

A GUIDE TO ASSISTIVE LISTENING:
UNDERSTANDING
**LEGISLATIVE
COMPLIANCE**

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THE ASSISTIVE LISTENING COMMUNITY

HEARING LOSS: THE INVISIBLE DISABILITY

Almost anyone can easily explain the purpose of a wheelchair ramp, wheelchair signage on doors, or signs translated into Braille. Less well known are the effects of the “invisible disability,” also known as hearing loss.

Hearing loss is caused by a variety of reasons, including but not limited to: congenital, illness, injury, or progressive loss due to excessive or prolonged exposure to loud noise.

Many people with hearing loss isolate themselves from social activities, including attending the theater, concerts, and attending worship services, because listening and understanding sound in these environments is frustrating and difficult, even with hearing aids.

THE AMERICANS WITH DISABILITIES ACT (ADA)

UPDATES TO THE AMERICANS WITH DISABILITIES ACT (ADA)*

In 2010, new standards for the ADA became law (these standards took full effect on March 15, 2012, mandatory for all new construction or renovations). The following are highlights of the changes, specifically for assistive listening systems and include new technologies to meet the guidelines:

- 1. An assistive listening system shall be provided in assembly areas where audible communication is integral to the space. This means that any space where people gather (a boardroom, a banquet hall, a classroom, or a movie theater) is required to have an assistive listening system. Assistive listening must cover the entire space of the venue, not just one area.*
- 2. Assistive Listening is required where there is amplified sound. If there is a microphone and/or speakers, a system is needed. Courtrooms must have assistive listening systems, even without amplified sound.*
- 3. In the original standards, the number of assistive listening devices was 4 percent of seating capacity. With the new standards, the number of receivers has been scaled to match the total occupancy of the venue.*
- 4. Receiver Hearing-Aid Compatibility: A percentage of receivers are required to be hearing-aid compatible and interface with telecoils in hearing aids. This is accommodated via neck loop technology with RF or IR assistive listening systems.*

*There are certain states that use building codes that outline different standards for assistive listening than the ADA. For example, California uses the California Building Code (CBC) to define the standards for assistive listening requirements throughout the state.

ASSISTIVE LISTENING COMPLIANCE

Assembly Areas

Under the ADA an assembly area is defined as a building or facility, or a portion thereof that is used for the purpose of entertainment, education, civic gatherings, or similar purposes. Specific assembly areas include, but are not limited to: classrooms, lecture halls, courtrooms, public meeting rooms, public hearing rooms, legislative chambers, motion picture houses, auditoria, theaters, playhouses, dinner theaters, concert halls, centers for the performing arts, amphitheatres, arenas, stadiums, grandstands, or convention centers.



Required Number of Receivers

The chart below shows the specific number of receivers required based on seating capacity. If an area has an induction loop, hearing aid compatible receivers are not required, but they are required to provide the minimum as outlined in the chart.

| SEATING CAPACITY | MINIMUM NUMBER OF REQUIRED RECEIVERS | MINIMUM NUMBER OF REQUIRED RECEIVERS TO BE HEARING-AID COMPATIBLE [†] |
|------------------|---|--|
| | | |
| | Plus 1 per 25 seats over 50 seats* | |
| | Plus 1 per 25 seats over 50 seats* | 1 per 4 receivers* |
| | Plus 1 per 33 seats over 500 seats* | 1 per 4 receivers* |
| | Plus 1 per 50 seats over 1000 seats* | 1 per 4 receivers* |
| | Plus 1 per 100 seats over 2000 seats* | 1 per 4 receivers* |

Hearing Aid Compatible Receivers

A receiver is hearing aid compatible when it works with a telecoil installed in a hearing aid or cochlear implant. Improvements in technology have increased options for hearing aid compatible receivers, including neck loop in lanyard technology, allowing the sound to be transmitted from the lanyard directly to the telecoil or cochlear implant. 70% of hearing aids and cochlear implants are equipped with telecoils.

Signage

An important part of compliance is signage identifying the availability of ALDs. Venues are required to post signs including the international symbol of access to an assistive listening system.



ASSISTIVE LISTENING TECHNOLOGY

TYPES OF ASSISTIVE LISTENING

There are three types of Assistive Listening technology: radio frequency (RF), infrared (IR) and induction loop (IL). Each uses different technology to transmit sound wirelessly to a personal receiver or directly to a compatible hearing aid. This facilitates the blocking out of ambient noise and reverberation, so the source is clearly delivered to the user's ear.

Radio Frequency Systems

RF works by signals being transmitted over radio frequencies (specifically the FCC mandated 72 and 216 MHz bands) to a personal receiver. The system is made up of a transmitter, antenna, and receiver.

