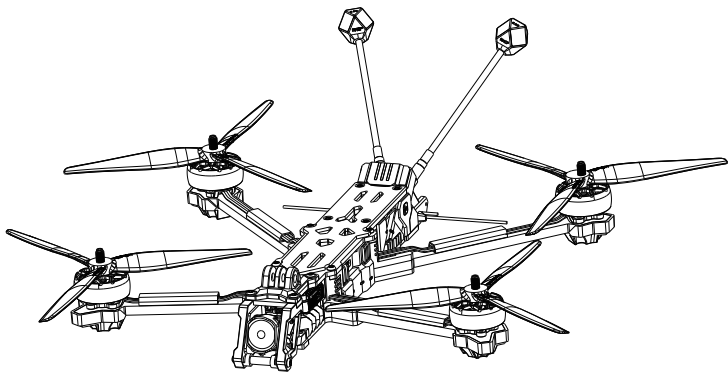


Nazgul Evoque F7

Quick Start Guide
快速入门指南



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安全概要与免责声明

⚠警告：在使用本产品之前，请您认真阅读此手册以熟悉产品的功能。此手册包含有关安全、操作及维护的说明概要。如未正确遵循手册的操作流程，可能会造成财产损失、产品损坏或造成严重的人身伤害！

安全飞行条款

1. 年龄建议：本产品并非玩具，具有一定的风险性，不适合未满 18 岁的非专业人士使用。
2. 请放置在儿童触碰范围之外，禁止儿童触碰。
3. 本产品仅供娱乐用途，不支持自主飞行。
4. 禁止在饮酒、疲劳、或其他精神状态不佳的情况下进行任何操作。
5. 禁止使用飞行器搭载任何违法危险物品。
6. 禁止操控飞行器进入法律法规规定的禁飞区和敏感建筑设施附近。可能包括机场、边境线、主要城市、发电站、水电站、监狱、交通要道、政府大楼及军事设施。
7. 在进行遥控器通道校准、固件升级、参数设置前请关闭动力电源或者取下螺旋桨，防止电机高速旋转。
8. 禁止在有限高度的空域上飞行。
9. 禁止使用本产品进行任何未经授权的监视活动，侵犯他人隐私权的行为。
10. 禁止使用本产品侵犯他人物权。
11. 禁止在人口密集地区使用飞行器，这些地区包括但不限于：市区中心、体育比赛场馆、展会、演唱会、车站及临时举行活动区域。如有拍摄需求，请务必在飞行前向相关部门申请许可证。

免责声明

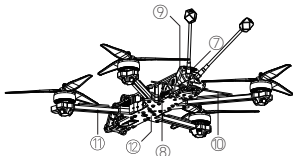
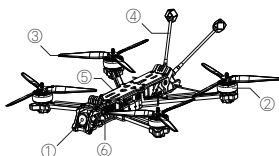
1. 本产品并非玩具，需要有一定的基础知识才能控制，所以要循序渐进，在开始使用前，请特别留意其中的注意与警告，惠州市翼飞智能科技有限公司 (iFlight) 保留更新本《免责声明与概要》的权利。
2. 在使用本产品前，请务必仔细阅读本文档，以充分了解您的合法权益、责任以及安全须知。未遵守文档中的指导可能导致财产损失、安全事故或人身伤害。通过开始使用本产品，您即表明已完全理解、接受并同意本文档的所有条款与内容，并承诺对自身行为及其所产生的一切后果承担责任。此外，您还承诺仅出于正当目的使用本产品，并同意遵守 iFlight 可能制定的任何相关政策和准则。
3. 对于因未按照官方文档指导使用产品所造成的任何损失，iFlight 概不负责。此外，无论是否事先告知可能发生的损害，iFlight 均不对因购买、使用或无法使用本产品而导致的间接、后果性、惩罚性、偶然性、特殊性或惩戒性损害承担责任。在法律允许的最大范围内，不论基于合同还是其他形式，iFlight 对您的总责任上限为您实际支付给 iFlight 的产品购买金额。
4. 在遵守相关法律法规的前提下，iFlight 保留对上述条款的最终解释权。iFlight 有权随时更新、修改或终止本注意事项中的条款内容，且无需事先通知。除非本指南的下载服务被终止，否则本注意事项将长期有效。
5. iFlight 是惠州市翼飞智能科技有限公司及其关联公司的注册商标。本文中提及的所有产品名称、品牌均为其各自所属公司的商标或注册商标。

一、产品信息

1. 飞行器描述

Nazgul Evoque F7 是一款兼具灵活性与高性能的穿越机，采用 DC 型结构设计，搭配 Borg 电设，安全稳定适配多飞行场景，最擅长翻山越岭的长续航拍摄。天空端前置布局让走线简洁有序，降低故障风险；创新鳍片风道散热与炫酷 LED 动态灯效，实现颜值与性能双重在线。全套开模注塑配件提升质感，更搭载 DJI O4 Air Unit Pro, 4K*1 155° 超广角加持下，低光夜视表现与影像创作力拉满。无论是专业飞手追求极致操控，还是玩家享受沉浸式飞行，都能轻松上手，解锁多元飞行乐趣。

2. 外观部件



①摄像头
⑦XT60

②电机
⑧侧板+导光件

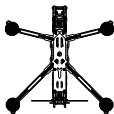
③螺旋桨
⑨尾座

④天线
⑩T形天线

⑤防滑垫
⑪机臂

⑥图传
⑫底板

3. 产品清单



Nazgul Evoque F7 x1



CW顺时针桨 x2



CCW逆时针桨 x2



天线 x2



防滑垫 x1



电池扎带 x2



配件包 x1



贴纸 x1



安全提示卡 x1



免责声明 x1



售后返修卡 x1

二、首次飞行准备

1. 飞行眼镜对频指南

注意：在进行调试之前，请务必保持无桨 / 卸桨状态。在确保对频以及 Betaflight*² 调试无误之后再安装桨叶。如果操作不当导致人身伤害，责任自负。请务必谨慎操作，确保安全。

1.1 天空端及飞行眼镜激活：Nazgul Evoque F7 飞行器连接电池，通过 USB-C 接口 [图 1-1] 连接对应设备至电脑并运行 DJI Assistant 2 (消费机系列) 调参软件*³ 进行激活与固件升级，详情请参考 DJI O4 Air Unit 用户手册。

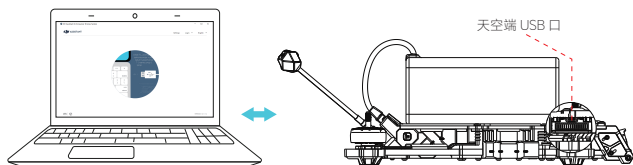


图 1-1

1.2 飞行器和飞行眼镜对频 (对频前，请确保天空端，飞行眼镜固件已激活更新至最新版本。)

- ① 分别给飞行器与飞行眼镜通电。
- ② 通电后，按下天空端对频按键 [图 1-2]，天空端对频状态指示灯红灯闪烁。
- ③ 按下飞行眼镜的对频按键 [图 1-3]，飞行眼镜响起嘀 ~ 嘀 ~ 的提示音。
- ④ 确保天空端与飞行眼镜距离在 0.5 M 以内。对频成功后，天空端对频状态指示灯 [图 1-4] 绿灯常亮，飞行眼镜提示音停止并显示图传画面。完成天空端与飞行眼镜的对频。

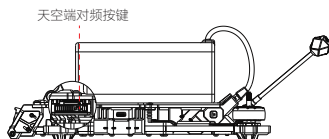


图 1-2

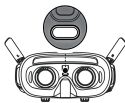


图 1-3

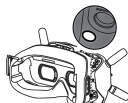


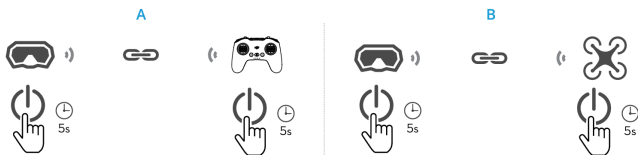
图 1-4

- ◆ 请避免在静置或无外部降温设备的环境下长时间使用天空端，否则产品温度过高，将导致图传中断。
- ◆ 为减少发热，天空端开机后默认处于低功耗状态，此时图传性能未达正常规格。飞行器起桨或开始录像后，天空端将自动退出低功耗状态，图传性能恢复正常。请尽快起飞，或确保天空端通风散热。
- ◆ 切勿短接电源及 GND 线，或在天空端模块上电后插拔线材，否则会导致设备损坏。
- ◆ 使用前需充分了解并遵守当地的法律法规，避免违规使用。
- ◆ 本产品不适合儿童使用。

2. 遥控器对频指南

2.1 DJI 遥控器对频

对频前,确保所有设备均已通过 DJI Assistant2 (消费机系列)*3 调参软件升级至最新固件。



飞行眼镜和遥控器对频 (图A)

- ①分别开启飞行器、飞行眼镜以及遥控器。长按遥控器电源按键直至响起持续的提示音，且电量指示灯循环闪烁。
- ②长按飞行眼镜电源按键直至响起持续的提示音，且电量指示灯循环闪烁。
- ③对频成功后，飞行眼镜和遥控器提示音停止，且电量指示灯均显示电量。

