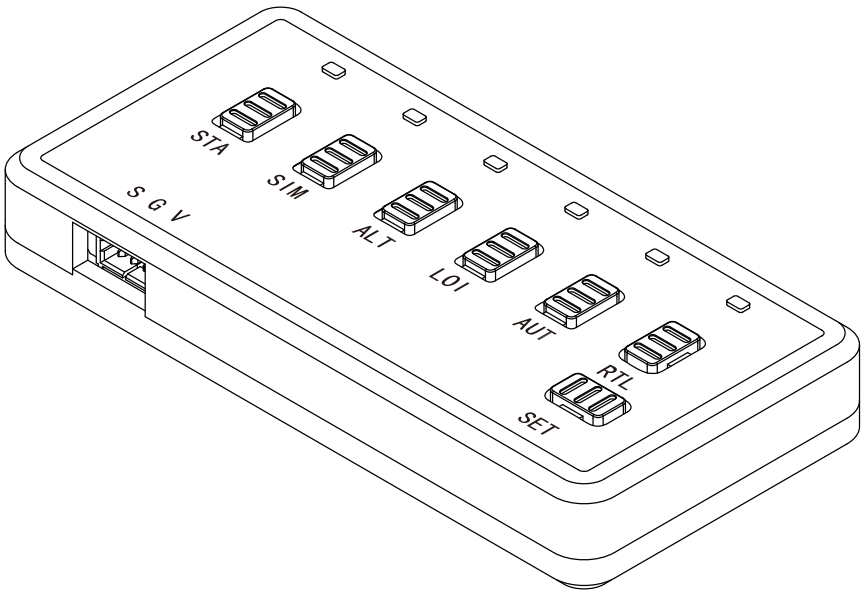
Flight Mode Switcher

User Manual

V1.0 2015.7



Disclaimers and Warnings

Congratulations on purchasing your new XROCK product. Carefully read the manual and all disclaimers before using this product to make your product work normally. XROCK assumes no liability for damages or injuries incurred directly or indirectly from the use of this product.

Please visit the XROCK Flight Mode Switcher page on www.xrockcp.com regularly to keep up with product information, technical updates and manual corrections. This manual is subject to change without notice in line with product upgrades and updates.

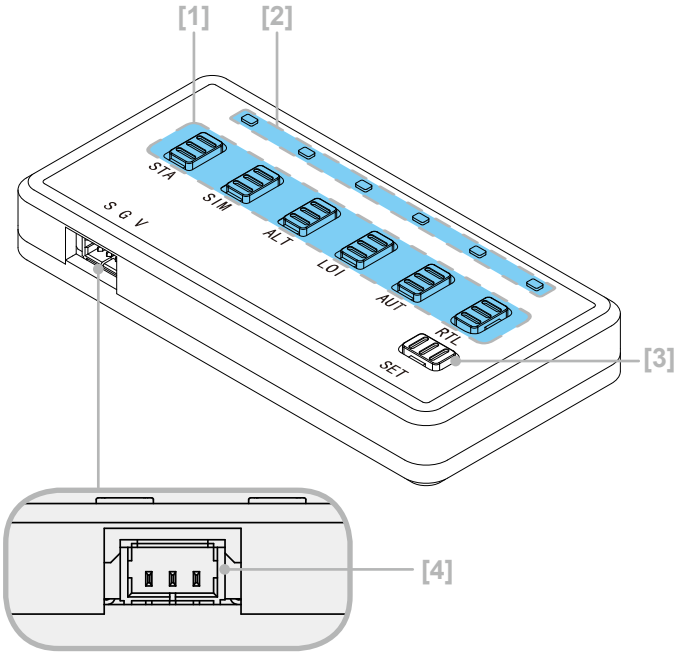
If there is any insoluble problem occurring, please seek help from the authorized distributor by XROCK or XROCK customer service.

Content

Profile

XROCK Flight Mode Switcher is designed for open source autopilots such as APM, PX4 and PIX, etc. It can switch the flight mode accurately and quickly, replaces the troublesome two-stage or three-stage switchers. Users can set parameters for the flight mode switcher on the actual situation and choose the most suitable operational plan.

XROCK Flight Mode Switcher has the features of small size, low-power, stable performance and easy to handle. It is appropriate for every RC System of each brand and type. It can also bring users better flight experience.



[1] Flight Mode Switch Button

Switch the six flight modes.

[2] Mode Indicator

Show the state of mode switching and parameter setting.

