



## The next generation automated, all-in-one hearing screener

- ▶ Compact, handheld multi-modality hearing screener
- ▶ Incorporates TEOAE, DPOAE and ABR capabilities
- ▶ Clinically proven algorithms



Device shown actual size.

# Multiple screening configurations. One compact device.

The all new Echo-Screen III hearing screener combines advanced capabilities never before available in a single device. This versatile system uses the same proven and trusted algorithms with automated, pre-set screening parameters that have been used in millions of screenings<sup>1</sup>, so you can feel confident in the quality of your results.

The Echo-Screen III device is available in any combination of modalities – TEOAE, DPOAE, and ABR – providing all the screening tools you need at your fingertips. Modalities are field upgradeable in moments should you decide to expand your options at a later date.

The trusted technology you know from the past, now available in a device ahead of its time.



DPOAE Start Screening



TEOAE Testing in Progress



ABR Screening Result

<sup>1</sup>References on file at Natus.

# Flexible data entry, expanded input options and seamless data management.

The Echo-Screen III device features both a hard key QWERTY keyboard and a touch-screen, so you can enter data the way you prefer. Integration with audble® Desktop data management software enables configurable, comprehensive data management with tight integration with Microsoft Word® for custom letters and reports, while incorporating Conflict Resolution to assist in identifying and correcting data entry errors.

## Integrated

- ▶ Fully automated results with standardized, pre-set screening parameters
  - Automatic pass/refer results that require no interpretation
  - Clinically proven algorithms utilizing binomial statistics for optimal accuracy
- ▶ Artifact rejection system distinguishes between external noise and patient response
- ▶ Seamless integration with audble Desktop data management software (included at no additional charge) for planning, data reporting and device management



audble Data Management

## Versatile

- ▶ Incorporates multiple screening capabilities:
  - Auditory Brainstem Response (ABR) for detecting auditory neuropathy in newborns
  - Transient Evoked Otoacoustic Emissions (TEOAE) for detecting even mild hearing loss
  - Distortion Product Otoacoustic Emissions (DPOAE) for frequency-specific screening
  - Screening modalities are user upgradeable in just minutes
- ▶ Data entry via hard-key QWERTY keyboard or touch-screen interface
- ▶ Choice of CHIRP or click stimulus at multiple levels provides additional screening and research options
- ▶ Fully configurable for simplified operation or comprehensive data capture
- ▶ Appropriate for patients of all ages

## Convenient

- ▶ Docking station enables data transfer, charging of the device and spare battery simultaneously and includes integrated ABR test kit
- ▶ Compatible with Natus Flexicouplers®, Jelly Tabs™ and Ear Tips
- ▶ Integrated hook for hanging on a bassinet or for use at a comfortable angle when placed on flat surfaces
- ▶ Integrated barcode scanner (optional)
- ▶ Wireless Bluetooth® label printing (optional)
- ▶ Built-in OAE test chamber



## Ordering Information

ITEM	PART NUMBER	
	w/ Barcode	w/o Barcode
Echo-Screen III PRO Hearing Screener TEOAE set	013500	013510
Echo-Screen III PRO Hearing Screener DPOAE set	013501	013511
Echo-Screen III PRO Hearing Screener ABR set	013502	013512
Echo-Screen III PRO Hearing Screener TEOAE & DPOAE set	013503	013513
Echo-Screen III PRO Hearing Screener TEOAE & ABR set	013504	013514
Echo-Screen III PRO Hearing Screener DPOAE & ABR set	013505	013515
Echo-Screen III PRO Hearing Screener TEOAE, DPOAE & ABR set	013506	013516

*Set contents: Device with integrated hook, travel/storage case, docking station with 2 rechargeable batteries, integrated barcode reader (optional), OAE probe, accessory ear tip box, USB cables. Includes audible Desktop PC-based data management software. Printer optional. ATA cable included when ordered with a set including ABR.*

