BovBox WL-900S

BovBox Wireless HDMI Transmitter and Receiver User Manual

Model: WL-900S

1. Product Overview

The BovBox Wireless HDMI Transmitter and Receiver system provides a seamless, high-definition wireless video transmission solution. Designed for versatility, it supports 1080P@60Hz output and 4K@30Hz decoding, ensuring clear and vibrant visuals. With advanced 5G chip technology and LDS antennas, it offers stable and long-range transmission with ultra-low latency, making it ideal for various professional and home entertainment applications.



Figure 1: BovBox Wireless HDMI Transmitter and Receiver units.

Key Features:

- **Plug & Play Operation:** No apps, Bluetooth, Wi-Fi, or drivers required. Units are pre-paired for immediate use.
- **High-Definition Output:** Supports 4K@30Hz decoding and 1080P@60Hz ultra-high-definition output.
- **Extended Range & Low Latency:** Utilizes dual-band (2.4G & 5G) technology and LDS antennas for stable transmission up to 820 feet (250 meters) with less than 0.06 seconds latency.
- **Multiple Power Options:** Can be powered via 5V2A adapter, NP-F series batteries (not included), or USB-C power banks.
- **HDMI Loop-Out:** Transmitter features an additional HDMI output for local monitoring.
- **IR Remote Control:** Allows control of the source device from the receiver end.
- **Wide Compatibility:** Compatible with most HDMI output devices including laptops, PCs, cameras, DSLRs, projectors, TVs, and set-top boxes.

2. Package Contents

Please verify that all items are present and in good condition upon opening the package:

- 1 x BovBox Wireless HDMI Transmitter (TX)
- 1 x BovBox Wireless HDMI Receiver (RX)
- 2 x 5V2A Power Adapters
- 2 x USB-A to USB-C Charging Cables
- 4 x Antennas (2 for TX, 2 for RX)
- 1 x IR Emission Cable (for Transmitter)
- 1 x IR Receiving Cable (for Receiver)
- 1 x Portable Storage Bag
- 1 x User Manual
- 1 x Quick Matching Guide



Figure 2: Contents of the BovBox Wireless HDMI system package.

3. Component Identification

Familiarize yourself with the ports and indicators on both the Transmitter (TX) and Receiver (RX) units.

Transmitter (TX) Unit:

- **HDMI IN Port:** Connects to your video source (e.g., camera, laptop).
- **HDMI Loop-Out Port:** Provides an additional HDMI output for local monitoring.
- **USB-C Power Port:** For connecting the 5V2A power adapter or USB-C power bank.
- **AMS Port:** For audio input.
- **IR Port:** For connecting the IR emission cable to control the source device.
- **Antenna Connectors:** For attaching the external antennas.
- **Power Indicator Lights:** Show battery level and power status.
- **Battery Mount:** For attaching NP-F series batteries.

Receiver (RX) Unit:

- **HDMI OUT Port:** Connects to your display device (e.g., TV, projector).
- **USB-C Power Port:** For connecting the 5V2A power adapter or USB-C power bank.
- **AMS Port:** For audio output (e.g., headphones).
- **IR Port:** For connecting the IR receiving cable to receive remote signals.
- **Antenna Connectors:** For attaching the external antennas.
- **Power Indicator Lights:** Show battery level and power status.
- **Battery Mount:** For attaching NP-F series batteries.



Figure 3: Key features and ports of the BovBox Wireless HDMI system.

4. Setup Guide

Follow these steps to set up your BovBox Wireless HDMI system:

4.1. Attaching Antennas and Powering the Units

1. Screw the four antennas onto the designated connectors on both the Transmitter (TX) and Receiver (RX) units. Ensure they are securely fastened.
2. Connect one end of the USB-C charging cable to the USB-C Power Port on the TX unit and the other end to a 5V2A power adapter. Plug the adapter into a power outlet.
3. Repeat step 2 for the RX unit. The green power indicator light on both units will illuminate, indicating they are powered on.
4. Alternatively, you can power the units using NP-F series batteries (F970, F750, F550) by snapping them into the battery mounts, or via a USB-C 5V2A power bank.



Figure 4: Powering the BovBox Wireless HDMI units using various options.

4.2. Connecting to Source and Display

1. Connect an HDMI cable from the HDMI OUT port of your video source (e.g., camera, laptop, set-top box) to the HDMI IN port on the Transmitter (TX) unit.
2. Connect another HDMI cable from the HDMI OUT port on the Receiver (RX) unit to an HDMI IN port on your display device (e.g., TV, monitor, projector).



Figure 5: Connecting the Transmitter to a source and the Receiver to a display.

4.3. Pairing Process

The BovBox Wireless HDMI Transmitter and Receiver units are typically pre-paired from the factory for immediate plug-and-play operation. Once both units are powered on and connected to their respective devices, they should automatically establish a connection.
If manual pairing is required or if the connection is not established automatically, please refer to the "Wireless HDMI transmitter and receiver pairing steps" video below for detailed instructions.

