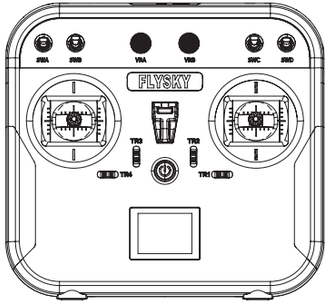
Quick Start Guide
快速操作指南

FS-L12

2.4GHz AFHDS 2A



FLYSKY

FCC ID: 2A2UNL1200

Http://www.flysky-cn.com

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FLYSKY

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如果您在使用中遇到任何问题，请先查阅发射机使用说明书。如果问题仍未得到解决，请直接联系当地经销商或者访问官网联系客服人员。

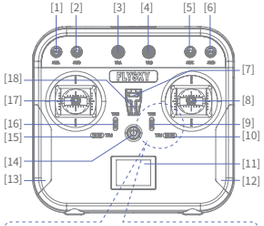
注意事项！

开始操作前请务必阅读以下安全信息！

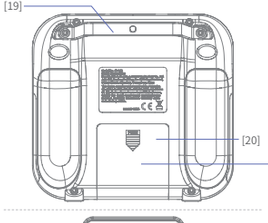
- 请不要在夜晚或雷雨天气使用本产品，恶劣的天气环境有可能导致遥控设备失灵。
- 请不要在能见度有限的情况下使用本产品。
- 请不要在雨雪或有水的地方使用本产品。如果有液体进入到系统内部，可能会导致运行不稳定或设备失灵。
- 信号干扰可能导致设备失控。为保证您和他人的安全，请不要在以下地点使用本产品：

- 当你感到疲倦、不舒服，或在摄入酒精或服食导致麻醉或兴奋的药物后，不要操作本产品，否则可能对自己或他人造成严重的伤害。
- 2.4GHz 无线电波段完全不同于之前所使用的低频无线电波段。使用时请确保模型产品在您的视线范围内飞行，大的障碍物将会阻断无线电频率信号从而导致遥控失灵模型失控。
- 在使用过程中，严禁紧握发射机天线，否则将会大大减弱无线电传播信号的质量和强度，导致遥控失灵模型失控。
- 在操作或使用模型后，请勿触摸任何可能发热的部位，如发动机、电机、定速设定等。这些部件可能非常热，容易造成严重的烧伤。
- 遥控设备使用不恰当可能导致操作者或他人严重受伤，甚至死亡。为保证您和设备的安全，请仔细阅读使用说明书并按照要求进行操作。
- 使用前必须确保本产品与模型安装正确，否则可能导致模型发生严重损坏。
- 操控时，请先确认模型所有舵机的动作方向与操控方向一致。如果不一致，请调整好正确的方向。
- 当遥控距离持续较远时，有发生失控的可能。请适当缩短遥控的距离。
- 特此，【ShenZhen FLYSKY Technology Co., Ltd.】声明无线电设备【FS-L12】符合 RED2014/53/EU. 欧盟 DoC 声明、FCC 声明可在以下互联网地址：www.flyskytech.com/info_detail/10.html 获取。
- 本发射机所用天线的安装必须与所有人员保持距离，不得与任何其他发射机共用或一起使用。必须向最终用户和安装人员提供天线安装说明和发射机操作条件，以满足射频暴露合规要求。
- 注意：使用类型不正确的电池可能发生爆炸风险，请妥善处理使用完的电池。

发射机概览



注：发射机进入设置状态后，
上推 TR2 选择上一个选项；
下推 TR2 选择下一个选项。
右推 TR1 确认；
左推 TR1 返回。



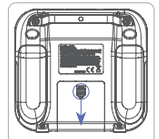
[1] SWA 两档开关（CH5）
[2] SWB 三档开关（CH6）
[3] VRA 旋钮（CH9）
[4] VRB 旋钮（CH10）
[5] SWC 三档开关（CH7）
[6] SWD 两档开关（CH8）
[7] 手机支架螺母孔
[8] 自回中右摇杆（CH1 ⇄ /CH2 ⇅）
[9] TR2（CH2 微调）
[10] TR1（CH1 微调）
[11] LCD 显示屏
[12] 右手胶
[13] 左手胶
[14] ⏻（电源键）
[15] TR4（CH4 微调）
[16] TR3（CH3 微调）
[17] 自回中左摇杆（CH4 ⇄ /CH3 ⇅）
[18] 吊环
[19] 提手
[20] 电池仓
[21] 电池导线接口（JST 接口或杜邦接口）
[22] USB Type-C 接口

