



# HEAR BETTER LIVE BETTER



**Z series™**

*Better hearing health and  
wellness made possible*

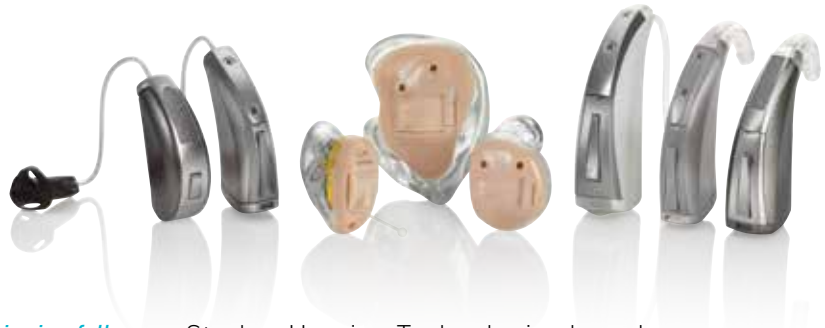
Call  
Absolute Hearing Solutions  
For Hearing Aid Deals  
614-452-4280

[www.absolutehearingsolutions.com](http://www.absolutehearingsolutions.com)



At Starkey Hearing  
Technologies,  
we believe that  
**to hear better,  
is to live better.**

# Z series™



*Z Series is a fully featured product line delivering next generation wireless performance in styles and options to fit any wearer.*

Starkey Hearing Technologies has always focused on hearing aid products and features that provide a true benefit to patients. We never introduce technology without supporting evidence of performance. This strategy has always resulted in industry-leading patient satisfaction.

When a patient makes the decision to wear a hearing aid, they begin a journey to overall health that starts with auditory wellness and ends with a richer, more complete life. At Starkey Hearing Technologies, we believe that to hear better, is to live better.

That's why we've relentlessly pursued the latest in hearing technologies to create **Z Series™** our newest full family of wireless products featuring next generation 900 MHz technology – **900sync** – leading the way in performance, comfort, personalization and connectivity.



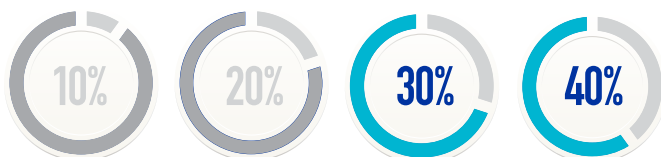
# HEAR BETTER FEEL BETTER

Overall health can be directly linked to hearing health – and better hearing can only be accomplished when patients wear their hearing aids. Z Series was designed from the beginning with personalization and comfort in mind – the result is a hearing aid that patients will want to wear.



# Your patients' health begins with better hearing

 HEARING AIDS CAN REDUCE THE EFFECTS OF DEMENTIA & ALZHEIMER'S




**THOSE WITH HEARING LOSS EXPERIENCE A 30-40% GREATER DECLINE IN THINKING ABILITIES COMPARED TO THOSE WITHOUT HEARING LOSS.**



**OVER 5 PERCENT OF THE WORLD'S POPULATION - 360 MILLION PEOPLE - HAS DISABLING HEARING LOSS.**




HIGHER BODY MASS INDEX (BMI) AND LARGER WAIST CIRCUMFERENCE ARE ASSOCIATED WITH INCREASED RISK, OF HEARING LOSS IN WOMEN. 

**MAINTAINING HEALTHY WEIGHT & STAYING PHYSICALLY ACTIVE MAY HELP REDUCE THE RISK OF HEARING LOSS**



 **70%**  
CURRENT SMOKERS HAVE A 70% HIGHER RISK OF HAVING HEARING LOSS THAN NONSMOKERS

**HEARING LOSS IS TWICE AS COMMON IN PEOPLE WITH DIABETES COMPARED TO THOSE WITHOUT.** 



**HEARING LOSS IS THE THIRD MOST COMMON PHYSICAL CONDITION AFTER ARTHRITIS AND HEART DISEASE.**

 **THERE IS A SIGNIFICANT ASSOCIATION BETWEEN HIGH BLOOD PRESSURE AND HEARING LOSS.**

SEVERAL STUDIES  POINT TO A SIGNIFICANT CORRELATION BETWEEN HEARING LOSS AND LOSS OF COGNITIVE FUNCTIONS

**18-69 YEAR OLDS** WITH HEARING LOSS HAD SIGNIFICANTLY HIGHER INSTANCES OF MODERATE-TO-SEVERE DEPRESSION

HEARING IMPAIRMENT IS MORE COMMON IN MEN THAN WOMAN. 

