

# TURN UP THE VOLUME ON LIFE

The powerful choice for your super power users

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ReSound

rediscover hearing

## Less of what holds them back

Having a severe or profound hearing loss presents significant challenges for hearing in daily life. This is why we've developed ReSound Magna™ – a powerful, digital super power BTE – to maximize audibility and reduce stress in everyday listening situations.

## More of what drives them forward

ReSound Magna includes the latest technology to improve hearing in multiple listening environments.

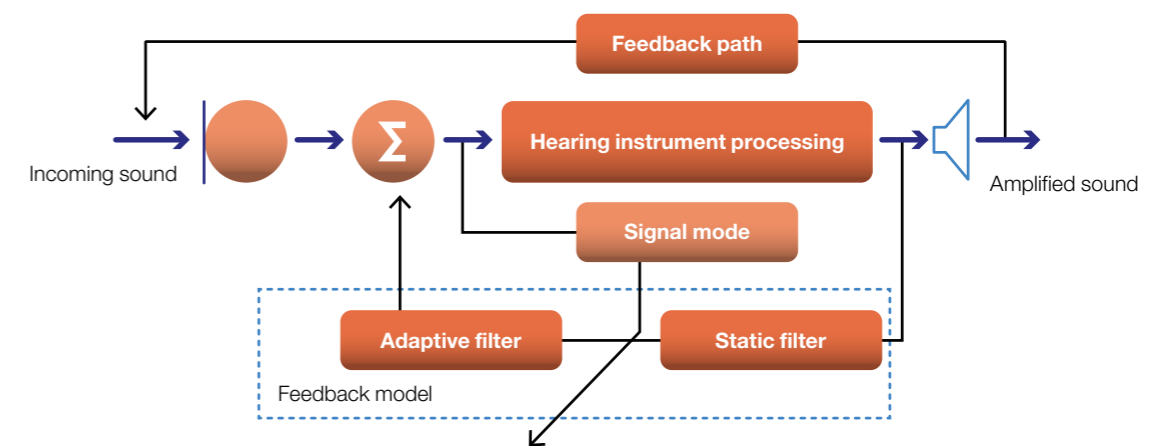
- 1 More gain without feedback.** Up to 144 dB SPL maximum power output and 86 dB maximum gain, combined with DFS Ultra™ to offer more stable gain
- 2 Great sound quality and speech understanding.** Surround Sound by ReSound™ offers Adaptive Directionality with Integrated Wind Noise Management™ and NoiseTracker™ II
- 3 Optimized, high-frequency hearing.** New Sound Shaper™ technology makes inaudible sounds audible through frequency compression with minimal distortion
- 4 Easier adaptation and personalized fitting.** WDRC and linear amplification schemes, as well as fine-tuning options in Aventa fitting software support super power fitting strategies.
- 5 Attractive, ergonomic and durable.** Nanocoated with iSolate™ nanotech from the inside out, and optimized for size, design and robustness



## 1 More gain without feedback

ReSound Magna is purpose-built with power in mind, and specifically designed to address the power needs of the SP user: from the ergonomic design to the compact positioning and integration of all the hearing aid's components. The result: 144 dB SPL MPO and up to 86 dB maximum gain with virtually no distortion of the amplified sound.

In addition, ReSound Magna utilizes ReSound's industry-leading DFS Ultra with built-in Whistle Control to combat static and dynamic feedback – even in the most challenging situations.



**Figure 1.** DFS Ultra analyzes and models the incoming sound, then uses this information to prevent the feedback cancellation filters attacking desired sounds

## 2 Great sound quality and speech understanding

Often, people with severe or profound hearing loss must strain to hear and understand speech – especially in noisy environments. To assist SP users in overcoming these challenges, ReSound Magna features Surround Sound by ReSound – a processing strategy designed to amplify sound, while at the same time mimicking the characteristics of natural hearing. This results in the wearer experiencing full, rich and detailed amplification with great sound quality.

ReSound Magna also features Adaptive Directionality with Integrated Wind Noise Management to help wearers hear speech more easily in noisy environments. Reducing wind noise also increases the wearer's comfort, enabling them to be more active outdoors.

### 3 Optimized, high-frequency hearing

People with severe to profound hearing loss typically have difficulty hearing the subtle, often high-frequency speech cues that are important for speech understanding. In order to provide improved audibility, ReSound Magna comes equipped with a new frequency compression algorithm – Sound Shaper. Sound Shaper remaps the high frequency sounds to a lower frequency region. This provides improved audibility without impacting sound quality.

