



GSI ALLEGRO™

TYMPANOMETRY SCREENER



Setting The Clinical Standard



allegro™

HANDHELD TYMPANOMETER

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.



Key Features

- Tympanometry/Reflex Screening
- Fast and Accurate
- Logical Test Sequence
- Configurable Test Settings
- Ear Seal Check
- Stores Results for 32 Patients
- Direct Printing



Tympanometry

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

Acoustic Reflex Measurements

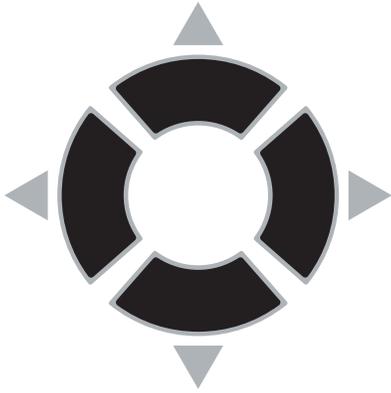
- Ipsilateral Reflexes
- Four Frequencies
- Configurable Reflex Settings
- Automatic Detection

Portable and Flexible

The Allegro provides a small, lightweight solution for any screening environment. The clinician may easily transport the Allegro to satellite clinics and off-site community events. The device is flexible with 17 different test settings so the Allegro can be customized by the clinician. Test settings such as reflex frequencies, intensity step size, and intensity levels are just a few ways in which the Allegro may be customized.

Charge and Print with Ease

It's easy to charge the Allegro with the charging cradle. When the device is charging, test data can be sent to the printer. Multiple printing options are available, such as most recent results or all tests not printed. The battery has approximately eight hours of testing time, allowing for a full day of testing.



4 Button Signature Navigation

A signature feature on many GSI products, the Allegro provides a simple four button navigation pad. With a few button presses, you can conduct testing for both tympanometry and acoustic reflex measurements, as well as review and print results.





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Technical Specifications

Tympanometry

Instrument Type: Meatus compensated tympanometer

Analysis Performed: Admittance peak level (in ml); 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 Cutout): +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

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

Physical

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

Dimensions: 230 mm (L) x 115 mm (W) x 70 mm (H)

Total Weight (Handset and Cradle): 650 g

Environmental

Operating Temperature Range: +15°C to +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: -20°C to +70°C

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

Transport and Storage Atmospheric Pressure Range: 900 to 1100 mb

Standards

Safety: IEC 60601-1 (plus UL, CSA & EN deviations)

EMC: IEC 60601-1-2

Performance: IEC 60645-5, Type 2 Tympanometer

CE Mark: To the EU Medical Device Directive