gsi
Grason-Stadler

PORTABLE OAE INSTRUMENT

CORTI

DIAGNOSTIC AND SCREENING FOR ALL AGES

SMART AND SIMPLE

The GSI Corti™ is a portable, battery-operated diagnostic and screening instrument that measures **Otoacoustic Emissions (OAE) in infants, children, and adults**. Meeting all recommended screening protocols, the Corti offers the ability to rapidly screen newborns and perform diagnostic OAE testing.

COMPLETE DATA SOLUTION WITH GSI SUITE

Corti OAE results are easily transferred into GSI Suite™, where audiometric, tympanometric, and OAE results may be combined into a comprehensive report. Normative data, SNR graphs, and numeric details assist the clinician in explaining the results to patients and their family members.

CORTI DATA MANAGER

The Corti Data Manager is a simple yet powerful application for managing OAE test results. Patient names can be easily added to the Data Manager and quickly transferred to the Corti to be displayed during testing. After testing is complete, OAE results may be transferred to the Data Manager in seconds. Data may be exported from the Data Manager to OZ eSP™ or HiTrack™. Full color reports with graphic and tabular data, patient history, result notes, and test information are available.

AUTO PRINT

Auto Print is an option for quickly printing OAE tests when full database functionality is not required. When the Corti is connected to the PC, it will be detected and will automatically save the results as a PDF or print to the designated printer.

3 KEY BENEFITS

MINIMAL TRAINING REQUIRED

A complete evaluation, from turning on the system to evaluating both ears, requires only three button presses. Easy navigation provides intuitive operation that ensures confidence in testing with minimal training. The color display and friendly screen prompts will guide the operator through functions such as selecting a protocol and probe placement.

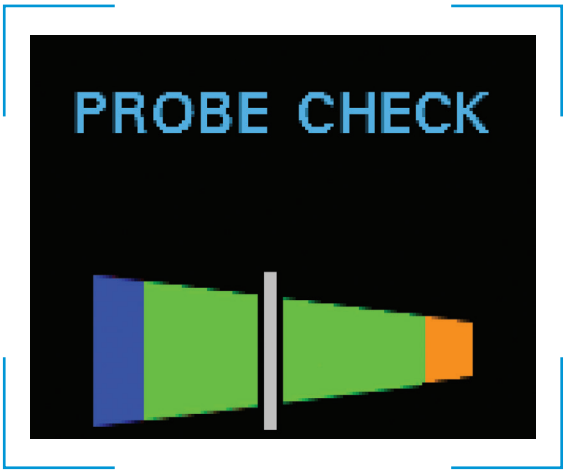
CUT OUT NOISE

The patented noise rejection algorithm smartly assesses the response in variable background noise, ensuring test accuracy and saving valuable test time in noisy environments. Testing can be accomplished in noise levels as high as 55 - 65 dB SPL (A) without compromising accuracy.

FAST AS 8 SECONDS

DPOAE testing in a single ear can be completed as quickly as 8 - 16 seconds. The Corti provides pre-defined and user-defined protocols to address multiple environments. Patients with PE tubes may be tested.

RAPID OAE RESULTS



PROBE CHECK

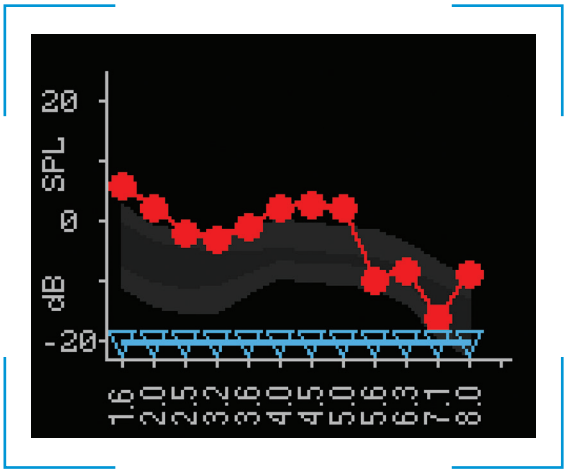
A probe check is performed at the start of each test to ensure a seal is obtained, noise levels are low, and the probe is stable. Calibration of test frequencies is quickly performed and testing begins automatically.