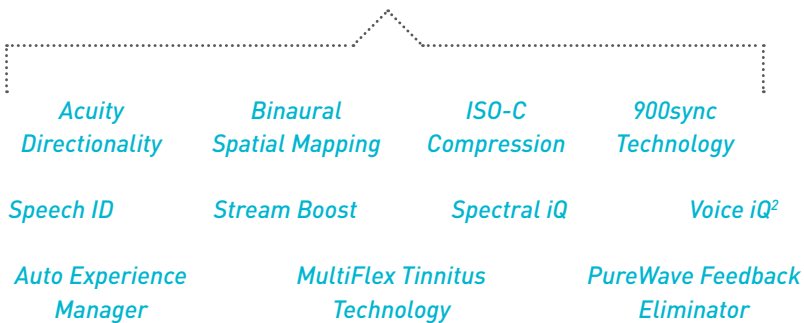


# A Breakthrough Operating System Makes it all Possible

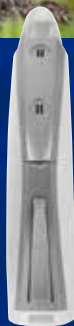
The foundation of **Z Series** is **BluWave® 4.0** – our benchmark operating system. This evidence-based, patient-focused operating system’s signal processing power enables us to continually optimize

audibility, intelligibility, comfort and sound quality. The result is **Starkey Superior Sound™**. BluWave 4.0’s open architecture allows us to update and add features as patients demonstrate a need.

## BluWave® 4.0







**Our advances in our open architecture operating system** make it possible for Starkey to constantly optimize the hearing experience for the individual, delivering Starkey Superior Sound.

# HEAR BETTER CONNECT BETTER



## Stream and Connect in the Most Challenging Environments

Today's wireless environment is getting more crowded every day. New devices and standards are constantly appearing, not to mention the increase in overall noise in the world. This challenging landscape requires a powerful solution, so we created **900sync Technology™** our new, robust wireless system that is virtually drop free within normal user range. It boasts a better than 98 percent link availability and has achieved an increase in streaming range, nearly doubling range over our previous generation wireless. It's wireless designed for today.

### **900sync Technology**

is at the heart of Z Series, providing consistent performance in even the most challenging environments. All this is accomplished with a new low energy radio, the first of its kind in the industry.

900sync Technology introduces these new innovations:

- Focal Point Transmit Power provides enhanced radio sensitivity for increased streaming range. That's more power to transmit with less noise
- Error Handling Logic means hearing aids are less susceptible to internal and external interference
- Preamble Detect, our new dynamic receiver algorithm, provides an interruption-free connection and improved wireless link
- Improved link recovery algorithms





Available in  
all custom styles



By taking into account head and body movements and various placements of **SurfLink®** accessories, **Spatial Streaming** provides your patients with the best wireless performance in all possible settings.

With **Stream Boost**, you can provide patients with an automatic setting that boosts the incoming media stream for enhanced audio performance.

This powerful combination of 900sync Technology, Spatial Streaming and Stream Boost is designed so patients get a quality, natural sounding hearing experience all accomplished with no intermediary device.

**900** SYNC 

*Your patients can stream TV,  
public speakers or phone calls  
and you'll experience easier  
and convenient programming.*

# HEAR BETTER ENGAGE BETTER

## Consistent Sound Provides a More Natural Listening Experience



Z Series offers features your patients will value as they participate in an active lifestyle. Whether at work or play, being able to live life to the fullest and hear every moment contributes to one's self worth and ultimately to overall health.

Patients will experience improved coordination between ears and a more natural 3D-like sound with our enhanced **Binaural Spatial Mapping** system. With 900sync Technology's consistent performance, Starkey's Binaural Spatial Mapping system intelligently optimizes signal-to-noise settings based on estimates from both ears. The result – reduced listening fatigue\*.

