



# ADAPTABLE MID-LEVEL AUDIOMETER



PELLO

# MEETS YOUR NEEDS NOW AND INTO THE FUTURE

## **GSI PELLO** VERSATILE AND FAMILIAR

The GSI Pello™ is a versatile mid-level audiometer that fits your needs now and into the future. Familiar in design, the Pello has many of the features you expect from Grason-Stadler. The standard Pello is ideal for basic diagnostic audiometric valuations, complete with integrated wordlists. Enhance testing capabilities with additional licenses for tests such as the TEN test, QuickSIN, and high frequency audiometry. Portable, stand-alone, and PC enabled, the Pello is a perfect solution for a growing practice.



## **GSI SUITE OFFERS** REPORTING AND COUNSELING

With one button press, test results are transferred from the Pello to GSI Suite software where audiometric, tympanometric, and OAE test results may be combined into a single comprehensive report. Counseling overlays such as the speech banana or hearing loss levels assist the clinician with explaining the results to the patient and family members.





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## 3 KEY BENEFITS

### ✓ **CUSTOMIZATION** AT YOUR FINGERTIPS

Customize default settings with the Configuration Application. Organize over 100 included wordlists into a “favorites” list for easy access. Create and manage a list of user names with optional associated passwords for additional data security.

### ✓ **ADAPTABLE** TO YOUR NEEDS

The standard Pello audiometer may be upgraded in the future, by adding new features and tests as your referral sources grow. Choose from three additional configurations: Speech Plus, High Frequency, and/or Special Tests.

### ✓ **EFFICIENCY** YOU CAN APPRECIATE

GSI is recognized worldwide as the most user-friendly front panel design in audiometry. Quickly transition between test types with the one button, one function front panel design.





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# KEY DEVICE FEATURES

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## **AIR, BONE, AND SPEECH** AUDIOMETRY

The Pello has the capability to perform a full range of audiometric testing in a small package with air, bone, and speech audiometry capabilities.

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## **IMMEDIATE** RESULTS

Save time and reduce the risk of errors that can occur with manual entry with the seamless integration of the patient audiogram into hearing aid fitting software through Noah. Results are immediately available in GSI Suite.

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## **STAND-ALONE** PC ENABLED

Use independently or with a computer. With one button press, transfer to GSI Suite to manage records, write reports, and apply counseling overlays, or use GSI Suite within Noah for hearing aid fittings.

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## **PORTABLE/SMALL** FOOTPRINT

Small and lightweight design makes the Pello ideal for multiple environments.

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## **FAMILIAR** USER INTERFACE

Recognized worldwide as the preferred and most user-friendly front panel design.

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## **TEST TYPE** BUTTONS

Quickly access pure tone and speech audiometry. One button press facilitates the transition of stimuli and test protocols.

