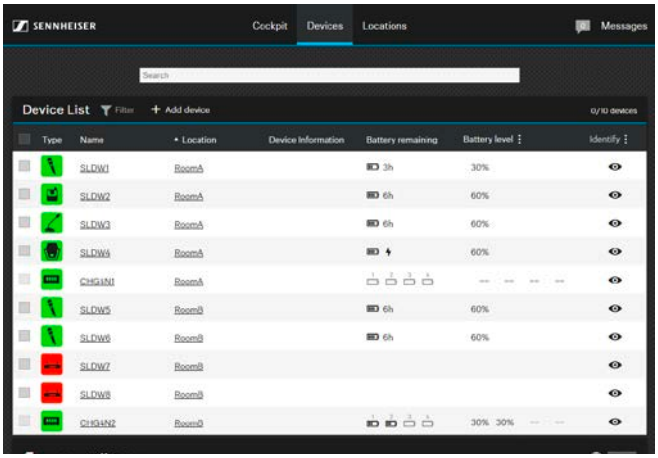

Sennheiser Control Cockpit v 1.3.0

Software Manual

Sennheiser electronic GmbH & Co. KG

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Sennheiser Control Cockpit - v1.3.0

SENNHEISER

The Sennheiser Control Cockpit software

Sennheiser Control Cockpit is the central software for easy handling, control and maintenance of the entire SpeechLine Digital Wireless system. The easy-to-use Sennheiser Control Cockpit software provides a global overview of all network enabled SpeechLine Digital Wireless devices at all times. It shows all status information at a glance and makes setting adjustments for one or multiple devices at the same time very easy. The room overview connects the locations of all components to their respective status information, so the user always knows the location and status of a specific device. The Sennheiser Control Cockpit is accessible everywhere in the intranet via a web browser across all platforms. As a result, the software allows you to manage even huge setups with hundreds of devices with very low efforts.

Sennheiser Control Cockpit - User‘s manual v1.3

Downloading the software

The installation file of the Sennheiser Control Cockpit software can be downloaded from the SpeechLine Digital Wireless and Sennheiser Control Cockpit product pages and from the download area of the Sennheiser website.

- SpeechLine Digital Wireless product page
- Sennheiser Control Cockpit product page
- Download area of the Sennheiser website

System requirements

The Sennheiser Control Cockpit software must be installed on a host PC that meets the following system requirements:

Recommended

- Intel i5 Dual Core processor or similar
- 4 GB RAM
- at least 1 GB of free hard disk space
- Gigabit LAN interface
- Windows 7 or higher
- IPv4 network

Client

Browser:

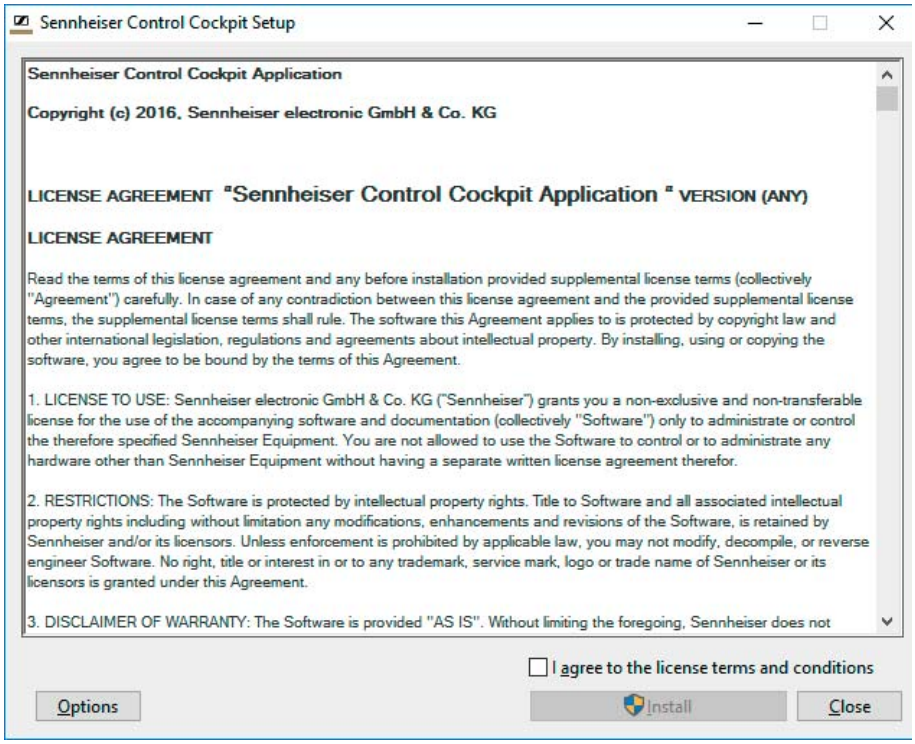
- Google Chrome (latest version)
- Mozilla Firefox (latest version)
- JavaScript must be activated

We constantly strive to improve and optimize our software. With each release, we will add new features, optimize the performance as well as add support for additional systems.

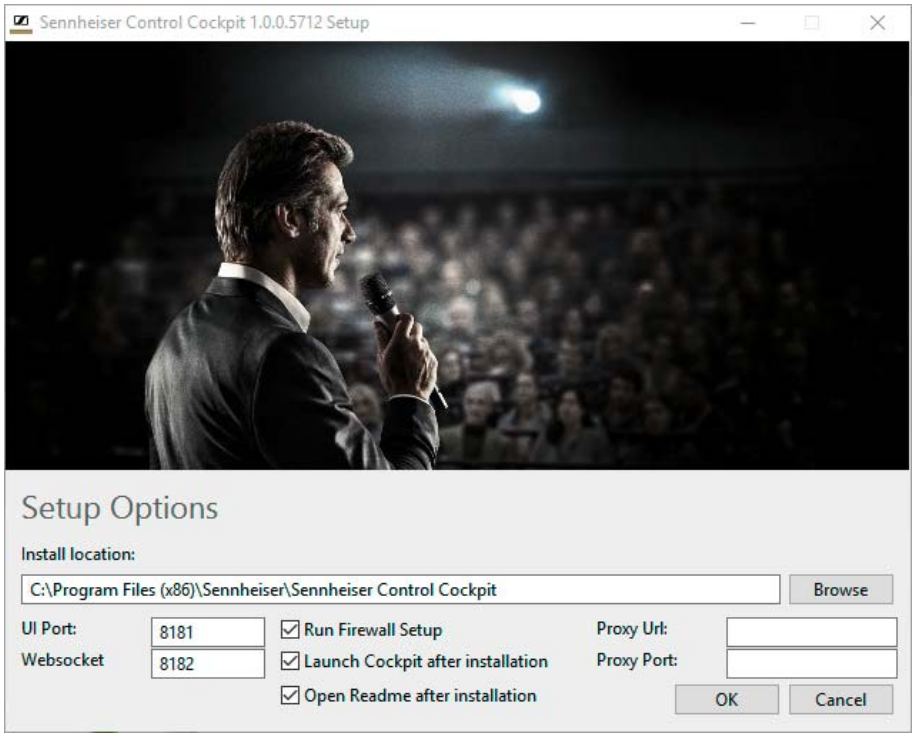
Installing the software

To install the software:

- ▹ Save the downloaded installation file **SennheiserControlCockpitInstaller.exe** on the host PC on which you want to install the software.
- ▹ Start the installation process.

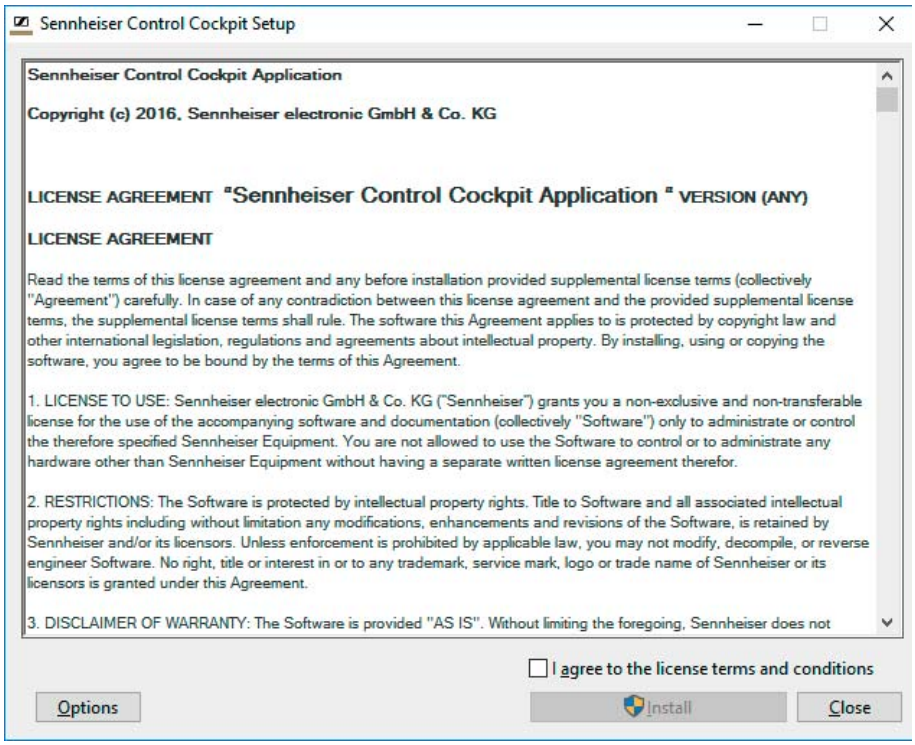


- ▹ Click on **Options** if you want to change to standard settings of the installation.

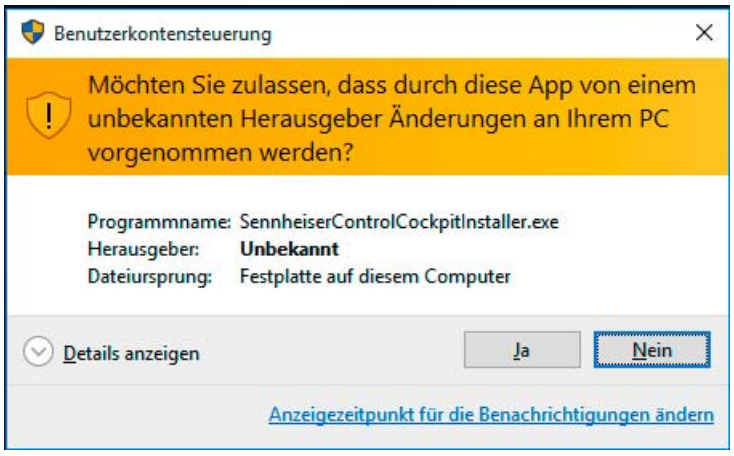


- ▹ Adjust the settings as desired and click on **OK**.
- ▹ Please note to include **http://** for the **proxy URL**.

  The installation window is displayed again.

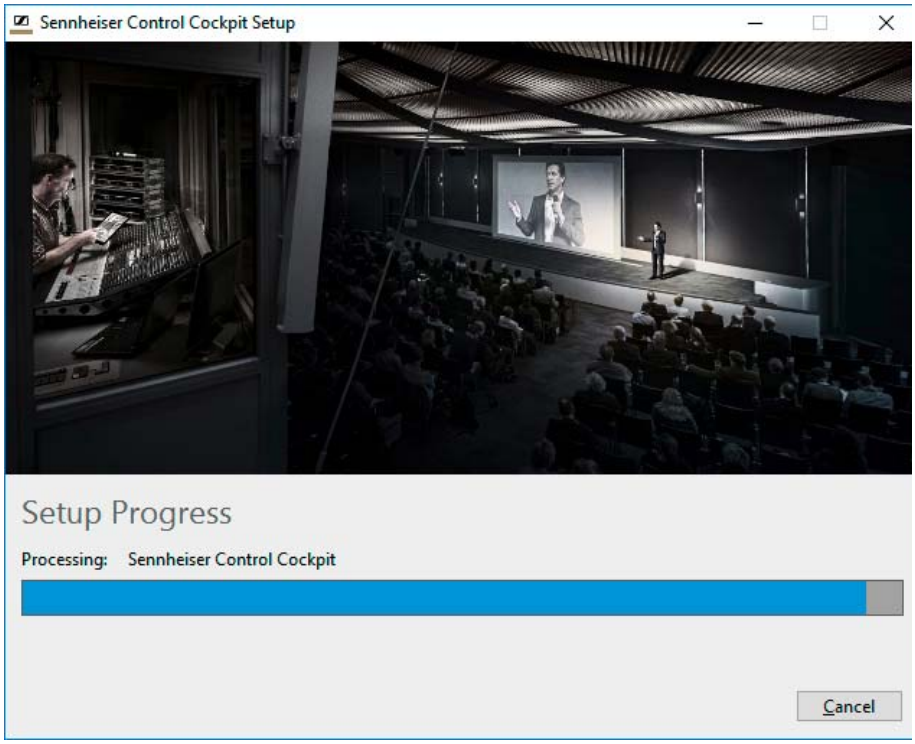


▹ Click on **Install**.
The following dialog might be displayed.

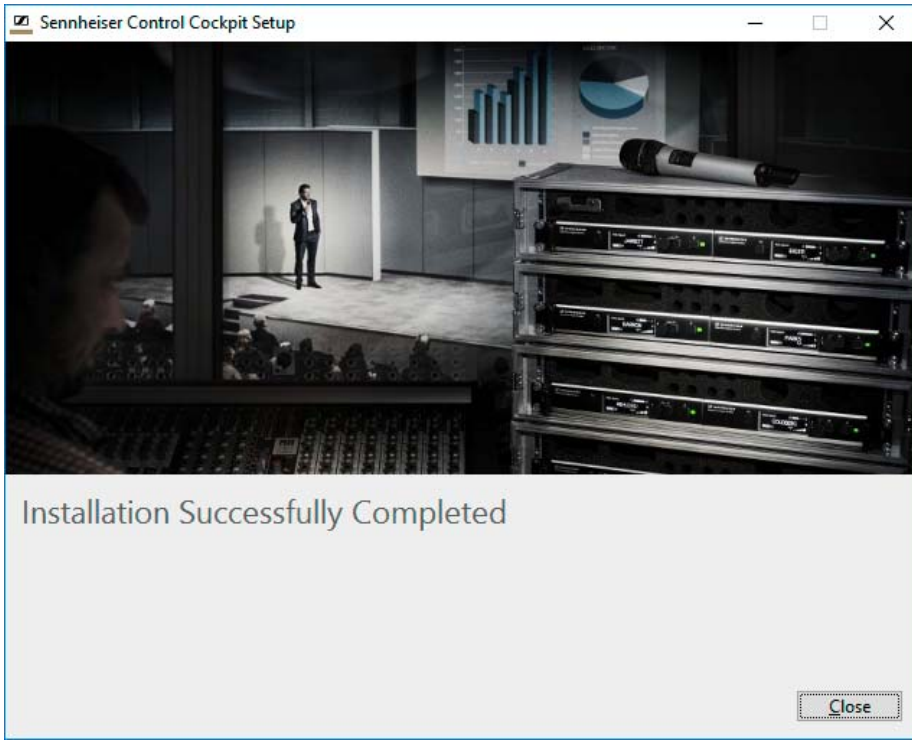


▹ Click on **Yes** to allow the installation.

The following dialog is displayed.



The Sennheiser Control Cockpit is being installed. Afterwards, the following dialog is displayed.



The installation has been completed.

Using the Sennheiser Control Cockpit

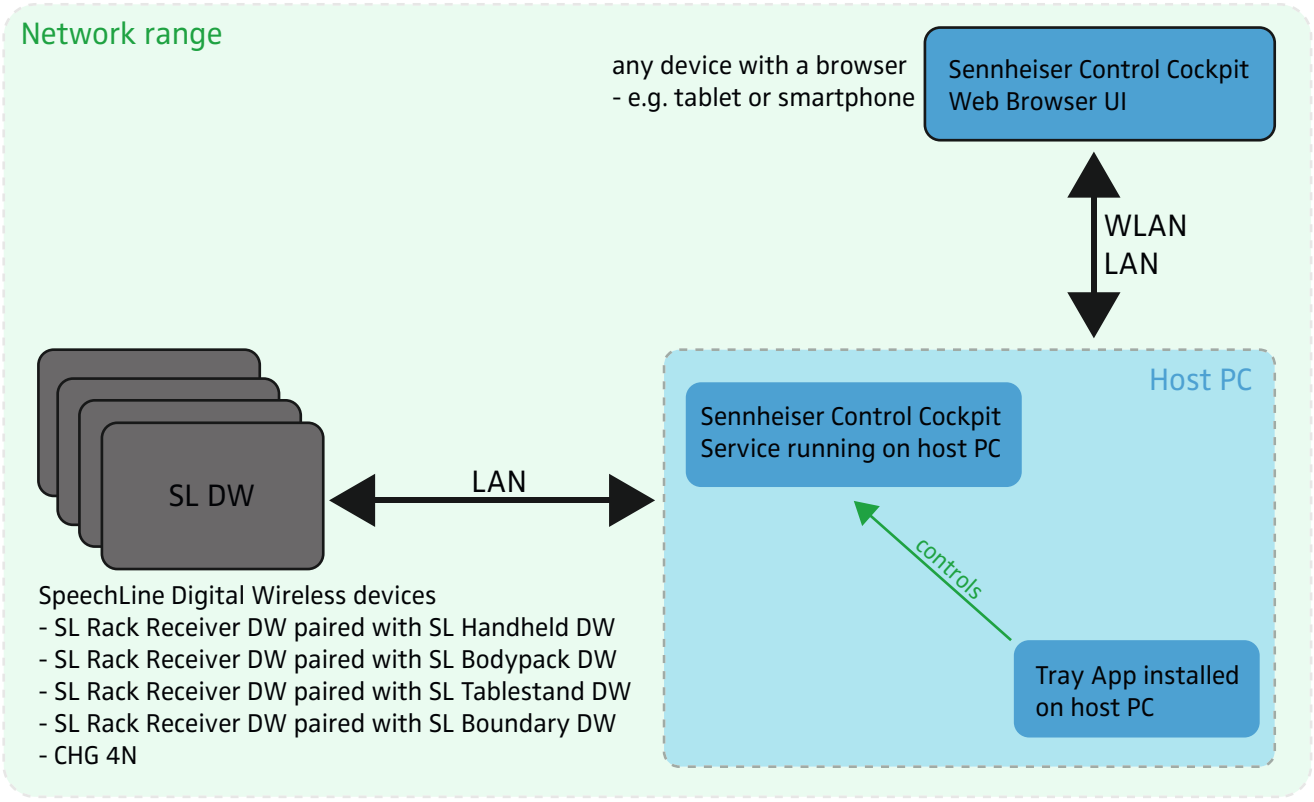
The **Sennheiser Control Cockpit** software is browser-based and can be opened on all laptops or tablets that are connected to the same network as the host PC and the SpeechLine Digital Wireless devices to be operated.

