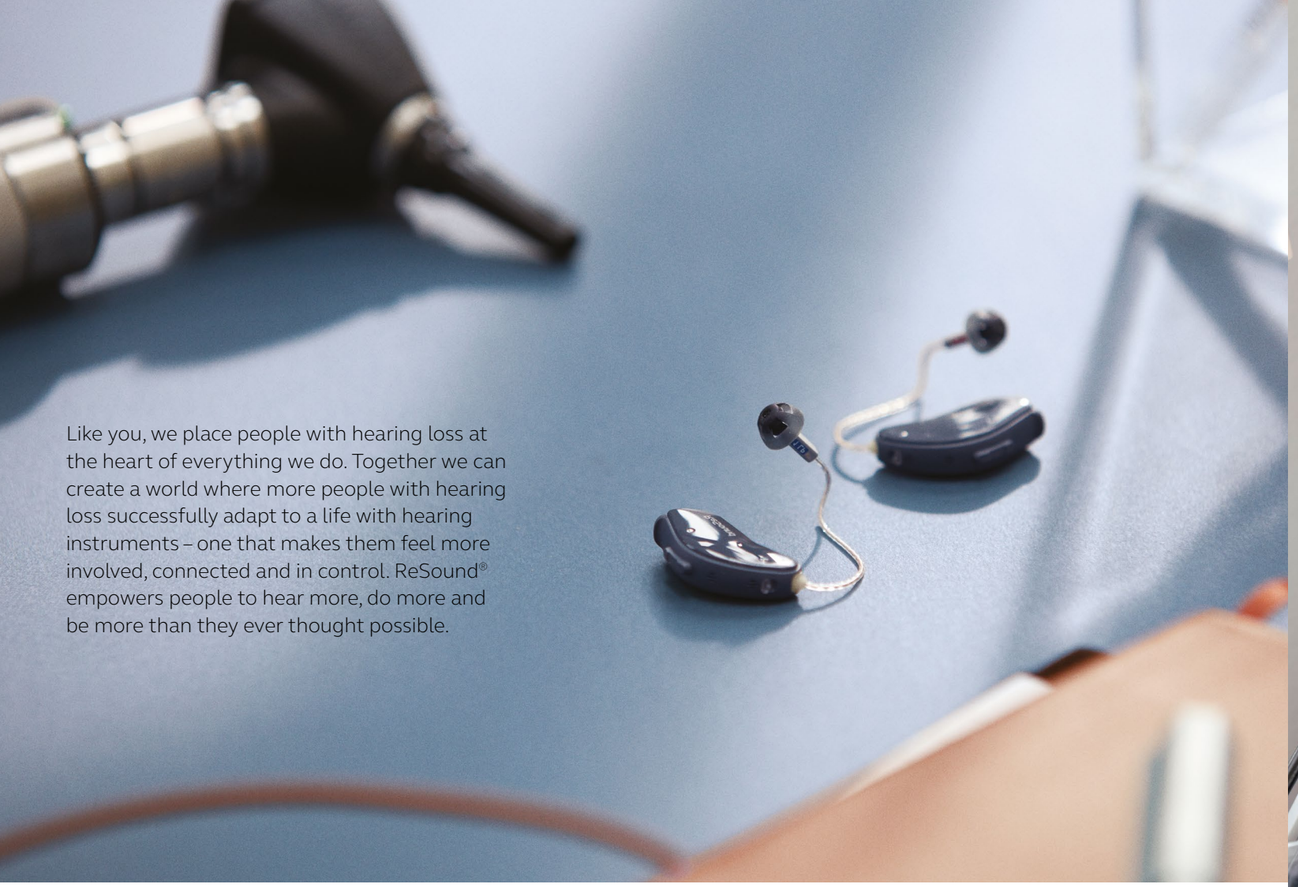

Like you, we place people with hearing loss at the heart of everything we do. Together we can create a world where more people with hearing loss successfully adapt to a life with hearing instruments – one that makes them feel more involved, connected and in control. ReSound® empowers people to hear more, do more and be more than they ever thought possible.

ReSound is part of the GN Group – pioneering great sound from world-leading ReSound hearing aids to Jabra office headsets and sports headphones. Founded in 1869, employing over 5,000 people, and listed on NASDAQ OMX Copenhagen, GN makes life sound better.

Find out how you can help your patients get the most out of their hearing experiences with ReSound LiNX 3D at **resoundpro.com.**

resoundpro.com **facebook.com/resoundhearing** **twitter.com/resoundus** **youtube.com/resoundus**

Manufacturer according to FDA:

GN ReSound North America
8001 E Bloomington Freeway
Bloomington, MN 55420
USA
1.800.248.4327
resoundpro.com

ReSound Government Services
8001 E Bloomington Freeway
Bloomington, MN 55420
USA
1.800.392.9932
resound.com/governmentservices

Manufacturer according to Health Canada:

ReSound Canada
2 East Beaver Creek Road, Building 3
Richmond Hill, ON L4B 2N3
Canada
1-888-737-6863
resoundpro.com

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ReSound LiNX 3D™

ReSound LiNX 3D fitting guide

A guide for professionals

GN Making Life Sound Better

Smart Hearing

First Fitting with ReSound Smart Fit™

This fitting guide gives an overview of how to fit ReSound LiNX 3D wireless hearing instruments with ReSound Smart Fit. A ReSound LiNX 3D 961-DRW wireless binaural fitting is depicted. Not all features described in this fitting guide are applicable for ReSound LiNX 3D 7 and 5 fittings.

ReSound Smart Fit fitting software supports all ReSound LiNX 3D hearing instruments.

Prior to connecting to ReSound Smart Fit

ReSound hearing instruments require fresh batteries when fitting. Remove the stickers from the batteries to activate. Wait for two minutes before using the batteries for best results.

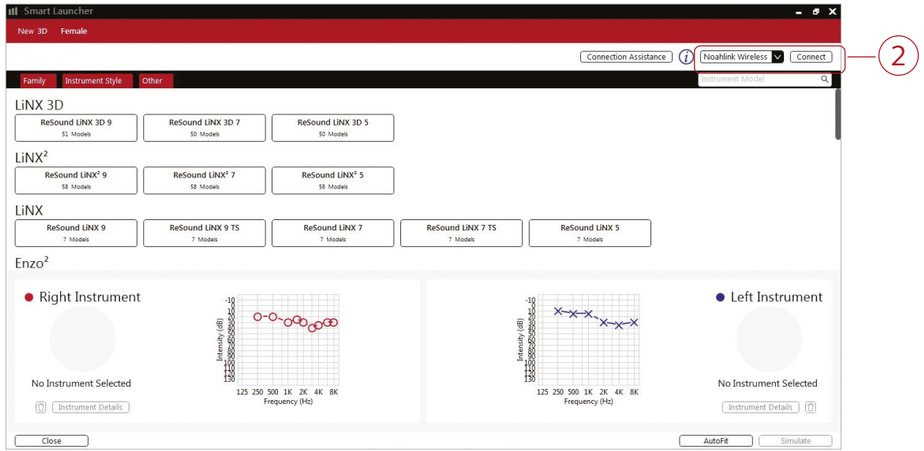
- Wireless fittings: Insert a Noahlink Wireless in a USB slot on the fitting computer.
- Wired fittings: Ensure that the programming interface (Speedlink, Hi-PRO USB or NOAHlink) is connected.

Launch ReSound Smart Fit. For new fittings, ReSound Smart Fit opens to the Smart Launcher.

Smart Launcher

Both ReSound Aventa and ReSound Smart Fit are contained within one software installation. The Smart Launcher will detect both ReSound LiNX 3D and legacy instruments, and then retrieve the software appropriate for the connected device(s).

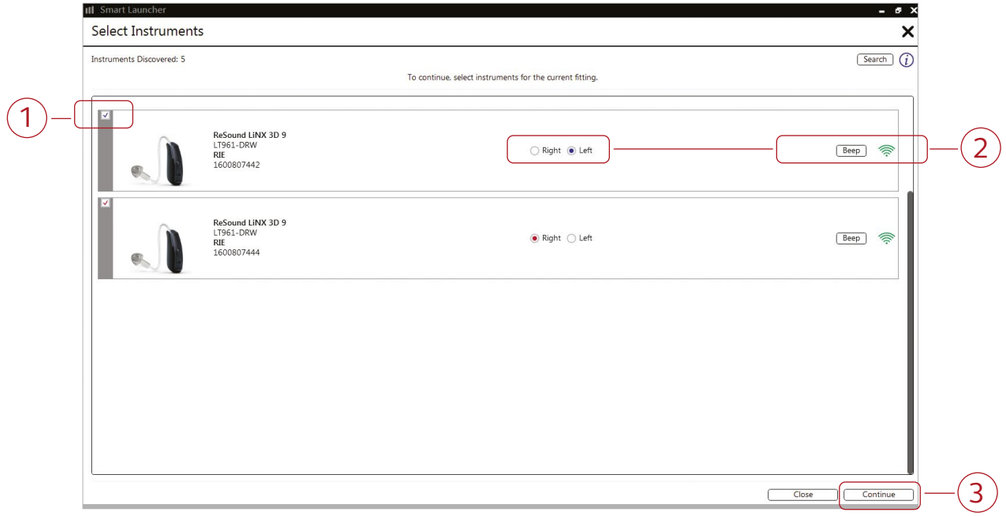
1. Insert the battery, wait two minutes and close the battery door of each hearing instrument to be programmed.
2. Click “Connect” in the upper right of the Launcher screen.



