Fitting flow



Beltone **Serene**™

A guide for professionals

Beltone™



First fitting with **Beltone Solus Max™ 1.17**

This fitting guide gives an overview of how to fit Beltone Serene™ wireless hearing aids with Beltone Solus Max 1.17. A Beltone Serene 1763 RIE with a 13-type battery wireless binaural fitting is depicted. Not all features described in this fitting guide are applicable for Beltone Serene 9 and 6 fittings.

Beltone Solus Max 1.17 fitting software supports all following hearing aids:

- Beltone Serene™
- Beltone Achieve™
- Beltone Imagine™
- Beltone Amaze™
- Beltone Boost Ultra™
- Beltone Rely™

Prior to connecting to Beltone Solus Max

Beltone Serene hearing aids can only be connected through wireless interface and receivers attached, and cannot be connected with cables. Ensure battery is fresh prior to connection.

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

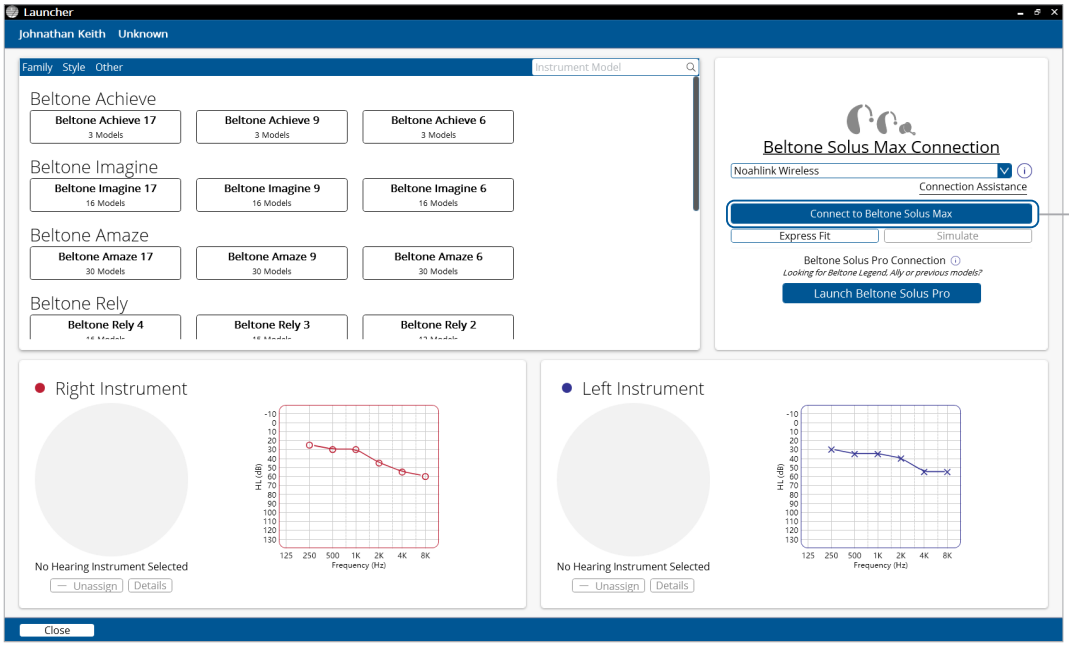
Launch Beltone Solus Max. For new fittings, Beltone Solus Max begins in the Launcher.

Launcher

Both Beltone Solus Pro and Beltone Solus Max 1.17 are contained within one software installation. The Launcher will allow selection or connection of those hearing instruments fitted with Beltone Solus Max. Should Beltone Solus Pro be required for the fitting, click on Launch Beltone Solus Pro to connect or view legacy products.

1. Reboot the hearing aid by opening and closing the battery door. For a rechargeable device, press and hold the push button for 5 seconds until the LED light flashes, turning the hearing aid “off”. Press and hold again until the LED light is seen again so that the hearing aid is now “on”. Alternatively, rechargeable devices can be placed in the charger and then removed again to reboot.

2. Click ‘Connect to Beltone Solus Max’.



Assign instruments

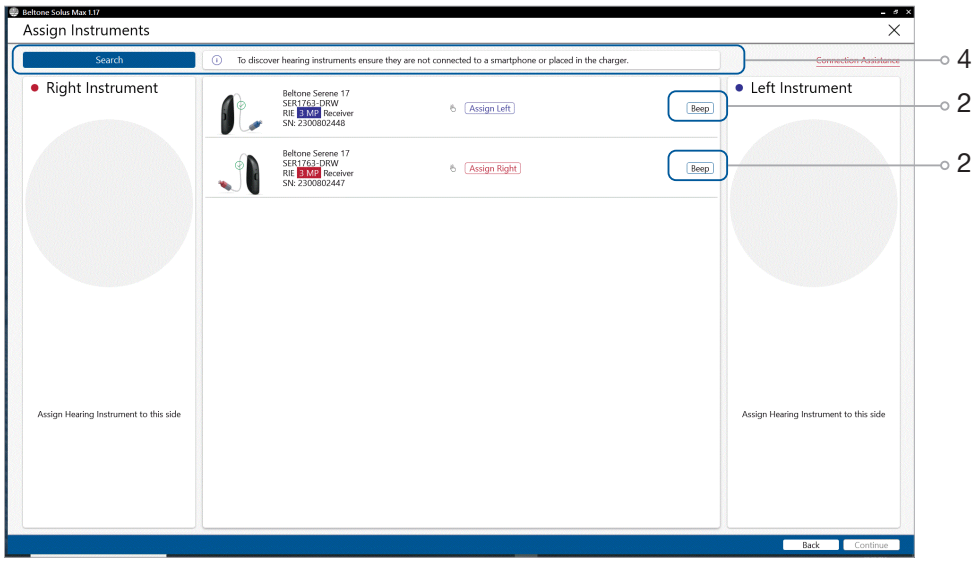
The hearing aids will appear in the center of the “Assign instruments” screen.