All devices, the host PC and all clients must be in the same network range.

The **Sennheiser Control Cockpit** consists of the following components:

- **Sennheiser Control Cockpit Tray App**: The Tray App starts and stops the Sennheiser Control Cockpit Service on the host PC. You can find the Tray App in the Windows Tray in the lower right corner.
- **Web browser UI**: When the service is running on the host PC, you can access the service via any device with a browser.

The following illustration explains the components:

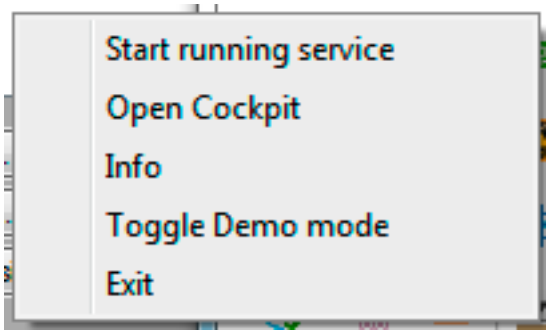


Please note that you only need to install the **Sennheiser Control Cockpit** on **one host PC**. All devices, which are in the same network as the host PC and the SpeechLine Digital Wireless devices, can access the **Sennheiser Control Cockpit** remotely via the **browser-based application**.

Opening the Sennheiser Control Cockpit

Starting the service on the host PC

▹ In the **Windows Tray** right-click the **icon** of the Sennheiser Control Cockpit.



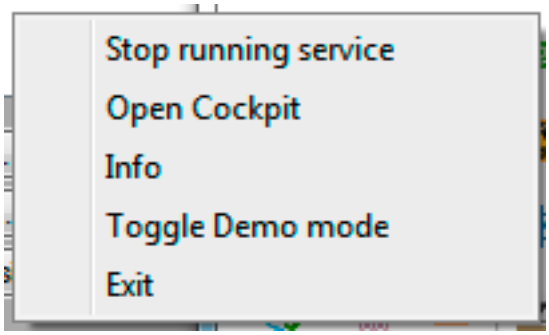
▹ Select **Start running service**.

The Sennheiser Control Cockpit Service is started. All SpeechLine Digital Wireless Devices in the same network range can be controlled via the web browser UI of the Sennheiser Control Cockpit.

The service is also started automatically when the host PC boots.

If you want to stop the service:

▹ In the **Windows Tray** right-click the **icon** of the Sennheiser Control Cockpit.

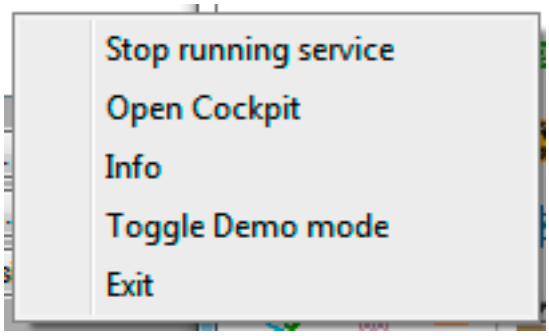


▹ Select **Stop running service**.

Opening the web browser UI on the host PC

- ▹ In the **Windows Tray** double-click the **icon** of the Sennheiser Control Cockpit.

  The Sennheiser Control Cockpit will be opened in the standard browser.
- ▹ Alternatively, right-click on the icon of the Sennheiser Control Cockpit in the Windows Tray and select **Open Cockpit**.



Opening the web browser UI on a client

- ▹ Identify the **IP address** of the **host PC**.
- ▹ In the browser of the client enter the IP address followed py the port **:8181**.

  In case you have configured a different port during installation (see “Installing the software”), you need to enter that port.

Example:

The IP address of the host PC is 192.168.69.36. Enter the following in the browser of the client:

192.168.69.36:8181

The Sennheiser Control Cockpit Web Browser UI will open.

Using the Demo Mode

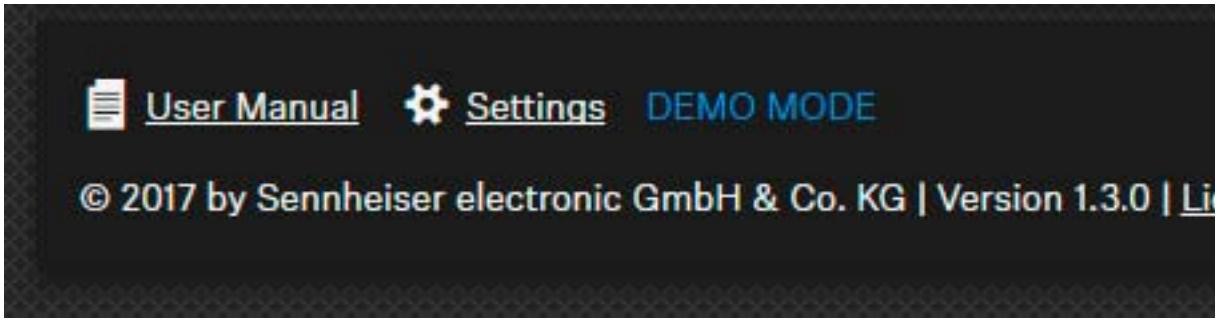
The Control Cockpit offers a Demo Mode which simulates a full setup of SpeechLine Digital Wireless devices, including the SL Rack Receiver DW paired with all types of available transmitters as well as the network-enabled charger CHG 4N.

All software features are available in the Demo Mode. This allows you to test the software and learn how to use it.

To start the Demo Mode:

- ▹ In the **Windows Tray** right-click the **icon** of the Sennheiser Control Cockpit.
- ▹ Select **Toggle Demo Mode**.

  The Demo Mode is started. As long as the Demo Mode is active, it is indicated in the Application Bar.

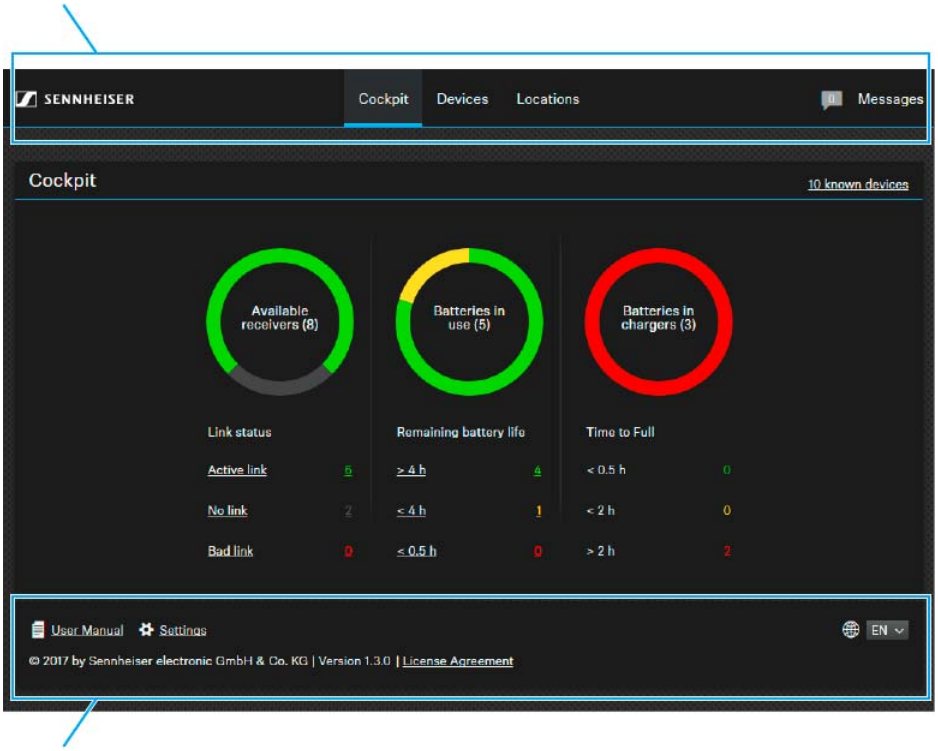


Navigating the Sennheiser Control Cockpit

The following features of the Software will be displayed constantly.

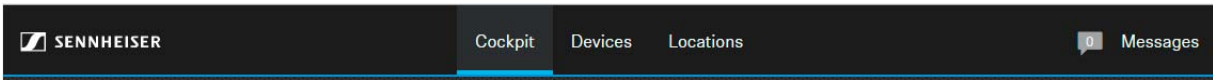
▹ Click on the links above to learn more about these features.

The Navigation Bar



The Application Bar

The Navigation Bar



In the **Navigation Bar** the following features are available.

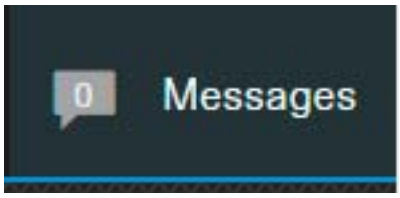
Navigation

Navigate to the **Cockpit View**, the **Devices View** and the **Locations View**.

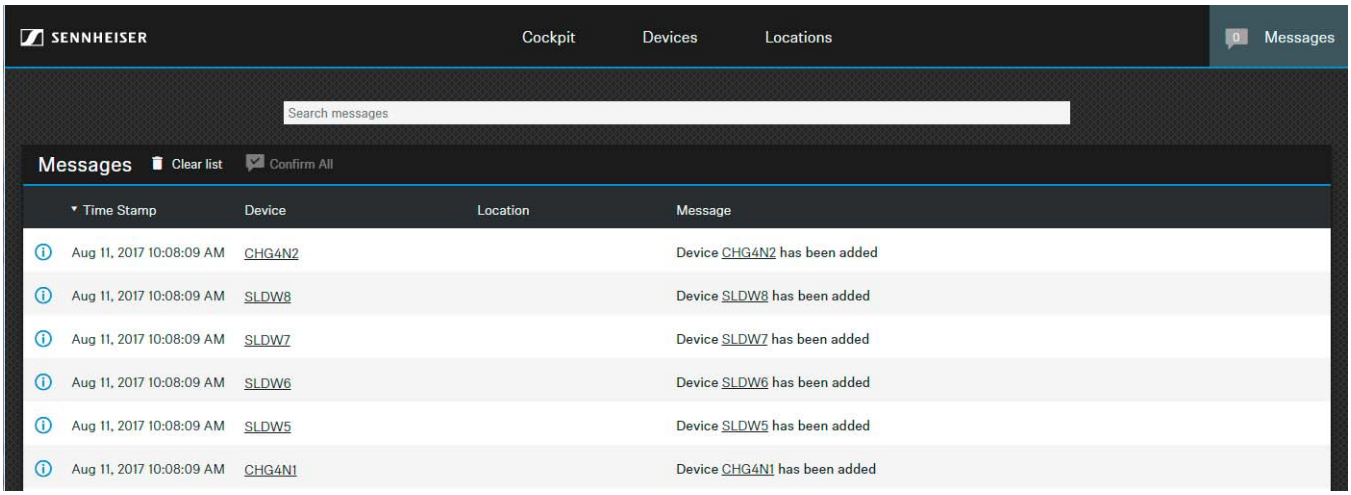
For details on each view refer to:

- “The “Cockpit” view”
- “The “Devices” view”
- “The “Locations” view”

Messages



▹ Click on **Messages** in the top right corner to open the inbox of the Control Cockpit.

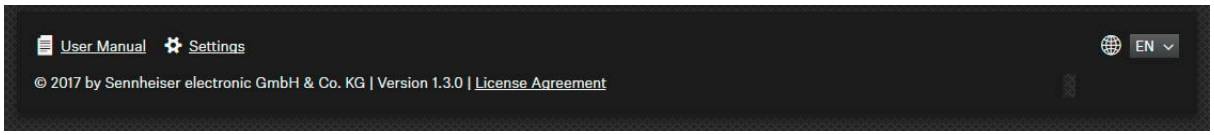


The inbox contains messages and notifications about the following events:

- availability of firmware and software updates
- information about added or lost devices
- notifications about battery status

You can set up the type of notifications in the Settings menu. For details see “Settings”.

The Application Bar



In the **Application Bar** the following features are available.

User Manual

▹ Click on the **User Manual** link to open this user manual in a separate browser tab.

Settings

▹ Click on the **Settings** link to open the Settings menu.

In the **Settings** menu you can specify which notifications you would like to receive.

▹ For details see “Settings”.

Language Selection

▹ Select the desired language of the software.

License Agreement

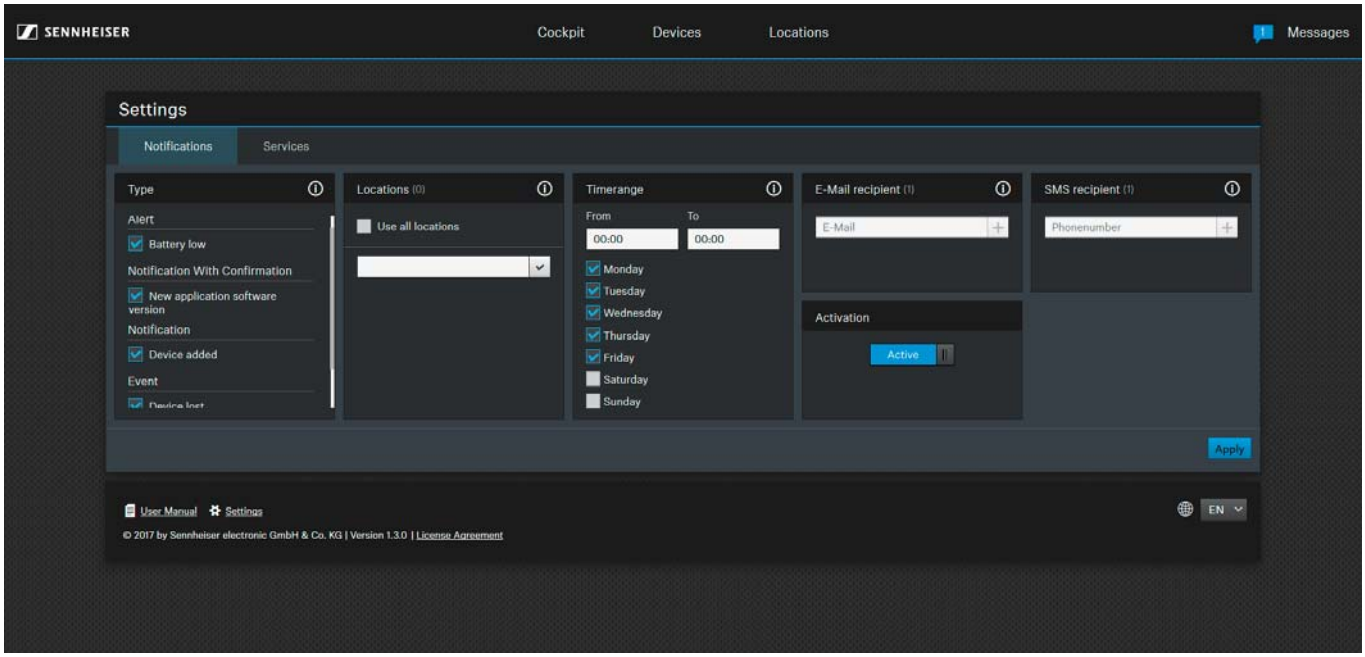
▹ Click on the **License Agreement** link to open the End User License Agreement of the Sennheiser Control Cockpit as a PDF file in a separate browser tab.

Settings

In the Settings menu you can define the notifications the Cockpit will send you.

Messages will be sent to the inbox of the Control Cockpit. The software can also send e-mails and text messages.

Notifications



▹ Adjust the desired settings (see below for details).

▹ In the **Activation** box, set the button to Active for the settings to be used.

▹ Click on Apply in the bottom right corner to save any settings you have changed.

The following settings can be adjusted in the Notifications tab.

Type

▹ Select which types of messages will be sent:

- Battery low
  - The software will send an alert when the battery of a device needs to be changed or recharged.
- New application software version
  - The software will send a message that a new version of the Control Cockpit is available. A link for updating the software will be provided.
- Device added
  - The software will send a message that a new device has been added to the Device List.
- Device lost
  - The software will send a message that the connection to a certain device has been lost

- Battery fully charged
  - The software will send a message that the battery of a certain device has been fully charged.
- New firmware version available
  - The software will send a message that a new firmware version for the devices is available. It will be available via the internal update server of the Control Cockpit (also see “Updating the firmware” for further details on firmware updates).

Locations

▹ Select the locations for which the software will send messages.
You can select all locations or only some of the locations.

Time range

▹ Set a time range during which messages will be sent.
▹ **Note**: You will not be notified about any events that occur outside the specified time range.

E-Mail recipient

▹ Specify the e-mail addresses, which the messages will be sent to.
You can specifiy two e-mail addresses.
All messages will also be sent to the inbox of the Control Cockpit.

For having the Control Cockpit send e-mails, you need to set the server details of the sender address. See Services below.

