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A solid red square is located in the bottom left corner of the page.

THERE IS
power in
choice

Welcome to the
Vivante[™]
experience



unitron[™]

A powerful legacy

60 YEARS!

Inaugural
product 210



UE PP/PPL
E1-P/PL



US80
Super Power BTE



360 BTE



Max (Era)



Max (Tempus)



Stride Blu



65

70s

80s

90s

00s

10s

21



Body aid



Sigma Power
Programmable
US80 S



HiBAN wireless



FLEX:TRIAL



FLEX:UPGRADE



Ultra Power presets



MFA connectivity

roger

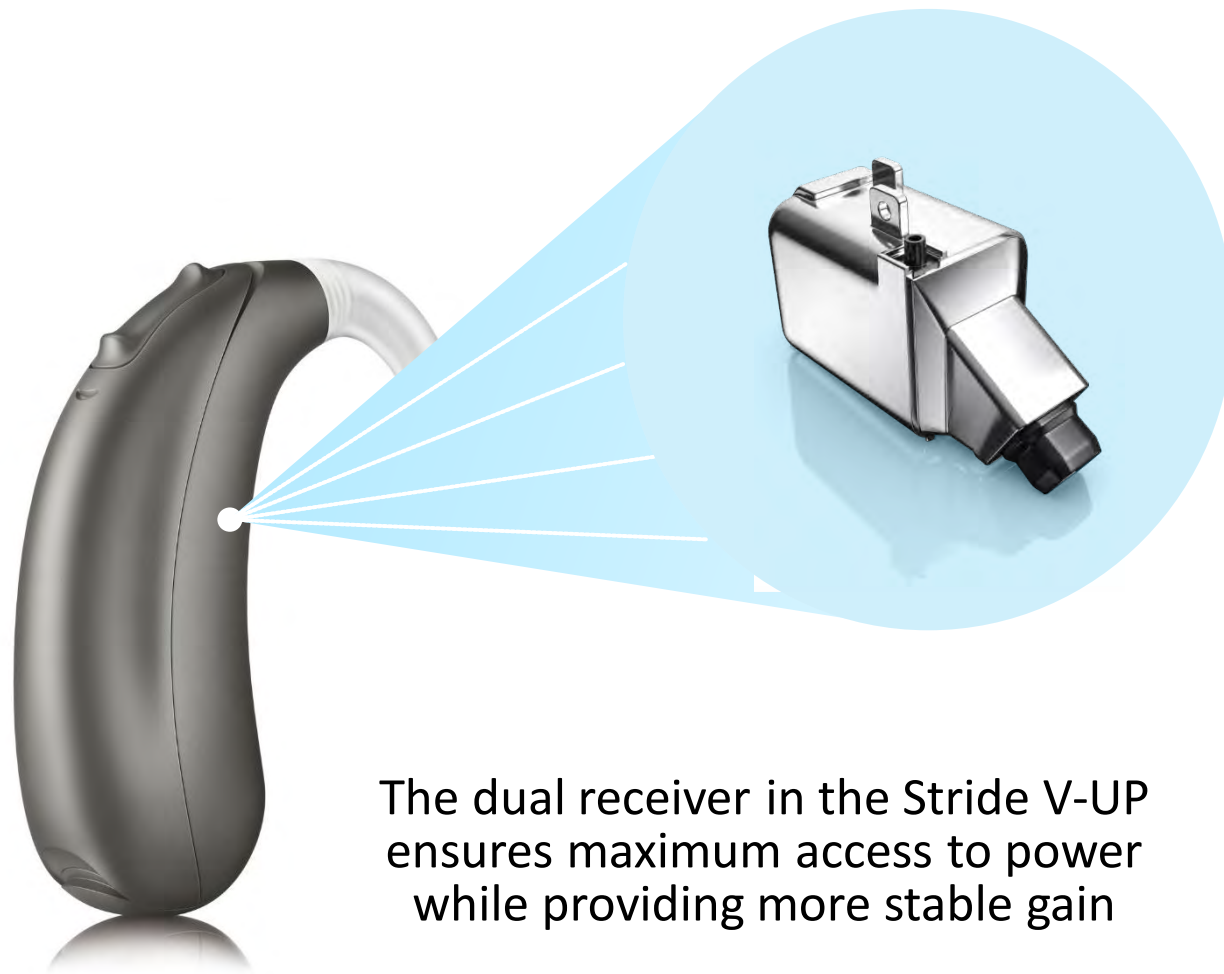
There is power in choice

Stride V-UP

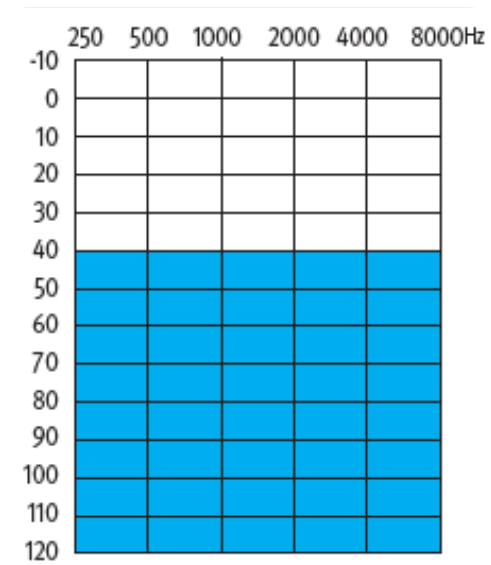


- Ultra-Power
 - Long-lasting, standard 675 battery
 - IP68 rating
 - Telecoil
- Vivante performance
 - Ultra Power Presets
 - Made for All connectivity
 - Microphone strategy
 - Frequency compression 2

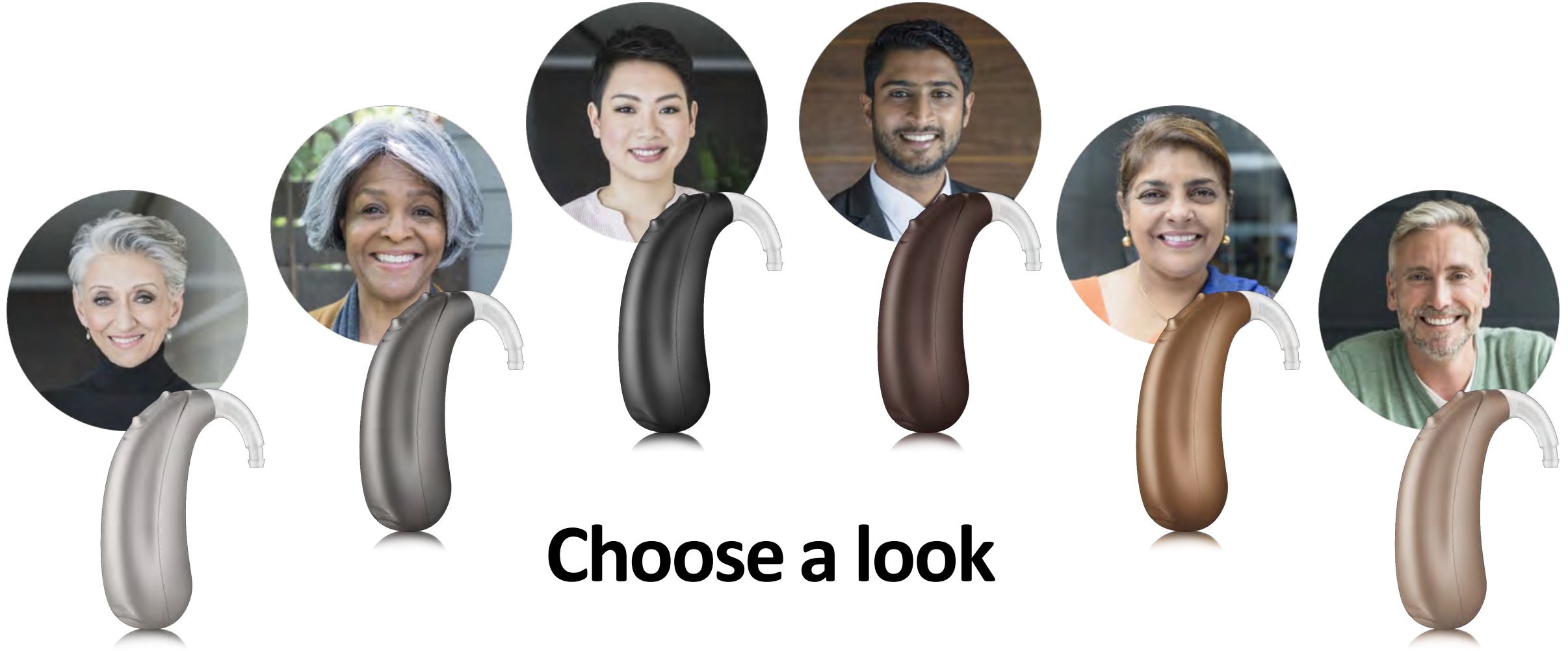
Powerful dual receiver



The dual receiver in the Stride V-UP ensures maximum access to power while providing more stable gain



	Filtered Earhook	Unfiltered Earhook
Peak output (2cc)	134	141
Gain (2cc)	78	84



Choose a look

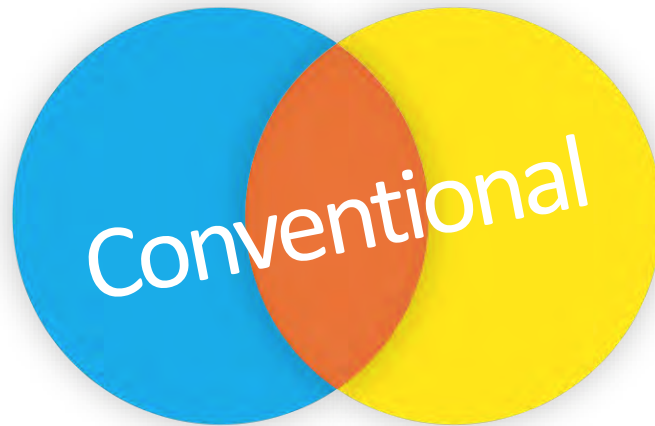


Choose a great starting point

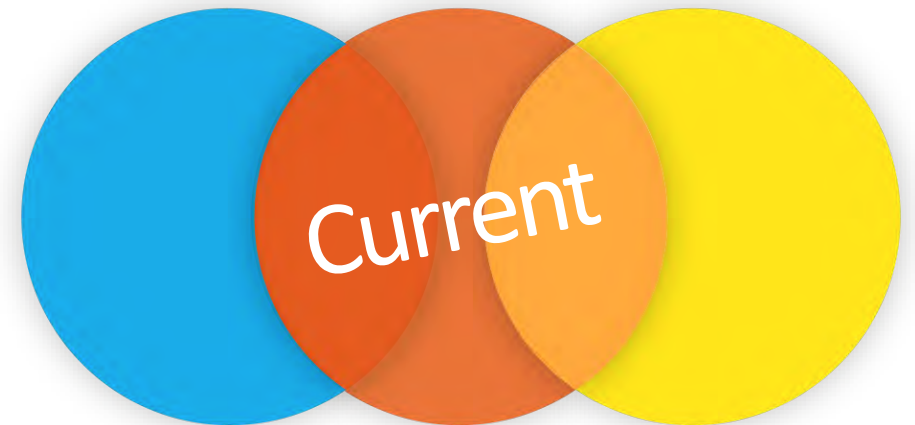
Ultra Power presets



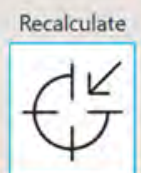
Minimal signal processing and
omni microphone settings



