



MX10 Series ESC



Specifications

	TRI-1079 MX10 Gen3	TRI-1081 MX10 Spec/Blinky
Cont. Current	160A	120A
Burst Current	1200A	600A
Applications	1:10 Vehicle	1:10 Vehicle
LiPo/NiMH Cells	2S LiPo Only	2S LiPo Only
BEC Output	5V - 7.4V Adjustable	5V - 7.4V Adjustable
Dimensions (L x W x H)	35mm x 33.6mm x 30.3mm	35mm x 33.6mm x 30.3mm
Weight	101.5g	93g
Programming Port	Independent programming interface	

Connect

Battery Wire Connection

When connecting the battery, pay attention to polarity. Incorrect connection will damage the ESC and battery.

Connect the positive (+) wire to the positive (+) battery port. Connect the negative (-) wire to the negative (-) battery port.

Motor Wire Connection

1. Sensored Mode

With a sensored brushless motor, connect the three A/B/C ESC wires to the corresponding A/B/C motor wires. Do not change the wire sequence. Motor rotation reversal can only be accomplished via programming. Connect the sensor wire to the "Sensor" port on the ESC.

2. Sensorless Mode

With a sensorless brushless motor, connect the A/B/C wires to the motor wires interchangeably. If the motor runs opposite the desired direction, swap any two wire connections to reverse the rotation.

Receiver Wire Connection

The signal wire supplies 6.0V from the ESC to the receiver, servo, etc. There is no need to connect an additional battery.

NOTICE: Connecting additional external battery power to the receiver may damage the ESC.

ESC Negative (-) wire	RX-
ESC Positive (+) wire	RX+6.0V
ESC Signal (□) wire	RX Signal

Power On and Calibrate

Power On/Off ESC

1. Press the power button to power ON the ESC. The LEDs will light.
2. Press and hold the power button to power OFF the ESC. The LEDs will turn off.

NOTICE: Put the throttle trigger in neutral, within 10%, otherwise the ESC will not power OFF.

Throttle Calibration

1. Connect the ESC with the battery and receiver.
2. Power ON the transmitter.
3. Press and hold the power button until the blue LED turns solid. The motor emits a long beep. Release the power button. The red LED turns solid, and the ESC enters calibration mode.

4. Pull the throttle trigger to full throttle. The blue LED blinks three times, and the motor beeps once indicating the full throttle position is saved.

NOTICE: Do not move the throttle when the blue LED is blinking.

5. Push the throttle trigger to the full brake position. The blue LED blinks three times, and the motor beeps twice indicating the full brake position is saved.
6. Release the throttle trigger to neutral. The blue LED blinks three times, and the motor beeps three times indicating throttle calibration is complete.

The ESC supports reverse throttle calibration.

You do not need to restart the ESC after throttle calibration is complete.

Power On, Operation, Power Off and Calibrate

Power On/Off ESC

1. Press the power button to power ON the ESC. The LEDs will light.
2. To prevent accidental shutdown, the power button will not shut off the ESC when the motor is running.
3. Press and hold the power button to power OFF the ESC. The LEDs will turn off.

WARNING: The aluminum casing may become hot during operation. We recommend using the included remote power button to prevent physical injury during shutdown. In the event the remote power button is not installed we recommend using the "auto off" parameter options, or letting the ESC cool naturally for at least two minutes before pressing the power button on the ESC case.

