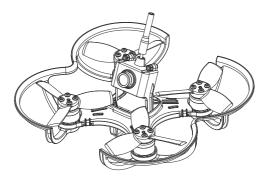# Babyhawk User Manual

Thanks for purchasing the Babyhawk. Please follow the instruction manual to install and configure your Babyhawk.

After completing the instruction manual, use the configurator GUI to configure flight controller settings for the Babyhawk. Please refer to this link to learn more:

https://www.emaxmodel.com/babyhawk-85mm-brushless-drone-pnp.html

Disclaimer

Please read the disclaimer carefully before using this product. By using this product, you hereby agree to this disclaimer and signify that you have read them carefully and completely. This product is not suitable for people under the age of 18. Adult supervision is highly recommended for kids under the age of 18.

Our Babyhawk features open-source flight controller and Electronic Speed Controllers to satisfy the FPV enthusiasts' need to update/upgrade their software and hardware. Please read the instruction manual and warnings carefully. Before every flight, make sure the battery is fully charged and power connections are secure. DO NOT fly around crowds, children, animals or objects. EMAX ACCEPTS NO LIABILITY FOR DAMAGE(S) OR INJURIES INCURRED DIRECTLY OR INDIRECTLY FROM THE USE OF THIS PRODUCT.

Precautions

1. Please follow the instructions to correctly guide the assembly and operation of this product.
2. Pilots: Do not use this product if you have physical or mental illness, dizziness, fatigue, or are under influence of alcohol or drugs.
3. Please fly in a safe location away from people and animals.
4. Do not modify or use parts and accessories not approved by EMAX.
5. Do not use this product in harsh environments (such as winds, rain, lightning, snow, etc.).
6. Do not use this product in a strong electromagnetic environment.

Product specification

Version Size and Weight	PNP
Diagonal Wheelbase (without propeller)	87mm
Package Size	225mm x 145mm x 69mm
Maximum Size of Aircraft (without antenna, cable)	132mm x 132mm x 48mm
Camera Integrated with VTX	CMOS 800TVL _25-200MW adjustable frequency 40CH
Propeller	2345 Tri-blade Propeller
Flight Control	F3 Femto
Motor	1104 5250KV
ESC	Bullet 6A (BLHeli_S)
Weight of Aircraft (without batteries)	68.5g

Instruction Manual for FrSky XM Plus

Specifications

Dimension: 21.5*12*3.5mm (L × W × H)

Weight: 1.6g

Number of Channels: Up to 16CH from SBUS (CH1~CH5 for PWM, CH16 RSSI for FC)

With RSSI output on board: PWM voltage output (0~3.3V)

Operating Voltage Range: 3.7~10V

Operating Current: 30mA@5V

Operating Range: full range

Firmware Upgradable

Compatibility: FrSky D16 mode

Binding Procedure

Binding is the process of uniquely associating a particular receiver to a transmitter module. A transmitter module can be bound to multiple receivers (not to be used simultaneously). A receiver can only be bound to one transmitter module.

Follow the steps below to finish the binding procedure.

1. Turn on the transmitter while holding the F/S button on the module (please refer to the module instruction manual for switch positions). Release the button. The RED LED on the Module will flash, indicating the transmitter is ready to bind to the receiver.

2. Connect battery to the XM Plus receiver while holding the F/S button on the receiver. The LED on the receiver will flash, indicating the binding process is completed.

3. Turn off both the transmitter and the receiver.

4. Turn on the transmitter and connect the battery. The GREEN LED on the receiver indicates the receiver is receiving commands from the transmitter. The receiver/transmitter module binding will not have to be repeated, unless one of the two is replaced.

Failsafe

Failsafe is a useful feature in which all controls move to a preset position whenever the control signal is lost for a period of time. XM Plus supports failsafe function for all channels. Follow the steps below to set failsafe positions for each channel:

1. Bind the receiver first and turn on both the transmitter and the receiver;

2. Move the controls to the desired failsafe position for all channels;

3. Press briefly the F/S button on the receiver (less than 1 second). The Green LED will flash twice, indicating the failsafe position has been set in the receiver.
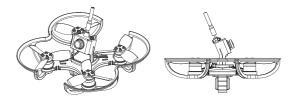
To disable the failsafe function, re-bind the receiver.

Failsafe is recommended to set when system is firstly used, or receiver has been re-bound.
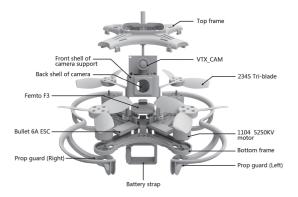
Note: If failsafe is not set, failsafe default will hold last position before signal is lost. In this case, there exists risk that your model will fly away or cause injury.

