

Futaba®

DIGITAL PROPORTIONAL
RADIO CONTROL

INSTRUCTION MANUAL

SINGLE AXIS RATE GYRO

FP-G154 (For J, M, F and SG Series)

FP-G134 (For E, F, G, H and L Series)



FUTABA CORPORATION OF AMERICA
FUTABA CORPORATION

D60598

Thank you for buying a Futaba digital
proportional radio control set.
Please read this manual carefully before
using your new set.



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The FP G154/G134 is a single axis rate gyro designed to stabilize aircraft. Like full size aircraft, stabilisation is accomplished by detecting angular acceleration with the rate gyro. Detected motion information is fed to the control amplifier, which then sends a counteraction signal to the appropriate control surface.

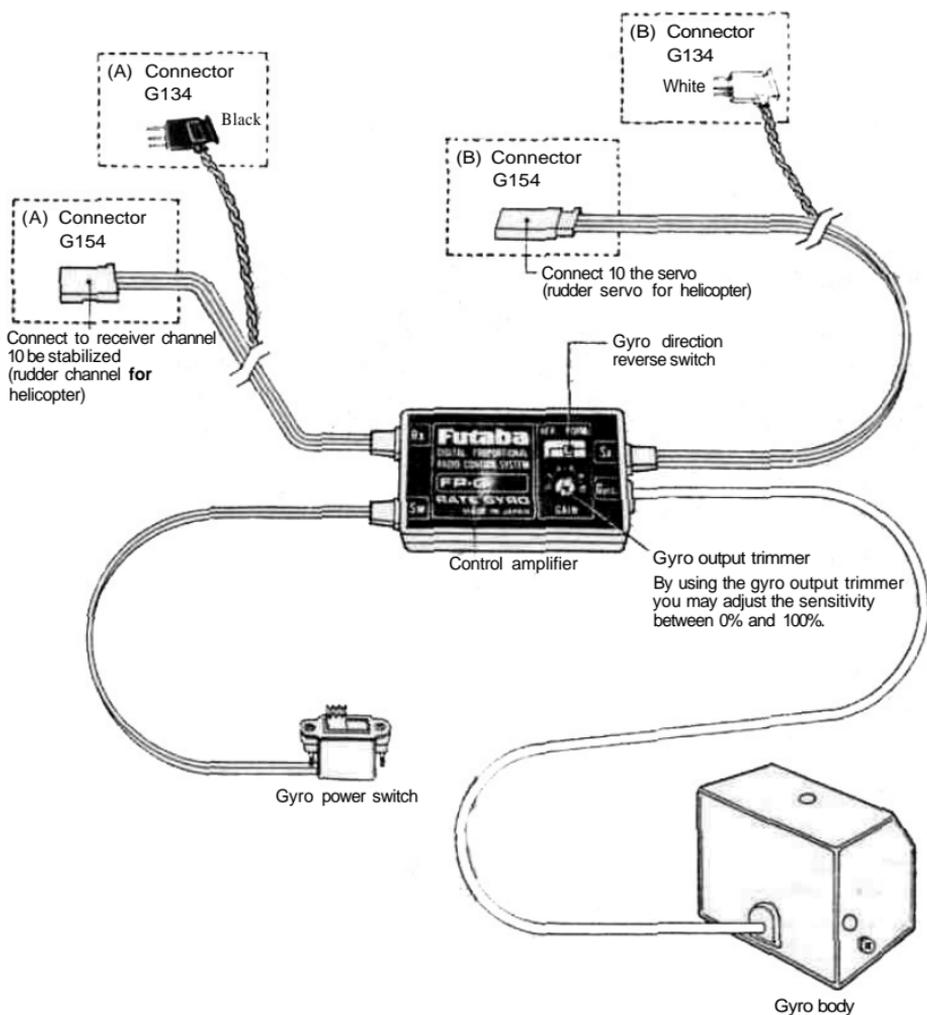
FEATURES OF FP G154/G134

- The FP G154 is for Futaba J, M, F and SG Series (1520 us neutral) digital proportional radio control sets.
- The FP.G134 is for Futaba E, F, G, H and L Series (1310 us neutral) digital proportional radio control sets.
- The gyro body and control amp are small, making mounting very easy.
- The gyro sensitivity can be easily adjusted with the gyro output trimmer at the control amp.
- Direction of correcting mix can be switched at the control amplifier (internal reverse amp switch).
- A very sensitive magnetic motion sensor with excellent voltage characteristics, linear sensitivity, high speed response is used. This results in superior neutral characteristics. Such characteristics make it ideal for use with the rudder channel of a model helicopter or in the aileron/elevator channel of a model aircraft.
- Large 2mm diameter gyro motor shaft for long life and strength.
- The gyro motor only can be turned on and off by gyro power switch.

RATINGS

Power supply voltage	4.8V shared with receiver
Current drain	Motor: 100mA, Amplifier: 20mA (at 4.8V)
Dimensions and weight	Gyro body: 1.57 x 1.65 x 1.60 in. (42 x 34 x 39mm)
	Control amplifier: 1.06 x 1.89 x .63 in. (27 x 48 x 16mm)
	Gross weight: 3.6 oz. (102g)

CONNECTIONS

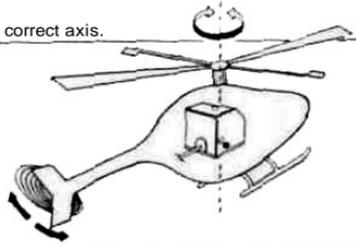


RATE GYRO INSTALLATION

NOTE: Be sure gyro is mounted as shown; for stabilization of the correct axis.

