## 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 3.4V per cell (4S=13.6V, 6S=20.4V).

**Note:** The Low Voltage Cutoff Protection works only when the ESC is set in LiPo mode. If you fail to switch the ESC to NiMH mode when using a NiMH battery, Low Voltage Cutoff Protection will continue to activate when it reaches the minimum voltage threshold.

#### **Thermal Protection**

If the temperature of the ESC exceeds the maximum threshold for more than five seconds, the ESC will cut off the output power and the LED will flash green.

#### **Throttle Signal Loss Protection**

If the throttle signal is lost for more than 0.2 seconds, the ESC will cut output power.

## **ALERTS**

## **Abnormal Input Voltage**

If the input voltage is below the normal range when powered ON, the ESC will emit a "beep-beep-" tone at one second intervals.

#### **Abnormal Throttle Signal**

When the ESC does not detect a normal throttle signal, the LED will flash.

## 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.

TROUBLESHOOTING				
Problem	Cause	Solution		
After powering ON the ESC, the motor does not work and no sound is emitted	The connections between battery pack and ESC are incorrect	Check the power connections		
		Replace the connectors		
After powering ON the ESC, the motor does not work but emits a "beep-beep" alert tone at one second intervals	Input voltage is too high or too low	Check the voltage of the battery pack		
After powering ON the ESC, the motor does not work but emits a "beep" alert	Abnormal throttle signal	Be sure the transmitter is working properly and that the batteries are charged		
tone at one second intervals and the and the red LED is illuminated		Check the receiver plug connection		
After powering ON the ESC, the motor does not work and the	The neutral point of the throttle channel has changed	Re-calibrate the throttle range of the ESC		
red LED blinks very quickly		Adjust the throttle trim to change the neutral point		
The motor runs in the opposite direction	The wire connections between the ESC and the motor need to be changed	Swap any two wire connections between the ESC and the 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 Protection mode	Re-charge the battery/install a fully charged battery		
	The ESC has entered Thermal Protection mode	Allow the ESC to cool down		
Intermittent operation or random stopping/starting	Poor connections	Verify that the battery pack, receiver, and motor connections are correct		
	Strong electromagnetic interference	Move to another area to operate the vehicle or wait until the interference has subsided		



Congratulations on your purchase of the Reedy SC1500-BL Brushless 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 SC1500-BL Brushless ESC is water-resistant for maximum durability. Its robust design installs in most 1/8 buggies, truggies, monster trucks, and short course trucks. When paired with Reedy brushless motors, a potent combination of power and efficiency is created resulting in quick acceleration, high top speeds, generous run times, and more fun!

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

# **FEATURES**

- LiPo low-voltage cutoff protection
- · LiPo cell auto-detect
- Fully proportional brakes
- Durable case with aluminum heat sink
- Pre-wired cooling fan

- Water-resistant
- · Heavy duty silicone wires
- Low-resistance T-plug connector
- 4.0mm motor connectors

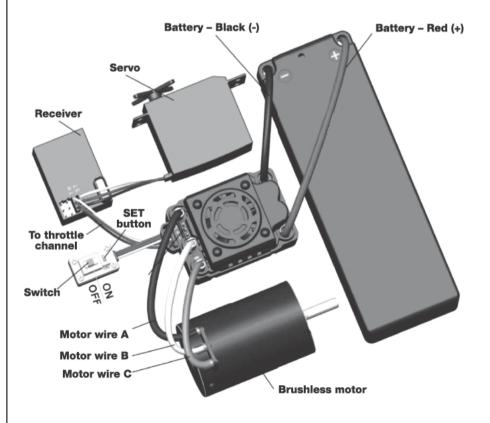
SPECIFICATIONS		
Cells		3-6 liPo, 8-18 NiMH
Suggested Applications		1/8 Buggy, Truggy, Monster Truck, SCT
Resistance ( $\Omega$ )		0.00035 ohm
Brakes		Proportional
Motor Limit	4S LiPo, 8-12 NiMH	3000kV
	6S LiPo, 13-18 NiMH	2400kV
Reversible		Yes
Low Voltage Cutoff		Yes, w/Cell Auto-Detect
Dimensions (mm)		59.5 x 48.0 x 42.0
Weight		178.0g
Power Wires		12-Gauge Silicone
Connector		Battery/T-Plug Motor/4.0mm sockets

## **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 three motor leads exiting the ESC to the three leads exiting your motor. If the motor runs backwards when giving it forward throttle, reverse any two motor leads. The motor will now run the desired direction.
- Always power ON your transmitter before the ESC and power OFF the ESC before the transmitter.



## THROTTLE CALIBRATION

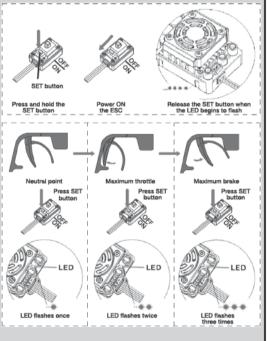
Each time you install a new ESC, a new transmitter, or after changing the neutral position, ATV or EPA parameters on your radio, the throttle range must be re-calibrated. The ESC will not work properly until it has been calibrated.

There are three points that need to be set – maximum throttle, maximum brake, and the neutral point. The following steps and accompanying diagram illustrate the procedure.

Note: ESCs that came installed in an RTR vehicle have already been calibrated and are ready to use.

- 1. Set your radio's throttle and brake EPA/ATV to 100% and your throttle trim to neutral, and then turn on your transmitter.
- 2. Press and hold the SET button while powering ON the ESC. When the LED begins to flash. release the SET button immediately.
- 3. With the throttle trigger at neutral, press the SET button to save the neutral position verified by one flash of the LED.
- 4. Move the throttle trigger to the full throttle position and press the SET button to save the full throttle position verified by two flashes of the LED.
- 5. Move the throttle trigger to the maximum brake position and press the SET button to save the maximum brake position verified by three flashes of the LED.
- 6. Return the throttle trigger to the neutral position. After three seconds, the ESC will automatically exit the calibration procedure and the ESC is ready to use.

Green LED = LiPo mode Red I FD - NiMH mode



Associated Electrics, Inc. declares that this product complies with the essential requirements and other relevant provisions of the European directive 2014/30/EU.



The crossed-out wheeled bin means that within the European Union, this product must be taken to a separate waste collection facility at the product's end of life. Do not dispose of this product as unsorted municipal waste.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or change to this equipment. Such modifications or change could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.15 Subpart B.