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The screenshot shows the 'Test Selection' interface. On the left, there are four selection fields: 'Select Company', 'Select Test Person', 'Select Work Area', and 'Product to test'. Each field has a 'NEW' button next to it. A hand icon points to the 'NEW' button for 'Select Work Area'. Below these fields is a 'SCAN FOR DEVICES' button. On the right, there are four large buttons: 'START WITHOUT EARPLUG', 'START WITH EARPLUG INSERTED', 'PRACTICE', and 'BROWSE RESULTS'.

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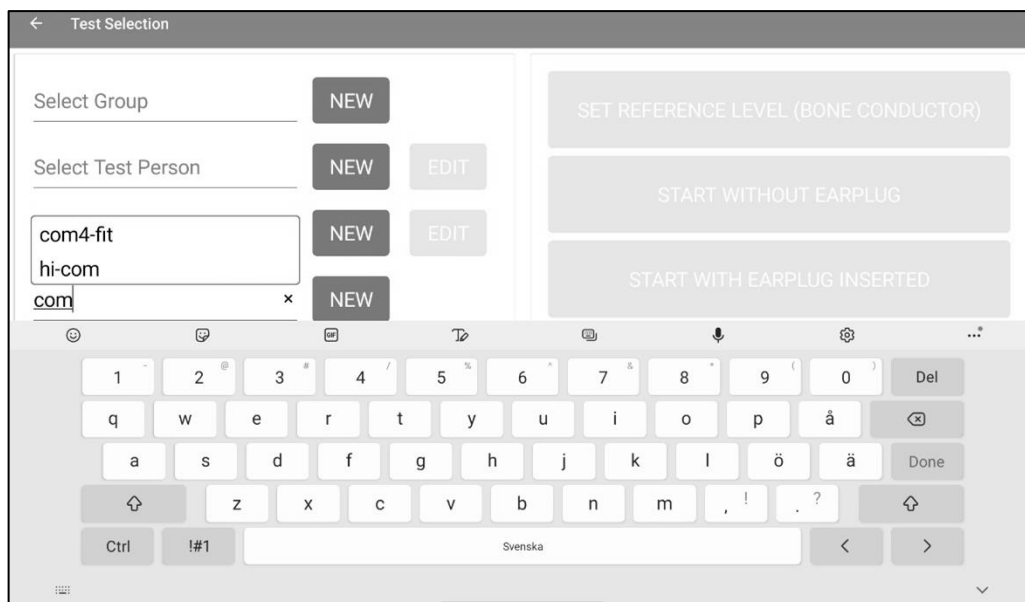
The screenshot shows the 'Test Selection' interface with a modal form open for adding a new work area. The modal has four input fields: 'Work Area Name', 'Exposure Level', 'Safety Limit', and 'Required Protection'. Each field has a '0 dB' value next to it. A hand icon points to the 'NEW' button for 'Select Work Area'. Three arrows point to the '0 dB' values in the 'Exposure Level', 'Safety Limit', and 'Required Protection' fields. At the bottom of the modal are 'ADD' and 'CANCEL' buttons.

1. Type in an existing work area.
2. Exposure level: The level of sound exposure in this work area.
3. Safety limit: Maximum sound exposure allowed under the protector. (Company or region exposure limit)
4. Required protection: If the exposure level and safety limit not are available it is possible to add “required protection level”.

23

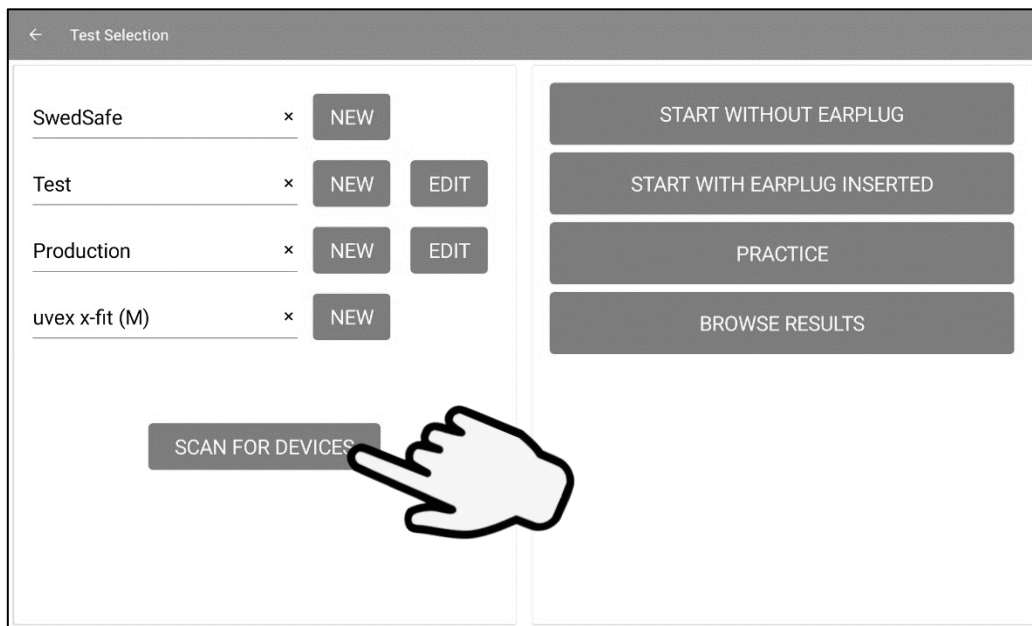
Select the plug/product you want to test.

The whole Uvex and HexArmor range are already added.

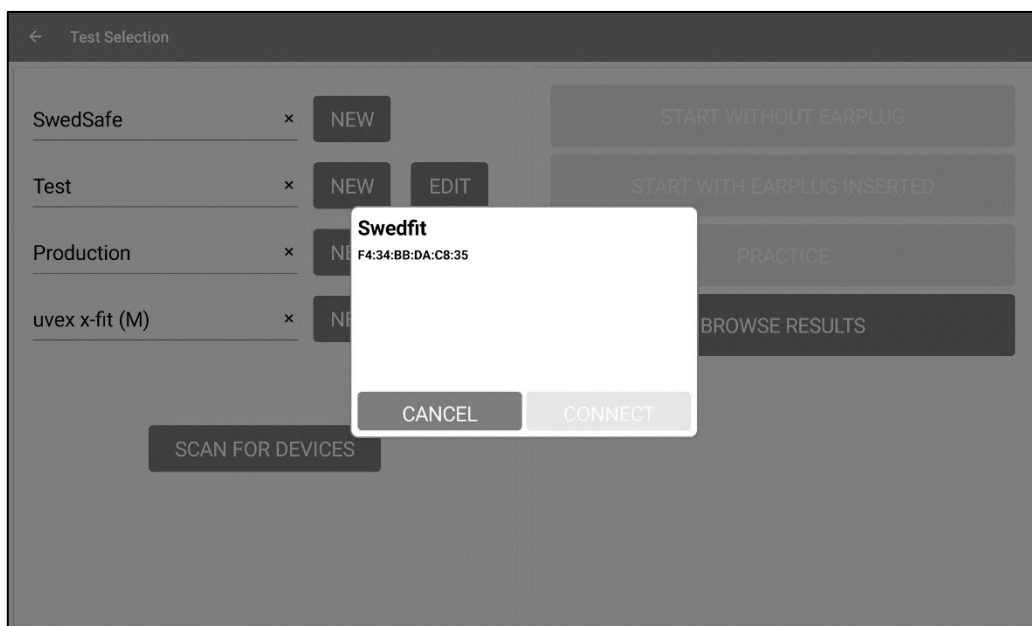


You can scroll down the list, or you can start typing the name of the product and it shows up.

24

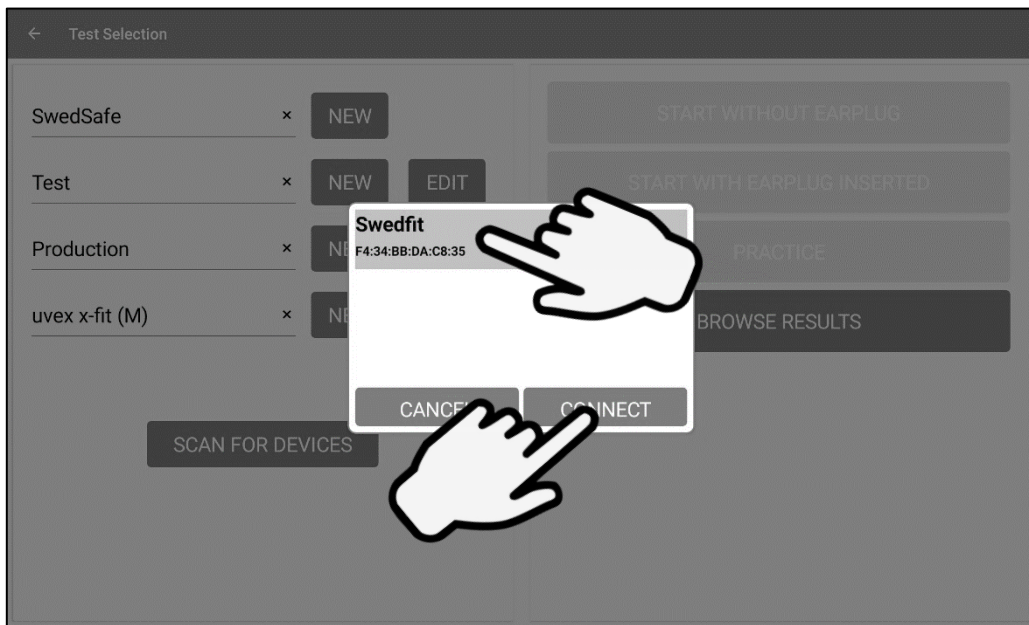


Press “SCAN FOR DEVICE” to pair the headphones with the tablet.



