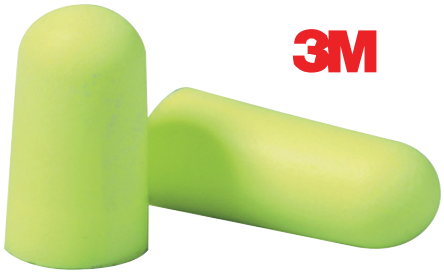
Selection of Hearing Protection

HEARING PROTECTION

Factors to Consider

To protect workers from noise-induced hearing loss, it's crucial to keep their exposure below 85 dB for eight hours. NIOSH recommends a 3 dB exchange rate, where every 3 dB increase doubles the noise and halves the safe exposure time. Regulations mandate employers to establish a hearing conservation program for employees exposed to an 8-hour average of 85 dB or higher.

Key components of an effective program encompass noise assessment, personal monitoring, noise control measures, routine audiometric testing, appropriate selection of hearing protection devices (including disposable and reusable earplugs, earmuffs, and communication headsets), comprehensive training to heighten awareness of noise hazards, and diligent record-keeping for monitoring and noise sampling. By implementing these measures, workplaces can ensure the well-being of their employees in high-noise environments.



3M-310-1250 - Uncorded pillow pack
3M 312-1250 Uncorded Poly Bag
3M-311-1250 - Corded in Poly Bag

3M™ E-A-Rsoft™ Disposable Yellow Neon

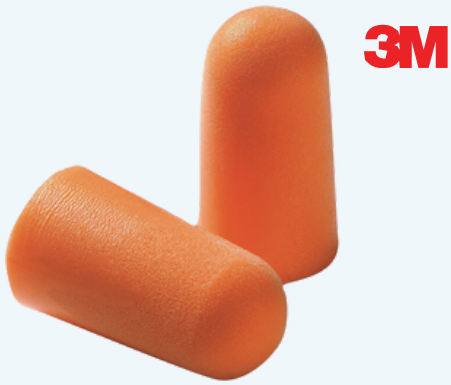
Description

- Shaped, self-adjusting foam provides a comfortable, low-pressure seal
- Non- irritating, dermatologically safe foam
- Soft foam plugs for increased wearer comfort
- NRR 33dB

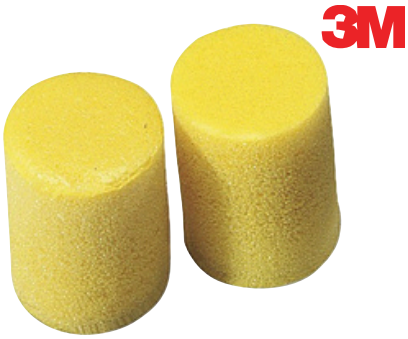
3M™ Disposable Foam Earplugs

Description

- Tapered shape to fit the ear canal comfortably
- Soft foam seals the ear comfortably
- Smooth, dirt-resistant surface for hygiene
- Comfortable for a wide range of ear sizes
- Made from hypoallergenic material
- Bright orange for high visibility
- Compatible with ear muffs for added protection
- Can be used alongside other personal protective equipment
- NRR 29dB



3M-1110 - Corded
3M-1100 - Uncorded



3M-310-1001 -
Uncorded Pillow Pack

3M™ Classic™ Disposable Earplugs

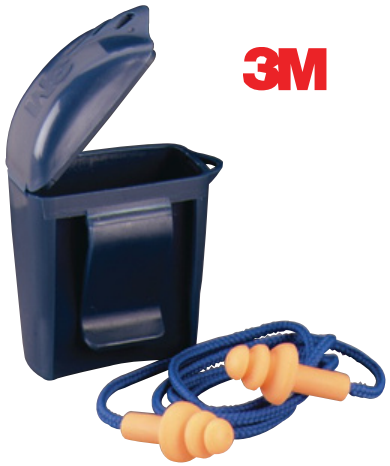
Description

- Slow-recovery foam allows the user to wear the earplug easily
- Bright yellow color allows for a quick visual compliance check
- Dermatologically safe foam is non-irritating, non-flammable, and moisture-resistant
- NRR 29dB

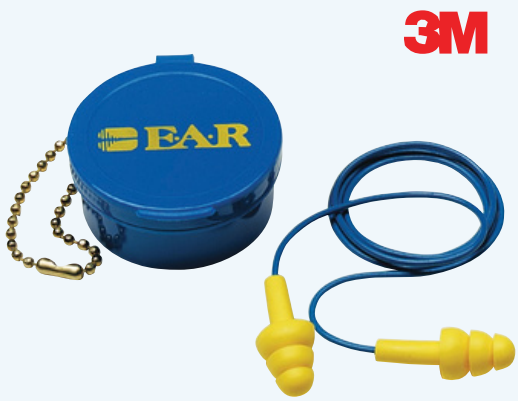
3M™ Reusable Earplugs

Description

- New softer formulation provides added comfort
- New finger grip design makes insertion easier
- Multi-flanged plugs fit securely into the ear canal
- Soft, elastic material conforms to a wide range of ear sizes comfortably
- No need to roll plugs down before inserting, ideal for dusty, dirty situations
- Can be washed and reused many times
- Soft, cloth cord lays flat
- Includes a storage case that keeps plugs clean and protected (1271 only)
- NRR 24dB



