

## Generic ABLFY\_DUD\_20501

# 5.8GHZ 48Channel RD40 Raceband Dual Diversity Receiver User Manual

Model: ABLFY\_DUD\_20501

## 1. INTRODUCTION

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This user manual provides detailed instructions for the operation and maintenance of the **5.8GHZ 48Channel RD40 Raceband Dual Diversity Receiver**. Please read this manual thoroughly before using the device to ensure proper function and safety.

## 2. PACKAGE CONTENTS

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Upon opening the package, please verify that all items listed below are present and in good condition:

- 1 x RD40 Receiver
- 1 x AV Cable
- 1 x Power Cable
- 2 x Antenna



**Figure 2.1:** The RD40 Receiver with its two antennas, AV cable, and power cable.

### 3. FEATURES

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The RD40 Diversity Receiver offers a range of advanced features for reliable performance:

- 40 channels across 5 frequency bands for versatile wireless receiving.
- Individual buttons for channel (CH) and band (FR) selection.
- Dual number display to clearly indicate the current receiving frequency and band.
- Memory function to recall the last used channel and frequency upon power-on.
- Two-way video and audio signal output (Video: PAL, NTSC, CECAM; Audio: 6.5MHz).
- Wide dynamic power supply compatibility (7-24V).
- Two high-sensitivity receivers, making signals more stable.
- Specific indicator lights to show the current working state.



**Figure 3.1:** The top panel of the RD40 receiver, highlighting the display and CH/FR control buttons.

## 4. SPECIFICATIONS

Parameter	Value
Item Name	RD40 Diversity Receiver
Frequency	ISM 5.8GHz 40CH
Connector Type	RP-SMA
Sensitivity	-90dBm
Power Supply Voltage	DC 7-24V
Current	280mA

Parameter	Value
RF Input Matching	50ohm
Video Output Level	1.0Vp_p 75Ω
Audio Output Level	1.0Vp_p 10KΩ
Dimension	80 x 65 x 15mm
Weight	100g

## Frequency Bands:

Band	Frequencies (MHz)
FR1 (or "A")	5865, 5845, 5825, 5805, 5785, 5765, 5745, 5725
FR2 (or "B")	5733, 5752, 5771, 5790, 5809, 5828, 5847, 5866
FR3 (or "E")	5705, 5685, 5665, 5645, 5885, 5905, 5925, 5945
FR4 (or "F")	5740, 5760, 5780, 5800, 5820, 5840, 5860, 5880
FR5 (or "R")	5658, 5695, 5732, 5769, 5806, 5843, 5880, 5917

## 5. SETUP

Follow these steps to set up your RD40 Diversity Receiver:

- Attach Antennas:** Carefully screw the two included antennas onto the RP-SMA connectors on the top of the receiver. Ensure they are finger-tight.
- Connect Power:** Connect the power cable to the "DC 7-24V" input port on the side of the receiver. Connect the other end to a compatible power source (e.g., a 7-24V DC battery or power adapter).
- Connect A/V Output:** Use the provided AV cable to connect the receiver's "AV OUT1" or "AV OUT2" port to your display device (e.g., FPV goggles, monitor, or DVR). Ensure the yellow connector goes to video input, and white/red to audio inputs if applicable.



**Figure 5.1:** The side panel of the RD40 receiver, showing the AV output ports and the DC power input.



**Figure 5.2:** A connection diagram illustrating how to connect the RD40 receiver to a monitoring display and a battery power source.

## 6. OPERATING INSTRUCTIONS

Once the receiver is powered on, the display will show the last used channel and frequency. Use the CH and FR buttons to adjust settings.

### 6.1. Channel Control (CH Button)

Press the **CH** button to cycle through the 8 available channels (1-8) within the currently selected frequency band. The channel number will be displayed on the CH-LED display. Both RX1 and RX2 receivers will switch channels simultaneously.

### 6.2. Frequency Band Control (FR Button)

Press the **FR** button to cycle through the 5 available frequency bands (1-5). The selected band number will be displayed on the FR-LED display. Both RX1 and RX2 receivers will switch frequency bands simultaneously.

Refer to the "Frequency Bands" table in the Specifications section for the exact frequencies corresponding to each band.

## 7. MAINTENANCE

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To ensure the longevity and optimal performance of your RD40 Diversity Receiver, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to wipe the exterior of the receiver. Do not use liquid cleaners or solvents, as they may damage the casing or internal components.
- **Storage:** Store the receiver in a cool, dry place away from direct sunlight and extreme temperatures. When not in use for extended periods, disconnect it from the power source.
- **Antenna Care:** Handle the antennas carefully. Avoid bending or stressing them excessively, as this can damage the connectors or internal wiring.
- **Connector Inspection:** Periodically inspect all cable connectors (power, AV, antenna) for signs of wear, corrosion, or damage. Ensure they are securely connected during use.

## 8. TROUBLESHOOTING

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This section addresses common issues you might encounter with the RD40 Diversity Receiver.

Problem	Possible Cause	Solution
No power/Receiver not turning on	<ul style="list-style-type: none"><li>◦ Incorrect power supply voltage.</li><li>◦ Loose power cable connection.</li><li>◦ Faulty power source.</li></ul>	<ul style="list-style-type: none"><li>◦ Ensure power supply is within 7-24V DC.</li><li>◦ Check power cable for secure connection.</li><li>◦ Test with a different power source.</li></ul>
No video signal on display	<ul style="list-style-type: none"><li>◦ Incorrect AV cable connection.</li><li>◦ Transmitter not powered on or on wrong frequency.</li><li>◦ Display device input not selected correctly.</li></ul>	<ul style="list-style-type: none"><li>◦ Verify AV cable is connected to correct input/output ports.</li><li>◦ Ensure your video transmitter is powered and set to the same frequency/channel/band as the receiver.</li><li>◦ Check your display device's input settings.</li></ul>
Poor video quality/Static	<ul style="list-style-type: none"><li>◦ Interference from other devices.</li><li>◦ Antennas not properly attached or damaged.</li><li>◦ Receiver and transmitter frequencies mismatched.</li><li>◦ Obstructions between transmitter and receiver.</li></ul>	<ul style="list-style-type: none"><li>◦ Move away from potential sources of interference (Wi-Fi routers, other 5.8GHz devices).</li><li>◦ Ensure antennas are securely attached and undamaged.</li><li>◦ Double-check that the receiver's channel and band match the transmitter's.</li><li>◦ Ensure clear line-of-sight between transmitter and receiver.</li></ul>

## 9. WARRANTY AND SUPPORT

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For warranty information or technical support, please contact the manufacturer or your point of purchase. Keep your purchase receipt as proof of purchase.

**Manufacturer:** Generic

**Model Number:** ABLFY\_DUD\_20501

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