Introduction for WK-G001 Gyro

Preface

It is specially designed for the helicopter with high-performance, small-figure and light-weight characteristics, sensitive device and controller are combined in a one system. it is easy to fix. The capability of gyro is closely bound upon the servos. The faster the reaction of servos, the better performance and sensitivity of gyro would be.
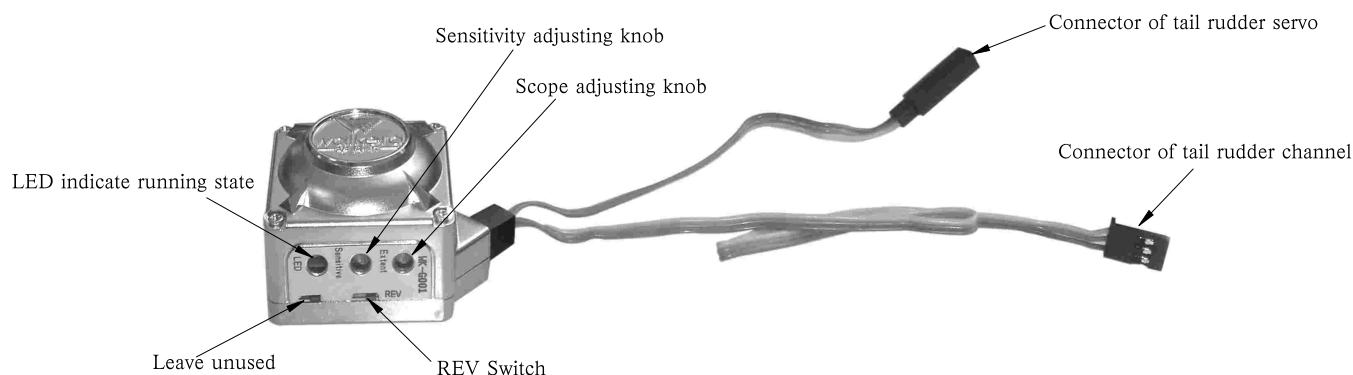
Function introduction

- Combo, small volume, light weight
  Adopting high-density cohesive technology, the volume is only 30*30*23mm, the weight is only 17g.
  Specification
- Control system: CPU control
- Gyro sensor: Small-scale voltage sensor gyro
- Operating voltage: 5V(DC)
- Operating temperature: -5 ~ +45° C
- Size: 30*30*23mm
- Weight: 17g
- Function: LED indicate running state, the reverse switch, the knob for adjusting gyro sensitivity and journey scope of servos.

Apellation of every parts and their function

Sensitivity adjusting knob
Scope adjusting knob
Connector of tail rudder servo
Connector of tail rudder channel
LED indicate running state
Leave unused
REV Switch

REV switch

REV switch to control direction of gyro, pls make the correct switch according the rotating direction of main blades. The range of adjusting button

Setup journey scope of tail servo. Turn the tailpole to left and right to make the full-helm, tune the spin in order to the journey scope not exceeding the biggest scope of slippery set of tail pitch. Clockwise-rotating to spin will increase the journey scope.

Sensitive adjusting button

Please adjust it according to the flying effect of the helicopter; clockwise rotation will increase sensitivity, whereas it will reduce the sensitivity; the best result is making the helicopter not produce tracking as the principle, try the best to increase the sensitivity of Gyro.

LED indication show the situation of gyro

Fast glimmer: after starting the power, the gyro is carrying on initializing data procedure.

Lasting glimmer: initialization have been finished

Slowly glimmer: the gyro doesn't receive the control signal of tail servo from transmitter, and the tail rudder can't work at this circumstance.

usage manual

Gyro installation

Pls use two-side sponge glue when you fix the gyro. The bottom of gyro must meet with principal axis at rightangle 90°, otherwise it will affect the direction of left and right rolling as well as forward and backward rolling. When fixing the gyro on the helicopter, make sure the distance from motor at least 10cm to avoid interfering.

Connection photo :

Servo
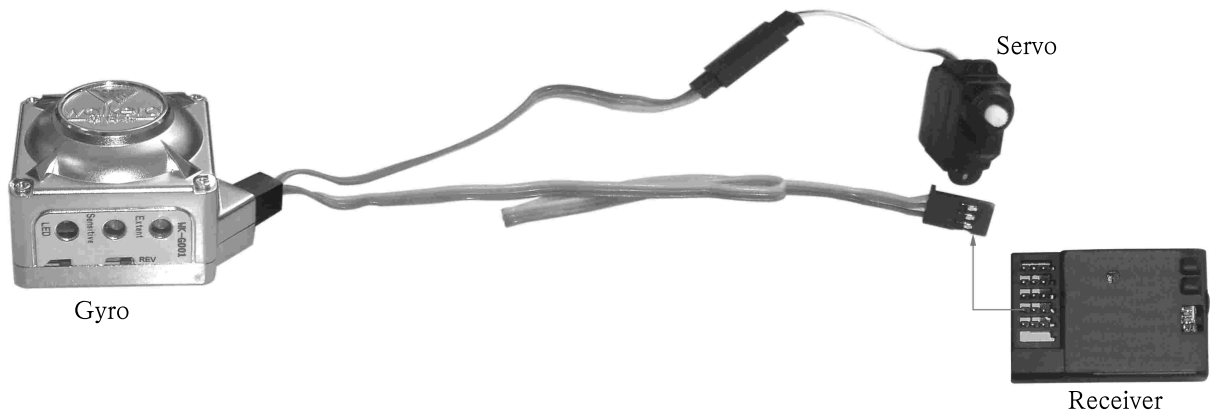
Gyro

Receiver

Tail rudder pole inspection

Turn on the transmitter power, then turn on the receiver power. Don't move tail rudder pole orhelicopter at once, because gyro will finish the procedure of data initialization 3 second later. When tail servo be placed in the neutrality, the suitable rudder blade should be chosen, and tail rudder pole should meet with servo waver at right-angle 90°. Choosing the wave-arm length of tail servo rely on helicopter installation manual. Moving tail rudder pole to the two sides, so that to check whether the rotating direction of tail rudder servo is correct. If it is not, reverse function of servo of transmitter can alter the direction of tail servo.

Adjusting the gyro's sensitivity

Degree of gyro sensitivity will have discrepancy because of the different between tail servo and helicopter. Generally speaking, the faster of the speed of tail servo, the more enhancive of the gyro sensitivity would be comparatively. The faster rotate speed of main blade, the sensitivity of gyro would enhance, therefore, gyro sensitivity should be reduced. For example, the sensitivity of aerobatic model must be lower than that of hovering. Depending on the state of flying to adjust the sensitivity.

Examine the gyro's act direction

Lifting the helicopter and turn the head to the left, if the swing direction is towards same with rudder trimmer when the transmitter's tail rudder rod turning right, it indicate that gyro act direction is set correctly. If it is not correct, pls switch the reverse switch of gyro. Providing that the act direction is set wrongly, the dangerous phenomenon—— highly-speed rotating will happen, pls check the gyro act direction again.

Adjusting the journey scope of tail servo till biggest

Turn the tail-pole to left and right to make the full-helm, tune the spin in order to the journey scope not exceeding the biggest scope of slippery set of tail pitch. The moving scope of tail servo won't exceed the journey scope limited when flying, it can protect the servos and pole. Do not adjusting too small with the journey scope, for fear it will reduce the gyro performance.