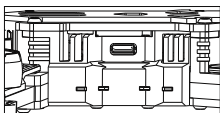
飞行眼镜和飞行器对频 (图B)

- ①长按飞行眼镜电源按键直至响起持续的提示音，且电量指示灯循环闪烁。
- ②长按飞行器电源按键直至发出提示音，同时电量指示灯循环闪烁。
- ③对频成功后，飞行器的电量指示灯显示电量，飞行眼镜提示音停止并显示图传画面。

-
- 飞行器飞行时只能用一个遥控设备控制，请将已对频但不使用的遥控设备关闭。
 - 对频时，确保所有设备的距离在0.5米以内。
-

2.2 接收机对频方式 + 步骤 (ELRS + TBS)

ELRS对频方式一：使用传统方式对频 (以IFLIGHT Commando8 连接 2.4GHz为例，其他遥控器的具体操作请参考对应遥控器的说明。



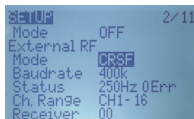
连续插拔USB口三次：连续开机关机三次或者在未开机的状态下，通过USB口给接收机通电，连续插拔USB口三次，接收机绿灯呈持续双闪，此时接收机进入对频状态，下一步再到遥控器对频。



1. 上电后，通过长按 Model setup 按键来到 MODELSEL 界面



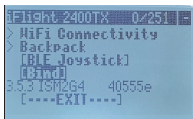
2. 短按 Next Page 来到 SET UP 界面



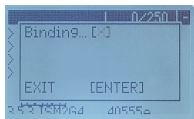
3. 选择并打开 ExternalRF 的 CRSF 协议



4. 长按 System Settings 来到 TOOLS 界面移动光标至 ExpressLRS 选项 长按 Enter 进入下一界面 \ 选项



5. 把光标移动至【Bind】选项，按下 Enter 进入对频模式。



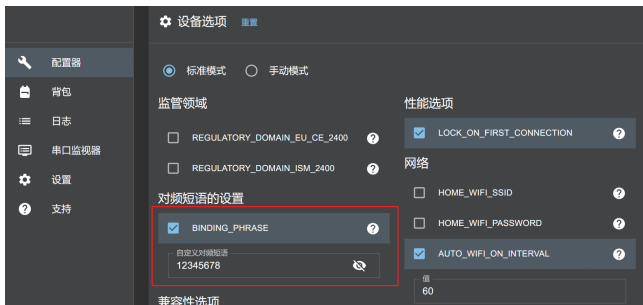
6. 对频完成后，接收机的绿灯双闪会变成绿灯常亮状态，此时已对频成功

[注意]

1. 由于 ELRS 对频速度较快，先使接收机进入对频模式，再让遥控器进入对频模式。
2. 对频完成后，建议给接收机重新上电。
3. 对频时，接收机与遥控器距离要在 1m 以上。
4. 接收机固件版本与高频头固件版本需保持一致，如遇到无法对频的情况可尝试把接收机和高频头固件升级到最新的固件，再尝试对频。
5. 如遇到无法对频情况，可尝试重启遥控器与接收机。

ELRS对频方式二：绑定短语对频与传统方式对频

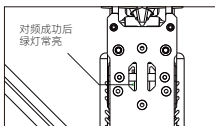
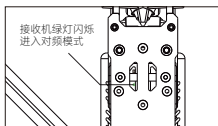
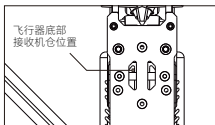
如果你正在刷写接收机与高频头固件，只需要设置好绑定短语即可直接将接收机与高频头绑定，无需使用传统方式对频。在Custom binding phrase中设置你的绑定短语。注意！绑定短语内容必须具有唯一性，不要设置简单的绑定短语，否则在ELRS信号范围内同样绑定短语的设备将会被绑定。



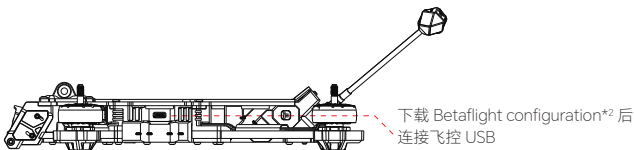
具体操作流程请参考EXPRESSLRS官网中的快速上手教程，或IFLIGHT官方哔哩哔哩账号视频教程。

TBS对频方式：按键对频

将飞行器连接电源 / 电池 飞行器正常自检后，用镊子短按一下 TBS 接收机 BOOT 按键，绿灯闪烁表示进入对频模式，黑羊遥控器或黑羊高频头设置页面进入高频头页面，找到【Bind】选项点击确认进入对频，对频成功后 TBS 接收机指示灯为绿灯常亮。



三、飞行器设置



a. 接收机端口/协议

ELRS/TBS接收机: CRSF

标识符	设置/MSP	串行数字接收机	遥测输出
USB VCP	☒ 115200	☐	已禁用 AUTO
UART1	☒ 115200	☐	已禁用 AUTO
UART2	☐ 115200	☒	已禁用 AUTO
UART3	☐ 115200	☐	已禁用 AUTO
UART4	☐ 115200	☐	已禁用 AUTO
UART6	☐ 115200	☐	已禁用 AUTO
UART7	☐ 115200	☐	已禁用 AUTO

接收机

串行接收机 (通过 UART) 接收机模式

· 必须将接收机对应的 UART 设置为“数字串行接收机”(在 端口 页面)
· 从下拉列表中选择正确的数据格式, 如下:

CRSF 串行数字接收机协议

遥测

☒ TELEMETRY 遥测输出

b. 通道映射设置

接收机通道映射: “AETR1234” 美国手-左手油门 “TAER1234” 日本手-右手油门

设置

- 端口
- 配置
- 动力 & 电池
- 预设
- PID 调试
- 接收机**
- 模式
- 电机
- OSD 屏幕叠加显示
- 图传(VTX)
- 原子
- CLI(命令行)

预览

油门 (A)	1:00
油门 (B)	1:00
方向 (R)	1:00
油门 (T)	885
AUX 1	1:00
AUX 2	1:00
AUX 3	1:00
AUX 4	1:00
AUX 5	1:00
AUX 6	1:00
AUX 7	1:00
AUX 8	1:00
AUX 9	1:00
AUX 10	1:00
AUX 11	1:00
AUX 12	1:00

接收机

串行接收机 (通过 UART) 接收机模式

· 必须将接收机对应的 UART 设置为“数字串行接收机”(在 端口 页面)
· 从下拉列表中选择正确的数据格式, 如下:

CRSF 串行数字接收机协议

遥测

☒ TELEMETRY 遥测输出

RSSI (接收机信号强度)

☐ RSSI_ADC 模拟 RSSI 输入

通道映射: AETR1234 RSSI 通道: 已禁用

舵机低位 阈值: 1050 舵机中点: 1500 舵机高位 阈值: 1900

RC 列区区间: 0 0 50

RC 平滑: 开启 平滑模式

刷新 保存

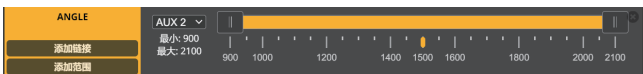
c. 接收机端口/协议

飞行器默认出货为自稳，用户也可自行设置其他模式。

ARM: 解锁/上锁通道开关，用于飞行器的解锁与上锁，默认出厂设置为AUX1,低位为上锁，高位为解锁。图标亮起表示解锁，图标呈现灰色表示上锁。

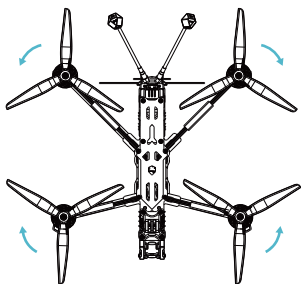


ANGLE:自稳通道开关，用于飞行器开启自稳飞行模式，默认出厂设置为AUX2该模式全程保持开启状态。图标亮起表示开启自稳模式，图标呈现灰色表示非自稳模式。



四、桨叶安装指南

CW 顺时针桨&CCW 逆时针桨，用户需根据桨叶表面的方向标识，区分桨叶方向，安装至飞行器。



注意 ⚠

- ◆ 拆装桨叶时，请确保飞行器处于断电状态。
- ◆ 由于桨叶较薄，请小心操作以防意外划伤。
- ◆ 螺旋桨为易损耗品，如有需要，请另行购买。
- ◆ 每次飞行前请检查螺旋桨是否安装正确和紧固。每次飞行前请务必检查各螺旋桨是否完好，如有老化、破损或变形，请更换后再飞行。
- ◆ 请勿贴近旋转的螺旋桨和电机，以免割伤。
- ◆ 本产品不适合儿童使用。

五、飞行前检查

警告：在进行任何调试、维护或故障排除之前，请务必保持无桨 / 卸桨状态。在确保对频以及 Betaflight*² 调试无误之后再安装桨叶。如果操作不当导致人身伤害，责任自负。请务必谨慎操作，确保安全。

