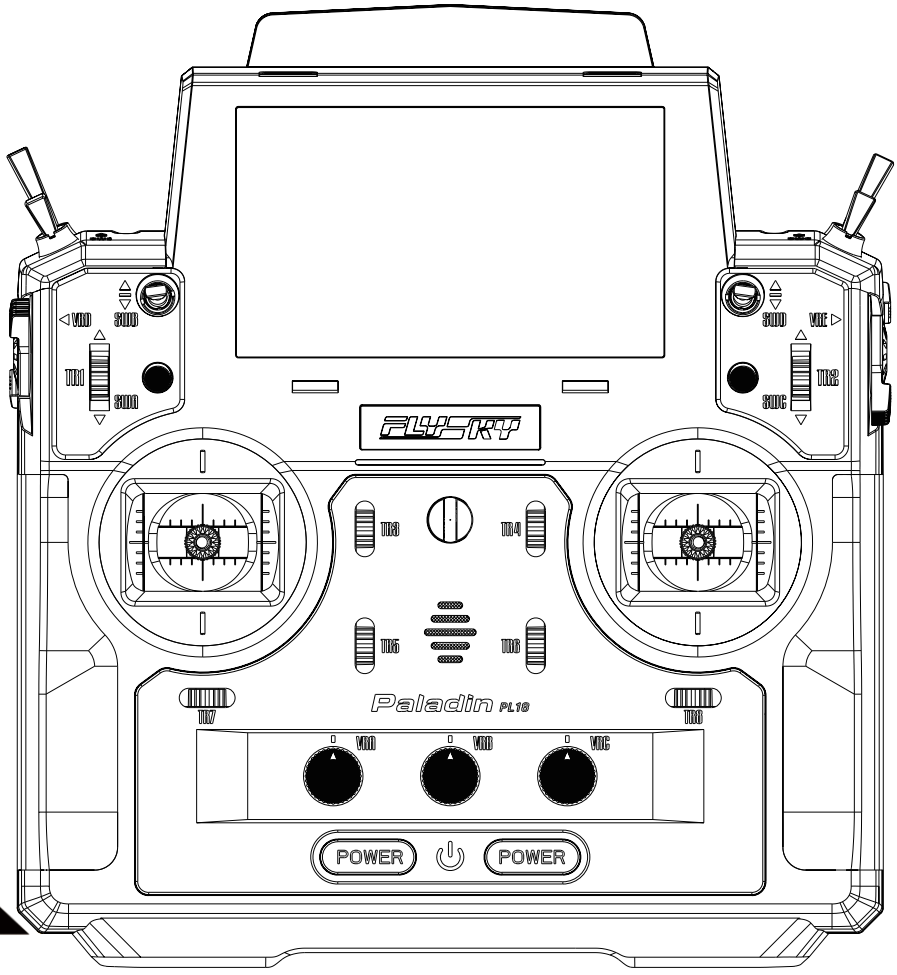
Paladin PL18

User Manual



FLYSKY

Touching Infinity

15+

WARNING:

This product is only for 15 years old or above

2.4GHz AFHDS 3

Thank you for purchasing our product, an ideal radio system for beginners or experienced users alike.

Read this manual carefully before operation in order to ensure your safety, and the safety of others or the safe operation of your system.

If you encounter any problem during use, refer to this manual first. If the problem persists, contact your local dealer or visit our service and support website for help:

http://www.flysky-cn.com

Table of Contents

1.Safety

1.1 Safety Icons

Pay attention to the following icons and their meanings. Failure to follow these guidelines can result in equipment damage or personal injury.

⚠ WARNING	• Not following these instructions may lead to minor injuries.
⚠ CAUTION	• Not following these instructions may lead to major injuries.
⚠ DANGER	• Not following these instructions may lead to serious injuries or death.

1.2 Safety Guide

Prohibited **Mandatory**

- Do not fly at night or in bad weather like rain or thunderstorm. It can cause erratic operation or loss of control.
- Do not use the product when the visibility is limited.
- Do not use the product on rainy or snowy days. Should any type of moisture (water or snow) enter any component of the system, erratic operation and loss of control may occur.
- Interference could cause loss of control. To ensure the safety of you and others, do not operate in the following places:
  - Near any site where other radio control activity may occur
  - Near high voltage power lines or communication broadcasting antennas
  - Near water with passenger boats nearby.
  - Near high voltage wires or communication/broadcast antennas.
- Do not use this product if you are tired, uncomfortable or when using substances that may impair your ability to use the product safely.
- The 2.4GHz frequency band requires line of sight from the transmitter to receiver at all times. Avoid large obstacles that could block or interfere with the signal.
- In order to ensure good signal quality, do not hold the transmitters antenna during use.
- Parts of the model, such as motors or ESC' s may remain hot for a period of time after use and can cause severe burns.

- Improper use of this product may lead to serious injury or death to the user and others. To ensure the safety of yourself and others read and follow the instructions set out in the user manual.
- To avoid damage to the model, make sure that the product and model are installed correctly before use.
- Always power off the receiver before the transmitter. Powering off the receiver before the transmitter could lead to loss of control.
- Before use make sure that all the servos and motors are moving in the correct direction.
- Make sure to remain within range to prevent loss of control.

2.Battery Safety Instructions

⚠ Danger

- This products battery is rechargeable and non-removable. Do not remove the battery from the product.
- Do not expose the battery to liquids.
  - Do not use a damp battery. Keep your hands try during use and do not leave batteries in areas with lots of moisture.
- Do not solder, repair, modify or disassemble the battery.
- Do not charge the battery in direct sunlight, in a hot car or near anything hot such as cookers etc.
- Do not use near flammable liquids or gasses.
- Do not charge batteries that show any evidence of damage, aging, leakage or exposure to liquids.
- Do not touch the positive and negative terminals of the battery together.
- Do not throw the battery into a fire.
- Do not charge without ventilation.
- Charge before use.
  - Failure to charge the battery before use may lead to a crash.

⚠ WARNING

- Do not touch the charger or battery during charging.
  - May cause burns
- Keep the battery away from any heat source if it is leaking or causing strange smells.
  - May catch fire or explode.
- Do not store the battery in dusty or humid environments.
  - Remove dust from the power connector before plugging in.
- Do not throw or impact the battery.
  - May cause fire or an explosion.
- Put some tape on the battery's terminals before recycling.
  - If the short circuit causes fire, heat, rupture, etc.
- Do not charger the battery when exposed to extreme heat or cold.
  - May lead to a drop in battery performance. To ensure maximum performance always charge the battery within the temperature range of 10°C - 30°C .

3.Product Description

The PL18 transmitter and FTr10 receiver are an 18 channel 2.4GHz AFHDS 3 (Third generation automatic frequency hopping digital system) system compatible with fixed-wing, glider, helicopter, quadcopter and various other vehicles.

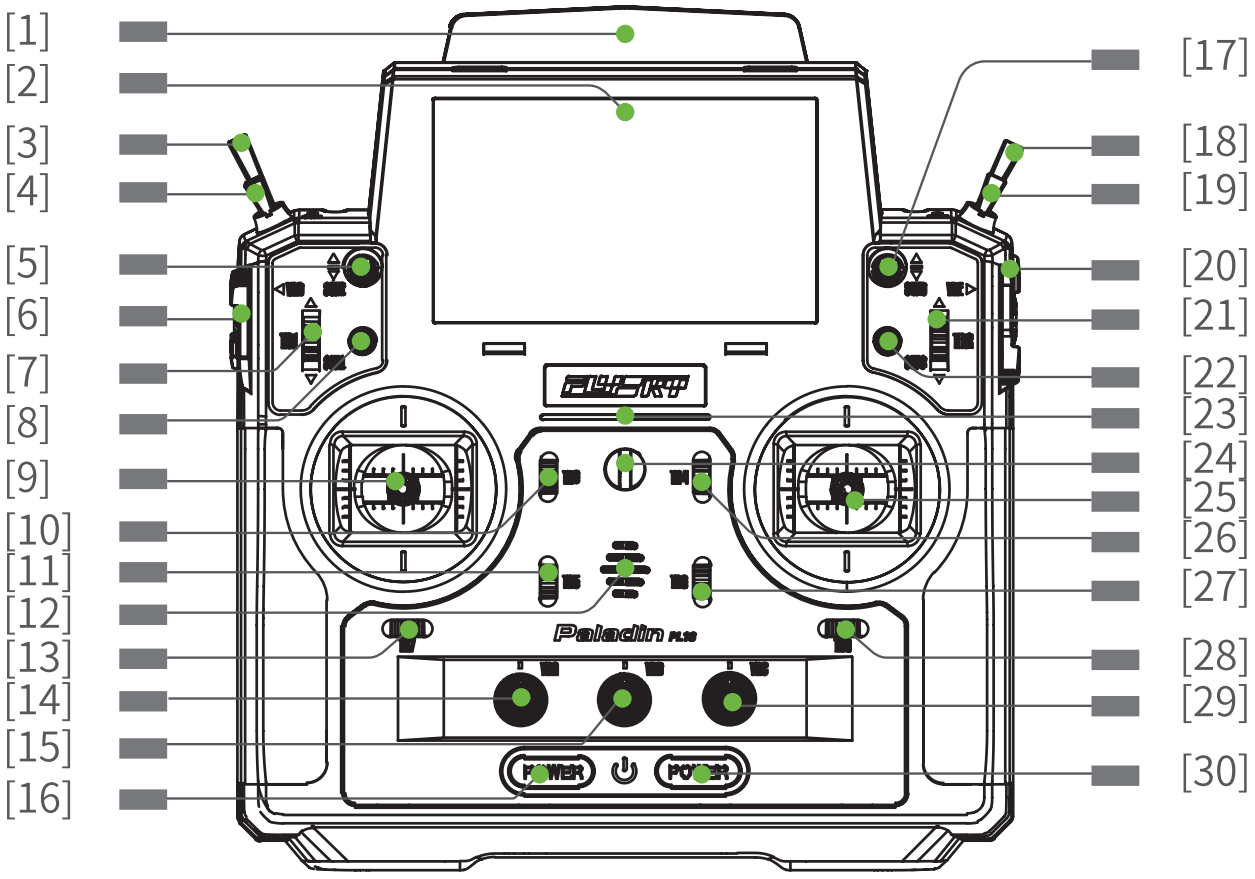
3.1 System Features

AFHDS3 (third-generation automatic frequency hopping digital system) is a newly developed digital wireless system. It is compatible with single antenna bidirectional real-time data packet transmission and data stream transmission. With the advantages that come with the WS2A wireless system and the new 2.4GHz chip, the system can dynamically set: number of channels, channel resolution, range, anti-interference requirements and latency to meet the needs of different users.

Single Antenna Bidirectional Real-time Data Transmission	The receiver can receive data from the transmitter and the transmitter can receive data from the receiver, this includes data from sensors, such as temperature and speed and support the i-BUS. This gives more control over the aircraft and constant information on its current status.
Uncorrected Data Transmission	The independent uncorrected data transmission module is built into RF system; it can send many different types of data including flight control data.
Intelligent RF configuration	Depending on hardware, certification, the amount of data to be transmitted, anti-interference, latency and distance requirements, the system intelligently adapts the corresponding RF configuration to meet the requirements of the user.
Multi-channel Frequency Hopping	This systems bandwidth ranges from 2.402GHz to 2.480GHz. This band is divided in 140 channels. Each transmitter hops between 16 channels (32 for Japanese and Korean versions) in order to reduce interference from other transmitters.
Unique ID Recognition System	Each transmitter and receiver has it's own unique ID. Once the transmitter and receiver have been paired, they will only communicate with each other, preventing other systems accidentally connecting to or interfering with the systems operation.
Low Power Consumption	The system is built using highly sensitive low power consumption components, maintaining high receiver sensitivity, while consuming as little as one tenth the power of a standard FM system, dramatically extending battery life.

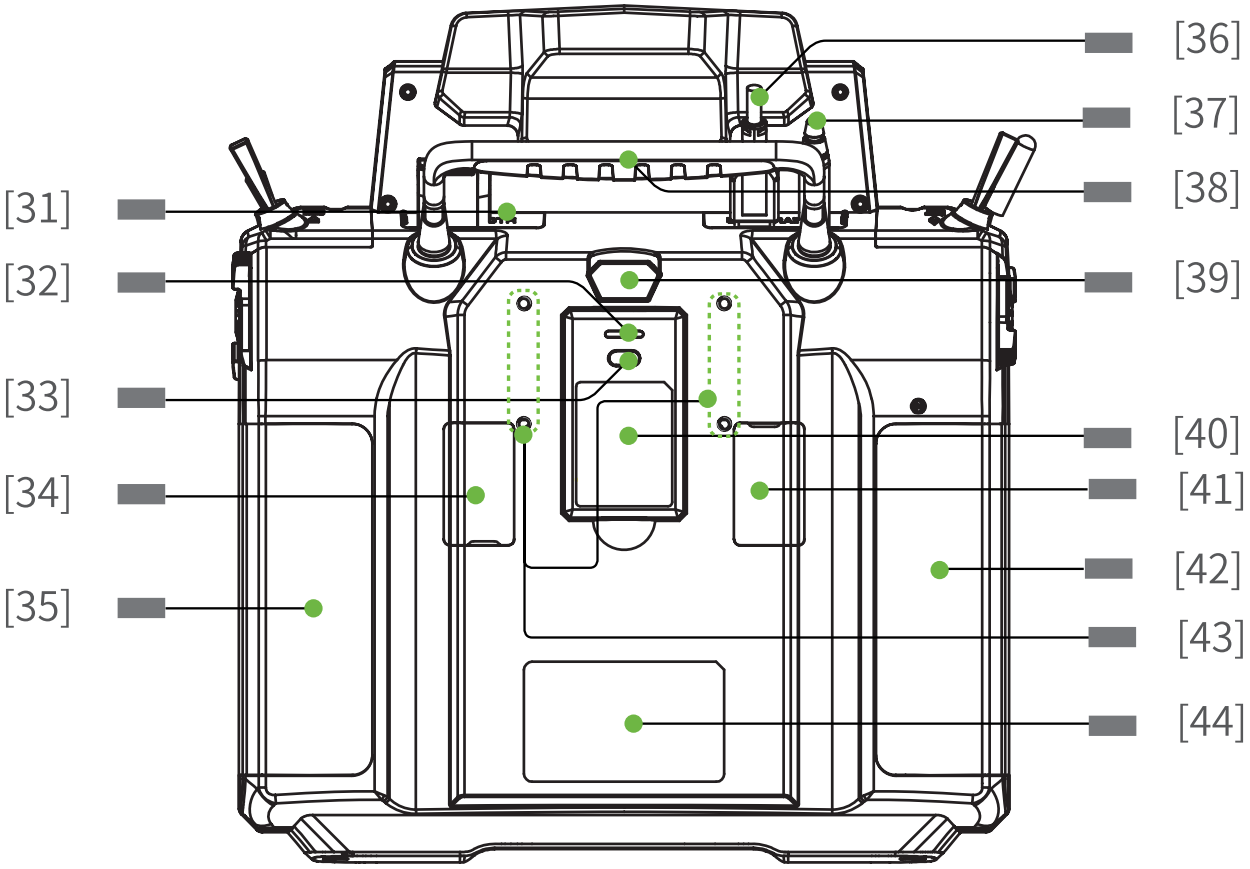
3.2 Transmitter Overview

Front View:



[1]	Antenna	[13]	TR7 Trim
[2]	320*480px Screen	[14]	VRA Knob
[3]	SWF 2 Position Switch	[15]	VRB Knob
[4]	SWE 3 position switch	[16]	Power Button
[5]	SWB 3 Position Switch	[17]	SWD 3 Position Switch
[6]	VRD Knob	[18]	SWH 2 Position Switch with Self-return
[7]	TR1 Button	[19]	SWG 2 Position Switch
[8]	SWA Button	[20]	VRE Knob
[9]	Left Gimbal	[21]	TR2 Button
[10]	Button	[22]	SWC Button
[11]	TR5 Trim	[23]	Transmitter Status Indicator
[12]	Speaker	[24]	Lanyard Eye

Back View:



[25]	Right Gimbal	[35]	Grip
[26]	TR4 Button	[36]	Micro USB Port
[27]	TR6 Trim	[37]	Trainer Port
[28]	TR8 Trim	[38]	Grip
[29]	VRC Knob	[39]	FRM301 Press to release FRM301
[30]	Power Button	[40]	FRM301 RF Module
[31]	Bluetooth Module Port	[41]	Gimbal Tension Adjustment
[32]	FRM301 Status Indicator	[42]	Grip
[33]	FRM301 Button	[43]	RF Module Port
[34]	Gimble Tension Adjustment	[44]	Wireless Charging Area

3.2.1 Transmitter Antenna

The PL18 has two built in antennas with no need for manual adjustment.

⚠ Note	• **To ensure a good signal do not cover or block the antenna.**

3.2.2 Stick/Knob/Switch/Button

The PL18 has 2 sticks, 6 switches, 5 knobs and 2 buttons.

