Hearing Connections
HEARING BETTER

SIGNAGE GUIDE FOR HEARING AUGMENTATION SYSTEMS

This guide aims to provide information so that architects, building designers, project managers, building surveyors, venue managers and audio-visual integrators can be better informed of their communication access responsibilities and to assist them in providing and locating appropriate signage for Hearing Augmentation.

As requirements and standards are updated, the most recent legislation, NCC and Australian Standards and advisory notes should be consulted for the most up-to-date information.

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1. Introduction

Hearing Augmentation is required in all rooms used for judicial purposes and all places where sound amplification is provided or public announcements are made, for example: boardrooms, class/lecture rooms, assembly halls, cinemas, theatres and auditoriums. The International Deafness Symbol is displayed to indicate the presence of a Hearing Augmentation System.

2. Ordering your sign

Contact Hearing Connections for signs compliant with these requirements.

3. Types of Hearing augmentation systems

a. Hearing Loop Systems (also known as Audio-Frequency Induction Loop Systems)

These systems link directly to the hearing aid and cochlear implants (and other hearing devices) via the telecoil (also call T-Switch) built into the hearing device. Hearing Loop Systems assist people without hearing aids if the user is provided with a loop listener.
In addition to permanently installed hearing loops, there are portable hearing loops for purchase or hire from Hearing Connections. These can be used in spaces such as meeting rooms and conference centres.

b. Receiver Systems

There are two types of systems – Radio Systems and Infrared Systems.
Radio systems are more versatile and reliable, while Infrared gives the greatest privacy. These require users to obtain and wear a receiver, and return it afterwards. Both neckloops and headsets must be provided for each receiver. The receivers can be used with or without hearing aids, according to the attachment.

i. Radio/Digital/FM Systems

These are the most versatile, allowing the user to place the receiver under the clothing, as well as maximum coverage of an area.

ii. Infrared Systems

These generally require a direct unblocked line of sight from the emitters on the wall to the front of the receiver worn by the user, which also gives the greatest privacy.

In addition to the information contained in this guide, it is recommended that:

- Adjacent to your signs, provide contact information for a person – name, location and/or SMS text – who can attend to any faults noticed by a person who requires the advertised communications access.
- Conduct regularly scheduled listening checks of any Hearing Augmentation System (Hearing Loop, FM or IR system) to ensure it is operating correctly.

4. Signage requirements

Two types of signage are required to comply with the

- National Construction Codes section D3.6), and
- Disability (Access to Premises Buildings) Standards 2010 inc Amdt 1 - Section D3.6

A. At the entrance - Braille and Tactile Sign

Braille and Tactile signage must:

a. Incorporate the international symbol for deafness, (as per AS 1428.1 – 2009, Clause 8.2.2 and Figure 12),

b. The colour of the symbol shall be white on a blue background. The blue shall be B21, ultramarine, of AS 2700, or similar.

c. Identify each space with a Hearing Augmentation System

Tactile English shall be provided above the Braille wording.
The sign shall be located as follows:

d. All Braille and tactile components of the sign must be between 1200 and 1600 mm above the floor.

e. Signs with single lines of characters must have the line of tactile characters not less than 1250 mm and not higher than 1350 mm above the floor.

f. On the wall on the latch side of the door with the leading edge of the sign located between 50mm and 300 mm from the architrave (where this is not possible, the sign may be placed on the door itself).The background, negative space, fill of a sign or border with a minimum width of 5 mm must have a luminance contrast with the surface on which it is mounted of not less than 30%.

g. Braille and tactile signs must be illuminated to ensure luminance contrast requirements are met at all times during which the sign is required to be read.

The Braille and Tactile specification are defined as follows:
NCC - Clause 3.6 and Specification D3.6 (Note: Specification D3.6 is separate to Clause D3.6)
Disability (Access to Premises Buildings) Standards 2010 inc Amdt 1 - Section D3.6 and D4.

Lettering

Helvetica Medium or Arial typeface is preferred. Signs are to be in sentence case, i.e. a combination of upper and lower case lettering, rather than lettering in all upper case or all lower case.

Sign surface

Use surface finishes that reduce glare and reflection, such as matte or non-reflective finishes which are generally more suitable.

Luminance contrast, lighting and colour considerations

Luminance contrast complying with NCC Specification D3.6 clauses 4 required, which includes these key points:

- Luminance contrast is the difference in the amount of light reflected from the sign compared with the light reflected from the background or surrounding surface; and
- There must be a luminance contrast of not less than 30 per cent between the surface of the sign and the background it is mounted on.
- Luminance contrasts must be met under the lighting conditions in which the sign is to be located
- Signs should be covered by good, even light.

Appendix A shows examples.

B. Inside the room - Printed Sign

Printed Signage must:

a. Incorporate the international symbol for deafness, (as per AS 1428.1 – 2009, Figure 12)
b. The colour of the symbol shall be white on a blue background. The blue shall be B21, ultramarine, of AS 2700, or similar,
c. Identify the type of Hearing Augmentation System (e.g. Hearing Loop System, Radio or Infra-red System),
d. Identify the area covered within the room with a Hearing Augmentation System, and h) if receivers are being used, then where the receivers can be obtained.

