Oticon **Sensei** Success Manual

Inium Platform Instruments

child friendly hearing care

oticon PEDIATRICS

Table of Contents

Oticon **Sensei** Success Manual (Inium Platform Instruments)

The Sensei Family

- 6 Introducing Sensei
- 7 Fitting ranges
- 8 New miniFit Receiver system
- 9 New Corda miniFit System
- 9 Fitting rationales
- 10 Feature Overview: SenseiPro and Sensei
- 11 Feature Style Quick Overview
- 12 Style and Color Overview

Working With Sensei

- 16 Customizing the RITE
- 17 miniFit receivers
- 19 Measuring the Ear for Correct Receiver length
- 19 Attaching the Receiver
- 20 Replacing the Receiver Unit
- 20 Attaching the Ear Grip (60 and 85 receivers only)
- 21 Inserting & Placing the Device on the Ear
- 22 Service & Maintenance

Sensei in Genie

- 26 Cable Overview
- 26 Connecting the Programming Module to BTE and RITE
- 27 nEARcom
- 27 ExpressLink
- 28 Navigating in Genie
- 28 Family Step - Select Family
- 29 Selection Step - Select Instruments
- 30 Selection Step - Receiver Selection
- 32 Selection Step – Acoustics
- 33 Selection Step – Detect
- 34 Selection Step - Pediatric Settings
- 36 Fitting Step
- 38 Fitting Step - Automatics

- 40 Fitting Step - Other Fitting Tools
- 44 Fitting Step - EasyRECD™
- 50 Fitting Step - Program Manager
- 51 End Fitting
- 52 End Fitting - Buttons & Indicators
- 53 End Fitting - SmartFit Trainer™
- 54 Phone & DAI/FM
- 55 End Fitting - VoicePriority *i*™ and FM
- 56 End Fitting - Streamer Pro & FM
- 57 End Fitting - Printout
- 58 End Fitting - Validation Tools

ConnectLine

- 64 One Connectivity System to Empower All Your Pediatric
- 65 Fitting ConnectLine in Genie
- 66 Fine Tuning ConnectLine
- 67 The Phone Tab
- 68 The Microphone Tab
- 69 The TV Tab
- 70 The Audio Tab
- 71 The FM Tab
- 72 The Telecoil Tab
- 73 Streamer Settings
- 74 The Configuration Tab
- 76 The Firmware Upgrade Tab

The Sensei Family

The Sensei Family

- 6 Introducing Sensei
- 7 Fitting Ranges
- 8 New miniFit Receiver system
- 9 New Corda miniFit system
- 9 Fitting Rationales
- 10 Feature Overview: SenseiPro and Sensei
- 11 Feature Style Quick Overview
- 12 Style and Color Overview

Introducing Sensei

Oticon Sensei is built on the new Inium platform and is our best performing hearing solution for children, employing our finest technologies and audiology.

As a result, we believe Sensei sets an entirely new standard for pediatric fittings.

Sensei combines revolutionary audiological features with a robust design. This ensures the unique needs of all children, from infants to teens, are met. Sensei models include a RITE style BTE with three receiver options, and two BTE styles compatible with Corda miniFit .

Sensei is suitable for children with mild to severe hearing losses.

The advanced sound processing includes Speech Guard E, VoicePriority i and 10 kHz fitting bandwidth. Features that promote a better fitting include EasyRECDTM and SmartFit TrainerTM. A dedicated pediatric fitting mode makes fitting Sensei and adhering to best practice guidelines even more intuitive.

Fitting Ranges

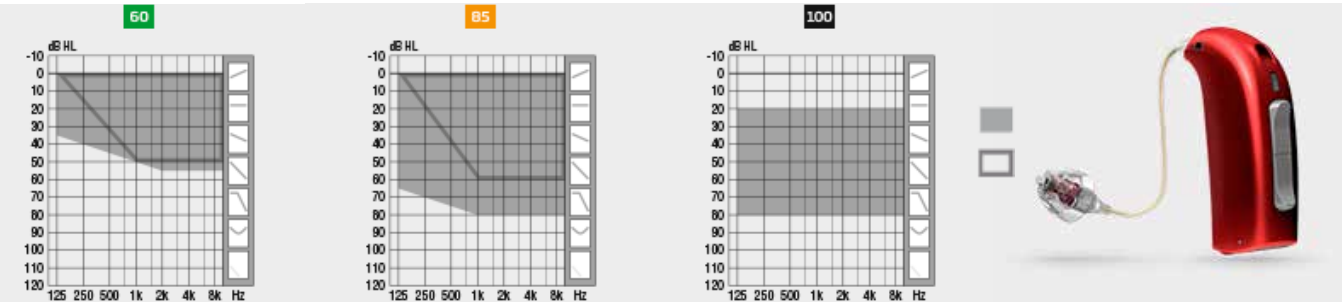
The fitting illustrations show all the possible fitting levels found across the complete style range.

The number refers to the maximum fitting level obtained by the instrument style related to the fitting range*. When an instrument is selected in Genie, its fitting level is always shown.

* For RITE styles, the maximum fitting level is calculated using the VAC rationale. Refer to the fitting illustration for calculating the fitting level using the DSL rationale.

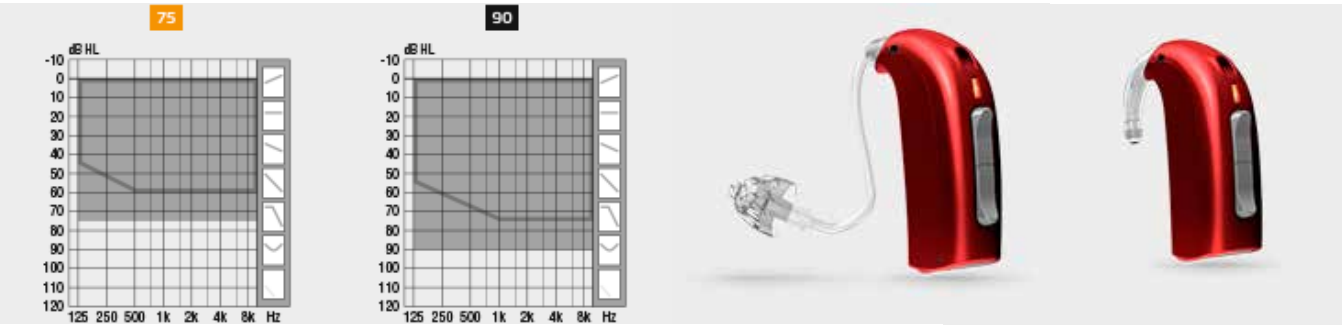
RITE
The grey area represents fitting range using a custom mold, bass and power Dome

The area marked by a thick line for the 60 and 85 receivers represents open Dome fitting range.



BTE
The solid grey area represents custom mold (graph marked '75' refers to BTE 312; '90' graph represents the BTE 13 model).

The area marked by a thick line represents Corda miniFit.



New miniFit Receiver System

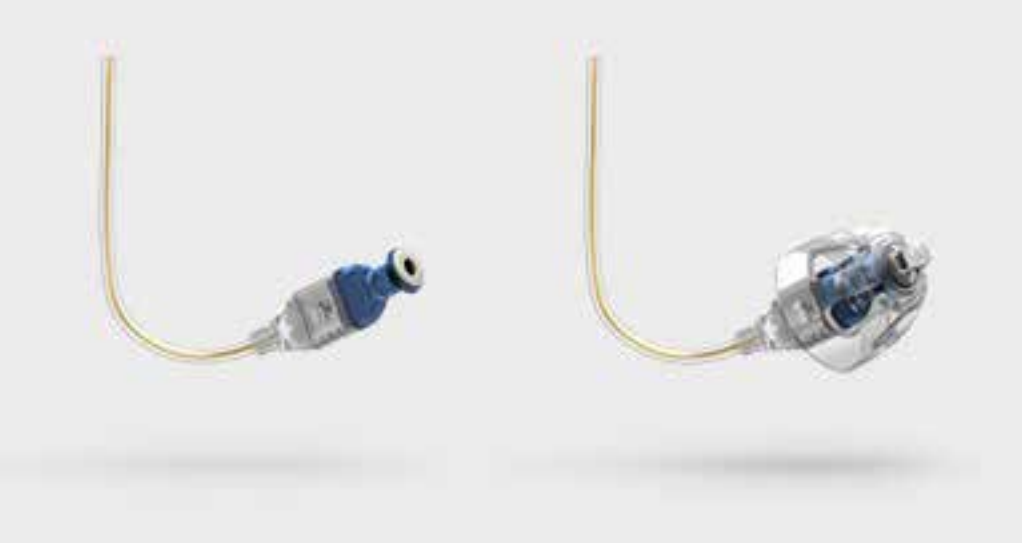
For Sensei RITE instruments, the new miniFit receiver system is available. It contains three different receiver types with different output levels (i.e. fitting levels) which enable the creation of three different output levels from the instrument style.

The miniFit receivers are labeled according to their fitting level and called 60, 85 and 100. These fitting levels are based on the VAC rationale. If used with the DSL rationale, the fitting levels are closer to 50, 75 and 80.

A range of flexible custom solutions are available for the highest power receiver.

CAUTION:
It is critical that the Receiver Fitting Level selected in the programming step matches the receiver attached to the actual instrument. If not, the output level of the instrument will not match the programmed settings and may cause damage to the child's hearing.

RITE and Corda should not be fit to children 0 – 36 months. Detachable parts such as miniFit domes could represent a choking hazard.



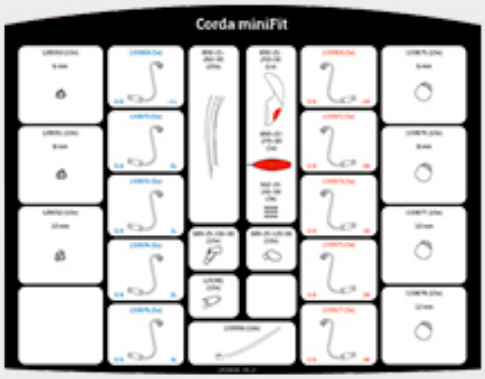
New Corda miniFit System

Corda MiniFit
Corda MiniFit tubes come in two sizes: 0.9 mm and 1.3 mm.

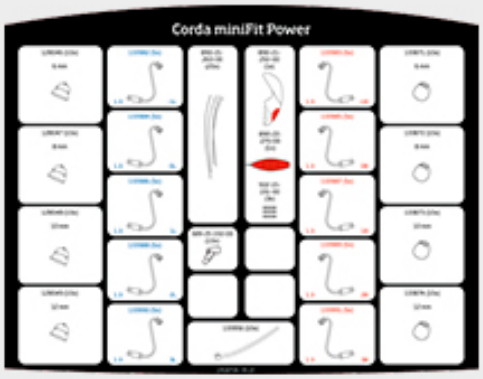
Thin (0.9 mm) Corda tubes should only be used with Sensei BTE 312.

Power (1.3 mm) Corda tubes should only be used with Sensei BTE 13.

CAUTION:
RITE and Corda should not be fit to children 0 – 36 months.
Detachable parts such as miniFit domes could represent a choking hazard



Corda miniFit



Corda miniFit Power

Fitting Rationales

Oticon Sensei has a range of fitting rationales available. These include DSL v5.0a Pediatric and Adult, NAL NL1 and NAL NL2.

There are 10 frequency shaping bands in the Sensei Pro, and 8 available in the Sensei.
There are also gain adjustments for soft, moderate and loud inputs.

If performing test box or real ear measurements, it is easy match prescribed targets using the precise fine tuning tools.

Feature Overview: SenseiPro and Sensei

Feature Style Overview

Feature	Sensei Pro	Sensei
Speech Guard E	Yes	No
SmartFit Trainer	Yes	No
Easy RECD	Yes	No
VoicePriority *i*	Yes	Yes
Inium feedback shield	Yes	Yes
Binaural Synchronization (automatics)	Yes	No
Binaural Coordination (Push button)	Yes	Yes
Noise Management	TriState	TriState
Adaptive Directionality	Multi band	Single band
Power Bass	Yes	No
Music Widening	Yes	No
Fitting bands	10	8
Soft, Moderate and Loud gain adjustment	Yes	Yes
FM compatibility filter	Yes	Yes
FM Super Silencer	Yes	Yes

Feature Style Quick Overview

Feature	RITE	BTE 13	BTE 312
Rationales	DSL v5.0a Pediatrics DSL v5.0a Adult NAL-NL1 NAL-NL2	DSL v5.0a Pediatrics DSL v5.0a Adult NAL-NL1 NAL-NL2	DSL v5.0a Pediatrics DSL v5.0a Adult NAL-NL1 NAL-NL2
T-Coil	Yes	Yes	Yes
Auto Phone	Yes	Yes	Yes
Push Button	Yes	Yes	Yes
Volume control	Yes	Yes	Yes
ConnectLine	Yes	Yes	Yes
FM/DAI	Yes	Yes	Yes
Battery Size	312	13	312

Style and Color Overview

RITE Open Dome

BTE13 90 Corda miniFit

BTE312 75 Corda miniFit

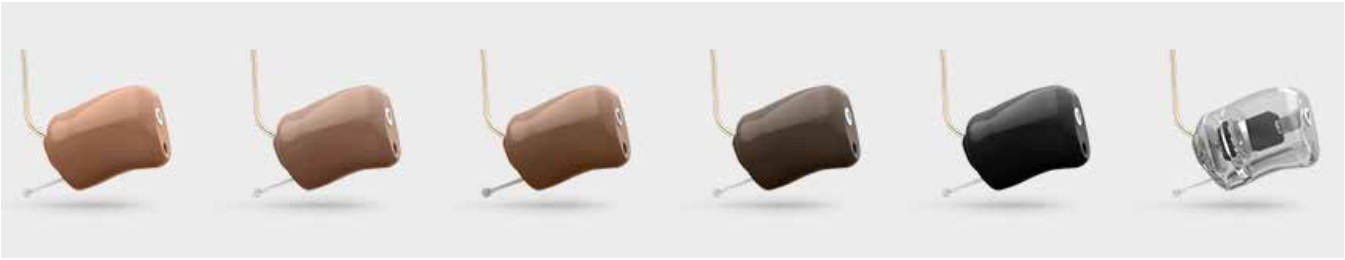
RITE Power Mould

BTE13 90 ear hook

BTE312 75 ear hook

Color Overview

Sensei Power Flex Molds



Working With Sensei

- 16 Customizing the RITE
- 17 miniFit receiver
- 19 Measuring the Ear for Correct Receiver Length
- 19 Attaching the Receiver
- 20 Replacing the Receiver Unit
- 20 Attaching the Ear Grip (60 and 80 receivers only)
- 21 Inserting & Placing the Device on the Ear
- 28 Service and Maintenance

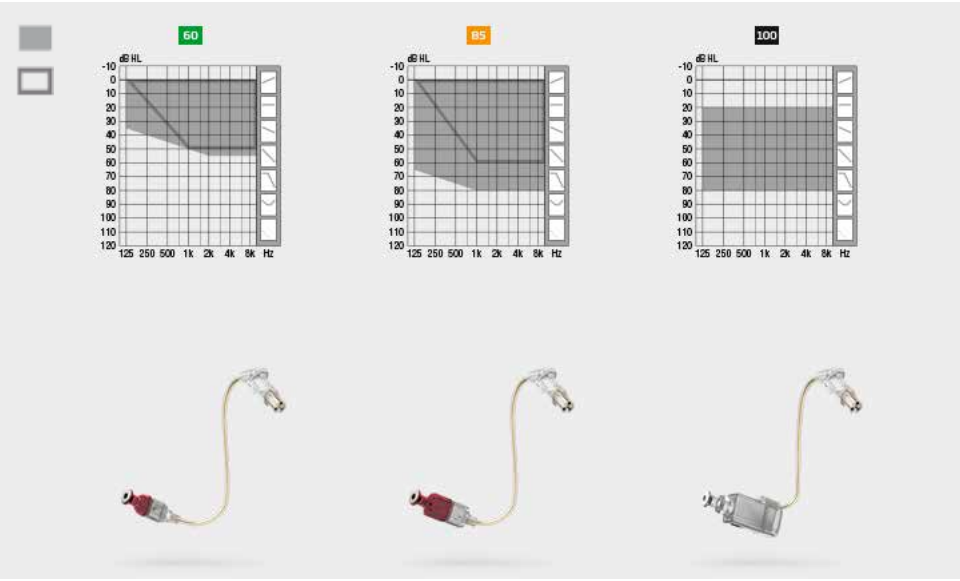
Customizing the RITE

To get the best performance, best cosmetics and most comfortable fit, consider the following:

- Determine whether the RITE is the best style solution based on age of the child, features, handling and cosmetics.
- Select correct Receiver specifications including fitting level and unit length.
- Select correct dome size or whether a custom mold is needed.
- Ensure proper insertion of the Receiver in the canal when placing the instrument on the ear.
- Use of the ear grip for retention is available with the 60 Receiver if required.
- NOTE: The ear grip is not available with the 85 or 100 Receiver.
- Use the tamper resistant battery door, or the Switch Free accessory. Switch Free replaces the push button with a plastic insert.

NOTE:
RITE styles are not recommended for children 0-36 months.

RITE
The grey area represents fitting range using a custom mold, bass and power Dome
The area marked by a thick line for the 60 and 85 receivers represents open Dome fitting range.



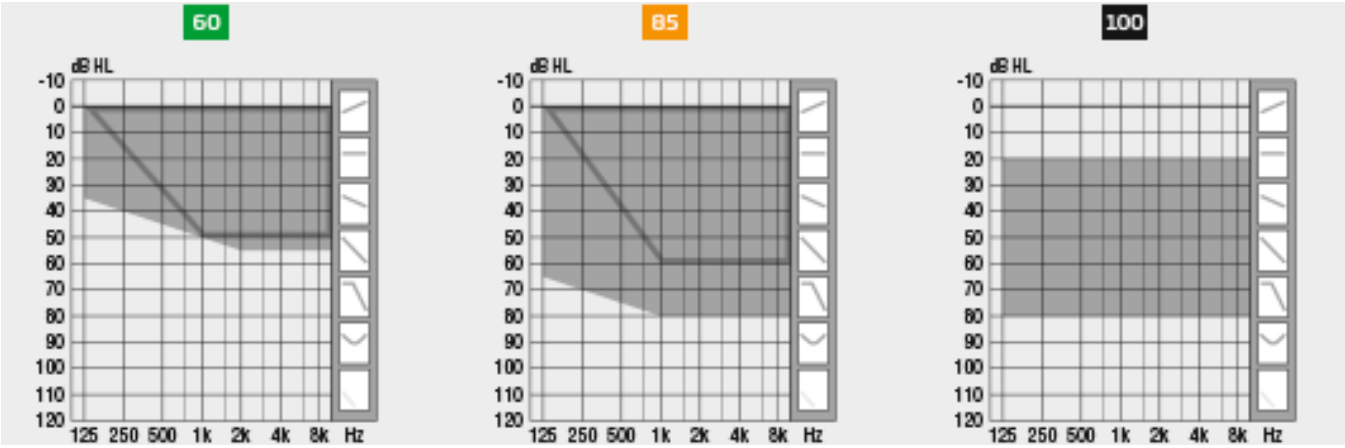
miniFit Receivers

Receiver Fitting Level
The miniFit receivers come in three fitting levels – 60, 85, and 100.

The receiver fitting level is shown by the numbers in the colored square.

NOTE: Fitting level is calculated using the VAC rationale. Fitting levels will be less if using the DSL rationale. Refer to the fitting range graph for DSL fitting range. If using the DSL rationale, the fitting levels are closer to 50, 75 and 80

NOTE: RITE styles are not recommended for children from 0–36 months.



minFit 60 Receiver

minFit 85 Receiver

minFit 100 Receiver (Dome)

minFit 100 Receiver (Flex Mold)

Receiver Length
Five receiver lengths are available for the three receiver fitting levels, 60, 85 and 100. Number 1 is the shortest and 5 is the longest. The length is marked with a number on the receiver.

The lengths most commonly used for children are size 1, and 2.

The 60 and 85 Receivers are also available in a sixth length, size 0 version for children with small ears.

NOTE:
RITE styles are not recommended for children 0-36 months.

