gsi
Grason-Stadler

NEWBORN HEARING SCREENER

NOVUS

AABR TESTING HAS NEVER BEEN EASIER

OBJECTIVE AND ACCURATE

The GSI Novus™ is a sleek, handheld, **comprehensive newborn hearing screening instrument**. The Novus features a touch screen display and intuitive software in a compact hardware design. The Novus may be configured with any combination of AABR, TEOAE, and DPOAE which allows for seamless two stage infant screening.

MANAGE YOUR DATA WITH HEARSIM

HearSIM™ data management software offers everything you need to manage your newborn hearing screening program. Load patient names into the Novus or quickly determine which patients need additional testing with the intuitive database view. In addition to viewing, storing, and printing results, it is possible to export data to Hi-Track or save in other formats such as XML. Device settings such as screener names, security, and risk factors may be configured from HearSIM.

TEST BOTH EARS AT THE SAME TIME

The Novus offers two methods for simultaneous testing of AABR by using IP30 insert phones with ear tips or ear cups. Testing both ears at the same time offers significant time saving benefits.

3 KEY BENEFITS

PORTABLE DESIGN

Compact design allows the Novus to be easily transported to the infant's bedside. The Novus is the perfect solution for a busy hospital that needs a screener that is reliable, maneuverable, and fast.

DEPENDABLE TESTING

The Novus is designed to withstand the constant, intense nature of hospital screening and is a device that you can rely on day in and day out.

EASY TO USE

The Novus has a straightforward and logical interface which hospital screeners can learn quickly and with confidence.

KEY FEATURES

COMBINED AABR/OAE TESTING

The Novus can combine AABR and OAE capabilities into one device. Reduce training time and screen infants in well-baby and NICU nurseries.

CE-CHIRP STIMULI FOR ABR

CE-Chirp ABR responses are twice as large as the traditional click stimulus. Larger responses result in faster test times.

QUICK TEST OPTION

Perform a test without entering demographic information. This is ideal when training new staff.

AUTOMATED PASS/REFER

Save time with automatic results as soon as pass/refer criteria are met. The Novus is optimized for the infant ear.

TOUCH SCREEN DISPLAY

Screening staff feels an instant comfort with the intuitive touch screen display and can navigate seamlessly through the testing screens.

WIRELESS CHARGING

A wireless charging dock is included with the Novus. Screening tests can be completed any time the battery is low and is placed on the dock. A fully charged Novus can last for approximately 50 ABR screens or 150 OAE screens.

