

## MANTIS Slim Manual Instruction

Thank you for purchasing ZTW Mantis Slim series Brushless Electronic Speed Controller (ESC). ZTW Mantis slim series ESC is a medium level product line designed for F3P airplane and glider. It features super smooth start up and throttle response, strong BEC output. This is not a toy., only for adult. Age under 14 should be operated under supervision of adult. Please read this manual carefully before using this product for the sake of safety. ZTW Model have no control over the use, installation, application, or maintenance of these products, thus no liability shall be assumed nor accepted for any damages, losses of costs resulting from the use of this item.

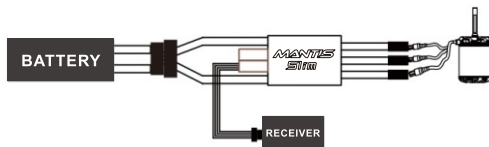
### Important Warnings:

- ▲ ZTW is not responsible for your use of this product, or any damage or injuries you may cause as a result of its usage.
- ▲ Always place safety as priority when you use the product
- ▲ An electric motor that is connection with battery pack and ESC may start unexpectedly and cause serious danger. Always treat them with enough respect.
- ▲ We recommend you to remove the propeller when you working on the plane that with power source connected.
- ▲ Observe all local laws when you fly a RC aircraft or other RC vehicles
- ▲ Never fly over others or near crowds.

### Wires Connection:

The speed controller can be connected to the motor by soldering directly or with high quality connectors. Always use new connectors, which should be soldered carefully to the cables and insulated with heat shrink tube. The maximum length of the battery pack wires shall be within 6 inches.

- Solder controller to the motor wires.
- Solder appropriate connectors to the battery wires.
- Insulate all solder connectors with heat shrink tubes.
- Plug the "JR" connector into the receiver throttle channel.
- Controller Red and Black wires connects to battery pack Red and Black wires respectively.



### Features:

- ◆ Super smooth softstart .
- ◆ "Slim" design for glider.
- ◆ Strong BEC Output, peak get 3A/5V.
- ◆ Faster throttle response , enjoy the 3D flying has become so easy.
- ◆ Mini size ,15A SBEC , 30A SBEC, length :27mm, with :14mm.
- ◆ Minimum weight is only 5.5g(does not include the cable),lowered the load of your airplane.

### Specifications:

Type	PN#Model	Cont.\Burst	Battery cell	Weight	BEC	Size(mm)	User
		Current(A)	NiX\Lipo	(g)	Output	W*L*H	Program
Mantis Slim 15ASBEC	2015271	15A\25A	5-12NC\2-4Lipo	6.8	5V\2A	14*27*5.5	Yes
Mantis Slim 30ASBEC	2030271	30A\40A	5-12NC\2-4Lipo	10.8	5V\2.5A	14*27*5.5	Yes
Mantis Slim 40ASBEC	2040271	40A\60A	5-12NC\2-4Lipo	43	5V\5A	25*58.3*14	Yes
Mantis Slim 60ASBEC	2060271	60A\80A	5-18NC\2-6Lipo	59	5.5V\8A	29*69.5*17	Yes
Mantis Slim 80ASBEC	2080271	80A\100A	5-18NC\2-6Lipo	64	5.5V\8A	29*69.5*17	Yes

### Mounting your ESC

1. Choose a location that has good airflow to offer best cooling to prevent overheating. DO NOT cover the side with the flat heat shield with hook and loop tape or any other material as this will greatly lower its effectiveness.
2. Mount the ESC with a combination of hook and loop tape or 2-sided foam tape.

### THROTTLE CALIBRATION

1. Turn on your radio and keep the throttle stick to the top position.
2. Connect the battery pack to the ESC. Wait for about 2 seconds, the motor will beep for twice, then put the throttle in the minimum position, the motor will also beep, which indicates that your ESC has got the signal range of the throttle from your transmitter.

### Using the ESC

1. Turn on your radio and keep the throttle stick to the lowest position
2. Connect the battery pack to the ESC.
3. Motor emits two sets of audible tones in succession means the ESC is armed and ready to use. The first set of tone counting the cells of the battery the second set of means the status of the brake setting.

