ReSound LiNX 3D™

ReSound LiNX 3D fitting guide

A guide for professionals
First Fitting with ReSound Smart Fit™ 1.0

This fitting guide gives an overview of how to fit ReSound LiNX 3D wireless hearing instruments with ReSound Smart Fit 1.0. 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 1.0 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 an Airlink 2 with updated firmware or 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 3.11 and ReSound Smart Fit 1.0 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.
2. Click “Calibrate” in the lower right corner. When calibration is complete, 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.”

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.”
Fitting Screen
On the Fitting screen, gain adjustments can be made as well as modifications to advanced features.

1. Access to hearing instrument controls is also found on the fitting screen. The tabs below the red navigation bar will provide 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.

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.

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

**DFS Ultra II**

This is the feedback control. It is activated when the hearing instruments have been calibrated for DFS Ultra II. 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.

**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 audiology data that may be available.

Spatial Sense: An omnidirectional microphone response which 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.

**Note:** The information icons provide a short explanation of the feature. Some information may include links to an in-depth explanation or video.
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 and noise reduction without requiring a manual program change.

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.
Completing a follow-up fit with ReSound Smart Fit 1.0

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 an upgraded Airlink 2 with updated firmware or Noahlink Wireless in a USB slot on the fitting computer. It is not possible for an upgraded Airlink 2 or 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.

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.

10
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.

Replacing one hearing instrument in a pair

ReSound Aventa 3.11
If the patient has an existing hearing instrument fit in ReSound Aventa, then ReSound Aventa 3.11 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.

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 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 Initial Fit.”

ReSound LiNX 3D hearing instruments cannot be fit using ReSound Aventa software.
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 1.0 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 instruments must be identified and connected in the ReSound Smart Fit software. 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 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.
Sending an Assistance Request from the ReSound Smart 3D app

A patient wearing ReSound Smart hearing instruments with Remote Fine-tuning activated can send an Assistance Request from the ReSound Smart 3D app.

Patient making adjustments in the ReSound Smart 3D App

The patient may make his or her own adjustments in the ReSound Smart 3D app.

1. In this example, the patient makes adjustments to the Restaurant program.
2. The patient uses the Sound Enhancer feature to increase low frequencies (Bass) and reduce high frequencies (Treble) in restaurant environments. The patient has also set the Noise Reduction to Strong.
3. The patient finds the sound quality of the adjustment to be beneficial and wishes to make a permanent change to his or her Restaurant program to incorporate these changes.

Assistant Request is Initiated

1. Patient opens the ReSound Smart 3D app on the mobile device the Smart Hearing instruments are paired to.
2. Patient taps on “My ReSound.”
3. Patient taps on “Request Assistance.”
4. An overview of the ReSound Assist procedure is shown. Patient taps on “Start” to continue.

5. Patient answers questions about their hearing and hearing instrument status.
6. Patient selects applicable sound quality complaints from list.

7. The patient identifies the environment or the specific types of sounds that are contributing to the problem.
8. The patient specifies the severity of the problem, which ear is affected, and in which program(s) the problem exists.
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.

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.

Assistance Request is Finalized and Sent to Hearing Care Professional
1. A summary screen is shown in which the patient is able to review the details of the problem, as well as enter a title for the request and add a personal message.
2. The patient taps “Send request” to send the Assistance Request to the hearing care professional.
3. A message appears in the app, confirming the request was sent. An automatic reply listing the expected response time is displayed. This automatic response is created by you for your business through GN Online Services.
View Patient’s Preferred Settings
Click the “On” toggle for View Patient Settings at the bottom of the Fitting screen. This will enable viewing of the patient’s preferred settings in the app.

1. In the Gain Adjustments screen, patient preferred settings are represented as green symbols.
2. In the Advanced Features screen, patient 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 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 Package” 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 Package” again.
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 package” 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.

Receiving Remote Fine-tuned Settings from the Hearing Care Professional

Remote Fine-tuned Settings Received in the ReSound Smart 3D App

1. A notification will appear in the ReSound Smart 3D app and a notification badge will be visible on the “My ReSound” icon.
2. Click “Install” on the notification. In the “Active” list, the new settings available for installation will appear at the top.
3. Click “Install.” The app displays the message included in the package.
4. Click “Continue.”

Confirmation of Settings Sent

1. After sending the package with newly adjusted settings back 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 package, visit to 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.”
Restoring Previous Settings in ReSound Smart Hearing Instruments

If desired, the patient can return to his or her previous settings. The patient can choose between the latest Remote Fine-tuning settings or the latest fitting completed in the office.

1. Click “My ReSound” Then click “My Requests and New Settings.”
2. Click “Restore to Previous Settings.”
3. Choose whether to restore previous Remote Fine-tuning settings or the latest fitting completed in the office.
4. Follow installation procedure as before.

Installing Fine-tuned Settings in ReSound Smart Hearing Instruments

1. The app checks battery and Bluetooth status before starting installation. Click “Continue.”
2. A list of items to be aware of will appear before the installation begins. Click “Start.”
3. A progress bar will appear to show the status of the settings being updated.
4. A message stating “Installation Complete” confirms the fine-tuned settings have been uploaded to the hearing instruments.
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.