

Hearing Protection Products

Issue Date 1/30/03

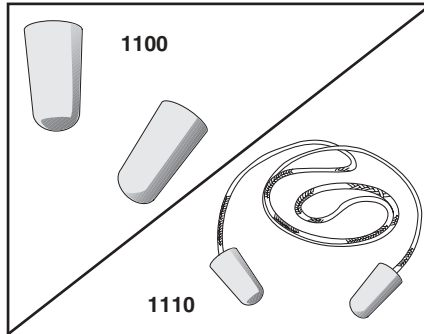
Disposable Ear Plugs

3M™ Foam Ear Plugs 1100 & 1110

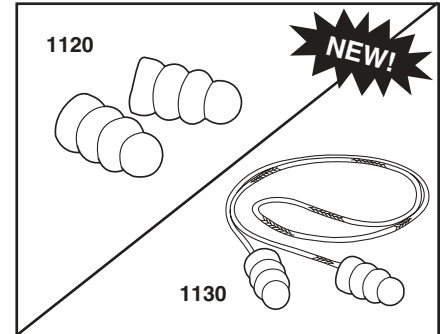
- Tapered shape to fit the ear canal comfortably
- Soft foam seals the ear comfortably
- Smooth, dirt resistant surface for hygiene
- Comfortable for a wide range of ear sizes
- Hypo-allergenic material
- Bright orange color for visibility
- Can be combined with ear muffs for additional protection
- Can be used with other personal protection equipment
- Soft cloth cord for additional convenience and to help prevent loss of ear plugs (1110 only)
- Cord drapes comfortably around wearer's neck and lays flat without twisting or binding (1110 only)
- NRR 29 dB*

3M™ Soft Foam Ear Plugs 1120 & 1130

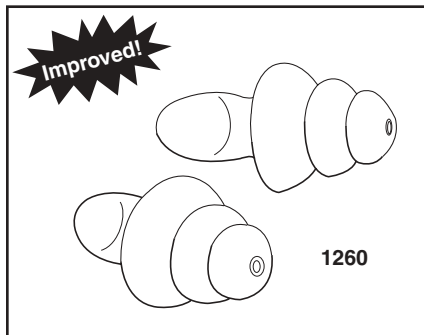
- Patented articulated shape for improved fit
- Low pressure inside the ear canal for improved comfort
- Rolls down small for easy insertion and fit for small ear canals
- New softer formulation for improved comfort
- Hypo-allergenic material
- Bright orange color for visibility
- Can be combined with ear muffs for additional protection



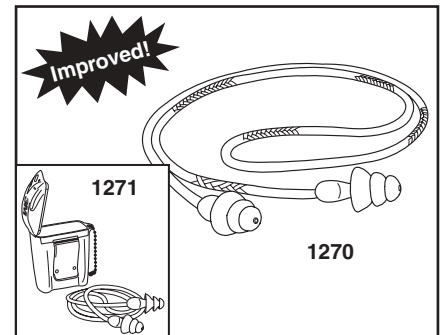
1100 Quantity: 200 pairs per box.
1110 Quantity: 100 pairs per box.



1120 Quantity: 200 pairs per box.
1130 Quantity: 100 pairs per box.



1260 Quantity: 100 pairs per box.



1270 Quantity: 100 pairs per box.
1271 Quantity: 50 pairs per box.

- Can be used with other personal protection equipment
- Soft braided polyester cord for convenience (1130 only)
- NRR 28 dB*

Reusable Ear Plugs

3M™ Reusable Ear Plugs 1260, Corded Reusable Ear Plugs 1270 & Corded Reusable Ear Plugs with Carrying Case 1271

- New softer formulation provides added comfort
- New finger grip design makes insertion easier
- Multi-flanged plugs fit securely into 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 (1270 & 1271 only)
- Includes storage case which keeps plugs clean and protected (1271 only)
- NRR 24 dB*

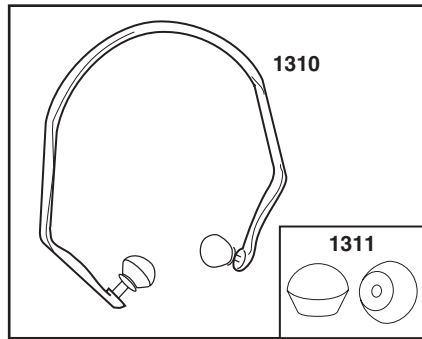
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3M™ Hearing Protection Products