There will be a row saying “Swedfit” followed by a code for the headphones.

25

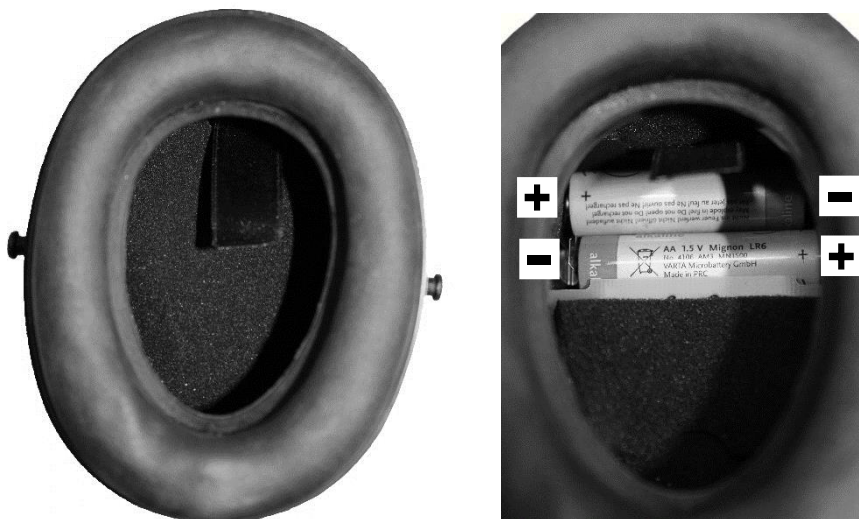


Connect to the headphones by selecting “Swedfit” and press “CONNECT”. Skip to the next step (26).

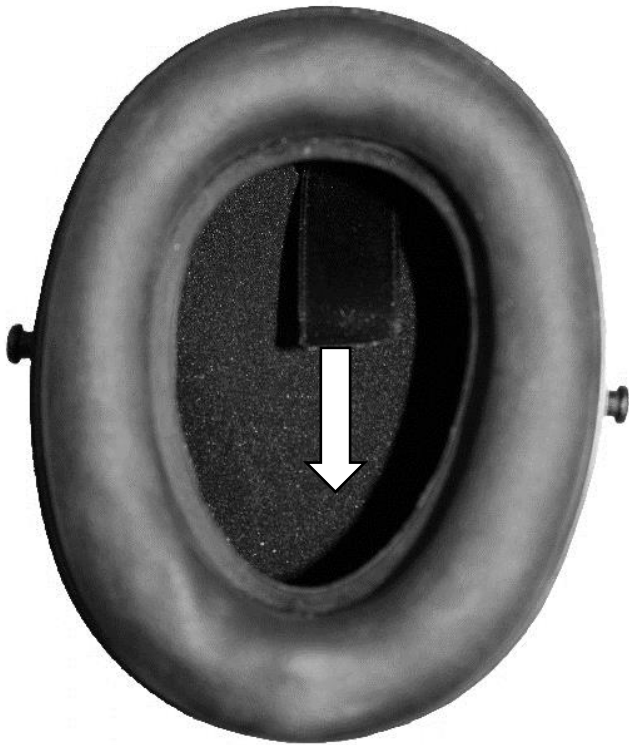
If a “Swedfit” device do not appear; do the following steps:

Check the batteries inside the left cup.

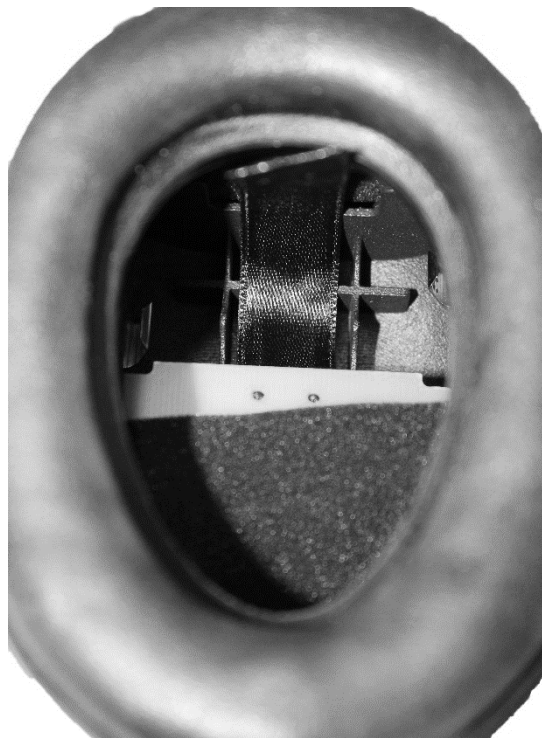
Make sure the batteries are properly positioned. If so and you still do not see "Swedfit" device as an option, replace with new batteries.



SWEDFIT
SWEDSAFE
NO.1 IN EARPLUGS

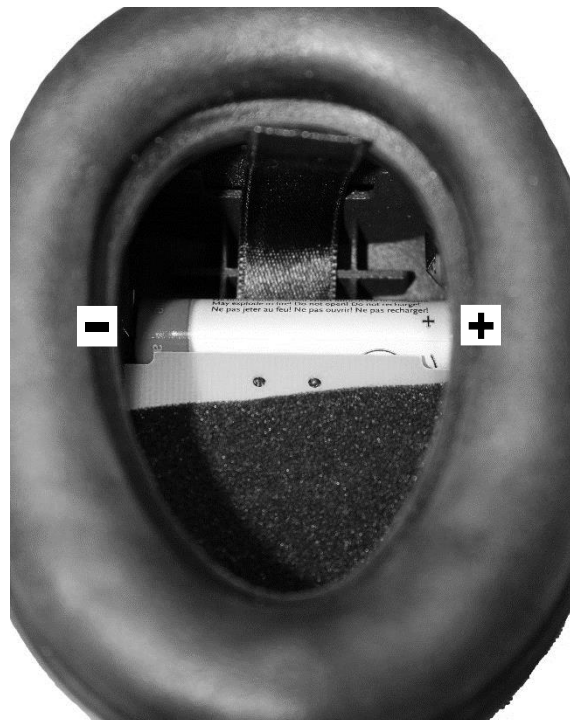


To remove the batteries, pull the textile strap until they pop out.



When you are going to place the batteries in the headphone, make sure the textile strap is underneath the batteries. (See picture)

Start with the battery closest to you. (See picture)



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Bring out the headphones



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When step 13 – 23 is done, you can continue.

Place the headphones on your ears. There is a left and right side to the headphones. Check for proper positioning by referencing the "L" and "R" labels on the outside of the cups.

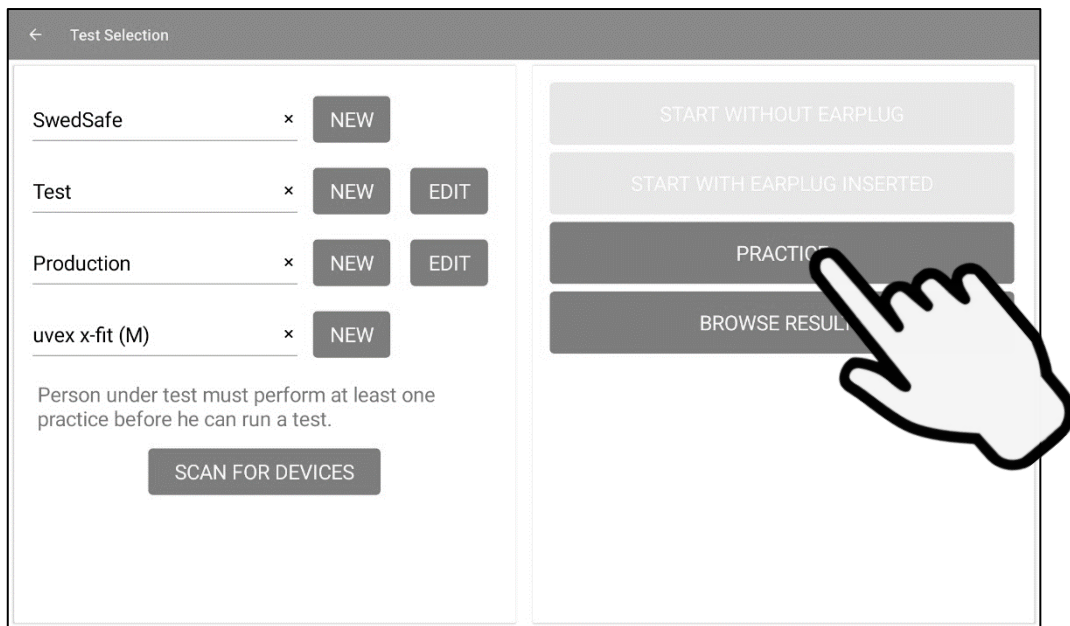


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Place the tablet in front of you. Now you are ready to start.

