Center for Hearing Access
at The Shedd Institute

Assistive Listening Systems Quick Guide

Why assistive listening systems?

Hearing aid technology has truly advanced and works more effectively than ever before. However, people without hearing loss rarely understand that no matter how sophisticated the technology may be, there are still listening situations where people may still encounter significant challenges understanding because of background noises and reverberation. Rooms with high ceilings, hard floors, noisy ballgames, and places where there is distance between the presenter and listener can still be difficult to hear in, even with the best hearing technology. People with hearing loss need clarity – not increased volume. Good public address (PA) systems help, but do not solve the problem, for people with hearing loss.

Thus, assistive listening systems are required under the Americans with Disabilities Act (ADA) wherever a) there is a public address system or b) needed for effective communication. These systems bring direct audio signals from microphones anywhere in a room directly to a person's ears, reducing the negative effects of reverberation, background noise, and distance.

Assistive listening systems extend the effectiveness of the hearing aids and cochlear implants, and bone conductive devices. They also provide a solution for people who do not wear hearing aids, but still need a boost in difficult listening situations. In addition, assistive listening systems can help those with other disabilities, such as autism, low vision, blindness, auditory processing disorders, ADHD, cerebral palsy, etc.

People often don't realize that they need, and have the right to, an assistive listening system (ALS) when in many public or private facilities. No advance reservations are required – users should arrive and expect the system to be fully working, similar to always having easy physical access.

Facility management

- Choosing an ALS can be complex, often driven by marketing forces rather than actual user experience.
- Receivers, neckloops, and headphones are required. Receiver calculator (webpage).
- Inform people about your system on websites, media, and program information. Required for Title II entities; strongly recommended for Title III entities. Templates with standardized language are available (webpage).

Guidelines

Here are some guidelines to help people hear clearer today.

- Any system must provide clear, intelligible sound, use well-placed microphones, and have no or very minimal accumulated beginning to end audio delays (aka end-to-end latency).
- Any proprietary, complex system limited to specific equipment or requiring people to bring additional devices to access it will leave some people out.
- Any system that requires technical know-how, such as photographing a QR code or downloading and using additional apps on a smartphone, will leave some people out.
- Auracast™ broadcast audio is a new Bluetooth® capability that has the potential to provide an assistive listening system for people with hearing loss and other disabilities.

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- Consumers prefer hearing loops. They are the only user-friendly, widely available, non-proprietary assistive listening system used worldwide.

Comparison Chart

	Hearing Loop	FM	Infrared (IR)	Wi-Fi	Auracast as ALS*
People with hearing loss					
Easy to use, with one push button on hearing aids or cochlear implants	✓				Yet to be solved
User needs no extra equipment from facility	✓ †				Extremely few hearing aid users have Auracast; receivers required for foreseeable future and for those without devices
Does not need a smartphone or app	✓	✓	✓	If receivers provided	If receivers provided
Minimal latency (end-to-end sound delay)	✓	✓	✓		Latency varies depending on transmitter model, settings, and receiving, device. Typically > 30 ms
Meets ADA standard	✓	✓	✓		Under investigation
Hearing instruments can connect using built-in telecoils (systems are required to be hearing-aid compatible)	✓	✓ ††	✓ ††		When used with receiver and neckloop; needed for foreseeable future
Installed in facilities, in 30+ countries	✓	✓	✓	Limited	Extremely few but should increase over next 5-7years
Types of places					
Classrooms and meeting spaces	✓	✓	✓		In development
Home use (domestic use)	✓	✓	✓		✓
Movie Theaters	✓	✓	✓		In development
Museum exhibits	✓			✓	In development
Offices (private work offices)	✓				In development
Outdoors (live sound)	✓	✓			✓
Performance spaces, auditoriums, and places of worship	✓	✓	✓		✓
Private spaces and courtrooms (low overspill)	with phased array design		✓		In development
Public transport	✓				In development
Service counters, retail checkouts, and help points	✓				Yet to be solved

Speech transfer systems (examples: bank tellers and security)	✓				Yet to be solved
Sports stadiums	✓	✓			In development
TVs in fitness rooms and sports bars (no live sound)	✓			✓	✓
TVs in office waiting rooms (with live sound)	✓				✓
Technical information					
Has international specifications	IEC 60118-4				IEC 60118-17 Late 2027
Independent studies have been conducted, with people with hearing loss	✓				
Susceptible to electromagnetic interference (EMI) which causes humming for users	✓	✓ ††	✓ ††	✓ ††	✓ ††
Technology available now	✓	✓	✓	✓	Generation 1 Feb 2025

* Auracast streamed assistive listening is an emerging technology. The full technical name is “Auracast™ Broadcast Audio used as part of an Assistive Listening System (ALS).” It can be installed alongside an existing ALS. See Auracast Streamed ALS (webpage) for more information.
† For ADA-Access hearing instruments with telecoil-enabled hearing instruments (hearing aids, cochlear implants, and bone conductive devices). A list of hearing instruments (3 pages, pdf), with telecoils and Auracast, is available.
†† When used with a neckloop.

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About the Center for Hearing Access

Founded in 2024, the nonprofit Center for Hearing Access is a national advocacy and education initiative of The John G. Shedd Institute in Eugene, OR. We champion and educate users, sites, audiologists, and hearing instrument specialists about all ADA-compliant assistive listening systems and other strategies to increase access to theaters, libraries, conferences, government offices, courtrooms, places of worship, and other public and private spaces. Effective hearing access can be life-changing for people with hearing loss to maintain community engagement.

We create and provide advocacy materials, ADA information, a speaker’s bureau, videos, templates for users and staff, articles, and vendor lists.