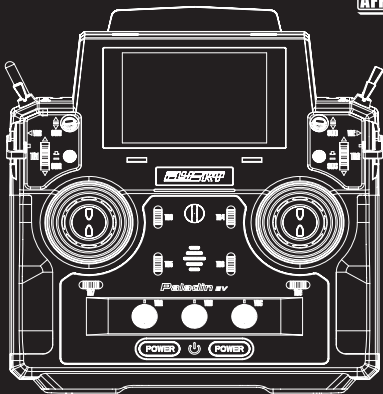


**FLY-~~ER~~RY**

# **Paladin** *PL18 EV*

2.4GHz  
**AFHDS 3**



# Quick Start Guide

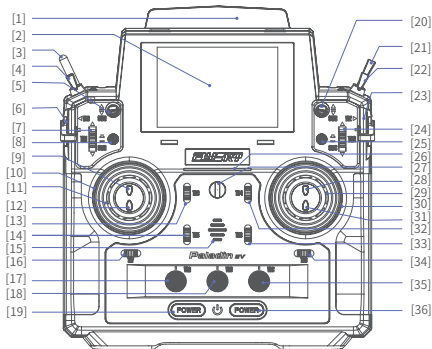
## **Precautions!**

For your own safety: make sure to download and read the Disclaimer & Warning documentation from the Flysky website before using this product.

Flysky Website : [www.flysky-cn.com](http://www.flysky-cn.com)

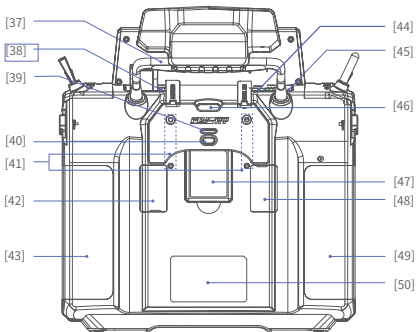
1. For best signal quality the transmitters antenna must be kept at least 20 cm away from all your body and must not be juxtaposed or operated close to other transmitters. Antenna installation instructions and transmitter operating conditions that meet RF signal emissions must be provided to end users and installers.
2. Hereby, [Flysky Technology Co., Ltd.] declares the RF equipment [Paladin PL18 EV] to be in accordance with RED2014/53/EU.
3. The full text of the EU DoC is available at: [www.flyskytech.com/info\\_detail/10.html](http://www.flyskytech.com/info_detail/10.html)

## Front View



- |                             |                   |                                   |
|-----------------------------|-------------------|-----------------------------------|
| [1] Antenna                 | [13] TR3 Trim     | [25] SWC Self-locking button      |
| [2] Screen                  | [14] TR5 Trim     | [26] Transmitter Status Indicator |
| [3] SWF Switch              | [15] Speaker      | [27] Lanyard Eye                  |
| [4] SWE Switch              | [16] TR7 Trim     | [28] SWL Button                   |
| [5] SWB Switch              | [17] VRA Knob     | [29] VRG Knob                     |
| [6] VRD lever               | [18] VRB Knob     | [30] Right Stick                  |
| [7] TR1 Trim                | [19] Power Switch | [31] SWK Button                   |
| [8] SWA Self-locking button | [20] SWD switch   | [32] TR4 Trim                     |
| [9] SWJ Button              | [21] SWH Switch   | [33] TR6 Trim                     |
| [10] Left Stick             | [22] SWG Switch   | [34] TR8 Trim                     |
| [11] VRF Knob               | [23] VRE lever    | [35] VRC Knob                     |
| [12] SWI Button             | [24] TR2 Trim     | [36] Power Switch                 |

## Back View



[37] Carry Handle

[38] Bluetooth Module Interface

[39] FRM301 Status Indicator

[40] FRM301 Button

[41] Screw Holes For Fixing RF Module

[42] Gimble Tension Adjustment/  
Stick Mode Switching Adjustment

[43] Grip

[44] Micro USB interface

[45] Trainer Interface

[46] Press to Release FRM301

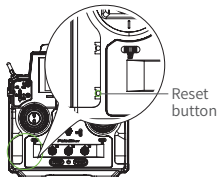
[47] FRM301 RF Module

[48] Gimbal Tension Adjustment/Stick  
Mode Switching Adjustment

[49] Grip

[50] Wireless Charging Input Area

- For more information about the Paladin EV transmitter, please read the user manual.



