

ReSound GN

ReSound LiNX Quattro™

# ReSound LiNX Quattro fitting guide

A guide for professionals





# First fitting with ReSound Smart Fit™ 1.3

This fitting guide gives an overview of how to fit ReSound LiNX Quattro wireless rechargeable hearing instruments with ReSound Smart Fit 1.3. A ReSound LiNX Quattro 961 wireless binaural fitting is depicted. Not all features described in this fitting guide are applicable for ReSound LiNX Quattro 7 and 5 fittings.

ReSound Smart Fit 1.3 fitting software supports all ReSound LiNX Quattro, LiNX 3D and ENZO 3D hearing instruments.

## Prior to connecting to ReSound Smart Fit

Rechargeable LiNX Quattro hearing instruments can only be connected through wireless interface and cannot be connected with cables. Ensure that the instruments are charged prior to connection. Note that they cannot be connected while in the charger.

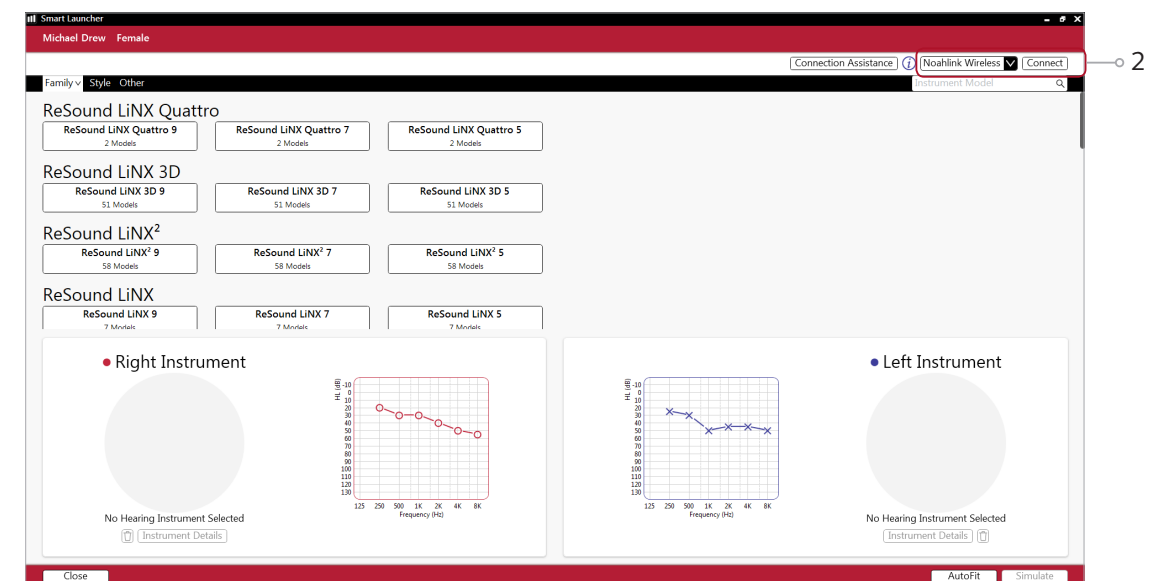
Insert Noahlink Wireless in a USB slot on the fitting PC and wait for the message that new hardware has been found. Then open ReSound Smart Fit.

Launch ReSound Smart Fit. For new fittings, ReSound Smart Fit begins in the Smart Launcher.

## Smart Launcher

Both ReSound Aventa 3.14 and ReSound Smart Fit 1.3 are contained within one software installation. The Smart Launcher will detect both ReSound LiNX Quattro and any ReSound Smart Fit instruments as well as ReSound Aventa legacy instruments, and then retrieve the software appropriate for the connected device.

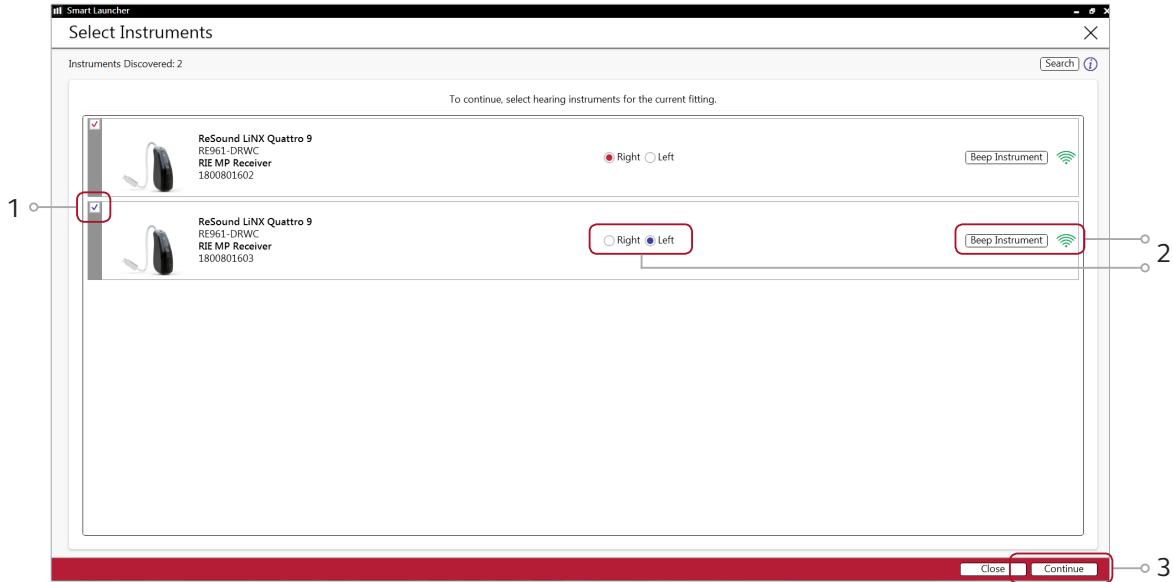
1. Reboot the rechargeable hearing instrument by pressing and holding the push button for 5 seconds until the LED light flashes. This means the instrument is “off”. Press and hold again until the light shows solid, meaning that it is “on” again. The devices can also be rebooted by placing them in the charger and removing them.
2. Click ‘Connect’ in the upper right of the Launcher screen.



