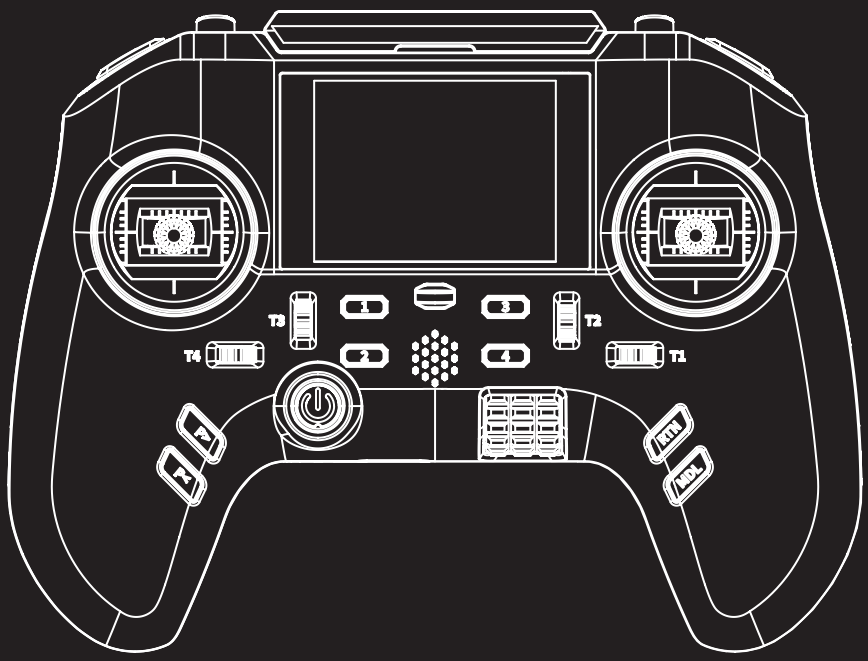
FLYSKY

Scan for info.

ProArt PA01

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

1. 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.
2. Hereby, [ShenZhen FLYSKY Technology Co., Ltd.] declares that the radio equipment type [PA01] is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.flyskytech.com/info_detail/10.htm

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.

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

FCC Compliance Statements

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.

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

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure Statement

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

CAUTION

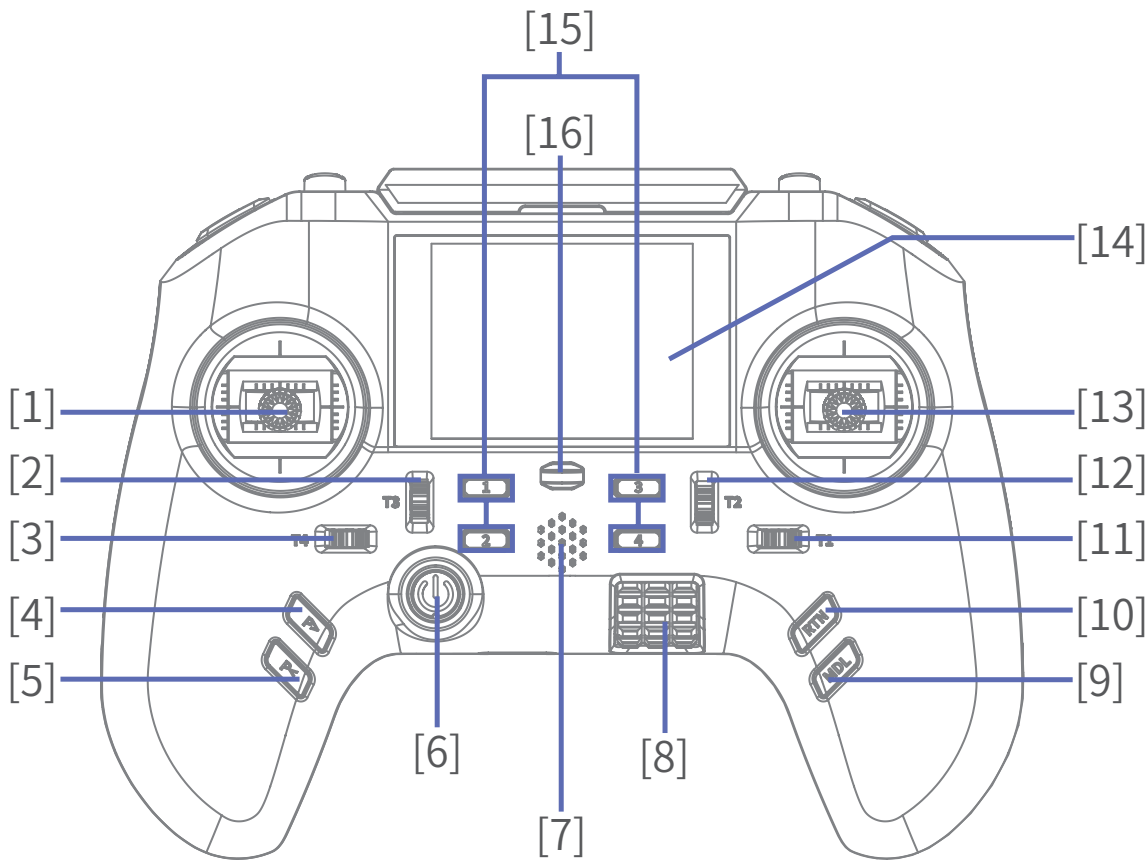
- replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types);

- 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

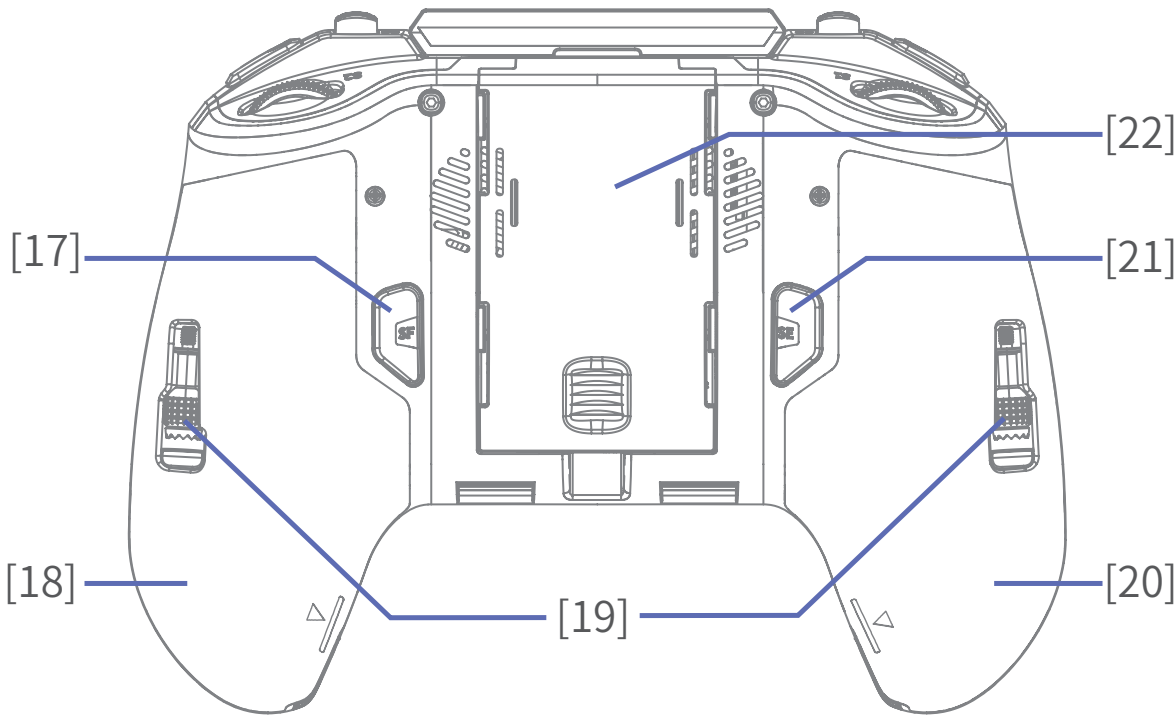
- a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

Front



[1]	Left Stick	[9]	MDL (Model Settings)
[2]	T3 (Trim Button)	[10]	RTN (Return Button)
[3]	T4 (Trim Button)	[11]	T1 (Trim Button)
[4]	P> (Right Page Turn)	[12]	T2 (Trim Button)
[5]	P< (Left Page Turn)	[13]	Right Stick
[6]	Power Switch (Built-in LED)	[14]	Screen
[7]	Speaker	[15]	Customizable Illuminated Buttons (SW1~SW4)
[8]	Scroll Wheel	[16]	Neck Strap Hook

Back

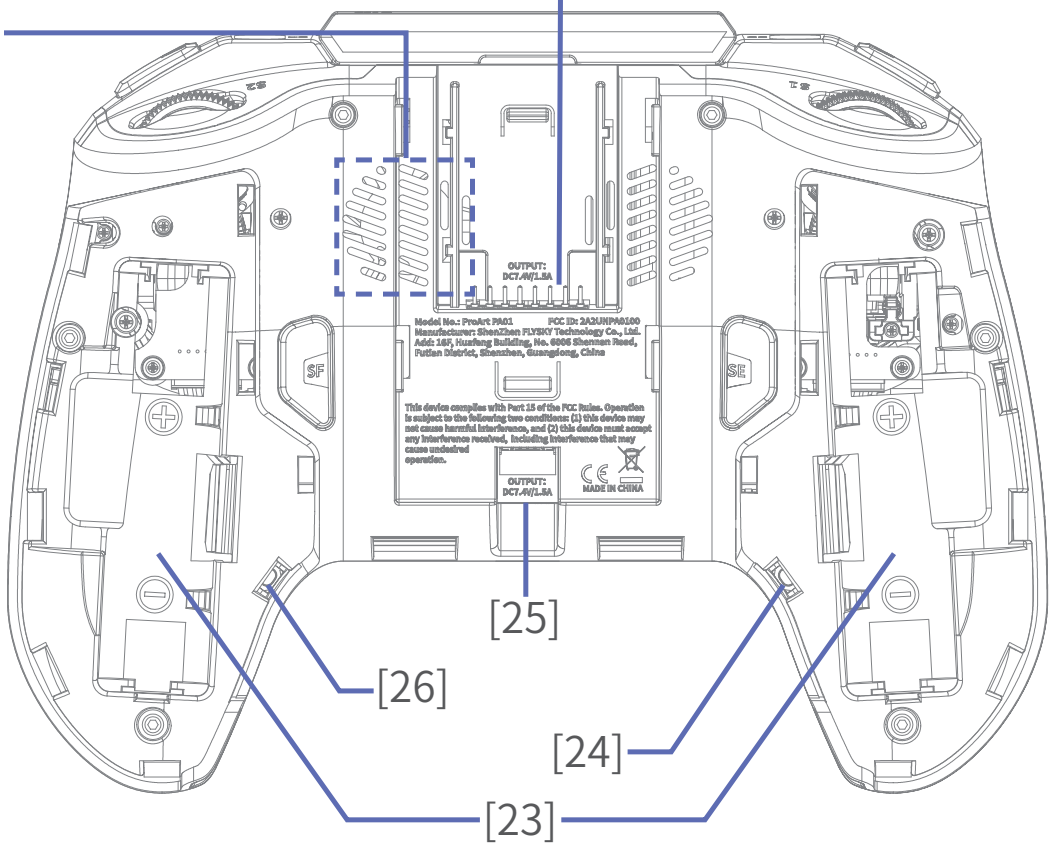


[17]	SF Button	[20]	Left Grip
[18]	Right Grip	[21]	SE Button
[19]	Gimbal Stick Holder	[22]	RF Module Installation Cover

[27]

Fan Vent

Note: The fan control is exclusively available when the ELRS protocol is selected. You can enable it and set a power activation threshold (TX Power ⩾ Fan Thresh) in the TX power. The fan speed will vary automatically based on the current transmission power. When using the AFHDS 3 protocol, the fan does not activate due to its low power consumption.