- RF technology is advantageous in that there are no "line-of-site" issues.
- The technology covers wide areas, both indoors and outdoors.
- RF technology transmits with an antenna, so antenna placement is critical to the performance and range of an RF system. Ideally for optimum range, the antenna should be in the general vicinity of the receivers. The transmitter can be installed anywhere in a space, however the antenna should be high up and in the area of where the receivers will be used.
- An RF assistive listening system is typically the least expensive system to purchase and install.
- For users with a hearing aid that have telecoil (T-Coil) capabilities, a personal neck loop can be used with the personal RF receivers.

Infrared Systems

An IR assistive listening system uses infrared light to transmit audio, much like a television remote control. An IR system is made up of a radiator, transmitter, and receiver.

- IR is line-of-sight technology, and is therefore very secure for confidential transmission of the audio signal within a room.
- To achieve maximum range and coverage of an IR system, emitter/radiators need to cover the listening area. This may require multiple emitter/radiators. The height of the emitters/radiators is a critical consideration as well.
- For users with a hearing aid that have telecoil capabilities, a personal neck loop can be used with the personal IR receivers.

Induction Loop Systems

In an Induction Loop (or Hearing Loop) assistive listening system, an integral wire connected to a loop driver is installed around the venue room in a variety of ways; creating an induction field that can be picked up by hearing aids with a telecoil. An induction loop is made up of a loop driver, copper wire, and the receiver being a user's hearing aid or cochlear implant.

- Many venues and users alike enjoy this type of an assistive listening system because the users' disability is more discrete, as they simply use their hearing aids or cochlear implants to receive the audio signal.
- There is no need to ask for a receiver or to wear something that draws attention to their hearing disability.
- Loop receivers can be added to an induction loop system to accommodate those that do not have a telecoil-equipped hearing aid or for those that do not wear a hearing aid.

If loops are used they accommodate the requirement to be hearing aid compatible, however to be totally compliant loop receivers need to be included (see Receivers for Assistive Listening chart on page 3).

WHY COMPLY?

YOUR LEGAL OBLIGATION

Providing access to the deaf and hard of hearing is mandated by The Americans with Disabilities Act (ADA) signed into law in 1991 and revised in 2010. This law addresses when assembly areas are required to have assistive listening devices (ALDs).

LEGAL RAMIFICATIONS

Example:

In 2013, Todd Rich, a real estate agent in San Mateo County, California filed suit against Intercontinental Hotels of San Francisco and Success Strategies Institute, Inc. for \$30,000 in compensation and other punitive damages. Rich, who has 90 decibel hearing loss in both ears, filed the suit, because the hotel failed to provide an assistive listening device. Several times before arriving at the hotel for an event, Rich emphasized his need for the device.

Upon arriving for the seminar at the hotel, Rich requested the assistive listening device and was told by a seminar liaison that they were not available and was put in contact with hotel staff who again said that a device could not be located. Eventually, hotel staff informed Rich they had found the equipment at a sister hotel, which was brought to him half-way through the seminar he was attending.

Two luggage-style boxes were delivered to Rich containing smoke alarms and other miscellaneous items unrelated to the assistive listening device that he originally requested.

<http://www.smdailyjournal.com/articles/news/2014-01-15/hearing-impaired-man-sues-hotel-and-coaching-company/1776425116546.html>

ADVANTAGES OF COMPLIANCE

People with disabilities make up a significant percentage of the population. By providing easier access in and around your business, you reach a wider audience and create more opportunity for increased business.

- According to government accounting, businesses that made accessibility improvements experienced a 12% increase in business.
- In 2003, disabled Americans spent \$3.6 billion on a combination of work and leisure travel.
- Disabled Americans have \$175 billion in discretionary spending power!
- Within 27 years, the population age of 65+ years will increase over 60% and 1 in 5 adults will be age 65 or older.
- Some may be able to receive a tax benefit for providing assistive listening to people with hearing loss--tax form 8826.

THE RIGHT THING TO DO

In the US alone, 54 million people live with disabilities, of those, 36 million are deaf or hard of hearing, making them the largest single disability group.

Providing access to assistive listening devices to these tens of millions of Americans with hearing loss is simply the right thing to do. It helps them feel connected to their communities and live fuller, richer lives.

For more information on assistive listening systems and compliance, please visit <http://www.listentech.com/legislative-compliance>.

"You should always obtain legal advice that is specific to you and your situation. Below is general information only, and is NOT to be a substitute for legal advice or legal opinions which you should obtain from your own attorney. Among other things, this information may not reflect current legal developments or other issues that may apply to your specific circumstances and situation."