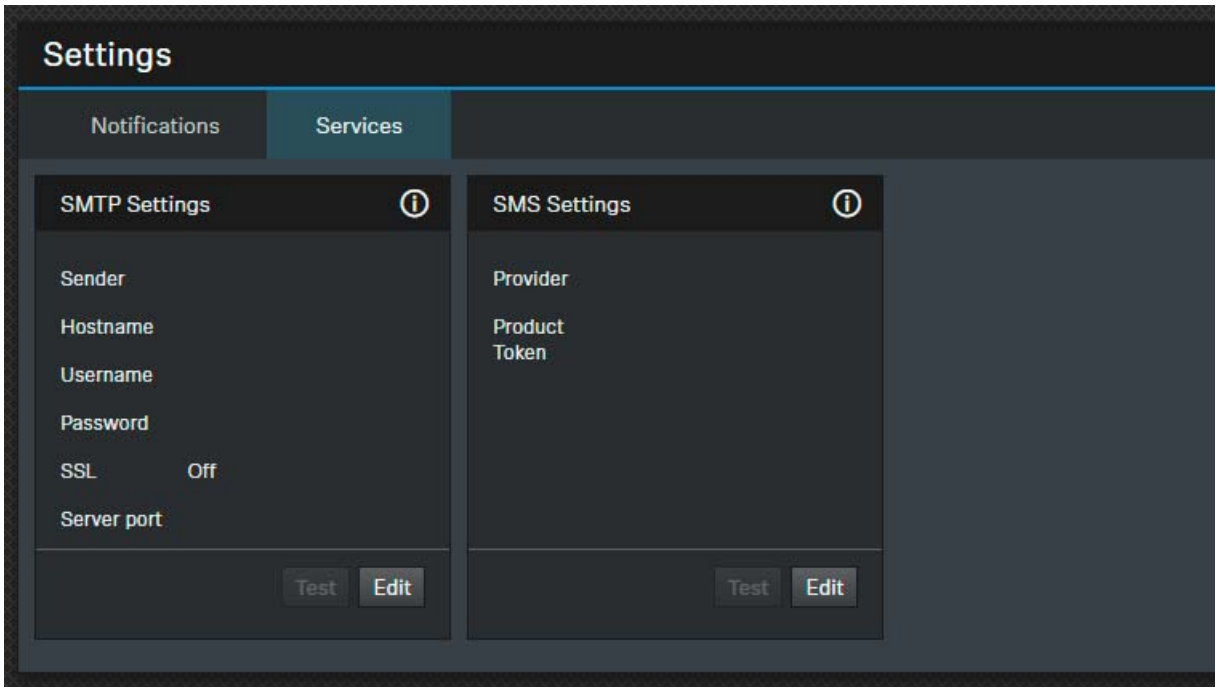
SMS recipient

▹ Specify a phone number, which the messages will be sent to.
You can specify two phone numbers.
All messages will also be sent to the inbox of the Control Cockpit.

For having the Control Cockpit send text messages, you need to set up an account for the sender. See Services below.

Services

In the Services tab you can define provider settings for e-mail and sms notifications.



SMTP Settings

Enter the account details of the e-mail account from which the Control Cockpit will send e-mail notifications.

SMS Settings

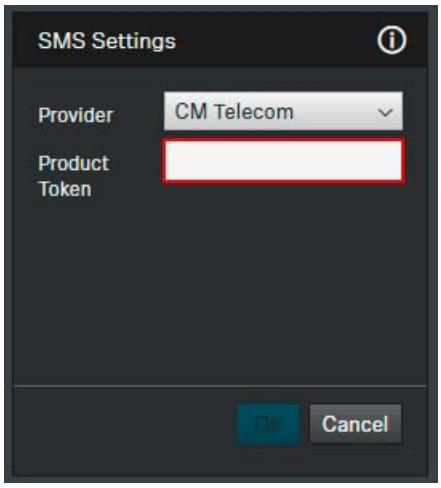
When you want the Control Cockpit to send SMS messages to the users, you need to specify a provider here.

Currently, the Control Cockpit supports **CM Telecom**.

▹ Register online at www.cm.com:

CM Telecom Website

After registering, you receive a product token which you need to enter in the SMS Settings box.



The “Cockpit” view

The **Cockpit** view is shown as the start screen and provides an overview of the overall system status. To return to the **Cockpit** view from any other view of the software, click on **Cockpit** in the navigation bar.

The **Cockpit** view displays the dashboard with the following status information:

Known devices

Displays the number of devices that have already been detected by the software or added manually and that are available in the database.

The number of devices shown here can deviate from the number of devices that are currently visible in the network. This can be the case if not all of the devices already detected by the software are switched on or available in the network.

Available receivers

Displays the number of receivers that are currently visible in the network. In addition, the following status information is shown:

- **Active Link**: The link between the transmitter and receiver is good.
- **No Link**: The receiver is visible in the network. The transmitter is either switched off, out of range or not paired.
- **Bad Link**: The link between the transmitter and receiver is disturbed.

Batteries in use

Displays the remaining battery life of the transmitters paired with the receivers visible in the network (only when BA 10, BA 30 or BA 40 accupacks are used).

- **>4 h**: More than 4 hours of battery life
- **<4 h**: Less than 4 hours of battery life, remaining battery life sufficient for short meetings
- **<0.5 h**: The accupack or the transmitter must be replaced or recharged

Batteries in chargers

Displays the number of transmitters which are currently being charged in the CHG 4N network chargers visible in the network. In addition, the remaining time until the accupacks are fully charged is displayed.

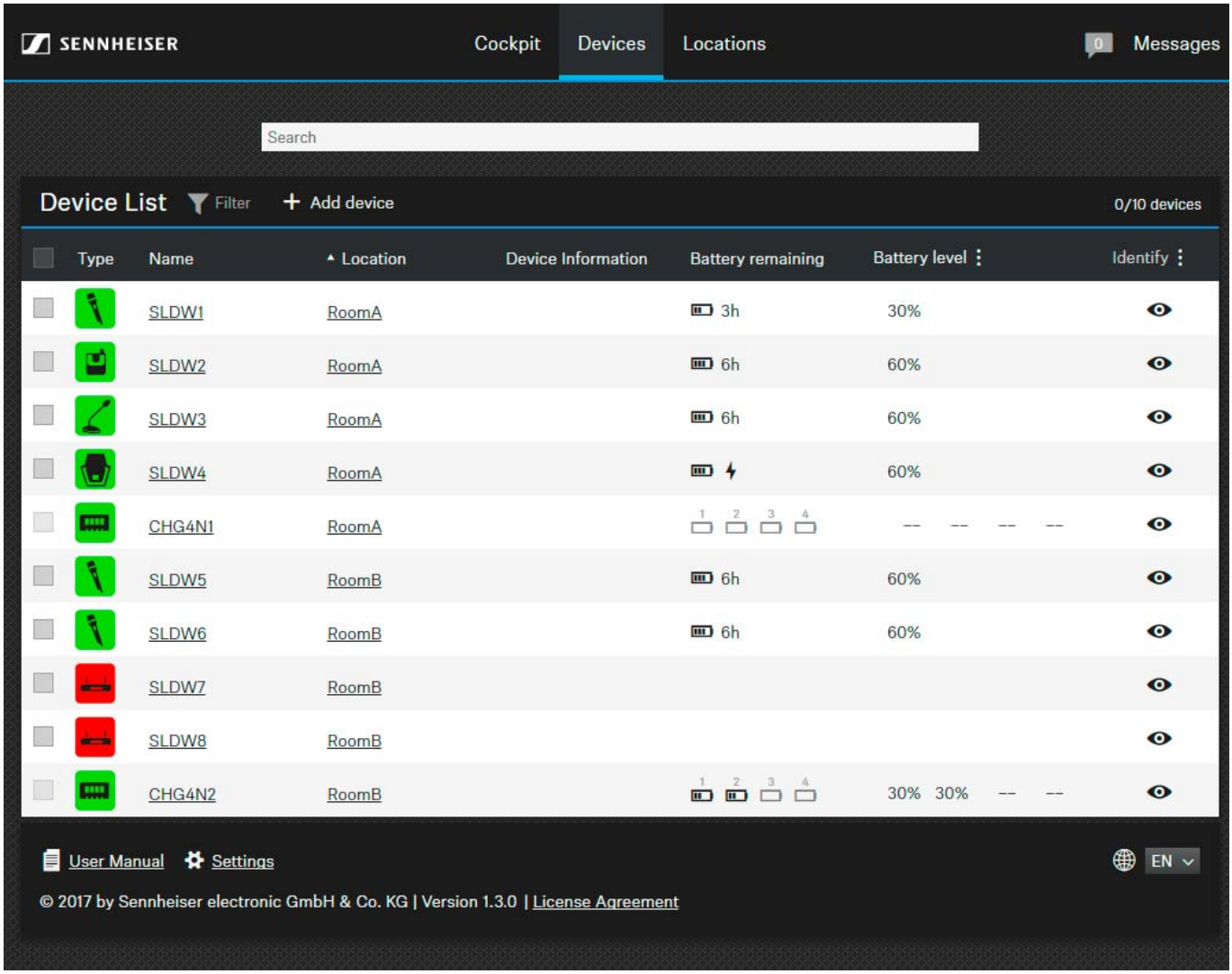
- **<0.5 h**: Less than half an hour until the accupack is fully charged
- **<2 h**: Less than 2 hours until the accupack is fully charged
- **>2 h**: More than 2 hours until the accupack is fully charged

This statistic appears as soon as at least one network-enabled charger has been detected or added to the device pool.

The “Devices” view

The **Devices** view provides a detailed listing of all the devices available in the network. To open the **Devices** view, click on **Devices** in the navigation bar.

Overview



The **Devices** view lists all the devices that are currently visible in the network.

Known devices which are currently not reachable in the network will be displayed in grey with a grey icon. They will disappear after a timeout of 5 minutes. Once they become reachable again, they will be displayed in the device list again.

The **Device List** shows the following information:

Type

The icon indicates the device type end the corresponding status:


SL Handheld DW


SL Bodypack DW


SL Tablestand 133-S DW or SL Tablestand 153-S DW


SL Boundary 114-S DW


CHG 4N


no active link between transmitter and SL Rack Receiver DW

The status is indicated by the color of the icon:

- **green**: active link
- **yellow**: transmitter is muted
- **red**: bad link or no link
- **grey**: device is known but not reachable via network at the moment

Name

Name of the radio link. Also see “Properties: Device Settings”.

Location

Name of the location where the device is installed. Also see “Properties: Device Settings”.

Device Information

Additional information on the respective device.

Battery remaining

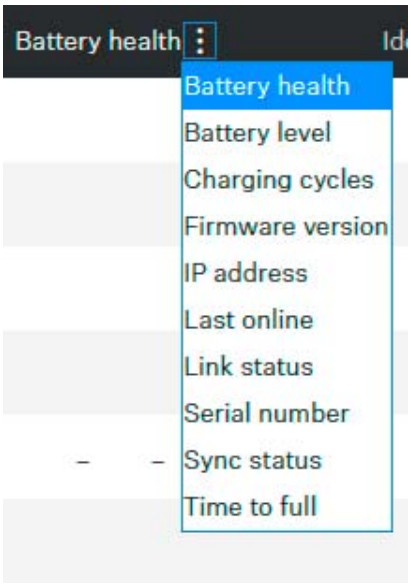
Displays the remaining battery life of the transmitter's accupack. This information is only displayed when the original Sennheiser BA 10, BA 30 and BA 40 accupacks are used.

For the CHG 4N charger the remaining time is indicated for all four charging bays.

Custom column for device status

▹ Click on the three dots to select the desired option for display in the custom column.

You can select the following options:



Battery health

- Indicates the health of the battery in %. This value is generated in the battery based on charging cycles and usage.

Battery level

- Indicates the current charging level in %.

Charging cycles

- Indicates the number of times the battery has been fully recharged.

Firmware version

- Indicates the currently installed firmware version of the selected device.

IP address

- Indicates the IP address of the selected device.

Last online

- If a device is switched off, the time it was last seen in the software is indicated here.

Link Status

Connection status:

- **Active Link**: The link between the transmitter and receiver is good. The microphone is in use.
- **muted**: The transmitter is paired but currently muted.
- **No Link**: The receiver is visible in the network. The transmitter is either switched off, out of range or not paired.
- **Bad Link**: The link between the transmitter and receiver is disturbed.

Serial number

- Indicates the serial number of the selected device.

Sync status

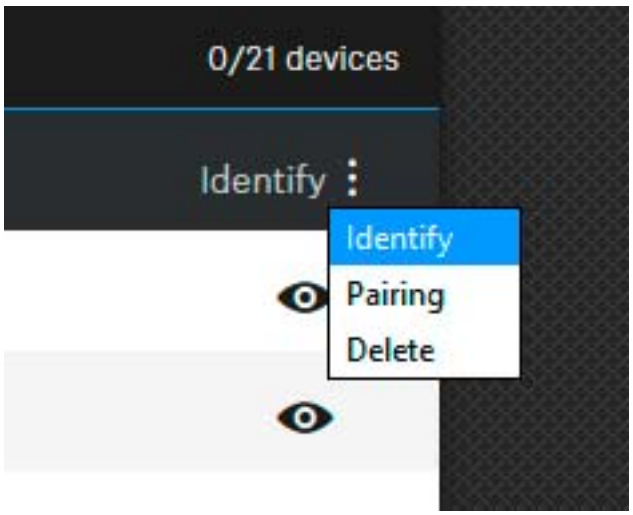
- Indicates the RF sync status. For details see “RF sync”.

Time to full

- Indicates the time remaining until the accupack is fully charged.

Custom column for device interaction

▹ Click on the three dots to select the desired option for display in the custom column.



You can select the following options:

Identify

Clicking on the **Identify** button triggers the **Identify** function on the receiver. This function allows you to find out, on-site, which transmitter is paired with which receiver.

The **Identify** function can also be activated directly on the receiver by pressing the PAIR button shortly. This is also displayed in the software. The **Identify** function allows you to easily find and identify devices.

Pairing

Clicking on the **Pairing** button triggers the **Pairing** function of the receiver. This allows you to pair devices remotely out of the software.

The **Pairing** function can also be activated directly on the receiver by pressing the PAIR button for at least 3 seconds.

Delete

Clicking on the **Delete** button allows you to delete a device completely from the Control Cockpit.

Note: If mDNS is enabled for the device, it cannot be deleted.

Adding new devices to the list

Adding devices automatically

Devices with **mDNS** enabled will be detected automatically after some time and added to the Device List.

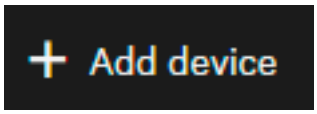
For details on how to configure the SL Rack Receiver DW, the CHG 4N and the host PC to work for automatic device detection, please refer to the SpeechLine Digital Wireless system instruction manual.

SpeechLine Digital Wireless system instruction manual

Adding one device manually

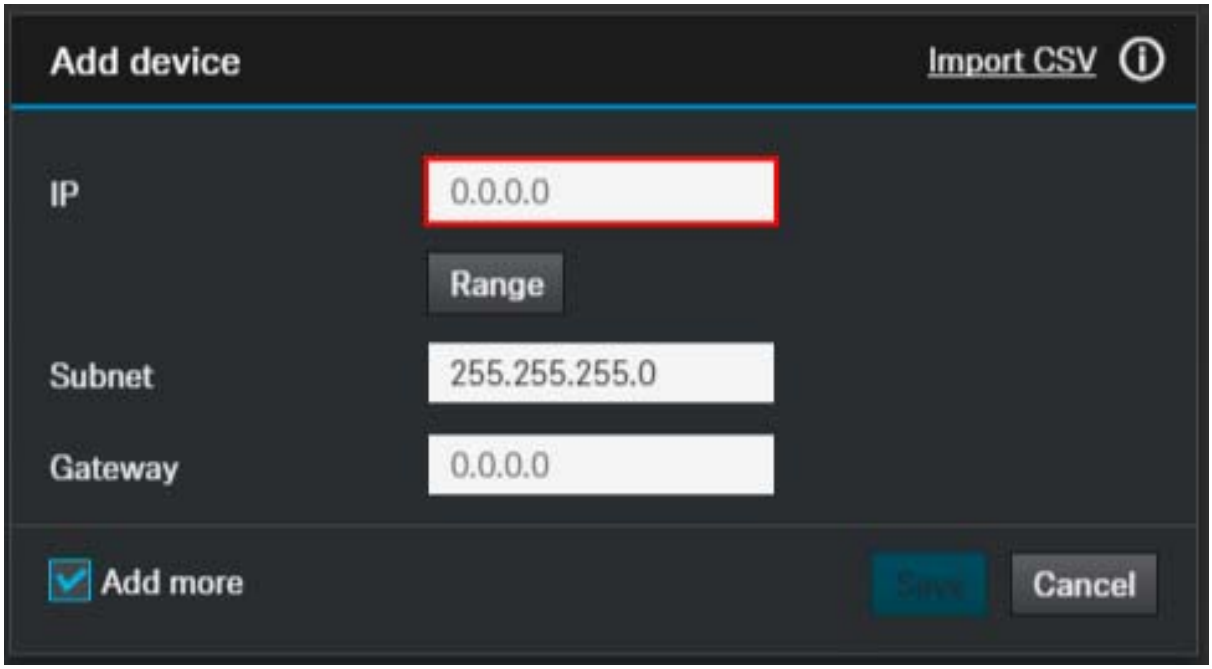
To add a new device to the device list:

▹ Click on the **Add Device** button in the upper part of the Device List.



To add **one device** by entering its IP address:

▹ In the **Add Device** dialog box, enter the IP information for the receiver.



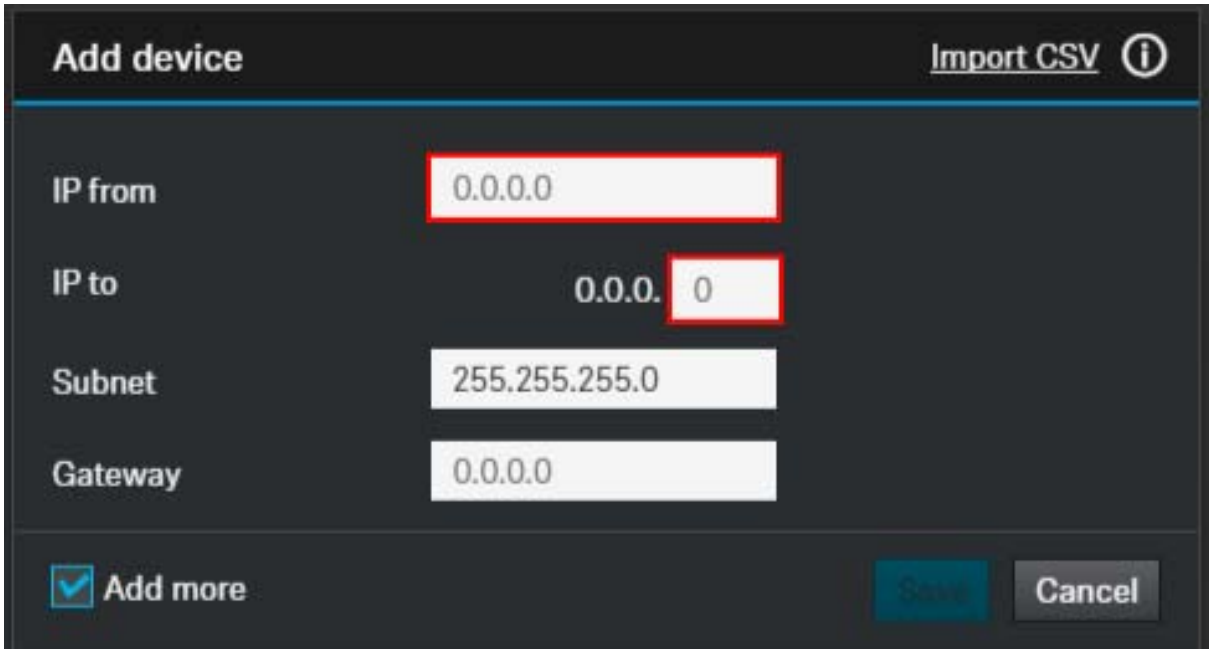
The device will be added to the list of known devices. When the device is switched on, it will be displayed in the **Devices** view and can be configured there.