Hearing Connections strongly recommends the sign be placed

- At 1.8m above floor level
- In the front third of the space
- Where the room can be configured in more than one direction, that two signs be placed on opposite walls.

Appendix B shows examples.

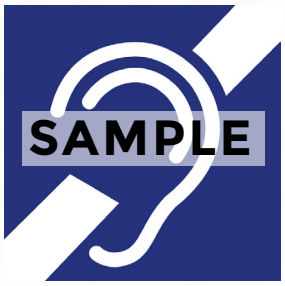
Different requirements apply to public transport buildings.

5. International symbol for deafness

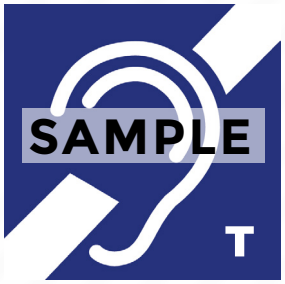
The International Symbol for deafness is a registered trademark in Australia, held by Deafness Forum Ltd. This provides various rights to the Deafness Forum including the right to license or sell the symbol for use within Australia for the goods and services for which it is registered.

Signs are required to incorporate the international symbol of deafness in accordance with AS 1428.1 - 2009 Clause 8.2.2. This symbol consists of two elements - a stylised ear and a diagonal slash on a plain square background, exactly as shown in Figure 12 of the above standard. The colour of the symbol is white on a blue background (B21, Ultramarine of AS 2700 or similar).

CORRECT



INCORRECT



No variation to the symbol (or colour) is permitted.

Many companies have the international symbol of deafness with a small “T” in the symbol, indicating a hearing loop system. However, this is in breach of the standards, and is not permissible in Australia – yet many installers provide it.

The Symbol may not be used in an advertising context or in any way to promote or identify commercially available goods or services. Organisations may apply for a copy of the Symbol to use in accordance with the guidelines by contacting Deafness Forum. There is no charge for using the symbol.

In addition to the information contained in this guide, it is recommended:

1. Adjacent to your signs, provide contact information for a person – name, location and/or SMS text – who can attend to any faults noticed by a person who requires the advertised communications access.
2. Conduct regularly scheduled listening checks of any Hearing Augmentation System (Hearing Loop, FM or IR system) to ensure it is operating correctly.

References

This guide should be read in conjunction with these documents.

A. Public Buildings – Class 9B, Counters, Judiciary rooms

The **mandatory** requirements for **Hearing Augmentation** are contained in:

- *National Construction Codes - NCC (formerly Building Code of Australia - BCA) - Section D3.7*
- *Disability (Access to Premises Buildings) Standards 2010 inc Amdt 1 - Section D3.7*

and **non-mandatory** requirements are also referenced in:

- *Australian Standard 1428.5 - 2010 Section 3 and 4, Appendix A, B &C*

The **mandatory** requirements for **Signage** for Hearing Augmentation are contained in:

- *National Construction Codes - NCC - Section D3.6 and Specification D3.6*
- *Disability (Access to Premises Buildings) Standards 2010 inc Amdt 1 - Section D3.6 and D4*
- *Australian Standards 1428.1 - 2009 Amdt 1, Clause 8.2.2 and Figure 12*

and **non-mandatory** requirements are also referenced in:

- *Australian Standard 1428.5 - 2010 Section 5*

B. For public transport buildings only

The **mandatory** requirements for **Hearing Augmentation** are contained in:

- *National Construction Codes - NCC (formerly Building Code of Australia - BCA) - Section H2.13*
- *Disability (Access to Premises Buildings) Standards 2010 inc Amdt 1 - Section H2.13*
- *Australian Standard 1428.2 - 1992 Clause 21.1*

and **non-mandatory** requirements are also referenced in:

- *Australian Standard 1428.5 - 2010 Section 3 and 4, Appendix A, B & C*

The **mandatory** requirements for **Signage** for Hearing Augmentation are contained in:

- *National Construction Codes - Section H2.10*
- *Disability (Access to Premises Buildings) Standards 2010 inc Amdt 1*
- *Australian Standards 1428.1 - 2001 Clause 14.3 and Figure 34*
- *Australian Standards 1428.2 - 1992 Clause 17.1, 17.4, Figure 30 and Table 1*

and **non-mandatory** requirements are also referenced in:

- *Australian Standard 1428.5 - 2010 Section 5*

AS 1428.5 – 2010 — *Communication for people who are deaf or hearing impaired*
This standard may be downloaded here.

