gsi
Grason-Stadler

HANDHELD SCREENING
TYMPANOMETER

ALLEGRO

QUICK AND EASY TYMPANOMETRY

PORTABLE AND FLEXIBLE

The GSI Allegro™ is a handheld screening device **ready for any testing environment** that requires tympanometry and ipsilateral reflexes. The Allegro offers a four button navigation that allows for quick and reliable testing. Automatic measurements of the middle ear status are completed in seconds using the device's configurable test settings. The Allegro includes a charging cradle, thermal printer, and carrying case.

TYMPANOMETRY

- 226 Hz Probe Tone
- Tympanic Peak Pressure
- Admittance at Peak
- Ear Canal Volume
- Gradient

ACOUSTIC REFLEX MEASUREMENTS

- Ipsilateral Reflexes
- Four Frequencies
- Configurable Reflex Settings
- Automatic Detection

3 KEY BENEFITS

AS FAST AS THREE SECONDS

Perform a tympanogram on a single ear in as little as three seconds. Quick testing is crucial for testing a diverse patient population.

TRAINING IS EASY

New staff can begin testing with confidence within a few minutes. The Allegro is a device that is easy to use and easy to train others.

LIGHTWEIGHT DESIGN

The Allegro is ideal for situations such as a satellite clinic, where a lightweight device that is easy to transport is important. The device also comes with a carrying case.

KEY FEATURES

QUICK SEAL
Quickly obtain a seal for tympanometry. Once a seal is obtained, testing begins immediately.

4 KEY TYMP MEASUREMENTS
Four key tymp measurements include peak pressure, ear canal volume, tympanometric width, and admittance at peak.

CUSTOMIZABLE USER SETTINGS
Global settings such as a test sequence and test prompts may be defined by the user.

PORTABLE DESIGN
The Allegro is designed with portability in mind. The device is lightweight and perfect for any testing environment.

SIMPLE NAVIGATION
Four button navigation simplifies the testing procedures for a fast paced testing environment.

PATIENT MEMORY
Test multiple patients and manage the data at your convenience. The Allegro can store up to 32 patient test results to be analyzed and managed at a different time.