每次飞行前，请对以下内容进行检查。

1. 必须正确安装天线才能上电。
2. 检查使用的电池电量是否充足且健康，确保电池无明显破损、变形或泄露现象。
3. 确认电池型号与飞行器兼容，电压规格正确（比如对于 6S 电池，应为 22.2V 左右）。
4. 检查电池插头与飞行器电池插座接触良好，无松动、污物或损坏情况。
5. 遥控器开启并已与飞行器正确对频，确认接收机指示灯正常闪烁或显示已连接。
6. 确保电机旋转方向正确，拆卸桨叶后，在地面站的电机页面推动油门确认
7. 确认螺旋桨安装方向，确定螺丝螺母不会松动。
8. 确保起飞地点空旷无障碍物，远离人群和贵重物品，以防止意外失控造成的损失。
9. 如果是首次飞行或重大升级后，建议先进行地面测试，确认所有功能正常后再进行空中飞行。

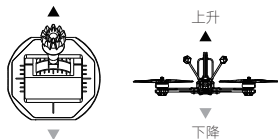
通过以上这些预防性检查，可以有效降低因疏忽导致的飞行事故，保证飞行器的安全运行。

六、飞行操作

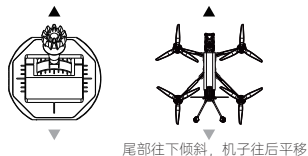
1. 遥控器基本操作

使用遥控器摇杆可控制飞行器飞行，遥控器摇杆操控方式主要分为日本手、美国手，下图以美国手 (Mode 2) 为例。更多信息详见遥控器说明书。

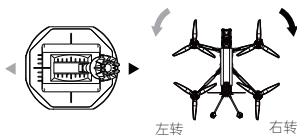
左摇杆



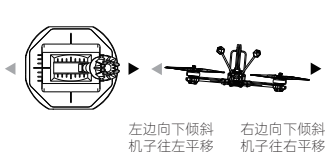
右摇杆



左摇杆



右摇杆



2. 飞行步骤

⚠注意：在操作飞行器前，请查询当地的法律和条款。在某些地区，飞行器的使用可能会受到限制或禁止。飞行时需严格遵守当地法律法规，您将对所有违反当地法律法规的飞行行为负责。

起飞步骤：

需要目视飞行器同时将油门(throttle)推至最低位置，然后慢慢提升油门，使飞行器离地约10-20厘米。观察飞行器的姿态稳定后，收油门遥控器上锁。确认飞行器工作正常后再带上FPV飞行眼镜，或者使用专用监视设备进行飞行，解锁慢慢提高油门，使其平稳升空。

降落步骤：

1. 降低高度，在降落前，先将飞行器逐渐降低至合适高度，保持稳定的飞行速度和姿态。
2. 靠近降落点，控制飞行器慢慢接近预先选好的降落区域，尽量采用滑翔方式接近，才能更好控制距离点位。
3. 减小油门，缓慢减少油门输出，让飞行器缓慢下降。
4. 接触地面或距离地面 5-10cm 即可上锁，小心周围环境避免硬着陆损坏。
5. 降落地面后请立即对无人飞行器进行断电操作。

注意事项

- 电池电量过低，飞行中可通过查看FPV飞行眼镜或监视器中的OSD信息判断电池剩余电量，飞行过程中需自行判断剩余飞行时间并留足冗余作为安全降落电量，当电池单片电芯电压接近3.7V时需要注意返航降落，过度放电会对电池造成不可逆的损坏。
- 观察四周，在降落前再次确认周围环境安全，没有人员或动物进入降落区。
- 降落地后优先将电池插头拔掉使设备断电，避免再次误触遥控器开关 再次解锁极其危险。降落地面后优先将无人飞行器设备断电，避免误触遥控器开关使其再次解锁从而避免发生事故和人身伤害。

七、自动救援模式行为

GPS救援模式注意事项

请您认真阅读以下注意事项, 正确使用救援功能

1. GPS救援模式默认为关闭状态, 请设置一个空闲的拨档开关用于手动控制救援功能。(重点)
2. GPS搜星数量需要达到5颗或以上, 飞机才能正常解锁。
3. GPS救援模式是在紧急情况下, 自动将飞机带回起飞点上空 (例如失控情况下或者手动拨杆启动GPS救援模式) 在救援模式下, 当飞机进入可控范围后请尽快手动接管, 因为GPS救援模式无法做到精准降落
4. 飞机需要飞离起飞点15米外 (水平距离) 才能正常激活GPS救援。Betaflight4.5以上版本则离起飞点15米外即可激活救援 (出厂会设置为15米)。
5. GPS搜星速度和搜星数量与环境天气有关, 所以不同地方搜星的速度和数量均不一样, 请确保起飞之前搜到卫星数量大于5颗, 否则可能无法正常启用失控救援。

Betaflight 4.5 默认设置

Betaflight配置//失控保护页面

☐ 降落

1000

降落时油门大小

10

失控保护过程中关闭电机延时[1=0.1秒]

10



☒ GPS救援

40

角度

30

初始高度(米)

20

下降距离(米)

30

距起飞点的最近距离(米)

5.00

地面速度(米/秒)

1100

最低油门

1600

最高油门

1275

悬停油门

5.00

上升速率(米/秒)

1.00

下降速率(米/秒)

5

最小卫星数

10

Return to Home

10



☐ 允许在未锁定的情况下解锁 - 警告: 这将无法使用GPS救援

最大高度 ▾ 高度模式

仅限失控保护 ▾ 可用性检测

有效脉冲范围设置

885 ▾ 最小长度

2115 ▾ 最大长度

Stage 1 - Channel Fallback Settings

横滚 [A] Auto ▾

俯仰 [E] Auto ▾

方向 [R] Auto ▾

油门 [T] Auto ▾

AUX 1 Hold ▾

AUX 2 Hold ▾

AUX 3 Hold ▾

AUX 4 Hold ▾

AUX 5 Hold ▾

AUX 6 Hold ▾

AUX 7 Hold ▾

AUX 8 Hold ▾

AUX 9 Hold ▾

AUX 10 Hold ▾

AUX 11 Hold ▾

AUX 12 Hold ▾

失控保护开关

阶段 1 ▾ 失控保护开关行为

二阶失控保护 - 设置

1.5 ▾ Period of time in Stage 1 failsafe after signal loss [seconds]

10.0 ▾ 低油门失控保护延迟 [秒]

二阶失控保护措施

☐ 坠落



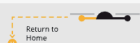
☐ 降落



1000 ▾ 降落时油门大小

1.0 ▾ 失控保护过程中关闭电机延迟 [秒]

☒ GPS 数据



最大高度 ▾ 高度模式

10 ▾ Initial climb (meters)

30 ▾ Return altitude (meters) - only applies in Fixed Altitude mode

7.5 ▾ 上升速率 (米/秒)

7.5 ▾ Return ground speed (meters/second)

45 ▾ Maximum pitch angle

20 ▾ 下降距离 (米)

1.5 ▾ 下降速率 (米/秒)

1100 ▾ 最低油门

1700 ▾ 最高油门

1275 ▾ Throttle hover - **IMPORTANT: set this value accurately**

15 ▾ 距起飞点的最近距离 (米)

5 ▾ 最小卫星数

☐ Allow arming without fix - **WARNING: No fix = disarm on failsafe!**

仅限失控保护 ▾ 可用性检测

八、故障排除指南

问题	可能原因	解决方案
遥控器打杆， 飞行器无反应	接收机协议设置与实际不符	检查接收机协议设置是否和接收机所连接的串口一致
	模式设置有冲突导致解锁失败	检查地面站模式设置是否有重复
	接收机通道预设与和遥控器的通道预设不一致	检查并设置使接收机通道映射和遥控器的通道映射一致
	飞行器在倾斜角度下	检查地面站配置页面的最大解锁角度
	油门通道过高	将油门杆拉到最低，或者检查通道序号是否正确
飞行器起飞即翻滚或无法起飞	螺旋桨安装错误	检查螺旋桨的安装是否正确
飞行器起飞后电机存在异响	螺旋桨松动	拧紧螺旋桨的螺母
	螺旋桨轴心损坏	更换螺旋桨

连接电池后, O4 图传不亮灯, 地面站显示图传正常	关闭了图传开关模式	连接Betaflight, 进入模式设置, 找到并开启“VTX_ON_OFF”模式, 同时确保模式范围条拉满保持VTX模式保持开启。
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九、风险意识和法律免责声明

免责声明与警告

1. 免责声明

本产品并非玩具, 需要有一定的基础知识才能控制, 所以要循序渐进。在开始使用前, 请特别注意其中的注意与警告, 惠州市翼飞智能科技有限公司(翼飞)保留更新本《免责声明和安全操作引导》的权利。

本产品为多旋翼飞行器, 配备了动力强劲的电机和锋利的螺旋桨, 具有极快的飞行速度, 同时具有一定的危险性, 操作时需要谨慎使用。在电源正常工作及各部件未损坏的情况下将提供优异的飞行体验。

务必在使用产品之前仔细阅读本文档, 了解您的合法权益、责任和安全说明, 否则, 可能带来财产损失、安全事故和人身安全隐患。一旦使用本产品, 即视为您已理解、认可和接受本文档全部条款和内容。使用者承诺对自己的行为及因此而产生的所有后果负责。使用者承诺仅出于正当目的使用本产品, 并且同意本条款及翼飞可能制定的任何相关政策或者准则。

翼飞 IFLIGHT 是惠州市翼飞智能科技有限公司及其关联公司的商标。本文出现的产品名称、品牌等, 均为其所属公司的商标或注册商标。本产品的文档如有更新, 恕不另行通知。请访问 www.iflight.com 了解最新信息。

