

AudioSystem

High-end audio solution for fMRI



High-quality Headphones and EarPlug, together with the user-friendly Communication Console, give both research and clinical users versatile control over auditory stimulus presentation.

Headphones

With state-of-the-art electrostatic transducers, the headphones give a superbly detailed sound, replicating even minute details with incredible precision.

Designed specifically for fMRI, the superior sound quality and increased noise attenuation provide a more precise audio stimulation to the patient, which yields a more robust BOLD response than traditional pneumatic audio systems.

EarPlug

The EarPlug is an alternative solution to the NNL Headphones to deliver audio stimuli within the MR environment. Its main objective is to deal with

the restrictive space requirements inside the headcoils.

The EarPlug is an add-on to the NNL AudioSystem and uses the same amplifier and signal transmission. The EarPlug can be used instead of the Headphones, as they share the same connector and signal type. The Earplug is compatible in 1.5T, 3.0T, and 7T MR environments.

Communication Console

With easy, accessible controls, the communication console offers two-way simultaneous patient communication and full flexibility of audio settings. As an alternative to built-in speakers and operator microphone the technician can choose between different headsets according to individual preferences. The communication console also allows for the recording of oral responses from the subject using a fiber-optic microphone which is available as an optional add-on.



FEATURES

Headphones

- superior sound quality
- easy setup and operation
- enhanced hearing protection

Communication Console

- two stereo channels
- two-way simultaneous communication
- easy setting of patient audio level
- momentary speak button
- internal speakers and operator microphone

TECHNICAL SPECIFICATIONS

Headphones

- ear cup dimensions: semi-elliptical shape 85 x 45 x 105mm (W x H x D)
- transducers: high-precision electrostatics
- flat frequency response: 8Hz-35kHz
- passive noise attenuation: 30dB

Communication Console

- dimensions: 135 x 55 x 140mm (W x H x D)
- can be connected to all standard audio sources

Signal Transfer

- fiber-optic cable through waveguide