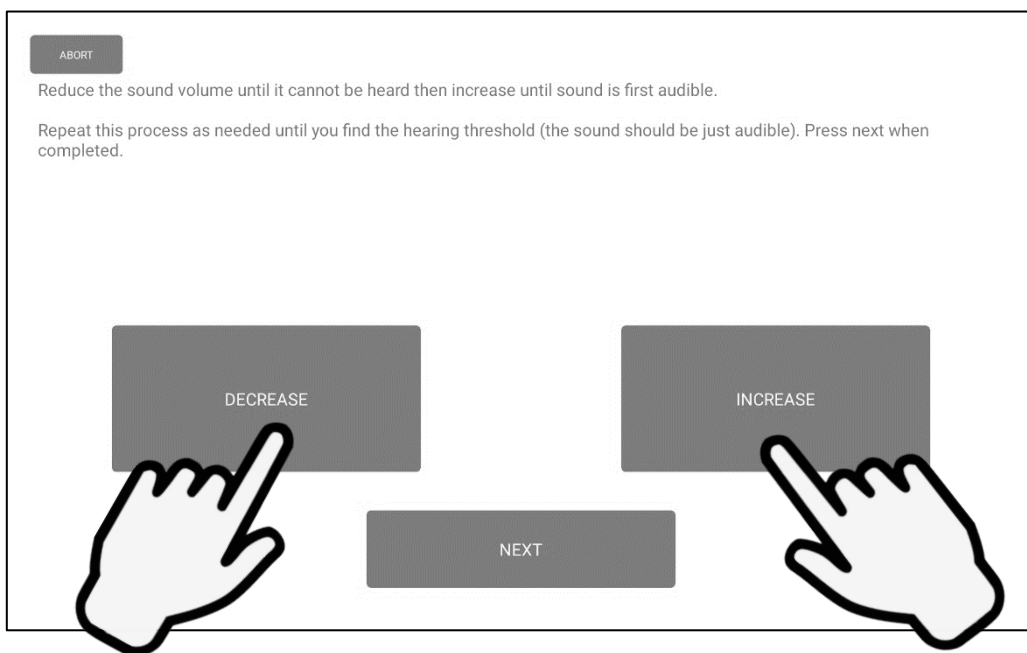


29



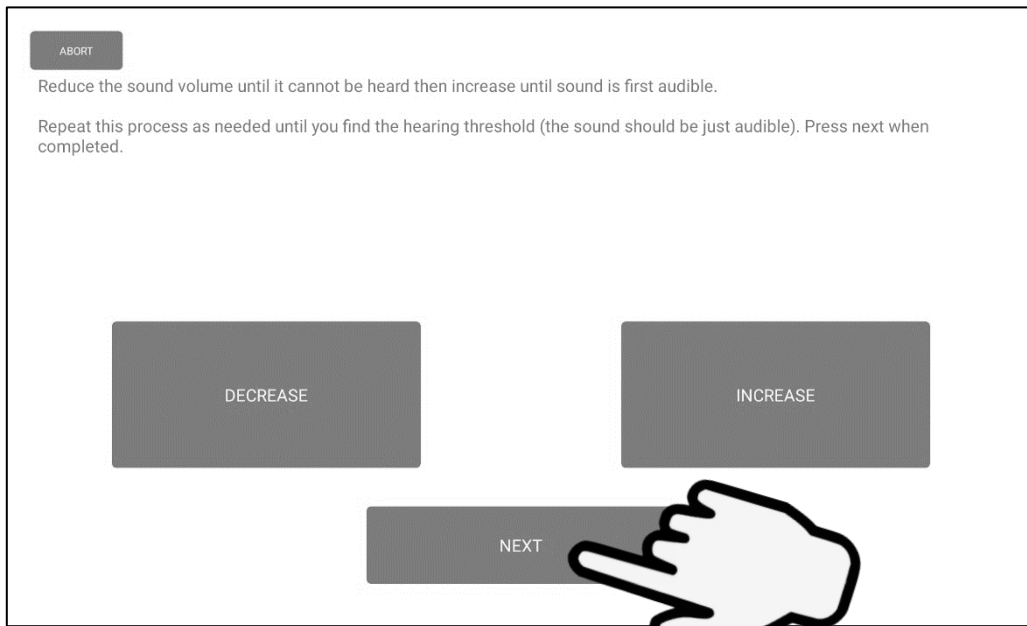
A practice test must be performed for all new test subjects in order to determine their hearing threshold. To complete this test, select “Practice”.

30

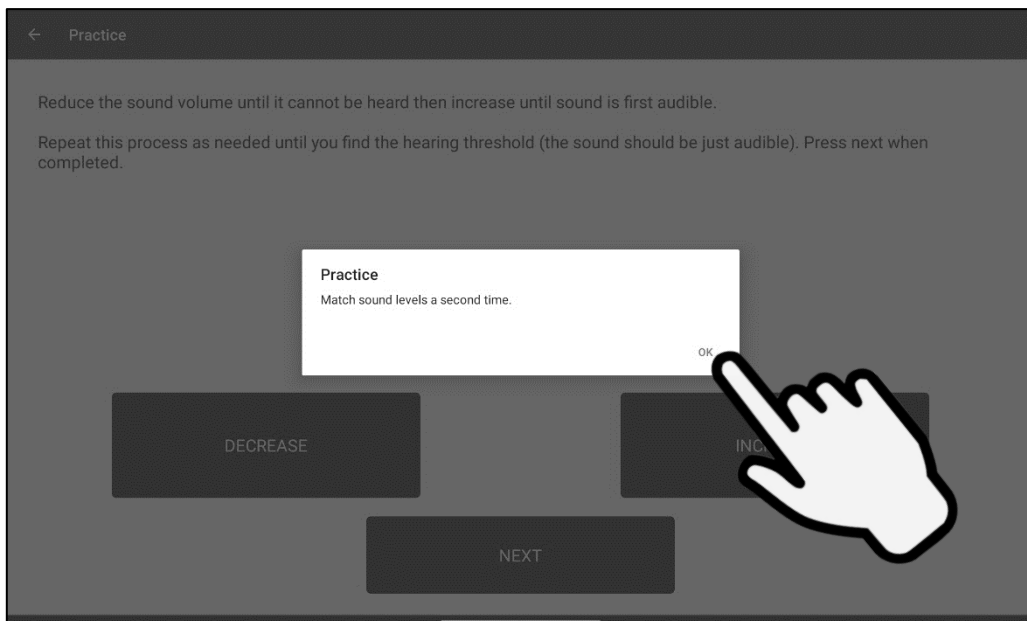


Now you should change the level of the sound by pressing “Decrease” and “Increase” to a level where you find your hearing threshold (the point at which the sound is just audible).

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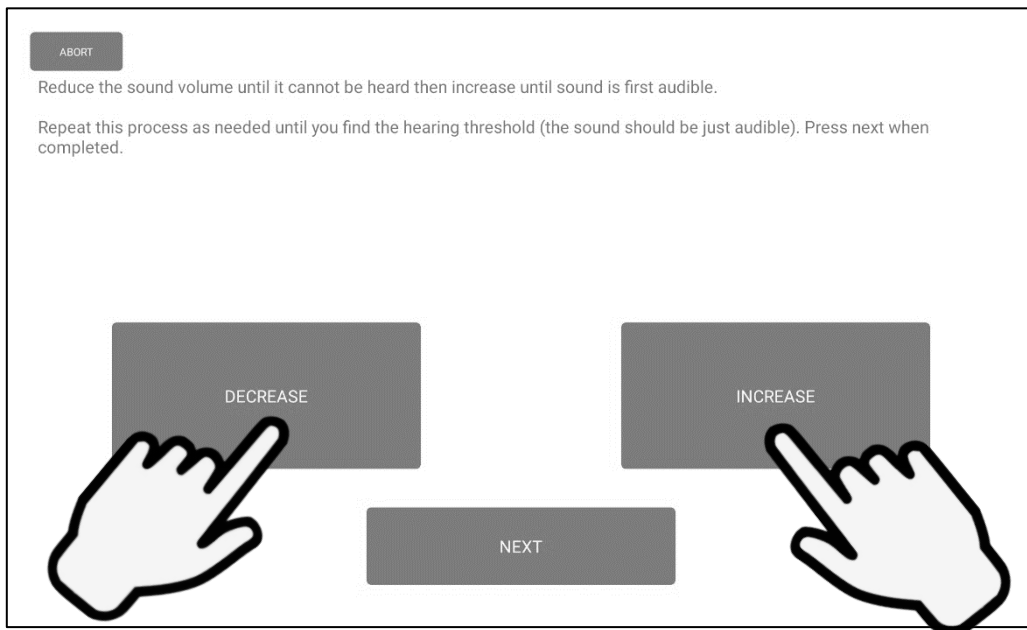


When you've found your hearing threshold, press "Next" to continue.