The IP address must be entered without any leading zeros, which might be displayed in the receiver: for example 192.168.1.10 instead of 192.168.001.010

Adding multiple devices manually

To add **multiple devices** from the same IP address range:

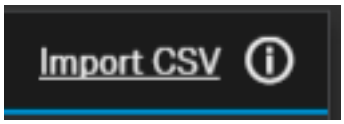
- ▹ Click on **Range**.
- ▹ In the **IP from** field, enter the first IP address of the IP range.
- ▹ In the **IP to** field, enter the last IP address of the IP range.



The devices will be added to the list of known devices. When the devices are switched on, they will be displayed in the **Devices** view and can be configured there.

The IP addresses must be entered without any leading zeros, which might be displayed in the receivers: for example 192.168.1.10 instead of 192.168.001.010

Adding devices using a CSV file



Alternatively, you can prepare a **CSV file** with a list of IP addresses and add these devices by clicking on the **Import CSV** link in the top right corner of the window.

- ▹ Use three columns in the CSV file:

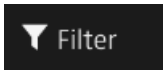
  IP address | Netmask | Gateway

	A	B	C
1	192.138.1.1	255.255.255.0	0.0.0.0
2	192.168.1.25	255.255.255.0	0.0.0.0
3	192.168.1.70	255.255.255.0	0.0.0.0
4			

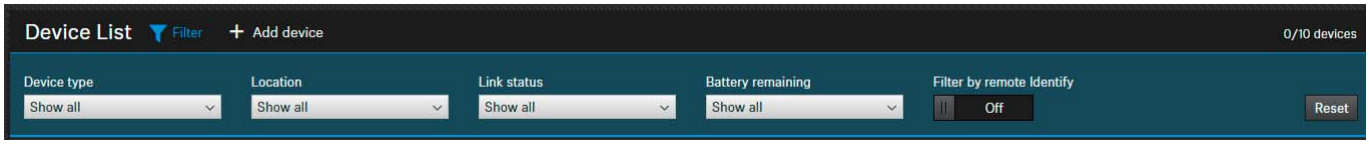
- ▹ Do not leave the first line of the CSV file empty.

Using the filter

The **Devices** view also allows you to filter the displayed devices according to certain criteria. To do so, click on the filter icon next to **Device List**.



The filter options are displayed.

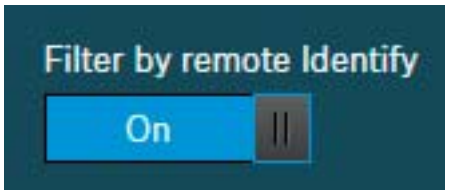


You can filter the displayed devices according to the following criteria:

- **Device type**
- **Location**
- **Link Status**
- **Battery remaining**

Clicking on underlined statistics in the cockpit view will also add a filter and lead to individual selection of the device list. You can reset the filter here.

Filter by remote identify



This function allows you to filter the Device List by hardware. This can be helpful when you are in a certain location and want the Device List to display certain devices from that location.

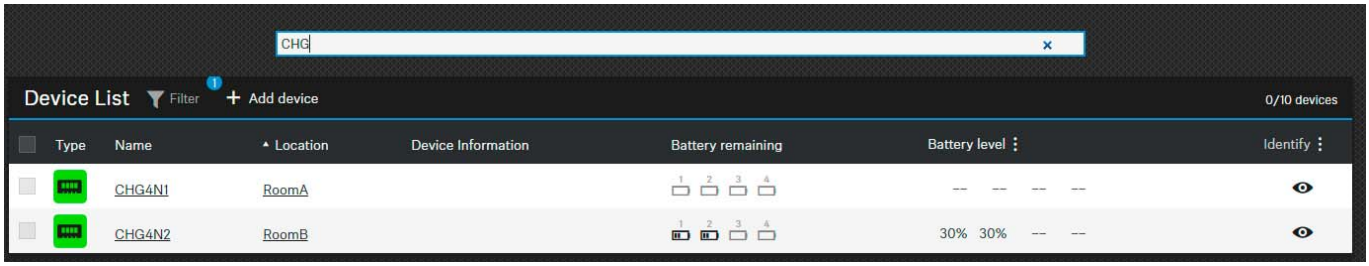
▹ Activate the **Filter by remote identify** function

▹ Shortly press the **Pair** button on the actual receiver or transmitter (**Identify** function).

These devices will be added to the filtered Device List.

Using the Search field

Instead of using the filter you can also use the text search above the device list. The devices will be filtered as you type.



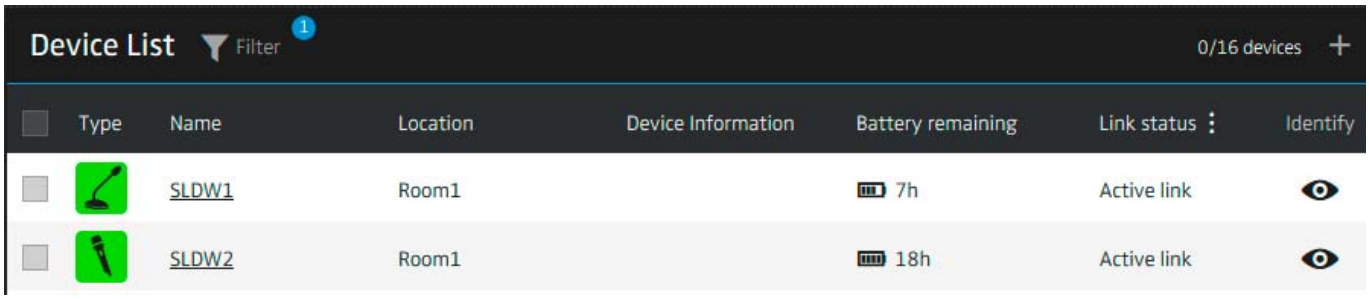
Changing the settings of the devices available in the network

All the settings that can be adjusted via the receiver's operating menu can also be adjusted using the Sennheiser Control Cockpit software.

Single selection

To change the settings of a device:

▹ In device list of the **Devices** view, click on the name of the desired device.



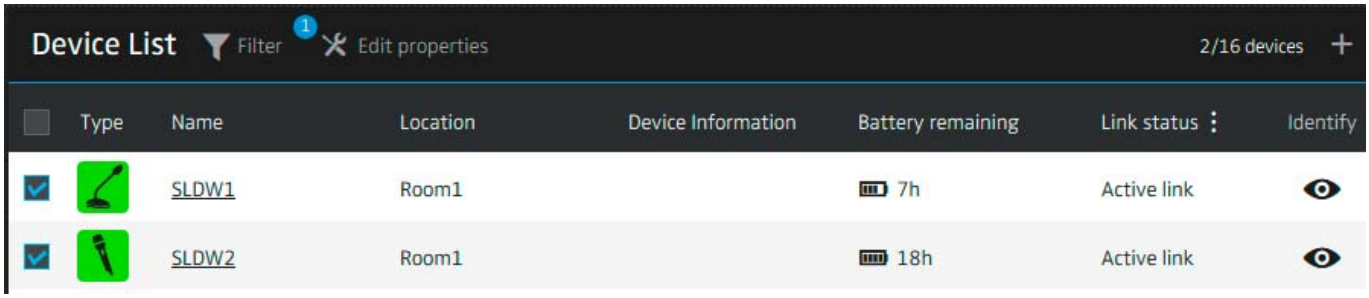
The **Properties** window opens, where you can change the settings of the selected device.

Multi selection

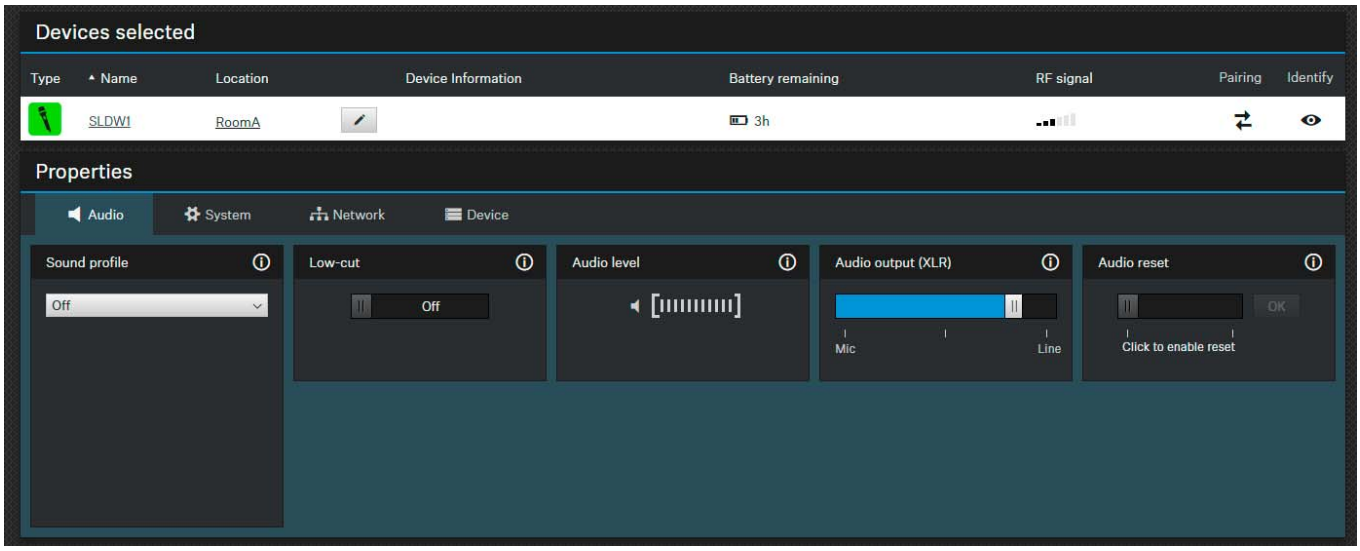
Alternatively, for all receiver links you can tick the check box located at the very left of each row in the list. An **Edit Properties** button appears. Clicking this button also opens the **Properties** window. You can change the settings of several receivers simultaneously.

▹ Tick the check boxes of all the receivers in the list whose settings you want to change and click on **Edit Properties**.

▹ To edit all devices in one location you can also click on the name of the location.



Properties: Audio Settings



Sound Profile

- Female Speech: Recommended sound profile for female speakers.
- Male Speech: Recommended sound profile for male speakers.
- Media: Recommended sound profile for audio devices.
- Custom: 7-band equalizer for manually adjusting the sound settings.
- Off: No sound profile is activated.

Low Cut

- On: The low cut filter is activated. Low-frequency noise is filtered out.
- Off: The low cut filter is deactivated.

Audio Reset

- Keep: Keeps the current audio settings.
- Reset: Resets the audio settings (Low Cut and Sound Profiles) to the factory defaults.

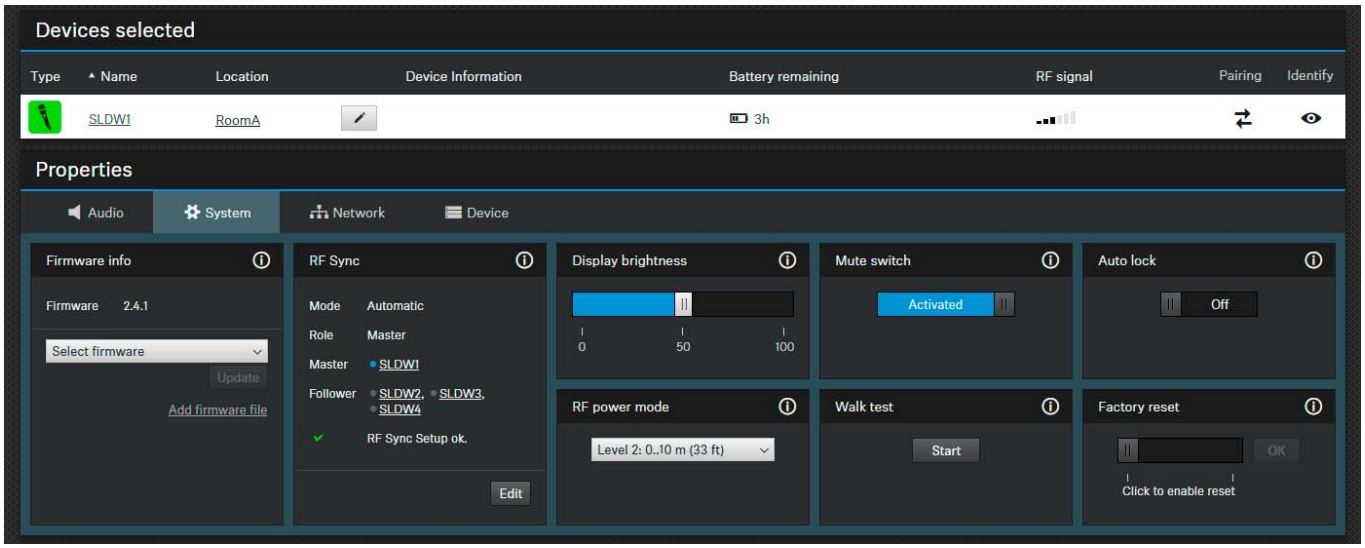
Audio Level

- Displays the audio level.

Audio Output (XLR)

- Slider for adjusting the audio output level of the XLR socket between **Mic Level** and **Line Level**. This setting does not affect the RCA output since a line level signal is always present at this output.

Properties: System Settings



Firmware Info

- Displays current firmware version.
  For information on how to update the firmware, refer to “Updating the firmware”.

Display Brightness

- Slider for adjusting the display brightness of the selected receiver.

RF Power Mode

- Automatic: The transmission power is automatically adjusted.
- Level 1 ... 5: The transmission power can be manually reduced in 5 steps. This function is required for operation in **Multi-Room Mode**.

For further information on the Multi-Room Mode refer to the SpeechLine Digital Wireless system instruction manual:

SpeechLine Digital Wireless system instruction manual

RF Sync

- Allows the configuration of the RF synchronization of the devices:
  - defining devices as a master or a follower
  - Automatic mode: automatically defines the master and the followers. This mode is recommended for a single-room setup.
  - Manual mode: allows the manual configuration of master and follower devices. This mode is recommended for larger setups in multiple rooms.

For detailed information on the **RF sync** functionality please refer to chapter “RF sync”.

Mute Switch

- Activated: The MUTE switch of the paired transmitter is activated and can be used.
- Deactivated: The MUTE switch of the paired transmitter is deactivated and cannot be used. The receiver continuously outputs audio signals.

Walk Test

- Start: Starts the **walk test**.
- Stop: After starting the walk test, the **Start** button becomes the **Stop** button. Click on **Stop** to end the walk test.

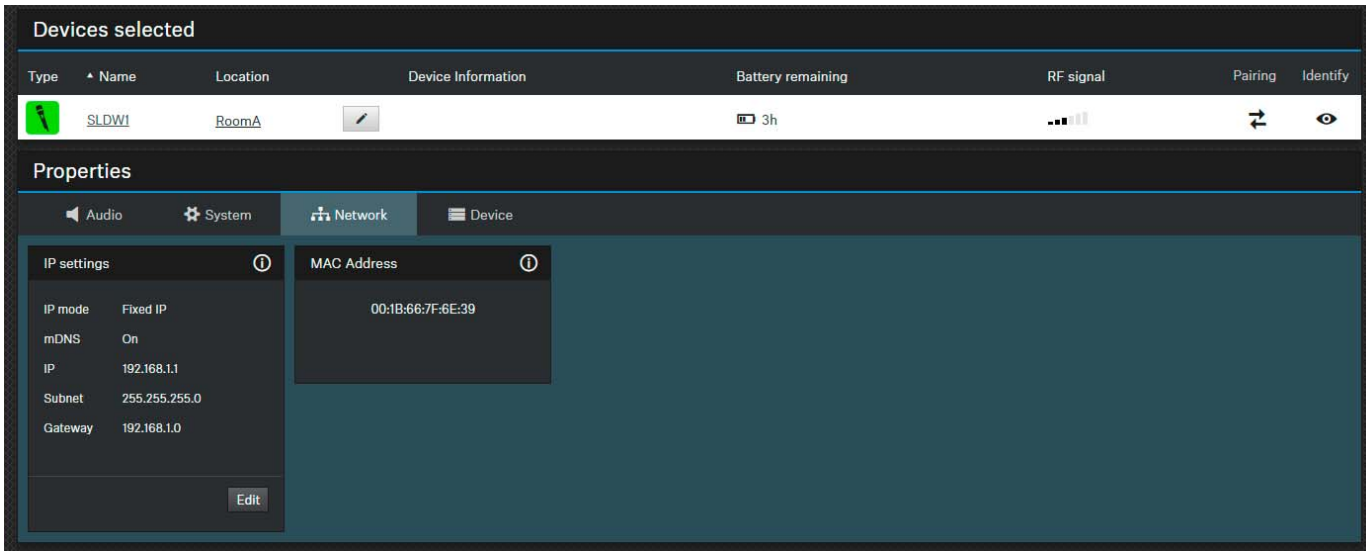
Auto Lock

- On: The automatic lock mode is activated. If no button is actuated on the receiver for approx. 10 seconds, the lock mode is automatically activated. Long-press the jog dial to temporarily deactivate the lock mode.
- Off: The automatic lock mode is deactivated.