Moderate signal processing
and some directionality



The latest signal processing
features and advanced
directionality



Conversation in quiet

R ✓

Detect

✓ L

Stride V9
Stride V9-UP

Stride V9
Stride V9-UP

🔊

⚙️

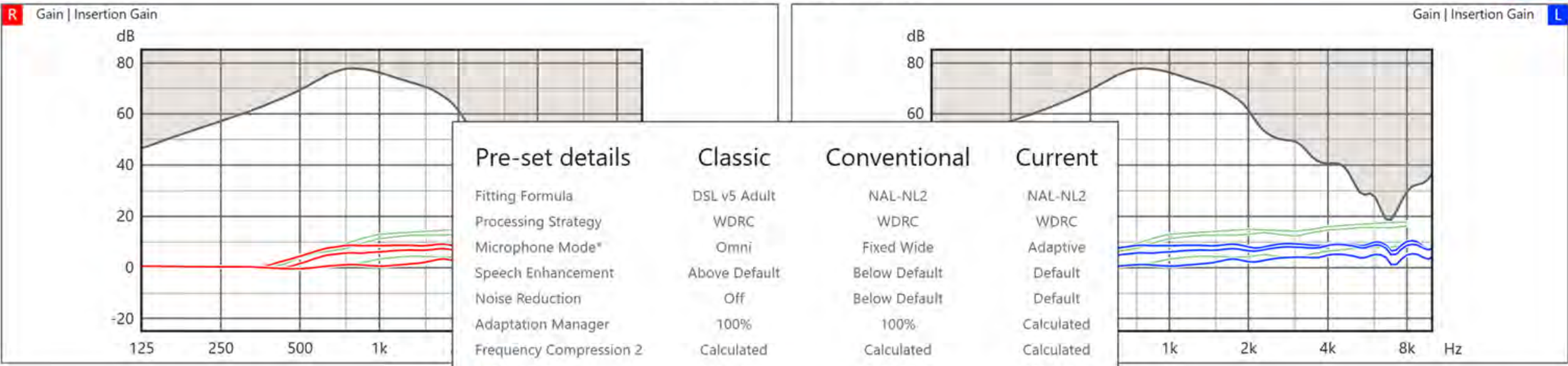
⚠️

🔍

Connection +

Pre-Fitting

Graph for 'Conversation in quiet'



Pre-set details	Classic	Conventional	Current
Fitting Formula	DSL v5 Adult	NAL-NL2	NAL-NL2
Processing Strategy	WDRC	WDRC	WDRC
Microphone Mode*	Omni	Fixed Wide	Adaptive
Speech Enhancement	Above Default	Below Default	Default
Noise Reduction	Off	Below Default	Default
Adaptation Manager	100%	100%	Calculated
Frequency Compression 2	Calculated	Calculated	Calculated
AntiShock 2	Moderate	Moderate	Moderate

*Microphone modes vary based on environments in the automatic program

Ultra Power pre-sets

☐ Classic

☐ Conventional

☒ Current

Fitting Formula

R & L
NAL-NL2

Processing Strategy

R & L
WDRC

Tinnitus Maske...

R & L
Audiogram~...

Freq Com

Sym

Ultra-Power pre-set decision-making guide

A Sonova brand

Ultra-Power pre-set decision making guide

Choosing the best Ultra Power pre-set with your client

Instructions for client:

1. Tell us your listening preferences. Your hearing aids will be set to provide sound that is optimized for you and is the closest to how you want to hear right from the start.
2. Keeping in mind your most important listening situations, please answer the following questions.

Questions:

When having a conversation in a quiet place, I prefer the speech to be:

Loud and full ☐	☐ Clear and distinct
--	---

When having a conversation in a noisy place, I prefer to hear:

A realistic balance of speech and noise ☐	☐ Clear speech and less background noise
--	---

When having a conversation in a noisy place, I prefer to:

Be fully aware of what's happening around me (including background noise) ☐	☐ Focus only on the conversation (and reduce the background noise)
--	---

When it comes to the volume of my hearing aids:

I often turn them up ☐	☐ I usually leave them as they are
---	---

When it comes to getting new hearing aids:

I want to keep hearing the same way I've always heard ☐	☐ I look forward to trying new hearing aid features
--	--

Decision matrix:

➡ answers in left column suggests using the **Classic** pre-set

➡ answers in each column suggests using the **Conventional** pre-set

➡ answers in right column suggests using the **Current** pre-set

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unitron. Love the experience

An easy-to-use tool to help HCPs and their clients work toward their hearing and communication goals



FLEX:TRIAL™

Lets clients test their new hearing experience outside of the clinic and in the real world where they live, work, and play.



Remote Adjust

Give the ability to make frequency response and adaptive feature changes for your clients in Unitron's TrueFit™ fitting software and a personalized message from anywhere using the Remote Plus app.



Log It All

Captures critical real-time data to give you the ability to explain recommendations to clients more clearly based on their real-world listening lifestyle.



FLEX:UPGRADE™

No need to swap hearing instruments when needs evolve. FLEX:UPGRADE uses Unitron TrueFit™ fitting software to upgrade based on your clients' hearing needs.



Ratings

In-the-moment impressions that don't depend on recall give clients peace of mind knowing you can address issues quickly and seamlessly.

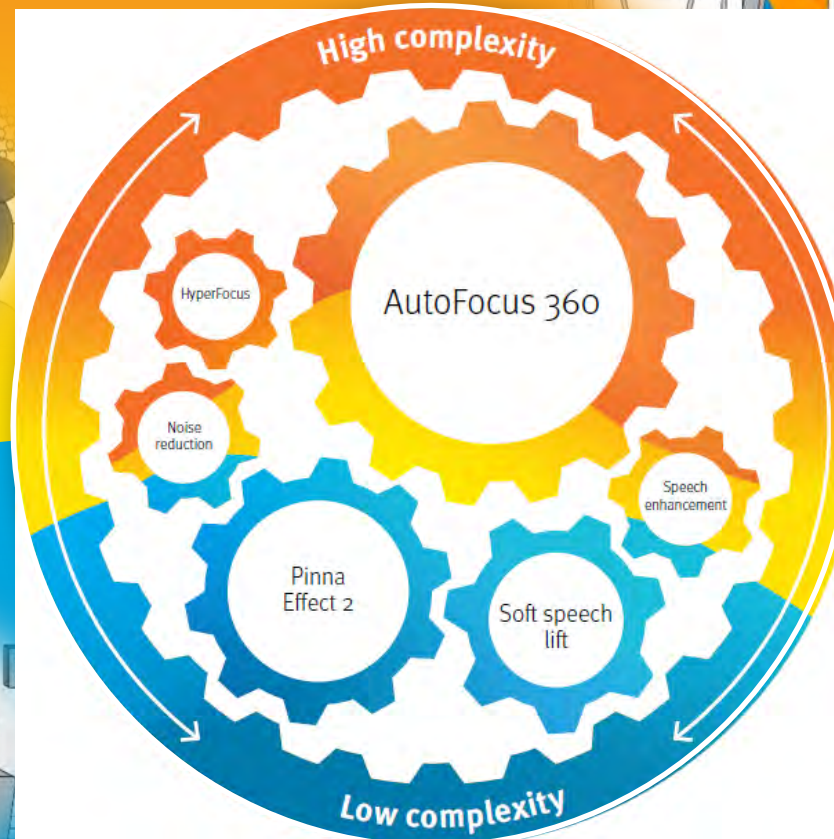


Coach

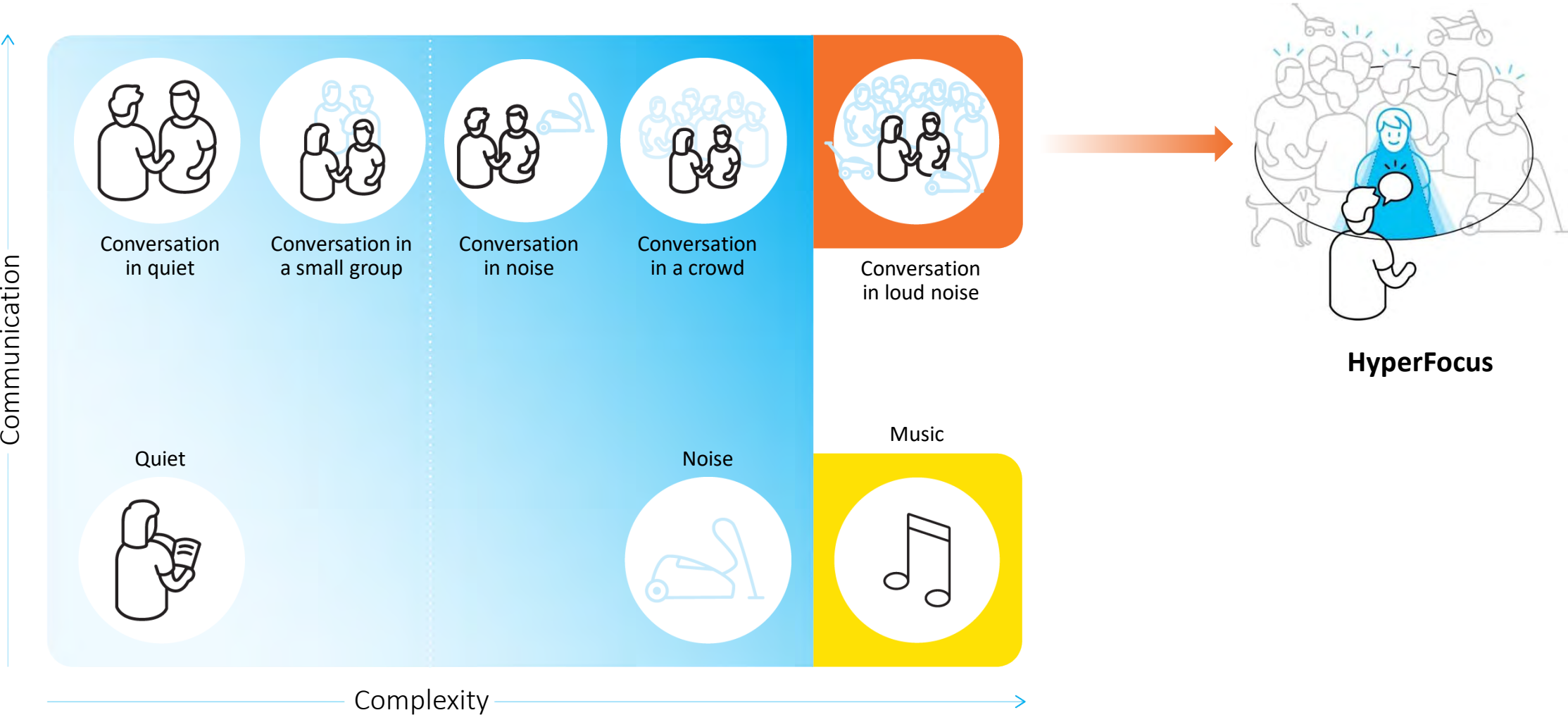
Extends care beyond the in-person consultation and right to clients' smartphones through the Remote Plus app. Coach is available 24/7 to reinforce the personalized tips and advice on your behalf.