2. 警告

请务必熟悉产品的功能之后再进行操作。如果没有正确操作本产品可能会对自身或他人造成严重伤害, 或者导致产品损坏和财产损失。本产品较为复杂, 需要经过一段时间熟悉后才能安全使用, 并且需要具备一些基本常识后才能进行操作。本产品不适合儿童使用。切勿使用非翼飞提供或建议的部件, 必须严格遵守翼飞的指引安装和使用产品。本指引文档包含安全、操作和维护等说明。在进行组装、设置和使用之前务必仔细阅读用户手册中的所有说明和警告。

使用须知

1. 遥控器

1. 每次飞行前, 确保遥控器电量充足。
2. 确保遥控器天线展开并调整到合适的位置, 以获得最佳的信号效果。
3. 切勿遮挡或覆盖遥控器内置天线, 以获得最佳的信号效果。
4. 遥控器天线如有损坏将影响使用性能, 请及时联系翼飞技术支持进行返修。
5. 如更换遥控器, 需要重新对频。
6. 每隔三个月左右对遥控器内置电池进行一次充放电。
7. 切勿遮挡遥控器进风口及出风口, 以免遥控器温度过高, 影响遥控器性能。

2. 飞行器

1. 每次飞行前, 确保飞行器电量充足。
2. 螺旋桨是否正确、稳固安装。
3. 电池是否安装并连接稳固。

3. 电池

1. 请勿使用镍 (NICD)、镍氢 (NIMH) 或者其他种类电池专用的充电器来为聚合物 (LIPO) 电池充电, 请使用 LIPO 专用充电器充电。
2. 请勿在无人看顾的情况下充电。
3. 请勿过充 (每片电芯充满电的电压不超过 4.25V)。
4. 请勿短路 (正负极接反)。
5. 请在 0-45°C 范围内充电。
6. 充电时, 请注意充电的桌面或平台可耐热耐高温, 充电时, 有条件地选择在水泥地上或者装满泥沙的花盆中充电。
7. 在任何时候, 都不能让电池电芯过热。电芯在温度高达 60°C 后, 会存在安全隐患, 甚至是燃烧。
8. 在充电时, 电池不可接近或者直接放置在易燃物品如: 纸张、塑料、地毯、乙烯、皮革、木材, 或者直接放在设备中充电。
9. 请勿过放 (每片电芯放电后的电压不低于 3.3V), 过放易损伤电池, 如鼓胀。
10. 请勿将电解液溅到眼睛或者皮肤, 如不慎溅到, 请立即用清水清洗, 严重者请立即就医。
11. 请勿任意拆开电池重组或者改变接线。请勿直接接触有漏液现象电池。
12. 请勿私自组装电池, 将旧电池电芯拆开后重组、或者将拆开后的某一片电芯与另外一组电池重组的行为都是危险的 (无专用的组装仪器易引起短路燃烧)。
13. 如在使用中发生碰撞, 请将电池取出。请仔细检测电池以及连接器是否正常, 以防万一。

注意: 电池有可能高温烫手!

飞行警告

1. 恶劣天气下请勿飞行,如大风、下雪、下雨、有雾天气等。
2. 选择开阔、周围无高大建筑物的场所作为飞行场地。大量使用钢筋的建筑物会影响信号工作,干扰飞行。建议飞行器至少距离建筑物、电线杆、障碍物等 10m 以上距离。
3. 飞行时,请保持在视线内控制,远离障碍物、人群、水面等,避免在人员密集处飞行。
4. 请勿在有高压线、通讯基站或发射塔等区域飞行,以免受到干扰。
5. 请勿在移动的物体表面起飞(例如行进中的汽车、船只)。
6. 请勿在易燃易爆的环境中使用飞行器。
7. 切勿接触工作旋转中的螺旋桨,否则可能受到严重人身财产损害。

法律规范

1. 警告

为避免违法行为、可能的伤害和损失,务必遵守以下各项:

1. 禁止将飞行器进行任何改装或用于其他非法用途。
2. 切勿在载人飞机附近飞行。必要时立即降落。
3. 禁止在大型活动现场使用飞行器。这些场地包括但不限于:体育比赛场馆、演唱会。
4. 切勿在当地法律禁止的区域飞行
5. 确保飞行器飞行时不会对航线上的大型载人飞行器造成影响,时刻保持警惕,并躲避其他飞行器。

2. 小心

为避免违法行为、可能的伤害和损失,务必遵守以下各项:

1. 禁止操控飞行器使之进入法律法规规定的禁飞区。禁飞区包括但不限于:机场、边境线以及主要城市和临时举行活动区域。
2. 禁止在超过限定高度的空域飞行。
3. 确保飞行器在您的视距范围内飞行,若有必要可安排观察员帮助您监控飞行器位置。
4. 禁止使用飞行器搭载任何违法危险物品。

3. 注意

1. 确保您已清楚了解飞行活动的类别(例如:娱乐、公务或商务)。在飞行前务必获取相关部门颁发的许可证。如有必要,可向当地政府主管部门咨询飞行活动类别的详细定义说明。请注意,在某些地区与国家禁止使用飞行器进行任何形式的商业行为。
2. 禁止在敏感建筑设施,例如:发电站、水电站、监狱、交通要道、政府大楼以及军事设施附近使用飞行器。

出口管制

1. 遵守出口管制法律

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注释：

*1：支持 4K 实时录制，4K/120fps 视频不支持 4x3 画幅，仅支持 16x9 画幅。

*2：Betaflight configuration 是飞行器飞控调参软件，请通过以下地址下载。

<https://betaflight.com/download>

*3：DJI Assistant2（消费机系列）软件支持 DJI 消费无人机系列产品激活与调参，请通过以下地址下载：<https://www.dji.com/cn>

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国内返修登记表

Domestic repair registration form

请先扫码填写产品售后信息,再填写售后工单号并随货物一同寄回此返修卡。

寄件人: _____

手机号码: _____

售后工单号: _____

保修政策

Warranty policy

因为航模商品的特殊性,一旦正常使用后,在后续的使用中出现损伤,经过寄回检查后,确认是产品质量问题后,我们将接受无条件退换,非质量问题不接受退换。(我们会尽可能免费为您维修,快递费由买家承担)

以下因素不在保修范围内

The following factors are not covered by the warranty

1. 由人为因素造成的损伤、在异常条件下使用产品;
2. 由于使用不当,或维护不当导致出现问题;
3. 不可抗力,如火灾、洪水、地震;
4. 通过二级市场等其他第三方平台购买的物品,将不给予免费的保修服务;
5. 无法出示有效发票及保修卡。

注: 套机请寄回成品,请勿拆成散件寄回,否则将会导致返修周期延长。



Warranty Policy



微信公众号
WeChat Official Accounts

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EASA Compliance and Legal Notice

This unmanned aircraft system (UAS) has been designed to comply with the requirements of:

Commission Delegated Regulation (EU) 2019/945 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems; and

Commission Implementing Regulation (EU) 2019/947 on the rules and procedures for the operation of unmanned aircraft.

Operators and remote pilots are legally responsible for conducting all UAS operations in accordance with applicable EU and national legislation.

The following rules apply:

Registration:

UAS operators must register with their national aviation authority if required by law.

Pilot Competency:

Remote pilots must meet the required competency level for the operation category (e.g., A1/A3 or A2), including online training and examination where applicable.

Operational Limitations:

Maintain visual line of sight (VLOS) at all times.

Maximum flight altitude: 120 meters above ground level (AGL).

Minimum distance from uninvolved persons: 150 meters (for C4-class aircraft).

No operations in prohibited or restricted airspace without prior authorization.

Environmental Awareness:

Do not operate in poor weather (rain, snow, fog), during nighttime, or near emergency scenes.

Privacy and Data Protection:

UAS operators must comply with applicable privacy laws and must not collect or share personal data without consent.

Labeling and Markings:

The C4 class marking must be clearly visible on the aircraft. The operator registration number must also be visibly affixed as per authority requirements.

For more information and updates, consult the EASA UAS website.

Safety Warning & Disclaimer

⚠ Warning: Before using the aircraft, thoroughly read this manual for important notes and warnings. This manual contains important safety, operation, and maintenance instructions. Failure to follow proper usage may result in damage, injury, or product malfunction.

Safe Flying Guidelines

1. Age Recommendation: This product is not a toy and has certain risks. It is not suitable for non-professionals under the age of 18.
2. Please keep out of reach of children. Children are prohibited from touching it.
3. For entertainment purposes only. Autonomous flight not supported.
4. DO NOT operate under the influence of alcohol, fatigue, or other impaired mental states.
5. DO NOT use the aircraft to carry any illegal or dangerous goods.
6. DO NOT operate the aircraft in no-fly zones and near sensitive buildings and facilities stipulated by laws and regulations. These may include airports, borderlines, major cities, power plants, hydroelectric stations, prisons, transportation hubs, government buildings, and military facilities.
7. Before performing remote control channel calibration, firmware upgrades, or parameter settings, please turn off the power supply or remove the propellers to prevent the motor from rotating at high speed.
8. DO NOT fly in airspace with limited altitude.
9. DO NOT use this product for any unauthorized surveillance activities or to infringe on the privacy of others.
10. DO NOT use this aircraft to infringe on the property rights of others.
11. DO NOT use the aircraft in densely populated areas, including but not limited to: city centers, sports stadiums, exhibition venues, concert halls, stations, and temporary event areas. If there is a filming requirement, be sure to apply for a permit from the relevant authorities before flying.