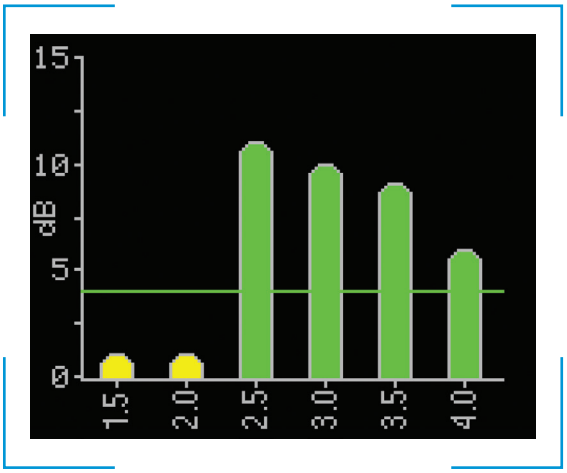
QUICK SCREENING

No interpretation is required as the Corti's DP and TE screening protocols quickly result in a Pass or Refer result.

DPOAE TESTING

The diagnostic DPOAE Corti provides the ability to conduct diagnostic testing with four configurable protocols, testing up to 12 frequencies from 1.5 to 12 kHz. On screen normative DPOAE data assists in test interpretation.





TEOAE TESTING

The diagnostic TEOAE Corti provides two configurable protocols from 0.7 to 4 kHz, and screening protocols. TEOAE screening can be completed quickly.

KEY FEATURES

FLEXIBLE PROTOCOLS
With the Corti, easily change between screening and diagnostic protocols.

AUTO START CONFIDENCE
The Corti automatically starts screening after ensuring probe is placed properly and conditions are ready.

SIMPLE OPERATION
With only three button presses, testing is completed in both ears. The four button design ensures quick screening and diagnostic testing with minimal training.

CRADLE CONVENIENCE
The Corti is always charging and ready for name and data transfer when placed in the cradle between tests.

LOW COST EAR TIPS
Fit all sizes of ears, from infant to geriatric, with the Corti low cost, single use ear tips. Ear tip sizes range from 3mm to 15mm. Foam tips are also available.

NO OAE PROBE CLEANING REQUIRED
With a unique design, the OAE probe never requires cleaning, saving valuable time.