Integra OS



Integra OS

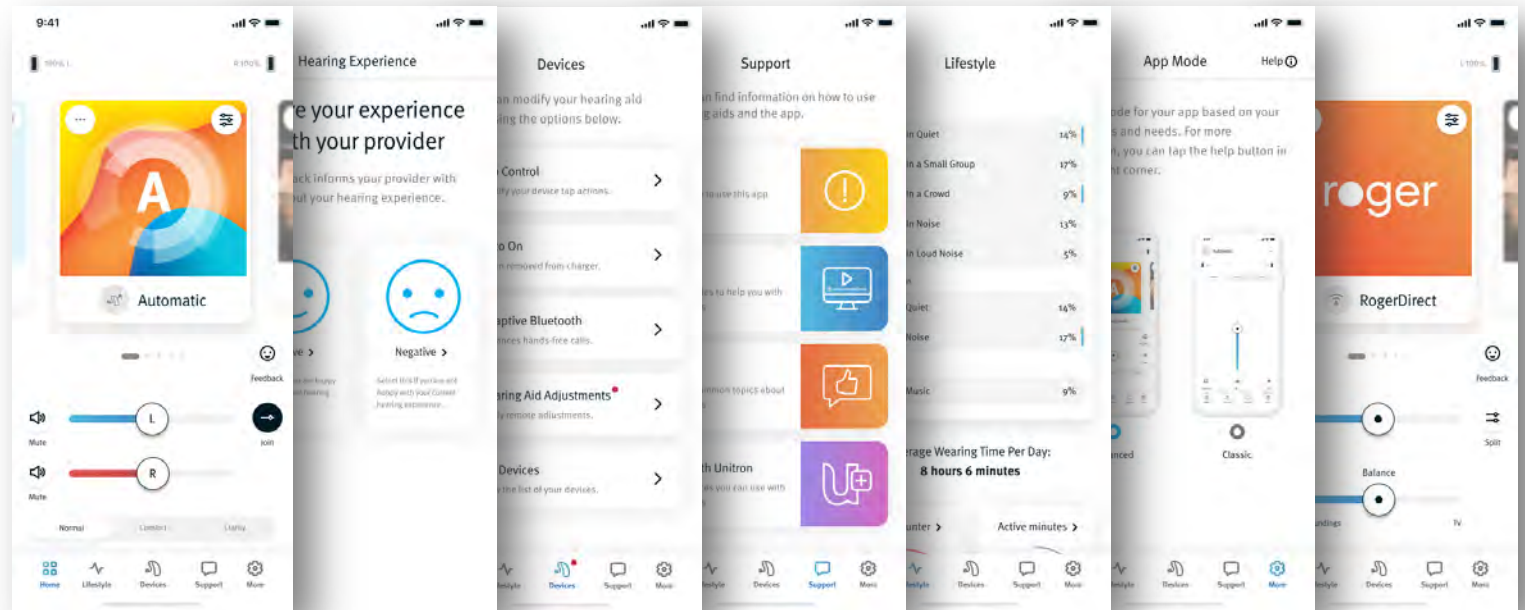


Use of manual programs

Data from the Blu platform products shows that UP users are almost twice as likely to use manual programs compared to those using other Blu styles



Remote Plus app



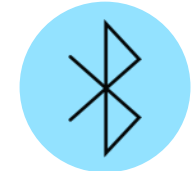
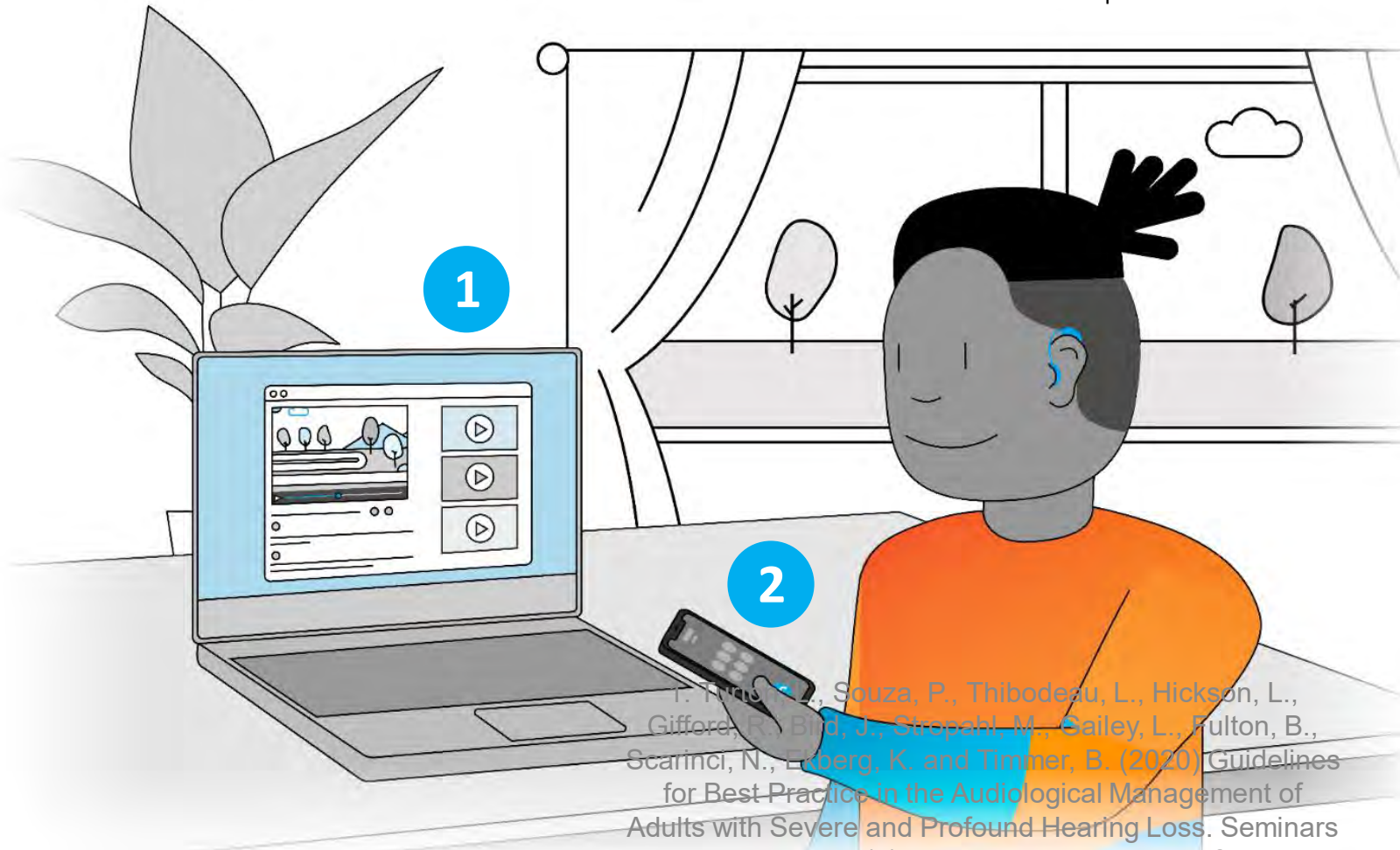
Made For All connectivity

Hands-free, multiple Bluetooth® connections

android 

apple  iOS

Smartphones and traditional mobile phones with a compatible Bluetooth Hands-Free Profile



2 active BT device connections

T. Timmer, P. Souza, P., Thibodeau, L., Hickson, L., Gifford, R., Bird, J., Stropahl, M., Bailey, L., Fulton, B., Scarinci, N., Ekberg, K. and Timmer, B. (2020) Guidelines for Best Practice in the Audiological Management of Adults with Severe and Profound Hearing Loss. Seminars

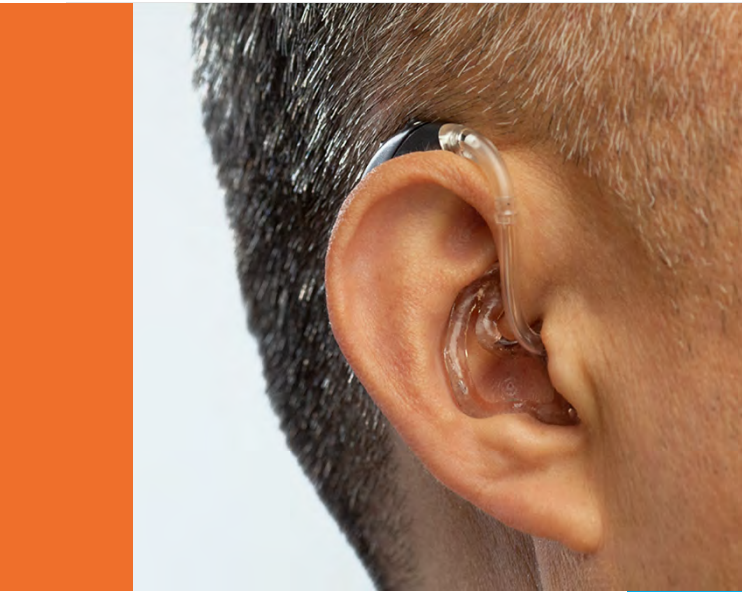
unitron™

Features & options

with special relevance for UP



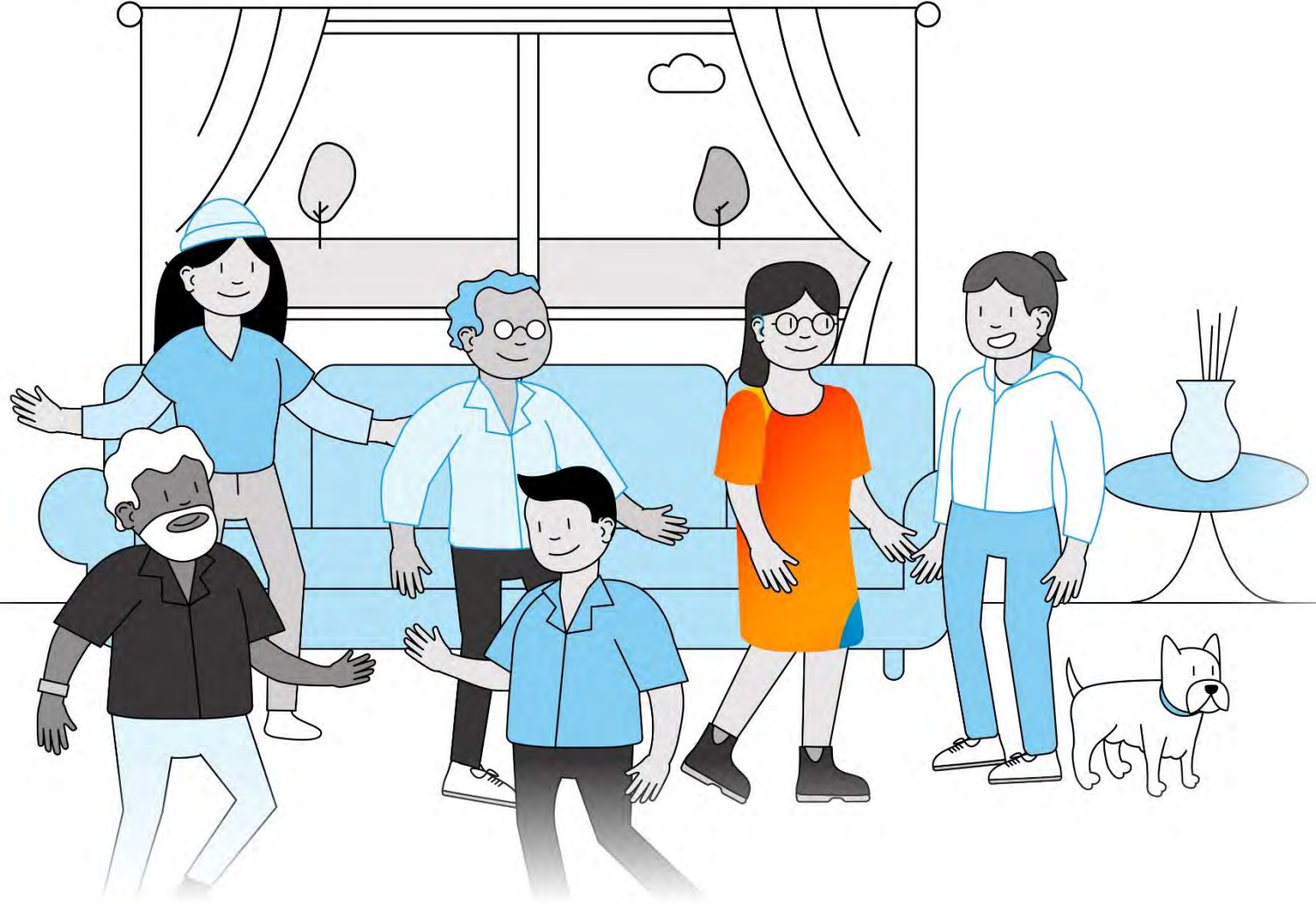
Best practices for severe-to-profound hearing instrument fittings