基本操作

AA 电池安装

请按照以下步骤安装 AA 电池：

1. 打开电池仓盖（如图所示）；
2. 将 4 颗电量充足的电池按标注的极性方向装入电池仓内；
3. 盖好电池仓盖。



按住此处并沿箭头指示方向滑动，取下电池仓盖。

LiPo 锂电池安装

支持电池导线为 JST 接口或杜邦接口的锂电池，步骤如下：

1. 打开电池仓盖，将电量充足的 2S 锂电池放入电池仓内，
2. 将电池导线接入电池导线接口；
3. 盖好电池仓盖，注意不要夹到电池导线。

开机

请按照以下步骤打开发射机：

1. 检查系统状态，确保电池电量充足且安装正确；
2. 长按 ⏻ 1.5 秒，蜂鸣器会发出一声提示音，同时 LCD 显示屏会亮起，表示发射机已开机。

设置状态

请按照以下步骤使发射机进入设置状态以设置相关功能：

拨动任意一个 TR 键（TR1~TR4），并同时长按 ⏻ 1.5 秒以开启发射机，发射机开机后，即进入设置状态。

相关功能设置完成后，可重启发射机或通过 [返回正常状态] 功能退出设置状态。之后可正常使用发射机。

对码

本发射机和接收机在出厂前已对码成功。若需使用其他的接收机，请按照如下步骤进行对码。本发射机支持双向对码，对码步骤如下：

1. 参考前面步骤使发射机进入设置状态；
2. 选择 [对码]（默认选中），然后右推 TR1 以进入下一级界面；
3. 选择 [开始]（默认选中），右推 TR1，使发射机进入对码状态；
4. 首先将对码线连接到接收机上的 B/VCC 接口，然后将电源线连接到接收机的任意其他接口。接收机 LED 指示灯快闪，表示接收机已进入对码状态；
5. 对码成功后，接收机 LED 指示灯常亮，此时，取下对码线和电源线，然后重新将电源线连接到 B/VCC 接口；
6. 检查发射机、接收机是否正常工作。如需重新对码，请重复以上步骤。

注：此对码步骤仅适用于 FS-L12 发射机与 FS-iA10B 接收机对码，不同的接收机对码方式不同，具体对码方式请访问 FLYSKY 官网查询接收机说明书或其他相关资料。

摇杆校准

当摇杆发生机械性偏离，如回中或最大 / 最小行程出现偏差时，使用此功能修正。步骤如下：

1. 首先使发射机进入设置状态，接着下推 TR2 选择 [摇杆校准]，然后右推 TR1 以进入摇杆校准功能界面；
2. 右推 TR1 以进入下一步操作；依照屏幕提示，将左、右摇杆打到最大最小行程后，右推 TR1 后会出现弹窗提示：
   若校准成功，右推 TR1 退出校准功能。
   若校准失败，选择 [重试]，右推 TR1 即重新开始校准，上推或下推 TR2 选择 [取消]，右推 TR1 即退出摇杆校准功能。

失控保护

此功能用于当接收机无法正常收到发射机的信号不受控制时，保护模型和操作人员的安全。

默认保持最后输出，即失控后所有接口将保持最后输出。请根据具体使用的设备，设置合适的固定值以确保安全。

以下是在发射机端设置失控保护值的步骤：

1. 设置状态下，先操作需要设置失控保护的通道所对应的控件至预设的位置；
2. 下推 TR2 选择 [失控保护 - 当前值]，然后右推 TR1，弹窗提示设置成功，即将当下输出的通道值设置为失控保护值。

