RCmart International, Inc.
www.rcmart.com.tw

Head-locked gyroscope ~ Airtrix A600-G

User Instructions

1. Foreword：

The A600-G is a high performance, compact size, and lightweight gyro developed by RCmart group for RC model helicopters. The intelligent feed-forward control algorithm of A600-G provides the mighty holding power and easy installation in a wide variety of models. With the fine integrated design of the sensor and control circuit, A600-G is very compact, simple and easy to install and use.

As experienced, the gyro's performance largely depends on the servo used. The high speed and quick response of the servo will show the better gyro's sensitivity and performance. Therefore, strongly recommendation a digital servo is perfect for use with this state of the art A600-G gyroscope.

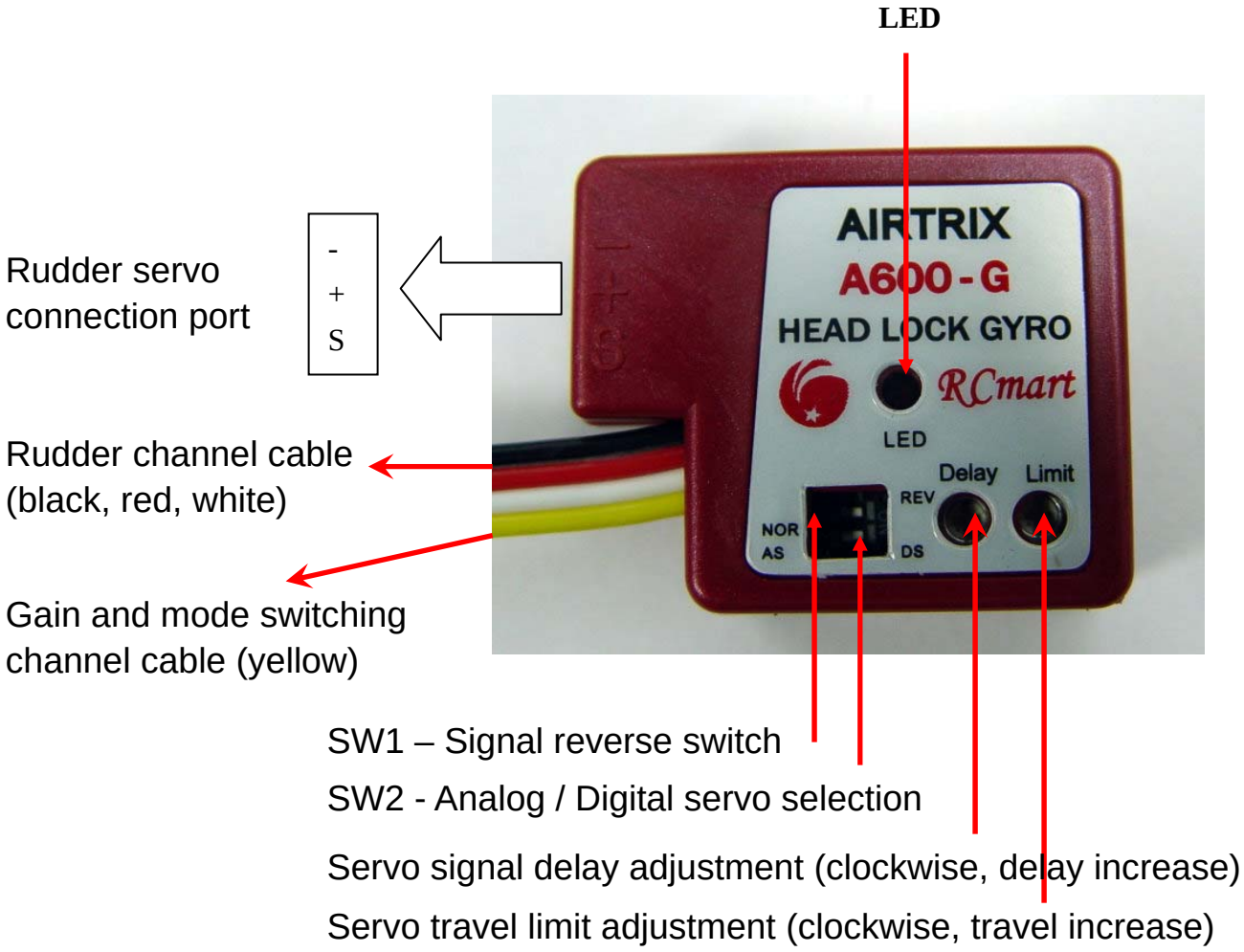
2. Feature：

• Compact integrated design for easy installation and concise setup.
• High-speed CPU and intelligent feed-forward control algorithm.
• Newly developed extremely low temperature-drift gyro sensor.
• Instant reaction and smooth engagement.
• Precise adjustment and high reliability.
• Analog and digital servo compatible.
• Remote gain function and multi gain-setting switching functions.
• Lightweight and low power consumption.