Programming Table

Section	Item	Programmable Items	Parameter Value															
General Settings	1A	Settings Mode*	Basic				Advanced											
	1B	Running Mode*	Forward w/Brake				Forward/Reverse w/Brake				Forward and Reverse							
	1C	Max Reverse Force*	25%				50%				75%				100%			
	1D	Cutoff Voltage*	Disabled				Auto (3.5V/Cell)				3.0V–7.4V Adjustable (Step:0.1V)							
	1E	ESC Thermal Protection*	Disabled				221°F/105°C				257°F/125°C							
	1F	Motor Thermal Protection*	Disabled				221°F/105°C				257°F/125°C							
	1G	BEC Voltage*	Disabled				5.0V–7.4V Adjustable (Step:0.1V)											
	1H	Smart Fan*	Disabled				Enabled											
	1I	Auto Off*	Disabled				Remote Off				Delay 5 Minutes				Delay 10 Minutes			
	1J	Sensor Mode	Full Sensored				Sensored/Sensorless Hybrid											
	1K	Motor Rotation	CCW				CW											
	1L	Phase-AC Swap	Disabled				Enabled											
Throttle Control	2A	Throttle Rate Control*	1–30 Adjustable (Step: 1)															
	2B	Throttle Curve	-10~10 (Step: 1)				Customized											
	2C	Neutral Range	3%–10% Adjustable (Step: 1%)															
	2D	Initial Throttle Force	1–15 Adjustable (Step: 1)															
	2E	Coast	0–15% Adjustable (Step: 1%)															
	2F	PWM Drive Frequency	2K-32K(Step: 1)				Customized											
	2G	Softening Value*	0–30° Adjustable (Step: 1°)															
	2H	Softening Range*	0%	10%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%		
	2I	Freewheeling*	Disabled				Enabled											
	2J	RPM Decrease Rate	1–20 Adjustable (Step: 1)															
Brake Control	3A	Drag Brake Force*	0%–100% Adjustable (Step: 1%)															
	3B	Drag Brake Rate*	Auto				1–20 Adjustable (Step: 1)											
	3C	Drag Brake Frequency	0.5K				1K–16K (Step: 1K)											
	3D	Max Brake Force*	0%–150% Adjustable (Step: 1%)															
	3E	Brake Rate Control	1–20 Adjustable (Step: 1)															
	3F	Brake Control	Linear				Traditional				Disc Brake							
	3G	ABS Force	0%–20% Adjustable (Step: 1%)															
	3H	Brake Curve	-10–10(Step: 1)				Customized											
	3I	Brake Frequency	0.5K				1K–16K (Step: 1K)											
Timing (TRI-1079 only)	4A	Boost Timing*	1–64° Adjustable (Step: 1°)															
	4B	Boost Timing Activation	Auto				RPM				Throttle							
	4C	Boost Start RPM	500-35000RPM (Step: 500RPM)															
	4D	Boost End RPM	3000-60000RPM (Step: 500RPM)															
	4E	Boost Start Throttle	1%–90% (Step: 1%)															
	4F	Boost End Throttle	10%-100% (Step: 1%)															
Turbo (Timing) (TRI-1079 only)	5A	Turbo Timing*	0–64° Adjustable (Step: 1°)															
	5B	Turbo Delay*	Instant	0.05s	0.1s	0.15s	0.2s	0.25s	0.3s	0.35s	0.4s	0.45s	0.5s	0.6s	0.7s	0.8s	0.9s	1.0s
	5C	Turbo Increase Rate (/0.1s)*	Instant	1°	2°	3°	5°	8°	12°	16°	20°	25°	30°					
	5D	Turbo Decrease Rate (/0.1s)*	Instant	1°	2°	3°	5°	8°	12°	16°	20°	25°	30°					
Configuration	6A	Motor Poles*	2–10 Adjustable (Step: 2)															
	6B	Gear Ratio*	2.0–12.0 Adjustable (Step: 0.1)															
	6C	Tire Diameter*	30mm–150mm (Step: 1)															

IMPORTANT: The PWM Drive Frequency, Brake Frequency, Brake Control, Boost Timing, Turbo Timing and relevant items are not programmable (item 2F, 3I, 3F and 8 items from 4A to 5D are not programmable) when Sensor Mode (Item 1H) is set to “Sensored/Sensorless Hybrid”.

Programming Functions

Power On/Off ESC

1A. Settings Mode

In Basic mode, only some basic and commonly parameter items are displayed, see the items marked with an asterisk (*) in the parameter table. While in Advanced mode, all parameter items will be displayed.

1B. Running Mode

Option 1: Forward with Brake Racing mode. It has only forward and brake functions.

