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## Accessible Public Service Counters

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## **Accessible Public Service Counters**

### **An Introduction**

For any public space where a person with a disability finds themselves engaging with a Customer Services Agent or other representative, it is important to ensure that the location, space and all surfaces are fully accessible to people who have mobility problems, who use wheelchairs, who are blind or have low vision and for those who are deaf or have a hearing impairment.

This Factsheet presents a brief overview of points to consider when ensuring that the Customer Experience is accessible for People with Disabilities. Some further materials have been adapted from the Americans with a Disability Act, Accessibility Guidelines relating directly to Customer Service Desks and Booth Spaces.

### **For Service Desks/Booths it is important to consider the following:**

#### **1. Ensure Split Level Access**

To ensure that both wheelchair users and those with limited mobility are accommodated it is advisable to have desks split at two levels.

#### **2. Ensure level, unobstructed access from the building/shop entrance.**

For wheelchair users and for those using crutches, ensure that there is adequate clearance and direct access to the desk/counter. For people with a Visual Impairment ensure the appropriate signage is visible and clear from the entrance.

#### **3. Ensure fitting of Loop Amplification for use with Hearing Aids for those with hearing impairment**

For those with a hearing impairment using a Hearing Aid or other amplification system, install a Loop system to ensure improved communication.

**For Customer Service Staff it is important to ensure the following:**

**1. Disability Awareness Training**

Increasing staff awareness of disability is the single biggest factor in ensuring that you provide an inclusive and equitable service for people with a disability.

**2. Guidelines on Communication with People with a Disability**

Ensure that all staff are comfortable and familiar in their communications with People with different Disabilities. Being aware of the correct etiquette is important in making sure the person is made feel welcome and that his/her particular needs are dealt with adequately.

**3. Nominate a Disability Specialist on Your Team**

This allows an organization to make sure that there is a dedicated support on site for person with a disability by a person who fully understands their needs. This person can also play a role in making sure that everyone else on the team better understands particular customer needs and provide training to new staff or vendors.

**Further Information:**

**From the ADA (Americans with Disabilities Act) Guidelines:**

<http://www.access-board.gov/adaag/html/adaag.htm#bus>

## **SECTION: 7.2 Sales and Service Counters, Teller Windows, Information Counters.**

**(1)** In areas used for transactions where counters have cash registers and are provided for sales or distribution of goods or services to the public, at least one of each type shall have a portion of the counter which is at least 36 in (915mm) in length with a maximum height of 36 in (915 mm) above the finish floor. It shall be on an accessible route complying with [4.3](#). Such counters shall include, but are not limited to, counters in retail stores, and distribution centers. The accessible counters must be dispersed throughout the building or facility. In alterations where it is technically infeasible to provide an accessible counter, an auxiliary counter meeting these requirements may be provided.

**(2)** In areas used for transactions that may not have a cash register but at which goods or services are sold or distributed including, but not limited to, ticketing counters, teller stations, registration counters in transient lodging facilities, information counters, box office counters and library check-out areas, either:

(i) a portion of the main counter which is a minimum of 36 in (915 mm) in length shall be provided with a maximum height of 36 in (915 mm); or

(ii) an auxiliary counter with a maximum height of 36 in (915 mm) in close proximity to the main counter shall be provided; or

(iii) equivalent facilitation shall be provided (e.g., at a hotel registration counter, equivalent facilitation might consist of: (1) provision of a folding shelf attached to the main counter on which an individual with a disability can write, and (2) use of the space on the side of the counter or at the concierge desk, for handing materials back and forth).

All accessible sales and service counters shall be on an accessible route complying with [4.3](#).

