

ELECTROACOUSTIC TESTING

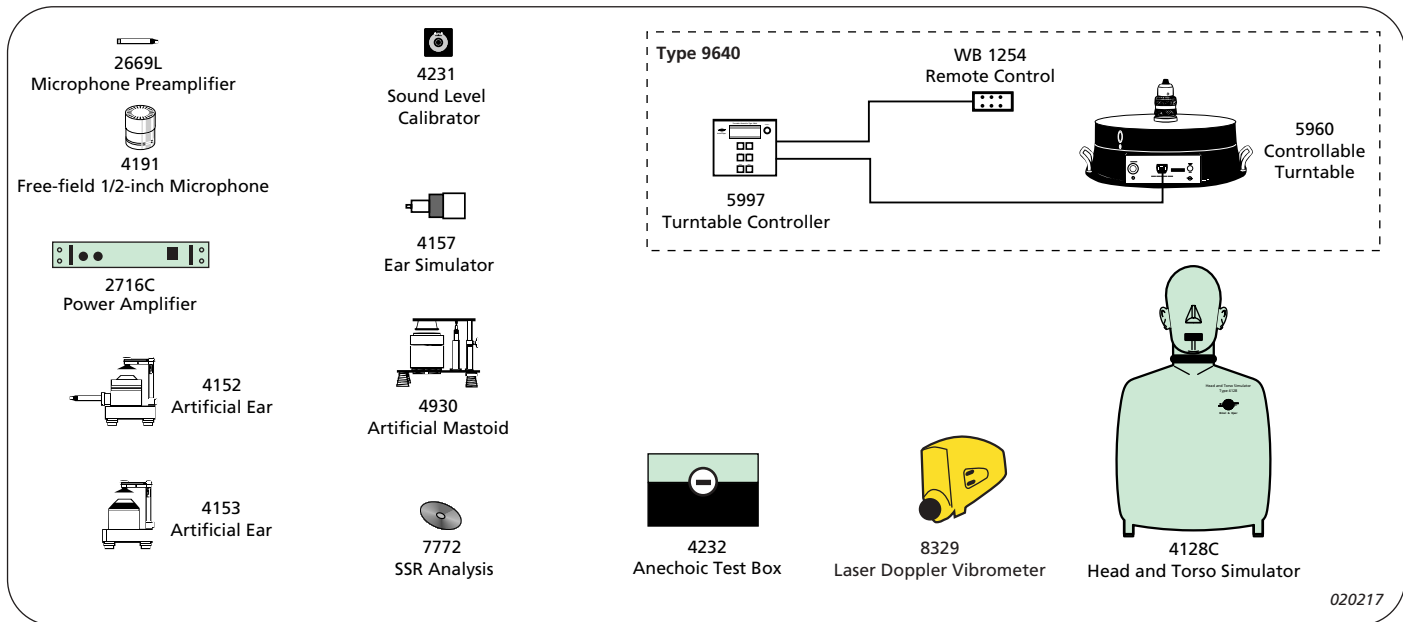
Manufacturers of electroacoustic equipment such as loudspeakers, microphones, telephones, headsets, hearing aids, hydrophones, etc., have, for many years, successfully developed new innovative acoustical designs and introduced these into the market in the form of high-quality products.

One important reason for this success is their ability to continuously improve the products and processes. A key element in this improvement process is the ability to measure and document the acoustical performance, during both the development and the manufacture of new products.

In the future, the ability to characterise electroacoustic equipment using traditional performance specifications such as frequency response, distortion, linearity, directivity, delay, etc., will have to be combined with a wide range of other acoustical and vibration measurements. Acoustic and vibration measurements such as those performed in material testing, modal analysis, etc., are expected to become a very important prerequisite for continued innovation and improvement within the development and manufacturing of electroacoustic equipment.



Picture Courtesy of Bang & Olufsen, Denmark



020217

LOUDSPEAKER TESTING

- 2669 L Microphone Preamplifier
- 2716 C-001 Audio Amplifier
- 4191 1/2-inch Free-field Microphone
- 4231 Sound Level Calibrator
- 8329 Laser Doppler Vibrometer
- 9640 Turntable System

RECEIVER TESTING

- 4153 Artificial Ear
- 4231 Sound Level Calibrator

MICROPHONE TESTING

- 2669 L Microphone Preamplifier
- 2716 C-001 Audio Amplifier
- 4191 1/2-inch Free-field Microphone
- 4231 Sound Level Calibrator
- 4232 Anechoic Test Box
- 9640 Turntable System

AUDIOMETER TESTING

- 2669 L Microphone Preamplifier
- 4152 Artificial Ear
- 4191 1/2-inch Free-field Microphone
- 4231 Sound Level Calibrator
- 4930 Artificial Mastoid
- WT 9600 Audiometer Test SW