**Sound Shaper helps the ReSound Magna wearer with many different sounds:**

- High-frequency fricative sounds like S and Th
- Stop consonants like P, T and K
- Environmental sounds, such as bird sounds
- Children's voices

### 4 Easier adaption and personalized fitting

Adapting to new amplification can be a lengthy and challenging process for your customers. To address this issue, ReSound Magna offers a range of different features to assist SP users in adjusting to the new amplification.

#### Aventa® with Audiogram+

The Aventa fitting software provides all relevant fitting rationales for fitting individuals with severe-to-profound hearing losses are available in Aventa. This includes the NAL-RP fitting rule - the benchmark for prescribing gain for severe to profound hearing losses - as well as the ReSound proprietary Audiogram+.

#### WDRC and linear amplification schemes

For SP users accustomed to non-linear amplification, ReSound Magna includes the option of Wide Dynamic Range Compression (WDRC). WDRC provides higher audibility for the soft sounds resulting in optimum speech intelligibility. ReSound Magna also offers linear amplification to deliver as much power as possible, thereby meeting the needs of many SP users accustomed to this amplification strategy.

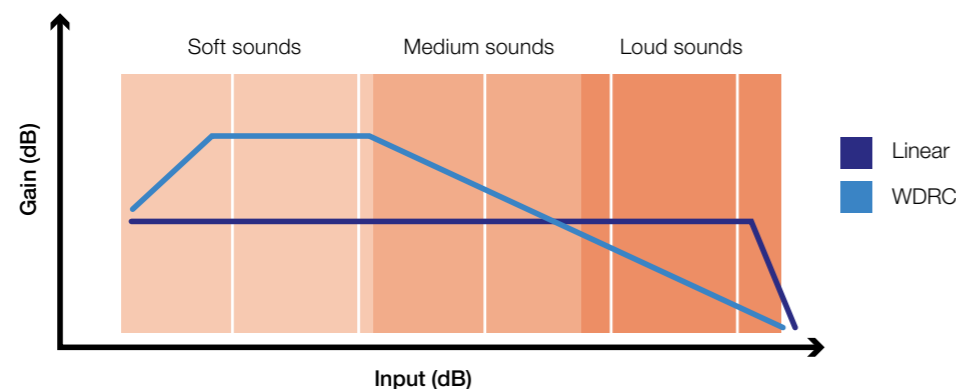


Figure 3. WDRC versus Linear amplification

You can select between soft or hard peak clipping – to limit output and ensure your SP users get the perfect result.

- Soft peak clipping provides fast attack times to give SP users a controlled high output, while at the same time allowing them to enjoy a smoother, more comfortable sound
- Hard peak clipping is the choice for SP users who want the most power. It offers a sound experience close to traditional peak clipping, but with less distorted sound quality

### 5 Attractive, ergonomic and durable

Your SP customers depend on their hearing aids for everyday communication, which means their devices must be reliable.

ReSound Magna features an all-new design – purpose-built to withstand all the challenges of daily use – and more. It is fully nanocoated from the inside out with iSolate nanotech – a superior, long-lasting treatment that makes ReSound Magna highly water repellent.

ReSound Magna's improved daily advantages, including the ergonomic and robust design, are quickly appreciated by wearers.

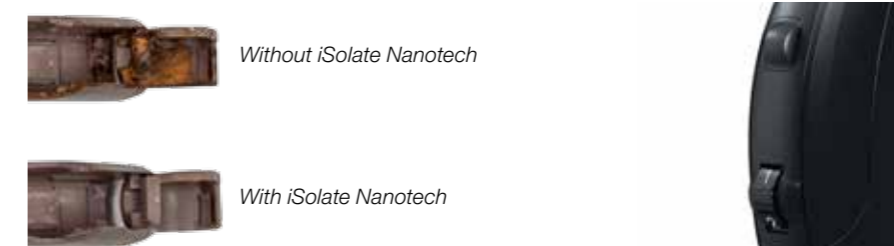


Figure 4. These two devices have been put through weeks of extreme environmental testing. The device on the bottom is protected with iSolate™ nanotech. No damage was observed on this device. The non-coated device on the top is visibly corroded.