When it comes to helping hearing aid wearers overcome one of the biggest challenges they face—hearing in noise—Voice iQ<sup>2</sup>, delivers proven results.

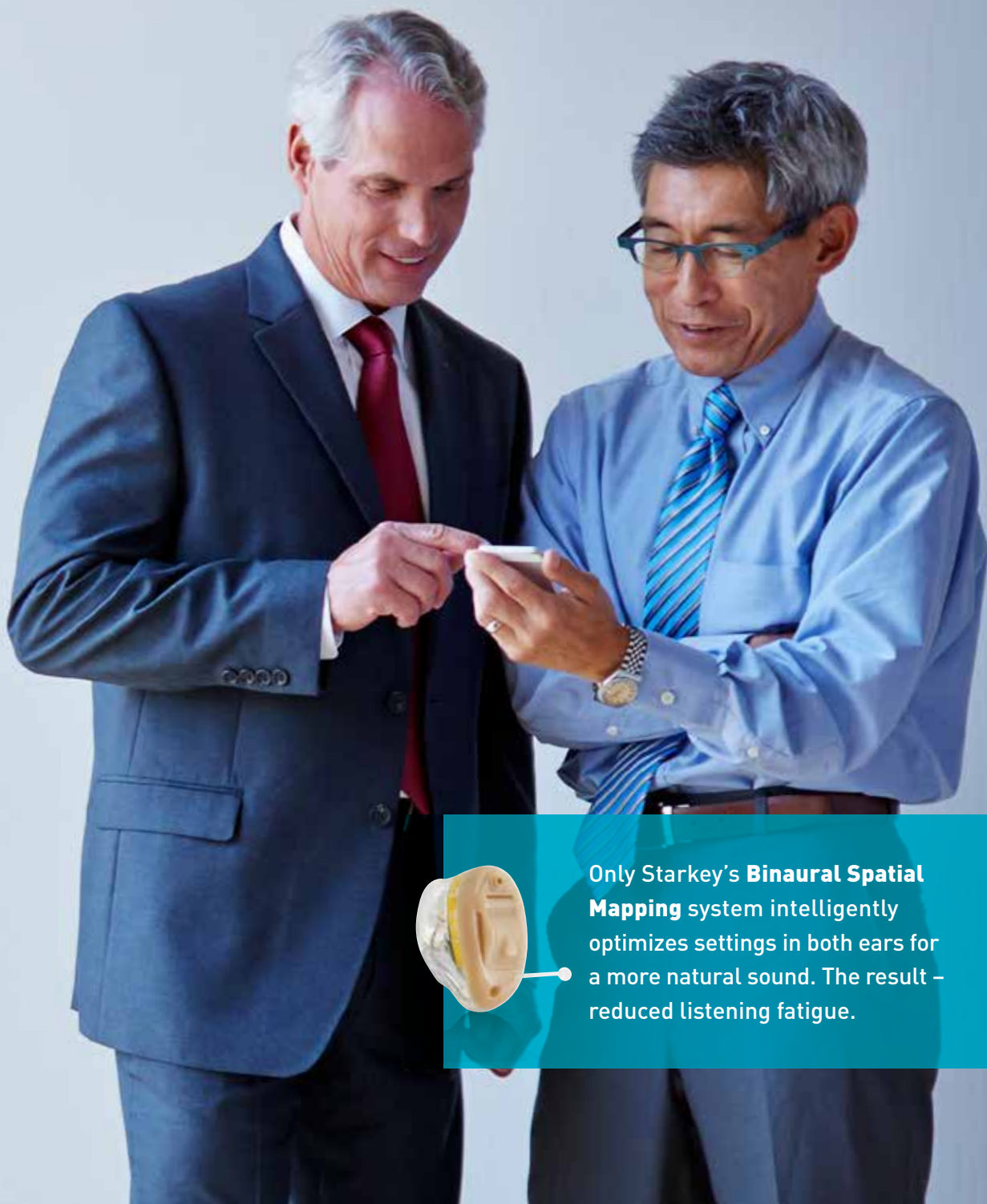
By combining with Binaural Spatial Mapping, Voice iQ<sup>2</sup> provides these additional benefits:

- Significantly improves speech clarity even in the noisiest environments
- Instantly applies variable noise adaptation in all channels between each pause within speech
- Provides up to 20dB of noise reduction



*Binaural Spatial Mapping's collaborative decision making allows speech audibility to be preserved, while simultaneously maintaining loudness comfort. This yields demonstrated, real-world benefits to patients.*

\*Desjardin, J.L. & Dougherty, K.A. (2012). The effect of hearing aid noise reduction on listening effort in older adults. Poster presented at AudiologyNOW!, Chicago, Ill.



