SoundEar®3

MICRO-PC MANUAL – UK

MODEL	300
MODEL	310
MODEL	320
MODEL	310XL

SoundEar A/S
www.soundear.com

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This manual describes the functionalities when using SoundEar®3 with a Micro PC. For a full description of software functions, such as Library and Light Settings, please consult the main manual.

Important: All measurement data is stored via the software. To collect and log measurements, the SoundEar® software must be up and running.

CHOOSING YOUR CONNECTION

Before setting up your SoundEar®3 system, you should decide how you want your SoundEar®3 device(s) to connect to the SoundEar® software. You have two options for using the SoundEar® Micro PC:

1. **CLOUD BROKER:** Use a Wireless network (Wi-Fi/WLAN) to allow your SoundEar® 3 device(s) to send data to the SoundEar® software on your PC. Choosing this method means that your data will be sent using the SoundEar® mqtt server.

2. **LOCAL BROKER:** Use a Local Area Network (LAN) cable to allow your SoundEar® 3 device(s) to send data to the SoundEar® software on your PC. Choosing this method means that you keep everything in-house, and no measurements will go through an external server.

SET A NEW SITE ID

Before you start configuring your devices, we recommend that you set a new site ID. The site ID is the unique key, which pairs your SoundEar®3 devices with the SoundEar® software. By default, the site ID will be the PC's mac address. When configuring a SoundEar®3 via the software, the device will automatically be configured with the site ID set in the software.

1. Open the software and go to the drop-down menu "SETUP" on the left-hand side and select "Cloud".
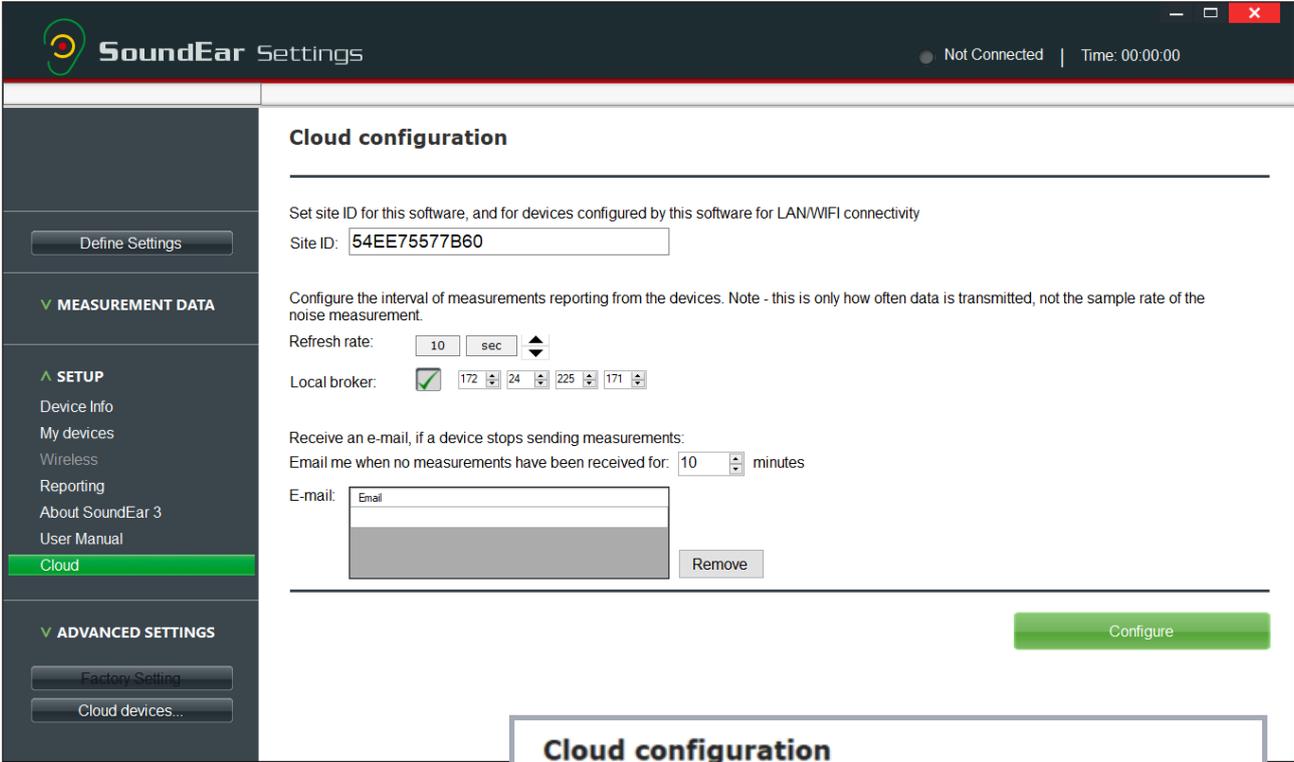
2. Choose your own unique site ID for your system.

3. Use the arrows to choose your refresh rate. The 'Refresh rate' setting controls how often the SoundEar® software will be updated with LAeq 1 second measurements from the devices.
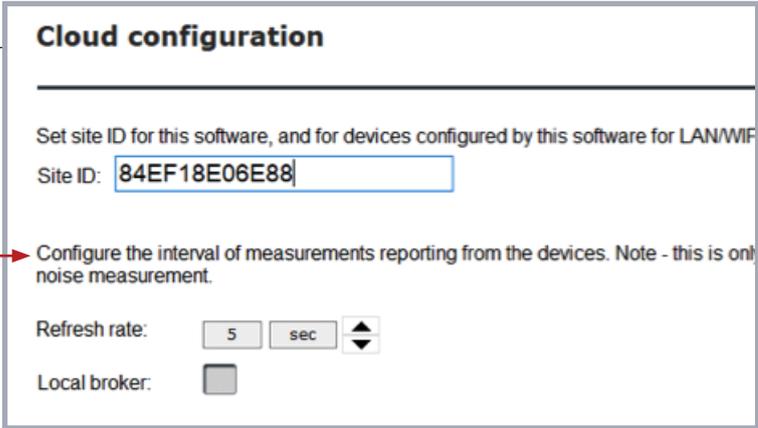
4. When using a local network, check the box 'Local broker'. You will see the IP4 address for the Wi-Fi network, which your PC is currently connected to.
Leave this box unchecked, if you want to use the cloud broker.

5. Enter your e-mail address to receive an alarm e-mail, if one of your units is disconnected from the network.
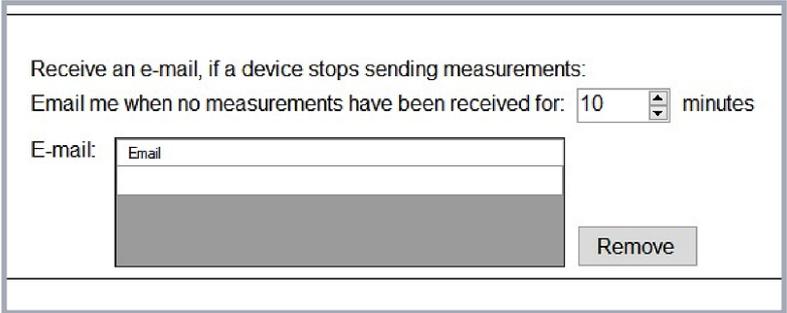
6. Click on the button 'Configure' to save your settings.

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CONFIGURE YOUR SOUNDEAR®3 DEVICE