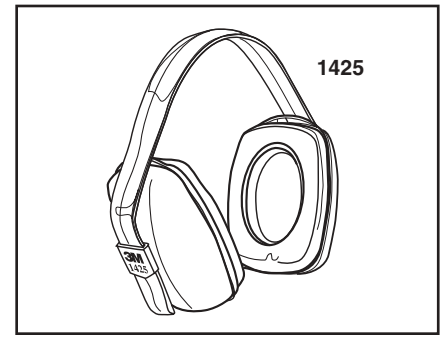
Banded Ear Plugs

3M™ Banded Hearing Protector 1310

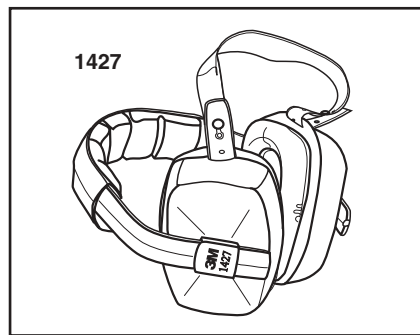
- Unique, flexible band makes fitting easy and maintains low pressure over a wide range of head sizes
- Soft foam pads close the ear canal opening without being inserted into the ear
- Can be worn with band under the chin or behind head
- Band can be reused many times for less waste
- Comfortable alternative to ear muffs and ear plugs
- 3M™ Replacement Pads 1311 (sold separately) are cost-effective and easy to replace
- NRR 21 dB when worn behind the head and 20 dB when worn under the chin*



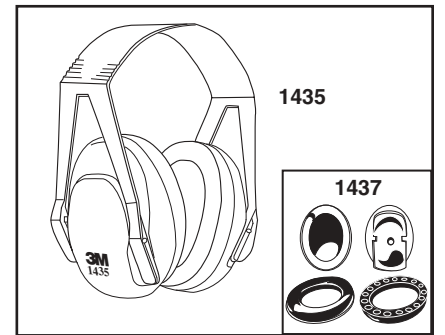
1310 Quantity: 10 each per box
1311 Quantity: 20 pairs per box



1425 Quantity: 1 each per box



1427 Quantity: 1 each per box



1435 Quantity: 1 each per box
1437 Quantity: 1 kit per bag

3M™ Replacement Pads 1311 for 3M™ Banded Hearing Protector 1310

- Smooth, dirt resistant surface for hygiene
- Conforms to the unique shape of the ear canal opening for greater comfort and secure fit
- Cost-effective and easy to replace
- Bright orange color for high visibility

Ear Muffs

3M™ Low Profile Ear Muffs 1425

- Soft, foam-filled cushions fit comfortably yet securely over the ear
- Rugged construction provides durability in most work environments
- Adjustable swivel cups enhance comfort and fit
- Sliding headband allows easy adjustment to fit a wide range of head sizes
- Lightweight
- Easy to fit and use
- NRR 22 dB*

3M™ Three-Position Ear Muffs 1427

- Three different headband positions for versatility
- Adjustable head strap secures ear muffs when the headband is worn under the chin or behind the head
- Padded headband for comfort
- Soft, foam-filled cushions fit comfortably yet securely over the ear
- Adjustable swivel cups enhance comfort and fit
- Sliding headband allows easy adjustment to fit a wide range of head sizes
- Lightweight
- NRR 27 dB when worn over and behind the head and 26 dB when worn under the chin*

3M™ General Purpose Ear Muffs 1435

- Slim, durable plastic ear cups
- Soft foam-filled cushions stay soft after extensive use
- Unique molded inserts provide large inner space for the ear
- Wide headband for low pressure and comfortable secure fit
- Two-point mounting headband for low, evenly distributed pressure and easy handling
- Lightweight
- Replacement cushion and inserts available (Replacement Parts Kit 1437)
- NRR 23 dB*

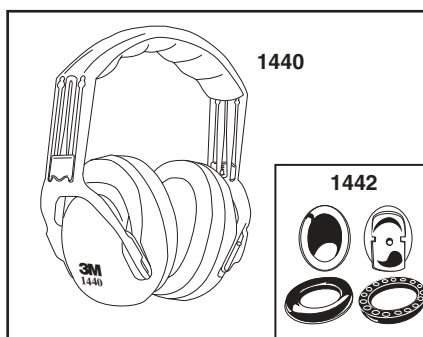
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3M™ Hearing Protection Products