**NOTE :** Mantis slim series can connect with the rprogramcard of Beatles series for programming .

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## 中特威螳螂Slim无刷电子调速器说明书

感谢您使用中特威科技有限公司设计、制造的螳螂Slim系列无刷电子调速器(ESC)。我们强烈建议您在使用之前阅读本使用手册。深圳市中特威科技有限公司有权不经通知变更其产品,包括其外观和性能参数及使用要求;对其产品是否适合特定用途不作任何保证、申明或承诺。不承担因第三方产品相关修改所引起的任何责任,中特威科技有限公司也不承担因应用该产品而产生的任何责任,包括直接损失或间接损失的赔偿责任。

### 一般安全防范

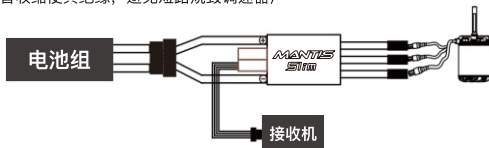
- ▲ 检验无线电接收装置上的正确设置,第一次测试ESC和马达时不要在马达上安装螺旋桨或传动小齿轮。只有当您确认了无线电接收装置上的设置正确后方能安装螺旋桨或传动小齿轮。
- ▲ 不要使用裂开或被刺破的蓄电池组电池。
- ▲ 不要使用会变得过热的电池组。
- ▲ 不要使用短路电池或马达接线端。
- ▲ 电缆绝缘要用正确的绝缘材料。
- ▲ 使用正确的电缆连接器。
- ▲ 电池或伺服系统的数量不要超过电调的规定。
- ▲ 错误的电池极性会损坏电调,由此造成的损坏将不在保修范围之内。
- ▲ 将电调安装在通风降温的位置。电调有过热保护功能,当温度超过110度时,它会自动切断马达功率输出。
- ▲ 使用电调能够支持的电池并确保上电之前电池插头极性正确。
- ▲ 打开你的发射机并确保在上电之前油门拉杆处在最小位置。
- ▲ 当电调还处于上电状态时不要关闭你的发射机。
- ▲ 仅在飞行之前上电,飞行之后请及时断电。
- ▲ 上电之后请小心操作你的模型并远离螺旋桨。请不要直接站在任何可旋转部件前面。
- ▲ 不要把电调浸入水中或者在使用过程中将电调弄湿。
- ▲ 在指定地点,按照俱乐部的规则和指南飞行。

### 一、中特威螳螂Slim系列无刷电机电子调速器主要特性

- 迷你尺寸,15A SBEC,30A SBEC,长27mm,宽14mm。
- 强劲的BEC输出,瞬间最高支持3A/5V。
- 重量最低5.5克(不含线),极大的减轻飞机负载。
- 急速的油门反应,让你的畅享“3D”飞行带来的乐趣。
- 不需要参数设置,上电即飞。

### 二、调速器连接说明

(线连接用热缩管收缩使其绝缘,避免短路烧毁调速器)



### 三、产品规格

型号	产品编码	持续瞬间	电池	重量	BEC	尺寸(mm)	编程
		电流(A)	镍氢/锂电池		输出		
螳螂 Slim 15A SBEC	2015271	15A/25A	5-12NC\2-4Lipo	6.8	5V/2A	14*27*5.5	是
螳螂 Slim 30A SBEC	2030271	30A/40A	5-12NC\2-4Lipo	10.8	5V/2.5A	14*27*5.5	是
螳螂 Slim 40A SBEC	2040271	40A/60A	5-12NC\2-4Lipo	43	5V/5A	25*58.3*14	是
螳螂 Slim 60A SBEC	2060271	60A/80A	5-18NC\2-6Lipo	59	5.5V/8A	29*69.5*17	是
螳螂 Slim 80A SBEC	2080271	80A/100A	5-18NC\2-6Lipo	64	5.5V/8A	29*69.5*17	是

### 四、油门行程设置

中特威电调的特点是根据不同的发射机可设置最佳油门行程。电调能够通过发射机的整个油门行程来获取最平稳的油门线性。此操作只进行一次,目的是让电调获取并记忆发射机的油门输出信号,只有在您更换发射机时才需重复此操作

1. 打开发射机并将油门拉杆推到最大位置
2. 连接电池,接收机,马达与电调,等待2秒左右,马达会“滴滴”两声响,这时把油门拉杆拉到最小,马达也会“滴滴”两声响;这时表明电调已获取您的发射机油门信号范围。油门行程现在已被校准,您的电调现已准备好可操作了。

### 五、电调的正常启动程序:

1. 接通发射机并将油门拉杆拉到最小位置。
  2. 将电池组连接到电调上
- 当电调第一次通电时,会连续发出两组可听见的声音,说明电调进入工作的状态
- 第一组声音表示与电调相连接的Lipo电池组中电池的数量(三声滴滴响表示有三节电池,四声滴滴响表示有四节电池)
  - 第二组声音表示刹车的状态(一声滴滴响表示刹车为开,二声滴滴响表示刹车为关)
  - 电调现在已准备好使用

注意:本产品可与本公司甲壳虫系列的编程卡通用。

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