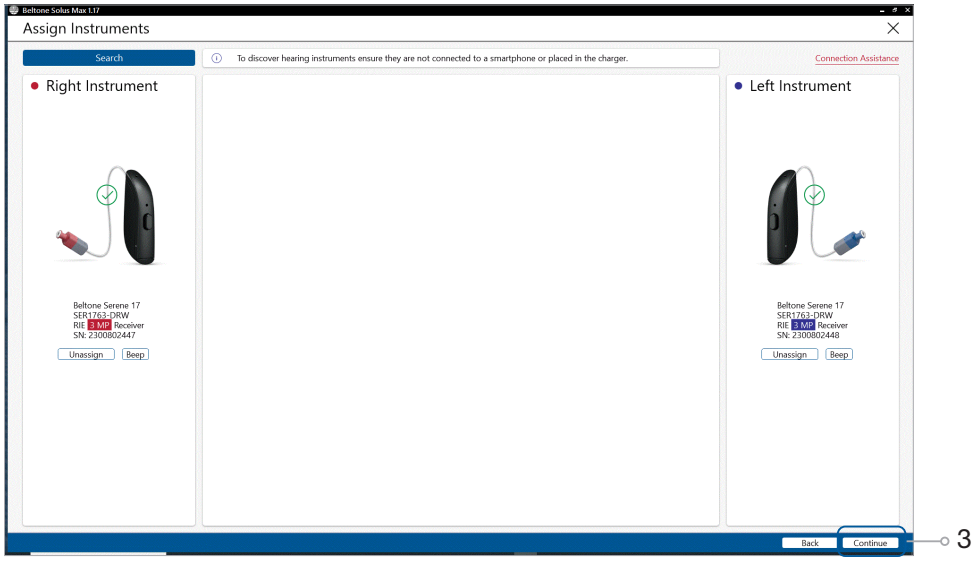
1. When hearing aids to be programmed have been identified, select them by pressing the “assign right” or “assign right” button, or by pressing the push button on the device.

2. Once receivers are detected, the hearing aids are automatically assigned to the right and left ears. The side, type, size and power level of each receiver will be displayed throughout the fitting. The beep audio signal and LED flash is available for further confirmation that the hearing aid selected in the software is in fact the hearing instrument being used and on the correct side.
   Note: detectable receivers are not only for Serenes, they work on several other families launched in the past. Receiver detect works for all products compatible with Sure Fit 3 receivers, including M&RIE.

3. Continue in the lower right of the screen once the hearing aids are assigned and are shown in the side panels.

4. If hearing aids do not appear in the Assign Instruments screen, please make sure the user has turned off Bluetooth on their smartphone.

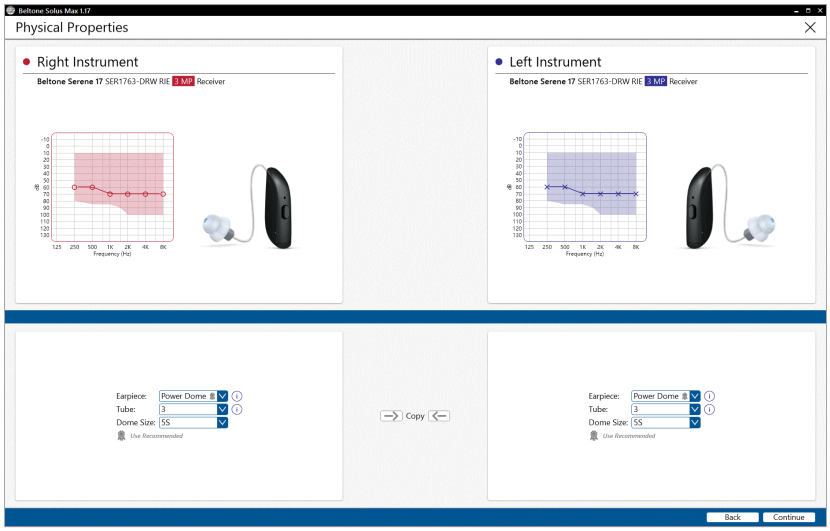




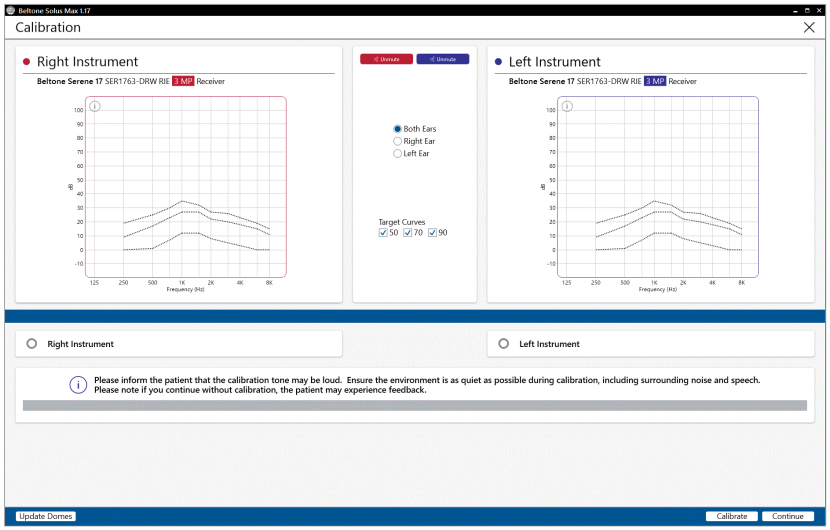
Connection flow

Once the hearing aids have been selected the connection process will begin

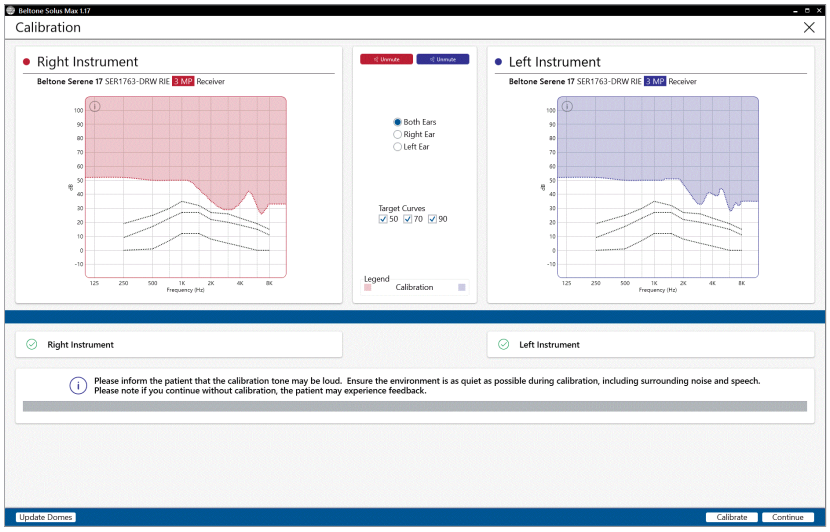
1. Select physical properties of the hearing aid. Note that the recommended earpiece will be indicated by a gray badge.



2. Calibrate hearing aids to activate Feedback Eraser 2. Hearing aids will be muted during the calibration. If using M&RIE (MM) receivers, calibration is required in order to save the fitting.