- An estimated 87 million people with severe to profound hearing loss¹
 - Often, the top complaint is difficulty hearing in background noise

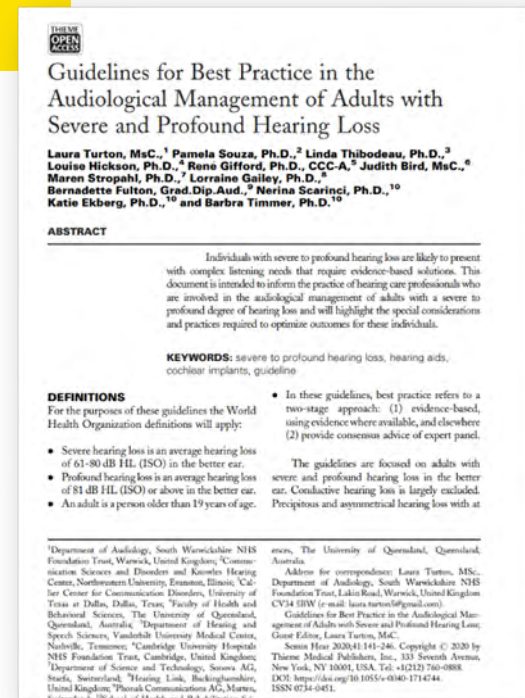
1. Turton, L., Souza, P., Thibodeau, L., Hickson, L., Gifford, R., Bird, J., Stropahl, M., Gailey, L., Fulton, B., Scarinci, N., Ekberg, K. and Timmer, B. (2020) Guidelines for Best Practice in the Audiological Management of Adults with Severe and Profound Hearing Loss. *Seminars in Hearing*. 41(3), pp. 141-246. Accessed from: <https://pubmed.ncbi.nlm.nih.gov/33364673/>

Listening effort and fatigue



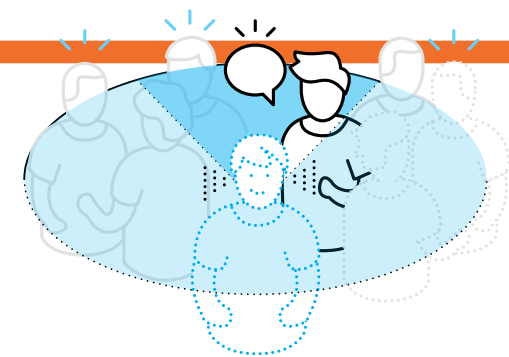
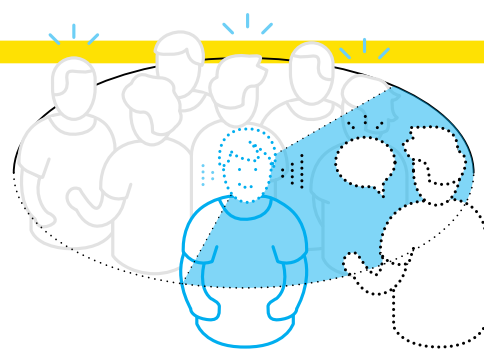
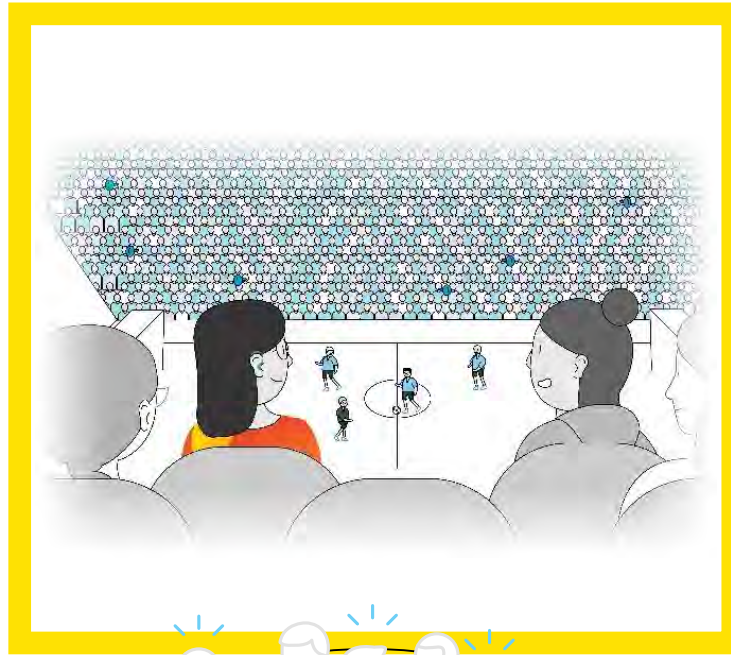
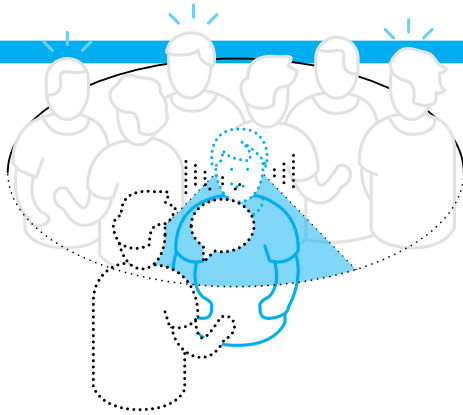
Why is directionality important for severe-to-profound wearers?

Features like adaptive directionality are especially useful for improving the Signal-to-Noise Ratio (SNR) where speech and noise occur in varying locations and are spatially distinct.¹



1. Turton, L., Souza, P., Thibodeau, L., Hickson, L., Gifford, R., Bird, J., Stropahl, M., Gailey, L., Fulton, B., Scarinci, N., Ekberg, K. and Timmer, B. (2020) Guidelines for Best Practice in the Audiological Management of Adults with Severe and Profound Hearing Loss. *Seminars in Hearing*. 41(3), pp. 141-246. Accessed from: <https://pubmed.ncbi.nlm.nih.gov/33364673/>

AutoFocus 360



HyperFocus



Exchange of audio to create narrow beam

Gradual, smooth activation when:

- Speech from front
- Loud noise

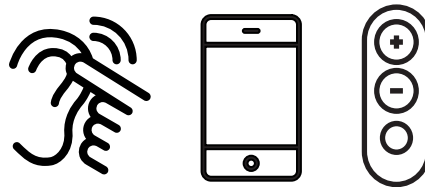


HyperFocus

Available in Integra OS automatic (conversation in loud noise) and manual programs

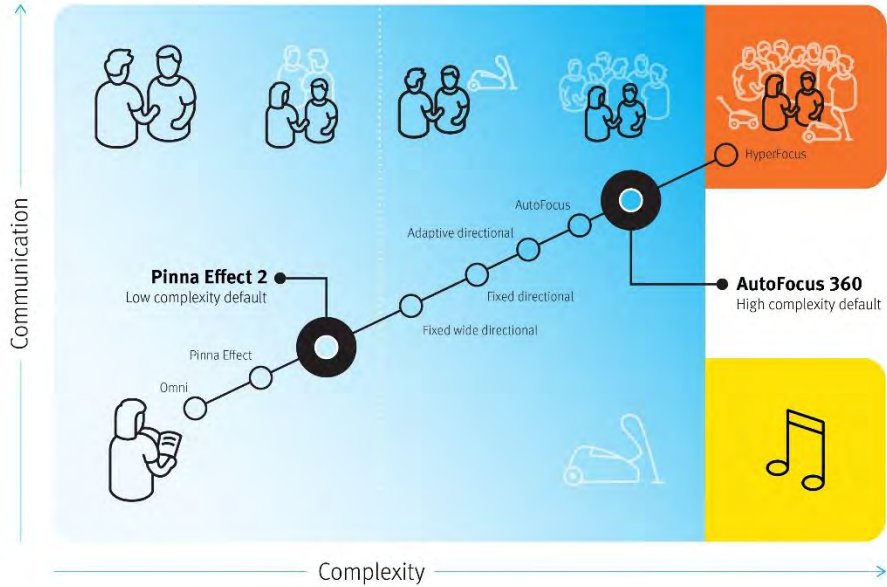
Integra OS automatic (level 9)

Manual program (levels 9 & 7)

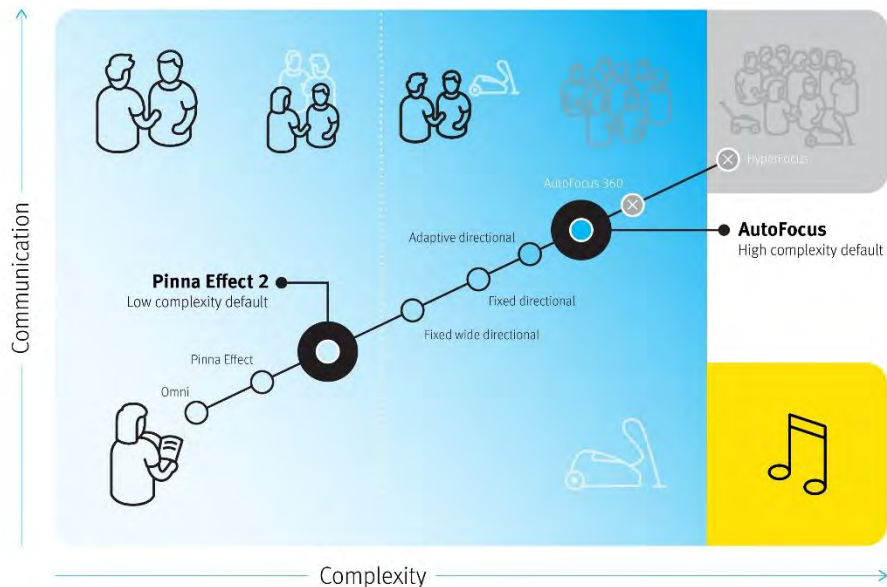


1. Turton, L., Souza, P., Thibodeau, L., Hickson, L., Gifford, R., Bird, J., Stropahl, M., Gailey, L., Fulton, B., Scarinci, N., Ekberg, K. and Timmer, B. (2020) Guidelines for Best Practice in the Audiological Management of Adults with Severe and Profound Hearing Loss. Seminars