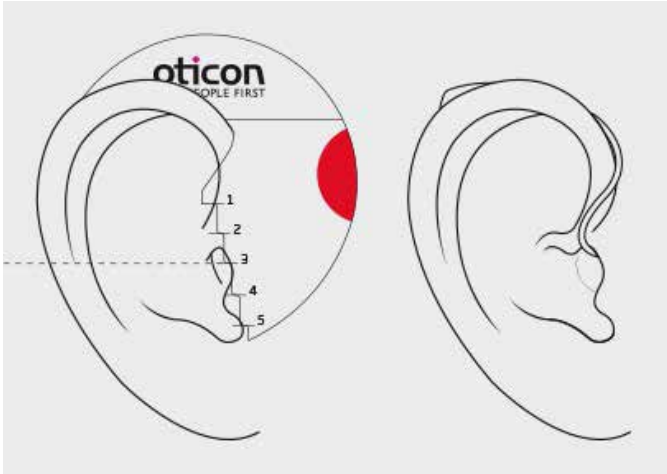
Receiver Markings
The Receiver tip is color coded red (right) or blue (left) to indicate which ear the device must be used for.

The number indicates the length of the Receiver.

Measuring the Ear for Correct Receiver Length

The correct measurement corresponds to the middle of the ear canal as shown using the measuring tool. The measurement is the same for all domes and custom earpieces.

The goal is for the Receiver to sit comfortably and be hidden in the ear canal, and for the wire to be flush with the head.

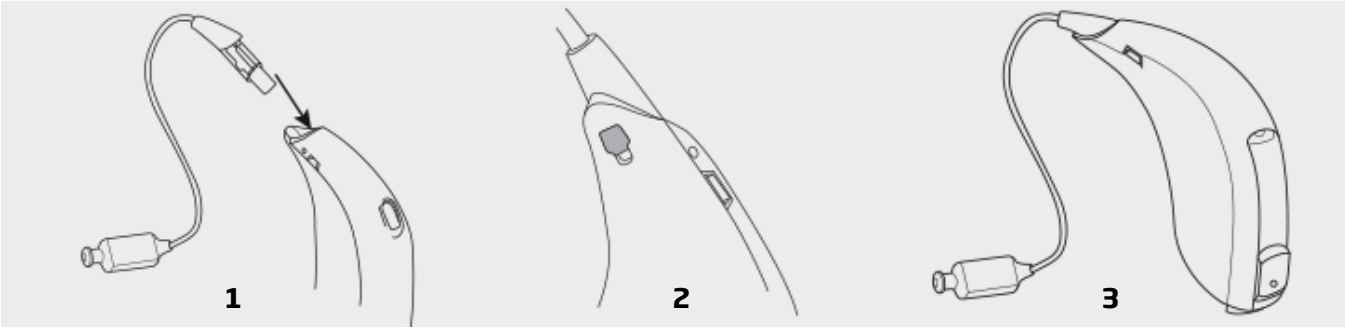


Attaching the Receiver

The Receiver attachment to the hearing instrument is the same for all three Receiver types.
Insert the Receiver into the shell until it snaps into place.

CAUTION:
Sensei RITE instruments must only be fitted with miniFit receivers (type 60, 85 and 100). Do not use previous generation receivers with Sensei instruments. Do not mix receivers with Agil, Acto or Ino instruments.

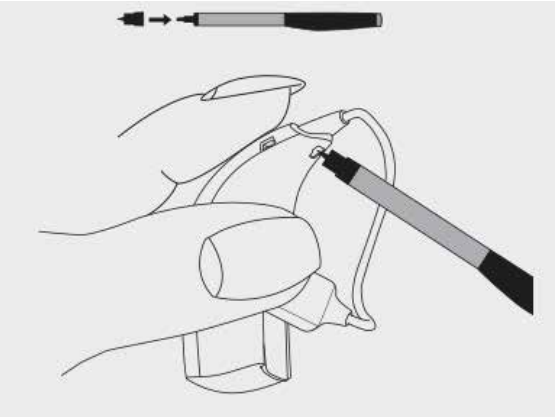
The packaging for miniFit receiver is black to clearly indicate that they are the new type receivers.



Replacing the Receiver Unit

The best way to replace the Receiver is by using the Multi Tool with the dedicated extension point. The extension point is placed on the tip.

Press the Receiver locking lever through the hole to release the Receiver unit and gently pull the Receiver unit out.



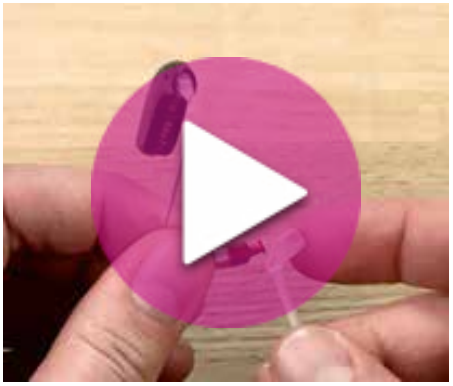
Attaching the Ear Grip (60 & 80 Receivers Only)

The Ear Grip can be used for better receiver retention when using the 60 or 85 receivers. The Ear Grip is designed to work for either the right or left ear.

Attaching the Ear Grip
Slide the ear grip onto the Receiver. Make sure the Ear Grip is turned the right way - stopping at the locking point when a click is felt. Then the dome can placed on the receiver.

If the Ear Grip is too long in the concha it may be trimmed. Use caution not to leave a pointed end as this may irritate the ear.

Removing the Ear Grip
Remove the dome. Slide the Ear Grip off the front of the receiver.

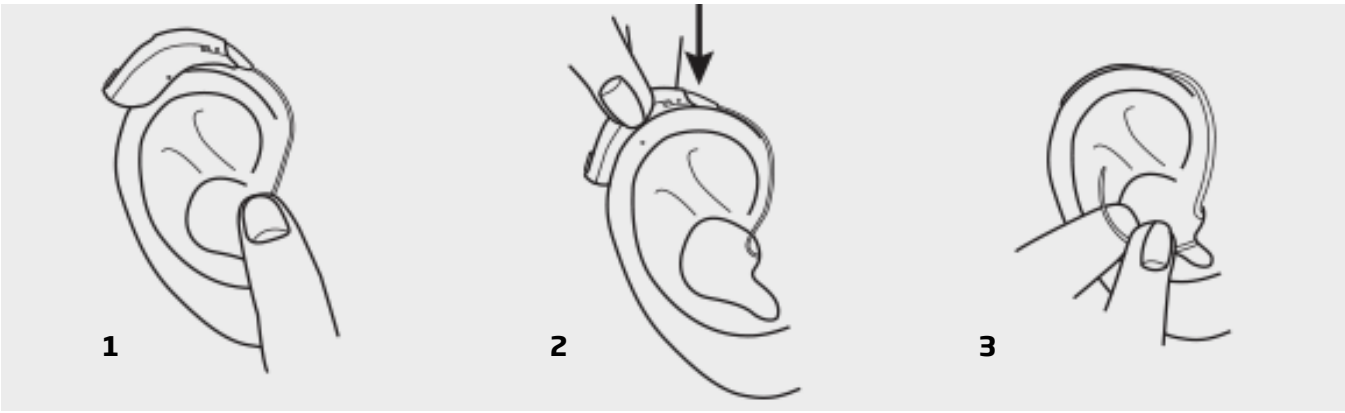


Inserting & Placing the Device on the Ear

1. Insert the earpiece into the ear canal.

2. Place the hearing device behind the ear. The Receiver Unit with the correct earpiece should be placed far enough into the canal so that the wire lies flush with the child's head. When looking at the child face-to-face you should not see the Receiver wire sticking out.

3. If necessary, add the ear grip for extra retention when using the 60 or 85 Receivers.

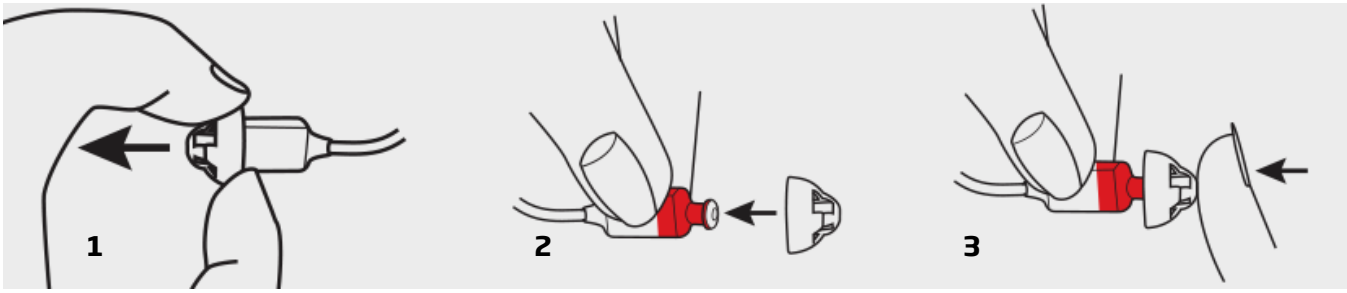


Service & Maintenance

miniFIT Domes
A wax filter is integrated into all types of miniFit Domes.
The domes must be replaced regularly or whenever needed.

Replacing the dome
1. Take off the old Dome using your fingernail.
2. Push the new Dome onto the Receiver.
3. Give it a push to secure it safely.

Make sure that child/family have extra domes when relevant.

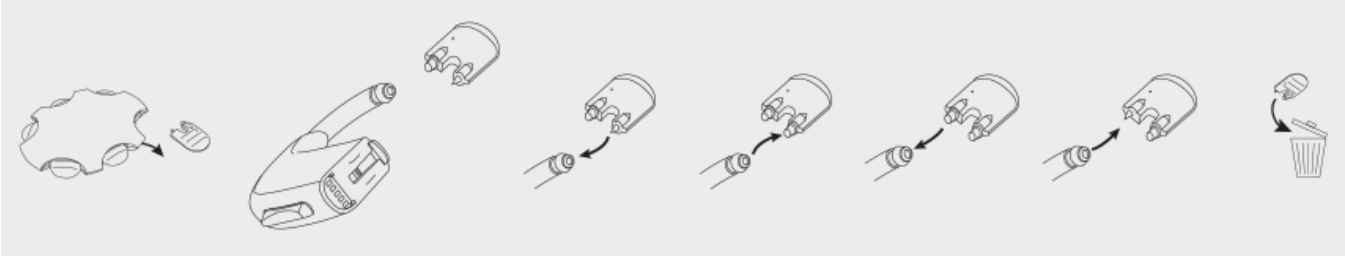


Damper
The Damper is placed in the hook on BTE 13 instruments.

It mainly works as an acoustic filter, shaping the frequency response, but also has the function of preventing moisture and cerumen from entering into the instrument.

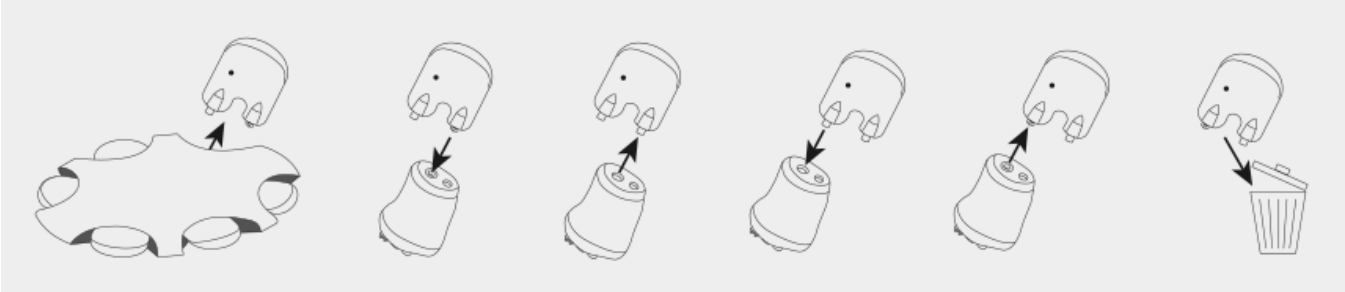
If there is no sound in the instrument or the sound output is reduced, it may be caused by a clogged Damper and it must be replaced.

Replace the Damper as shown.
Note: The Damper is not used with any other BTE instruments.



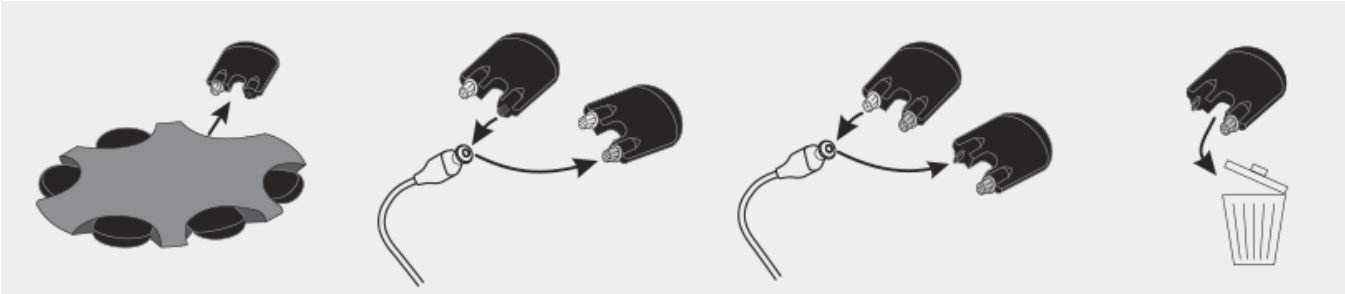
ProWax
Wax protection system for:
• Custom instruments
• Power Receiver Molds
• miniFit LiteTips
• miniFit Micro Molds

Replace the wax filter if it is clogged or if there is no sound in the instrument.



ProWax miniFit
Wax protection system for:
• 60, 85 and 100 miniFit receivers

Replace the wax filter if it is clogged or if there is no sound in the instrument.



Sensei In Genie

Sensei in Genie

- 26 Cable Overview
- 26 Connecting the Programming Module to BTE and RITE
- 27 nEARcom
- 27 ExpressLink
- 28 Navigating in Genie
- 28 Family Step - Select Family
- 29 Selection Step - Select Instruments
- 30 Selection Step - Receiver Selection
- 32 Selection Step - Acoustics
- 33 Selection Step – Detect
- 34 Selection Step - Pediatric Settings
- 36 Fitting Step
- 38 Fitting Step – Automatics
- 40 Fitting Step - Other Fitting Tools
- 44 Fitting Step - EasyRECD™ i
- 50 Fitting Step - Program Manager
- 51 End Fitting
- 52 End Fitting - Buttons & Indicators
- 53 End Fitting -SmartFit Trainer™
- 54 End Fitting -Phone & DAI/FM
- 55 End Fitting -VoicePriority i™ and FM
- 56 End Fitting -Streamer Pro & FM
- 57 End Fitting -Printout
- 58 End Fitting -Validation Tools

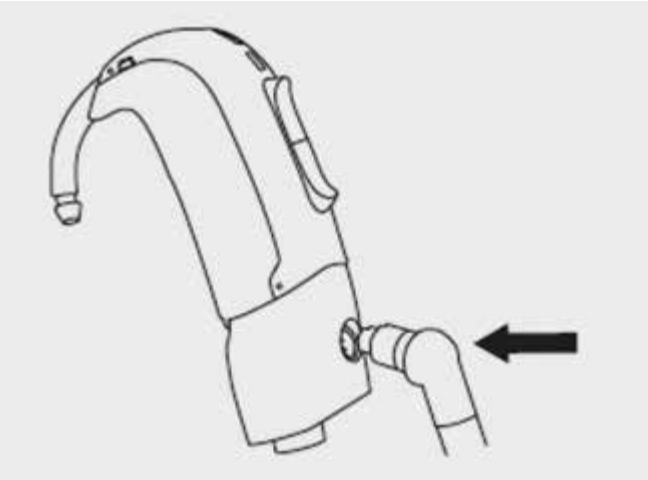
Cable Overview

Oticon Sensei is programmed using the Genie fitting software 2013.2 (or newer) which is compatible with NOAH 3.0 and NOAH 4.0. You will also need the Oticon programming cable #3 (right and left).

The drawings show how to connect the different styles when fitting hearing instruments with cables

The programming cable is attached to one of the three available programming devices:

- HI-PRO
- NOAHlink/nEARcom
- Express Link



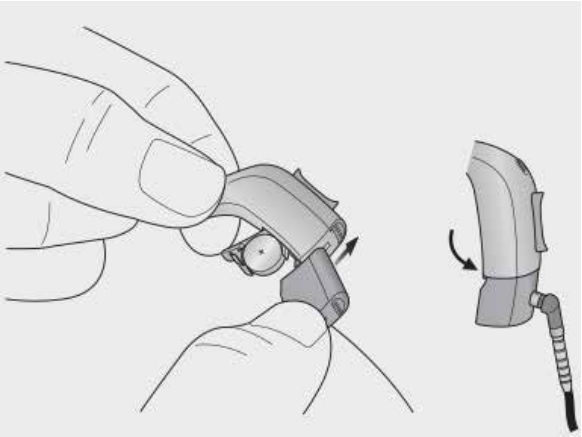
Connecting the Programming Module to BTE and RITE

1. Open the battery door on the instrument and slide the programming module into the guide as shown. **Insert a fresh battery**.

2. Close the battery door and attach the programming cable.

The grey EasyRECD™ programming module must be used to access the EasyRECD™ tool.

If EasyRECD™ will not be performed, the white programming module can be used.



nEARcom

For greater flexibility and comfort use nEARcom without cables to fit Oticon Sensei instruments.

NOTE: The EasyRECD feature cannot be accessed if nEARcom is used without cables.

Detect the instruments
1. Switch on the instruments **using fresh batteries.**
2. Place nEARcom on the table and place the instruments in the middle of the neck loop.
3. Click Detect for cordless programming.

Instruments which have never been programmed must be assigned to the correct side – left and right – in Genie. Use a BEEP test as follows:

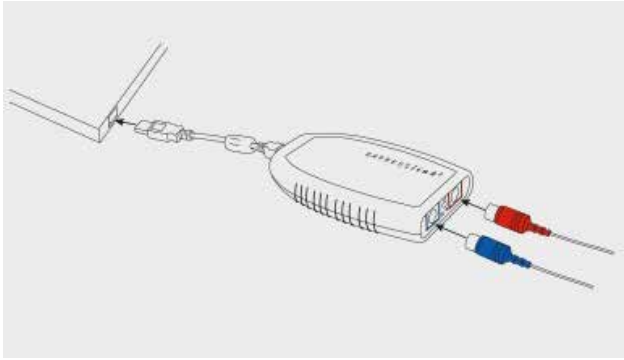
To identify the instrument, place it in the middle of the neck loop and click 'Beep'. The instrument will beep for 6 seconds.

While the instrument is beeping, remove it from nEARcom and listen to it.

If the instrument does not beep, return it to the middle of the neck loop, click the 'Change side icon' between the boxes with the detected instruments and click the same 'Beep'. Listen to the instrument again.

Click 'Continue' and proceed with the programming.

ExpressLink



1. Attach the USB B to the ExpressLink and connect it to the PC with the USB A as shown in the picture.

2. Attach the programming cables to the right and left connections on the ExpressLink.

Detect the instruments
1. Switch the instruments on using fresh batteries. (Note that the miniBTE must be programmed without batteries.)

2. Attach the cables to the hearing instruments and ensure that ExpressLink is selected as programming unit in Genie.

3. Click 'Detect' to connect the instruments to Genie.

Navigating in Genie

The Organizer - horizontal navigation

Main programming steps

1. **Child**: Appears only when running Genie as a stand-alone application.
2. **Counseling** : Takes you to e-caps Pro if you have the program installed.
3. **Family**: Selection of all hearing instrument families.
4. **Selection**: Selection of instrument styles and features and entering of personal data.
5. **Fitting**: Viewing, optimizing, and fine tuning of personal settings.
6. **End Fitting**: Verifying and setting user operated buttons and linking and personalizing Streamer(s).

Task Pane - Vertical Navigation
Within each Organizer step, there is a Task Pane that gives access to tools and links related to where you are in the fitting process.