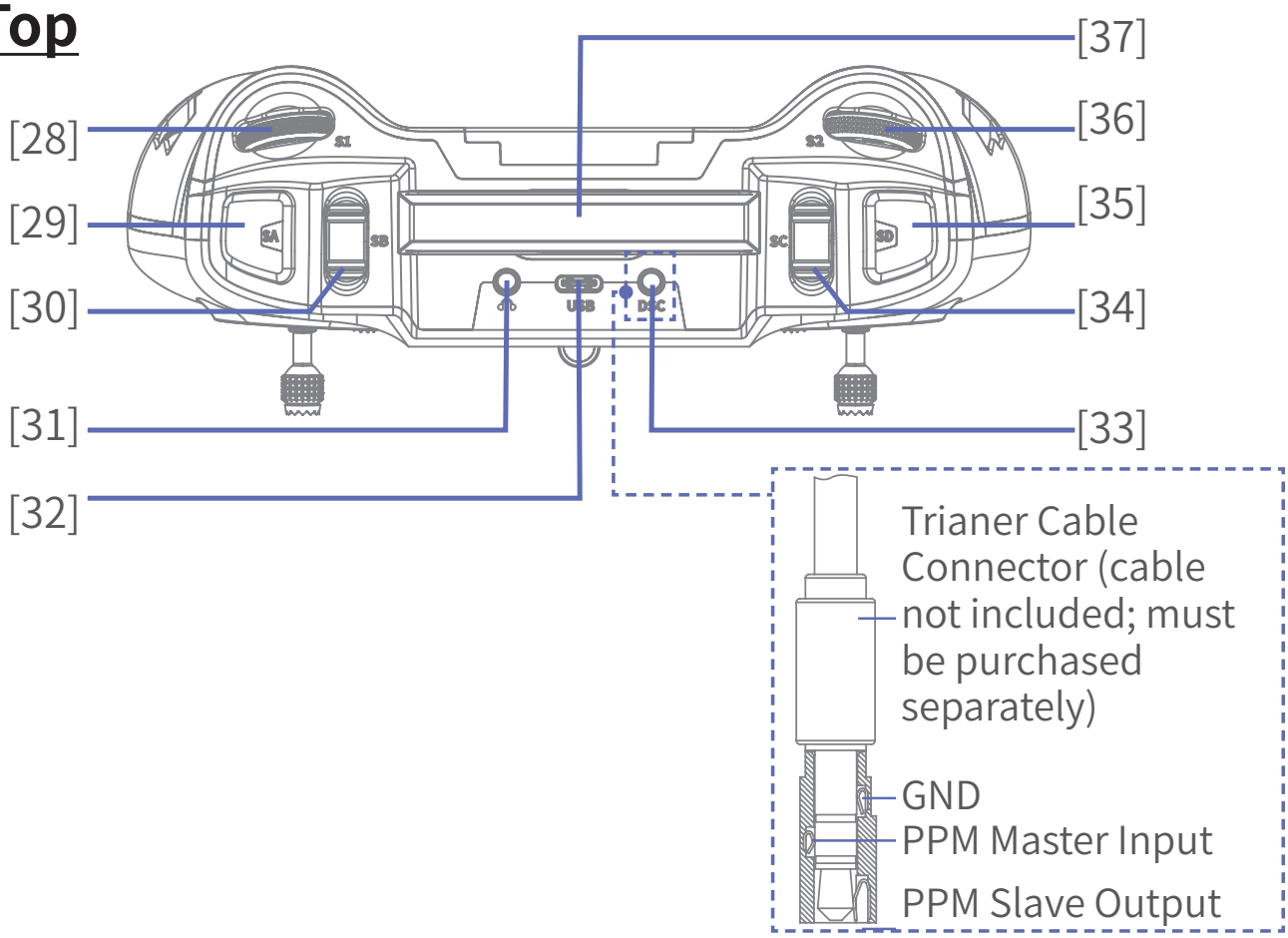
[23] Battery Compartment
[24] Reset Button
[25] FRM303 Module Connector
[26] Transimitter MCU-DFU Button
[27] Nano Module Connector

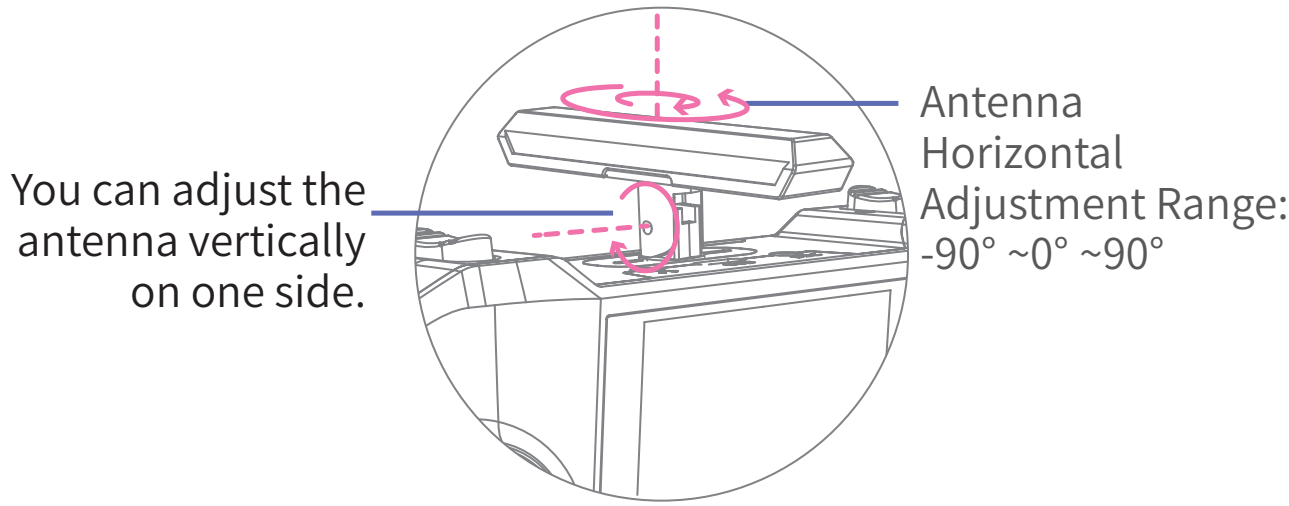
Reset Button and Transimitter MCU-DFU Button Feature Introduction

Before using these two buttons, you need to first remove the left and right grips. You can use a slender tool to press these two buttons.

Reset Button: When the power button fails to turn off the transmitter, this button is needed to reset the transmitter.
Transimitter MCU-DFU Button: Used for updating the transmitter's firmware.

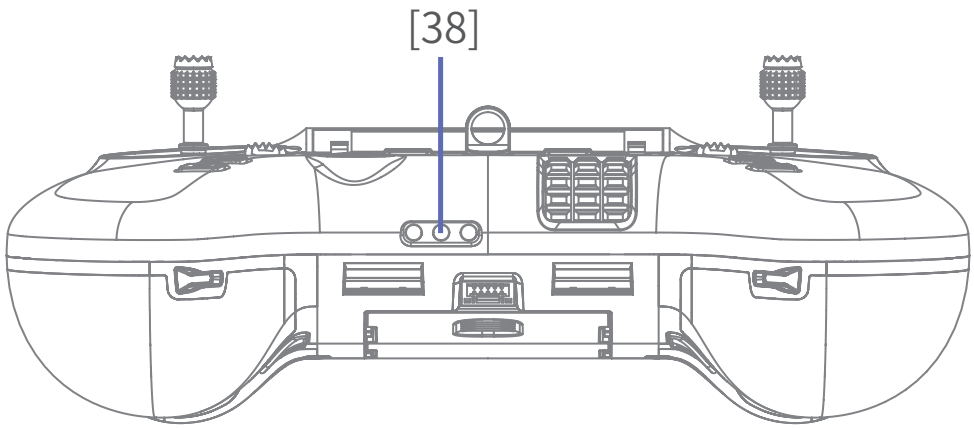
Top





[28] S1 (Non-returning middle dial)
[29] SA (self-locking button)
[30] SB (Three-position Switch)
[31] 3.5mm Audio Jack
[32] USB Type-C Port
[33] DSC 3.5mm Trainer Connector
[34] SC (Three-position Switch)
[35] SD Button
[36] S2 (Non-Self-Centering Dial)
[37] Antenna

Bottom

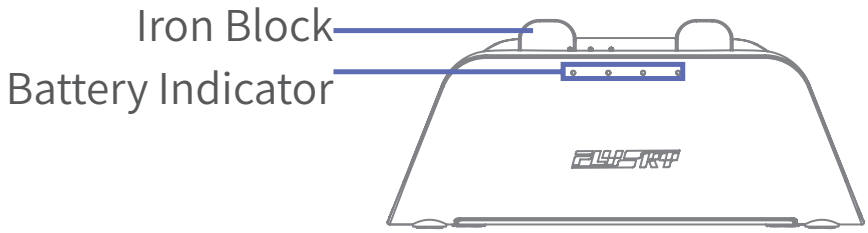


[38] Base Contact Points

FS-DZ02 Base (Optional Accessory)

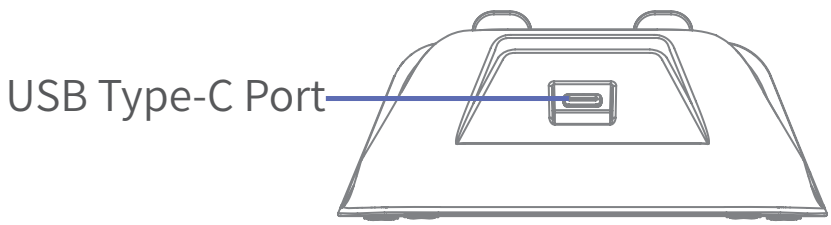
The FS-DZ02 base can not only charge the transmitter but also directly power it.

Front

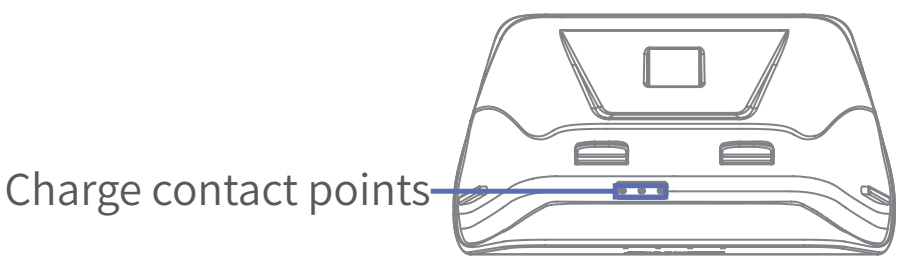


Battery Indicator: This base is equipped with 4 LED indicators to show the battery power status and charging status inside the base, from left to right they represent 25%, 50%, 75%, and 100% battery levels respectively.

Back

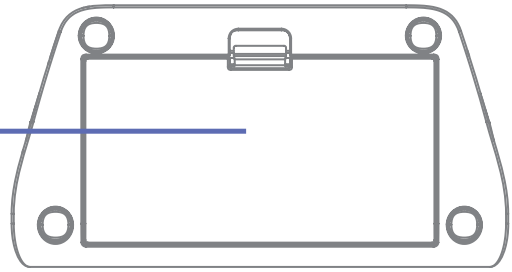


Top

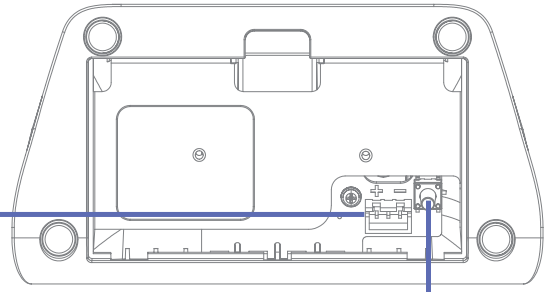


Bottom

Battery Cover and
Battery Compartment



Balanced Charging
Port (2.54mm 3-Pin)



Activation Button

When reconnecting the battery to the base, press the "Activation Button" to enable charging functionality.