Figure 5. The analogue volume control and program button are easy to operate

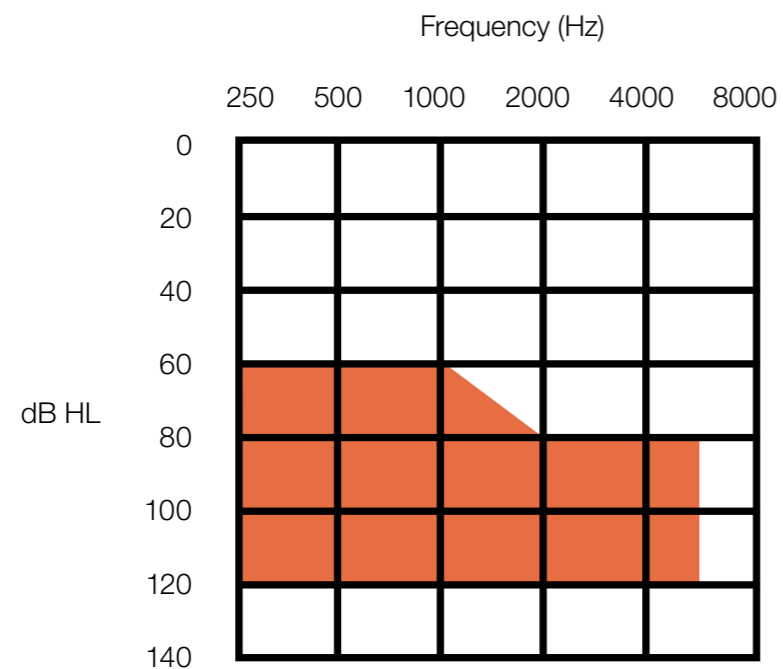
## Two versions, five colors

To match your customers' needs and preferences, we have provided ReSound Magna in two technology levels in five color options.



\* Only available in Magna 4 model

## Fitting range



## Feature overview

		ReSound Magna™ 4	ReSound Magna™ 2
<b>Technology</b>	ReSound Range™ II chip	•	•
<b>Sound Quality</b>	Surround Sound by ReSound™	•	
	WARP™ compression - number of bands	9	6
	DFS Ultra™ with built-in Whistle Control	•	
	Dual Stabilizer™ II		•
	Sound Shaper™	•	
	Expansion	•	•
<b>Performance in noise</b>	Adaptive Directionality w/Integrated Wind Noise Management™	•	
	SoftSwitching™	•	
	Fixed Directionality	•	•
	Noise Tracker™ II	•	•
<b>Ease of use</b>	Telecoil	•	•
	Direct Audio Input	•	•
	Datalogging	•	•
	PhoneNow™	•	•
<b>Flexible fitting</b>	Linear mode (soft/hard peak clipping)	•	•
	Wide Dynamic Range Compression (WDRC)	•	•
	Multi-channel MPO	•	•
	Gain handles	6	4
	Programs	Up to 4	Up to 3
	In-situ Audiometry™	•	•

## Technical specification

		IEC 60118-0 IEC 711 Ear simulator	IEC 118-7 2cc coupler	
Reference test gain (60 dB SPL input)	1600 Hz/HFA	61	54	dB
Full-on gain (50 dB SPL input)	Max.	86	81	dB
Full-on gain (50 dB SPL input)	1600 Hz/HFA	80	75	dB
Maximum output (90 dB SPL input)	Max.	144	139	dB SPL
Maximum output (90 dB SPL input)	1600 Hz/HFA	136	131	dB SPL
Total harmonic distortion	500 Hz	1.9	1.5	%
Total harmonic distortion	800 Hz	1.1	0.7	%
Total harmonic distortion	1600 Hz	0.6	0.4	%
Telecoil sensitivity (1 mA/m input)	Max.	117		dB SPL
HFA - SPLIV @ 31.6 mA/m (ANSI)	HFA		114	dB SPL
Full-on Telecoil sensitivity @ 1mA/m	1600 Hz/HFA	110	106	dB SPL
Equivalent input noise, w/o Noise reduction		25	23	dB SPL
1/3 Octave Equivalent input noise, w/o Noise reduction	1600 Hz	13		dB SPL
Frequency range	DIN 45605	180 - 5130	100 - 4850	Hz
Current Drain (Quiescent / Operating)		1.1 / 1.4	1.1 / 1.7	mA

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