**(3)\*** In public facilities where counters or teller windows have solid partitions or security glazing to separate personnel from the public, at least one of each type shall provide a method to facilitate voice communication. Such methods may include, but are not limited to, grilles, slats, talk-through baffles, intercoms, or telephone handset devices. The method of communication shall be accessible to both individuals who use wheelchairs and individuals who have difficulty bending or stooping. If provided for public use, at least one telephone communication device shall be equipped with volume controls complying with [4.31.5](#). Hand-operable communications devices, if provided, shall comply with [4.27](#). [Appendix Note](#)

**(4)\*** Assistive Listening Systems. – see section **A4.33.7 below**.

**A4.30.4 Raised and Brailled Characters and Pictorial Symbol Signs (Pictograms).** The standard dimensions for literary Braille are as follows:

Dot diameter: .059 in.

Inter-dot spacing: .090 in.

Horizontal separation between cells: .241 in.

Vertical separation between cells: .395 in.

Raised borders around signs containing raised characters may make them confusing to read unless the border is set far away from the characters. Accessible signage with descriptive materials about public buildings, monuments, and objects of cultural interest may not provide sufficiently detailed and meaningful information. Interpretive guides, audio tape devices, or other methods may be more effective in presenting such information.

**A4.30.5 Finish and Contrast.** An eggshell finish (11 to 19 degree gloss on 60 degree glossimeter) is recommended. Research indicates that signs are more

legible for persons with low vision when characters contrast with their background by at least 70 percent. Contrast in percent shall be determined by:

$$\text{Contrast} = [(B_1 - B_2)/B_1] \times 100$$

Where  $B_1$  = light reflectance value (LRV) of the lighter area and  $B_2$  = light reflectance value (LRV) of the darker area.

Note that in any application both white and black are never absolute; thus,  $B_1$  never equals 100 and  $B_2$  is always greater than 0.

The greatest readability is usually achieved through the use of light-colored characters or symbols on a dark background.

#### **A4.30.7 Symbols of Accessibility for Different Types of Listening Systems.**

Paragraph 4 of this section requires signage indicating the availability of an assistive listening system. An appropriate message should be displayed with the international symbol of access for hearing loss since this symbol conveys general accessibility for people with hearing loss. Some suggestions are:

INFRARED  
ASSISTIVE LISTENING SYSTEM  
AVAILABLE  
----PLEASE ASK----

AUDIO LOOP IN USE  
TURN T-SWITCH FOR  
BETTER HEARING  
----OR ASK FOR HELP----

FM  
ASSISTIVE LISTENING

SYSTEM AVAILABLE

----PLEASE ASK----

The symbol may be used to notify persons of the availability of other auxiliary aids and services such as: real time captioning, captioned note taking, sign language interpreters, and oral interpreters.

#### **A4.30.8 Illumination Levels.**

Illumination levels on the sign surface shall be in the 100 to 300 lux range (10 to 30 footcandles) and shall be uniform over the sign surface. Signs shall be located such that the illumination level on the surface of the sign is not significantly exceeded by the ambient light or visible bright lighting source behind or in front of the sign.

#### **A4.32 Fixed or Built-in Seating and Tables.**

##### **A4.32.4 Height of Tables or Counters.**

Different types of work require different table or counter heights for comfort and optimal performance. Light detailed work such as writing requires a table or counter close to elbow height for a standing person. Heavy manual work such as rolling dough requires a counter or table height about 10 in (255 mm) below elbow height for a standing person. This principle of high/low table or counter heights also applies for seated persons; however, the limiting condition for seated manual work is clearance under the table or counter.

Table A1 shows convenient counter heights for seated persons. The great variety of heights for comfort and optimal performance indicates a need for alternatives or a compromise in height if people who stand and people who sit will be using the same counter area.

**Table A1 Convenient Heights of Tables and Counters for Seated People<sup>1</sup>**

Conditions of Use	Short Women		Tall Men	
	in	mm	in	mm
<b>Seated in a wheelchair:</b>				
<i>Manual work:</i>				
Desk or removable armrests	26	660	30	760
Fixed, full size armrests <sup>2</sup>	32 <sup>3</sup>	815	32 <sup>3</sup>	815
<i>Light, detailed work:</i>				
Desk or removable armrests	29	735	34	865
Fixed, full size armrests <sup>2</sup>	32 <sup>3</sup>	815	34	865
<b>Seated in a 16-in. (405 mm) high chair:</b>				
<i>Manual work</i>	26	660	27	685
<i>Light, detailed work</i>	28	710	31	785

(1) All dimensions are based on a work-surface thickness of 1 1/2 in (38 mm) and clearance of 1 1/2 in (38 mm) between legs and the underside of a work surface.

