

PROTECTION FUNCTIONS

LiPo Low Voltage Cutoff Protection

If the voltage of the LiPo battery falls below the minimum threshold for more than two seconds, the ESC will cut off the output power and the LED will blink red. The ESC will not operate as long as the voltage remains below 3.2V per cell (2S=6.4V). When using the ESC in NiMH mode, the ESC will not operate as long as the voltage remains below 4.0V.

Thermal Protection

If the temperature of the ESC exceeds the maximum threshold for more than five seconds, the ESC will reduce and cut off the output power and the LED will flash red. When the temperature returns to the normal range, power will be restored.

Throttle Signal Loss Protection

If the throttle signal is lost for more than 0.1 seconds, the ESC will cut off the output power.

WARRANTY

Your Reedy Electronic Speed Control is warranted to the original purchaser for 30 days from the date of purchase, verified by the sales receipt, against defects in material and workmanship. Product that has been mishandled, abused, used incorrectly, used for an application other than intended or damaged by the user is not covered under warranty. Associated Electrics Inc. is not liable for any loss or damage, whether direct or indirect, incidental or consequential, or from any special situation, arising from the use, misuse, or abuse of this product.



REEDY POWERED

SC400

BRUSHED ESC

OWNER'S MANUAL

#29198

Congratulations on your purchase of the Reedy SC400 Brushed Electronic Speed Control (ESC). The latest electronics technology along with the design and engineering experience that is responsible for 30 World Championship titles has been incorporated into its design.

The Reedy SC400 Brushed ESC is water resistant and dust-proof for maximum durability. Its robust design installs in most 1/10 buggies, stadium trucks, 2wd short course trucks, touring cars, and crawlers

Please read the following instructions before installing and operating your ESC.

TROUBLESHOOTING

Problem	Cause	Solution
After powering ON the ESC, the motor does not work, no sound is emitted, and the LED is off.	Insufficient voltage; the connections between battery pack and ESC are incorrect.	Check the power connections and/or replace the connectors.
	Damaged On/Off switch.	Replace switch.
After powering ON the ESC, the motor does not work and the red LED blinks	Abnormal throttle signal.	Be sure the transmitter is working properly and that the batteries are charged. Check the receiver plug connection.
	Throttle calibration has failed.	Set the throttle trim to the neutral position.
The vehicle runs in reverse when applying the throttle.	Motor connected incorrectly.	Check the motor wire connections; reverse the connection.
The vehicle will not go in reverse.	The jumper is in the wrong position.	Place the jumper in the correct position.
	The throttle neutral point has changed.	Set the throttle trim to the neutral position.
The motor does not work but the LED works normally.	Bad connection between the motor and ESC.	Check the connection or replace defective connectors.
	Motor is damaged.	Repair or replace motor.
The motor suddenly stops running while driving the vehicle	The throttle signal from the transmitter has been lost	Be sure the transmitter is working properly and that the batteries are charged Be sure that the ESC is plugged into the receiver correctly
	The ESC has entered Low Voltage Cutoff mode.	Re-charge the battery/install a fully charged battery
	The ESC has entered Thermal Protection mode	Allow the ESC to cool down
The vehicle does not reach top speed and the red LED does not remain solid at full throttle.	Transmitter settings are incorrect.	Check the transmitter settings. Set D/R and EPA/ATV settings to 100% and set throttle trim to neutral.

FEATURES

- LiPo low-voltage cutoff protection
- Programmable run mode
- Fully proportional brakes
- Durable case with aluminum heat sink
- Water-resistant and dust-proof
- Heavy-duty silicone wires
- Low-resistance T-plug battery connector
- Bullet motor connectors
- Crawler mode

SPECIFICATIONS

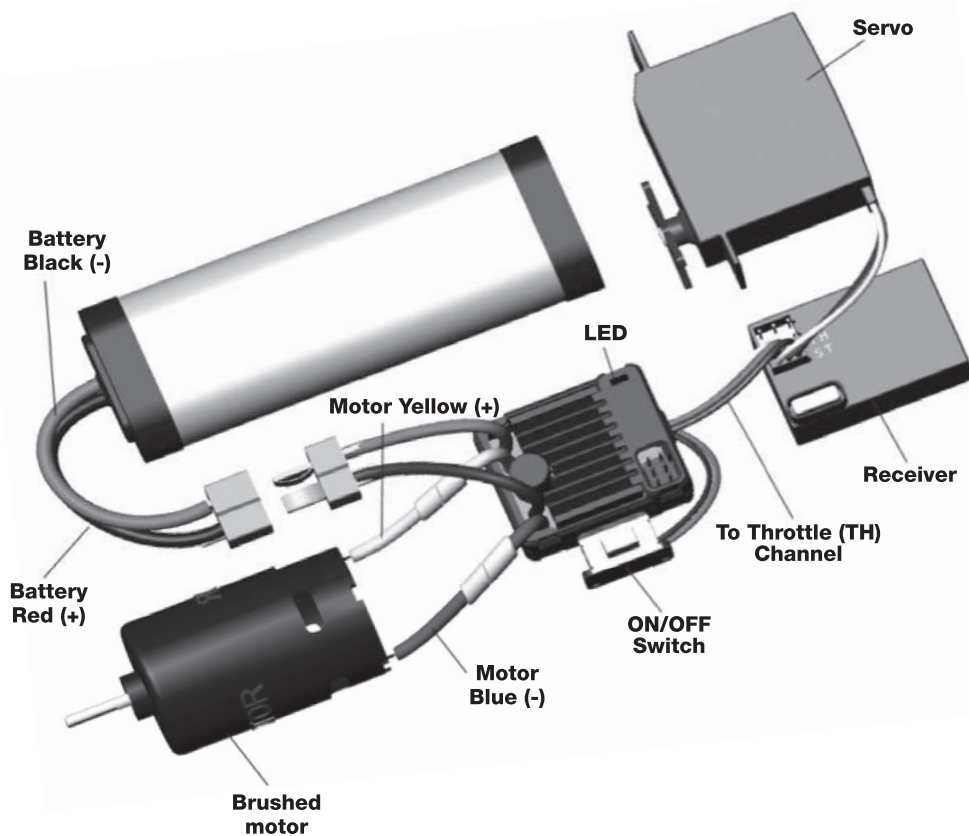
Cells	2-3 liPo, 5-9 NiMH	
Current	For 40A/180A, Rev 20A/90A	
Suggested Applications	1/10 buggy, truck, touring car, crawler	
Resistance (Ω)	0.002 ohm, Rev 0.004 ohm	
Brakes	Proportional	
Motor Limit	2S LiPo/5-6 NiMH	540/550 12-Turn
	3S LiPo/7-9 NiMH	540/550 18-Turn
Reversible	Yes	
Low Voltage Cutoff	Yes	
Dimensions (mm)	46.5 x 35.5 x 27.5	
Weight	65.4g	
Power Wires	16-Gauge Silicone	
Connector	Battery/T-Plug Motor/Bullet	

