

Induction Loop Systems

A guide for deaf and hard of hearing people

(Prepared by the RNID)

What is an induction loop system?

A loop system helps deaf people who use a hearing aid or loop listener to hear sounds more clearly by reducing or cutting out background noise. At home, for example, you could use a loop to pick up sound from your television, hi-fi or radio. A loop can also be set up with a microphone to help hearing aid users hear conversations in noisy places. In the theatre, a loop can help you hear the show more clearly. A loop cannot be used to give stereo sound.

How induction loop systems work

An induction loop is a cable that circles the listening area. It is fed by current from a loop amplifier. The amplifier gets its signal from a microphone placed in front of the person speaking or by means of a direct connection from another sound source, such as a sound system. The resulting electric current in the loop produces a magnetic field, which corresponds to the sound. You can then pick up this magnetic field if you are sitting within the area of the loop and your hearing aid - or loop listening aid - is switched to 'T'. You will need to adjust your own hearing aid for volume.

You will find a very small loop, called an inductive coupler, in the earpiece of some telephones.

How to use an induction loop system

- If you have a hearing aid with a 'T' setting all you have to do is switch to 'T'.
 - If you do not have a suitable hearing aid you can still use a loop, but you will also need a loop listener.
- Some loop listeners are small boxes with headphones - others are worn as an earpiece.

More than one person can benefit from a loop installed in a room as long as they each have a hearing aid set to 'T', or a loop listener. You are not wired to any other equipment and you are therefore free to listen from anywhere within the loop and to move around.

Possible problems with an induction loop system

Some hearing aid users find that they have to turn up the volume on their hearing aid a little when they switch to 'T' but this should not be a problem if the loop has been set up properly. However, even if the loop system works correctly, you might pick up buzzing noises when you set your hearing aid to 'T', or when using a loop listener. This is caused by interference from electrical equipment such as fluorescent lights, dimmer switches or electric cables.

Although loop systems are generally designed for use within the area of the loop, the loop signal can spill out into other rooms. Walls, ceilings and floors do not block the magnetic waves from a loop. Hearing aid users whose hearing aids are also switched to 'T' and people using a loop listener outside the room may be able to overhear sound or conversations. Rooms that are next to each other, and rooms directly above and below the loop, can be affected. This could be a problem, for example, if a next-door neighbour also uses a loop system, or if you need to have a confidential conversation. You could try to reduce the size of the loop in order to get round this problem - you might need to re-arrange the seating. An alternative might be to use an infrared system.

How do induction loop systems work in the home?

In a typical set-up, the loop wire runs around the edge of the room and the ends are connected to the amplifier. The amplifier is then connected to a source of sound, either directly or through a microphone. Using a loop system with the television or hi-fi means that if you are with a hearing person you can set the volume to a level that is comfortable for them. You can then get louder sound yourself by adjusting the volume on your hearing aid, or loop listener. You may also be able to increase the volume and adjust the tone on the loop amplifier.

On some systems you can use an extra microphone to pick up the sound of your telephone or doorbell ringing, so you do not miss these while you are watching television. Alternatively, if your hearing aid has a MT setting, you can use this to hear sound through the microphone and through the loop at the same time.

Installing an induction loop in the home

If you buy a loop system, you can install it yourself or ask someone who is good at DIY to do it for you. Full instructions for installation should be included with the equipment. Installing the loop wire itself is the most tricky part as it is usually placed right round the room at skirting board level. It can be routed over doors and window frames. This does not affect how well it works.

The loop amplifier is normally placed close to the source of sound and connected directly by a plug-in lead - in the case of television, through the SCART connection.

If a direct connection is not available, a microphone can be used to pick up the sound from the loudspeaker. To operate the system just plug the amplifier into the mains socket, position the microphone - if there is one - and switch it on. Volume and tone can be adjusted separately on most loops.

Where will I find an induction loop in public

Loop systems can be useful in a variety of public situations. However you are most likely to find them in theatres, cinemas, places of worship, meeting rooms, conference halls, lecture rooms, airports, banks, shopping centres, and bus and train stations.

You are unlikely to need an induction loop system in a quiet environment if you and the person you are speaking to are near one another and do not have a barrier - such as a glass screen - between you.

How to use an induction loop system in a public place

Using a loop system in a public building should be straightforward - you just need to set your hearing aid to 'T' - so long as it has induction pick up.

How will I know if an induction loop system has been installed in a building I am visiting?

When a building has been fitted with a loop system you will usually find this mentioned in their adverts, newsletters and at the entrance to the building. Informative signs and symbols will usually be displayed. You may also find that 'dead' spots - seating areas where reception is not good - have been marked with a special sign. Unfortunately not all service providers remember to advertise that they have installed a system so it is always worth asking if it has not been made obvious.

Most places ensure that at least one named person is responsible for keeping the system up and running in their building..

What is the Disability Discrimination Act?

The Disability Discrimination Act 1995 (DDA) aims to stop discrimination against disabled people, including deaf people, in the workplace, and when accessing goods and services. Goods and service providers include theatres, cinemas, places of worship, conference halls, banks, supermarkets, airports, shopping centres and bus and train stations.

The Act says that service providers may not discriminate against a deaf person by refusing to provide a service or offering service of a lower standard or on less favourable terms, on the grounds of their deafness or hearing loss. Service providers must also make adjustments to the way in which they provide goods or services to enable deaf people access to them.

What does this mean in terms of loop systems?

Service providers will not be required to make adjustments requiring physical alterations to their premises until October 2004. This means that they do not have to install permanent loop systems if this will require physical alterations to the premises.

However, service providers must supply auxiliary - extra - aids and services where this would enable, or make it easier, for a deaf person to access a service. A temporary induction loop is classed as an auxiliary aid. If a service provider already has an induction loop or infrared system, they are required by the law to make sure that the system is properly maintained and that staff know how to use it. This applies to temporary and permanent systems. Service providers must also take reasonable steps to make sure that their policies, practices, and procedures do not make it impossible, or unreasonably difficult, for a deaf person to use their services.