Select instruments

The hearing instruments will appear in the ‘Select instruments’ section.

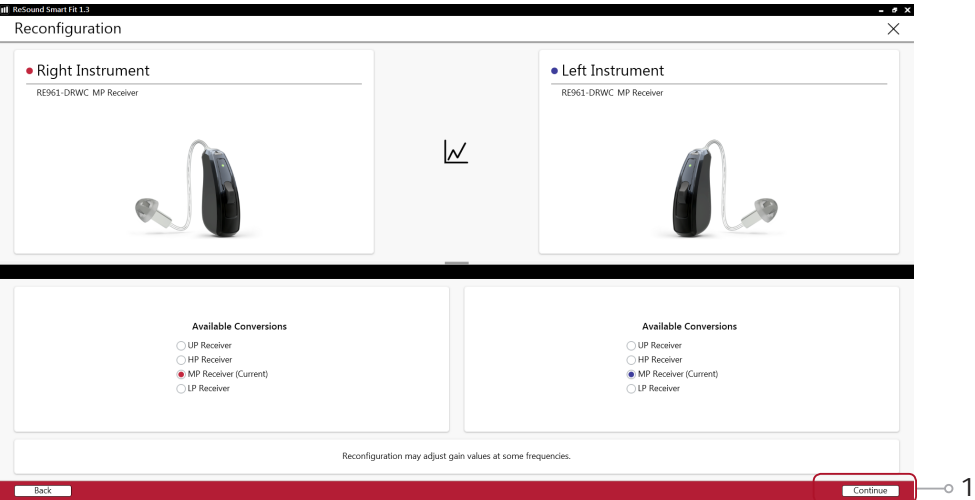
- 1. When the hearing instruments to be programmed have been identified select them by checking the left box.
- 2. Assign the hearing instruments to the right and left ears by choosing the correct radio button for the right and left sides. When pressing “Beep Instrument”, the audio signal will be played and the LED will flash. It is recommended to beep the instrument for confirmation that the instrument selected in the software is in fact the instrument being used in the fitting and on the correct side.
- 3. Continue in the lower left of the screen once the hearing instruments are selected and assigned.



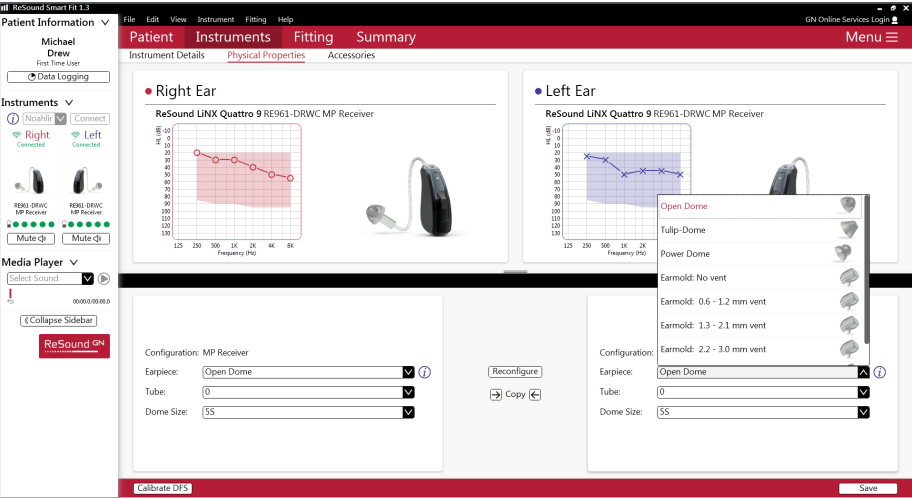
Connection flow

Once the hearing instruments have been selected the connection process will begin.

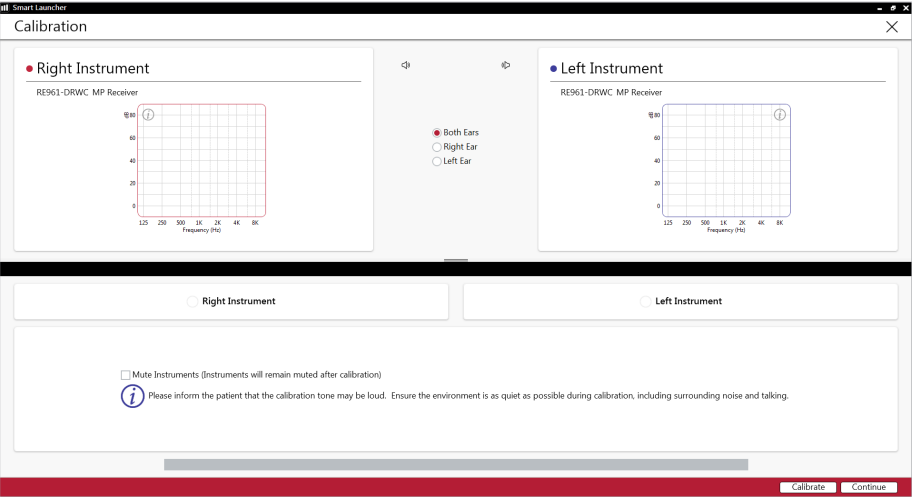
- 1. Select instrument configuration  
Click ‘Continue’ in each screen to advance to the next screen.