WHAT YOU SHOULD EXPECT FROM OUR DEVICES

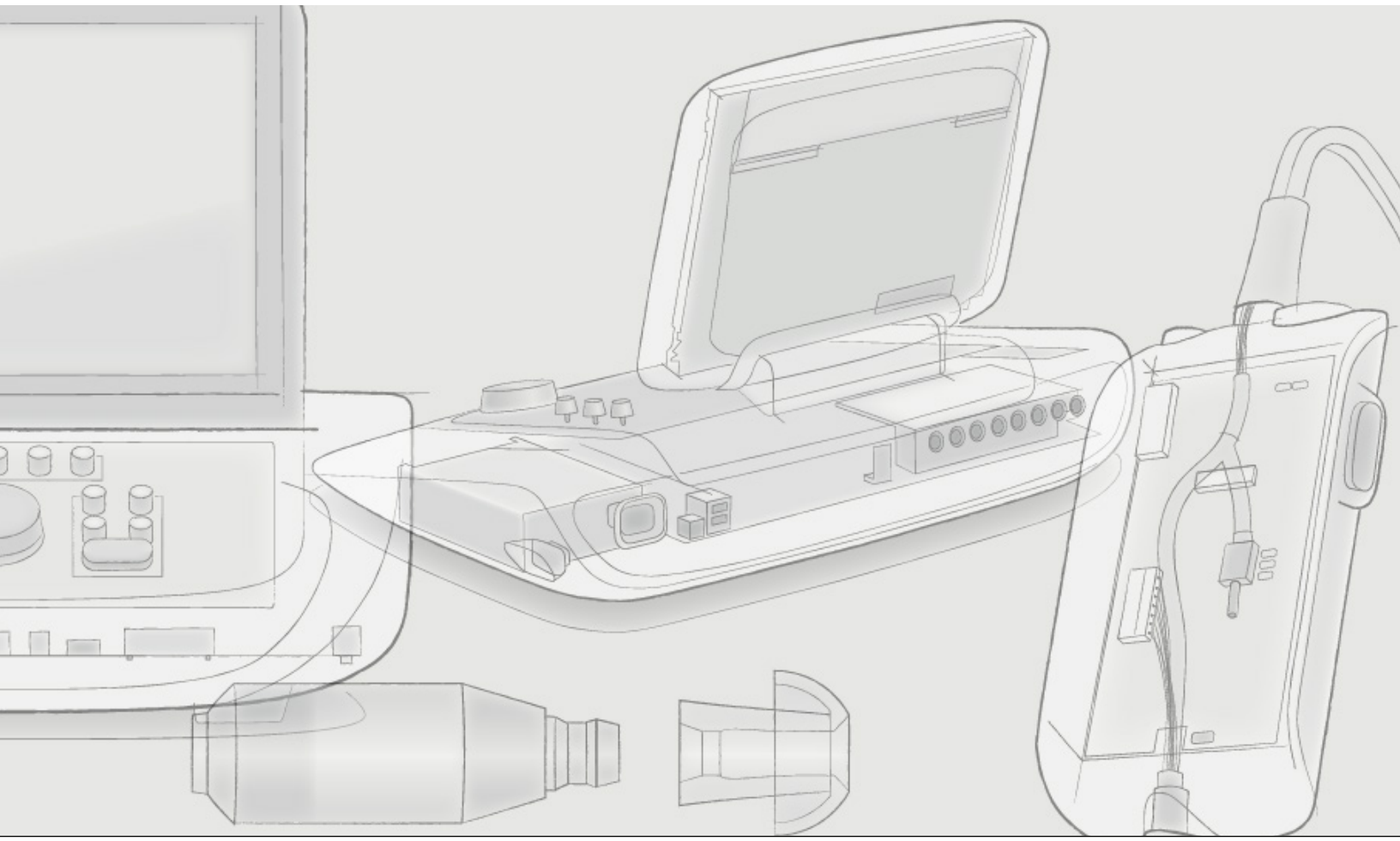
WORLD LEADER IN AUDIOMETRIC SOLUTIONS

GSI is a world leader in audiometric assessment instrumentation and carries a full line of audiometers, tympanometers, otoacoustic emissions (OAE), and auditory evoked potential instruments. From research facilities to school screenings, GSI instruments have been the equipment of choice for audiological assessments throughout the world for over 75 years.

DESIGNED SMART, BUILT STRONG

Our motto is Designed Smart, Built Strong. GSI devices are Designed Smart with the audiologist in mind, providing superior ergonomic design and navigation with one button, one function accessibility. Built Strong, our devices can take on the most routine to complex testing scenarios in any environment.

Quality, Reliable, and User-Friendly are the three core attributes that are the backbone of the GSI brand. These attributes are what you should expect from any GSI product.



NOVUS

TECHNICAL SPECIFICATIONS

The Novus is an active, diagnostic medical product. The device is classified as a class IIa device according to the EU medical directive 93/42/EEC and a class II device according to the US FDA.

DIMENSIONS AND WEIGHT

W x D x H: 3.3 in x 6.2 in x 0.8 in (15.8 cm x 8.3 cm x 1.9 cm)
Display: 272 x 480 px / color
Weight: 0.6 lb (265 g)

GENERAL SPECIFICATIONS

User Interface: Resistive touch screen
User Feedback: Integrated speaker
Language Settings: English, default (15 options)
Memory: 1GB
Data Interfaces: USB, Bluetooth®
Start Up Time: <5 sec
Battery: Li-ion battery 44794; Capacity: 3.7V/3850 mAh
Warm Up Time: No warm-up time necessary after boot

INSTRUMENT SPECIFICATIONS – AABR

Test Signals: CE-Chirp®
Stimulus Rate: 88/sec left ear, 92.5/sec right ear
Stimulus Level: 35 dB nHL (default protocol)
Data Collection: 22 kHz sample rate, 24 bit

PREAMPLIFIER

EEG Filter: 0.5 Hz – 5.0 kHz
Gain: 72 dB
CMRR: >100 dB at 100Hz

INSTRUMENT SPECIFICATIONS – OAE

DPOAE

Stimulus Frequencies: 2000, 3000, 4000, 5000 Hz
Stimulus Frequency Range: 1500 - 6000 Hz
Nominal Frequency, F2/F1 Ratio: F2, 1.22
Level L1/L2: 65/55 dB SPL

TEOAE

Stimulus Type: Non-Linear Click (according to IEC 60645-3)
Stimulus Frequency Range: 1000 – 4000 Hz
Stimulus Level: 83 dB peSPL, peak to peak calibrated, AGC controlled

CRADLE

ELECTRICAL ISOLATION

DC Power In: 5V/1.6A
Power Supply: AC 100 – 240 V, ~ 50/60 Hz, 400mA

TRANSDUCERS

Radioear IP30 Insert Earphones
Probe for OAE and AABR testing

PRINTER (OPTIONAL)

Type: Thermal
Connection: Bluetooth®
Battery: Lithium Ion, DC 7.4V, 1500 mAh
Charger: AC 100 - 250V, ~ 50/60 Hz, 1.0 A
Weight: 0.8 lb (360 g)
Paper: Thermal paper or labels (0.79 lb, 358 g)

ENVIRONMENTAL

Temperature and Humidity/Operating Range:

- **Operating:** +59° F (15° C) to +95° F (35° C)
- **Transport and Storage:** -4° F (-20° C) to +122° F (50° C)
- **Maximum Humidity:** 90% (operation, non-condensing)
- **Maximum Humidity:** 95% (storage, non-condensing)

QUALITY SYSTEM

Manufactured, designed, developed and marketed under ISO 13485 certified quality systems.

COMPLIANCE

Standards:

- IEC 60601-1, Class II, Type BF
- IEC 60601-1-2
- IEC 60601-2-40
- ISO 389-2
- ISO 389-6
- IEC 60645-3
- IEC 60645-6, Type 2
- IEC 60645-7, Type 2

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