Select Instruments

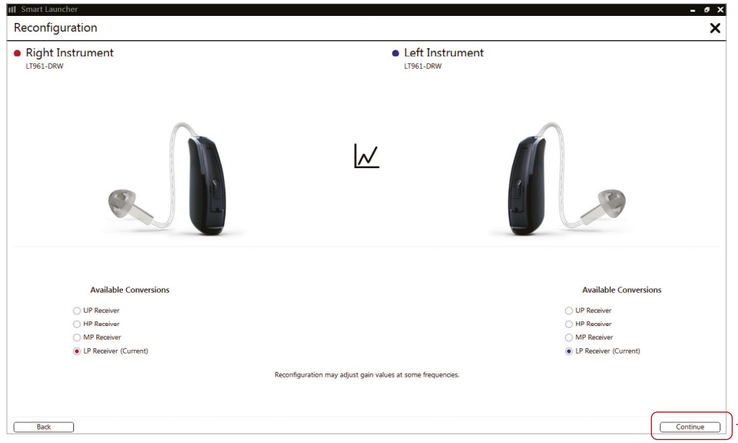
The hearing instruments will appear in the “Select Instruments” section.

1. Once the hearing instruments have been identified as right and left, click “Continue,” located at the bottom right of the screen.

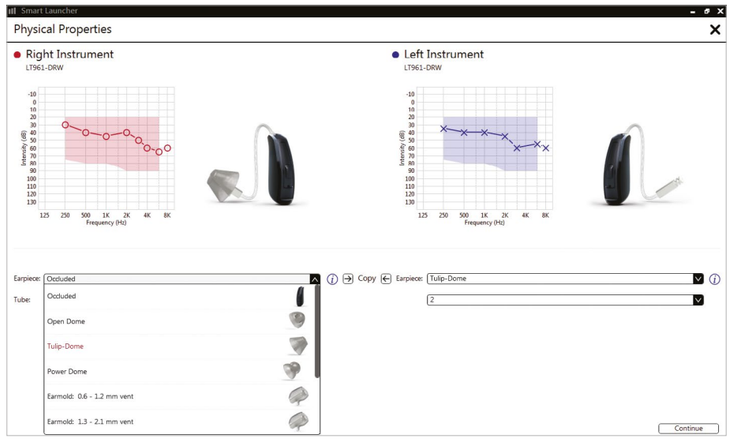


Connection Flow

1. Select instrument configuration and click “Continue.”

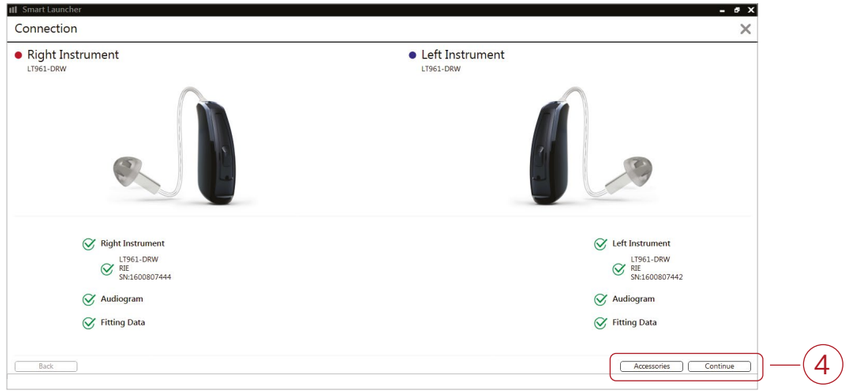


2. Select the appropriate physical properties for each hearing instrument and click “Continue.”



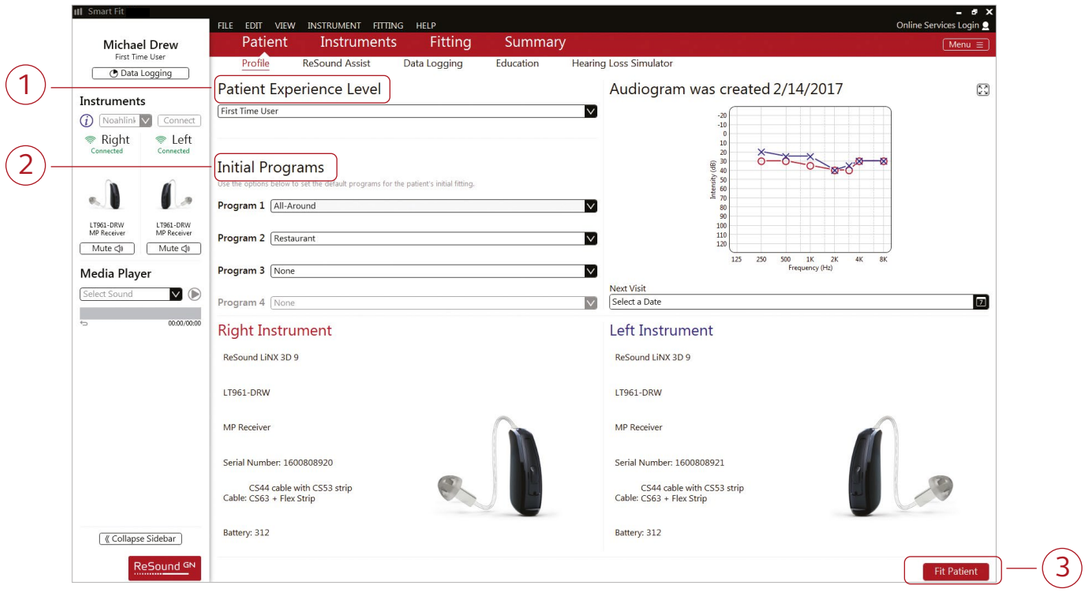
3. Calibration of the hearing instruments is required in order to activate DFS Ultra II. Inform your patient that he or she will hear a buzzing sound and should sit still and quiet during calibration. Click “Calibrate” in the lower right corner. When calibration is complete, click “Continue.”

4. Confirm connected hearing instruments. Click “Continue” to proceed to the Patient Profile screen or or click “Accessories” to pair accessories. For further instruction, see the Pairing Accessories Section in this guide.



Patient Profile Screen

1. Select the Patient Experience Level based on the amplification history.
2. Set the desired programs to be used in the initial fit.
3. Click “Fit Patient” in the lower right corner to move to the Fitting Screen.



Fitting Screen

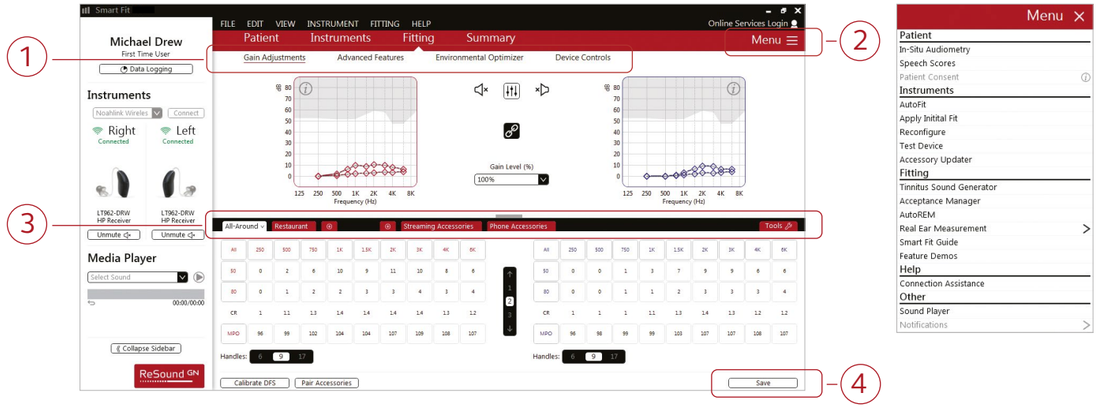
On the Fitting screen, adjustments can be made to gain, advanced features, and more.

1. Access to hearing instrument controls are also found on the fitting screen. The tabs below the red navigation bar provides access to these tools.

2. Additional tools and features can be found in the upper right menu.

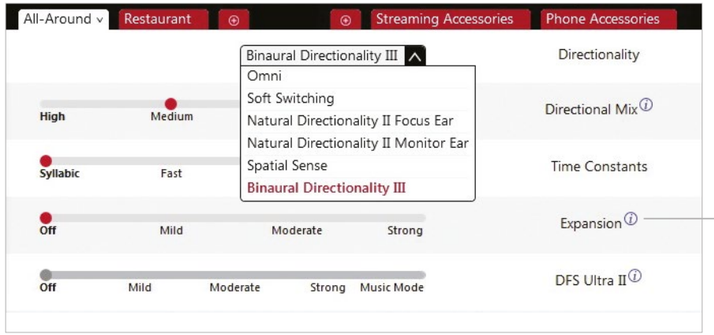
3. Programs are listed in the program tabs. Select the “+” to add additional programs. Program tools can be found in the tab on the far right.

