

2.4GHz 1024 / 4096 PCMS

WFLY

WFT09SII

&WFT09II  
SUMMARY MANUAL

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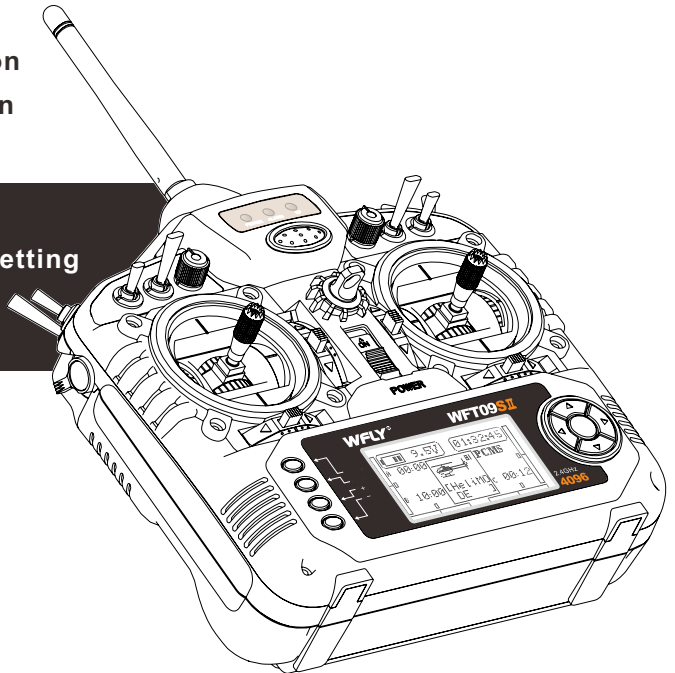
Functions instruction

Receiver Coding

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Stick Setting



Thank you for purchasing WFLY products,pls read the instruction before using it.

Shenzhen WFLY Technology Development Co.,Ltd.

## Flag Meaning



Danger

If you ignore this sign and use product without proper operation , it is possible to cause you or others seriously injury or even death.



Warning

If you ignore this product and use the product without proper operation, it is possible to cause you or others hurt seriously or damages things.



Caution

If you ignore the sign and use the product without proper operation, it is possible to hurt you or others or damage things.



Prohibited

Prohibited operation.



Mandatory

Obligation.

## Terms Of Sale



Caution

- 1.From the date of purchase, Quality problem within one year free warranty by WFLY (WFLY to bear the freight.)
- 2.Within 7days from the date of purchase, product quality problems appears at the normal using situation, user can rely on the warranty card and purchase vouchers at the dealer for a free replacement of the same .type products; When dealers receive a replacement product, should first notify the company for the replacement.
- 3.Lifetime after-sales service will be provided by WFLY . from the date of purchase, man-made damage, modification, lid seals and damaged more than one year free warranty period of the product, the user must pay for return postage, material cost and maintenance costs.
- 4.Dealer do not give warranty card or do not fill out required from the seller to bear all the after-sales service.
- 5.The terms of after service are limited to products sold in mainland china.

## Product Usage And Modification



Warning

- 1.WFLY products are limited to model usage under the Provisions of the Radio Act of China.
- 2.WFLY will take no responsibility for the modification, adjustment and replacement parts products.

# Safety Tips



**B**efore use, please confirm whether the goods have accessories ready, whether receiver has been connected with third-line switches, weather steering gear, the host and the receiver are connected to a good power supply, and can be turned on with verify correct operation, confirm before use. Confirm the battery has power before using it .before first use after purchase or prolonged no-use, rechargeable batteries are required to affiliated charger before use. When using lithium polymer battery or other power devices, make sure the battery voltage is suitable.

**I**f there occurs a lack of accessories, parts and bad action, please contact your dealer or contact the company's customer service department.

**F**or safe use of this product, be sure to observe the following precautions.

Prohibited flying in the rain, strong winds weather or at night .

Prohibit flying under your tired, sick or drunken state.



**P**rohibit flight in the following places.

>Near the other radio-controlled flying place (3 km or less).

>other unrelated activities persons near or over the place.

>Residential, schools, hospitals and other crowded places.

>Near high voltage power lines, tall buildings or telecommunications facilities.