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Connect the device directly to the PC, using the micro USB port in the SoundEar®3 and the USB A port on your PC.
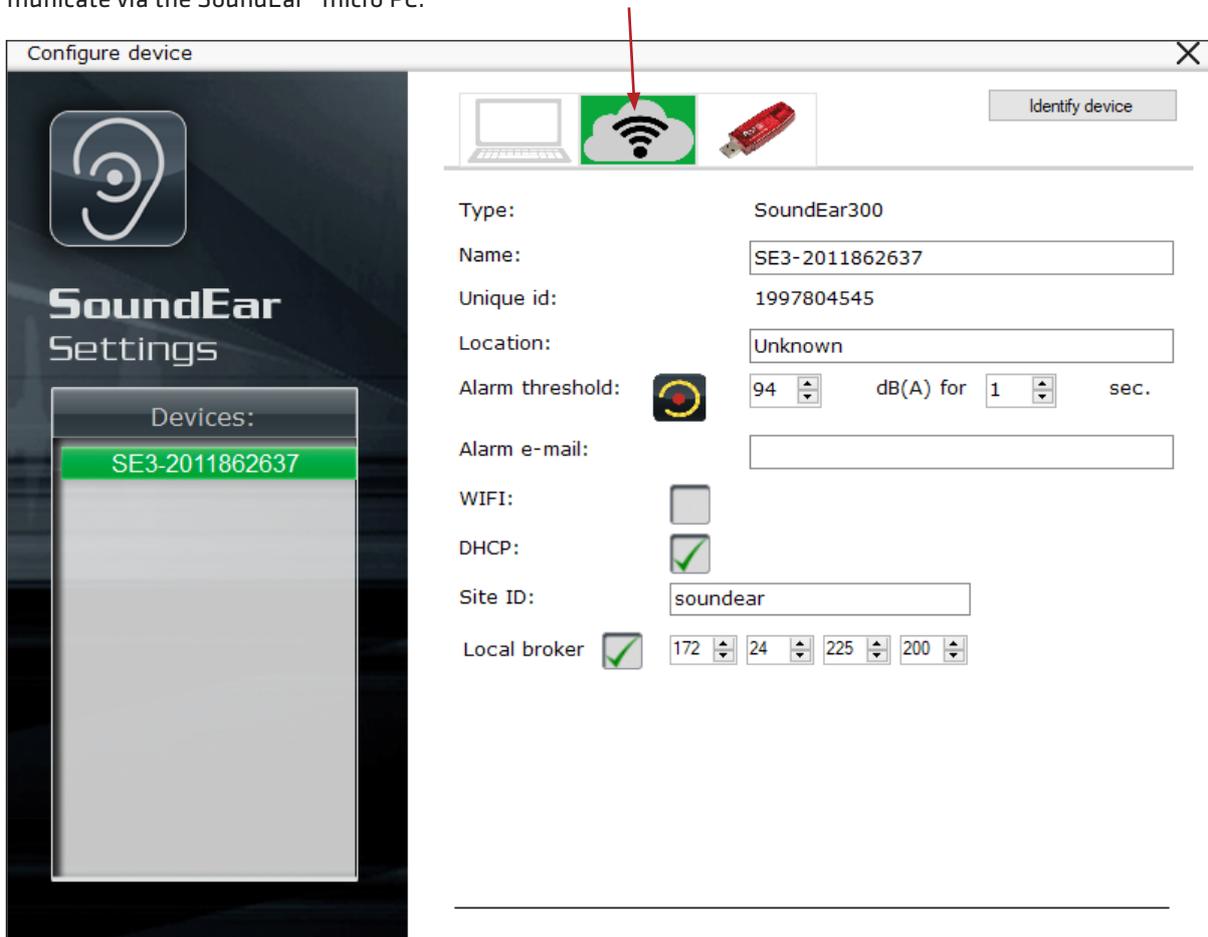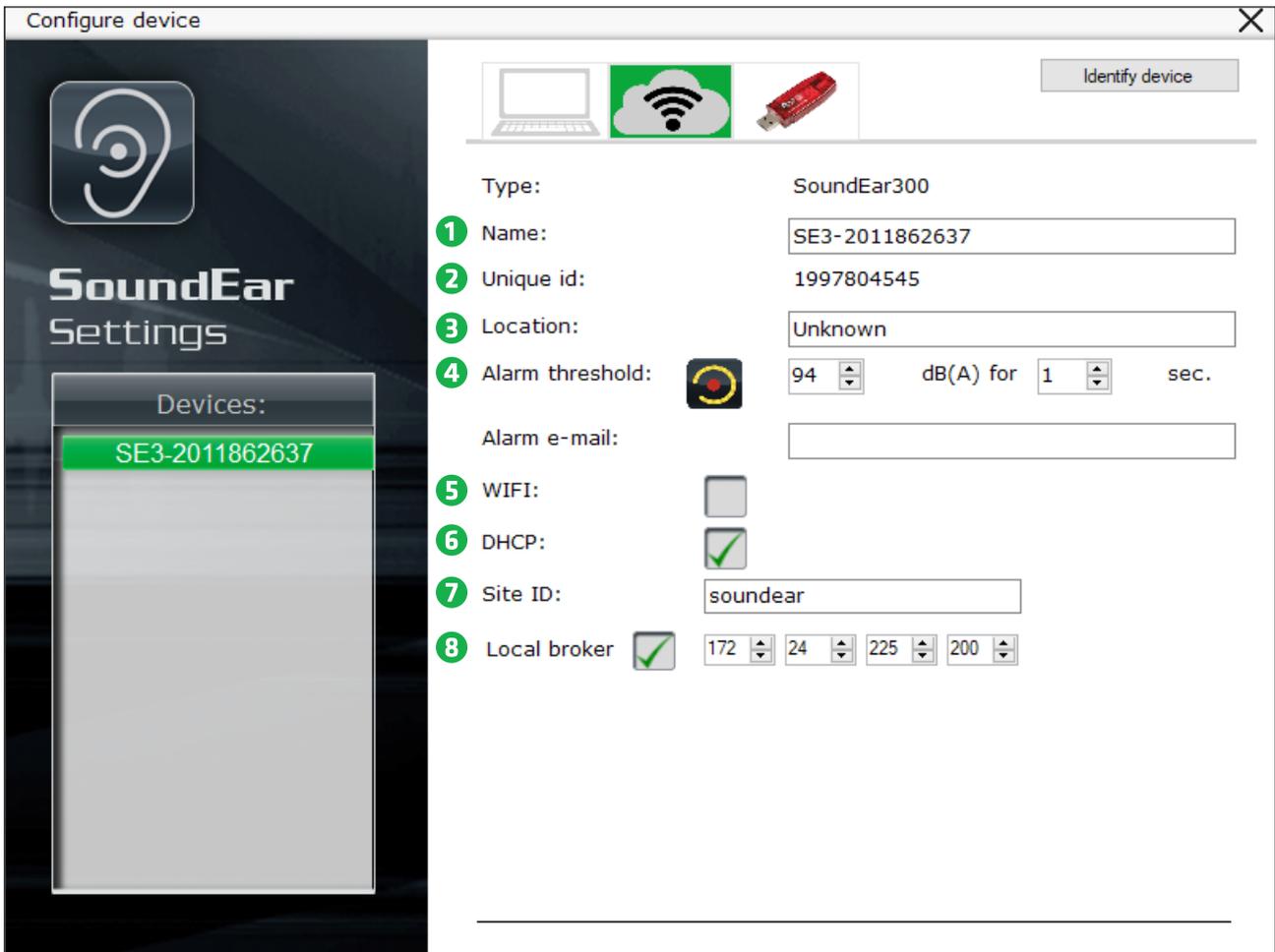
A 'pop-up' will be shown on your screen. Choose the tab with the cloud symbol to configure your device to communicate via the SoundEar® micro PC.

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1. **NAME:** Name your device here. All measurements will be stored using this name.
2. **UNIQUE ID:** The unique ID of the SoundEar®3.
3. **LOCATION:** Input location for the device.
4. **ALARM THRESHOLD:** Set the alarm threshold and e-mail address, if you want to receive an alarm e-mail when noise levels are exceeded.
5. **WI-FI:** Check the box, if you are using wireless connection. Leave unchecked, if you are using a LAN cable.
6. **DHCP:** Uncheck "DHCP" to type in your own network settings. When checked, the software will automatically use the settings for the network, which your PC is connected to.
7. **SITE ID:** Unique key, so the device can communicate with the SoundEar® software.
8. **LOCAL BROKER:** Uncheck "Local broker", if you want to use the SoundEar® mqtt cloud broker.

CONNECTING TO EITHER CLOUD BROKER OR LOCAL BROKER

You can choose to receive your measurements by either using a local network or using a cloud broker. Using a local broker means that your devices send data to your PC via your local network, without using a cloud service.
NOTE! All configuration is done using the SoundEar®3 device, which then forwards the configuration to the Sound-Ear® micro PC.

## HOW TO CONNECT TO LOCAL BROKER

The second column shows what devices are currently online and sending measurements to the SoundEar® software.
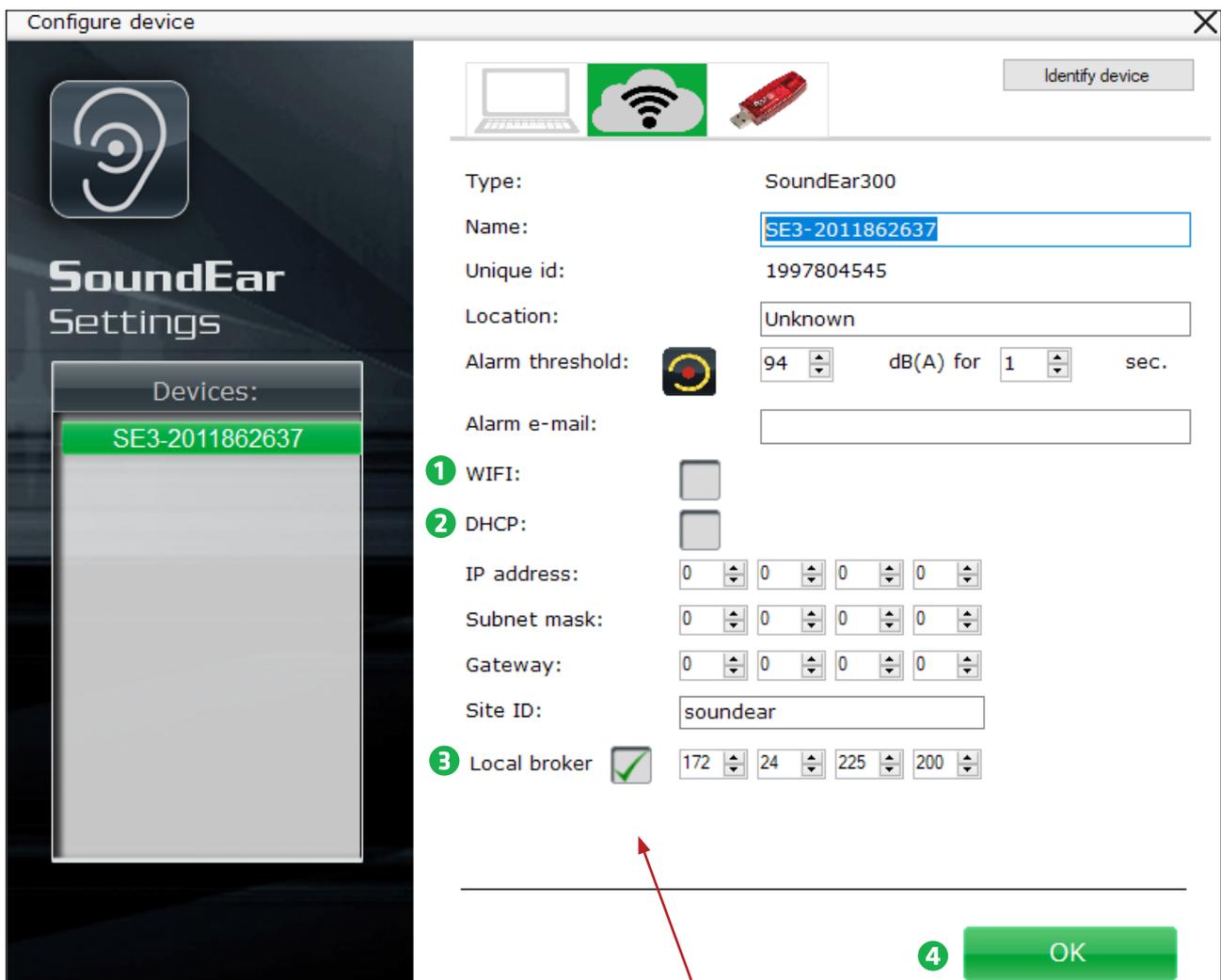
1. If using a LAN cable, leave the box "Wi-Fi" unchecked. If not, enter the information and password for your local network.
2. If the box 'DHCP' is checked, the software will automatically find and use the IP addresses for the network.
   If you want to set this information manually, uncheck the box and enter the network information, which you want to use for the device.