Your browser does not support the video tag.

Video 1: Instructions on how to pair the BovBox Wireless HDMI Transmitter and Receiver units. This video demonstrates the power-on sequence and connection steps, showing the successful pairing indicated by IP address and Wi-Fi signal on the display.

4.4. Loop-Out Connection (Optional)

The Transmitter (TX) unit includes an HDMI Loop-Out port, allowing you to connect a local monitor to view the source content directly without wireless transmission. This is useful for monitoring your input signal.

1. Connect an HDMI cable from the HDMI Loop-Out port on the TX unit to an HDMI IN port on your local display.

4.5. IR Remote Control Setup (Optional)

The system supports IR remote control, allowing you to control your source device (e.g., set-top box, DVD player) from the location of your receiver.

1. Connect the IR Emission Cable to the IR port on the Transmitter (TX) unit. Position the IR emitter head near the IR receiver window of your source device.
2. Connect the IR Receiving Cable to the IR port on the Receiver (RX) unit. Position the IR receiver head in a location where it can receive signals from your remote control.
3. Point your original remote control at the IR receiving cable's head on the RX unit to send commands to your source device connected to the TX unit.

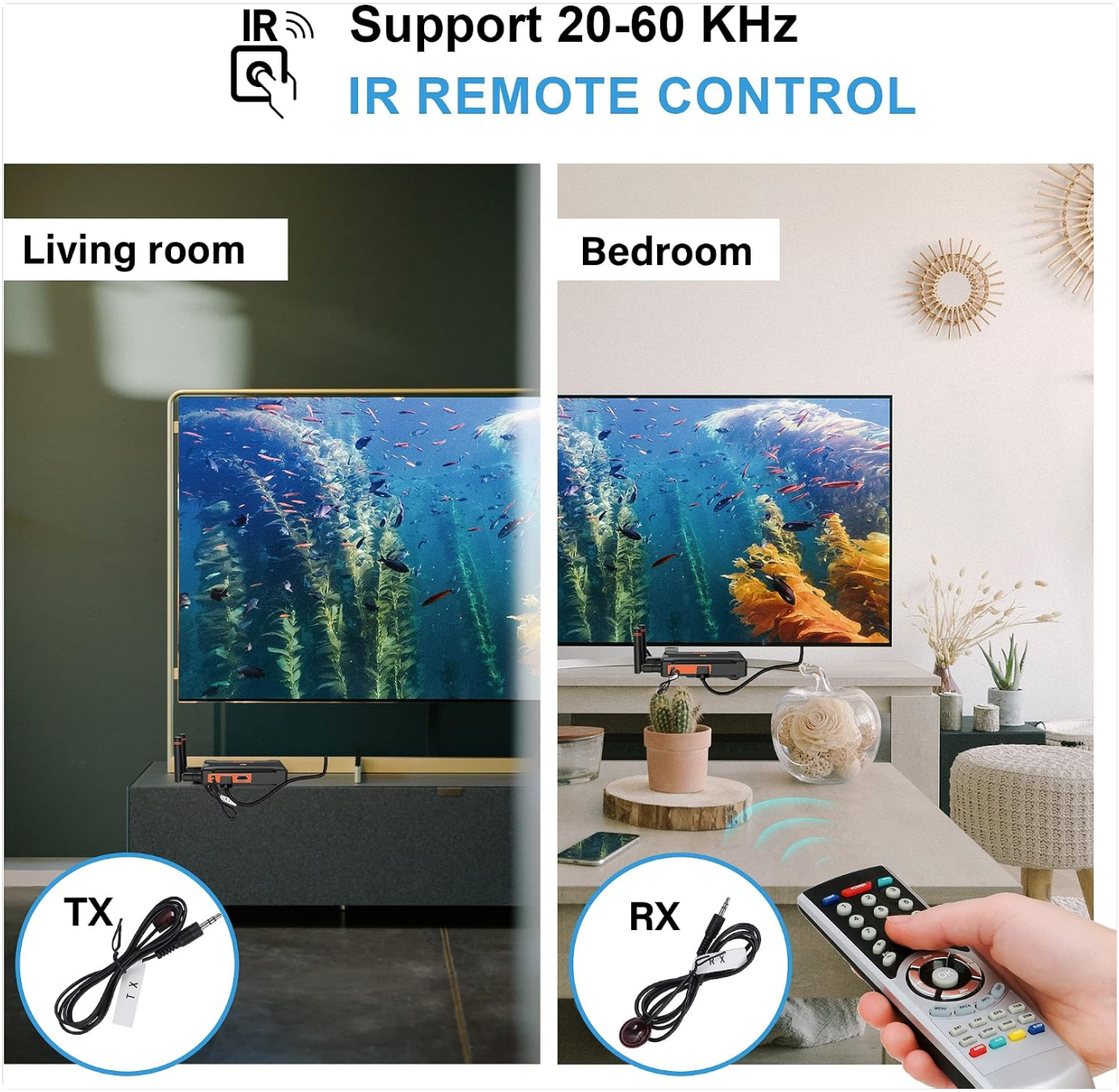


Figure 6: Setting up IR remote control for seamless operation across rooms.

