Radiolink RC8X

Radiolink RC8X 8-Channel 2.4G RC Transmitter Instruction Manual

Your comprehensive guide to setting up, operating, and maintaining your Radiolink RC8X transmitter.

1. Introduction

The Radiolink RC8X is an advanced 8-channel 2.4G RC transmitter designed for a wide range of remote-controlled vehicles, including crawlers, drifting cars, trucks, bashers, boats, and robots. Featuring a 4.3-inch IPS touchscreen, fast latency response, and extensive customization options, the RC8X offers precise control and an enhanced user experience. This manual provides detailed instructions to help you get the most out of your RC8X transmitter.

2. What's in the Box

Upon unboxing your Radiolink RC8X, you should find the following components:

- 1x RC8X Controller
- 1x R8FG Receiver
- 1x R4FGM Receiver
- 1x 2S 1700 mAh LiPo Battery
- 1x 32GB SD Card (Installed)
- 1x Type-C Data Cable
- 1x Lanyard
- 1x Spare Throttle Accessory
- 2x Screwdrivers
- 1x Quick Start Guide
- 1x Carrying Bag

Figure 2.1: Contents of the Radiolink RC8X package, including the transmitter, receivers, battery, SD card, cables, lanyard, tools, quick start guide, and carrying bag.

3. Product Features

The RC8X transmitter is equipped with several advanced features to enhance your RC experience:

- **One Screen, Dual Use:** The full-color, 4.3-inch touchscreen allows for easy menu navigation and customization. It can also function as an FPV display when connected to a 5.8G image transmission system.
- **1900 Feet Long Range Control:** Utilizes a pseudo-random FHSS algorithm for excellent anti-interference capabilities, providing an extended control range of up to 600 meters (1900 feet).
- **Fast 3ms Latency Response:** Offers selectable servo speeds (14ms, 4ms, and 3ms) for precise responsiveness. Use 14ms for analog servos and 4ms/3ms for digital servos.
- **200 Models Storage & 9 Groups of Mixes Control:** Supports versatile compatibility for various RC vehicles. Any two channels can be set for mix control, with customizable values. Mix control can be enabled/disabled with a button, beneficial for twin-engine vehicles like 4-wheel steering cars or tanks.
- **Personalized Experience:** Customize voice broadcasts, theme colors, backgrounds, and fonts to personalize your RC8X.

Figure 3.1: The RC8X screen displaying both parameter settings and a live FPV feed simultaneously, demonstrating its dual-use capability.

Figure 3.2: The RC8X interface showing selectable latency response options (14ms, 4ms, 3ms) for optimizing servo performance.

Figure 3.3: A collage of images demonstrating various user customization options on the RC8X, including theme settings, voice customization, and channel settings.

Figure 3.4: The RC8X screen showing options for customizing voice broadcasts, with examples of different languages and output modes (headphones or speaker).

Figure 3.5: The RC8X display showing real-time telemetry data, including receiver voltage (RX), external voltage (EXT), and RSSI (Received Signal Strength Indicator).

4. Setup

4.1 Transmitter Overview

Familiarize yourself with the various controls and ports on your RC8X transmitter:

Figure 4.1: An annotated diagram of the RC8X transmitter highlighting key components such as the 4.3" IPS Touch Screen, VR Knob Switch, Trim/3 Position Switch, Steering Wheel, Push Switches (PS1, PS2, PS5), Throttle Trigger, DSC Port, Type-C Port, Earphone Jack, SD Card Slot, and Lanyard Hook.

4.2 Battery Installation

The RC8X comes with a 2S 1700 mAh LiPo battery. Ensure it is properly charged before use. The battery compartment is

located at the base of the transmitter.

Figure 4.2: Illustration of the RC8X's power supply options, showing the included 2S 1700mAh LiPo battery, an AAA battery compartment (batteries sold separately), and the option to power via a power bank (sold separately).

4.3 Receiver Binding

To establish communication between your RC8X transmitter and receiver (R8FG or R4FGM V2.1), follow the binding procedure outlined in the Quick Start Guide. This typically involves powering on the receiver while holding a bind button, then initiating the binding process on the transmitter.

4.4 FPV Setup

The RC8X supports First-Person View (FPV) functionality by connecting an external 5.8G image transmission system. This allows the transmitter's screen to display live video from your RC vehicle.

1. Connect your FPV receiver to the RC8X using the appropriate cables (typically a 3.5mm audio jack for video input and a USB-C cable for power/data).
2. Navigate to the 'System menu' on your RC8X.
3. Select 'External input output'.

4. Set 'Multimedia Mode' to 'Video input'.
5. Ensure 'Pop-up window' is set to 'Open' if you want the FPV feed to appear automatically.
6. Power on your FPV camera on the vehicle.
7. On the FPV receiver, press the CH1 button to search for the camera's signal.
8. Once connected, the FPV feed will appear on your RC8X screen.

Video 4.1: A detailed guide from RadioLink Direct on how to set up FPV functionality with the RC8X transmitter, demonstrating the connection of an FPV camera and receiver, and configuring the transmitter settings for video input.