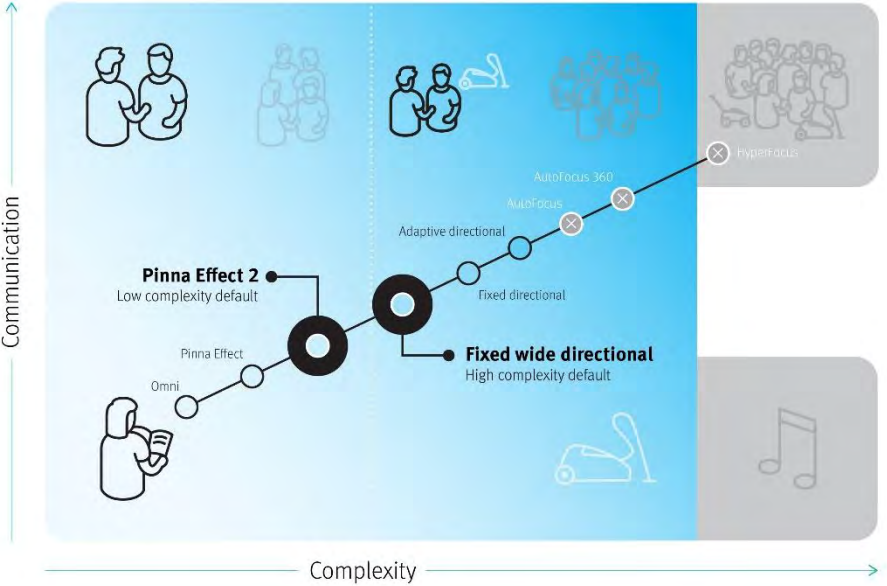
Premium
9 level



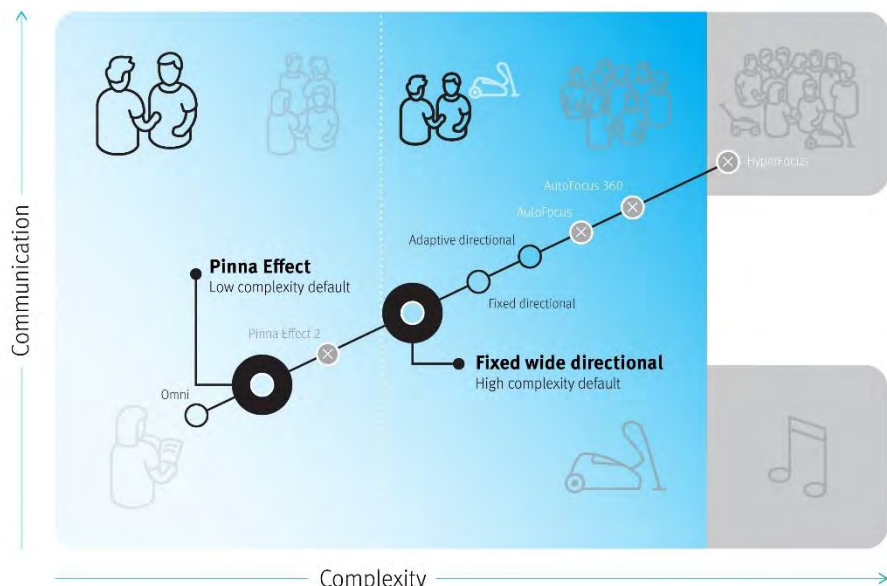
Advanced
7 level



Standard
5 level



Essential
3 level



Microphone strategy – a recap

Directional responses to environment classification and speech location

Author:
Joan Scarinci
Senior Hearing Performance Audiologist
Favourite word: A beautiful wish

unitron. Love the
soundness

Direction

We people experience a multitude of environments: quiet conversations at home, meals in a noisy restaurant, or walking on a busy street corner. The acoustic in these different environments can vary and change dynamically. A hearing user's listening experience depends on hearing instrument settings match their presence. As their sound scene changes, if their hearing instruments may need to change in response to the new environment. This can be done manually or automatically by the hearing for the hearing instruments to adapt they need to be able to correctly identify environment and then make appropriate

Processing philosophy

We believe that a sophisticated system, capable of characterizing the acoustic and adjusting performance, offers the advantage of ease of use with the risk of potential error, such as the wrong manual program or not in a program at all.

(2017)

Hearing instruments have been capable of adapting acoustic environments for years. It's processing technology has continued to improve and adapt the sound in different environments. Hearing instruments need to be able to adapt to the changing acoustic environment. In high complexity environments, the hearing instrument has engaged and adjusted the directional response based on the classification of the environment. In a complex environment, the hearing instrument has been further (the addition of HyperFocus, HyperFocus, and the ability of the hearing instrument to adapt to the complex environment).

A Sound scene

Environment classification

In order to implement Unitron's philosophy, the first step is accurately identifying the listening scenario, which can be characterized across multiple aspects of the acoustic environment, eg, the overall level of sound, the presence or absence of speech and/or background noise, the SNR, and the location of speech relative to the listener.

Cornelisse (2017) described how any listening scenario can be quantified using three key dimensions: 1) overall level, 2) type of noise, and 3) SNR.



Figure 1. A 3D diagram showing the three dimensions of sound: level, type, and SNR.

Hayes (2021) compared the performance of Unitron's Conversational Classifier to that of normal hearing listeners and found that Unitron's classification system was able to accurately classify both simple and complex listening environments. In this study, 36 different acoustic environments were first classified by 20 normal hearing listeners to establish a baseline. The performance of the classifier used in the hearing instruments from Unitron and four other major manufacturers was then compared to the performance of the baseline and identified normal hearing listeners. The performance of Unitron's classifier was highly consistent with that of the normal hearing listeners.

Launch of the Vivara platform, Unitron's hearing instruments used a traditional beamforming and the two microphones from a single channel to create the directional response. From this two microphones are combined, they combine the microphones (physical distance and internal signal processing) the sensitivity to inputs from all directions with Vary (Hickson, 2005). Since the response is created using the microphones, the hearing instrument, this is referred to as a beamformer.

During data exchange between the two microphones, Unitron's hearing instruments use a directional beamformer to coordinate the directional response of a pair of Unitron hearing instruments to respond to the sound scene.

Unitron's Vivara hearing instrument has a directional system called HyperFocus. This directional system is created by combining the two microphones in a pair of hearing instruments. This is different than the data exchange used. The full audio signal is exchanged between the two hearing instruments to create a directional response that is possible with a natural beamformer.



Figure 2. A diagram showing the directional response of a pair of hearing instruments.

Unitron's Vivara hearing instrument has a directional system called HyperFocus. This directional system is created by combining the two microphones in a pair of hearing instruments. This is different than the data exchange used. The full audio signal is exchanged between the two hearing instruments to create a directional response that is possible with a natural beamformer.

Directionality based on environment and location of speech

Unitron's system can accurately classify the acoustic environment of the user and can also detect the location of speech. Hayes (2021) found that on average people spend about 26% of their time in complex environments. We know if the user is in a complex environment, we know if there is speech or not, and if there is speech present, we know what direction it is coming from.

HyperFocus is the name of the sophisticated automatic system within the Vivara platform which adjusts multiple parameters within the hearing instruments in response to changes in the acoustic environment. One of the parameters it automatically adjusts is the directional response of the hearing instruments.

Low complexity environments

The goal in low complexity listening environments is to provide awareness of environmental sounds while maintaining the acoustic cues required for sound localization. When the SNR is high, it does not need to be increased by the directional system. When a lower complexity environment is detected, the microphone mode used by Unitron's hearing instruments (Pima Effect 2) Pima Effect 2 was developed to ignore the directional response of the average human ear. Like a human ear, the directional response is different between the left and right hearing instruments in a pair. Pima Effect 2 is only available for hearing instruments in a pair. Pima Effect 2 was designed to compensate for the typically low SNR with hearing instruments, which are needed for localization.



Frequency compression 2

Audibility precedes intelligibility

Auditory hierarchy

Detection

Awareness of when a sound is present or not present

Discrimination

Ability to determine whether two sounds are same or different

Identification

Ability to identify what has been named or labeled

Comprehension

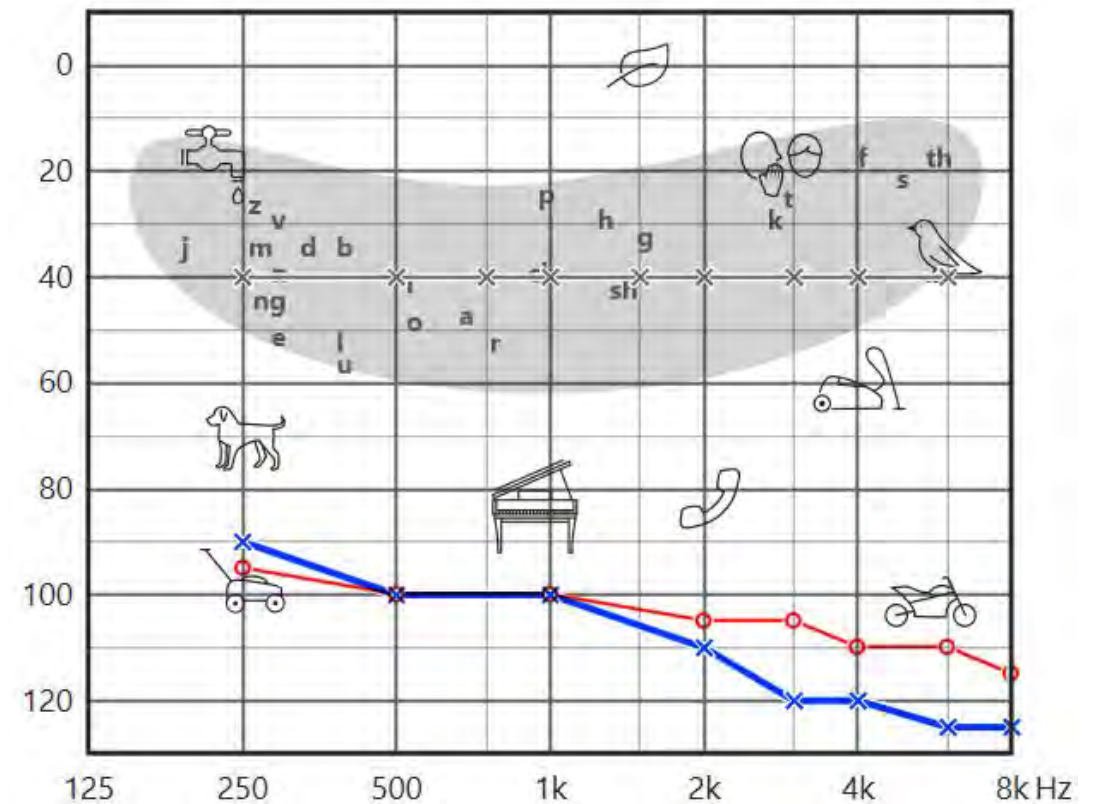
Ability to understand meaning of spoken language