- 2. Select physical properties of the instrument.

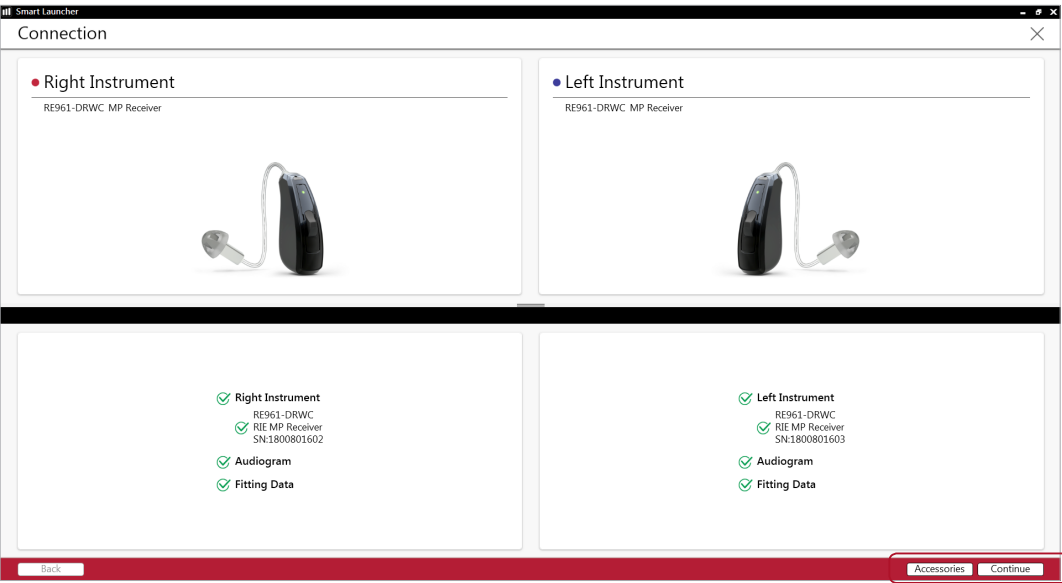


- 3. Calibrate instruments to activate DFS Ultra II.



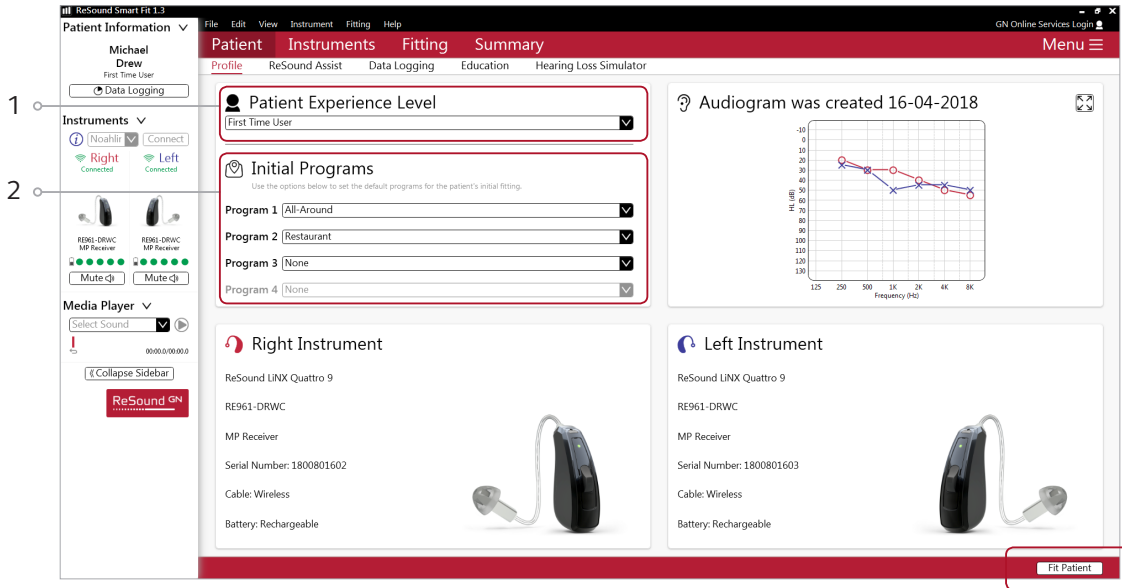


4. Verify connected hearing instruments. Click ‘Continue’ to proceed to the Patient Profile screen or pair Accessories by clicking ‘Accessories’.



Patient profile screen

1. Select the Patient Experience Level based on the amplification history.  
2. Set programs for initial fit.  
3. Click ‘Fit Patient’ button in the lower right corner to move to Fitting Screen.

