

HEARING PROTECTION

LOSS OF HEARING: UNLIKE EYE, HEAD AND RESPIRATORY INJURIES, HEARING DAMAGE IS NOT NECESSARILY PAINFUL OR VISIBLE AT THE TIME OF OCCURRENCE. HOWEVER, NOISE SHOULD BE REGARDED AS A PHYSICAL HAZARD. THE RESULT OF PROLONGED EXPOSURE TO EXCESSIVE NOISE CAN RESULT IN PHYSICAL CUMULATIVE INJURY - LOSS OF HEARING.

Acoustic waves are a fundamental part of your hearing ability - which cuts both ways. The waves are a prerequisite for the transmission of sound but if they are not within the ear's "natural" acoustic range, they have a destructive effect. Located inside your inner ear are the wave specialists: hair cells with their fine hairs. It is these hairs that are set in motion by the sound waves the ear receives. And the higher the sound level, the more the hairs flutter. This motion is converted into nerve impulses that are passed on to the brain. But if the hairs are repeatedly subjected to excessively high doses of sound, they eventually break off. Those that survive only manage to transfer a fraction of the information. The result is impaired hearing.

STANDARDS

EN 352-1	Ear muffs Headband
EN 352-2	Ear plugs
EN 352-3	Helmet mounted ear muffs
EN 352-4	Electronic ear muffs
EN 352-6	Ear muffs with electrical audio input
EN 352-8	Entertainment audio ear muffs
EN 458	Recommendations regarding the selection, use, care and maintenance of hearing protection equipment (HPE)

SINGLE NUMBER RATING (SNR)

SNR is a measure for comparing devices for ear protection over a range of frequencies as the level of protection of a given device will depend on the frequency of the background noise.

TYPES OF PROTECTION AVAILABLE

Ear Muffs are a traditional form of ear protection providing a wide level of protection. Since they are very visible they make it easier to enforce the wearing of protection in the workplace. Ear Muffs can be supplied with a number of options such as helmet mounting and built in radios.

Ear Plugs are convenient and comfortable to wear and can provide a higher level of protection than ear muffs. Plugs can also be provided banded or corded for convenience when not in use.

ACCESSORIES

Ear Muff Covers	Ear Muff Belt Clip
Ear Muff Hygiene Kits	Ear Plug Storage Box

INDICATION OF SOUND LEVELS

135db	Aeroplane
110db	Bulldozer
105db	Pneumatic Drill
80db	Voice (screaming)
60db	Voice (speaking)
50db	Listening to soft music in home
20db	Sound of a breeze in the trees
5db	Minimum level of noise perceived

ATTENUATION TABLES

For each product an Attenuation Table is provided which details the noise reduction tested at frequencies between 63Hz and 8000Hz. The tables provide figures for the Mean Attenuation, Standard Deviation for the test and the Assumed Protection. The Assumed Protection is the Mean Attenuation less the Standard Deviation. These tables allow the user to select the product which suits the application taking into account the background noise levels and frequencies.

IDENTIFY THE HAZARDS

To identify the risk a Noise Survey should be carried out. The survey will identify the background noise levels and frequency range and can be used as the basis of selecting the most appropriate products.

SELECTING THE CORRECT HEARING PROTECTION

It is essential where personal hearing protection is required that employees are provided with the right type of protection, are trained to use the device correctly and understand how to maintain and when to replace their protection.

Hearing Protection Devices (HPD's) generally fall into 2 categories:

1) Earplugs

Disposable / Reusable / Detectable / Banded / Custom Moulded

2) Ear Defenders

Passive / Stereo / Communication

Indication of Protection Factors (quick guide only)

This is not a substitute for using a standard method for calculating performance and does not take into consideration frequency.

Noise level in dB	Select a protector with an SNR (single number rating)
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85-90	20 SNR or less
90-95	20-30 SNR
95-100	25-35 SNR
100-105	30 SNR or more

HEARING PROTECTION CONSIDERATIONS

- Noise Reduction offered by the device (SNR), based on Noise measurement and reduction needed
- Comfort and user preference
- Overprotection, reducing noise to below 70dB should be avoided as this may cause difficulty with communication and hearing warning signals
- Compatibility with other safety equipment eg, Eye/Face, Respiratory and Head Protection
- The need to communicate with others and to hear warning sounds
- Environmental Factors such as cold, heat, humidity, dust and dirt
- Cost of ownership, maintenance or replacement
- Medical Disorders





HONEYWELL SYNC STEREO EARMUFF
EP1030111

Attenuation Chart
EPAC-01

HONEYWELL Sync Stereo ear muffs offering high-quality sound and hearing protection in one. No volume knobs or power switches or batteries to replace, volume and power control are through iPod/MP3 player. (Audio device not included).