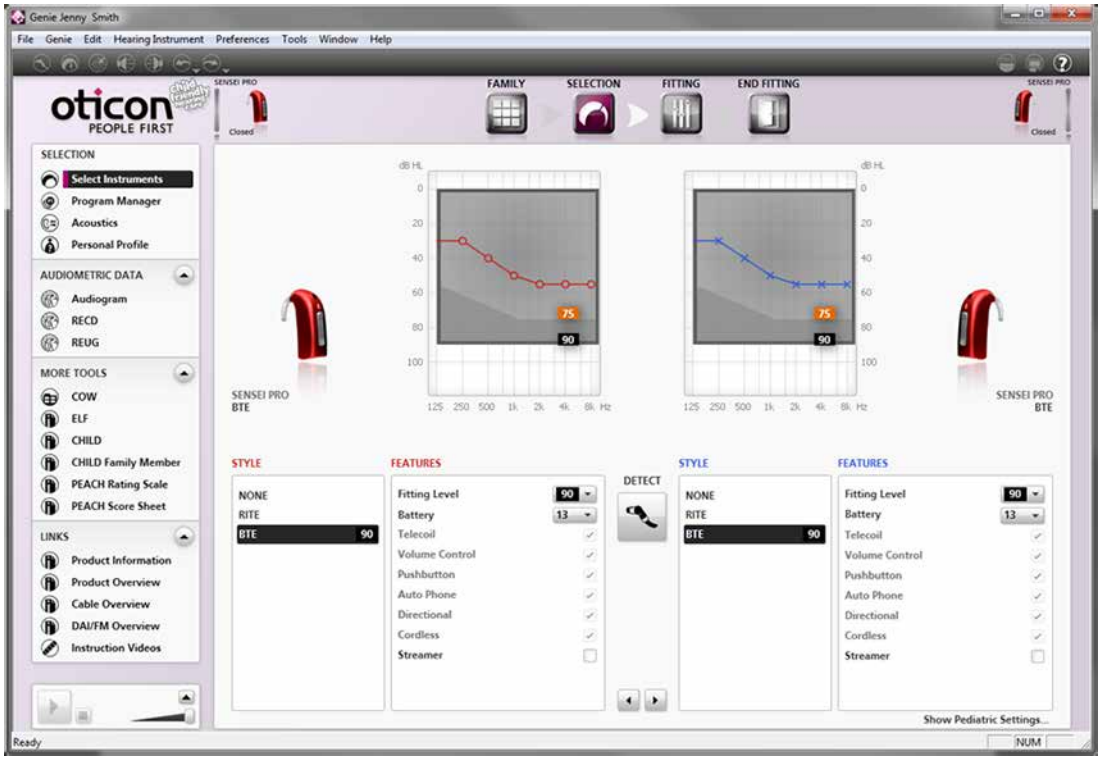
Family Step - Select Family

- Click **Detect** - if nEARcom is being used, choose between cabled or wireless detection
- Genie will display what has been detected
- Click **Continu**e - Genie will take you to the **Selection** screen

Note : If you are only fine tuning, click Fitting in the organizer panel after entering the Selection screen

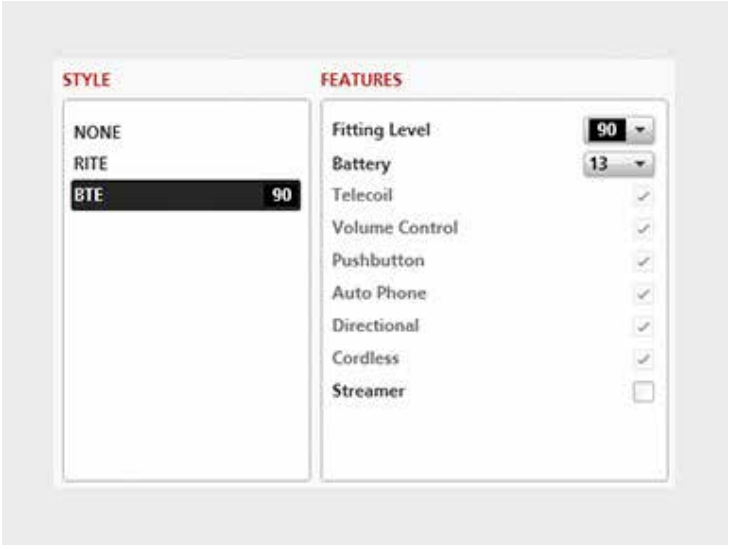
Selection Step - Select Instruments

Oticon Sensei comes in BTE and RITE styles (Receiver In The Ear).



Oticon Sensei has a number of options. Not all options are available in all styles.

When style is selected, only the features available in that style will be visible. If a style has not been selected, select the relevant features wanted and Genie will display available instruments that match the criteria.

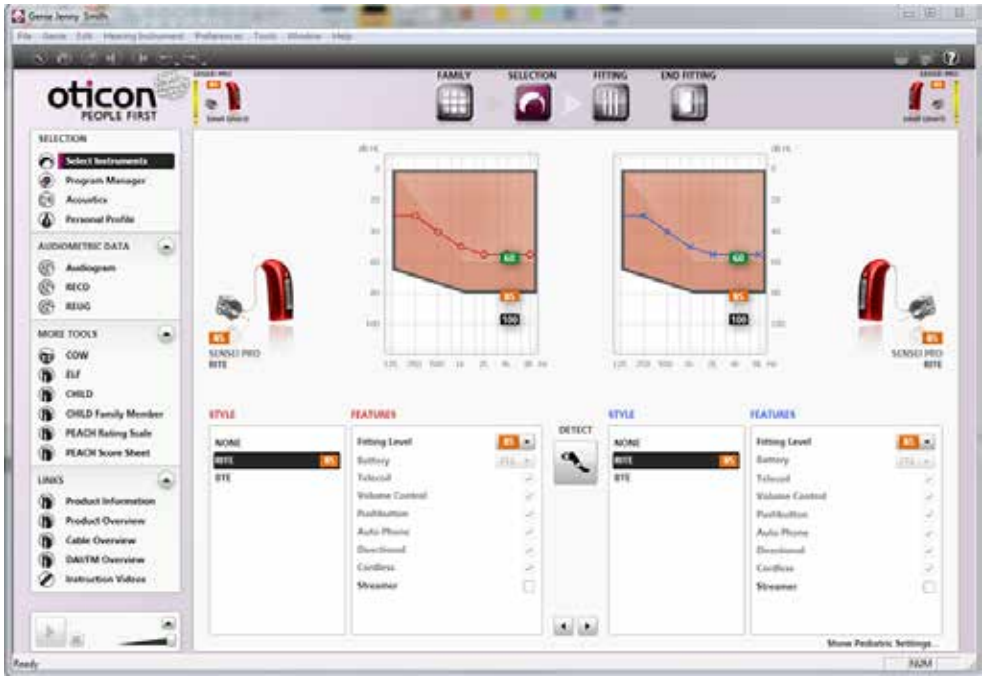


The available features are:

- Fitting Level
- Battery size
- Telecoil
- Volume Control
- Pushbutton
- Auto Phone
- Directionality
- Cordless
- Streamer

Selection Step - Receiver Selection

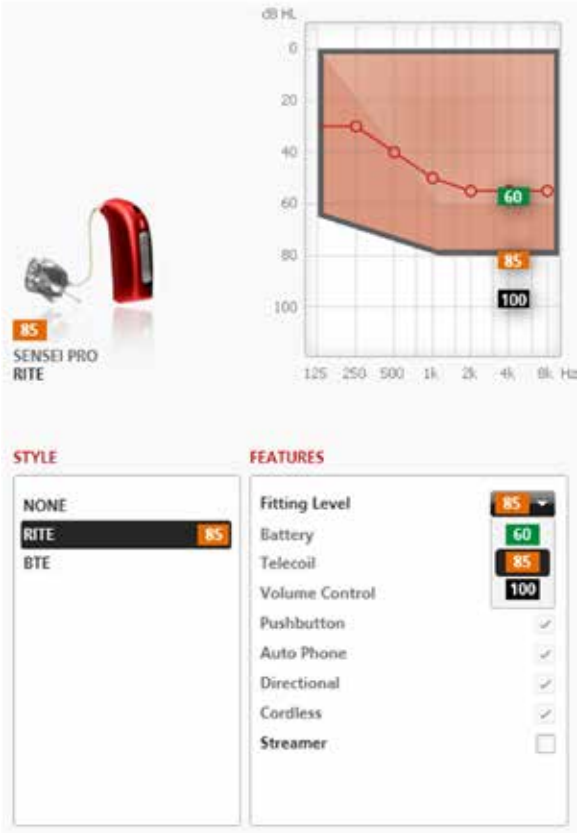
Receiver fitting levels will be displayed when a RITE instrument is selected.



Select the fitting level that matches the child's audiogram. Make sure the fitting level selected in Genie is identical to the fitting level of the physical receiver connected to the hearing instrument.

If the selected and the actual fitting level do not match the output level of the instrument will not match the programmed settings and may cause damage to the child's hearing.

NOTE: Fitting levels on the receiver packaging are calculated using the VAC rationale. Fitting range graphs are calculated using the DSL rationale. Use the graph rather than the printed fitting level when selecting the appropriate receiver unit.



NOTE: Fitting levels on the receiver packaging are calculated using the VAC rationale. Fitting range graphs are calculated using the DSL rationale. Use the graph rather than the printed fitting level when selecting the appropriate receiver unit.

Selection Step - Acoustics

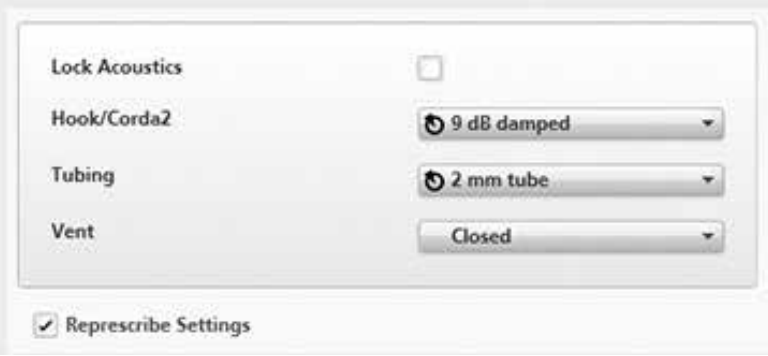
The Acoustics tool allows you to define the ear mold characteristics.

Use the drop-down menus to select Hook/ Corda , Tubing, Vent size, and Domes.

Make sure to Represcribe Settings in the bottom of the Acoustics screen for Genie to take the actual acoustics into account when calculating settings.

NOTE: Sensei BTE instruments come with the damped adult ear hook by default. Only change this if the damper is removed.

NOTE: The SmartFit Trainer feature is only available for closed vents with BTE instruments.



Selection Step - Detect

Clicking on the detect icon, either in the Selection Step or the Family Step, creates a connection between the instruments and Genie.

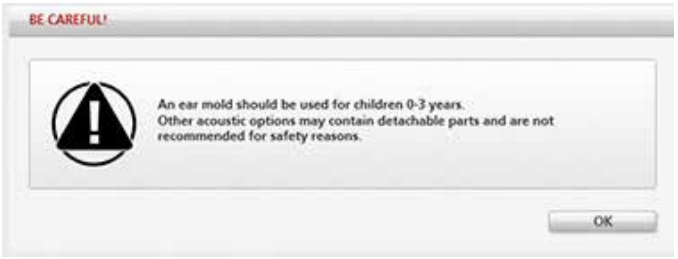
A number of pop-up screens will appear during the connection process.

WARNING
The following warning may appear after you select Detect.

If the age of the child you are fitting is 0 – 36 months, Corda or RITE instruments should not be used.

These styles contain detachable parts that may represent a choking hazard.

When fitting a child 0 – 36 months, the tamper resistant battery door should always be installed.



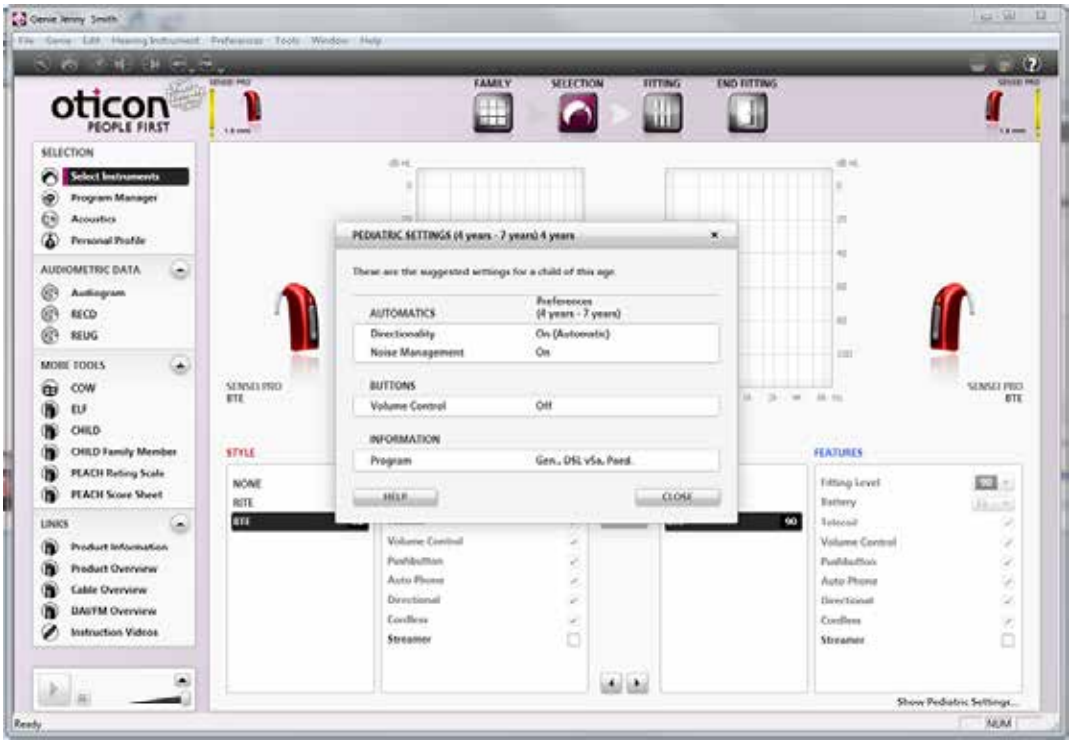
WARNING
The following warning may appear after you select Detect.

When fitting a power instrument, ensure that the settings are appropriate for the child's audiogram.

A hearing instrument that is too loud, can cause damage to the child's residual hearing.

Selection Step - Pediatric Settings

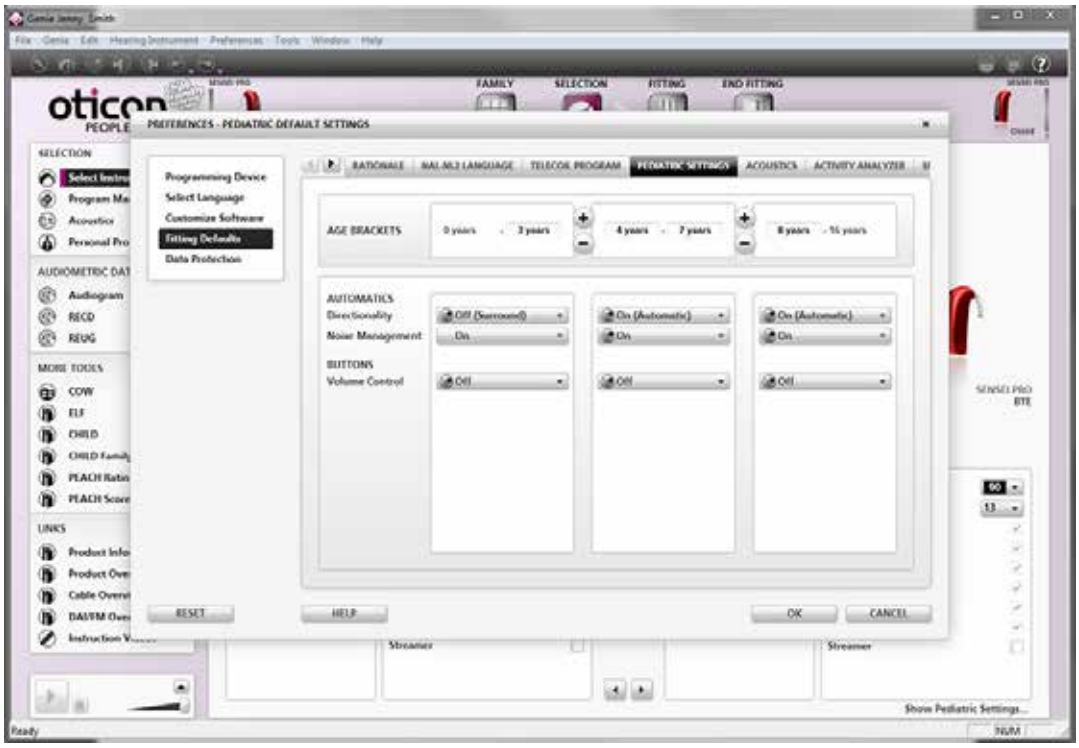
The Pediatric Settings dialog will appear after the hearing instruments have been detected.



The Pediatric default settings can be personalized. Use the Preferences dialog to specify your preferred setup.

Go to Preferences, Edit Preferences, Fitting Defaults, Pediatric Settings.

This step only needs to be completed once when setting up Genie. Changes to preferences will be saved when you click OK and applied the next time you log on.



The Pediatric settings can be seen at any time in the fitting by selecting Show Pediatric Settings.

This will show the default preferences, as well as the current settings in the left and right hearing instruments.

PEDIATRIC SETTINGS (4 years - 7 years) 4 years

The settings of the child's hearing instruments.

	Preferences (4 years - 7 years)	Current setting in right instrument	Current setting in left instrument
AUTOMATICS			
Directionality	On (Automatic)	On (Automatic)	On (Automatic)
Noise Management	On	On	On
BUTTONS			
Volume Control	Off	On	On
INFORMATION			
Program	Gen., DSL v5a, Paed.	Gen., DSL v5a, Paed.	Gen., DSL v5a, Paed.
Vent	1.8 mm, 1.8 mm	Closed	Closed
RECD		Predicted	Predicted
Audiogram measured with		Pure Tone Audiometry (27-06-2013)	Pure Tone Audiometry (27-06-2013)
Transducer used		Headphones	Headphones
SmartFit Trainer	On	On	On

HELP CLOSE

Fitting Step

The connection bar indicates whether the instrument is either:

- Not connected (grey)
- Connected - Genie settings have been changed but not saved in the instrument (yellow)
- Connected - Genie settings have been programmed and saved in the instrument (green)

The Adaptation Manager always defaults to level 3 in Pediatric fittings.

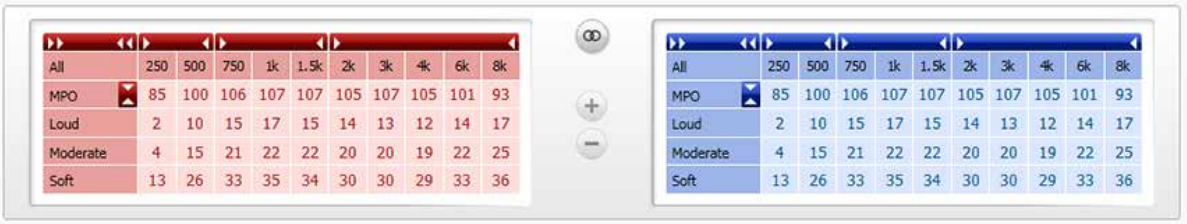
Changing steps affects gain, compression and the frequency response.

Controls
Sensei Pro instruments can be fine-tuned in each of 10 independent frequency channels. Sensei has 8 frequency channels available.

Soft (45 dB SPL), Moderate (65 dB SPL) and Loud (80 dB SPL) input levels are all adjustable. Select each frequency control by clicking the corresponding button in the table. By selecting All, all gain controls will be selected. Adjust the gain controls in 1 dB steps in the selected fields.

The colors of the control values are blue (left) and red (right) when the device is at prescribed settings. If the control value is no longer at prescribed settings, the value turns black.

By clicking the arrows on top of the control panels, the frequency bands will condense into three regions: Low frequency (LF), Mid frequency (MF), and High frequency (HF).



MPO control
MPO can also be displayed by default. This is setup in Preferences, Edit Preferences, Customize Software, All Channels plus MPO.

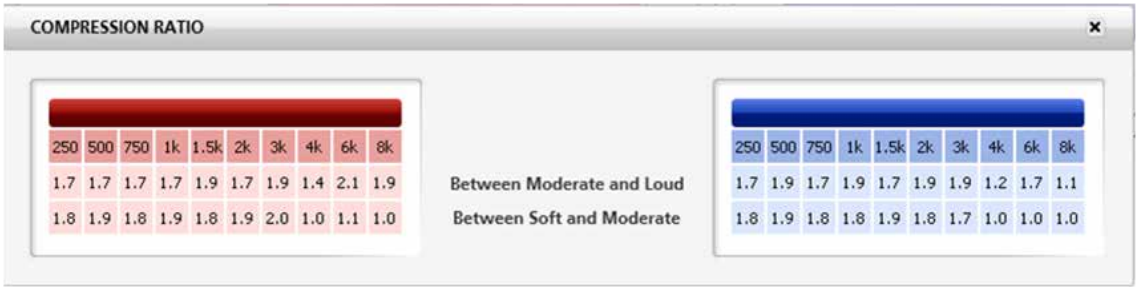
Reserve Gain
The VC Reserve Gain displays the volume range between the preferred level and the instrument's possible maximum gain in the range of 0-10 dB, at 2.5 dB steps. To modify the Reserve Gain, adjust the instrument's gain or change the feedback limit.

