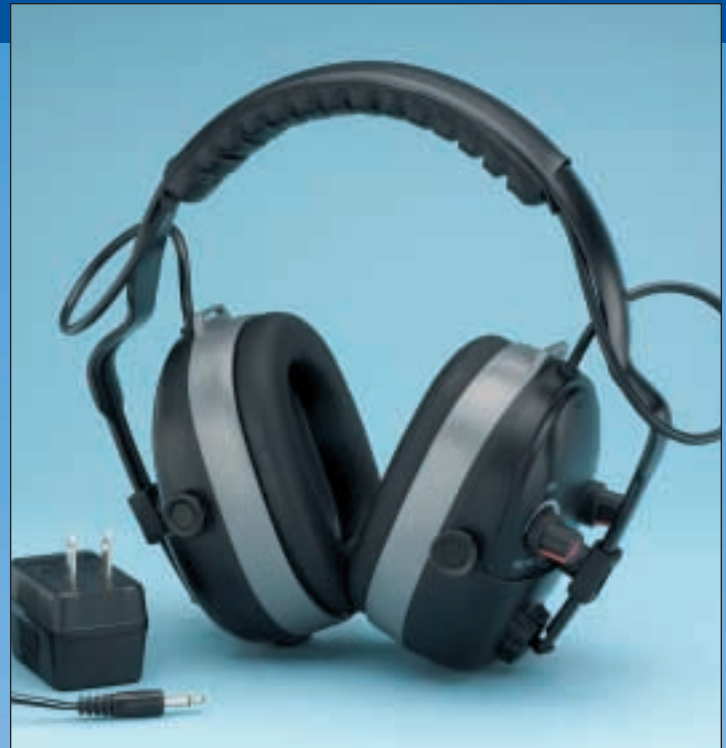


DeTune™ Communications Earmuffs

Voice communication in noisy environments has always presented a number of challenges. Workers must wear hearing protectors, and in many cases this adds to their inability to communicate effectively. Standard (passive) hearing protectors attenuate effectively in the high frequencies, and will actually help communication in environments dominated by high frequencies. However, most industrial environments contain a mixture of high, medium and low frequencies, and most users cannot communicate effectively while using a passive hearing protector.

Elvex DeTune electronic earmuff uses a new approach, and allows the user to adjust the frequency range that is transmitted through the circuitry and speakers.

- A volume control allows the user to set the sound level inside the headset, up to a maximum of 85 dB.
- Two control knobs allow the user to filter out the high and the low frequencies independently of each other. When the filters are in the neutral (inactive) position the user will hear the environment almost as if no hearing protector was worn, except for the maximum sound limiter.
- The high frequency filter allows an aggressive filtering of the high frequencies, down to about 2,000 Hz. The filter eliminates about 85% of the high frequencies within the adjustment range, and can be considered semi-transparent. If used in an environment dominated by high frequency noise, it can be clearly perceived that the headset filters out a large part of the undesirable noise. When much of the high frequencies are filtered out, the speech perception will also be affected. The most important speech frequencies are in the range of 500-3,000 Hz., and if we filter out most frequencies above 2,000 Hz., this will obviously also affect the speech perception. Elvex **DeTune** does however provide a choice to the user in how much filtering is desirable, and allows an opportunity to seek out the filtering level that is felt to be optimal for the environment.
- The low frequency filter works in a similar fashion, allowing the user to filter out frequencies up to 600 Hz. The effectiveness of the low frequency filter is not as obvious as the high filter, but in certain environments it can clearly help improve the ability to communicate.
- **DeTune** is also equipped with an impact filter. This filter is automatically activated by impact sounds, such as gunfire or rivet operations. The impact filter closes in a few microseconds and reactivates in about two milliseconds. Because of the quick recovery time, it is possible to hear speech even in an impact noise environment.



- **DeTune** is equipped with an automatic 4-hour shutoff in order to conserve batteries.
- **DeTune** uses rechargeable Nickel Metal Hydrate batteries, and a charger is included.
- It is important to understand that the electronics in the DeTune hearing protector does not improve the attenuation properties of the passive hearing protector. The electronics simply allow a level, of voice communication and speech understanding, while you continue to protect your hearing.

Com-240R NRR of 25 dB, to ANSI S3.19-1974.

HK-200 Hygiene Kit, ear cushions & foam absorbers.