

ESC FIRMWARE MODE DESCRIPTIONS

General Settings	Explanation & Recommended Settings
Running Mode	Includes "Forward/Brake," "Forward/Reverse," and "Forward/Brake/Reverse" modes. Recommended Settings: Racing: Forward/Brake Play: Forward/Brake/Reverse
Low Voltage Cutoff	Helps prevent over-discharging of LIPO batteries which will cause battery failure. Recommended Setting: 6.8 volts for 2S Lipo 10.2 volts for 3S Lipo
ESC Overheat Protection	When ESC reaches selected temperature it will reduce power to protect the ESC from failure: Recommended Setting: 95 degree
Motor Rotation	Allows the motor rotation to be set in reverse for vehicles that require that feature.

Brake Settings	Explanation & Recommended Settings
Initial Brake	The motor's initial brake percentage when applying brakes. The higher the value the harder the brake will engage initially. Recommended Settings: If using drag brake set to use drag brake. If not using any drag brake set to desired braking amount when you initially apply brake such as 10%.
Drag Brake	The amount of brake force that the ESC applies to the motor while coasting. Recommended Setting: Off-road Mod: 10-15%, Off-Road Stock: 5-10% On-Road Mod: 15-20% On-Road Stock: 0-5%
Brake Force	The maximum amount of brake the ESC can apply. Increase for stronger brakes, decrease for softer braking feel. Recommended Setting: 67.5%
Brake Rate A	The punch feel of the brakes between the neutral position on the transmitter and the switch point. Recommended Setting: 20
Brake Rate B	The punch feel of the brakes between switch position and 100% brake on the transmitter Recommended Setting: 20
Switch Point	The selection point to change the brake punch rate between Brake Rate A and Brake Rate B punch settings. Recommended Setting: 50%
Brake Curve	Allows selection of a linear or custom curve. Recommended Setting: Linear

Throttle Settings	Explanation & Recommended Settings
Punch Rate A	The punch feel of the throttle between the neutral position on the transmitter and the switch point. Recommended Setting: Stock Classes: 30 Modified Off-Road: 8-15 Modified On-Road: 20-30
Punch Rate B	The punch feel of the throttle between the switch position and 100% throttle on the transmitter Recommended Setting: Stock Classes: 30 Modified Off-Road: 8-15 Modified On-Road: 20-30
Switch Point	To select the point to change the throttle punch rate between Punch Rate A and Punch Rate B settings. Recommended Setting: 50% Typically the team drivers will use the same punch rate for both Punch Rate A and Punch Rate B. But sometimes it may be useful to have a soft feeling motor for the first part of the throttle curve and then switch over to a more aggressive power delivery later in the throttle position.
Throttle Curve	Allows selection of a linear or custom curve. Recommended Setting: Linear
Throttle Reverse SPD	Controls the maximum power delivered to the motor in reverse. The higher the value the faster the vehicle will be in reverse.

Use Throttle Boost and Throttle Turbo with extreme caution. Only make small adjustments at a time. Use a temp gun and make sure the motor stays below 160° Fahrenheit / 71° Celsius.

Throttle Boost	Explanation & Recommended Settings
Timing Boost	Timing to the motor when the start RPM is reached. The higher the boost, the motor power to the motor but also the more heat is generated.
Start RPM	The RPM that the timing boost begins to engage. The lower the value the more punch, the higher the value the smoother the power delivery.
End RPM	The RPM to end the timing boost function. In modify classes it's suggested to have a large RPM range as this will smooth the power delivery and reduce heat. In stock, a smaller RPM range can provide more instant feel of power.
Burst Rate	Controls the boost slope. The higher the value the more quickly the timing boost will ramp up throughout the RPM range.
Power Saving Mode	Helps increase runtime but will reduce overall power.
Throttle Turbo	Explanation & Recommended Settings
Turbo Timing	Usually used to add timing once the motor has already reached maximum RPM on the tracks longer straights. The higher the value, the motor power the motor will have at top speed giving more speed.
Start RPM	The RPM that the timing boost begins to engage. The lower the value the more punch, the higher the value the smoother the power delivery as throttle turbo is applied.
Turbo Delay	The delay time to start the turbo timing once the activation method is achieved.
Activation Method	The method in which the turbo timing will be activated. It's recommended to use "Start RPM + Full Throttle" which means the turbo timing will not be engaged until both the RPM and Full Throttle is detected by the ESC.
Turbo Rate "On" Slope	Controls how fast the ramp up the timing. A higher value will ramp the timing quickly giving a more punched feel and a lower value will smooth the delivery.
Turbo Rate "Off" Slope	Controls how fast the motor RPM will decrease when the throttle is returned to neutral position.
Turbo K Level	The higher the K value, the turbo start come on more quickly. It is special design for the stock motor usage. Use with caution.
Turbo T Level	The higher the T value will give a feeling of more top end speed. It is specially designed for stock motor usage. Use with caution.