Only Starkey's **Binaural Spatial Mapping** system intelligently optimizes settings in both ears for a more natural sound. The result – reduced listening fatigue.



# HEAR BETTER SOCIALIZE BETTER

Parties, concerts, restaurants, reunions and sporting events are all places patients with hearing loss avoid or find difficult. Z Series tackles hearing in the most challenging and noisiest environments by addressing noise and prioritizing speech, making conversations a more pleasant experience.





# BETTER SPEECH

## Audibility in all Situations.

*Consistent,  
high-fidelity  
sound that  
helps patients.*

Sounds come at a listener from all directions, requiring an intelligent and personalized system.

**Acuity Directionality**, our new solution to directionality, is designed to improve speech protection in difficult listening situations. It's continuously adaptive in all channels and utilizes independent null steering directing the polar pattern null towards the noise, preserving speech. Conversations are prioritized with up to 6dB of speech enhancement thanks to Starkey's proprietary **Speech ID** detecting speech even when it occurs behind the patient.

Acuity Directionality is a binaural system, coordinating ear-to-ear to ensure optimal performance and switching by measuring the true noise level instead of the average noise level. Additionally the system utilizes Micro-Electronic Mechanical Systems (MEMs) no-drift microphones (the same as in today's iPhone®) making it a robust system over time. The result is a consistent, high-fidelity sound that helps patients listen to speech and participate in conversations in even the noisiest environments.



Our continuously adaptive **Acuity Directionality** is designed to improve speech protection in difficult listening situations. With **Speech ID**, speech is enhanced even when it is detected behind the patient.

# HEAR BETTER ENJOY BETTER

## Adding Subtlety to Sound ISO-Clear Compression

*ISO-C  
Compression,  
the dynamic  
way to improve  
listening  
environments*

With Starkey's new **ISO-Clear Compression**, utilizing the widest working dynamic range in the industry, distortion-free listening is an achievable experience. Based on how the human ear processes sound, ISO-C Compression provides listening comfort for loud sounds while ensuring ultimate clarity for soft sounds.

It delivers this more personalized listening experience by:

- Making soft speech sounds audible without affecting the compression characteristics applied to louder inputs
- Discreetly managing loud sounds while maintaining quality of lower-level sounds



# Maintaining healthy weight and staying physically active may help reduce the risk of HEARING LOSS

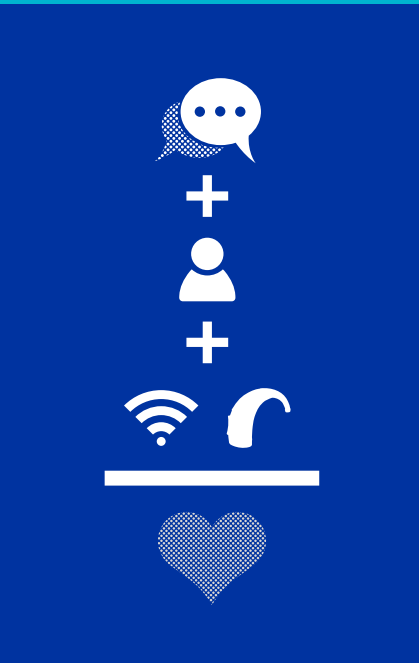


## TREATMENT MAKES A DIFFERENCE:

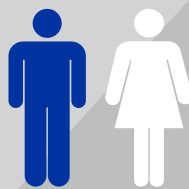
Hearing loss treatment is shown to improve:

- Earning power
- Physical health
- Ease in communication
- Emotional stability

*...And so much more*



An estimated  
**299 MILLION MEN**  
and **239 million women**  
globally have moderate-  
to-severe hearing loss.