NCC may be downloaded at no charge from ncc.abcb.gov.au

APPENDIX A - ENTRANCE SIGN EXAMPLES

BRAILLE AND TACTILE

Note: Image, Braille and words to be tactile

Hearing Loop System

Radio or Infra-red System

APPENDIX B - INTERIOR ROOM EXAMPLES

PRINTED

B1. HEARING LOOP SYSTEM

A Hearing Loop System – Full Coverage

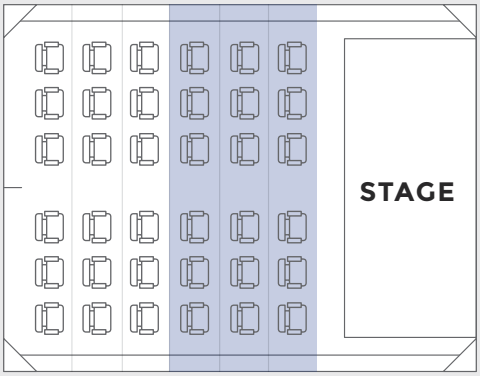
A Hearing Loop System is installed in this ...(name of area)

Switch your hearing aid or cochlear implant processor to T Switch, or Telecoil position.

B Hearing Loop System – Part Coverage

Include the following with the above:

Coverage area shaded below:



B2. RADIO SYSTEM

A Radio System – Full Coverage

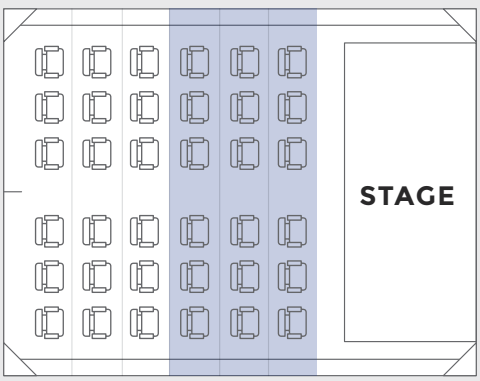
Note: this example is for an FM system. Different words will be inserted according to the type of system. FM has traditionally been the most common.

A FM Hearing Augmentation System
is installed in this ... (name of area)
Receivers are available from ...
(location of receivers)

B Radio System – Part Coverage

Include the following with the above:

Coverage area shaded below:



B3. INFRARED SYSTEM

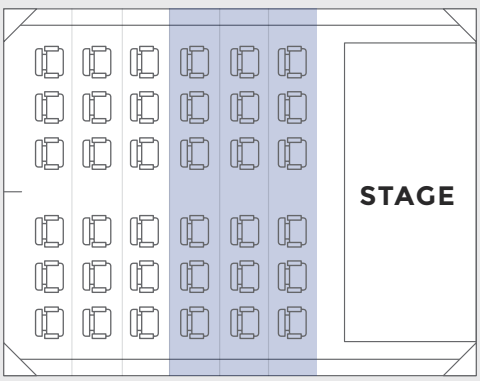
A Infrared System – Full Coverage

A FM Hearing Augmentation System
is installed in this ... (name of area)
Receivers are available from ...
(location of receivers)

B Infrared System – Part Coverage

Include the following with the above:

Coverage area shaded below:



FURTHER INFORMATION

If you have any questions, email Andrew Stewart: Managing Director of Hearing Connections at andrew@hearconnect.com.au

Other articles are available here
Sign up to receive our newsletter here

About the Author

Andrew Stewart is qualified in electronics and has been leading research into hearing augmentation systems for over 30 years – including designing, installing, testing and commissioning of Hearing Augmentation Systems. He and his team have conducted their own research of comparison methodologies of installing hearing loop systems and designed and constructed test equipment. He's been involved in installations at Sydney Opera House, First Class Qantas Club Singapore, art galleries, museums, theatres and many others.

Andrew was a key leader in the development of AS 1428.5 - 2010, the authoritative document on Hearing Augmentation in Australia. He is also a life member of Deafness Forum of Australia (the peak body for hearing impaired people in Australia) and continues to represent them, as he has on many committees for over 20 years. Andrew has been hearing impaired all his life, with a progressive loss, and now wears two cochlear implants.

He has 9 other family members who wear hearing aids and/or cochlear implants.

Why choose Hearing Connections

Hearing Connections is built on experience of Andrew Stewart, who:

- Has been **wearing hearing aids** since age 7, and now wears two cochlear implants.
- Knows both sides of the story – the **lived experience,** and the **electronics qualifications.**
- Has been **specialising** in Hearing Augmentation Systems for over 33 years.
- Was **instrumental** in the writing of the definitive Australian Standard **AS 1428.5**.
- Has conducted **research and development** of Hearing Augmentation systems for improved outcomes.
- Has over **33 years of design, installation and commissioning** of Hearing Augmentation systems (loop systems, FM systems, sound field systems and public address systems) for a range of public access buildings, from small halls to significant buildings and venues, including Sydney Opera House and airports.
- **Lectures** in Hearing Augmentation for building professionals.
- Provides **training** in Hearing Augmentation for Access Consultants, Building certifiers and surveyors, and architects.
- Over 20 years of **advocating** for the needs of deaf and hearing impaired people.
- Is a **life member** of Deafness Forum of Australia.
- Has won **numerous awards** for service in advocating for the needs of deaf and hearing impaired people.