若要恢复默认设置，则按照如下步骤：

选择 [失控保护 - 恢复默认]，然后右推 TR1，弹窗提示设置成功，即将失控保护恢复为默认设置。

关机

请按以下步骤关闭发射机：

1. 先断开接收机电源；
2. 长按 ⏻ 1.5 秒，蜂鸣器会发出一声提示音，同时 LCD 显示屏熄灭，表示发射机已关机。

关闭发射机之前，请务必先断开接收机电源，然后关闭发射机。如果强行关闭发射机，将会导致遥控设备失控，失控保护设置不合理可能引起事故。

规格参数

产品型号	FS-L12	操作语言	中文、英文
适配接收机	FS-iA10B (AFHDS 2A 协议接收机)	充电接口	无（USB 接口仅做供电使用）
适配模型	工程车	固件更新	支持
通道个数	10	数据接口	无
无线频率	2.4GHz ISM	遥控距离	≥ 50m（空旷无干扰地面距离）
发射功率	0dBm±2	温度范围	-10°C ~ +60°C
无线协议	AFHDS 2A 协议	湿度范围	20% ~ 95%
通道分辨率	4096 级	外形尺寸	165.7*178*50.7mm
输入电源	4~9.0V/DC；1.5AA*4 或 2S 锂电池	机身重量	365g
低电压报警	AA 电池：<4.2V；LiPo 电池：<7.2V	机身颜色	灰黑色
天线类型	内置单天线	安全认证	CE，FCC ID: 2A2UNL1200
显示方式	128*64 LCD 全点阵黑白屏	/	/

微信公众号　Bilibili　Website　Facebook

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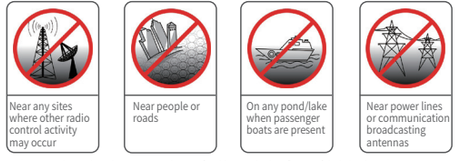
Thank you for purchasing the products of Flysky! To find out more about our products, visit our website at www.flysky-cn.com. If you encounter any problems during using, please refer to the manual first. If the problem is still not resolved, consult your local dealer directly or contact the customer service staff via Flysky official website.

Precautions

Read the safety messages listed below before operation!

- Do not use the product at night or during bad weather conditions, like rain or thunderstorms. It can cause erratic operation or loss of control.
- Do not use the product when visibility is limited.
- Do not expose the product to rain or snow. Any exposure to moisture (water or snow) may cause erratic operation or loss of control.
- Interference may cause loss of control. To ensure the safety of you and others, do not operate in the following places:



- Do not use this product when you are tired, uncomfortable, or under the influence of alcohol or drugs. Doing so may cause serious injury to yourself or others.
- The 2.4GHz radio band is limited to line of sight. Always keep your model in sight as a large can block the RF signal and lead to loss of control.
- Never grip the transmitter antenna during operation. It significantly degrades signal quality and strength and may cause loss of control.
- Do not touch any part of the model that may generate heat during operation, or immediately after use. The engine, motor or speed control, may be very hot and can cause serious burns.
- Misuse of this product may lead to serious injury or death. To ensure the safety of you and your equipment, read this manual and follow the instructions carefully.
- Make sure the product is properly installed in your model. Failure to do so may result in serious injury.
- Ensure that all servos operate in the correct direction. If not, adjust the direction first.
- Make sure that the model stays within range in order to prevent loss of control.
- The ce warns that the installation of the antenna used in this transmitter must be kept in distance from all the personnel and shall not be used or used with any other transmitter. The end user and the installer must provide antenna installation instructions and transmitter operating conditions to meet the requirements for rf exposure compliance.

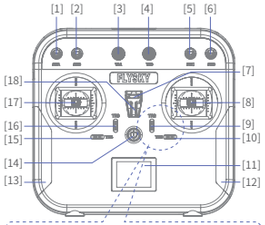
CAUTION

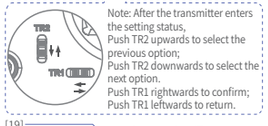
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

CAUTION!

