



SoundEar®3

VERSION: 5.2.4

MICRO-PC MANUAL - UK

MODEL 300

MODEL 310

MODEL 320

MODEL 310XL

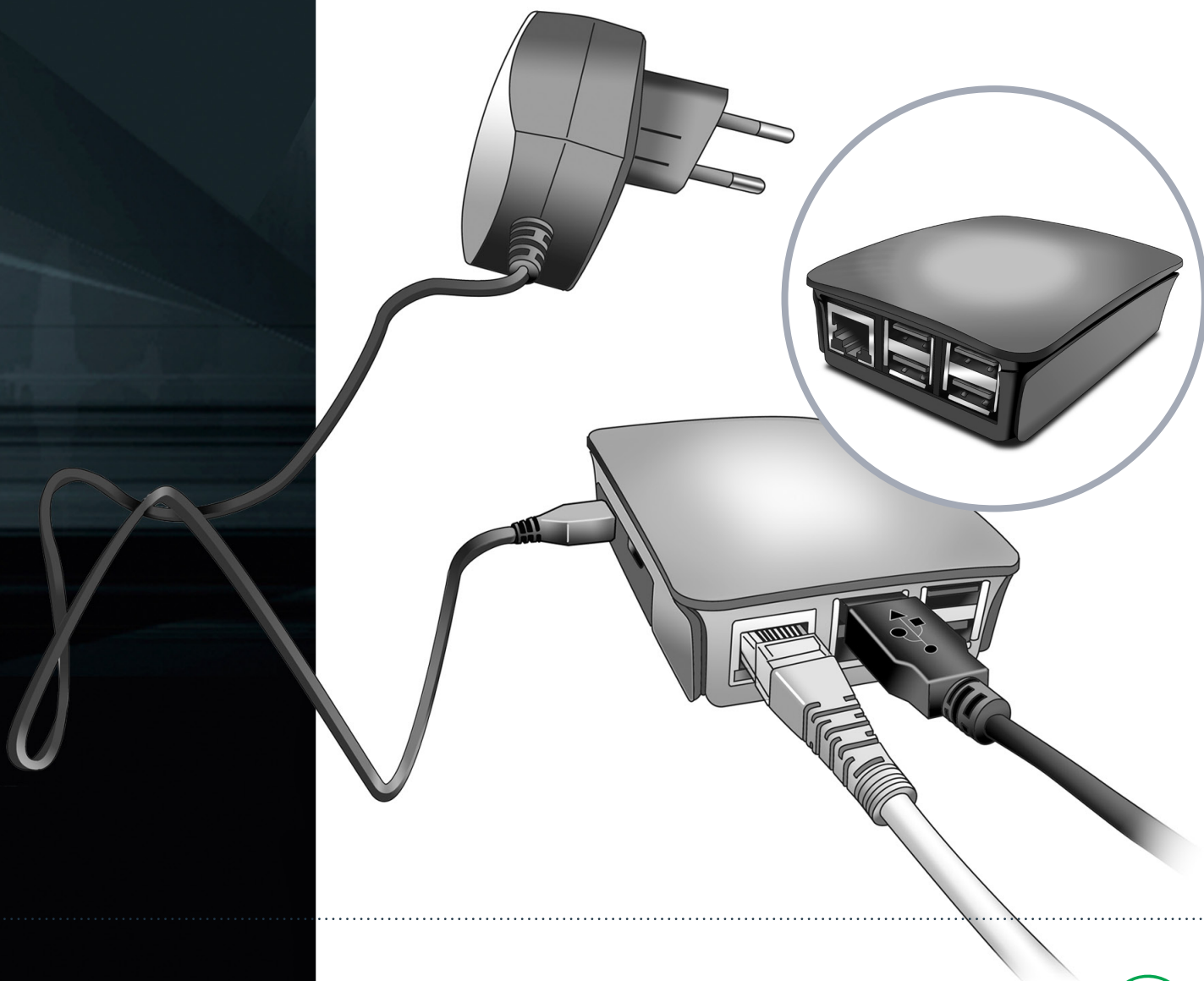


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INTRODUCTION

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

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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.

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SoundEar Settings Not Connected | Time: 00:00:00

Cloud configuration

Set site ID for this software, and for devices configured by this software for LAN/WIFI connectivity

Site ID:

Configure the interval of measurements reporting from the devices. Note - this is only how often data is transmitted, not the sample rate of the noise measurement.

Refresh rate:

Local broker: ☒

Receive an e-mail, if a device stops sending measurements:

Email me when no measurements have been received for: minutes

E-mail:

MEASUREMENT DATA

Cloud

MEASUREMENT

SETUP

Device Info

My devices

Wireless

Reporting

About SoundEar 3

User Manual

Cloud

Define Settings

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.


CONFIGURE YOUR SOUNDEAR®3 DEVICE

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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SoundEar Settings

Devices:

SE3-2011862637




Identify device

Type: SoundEar300

Name: SE3-2011862637

Unique id: 1997804545

Location: Unknown

Alarm threshold:  94 dB(A) for 1 sec.

Alarm e-mail:

WIFI: ☐

DHCP: ☒

Site ID: soundear

Local broker ☒ 172 24 225 200

Configure device

SoundEar Settings

Devices:

- SE3-2011862637

Type: SoundEar300

1 Name: SE3-2011862637

2 Unique id: 1997804545

3 Location: Unknown

4 Alarm threshold: 94 dB(A) for 1 sec.

Alarm e-mail:

5 WIFI: ☐

6 DHCP: ☒

7 Site ID: soundear

8 Local broker: ☒ 172 24 225 200

Identify device

- 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 SoundEar® micro PC.

HOW TO CONNECT TO LOCAL BROKER

The second column shows what devices are currently online and sending measurements to the SoundEar® software.

The screenshot shows the 'Configure device' window for a SoundEar300 device. On the left, there's a 'SoundEar Settings' panel with a 'Devices:' list containing 'SE3-2011862637'. The main configuration area on the right includes fields for Name (SE3-2011862637), Unique id (1997804545), Location (Unknown), Alarm threshold (94 dB(A) for 1 sec.), and Alarm e-mail. Below these are checkboxes for WIFI (1), DHCP (2), and Local broker (3), which is checked. Network settings like IP address, Subnet mask, Gateway, and Site ID are also present. A red arrow points to the 'Local broker' checkbox. The 'OK' button (4) is in the bottom right corner.

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

Configure device

SoundEar Settings

Devices:

SE3-2011862637

Type: SoundEar300

Name: SE3-2011862637

Unique id: 1997804545

Location: Unknown

Alarm threshold: 94 dB(A) for 1 sec.

Alarm e-mail:

1 WIFI: ☐

2 DHCP: ☐

IP address: 0 0 0 0

Subnet mask: 0 0 0 0

Gateway: 0 0 0 0

Site ID: soundear

3 Local broker ☒

4 OK

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.

