3M Occupational Health & Environmental Safety Division

3M™ Peltor™ Earmuffs - X Series, Optime™, Specialty









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3M™ Peltor™ Earmuffs X Series

DESIGN, COMFORT and ATTENUATION TECHNIQUES.

3M developed the new 3M Peltor X Series earmuffs based on these three pillars. In the addition to simplicity of use and ease of identification, the X Series earmuffs set a new standard for over-the-ear protection.

3M Hearing Protection Solutions Made Innovatively Easy



X1

- » Electrically insulated (dielectric) wire headband on model X1A**
- » Earcups tilt for optimum comfort and efficiency
- » Twin headband design helps reduce heat buildup with good fit and balance
- » Wire headband offers comfortable pressure during prolonged usage
- » Lightweight, low-profile earcups for improved compatibility with other personal protective equipment (PPE)



Enter the world of the new 3M Peltor Earmuffs X Series with the X1.

- » Slim-line cups make these earmuffs lightweight and comfortable for extended wear.
- » Moderate attenuation ideal for low-to-moderate noise exposure.
- » New ear cushion foam technology for an effective acoustic seal and reliable protection.

Plus all other features around protection, comfort and design making it highly versatile.

Bo Hammar about 3M PELTOR X Series



"The new product, 3M Peltor X Earmuff, is nice and soft to wear."

Bo Hammar, Steel & Silver AB Responsible for health/safety/environment

"I remain in a constant but moderate noise environment in my work place. I know just a few brands of hearing protectors on the market, but I have only ever used 3M Peltor Optime™ Earmuff. I prefer to continue using hearing protectors from 3M Peltor. The new products, 3M Peltor X Earmuffs, are nice and soft to wear. I really like the design and the color. It's an added bonus that they can be used together with my glasses. I like all the X Series models."

3M Peltor Earmuff X1A - standard headband**



NRR 22 dB[†]

3M Peltor Earmuff X1P3E - hard hat-attached version



NRR 21 dB[†]

PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
X1A 10093045937230		Over-the-Head Earmuff	10
X1P3E 10093045937285		Hard Hat-Attached Earmuff	10
HYX1	10093045937339	Replacement Hygiene Kit 1 Pr	10



X2

- » Electrically insulated (dielectric) wire headband on model X2A**
- » Earcups tilt for optimum comfort and efficiency
- » Twin headband design helps reduce heat buildup with good fit and balance
- » Wire headband offers comfortable pressure during prolonged usage
- » Lightweight, low-profile earmuffs are ideal for a variety of noisy applications



The X2 earmuffs offer the same features as our X1 version with the addition of the following benefits:

- » New ear cushion foam technology for an effective acoustic seal and reliable protection.
- » Medium attenuation for moderately-high noise exposures.

3M Peltor Earmuff X2A - standard headband**

NRR 24 dB[†]



3M Peltor Earmuff X2P3E - hard hat-attached version

NRR 24 dB[†]



PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
X2A	10093045937247	Over-the-Head Earmuff	10
X2P3E	10093045937292	Hard Hat Attached-Earmuff	10
HYX2	10093045937346	Replacement Hygiene Kit, 1 Pr	10



X3

- » Electrically insulated (dielectric) wire headband on model X3A**
- » Earcups tilt for optimum comfort and efficiency
- » Twin headband design helps reduce heat buildup with good fit and balance
- » Wire headband offers comfortable pressure during prolonged usage
- » Lightweight earmuffs designed for moderate to high noise exposure applications
- » Newly-designed spacer improves attenuation without a double cup design excess bulk or weight



The X3 features a newly-designed spacer to improve attenuation without excess bulk or weight.

What makes the X3 version so special?

- » High attenuation.
- » Lightweight and compact compared with other high attenuation earmuffs.
- » New ear cushion foam technology for an effective acoustic seal and reliable protection.

3M Peltor Earmuff X3A - standard headband**



NRR 28 dB[†]

3M Peltor Earmuff X3P3E - hard hat-attached version

NRR 25 dB[†]



PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
X3A	10093045937254	Over-the-Head Earmuff	10
X3P3E	10093045937308	Hard Hat-Attached Earmuff	10
HYX3	10093045937353	Replacement Hygiene Kit, 1 Pr	10



- » Electrically insulated (dielectric) wire headband on model X4A**
- » Earcups tilt for optimum comfort and efficiency
- » Twin headband design helps reduce heat buildup with good fit and balance
- » Wire headband offers comfortable pressure during prolonged usage
- » Lightweight earmuff recommended for moderate to high-noise exposure applications
- » Low-profile cup design for improved compatibility with other personal protective equipment (PPE)
- » Newly-designed spacer improves attenuation without excess bulk or weight



High attenuation earmuffs don't have to be big and bulky!

