



**Protector**

**ZONE**

HEARING PROTECTION RANGE



**SCOTT**  
HEALTH & SAFETY



# Zone



Hearing damage is irreversible but entirely avoidable. The introduction of the Protector Zone range of high performance ear defenders; simplifies selection and encourages the use of an appropriate level of hearing protection for people exposed to hazardous noise. Instant recognition and selection for both employees and employers is assured due to the three bright safety colours and the straight forward numbering system used by Zone to identify attenuation performance.



## ZONE –TOTAL CONFIDENCE WITHOUT COMPROMISE

Zone ear defenders offer the ultimate in ease of selection, comfort and connectivity, guaranteeing 100% appropriate hearing protection, without compromise. Designed in three bright safety colours and intuitively numbered, Zone provides instant identification, education and confidence that appropriate levels of hearing protection are being selected and worn in designated areas.

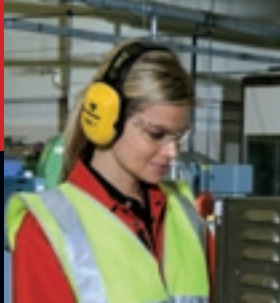
Passive, active and inbuilt AM/FM radio protection options encourage appropriate selection for the application and length of exposure, helping avoid the risk of dangerous short term removal. Active protection is becoming increasingly popular as companies appreciate the benefits of protection without compromise.

Active listening delivers instant protection when a safe noise exposure level is exceeded, whilst permitting uninhibited communication at all other times. AM/FM radio versions have been proven to aid motivation, productivity and remove workers feelings of isolation in continuous noise environments.

The Zone range delivers a balance between comfort and safety with lightweight designs, soft and supple materials, enhanced with optimum cushion pressure. Zone helmet mounted versions afford the flexibility to rapidly connect to head and face protection within the renowned Protector PPE range of head and face protection. Zone headband versions can also be specified or quickly adapted into Visor Muff Combinations (VMC). The result with Zone is 100%, appropriate protection – now isn't that good to hear!

THE INSIDE OF YOUR EAR IS THIS DELICATE...  
AND AS EASY TO DAMAGE.





Zone 1



Zone 2



Zone 3

## SCOTT HEALTH & SAFETY – SOLUTIONS TO TRUST IN A WORLD OF RISK

Scott Health & Safety is recognised as an expert in the design and manufacture of Personal Protective Equipment, recognition born from a history of technological expertise delivering first class solutions that protect people every day. In a constantly changing market Scott Health & Safety has both an ongoing, progressive approach to foresee and meet future personal safety requirements and an agility to supply innovative solutions to immediate needs.

While technology and innovation are grand concepts Scott Health & Safety has an instinctive need and drive to understand and engage the continuous thoughts and opinions of end users to deliver products that are market driven and application based. Rather than adopt a mere supply mentality Scott Health & Safety appreciate the role of partners at all levels, over many years this approach has cultivated a basis of trust from which the company has been able to continually move forward. Scott Health & Safety has the capability today to reduce your risk exposure.

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# HEARING... A NATURAL GIFT TO BE PROTECTED



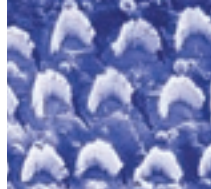
Each and everyone of us has a favourite sound; the dawn chorus, a cat purring, the laughter of a child, waves crashing on the shore or the acceleration of a powerful car can all raise the human spirit. This natural and everyday gift should not be taken for granted; hearing damage is irreversible but with education entirely avoidable.

## SOUND IS MADE UP OF WAVES THAT ENTER THE EAR

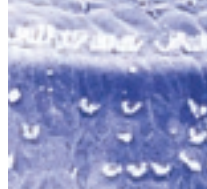
The ear is a complicated and delicate apparatus that converts pressure waves to recognisable sound with different pitch, intensity and tone quality. Airborne vibrations enter the ear canal and begin a process that results in sound being processed by the brain.

These vibrations strike the eardrum causing it to vibrate and form a protective barrier between the outer and inner ear, guarding it against prolonged exposure to loud low pitch noises. The vibrations continue till they reach three tiny mechanical bones, the hammer, anvil and stirrup. The Stapedius muscle, which is attached to the stirrup flexes if noise levels exceed 75 dB and reduces the strength of the sound waves in preparation to be received by the inner ear.