Option 2: Forward/ Reverse with Brake. This option is known to be the "training" mode with "Forward/ Reverse with Brake" functions. The vehicle only brakes on the first time you push the throttle trigger to the reverse/brake position. If the motor stops when the throttle trigger return to the neutral position and then re-push the trigger to reverse position, the vehicle will reverse, if the motor does not completely stop, then your vehicle won't reverse but still brake, you need to return the throttle trigger to the neutral position and push it to reverse again. This method is for preventing vehicle from being accidentally reversed.

Option 3: Forward and Reverse. The motor will reverse immediately when the throttle trigger is pushed to reverse position. This mode is generally used in special vehicles.

1C. Max. Reverse Force

The reverse force of the value will determine its speed. For the safety of your vehicle, we recommend using a low amount.

1D. Cutoff Voltage

Sets the voltage at which the ESC lowers or removes power to the motor in order to either keep the battery at a safe minimum voltage (for LiPo batteries). The ESC monitors the battery voltage all the time, it will reduce the power and then cut off the output about 40 seconds later when the voltage goes below the cutoff threshold. The RED LED will flash a short, single flash that repeats to indicate the low-voltage cutoff protection is activated. Please set the "Cutoff Voltage" to "Disabled" or customize this item if you are using NiMH batteries.

Option 1: Disabled. The ESC does not cut the power off due to low voltage. We do not recommend using this option when you use any LiPo battery as you will irreversibly damage the product. You need to select this option when you are using a NiMH pack.

Option 2: Auto. The ESC calculates what the corresponding cutoff voltage for the battery shall be 7.0V(2S LiPo).

Option 3: Customized. The customized cutoff threshold is a voltage for the whole battery pack (adjustable from 3.0V to 7.4V).

1E. ESC Thermal Protection

After enabling this function, when the temperature of the ESC reaches the set value it will reduce the power and then cut off the output about 40 seconds later. The Blue LED will flash a short, single flash that repeats to indicate the over-heat protection is activated.

NOTICE: Do not disable this function unless you're in a competition. Otherwise the high temperature may damage your ESC and even your motor.

1F. Motor Thermal Protection

After enabling this function, when the temperature of the motor reaches the set value it will reduce the power and then cut off the output about 40 seconds later. The Blue LED will flash a short, double flash that repeats to indicate the over-heat protection is activated.

NOTICE: Do not disable this function unless you're in a competition. Otherwise the high temperature may damage your motor and even your ESC.

1G. BEC Voltage

BEC voltage can be adjusted between 5.0-7.4V. Set a reasonable value according to the working voltage of the servo.

1H. Smart Fan

This esc has a fan control function. If this item is set to "Disabled", the fan will continue to run once the ESC is powered on; If this item is set to "Enabled", the fan will start running after the internal temperature of the ESC exceeds 122F/50C°.

1I. Auto Off

When this option is set to "Disabled," the automatic shutdown function is disabled and manual shutdown is required; When set to "Remote Off", simply hold the throttle trigger in the maximum brake position for about 6 seconds and the ESC will automatically shut down; When set to "Delay 5 Minutes", if the throttle trigger is at the neutral position for 5 minutes without action, the ESC will automatically shut down; When set to "Delay 10 Minutes", if the throttle trigger is at the neutral position for 10 minutes without action, the ESC will automatically shut down.

1J. Sensor Mode

Option 1: Full Sensored. The power system will work in the "sensored" mode at all times. The efficiency and drivability of this mode is at the highest.

Option 2: Sensored/Sensorless Hybrid. The ESC operates the motor in sensored mode during the low-speed start-up process, followed by switching to operating the motor in the "sensorless" mode.

1K. Motor Rotation/Direction

Used to set the rotation direction of the motor. Due to differences in chassis frame structure it is possible for the car to reverse when the throttle is applied to forward. In this case, you can solve it by adjusting this item.

1L. Phase-AC Swap

If the A/B/C wiring between the motor and ESC does not align (For example, if the "A" wire of ESC is connected to the "C" wire of the motor, and the "C" wire of ESC connects to "A" wire on the motor), set this item as Enable.