The Noise Reduction Ratings for Peltor X4 earmuffs are 3 to 6 dB higher than other compact, low-profile earmuffs.

- » Extremely slim and lightweight earcups provide excellent compatibility when used with other 3M personal protection products.
- » New specially-formulated foam earcup inserts and cushions help boost the noise-blocking capability of these comfortable, lightweight earmuffs.

3M Peltor Earmuff X4A - standard headband**



NRR 27 dB[†]

3M Peltor Earmuff X4P3E - hard hat-attached version

NRR 25 dB[†]



PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
X4A	10093045937261	Over-the-Head Earmuff	10
X4P3E	10093045937315	Hard Hat-Attached Earmuff	10
HYX4	10093045937360	Replacement Hygiene Kit, 1 Pr	10



X5

- » Electrically insulated (dielectric) wire headband on model X5A**
- » Earcups tilt for optimum comfort and efficiency
- » Twin headband design helps reduce heat buildup with good fit and balance
- » Wire headband offers comfortable pressure during prolonged usage
- » Very high attenuation earmuffs recommended for high-noise exposure applications
- » Despite larger earcups, product is lightweight with excellent balance and comfort
- » Newly-designed spacer improves attenuation without excess bulk or weight
- » NRR 31 dB⁺ highest of any earmuff on the market



New groundbreaking technology allows 3M Peltor X5 earmuffs to provide very high noise reduction in both standard headband and hard hat-attached models.

- » Unique attenuation as a result of optimum combination of specially-formulated foam featured in the earcups, cushions and the innovative spacer and cup design.
- » Despite the larger earcups, the X5 remains relatively lightweight with excellent balance and comfort.

Magnus Forsblom, Astra Zeneca 3M PELTOR X and COMFORT



"I don't care about specific brands, I just want the best. The best? It's 3M Peltor!"

Magnus Forsblom, Astra Zeneca Responsible for PPE (Personal Protection Equipment) at a factory with 1700 workers.

"The noise at my work is not constant but intermittent and gets higher around specific machines at the industrial floor. Every single aspect of protection and safety is very important to me. We have specific demands apart from comfort, for example that the earmuffs are easy to clean. It is also very important that there is no risk for loose parts falling from the earmuffs into the production line.

"3M Peltor X Earmuffs are comfortable to wear — I feel no pressure on my head and they are not too tight. They are durable and easy to clean frequently. I tried the 3M Peltor X Earmuffs. They are easy to adjust, have a good solid design, look and feel good while you're wearing them — features that make them very appealing and easier to use on a regular basis. Compared to other earmuffs, it's like night and day.

"I don't care about specific brands, I just want the best. The best? It's 3M Peltor!"

3M Peltor Earmuff X5A - standard headband**



NRR 31 dB[†]

3M Peltor Earmuff X5P3E - hard hat-attached version



NRR 31 dB[†]

PRODUCT NUMBER HPC NUMBER		ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
X5A	10093045937278	Over-the-Head Earmuff	10
X5P3E	10093045937322	Hard Hat-Attached Earmuff	10
HYX5	10093045937377	Replacement Hygiene Kit, 1 Pr	10

Incorporating acoustic engineering, wearer-focused comfort design, and performance versatility.

3M[™] Peltor[™] Optime[™] Earmuffs



A market Standard

Optime[™] – A market standard

The 3M™ Peltor™ Optime has been viewed as a standard in the hearing protection industry. The Optime is divided by protection levels 95, 98, 101, and 105 dBA. All you have to do is match the Optime number to the eight-hour Time-Weighted Average (TWA) noise exposure of the worker (see back cover). For example, Peltor Optime 98 earmuffs would be recommended for eight-hour TWA noise exposures up to but not exceeding 98 dBA.

3M Peltor Optime Earmuffs offer versatile protection that meets the needs of a majority of workplace applications.



3M Peltor Optime Earmuffs: A market standard

The right way to choose the right earmuff.

3M[™] Peltor[™] Optime[™] Earmuffs

The 3M Peltor Optime 95 earmuffs feature a lightweight, low-profile design that helps improve comfort and fit. Four different headband options make it possible to use Optime 95 earmuffs in a wide variety of situations. Recommended for eight-hour TWA noise exposures up to 95 dBA.



