

3M™ PELTOR™ H505B Welding Earmuffs

Technical Data Sheet

Description

The 3M™ PELTOR™ H505B Welding Earmuff is available in a neckband version only and is designed to be used with 3M™ Speedglas™ Welding Shields. These earmuffs provide a moderate level of attenuation that meets the needs of most welding industry applications.

When correctly selected and worn these products help reduce exposure to hazardous levels of noise and loud sounds.

Features

- Complies with Australian/New Zealand Standard AS/NZS 1270:2002
- Modern, stylish slim line cup design.
- Soft ear cushions provide a comfortable seal.
- Neckband design helps improve compatibility with other protective equipment.
- Soft wide cushions helps reduce pressure around the ears and improves comfort and wearability.
- Easy to replace cushions and inserts helps keep them hygienically clean.
- SLC₈₀ 22dB (Class 4)

Applications

3M™ PELTOR™ H505B Welding Earmuff, although ideal for use in the welding industry, can also be used in a wide range of other industrial application to protect against hazardous noise.

Examples of typical applications include:

- Welding Industry
- Agriculture
- Automotive Construction
- Chemical & Pharmaceutical Manufacture
- Light Engineering
- Woodworking

Standards

The 3M™ PELTOR™ H505B Welding Earmuff has been tested by an accredited laboratory in accordance with the requirements specified in the Australian/New Zealand Standard AS/NZS1270:2002.



Testable with the
3M™ E-A-Rfit™
Validation System



H505B

Quick Reference

	H505B
Attenuation Data	
SLC ₈₀	22dB
Class	4
Tested to	AS/NZS 1270:2022
Physical Properties	
Clamp Force	10.9 N
Weight	165g
Material Listing	
Neckband	Stainless Steel Wire, PVC and Acetal
Cup	ABS and TPE
Cushion	Polyether
Cushion Cover	PVC
Foam Liner	Polyether
Other	
Colour	Black
Hygiene Kit	HY220
Compatible with 3M™ E-A-Rfit™ Validation System	Yes

Fitting Instructions

Research suggests that users may receive less noise reduction than indicated by the attenuation label value(s).

Performance will be reduced by anything that impairs the seal of the cushions against the wearers head e.g., thick spectacle frames, goggles, respirator straps, balaclavas, etc. If spectacles are worn, cushions must be soft and subtle to ensure seal. Select thin, flat temples or straps when wearing this product in combination with other PPE (safety glasses, goggles, or respiratory protection), to minimize interference with the seal of the earmuff cushions (i.e., acoustic seal).

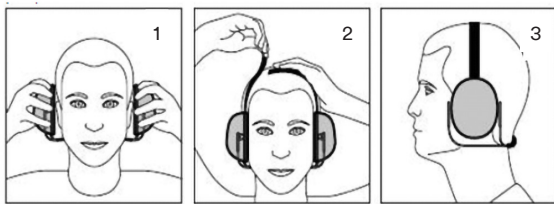
Prior to fitting, inspect the product to ensure it is not damaged. Follow manufacturer's instructions.

Neckband Headset

To fit the hearing protector:

1. Place the cups in position over the ears (Fig 1.)
2. Keep the cups in position, place the head strap on top of your head and lock it tight in position (Fig 2).
3. The head strap should be positioned across the top of your head and should support the weight of the headset (Fig 3).

Caution: The neckband earmuffs must be worn with the head strap correctly attached to keep them firmly in position to maintain an effective acoustic seal. The protection level provided by neckband earmuffs may be reduced if the head straps are not worn correctly.



Fit Check

When hearing protectors are correctly worn your own voice should sound hollow and sounds around you should not sound as loud as before.

Hearing Protector Fit Testing the 3M™ E-A-Rfit™ Dual-Ear Validation System

The success of your hearing conservation program requires more than offering earplugs or earmuffs. Each worker needs to wear the most effective hearing protector for the environment and the correct fit for their unique anatomy.