**Uncorrected hearing loss gives rise to poorer quality of life, isolation and reduced social activity, leading to an increased prevalence of depression.**

# HEAR BETTER STREAM BETTER







# CAREFREE CONNECTIVITY

## Continues with the Best Options



*SurfLink Mobile 2  
provides doubled  
battery life  
over our first  
generation  
SurfLink Mobile*

Our popular SurfLink Mobile has been enhanced to provide a better patient experience. **SurfLink Mobile 2** is a cell phone transmitter, assistive listening device, media streamer and hearing aid remote all rolled into one. Offering an updated user interface and controls, it also features doubled battery life over our first generation SurfLink Mobile. SurfLink Mobile 2 with Z Series is the only wireless system to offer **JustTalk™**, enabling hands-free cell phone conversations by turning Z Series hearing aids into the microphone and receiver.

SurfLink Mobile 2, SurfLink Media and SurfLink Remote offer patients carefree connectivity and control with no intermediary or worn device.



**In its revolutionary JustTalk mode,** SurfLink Mobile makes talking on the phone easier than ever. The user's hearing aids can act as both microphone and receiver via two-way streaming.

# HEAR BETTER PLAY BETTER

## Auto Experience Manager

Easier, customizable patient transitions

## Faster Acceptance

## Better Patient Outcome

*Designed to  
adapt along with  
the patient's  
brain to learn  
new sounds*

Starkey's new Auto Experience Manager provides gradual increased gain settings over a period of time to help first-time hearing aid patients transition to their new hearing aids. It's completely customizable to ensure the best patient experience and is designed to adapt along with the patient's brain to learn new sounds. With Auto Experience Manager there is no longer a tradeoff between comfort and audibility – both can be achieved over time for your patients.



## PureWave Feedback Eliminator

Personalized feedback elimination in all environments

# Say Farewell to Feedback

Starkey's best-in-class feedback cancellation system, PureWave Feedback Eliminator has the ability to manipulate how aggressive it performs, so feedback elimination can be personalized to the specific product and

patient. It's designed to identify, classify and eliminate annoying whistling and buzzing in all environments, so your patients experience feedback-free listening from crowded cafes to serene parks.



*Z Series was designed from the beginning with personalization and comfort in mind, so they would be hearing aids that patients will want to wear.*



## MultiFlex Tinnitus Technology

Easy programming for the best comfort and control

## Customizable Tinnitus Relief



MultiFlex Tinnitus Technology is now available on the micro RIC 312 product. The result is a wireless binaural system with synchronized user controls, providing the best comfort and control for tinnitus relief.

Multiflex Tinnitus Technology enables superior flexibility in fine-tuning a relieving noise stimulus. It's an ideal way to customize relief to match your patient's unique tinnitus.

The SoundPoint Tinnitus fitting tool allows patients to identify the most preferable stimulus at the fitting stage, which helps ensure satisfaction and increases your patient's chance at success.

**Tinnitus affects 1 in 5 people.** Tinnitus can be caused by hearing loss, an ear injury or a circulatory system disorder.



**90% OF  
TINNITUS CASES**  
occur with hearing loss



## Spectral iQ

The industry's smartest way to help  
with audibility in high frequencies

## Enjoy every conversation

*Help patients enjoy  
conversations, even  
in high frequencies*

Engineered to enhance real-time audibility by identifying high-frequency speech cues and replicating them in lower frequencies, Spectral IQ is unlike other technologies that apply frequency compression broadly. Z Series maintains these frequency relationships retaining sound quality that comes from harmonic distribution while providing clarity for high-frequency speech.

Smoking significantly **increases**  
**high-frequency hearing loss.**

When it comes to  
solutions, **Z Series**  
**gives you the**  
**most options.**



# HEAR BETTER EXPERIENCE BETTER

## Patients want ... Z Series delivers

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### Connectivity for Today

A powerful combination of **900sync Technology**, **Spatial Streaming** and **Stream Boost** is designed so patients get a quality, natural sounding hearing experience all accomplished with no intermediary device. Spatial Streaming provides your patients with the best wireless performance in all possible settings while Stream Boost provides patients with an automatic setting that boosts the incoming media stream for enhanced audio performance.