H 29Db Standard
M 27Db **EN352-1**
L 22Db **EN352-6**

SNR 29Db



HONEYWELL SYNC STEREO EARMUFFS WITH DIGITAL AM/FM | EP1030330

Attenuation Chart
EPAC-02

HONEYWELL Sync Stereo Ear Muffs offering high-quality digital FM sound and hearing protection in one. 10 preset stations and volume memory can be personalised for each user. Lightweight slim ear cup design for added user comfort. LCD display, Features 3.5mm AUX input jack and connection cable. AA batteries.

H 32Db Standard
M 28Db **EN352-1**
L 23Db **EN352-6**

SNR 31Db



HEADBAND EAR MUFFS



LEIGHTNING L1 HEADBAND EARMUFF
EP1010922

Attenuation Chart
EPAC-03

Leightning L1 Ear muff with robust steel headband. Headband has comfortable padded foam and muff cups have supersoft cushions. Telescopic height adjustment.

H 31Db Standard
M 28Db **EN352-1**
L 23Db

SNR 30Db



LEIGHTNING L2 HEADBAND EARMUFF
EP1010923

Attenuation Chart
EPAC-04

Ear muff with robust steel headband. Headband has comfortable padded foam and muff cups have supersoft cushions. Telescopic height adjustment.

H 31Db Standard
M 29Db **EN352-1**
L 23Db

SNR 31Db



LEIGHTNING L3 HEADBAND EARMUFF
EP1010924

Attenuation Chart
EPAC-05

High attenuation ear muff with robust steel headband. Headband has comfortable padded foam and muff cups have supersoft cushions. Telescopic height adjustment.

H 33Db Standard
M 32Db **EN352-1**
L 27Db

SNR 34Db



HEADBAND EAR MUFFS

THUNDER T3 HEADBAND EARMUFF EP1010970

Attenuation Chart
EPAC-06

Very high attenuation Ear muff with robust headband. Headband has comfortable padded foam and muff cups have supersoft cushions. Quick click adjustment.

H 37Db
M 34Db
L 26Db
SNR 36Db

Standard
EN352-1

Honeywell
LIGHT



CLARITY C1 HEADBAND EARMUFF EP1011142

Attenuation Chart
EPAC-07

Clarity C1 Ear muff with robust comfortable headband. Headband is ventilated and reduces pressure on the head in warm environments. Muff cups have supersoft cushions. Full height adjustment.

H 24Db
M 22Db
L 20Db
SNR 25Db

Standard
EN352-1

Honeywell
LIGHT



3M PELTOR H510A HEADBAND EARMUFF EPH510A

Attenuation Chart
EPAC-08

Ear muff with robust steel headband. Headband has comfortable padded foam and muff cups have supersoft cushions. Telescopic height adjustment.

H 32Db
M 25Db
L 15Db
SNR 27Db

Standard
EN352-1

3M



3M PELTOR H520A HEADBAND EARMUFF EPH520A

Attenuation Chart
EPAC-09

Ear muff with robust steel headband. Headband has comfortable padded foam and muff cups have supersoft cushions. Telescopic height adjustment.

H 34Db
M 29Db
L 20Db
SNR 31Db

Standard
EN352-1

3M



3M PELTOR H540A HEADBAND EARMUFF EPH540A

Attenuation Chart
EPAC-10

Very high attenuation ear muff with robust steel headband used for extreme noise-hazard environments. Headband has comfortable padded foam and muff cups have supersoft cushions. Telescopic height adjustment.

H 40Db
M 32Db
L 23Db
SNR 35Db

Standard
EN352-1

3M






LEIGHTNING L1H HELMET EARMUFF
EP1012539

Attenuation Chart
EPAC-11

Helmet mounting ear muff. Slimline low weight product. Easy to use clip on system. Different adaptors to suit all brands of helmets.


H 31Db Standard
M 25Db **EN352-3**
L 19Db
SNR 28Db 



CLARITY C1H HELMET EARMUFF
EP1011262

Attenuation Chart
EPAC-12

Helmet mounting ear muff. Slimline low weight product. Easy to use clip on system. Different adaptors to suit all brands of helmets.