>Flight banned sites.



**B**e sure to do the balance test before flight.

Before starting the engine, operate each rudder first, make sure all the rudder can run simultaneously. If each of the rudder can not run simultaneously, or abnormal, do not fly.



**B**e sure to set the interface into the initial screen during flight.  
during flight mistakenly press the Edit button is very dangerous.

**B**e sure to use the specified receiver

This product supports only part of the WFLY receiver models, if you use another receiver, this product will not be operated.



**D**angerous situation will occur ,fever, fire, electric shock, injury, etc.

Do not decomposition or retrofit of the plane parts.



**E**ngine or motor(electric model) at high speed will occur:

When the power turned on, set the host's throttle stick to the minimum (do not let the rotary engine, the motor at high speed location), and then start the main unit's power switch, and then turn on the power switch on the receiver aspect. When you want to turn off, turn the receiver off, and then turn off the system power supply.



**W**hen you want to adjust the helicopter engine (motor):

Be sure to observe the rotating helicopter blades from behind.

When the host of the throttle rocker at high speed state it's very dangerous to adjust the engine.



**M**alfunction reasons:

Do not mix use WFLY remote control device with other brands receiver.

The battery box is dedicated to the host battery



**T**he aircraft lost control:

When steering response slow, please immediately terminate the flight, and then check the battery's residual power and rudder machine.

# Safety Tips



**R**emote control distance will shorter:

Antenna fracture can cause remote distance becomes shorter and out of control



**P**lease do not use remote control device in following cases:

- >Other signals interfere.
- >Over the speeding vehicle .
- >Near station buildings, ship radios and other wireless transmitting station.
- >Near or over the residential or buildings or pedestrian.



**W**rong actions result in dangerous situation:

- >After the receiver, servos, etc. soaked dry, do not install immediately. should be sent to the company to check before use.
- >Flight preparation process, the host is placed in the ground, can not be placed upright. Host easily be blown down, then joystick operating , people may be involved in the propeller injuries.
- >Before and after using, do not touch engine or motor which may get injured because of high temperature.



**F**or safety, please confirm following matters before operation.

- >Battery capacity of the host and the receiver are sufficient.
- >Adequate oil and no oil leakage.
- >Linkage does not touch the aircraft , or it may cause aircraft vibration leads to clutter signal. >Keep the aircraft in a constant state for vibration test, the engine (motor) to the high-speed, and try to manipulate the joystick to see if normal operation.
- >When adjusting the balance, except when necessary, shall stop the engine (motor) running.
- >Do not fly too high or too far at the first fright, choose a safe area, the height from the ground about 50 meters or so to make flying back and forth.
- >Test about 5 minutes, to operate back and forth 2-3 times, to confirm everything is normal then perform official flight.



**I**f the battery fluid accidentally gets on the eye, there will be the risk of blindness, do not rub your eyes, wash with water immediately then go to hospital for treatment.



- >The batteries and aircraft devices should keep out of the reach of children.
- >keep devices away from water.
- >Avoid external plugs, wires or antenna and other parts cracked or peeling.
- >Stop charging when exceed the normal charging time.
- >Do not place the product in hot, humid or dusty place.
- >Do not charge in cold (-10 degrees) state
- >Do not discard the waste batteries in the trash as ordinary garbages.

## Safety Prompts (battery selection and installation)

### Transmitter Battery Selection



Caution

Transmitter standard input voltage range 9.6V - 12V, the battery can select the following configuration:

- >Standard AA - 5 # NiMH / 1.2V rechargeable nickel-cadmium batteries, together use with 8 standard battery box equipped by this product.
- >Standard 3S-12.6V Lithium Battery.

### Receiver Battery Selection



Caution

Receiver standard input voltage range 4.8V - 12.6V, the battery can select the following configuration:

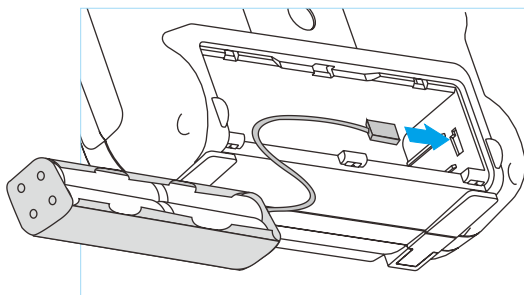
- >Four standard AA - Day 5 # NiMH / 1.2V rechargeable nickel-cadmium batteries.
- >SC standard 5.0V output using the power supply for receiver.