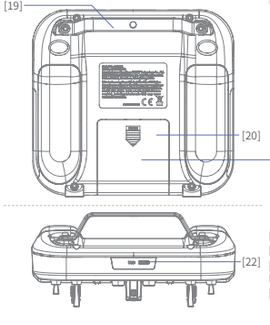
- replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types);
- disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;
- leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas; and
- a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

Transmitter Overview





Note: After the transmitter enters the setting status,
Push TR2 upwards to select the previous option;
Push TR2 downwards to select the next option.
Push TR1 rightwards to confirm;
Push TR1 leftwards to return.



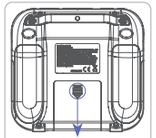
[1] SWA 2-Position Switch (CH5)
[2] SWB 3-Position Switch (CH6)
[3] VRA Knob(CH9)
[4] VRB Knob(CH10)
[5] SWC 3-Position Switch (CH7)
[6] SWD 2-Position Switch (CH8)
[7] A Hole for Fixing the Cell Phone Holder
[8] Self-Centering Right Stick (CH1 ⇄ /CH2 ↕)
[9] TR2 (CH2 Trim)
[10] TR1 (CH1 Trim)
[11] LCD Display Screen
[12] Right Grip
[13] Left Grip
[14] ⏻ (Power Switch)
[15] TR4 (CH4 Trim)
[16] TR3 (CH3 Trim)
[17] Self-Centering Left Stick (CH4 ⇄ /CH3 ↕)
[18] Neck Strap Hook
[19] Carrying Handle
[20] Battery Compartment
[21] Battery Connector (JST or Dupont)
[22] USB Type-C Port

Basic Operations

Installing the AA Battery

Follow the steps below to install the AA batteries:

1. Open the battery compartment cover as illustrated.
2. Insert 4 fully-charged AA batteries into the compartment. Make sure that the batteries are well set according to the polarities marked on the battery compartment.
3. Replace battery compartment cover.



Press and slide the cover as illustrated. Then remove the cover.

Installing the LiPo Battery

Supports LiPo batteries with JST or Dupont connectors. Follow the steps below to install it:

1. Open the battery compartment cover. Insert fully-charged 2S LiPo battery into the compartment.
2. Plug the cable of LiPo battery into the Battery Connector.
3. Replace battery compartment cover. Be careful not to pinch the cable.

Powering On

Follow the steps below to turn on the transmitter:

1. Check to make sure that the batteries are fully charged and installed correctly.
2. Press and hold ⏻ for more than 1.5 seconds, the buzzer will beep once, and the LCD display screen will light up, indicating that the transmitter has been turned on.

Setting Status

Follow the step below to put the transmitter into the setting status to configure the relevant functions:

Toggle any TR key (TR1~TR4) and simultaneously press and hold ⏻ for 1.5 seconds to turn on the transmitter. Once the transmitter is powered on, it will enter the setting status.

After the relevant functions have been configured, you can restart the transmitter or exit the set status by using the **Exit** function. After that, you can use the transmitter.

Binding

The transmitter and the receiver have been pre-bound before delivery. If you are going to use another receiver, follow the steps below to rebind. The transmitter supports two-way binding, the steps are as following:

1. Refer to the previous steps to put the transmitter into the setting status.
2. Select **Bind** (default selected), then push **TR1** rightwards to enter the next level interface.
3. Select **Start** (default selected), push **TR1** rightwards to put the transmitter into the binding mode.
4. First, connect the binding cable to the **B/VCC** connector on the receiver, then connect the power cable to any other connector on the receiver. The receiver's LED flashes rapidly, indicating that the receiver has entered the binding mode.
5. Once the receiver's LED is solid on, indicating the binding is successful. At this point, remove the binding cable and the power cable, then reconnect the power cable to the **B/VCC** connector.
6. Check whether the transmitter and the receiver are working properly. If you need to rebind, repeat the steps above.

Note: This binding procedure is only applicable for binding the FS-L12 transmitter with the FS-iA10B receiver. Different receivers have different binding methods. For specific binding methods, please visit the FLYSKY official website to consult the receiver's manual or other related materials.