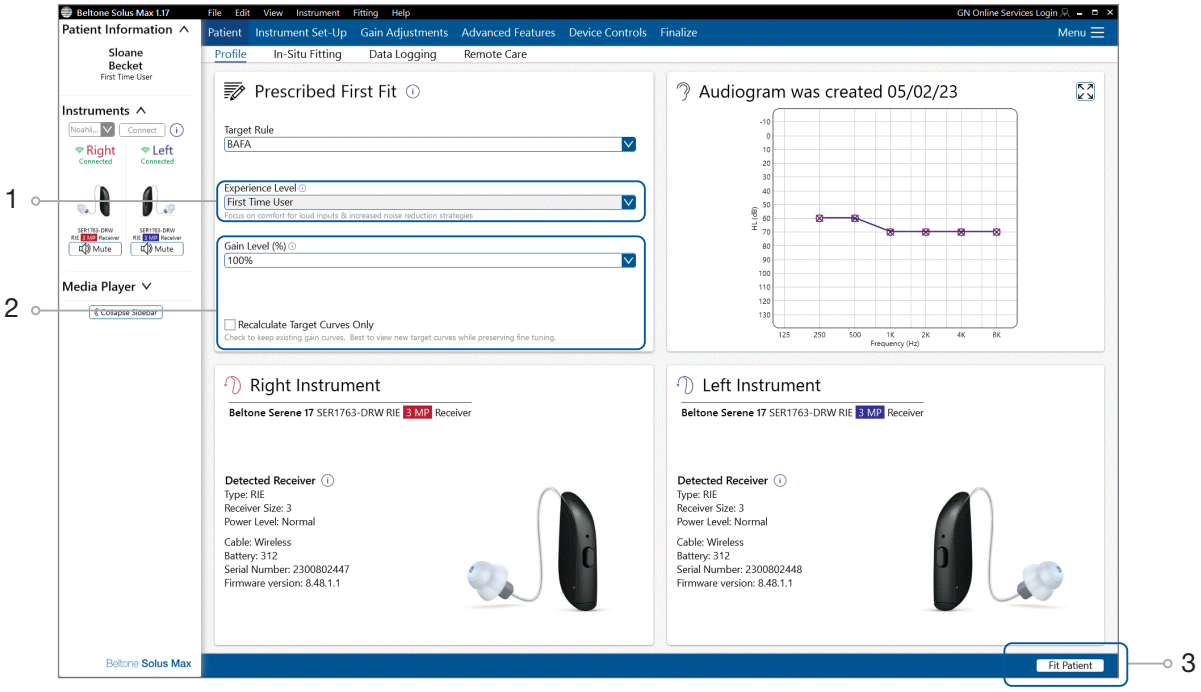
3. The MSG curve should serve as a guide to earpiece selection. Should the MSG curve reach far within the gain targets curves, a more occlusive earpiece is recommended.



Patient profile screen

Located in the upper left corner of Patient Profile screen, Prescribed First Fit ensures an immediate personalisation of a new set of hearing aids. Based on a user's audiogram, the selected target rule, gain level (%) and experience level; the Beltone Solus Max software will adjust the settings for Sound Cleaner Pro, Feedback Eraser 2, Impulse Noise Reduction, and Silencer to better fit the individual user.

1. Select the Patient Experience Level based on the amplification history.
2. Set Gain Level (%) for initial fit.
3. Click 'Fit Patient' button in the lower right corner to move to Fitting Screen.

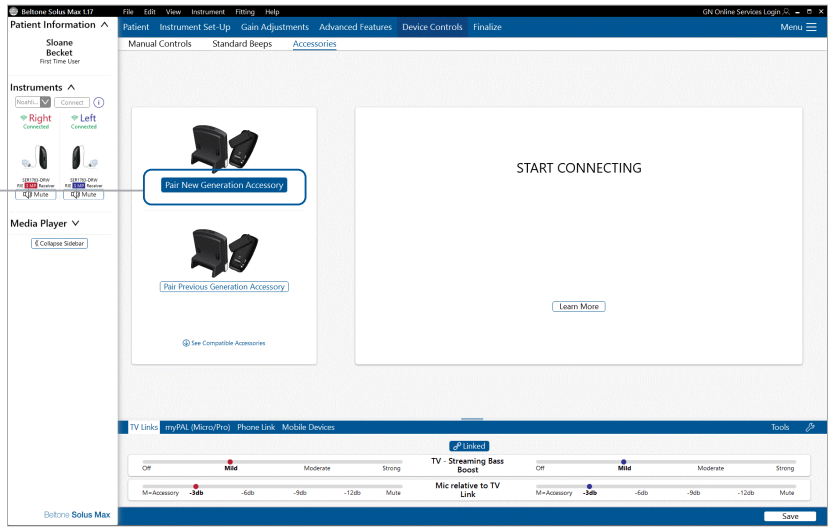


Note the Beltone Remote Care feature tab in the lower level navigation under the blue upper navigation. The remote services feature can be found and activated in the 'Remote Care' tab on the Patient screen. If the user being fitted is a candidate for Beltone Remote Care the feature must be activated during the fitting in order to be active in the hearing aid and appear in the Beltone HearMax™ app.

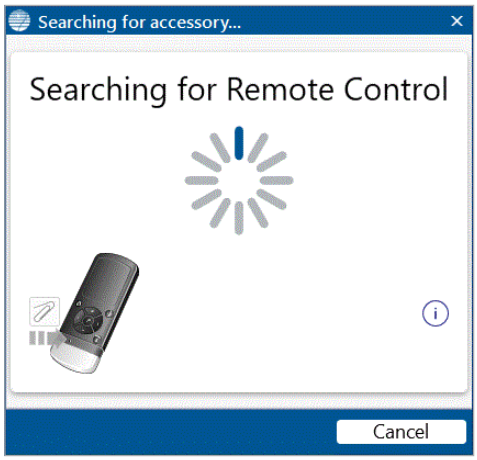
Pairing wireless accessories

Wireless accessories can be paired within the fitting software in the Accessories screen. Accessories is found under the Device Controls along the top of the screen.