### A More Natural Listening Experience

Starkey's **Binaural Spatial Mapping** delivers maximum listening comfort for louder sounds while providing a more natural, overall sound. It accomplishes this by intelligently optimizing signal-to-noise settings based on estimates from both ears reducing listening fatigue. **Voice IQ<sup>2</sup>** is a noise management and speech preservation system intended to let patients hear effectively in noise – especially in noisy situations.

### Superior Audibility in Noisy Environments

Thanks to **Acuity Directionality**, our new solution to directionality, speech protection is improved in difficult listening situations. Starkey's proprietary **Speech ID** detects speech even when it occurs behind the patient. The combination of these two innovative technologies results in consistent, high-fidelity sound that helps patients listen to speech and participate in conversations in even the noisiest environments.

**Distortion-Free  
Comfort in Loud  
Situations**

Our **ISO-Clear Compression** delivers a more personalized listening experience by making soft speech sounds audible without affecting louder inputs. Loud sounds are discreetly managed while maintaining the quality of lower-level sounds.

**Effortless connections  
With streaming media  
and accessories**

SurfLink Mobile 2, SurfLink Media and SurfLink Remote offer patients carefree connectivity and control with no intermediary or worn device. SurfLink Mobile 2 provides doubled battery life over our first generation SurfLink Mobile.

**Say Farewell  
to Feedback**

Starkey's best-in-class feedback cancellation system, **PureWave Feedback Eliminator** has the ability to manipulate how aggressive it performs, so feedback elimination can be personalized to the specific product and patient. It's designed to identify, classify and eliminate annoying whistling and buzzing in all environments, so your patients experience feedback-free listening from crowded cafes to serene parks.

**Customizable  
Tinnitus Relief**

**MultiFlex Tinnitus Technology** is now available on the micro RIC 312 product with the release of Z series. With Z Series, MultiFlex Tinnitus Technology is a wireless binaural system with synchronized user controls, providing the best comfort and control.

**Laughs at Water  
and Wax**

Z Series features Starkey's proprietary moisture protection, **HydraShield®**. When combined with Z Series' unibody construction, this nano-coating delivers excellent protection from water, wax and oils. The result – hearing aids that spend more time in the ear and less time being repaired.





**Enjoy Every  
Conversation**

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Engineered to enhance real-time audibility by identifying high-frequency speech cues and replicating them in lower frequencies, **Spectral IQ** is unlike other technologies that apply frequency compression broadly. Z Series maintains these frequency relationships retaining sound quality while providing clarity for high-frequency speech.

**Join the Crowd  
With Active  
Noise Reduction**

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**IQ Boost** is activated via our SurfLink Mobile or SurfLink Remote. This feature allows patients to aggressively reduce noise while optimizing sound quality in environments like noisy restaurants or crowded rooms.

**Make Constant  
Control Adjustments  
a Thing of the Past**

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**Self Learning** allows Z Series to gradually and automatically learn the patient's personal volume preferences in each active memory. This feature reduces the number of control adjustments the patient needs to make.

**Upgrades Made  
Quick and Easy**

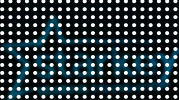
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The **Swap Fit** function lets you transfer the patient's settings from their current Starkey product to a new one, giving you more time for counseling and fine tuning.

**Z Series Offers  
a Solution for  
Every Patient**

Available in a full range of products, Z Series truly provides a solution for every patient. In addition to our standard RIC and BTE products, expertly designed with the patient in mind, Z Series also includes a full range of small and cosmetic custom products from the world leader in custom fittings.

# SO THE WORLD MAY HEAR



**The Foundation uses hearing as a vehicle to change lives around the world.**

Our founder and CEO, Bill Austin, has always held a strong belief that the gift of better hearing results in a fuller and better life.

We prove our dedication to this philosophy daily, through our support of **Starkey Hearing Foundation**.

*Starkey Hearing Foundation has pledged to fit more than 1 million hearing aids to people in need this decade.*

Starkey Hearing Foundation travels the globe delivering the gift of hearing to thousands of people each year who would otherwise live in the isolation of a silent world. The Foundation provides more than 100,000 hearing aids annually to children and adults through our global hearing missions and the daily efforts of the domestic Hear Now program. As a member of the Clinton Global Initiative, Starkey Hearing Foundation has pledged to fit more than 1 million hearing aids to people in need this decade.



