DPOAE (order #100110):

- Leak check: analysis of feedback signal (440 Hz probe tone)
- Probe check: limit of maximum sound pressure (“stimulus”), comparison across speakers (“symmetry”), leak check (“probe fit”)
- Calibration: in-the-ear calibration with ear-canal volume adjustment
- Noise detection: narrow band noise around $2f_2$-f_1
- Residual noise calculation: weighted averaging, summed weighting factors, artifact rejection: weighted averaging
- Response detection: F-test, F-value at a single point (Fsp), automatic retest option
- Frequency ratio f_2/f_1: 1.22. Sample rate: 48 kHz (stimulus, response)
- Minimum DPOAE level criterion: L_1 – 70 dB
- Measurement interval: 4096 samples
- Stimulus modes with Frequency-modulated DPOAE license: f_m = 1.4-1.6 Hz, modulation depth = 50 Hz@1 kHz, 100 Hz@4 kHz
- Multi-channel DPOAE: simultaneous measurement of DPOAEs at up to two f_2 frequencies at a time
- Frequencies f_2: 1, 1.5, 2, 3, 4, 5, 6, 8 kHz
  - Linear: 0.8 to 10 kHz (step size: 0.5 kHz from 1 to 10 kHz), steps: 10 to 1000 Hz (step size: 10 Hz)
  - Logarithmic: 0.8 to 10 kHz (step size: 0.5 kHz from 1 to 10 kHz), steps: 1 to 30 points per octave (step size: 1 point per octave)
- Stimulus levels L_2: 30 to 65 dB SPL; step size: 5 dB (single and multiple selections possible)
- Minimum DPOAE level criterion (optional): -20 to 0 dB; step size: 5 dB
- Measurement time: adaptive timeout, manual min/max timeout

DPOAE threshold - cochlear audiogram (order #100111):

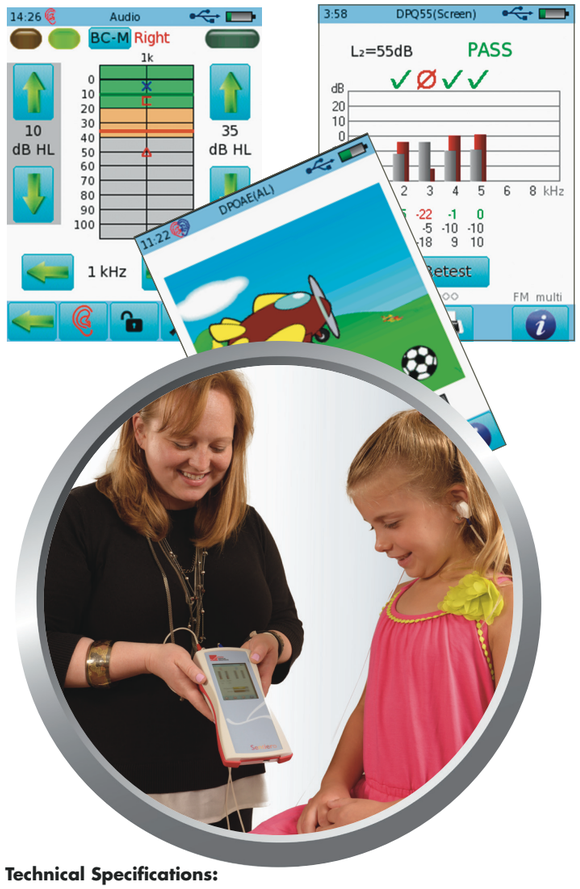
- Frequencies f_2: 1, 1.5, 2, 3, 4, 5, 6, 8 kHz
- Stimulus level L_2: 20 to 65 dB SPL (automated threshold detection)
- Minimum stimulus level L_2: 20, 25, 30 dB SPL
- L_2/L_1 relation: automatic (scissor paradigm)

TEOAE (order #100109):