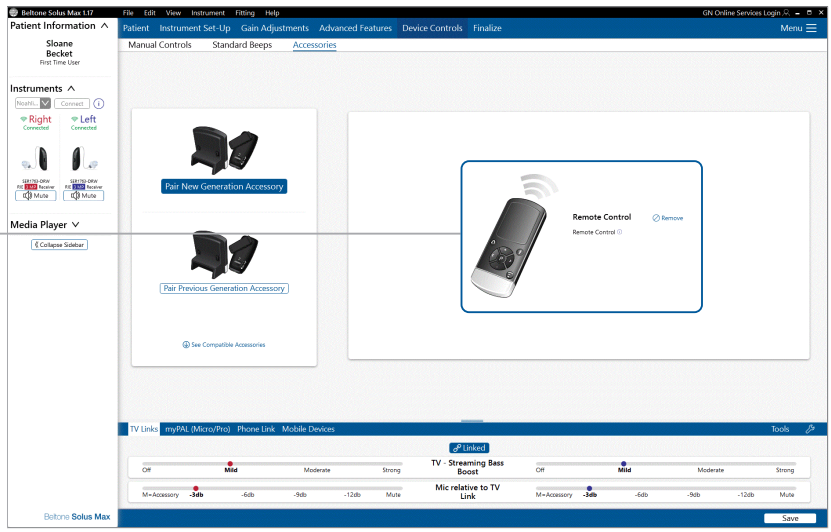
1. Click ‘Pair’ beneath the accessory you wish to add to the fitting.



2. Once the searching pop-up appears, press the pairing button on the accessory with a small pointed object 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 Unpair button below.



Gain Adjustments, Fine Tuning

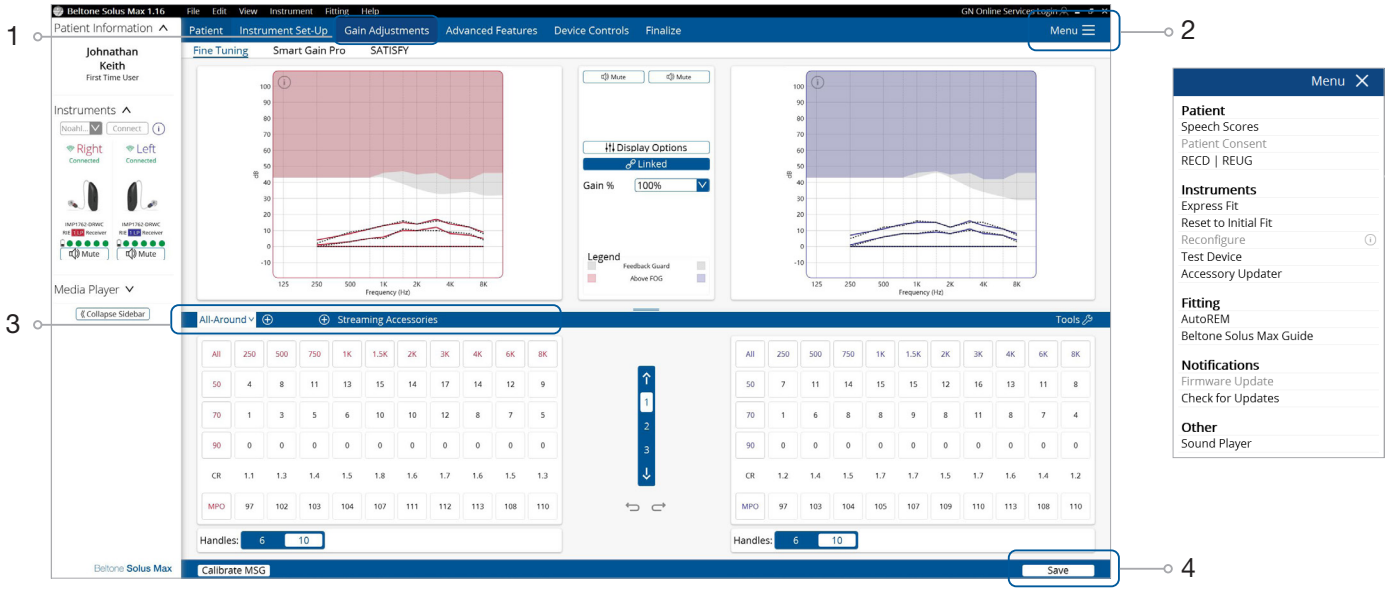
On the Fine Tuning screen found within the Gain Adjustments navigation item, gains can be directly modified as well as advanced features which directly impact the gains, such as Smart Gain Pro.

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 the average compression ratios noted above the MPO.

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

3. 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.

4. Click the 'Save' button to save fitting to hearing aids and database.



Advanced features

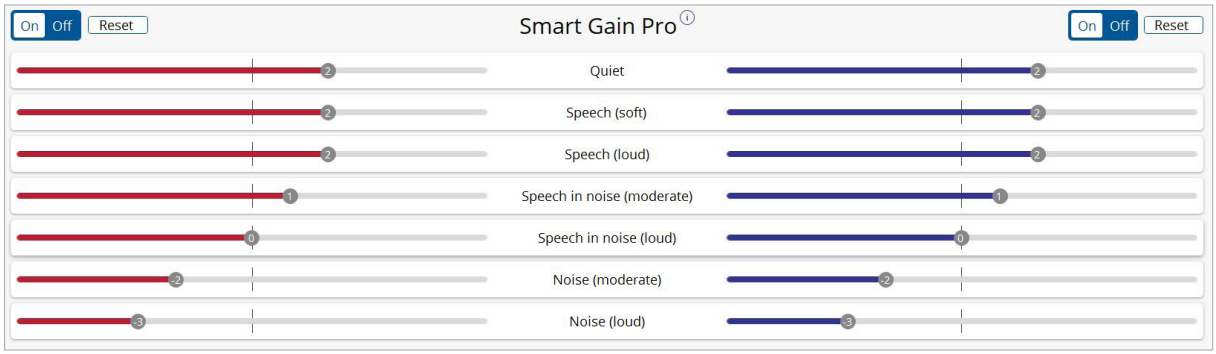
Advanced Features can be viewed and modified from the Advanced Features navigation tab. Features are grouped by purpose in the Speech, Comfort and Tinnitus Breaker Pro screens. Advanced features are prescribed per program and can be modified from their default settings selecting from the drop down box or by moving the slider to the desired value.



Note the information icons for a short explanation of the feature. Some information text may be clickable and direct to an in depth explanation and video.

Smart Gain Pro

Smart Gain Pro allows specific gain and Sound Cleaner Pro 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 aids will optimize and synchronize the Smart Gain Pro settings for a binaural fitting. If a user experiences difficulty in a particular listening environment, adjust the sliders to assign environment specific gains and noise reduction without requiring a manual program change.