4. Click “Save” to save the fitting to the hearing instruments and database.



Advanced Features

Advanced feature settings can be modified by selecting the appropriate drop down menu or by moving the slider to the desired level. These feature settings apply only to the currently selected program.



Note The information icons provide a short explanation of the feature. Some information may include links to an in-depth explanation or video.

Directionality

Binaural Directionality III uses ReSound’s 2.4 GHz wireless technology to allow the hearing instruments to work together, dynamically selecting the best microphone response for the listening environment. Possible configurations are bilateral omnidirectional, bilateral directional or an asymmetric omnidirectional and directional response, depending on the analysis of speech and noise detectors from both hearing instruments. This provides the optimal combination of speech understanding in noise plus a more natural sense of surroundings.

Natural Directionality II: The Focus (directional) ear and Monitor (omnidirectional) ear are prescribed based on the audiogram and any speech audiometry data that may be available.

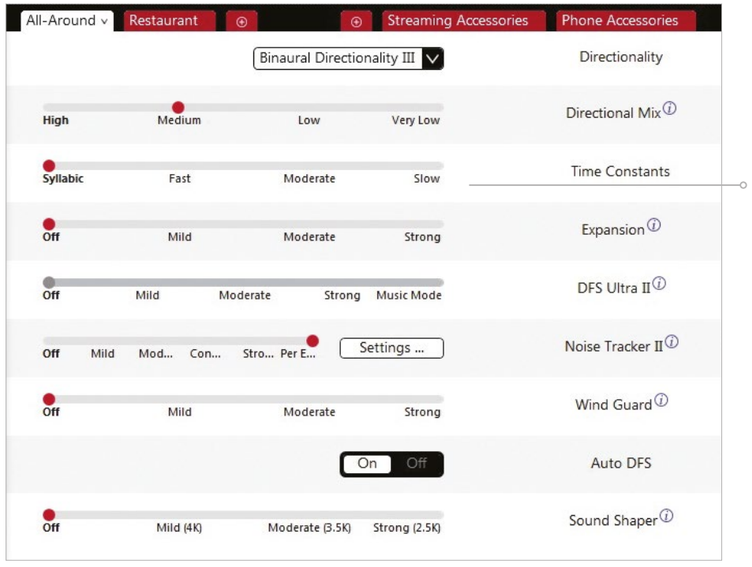
Spatial Sense: An omnidirectional microphone response mimics the human ear’s natural response to sound, which preserves spatial cues and helps with the localization of sound sources.

Softswitching: Seamlessly enables and disables AutoScope/MultiScope Adaptive Directionality™ depending on the listening environment. The response can be either omnidirectional or directional, based on whether noise is present and the direction of speech in the listening situation.

AutoScope: Adaptive Directionality enables the beam width to automatically widen or narrow depending on the acoustic surroundings.

Directional Mix

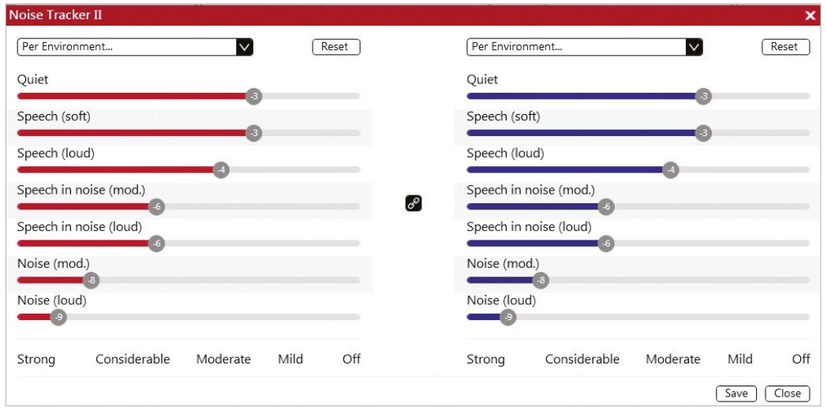
All directional microphone modes have both omnidirectional and directional processing through the frequency spectrum. The setting determines the degree of directionality in the output of the hearing instrument(s). Directional Mix applies omnidirectional processing below a crossover frequency and directional processing above that frequency. The default setting is prescribed depending on the hearing instrument model selected and the degree of low frequency hearing loss. If the patient is still experiencing difficulty hearing in noise, increasing the directional mix may help.



Access additional Advanced Features by either scrolling down or pulling up the Advanced Features section.

DFS Ultra II

This is the feedback control. It is activated when the hearing instruments have been calibrated. The default setting is Mild. Adjust the setting to a stronger level (Moderate or Strong) if concerns of feedback arise. The Music Mode default is a Mild setting, typically used for music programs or if the patient experiences feedback only when tonal sounds occur (for example, from a musical instrument).



NoiseTracker II

NoiseTracker II uses spectral subtraction to reduce noise between words and syllables in many real-world noisy environments. The Per Environment setting allows for personalized noise reduction settings in seven environments. These environments include Quiet, Soft Speech, Loud Speech, Moderate Speech in Noise, Loud Speech in Noise, Moderate Noise and Loud Noise. Classification is performed on a continuum if the listening situation has characteristics of more than one listening environment. If a patient is reporting specific issues such as having difficulty hearing conversation in restaurants, the hearing care professional can increase the NoiseTracker II setting only for restaurant-like environments using Moderate Speech in Noise or Loud Speech in Noise. This maintains the settings for other environments, allowing for fitting precision and personalization. Alternately, the Mild, Moderate, Considerable and Strong settings of NoiseTracker II apply the same level of noise reduction for all listening environments, when noise is present.

WindGuard

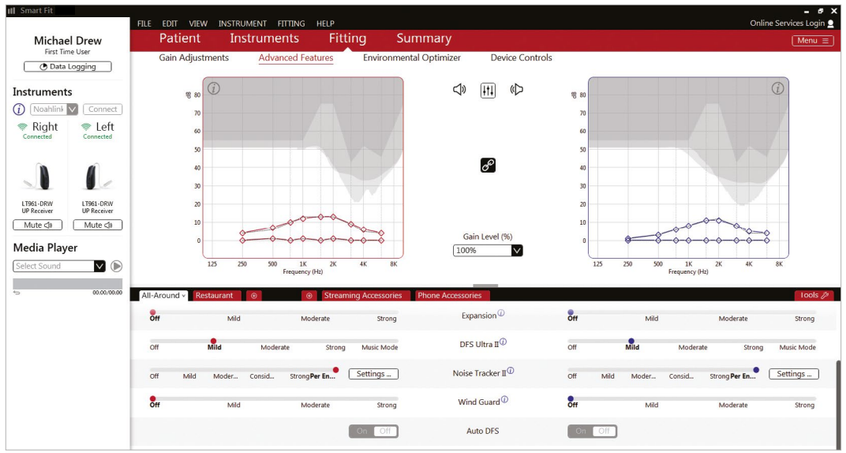
WindGuard applies noise reduction specifically for windy situations. The default setting is Off. If a patient is experiencing too much wind noise, increase the setting to a stronger level. If the patient experiences the hearing instrument quieting occasionally in outdoor situations, reduce the setting to a milder level.

Auto DFS

Auto DFS is a feedback control setting that is activated automatically before the hearing instrument has been calibrated for DFS Ultra II. Once DFS Ultra II has been calibrated, this setting is grayed out, and cannot be reselected unless the hearing instrument has been restored to factory settings. Auto DFS is designed for use when a patient is unable to return to the clinic for the fitting and the hearing instrument is instead shipped to the patient from the hearing care professional. It applies a mild level of feedback cancellation, but as it has not been calibrated for the patient's ear, it may not be as effective at controlling feedback as a Mild setting of DFS Ultra II.

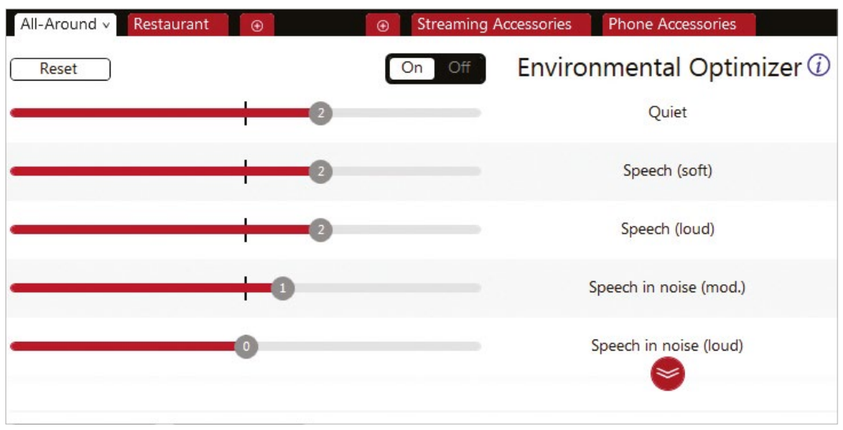
Sound Shaper

Sound Shaper applies proportional frequency compression to the fitting. Higher frequencies are lowered to a more usable or audible range for the patient. As patient candidacy criteria for the use of frequency lowering is based on many factors, the default setting is Off. However, if the hearing care professional perceives the patient could benefit from frequency lowering, in the case of continued difficulties with speech recognition or previous success with frequency lowering features, Sound Shaper can be activated.



