

3M™ PELTOR™ ComTac™ VIII Headsets (EMEA / APAC Version)

Technical Data Sheet

Description

The 3M™ PELTOR™ ComTac™ VIII Headset helps protect your hearing and can help promote auditory situational awareness and communication in challenging acoustical environments. Some versions are equipped with a download cable for connection to a radio via a push-to-talk (PTT), and a noise cancelling speech microphone for communication in noise.



Features

- Environmental listening for auditory situational awareness
- Hearing protection to help protect from impulse and steady state noise
- Advanced listening mode featuring Mission Audio Profiles (MAP) to maximize audibility based on the acoustical environment
- Noise-cancelling speech microphone (IP68) for communication in noise (select models)
- Earplug mode to help maintain auditory situational awareness when used in combination with earplugs
- Soundscaping to help with radio communication speech intelligibility
- Tested in accordance with applicable sections of a variety of military and other standards
- Compatible with 3M™ E-A-Rfit validation system

Applications

The 3M™ PELTOR™ ComTac™ Headsets are designed to be used by military and law enforcement.

Approvals

3M Australia and New Zealand Pty Ltd, declares that these 3M™ PELTOR™ Headsets are in compliance with the essential requirements and other provisions set out in the ACMA (Australian Communications and Media Authority) regulations.

This product is also in compliance with appropriate directives or regulations to fulfil the requirements for CE marking (EU).

The full text of the EU declaration of conformity is available at: www.3M.com/PELTOR/DOC.

Standards

The product has been tested in accordance with AS/NZS1270:2002 and has successfully met the requirements for hearing protectors Class 5.



Specifications

Model	ComTac VIII / EMEA and APAC
Ghost Voice Language Options	English (default), Spanish, French, German
Soundscape	Yes
Battery Compartment	Sealed enclosure. Single-sided
Headband Style	Adjustable low profile rubberized band. Convertible to helmet attachment
Earcup Style	Low profile. Over-the-ear
Speech Microphone Type	Telescope. Dynamic. Noise -cancelling. Waterproof (IP68), 3 m / 30 min
Speech Microphone Frequency Response	200 Hz ~ 7 kHz
Speech Microphone Impedance	Approximately 150 Ohm
Download Cable Type / Length	Straight. Kevlar® Spun / Approximately 500 mm.
Download Plug Options	
Single Comm : NATO wired	Plug type: 4-pin U/174 (-86)
Single Comm : PELTOR wired	Plug type: 4-pin U/174 (-38)
Dual Comm	Plug type: 5-pin U-384/U (-35)
Environmental Listening Function	
Mission Audio Profiles (MAP) . Default	Observation, Patrolling, Conversation, Comfort, OFF
Classic	4 Amplification Levels and OFF
Ear Plug Mode	Yes
Power / Electrical Characteristics	
Battery Type	2 x AAA Alkaline (LR03)
Operating Time	Approximately 50 hours
Military Test Standards	
Environmental Performance	Tested in accordance with MIL- STD-810H
Colour Options	Charcoal Grey (GE) / O.D Green (GN)
Environmental Characteristics	
Operating Temperature*	-40°F / -40°C to 131°F / 55°C
Storage Temperature	≤72h: -67°F / -55°C to 159.8°F / 71°C . >72h: -4°F / -20°C to 104°F / 40°C
Product Lifetime	5 years, excluding batteries, in room temperature
Salt Water Survivability	Salt water (5%) 2m at 30 min
Recommended Storage Conditions	5 years: Indoor Controlled Climate (<90% humidity)
*NOTE: In freezing temperatures, warm up the earmuffs before use.	
Approvals	
PPE Regulation 2016/425	EN 352-1:2020, EN 352-4:2020, EN 352-6:2020
EMC Directive 2014/30/EU	
ROHS Directive 2011/65/EU	
AS/NZS1270	
Other	
Colour	OD Green or Charcoal Grey
Hygiene Kit	HY68 SV (Foam) or HY80-EU (Gel)
Compatible with 3M™ E-A-Rfit™ Validation System	Yes

Use limitation: Never modify or alter this product

Fitting Instructions

Inspect the hearing protector before each use. If damaged, select an undamaged hearing protector or avoid the noisy environment.