3M-1270 - Corded with polybag
3M-1271 - Corded with carry case
3M-1271P - Corded with carry case



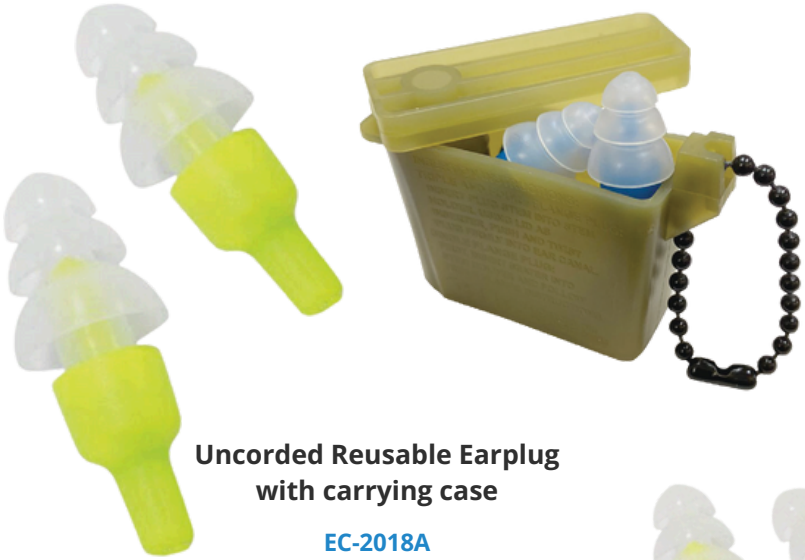
3M-340-4002- In carrying case
3M-340-4004- In poly bag earplug

3M™ E-A-Rsoft™ UltraFit™ Corded Reusable Earplugs

Description

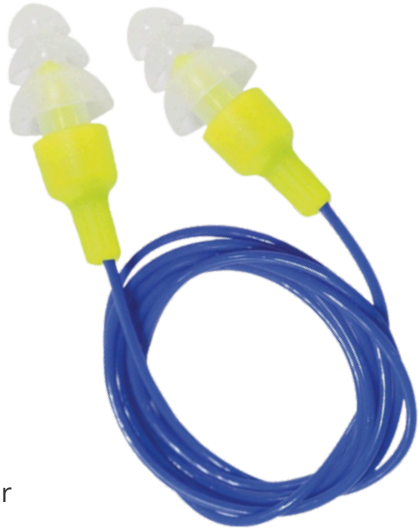
- Patented, premolded, triple-flange design inserts easily
- No rolling or sizing needed to achieve a comfortable, protective fit
- Hypoallergenic polymer is washable and reusable
- Carrying case keeps plugs clean and accessible for reuse
- NRR 25dB

Quebee Reusable Earplugs corded and uncorded With carrying case



Uncorded Reusable Earplug with carrying case

EC-2018A



Corded Reusable Earplug with carrying case

EC-2018A-C

Description

Quebee Silicon reusable Earplugs offer SNR 33dB and NRR 26dB attenuation protection. This new translucent Christmas tree 3-layer design increases user comfort and protection. The high-visibility stem allows for one-handed insertion and easy visibility from a distance for compliance.

Comfortable

- Made of pure silicon material for low pressure inside the ear
- Reusable and maintains its shape even after extended use
- Resistant to humidity and sweat, helping prevent moisture buildup in the ear canal
- The 3-layer design allows for a secure fit in the ear canal
- Designed to fit the majority of ear canals, providing premium comfort and protection

Convenient

- The Christmas tree design fits most ear canals, making the plugs easier to use

Compatibility

- Designed to be compatible with earmuffs or other PPE

Tested according to EN352-2:2002 and ANSI S3.19-1974 standards
Attenuation Data H-34dB M-30dB L-27dB

ANSI S3.19-1974
NRR 26dB

Frequency (HZ)	125	250	500	1000	2000	4000	8000	SNR
Mean Attenuation (dB)	30.8	27.7	30.8	34.7	36.9	37.1	44.0	
Standard Deviation (dB)	3.8	4.1	4.3	3.2	3.5	4.3	4.5	**33dB**
APV (dB)	27.1	23.6	26.5	31.5	33.4	32.8	39.5	