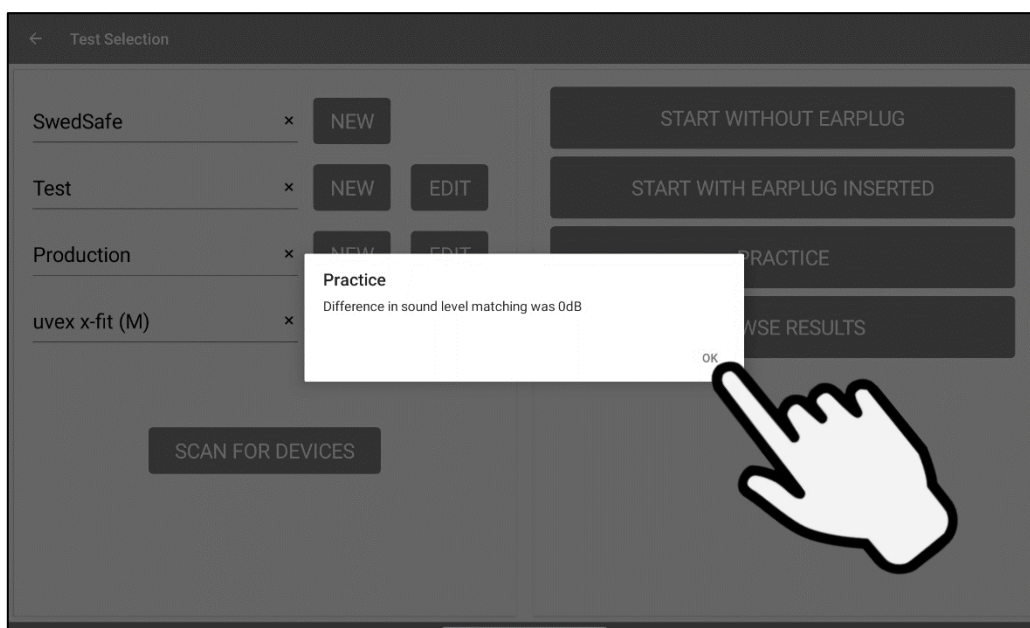
Press "OK". Repeat practice test a second time.

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Find your hearing threshold one more time. Then press “Next”.

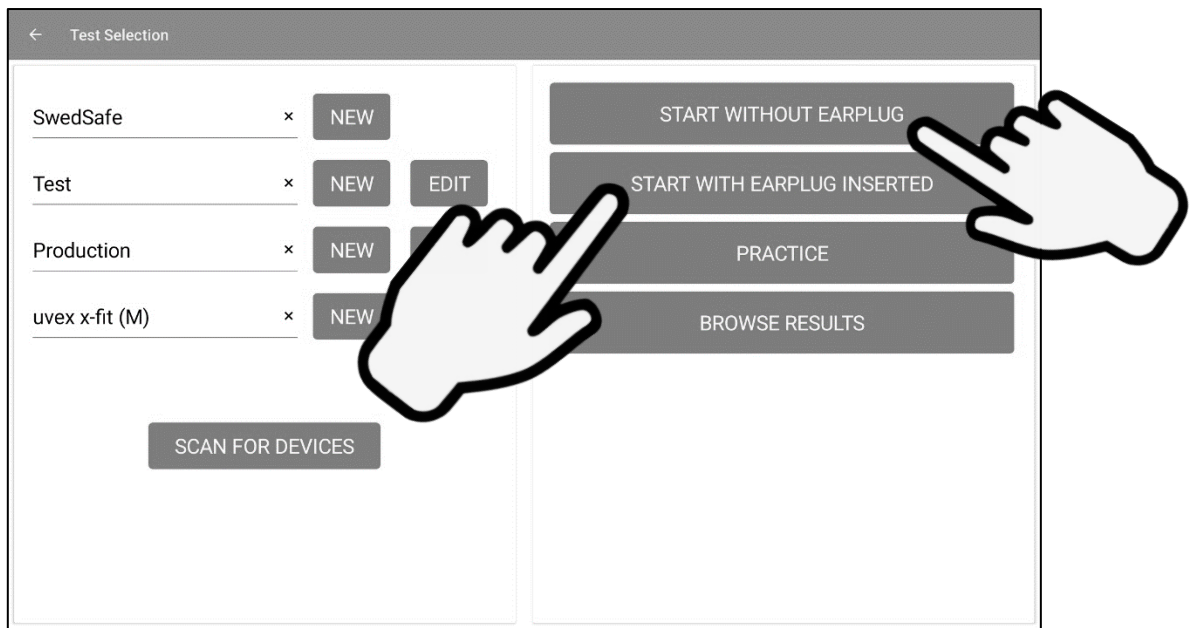
33



The result of the practice is now shown on the screen. This result should be ± 4 dB. If you are outside of this range, you need to do another practice.

Press: “OK” to continue.

34

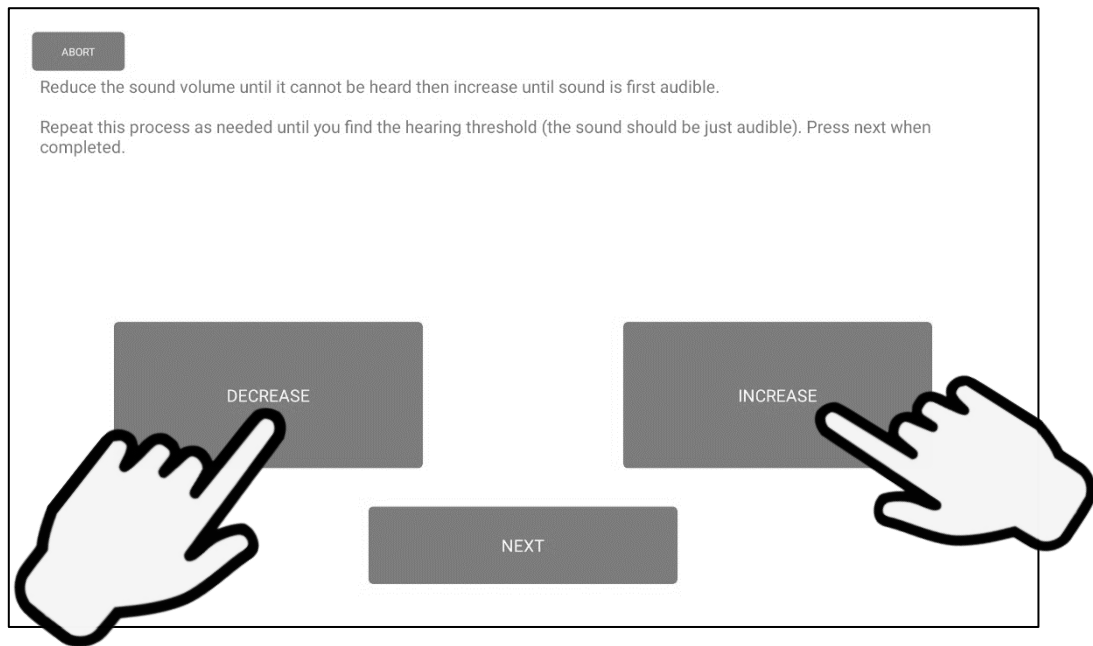


After the practice you should understand how the test works and are ready for testing.

“Start without earplugs”: Find your hearing threshold without earplugs → insert earplugs and find the threshold again.

“Start with earplugs inserted”: Find your hearing threshold with earplugs inserted → remove the earplugs and find the threshold again.

