

aurix™

Newborn Hearing Screening System

Advanced Technology for Easier Screening



Superior Automated ABR Detection in Newborns and Infants



vivosonic 

The Benefits of Sound Technology

www.vivosonic.com

Easier hearing screening tests

Aurix™ Newborn Hearing Screening System demonstrates that technology can be advanced without being complicated. This automated ABR system detects with speed and accuracy the presence or absence of potential hearing loss in infants 34 weeks gestational age to 6 months. Clinical findings report its practical benefits over popular systems on the market.

The Aurix™ Advantage

No other screening product on the market has these advanced features:

1. SOAP™ Adaptive Processing

This unique innovation is a combination of patented and proprietary technologies that adaptively reduce the myogenic and electromagnetic noise in auditory brainstem responses. The algorithms have been further optimized to minimize the effects of variables that increase screening time and referral rates. Infants from birth to 6 months of age can be screened with reliable results. SOAP™ Adaptive Processing works with the Aurix™ Link wireless technology to yield superior ABR detection in the NICU and other non-ideal conditions.

2. Aurix™ Link Wireless Screening Technology

The Aurix™ Link is a handheld unit that records data and transfers it wirelessly to a computer up to a distance of 30 ft (10 m). It enables bedside screening, and allows an infant to be held, comforted, nursed, or strolled while screening is in progress. In the NICU, the wireless Link can be conveniently placed in an isolette. Its battery-powered operation eliminates the need to connect directly to an electrical power source offering immunity to conducted power line interference.

3. Circumaural Sound Stimulator and Insert Earphone Option

Choose the earphone option that meets your needs. Maximize performance with the circumaural Sound Stimulator and disposable EarDomes™ anthropometrically designed to fit infants up to 6 months of age. A built-in microphone detects excessive noise in the environment, while the circumaural design aids in noise reduction. A standard insert earphone option is also available for use with a variety of low-cost disposable ear tips.



For Newborns and Families:

Comfort and safety

- Infants can be held and comforted during screening
- No need to remove high-risk infants from the NICU
- Fragile infants can be screened in their isolettes
- Patient disposables provide infection control

Early detection of hearing loss

- Simple, quick and effective automated ABR screening
- Identifies potential hearing loss reliably and accurately

Fewer false positive outcomes

- Reduces caregiver anxiety
- Avoids delays in hospital discharge for rescreening
- Avoids the need to return for outpatient screening
- Avoids unnecessary referrals for follow-up diagnostic testing



For Screeners:

Easy to screen

- 3 simple steps: Create a record, perform the test, print the results
- No result interpretation is required
- Intuitive software is easy to learn
- Portable and convenient – the wireless Link enables bedside screening
- Continue to test when infants awake – no need to stop and reschedule

Fast results

- On average, results are generated within 2 minutes per ear
- Maximum test time is typically less than 15 minutes

More reliable than conventional systems

- Performs reliably in the NICU and similar environments with high electromagnetic interference
- Better handling of myogenic artifacts and patient motion
- Less variability between test outcomes
- Consistent results

For Newborn Hearing Screening Programs:

Get up and running quickly and easily

- Minimal set up required
- Experience no down time as you smoothly transition to Aurix™
- Training package provides step-by-step instructions
- On-site training available

Better screening outcomes

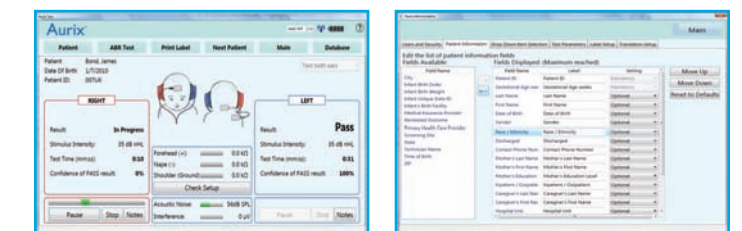
- Achieve recommended JCIH benchmark of <4% for refer rates
- Fewer incomplete tests due to myogenic artifact and electromagnetic interference
- Reliable results on the initial screen reduces the need for follow-up

Reduced need for rescreens and rescheduling

- Fewer false positives means fewer rescreens
- Less rescheduling due to infant state

