Summitwave RX

User Manual

Portable Auracast™ Receiver



UM-RX-EN · Rev. A · 2026-10

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1 Overview

The RX receives Auracast broadcasts in mono or stereo and plays them through headphones or an inductive hearing loop. You select the stream you want from a list.

1.1 Safe operation

- Only use charging and audio accessories approved by Summitwave.
- The RX is rated IP44 but is not waterproof. Do not immerse it in liquid or expose it to water jets.
- Operate the RX only between −10 °C and +40 °C.
- **To prevent possible hearing damage, do not listen at high volume levels for long periods.** Start every use at a low volume.
- Immediately take devices out of service if they show visible damage, unusual heating or a deformed battery.

2 Technical data

The values correspond to datasheet DS-RX-EN, Rev. A (2026-07). Range and latency are typical values: they depend on the transmitter, the stream configuration and the RF environment. Check the area of use before every event.

BLE / AURACAST	
Radio standard	Bluetooth LE Audio (Core 5.3)
Device mode	Auracast receiver (RX)
Supported broadcasts	Mono · Stereo
Frequency range	2400–2483.5 MHz
Codec	LC3
Typical system latency	40 ms end-to-end · transmitter dependent
Typical range	up to 100 m · transmitter dependent
Channel selection	Buttons + / − and O

AUDIO / OPERATION	
Audio output	3.5 mm jack · TRS (stereo)
Use	common headphones and hearing loops
Frequency response	10 Hz–22 kHz · broadcast and mode dependent
Sample rate / bit depth	16 / 24 / 48 kHz · 16 bit
Output impedance	16–32 Ω
Display	1.3″ OLED
Buttons	O: power on/off, select · + / −: volume, channel list
Accessibility	Easy-to-read display · straightforward operation

BATTERY / MECHANICAL	
Battery	Li-Po · typ. 3.6 V · 2000 mAh
Runtime / charging time	20 h / 4 h
Charging	Charging station
Dimensions	90 × 60 × 20 mm (W × H × D)
Weight / colour	approx. 100 g · white or black
Operating temperature	−10 °C to +40 °C
Storage temperature	−40 °C to +70 °C
Ingress protection	IP44
Compliance	CE (RED) · EN 62368-1 · RoHS · REACH · WEEE

3 Controls and display

3.1 Buttons

Button	Channel list	Playback
+ / −	Move up / down the list	Volume up / down
Press **O**	Connect to the selected stream. If the list is empty: search again.	Back to the channel list (new search). With the key lock on: mute / unmute.
Hold **O** for 1.5 s	Switch off	Switch off
Hold + and − for 1.5 s	–	*Key lock* on / off
Hold + and − for 5 s	–	Open *QC mode*

Switch the RX on with **O**.

3.2 Display

DISPLAY	
Channel list	All streams that are currently on air. The bottom line reads “Press O to connect”.
“Connecting”	The RX is connecting to the selected stream.
Playback	Stream name, signal bars, volume in percent and battery level. The bottom line says what **O** does right now: “Press O to scan”, “Press O to mute” or “Press O to unmute”.
Padlock icon	Key lock is on.
Magnifier icon	The stream has dropped; the RX is searching for it again (see *Stream lost*).
Charging display	The RX is in the charging station and charging.
“BATTERY EMPTY”	The battery is empty; the RX switches off before the battery is damaged.
“UPDATING”	Firmware update through the charging station. Do not remove the RX.

3.3 Key lock

The key lock stops anyone leaving the stream by accident – guests in lending operation, for example.

- **Switch on:** During playback, hold + and − together for 1.5 s. The padlock icon appears.
- **Effect: O** only mutes or unmutes the sound; returning to the channel list is blocked. The volume can still be adjusted.
- **Switch off:** Hold + and − for 1.5 s again.

The key lock is kept while the RX charges in the charging station.

For lending: Select the stream and switch on the key lock before handing the RX to a guest.

3.4 Connections

CONNECTION	
3.5 mm audio output	TRS socket (stereo) for headphones with 16–32 Ω or an inductive neck loop.
Docking contacts	Charge the battery in the Summitwave Charger4.

4 Charging

Insert the RX fully into a charging bay of the Summitwave Charger4; the charging display appears. A full charge takes 4 hours and lasts for 20 hours of operation.

In the station, the RX plays no sound. When you take it out, it reconnects to the stream it was playing before – with the same display and key lock.

5 Select and listen to an Auracast stream

1. **Connect the audio output**

   Plug headphones or a neck loop fully into the 3.5 mm output. For a hearing loop: first set the volume on the RX low, then switch the hearing system to its T-coil.

2. **Switch on**

   Press **O**. After start-up, the channel list shows all streams that are currently on air.

3. **Select a stream**

   Use **+** / **−** to select the stream, for example “Main Hall English”, and press **O**. The RX shows “Connecting” and then the playback screen.