Disclaimer

1. This product is not a toy and requires basic knowledge to control. Therefore, it is important to proceed gradually. Before using the aircraft, thoroughly read this manual and the Disclaimer and Safety Guidelines for important notes and warnings. iFlight reserves the right to update this Disclaimer.
2. Before using this aircraft, be sure to read this document carefully to fully understand your legal rights, responsibilities, and safety precautions. Failure to comply with the instructions in the document may result in property damage, safety accidents, or personal injury. By starting to use this product, you indicate that you fully understand, accept, and agree to all

the terms and contents of this document, and you undertake to be responsible for your own actions and all consequences arising therefrom. In addition, you also promise to use this aircraft only for legitimate purposes and agree to comply with any relevant policies and guidelines that iFlight may formulate.

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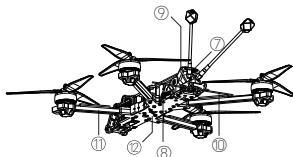
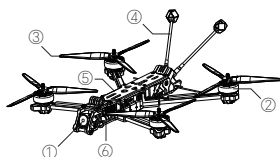
I. Overview

1. Introduction

Nazgul Evoque F7 is a highly versatile and high-performance FPV drone, featuring a DC frame design paired with Borg electronics. It offers stable and safe operation across various flight scenarios, letting you capture unobstructed mountain and sea views effortlessly. The

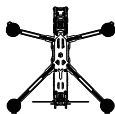
front-mounted air unit design keeps wiring neat and organized, reducing the risk of malfunctions caused by wiring issues. The innovative fin-shaped cooling channel and dynamic LED lighting combine style with performance. Fully injection-molded components enhance the premium feel, and it comes equipped with DJI O4 Air Unit Pro, featuring 4K*1 155 ° ultra-wide FOV for excellent low-light night vision and recording capability. Whether you are a professional pilot seeking ultimate control or an enthusiast enjoying immersive flight, it is easy to fly and unlocks diverse flying experiences.

2. Appearance Components



- ①Camera ②Motor ③Propeller ④Antenna ⑤Anti-slip pad ⑥Air unit
 ⑦XT60 ⑧Side Panel + LED strip ⑨TPU Antenna Mount ⑩T-shaped antenna
 ⑪Arm ⑫Bottom plate

3. Packing List



Nazgul Evoque F7 x1



CW propellers x2



CCW propellers x2



Albatross V2 LHCP
RP-SMA antennas x2



Battery pad x1



Battery straps x2



Accessory pack x1



Sticker x1



Safety warning
card x1



Disclaimer x1



After sales
service card x1

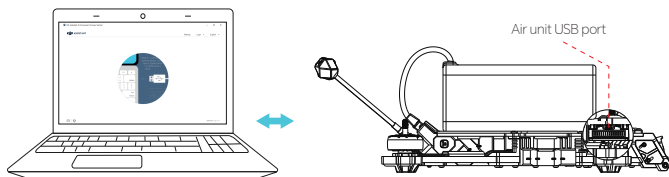
II. First Flight Preparation

1. Goggles Binding Instruction

Note: Before activation, please make sure the propellers are removed. The propellers can only be installed after the aircraft binding and Betaflight² settings are completed.

If improper operation results in personal injury, you will be solely responsible for it. Please operate with caution to ensure safety.

1.1 Air Unit Activation: Power on the Nazgul Evoque and DJI Goggles separately, connect the corresponding device to the computer using the USB-C port and then run DJI Assistant 2³ (Consumer Drones Series) for activation and firmware upgrade. Please refer to the DJI O4 Air Unit User Manual for details.



[Figure 1-1]

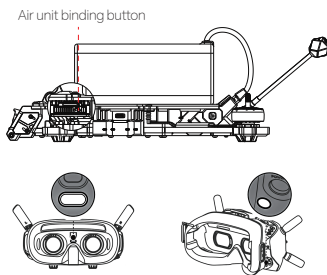
1.2 Aircraft and Goggles Binding (Make sure that all devices have been updated to the latest firmware versions before binding.)

① Power on the aircraft and the goggles separately.

② Press the bind button of the air unit [Figure 1-2], the binding status indicator of the air unit blinks red.

③ Press the bind button of the goggles and the goggles start to beep continually.

④ Make sure the distance between the air unit and the goggles is within 0.5m. Once binding is successful, the binding status indicator of the air unit turns solid green. The goggles stop beeping and image transmission can be displayed normally.



[Figure 1-2]

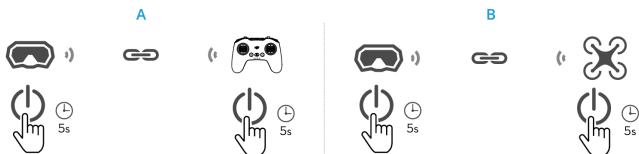
Note: This is the procedure for HD version, if the aircraft is analog version, please refer to Part 2.2 for the corresponding receiver binding procedure.

- ◆ DO NOT use the air unit for extended periods in environments without external cooling. Overheating may occur, causing video transmission to be interrupted.
- ◆ To reduce heat generation, the air unit defaults to low-power mode after powering on, during which video transmission performance is below normal specifications. When the aircraft arms or recording starts, the air unit will automatically exit low-power mode, and video transmission performance will return to normal. Please take off as soon as possible or ensure the air unit is well-ventilated and cooled.
- ◆ DO NOT short-circuit the power and GND wires, or plug/unplug cables after the air unit is powered on, as this may damage the aircraft.
- ◆ Make sure you fully understand and abide by local laws and regulations before using this product.
- ◆ This product is not intended for children.

2. Remote Controller Binding Instruction

2.1 DJI Remote Controller Binding

Make sure that all the DJI devices are updated to the latest firmware using DJI Assistant 2 (Consumer Drones Series) before linking.



1. Linking Goggles and Remote Controller (Figure A)

- ① Power on the aircraft, goggles, and remote controller. Press and hold the power button on the remote controller until it starts to beep continually and the battery level LEDs blink in sequence.
- ② Press and hold the power button on the goggles until it starts to beep continually and the battery level LEDs blink in sequence.
- ③ Once linking is successful, the goggles and the remote controller stop beeping and both the battery level LEDs turn solid and display the battery level.

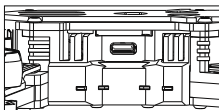
2. Linking Goggles and Aircraft (Figure B)

- ① Press and hold the power button on the goggles until it starts to beep continually and the battery level LEDs blink in sequence.
- ② Press and hold the power button on the aircraft until it beeps once and the battery level LEDs blink in sequence.
- ③ Once linking is completed, the battery level LEDs of the aircraft turn solid and display the battery level, the goggles stop beeping, and the image transmission can be displayed normally.

- The aircraft can be controlled with only one remote control device during flight. If the aircraft has been linked with multiple remote control devices, turn off the other remote control devices before linking.
- Make sure the devices are within 0.5 m of each other during linking.

2.2 Receiver Binding Methods + Steps (ELRS)

ELRS Binding Method 1: Traditional Binding Procedure (Take iFlight Commando 8 binding to 2.4GHz module as an example. For specific operations of other remote controllers, please refer to the corresponding remote controller's manual.)

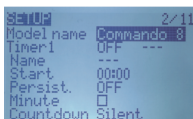


Plug and unplug the USB port for three times:

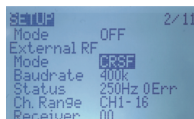
Power on and off the aircraft for three times, or plug and unplug the USB port for 3 times to supply power to the receiver when the aircraft is power off, the green LED will start to double flash continuously. BIND mode active.



1. Once you power on, long press the the Model setup to enter the MODELSEL page.



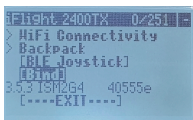
2. Press Next Page to enter the SETUP page.



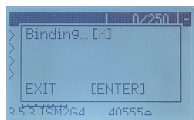
3. Scroll down to External RF and select CRSF.



4. Long press System Settings to enter the TOOLS interface, move the cursor to ExpressLRS, and long press Enter to enter the next interface/option.



5. Scroll down to BIND, press Enter to enter the binding mode. Bind mode active.



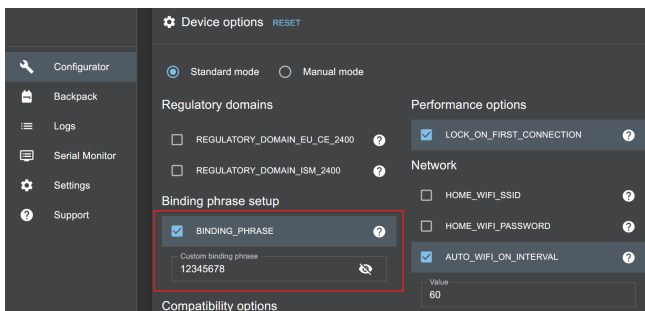
6. After binding, the green LED on the receiver will turn to solid green. Bind was successful.