Quebee Disposable Earplugs

Description

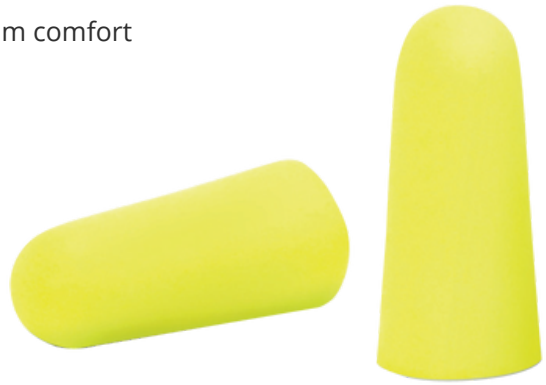
Quebee PU Foam Earplugs offer SNR 37dB and NRR 33dB attenuation protection. The new tapered shape and premium memory PU ensure increased user comfort and protection.

Comfortable

- Soft PU foam material for low pressure inside the ear
- Slow rebound rate allows for a full attachment to the ear canal
- Designed to fit the majority of ear canals with premium comfort and protection

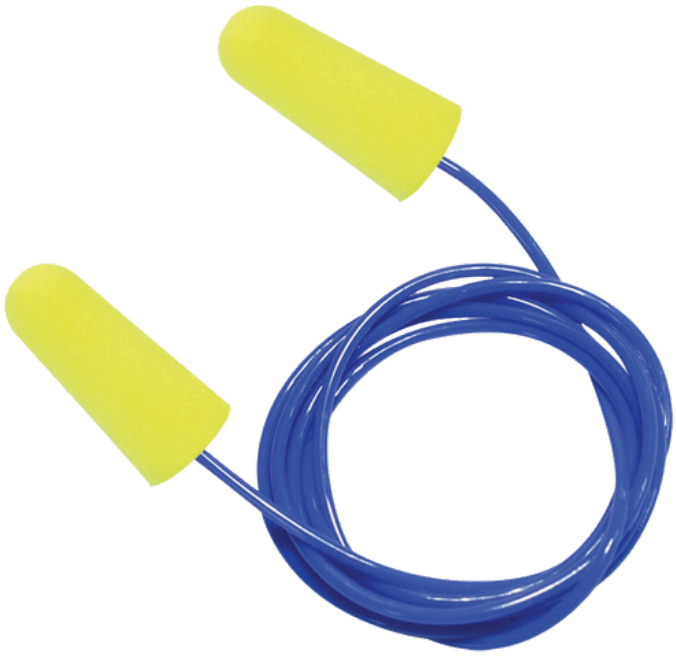
Convenient

- Bullet design fits most ear canals, making the plugs easier to use



Uncorded Disposable Earplug

EC-1003A



Corded Disposable Earplug

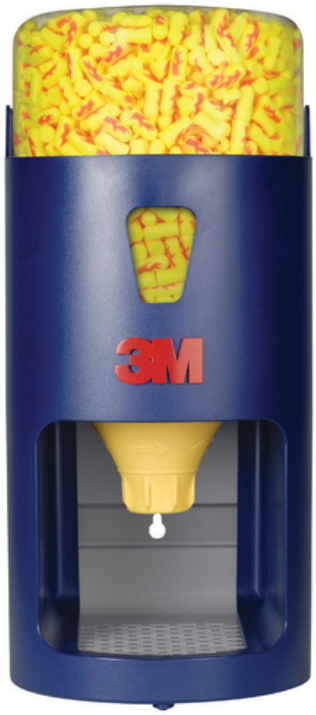
EC-1003A

Tested according to EN352-2:2020 standards
Attenuation Data H-37dB M-35dB L-30dB

ANSI S3.19-1974

NRR 33dB

Frequency (HZ)	125	250	500	1000	2000	4000	8000	SNR
Mean Attenuation (dB)	28.7	32.2	39.6	40.5	37.9	42.2	46.3	
Standard Deviation (dB)	3.6	5.2	5.4	4.3	2.9	3.1	5.4	**37dB**
APV (dB)	25.1	27.0	34.2	36.2	35.0	39.1	40.9	



3M-391-0000

3M™ One Touch™ Pro Earplug Dispenser

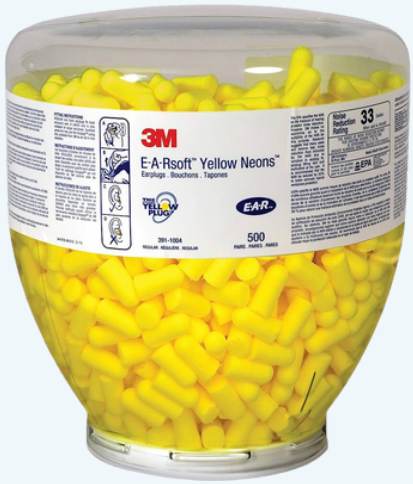
Description

- Accurately dispenses one earplug at a time
- Dispenses earplugs directly into the hand
- Made of durable ABS plastic for tough environments
- Can be free-standing or wall-mounted
- Shields earplugs from wind and rain
- Mounting holes designed to fit a variety of competitive dispensers

