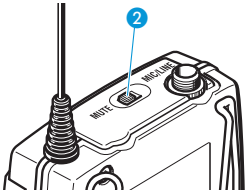
## Muting the audio signal or deactivating the RF signal

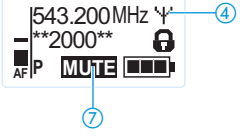



The MUTE switch ❷ allows you to mute the audio signal or to deactivate the RF signal. Via the "Mute Mode" menu item, you can set the desired function of the MUTE switch ❷.

| Setting | Slide the MUTE switch ❷ ... | Function |
|---|---|---|
| "Disabled" | ... to the left (position MUTE) | None |
| "RF On/Off" | ... to the left (position MUTE) | Deactivates the RF signal (offline operation) |
| | ... to the right | Activates the RF signal (online operation) |
| "AF On/Off" | ... to the left (position MUTE) | Mutes the audio signal |
| | ... to the right | Unmutes the audio signal |

- From the "Mute Mode" menu item, select the desired setting.
- Exit the operating menu.
- Slide the MUTE switch ❷ to the left, to the position MUTE.
  The bodypack transmitter reacts as indicated in the table.

The current state of the muting function or the RF signal is displayed on the display panel of the bodypack transmitter. An additional display appears on the receiver's display panel when the pilot tone function is activated on both bodypack transmitter and receiver and, in addition, this display has been activated via the "Warnings" menu item on the receiver (see the instruction manual of the receiver).



| Audio signal is muted | |
|---|---|
| Transmitter's display panel: | "MUTE" ⑦ is displayed |
| Receiver's display panel: | TX Mute" is displayed* |

* only when activated on the receiver (see above)

| Audio signal is activated (muting is deactivated) | |
|---|---|
| Transmitter's display panel: | "MUTE" ⑦ is not displayed |
| Receiver's display panel: | "TX Mute" is not displayed |

| RF signal is deactivated | |
|---|---|
| Transmitter's display panel: | Transmission icon ④ is not displayed |
| Receiver's display panel: | "RF Mute" is displayed* |

* only when activated on the receiver (see above)

| RF signal is activated | |
|---|---|
| Transmitter's display panel: | Transmission icon ④ is displayed |
| Receiver's display panel: | "RF Mute" is not displayed |

You can also deactivate the RF signal on switch-on. For more information, refer to the chapter "Switching the bodypack transmitter on/off" on page 11.

Using the ON/OFF button, you can also activate/deactivate the RF signal during operation. To do so, briefly press the ON/OFF button and proceed as described on page 11.

## Selecting a standard display

▼▲ ▶ Press the rocker button to select a standard display:

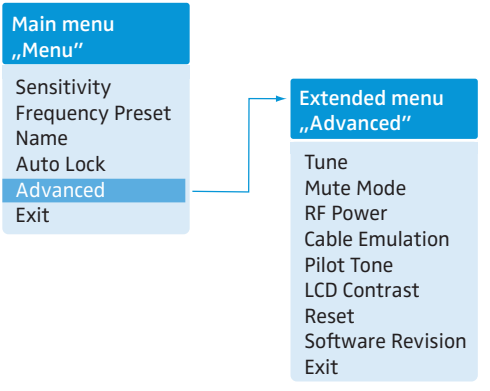
| Contents of the display | Selectable standard display |
|---|---|
|  | "Frequency/Name" |
|  | "Channel/Frequency" |
|  | "Name/Channel" |

# Using the operating menu

## The buttons

| Button | Function of the button |
|---|---|
| Press the ON/OFF button   | • Switches the bodypack transmitter on and off<br>• Cancels the entry and returns to the current standard display (ESC function)<br>• Activates/deactivates the RF signal (special function, see page 13) |
| Press the SET button   | • Changes from the current standard display to the operating menu<br>• Calls up a menu item<br>• Enters a submenu<br>• Stores the settings and returns to the operating menu |
| Press the rocker button ▼▲ | • Selects a standard display<br>• Changes to the next/previous menu item<br>• Changes the setting of a menu item |

## Overview of the operating menu



| Display | Function of the menu item |
|---|---|
| **Main menu "Menu"** | |
| Sensitivity | Adjusts the sensitivity "AF" |
| Frequency Preset | Changes the frequency bank and the channel |
| Name | Enters the transmitter name |
| Auto Lock | Activates/deactivates the automatic lock mode |
| Advanced | Calls up the extended menu "Advanced Menu" |
| Exit | Exits the operating menu and returns to the current standard display |
| **Extended menu "Advanced Menu"** | |
| Tune | Sets the transmission frequencies for the frequency banks "U1" to "U6" |
| | Special function: Sets a channel and a transmission frequency for the frequency banks "U1" to "U6" |
| Mute Mode | Sets the mode for the MUTE switch |
| RF Power | Adjusts the transmission power |
| Cable Emulation | Emulates guitar cable capacities |
| Pilot Tone | Activates/deactivates the pilot tone transmission |
| LCD Contrast | Adjusts the contrast of the display panel |
| Reset | Resets the bodypack transmitter |
| Software Revision | Displays the current software revision |
| Exit | Exits the extended menu "Advanced Menu" and returns to the main menu |

## Working with the operating menu

If the lock mode is activated, you have to deactivate it In order to be able to work with the operating menu (see page 12).