(2) This type of wheelchair arm does not interfere with the positioning of a wheelchair under a work surface.

(3) This dimension is limited by the height of the armrests: a lower height would be preferable. Some people in this group prefer lower work surfaces, which require positioning the wheelchair back from the edge of the counter.

#### **A4.33.7 Types of Listening Systems.**

A listening system that can be used from any seat in a seating area is the most flexible way to meet this specification. Earphone jacks with variable volume controls can benefit only people who have slight hearing loss and do not help people who use hearing aids. At the present time, magnetic induction loops are the most feasible type of listening system for people who use hearing aids equipped with "T- coils," but people without hearing aids or those with hearing aids not equipped with inductive pick-ups cannot use them without special

receivers. Radio frequency systems can be extremely effective and inexpensive. People without hearing aids can use them, but people with hearing aids need a special receiver to use them as they are presently designed. If hearing aids had a jack to allow a by-pass of microphones, then radio frequency systems would be suitable for people with and without hearing aids.

Some listening systems may be subject to interference from other equipment and feedback from hearing aids of people who are using the systems. Such interference can be controlled by careful engineering design that anticipates feedback sources in the surrounding area.

The Information below shows some of the advantages and disadvantages of different types of assistive listening systems. In addition, the Access Board has published a pamphlet on Assistive Listening Systems which lists demonstration centers across the country where technical assistance can be obtained in selecting and installing appropriate systems. The state of New York has also adopted a detailed technical specification which may be useful.

## Summary of Assistive Listening Devices and Systems

### COMPARISON OF LARGE AREA ASSISTIVE LISTENING SYSTEMS

#### FM BROADCAST

(40 frequencies available on narrow band transmission systems. Ten frequencies available on wideband transmission systems.) **Transmitters:** FM base station or personal transmitter broadcasts signal to listening area. **Receiver:** Pocket size with: a) earphone(s), or  
b) headset, or c) induction neck-loop or silhouette coil coupling to personal hearing aid equipped with telecoil, or d) direct audio input (DAI) to personal hearing aid

### **Advantages of FM Broadcast**

Highly portable when used with body-worn, personal transmitter. Easy to install. May be used separately or integrated with existing PA-systems. Multiple frequencies allow for use by different groups within same area (e.g., multi-language translation).

### **Disadvantages of FM Broadcast**

Signal spill-over to adjacent rooms/ listening areas (can prevent interference by using different transmission frequencies for each room/listening area). Choose infrared if privacy is essential. Receivers required for everyone. Requires administration and maintenance of receivers. Susceptible to electrical interference when used with induction neck-loop/silhouette (Provision of DAI audio shoes and cords is impractical for public applications). Some systems more susceptible to radio wave interference and signal drift than others.

### **Typical Applications of FM Broadcast**

Service counters, Outdoor guided tours, Tour busses, Meeting rooms  
Conference rooms, Auditoriums, Classrooms, Courtrooms, Churches Temples  
and Mosques, Theaters, Museums, Theme parks, Arenas, Sport stadiums,  
Retirement/nursing homes, Hospitals

### **INFRARED LIGHT**

**Transmitter:** Amplifier drives emitter panel(s) covering listening area.

**Receivers:** Under-chin or Pendant type receiver with: a) headset, or b) earphone(s), or c) induction neck-loop or silhouette coil coupling to personal hearing aid equipped with telecoil, or d) direct audio input (DAI) to personal hearing aid.

### **Advantages of Infrared Light**

Unlike induction or FM transmission, IR transmission does not travel through walls or other solid surfaces. Insures confidentiality. Infrared receivers compatible with most infrared emitters. May be used separately or integrated with existing

PA-systems. Can be used for multi- language translation (must use special multi-frequency receivers).

