



The Power
of **Choice** in
Newborn
Hearing
Screening



The ABAer® System is an all-in-one ABR, DPOAE & TEOAE screener — providing unsurpassed flexibility in hearing screening & data management

The ABAer Hearing Screener P Meeting Program Requirements & Achievin

ALL-IN-ONE ABR, DPOAE & TEOAE SCREENING SYSTEM

ABR technology

Utilizes proprietary Point Optimized Variance Ratio (POVR) Algorithm



- Developed by the House Ear Institute, a leader in auditory research since 1946
- Efficient screening
 - ◆ Test automatically stops if the probability of achieving a PASS result is very low
- Statistically proven
 - ◆ 99.96 % theoretical statistical bilateral sensitivity
 - ◆ 98.5 % specificity

Distortion Product Otoacoustic Emissions (DPOAE)

- High sensitivity for cochlear hearing loss
- Frequency specific screening: 2, 3, 4, and 5 kHz

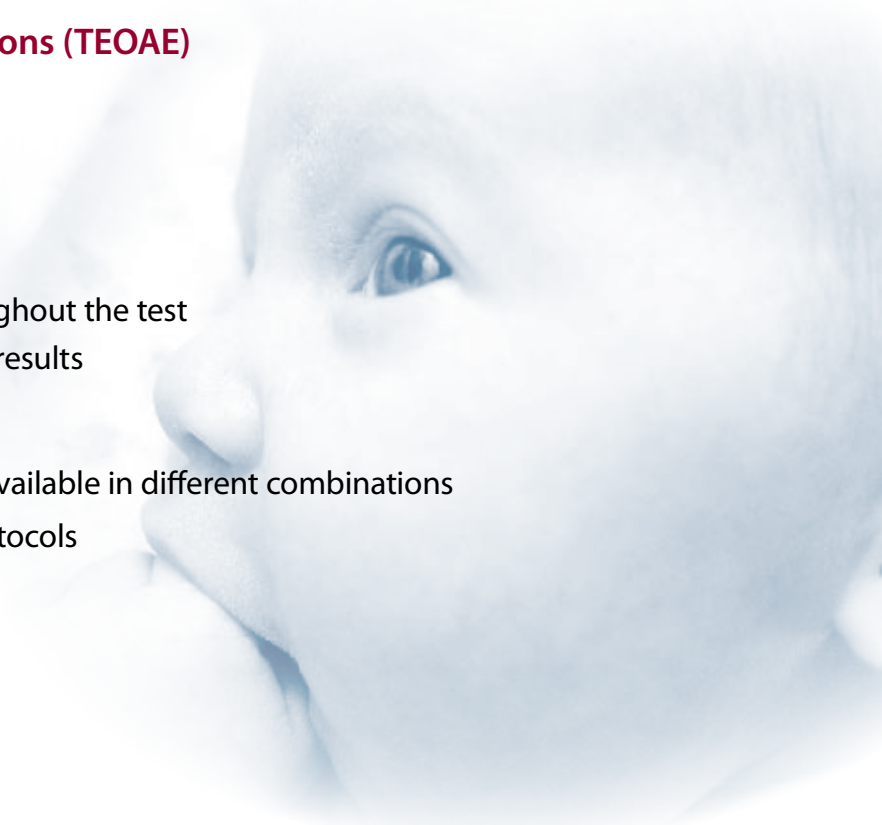
- Fast test times
 - ◆ Approximately 10 seconds per ear
- Ability to continue testing through moderate levels of external noise
- In-the-ear stimulus calibration and ear probe stability check prior to testing

Transient Evoked Otoacoustic Emissions (TEOAE)

- High sensitivity for cochlear hearing loss
- Testing frequency range: 1.2 to 3.5 kHz
- Fast test times
 - ◆ Approximately 10 seconds per ear
- Ongoing ear probe stability check throughout the test
 - ◆ Provides user status to ensure reliable results

Multiple Technology Configurations

- ABR, DPOAE & TEOAE technologies are available in different combinations
- Ideal for one or two-stage screening protocols



Provides Flexible Solutions for Meeting Continuous Quality Improvement Goals

FAST & SIMPLE OPERATION

- Touch screen & keyboard/mouse functions provide easy navigation
- Colored, graphical displays guide you easily through the screening process
- Patient ABR waveforms are available for viewing
- Automated pass/refer results
- Pre-set screening parameters — no user adjustments necessary
- Tutorial video provides helpful tips on how to conduct a screen