### Transmitter Battery Installation Method



Caution

As shown: the battery is connected to the connector, and then inserted into the socket inside the battery compartment on the right side of the transmitter.



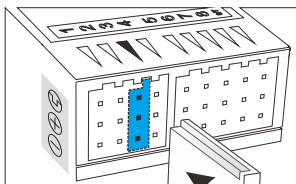
### Receiver Battery Installation Method



Caution

Any channel can be used as power input, Connect with the third channel when powered by ESC, changable by practical situation.

As shown: the battery and plug connection, insert receiver.

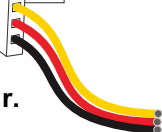


- ⊕ Signal terminal
- ⊕ The positive electrode
- ⊖ The negative electrode

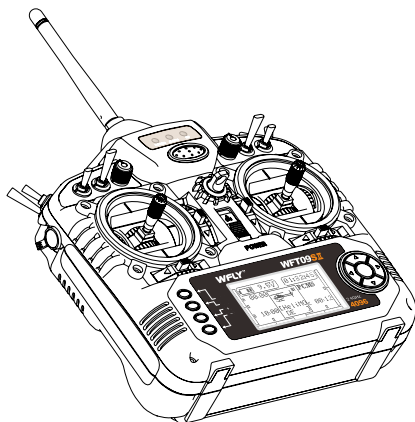


Warning

**Positive and negative electrode contacts errors will burn receiver.**



# Products Accessories (on the basic of official newest data)



WFR09S



Lithium buck



Neck strap



Battery box

## Product Features

### SUPER WFT09SII / WFT09II Transmitter

- > 132x64 FSTN fast dot matrix LCD display
  - > Excellent white LED backlight.
  - > Multi-language support.
  - > Improve rocker head shape, better adapted to manipulate.
  - > Rocker height adjustable.
  - > Advanced digital trim, debug tone beep easier.
  - > 85 groups model memory.
  - > Switch to flight mode helicopters, fixed-wing, glider, multi-axis, etc
  - > High speed, high resolution, 2.4GHz PCMS 4096 system.
  - > Tree diagram menu.
  - > Coach function.
  - > DSC and charging jack function
  - > Multi-timing function
  - > 10 points editable curves.
  - > 7 groups of programmable mix control and 4 groups of programmable curve mix control.
  - > Joystick calibration.
- 
- > More secure and reliable built-in RF module without pin connector.
  - > More convenient RF module power switch function.
  - > More convenient menu one key coding .
  - > New panel design.
  - > Professional 2.4Hz field research.

