

TBS25

Feature Overview

Very High Noise Rejection

Low frequency noise is prevalent and a problem in many buildings. It originates from sources such as distant traffic, doors, air-conditioning and machines. It travels relatively unrestricted through walls and floors and can be a significant problem when testing hearing aids.

Low frequency noise rejection has been traditionally achieved with large sand filled test chambers. However, new materials and construction techniques have enabled the TBS25 to outperform these larger chambers by between 25dB and 40dB at low frequencies. High frequency noise rejection remains equal to that of the best traditional test chambers.

Non-linear Hearing Aids

Non-linear circuits are sensitive to ambient noise and can trigger performance changes not related to the input signal. Automatic noise reduction features, such as averaging, cannot overcome this effect, so the only solution is to provide sufficient attenuation to block unwanted noise.

The noise rejection of the TBS25 will allow measurement of hearing aid performance down to input levels of 35dB SPL in nearly all situations.

The future - Complex Signals

The TBS25 is also an investment for the future. Future testing of hearing aids is expected to involve more complex stimuli and demand a higher acoustic performance from the test chamber than needed for pure tones.

The basic acoustic performance of the TBS25 is unsurpassed, providing very low acoustic distortion and lack of break-up or overshoot. It has a frequency response of 50Hz to 8000Hz ± 1.5 dB with no electronic signal correction. Compare this to ANSI S3.42-1992 which calls for 200Hz to 5000Hz ± 3 dB after electronic signal correction.

Easy to use

Great care has been taken to make the unit as easy to handle as possible without jeopardizing acoustic performance. The compact size and table-top design make it easy to place and use. Internal cable routing eliminates the need for awkward external cables between coupler and reference microphones and the analyzer.

A special sound proof passage is provided for any situations that may require external cables.

Directional Microphones

The TBS25 approximates free field conditions above 500Hz and has the speaker in the same vertical plane as the hearing aid. This facilitates testing of directional microphones.

Telecoils

A built-in loop is provided for testing telecoil function.

Battery Current

Battery eliminators can be connected inside the TBS25 to measure battery current.

Electrical Signals

Two auxiliary inputs are available to connect a hearing aid to electrical signal sources such as an

electronic programming system. Most remote electromagnetic controls for the hearing aid will still function while the aid is in the test chamber.

Gas-spring Lid

The closing mechanism on the heavy test chamber lid ensures easy operation without affecting acoustic performance. Two gas springs cushion movement during the single movement of the handle.

Maintenance

Parts of the test chamber that encounter extensive wear (e.g. the test bed) can be replaced via service kits.