- Noise detection: root mean square (RMS) of non-stimulus intervals
- Residual noise calculation & artifact rejection: weighted averaging,
- Response detection TEQUICK: 8 values with changing sign fulfilling a 3 sigma criterion (representing 99.7 % statistical significance)
  TEOAE Diagnostic: user-defined stop criterion (SNR: 6 or 9 dB) in 3, 4, or 5 out of 5 frequency bands (1, 1.5, 2, 3, 4 kHz)
- Sample rate: 48 kHz (stimulus), 16 kHz (response)
- Window of analysis: 5 to 13 ms post-stimulus
- Stimulus level: 85 dB peSPL
- Stimulus type: short-term stimulus without direct component (0.7-6 kHz)
- Stimulation protocol: nonlinear

Audiometry (order #100113):

- Full 2 channel diagnostic audiometer (DIN EN 60645-1 class 3)
- air - bone - masking
- children audiometry options (MAGIC #100112 , MATCH #100356, BASD, spondees and many more).
- Speech
- Multiple transducer options including circumaural headphones, insert phones and bone conduction. Multiple upgrades available.



Technical Specifications:

Device dimensions: 209 x 98 x 52 mm, ca. 500 g, Display: 240 x 320 pixel; graphic LCD 3.5”, resistive touch screen, real time-clock, piezo-electric sound generator, USB, Output voltage and nominal impedance (headphone socket): 5 Vpp, 32 Ω Power consumption: max. 2 W. Memory capacity: up to 1000 patients, ca. 1000 tests (dependent on test type). Results can be sorted by birthdate, name, patient ID, examiner, date and time

Additional technical specifications can be found in the detailed technical manual (rev 11 per 08/2017) available online https://pathme.de/support/#manuals

SENTIERO is now also utilising the new hybrid mode to display all tests live on your PC / external monitor!

SENTIERO increases your flexibility and improves your workflow!

PATH MEDICAL

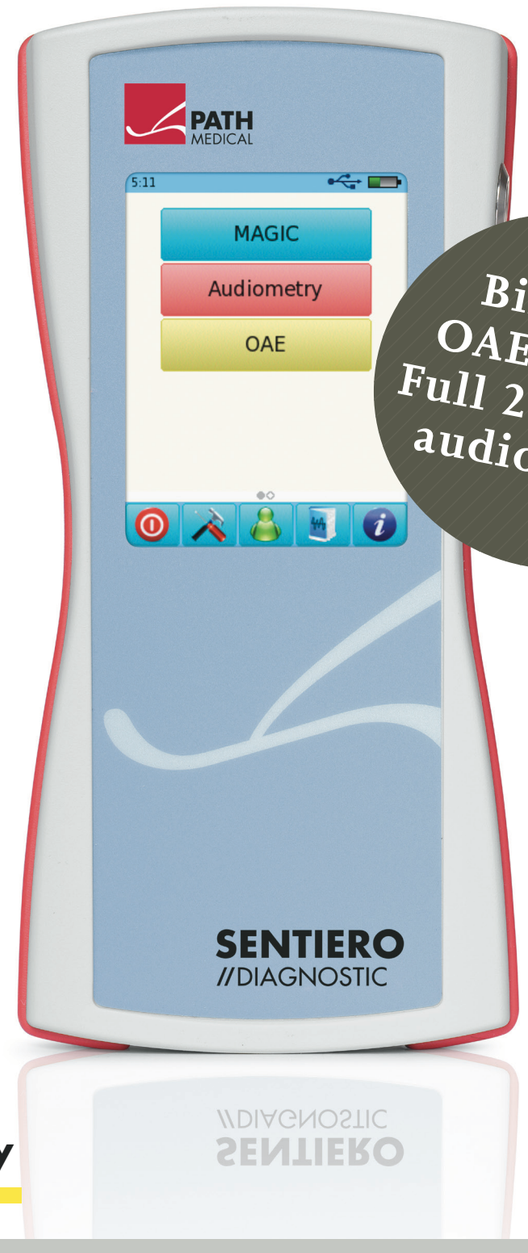
Hardware order instructions for MODEL SOH100098 - DIAGNOSTIC:

100250-US2 for OAE only (add to article nr #DP for DPOAE or #TE for TEOAE)
100250-US3 for all in DPOAE, DPThreshold and Pure Tone Audiometry
100250-US4 for all in TEOAE and DPOAE
100250-US5 for all in TEOAE, DPOAE and Pure Tone and Speech Audiometry

All diagnostic sets include: carrying bag, OAE probe, accessory box, charger, manual,MIRA PC Software with import and export feautres, headphones (for US3 and US5) bone and speech kit (for US5)
many optional items available - see accessory brochure.

100837-08_MA_SOH100098-diagnostic_EN_01, September 2017

Diagnostics in the palm of your hand!



Binaural OAE testing! Full 2 channel audiometry.

Made in Germany

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Tel +49 89 800 76 502 / Fax +49 89 800 76 503
info@path-medical.de / www.path-medical.de

CE 0124

PATH MEDICAL

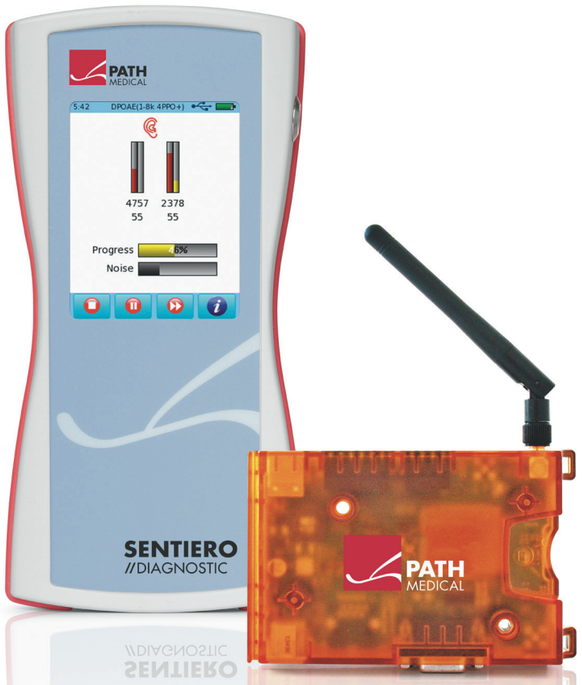
Our mission statement

The ability to hear is one of our most precious senses. It is also the most fascinating. From our early years, hearing as a way of perceiving the world has a profound effect on the development of speech and our ability to learn. In old age, it influences the way our memory works. With the latest advances in technology, many types of hearing impairment can be treated if they are detected early.

Since 2007 PATH MEDICAL develops innovative solutions, which make audiological diagnoses simple for all ages. The team of PATH MEDICAL has a tremendous footprint in the industry since 1998 as they developed the EchoScreen as well as the AccuScreen. Together with our partners, we combine efforts in providing better care for hearing detection at any age. We are dedicated to developing the best technology for hearing assessment.

We are committed to helping you succeed through promotion of best practices, reliable solutions, trusted partnerships and knowledge in action.

Intelligent solutions for tracking, telemedicine and EMR



For the hearing diagnostics of preterms, risk babies or newborns it is essential to make use of all possible diagnostic options while having the comfort and simplicity of a handheld device!

Recent epidemiological studies show a significant increase of hearing impairment in children. Depending upon the applied criteria the 'refer' rate varies but it shows to be significantly higher than the 'refer' rate in newborn hearing screening (NHS) programs.

Speech and language acquisition delay is one of the most common neuro-development difficulties in early childhood. Early detection of hearing disorders is crucial for early treatment. Unlike NHS, preschool hearing screening tests should provide more frequency-specific and quantitative information on hearing loss.