Ear Muffs (continued)

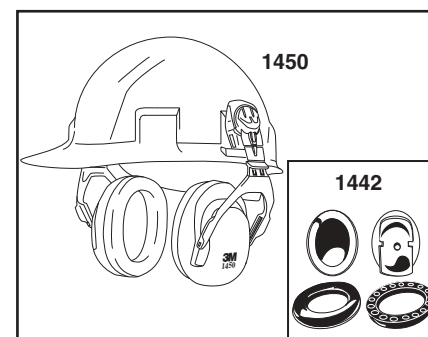
3M™ Padded Ear Muff 1440

- Slim, durable plastic ear cups
- Soft foam-filled cushions stay soft after extensive use
- Contoured ear cushions to enhance fit
- Unique molded inserts provide large inner space for the ear
- Wide padded headband for secure fit and comfort
- Two-point mounting headband for low, evenly distributed pressure and easy handling
- Unique tension adjustment system for exceptional individual fit and comfort
- Lightweight (8 ounces)
- Replacement cushion and inserts available (Replacement Parts Kit 1442)
- NRR 24 dB*



1440 Quantity: 1 each per box

1442 Quantity: 1 kit per bag



1450 Quantity: 1 each per box

1442 Quantity: 1 kit per bag

Hard Hat Mounted Ear Muff

3M™ Hard Hat Mounted Ear Muff 1450

- Durable, lightweight plastic ear cups (7.5 ounces)
- Beveled cups for better fit under helmets
- Ear muffs conveniently flip up and lock when not in use
- Soft foam-filled cushions stay soft after extensive use
- Replacement cushions and inserts available (Replacement Parts Kit 1442)
- Contoured ear cushions to enhance fit
- Unique molded inserts provide large inner space for the ear
- Two-point mounting headband for low, evenly distributed pressure and easy handling
- NRR 23 dB*

* See last page

Mean Attenuation Data for 3M Hearing Protection Products:

Tested according to ANSI S3.19-1974

3M™ Foam Ear Plugs 1100 & Corded Foam Ear Plugs 1110

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	33.9	37.7	39.8	38.5	37.0	41.9	42.7	45.5	44.6	29 dB
Standard Deviation (dB)	4.7	5.5	5.6	4.8	3.1	3.8	3.4	4.0	3.4	

3M™ Soft Foam Ear Plugs 1120

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	24.7	28.9	35.1	36.4	39.1	41.9	43.0	45.2	45.5	28 dB
Standard Deviation (dB)	5.3	3.8	4.1	3.4	3.6	3.3	3.0	4.2	3.2	

3M™ Corded Soft Foam Ear Plugs 1130

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	26.3	28.3	33.3	35.1	37.2	41.8	43.4	43.8	43.4	28 dB
Standard Deviation (dB)	3.8	3.1	3.2	3.0	2.7	4.6	3.9	3.6	4.7	

3M™ Reusable Ear Plugs 1260

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation (dB)	27.2	27.9	31.0	30.9	34.2	35.8	37.5	39.9	41.7	24 dB
Standard Deviation (dB)	4.3	3.7	3.6	3.1	3.8	3.0	3.9	4.2	5.1	

3M™ Corded Reusable Ear Plugs 1270 & 1271

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation (dB)	28.7	30.1	32.8	33.8	34.5	35.6	36.2	39.9	42.2	24 dB
Standard Deviation (dB)	5.0	5.0	4.6	4.1	3.5	3.4	4.0	4.5	5.3	

3M™ Hearing Protection Products

Mean Attenuation Data for 3M Hearing Protection Products (continued):

3M™ Banded Hearing Protector 1310 (Worn Behind the Head)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	21.6	20.9	23.0	24.5	34.0	40.3	40.7	44.0	46.2	21 dB
Standard Deviation (dB)	3.0	2.6	2.3	2.4	2.7	3.4	3.7	4.9	3.9	

3M™ Banded Hearing Protector 1310 (Worn Under the Chin)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	21.9	21.1	22.4	24.0	34.4	40.2	40.6	44.1	46.5	20 dB
Standard Deviation (dB)	4.7	2.8	3.2	2.5	3.0	2.5	2.8	3.2	2.5	