3M™ E-A-Rsoft™ Yellow Neon™ One Touch™ Refill Uncorded Earplugs, Hearing Conservation

Description

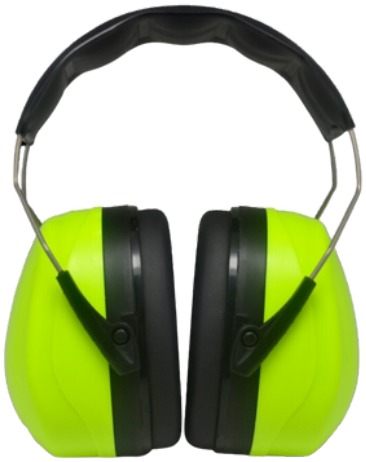
- Refill container for the One Touch™ dispenser. One gentle turn delivers uncorded foam earplugs
- No packaging waste with each pair
- NRR 33dB



3M-391-1004

AUDIOFF Earmuff

Quebee Earmuffs are designed to provide a moderate to high level of attenuation that meets the needs of many industrial applications where high levels of noise may be encountered. When correctly worn, these products can help reduce exposure to hazardous levels of noise.



EM-5002A

Headband Earmuff

Description

- Headband Earmuff with soft foam-filled cushions
- Lightweight ear cups
- PU-covered headband for extended comfort
- Provides a good seal with high noise reduction

Compliance	CE EN352-1:2020, SNR 34dB H=36dB, M=32dB, L=24dB ANSI S3.19-1974, NRR 27dB

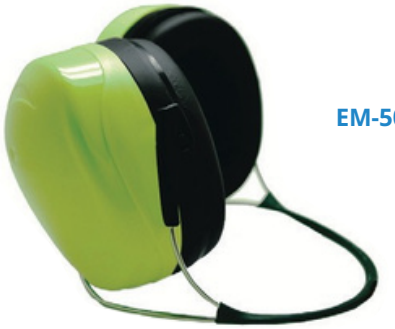
Headband & Foldable Earmuff

Description

- Foldable Headband Earmuff with soft foam-filled cushions
- Lightweight ear cups
- Padded headband for extended comfort
- Provides a good seal with high noise reduction

Compliance	CE EN352-1:2020, SNR 33dB H=35dB, M=32dB, L=23dB ANSI S3.19-1974, NRR 26dB

EM-5002B



EM-5002C

Neckband Earmuff

Description

- Neckband Earmuff with soft foam-filled cushions
- Lightweight ear cups
- Provides a good seal with high noise reduction

Compliance	CE EN352-1:2002, SNR 31dB H=33dB, M=29dB, L=22dB

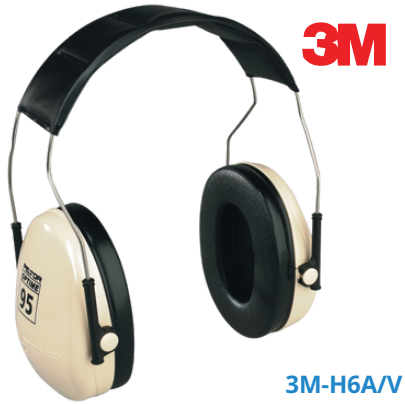
Helmet attachable Earmuff

Description

- Helmet Attachable Earmuff with soft foam-filled cushions
- Lightweight ear cups
- Provides a good seal with high noise reduction

Compliance	CCE EN352-3:2002, SNR 30dB H=31dB, M=28dB, L=21dB ANSI S3.19-1974, NRR 22dB

EM-5002D



3M-H6A/V

3M™ Peltor™ Optime™ 95 Over-the-Head Earmuffs

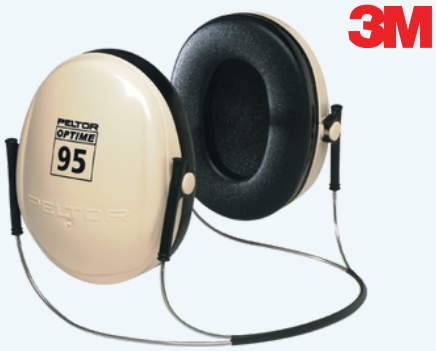
Description

- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Lightweight with liquid/foam-filled earmuff cushions
- NRR 21dB

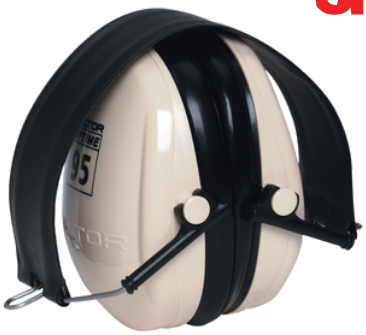
3M™ Peltor™ Optime™ 95 Behind-the- Head Earmuffs