# MIX AND MATCH YOUR PREFERENCES

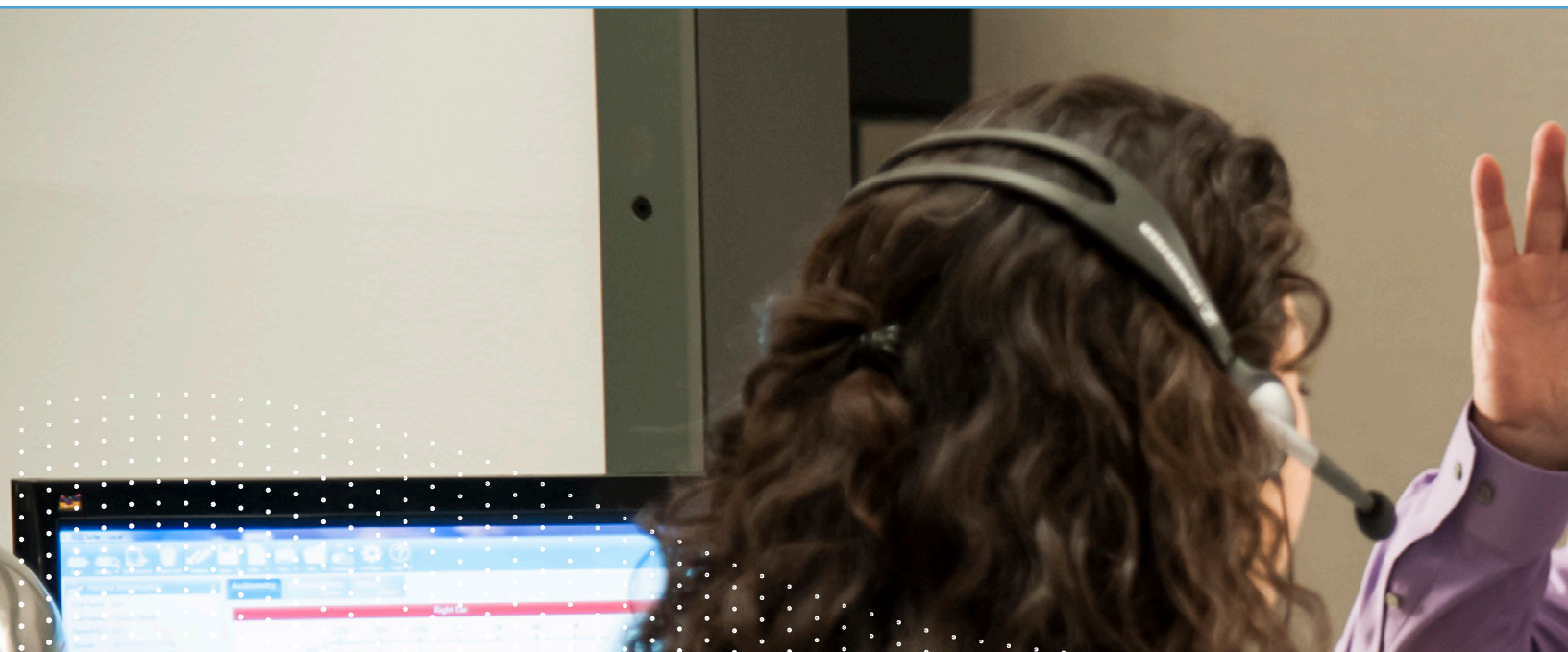
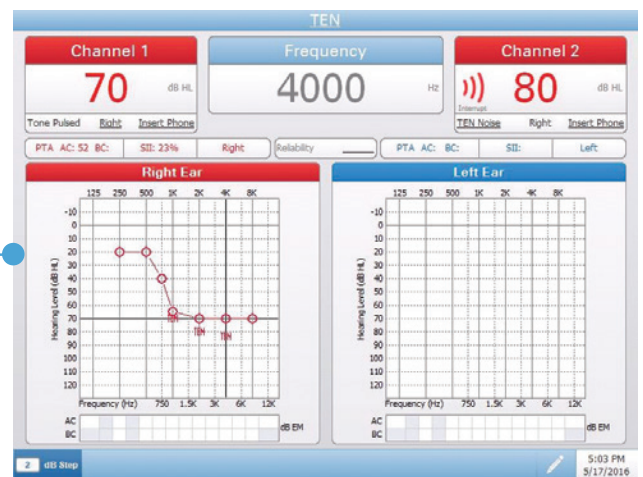


## STANDARD CONFIGURATION

The standard configuration includes air conduction, bone conduction, and speech audiometry. Integrated wordlists provide the convenience of presenting recorded speech stimuli without the use of external CD players or other devices.

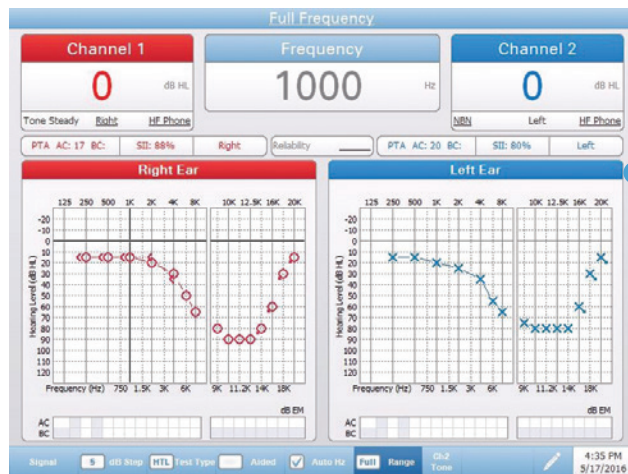
## SPECIAL TESTS

The Special Test configuration combines a variety of traditional audiometric tests with the latest tests and test stimuli. Legacy tests of Tone Decay, SISI, and ABLB are included. Pediatric Noise, a new frequency specific stimulus, is paired with remote operation of the Pello using keyboard shortcuts. Both are invaluable tools when seeing pediatric patients. Implement the TEN Test to identify cochlear dead regions to assist in counseling and hearing aid fittings.