- Stick: used to control the aileron (also known as roll), lift (also known as pitch), throttle and rudder.
- Switch: Used to control the auxiliary channels or to switch control states.
- Knob: Used to control the auxiliary channels.
- Button: Used to control the auxiliary channels or to switch control states.

3.2.3 Status Indicator

The status indicator is used to indicate the power and status of the transmitter.

- Off: The transmitter power is off.
- Color (blue, yellow, pink, green): The transmitter power is on and is in normal working condition.
- Flashing red: Low voltage alarm.

3.2.4 Trim Switch

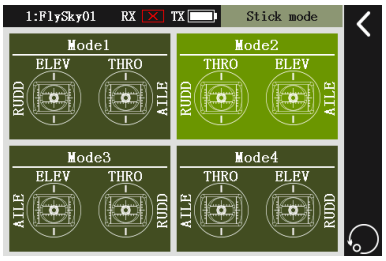
The transmitter has a total of 8 sets of trim switches that can be used to adjust the center point of each channel. You can set how much the trim changes the center point per press, the default is 5 units. Press and hold the trim button to alter the trim quickly.

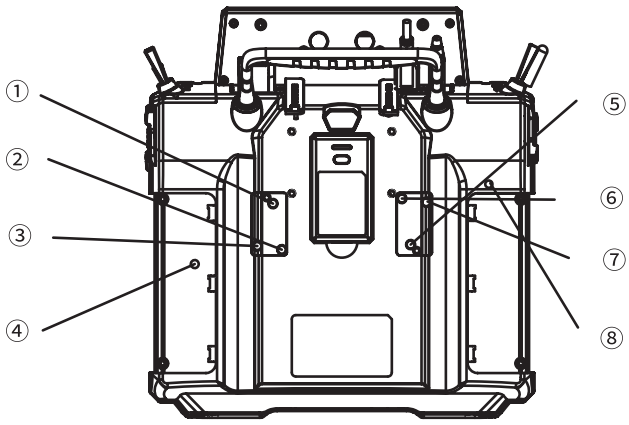
3.2.5 Stick Mode

This system supports four control modes, which assigns which stick and direction controls throttle, rudder etc. Select [Mode 1], [Mode 2], [Mode 3] or [Mode 4] as desired. The green icon indicates the currently selected mode (system default [Mode 2]), then adjust the gimbals as needed to match the mode.

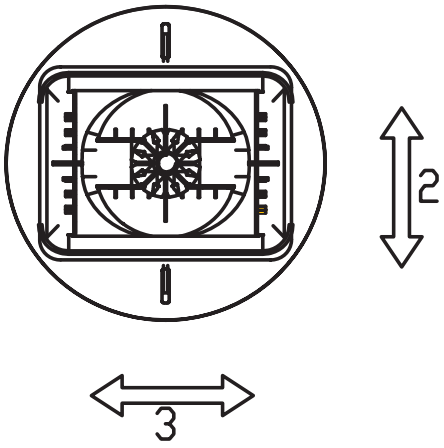
Mode Selection:

Touch the main interface icon ☰, [System] , [Stick Mode], then select a mode from those presented (as shown on the right). Touch the back icon ❮ to save and exit.





Gimble Front View



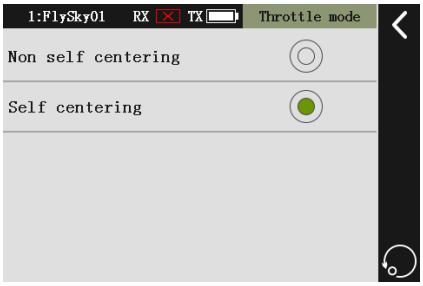
Stick

3.2.6 Throttle Mode

You can select [Non Self-returning] or [Self-return and Non self-return], the system defaults [Non Self-returning] , then adjust the gimbals as needed to match the mode.

Mode Selection:

Touch the main interface icon , [System] , [Throttle Mode], then select a mode from those presented (as shown on the right). Touch the back icon to save and exit.



Function Settings:

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

Available options:	① . ⑤	left & right side gimbal sticks automatic self centering	② . ⑥	left & right side gimbal stick vertical tension
	③ . ⑦	left & right side gimbal stick horizontal tension	④ . ⑧	throttle stick vertical friction

Left gimbal as example:

Non Self-returning

1. Use a Phillips screwdriver to adjust the screw ① counterclockwise until the gimbal reaches its center point.
2. Adjust screw ④ counterclockwise to adjust the Frictional strength.
3. If you need to adjust the strength of the return, adjust screw ② to the middle, and strengthen the clockwise force, and vice versa as needed.

Self-return and Non self-return

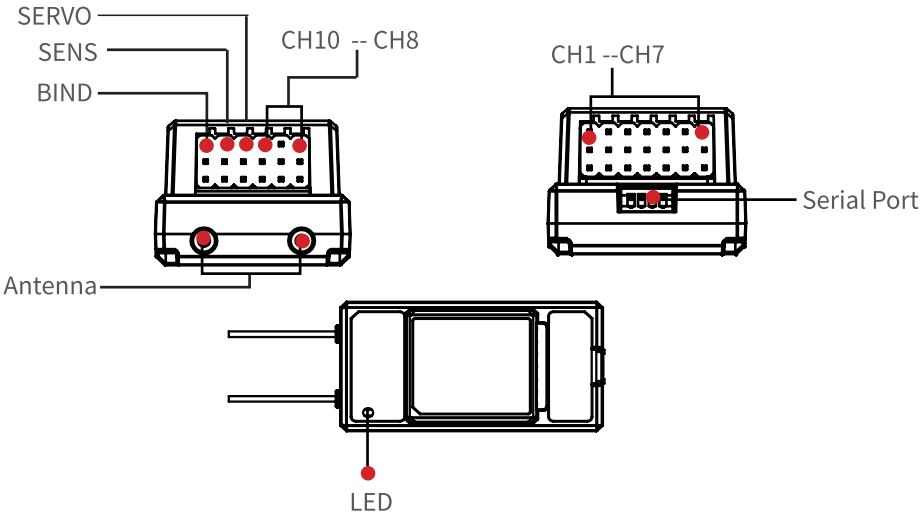
1. Use a Phillips screwdriver to adjust the screw ① clockwise so that the gimbal is no longer at its center point.
2. Adjust the screw ④ clockwise to strengthen or reduce the Frictional strength.
3. If you need to adjust the strength of the return, adjust screw ② to the middle, and strengthen the clockwise force, and vice versa as needed.

- When turning the screw clockwise be careful not to let the screw move out more than 3 mm.

3.2.7 Power Buttons

To prevent the system from being powered on or off by mistake. the PL18 uses a dual power button system. Press and hold both power buttons to power on the transmitter.

3.3 Receiver Overview



3.3.1 Receiver Antenna

The FTr10 uses AFHDS 3 (3rd Generation Automatic Frequency Hopping Digital System) with dual antenna bidirectional transmission.

⚠ CAUTION	• **Do not pull, bend or tie the receivers antenna or connect it to a servo.**
⚠ CAUTION	• **Keep the receivers antenna away from conductive materials such as carbon or metal. To ensure normal function make sure there is a gap of at least 1cm between the antenna and the conductive material.**
⚠ CAUTION	• **Ensure that the two antennas are mounted at 90 degrees to each other, as shown below.**

3.3.2 Status Indicator

The status indicator is used to indicate the power and operating status of the receiver.

- Off: The receiver power is not connected.
- Steady red: The receiver is connected to the power supply and is working properly.
- Fast flashing: The receiver is in bind mode.
- Slow flashing: The paired transmitter is powered off or signal is lost.

3.3.3 Ports

These ports are used to connect the receiver to the various components of the model.

- PPM/CH1: Can be connected to a servo or output PPM signal.
- CH1 - CH10: CH1 - CH10: Can be connected to servos or act as a power supply or for other components.
- B/VCC: Used to connect the bind cable when activating bind mode and connect the power during normal operation.
- i-BUS sensor interface (SENS): used to connect compatible sensors.
- SERVO: expands the number of channels and outputs for i-BUS or S-BUS signals.

4.Preflight Setup

Follow the instructions and guidelines in this chapter before use.

4.1 Receiver and Servo Installation

Make sure that the receiver is mounted in an appropriate location within the model, to ensure a stable signal, maximum range and to mitigate external interference, follow these guidelines:

Pay attention to the following when installing the receiver:

1. Make sure the receiver is not installed near ESCs or other sources of electrical noise.
2. Keep the receivers antenna away from conductive materials such as carbon or metal. To ensure normal function make sure there is a gap of at least 1cm between the antenna and the conductive material.
3. Ensure that the two antennas are mounted at 90 degrees to each other.

⚠ **Note**	• **To prevent damage do not power on the receiver during installation.**

5.Operation Guidelines

Follow these guidelines to set up the transmitter and receiver.

5.1 Power On

Follow the steps below to power on:

1. Check to make sure the receiver is installed correctly and that the receiver is powered off.
2. Press and hold both power buttons until the screen lights up.
3. Power on the receiver.

⚠ **Note**	• **The system is now active, be cautious to not cause damage or personal injury.**

⚠ **Note**	• **For your safety, all switches must be set to their highest position, and the throttle to its lowest position before the transmitter will power on.**

5.2 Binding

The transmitter and receiver have been pre-bound at the factory.

If you need to rebind or bind a new receiver follow the steps below:

1. Power on the transmitter, touch the function menu icon then enter the RX setup menu.

2. If required, the RF standard can be changed from AFHDS3 2-way and AFHDS3 1-way. To do this select [RF standard] located in the [RF setup] menu, then select 1-way or 2-way as needed. Touch the back icon to save and exit.

3. Touch [Bind with a receiver], then touch [yes] when prompted, to enter bind mode.

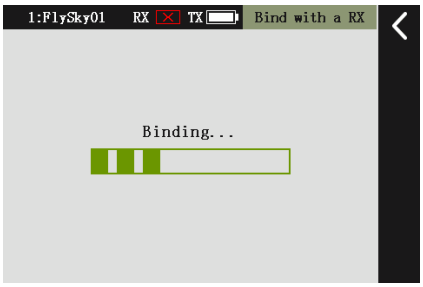
4.Insert the bind cable into the receivers BIND port.

5. Power on the receiver. The receiver's status indicator will start flashing to indicate that it has entered bind mode.

6. When the receiver's status indicator stops flashing then binding has been successful. Power of the receiver then remove the bind cable and power it back on again.

- If [AFHDS3 2-way] is selected, the transmitter automatically exits the code interface once the binding process is complete.
- If [AFHDS3 1-way] is selected, manually touch the back icon to exit bind mode.

7.Check that the transmitter, receiver and model are all working as expected. If there are any abnormal movements, repeat the steps above.



5.3 Preflight Checks

Always perform the following steps before each flight:

1. Inspect the entire system to make sure that everything is working as expected.
2. Perform a range test as outlined in the [13.3 Range Test] section of the user manual.

⚠ DANGER	• **Do not use the model if there are any abnormal behaviors during the test.**
⚠ DANGER	• **Do not exceed the maximum rated range during use.**
⚠ CAUTION	• **Interference from other transmitting devices may reduce signal quality.**

5.4 Model Settings

This system supports five types of models: fixed wing/glider, helicopter, quad and excavator. Follow the steps below to set up the system for each model type:

1. Select model type: Touch the function menu icon , enter the [Models] menu, touch [set model type], Select the desired model type from the list shown on screen.

- Once a model type is selected the system will automatically go to that model types [Model structure] page.
- Fixed wing/gliders are both the same option.

2. Setting up the model structure:

For information on setting up Fixed-wing/glider refer to section 8.3 of this user manual.
For information on setting up Helicopters refer to section 9 of this user manual.
For drone setup select [Beginner] or [Expert] according to your level of expertise.

- Once the model setup has been completed the system will assign channels to each function. Use the onscreen diagram to help set up your model or select [Channels assign] to manually assign each function to a channel.

⚠ DANGER	• **When connecting the receiver to the model make sure that each channel is in a safe position in order to avoid damage to the aircraft.**

5.5 Power Off

Follow these steps to power off the system:

1. Power off the receiver.
2. Press and hold both of the transmitters power buttons until the screen powers off.

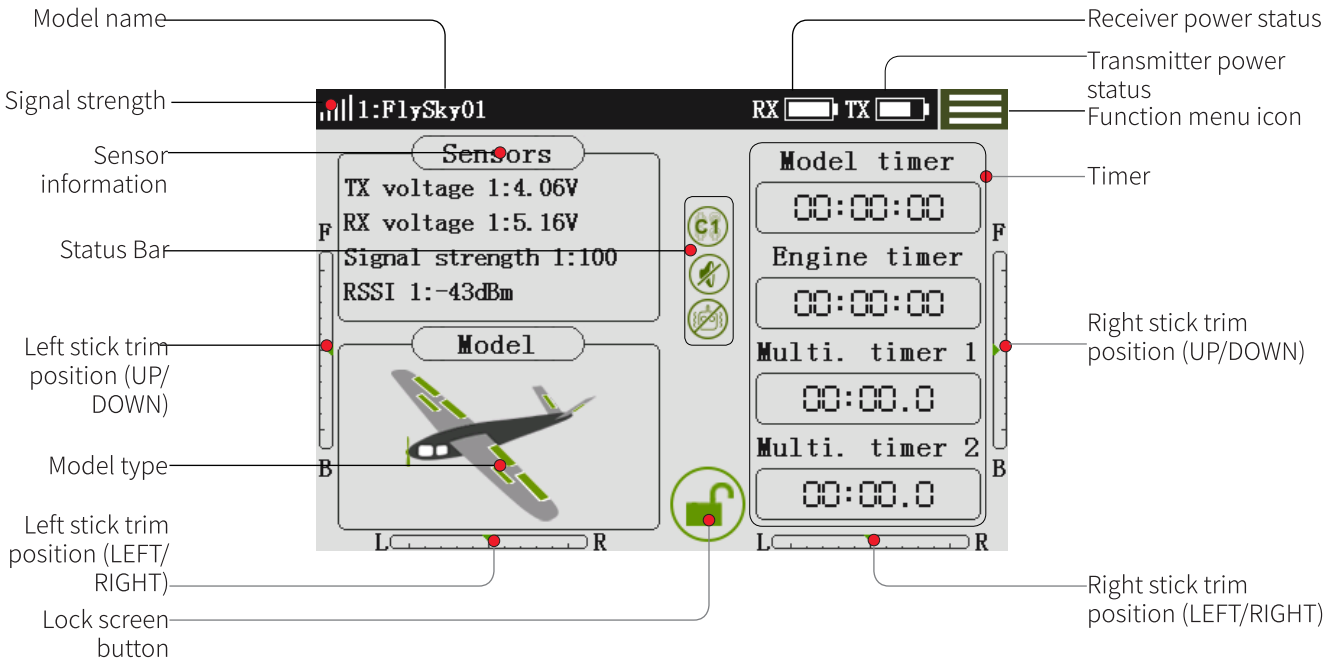
⚠ DANGER	• **To avoid any risk of loosing control of the model, always power off the receiver before powering off the transmitter.**

6. UI

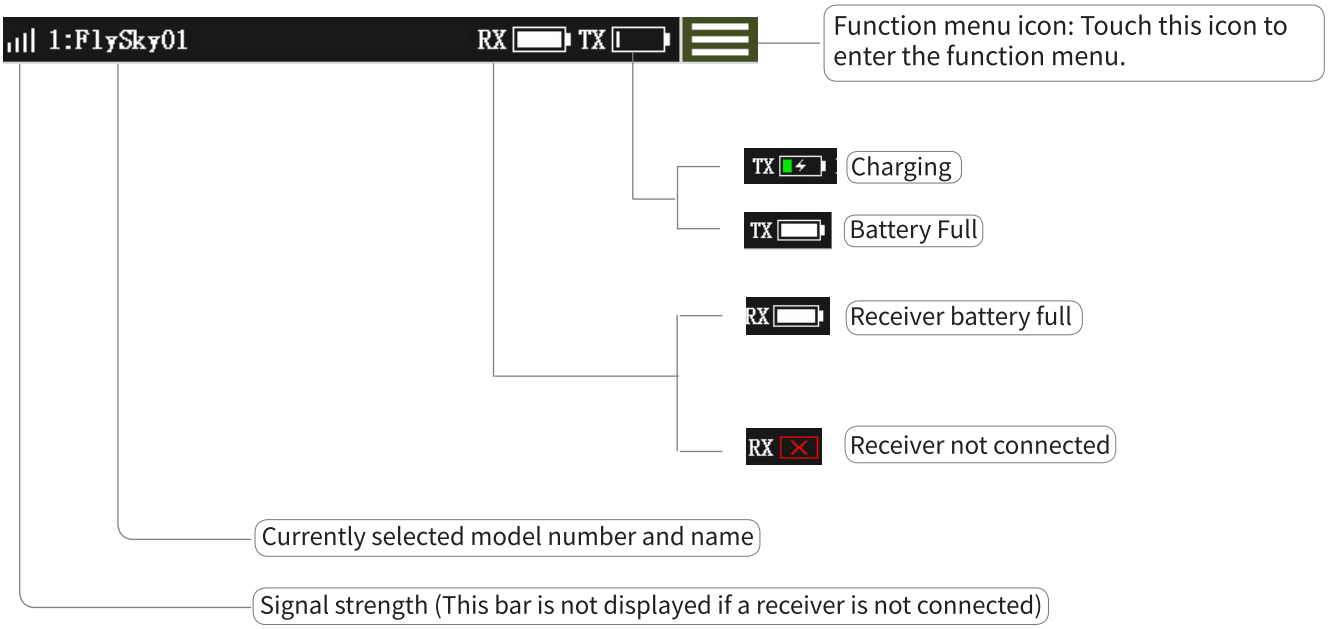
This is an interdiction to the transmitter's UI.