Optime 95 - H6A/V Earmuff - standard headband**

NRR 21 dB[†]

Optime 95 - H6B/V Earmuff - neckband

NRR 21 dB[†]

Optime 95 - H6P3E/V Earmuff - hard hat-attached version

NRR 21 dB[†]

Optime 95 - H6F/V Earmuff - folding headband

NRR 21 dB[†]

PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
H6A/V	10093045080615	Low Profile Over-the-Head Beige Earmuff NRR 21 dB*	10
H6B/V	10093045080622	Low Profile Behind-the-Head Beige Earmuff NRR 21 dB*	10
H6F/V	10093045080639	Low Profile Folding Beige Earmuff NRR 21 dB*	10
H6P3E/V	10093045080653	Low Profile Hard Hat-Attached Beige Earmuff NRR 21 dB*	10
НҮЗ	07318640051614	Replacement Hygiene Kit 1 Pr Cushions/1 Pr Foam Inserts for H6, H9 and H31 Type Hearing Protectors	20

The 3M Peltor Optime 98 earmuffs are some of the most versatile earmuffs in the industry today. Recommended for eight-hour TWA noise exposures up to 98 dBA.



Optime 98 - H9A Earmuff - standard headband**

NRR 25 dB⁺

Optime 98 - H9P3E Earmuff - hard hat-attached version

NRR 23 dB[†]

PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
Н9А	10093045080912	Over-the-Head Yellow Earmuff NRR 25 dB*	10
Н9РЗЕ	10093045080936	Hard Hat-Attached Yellow Earmuff NRR 23 dB*	10
НҮЗ	07318640051614	Replacement Hygiene Kit 1 Pr Cushions/1 Pr Foam Inserts for H6, H9 and H31 Type Hearing Protectors	20



3M Peltor Optime 101 earmuffs are recommended for eight-hour TWA noise exposures up to 101 dBA. With three different headband options, there is an Optime 101 earmuff for a wide range of industrial applications.

Optime 101 - H7A Earmuff - standard headband**

NRR 27 dB[†]

Optime 101 - H7B Earmuff - neckband

NRR 26 dB[†]

Optime 101 - H7P3E Earmuff - hard hat-attached version

NRR 24 dB[†]



UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
10093045080714	Over-the-Head Green Earmuff NRR 27 dB*	10
10093045080721	Behind-the-Head Green Earmuff NRR 26 dB**	10
10093045080738	Hard Hat-Attached Green Earmuff NRR 24 dB*	10
07318640051652	Hard Hat Attached Electrically Insulated (Dielectric) Green Earmuff NRR 24 dB*	10
10093045087706	Replacement Hygiene Kit for H7 Type Hearing Protectors	20
	10093045080714 10093045080721 10093045080738 07318640051652	10093045080714

3M Peltor Optime 105 earmuffs are recommended for high-noise exposure situations; eight-hour TWA noise exposures up to 105 dBA. The Optime 105 earmuffs feature a "double-shell" cup design that helps improve attenuation across the entire range of frequencies.







Optime 105 - H10A Earmuff - standard headband**

NRR 30 dB[†]

Optime 105 - H10B Earmuff - neckband

NRR 29 dB[†]

Optime 105 - H10P3E Earmuff - hard hat-attached version

NRR 27 dB

PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
H10A	10093045081018	Over-the-Head Green Earmuff NRR 30 dB*	10
H10A HV	10093045981721	Hi-Viz Over-the-Head Green Earmuff NRR 30 dB*	10
H10B	10093045081025	Behind-the-Head Dual Cup Earmuff NRR 29 dB*	10
H10P3E	10093045081032	Hard Hat-Attached Dual Cup Earmuff NRR 27 dB*	10
H10P3E-01	10093045978301	Hard Hat Attached Dual Cup Electrically Insulated (Dielectric) Earmuff NRR 27 dB*	10
HY10	10093045081049	Hygiene Kit 1 Pr Cushions/1 Pr Foam Inserts for H10 Series	20



3M[™] Peltor[™] Specialty Earmuffs



Specialized Protection

Specialty Hearing Protection Solutions

Solutions beyond the obvious. Protection that's specialized. Hearing conservation with a sense of security.

For your industry-specific needs, you can be confident our products will do the job, and that they are backed up by all the support and advice you've grown to trust.



Providing well-known attenuation and comfort while offering features specifically developed for unique environments.

3M™ Peltor™ Specialty Earmuffs

3M Peltor H505B Welding Earmuff

The 3M Peltor Welding Helmet Earmuff features a low-profile design for use with 3M Welding Helmets, like the 3M Speedglas[™] 9100 Welding Helmet. It features a semi-soft cup surface that minimizes scratch sound transmission, providing a moderate level of attenuation that meets the needs of many common welding industry applications. This specialty earmuff delivers the comfortable and versatile hearing protection that professionals need in a wide range of welding environments.



