

## 2010 ADA Standards for Accessible Design Assistive Listening Systems

The Department of Justice oversees regulations implementing the Americans with Disabilities Act (ADA). These regulations are called the ADA Standards for Accessible Design. This document contains abridged references to the 2010 ADA Standards for Assistive Listening Systems and an Effective Communication 2014 bulletin.

### Why Are Assistive Listening Systems Needed?

People with hearing loss have trouble understanding speech when there is background noise, reverberation, and they are more than six feet away from the sound source. Assistive listening systems improve auditory comprehension in three ways: they filter out background noise, override poor acoustics and reduce the distance from the sound source.

### Resources

#### 2010 American with Disabilities Act Standards

<https://www.ada.gov/regs2010/2010ADASTandards/2010ADASTandards.htm> - c1

#### Effective Communication, 2014 bulletin

This publication provides guidance on the Department of Justice's regulations relating to communicating effectively with people with vision, hearing, or speech disabilities.  
<https://www.ada.gov/effective-comm.htm>

## 2010 American with Disabilities Act (ADA) Standards

The 2010 Standards apply to new construction and alterations on or after March 15, 2012.

### CHAPTER 1: APPLICATION AND ADMINISTRATION

#### 106.5 Defined Terms.

**Assembly Area.** A building or facility, or portion thereof, used for the purpose of entertainment, educational or civic gatherings, or similar purposes. For the purposes of these requirements, 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, amphitheaters, arenas, stadiums, grandstands, or convention centers.

**Assistive Listening System (ALS).** An amplification system utilizing transmitters, receivers, and coupling devices to bypass the acoustical space between a sound source and a listener by means of induction loop, radio frequency, infrared, or direct-wired equipment.

### CHAPTER 2: SCOPING REQUIREMENTS

#### 216. Signs

**216.1 General.** Signs shall be provided in accordance with 216 and shall comply with 703

**216.10 Assistive Listening Systems.** Each assembly area required by 219 to provide assistive listening systems shall provide signs informing patrons of the availability of the assistive listening system. Assistive listening signs shall comply with 703.5 and shall include the International Symbol of Access for Hearing Loss complying with 703.7.2.4.

**See the ADA Standards for Exception**

216.10 Exception, ticket office or windows

## 219 Assistive Listening Systems

**219.1 General.** Assistive listening systems shall be provided in accordance with 219 and shall comply with 706.

**219.2 Required Systems.** In each assembly area where audible communication is integral to the use of the space, an assistive listening system shall be provided.

**Exception:** Other than in courtrooms, assistive listening systems shall not be required where audio amplification is not provided.

**219.3 Receivers.** Receivers complying with 706.2 shall be provided for assistive listening systems in each assembly area in accordance with Table 219.3. **Twenty-five percent minimum** of receivers provided, but no fewer than two, shall be hearing-aid compatible in accordance with 706.3.

### Exceptions

1. Where a building contains more than one assembly area and the assembly areas required to provide assistive listening systems are under one management, the total number of required receivers shall be permitted to be calculated according to the total number of seats in the assembly areas in the building provided that all receivers are usable with all systems.
2. Where all seats in an assembly area are served by an induction loop assistive listening system, the minimum number of receivers required by Table 219.3 to be hearing-aid compatible shall not be required to be provided.

**See ADA Standards for Table 219.3 Receivers for Assistive Listening Systems**

## CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

### 703 Signs

**See the ADA Standards for additional signage specifications**

703.2 Raised Characters

703.3 Braille

703.4 Installation Height and Location

703.5 Visual Characters

703.6 Pictograms

**703.6.1 Pictogram Field.** Pictograms shall have a field height of **6 inches** (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

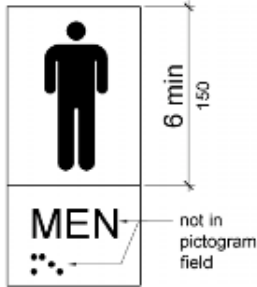


Figure 703.6.1 Pictogram Field

**703.6.3 Text Descriptors.** *Pictograms* shall have text descriptors located directly below the *pictogram* field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

**See the ADA Standards for additional signage specifications**

703.7 Symbols of Accessibility

703.7.1 Finish and Contrast

**703.7.2.4 Assistive Listening Systems.** Assistive listening systems shall be identified by the International Symbol of Access for Hearing Loss complying with Figure 703.7.2.4.



Figure 703.7.2.4 International Symbol of Access for Hearing Loss

## 706 Assistive Listening Systems

**Advisory 706.1 General.** Assistive listening systems are generally categorized by their mode of transmission. There are hard-wired systems and three types of wireless systems: induction loop, infrared, and FM radio transmission. Each has different advantages and disadvantages that can help determine which system is best for a given application. For example, an FM system may be better than an infrared system in some open-air assemblies since infrared signals are less effective in sunlight. On the other hand, an infrared system is typically a better choice than an FM system where confidential transmission is important because it will be contained within a given space.

The technical standards for assistive listening systems describe minimum performance levels for volume, interference, and distortion. Sound pressure levels (SPL), expressed in decibels, measure output sound volume. Signal to noise ratio (SNR or S/N), also expressed in decibels, represents the relationship between the loudness of a desired sound (signal) and the background noise in a space or piece of equipment. The higher the SNR, the more intelligible the signal. The peak clipping level limits the distortion in signal output produced when high-volume sound waves are manipulated to server assistive listening devices.

Selecting or specifying an effective assistive listening system of a large or complex venue requires assistance from a professional sound engineer. The Access Board has published technical assistance on assistive listening devices and systems.

**706.2 Receiver Jacks.** Receivers required for use with an assistive listening system shall include a 1/8 inch (3.2 mm) standard mono jack.

**706.3 Receiver Hearing-Aid Compatibility.** Receivers required to be hearing-aid compatible shall interface with telecoils in hearing aids through the provision of neckloops.

**Advisory 706.3 Receiver Hearing-Aid Compatibility.** Neckloops and headsets that can be worn as neckloops are compatible with hearing aids. Receivers that are not compatible include earbuds, which may require removal of hearing aids, earphones, and headsets that must be worn over the ear, which can create disruptive interference in the transmission and can be uncomfortable for people wearing hearing aids.

## CHAPTER 9: BUILT-IN ELEMENTS

### 904 Check-out Aisles and Sales and Service Counters

**904.6 Security Glazing.** Where counters or teller windows have security glazing to separate personnel from the public, a method to facilitate voice communication shall be provided. Telephone handset devices, if provided, shall comply with 704.3.

See the ADA Standards Advisory

**904.6 Advisory Security Glazing.** Assistive listening devices complying with 706 can facilitate voice communication...

## HLAA Addendum

### Sample Assistive Listening System Signage with Text



**HLAA Note:** It is common practice for the Access for Hearing Loss symbol to be modified with the addition of a T to indicate the assistive listening system is a hearing loop.

**HLAA Note 904.6:** hearing loop systems have been used effectively with security glazing.