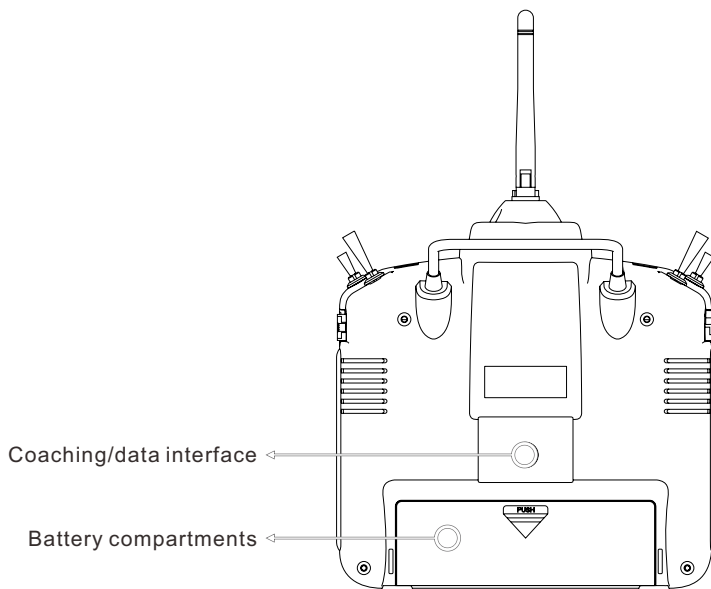
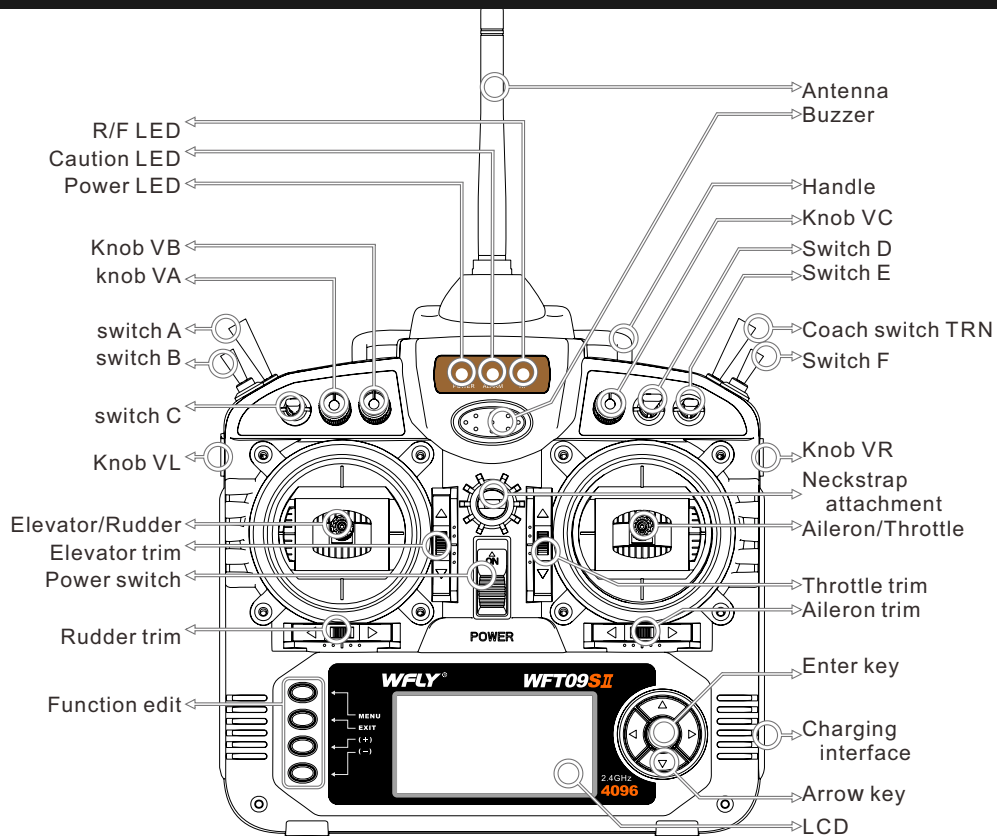
### WFR09S (the 9channel receiver)

Apply to: Airplanes, Helicopters, Multiaxial Glider, Car, Ship  
Band: 2.400GHz-2.483GHz  
Sensitivity: -97dBm  
Fast recovery signal function  
Failsafe function  
The ground linear distance: >900meters  
Decoding way: PPM/PCMS1024/PCMS4096  
Power: 4.8-12. 6V  
Size: 44.8x27.9x16.39mm  
Weight: 14.8g

Dual-Core, Dual antenna reception.  
Automatic search signal.  
Improve response speed  
Increasing the usage distance.  
Enhances the reliability and robustness of R/C  
**[Two antennas should installed at the angle of 90 for better using.]**

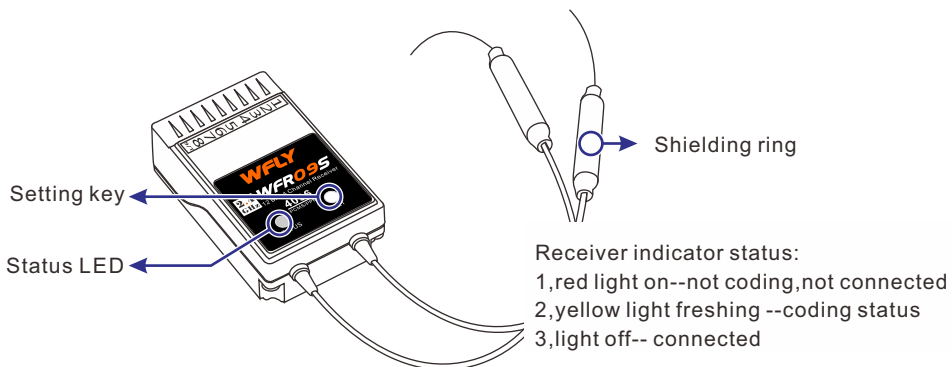
All WFLY 2.4GHz series receivers are fit on PPM, PCMS1024/PCMS4096 system, equipped with failsafe function.