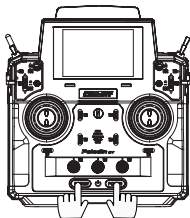
The Reset button is on the lower left part of the transmitter as shown. You need to tear apart the grip to find it. To press it by using a long thin tool, such as a smaller screwdriver.

In case of the transmitter can not be powered off by pressing the two Power Switches, please reset the transmitter with the reset button.

## **Power On**

1. Check to make sure that the battery is fully charged;
2. Press and hold both Power Switches of the transmitter at the same time until the screen turns on.

**!** When the transmitter is powered on, a pop-up menu will appear to indicate whether the switch is in a safe position, if it is red, the corresponding switch position needs to be adjusted. Please follow the instructions to check the switch position and place it in the correct position according to the transmitter's instructions. In addition, if you do not need to use RF at this time, you can switch off RF on this menu.

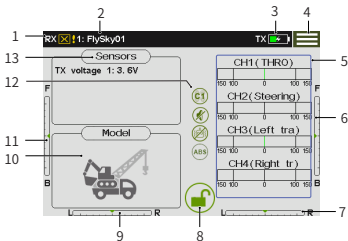


## **Power Off**

1. Power off the receiver first.
2. Press and hold both Power Switches at the same time. The shutdown interface is displayed, prompting "Shutting down...Please wait!", then it executes the shutdown procedure.

**!** Always power off the receiver before the transmitter, failure to do so can result out-of-control. Unreasonable setting of the Failsafe may cause accidents.

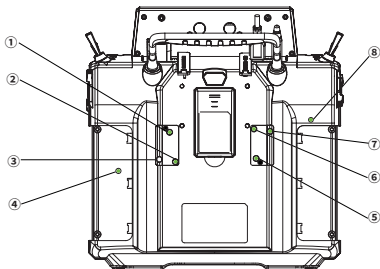
# Main Screen Introduction



- |                        |   |
|------------------------|---|
| [1] Receiver Signal    | [8] Lock/Unlock   |
| [2] Model Name         | [9] Trim 7  |
| [3] Transmitter Power  | [10] Model Type   |
| [4] Function Menu Icon | [11] Trim 5   |
| [5] Channel Display    | [12] Status Column (C1 Condition, Sound, Vibration, Logic Switches, A.B.S.) |
| [6] Trim 6             | [13] Sensor   |
| [7] Trim 8             |   |

	Indicates that the screen is locked		Indicates that the screen is unlocked
	Function disabled		Function enabled
	For the current condition		For all conditions
	Click to assign controls such as switches		Touch to restore functions default settings
	To increase the value		To decrease the value

## Gimbal Adjustment Instructions



### **Setup:**

By adjusting the tension screws on the back of the transmitter, gimbal stick can be either self-centering or non self-centering, as well as changing stick tension/friction.

### **Screw Description**

① . ⑤	To change the gimbal sticks self-centering or non self-centering by adjusting the screws ① and ⑤ .	② . ⑥	To change vertical tension strength of the gimbal sticks by adjusting the screws ② and ⑥ .
③ . ⑦	To change horizontal tension strength of the gimbal sticks by adjusting the screws ③ and ⑦ .	④ . ⑧	To change the vertical friction strength of the gimbal sticks by adjusting the screws ④ and ⑧ .

Right gimbal as example:



#### Attention

**When the counterclockwise adjustment is made, entire range of movement of the screw is about 3mm. Be cautious not to adjust it too far or the screw will fall out.**

### Non Self-centering to Self-centering

1. Use a Phillips screwdriver to adjust the screw ① counterclockwise until the gimbal stick changes to self-centering.
2. Adjust screw ④ counterclockwise to adjust the Frictional strength.
3. If you need to adjust the centering force, adjust screw ②, and strengthen force by adjusting in clockwise, and vice versa as needed.

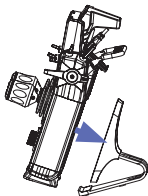
### Self-centering to Non Self-centering

1. Use a Phillips screwdriver to adjust the screw ① clockwise so that the gimbal stick changes to non self-centering.
2. Adjust the screw ④ clockwise to strengthen the frictional strength.
3. If you need to adjust the centering force, adjust screw ②, and strengthen force by adjusting in clockwise, and vice versa as needed.