By way of example of the "Sensitivity" menu, this section describes how to use the operating menu.

### Changing from the current standard display to the operating menu

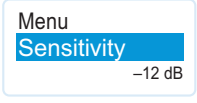
SET

▶ Press the SET button.
The current standard display is replaced by the main menu.
The last selected menu item is displayed.

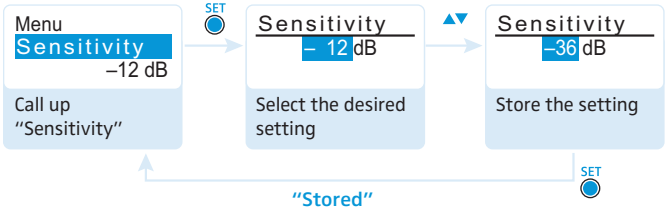
### Selecting a menu item

▼ ▲

▶ Press the rocker button to change to the "Sensitivity" menu item.
The current setting of the selected menu item is displayed:




### Changing and storing settings




SET

▶ Press the SET button to call up the menu item.

▼ ▲

▶ Press the rocker button to adjust the input sensitivity.

SET

▶ Press the SET button to store the setting.

## Canceling an entry

ON/OFF

▶ Press the ON/OFF button to cancel the entry.
The current standard display appears on the display panel.

To subsequently return to the last edited menu item:

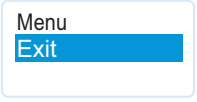
SET

▶ Press the SET button repeatedly until the last edited menu item appears.

## Exiting a menu item

▼▲

▶ Change to the "Exit" menu item.




SET

▶ Confirm your selection.
You return to the next higher menu level.

To directly return to the current standard display:

ON/OFF

▶ Press the ON/OFF button.

# Synchronizing the bodypack transmitter with a receiver

When synchronizing the bodypack transmitter with a receiver, please observe the following:

- Only use a bodypack transmitter and a receiver from the same frequency range (see the type plate on the transmitter and the receiver).
- Make sure that the desired frequencies are listed in the enclosed frequency information sheet.
- Make sure that the desired frequencies are approved and legal in your country and, if necessary, apply for an operating license.

## Synchronizing the bodypack transmitter with the receiver – individual operation

Upon delivery, the bodypack transmitter and the receiver are synchronized with each other. However, if you cannot establish a transmission link between bodypack transmitter and receiver, you have to synchronize the channels of the devices.

For information on automatic synchronization of the bodypack transmitter with the receiver (individual operation), refer to the instruction manual of the receiver. This information is marked with the sync icon.

Alternatively, you can set the channel on the bodypack transmitter manually:

- Make sure that you set the bodypack transmitter to the same frequency bank and the same channel as the receiver.

If you still cannot establish a transmission link, refer to the chapter ‘‘If a problem occurs ...’’ on page 21.

## Synchronizing bodypack transmitters with receivers – multi-channel operation

Combined with 2000 series receivers, 2000 series bodypack transmitters can form transmission links that can be used in multi-channel systems. In order to ensure an intermodulation-free transmission, use the same frequency bank for all transmission links.

For information on automatic synchronization of bodypack transmitters with receivers (multi-channel operation), refer to the instruction manual of your receiver. For more information on multi-channel operation, visit the corresponding product page at www.sennheiser.com.

# Cleaning the bodypack transmitter

CAUTION ! **Liquids can damage the electronics of the bodypack transmitter!**

Liquids entering the housing of the device can cause a short-circuit and damage the electronics.

▶ Keep all liquids away from the bodypack transmitter.

▶ Use a slightly damp cloth to clean the bodypack transmitter from time to time. Do not use any solvents or cleansing agents.

# If a problem occurs ...

| Problem | Possible cause | Possible solution |
|---|---|---|
| Bodypack transmitter cannot be operated, "Locked" appears on the display panel | Lock mode is activated | Deactivate the lock mode (see page 12). |
| No operation indication | Batteries are flat or accupack is flat | Replace the batteries or recharge the accupack (see page 8). |
| No RF signal at the receiver | Bodypack transmitter and receiver are not on the same channel | Set the bodypack transmitter to the same channel as the receiver. |
| | | Synchronize the bodypack transmitter with the receiver (see page 20). |
| | Bodypack transmitter is out of range | Check the squelch threshold setting on the receiver. |
| | | Reduce the distance between bodypack transmitter and receiving antenna. |
| | | Increase the transmission power. |
| | RF signal is deactivated ("RF Mute") | Activate the RF signal (see page 13). |

| Problem | Possible cause | Possible solution |
|---|---|---|
| RF signal available, no audio signal, "MUTE" appears on the display panel | Bodypack transmitter is muted (MUTE) | Cancel the muting (see page 13). |
| | Receiver's squelch threshold is adjusted too high | Reduce the squelch threshold setting on the receiver. |
| | Bodypack transmitter doesn't transmit a pilot tone | Activate or deactivate the pilot tone transmission. |
| Audio signal has a high level of background noise or is distorted | Bodypack transmitter's sensitivity is adjusted too low/too high | Adjust the input sensitivity. |

