



DeafHear.ie

Services for Deaf & Hard of Hearing People

See our leaflet for our Resource Centres and Outreach Centres

Check out our range of leaflets or visit our website at www.deafhear.ie for further information



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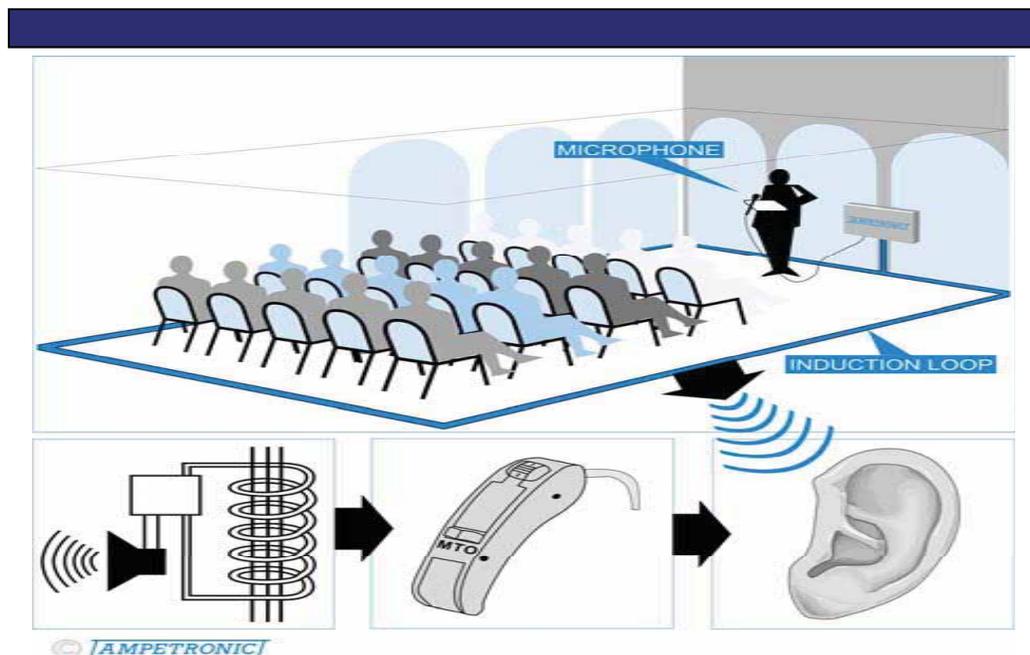


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The Loop System

A Guide for Hearing Aid Users



What is a Loop System?

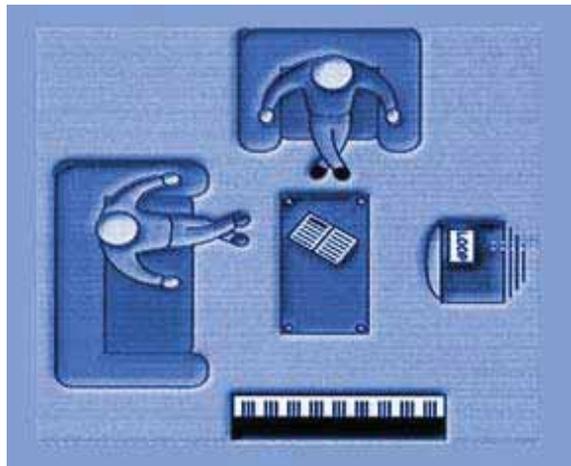
(Also called Audio Frequency Induction Loop)

What is a Loop System? (Also called Audio Frequency Induction Loop)

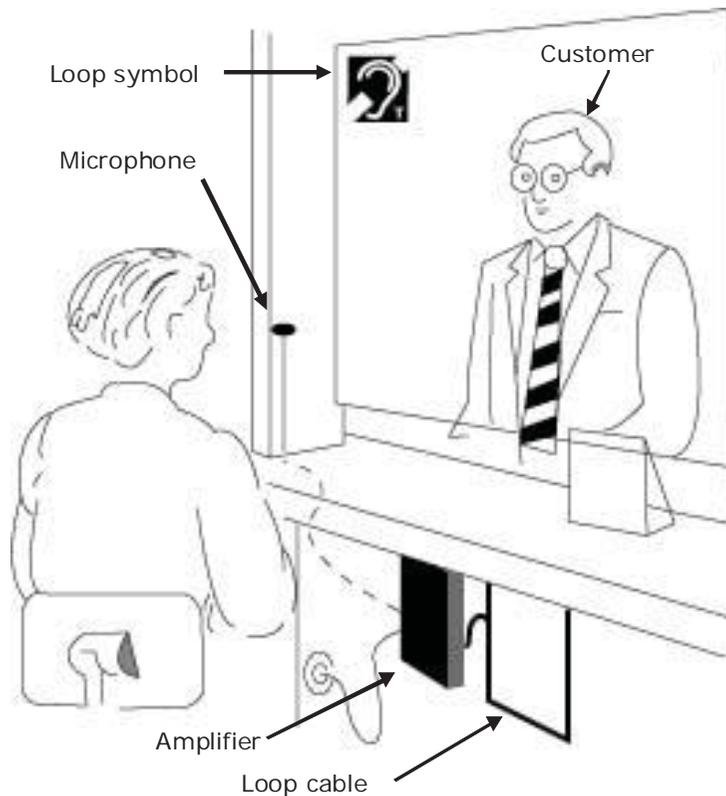
A loop is simply that - a loop of insulated wire fixed around a designated listening area connected to a power source, an amplifier and a microphone. The microphone picks up sound from the sound source (which may be a television, a bank official or an actor in a theatre) and carries the sound to the amplifier which, in turn, sends the sound signal in the form of a current around the loop. The current flowing through the loop causes the wire to act like a transmitting aerial. In order to receive this signal, the hearing aid user, provided his/her hearing aid has the 'T' facility, only has to move the on/off switch to the 'T' position. The diagram below illustrates the use of a loop system in a domestic setting with the television as the sound source.

