The Fonix 7000 Hearing Aid Analyser is used by leading hearing health professionals across the world including hospitals, clinics, universities, schools for the deaf, researchers, and manufacturers. It provides basic and advanced measurements of hearing aids through coupler and optional real-ear tests.

Automation The 7000 can be purchased with ANSI, IEC, JIS, or a combination of these automated test sequences.

NOAH 3 compatibility using Fonix NOAH module

Enhanced DSP is an innovative new test useful for both analogue and digital hearing aids. It consists of a test for signal processing delay and a test for phase. Signal processing delay (also known as group delay) is the amount of time it takes for the digital hearing aid to process sound. This is an important measurement if the patient has a monaural or open vent fitting because sound can travel to the unaided ear faster than through the aided ear, possibly creating an echoing effect. This measurement is becoming very important with all of the advanced open ear hearing aids that are being fitted!

Phase is a measurement of how the hearing aid pushes and pulls sound. For a pair of aids in a binaural set to be working properly together, both aids must be "pushing" and "pulling" sound in the same manner. If they aren't in phase with each other, it's possible that a part in the aid was wired backwards during assembly. The phase measurement will give you the ability to quickly determine if the aids are working together as a team.

Three real-ear testing methods are supported: Insertion Gain, SPL-o-gram, and Visible Speech. The Insertion Gain method is the traditional way to perform real-ear measurements. A real-ear unaided response and up to four different aided responses can be measured using a choice of input signals and input levels.

Advanced Testing High end users such as researchers often need to be able to perform specific coupler measurements that are usually included as part of an automated test sequence. For those users, the Fonix 7000 Hearing Aid Analyser has the Input/Output, Attack & Release, and Battery Current test screens.

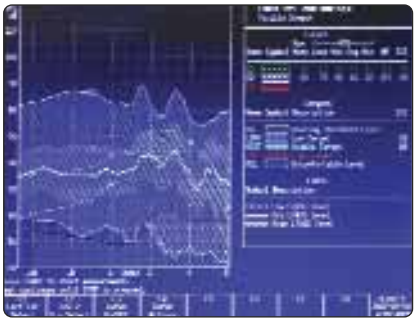
In the Input/Output test screen, you can measure the compression characteristics of the hearing aid at any frequency between 200 and 8000 Hz in 100 Hz intervals. Alternately, you can choose to use the broadband Composite signal.

In the Attack & Release test screen, you can measure the attack and release compression characteristics of the hearing aid. The amplitude levels and frequency used by each tone in the test can be set, allowing great flexibility.

In the Battery Current test screen, the battery current is measured as a function of frequency and of amplitude, so that you can determine the situations in which the hearing aid may be using more battery current. An estimate of the battery life of the hearing aid is also given.

Visible Speech on the FONIX 7000 Hearing Aid Test System

The new Visible Speech screen on the Fonix 7000 Hearing Aid Test System allows the clinician to perform real-ear measurements using live speech or other external signals.



During the Visible Speech test, the following data is displayed:

- Real-time curve showing the instantaneous response of the hearing aid to live speech
- Average response of the hearing aid over the time of the test
- Maximum and minimum response per frequency (optional)
- The patient's HTLs and UCLs
- Real-ear targets at 50, 65, and 80 dB SPL
- Unaided speech banana (LTASS)
- Speech Intelligibility Index for the measurements and the targets

When the test is completed, the real-time measurement curve is replaced with a shaded region around the average curve, showing the region where most of the frequency response of the hearing aid was measured.

Visible Speech gives a comprehensive picture of the live speech measurement.

Together, these tests let you explore all of the standard features of the hearing aid. The analyser can be configured to perform exactly the test that you want to measure.

Please contact John Popplestone if you would like a demonstration or more information on this system.