5. Operating Instructions

5.1. Basic Operation

Once both the Transmitter and Receiver units are powered on and connected as described in the Setup Guide, the video

and audio from your source device will be wirelessly transmitted to your display. Ensure your display is set to the correct HDMI input.

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Video 2: Overview of the BovBox Wireless HDMI Transmitter and Receiver 1080P Transmission system, demonstrating its plug-and-play functionality and high-quality video transmission.

5.2. Multi-Receiver Setup (1 TX to up to 4 RXs)

The BovBox system supports connecting one Transmitter (TX) to multiple Receivers (RX), allowing you to display the same content on several screens simultaneously. Note that the transmission distance may decrease with an increased number of receivers.

- 1 TX to 1 RX: Up to 820 feet (250 meters)
- 1 TX to 2 RXs: Up to 755 feet (230 meters)
- 1 TX to 3 RXs: Up to 689 feet (210 meters)
- 1 TX to 4 RXs: Up to 623 feet (190 meters)

To set up multiple receivers, simply connect each additional RX unit to its respective display and power it on. The pre-paired units will automatically connect.



Figure 7: Illustrates the capability of connecting one transmitter to multiple receivers and the corresponding transmission distances.

5.3. Audio Input/Output

The AMS interface on both the TX and RX units allows for external audio connections.

- **Audio Input (TX):** Connect an external microphone or audio source to the AMS port on the Transmitter to transmit audio along with the video.
- **Audio Output (RX):** Plug headphones or a soundbar (with a built-in 3.5mm interface) into the AMS port on the Receiver to monitor or output the received audio.

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Video 3: Demonstrates the audio input and output capabilities of the BovBox Wireless HDMI system, including connecting an external microphone to the transmitter and headphones/soundbar to the receiver.

6. Maintenance

- Keep the units clean and free from dust. Use a soft, dry cloth for cleaning.

- Avoid exposing the units to extreme temperatures, humidity, or direct sunlight.
- Do not attempt to disassemble or repair the units yourself. Refer to qualified service personnel.
- When not in use for extended periods, disconnect the power adapters and store the units in the provided portable storage bag.

7. Troubleshooting

Problem	Possible Cause	Solution
No signal on display	Units not powered on. Incorrect HDMI connections. Units not paired. Source device not outputting signal. Display on wrong input.	Ensure both TX and RX units are powered on (green light illuminated). Check all HDMI cables are securely connected to the correct ports (HDMI IN on TX, HDMI OUT on RX). Refer to Section 4.3 for pairing instructions if units are not automatically connected. Verify your source device is turned on and outputting a video signal. Switch your display to the correct HDMI input channel.
Intermittent signal or poor quality	Obstructions between TX and RX. Excessive distance. Interference from other wireless devices. Low battery on units.	Minimize physical obstructions (walls, furniture) between TX and RX. Reduce the distance between the transmitter and receiver. Move units away from other 2.4G/5G wireless devices (e.g., Wi-Fi routers, cordless phones). Ensure units are fully charged or connected to a stable power source.
IR remote control not working	IR cables incorrectly connected. IR emitter/receiver not positioned correctly. Remote control battery low.	Ensure IR Emission Cable is connected to TX and IR Receiving Cable to RX. Adjust the position of the IR emitter head to directly face the source device's IR receiver. Ensure the IR receiving head is unobstructed and facing your remote. Replace batteries in your remote control.

8. Specifications

Feature	Specification
Model Number	WL-900S
Product Dimensions	4.74 x 2.75 x 1.18 inches
Item Weight	2.2 pounds
Connectivity Technology	Wireless (2.4G & 5G Dual Band)
Transmission Distance	Up to 820 feet (250 meters) line-of-sight (1 TX to 1 RX)

Feature	Specification
Latency	<0.06 seconds
Video Output Resolution	1080P@60Hz (supports 4K@30Hz decoding)
HDMI Ports	3 (HDMI IN, HDMI Loop-Out on TX; HDMI OUT on RX)
Audio Output Mode	Stereo
Power Supply	5V2A Adapter, NP-F series batteries, USB-C Power Bank
IR Control Frequency	20-60 KHz
Compatible Devices	Projector, Television, Tablet, Camera, Set-top box, Laptop, PC, DSLR, DVD
Manufacturer	BovBox
Country of Origin	China
Date First Available	November 25, 2022

9. Warranty and Support

For warranty information and technical support, please refer to the documentation included in your product package or contact BovBox customer service directly. Details can typically be found on the manufacturer's official website or through your point of purchase.

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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.

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