H 26Db Standard
M 23Db **EN352-3**
L 19Db
SNR 26Db 



LEIGHTNING L3H HELMET EARMUFF
EP1012541

Attenuation Chart
EPAC-13

High attenuation helmet mounting ear muff. Slimline low weight product. Easy to use clip on system. Different adaptors to suit all brands of helmets.

H 30Db Standard
M 29Db **EN352-3**
L 24Db
SNR 31Db 



3M PELTOR H520P3E HELMET MOUNTED EARMUFF EPH520P3

Attenuation Chart
EPAC-14

Optime II Ear Muff has been developed for demanding noisy environments and muffles even extremely low frequencies to a maximum degree. The sealing rings are filled with a unique combination of liquid and foam. The result is an optimum seal with low contact pressure, which provides agreeable comfort even during long-term use. Suitable for use with EVO 2 and Apex helmets.


H 34Db Standard
M 28Db **EN352-3**
L 19Db
SNR 30Db 



3M PELTOR H540P3E HELMET MOUNTED EARMUFF EPH540P3E

Attenuation Chart
EPAC-15

Optime™ III is a high performance hearing protector and has been developed for use in extremely noisy environments. The protection is based on a technology with a double casing minimising resonance in the holder casing, maximising high-frequency attenuation. Suitable for use with EVO 2 and Apex helmets.

H 40Db Standard
M 32Db **EN352-3**
L 22Db
SNR 34Db 

NECKBAND EAR MUFFS

LEIGHTNING L1N NECKBAND EARMUFF EP1011994

Attenuation Chart
EPAC-16

Neckband ear muff which can be used while wearing faceshields, visors and helmets. Elastic headband for better positioning.

H 31Db
M 27Db
L 21Db
SNR 29Db

Standard
EN352-1



LEIGHTNING L2N NECKBAND EARMUFF EP1011995

Attenuation Chart
EPAC-17

Neckband ear muff which can be used while wearing faceshields, visors and helmets. Elastic headband for better positioning.

H 31Db
M 29Db
L 22Db
SNR 31Db

Standard
EN352-1



LEIGHTNING L3N NECKBAND EARMUFF EP1011996

Attenuation Chart
EPAC-18

Neckband ear muff which can be used while wearing faceshields, visors and helmets. Elastic headband for better positioning.

H 31Db
M 31Db
L 26Db
SNR 32Db

Standard
EN352-1



3M PELTOR H540B NECKBAND EARMUFF EPH540B

Attenuation Chart
EPAC-19

Very high attenuation ear muff used for extreme noise-hazard environments. Can be used while wearing faceshields, visors and helmets. Elastic headband for better positioning.

H 40Db
M 32Db
L 23Db
SNR 35Db

Standard
EN352-1



STANDARD EAR MUFFS

REDBACK STANDARD HEADBAND EARMUFF EPSEM

Attenuation Chart
EPAC-20

The REDBACK Standard Ear Muff is a lightweight comfortable ear defender. Not suitable for high attenuation noise environments.

H 28Db
M 20Db
L 12Db
SNR 23Db

Standard
EN352-1





FORESTRY PROTECTION KITS

HOWARD LEIGHT FORESTRY KIT

FW1017291

Designed for forestry and landscape gardening work this kit offers a turnkey solution for hearing and head protection. Leightning L1H ear cups, bright orange polythene helmet, easily adjustable mesh face shield with sun peak visor, integrated neck guard protects against debris and sun/rain.

EAR PROTECTOR SNR 28Db



Helmet EN397

Visor EN 1731

Ear Muffs EN352-3



3M G2031A PELTOR FORESTRY KIT

HDG2031A

Forestry Helmet combination provides effective protection for the head, face and hearing. G3000 Helmet, H31P3E hearing protects against high-revving, two-stroke engine noise, V4CK mesh visor, GR3C rain protection. Low weight.

EAR PROTECTOR SNR 28Db



Helmet EN397

Visor EN 1731

Ear Muffs EN352-3



PW98 FORESTRY KIT

HDPW98O

PW98 Forestry Combi Kit. Head protection kit comes complete with visor, hearing protection, sun peak and neck guard. Class 1 optics and high tech design provide good visibility and full-face protection. The kit is completed with a reinforced visor holder, increasing the stability of the helmet.