NOTICE: When the A/B/C wiring between the motor and ESC are properly aligned, do not set to Enable. Using this feature when the A/B/C wiring is matched will damage the ESC and motor, and is not covered under the warranty.

2A. Throttle Rate Control

This item is used to control the throttle response. The higher the throttle rate, the more aggressive the throttle will be applied. A suitable rate can help driver to control the vehicle properly during the starting-up process.

2B. Throttle Curve

This parameter is used to set the throttle curve. The larger the curve setting, the stronger the throttle output in the previous stage; the smaller the curve setting, the softer the throttle output in the previous stage.

2C. Neutral Range

This parameter adjusts the range of the throttle neutral area to suit different transmitters and driver habits. If the neutral position of the transmitter is unstable, causing the car to move slowly forward or backward, or have difficulties calibrating the neutral range, the setting can be raised to correct the issue.

2D. Initial Throttle Force

It also called as minimum throttle force. You can set it according to wheel tire and traction. If the ground is slippery, please set a small throttle force. Some motors have strong cogging effect with lower FDR, if there is any cogging with very light throttle input, you can try to increase the initial throttle force.

2E. Coast

This function allows the motor to naturally and smoothly reduce rpm/speed, and the vehicle will not experience sudden deceleration during the throttle release process. The higher the value, the stronger the "coasting" feeling. When a vehicle has a larger final drive ratio, the tendency of having a "drag" feel is higher. The coast function is to allow the car to roll (coast) even when the final drive ratio is high. The coast function brings better and smoother control feeling to racers. Some drivers will refer to this to the traditional brushed motors.

IMPORTANT: The Coast setting will not work if the drag brake is not set to 0%.

2F. PWM Drive Frequency

The acceleration will be more aggressive at the initial stage when the drive frequency is low; a higher drive frequency is smoother but this will create more heat to the ESC. If set this item to "Customized", then the PWM frequency can be adjusted to a variable value at any 0-100% throttle input, Please choose the frequencies as per the actual test results of your vehicles.

2G. Softening Value

It allows users to fine-tune the bottom end, change the driving feel, and maximize the driving efficiency at different track conditions. The higher the "Softening Value", the softer the bottom end. Sometimes drivers may feel the power of the bottom end is too aggressive. Little throttle input usually brings too much power to the car and make it hard to control at the corners, this solution helps bottom end traction.

2H. Softening Range

It's the range to which "Softening Value" starts and ends. If set to 30% then the softening range will be from 0 throttle to 30% throttle.

2I. Freewheeling

When this function is enabled, it will slow down faster when releasing the throttle, provide better handling on the curve, and less heat under the same conditions.

2J. RPM Decrease Rate

This refers to the speed of rpm change when reducing the throttle, the higher the value, the faster the change. If you want to achieve the experience of natural sliding when reducing the throttle like normal brushless power, this value needs to be set to a low level.

IMPORTANT: This parameter only takes effect when the "Freewheeling" is set to "Enabled".

3A. Drag Brake

It is the braking power produced when releasing from full speed to neutral position. This is to simulate the slight braking effect of a neutral brushed motor while coasting. It's not recommended for buggy and monster truck.

IMPORTANT: Drag brake will consume more power and heat will be increased, apply it cautiously.

3B. Drag Brake Rate

This parameter is used to control the response of the drag brake. The higher the setting value, the faster the drag brake. "Auto" will intelligently adjust the drag brake rate according to the current speed, the higher the current speed, the lower the drag brake rate.

3C. Drag Brake Frequency

The drag brake force will be larger if the frequency is low, and you will get a smoother brake force when the value is higher. Please choose the frequencies as per the actual test results of your vehicles.

3D. Max. Brake Force

This ESC provides proportional braking function; the braking effect is decided by the position of the throttle trigger. It sets the percentage of available braking power when full brake is applied. Large amount will shorten the braking time but it may damage your pinion and spur.

3E. Brake Rate Control

This parameter is used to control the response of the brake. The higher the setting value, the faster the brake. A suitable rate can aid the driver to brake his vehicle correctly. Generally, you can set it to a high value to have a quick brake response.

