# Hearing Accessibility Handbook: A Guide for Congregations

**Created by *One Voice*, and generously shared with Unitarian Universalists by *Self-Help for Hard of Hearing People*, Rochester, NY**

**Ask your congregants to fill out this brief survey.**

How important is it for our building to have an assistive listening system?
□ Very important □ Somewhat important □ Not important

How often do you have problems hearing in our building?
□ Frequently □ Sometimes □ Seldom □ Never
(If your answer is "Never" then do not answer any more questions.)

If you ever have problems, can you be more specific about where and when you cannot hear? Use the back of this survey form to give us details about the difficulties you have hearing in our building.

Do you ever avoid educational programs, religious activities, meetings, or other involvement because you think you may not be able to hear?
□ Frequently □ Sometimes □ Seldom □ Never

Do you wear a hearing aid or aids? □ Yes □ No

If "Yes" does your hearing aid have a T-switch? □ Yes □ No

Have you ever used an assistive listening device other than a hearing aid to help you hear? □ Yes □ No

Would you use a hand-held device to help you hear in our building if one is made available to you? □ Yes □ No

Would you use headphones to help you hear a worship service if a set is made available to you? □ Yes □ No

Please add additional comments on the back of this survey form.

One in every ten people and one in three in the "65 and over" age group has a significant hearing loss. It is a virtual certainty that you will find in your congregation people who have a difficult time hearing what is going on around them. Much more often than not, the solution is providing an environment that is conducive to being heard and understood and not simply providing a person who knows sign language since very few hard of hearing people can use it. The following guidelines will help when communicating with people who have this disability.

## Overall Communication Tips

❖ Always use the microphone. It is not only a part of the sound system that helps the general congregation and those with mild hearing loss but if your place of worship is equipped with an assistive listening system for hard of hearing people, it is part of that system as well.

❖ Speak slowly and distinctly and project your voice to the person farthest away. Women's voices are softer and at a higher frequency range (a range most often lost in the aging or damaged ear) so women have to make a special point of speaking more powerfully.

❖ People who are hard of hearing usually speechread to help them understand. The standard microphone should not be directly in front of the mouth, but preferably no higher than chin level.

❖ Wireless microphones have become much available and we encourage their use. Speakers should be careful that it is properly placed just below the chin, certainly above the heart. Head mounting with a light boom is even better.

❖ Have a small lamp at the lectern to illuminate the speaker's face as well as any text during a candlelight service.

### In meeting rooms:

❖ If the room is equipped with an assistive listening system, you should determine first if anyone in the group has a hearing problem and ask them if they would like the system to be used.

❖ Be prepared to hand out receivers and headphones or neckloops and suggest that anyone in the group who wears a hearing aid with a telephone switch should turn on that switch. This enables a telecoil in the hearing aid to pick up a signal from either a room loop or a neckloop. Terms telephone switch, T-switch and telecoil are used interchangeably. When using the system, make sure it is working properly by asking if it is okay.

❖ Do a check at the beginning of the meeting. Ask if everyone can hear. Occasionally, you may have to rearrange seating so a hard of hearing person can see speakers more clearly.

❖ Although visual aids are often helpful to people with hearing loss, avoid speaking while facing a chalk board, screen, or easel, or when looking away from the audience. Speakers should avoid turning too far away from the microphone as can happen during a slide presentation for example, or waving a hand-held microphone to point.

❖ Avoid covering your mouth with your hands or other objects. Remember, chewing gum or eating while talking interferes with speechreading.

❖ Keep sufficient ambient lighting when showing slides or movies to allow for speechreading

## Assistive Listening Systems

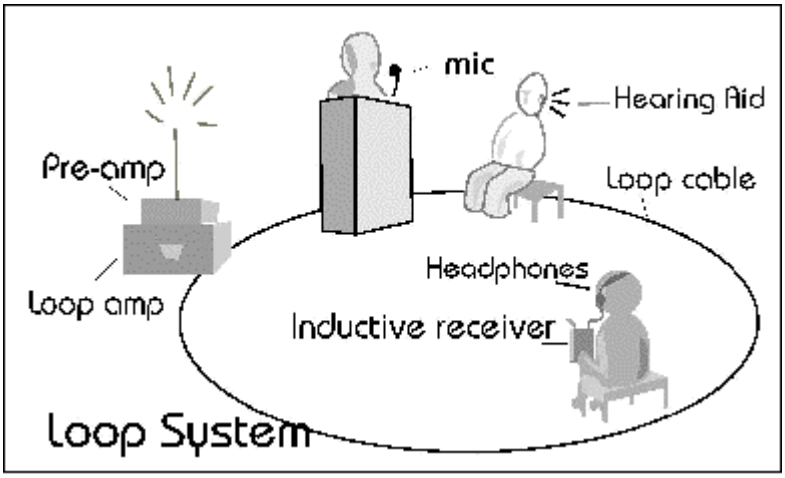
More and more congregations are employing the use of assistive listening systems to help people who are hard of hearing understand what is going on. There are three different types of listening systems summarized in the table following this section: induction loop, FM, and infrared. Each system has its own advantages and disadvantages and cost considerations.