[3] Mode Set Button

Set the parameter of flight mode.

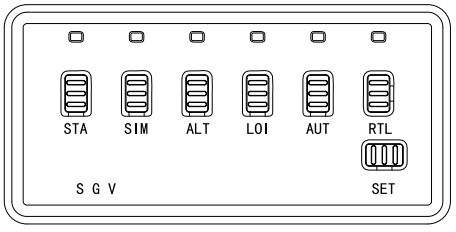
[4] Signal Port

Connect to the RC System.

In the Box

Flight Mode Switcher ×1

Connect to your RC System by connector. After preinstalling six flight modes, you can switch the mode by the six buttons when flying.



Connector Cable ×1

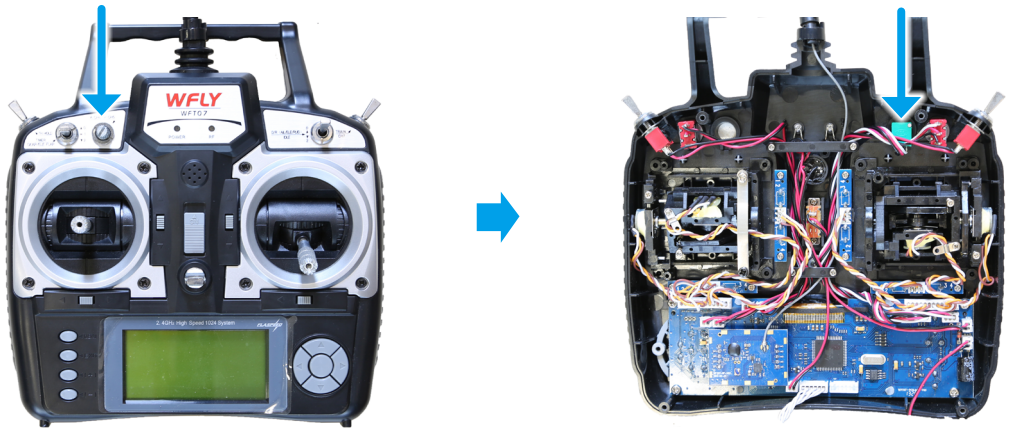
Connect the flight mode switcher and RC System.

Installation

Install Flight Mode Switcher

- Flight Mode Switcher should be connected to the RC System before using by users. And improper connection can result in abnormal work even causing damages to the switcher.
- The RC System should have spare channel ratio (usually connected with potentiometer), and provided with power of 5V/3.3V.
- Users can refer to this instruction of cable connection to install the Flight Mode Switcher, exampled by the V1 knob channel in WFLY7 RC System.

1. Plug the top left knob out on the RC System; Unpack the back cap of RC System.



2. Pull the potentiometer down, and use the electric iron to solder down the potentiometer connection cable. Solder switcher connection cable to corresponding potentiometer cable. Do the insulate protection by heat shrink tube or insulating tape.

⚠ · Please don't judge the definition of proportional channel by color. Use multimeter to confirm the power, signal and ground electrode on connection cables.

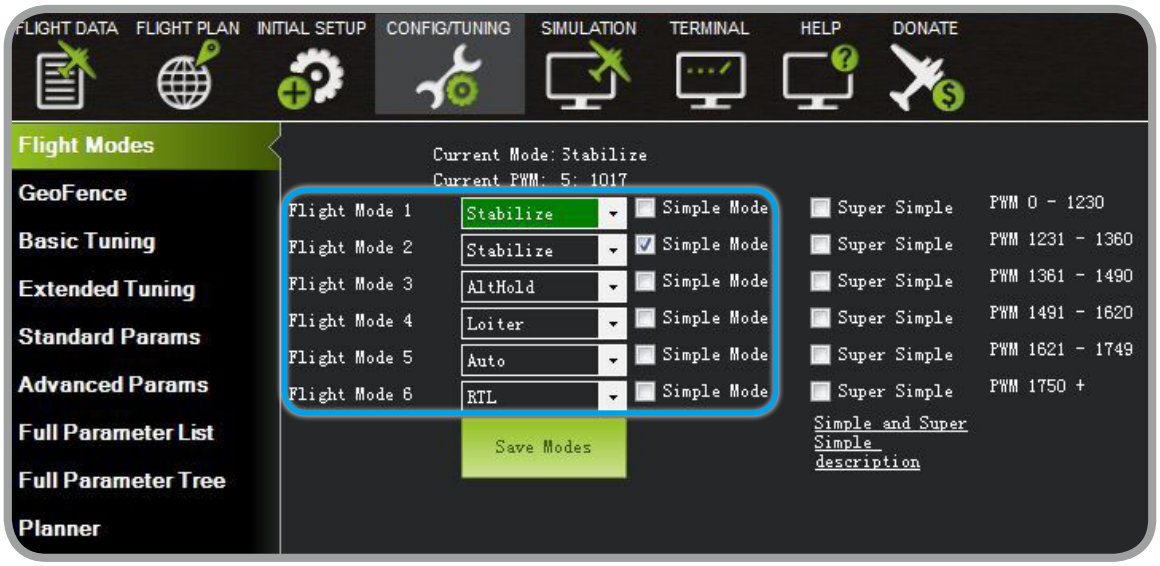
· The definition of switcher: White is the signal cable, red is the power line, and black is the ground electrode.