Stick Calibration

Use this function to correct for the mechanical deviation of the sticks, for example, deviation occurred in the self-centering or maximum minimum travel, the steps are as following:

1. First, put the transmitter into the setting status, then push **TR2** downwards to select **Stick Rectify**, and then push **TR1** rightwards to enter the stick calibration function interface.
2. Push **TR1** rightwards to proceed to the next step; according to the on-screen prompts, move the left and right sticks to their maximum and minimum travel, then push **TR1** rightwards and a popup prompt will appear:
   If the calibration is successful, push **TR1** rightwards to exit the calibration function.
   If the calibration fails, select **Retry** and push TR1 rightwards to start the calibration again, push **TR2** up or down to select **Cancel**, and push **TR1** rightwards to exit the calibration function.

Failsafe

The function is used to protect the model and personnel when the receiver is out-of-control. The default setting is to maintain the last output, meaning that all connectors will maintain their last output in case of out-of-control. Set the appropriate failsafe values according to the specific device used to ensure safety.

Here are the steps to set the failsafe value on the transmitter side:

1. In the setting status, first operate the control corresponding to the channel that needs to set the failsafe to the preset position.
2. Push **TR2** downwards to select **Failsafe-Current**, then push **TR1** rightwards, and a popup prompt will prompt that the setting is successful, which means the current output channel value is set as the failsafe value.

If you want to restore the default settings, follow the step below:

Select **Failsafe-Default**, then push **TR1** rightwards, and a popup prompt will prompt that the setting is successful, which means the failsafe is restored to the default setting.

Powering Off

Follow the steps below to turn off the transmitter:

1. Turn off the receiver first.
2. Press and hold ⏻ for more than 1.5 seconds, the buzzer will beep once, and the LCD display screen will go out, indicating that the transmitter has been turned off.

! Make sure to power off the receiver before turning off the transmitter. Failure to do so can result out of control. Unreasonable setting of the Failsafe may cause an accident.

Specifications

Product Model	FS-L12
Compatible Receivers	FS-iA10B (AFHDS 2A protocol receiver)
Compatible RC Models	Engineering vehicles
Number of Channels	10
RF	2.4GHz ISM
Maximum Power	0dBm±2 (e.i.r.p.) (EU)
RF Protocol	AFHDS 2A
Resolution	4096
Input Power	4~9.0V/DC; 1.5AA*4 or 2S LiPo
Low Voltage Alarm	AA battery: <4.2V; LiPo battery: <7.2V
Antenna	Single Built-in Antenna
Charging Jack	None (The USB Type-C port is only used for power supply.)

Display	128*64 LCD full dot matrix black and white screen	Language	Chinese, English
Firmware Update	Yes	Dimensions	165.7*178*50.7mm
Data Connector	None	Weight	365g
Distance	≥ 50m(Ground distance without interference)	Color	Grey Black
Temperature Range	-10°C ~ +60°C	Certifications	CE, FCC ID: 2A2UNL1200
Humidity Range	20% ~ 95%	/	/

Certifications

FCC Compliance Statement

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.

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

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.

EU DoC Declaration

Hereby, [ShenZhen FLYSKY Technology Co., Ltd.] declares that the Radio Equipment [FS-L12] is in compliance with RED 2014/53/EU. The full text of the EU DoC is available at the following internet address:
www.flyskytech.com/info_detail/10.html

RF Exposure Compliance

The device has been evaluated to meet general RF exposure requirement.The device can be used in portable exposure condition without restriction.

Environmentally friendly disposal

Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.

FCC ID: 2A2UNL1200

Manufacturer: ShenZhen FLYSKY Technology Co., Ltd.
Address: 16F, Huafeng Building, No. 6006 Shennan Road, Futian District, Shenzhen, Guangdong, China

本说明书中的图片和插图仅供参考，可能与实际产品外观有所不同。产品设计和规格可能会有所更改，恕不另行通知。

Figures and illustrations in this manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.