# Best Practices in Hearing Loop Procurement

Hearing Loops are quickly becoming the hearing assistive listening system of choice for bringing clear sound to people with hearing loss. From schools and houses of worship to theater venues, assisted living facilities and municipal buildings, hearing loops are a consumer preferred solution and the only system that is directly compatible with hearing aids equipped with telecoils. Loops make your facility hearing friendly. This remarkable system will not only bring many of 36+ million people with hearing loss back to theatre, houses of worship and community activities, but also enhance face-to-face customer service at ticket windows and service desks particularly if these areas are in locations with background noise.

Hearing loop systems are used worldwide and most installers follow the international standard IEC 60118-4 as developed under the auspices of the IEC (International Electrotechnical Commission).

This IEC Standard has been adopted by professionally trained and competent hearing loop installers so that the hearing loops they install will provide an excellent listening experience to hearing aid and cochlear implant wearers. The standard was created by leading/reputable European manufacturers in response to poorly installed, often unusable loops that were being installed, thus giving the technology a bad reputation.

The IEC Standard:

- limits the amount of background noise that is acceptable before a hearing loop can be installed
- sets the level at which correctly adjusted hearing instruments with T-coils can provide appropriate amplification to the user
- establishes the uniformity the loop signal level needs to attain in the looped area to allow a person to sit anywhere and have an equal experience
- establishes the frequency response that will provide a clear, undistorted sound

Venues that have little metal in the structure, and are constructed such that the loop wire can be easily installed, and can be done at lower cost. However, if there is significant metal in the structure, installing the loop wire where it needs to be in order to meet the standard, can challenging and expensive. The ethical installer, who is sensitive to the ultimate end user, and concerned about maintaining the reputation of hearing loops, will refuse to install a loop that does not meet the standard. Unfortunately, there are a small number of poorly trained, or simply less ethical installers who are out for the “fast buck” will underbid and try to convince the customer that the IEC standard does not need to be followed. If the hearing loop is only slightly out of the standard it may still provide some assistance to the T-coil user. Unfortunately many of them are so far out of the specification that they are totally unusable and an embarrassment to those who chose to take the cheaper route. Some of them are so embarrassed that they are reluctant to talk about their experience; however there are others that will so that others won’t make the same mistake.

Compliance with the IEC Standard means a hearing aid user can walk into Westminster Abbey in London, The Gerald Ford Airport in Grand Rapids in Michigan or the Fox Cities Performing Arts Center in Appleton Wisconsin and hear the sound directly, and at a comfortable level in their hearing aid equipped with a sensor called a telecoil. Loop listener devices are available for those who don’t have telecoils or don’t use hearing aids.

This check list is meant to give you guidance in the due diligence process as you procure a hearing loop for your facility by choosing the right installer. In some geographic areas of the country it may not be possible to find highly experienced installers. It is therefore recommended you choose an installer who has been trained in IEC standard verification, has technical support from his supplier and is legally allowed to carry out the installation in your geographic area.

**#1. How knowledgeable and committed is the installer to hearing loop technology?**

- Who trained or certified the installer, and is the installer available to provide references?
- What design, installation and audio experience does the installer (or his supplier's technical support department) have with the type of building that needs looping.
- Will the installer provide a Certificate of Conformity?
- Does the installer offer information about hearing loops and the IEC Standard on their website?
- Does the installer list loop installations on their website, on national websites, or provides a list of list of references upon your request? If not, ask why not?

Currently only two companies in the US offer in-depth hearing loop training seminars. They are Contacta Inc out of Holland MI and the Utah based Listen Technologies.

It is advisable that the purchaser insist on the IEC 60118-4 Standard hearing loop installation *in writing*. This will not add to the cost of a loop installation, but effectively guarantees a working system.

Buildings present many variables with regard to design and installation due to metal in the floors and ceilings. Electrical interference due to older poorly installed wiring that may not meet the current electrical code may cause ground loops. This in turn causes a buzzing noise that a hearing aid user or a loop listener device can hear when they turn their telecoil on. This magnetic noise most likely was previously present in your facility but may not have been of concern until now.

Note: If your facility is required to provide an Assistive Listening System (ALS) under the Americans with Disabilities Act (the ADA) and magnetic background noise is determined to be of excessive levels during a hearing loop site visit at your facility, be advised that the ADA requires 25% of the ALS receivers to be hearing aid telecoil compatible via personal neck loops and therefore magnetic background noise should always be investigated by a licensed electrician, even when FM or Infrared systems are offered.

**#2. Test Loop on-Site Visit**

Hearing loop systems are venue specific and almost always require a site visit prior to provide an accurate cost of installation estimate. Thorough site visits can take two hours to complete and if you have a more complicated system, it may require an entire morning or afternoon to complete. Although some designs can be modeled on a computer, computer simulation cannot determine if magnetic background noise is present or what effects metal in your particular building has on the magnetic signal. While a computer design can be a starting point, the loop should never be installed purely based on the simulation. Your installer should be able to explain the on-site test results and what type of loop (simple, figure 8, snowman or phased array) will be needed in your facility to meet the IEC standard and what is involved to hide the loop wire aesthetically. A service desk hearing loop requires proper placement of the microphone – make sure that this will work in your facility and for the users of that particular desk or ticket window.

**#3. Commissioning of the Hearing Loop** (Large Area or Service Desk Loop)

Once the **large area hearing loop** is installed, you or someone from the staff will want to personally verify while the installer is still on the premises, that the loop signal is even in the seated area, sounds clear and is free from magnetic background noise. This is done using a loop listening device at a fixed volume. This device is usually provided free of charge, or at a nominal fee, with each installation. It is good to invite a couple of experienced hearing aid users or an audiologist when the system is being adjusted to check that their subjective results are consistent with the IEC measurements.

Once the loop is active, it is important to make sure all those who use the sound system (clergy, ushers, and volunteers who work the sound-board) as well as the end-users of the loop system (members, patrons and parishioners) are informed of the working of the hearing loop. Once installed, hearing loops are easy to operate. That's why they are so popular. Make sure that those who provide the audio input, or use the microphones in the venue (clergy, lecture readers or speakers) have a basic understanding that only clearly spoken words directed closely into the microphone provide the signals that the end users need to understand the speech. The loop performance is based *and depends* on the microphone input.

Find out what areas, if any, are "out of the loop". For example: In many Houses of Worship aisles, the choir and balconies have no or a diminished loop signal, that way you will be able to direct the hearing aid users or users of loop listeners to the appropriate locations.

Some loop installers offer news releases, bulletin inserts, loop signage and other useful handouts. Many installers help coordinate a hearing loop commissioning or dedication by working closely with local audiologists, hearing care providers, members of the hearing loss community and members of the Hearing Loss Association of America. And finally, please report your location to one of the national loop locators such as www.aldlocator.com. This way you will be sure to get the most from your investment.

**Service desk loops** require proper use of a microphone. This microphone should be permanently fixed in a position where it will work for your patrons, and where it will receive the voice input of your staff member. Make sure your staff is properly trained in the use of the desk loop as well as the microphone.

- For information and to learn about hearing loop advocacy initiatives around the country: **hearingloop.org**
- For consumer information about hearing loss and hearing loss advocacy visit the Hearing Loss Association of America (HLAA) website: **hearingloss.org**

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