

Radiolink R12DS

Radiolink R12DS 2.4GHz RC Receiver User Manual

Model: R12DS | Brand: Radiolink

INTRODUCTION

The Radiolink R12DS is a 2.4GHz 12-channel receiver designed for remote control aircraft, drones, and jets. It features DSSS&FHSS communication technology for stable signal transmission and offers both SBUS and PWM signal outputs. This receiver is compatible with Radiolink AT9, AT9S, AT9S Pro, AT10, and AT10II transmitters.

SAFETY INFORMATION

- Keep away from children under 14 years of age.
- Ensure all connections are secure before operation.
- Operate RC equipment responsibly and within safe environments.

SETUP INSTRUCTIONS

1. **Unpack the Receiver:** Carefully remove the R12DS receiver from its packaging.
2. **Check Compatibility:** Verify that your Radiolink transmitter (AT9, AT9S, AT9S Pro, AT10, or AT10II) is compatible with the R12DS receiver. The R12DS is exclusively designed for these Radiolink transmitters.

3. **Binding the Receiver:**

To bind the R12DS receiver with your transmitter, press and hold the bind button on the receiver for over 1 second. No additional settings are required on the transmitter during the binding process.

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Video: How to Bind The R12DS Receiver with Your Radio Correctly. This video demonstrates the binding process between the R12DS receiver and a Radiolink transmitter.

4. **Channel Selection (for AT9S/AT9S Pro):**

If using an AT9S or AT9S Pro transmitter, ensure the SYSTEM CH selection is set to '12CH' mode. Failure to do so will prevent the receiver from operating correctly with all 12 channels.

Dual Antennas Receiver Installation Guide

Keep Antennas Straight and 90°



Image: Compatible Radiolink Transmitters. This image illustrates the R12DS receiver's compatibility with AT9/AT9S/AT9S Pro and AT10/AT10II transmitters.



Image: AT9S Transmitter Channel Selection. A close-up view of the AT9S transmitter screen, highlighting the 'CH-SELECT: 12CH' setting.

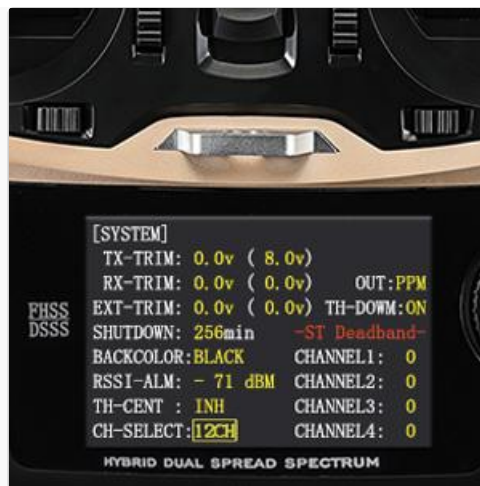


Image: AT10II Transmitter Channel Selection. A close-up view of the AT10II transmitter screen, highlighting the 'CH-SELECT: 12CH' setting.

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Video: How to make 10CH receiver works with 12CH AT10II. This video guides users on configuring the AT10II transmitter for 12-channel operation with the R12DS receiver.

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Video: How to make R12DS 12 channels receiver works with AT9S Pro. This video provides instructions for setting up the R12DS receiver for 12-channel operation with the AT9S Pro transmitter.

5. Antenna Installation:

For optimal signal reception and range, ensure the dual antennas are kept straight and positioned at a 90-degree angle relative to each other. Avoid bending or obstructing the antennas.