There are a several things to consider about assistive listening systems. The first is that the mere presence of a system is not enough to include hard of hearing people in the activities of the congregation. The system has to be in good repair and people have to be educated about its existence and how to use it. It is important to realize that most people lose their hearing gradually and do not always know what to do about it. Secondly, large meeting rooms as well as the sanctuary must be equipped with assistive listening systems to ensure total inclusion. Thirdly, no one system is going to reach all hard of hearing people.

## Induction Loop System (Audioloops)

The most dependable system (in terms of maintenance), the induction loop, is the easiest to use but is often the most expensive due primarily to installation costs.[1] The induction loop system connects the public address (PA) system with a wire loop, which encircles the room and acts as an antenna. See the diagram below. The loop wire is typically 22-24 gauge CL2-rated telephone station wire. This is only a guide. The actual choice of wire is best left to the installer.

People who have a severe hearing loss should have a hearing aid with a telecoil, which is able to pick up the signal radiated by the loop. People with milder losses may not have such a hearing aid and will have to use an inductive receiver with headphones or ear buds. People with cochlear implants can use the receiver if they have (their own) patch cord.




## The Loop Amplifier

[1] (UU footnote): Concerned that people with sensitivity to electrical systems might find buildings with induction loops problematic, we contacted an electrical engineer who consults with people who have electrical sensitivity disability. Here is what Bruce McCreary said: An induction loop system would be a barrier to anyone with electrical sensitivity, which is more than half those with MCS (multiple chemical sensitivities), and an unknown percentage of the "normal" population. The induction loop system will create audio frequency magnetic fields throughout the area inside and outside the loop. Since magnetic field strength is a function of current x loop area, a big loop around the church is an "ES disaster"… A much better alternative is to designate hearing assisted area(s) in the church, and to put small coil(s) (few feet in diameter) in those area(s) only. Since a fragrance-free section is warranted for the MCS/ES group, locating this far from the small loop induction system would be best.

The loop amplifier will need much more power than is normally used for audio speakers. This additional amplifier is one of the major expenses of this type of system. It has been our experience that most faulty loop systems are underpowered, in part because the expense goes up dramatically with increases in power capacity. Nevertheless this is not the place to economize. Hearing aid telecoils from different manufacturers vary in their ability to pick up signals and furthermore are susceptible to electromagnetic interference or hum from fluorescent lights, generators, or other ac power sources. Dimmer switches are deadly sources of noise and alternatives to them may have to be found. The signal in the room is also not completely uniform. It will be strongest near the wire but there may be a "dead spot" in the center of the loop. For these reasons, it is best to get the more expensive, more powerful loop amplifier to compensate for these problems.[2]

The loop system is automatically turned on when the PA system is turned on so once properly installed, it generally requires no more attention.

## Loop installation

The loop system can be difficult to install because of the need for the loop to go around doors, windows, and alcoves. While design guidelines are available, installations still tend to be somewhat trial and error in terms of signal strength and uniformity simply because of architectural constraints.

The best place to look for professional loop installers is under "Sound Systems and Equipment" in the yellow pages of the phone book, but congregations should be aware that not

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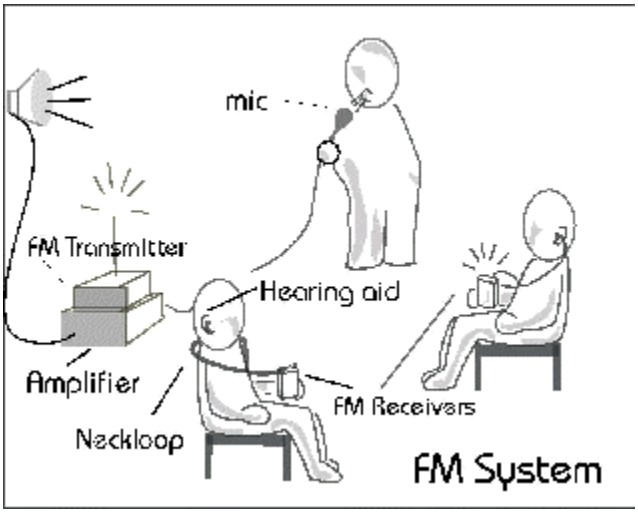
[2] People report that induction loop systems give the best quality sound. For example, David Myers wrote in his website: http://www.davidmyers.org/quiet/loopessay.html …my wife, Carol, noticed a sign indicating an induction loop system (ILS)–which transmits from an amplifier through a mere wire surrounding the seating area. When I switched on my T-coil, the result was dramatic. The babble of people was replaced by the sweet harmonies of musicians playing in front of microphones across the Abbey. My mouth fell open. It was like listening to a CD over a headset. I was in ecstasy…When the service began, my astonishment increased. The leader's words seemed to travel straight to the center of my head, her voice deliciously distinct. If I pulled the hearing aids out, her words went out of focus. Other hearing-aid settings boosted the foggy sound from distant loudspeakers, bounced off rugged walls, yet left me guessing at words. With the T-coil back on I was in auditory heaven.