# Product Illustration (WFT09SII/WFR09II)





## Product Illustration (WFR09S)



## Receiver Connection Reference (only for reference)

Symbol	Channel	FIX	HELI
1	CH1	Aileron	Aileron
2	CH2	Elevator	Elevator
3	CH3	Throttle	Throttle
4	CH4	Rudder	Rudder
5	CH5	Landing Gear	Gyro
6	CH6	Flap	Pitch
7	CH7	Auxiliary channel	Auxiliary channel
8	CH8	Auxiliary channel	Auxiliary channel
9/T	CH9	Auxiliary channel/+5V	Auxiliary channel/+5V

## Receiver Coding (suitable for WFT09SII / WFT09II)



**Do not coding at following situations:**

- >When other WFLY receivers are coding.
- >Powered by ESC when connected with motor.
- >Electromagnetic complicated places: Transformers, high-voltage wires, routers, communication base stations, etc.

**Coding steps:**

- >Receiver power on (make sure Battery installed correctly and voltage in a safe operating range)
- >long press SET key for 3 to 4 sec, yellow light flashing .
- >Turn on the R/C ,check out the work mode (displayed PCMS, PPM mode can not code; R/F LED lights)
- >R/C enter coding menu: **MENU--[17]ADVANCED SETTING--[23]CODING--confirming--receiver light off --coding successfully**

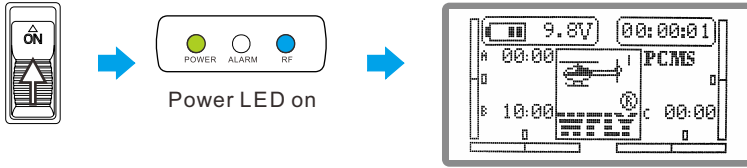
**Authentication method:**

- >Channel 1 and 2 output to connect with servo, control channel 1 and 2, check out the servo action, when shows output action, coding successfully.
- >Turn off R/C, receiver red light lights on, turn on R/C, receiver light off; coding successfully.

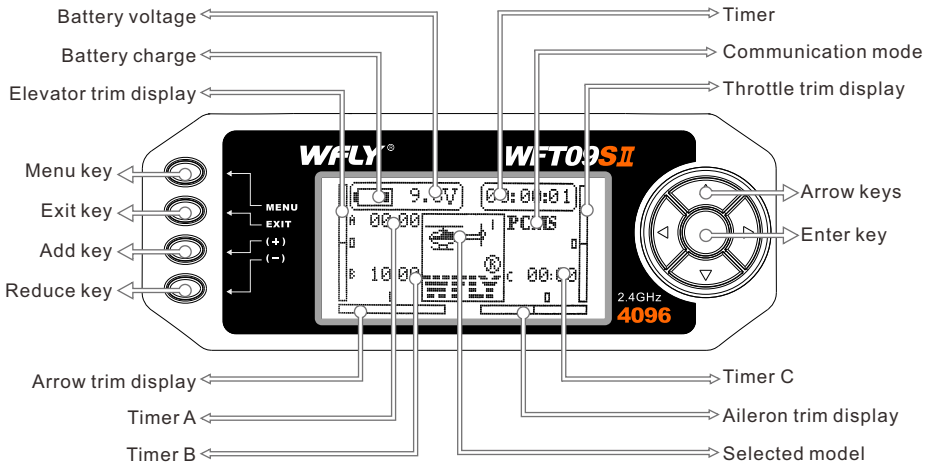
# BOOT

## Boot Status

Turn on the power switch, power light shows green lights, LCD shows initial surface)



## LCD



Main surface shown as below:

**Electricity/Voltage:** When the power is low or the voltage is too low, the transmitter buzz alarm.

**Timer:** The timer can be set four groups, at different stages for timing manipulation and report to.

**Model display:** helicopter, airplane, glider display.

**Communication mode:** display PCMS, PPM, 4096 mode.

**Trim display:** Trim value display.



Press MENU enter normal setting interface.



