



visits4u Access Guide
Factsheet: Hearing
Enhancement Systems

Hearing Enhancement Systems

There are four types of hearing enhancement system, the induction loop being the least expensive:

1. Induction Loop

Standard hearing aids amplify all sound including unwanted background noise and any room echoes arising from poor acoustics. This can make it difficult for a hearing aid wearer. Loop systems allow hearing aid users to listen to a single sound source without any background noise. They only work in conjunction with a hearing aid fitted with and switched to the Telecoil or “T” position.

Loops systems can be fixed or portable. A loop system comprises a microphone, amplifier and loop of wire. Although they are designed to amplify sound within the loop, there is always some overspill because walls, ceilings and floors do not block magnetic fields. This means hearing aid users outside the looped area may be able to overhear conversations if their hearing aids are switched to 'T'. For this reason, it is not advisable to install induction loops in adjacent rooms, including rooms directly above or below and an infra red system may be considered as an alternative. If the space is used for highly confidential meetings, investigation into a phased off-set loop array should be considered at the outset (a blanking loop system can be fitted in surrounding areas retrospectively to overcome a confidentiality issue, but this will reduce the quality of the hearing enhancement within the meeting space).

Room Loops are generally fixed installations with the loop wire fitted at skirting level around the whole room and the amplifier positioned close to a mains power supply. Microphones need to be positioned near to each speaker. Ensure that contractors comply with the British Standard 7594.

Counter Loops enhance two-way communication at reception desks, service counters, check-outs and tills. They are usually a mains powered fixed installation with two microphones, one either side of the counter.

Portable Table-top Loops: suitable for one-to-one discussions or small group meetings - placed on a table, they relay sound to a hearing aid user up to 1m away.

Conference Folder / Clip Board Loops are suitable for small group meetings. These battery operated, portable aids can be loaned out to hearing aid users.

Appropriate signage advising the public of the availability of the loop system should be clearly displayed otherwise a hearing aid wearer will not know to use the “T” switch and will not benefit from the amplification available.

2. Radio Systems

Radio systems can be completely portable and are commonly used in learning environments and museums - typically, the guide/trainer wears a transmitter and moves around the space describing exhibits etc to visitors wearing receivers. The radio signal can usually be received up to a distance of 60 metres.

3. Infrared Systems

Infrared systems are commonly used in multi-screen cinemas, theatres and lecture rooms where it is convenient for visitors to borrow headsets from a central source. A person with impaired hearing or someone who wishes to benefit from simultaneous voice-over, such as translation or audio description, can use an infrared system by wearing an infrared headset. (Alternatively, the infrared receiver can be coupled to a person’s own hearing aid by means of a small induction loop worn around the neck and then switching to “T”). Because infrared systems are based on light and operate at different frequencies, sound cannot be picked up outside the room in which the infrared signals are generated. Infrared systems are fairly easy to install, can provide high-quality sound and are available in stereo versions. They use invisible infrared light to carry sound to portable receivers. You may need one or more infrared radiators, depending on the size of the venue.

4. Soundfield Systems

Sound field ensures that the teacher or presenter can be consistently heard by everyone regardless of where they are seated or what the basic room acoustics are like. All Soundfield systems raise the level of the speaker's voice and allow complete freedom of movement. Soundfield amplification is extremely beneficial in school environments, to assist a mixed class of children with and without hearing impairments. It removes the need to wear a transmitter/microphone and therefore avoids unnecessary embarrassment.

Further information:

Access to Hotels for People with Hearing Loss

Produced by the Inclusive Hotels Network

<http://cae.org.uk/wp-content/uploads/2015/06/161111-IHN-Access-to-Hotels-for-People-with-Hearing-Loss.pdf>

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