



# MICRO BRUSHLESS ESC

## Introduction

Congratulations on your purchase of Reedy's Micro Brushless Electronic Speed Control (ESC). The latest electronics technology along with the design and engineering experience that is responsible for 28 World Championship titles has been incorporated into its design.

Reedy's Micro Brushless ESC is light and compact, making it perfect for installation in the tight confines of 1/18th scale vehicles. Simple calibration and a wide variety of tuning options make this ESC perfect for the casual enthusiast and the serious racer. When paired with a Reedy Micro Brushless Motor, you create a potent combination of power and efficiency that brings performance to a new level. More power and less maintenance elevate the fun factor by increasing top speeds and reducing down time.

**Please read the following before installing and operating your new ESC.**

## Features

- Quick Touch Programming
- Fully Proportional Brakes
- Adjustable Drag Brake
- Adjustable Throttle Profile
- Reversible With Brakes Only Option
- Adjustable Low Voltage Cutoff
- Hard Case with Aluminum Heat Sink

## Specifications

Cells	2-3 LiPo, 6-8 NiMH
On Resistance	0.1Ω
Brakes	Proportional
Reversible	Yes, w/Brakes Only Option
Low Voltage Cutoff	Adjustable
Dimensions	35mm x 26mm x 21mm
Weight w/Wires	31g (1.1oz)
Power Wires	16AWG Silicone
Connector Type	Motor/3.5mm socket, Battery/none

## Installation

- Install the appropriate battery connector on the positive and negative ESC battery wires.
- Mount your ESC securely using double-sided tape.
- Install your ESC in a position that allows easy access to all connectors and the set-up button.
- Plug the ESC's receiver wire into the receiver.
- 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.

## 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 to be used by children without 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.

## Specifications

Your new ESC must be calibrated before use. Before calibration, be sure to set your radio's throttle and brake EPA to 100% and your throttle trim to neutral. Then follow the steps outlined below.

Step #	Procedure	Signal From ESC	
		Audio	LED
1	Throttle position to maximum		
	Power ON transmitter		
2	Power ON ESC	bi-bi-bi	green/red flash
3	Press ESC "Set" button	bibi-bibi	green
4	Throttle position to neutral		green/red flash
5	Press ESC "Set" button	bibi-bibi	green
6	Throttle position to maximum brake		green red flash
7	Press ESC "Set" button	bibi-bibi	green
8	Throttle position to neutral		
9	Power OFF ESC and transmitter		

Once the calibration procedure is complete, turn on your transmitter, then your ESC, and begin operating your vehicle.

## Setting Adjustments

Your ESC comes pre-programmed and can be used immediately. But you can also change the settings based on the type of vehicle and battery used as well as personal performance preferences based on the track you are driving on and your driving style.

**Drag Brakes** - Drag Brake is the amount of braking achieved when the throttle is returned to neutral. A setting of 0% means the vehicle will free wheel to a stop while higher settings will stop the car faster. Please note that regardless of the drag brake setting, you will still be able to use the brake trigger to manually slow the car. This push brake action can be adjusted by changing your transmitter's brake EPA setting.

**Throttle Profile** - This setting adjusts the power delivery of your ESC/motor combination. The Very Soft setting can be used on loose or bumpy track to reduce wheel spin while the Maximum setting works well when high traction is available. Four settings provide options for any track condition.

**Run Mode** - This gives the option of using reverse or eliminating it completely (for competition). With reverse activated, you will still have fully proportional braking. Reverse will engage after a one-second delay beginning when the vehicle comes to a complete stop. Reverse with Safe Brake brings a reversing vehicle to a complete stop before forward motion can begin again.

**Battery Management System** - A choice of either LiPo mode or NiMH mode adjusts the low voltage cutoff point. This is particularly important when using LiPo batteries that should not, for performance and safety reasons, be discharged below 3.0V per cell. In LiPo mode, the ESC detects whether you are using 2 or 3 cells and adjusts the cutoff accordingly.

To change your ESC settings, please follow the steps below. Note: Once you enter the settings mode, the ESC will scroll through all options. If you fail to choose a setting, the ESC will keep the previously saved setting.

For example, if you want to change the throttle profile from Soft to Standard, enter the setting mode. You will encounter the Drag Brake mode first at which time you can let the ESC scroll through the choices (the previously saved setting will be kept) until you reach the Throttle Profile choices. You must make the selection when the ESC scrolls to the desired setting (in this case Standard). Once this setting (or any setting for that matter) is chosen, you can skip to Step #8 if no other changes are desired.

Step #	Procedure	Signal From ESC	
		Audio	LED
1	Throttle position to maximum		
	Power ON transmitter		
2	Power ON ESC	bi-bi-bi	green/red flash
3	Press/hold ESC "Set" button for 3 sec.	bibibibibibi	green
4	<b>Drag Brakes</b>		
	0%	1-1	
	10%	1-2-2	
	15% (default)	1-2-2-2	
	25%	1-2-2-2-2	green/red flash
4	Press/hold ESC "Set" button to select value	bibi-bibi	green
5	<b>Throttle Profile</b>		
	Very Soft	1-2-2	
	Soft (default)	1-2-2-2	
	Standard	1-2-2-2-2	
	Maximum	1-2-2-2-2-2	green/red flash
5	Press/hold ESC "Set" button to select value	bibi-bibi	green
6	<b>Run Mode</b>		
	Reverse Off (Forward Only)	1-2-2-2	
	1-Second Reverse	1-2-2-2-2	
	1-Second Reverse w/Safe Brake (default)	1-2-2-2-2-2	green/red flash
6	Press/hold ESC "Set" button to select value	bibi-bibi	green
7	<b>Battery Management System</b>		
	NiMH 4.5V Cut-Off	1-2-2-2-2	
	LiPo 3.0V/Cell Cut-Off (default)	1-2-2-2-2	green/red flash
7	Press/hold ESC "Set" button to select value		green
8	Power OFF ESC and transmitter	bibi-bibi	
9	Power ON transmitter and ESC	bi-bi-bi-bi-bi	green static

## Warranty

Your ESC is guaranteed to be free of manufacturer's defects at the time of purchase. Product that has been mishandled, abused, used incorrectly, used for an application other than intended, or damaged by the user are 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.

#900	Micro Brushless ESC
#910	Micro Brushless Motor 5000kV
#911	Micro Brushless Motor 5500kV
#912	Micro Brushless Motor 6100kV
#913	Micro Brushless Motor 7000kV
#914	Micro Brushless Motor 8000kV
#915	Micro Brushless Motor 9500kV
#930	Micro ESC w/5000kV Motor
#931	Micro ESC w/5500kV Motor
#932	Micro ESC w/6100kV Motor
#933	Micro ESC w/7000kV Motor
#934	Micro ESC w/8000kV Motor
#935	Micro ESC w/ 9500kV Motor



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