WHAT YOU SHOULD EXPECT FROM OUR DEVICES

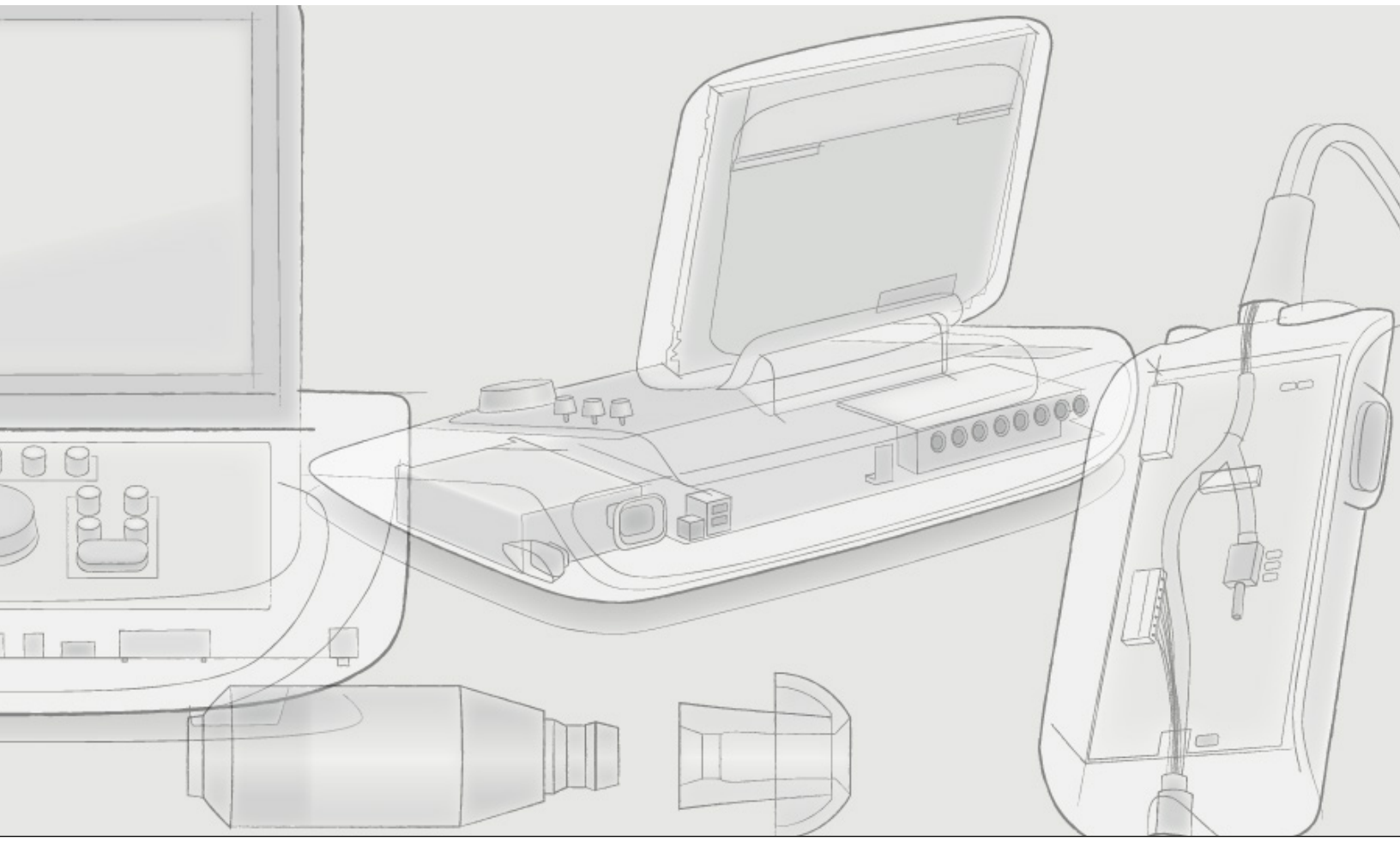
WORLD LEADER IN AUDIOMETRIC SOLUTIONS

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.



CORTI

TECHNICAL SPECIFICATIONS

DIMENSIONS AND WEIGHT

W x D x H: 2.8 in x 1.3 in x 7 in (7.1 cm x 3.3 cm x 17.8 cm)

Weight: 0.4 lb (180 g)

Cradle Dimensions: 4.8 in x 3.5 in x 2.4 in (12.2 cm x 8.9 cm x 6.1 cm)

MEASUREMENT TYPES

Screening and Diagnostic Testing

- DPOAE: 1.5 to 12 kHz, 40 to 70 dB SPL
- TEOAE: 0.7 to 4 kHz, 80 dB pe SPL

HANDHELD UNIT

Display: Color OLED display

User Input: 4 button operation

Connectors:

- Micro-USB for charging and communication
- HDMI for probe

Communication to PC: Micro-USB

Power Supply: 5.0V DC, 1.6A

LANGUAGES

English
German
Spanish
French
Polish
Russian
Italian
Turkish
Portuguese
Chinese
Japanese
UK English

PROBE

Connector: HDMI

Probe Description:

- Integrated microphone and receivers in probe head
- Calibration data stored on probe

Cable Length: 40 in (101.6 cm)

Weight: 1 oz (28 g)

Microphone Noise: -20 dB SPL @ 2 kHz (1 Hz bandwidth), -13 dB SPL @ 1 kHz (1 Hz bandwidth)

Ear Tips: Single use disposable ear tips

CRADLE (OPTIONAL)

Operation: Provides PC database communication and charging

DATA

Test Memory: 500 tests on unit

Patient Names: Patient names on unit (optional)

Database Software: Report output to PDF, RTF, image files

PRINTER (OPTIONAL)

Type: Thermal dot matrix

Power: 7.4 V lithium ion battery 100 - 240V, 50/60 Hz

Communication: Wireless

Paper Width: 2.25 in. (57 mm)

ENVIRONMENTAL

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

Operating Relative Humidity: 30% to 90% (non-condensing)

