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› XTUGA RW2090 Wireless In-Ear Monitor System User Manual

XTUGA RW2090

XTUGA RW2090 Wireless In-Ear Monitor System User Manual

Model: RW2090 | Brand: XTUGA

1. PRODUCT OVERVIEW

The XTUGA RW2090 is a professional wireless in-ear monitor system designed for stage performances, studio recording, and various sound-monitoring events. It features UHF signal transmission for high anti-interference capability and offers 2x100 selectable frequencies to ensure clear, uninterrupted audio.



Image 1.1: XTUGA RW2090 Wireless In-Ear Monitor System components.

Key Features:

- **Mono Dual Channel Monitoring:** Provides two independent audio channels for flexible monitoring.
- **UHF Wireless Transmission:** Operates in the 550.1MHz-599.95Mhz frequency range, offering stable signal transmission with high anti-interference capabilities.
- **2x100 Selectable Frequencies:** Allows users to choose from 200 frequencies to avoid interference.
- **Extended Operation Range:** Up to 230ft (70m) wireless coverage for freedom of movement.
- **IR Automatic Pairing:** Simplifies setup by automatically synchronizing transmitter and receiver frequencies.
- **Built-in Limiter:** Prevents audio distortion at excessive input levels.
- **Versatile Inputs:** Supports XLR/1/4" TS lines, USB flash drive connection, and Bluetooth connectivity.

2. PACKAGE CONTENTS

Verify that all items are present in your package:

RW2090 PRODUCT LIST



Earphon x 2



6.35 lines x 4



Host power
supply



Pocket x 2



Antenna x 2



Accessory x 2

Image 2.1: All components included in the XTUGA RW2090 package.

- 1 x Transmitter Unit
- 2 x Bodypack Receivers
- 2 x Antennas (for transmitter)
- 2 x Earphones
- 4 x 6.35mm Cable Lines
- 1 x Power Adapter
- 1 x User Manual (this document)
- Accessories (e.g., rackmount ears, clips)

3. COMPONENT IDENTIFICATION

3.1 Wireless Transmitter

WIRELESS TRANSMITTER

2x100	230FT	550.1-599.95Mhz	PAN button
Selectable frequencies	Wireless range	Frequency range	Function