Directionality

Crosslink Directionality 4: automatically adjusts microphone patterns to put the client in the best position to hear what's important. The use of dynamic microphones provide improved speech audibility in difficult listening situations, as well as access to surroundings, giving the wearer's brain the ability to choose the signal of interest, not the hearing aids.

M&RIE (Microphone & Receiver-In-Ear): uses the individual's own unique ear to collect sound the way nature intended yet, for the best spatial perception and sound quality. It places a third microphone inside the ear canal as a combined part of the receiver, besides having both traditional microphones.

Ultra Focus 2: In particular situations, the user may want an extra boost in order to only listen to a talker directly in front. The user-controlled Ultra Focus 2 uses a powerful directional pattern to focus on the person in front of your clients in very noisy environments. By uniquely using the speech frequencies for targeted directionality and the high and low frequencies to monitor the environment, they can hear speech and still maintain spatial cues from around them.

Personal Sound ID: 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.

Speech Spotter Pro: seamlessly enables and disables 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.

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

Mixing Point Frequency

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 aid(s). Mixing Point Frequency applies omnidirectional processing below a crossover frequency and directional processing above that frequency. The default setting is prescribed depending on the hearing aid model selected and the degree of low-frequency hearing loss. If the user is still experiencing difficulty hearing in noise, decreasing the directional mix may help.

Feedback Eraser 2

This is the feedback control. It is activated when the devices have been calibrated for Feedback Eraser 2. Adjust the setting to a stronger level if concerns for feedback arise. The Music Mode setting is a less aggressive setting, typically used for music programs or if the user experiences feedback only when tonal sounds occur (for example, from a musical instrument).

Sound Cleaner Pro

Sound Cleaner Pro 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 user is reporting specific issues such as hearing conversation in restaurants, for example, the fitter can precisely increase the Sound Cleaner Pro 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 Sound Cleaner Pro apply the same level of noise reduction for all listening environments, when noise is present.



Impulse Noise Reduction

Sudden impulse sounds can be quite uncomfortable for those using hearing aids. Impulse Noise Reduction detects the loud impulse sound and attenuates 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 Noise Reduction

Wind Noise Reduction applies noise reduction specifically for windy situations. If a user is experiencing too much wind noise, increase the setting to a stronger level. If the user experiences the hearing aid becoming quiet occasionally in outdoor situations, reduce the setting to a milder level.

Safeguard Feedback Control

Safeguard Feedback Control is a feedback control setting that is activated automatically before the hearing aid has been calibrated for Feedback Eraser 2. Once Feedback Eraser 2 has been calibrated, this setting is hidden, and cannot be reselected unless the hearing aid has been restored to factory settings. Safeguard Feedback Control is designed for use when a user is unable to return to the clinic for the fitting, and the hearing aid is instead shipped to the user from the fitter. It applies a mild level of feedback cancellation, but as it has not been calibrated for the user's ear, it may not be as effective at controlling feedback as Feedback Eraser 2. Safeguard Feedback Control is not available for the M&RIE (MM) receiver and calibration must take place to save.

Sound Shifter

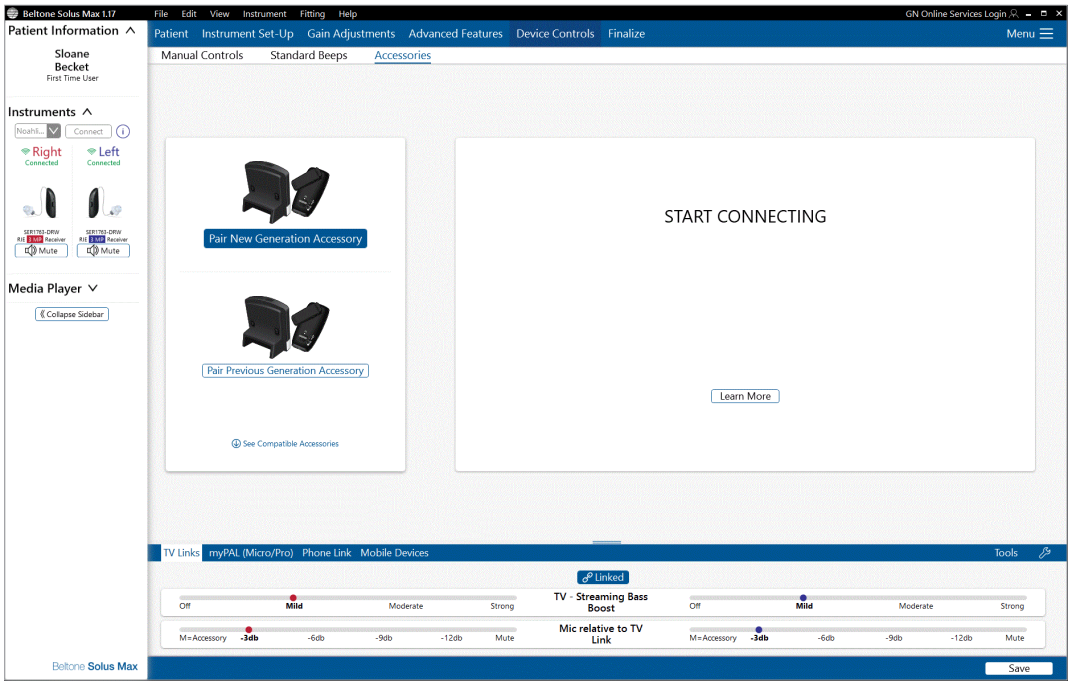
Sound Shifter applies proportional frequency compression to the fitting. Higher frequencies are lowered to a more usable or audible range for the user. User candidacy criteria for the use of frequency lowering is based on many factors, as a result the default setting is Off. However, if the fitter perceives the user could benefit from frequency lowering, in the case of continued difficulties with speech recognition or previous success with frequency lowering features, Sound Shifter can be activated. Not offered in M&RIE (MM) fittings.

Low Frequency Boost

Should a user be fit with an Ultra Power (UP) device and feel the sound is not full 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 Beltone Phone Link 2, 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. Phone and accessory features can be adjusted from the Accessories screen under Device Controls at the top of the screen. This is the same page used to pair the accessories. 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.



Completing a follow-up fit
with Beltone Solus Max 1.17

Prior to connecting to Beltone Solus Max

Rechargeable hearing aids can only be connected through wireless interface and cannot be connected with cables. Ensure that the hearing aids 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 Beltone Solus Max. It is not possible for Noahlink Wireless to connect to hearing aids that are actively connected to a smart device via Bluetooth. Ensure that the hearing aids 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, Beltone Solus Max will provide a reminder to deactivate the connection with the smart device.

