Looping America! – Get in the Hearing Loop

WHAT IS AN INDUCTION HEARING LOOP?

Induction (Hearing) Loops are prominent in Europe. Installations and awareness in the US is on the rise. An Induction Loop is very simply a loop of wire (either around a room or placed in a certain design) that is plugged into an amplifier connected to a sound source which creates a magnetic field. This magnetic signal is then sent to the T-coil in a hearing aid for *clear sound without interference.*

There are three wireless technologies recognized by ADA which are Infrared, FM and Induction Loop. Infrared and FM systems have limits due to varying frequencies and require a "receiver" such as a headset or neck loop. Induction Loops are very simple and consist of three basic parts – an amplifier, microphone and thin loop wire. The loop wire is run under carpet or scored in concrete, connected to the loop amplifier, which is then routed to a TV, PA system, radio or microphone. Induction loops do not require any external receiving units – only a T-coil in one's hearing aid. Headsets compatible with the Induction Loop are available to assist those without hearing aids or T-coils, or an existing FM system can remain in use.

WHAT IS A T-COIL?

A t-coil, or telephone coil, is a small copper coil in most hearing aids that picks up the magnetic field from the loop and converts it into electrical energy. Similarly, a microphone converts sound waves in to electrical energy. By switching the hearing aid to the "T" position, the electromagnetic field is detected. The strength of that field depends on the size of the t-coil, energy or power of the magnetic field and the relative positioning of the t-coil. For telephone usage, the t-coil is best when horizontal relative to the phone receiver; however, the best reception for loops is a vertical orientation. Many t-coils are set at a 45 degree angle to work with both the telephone and induction loops. *It is very important for your audiologist to take as much time programming and evaluating the t-coil as the microphone for optimal satisfaction of the user.* An M/T position on the hearing aid allows the wearer to hear through the t-coil while also hearing through the microphone, which is preferred by some so they can hear the person next to them or others in the room in addition to the direct signal from the loop. A *manual* "T" or "M/T" switch is a must to allow the user control over the programs.

Be advised that some hearing aids are fitted with a t-coil but the audiologist may not have activated the program or the volume may be set very low and need to be adjusted to hear satisfactorily through a loop. Some hearing aids that do not have a t-coil can be retro-fitted with one for $100-$300, which is money well spent to experience the clear sound through loop in your home or in public venues.

WHERE ARE HEARING LOOPS APPROPRIATE?

Induction Hearing Loops are appropriate for transient/short term and extended/permanent environments. Extended time Induction Loops are appropriate for public venues such as churches, auditoriums, meeting rooms and concert halls. Loop systems are available for transient locations such as bank windows, pharmacies, post offices, reception desks, airport counters, information booths, etc. There are also residential systems for home use in TV rooms or any room in the home for about $200. Loop systems can be used with all phones with 2.5 mm headset jacks. Imagine hearing the phone through both ears!

WHY INDUCTION LOOPS?

Induction Loops improve *listening clarity* for those with hearing aids. The hearing aid must have a T-coil but estimates are that about 70-80% of hearing aids in use today have T-coils. Nearly all new hearing aids now have T-coils, so eventually all hearing aids will utilize the T-coil technology. Installation of Induction Loops is a very cost effective way to improve communication for the growing hearing impaired population, while conforming to ADA guidelines. It is not just about ADA compliance but good customer service!

HOW DOES AN INDUCTION LOOP WORK?

The Loop creates a magnetic field that is picked up by the T-coil in a hearing aid which is converted to audible sound sent from the loop amplifier. When the T-coil is activated in the hearing aid, feedback and background noise is eliminated or greatly reduced which results in a clearer signal from the source of the sound.

HOW IS A LOOP INSTALLED?

A *professionally* installed Loop system is a must to ensure an even sound across the field. *A poor installation helps no one.* Installations are required to meet the international standard IEC 60118-4 which defines the magnetic strength field, frequencies and measurement requirements. Installations are tested with a FSM (field strength meter) to confirm compliance by the professional installer. Proper signage is important.

WHAT DOES A LOOP SYSTEM COST?

Loop systems vary in cost, depending on the size and construction of the room. Small installations, such as a small conference room or information desk, may cost $1,000-$2,500 while larger installations such as churches or auditoriums typically cost $5,000-$20,000 or more. Large Performing Arts venues may run in the six figures.

ADVANTAGES OF A LOOP SYSTEM:

1. Businesses or venues that install Loop Systems have little maintenance and do not have to purchase or maintain/sanitize/repair headphones such as those used with Infrared or FM systems.
2. There is no limit as to the number of users of the system – it is virtually unlimited
3. Users do not have to "advertise" their disability by using headphones – they only have to turn on their T-coil – so there is no stigma attached to the usage of the Loop system
4. Users benefit from the Loop technology AND their customized hearing aids for the best possible hearing experience. *The Loop system helps the hearing aid do its job better!*
5. Loop technology uses a ***universal*** standard frequency while FM and Infrared systems may vary.
6. All hearing aid T-coils work with all Loop systems – Cochlear implants also have T-coils
7. Improved *clarity and understanding* benefits businesses with increased traffic or attendance
8. Reasonable cost to install with minimal or no maintenance
9. Growing number of hearing impaired will demand better hearing provided by loop systems
10. Meet ADA compliance standards for hearing impaired access

Ready to discuss a Hearing Loop System?

720-210-9653

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