Description

- Multi-position designs available in headband, neckband, helmet-attachable, and folding models.
- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam-filled earmuff cushions
- NRR 21dB



3M-H6B/V



3M-H6F/V

3M™ Peltorc Optime™ 95 Over-the-Head Folding Earmuffs

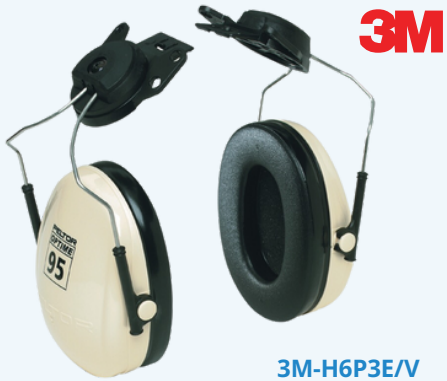
Description

- Folding cups fold up into the headband for compact storage
- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam-filled earmuff cushions
- NRR 21dB

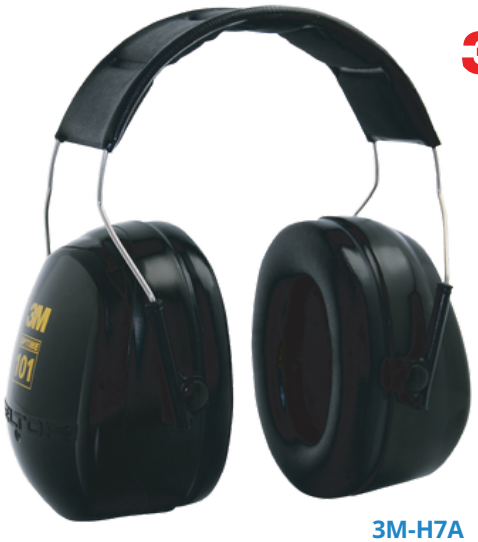
3M™ Peltor™ Optime™ 95 Cap-Mount Earmuffs

Description

- Universal mounting attachment fits most hard hats
- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam-filled earmuff cushions
- NRR 21dB



3M-H6P3E/V



3M-H7A

3M™ Peltor™ Optime™ 101 Over-the-Head

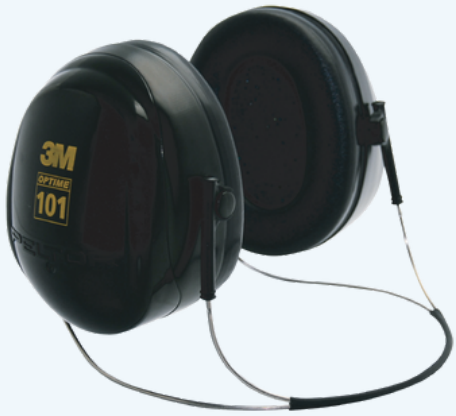
Description

- Stainless steel headband distributes weight for a low-pressure fit
- Ear cup pivot points tilt for optimum comfort and efficiency
- Liquid/foam-filled earmuff cushions
- NRR 27dB

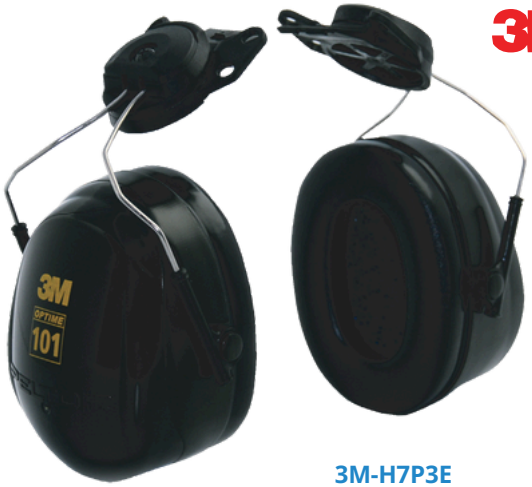
3M™ Peltor™ Optime™ 101 Behind-the- Head Earmuffs

Description

- Neckband style
- Excellent attenuation at low and high frequencies
- Enables a safe working environment for longer periods of time, up to 101 dBA
- Two low mounting points provide great comfort
- #1 selling earmuff in the world
- NRR 26dB.



