



# WHAT IS DOUBLE HEARING PROTECTION AND WHEN WOULD YOU NEED IT?

by Nancy Sabin, *Product Manager for Above-the-Neck Products*

Double protection is necessary when the attenuation of a singular hearing protection device is not enough to ensure adequate hearing protection for the wearer



You might be asking yourself if double hearing protection is something you should be considering. In order to understand what double hearing protection is, let's start by reviewing why it is needed. OSHA has [Occupational Noise Exposure standards](#) in the U.S. to protect general industry workers from experiencing hearing damage by regulating the amount of noise they're exposed to on the job, requiring the implementation of a hearing conservation program and having administrative controls in place. For general industry applications including utility work, manufacturing work and service sector work, adhering to this OSHA standard can typically be achieved by using a single hearing protection device – be it earmuffs or ear plugs. This is because the attenuation of a singular hearing protection device is enough to ensure adequate hearing protection for the wearer.

## SETTINGS WHERE DOUBLE HEARING PROTECTION IS NECESSARY

Let's review a few situations where the protection from a single hearing device would be insufficient. According to the [National Institute for Occupational Safety and Health](#), any worker whose 8-hour time-weighted average (TWA)

exposure exceeds 100 dBA should wear double hearing protection. Double hearing protection is also required by OSHA in mining operations governed by the Mine Safety & Health Administration (MSHA) for noise exposures in excess of 105 dBA for an 8-hour time-weighted average (TWA).



## CRACKING THE CODE ON DOUBLE HEARING PROTECTION

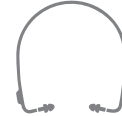
Now that we have identified a few situations that require the use of double hearing protection, let's expand on what double hearing protection is. It's simpler than you think: Double hearing protection occurs when two hearing protection devices are used at the same time. The dual or "double protection" factor is most commonly achieved by wearing earmuffs and ear plugs.



UNCORDED



CORDED



BANDED



EAR MUFFS

A key element of ensuring you're receiving the highest decibel (dB) protection when utilizing ear plugs as a part of your dual hearing protection is understanding the impact their fit has on effectiveness. To receive the highest protection, the ear plug must be worn properly. If not, the added dB from wearing dual protection may not be achieved.

CALCULATING DOUBLE  
HEARING PROTECTION NRR:

30 NRR Ear Plug + 5 dBA = 35 dB



Wondering how double protection translates to a higher dB? All it takes is a simple calculation to determine what dB your double hearing protection is providing: Add 5 dBA to the highest Noise Reduction Rating (NRR) of the higher-rated hearing device. For example, if you are using an ear plug with a 30 NRR and an earmuff with a 26 NRR, you would add 5 dB to the 30 NRR for the ear plug. Your protection level would then increase to 35 dB, assuming the ear plug is worn properly. This simplified method of calculating double protection dBA is based on [OSHA recommendations for doubling protection](#).

## ARE THERE ANY DISADVANTAGES?

One downside to wearing double protection is that it may put the worker in harm's way should the worker be unable to hear warning signs in their surrounding area. For this reason, double hearing protection should be carefully considered for certain worksites. Best practice is to use the right product to attain the comfort level and fit you need to be safe on the job without compromising your ability to be aware of your surroundings.

Noise-induced hearing loss is a common workplace injury that is 100% preventable. PIP® offers a complete line of hearing protection products that keep workers protected from loud working environments while achieving all-day comfort and optimal sound attenuation.

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