3F. Brake Control

Option 1: Linear

We recommend using this mode under all circumstances. The braking effect is a bit weaker in this mode than in Traditional brake mode, but it's easy to control and brings great control feel.

Option 2: Traditional

This is the traditional brake mode, with slightly stronger brake force but not as smooth as Linear brake control.

Option 3: Disc Brake

With this braking method the braking force is not affected by the motor speed, it offers better brake linearity and stronger brake force.

3G. ABS Force

This parameter is used to set the brake force when the speed is relatively low, the higher the value,the greater the brake force. Setting this value appropriately according to the traction is beneficial for preventing wheel lockup and sliding, and it will help to control the vehicle when entering the corner.

IMPORTANT: This parameter only takes effect when the “Brake Control” is set to “Disc Brake”.

3H. Brake Curve

This parameter is used to set the brake curve. The larger the curve setting,the stronger the brake in the previous stage; the smaller the curve setting, the softer the brake in the previous stage.

3I. Brake Frequency

The brake force will be larger if the frequency is low; you will get a smoother brake force when the value is higher. If set this item to “Customized”, then the brake frequency can be adjusted to a variable value at any 0-100% throttle input. Please choose the frequencies as per the actual test results of your vehicles.

IMPORTANT: This parameter will take effect when the “Brake Control” is set to “Linear” or “Traditional”.

4A. Boost Timing

It is effective within the whole throttle range; it directly affects the car speed on straightaway and winding course. The ESC adjusts the timing dynamically according to the setting of the “Boost Timing Activation”. The Boost Timing is not constant but variable.

4B. Boost Timing Activation

Option 1: Auto

In Auto mode, the ESC adjusts the Boost Timing dynamically as per the throttle amount. Only at full throttle, the actual Boost Timing is the value you had previously set.

Option 2: RPM

In RPM mode, it is associated with the 4C and 4D parameter items. The actual Boost Timing is 0 when the RPM is lower than the Boost Start RPM. The Boost Timing changes as per the RPM when the RPM change is between the Boost Start RPM and the Boost End RPM. When the RPM is higher than the Boost End RPM, the actual Boost Timing is the value you had previously set.

Option 3:Throttle

In throttle mode,it is associated with the 4E and 4F parameter items. When the actual throttle is lower than the “Boost Start Throttle”,the actual Boost opening value is 0.When the throttle is between the “Boost Start Throttle” and “Boost End Throttle”,Boost dynamically changes according to the current throttle. When the actual throttle is higher than the “Boost End Throttle”, the actual Boost opening value is the Boost value you set.

4C. Boost Start RPM

This item defines the RPM at which Boost Timing is activated. For example, when the Boost Start RPM is set to 5000, the ESC will activate the corresponding Boost Timing when the RPM goes above 5000. The specific value is determined by the Boost Timing and the Boost End RPM you had previously set.

4D. Boost End RPM

This item defines the RPM at which Boost Timing (you specifically set) is applied. For example, when Boost Timing is set to 10 degrees and the Boost End RPM to 15000, the ESC will activate the Boost Timing of 10 degrees when the RPM goes above 15000. The ESC will adjust the Boost Timing accordingly as per the actual RPM when the RPM goes below 15000.

4E. Boost Start Throttle

This is used to set the start throttle required to activate the Boost timing. For example,when set to 10%,the Boost timing will only be activated when the throttle is above 10%.

4F. Boost End Throttle

This is used to set the throttle amount required to release all Boost timing. For example, when set to 90%,the full Boost timing value will only be released when the throttle is above 90%.When the actual throttle is between the start throttle and the end throttle,it is dynamically allocated based on the Boost timing you set.

5A. Turbo Timing

This item is adjustable from 0 degree to 64 degrees, the corresponding turbo timing (you set) will initiate at full throttle. It’s usually activated on long straightaway and makes the motor unleash its maximum potential.

