Assistive Listening Systems

hearing loop • FM • infrared

All assistive listening systems are required to be accessible for people without hearing aids, hearing aids with a telecoil, or hearing aids with no telecoil.

Hearing Loops, also known as Induction Loops or Audio Frequency Induction Loop Systems (AFILS), consist of a copper wire placed within a room, theater, or counter which is connected via a special loop “driver” to a public address or sound system. An electromagnetic field is created that connects to a telecoil in hearing aids, cochlear implants, or telecoil receivers.

Hearing Loops are:

1. the most user-friendly of assistive listening options; simple, discreet, and effective. Users simply switch their devices to the telecoil program and automatically receive clear, customized sound directly to their ears. No additional equipment required.
2. are accessible by everyone and potentially can serve more people because fewer receivers are required. People who do not have hearing aids or who do not have access to telecoils in their hearing aids or streamer need to use a hearing loop receiver and headphone to connect to the system.

FM Systems, or Radio Frequency Assistive Listening Systems, transmit wireless, low power FM frequency radio transmission from a sound system to FM receivers. An advantage of this system over an infrared system: FM is not affected by direct sunlight. Everyone using the system needs a receiver and either a headphone or a neckloop. For those who have telecoil equipped hearing aids and cochlear implants, neckloops eliminate the need for headphones.

Infrared Systems (IR), use invisible infrared light waves to transmit speech or music from a public address or sound system to an IR receiver. This technology is line-of-sight and cannot be used outdoors during daytime due to being affected by light. Because IR signals are sent and received in a straight line, users are encouraged to sit as centrally as possible; those sitting in balconies or other areas with poor sight lines might experience interference or receive no sound signal at all. Everyone using an IR system needs a receiver and either a headphone or a neckloop. For those who have telecoil-equipped hearing aids and cochlear implants, neckloops eliminate the need for headphones.

Additional resources—Hearing Loss Association of America website: hearingloss.org
Know Your Rights—Program & Events tab
Hearing Loop Technology and Get in the Hearing Loop Toolkit—Program & Events tab 11.1.2021ART