Radiolink R7FG

Radiolink R7FG 7-Channel RC Gyro Receiver Instruction Manual

Model: R7FG

1. Introduction

The Radiolink R7FG is a 7-channel RC receiver designed for various remote-controlled vehicles, including crawlers, drifting cars, and boats. It features an integrated gyroscope for enhanced stability, real-time voltage telemetry, and a water-splash proof design (IPX4). This manual provides detailed instructions for setting up, operating, and maintaining your R7FG receiver.

Figure 1: Radiolink R7FG 7-Channel RC Gyro Receiver

2. Safety Information

This product is not a toy. It is not suitable for children under 14 years of age. Always operate RC equipment responsibly and follow all safety guidelines provided by your vehicle's manufacturer.

- Ensure all connections are secure before operation.
- Verify correct polarity when connecting power to avoid damage.
- Do not expose the receiver to extreme temperatures or direct sunlight for prolonged periods.
- While water-splash proof, avoid full submersion to prevent potential damage.

3. What's in the Box

Upon opening your package, you should find the following items:

- 1x R7FG Receiver
- 1x Voltage Telemetry Cable

4. Setup

4.1. Binding Process

The R7FG receiver features a convenient 'Push to Bind' function, eliminating the need for a bind plug or complex radio settings.

1. Power on your transmitter.
2. Connect power to the R7FG receiver.
3. Press and hold the bind button on the receiver for approximately 1 second. The LED indicator on the receiver will flash rapidly, indicating it is in binding mode.
4. Once the binding is successful, the LED on the receiver will turn solid green (Normal Mode) or solid red (Gyro Mode).

Figure 2: Location of the Bind Button on the R7FG Receiver

4.2. Connection Guide

Proper connection of the receiver to your Electronic Speed Control (ESC) and battery is crucial for correct operation and telemetry functionality.

Figure 3: Standard Vehicle Power Connection

Figure 4: Vehicle Power and Voltage Telemetry Connection

For voltage telemetry, connect the included voltage telemetry cable between your vehicle's battery and the telemetry port on the R7FG receiver, as shown in Figure 4.

4.3. Gyro Mode Indication

The R7FG receiver's LED indicates its current operating mode:

- **Solid Green LED:** Normal Mode (Gyro function is off).
- **Solid Red LED:** Gyro Mode (Gyro function is active).

Figure 5: Green LED for Normal Mode, Red LED for Gyro Mode

5. Operating the R7FG Receiver

5.1. Real-time Telemetry

When connected to a compatible Radiolink transmitter (e.g., RC8X, RC6GS V2/V3, RC4GS V2/V3), the R7FG receiver can transmit real-time data back to your transmitter screen. This includes:

- **Vehicle Battery Voltage:** Helps prevent over-discharge and damage to your battery.

- **RSSI Signal Strength:** Indicates the strength of the radio signal, allowing you to monitor connection quality.

Figure 6: Example of Telemetry Data Displayed on a Compatible Transmitter

5.2. Integrated Gyro Function

The built-in gyroscope helps maintain the vehicle's stability and keeps it in a straight line, which is particularly useful for drifting and on-road cars. The gyro sensitivity can be adjusted directly from your compatible transmitter.

Figure 7: Visual representation of vehicle stability with and without gyro assistance.

5.3. Water-Splash Proof (IPX4)

The R7FG receiver is rated IPX4, providing protection against water splashes from any direction. This makes it suitable for use in environments where light moisture may be present, such as near puddles or in

light rain. However, it is not designed for submersion.

Figure 8: R7FG receiver installed in an RC vehicle operating in a splash-prone environment.

6. Maintenance

To ensure the longevity and optimal performance of your R7FG receiver, follow these maintenance guidelines:

- Keep the receiver clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Regularly inspect all wiring and connectors for signs of wear or damage. Replace any damaged components immediately.
- Store the receiver in a dry, cool environment when not in use.
- Avoid exposing the receiver to strong vibrations or impacts.