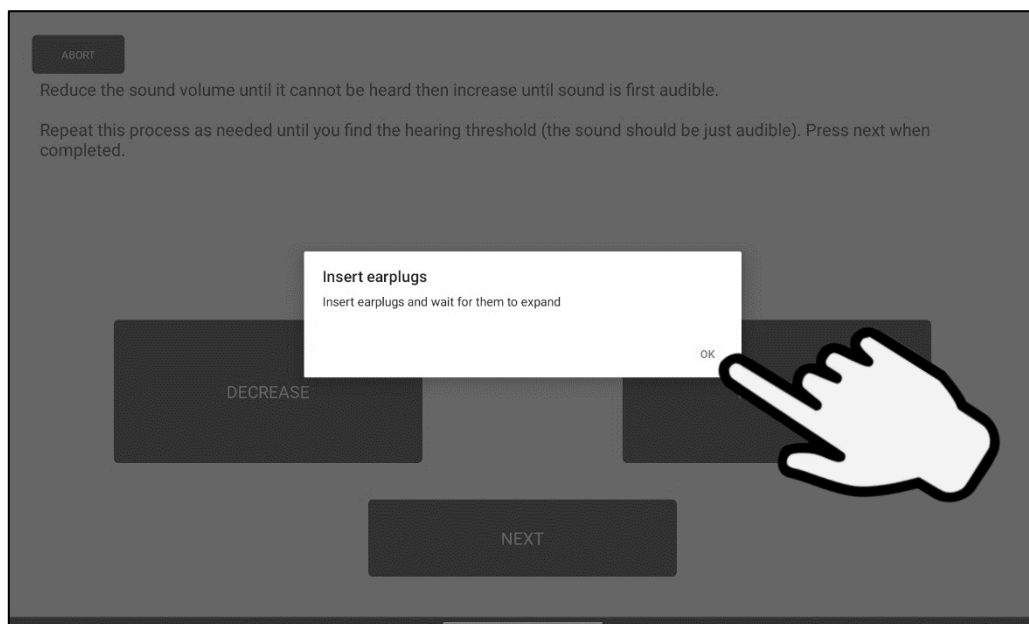
35



Find your hearing threshold without earplugs, like in the practice.

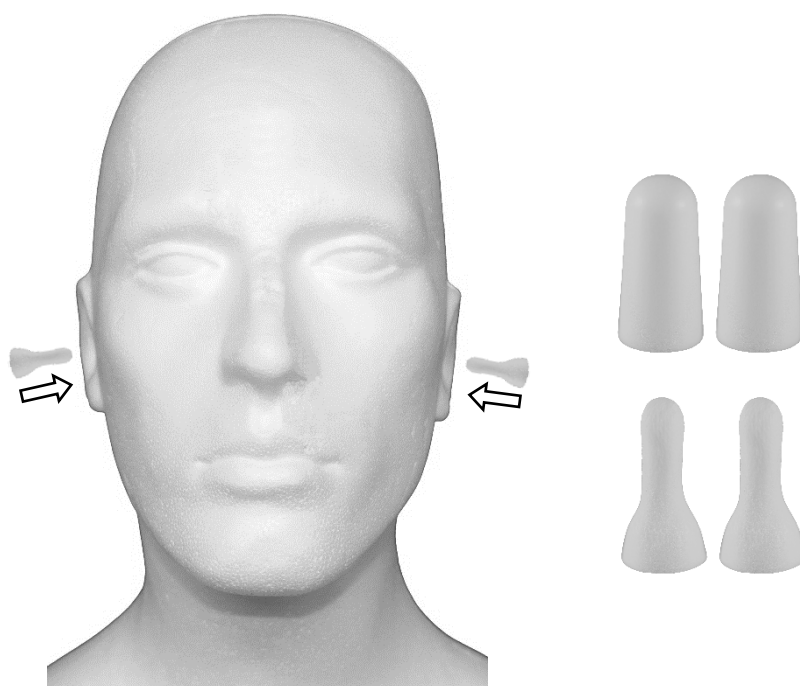
When that's done, press "NEXT".

36



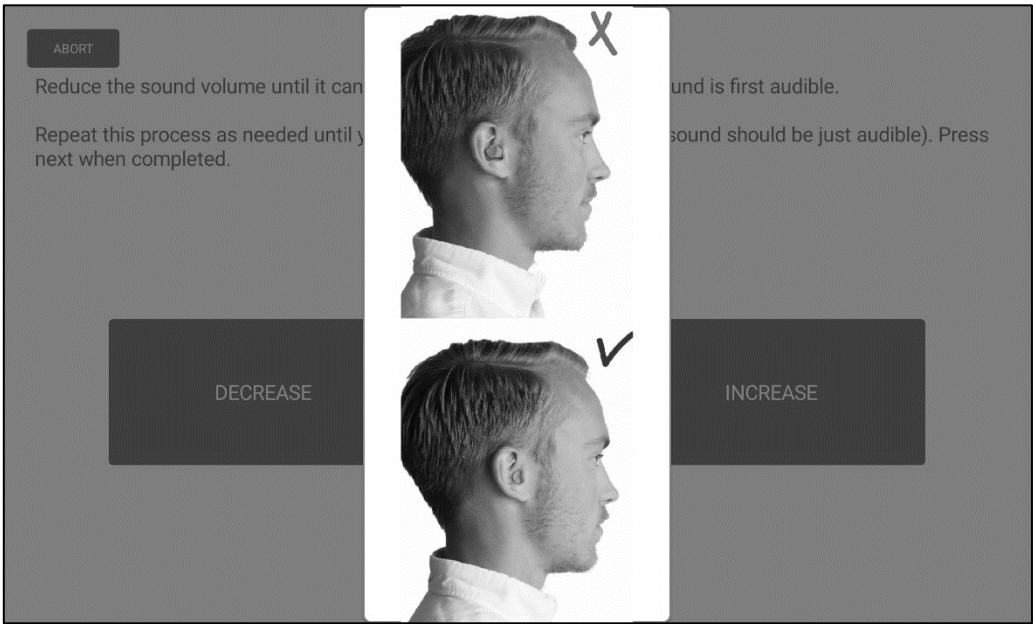
Follow the instructions.

NOTE: If using foam earplugs, please allow 45 seconds for them to fully expand.



Insert earplugs.

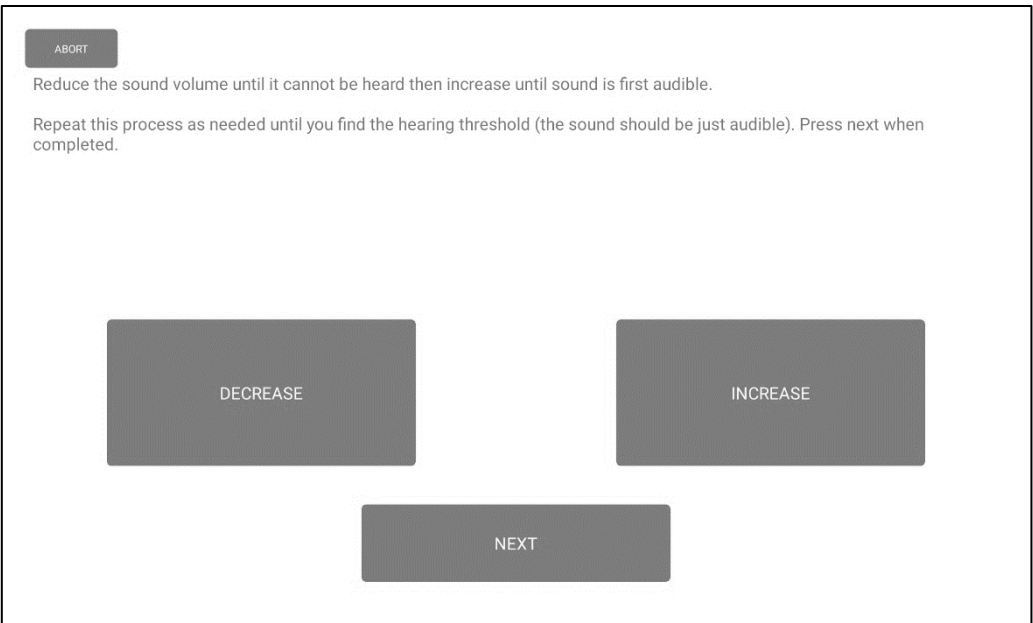
37



Wait for the earplugs to expand properly before going to the next step.

For next step, press anywhere on the screen.

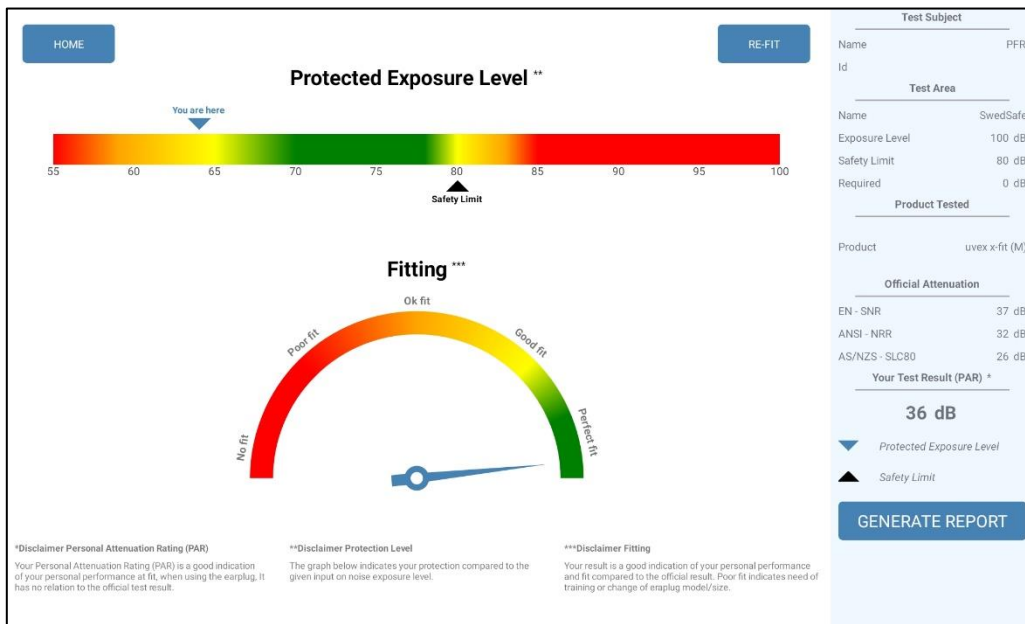
38



Find your hearing threshold with earplugs inserted. When that's done, press "NEXT".

