

Hearing Aid Compatibility and Plantronics Headsets

BACKGROUND

As part of the Hearing Aid Compatibility Act (HAC), the Federal Communication Commission (FCC) provides specifications that detail the performance of "HAC approved" assistive listening products. These products include, for example, hearing aids, telephones, and headsets. Although compliance with HAC regulations should improve usability, it does not guarantee that telephones and headsets will work together acceptably. Hearing loss and hearing aids are highly individualized and, as a result, it is always prudent for users to try the various product solutions available to them.

The scope of this memo discusses HAC devices and telecoil hearing aids and how Plantronics headsets perform with them.

Many hearing aids have pick-up coils referred to as telecoils, or T-Coils, that can be used to replace the hearing aid microphone. The use of hearing aids fitted with telecoils is on the rise and currently many hearing aids have this feature. Telecoils may eliminate problems of unavailable acoustic access or unwanted feedback. Although HAC regulations regarding telecoils do not dictate that our headsets be "HAC approved", questions about the usability of Plantronics headsets by individuals wearing hearing aids frequently arise.

There is a huge number of combinations with regard to hearing impairments and assistive devices. If the user is not wearing a T-Coil hearing aid then Plantronics makes no recommendation.

HEARING AID TYPES

Compatibility concerns can be mechanical as well as electrical and, as a result, it is necessary to understand the different types of hearing aids in relation to the different types of headsets. There are four basic configurations of hearing aids: behind-the-ear (BTE), in-the-ear (ITE), in-the-canal (ITC) and completely-in-the-canal (CIC).

Behind-the-ear (BTE) aids are supported by an earhook and rest substantially behind the ear. The microphone is usually positioned at the apex of the ear. A receiver in the body of the aid produces sound that travels through a tube within the hook. This connects in turn to a flexible tube terminated in an ear mold at the ear canal. BTE aids frequently have a telecoil which can be connected in place of the microphone by manual actuation of a miniature switch. The telecoil picks up magnetic flux from the telephone handset receiver. This is necessary because the microphone of the BTE aid is not in a position to pick up the acoustic output of the handset receiver.

In-the-ear (ITE) aids partially fill the concha, or bowl, of the ear. A receiver inside is ported directly to the ear canal. ITE aids frequently incorporate a telecoil, even though the microphone of the ITE aid is in the acoustic path of the telephone handset receiver. There is a tendency for the ITE aid to feedback (howl) when the ear is covered by the telephone receiver; this feedback is avoided when the telecoil pick-up is used.

In-the-canal (ITC) aids are small enough to be contained predominately within the ear canal. Due to size constraints, they may not contain telecoils.

Completely-in-the-canal (CIC) aids fit completely in the canal portion of the ear. Due to their very small size, they may not contain telecoils.

COMPATIBILITY BY HEADSET TYPE

Plantronics SupraPlus headset models H251H (monaural) and model H261H (binaural) are special headsets fitted with HAC speakers that emit high levels of magnetic energy. The EncorePro models 510 and 520 also meet HAC requirements. These headsets are compatible with T-Coil hearing aids.

Most Plantronics headsets do not comply with HAC regulations. This is because they do not have speakers that produce the level of magnetic energy required by HAC regulations.

NECK LOOP PENDANTS

Many companies offer neck loop pendants in both corded and cordless Bluetooth® configurations. Neck Loops are designed to emit large amounts of magnetic energy and they are used in conjunction with T-Coil hearing aids. The "Loop" is worn around the user's neck and produces magnetic energy that is picked up by the T-Coil hearing aid. Most neck loops are also fitted with built-in microphones. Headsets are not used with neck loop pendant systems.

SUMMARY

Hearing disabilities and the use of hearing aids cover a huge range of different situations. Although Plantronics provides HAC approved headsets as noted in the table below, companies that specialize in assistive listening products are typically best at determining appropriate solutions for individual customers. Companies such as HARC Solutions (www.harc.com), Harris Communications (www.harriscomm.com), and Sound Clarity (www.soundclarity.com) not only resell Plantronics products, but are also best able to provide complete assistive listening solutions to customers with hearing disabilities.

Plantronics does not offer any recommendations with regard to the use of wireless headset products and hearing aids. This is due to the large number of use cases coupled with potential interference, both RF and acoustical, caused by the devices in close proximity to hearing aids.

Hearing Aid Compatibility Headsets

Assumes telecoil feature is available in hearing aid

HEADSET MODELS:



SupraPlus (monaural)
H251H



SupraPlus (binaural)
H261H



EncorePro 510V



EncorePro 520V



EncorePro HW510



EncorePro HW520

Clarity, a division of Plantronics, Inc., offers a variety of telephones and accessories for the use by individuals with hearing impairments. For more information, please contact Clarity or visit their website at www.clarityproducts.com.