

## Which issues impact your clinic the most?

- Electromagnetic interference and myogenic artifacts
- Restricted patient movement and positioning
- Costs, inconvenience and risks of sedation
- Multiple appointments - Delayed diagnoses
- Difficulty with Bone Conduction Testing
- Inability to test in ICU and O.R.
- Poor waveform morphology
- Lack of portability
- Lengthy test times

# integrity™ V500

Auditory Diagnostic System

## Helps Solve Common Challenges



### ADVANCED, WIRELESS, NOISE-REDUCTION TECHNOLOGY



- ▶ Significantly reduces myogenic and electromagnetic interference
- ▶ Enables testing in electrically “noisy” environments, e.g. ICU, O.R., MRI anteroom
- ▶ Unique, wireless technology allows child to play quietly during testing
- ▶ Clear, accurate, timely diagnostic assessments, typically in one visit
- ▶ Decreases loss to follow-up and delays in diagnosis (EHDI)
- ▶ Easier Bone Conduction Testing

### AWAKE / NON-SEDATED ABR



- ▶ Fewer sedations required
- ▶ Reduces patient risk and care-giver anxiety
- ▶ Decreases re-scheduling and treatment delays
- ▶ Screens special needs populations

### CLINICAL TOOLS & SUPPORT



- ▶ Simultaneous A/B waveform analysis for repeatability check
- ▶ Tone Burst norms for pediatrics; Broadband Chirp
- ▶ VivoCheck™ full system feedback check included
- ▶ Comprehensive library of instructional videos on desktop

### FLEXIBLE CONFIGURATION



- ▶ Flexible configuration of different modalities, e.g. Automated ABR, ABR, ECochG, DPOAE, TEOAE, ASSR, 40-Hz ERP

With advanced noise-reduction technology and wireless convenience, Integrity™ V500 provides clear, reliable diagnostic assessments, typically in one visit, without the need for sedation.

# CUSTOMIZABLE SYSTEM

Allows You to Perform Screening and Diagnostic ABR, Cortical AEP, ASSR, DPOAE and TEOAE Testing

The Integrity™ V500 ABR/AEP System is perfect for infant and special needs patients, but it works equally well for adult diagnostics in less than perfect test conditions. Our unique technology provides superior performance in electrically noisy environments, even with awake but calm and quiet patients. The wireless patient module sends test data to the clinician's PC up to 30 ft away and provides safe physical distancing or patient mobility when necessary. The Integrity™ is portable and is ideal for teleaudiology applications.

## STANDARD COMPONENTS

All Integrity™ V500 (ABR, OAE, Automated ABR) Systems include:

VivoLink™ Wireless Interface Module with Pediatric Shoulder Strap, Laptop Computer, Carrying Case, Battery Charger, 2 sets of custom battery packs, Integrity™ V500 User's Manual, Database Software Module



Also included in all Integrity™ Systems with

### ABR / ECochG / ASSR

- VivoAmp with Snap-Clip Electrodes for G2 System
- ER3-C Insert Earphones
- B71 Bone Conductor
- ECochG Electrode EarTip Cable with Snap-Clip connector to Insert Earphones
- Starter set of disposables including EarTips and Electrodes



Also included in all Integrity™ Systems with

### OAE

- Vivosonic General-use OAE Probe
- Probe Holder
- Probe Cleaning Tool Set
- Ear Tip Set



Also included in all Integrity™ Systems with

### Automated ABR (Screening)

- Automated ABR Screening License
- Alligator Clip Lead Set and Snap-Clip Lead Set for VivoAmp™
- VivoTab™ Electrodes



Base ABR / ECochG Integrity™ V500 System

## OPTIONAL ACCESSORIES FOR G2 SYSTEMS:



The single channel A81 or the 2-channel A82 Amplitrode® can be ordered as an optional extra, or as a replacement for the VivoAmp™



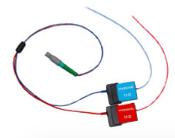
The VivoAmp™ has replaceable leads and interchangeable electrode options, plus the ability to detect 1 or 2 channels automatically



The CV-Amp is for Cortical MLR and LLR testing, and is supplied with a set of leads with reusable gold cup electrodes.



TDH-39 headphones are an alternative to the ER3-C earphone inserts, plus provide high-sensitivity, low distortion and a wide, smooth frequency response up to 8,000 Hz.



ER-2 Insert Earphones for high-frequency ABR testing at 6 and 8 kHz to identify 1) hearing loss from ototoxicity in infants and young children, and 2) high-frequency hearing loss in older children and adults.

