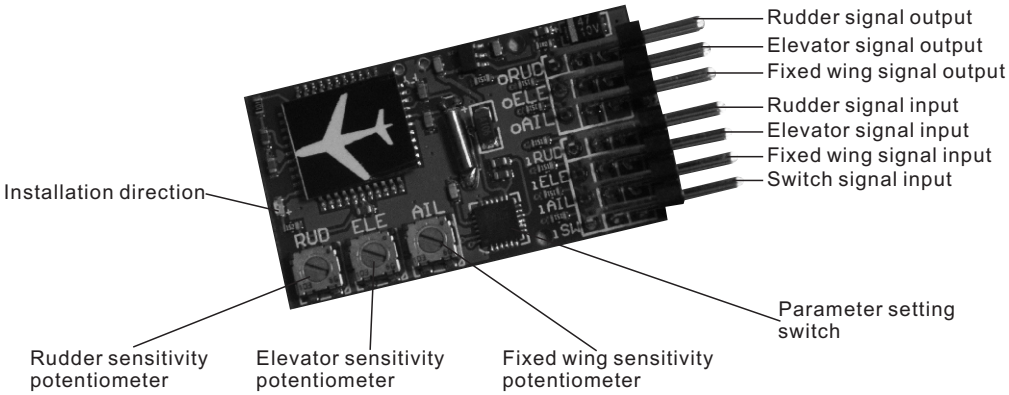
Flight controller appearance

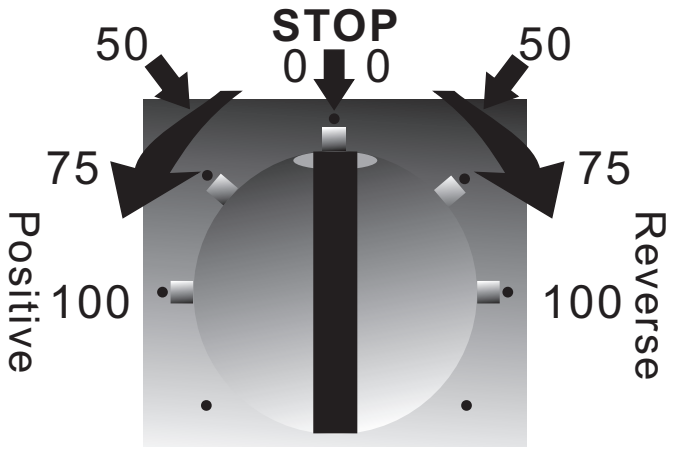


Functions:

1. Stable flight: In enhanced-stability mode, the gyroscope automatically adjusts to compensate for fixed wings, elevators, and rudders. This enhances wind-resistance capability and reduces speed failure to allow for stable flight. 3D flights such as inverted flight, slanting flight, and hanging flight become easy and do not compromise the controllability of airplanes. Flight become so easy for us.
2. Independent gyro gain adjustment potentiometer and the algorithm of software gyro gain make the gyro into its best automatically.
3. Controlling switcher of flight manual is used through the channel of on-and-off on the remote control to control the start function. When at high altitudes, flight manual control is able to be achieved by this switch so that you can feel the flight functions of plane whether it is controlled or not, practice flight control in none-flight manual mode, and improve your skills easily.

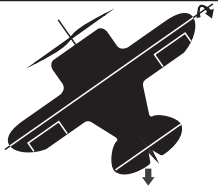
Flight manual parameters setting via DIP switcher

3-axis gyro output direction and sensitivity settings, as shown below, the sensitivity potentiometer from the stop point to the forward or reverse rotation, rotation, the greater the sense of the greater positive spin gyro output a positive signal, reverse rotation gyro outputs a positive signal, please note the following diagram of a sense of location reference point.



Gyro direction and sensitivity

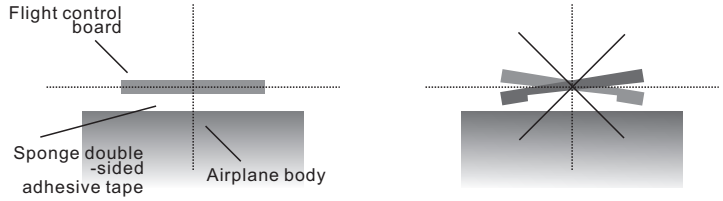
Gyro Gain Adjustment:

Figure 1 Gyroscope fixed wing turn-left adjustment	Figure 2 Gyroscope fixed wing turn-right adjustment	Figure 3 Gyroscope elevator lifting adjustment
		
