



PELTOR™
Protection & Communication

COMHEAD 
PREMIUM PROTECTIVE EAR TO EAR COMMUNICATION

ComTac™ VIII Headset

Next Generation of Tactical Headsets

3M Science. Applied to life.™

**3M****PELTOR™**
Protection & Communication

We strive to set the standard for confidence and trust by providing rugged, reliable protective communication equipment.

3M™ PELTOR™ Solutions for today's modern warfighter have been worn for use in combat and combat support operations and are compatible with most firearms and ballistic helmets. PELTOR headsets are known for their reliability in delivering critical radio communications in the heat of an operation. The hearing protectors feature external microphones for environmental listening (aka Talk-Through) capability, so operators can maintain auditory situational awareness while protecting their hearing.

With more than 70 years of experience, the 3M™ PELTOR™ Brand promises quality communication solutions that help provide an excellent balance of performance and protection.

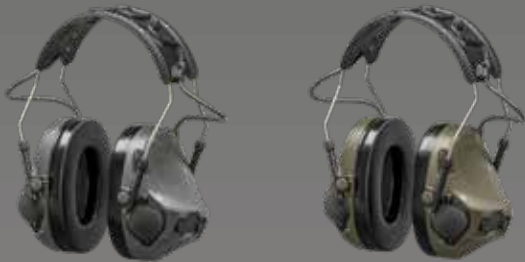
The advanced engineering and technology inherent with the 3M™ PELTOR™ Brand fits with the high standard of quality and innovation of a continuously evolving range of product solutions that you, our customers, come to expect from 3M.

25 Years of Changing the Game

The first ComTac™ headset was introduced in 1998. Designed to help give operators a tactical edge, it quickly became a trusted solution for military and law enforcement operations worldwide.

With ComTac™ VIII we bring forward the next generation communication and hearing protection platform.

ComTac™ VIII Headset



- Environmental Listening for Auditory Situational Awareness



- Environmental Listening for Auditory Situational Awareness
- Noise Cancelling Speech Microphone for Communication in Noise
- Downlead cable for connection to a radio via a Push-to-Talk adapter



Noise Cancelling Speech Microphone

Embedded with a 3M patented solution utilizing closed cell foam, delivers improved noise cancelling transmission in noise and wind while also improving dust and water ingress protection (IP68, 3m / 30 min).

Updated 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. The telescope boom can adjust its length, vertical and horizontal orientation.

Updated Environmental Mic Design

The profile of the ear cup widens and deepens the location of the upgraded environmental microphones with a robust wind screen.

Mission Audio Profiles (MAP)

Ghost Voice Language Options

English, German, Spanish, French



Low Profile Headband

A complete redesign of the headband, with even pressure distribution and a slim low profile, helps improve comfort and eliminate “hot spots”, especially when worn under a ballistic helmet.

Transition made simpler

Simplified cable removal and redesigned arm guides that snap on/off for easy transition between Accessory Rail Connectors (ARC) and headband.

Updated Earcup

Designed to help provide the maximum amount of attenuation while limiting the thickness of the cup .

A deeper cup with more space for ears, to help improve long term comfort, especially when worn in combination with ear plugs.

Soundscaping

Automatic soundscaping to help promote speech intelligibility in noise.

Environmental Listening for Auditory Situational Awareness

Hearing as a sensor

A Warfighters' hearing is arguably their most sophisticated battlefield sensor. We can process large amounts of auditory information that can significantly affect lethality and survivability.

Environmental Listening Feature

The environmental listening feature, also known as “talk-through” is a means of allowing safe audio sounds to bypass the individual hearing protection electronically while still helping protect against harmful noises. A microphone receives the sounds outside of the headset and transmits them to a speaker inside of the headset. The level-dependent digital audio circuit senses noise levels above the desired threshold and compresses them to a safe decibel level or amplifies weak sounds to an audible level.