Low Frequency Boost

Should a patient with an Ultra Power (UP) hearing instrument state that the sound is not full enough or loud enough, low frequency boost is a quick way to increase the low frequency gain from 250 – 1000Hz.



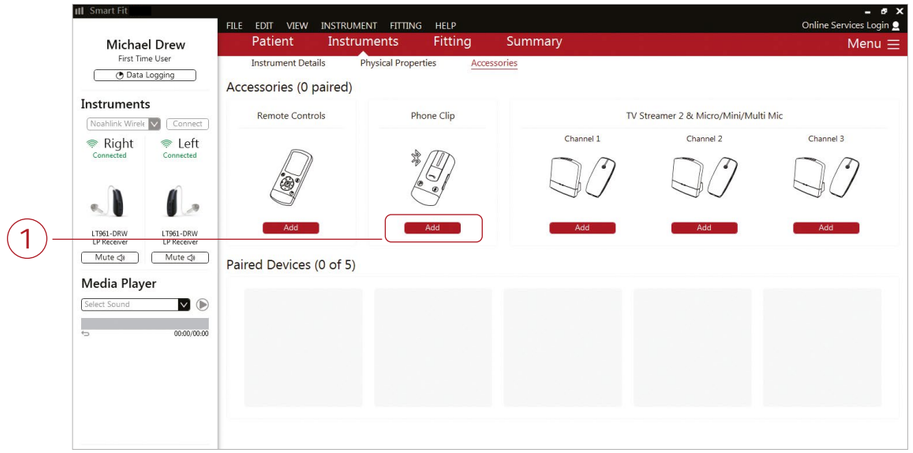
Environmental Optimizer II

Environmental Optimizer II allows specific gain and NoiseTracker II adjustments for seven different environments, ensuring the user receives optimal gain and noise reduction settings as the acoustic environment changes. Classification is performed on a continuum if the listening situation has characteristics of more than one listening environment. With binaurally fit wireless devices, the hearing instruments will optimize and synchronize the Environmental Optimizer II settings for a binaural fitting. If a patient experiences difficulty in a particular listening environment, adjust the sliders to assign environment specific gains without requiring a manual program change.

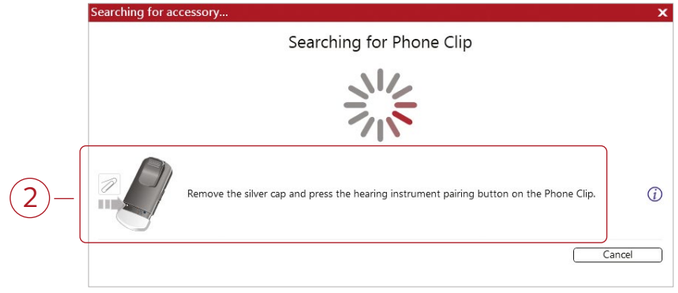
Pairing Wireless Accessories

Accessories can be accessed in the final step of the connection flow, at the bottom of the Fitting screen or in the Accessories tab in the Instruments navigation menu. All accessories must be charged or plugged in, and turned on during the pairing process.

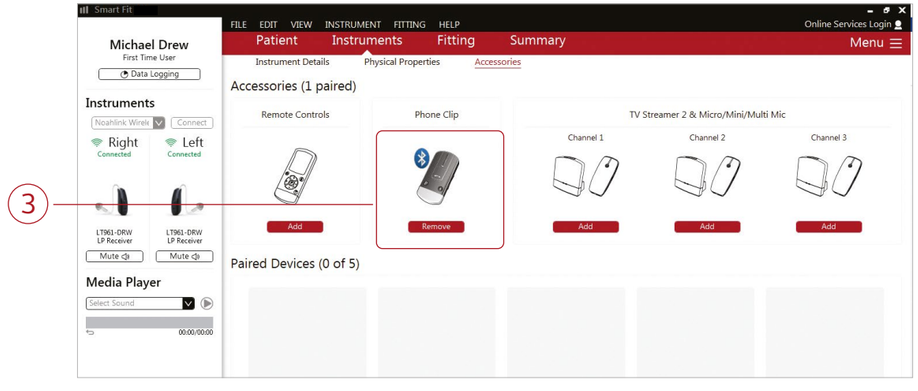
1. Click “Add” beneath the accessory to be paired.



2. Once the searching pop-up message appears, press the pairing button on the accessory with a small pointed object such as a pen tip or paper clip. Follow the pairing instructions displayed.



3. When the accessory is successfully paired, the accessory image will appear in color. The “Add” button will change to a “Remove” button.



Completing a follow-up fit with ReSound Smart Fit

Prior to connecting to ReSound Smart Fit

ReSound hearing instruments require fresh batteries when fitting. Remove the stickers from the batteries to activate them. Wait for two minutes before using the batteries for best results.

- Wireless fittings: Insert a Noahlink Wireless in a USB slot on the fitting computer. It is not possible for Noahlink Wireless to connect to hearing instruments that are actively connected to a smart device via Bluetooth. Ensure that the hearing instruments do not have an active Bluetooth connection to a smart device. This can be done by having patients turn off their smart devices or disable Bluetooth during visits. If an active connection to Bluetooth is detected, ReSound Smart Fit will provide a reminder to deactivate the connection with the smart device.
- Wired fittings: Ensure that the programming interface (Speedlink, Hi-PRO USB or NOAHlink) is connected to the fitting computer before launching ReSound Smart Fit.

Launch ReSound Smart Fit. For follow-up fittings, the software that was used in the previous fitting will launch.

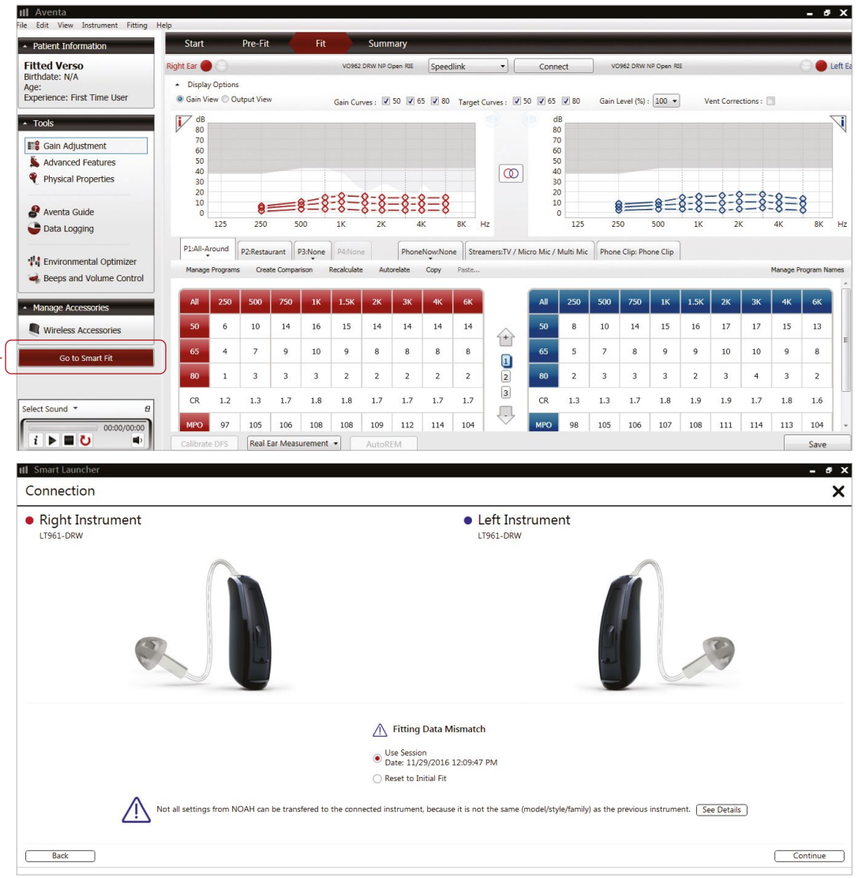
Upgrading a patient from legacy hearing instruments to ReSound LiNX 3D

ReSound Aventa

If the patient has an existing hearing instrument fit in ReSound Aventa, then ReSound Aventa will open when you begin a new fitting.

1. Click the “Go to Smart Fit” button in the left navigation panel to close ReSound Aventa and arrive at the Smart Fit Launcher.
2. Follow steps in the “First Fitting” section of this guide.

ReSound LiNX 3D hearing instruments cannot be fit using ReSound Aventa software.



