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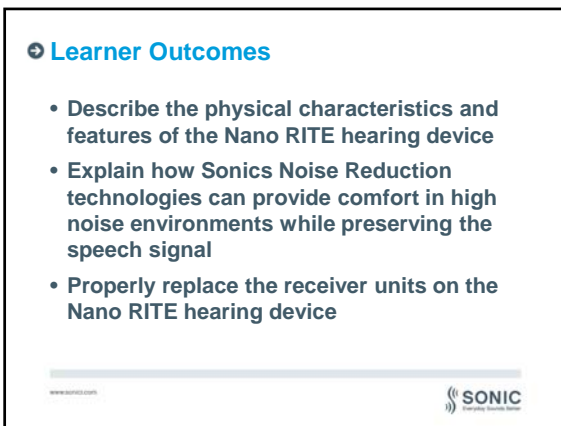
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**➔ Sonic Listened**

- **Flip miniRIC has been a success for many HCPs**
  - Tremendous battery life
  - Excellent sound quality
  - Great fitting flexibility
- **BUT...Flip isn't for everyone**
  - Battery door design
  - The body is 'too wide'



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**➔ Introducing the Nano RITE**



- 312 battery
- Sleek design
- Wireless compatible
- Standard and Power Speakers

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**➔ Features**

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**➤ Delivering Natural Sound**

- **Speech Variable Processing** accurately measures the incoming signal and applies gain appropriately, especially for very soft speech sounds
- **Benefit**  
Makes sound clear and natural in a variety of listening situations

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**➤ Speech Variable Processing**

- **Speech**
  - Is complex and dynamic
- **Fast**
  - Amplification must be applied quickly to be correct (Very fast attack / fast release )
- **Preserve**
  - Frequency contrast to maintain clarity

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**➤ A Word About Speech**

- **Speech constantly varies**
  - Individual sounds are long or short
  - Amplitude changes quickly and dramatically
- **A healthy cochlea processes speech naturally**
- **Processing systems require sophisticated technology to replicate speech accurately**

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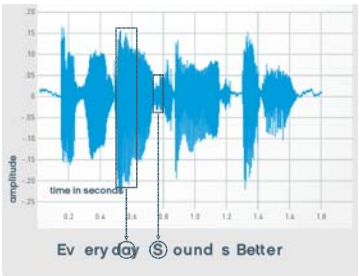
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➔ **Speech Is Complex and Dynamic**



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➔ **The Healthy Cochlea... Speed**

- **QUICKLY** measures the input levels of incoming sounds
- **QUICKLY** controls amplification of sound
  - Amplifies when necessary (soft sounds)
  - Compresses when necessary (loud sounds)
- This speed is key to maintaining natural sound quality

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➔ **Speed is Key to Accuracy**

- (SVP speed animation)

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**➤ The Healthy Cochlea... Contrast**

- Preserves the natural level differences across frequencies for each phoneme
- This difference across frequencies is called "Frequency Contrast"
- Critical for speech clarity
  - Must be able to maintain frequency differences between similar phonemes to be able to tell those phonemes apart

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**➤ Clarity Requires Frequency Contrast**

- (SVP frequency contrast animation)

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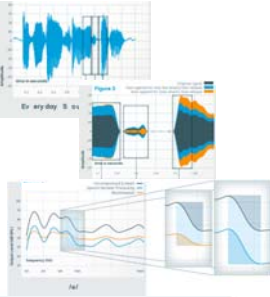
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**➤ Key Points, SVP**

- Speech is complex and dynamic
- Amplification must be applied quickly to be correct
  - (fast attack / fast release )
- Preserve frequency contrast to maintain clarity



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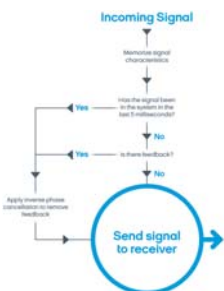
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### ➔ Noise Management



```
graph TD; A[Incoming Signal] --> B[Monitor signal change/delay]; B --> C{Was the signal beam in the center in the last 5 milliseconds?}; C -- No --> D{Is there feedback?}; C -- Yes --> E[Apply inverse phase cancellation to remove feedback]; D -- Yes --> E; D -- No --> F[Send signal to receiver]; E --> F;
```