3M-H7B

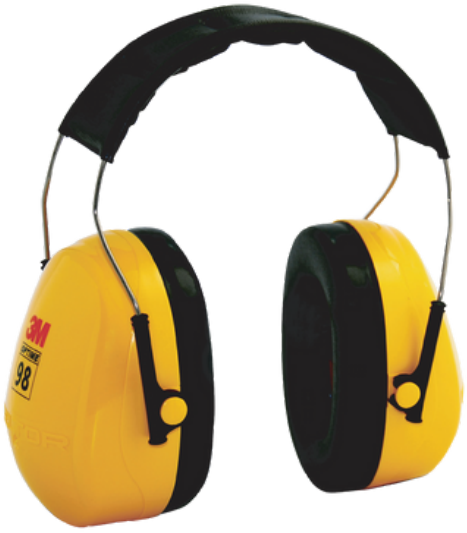


3M-H7P3E

3M™ Peltor™ Optime™ 101 Cap-Mount Earmuffs

Description

- Cap-mounted design allows for easy use with most hard hats
- Liquid/foam-filled ear cushions
- NRR 24dB



3M™ Peltor™ Optime™ 98 Over the Head Earmuffs

Description

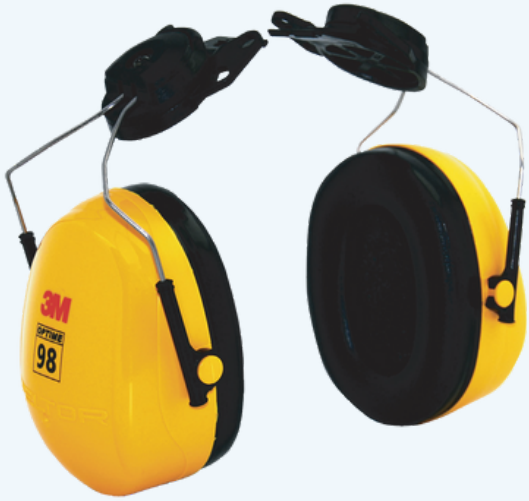
- For noise levels up to 98 dBA
- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam earmuff cushions
- NRR 25dB

3M-H9A

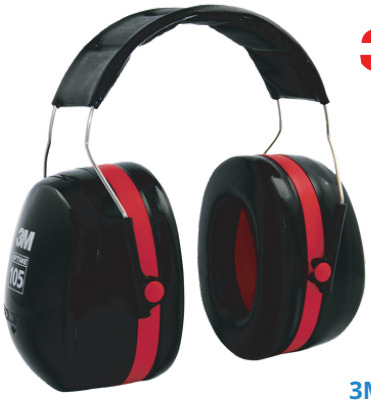
3M™ Peltor™ Optime™ 98 Cap-Mount Earmuffs

Description

- For noise levels up to 98 dBA
- Universal mounting attachment fits most hard hats
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam-filled earmuff cushions
- NRR 23dB



3M-H9P3E



3M-H10A

3M™ Peltor™ Optime™ 105 Over the Head Earmuff

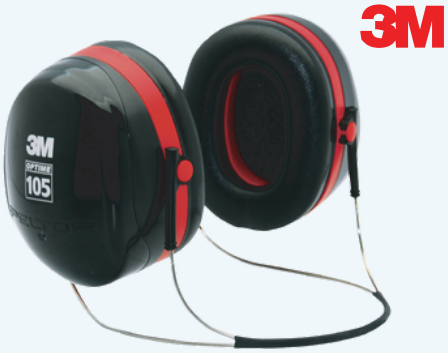
Description

- For noise levels up to 105 dBA
- Proprietary Twin-Cup™ design has soft, foam-filled earmuffs
- Stainless steel headband distributes weight for a low-pressure fit
- Ear cup pivot points tilt for optimum comfort and efficiency
- Liquid/foam-filled earmuff cushions
- NRR 30dB

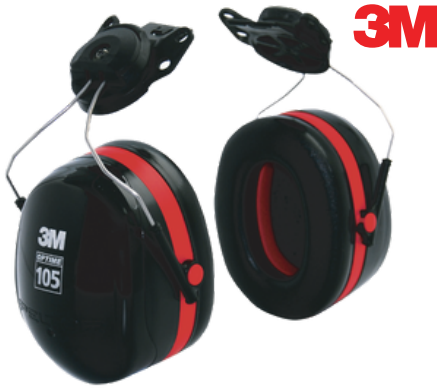
3M™ Peltor™ Optime™ 105 Behind-the- Head Earmuffs

Description

- Patented Twin-Cup™ design has soft, foam-filled earmuff cushions
- Behind-the-head design allows for easy use with hard hats
- Liquid/foam-filled earmuff cushions
- NRR 29dB



3M-H10B



3M-H10P3E

3M™ Peltor™ Optime™ 105 Cap-Mount Earmuffs

Description

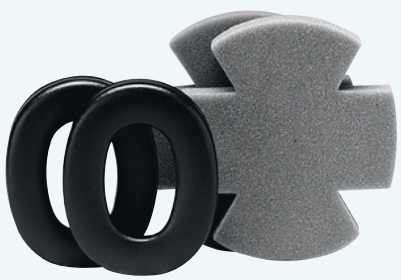
- For noise levels up to 105 dBA
- Proprietary Twin-Cup™ design has soft, foam-filled earmuffs
- Ear cup pivot points that tilt for optimum comfort and efficiency
- Easy cap-mount design
- Liquid/foam-filled earmuff cushions
- NRR 27dB