Turn left the roll axis. Pay attention to the left and right fixed wings adjustment directions as shown in the preceding figure. Otherwise, please refer to the gyro adjustment Figure.	Turn right the roll axis. Pay attention to the left and right fixed wings adjustment directions as shown in the preceding figure. Otherwise, please refer to the gyro adjustment Figure.	Rotate the pitch axis upwards and pay attention to the adjustment direction of the elevator as shown in the preceding figure. Otherwise, please refer to the gyro adjustment Figure.
Figure 4 Gyroscope elevator pitch axis adjustment	**Figure 5 Gyroscope turn-left adjustment**	**Figure 6 Gyroscope turn-right adjustment**
		
Turn downwards the pitch axis and pay attention to the adjustment direction of the elevator as shown in the preceding figure. Otherwise, please refer to the gyro adjustment Figure.	Turn left the roll axis and pay attention to the adjustment direction of the rudder as shown in the preceding figure. Otherwise, please refer to the gyro adjustment Figure.	Turn right the roll axis and pay attention to the adjustment direction of the rudder as shown in the preceding figure. Otherwise, please refer to the gyro adjustment Figure.

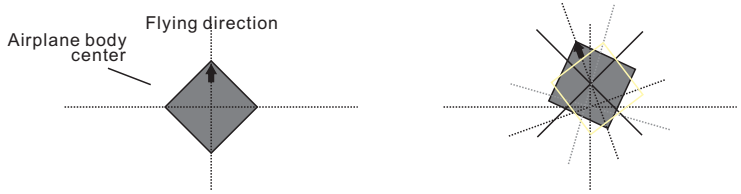
Installation and Wiring

The board can be mounted on both sides (top or bottom) of plane. The label of plane on the M6 board should be in perfect paralleled and matched with the plane; it'll be better to be in the center of the fuselage. Please stably stick it on the plane with double sided tape to insure it is flat, steady, and secure. It will be in big trouble, if inappropriate or loosened.

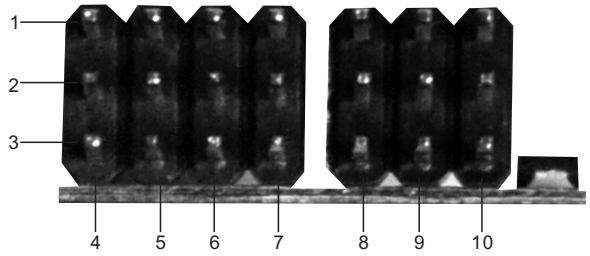
Installation side view

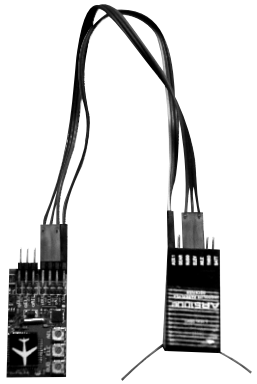


Installation top view



iSW-iAIL-iELE-iRUD should be respectively matched to the channel of switcher, aileron, elevator, and rudder of remote receiver; oAIL-oELE-oRUD should be respectively matched to the servo of aileron, elevator, and rudder.





1. Signal cable (yellow or white)
2. VCC cable (+, red)
3. GND cable (-, yellow)
4. To the switch channel of the receiver
5. To the fixed wing channel of the receiver
6. To the elevator channel of the receiver
7. To the rudder channel of the receiver
8. To the rudder steering engine
9. To the elevator steering engine
10. To the fixed wing steering engine

Notice - Initial Power Up

Notice - Initial Power Up

1. Carefully check the wiring orientation (polarity) of each channel and ensure they are plugged in properly and snug.

2. The SW switch is not necessary to use the gyro. If the SW switch is not connected, the gyro is always ON.

3. Upon power up, place the plane in a steady fashion, right side up, and keep from shaking or disturbing the gyro to ensure proper initialization. The plane should remain still and level for proper initialization, wind and other factors will affect the proper function of the gyro. To check if the gyro has been locked successfully, control any channel of aileron, elevator, or rudder via the remote controller; the control surfaces should respond respectively to each individual input.

4. Check the signal output of remote control. Check proper control surface function and trims.

5. Check gyro function and ensure proper amendment. Carefully check the output of each channel and adjust desired gain;. If any settings are incorrect refer to the gyro adjustment figure.

6. Sensitivity adjustment. The sensitivity is to adjust the control strength of the gyroscopes impact on the control surfaces. The higher degree of clockwise adjustment, the greater the sensitivity. Start off with a sensitivity adjustment of 1/2 or 1/3 of the range, proceed to fine tune as desired. If the control surfaces have excessive jitter causing the plane to be unstable, turn down (counter clockwise) the potentiometer slightly. For more sensitivity/gain adjustment turn clockwise.