Press EXIT, exit edit status.



Press "+/-", select menu or edit entries.



Press arrow keys, move to selected mode.



Press arrow key to enter menu or options. And long press to restore the default values (In the options).

## RF Indicator

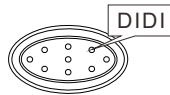


**RF LED off:** this situation occurs when the RF SETTING is off; Close RF used in editing setting or simulator, it can save electricity.

## Boot Warning

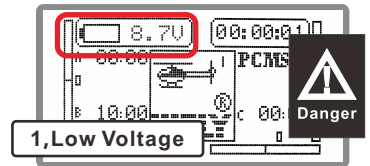


Caused by the **Low pressure alarm** and **Stunt switch alarm open** and **Throttle Lock** status open; make sure commissioning work has been done before you flight.



After opening the power, a buzzer warning tone may be caused by:

1. Low Voltage :when this occurs let the plane land as soon as possible.
2. IDLE switch is on. (long press "-" to exit)
3. Throttle lock is on. (long press "-" to exit)



## Model Settings

### Setting:

press the MENU key to boot, enter the "**SYS SETTING**" menu, select "**MODEL SELECTING**" and "**MODEL SETTING**", select respectively 1 model of all models and model type.

### Save:

select with Arrow keys, confirm the option with Enter key, power off according to the prompt, save directly.

# Fail-Safe Function



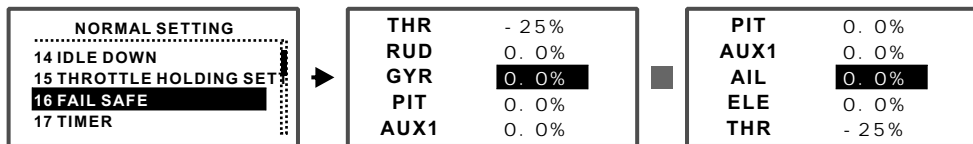
The importance of Failsafe :reduce the rate of injury when the aircraft lost control.

**Advice:** set failsafe data first before calibration or flight.

The information is automatically transferred to the receiver, you do not need to set at every flight.

## Steps:

- 1 Receiver power on ( linked )
- 2 Transmitter boot into **FAIL SAFE** settings menu, the channel data can be set as needed (when RF off this function automatically shielded), after setting press the EXIT key to save the data.



## Recommended setting data:

1. Helicopter throttle set to 5% -10%, do not completely shut, otherwise the aircraft no power directly fell to the ground, the rest of the channel set to steady flying.
2. Airplane / throttle is set to 0, the remaining channels can be set for a smooth flight, because Airplane / glider no power can also be flat Steady decline authentic.
3. Car / boat setup is basically the same setup as airplane.
4. Multi-axis is similar to the helicopter, generally set to hover over the throttle position.

# Stick Settings

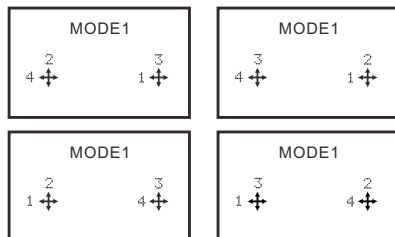
This feature allows you to select the rocker's mode of operation according to your own operating habits and preferences.

Setting path: press the MENU key to boot, enter the "**SYS SETTING**" menu, select "**STICK SETTING**".

Save parameters: select edit item with Arrow keys, select stick mode with up and down keys, press EXIT key to exit and save automatically.