5B. Turbo Delay

When “TURBO DELAY” is set to “INSTANT”, the Turbo Timing will be activated right after the throttle trigger is moved to the full throttle position. When other value(s) is applied, you will need to hold the throttle trigger at the full throttle position (as you set) till the Turbo Timing initiates.

5C. Turbo Increase Rate

This item is used to define the “speed” at which Turbo Timing is released when the trigger condition is met. For example, “3 °/0.1sec” refers to the Turbo Timing of 3° that will be released in 0.1 second. Both the acceleration and heat is higher when the “Turbo increase rate” is of a larger value.

5D. Turbo Decrease Rate

After the Turbo Timing is activated and the trigger condition turns to not be met (i.e. vehicle slows down at the end of the straightaway and gets into a corner, full throttle turns to partial throttle, the trigger condition for Turbo Timing turns to be not met), if you disable all the Turbo Timing in a moment, an obvious slow-down like braking will be felt and cause the control of vehicle to become bad. If the ESC can disable the Turbo Timing at some “speed”, the slow-down will be linear and the control will be improved.

IMPORTANT: Boost Timing & Turbo Timing can effectively improve the motor efficiency; they are usually used in competitions. Please take some time to read this manual and then set these two items carefully, monitor the ESC & motor temperatures when you have a trial run and then adjust the Timing and FDR accordingly as aggressive Timings and FDR may cause your ESC or motor to be permanently damaged.

6A-6C. Configuration

These settings are mainly used to set parameters related to the calculation the speed of vehicle. Please set them according to the actual configuration. After setting these items, the vehicle speed data can be viewed in the recorded data curve chart through the mobile app using the OTA Bluetooth module. Please note that the gear ratio is the final decelerate ratio (FDR) of the vehicle.

Preset Modes

In order to make one firmware applicable to all different racing conditions, there are three “easy-to-select” preset modes. Users are able to change the settings of the modes provided (and rename those modes) as per the control feel, track, and etc. For example, the name can be changed from “1/10 On-Road” to “ROAR2024_MOD_4.5” to indicate the race was ran with a 4.5T motor at 2024 ROAR. This can be saved for future reference as well

Mode #	Modes/Profiles	Applications
1	Zero Timing	All stock racing requiring zero timing (Blinky)
2	1/10 On-Road	Open class on-road
3	1/10 Off-Road	Open class off-road

ESC Programming

1. Using the TRI-2020 programming box

Connect the interface marked with “- +” on the esc to the interface marked with “ESC” on the program box using a separate programming cable(a cable with JR plugs at both ends included in the program box packaging), then connect the esc to the battery and turn it on. Click on *Parameter Settings* to set the esc.

Using the TRI-2021 OTA Programmer for parameter settings

Insert the programming cable of the OTA Programmer into the programming interface of the esc, and use your phone to install the Trinity Link APP to set the esc.

2. Read the running data of esc

1) Click on the *Data record* on the homepage of the LCD box pro to read the five extreme values of the highest temperature of the esc, the highest temperature of the motor, the maximum current, the lowest voltage of the battery, and the highest rpm of the motor during the operation of the esc.

2) By using the OTA Bluetooth module, you can view the five extreme values recorded above, real-time data, and historical data (curve chart) under the *Data Log* menu in the Trinity Link App on your phone.

3. Upgrade of firmware for ESC

1) Using the LCD box pro or OTA programmer, download and install the Trinity Link App on your phone, click on the *Firmware Update* button on the APP homepage to upgrade the firmware of the esc.

2) Connect to the computer through the LCD box pro, download and install Trinity USB Link software on the computer, and use this software to upgrade the firmware for ESC.

Factory Reset

- Restore the default values with a multifunction LCD program box pro
After connecting the program box to the ESC, Click on *Parameter Settings* and select the *Reset Parameters* to restore the factory settings.
- Restore the default values with a OTA Programmer (& Trinity Link App)
After connecting the OTA Programmer to the ESC, open the Trinity Link App on your smart phone, select “Parameters” followed by “Factory Reset” to reset the ESC.