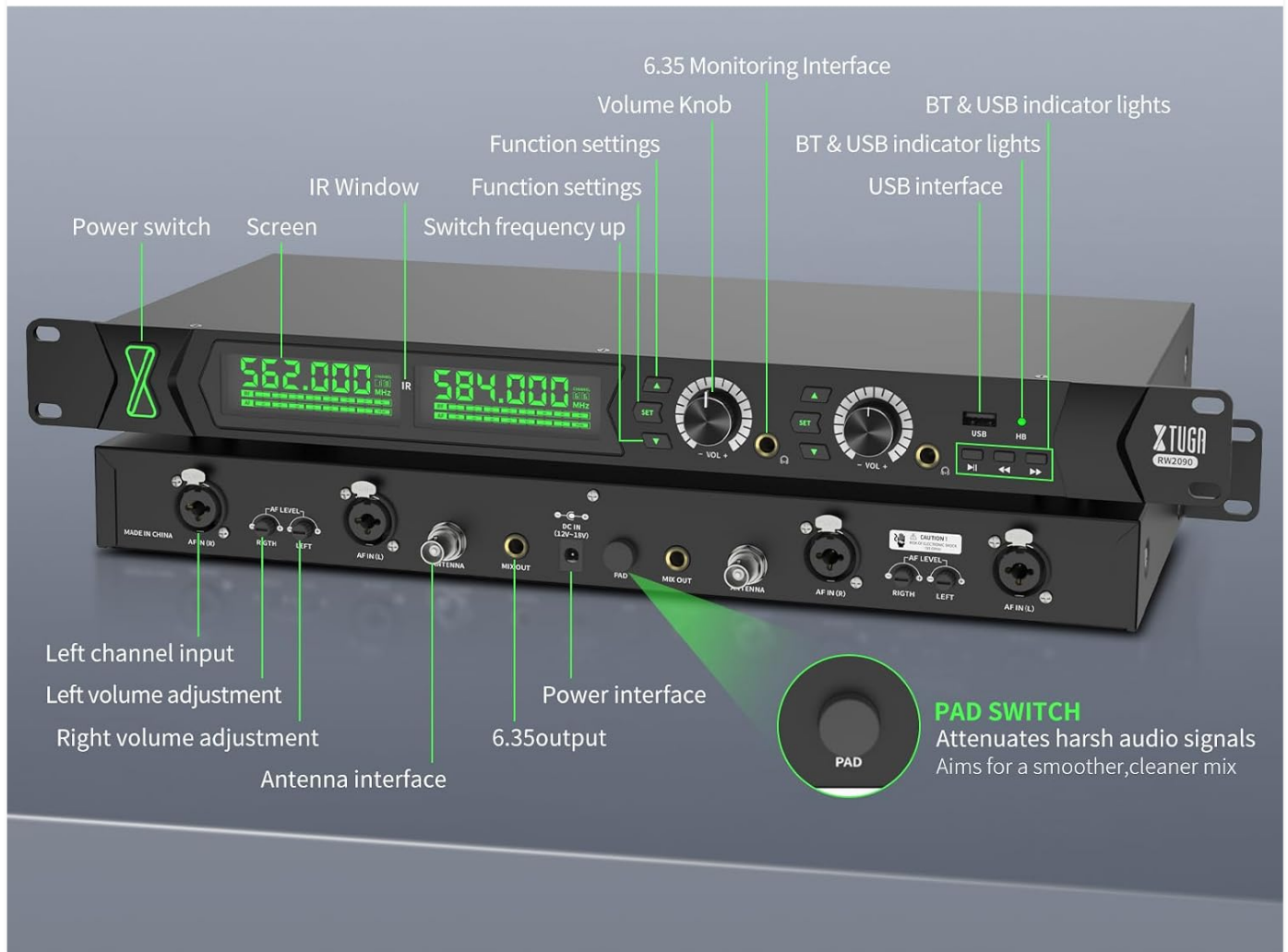


Image 3.1: Wireless Transmitter Front and Rear Panel.

- **AF Level Inputs (Left/Right):** XLR/6.35mm combo jacks for audio input.
- **AF Level Knobs:** Adjust input sensitivity for each channel.
- **Antenna Interfaces:** Connect the included antennas.
- **Power Interface:** Connect the power adapter.
- **6.35mm Output:** Line output for connecting to other audio equipment.
- **PAD Switch:** Attenuates input signal by -15dB to prevent distortion from hot signals.
- **IR Window:** For infrared synchronization with bodypack receivers.
- **Screen:** Displays frequency, channel, and other system information.
- **Power Switch:** Turns the unit on/off.
- **Function Settings:** Buttons for navigating menus and adjusting parameters.
- **Volume Knobs:** Adjust output volume for monitoring.
- **6.35mm Monitoring Interface:** Headphone output for local monitoring.
- **BT & USB Indicator Lights:** Indicate status of Bluetooth and USB connections.

- **USB Interface:** For USB flash drive playback.
- **PAN Button:** Adjusts stereo balance (if applicable, for mono system this might control channel routing).

3.2 Bodypack Receiver

RW2090 RECEIVER

- | | | | | |
|-------------------|--------------------|---|---|---|
| MONO | IR |  |  |  |
| Beginner-friendly | Infrared frequency | AA batteries | Volume control | Mute button |