The volume control range is 30 dB: -20 dB to maximum + 10 dB from the preferred level.

The volume control can be disabled in End Fitting > Buttons and Indicators > Volume Control.

Compression Ratios
Click on the CR button between the right and left graphs to check the compression ratio.

The compression ratios change when the Soft, Moderate and Loud gain values are changed.



Fitting Step - Automatics

In the Automatics tool you can enable or disable the Automatics in Oticon Sensei instruments.
Multiband Adaptive Directionality (Dir mode) is designed to provide benefit from directionality in situations where the Speech-to-Noise ratio can be improved. Through Binaural Broadband, the Multiband Adaptive Directionality in Oticon Sensei Pro is synchronized between right and left hearing instruments.

Surround Mode is designed to provide the best balance between spatial awareness of surrounding sounds and trying to emulate the natural pinna effect. Opti Omni is an omni-directional mode which resembles the front-focused listening of the natural ear. Speech Omni has a more distinct front focus for better front/back segregation to help focus more on the speaker in front.

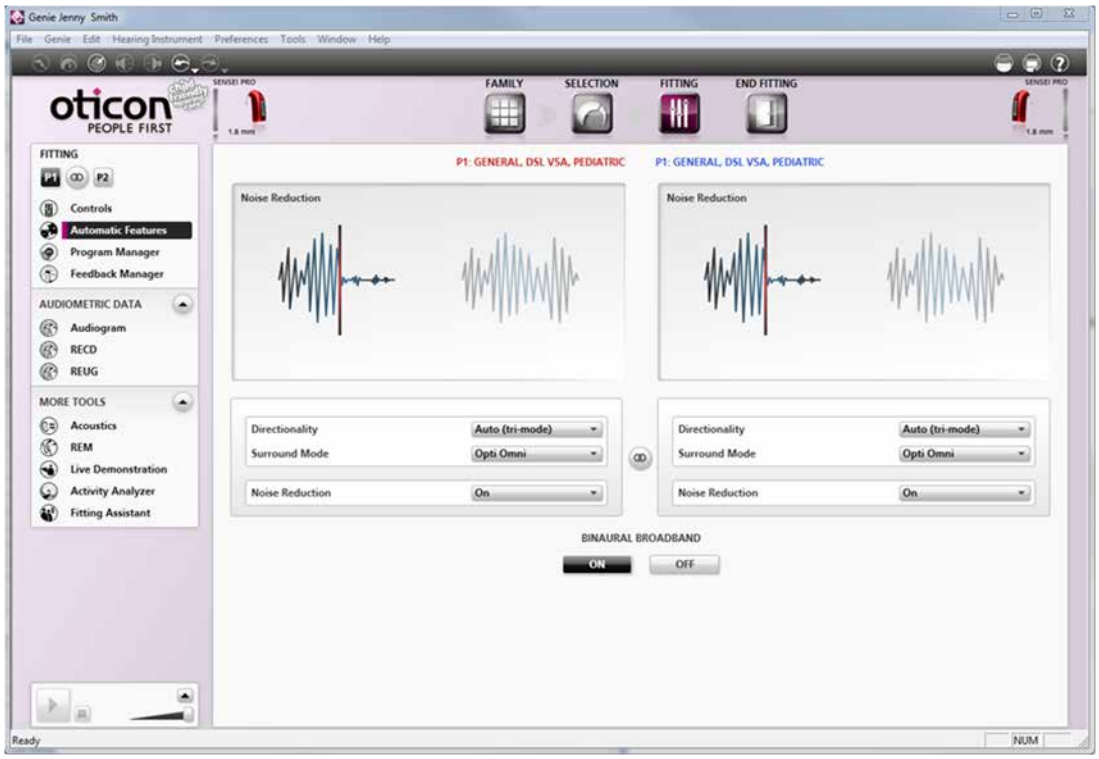
Noise Reduction activates TriState Noise Management. This applies noise reduction based on the acoustical environment. Acoustic environments are classified into 3 states:

1. Speech only
2. Speech in noise
3. Noise only

Binaural Broadband is available for Oticon Sensei Pro and controls the synchronization and coordination between the two hearing instruments. Synchronization refers to Directional Microphone function and Noise Reduction. Coordination refers to the program switch and volume control.

Binaural Broadband is set to on by default for binaural Sensei Pro fittings.

NOTE: if disabled this will also disable the binaural coordination of push button operations. For Sensei instruments, binaural coordination for program switch, volume control and mute function can be accessed in End Fitting > Buttons and Indicators.

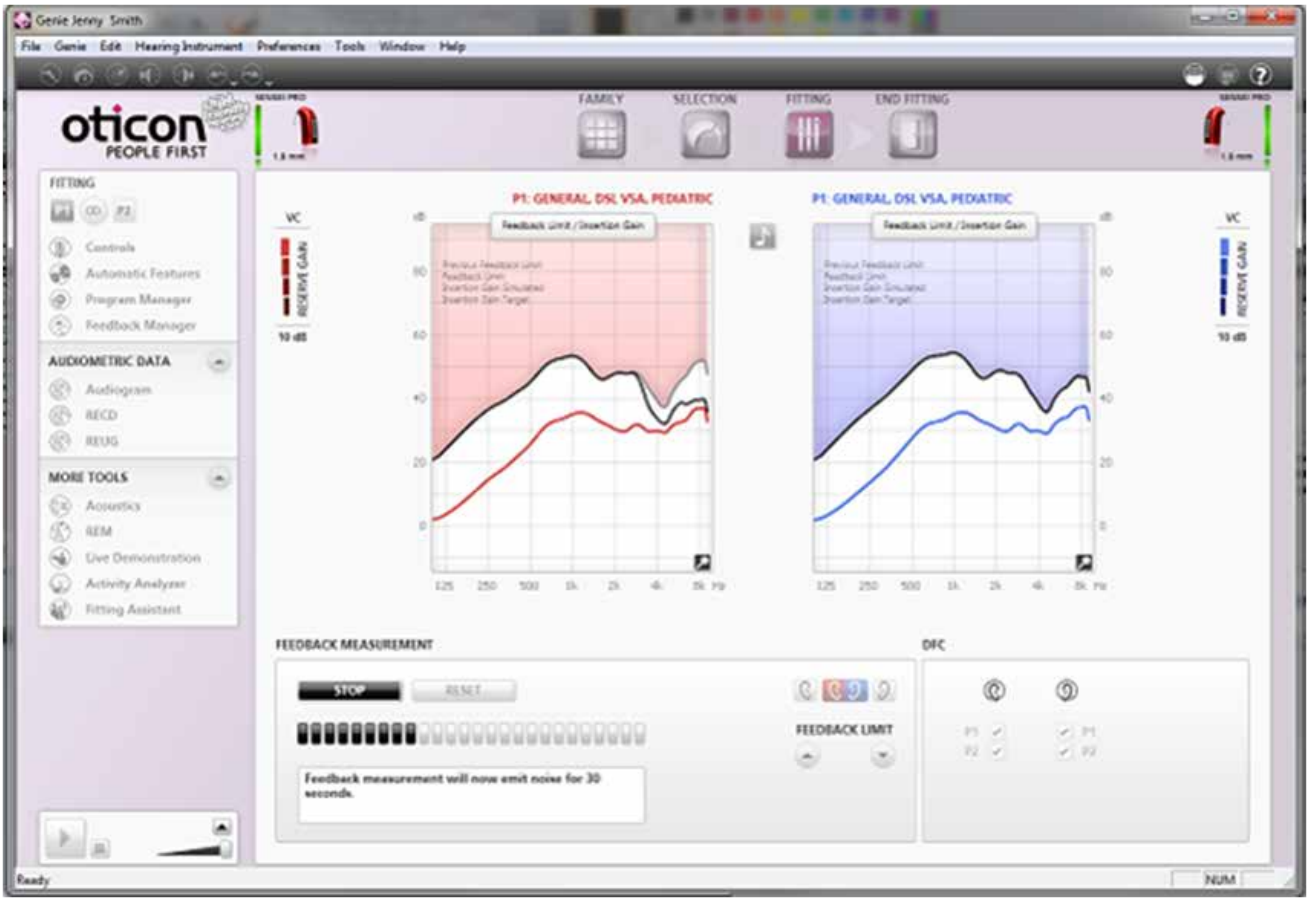


Fitting Step - Other Fitting Tools

Feedback Manager
The greater the gain (and hearing loss), the higher the risk of feedback. The Feedback Manager in Genie sets the gain response with a suitable feedback limit to prevent feedback. This tool allows you to measure, adjust and monitor feedback limits as well as compare previous and current feedback limits.

The feedback measurement is run from P1. The feedback limits will be applied to all programs in the hearing instrument.

When you go back to **Controls** in the Fitting step, the current feedback limits will be available at the curves displaying 'Insertion Gain' and 'Gain, 2cc' when clicking on the **Show feedback limit button** between the right and the left graphs (marked with a musical note).



Real Ear Measurements (REM)
The Genie REM tool lets you verify your fitting by comparing measures obtained with your Real Ear Measurement equipment with Genie.

Use the tool to activate or deactivate advanced features to match the purpose of the measurement.
In order to compare your measurement to target and simulated curves in Genie, make sure that the Genie curves are based on the same signal type and level as measured.

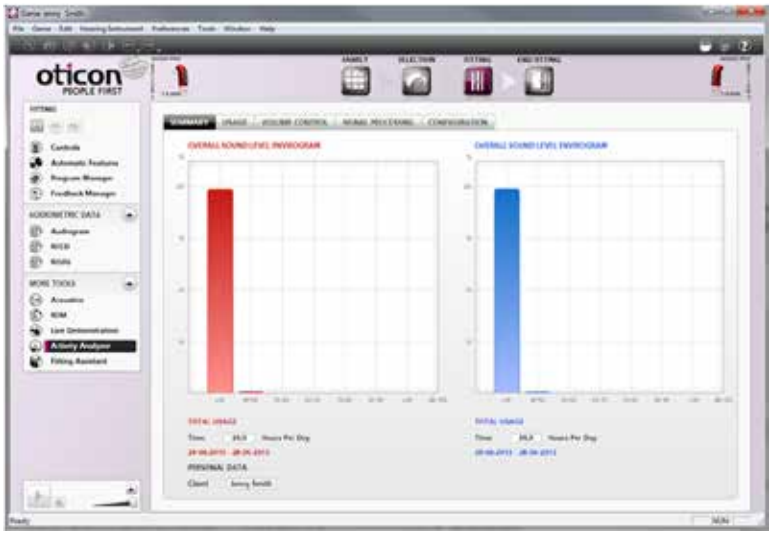
Under Tools > Preferences > Specific Preferences you can select a preferred REM module. Your REM software will then open when activating the REM tool.*

*This function is compatible with the Interacoustics Affinity and the GN Otometrics Aurical.

Note: The response in REM can be affected by interference from the programming cable.

Live Demonstration
The Live Demonstration Tool can be used to demonstrate the hearing instrument's amplification, directionality, and noise management. Using the Live tool with parents can help them better understand how hearing instrument features work.

Activity Analyzer
Activity Analyzer displays instrument usage and environmental data. At a follow-up visit, the Activity Analyzer can be opened.



The tool is organized into 5 tabs:

1. **Summary** provides an overview of the usage and personal data.

2. **Usage** displays total instrument usage divided between programs.

3. **Volume** control is active for instruments with a volume control and analyses its use.

4. **Signal processing** summarizes the overall sound levels for all general programs.

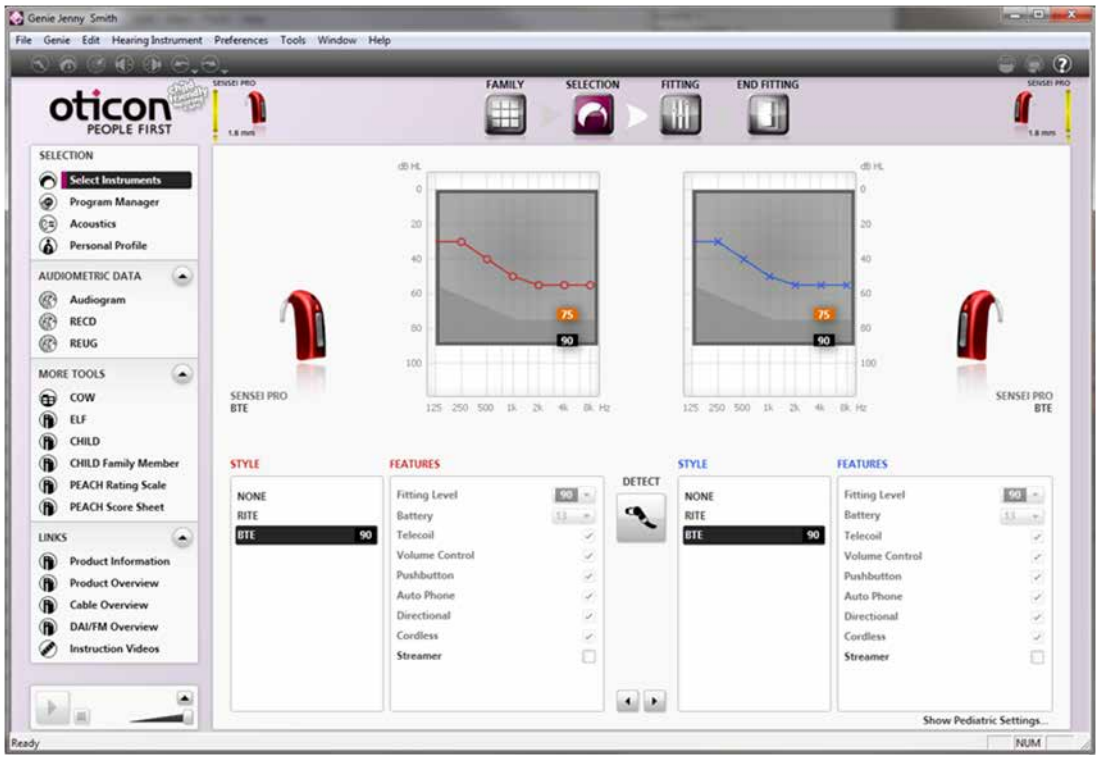
5. **Configuration**: Under Configuration you can disable Activity Analyzer.

Fitting Assistant
The Fitting Assistant is a tool used if fine-tuning should be needed at the fitting or follow-up visit.

To operate the Fitting Assistant, select the tab that expresses the child's complaint/parental observations and then a control (such as Loudness). Click the control to adjust it.

The adjustments made in the Fitting Assistant are immediately visible in the graphs. When you open the tool in the future, you can see how far from the starting point (the middle) the controls have been moved.

The Fitting Assistant can be used individually for each program in the instrument.

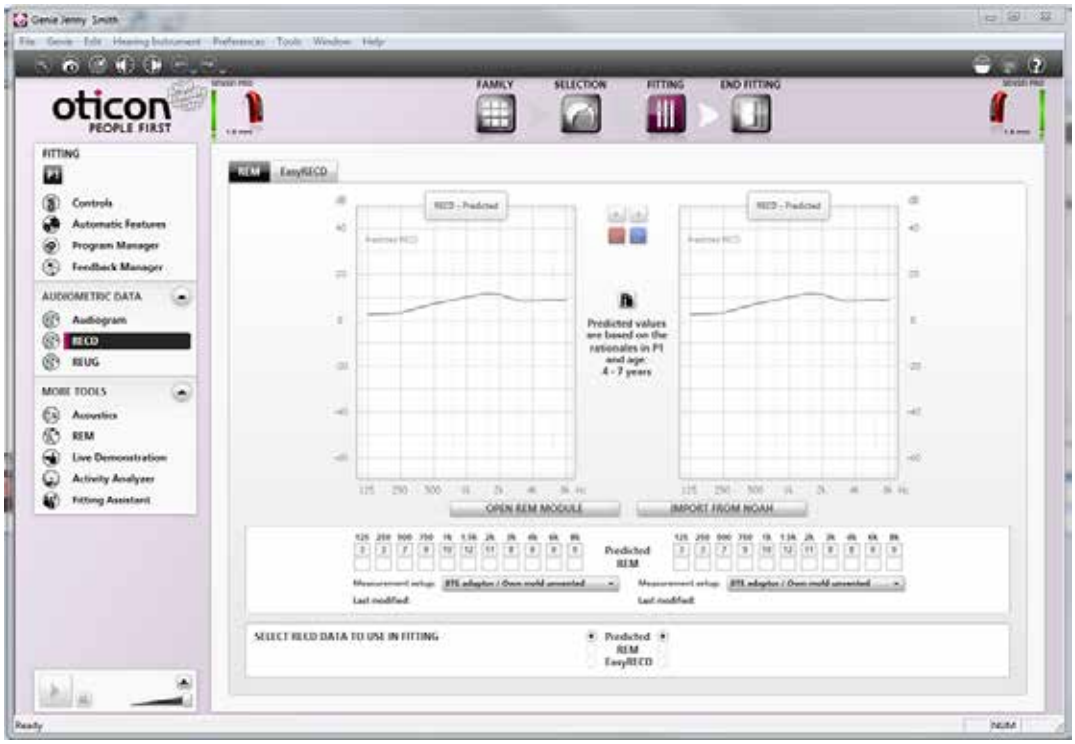


Fitting Step - EasyRECD™

EasyRECD™ is used to include the child's individual ear canal acoustics into the hearing instrument fitting.

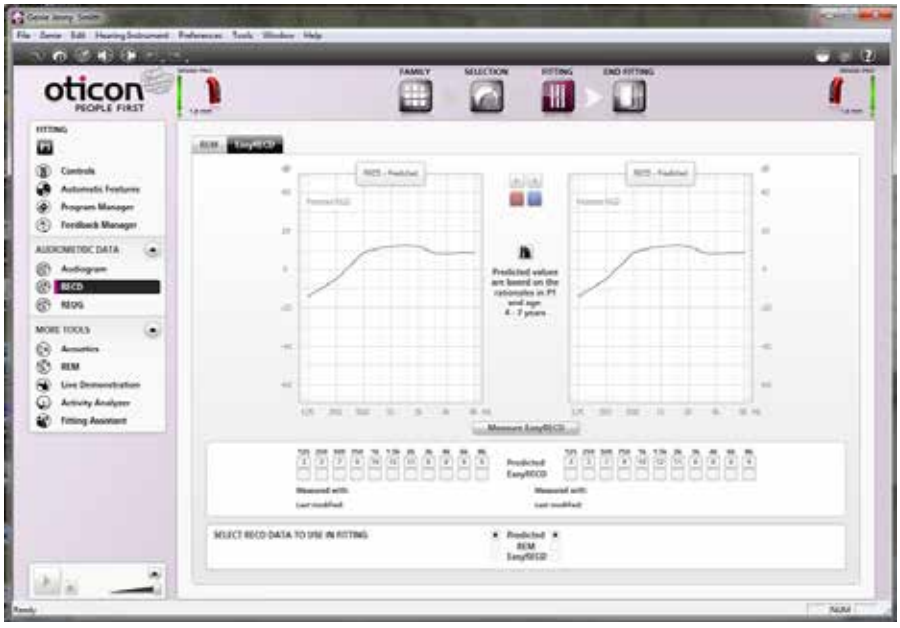
Taking into account the individual ear acoustics of the child provides the most precise gain prescription. Completing this step ensures precise correction factors are applied to the DSL gain prescription.

If this step is not completed, a predicted RECD measurement can be used, or an RECD measurement from external equipment can be directly imported.



Play the video to learn more about EasyRECD™.

EasyRECD™
Open the EasyRECD™ tool and select **Measure EasyRECD™**.