3M Peltor H505B Welding Earmuff

NRR 17 dB[†]

- » Designed to be used with 3M Welding Helmets
- » Durable stainless steel neckband and soft cloth head strap help maintain a secure fit and keep the earmuffs comfortably in place while welding
- » Two-point suspension for balanced pressure distribution

PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
H505B	10093045936400	Welding Earmuff NRR 17 dB*	10
HY505	10093045 936417	Hygiene Kit	10

3M Peltor H31 Hi-Viz Earmuff

Comfortable, lightweight earmuffs with bright orange earcups for high visibility. Top of earcups are bevelled for better compatibility with hard hats and helmets.







3M Peltor H31A Hi-Viz Earmuff

NRR 24 dB[†]

3M Peltor H31P3E Hi-Viz Earmuff- hard hat-attached version

NRR 23 dB[†]

- » Stainless steel headband resists bending and warping
- » Liquid/foam-filled earmuff cushions help provide a comfortable acoustic seal

PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
H31A	07318640051645	Deluxe Over-the-Head Orange Earmuff NRR 24 dB*	10
H31P3E	07318640051638	Deluxe Hard Hat-Attached Orange Earmuff NRR 23 dB*	10
НҮ7	10093045087706	Replacement Hygiene Kit for H31 Type Hearing Protectors	20



3M Peltor H9A-02 Food Industry Earmuff

This earmuff provides the well-known attenuation and comfort of 3M Peltor hearing protectors, plus unique features specially designed for use in the food industry. The headband is designed to help prevent food particle accumulation, and engineered to meet the stringent hygiene demands of the food industry. The lightweight earcups have washable, replaceable inserts designed to reduce moisture absorption and maintain hygiene quality.

3M Peltor H9A-02 Food Industry Earmuff

NRR 26 dB[†]

- » Smooth, non-porous headband
- » Two-Point suspension system for added comfort
- » Lightweight earcups
- » Washable and replaceable components

PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
H9A-02	10093045936387	Food Industry Earmuff NRR 26 dB*	10
HY55	10093045936394	Earmuff Hygiene Replacement Kit (cushions and inserts)	10

3M Peltor H7A PTL[™] Earmuff

The PTL listen-only headband headset offers enhanced listening with the push of a button. The practice of lifting or removing an earmuff to listen can compromise hearing protection for wearers. The PTL earmuff resolves this problem by allowing the wearer to boost the volume of ambient sounds, including face-to-face conversations, as needed. This comfortable and durable earmuff allows for long-term use under exacting conditions.



3M Peltor H7A PTL Earmuff

NRR 26 dB[†]

3M Peltor H7P3E-PTL Earmuff

NRR 25 dB

- » Push button on cup for listening mode
- » Pass-through sound limited to 87 dB
- » Auto-switches to full protection after 30 seconds or when button is pressed again
- » Earcups with liquid and foam-filled comfort cushions for long wear and optimum seal

PRODUCT NUMBER	UPC NUMBER	ABBREVIATED GENERAL DESCRIPTION	CASE QUANTITY
H7A-PTL	10093045981691	Over-the-Head Earmuff NRR 26 dB*	10
H7P3E-PTL	10093045981707	Hard Hat-Attached Earmuff NRR 25 dB*	10

Delivering Solutions to Complex Hearing Protection Challenges

3M can help educate, motivate and train safety officers and workers around aspects of hearing risks.

Millions of workers are exposed to hearing hazards every year, and even though OSHA regulations and NIOSH recommendations require protection, occupational hearing loss is still the number one reported worker illness in manufacturing.*

You can advance your hearing conservation program with a customized and comprehensive approach to the hearing protection challenge. Implementing a solution that really makes a difference begins with an understanding of the hazards, the regulations and the factors that impact protection.

Decibel Scale (dBA)* 160 12-Gauge Shotgun 160 150 140 Jet Takeoff 140 130 120 **Pneumatic Riveter** 124 **Hammer Drill** 110 114 Chainsaw 110 **Rock Concert** 105 100 Motorcycle 100 **Tractor/Hand Drill** 97 90 90 **Lawn Mower** 80 **Vacuum Cleaner** 80 **City Traffic 78 70** Conversation 60 **Air Conditioning Unit** 60 **50** Floor Fan **Electrical Transformer 45** 40 **Refrigerator Hum** 30 **Rustling Leaves** 30 www.cdc.gov/niosh/topics/noise/noisemeter.html http://e-a-r.com/hearingconservation/faq_main.cfm 20 15 **Pin Falling** 10