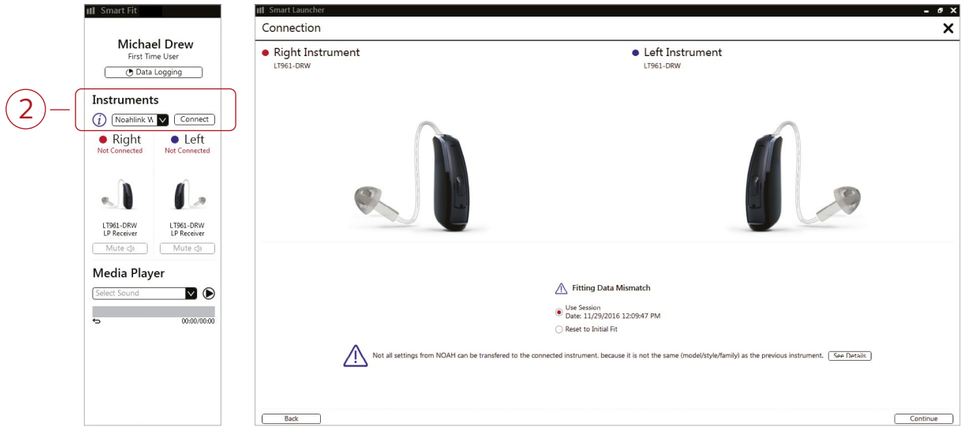
Note: To transfer settings from a previous fitting to a ReSound LiNX 3D fitting, select “Use Session” in the Fitting Data Mismatch screen of the connection flow. To start a new fitting, choose “Reset to Initial Fit.”

Replacing one hearing instrument in a pair

Connecting during a follow-up

When returning for a follow-up visit, the software will open to the last saved session. Depending on the saved preferences, the session will open to either the Patient Profile screen or the Fitting Gain Adjustments screen.

1. Insert the battery, wait two minutes and close the battery door of each hearing instrument to be programmed.
2. Select the desired programming interface and click “Connect” in the collapsible side bar panel.
3. The hearing instruments will appear in the “Select Instruments” window. When the hearing instrument to be programmed has been identified, check the box on the left.
4. The hearing instrument that has already been programmed for this patient will be assigned to the right or left side. When the other hearing instrument is selected, it will automatically be assigned to the opposite side. Click on “Beep” to confirm each hearing instrument selected is assigned to the correct side.
5. Click “Continue” in the lower right corner of the screen once the hearing instruments are selected and assigned.
6. The connection flow will continue. Follow the steps in the “First Fitting” section of this guide.



Note: To transfer settings from the previous session to the replaced hearing instrument, select “Use Session” in the Fitting Data Mismatch screen of the connection flow. To start a new fitting, choose “Reset to Inital Fit.”

How to Complete a ReSound Assist Fine-Tuning

This guide provides an overview of how to perform a remote fine-tuning adjustment with ReSound Smart Fit fitting software and the ReSound Smart 3D app. A ReSound LiNX 3D 961-DRW wireless binaural fitting is used as the example. Please note that not all features described in this guide are applicable to ReSound LiNX 3D 7 and 5 fittings.

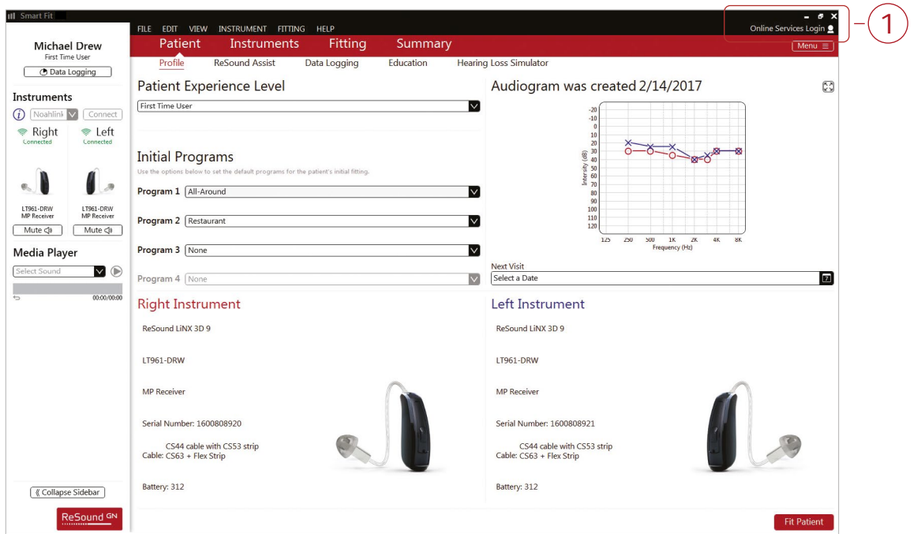
Getting Started

Connect hearing instruments to the ReSound Smart Fit software. For further assistance, refer to page 3 of this guide. From the Patient Profile screen, sign in to GN Online Services.

GN Online Services

In order to sign in, the hearing care professional must be a registered user of GN Online Services.

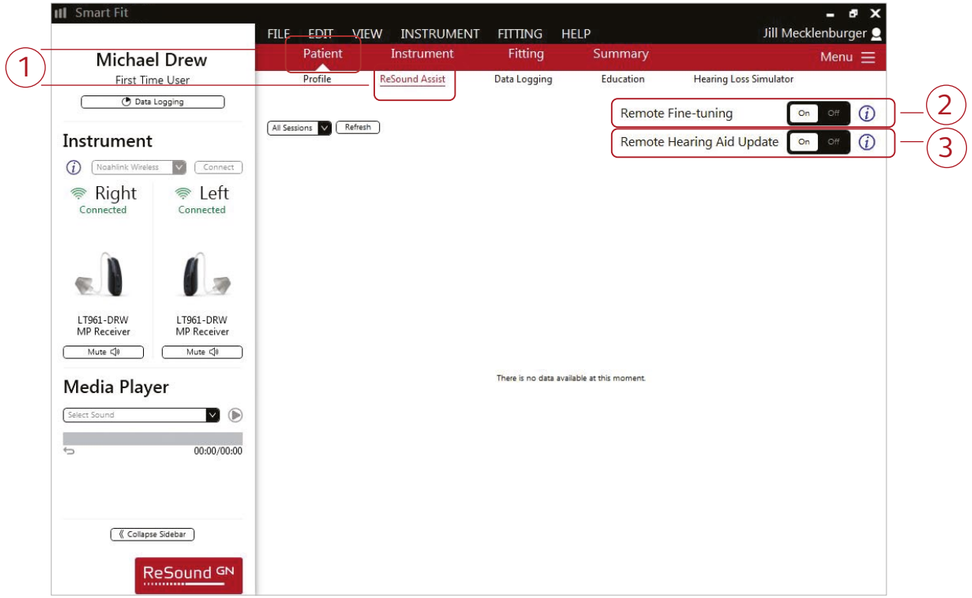
1. Enter the username and password assigned to the hearing care professional to login to GN Online Services.
2. After login, the name of the hearing care professional will appear in the upper right corner of the fitting screen.



For more information on GN Online Services, see the GN Online Services Guide.

Activate Remote Fine-tuning

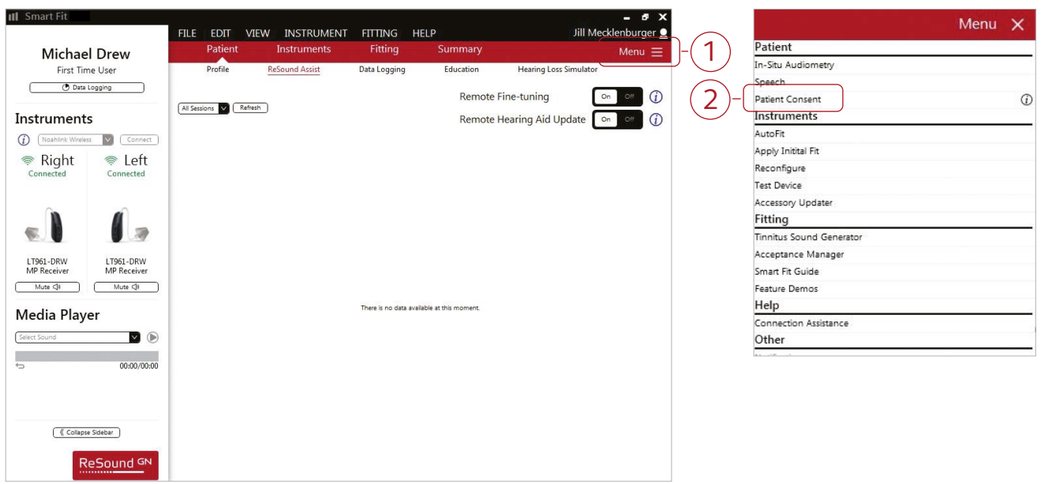
1. From the Patient screen, select ReSound Assist from the lower navigation row.
2. Click the “On” toggle to activate Remote Fine-tuning.
3. Also click the “On” toggle for Remote Hearing Aid Update to allow the patient to receive remote hearing instrument updates, in the event ReSound releases an update.