Definition:

- 1 - aileron
- 2 - elevator
- 3 - throttle
- 4 - rudder



## HELICOPTER

NORMAL SETTING	
1.MONITOR	Observes status of each channel output.
2.DUAL RATE&EXPONENTIAL..	Action curve adjustment for each channel,changing the feel and sensitivity of each.
3.SERVO REVERSE	Set the direction of the positive and negative steering.
4.END POINT	Set servo travel distance .
5.SUB TRIM	Adjust the servo neutral point position.
6.SWASH PARAM SETTING	Adjust 3 swash plate servo parameter and reverse direction swashplate.
7.AUXILIARY CHANNELS...	Allocate the corresponding switch or knob and direction of auxiliary.
8.THROTTLE CURVE SETTING	Adjust the throttle output linear relationship.
9.PITCH CURVE SETTING	Adjust the output linear relationship of pitch.
10.REVOLUTION MIXING	Set the pitch-tail mixing.
11.TRIM SETTING	Adjust the endpoint position of servo.
12.THROTTLE CUT SETTING	When flight completed it can make the engine timely stall, often used for Elec-heli
13.FLIGHT MODE SWITCH	Allocate the switch and usage function. flameout landing.
14.THROTTLE HOLDING...	The THR lock output state,the engine idling,often used in the Oil-HEL1 flameout landing.
15.FAILSAFE SETTING	If the receiver loss of signal,all channel will automatically move to preset position.
16.TIMER	Set the alarm time of flight,help remind the battery or fuel capacity.
17.ADVANCED SETTING	
1.GYRO SENS SETTING	Setting the gyro mixing switch parameter.
2.THROTTLE HOVERING...	Set the throttle trim parameter when hovering.
3.PITCH HOVERING SETTING	Set the pitch trim parameter when hovering.
4.HI/LO PIT SETTING	Trimming pitch value under different flight modes.
5.TRIM OFFSET SETTING	Adjust the aileron,elevator,rudder trim during hovering.
6.DELAY	Et the delay output of each channel action.
7.GOVERNOR MIXING	In the case of the governor's case, set for pacer.
8.SWASH AND THR MIXING	Throttle compensation setting.
9.CURVE SETTING	Select curve types .
10.PROG.NOR.MIX1-7	Set 7systems mix mode.
11.PROG.CUR.MIX1-4	Set 4 groups mixing curve.
12.THROTTLE NEEDLE MIXING	Set mixing function according to throttle operation.
13.RF SETTING	Turn on or turn off RF.
14.CODING	Transmitter match receiver.
SYS SETTING	
1.MODEL SELECTING	Save multi-group of parameter. switch when needed.
2.MODEL NAME	Display mode information .
3.MODEL SETTING	Helicopter,airplane and glider are selectable.
4.ATL	Adjust throttle rocker by trimming .
5.MODULATION SETTING	Select suitable modulation mode.
6.SWASH SELECT	Select different swash.
7.STICK SETTING	Select lever operate mode.
8.ADJUSTMENT	Adjust the neutral point or highest/lowest point of AIL,ELE,THR and DIR channel.
9.REST SETTING	Restore to initial mode parameter .
10.SEND DATA	For sending data.
11.RECEIVE DATA	Receiver data.
12.SOUND	Buzzer switch setting.
13.CONTRAST SETTING	Adjust the contrast of the screen display.
14.ENGINEER MODE	Enter engineering mode .
15.ABOUT	Display version information.

**FIXED-WING**

NORMAL SETTING	
9. FLAPERON	Regulating flap and aileron linkage
10. FLAP TRIM	Adjust flap total stroke, alone change flap channel, mixing synchronized
11. AIL-DIFF	Adjust aileron and aileron differential
12. ELEV-FLAP	Adjust the elevator and flap-way , mixing
14. IDLE DOWN	Lowering speed to reduce engine performance
ADVANCED	
13. AIR BRAKE	Air brake adjustment
14. ELEVON	Aileron and elevator combination of aircraft mixing settings
15. AILVATOR	Adjust the elevator and aileron mixing unidirectional
16. V-TAIL	Adjust the elevator and rudder mixing
17. SNAP-ROLL	By setting the switch function, to achieve tumbling flight
18. DELAY	Slow the throttle servo action
20. THROTTLE NEEDLE MIXING	Setting the gyro mixing switch parameter
SYS SETTING	
5. AIL-2	Allocate another aileron channel

**GLIDER**

NORMAL SETTING	
1. ABK. CURVE SETTING	setting deceleration curve
ADVANCED	
1. BUTTERFLY	Aileron and flap mixing setting
2. START OFS	Mixing setting aileron, elevator and flap
3. SPEED OFS	Aileron mixing setting elevator and flap.





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