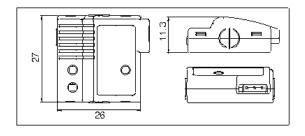
# MPI PG-2033 Micro Piezo Gyro

## Please read the instruction thoroughly before operation.



#### **SPECIFICATIONS**

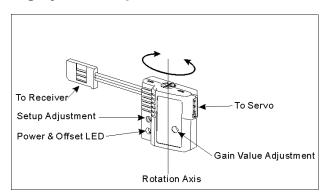
Dimension: 26.0 x 27.0 x 11.3 mm, 1" x 1.1"x .45"

Weight: 7.0 g, 0.29 oz Power Supply: 4.8 – 6.0 Volts Current Draw: 10mA @ 4.8V

Gain Adjustment: Single rate, non-remote

Operating Temperature: - 5 - 60 deg C, 23- 140 deg F

Applicable R/C System: Hitec, Futaba, JR, Airtronics, Multiplex



#### INTRODUCTION

Thank you for choosing the *MPI* PG2033 Piezo Gyro System. The PG2033 is designed with the state-of-the-art piezo sensor that has faster response and better temperature compensation. This compact lightweight gyro is suitable to use with all size helicopters, airplanes, cars and boats. Please read the instruction manual completely before operating the unit.

## **INSTALLATION**

#### Connections

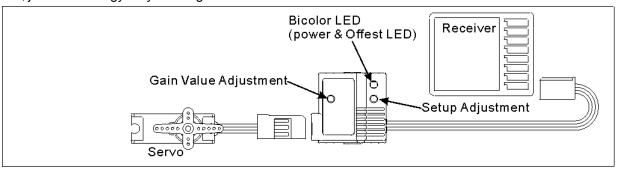
Connect all components (receiver, servos, gyro, battery pack, switch harness etc.) as per the wiring diagram and the instruction manual of your radio system. The gyro should be situated between the receiver and servo. Make sure the gyro is plugged to the correct channel of the receiver that needs to be compensated. When making the connection, be sure to observe the proper polarity of the servo, gyro, and receiver.

#### Location

Mount the gyro in a location where vibration is minimum. Or, you may follow model manufacturer's recommendation. Wherever you pick, be sure that the setup pot and gain pot are accessible for adjustment.

#### Mounting

Attach the supplied double-sided adhesive foam tape to the bottom of the gyro and mount it to the selected location. Do not use conventional adhesive tape because it does not absorb enough vibration. After mounting, it is important to check if the gyro is compensating in the correct direction since PG2033 does not have a reversing switch. If it is reversed, just rotate the gyro by 180 degrees.



#### **Control linkage**

For best results, it is important to have all control linkages smooth without slack. If not, correct it before operating your model.

#### **SETUP & ADJUSTEMNT**

#### **Setup Adjustment**

- To activate the PG2033 gyro, first turn on your transmitter, then your receiver. Normally, the bicolor LED (Power & Offset LED) will light up either in **red** or **green**. This means the neutral position is offset.
- Turn the setup pot with a small screwdriver in either direction until the bicolor LED starts to light in **red** and **green** simultaneously. At this setting, the input and output signals are synchronized perfectly when no movement is detected by the gyro.
- Then, move your model in the gyro's rotation axis, the LED will light up **red** or **green**. Observe if the gyro is compensating in the correct direction. If it is incorrect, just rotate the gyro 180 degrees and mount it again.
- When the setup pot is adjusted correctly, the servo arm will remain stationary throughout the entire operating range.
- If the gyro is reinstalled to the other model or the radio system is changed, the gyro will need readjustment.

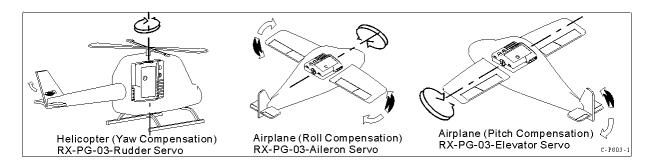
#### **Gain Adjustment**

- The gain is preset at about the mid position (50%) of the trim pot. This set is suitable for most applications. However, it can be readjusted to meet your preference.
- When the gain control pot is turned clockwise, the sensitivity will increase. Counter clockwise turns will decrease the sensitivity.
- For novice helicopter fliers, we suggest turning the trimmer 20 30 degrees clockwise from center for better stability.
- For expert and 3-D helicopter pilots, turn it 20 30 degrees counter clockwise for better control.
- If your helicopter oscillates (hunting), reduce the gain until it stops hunting.
- When gain is set too high, control response may become dull. Reduce the gain setting to retain control response.

#### **PRECAUTIONS**

- Always handle the PG2033 gyro with a special care during operation and transportation. The piezo sensor is fragile.
- It is very important to mount the gyro in a location with minimum vibration.
- Always turn on the Tx first, then, the receiver, and shut off the receiver first before turning off the transmitter.
- Protect the gyro from moisture, fuel, dirt and extended exposure to sunlight.

#### **TYPICAL USAGE**



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815 OAKWOOD RD, UNIT D, LAKE ZURICH, IL 60047, USA, Order (800)416-MAXX (6299) Info (847)438-2233 Fax(847)438-2898 email: maxxprodrc@yahoo.com web site: www.maxxprod.com