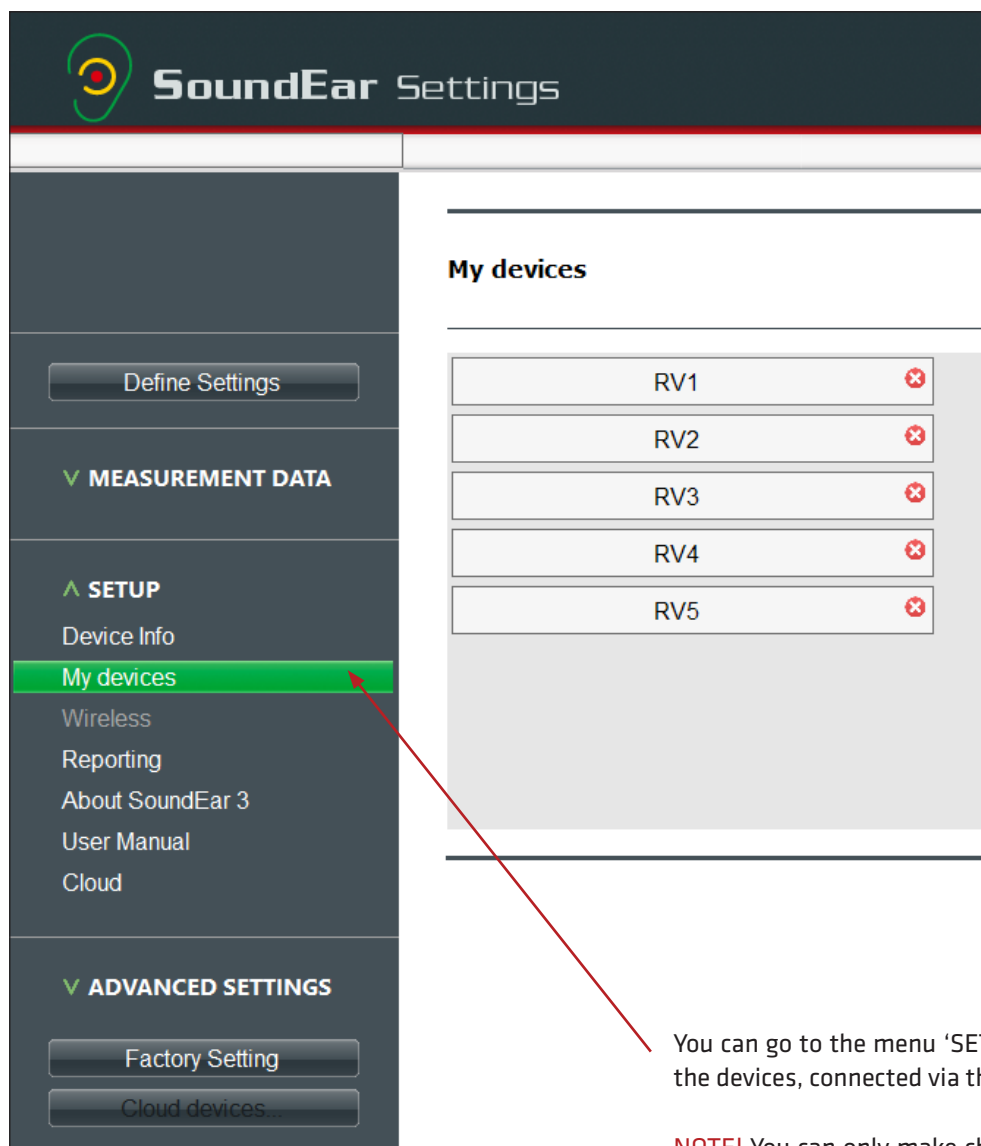
3. Uncheck the box 'Local broker'. The software will then connect to the cloud broker.

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 turns into a “publisher”, when it is connected to a SoundEar®3 device. It sends all the measurements to a Wi-Fi access point via Wi-Fi or LAN (Local Area Network).

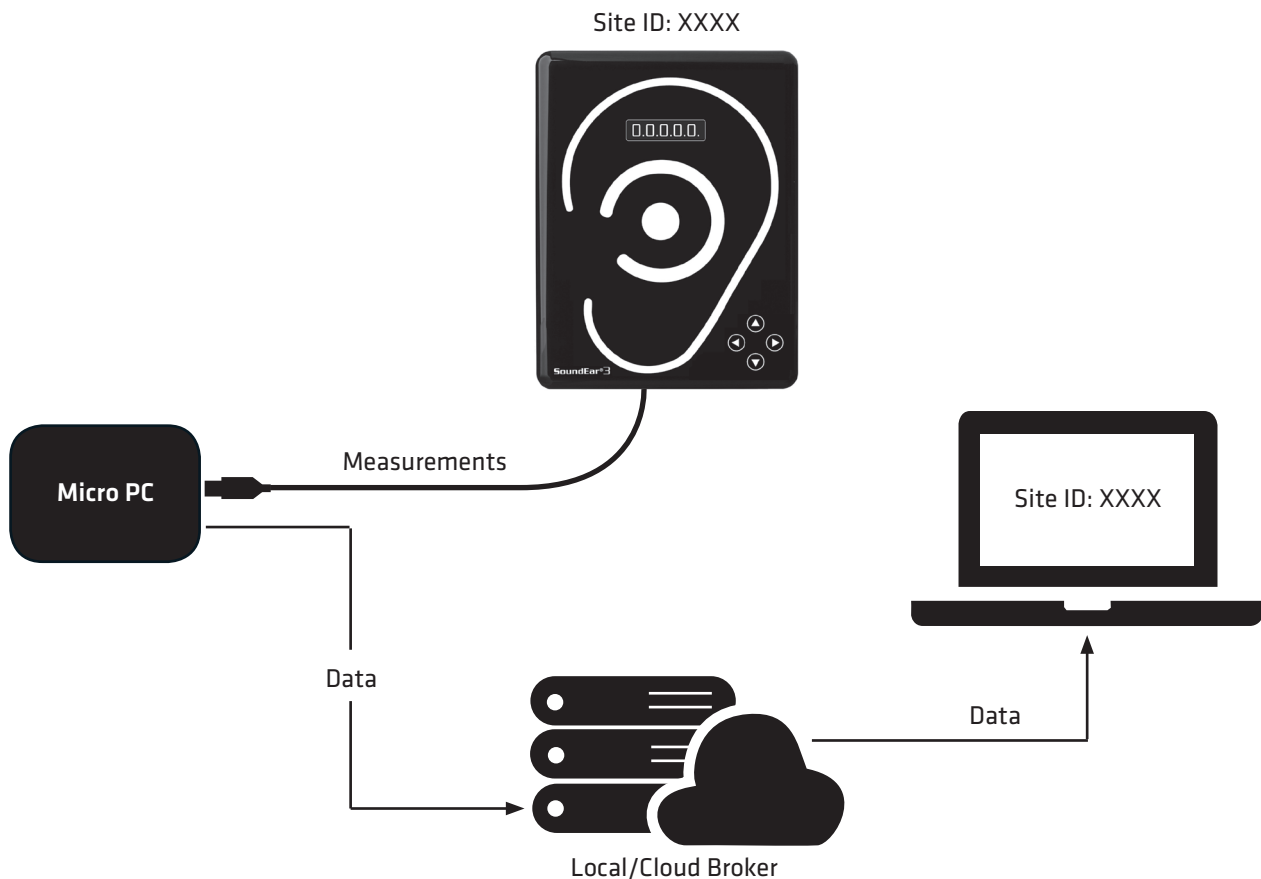
All units send their measurement data to either a local broker or a cloud broker, which then again sends the measurements to the receiving PC.