[Note]

1. Be quick with this process and set the receiver in binding mode first.
 2. After the binding process is completed, it's recommended to re-power receiver.
 3. The distance of receiver and remote controller should be more than 1m during the process.
 4. The receiver firmware version should be consistent with the RF module firmware version.
- If you can't bind your hardware, please try to update to the latest firmware.
5. If you can't bind your aircraft, please try to reboot and several times if necessary.

ELRS Binding Method 2: Using Custom Binding Phrase

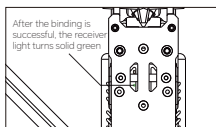
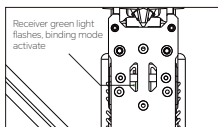
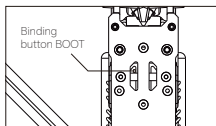
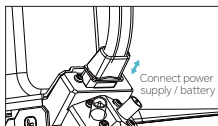
When flashing the latest ELRS firmware for Receiver and RF module, just set a unique custom binding phrase to automatically bind all your hardware. Do not set a too simple binding phrase, otherwise other pilot's aircraft with the same binding phrase might be bound as well.



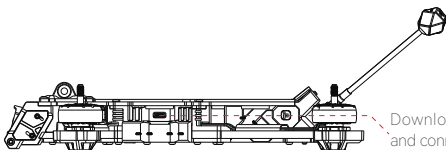
For more specific information please refer to the ELRS quick start tutorial on the official website.

TBS Crossfire Binding Method: Using Button Binding

Power on the aircraft and after the aircraft completes self-check, use tweezers to short press the TBS Crossfire receiver BOOT button. If the green light flashes, it means binding mode activate. Enter the TBS radio controller or TX module settings page, scroll down to [BIND], press the button to enter. After successful binding, the TBS Crossfire receiver indicator light will turn to solid green.



III. Aircraft Setting



Download Betaflight Configurator*2
and connect to flight controller USB.

a. Receiver Port/Protocol

ELRS/TBS Receiver: CRSF

Identifier	Configurator/MSP	Serial Rx	Telemetry Output
USB VCP	☒ 115200	☐	Disabled AUTO
UART1	☒ 115200	☐	Disabled AUTO
UART2	☐ 115200	☒	Disabled AUTO
UART3	☒ 115200	☐	Disabled AUTO
UART4	☐ 115200	☐	Disabled AUTO
UART5	☐ 115200	☐	Disabled AUTO
UART6	☐ 115200	☐	Disabled AUTO

Receiver

Serial (via UART)
Receiver Mode

• The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)

• Select the correct data format from the drop-down, below:

CRSF
Serial Receiver Provider

Telemetry

☒
TELEMETRY
Telemetry output

b. Channel Map Setting

Receiver Channel Map: "AETR1234" Mode 1 Throttle, "TAER1234" Mode 2 Throttle

Setup
Ports
Configuration
Power & Battery
Presets
PID Tuning
Receiver
Modes
Motors
OSD
Video Transmitter
Blackbox
CLI

Preview

Roll (A) 1500
Pitch (E) 1500
Yaw (R) 1500
Throttle (T) 885
AUX 1 1500
AUX 2 1500
AUX 3 1500
AUX 4 1500
AUX 5 1500
AUX 6 1500
AUX 7 1500
AUX 8 1500
AUX 9 1500
AUX 10 1500
AUX 11 1500
AUX 12 1500

Receiver

Serial (via UART)
Receiver Mode

• The UART for the receiver must be set to 'Serial Rx' (in the Ports tab)

• Select the correct data format from the drop-down, below:

CRSF
Serial Receiver Provider

Telemetry

☒
TELEMETRY
Telemetry output

RSSI (Signal Strength)

☐
RSSI_ADC
Analog RSSI input

Channel Map

AETR1234
RSSI Channel

'Stick Low' Threshold

1050
1500
'Stick High' Threshold
1900

RC Deadband

0
0
3D Throttle Deadband
50

RC Smoothing

On
Smoothing Mode

Refresh
Save

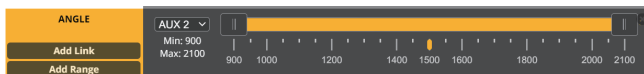
C. Mode Switch (Default Angle)

The default mode is Angle, and users can also switch to other modes.

ARM: The ARM/DISARM channel switch for arming and disarming the aircraft. Default factory setting is AUX1, low position for disarm, high position for arm. The icon is lit to indicate arm, the icon is gray to indicate disarm.

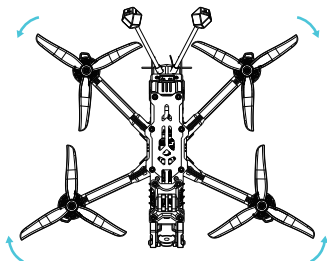


ANGLE: The Angle channel switch is used to enable the aircraft's self-leveling flight mode, the default factory setting is AUX2, this mode remains on throughout the flight. The icon is lit to indicate Angle mode is on, the icon is gray to indicate Angle mode is off.



IV. Propellers Installation

Identify CW & CCW propellers and install them correctly on the aircraft.



Note ⚠

- ◆ Before removing or installing the propellers, please make sure the aircraft is powered off.
- ◆ Handle propellers carefully to avoid accidental cuts.
- ◆ Propellers are consumables; inspect and replace them if worn, damaged, or deformed.
- ◆ Ensure propellers are installed correctly and securely before each flight.
- ◆ Avoid close contact with rotating propellers and motors.
- ◆ This product is not intended for children.

V. Pre-Flight Check

Warning: Before tuning, maintenance, or troubleshooting, always ensure that the propellers are removed or not installed. Only install the propellers after successful binding and proper setup verification. Improper operation may result in personal injury, for which the user assumes full responsibility. Please operate with extreme caution and prioritize safety at all times.

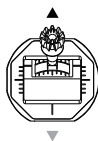
1. Make sure the antenna is installed correctly before powering on the aircraft.
 2. Make sure the aircraft batteries are fully charged and there is no obvious damage, deformation or leakage in the battery.
 3. Make sure the battery model is compatible with the aircraft and the voltage specification is correct (e.g. for 6S battery, it should be about 22.2V).
 4. Make sure the aircraft battery is properly connected and secure, there is no looseness, dirt or damage.
 5. Make sure the remote controller is powered on and bind to the aircraft, and verify the receiver indicator light flashes normally or indicates a connection.
 6. Make sure the motor rotates in the right direction, take off the propellers and connect the aircraft to Betaflight Configurator, then push the throttle to confirm the rotation on the motor page.
 7. Make sure propellers are in good condition and mounted onto the motors correctly and securely.
 8. Ensure the takeoff area is open and free of obstacles. Keep a safe distance from people and valuable objects to prevent potential damage in case of loss of control.
 9. If it is the first flight or after a major upgrade, it is recommended to conduct a ground test first to make sure all functions are normal before flying in the air.
- These preventive inspections can effectively reduce flight accidents caused by negligence and ensure the safe operation of FPV drones.

VI. Flight Operation

1. Basic Remote Controller Operation

The aircraft is controlled via the remote controller sticks. There are two main stick configurations: Mode 1 and Mode 2. The following diagram uses Mode 2 as an example. See the remote controller manual for more information.

Left

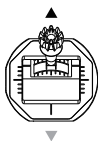


Up



Down

Right

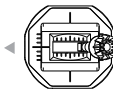


Head tilts down,
aircraft pans forward



Rear tilts down,
aircraft pans back

Left

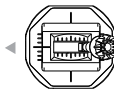


Turn left



Turn right

Right



Left side tilted
down Aircraft
pans to the left



Right side tilted
down Aircraft
pans to the right

2. Flight Procedures

Note: Before operating the aircraft, please check local laws and regulations. In some areas, the use of aircraft may be restricted or prohibited. Users are solely responsible for complying with all applicable laws and regulations during flight operations, and any violations will be at your own risk.

Takeoff Procedure:

Start by pushing the throttle to the lowest position, then gradually increase it to lift the aircraft approximately 10-20cm off the ground. Once the aircraft's attitude is stable, throttle down and disarm the remote controller. Put on FPV goggles or face the monitor (such as a handheld monitor), arm the remote controller and slowly increase the throttle to smoothly ascend.

Landing Procedure:

1. Decrease altitude, before landing, gradually lower the aircraft to an appropriate altitude, maintaining a stable flight speed and attitude.
2. Approach landing spot, control the aircraft to slowly approach the pre-selected landing area, preferably using a gliding approach to better control the distance.
3. Reduce throttle, slowly decrease throttle output to allow the aircraft to land slowly.
4. Disarm the aircraft when it touches the ground or is 5-10cm away from the ground, be careful to avoid hard landings that could cause damage.
5. After landing, immediately unplug the battery to power off the device to avoid injury.

Precautions:

- Monitor battery level: You can check the remaining battery power by checking the OSD

information in the FPV goggles or the monitor during flight. You need to judge the remaining flight time and leave enough redundancy for safe landing. When the voltage of a single battery cell approaches 3.7, you need to pay attention to return and land. Over-discharge will cause irreversible damage to the battery.

- Observe surroundings: Before landing, double-check the surrounding environment for safety, ensuring no people or animals are in the landing area.

- Disconnect battery: After landing, it is important to first power off the aircraft to avoid accidentally triggering the remote controller switch to arm it again, preventing potential accidents and injury.