Maximum Operating Altitude: 2000 meters (6000 feet)

Transport and Storage: 5°C to 40°C (41°F to 104°F)

POWER

Battery: 3.6 V rechargeable lithium ion

Battery Life: 20 hours on time

Charge Time: 4 hours to 100%

ACCESSORIES

Standard: Handheld unit, probe, micro-USB charging cable for charger, database software and micro USB connector, disposable ear tip kit and tubes, user manual, quick guide, calibration certificate

Optional: Cradle, printer, carry case, ear tips, replacement cables, replacement probe, and probe tubes

QUALITY SYSTEM

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

COMPLIANCE

- IEC/EN 60601-1 Medical electrical equipment – Part 1: General requirements for basic safety and essential performance
- IEC/EN 60601-1-2 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral standard: Electromagnetic compatibility
- UL 60601-1 Medical Electrical Equipment, Part 1: General Requirements for Safety
- CSA C22.2 # 601-1-M90 Medical Electrical Equipment, Part 1: General Requirements for Safety
- IEC 60645-6 Electroacoustics - Audiometric equipment - Part 6: Instruments for the measurement of otoacoustic emissions

DIAGNOSTIC AND SCREENING CONFIGURATIONS

	DPOAE	TEOAE	COMBO DPOAE + TEOAE	
SCREENING UNITS	**SCREENING DPOAE** 2 Fixed Protocols Frequencies: 2, 3, 4, 5 kHz Intensity: 65/55 dB SNR: 6 dB Pass: 3 out of 4 frequencies	**SCREENING TEOAE** 2 Fixed Protocols Frequencies: 1.5 - 4 kHz Intensity: 80 dB pe SPL SNR: 4 dB Pass: 3 out of 6 frequencies	**SCREENING DPOAE** 2 Fixed Protocols Frequencies: 2, 3, 4, 5 kHz Intensity: 65/55 dB SNR: 6 dB Pass: 3 out of 4 frequencies	**SCREENING TEOAE** 2 Fixed Protocols Frequencies: 1.5 - 4 kHz Intensity: 80 dB pe SPL SNR: 4 dB Pass: 3 out of 6 frequencies
DIAGNOSTIC UNITS	**DIAGNOSTIC DPOAE** 4 Configurable Protocols Frequencies: 1.5 - 12 kHz Intensities: 40 - 70 dB SPL SNR: 3 - 10 dB Averaging Time: 0.5, 1, 2, 4 sec Frequencies for Pass: 0 - 6 **SCREENING DPOAE** 1 Fixed Protocol Frequencies: 2, 3, 4, 5 kHz Intensity: 65/55 dB SNR: 6 dB Pass: 3 out of 4 frequencies	**DIAGNOSTIC TEOAE** 2 Configurable Protocols Frequencies: 0.7 - 4 kHz Intensity: 80 dB pe SPL SNR: 3 - 10 dB Averaging Time: 8, 16, 32, 64 sec Frequencies for Pass: 0 - 6 **SCREENING TEOAE** 1 Fixed Protocol Frequencies: 1.5 - 4 kHz Intensity: 80 dB pe SPL SNR: 4 dB Pass: 3 out of 6 frequencies	**DIAGNOSTIC DPOAE** 4 Configurable Protocols Frequencies: 1.5 - 12 kHz Intensities: 40 - 70 dB SPL SNR: 3 - 10 dB Averaging Time: 0.5, 1, 2, 4 sec Frequencies for Pass: 0 - 6 **SCREENING DPOAE** 1 Fixed Protocol Frequencies: 2, 3, 4, 5 kHz Intensity: 65/55 dB SNR: 6 dB Pass: 3 out of 4 frequencies	**DIAGNOSTIC TEOAE** 2 Configurable Protocols Frequencies: 0.7 - 4 kHz Intensity: 80 dB pe SPL SNR: 3 - 10 dB Averaging Time: 8, 16, 32, 64 sec Frequencies for Pass: 0 - 6 **SCREENING TEOAE** 1 Fixed Protocol Frequencies: 1.5 - 4 kHz Intensity: 80 dB pe SPL SNR: 4 dB Pass: 3 out of 6 frequencies

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