Select Patient Consent from Menu

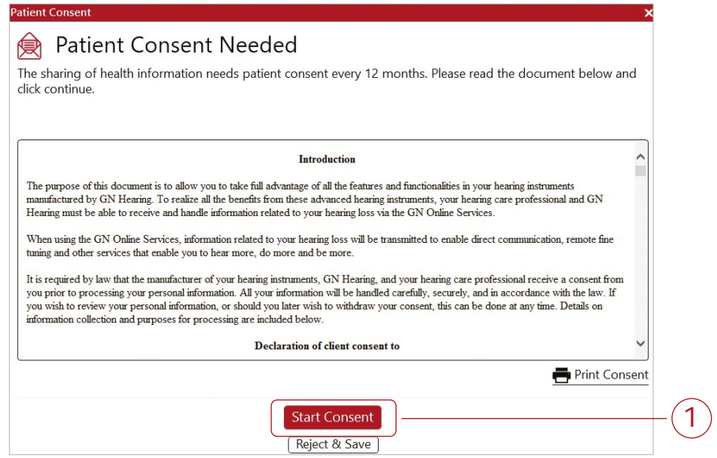
To utilize ReSound Assist, the patient must complete a one-time consent form before becoming eligible to receive Remote Fine-tuning or Remote Hearing Aid updates.

1. Click on the “Menu” button below the hearing care professional’s name.
2. Click on the “Patient Consent” option to begin the consent procedure.

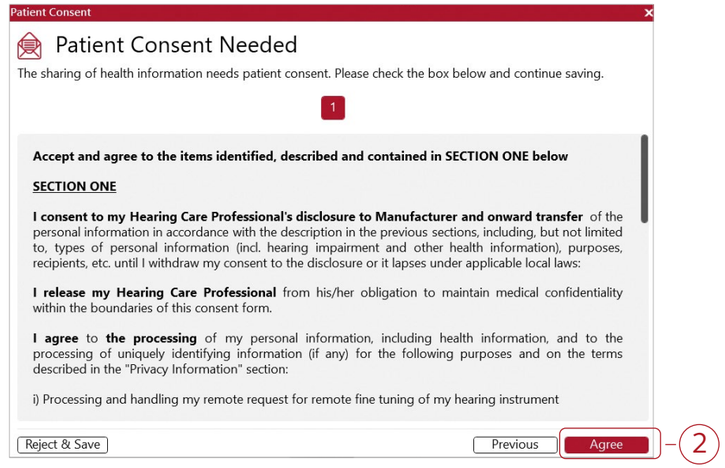


Activate Consent

1. Click “Start Consent.”

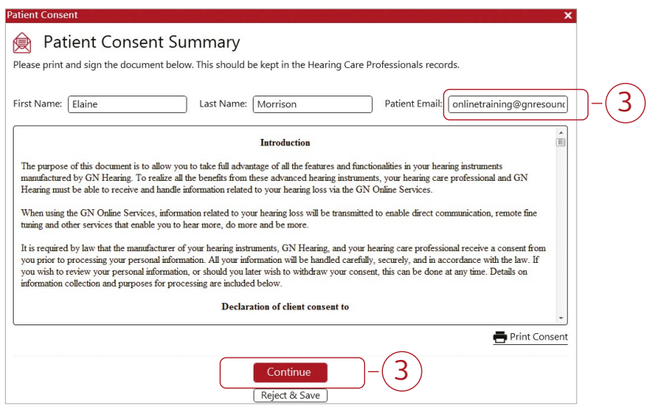


2. Click “Agree” on each page of the consent process.



3. Enter the patient’s name and email address. Click “Continue” to send a copy of the consent agreement.

Should the patient not have an email address, the hearing care professional’s email address may be used. Use the “Print Consent” button to print a copy for the patient. Keep a signed copy in the patient’s record.



Move Cloud Icon to Taskbar

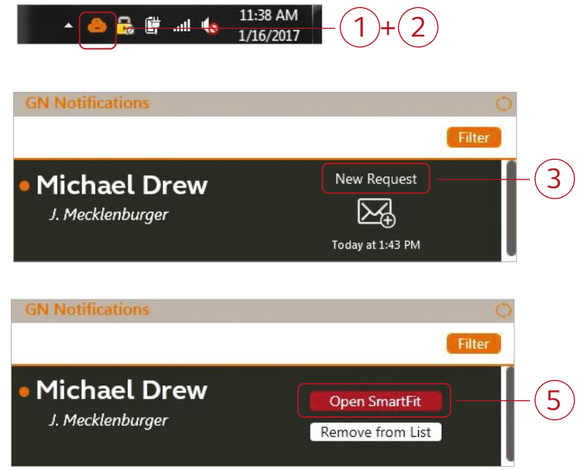
The orange cloud icon should be visible in the taskbar so that the hearing care professional is notified when requests for assistance are received. If it is not already visible then:

1. Click on the upward arrow in the taskbar in order to view the hidden icons.
2. A window will appear which contains the orange cloud icon for GN Online Services.
3. Click and drag the cloud icon to the taskbar.
4. The cloud icon will now appear in the taskbar as shown.

Receiving an Assistance Request from a Patient

Notification of Assistance Request

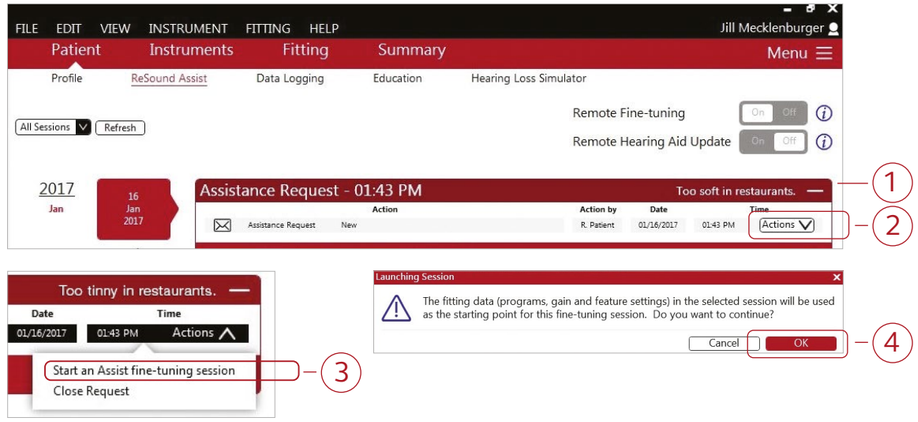
1. The number of requests received will appear in the cloud icon in the taskbar.
2. Click on the cloud icon to open the GN Notifications box. A list will appear if more than one request is received.
3. Click on “New Request.” The options to either “Open Smart Fit” or “Remove from List” will appear.
4. If “Remove from List” is selected, the request is deleted from the Notification Tray, but will still appear on the Patient’s Timeline in ReSound Smart Fit.
5. Click on “Open Smart Fit” to go directly to the Timeline within ReSound Assist for that particular patient.



You will also receive email notifications for ReSound Assist requests for patients assigned to you in GN Online Services. To deactivate email notifications, go to the Patient section in GN Online Services.

Starting an Assist Fine-tuning Session from the Timeline

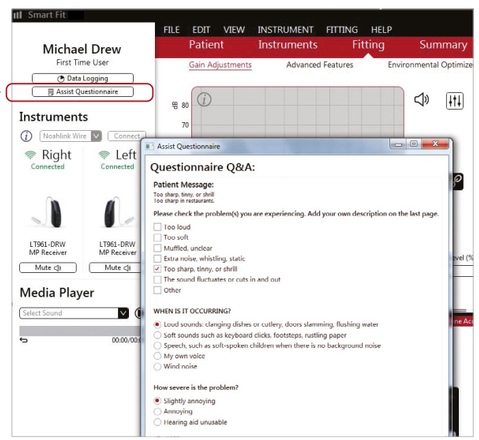
1. The Assistance Request will now appear on the patient's Timeline in the ReSound Assist screen.
2. Click on "Actions" to select either "Start an Assist fine-tuning session" or "Close Request."
3. Click "Start an Assist fine-tuning session."
4. A pop-up message will appear stating the selected session will be used as the starting point for the Assist session. Click "OK" to continue.