3. Leave the box 'Local broker' checked (the software will automatically find the IP address for the network to which the PC is connected and use this as its gateway).

4. When all configuration is done, click "OK" in the bottom right corner.

▶ How to connect to local broker

HOW TO CONNECT TO CLOUD BROKER
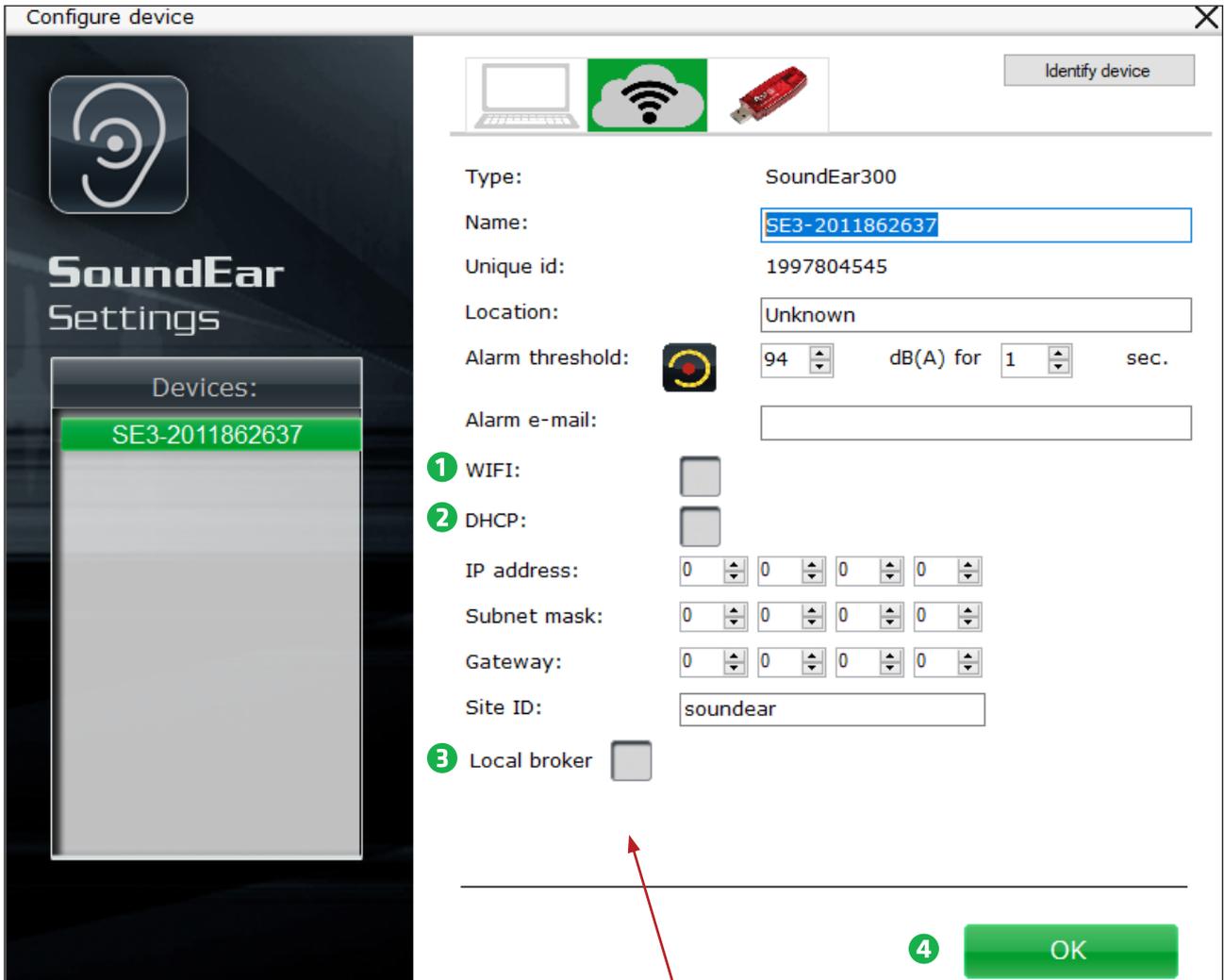
1. Check the box "Wi-Fi" and write the name of the network and password, which will be used by the SoundEar3 device and the micro PC.
   If you want to make sure that you have written the correct password, click on the box with the letters 'abc' to see the password.

2. If the box "DHCP" is checked, the software will automatically find and use the IP addresses for the network.

If you want to set this information manually, uncheck the box and enter the network information, which you want to use for the device.

3. Uncheck the box 'Local broker'. The software will then connect to the cloud broker.

4. When all configuration is done, click "OK" in the bottom right corner.

▶ How to connect to Cloud broke

MY DEVICES: GET AN OVERVIEW
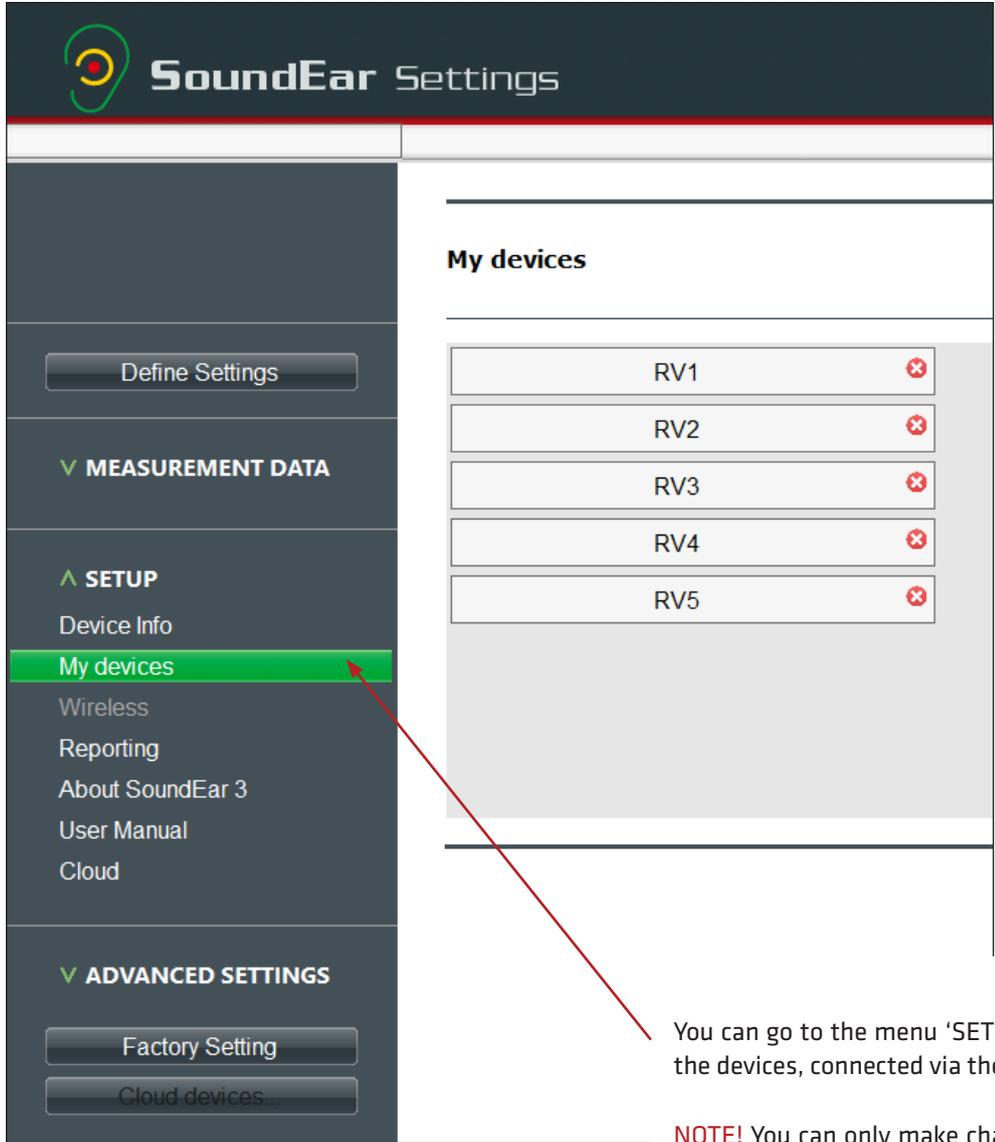
You can go to the menu 'SETUP' and 'My devices' to see the devices, connected via the network.

NOTE! You can only make changes to the Wi-Fi settings of your SoundEar® device, when it is connected to your PC by means of a USB cable. We recommend that you define settings and create your light settings, placing your device.