Launch Beltone Solus Max. For follow up fittings, the software that was used in the previous fitting will launch.



Upgrading a user from **legacy hearing aids to Beltone Serene**

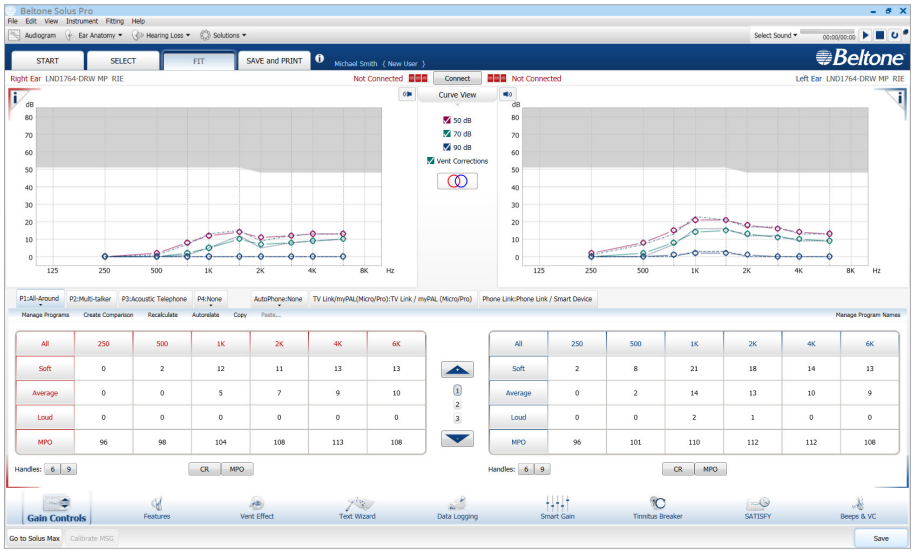
Beltone Solus Pro

If the user has an existing hearing aid fit in Beltone Solus Pro, then Beltone Solus Pro will open when you begin a new fitting.

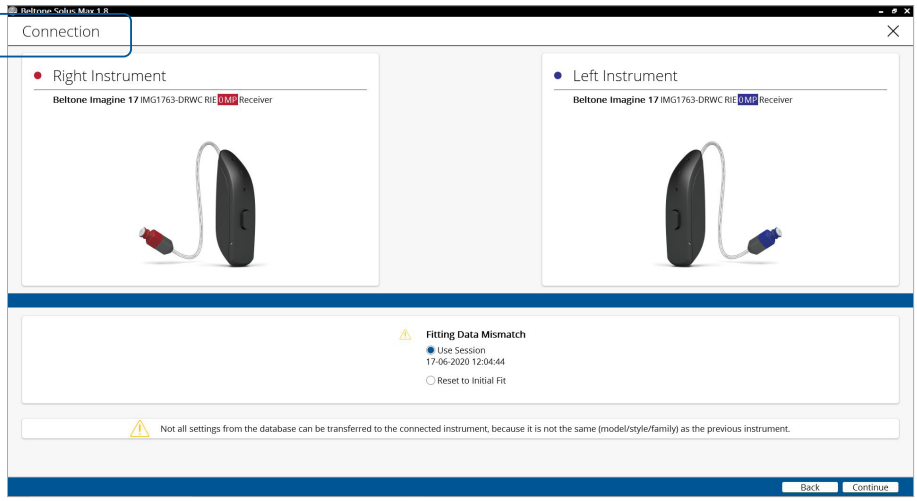
1. Click the ‘Go to Solus Max’ button at the bottom left of the screen to close Beltone Solus Pro and arrive at the Solus Max Launcher.

2. Follow steps in the ‘First Fitting’ section of this guide.

Beltone Serene hearing aids cannot be fitted in Beltone Solus Pro software.



1



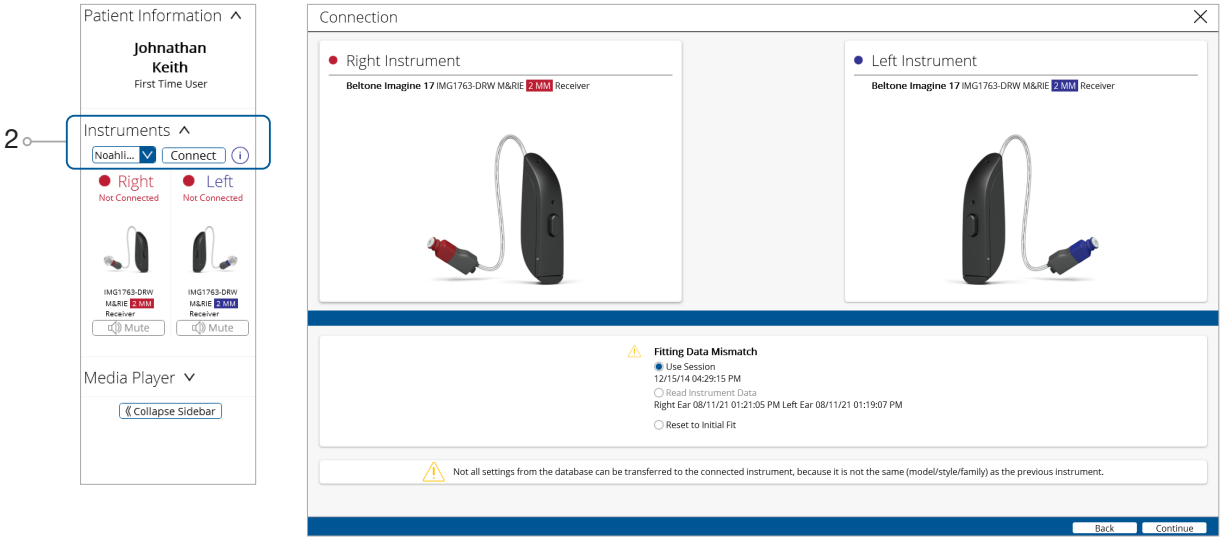
Note: To transfer setting from legacy fitting to Beltone Imagine fitting, select ‘use session’ in the fitting data mismatch screen of the connection flow. To start a fresh fitting choose ‘reset to initial fit’.

Replacing one **hearing aid of a pair**

Connecting during a follow-up

When returning for a follow-up visit the software will open to the last saved session.