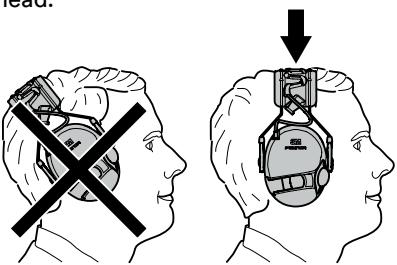
When additional personal protective equipment is necessary (e.g. safety glasses, respirators, etc.), select flexible, low profile temples or straps to minimize interference with the earmuff cushion. Remove all other unnecessary articles (e.g. hair, hats, jewellery, headphones, hygiene covers, etc.) that could interfere with the seal of the earmuff cushion and reduce the protection of the earmuff.

Headband Headset

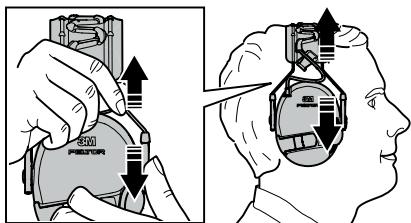
To fit the hearing protector:

1. Put the earmuffs in position over your ears.

NOTE: Make sure that the headband is in position across the top of your head.



2. Hold the earcup and push the headband wire up or down



Fit Check

When hearing protectors are correctly worn, your 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™ ComTac™ VIII, MT14H418A Headband with Foam Cushion (HY68 SV Hygiene Kit)									AS/NZS 1270:2002		
Test Frequency (HZ)	125	250	500	1000	2000	4000	8000	SLC ₈₀	Class	Clamp Force	Mass
Mean Attenuation (dB)	12.3	16.2	24.9	31.1	30.1	39.6	37.5				
Standard Deviation (SD) (dB)	3.3	3.6	4.1	4.0	3.6	4.0	5.5	26dB	5	9.1 N	339g
Means minus SD (dB)	9.0	12.6	20.8	27.1	26.5	35.6	32.0				

Hearing protector Class 5 tested to AS/NZS1270. When selected, used and maintained as specified in AS/NZS1269, this protector may be used in noise 105dB(A) to less than 110dB(A) assuming an 85dB(A) criterion. A lower criterion may require a higher protection class.

3M™ PELTOR™ ComTac™ VIII, MT14H418A Headband with Gel Cushion (HY80-EU Hygiene Kit)									AS/NZS 1270:2002		
Test Frequency (HZ)	125	250	500	1000	2000	4000	8000	SLC ₈₀	Class	Clamp Force	Mass
Mean Attenuation (dB)	12.8	16.5	24.1	32.3	31.2	37.9	38.2				
Standard Deviation (SD) (dB)	4.0	4.5	3.7	3.3	3.5	6.0	5.8	26dB	5	9.3 N	374g
Means minus SD (dB)	8.8	12.0	20.4	29.0	27.7	31.9	32.4				

Hearing protector Class 5 tested to AS/NZS1270. When selected, used and maintained as specified in AS/NZS1269, this protector may be used in noise 105dB(A) to less than 110dB(A) assuming an 85dB(A) criterion. A lower criterion may require a higher protection class.

Product Combinations – Attenuation Data

3M™ PELTOR™ ComTac™ VIII, MT14H418A Headband with Foam Cushion (HY68 SV Hygiene Kit) + 3M™ E-A-R™ Classic™ Earplug (uncorded)									AS/NZS 1270:2002		
Test Frequency (HZ)	125	250	500	1000	2000	4000	8000	SLC ₈₀	Class	Clamp Force	Mass
Mean Attenuation (dB)	25.9	27.5	34.1	36.6	41.0	50.7	47.8				
Standard Deviation (SD) (dB)	8.4	6.5	7.7	6.1	5.8	7.2	4.4	32dB	5	9.1 N	339g
Means minus SD (dB)	17.5	21.0	26.4	30.5	35.2	43.5	43.4				

Hearing protector Class 5 tested to AS/NZS1270. When selected, used and maintained as specified in AS/NZS1269, this protector may be used in noise 105dB(A) to less than 110dB(A) assuming an 85dB(A) criterion. A lower criterion may require a higher protection class.

3M™ PELTOR™ ComTac™ VIII, MT14H418A Headband with Gel Cushion (HY80-EU Hygiene Kit) + 3M™ E-A-R™ Classic™ Earplug (uncorded)									AS/NZS 1270:2002		
Test Frequency (HZ)	125	250	500	1000	2000	4000	8000	SLC ₈₀	Class	Clamp Force	Mass
Mean Attenuation (dB)	27.8	29.8	35.6	37.9	42.0	52.4	48.6				
Standard Deviation (SD) (dB)	9.1	7.4	8.0	5.7	4.9	5.2	4.0	34dB	5	9.3 N	374g
Means minus SD (dB)	18.7	22.4	27.6	32.2	37.1	47.2	44.6				

Hearing protector Class 5 tested to AS/NZS1270. When selected, used and maintained as specified in AS/NZS1269, this protector may be used in noise 105dB(A) to less than 110dB(A) assuming an 85dB(A) criterion. A lower criterion may require a higher protection class.

