

LISTENING SYSTEMS

FOR BETTER HEARING

At Home and in Public Places

Where public address systems or any sound amplification is provided in assembly buildings such as halls, theatres, churches, and meeting rooms, hearing augmentation should be available for people wearing hearing aids and people with cochlear implants.

Hearing augmentation may comprise an Induction Loop, Infra-red equipment or an FM system.

Areas where augmentation is provided should be identified by the symbol for hearing access.

Information should also be provided on the type of augmentation and whether it is turned on or off.

Hearing augmentation systems can also be used at home.

Types of Assistive Listening Devices

Induction Loop Systems

This system comprises one or more microphones to receive the sound you want to hear, an amplifier to boost the signal, and a 'loop' to carry the sound around the room or a designated area such as a public reception counter.

The sound is transmitted via an electro magnetic field from the 'loop' of wire in the room or from a neck loop to the 'telecoil' in the hearing aid, cochlear implant or loop receiver.

Used in conjunction with the Telecoil (T-switch) or loop receiver, these systems enable the person to sit within a designated area and receive clear, distortion-free sound without any background noise interference.

The amplifiers range from small models for home use, portable models for small to medium halls and more powerful units for churches and large meeting halls.

Infra-red equipment

Infra-red listening systems transmit sound by invisible light beams and are suitable for people who are hard of hearing. An infra-red listening system converts a sound signal into infra-red light and transmits it to an infra-red receiver. The receiver converts the light energy back into the sound signal. The infra-red signal is limited to line of sight transmission, so that there is no spill-over from room to room. The personal infra-red system is quite flexible and can be used by people with or without a hearing aid. It is not suitable for outdoor use because sunlight will affect the transmission.

FM Systems

The wireless FM system transmits sound via a radio frequency. It is the most portable solution for a number of listening situations because it is small, cordless, battery operated and generally doesn't require installation.

An FM system must have a transmitter and receiver operating on the same frequency.

The sound is picked up by a hand held microphone, lapel microphone or through a line input attached to the transmitter which can be worn in the speaker's pocket.

In large settings an FM transmitter can be connected to the existing sound system. The signal will travel through walls and ceilings and is therefore not suitable if confidentiality is required.

FM systems work well indoors and outdoors.

The person with the hearing loss simply needs to wear a personal receiver, such as a neckloop, an audio shoe or small connection attached to a hearing aid or headphones.

Applications include conversation situations, classrooms and lectures, workplaces, restaurants, cars, television, meetings, conferences and churches.

For people who use a cochlear implant, FM cables are available from cochlear implant recipients to use with a wide range of FM systems.

<http://www.aad.org.au/>

Australian Association of the Deaf