all sound system engineers are familiar with loop systems. It is essential to ask for references from previous installations. We believe it is very important that hard of hearing members of the congregation test the installation before it is considered complete.

### FM Systems

In this system, an FM transmitter is connected to the existing PA system amplifier. See the diagram below. Every user must have a FM receiver, which, like the previously mentioned inductive receivers, is used with either headphones or more comfortably with a neckloop if the user has a hearing aid with a telecoil. The inexperienced hearing aid wearer may not know if he has a telecoil but may recognize the term "telephone switch" since the original purpose of the telecoil was to improve telephone hearing. If they have a telephone switch, the FM receiver is most efficiently used with a neckloop and the hearing aid on "T". Both headphones and neckloops are accessories your place of worship should provide with the receivers.

The FM receivers are battery-powered devices about the size of a pack of cigarettes and must be kept charged. The FM system is essentially a wireless radio system and can suffer from interference from pagers and monitors. This is usually corrected by changing the device's frequency.




The transmitter and receiver are relatively small, inexpensive, and portable although the transmitter needs to be connected to the sound system. This is usually the least expensive

assistive listening system and costs are not greatly affected by the size of the room.[3] The FM signal penetrates walls so, like the loop system, cannot ensure privacy. If more than one room is being used at the same time, two transmitting channels at different frequencies are needed with matching receivers. Usually the portable receivers are color coded with a color assigned to the room and its transmitter.

Small battery operated transmitters with their own microphones are available for situations without a sound system. They can be used just about anywhere and are termed "personal FM" devices. They are often individually owned by profoundly hard of hearing people because of their versatility. The cost is approximately $500 per unit (transmitter and receiver).

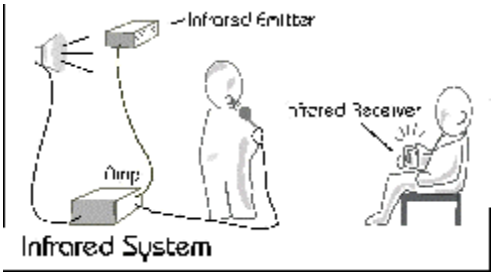
Also available is a device called the Williams Pocketalker, a versatile personal assistive listening device that can be used by one person in a small meeting or conversation setting. Its cost is approximately $180 and depending on your building and congregation, can be a very wise investment. See their website (http://www.williamssound.com) for more information.

### Infrared Systems

The infrared system is similar to a FM system. The signal from this system is radiated from an infrared transmitter connected to the sound system amplifier. Generally, a line of sight is needed from the user to the transmitter, so the transmitter (a bank of light emitting diodes) is mounted fairly high above the audience. The members of the audience or congregation must each have a personal infrared receiver, recognizable by its glass eye that must "see" the transmitted light. The infrared signal may be adequately reflected from walls and ceilings so that aiming the receiver is not necessary, but if the signal is interrupted by some nearby object an annoying hiss can result. Some receivers are integrated with earpieces and lack phono

[3] UU footnote: As part of negotiating for permission to reprint and modify this handbook, the authors in Rochester sent a recent email adding this information: “From our experience in visiting houses of worship, what we would now recommend for those that need to choose FM systems, is to consider buying the receivers then to give them outright to those who will use them. This may be considered an additional expense but then the owners would take care of them, replace batteries and repairs as needed, saving the place of worship the cost and trouble of inventory and maintenance. Otherwise what we have found is that the FM receivers become unreliable and eventually unused.”

jacks so they can't be used with neckloops or patch cords. These should not be purchased. Bright windows or strong incandescent light can cause static.




Costs are affected by the size of the room (a larger area requires more light emitting diodes for coverage) and infrared systems can be very expensive especially for small (200 square feet) to medium (500 square feet) rooms. Infrared systems ensure privacy because the signal does not pass through walls so they are common in multiplex theaters. Another advantage is that they are not subject to radio interference. They are rarely used in churches because of their higher cost.

## Recommendations

We emphasize that no one system is going to reach all hard of hearing people, nor will any one person receive the message perfectly with this help. Hearing loss is just not compensated in the same way that eye problems are by glasses. There is a spectrum of hearing losses, a wide variation in adaptability and auditory processing capability.