## Natus-approved Supplies and Accessories

ITEM	PART NUMBER	ITEM	PART NUMBER
<b>OAE Ear Tips</b>		<b>Accessories</b>	
OAE Jumbo Tip - qty 20	203200	Probe nozzles (for use with p/n 012625) – 5 nozzles	013570
OAE Jumbo Tip - qty 100	203210	OAE probe	012625
OAE Adult Foam Tip - qty 20	203202	ATA ABR cable - 4 ft.	010999
OAE Adult Foam Tip - qty 100	203212	PCA electrode cable - 4 ft.	009149
OAE Pediatric Foam Tip - qty 20	203201	Wireless label printer w/ power supply, case, shoulder strap, battery	011046
OAE Pediatric Foam Tip - qty 100	203211	Barcode reader retrofit (factory installed)	013561
OAE 6mm Blue Tip - qty 20	203333	USB A to Micro B 6' 6"	011029
OAE 6mm Blue Tip - qty 100	203353	High integrity data cable	
OAE Tree Tip - qty 20	203208		
OAE Tree Tip - qty 100	203218		
OAE Premie Tree Tip - qty 20	203209		
OAE Premie Tree Tip - qty 100	203219		
<b>ABR Supplies</b>		<b>Modality upgrades</b>	
ALGO® PAK supplies - 36 sets/box	040546	DPOAE upgrade	013558
VALU-PAK supplies - 288/sets/box	040670	TEOAE upgrade	013559
(Both ALGO PAK and VALU-PAK include Flexicoupler® earphones and Jelly-Tab™ electrodes)		ABR upgrade (includes PCA and ATA cables, sample supplies)	013560
Jelly-Tab electrodes - 40 triplets (120/box)	040587		
<b>Skin Prep Supplies</b>		<b>Data Management Software</b>	
NuPrep® skin prep gel 3 4-oz tubes	102566N	audble Desktop	012257
Wet prep pads - qty 200	109084		
<b>Printer Supplies</b>		<b>User Documentation</b>	
Printer labels, roll of 2"x4" labels (66 labels/roll)	011529	Echo-Screen III Reference Guide (CD)	011109



ABR Supplies

Bluetooth Wireless Label Printer



## Technical Specifications

### GENERAL

Device dimensions (L x W x H)	208.28 x 119.38 x 40.64 mm (8.20 x 4.70 x 1.60 inches)
Device weight	453.59 g (16 oz) excluding battery 576.06 g (20.32 oz) including battery
Docking station dimensions (L x W x H)	245.11 x 121.92 x 76.2 mm (9.65 x 4.80 x 3.00 inches)
Docking station weight	567 g (20 oz)
Test modalities	TEOAE, DPOAE, DPOAE+ and ABR
Patient storage capacity	300 patients
Test storage capacity	2000 test results
Power	Internal battery powered - rechargeable and user changeable

### DISPLAY

Type	TFT Color LCD
Screen size	4.3" (10.9 cm) diagonal
Resolution	480 (H) x 272 (V) pixels
Active area	95.04 mm (H) x 53.856 mm (V)
Backlight	LED, dimmable
Touchscreen	Projected capacitive (works with or without gloves)
Touchscreen construction	Glass sensor plus cover glass, optically bonded
Touch input type	Finger or minimum 7 mm diameter conductive stylus

### BATTERY

Type	Rechargeable Li-ion 3.65 V, 5300mAh (nominal)
Battery level indicator	5-step battery level indicator (on screen)
Estimated battery life <sup>1</sup>	40 hearing screening tests or 16 hours of continuous use
Certifications	UN 38.3, UL1642, IEC 62133, Directive 2006/66/EC RoHS 2002/95/EC <sup>1</sup> Actual results may vary based on device configuration and screening modality.
AC adapter	100-240 VAC, 50-60 Hz, 0.6A, OUTPUT: +5V, 3.0 A
Certification	IEC 60601-1
Battery charge time	4.5 hours to 100%
AC adapter kit	North America/Japan, Australia, UK, EU, Korea, Argentina, and China

### PC INTERFACE

Type	USB 2.0
Connector	Micro USB type AB
Max cable length	2 m (6 ft. 6 inches)

### LABEL PRINTER (OPTIONAL)

Type	P/N 011046, Natus supplied battery powered label printer
Interface	Bluetooth (wireless)

### BARCODE READER (OPTIONAL)

Imager type	CMOS
Scan angle	38.9 deg. (Horizontal), 25.4 deg. (Vertical)
Optical Resolution	752 (H) x 480 (V) pixels, 256 gray levels
Symbologies	Code 128 enabled, Code 39, Code 93 and Interleaved 2 of 5 capable

*NOTE: Please check that your hearing program supports one of the symbologies listed above before ordering this option.*

### DOCKING STATION

PC Interface	USB 2.0, micro USB type AB
Battery charging	Built in spare battery charger
Battery charge time	4.5 hours to 100%
AC adapter	100-240 VAC, 50-60 Hz, 0.6A, OUTPUT: +5V, 3.0 A
Equipment check	Integrated ABR patient cable test fixture
Docking interface connector	Mill Max 12-pin interconnect header, gold plated, recessed

### ENVIRONMENTAL

Operating temperature	5 to 38°C (41 to 100.4° F)
Operating relative humidity	5 to 90%, non-condensing
Operating altitude	0 to 3,657.6 M (12,000 ft.)
Shipping/storage temperature	-30 to 55°C (-22 to 131° F)
Shipping relative humidity	5 to 90%, non-condensing

### APPLIED STANDARDS

Classification	Type BF, Class II
Patient safety	IEC 60601-1, CAN/CSA C22.2 No. 60601-1 IEC 60601-2-40, IEC 60601-1-4
EMC	IEC 60601-1-2
Other	CE Mark, RoHS Compliant

Note: Specifications are subject to change without notice.

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