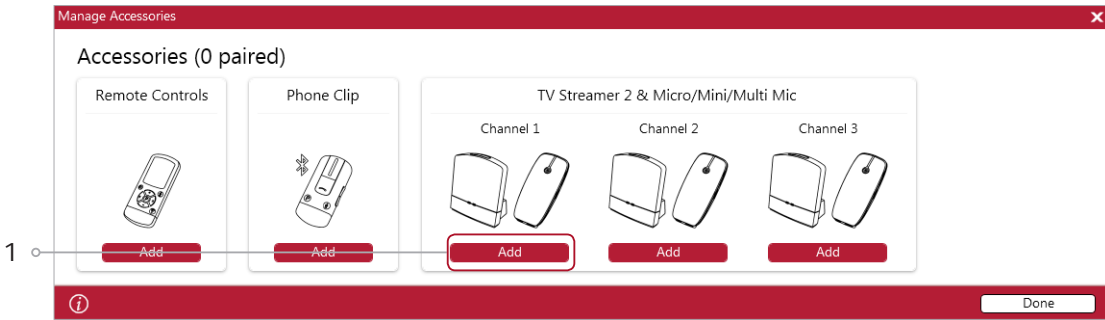


**Note** the ReSound Assist feature tab in the lower level navigation under the red upper navigation. The new remote services feature can be found and activated in the ‘Assist’ tab on the Patient screen.  
If the patient being fitted is a candidate for ReSound Assist the feature must be activated during the fitting in order to be active in the hearing instrument and appear in the Smart 3D App.

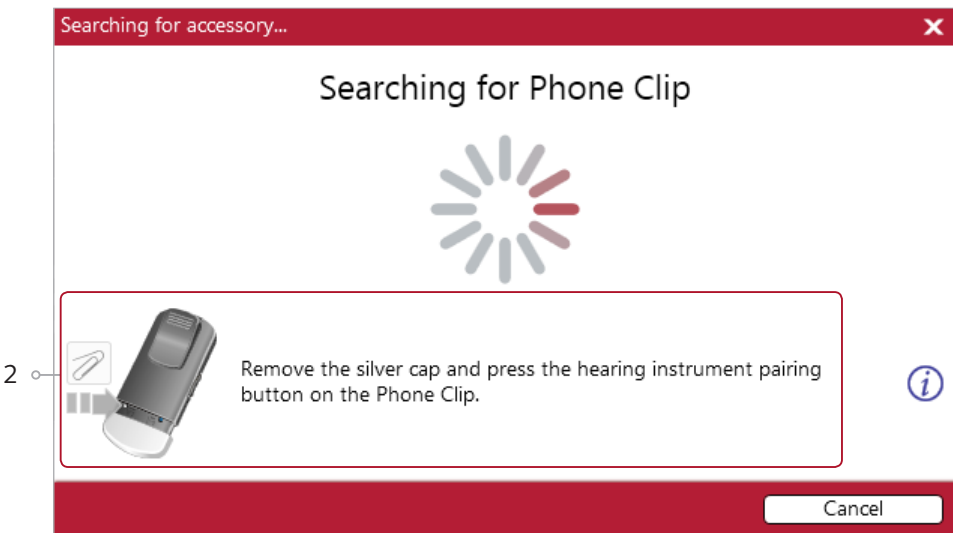
Pairing wireless accessories

The Accessories screen can be accessed via the connection flow at the final step, at the bottom of the fitting screen, or in the Accessories tab of the Instruments navigation item.

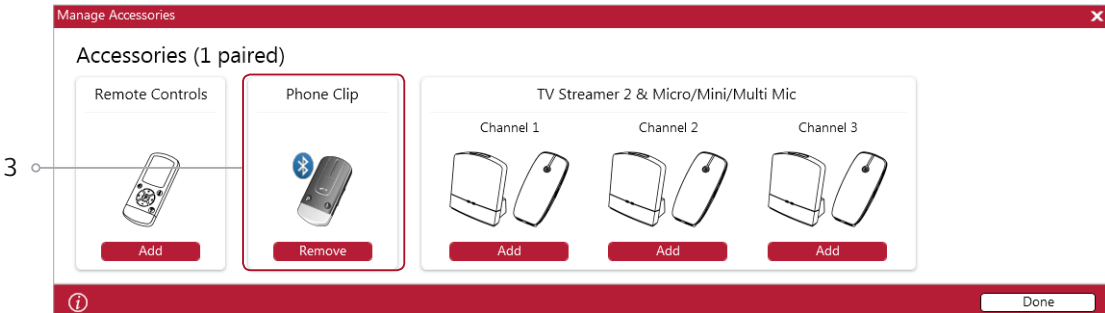
1. Click ‘Add’ beneath the accessory you wish to pair.