7. Troubleshooting

If you encounter issues with your R7FG receiver, consider the following common troubleshooting steps:

- **No Power/LED Off:** Check battery connections and ensure the battery is charged. Verify correct

polarity.

- **No Signal/Control:** Re-perform the binding process. Ensure your transmitter is powered on and within range. Check for interference from other 2.4GHz devices.
- **Erratic Control:** Check all servo and ESC connections. Ensure the receiver is securely mounted and not experiencing excessive vibration. Adjust gyro sensitivity if the issue is related to vehicle stability.
- **Telemetry Not Displaying:** Verify the voltage telemetry cable is correctly connected to both the battery and the receiver's telemetry port. Ensure your transmitter supports telemetry display for the R7FG.

For more detailed troubleshooting or persistent issues, please refer to the online user instruction or contact Radiolink customer support.

8. Specifications

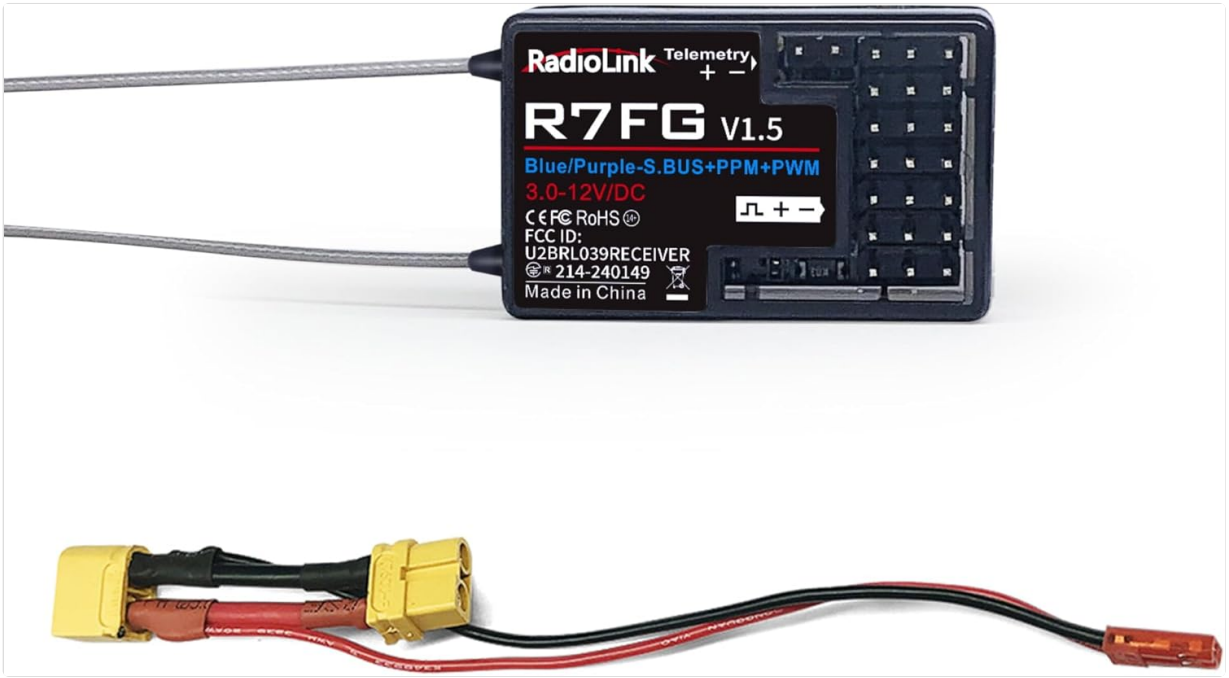


Figure 9: R7FG Receiver Dimensions and Key Specifications

Feature	Specification
Channel Quantity	7
Channel Resolution	4096
Control Range	Up to 600 meters (1968 ft)
Weight	6g (0.21 oz)
Power Supply	3-12V DC
Signal Output	PWM+PPM+SBUS
Frequency	2.4GHz ISM band (2400MHz~2483.5MHz)
Dimensions (L x W x H)	35 x 22 x 14 mm (1.38 x 0.87 x 0.55 inches)
Voltage Real-time Telemetry	Supported

Feature	Specification
Waterproof Rating	IPX4 (Water-splash proof)

9. Compatible Transmitters

The Radiolink R7FG receiver is compatible with a range of Radiolink transmitters, including:

- Radiolink RC8X
- Radiolink RC6GS V3 (and V2)
- Radiolink RC4GS V3 (and V2)
- Radiolink T8S
- Radiolink T8FB
- Radiolink T12D
- Radiolink T16D

Figure 10: Overview of compatible Radiolink transmitters.