The receiving PC will be able to receive measurements, if the site ID in the software matches the site ID on the specific SoundEar®3 unit.



DATA FLOW

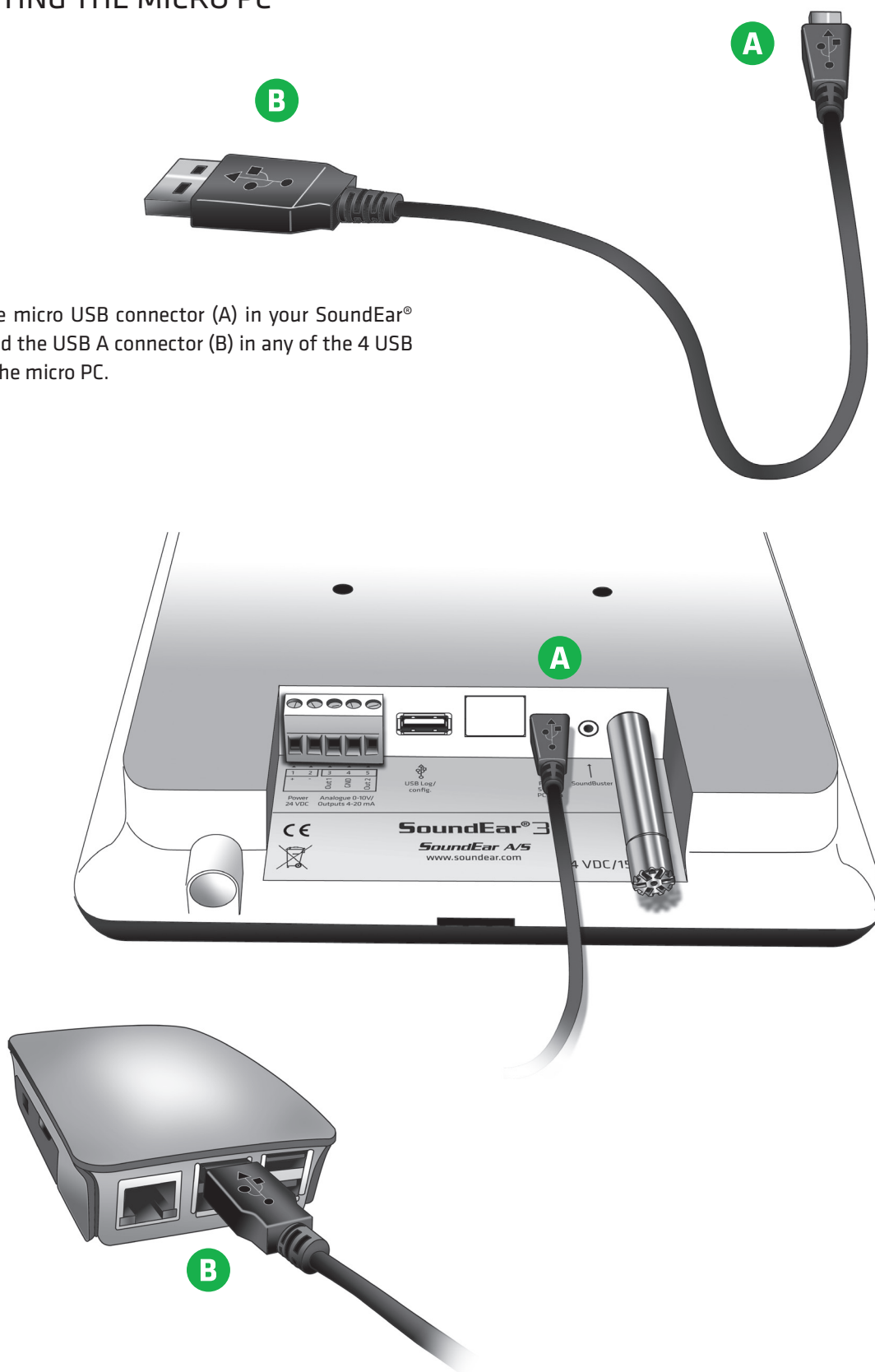
11



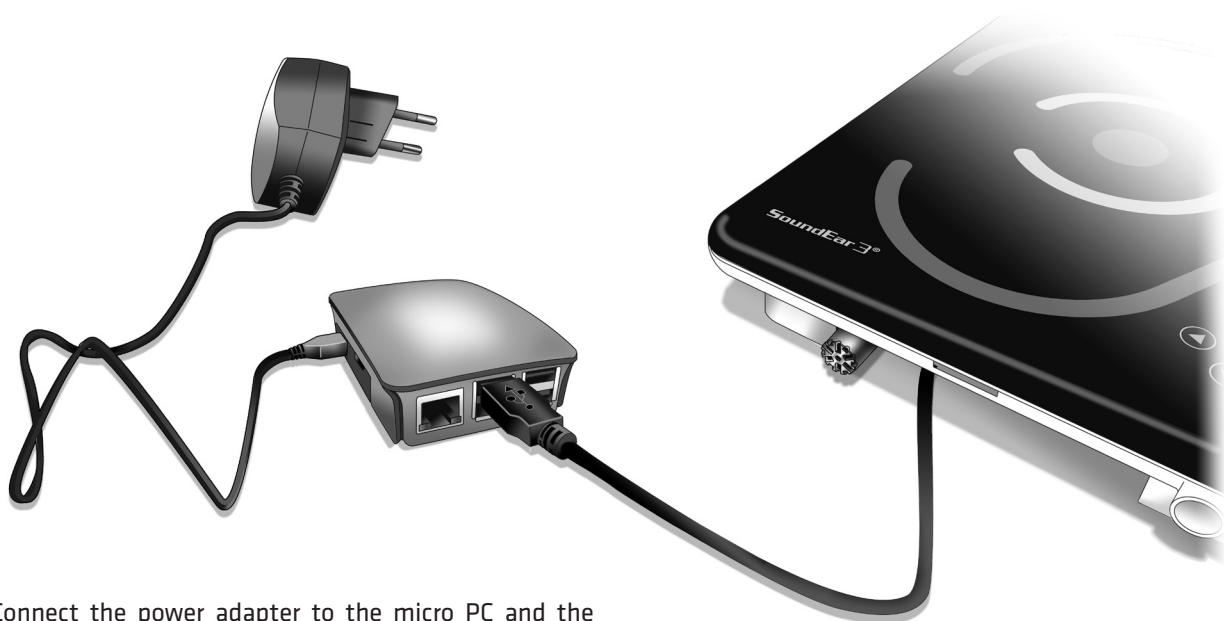
CONNECTING THE DEVICE TO THE SOUNDEAR® MICRO PC

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.