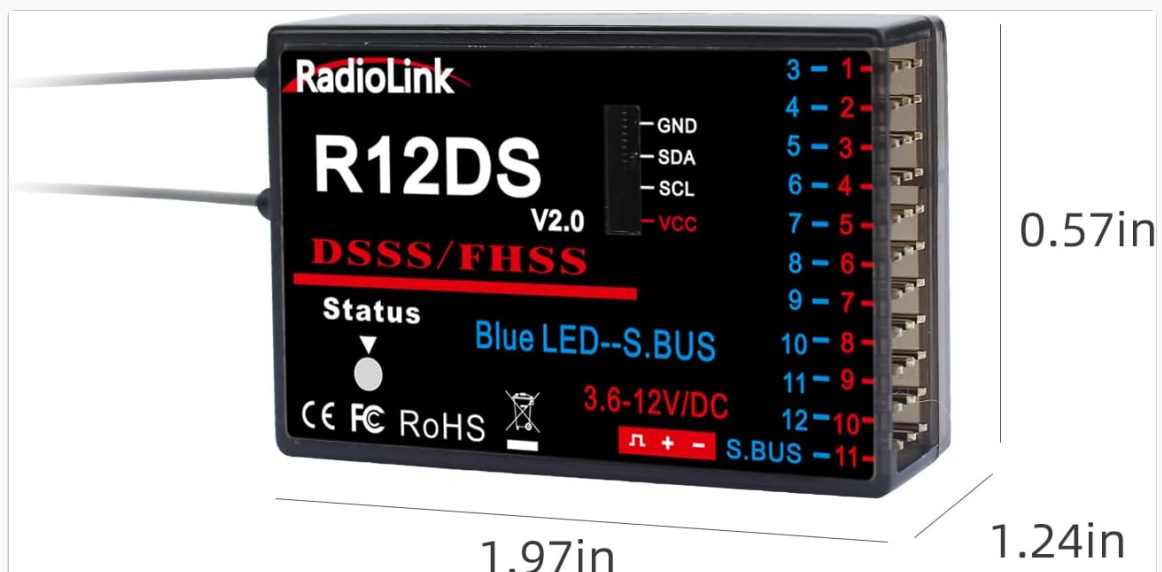


Image: Dual Antennas Receiver Installation Guide. This image shows the R12DS receiver installed in an RC airplane, demonstrating the correct 90-degree antenna placement.

6. Power Connection:

Connect the receiver to your RC vehicle (airplane, drone, or jet). Ensure the power source provides 3-10V DC. The R12DS features anti-polarity protection, preventing damage if the power is connected with incorrect polarity.

7. Initial Operation:

Power on both the transmitter and the receiver. The system should establish a connection, allowing you to control your RC vehicle.

Signal Output Modes

The R12DS receiver supports both standard PWM and SBUS signal outputs. It offers a high resolution ratio of 4096 for fast response across all 12 channels.