Mission Audio Profiles (MAP)

3M™ PELTOR™ ComTac™ VIII Headset offers a way to adjust the auditory settings of your headset for your mission. Traditionally, a headset has a set frequency response, and the operator can only increase or decrease the volume. The MAP function provides new advanced ambient/environmental listening modes that allow access to a variety of gain settings, but with frequency shaping, to enhance auditory performance in five conditions. The MAP Profiles have been designed with a variety of combat and combat support operations in mind.

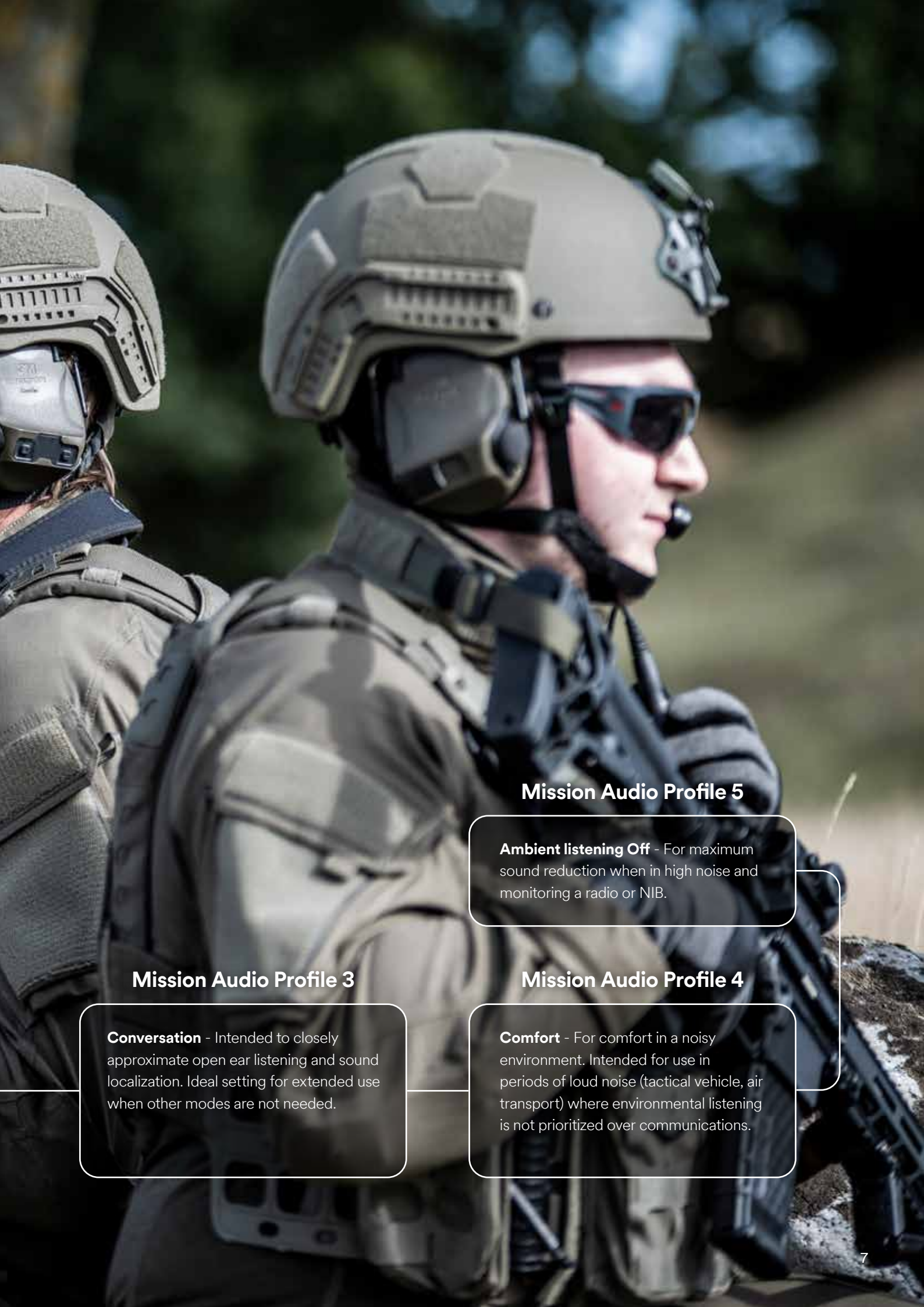
Mission Audio Profile 1

Observation - For maximum auditory awareness and sound detection in a quiet environment. To be used when the user is still and in a quiet environment (overwatch, hide spot, stop to listen, etc).