View Patient's Assist Questionnaire

There are two ways to view the Assist Questionnaire sent by the patient via the ReSound Smart 3D app:

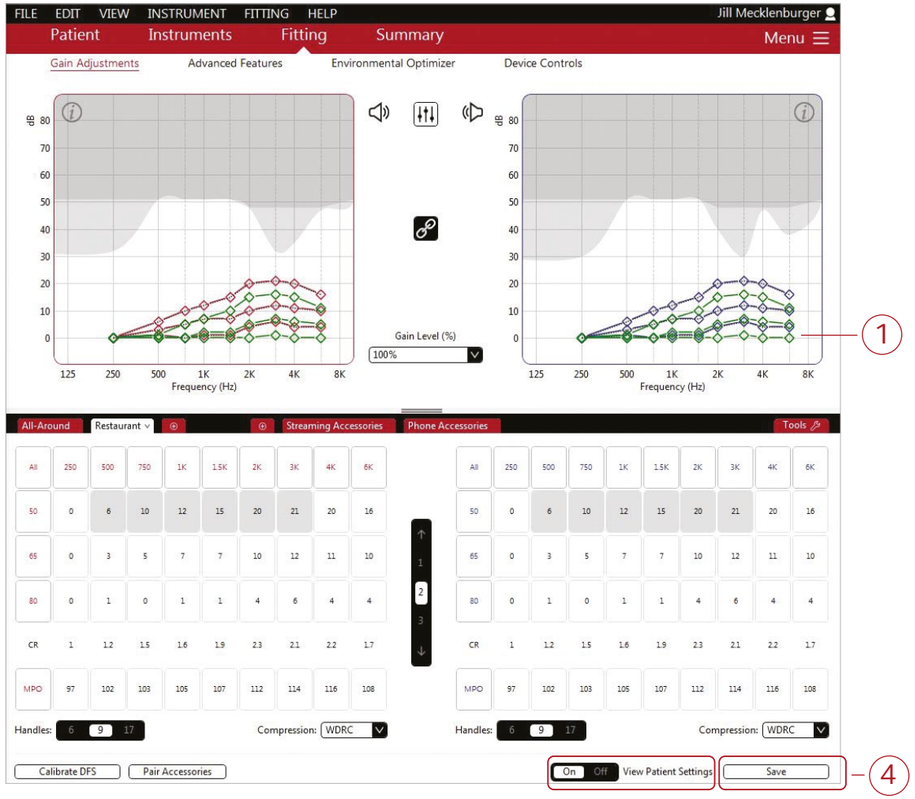
1. Click the "Assist Questionnaire" box beneath the Data Logging box in the Sidebar. This will expand the questionnaire and enable it to be moved around the fitting screen during fine-tuning adjustments.
2. Click the "Assist Questionnaire" which will appear after "Message from patient" in the Assistance Request on the Timeline. This will expand the questionnaire for viewing.



View Patient's Preferred Settings

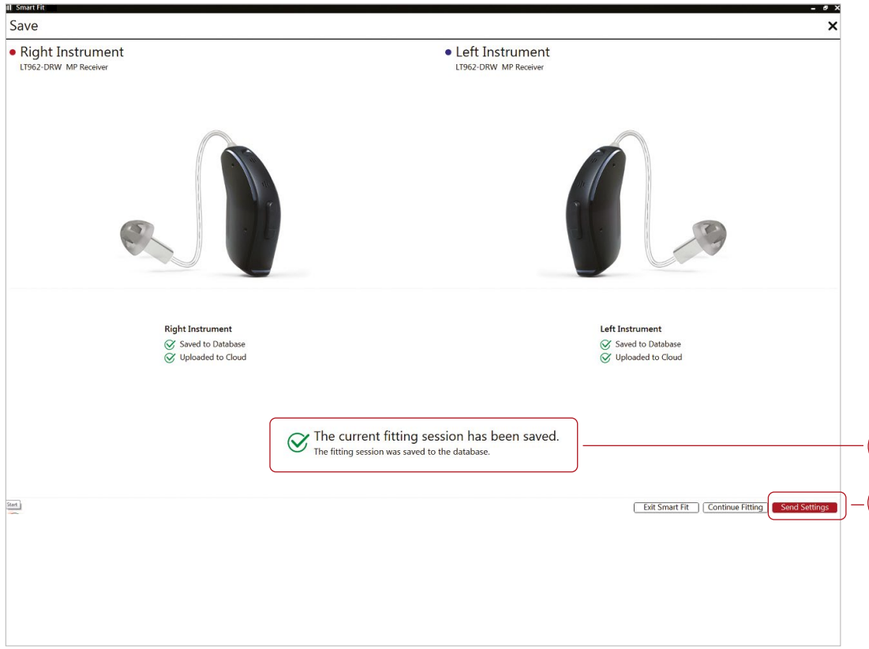
Click the "On" toggle for View Patient Settings at the bottom right of the Fitting screen. This will enable viewing of the patient's preferred settings in the app.

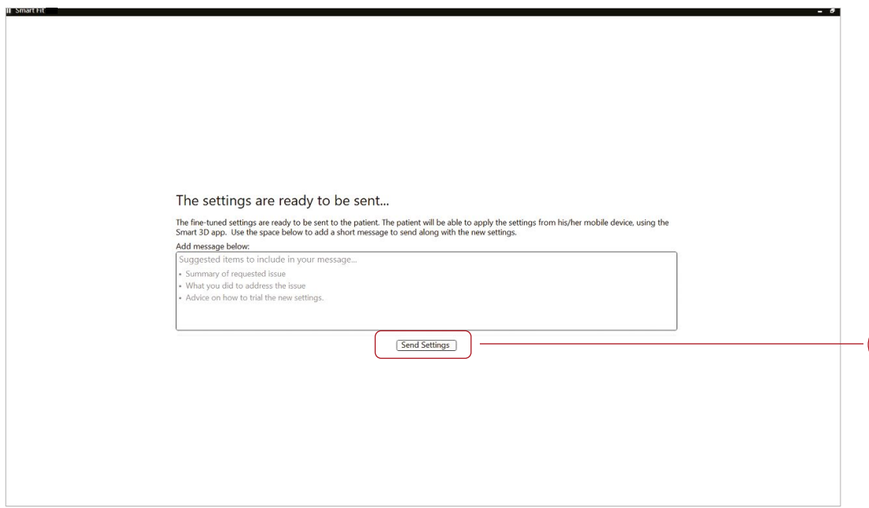
1. In the Gain Adjustments screen, the patient's preferred settings are represented as green symbols.
2. In the Advanced Features screen, the patient's preferred settings are represented as gray dots.
3. Fitting adjustments can be made from this information as well as from the Assist Questionnaire. (See "View Patient's Assist Questionnaire" in the previous section)
4. After making necessary adjustments, click "Save" in the lower right corner of the Fitting Screen.



Prepare to Send Package

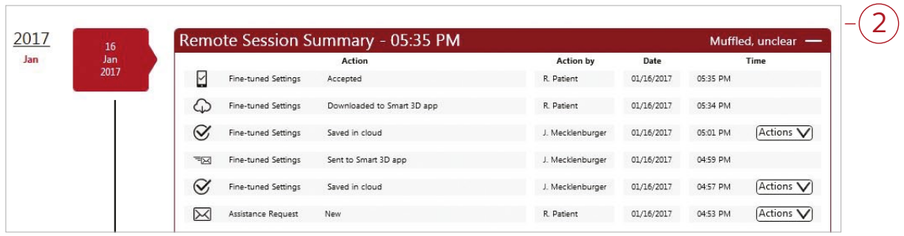
1. After saving in the Fitting screen, a message will appear stating that the current fitting session has been saved.
2. Click “Send Settings” in the lower right corner.
3. A free text screen will appear. This allows the hearing care professional to compose a message to the patient. A summary of the changes can be included if desired. Click “Send Settings” again.





Confirmation of Settings Sent

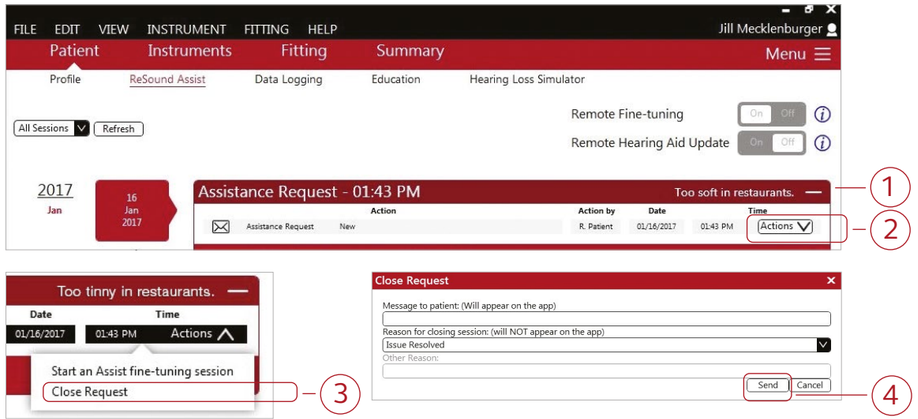
1. After sending the new settings to the patient, a message will appear stating “Settings successfully sent.”
2. A summary of actions can be viewed in the patient timeline.



Closing the Assistance Request

After sending the settings, visit the patient timeline to close the request. The patient is allowed a maximum of five open requests in the ReSound Smart 3D app. Only the hearing care professional can close them.

1. Go to the Assistance Request on the patient’s timeline.
2. Click on “Actions” to select the option of either “Start an Assist fine-tuning request session” or “Close Request.”
3. Click “Close Request.”
4. Enter a message for the patient and a reason for closing the request. Click “Send.”



ReSound Assist requests can also be closed from the Patients section in GN Online Services.