Loop systems are preferred for houses of worship because personal receivers and especially headphones are often a problem.[4] There is good evidence that many people do not extend themselves to identify their need, collect personal receivers ahead of time, and wear rather noticeable headsets. Such receivers are always required for FM and infrared systems. While required for loop systems by people without telecoils, the demand is less and may be

[4] UU footnote: Please keep in mind the cautions presented in footnote 1 about congregants who have multiple chemical and electrical sensitivities.

nonexistent. This reluctance to use personal receivers is particularly indicative of the greater number of people experiencing the beginnings of hearing losses.

Our recommendation of a loop system is aimed at people who have hearing aids with telecoils. Our experience is that a loop helps the majority of people who need the most support and who are most willing to make an effort to hear. (And it does require an effort!) These are the people with the more severe hearing losses. If the induction loop will help them, they will almost certainly take advantage of it since all that is required is that they turn on a switch on the hearing aid to enable telecoil operation.

Another significant advantage of the induction loop system is freedom from maintenance. Personal FM or infrared receivers get a great deal of handling, cords and headsets will need replacement and batteries replaced/recharged regularly. In addition, someone will have to inventory the receivers and loan them out whenever there is a service or function. Even for loop systems some inductive receivers will have to be on hand but the demand will be much lower.

We want to emphasize in any case that the use of personal receivers provided by a place of worship should be strongly promoted. Ushers and greeters must be aware of them and of the individuals who may need them. People who have not experienced the benefit of personal receivers will be rather passive in trying out equipment that after all is not their own, especially if they are unfamiliar with it.

For a very large room, or when multiple rooms must be accommodated, an FM system is recommended. If adjacent rooms will be used simultaneously, FM systems with several frequencies can be obtained. They are readily obtainable from sound system contractors.

## Surveying the Congregation

If done properly, surveys can be a good way of determining how many people will benefit from the proposed system and also to promote the assistive listening system in general. It is important to note that surveys should not be used to determine whether or not a system should

be installed. Unless the surveys are distributed in optimum conditions, the results will not reflect the needs of the entire congregation.

Survey results can raise some interesting dilemmas. What if only three people out of 150 say that they actually need an assistive listening system to hear? Is it "worth it" to install a system for only three people? Think: how many wheelchairs does it take to justify a ramp? What about people who don't realize how much they would benefit from an assistive listening system but would try one if it were provided? What about people that no longer attend services because they were unable to hear? How would they be reached? How about visitors at weddings or funerals?

Still surveys can be helpful in making choices and we suggest that more than one method be employed to distribute them. The bulletin insert is the most popular way but is not particularly effective. We suggest that, in addition to the insert, groups that meet in the building be surveyed while there. This increases the likelihood of a response. Informal interviews are often effective as long as the person being interviewed knows they are being surveyed and the information is recorded accurately.

At the back of this handbook you will find a sample survey that may be of benefit to you as you form your own plan. Most questions are appropriate for congregations without a system in place while the optional ones assume that a system is already functioning and tests awareness and use of it.

## Other Opportunities

There are other accommodations some of which are still not common but with advancing technology and increased sensitivity to people with disabilities will become more common in the future. These include:

❖ Interpreters for the Deaf: The number of Deaf people is small compared to the number of hard of hearing people, but if it is known that there are signing Deaf members in the congregation, reserved seating in front of a sign language interpreter is necessary. Places of

worship should make sure that the interpreters are qualified. Knowing sign language is not enough – interpreters are highly skilled professionals.

❖ Captioning or notetaking: Some places of worship have a large blank wall in front where slides or computer output can be projected. This is most common for hymns but, if available, computer generated displays of prepared text or real time notetaking also could be projected.

❖ Copies of homilies: If copies of homilies are given out ahead of time to the hard of hearing and deaf worshippers, they may follow the spoken homily better. Use a size of print that is easily readable.

❖ Signage: When assistive listening systems are in place, there should be a sign somewhere in the narthex or foyer saying so. Such notification should be part of the standard information in the bulletins. It has become customary to use the logo below to indicate the presence of assistive listening systems:

## Workshops

As a follow-up to the hearing survey presented on the handbook cover, you may want to take advantage of workshops or speakers that your local chapter of Self Help for Hard of Hearing People may offer. Find your local chapter by looking at their national website: http://www.shhh.org/html/states_and_chapters.html

Workshops may include: Sensitization and awareness of the impact of hearing loss (a description of the demographics, types of hearing loss and terminology); barriers in places of worship; tips on connecting hard of hearing people to worship, fellowship, meetings, and welcoming then into your community; demonstrations of assistive listening devices and how to use them; facilitating a working session on unmet needs for people who are hard of hearing in the congregation.