Key

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.

Impulsive Peak Insertion Loss (IPIL): ANSI/ASA S12.42-2010 (R2020)

Vol/Gain: Off			Vol/Gain: Unity (Classic mode, Max vol, Down 1 step)		
Test Level Nominal Impulsive Peak Level (dB SPL)	Impulsive Peak Insertion Loss (IPIL) (dB)	Standard Deviation (dB)	Test Level Nominal Impulsive Peak Level (dB SPL)	Impulsive Peak Insertion Loss (IPIL) (dB)	Standard Deviation (dB)
132	13.4	1.2	132	15.3	2.5
150	23.5	1.9	150	24.0	2.1
168	32.7	0.8	168	32.9	1.0

Vol/Gain: Advance mode observation max volume

Test Level Nominal Impulsive Peak Level (dB SPL)	Impulsive Peak Insertion Loss (IPIL) (dB)	Standard Deviation (dB)
132	13.4	1.2
150	23.5	1.9
168	32.7	0.8

Cleaning and Maintenance

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

Cleaning

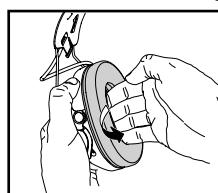
- Carry out a visual battery condition check. Replace if battery leakage or defects are detected.
- Use a cloth wetted with soap and warm water to clean the outer shells, headband and ear cushions.
- If the headset gets wet from rain or sweat, remove the ear cushions and foam liners, and allow to dry before reassembly. Refer to maintenance section for guidance on how remove and replace the hygiene kit.

NOTE: This headset is designed to withstand brief, shallow water immersion, including saltwater. Following water exposure and immersion, the headset should be dried using the instructions listed above. Once dry, the user should perform a visual inspection and perform a functions test. If the visual inspection reveals salt crystal formation, the headset should be quickly rinsed with fresh water and allowed to dry.

Maintenance - Changing the Hygiene Kit

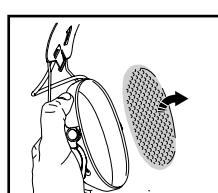
Cushions and inserts can be replaced by using the approved Hygiene Kits for your 3M™ PELTOR™ Product. See 'Ordering Information' section.

- Hold the inner edge of the ear cushion and pull it straight out.



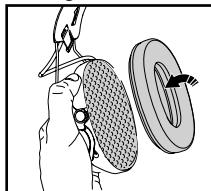
- Remove the old ear cushion.

- Remove the foam liner.

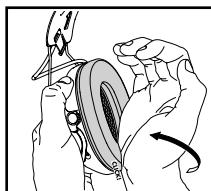


- Put the new foam liner into the earcup.

- Align the new ear cushion with the earcup.



- Push the ear cushion into place.



CAUTION: Make sure that the cushion cover is not pinched between the earcup and the ear cushion.

Important Information

- Examine the ear cushions and foam liners regularly for damage. Ensure there are no cuts or tears and that the foam or gel cushions respond when compressed. After long use or improper storage, the ear cushions may become compressed and will no longer form a seal around the ear. A damaged ear cushion or foam liner must be replaced.
- Replace the foam liners and ear cushions a minimum of twice a year and as needed. In hot and humid environments, more frequent changes may be required to maintain acceptable hygiene.

NOTE: The environmental microphone windscreens serve a critical function in reducing wind noise that can interfere with environmental microphone performance.

- Replace environmental/ambient microphone windscreens when torn or missing.

Storage

- Store the product in a clean and dry area before and after use.
- Remove battery before storing the product for extended periods
- Always store the product in the original packaging and away from any sources of direct heat or sunlight, dust and damaging chemicals.
- Storage temperature range: ≤72h: -67°F / -55°C to 159.8°F / 71°C. >72h: -4°F / -20°C to 104°F / 40°C
- Relative humidity: <90%.
- For headband versions: make sure that no force is applied to the headband and that the cushions are not compressed.
- Helmet attachment version: ensure the earmuffs are in the storage position and that the cushions are not compressed.