- **Adaptive Feedback Canceller** removes feedback signals before they are noticeable
- **Benefit**  
Squeal-free easy listening

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### ➔ Noise Management

- **Wind Noise Reduction** monitors for uncorrelated noise (wind) between the directional microphones
- **Benefit**  
Relief from loud, distracting wind noise



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### ➔ Noise Management

- **Soft Noise Reduction** uses expansion to manage the gain for low-level sounds while maintaining the gain for speech
- **Benefit**  
Reduces distracting, low-level noise in the environment

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**➤ Noise Management**

- **Speech Priority Noise Reduction (SPNR)** monitors the input and determines the modulation “fingerprint” of the signal. Highly modulated signals are preserved where steady-state noise is attenuated
- **Benefit**  
Provides comfort and preserves intelligibility of speech signals

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**➤ SPNR in Action**

- (SPNR animation)

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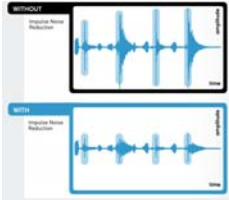
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**➤ Noise Management**

- **Impulse Noise Reduction\*** monitors for impulsive sounds:
  - Sudden change in intensity
  - Short, quick
  - Loud
- These sounds are reduced using fast-acting output compression
- **Benefit**  
Improved listening comfort



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➔ **Focus on What Matters**

- **Directional Systems** feature both fixed and adaptive options to address a variety of challenging listening situations
- **Benefit**  
Allows patients to focus on the things they want to hear – the important everyday sounds happening right in front of them

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➔ **Binaural Coordination**

- **Binaural Synchronization** ensures changes made using local controls are made simultaneously to both ears (100 | 80 | 60)
- **Binaural Environment Classification** uses input from both devices to create a 360° analysis of the environment (100 | 80)
- **Non-Telephone Ear Control** designates the non-telephone ear to be configured with less or no amplification (100)

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➔ **Binaural Coordination**

- (Binaural Coordination animation)

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**➔ Seamless Operation**

- **Universal Listening Environment** tuned to optimize essential speech-related cues, maximizing speech intelligibility in noisy situations
- **Benefit**  
Delivers hands-free operation, giving patients a seamless, easy listening experience

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**➔ Professional Ease of Use**

- **Pre-Configured Programs** combine features and amplification ideal for a specific listening scenarios
- **Data Logging** allows for easy fine-tuning based on historical performance
- **Data Learning** gradually adapts to the patient's preferred volume settings
- **Benefit**  
Quick, easy configuration of the patient's device for their specific listening needs

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**➔ Connectivity**

Connectivity is essential in today's world. Nano RITE is compatible with all new wireless accessories.

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**➔ Connectivity**

- SoundGate
- TV Adapter
- Phone Adapter
- RC-P Remote



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Everyday Sound. Better.

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**➔ The New SoundGate**

- Evolution of current design
- Wireless range of 30 meters
- Standard size stereo jack
- Integrated T-Coil
- Up to 10 hours battery life while streaming
- Integrated neck strap – 3 sizes available
- New design, new finish – soft touch coating



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**➔ The New TV Adapter**



- Compatible with original SoundGate
- Wireless range of 30 meters (200% increase)
- SelectMe allows for easy switching between multiple TV adapters
- Supports TOSLINK digital cable output/input
- Dolby digital support can decode audio in Dolby Digital format (AC3)

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### ➤ The New Telephone Adapter

- Compatible with original SoundGate
- Wireless range of 30 meters (200% increase)
- Connection to digital office phones using Sennheiser accessory
- Modern, discrete design



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### ➤ Nano RITE

4S – Style that Stands Out

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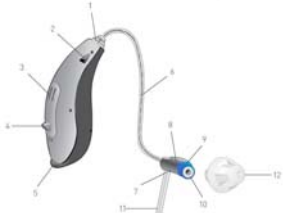
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### ➤ Nano RITE Overview



- 1 Connector plug
- 2 Front microphone
- 3 Rear microphone
- 4 Program Button
- 5 Battery door
- 6 Speaker wire
- 7 Speaker unit size marking
- 8 Receiver (M-Speaker)
- 9 Left/right indicator
- 10 ProMax Filter
- 11 Retention lock
- 12 Dome