3M™ Low Profile Ear Muff 1425

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	14.0	17.5	25.0	35.8	34.3	33.4	34.2	33.7	33.2	22 dB
Standard Deviation (dB)	2.9	2.4	2.2	3.5	3.3	1.6	2.3	2.3	2.0	

3M™ Three Position Ear Muff 1427 (Worn Over The Head)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	19.5	22.9	31.7	40.8	36.1	41.5	41.1	40.4	38.4	27 dB
Standard Deviation (dB)	2.9	2.1	2.2	3.2	3.1	2.7	2.4	2.3	2.9	

3M™ Three Position Ear Muff 1427 (Worn Behind The Head)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	20.4	22.8	30.4	39.5	36.1	41.6	42.1	41.1	39.5	27 dB
Standard Deviation (dB)	4.2	2.0	1.8	2.8	2.0	3.6	2.8	2.3	2.5	

3M™ Three Position Ear Muff 1427 (Worn Under The Chin)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	18.5	22.8	31.0	40.1	35.7	40.3	41.3	39.8	37.9	26 dB
Standard Deviation (dB)	3.4	2.7	2.2	2.2	2.4	3.9	3.0	2.5	2.6	

3M™ Hearing Protection Products

Mean Attenuation Data for 3M Hearing Protection Products (continued):

3M™ General Purpose Ear Muff 1435

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	15.0	20.9	27.5	30.8	33.5	33.8	36.9	36.1	36.9	23 dB
Standard Deviation (dB)	3.0	2.8	2.8	2.4	2.7	3.1	3.1	3.2	3.7	

3M™ Padded Ear Muff 1440

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	15.5	21.8	28.1	29.6	30.5	35.0	39.0	39.9	40.1	24 dB
Standard Deviation (dB)	2.2	2.2	2.7	1.7	2.0	2.4	2.4	2.8	3.2	

3M™ Helmet Mounted Ear Muff 1450

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Real Ear Attenuation (dB)	15.8	21.0	28.3	29.3	30.2	35.1	38.6	39.8	38.9	23 dB
Standard Deviation (dB)	2.9	2.4	2.7	1.8	1.9	3.4	2.6	3.4	4.2	

Hearing Compliance and Training Materials

Model	Description
HCSCD	Hearing Compliance Software
TPV-14	Hearing Protection Products Training Video and Poster

WARNING

- These hearing protection products help prevent hearing loss against certain noises. To provide proper protection, the hearing protector should be (1) suitable for the job, (2) fitted properly in/on the ear, (3) worn during all times of exposure to noise, and (4) replaced when damaged or otherwise necessary.
- Failure to fit and use hearing protectors according to these instructions will reduce their effectiveness. Failure to wear hearing protectors 100% of the time that you are exposed to hazardous noise may dramatically increase your risk of developing hearing loss.
- Keep ear plugs away from infants and small children. They may get caught in the child's windpipe.

For more information, visit our Web site: www.3M.com/occsafety

3M Occupational Health and Environmental Safety Division
 3M Center, Building 235-2W-70
 St. Paul, MN 55144-1000

* Research suggests that the NRR may overestimate the protection provided by hearing protectors during typical use. 3M recommends reducing the NRR by 50% for estimating the amount of noise reduction provided.

For more information:

In the U.S., contact:

Technical Assistance

1-800-243-4630

Sales Assistance/Local Distributor

1-800-328-1667

Fax On Demand

1-800-646-1655

Internet

www.3M.com/occsafety

E-mail

occsafety@mmm.com

For other 3M products

1-800-3M HELPS

In Canada, contact:

3M Canada Company, OH&ESD

P.O. Box 5757

London, Ontario N6A 4T1

Technical Assistance (Canada only)

1-800-267-4414

Sales Assistance

1-800-265-1840, ext. 6137

Fax On Demand

1-800-646-1655

Internet

www.3M.com/CA/occsafety

3M Canada E-mail

ohes@ca.mmm.com

Technical Assistance In Mexico

01-800-712-0646

5270-2255, 5270-2119 (Mexico City only)

Technical Assistance In Brazil

0800-132333

Fax On Demand OUS Locations

1-651-732-6530