CLA7v2 Neckloop
FAQ

1. **What is a neckloop?**

A neckloop is a personal listening accessory worn around the neck and connected to a sound source. The neckloop converts the input sound signal to electromagnetic waves that radiate from the wire loop placed around the individual's neck. These waves are detected and converted into sound signals by an induction coil (termed the "telephone coil more commonly called the t-coil") in the hearing aids. The electromagnetic waves are then reconverted back into sound by the hearing aid and delivered through the hearing aid circuitry to the audio speaker in the hearing aid. The person using a neckloop hears the sound directly through their hearing aid(s).

2. **Is there more than one type of neckloop?**

Yes, there are two basic types of neckloops; an audio neckloop and a hands free neckloop like the CLA7V2.

Audio neckloops are for listening only. The CLA7V2 neckloop is designed for two way conversations, both listening and speaking. The CLA7V2 also has a microphone for outgoing conversation and is designed for use with cellular phones, corded & cordless phones. In addition, with the 3.5mm adapter included with the CLA7V2, it can also be used as a high performance audio neckloop.

3. How do I tell the difference between the two?

Audio only neckloops have 3.5mm jack and are passive devices which means they are not powered by batteries. They take power from the sound source with which they are used such as a SoundWizard or Pocketalker personal listening system or a FM Receiver or certain telephones with 3.5mm headset jacks which are available on many of the phones in the California program. Audio only headsets cannot be used with cellular phones or cordless phones. Most audio only neckloops use 3.5mm monaural connectors since neckloops cannot separate sounds between left and right.

The ClearSounds CLA7V2 Hands Free neckloop has a smaller 2.5mm jack, a battery power source, and a microphone for outgoing speech. The 2.5mm jack is a de facto standard that most often identifies that the device has hands free capabilities (two-way conversations). The battery power source is important because cell phones and cordless phones do not provide enough power at their 2.5mm connectors to enable use of a neckloop. The CLA7V2 uses two easy to install AAA batteries.

4. What are the benefits of the neckloop?

Sound Quality. The primary benefit of a neckloop is the sound quality. The sound signals delivered from a neckloop go **directly** into the hearing aid and the hearing aid converts those signals into the audible sounds that a person hears best. There is no or minimal background noise so the person hears only the sound they are trying to hear and that sound is shaped to match their specific hearing ability by the hearing aid.

Binaural Listening. If the user is wearing two hearing aids and both have t-coils, then the user has the ability to get sound into both ears. Studies have shown that binaural input increases speech recognition and understanding by more than 50% in most people. This is especially important for people with severe hearing loss.

5. How is the ClearSounds CLA7V2 neckloop different?

The CLA7V2 has several features that make it unique and usable in many different situations. It is a multi-functional neckloop.

a. Multiple Uses: The 3.5mm adapter allows the CLA7V2 to be used as an audio only neckloop for use with many of the telephones provided in the California Program, and with other devices that have 3.5mm audio output connectors such as personal listening devices and FM receivers and with music sources like CDs players and iPods (may also require a mono to stereo adapter). The standard 2.5mm jack allows the CLA7V2 to be used as a hands free device with cordless phones that have 2.5mm connectors, with cellular phones the have standard 2.5mm connectors or adapters, and with the ClearSounds Freedom Phone.
b. Amplification: For of a variety of reasons, many t-coils in hearing aids are not as efficient as they could be therefore it is very important that the neckloop compensate for that inefficiency by being able to provide more signal (amplification). Some telephones with 3.5mm connectors, cellular and cordless phones, and other sound sources may not generate a powerful enough signal from the connector to drive the loop. The ability to amplify the sound at the neckloop is very important.
c. Efficient: The CLA7V2 uses a multi-strand wire for its neckloop. A multi-strand neckloop wire is more efficient in power consumption and improves the signal strength and signal quality delivered thru the neckloop.
d. AAA Battery Power: Unlike other available neckloops, the CLA7V2 uses easy to find, low cost and easy to install AAA batteries. Other neckloops use zinc-air hearing aid batteries that are very difficult to install, are expensive, have low power capacity and lose power regardless of whether the loop is in use or not.
e. Hands free operation: When used with a ClearSounds Freedom phone, a cellular phone, or a cordless phone, the CLA7V2 functions like a hands free headset allowing the consumer to listen to incoming voice and to talk without having to hold a handset. This is often better than a speakerphone when the caller wants a private conversation.

6. Who can use a neckloop?

Hearing aid users and Cochlear implant users. In order to use a neckloop the person must have a hearing aid or cochlear implant equipped with a T-coil and the t-coil must be turned on. Usually on the hearing aid or cochlear implant there is a “T” switch or a ‘M/T” switch to turn on the hearing aid. If the person does not have a t-coil equipped hearing aid the neckloop is not a benefit.