⚠ Warning: Only recharge 7.4V 2S LiPo batteries.

Type-C Port Input Voltage and Current Support:

- When the input voltage is 5V, the maximum allowed current is 3A.
- When the input voltage is 9V, the maximum allowed current is 2A.
- When the input voltage is 12V, the maximum allowed current is 1.5A.

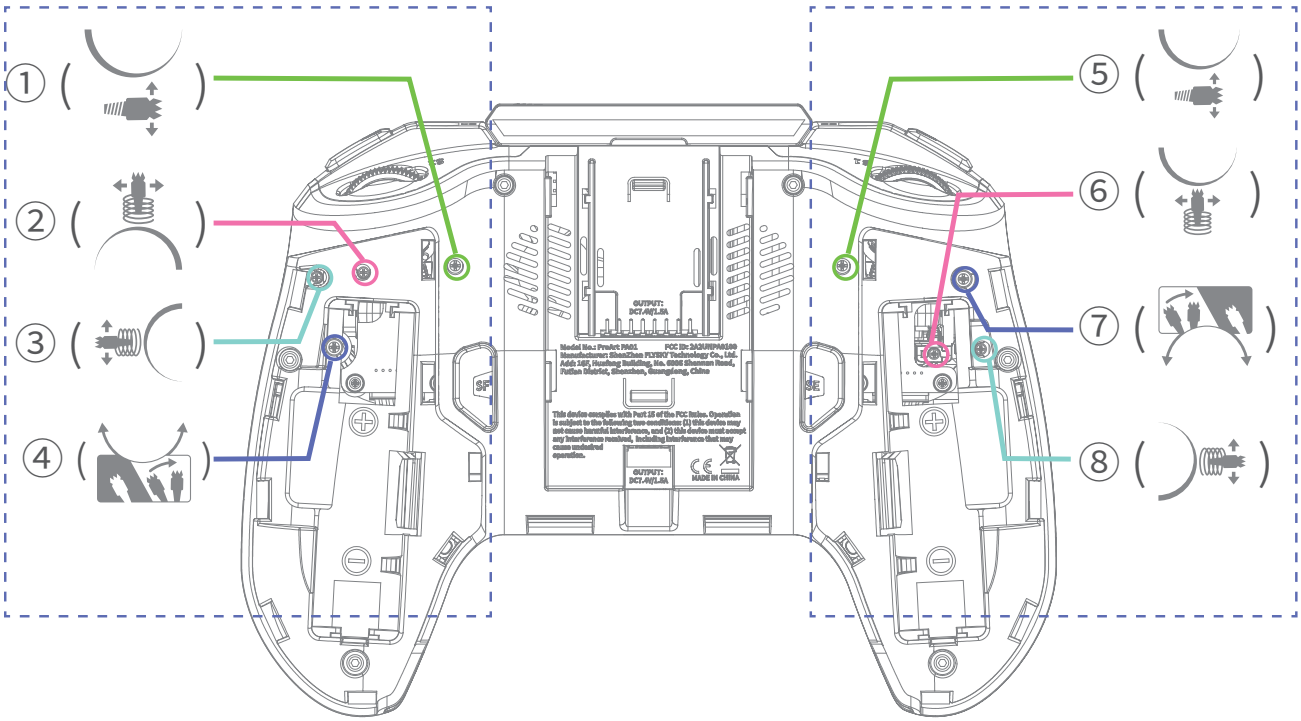
Type-C Port Output Voltage and Current Support:

- When the output voltage is 5V, the maximum allowed current is 3A.
- When the output voltage is 9V, the maximum allowed current is 2A.
- When the output voltage is 12V, the maximum allowed current is 1.5A.

Gimbal Assembly Adjustment Instructions

For Right Gimbal Stick Adjustment:

For Left Gimbal Stick Adjustment:



As shown above, by adjusting the screws which are located in the screw holes in the back of the transmitter, the gimbal stick can be set to either self-centering or non-self-centering and the friction in case of non-self-centering, as well as changing stick tension in case of self-centering (Remove the grips to find the relevant screw holes and screws). Screw description is as following:

①.⑤	Gimbal stick vertical friction adjustment	②.⑥	Gimbal stick horizontal tension adjustment
③.⑧	Gimbal stick vertical tension adjustment	④.⑦	Gimbal stick self-centering/non-self-centering adjustment

Notes:

1. During the adjustment process, please be careful of the amount of force you apply. If you loosen the screws too much, they may fall out. If you tighten them too much, you may damage the spring.
2. When performing the following steps, you can adjust the screws while simultaneously moving the stick to achieve the desired adjustment.

Take right gimbal stick as example.

Non-Self-Centering to Self-Centering

1. Use the screwdriver to adjust the screw ④ (shown on previous diagram) counterclockwise until the gimbal stick changes to self-centering.
2. Adjust the screw ① counterclockwise to adjust the frictional force.
3. If you need to adjust the vertical centering force or horizontal centering force, adjust the corresponding screw ③ or ② accordingly. The force increases clockwise, and decreases counterclockwise.

Self-Centering to Non-Self-Centering

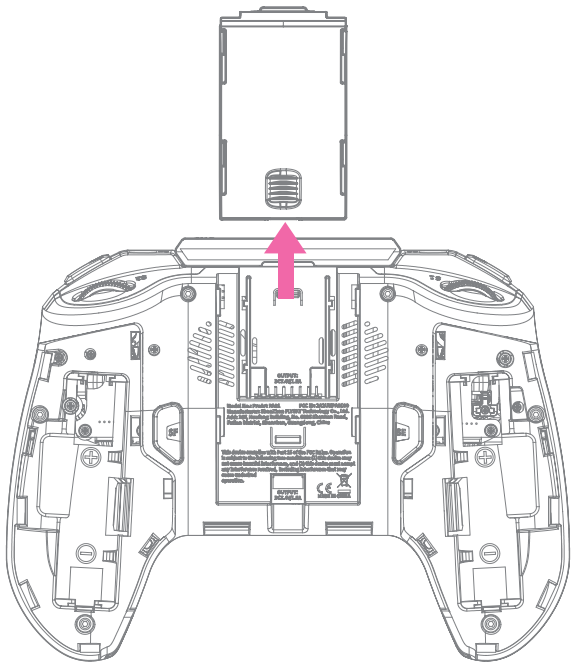
1. Use the screwdriver to adjust the screw ④ clockwise until it is tightened so that the gimbal stick changes to non-self-centering.
2. Adjust the screw ① clockwise to strengthen the frictional force.
3. If you need to adjust the horizontal centering force, adjust the screw ② accordingly. The force increases clockwise, and decreases counterclockwise.

RF Module Installation

This transmitter comes with an FS-XC506 RF cable for use with the FRM303 RF module. Please select the appropriate RF connector for installation based on the actual RF module.

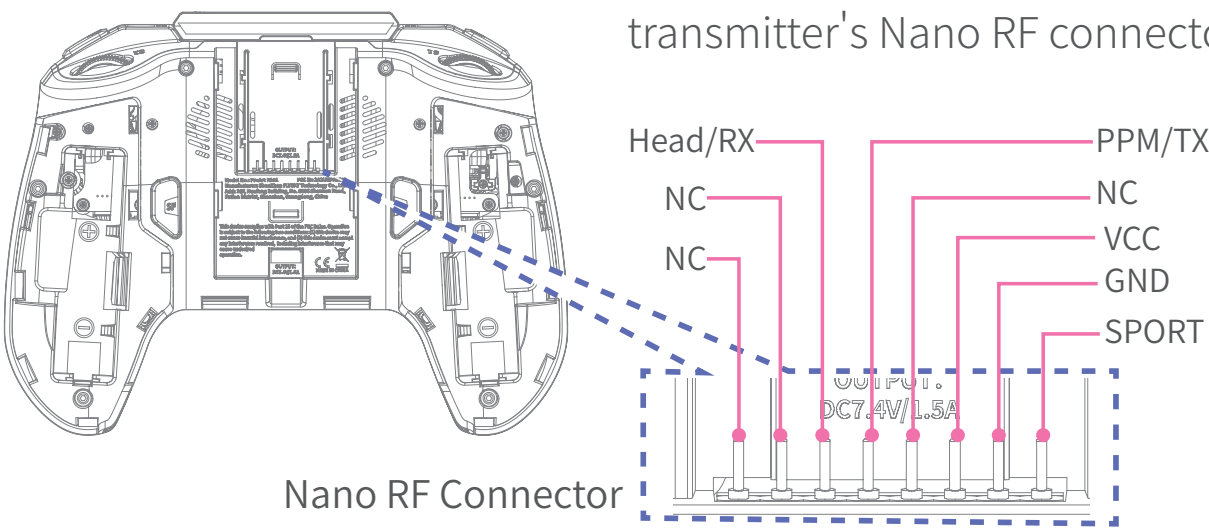
Here are the steps for installing the Nano RF module:

Figure 1



1. As shown in Figure 1, remove the RF module installation cover.

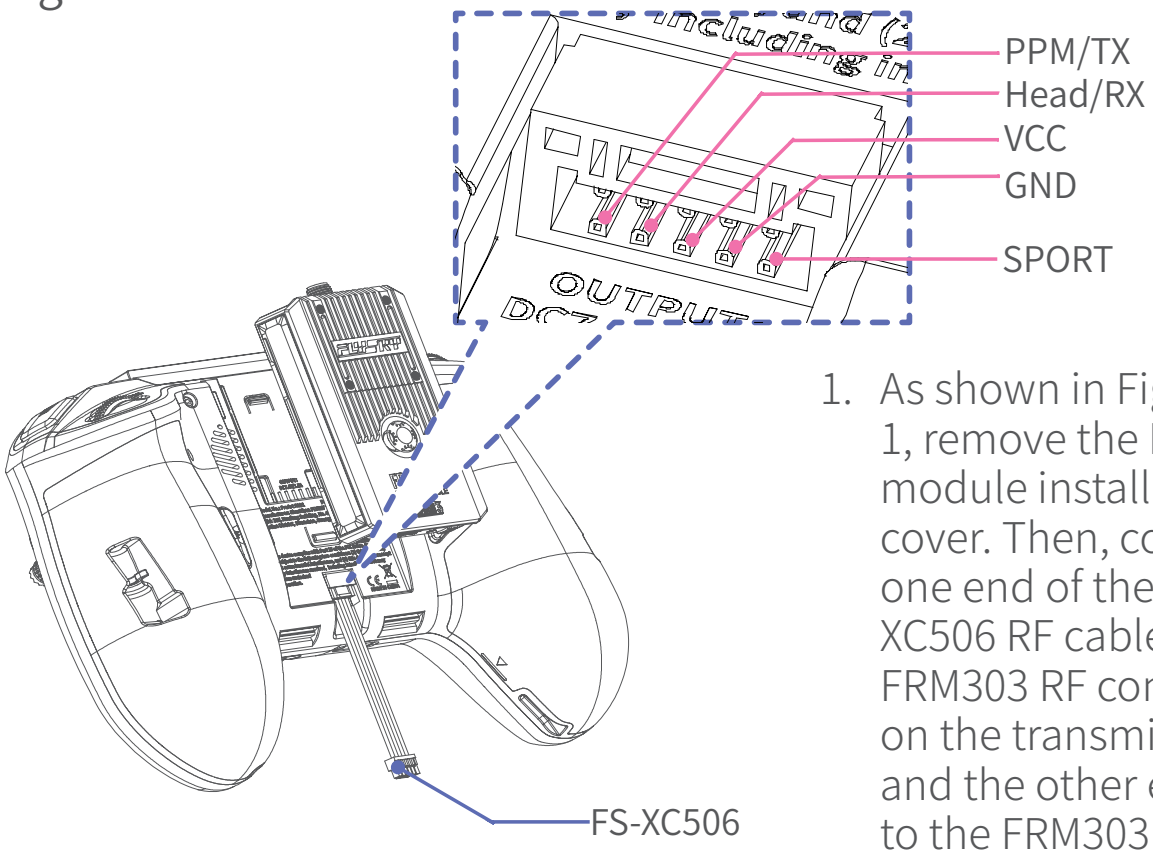
Figure 2



2. As shown in Figure 2, simply install the Nano RF module onto the transmitter's Nano RF connector.

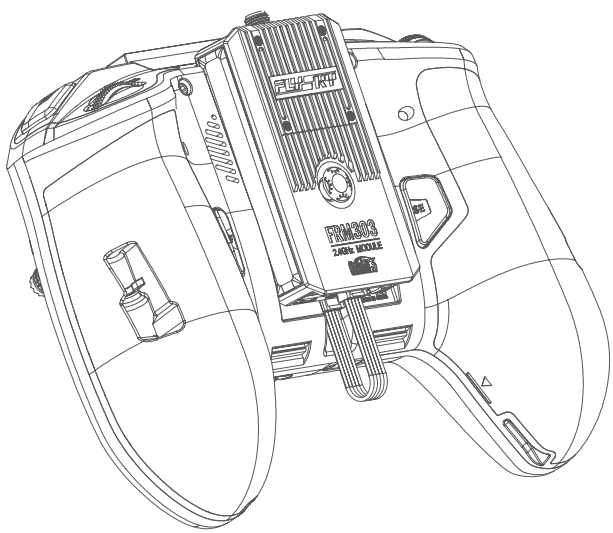
Here are the steps for installing the FRM303 RF module:

Figure 1



1. As shown in Figure 1, remove the RF module installation cover. Then, connect one end of the FS-XC506 RF cable to the FRM303 RF connector on the transmitter, and the other end to the FRM303 RF module itself.