FrSky is continuously adding features and improvements to our products. To get the most from your product, please check the download section of the FrSky website www.frsky-rc.com for the latest update firmware and manuals

Product List

1. Babyhawk quadcopter * 1set
2. 2345 Tri-blade Propeller CW and CCW * 4pcs each
3. Battery*2pcs
4. FrSky receiver
5. Remote control * 1pcs (optional package)
6. Manual * 1set

- Top frame
- Front shell of camera support
- Back shell of camera
- Femto F3
- Bullet 6A ESC
- Prop guard (Right)
- Battery strap
- VTX_CAM
- 2345 Tri-blade
- 1104 5250KV motor
- Bottom frame
- Prop guard (Left)

VTX frequency chart

Channel selection button is located on the back of the camera housing

(1) Long press 2 seconds into the Band selection mode

(2) Short press in this frequency group to select F, R, A or B Bands, long press 2 seconds exit frequency selection

(3) Short press in the current band to select the 1-8 channels.

(4) Long press 10 seconds for the size of power selection (high-power digital tube decimal point ON, low-power digital tube decimal point OFF)

(5) Camera support P / N standard switch (the toggle switch on VTX_CAM)

BAND/CH	CH							
	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
FR1(F)	5740	5760	5780	5800	5820	5840	——	——
FR2(R)	——	——	5732	5769	5806	5843	——	——
FR3(A)	——	5845	5825	5805	5785	5765	5745	5725
FR4(B)	5733	5752	5771	5790	5809	5828	5847	——

Instructions for using ESC

This product uses EMAX Bullet 6A BLHeli_S ESC integrated hardware

For more information, go to "https://www.emaxmodel.com/babyhawk-85mm-brush-less-drone-pnp.html" to download and check.

Thank you for using EMAX products!

For EMAX Babyhawk accessories, please visit the official EMAX website (www.emax-model.com).

⚠ Warning:

REMINDER! Please pay attention to safety of your surrounding.
Not recommended for persons under 18 years of age!
We wish you happy flying!

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
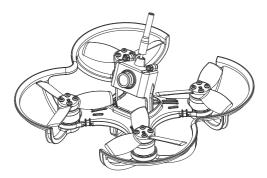-Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation

BABY HAWK

使用手册

感谢您购买本产品, 请严格按照本手册的要求对您的飞行器进行安装和调试。

本手册需要与调参软件配合使用, 更多详情请参考调参说明。需要升级及进阶的用户请

参考资料链接: "http://www.yinyanmodel.com/ch/DownList.asp"

EMAX

免责声明

用户在使用本产品前，请认真阅读本声明，一旦使用本产品，即视为对本声明全部内容的认可与接受。未满18周岁的未成年人不适合使用本产品。

本产品是专门为爱好者进行FPV穿越飞行而设计的一款多旋翼飞行器，使用开源的飞控固件和电调固件，满足中高级用户的不断升级及进阶。具有自身姿态稳定、反应灵敏、机动灵活的特点，根据用户使用配置和参数设置的不同，即可进行小空间的穿越探索飞行，还可以进行急速暴力的3D飞行。因此，在使用本产品时，请认真阅读使用说明书及注意事项，飞行时确保供电系统良好和接线正确，并远离人群（不小于2500平方米范围），如造成人生伤害，财产损失等（直接或间接损害），我司不承担任何民事及法律责任。

注意事项

1. 请按说明书正确指引组装和操作本产品。

2. 飞行员不要在喝酒，吸毒，药物麻醉，头晕，乏力等身体或精神状态不佳的情况下使用本产品。

3. 一定要在安全领域进行飞行（不小于2500平方米范围）。

4. 不要自行改装和超配置要求使用其他零件和配件。
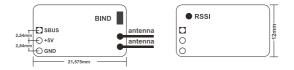
5. 不要在恶劣环境下（如大风、雨天，闪电，下雪等）使用本产品。

6. 不要在电磁强的环境下使用本产品。

产品认证

本产品已通过CE、RoHs、FCC认证。

产品规格

尺寸与重量 \ 版本	PNP
对角轴距（不含桨）	87mm
包装尺寸	225mm x 145mm x 69mm
飞机最大外观尺寸（不含天线,,扎带)	132mm x 132mm x 48mm
摄像头_图传	CMOS 800TVL _25-200MW可调频率40CH
螺旋桨	2345 三叶桨
飞控	F3 Femto 整机版
电机	1104 5250KV
电调	Bullet 6A(BLHeli_S)
飞机重量（不含电池）	68.5g

XM Plus 说明书

产品信息：

尺寸：21.5*12*3.5mm（长*宽*高）
重量：1.6g
通道数：SBUS口最大16通道输出（1-15通道为信号输出，通道16为飞控的RSSI信号）
电压范围：3.7-10V
电流：30mA@5V
操作距离：全距
RSSI信号输出：模拟0-3.3V
固件可升级
兼容：FrSky D16模式