2 Signal Output Modes

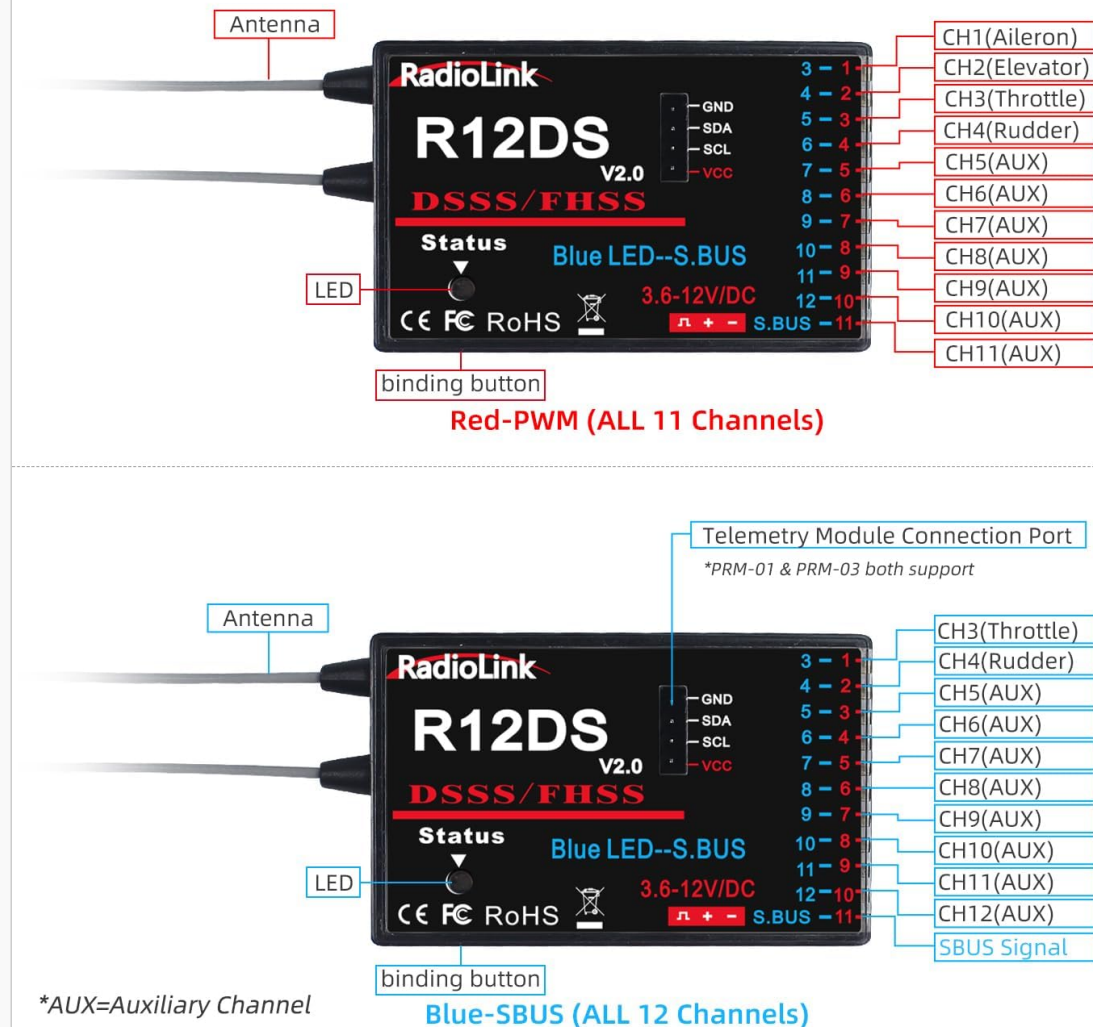
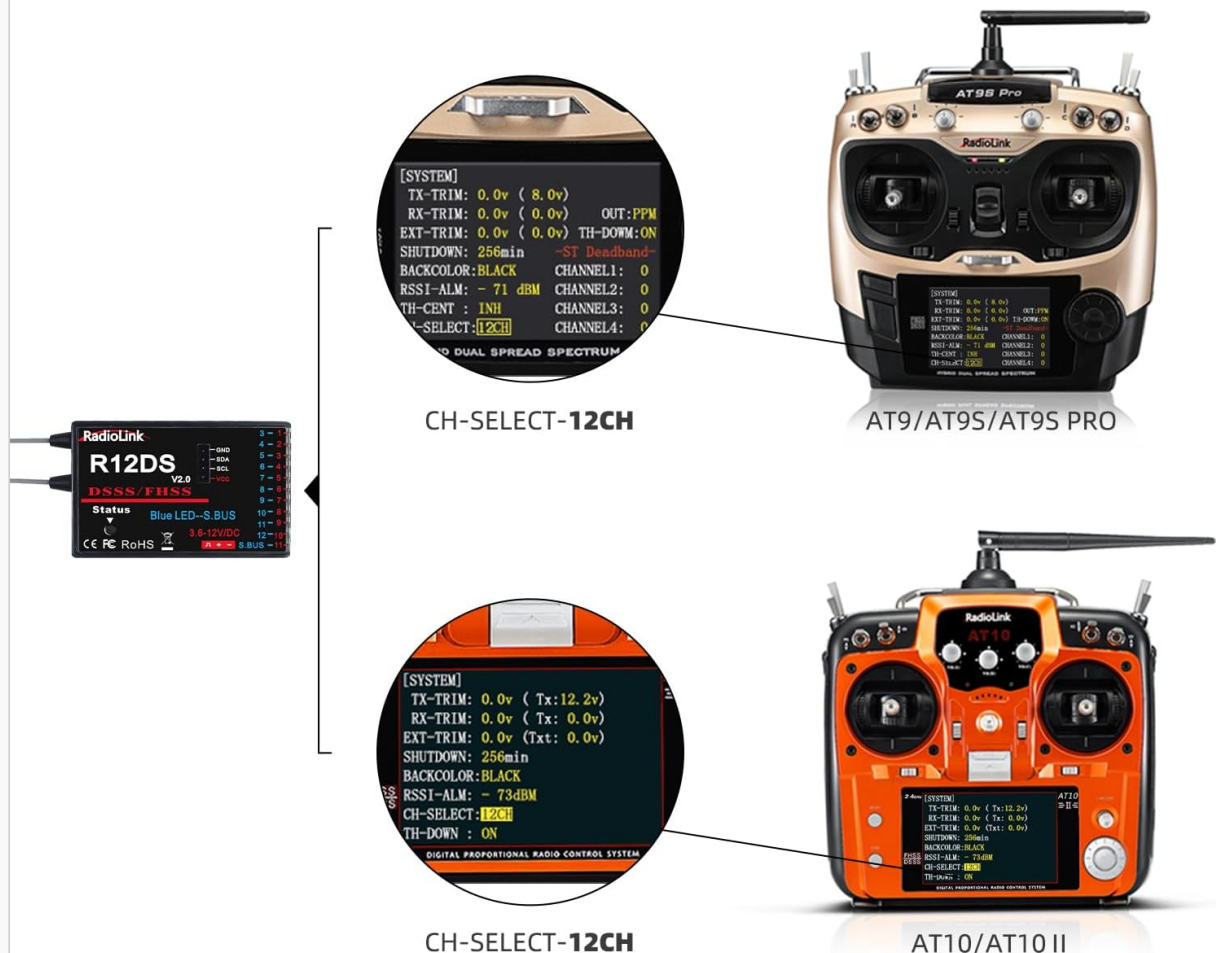


Image: 2 Signal Output Modes. This diagram illustrates the pin assignments for both Red-PWM (11 Channels) and Blue-SBUS (12 Channels) signal outputs on the R12DS receiver.