Figure 2



2. As shown in Figure 2, mount the RF module securely onto the transmitter.

Note: For detailed information on the FRM303 RF module and the Nano RF module, please refer to the respective user manuals.

Battery Installation

⚠ Warning: Only the 18650 battery with dimensions of 18×65mm as illustrated must be used. Using an improperly sized battery may deform the battery compartment, which can lead to poor contact or other malfunctions.

Figure 1

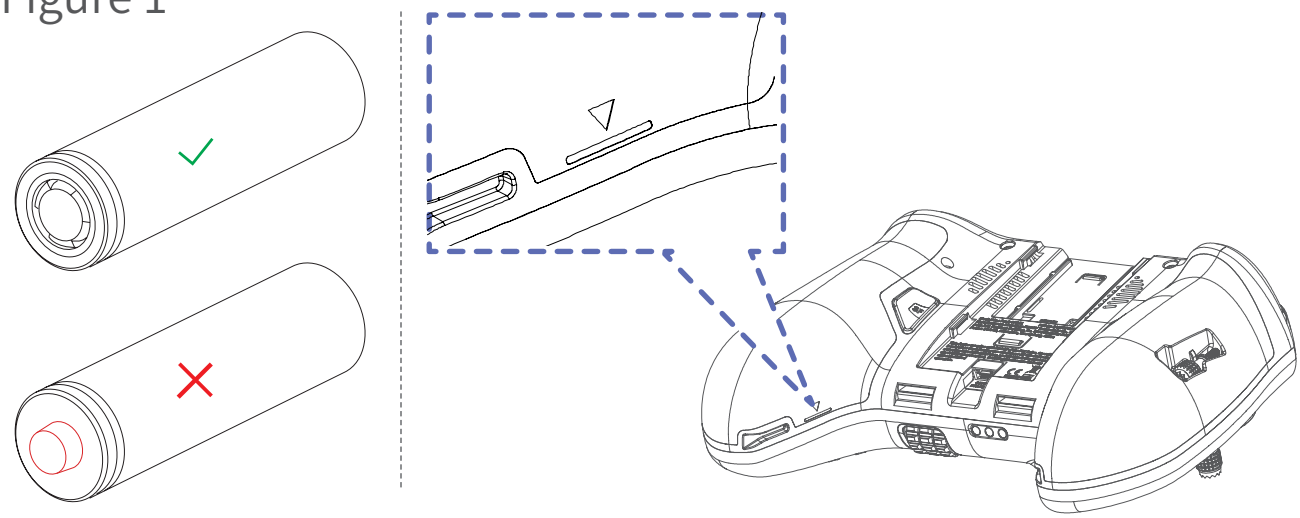
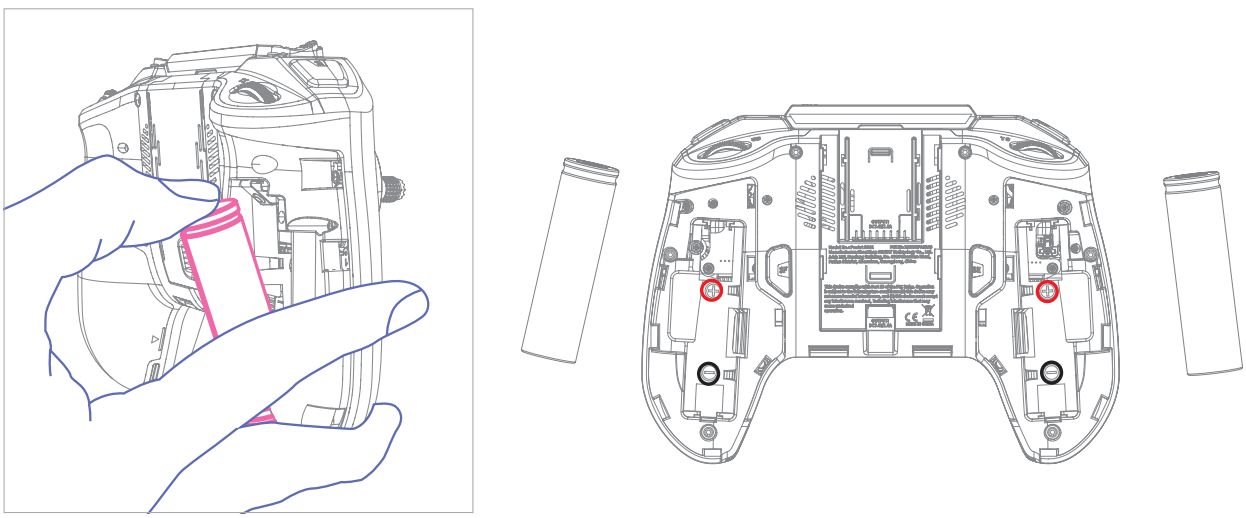


Figure 2



1. As shown in Figure 1, locate the icon ▽, and then carefully remove the left and right hand grips of the transmitter starting from that position.
2. As shown in Figure 2, first, insert the end of the battery marked with '-' into the corresponding position in the battery compartment. Then press the battery in, ensuring it is fully seated, and make sure the '+' and '-' orientation matches the markings inside the compartment.

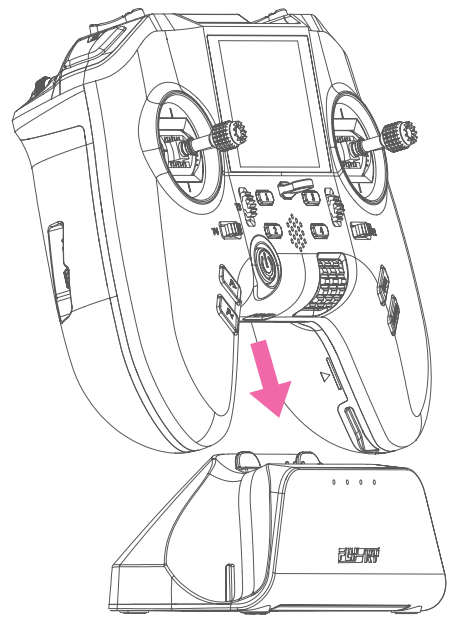
- To ensure the normal use of the transmitter, please use dual-battery power supply.

3. Refer to Step 2 to install the other 18650 battery.
4. Reinstall the left and right grips.

Charging Method

The PA01 can be charged in two ways:

1. By inserting a USB Type-C cable into the USB Type-C port for charging.
2. Using the FS-DZ02 base for charging. As shown in the diagram on the right, ensure that the transmitter base contact points are accurately aligned with the charging base contact points before charging.



Power On

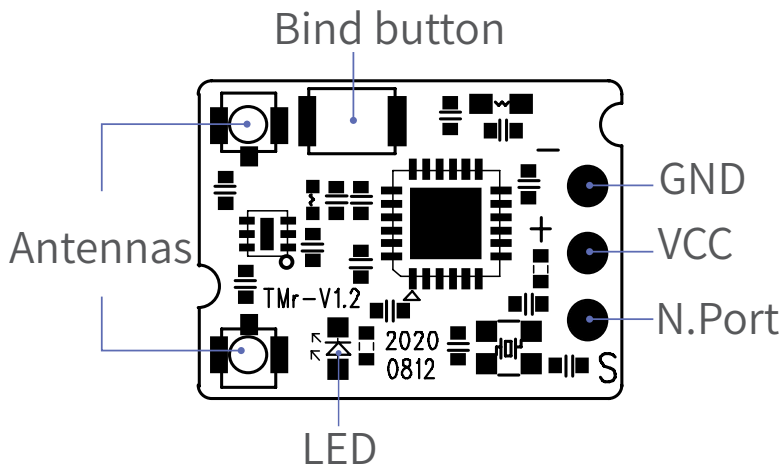
Follow these steps to power on the device:

1. Press and hold the power switch for at least 1.5 seconds. Release it when the transmitter screen turns on.
2. Follow the on-screen prompts to complete the startup process successfully.
   - Check the throttle position and switch positions according to the throttle warning and switch position warning, and move them to the correct positions as prompted, or press any key to skip.
   - If the failsafe is not set for the current model, a failsafe warning will be displayed. You can simply press any key to skip it.

⚠ **Warning: Do not use the USB Type-C cable to power on the RF module when the battery is not installed, to avoid loss of control due to unstable power supply!**

Binding

Here is an overview of the TMr receiver:



The TMr receiver supports binding in two-way or one-way mode, follow the steps below to finish the binding in two-way mode.

1. Enter the Radio Settings interface, short press P> or P< to switch to the [Hardware] menu, select [Internal RF], and set the internal RF type to AFHDS3.
2. Enter the Model Settings menu, then select suitable RF to enter the submenu. After setting the corresponding mode, ie AFHDS 3, and suitable type(Classic 18ch、C-Fast 10ch、Routine 18ch、Fast 8ch or Lora 12ch), select the Bind to put the transmitter into bind state.
   - TMr enhanced receiver requires selecting either Routine 18ch, Fast 8ch, or Lora 12ch mode for proper binding.
3. Press and hold the BIND button of the receiver while powering on the receiver (Alternatively, power on the receiver first, then press and hold the binding button for 3 seconds), the LED of the receiver should be flashing, indicating that the receiver is in bind mode.

4. When the receiver LED is solid on, it indicates successful binding.
5. Check whether the transmitter and receiver are operating properly. For re-binding, please repeat the above steps.

Notes:

1. If the transmitter that has its RF standard set to 1Way enters bind mode, put the transmitter to exit binding state when the status of the receiver LED changes to slow flash, and at the same time, the receiver LED is solid on, indicating that the binding is completed.
2. The binding mode may vary according to the receiver model. Visit the Flysky official website to check the receiver manual or other relevant information.

- Regarding the binding method of the ELRS receiver, please refer to the ELRS receiver user manual.

Power Off

1. Power off the receiver.
   - To ensure safety, be sure to turn off the receiver before turning off the transmitter.
2. Press the power switch until the transmitter screen turns off.

- For more information, please refer to the PA01 user manual.