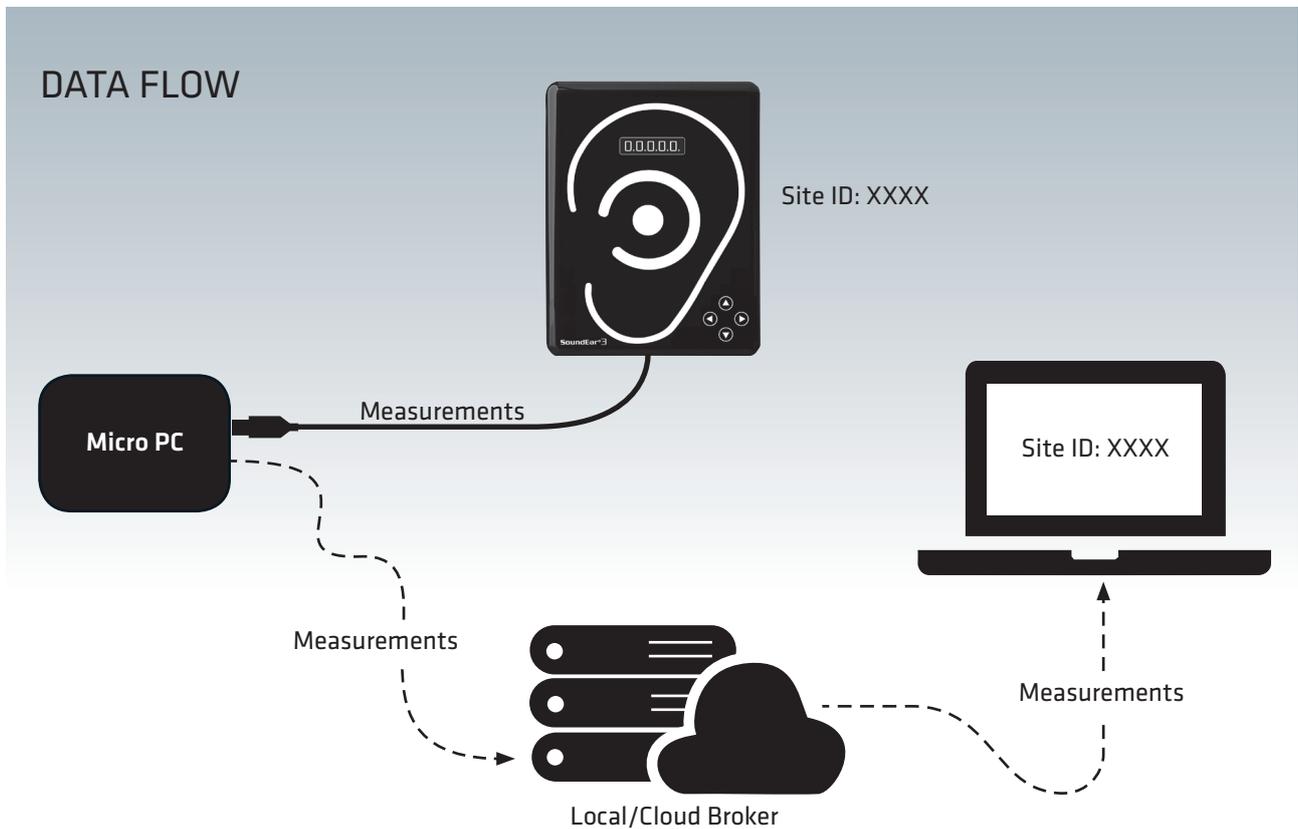# CONNECTING THE DEVICE TO THE SOUNDEAR® MICRO PC

HOW THE MICRO PC WORKS
After configuring your devices, connect the SoundEar®3 to the micro PC to receive measurements.

The micro PC sends the noise measurements, that it receives from the SoundEar3 device, to a "measurement broker" via WI-FI or LAN. The SoundEar Software receives the measurements from the broker, if the site ID of the SoundEar3 device matches the site ID in the SoundEar Software.

All units send their measurements to the "measurement broker" allowing the SoundEar Software to receive, show and log measurements from several SoundEar3 devices.
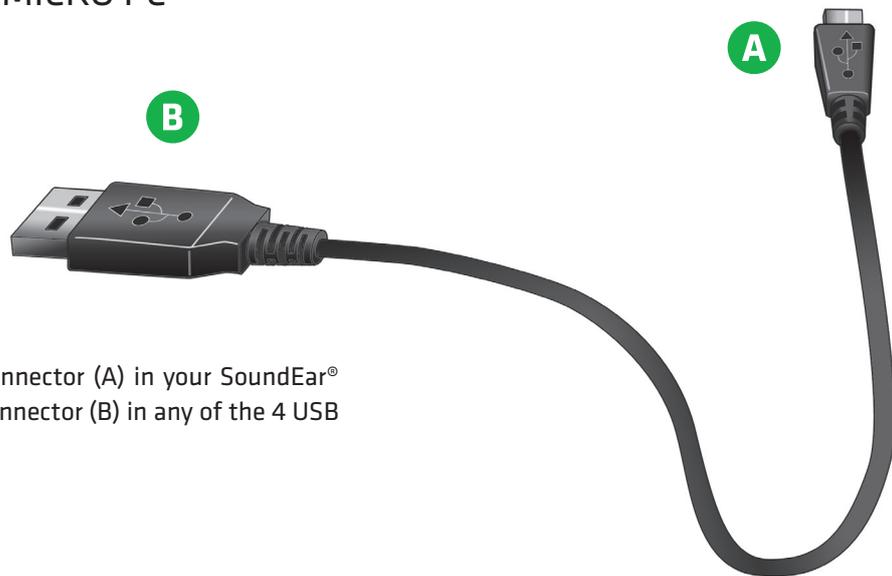
The SoundEar3 device and micro PC can be configured to either send measurements to a broker on the local network (Local broker) or to a broker in the cloud (Cloud broker).

The connection settings (WI-FI/LAN), site ID and broker can be configured, when configuring the SoundEar3 device in the SoundEar Software.
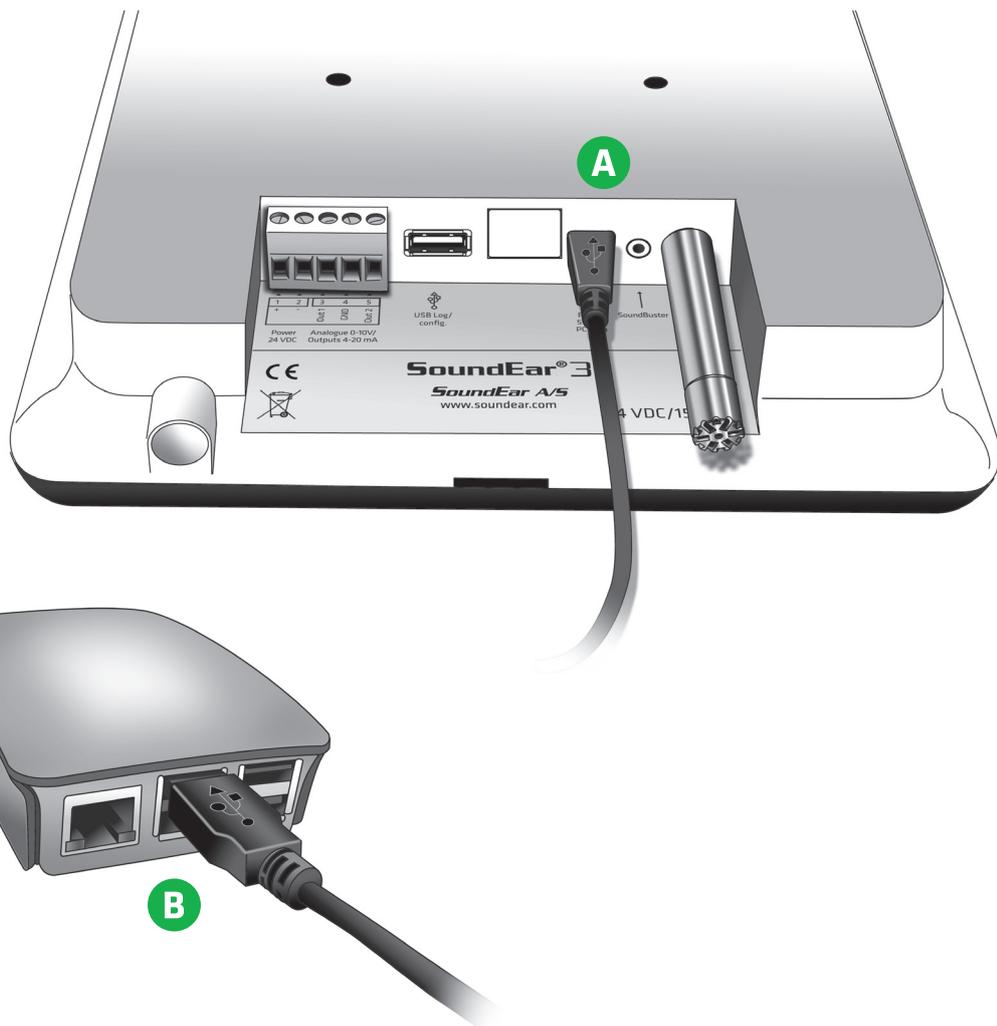
DATA FLOW