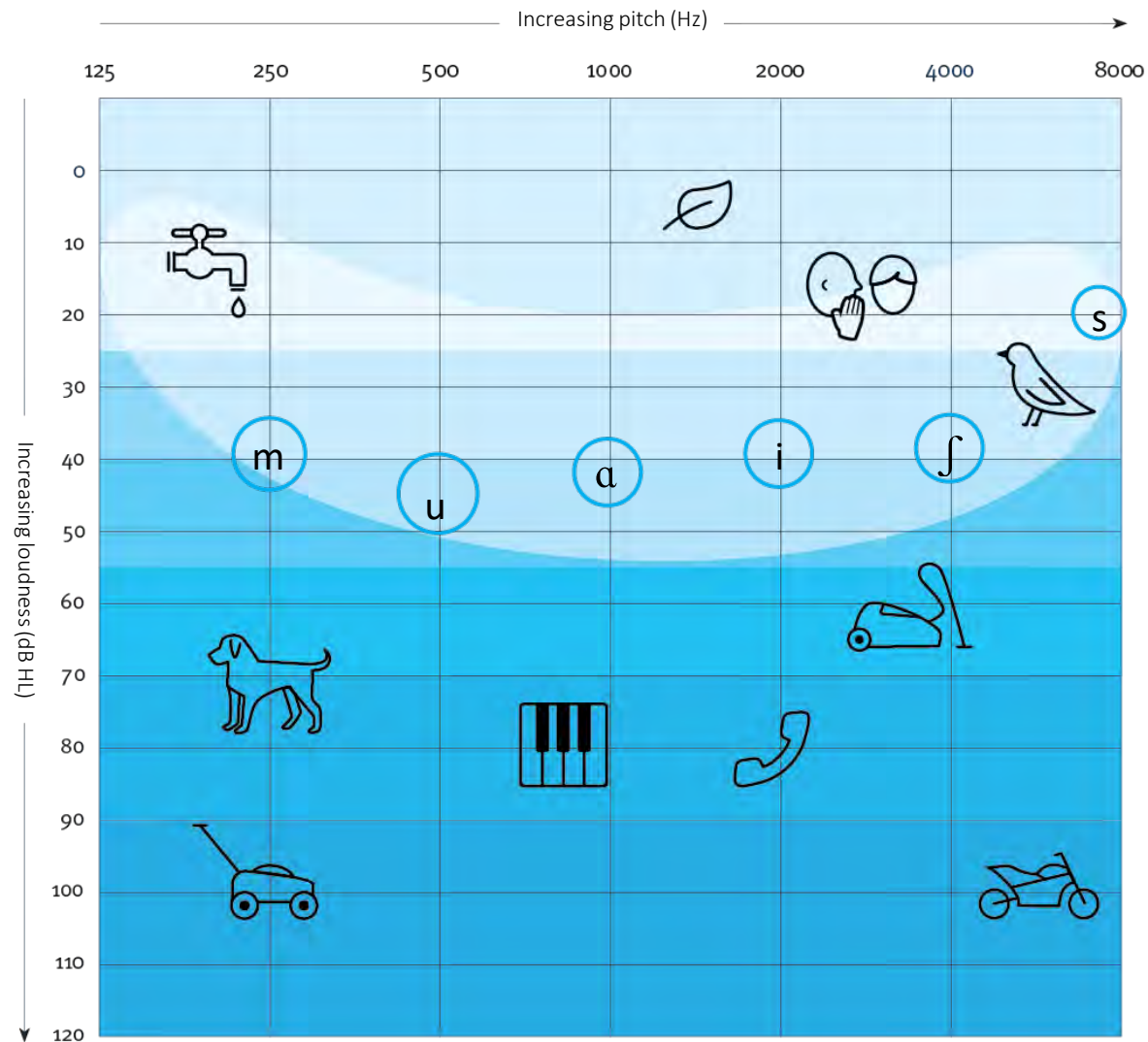
Frequency compression 2

Provides access to speech sounds that may occur outside of range of audibility with amplification alone

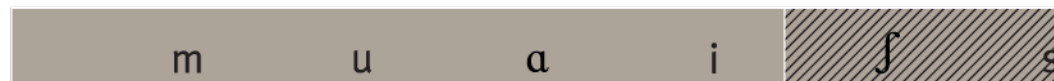
Ideally used for those experiencing:

- Severe ski-slope losses
- Left-corner audiograms
- Severe flat losses



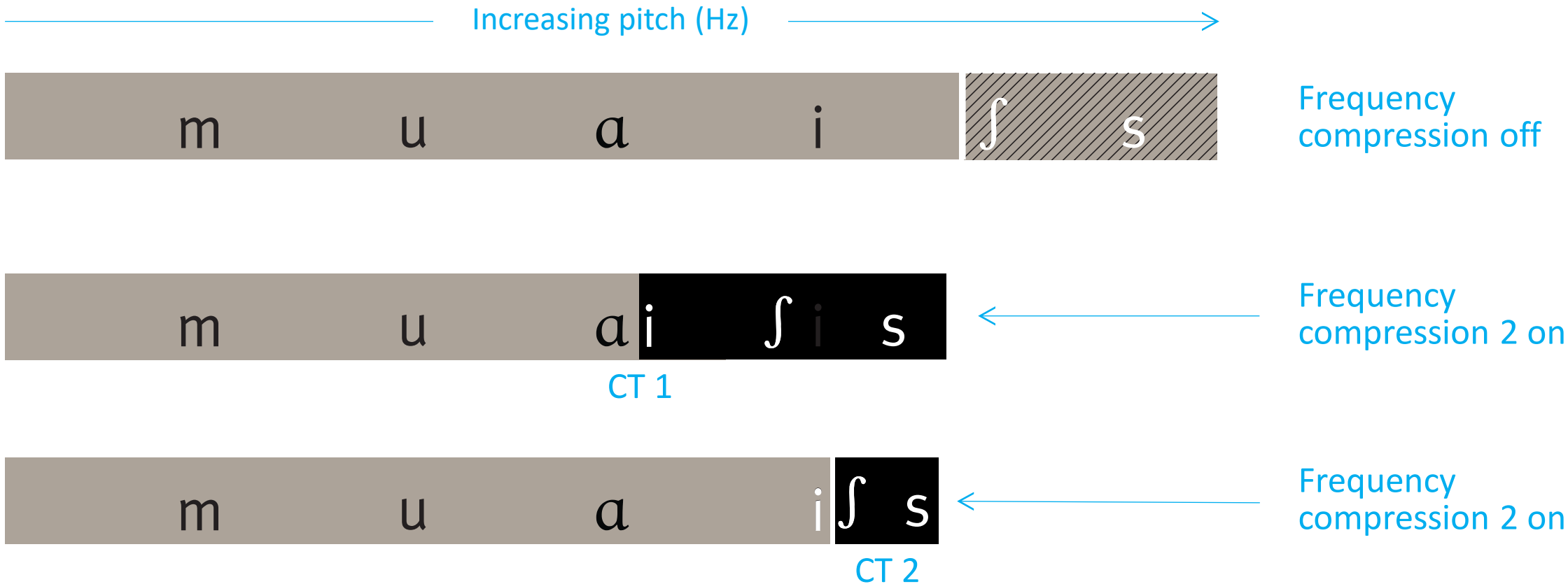


Ling-6 sounds (typical hearing)



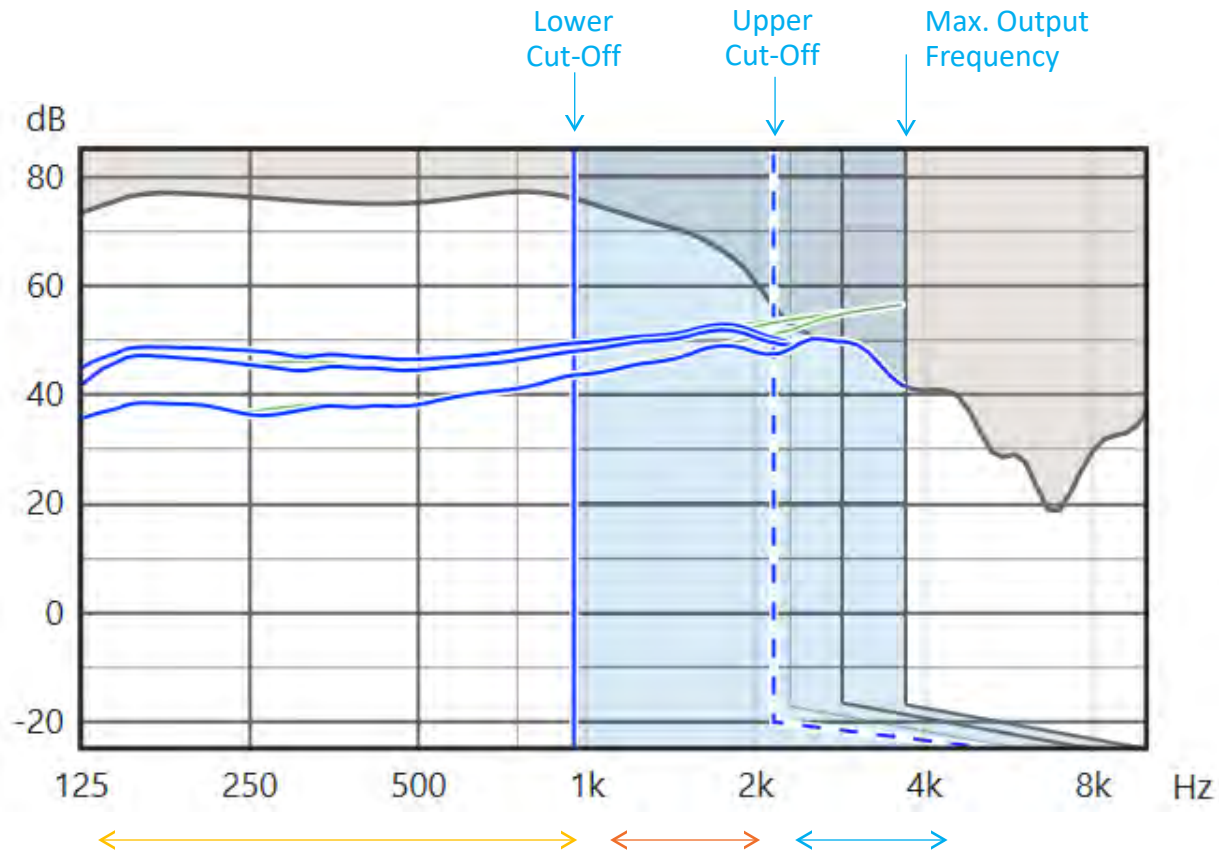
Ling-6 sounds (hearing loss)

Frequency compression 2



 Audible  Inaudible  Newly audible

Frequency compression 2

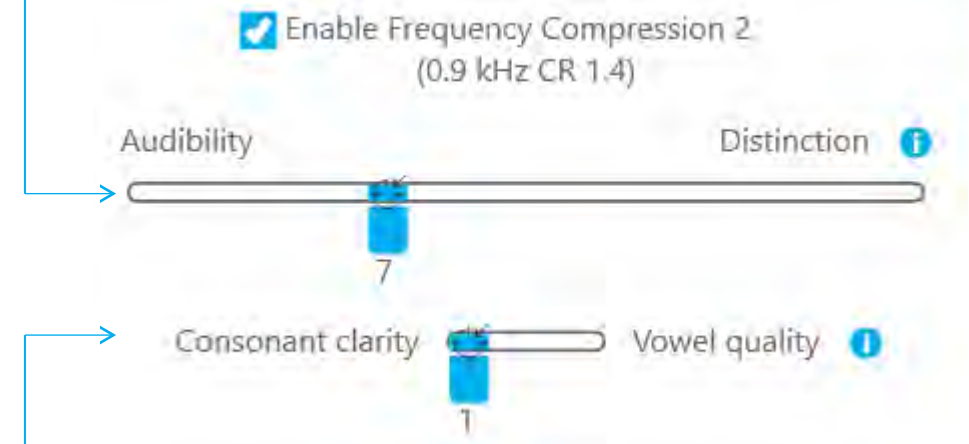


Non-compressed
output range

Adaptive output range: these
frequencies are compressed
if the input signal is high
frequency dominated

Compressed output range:
these frequency components
are always compressed

**Audibility and Distinction adjusts
the Lower and Upper Cut-Off points**



**This slider is dependent on the top slider and will
automatically adjust to optimize clarity**

- **Closer to consonant clarity: clearer distinction**
- **Close to vowel quality: more natural sound**

Verification of Frequency compression 2

- Verification provides the clinician and the client with a visual representation of the feature performance
- Reassures both parties that the hearing instruments are providing accurate separation of relevant phonemes



Set up

- First, complete your hearing instrument verification procedure as normal.
- For UP users, Frequency compression 2 is on by default, so it is important to ensure this is disabled before running any initial Real Ear Measures. Without doing so, the response may appear to not meet target.
- The default is a symmetrical approach for both ears. If the client is experiencing a significant asymmetry, then Frequency compression 2 approach can be calculated independently.