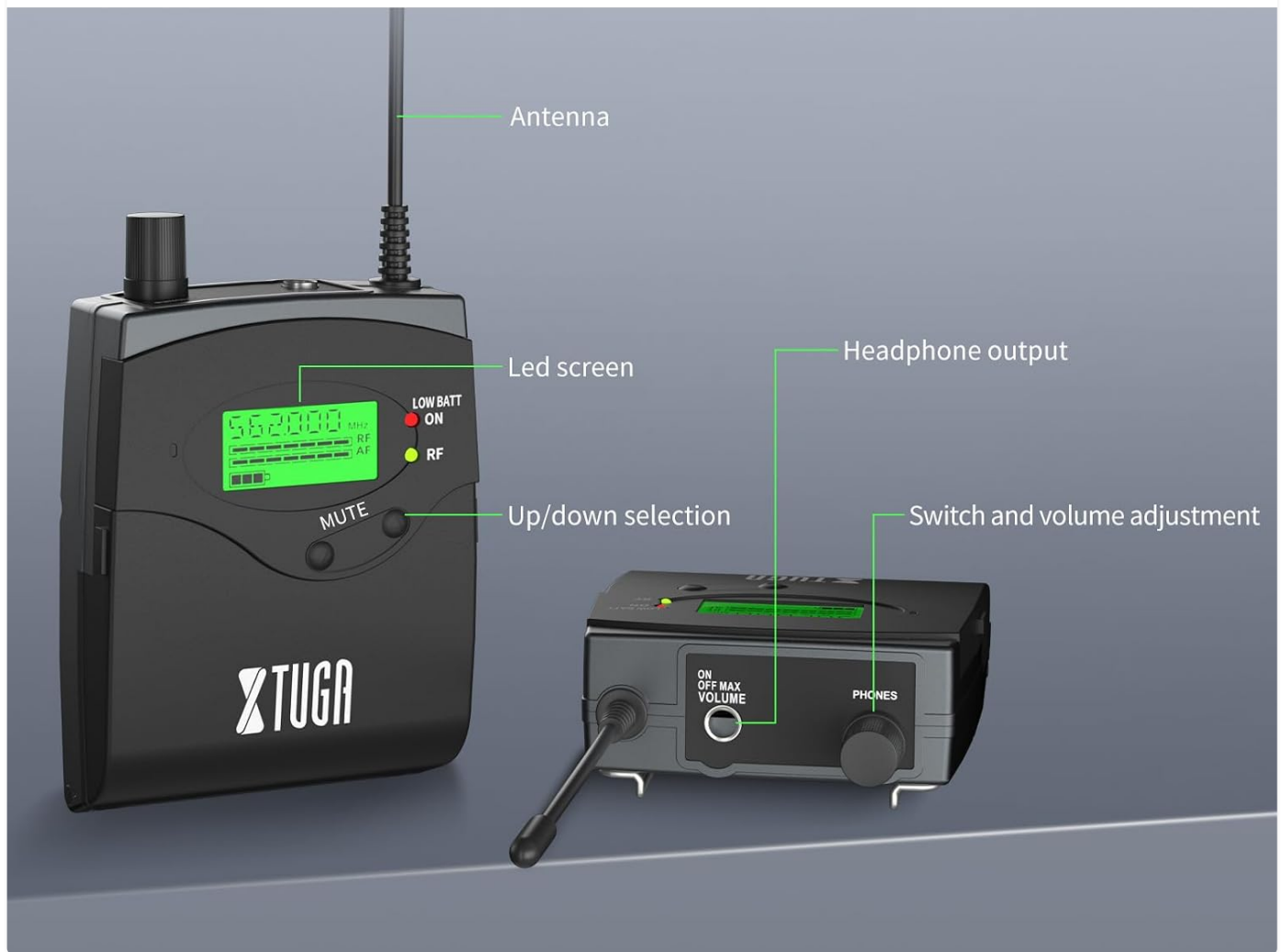


Image 3.2: Bodypack Receiver Controls and Ports.

- **Antenna:** Receives wireless signal from the transmitter.
- **LED Screen:** Displays frequency, channel, battery status, and RF/AF levels.
- **Low Battery Indicator:** Illuminates when battery power is low.
- **Headphone Output:** 3.5mm jack for connecting earphones.
- **Up/Down Selection:** Buttons for manual frequency adjustment.
- **Switch and Volume Adjustment:** Power on/off and volume control knob.
- **Mute Button:** Temporarily mutes the audio output.

4. SETUP INSTRUCTIONS

4.1 Transmitter Connection

1. Connect the two antennas to the antenna interfaces on the rear panel of the transmitter.
2. Connect the power adapter to the transmitter's power interface and plug it into an electrical outlet.
3. Connect your audio source (e.g., mixer, instrument) to the XLR/6.35mm combo input jacks (AF Level Inputs) on the rear panel. Use the included 6.35mm cables if needed.
4. Turn on the transmitter using the power switch. The screen will illuminate.

4.2 Receiver Preparation

1. Open the battery compartment on each bodypack receiver and insert two AA batteries, ensuring correct polarity.
2. Connect your earphones to the 3.5mm headphone output jack on the bodypack receiver.
3. Extend the antenna on the bodypack receiver for optimal signal reception.
4. Turn on the bodypack receiver by rotating the power/volume knob clockwise.

4.3 Frequency Synchronization (IR Pairing)

The RW2090 system uses infrared (IR) technology for quick and automatic frequency synchronization between the transmitter and receivers.



Image 4.1: IR Matching for frequency synchronization.

1. On the transmitter, select the desired frequency for Channel 1 using the function settings buttons.
2. Open the battery cover of the first bodypack receiver to expose its IR sensor.
3. Align the IR window on the transmitter with the IR sensor on the bodypack receiver, keeping them a few centimeters apart.
4. Press the 'SET' or 'IR SYNC' button on the transmitter (refer to Image 3.1 for exact button location). The transmitter will send the frequency information to the receiver.
5. The receiver's screen will display the synchronized frequency, confirming successful pairing.
6. Repeat steps 1-5 for the second bodypack receiver, selecting a different frequency for Channel 2 on the transmitter.