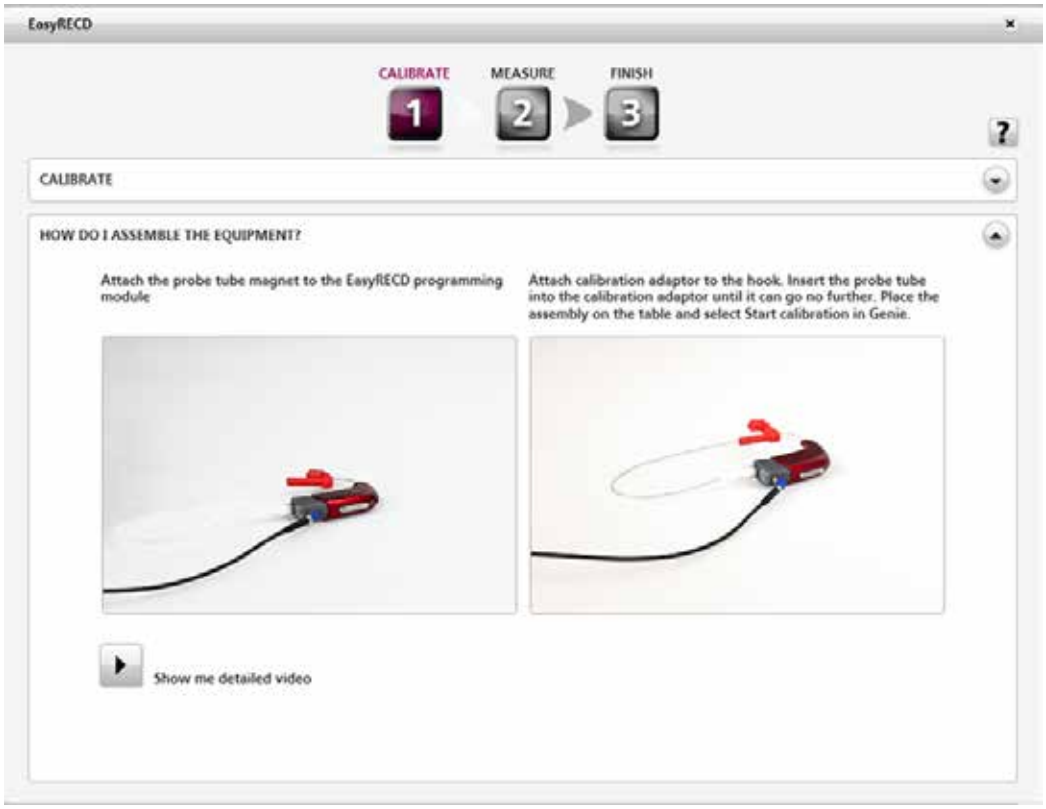


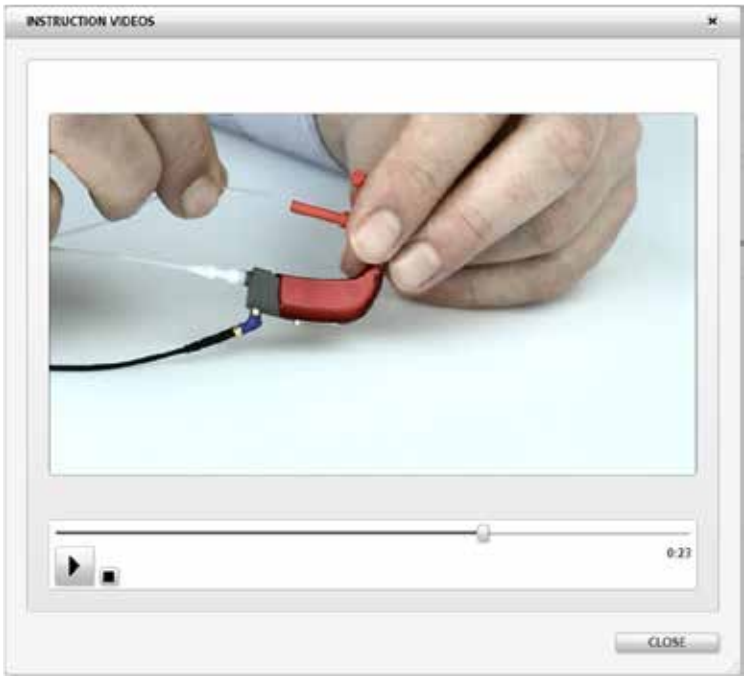
EasyRECD™ is divided into 3 steps:
1. **Calibrate**
2. **Measure**
3. **Finish**

NOTE: In binaural fittings, the EasyRECD™ can be measured on both ears. Alternatively, the EasyRECD™ can be measured on one ear, and then transferred over to the alternative ear.

Help is available with the EasyRECD™ process.

Select **How do I assemble the equipment?** for a photographic instruction guide.

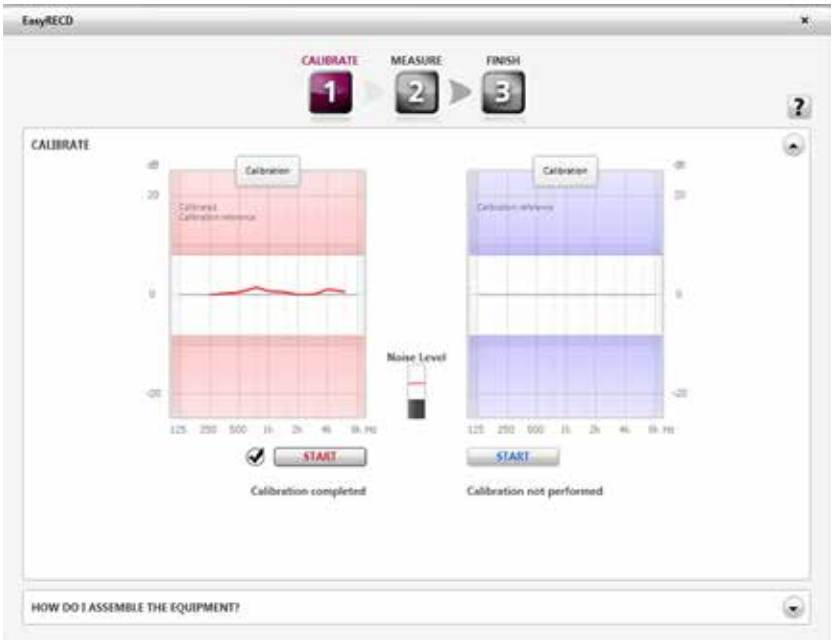


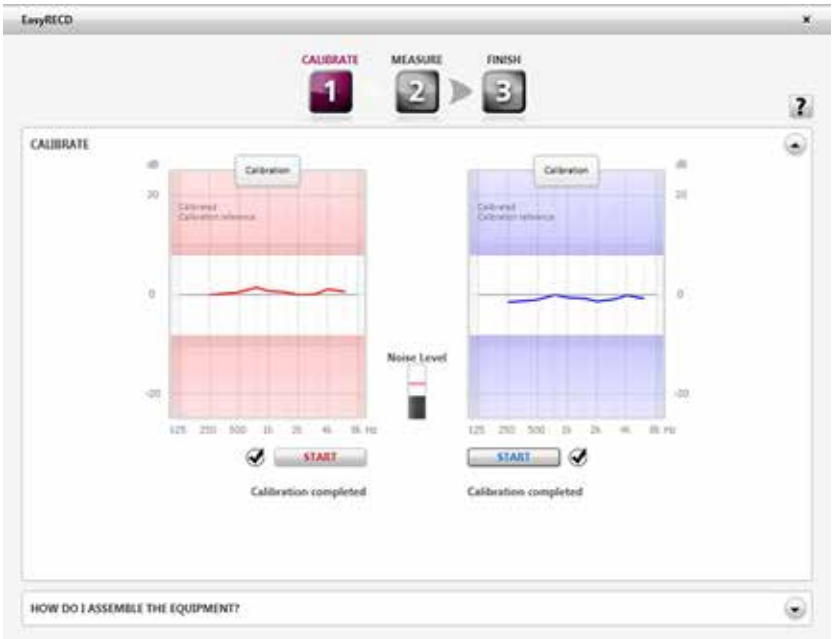


Select **Show me detailed video** for additional information.

EasyRECD™ - Calibrate Step
The Calibrate Step calibrates the Easy Probe Tube with the EasyRECD™ programming module and hearing instrument.

Connect the equipment as shown in the photographs. Ensure noise levels remain below the red indicator level during the calibration process.

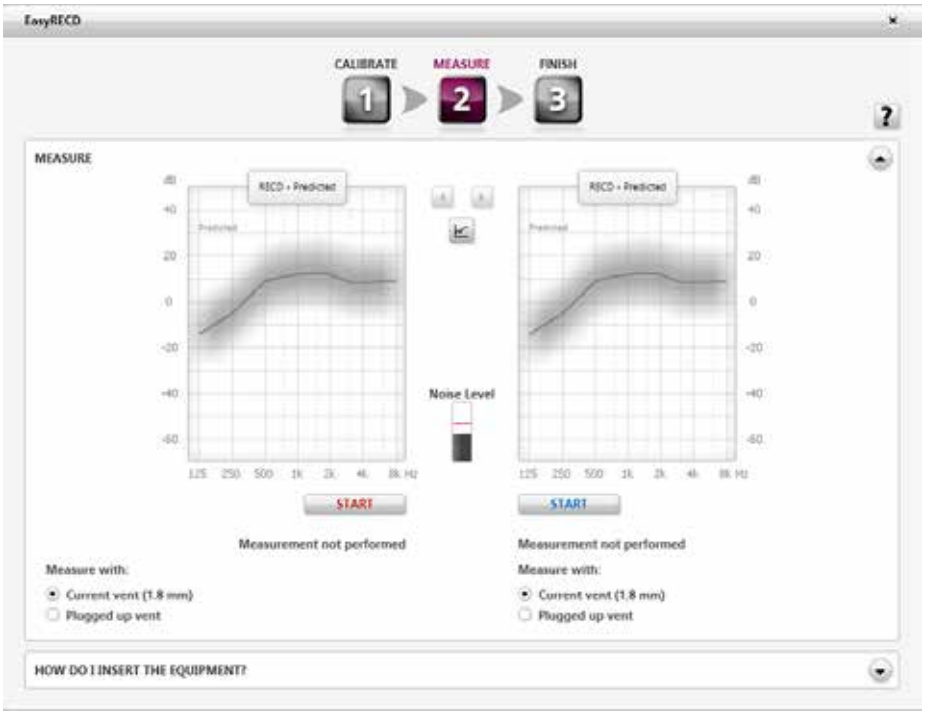




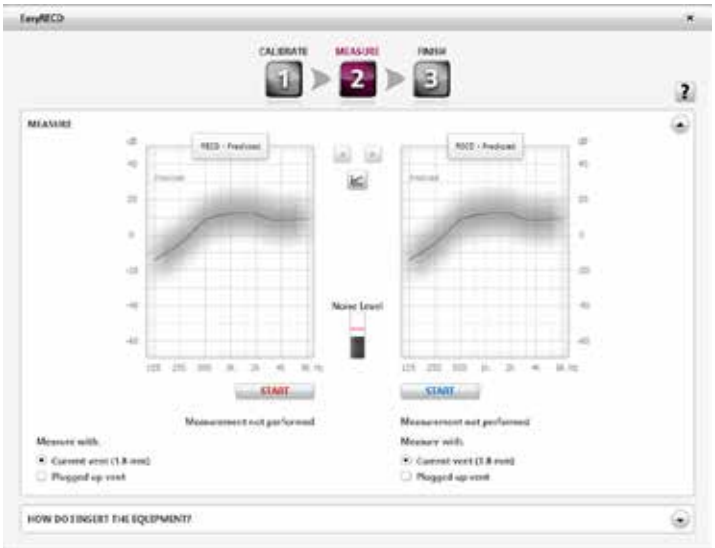
NOTE: In binaural fittings, the EasyRECD™ can be measured on both ears. Alternatively, the EasyRECD™ can be measured on one ear, and then transferred over to the alternative ear.

If EasyRECD™ will be measured binaurally, the calibration process must be completed on both left and right ears.

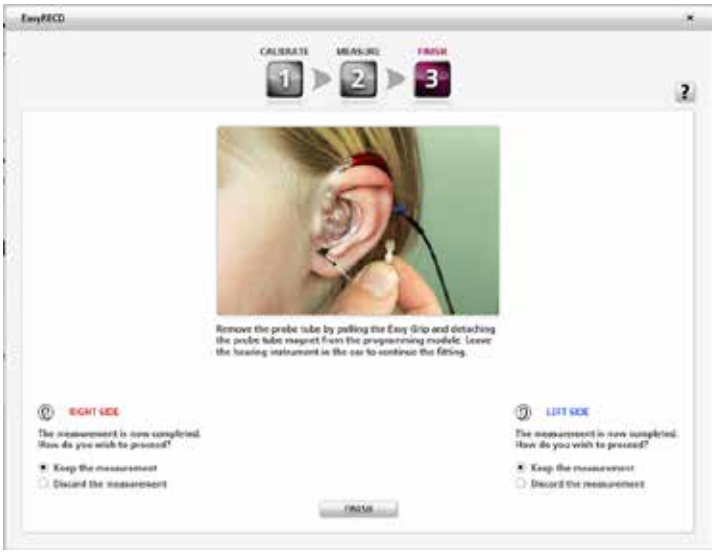
EasyRECD™ - Measure Step
The grey thick line and shaded area show the predicted RECD™ and typical measurement range for the child's age.



Assemble the equipment as shown.
See the **How do I insert the equipment?** photographs and video for more detailed information.



When the equipment is correctly placed and the noise levels are below the red indicator line, press **Start** .



EasyRECD™ - Finish Step
When the measurement is complete, select **Finish**.

Remove the equipment and select **Finish** at the bottom on the screen.

The following dialog will appear if the EasyRECD™ measurement is applied to the fitting and settings are recalculated.

Selecting **YES** applies the EasyRECD™ measurement to the fitting.

Fitting Step - Program Manager

Fitting Step - Program Manager
In the Program Manager you can activate, configure, delete, and change the order of the programs.
For general programs you can choose between and, NAL-NL1, NAL NL2, DSL v5a Pediatric and DSL v5a Adult.

Phone
Two phone programs exist, Microphone (M) or Telecoil (T). Choose whether you want to activate the phone program on the left or right ear

Music
A Music program can be added for more natural music perception. This program turns off some of the automatics that can potentially impact the dynamics of music.

DAI and FM
RITE and BTE instruments are compatible with DAI and FM shoes. When a DAI or FM shoe is attached to the instrument, the program automatically changes to DAI/FM+M.

When a DAI shoe or FM receiver is connected and the program switch is deactivated, only DAI+M/ FM+M (default) or FM only is available.

Important:
If you want to provide access to more than one program when using FM and/or DAI, remember to uncheck "Automatically deactivate program switch when attaching DAI/FM shoe" in the End Fitting > Phone and Accessories > DAI/FM screen.

ConnectLine
If you are fitting Oticon Sensei with ConnectLine , adjustments to ConnectLine programs are done in the End Fitting step.

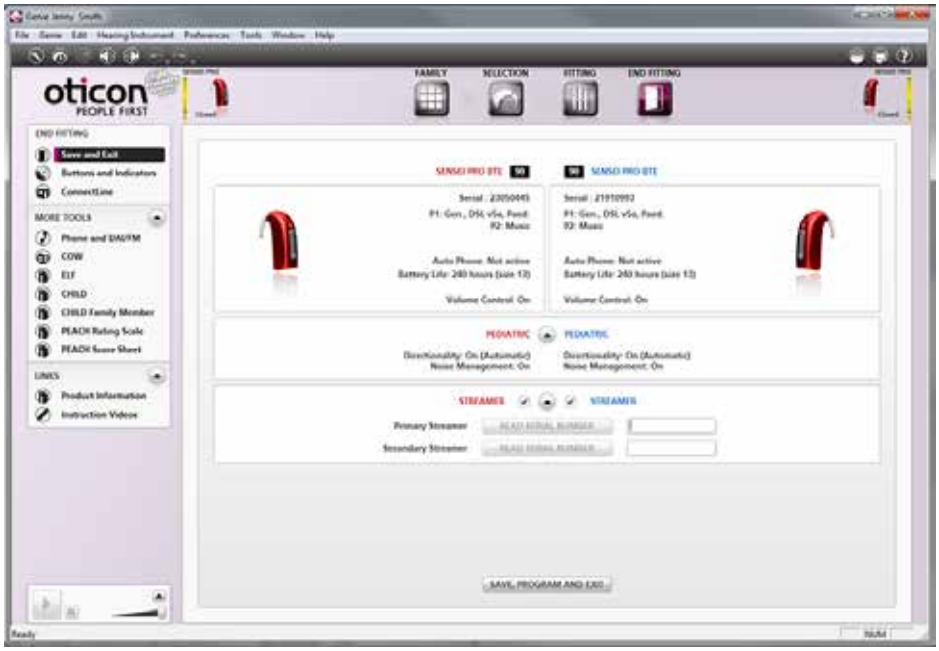
End Fitting

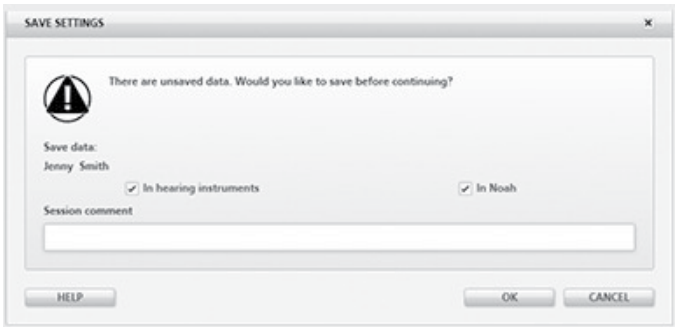
Use this step to finalize the fitting session with your Pediatric child. The "End Fitting" step covers all tools related to user operation of the instrument as well as Streamers. In this step you can see all relevant information about the current fitting, complete your programming of the instrument and exit Genie.

The Save and Exit screen contains information about Oticon Sensei instruments. It also gives you the opportunity read the Streamer serial number. To link a Streamer to the instruments, click **Read serial number** and follow the instructions provided on the screen. It is possible to link two Streamers to the same instrument.

Note : If instruments are connected via HI-PRO you cannot use the automatic read-out. Instead, the serial number of the Streamer should be typed. The number is on the back of the Streamer.

Click **Save, Program and Exit** before disconnecting the hearing instruments.





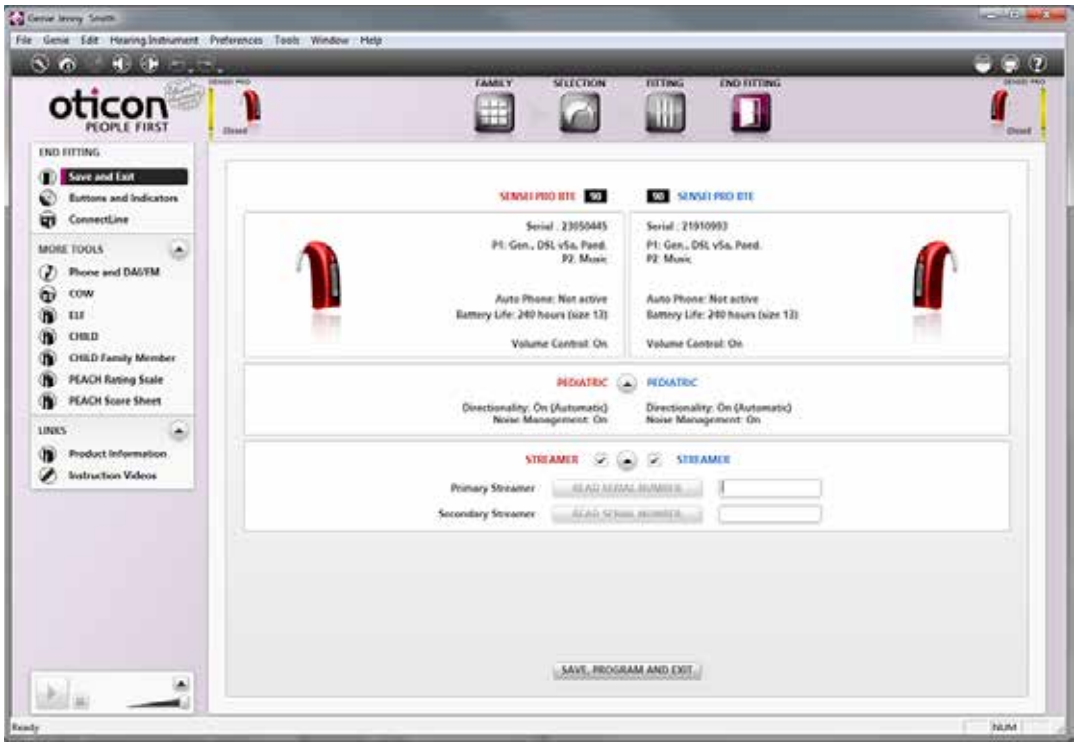
The following pop-up will appear after selecting **Save, Program and Exit**.