Accessories

3M™ Peltor™ Earmuff Replacement Hygiene

Description

- Extend the life of earmuffs with one pair of replacement cushions and one pair of dampers
- Hygiene kit for H6, H7, H9 and H10 series



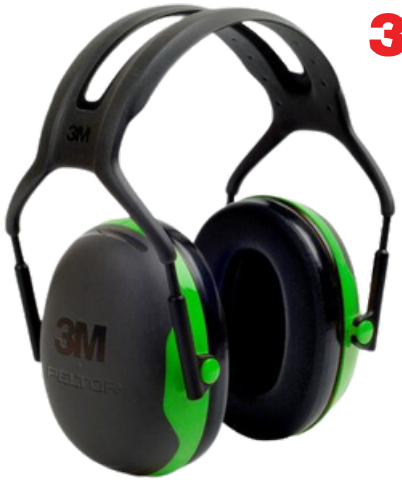
3M-HY3, 3M-HY7, 3M-HY10

3M™ Peltor™ X1 earmuffs

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

Standard attenuation, slim design

NRR 22dB



Earcup Options

X1

Ultra-slim earmuffs for low-noise environments

Electrically Insulated

X1A
NRR 22dB

X1P5E
NRR 21dB

Hard Hat-Attached

X1P3E
NRR 21dB

Performance

(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models — Band Position: Over-the-Head

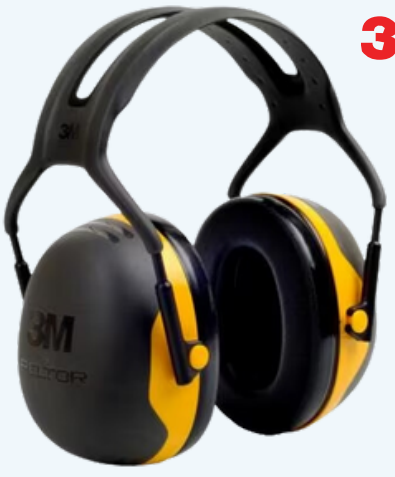
Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X1A	Mean Attenuation (dB)	16.0	18.3	27.7	37.6	35.1	42.2	41.4	39.4	39.3	22 dB	A
	Standard Deviation (dB)	5.2	3.1	3.0	3.5	2.8	2.8	2.6	2.6	3.8		

3M™ Peltor™ X2 earmuffs

- 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

Medium attenuation, slim design

NRR 24dB



Earcup Options

X2

Lightweight earmuffs for low- moderate noise environments

Electrically Insulated

X2A
NRR 24dB

X2P5E
NRR 24dB

Hard Hat-Attached

X2P3E
NRR 24dB

Performance

(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models — Band Position: Over-the-Head

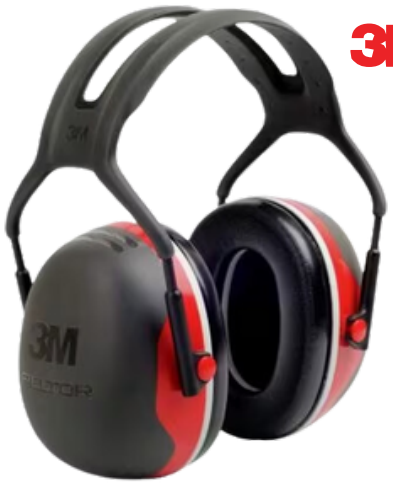
Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X2A	Mean Attenuation (dB)	14.9	21.6	31.8	41.0	36.7	39.1	38.5	39.0	39.0	24 dB	A
	Standard Deviation (dB)	4.2	3.3	2.3	2.5	3.0	2.4	2.0	2.8	3.4		

3M™ Peltor™ X3 earmuffs

- Electrically insulated (dielectric) wire headband on model X3A
- Earcups tilt for optimum comfort and efficiency
- Twin headband design helps reduce heat buildup with a 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 excess bulk or weight of a double cup design

High attenuation, low weight

NRR 28dB



Earcup Options	Electrically Insulated		Hard Hat-Attached
			
X3 High-protection earmuffs for moderate to high noise environments	**X3A** NRR 28dB	**X3P5E** NRR 25dB	**X3P3E** NRR 25dB

Performance

(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models — Band Position: Over-the-Head