Mission Audio Profile 2

Patrolling - For high situational awareness when walking in a low noise environment. High volume with reduced high frequencies to limit sounds such as footsteps on gravel, grass moving under feet, or equipment moving on body.





Mission Audio Profile 5

Ambient listening Off - For maximum sound reduction when in high noise and monitoring a radio or NIB.

Mission Audio Profile 3

Conversation - Intended to closely approximate open ear listening and sound localization. Ideal setting for extended use when other modes are not needed.

Mission Audio Profile 4

Comfort - For comfort in a noisy environment. Intended for use in periods of loud noise (tactical vehicle, air transport) where environmental listening is not prioritized over communications.



Effective hearing protection without compromising communication

Hearing Protection

In critical situations, noise levels can be so high that they cause immediate, permanent damage to your hearing if proper protection is not worn. The 3M™ PELTOR™ ComTac™ VIII helps provide hearing protection and can also be worn in combination with passive earplugs, or 3M™ PELTOR™ Tactical electronic earplugs (TEP), to help provide additional protection if required.

Dual Hearing Protection

In military environments, high levels of steady state and impulse noise are common. When operating in high levels of noise, dual hearing protection may be required not only for protection but also to maintain clear communications.

EarPlug Mode

ComTac™ VIII offers “Ear Plug mode.” In ear plug mode, it is possible to use the headset in combination with passive ear plugs while maintaining a degree of auditory situational awareness. Environmental listening, radio volume and voice prompts is boosted to help compensate for the additional attenuation provided by the ear plug.



+



=

SNR: 40 dB

Mission-Critical Communications

Communications play a vital role in modern tactical operations. The ability to communicate is critical to react, coordinate and respond effectively.

Soundscape

ComTac™ VIII features soundscape to help promote speech intelligibility in noise. Soundscape enables automatic changes to product settings dependent on the user environment.

When Soundscape is set to On, the following functions are activated:

- Increased Radio volume in high continuous noise (when radio volume is set to auto).
- Increased voice prompt volume in high continuous noise.
- Reduced radio static/hiss between transmissions.

Fail Safe

External communications and environmental listening functions are independent for Rx/Tx fail safe; in the event of electronic failure or battery depletion, external device communications will continue to function



Communications Interface (examples)

4-pin Single-COMM, NATO wired, Amphenol® Nexus® (-86)

- Download terminates in a standard U-174/U NATO wired “Quick Disconnect” plug .
- Simple, reliable and difficult to mechanically damage. Easy to clean and to keep clean.
- Non-proprietary standard interface provides a high degree of interoperability



4-pin Single-COMM, PELTOR wired, Amphenol® Nexus® (-38)

- PELTOR wired version of the 4-pin single comm plug.

5-pin Dual-COMM, Amphenol® Nexus® (-35)

- 5-pin, U-384/U connector to support connection to Dual and Multi COMM communication control units.
- The headset is specially configured to route left and right audio to each ear
- Simple, reliable and difficult to mechanically damage. Easy to clean and to keep clean.
- Non-proprietary standard interface provides a high degree of interoperability



10-pin TAC, Amphenol® Nexus® (-108)

- 10 Position Circular Connector
- Bayonet Lock
- Pogo-pins



Direct lead: Selex PRR - LEMO (-90)

- No external PTT
- Simple and cost effective
- Additional direct lead versions available upon request



Ballistic Helmet Integration

The ear cup has been designed to help provide the maximum amount of attenuation while limiting the thickness of the cup for compatibility with mid and low-cut ballistic helmets.



