm gold
3660	2300	900	<22V	41A	4	1.2A	0.0242	50000	Ø16x50mm	213	Ø3.175	15mm	4.0mm gold
3660	3300	1200	<15V	80A	4	5.1A	0.0063	50000	Ø16x50mm	239	Ø3.175	15mm	4.0mm gold
3660	2600	1200	<19V	61A	4	3.4A	0.0107	50000	Ø16x50mm	239	Ø3.175	15mm	4.0mm gold
F540	4370	800	<12V	66A	4	2.7A	0.0185	50000	Ø16x50mm	125	Ø3.175	15mm	4.0mm gold
F540	3300	800	<18V	45A	4	1.9A	0.0267	50000	Ø16x50mm	125	Ø3.175	15mm	4.0mm gold