Check the boxes to save the fitting in the hearing instruments and in Noah.

End Fitting - Buttons & Indicators

Buttons and Indicators
The functionality of the available buttons, volume control, beeps and LED Visual Indicator are defined in this screen.

Binaural Coordination links the functionality on both instruments.

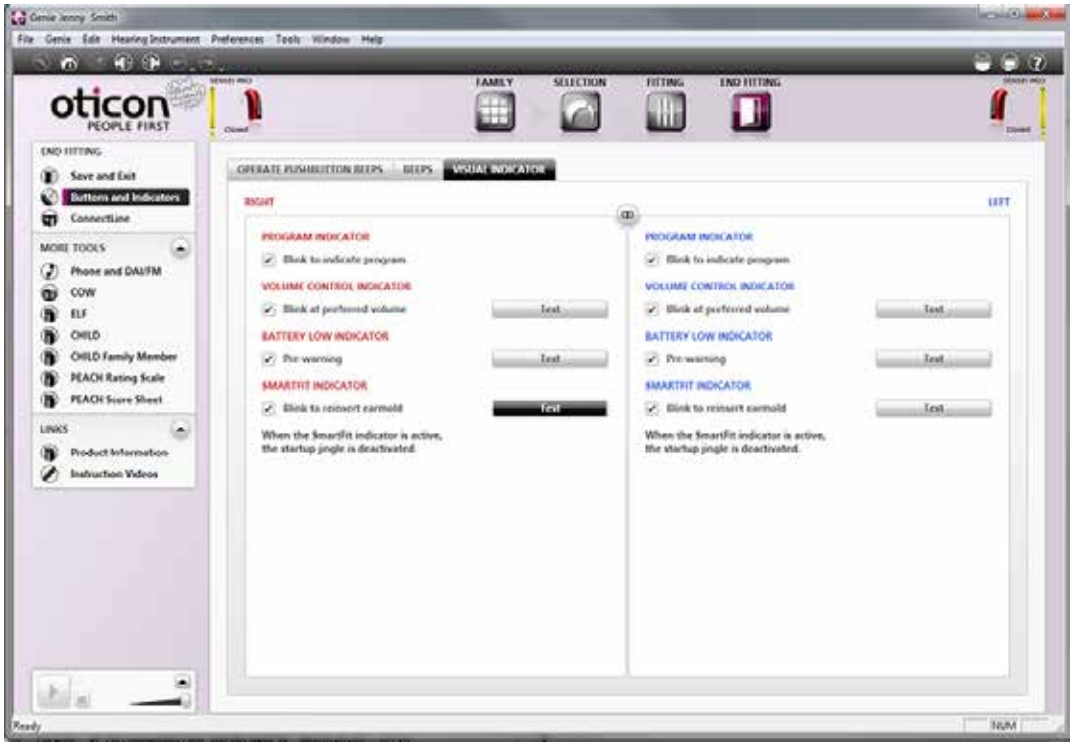


End Fitting - SmartFit Trainer™

This tool is used to help teach parents how to insert the ear mold into the child's ear.

While the Sensei Pro is testing the ear mold insertion, the LED indicator will remain on. Once a good insertion is achieved, the LED will turn off, and then begin slowly flashing to indicate it is in Program 1.

If a good insertion is not achieved, the LED indicator will blink rapidly for approximately 10 seconds. The LED indicator pattern can be demonstrated to parents by pressing **Test**

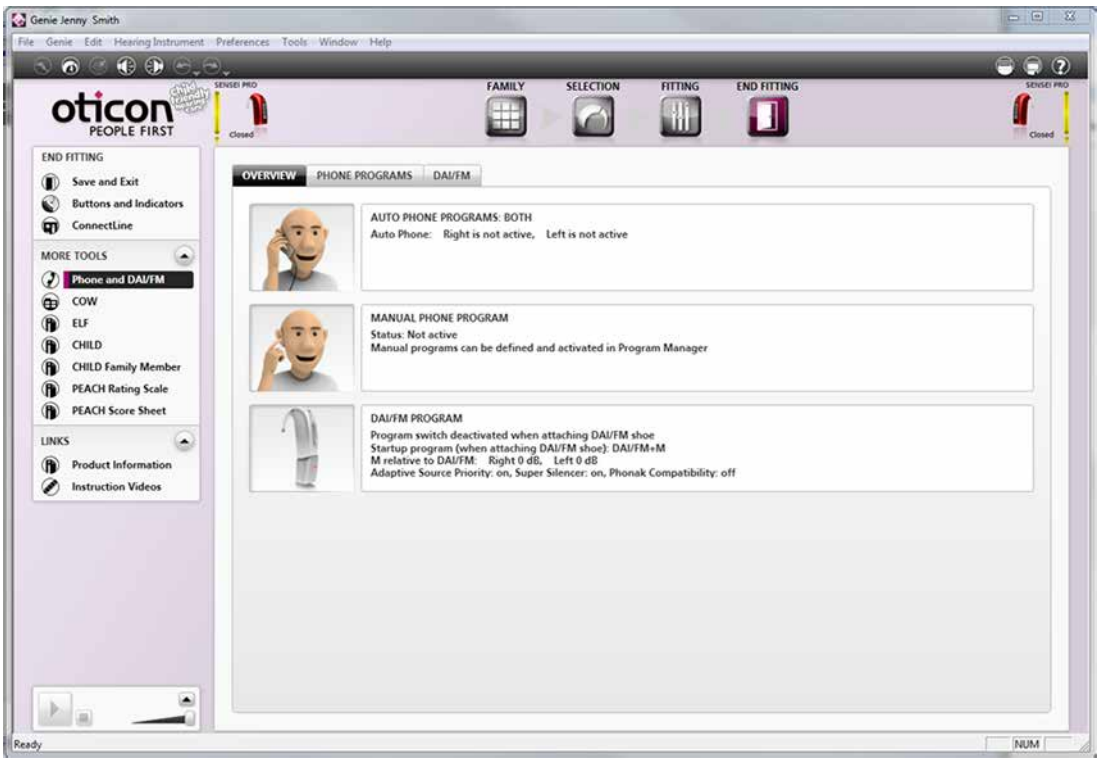


Play the video to learn more about SmartFit™ Trainer.

End Fitting - Phone & DAI/FM

Overview
The Phone and DAI/FM tool provides an overview of the phone and DAI/FM programs. It also helps you to define the functionality of Auto Phone programs and DAI/FM programs, where relevant.

For Auto Phone programs, you can enable or disable the functionality and choose whether the program should be a Microphone (M) or a Telecoil (T) program. The Auto Phone program is automatically activated when a telephone receiver with a magnet is held close to the hearing instrument.

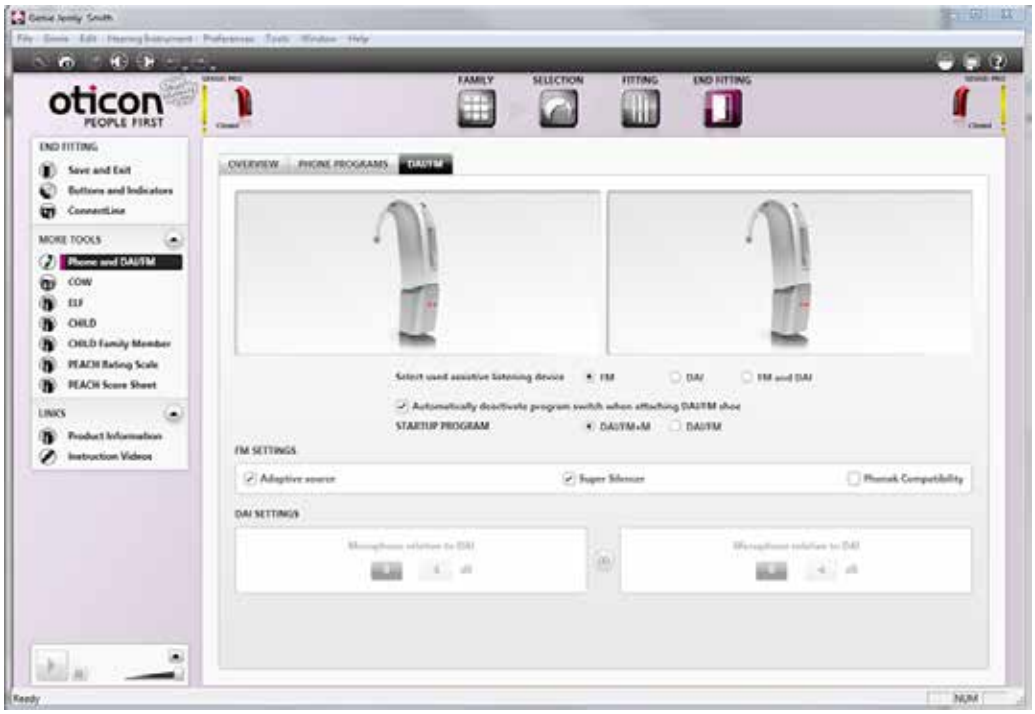


End Fitting - VoicePriority *i*™ and FM

Overview
When an FM receiver us attached to Sensei, an FM program is automatically created.

Select the device that will be used with the hearing instrument, either FM, DAI or both.

NOTE: VoicePriority i should not be activated when used with "Dynamic" FM Receiver and Transmitter combinations if FM transparency measurements have not been completed.



Play the video to learn more about VoicePriority i™.

By selecting **Automatically deactivate program switch when attaching DAI/ FM shoe**, the hearing instrument will also be in the FM or DAI program when the FM receiver or DAI shoe is attached.

FM Verification
The FM settings have no effect on FM verification measurements.

End Fitting - Streamer Pro & FM

A verification mode is available when fitting an FM receiver with Streamer Pro.

By enabling the **FM Verification Standard** feature, the system is set up to best match the FM frequency response with the hearing instrument microphone frequency response.

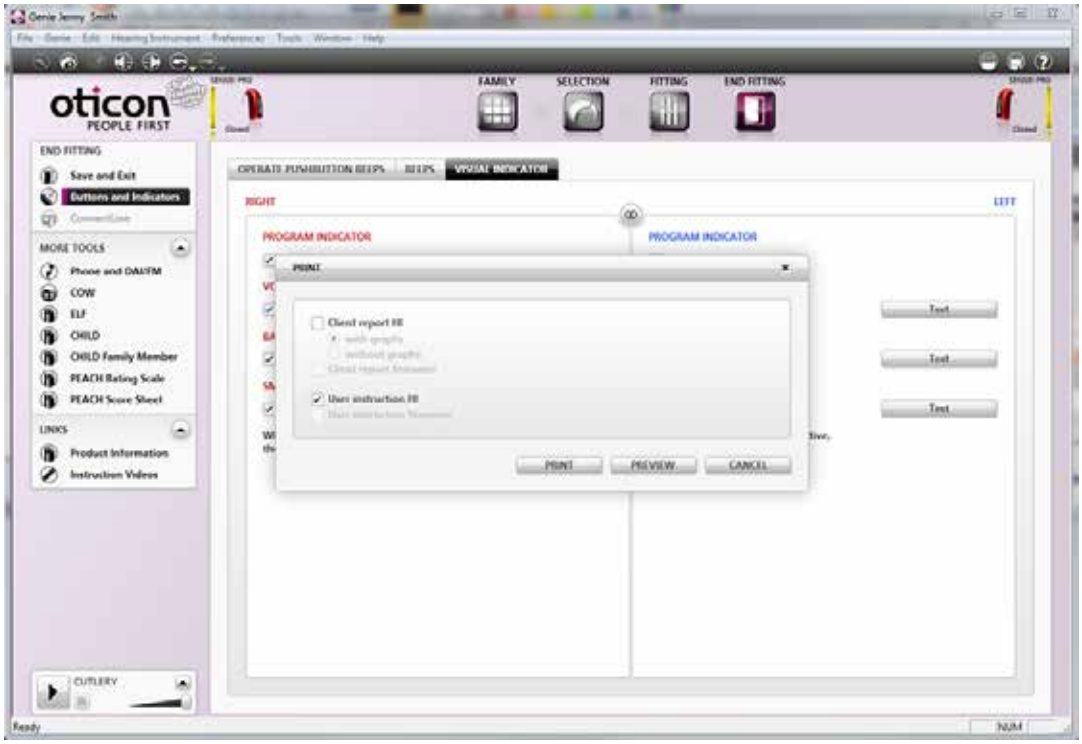
Comfort mode gives slightly more bass and a richer listening experience.

The **Fuller/ Brighter** tabs can be used to make slight adjustments to the Streamer Pro frequency response.

Play the video to learn more about Connectivity.

End Fitting - Printout

User instructions can be created. These are useful to give to parents as they describe the hearing instrument set up.

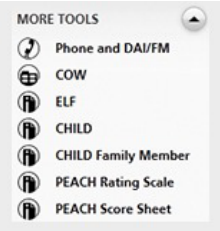


The User instructions are divided into Left and Right and describe Programs, Volume Control, Mute and Warnings.

The Beeps are depicted by ♪ , and the LED indicator pattern is indicated with ● .

End Fitting - Validation Tools

6 validation tools are available in Genie. The tools can be used to monitor the child's progress and can be used as a counseling tool with parents during the hearing rehabilitation process.



COW - The Children's Outcome Worksheets
COW is designed to be used over a short period of time, during the selection and fitting process.

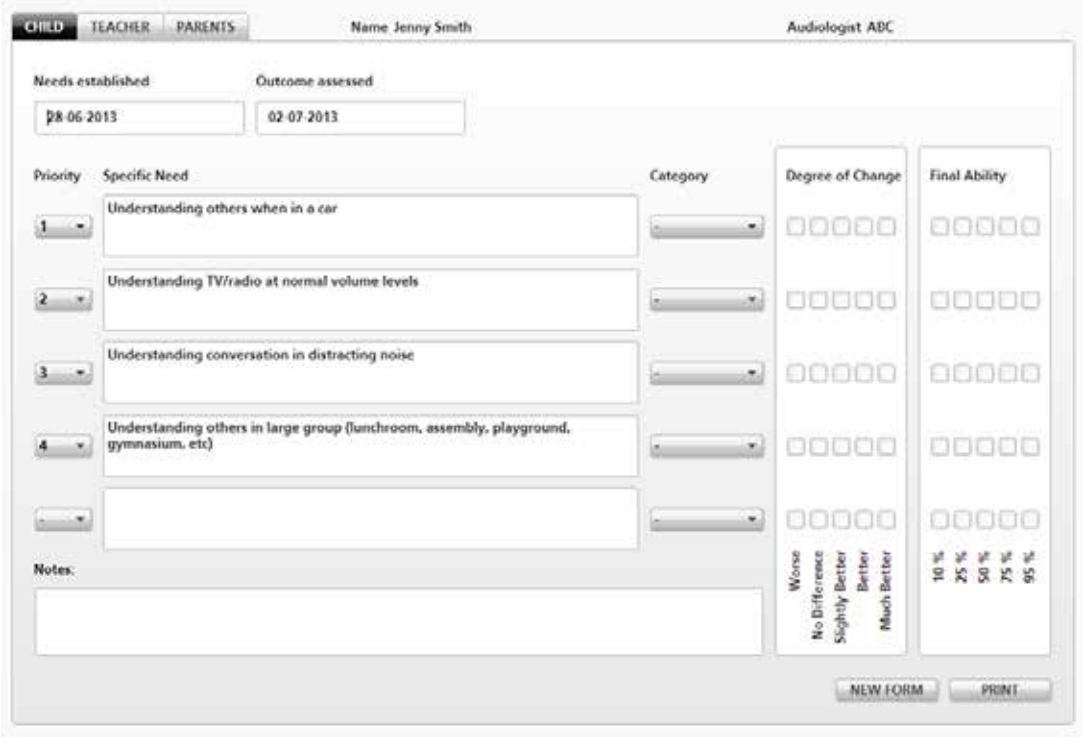
Use it to help work with the specific needs of the child as identified by the child, parents and teachers.

The three COW tabs briefly describe these needs and subsequently determine how well they are addressed by the rehabilitation program.

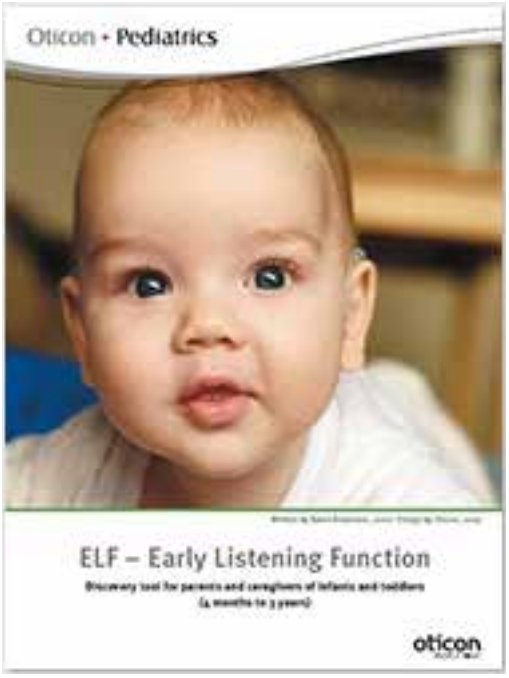
The COW can be accessed from the task pane in all Organizer steps except Fitting. The COW form consists of two parts: Needs Establishment and Outcome Assessment.

The form can be filled in directly in Genie, and saved. Alternatively it can be printed out.

There are worksheets for the Child, Teacher, and Parents.



ELF - Early Listening Function
ELF is a hearing discovery tool for parents and caregivers of very young children. It is intended for children 4 months to 3 years.



The ELF has been designed to obtain an indication of the functional use of hearing in very young children.

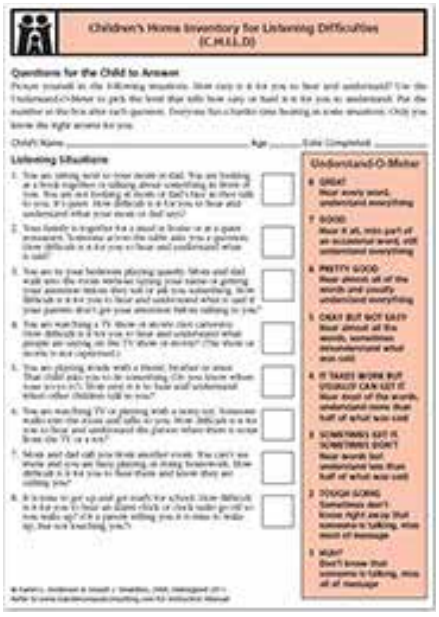
The ELF has three primary purposes:
1. Parent involvement and empowerment
2. Estimating amplification benefit
3. Tracking improvements in auditory detection

The purpose of the ELF is to help the parents or caregivers gather information on how the young child uses his or her hearing to detect sounds under various listening situations.

Click ELF in the task pane to access the file. It is located in both the Select Instruments and End Fitting steps, under More Tools.

The file includes explanatory information for your professional purposes as well as questionnaires for you and the parents.

CHILD - Children's Home Inventory for Listening Difficulties
The CHILD is a family-centered tool designed to reveal the communication needs of children within the context of their home environment.



It can also be used to monitor how well a child is improving his or her listening skills within the home, which is the primary learning environment of young children.

The CHILD is appropriate for use by families with children who are at a developmental level as low as age 3 to as old as approximately age 12.

There is a version for both the child and a family member to complete.

The CHILD questionnaire should be completed by family members who know the child's habits well. There is also a version that the audiologist can use for an older child.

Click CHILD in the task pane to access the file. It is located in both the Select Instruments and End Fitting steps, under More Tools.

The file includes information for your professional purposes as well as questionnaires for you, the parents and child.

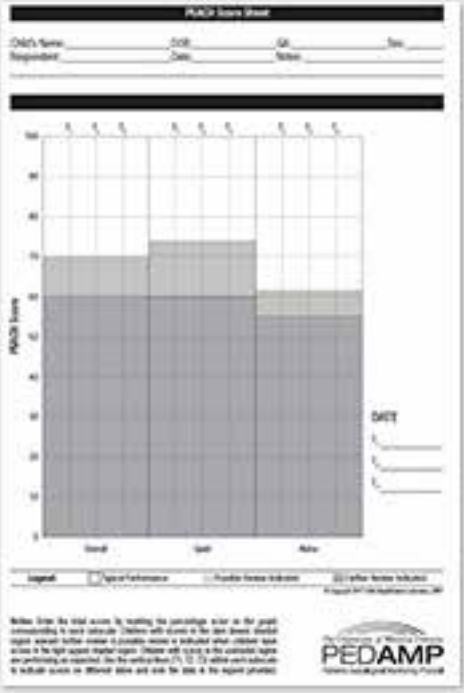
Parents' Evaluation of Aural/Oral Performance of Children

(P.E.A.C.H.)