## Charging Modes

PL18 EV can be charged in two ways:

- Plug the micro USB cable into the charging port for charging.
- Use the wireless charging dock to





charge it (as shown in the figure).

#### Notes:



1. Please charge it within a safe value, (4h@5V Micro USB /7h@2A Wireless Charging) because overcharging may cause damage to the battery.
2. To prolong the service life of the battery, properly discharge the fully charged battery before long-term storage, and charge it regularly to prevent over-discharging damage during storage;
3. It is recommended that the lithium battery be charged to 40-50% of its capacity for preservation. For example, it is recommended that the storage voltage of lithium battery is 3.85V in case of preservation. You need to check the voltage value of the battery every 3~6 months. If it is lower than 3.85V, please recharge it until the battery reaches the said voltage value before representation.

**!** Please use the standard charging cable of this transimmitter to charge it. Improper use may cause damage to the battery and affect its service life.

## Language

This transmitter has 2 languages available.

#### Setup:

1. Tap  to enter the function menu.
2. Tap System to enter, then touch Language.
3. Click your preferred language option, then tap  to return.





## Updating the RF Module Firmware

The RF module firmware can be updated by the following two ways.

- If the transmitter powers on and comes along with a wizard after the transmitter has been updated the firmware. Follow the prompt to complete the settings of Stick Calibration and RF update.
- Or follow the steps as below:

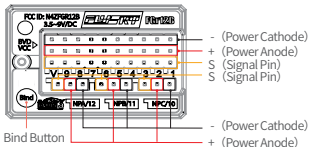
Setup:

1. Tap  to enter the function menu,
2. Tap RF setup to enter,
3. Tap RF firmware update. after that a prompt menu comes along with it. Click Yes to enter the updating mode. When the update is finished, the update menu will exit automatically, then tap  to return.




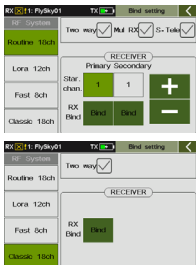
## Binding

The transmitter and receiver have been pre-bound at the factory, however, if you need to bind a new receiver or rebind the original receiver, follow the steps below. Take FGr12B receiver as example, the overview of FGr12B receiver is the following.



## Setup:

1. Power on the transmitter , tap  to enter the function menu, choose RX setup then click Bind setting.
2. Press and hold the Bind button while the receiver is powered on, the receiver LED will flash rapidly indicating that it is in binding state.
3. The receiver LED stops flashing and is solid on, the binding is finished.
4. Check to make sure the transmitter and the receiver functions are working correctly, repeat steps 1 to 3 if any problems arise.



## Notes:

1. The transmitter supports Two way and One way connections. When you choose One way, the receiver does not send the data to the transmitter, the LED flashes slowly after the receiver receives the bind information. Manually put the transmitter to exit the bind mode. When the LED of the receiver is on, it indicates that the binding process is completed.
2. Flysky AFHDS 3 classic version receiver models: FTr10/FGr4/FGr4s/Gr4p/FTr4/FTr16S. Other Flysky AFHDS 3 receivers are enhanced version receivers.
3. RF system options: Routine 18ch, Lora 12ch and Fast 8ch (three RF options) are adaptive for AFHDS 3 enhanced version receivers. Routine 18ch: Provides 18 channels with moderate communication distance; Lora 12ch: Provides 12 channels with super anti-interference and moderate communication distance;

Fast 8ch: Provides 8 channels, fast communication within short distance; Classic 18ch: Used to adapt to Flysky AFHDS 3 classic version receivers. After clicking Bind, a prompt of supported receivers will be popped up. Please select the appropriate RF system option according to the actual application scenarios and the actual receiver models.

4. When you select Routine 18ch, with choosing Two-way connection and Multi-receiver, the transmitter supports multi-receiver mode. In this mode, to ensure the accuracy of the data returned from the primary receiver, bind the primary receiver only. When you select multi-receiver mode, set the Start channel of the primary and secondary receivers first, and then bind the primary and secondary receivers, respectively. Click Bind. The transmitter will enter the binding state.
  - The secondary receiver can bind multiple receivers. In binding of multiple secondary receivers, the receiver does not return information like one way connection.
  - If S-Tel(Secondary Telemetry) is selected, only one secondary receiver is supported; the secondary receiver only returns its own information.