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### 2 Speaker Options

Standard Speaker (M)



Power Speaker (P)






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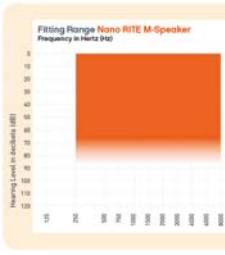
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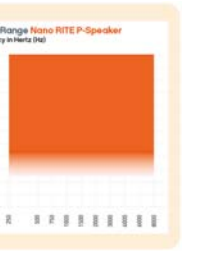
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### Acoustic Performance

Fitting Range Nano RITE M-Speaker  
Frequency in Hertz (Hz)



Fitting Range Nano RITE P-Speaker  
Frequency in Hertz (Hz)






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### Product Specifications

	M-Speaker		P-Speaker	
	Zw Coupler	Ear Simulator	Zw Coupler	Ear Simulator
OSPL <sub>RE</sub> peak	109	121	124	133*
OSPL <sub>RE</sub> 1400 Hz	106	119	122	131
MFA OSPL <sub>RE</sub> 10	-	-	119	-
Full-on gain, peak	59	61	65	70
Full-on gain, 1400 Hz	43	53	61	70
MFA full-on gain	45	-	51	-
Reference test gain	29	27	43	55
Distortion current	1.1	1.1	1.1	1.1
Operating current	1.1	1.1	1.4	1.2
Battery size	312	312	312	312
Distortion 500/800/1400 Hz	%	+2/-2/-2	+3/-3/-2	+2/-2/-2
Frequency range	Hz	160-4700	-	160-4700
Equivalent input noise*	dBS(A)	8	20	17
Telecoil (MFA/N 1400 Hz, REC)	dB SPL	70	80	88
Telecoil MFA SPL/TE	dB SPL	75	-	81




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**• Nano RITE**  
4S – Simplicity in All We Do

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**• Attaching the Speaker Unit**



- Slide the connector plug into the connector socket of the instrument.
- Take care to align the pins in the connector plug with the socket
- When the connector plug is correctly aligned, push it gently into place

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**• Attaching the Speaker Unit**

- Remove the lock pin out of the packaging in which the speaker unit is delivered (tweezers make this easier)
- Insert the lock pin with the tweezers



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### ➔ Attaching the Speaker Unit

- Ensure that the lock pin is fully inserted into the hearing instrument
- Use the back side of the tweezers tool if necessary



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### ➔ Attaching the Speaker Unit

- To test the attachment of the speaker unit to the hearing instrument, gently pull the speaker wire near the connection to the hearing instrument
- If speaker comes off, then it was not attached properly



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### ➔ Detaching the Speaker Unit

- Use the pointed end of the disassembly tool to push the lock pin free



\*NOTE: Do not attempt to detach speaker unit by pulling on the wire without pushing the lock pin free

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### ➔ Detaching the Speaker Unit

- Hold the instrument firmly with one hand with the other hand hold the edge of the connector plug between your thumb and forefinger



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### ➔ Detaching the Speaker Unit

- Gently pull the connector plug out of the socket
- If it does not come out easily, verify the lock pin is completely free



\* Avoid losing locking pin

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### ➔ Speaker Unit – Retention Lock

- Used to obtain a more secure hold on the ear canal
- Insert the retention lock in the slot receiver
- If the retention lock seems too long, trim to the desired length
- To remove the retention lock, push it in the opposite direction



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**➤ Custom Molds Available**

- **Standard Speaker – require an adapter**
  - Micro Mold
  - Lite Tip
- **Power Speaker –**
  - Similar design to Flip Power receiver involving a faceplate lock and mold mimics an ITC

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**➤ Micro Mold and Lite Tip**



1 Front-top indicator  
2 Micro Mold adapter  
3 WaxStop filter  
4 Pull-out string  
5 Lite Tip adapter  
6 ProWax filter

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**➤ Feature Summary**

Packed with so many features that give your patients true benefit and value

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### ➔ Nano RITE Feature Summary