3M[™] Peltor[™] Earmuffs X Series

X1 (NRR 21-22 dB†)

Ultra-slim earmuffs for low-to-moderate noise exposures where overprotection is a concern



X2 (NRR 24 dB[†])

Lightweight earmuffs for moderate noise exposure situations



X3 (NRR 25-28 dB†)

For high-noise exposure situations



X4 (NRR 25-27 dB†)

Extremely lightweight, low-profile earmuffs for use in high-noise exposure situations



X5 (NRR 31 dB†)

3M's highest attenuation earmuffs for very high-noise exposures



3M[™] Peltor[™] Optime[™] Earmuffs Series

3M Peltor Optime 95 (NRR 21 dB[†])

For eight-hour TWA noise exposures up to 95 dBA



3M Peltor Optime 98 (NRR 23-25 dB[†])

For eight-hour TWA noise exposures up to 98 dBA



3M Peltor Optime 101 (NRR 24-27 dB[†])

For eight-hour TWA noise exposures up to 101 dBA



3M Peltor Optime 105 (NRR 27-30 dB[†])

Unique double-shell cup design provides high attenuation for eight-hour TWA noise exposures up to 105 dBA



3M™ Peltor™ Specialty Series

3M Peltor Welding Earmuff (NRR 17 dB†)

A low-profile neckband design for use with 3M Welding Helmets. Soft earcup surface helps minimize scratch sound transmission when welding helmet is worn



3M Peltor Hi-Viz Series Earmuff (NRR 23-24 dB)

A versatile earmuff with bright orange earcups for high visibility



3M Peltor Food Industry Earmuff (NRR 26 dB[†])

Specially designed for use in the food industry, with a unique headband and earcup inserts that are easy to keep clean, wash and reuse



3M Peltor PTL™ Earmuff (NRR 25-26 dB¹)

Push button on cup allows wearer to briefly boost the volume of sounds in the work area to make communication easier without removing the earmuffs



Hearing Protection Solutions made Innovatively Easy



We are harnessing a chain reaction of new ideas that deliver innovatively easy solutions to complex hearing protection challenges. 3M is a global leader in detection, protection, and validation solutions. 3M is a guardian of work place safety, going beyond the expected and making their considerable expertise readily available to help solve hearing challenges.



Select appropriate 3M hearing protectors that employees are motivated to wear. 3M has a broad selection of hearing protectors for a wide range of work environments.

3M E-A-Rfit[™] Validation System brings the science of fit to help build confidence in your employee's level of hearing protection as part of training and motivation.



Training and Education

3M can help to educate, motivate and train safety officers and workers around all aspects of the hearing risk.

Visit www.3M.com/hearing to learn more.

**Electrically-insulated Headband. The metal components of the X Series standard headband model have been covered by non-conductive material for use in a low voltage electrical hazard (less than 440 V ac). As there are no applicable standards for testing earmuffs against electrical insulating properties, the product has been evaluated at an external laboratory against a modified test method based on EN397:1995. During assessment, the leakage current did not exceed 1.2mA when the external surface of the product made contact with an electrical source. The user must determine the overall suitability of this product for the intended application taking into account any hazards other than noise for which this product is tested.

*The Optime" number is a guideline for the maximum time-weighted average A-weighted exposures in which the product, when properly worn and in good condition, can provide adequate protection to meet OSHA hearing conservation guidelines. However, the user must make sure that the specific muff and style selected provides appropriate protection. To be effective, the hearing protector should be used within a hearing conservation program that also includes noise level assessments by qualified personnel, training, audiometric testing and engineering controls. Optime number recommendations are based upon testing per Method B of the most recent ANSI standard, S12.6-1997 (R2002). Method B provides data that approximate the upper limits to attenuation that can be expected for groups of occupational users. Properly trained and motivated individuals can potentially obtain greater protection. For additional information on Method B visit www.e-a-r.com/hearingconservation and select the EARLog series of articles.

For more information in the United States, contact:

Technical Assistance: 1-800-243-4630 Customer Care Center: 1-800-328-1667

3M.com/hearing



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†The Noise Reduction Rating (NRR) may overestimate the hearing protection provided during typical use. 3M recommends reducing the NRR by 50% for estimating the amount of noise reduction provided.



These hearing protectors help reduce exposure to hazardous noise and other loud sounds. Misuse or failure to wear hearing protectors at all times that you are exposed to hazardous noise may result in hearing loss or injury. For proper use, see supervisor, Fitting Instructions, or call 3M in U.S.A. at 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414.