

ZTW-Spider PRO



Spider PRO manual Instruction

Thank you for purchasing ZTW Spider Pro Series Brushless Electronic Speed Controller(ESC).Spider Pro series ESCs are especially designed to meet the demand of ever popular FPV RACING multirotors ,and has been improved and bettered base on the various feedback from the market given the compatibility with some new design motor on the market .With better quality and competitive price . Spider Pro will be your best choice for you rmultirotors.

Connecting your ESC:

- Connect your controller with motor wires.
- Solder appropriate connectors to the battery wires.
- Insulate all solder connectors with heat shrink tubes.
- Connect ESC signal cable according to your own flight control instruction.
- Red and Black wires from ESC should connect to battery pack Red and Black wires respectively.



Features:

- Use new generation of the MOSFETs to make sure the ESC low heating and high reliability .
- Supports high RPM motors, can be matched with most of the motors in the RC market .
- Using BLHELFI firmware.
- Capable of ONESHOT feature to work better with your flight controllers.
- Super smooth and accurate throttle linearity.
- Super fast Refresh Rate up to 600Hz.

Throttle Calibration:

When you use the ESC for the first time, we would like to suggest you calibrate your throttle end point of your radio system. This will make the throttle response better. Please see following steps of how-to:

1. Power on your radio and push your throttle stick to 100%.(see fig 1)
2. Then connect battery to your ESC, you will hear “W V” from motor to confirm the end point after three seconds.
3. Pull throttle stick back to 0% immediately when you hear “W V”.
4. Throttle calibration is done. Please recycle your battery to use ESC.



fig 1



fig 2

Specifications:

Type	PN#Model	Cont./Burst	Battery cell	Weight	Size(mm)	User
		Current(A)	NXX\Lipo	(g)	W*L*H	Program
Spider 12A OPTO	5012301	12A\20A	5-12NC\2-4Lipo	8	15*26*6	NO
Spider Lite 18A OPTO	5018301	18A\30A	5-12NC\2-4Lipo	5.3	12*22*4.3	NO
Spider Lite 20A BEC	5020101	20A\30A	5-12NC\2-4Lipo	8.2	27*14.3*4.5	NO
Spider PRO 20A OPTO 2-4S	5020321	20A\30A	5-12NC\2-4Lipo	9.8	27*14*5.5	NO
Spider PRO 20A HV OPTO 2-6S	5020421	20A\30A	5-18NC\2-6Lipo	12	29*16.5*5.5	NO
Spider PRO 30A HV OPTO 2-6S	5030421	30A\40A	5-18NC\2-6Lipo	12	29*16.5*5.5	NO
Spider PRO Premium 20A OPTO 2-4S	5020331	20A\30A	5-12NC\2-4Lipo	9.8	27*14*5.5	NO
Spider PRO Premium 30A OPTO 2-4S	5030331	30A\40A	5-12NC\2-4Lipo	9.8	27*14*5.5	NO
Spider PRO Premium 20A OPTO 2-6S	5020431	20A\30A	5-18NC\2-6Lipo	11	30.8*16.8*4.7	NO
Spider PRO Premium 30A OPTO 2-6S	5030431	30A\40A	5-18NC\2-6Lipo	11	30.8*16.8*4.7	NO
Spider PRO 20A OPTO 4in1 2-4S	5020341	20A\30A	5-12NC\2-4Lipo	27	43*40*11	NO

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Default setting:

Closed Loop Mode 4 Off	Startup Power 9 x 0.50	Motor Direction 1 Normal	Input Polarity 1 Positive
Closed Loop P-Gain 9 x 2.00	Temperature Protection 1 On	Demag Compensation 2 Low	Beep Strength 40 40
Closed Loop I-Gain 9 x 2.00	PWM output Dither 3 15	PWM Frequency/Damped 3 Damped Light	Beacon Strength 80 80
Motor Gain 3 x 1.00	Low RPM Power Protect 1 On	Enable PWM Input 0 Off	Beacon Delay 4 10 min
		Motor Timing 4 Medium High	PPM Min Throttle 25 1.100 ms
		PPM Center Throttle 122 1.488 ms	PPM Max Throttle 225 1.900 ms