对码过程：

对码就是将一个特定的接收机和传送模块连接在一起的过程。一个传送模块可以绑定多个接收机（不可以同时使用）。一个接收机只可以绑定一个传送模块。

1．打开遥控器的同时按住模块上的F/S键（请根据开关说明书设置模块开关位置），然后松开F/S键。模块上的红色LED灯开始闪烁，表示发射模块已准备与接收机进行对码。

2．给XM Plus连接电池并同时按住接收机上F/S键，接收机上的LED灯开始闪烁，表示对码过程完成。

3．关掉遥控器和接收机。

4．打开遥控器并连接电池。接收机上的绿色LED灯表示正在接收遥控器上的命令。遥控器、模块与接收机之间的对码不需要重复操作，除非您更换了其中任意一件产品。

Failsafe功能：

Failsafe功能是无论在何时您丢失了您的控制信号，此功能能将所有的控制信号转移到预设的位置。XM Plus接收机对所有的通道支持Failsafe功能。请根据以下步骤为每一个通道设置Failsafe位置。

1．首先进行对码，然后打开遥控器和接收机。

2．为每个通道，将控制信号转移到所需的Failsafe位置。
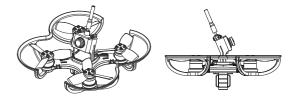
3．短按接收机上的F/S键，绿色LED灯会闪烁2下，表示Failsafe位置已经在接收机上设置完成。

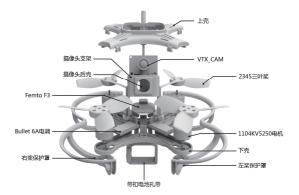要禁用Failsafe功能，需要重新对码，FrSky建议在您第一次使用产品，或重新绑定接收机时设置Failsafe功能。

注意：如果Failsafe没有设置，那么Failsafe会在信号丢失以前默认保留最后位置。在这种情况下，您的飞行器可能会丢失或造成损害。

FrSky会为产品持续改进并添加新的特性。请关注FrSky官网下载版块的对于产品固件以及说明书的最新更新

产品清单

1．BabyHawk 整机 × 1

2．说明书 ×1

3．2345桨 正反 × 4

4．电池 × 2

5．FrSky接收机

6．遥控器×1（套装可选）

上壳

摄像头支架 ── VTX_CAM

摄像头后壳 ── 2345三叶桨

Femto F3

Bullet 6A电调 ── 1104KV5250电机

右桨保护罩 ── 下壳

── 左桨保护罩

带扣电池扎带

图传发射频点对照表

图传频道选择按钮在飞机尾部图传发射位置

（1）长按2秒进入频组选择

（2）短按在此频组内选择FRAB频组，长按2S退出频点选择，短按在当前频组内选择1-8频点。长按10秒进行大小功率选择（大功率数码管小数点亮，小功率数码管小数点灭）

（3）摄像头支持P/N制式切换（VTX_CAM上面的拨动开关）

BAND/CH		CH							
		CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
BAND	FR1(F)	5740	5760	5780	5800	5820	5840	——	——
	FR2(R)	——	——	5732	5769	5806	5843	——	——
	FR3(A)	——	5845	5825	5805	5785	5765	5745	5725
	FR4(B)	5733	5752	5771	5790	5809	5828	5847	——

电调使用说明

本产品电调使用的是EMAX Bullet 6A 电调集成硬件

有关电调的更多详情请到 "http://www.yinyanmodel.com/ch/Downlist.asp" 进行下载查看。

飞控使用说明

本产品飞控使用的是基于F3的Femto F3飞控硬件

有关Femto F3飞控的跟多详情请到 "http://www.yinyanmodel.com/ch/Downlist.asp" 进行下载查看。

相关的飞控调参说明请到 "http://www.yinyanmodel.com/ch/Downlist.asp" 进行下载查看。

感谢用户使用银燕产品!

如需配件，请至银燕官方淘宝购买

微信公众号

⚠ 警示：

再次提醒，一定注意飞行周围安全，年满18岁以下人员严禁使用！
预祝您飞行愉快！

注意： 该设备已经过测试，符合FCC规则第15部分对B类数字设备的限制。这些限制旨在提供合理的保护，防止住宅安装中的有害干扰。本设备产生用途，并可能辐射射频能量，如果不按照说明进行安装和使用，可能会对无线电通信造成有害干扰。但是，不能保证特定安装中不会发生干扰。如果本设备确实对广播或电视接收造成有害干扰，可以通过关闭和打开设备来确定，建议用户尝试通过以下一种或多种措施来纠正干扰：

重新调整或摆放接收天线。

增加设备与接收机之间的距离。

将设备连接到与接收器连接的电路不同的电路上。

咨询经销商或有经验的无线电/电视技术人员寻求帮助。

未经负责合规方明确批准的变更或修改可能会使用户操作设备无效。

本设备符合FCC规则第15部分的规定。操作须符合以下两个条件：

1.本设备可能不会造成有害干扰。

2.该设备必须接受任何收到的干扰，包括可能导致意外操作的干扰