6.1 UI Overview

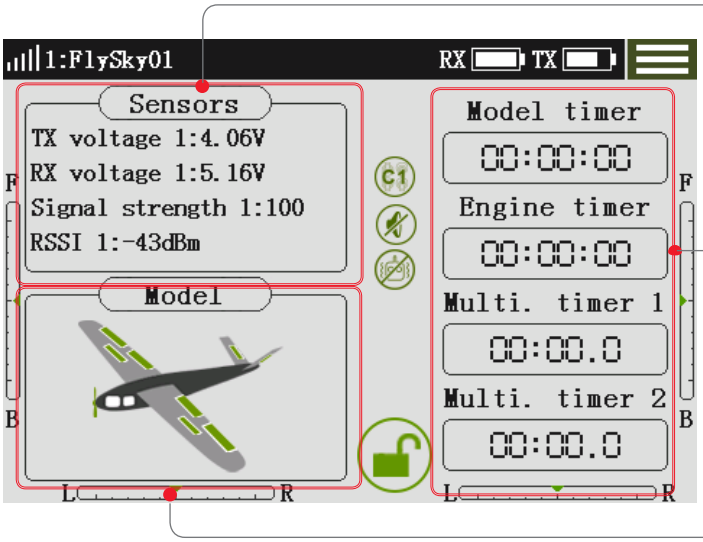
The main interface displays information related to the model such as sensor information and function status.



6.1.1 Status Bar (Top)



6.1.2 Quick Access



Touch this area to access the [Display selection] menu.
Up to 4 sensors can be displayed.
For more information refer to section [7.17] of this manual.

Touch this area to access the [Timers] settings menu.
For more information refer to section [7.11] of this manual.

Touch this are to access the [Airplane Structure] menu.
For more information refer to section [7.16] of this manual.

6.2 Menu UI

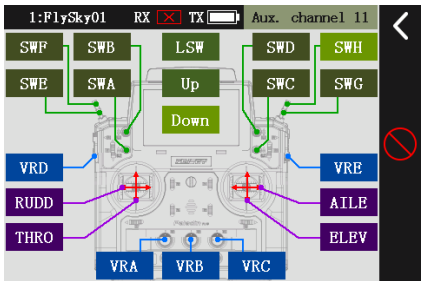
This section is a quick introduction on how to use the UI.

6.2.1 Function Icons

	Screen Lock		Screen unlocked
	Function Disabled		Function active
	Restore to default		Function select
	Assign switches		Set curve type

6.3 Gimbal, Knob and Switch Assignment

- The system has both 2-way and 3-way switches, when at bottom/middle position the switch is active.
- The sticks are by default assigned to aileron, elevator and throttle.
- Knobs (VrA-VrE) can be assigned to control some function parameters in real time.
- Switches can also be assigned to logic switches to control conditions.



7.General Function Settings

This chapter introduces the main system functions.

7.1 Reverse

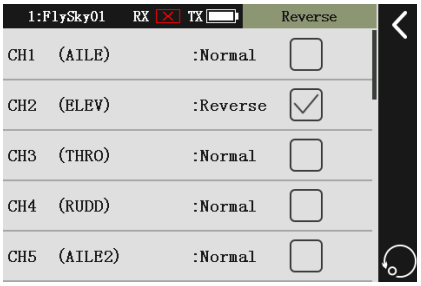
This function reverses the direction of motion for each channel.

Function Settings:

This function can reverse the direction of travel for all 18 channels.
[Normal]: indicates that this channel output is the default direction;
[Reverse]: indicates that the channel's direction of travel has been reversed.

- If a new model is connected make sure that all the servos are moving in the right direction.
- Move each stick to make sure that the control surfaces are moving in the correct directions.

Touch the box to the right of the channel name to toggle reverse for that channel. If there is a tick in the box it means that the channel is reversed.



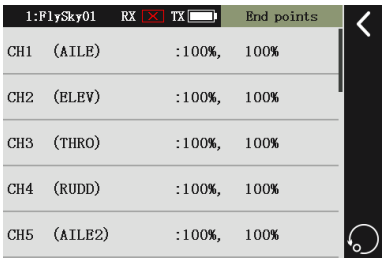
7.2 End Points

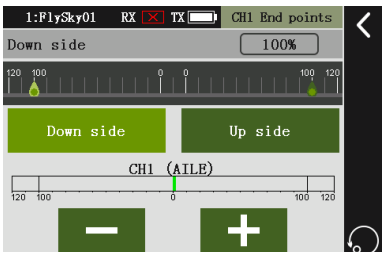
This function changes the max range of movement for each channel.
Every model is different, as such many have different requirements when it comes to how far a control surface should move, if a control surface moves too far it may damage the model. The End points function limits the range of movement for each channel to prevent this.
Note: If the channels center point is not in the right position it will be impossible to set the outer limits of the channel movement properly. If this is an issue use the Subtrim function to move the center point first.

Function Settings:

This function adjusts the maximum range of movement for the channels up and down sides independently by between 0 and 120%.
[Up side]: range of movement above the channel center point.
[Down side]: range of movement below the channel center point.
The green bar is the current position of the channel.

1. Select a channel.
2. Select the Up or Down side as needed.
3. Use the + and – keys to change the end point position.
4. Repeat with other side as needed.
5. Touch the back icon to save and exit.





7.3 Subtrim

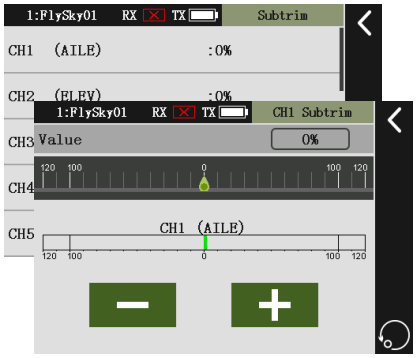
This function is used to adjust the center point of each channel.

Due to the structure of some models the servos center point may need to be adjusted so that when at rest all the control surfaces line up properly.

When using this function make sure that the stick, knob etc. is at its center position.

Function Settings:

This function adjusts the Subtirm of all 18 channels within a range of -120% to 120%.



Steps:

1. Select a channel.
2. Use the + and – icons to adjust the channels center point.

7.4 Trims

The trims function adjusts throttle, pitch, roll and rudder channel's center points using the built in trim buttons on the PL18.

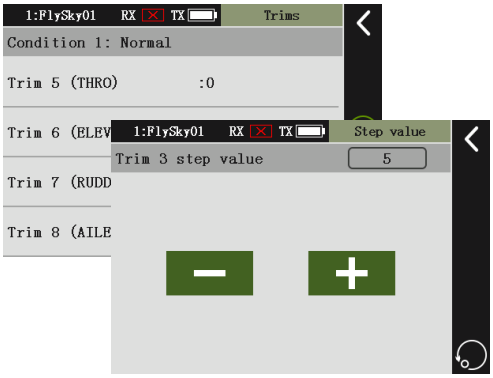
During use a models control surfaces may move out of alignment because of the stresses they are experiencing and as such will need to be adjusted during flight.

This function should not be used to fix issues with control surface alignment except as a last resort. When possible make changes to the model to fix these errors before flight.

Function Settings:

This function can bet set to a max of 120 and a minimum of -120. The amount that the function steps with each button press can be customized between 1 and 10, the default step size is 5.

1. This function is always active, however when a trim switch is used the current value will be displayed in the center of the screen for a few seconds.
2. To adjust the trim of a channel move it's corresponding trim switch up to increase and down to decrease. If you toggle and hold the trim switch the function will move through steps faster.
   - This function should only be used during flight and is not a long term fix for alignment problems.



7.5 EXP (Exponential Function)

This function changes the relationship between input and output.

An example of this would be for every 1 step the input moves, the channel will move 2 steps. This can also be set in a certain range, so for example if it is required that the aileron be more responsive towards the middle of the stick's range of movement, but less responsive on the outer limits of stick's movement.

The curve function is generally set after adjusting the servo stroke range of the maximum rudder amount.

Function Settings:

[Rate]: Clamps the maximum and minimum value and as a result reduces the steepness of the curve.

[EXP]: How much curve is added to the line. It can be adjusted between -100% and +100%.

The box highlighted in light green is the currently selected setting.

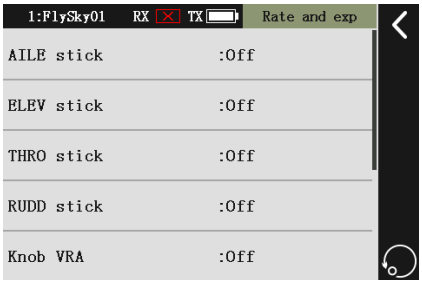
The horizontal axis on the graph is the stick/knob/input's true position.

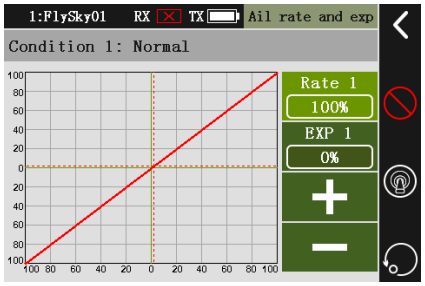
The vertical axis on the graph is the adjusted output.

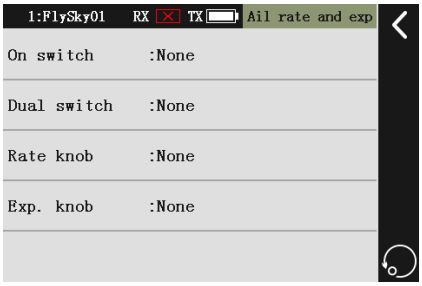
The red line is the current relationship between input and output.

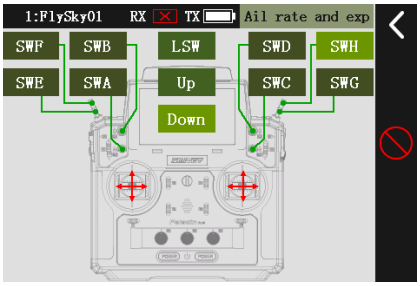
1. Select a channel and touch the icon to activate the function.

2. Touch [Rate] or [EXP] as needed.
3. Use the + and – keys to change the setting's value.









Switches, knobs etc. can be assigned to control the function by touching the icon.

[On switch]: Toggle the function on and off using a switch or logic switch.

a. Touch the icon to enable. Then select a switch from the chart.
b. Select the desired on position from the options for that switch or move the switch to that position.
c. Press the back icon twice to return to the main function menu. The function can now be toggled on and off using the assigned switch.

- When a switch is assigned to [On switch] the function can no longer be toggled on and off by touching the or icon.

[Dual switch]: A switch can or logic switch can be used to switch between 2 different stored settings for Rate and EXP.

a. Touch the icon to enable. Then select a switch and switch position.
b. Use the back icon to go back to the functions Rate and EXP menu and set the parameters as needed.
c. Toggle the assigned switch, then set up the second set of parameters as needed.
d. Now when the switch is toggled the function will jump between the 2 saved presets.

[Rate knob]: Assign a knob to control the Rate parameter.

a. Select a knob from the chart.
b. Use the icon to go back to the rate and exp menu and turn the selected knob to make sure it is functioning as expected

- When a knob is selected the + and – icons will no longer be able to change the rate value.

[EXP knob]: Follow the same steps as for [Rate knob].

7.6 Throttle Curve

This function changes the output curve for the throttle channel. A curve can be created using 3 – 11 different points so that the user has much better control of the aircraft's engine.

A curve can also be set in the EXP function.

Function settings:

This function supports two different types of curve, a / curve and a V curve. Each curve type can be set to have between 3 and 11 points.

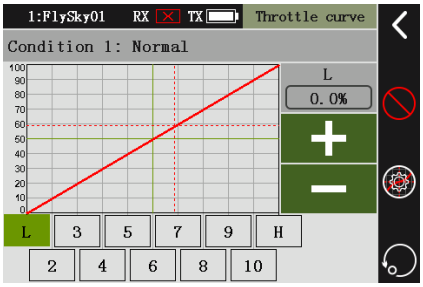
The horizontal axis represents the input value of the throttle stick. The vertical axis represents the output value of the throttle after adjustment.

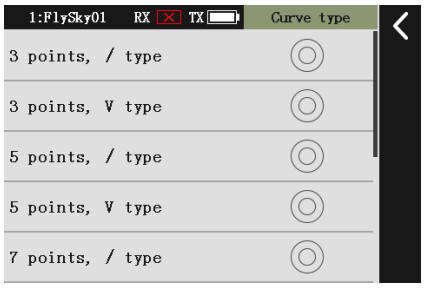
The red line is the linear relationship between the input value and the output value.

The "L" icon below the coordinates indicates the first point on the curve;

The box highlighted in light green is the currently selected setting.

1. Touch the icon to enter the curve selection
   - Every time the curve type is changed the previous curve settings will be lost. The system will ask for conformation before changing the curve type.
2. Choose a curve type from the list. Once a curve is selected the system will automatically return to the curve chart.
3. Touch a point to select it, then use the + and – icons to change the points value. Repeat with other points as needed.





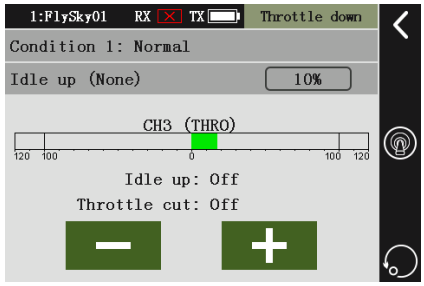
7.7 Throttle Down

This function has allows the throttle channel to hold 2 different positions, one to cut the engine and one to keep the engine idling.

[Idle up]: Keeps the throttle from dropping below a minimum set value to stop the engine from stalling.

[Throttle cut]: Reduces the throttle to 0 in order to turn off the engine. Once this function is active the throttle will no longer be controlled by the stick.

For safety reasons this function will not activate unless the throttle channel is below 30 percent. If the throttle is above 30 percent when this function is activated, then it will take affect as soon as the throttle drops below that threshold.



Function Settings:

Idle up can bet set to a value between 0 and 100%.

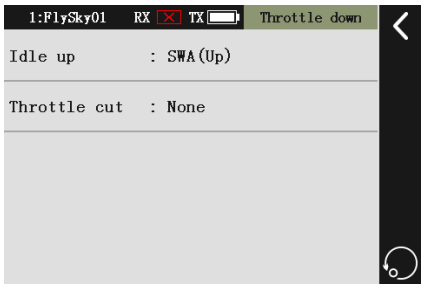
[Idle up: none]: means that no switch is assigned to the Idle up function and as such is not active. When a switch is assigned to it will be shown in the brackets.

for example [Idle up :SwA(up)]: The percentage to the right of the switch notification indicates the channel position when the function is active.

[Off]: located below the channel bar, indicates which function is active and inactive.

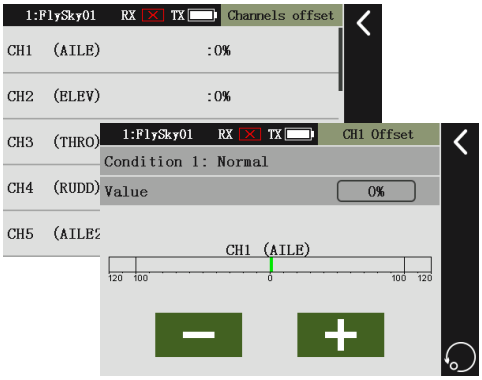
[On]: indicates which function is active.

1. Touch the icon to enter the switch selection menu.
2. Touch Idle up or Throttle cut, then select a switch and switch position from the chart. The switch position can also be selected by moving the desired switch to the desired position.
3. Use the icon to return to the functions main menu and toggle the switch to test.



7.8 Channels Offset

This function will offset the channel to one side or the other, this can be used to fix issues with an aircrafts control surfaces not lining up correctly, however, the channel will also lose some range on one side or the other, and as such should only be used as a last resort.



Function Settings

This function can be used for all 18 channels and has a range of + and – 50%.

1. Select a channel.
2. Use the + and – icons to adjust the offset.

7.9 Conditions

Conditions can store settings for many different functions at the same time. If different setups are needed for different situations, like take off, flight and landing, conditions can, at the flick of a switch, change settings across several supported functions at the same time.