Accessory Rail Connectors (ARC)

- Easy donning/doffing
- In the “open” position, the operator can easily don/doff the helmet/ headset and adjust for proper fit.
- Heat relief
- The ability to have an “open” position of the headset allows the user to ventilate in high-heat environments but can still monitor communications in low-noise environments.



3M General Service Respirator Platform Microphone

The 3M General Service Respirator Platform Microphone (7000556) is designed for use with the following 3M Defence and Public Safety Respirators only; -

- General Service Respirator - (GSR)
- General Service Respirator – Evolution – (GSRe)
- General Service Respirator – Evolution Specialist – (GSReS)
- First Responder Respirator – (FRR)

NOTE: Subject to Export Control restrictions





Push-To-Talk Adapters

3M™ PELTOR™ FL4000 Series

- Small design to maximize tactical vest real estate
- Comes with mounting clip that can be rotated 360°
- Optional thin molle clip (TKD4003) also available (not included)



Extra clips for FL4000

4-pin Single-COMM (NATO)

Part number	Description	SAP ID	NSN No.
FL4052-02	3M™ PELTOR™ PTT, Thales PR4G		
FL4063-02	3M™ PELTOR™ PTT, Motorola Mototrbo		
FL40114-02	3M™ PELTOR™ PTT, Motorola MXP600/R7		
FL4040-02	3M™ PELTOR™ PTT, Harris Falcon II®, H-250/U	7010048629	5695-25-161-8304
FL4040-09	3M™ PELTOR™ PTT, AN/VIC-3, toggle switch		

4-pin Single-COMM (PELTOR)

Part number	Description	SAP ID	NSN No.
FL4063	3M™ PELTOR™ PTT, Motorola Mototrbo™	7100049623	
PPN:17-0061	3M™ PELTOR™ PTT, Sepura	Special Build	

5-pin Dual-COMM (-35)

Part number	Description	SAP ID	NSN No.
FL4040-08	3M™ PELTOR™ PTT, AN/VIC-3, toggle switch		

Replacement Parts and Accessories

Part number	Description	SAP ID	NSN No.
TKD4003	3M™ PELTOR™ Molle Clip for FL40*		
TKD5012/SP	3M™ PELTOR™ Rotatable Clip for FL40*	7100245102	

3M™ PELTOR™ FL5000 Series

- Ambidextrous design allows for easy use by either the right or left hand
- Comes with mounting clip that can be rotated 360°
- Optional shroud (TKD5502/1) protects PTT button from accidental activation (not included)



Shroud for FL5000

FL56-D147

4-pin Single-COMM (NATO)

Part number	Description	SAP ID	NSN No.
FL5040-07	3M™ PELTOR™ PTT, Harris Falcon II®, H-250/U	7000108190	5965-25-160-3745
FL5601-100	3M™ PELTOR™ PTT, Harris Falcon III®, 7800	7000108433	5965-25-160-5200
FL5601-02	3M™ PELTOR™ PTT, RACAL MBITR	7100005674	
FL5611-02	3M™ PELTOR™ PTT, Elbit PNR-1000		

4-pin Single-COMM (PELTOR)

Part number	Description	SAP ID	NSN No.
FL5040	3M™ PELTOR™ PTT, RACAL MBITR	7000147276	5965-12-384-5295
FL5025	3M™ PELTOR™ PTT, RA145, RA146, RA180	7000107876	5965-22-609-5198
FL5052	3M™ PELTOR™ PTT, PR4G	7000107882	5965-25-150-9969
PPN:18-0052	3M™ PELTOR™ PTT, Elbit PNR-1000	Special Build	
FL5042	3M™ PELTOR™ PTT, Nokia TETRA THR880	7100009674	5965-25-150-9686
FL5062	3M™ PELTOR™ PTT, Motorola TETRA MTP850	7100011659	5965-22-628-5898
FL5063	3M™ PELTOR™ PTT, Motorola Mototrbo™ DP3000, DP4000	7000039661	5965-22-634-0578
FL50101	3M™ PELTOR™ PTT, Sepura Tetra STP8000	7000108319	5695-22-630-6548
PPN: 16-0003	3M™ PELTOR™ PTT, Motorola TETRA MTH800	Special Build	

Multi Adapter FL56-D147 and Cables

Part number	Description	SAP ID	NSN No.
FL56-D147	3M™ PELTOR™ Multi PTT-adapter NATO wired	7100191838	5930-12-407-8403
FL4-D1475270	3M™ PELTOR™ Cable for FL56-D147 to SEM52SL, SEM79/80/90 radio	7100194286	6150-12-407-9220
FL4-D147PRC	3M™ PELTOR™ Cable for FL56-D147 to PRC 117F,117G, 148 MBITR radio	7100221853	6150-12-409-0900
FL4-D147SO	3M™ PELTOR™ Cable for FL56-D147 to Intercom SOTAS IP	7100243515	6150-12-407-9374
FL4-D147BV	3M™ PELTOR™ Cable for FL56-D147 to BV25 radio	7100284384	
FL4-D147G2	3M™ PELTOR™ Cable for FL56-D147 to EADS G2 radio	7100243515	6150-12-407-9376
FL4-D147TPH	3M™ PELTOR™ Cable for FL56-D147 to TPH700/900 radio	Special Build	
FL4-D147DI	3M™ PELTOR™ Cable for FL56-D147 to Dittel FSG7016 radio	Special Build	
FL4-D147KEN	3M™ PELTOR™ Cable for FL56-D147 to Kenwood 2-Pin radio	Special Build	
FL4-D147PNR	3M™ PELTOR™ Cable for FL56-D147 to Telefunken Racoms PNR1000 radio	7100284385	6150-12-417-4024
FL4-D14752S	3M™ PELTOR™ Cable for FL56-D147 to PRC Radio	7100246151	5995-12-415-2530

Replacement Parts and Accessories

Part number	Description	SAP ID	NSN No.
TKD5502/1	3M™ PELTOR™ Shroud for FL50**	7000039651	5930-20-005-9316
TKD5005/SP	3M™ PELTOR™ Rotatable Clip for FL50*, and SCU-300	7100245137	
TKD5011/SP	3M™ PELTOR™ Thin Rotatable Clip for FL5*, and SCU-300	7100245136	

Technical Specifications

General:

Ghost Voice language Options	English (default) Spanish, German, French
Soundscape	Yes
Battery Compartment	Sealed enclosure. Single sided.
Headband Style	Adjustable low profile rubberized band. Convertible to helmet att.
Earcup Style	Low profile. Over-the-ear
Speech Microphone Type	Telescope. Dynamic. Noise-Cancelling. Waterproof (IP68), 3m / 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): .10-pin(-108)

Environmental Listening Function

Mission Audio Profiles (MAP). Default	Observation, Patrolling, Conversation, Comfort, OFF
Classic	4 Amplification levels and OFF
Plug Mode	Yes

Power / Electrical Characteristics

Battery Type	2 x AAA Alkaline (LR03)
Operating time: Environmental Listening only	Approximately 50 hours
Operating time: Environmental Listening and NIB	N/A

Military Test Standards

Environmental Performance	Tested in accordance with MIL-STD-810H
Electromagnetic Performance	Tested in accordance with MIL-STD-461G
Hazards of Electromagnetic Radiation to Ordnance (HERO), Personnel (HERP), and Fuel (HERF):	N/A

Physical Characteristics:

Weight with batteries	(-02): 294 gram (10.37 Oz). (-86): 339 gram (11.95 Oz)
Color Options	Charcoal Grey (GE) / O.D Green (GN)

Environmental Characteristics:

Operating temperature (note: in freezing temperatures, warm up headset before use)	-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)

Approvals

PPE Regulation 2016/425	EN 352-1:2020, EN 352-4:2020, EN 352-6:2020
Electromagnetic / Radio	EMC Directive 2014/30/EU
ROHS Directive 2011/65/EU	

Laboratory Noise Attenuation. Standard EN 352-1:2020

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 attenuation rating (SNR) was obtained with the device powered off.

MT14H418A** (Headband with foam cushion)

	f (Hz)											
	125	250	500	1000	2000	4000	8000	H	M	L	SNR	
MV (dB)	12.6	18.1	29.1	30.5	31.9	43.7	39.4	34	27.4	19.7	29.8	339 g
SD (dB)	2.3	1.5	3.3	2.6	2.2	2.5	2.7	1.3	1.1	1.6	1.0	
APV = MV - SD (dB)	10.3	16.6	25.8	27.9	29.7	41.2	36.7	33	26	18	29	

MT14H418A** with HY80 (Headband with gel cushion)

	f (Hz)											
	125	250	500	1000	2000	4000	8000	H	M	L	SNR	
MV (dB)	12.1	17.8	29.2	34.9	33.9	43.2	39.3	36.3	28.1	19.3	30.4	374 g
SD (dB)	2.2	1.4	2.9	2.2	2.2	3.2	3.3	1.2	1.3	1.8	1.2	
APV = MV - SD (dB)	9.9	16.4	26.3	32.7	31.7	40.0	36.0	35	27	18	29	

WARNING!
This hearing protector helps reduce exposure to hazardous noise and other loud sounds. **Misuse or failure to wear hearing protection at all times when exposed to hazardous noise may result in hearing loss or injury.** For correct use, consult supervisor and User Instructions, or call 3M Technical Services. If your hearing seems dulled or you hear a ringing or buzzing during or after any noise exposure (including gunfire), or for any other reason you suspect a hearing problem, leave the noisy environment immediately and consult a medical professional and/or your supervisor.

MT14H418A** with 3M™ E-A-R™ Classic Earplugs (Dual Protection Mode)

	f (Hz)											
	125	250	500	1000	2000	4000	8000	H	M	L	SNR	
MV (dB)	34.4	44.4	53.2	48.8	40.0	48.7	43.8	41.4	42.8	41.1	43.2	339 g
SD (dB)	4.7	4.3	6.4	5.1	4.9	4.6	4.0	4.1	3.5	3.7	3.4	
APV = MV - SD (dB)	29.7	40.1	46.8	40.7	35.1	44.1	39.8	37	39	37	40	

CAUTION:
When worn according to these User Instructions, these hearing protectors help reduce exposure to both continuous noises, such as industrial noises and noises from vehicles and aircraft, as well as very loud impulse noises, such as gunfire. It is difficult to predict the required and/or actual hearing protection obtained during exposure to impulse noises. For gunfire, the weapon type, number of rounds fired, proper selection, fit and use of hearing protection, proper care of hearing protection, and other variables will impact performance. To learn more about hearing protection for impulse noise, visit www.3M.com/hearing.

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

ComTac VIII Headband with gel cushions; MT14H418**

Vol/Gain: Off

Test Level Nominal Impulsive Peak Level (dB SPL)	Impulsive Peak Insertion Loss (IPIL) (dB)	Standard Deviation (dB)
132	16.1	2.5
150	24.4	1.6
168	32.7	0.8

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)
132	15.3	2.5
150	24.0	2.1
168	32.9	1.0

Vol/Gain: Advanced 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

3M™ PELTOR™

ComTac™ VIII Headsets



Part Number	Description	SAP ID	Colour	Connector
MT14H418A-02 GE	3M™ PELTOR™ ComTac™ VIII Hearing Defender, Charcoal Grey, 10 ea/cs	7100321396	Charcoal Grey	No
MT14H418A-02 GN	3M™ PELTOR™ ComTac™ VIII Hearing Defender, O.D Green, 10 ea/cs	7100322593	O.D Green	No
MT14H418A-35 GE	3M™ PELTOR™ ComTac™ VIII Headset, Charcoal Grey, 10 ea/cs, 5-pin	7100322482	Charcoal Grey	5-pin Dual-COMM
MT14H418A-35 GN	3M™ PELTOR™ ComTac™ VIII Headset, O.D Green, 10 ea/cs, 5-pin	7100322310	O.D Green	5-pin Dual-COMM
MT14H418A-86 GE	3M™ PELTOR™ ComTac™ VIII Headset, Charcoal Grey, 10 ea/cs, 4-pin (NATO)	7100320871	Charcoal Grey	4-pin Single-COMM (NATO)
MT14H418A-86 GN	3M™ PELTOR™ ComTac™ VIII Headset, O.D Green, 10 ea/cs, 4-pin (NATO)	7100320872	O.D Green	4-pin Single-COMM (NATO)
MT14H418A-38 GE	3M™ PELTOR™ ComTac™ VIII Headset, Charcoal Grey, 10 ea/cs, 4-pin (PELTOR)	7100321460	Charcoal Grey	4-pin Single-COMM (PELTOR)
MT14H418A-38 GN	3M™ PELTOR™ ComTac™ VIII Headset, O.D Green, 10 ea/cs, 4-pin (PELTOR)	7100321461	O.D Green	4-pin Single-COMM (PELTOR)
MT14H418A-90	3M™ PELTOR™ ComTac™ VIII Headset, O.D Green, 10 ea/cs, LEMO	7100321699	O.D Green	LEMO
MT14H418A-108 GN	3M™ PELTOR™ ComTac™ VIII Headset, O.D Green, 10 ea/cs, 10-pin	7100322251	O.D Green	10-pin
MT14H418A-108 GE	3M™ PELTOR™ ComTac™ VIII Headset, Charcoal Grey, 10 ea/cs, 10-pin	7100322003	Charcoal Grey	10-pin



3M™ PELTOR™

Accessories and Replacement Parts



HY80-EU
Gel cushions



M171/2
Wind shield for microphone for
MT73 / MT33



PPN: 23-0052
Download Cable Splitter



HYM1000
Micprotector



M42/1
Windshield for dynamic
microphone



P3ADG-F SV/2
Rails attachment

Part Number	Description	SAP ID
M194/2	3M™ PELTOR™ ComTac™ VII,VIII, IX. Wind Shield Kit for Surround Mic, Pair	7100232688
1086 SV/1	3M™ PELTOR™ ComTac™ VII,VIII, IX. Battery Lid	7100232689
AGM/1	3M™ PELTOR™ ComTac™ VII,VIII, IX. Headband	7100227486
A47/1	3M™ PELTOR™ ComTac™ VII,VIII, IX. Microphone Guide	7100227492
MT71/1	3M™ PELTOR™ ComTac™ VII,VIII, IX. Boom Microphone dyn.	7100230581
P3ADG47-F SV/2	3M™ PELTOR™ ComTac™ VII,VIII, IX. ARC Rail Attachment. Pair	7100227493
HY68 SV	3M™ PELTOR™ Hygienekit. Pair	7000108023
HY80A-EU	3M™ PELTOR™ Replacement Gel Cushions. Pair	7100101182
M42/1	3M™ PELTOR™ Large Windshield for speech microphone	7000039687
HYM1000	3M™ PELTOR™ Protection tape for speech microphone	7100064281
M171/2	3M™ PELTOR™ Wind shield for speech microphone. pair	7100112112
A46/4	3M™ PELTOR™ ComTac™ VII,VIII, IX. 4 x Guides.	7010044799
PPN: 23-0052	3M™ PELTOR™ Cable Splitter: 5-pole female to dual 4-pole (NATO) male	n/a



PREMIUM PROTECTIVE EAR TO EAR COMMUNICATION

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