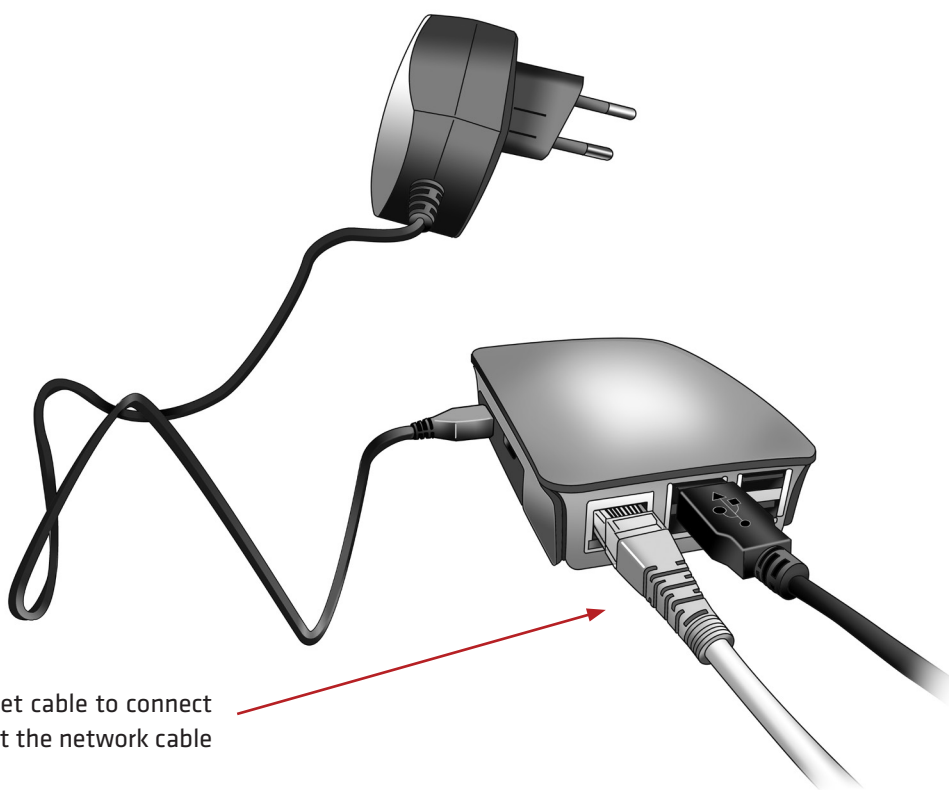


CONNECTING THE MICRO PC



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

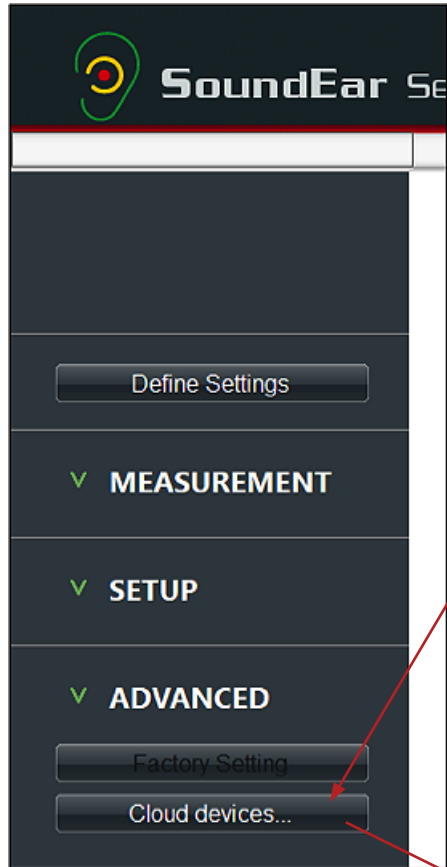


1. Fast blinking (300ms on, 300ms off): Waiting for connection with SoundEar®3 device
2. Short on, long off (300ms on, 2sec off): Receiving settings from SoundEar®3 device
3. Slow blinking (1sec on, 1 sec off): Connecting to broker
4. Long on, short off (4 sec on, 1 sec off): Connected to broker

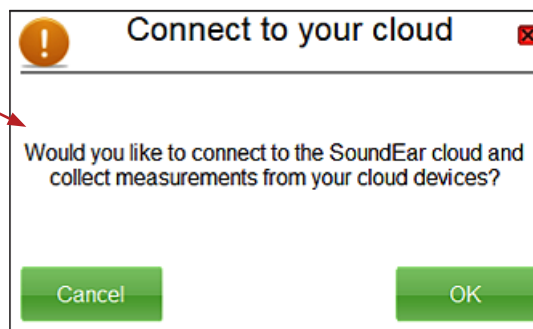
Connection completed! You should be able to view the measurements in the SoundEar®3 software.

START COLLECTING MEASUREMENTS

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

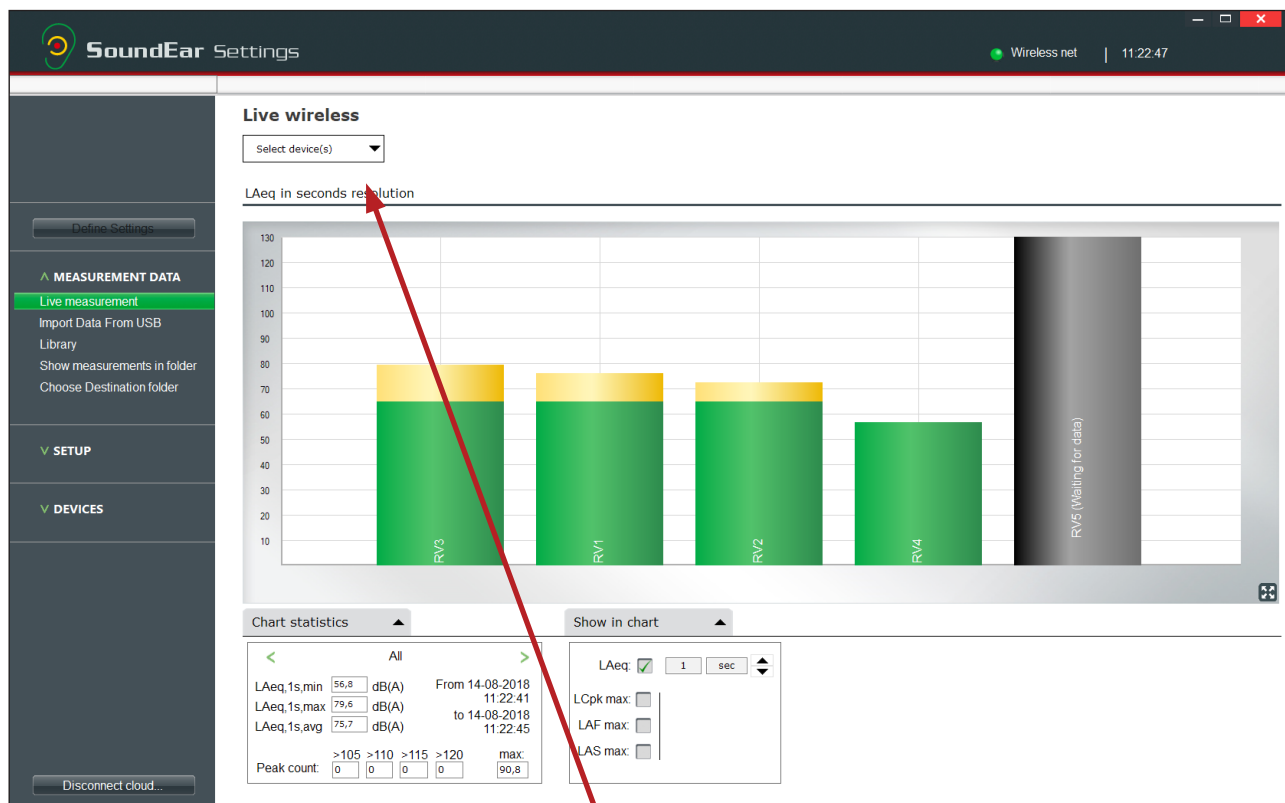


1. Click on 'Cloud devices' at the bottom of the left side menu.
2. Click 'OK' in the pop-up window.
3. It can take up to 3 minutes before the software starts receiving measurements, so please be patient.