A loop can vary in size. Some are very small - a neck loop worn by someone at a conference - to loops which enable hard of hearing (using a hearing aid) theatregoers to enjoy a play because the theatre auditorium is looped.

It is also possible for a loop to be made extremely small; small enough to be placed in the earpiece of a telephone - it is then usually referred to as an inductive coupler, not a loop. It works in exactly the same way, turning sound into a current which transmits a signal to the hearing aid 'T' receiver to be heard as sound by the user. In other words, the coupler enables a user to hear the voice on the line clearly through their hearing aid without interference from background noise.



- Some Banks and Building Societies have certain windows which are looped, using a system called a Counter Loop; they may also have certain members of staff who are trained to be aware of the particular needs of deaf and hard of hearing people
- Some supermarkets.



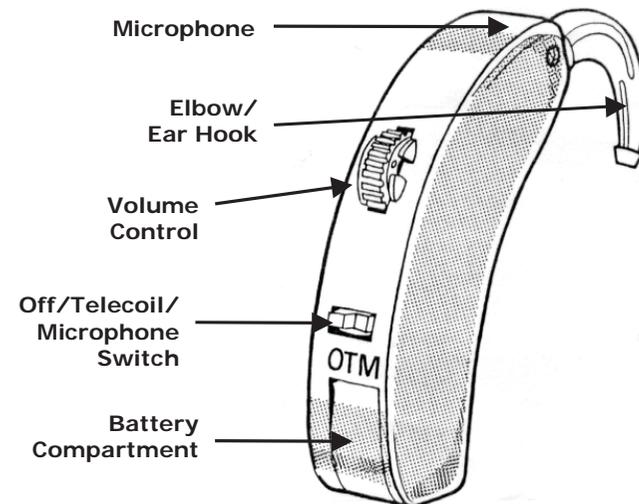
How does the Loop work?

The loop system changes sound into a current flowing around the loop; this current makes the loop act as a transmitting aerial. Just as a radio station transmits its programmes, it is necessary to have a radio to pick up the signals in order to hear the programme.

Similarly, a loop system can only be of use to a hearing aid user if their particular hearing aid has the ability to pick up the loop transmission.

This facility is called the 'T' switch or telecoil, the telecoil is a very small coil of wire mounted in the hearing aid which when switched on acts as a receiver and converts the loop signal back into sound. Therefore, in order to use a loop system the hearing aid user must have an aid which has a 'T' position and generally speaking be positioned within the loop system or at least be in reasonably close proximity to the loop.

All Health Board hearing aids, both behind-the-ear and body-worn, manufactured during recent years, provide the 'T' facility. Similarly, many private/commercial hearing aids, including all-in-the-ear hearing aids, do so as well, but you should enquire about this before you purchase one.



Typical Hearing Aid

It should be noted that when the hearing aid is switched to 'T', it will only receive sounds via the loop, the aid will not pick up sounds via the microphone unless it is an aid that has a combined 'T' and microphone switch.

On the previous page, there is a diagram of a hearing aid showing the 'T' facility. Please note the positions of the various controls may vary depending on the type of aid used. Also body-worn hearing aids usually have a similar arrangement, i.e. a switch position dedicated to the 'T' telecoil facility.

How can a Loop assist me?

• At Home

As a hearing aid user you are probably all too familiar with the problems associated with background noise and at times distance from the sound source. For example, it may be difficult for a hearing aid user to hear the television, which is 9-12 feet away, if another person sitting close by is turning the pages of a newspaper.

A loop system could solve that problem because when a television is connected into the system via a microphone (see first illustration) the sound from the television loudspeaker is relayed directly to the hearing aid user, provided, of course, the hearing aid is in the 'T' position. The sound is free from background noise and not affected by distance away from the sound source. Some loop systems have the added advantage of tone-controls, usually bass and treble, which allow the sound source to be altered in part at least to suit the hearing aid user's needs. Also, particularly in the case of the television, the loop does not affect other people's listening enjoyment because the volume of the TV can be either lowered completely or set at a level to suit hearing viewers.

Some loop systems also have the ability to take a second microphone input so that a hard of hearing person can listen for the doorbell or telephone

when watching TV.

Summarising the advantages of using a loop at home:

1. Reduction in background noise interference
2. Sound unaffected by a hearing aid user's distance away from source
3. Able to reduce the volume of TV.

How can I obtain one?

You can obtain a home loop system by contacting Deaftech, where you can choose from a number of models designed to suit your individual needs.

• Away from Home

A loop system provided in public areas, such as in banks, building societies, post offices, etc., enables the hearing aid user to hear clearly without interference from background noise.

Loops have been used in schools to great effect for many years and there is a growing interest in their use in a variety of public buildings. When a loop has been installed, this fact is usually advertised either in the form of a written notice or perhaps by the symbol (shown on right) being displayed in a prominent place.



Counter Loop symbol

It is, however, worth enquiring in many public places whether they have a loop facility available because:

1. They might not advertise the fact that they have a loop
2. If they do have a loop, it may not routinely be switched on, enquiring may prompt more regular use of the loop
3. If they do not have a loop, enquiries will perhaps stimulate an awareness of the need to provide one.

Where will you find loops?

- All public telephones have inductive couplers installed
- A growing number of cinemas, theatres and auditoriums