- Example: If for takeoff the user requires a different throttle curve and a mix which is more sensitive for rudder and pitch but not for roll, then once the aircraft is in the air needs a completely different set of curves for those controls.
- Not all functions can be used with conditions however, any function that can be used will have [Condition x: name], where x is the condition number and name is the currently active conditions name.
- Conditions have different priorities, condition 5 being the highest and condition 1 being the lowest. This means that if conditions 1, 2 and 3 are all toggled on at the same time, only condition 3 will be active. If all conditions are toggled off then the default condition, condition 1, will be active.

Function settings:

The conditions function can hold up to 5 different data sets, each of which can be copied, pasted and renamed. In order to activate a condition it must be assigned to a switch.

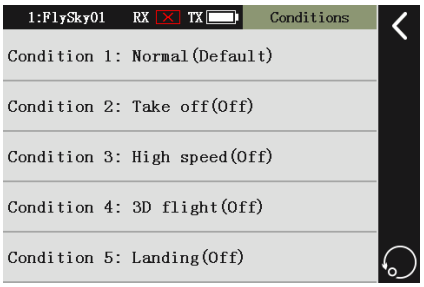
- The currently selected condition can be see at the home screen. See [6.1] for more details.

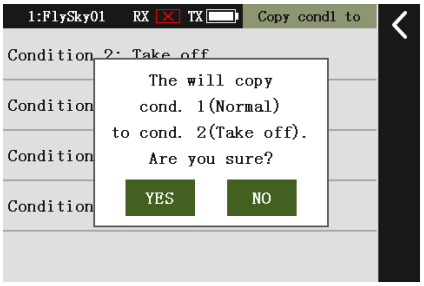
1. Select a condition.

[Name]: Displays the conditions name.
[Copy]: Copies the conditions settings to another condition.

2. Touch [Name] and use the on-screen keyboard to enter a new name. When finished touch the icon to save and exit.
3. Touch [Copy], then select a condition to overwrite from the list.
4. Touch the icon to enter the switch assign menu, select a switch and position from the diagram or move a switch to the desired position. Press the icon to save and exit.

- The first condition is the default condition and as such cannot have a switch assigned to it.





7.10 Logic Switches

A logic switch is a virtual switch connected to 2 physical switches which activates or deactivates according to a mathematical relationship between the two.

Example: Logic switch,"and"gate. If only switch one or switch 2 is active, the logic switch will remain off, however if switches 1 and 2 are active at the same time, then the lotic switch will activate.

A logic switch can be used in any function that can assign switches.

Function Settings

There are 3 logic switches.

[Select Sw.]: Touch here to select a switch from the switch selection menu.

[AND]: If switches 1 and 2 are active, then the logic switch will be on.

[OR]: If switches 1 or 2 are active, or switches 1 and 2 are both on, the logic switch will be on.

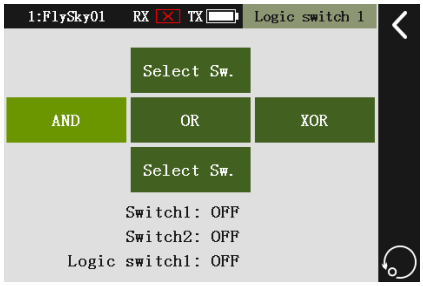
[XOR]: If switches 1 or 2 are active, then the logic switch will be on, but if switches 1 and 2 are both active the logic switch will be off.

[Switch1]: Displays the status of switch 1.

[Switch2]:Displays the status of switch 2.

[Logic switch1]:Shows the status of logic switch.

1. Select a logic switch.
2. Touch the top Select Sw, then select a switch and position.
3. Touch the bottom Select Sw, then select a switch and position.
   - The logic switch will not function without 2 physical switches assigned.
4. Select a logic gate, [AND], [OR] or [XOR] as needed
   - Refer to the table below for more information on logic gates and their function.
5. Toggle the switches to make sure everything is working as expected.



Switch		Gate		
Switch 1	Switch 2	AND	OR	XOR
off	off	off	off	off
off	on	off	on	on
on	off	off	on	on
on	on	on	on	off

7.11 Timers

Select from a variety of timers to keep tracking of things such as, flight time, lap time etc.

[Model/Engine timer]: Used to keep track of flight time.

Function Settings:

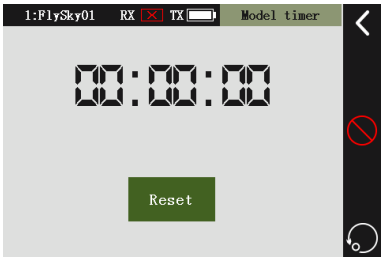
1. Touch Model or Engine timer, then touch the icon to activate the timer.
2. For the engine timer, use the + and – keys to set the trigger point on the throttle channel. This trigger point will start and stop the timer.

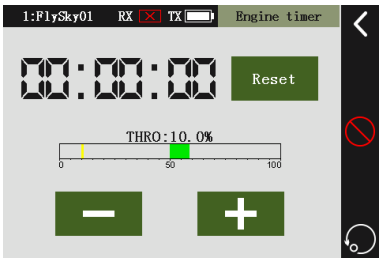
[Model Timer]: shows the cumulative time that the throttle exceeds the alarm value, in hours, to the nearest minute.

[Engine Timer]: shows the cumulative time that the throttle exceeds the alarm value, in minutes, to the nearest second;

[Reset]: Resets the timers to 0.

Note: The engine timer will not work unless the transmitter is connected to a receiver.





[Multipurpose timer]: The system has 2 multipurpose timers. Both of these timers are identical.

Function Settings:

1. Select [Multipurpose Timer 1/2].
2. Select the timer type.
3. If you select [down timer] or [down then up], you need to use the "+" "-" to set the timer, the system defaults to 5 minutes; if you select [up timer], you can omit this step.
4. Touch [Start] to start the timer.
Touch [Stop], to pause the timer.
Touch [Reset] to reset the timer.
Touch the icon to assign a switch to control the timer.

[Voice prompts]

This function can be selected according to the needs of the voice prompt [multipurpose timer 1] or [multipurpose timer 2].

7.12 Trainer Mode

This function is used so that a coach may teach a student but remain in control when needed.

In the PL18 coaching system, you can select the channel that the coach transmitter is used for guidance and the channel data input by the student machine for [Stick or Knob], [Basic Function], [Output Channel]. Take full control of the student's actions and complete the coaching settings you want according to your habits.

This system supports any transmitter that uses standard PPM signals as the output.

Function Settings:

This function can be use for channels 1 to 8.

1. Touch the icon to activate the function then select a channel.
2. Select [Stick or Knob], [Basic Function], [Output Channel] or [None] in the list;

[Stick/Knob] means that the channel signal output from the student's radio will be processed by all functions of the trainers radio. Sticks, knobs, VrA-VrG (fig.a) can be selected.

[Basic function] means that the signal output from the student's radio will be processed by the trainer's radio. Basic functions such as optional aileron, lift, throttle, and direction, such as function delay (fig.b).

[Output channel] means that the signal output from the student's radio will only be processed by the output of the transmitter, such as linear mixing. Choice of 1-18 channels (fig.c).

[None] means that after entering the coaching function, this channel is not controlled by the student's radio.

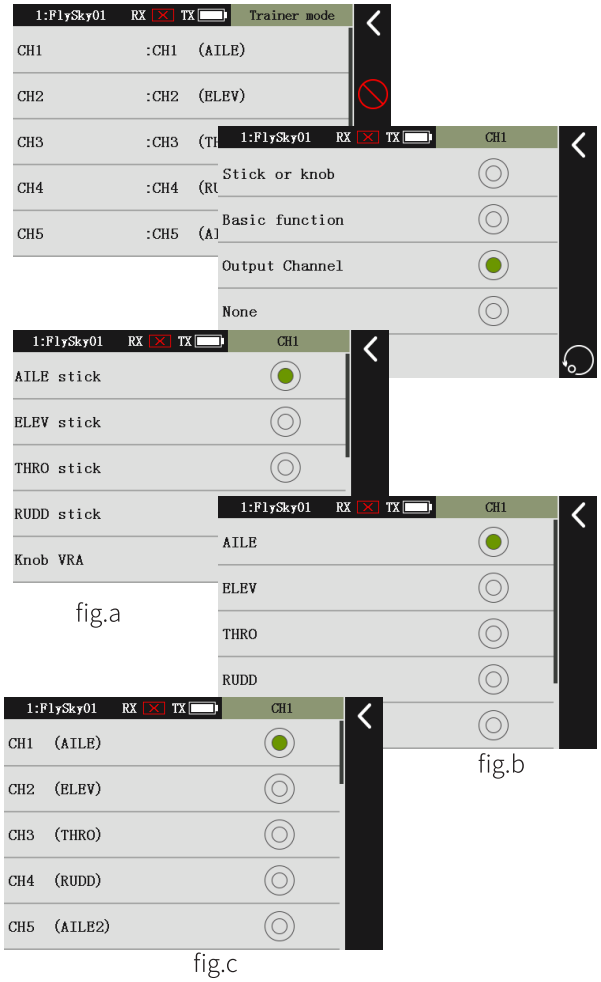


fig.a

fig.b

fig.c

Steps:

1. Power on the trainer's radio and enter [Trainer mode].
2. Power on the student's radio.
3. Connect the two radios using the training wire.
   - If the student's radio is not a PL18 make sure that the connector is compatible, if not it may be possible to purchase an adapter.
4. To give the student control hold down the SwH switch or touch the icon to assign a new switch.
   - Before using this function, all channels are working as expected by referring to [7.15 Channel Display].

7.13 Auxiliary Channels

This function enables control of channels out side of the default channels assigned to the model.

Depending on the model type and aircraft structure, more or less channels will be available. Examples of channels that will be in use could be, aileron, throttle etc. The default channels can be changed in the [Channels assign] function.

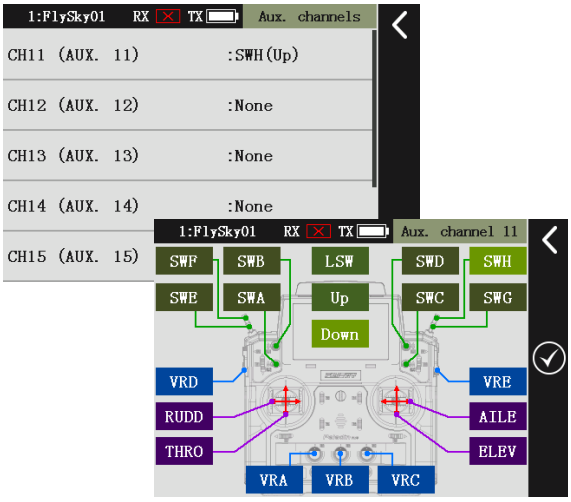
- An example of an aux channel would be using aux 5 to control landing gear.

Steps:

[CH1 (Aux. 1)]: [SwF (up)] indicates that the 1th channel is named [Aux. 1], controlled by SwF. When SwF is up, the channel value is 2000, SwF is downward, and the channel value is 1000.

[CH2 (Aux. 2)] indicates that the default name of the 6th channel is [Channel 2 (Aux. 2)]: None, and there is no control.

1. Select a channel.
2. Touch [name] and use the on screen keyboard to name the channel. Touch the back icon to save and exit.
3. Touch control and select an element to control the channel. If using a logic switch physical switches will need to be assigned in the logic switch menu.
   - There are two ways to select the switch direction, touch the green icon or move the switch to the desired position.

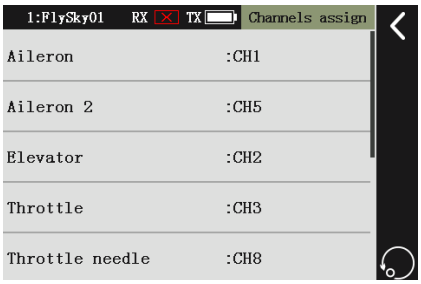


7.14 Channels Assign

This function overrides the default channel assignment set up when a model is created.

Function Settings:

1. Select a channel.
2. Select the a channel to take over control of that function.
   - If the channel is already assigned the system will ask if you are sure.



7.15 Display Servos

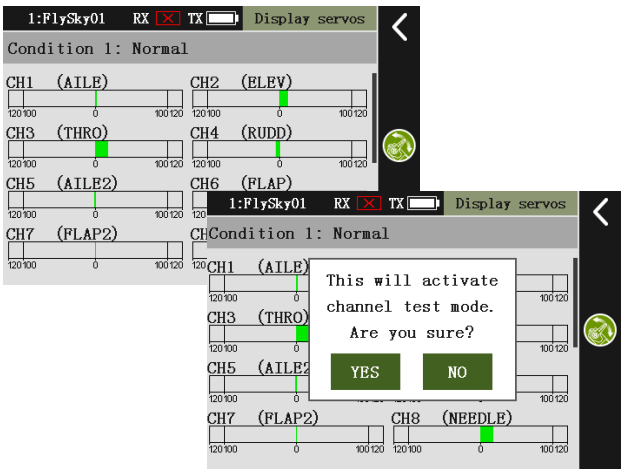
This function will show the channel output with any changes made by other functions such as EXP etc.

This function can also go into a test mode to move all the channels through their entire range of motion.

- WARNING: Make sure the engine is powered off before entering test mode to avoid loss of control.

Test Mode:

1. Touch the icon to activate test mode. When test mode is active all channels will slowly move through their entire range of motion.
2. Touch the icon again to exit test mode.



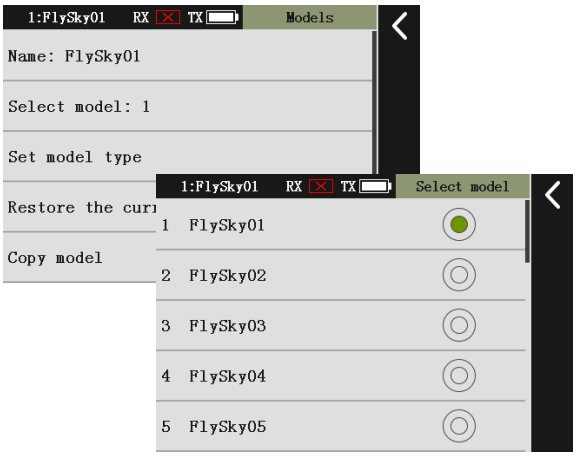
7.16 Models

Through the models function, you can perform operations such as model selection, changing model type, copy models to new save slots, and renaming models.

[Name]:

Touch Name then use the onscreen keyboard to change the name. Press the back icon to save and exit.

- A model name can be no longer than 10 characters.



[Select model]:

Selects a stored model preset. The system can store up to 20 different models. The only settings that are not stored in a model are system settings such as brightness etc.

The store model name will appear in the model select list.

- Use the on-screen keyboard to enter a new name for the model and touch the back icon to save.

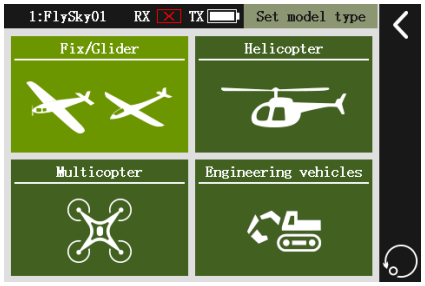
[Set model type]:

Choose between fixed wing / glider, helicopter, multi-axis, excavator model types.

Function Settings:

1. Select Fix/Glider, Helicopter, Multicopter or Engineering vehicles as required.
2. The system will automatically jump into the aircraft structure interface. For details, please refer to [8.3 Aircraft Structure].

- When a new structure is selected, the currently selected model will be reset to its default settings for that model type.
- If you want to keep the current model settings remember to select another model before making setup.



[Restore the current model]:

Restores the currently selected model and all its function settings back to the default. This action is permanent and can not be undone. The system will display a prompt asking if you are sure.

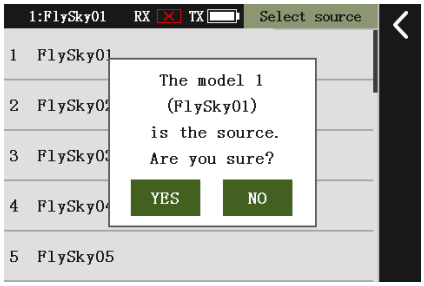
[Copy Model]:

Copy model data from one preset to another.

Use this function to copy model data from one preset to another so that changes can be made to the setup without losing the original data.

Use:

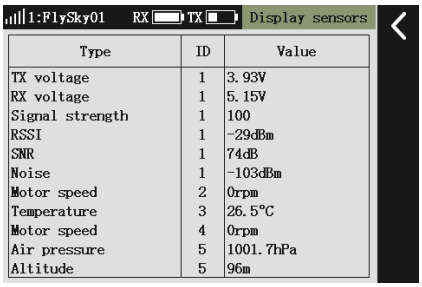
1. Select a model to be copied.
2. Select a save slot/preset to save to.
   - After copying, the destination model data is overwritten by the replicated object model data.
   - Be careful when copying the model. Once the model data is overwritten, it cannot be restored.



7.17 Sensors

This menu is used for managing sensors.

7.17.1 Display Sensor



This list shows all sensors connected to the receiver, including sensor type, number and real-time data. This list can also be accessed quickly from the home screen.

[Type] shows the sensor type.

[number] display sensor's number.