Clear feedback indicators

- Sound Stimulator lights indicate the presence of excessive ambient noise
- Quality of the acoustic seal is monitored during screening
- Unacceptably high electrode impedance levels are identified
- Loss of electrode contact is detected
- Helpful troubleshooting instructions are displayed when needed



Reduced costs

- Fewer rescreens can significantly reduce program costs for labour and supplies
- Choice of disposable options to meet budgetary constraints

Tracking and reporting

- Collect vital patient information
- Customize fields to meet your tracking and reporting needs
- Integration with HiTrack and OZ eSP™ enables full EHDl data management
- Export data for use with database software and spreadsheets

Special Features

Unique Innovations Provide Superior Response Detection

- SOAP™ Adaptive Processing with Kalman Weighted Averaging
- Aurix™ Link wireless technology
- Sound Stimulator with better acoustic seal and noise detection

Fast and Accurate

- Superior response detection on initial screen
- Less susceptible to electromagnetic interference
- Less susceptible to myogenic artifacts and patient motion

Ease of Use

- Automated ABR
- Perform screening in 3 simple steps
- No need to interpret results
- Portable and convenient design enables bedside screening
- Wireless technology simplifies testing in the NICU and isolettes
- Obtain reliable results under non-ideal conditions
- Easy patient preparation
- Easy-to-use software with helpful feedback
- Easy exporting of data for report generation

Earphone Options

- Circumaural earphones specially designed for infants
- Standard insert ER-3A earphones with a variety of ear tips

Affordable and Cost Effective

- Low-cost disposable ear tip options
- Volume discounts on electrodes, ear tips and EarDomes™
- Extended warranties available

Customization

- Output levels of 30 or 35 dB nHL
- Customize patient information fields
- Customize report labels
- Administration tools to set up users

Tracking and Reporting

- Compatible with HiTrack and OZ eSP™
- Export data for use with standard databases and spreadsheets
- Generate reports for integration with hospital EMR
- Rich export tools
- Import pick lists
- Critical tracking fields

Top Notch Customer Support

- Dedicated customer support
- Friendly, helpful and prompt
- Personal on-site and on-line training available
- Remote access troubleshooting
- Multilingual staff

Clinical Evidence

Comparing Aurix to Competitive Screening Equipment^{1,2}

*Denotes statistically significant differences

	Asleep Throughout Test		Awake During Test	
	Aurix	Competitor	Aurix	Competitor
Average Time per Ear	1:34*	3:37*	2:33*	7:32*
% of Ears Passed	97%*	89%*	96%*	72%*
	Interference < 20 mG		Interference >= 20 mG	
	Aurix	Competitor	Aurix	Competitor
Average Time per Ear	2:12	2:16	2:24*	3:19*
% of Ears Passed	96%	93%	96%	92%

1. Kurtz I, Steinman AH, Stepanov S (2010). Factors Affecting Screening Time and Rates of Referral in Automatic ABR and Solutions to Improve Performance. Poster presentation at nhs 2010 Conference, Cernobbio, Italy, June 8-10, 2010.

2. Bonilla E (2011). Quality Improvement Initiative in Newborn Hearing Screening. Neonatal Intensive Care: The Journal of Perinatology Neonatology, 24(1):22-23.

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Vivosonic is a leader in the development of innovative technologies to enhance auditory evoked response detection

The Vivosonic Integrity™ V500 System is a unique diagnostic device that provides superior, faster response detection and better handling of myogenic artifact while minimizing electromagnetic interference.

The Vivosonic Aurix™ Newborn Hearing Screening System, with automated ABR, works with the same advanced technologies and is especially valuable in screening high-risk babies in the NICU.

The company holds patents on proprietary algorithm techniques and the Amplitrode® technology for evoked potential signal filtering and amplification. An ISO 13485 certified manufacturer, it markets and sells its products through a global distributor network in over 35 countries.

Vivosonic is a leader in the development of technologies to enhance auditory evoked response detection and meet the clinical challenges of hearing healthcare professionals. We are dedicated to continuous improvement of our products and services, and seek new opportunities to develop innovative applications of our proprietary technologies.

integrity™
V500

Auditory Diagnostic System

**Advanced Technology for
Easier Diagnostics**



Superior ABR Detection, without Sedation.

The Vivosonic Integrity™ V500 System is the logical choice for diagnostic ABR follow up to screening referrals. Integrity™ enables Awake ABR diagnostic assessments.



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