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



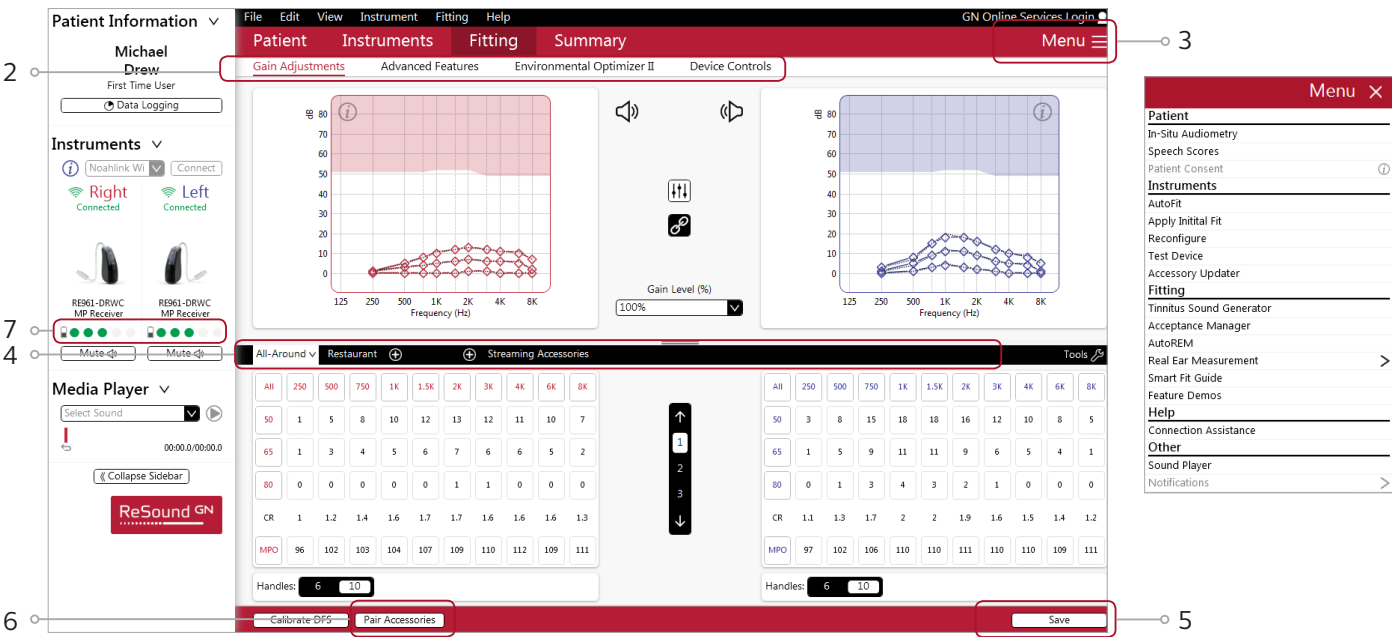
3. When the accessory is successfully paired, the accessory image will appear in color with a remove button below.



Fitting screen

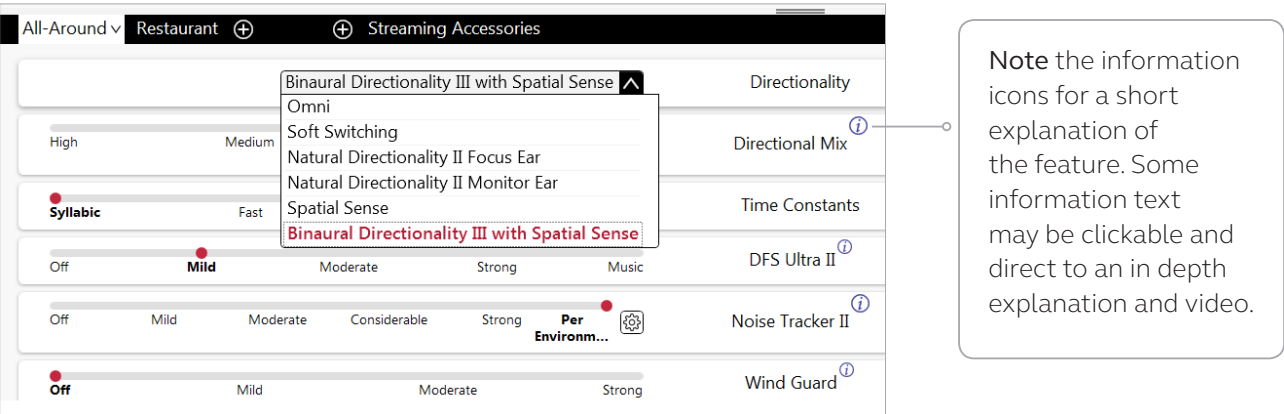
On the fitting screen gain, adjustments can be made as well as modification to advanced features such as Environmental Optimizer II.

- 1. Gain adjustments can be made to one or several frequencies by selecting frequencies between 250 Hz and 8,000 Hz on the gain grid and then by clicking the up and down arrows found between the right and left ear grids. Gain can be adjusted for soft, average, and loud input levels which alters average the compression ratios noted above the MPO.
- 2. Access to advanced features and instrument controls is also found on the Fitting screen. The tabs below the red navigation bar will provide access these tools.
- 3. Additional tools and features can be found in the upper right menu.
- 4. Programs are listed in the program tabs. To select a different program select arrow in tab to view program options. Select the '+' to add additional programs. Program tools can be found in the tab on the far right.
- 5. Click the 'Save' button to save fitting to hearing instruments and database.
- 6. Wireless accessories can be paired both outside and inside the software. To pair inside the software select 'Pair accessories' to access the accessories screen. Be sure that the accessory is charged or plugged in, and turned on during the pairing process.
- 7. The power level of the hearing instruments is displayed in the level panel. The green dots indicate the amount of charge left in the devices, as also shown on the charger itself.



Advanced features

Advanced features are prescribed per program and can be modified from their default settings selecting from the drop down box or by moving the slider to the desired value. The defaults are set based on the program environment which is selected in the program tab.