4. **Set the volume**

   Raise the volume slowly with **+** to a comfortable, clear level.

5. **Change the stream**

   Press **O** to return to the channel list and select another stream.

5.1 Stream lost

If reception drops – the transmitter was stopped or the RX is out of range – the RX shows the magnifier icon and searches for the same stream without a time limit. As soon as it can be received again, playback resumes by itself. To choose a different stream, press **O**.

6 Cleaning and storage

- **Cleaning:** Switch the RX off, unplug accessories, wipe the enclosure and display with a soft, slightly damp cloth. No solvents or abrasive cleaners; never spray liquid directly onto the device, socket or charging contacts.
- **Storage:** Dry and at −40 °C to +70 °C. During longer storage, recharge the battery in the charging station from time to time.

7 Quality control (QC mode)

QC mode shows packet losses and signal strength of the received stream in real time. It is intended for commissioning, signing off coverage areas and troubleshooting, not for guests.

7.1 Open QC mode

1. **Play a stream**
   The values always refer to the stream that is currently playing. QC mode is not available in the channel list.
2. **Hold + and − for 5 s**
   Hold both buttons together until “QC MODE” appears. After 1.5 s, the *key lock* also toggles – check it after leaving QC mode.
3. **Read the values**
   Stay at the measuring point until the 10-second values have settled.
4. **Leave QC mode**
   Press any button.

7.2 Values shown

The packet lines each show lost / received packets and the loss in percent.

LINE	
`MOD`	Since QC mode was opened. If the loss no longer rises at a fixed position, reception there is stable.
`1S`	Last second. Reacts immediately and shows short disturbances while you change position, shading or transmit power.
`10S`	Last 10 seconds. Smooths out single events; the most meaningful value for judging a position.
`RSSI`	Signal strength in `dBm`. The value is negative; the closer to zero, the stronger – `−60 dBm` is better than `−85 dBm`.
`R10S`	Average signal strength over the last 10 seconds. More reliable than the instantaneous value, because movement and shading make the RSSI fluctuate constantly.
`BN` / `IRC` / ms	Transmission parameters of the transmitter. For support.

7.3 Interpreting the readings

The two figures answer different questions: **RSSI** tells you how strongly the signal arrives at the RX. **Packet losses** tell you whether the audio data arrives complete. Only the combination gives the full picture.

- **Good RSSI but packet losses** — the signal is strong enough but is being disturbed. Check other transmitters in the 2.4 GHz band, Wi-Fi channel usage and active radio links at the venue.
- **Weak RSSI with packet losses** — the measuring point is too far from the TX or is shaded. Check TX position, transmit power and whether an additional TX is needed.
- **Weak RSSI without packet losses** — reception works but has little margin. Areas like this are the first to drop out with a full room, that is with an audience between TX and RX.

7.4 Signing off a coverage area

- Define measuring points across the whole area of use, including edges, alcoves, positions behind columns and areas below galleries.
- Stay at each point for 10 to 15 seconds so that the 10-second values are meaningful.
- Record `R10S` and `10S` for each point. That record is the basis for optimising the TX setup.

> **Measure under realistic conditions**
> People attenuate the signal noticeably. A sign-off in an empty room looks better than later operation. Where possible, re-check critical areas with an audience present.

8 Software update

The RX firmware is updated through the browser (Chrome or Edge). The RX sits in the Summitwave Charger4, which is connected to the computer. During the update the RX shows “UPDATING” – do not remove it from the station.

For an update, please contact support for now: support@summitwave.eu · +43 670 6020 690.

9 Troubleshooting

Problem	Check first	Next step
RX does not start	Battery level, seating in the charging station, visible damage.	Charge for up to 4 hours; take out of service if it heats up or the battery is damaged.
Channel list empty	Is the TX transmitting? Is the RX within range?	Press **O** to search again. Test with a second RX.
Connected but no sound	Accessory fully plugged in? Volume? Padlock icon with “Press O to unmute”?	If muted, press **O**. Test the accessory on a second RX.
Magnifier icon, no sound	Is the stream still on air? Is the RX within range?	Wait or move closer to the transmitter; the RX reconnects by itself.
Sound drops out	Distance, obstacles, state of charge, RF environment.	Measure reception in *QC mode*: packet losses and RSSI show whether the signal is too weak or disturbed.
O does not return to the channel list	Padlock icon visible?	Release the key lock: hold **+** and **−** for 1.5 s.
RX does not respond at all	Battery level.	Hold **O** for 1.5 s to switch off, then switch on again with **O**. Otherwise replace the device.
Charging not possible	Charging contacts, seating in the bay, power supply of the charging station.	Try another bay; do not continue using damaged accessories.

Support
Email: support@summitwave.eu · Phone: +43 670 6020 690

Have ready: inventory or serial number, firmware version, state of charge, accessories used, stream name and a precise description of the problem.

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