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## Sennheiser RS 160

# Sennheiser RS 160 RF Wireless Headphones User Manual

Model: RS 160

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## 1. PRODUCT OVERVIEW

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The Sennheiser RS 160 is a wireless headphone system designed for high-quality audio transmission. It features KLEER's lossless digital wireless technology, providing clear sound and a reliable connection. The system includes HDR 160 headphones and a compact TX 160 transmitter, suitable for various listening environments.

Key features include a wireless range of up to 60 feet, automatic interference-free pairing, and the ability to connect up to four compatible Sennheiser KLEER headphones to a single transmitter. The headphones are designed for comfort with circumaural earcups and an adjustable headband, delivering detailed audio reproduction.



Image 1.1: The Sennheiser RS 160 wireless headphones (HDR 160) and its compact transmitter (TX 160).

## 2. WHAT'S IN THE BOX

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Upon opening the package, verify that all the following components are present:

- Sennheiser HDR 160 Headphones (Receiver)
- TX 160 Transmitter/Charging Station
- Multi-country AC Wall Adapter
- Detachable Audio Cable with 1/8 inch (3.5mm) Connectors
- 1/8 inch (3.5mm) Female to 1/4 inch (6.35mm) Male Audio Adapter
- 2 x AAA NiMH Rechargeable Batteries
- Operating Instructions (this manual)
- Warranty Information



Image 2.1: Front view of the HDR 160 headphones and TX 160 transmitter.

## 3. SETUP GUIDE

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### 3.1. Transmitter Connection

1. **Power Connection:** Connect the multi-country AC wall adapter to the TX 160 transmitter and plug it into a power outlet. The transmitter can also be powered by batteries for portable use.
2. **Audio Source Connection:** Use the detachable audio cable to connect the TX 160 transmitter to the audio output of your desired source (e.g., TV, stereo system, computer). Ensure you connect to an **Audio Out** port, not an Audio In port. If your audio source requires a 1/4 inch (6.35mm) jack, use the provided adapter.

3. **Power On Transmitter:** Press the power button on the transmitter. A blinking green light indicates it is active.

## 3.2. Headphone Preparation

1. **Battery Installation:** Gently twist and remove the earpiece cushions from the HDR 160 headphones. Insert the two AAA NiMH rechargeable batteries into the designated compartments, ensuring correct polarity. Reattach the earpiece cushions by twisting them back into place.
2. **Initial Charge:** For optimal performance, fully charge the headphones before first use. Place the headphones on the TX 160 transmitter. The charging time is approximately 16 hours for a full charge.

## 3.3. Pairing and First Use

The Sennheiser RS 160 system features automatic, interference-free pairing between the headphones and the transmitter. Once both devices are powered on and within range, they should connect automatically.

1. **Power On Headphones:** Press and hold the power button on the right earpiece of the HDR 160 headphones until the green light on the outside of the earpiece illuminates.
2. **Verify Connection:** Ensure the transmitter is on (blinking green light). The headphones should automatically connect. You can now begin listening to audio from your connected source.



Image 3.1: Side view of the HDR 160 headphones, highlighting the power and volume controls.

## 4. OPERATION

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### 4.1. Power On/Off

- **Headphones:** Press and hold the power button on the right earpiece to turn on or off. The green light indicates power status.
- **Transmitter:** Press the power button on the TX 160 to turn it on. It features an auto-off function if inactive for a period.

## 4.2. Volume Control

- **Headphones:** Use the Volume Up and Volume Down buttons located on the right earpiece to adjust the listening volume.
- **Transmitter:** The transmitter also has a volume control. Adjusting this will affect the overall maximum and minimum volume range available on the headphones.
- **Mute Function:** Pressing the Volume Down button repeatedly until the lowest setting is reached will activate a mute function.

## 4.3. Wireless Range and Performance

The RS 160 offers a wireless range of up to 60 feet (approximately 20 meters) in optimal conditions. Obstructions like walls can reduce this range. If you move out of range, the audio will typically go silent and resume automatically once you are back within range, without static or interference.

KLEER technology operates in the 2.4 - 2.8 GHz frequency range and is designed not to interfere with Wi-Fi networks or other 2.4 GHz devices.