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 which mimics the human ear's natural response to sound, which preserves spatial cues and helps with the localization of sound sources.

**Soft Switching:** 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.

**Auto Scope:** 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.

All-Around Restaurant Streaming Accessories

Binaural Directionality III with Spatial Sense

Directionality

HighMediumLowVery Low

Directional Mix

SyllabicFastModerateSlow

Time Constants

OffMildModerateStrongMusic

DFS Ultra II

OffMildModerateConsiderableStrongPer Environ...

Noise Tracker II

OffMildModerateStrong

Wind Guard

OffMildModerateStrong

Impulse Noise Reduction

OffMildModerateStrong

Expansion

OffVery Mild (5K)Mild (4K)Moderate (3.5K)Strong (2.5K)

Sound Shaper

Phone Accessories

By scrolling down or pulling up the lower part of the Advanced Features screen all the features available for the connected hearing aid can be viewed on the screen.

DFS Ultra II

This is the feedback control. It is activated when the devices have been calibrated for DFS Ultra. The default setting is Mild. Adjust the setting to a stronger level (Moderate or Strong) if concerns for feedback arise. The Music Mode setting 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).

Noise Tracker II

Noise Tracker II noise reduction 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 7 environments. The environments include Quiet, Soft Speech, Loud Speech, Moderate Speech in Noise, Loud Speech in Noise, Moderate Noise and Loud Noise, and 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 hearing conversation in restaurants, for example, the fitter can precisely increase the Noise Tracker II setting only for restaurant-like environments, including Moderate Speech in Noise or Loud Speech in Noise. This maintains the setting for other environments, permitting a great amount of fitting precision and personalization. Alternately, the Mild, Moderate and Strong settings of Noise Tracker II apply the same level of noise reduction for all listening environments, when noise is present.

Noise Tracker II

Per Environment...Reset

QuietSpeech (soft)Speech (loud)Speech in noise (moderate)Speech in noise (loud)Noise (moderate)Noise (loud)

OffMildModerateConsiderableStrong

Per Environment...Reset

QuietSpeech (soft)Speech (loud)Speech in noise (moderate)Speech in noise (loud)Noise (moderate)Noise (loud)

OffMildModerateConsiderableStrong

SaveClose

Impulse Noise Reduction

Sudden impulse sounds can be quite uncomfortable for those using hearing instruments. Impulse Noise Reduction detects the loud impulse sound and attenuate it instantaneously. The feature can be set to three different degrees, with mild as the default setting. Increasing the setting will decrease the threshold to which the feature will react, or in other words, increase the aggressiveness. Stronger setting will also increase the amount of attenuation.

Wind Guard

Wind Guard 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 aid becoming quiet 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 hidden, 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 fitter. It can be turned off if the fitter does not believe the patient will need any feedback control, in the case of very low gain settings. 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 fitter 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.

ReSound Smart Fit 1.3

Patient InformationMichael DrewFirst Time UserData Logging

InstrumentsNoahlinRight ConnectedLeft ConnectedRESEAL DRIVE MP ReceiverRESEAL DRIVE MP ReceiverMuteMuteCollapse Sidebar

Media PlayerSelect Sound00:00:00/00:00:00ReSound GN

FileEditViewInstrumentFittingHelp

Gain AdjustmentsInstrumentsFittingSummary

Gain Level (%)100%

Frequency (Hz)1252505001K2K4K8K

Gain Level (%)100%

Frequency (Hz)1252505001K2K4K8K

All-AroundRestaurantStreaming Accessories

OffMildModerateConsiderableStrongPer Environ...

Noise Tracker II

OffMildModerateStrong

Wind Guard

OffMildModerateStrong

Impulse Noise Reduction

OffMildModerateStrong

Expansion

OffVery Mild (5K)Mild (4K)Moderate (3.5K)Strong (2.5K)

Sound Shaper

Phone Accessories

Calibrate DFSPair Accessories

Save

10

11

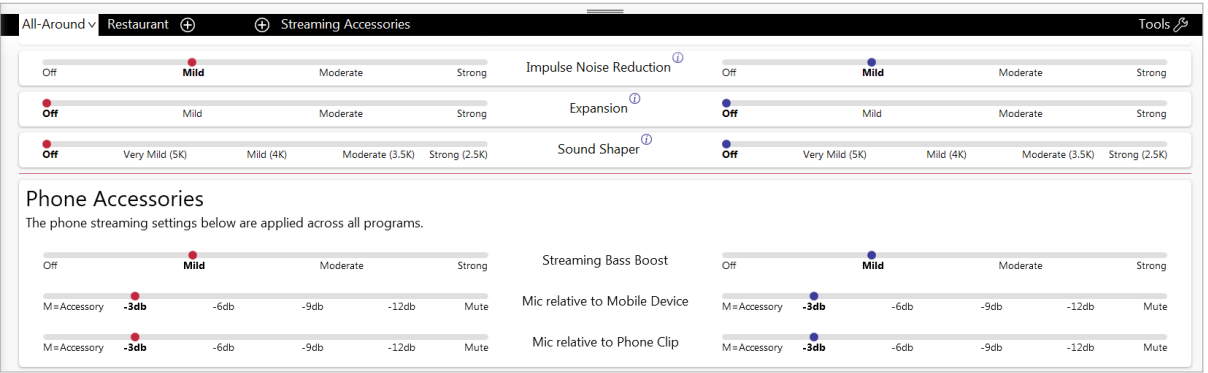


Low Frequency Boost

Should a patient with fit with a UP device feel 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.