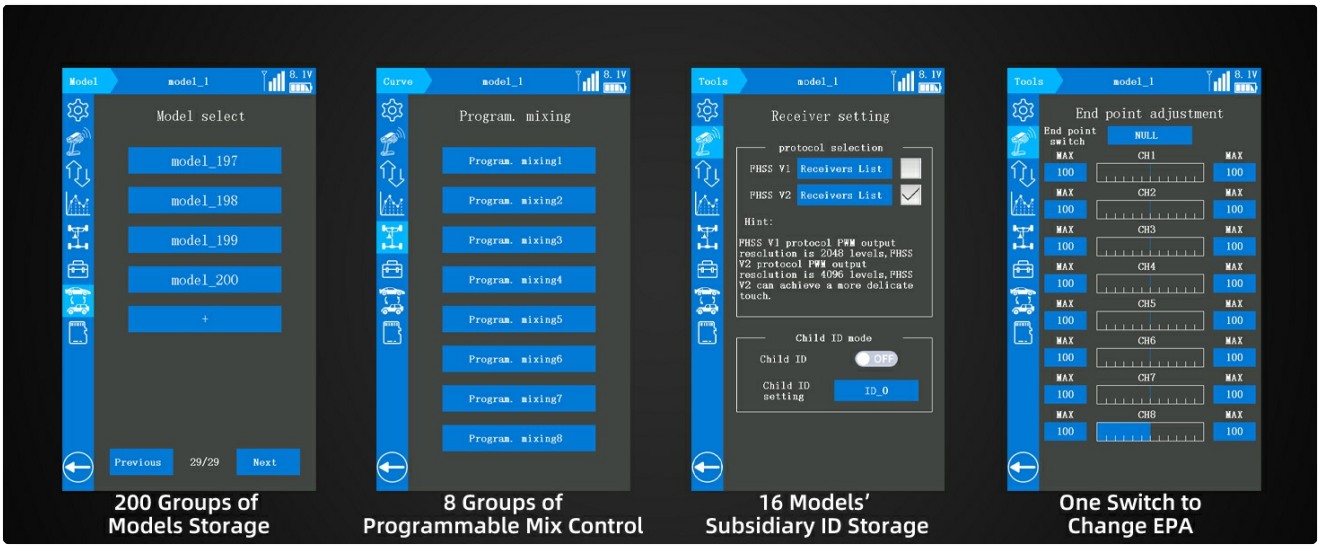

Figure 4.3: The RC8X transmitter with an FPV display mounted, illustrating its capability to show live video feed from the RC vehicle.

5. Operating the RC8X

5.1 Basic Operation

The RC8X operates like a standard pistol-grip transmitter. The steering wheel controls direction, and the throttle trigger controls speed. Familiarize yourself with the feel and response of these controls.

5.2 Screen Navigation and Settings

The 4.3-inch touchscreen provides intuitive access to all settings. Tap icons to navigate between the Home page, System menu, Telemetry menu, Mixing menu, and SD card files.

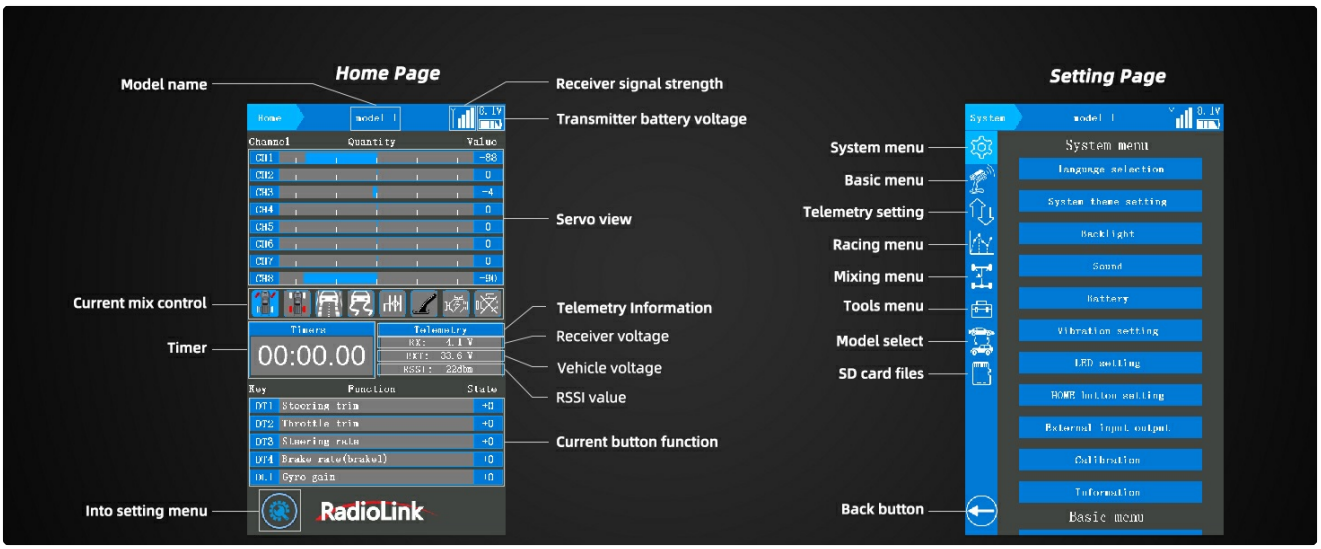

Figure 5.1: A split view showing the RC8X's Home Page with servo view, timers, and telemetry information, alongside the System

Menu for accessing various settings like language, theme, backlight, and calibration.

