

## Model AWA6163 ear simulator

### Description

The Ear Simulator Model AWA6163 is a kind of acoustic coupler which can simulate the acoustic characteristics of real human ear. It is used with 1 inch sound pressure type condenser microphone (model AWA14412) and preamplifier (model AWA14601). With the supporting of audio measurement analyzer, the ear simulator is designed to enable electroacoustical accessories and sensitivity measurement, such as for measuring sonometer and hear-aid. Model AWA6160 fulfils the standards of IEC60318-3:1998.



Figure 1 Picture of ear simulator

### Installation of ear simulator.

1. Install the microphone AWA14412 to fixity.
2. Screw the coupler to the ear simulator thread connector
3. Install the preamplifier to the side of fixity.

### How to use ear simulator

1) The measured earphone should be close to the ear simulator and eliminate acoustic leakage, and keep the volume of the ear simulator coupler cavity  $5.78 \text{ cm}^3$  unchanged. If necessary, add a thin layer of wax or grease between the bushing and the measured earphone to eliminate acoustic leaks.

2) The measured electro-acoustic devices will be placed on the ear simulator without any sound leak, the force should be between  $4 \sim 5 \text{ N}$  (not including the weight of the device under test).

3) The device under test should not be in contact with the bevel of the ear simulator, just above it, with the center of its sound hole aligned with the axis of the ear simulator.

**Note: The microphone in the ear simulator are precision device, please handle with care, don't screw the microphone's cap off or touch the membrane so as to avoid damage.**

### Specifications

**Frequency range:** 125~8000Hz

**Frequency response accuracy:**  $\leq \pm 0.5 \text{ dB}$  (200Hz~5000Hz),  $\leq \pm 1 \text{ dB}$  (<125Hz~8000Hz)

**Fulfils standard:** IEC60318-3:1998