PEACH Rating Scale - Parent's Evaluation of Aural/Oral Performance of Children

PEACH is a questionnaire designed to record how the child is hearing and communicating with others when using his/her hearing aids and/or cochlear implant.

Parents observe their child's listening behavior in everyday life and give a rating in relation to a range of hearing and communication scenarios.



PEACH Score Sheet

PEACH Score Sheet is part of the University of Western Ontario PEDAMP protocol. It is used to indicate when a review of the child's hearing should occur.

ConnectLine

ConnectLine

- 64 One Connectivity System to Empower All Your Pediatric Patients
- 65 Fitting ConnectLine in Genie
- 66 The Phone Tab
- 67 The Microphone Tab
- 68 The TV Tab
- 69 The Audio Tab
- 70 The FM Tab
- 72 The Telecoil Tab
- 73 Streamer Settings
- 74 The Configuration Tab
- 76 The firmware Upgrade Tab

One Connectivity System to Empower All Your Pediatric Patients

For children, the importance of connectivity is increasing every day. New ConnectLine is the solution that offers the most connectivity opportunities in one integrated system. Easy to set up and simple to use with the new Streamer Pro, ConnectLine can be tailored specifically to each child's needs, so that operation becomes intuitive. Enabling one-on-one communication, telephone streaming, video-chatting, music and TV enjoyment, ConnectLine is the perfect partner to Sensei, allowing the children to connect easily, comfortably and wirelessly. Moreover, children can connect the FM receiver to the Streamer and use the Streamer and FM in combination in the classroom.

Landline Phone
Clear and easy phone communication at home, with loved ones and with friends.

Mobile
Hassle-free calls on-the-go for improved clarity and comfort.

Office Phone
New, easy way to do use landline phones in a workplace environment

Digital Office Phone
Increased compatibility with many digital office phones.

Audio
Connect wirelessly or with audio cable to your favorite audio device.

Computer
Improved connections to computer-based video chats or other computer applications.

Microphone
Improved one-to-one communication in difficult listening situations.

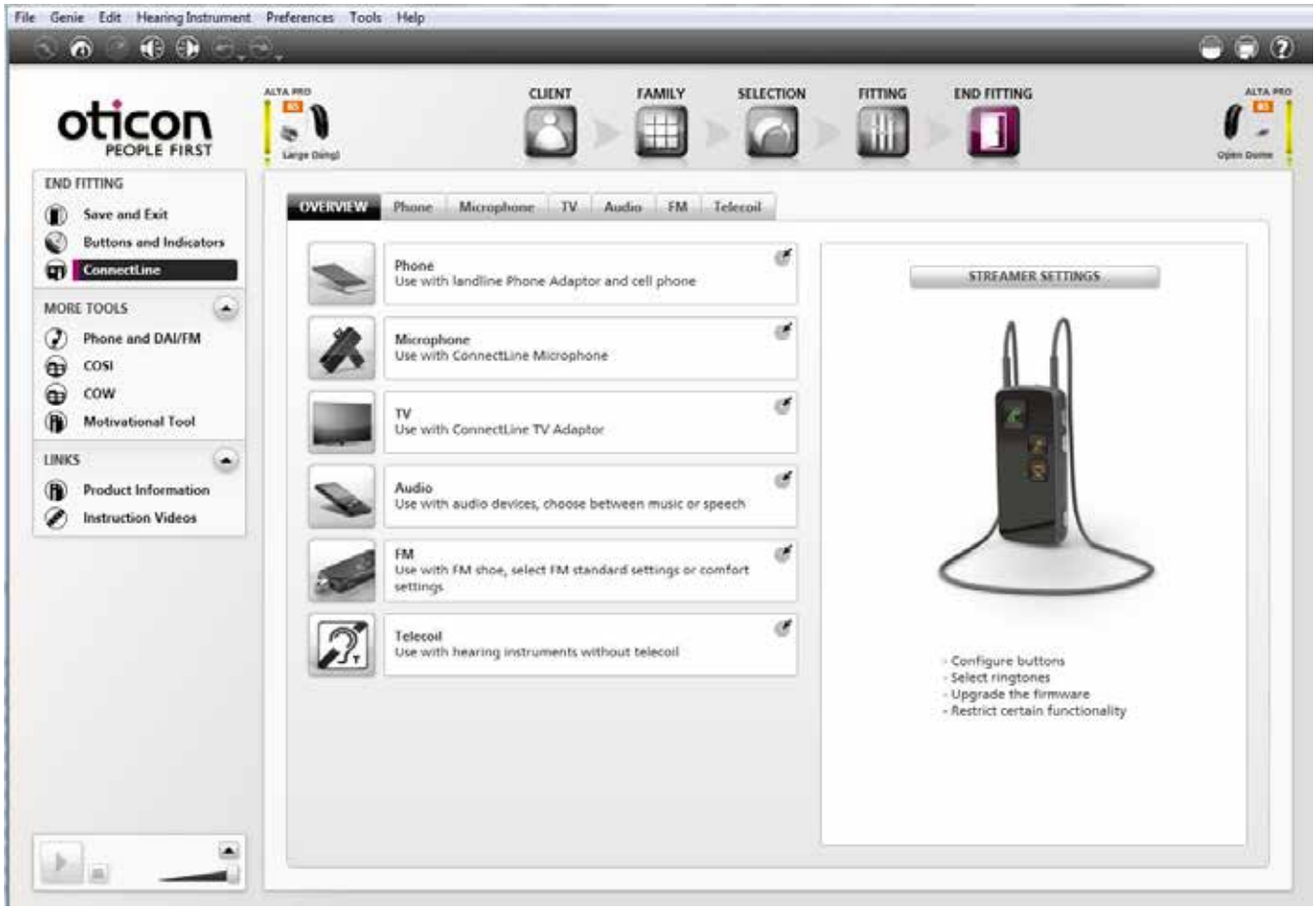
FM
For expanded FM access, regardless of the hearing instrument's own FM compatibility.

Telecoil
Provides access to teleloop systems commonly used in large public spaces such as theaters, lecture halls and religious services.

Fitting ConnectLine in Genie

The ConnectLine Tool
The ConnectLine tool gives access to dedicated programs used for streaming applications. The applications are organized under 7 tabs; Overview, Phone, Microphone, TV, Audio, FM, and Telecoil where you can adjust several controls in order to fine tune the sound experience according to the child's preferences.

The ConnectLine tool also gives access to adjusting the Streamer Settings where you can choose the functions of the streamer. See more on the options in the Streamer Settings tab.



Fine Tuning ConnectLine

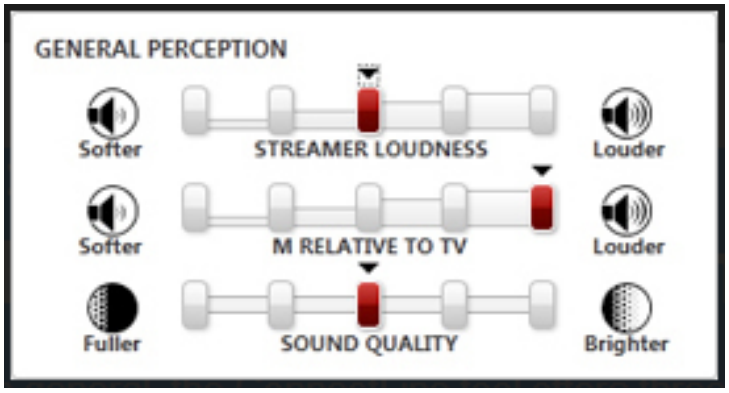
In general, the ConnectLine tool offers three trimmers for fine tuning: General Perception, Power Bass and Music Widening.

The settings are automatically saved when you leave the screens.

General Perception
The **Streamer Loudness** trimmer adjusts the streamed signal, making it softer or louder than the default level. The signal from the hearing instrument microphones is not affected.

The **M relative to ConnectLine** trimmer adjusts the level of the hearing instrument microphones relative to the streamed signal, which is useful when environmental sounds interfere. When set to 0 dB, the microphones will be set to the same level as in P1.

The **Sound Quality** trimmer is used to correct the emphasis of the audio response by adjusting tonal balance. The response can be made "brighter" (more high frequency emphasis) or "fuller" (more low frequency emphasis) according to patient preferences.



Power Bass
Provides enhanced bass dynamics and gives better LF response with open fittings when streaming. Power Bass is adjusted in 3 steps (High, Medium, Low) or can be set to "off." The prescribed Power Bass is based on the size of the vent or selected dome, so that larger vents or more open domes result in more Power Bass and vice versa. Power Bass settings can be adjusted according to the patient's preferences.

Music Widening
Creates a more spacious listening experience when listening to monophonic signals through headphones or hearing aids. The feature requires two instruments and is based on reverberation techniques. Music Widening is adjusted in 3 steps (High, Medium, Low) or can be set to "off." Music Widening settings can be adjusted according to the patient's preferences.

Because it may reduce speech understanding, Music Widening is not available for all ConnectLine devices.

The Phone Tab

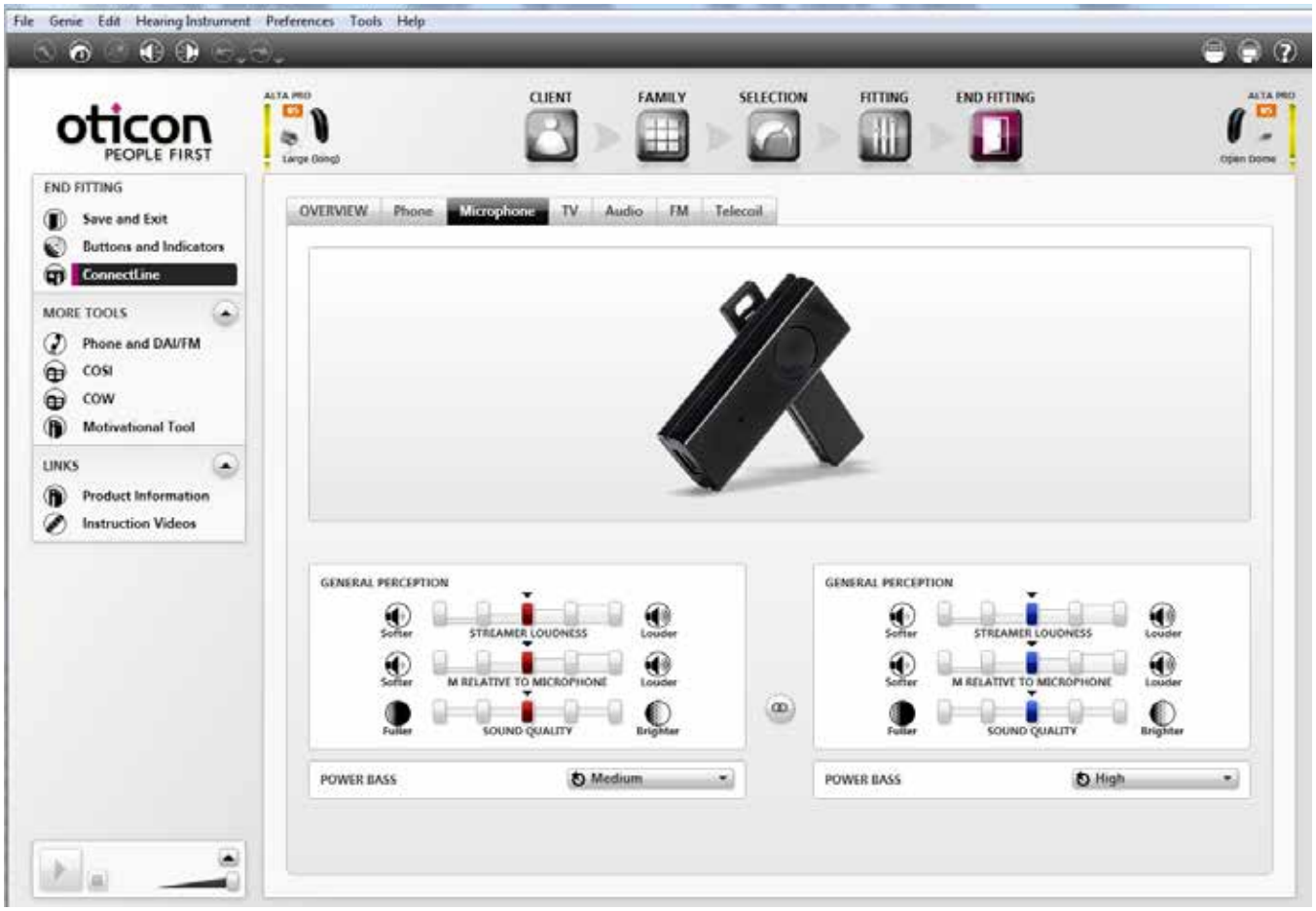
The Phone Tab enables fine tuning of the ConnectLine phone and/or cell phone applications. The adjustments are only applied to the instrument's phone program used for streaming. It is used for all ConnectLine landline phone or cell phone conversations streamed to the patient's Streamer.

General Perception:
M relative to Phone:
Typically, the level of the hearing instrument microphone should be lower/softer (-9 dB) than the phone to make it easier to focus on the phone conversation.

The Microphone Tab

The Microphone tab enables fine tuning of the ConnectLine Microphone application.

General Perception
M relative to Microphone:
Typically, the level of the hearing instrument microphone should be lower/softer than the ConnectLine Microphone (-6 dB) to focus on the speaker of interest.

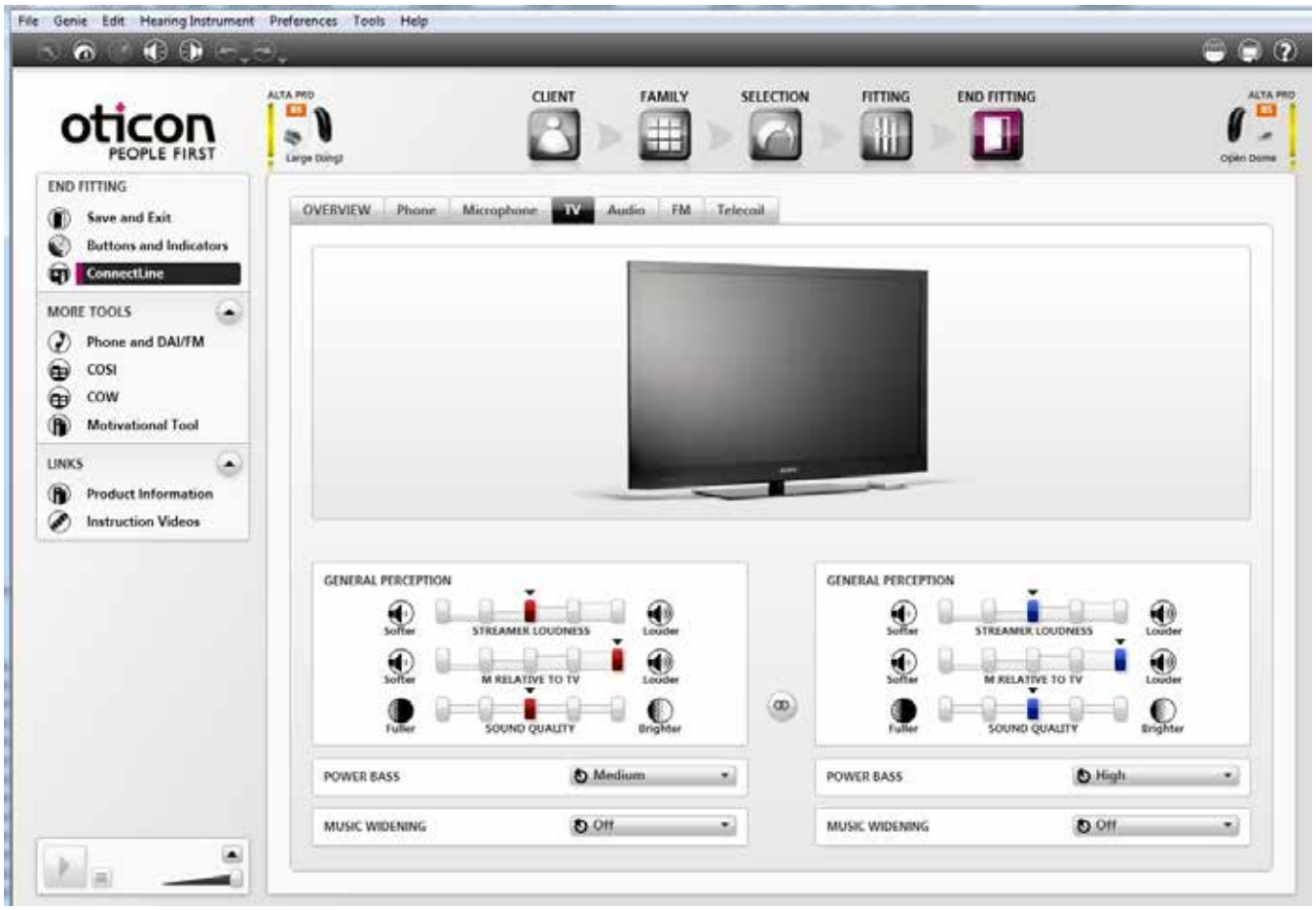


The TV Tab

The TV Tab enables fine tuning of the ConnectLine TV application.

General Perception:
M relative to TV:
Typically, the hearing instrument microphone and the TV should be equal (0 dB offset) to easily hear conversations when watching TV.

Music Widening:
For TV listening, Music Widening is set to "off" by default. This is a common pre-defined setting for all hearing loss levels. This is because most TV programs typically contain mostly speech, and Music Widening may compromise speech understanding.



The Audio Tab

The Audio Tab enables fine tuning of wired input and wireless applications, such as music players.

Music or Speech
Select "Music" or "Speech" depending on whether your patient usually listens to music or speech (e.g. audio books, or phone conversations via PC, etc.) with their audio device.

General Perception
M relative to Audio:
If "Music" is selected, the levels for the hearing instrument microphones and the Audio application should be equal (0 dB offset) in order to hear other relevant information from the surroundings while listening to the Audio device.

If "Speech" is selected, the hearing instrument microphone should be lower/softer than the Audio device (-6 dB) to focus on the speech signal.

Music Widening
If "Music" is selected, Music Widening is set by default to Medium but can be changed according to the patient's perception of or preference for reverb.

If "Speech" is selected, Music Widening is no longer an option.

The FM Tab

The FM Tab enables fine tuning of the ConnectLine FM application.