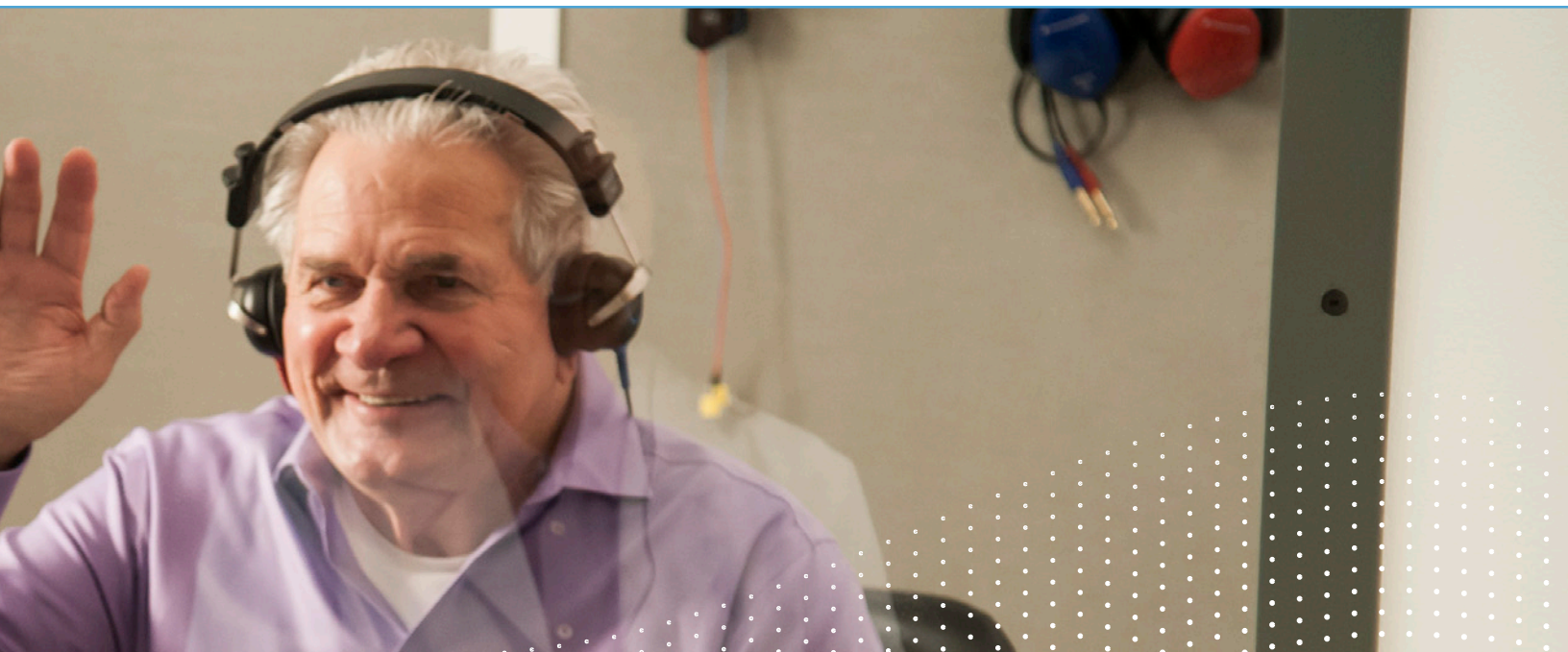
# SPEECH PLUS

Speech Plus adds advanced speech perception tests. Evaluate speech-in-noise quickly and accurately using QuickSIN. BKB-SIN includes normative data for ages five to adult. AzBio is a validated sentence test which assists in determining speech perception abilities of the hearing impaired and cochlear implant candidates ages five and up.



## HIGH FREQUENCY

High Frequency audiometry is essential when monitoring patients taking ototoxic medications. Tinnitus evaluations are enhanced when pitch matching is performed using Fine Hz resolution. The circumaural headphones are conveniently calibrated for the full frequency range of 125 - 20,000 Hz.





