

# Instruction manual for GX Series 20A/30A/ 40A

Working voltage range: 4V-16V

Cells: 4-12NiMH / 2-3LiPO (4LiPO with BEC disabled)

BEC output:

20A ESC: 5V 2A (peak 3A)

30A and 40A ESCs: 5V 3A. 2LiPO supports 4-5 micro servos, 3LiPO supports 3-4 micro servos

Protection features:

Auto detect and set cut-off voltage for Ni-Mh and Lipo batteries, 6V for 2 cells Lipo, and 9V for 3 cells Lipo; 0.8V/cell for NiMH batteries.

Safe start: the speed controller will not start when the throttle is at wrong position when switch on.

Over-heat protection: it will stop working when surface temperature is higher than 110 degree.

Lost control protection: speed control will stop working after 1 second since lost control signal.

Rotating speed limit: 30000RPM for 2-pole inrunner motors, 50000RPM for 12-pole outrunner motors, 42000RPM for 14-pole outrunner motors.

PWM: 8KHz PWM control, utilizing speed control curve. Auto throttle range, compatible with more radios.

Separate power supply circuit for BEC and MCU, more stable in working.

Steps for setting:

1. Switch on transmitter, move throttle stick to highest position (Futaba series radios need to set throttle channel to REV).
2. Connect receiver, motor.
3. Switch on the power to speed control, you should hear the following sounds: (If there is no sound after a long, low BEEP, please check the REV setting of throttle channel)

B B denotes LIPO auto-protection (cut-off setting)

BB BB denotes NiMH /NiCd auto-protection (cut-off setting)

BBB BBB denotes brake setting

BBBB BBBB denotes reset to factory default setting. (the beeps will loop when there is no operation request)

When you want to set any function, swiftly move the throttle stick to the lowest position when you hear the first BEEP, (for example, to set up LIPO protection, once hear a single BEEP, move throttle stick to lowest position). Motor will emit a sharp BEEP to confirm. If you want to set other features, promptly move the throttle to the highest position (full open), then you can set up the next feature. Once you set up all the options, wait for 2 seconds, motor will emit corresponding cut-off protection setting, and auto-set the throttle range, then the speed control is ready to run.

There are two cut-off options for LIPO batteries only, i.e. 6V and 9V, it is not required that the battery must be fully charged when set the cut-off.

The cut-off setting for Ni-Mh battery is calculated based on cell number, the voltage per cell is 0.8V, to avoid mis-calculating, please fully charge the Ni-Mh batteries when set up Ni-Mh cut-off. The speed controller will calculate the cut-off based on 70% voltage when the batteries are not fully charged. (You can also use this function for 4LiPO)

Brake setting: default setting is no brake, you can change the setting during using by set-up once this option. You can disable the brake function by set one more time.

Factory default setting reset function: you can select to reset to factory default setting while you find any function does not work properly.

\*The long BEEP when switch on denotes LIPO auto-protection mode, BBB three beeps denotes NiMH/NiCd auto-protection mode.