EAR PROTECTOR SNR 29Db

Helmet EN397

Visor EN166 3B EN1731

Ear Muffs EN352-3

HYGIENE KITS

HYGIENE KITS

Spare Part Kit containing a pair of ear cushions and foam closing pad inserts.

EP1006080 for C1

EP1011998 for L1

EP1011999 for L2

EP1012000 for L3

EP1010976 for T3

EP1030220 for Sync Stereo Earmuff

EP1015280 for Sync AM/FM Radio Earmuff

EPHY51 for Peltor Optime I

EPHY52 for Peltor Optime II

EPPHK03 for Peltor Optime III



EAR PLUGS

**303L EAR PLUGS**

EP303L

Colour

Yellow/White



Attenuation Chart

EPAC-21

Conical shape foam ear plug. PVC free with a smooth outer surface. (Box 200)

H 32Db**M 29Db****L 29Db****SNR 33Db**

Standard

EN352-2**304L CORDED EAR PLUGS**

EP304L

Colour

Yellow/White



Attenuation Chart

EPAC-22

Conical shape foam ear plug. PVC free with a smooth outer surface. (Box 100)

H 32Db**M 29Db****L 29Db****SNR 33Db**

Standard

EN352-2**LASER LITE 1 FOAM EAR PLUGS**

EPLL1

Colour

Yellow/Pink



Attenuation Chart

EPAC-23

Brightly coloured ear plug for greater workplace acceptance. Soft low pressure foam for longer wearer comfort. Winged shape for a proper fit.

H 34Db**M 32Db****L 31Db****SNR 35Db**

Standard

EN352-2**LASER LITE 30 CORDED EAR PLUGS**

EPLL30

Colour

Yellow/Pink



Attenuation Chart

EPAC-24

As the Laser Lite but with a cord for additional safety and convenience.

H 34Db**M 32Db****L 31Db****SNR 35Db**

Standard

EN352-2**REDBACK CORDED EAR PLUGS**

EPRCEP

Colour

Blue



Attenuation Chart

EPAC-25

Conical shaped foam ear plugs. PVC free smooth outer surface. (Box 200)

H 34Db**M 32Db****L 29Db****SNR 35Db**

Standard

EN352-2

REUSABLE EAR PLUGS

SMARTFIT REUSABLE CORDED EAR PLUG EP1011239	Colour Orange		Att. Chart EPAC-26
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Reusable corded ear plug. Unique detachable cord system. Each pair supplied in storage box. Clean with warm water and allow to air dry.

H 32Db
M 27Db
L 23Db
SNR 30Db

Standard
EN352-2



DETECTABLE EAR PLUGS

LASER TRAK DETECTABLE CORDED EAR PLUG EP3301167	Colour Orange/Blue		Att. Chart EPAC-27
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Corded ear plug with self adjusting foam which expands to suit all users. Non-ferrous metal grommet and bright colours for easy detection.

H 34Db
M 32Db
L 31Db
SNR 35Db

Standard
EN352-2



REDBACK REUSABLE DETECTABLE CORDED EAR PLUG EPRRDCEP	Colour Blue		Att. Chart EPAC-28
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Reusable corded ear plug. Detectable ring on stem and bright colours for easy detection. Clean with warm water and allow to air dry.

H 30Db
M 26Db
L 26Db
SNR 30Db

Standard
EN352-2



SMARTFIT REUSABLE DETECTABLE CORDED EAR PLUG EP1012522	Colour Blue		Att. Chart EPAC-29
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Reusable corded ear plug. Detectable ring on stem and bright colours for easy detection. Clean with warm water and allow to air dry.

H 32Db
M 27Db
L 23Db
SNR 30Db

Standard
EN352-2



BANDED EAR PLUGS

QB2HYG SUPRA-AURAL BANDED EARPLUGS EP3301280	Colour Orange		Att. Chart EPAC-30
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The QB2HYG Ear Protector has smooth, ergonomic ear pods fitting inside the opening of the ear canal for reliable banded protection. Patented band design prevents ear pods from touching dirty or contaminated surfaces when set down. Lightweight and portable. Designed especially for environments with intermittent noise hazards. QB2HYG offers superior protection with its supra-aural fit.


H 26Db
M 20Db
L 19Db
SNR 24Db

Standard
EN352-2





BANDED EAR PLUGS

QB2HYG REPLACEMENT EAR PODS (BOX 50) EP3301181	Colour Orange		Att. Chart EPAC-30
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Replacement pods for QB2HYG Banded Earplugs. Extends lifetime and performance of QB2HYG Banded Earplugs.