**After the transmitter has updated a firmware, it is unable to bind to the receiver, the receiver firmware may need to be updated forcibly.**

Follow the steps below to put the receiver into the forced update mode.

1. Power on the receiver while pressing the BIND button approximately ten seconds until the LED operates in three-flash-one-off manner repeatedly, release the BIND button.
2. At the transmitter side, go to the RX setup menu and select Receiver update to enter the menu, after selecting the

corresponding model, click Update, then click OK to finish the update.

3. When the receiver LED flashes slowly, the update is finished.

The above steps are only applicable when binding the Paladin EV with FGr12B, If you are using other receivers, please refer to the receivers user manual.

## **PWM Frequency**

Used to adjust the PWM frequency. This function can be used for analog servos (50Hz), digital servos (333Hz) and can also be set to custom frequency. Digital servos and custom frequency range between 50-400Hz

The receiver's output frequency of PWM signals can be regulated. Theoretically, the higher the frequency, the faster the signal is refreshed, and the faster the servo responds to the signal change. However, some servos may not support PWM signals with excessively high frequency. You may need to take into account the servo's performance when doing such settings.

The interface of this function may vary with bind modes. For enhanced receivers, the PWM frequency of each channel can be set separately, and the options include analog servo (50 Hz), Digital servo (333 Hz), SR (833 Hz), SFR (1000 Hz) and Custom.

If a classic receiver is bound, all channels are set together, and cannot be set to SR (833 Hz) and SFR (1000 Hz).


### **PWM Frequency-Enhanced Version Receiver**

Sets PWM frequency after the transmitter is bound to enhanced version receivers.

## Set All Channels

Sets PWM frequency for all channels.

Setup:

1. Tap Set all channels.
2. Tap the appropriate item according to the actual servo. Then click  to return.
3. For Custom, click + / - to set an appropriate frequency value.
4. For Synchronized with RF, click the check box at the right. "✓" means the function is activated.




## Set A Channel

Sets PWM frequency for a channel.

Refer to the descriptions of Set all channels for function setup.



 The conventional PWM frequency is 50-400 Hz. When SR (PWM frequency: 833 Hz) and SFR (PWM frequency: 1000 Hz) are selected, the overall system delay will be decreased, but the pulse range of PWM signals is changed. Please make sure the servo supports the frequency and the setting is correct. Otherwise the servo may not work properly, or even get damaged.

## Failsafe

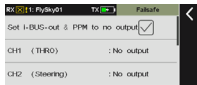
The function protects user by preventing the model from behaving unexpectedly if signal is lost. Under the Failsafe interface, you can set to no output status for i-BUS-out & PPM signals. You can set all channels separately to no output, hold or fixed value. You can set all channels with fixed value to the current output value.

## Setting i-BUS-out & PPM to no output

After Set i-BUS-out & PPM to no output is selected, regardless of failsafe setting, these two types of failsafe signals are always no output. By default, the system is in the enabled status.

### Setup:


If the checkbox next to right of the option is not ticked( ☐ ) indicating that the function is disabled.



## Channel 1~Channel 18

Can be used to set the output signal states of channels 1~18 respectively: No output means the PWM interface is no output in case of out-of-control; Hold means the last channel value is kept in case of out-of-control; Fixed value means the configured channel value is output in case of out-of-control. Steps of setting are in the below.

### Setup:

1. Tap to select the channel to be set and enter the next level menu.
2. Tap to select the desired function options. If the fixed value is selected, turn the Stick(Switch, Knob or LSW) to the desired position and hold it, and click  to return. The settings are finished.



## Setting All Fixed Value Channels

Used to set the output value of all channels that have been set to a fixed value after out-of-control.

### Setup:

Tap the function while holding the control, after that a prompt menu comes along with it. Tap Yes to finish.