START COLLECTING MEASUREMENTS

- 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.



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- 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.

Live wireless

Select device(s)

<input checked="" type="checkbox"/> RV1 (id:122971494)	<input checked="" type="checkbox"/> RV2 (id:24207991)
<input checked="" type="checkbox"/> RV3 (id:23421463)	<input checked="" type="checkbox"/> RV4 (id:21455396)
<input checked="" type="checkbox"/> RV5 (id:121333062)	

Select all Select none

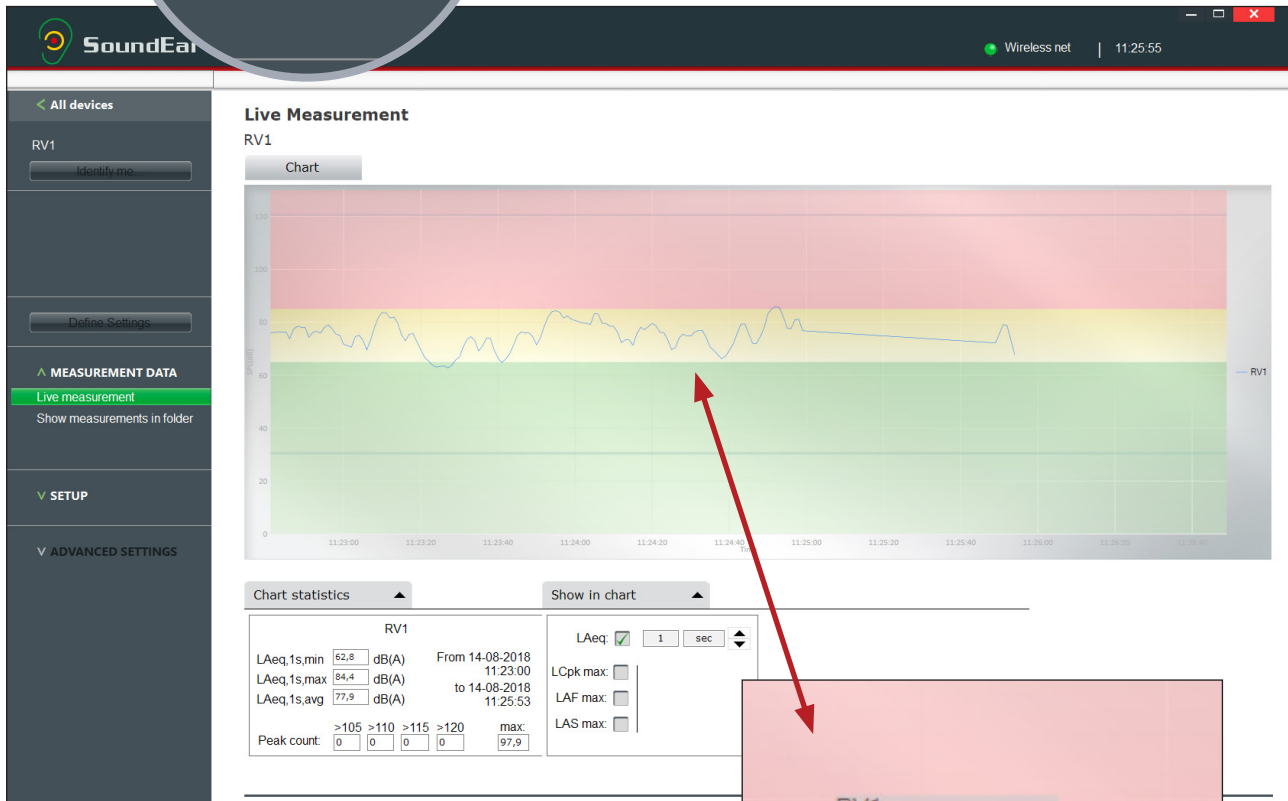
START COLLECTING MEASUREMENTS

MEASUREMENT DATA

Live measurement

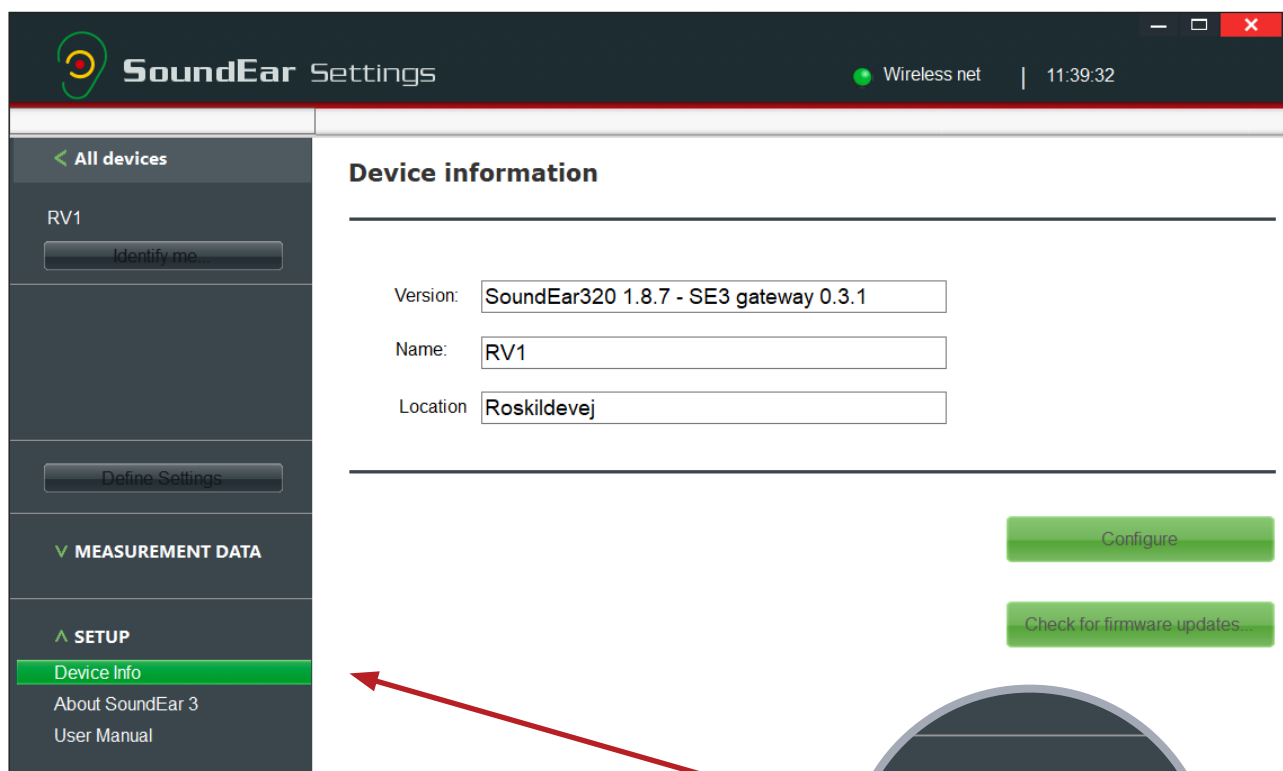
Show measurements in folder

- 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

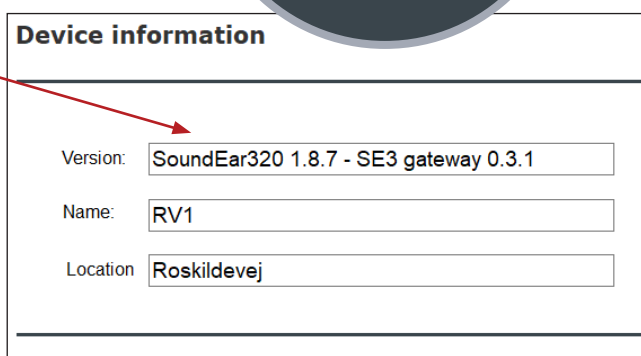


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Go to 'SETUP' and 'Device info' in the left side menu, to see the firmware version of both the SoundEar®3 and micro PC.

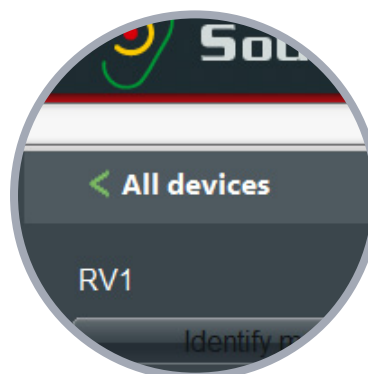
Here, you can see that the FW version of the SoundEar®3 – 320 is ver.1.8.7 and the firmware version of the micro PC is ver.0.3.1.

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 a 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 Sound-Ear® software must be up and running.



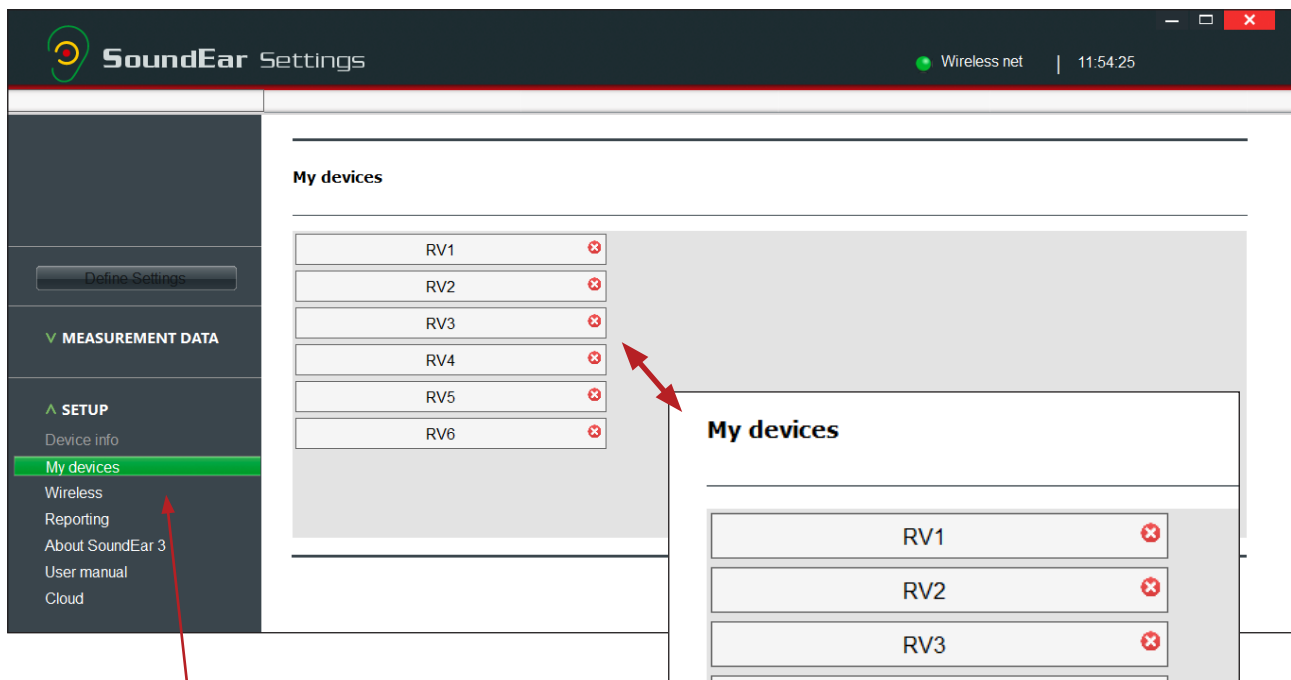
CHANGING CONFIGURATION ON AN ALREADY CONFIGURED DEVICE

You can change your Wi-Fi configuration any time via the software.

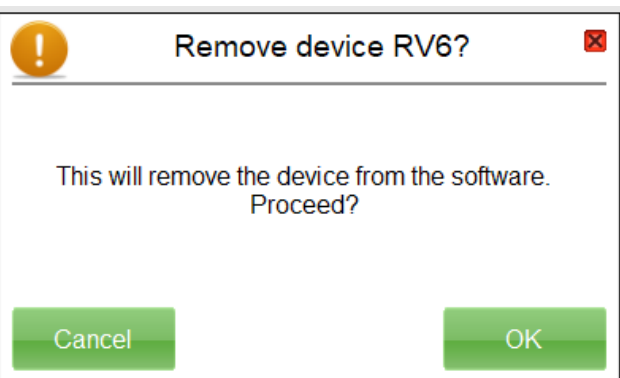