### **Disadvantages of Infrared Light**

Receivers required for everyone. Requires administration and maintenance of receivers.

Ineffective in direct sunlight. Careful installation required to insure entire listening area will receive IR signal. Susceptible to electrical interference when used with induction neck loop/silhouette (Provision of DAI audio shoes and cords is impractical for public applications). Lifetime of emitters varies with company. Historical buildings may pose installation problems.

### **Typical applications of Infrared Light**

Indoor service counters, Meetings requiring confidentiality, Meeting rooms, Conference rooms, Auditoriums, Classrooms, Courtrooms, Churches Temples and Mosques, Theaters, Museums, Arenas (indoors only), Sport stadiums (indoors only), Retirement/nursing homes Hospitals.

## **CONVENTIONAL INDUCTION LOOP**

**Transmitter:** Amplifier drives an induction loop that surrounds listening area.

**Receivers:**

a) Personal hearing aid with telecoil. B) Pocket size induction receiver with earphone or headset's) Self-contained wand. D) Telecoil inside plastic chassis which looks like a BTE, ITE, or canal hearing aid.

### **Advantages of Conventional Induction Loop**

Requires little or no administration of receivers, if most people have telecoil-equipped hearing aids. Induction receivers must be used where hearing aids in use are not equipped with telecoil. Induction receivers are compatible with all loop systems. Unobtrusive with telecoil hearing aid. May be used separately or integrated with existing PA-systems. Portable systems are available for use with

small groups of listeners. These portable systems can be stored in a carrying case and set up temporarily, as needed.

### **Disadvantages for Conventional Induction Loop**

Signal spill-over to adjacent rooms. Susceptible to electrical interference. Limited portability unless areas are pre-looped or small, portable system is used (see advantages).

Requires installation of loop wire. Installation may be difficult in pre-existing buildings. Skilled installation essential in historical buildings (and may not be permitted at all).

If listener does not have telecoil-equipped hearing aid then requires administration and maintenance of receivers.

### **Typical Applications of Conventional Induction Loop**

Service counters, Ports of transportation, Public transportation vehicles, Tour busses, Meeting rooms, Conference rooms, Auditoriums, Classrooms, Courtroom, Churches and Temples, Theaters, Museums, Theme parks, Arenas, Sport stadiums, Retirement/nursing homes, Hospitals

### **3-D LOOP SYSTEM**

**Transmitter:** Amplifier drives a 3-D mat that is placed under the carpet of the listening area. **Receivers:** a) Personal hearing aid with telecoil. b) Pocket size induction receiver with earphone or head-set. c) Self-contained wand. d) Telecoil inside plastic chassis which looks like a BTE, ITE, or canal hearing aid.

### **Advantages of 3- D Loop System**

Requires little or no administration of receivers, provided most listeners have telecoil-equipped hearing aids. Induction receivers are compatible with all loops systems.

May be used separately or integrated with existing PA-systems. Three-dimensional reception of loop signal regardless of telecoil position. Reduced

signal spillover allows adjacent rooms to be looped without signal interference. 3-D loop mats must be separated by 6 feet to avoid signal spillover.

### **Disadvantages of 3- D Loop System**

Limited portability (areas may be pre-3-D Loop matted to facilitate portability). Requires installation of 3-D Loop mats. Installation may be difficult in pre-existing buildings. Skilled installation essential in historical buildings (and may not be permitted at all).

If listener does not have telecoil-equipped hearing aid then requires administration and maintenance of receivers. Susceptible to electrical interference.

### **Typical Applications of 3- D Loop System**

Service counters, Ports of Transportation, Meeting rooms, Conference rooms, Auditoriums, Classrooms, Courtrooms, Museums, Theme Parks, Retirement/nursing homes, Meetings requiring confidentiality, Hospitals

Modified from a chart published by Centrum Sound, Cupertino, California  
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