Factory Reset

- Reset: All settings of the selected device are reset to the factory defaults.
- Keep: The settings are retained.

Properties: Network Settings



IP Mode

- Automatic: The IP address is automatically assigned using DHCP. If no DHCP server is available, the IP address is assigned by the SL Rack Receiver DW itself.
- Fixed IP: The IP address has to be entered manually.

mDNS

- Off: Deactivates mDNS to reduce the data volume transferred across the network. This option is recommended for larger systems.
- On: Activates mDNS to allow for automatic device detection. This option is recommended for smaller systems with up to 30 devices.

IP

- Input of the IP address in **Fixed IP** mode

Subnet

- Input of the subnet mask in **Fixed IP** mode

Gateway

- Input of the gateway in **Fixed IP** mode

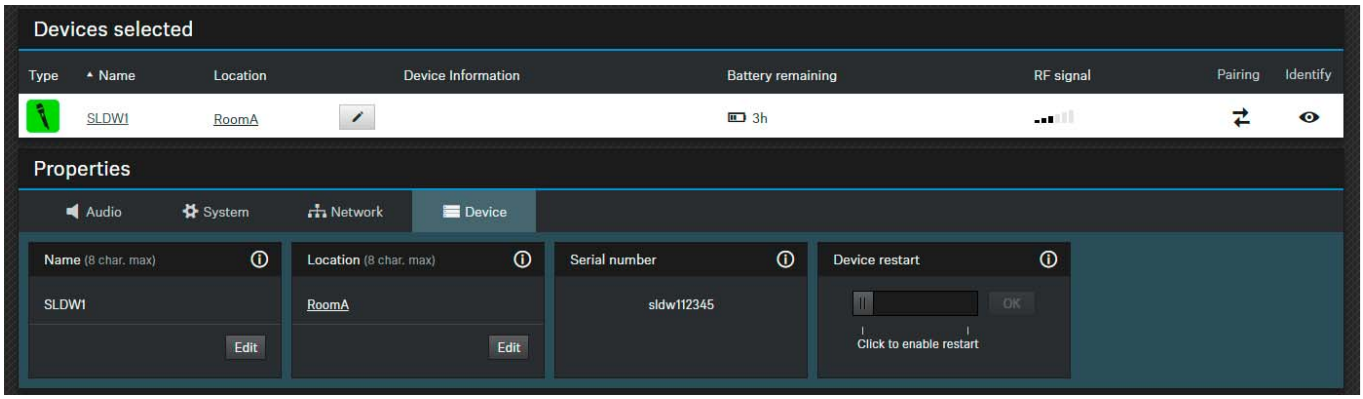
MAC Address

- Displays the MAC address

For further information on network settings of the SL Rack Receiver DW or the CHG 4N please refer to the SpeechLine Digital Wireless system instruction manual:

SpeechLine Digital Wireless system instruction manual

Properties: Device Settings



Name

- Edits the name of a device. The name will be stored on the device. If you change the name on the device itself, it will be displayed here accordingly.

Location

- Edits the name of the location

Serial number

- Displays the serial number

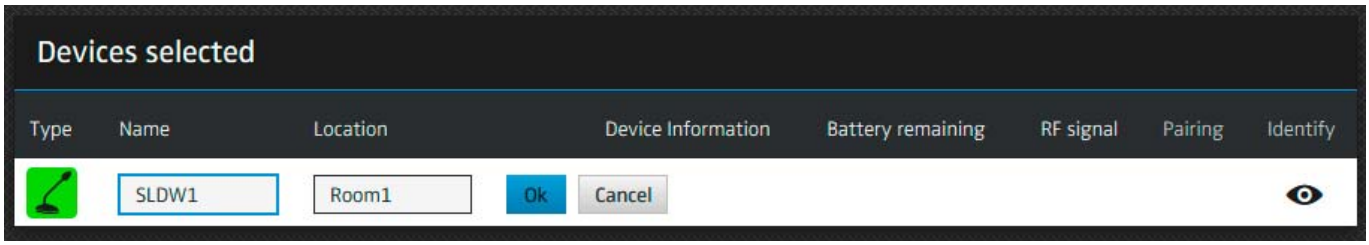
Device restart

- Restarts the selected device

Alternatively, you can edit the name of the device and the location the following way:

▹ Click on the pen icon next to the device name.

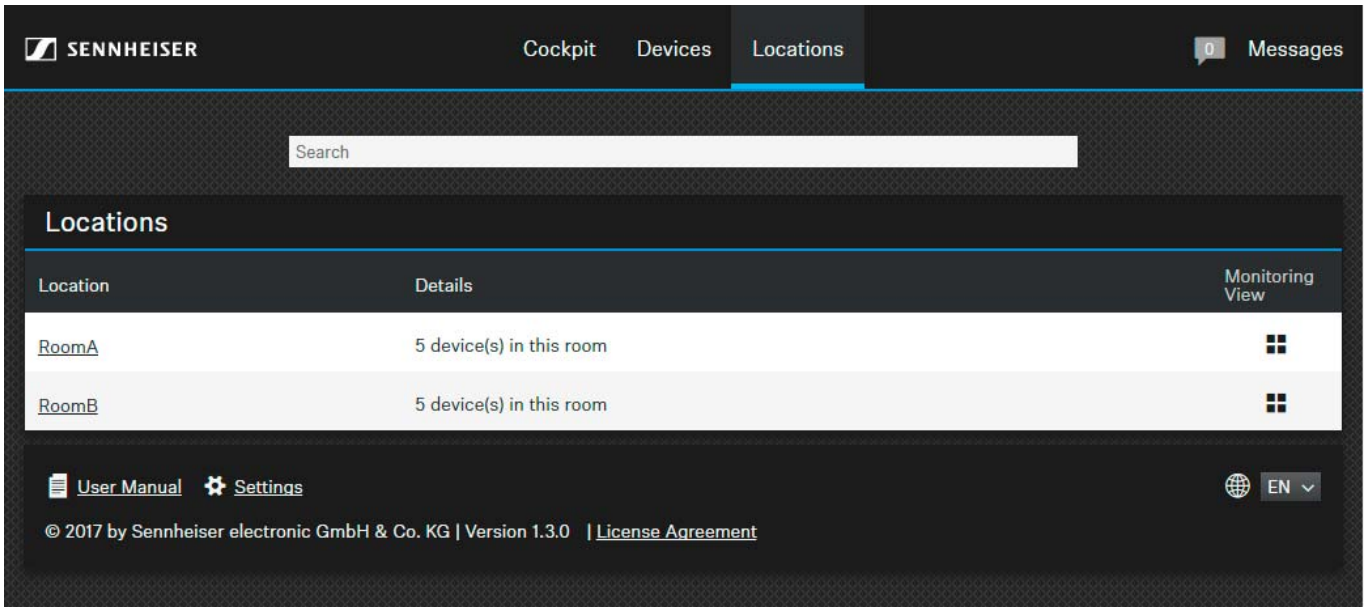
▹ Enter the desired name for the device and the location.



▹ Click on **Ok** to apply the entered changes.

The “Locations” view

The **Locations** view provides a detailed overview of all the locations where you have installed devices and of the devices installed in each location. To open the **Locations** view, click on **Locations** in the navigation bar.



The overview displays the locations used for installation as well as the number of the installed devices per location.

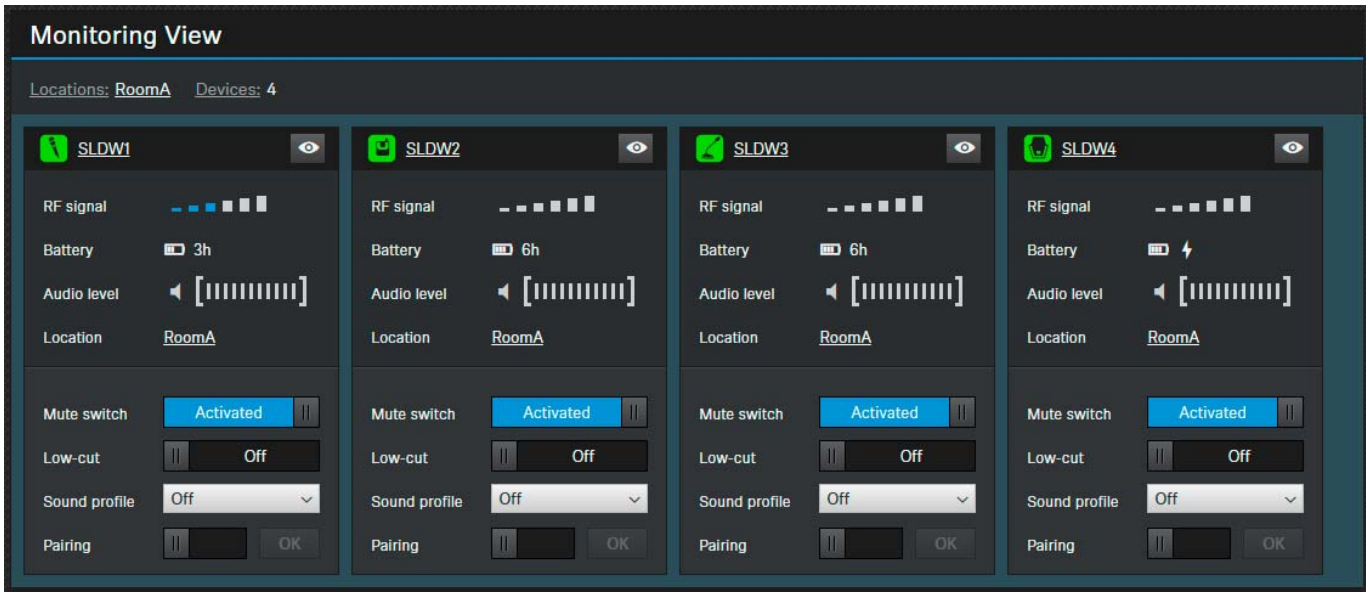
▹ Click on the name of a location to open a multi selection of all devices in that location.

Monitoring View

The Monitoring View is a consolidated view of the most important features of all devices of one location. This allows for a overview of the performance of all devices in one location at all times.

▹ Click on the Monitoring View **icon** in the column of the respective location.

The Monitoring View of that location is displayed:



Setup assistance

This chapter provides additional details on certain topics for setting up your SpeechLine Digital Wireless system.

RF sync

For the most efficient use of the RF spectrum in multi-channel applications of SpeechLine Digital Wireless, the receivers are able to synchronize with each other.

One master receiver provides a transmission clock over the air to its followers in order to guarantee safe RF performance.

Every RF group needs to have one master, which can be generated automatically or set manually.

- For details on **automatic** RF synchronization see “Automatic RF sync”.
- For details on **manual** RF synchronization see “Manual RF sync”.
- For **troubleshooting** for RF synchronization see “Troubleshooting for RF sync”.

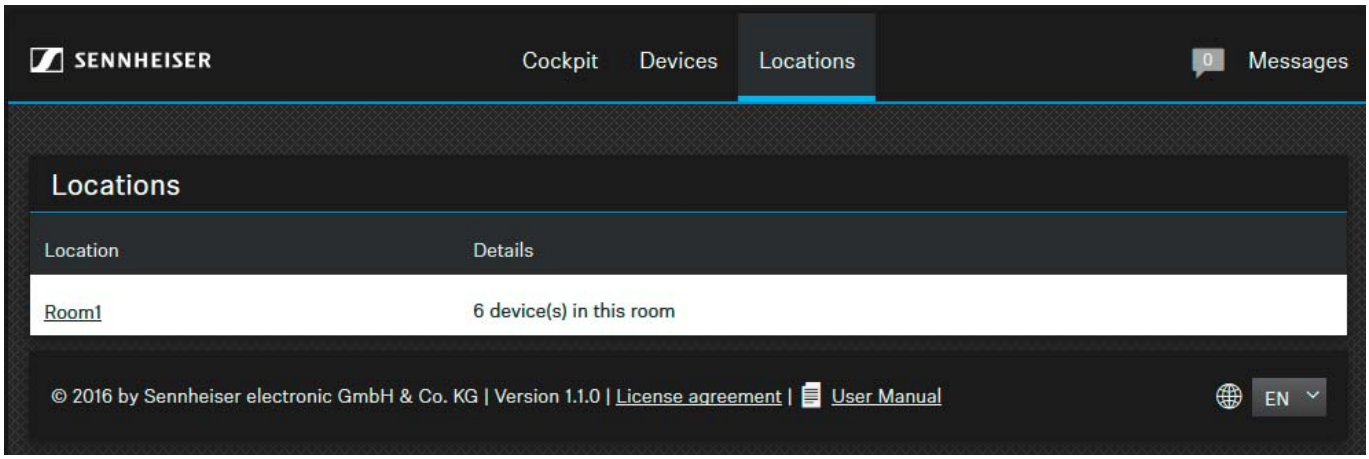
Automatic RF sync

We recommend the automatic RF sync mode for single-room installations with only one RF group.

For larger installations in multiple rooms with multiple RF groups, we recommend the manual RF sync mode (see “Manual RF sync”).

To configure the automatic RF sync:

▹ Navigate to the **Locations** view.



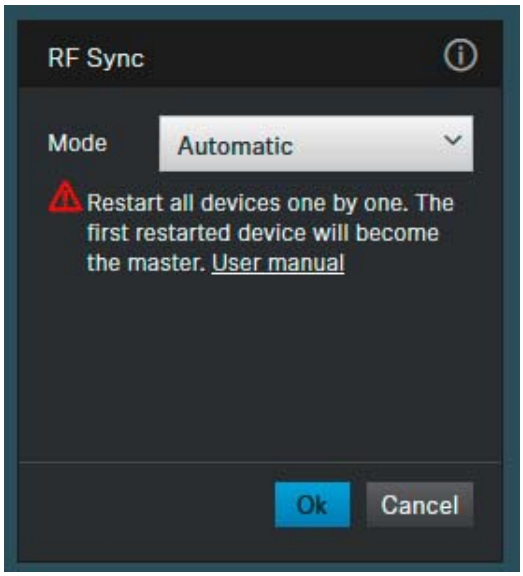
▹ Click on the name of the location to select all devices of the location.

If there are multiple locations in the Locations view, we recommend the manual RF sync mode (see below).

▹ Open **Properties -> System** of the selected device(s).

▹ Click **Edit** to configure the settings.

▹ In the **Mode** drop-down select **Automatic**.



▹ Click **OK**.

▹ Restart all receivers one after another.

The first restarted receiver will automatically become the master receiver. The other receivers will be the followers.

As mentioned above we recommend the automatic RF sync for single-room installations. If you have a multi-room installation, receivers from different locations may synchronize across locations if the RF power is set too high.

Manual RF sync

We recommend the manual RF sync mode for multi-room installations with multiple RF groups. That way you can avoid receivers from one location synchronizing with receivers from other locations.

Please observe the following aspects:

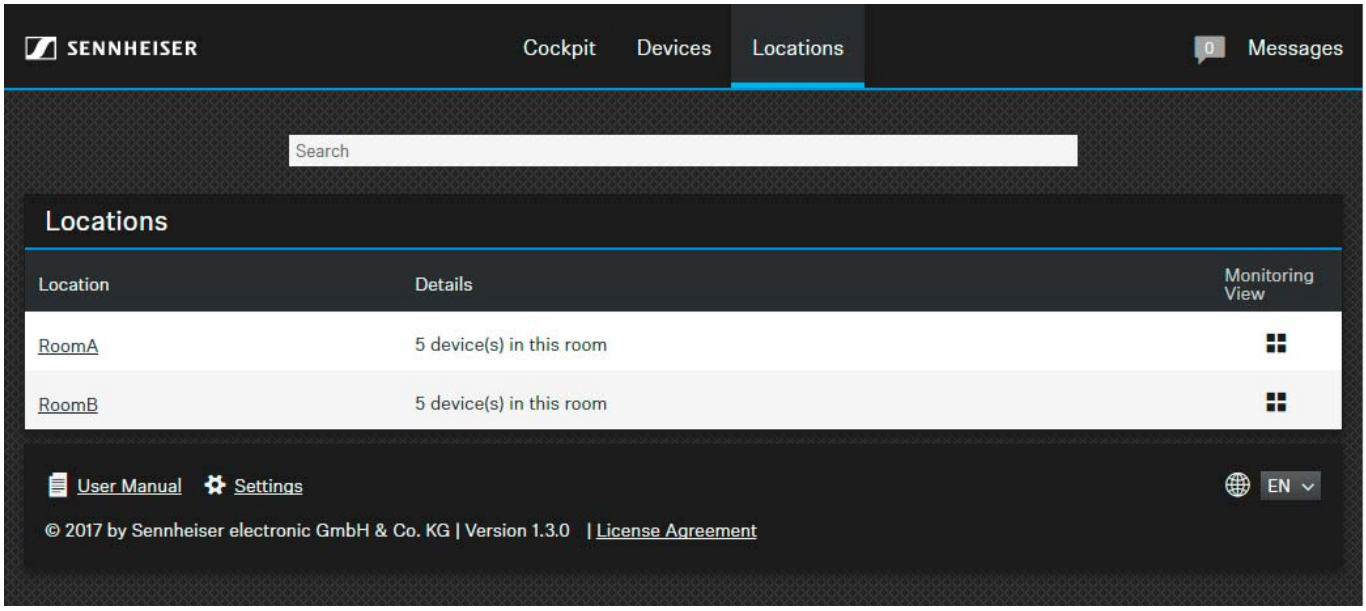
- ▹ Always configure the RF groups by location, that means all receivers of one location together.
- ▹ Define only one receiver as the master receiver for the location.
- ▹ Always configure one location at a time, one after another.
- ▹ Make sure to leave the master receiver switched on all the time.
- ▹ Alternatively, switch all receivers of one location on or off together using a multi-outlet power strip.

