

**For Immediate Release:** September 26, 2022

## New! Reedy Blackbox 610R Competition ESC

When released in 2017, the Reedy Blackbox 510R set the standard for drivability and braking feel in the RC racing world. Now, after months of rumors and gossip, the all-new Reedy Blackbox 610R is available to racers worldwide!

Updated hardware, new tuning options, and extensive competition testing by Reedy's engineering and racing team will not go unnoticed. The end result? Greater performance, higher quality, and a more reliable ESC for racers of all skill levels. World-class throttle and brake feel with precision adjustability makes the Blackbox 610R the ideal choice for stock/spec and modified class 1:10 on-road and off-road racing applications.

### Features

- CNC machined black aluminum case with integrated heat sink
- Fully adjustable brake, throttle, power, and safety functions\*
- Blinky mode with ROAR approved software
- Precision throttle and brake control
- Ultra-low resistance FET board
- 32-bit microcontroller unit (MCU)
- On-board power button
- Solder tabs with 13-gauge power wires
- Pro external capacitor board
- RPM and ESC temp data logging\*
- Firmware updateable\*

*\*Requires #27027 Blackbox Programmer*



### Blackbox 610R Specifications

Feature	Specification
Voltage Input	2S LiPo
Suggested Applications	1:10 off-road, 1:10 on-road
Resistance ( $\Omega$ )	0.00043
Continuous Current (A)	160
Dimensions (mm)	38.5 x 36.9 x 19.5
Motor Limit	4.5T
Weight w/o wires & fan (g)	45
BEC	Adjustable 6.0-7.4V/5A
Power Wires	13-gauge silicone
Fan	Optional

## Programmable Functions

Default settings have been developed by our racing team for excellent performance out of the box, but the maximum potential of the 610R can be exploited by using the optional Blackbox Programmer2 to fine tune a wide variety of settings. In addition to working as a programmer, the Programmer2 functions as a LiPo battery voltage checker and as a USB firmware update device.

The 610R ESC includes two modes that can be modified and saved independently of one another. Standard mode offers a wide variety of tuning options while Expert mode takes it one step further and opens additional options for more experienced racers and/or racing classes that can take advantage of these advanced settings.

The following functions can be modified and saved using the Blackbox Programmer2:

### Brake

Overall brake strength, frequency, drag brake, initial brake, and punch can be adjusted to perfect brake performance and feel in different vehicles and track conditions. A new brake mode selection offers a choice of three braking options to suit the driver's personal preference and track conditions.

### Throttle

Drive frequency, punch, initial throttle, current limit, and dead-band adjustability make the ideal setup possible regardless of the type of motor chosen and the type of vehicle being raced.

### Motor Power

Advanced acceleration boost and top speed timing settings are particularly useful on large or high-grip tracks in modified classes or in stock classes when ESC timing is permitted. Settings can be used individually or together to achieve maximum acceleration and top speed. New soft power and coast settings create fine tuning options to adjust low-end power to suit various track conditions and drivability requirements. Standard tuning mode simplifies timing adjustments for less experienced racers or in newer users or in applications where advanced settings are not required.

### Miscellaneous Control

Choose Forward/Brake or Forward/Brake/Reverse mode and adjust the BEC output voltage to fine tune servo speed to suit driver preference. Select the desired low voltage cutoff or disable it completely. The temperature at which the ESC cuts motor power due to overheating can also be adjusted or disabled. For vehicles that require it, reversing the rotation of the motor is possible.

#### Notes:

To program the Blackbox 610R, the #27027 Programmer with firmware version EE460139 must be used. This version is already installed when purchasing the #27017 610R/Programmer combo. Firmware updates and Blackbox Link version 2.6 can be found on the 610R product page at [www.reedypower.com](http://www.reedypower.com).

The full list of programmable functions can be found in the chart following:

		Tuning Mode	Standard, Expert			
Brake	1A	Drag Brake	0% - 16%, (2% increments), Custom 0% - 100% (1% Increments)			
	1B	Brake Strgth	75% - 150% (5% Increments)			
	1C	Init Brake	= Drag Brake, 0% - 16% (2% increments), Custom 0% - 50% (1% increments)			
	1D	Brake Freq	500Hz, 1KHz, 1.5KHz, 2KHz, 2.5KHz, 3KHz, 4KHz, 6KHz, 8KHz, 12KHz, 16KHz			
	1E	Brake Punch	Level 1-20			
	1F	Brake Mode	Linear, Traditional, Hybrid			
Throttle	3A	Punch Ctrl	Level 1-30			
	3B	Init Throttle	0% - 40% (1% increments)			
	3C	Drive Freq	1KHz, 2KHz, 3KHz, 4KHz, 6KHz, 8KHz, 12KHz, 16KHz, 24KHz, 32KHz			
	3D	Deadband	2% - 12% (1% increments)			
	3E	Current Limit	50% - 100% (1% increments)			
Motor Power			Standard		Expert	
	5A	Timing Level	Level 0 - 0° Blinky	4A	BT Soft Pwr	0° - 20° (1° increments)
			Level 1 - 3°	4B	BT Soft Rng	0% - 75% (5% increments)
			Level 2 - 6°	4C	Coast Value	0% - 20% (1% increments)
			Level 3 - 9°	4D	Boost Timing	0° Blinky - 64° (1° increments)
			Level 4 - 12°	4E	Boost Tim Act	Auto, RPM
			Level 5 - 15°	4F	Boost ST RPM	500 - 35000 (500 RPM increments)
			Level 6 - 18°	4G	Boost End RPM	3000 - 60000 (500 RPM increments)
			Level 7 - 21°	4H	Turbo Timing	0° Blinky - 64° (1° increments)
			Level 8 - 24°	4J	Turbo Delay	Off, 0.05s - 1.0s (.05s increments)
			Level 9 - 27°	4K	Slew Rate	3°/0.1s - 30°/0.1s (1° increments), Instant
	Level 10 - 30°	4L	Release Rate	3°/0.1s - 30°/0.1s (1° increments), Instant		
Misc. Control	6A	Run Mode	For/Brake, For/Brake/Rev			
	6B	Reverse Power	25%, 50%, 75%, 100%			
	6C	Batt Cutoff	None, 3.2V/cell, 3.4V/cell			
	6D	ESC Temp Cut	Off, 221F/105C, 257F/125C			
	6E	Mot Rotation	Normal/Reverse			
	6F	BEC Voltage	6.0V-7.4V (.1V increments)			
	6G	Reset Default	No/Yes			

UPC	Part No.	Description	MSRP	Available
784695 270169	27016	Blackbox 610R Competition ESC	\$319.99	<a href="#">BUY NOW!</a>
784695 270176	27017	Blackbox 610R Competition ESC w/Programmer	\$384.99	<a href="#">BUY NOW!</a>