With 3M™ E-A-Rfit™ Dual-Ear Validation System, you can quickly identify how much protection each worker receives from their 3M hearing protectors.

The Technology Behind 3M™ E-A-Rfit™

The 3M™ E-A-Rfit™ Dual-Ear Validation System is based on Field Microphone-In-Real Ear (F-MIRE) technology that measures the effectiveness of hearing protectors from inside a worker's ears, providing accurate, quantitative results.

The tester wears a pair of modified 3M™ probed hearing protectors connected to a dual-element microphone. A loudspeaker is placed in front of the tester. When it emits a broadband noise, the dual-element microphone measures the signal in the ear canal and outside the ear plug. In less than five seconds, the difference between the two measurements is calculated and a Personal Attenuation Rating (PAR) is displayed.

It Starts with PAR

The 3M™ E-A-Rfit™ Validation System puts the worker in the context of their noise environment and helps you understand their level of attenuation.

The results you get from the 3M™ E-A-Rfit™ is displayed as a PAR. The PAR is a numerical value that shows the reduction in sound level within the ear when a hearing protector is worn. The resulting PAR, combined with the worker's exposure to noise, is used to determine if a worker is receiving appropriate protection from the noise hazard.

Knowing the PAR lets you identify workers who are inadequately protected, so you can provide real-time intervention and training.

Key Benefits of the 3M™ E-A-Rfit™ Dual-Ear Validation System include:

- Tests both ears simultaneously in less than 5 seconds
- Science-based, quantitative testing
- Fast, clear, and accurate results
- Tests 7 frequencies 125Hz to 8000Hz
- 3M™ Earplug, earmuff and headset (comms) testing capability

Contact your 3M Personal Safety Specialist to find out more about our 3M™ E-A-Rfit™ Dual-Ear Validation System or for assistance in solving your complex or day-to-day hearing conservation challenges

Attenuation Data

3M™ PELTOR™ H505B Welding Helmet Neckband Earmuffs

AS/NZS 1270:2002

Test Frequency (HZ)	125	250	500	1000	2000	4000	8000	SLC ₈₀	Class	Clamp Force
Mean Attenuation (dB)	13.0	11.8	18.8	26.0	30.6	37.5	34.6	22dB	4	10.9 N
Standard Deviation (SD) (dB)	4.1	2.7	4.0	2.9	4.4	3.6	4.7			
Means minus SD (dB)	8.9	9.1	14.8	23.1	26.2	33.9	29.9			

Hearing protector Class 4 tested to AS/NZS 1270. When selected, used and maintained as specified in AS/NZS 1269, this protector may be used in noise 100dB(A) to less than 105dB(A), assuming an 85dB(A) criterion.

Mean = Mean attenuation value derived from testing in accordance with AS/NZS 1270:2002.

SD = Standard Deviation derived from testing in accordance with AS/NZS 1270:2002.

Mean-SD = Mean attenuation value minus Standard Deviation

SLC₈₀ = Single number rating commonly used in Australia and New Zealand to compare acoustic performance of hearing protectors. The subscript '80' indicates that in well managed hearing protector programs, the protection provided is expected to equal or exceed the SLC₈₀ in 80% of protector-wearer noise spectrum combinations.

Class = A simplified process for selecting hearing protectors based on the wearers 8-hour equivalent continuous A-weighted sound pressure level.

3M strongly recommends personal fit testing of hearing protectors. Research suggests that users may receive less noise reduction than indicated by the attenuation label value(s) on the packaging due to variation in fit, fitting skill, and motivation of the user. Refer to applicable regulations and guidance on how to adjust attenuation label value(s). In the absence of applicable regulations, it is recommended that the attenuation label value(s) be reduced to better estimate typical protection.

The effectiveness of a hearing protector reduces dramatically when the hearing protector does not fit properly, is incorrectly inserted or is not worn 100% of the time during ALL hazardous noise events. Removal of the hearing protector, even for brief moments, substantially reduces protection and greatly increases the risk of hearing damage.