WHAT YOU SHOULD EXPECT FROM OUR DEVICES

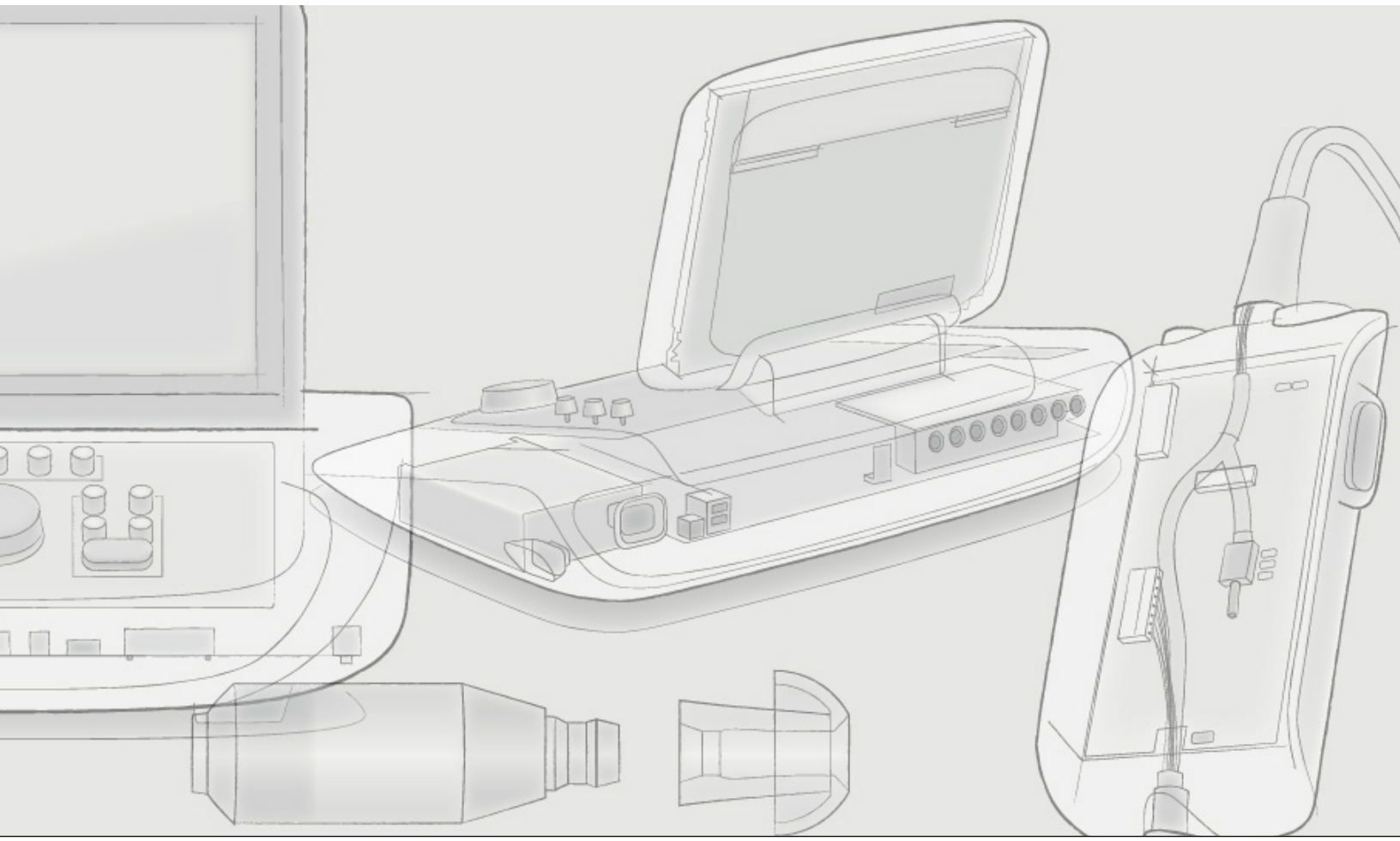
WORLD LEADER IN AUDIOMETRIC SOLUTIONS

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.



ALLEGRO

TECHNICAL SPECIFICATIONS

DIMENSIONS AND WEIGHT

W x D x H: 4.5 in x 9 in x 2.8 in (11.5 cm x 23 cm x 7 cm)

Display: 128 x 64 px / 8 lines of 21 characters

Weight: 1.433 lb (650 g)

TYMPANOMETRY

Instrument Type: Meatus compensated tympanometer

Analysis Performed: Admittance peak level (in ml); Peak pressure of same; Gradient (in daPa); Ear canal volume (ECV) at 200 daPa

Probe Tone Levels and Accuracy: 226 Hz +/-2%; 85 dB SPL +/-2 dB over range 0.2 ml to 5 ml

Pressure Levels and Accuracy: +200 daPa to -400 daPa +/-10 daPa or +/-10% (whichever is larger) over range

Ear Volume Measurement Range and Accuracy: 0.2 ml to 5 ml +/-0.1 ml or +/-5% (whichever is larger) over entire range

Sweep Speed: Typically 200 daPa/sec; dependent on ear/cavity volume

Pressure Limits (Safety Cut Out): +600 to -800 daPa

REFLEX MEASUREMENTS

Measurement Modes: Ipsilateral

Reflex Tone Levels and Accuracy: 500 Hz, 1 kHz, 2 kHz, 4 kHz (+/-2%); Configurable over range 70 dB to 100 dBHL (4 kHz restricted to 95 dBHL) +/-3 dB, referenced to 2 ml calibration volume; Compensates for measured ear volume

Reflex Detection Threshold and Accuracy: 0.01 ml to 0.5 ml +/-0.01 ml configurable in 0.01 ml steps

Reflex Analysis: Reflex present/absent at each level tested; maximum amplitude of each reflex (seen on printed report & computer report); pressure at which reflex was performed

Pressure Used for Reflex Measurement: Pressure at Tympanogram peak, or 0 daPa

Reflex Tone Duration: 0.6 seconds

DATA MANAGEMENT

Number of Records Stored in Patient Database: 32 patients

Data Stored: Patient initials, tympanogram, reflex graphs, analysis, time/date, and test parameters

LANGUAGES

English, German, French, Spanish, Portuguese, or Italian

THERMAL PRINTER

Supported Printer: Sanibel MPT-II

Interface: Wired connection to cradle

INTERFACE TO COMPUTER

USB Version 1.1

ENVIRONMENTAL

Operating Temperature Range: +59° F (+15° C) to +95° F (+35° C)

Operating Humidity Range: 30% to 90% RH, non-condensing

Operating Atmospheric Pressure Range: 980 to 1040 mb, non-condensing

Transport and Storage Temperature Range: -68° F (-20° C) to +158° F (+70° C)

Transport and Storage Humidity Range: 10% to 90% RH, non-condensing

Transport and Storage Atmospheric Pressure Range: 900 to 1100 mb

POWER

Battery: NiMH rechargeable battery pack.

Interface: Wired connection to cradle

Main Power (To Cradle): 100 - 240 Vac; 50/60 Hz; 0.2 A

Number of Recordings with Full Charge: Up to 100

Auto Power-off Delay: 90 or 180 seconds

Idle Current: 70 mA

Current While Testing: 230 mA

QUALITY SYSTEM

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

COMPLIANCE

- IEC 60601-1 (plus UL, CSA & EN deviations)
- IEC 60601-1-2
- IEC 60645-5, Type 2 Tympanometer
- CE Mark: To the EU Medical Device Directive

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