## 4.4. Multi-Receiver Capability

Up to four compatible Sennheiser KLEER headphones (e.g., additional HDR 160 units) can be paired with a single TX 160 transmitter for shared listening.



Image 4.1: A user wearing the Sennheiser RS 160 headphones, demonstrating their over-ear design.

# 5. MAINTENANCE

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## 5.1. Battery Charging

The HDR 160 headphones use two AAA NiMH rechargeable batteries. To charge, simply place the headphones on the TX 160 transmitter. A full charge takes approximately 16 hours and provides up to 24 hours of operating time. The green light

on the headphones will blink faster when the battery is low.

## 5.2. Earpad Care and Replacement

The headphones feature leatherette earpads. Over time, these may show signs of wear. Replacement earpads can be purchased to maintain comfort and sound isolation. To replace, gently twist the old earpads off and twist the new ones into place.

## 5.3. Cleaning

Clean the headphones and transmitter with a soft, dry cloth. Avoid using liquid cleaners or solvents, as these can damage the components.

# 6. TROUBLESHOOTING

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### • No Sound:

- Ensure the TX 160 transmitter is powered on and its green light is blinking.
- Verify the HDR 160 headphones are powered on and their green light is illuminated.
- Check that the audio cable is securely connected from the transmitter to the **Audio Out** port of your source device.
- Confirm the AAA batteries in the headphones are correctly installed and charged.
- Adjust the volume on both the headphones and the audio source.

### • Intermittent Sound or Dropouts:

- You may be at the edge of the wireless range. Move closer to the transmitter.
- Ensure there are no significant physical obstructions (e.g., thick walls, large metal objects) directly between the headphones and the transmitter.

• **Low Battery Indication:** The green light on the headphones will blink faster when the batteries are low. Place the headphones on the transmitter for charging.

• **Transmitter Turns Off Automatically:** The TX 160 transmitter has an auto-off feature if it detects no audio signal or activity for a period. Press the power button to reactivate it.

• **Headphones Do Not Turn Off:** The HDR 160 headphones do not have an auto-off feature. Ensure you manually press and hold the power button to turn them off after use to conserve battery life.

# 7. TECHNICAL SPECIFICATIONS

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<b>Model</b>	Sennheiser RS 160 (HDR 160 Headphones, TX 160 Transmitter)
<b>Connectivity Technology</b>	Wireless (RF, KLEER Digital)
<b>Carrier Frequency</b>	2.4 - 2.8 GHz (auto selecting)
<b>Wireless Range</b>	Up to 60 feet (approx. 20 meters)
<b>Headphone Type</b>	Circumaural, Closed-back
<b>Transducer Type</b>	Dynamic
<b>Frequency Response (Headphones)</b>	18 Hz - 21,000 Hz

<b>Impedance</b>	32 Ohms
<b>Sound Pressure Level (SPL)</b>	106 dB
<b>Total Harmonic Distortion (THD)</b>	<0.5% at 1 kHz
<b>Signal-to-Noise Ratio</b>	85 dBA (0.5 Vrms, 1 kHz)
<b>Batteries</b>	2 x AAA NiMH rechargeable batteries (included)
<b>Operating Time</b>	Up to 24 hours per charge
<b>Charging Time</b>	16 hours
<b>Transmitter Dimensions (W x D x H)</b>	3.4" x 3.8" x 1.1" (approx. 8.6 x 9.7 x 2.8 cm)
<b>Transmitter Weight</b>	1.9 oz (approx. 54 g)
<b>Headset Weight</b>	7.8 oz (approx. 221 g)
<b>Material</b>	Plastic



Image 7.1: The HDR 160 headphones and TX 160 transmitter, showcasing their design.

## 8. SUPPORT & WARRANTY

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### 8.1. Customer Support

For further assistance, technical support, or service inquiries, please refer to the official Sennheiser website or contact their customer service department. Contact information can typically be found on the manufacturer's website or in the included warranty documentation.

### 8.2. Warranty Information

This product is covered by a manufacturer's warranty. Details regarding the warranty period, terms, and conditions are provided in the warranty documentation included with your purchase. Please retain your proof of purchase for warranty claims.

A comprehensive user guide in PDF format is also available for download from the Sennheiser support website for more detailed information.