

01 Introduction



Congratulations and thank you for your trust in Hobbywing product. By purchasing the XERUN XR10 Pro G2S, you have chosen a high performance sensored brushless electronic speed controller!

02 Warnings

- To avoid short circuits, ensure that all wires and connections must be well insulated before connecting the ESC to related devices.
Ensure all devices are well connected to prevent poor connections and avoid damage to your electronic devices.

03 Features

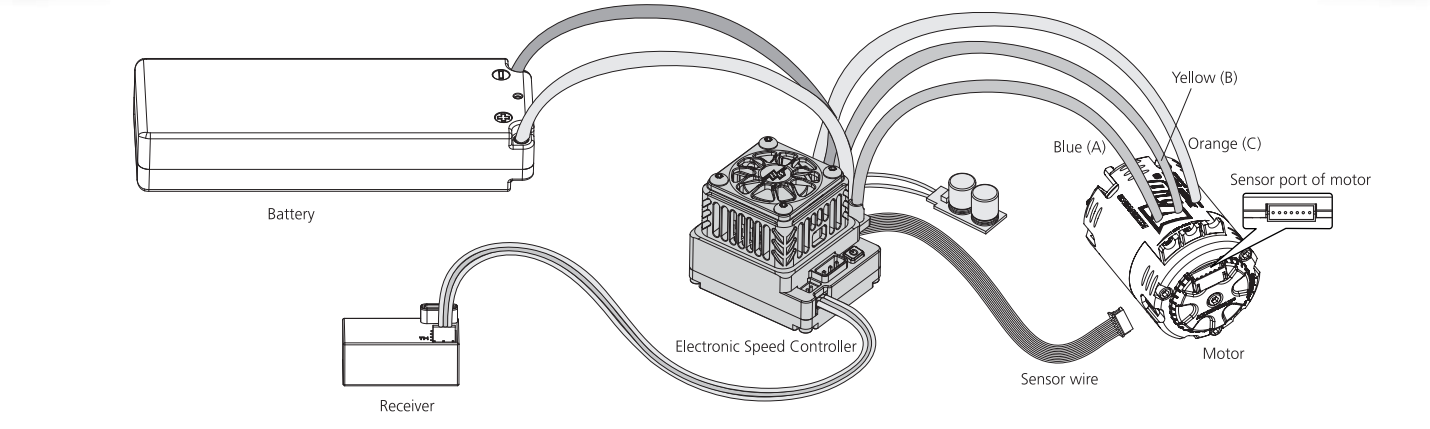
- 10 select-to-use profiles applicable to all 1/10th RC car racing.
Internal electronic key switch for long service life, high reliability, and the external switch port for connecting an external switch

04 Specifications

Table with columns: Model, Cont./Peak Current, Motor Type, Applications, Motor Limit, LiPo/NiMH Cells, BEC Output, Cooling Fan, Connectors, Size, Weight, Programming Port.

Note: The recommended T counts are only applicable with the standard 3650/540 size (3 slot 2 pole) motors when ESCs are in blinky mode.

05 Connections



This is an extremely powerful brushless motor system. For your safety and the safety of those around you, we strongly recommend removing the pinion gear attached to the motor before performing calibration and programming functions with this system.

- 1. Motor Wiring: The motor wiring is different between the sensored and the sensorless; please only follow the introductions below.
2. Receiver Wiring: The throttle control cable on the ESC has to be plugged into the throttle (TH) channel on the receiver.

06 ESC Setup

1 ESC/Radio Calibration

Begin using your ESC by calibrating with your transmitter. We strongly recommend Hobbywing users to use the "Fail Safe" function on the radio system and set (F5) to "Output Off" or "Neutral Position".

1. Turn on the transmitter, ensure all parameters (D/R, Curve, ATL) on the throttle channel are at default (100%).
2. Start by turning on the transmitter with the ESC turned off but connected to a battery.
3. Set the neutral point, the full throttle endpoint and the full brake endpoint.

2 Power On/Off

Attention! The temperature of its Aluminum housing may be very high when there is heavy load. For precaution, we recommend users to have a fan blown towards the ESC.

3 Programmable Items

Table with columns: Section, Item, Programmable Items, Parameter Values. Includes General Setting, Throttle Control, Brake Control, and Timing.

Note: Item 4C (Boost Start RPM) & Item 4D (Boost End RPM) are not programmable if item 4B (Timing Activation) is set to "Auto".

- 1A. Running Mode: Option 1: Forward with Brake; Option 2: Forward/Reverse with Brake; Option 3: Customized.
1B. Max. Reverse Force: The reverse force of the value will determine its speed.
1C. 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.

- Attention! 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 speed of the drag-brake response.
3C. Max. Brake Force: This ESC provides proportional braking function; the braking effect is decided by the position of the throttle trigger.

4 Preset Modes

Table with columns: RPM (Motor Speed), Actual Boost Timing, <10000, 10001-11000, 11001-12000, 12001-13000, 13001-14000, 14001-15000, >15000.

- Option 2: Auto: In Auto mode, the ESC adjusts the Boost Timing dynamically as per the throttle amount.
4C. Boost Start RPM: This item defines the RPM at which Boost Timing is activated.
4D. Boost End RPM: This item defines the RPM at which Boost Timing (you specifically set) is applied.

4 Preset Modes

In order to make one firmware applicable to all different racing conditions, there are ten "easy-to-select" preset modes (as shown below). Users are able to change the settings of the modes provided (and rename those modes) as per the control feel, track, and etc.

Preset Modes for Different Racing:

Table with columns: Mode #, Modes/Profiles, Applications. Lists modes like Zero Timing, TC-Modify, Buggy-2WD-Modify, etc.

5 ESC Programming

- 1) Program your ESC with a multifunction LCD program box or via a multifunction LCD program box & a PC.
2) Program your ESC with an OTA Programmer along with smart phone devices.

6 Factory Reset

- Restore the default values with a multifunction LCD program box
Restore the default values with an OTA Programmer & HW Link App

07 Explanation for LED Status

- 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.
2. In Operation: The RED LED turns on solid and the GREEN LED dies out when the throttle trigger is in the throttle neutral zone.

08 Trouble Shooting

Troubleshooting table with columns: Trouble(s), Possible Causes, Solution(s). Lists issues like ESC unable to start, motor stuttered, etc.