1. Connect your device to your computer using the USB cable
2. Click on 'Define settings' in the left side menu and click on the tab 'Wi-Fi/LAN'
3. Change your configuration and click "Configure".

The screenshot shows the SoundEar Settings application window. The title bar includes the SoundEar logo, the text 'Settings', and a status bar indicating 'Connected' with a green dot and the date/time '14-08-2018 11:49:30'. The main content area is titled 'Define settings' for device 'SE3-2011862637, Unknown'. It features a horizontal tab bar with options: 'Light - Night', 'Light - Day', 'Display', 'Alarm', 'Wifi/LAN' (which is selected and circled in red), and 'Export settings to USB'. A red arrow points from the 'Define Settings' instruction to a 'Define Settings' button in the left sidebar. Another red arrow points from the 'Wifi/LAN' tab instruction to the 'Wifi/LAN' tab. The 'Wifi/LAN' section is titled 'Connectivity' and contains the following fields: 'WIFI:' with a checked checkbox, 'Name:' with a text box containing 'soundear', 'Password:' with a masked text box and an 'abc' button, 'DHCP:' with a checked checkbox, 'Site ID:' with a text box containing 'Roskildevej', and 'Local broker' with an unchecked checkbox and a range of values (172, 24, 225, 200) in dropdown menus. At the bottom, a note states: 'Note: WIFI settings can only be transferred to your device when it is directly connected to your PC via a USB cable.' A green 'Configure' button is located at the bottom right.