· You should pull a 5V power cable from RC System when some channels haven't power lines.

3. Use double-sided tapes or screws to fix the flight mode switcher to the proper position on RC System.

Settings

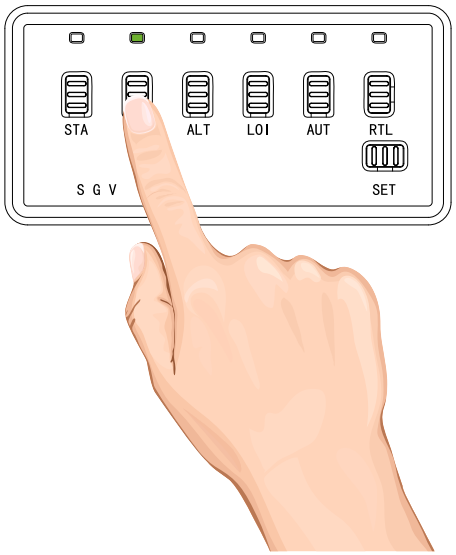
1. After finishing the switcher cable connection, turn on RC System; connect autopilot by Radio or USB cable to the Mission Planner. Choose Flight Mode in the CONFIG/TUNING. Set flight modes according to the figure.

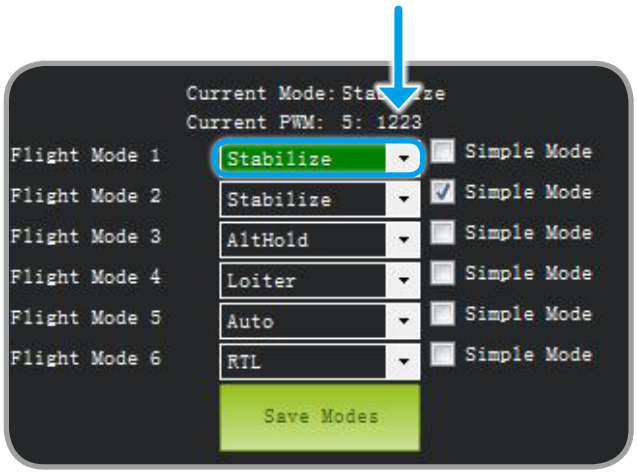


2. Press the Mode Switch Button on the switcher, and check if every mode is corresponded to six flight modes on the Mission Planner by Current mode and Current PWM in the top of the GUI. And PWN value should be near the middle value of every mode.

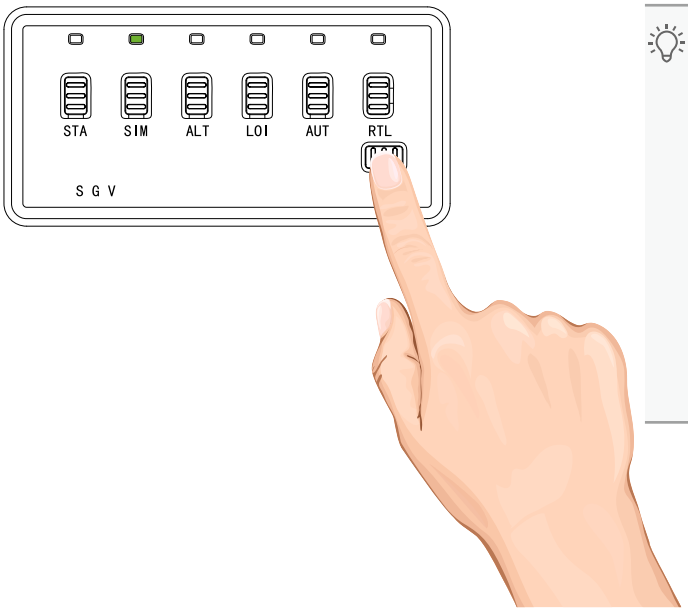
Number	PWM Range	PWM Median
Flight Mode 1	0~1230	<1130
Flight Mode 2	1230~1360	1295
Flight Mode 3	1361~1490	1425
Flight Mode 4	1491~1620	1555
Flight Mode 5	1621~1749	1685
Flight Mode 6	1750+	>1850