1. Reboot the rechargeable hearing aid by pressing and holding the push button for 5 seconds until the light flashes. This means the hearing aid 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 or on the launcher depending on where you launch the FSW from.
3. The hearing aids will appear in the ‘Select Instruments’ section. When the hearing aid to be programmed has been identified, select it by checking the left box.
4. The hearing aid that has already been programmed for this user will already be assigned to the right or left side. When the other hearing aid is selected, it will automatically be assigned to the opposite side. It is recommended to beep the hearing aid for confirmation that the hearing aid selected in the software is in fact the hearing aid being used in the fitting and on the correct side.
5. Continue in the lower right of the screen once the hearing aids are selected and assigned.
6. Continue to connection flow and follow steps in the ‘First Fitting’ section of this guide.



Note: To transfer settings from the session to the replaced hearing aid, select ‘use session’ in the fitting data mismatch screen of the connection flow. To start a fresh fitting choose ‘reset to initial fit’.



CROS & BiCROS

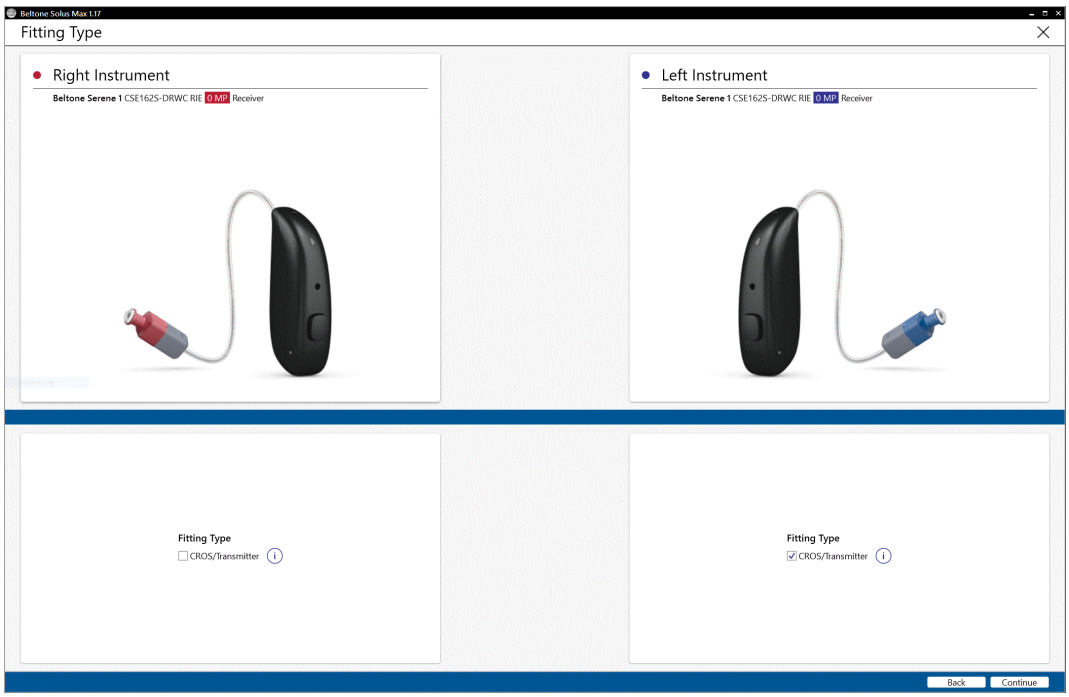
Before you begin, please note

- Please ensure that CROS compatible devices have been selected before starting the fitting in Solus Max.
- Enter in the audiogram for both ears - including the worse hearing ear where a minimum of two air conduction thresholds are required to proceed with a fitting. A “No Response” is accepted as a threshold.
- LP, MP, or HP receivers can be used for the CROS Transmitter device; select whichever fits the ear best.

CROS & BiCROS **connection flow**

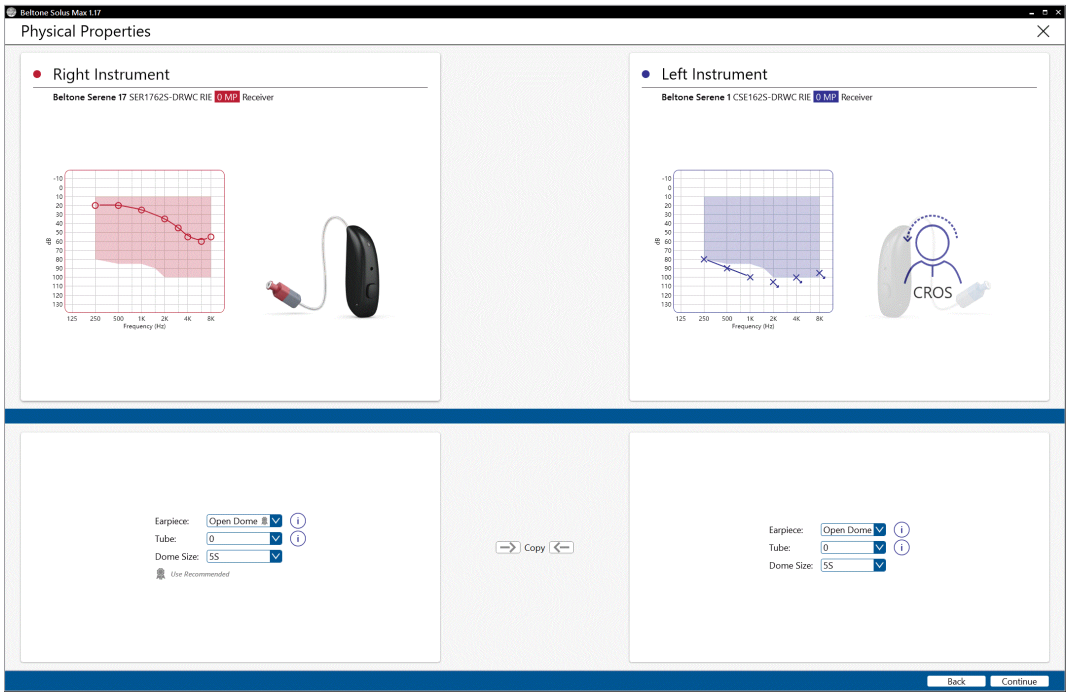
Connecting the CROS Transmitter
After discovering and assigning the CROS & BiCROS compatible hearing devices in the Solus Max fitting software, a Fitting Type screen is displayed.

- When fitting tech level 17, 9, 6 or 4 devices on the better hearing ear, the CROS Transmitter device will automatically be assigned.



Dome selection

The Solus Max fitting software does NOT provide a dome recommendation for the CROS Transmitter. Please select the dome that provides the best fit and comfort for your client.



Note: Typically, an open dome provides the best comfort on the side that has been fit with the CROS Transmitter.