TYPE 3560 C-S22

Electroacoustic Test System (25 kHz)

- 3560 C
- 7533
- 3109
- 7700-N2
- 7752

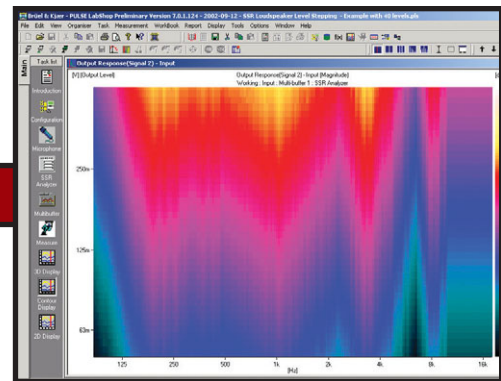
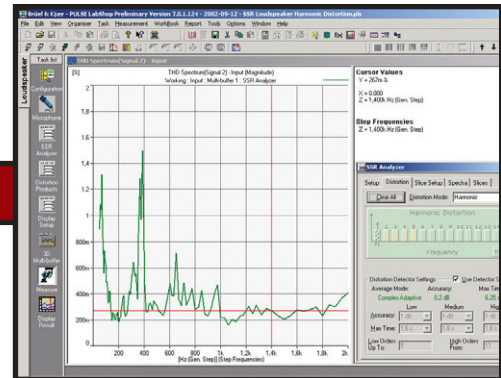
- For measurement of loudspeakers, receivers, microphones, audiometers, hearing aids, headsets and telephones
- Frequency Response
- Harmonic Distortion
- Intermodulation Distortion
- Difference Frequency Distortion
- 3D display
- Contour display
- Reporting using Word or Excel templates
- Sequencing using Visual Basic®



Frequency response and distortion measurements are performed using Steady State Response (SSR) Analysis, revealing results with a known high accuracy

Linearity of an electroacoustic device is determined using SSR Analysis and displayed in a contour display

* One year SW maintenance



TYPE 3560 C-S23

Electroacoustic Test System (100 kHz)

- 3560 C
- 7536
- 3110
- 7700-N2
- 7752

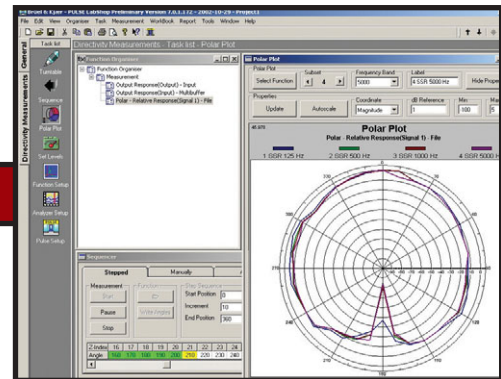
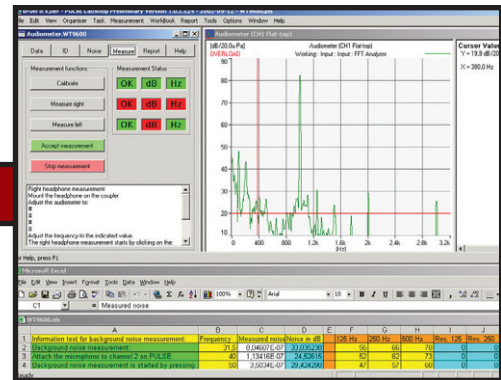
- For measurement of loudspeakers and hydrophones
- Frequency Response
- Harmonic Distortion
- Intermodulation Distortion
- Difference Frequency Distortion
- 3D display
- Contour display
- Automatic reporting using Word or Excel templates
- Sequencing using Visual Basic®
- Distortion Analysis up to 200 kHz



The characteristics of an audiometer are measured and the operator is guided through the measurements

Directivity measurements are performed using SSR Analysis and the results are displayed in a polar plot display

* One year SW maintenance



- HEARING AID TESTING**
- 2669 L Microphone Preamplifier
 - 2716 C-001 Audio Amplifier
 - 4191 1/2-inch Free-field Microphone
 - 4231 Sound Level Calibrator
 - 4232 Anechoic Test Box
 - 4946 2cc Coupler

- HEADSET TESTING**
- 2716 C-001 Audio Amplifier
 - 4191 1/2-inch Free-field Microphone
 - 4128 C Head and Torso Simulator
 - 4157 Ear Simulator
 - 4231 Sound Level Calibrator

- TELEPHONE TESTING**
- 6712 A-S01
 - 6712 A-S02
 - 6712 A-S03

See separate section on Telephone Testing