# Specifications

## Paladin (PL18 EV)

Product Name	PL18 EV
Channels	18
Compatible Models	Engineering Vehicles, Simulation Boats, etc.
RF	2.4GHz ISM
Maximum Power	<20dBm (e.i.r.p.) (EU)
2.4GHz Protocol	AFHDS 3
Resolution	4096
Low Voltage Alarm	< 3.65V
Data Output	PWM/PPM/i-BUS/S.BUS
Charging Port	Micro USB or Wireless Charging
Antenna Type	Two Antennas
Input Power	1S (3.7V)*4300mAh
Online Update	Yes
Temperature Range	-10°C ~ +60°C
Humidity Range	20% ~ 95%
Dimensions	120*195*213mm
Weight	1012g
Certifications	CE, FCC ID: N4ZFT1800



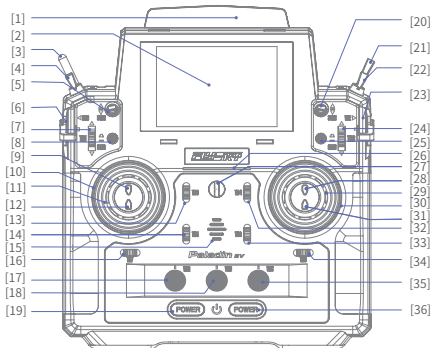
## 注意事项！

开始操作前请务必在 Flysky 官网下载并阅读《免责声明 & 警告》了解安全注意事项，并在 Flysky 官网下载阅读使用说明书。

Flysky 官网地址：[www.flyskytech.com](http://www.flyskytech.com)

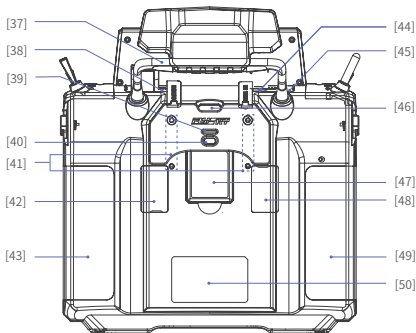
1. 发射机的天线必须距离所有人员或其他发射机至少 20 厘米的间隔距离。必须将天线安装说明和满足射频讯号辐射的发射机操作条件提供给终端用户和安装人员。
2. 特此,【Flysky Technology Co., Ltd.】声明无线电设备【Paladin(PL18 EV),FT18 EV】符合 RED2014/53/EU.
3. 欧盟 DoC 声明全文可在以下互联网地址:[www.flyskytech.com/info\\_detail/10.html](http://www.flyskytech.com/info_detail/10.html) 获取。

## 前视图:



- |               |               |               |
|---------------|---------------|---------------|
| [1] 天线        | [13] TR3 微调按键 | [25] SWC 自锁按键 |
| [2] 显示屏       | [14] TR5 微调按键 | [26] 发射机状态指示灯 |
| [3] SWF 档位开关  | [15] 喇叭       | [27] 吊环       |
| [4] SWE 档位开关  | [16] TR7 微调按键 | [28] SWL 按键   |
| [5] SWB 档位开关  | [17] VRA 旋钮   | [29] VRG 摇杆旋钮 |
| [6] VRD 拨杆    | [18] VRB 旋钮   | [30] 右摇杆      |
| [7] TR1 微调按键  | [19] 电源键      | [31] SWK 按键   |
| [8] SWA 自锁按键  | [20] SWD 档位开关 | [32] TR4 微调按键 |
| [9] SWJ 按键    | [21] SWH 档位开关 | [33] TR6 微调按键 |
| [10] 左摇杆      | [22] SWG 档位开关 | [34] TR8 微调按键 |
| [11] VRF 摇杆旋钮 | [23] VRE 拨杆   | [35] VRC 旋钮   |
| [12] SWI 按键   | [24] TR2 微调按键 | [36] 电源键      |