7. Do all hearing aids and cochlear implants have T-Coils?

No they do not. The consumer must specifically ask that a T-Coil be put into the device. Some of the very small hearing aids do not have enough room in the hearing aid shell to install a T-Coil. Most other hearing aids can accept a T-Coil. The BTE, Behind-The-Ear, types of hearing aids most commonly have T-Coils. Newer cochlear implants have BTE type processors that have T-Coils. Sometimes it is possible for a hearing aid without a T-Coil to be retrofitted with a T-Coil. The consumer would need to check with their audiologist or hearing aid dispenser regarding the status of their device and t-coils.

8. My hearing aid has an “auto-switch” t-coil; will it work with a neckloop?

Most likely it **will not** unless you can manually turn on the t-coil. Auto-switch t-coils require a strong magnetic field to turn on the t-coil. Older corded phones had powerful magnets in the speakers and they worked fine with the auto-switch t-coils. Newer corded phones, cell phones and cordless phones use speakers that have a small magnet and these do not turn on most of the auto-switch t-coils. Most hearing aid manufacturers ship a magnet with the hearing aid to help the user turn on their t-coil. The neckloops use electromagnetic fields which are not magnetically strong enough to turn on the auto-switch t-coils. You need to discuss your options with your hearing aid provider.

9. Sometimes the sound thru my neckloop is distorted, why? Can I make it clearer?

Yes you can easily correct that situation. All sound can become distorted if it is amplified too much. The CLA7V2 has a 30dB amplification capability and many devices do send amplified sound thru the connectors used with the CLA7V2. If the sound is distorted, it means that you have too much

amplification and you need to adjust either the volume control on the CLA7V2 or on the telephone or sound device you are using. If you have hearing aids with a volume control you may have to adjust the hearing aid as well. Fixing the distortion is easy. Just adjust the volume controls to a lower level.

If the sound source is sending distorted or garbled sound, there is nothing the neckloop or any other device can do to fix that. If you are using a cordless phone or a cellular phone you may be at the edge of the range of the phone and the signal gets fuzzy. Telephones are not high fidelity devices and conversations are not always clear. Try hanging up and making a new call; the new call will most likely go thru a different set of connections and may clear up.

10. How do I know when the batteries in the CLA7V2 are low?

The green LED light in the top of the CLA7V2 will turn amber or red telling you it is time to change batteries.

11. Can I use rechargeable batteries?

Yes, you can. Rechargeable AAA batteries are fine for use with the CLA7V2. There is no recharging capability built into the CLA7V2 so you will have to use an external charger. The beauty of the CLA7V2 is that if you are using rechargeable batteries and your batteries run low while away from your home or office, you can go to virtually any corner store and purchase AAA batteries that will work fine.

12. **How long will the AAA batteries last?**

That depends on how much the neckloop is used, how much amplification is used and the type of batteries used. These are variables that affect how much power is used or is available. In average use with average batteries, we find that the CLA7V2 will run for approximately 200 hours.

13. I am in my car using the CLA7V2 with my cell phone and I get a buzzing sound, what is it?

Unfortunately, the t-coil in your hearing aid or cochlear implant and the neckloop itself will pick up electromagnetic interference (EMI) generated by your car. The amount of EMI generated varies from car to car based on amount of electronics in the car and if the car manufacturer tried to shield the EMI generators. Airplanes can also generate a lot of EMI. If the t-coil in the hearing aid is not shielded and the EMI is very strong, the amplification in the CLA7V2 may not be able to override the interference. In most cases communication is possible with the buzzing a tolerable nuisance. EMI can also be generated by computers and other electrical devices. If you are using your neck loop in proximity of electrical devices you may experience a buzzing. To correct move away from the device. If you are using a digital cell phone or a digital cordless phone they may also generate EMI that is picked up by the t-coil. Keep these devices away from your hearing aids.

14. Is there something special about the 2.5mm to 3.5mm adapter supplied with the CLA7V2?

Yes there is. Because the CLA7V2's 2.5mm jack is designed to have connection points for audio input and microphone output, the jack looks like a typical stereo jack but it is not. The two black bands on the 2.5mm jack separate connection points for ground, microphone, and audio output. Standard stereo jacks have the two black bands separate connection points for ground, left audio output, and right audio output. If a standard 2.5mm to 3.5mm stereo adapter was used, on of the connectors would short out the microphone in the CLA7V2 and with extended use, would damage the microphone. It is important that if the CLA7V2 is to be used with an audio device requiring a 3.5mm jack, that only the adapter supplied with the CLA7V2 be used. It is a special adapter that connects the audio output connections and bypasses the microphone connection.

15. **Will the CLA7V2 work with the cell phones that have stereo music capabilities?**

Yes, but you have to use an adapter that makes the 2.5mm connector a standard connector. These adapters are usually available from the cell phone manufacturer. Unlike the standard 2.5mm connector described above, the stereo jacks have three black bands that provide for connections to ground, microphone, left speaker, and right speaker. Trying to use a standard 2.5mm jack with these connectors results in either the microphone not working, the loop not getting audio output or both. Make sure that

you check with the cellular company to make sure that the cell phone that you pick has a standard 2.5mm mono connector or you get an adapter to make the connector mono. A mono connector works with jacks that have two black bands on the jack.