Touch screen

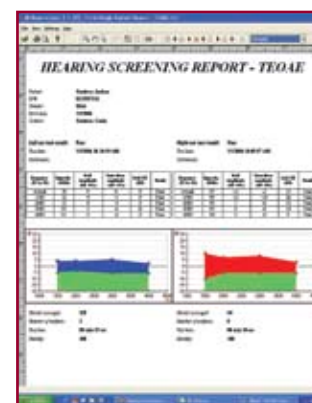


Waveforms available for viewing

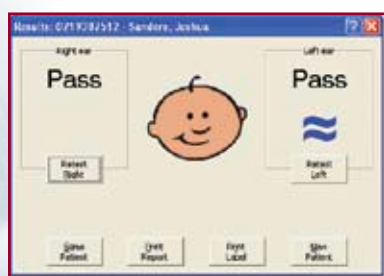
FLEXIBLE DATA TRANSFER & DATA MANAGEMENT

- Stores an expanded set of patient demographic data
- User-definable data entry fields are available to meet protocol requirements
- Provides customizable result notification reports & letters for parents & physicians
- Access to screening database & statistical reports can be restricted to authorized individuals via password

- Includes built-in data management software
- Compatible with 3rd party data management systems such as OZ SIMS & NCHAM Hi*Track
- Transfers results to personal computer via CD-RW and CD/DVD
- Patient information can be imported from the hospital information system to the ABAer device — minimizing the need to re-enter patient data



Customizable Patient Report



Automated PASS Result

BUILT-IN CONTINUOUS QUALITY IMPROVEMENT

- Generates statistical reports on program outcome measures such as screening results of specific staff members and technology
 - ♦ Hospitals can monitor the effectiveness of their screening program on an ongoing basis

CONVENIENT SCREENING WORKSTATION

- Cart allows easy transport of ABAer System to different locations
- Spacious drawer & basket are available for storing screening supplies



The ABAer Hearing Screening System includes:

- ABAer screener with touch panel computer
- Screening cart
- Data management software (built-in)
- Electrode (patient) cable
- OAE probe (optional for ABR, included with OAE)
- Insert earphones with adapters
- Deskjet printer (optional)
- Seiko label printer (optional)
- Supply starter kit
- Instructional materials

Ordering Information:

| ITEM | PART NUMBER |
|--|-------------|
| ABAer (ABR) with Label Printer | AB101 |
| ABAer (ABR) with Deskjet Printer | AB102 |
| ABAer (ABR) with Label Printer & OAE Probe | AB103 |
| ABAer (ABR) with Deskjet Printer & OAE Probe | AB104 |
| ABAer (ABR, DPOAE) with Label Printer | AB105 |
| ABAer (ABR, DPOAE) with Deskjet Printer | AB106 |
| ABAer (ABR, TEOAE) with Label Printer | AB107 |
| ABAer (ABR, TEOAE) with Deskjet Printer | AB108 |
| ABAer (ABR, DPOAE, & TEOAE) with Label Printer | AB109 |
| ABAer (ABR, DPOAE, & TEOAE) with Deskjet Printer | AB110 |

Technical Specifications:

PHYSICAL

ABAer interface device:

Dimensions:

7.6 x 4.0 x 1.7 inches
19.4 x 10.1 x 4.4 cm (H x W X D)

Weight:

14 oz (400 grams)

POWER SUPPLY

6 V DC

ABR DATA ACQUISITION

| | |
|--------------------|---|
| Analysis Time | (window length) 21.33 msec |
| A/D Resolution | 16 Bit |
| Artifact Rejection | >13 uV |
| Points Per Trace | 256 |
| Electrode Montage | Forehead to Test Ear or Forehead to Nape of Neck (dependent on transducer choice) |

ABR AMPLIFIERS

| | |
|------------------|-----------------------------|
| Channels | 1 Optically Isolated |
| Gain | x30,000 |
| High Pass Filter | 100 Hz |
| Low Pass Filter | 1500 Hz |
| CMR Ratio | >110 dB, at 50/60 Hz |
| Impedance Test | Internal, 1000 Hz sine wave |

Contact your local customer service representative for more information.

Note: Specifications are subject to change without notice.

ABR STIMULUS

| | |
|-----------|---|
| Type | 100 msec click |
| Polarity | alternating |
| Rate | 37.1/sec |
| Intensity | 35 dB nHL default (option for 30 or 40 dB nHL as an alternative) |

ABR TRANSDUCER CHOICES

ABAer Probe (OAE-type)
Insert Earphones with in-the-ear tips
Insert Earphones with Halo Ear Muffin®
TDH-39 headphones

COMPUTER

System requires PC with dedicated USB and Windows® XP Professional operating system.
Bio-logic-supplied PC specifications are available upon request.

CART

Five-caster cart accommodates ABAer module, laptop or panel PC, deskjet printer, isolation transformer and supplies.

SAFETY

Designed to meet the following standards:
IEC 60601-1 Class II
UL 2601-1
CSA-C22.2 No. 601.1
AAMI-ES1
CE Mark

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