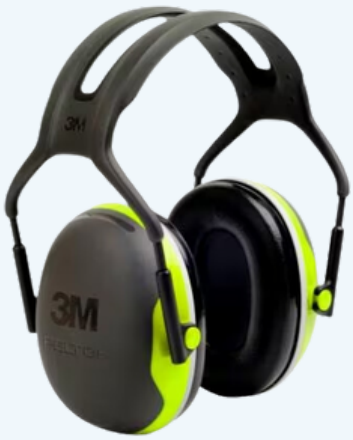
Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X3A	Mean Attenuation (dB)	23.4	27.7	29.4	42.5	38.8	39.3	42.3	39.5	39.5	28 dB	AL
	Standard Deviation (dB)	3.0	2.1	3.1	2.6	2.7	4.0	3.3	2.6	2.8		

3M™ Peltor™ X4 earmuffs

- 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 PPE
- Newly-designed spacer improves attenuation without the excess bulk or weight of a double cup design

Extremely slim, high performance

NRR 27dB



Earcup Options	Electrically Insulated		Hard Hat-Attached
			
X4 High protection earmuffs for moderate- high noise environments	**X4A** NRR 27dB	**X4P5E** NRR 25dB	**X4P3E** NRR 25dB

Performance

(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models — Band Position: Over-the-Head

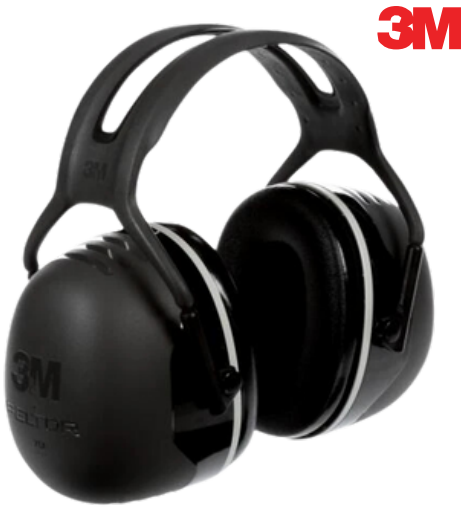
Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X4A	Mean Attenuation (dB)	20.5	24.1	32.8	40.7	37.6	44.5	45.4	42.4	42.3	27 dB	AL
	Standard Deviation (dB)	4.6	3.4	1.9	2.8	2.9	3.1	2.5	3.1	3.0		

3M™ Peltor™ X5 earmuffs

- Electrically insulated (dielectric) wire headband on model X5A
- Earcups tilt for optimum comfort and efficiency
- Twin headband design helps reduce heat buildup with a 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, the product is lightweight with excellent balance and comfort
- Newly-designed spacer improves attenuation without excess bulk or weight
- NRR 31dB ± the highest of any earmuff on the market

Unparalleled attenuation without the need
for double protection involving ear muffs and ear plugs

NRR 31dB



Earcup Options

X5
High protection earmuffs for high noise environments

Electrically Insulated

X5A
NRR 31dB

X5P5E
NRR 31dB

Hard Hat-Attached

X5P3E
NRR 31dB

Performance
(Octave Band Attenuation Data - ANSI S3.19-1974)

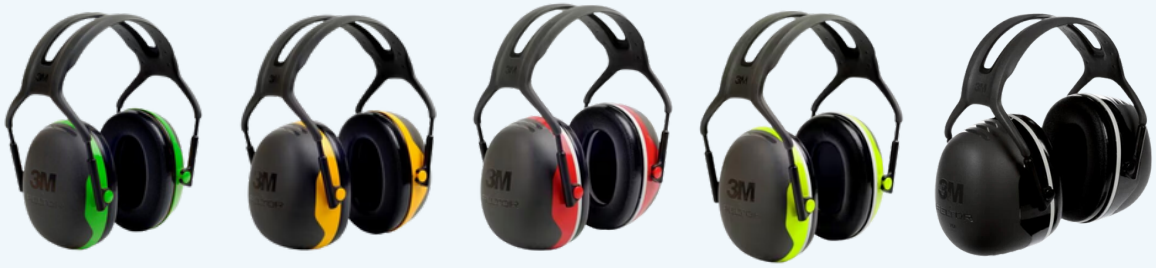
Headband Models — Band Position: Over-the-Head

Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X5A	Mean Attenuation (dB)	23.9	30.5	41.1	43.0	38.0	43.1	44.0	41.1	40.3	31 dB	AL
	Standard Deviation (dB)	4.1	2.2	2.8	2.9	2.7	2.9	2.4	2.6	2.2		

3M™ Peltor's

Highest Levels of Comfort, Durability, and Protection

3M™ Peltor™ X Series- A New Standard in **DESIGN, COMFORT,** and **ATTENUATIONS TECHNIQUES**
3M developed the new 3M™ Peltor™ X Series earmuffs based on these three pillars. In addition to simplicity of use and ease of identification, the new range of earmuffs now sets the new reference point in terms of over-the-ear protection.



3M™ Peltor™ Optime: A market reference
3M™ Peltor's highest levels of Comfort, Durability, and Protection

3M Hearing Protection Solutions made innovatively easy