Disposal

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

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

Australia: Customers must refer to their Local Council Municipal area for disposal of electronics at their end of life.

New Zealand: Customers must dispose of electronics at their end of life in their local e-waste disposal bins.

Ordering Information

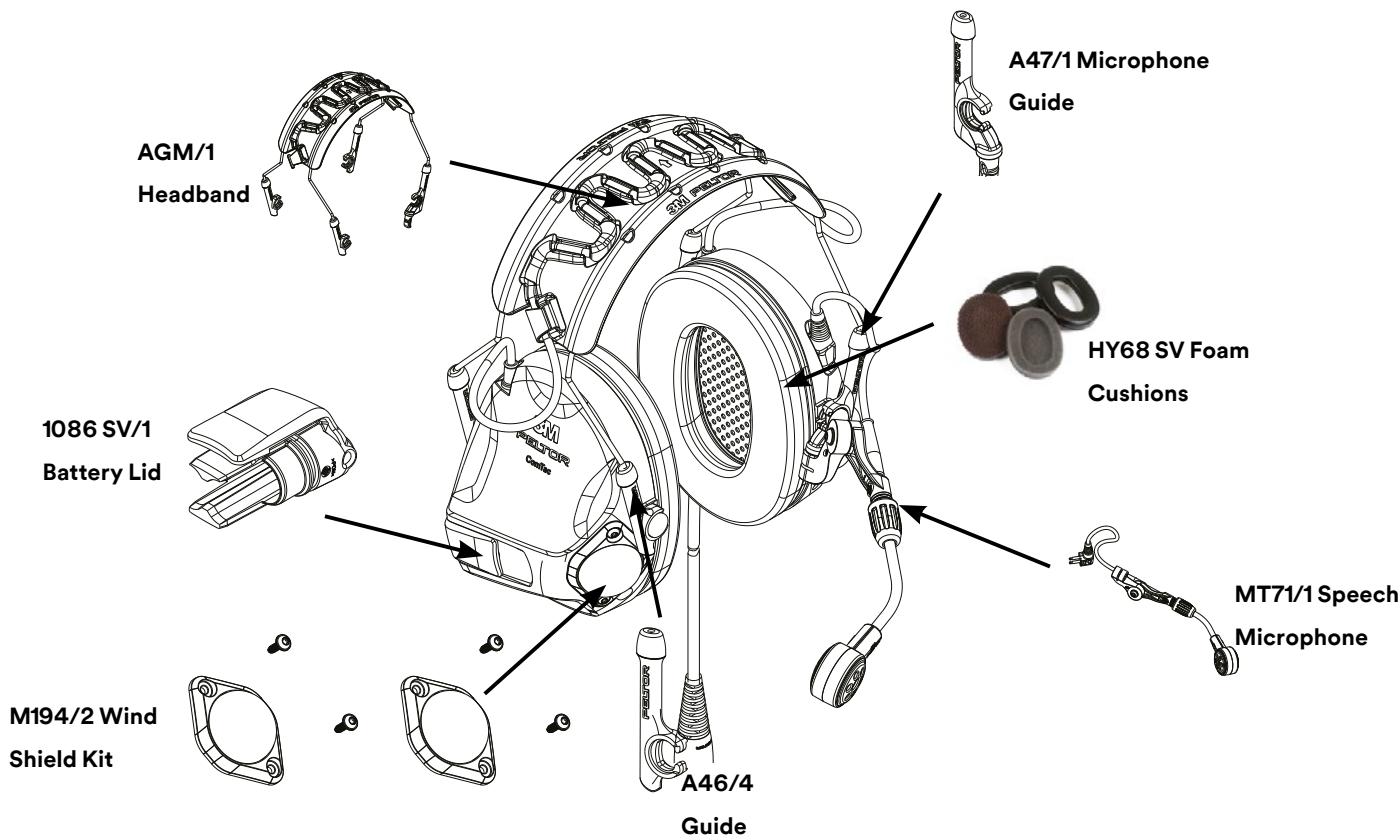
SAP ID	Legacy ID	Availability			Description
		AUS	NZ	Model #	
Headsets					
7100321396	UU012791701	•	•	MT14H418A-02 GE	3M™ PELTOR™ ComTac™ VIII Headset Headband, MT14H418A-02 GE, SLC ₈₀ 26dB (Class 5), Charcoal Gray, 1 Each
7100322593	UU012802060	•	•	MT14H418A-02 GN	3M™ PELTOR™ ComTac™ VIII Headset Headband, MT14H418A-02 GN, SLC ₈₀ 26dB (Class 5), O.D Green, 1 Each
7100322482	UU012799431	•	•	MT14H418A-35 GE	3M™ PELTOR™ ComTac™ VIII Headset Headband, 5-pin, MT14H418A-35 GE, SLC ₈₀ 26dB (Class 5), Charcoal Gray, 1 Each
7100322310	UU012799449	•	•	MT14H418A-35 GN	3M™ PELTOR™ ComTac™ VIII Headset Headband, 5-pin, MT14H418A-35 GN, SLC ₈₀ 26dB (Class 5), O.D Green, 1 Each
7100320871	UU012799456	•	•	MT14H418A-86 GE	3M™ PELTOR™ ComTac™ VIII Headset Headband, 4-pin, MT14H418A-86 GE, SLC ₈₀ 26dB (Class 5) Charcoal Gray, 1 Each
7100320872	UU012799464	•	•	MT14H418A-86 GN	3M™ PELTOR™ ComTac™ VIII Headset Headband, 4-pin, MT14H418A-86 GN, SLC ₈₀ 26dB (Class 5), O.D Green, 1 Each
7100321460	UU012852362	•	•	MT14H418A-38 GE	3M™ PELTOR™ ComTac™ VIII Headset Headband, 4-pin, MT14H418A-38 GE, SLC ₈₀ 26dB (Class 5), Charcoal Gray, 1 Each
7100321461	UU012852370	•	•	MT14H418A-38 GN	3M™ PELTOR™ ComTac™ VIII Headset Headband, 4-pin, MT14H418A-38 GN, SLC ₈₀ 26dB (Class 5), O.D Green, 1 Each
7100321699	UU012852396	•	•	MT14H418A-90	3M™ PELTOR™ ComTac™ VIII Headset Headband, MT14H418A-90, O.D Green, O.D Green, 26 dB, Class 5, 1 Each