Specifications

- Product Model: PA01
- Compatible Receiver: FTr16s, TMr and other AFHDS 3 protocol receivers ; PR01, PR02 and other ELRS receivers
- Compatible RC Model: Racing drone, fixed-wing, glider, helicopter, car, boat, robot, etc.
- Number of Channels: 18-channel is for Internal RF, and 32-channel is for External RF
- RF: 2.4GHz ISM
- Maximum Power: < 20dBm (e.i.r.p.) （EU）
- RF Protocol: AFHDS 3/ELRS
- Resolution: 4096
- Data Connector: USB Type-C, 3.5mm Audio Jack, 3.5mm Trainer Connector(DSC)
- Low Voltage Alarm: <7.2V
- Antenna: Single antenna (external folding antenna)
- Input Power: 7.4V 2*18650 LiPo
- Display: 2.4 inch 240*320 full dot color non-touch IPS screen
- Firmware Update: Supported
- Temperature Range: -10°C ~ +60°C
- Humidity Range: 20% ~ 95%
- Color: Black translucent
- Dimensions: 174.9*131.4*67.5mm
- Weight: Transmitter weight: 343g (without battery);
  Charging base weight: 67g (without battery)
- Charging Jack: Yes (USB Type-C Port)
- Certifications: CE, FCC ID: 2A2UNPA0100

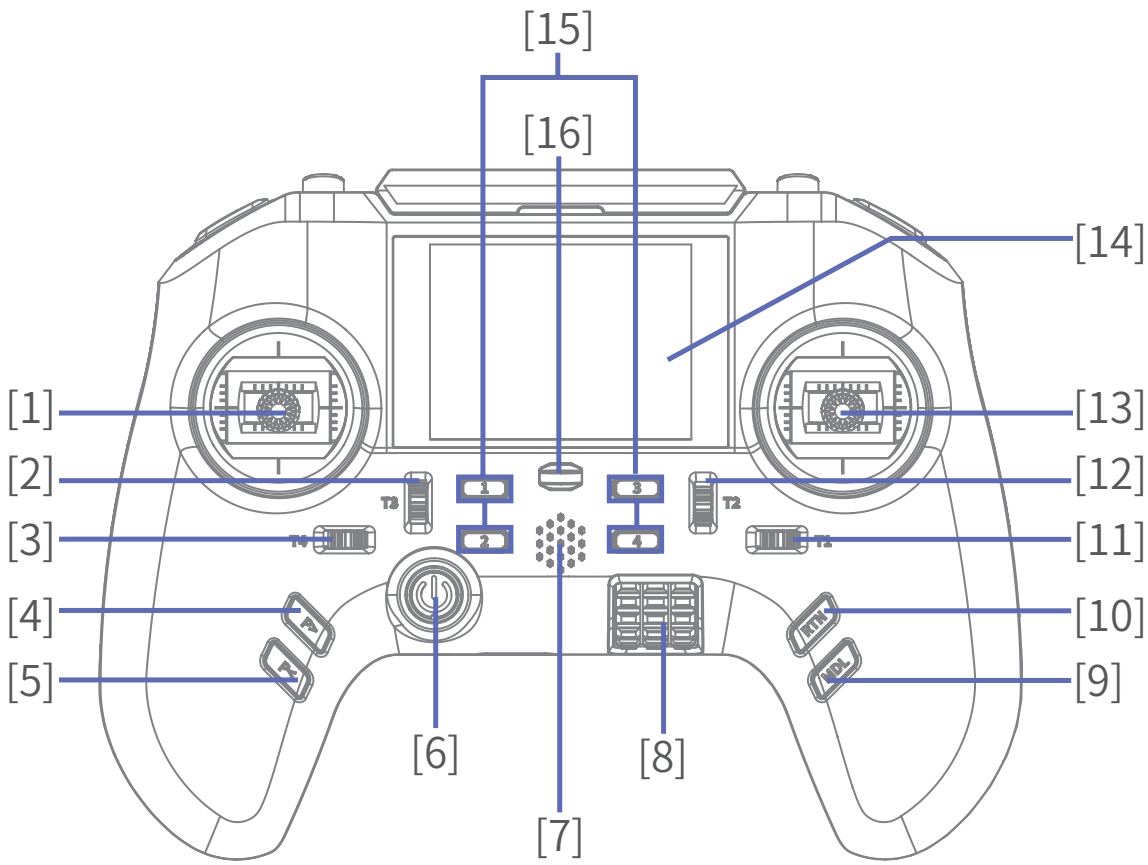
注意事项！

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

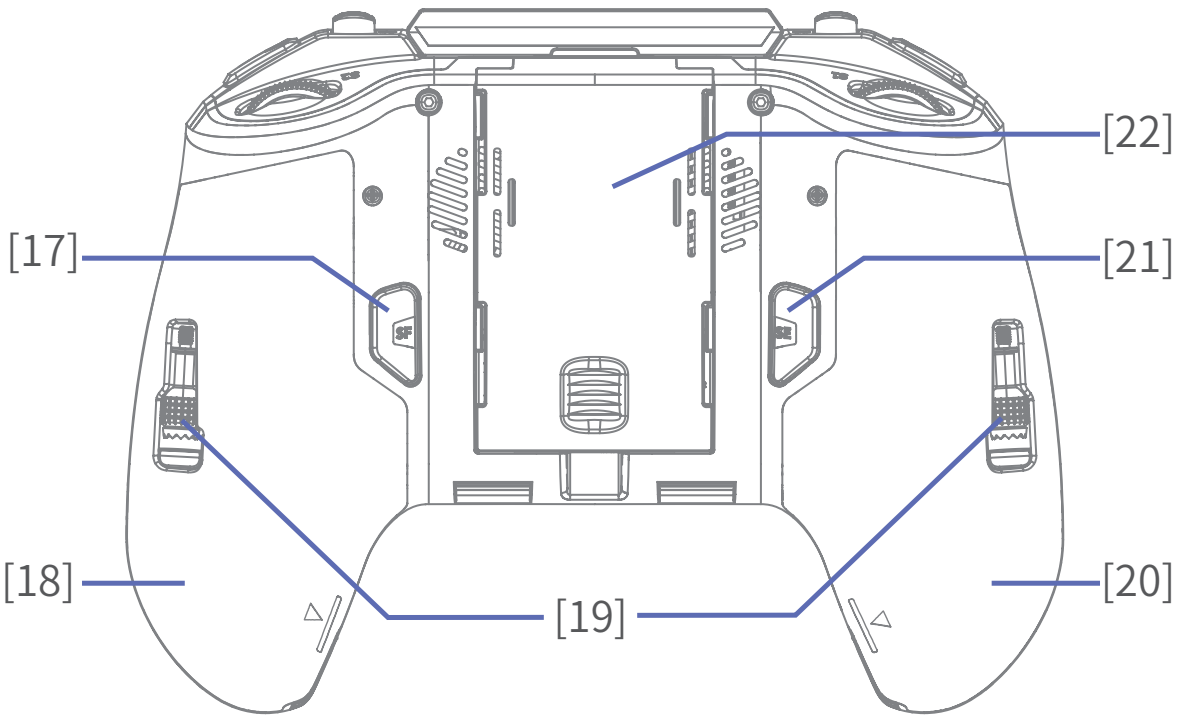
1. 此发射机所用天线的安装必须与所有人员保持距离，不得与任何其他发射机共用或一起使用。必须向最终用户和安装人员提供天线安装说明和发射机操作条件，以满足射频暴露合规要求。
2. 特此，[ShenZhen Flysky Technology Co., Ltd.] 声明无线电设备 [PA01] 符合 RED2014/53/EU
3. 欧盟 DoC 声明全文可在以下互联网地址：www.flyskytech.com/info_detail/10.html 获取。

前视图：

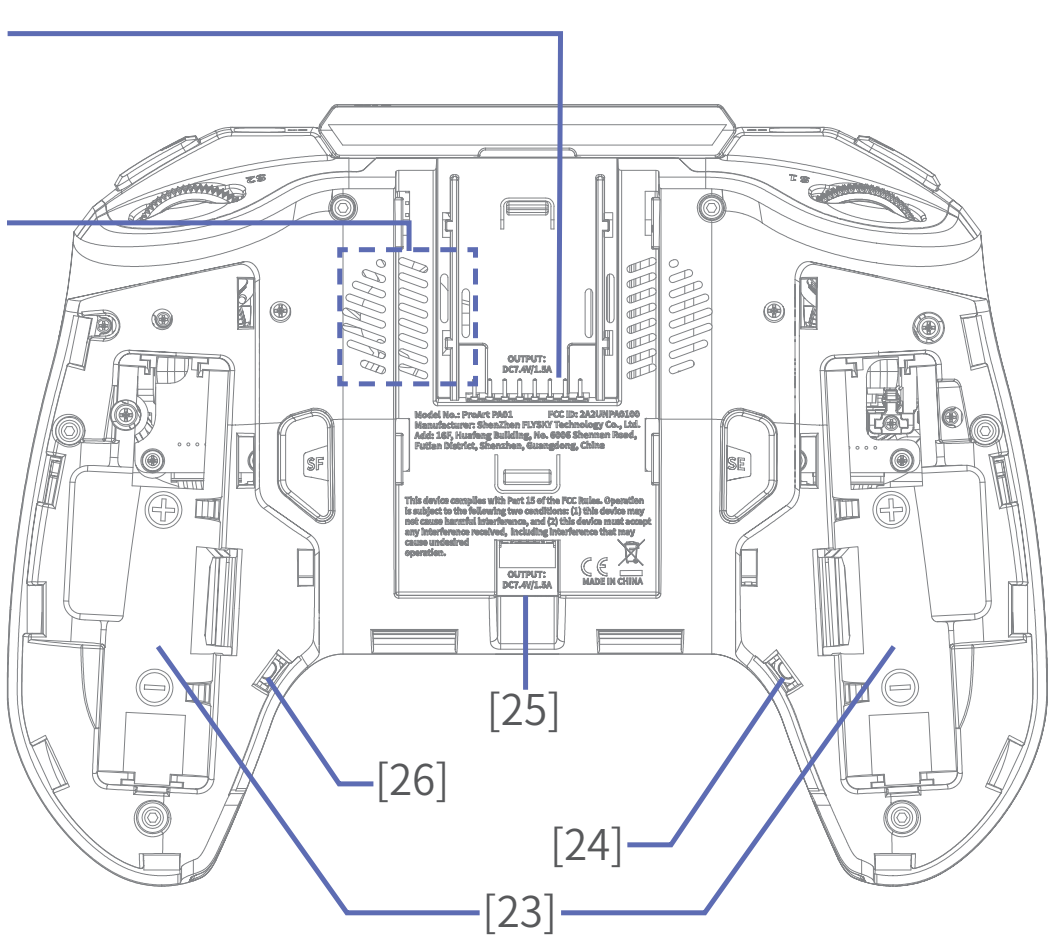


[1]	左摇杆	[9]	MDL（模型设置）
[2]	T3（微调按钮）	[10]	RTN（返回按键）
[3]	T4（微调按钮）	[11]	T1（微调按钮）
[4]	P>（右翻页）	[12]	T2（微调按钮）
[5]	P<（左翻页）	[13]	右摇杆
[6]	电源键（带灯）	[14]	屏幕
[7]	喇叭	[15]	自定义带灯按键（SW1~SW4）
[8]	滚轮按键	[16]	挂绳扣