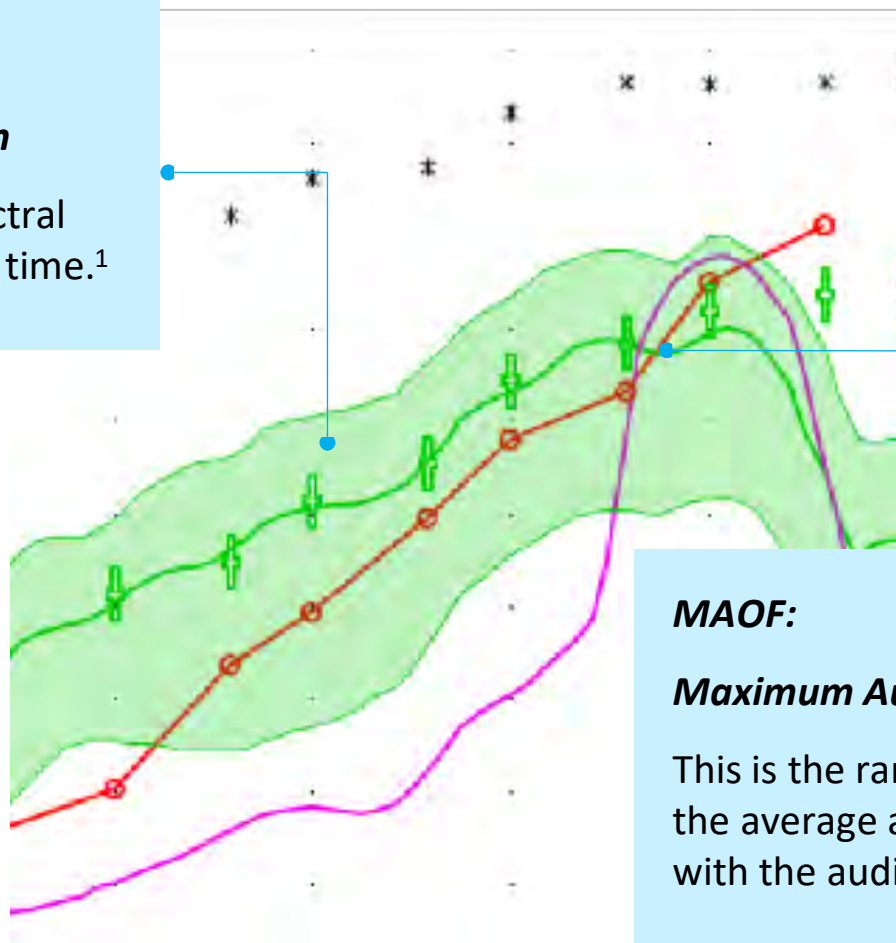


Definitions

LTASS:

Long Term Average Speech Spectrum

This provides information on the spectral distribution of the speech signal over time.¹



MAOF:

Maximum Audible Output Frequency

This is the range in which the frequencies between the average and the peak of the LTASS intersects with the audiogram in the high frequencies.²

STEP

2

Determine audibility of /s/

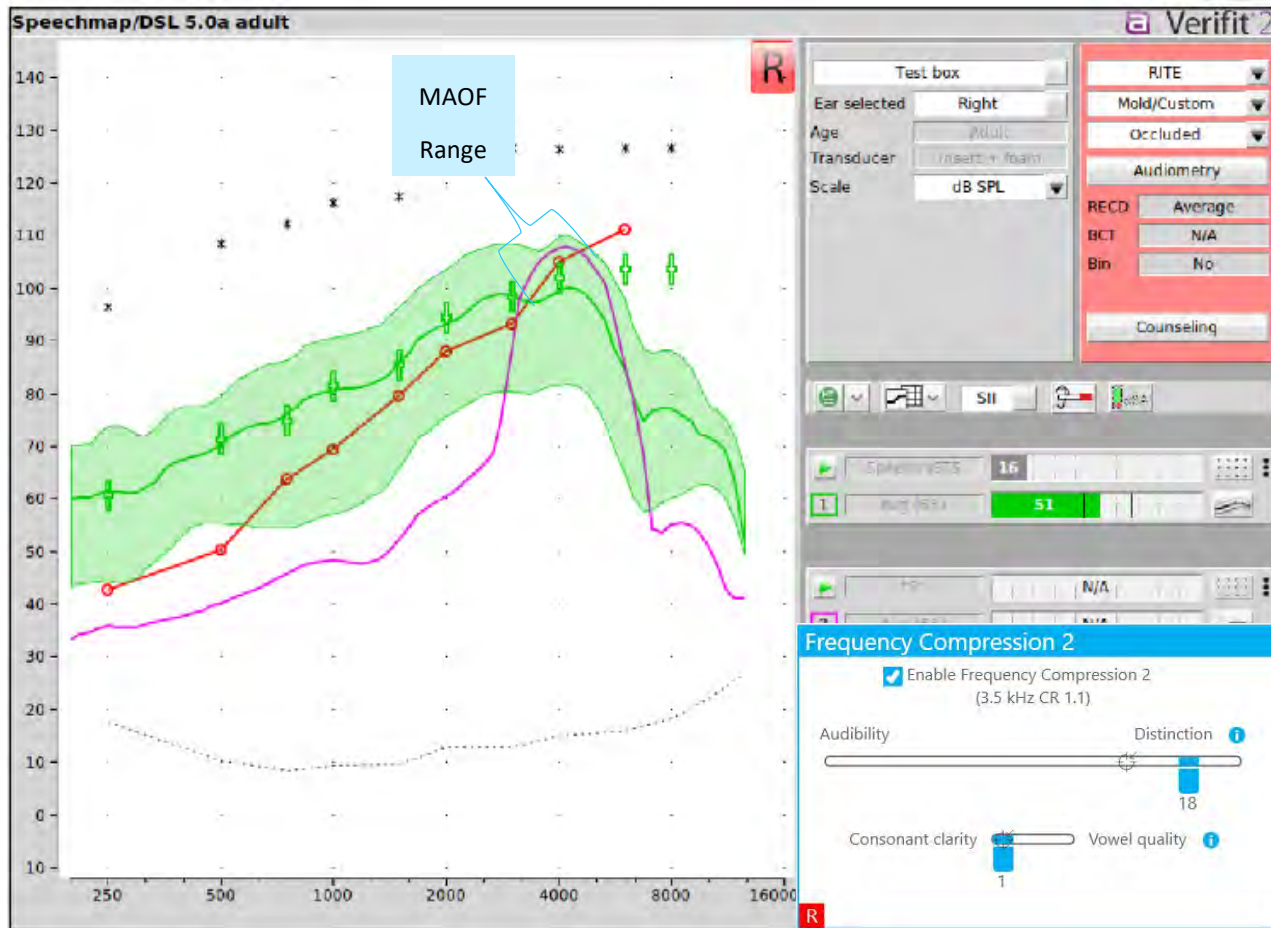


With Frequency compression 2 disabled, run your /s/ stimulus and see where it falls – if it is outside the MAOF range, that sound is not audible

STEP

3

Enable Frequency compression 2

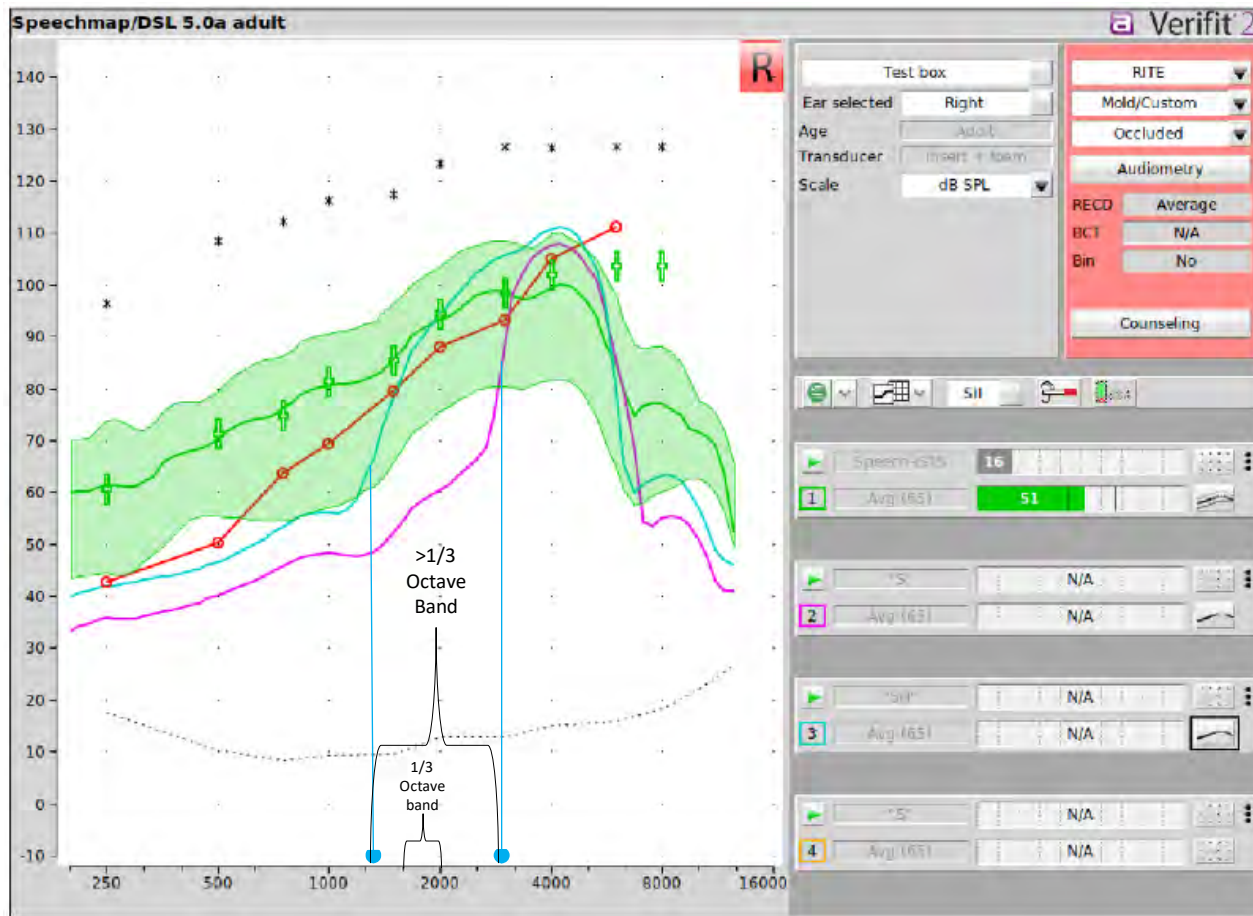


Frequency compression 2 on

STEP

4

Discrimination of phonemes



Finally, run your /sh/ stimulus.

You should see greater than a third of an octave of separation between the lower shoulders of /sh/ and /s/ cross the threshold line.