Telemetry Function

When used with a PRM-01 module (included component), the R12DS receiver can provide real-time telemetry information, such as the airplane's voltage, directly on your Radiolink AT9S, AT9S Pro, or AT10II transmitter screen.

Switch The Transmitter Channels Same As Receiver



Setting Steps: Go to SYSTEM menu, select CH-SELECT to 12CH. Otherwise, it cannot use all 12 channels.

Image: Voltage Telemetry Connection Guide. This diagram details how to connect the R12DS receiver with a PRM-01 module and ESC to an airplane battery for voltage telemetry.

MAINTENANCE

- Keep the receiver clean and free from dust, dirt, and moisture.
- Avoid exposing the receiver to extreme temperatures or direct sunlight for prolonged periods.
- Regularly inspect all wiring and connections for signs of wear or damage.
- Ensure antennas are not kinked or damaged, as this can affect signal range and reliability.

TROUBLESHOOTING

- **Receiver Not Binding:**
 - Ensure the bind button is pressed for over 1 second.
 - Confirm your transmitter is a compatible Radiolink model (AT9, AT9S, AT9S Pro, AT10, AT10II). The R12DS is not compatible with non-Radiolink transmitters.
 - Check the power supply to the receiver (3-10V DC).
- **Not All 12 Channels Working (AT9S/AT9S Pro):**
 - Verify that the SYSTEM CH selection on your AT9S/AT9S Pro transmitter is set to '12CH'

mode.

- **No Signal or Poor Range:**

- Check antenna placement; ensure they are straight and at a 90-degree angle.
- Inspect antennas for any damage or kinks.
- Ensure there are no major obstructions between the transmitter and receiver during operation.

- **No Telemetry Data:**

- Confirm the PRM-01 module is correctly connected to the receiver.
- Ensure your transmitter model supports telemetry display (AT9S, AT9S Pro, AT10II).

SPECIFICATIONS

Feature	Detail
Brand	Radiolink
Model Name	R12DS
Channels	12 Channels
Signal Output	SBUS/PWM
Communication Technology	DSSS&FHSS
Control Distance	Up to 2.4 miles (4 Kilometers) in the air (environment dependent)
Operating Voltage	3-10V DC
Resolution Ratio	4096
Anti-polarity Protection	Yes
Compatible Transmitters	Radiolink AT9, AT9S, AT9S Pro, AT10, AT10II
Included Components	PRM-01 Module
Item Weight	0.49 Ounces
Material	Metal
Color	Black
Dimensions (L x W x H)	1.97 x 0.59 x 1.26 inches (approximate, from image)

2.4GHz

M: Model-001
U: Radiolink

11.8v [NORMAL]

TL 02:08

T1 00:00.0
T2 00:00.0
MT 00:18

FHSS
DSSS

MULTIROTOR

RX: 5.0v
EXT: 10.3v

DIGITAL PROPORTIONAL RADIO CONTROL SYSTEM

RadioLink
R12DS
V2.0
DSSS/FHSS
Status Blue LED
CE FC RoHS

R12DS Receiver

PRM-01

15A 1V
ESC (Electric Speed Control)

Airplane Battery

Image: R12DS Dimensions. This image displays the physical dimensions of the R12DS receiver.

Receivers Comparison

Model	R12DS	R9DS	R6DS	R12DSM	R6DSM
Picture					
Channels	12	9 or 10	6 or 10	12	10
Signal Output	PWM/SBUS	PWM/SBUS	PWM/PPM/SBUS	PPM/SBUS	PPM/SBUS
Voltage Telemetry	✓	✓	×	×	×
Control Range	2.4 miles	2.4 miles	0.37 miles	2.4 miles	0.37 miles
Dimensions (inch)	1.97*0.59*1.26	1.69*0.94*0.59	0.98*0.59	1.18*0.59	0.59*0.51
Weight	0.49 oz	0.35 oz	0.12 oz	0.09 oz	0.04 oz
Compatible Transmitter	AT10II/AT10/AT9S Pro/AT9S/AT9				
Suitable Models	Airplane, Glider, Delta Wing, Multirotor, Helicopter, Car, Boat, Robot etc.			Drone, Multirotor, Aircraft, other models which equip with flight controller, like Airplane, Helicopter, Car, Boat	

Image: Receivers Comparison. A table comparing the specifications of various Radiolink receivers, including the R12DS.

WARRANTY INFORMATION

The Radiolink R12DS receiver comes with a manufacturer warranty for one year from the date of purchase. Please retain your proof of purchase for warranty claims.

SUPPORT

For further assistance, troubleshooting, or to explore other Radiolink products, please visit the official Radiolink Direct store or refer to the online user instructions and FAQs available on the product's sales page.

Radiolink Direct Store: [Visit Store](#)