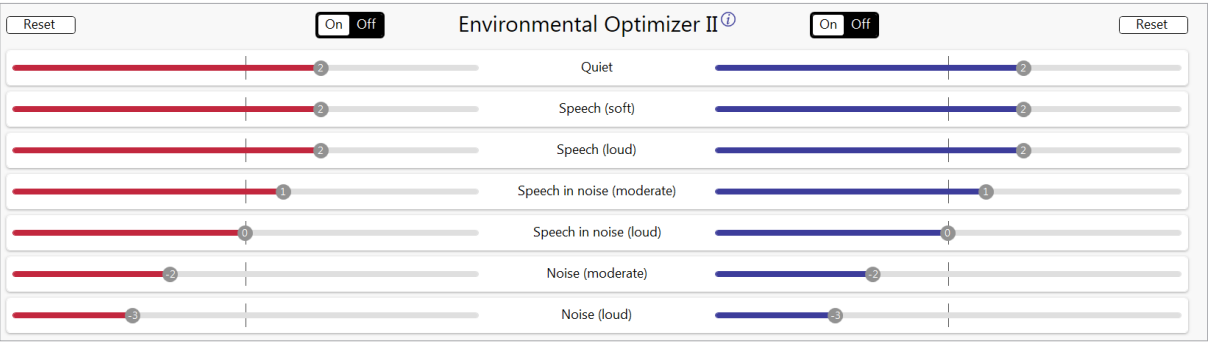
Phone Accessories

Features related to the streamed sound from a Phone Clip, or a smart device that is capable of direct streaming, are located at the lower portion of each environmental program tab. Streamed sound will inherit the gain settings of the environmental program that is being used during the time of streaming. While the phone accessory features can be adjusted within the individual program tabs, it is important to note that settings are applied across programs, therefore phone accessory features changes made in one program will also be reflected in others. Please note when viewing Data Logging the time spent streaming from the phone will be collected within the manual program that is being used during streaming.



Environmental Optimizer

Environmental Optimizer allows specific gain and Noise Tracker 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 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.



Completing a follow-up fit with ReSound Smart Fit 1.3

Prior to connecting to ReSound Smart Fit

Rechargeable hearing instruments can only be connected through wireless interface and cannot be connected with cables. Ensure that the instruments are charged prior to connection. Note that they cannot be connected while in the charger.

Insert Noahlink Wireless in a USB slot on the fitting PC and wait for the message that new hardware has been found. Then open ReSound Smart Fit. 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 the user turn off their smart device or disable the Bluetooth during the visit. If an active connection to Bluetooth is detected, ReSound Smart Fit will provide a reminder to deactivate the connection with the smart device.

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



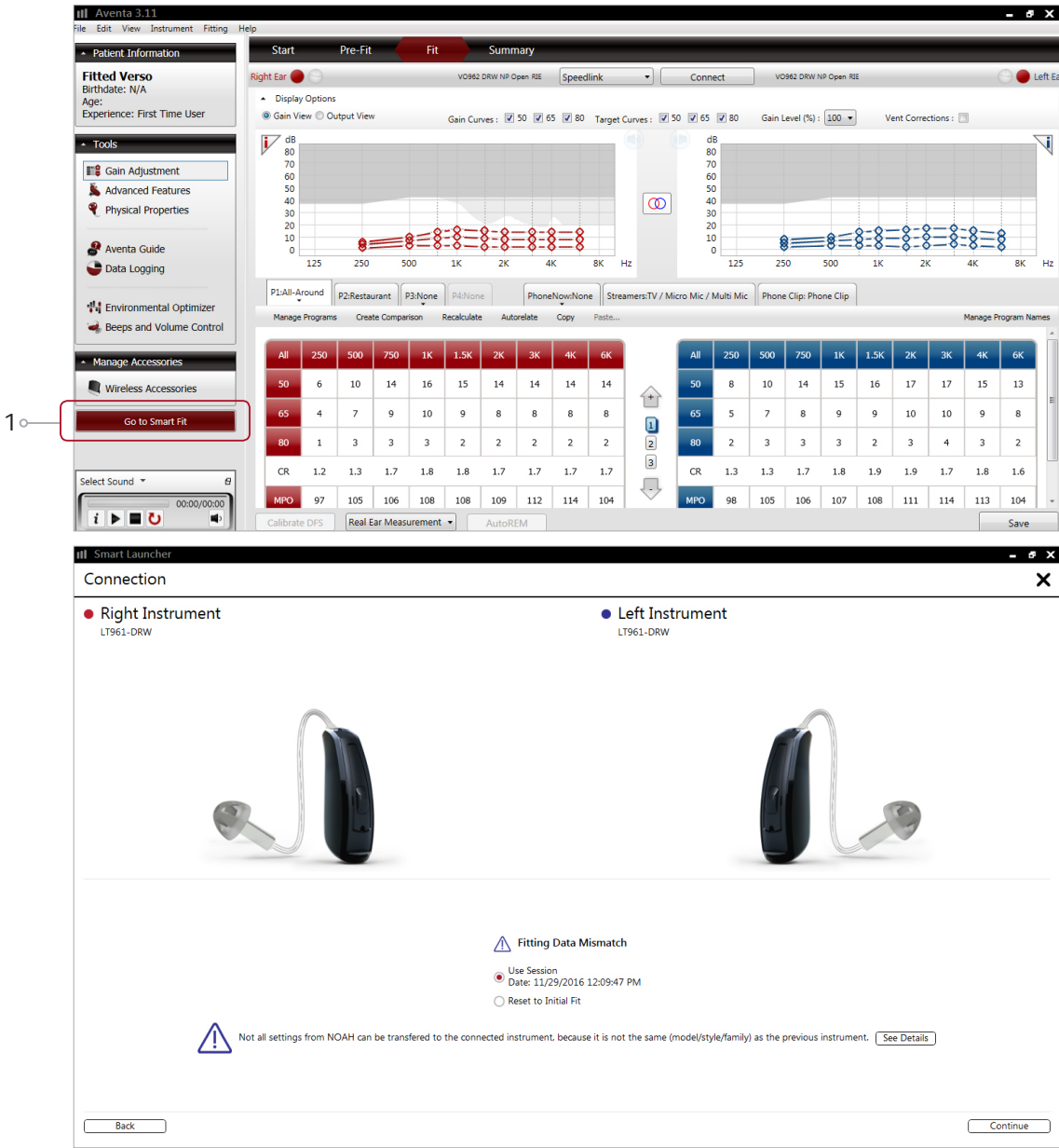
# Upgrading a patient from legacy hearing instruments to ReSound LiNX Quattro