## 后视图:



[37] 提手

[38] 蓝牙模块接口

[39] FRM301 指示灯

[40] FRM301 按键

[41] 高频头转接件固定孔

[42] 总成座松紧度调节 /  
摇杆模式切换调节

[43] 小手胶

[44] Micro USB 接口

[45] 教练接口

[46] 按压弹出 FRM301

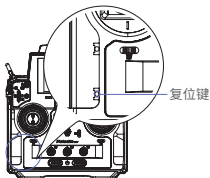
[47] 高频模块 FRM301

[48] 总成座松紧度调节 /  
摇杆模式切换调节

[49] 小手胶

[50] 无线充电感应区

● 关于 Paladin EV 发射机的更多操作请阅读使用说明书。



**复位键位置:** 位于发射机正面左下部，需拨开手胶才能看到。按压复位键需借助较为细长的工具。

**复位键功能:** 当按电源键无法关闭发射机时，需要用此键复位发射机。

⚠ 小心

• 复位发射机后，本次开机时的设置可能失效。

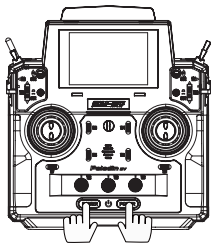
## 开机

1. 检查系统状态，确保电池电量充足；
2. 同时按住发射机电源键，直至屏幕亮起，表示开机。



### 开机警告！

发射机开机时，会弹出界面提示开关是否位于安全位置，（红色表示对应的开关位置需调整），请根据提示检查开关位置，并按照发射机提示将其拨至正确位置。另外，若此次开机不需要使用高频，可在此界面关闭高频。



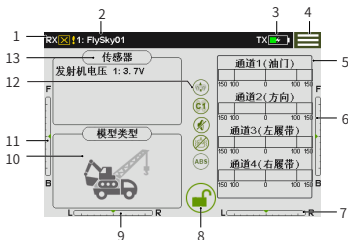
## 关机

1. 断开接收机电源；
2. 同时按住发射机两个电源键，屏幕显示关机界面，提示“正在关机中 ... 请稍候！”后执行关机程序。



关闭前，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。

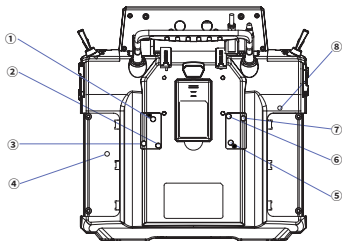
# 主界面介绍



- |            |   |
|------------|---|
| [1] 接收机信号  | [8] 解 / 上锁键   |
| [2] 模型名称   | [9] TR7 微调  |
| [3] 发射机电量  | [10] 模型类型   |
| [4] 功能菜单键  | [11] TR5 微调   |
| [5] 通道显示   | [12] 状态栏 (C) 工作模式、(S) 声音、(V) 振动、(L) 逻辑开关、(ABS) 防抱死刹车) |
| [6] TR6 微调 | [13] 传感器  |
| [7] TR8 微调 |   |

	触屏锁定，不可操作		表示此功能或此界面可操作
	表示此功能在禁用状态		表示此功能在开启状态
	表示设置仅针对当前模式		表示设置针对所有模式
	点击可进行开关等控件分配		当前界面功能恢复默认值
	点击增加数值，长按可迅速增加数值。		点击减少数值，长按可迅速减少数值。

# 总成座调节说明




## 功能设置：

用户可调节螺丝孔螺丝实现总成座纵向回中与不回中切换、不回中时拨动摩擦力、调节摇杆自回中时回中弹力，请参照以下步骤：

## 螺丝说明：

① . ⑤	调节总成座摇杆是否回中	② . ⑥	调节总成座纵向摇杆弹力
③ . ⑦	调节总成座横向摇杆弹力	④ . ⑧	调节总成座纵向摇杆摩擦力

以右边摇杆为例

 <b>注意</b>	螺丝总行程约为 6 圈（最紧到最松），逆时针调节时请不要过调，否则可能导致螺丝脱落。
---	--

## 不回中 - 回中

1. 请用十字螺丝刀逆时针调节①号螺丝使摇杆变为回中状态；
2. 逆时针调节④号螺丝调整摩擦力度；
3. 如还需调整回中力度，请操作②号螺丝调节回中力度，顺时针力度加强，反之减弱。

## 回中 - 不回中

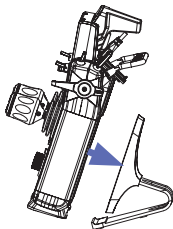
1. 请用十字螺丝刀顺时针调节①号螺丝使摇杆变为不回中状态；
2. 顺时针调节④号螺丝加强摩擦力度；
3. 如还需调整回中力度，请操作②号螺丝调节回中力度，顺时针力度加强，反之减弱。

## 充电方式

PL18EV 可通过两种方式对其进行充电：

- Micro USB 线插入充电口充电
- 使用无线充电底座对其进行充电（如图所示）

注：在安全值内（4h@5V\*2A/7h@2A 无线充）对其进行充电，过充可能会导致电池损坏；为延长电池使用寿命，长时间放置请注意不要满电，应适当放电后再进行放置，并且应定期充电防止电池过放损坏。建议将锂电池充到 40%~50% 的容量保存。例如建议锂电的保存电压为 3.85V，且间隔 3~6 个月需检查电池的电压值，若低于 3.85V，请重新充电至此电压值后再继续保存。