AUTO CHOOSE

Multi-channel free switching



Image 4.2: Frequency selection and IR synchronization.

If automatic pairing fails, you can manually adjust the frequency on the bodypack receiver using the 'Up/Down' selection buttons to match the transmitter's frequency.

5. OPERATING INSTRUCTIONS

5.1 Adjusting Audio Levels

1. **Transmitter Input:** Adjust the 'AF Level' knobs on the transmitter to match the input signal strength from your audio source. Aim for the signal level indicators on the screen to be in the green range, avoiding consistent red peaks.
2. **PAD Switch:** If your audio source sends a very strong signal and causes distortion even at low AF Level settings, engage the 'PAD' switch on the transmitter's rear panel. This attenuates the input by -15dB.



Image 5.1: The PAD switch for signal attenuation.

3. **Receiver Output:** Use the power/volume knob on the bodypack receiver to adjust the listening volume through your earphones.

5.2 Frequency Selection

While IR pairing is recommended, you can manually change frequencies:

- **On Transmitter:** Use the 'Function Settings' buttons to navigate to frequency selection and adjust the desired frequency.
- **On Receiver:** Use the 'Up/Down Selection' buttons to cycle through available frequencies until it matches the transmitter's frequency.

5.3 USB and Bluetooth Playback

The transmitter supports direct audio playback from a USB flash drive or via Bluetooth.



Image 5.2: USB playback functionality.

- **USB Playback:** Insert a USB flash drive containing audio files into the USB interface on the transmitter. Use the playback controls on the transmitter to play, pause, skip tracks, and adjust volume.
- **Bluetooth Connection:** Activate Bluetooth on your mobile device and search for the XTUGA RW2090. Pair with the device. The Bluetooth indicator light on the transmitter will confirm connection. Audio played on your mobile device will

now be transmitted through the IEM system.

5.4 Mute Function

Each bodypack receiver has a 'MUTE' button. Pressing this button will temporarily silence the audio output to your earphones without affecting the transmitter's signal or other receivers.

6. MAINTENANCE

6.1 Cleaning

- Wipe the transmitter and receivers with a soft, dry cloth.
- Do not use liquid cleaners, aerosols, or solvents, as these may damage the finish or internal components.

6.2 Battery Replacement

- When the 'Low Batt' indicator on the bodypack receiver illuminates, replace the AA batteries promptly.
- Always use fresh, high-quality AA batteries for optimal performance and battery life.
- Remove batteries if the receiver will not be used for an extended period to prevent leakage.

6.3 Storage

- Store the system in a cool, dry place away from direct sunlight and extreme temperatures.
- Keep antennas and cables neatly coiled to prevent damage.

7. TROUBLESHOOTING

If you encounter issues with your XTUGA RW2090 system, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No sound from receiver	Receiver off or low battery; Transmitter off; Incorrect frequency; Earphones not connected or faulty; Mute engaged.	Ensure receiver and transmitter are on; Check/replace receiver batteries; Verify frequencies match; Check earphone connection and functionality; Disengage mute.
Interference or dropouts	Conflicting frequencies; Obstructions; Out of range; Local RF interference.	Select a different frequency (use auto-scan if available); Ensure line of sight between transmitter and receiver; Move closer to transmitter; Identify and mitigate local interference sources.
Distorted audio	Input signal too high; Receiver volume too high; PAD switch not engaged when needed.	Reduce AF Level on transmitter; Engage PAD switch if input is hot; Lower receiver volume.
Short wireless range	Antennas not properly connected/extended; Obstructions; Environmental factors.	Ensure antennas are securely connected and fully extended; Minimize obstructions; Operate within specified range.

8. SPECIFICATIONS

Feature	Specification
Model Name	RW2090
Frequency Range	550.1MHz - 599.95MHz
Selectable Frequencies	2 x 100
Wireless Range	Up to 230ft (70m)
Frequency Response	15 KHz
Sensitivity	78 dB
Impedance	16 Ohm
Connectivity Technology	Wireless (UHF, Infrared, Bluetooth)
Headphones Jack	3.5 mm Jack
Material	Metal, Plastic
Item Weight	2.95 Kilograms (6.49 pounds)
Package Dimensions	21.5 x 15 x 3.3 inches
Power Source	Power Adapter (Transmitter), AA Batteries (Receivers)

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official XTUGA website or contact their customer service directly. Warranty terms may vary by region and retailer.

You can visit the XTUGA store for more information:[XTUGA Official Store](#)

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question