后视图：



[17] SF 按键
[18] 右手胶
[19] 摇杆柄放置位
[20] 左手胶
[21] SE 按键
[22] 高频头安装盖板



[23] 电池仓
[24] 复位按键
[25] FRM303 高频头接口
[26] 遥控 MCU-DFU 按键
[27] Nano 高频头接口

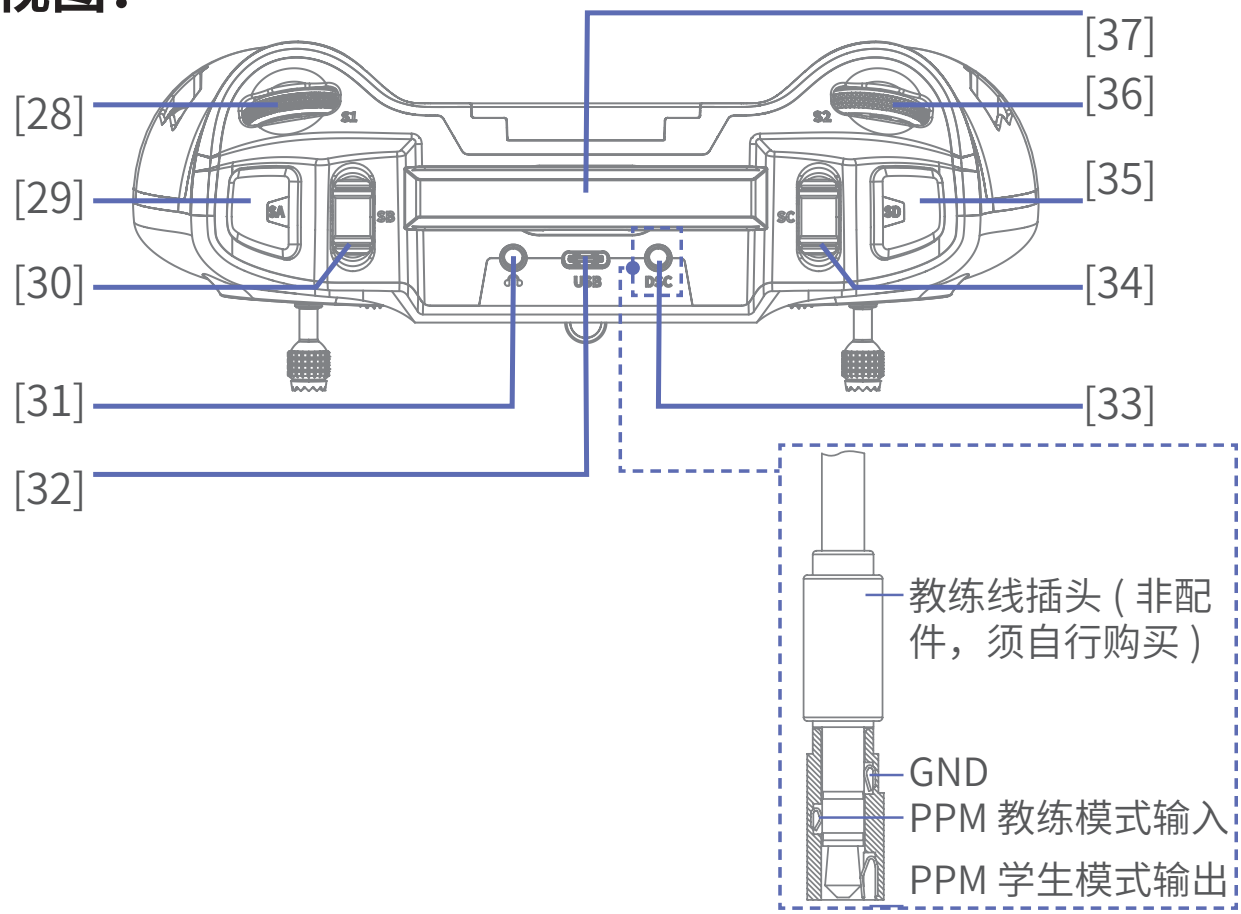
复位按键和遥控 MCU-DFU 按键功能介绍

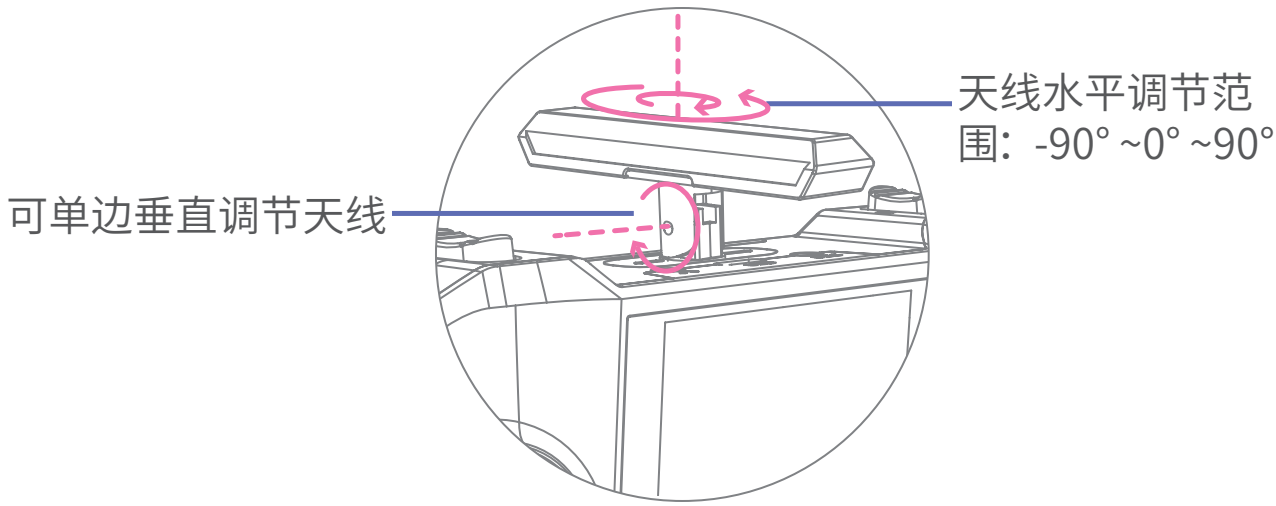
在使用这两个按键之前，需要先拆下左右手胶。可以借助细长工具来按压这两个按键。

复位按键：当按电源键无法关闭发射机时，需要用此按键复位发射机。

遥控 MCU-DFU 按键：用于更新发射机固件。

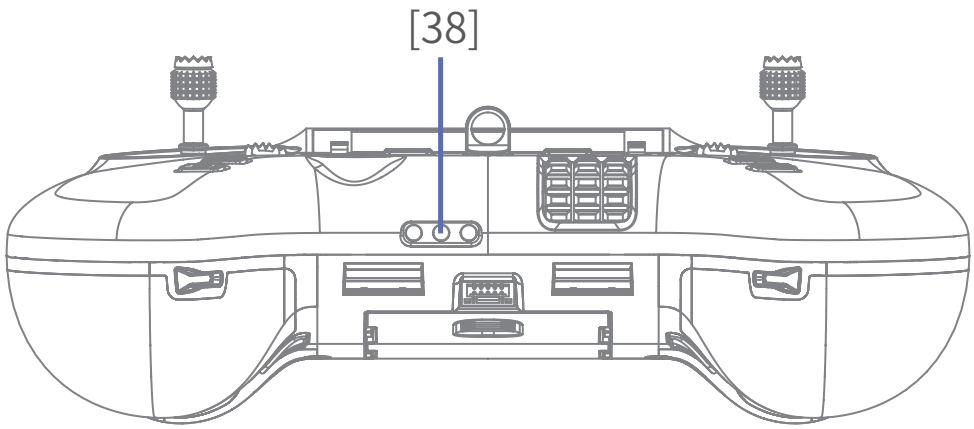
顶视图：





[28] S1（不回中拨轮）
[29] SA（自锁按键）
[30] SB（三档开关）
[31] 3.5mm 音频口
[32] USB Type-C 接口
[33] DSC 3.5mm 教练口
[34] SC（三档开关）
[35] SD 按键
[36] S2（不回中拨轮）
[37] 天线