H 26Db

M 20Db

L 19Db

SNR 24Db

Standard

EN352-2



PERCAP BANDED EARPLUGS EP1005952	Colour Orange		Attenuation Chart EPAC-31
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Comfortable hearing protector with a foldable headband and soft foam plugs that effectively seal the ear canal. Lightweight and easily transportable.

H 27Db

M 20Db

L 18Db

SNR 24Db

Standard

EN352-2



PERCAP BANDED EARPLUGS - REPLACEMENT PODS EP1005980	Colour Orange		Attenuation Chart EPAC-31
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Replacement pods for EP1005952 protector.

H 27Db

M 20Db

L 18Db

SNR 24Db

Standard

EN352-2



EAR PLUG DISPENSING UNITS



HL400 WALL MOUNTED / FREE STANDING EAR PLUG DISPENSER EPHLD

HL400 Wall mounted or free standing dispenser suitable for 400 pairs of ear plugs, transparent eye catching design to encourage wide use. Refills Code EP303LDR purchased separately.



303L EAR PLUG DISPENSER REFILL BAG EP303LDR	Colour Yellow/White		Att. Chart EPAC-21
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303L conical shape foam ear plug. PVC free with a smooth outer surface. Contains 200 pairs.

H 32Db

M 29Db

L 29Db

SNR 33Db

Standard

EN352-2



ATTENUATION CHARTS

Frequency	63	125	250	500	1000	2000	4000	8000
EPAC-01 SYNC RADIO								
Mean Attenuation dB (A)	18.7	19	22.6	26.3	29.8	29	37.2	37.3
Standard Deviation dB (A)	5	3	2.3	2	1.5	2.3	2.7	3.7
Assumed Protection dB (A)	13.7	16	20.3	24.3	28.3	26.7	34.5	33.6
EPAC-02 SYNC								
Mean Attenuation dB (A)	19.2	21.2	23.1	28.1	31.7	34.1	38.5	39.3
Standard Deviation dB (A)	3	3.4	2.4	2.4	3.1	3.1	2.4	3.7
Assumed Protection dB (A)	16.2	17.8	20.7	25.7	28.6	31	36.1	35.6
EPAC-03 LEIGHTNING L1								
Mean Attenuation dB (A)	17.9	20.3	22.9	28.3	32.9	32.3	39.3	35.1
Standard Deviation dB (A)	5.3	2.5	2.8	1.7	2.9	3.8	2.8	4
Assumed Protection dB (A)	12.6	17.8	20.1	26.6	30	28.5	36.5	31.1
EPAC-04 LEIGHTNING L2								
Mean Attenuation dB (A)	20	20.1	24.5	29.3	34.4	32.4	35.9	35.6
Standard Deviation dB (A)	4.5	4	2.9	3.2	2.6	3	2.6	3.2
Assumed Protection dB (A)	15.5	16.1	21.6	26.1	31.8	29.4	33.3	32.4
EPAC-05 LEIGHTNING L3								
Mean Attenuation dB (A)	23.6	24.6	27.8	32.6	37.4	35.2	38.8	35.8
Standard Deviation dB (A)	6.4	3.6	2	2	3.3	3.2	3.1	3.3
Assumed Protection dB (A)	17.2	21	25.8	30.6	34.1	32	35.7	32.5
EPAC-06 THUNDER T3								
Mean Attenuation dB (A)	21.5	23.6	30.8	34.6	40.3	38.3	43.1	40.3
Standard Deviation dB (A)	3.6	5.3	4.5	3	2.2	3.4	3.4	3.6
Assumed Protection dB (A)	17.9	18.3	26.3	31.6	38.1	34.9	39.7	36.7
EPAC-07 CLARITY C1								
Mean Attenuation dB (A)	12.6	15.7	23.9	27.8	23.3	25.8	29	31
Standard Deviation dB (A)	4.5	3.3	2.7	2.8	2.9	2	3	2.6
Assumed Protection dB (A)	8.1	12.4	21.2	25	20.4	23.8	26	28.4
EPAC-08 PELTOR H510A								
Mean Attenuation dB (A)	14.1	11.6	18.7	27.5	32.9	33.6	36.1	35.8
Standard Deviation dB (A)	4	4.3	3.6	2.5	2.7	3.4	3	3.8
Assumed Protection dB (A)	10.1	7.3	15.1	25	30.1	30.2	33.2	32
EPAC-09 PELTOR H520A								
Mean Attenuation dB (A)		14.8	20.2	32.5	39.3	36.4	34.4	40.2
Standard Deviation dB (A)		1.6	2.5	2.3	2.1	2.4	4	2.3
Assumed Protection dB (A)		13	17.7	30.2	37.2	34	30.4	37.9
EPAC-10 PELTOR H540A								
Mean Attenuation dB (A)		17.4	24.7	34.7	41.4	39.3	47.5	42.6
Standard Deviation dB (A)		2.1	2.6	2	2.1	1.5	4.5	2.6
Assumed Protection dB (A)		15.3	22.1	32.7	39.3	37.8	43	40
EPAC-11 LEIGHTNING L1H								
Mean Attenuation dB (A)	14.3	17.6	21.6	25.1	32.6	32.9	36.6	35.5
Standard Deviation dB (A)	4.1	3.8	3.9	4.4	3.4	3.1	4.8	3.9
Assumed Protection dB (A)	10.2	13.8	17.7	20.7	29.2	29.8	31.8	31.6