5.3 Model Management

The RC8X can store settings for up to 200 different models. Use the 'Model select' option in the System menu to switch between and manage your vehicle profiles.

5.4 Mixes Control

Configure up to 9 groups of mix control for advanced vehicle setups. This is particularly useful for complex vehicles requiring coordinated control of multiple functions.

5.5 Customization

Personalize your RC8X by adjusting theme colors, background images, fonts, and voice broadcast settings through the System menu.

5.6 Telemetry Monitoring

Monitor real-time data such as receiver voltage, external voltage, and RSSI directly on the transmitter screen to keep track of your vehicle's status.

5.7 Adjustable Latency

Select the appropriate servo speed (3ms, 4ms, or 14ms) based on your servo type (digital or analog) for optimal control responsiveness.

5.8 Left/Right Handed Operation

The steering wheel can be easily adjusted for both left-handed and right-handed users, providing ergonomic comfort.

Figure 5.2: An illustration showing the RC8X transmitter with its steering wheel configured for both right-handed and left-handed operation, highlighting the ease of adjustment.

Video 5.1: An overview video from RadioLink Direct showcasing the various features and capabilities of the Radiolink RC8X 8-channel RC transmitter, including its touchscreen interface, customization options, and compatibility with different RC vehicles.

Video 5.2: A video from RadioLink Direct demonstrating the FPV function of the RC8X, showing live video feed from an RC car on the transmitter's screen during operation.

6. Maintenance

Proper maintenance ensures the longevity and optimal performance of your RC8X transmitter:

- **Cleaning:** Regularly wipe the transmitter with a soft, dry cloth. Avoid using harsh chemicals or solvents.
- **Battery Care:** Always use the provided 2S 1700 mAh LiPo battery or approved replacements. Do not overcharge or over-discharge the battery. Store the battery in a cool, dry place when not in use.
- **Storage:** Store the transmitter in its carrying bag in a dry, dust-free environment away from direct sunlight and extreme temperatures.
- **Firmware Updates:** Periodically check the Radiolink website for firmware updates to ensure your transmitter has the latest features and bug fixes. Use the Type-C data cable for updates.

7. Troubleshooting

If you encounter issues with your RC8X transmitter, refer to the following common problems and solutions:

- **No Power:** Ensure the LiPo battery is fully charged and correctly installed. Check the power button for proper function.
- **No Signal/Binding Issues:** Re-perform the receiver binding procedure. Ensure the transmitter and receiver are within range and free from interference. Check receiver connections.
- **Erratic Servo Movement:** This could indicate interference, a faulty servo, or an issue with the receiver. Check all connections and try operating in a different location.
- **FPV Not Displaying:** Verify that the FPV camera and receiver are powered on and correctly connected to the RC8X. Confirm that 'Multimedia Mode' is set to 'Video input' in the 'External input output' settings.
- **Screen Unresponsive:** Try restarting the transmitter. If the issue persists, contact Radiolink support.

For more detailed troubleshooting, refer to the complete user manual and FAQs available on the Radiolink Direct store or Amazon's sales page.

8. Specifications

Feature	Specification
Product Dimensions	4.76 x 6.42 x 8.43 inches
Item Weight	15.4 ounces
Item Model Number	RC8X
Manufacturer Recommended Age	14 years and up
Batteries	1 Lithium Polymer battery required (included)
Screen	4.3" IPS Touch FPV Screen
Channels	8 Channels
Control Range	Up to 1900 feet (600 meters)
Latency Response	3ms, 4ms, 14ms selectable
Model Storage	200 Models
Mixes Control	9 Groups

9. Compatibility

The Radiolink RC8X is compatible with a variety of receivers and RC vehicle types:

9.1 Receivers

The RC8X is designed to work seamlessly with Radiolink R8FG and R4FGM V2.1 Gyro Receivers, among others. These receivers offer features like voltage telemetry and IPX4 water splash-proof protection.

Figure 9.1: Images showcasing the Radiolink R8FG and R4FGM V2.1 receivers, highlighting their compact size and IPX4 water splash-proof rating, suitable for various RC applications.

9.2 Vehicle Types

The RC8X is a versatile transmitter suitable for controlling:

- RC Tanks
- RC Crawlers
- Drift Cars
- Trucks
- Bashers
- Boats
- Robots

10. Warranty and Support

Radiolink products are designed for reliability and performance. For warranty information, please refer to the documentation included with your product or visit the official Radiolink website.
For quick support, you can find comprehensive user manuals, FAQs, and troubleshooting resources on the Radiolink Direct store on Amazon. Additionally, the Radiolink website provides further support and information.