- The first sensor in the list by default is the TX Voltage sensor, however receiver, signal strength indication, RSSI, noise, signal to noise ratio can also take this slot.
- No. 2 is the first external sensor connected to the receiver; the receiver supports up to 15 sensors.

This list data is displayed in real time. When the receiver is connected to a sensor, this list will be refreshed to display the new sensor’ s data.

[Value] displays the data returned by a sensor.

[Transmitter Voltage]: Displays the voltage for the transmitter's battery.

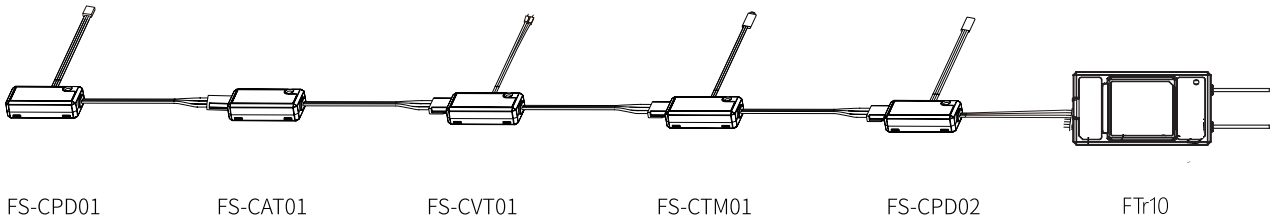
[Internal Voltage]: Displays the power supply voltage for the receiver.

[Signal strength]: refers to the strength between the transmitter and the receiver. It is calculated by using SNR. The signal strength will be displayed as a value between 0 and 10. If the signal strength drops to 4 or below the system will alert the user.

[Signal to Noise Ratio]: The signal-to-noise ratio refers to the decibel difference between the signal and the noise received by the receiver. The signal-to-noise ratio = RSSI-noise, which is a decisive parameter in the overall quality of the signal. If the SNR drops below 11 reduce the range quickly to prevent loss of control.

[RSSI]: RSSI is used to measure signal strength between the receiver and the transmitter.

[Noise]: Noise is generated due to interference from other nearby transmitters such as WI-Fi. In places where there are too many transmitters, excessive noise will affect the maximum range for a flight.



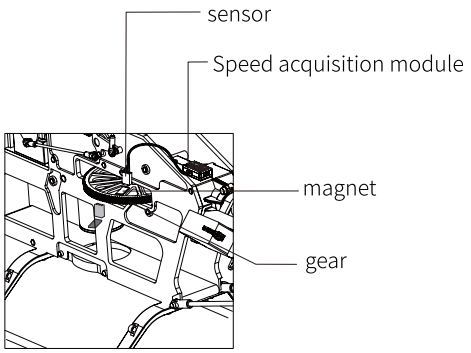
FTr10 sensor connection diagram

FS-CPD01: Magnetic induction speed acquisition module

Used to measure the speed of the motor. To use this sensor connect it through the i-BUS interface or connect to the SENSE port on the receiver directly.

Function Settings:

1. Connect the FS-CPD01 sensor to the receiver's SENS port.
2. Place the sensor next to the magnet, which is fixed to the spinning part of a model such as the blades of a plane rotor.
   - Make sure that the sensor is within 2mm of the magnet and that the north pole of the magnet is parallel to the sensor.
3. Turn on the transmitter, enter the transmitter [Sensor] menu, select it from the [Sensor List], then turn the rotating element, if the speed value changes then the installation is successful, otherwise repeat the above steps.
   - "Motor speed" is the speed sensors name."6"is the sensor ID and refers to the sixth sensor. “rpm” is the speed measurement value.

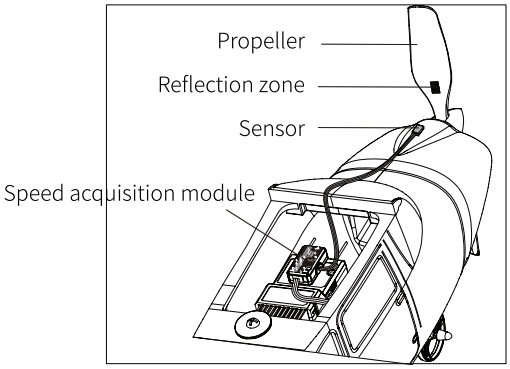


FS-CPD02: Optical Induction Speed Acquisition Module

Used to measure the speed of the motor. To use this sensor connect it through the i-BUS interface or connect to the SENSE port on the receiver directly.

Function Settings:

1. Connect the FS-CPD02 sensor to the receiver's SENS port.
2 Mount the sensor with a view of the sticker that has been affixed to the rotating element.
   - Keep the sticker flat and perpendicular to the sensor, and the sensor. Make sure the distance to the sticker is not more than 1 or 2 mm.
3 Turn on the transmitter, enter the transmitter [Sensor] menu, select it from the [Sensor List], then turn the rotating element, if speed value changes then the installation is successful, otherwise repeat the above steps.
   - "Motor speed" is the speed sensors name; "2" is the sensor ID and refers to the sixth sensor. "rpm" is the speed measurement value.



FS-CTM01: Temperature Acquisition Module

This sensor is used to monitor the temperature of a chosen part of the model. To use this sensor connect it through the i-BUS interface or connect to the SENSE port on the receiver directly.

Function Settings:

1. Connect the FS-CTM01 sensor to the receiver's SENS port.
2. Use soft double-sided tape to attach the FS-CTM01 receiver to element you want to measure (e.g., motor, battery). Make sure the sensor is pressed against the surface snugly for the best readings.
3. Turn on the transmitter, enter the transmitter [Sensor] menu and select it from the [Sensor List].

- "Temperature" means the sensor is the test temperature; "3"is the receiver ID. "26.4° C"is the measured value.

FS-CVT01 voltage acquisition module

The FS-CVT01 function is used to monitor the model battery voltage. To use this sensor connect it through the i-BUS interface or connect to the SENSE port on the receiver directly.

Function Settings:

1. Connect the FS-CVT01 sensor to the receiver"s SENS port.
2. Turn on the transmitter, enter the transmitter [Sensor] menu and select it from the [Sensor List]. If the sensor displays External Voltage 12.4V then installation is complete.
3. Insert the red and black wire pins into the port on the battery. Red is positive and black is negative.

FS-CAT01 altitude pressure module

The FS-CAT01 detects the altitude of the model using air pressure.

Function Settings:

1. Connect the FS-CAT01 sensor to the receivers SENSE port.
2. Use double sided soft tape to snugly fix the FS-CAT01 receiver in place.
3. Turn on the transmitter, enter the transmitter [Sensor] menu and select it from the [Sensor List].

- "Air pressure" is the name, "height" is the receiver type; "5" is the receiver ID, referring to the fifth receiver. "1001.0hPa", "-14m" is the actual measured height value.
- The actual air pressure and altitude can be calibrated in the Air pressure sensor] menu.

7.17.2 Choose Sensors

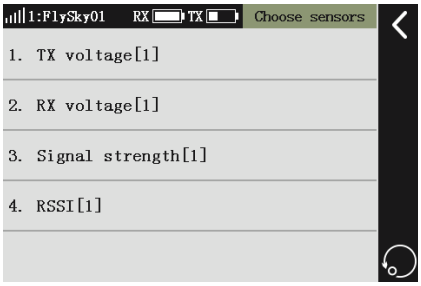
Choose which sensors are to be displayed on the home screen.

Function Settings:

The home screen can display up to 4 sensors.

1. elect a slot from the list. The slots will already have sensors assigned to them and will have their names displayed.
2. [Sensor: name]: name being either non or a sensor name, is the currently selected sensor. To select a sensor touch [Sensor: name] then select a new sensor from the list.
3. The receivers sensors will also be displayed in the list and can be chosen as needed.

- Once any sensor is set, the system will clear the default sensor and sensor data, showing only the current sensor and sensor data.



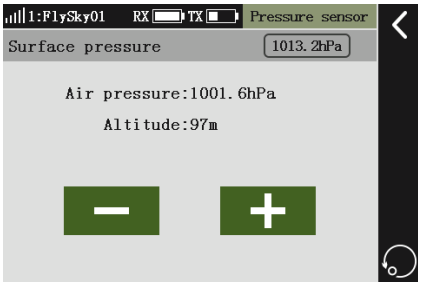
7.17.3 Air Pressure Sensor

Calibrates ground pressure.

Function Settings:

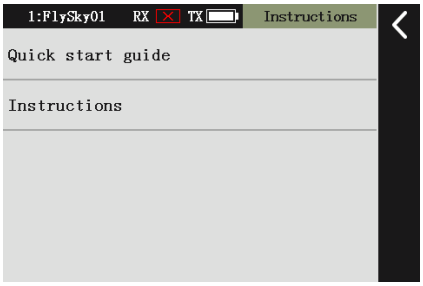
1. Connect an altitude pressure module then place the model on the ground.
2. Use the + and – keys to adjust the altitude to 0.

- Make sure your model is always at a level ground level during setup.



7.18 INS

QR codes that give access to user manual.



8.Fixed wing / glider exclusive functions

This section is an introduction to functions that are only available when using a fixed wing aircraft.

8.1 Delay Setup

The delay functions have 4 main categories, functions delay, channels delay, conditions delay and throttle delay.

8.1.1 Functions Delay

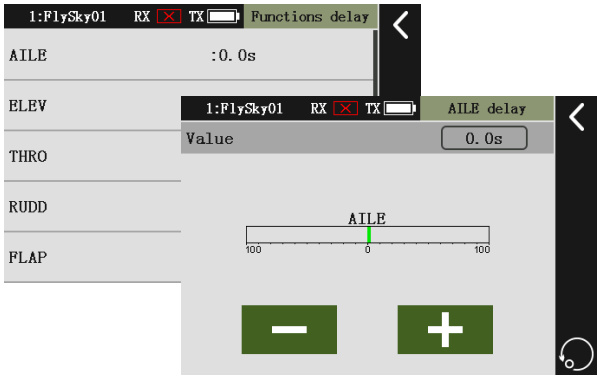
This function adds a delay to the inputs of the basic functions such as throttle, aileron etc. This is done in order to simulate the reaction speed of real aircraft.

The function delay is different from channel delay, state delay, and throttle delay. Please refer to [8.1.4 Throttle Delay].

Function Settings:

This function sets the delay time for channels being used for basic functions.

1. Select a channel from the menu.
[Value] is the delay time. The ange is between 0-10 seconds (0.1s one unit).
The green bar is the real time position of channel.
2. Use the + and – icons to change the delay time.
    - After setting the delay time of the basic function, all the channel output of this basic function will be delayed. For example, the aileron function delay time is set to 2S. When the aircraft's horizontal tail is used as the aileron function, the differential change of the horizontal tail channel will also be Delay 2 seconds.



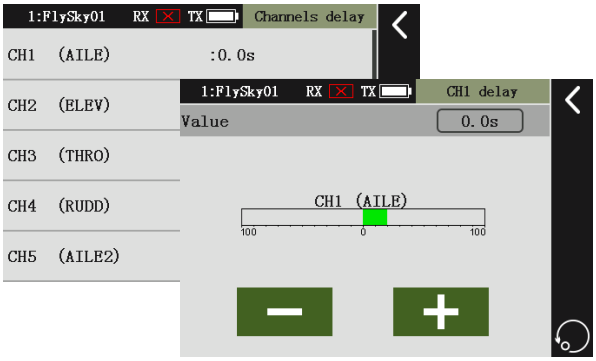
8.1.2 Channels Delay

This function sets a delay for each individual channel.

This can be used the simulate the reaction time of real world aircraft.

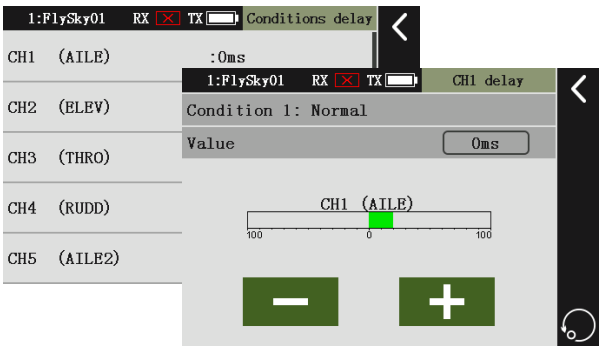
Function Settings:

This function can set a delay for all 18 channels.
1. Select a channel.
[value] indicates the delay time from one state to another. The adjustment range is between 0-10 seconds (0.1s one unit).
The green bar is the channels current real time position.
2. Use the + and – icons to change the delay time.



8.1.3 Conditions Delay

Conditions delay adds a delay to response time of a condition. This is used in order to provide more realism in certain models.



Function Settings:

This function can add delay for up to 10 channels

1. Select a channel.

[Numerical value] indicates the delay time from one state to another. The adjustment range is between 0-10 seconds (0.1s one unit).

The green bar is the channels current real time position.

2. Use the + and – icons to change the delay time.

8.1.4 Throttle Delay

This throttle adds a delay to the throttle channel.

After setting up function delay repeat the process for throttle and channel delay.

Throttle delay is different from functional delay, channel delay, and state delay.

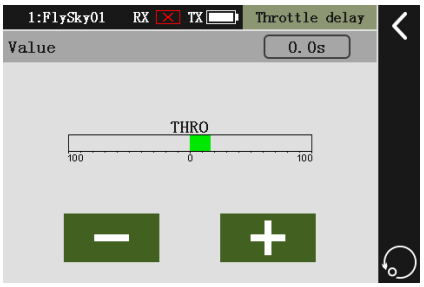
- Throttle delay is only for use with the throttle and throttle needle.
- The state delay is caused by the different channel settings in different states, resulting in multiple channel output data changes. Setting the delay of this state causes the corresponding channel to be delayed with the data change related to the function.
- Functional delays cause delays in the channel data associated with this function.
- The channel delay is only for the currently set channel.

Function Settings:

[Value]: indicates the delay time of the throttle stick from the lowest to the highest. The adjustment range is between 0-10 seconds (0.1s one unit).

The red bar is the real time position of the stick.

Use the + and – icons to change the delay value.



8.2 Mixes

There are 5 different types of mix in the mixes menu, Linear mixes, Cure mixes, aileron to rudder, rudder to aileron and aileron to elevator.

8.2.1 Linear Mixs

This function creates a linear mix between a master and slave channel.

Function Settings:

This function can be used with conditions. The mix can be different depending on which direction the channel is moving.

[Master]: Channel that will influence the slave channel.

[Slave]: Channel being influenced by the master channel.

[Down side]: Influence of the master channel on the slave channel when the master channel moves down.

[Up side]: Influence of the master channel on the slave channel when the master channel moves up.

[Offset] is the offset of the slave channel. Range is between -100% and 100%.

This function can be used with conditions. on the icon to assign a switch.

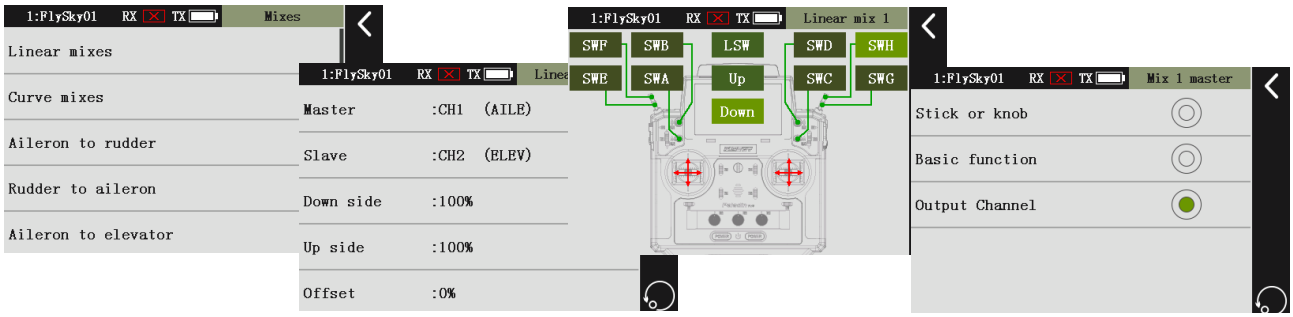
Note: Enter the corresponding interface and the screen “+” “-” to adjust the scale.

Before setting up the function touch the icon to activate the function, or touch the icon to assign a switch to turn the function on and off.

1. Touch master, then select a channel type.
2. Select a channel form the list and touch the back icon twice to save and exit.
3. Touch slave, then select a channel type.
4. Select a channel from the list and touch the back icon twice to save and exit.
5. Select down side or upside as needed, then use the + and – icons to increase or decrease the value. This value is how much influence the master channel will have on the slave channel.

Note: A value of 100 percent means that for every movement the master channel makes, the slave channel will follow exactly, however a value of 50 percent means that for every movement the master channel makes the slave channel will only move to 50 percent of that the master’ s current value.

6. If needed touch offset and use the + and – icons to change the slave channels offset in relation to the master channel.



8.2.2 Curve Mixes

This function uses a curve to create a mix between a master and slave channel. This type of mix is different from the linear mixes and allows for much more complex relationships between the master and slave channels.

Function Settings:

This function can be used with conditions.