ATTENUATION CHARTS

Frequency	63	125	250	500	1000	2000	4000	8000
EPAC-12 CLARITY C1H								
Mean Attenuation dB (A)	12.9	15.3	22.1	24.6	24.5	29.5	29.3	33.5
Standard Deviation dB (A)	4	3	3	2.3	2.6	2.9	2.7	3.2
Assumed Protection dB (A)	8.9	12.3	19.1	22.3	21.9	26.6	26.6	30.3
EPAC-13 LEIGHTNING L3H								
Mean Attenuation dB (A)	17.5	22.3	25.3	29	34.9	31.8	37.9	34.6
Standard Deviation dB (A)	3.6	3.6	2.6	2.6	3	3.2	4.3	3.6
Assumed Protection dB (A)	13.9	18.7	22.7	26.4	31.9	28.6	33.6	31
EPAC-14 PELTOR H520P3E								
Mean Attenuation dB (A)		14.1	19.4	32	39.9	36.2	35.4	39.2
Standard Deviation dB (A)		2.3	2.7	2.7	2.4	2.6	4.4	2.6
Assumed Protection dB (A)		11.8	16.7	29.3	37.5	33.6	31	36.6
EPAC-15 PELTOR H540P3E								
Mean Attenuation dB (A)		17.1	24.5	34.8	40.2	39.6	46.7	43.1
Standard Deviation dB (A)		2.3	2.8	2.2	2	1.8	4.2	2.5
Assumed Protection dB (A)		14.8	21.7	32.6	38.2	37.8	42.5	40.6
EPAC-16 LEIGHTNING L1N								
Mean Attenuation dB (A)	18.3	17.9	21.9	27.9	32.7	32.1	35.4	35.8
Standard Deviation dB (A)	5.5	3.5	3.2	3	2.9	2.9	3.5	3.8
Assumed Protection dB (A)	12.8	14.4	18.7	24.9	29.8	29.2	31.9	32
EPAC-17 LEIGHTNING L2N								
Mean Attenuation dB (A)	18.3	18	24.3	29.8	35.4	34.9	35.3	34.5
Standard Deviation dB (A)	3.9	2.9	2.9	1.8	2.8	4.4	3	4.4
Assumed Protection dB (A)	14.4	15.1	21.4	28	32.6	30.5	32.3	30.1
EPAC-18 LEIGHTNING L3N								
Mean Attenuation dB (A)	21	21.6	27.8	32.1	36.5	32.4	38.3	37.4
Standard Deviation dB (A)	3.5	3.2	2.8	2.3	3	3.6	4.1	5
Assumed Protection dB (A)	17.5	18.4	25	29.8	33.5	28.8	34.2	32.4
EPAC-19 PELTOR H540B								
Mean Attenuation dB (A)		17.5	24.5	34.5	41.4	39.5	47.3	42
Standard Deviation dB (A)		2.3	2.7	2	2.2	2	4.4	2.8
Assumed Protection dB (A)		15.2	21.8	32.5	39.2	37.5	42.9	39.2
EPAC-20 REDBACK STANDARD HEADBAND EARMUFF								
Mean Attenuation dB (A)	12.8	12	11.9	20.9	28.7	28.7	34.2	32.5
Standard Deviation dB (A)	5.7	4.1	3	2.8	2.4	2.6	3.4	4.3
Assumed Protection dB (A)	7.1	7.9	8.9	18.1	26.3	26.1	30.8	28.2
EPAC-21 303L								
Mean Attenuation dB (A)	28.4	37.3	37.9	39.1	36	34.6	42.5	46.4
Standard Deviation dB (A)	6.4	9	9.2	9.7	7.9	4.6	4.9	4.7
Assumed Protection dB (A)	22	28.3	28.7	29.4	28.1	30	37.6	41.8
EPAC-22 304L CORDED								
Mean Attenuation dB (A)	28.4	37.3	37.9	39.1	36	34.6	42.5	46.4
Standard Deviation dB (A)	6.4	9	9.2	9.7	7.9	4.6	4.9	4.7
Assumed Protection dB (A)	22	28.3	28.7	29.4	28.1	30	37.6	41.8