Site ID: XXXX

Micro PC

Measurements

Site ID: XXXX

Measurements
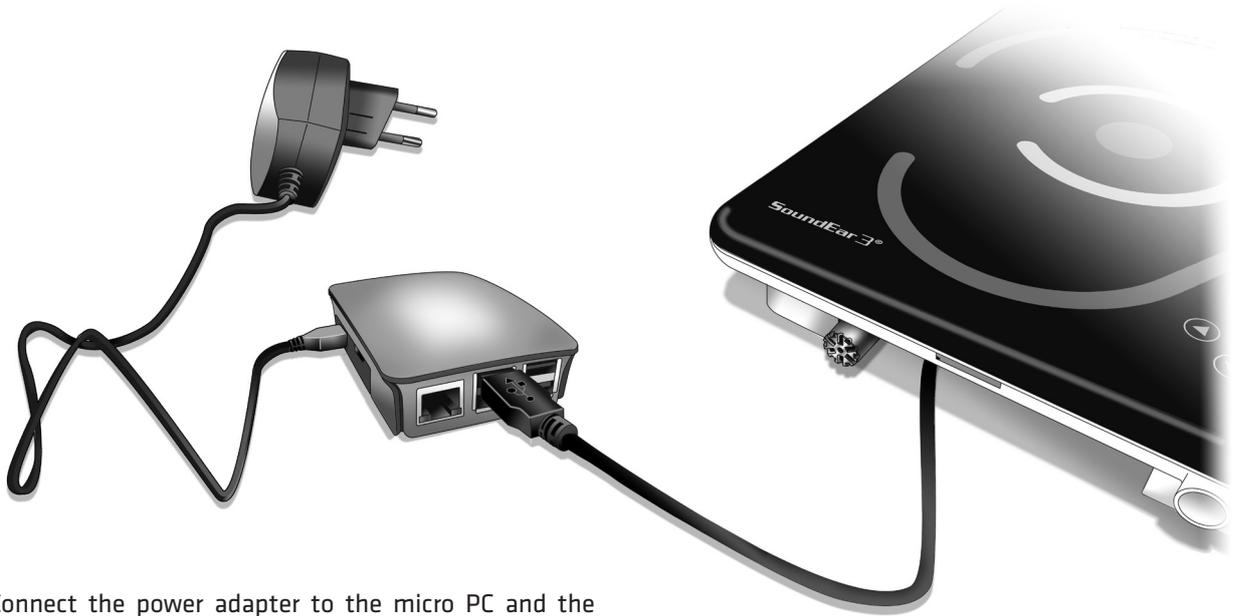
Measurements

Local/Cloud Broker
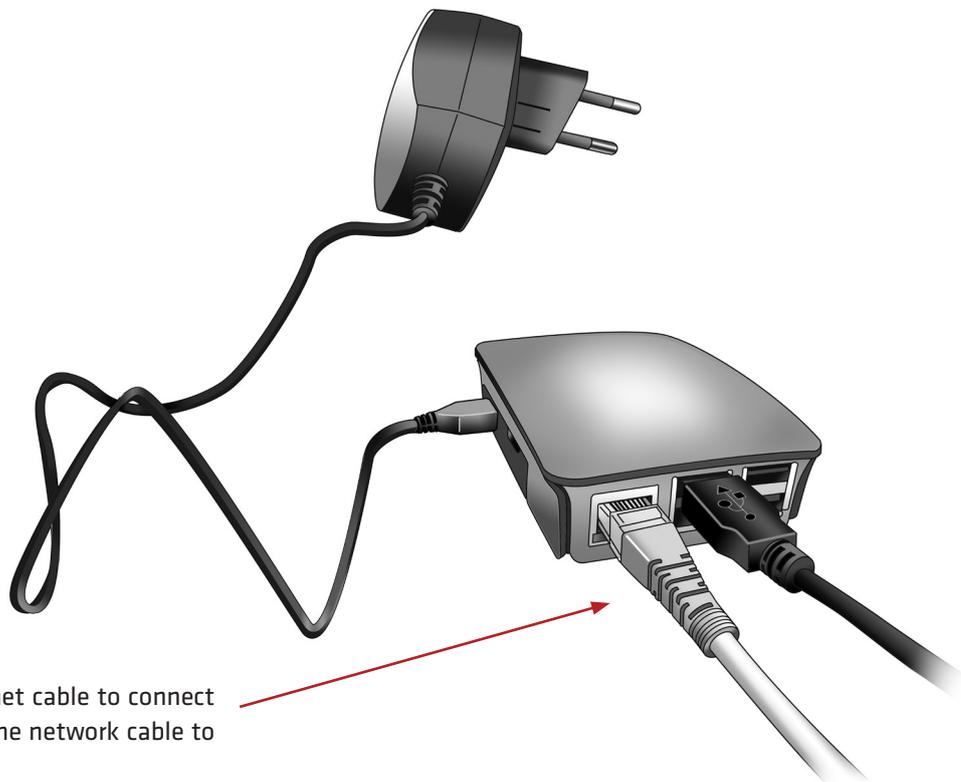
CONNECTING THE MICRO PC

1. Insert the micro USB connector (A) in your SoundEar® device and the USB A connector (B) in any of the 4 USB ports in the micro PC.

CONNECTING THE MICRO PC

2. Connect the power adapter to the micro PC and the adapter to a power socket. The micro PC will supply the SoundEar®3 with power.

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NOTE: When using an ethernet cable to connect to a local network, connect the network cable to the micro PC.

VISUAL START-UP GUIDELINE FOR THE MICRO PC CONNECTION:

CONNECTION STATUS
To determine where you are in the process of connecting the micro PC,
you can use the lights on the micro PC to guide you:

Red light: Power on
Yellow light: Connection status

1. Fast blinking (300ms on, 300ms off): Waiting for connection with SoundEar®3 device
2. Short on, long off (300ms on, 2sec off): Receiving settings from SoundEar®3 device
3. Slow blinking (1sec on, 1 sec off): Connecting to broker
4. Long on, short off (4 sec on, 1 sec off): Connected to broker

Connection completed! You should be able to view the measurements in the SoundEar®3 software.

When you have configured your SoundEar®3 device(s), you can start collecting measurements via the software.
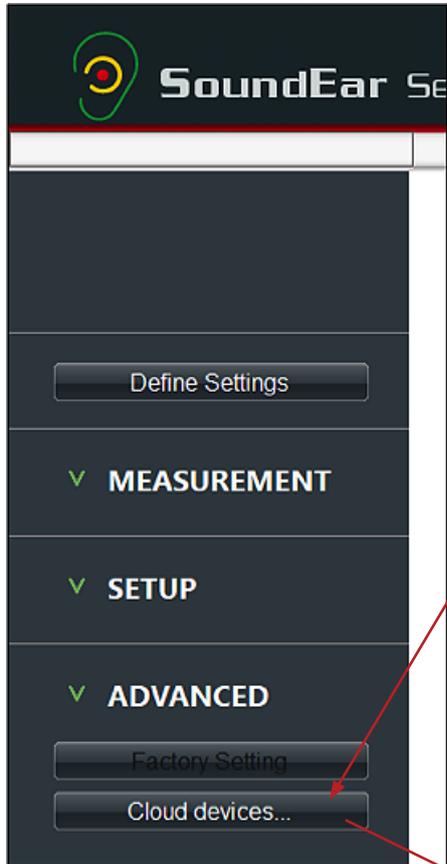

1. Click on 'Cloud devices' at the bottom of the left side menu.
2. Click 'OK' in the pop-up window.
3. It can take up to 3 minutes before the software starts receiving measurements, so please be patient.
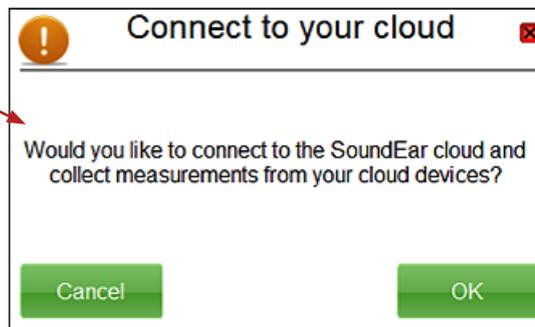
4. To check, if the software is collecting measurements, go to the menu 'Live Measurement'. The columns will turn from grey to green, when the software starts receiving measurements.
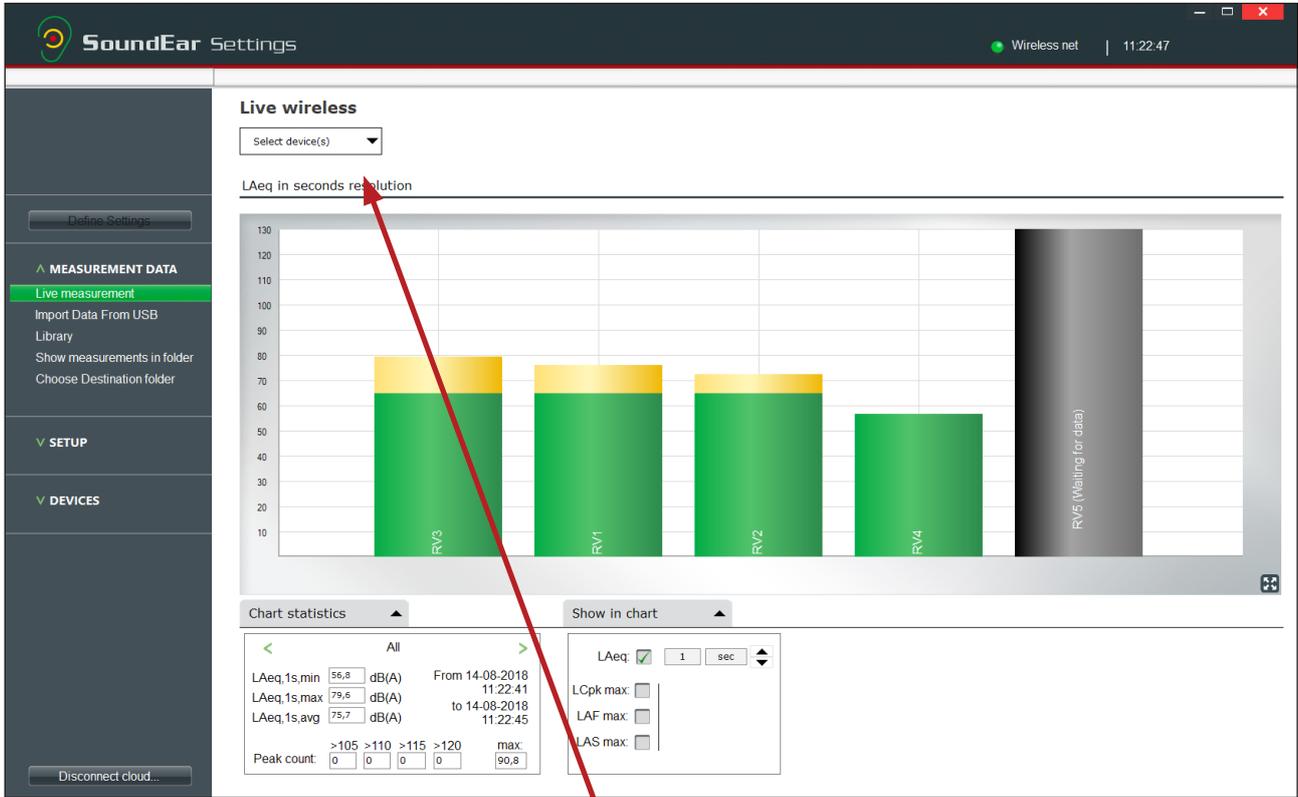
5. Click on 'Select Device(s)' in the upper left corner to select what devices to see.
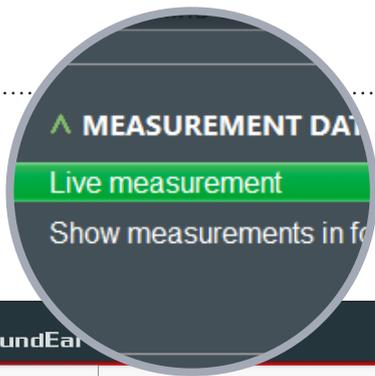
NOTE: The software will store all measurements from registered devices, even if you don't choose to have them show up in the 'live measurement' view.