[Master]: Channel that will influence the slave channel.

[Slave]: Channel being influenced by the master channel.

[Curve] can set the nonlinear relationship between the mixing channel and the mixed channel.

1. Select a mix.
2. Select a master and slave channel.
3. Touch curve to enter the curve menu.

The horizontal axis of the chart represents the input value of the mixing channel;

The vertical axis of the chart represents the output value of the mixed channel.

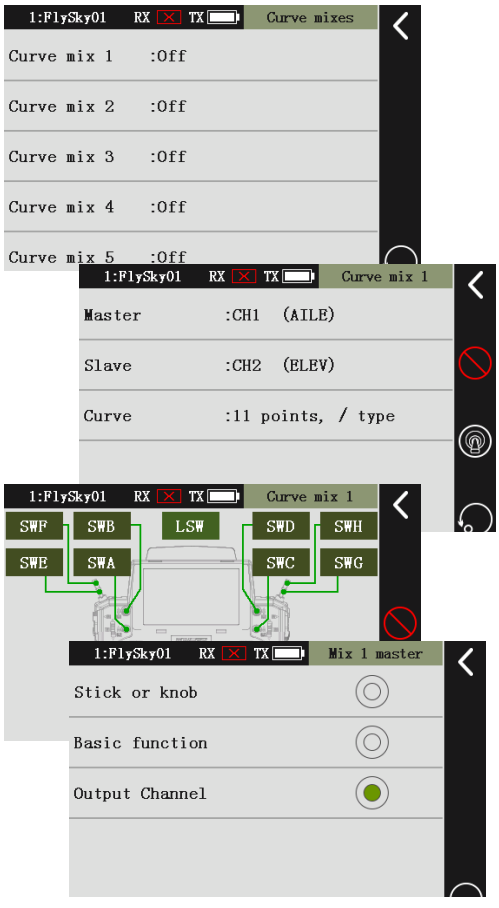
The red line is the linear relationship between the mixed control channel and the mixed channel.

The box highlighted in light green is the currently selected setting. The [L] icon below the coordinates indicates the first point on the curve, and the adjustment range of each point is between -100%-0.

a. Touch the icon.
   - When the curve type is changed, the previous data is automatically deleted.

b. After selecting the desired curve type in the list, the menu automatically returns to graph.

c. Select points as needed and use the + and – icons to adjust the point value.



8.2.3 Aileron to Rudder

This function creates a mix between the aileron channel and the rudder channel. This can be used to help turning.

Setup:

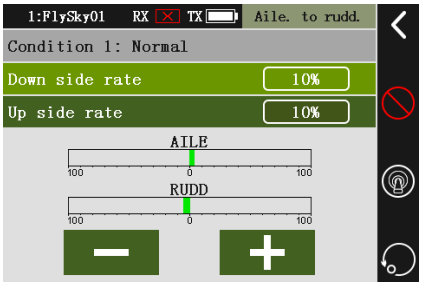
This function adjusts the mixing ratio of the aileron to the rudder, which can be set separately in different states, and the ratio ranges from -100% to 100%.

[Down side]: Influence of the master channel on the slave channel when the master channel moves down.

[Up side]: Influence of the master channel on the slave channel when the master channel moves up.

The box highlighted in light green is the currently selected setting.

1. Click the icon to select [Down side] or [up side];
2. Click on the screen "+" "-" to modify the mixing ratio.



8.2.4 Rudder to Aileron

Function Settings:

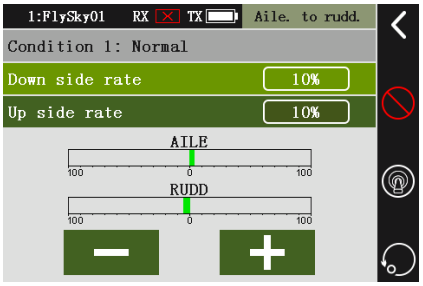
This function creates a mix between the rudder and aileron channels ranging from -100% to 100%.

[Down side]: Influence of the master channel on the slave channel when the master channel moves down.

[Up side]: Influence of the master channel on the slave channel when the master channel moves up.

The box highlighted in light green is the currently selected setting.

1. Click the icon to select [Down side] or [up side];
2. Click on the screen "+" "-" to modify the mixing ratio.



8.2.5 Aileron to Elevator

Function Settings:

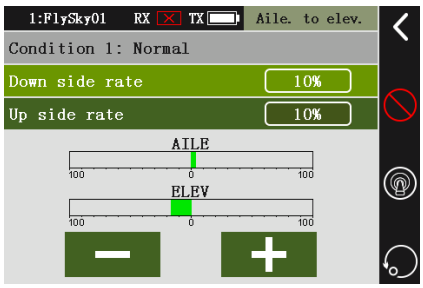
This function creates a mix between the rudder and aileron channels ranging from -100% to 100%.

[Down side]: Influence of the master channel on the slave channel when the master channel moves down.

[Up side]: Influence of the master channel on the slave channel when the master channel moves up.

The box highlighted in light green is the currently selected setting.

1. Click the icon to select [Down side] or [up side];
2. Click on the screen "+" "-" to modify the mixing ratio.



8.2.6 Elevator to Flap

Function Settings:

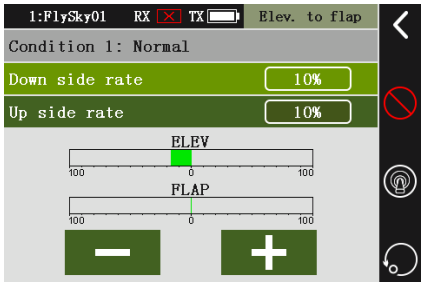
This function creates a mix between the elevators and flap channels ranging from -100% to 100%.

[Down side]: Influence of the master channel on the slave channel when the master channel moves down.

[Up side]: Influence of the master channel on the slave channel when the master channel moves up.

The box highlighted in light green is the currently selected setting.

1. Click the icon to select [Down side] or [up side];
2. Click on the screen "+" "-" to modify the mixing ratio.



8.2.7 Flap to Elevator

Function Settings:

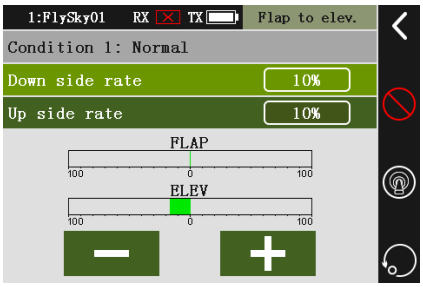
This function creates a mix between the flaps and elevator channels ranging from -100% to 100%.

[Down side]: Influence of the master channel on the slave channel when the master channel moves down.

[Up side]: Influence of the master channel on the slave channel when the master channel moves up.

The box highlighted in light green is the currently selected setting.

1. Click the icon to select [Down side] or [up side];
2. Click on the screen "+" "-" to modify the mixing ratio.



8.3 Airplane Structure

This section covers the options in the Airplane Structure menu that are only available when Fix wing/glider is selected.

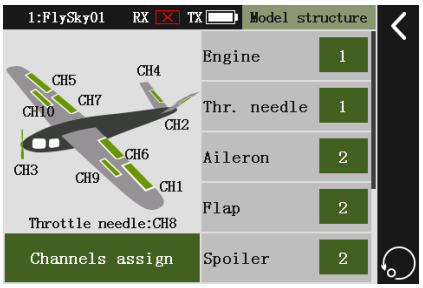
Function Settings:

The default model has an engine, an aileron, a elevator, and a rudder.

- This function can be accessed quickly from the home sceen. For details, please refer to [6.1.2 Quick Access].

Touch the green box to the right side of the part name to add and remove parts from the model. The diagram will change accordingly.

2. Enabling certain parts can unlock certain parts and in some cases 2 of a part may be added.
   - This system can control up to 18 different servos.
3. Check to make sure the virtual model structure matches the structure of your real world model.



Once an aircraft structure has been completed the system will add and remove functions from the function menu so that only the ones you need are available.

- If the user wants to use a function,but does not find it in the function menu check the aircraft structure to make sure it is correct.
- Please note that in the following description, there is a difference between [Aileron] and [Aileron (two)]. [Aileron] means that the aircraft has two ailerons, but is controlled by the same channel; [Aileron (two)] indicates that the aircraft has two ailerons, but is controlled by different channels.

The following functions are available while a fix-wing/glider structure is selected:

structure	Menu function
Engine	Throttle curve, throttle delay, throttle
Throttle needle	Throttle needle curve
Aileron (two)	Aileron function, flap function, Elevator function
Flaps	Flap function
Spoiler / two spoilers	Spoiler
Elevator (two)	Elevator function, aileron function
Rudder (two)	Rudder Function

Some special features require more than one part be selected at the same time:

Menu function	Necessary model structure
Elevator aileron	Aileron/2 ailerons + Elevator / 2 Elevators
Aileron Rudder/ Rudder Aileron	Aileron/2 ailerons+Rudder / 2 Rudders
Flap Elevator/Elevator Flap	Flap/2 flaps+Elevator/2 Elevators
Butterfly	2 Ailerons+Flap, 2 Ailerons+spoiler Flap+spoiler
V Tail	Elevator + Rudder + V Tail (only one)

Basic Function Explanation:

The following sections describe the [Basic Functions] that appear in the [Functions Delay], [Linear Mixs] [Curve Mixs] and [Trainer Function].

The basic functions are listed below:

- If the user does not know the structure and channel of the aircraft associated with a basic function you can view the following table. However, the structure listed in the table is all structures related to it. When the aircraft does not have a part, this item is automatically hidden in the menu interface. For example, there are no flaps (two) in the structure of the aircraft. In this case, only the ailerons (two) and the lifts (two) are displayed in the aileron function.

Basic function	Aircraft structure
Aileron function	aileron (two), flap (two), elevator (two)
Elevator function	Aileron (two), Elevator (two)
Throttle function	throttle
Rudder control	rudder
Throttle needle function	controls the throttle needle
Flap function	flaps (two), ailerons (two)
Spoiler function	spoiler (two)

8.4 Aileron

Sets the range of movement for the ailerons and can create a mix so the ailerons can send movement data to the flaps.

Function Settings:

The settings range is from 0-100%.The settings range is from 0-100%.

[Aileron]: Changes the mix between the aileron stick input and ailerons channel movement on the left side.

[Aileron 2]: Creates a mix between the aileron stick input and the ailerons movement on the right side.

- When the aircraft has 2 ailerons, the system automatically assigns 2 ailerons to the default channel. See [8.3 Airplane Structure].

(See 8.5 [Flap] in the flaps, see 8.7 [Elevator] in the lift)

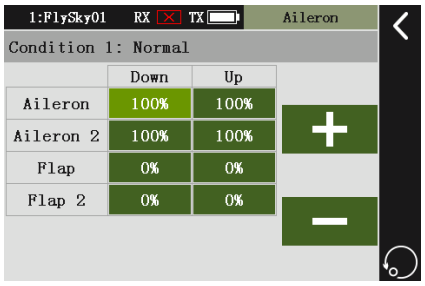
[Down]: Adjusts the mix for down side channel movement.

[Up]: Adjusts the mix for up side channel movement.

The percentage indicates the strength of the mix.

The box highlighted in light green is the currently selected setting.

1. Select a setting.
2. Use the + and – icons to change the value.
   - The sum of the ratios of the upper and lower sides of each aileron, flap and lifting function must not exceed 100%.



8.5 Flap

Sets the range of movement for the flaps and can create a mix so the flaps can send movement data to the aileron.

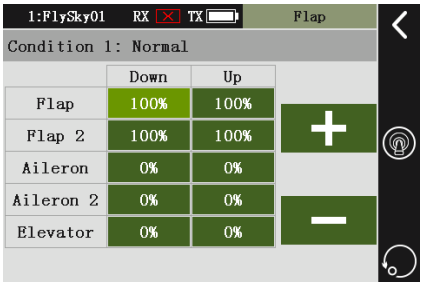
Function Settings:

The settings range is from 0-100%.

[Flap]: Changes the mix between the flap input and flap channel movement on the left side.

[Flap 2]: Changes the mix between the flap input and flap channel movement on the right side.

- When the aircraft has 2 flaps, the system automatically assigns 2 flaps to the default channel. See [8.3 Airplane Structure].



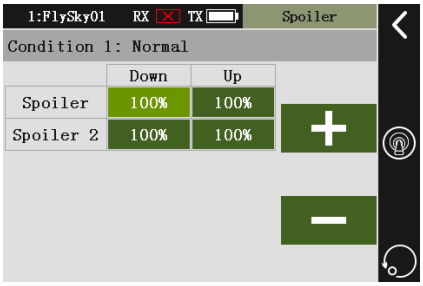
(See 8.4 [Aileron] in the ailerons)
[Down]: Adjusts the mix for down side channel movement.
[Up]: Adjusts the mix for up side channel movement.
Changes the mix between the Flap stick input and flap channel movement on the right side.
The percentage indicates the strength of the mix.
The box highlighted in light green is the currently selected setting.
1. Select a setting.
2. Use the + and – icons to change the value.
    - The sum of the ratios of the upper and lower sides of each aileron, flap and lifting function must not exceed 100%.

8.6 Spoiler

Sets the range of movement for the spoiler.

Function Settings:

The settings range is from 0-100%.
[Spoiler]: Changes the mix between the spoiler stick input and spoiler channel movement on the left side.
[Spoiler2]: Changes the mix between the spoiler stick input and spoiler channel movement on the right side.
[Down]: Adjusts the mix for down side channel movement.
[Up]: Adjusts the mix for up side channel movement. movement and the flaps.
The box highlighted in light green is the currently selected setting.
1. Select a setting.
2. Use the + and – icons to change the value.
3. Touch the icon to choose another input to control the spoiler amount.



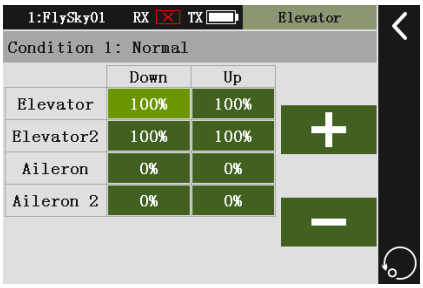
8.7 Elevator

Sets the range of movement for the elevator.

Function Settings:

The settings range is from 0-100%.
[Elevator]: Changes the mix between the elevator stick input and elevator channel movement on the left side.
[Elevator 2]: Changes the mix between the elevator stick input and elevator channel movement on the left side.
    - When the aircraft has 2 lifts, the system automatically assigns 2 lifts to the default channel.

(See 8.4 [Aileron] for the ailerons)
[Down]: Adjusts the mix for down side channel movement.
[Up]: Adjusts the mix for up side channel movement.
The percentage indicates the strength of the mix.
The box highlighted in light green is the currently selected setting.
1. Select a setting.
2. Use the + and – icons to change the value.



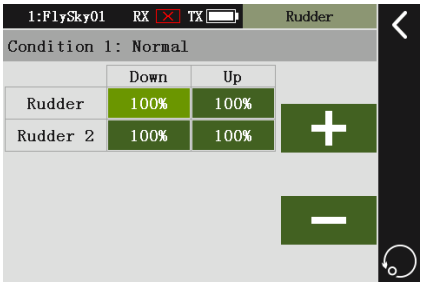
8.8 Rudder

Sets the range of movement for the rudder.

Function Settings:

The settings range is from 0-100%.
[rudder]: Changes the mix between the rudder stick input and rudder channel movement on the left side.
[rudder 2]: Changes the mix between the rudder stick input and rudder channel movement on the left side.
[Down]: Adjusts the mix for down side channel movement.
[Up]: Adjusts the mix for up side channel movement.
The percentage indicates the strength of the mix.
The box highlighted in light green is the currently selected setting.

1. Select a setting.
2. Use the + and – icons to change the value.



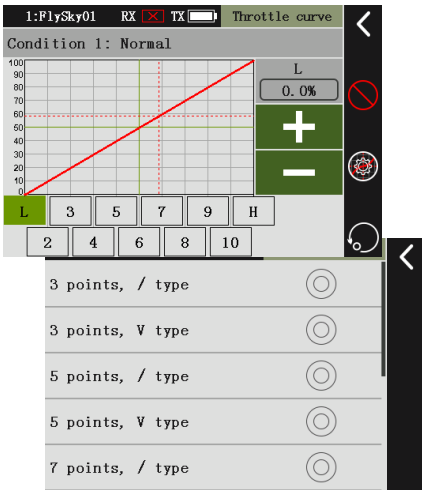
8.9 Throttle Needle

This function adjusts the curve of the throttle stick's effect on the throttle needle. It is used to control the mixing ratio of fuel and air in a gas engine.

Function Settings:

The system supports 10 curve types, with 5 "/" and 5 V-shaped curves, each with an adjustment range of 0-100%.
The horizontal axis of the graph represents the input value of the throttle channel.
The vertical axis of the graph represents the output value of the oil needle channel.
The red line is the linear graph between the input value and the output value.
The "L" icon below the graph indicates the first point on the curve.
The box highlighted in light green is the currently selected setting.