For further information on the Multi-Room Mode refer to the SpeechLine Digital Wireless system instruction manual:

SpeechLine Digital Wireless system instruction manual

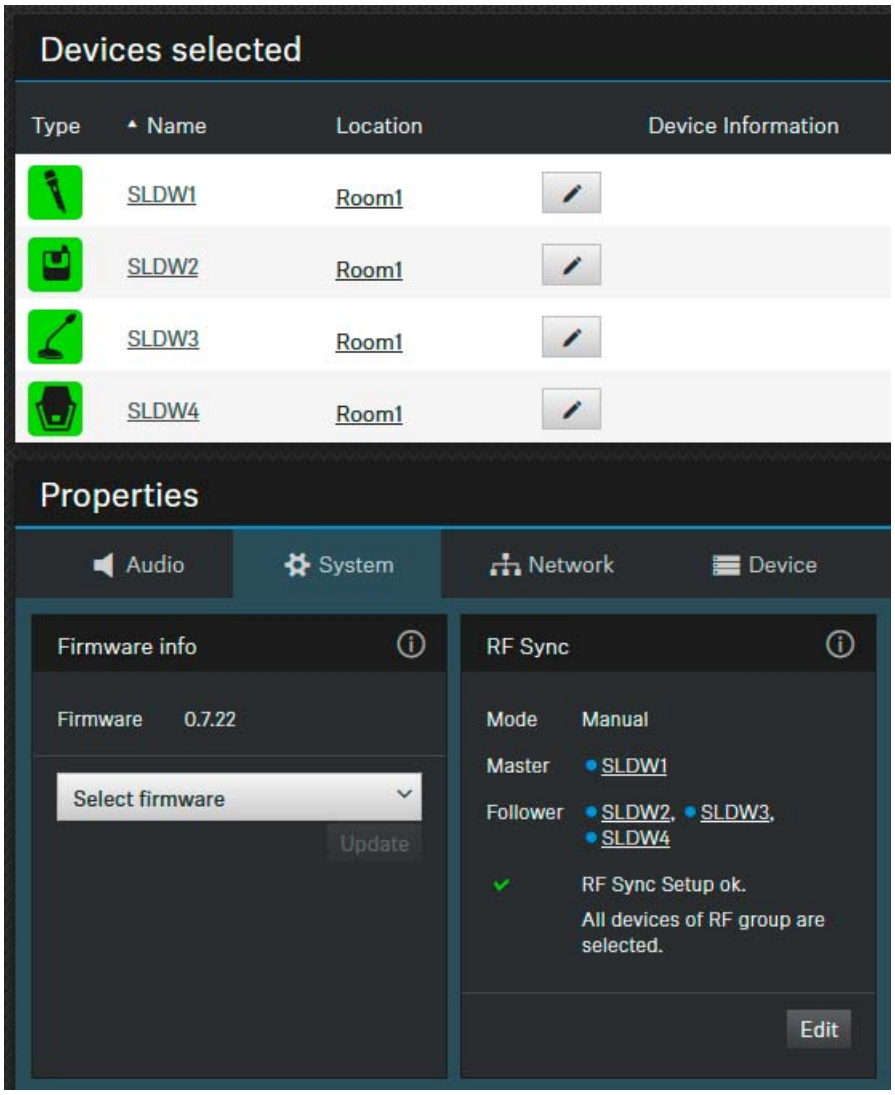
To configure the manual RF sync for one location:

- ▹ Navigate to the **Locations** view.



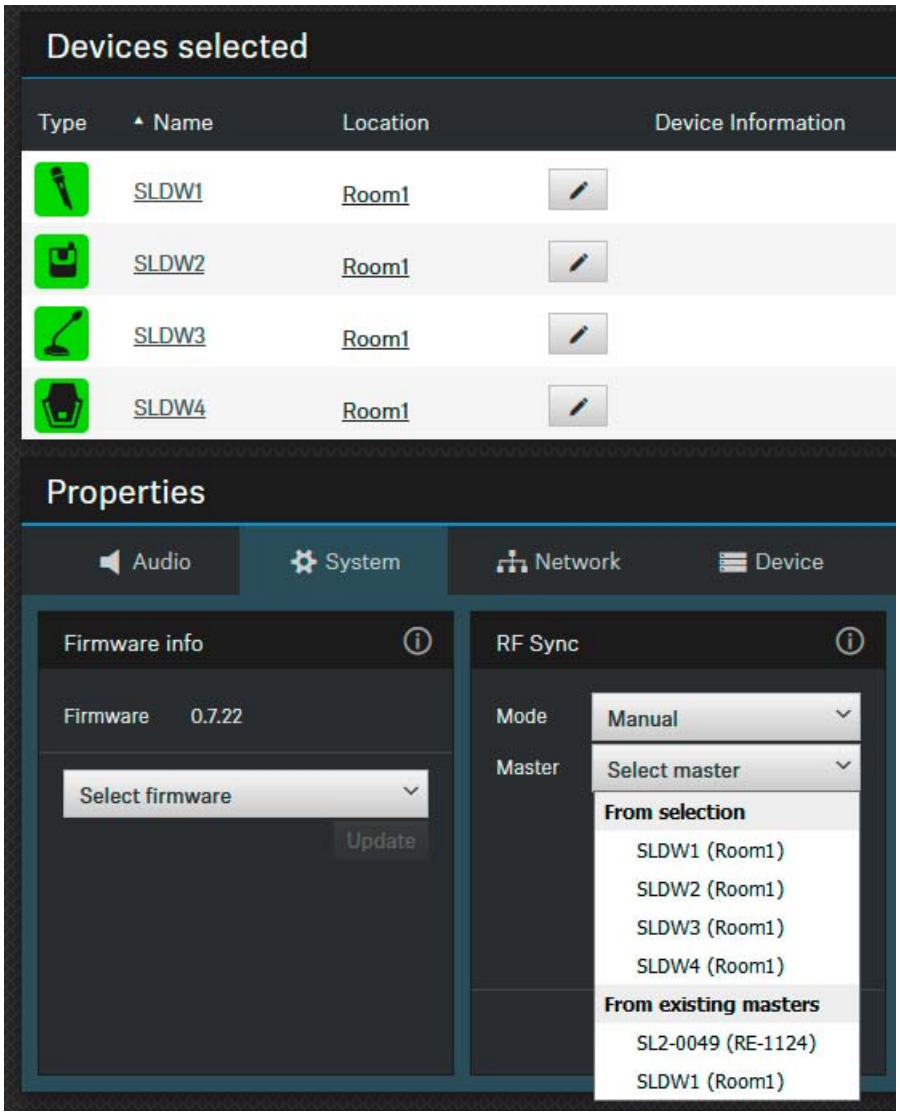
- ▹ Select all devices of one location by clicking on the name of the location.

The **Device List** opens with a multi selection of all devices of that location.



▹ Open **Properties -> System** of the selected devices.

▹ Click RF **Sync -> Edit** to configure the settings.



- ▹ In the **Mode** drop-down select **Manual**.
- ▹ In the **Master** drop-down select the receiver you want to define as master for this RF group.

  All other receivers of the selection will automatically be set as followers.
- ▹ Make sure to select the master receiver from the **From selection** list.

  The selection comprises all receivers of that location. When defining the RF group per location, as recommended, the master needs to be part of that group.

  The **From existing masters** list shows other receivers which have also been defined as master receivers, but which are part of other RF groups in other locations. Choose a master from that list only if you want to configure a different setup, e. g. adding a mobile rack, which is configured as a proper location, to a certain other location.

Only devices with **Manual** RF sync mode are listed here. Devices with **Automatic** RF sync mode are not listed here.

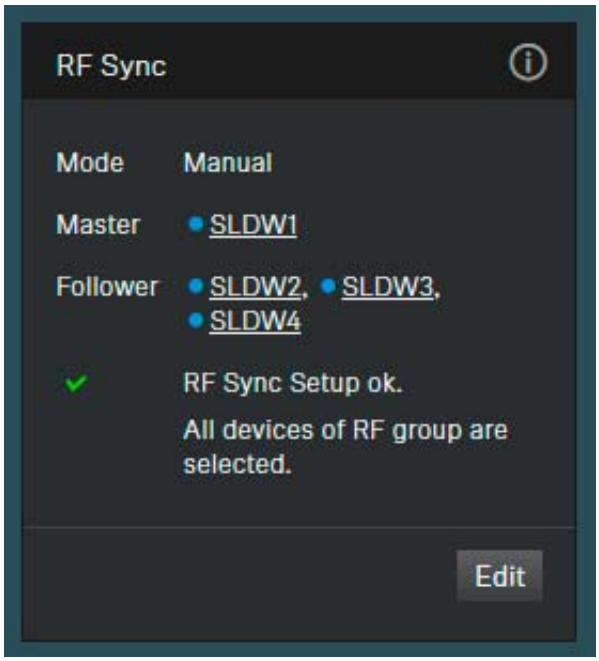
- ▹ Click **Ok** to save the settings.

  After defining the master receiver, all receivers of that location will be restarted.

Overview after configuration

The **RF Sync** properties box underneath the **Device List** in the **Properties -> System** tab will display the status information of the selected devices.

After a successful synchronization it will look like this:



All selected receivers are indicated with a blue dot. If the dot is grey, the receiver is not part of the selection.

If the RF sync setup is not ok, errors will be displayed in this properties box as well. For details see “Troubleshooting for RF sync”.

Troubleshooting for RF sync

Error messages in RF properties box

In the **Properties -> Sytem** tab in the **Device List** the property box **RF Sync** will display the status of the selected devices.

The following messages can be displayed.

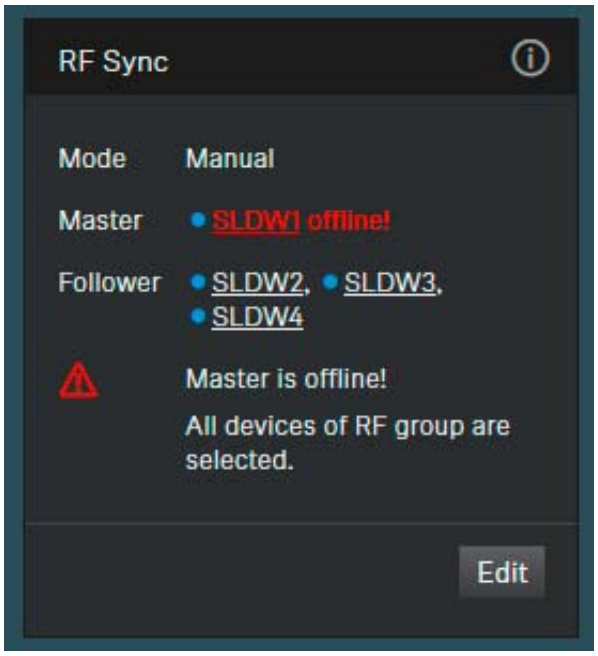
Master unknown

The master receiver is not in the device database of the Control Cockpit.

This will lead to the error message **No RF Master configured** in the **Device List.**

- ▹ Check if the receiver is in the database of the Control Cockpit.
- ▹ If not, add the receiver via the Add Device function (see “Adding new devices to the list”).
- ▹ Reconfigure the RF group (see “Manual RF sync”).

Master is offline

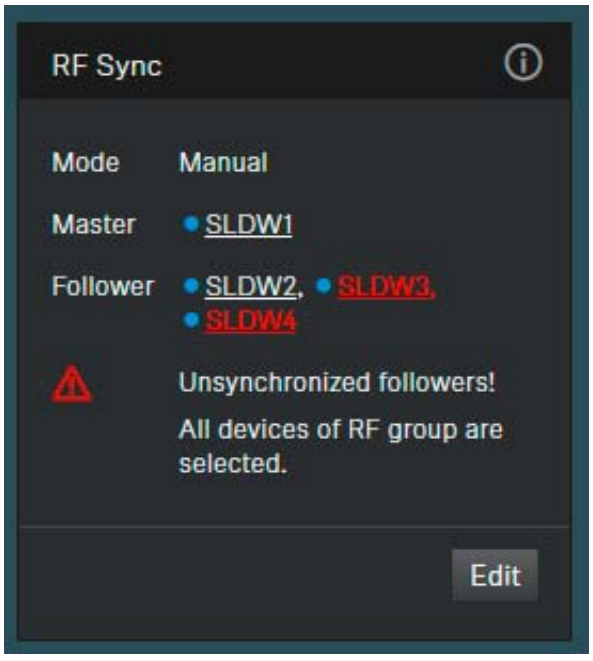


The master receiver is switched off.

This will lead to the error message **RF Master offline** in the **Device List**.

▹ Switch the master receiver on.

Unsynchronized followers



One or more followers in the RF group are not synchronized with their assigend master receiver. This may happen when receivers have an active link and the RF sync settings are changed.

This will lead to the error message **Not synchronized** in the **Device List**.

▹ Restart the repesctive receiver(s) to initiate re-synchronization.

Error messages in Device List

In certain cases the following status messages may appear in the device list.

Status message	Recommended action
No RF Master configured	The master receiver is not in the database of the Control Cockpit or no receiver is configured as a master for the selected RF group. ▹ Define a master receiver for the selected RF group. See “Manual RF sync”,
RF Master offline	The master receiver is switched off. ▹ Switch the master receiver on.
Multiple RF masters in location	This label is diplayed for all receivers of one location. More than one receiver of the location is configured as master. We recommend configuring all receivers of one location as one RF group. ▹ Reconfigure the receivers of the location as one RF group with one master. See “Manual RF sync”.
Not synchronized	The receiver is not synchronized with its assigend master. ▹ Restart the respective receiver(s) to initiate re-synchronization.

Updating the firmware

When the PC running the Sennheiser Control Cockpit software is connected to the Internet, the most recent firmware versions for all updatable devices is automatically made available.

If you are running a closed network, you have to download the firmware from the Internet and import it into the Sennheiser Control Cockpit software using the **Upload Firmware** button.

In order to use all the latest features of the software and in order for all devices to work properly, we strongly recommend updating the firmware of all devices to the latest version.

The **latest firmware** version is available via the internal update server of the Sennheiser Control Cockpit. Alternatively, it can be downloaded from the SpeechLine Digital Wireless and Sennheiser Control Cockpit product pages and from the download area of the Sennheiser website.

- SpeechLine Digital Wireless product page
- Sennheiser Control Cockpit product page
- Download area of the Sennheiser website

Updating the firmware of a link (receiver and paired transmitter)

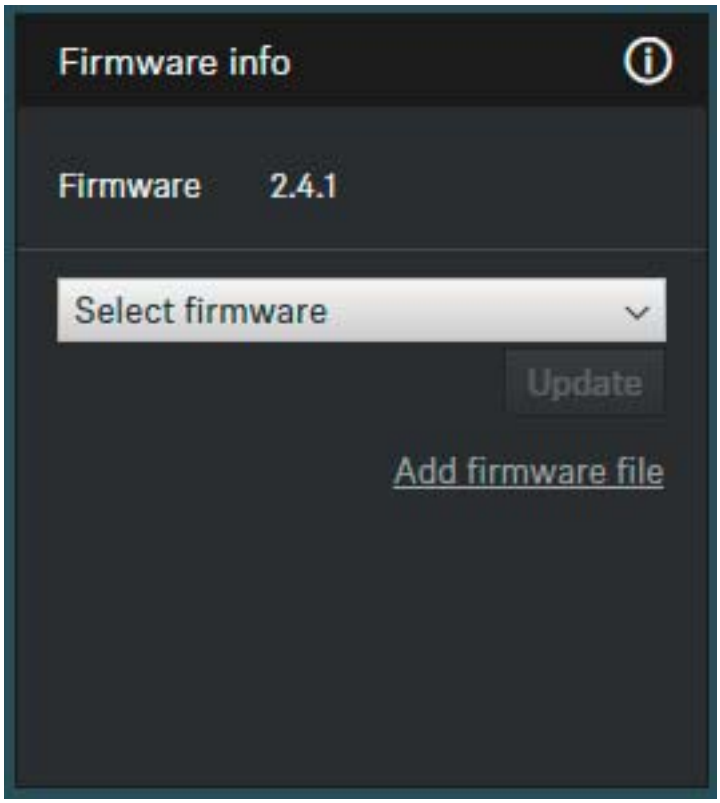
▹ From the **Device List**, select the device whose firmware you want to update.

See “The “Devices” view”.

▹ Open the **System Settings** menu.

See “Properties: System Settings”.

The dialog **Firmware Info** indicates the available firmware versions:

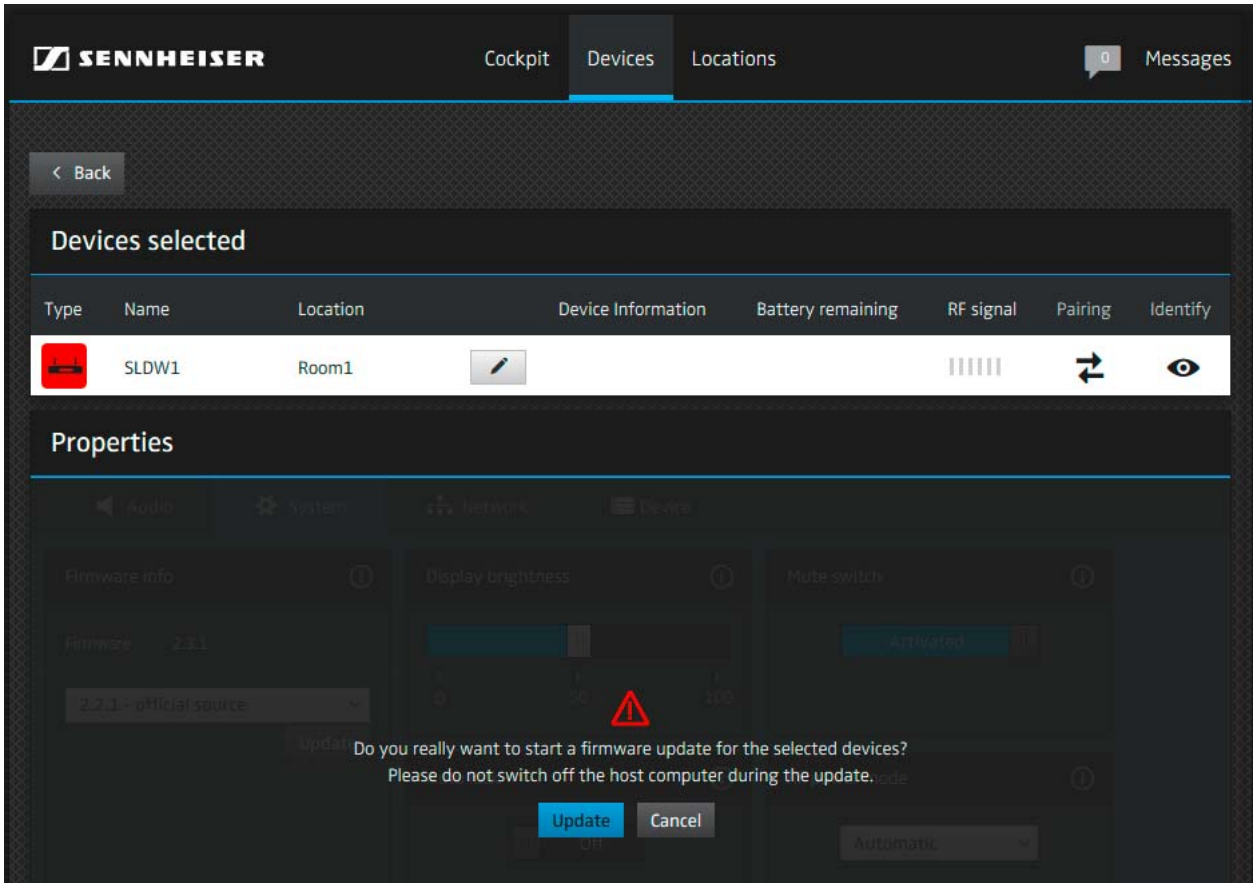


▹ From the drop-down list, select the firmware version you want to install.