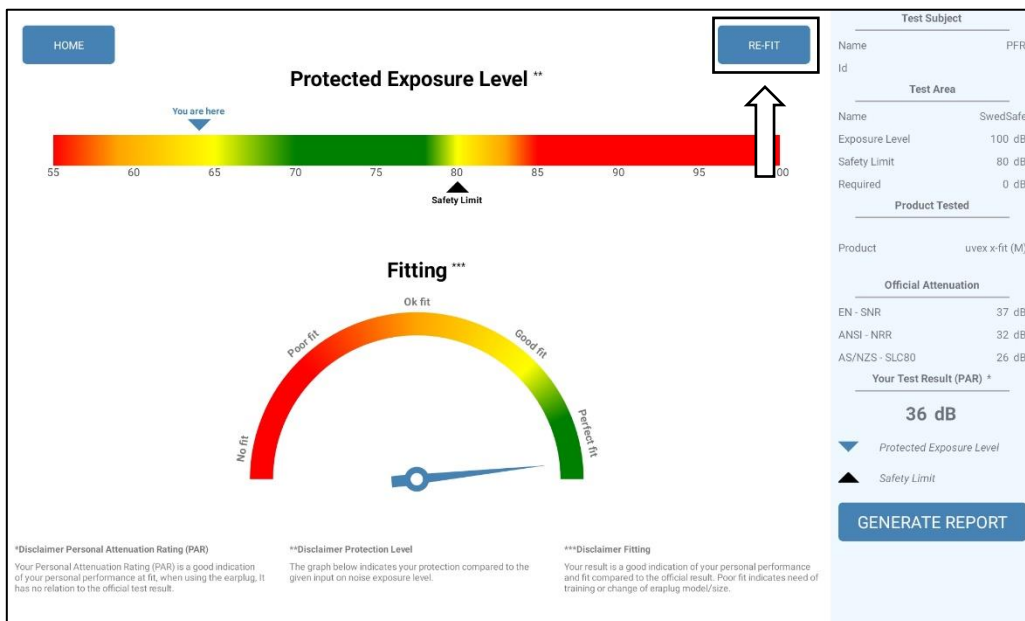
If you can't hear the signal, press increase.

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DONE!

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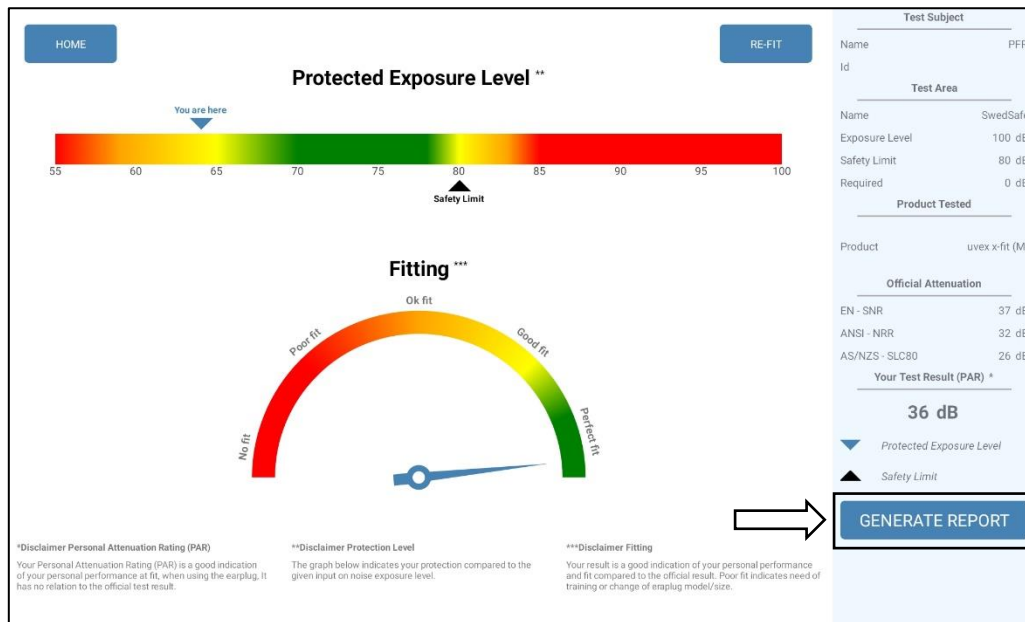


If you're not satisfied with your result you can re-fit the plug. Press "RE-FIT".

This will take you on step back, let you insert the plug again and find the threshold one more time.

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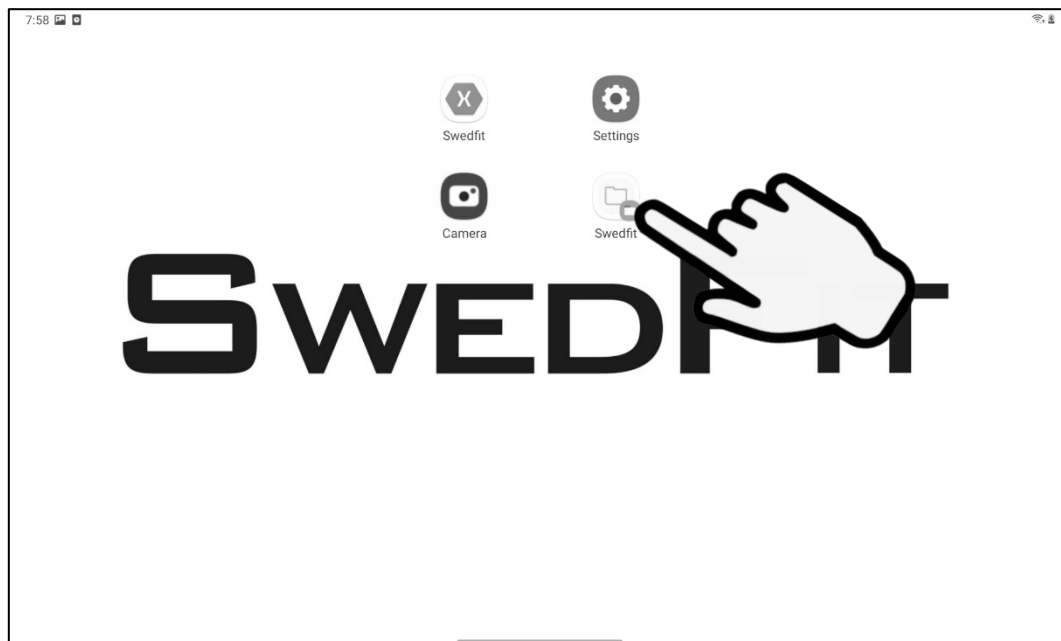
41



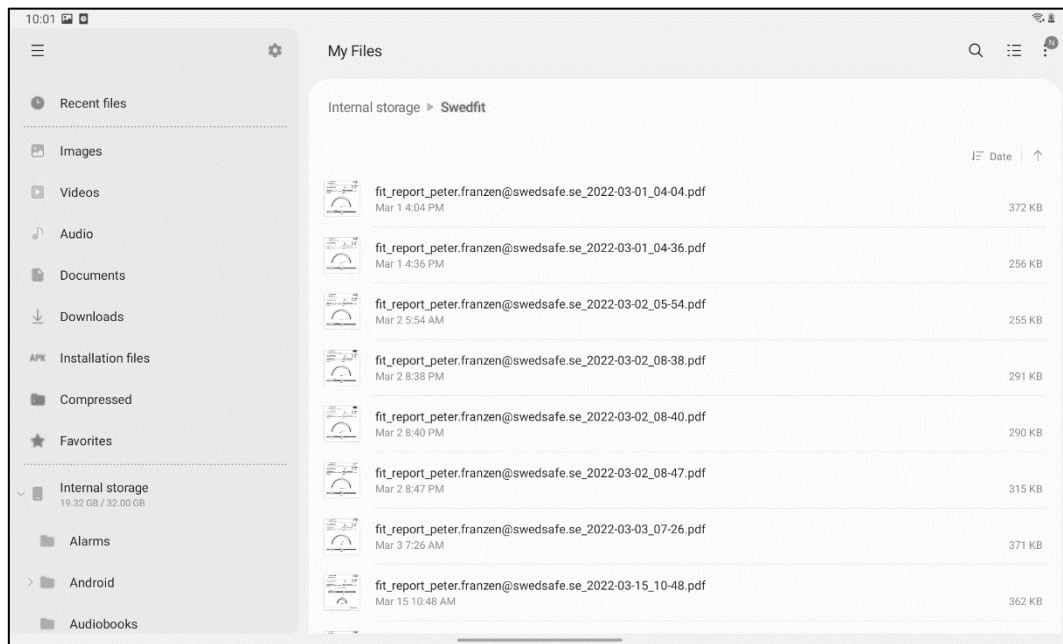
When a test is done you’re able to generate a report, based on the test.