SAP ID	Legacy ID	Availability		Model #	Description
		AUS	NZ		
Replacement Parts and Accessories					
7100232688	UU010955936	•		M194/2	3M™ PELTOR™ ComTac™ VII,VIII, IX. Wind Shield Kit for Surround Mic, Pair
7100232689	UU010953469	•	•	1086 SV/1	3M™ PELTOR™ ComTac™ VII,VIII, IX. Battery Lid
7100227486	UU010972220	•	•	AGM/1	3M™ PELTOR™ ComTac™ VII,VIII, IX. Headband
7100227492	UU010972238	•	•	A47/1	3M™ PELTOR™ ComTac™ VII,VIII, IX. Microphone Guide
7100230581	UU010972246	•	•	MT71/1	3M™ PELTOR™ ComTac™ VII,VIII, IX. Boom Microphone dyn.
7100227493	UU010972253	•	•	P3ADG47-F SV/2*	3M™ PELTOR™ ComTac™ VII,VIII, IX. ARC Rail Attachment. Pair
7000108023	XH001659461	•		HY68 SV	3M™ PELTOR™ Hygiene (Foam) Cushions. Pair
7100101182	UU003133988	•		HY80 -EU	3M™ PELTOR™ Hygiene (Gel) Cushions. Pair
7000039687	XH001659792	•		M42/1	3M™ PELTOR™ Large Windshield for speech microphone
7100064281	AT010580697	•	•	HYM1000	3M™ PELTOR™ Protection tape for speech microphone
7100112112	UU008159483	•		M171/2	3M™ PELTOR™ Wind shield for speech microphone. Pair
7010044799	XH001680392	•	•	A46/4	3M™ PELTOR™ ComTac™ VII,VIII, IX. 4 x Guides
XH001678552	N/A	•		PPN: 23-0052	3M™ PELTOR™ Cable Splitter: 5-pole female to dual 4-pole (NATO) male

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
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* Please note that the 3M™ PELTOR™ ComTac™ VIII Hearing Protector has not been tested in combination with Ballistic Helmets according to PPE directive 89/686/EEG



In the box

- 1 x ComTac VIII headset
- 1 x User Instructions
- 2 x AAA Alkaline batteries

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.

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 or 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.



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Warranty

The warranty does not cover any damage caused by neglected maintenance or careless handling. For more information on maintenance, please see the User Instruction. For complete warranty condition, contact your dealer or local 3M office. 3M, PELTOR & E-A-Rfit are trademarks of 3M. All other marks are property of their respective owner. © 3M 2025. All rights reserved.