Cleaning and Maintenance

Follow recommended care and cleaning instructions in order to maintain best noise reduction and function.

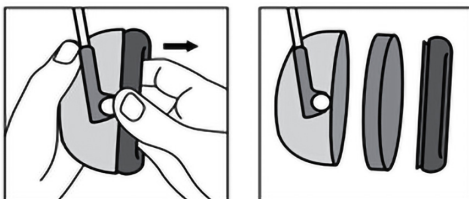
Cleaning

- After use, wipe outside cups and hygiene pads so they remain clean and hygienic. The product be cleaned using mild detergent and water. Do not immerse in water. Do not clean with solvents such as acetone, or with waterless hand cleaners or products containing lanolin.
- If the earmuffs cannot be cleaned or are damaged, dispose of the product and obtain a new pair

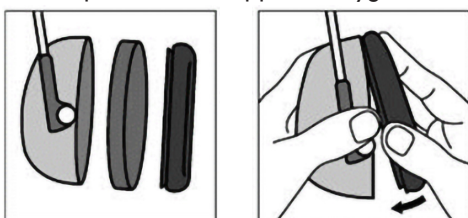
Maintenance - Changing the Hygiene Kit

Cushions and inserts can be replaced by using the approved Hygiene Kits for your 3M™ PELTOR™ Product. See 'Ordering Information' section.

- Remove the cushions and inserts as shown.



- Replace the worn or damaged cushions and insert with the new pair from the Approved hygiene kit.



- 3M recommends replacing the hygiene kit every six months to maintain acceptable noise reduction, hygiene and comfort. In hot and humid environments more frequent changes may be required to maintain acceptable hygiene.
- 3M™ PELTOR™ HY100A Clean Hygiene Pads can be applied onto the earmuff cushions to help absorb sweat and moisture for improved comfort and hygiene.

Storage

- Store the product in a clean and dry area before and after use.
- Always store the product in the original packaging and away from any sources of direct heat or sunlight, dust and damaging chemicals.
- Operating temperature range: – 20°C (-4°F) to 50°C (122°F).
- Storage temperature range: – 20°C (-4°F) to 40°C (104°F).
- Relative humidity: <90%.

Disposal

If the product is to be disposed*, it should be disassembled and disposed of as solid waste. Please see local authority regulations or disposal advice and locations.

* Discard the product within 5 years from date of manufacture or immediately if damaged or cannot be cleaned.

Ordering Information

SAP ID	Legacy ID	Availability		Model #	Description
		AUS	NZ		
Headsets					
7000103787	XA007703797	•	•	H505B	3M™ PELTOR™ Welders Earmuff H505B-596-SV, SLC ₈₀ 22dB (Class 4), 10 EA/Case
Accessories - Hygiene					
7100101874	UU008049353	•	•	HY220	3M™ PELTOR™ Earmuff Hygiene Kit HY220, for Worktunes Headset, 1 ea/Bag
7100064410	XH001651351	•	•	HY100A	3M™ PELTOR™ Clean Hygiene Pads HY100A, 100 Pairs/Carton
3M™ E-A-Rfit™ Dual-Ear Validation System - Probe					
7100062126	70071691110	•	•	393-3001-2	3M™ PELTOR™ X1/X2 Earmuff Probed Test Cushions B 393-3001-2, 2 ea/Kit

Warning

These hearing protectors help reduce exposure to hazardous noise and other loud sounds. Misuse or failure to wear hearing protectors at all times that you are exposed to noise may result in hearing loss or injury. For proper use, see supervisor and User Instructions.

Always ensure the hearing protection device (HPD) is:

- Suitable for the application;
- Fitted correctly;
- Worn during all periods of exposure;
- Replaced when necessary.

Important Notice

To the extent permitted by law, 3M shall not be liable for any loss or damage including any loss of business, loss of profits, or for any indirect, special, incidental or consequential loss or damage arising from reliance upon any information herein provided by 3M. Nothing in this statement will be deemed to exclude or restrict 3M's liability for death or personal injury arising from its negligence.



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