NOTE: You’re not able to generate a report later on.

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All reports that are generated on this tablet will be saved in the folder “SwedFit” on the home screen.



By going into the folder on the home screen, you can see all reports that have been saved.

Choose the one you want to see.

If you want to print the report, use the charging cable for the tablet and plug it in to your computer. Find the tablet on the computer and go into the folder “Swedfit”.

SWEDFIT

Hearing Protector Fit Test Report

uvex

Subject: PFR
Date: 3/17/2022 7:58:03 AM
Company: SwedSafe
Work Area: SwedSafe
ID:
Exposure Level: 100 dB
Product: uvex x-fit (M)



Your Test Result (PAR)*

Your attenuation provided by the product.

36 dB

Official Attenuation

SNR 37 dB
NRR 32 dB
SLC80 26 dB

Safe Exposure Level

The highest level of noise to which a worker can be safely exposed with this plug

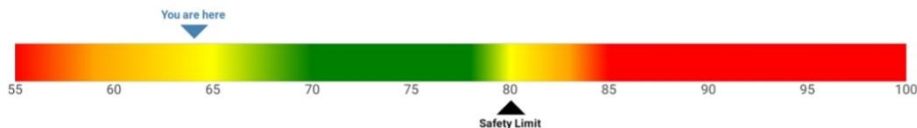
115 dB

Protected Exposure level

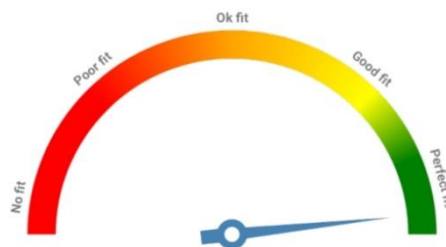
The estimated noise level reaching this worker's eardrum with this product fit.

64 dB

Protected Exposure Level **



Fitting ***



Protecting People

Employee

Signature

Date

Supervisor

Signature

Date

*Disclaimer Personal Attenuation Rating (PAR)

Your Personal Attenuation Rating (PAR) is a good indication of your personal performance at fit, when using the earplug. It has no relation to the official test result.

**Disclaimer Protection Level

The graph below indicates your protection compared to the given input on noise exposure level.

***Disclaimer Fitting

Your result is a good indication of your personal performance and fit compared to the official result. Poor fit indicates need of training or change of earplug model/size.

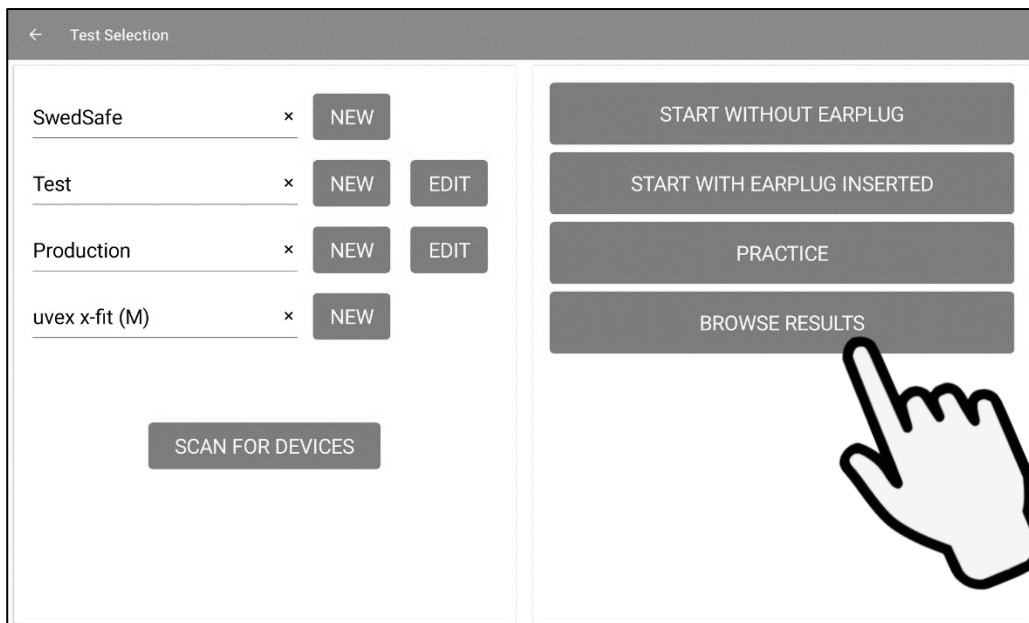
45



If you go back to the SwedFit application you will still be on the result page.

Press “HOME” to get back to the home page in the app.

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If you want to see all previous tests done. Press “BROWSE RESULTS”

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Browse Result

FILTER

Person	Date	Product	Exposure Level	Protected Exposure Level	Attenuation (PAR)
SwedSafe	6/21/2021 3:15:30 PM	uvex x-fit	100	63dB	37dB

You should now see all previous tests which have been saved.

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Browse Result

FILTER

Person

Date

Product

Exposure Level

Protected Exposure Level

Attenuation (PAR)

SwedSafe

6/21/2021 3:15:30 PM


uvex x-fit

100

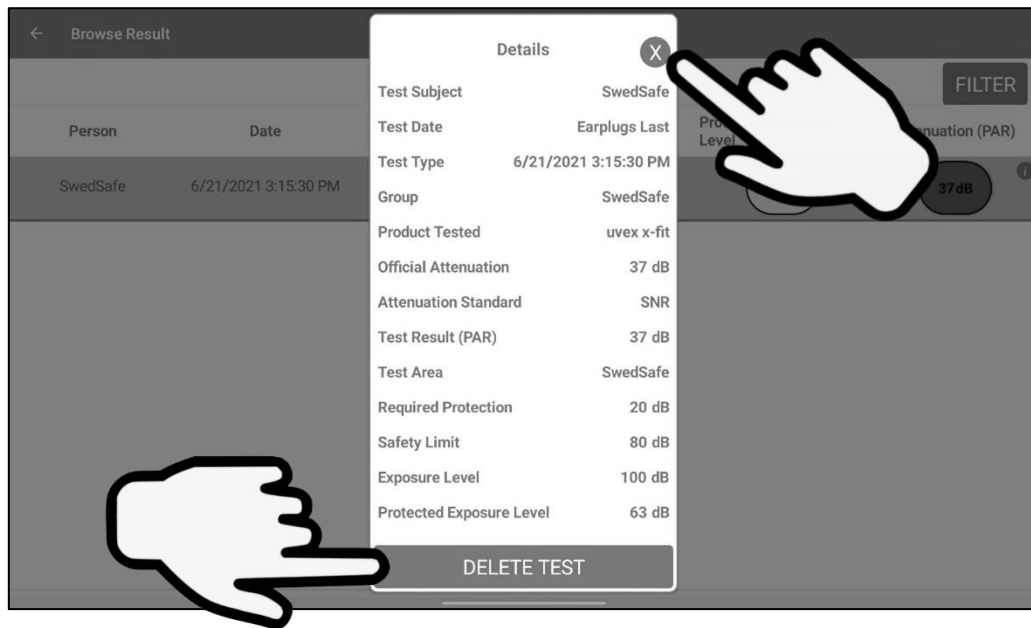
63dB

37dB

<

To show more detailed information about a specific test. Press  .

