



DeTune™ Communications Earmuffs

Voice communication in noisy environments has always presented a number of challenges. Elvex DeTune provides effective hearing protection, and allows the user to adjust the frequency range of the sound that is transmitted through the speakers.

- A volume control allows the user to set the sound level inside the headset, up to a maximum of 82 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 inactive position the user will hear the environment almost as if no hearing protector was worn, except for the maximum sound limiter.
- When filtering is applied the internal sound volume is kept constant by an automatic gain control (AGC).
- The high frequency filter allows an aggressive filtering of the high frequencies, down to about 3,000 Hz. The filter eliminates about 75% 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. The most important speech frequencies are in the range of 500-3,000 Hz., and we are attempting to filter out most frequencies outside of this range. Elvex DeTune does however provide a choice to the user in how much filtering is desirable, and allows the user to seek out the filtering level that is 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.
- DeTune is also equipped with an impact filter. This filter is activated by impact sounds, such as gunfire or rivet operations. The impact filter closes in a few microseconds and reactivates in about half a second.
- Com-640 is equipped with an automatic 4-hour shut-off in order to conserve batteries.
- This headset uses two AAA alkaline batteries, and they are accessible from an exterior battery compartment.
- An audio jack (3.5 mm) for connection of radios and MP3 players is standard. This jack will provide listen-only capability (not two way communications).



- 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 improvement of voice communication and speech understanding, while you continue to protect your hearing.

Com-640 DeTune headset, 29-36 dB NRS to ANSI S12.6.-2008.

HK-600 Hygiene Kit, ear cushions & foam absorbers.

ANSI S12.6-2008

Frequency, Hz	125	250	500	1000	2000	4000	8000
APV 80, dB	17.4	22.9	30.9	37.1	27.5	34.6	34.5
Mean Value, dB	20.7	26.3	34.3	39.5	32.0	39.0	38.8
Std. Deviation	3.9	4.0	4.1	2.8	5.4	5.2	5.1