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## TECHNICAL SPECIFICATIONS

### DIMENSIONS AND WEIGHT

**W x D x H (LCD Raised):** 14.8 in x 10.5 in x 13.8 in  
(37.5 cm x 26.7 cm x 35.1 cm)

**Height (LCD Lowered):** 4 in (10.2 cm)

**Weight:** 8.2 lb (3.6 kg)

**Shipping Weight:** 20 lb (9.1 kg)

### CHANNELS - 1.5 PURE TONE

#### FREQUENCY RANGE

- **Air Conduction:** 125 - 20,000 Hz
- **Bone Conduction:** 250 Hz - 8,000 Hz
- **Sound Field:** 125 - 8000 Hz
- **Paired Inserts:** 125 Hz - 8,000 Hz
- **Frequency Accuracy:**  $\pm 1\%$
- **Total Harmonic Distortion:**  $< 2\%$  (earphones and paired insert phones)  $< 5\%$  (bone vibrator)

#### HEARING LEVEL RANGE

- **Air Conduction:** -10 dB HL - 120 dB HL
- **Bone Conduction (B81):**
  - 10 dB HL - 90 dB HL (mastoid)
  - 10 dB HL - 80 dB HL (forehead)
- **Sound Field:**
  - 10 dBHL - 90 dBHL (amplified speakers)
  - 10 dBHL - 102 dBHL (external amplifier and high performance speakers)
- **Paired Inserts:** -10 dB HL - 120 dB HL
- **Masking Intensity Range (Calibrated in Effective Masking) Narrow Band Noise:** Maximum dB HL is 15 dB below tone

#### SIGNAL FORMAT

- **Steady:** Tone continuously present
- **Pulsed:** Tone pulsed 200 msec ON, 200 msec OFF
- **FM:** Modulation Rate: 5 Hz  
Modulation Depth  $\pm 5\%$
- **Pediatric Noise (optional):** Continuously presented or pulsed

### SPEECH

**Microphone:** For live voice testing and communications

**INT/EXT A & INT/EXT B:** Can be utilized for internal wave files or recorded speech material from an external device

#### HEARING LEVEL RANGE

- **Air Conduction:** -10 dB HL - 100 dB HL
- **Bone Conduction:**
  - 10 dB HL - 60 dB HL (mastoid)
  - 10 dB HL - 50 dB HL (forehead)
- **Sound Field:** -10 dB HL - 90 dB HL (amplified speakers)
- **Paired Inserts:** -10 dB HL - 95 dB HL

#### SPEECH NOISE

- **Air Conduction:** -10 dB HL - 95 dB HL
- **Bone Conduction:**
  - 10 dB HL - 50 dB HL (mastoid)
  - 10 dB HL - 40 dB HL (forehead)
- **Sound Field:** -10 dB HL - 85 dB HL

#### WHITE NOISE

- **Air Conduction:** -10 dB HL - 95 dB HL
- **Bone Conduction:**
  - 10 dB HL - 60 dB HL (mastoid)
  - 10 dB HL - 50 dB HL (forehead)
- **Sound Field:** -10 dB HL - 80 dB HL

#### SPECIAL TESTS (OPTIONAL)

ABLB  
SISI  
High Frequency Audiometry  
TEN Test  
QuickSIN  
BKB-SIN  
Tone Decay  
AMTAS Pro

#### SPECIAL TESTS (USER DEFINED)

Lombard Test  
Pure Tone Stenger  
Speech Stenger  
SAL

### COMMUNICATION AND MONITORING

**Talk Forward:** Permits the tester to speak through the test microphone into the selected transducer at approximately the intensity level set by the front panel controls

**Talk Back:** Allows the tester to listen to comments from the patient in the testing booth

**Monitor:** The monitor headset can be used by the tester to listen to Channel 1, Channel 2, and/or Talk Back signals

### ENVIRONMENTAL

**Temperature:** 59° F (15° C) to 104° F (40° C)

**Relative Humidity:** 10% to 95% (non-condensing)

**Ambient Pressure Range:** 98 kPa to 104 kPa

**Background Sound Level:**  $< 35$  dB(A)

**Storage Temperature:** 32° F (0° C) to 122° F (50° C)

**Transport Temperature:** -4° F (-20° C) to 122° F (50° C)

### POWER

**Power Consumption:** 90 Watts

**Voltage & Amperage:** 100 - 240 VAC, 0.5 A max

**Frequency:** 50 Hz and 60 Hz

### QUALITY SYSTEM

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

### COMPLIANCE

- Designed, tested, and manufactured to meet the following domestic (USA), Canadian, European, and International Standards:
- **ANSI S3.6, IEC 60645-1, IEC 60645-2, ISO 389**
- **ANSI/AAMIES 60601-1** Medical Electrical Equipment: General Requirement for Safety
- **IEC/EN 60601-1** International Standards for Medical Electrical Equipment: General Requirement for Safety
- **CSA C22.2 # 601-1-M90**
- **Medical Device Directive (MDD)** to comply with EC Directive 93/42/EEC