Master GPS System
#15312

PICHLER

Characteristics:

Three wing structures are supported: T-tail, V-tail and delta

Flight modes: manual mode, horizontal mode, geo-fence and fixed altitude mode.

Unique barometer altitude adjustment mode, easy operation, flight safety, especially recommended for beginners.

32-bit processor with high-precision barometer and 6-axis sensor.

Dimensions:

40x25x5mm

Dimensions: Weight: 4g

Operating voltage: 5V-7.4V

Operating current: 20mA

Operating temperature: -15C° - 65C°

Choose wing structure

2 T-tail
1

5 Rudder
4 Elevator
3 Aileron

2 V-tail
1

2 delta
1 Wing

Servo connection

Aileron servo 1		
Aileron servo 2		AIL_OUT_1
	T-tail/V-tail	
Elevator		ELE_OUT_2
Rudder		RUDS_OUT_4
	Delta wing	
Aileron servo 1		AIL_OUT_1
Aileron servo 2		ELE_OUT_2
Rudder		RUD_OUT_4
antenna		GPS

GPS installation direction

Model nose
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The GPS must be mounted horizontally in the hull, facing the bow as shown in the figure.

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cabling

Prepare a PWM receiver with at least 5 channels and an appropriate remote control.

Aileron
AIL_IN_1   <-->   AIL

Elevator
ELE_IN_2   <-->   EL

gas
THR_IN_3   <-->   THR

Rudder
RUD_IN_4   <-->   RUD

Three-stage switch
MODE_IN_5   <-->   Flight mode

No matter what type of aircraft, all 5 channels must be occupied so that the GPS can carry out the self-test.

Remote control and servo settings

Please remove the propeller for first use.

After switching on, the aircraft must stand still until initialization is completed, this process takes approximately 8 seconds.

After the initialization is complete, you will hear the sound of the engine starting.

green LED	mode	red LED	Meaning
out of	Manual mode	flashing	GPS is connected but accuracy is not achieved.
flashing	Fix.Altitude Mode/Geo-Fence		GPS is not connected.
bright	Horizontal mode	Glowing GPS is	connected and the accuracy is given.

Adjustment via S+R buttons

Knob "S" adjusts the control sensitivity of the aircraft, turn clockwise to increase the sensitivity.

Button "R" adjusts the radius in fence mode, turn clockwise to increase the radius.

Please turn the R button to the minimum position for the first flight test to test whether the return home function is normal

Flight modes

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1. Stabilized altitude mode

perfect for beginners and FPV enthusiasts

* The minimum altitude of the aircraft in this mode is 35m.
* In this mode you can take off directly and the plane will climb automatically.
* In this mode, the aircraft maintains at least 45% throttle and the flight controller controls the throttle semi-automatically to reduce the chance of the aircraft losing control.
* The throttle can be pushed up to give the aircraft more thrust.

2. Manual mode

3. Horizontal mode

The aircraft can move freely. The aircraft returns to center when the transmitter stick is returned to the center position.

4. Fence mode (Geo-Fence)

The model moves within a specified radius. When the model leaves the geo-fence, the coming-home mode is activated and the model moves back into the specified area.
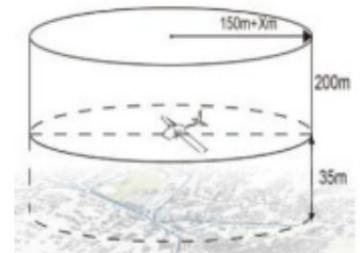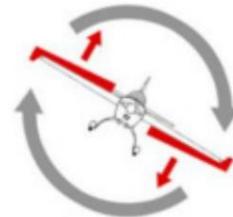

Checking the correction deflections

When testing the sensitivity action, set the throttle to 0 to prevent the effect of the flight controls from affecting the test.
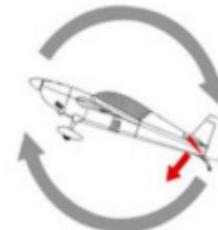
Aileron Channel:
Move the aircraft left or right about the roll axis and the aileron control surfaces on either side. The rudders should make corrections as shown in the illustration.

Elevator channel:
Move the aircraft up or down around the pitch axis, the elevator servo should make corrections as shown in the figure.

Rudder channel:
Move the plane left or right. The rudders should make corrections as shown in the figure.