Binaural and multifrequency OAE:

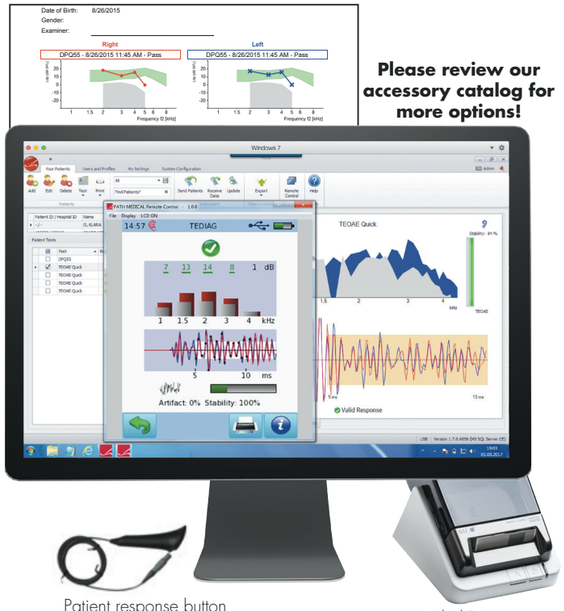
- FMDPOAE® with frequency modulated stimulus: two pairs of frequencies can be tested at the same time per ear (multiple channel testing)
- Binaural DP-testing: both ears at the same time
- Up to four times faster than competition!

Probes are colour-coded to provide the user with easy probe selection, left (blue) and right (red) when testing binaurally. The device detects the probes automatically when inserted - keeping calibration information always updated.

SENTIERO is fully developed and manufactured in Germany.
That's why we offer a prolonged warranty of up to five years!

Based on your initial set selections also later upgrades can be made easily.
Note that an initial bundle buy might be cheaper than selecting individual modules.

For further details please visit:
www.path-medical.de



Please review our accessory catalog for more options!

Patient response button
order #100169

Label Printer
order #100189 (SEIKO)
#100686 (ABLE)

High frequency audiometry bundle incl. Sennheiser HDA300
order# 100315

Insert earphones
order #100832 (IP30)
#100860 (PATH inserts)

DPOAE EarProbe
2 speakers + 1 micro,
order #100028 (red) or #100530 (blue)

DPOAE VIsual Inspection Probe
Probe with light included!
speakers + 1 micro, blue or red
order #100539(blue) or #100540 (red)

Accessory Box - OAE Ear Tips
order #100261(newborn and adult)
#100676 (newborn),
#100261(adult)

General

- Color touch screen (3.5" graphic LCD)
- QWERTY keyboard allows inputting patient demographics onto the device
- Stores up to 1000 tests
- Long battery life
- Ultra-compact: Less than 4" wide and only 8.5" high
- Software available in English, Spanish, French and many other languages.
- Patient editing software (MIRA) to transfer data to computer via USB and further export functions to other EMR software (optional).
- NOAH compatible
- Printing via label printer, pdf, or using MIRA software
- Entertainment mode available for all OAE modules

Sentiero Features

- Multichannel FMDPOAE – frequency modulation
- Retest failed frequencies option
- Several customizable pre-sets for diagnostic settings with different parameters
- Scissor Paradigm is used for threshold estimation and input-output functions. It varies the intensity difference between the two stimuli to maximize response amplitude which reduces test time!
- Customizable DPOAE protocols between 800 – 10kHz with up to 30 points per octave allow you to get as much interoctave information as needed.

Upgrade Sentiero Diagnostic

- Bone conduction
- Speech audiometry; live voice and recorded
- Pure Tone audiometry up to 16kHz
- TEOAE
- Simultaneous DPOAE or TEOAE measurements on both ears. (two probes)
- DPOAE threshold estimation software that provides an objective cochlear audiogram, based on a patented method exclusive to PATH MEDICAL.

Multiple configurations available:

100250-US3 for all in DPOAE, DPThreshold and Pure Tone Audiometry

100250-US4 with TEOAE and DPOAE and Audiometry and MAGIC (#100112) upgrade

100250-US2 with DPOAE Later upgrades available!