Sending a Remote Fine-tuning without an Assistance Request

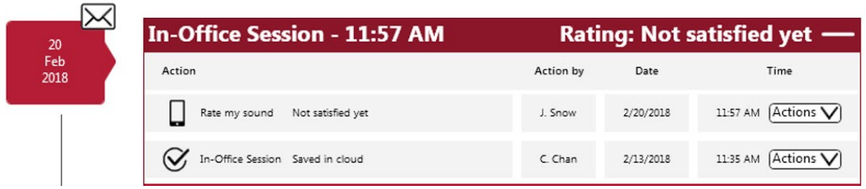
The hearing care professional can send a Remote Fine-tuning to a patient without having received an Assistance Request.

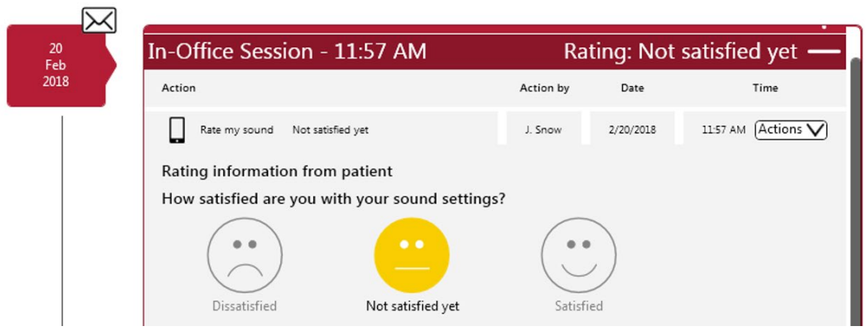
1. Access the patient fitting screen.
2. If you haven't already, login to GN Online Services.
3. Follow the standard fitting procedure.
4. Save the fitting.
5. Choose "Send Settings" on the Save screen as outlined in the previous section.

The patient will receive the package in the ReSound Smart 3D app and the Remote Session will appear on the patient's timeline.

Viewing patient's rating

1. Once a fitting or fine-tuned settings have been rated by the patient, an email notification will be received.
2. The rating can be viewed within the ReSound Assist timeline. When a new assistance request has been sent along with the Rate my sound rating, the new request will appear as the latest action in the timeline and the rating will be found below it.
3. If the hearing care professional would like to generate a new set of fine-tuned settings at this time, follow the steps in "Starting an Assist fine-tuning session from the timeline" section of this document.





ReSound Smart Fit™

TSG fitting guide

The Tinnitus Sound Generator (TSG) is designed as a sound therapy tool for tinnitus management. The TSG features are the same in all technology levels, and can be activated in any program.

Notes:

- *The TSG volume slider is in dBSPL.*
- *The TSG settings overlayed on the audiogram can be displayed in dBSPL or dBHL.*
- *The binaural link option is not available for all features in TSG. Only Amplitude Modulation, Modulation Speed and Volume Control can be linked during the fitting.*
- *For a TSG only program, set mic relative to TSG to 'TSG (Mic off)'*

1. **Activate the TSG**
   - Select the program you want to activate the TSG in.
   - Select the menu option in the upper right corner. (Figure 1)
   - Under the Fitting heading, select Tinnitus Sound Generator. (Figure 1)
   - Turn the Tinnitus Sound Generator slider to 'On'. (Figure 2)

Figure 1:

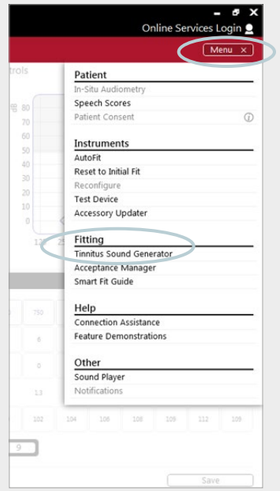
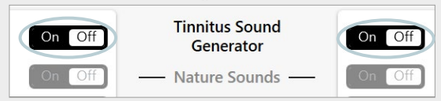


Figure 2:



2. Set the TSG bandwidth

- Our TSG defaults to a broadband white noise setting. There are 4 sound preset options to choose from. They can be customized using the Range option to adjust the frequency shaping. (Figure 3)

3. Set the TSG volume

The volume of the TSG is set using the volume slider. The volume should be set to a level that provides relief, but does not completely mask the tinnitus. (Figure 4)

Note: The volume slider is in dBSPL.

Below is a suggestion on how to first fit the TSG. It uses the threshold of audibility as a starting point.

Find the TSG threshold of audibility (three steps)

- Using the volume slider, turn up the volume until the patient reports that they can just barely hear the TSG white noise. This is the TSG threshold of audibility.
- Increase the volume slider until the patient reports they can no longer hear their tinnitus over the TSG sound. This is the level at which their tinnitus is completely masked. This is the minimum masking level (MML).
- Set the volume 5–10 dB above the threshold level. (You can go higher than 10 dB if necessary, but do not completely mask the tinnitus signal. This is where the MML is important)

4. Customize the TSG features according to patient preference

- Amplitude Modulation can be activated if the patient finds it to be comfortable. (Figure 5)
- Amplitude Modulation causes the TSG to fluctuate in volume, creating an “ocean-like” noise sequence. A Mild setting offers less fluctuation, whereas a Strong setting offers more fluctuation.
- Modulation Speed controls how quickly the volume fluctuations occur. A Slow setting allows more time between fluctuations, whereas a Fast setting allows less time between fluctuations. (Figure 5)
- Selecting ‘Synchronize’ will enable ear-to-ear communication, ensuring the features of the TSG are automatically functioning symmetrically. (Figure 6)
- Mic relative to TSG allows for quick offset, or reduction, of signal from the hearing instrument microphones while maintaining the level of the TSG. The slider also allows for the setting of TSG (Mic off) for patients who want to use a hearing aid program purely as a tinnitus sound generator. (Figure 7)

Figure 3:

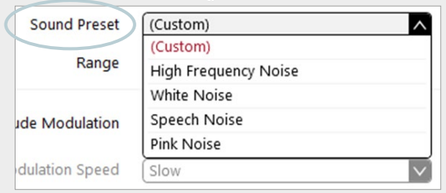


Figure 4:

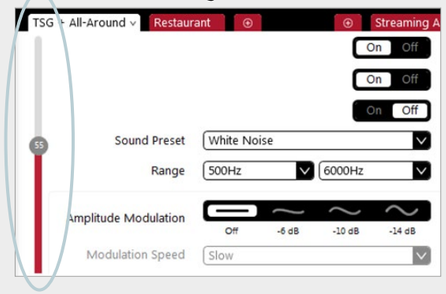


Figure 5:

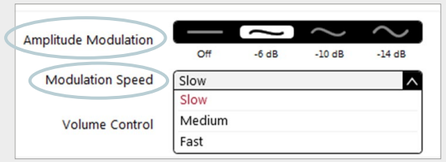


Figure 6:

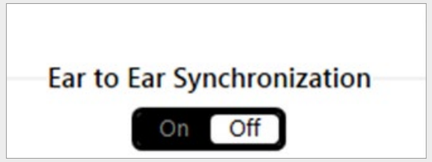
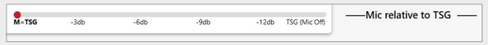


Figure 7:



5. Customize the Volume Control options

- The Volume Control options determine how the volume of the TSG will be controlled. (Figure 8)
- Selecting ‘Stimulus Level’ will reassign the function of the manual volume control to the TSG only for that program.
- Selecting ‘Stimulus Level + Environmental Steering’ will combine the use of these two features. It allows manual volume adjustments while the Environmental Steering features is also active.

6. Activating Nature Sounds

- Nature Sounds can be used as an alternative to the standard TSG, by positioning the Nature Sounds tab to ‘On’. (Figure 9)
- There are 6 water-inspired Nature Sound files to choose from. (Figure 9)
- To activate a Nature Sound, click on the picture of the Nature Sound desired.
- Note: When the same Nature Sound is selected during a binaural fitting, a stereo effect will be applied (Figure 9). The stereo effect will not be applied if different Nature Sounds are selected between instruments.
- Advanced Settings allows you to adjust the low, mid and high frequency bands of the Nature Sound. (Figure 10) Note: It is only recommended to use this if necessary.

7. Program and save

- To program the instruments and save to NOAH, click ‘Done’ in the lower right corner of the screen, and then click ‘Save’ in either the Fit screen or Summary screen. (Figure 11)

Tinnitus patients have great variance in their needs and preferences for successful tinnitus management. The information in this fitting guide is designed to serve as suggested starting points, and can be modified as needed for individual patients.

Figure 8:

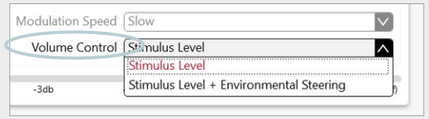


Figure 9:

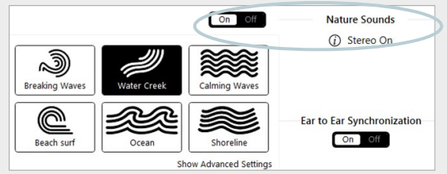


Figure 10:

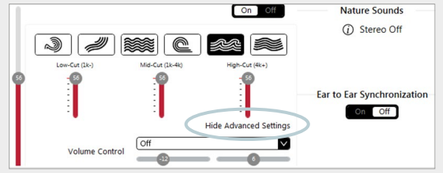


Figure 11: