



Defence &  
Public Safety

# 3M™ Defence & Public Safety

EMEA Region

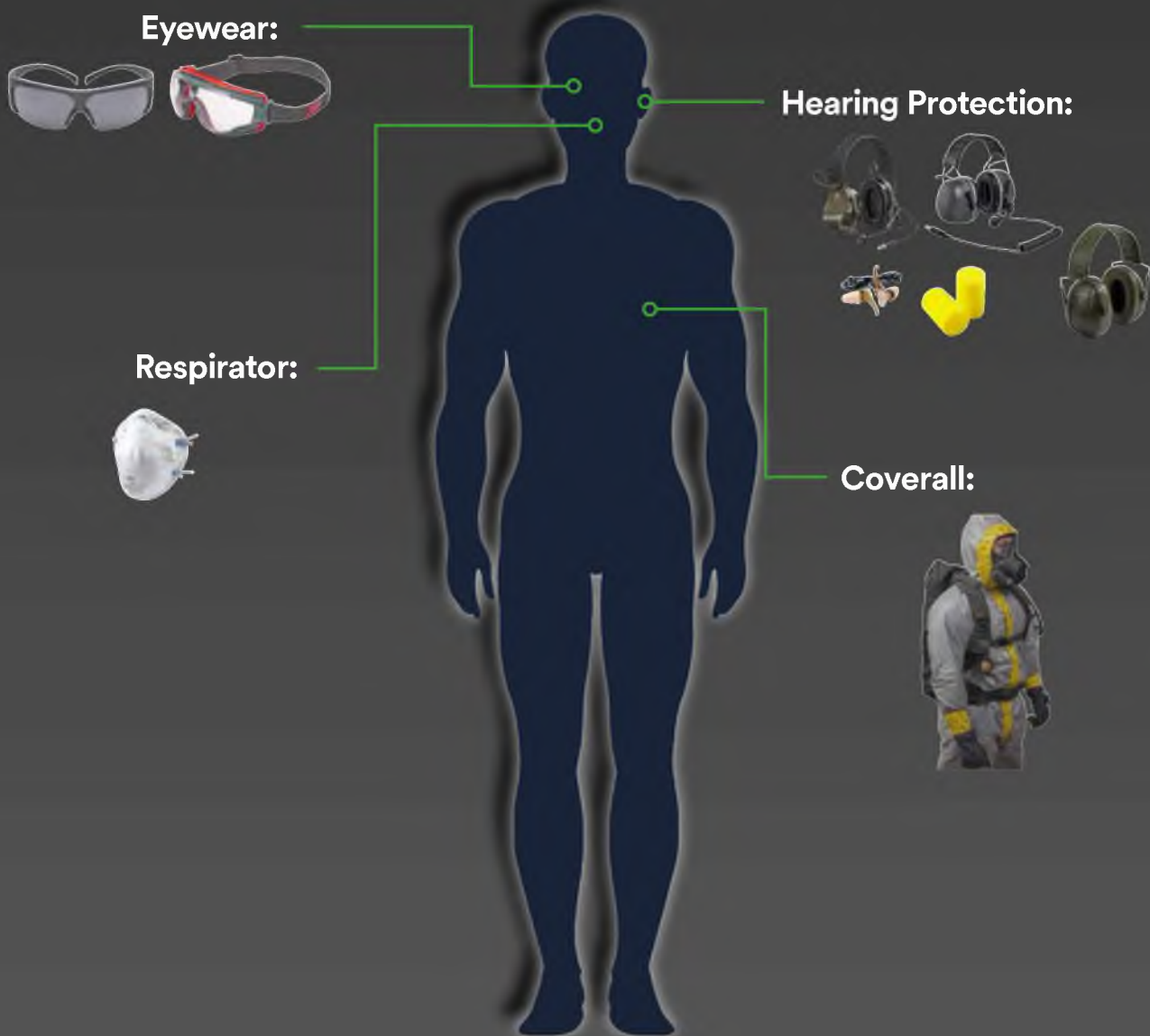
3M Science. Applied to life.™



With over 75 years of experience in the safety product industry, 3M aims to be the consultative partner of choice for providing Military Integrated Safety Solutions to help you meet your protection requirements, budgetary constraints and your ultimate goal of protecting and defending your entire force.

Our extensive Defence & Public Safety portfolio, including Hearing Protection / Communication solutions, Eye- and Fall-Protection amongst others, combined with our deep understanding of new and emerging technologies, puts us in a unique position to help analyze and meet your changing Defence & Public Safety needs.

3M can help extend your capabilities across multiple lines of development.



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**PELTOR™**  
Protection & Communication

# Communication and Hearing Protection



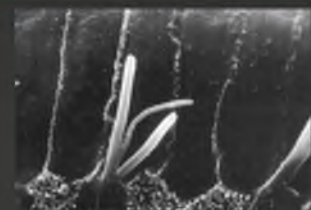


# Easy To Damage – Important To Protect

The human ear is well designed to pick up low levels of natural sounds and speech. Most military weapons, equipment, and vehicles produce a range of hazardous sounds. When the ear's sensory hair cells are repeatedly exposed to excessive doses of noise, they are damaged. The surviving hair cell stereocilia can only transfer a portion of the energy needed to detect and understand sound. Too much noise for too long can cause permanent hearing damage and tinnitus, or ringing in the ears.



Normal, uninjured ear. An electron microscope shows the hair cells with their fine stereocilia, which are put into motion by sound waves.



Noise damaged ear. The stereocilia have been repeatedly exposed to loud noise and eventually broken. Permanent hearing loss has occurred.

## The importance of wearing hearing protection 100% of time exposed

### Safety

The risk assessment for noise-induced hearing loss is based on long-term exposure to continuous noise. **If hearing protection is used 100% of the time exposed to noise the protection performance corresponds to the stated sound attenuation values.** If the wear time is reduced, the noise exposure while unprotected will result in a significant contribution to the dose. If the wear time is considerably reduced, the exposure just from the unprotected time period will exceed the maximum allowed dose.

The 3M™ PELTOR™ Headsets with level-dependent microphones for ambient listening encourage longer use because the wearer may feel less isolated and may communicate with others more easily.



**100 % usage**  
Gives the expected protection



**99 % usage**  
Just few minutes of unprotected exposure to hazardous noise per day, significantly increases the risk of hearing damage



**90 % usage**  
Significantly limited



# A few minutes of inattention

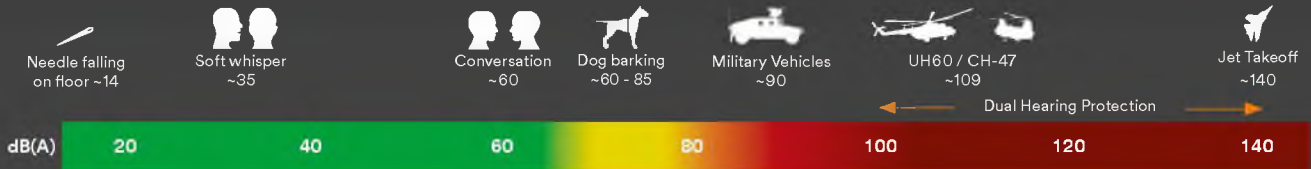
Damaged hearing cannot be reversed. Exposure to hazardous noise is one of the most common causes of hearing impairment.

## What makes sound hazardous?

Sound can be continuous, impulsive, or a combination of both. The risk to hearing is not the same for all types of sounds. In general, the hazard depends on the combination of how loud the sound is and how long you hear it: louder and longer means greater risk to hearing. The sound is louder the closer you are to it. For impulsive noise – short blasts that last less than one second - the risk to hearing goes up for higher peak sound levels and the more times the impulsive sound is repeated. For impulsive noise, even one loud event can cause permanent hearing damage and/or ringing in the ears.

## Continuous noise

Prolonged unprotected exposure above 80 dB(A) may cause hearing loss. Wear hearing protection to help reduce exposure.\* Wear dual hearing protection, such as earplugs & earmuffs together, for extreme noise exposure.



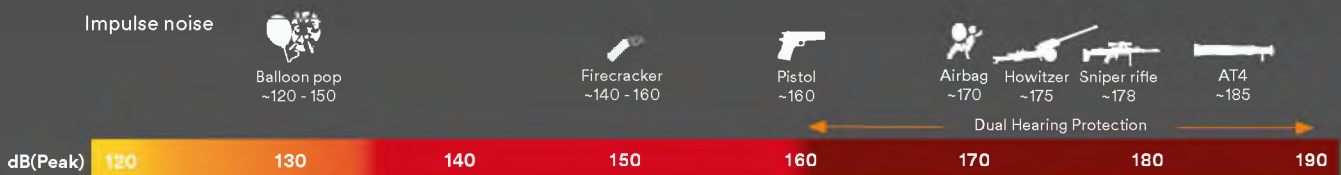
These examples are representative of typical sound levels dB(A) for these events and are used here for illustration purposes only. \*Verify hearing protection requirements with local regulatory bodies.

## Impulsive noise

Impulsive sounds are very short (less than 1 second) such as gunfire, explosions or the “pop” of a pneumatic nail gun. These sounds typically have extremely fast onset and often reach very high sound pressure levels (SPL).

Unprotected exposures greater than 135 dB peak may cause permanent hearing loss. Wear hearing protection to help reduce exposure.\*

The risk to hearing increases with repeated exposures over time, however a single unprotected exposure can result in permanent, instantaneous damage.



These examples are representative of typical peak sound pressure levels (dB peak) for these events and are used here for illustration purposes only. \*Verify hearing protection requirements with local regulatory bodies.



**PELTOR**  
Protection & Communication

# Functions and Features





# New advanced level-dependent function for environmental listening



Mission Audio Profiles

The environmental microphones help the users to listen to ambient sounds and communicate face-to-face in lower noise environments, all while wearing hearing protection.

The ComTac™ VI Headset introduces an advanced listening feature: **Mission Audio Profiles (MAP)** allowing the user to adapt and optimize the environmental listening function to different scenarios.



### Mission Audio Profile 1: Silent

ComTac VI features the capability to turn the environmental listening function off, while not powering down the headset. This may be beneficial in high noise environments where the least amount of outside sound is desired to help with communications.



### Mission Audio Profile 2: Comfort

Low volume and narrow frequency response to be used when in noise for long periods of time (tactical vehicle, air transport) where environmental listening is not prioritized over communications and overall comfort.



### Mission Audio Profile 3: Conversation

Maximizes the frequencies important for face-to-face communications for the natural speech while lowering the frequencies outside of the average speech band.



### Mission Audio Profile 4: Patrol

High volume with reduced high frequencies to limit sounds such as footsteps on gravel, grass moving under feet, equipment moving on body.



### Mission Audio Profile 5: Observation

Highest volume and widest frequency response to maximize hearing. To be used when the user is still (overwatch, hide spot, stop to listen, etc).

# Natural Interaction Behavior (NIB)

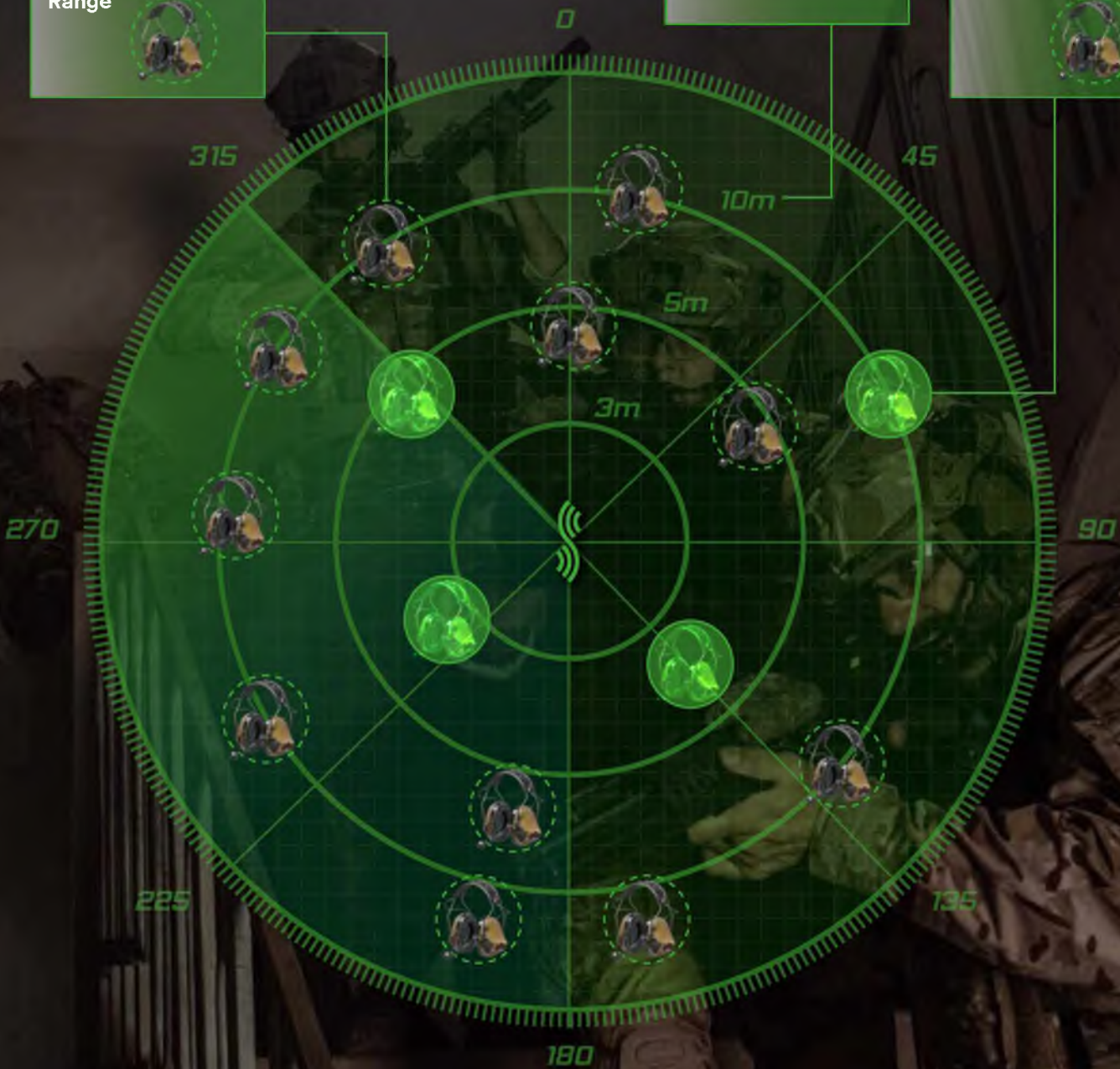
NIB enables short-range, full duplex, headset-to-headset intra-team communication without the use of an external radio.

Audio transmit is activated by either a voice activated switch (VOX) for hands free operations (in noise) or by push-to-talk.

Up to **60**  
Listeners Within  
Talkers Transmission  
Range 

**10 meters**  
Line-of-Sight  
Rx/Tx

**4** Full-Duplex,  
Simultaneous  
Talkers 



The NIB function is easy to use. Team members in proximity of each other (10m) will be automatically connected (when the NIB function is on) with full duplex communications.

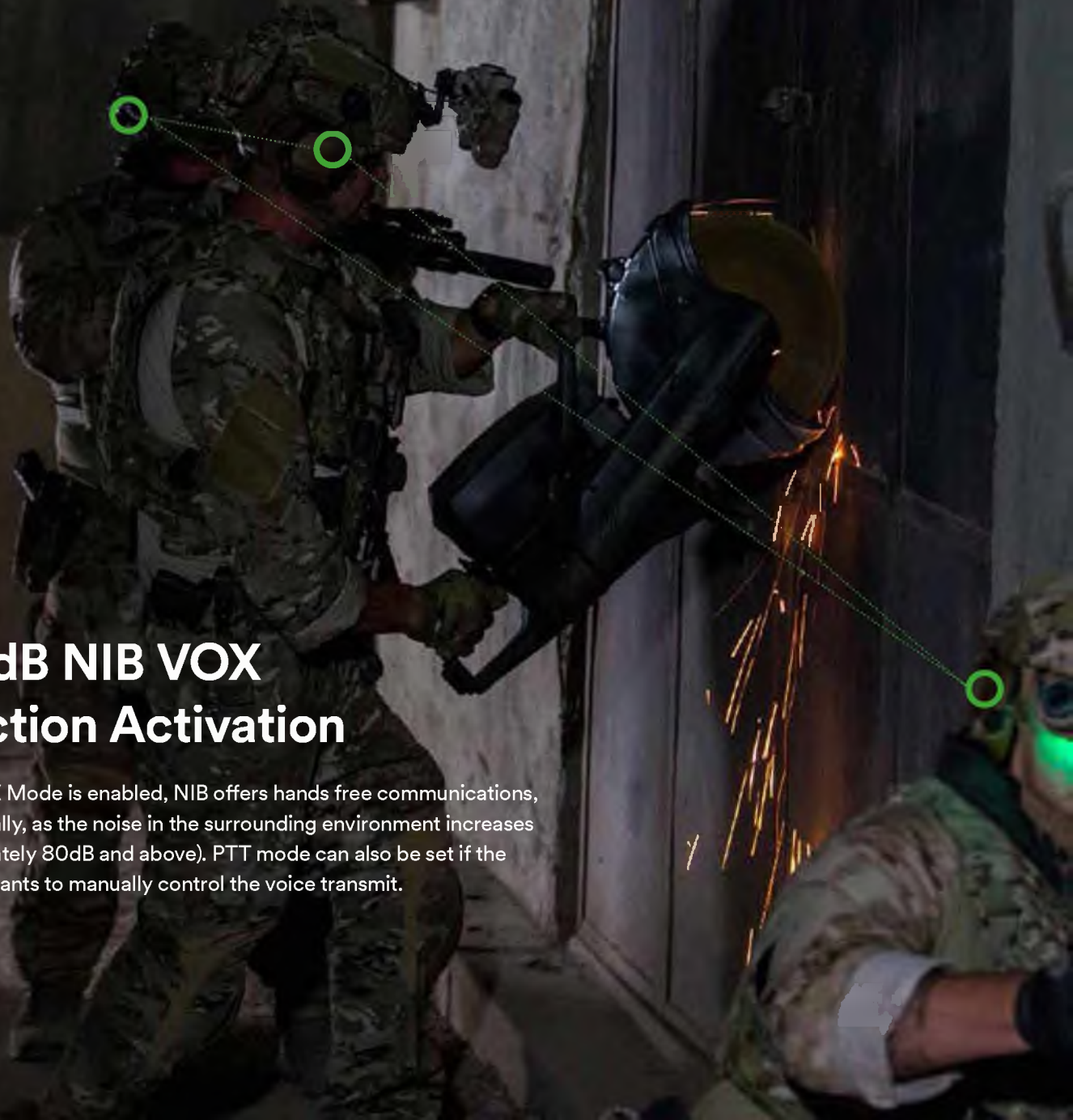
4 people can transmit simultaneously via PTT or VOX.

A PTT button is located in the back of the left ear cup that allows the user to easily turn NIB on or off, switch from VOX to PTT settings, and manually transmit via PTT.



## ≈80dB NIB VOX Function Activation

When VOX Mode is enabled, NIB offers hands free communications, automatically, as the noise in the surrounding environment increases (approximately 80dB and above). PTT mode can also be set if the operator wants to manually control the voice transmit.



ComTac™ VII Headset

Tactical Earplug, TEP-300

System Control Unit, SCU-300

Remote Control Unit, RCU-300



# 3M™ PELTOR™ Tactical Modular Audio System (TMAS)



3M™ PELTOR™  
System Control Unit, SCU-300  
Remote Control Unit, RCU-300

3M™ PELTOR™  
ComTac™ VII Headset

3M™ PELTOR™  
Tactical Earplug, TEP-300

TMAS is 3M's newest generation of tactical communication and hearing protection, developed to help operators effectively communicate in dynamic noise environments. The new system brings forward our next generation ComTac VII headset and TEP-300 earplug with new looks, improved systems integration, and enhanced auditory situational awareness to help give operators a tactical edge during operations.

TMAS features clear, reliable wireless communication that removes the cable(s) between the headset and Push-To-Talk (PTT), helping to increase overall mobility.

Additionally, the system comes equipped with a new remote PTT, that can be mounted on the weapons rail – giving operators the capability to transmit and adjust volume without having to remove their hand from the weapon.

The system offers flexibility and scalability to address the needs of the modern soldier, with the ability to manage legacy and future radio systems.

Welcome to the next generation of communication capability from 3M PELTOR.

3M™ PELTOR™

# System Control Unit - SCU-300

## Communications Integration

- Single, DUAL, and Multi COMMS configurable
  - Up to 3 Physical Communication Connections
  - Up to 6 two-way audio streams
- Single Channel Radio, Multi-Channel Radio, and ICS Connectivity
- Bluetooth® cell-phone connection capable\*

## Audio Management

The SCU can handle multiple radios, with multiple channels. In such scenarios, the user is able to select one of three preset sound profiles:

### Mix:

Radio communication(s) are heard equally in both left and right ear.

### Split:

Radio communications will be spilt between the left and right ears.

### Surround:

The radio communications will be perceived as it is coming from different directions (10 o'clock or 2 o'clock) depending on which channel the radio is transmitted from.

## Human-Machine Interface (HMI)

The SCU is designed to be integrated into the operator's mission set of equipment

### Physical Characteristics

- ✓ Lightweight (218g)
- ✓ Optimized size profile (L:110mm W:75mm H:36mm)
- ✓ Designed for left or right handed operations
- ✓ Buttons: Easy to find. Easy to Identify. Easy to Press. Provisions to prevent accidental activation.
- ✓ MOLLE Compatible
- ✓ Weapon Mounted Remote Control Unit (RCU)

### Software

- ✓ One time, voice guided set up.
- ✓ After initial set up – turn on and go!
- ✓ No external interface programming.
- ✓ Single button system shutdown

\*Selected models only



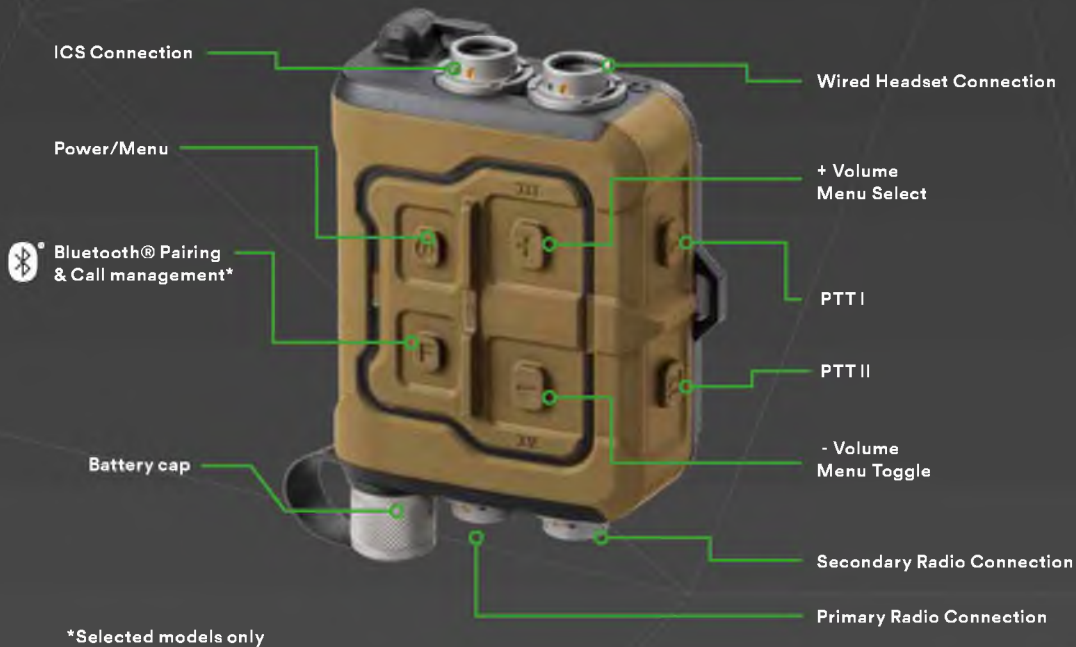
## 3M™ PELTOR™ System Control Unit, SCU-300 \*\*

# Wired or Wireless Headset Connection

In addition to an optional wired connection, TMAS lets you experience a secure, reliable cable-free connection between the SCU and headsets (both in-ear or over-the-ear). The SCU features proprietary automatic conflict resolution, which allows multiple users cordless communications in close proximity.

### Near Field Magnetic Induction (NFMI)

Near Field Magnetic Induction is a short range, digital, wireless physical layer that communicates by coupling a tight, low power, non-propagating magnetic field between devices. The range is approximately 50 cm (20 in). The steep degradation of NFMI signal strength as a function of distance increases privacy and reduces issues with interference compared to traditional wireless technology. Spectral interference is reduced by a “channel hopping” algorithm incorporated into the TMAS suite.



\*Selected models only



### 3M™ PELTOR™ System Control Unit, SCU-300

Part Number	Description	Legacy 3M ID	SAP ID	Color
SCU-300EU CY	3M™ PELTOR™ System Control Unit, Coyote Brown	UU010934899	7100223392	
SCU-300EU WS GE	3M™ PELTOR™ System Control Unit, Grey, Bluetooth®	UU010934816	7100224666	

3M™ PELTOR™

# Wireless Remote Control Unit - RCU-300



## Keep your hand on your weapon

The RCU is a wireless remote switch that allows an operator to push transmission without having to remove their hand from the weapon system.



## 3M™ PELTOR™ Remote Control Unit, RCU-300

### Wireless Remote Switch

The SCU can be remotely operated via the RCU. Besides using the RCU as a PTT, it can also be used to adjust the volume level of the environmental listening or radio.

Designed to be mounted on a picatinny rail, it can also be placed elsewhere (i.e. steering wheel, second body location).



- 4 Buttons
  - PTT I
  - PTT II
  - + Volume
  - - Volume
- 1600 Hour Battery life
- Up to 2 RCUs can be paired to SCU simultaneously
- Small (L: 61mm W: 41mm H: 24mm)
- Lightweight (51g)
- Can be used with a gloved hand.
- Buttons: Easy to find. Easy to Identify. Easy to Press.



3M™ PELTOR™

# ComTac™ VII Headset

## Auditory Situational Awareness (ASA) like never before.

The 7th generation ComTac changes everything you thought capable with tactical hearing protection.

ComTac VII is designed to improve on every critical area that helps increase auditory operational effectiveness, while providing new capabilities to address the challenges of communicating in dynamic noise environments.

- New ergonomic design to integrate with warfighter weapon and protective systems and increases comfort for long term wear
- Designed to improve sound localization, and speech intelligibility
- Natural Interaction Behavior (NIB): short-range, headset-to-headset communication without the use of an external communications device
- Mission Audio Profiles (MAP): advanced ambient listening modes that allow access to a variety of gain settings, but with frequency shaping, to enhance ASA
- Wireless Option. Go cord free, with 3M's NFMI enabled wireless –realize the freedom of unrestricted head movement, reduced cable management, and snag-free operations



# 3M™ PELTOR™ ComTac™ VII Headset

**New Headband Design**

A complete redesign helps improve comfort when worn under a ballistic helmet.

**Transition Made Easier**

Simplified cable removal and resetting and redesigned arm guides that snap on/off (no tools required) for easy transition between Accessory Rail Connectors (ARC) and headband.

**Speech Microphone**

Redesigned and embedded with patented 3M closed cell foam, delivers improved noise cancelling transmission in high noise and wind while also improving dust and water ingress protection (IP68, 6m / 30 min).

**New Earcup**

Updated, modern style that achieves the highest noise attenuation in the ComTac range, and retains a slim profile to help achieve an unobstructed cheek-to-stock weld.

**New Microphone Attachment**

Designed to help accommodate both left handed and right handed shooters without the need to relocate the microphone to opposite side of the headset.

**New Environmental Mic Design**

The new ear cup profile allows more space for an upgraded environmental mic and a more robust windscreen, resulting in improved ASA and reduced wind noise.

**Optional Wired Cable Connection**

A port for an optional wired connection to the SCU as primary or back-up connection.

**New Battery Compartment**

Redesigned, watertight battery compartment that does not require a tool to change batteries.



**Models - 3M™ PELTOR™ ComTac™ VII**

Part Number	Description	Legacy 3M ID	SAP ID	Color
MT14H41A-300EU CY	3M™ PELTOR™ ComTac VII, Coyote Brown	UU010934865	7100222871	
MT14H41A-300EU GE	3M™ PELTOR™ ComTac VII, Grey	UU010934881	7100222909	
MT14H41A-300EU GN	3M™ PELTOR™ ComTac VII, OD Green	UU010934873	7100222859	

3M™ PELTOR™

# Tactical EarPlug, TEP-300

## Compact Hearing Protection

3M™ PELTOR™ Tactical Earplugs, features environmental listening function – a capability designed to help provide auditory situational awareness, while still helping provide protection from hazardous noise. It comes with multiple sizes and types of replaceable eartips, designed to help provide hearing protection. The small size makes 3M™ PELTOR™ Tactical Earplug compatible with most headborne Personal Protective Equipment (PPE) such as helmets, eye wear, and respirators.

## In Ear Speech Microphone\*

The TEP-300 features in-ear, acoustical, speech communications microphones which pick up sound waves from your voice as you speak. This design eliminates the need for a traditional boom microphone, making it easier to use in combination with respiratory equipment.

## Portable Charging Case

3M™ PELTOR™ Tactical Earplugs, TEP-300 comes with a pocket-sized storage and charging container, which includes a charging status indicator. It provides up to 16 charges from 3 AA or AAA batteries (with adapter). A USB-C port also enables the charging of the earplugs when plugged into a usb power supply or other power source (cable not included).

\*Speech intelligibility, using an in-ear microphone, may vary between different radio models, and from person to person.

For more info regarding the 3M™ PELTOR™ Tactical Modular Audio System (TMAS) see separate Sellsheet or contact the 3M sales reps in Defence & Public Safety.

# 3M™ PELTOR™ Tactical EarPlug, TEP-300

## Compact Hearing Protection



**Operation**  
Intuitive one-button operation turns unit on, off, and selects volume settings .

**Rechargeable**  
Charging contacts recharge the unit while in the case. Internal earpiece Li-ion battery provides up to 10 hours of continuous operation when fully charged.

**Hearing Protection**  
Replaceable communications eartip helps provide hearing protection in noisy environments. Multiple sizes and types designed to fit most ear canals.

**Environmental Microphone Port**  
Assists with maintaining auditory awareness while helping minimize wind noise. Additional windscreen accessory available.

**IP68 Water and Dust Resistant**  
Innovative design helps protect earpiece against water and dust ingress.

**Near Field Magnetic Induction (NFI)**  
Wireless connection to 3M™ PELTOR™ System control Units, SCU-300.

**In Ear Speech Microphone**  
The TEP-300 features an in ear speech microphones which picks up sound waves that come out of your ear as you speak

# 3M™ PELTOR™ Tactical EarPlug, TEP-300

## Portable Charging Case



**Portable Charging Compartment**  
Up to 16 recharging cycles with AA batteries.

**Sealing Ring**  
Rubber sealing ring helps protect earplugs and charging case in wet and dirty environments. (IP68)

**Charging Status LED**  
Led lights indicate charging status.

**Micro USB-C Charging Port**  
USB port enables the charging of the earplugs when plugged into a computer or usb power supply (cable not included).

**Earplug Clips**  
Steel clips help secure earplugs in case.



### Models - 3M™ PELTOR™ TEP-300

Part Number	Description	Legacy 3M ID	SAP ID	Color
TEP-300 EU CY	3M™ PELTOR™ Tactical Earplug, TEP-300 CY, Coyote Brown	70-0717-3430-8	7100227628	
TEP-300 EU GE	3M™ PELTOR™ Tactical Earplug, TEP-300 GE, Grey	70-0717-3427-4	7100227651	
TEP-300 EU TN	3M™ PELTOR™ Tactical Earplug, TEP-300 TN, Tan	70-0717-3426-6	7100227629	

# ComTac™ Headset Solutions

Over 20 years of changing the game

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Being able to communicate effectively whilst at the same time receiving protection from harmful noise levels is a vital necessity in the military, both for exercises and battle situations. Noise levels are often so high that they can cause immediate, permanent damage to your hearing if proper hearing protection is not worn.

3M™ PELTOR™ ComTac™ 1st generation headset was a result of a project to help prevent hearing damage and at the same time enhance the efficiency of the soldier's mission during training as well as combat.

The 1st generation 3M™ PELTOR™ ComTac™ headset was introduced over 20 years ago and so far over 1,000,000 headsets have been delivered and used in more than 40 countries worldwide.







# Headset Features

## 3M™ PELTOR™ ComTac™ VI NIB Headset

### NIB - Natural Interaction Behavior™ Headset



#### Slim shell design

To be worn comfortably under a helmet and used with different kinds of weapons without interference.

#### Hearing Protection

Noise-attenuating ear cups help provide hearing protection in environments with potentially hazardous noise.

#### MAP - Mission Audio Profiles

The digital level-dependent function for ambient listening is set with five incremental steps including an advanced ambient mode.

Replaceable cushions and foam liners (hygiene kit). Approved with Gel rings (HY80-EU).

#### 2-AAA batteries (one for each cup)

Lasting for approx. 50 hours of use. The headset will turn off after 2 hrs of non-use to save batteries. A message will be heard when the battery is low.

Compatible with legacy PELTOR adapter

#### Noise-canceling microphone

Dynamic watherproof speech microphone. Tested according to IP68 (6m/30min)

#### Wireless input via Magnetic induction

The Headset are fitted with a small antenna to allow one-way communication to be received from a neckloop accessory.



### New advanced level-dependent function for ambient listening

The level-dependent microphones allow the users to listen to the ambient sounds and communicate in lower noise environments. Still protected against temporary or intermittent noise. The ComTac™ VI introduces the new 3M™ PELTOR™ MAP - Mission Audio Profiles, advanced settings for ambient listening, allowing you to adapt and optimize the level-dependent function for different scenarios.

### Fail-safe mode

External radio RX/TX communications are independent of headset battery power in fail-safe mode.

In the event of battery depletion or other power failure, external communications will continue to function.

**Slim design**

To be worn comfortably under a helmet and used with different kinds of weapons without interference

**Auditory Situational Awareness**

Level-dependent function for situational awareness and communication

**Detachable Microphone**

Easy to adjust and fit in to place

Gel Ring for more comfort in certain conditions. [Learn more on page 47](#)



# Headset Features

## 3M™ PELTOR™ ComTac™ XPI Headset

### Hearing Protection

Noise-attenuating ear cups help provide hearing protection in environments with potentially hazardous noise



### Easy to use

The headset is controlled with two buttons for on/off, volume and menu functions.

“Plug and play”, no start up time

### Noise-canceling microphone

Dynamic watherproof speech microphone. Tested according to IP68 (6m/30min)

### Great Communications

The external cable allows for easy Push-to-Talk (PTT) connectivity

The product has been tested in accordance with the impulse test requirements of ANSI S12.42

### Level-dependent – Situational Awareness

Environmental Listening is a means of allowing safe audio sounds to bypass the individual hearing protection while still protecting against harmful noises. This is accomplished with a proprietary digital audio circuit integrated into the headset.

A microphone receives the sounds outside the headset and transmits them to a speaker inside the headset. The Level-Dependent digital audio circuit senses noise levels above the desired threshold and compresses them to a safe decibel level below 82dB A or amplifies weak sounds to an audible level.

### Fail-safe mode

External communication and “Level-Dependent - Situation Awareness”. External radio RX/TX communications are independent of headset battery power in fail-safe-mode.

In the event of battery depletion or other power failure, external communications will continue to function.





## Comparison Chart of 3M™ PELTOR™ ComTac™ Hearing Protectors

	3M™ PELTOR™ ComTac™ XPI	3M™ PELTOR™ ComTac™ XPI Headset
Hearing protection	✓	✓
Earplug mode	✓	✓
Mission Audio Profiles (MAP)	-	-
Natural Interaction Behavior (NIB) for headset-to-headset intra-team communication	-	-
Detachable speech microphone	✓	✓
Near field Magnetic Induction (NFMI) for wireless headset connection	-	-
Headband types		
Neckband	✓	✓
Helmet attachment		✓
Foldable headband		✓
Battery life	~ 200h**	~ 200h**

\* Tested according to the applicable parts of MIL-STD-810G, EMC-MIL-STD-461F  
 \*\* Battery & temperature dependent

\* Tested according to the applicable parts of MIL-STD-810G, EMC-MIL-STD-461F  
 \*\* Battery & temperature dependent  
 \*\*\* Not tested according to PPE directive 89/686/EEG



	 <b>3M™ PELTOR™ ComTac™ VI NIB</b>	 <b>3M™ PELTOR™ ComTac™ VI NIB Headset</b>	 <b>3M™ PELTOR™ ComTac™ VII Headset</b>
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	-
✓	✓	✓	✓
✓	✓	✓	✓
-	-	-	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
LDF and NIB: Approx 30 hours** LDF: Approx 50 hours**	LDF and NIB: Approx 30 hours** LDF: Approx 50 hours**	LDF and NIB: Approx 30 hours** LDF: Approx 50 hours**	LDF and NIB: Approx 30 hours** LDF: Approx 50 hours**

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\* Tested according to the applicable parts of MIL-STD-810G, EMC-MIL-STD-461G  
\*\* Battery & temperature dependent

\* Tested according to the applicable parts of MIL-STD-810G, EMC-MIL-STD-461G  
\*\* Battery & temperature dependent

\* Tested according to the applicable parts of MIL-STD-810G, EMC-MIL-STD-461G  
\*\* Battery & temperature dependent

## Laboratory Attenuation Values\*\*\* EN 352-1:2002

## MT14H41A-300EU CY

Frequency (Hz) <sup>2</sup>	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) <sup>3</sup>	12.6	18.1	29.1	30.5	31.9	43.7	39.4
Standard Deviation (dB) <sup>4</sup>	2.3	1.5	3.3	2.6	2.2	2.5	2.7
Assumed Protection Value (dB) <sup>5</sup>	10.3	16.6	25.8	27.9	29.7	41.2	36.7

SNR=29 dB H=32 dB M=26 dB L=18 dB

## MT14H41A-300EU CY with Gel rings (HY80-EU)

Frequency (Hz) <sup>2</sup>	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) <sup>3</sup>	12.1	17.8	29.2	34.9	33.9	43.2	39.3
Standard Deviation (dB) <sup>4</sup>	2.2	1.4	2.9	2.2	2.2	3.2	3.3
Assumed Protection Value (dB) <sup>5</sup>	9.9	16.4	26.3	32.7	31.7	40.0	36.0

SNR=29 dB H=34 dB M=26 dB L=18 dB

## MT20H682FB- Folding band

Frequency (Hz) <sup>2</sup>	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) <sup>3</sup>	11.5	17.9	27.8	30.0	32.1	36.2	40.3
Standard Deviation (dB) <sup>4</sup>	2.5	2.7	1.8	2.3	3.0	2.0	3.1
Assumed Protection Value (dB) <sup>5</sup>	9.0	15.3	25.9	27.7	29.1	34.2	37.2

SNR=28 dB H=31 dB M=25 dB L=16 dB

## MT20H682BB- Backband

Frequency (Hz) <sup>2</sup>	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) <sup>3</sup>	16.6	16.8	27.4	32.1	33.1	33.0	36.1
Standard Deviation (dB) <sup>4</sup>	1.8	2.3	2.2	2.1	3.2	2.9	3.2
Assumed Protection Value (dB) <sup>5</sup>	14.8	14.5	25.2	30.0	29.9	30.1	32.9

SNR=28 dB H=31 dB M=25 dB L=18 dB

## MT20H682FB- Folding band

in combination with 3M™ E-A-R™ Classic™ earplug (EAR Plug mode)

Frequency (Hz) <sup>2</sup>	63	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) <sup>3</sup>	33.6	35.5	40.8	51.4	44.7	37.0	48.1	44.8
Standard Deviation (dB) <sup>4</sup>	4.4	5.8	5.0	6.6	4.8	3.6	4.9	4.8
Assumed Protection Value (dB) <sup>5</sup>	29.1	29.7	35.8	44.9	40.0	33.5	43.3	40.0

SNR=39 dB H=36 dB M=38 dB L=36 dB

## Laboratory Attenuation Values\*\*\* EN 352-2:2002

## 3M™ PELTOR™ CCC-GRM-25 Communication Eartips

Frequency (Hz) <sup>2</sup>	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) <sup>3</sup>	35.1	32.5	37.5	37.9	37.1	40.8	44.6
Standard Deviation (dB) <sup>4</sup>	5.5	4.9	5.1	4.8	4.3	4.6	4.7
Assumed Protection Value (dB) <sup>5</sup>	29.8	27.6	32.3	33.2	32.9	36.2	39.9

SNR=35 dB H=34 dB M=33 dB L=31 dB

## 3M™ Torque™ Communication Eartips

Frequency (Hz) <sup>2</sup>	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) <sup>3</sup>	38.1	35.5	40.7	40.9	37.5	40.3	44.9
Standard Deviation (dB) <sup>4</sup>	5.4	5.4	5.7	5.8	3.2	3.3	4.2
Assumed Protection Value (dB) <sup>5</sup>	32.7	30.1	35.0	35.1	34.3	37.0	40.7

SNR=37 dB H=36 dB M=35 dB L=33 dB

## 3M™ UltraFit™ Communication Eartips

Frequency (Hz) <sup>2</sup>	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) <sup>3</sup>	32.8	30.2	31.6	31.2	33.0	34.4	37.9
Standard Deviation (dB) <sup>4</sup>	6.2	4.5	5.4	4.4	4.0	4.8	3.9
Assumed Protection Value (dB) <sup>5</sup>	26.5	25.7	26.2	26.8	29.0	29.6	34.0

SNR=30 dB H=29 dB M=27 dB L=27 dB

\*\*\*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 for guidance on how to adjust attenuation label values. In the absence of applicable regulations, it is recommended that the SNR be reduced to better estimate typical protection.



Earplug mode

## 3M™ PELTOR™ ComTac™ VI NIB Headset matrix

Art.No / NSN number	Product Description	Colour	Band Style		Mic type	Connector				
			F-Band	Neck-band		No Connector	PELTOR J11	NATO J11	Stereo J11	Stereo 5-pole
7100168351 N/A	MT20H682FB-02N ComTac™ VI NIB Standard Headset	●	●	●	●	●				
7100168384 5965-22-633-3574	MT20H682FB-38N ComTac™ VI NIB Headset	●	●	●	●		●			
7100168800 N/A	MT20H682FB-86N ComTac™ VI NIB Headset	●	●	●	●			●		
7100168383 N/A	MT20H682FB-19BN ComTac™ VI NIB Headset	●	●	●	●			●		
7100168803 N/A	MT20H682FB-88N ComTac™ VI NIB Headset, Stereo	●	●	●	●				●	
7100242404 N/A	MT20H682FB-92EUN ComTac™ VI NIB Headset, 5-pole connector	●	●	●	●					●
7100191429 N/A	MT20H682BB-38N ComTac™ VI NIB Headset	●	●	●	●		●			
7100191318 N/A	MT20H682BB-86N ComTac™ VI NIB Headset	●	●	●	●			●		
7100168352 N/A	MT20H682FB-02N SV ComTac™ VI NIB Standard Headset	●	●	●	●	●				
7100168802 N/A	MT20H682FB-38N SV ComTac™ VI NIB Headset	●	●	●	●		●			
7100168801 N/A	MT20H682FB-86N SV ComTac™ VI NIB Headset	●	●	●	●			●		

## 3M™ PELTOR™ ComTac™ XPI Headset

# Selection matrix

### Models in green

Art.No / NSN number	Product Description	Band Style			Mik typ.			Connector				
		F-Band	Neck- band	P3AD	Standard	Flex	No Mic	PELTOR J11	NATO J11	Stereo J11	Stereo 5-pole	LEMO
7100020111 4240-25-161-5983	MT20H682FB-02 ComTac™ XPI	•					•					
7100039831 5965-98-208-1354	MT20H682FB-19B ComTac™ XPI dubbel leads	•				•			•			
7100039854 5965-64-000-0694	MT20H682FB-33 ComTac™ XPI curld cable	•			•			•				
7100035866 5965-22-609-5194	MT20H682FB-38 ComTac™ XPI Headset	•			•			•				
7100035198 5965-14-586-9592	MT20H682BB-38 ComTac™ XPI Headset		•		•			•				
7100049434 5965-14-587-3579	*** MT20H682P3AD-38 ComTac™ XPI Headset			•	•			•				
7100039830 5965-12-404-2623	MT20H682FB-68 ComTac™ XPI Headset Flex Mic	•				•		•				
7100020329 5965-25-161-5985	MT20H682FB-86 ComTac™ XPI Headset, NATO	•			•				•			
7100039769 N/A	MT20H682BB-86 ComTac™ XPI neckband NATO		•		•				•			
7100036591 N/A	*** MT20H682P3AD-86 ComTac™ XPI Helmet NATO			•	•				•			
7100035926 5965-25-161-8321	MT20H682FB-87 ComTac™ XPI Flex Mic NATO	•				•			•			
7100020110 5965-99-842-3169	MT20H682FB-88 ComTac™ XPI Headset Stereo	•			•					•		
7100207532 5965-12-391-8335	MT20H682FB-101 ComTac™ XPI Headset Stereo	•				•				•		
7100083899 5965-66-161-9954	MT20H682FB-90 ComTac™ XPI Selex PRR	•			•							•
7100242235 N/A	MT20H682FB-92EU ComTac™ XPI Headset, 5-pole	•			•						•	

\*\*\* Not tested according to PPE directive 89/686/EEG

### Models in black

Art.No / NSN number	Product Description	Band Style			Mik typ.				Connector		
		F-Band	Neck- band	P3AD	Bone	Standard	Flex	No Mic	PELTOR J11	NATO J11	Stereo J11
7100035232 4240-25-161-5311	MT20H682FB-02 SV ComTac™ XPI	•						•			
7100037410 5965-25-161-5986	MT20H682FB-38 SV ComTac™ XPI Headset	•				•			•		
7100035924 N/A	MT20H682BB-38 SV ComTac™ XPI Headset		•			•			•		
7100039853 N/A	*** MT20H682P3AD-38 SV ComTac™ XPI Headset			•		•			•		
7100052605 N/A	MT20H682FB-68 SV ComTac™ XPI Headset Flex Mic	•					•		•		
7100035925 N/A	MT20H682FB-86 SV ComTac™ XPI Headset NATO	•				•				•	
7100148527 N/A	MT20H682FB-87 SV ComTac™ XPI Flex Mic NATO	•								•	
7100153477 N/A	MT20H682FB-99 SV ComTac™ XPI Coild cable NATO	•				•				•	

\*\*\* Not tested according to PPE directive 89/686/EEG

# Spare Parts and Accessories

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The 3M™ PELTOR™ Brand offers a range of accessories to help you maintain and enhance your product during the product's life cycle. This will help promote consistent performance throughout the product's lifetime.







**MT33**  
Flexi boom speech microphone



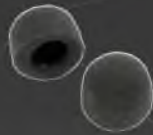
**MT73**  
Standard microphone



**MT90-02**  
Throat microphone (Dynamic)



**HYM1000**  
Micprotector



**M60/2**  
Foam mic cover



**M171/2**  
Wind shield for microphone for  
MT73 / MT33



**M42/1**  
Windshield for dynamic  
microphone



**1079 SV/SP**  
Battery lid



**P3ADG-F SV/2**  
Rails attachment



**F09/SP**  
Head pad for F-band



**TEP-Loop 201**  
Magnetic Loop



**FP9007**  
Headset bag

## Spare Parts and Accessories

Description	Art.No / NSN number	Reference Id
Flexi boom speech microphone, 130mm cable, Incl. wind shield	7100112093 / 5965-12-406-1471	MT33/1
Flexi boom speech microphone, 180mm cable, Incl. wind shield	7100112095 / 5965-25-162-1084	MT33-05/1
Standard microphone, 80mm cable	7100112094 / 5965-25-162-1083	MT73/1
Throat microphone (Dynamic)	7000040037 / 5965-12-382-0894	MT90-02
Foam mic cover for ComTac 2pc	7000039650 / 5965-22-125-7787	M60/2
Windshield for MT73/1, MT33/1 microphone, 2pcs	7100112112 / 5965-12-406-1586	M171/2
Windshield MAXI for dynamic microphone, black	7000039687 / 5965-22-614-2936	M42/1
Micprotector, 5m, black	7100064281 / 5965-22-125-0402	HYM1000
Clean Hygiene PAD	7100064410 / 5965-12-373-1048	HY-100A
Magnetic loop, 3,5mm mono	70071730694 / N/A	TEP-LOOP-201
Battery cover for ComTac XP, XPI	7100088235 / 6160-22-626-1720	1079 SV/SP
Headset Rail attachments for Military helmets	7000108832 / 5965-25-161-0859	P3ADG-F SV/2
Head pad for F-band	7100088308 / 5965-25-161-6051	F09/SP
Headset Bag	7100064607 / 5965-12-389-5457	FP9007

# Tactical Earplug Solutions

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3M™ PELTOR™ level-dependent technology helps provide hearing protection in noise and enhanced communication in quiet. Protecting hearing and improving situational awareness can help increase personal safety and can help improve productivity. Ear pieces also include a small antenna to allow audio signals to be received wirelessly from a neckloop accessory.



## 3M™ PELTOR™ Tactical Earplug, TEP-200 EU

# Electronic Level-Dependent Hearing Protector

### Design

Corner radius designed to help soften contact zone and increase comfort



### Button

Intuitive one-button operation turns unit on, off, and selects volume settings



### Charging case

Pocket-sized storage and charging container

Charger operates from battery or USB power



Hearing protection	✓
Level-dependent function for ambient listening	✓
Rugged design to withstand harsh environments	✓
Tested according to military standards*	✓
Waterproof (IP67)	✓
Recharge time	90 min
Battery life	~ 16h**

\* Tested according to the applicable parts of MIL-STD 810G

\*\* Battery & temperature dependent

### Communication

Ear pieces also include a small antenna to allow audio signals (listen-only) to be received wirelessly from a neckloop accessory.

TEP-LOOP-201 (not incl.)



## Available eartips



## Accessories



Description	Art.No / NSN number	Reference Id
3M™ PELTOR™ Tactical Ear Protection, TEP-200 EU, Kit	7100141803 / N/A	TEP-200 EU

## Accessories

Description	Art.No / NSN number	Reference Id
3M™ UltraFit™ Replacement eartips, Small (25 pair/case)	7100066371 / N/A	370-TEPS-25
3M™ UltraFit™ Replacement eartips, Medium (25 pair/case)	7100066387 / N/A	370-TEPM-25
3M™ UltraFit™ Replacement eartips, Large (25 pair/case)	7100066388 / N/A	370-TEPL-25
3M™ TORQUE™ COMM eartips (50 pair/case)	7000108492 / N/A	PELTIP5-01
3M™ PELTOR™ Triple-C Communication Eartips (25 pair/case)	7100103087 / N/A	CCC-GRM-25
3M™ PELTOR™ TEP-CORD	7100074090 / N/A	TEP-CORD
3M™ PELTOR™ TEP Earplug	7100066369 / N/A	TEP-200E
3M™ PELTOR™ TEP Case	7100066370 / N/A	TEP-100C
3M™ PELTOR™ Neckloop, 3.5mm plug, Stereo	7100142485 / N/A	TEP-LOOP-200
3M™ PELTOR™ Neckloop, 3.5mm plug, Mono	70071730694 / N/A	TEP-LOOP-201
3M™ PELTOR™ Foam Windscreen for TEP-200 EU	7100113748 / N/A	TEP-WINDSCREEN

## Attenuation tables

Ultrafit™ Eartips							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	34,5	31,5	36,2	33,4	34,8	34,9	38,8
Standard deviation (dB)	6,0	5,4	5,6	4,3	3,8	5,0	4,0
Assumed Protection Value (dB)	28,5	26,1	30,6	29,1	31,0	29,9	34,8

According to EN 352-2:2002 \*SNR=32 dB H=31 dB M=30 dB L=29 dB

PELTIP5-01/Torque™ Eartips							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	37,8	36,0	40,5	41,2	41,3	39,6	46,1
Standard deviation (dB)	4,3	5,5	4,2	4,7	3,2	4,3	3,6
Assumed Protection Value (dB)	33,5	30,5	36,3	36,5	38,0	35,3	42,5

According to EN 352-2:2002 \*SNR=38 dB H=37 dB M=36 dB L=34 dB

3M™ CCC-GRM-25 Eartips							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	35,5	32,5	37,1	38,0	37,6	39,5	45,5
Standard deviation (dB)	4,5	4,0	4,4	3,7	2,9	4,6	4,2
Assumed Protection Value (dB)	30,9	28,4	32,7	34,3	34,6	34,9	41,3

According to EN 352-2:2002 \*SNR=36 dB H=35 dB M=34 dB L=32 dB

\*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 for guidance on how to adjust attenuation label values. In the absence of applicable regulations, it is recommended that the SNR be reduced to better estimate typical protection.

3M™ PELTOR™

# High Attenuation Headsets



## 3M™ PELTOR™ CH-5 High Attenuation Headset

# Communication headset with high Attenuation



Hearing protection	✓
Dynamic waterproof boom microphone	✓
Tested according to CE standards	✓
Stainless Steel Wire Headband	✓

Description	Art.No / NSN number	Reference Id
3M™ PELTOR™ CH-5 Headset, PELTOR wired J11 connection	7100099845 / NSN 640001608	MT73H450A-38
3M™ PELTOR™ CH-5 Headset, NATO wired J11 connection	7100099883 / N/A	MT73H450A-86

### Attenuation tables

MT73H450A-38, MT73H450A-86							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	23.0	28.8	39.7	44.0	37.7	42.7	41.3
Standard deviation (dB)	2.9	1.6	2.5	3.3	2.2	1.7	4.2
Assumed Protection Value (dB)	20.1	27.2	37.2	40.7	35.6	41.0	37.1

According to EN 352-1:2002 \*SNR=37 dB H=38 dB M=36 dB L=28 dB

The product has been tested in accordance with the impulse test requirements of ANSI S12.42

\*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 for guidance on how to adjust attenuation label values. In the absence of applicable regulations, it is recommended that the SNR be reduced to better estimate typical protection.

\*\* Not CE approved

## 3M™ PELTOR™ Tactical XP Hearing Protection

**Headband -Leather**  
Collapsible for easy storage

**Control buttons**

**High amplification  
when needed.**



### Functions

Volume for the level-dependent function, balance, adjustable release time, equalizer, volume for external input and external input mode

**J22 Input Jack**

## 3M™ PELTOR™ WS™ LiteCom Plus Headset

- Pre-programmed analog two-way radio communication
- Bluetooth® multipoint functionality
- Waterproof microphone (IP68)
- Level-dependent function for situational awareness
- Available as 16 channels in the PMR 446 MHz band or 69 channels on the LPD 433 MHz band



## 3M™ PELTOR™ WS™ ProTac XPI Headset

- Bluetooth 4.2 including MultiPoint
- Level-dependent function for situational awareness
- Support for Bluetooth A2DP, streaming (selectable in Set-up mode)
- Auto power off: The headset will turn off after 4 hrs of non-use to save battery
- Improved MMI menu set-up for easier handling in daily operations





### 3M™ PELTOR™ Tactical XP Hearing Protection

Description	Art.No / NSN number	Reference Id
3M™ PELTOR™ Tactical XP, Standard	7000039608 / 4240-25-152-3370	MT1H7F2

### 3M™ PELTOR™ WS™ LiteCom Plus Headset

Description	Art.No / NSN number	Reference Id
3M™ PELTOR™ WS™ LiteCom Plus PMR446 MHz, Analog, EU version, Headband	7100204388 / N/A	MT73H7A4410WS6EU
3M™ PELTOR™ WS™ LiteCom Plus LPD433 MHz, Analog, EU version, Headband	7100204419 / N/A	MT73H7A4310WS6EU

### 3M™ PELTOR™ WS™ ProTac XPI Headset

Description	Art.No / NSN number	Reference Id
3M™ PELTOR™ WS ProTac XPI headband	7100196045 / N/A	MT15H7AWS6
3M™ PELTOR™ WS™ WS ProTac XPI FLX2 Headset, headband	7100195906 / N/A	MT15H7AWS6-111

## Attenuation tables

MT1H7F2*							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	17.0	25.6	34.0	37.4	36.4	38.6	38.2
Standard deviation (dB)	2.4	3.0	3.4	3.2	3.2	3.6	3.4
Assumed Protection Value (dB)	14.6	22.6	30.6	34.2	33.2	35.0	34.8

According to EN 352-1:2002 \*SNR=33dB H=35dB M=31dB L=23dB

MT73H7A4410WS6EU, MT73H7A4310WS6EU							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	17.1	25.6	34.5	34.5	36.6	39.6	38.3
Standard deviation (dB)	2.4	1.2	3.0	2.8	2.1	3.0	3.1
Assumed Protection Value (dB)	14.7	24.4	31.5	31.7	34.5	36.6	35.2

According to EN 352-1:2002 \*SNR=33dB H=35dB M=31dB L=24dB

MT15H7AWS6 / MT15H7AWS6-111							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	14.4	24.6	35.8	36.0	34.3	35.0	34.8
Standard deviation (dB)	3.1	1.8	3.2	2.7	2.3	3.0	3.4
Assumed Protection Value (dB)	11.3	22.8	32.6	33.3	32.0	32.0	31.4

According to EN 352-1:2002 \*SNR=31dB H=33dB M=30dB L=20dB

\*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 for guidance on how to adjust attenuation label values. In the absence of applicable regulations, it is recommended that the SNR be reduced to better estimate typical protection.

# Adapters and Cables

3M™ PELTOR™ Adapters are equipped with an audio output via standard J11 connector, which means that our complete range of standard headsets can be used without the need for any adaptation. The outgoing cord is equipped with connectors for communication radios or telephones. We can fit many of the common radios/phones on the market.



## Adapters and Cables

# Features

### Radio Connections

Able to connect various radios and intercom systems on the market.

### Sturdy design

Can be used with a gloved hand. Designed to reduce accidental activation. Water-resistant.

### 360° turnable clip

Design to accommodate left and right-handed operators. For secure fastening on garments.



## 3M™ PELTOR™ Adapter Single PTT FL4000

- Small, strong and easy-to-handle adapter, specially designed for rough environments
- Designed to help protect the electronic components against moisture
- Tested and approved for min. of 100,000 plug-ins
- 360° turnable clip for secure fastening on garments



Extra clips for FL4000

## 3M™ PELTOR™ Adapter Single PTT FL5000

- Small, strong and easy-to-handle adapter, specially designed for rough environments
- Designed to help protect the electronic components against moisture
- Tested and approved for min. of 100,000 plug-ins
- 360° turnable clip for secure fastening on garments



Shroud for FL5000

## 3M™ PELTOR™ Adapter FL56-D147 Multi PTT

Multi PTT adapter, which via different adapter cables 3M™ PELTOR™ ComTac™ XP/ XPI/VI headsets with J11 connector (NATO wired) can be adapted to different military on-board communication systems or military radios. Can be used in wheeled and tracked vehicles, mounted and dismounted.

The PTT button is easily accessible either with the right or with the left hand. Thanks to the special design, reliable operation is possible even with thick gloves.



Cable for FL56-D147 to SEM52SL,  
SEM79/80/90 radio

Cable for FL56-D147 to PRC117F,  
117G, 148 MBITR radio

<b>Military Adapters NATO wired</b>	<b>Art.No / NSN number</b>	<b>Reference Id</b>
3M™ PELTOR™ PTT-adapter to Harris Falcon II®, H-250/U	7000108190 / 5965-25-160-3745	FL5040-07
3M™ PELTOR™ PTT Adapter to Harris Falcon III®, 7800	7000108433 / 5965-25-160-5200	FL5601-100
3M™ PELTOR™ PTT Adapter to RACAL MBITR	7100005674 / N/A	FL5601-02
3M™ PELTOR™ Small PTT Adapter to Harris Falcon II®, H-250/U	7010048629 / 5695-25-161-8304	FL4040-02
3M™ PELTOR™ PTT Adapter to Elbit system PNR-1000	Special Build / N/A	PPN:18-0138
3M™ PELTOR™ PTT Adapter to M9000 series radio	Special Build / N/A	PPN: 16-0110
3M™ PELTOR™ PTT Adapter to Bowman radio	Special Build / N/A	PPN: 17-0070
<b>Military Adapters STEREO wired</b>	<b>Art.No / NSN number</b>	<b>Reference Id</b>
3M™ PELTOR™ Stereo connected PTT for two MBITR radios	7000108273 / 5965-12-384-6451	FL5701
3M™ PELTOR™ Stereo connected PTT for Elbit system PNR-1000	Special Build /	PPN:19-0033
<b>Military Adapters PELTOR wired</b>	<b>Art.No / NSN number</b>	<b>Reference Id</b>
3M™ PELTOR™ PTT-adapter to RACAL MBITR	7000147276 / 5965-12-384-5295	FL5040
3M™ PELTOR™ PTT-adapter to RA145, RA146, RA180	7000107876 / 5965-22-609-5198	FL5025
3M™ PELTOR™ PTT-adapter to PR4G	7000107882 / 5965-25-150-9969	FL5052
3M™ PELTOR™ Double PTT adapter to PR4G/Astro 5000	7000108372 / 5965-12-385-6592	FL5508
3M™ PELTOR™ PTT-adapter to Elbit system PNR-1000	Special Build /	PPN:18-0052
<b>Adapters PELTOR wired FL4000</b>	<b>Art.No / NSN number</b>	<b>Reference Id</b>
3M™ PELTOR™ PTT-adapter to Motorola Mototrbo™ DP3000, DP4000	7100049623 / N/A	FL4063
3M™ PELTOR™ PTT-adapter to Cassidian THR9	7100064878 / N/A	FL40142
<b>Adapters PELTOR wired FL5000</b>	<b>Art.No / NSN number</b>	<b>Reference Id</b>
3M™ PELTOR™ PTT-adapter to Nokia TETRA THR880	7100009674 / 5965-25-150-9686	FL5042
3M™ PELTOR™ PTT-adapter to Motorola TETRA MTP850	7100011659 / 5965-22-628-5898	FL5062
3M™ PELTOR™ PTT-adapter to Motorola Mototrbo™ DP3000, DP4000	7000039661 / 5965-22-634-0578	FL5063
3M™ PELTOR™ PTT-adapter to Sepura Tetra STP8000	7000108319 / 5695-22-630-6548	FL50101
3M™ PELTOR™ PTT-adapter to Motorola TETRA MTH800	Special Build / N/A	PPN: 16-0003
<b>Spare parts / Accessories for FL5000 adapters</b>	<b>Art.No / NSN number</b>	<b>Reference Id</b>
3M™ PELTOR™ Shroud for FL5000	7000039651 / 5930-20-005-9316	TKD5502/1
3M™ PELTOR™ Clips for FL50*	4100010766 / N/A	TKD5005
3M™ PELTOR™ Clips for FL5*, THIN	4100010765 / N/A	TKD5011
<b>Multi Adapter FL56-D147 and cables</b>	<b>Art.No / NSN number</b>	<b>Reference Id</b>
3M™ PELTOR™ Multi PTT-adapter NATO wired	7100191838 / 5930-12-407-8403	FL56-D147
3M™ PELTOR™ Cable for FL56-D147 to SEM52SL, SEM79/80/90 radio	7100194286 / 6150-12-407-9220	FL4-D1475270
3M™ PELTOR™ Cable for FL56-D147 to PRC 117F,117G, 148 MBITR radio	7100221853 / 6150-12-409-0900	FL4-D147PRC
3M™ PELTOR™ Cable for FL56-D147 to Intercom SOTAS IP	7100243515 / 6150-12-407-9374	FL4-D147SO
3M™ PELTOR™ Cable for FL56-D147 to BV25 radio	Special Build /	FL4-D147BV
3M™ PELTOR™ Cable for FL56-D147 to EADS G2 radio	7100243515 / 6150-12-407-9376	FL4-D147G2
3M™ PELTOR™ Cable for FL56-D147 to TPH700/900 radio	Special Build /	FL4-D147TPH
3M™ PELTOR™ Cable for FL56-D147 to Dittel FSG7016 radio	Special Build /	FL4-D147DI
3M™ PELTOR™ Cable for FL56-D147 to Kenwood 2-Pin radio	Special Build /	FL4-D147KEN
3M™ PELTOR™ Cable for FL56-D147 to Telefunken Racoms PNR1000 radio	Special Build /	FL4-D147PNR
3M™ PELTOR™ Cable for FL56-D147 to PRC Radio	7100246151 / 5995-12-415-2530	FL4-D14752S

3M acknowledges the respective Trademark Owner's rights in the above trademarks.

For more information regarding adapters that we have for military radios, please contact your 3M military sales representative in your country.

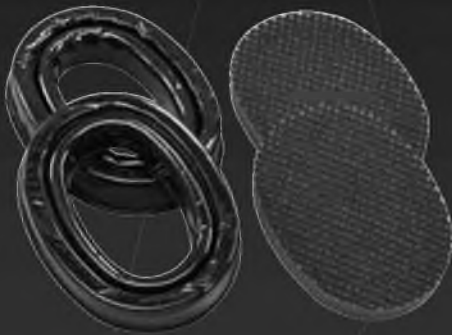
# Hygiene Kits and Gel Sealing Rings

Earmuffs, and in particular cushions, may deteriorate with use and should be examined at frequent intervals for cracking and leakage.

3M™ PELTOR™ Brand recommends to change the hygiene kit at least twice a year.



**Gel Sealing Rings**



**Attenuation data**

MT20H682FB-* in combination with HY80-EU							
Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	15.1	18.2	26.2	32.2	30.4	29.3	36.7
Standard deviation (dB)	3.4	3.0	2.2	2.5	3.7	3.7	4.0
Assumed Protection Value (dB)	11.7	15.2	24.0	29.7	26.7	25.6	32.7

According to EN352-1:2002

\*SNR=27dB H=27dB M=25dB L=16dB

**Gel Sealing Rings HY80-EU**  
 (for ComTac XPI, VI and VII)  
 Art No: 7100101182  
 NSN: 5965-22-630-0479

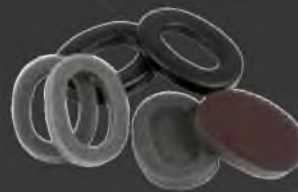
**Hygiene Kits**



**Hygiene Kit HY21**  
 (for SportTac)  
 Art No: 7000039686  
 NSN: 5965-25-150-9692



**Hygiene Kit HY51GN**  
 (for 3M™ PELTOR™ Bullseye I)  
 Art No: 7000108176  
 NSN: N/A



**Hygiene Kit HY79**  
 (for Tactical XP,  
 WS ProTac XP Headset,  
 LiteCom Plus Headset)  
 Art No: 7100063118  
 NSN: 5965-25-148-6456



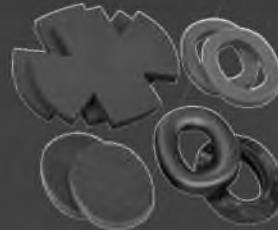
**Hygiene Kit HYX4**  
 (for 3M™ PELTOR™ Earmuff X4)  
 Art No: 7000104048  
 NSN: N/A



**Hygiene Kit HYX5**  
 (for 3M™ PELTOR™ Earmuff X5)  
 Art No: 7000104049  
 NSN: N/A



**Hygiene Kit HY68 SV**  
 (for ComTac XPI Standard,  
 ComTac XPI Headset)  
 Art No: 7000108023  
 NSN: 5965-12-388-8997



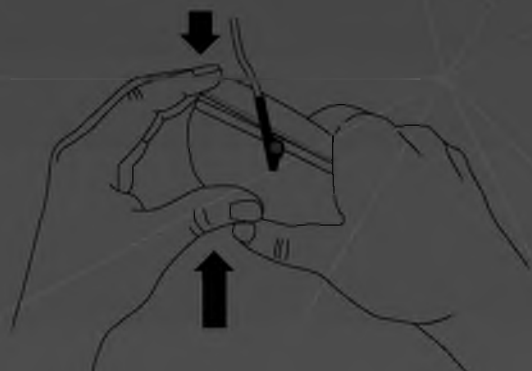
**Hygiene Kit HY45**  
 (for CH-5 Headset)  
 Art No: 7100107408  
 NSN: N/A



**Hygiene Kit HY220**  
 (for ProTac Hunter / Shooter)  
 Art No: 7100101874  
 NSN: N/A



To replace ear cushions, slide your finger under the edge of the ear cushion and pull straight out.



Insert a new ear cushion by pressing until it snaps into place.

\*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 for guidance on how to adjust attenuation label values. In the absence of applicable regulations, it is recommended that the SNR be reduced to better estimate typical protection.

# Earmuffs & Earplugs

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3M™ PELTOR™ Earmuffs consist of rigid cups with soft plastic cushions that seal around the ears to block noise. They are available in headband, neckband, helmet-attachable and folding models to meet virtually every application need and wearer preference.

3M™ E-A-R™ Hearing Protection Products are manufactured to help anyone who spends time in noisy environments. Over 30 years ago the 3M™ E-A-R™ Classic™ Earplug was introduced. The yellow foam earplug established new standards in hearing protection and comfort. Today this earplug continues to be the most widely recognised product in hearing protection all over the world.





# 3M™ PELTOR™ Earmuffs – X Series

- Combines our extensive knowledge of hearing protection with our advanced technologies, creating our most comfortable, durable earmuff.
- Durable 3M™ PELTOR™ Earmuff
- Features an electrically insulated (dielectric) wire headband
- Twin headband design helps reduce heat buildup with good fit and balance
- New ear cushion foam technology for an effective acoustic seal and reliable hearing protection
- Lightweight ear cups with maximum space to help minimize heat and moisture buildup



3M™ PELTOR™  
Earmuff X3



3M™ PELTOR™  
Earmuff X4



3M™ PELTOR™  
Earmuff X5

## 3M™ PELTOR™ Earmuffs – X Series

Description	Art.No / NSN number	Reference Id
3M™ PELTOR™ Earmuff X3, Black / Red	7000103991 / 4240-26-301-5151	X3A
3M™ PELTOR™ Earmuff X4, Black / Bright Green	7000103993 / N/A	X4A
3M™ PELTOR™ Earmuff X5 Headband, Grey	7000103995 / 4240-31-015-8394	X5A

## Attenuation data

### 3M™ PELTOR™ Earmuff X3

\*SNR=33dB H=35dB M=30dB L=25dB

### 3M™ PELTOR™ Earmuff X4

\*SNR=33dB H=36dB M=30dB L=22dB

### 3M™ PELTOR™ Earmuff X5

\*SNR=37dB H=37dB M=35dB L=27dB

\*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 for guidance on how to adjust attenuation label values. In the absence of applicable regulations, it is recommended that the SNR be reduced to better estimate typical protection.

# 3M™ PELTOR™ Bull's Eye Hearing Protector

## 3M™ PELTOR™ Bull's Eye I

The 3M™ PELTOR™ Bull's Eye I Hearing Protector was designed in collaboration with world-class sport shooters to develop a hearing protector that meets the need of different wearers. For example, a bevelled edge on the bottom of the shell helps prevent the unit from coming into contact with the barrel when sighting. The hearing protector has the necessary attenuation for most shooting applications without being bulky so as not to interfere with the shooting process.

Wearer comfort is one of the critical determining factors when selecting an appropriate hearing protector. The chosen hearing protector needs to be comfortable and offer adequate protection to help ensure the device is worn at all times during exposure to potentially hazardous noise.

The 3M™ PELTOR™ Bull's Eye I features a convenient low profile foldable headband. Available in red green and black.

**Attenuation:**

\*SNR=27dB H=32dB M=24dB L=15dB



Colours:



Weight: 190 g.

## 3M™ PELTOR™ Bull's Eye III Hearing Protector

A hearing protector with extremely high attenuation for very loud noise. The wide, soft, padded headband provide comfort even during prolonged period of use.

Available in green.



Colours:



Weight: 285 g.

## 3M™ PELTOR™ Earmuffs – Bull's Eye

Description	Art.No / NSN number	Reference Id
3M™ PELTOR™ Bullseye I, Green	7000039680 / N/A	H515FB-516-GN
3M™ PELTOR™ Bullseye I, Black	7000039681 / N/A	H515FB-516-SV
3M™ PELTOR™ Bullseye III	7000107979 / N/A	H540A-441-GN

# 3M™ E-A-Rfit™ Dual-Ear Validation System

The highest-SNR earplug or earmuff won't provide the expected protection if it doesn't fit right or isn't used right. To help ensure your personnel are getting the protection they need, you should know the Personal Attenuation Rating (PAR) of every employee.

### Fit

Have the employee insert their hearing protection.

### Test

Connect to microphones and begin speaker test sound.

### Assess

Use PAR to customise hearing protector selection.



### Fail

A 'fail' result means the hearing protection is either not inserted properly or is the wrong type or size for the worker's ear canal.



### Pass

A 'pass' result means the hearing protection is inserted properly and provides sufficient protection for the worker's noise exposure.

### NOTE:

Finding out each employee's PAR is the first step to a successful hearing conservation program. Once a worker's PAR is measured, you can determine if they're using the right hearing protection and ensure they're trained on using it properly.

Research suggests that many users may receive less noise reduction than indicated by the attenuation value(s) on the packaging, due to variation in fit, fitting skill, and motivation of the user. Refer to your national regulations for guidance on how to adjust label values and estimate attenuation. In addition, 3M strongly recommends fit testing of hearing protectors.

## 3M™ EARfit™

Description	SAP_MATERIAL	Reference Id
3M™ E-A-Rfit™ Dual-Ear Validation System	7100062125	393-1100
ComTac™ , ProTac Shooter, LiteCom Pro III, X1, X2, Optime I, II and Bull's Eye II	7100062126	393-3001-2
CH-5 Headset, X4 and X5 X-Series	7100062128	393-3005-2
H540 Optime, Bull's Eye III	7100123728	393-3004-2
X3 X-Series	7100062127	393-3003-2
370-1041, 3M™ Combat Arms™ 4.1, Single Ended Medium	7100113006	393-2022M-50
370-1042, 3M™ Combat Arms™ 4.1, Single Ended, Large	7100113002	393-2022L-50
370-1040, 3M™ Combat Arms™ 4.1, Single Ended Small	7100113005	393-2022S-50
E-A-Rsoft™ Yellow Neons™	7100069736	393-2000-50
E-A-R™ Classic™ "Medium"	7000052882	393-2003-50
Classic™ Small	7000052884	393-2007-50
Classic™ Plus , SuperFit 36	7000052880	393-2009-50
TEP-200 Skull Screws, Torque™	7100225703	393-2030-50
TEP-200 CCC-GRM	7100225704	393-2031-50
TEP-200 UltraFit™ Small	7100225700	393-2032-50
TEP-200 UltraFit™ Medium	7100225705	393-2033-50
TEP-200 UltraFit™ Large	7100225706	393-2034-50

# 3M™ Combat Arms™ Earplugs – Generation 4.1



- Hear-Through™ Protection
- Specially designed soft retainer helps ensure the earplug remains seated inside the ear canal.
- Rocker switch for easy switching between Closed Mode and Open Mode.
- Available in three sizes for best individual fit
- Offers high attenuation against peak impulse noise – can be used up to 160dB peak
- Easy to wash and clean

This product features a special acoustical filter that lets lower level sound through with relatively little noise reduction for greater situational awareness, and provides increasing amount of peak noise reduction as sound levels increases above 110 dB. This is called the **Open Mode**.

When used in the **Closed Mode** the product acts as a conventional earplug offering protection against steady state and peak impulse noise.

# 3M™ E-A-R™ Classic™ Earplugs



Small



Medium



Large

- Made from a soft energy absorbing polymer foam
- Excellent hearing protection and extended wear comfort
- Ideal for use where noise is a problem, either in work or leisure activities.

## 3M™ Combat Arms™ Earplugs - Generation 4.1

Description	Art.No / NSN number	Reference Id
3M™ Combat Arms™ 4.1 Small (50 pair/case)	7100067413 / 6515-99-216-6075	370-1044
3M™ Combat Arms™ 4.1 Medium (50 pair/case)	7100067414 / 6515-99-614-5840	370-1045
3M™ Combat Arms™ 4.1 Large (50 pair/case)	7100067411 / 6515-99-727-9578	370-1046

## 3M™ E-A-R™ Combat Arms™ Earplugs

Description	Art.No / NSN number	Reference Id
3M™ E-A-R™ Skin colour with shorter stem, (250 pair/case)	7000103986 / N/A	370-1400

## 3M™ E-A-R™ Classic™ Earplugs

Description	Art.No / NSN number	Reference Id
3M™ E-A-R™ Classic Amigo, Small (250 pair/case)	7000089396 / 6515-99-285-3968	AM-01-000
3M™ E-A-R™ Classic, Medium (250 pair/case)	7000038198 / 6515-12-313-4340	PP-01-002
3M™ E-A-R™ SuperFit 36, Large (200 pair/case)	7100040145 / 6515-99-565-6228	SF-01-003

# Attenuation data

## 3M™ Combat Arms™ Earplugs – Generation 4.1

Subjective attenuation in the Closed Mode								
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	28.3	27.9	26.8	28.3	27.2	31.5	33.0	39.2
Standard deviation (dB)	5.8	4.3	4.4	3.4	4.0	4.4	2.3	4.9
Assumed Protection Value (dB)	22.5	23.6	22.4	24.9	23.2	27.1	30.7	34.3

According to EN 352-2:2002

\*SNR=28dB H=28dB M=25dB L=24dB

Subjective attenuation in the Open Mode								
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	5.7	5.8	7.9	10.1	17.3	23.9	23.3	28.3
Standard deviation (dB)	2.5	2.8	3.1	2.3	2.6	3.4	2.7	5.4
Assumed Protection Value (dB)	3.2	3.0	4.8	7.8	14.7	20.5	20.6	22.9

\*SNR=16dB H=20dB M=12dB L=7dB

Peak noise reduction values in the Open Mode					
External Peak Sound Level (dB)	110	130	150	170	190
Peak Noise Reduction (dB)	4.8	13.9	17.0	23.5	30.2
Standard Deviation (dB)	1.8	0.4	0.5	0.6	0.7

As determined by the Institute of Saint-Louis (ISL) Laboratory, France.

## 3M™ E-A-R™ Classic™ Earplugs

3M™ E-A-R™ Classic™ / 3M™ E-A-R™ Classic™ Amigo								
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	22.3	23.3	24.6	26.9	27.4	34.1	41.6	40.4
Standard deviation (dB)	5.4	5.3	3.6	5.4	4.8	3.1	3.5	6.4
Assumed Protection Value (dB)	16.9	18.1	20.9	21.5	22.6	30.9	38.1	34.0

According to EN 352-2:2002

\*SNR=28dB H=30dB M=24dB L=22dB

E-A-R™ Superfit™ 36 Earplugs								
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB)	29.1	32.4	36.0	38.0	38.9	39.1	43.1	44.6
Standard deviation (dB)	6.2	7.3	7.3	6.8	6.7	3.1	6.1	6.3
Assumed Protection Value (dB)	22.8	25.0	28.7	31.2	32.2	35.9	37.0	38.4

According to EN 352-2:2002

\*SNR=36dB H=36dB, M=33dB, L=30dB

\*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 for guidance on how to adjust attenuation label values. In the absence of applicable regulations, it is recommended that the SNR be reduced to better estimate typical protection.

# Eye Protection

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Besides helping protect your hearing and helping ensure your communication capacity, 3M also offers protective eyewear with advanced engineering.

3M™ Eyewear with secure fit pressure diffusion temple technology features a comfortable fit and a sleek profile designed to work with other personal protective equipment, 3M™ SecureFit™ Protective Eyewear helps keep you safe and comfortable on the job.

3M capabilities in eyewear also include premium coating technology, which is evident in our proprietary 3M™ Scotchgard™ (SGAF) Coating, and premium design that make the eyewear attractive and comfortable to wear.



# The Human Eye

## The Cornea

In direct contact with external environment, plays an essential part on the transmission of light rays. It is the structure of the human body which has the highest tactile sensibility.

## The Pupil

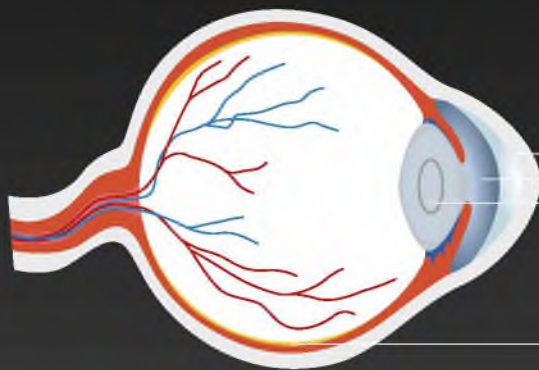
(Light controller), situated in the middle of the iris, works like the diaphragm of a camera. Its diameter changes in accordance with the luminosity.

## The Lens

The Lens allows focusing (near vision, far vision) thanks to a control muscle. With age this muscle loses power and impacts near vision (presbyopia). The lens can lose its transparency due to exposure to IR (infrared light) and UV (ultraviolet light), resulting in loss of vision (cataract).

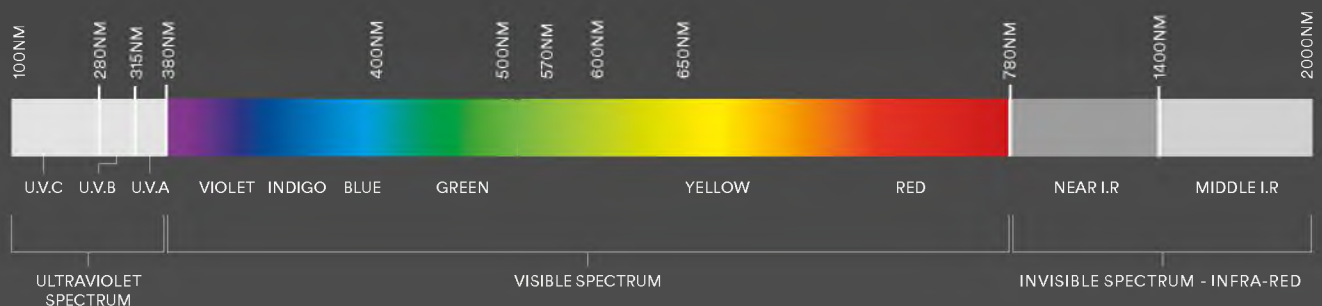
## The Retina

Where all light beams converge, transmits all information through the optic nerve to the brain in order to create your vision. Burned retina cells are lost forever which cause irreversible loss of vision.



### Potential Industrial hazards for the eyes

- Mechanical hazards: dust, shock, solid particles.
- Thermal hazards: hot liquid, molten splash, flames.
- Chemical or Biological hazards: splashes of acids, solvents, alkalis, infected blood.
- Radiation hazards: ultraviolet, infrared, visible, light, laser.
- Electrical hazards: direct contact, short-circuit electric arc.



	U.V.C 100 to 280nm	U.V.B 280 to 315nm	U.V.A 315 to 380nm	Blue light 380 to 480nm	Visible light 380 to 780nm	Near I.R 780 to 1400nm	Middle I.R 1400 to 2000nm
<b>Cornea</b>	Conjunctivitis Partial blindness	Conjunctivitis Partial blindness	Conjunctivitis Partial blindness				
<b>Lens</b>		Cataract Premature aging	Cataract Premature aging			Cataract	Cataract Partial blindness
<b>Retina</b>				Partial Blindness Photoreinitis	Vision problems Discontinuous vision	Retinis Pigmentosa Blindness	

# 3M™ SecureFit™ 600 Series



### 3M™ Proprietary Pressure Diffusion Temple Technology

- Self-adjusting with no moving parts
- Temples adjust to a wide range of head sizes, to help provide a comfortable, secure fit
- Helps remain securely in place as the wearer looks up and down or side to side – may reduce the need for frequent repositioning of the glasses due to head movement

### 3M™ Scotchgard™ Anti-Fog Coating

- Scotchgard™ Anti-Fog Coating lasts longer than traditional anti-fog coatings\*
- Coating remains effective for multiple 60-second cycles when tested according to EN 166/168
- The coating's active ingredient is bonded to the lens, allowing it to last for at least 25 washings with water

\* Based on 3M internal testing per EN168 test method when compared with traditional anti-fog coatings

### • Lightweight

Weighs less than 27g.

### • Tested to Military Vo High Velocity Impact Requirement of MIL-PRF 32432(GL):

15 caliber – 640-660 ft./sec. Note: This product is not currently listed on any QPL or QML program.

### • Durable polycarbonate lenses

Absorbs 99.9% of UVA and UVB rays and meets the requirements of EN166:2001 Standard for Impact

### • Three Lens Tint Options:

Clear, Grey, Amber

# 3M™ GoggleGear™ 600 Series



### Large Profile, big performance.

- Optical class 1 lens for prolonged use
- Single piece lens design
- Adjustable nylon fibre cloth headband
- Protection against liquid droplets or splashes – marking code 3 according to EN 166
- Protection against large dust particles – meeting code 4 according to EN 166
- Offers protection against UV radiation

### 3M™ Scotchgard™ Anti-Fog Coating

- Provides scratch resistance and durability
- Provides superior anti-fog and anti-scratch properties, complying with K & N marking requirements of EN166
- 3M™ Scotchgard™ Anti-Fog/Anti-Scratch Coating provides scratch resistance and durability, even after multiple washes

## 3M™ SecureFit™ 600 Series with Scotchguard™ Coating

Description	Art No / NSN number	Reference
3M™ SecureFit™ 600, Gray frame, Scotchguard™ Anti-Fog, Clear lens	7100112717	*SF601SGAF-EU
3M™ SecureFit™ 600, Gray frame, Scotchguard™ Anti-Fog, Grey lens	7100112716	*SF602SGAF-EU
3M™ SecureFit™ 600, Gray frame, Scotchguard™ Anti-Fog, Amber lens	7100112712	*SF603SGAF-EU
3M™ SecureFit™ 600 Foam insert	7100112725	SF600FI-EU

## 3M™ Goggle Gear 6000 Series

Description	Art No / NSN number	Reference
3M™ GoggleGear™ 6000 Series Safety Goggles, Black Shroud and Strap, Scotchguard™ Anti-Fog/Anti-Scratch Coating (K&N), Clear Lens	7100216582	GG6001SGAF-BLK EU
3M™ GoggleGear™ 6000 Series Safety Goggles, Black Shroud and Strap, Scotchguard™ Anti-Fog/Anti-Scratch Coating (K&N), Grey Lens	7100216514	GG60002SGAF-BLK EU



# 3M™ Fahrenheit™ TacPack



### Base lens: clear dual panel lens

- 2 single lens bonded together with a 2mm space between them to create a insulating thermal barrier that keeps the inner lens warm and dry (best anti-fog system possible)
- Resistance to impact at extreme temperature
- UV filtration
- Inner lens: anti-fog coating / Outside lens = anti-scratch
- "clip-on" easy cover lens installation. The lens cover can be installed even in the dark in a few seconds.
- Frame design provides good coverage and good field of vision

### Pack content

1x protective hardcase, 1x soft nylon case to store 2 cover lenses, 1x Goggle with 2 single Clear lens bonded together, 1x Lens cover to protect when not in use, 1x Cover lens with holder, Amber tint ( 2C-1.2 ), 1x Cover lens with holder, Dark Grey tint ( 5-3.1 ), 1x Microfiber cleaning cloth 17,5cm x 17,5cm, washable.

### Tested according to

EN166, field of Use 3&4, Impact rating BT STANAG 2920 (Edition2), V50 projectile A3/6723/6, 3.6 mm diameter, V50=321 m/s (not listed or certified by QPL/QML)

# 3M™ 2890 Series Safety Goggles



### Features and Benefits:

- Optical class 1 lens suitable for prolonged use.
- Provides excellent protection against liquid droplets and large dust particles.
- Lens treatment provides both scratch resistance and antifogging.
- Wide, easy-to-adjust strap for stable comfortable fit.
- Pivoting ratchet for convenient individual adjustment and fit.
- Indirect ventilation improves air circulation and reduces fogging in hot/humid conditions (2890/2890A).
- Additional protection against gas & fine particles.
- (2890S/2890SA/2895S)
- Acetate lens option for increased chemical resistance.
- Replacement lens options.

Component	Material
Lens	Polycarbonate (2890/2890S/2895S)
Acetate	(2890A/2890SA)
Frame	PVC
Head strap clips	Nylon
Head strap	Elasticated Polyester
Weight	104g

### Tested according to

The 3M Fahrenheit goggle has been shown to meet the basic safety requirements under Module B of the PPE Regulation (EU) 2016/425 and is thus CE marked.

## 3M™ Fahrenheit™ TacPack

Description	Art No / NSN number	Reference
3M™ Fahrenheit™ TacPack	7100102627 / 4240-99-865-7136	71460-99999M

## 3M™ 2890 Series Safety Goggles

Description	Art No / NSN number	Reference
3M™ 2890 Series Safety Goggles, PC lens, ventilated AS/AF	7000032480	2890
3M™ 2890S Series Safety Goggles, PC lens, unventilated AS/AF	7000061924	2890S

3M™

# Protective Apparel

**Differential Permeation. Applied to helping returning you home safely.**

At 3M we have a select and high quality range of CE Certified products from CE simple coveralls to PPE Regulation Category III Coveralls, which provide protection against many hazards.









The range of 3M™ Protective Apparel offers a variety of features, from the use of fabrics with specialist treatments for enhanced wear and added protection, to breathable back panels for increased comfort. Our experts can work closely with you, to help you identify hazards and best protect your workers against them.

## Standards

There are many tests and standards that apply to protective coveralls and selection can be a daunting task. The following section outlines the different options available to help you select the right product for your employees. For more information on how the tests are done, and what they mean practically to you, review the technical bulletins and guides within our 3M protective apparel literature.





### Protection Types

Depending on the materials and construction, protective coveralls can be designed for either hazardous applications (certified to CE Category III) or non-hazardous applications (approved as CE Simple Category 1). Products for hazardous applications can be tested and certified to any of six different "Type" standards providing guidance on suitability of use:

Category	Symbol	Protection Type	Standard	3M Products
		1 – Gas Tight	EN 943-1	N/A
		2 – Non-gas tight	EN 943-1	N/A
CE Category III 		3 – Liquid Jet Protection	EN 14605 + A1	4570
		4 – Liquid Spray Protection	EN 14605 + A1	4565
		5 – Hazardous Particulate Protection	EN ISO 13982	4570, 4565, 4545, 4540+, 4535, 4532+, 4530, 4520, 4515, 4510
		6 – Liquid Splash Protection	EN 13034 + A1	
CE Category I		CE Simple		4500

### Additional Standards

Some 3M™ Protective Coveralls and their materials are approved to additional standards for specialist applications.

Symbol/Standard	Protection Type
	Protection against micro-organisms or infective agents (EN 14126:2003)
	Protection against nuclear particles (EN 1073-2:2002)
	Anti-static (EN1149-5: 2018)
ISO 15025 / ISO 14116	Limited Flame Spread Resistance
	Where added to the above symbols please refer to the appropriate user instructions for further information on the compliance of this product



# Materials

The following is a guide that offers a brief description and comparison of the materials used in 3M's protective coverall range. Base materials can be treated, for instance, with an anti-static treatment, to enhance the total protection offered.

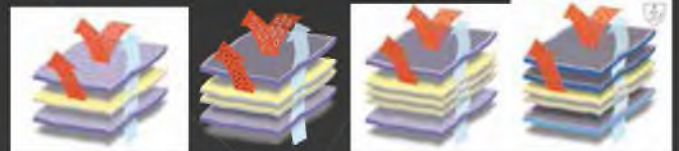
## Non-woven Polypropylene

Offers comfortable light-duty protection against nonhazardous liquids and dust.



## Spunbond-Meltblown Polypropylene (SMS)

'SMS' can be layered differently to adjust the protective and physical properties of the material. Standard SMS-material is very breathable and offers a good barrier against dusts and limited liquid splashes. If treated, materials can achieve an enhanced level of splash protection, such as the 3M™ Protective Coverall 4532+.



## Microporous Laminates

'Microporous laminates' offer a higher level of liquid splash protection, while the micropores allow for some breathability.



## Non-microporous Laminates

'Non-microporous laminates' can offer an even higher level of liquid protection. Adding multiple layers of the laminate can also increase robustness and chemical holdout.



## Design Features

3M™ Protective Coveralls can offer a variety of features depending on your needs. The illustration below highlights some of the features available:

Contains no components made from natural rubber latex

Two-way zipper for on/off convenience

Anatomical design and fit for optimal wear, coverage and comfort

Elasticized waist and ankles and knit or elastic cuffs on all models for increased comfort and mobility



Three panel hood design on most models for compatibility with complementary PPE

Seamless shoulder and sleeve tops for fewer entry points for contaminants and increased comfort

Storm flap on all coveralls to help provide additional protection

Available in a variety of sizes (S-4XL).

• Backed by 3M global technical capabilities and support

3M™

# Disposable Particulate Respirators

Comfortably breathing clean, safe air is important for workers' health and workplace morale. With this in mind we have designed a range of 3M™ Disposable Respirators using science to deliver comfort, breathability and protection.

In combination with ergonomic design, a wide range of technologies including the 3M™ Cool Flow™ Comfort Valve help to deliver comfortable protection with easy breathing and reduced heat build-up.

## The 4-Step Method

### 1. Identify the Hazards

Application*		Suggested Minimum Performance Level	Important Information
	Rust, Metal Particles, Filler	FFP1	
Sanding,	Concrete, Stone	FFP1	
Cutting,	Cement, Wood, Steel	FFP2	FFP3 When Silica is present
Drilling	Paints/Varnish/Anti-rust coating	FFP2	
	Steel, Stainless Steel	FFP3	FFP3 When Chromates are present
	Anti-Fouling Varnish	FFP3	Speciality respirator may be required
Low temp. oil spray		FFP2	
	Mild Steel, Zinc (Autogen, MIG/MIK)	FFP2	3M™ 9928 or 3M™ 9925 for Ozone protection FFP3 May be required in some countries - see national regulations
Welding	Stainless Steel (Electrodes)	FFP2	3M™ 9928 or 3M™ 9925 for Ozone protection FFP3 May be required in some countries - see national regulations
	Soldering	FFP2	FFP3 May be required in some countries - see national regulations
Work with Asbestos	Small amounts infrequent exposure	FFP3	
Work with Glass and Mineral fibres		FFP2	
Waste Sorting		FFP2	Speciality Respirator may be preferred May need gas and vapour respirator
Spraying	Paint spray	FFP2	
	Pesticides (water based)	FFP2	May need gas & vapour respirator
Utility maintenance (e.g. filter change)		FFP3	
Allergies	Pollen, Animal dander	FFP1	
	Grain dust	FFP2	
Contact with:	Mold/Fungus	FFP2	
	Bacteria/Virus	FFP2	FFP3 With Tuberculosis or high consequence infectious microorganisms
	Diesel exhaust/Smoke	FFP2	

Warning: This guide is only an outline. It should not be used as the only means for selecting a respirator. Details regarding performance and limitations are set out on the respirator package and user instructions. Before using any of these respirators, the wearer must read and understand the user instructions for each product. Specific country legislation must be observed. Please note that the applications shown highlight some of the hazards which may be considered. Selection of the most appropriate respiratory protective equipment (RPE) will depend on the particular situation and should be made only by a competent person knowledgeable of the actual working conditions and the limitations of RPE.

### 2. Assess the Risk

	EN 149:2001+A1:2009 FFP1 Respirators	EN 149:2001+A1:2009 FFP2 Respirators	EN 149:2001+A1:2009 FFP3 Respirators	EN 149:2001+A1:2009 Welding Respirators
<b>Nominal Protection Factor (NPF)</b>	NPF 4	NPF 12	NPF 50	NPF 10
<b>Typical Applications</b>	Low levels of fine dust particles and oil or water based mist typically found during hand sanding, drilling and cutting	Moderate levels of fine dust particles and oil or water based mist typically found during plastering, cement, sanding and wood dust	Higher levels of fine dust particles and oil or water based mist typically found when handling hazardous powders found in the pharmaceutical industry or work with biological agents and fibres	Moderate levels of fine dust particles, oil and water based mist, metal fume and ozone and organic vapours below exposure limit typically found in welding and soldering

Nominal Protection Factor (NPF): The theoretical protection level of a respirator based on laboratory measured performance data.

### 3. Select the Right Respirator

Once you have selected the protection factor you require, you can then consider whether you need a cup-shaped respirator, or a foldable respirator, whether it has buckled straps and whether it is valved or not.



#### 3M™ Cup-Shaped Respirators

- Convex shape, nose clip and twin strap design
- Easy to put on
- Durable, collapse resistant shell



#### 3M™ Buckle Strap Respirators

- Robust and durable design provides multishift capability and secure feel
- Adjustable braided headbands
- Soft inner face-seal improves comfort



#### 3M™ Foldable Respirators

- Ultra soft, flexible and comfortable feel resulting from the multiple panel design
- Comfort Series - Flat Fold only: Individually packed, foldable design prevents contamination before use and allows easy storage



#### 3M™ Cool Flow™ Valve

- Effective removal of heat build-up provides a more comfortable wear
- Promotes longer continuous wear time
- Reduces risk of fogging of spectacles and eyewear

### 4. Train in Fitting and Use

#### Training Offered by 3M

Correct use and appropriate maintenance of personal protective equipment (PPE) from 3M makes a major contribution towards ensuring that it provides effective protection. Our experienced sales and technical teams will help you make the most of your products. In compact

training units, they will show you and your employees how to recognize potential hazards, suggest what measures you can take and help explain how to choose the appropriate protective equipment for each particular situation.

### EN 149:2001+A1:2009 Standard

3M™ Disposable Respirators meet the requirements of European Standard EN 149:2001 + A1:2009, filtering facepiece respirators for use against solid and non-volatile liquid particles only. Products are classified by filtering efficiency and maximum total inward leakage performance (FFP1, FFP2 and FFP3), also by usability and clogging resistance.

#### Performance tests in this standard include:

- filter penetration and extended exposure (loading) test - evaluates the filtration performance when new and over time
- breathing resistance - evaluates the ease of breathing (inhalation and exhalation) through the respirator
- total inward leakage - evaluates the filter penetration, valve leakage (if fitted) and importantly the face seal leakage of the respirator when worn by a panel of different people whilst conducting simulated work exercises
- clogging resistance - evaluates the ability of the respirator to continue to function effectively and provide respiratory protection in very high dust environments

Reusable products are also subjected to a cleaning cycle (specified by the manufacturer) and 24 hour storage to confirm the product performance is not affected by re-use. Clogging resistance testing is a mandatory requirement for reusable products, but is optional for single shift use only (non reusable) products. A full copy of EN 149:2001+A1:2009 can be purchased from your national standards body.

#### Marking designations:

R = Reusable

NR = Non reusable (single shift use only)

D = Meets the clogging resistance requirements



# Protection for Maintenance & Repair Operations

3M is dedicated to supplying effective personal protection solutions to the thousands of dedicated defence personal. Whether you are a mechanic in the army, an electrician in the navy or ground crew in the air force, 3M has a solution to help keep you protected.

## Training and Support

3M's team of Specialist Representatives are available nationally, to provide support and training that meet the needs of our customers. Furthermore, our qualified and highly experienced team are able to assist customers by:

- Providing guidance to employers on conducting initial and ongoing assessments of the workplace
- Recommending appropriate respiratory, hearing, eye protection, communication and spill management solutions required to help maintain a safe work environment
- Providing technical advice about the correct use and maintenance of the solution that has been selected
- Facilitate on-site fit testing for both respiratory and hearing protection solutions, as required

No matter how effective a piece of Personal Protective Equipment is, it will offer little or no protection if it is not fitted and/or worn correctly. Proper inspection, cleaning and storage is vital for safety equipment that helps protect a worker's health and well-being. That is why we offer training programs that explain the correct way to fit, inspect, clean and store the PPE designed and manufactured by 3M.

## Technical Assistance

3M TechAssist is an excellent point of contact for your questions, especially when you require a prompt answer. Supported by trained staff, TechAssist is an immediate link to the worldwide resources of 3M.



# The 3M range of solutions for worker safety includes



Respiratory Protection



Head, Eye and Face Protection



Fall Protection



Protective coveralls



**3M Personal Safety Division**  
**3M Svenska AB**  
Box 2341  
SE-331 02 Värnamo, Sweden

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