# IMPROVED CLINICAL EFFICIENCY

## UNIQUE ADVANTAGES OF INTEGRITY™ V500

- Based on patented Amplitrode® technology, the **VivoAmp™** provides the latest advances in amplification and prefiltering, which reduce negative contributions from EOG, ECG, EEG and RF in order to provide maximum noise reduction.
- SOAP™** Adaptive Processing, a patented noise-reducing algorithm, based on Kalman Weighted Averaging, cleans electrophysiological signals and ensures exceptional response detection.
- Unique, **VivoLink™ wireless** recording technology provides freedom of movement and enables caregivers to comfort, hold and stroll with infants during testing.
- Time-saving, simultaneous display of two statistically independent waveforms and built-in statistical tools help to quickly evaluate **waveform repeatability** and residual noise.

REDUCES THE  
NEED FOR  
SEDATION BY  
66-92% <sup>1,2</sup>

REDUCES  
HEALTHCARE  
COSTS BY UP TO  
\$5,000 USD PER  
PATIENT <sup>3,4</sup>

AVERAGE  
TIME FOR ABR  
ASSESSMENT  
REDUCED TO  
1 HR. 20 MIN.  
INSTEAD  
OF 3 HR. <sup>5</sup>

Scan code to view our video:  
Introduction to Vivosonic Integrity™ ABR  
or contact us for a demonstration:

[sales@vivosonic.com](mailto:sales@vivosonic.com)  
+1 (416) 231-9997

Toll Free (USA/Canada): 1 (877) 255-7685



1. Hall JW III, Sauter T (2010). Clinical Experience with New Technology For Recording Un-Sedated ABRs.

2. Sebzda JM (2010). Pediatric ABR testing without sedation? Is it possible?

3. Cone B, Norrix LW. University of Arizona. "Measuring the Advantage of Kalman-Weighted Averaging for Auditory Brainstem Response Hearing Evaluation in Infants". American Journal of Audiology, May 22, 2015. doi:10.1044/2015\_AJA-14-0021, 2015.

4. Cone B, Dean J, Norrix L, Velenovsky D (2013). Innovations in the Electrophysiologic Assessment of Infant Hearing: Cost Model.

5. Walker B (2012). Clinical Significance of Advanced ABR Technology for Newborn Hearing Screening Programs.

## OTHER NEW FEATURES FROM RECENT RELEASES:

- ▶ Frequency Specific “VF Chirp”
- ▶ Cortical Mid-Latency and Late-Latency Response with CV-Amp
- ▶ Addition/Subtraction of Waveforms
- ▶ Waveform Sorting
- ▶ 6 and 8 kHz ABR Testing using ER2 Insert Earphones

Check out the exciting new features in our latest software release!

View video: [https://bit.ly/Version\\_89](https://bit.ly/Version_89)

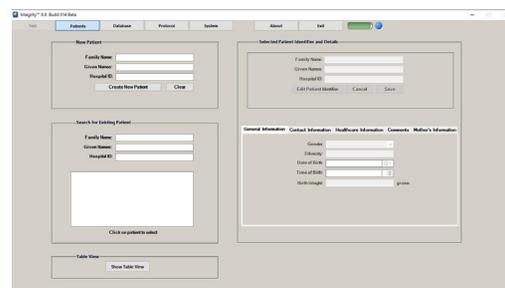


# integrity™ V500

Auditory Diagnostic System

## Convenient Patient Data Entry Screen

- ▶ Convenient data entry format
- ▶ Quickly enter new patient information or call up existing patient from database
- ▶ Switch to classic TableView any time

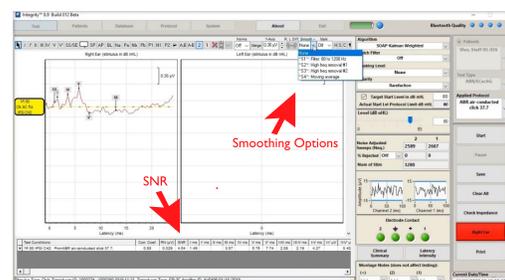


## Waveform Smoothing Options

- ▶ Option to apply one of 4 levels of smoothing filters after signal processing according to user preference
- ▶ Smoothing level indicated in waveform handle

## Signal-to-Noise Ratio

- ▶ Assess signal quality with the Signal-to-Noise ratio display
- ▶ Calculated based on waveform as seen on screen; changes with smoothing level applied



## Improved Noise Handling

- ▶ Enhanced noise handling ability to ensure reliable results in high noise environments

## Artifact Rejection levels on Test Screen

- ▶ Conveniently select Artifact Rejection levels from Test Screen and apply to any algorithm used

## Interaural Differences

- ▶ Table of amplitude and latency differences between right and left ear, for ABR, MLR, and LLR markers
- ▶ Aids clinical diagnosis

## ABR Impedance Values

- ▶ ABR Impedance values included in test record

## Choice of Waveform Nomenclature

- ▶ Option to choose standard or UK / NHSP Nomenclature
- ▶ Cortical MLR markers (Na, Pa, Nb, Pb)

## Export ABR Waveforms

- ▶ Export ABR waveforms in addition to the test results

