

## A Baker's Dozen Frequently Asked Questions about Hearing Loops

### 1. How many Americans live with hearing loss?

According to the [National Institute on Deafness and Other Communication Disorders](#) “approximately 17 percent (36 million) of American adults report some degree of hearing loss.” According to a 2011 report based on audiometric testing of Americans 12 and older in the [National Health and Nutritional Examination Surveys](#) (NHANES), 30 million Americans have at least a 25 db hearing loss in both ears and 48 million in one or both ears. Unlike those challenged by mobility or vision loss, people challenged by hearing loss are often an invisible and forgotten minority. About 1 in 4—some [8.4 million](#)—have hearing aids, a number that would surely increase if hearing aids could double as wireless, customized loudspeakers.

### 2. Why are hearing loops needed? Don't hearing aids enable hearing?

Today's digital hearing aids enhance hearing in conversational settings. Yet for many people with hearing loss the sound becomes unclear when auditorium or TV loudspeakers are at a distance, when the context is noisy, or when room acoustics reverberate sound. A hearing loop magnetically transfers the microphone or TV sound signal to hearing aids and cochlear implants that have a tiny, inexpensive “telecoil” receiver. This transforms the instruments into in-the-ear loudspeakers that deliver sound customized for one's own hearing loss.

### 3. How many hearing aids have the telecoil (t-coil) receptor for receiving hearing loop input?

In surveys of hearing professionals, the *Hearing Journal* (April, 2009) reported that 58% of hearing aid fittings included a telecoil, an increase from 37% in 2001. In its 2009/2010 reviews of hearing aid models, the *Hearing Review Products* reported that 126 (69%) of 183 hearing aid models—including all 38 in-the-ear models and 29 of 30 conventional behind-the-ear models—come with telecoils. In 2014, the *Consumer's Guide to Hearing Aids* reported that 323 of 415 hearing aid models (71.5%) were now coming with telecoils, as were 81% of models larger than the miniaturized completely-in-the-canal aid. Moreover, the greater people's need for hearing assistance, the more likely they are to have hearing aids with telecoils—as did 84 percent of Hearing Loss Association of America members in one survey. New model cochlear implants also offer telecoils.

### 4. Can hearing loops serve those without telecoils or without hearing aids?

Yes, all forms of assistive listening, including hearing loops, come with portable receivers and headsets (though most such units sit in closets unused.)

### 5. What does a hearing loop cost?

Costs range from \$140 to \$300 for self-installed home TV room loops up to several thousand dollars for professional installation in an average-sized auditorium or worship space. Most churches can install a hearing loop for little or no more than the cost of one pair of high end hearing aids, though a large facility with embedded metal will be more expensive. Auditorium hearing loops cost somewhat more than do other assistive listening systems, which require a receiver and headset. But the cost per user is typically less (because many more people will use assistive listening that is hearing aid compatible). Moreover, hearing loops offer long-term savings from purchasing and maintaining batteries in fewer portable listening units. For the

receiver and headset. But the cost per user is typically less (because many more people will use assistive listening that is hearing aid compatible). Moreover, hearing loops offer long-term savings from purchasing and maintaining batteries in fewer portable listening units. For the user, the telecoil cost is nominal and typically does not add to the hearing aid price.

6. Hearing loops harness magnetic energy. So is magnetic interference problematic?

Generally not. Old (nonflat) computer monitors, old fluorescent lighting, and some old dimmer switches generate interference, as do some cars and all airplanes. But the experience in hundreds of West Michigan venues and tens of thousands of Scandinavian and British venues is that interference-free installation is nearly always possible.

7. Isn't this a decades-old technology?

Like electronic computers, magnetic induction loop technology began some 70 years ago, and now is in newly developed forms (with new amplifier and telecoil technologies, and new computer-modeled designs for complex installations) and with new applications.

8. *Don't newer connective technologies work better?* New wireless technologies, including Bluetooth, do some helpful things, such as enable binaural phone listening. But Bluetooth isn't an assistive listening answer (it requires significant battery power and has limited range). An alternative future assistive listening solution—one that, like hearing loops, is hearing aid compatible—will need similarly to a) be inexpensive (essentially no cost to the consumer), b) be capable of covering a wide area, c) drain little battery power (telecoils require no power), d) be universally accessible, and e) be sufficiently miniaturized that the receiver can fit in nearly all hearing aids. (For more hearing loop vs. Bluetooth comparison see [here](#).)

9. Can hearing loops be used in adjacent rooms?

Yes, with a professional design that controls sound spillover.

10. Are there advantages to using hearing loops for home TV listening and in public settings?

A hearing aid compatible loop system delivers sound that's customized by one's hearing aids for one's own ears. It requires no fuss with extra equipment. And rather than plugging one's ears, it allows use of a mic + telecoil (M/T) setting, enabling one to hear the room conversation or one's phone ringing. In public settings, their main advantage is that, when not hearing well, people need only activate their telecoils. There's no need to get up, seek out, and wear conspicuous equipment (which few people with hearing loss take the initiative to do). Additionally, the sound is contained in one's ear, without bothering others nearby. There is no need to juggle between headsets and hearing aids (during, say, a worship service). And there are no hygienic concerns about putting in or on one's ear what has been around others' ears.

11. Can hearing loops work in transient venues such as airports, at ticket windows, or at drive-up order stations?

Indeed, which is why New York City Transit Authority has installed hearing loops at 488 subway information booths. In such venues, where checkout equipment is not realistic, the only possible assistive listening device is one's own hearing aid or cochlear implant.

possible assistive listening device is one's own hearing aid or cochlear implant.

12. Aren't Britain's thousands of loop systems in transient venues sometimes not working?

The Royal National Institute for Deaf People did find that a number of the loops in shops and other transient venues were not working. Their response was not to discount hearing assistance in such venues, but rather to undertake an awareness campaign to see that the devices are turned on and operating, much as wheelchair ramps need to be kept open. (See [here](#) and [here](#).) *Any* assistive listening will not work unless turned on. When properly installed and periodically checked, hearing loops require little or no maintenance to work reliably.

13. *Who makes hearing loops and where can they be purchased?*

A variety of established European and mostly new American manufacturers are designing and marketing hearing loop amplifiers for a wide variety of installations, from home TV rooms to taxi back seats and ticket windows to cathedrals. See [www.hearingloop.org/vendors.htm](http://www.hearingloop.org/vendors.htm).

dgm, 2/10