VII. Automatic Rescue Mode Behavior

GPS Rescue Mode / Setup

Please read carefully and customize settings if necessary

1. GPS Rescue is OFF by default to prevent from unwanted or unexpected drone behavior. Please carefully study the Betaflight Wiki on <https://github.com/betaflight/betaflight/wiki/GPS-rescue-mode> and setup an AUX switch for first tests in line of sight and safe environment!

2. Enable Expert Mode in the Betaflight Configurator to access the Failsafe tab and configure the GPS Rescue feature. Default setup needs at least 5 satellites before you're able to arm, unless you adapt the settings. At this point in time, DJI digital FPV can't display OSD messages (for example if GPS Rescue is not available). Analog FPV does!

3. Quote BF: "GPS Rescue Mode is intended to bring your quad back autonomously in case of an emergency such as loss of video or radio link. The only purpose of GPS Rescue is to bring the quad back into range so you can retake control as soon as possible. GPS Rescue IS NOT a full "Return To Home" (RTH) function."

4. Fly in a straight line for at least 15 meters past your descent distance, make sure the home arrow is pointing at your direction to confirm correct GPS functionality. Manually activate GPS rescue mode and study its behaviour.

5. GPS performance (search speed and the amount of satellites found) greatly depends on the environment you're in. Bad weather and obstructed areas will give you fewer satellites and a fewer accuracy that might not work reliably before take-off or even in-flight. Always make sure not to bring yourself or others in danger!

Betaflight Configurator // Failsafe tab

☐ Land

1000

Throttle value used while landing



10

Delay for turning off the Motors during Failsafe [1=0.1sec.]

☒ GPS Rescue

40

Angle



30

Initial altitude(meters)

20

Descent distance(meters)

30

Minimum distance to home(meters)

5.00

Ground speed(meters/second)

1100

Throttle minimum

1600

Throttle maximum

1275

Throttle hover

5.00

Ascend rate(meters/second)

1.00

Descend rate(meters/second)

5

Minimum satellites



Allow arming without fix-**WARNING : the GPS Rescue will not be available**

Maximum altitude

Altitude mode

Failsafe only

Sanity checks

Valid Pulse Range Settings

885 Minimum length

2115 Maximum length

Stage 1 - Channel Fallback Settings

Roll [A]	Auto
Pitch [E]	Auto
Yaw [R]	Auto
Throttle [T]	Auto
AUX 1	Hold
AUX 2	Hold
AUX 3	Hold
AUX 4	Hold
AUX 5	Hold
AUX 6	Hold
AUX 7	Hold
AUX 8	Hold
AUX 9	Hold
AUX 10	Hold
AUX 11	Hold
AUX 12	Hold

Failsafe Switch

Stage 1 Failsafe Switch Action

Stage 2 - Settings

1.5 Period of time in Stage 1 failsafe after signal loss [seconds]

10.0 Failsafe Throttle Low Delay [seconds]

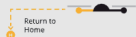
Stage 2 - Failsafe Procedure

☐ Drop


☐ Land


1000 Throttle value used while landing

1.0 Delay for turning off the Motors during Failsafe [seconds]

☒ GPS Rescue


Maximum altitude Altitude mode

10 Initial climb (meters)

30 Return altitude (meters) - only applies in Fixed Altitude mode

7.5 Ascend rate (meters/second)

7.5 Return ground speed (meters/second)

45 Maximum pitch angle

20 Descent distance (meters)

1.5 Descend rate (meters/second)

1100 Throttle minimum

1700 Throttle maximum

1275 Throttle hover - IMPORTANT: set this value accurately

15 Minimum distance to home (meters)

5 Minimum satellites

☐ Allow arming without fix - WARNING: No fix = disarm on failsafe

Failsafe only Sanity checks

VIII. Troubleshooting Guide

Issue	Possible Reason	Solution
The aircraft does not respond to the remote control stick input.	Receiver protocol settings do not match the actual configuration.	Check if the receiver protocol settings are consistent with the serial port to which the receiver is connected.
	Mode settings conflict causing failure to arm.	Check if there are any conflicts or duplicates in the Betaflight Configurator mode settings.
	Receiver channel presets do not match the transmitter channel presets.	Verify and configure receiver channel map setting to match the transmitter channel map setting.
	Aircraft is at a tilted angle.	Check the maximum arming angle setting on the Betaflight Configurator page.
	Throttle channel is too high.	Move the throttle stick to the lowest position or verify if the channel number is correct.
Aircraft Rolls Over Immediately on Takeoff or Cannot Take Off	Propellers installed incorrectly.	Ensure that the propeller direction matches the motor direction.
Unusual Noise from Motors After Takeoff	Propellers are loose.	Tighten the propellers.
	Propeller shaft is damaged.	Replace the propeller.

After connecting the battery, the O4 air unit LED does not light up, although the Betaflight configurator shows the VTX is working correctly.	The VTX switch mode is turned off.	Connect to Betaflight, go to Mode Settings, find and enable the "VTX_ON_OFF" mode, and ensure the mode range is set to the maximum so that the VTX remains continuously on.
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IX. Maintenance and Inspection

Compliance Supplement

1. Rescue Mode (Failsafe Behavior)

In the event of transmitter signal loss longer than 5 seconds, the Nazgul Evoque F7 enters Rescue Mode. It first hovers for up to 3 seconds, then initiates a Return-To-Home (RTH) at a default altitude of 30 m AGL, and lands at the GPS-recorded home point.

Manual control is disabled during this sequence. The RTH altitude and delay can be configured via Betaflight (Failsafe tab). Before flight, confirm the home-point GPS fix. After flight, pilots are advised to inspect GPS and failsafe logs.

2. EASA Regulatory Notice

The Nazgul Evoque F7 complies with Delegated Regulation (EU) 2019/945 and Implementing Regulation (EU) 2019/947.

Remote pilots must: register the UAS if required, obtain relevant pilot competency (A1/A3 or A2 certification), maintain visual line-of-sight, fly below 120 m AGL, stay 150 m away from uninvolved persons, and comply with local airspace and privacy laws.

3. MTOM Declaration

The Nazgul Evoque F7 HD has a declared Maximum Take-Off Mass (MTOM) of 1620 g. This includes the frame, battery, payloads, and all accessories. Exceeding this weight invalidates the certification and creates a safety hazard.

4. Pilot Warning for Payload

Pilots must ensure that any installed accessories or payloads do not cause the aircraft's total weight to exceed the 2100 g MTOM. Pilots are solely responsible for maintaining compliance.

5. Measured Mass Over Declared MTOM

Tested mass of 2100 g slightly exceeds the declared MTOM. The manual should state that MTOM must not exceed 2100 g under any condition, with clear warnings to reduce weight if necessary.

6. Acro Mode

Acro Mode disables all flight stabilization and allows full manual control over roll, pitch, and yaw. It is recommended only for advanced pilots.

This mode is not enabled by default and can be activated via Betaflight's Modes tab.

7. Failure Modes

The manual must describe failure modes and handling:

- Signal loss: triggers Rescue Mode;
- Battery low: initiates landing or RTH;
- GPS loss: falls back to IMU stabilization;
- Motor failure: aircraft may drift; pilot must land immediately.

8. Control Verification in Degraded Conditions

While Nazgul Evoque F7 is controllable under normal conditions, degraded conditions (e.g., dual failure) may cause the aircraft to become unstable. Pilots must be prepared to perform manual landings and emergency maneuvers.

9. System Description

The manual should include:

- Class: C4;
- Firmware: Betaflight 4.5;
- Control system: DJI O4;
- GPS: supports Rescue Mode;
- Payload: ≤150g;
- Recommended battery: 6S 22.2 V LiPo, ≥1500mAh.

10. Maintenance Instructions

Maintenance guidelines:

- After each flight: inspect props, motors, and screws;
- Monthly: update firmware, calibrate gyro;
- Battery: Storage voltage 3.7V. Store in shady and cool place.
- Props: replace every 20 flights or upon damage.

11. Troubleshooting Section

Common issues:

- Drone won't arm: check throttle and gyro;

- No RC signal: check antenna and binding;
- Rescue Mode fails: verify GPS fix;
- Instability: check sensors, prop direction;
- Fast battery drain: assess health and flight settings.

12. Health, Transport, and Contingency Info

Pilots must be alert, not under medication or stress. Transport the drone in a shock-proof case with props removed. Prepare emergency plans: alternate landing zones, battery margin checks, and response to failsafe events.

13. Environmental Limitations

Flight limits:

- Wind: $\leq 7\text{m/s}$;
- No rain, snow, or fog;
- Max altitude: 120m AGL;
- Visibility: $\geq 1\text{km}$;
- Min distance from persons: $\geq 150\text{m}$.

14. Risk Descriptions

Risk matrix should include:

- Signal loss $\rightarrow$ Rescue Mode;
- Battery failure $\rightarrow$ forced landing;
- Orientation loss $\rightarrow$ manual recovery;
- Propeller injury $\rightarrow$ maintain safe zone;
- Airspace violation $\rightarrow$ pre-plan with maps and NOTAMs.

X. Risk Awareness & Legal Disclaimer

Disclaimer and Warning

1. Disclaimer

This product is a multi-rotor aircraft, equipped with powerful motors and sharp propellers, has fast flight speed, but also has a certain hazard when operating, need to be used with caution.