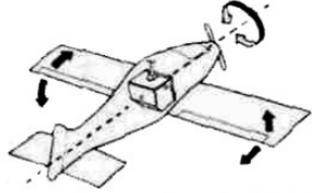
Helicopter • For rudder use

Connect connector (A) to the receiver rudder channel and connector [B] to the rudder servo.



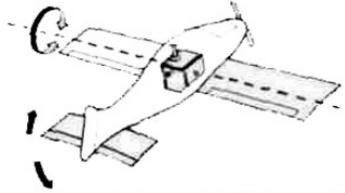
Aircraft - For aileron use

Connect connector (A) to the receiver aileron channel and connector (B) to the aileron servo.



Aircraft - For elevator (pitch shaft) use

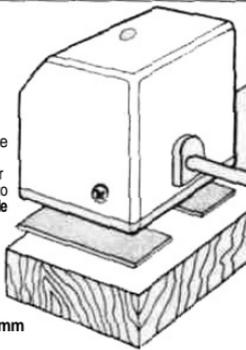
Connect connector (A) to the receiver elevator channel and connector (B) to the elevator servo.



-When the gyro is mounted 180° out of phase, the direction of the correcting mix will be reversed. To correct this situation, switch the internal reverse amp **switch** to "REV". After mounting the gyro to the fuselage, recheck its direction of operation,

INSTALLING THE GYRO BODY

- The best mounting position is at the center of gravity of the aircraft; however, it may also be installed a short distance away from the center of gravity.
- Install the gyro where there is **little** engine vibration.
- Attach the gyro **to the fuselage** with double-side adhesive tape.

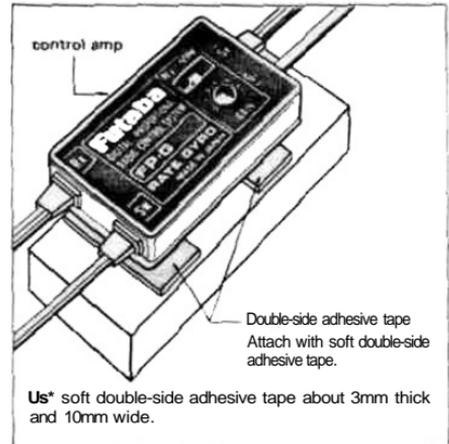


UK double sided adhesive tape
(Clean the mounting surface and stick the gyro to the with **soft double-side adhesive tape**.)

Use soft double-side adhesive tape about 3mm thick and 10mm wide.

CONTROL AMPLIFIER INSTALLATION

- Install the control amp where there is little engine vibration, etc.
- Attach the control amp with double-side adhesive **tape**.

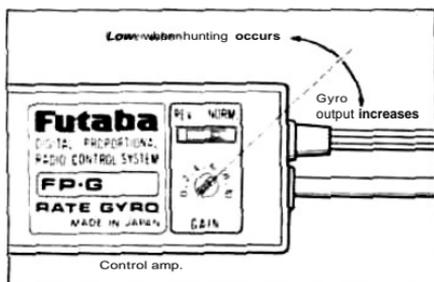


Double-side adhesive tape
Attach with soft double-side adhesive tape.

Us* soft double-side adhesive tape about 3mm thick and 10mm wide.

EXAMPLE OF GYRO ADJUSTMENT WHEN MOUNTED IN A MODEL HELICOPTER.

- **Set** the gyro output trimmer to **graduation 7** using a small flat blade screwdriver.
- Adjust the output trimmer so that tail (rudder) hunting does not occur when hovering with helicopter fuselage facing the wind and when turning and flying straight ahead.
- If hunting does occur then lower the sensitivity by reducing the gyro output trimmer. When you sense that gyro sensitivity is low then increase gyro output trimmer to desired sensitivity.



POWER SUPPLY

- The G154/G134 Rate Gyro uses the same power supply as the receiver and servos.
- When the receiver and gyro use a common power supply, rudder/servo power consumption and the power consumed by the gyro, increases the total power consumption. This decreases the number of permissible flights. The use of a high capacity (4.8/1,000mA) Nicad battery is recommended (The Futaba NR-4LB (4.8V/1,000mA) Nicad battery pack can be purchased separately.)

PRECAUTIONS

- Do not expose the rate gyro to shock and vibration
- Do not disassemble or modify the rate gyro
When the inside of the gyro must be inspected, remove the three screws on the side of the case and remove the cover. Do not loosen the screws on the bottom of the case.
- When the gyro output trimmer is set to **zero**, the gyro sensitivity becomes zero.
- When the gyro power switch is set to OFF, only the gyro motor is turned off. At this time, since the control amp operates and the connected servos may be operated by fuselage vibration. When flying, always set the gyro power switch to ON.
- When a gyro output switching function is required, such as in competition, etc., purchase the G153/G133 or G153BB/G133BB from your local Futaba dealer.

When requesting repair after long use, accident, or if any other trouble has occurred, describe the problem in as much detail as possible. This will

allow us to isolate the trouble point quickly and reduce the repair time.