The gift of hearing opens up a whole new world of opportunity. It connects individuals to life and helps them realize they can accomplish more than they ever thought possible. Starkey Hearing Foundation uses hearing as a vehicle to change lives around the world.

### *Hear Better Live Better*

Through 2010, Starkey Hearing Foundation provided more than 1 million hearing aids to people in need worldwide and is committed to providing 1 million more this decade.



**100+**  
COUNTRIES



**1.6 MILLION**  
HEARING AIDS



**COUNTLESS**  
LIVES CHANGED

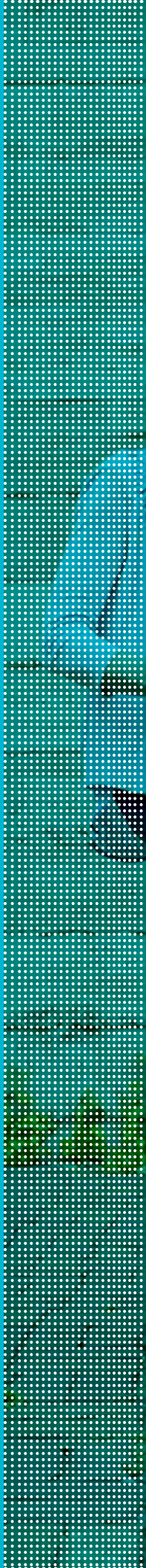
Help Your  
Patients

HEAR

**BETTER**

& LIVE

**BETTER**







Hearing Is Our Concern™

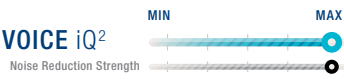
Hearing aids can't help if they're not worn. That's why, together with a number of significant upgrades and additional features, Z Series will deliver benefits your patients will notice like performance, personalization and connectivity.



# HEAR BETTER CHOOSE BETTER

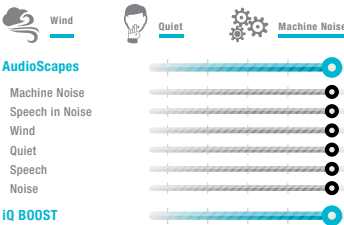
## VIBRANT i110

**SOUND IMAGING** 16 CHANNELS BANDS



**ACUITY DIRECTIONALITY**  Directionality Plus  Adaptive-16 channels  Speech ID  Dynamic

**ACOUSTIC SCENE ANALYZER** 5 LEVELS



**BINAURAL SPATIAL MAPPING**  Machine Noise  Directionality  Wind

**PUREWAVE FEEDBACK ELIMINATOR**

**SYNCHRONIZED USER CONTROLS**  Binaural Telephone Mode  Volume  Memory

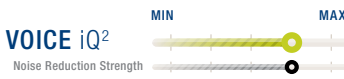
**SURLINK ACCESSORY COMPATIBILITY** Mobile Programmer Remote Media

+ Stream Boost

- Spectral iQ
- SoundPoint
- Self Learning
- Swap Fit
- 3D Speech Mapping
- ISO-Clear Compression
- Auto Experience Manager
- MultiFlex Tinnitus Technology

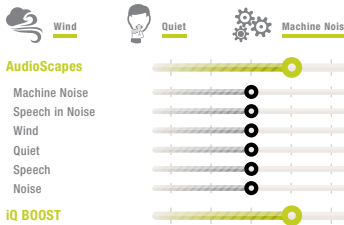
## ACTIVE i90

**SOUND IMAGING** 12 CHANNELS BANDS



**ACUITY DIRECTIONALITY**  Directionality Plus  Adaptive-12 channels  Speech ID  Dynamic

**ACOUSTIC SCENE ANALYZER** 3 LEVELS



**BINAURAL SPATIAL MAPPING**  Machine Noise  Directionality  Wind

**PUREWAVE FEEDBACK ELIMINATOR**

**SYNCHRONIZED USER CONTROLS**  Binaural Telephone Mode  Volume  Memory

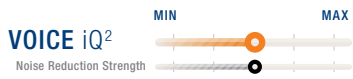
**SURLINK ACCESSORY COMPATIBILITY** Mobile Programmer Remote Media