This product is not a toy and requires some basic knowledge to control, so please pay special attention to the warnings and cautions before you start using it. iFlight reserves the right to update this Disclaimer.

By using this product, you are deemed to have understood, acknowledged and accepted all of the terms and conditions of this document and you undertake to be responsible for your own actions and all consequences arising therefrom. You undertake to use this product only for legitimate purposes and agree to all of the terms and conditions of this document and any related policies or guidelines that iFlight may establish.

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iFlight reserves the right to update this disclaimer and the safety guidelines.

Visit www.iflight.com for the latest version.

Individual Parts

1. Remote Controller

1. Make sure the remote controller is fully charged before each flight.
2. Make sure the antenna is fully unfolded and adjusted properly for optimal signal performance.
3. Do not cover or block the built-in antenna to maintain strong signal transmission.
4. Damaged antennas may affect performance, please contact iFlight technical support for repairs.
5. If you replace the controller, re-bind it with the aircraft.
6. Charge and discharge the built-in battery approximately once every three months.
7. Do not block the air intake or exhaust vents to avoid overheating and performance degradation.

2. Aircraft

1. Make sure the aircraft is fully charged before each flight.
2. Make sure the propellers are installed correctly and securely.
3. Check that the battery is properly mounted and firmly connected.

3. Battery

1. Do not use chargers designed for Nickel-Cadmium (NiCd), Nickel-Metal Hydride (NiMH), or other battery types to charge Lithium Polymer (LiPo) batteries. Only use chargers specifically made for LiPo batteries.
2. Never leave the battery unattended while charging.
3. Do not overcharge (the fully charged voltage of each cell should not exceed 4.25V).
4. Do not short-circuit (e.g., reverse polarity connection).
5. Charge the battery only within a temperature range of 0–45°C.

6. When charging, place the battery on a heat-resistant and fireproof surface. If possible, charge on concrete ground or in a flowerpot filled with sand.
 7. Never allow the battery cells to overheat at any time. When the cell temperature reaches 60°C or higher, there is a risk of safety issues, including combustion.
 8. Do not charge the battery near or on flammable materials such as paper, plastic, carpet, vinyl, leather, wood, or while it is still inside a device.
 9. Do not over-discharge (the voltage of each cell should not drop below 3.3V). Over-discharging may damage the battery and cause swelling.
 10. Avoid contact with battery electrolyte. If it splashes into your eyes or onto your skin, rinse immediately with clean water. Seek medical attention if necessary.
 11. Do not disassemble or modify the battery or its wiring. Avoid handling batteries that are leaking.
 12. Do not reassemble or DIY battery packs. Disassembling and recombining battery cells without proper equipment can lead to short circuits or fire hazards.
 13. If the battery is impacted during use, remove it immediately and inspect both the battery and connectors carefully to ensure they are undamaged.
- Caution: The battery may be in high temperature!

Flight Condition Requirements

1. Do not fly in severe weather conditions including strong wind, snow, rain, fog, etc.
2. Only fly in open areas without tall buildings and large metal structures around. Buildings with a large number of concrete floors will affect the signal and interfere with the flight. It is recommended to fly at least 10m away from buildings, poles, obstacles, etc.
3. When flying, please keep control within sight and away from obstacles, crowds, water, etc.
4. Please do not fly in areas with high voltage lines, communication base stations or transmission towers to avoid interference.
5. Do not take off from moving objects, such as cars and ships.
6. Do not use the aircraft in an environment at risk of a fire or explosion
7. To avoid injury, stay away from rotating propellers or motors.

Regulations

1. WARNING

To avoid illegal activity, potential injury, or damage, strictly follow these rules:

1. Do not modify the aircraft or use it for any illegal purposes.
2. Do not fly near manned aircraft. Land immediately if necessary.
3. Do not operate the aircraft at large public events such as sports stadiums or concerts.
4. Do not fly in areas where it is prohibited by local laws and regulations.

5. Ensure your aircraft does not interfere with manned aircraft flight paths. Always stay alert and avoid other aircraft.

2. CAUTION

To avoid legal violations, injury, or property damage, please observe the following:

1. Do not fly in restricted or no-fly zones defined by local laws. These include but are not limited to airports, border areas, major cities, and temporary activity zones.
2. Do not fly above the legally permitted altitude limit.
3. Always keep your drone within visual line of sight (VLOS). If needed, assign a spotter to assist in maintaining visual awareness.
4. Do not use the aircraft to carry any illegal or dangerous goods.

3. NOTICE

1. Make sure you fully understand the category of your flight activity (e.g., recreational, governmental, or commercial). Before flying, obtain the necessary permits from relevant authorities. If unsure, consult your local government agency for detailed classification guidelines. Please note that in certain regions or countries, the use of drones for any commercial purpose may be prohibited.
2. Do not operate aircraft near sensitive facilities such as power stations, hydroelectric stations, prisons, transportation hubs, government buildings, or military installations.

Export Controls

1. Comply with Applicable Export Control Laws

You are advised that export, re-export, and transfer of the Products are subjected to Chinese export control law and other applicable export control laws and sanctions (hereafter collectively referred to as "Export Control Laws"). Prior to your use, sale, transfer, rental, or other conduct related to the Products, unless permitted by the Export Control Laws or with the license issued by competent authorities, you shall in particular check and guarantee by appropriate measures that:

1. There will be no infringement of an embargo imposed by the Export Control Laws;
2. The Products will not be provided to the entities, persons, and organizations listed in all applicable sanctioned party lists;
3. It is only for civilian use, and it is forbidden to directly or indirectly use iFlight products for or related to the following content (1) any military combat purpose or military combat-related purposes; (2) terrorist activities; (3) other criminal acts. The purchaser shall also require its customers or users to comply with the aforementioned requirements.

2. Export Compliance, Disclaimer & Indemnity

You acknowledge it is your responsibility to comply with Chinese export control law and any other applicable export control laws. You shall solely be responsible for the legal responsibility if any of your use, sale, transfer, rental or other conduct related to the Products fail to comply with the applicable export control laws. iFlight shall, in no circumstances, be responsible for your violation of any applicable export control laws. Furthermore, you shall indemnify, defend, and hold harmless iFlight, its affiliates, directors, officers, employees, agents, and representatives, from and against any and all claims, demands, suits, causes of action, expenses (including reasonable attorneys' fee), damages, losses, or liabilities of any nature whatsoever, arising from, or allegedly arising from, or related to, your failure to comply with applicable export control laws.

Caution:

*1: Supports 4K real-time recording, 4K/120fps video does not support 4:3 aspect ratio, only 16:9 aspect ratio.

*2: Betaflight is the flight controller software (firmware) used to configure your aircraft. Please download at this link: <https://betaflight.com/download>

*3: DJI Assistant 2 (Consumer Drones Series) supports the consumer drones series products activation and firmware upgrade. Please download at this link: www.dji.com.

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Follow us for more information and support

Customer Support Service (Worldwide)

For any return or exchange of your iFlight product, please initiate the process by scanning the QR code or entering the link below to open a ticket with our iFlight customer support team. They will guide you through the necessary steps to confirm the processing of your request.

<https://iflightrc.freshdesk.com/support/tickets/new>.



Important

1. Before proceeding with any service request, please ensure that you have thoroughly read and understood our return and repair policy as outlined on our help center.

<https://shop.iflight.com/help-center-aftersales.html>

2. The maintenance cycle at the European repair center may be longer (Approximately 7-14 working days).

3. Do not send in freight collect.

4. Activated drones or opened packages will not be accepted as return!

5. Please make sure and confirm with our iFlight support in advance if we are able to repair or need to do a complete replacement (for example water damage, fire etc)

6. Please make sure you send back all the spare parts and original accessories that came with the order.

Repair Center Instructions

If you have already confirmed the repair with iFlight or the repair center, please follow the guidelines from the respective repair center before sending out the repair package.

1. **European Repair Center:** Please follow the steps on page 4 .

2. **U.S. Repair Center:** Fill out the "U.S. Repair Center" form on page 5 and include the form in the package when sending it out.

iFlight USA Technical Support

Patrick Byars
5520 James Street SE
Lacey, WA 98513
Phone: (408) 386-1400
Email: patrick.byars@iflight-rc.com



iFlight Europe Repair Shop

Patrick Klimek
Email: service@iflight-rc.eu
Phone number: +43 681 204 21 204



Repair Application—European Repair Center

Please submit a repair ticket through the following link. This will ensure that our maintenance staff can promptly follow up on your repair matters.

<https://iflight-rc.eu/pages/request-a-repair>



If you have any questions or concerns regarding repairs in Europe, please contact them through the following channels:

Email: service@iflight-rc.eu
Phone number: +43 681 204 21 204

Repair Application Form—U.S. Repair Center

Order information	Store name:	Order Number:
	Ticket Number:	Phone number:
Customer name		
Shipping Address: Detailed address is needed!	Street address:	
	City:	State:
	Postal zip code:	Country:
Email Address:		
Return/Repair Parts:		
Tracking No.		
Warranty or not	☐ Warranty ☐ at own expense	

Service information ☐ Repair ☐ Exchange ☐ Return ☐ Refund

Needs to be confirmed with iFlight before shipment