LED Codes

1. During the Start-up Process

- The RED LED turns on solid indicating the ESC doesn't detect any throttle signal or the throttle trigger is at the neutral position.
- The BLUE LED flashes rapidly indicating the neutral throttle value stored on your ESC may be different from the current value stored on the transmitter. When this happens, re-calibrate the throttle range.

2. In Operation

- The RED LED turns on solid when the throttle trigger is in the throttle neutral zone. The RED LED will blink slowly to suitable for zero-timing/Blinky racing rules if the total value of Boost Timing and Turbo timing is 0.
- The BLUE LED blinks when your vehicle runs forward. The BLUE LED turns solid when pulling the throttle trigger to the full (100%) throttle endpoint.
- The BLUE LED blinks when you brake your vehicle. The BLUE LED turns solid when pushing the throttle trigger to the full brake endpoint and setting the “maximum brake force” to 100%.
- The BLUE LED blinks when you reverse your vehicle. The BLUE LED turns solid when pushing the throttle trigger to the full brake endpoint and setting the “reverse force” to 100%.

3. When Some Protection is Activated

- The RED LED flashes a short, single flash and repeats, indicating the low voltage cutoff protection is activated.
- The BLUE LED flashes a short, single flash and repeats, indicating the ESC thermal protection is activated.
- The BLUE LED flashes a short, double flash and repeats, indicating the motor thermal protection is activated.
- The RED & BLUE LEDS flash a short, single flash and repeats, at the same time indicating the drive mode has been automatically switched to sensorless mode from sensored mode because of abnormal sensor signal when pairing the ESC with a sensored motor.

Problem	Possible Cause	Possible Solutions
The ESC was unable to start the status LED, the motor, after being powered on.	No power was supplied to the ESC;	Check if all ESC and battery connectors have been well soldered or firmly connected.
After powering on, the RED LED flashes and the motor does not work.	The throttle cable of the ESC is connected incorrectly or the throttle is not at the neutral position.	1. Plug the throttle cable into the throttle channel by referring to relevant mark shown on your receiver. 2. Calibrate the ESC and radio.
The vehicle moves in reverse when forward throttle is applied.	The default motor rotation direction does not match your car frame.	Adjust the parameter “Motor Rotation.”
The motor suddenly stopped or significantly reduced the output in operation.	1. The receiver was influenced by some foreign interference. 2. The ESC entered the LVC protection. 3. The ESC entered the thermal shutdown protection.	1. Check all devices and try to find out all possible causes, and check the transmitter's battery voltage. 2. The RED LED keeps flashing indicating the LVC protection is activated, please replace your pack. 3. The BLUE LED keeps flashing indicating the thermal protection is activated, please let your ESC cool down before using it again.
The motor stutters but doesn't start.	1. The (ESC-to-motor) wiring order was incorrect. 2. Some soldering between the motor and the ESC was not good. 3. The ESC was damaged (Motor control circuitry was overheated).	1. Check the wiring order. 2. Check all soldering points, please re-solder if necessary. 3. Contact the distributor for repair or other customer service.
The vehicle could run forward (and brake), but could not reverse.	1. The throttle neutral position on your transmitter was actually in the braking zone. 2. Set the “Running Mode” improperly. 3. The ESC was damaged.	1. Recalibrate the throttle neutral position. 2. Set the “Running Mode” to “Fwd/Rev with Brk.” 3. Contact the distributor for repair or other customer service.
The motor got stuck or stopped when increasing the throttle during the starting-up process.	1. Poor discharging capability of the pack. 2. The RPM of the motor was too high, or the FDR was too low. 3. The Throttle Rate Control is set too high.	1. Change another pack with great discharging capability. 2. Change a low-speed motor, or increase the FDR. 3. Set the Throttle Rate Control to a low level.
The RED & BLUE LEDS on the ESC flashed rapidly at the same time when the throttle trigger was at the neutral position.	(When pairing with a sensored motor) the ESC automatically switched to sensorless mode when it detected incorrect signal from Hall sensor.	1. Check if the sensor cable is loose or poor contact issue exists. 2. Hall sensor inside the motor or the ESC is damaged.