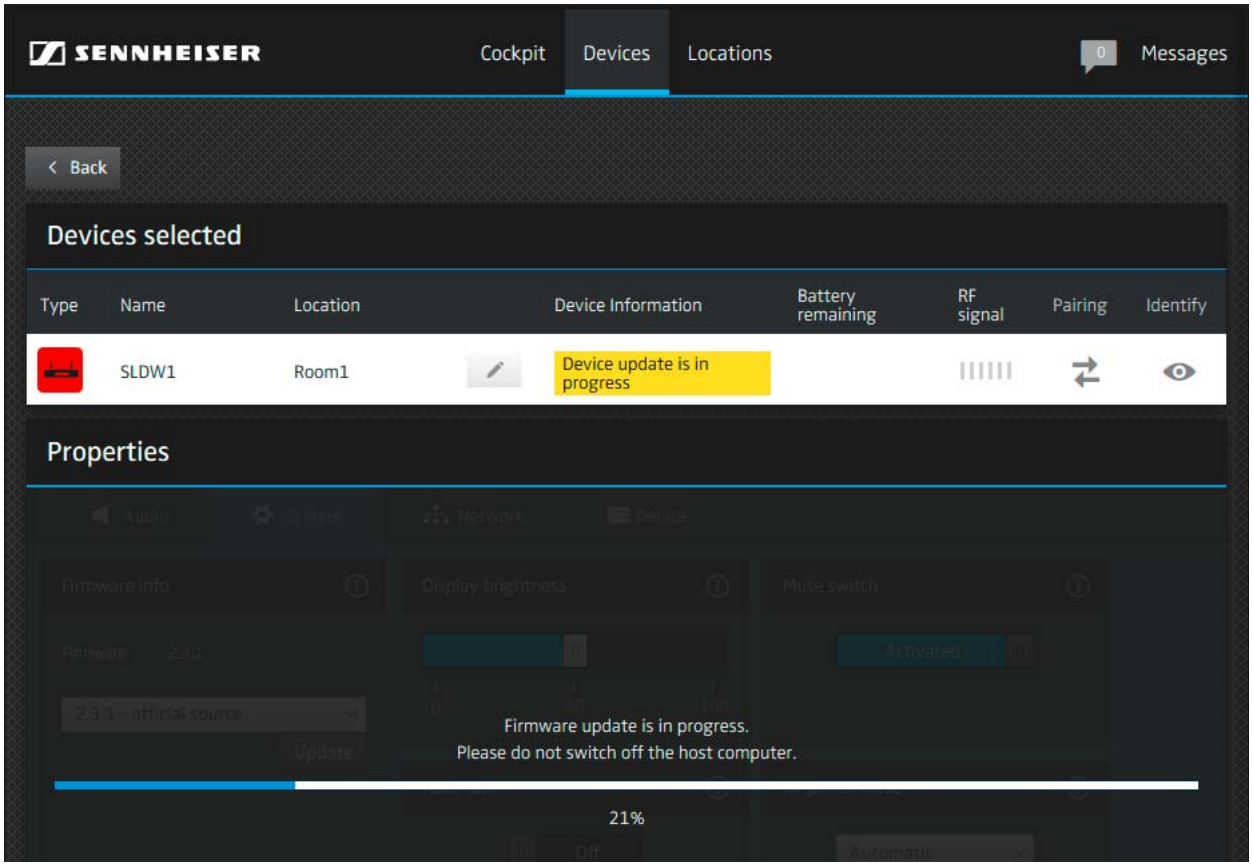
▹ To add a manually downloaded firmware, click on **Add firmware file** and select the downloaded file.

Firmware versions downloaded automatically by the Control Cockpit are marked **via update server**. Firmware versions downloaded manually by yourself are marked **added manually**.

▹ Click on **Update**.

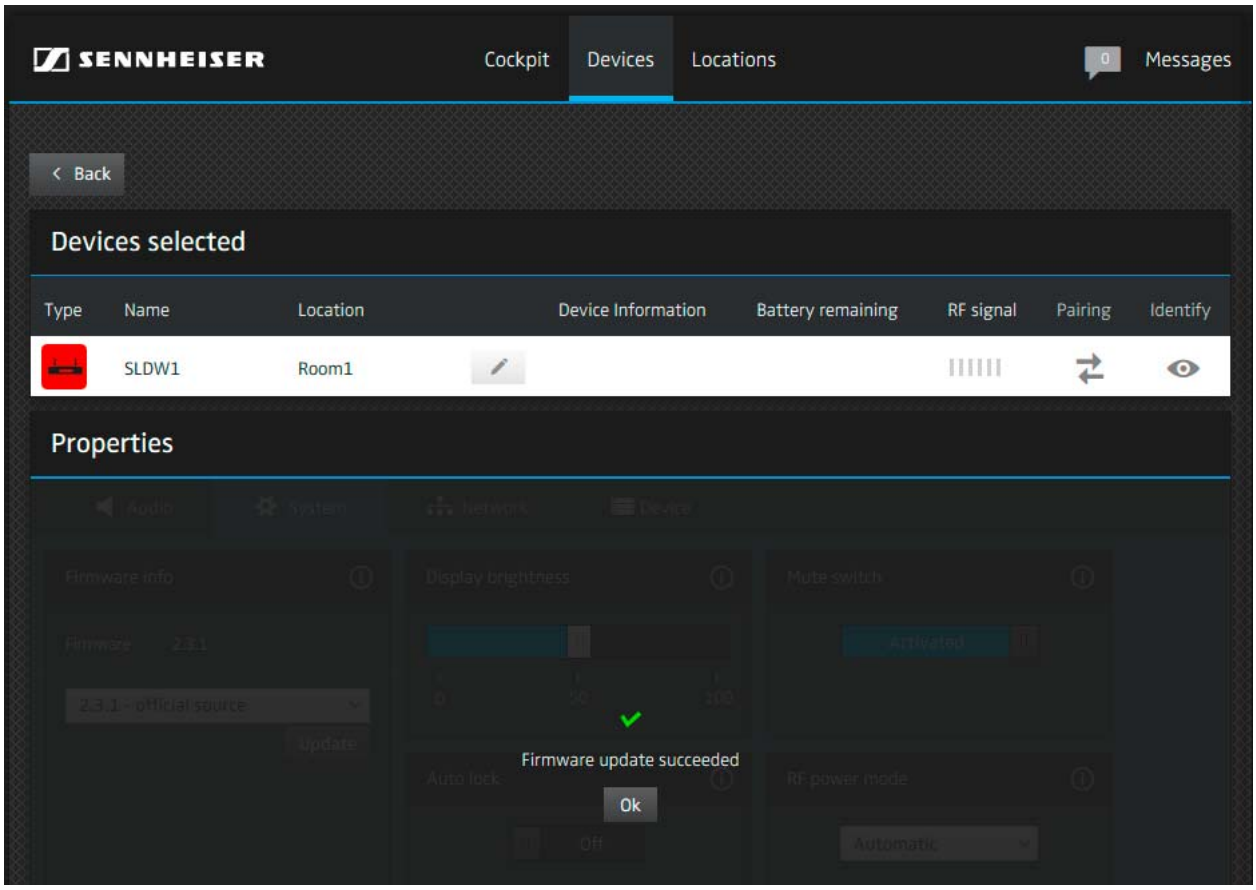


▹ Click on **Update**.

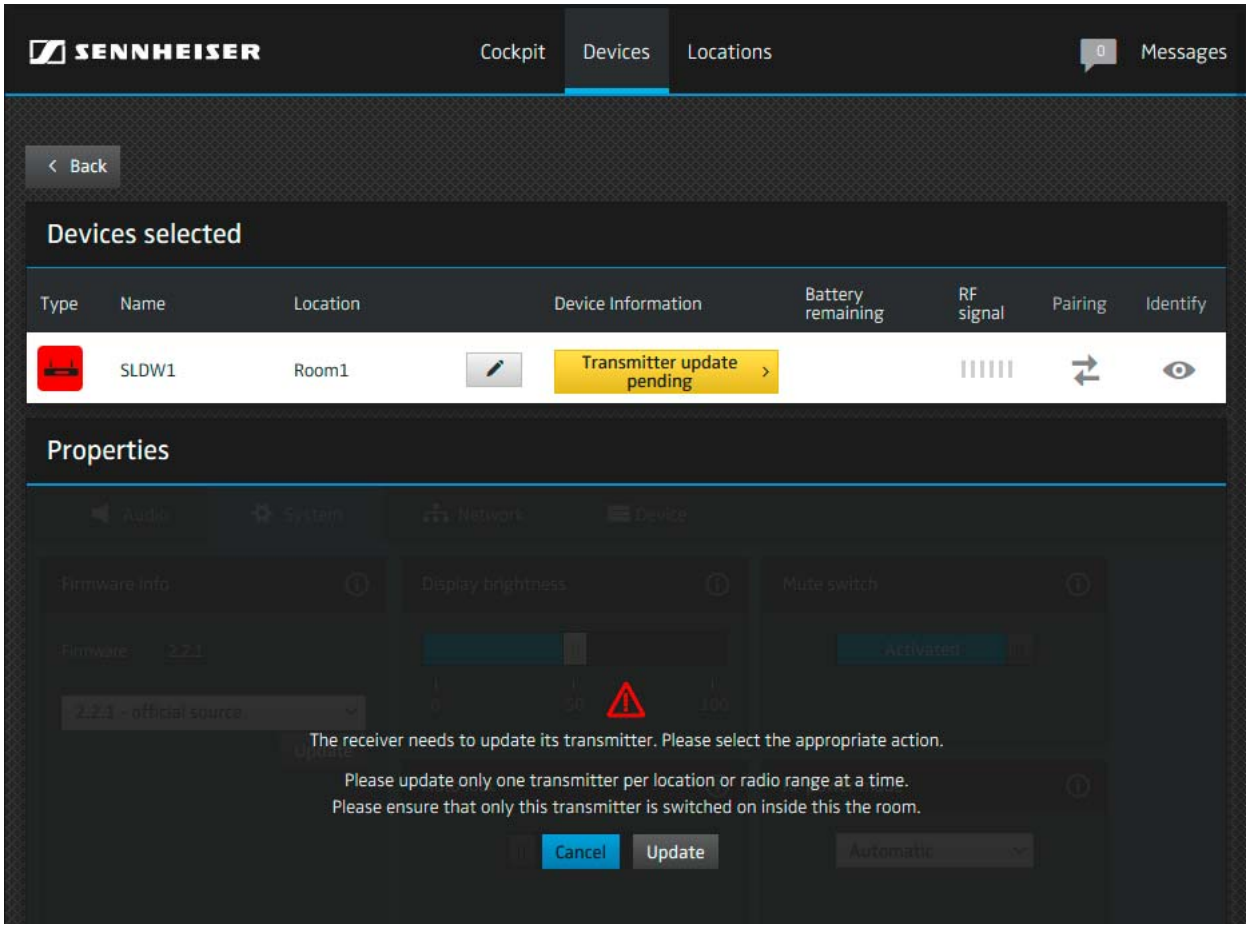


The firmware of the receiver is updated.

After the successful update the following message is displayed.



The firmware of the paired transmitter is not updated automatically. You first have to confirm the update for the paired transmitter.



▹ Click on **Update** to update the firmware of the paired transmitter.

The firmware update for the paired transmitter is then wirelessly transmitted from the receiver to the transmitter.

Make sure to update only one transmitter at a time. Updating multiple transmitters simultaneously in the same frequency range may produce interferences which may cause the update to fail.

Updating the firmware of the network-enabled charger CHG 4N

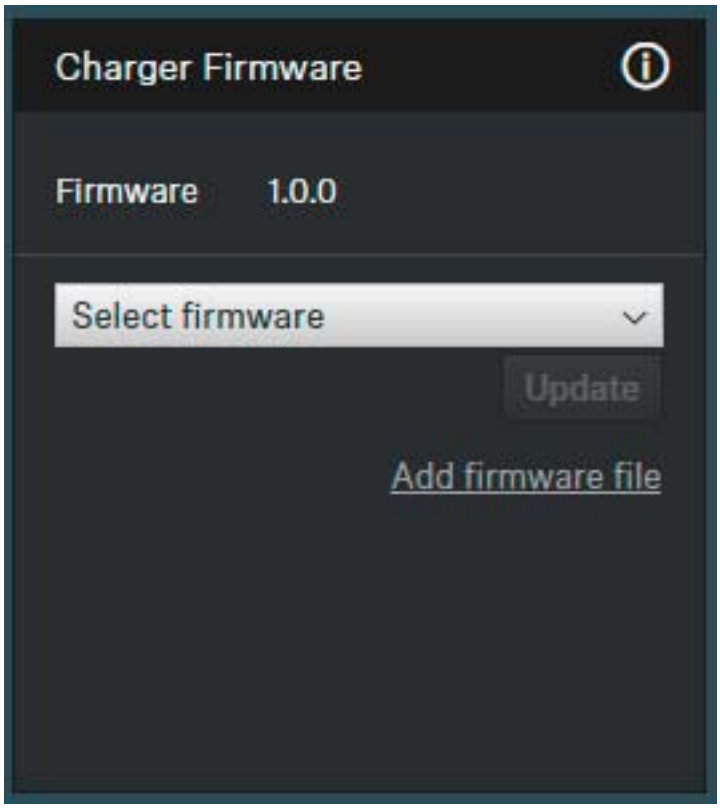
▹ From the **Device List**, select the charger whose firmware you want to update.

See “The “Devices” view”.

▹ Open the **System Settings** menu.

See “Properties: System Settings”.

The dialog **Charger Firmware** indicates the available firmware versions:

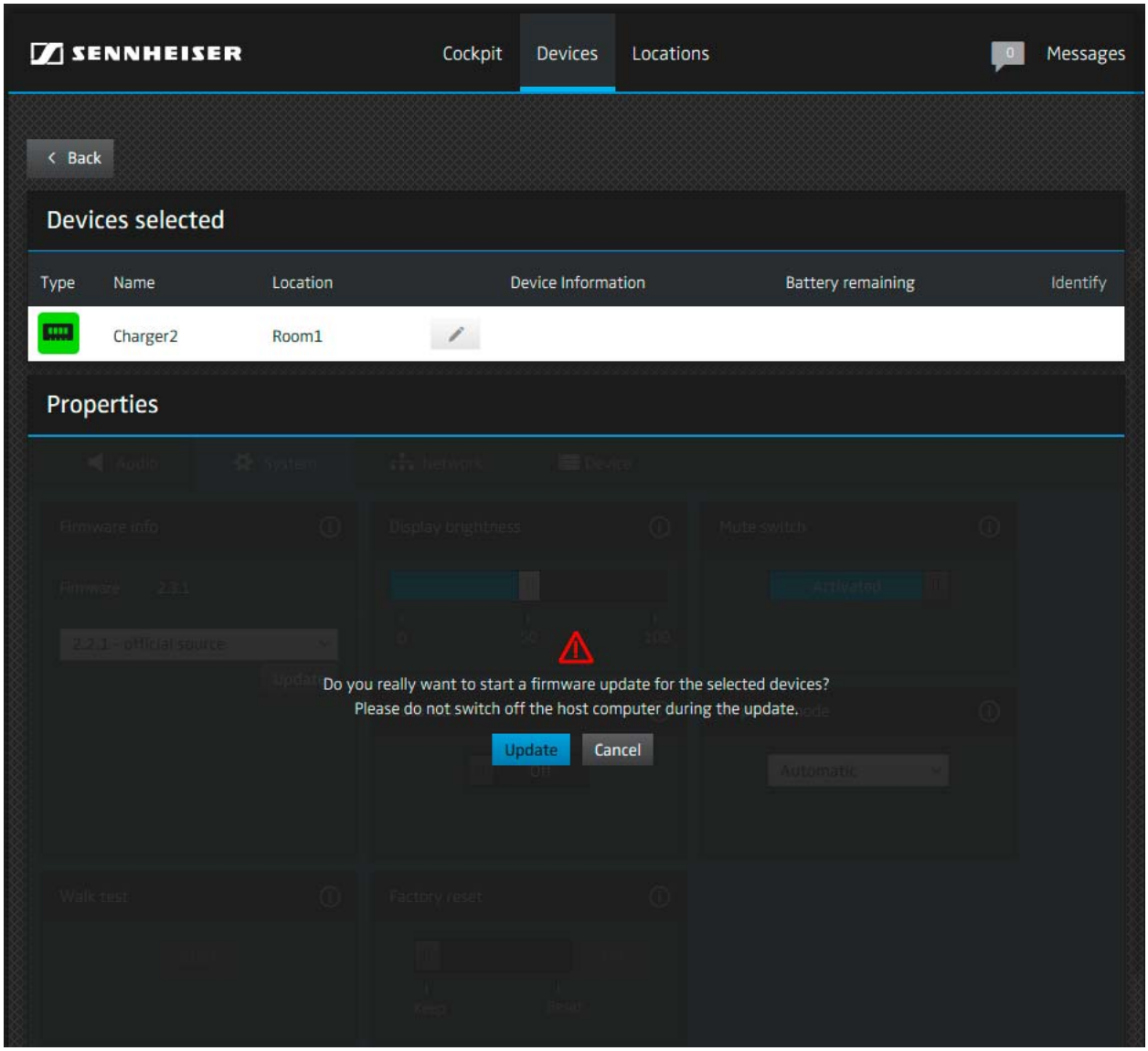


▹ From the drop-down list, select the firmware version you want to install.