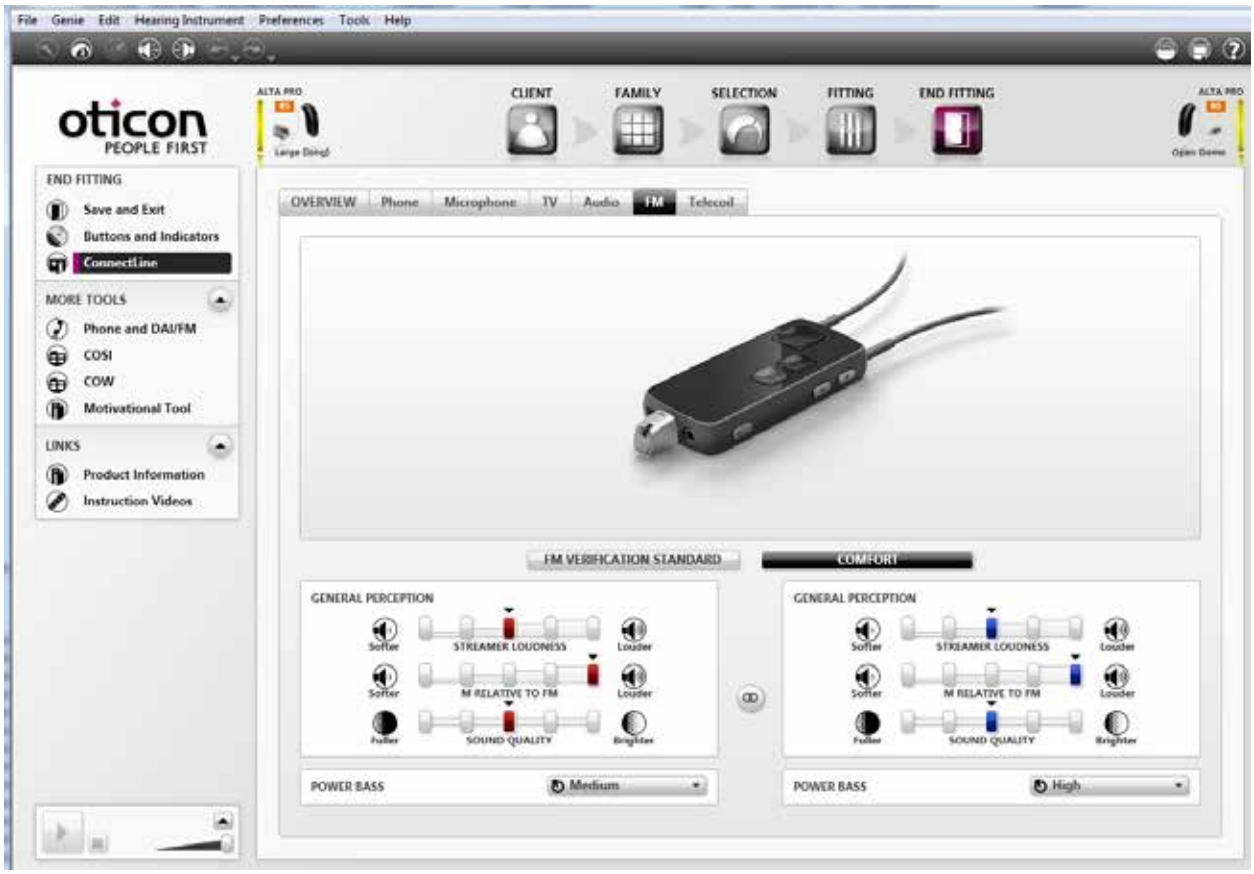
Verification Standard or Comfort

- Verification Standard: Ensures that the settings in ConnectLine comply with Accredited Social Health Activists' (ASHA) guidelines. This setting is the default for pediatric fittings (children from 0-16 years old).

- Comfort: Includes a low frequency boost to compensate for leakage in open fittings. This setting is default for all fittings except pediatric.

General Perception
M relative to FM:
Typically, the level of the hearing instrument microphone and the FM should be equal (0 dB offset).

Power Bass
If Verification Standard is selected, no adjustments are possible because the settings need to follow ASHA's guidelines. If Comfort is selected, the settings can be changed according to the patient's preferences.

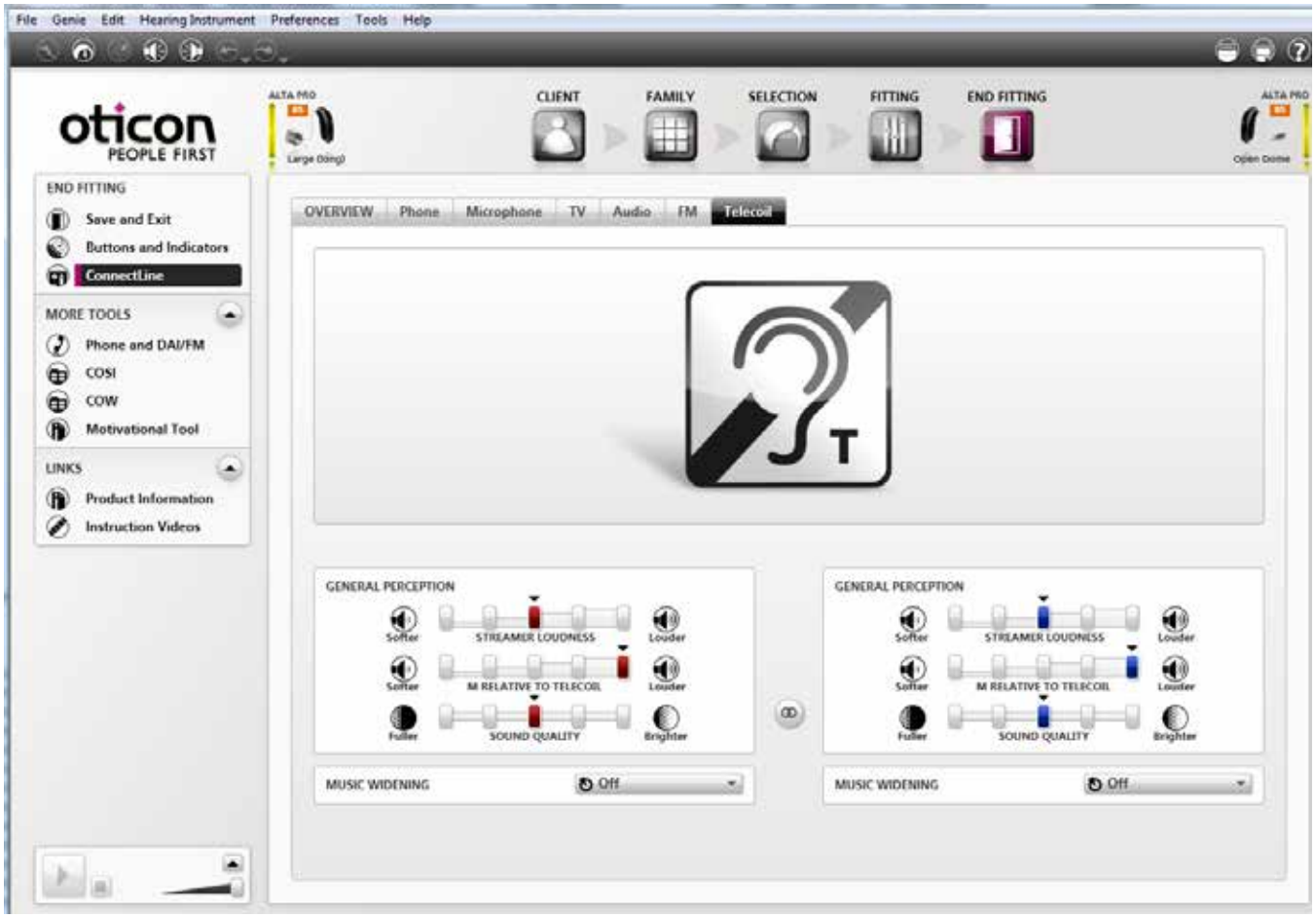


The Telecoil Tab

The Telecoil Tab enables fine tuning of the ConnectLine Telecoil application.

General Perception
M relative to Telecoil:
Normally, the level for the hearing instrument microphone and the telecoil should be equal (0 dB).This is identical to a traditional M/T setting.

Music Widening
Since Music Widening might influence speech understanding, it is set to Off by default. If the telecoil is primarily used for music listening, this may be changed according to the patient's preferences for reverb.



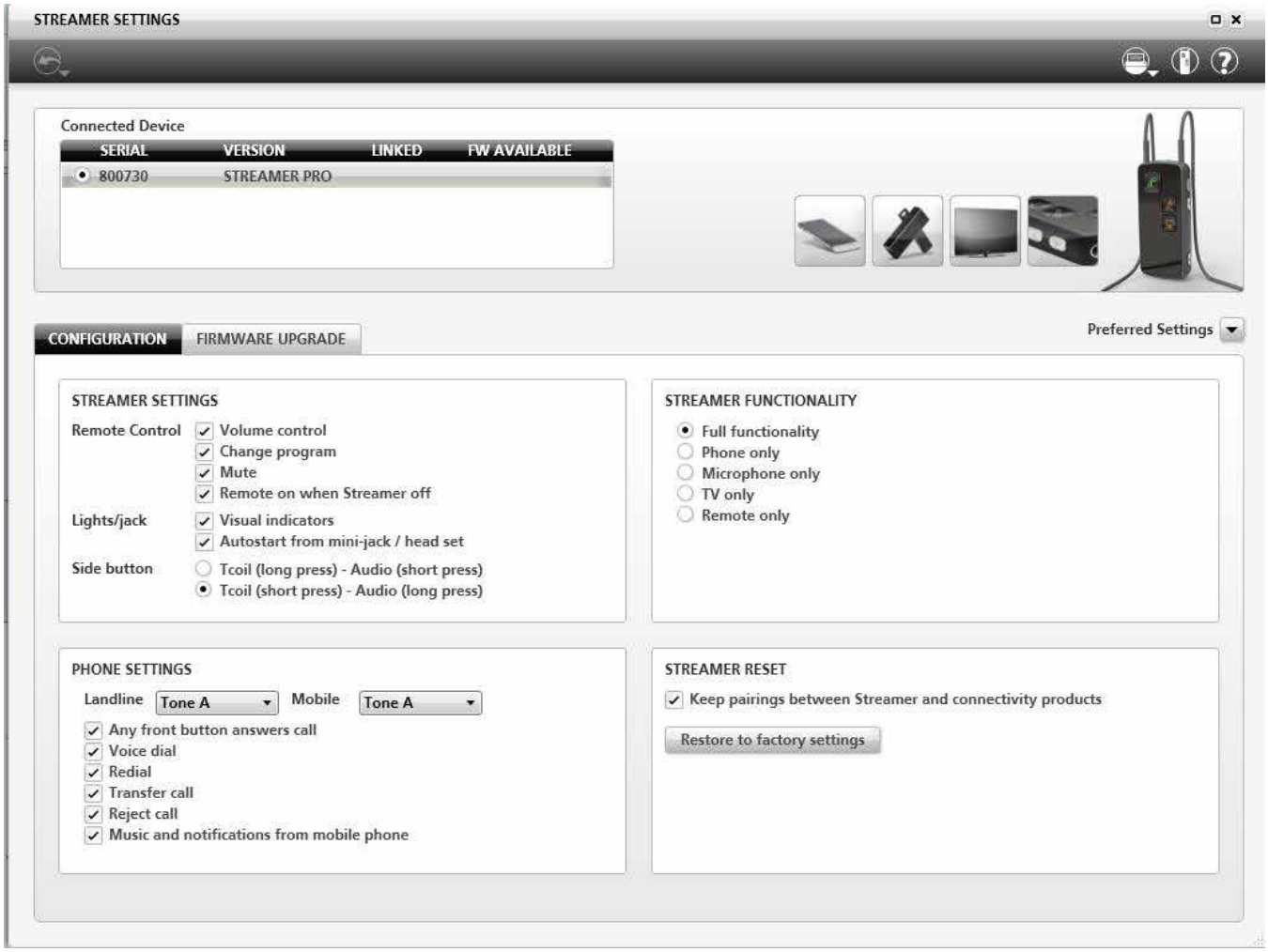
Streamer Settings

This tool lets you configure the Streamer Pro and make firmware upgrades to all Streamers. The tool can be accessed from the ConnectLine Overview screen, the menu bar, and as a stand-alone application from the Windows Start Menu.

The Streamer must be connected via a USB cable to make configurations and firmware upgrades. One or more Streamers can be connected to your PC. When a Streamer is connected, the serial number and Streamer version will be shown in the settings tool.

The Streamer settings are organized in 2 tabs:

- The Configuration tab
- The Firmware Upgrade tab



The Configuration Tab

Note: This tab is only available for Streamer Pro.

Streamer Pro can be customized to the individual user via the Configuration tab. Select which controls and functionalities suit the individual patient's needs to provide them with the best possible solution. The Configuration tab is separated into four windows: Streamer Settings, Streamer Functionality, Streamer Reset and Phone Settings.

Streamer Settings
In this screen, Streamer settings can be individualized for specific patients' preferences. Select the relevant options based on their needs and their combination of Streamer Pro and ConnectLine solutions.

Remote Control
The Up and Down buttons (1) on Streamer Pro can be used for the following purposes:

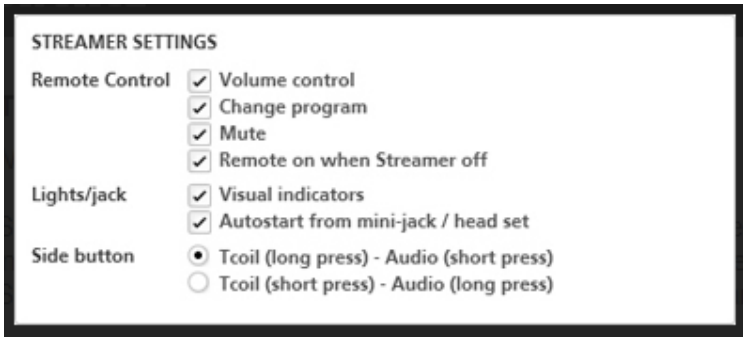
- Volume control (short press)
- Program change (medium press)
- Mute (long press)

Select the functions relevant to your patient. Please note that the Streamer Pro can only be used as a remote control for hearing instruments when not streaming sound from a ConnectLine solution.

Lights/Jack
The front light indicators of the Streamer Pro can be turned on or off (visual indicators).

"Autostart from mini-jack/head set" button will ensure that the Streamer Pro automatically initiates streaming from a device when the mini-jack cable is connected (2).

If "Autostart" is disconnected, the AUX button needs to be pressed to start streaming.

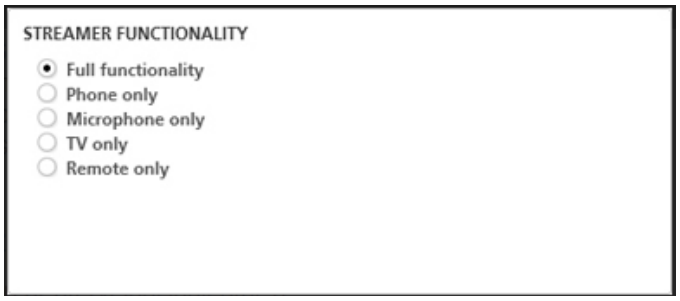


AUX button
The built-in telecoil can be configured to be activated with either a short or long press on the AUX button (3). As default, the telecoil is activated with a long press.

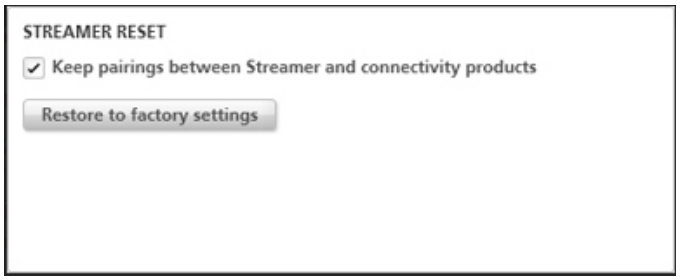
Streamer Functionality
You can choose the functionalities that Streamer Pro should include according to patient preferences:

- Full functionality
- Phone only
- Microphone only
- TV only
- Remote only

By default, Streamer Pro will be set to 'Full functionality' with no restrictions.



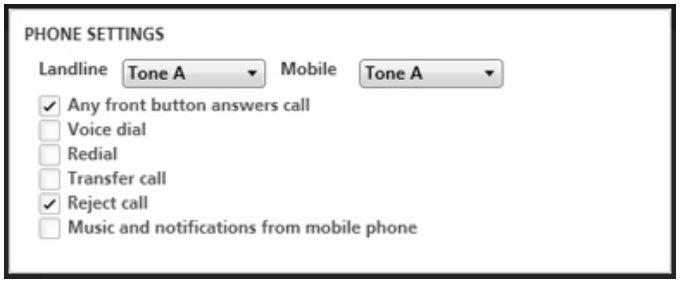
Streamer Reset
All Streamer Pro settings can be restored to factory settings by pressing "Restore to factory settings." This can be done without losing existing pairings to hearing instruments and ConnectLine devices. Other settings and configurations will be cleared.



Phone Settings
With Nera hearing instruments, two different ringtones can be chosen. This makes it possible for the patient to differentiate between a call from a landline phone and a call from a cell phone. By default, both ring tones will be the same.

The Streamer Pro buttons can be programmed to have different functionalities when using a cell phone:

- Any front button answers call
- Voice dial (short press phone)
- Redial
- Transfer call
- Reject call
- Music and notifications from cell/mobile phone (notifies the user about, e.g., text messages or calendar reminders via beeps in the hearing instruments)



The Firmware Upgrade Tab

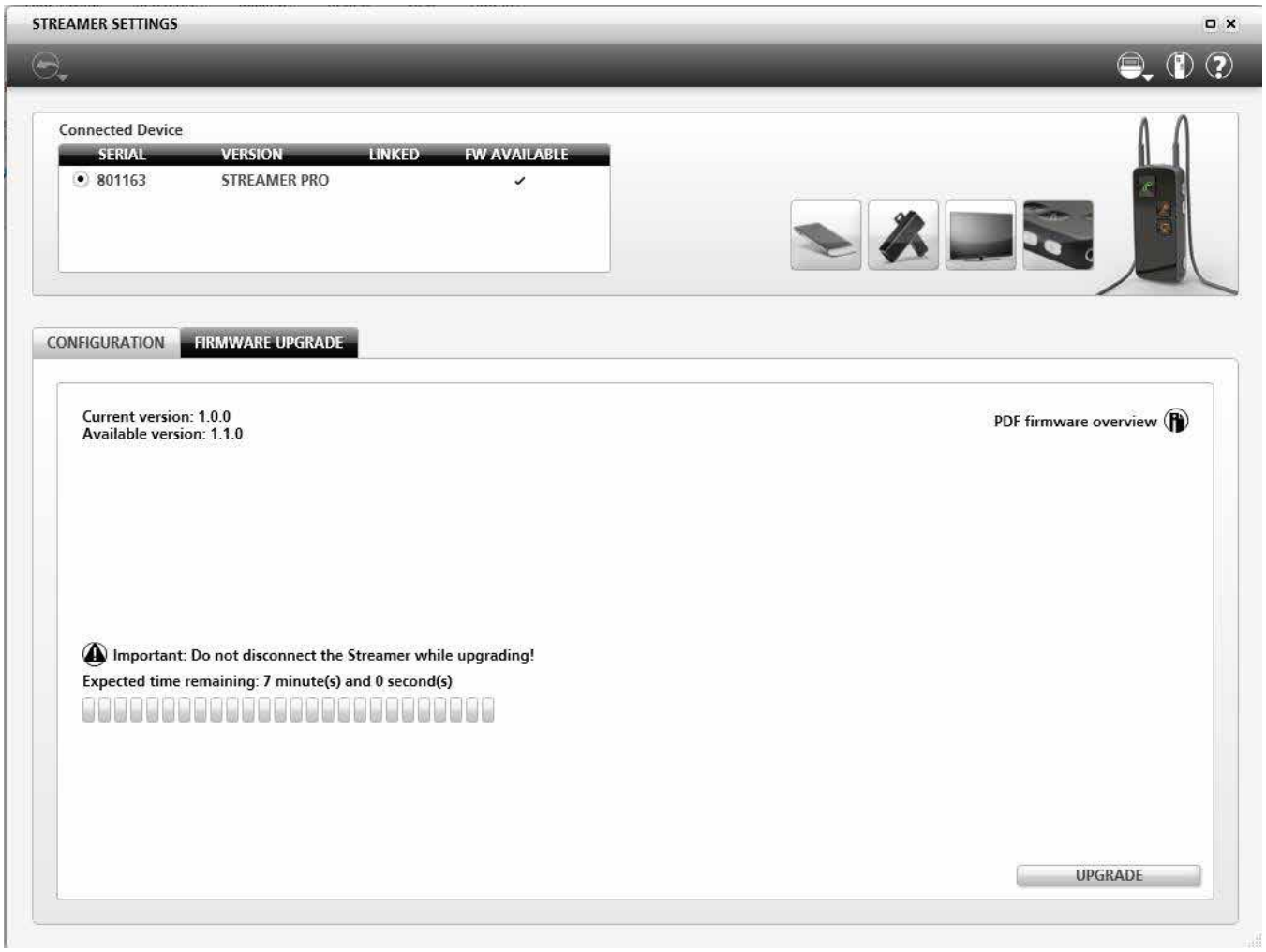
The Upgrade tool allows for upgrading first generation Streamer and Streamer Pro directly from Streamer Settings. This ensures that the patient has the latest Streamer features and functions. From the Firmware Upgrade, an overview of released features with the respective firmware version can be found.

Upgrading
To upgrade a Streamer's firmware, please ensure that it is connected and charged.

Before you begin, please note:

- The upgrade may take up to 20 minutes for the first generation Streamer, during which time you cannot close the Upgrade Tool
- Do not disconnect the USB cable during the upgrade
- Do not let your computer go into standby or shut down during the upgrade
- If you are using a laptop, run it on AC power during the upgrade

Click Upgrade to start upgrading the firmware in the Streamer.



People First

People First is our promise
to empower people
to communicate freely,
interact naturally and
participate actively

XXXXXX / 04.10

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PEDIATRICS