Spread Spectrum technology (Sp2) makes your application robust!

Order instructions for MODEL SOH100360 - DIAGNOSTIC - includes SCREENING:
# 100360-US1 for ABR only
# 100360-US2 for ABR and OAE (add to article nr #DP or #TE)
# 100360-US3 for ABR, OAE and Audiometry
# 100360-US4 for ASSR, ABR, OAE and Audiometry

All sets come with: carrying bag, electrode cable, bags of 10x3 electrodes, headphone or insert earphone, charger, manual. (DPOAE probe for US2-US4)

THE SOUND OF SCIENCE.

ABR and ASSR screening made easy and robust!

What is a spread spectrum stimulus and how do we benefit from it when recording evoked potentials?

In telecommunication and radio communication, spread-spectrum techniques are methods by which a signal generated with a particular bandwidth is deliberately spread in the frequency domain, resulting in a signal with a wider bandwidth. This increases resistance to natural interference, noise and signal jamming, to prevent detection, and to limit power flux density.

Recording evoked potentials means recording signals in the range of nV! Even small sources of interference (mobile phones, lights, computer, elevators in the vicinity, monitors, any electrical equipment) might influence and disturb the recording. SENTIERO users do not need to worry about this problem as spread spectrum technology takes care of these interferences!

If you do not believe it: Try and compare against any competing device in any environment. SENTIERO can record faster and with less interference from environmental conditions.

SENTIERO can also be an all-in-one integrated handheld instrument with ASSR, Distortion Product Otoacoustic Emissions (DPOAE), TEOAE and Pure Tone Audiometry. Many speech audiometry options are available too!

With SENTIERO, the user can customize DPOAE protocols with twelve frequencies or more up to 30 points per octave between 800 Hz and 10 kHz. Measuring the cochlea is much faster using patented FMDPOAE® (frequency modulated DPOAE), multichannel technology and conducting measurements on both ears simultaneously using the dual probe feature.

Key Features:

- Multiple tests in one unit (ABR, ASSR, OAE, air & bone & speech audiometry, Tympanometry)
- Multichannel FMDPOAE®
- Patented cochlear audiogram & scissor paradigm: varies the intensity difference between the two stimuli to maximize response amplitude!
- Customizable protocols for each module. E.g. DPOAE protocols between 800 Hz – 10 kHz with up to 30 points per octave allow you to get as much interoctave information as needed
- and much more - just turn this page!

SENTIERO IS THE TECHNOLOGY LEADER!

Developed by the award winning group of engineers at PATH MEDICAL, SENTIERO was introduced in 2009 as the first touch screen based audiometry & OAE device in the world. In 2013 the first touch screen based tympanometer was introduced on the SENTIERO platform too! Now everything becomes united: again world’s first and unique feature.

PATH MEDICAL’s engineering team is unmatched: the same engineers who developed the EchoScreen in 1998 contributed with their experience and professionalism and they still contribute today. Where do you find this reliability? At PATH MEDICAL in Germany!

Made in Germany

PATH MEDICAL GmbH
Landberger Straße 65
82110 Germering
Germany
Tel +49 89 800 76 502 / Fax +49 89 800 76 503
info@path-medical.de / www.path-medical.de
MULTIFREQUENCY AND MULTIRATE ASR STIMULI - ADVANTAGES:

- Noise stop criterion: 0, 10, 15, 20, 30, 40, 50, 60 dB
- Masking noise offset levels (white noise): -50 to +50 dB
- Stimulus levels: 0 to max. 95 dB nHL or transducer limits
- Stimulus rate: 10.1, 20.3, 30.7, 40.3, 69.9, 81.2, 90.4 Hz (default) + user-specific stimulus rate from 10 to 2 down
- Stimulus polarity: condensation, rarefaction, alternating
- Stimulus types: Click (0.7 to 6 kHz), Chirp (broadband, 1 kHz to 5kHz), Mid-Chirp (850 Hz to 3 kHz), High-Chirp (3 kHz to 10 kHz), Low-Chirp (0.1 kHz to 2 kHz), Toneburst (50 Hz, 75 Hz, 100 Hz, 125 Hz, 160 Hz, 1 kHz, 1.5 kHz, 2 kHz, 3 kHz, 4 kHz, 5 kHz, 6 kHz, 7 kHz, 8 kHz, 9 kHz, 10 kHz), Linear chirp (0.1 kHz to 10 kHz), Tone burst (50 Hz, 75 Hz, 100 Hz, 125 Hz, 160 Hz, 1 kHz, 1.5 kHz, 2 kHz, 3 kHz, 4 kHz, 5 kHz, 6 kHz, 7 kHz, 8 kHz, 9 kHz, 10 kHz), Linear: 0.8 to 10 kHz (step size: 0.5 kHz from 1 to 5 kHz and 0.1 kHz from 5 to 10 kHz), Logarithmic: 0.8 to 10 kHz (step size: 0.1 kHz from 0.8 to 1 kHz, 1 kHz to 2 kHz, 2 kHz to 4 kHz, 4 kHz to 6 kHz, 6 kHz to 8 kHz, 8 kHz to 10 kHz)
- Window of analysis: 5 to 13 ms post-stimulus
- Residual noise calculation & artifact rejection: weighted averaging, summed weighting factors, artifact rejection: weighted averaging (optional)
- Artifact rejection: weighted average, phase statistics
- Electrode impedance check: see ABR
- Minimum stimulus level L 2: 20, 25, 30 dB SPL
- Minimum DPOAE level criterion: L 1 – 70 dB
- Normal hearing subject at 0 dB eHL
- Step size: 10 dB
- Response detection: auto peak-marker, template matching, F-test, F-value at a single point
- Memory capacity: up to 1000 patients, ca. 1000 tests (dependent on test type). Results can be sorted by birthdate, name, patient ID, examination date.
- Nominal impedance (headphone socket): 5 Vpp, 32 Ω
- Dynamic range: 80645-1 class 3
- Quality control: f m = 1.4-1.6 Hz, modulation depth = 50 Hz@1 kHz, 10 kHz, adaptive level procedure (threshold estimation)
- Data transfer: USB, STEP-file format
- Firmware upgradable
- Optional SpreadSpectrum (SP2)
- Insert phones and headphone support
- Display: 240 x 320 pixel; graphic LCD 3.5", resistive touch screen
- General features
  - Software available in English, Spanish, French and German
  - Scrollable and navigable technical manual (rev 11 per 08/2017) available online
  - Color touch screen (3.5" graphic LCD)
  - Ultra-compact - less than 4" wide and only 8.7" high
  - Protected keyboard prevents input data errors on the device
  - Long battery life
  - Environment mode available for all OAE modules
  - Software available in English, Spanish, French and many other languages
  - Event recording (called only for OAE modules)
  - Patient evaluation software ( KinderAudiometer ) to transfer data to Web managers and further export functions to programs of your choice (optional)
  - NOAH compatible
  - Printing via label printer, pdf, or using NOAH software
  - Battery exchange: The device is designed for use with the PATH TRACK or export to other hearing center software

For more information, please visit our website: www.medicalpath.de/support/灾情/ash 될 수 몬드에 대한 전체적인 개선

General features
- Touch color screen (3.5" graphic LCD)
- Ultra-compact - less than 4" wide and only 8.7" high
- Protected keyboard prevents input data errors on the device
- Long battery life
- Environment mode available for all OAE modules
- Software available in English, Spanish, French and many other languages
- Event recording (called only for OAE modules)
- Patient evaluation software ( KinderAudiometer ) to transfer data to Web managers and further export functions to programs of your choice (optional)
- NOAH compatible
- Printing via label printer, pdf, or using NOAH software
- Battery exchange: The device is designed for use with the PATH TRACK or export to other hearing center software