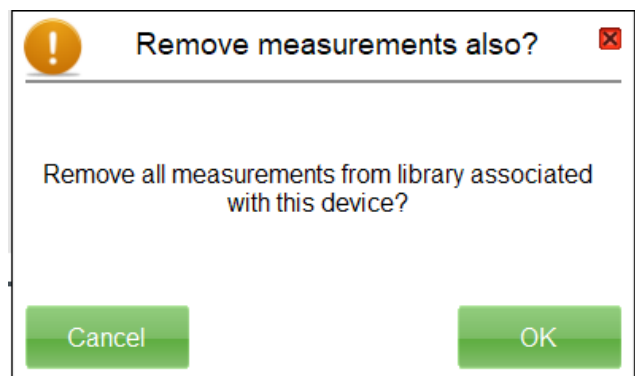
REMOVE A DEVICE FROM THE SOFTWARE



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.



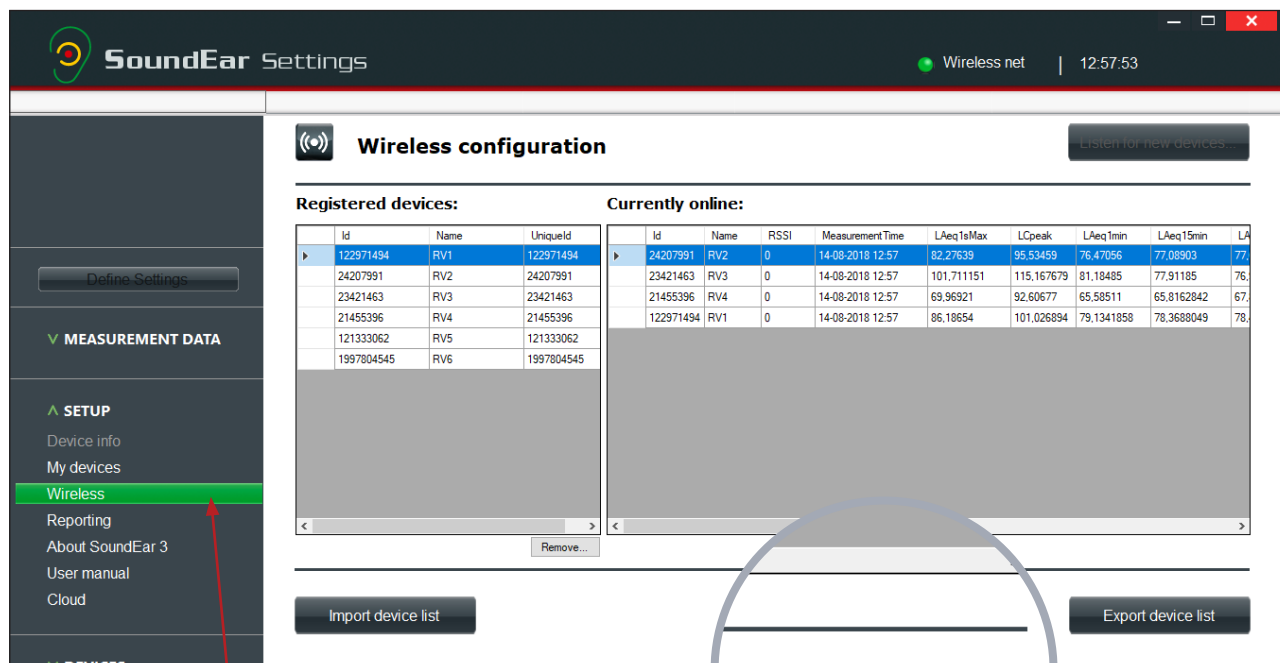
3. Press 'OK' in the pop-up window.



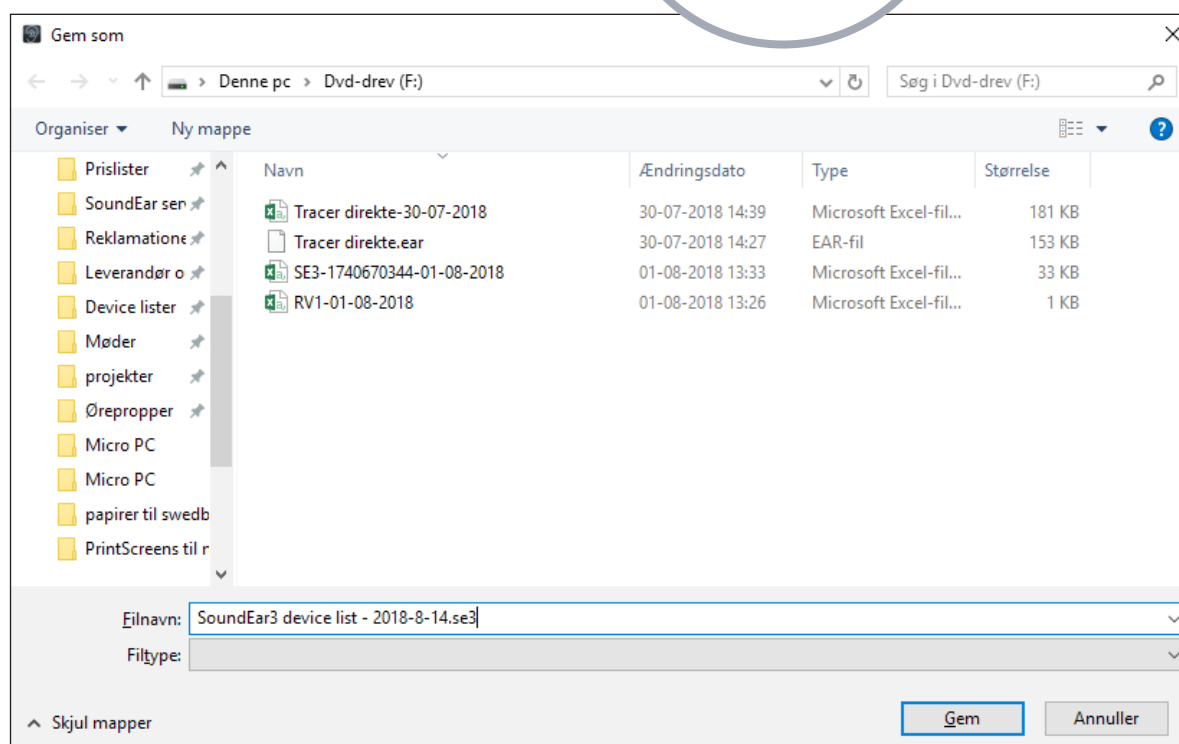
4. Click 'OK' if you also want to remove all measurements associated with the device from the software. If you want to keep the measurements and still be able to view them in the library, click 'Cancel'.

EXPORT DEVICE LIST

You can give other people access to live measurements by exporting your devices.