## ReSound Aventa 3.14

If the patient has an existing hearing instrument fit in ReSound Aventa, then ReSound Aventa 3.14 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 Quattro hearing instruments cannot be fitted in ReSound Aventa software.



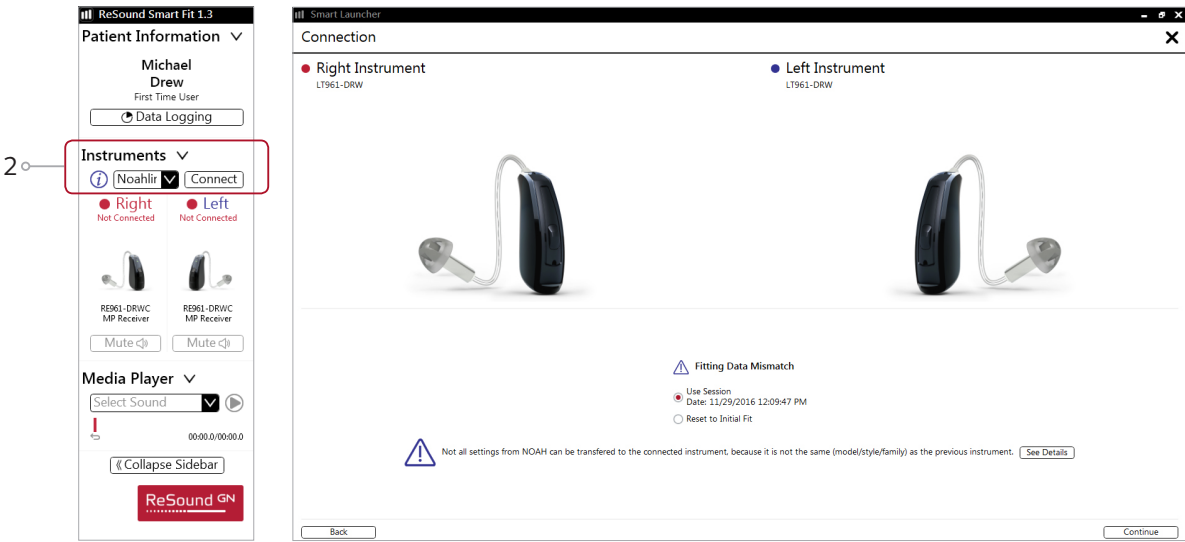
**Note:** To transfer setting from legacy fitting to ReSound LiNX Quattro fitting, select 'use session' in the fitting data mismatch screen of the connection flow. To start a fresh fitting choose 'reset to initial fit'.

# Replacing one hearing instrument of 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. Reboot the rechargeable hearing instrument by pressing and holding the push button for 5 seconds until the light flashes. This means the instrument is "off". Press and hold again until the light shows solid, meaning that it is "on" again. The devices can also be rebooted by placing them in the charger and removing them.
2. Click 'Connect' in the collapsible side bar panel.
3. The hearing instruments will appear in the 'Select Instruments' section. When the hearing instrument to be programmed has been identified, select it by checking the left box.
4. The hearing instrument that has already been programmed for this patient will already be assigned to the right or left side. When the other instrument is selected, it will automatically be assigned to the opposite side. It is recommended to beep the instrument for confirmation that the instrument selected in the software is in fact the instrument being used in the fitting and on the correct side.
5. Continue in the lower right of the screen once the instruments are selected and assigned.
6. Continue to connection flow and follow steps in the 'First Fitting' section of this guide.



**Note:** To transfer setting from session to replaced instrument, select 'use session' in the fitting data mismatch screen of the connection flow. To start a fresh fitting choose 'reset to initial fit'.



A photograph of two hearing aids resting on a blue surface. The hearing aid in the foreground is a dark, curved device with a thin, clear tube leading to a small, round, black earpiece. The second hearing aid is positioned behind it, slightly out of focus, showing a similar design. The background is a solid, light blue color.

Find out how you can help your clients get the most out of their hearing experience with ReSound LiNX Quattro at [resoundpro.com](https://resoundpro.com)

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