CROS & BiCROS **programming**

There is no need to differentiate between CROS and BiCROS fitting within the Solus Max fitting software.

- Gain for the hearing aid/receiver side is prescribed, if appropriate, based on the audiogram and selected fitting rule.
- The microphones are turned ON for the receiver device even in the case of normal hearing in the better ear (CROS fitting) to overcome occlusion.

CROS fitting

Adjust the gain on the receiver side based on the client's preferences.

BiCROS fitting

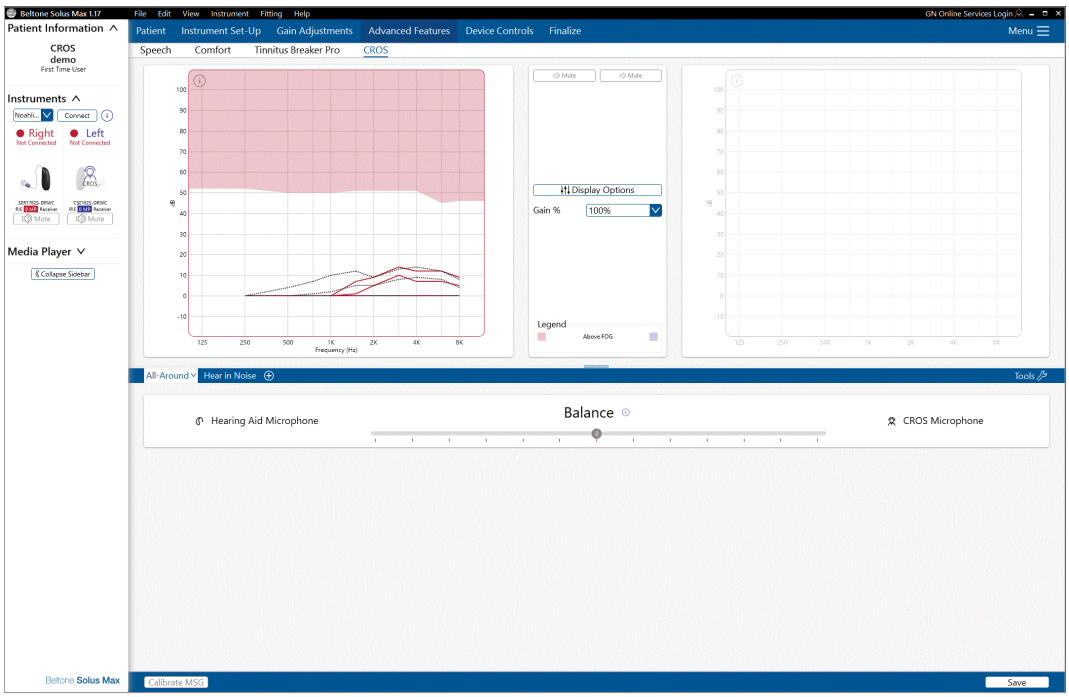
Program the hearing aid/receiver side in the same manner as a standard hearing aid fitting, adjusting gains and advanced features based on client needs.

Note: If client prefers to have less awareness of sounds on the receiver side and is fitted with a CROS, consider reducing the gain, even into negative values if necessary.

CROS balance control

The CROS Balance control can be found within Advanced Features. This control allows for adjustment of the sound balance of the CROS Transmitter relative the hearing aid/receiver side.

Adjust the balance control based on client feedback and/or probe microphone measurements.

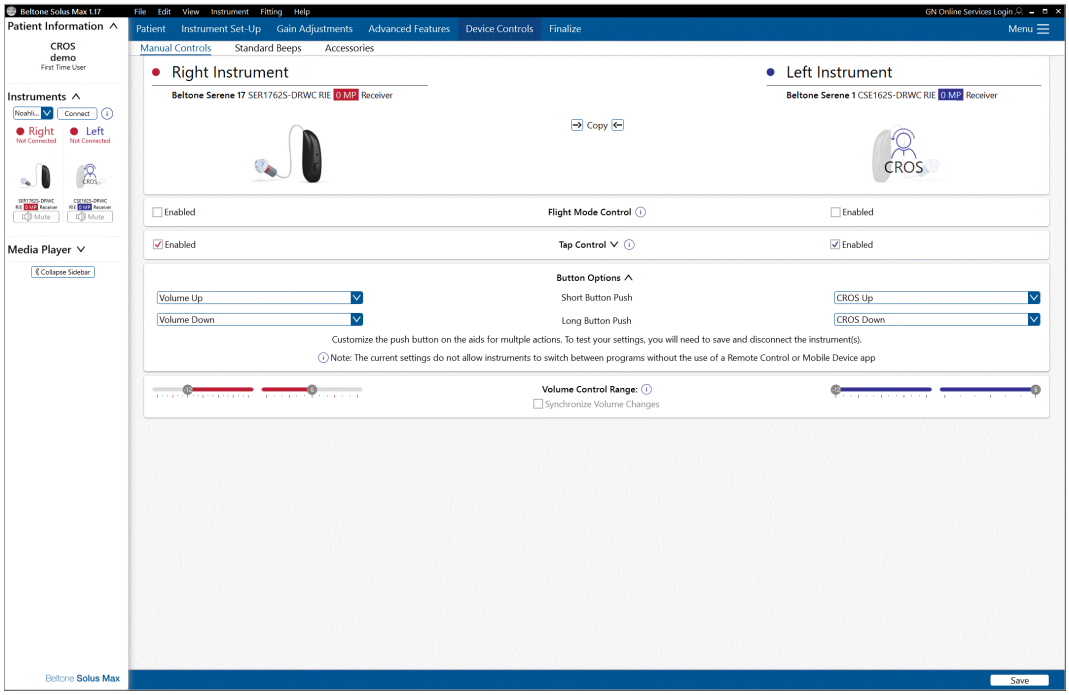


Note: AutoREM is available for the receiver side.

Client controls

Manual controls for client control of CROS balance are available.

For clients connected to a compatible smartphone: a CROS balance control and CROS Transmitter mute are available in the Hear Max app.



Note: Utilize the short and long button push options for CROS up/down functionality on the transmitter side and volume up/down on the receiver side.



Beltone. Helping the world hear better

Beltone was founded on the act of helping a friend to enjoy life more. Since 1940, we have provided knowledge, tools, service and training to the professionals servicing the hearing impaired. Beltone makes quality hearing care available to more people. To do so, we develop technically optimal hearing solutions without ever losing focus on the individual's needs. It is our belief that no individual should be denied the possibility of an improved life with better hearing.

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