	Bliss™	Bliss®	Charm®	Charm™
<b>Sound Quality</b>				
Signal Processing	←----- Speech Variable Processing -----→			
Frequency Bandwidth	10 kHz	8 kHz	8kHz	8kHz
<b>Noise Management</b>				
Adaptive Feedback Canceller	■	■	■	■
Wind Noise Reduction	■	■	■	■
Soft Noise Reduction	■	■	■	■
Speech Priority Noise Reduction	4 levels	3 levels	3 levels	2 levels
Impulse Noise Reduction	■	■		
<b>Directionality</b>				
Fixed Directional	■	■	■	■
Adaptive Directional	■	■	■	
Hybrid Adaptive Directional	■			
■ Standard ● Optional				

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### ➔ Nano RITE Feature Summary

	Bliss™	Bliss®	Charm®	Charm™
<b>Programming Options</b>				
Universal Program	■	■	■	■
Manual Listening Programs	4	4	3	3
Environments	13	10	9	4
Data Logging	■	■	■	■
Data Learning	■			
rEARoom Wireless Programming*	●	●	●	
<b>Patient Conveniences</b>				
Push Button Mute	■	■	■	
Audible Performance Indicators	■	■	■	■
Start-Up Delay	■	■	■	■
Auto-Telephone Detection*	■	■	■	
■ Standard ● Optional				

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### ➔ Nano RITE Feature Summary

	Bliss™	Bliss®	Charm®	Charm™
<b>Binaural Coordination*</b>				
Volume & Program Change	■	■	■	
Environment Classification	■	■		
Non-Telephone Ear Control	■			
<b>Accessories</b>				
SoundGate	●	●	●	
TV Adapter	●	●	●	
Phone Adapter	●	●	●	
RC-P Remote	●	●	●	
■ Standard ● Optional				

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**Take Home Message**

Nano RITE is a tremendous product that offers features, benefits and value that make a difference in your patients lives

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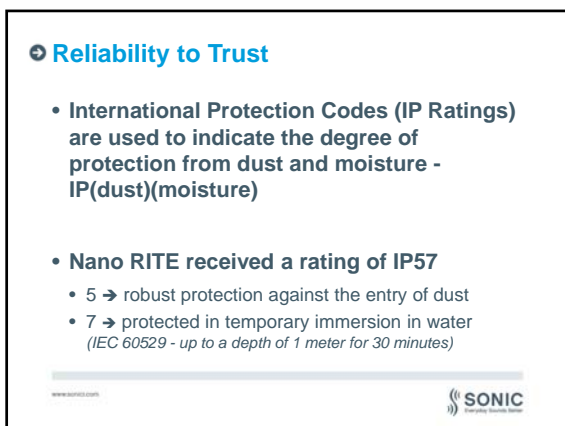
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**Reliability to Trust**

- **International Protection Codes (IP Ratings) are used to indicate the degree of protection from dust and moisture - IP(dust)(moisture)**
- **Nano RITE received a rating of IP57**
  - 5 → robust protection against the entry of dust
  - 7 → protected in temporary immersion in water (IEC 60529 - up to a depth of 1 meter for 30 minutes)

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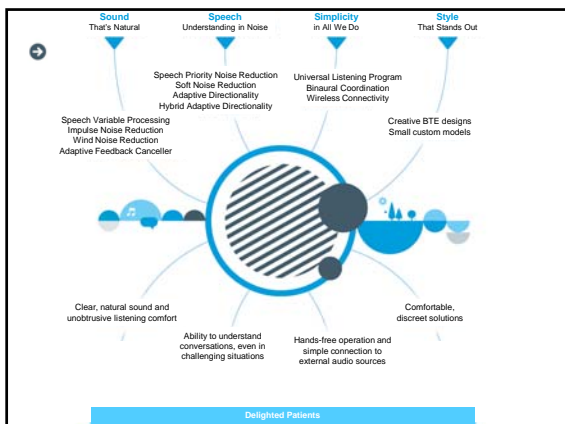
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➔ **Final Comments**

- Thank you so much for attending Sonic's course – Introducing the Nano RITE.
- Any Questions?
  - 888.423.7834
  - [www.mysonici.com](http://www.mysonici.com)
  - [www.sonici.com](http://www.sonici.com)
  - Email: [err@sonici.com](mailto:err@sonici.com)

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