All measurements are accessible in the menu 'Library' at any time. Meaning, it is always possible to go back and check your measurements in the library.
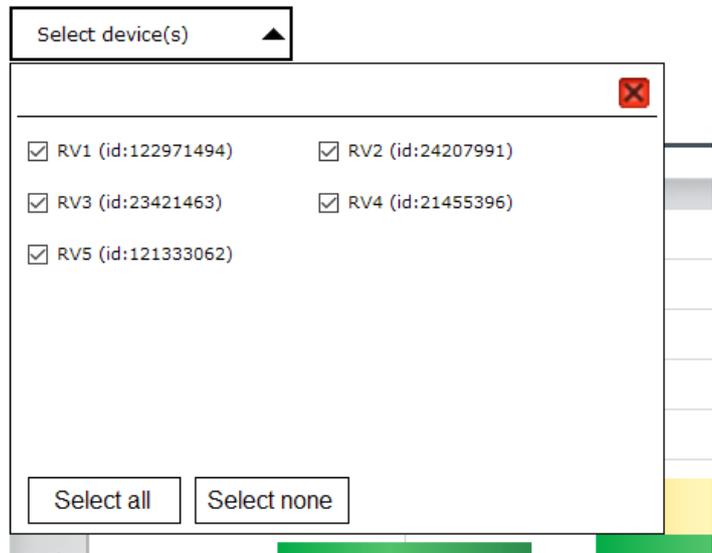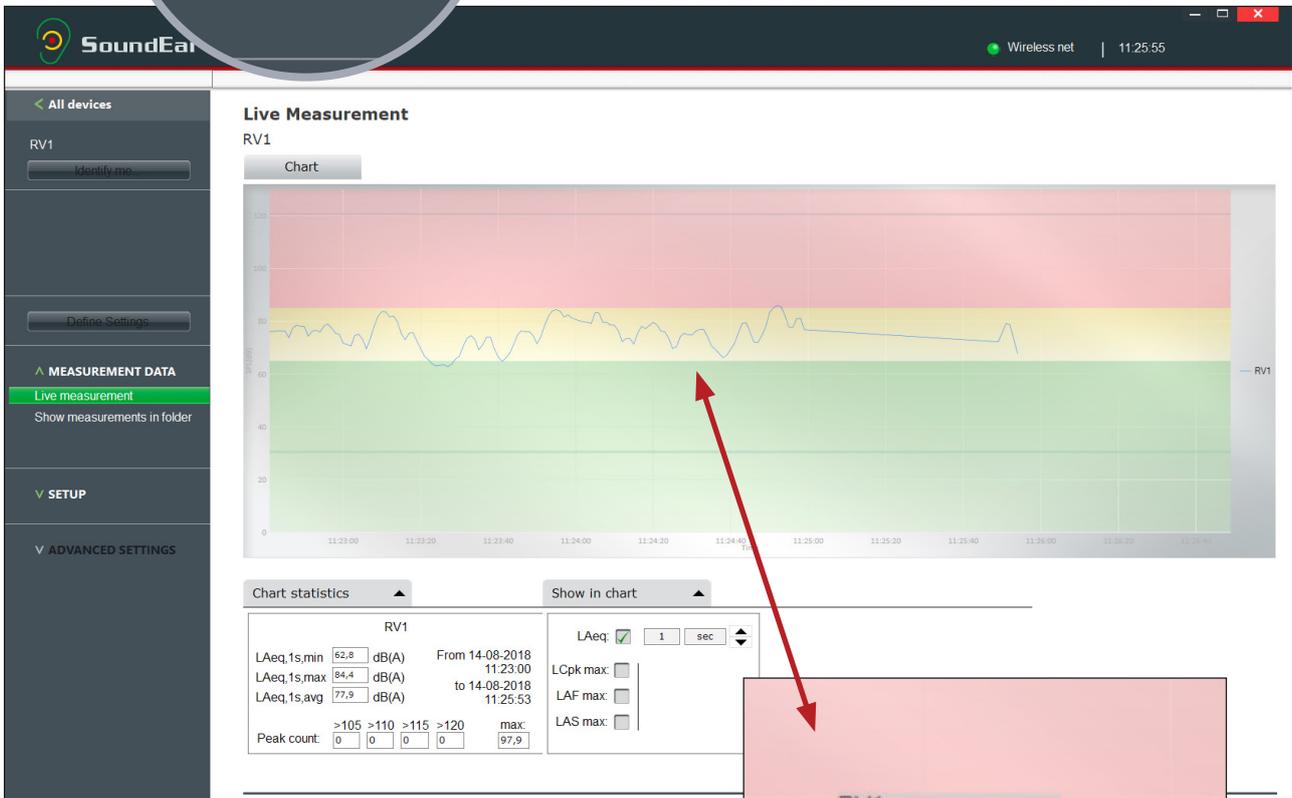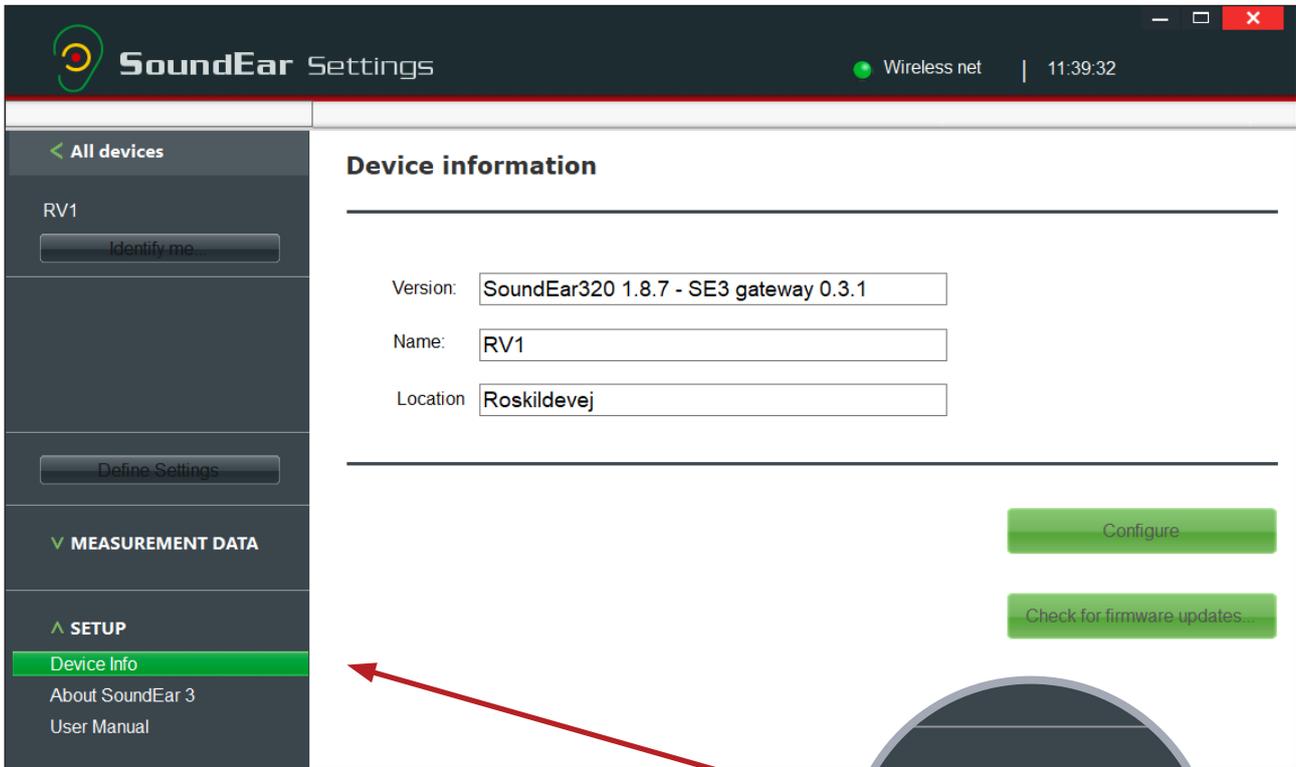
6. To view live measurements for a specific device, double-click the column for that specific device.

You can hold the cursor over the graph to see the exact noise level measured at a certain time.

START COLLECTING MEASUREMENTS

Go to 'SETUP' and 'Device info' in the left side menu, to see the firmware version of both the SoundEar®3 and micro PC.

Here, you can see that the FW version of the SoundEar®3 – 320 is ver.1.8.7 and the firmware version of the micro PC is ver.0.3.1.

NOTE! You only have one-way communication with the micro PC, so you cannot change the name or location of the device. If you want to do so, you need to connect your device to the PC by means of an USB cable.