Exampled by Flight Mode 2 settings, introduce PWM value setting method of flight mode switch.

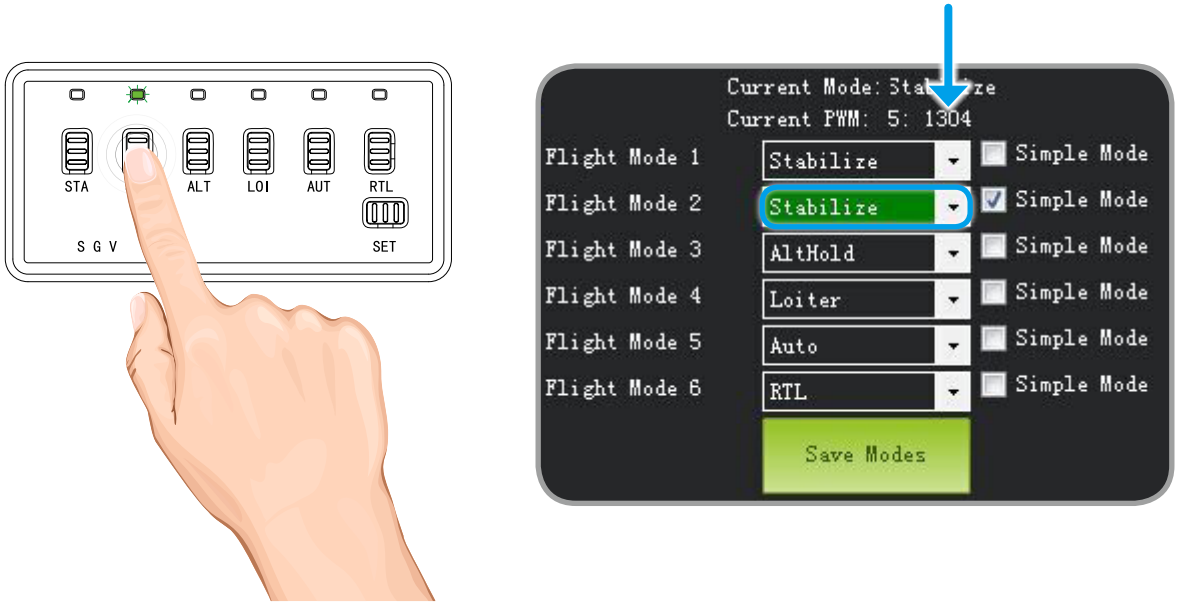




Press SIM button, and if the green indication line still stays at Flight Mode 1, you should set the parameters, specific operations is following.



- Press SET button more than 3 seconds, and the green indicator blinks slowly. At present, press SIM button can turn down PWM value.
- Press SET button again, and the green indicator will blink quickly. At present, press SIM button can turn up PWN value.
- Long press SET button till the green indicator solid and settings can be saved.



- Long press SET button more than 3 seconds and press it again after seeing the green indicator blink slowly.
- Current PWN value can be turnd up to near "1295" value by pressing SIM button and green indication line will automatically switch to Flight Mode 2 at present.
- Long press SET button can save current setting.

Specifications

Type	XROCK Flight Mode Switcher
Supported Devices	Futaba 6EX AP, WFLY6A/6C/7, Saitek X52 Pro, Frsky T6 etc.
Non-supported Devices	WFLY6B
Working Voltage	3V~5V
Operating Temperature	-10℃ ~ 60℃
Operating Humidity	10% RH ~ 90% RH (non-condensing)
Dimension	59mm(L)×29mm(W)×9.3mm(H)
Weight	12.6g

The content is subject to change.

Download the latest version of manual from the official website.

If there is any insolveable problem, seek help by calling the customer helpline: **+86 400-168-9680**.
If there is any question about this manual, please send mails to contact XROCK: **suggestion@xrock.com**.