3. Specifications：

1. Operating Voltage Range: DC4.8V~6.0V.
2. Supply Current: <30mA@4.8V.
3. Temperature Range: -20℃～60℃.
4. Control Frequency: 280 Hz (digital) / 70 Hz (analog).
5. Angular Rate Sensing Range: ±500 degree/sec.
6. Weight: 9 g.
7. Size: 25.3 X 24.0 X 10.3 mm (main body).

4. Configuration :

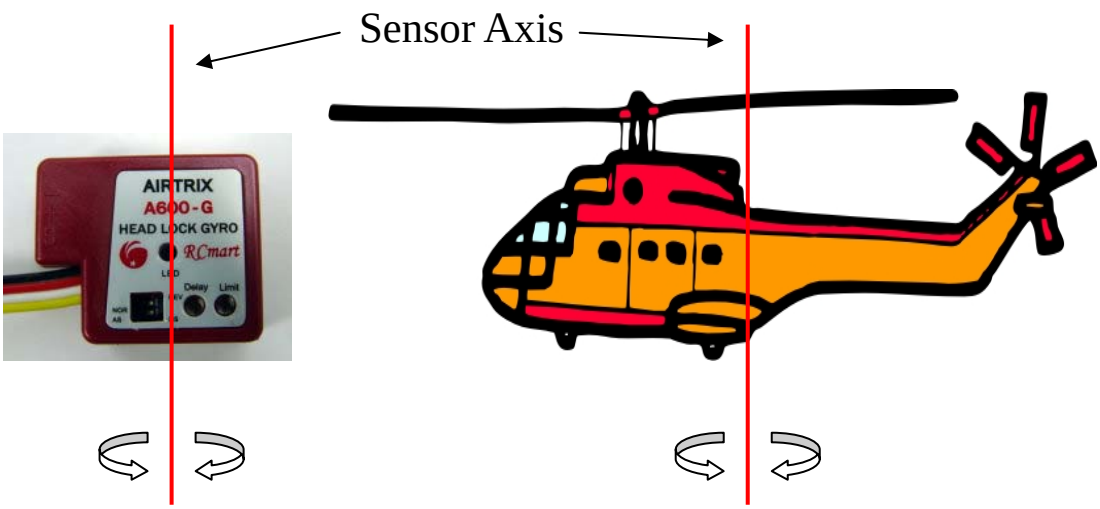


1. SW1 : Gyro correction signal reverse switch. If your rudder correct on the wrong directions, please switching this DIP-switch.
2. SW2 : Analog / Digital servo selection switch. While you switch to “DS” position, the correction frequency is reaching 280 Hz. It will improve the rudder correction efficiency a great quantity, but will damage the analog servo.
3. LED : Display the head locked / unlocked mode. Locked mode : the red LED lightened, unlocked mode : the green LED lightened.
4. Rudder channel cable : Connect to the receiver’s rudder channel (CH-4).
5. Gain and mode switching channel cable : Connect to receiver’s gyro gain control channel (CH-5).
6. Servo travel limiting switch : Adjustment the rudder servo’s travels.
7. Signal delay switch : Adjustment the rudder servo’s response time. If you

using a slow servo please increasing the delay to avoid servo be damaged.

5. Installation :

The A600-G should be mounted in the designated area as specified by your helicopter's instruction manual. While the helicopters provide mounting bases near the main shaft, use them only if they are positioned away from heat generating sources. If it is not possible to locate the sensor near the main shaft, an alternate location to consider is on the front radio bed/tray. Always install the A600-G using the double-sided sponge tape supplied. Please refer to the following diagrams for proper positioning of your A600-G gyro.



6. Operations :

1. Before operation please make sure your servo is analog type or digital type servo, and turn the DIP-switch SW2 to the correct position.
2. Turn on your transmitter.
3. Turn the power of the A600-G gyro on, the red and green LED will flash together.
4. Do not move the helicopter (gyro) for 5 seconds, until only one LED is lightened (red or green).
5. Switching the gain control channel (CH-5) switch on you transmitter to head-locked mode (red LED).
6. Move the rudder stick on your transmitter to make sure the rudder blade is

moving at the correct directions. If not, please reverse the rudder channel (CH-4) setting on your transmitter.

7. Fast rotate your helicopter by the sensor axis to make sure the gyro's correction is on the opposite directions. If not, please switching the DIP-switch SW1 on the gyro to reverse the signal.
8. Setting the transmitter's rudder gain control channel (CH-5) ATV value on 50%.
9. Take off your helicopter. Increasing the gain control channel (CH-5) ATV value little by little, until the helicopter's tail start to swing, and then reduce the ATV value 5%. Now you are on the best condition for flying.
10. Switching the gain control channel (CH-5) switch on you transmitter to unlocked mode (green LED).
11. Repeat the steps of 8 and 9 to get the best condition on the unlocked mode.
12. If your helicopter tail is swing during high speed flying, please reduce the ATV value on the gain control channel (CH-5) of your transmitter.
13. If your helicopter rudder is moving violent during flying, please reduce the ATV value on the rudder channel (CH-4) of your transmitter.

Wish you have a good flying. If you have any problem please contact with the service email address at: rc.mart@msa.hinet.net