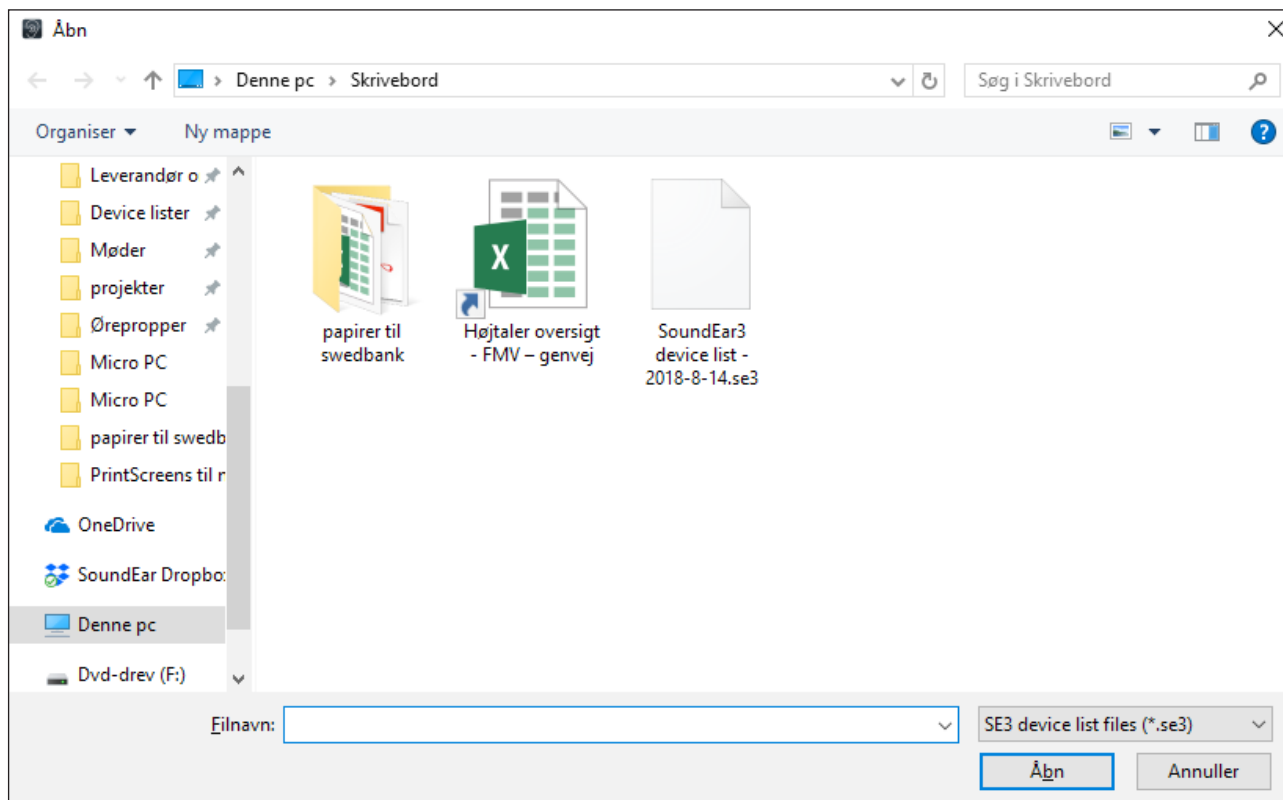
1. Go to 'SETUP' and 'Wireless' in the left side menu.
2. Click on the button 'Export device list'.



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.

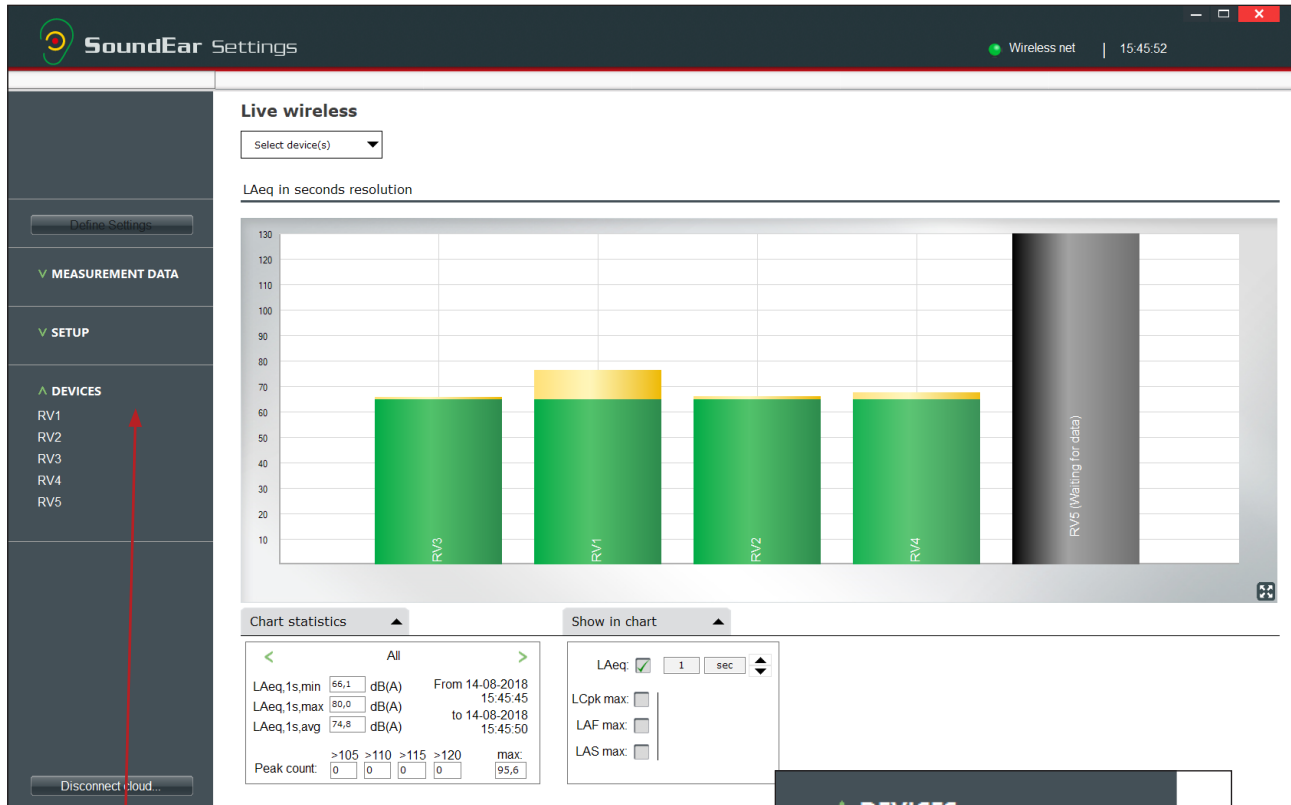


1. Go to the menu “SETUP” and “Wireless”.
2. Choose “Import device list” – and then the folder in which the device list is located. All files containing a device list have the ending ‘.se3’

NOTE! Importing a new device list will replace the current device list. All measurement data will still be saved.

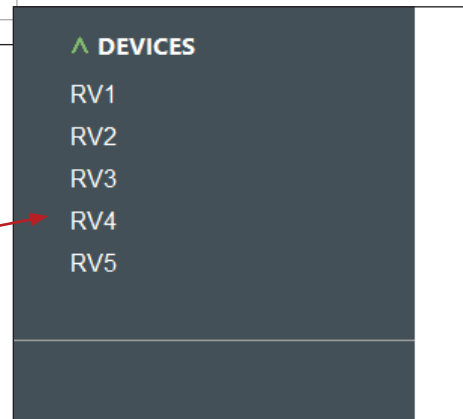
VIEW LIVE MEASUREMENTS FOR A SPECIFIC DEVICE

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.





SoundEar AVS

www.soundear.com



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.