7. Click on 'All devices' in the top left corner to return to the main screen.

IMPORTANT: All measurement data is stored via the software. To collect and log measurements, the SoundEar® software must be up and running.
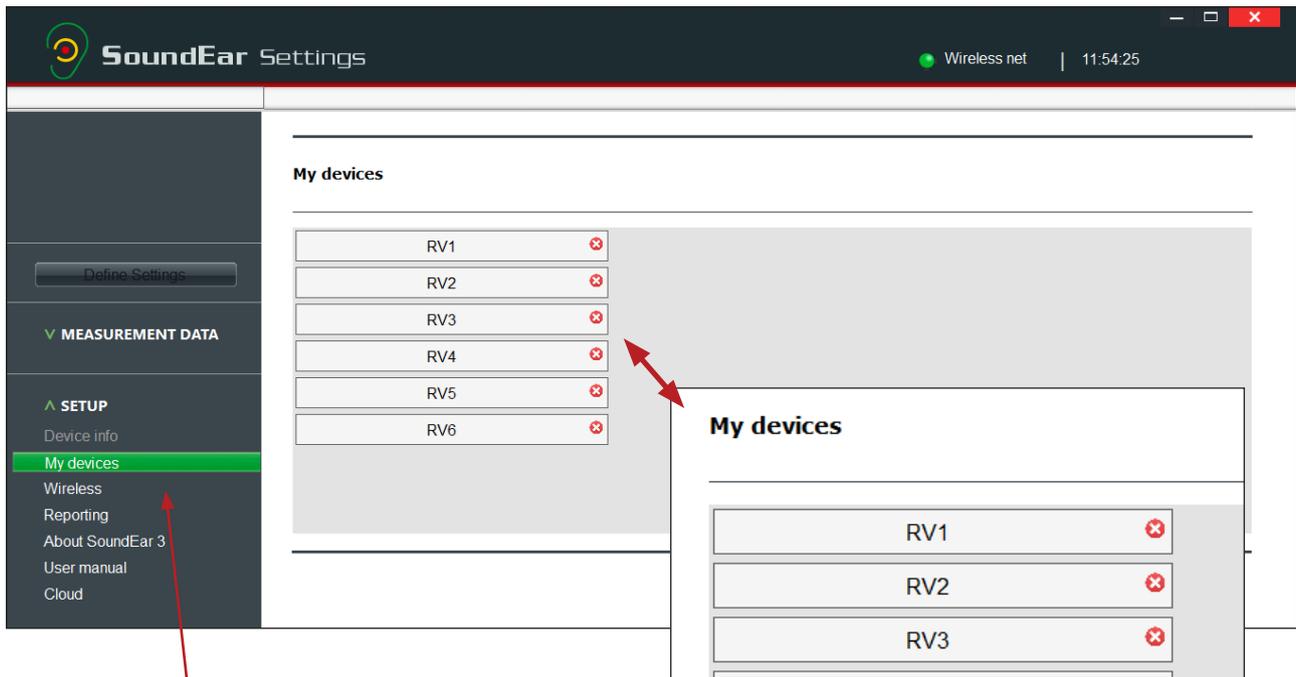
**You can change your Wi-Fi configuration any time via the software.**

1. Connect your device to your computer using the USB cable
2. Click on 'Define settings' in the left side menu and click on the tab 'Wi-Fi/LAN'
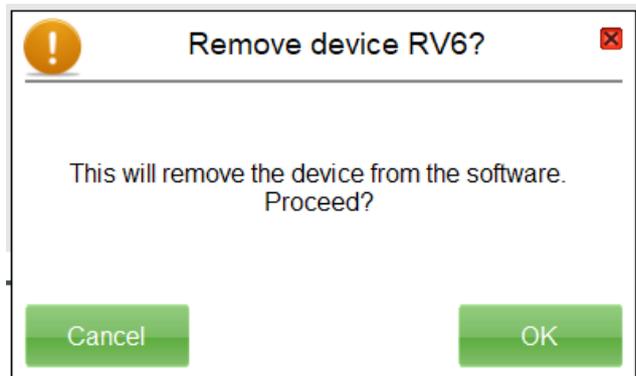3. Change your configuration and click "Configure".

REMOVE A DEVICE FROM THE SOFTWARE

1. Click on 'SETUP' and 'My devices' in the left menu.

2. Click on the red 'X' for the device, which you want to remove from the system.
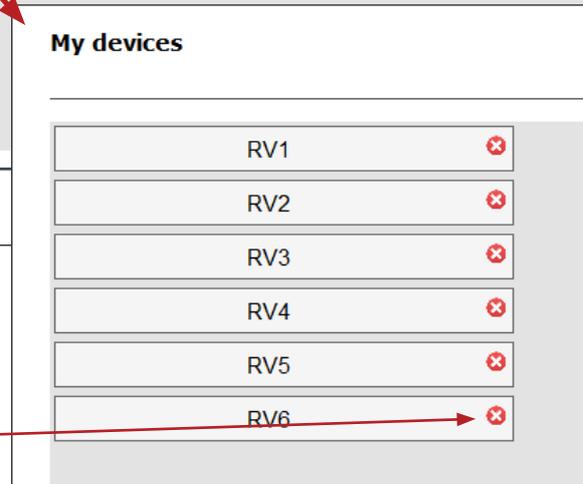
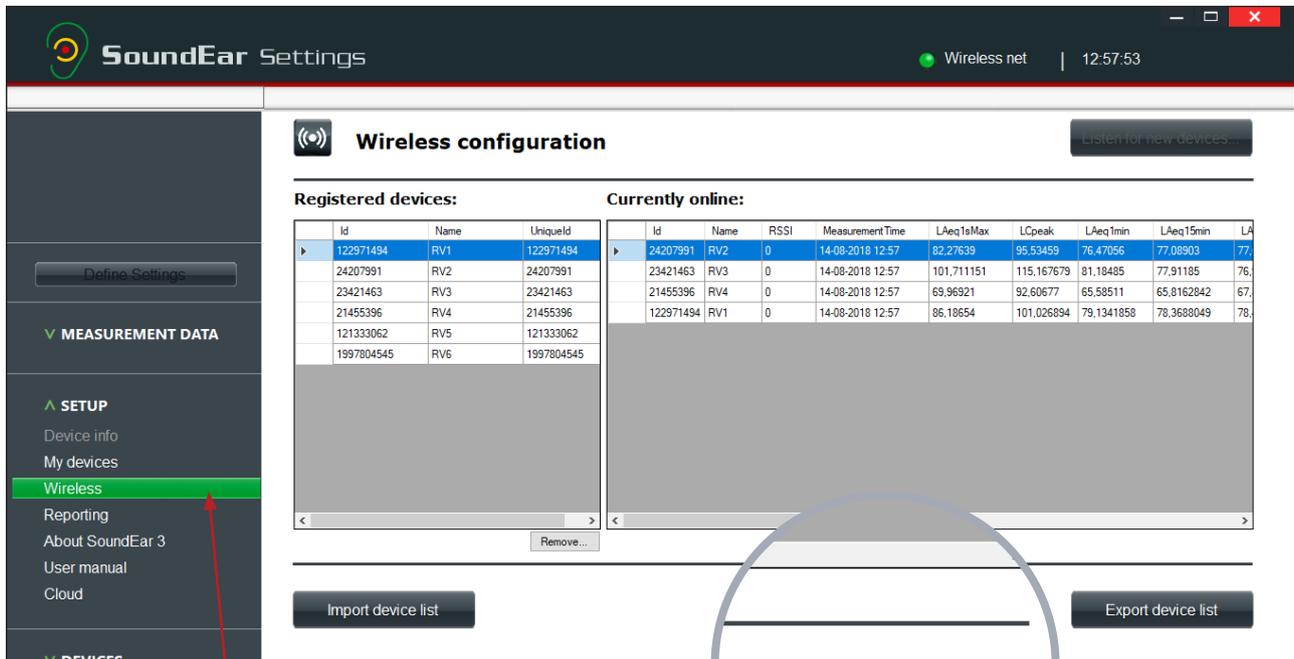3. Press 'OK' in the pop-up window.

4. Click 'OK' if you also want to remove all measurements associated with the device from the software.
   If you want to keep the measurements and still be able to view them in the library, click 'Cancel'.
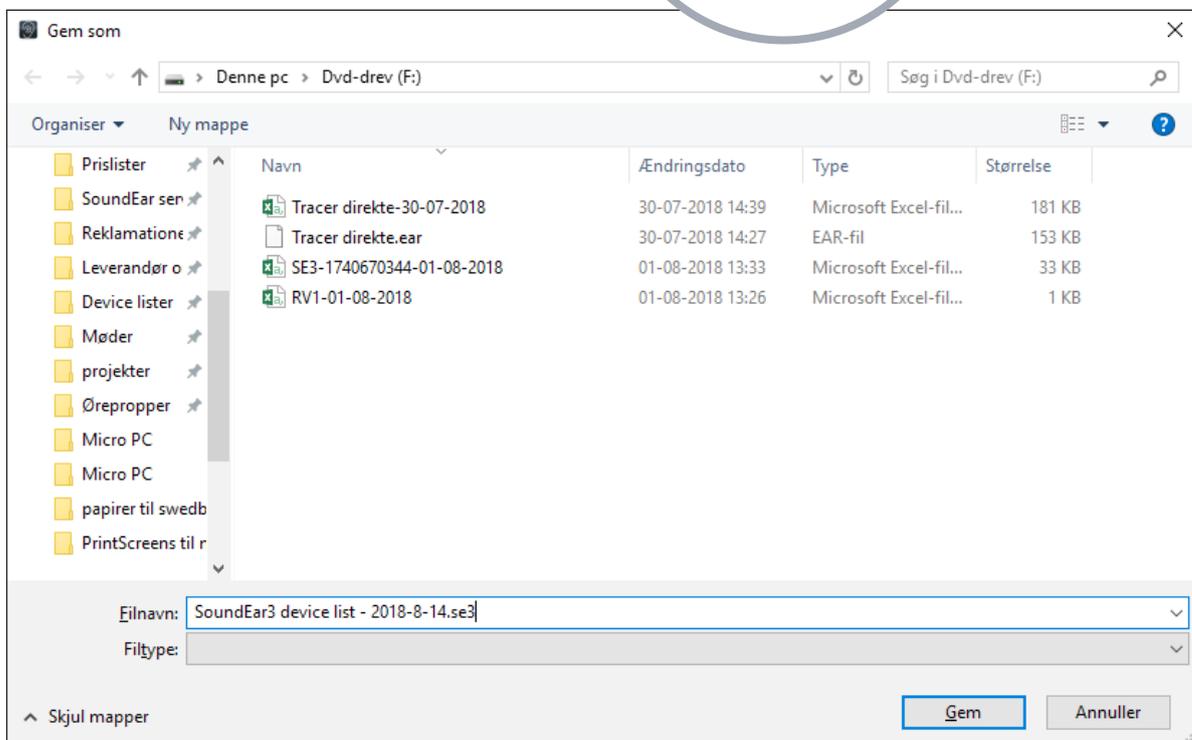
20
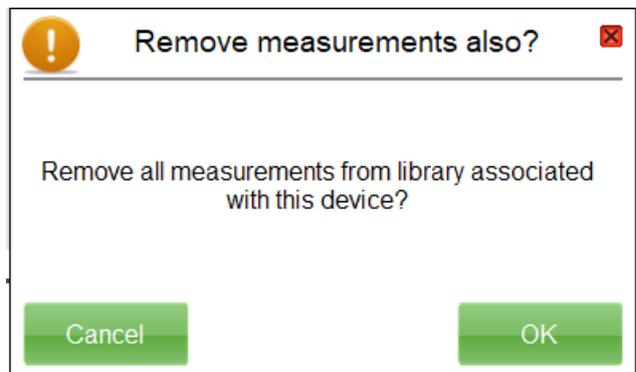
EXPORT DEVICE LIST
You can give other people access to live measurements by exporting your devices.


