



Powered by NAVITECH | www.navitech.co

# HEARING PROTECTION

Noise induced hearing loss is a permanent hearing impairment resulting from prolonged exposure to high levels of noise. It is important to practice hearing conservation by using hearing protection to prevent noise induced hearing loss. Hearing protection includes earplugs and earmuffs that are designed to reduce the intensity or loudness of sound.

## Earmuffs

Simply a traditional method of "hearing" protection. Today's range of earmuffs cope with a very wide spectrum of industrial hazards. It is important to study the attenuation characteristics of each model as they do vary in performance across the range of sound frequency.

## Helmet Mounted Earmuffs

These all-in-one head & hearing protections are popular among safety officers. Today's models are styled to be sensibly "parked" when not in use.

## Earplugs

Can be worn conveniently with all other PPE equipments. Easy to use and attenuation provided often exceed that of an earmuff. Both disposal & reusable earplug provide excellent protection with long term comfort.

## Standards

Earmuffs and earplugs are tested to the relevant European Standard, American Standard, & JKSP.

- ▶ EN352-1 Earmuffs
- ▶ EN352-2 Earplugs
- ▶ EN352-3 Helmet Mounted Earmuff
- ▶ ANSI S3.19 Measurement of Real-Ear Hearing Protector Attenuation and Physical Attenuation of Earmuffs.
- ▶ Most hearing specialists agree: You can damage your hearing if you're continually exposed to noise greater than 85 decibels over eight hours. As noise levels rise above 85 decibels, the safe exposure time for unprotected ears falls dramatically. For example, 110 decibels noise can impair hearing after just 15 minutes of exposure.

## SNR (Single Number Rating)

SNR is a single-number rating which is calculated in accordance with ISO 4846 2.2 (1992). "Estimation of effective A-weighted Sound Pressure Levels when Hearing Protectors are worn". Normally used by European Standard.

## NRR (Noise Reduction Rating)

NRR is required by US law to be shown on the label of each hearing protection sold in United States.

## Difference between SNR and NRR

The main difference is the SNR being calculated using a single standard deviation while NRR formula deducts two standard deviation.

## Supersonic Series



CE EN 352-1 SNR: 28dB

PC07H

CE EN 352-3 SNR: 26dB



PC07SE



CE EN 352-1 SNR: 30dB

PC09H

CE EN 352-3 SNR: 29dB



PC09SE

### Supersonic I Earmuff

Model:  
PC07H  
PC07SE

- High performance earmuff with good noise reduction rating.
- Soft padded headband with low force.
- Helmet mounted earmuff fit to all Proguard industrial safety helmets.
- Provide full spectrum attenuation, as well as superb low frequency attenuation.
- Extra wide ear cushions for best comfort.
- Laboratory tested SNR: 28dB/26dB.

Packaging: 1pr/box 20prs/carton

### Supersonic II Earmuff

Model:  
PC09H  
PC09SE

- High performance earmuff with good noise reduction rating.
- Helmet mounted earmuffs fit to all Proguard industrial safety helmets.
- Soft padded headband with low force.
- Provide full spectrum attenuation, as well as superb low frequency attenuation.
- Fork style headband for even distribution of the pressure, and improved balance required for extra deep ear cups.
- Extra wide ear cushions for best comfort.
- Laboratory tested SNR: 30dB/29dB.

Packaging: 1pr/box 20prs/carton

#### Attenuation Data PC07H

Frequency (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean Attenuation, (Mf) in (dB)	15.6	18.6	27.5	36.0	34.3	28.4	31.8	
Standard Deviation, Sf	3.6	2.1	3.2	3.2	2.9	1.9	3.8	28dB
Assumed Protection (dB)	12.0	16.5	24.3	32.7	31.4	26.5	28.0	

#### Attenuation Data PC09H

Frequency (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean Attenuation, (Mf) in (dB)	20.3	24.1	29.5	36.3	31.1	35.6	37.7	
Standard Deviation, Sf	2.9	4.0	4.0	4.4	3.9	4.0	4.7	30dB
Assumed Protection (dB)	17.4	20.1	25.5	31.9	27.2	31.6	33.0	

#### Attenuation Data PC07SE

Frequency (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean Attenuation, (Mf) in (dB)	15.9	18.1	26.2	35.4	31.7	28.1	30.1	
Standard Deviation, Sf	4.5	3.4	3.7	3.9	2.6	2.9	3.8	26dB
Assumed Protection (dB)	11.4	14.8	22.5	31.5	29.2	25.1	26.2	

#### Attenuation Data PC09SE

Frequency (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean Attenuation, (Mf) in (dB)	23.6	22.2	29.2	34.4	31.1	36.6	38.9	
Standard Deviation, Sf	2.6	2.7	3.6	6.1	4.1	3.8	4.6	29dB
Assumed Protection (dB)	21.0	19.5	25.6	28.3	27.0	32.8	34.3	