SAFETY PRECAUTIONS

This product is a sophisticated hobby product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or property. This product is not intended to be used by children without direct adult supervision. It is essential to read and follow all instructions and warnings found in this manual prior to installation, set up, and use, in order for the product to operate properly and to avoid damage or injury.

INSTALLATION

- Mount your ESC and switch securely using high quality double-sided tape.
- Install your ESC in a position that allows easy access to all connectors.
- Plug the ESC's receiver wire into the receiver (refer to radio manufacturer's manual).
- To prevent radio interference, arrange ESC wiring so that it is not in close proximity to the receiver antenna wire.
- Connect the motor leads exiting the ESC to the leads exiting the motor observing the correct polarity indicated by matching wire colors.
- Always power ON your transmitter before the ESC and power OFF the ESC before the transmitter.



PROGRAMMING YOUR ESC

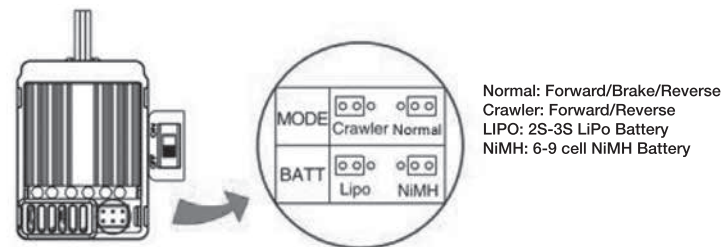
Both the run mode and battery type can be programmed using the jumpers. By moving the position of the jumper, you are able to select the desired setting.

LiPo and NiMH Battery Modes: A choice of either LiPo mode or NiMH mode activates the low voltage cutoff point. This is particularly important when using LiPo batteries that should not, for performance and safety reasons, be discharged below 3.2V per cell.

Run Mode: The NORMAL setting is appropriate for most applications. This allows standard forward and brakes operation. Reverse can be activated when you apply maximum brakes, return the trigger to neutral, and immediately apply brakes again. The vehicle will now move in reverse until forward throttle is applied.

Please see the diagram below to select the appropriate jumper position. Note: If no jumpers are installed, the ESC automatically defaults to LiPo and Normal.

WARNING: FAILURE TO SELECT LIPO MODE WHEN USING LIPO BATTERIES MAY RESULT IN PERMANENT DAMAGE TO THE BATTERY AND/OR FIRE.



THROTTLE CALIBRATION

Each time you install a new ESC, a new transmitter, or after changing the neutral position, ATV or EPA parameters on your radio, the throttle range must be re-calibrated. The ESC will not work properly until it has been calibrated.

1. Set your radio's throttle and brake EPA/ATV and D/R (Dual Rate) to 100% and your throttle trim to neutral.
2. Making sure the throttle trigger is in the neutral position, turn on the transmitter and then the ESC. Wait for three seconds to allow the ESC to execute a self-test and throttle calibration.
3. When a long beep is emitted, the calibration procedure is complete and the ESC is ready to use.



Note: ESCs that came installed in an RTR vehicle have already been calibrated and are ready to use.
Note: Each time the ESC is turned on; it will perform a self test and verify throttle calibration.

SOUND AND LED STATUS

When your ESC is switched on:

- One short beep: The battery is NiMH/NiCd mode
- Two short beeps: The battery is in LiPo mode, 2S connected
- Three short beeps: The battery is in LiPo mode, 3S connected
- One long beep: The self-test and throttle calibration is complete, and the ESC is ready to run

LED Status:

- When the throttle trigger is at neutral, the red LED is off
- When the throttle trigger is at partial throttle, brake, or reverse, the red LED blinks
- When the throttle trigger is at full throttle, brake, or reverse, the red LED is solid