1. Go to 'SETUP' and 'Wireless' in the left side menu.
2. Click on the button 'Export device list'.

3. Choose the folder in which you want to save the device list. As default, the list will be saved with the name 'Sound-Ear3 device list + [current date] + [file type]' as in this example: **SoundEar3 device list - 2018-8-14.se3**

IMPORT DEVICE LIST FOR PRE-CONFIGURED DEVICES

You can choose to have the system set up for you beforehand or share your configuration with others. If you have done so, use these instructions to set up the SoundEar software to receive measurements from the SoundEar 3 devices.
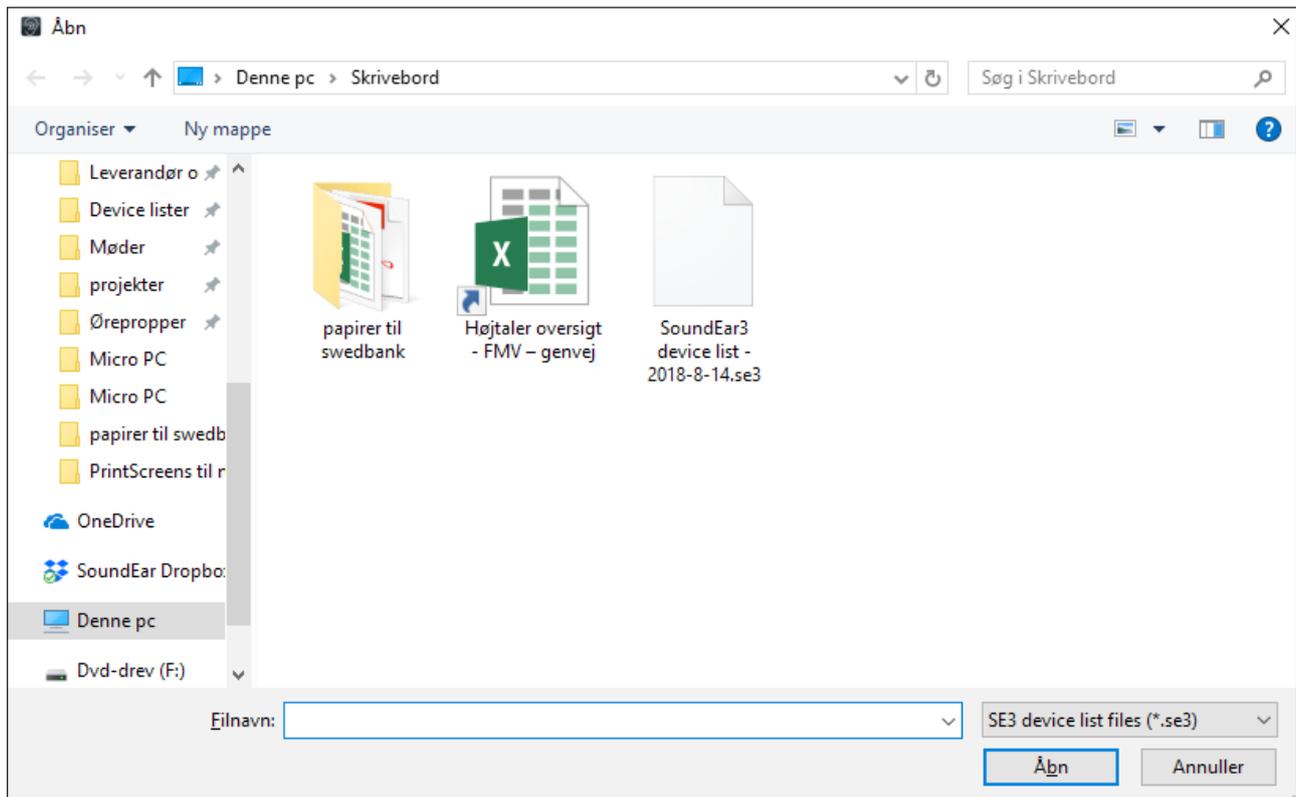

1. Go to the menu "SETUP" and "Wireless".
2. Choose "Import device list" – and then the folder in which the device list is located. All files containing a device list have the ending '.se3'

NOTE! Importing a new device list will replace the current device list. All measurement data will still be saved.
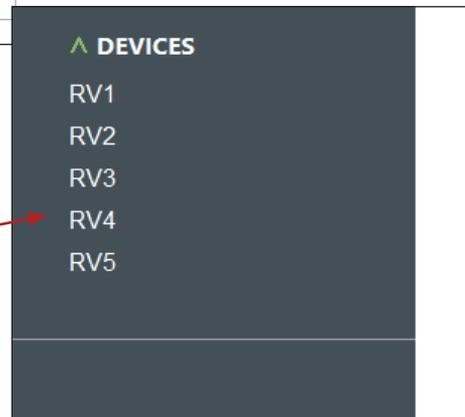
VIEW LIVE MEASUREMENTS FOR A SPECIFIC DEVICE
To view live measurements for a specific device, double-click the column for that specific device.
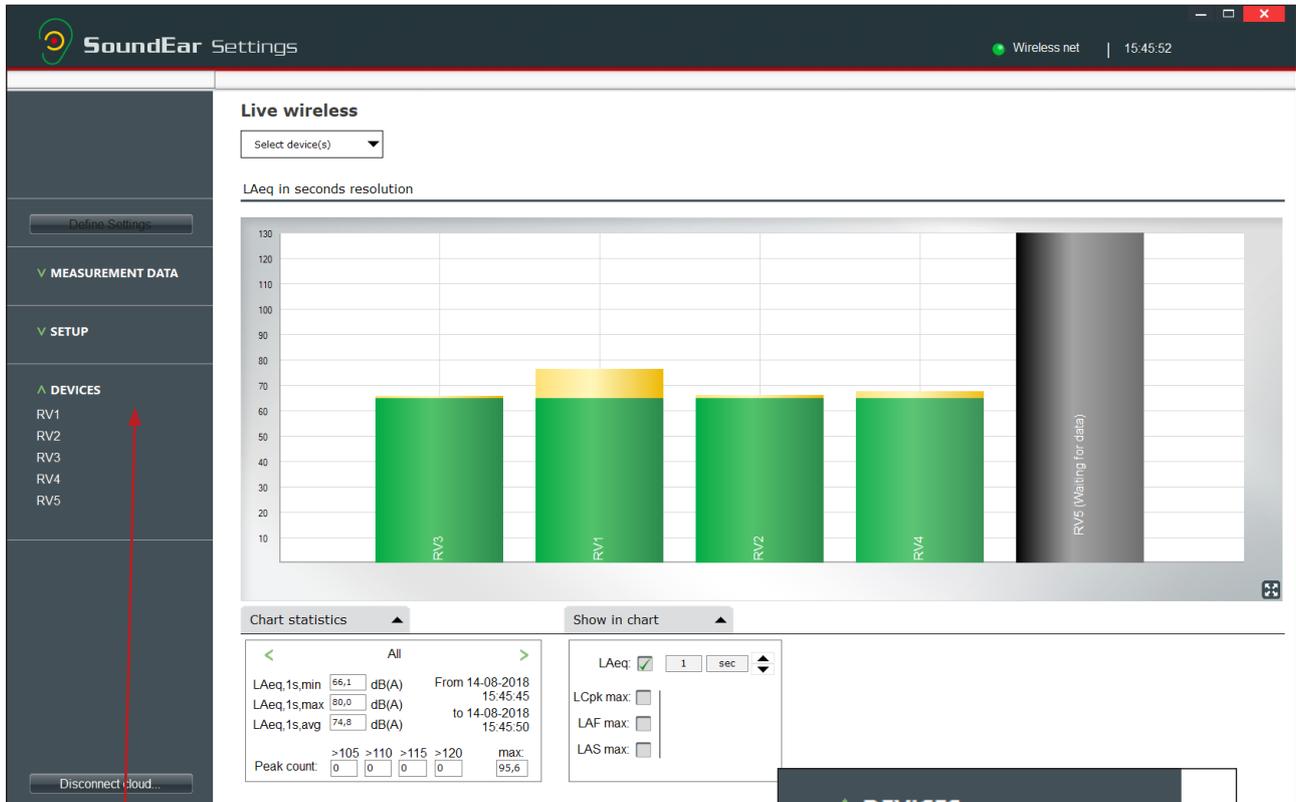
The "Device" menu on the left-hand side shows you a complete list of all active or in-active devices, including names.

Click on a specific device to view live measurements as a graph.

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UK: The crossed-out wheeled bin means that within the European Union the product must be taken to separate collection at the product end of its life. This applies not only to your device but also to any enhancements marked with this symbol. Do not dispose of these products as unsorted municipal waste.