1. Touch the icon then select a curve type.
   - When the curve type is changed, the previous data is lost.
2. Once a curve has been selected the system will return to the graph.
3. Touch points to select them, then use the + and – icons to change the value.

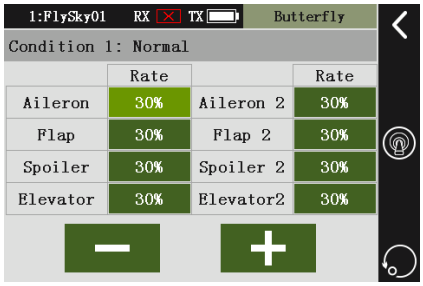


8.10 Butterfly

This function reduces lift by controlling a mix to the aileron, flap, spoiler and rudder to cause the aircraft to reduce in height. The mix can be assigned to another control surface on the PL18 such as a knob.

Function Settings:

The settings range is from 0-100%. The settings range is from 0-100%.
[Aileron]: amount of mix being sent to the left side ailerons.
[Aileron 2]: mixed amount being sent to the right side ailerons.
[Flap]: amount of mix being sent to the left side flap.
[Flap 2]: amount of mix being sent to the right side flap.
[Spoiler]: amount of mix being sent to the left side spoiler.
[Spoiler 2]: amount of mix being sent to the right side spoiler.
[Elevator]: amount of mix being sent to the left side elevator.
[Elevator 2]: amount of mix being sent to the right side elevator.
[Rate]: indicates the rudder ratio of each channel;



The box highlighted in light green is the currently selected setting.

1. Select a setting.
2. Use the + and – icons to change the value.
    - The sum of the ratios of the upper and lower sides must not exceed 100%.

8.11 V Tail

Creates a mix between the left and right rudders in order to control a V-tail configuration. By default the left tail is channel 2 and the right tail is channel 4.

Function Settings:

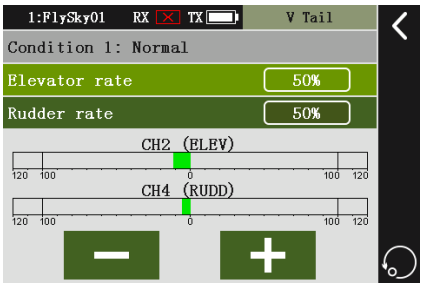
This function can be used with conditions.

[Elevator rate]: shows the rudder ratio of the 2nd channel to the 4th channel.

[Rudder rate]: shows the rudder ratio of the 4th channel to the 2nd channel.

The box highlighted in light green is the currently selected setting.

1. Select the elevator rate then use the + and – icons to adjust the mix.
2. Select the rudder rate then use the + and – icons to adjust the mix.



9.Helicopter Exclusive Functions

This section goes over functions that are only available when a helicopter structure is selected.

9.1 Throttle Hold

Locks the throttle channel to a predefined value until switch is toggled again.

Function Settings:

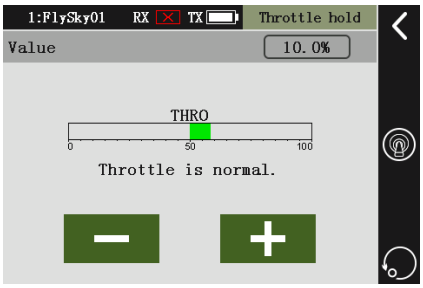
The range for this function is between 0 and 100%

[Value]: The position the throttle will be held at when the function is active.

[Throttle is normal]: The throttle is not restricted and can be used normally. [Throttle held]: Throttle is being restricted and will no longer respond to stick input.

The green bar is the throttles current position.

1. Use the + and – icons to set the throttle hold value.
2. Touch the icon and assign a switch to control the function.



9.2 Pitch Curve

This function creates a curve between the throttle channel input and output to control the pitch of the helicopters blades in order to decrease or increase altitude.

Function Settings:

This function supports 10 curves, 5 V curves and 5 / curves.

The horizontal axis of the graph represents the input value of the throttle channel;

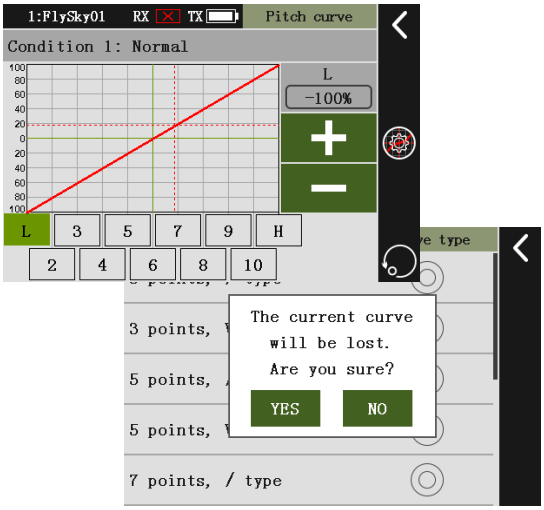
The vertical axis of the graph represents the output value of the pitch channel;

The red line is the linear relationship between the input value and the output value;

The [L] icon below the graph indicates the first point on the curve;

The box highlighted in light green is the currently selected setting.

1. Touch the icon to enter the curve menu and select a curve type.
2. After selecting the desired curve type from the list, the menu will automatically return to the graph.
3. Select points and change their values using the + and – keys.



9.3 Swashplate Ring

This function limits the amount of movement available to the swash plate, there for reducing the movement sensitivity of the entire aircraft as well as limiting the swash plates movement as to not damage the helicopter.

This is an advanced function, if the settings are wrong it is possible that the helicopters swash plate will move too far and cause damage.

Function Settings:

This function can be adjusted from 0-100%.

[Radius]: the maximum distance the swashplate can move.

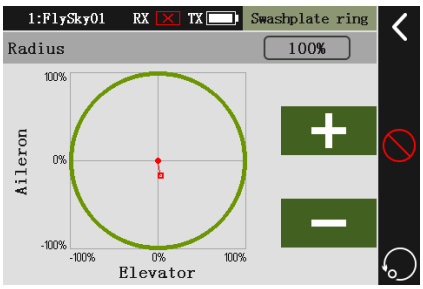
[Aileron]: the maximum distance the swashplate can move during aileron movement.

[Elevator]: maximum amount of movement that the swashplate can move during elevator movement.

The green circle is the maximum range of the swashplate.

The length of the line indicates the angle of the current swashplate. When the angle of the swashplate exceeds the radius, it will be limited to the radius value.

Use the + and – icons to change the settings as needed.



9.4 Hover Adjust

Allows fine adjustment of the throttle and pitch channels in order to allow the helicopter to hover easily.

Function Settings:

This function can hold 2 settings in memory which can be switched between with the flick of a switch. The adjustment range is between -30% and 30%.

[Throttle]: amount of adjustment made to the throttle channel.

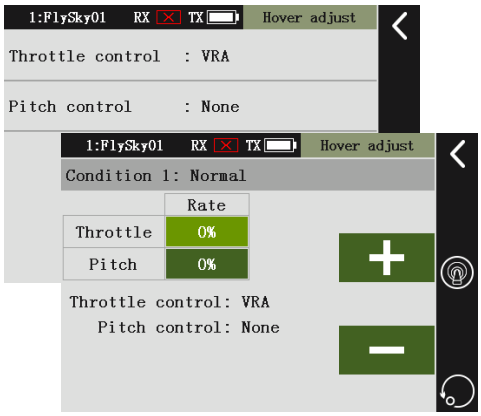
[Pitch]: amount of adjustment made to the throttle channel.

[Throttle control]: VrA indicates that the throttle fine adjustment is controlled by VrA at this time. When VrA rotates clockwise to the maximum, the throttle value increases by 30%. when it rotates counterclockwise to the maximum, the throttle value decreases by 30%.

[Pitch control: None]: indicates that the pitch fine adjustment is not available because a knob is not assigned.

The box highlighted in light green is the currently selected setting.

1. Select a setting and use the + and – icons to adjust as needed.
2. Touch the icon, then choose a setting to assign a knob to. Use the back icon to save and exit.



9.5 Gyroscope

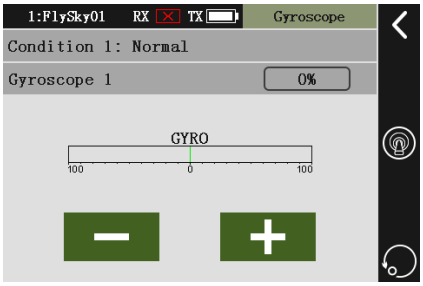
Adjusts the sensitive of the gyro and how much it affects the helicopters flight. Not enough and the helicopter will be sluggish and too much will cause the helicopter to vibrate side to side.

Function Settings:

The adjustment range is between -100% and 100%.

[Gyro 1] sensitivity of gyroscope 1.

1. Touch the icon and assign a switch to control this function.
2. Move the switch to the up position and use the + and – keys to change the gyro sensitivity.
3. Set the switch to the down position and use the + and – keys to set the second gyro sensitivity.



9.6 Throttle Needle

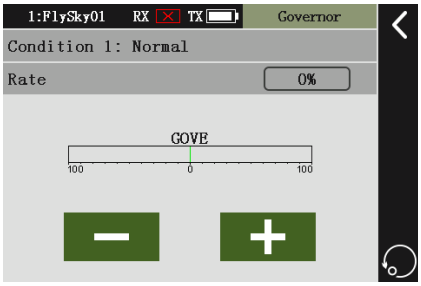
Refer to [8.9 Throttle Needle].

9.7 Governor

Adjusts the speed of the helicopters blades.
If the blades are not moving fast enough the helicopter will react more slowly, however if they are going too fast the helicopter may being to oscillate.

Function Settings:

The adjustment range is between -100% and 100%.
[Rate]: Propeller speed.
Use the + and – icons to adjust the speed.



9.8 Delay Setup

The helicopter delay setting function has three refinement functions, function delay, channel delay, and conditions delay.

9.8.1 Functions Delay

Please refer to [8.1.1 Functions Delay] for this function.

9.8.2 Channels Delay

Please refer to [8.1.2 Channels Delay] for this function.

9.8.3 Conditions Delay

Please refer to [8.1.3 Conditions Delay] for this function.

9.9 Mixes

9.9.1 Linear Mixs

Please refer to [8.2.1 Linear Mixs] for this function.

9.9.2 Curve Mixes

Please refer to [8.2.2 Curve Mixes] for this function.

9.9.3 Throttle Mix

Sets the helicopter's aileron, lift and roll to a throttle mixing. It is used to coordinate the front, rear, left and right flight movements of the helicopter to compensate for the impact of the slanting disc action on the engine when operating the ailerons, lifting and direction.

Function Settings:

This function can be set separately in different states, and the adjustment range is between -100% and 100%.

[Aileron]: shows the mixing ratio of the aileron passage to the throttle.

[Elevator]: shows the mixing ratio of the hoistway to the throttle.

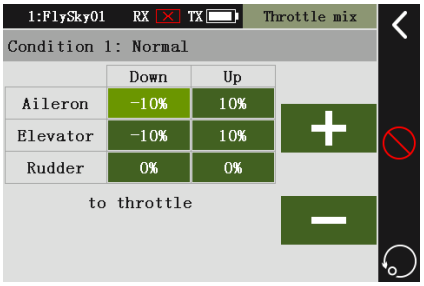
[Rudder]: shows the mixing ratio of the direction channel to the throttle.

[Up]: indicates the high-end mixing ratio.

[Down]: indicates the low-end mixing ratio.

The box highlighted in light green is the currently selected setting.

1. Select a value.
2. Use the + and – keys to change the value.



9.9.4 SwashPlate Mix

Controls the mix controlling the helicopters altitude, pitch and roll.

Function Settings:

This function can be set separately in different states, and the adjustment range is between -100% and 100%.

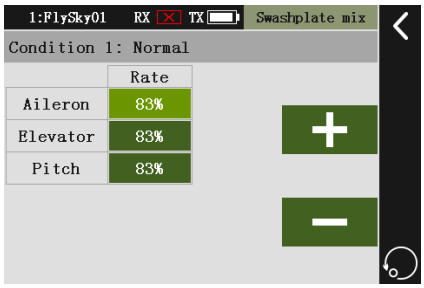
[Aileron]: amount of aileron movement.

[Elevator]: amount of lift.

[Pitch]: amount of rudder control.

The box highlighted in light green is the currently selected setting.

1. Select a value.
2. Use the + and – icons to edit.



9.10 Helicopter Structure

Function Settings:

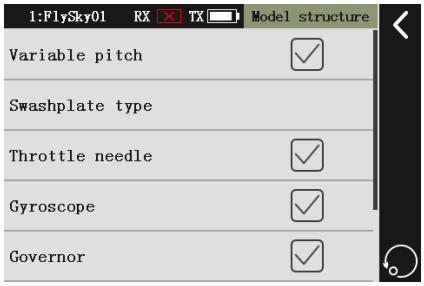
- This function can be accessed quickly on the home screen. For details, please refer to [6.1.2 Quick Access].

Set the structure of the helicopter.

1. Touch the box to the right of the parts in the list as needed.

2. If variable pitch is choose then a swashplate type will need to be selected in the [Swashplate type] menu. For details, please refer to [9.11 Swashplate Type].

3. Check to make sure everything is working as expected.



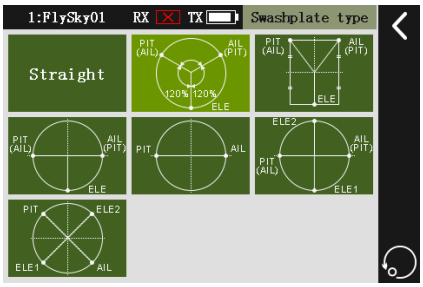
- For different models, check the 3D throttle, the fine adjustment effect is “adjust the middle”, if not, the fine adjustment effect is “adjust the low end”. The fine adjustment effect can be confirmed on the channel display interface.

Functions only available when the helicopter model type is selected.

Helicopter function	
Variable pitch	pitch curve、swashplate、swashplate ring
Throttle oil needle	Oil needle curve
Gyro gyroscope	Gyro gyroscope
Fixed speed setting	Fixed speed setting

9.11 Swashplate Type

Choose the swashplate type as indicated in your helicopter’ s user manual. Once you have selected a swashplate type touch the back icon to save and exit.



10.Quadcopter excusive functions

10.1 Attitude

The flight attitude function can set up to 9 flight modes and change between them on the fly using switches.

Function Settings:

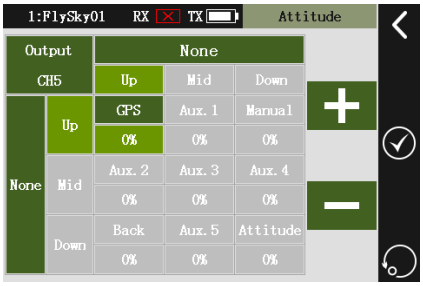
a. Set a channel for mode control. The system defaults to channel 5).
   - Touch the bar at the top right of the graph and choose a switch.

b. Touch the bar at the left side of the graph and choose a switch.

c. Using the 2 switches select different settings and use the + and – keys to change the value.

d. Change the names of the presets by touching their name, such as "GPS".

The box highlighted in light green is the currently selected setting.



11.Quad expert mode exclusive functions

11.1 Throttle Hold

Please refer to [9.1 Throttle Hold] for this function.

11.2 Attitude

Please refer to [10.1 Attitude] for this function.

11.3 Delay Setup

11.3.1 Functions Delay

Please refer to [8.1.1 Functions Delay] for this function.

11.3.2 Channels Delay

Please refer to [8.1.2 Channels Delay] for this function.

11.3.3 Conditions Delay

Please refer to [8.1.3 Conditions Delay] for this function.

11.4 Mixes

11.4.1 Linear Mixs

Please refer to [8.2.1 Linear Mixs] for this function.

11.4.2 Curve Mixes

Please refer to [8.2.2 Curve Mixes] for this function.

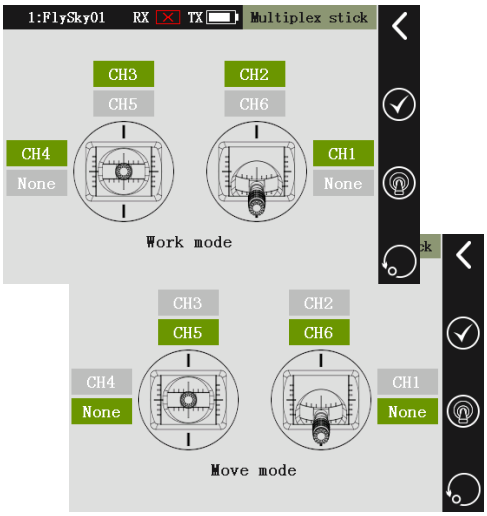
11.5 Conditions

Please refer to [7.9 Conditions] for this function.

12.Engineering vehicle exclusive functions.

12.1 Multiplex Stick

This function allows the user to change the sticks outputs at the flick of a switch. In many models this would switch between those needed for driving and movement and controls for controlling an arm or a crane.



Setup:

Function allows for switching between [Job mode] and [Mobile mode]:

- Touch the icon and assign a switch.
- Use the switch to select a mode. Once a mode is selected touch the green boxes to change the channel assignments as needed.