10. Receiver Comparison

For comparison with other Radiolink receivers, refer to the table below:

Receivers Comparation

Model	R7FG	R6FG	R6F	R8F	R4FGM
Picture					
Channels	7	6	6	8	4
Voltage Telemetry	Built-in	No	No	Built-in	No
Gyroscope Support	√	√	×	×	√
Water Splash-proof	√	×	×	×	×
Control Range(Feet)	1900	1300	1300	2600	1300
Dimensions(inch)	1.37*0.86*0.5	1.37*0.79*0.5	1.37*0.79*0.5	1.34*0.83*0.45	0.98*0.51*0.4
Weight	0.21 oz	0.21 oz	0.21 oz	0.23 oz	0.1 oz
Suitable Vehicles	crawler, drifting, bash, buggy, truck, tank, diy/gas powered rc car,nitro car, boat		crawler, bash, buggy, truck, tank, diy/gas powered rc car,nitro car, boat		mini car(1/28), crawler, drifting, bash, buggy, truck, tank, diy/gas powered rc car, nitro car, boat

Figure 11: Comparison of R7FG with other Radiolink receiver models.

11. Warranty and Support

11.1. Warranty Information

Radiolink products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the warranty card included with your product or contact Radiolink customer service directly. Keep your proof of purchase for warranty claims.

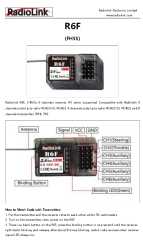
11.2. Customer Support

For technical assistance, troubleshooting, or any questions regarding your Radiolink R7FG receiver, please contact Radiolink customer support. You can find support information on the Radiolink Direct store or through their official website. Full user manuals and FAQ troubleshooting files are also available on product pages.

Contact Information:

- Refer to the Radiolink Direct store on Amazon: Radiolink Store
- Consult online user instructions and FAQ files.

Related Documents - R7FG

	RadioLink R7FG 7-Channel Receiver with Integrated Gyro Instruction Manual Comprehensive instruction manual for the RadioLink R7FG 2.4GHz 7-channel receiver, detailing features like two-way transmission, PWM/PPM/SBUS signal support, integrated gyro, telemetry functions, binding procedures, working modes, and installation guidelines.
	RadioLink R7FG 7-Channel Receiver with Gyro: Instruction Manual Comprehensive instruction manual for the RadioLink R7FG 7-channel dual antenna receiver, detailing setup, telemetry, gyro functions, working modes, specifications, and antenna installation.
	RadioLink R8FG V2.1 Instruction Manual: 8-Channel Gyro Receiver Comprehensive instruction manual for the RadioLink R8FG V2.1 8-channel receiver. Learn about setup, binding, telemetry, gyro functions, and specifications for this splash-proof, high-voltage servo compatible RC receiver.
	RadioLink R6F 2.4GHz 6-Channel HV Servo RC Receiver Overview of the RadioLink R6F, a 2.4GHz 6-channel HV servo-compatible RC receiver. Includes specifications, installation guidance, and transmitter matching instructions for RC cars and boats.

	[RadioLink R4FGM FHSS 4-Channel Receiver User Manual] User manual for the RadioLink R4FGM 2.4GHz FHSS 4-channel receiver with built-in drift car gyro. Covers setup, binding, modes, gyro functions, technical specifications, and installation.
	[RadioLink RC6GS V3 Instruction Manual] Comprehensive instruction manual for the RadioLink RC6GS V3 7-Channel Radio Control System, detailing transmitter and receiver setup, functions, and operations.