底视图：

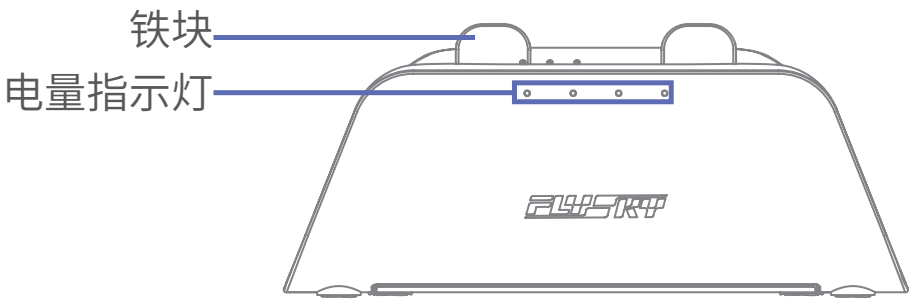


[38]　底座连接触点

FS-DZ02 底座（选配件）

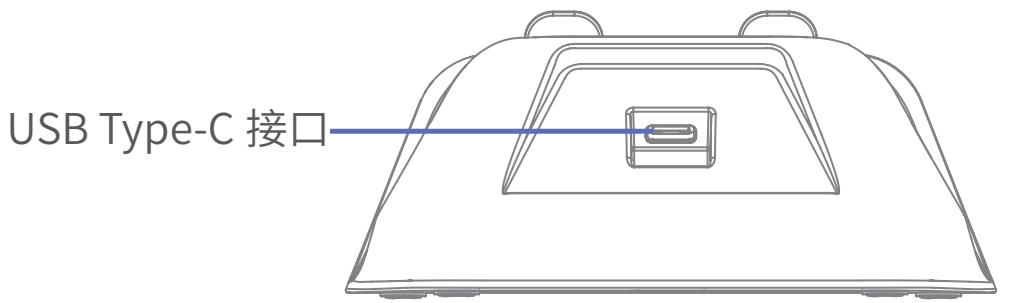
FS-DZ02 底座不仅可以给发射机充电，又能直接为发射机供电。

前视图：

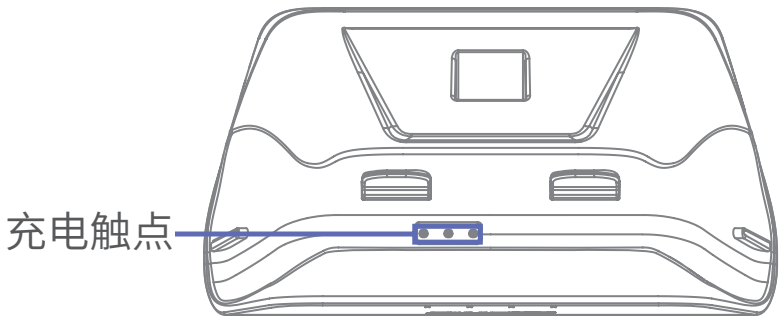


电量指示灯：此底座配备 4 个 LED 指示灯，用于指示底座内电池电量状态及充电状态，从左到右依次表示电量 25%、50%、75% 和 100%。

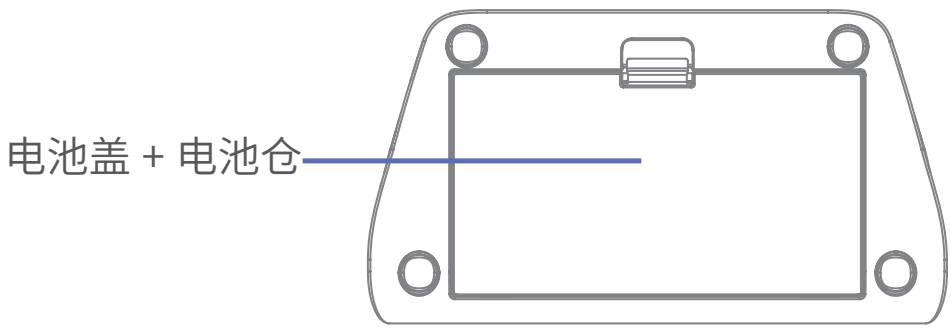
后视图：

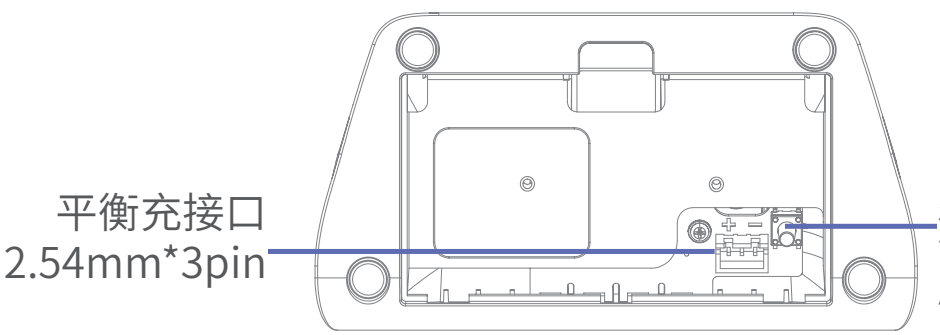


顶视图：



底视图：





警告：仅可充 7.4V 2S Lipo 电池。

Type-C 接口支持以下输入电压和电流：

- 当输入电压为 5V 时，最大允许电流为 3A。
- 当输入电压为 9V 时，最大允许电流为 2A。
- 当输入电压为 12V 时，最大允许电流为 1.5A。

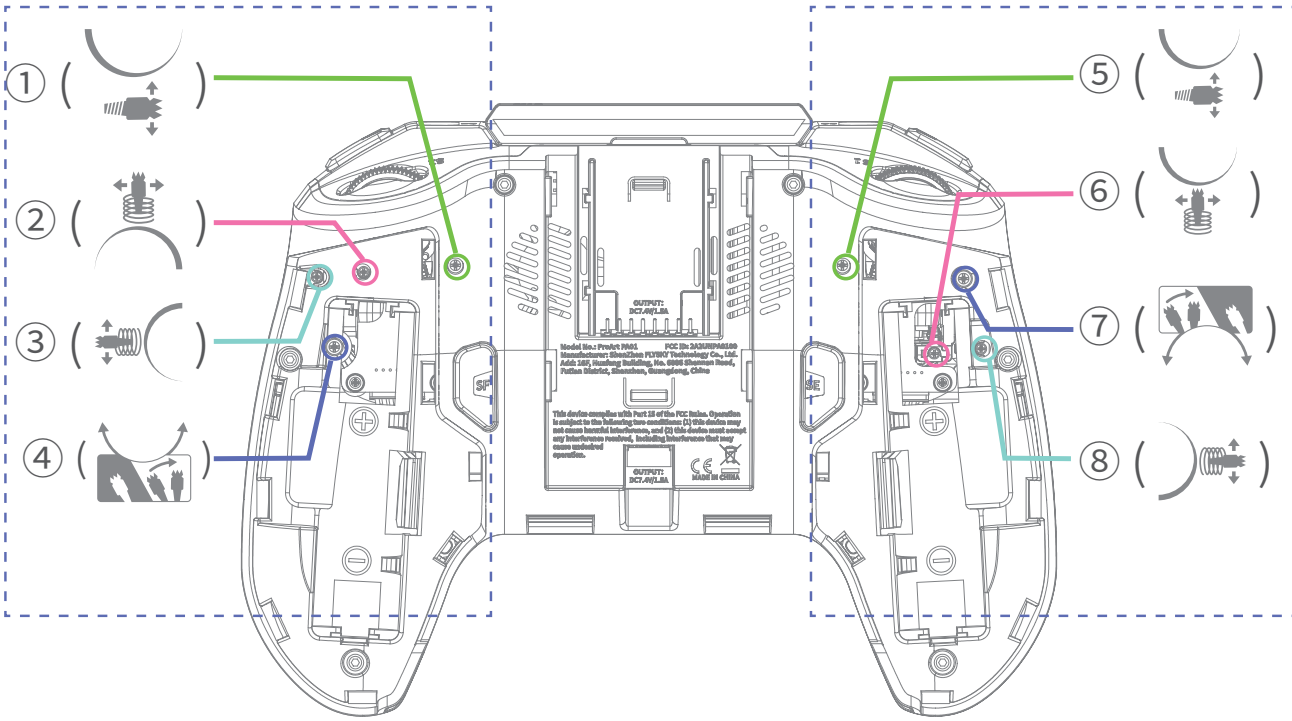
Type-C 接口支持以下输出电压和电流：

- 当输出电压为 5V 时，最大允许电流为 3A。
- 当输出电压为 9V 时，最大允许电流为 2A。
- 当输出电压为 12V 时，最大允许电流为 1.5A。

总成座调节

右总成座调节：

左总成座调节：



如上图，可通过调节相应螺丝孔内的螺丝实现左右总成座横向 / 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（拆开背部左右手胶后即可找到相关的螺丝孔及螺丝)。螺丝说明：

①.⑤	调节总成座纵向摇杆摩擦力	②.⑥	调节总成座横向摇杆弹力
③.⑧	调节总成座纵向摇杆弹力	④.⑦	调节总成座摇杆是否回中

注：

1. 调节过程中请注意调节力度，若拧得太松的话，可能会导致螺丝脱落，若拧得太紧的话，可能会损坏弹簧。
2. 操作以下步骤时，可以一边拨动摇杆一边调节螺丝，以便调节到合适的状态。

以右摇杆为例，调节步骤如下：

不回中 - 回中

1. 用十字螺丝批逆时针调节④号螺丝（如上图所示）使摇杆变为回中状态；
2. 逆时针调节①号螺丝调整摩擦力度；
3. 如还需调整横向或纵向回中力度，请操作③或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

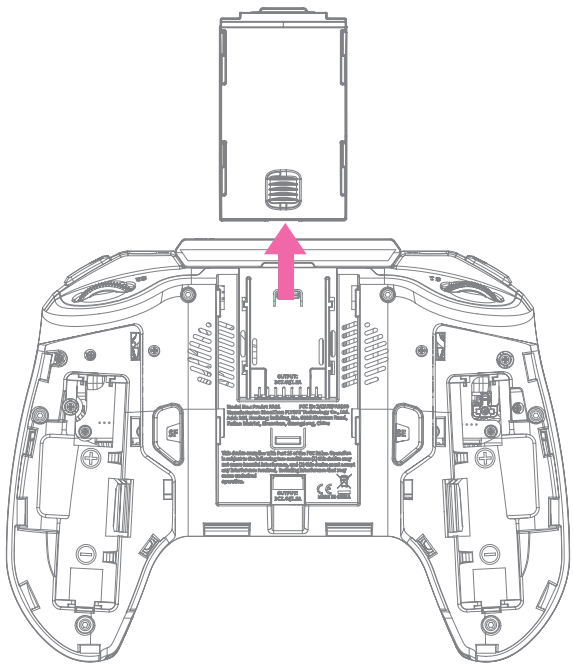
1. 用十字螺丝批顺时针调节④号螺丝直至拧紧，使摇杆变为不回中状态；
2. 顺时针调节①号螺丝加强摩擦力度；
3. 如还需调整横向回中力度，请操作②号螺丝调节回中力度， 顺时针力度加强，反之减弱。

高频头安装

本发射机出厂附带 FS-XC506 高频连接线，以匹配 FRM303 高频头。请根据实际高频头选择合适的高频头接口安装。

Nano 高频头安装步骤如下：

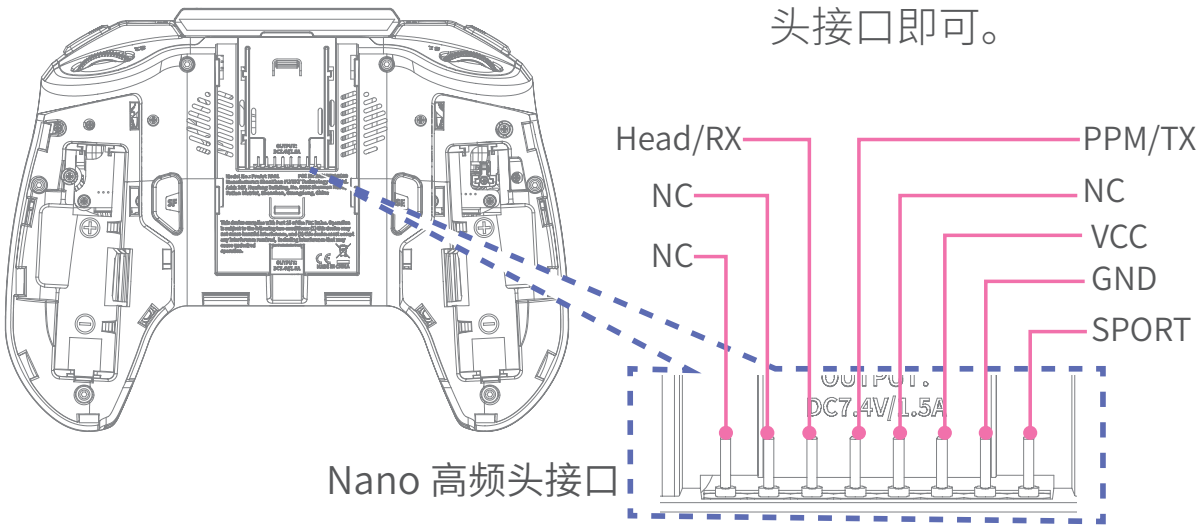
图一



1. 如图一所示，拆下高频头安装盖板。

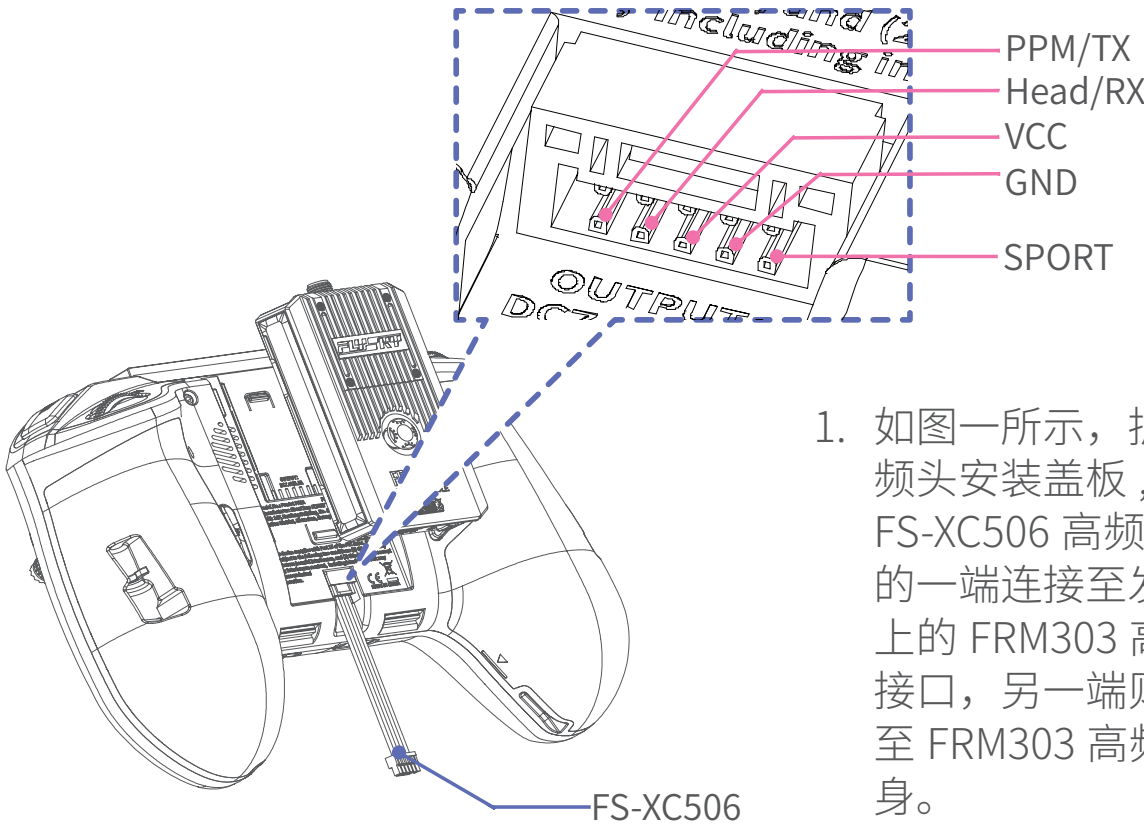
图二

2. 如图二所示，将 Nano 高频头安装于发射机 Nano 高频头接口即可。



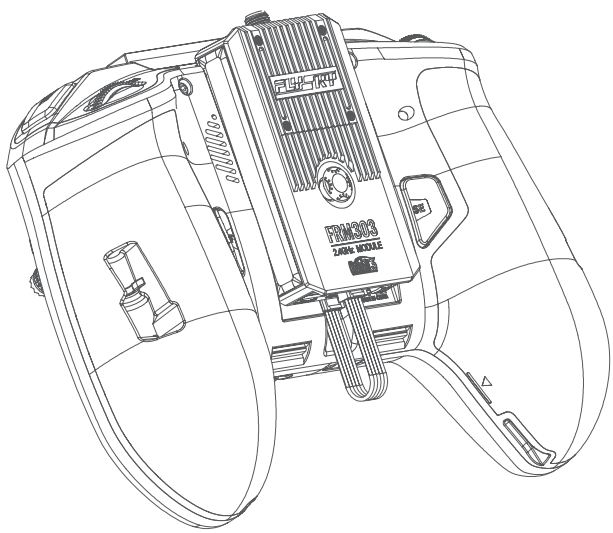
FRM303 高频头安装步骤如下：

图一



1. 如图一所示，拆下高频头安装盖板，然后将 FS-XC506 高频连接线的一端连接至发射机上的 FRM303 高频头接口，另一端则连接至 FRM303 高频头本身。