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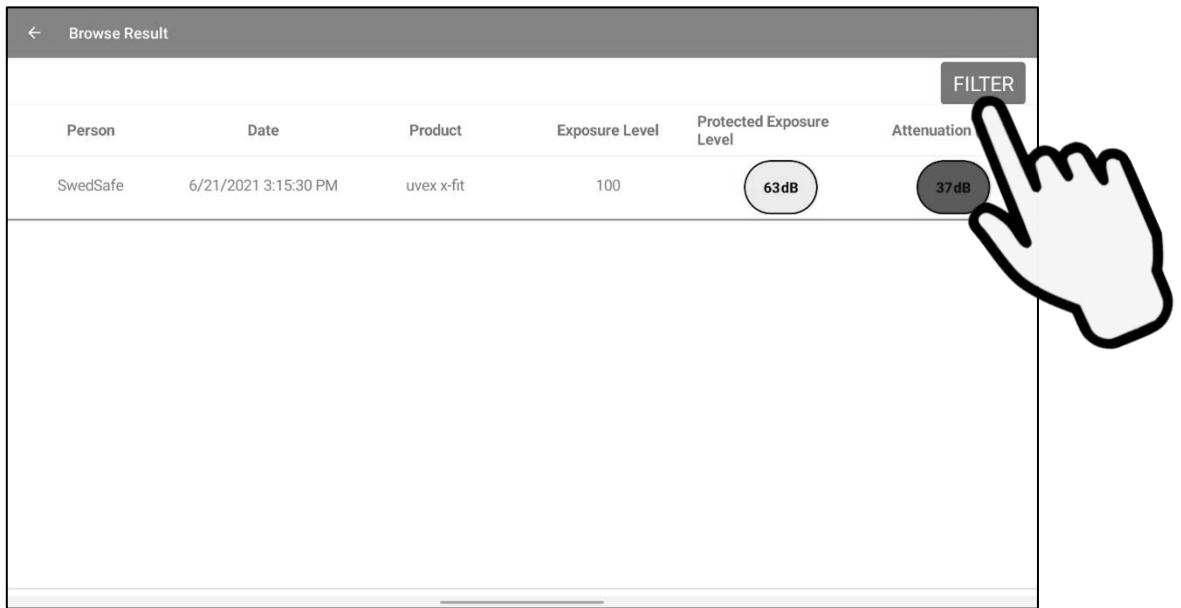


You are now able to see all relevant information about the selected test.

You can delete the test by pressing “Delete test”.

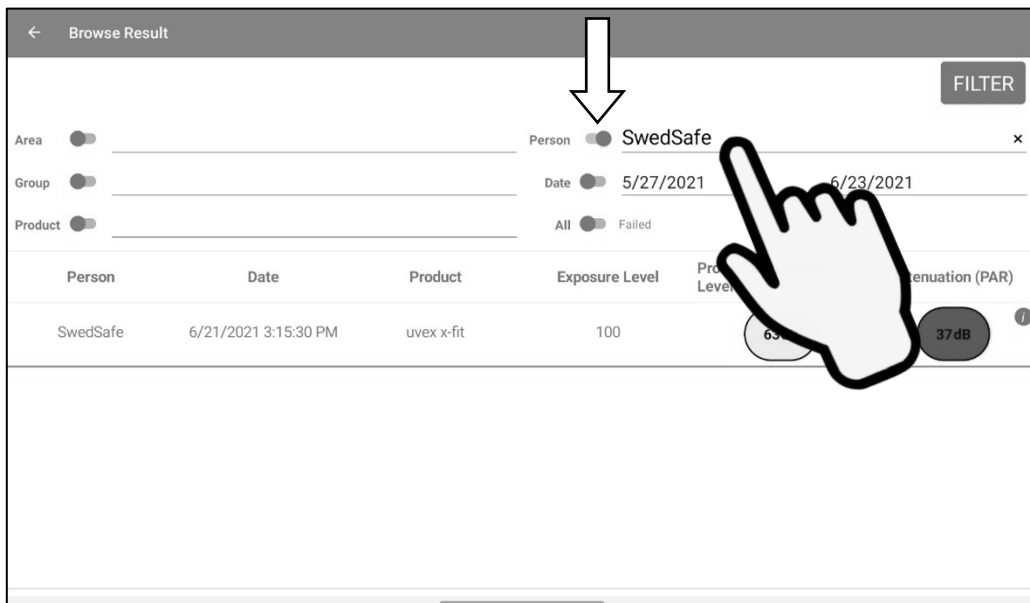
If you want to go back, press the “X” button.

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To filter test results, press "Filter".

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Press on the row you want to use as filter. Type or choose from the list and press the button to apply the chosen filter.

FCC AND IC INFORMATION

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 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 device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage ;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FAQ

Question	Possible solutions
Can't login	<ul style="list-style-type: none"> - Restart/Reboot the application. - Check that you are connected to Wi-Fi. - Check internet connection on your Wi-Fi.
"Login failed"	<ul style="list-style-type: none"> - Make sure you have typed the e-mail address correctly. - Press "OK" and then "forgot password". You will receive a verification code by email to create a new password.
Can't connect to headphones. Application is loading and searching for headphone.	<ul style="list-style-type: none"> - Make sure Bluetooth is on. - Restart/reboot the application.
Can't find headphones	<ul style="list-style-type: none"> - Make sure "Location" is on.
Find your headphones	<ul style="list-style-type: none"> - "Scan for device" – no headphones appear. - Check batteries and "scan for device" again. - Restart/reboot the application. - Change batteries.
Application time out. When the application has been running a long time, it can lose connection to database.	<ul style="list-style-type: none"> - Restart/reboot the application.
Can't start test	<ul style="list-style-type: none"> - Make sure all credentials are correctly filled in. - You are connected to the headphones - The tablet is connected to Wi-Fi. - Wait for the application to load properly
Strange sound for the headphones	<ul style="list-style-type: none"> - Remove the batteries and try inserting them again.

Signal stops during test	- Press "ABORT" and re-do the test. (This appears after 2 minutes in the same stage)

Dictionary

Official Attenuation – The official test results of hearing protection device that are conducted at independent testing laboratories.

There are several different attenuation ratings that are used at different parts of the world . Each rating number (SNR, NRR, SLC80) is based upon differing test standards, test frequencies and calculation methods, and any given hearing protector generates different numbers depending on the rating method used. These numbers can be found on the products package.

SNR – Single Number Rating - This rating number is used by the European Union and affiliated countries. The SNR specifies a single attenuation value, the Single Number Rating, determined from the octave-band sound attenuation data of a hearing protector. This value is subtracted from an overall C-weighted sound pressure level measurement, to calculate the A-weighted sound pressure level effective to the ear when the hearing protector is worn. The test subject fit the protectors under the supervision of the experimenter. Each subject provides one unoccluded and one occluded threshold.

NRR – Noise Reduction Ration - This rating is used in the United States, and is accepted for use in a variety of other countries. The NRR is an estimate of the amount of protection achievable by 98% of users in a laboratory setting when hearing protectors are properly fitted. The experimenter-fit method must be used; that is, the experimenter (not the test subject) must fit the hearing protector onto the head or into the ear of each test subject for each occluded test.

SLC80 – Sound Level Conversion - The SLC80 is a rating number used in Australia and New Zealand. It is an estimate of the amount of protection attained by 80% of users in well-managed hearing protector programs, based upon laboratory testing of totally inexperienced users. The subject shall fit and adjust the hearing protector without assistance of any kind from the experimenter or any other person.

Unoccluded – Open ear canal, when no hearing protector is worn.

Occluded – Blocked ear canal, when a hearing protector is worn.

A- weighted - The A-weighted (dBA) sound level discriminates against low frequencies, in a manner similar to the response of the ear. It is the weighting scale most commonly used for regulatory measurements.

C-weighted - The C-weighted sound level (dBC) does not discriminate against low frequencies and measures uniformly over the frequency range. It is used to be able to calculate the Protected exposure level $\text{dBA} = \text{unprotected (Exposure level) dBC} - \text{Rating (NRR, SLC80 or SNR)}$

PAR - is a "Personal Attenuation Rating" for a given Earplug, that can be used to estimate the noise attenuation achieved by the individual for whom it has been measured.

Safety Limit – The maximum level of noise a company wishes to protect an employee's exposure. This number is up to the discretion of the operator but may be the legal limit (85 dB) or below.

Hearing Threshold – The lowest sound level of the "chirp" a person can detect. The hearing threshold is a subjective value which may differ individually. To find the threshold in SwedFit - Reduce the sound volume until it cannot be heard then increase until sound is first audible.

Sound Attenuation - The difference in decibels between the threshold of hearing without and with the earplugs inserted.

Test selection

Start Without Earplug – Start the test without earplugs inserted. Then insert earplugs, let them expand and perform a second test with the earplugs to find out how much they protect

Start With Earplugs Inserted - Start the test with earplugs inserted. Then Remove the earplugs, second test without the earplugs to find out how much they protect. This test is optimal to use as a field test to find out how much the worker get from earplugs when wearing them.

Practice – Practice is to find out if a new test person understands how to find the hearing threshold

Browse Results – Browse the result of the previously performed tests.

Exposure Level – The levels of exposure to noise of your employees averaged over a working day or week. Measured in A-weighted Sound Pressure Level (dBA) or C-weighted Sound Pressure Level.

Result page

Fitting – This Fitting Gauge shows a rough estimate of where the Test Persons PAR value compares to what can be achieved with this Ear Plug.

Protected Exposure Level - The protected exposure Level is calculated by subtracting the PAR from the employee's Exposure Level.

Issue history

Issue	Date	Issue change	Issued by
2.3	2022-04-26	Updated spelling and added links in table of content.	SSV
2.2	2022-03-30	Updated spelling and added dictionary	SSV
2.1	2022-03-24	Added FAQ. Changed pictures of the application and the case.	SSV
2.0	2022-03-01	Update in application due to removal of bone conductor.	SSV
1.0	2021-06-28	New	SSV