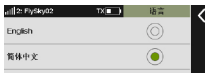
- ❗ 请使用本款发射机标配的充电线对其进行充电，使用不当可能造成电池损坏影响使用寿命。

## 语言

本发射机支持两种语言。

功能设置：

1. 点击主界面  图标，进入功能菜单界面；
2. 选择进入 [ 系统设置 ] 功能，点击 [ 语言选择 ]，进入设置界面；
3. 根据需要选择语言，点击  返回。




# 高频模块固件更新

高频模块固件升级可通过如下两个途径完成。

若发射机更新固件后第一次开机时出现开机向导，则依据提示依次完成摇杆校准及 RF 更新，或通过如下步骤更新：

更新步骤：

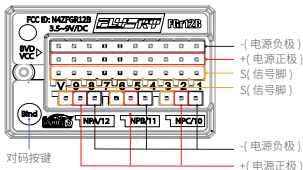
1. 点击主界面  图标，进入功能菜单界面；
2. 选择进入 [ 高频设置 ] 功能；
3. 点击 [ 高频模块固件更新 ]，在弹出提示后，点击 [ 是 ]，更新完成后，自动退出更新界面。



## 对码


本发射机和接收机在出厂前已对码成功。如果您需要重新对码时，请按照如下步骤进行对码。

以与 FGr12B 接收机对码为例，FGr12B 接收机概览如下：





## 功能设置：

1. 发射机通电，点击主界面  图标进入功能菜单后，选择进入 [ 接收机设置 ]，点击 [ 对码设置 ]；
1. 按住接收机对码按键同时上电，松开对码键，接收机 LED 灯快闪表示进入对码状态；
2. 对码成功后，接收机指示变为常亮；
3. 检查舵机是否正常工作。如需重新对码，请重复以上步骤。

## 注：

1. 发射机支持单向模式或双向模式通信，当选择单向模式通信时，接收机不回传数据信息给发射机。接收机收到对码信息后指示灯慢闪；需手动将发射机退出对码状态，若接收机指示灯变为常亮，则表示对码成功；
2. 富斯 AFHDS 3 经典版接收机型号：FTr10、FGr4、FGr4s、FGr4p、FTr4 和 FTr16S；其他富斯 AFHDS 3 接收机均为增强版接收机；
3. RF 系统项：Routine 18ch、Lora 12ch 和 Fast 8ch 三个 RF 系统选项用于适配富斯 AFHDS 3 增强版接收机。Routine 18ch：提供 18 通道，通信距离适中；Lora 12ch：提供 12 通道，超强抗干扰，通信距离适中；Fast 8ch：提供 8 通道，通信速度快，但通信距离较近；Classic 18ch：用于适配富斯 AFHDS 3 经典版接收机，点击 [ 对码 ] 后，会弹出支持的接收机列表提示菜单。请根据实际应用场景及实际接收机型号选择合适的 RF 系统项；
4. 当选择 Routine 18ch，且选择 [ 双向通信 ] 和 [ 多接收 ]，此时发射机支持多接收机模式，在此模式下，为确保主接收机回传数据的准确性，建议对码唯一主接收机。当选择多接收机模式后，要先设置主副接收机 [ 起始通道 ]，然后分别对主、副接收机对码，点击 [ 对码 ] 发射机即进入对码状态。
  - 副接收机可以对码多个接收机，当对码多个副接收机时，此时接收机不回传信息（单向模式）。



- 若选择了 [ 副遥测 ]，此时仅支持对码一个副接收机，并且副接收机只回传其自身的信息。



发射机在更新完后，如无法与接收机对码，需强制更新接收机固件。接收机进入强制更新步骤如下：

1. 接收机按下对码按键，上电十秒钟后指示灯三闪一灭，松开对码按键；
2. 在发射机端选择 [ 接收机设置 ]，选择 [ 接收机固件更新 ]，在选择对应的接收机后点击 [ 更新 ]，在弹出的菜单上点击 [ 确定 ] 即可进入更新更新状态。
3. 更新完成指示灯慢闪。