The box highlighted in light green is the currently selected setting.

13.RX Setup

This section is an introduction to receiver functions.

13.1 Bind with a Receiver

This function is for binding with a new receiver.
For specific binding instructions, please refer to [5.2 Binding].

13.2 Failsafe

This function sets a preset for each channel to move to in the case of signal loss.
Once the failsafe is set, if the receiver loses signal with the transmitter it will immediately set selected channels to that setting.

Function Settings:

a.Failsafe time:

How long it takes the failsafe to kick in after loosing signal. The range is 100-1000ms

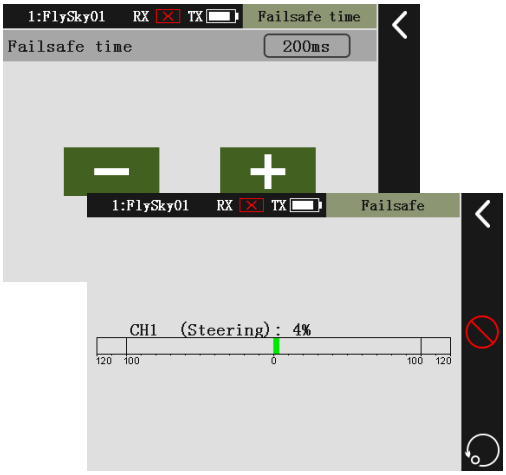
b.Failsafe value

[CH1 AILE: Off]: indicates that the first channel will remain in its last known position after loosing signal.

[CH2 ELEV: -100%]: means that the second channel servo will output -100% after the receiver loses signal.

1. Select a channel (1-18).
2. Touch the icon to turn on the function. Then move and hold that channel at the desired failsafe value, and without moving the channel touch the back icon to save and exit.

To set all channels at the same time scroll to the bottom of the list and select [Set all channels], then move and hold all the channels to their desired positions, then hit the back icon to save and exit.



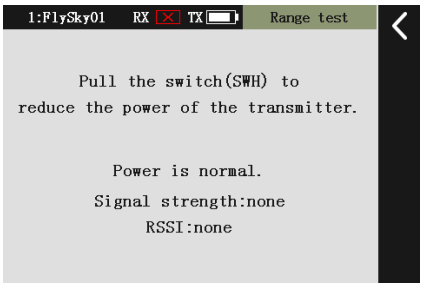
13.3 Range Test

The function tests the range of the system.

Since the actual range for the transmitter and the receiver is too large of a distance, it is difficult to take the transmitter and receiver to that range. During the test the range will be reduced to 60-80 meters, making it is possible to test whether the transmitter and the receiver are working as expected at all ranges.

Function Settings:

1. Make sure the transmitter and receiver are bound.
2. When in the Range test menu press and hold SwH.
3. Have one person hold the transmitter and have another person carry the model gradually moving to 60-80 meters away.
   - Keep the transmitters antenna unobstructed and make sure that the receiver antenna is at 90 degrees to the transmitter.
4. Observe the signal strength of the transmitter. If the signal strength is high and stable, it means that everything is functioning normally.



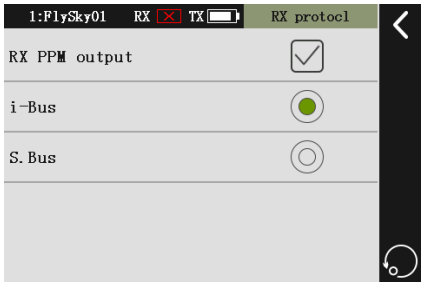
13.4 RX Protocol

Set the receiver PPM output, select i-Bus or S.Bus (For specific i-BUS settings please refer to [13.5 i-BUS Settings]).

When the "Receiver PPM Output" is checked, the receiver's first channel outputs a PPM signal. If this option is not checked, the default receiver CH1 outputs a PWM signal.

Function Settings:

- Touch RX protocol in the RX setup menu.
- Touch RX PPM output to check or uncheck the box.
- When this function is checked, the receiver CH1 outputs the PPM signal, and the other channels have no output.



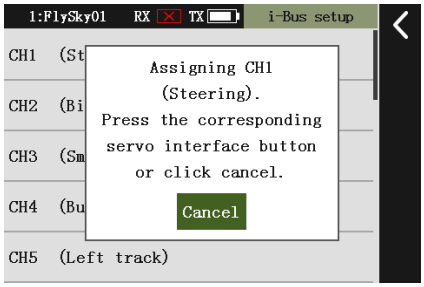
13.5 i-BUS Settings

This feature sets up the i-BUS interface.

i-BUS is usually used for expanding the number of outputs that the receiver has, so for example if the receiver needs 10 channels the i-BUS can add them. I-BUS requires a separate power supply when using more than 1 or 2 servos.

Function Settings:

1. Make sure the transmitter and receiver are bound.
2. Connect the i-BUS module to the SERVO port on the receiver.
3. Connect the servos to the C1-C4 ports on the i-BUS module..
4. Power on the transmitter and navigate to the i-BUS setup menu located in the RX setup function.
5. Select a channel, then press the corresponding port’ s button on the i-BUS module to assign that channel to it.
   - If the channel assignment is successful the new assignment should be confirmed on the PL18's screen.
6. Repeat the above steps for all channels as needed.
   - If there are too many peripherals attached to the i-BUS module power it separately.



13.6 RX Battery Monitor

This function is used to monitor the voltage status of the receiver battery, to view the current receiver voltage condition, and to set the low voltage alarm.

Function Settings:

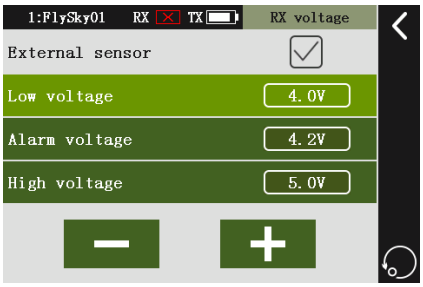
[External Sensor]: An external sensor can be used to detect the voltage status of the battery.

[Low Voltage]: Sets the low voltage value of the battery. The system defaults to 4.0V.

[Alarm Voltage]: Set the low voltage alarm's trigger voltage. The system defaults to 4.2V.

[High Voltage]: Sets the maximum voltage at which the battery is fully charged. The default high voltage is 5.0V.

1. If an external sensor is being used touch the box to put a check in it.
2. Select voltages for each setting by touching on it then using the + and – keys to change the value.
   - Check the battery's user manual for the correct settings.
3. After setting the alarm voltage, if the battery voltage drops below that value the system will allert the user.



13.7 Low Signal Alarm

Plays an alarm sound through the speakers when the signal is too low.

Function Settings:

Touch the box to enable and disable the low signal alarm.

- When this function is active and the receiver voltage drops to or below 4, the transmitter's status indicator will flash and alert the user with an alarm.

13.8 Servo Frequency

The function changes the frequency used to control the servos.

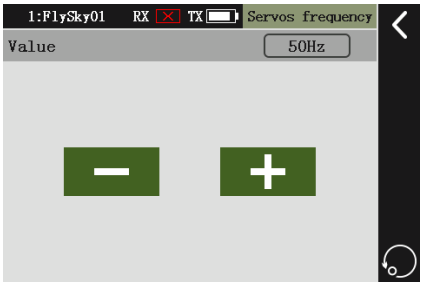
Some servos may operate at different that the default frequency.

- In order for the servos to operate smoothly check the servos user manual for the correct frequency.

Function Settings:

The default servo frequency is 50Hz and can be adjusted between 50-400Hz.

1. Check the servo's user manual for the correct frequency.
2. Use the + and – icons to set the frequency. Use the back icon to save and exit.

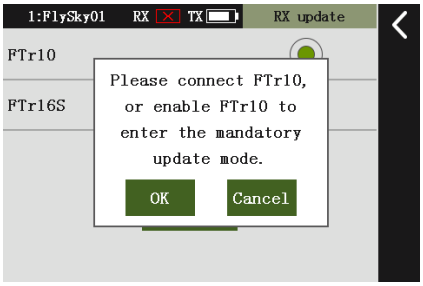


13.9 Servos Midpoint

This function sets the value of the servos center point. The default is 1500, which is suitable for most servos.

When using standard S-BUS with a device such as the Vbar gyro fight controller it can be set to 1520.

13.10 RX Update



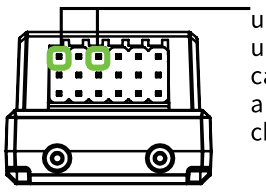
Function Settings:

a. How to update:

1. Make sure the TX and RX are bound.
2. Touch RX update in the RX setup menu.
3. If the receiver's firmware is already up to date the system will show you the version it is running. If the receiver is not up to date the system will start the update. The screen will display a progress bar and once the update is complete it will exit the menu automatically.

Note: If the transmitter is unable to bind after the update, the receiver will need a forced update.

- Once in forced update mode select [RX Update] in the RX Setup menu. Select the type of receiver from the list and clock [Update] to update the receiver.



To enter forced update mode used the bind cable to cause a short across channels.

13.11 About Receiver

View system information, including product name, software version, and receiver ID.

14.RF Setup

This section is used to set and display some parameters and information related to high frequency, such as RF standard, high frequency module firmware upgrade, high frequency module version information related content.

Function Settings:

a.RF Standard

This receiver has two RF standards: AFHDS3 2-way, AFHDS3 1-way. Users can select RF standards according to their needs and click to select.

b.RF firmware update

1. Install the RF module as normal.
2. Enter the [RF setup] menu, click on the [RF firmware update], the system will automatically pop up a confirmation box, select [Yes] to update immediately.
3. If the high-frequency module firmware is the latest version, the system will prompt [current firmware is the latest version]; if the high-frequency module firmware is not the latest version, the system will start to update and display the update progress bar. After the update is complete, the system exits the menu directly.

c.RF Version

Go to the [RF setup] menu and click [RF Version] to bring up the high frequency version of the device connection.

15.System

The system menu content is mainly used to set various functions of the transmitter, such as screen settings, sound settings, and so on.

15.1 Language

The system can display both [English] and [Chinese].
To change the system language go to language menu in the System menu.

- The system defaults to the official language of the target sales area.

15.2 Units

Choose what units to use for length and temperature.

[Length] can select metric and imperial system. The default is metric.

[Temperature] can be selected in Celsius and Fahrenheit. The default is Celsius.

The box highlighted in light green is the currently selected setting.

15.3 Sound

Turn on or off system sounds.

- This function is enabled by default. If it is enabled the box will have a check in it, to disable it touch it.
- Use the + and – icons to change the volume.

15.4 Vibration

This function enables or disables vibration for various actions.

Status or function that can be set for vibration: power on, Shut down, Safety, Standby Timeout, Voltage alarm, Weak signal, RX connection, RX disconnection, Timer count down, Timer over, sensors.

The settable states is are: No vibration, Weak vibration, Strong vibration, the system default is off.

15.5 Backlight Timeout

Changes how long the screen takes to turn off when not in use. The default is 30 seconds. Touch a time from the selection and press the back icon to save and exit.

- Leaving the screen on for longer will use more power and as such may lead to reduced battery time.

15.6 Backlight Brightness

Adjusts the brightness of the screens backlight. The default is 50%.

- Turning the brightness up will use more power and as such will lead to reduced battery life.

15.7 Auto Shutdown

Turns the transmitter off if not connected to a receiver and is not in use.

This function is enabled by default. To disable the function touch the box and make sure there is no check in it.

Touch auto shutdown to go into the time select menu. The default is 5 min. Use the + and – keys to change the time and press the back icon to save and exit. The time can be set up to 60 min.

15.8 Stick Mode

Please refer to [3.2.5 Stick Mode] for this function.

15.9 Throttle Mode

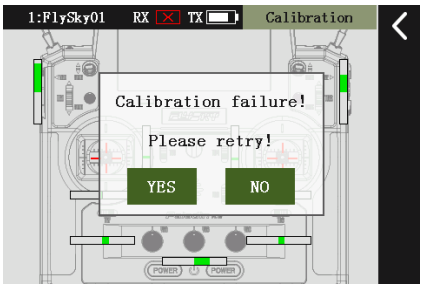
Please refer to [3.2.6 Throttle Mode] for this function.

15.10 Calibration

Calibrate the sticks and knobs.

Function Settings:

- Enter the function, then put all stick and knobs to their centermost positions. Press ok when ready.
- Move every stick and knob to its full range of motion in every direction.
- If the calibration fails the system will ask if you want to calibrate again.
- Press the back icon to save and exit.



15.11 Factory Reset

Resets the transmitter to its factory default state. This deletes all data including all model data and system settings.

15.12 TX Firmware Update

Updates the transmitters firmware

How to update:

1.Touch TX firmware update in the System menu.

2.Connect the transmitter to a computer using a USB wire. Then open the flysky PL18 update software and click update.

3.The transmitter will show a progress bar. Once the update is complete it will restart automatically.

- If you need to cancel the update, cancel it from the computer.

15.13 About Paladin PL18

View system information, including product name, software version, software release date, and hardware version.

16.Product Specification

This chapter contains the Paladin PL18 transmitter, FTr10 receiver.

16.1 Transmitter Specifications (PL18)

Product Model	PL 18
Product Name	Paladin
Channels	18
Model Type	Airplane,Helicopter,Glider,Delta wing,Multicopter,Engineering vehicles
RF	2.4GHz
RF Power	< 20 dBm
2.4GHz Protocol	AFHDS 3
Distance	>3500m (Air distance)
Channel Resolution	4096
Battery	1S (3.7V) * 4300mAh (built-in)
Charging Interface	Micro USB/wireless charging
Charging Time	4h@5V/7h@2A (wireless charging)
Life time	>8h
Low Voltage Warning	＜ 3.65V
Antenna Type	Dual antenna
Display	HVGA 3.5 寸 TFT，320*480
Language	Chinese and English
Simulator	USB Simulator
Data Interface	USB、Non-standard interface (USART)、PHJACK (PPM)
Temperature Range	-10°C—+60°C
Humidity Range	20%-95%
Online Update	Yes
Color	black
Size	214*86.5*192 mm
Weight	946g
Certification	CE，FCC ID：N4ZFT1800，RCM

16.2 Receiver Specifications（FTr10）

FTr10

Model Type	FTr10
PWM Channels	10
RF	2.4GHz
2.4GHz Protocol	AFHDS 3
Distance	>3500m
Antenna Type	dual antenna
Power	3.5v-12V
RSSI	Yes
Data Interface	i-BUS/S-BUS/PPM/PWM/UART
Temperature Range	-15°C—+60°C
Humidity Range	20%-95%
Online Update	Yes
Size	52*28*22mm
Weight	22g
Certification	CE，FCC ID: N4ZFTR1000

FTr16S

Model Type	FTr16s
PWM Channels	No
RF	2.4GHz
2.4GHz Protocol	AFHDS 3
Distance	>3500m
Antenna Type	Dual antenna
Power	3.5v-8.4V
RSSI	Yes
Data Interface	i-BUS/S-BUS/PPM
Temperature Range	-15°C—+60°C
Humidity Range	20%-95%
Online Update	Yes
Size	20*12*3.1mm
Weight	2g
Certification	CE，FCC ID：N4ZFTR16S00

17.Package Contents

number	name	Quantity	Configuration
1	PL18 Transmitter	1	Standard
2	QUICK START GUIDE	1	Standard
3	FTR10 Receiver	1	Standard
4	FTr16S Receiver	1	Standard
5	FRM301 RF Module	1	Standard
6	Sun cover	1	Standard
7	Big grip	1	Standard
8	Double handle	2	Standard
9	USB	1	Standard
10	Switch set(self-center three position switch)	2	Standard
11	Soft spring	4	Standard
12	Hard spring	4	Standard
13	FS-CEV04、FS-CAT01(height)、FS-CPD01(speed/Magnetic sense)、FS-CPD02(speed/Light-sensitive)、FS-CVT01(Voltage)、FS-CTM01(temperature)、FS-CGPS01(GPS)	1	optional
14	Wireless charging base	1	optional
15	FRM302 RF Module	1	optional
16	FS-RM003 (AFHDS 2A RF Module)	1	optional
17	JR module adapter	1	optional
18	Trainer USB	1	optional

18. Certification

18.1 DoC

Hereby, [Flysky Technology co., ltd] declares that the Radio Equipment [Paladin(PL18),FT18] is in compliance with RED 2014/53/EU.

The full text of the EU DoC is available at the following internet address: www.flysky-cn.com

18.2 CE Warning

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance

18.3 Appendix 1 FCC Statement

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 televison 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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example use only shielded interface cables when connecting to computer or peripheral devices).

This equipment 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.

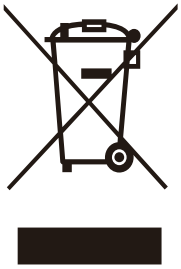
Caution!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

1. Move all your channels to the desired position.
2. Select [All channels] and then [Yes] in the confirmation box.

19.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.



http://www.flysky-cn.com

Publication date:2019-08-16

CE, FCC ID：N4ZFT1800, RCM