If a problem occurs that is not listed in the above table or if the problem cannot be solved with the proposed solutions, please contact your local Sennheiser partner for assistance.

To find a Sennheiser partner in your country, search at www.sennheiser.com under "Service & Support".

# Specifications

## RF characteristics

| | |
|---|---|
| Modulation | wideband FM |
| Frequency ranges | 516–558, 558–626, 626–698, 718–790, 790–865 MHz<br>(Aw to Dw, Gw, see page 4) |
| Transmission frequencies | up to 3,000 frequencies, tuneable in steps of 25 kHz |
| | 20 frequency banks, each with up to 64 factory-preset channels |
| | 6 frequency banks, each with up to 64 user programmable channels |
| Switching bandwidth | up to 75 MHz |
| Nominal/peak deviation | ±24 kHz/±48 kHz |
| Frequency stability | ≤ ±15 ppm |
| RF output power at 50 Ω | switchable:<br>typ. 10 mW (Low)<br>typ. 30 mW (Standard)<br>typ. 50 mW (High) |
| Pilot tone squelch | can be switched off |

## AF characteristics

| | |
|---|---|
| Compander system | Sennheiser HDX |
| AF frequency response | microphone: 80–18,000 Hz |
| | line: 25–18,000 Hz |
| Signal-to-noise ratio (1 mV, peak deviation) | ≥ 120 dBA |
| THD | ≤ 0.9 % |
| Max. input voltage | 3 $V_{rms}$ |
| Input impedance | microphone: 40 kΩ, unbalanced |
| | line: 1 MΩ |
| Adjustment range of input sensitivity | 60 dB,<br>adjustable in 3-dB steps |

## Overall device

| | |
|---|---|
| Temperature range | – 10°C to + 55°C |
| Power supply | 2 AA size batteries, 1.5 V<br>or BA 2015 accupack |
| Nominal voltage | 2.4 V ⎓ |
| Power consumption: | |
| • at nominal voltage | typ. 180 mA (30 mW) |
| • with switched-off transmitter | ≤ 25 µA |
| Operating time | typ. 8 hrs |
| Dimensions | approx. 82 mm x 64 mm x 24 mm |
| Weight (incl. batteries) | approx. 160 g |

## In compliance with

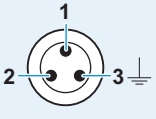
| | | |
|---|---|---|
| Europe: | EMC | EN 301489-1/-9 |
| CE | Radio | EN 300422-1/-2 |
| | Safety | EN 60065 |
| | | EN 62311 (SAR) |

## Approved by

| | |
|---|---|
| Canada: | Industry Canada RSS 210<br>IC: 2099A-SK2000<br>limited to 806 MHz |
| USA: | FCC-Part 74<br>FCC-ID: DMOSK2000<br>limited to 698 MHz |

## Connector assignment

**3-pin special audio connector**




Pin 1: AF and 5.2 V AB-powering; 8.2 kΩ internal resistance, optimized for Sennheiser pre-polarized condenser microphones

Pin 2: +5.2 V for guitar or ground

Pin 3 and thread: ground

# Manufacturer Declarations

## Warranty

Sennheiser electronic GmbH & Co. KG gives a warranty of 24 months on this product.

For the current warranty conditions, please visit our web site at www.sennheiser.com or contact your Sennheiser partner.

## In compliance with the following requirements

- RoHS Directive (2002/95/EU)
- WEEE Directive (2002/96/EU)

Please dispose of the bodypack transmitter at the end of its operational lifetime by taking it to your local collection point or recycling center for such equipment.

- Battery Directive (2006/66/EU)

The supplied batteries or rechargeable batteries of the bodypack transmitter can be recycled. Please dispose of them as special waste or return them to your specialist dealer. In order to protect the environment, only dispose of exhausted batteries.

## CE Declaration of Conformity

- CE 0682 ⓘ
- R&TTE Directive (1999/5/EU)
  The declarations are available at www.sennheiser.com.
  Before putting the device into operation, please observe the respective country-specific regulations.

## Statements regarding FCC and Industry Canada

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This class B digital device complies with the Canadian ICES-003.

Changes or modifications made to this equipment not expressly approved by Sennheiser electronic Corp. may void the FCC authorization to operate this equipment.

Before putting the device into operation, please observe the respective country-specific regulations!