以上步骤适用于 Paladin EV 与 FGr12B 接收机对码，如您使用的是其他接收机，请进入官网查询。

## PWM 频率

调节通道输出控制舵机频率，根据使用的舵机设置正确的输出频率值。默认舵机频率为 50Hz，调节范围在 50-400Hz 之间。

有些舵机的操控频率可能与默认频率不同，为了使舵机正常运行，可以通过此功能更改舵机 PWM 频率。发射机对码增强版与经典版的接收机后，对应的舵机响应速度界面不同可调节接收机输出 PWM 信号的频率。理论上频率越高信号刷新速度越快，舵机响应信号变化就越快。但是部分舵机不支持识别频率过快的 PWM 信号，故此项设置应考虑舵机性能设置。

此功能根据对码模式设置不同而界面有所不同，对于增强版接收机，支持每个通道单独设置 PWM 频率，可选项包括模拟舵机 (50Hz/ 数字舵机 (333Hz) /SR (833Hz) /SFR(1000Hz)/ 自定义。

对于经典版接收机，则仅支持对所有通道一起设置，且不支持设置为 SR (833Hz) 和 SFR(1000Hz)。

### PWM 频率 - 增强版接收机

设置所有通道

设置所有通道的 PWM 频率。

## 功能设置：

1. 点击要设置的功能项进入下一级设置界面；
2. 根据实际使用的舵机选择正确的频率项，点返回键返回。
3. 若选择 [ 自定义 ]，点 [ + ]/[ - ] 设置合适的频率值；
4. 若选择 “与高频同步”，则点击右侧功能框，出现 “√” 即与高频同步，勾选后 PWM 频率将同步至高频。



## 设置单独通道

设置各通道的 PWM 频率。

若连接经典版接收机，功能设置参见增强版功能设置描述。



**!** 常规的 PWM 的频率是 50-400Hz，当选用 SR (PWM 频率 833Hz)、SFR(PWM 频率 1000Hz) 时整个系统的延时会减小，但此时 PWM 信号脉冲区间已经发生了变化。请确保适配的舵机支持对应的频率并且设置匹配，否则可能导致舵机无法正常工作，甚至损坏舵机。

## ⚠ 失控保护

该功能用于在接收机丢失信号或失控后，保护模型和操作人员的安全。

在失控保护菜单下可设置针对 i-BUS-out&PPM 信号无输出状态；可对所有通道单独设置：无输出、保持或固定值；可将所有已设固定值的通道设为当前输出值。

## i-BUS-out&PPM 信号无输出

此功能选择后，不管各通道失控保护如何设置，这两类信号失控保护始终为无输出，系统默认开启状态。

功能设置：

选项右侧的选项框无 ☒ 即未开启，失控后按通道设置：固定值或者保持最后输出值。

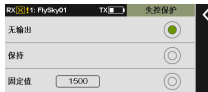


## 通道 1~ 通道 18

可分别设置通道 1~18 输出信号状态：[ 无输出 ] 表示无信号输出；[ 保持 ] 表示失控时保持输出最后信号；[ 固定值 ] 可以通过移动控件来设置失控保护输出值。

功能设置：

1. 选择需要设置的通道，进入下一级界面；
2. 选择合适功能项；若选择固定值，则将摇杆（开关、旋钮或逻辑开关）拨到需要的位置并保持，同时点击返回图标即完成设置。



## 设置所有固定值通道

用于设置所有已经设置为固定值的通道失控后的输出值。

功能设置：

点击此功能项后，同时将控件拨到需要的位置并保持，在弹出的提示菜单，点击 [ 是 ] 即完成。



# 规格参数

## Paladin (PL18EV)

产品型号	PL18 EV
通道个数	18
适配模型	工程车或仿真船等
无线频率	2.4 GHz ISM
发射功率	< 20dBm (EU)
无线协议	AFHDS 3
通道分辨率	4096
低电压报警	< 3.65 V
数据输出	PWM/PPM/i-BUS/S.BUS
充电接口	Micro USB 或无线充
天线类型	内置双天线
输入电源	1S (3.7V) *4300mAh (内置)
在线更新	支持
温度范围	-10°C ~ +60°C
湿度范围	20% ~ 95%
外观颜色	黑色
外形尺寸	120*195*213 mm
机身重量	1012g
认证	CE, FCC ID: N4ZFT1800

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 specifiatiions may be changed without notice.



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