ATTENUATION CHARTS

Frequency	63	125	250	500	1000	2000	4000	8000
EPAC-23 LASER LITE 1								
Mean Attenuation dB (A)	33.4	34.1	35.5	37.6	34.9	35.7	42.5	44.1
Standard Deviation dB (A)	4.6	4.7	4.6	4.1	5	2.8	2.9	4.2
Assumed Protection dB (A)	28.8	29.4	30.9	33.5	29.9	32.9	39.6	39.9
EPAC-24 LASER LITE 30 CORDED								
Mean Attenuation dB (A)	33.4	34.1	35.5	37.6	34.9	35.7	42.5	44.1
Standard Deviation dB (A)	4.6	4.7	4.6	4.1	5	2.8	2.9	4.2
Assumed Protection dB (A)	28.8	29.4	30.9	33.5	29.9	32.9	39.6	39.9
EPAC-25 REDBACK CORDED								
Mean Attenuation dB (A)	24.3	27.9	33.6	37.3	35.6	35.2	44.7	46.6
Standard Deviation dB (A)	5.7	4.9	5	4.8	4.5	3.6	3	4.6
Assumed Protection dB (A)	18.6	23	28.6	32.5	31.1	31.6	41.7	42
EPAC-26 SMARTFIT REUSABLE								
Mean Attenuation dB (A)	30.9	31.4	28.8	32.5	33.8	35.6	39.3	41.9
Standard Deviation dB (A)	6.2	7.3	8.9	8.1	7.3	4.3	6	5
Assumed Protection dB (A)	24.7	24.1	19.9	24.4	26.5	31.3	33.3	36.9
EPAC-27 LASERTRAK DETECTABLE								
Mean Attenuation dB (A)	33.4	34.1	35.5	37.6	34.9	35.7	42.5	44.1
Standard Deviation dB (A)	4.6	4.7	4.6	4.1	5	2.8	2.9	4.2
Assumed Protection dB (A)	28.8	29.4	30.9	33.5	29.9	32.9	39.6	39.9
EPAC-28 REDBACK RE-USABLE DETECTABLE								
Mean Attenuation dB (A)	27.2	30.7	29.4	30.7	28.3	32.7	41.6	45.4
Standard Deviation dB (A)	3	4.3	4.9	4.5	3.7	3.1	7.5	6.7
Assumed Protection dB (A)	24.2	26.4	24.5	26.2	24.6	29.6	34.1	38.7
EPAC-29 SMARTFIT REUSABLE DETECTABLE								
Mean Attenuation dB (A)	30.9	31.4	28.8	32.5	33.8	35.6	39.3	41.9
Standard Deviation dB (A)	6.2	7.3	8.9	8.1	7.3	4.3	6	5
Assumed Protection dB (A)	24.7	24.1	19.9	24.4	26.5	31.3	33.3	36.9
EPAC-30 QB2								
Mean Attenuation dB (A)	22.5	24.7	22.7	18.7	22.5	30.8	35.8	34.6
Standard Deviation dB (A)	5.4	4.4	4.8	1.8	3.6	4.9	3.8	5.8
Assumed Protection dB (A)	17.1	20.3	17.9	16.9	18.9	25.9	32	28.8
EPAC-31 PERCAP								
Mean Attenuation dB (A)	21.4	22.5	21.5	19	22.6	30.3	35.7	38.8
Standard Deviation dB (A)	4.8	3.5	3.6	2.9	2.7	3.1	4.2	4.3
Assumed Protection dB (A)	16.6	19	17.9	16.1	19.9	27.2	31.5	34.5