+ Stream Boost

- Spectral iQ
- SoundPoint
- Self Learning
- Swap Fit
- ISO-Clear Compression
- Auto Experience Manager
- MultiFlex Tinnitus Technology
- 3D Speech Mapping

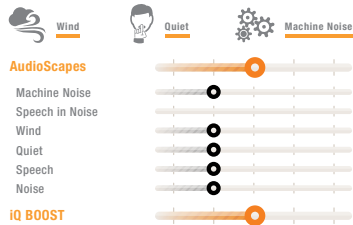
## SOCIAL i70

**SOUND IMAGING** 8 CHANNELS BANDS



**ACUITY DIRECTIONALITY**  Directionality Plus  Adaptive-8 channels  Speech ID  Dynamic

**ACOUSTIC SCENE ANALYZER** 2 LEVELS



**BINAURAL SPATIAL MAPPING**  Machine Noise  Directionality  Wind

**PUREWAVE FEEDBACK ELIMINATOR**

**SYNCHRONIZED USER CONTROLS**  Binaural Telephone Mode  Volume  Memory

**SURLINK ACCESSORY COMPATIBILITY** Mobile Programmer Remote Media

+ Stream Boost

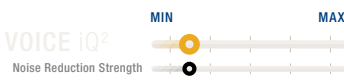
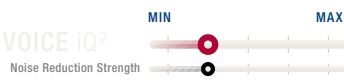
- Spectral iQ
- SoundPoint
- Self Learning
- Swap Fit
- ISO-Clear Compression
- Auto Experience Manager
- MultiFlex Tinnitus Technology
- 3D Speech Mapping

# CALM i30

# BASIC i20

## SOUND IMAGING 6 CHANNELS BANDS

## SOUND IMAGING 4 CHANNELS BANDS

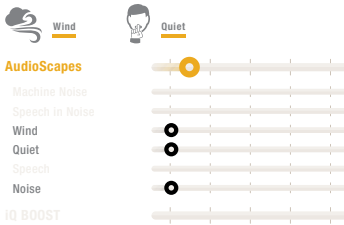
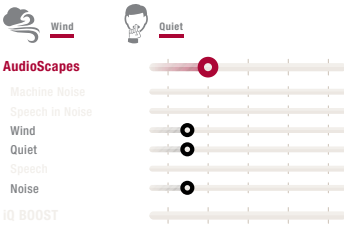


- ACUITY DIRECTIONALITY**
- Directionality Plus
  - Adaptive-6 channels
  - Speech ID
  - Dynamic

- ACUITY DIRECTIONALITY**
- Directionality Plus
  - Adaptive
  - Speech ID
  - Dynamic

## ACOUSTIC SCENE ANALYZER 2 LEVELS

## ACOUSTIC SCENE ANALYZER 2 LEVELS



- BINAURAL SPATIAL MAPPING**
- Machine Noise
  - Directionality
  - Wind

- BINAURAL SPATIAL MAPPING**
- Machine Noise
  - Directionality
  - Wind

## PUREWAVE FEEDBACK ELIMINATOR

## PUREWAVE FEEDBACK ELIMINATOR

- SYNCHRONIZED USER CONTROLS**
- Binaural Telephone Mode
  - Volume
  - Memory

- SYNCHRONIZED USER CONTROLS**
- Binaural Telephone Mode
  - Volume
  - Memory

## SURFLINK ACCESSORY COMPATIBILITY

## SURFLINK ACCESSORY COMPATIBILITY

+ Stream Boost

+ Stream Boost

- Spectral IQ
- SoundPoint
- Self Learning
- Swap Fit
- 3D Speech Mapping
- ISO-Clear Compression
- Auto Experience Manager
- MultiFlex Tinnitus Technology

- Spectral IQ
- SoundPoint
- Self Learning
- Swap Fit
- 3D Speech Mapping
- ISO-Clear Compression
- Auto Experience Manager
- MultiFlex Tinnitus Technology



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Hearing Is Our Concern™

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