图二



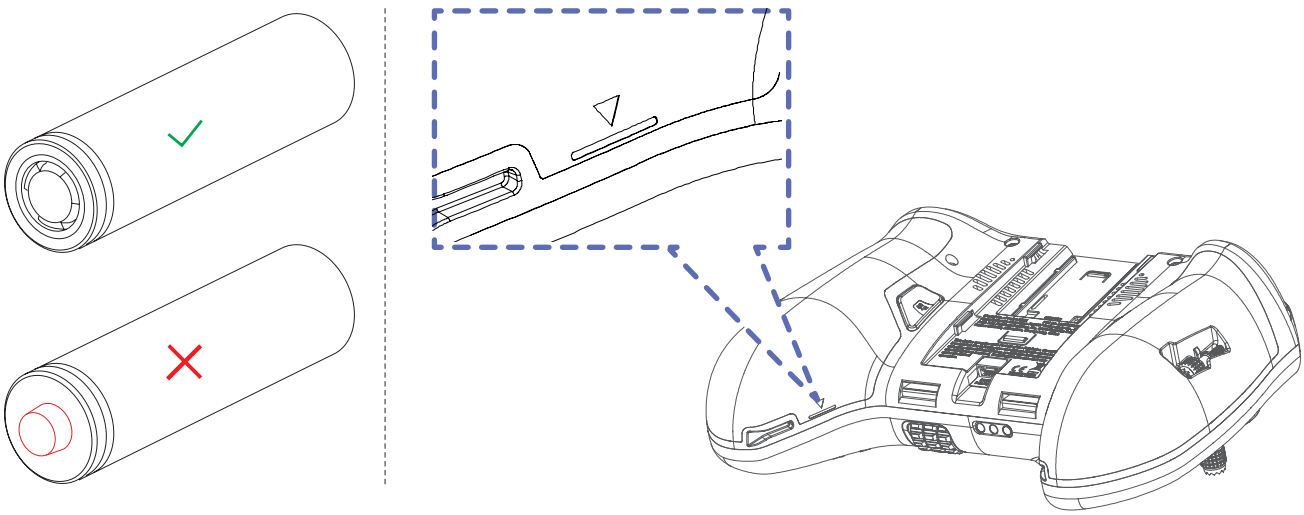
2. 如图二所示，将高频头安装固定在发射机上。

注：FRM303 高频头和 Nano 高频头详细信息，可查阅相关说明书。

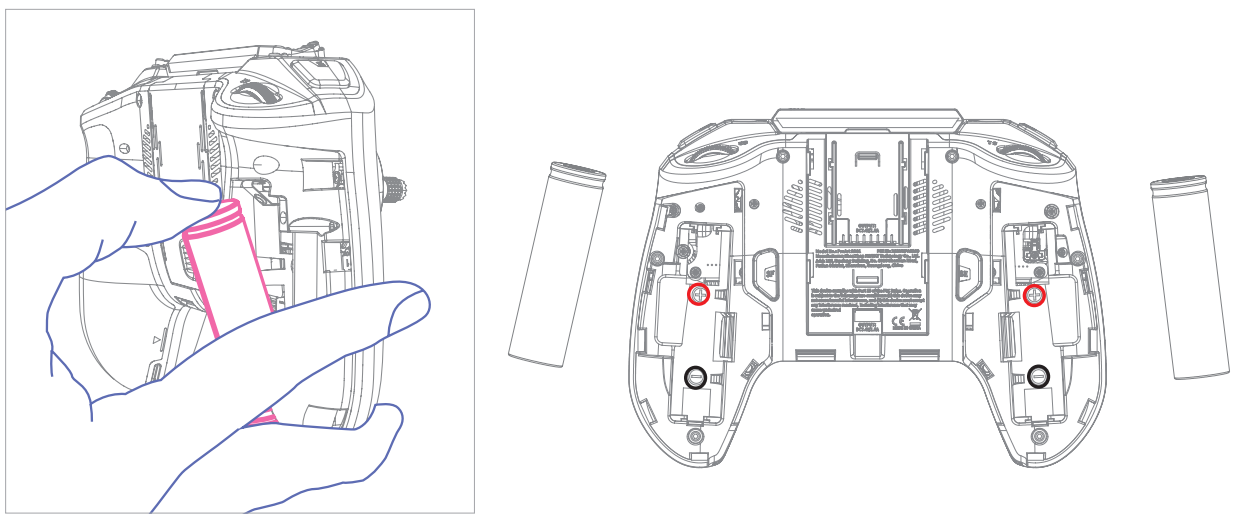
电池安装

⚠ 警告：请使用尺寸为 18×65mm 的 18650 如图示电池。使用尺寸不合适的电池可能导致电池仓变形，进而引发接触不良等问题。

图一



图二

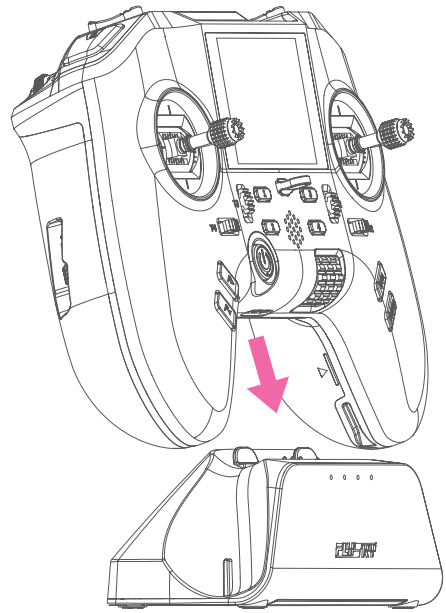


1. 如图一，找到 ▽ 后，从该位置开始，小心取下发射机左右手胶；
2. 如图二，先将电池标有 '-' 的一端放入电池仓对应位置。然后压入电池，确保其整体嵌入仓内，注意电池 "+/-" 方向与仓内标识一致。
   - 为保证正常使用发射机，请使用双电池供电。
3. 参考步骤 2 安装另一颗 18650 电池；
4. 重新安装好左右手胶。

充电方式

PA01 可通过两种方式对其进行充电：

1. USB Type-C 线插入 USB Type-C 接口充电。
2. 使用 FS-DZ02 底座对其进行充电。如右图所示，需确保将发射机底座连接触点与底座充电触点准确对接后即可进行充电。



开机

按照以下步骤进行开机：

1. 长按电源键（≥ 1.5S）直至发射机屏幕亮起。
2. 依如下屏幕提示操作至开机成功。
   - 请根据油门警告和开关位置警告检查油门和开关位置，并按照提示将其拨至正确位置或按任意键跳过。
   - 当前模型未设置失控保护模式，则会显示失控保护警告，按任意键跳过即可。

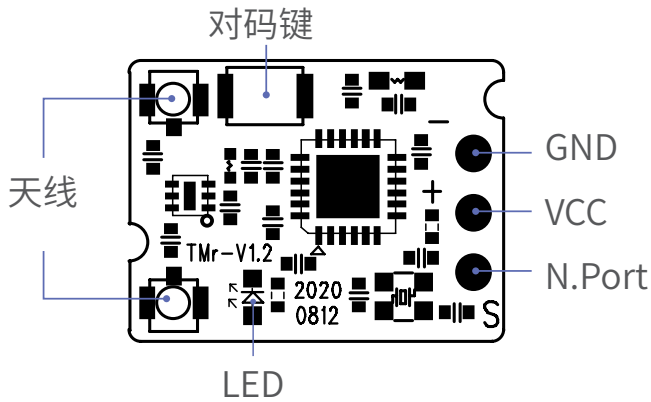
⚠ **警告：未安装电池时请勿使用数据线供电开启高频模块，避免因供电不稳出现失控！**

关机

1. 关闭接收机电源；
   - 为保证安全，请务必在关闭发射机前先关闭接收机电源。
2. 按下电源键，直至发射机屏幕熄灭。

对码

TMr 接收机概览如下：



TMr 接收机支持双向对码，依照如下步骤完成双向对码：

1. 进入 [系统设置] 菜单，短按 P> 或 P< 按键切换至 [硬件] 功能界面，选择 [内置发射]，设置内置发射类型 AFHDS3；
2. 进入发射机菜单中 [模型设置] 菜单，选择 [内置发射] 进入子菜单，设置相应的模式 （AFHDS 3）和类型（Classic 18ch、C-Fast 10ch、Routine 18ch、Fast 8ch 或 Lora 12ch）后，选择 [对频]，发射机即进入对码状态；
   - TMr 接收机为增强版接收机：需选择 Routine 18ch、Fast 8ch 或 Lora 12ch 模式以匹配对码。
3. 按住接收机对码按键同时上电（或者先给接收机上电后，长按对码键 3 秒），接收机 LED 灯快闪表示进入对码状态；
4. 当接收机 LED 灯变为常亮时，表示对码成功；
5. 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：

1. 当发射机是单向模式进入对码状态时，接收机 LED 灯变为慢闪后将发射机退出对码状态，此时接收机 LED 灯常亮，表示对码成功。
2. 不同的接收机对码方式不同，具体对码方式请访问相关接收机官网查询接收机说明书或其他相关资料。

- 关于 ELRS 接收机的对码方式，请阅读 ELRS 接收机相关说明书。

规格参数

- 产品型号：PA01
- 适配接收机：FTr16s、TMr 等 AFHDS3 RX，PR01、PR02 等 ELRS RX
- 适配模型：穿越机、固定翼、滑翔机、直升机、车、船、机器人等
- 通道个数：18（内置发射）；32（外置发射）
- 无线频率：2.4GHz ISM
- 发射功率：小于 20dBm
- 无线协议：AFHDS 3/ELRS
- 通道分辨率：4096 级
- 数据接口：USB Type-C、3.5mm 音频口、3.5mm 教练口 (DSC)
- 低电压报警：<7.2V
- 充电接口：有（USB Type-C 接口）
- 天线类型：单天线（外置折叠天线）
- 输入电源：7.4V 2*18650 Lipo 电池
- 显示方式：2.4 英寸 240*320 全点阵彩色非触摸 IPS 显示屏
- 固件更新：支持
- 温度范围：-10° ~+60°
- 湿度范围：20%~95%
- 机身颜色：黑色半透明
- 外形尺寸：174.9*131.4*67.5mm
- 机身重量：发射机重量：343g（不含电池）；
  充电底座重量：67g（不含电池）
- 认证：CE， FCC ID: 2A2UNPA0100

- 关于 PA01 发射机的更多操作，请阅读使用说明书。电子版本说明书访问方式如下 :

微信公众号

Bilibili

Website

Facebook

FCC ID: 2A2UNPA0100

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