Freestanding and portable loops

Key questions when specifying a system

Many freestanding induction loop products (or 'portable' loops) are for sale in the UK and around the world, promoted for their many claimed benefits and applications. Freestanding loops certainly have their place, however if you plan to specify or purchase one of these units – for any application – we encourage you to think through a few important factors that determine whether it is the right solution for you, and most importantly : *Will the Induction Loop System provide a real benefit to the hard-of-hearing?*

To meet the requirements of disability access legislation, and to make sure that your investment in Induction Loop technology is really helping to make a difference, you must make sure that there is a real benefit for the end user. An induction loop will provide a benefit only if the system provides the end user with better separation of the wanted signal (usually a voice) from the background noise than the hearing aid can achieve on its own. We need to achieve a clear and intelligible sound reproduction. For a freestanding loop it is therefore vital to ask a few questions:

► Will the microphone pick up what is required and nothing more?

The microphone must be directional and pointed at the source (often the person speaking) – an omni-directional microphone will pick up noise from all directions, therefore collecting all background noise as well! If there is more that one person speaking, a single microphone is unlikely to be adequate, so many freestanding systems will not be suitable – for example in a meeting room with several people, a carefully designed audio system is vital if the system is going to be of any benefit.

► Is there a built-in microphone that limits where the unit can be located?

A built in microphone will force the freestanding unit to be placed in a specific position relative to the speaker. This may not be ideal for either the layout of the counter or desk, and may not be compatible with getting a good magnetic field in the right place for the hearing aid user. Built in microphones can make this configuration very difficult or impossible to get right.

► Is the sound quality clear and intelligible?

Due to the pressure to keep costs to a minimum, unfortunately many freestanding loop manufacturers have decided to compromise on sound quality to cut costs. It is simple to make an induction loop with low output at the higher frequencies which are vital for the hard-of-hearing to hear clearly, resulting in a muffled sound. A good system must have a flat frequency response over the audio spectrum, +/- 3dB from 100 Hz to 5 kHz. This is specified in an international standard (IEC 60118-4). Does the specification clearly state this? If not, you should be aware that the unit is unlikely to provide a benefit to the user, and is more likely to be a source of upset and frustration – as well as failing to meet the international standards!

► Is the signal produced by the loop in the right place for the user?

Induction loops are ruled by some very basic principles. One of these is that the useful magnetic field that a loop creates is more and more variable and more constrained the smaller the loop becomes. There is no magic solution: a small loop might be more attractive for your counter-top, but it means much more difficulty for the user to make sure that they are standing, bending, crouching, leaning or tilting themselves just right to get in a good spot to hear the signal clearly.

Many users do not understand this problem. Choosing a small loop size results in a major compromise to performance, so make sure that you are doing this for very good reasons – a larger loop may need a slightly more complex installation, but the performance is dramatically better for the user. Ask the supplier about the shape of field that the unit produces – there are always 'dead' spots around the loop where there is no signal, so you must be aware of where they are to make sure the unit is positioned effectively. The highly variable pattern produced by freestanding loops is all too often not understood even by the manufacturers, so make sure that you get a clear answer before you agree to buy!

► Will the freestanding unit get in the way? And what happens if it gets moved?

The counter, desk or other space on which you are considering placing your freestanding loop is no doubt also used for many other purposes. Can you *permanently* locate the loop somewhere so that it points towards the user (this is essential for a good signal whatever you might be told!) and also ensure that the microphone points towards the sound source? If it is going to be knocked, moved or put away, the benefit to the user is likely to be lost completely. Don't expect the hard-of-hearing user to know how to make it work, they will often just assume the system doesn't work properly or isn't turned on. If the loop is to be a benefit for the end user, you must ensure that it is fixed permanently in position.

► Batteries or mains power?

Some freestanding units are designed to run off rechargeable batteries. This can create a major headache for the people running the service area where the loops are used. If such a loop is kept on a charger, it often will not be where it needs to be when a hard-of-hearing user needs it. If the loop is kept on a counter, it is not charging up, so it will either be switched off to conserve power, or often will run out of power. The people responsible for managing the loops are unlikely to be able to tell if the loop system is working properly or not without special test equipment – you will only find out when a hard-of-hearing person arrives and can not get any benefit from your system, and only if they let you know. Furthermore, suitable training needs to be provided to ensure that all the staff dealing with clients know-how to use and position the loop system. Loop systems should be permanently on and operating at all times if they are going to be a benefit unless there is absolutely no other choice available.

► Can a portable system be available 'on demand' just when it is needed?

Requiring a hard-of-hearing individual to ask for help is not acceptable if it can be avoided, is against much disability access legislation and discriminates against the disabled. For those lucky enough to suffer from no disability it may not be so obvious why the hard-of-hearing should not have to ask. However a system which is only available 'on-demand' requires the hard-of-hearing person to declare themselves as disabled, and cause what they may well see as disruption or hassle. Such an arrangement can cause discomfort or embarrassment and is likely to result in the systems that you have invested in never being used, and providing no benefit at all to the users. A truly beneficial induction loop system should always be working away unseen and without attention, providing help to those that need it whenever they need it. Unfortunately there are some portable loop systems used 'on-demand', whether to cut costs or through a misunderstanding of how to provide fair access for the disabled community. Whether your investment in loop systems is to provide a benefit to the hard-of-hearing, or just to meet legislation, make sure that your system is always available or you will be discriminating against those you are trying to help.