You have now shown objectively that the hearing instrument provides audibility and distinction to /s/ and /sh/.

Things to keep in mind...

- Is the client hearing well without the use of frequency lowering?
- If the client isn't liking the sound quality with Frequency compression 2 enabled, consider using a weaker setting and gradually move the client to target
 - Counseling and adaptation may lead to acceptance and benefit over time
- Use the weakest setting where the client is getting benefit to maintain the most natural possible sound quality



Accessories and Roger



Are hearing instruments enough?

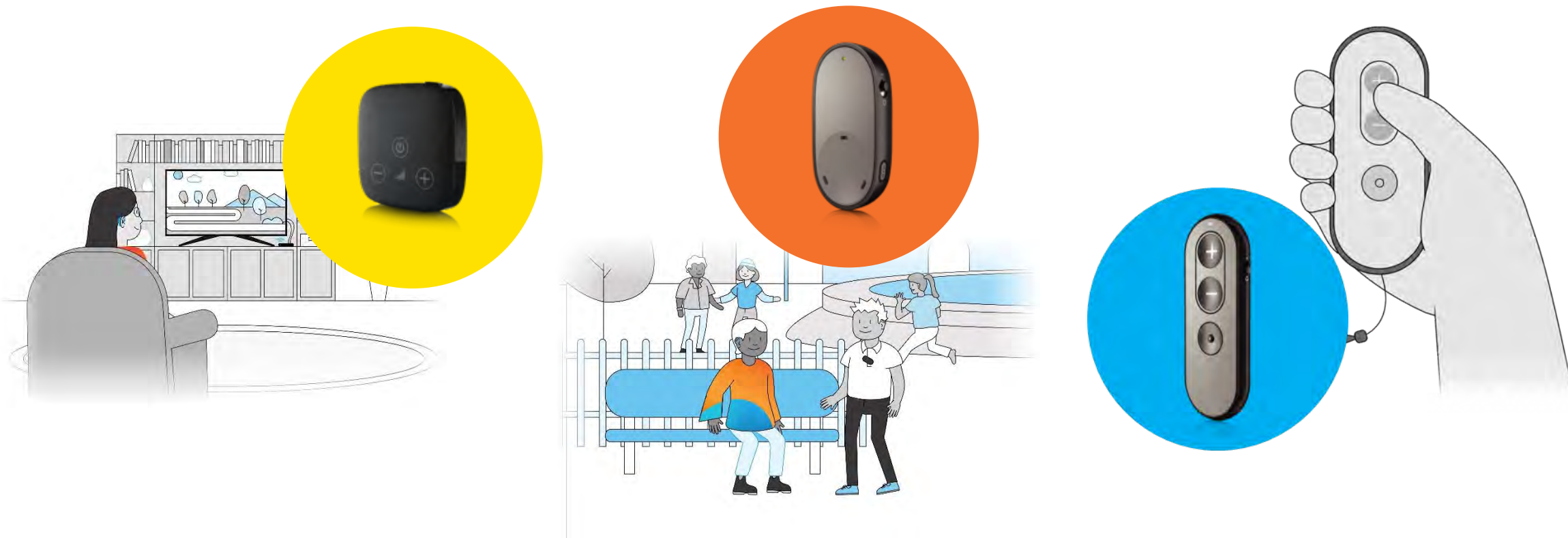
In some listening environments, particularly for UP wearers, significant benefit can be achieved from supplemental devices, tools and options.



1. Turton, L., Souza, P., Thibodeau, L., Hickson, L., Gifford, R., Bird, J., Stropahl, M., Gailey, L., Fulton, B., Scarinci, N., Ekberg, K. and Timmer, B. (2020) Guidelines for Best Practice in the Audiological Management of Adults with Severe and Profound Hearing Loss. Seminars

Wireless accessories

These devices connect directly to our hearing instruments, to seamlessly bridge communication gaps.



Roger transmitters



roger

Roger transmitters work differently than remote microphones in that they can provide up to a **+20 dB SNR**.

FLEX:TRIAL & RogerDirect

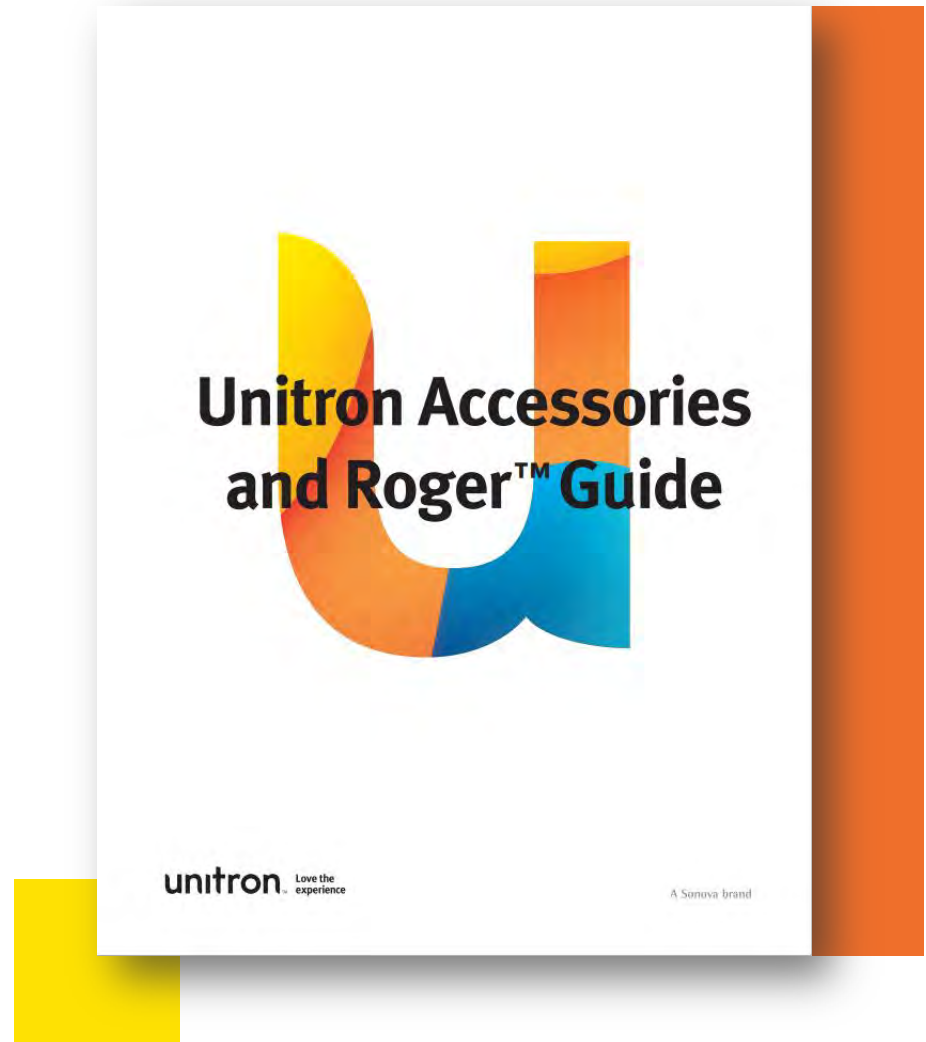


Stride V-UP FLEX:TRIAL devices have RogerDirect pre-installed

1. Turton, L., Souza, P., Thibodeau, L., Hickson, L.,
Gifford, R., Bird, J., Stropahl, M., Gailey, L., Fulton, B.,
Scarinci, N., Ekberg, K. and Timmer, B. (2020) Guidelines
for Best Practice in the Audiological Management of
Adults with Severe and Profound Hearing Loss. Seminars

Wireless accessories guide

The Unitron Accessories and Roger Guide discusses assistive listening devices that will help clients meet their communication goals.

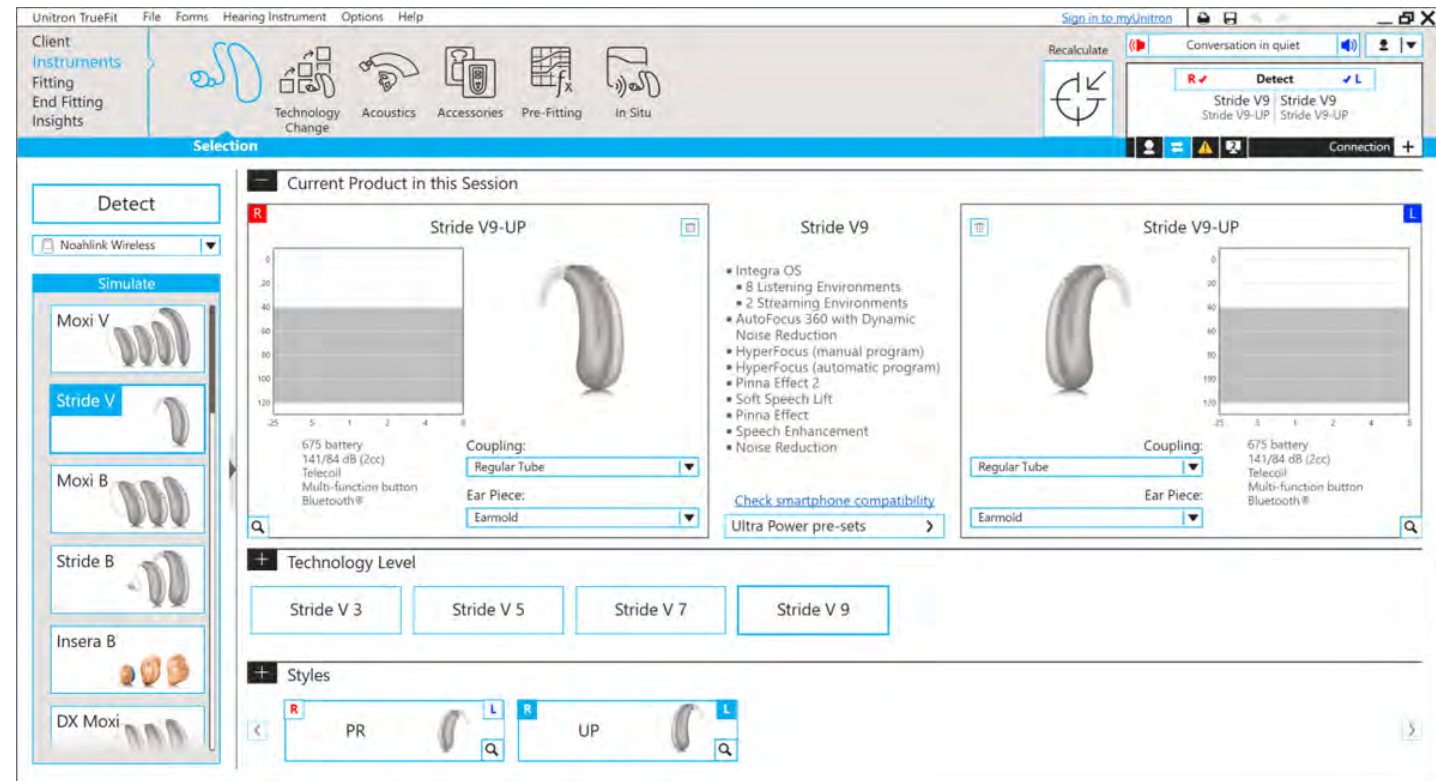


Stride V-UP in Unitron TrueFit™ 5.5

No need to update your fitting software!

To access Stride V-UP in TrueFit:

- Detect any Stride V-UP device for it to become visible in the fitting software
- The next time you restart TrueFit, Stride V-UP devices at all technology levels will be available in the software



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