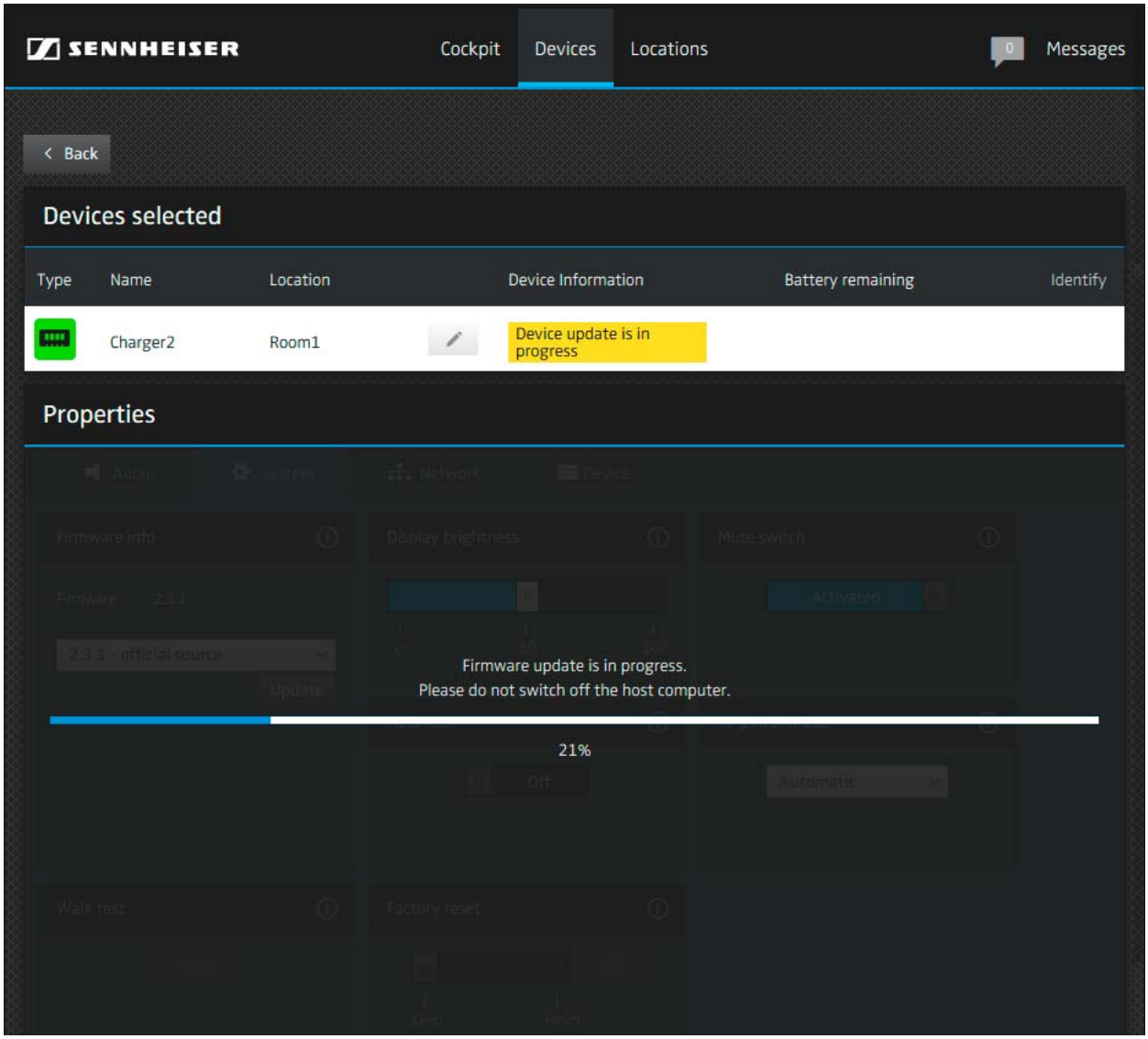
▹ To add a manually downloaded firmware, click on **Add firmware file** and select the downloaded file.

Firmware versions downloaded automatically by the Control Cockpit are marked **via update server**. Firmware versions downloaded manually by yourself are marked **added manually**.

▹ Click on **Update**.

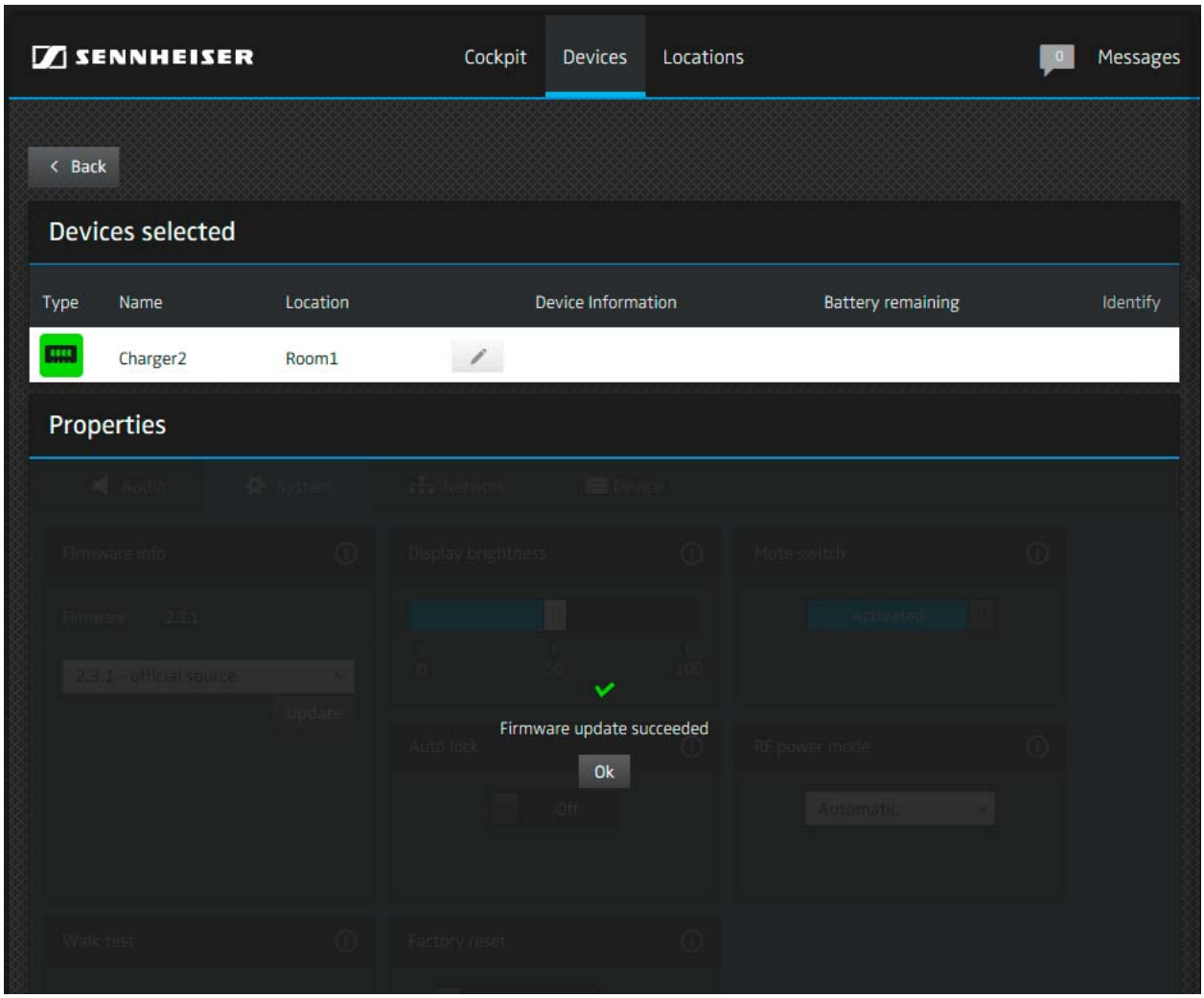


▹ Click on **Update**.



The firmware of the charger is updated.

After the successful update the following message is displayed.



Updating the firmware of single transmitters using the CHG 4N

If you want to update the firmware of single or multiple transmitters independently from their paired receivers, you can do that using the CHG 4N.

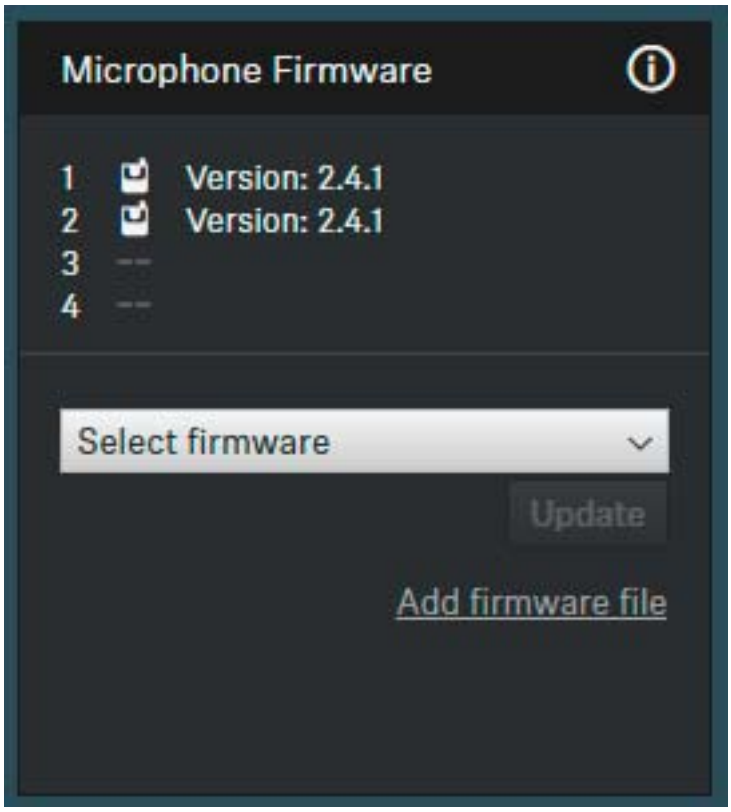
▹ From the **Device List**, select the charger containing the transmitters you want to update.

See “The “Devices” view”.

▹ Open the **System Settings** menu.

See “Properties: System Settings”.

The dialog **Microphone Firmware** indicates the available firmware versions for the transmitters in each of the four charging bays of the CHG 4N:

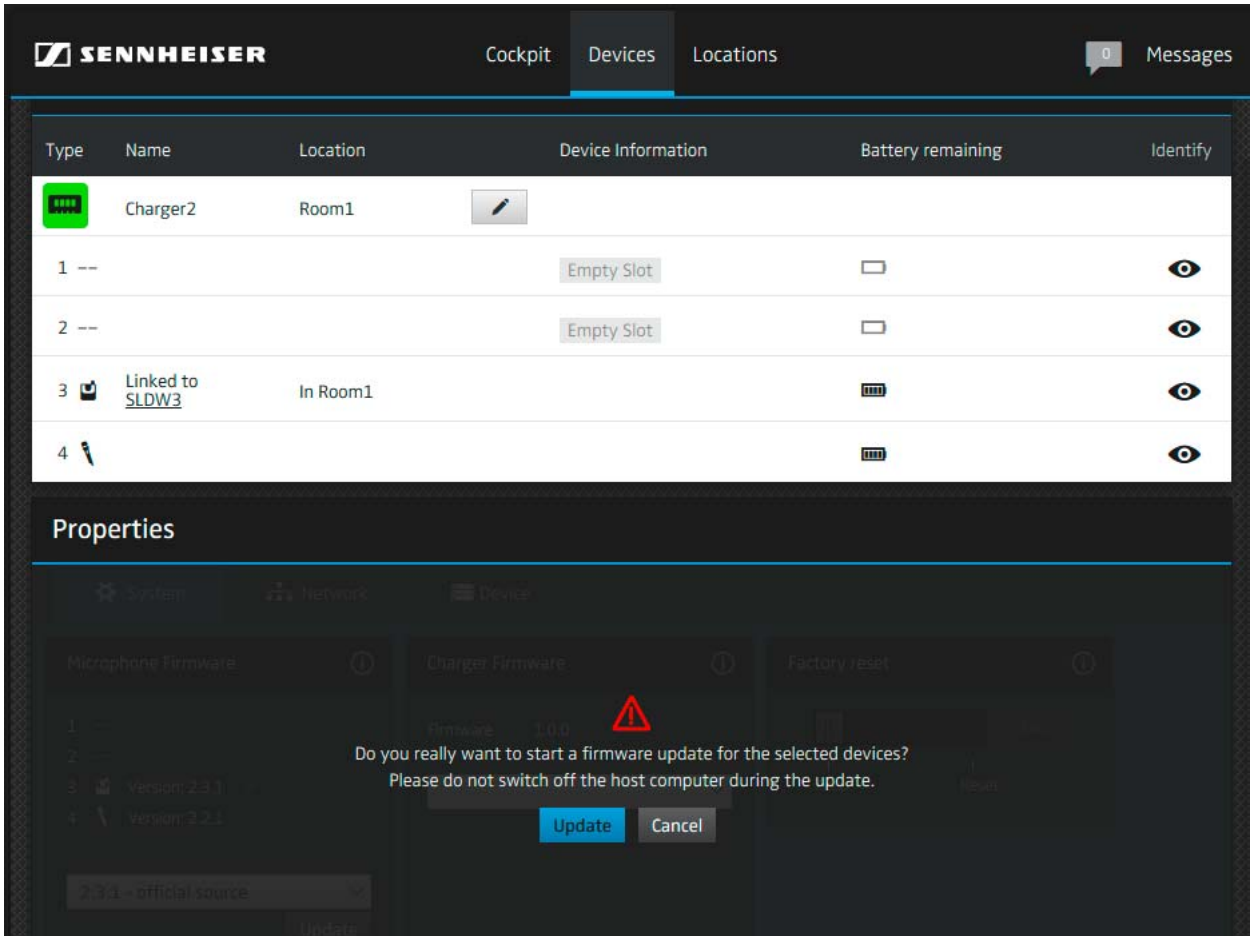


▹ From the drop-down list, select the firmware version you want to install.

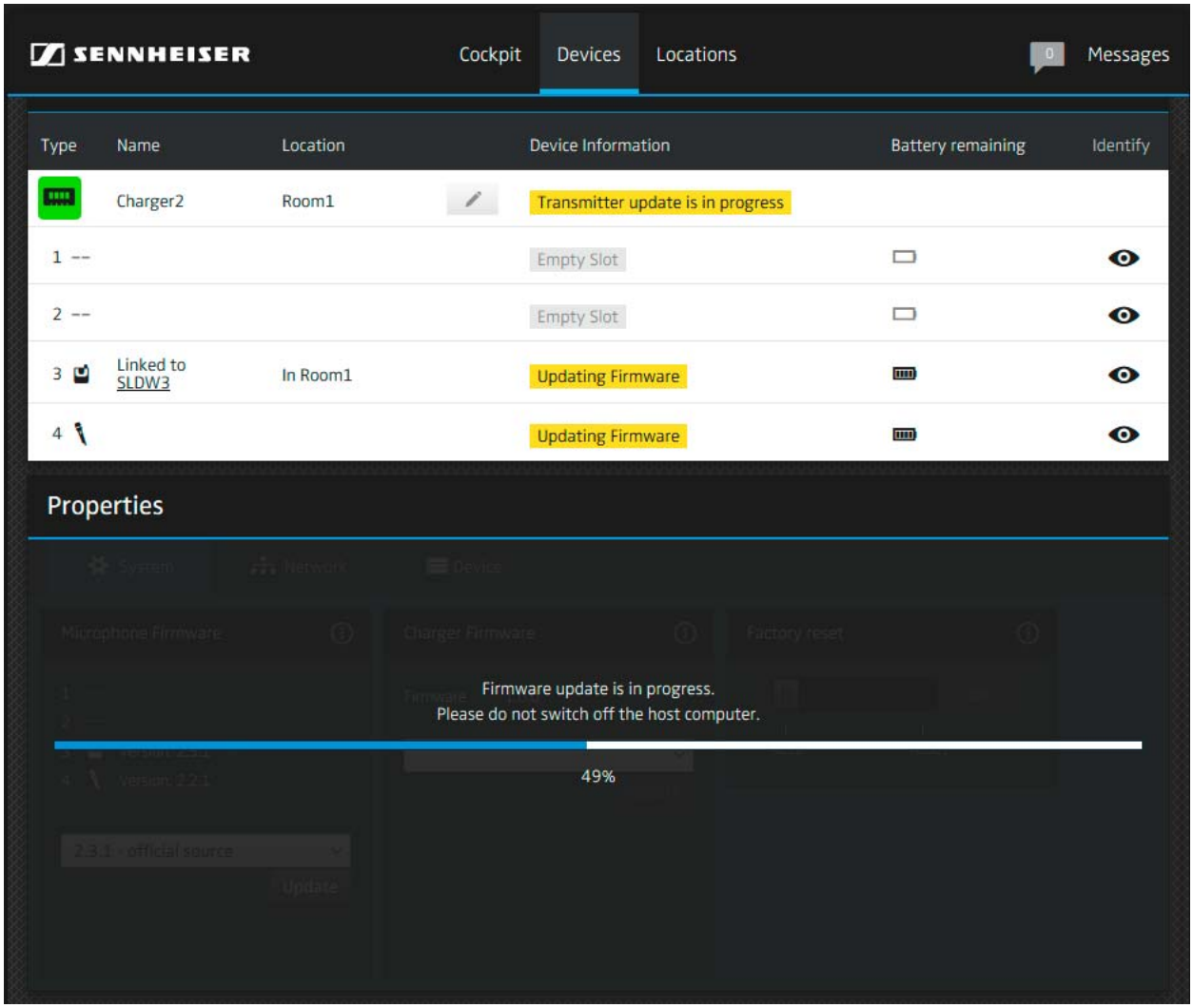
▹ To add a manually downloaded firmware, click on **Add firmware file** and select the downloaded file.

Firmware versions downloaded automatically by the Control Cockpit are marked **via update server**. Firmware versions downloaded manually by yourself are marked **added manually**.

▹ Click on **Update**.



▹ Click on **Update**.



The firmware of the transmitters is updated.

After the successful update the following message is displayed.