The cochlea, of the inner ear is the next station. It comprises three canals; the middle of which contains the hearing organ situated on a membrane made up of 4 rows of hair



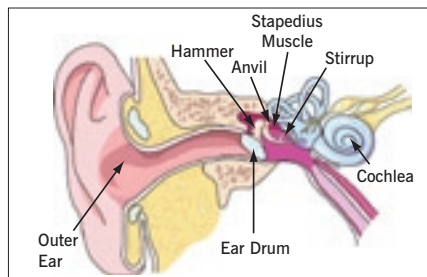
Healthy hair cells in the ear



Example of the damage caused by exposure to dangerous levels of noise.

cells, each with its own frequency. The hair cells (Cilia) sway under sound pressure, leading to electrical signals being sent to the brain. It is at this point that we become aware of sound.

While each stage of hearing is vital the hair cells within the inner ear are critical, the higher the sound level the more rigorously they move. Repeated subjection to high levels of sound (in excess 75dB) or short term exposure to excessive sound levels (Levels above 110 dB) will result in irreparable hearing damage. Although not visible to the human eye the process of hearing deterioration can be compared with Coral reefs. Coral sways with the oceans currents like the hairs in the inner ear. Repeated unprotected noise exposure can be likened in its effect to the greenhouse gases and pollution which increases the oceans acidity levels to a point where coral simply dies. The destruction caused to coral is irreversible and represents a good comparison of the permanent damage excessive noise inflicts on the hairs of the inner ear.



# HEARING... AND THE LAW



## HOW IS NOISE MEASURED?

Noise is measured in decibels (dB). An 'A-weighting' or 'dB(A)', measures average noise levels, and 'C-weighting' or 'dB(C)' measures peak, impulse or explosive noises.

## EXAMPLES OF NOISE EXPOSURE

Hazard	Noise dB	Approx time unprotected
Motorway driving	80	c.8 hours
Hammering on wood	97-103	c.5 min
Drilling in wood	98	c.7 min
Woodcutting with chainsaw	103	c.2 min
Drilling in metal	103	c.2 min
Woodcutting with blade	104	c.1.5 min
Woodcutting with circular saw	107	c.45 sec
Metal filing with angle grinder	110	c.20 sec

## WHAT ARE THE ACTION LEVELS AND LIMIT VALUES OF THE CONTROL OF NOISE AT WORK REGULATIONS 2005?

The regulations require action dependent on the levels of daily or weekly exposure and the maximum noise (peak sound pressure) exposure in a working day.

**These exposure limit values take account of any reduction in exposure provided by hearing protection.**

## ACTION VALUES

	Daily/weekly exposure A-Weighting	Peak sound exposure C-Weighting
Lower Action Values	80dB	135dB
Upper Action Values	85dB	137dB
Noise Level Exposure not to be Exceeded	87dB	140dB

## WHAT DO THESE REGULATIONS MEAN TO EMPLOYERS?

Employers are required to:

- Assess the risks to employees from noise at work
- Take action to reduce noise exposure at source

## If unable to reduce noise exposure via other methods;

Employers must:

- Provide employees hearing protection and ensure they are worn at the action levels specified
- Provide hearing protection if requested by employees in the lower action value range 80-85dB.
- Provide hearing protection for the upper action values of 85dB and above
- Ensure legal noise exposure limits are not exceeded
- Identify and clearly mark areas or Zones where wearing hearing protection is compulsory
- Provide information and training to ensure ear defenders are properly used and maintained
- Conduct spot checks to ensure hearing protection is worn properly
- Carry out health surveillance where there is a risk to employee health

## WHAT DO THE REGULATIONS MEAN TO EMPLOYEES?

Employees must:

- Wear hearing protection in clearly marked zones that meet and exceed the upper action value
- Agree to be trained in the use and maintenance of hearing protection

An employee who regularly fails to use the hearing protection provided could normally expect to be subject to the company's disciplinary procedure.



# PASSIVE HEARING PROTECTION



Zone passive hearing protection includes products with varying noise blocking performance levels, designed to provide a range of protection in any noise environment. Zone delivers instant recognition and ease of selection for both employees and employers via a simple numbering system and a range of three brightly coloured products.

## PASSIVE ZONE EAR DEFENDERS ARE AVAILABLE IN THE FOLLOWING FORMATS

- Headband
- Helmet mounted
- Neckband
- Visor Muff Combination

## KEY FEATURES OF ZONE PASSIVE HEARING PRODUCTS

- ☉ Intuitive selection - easy identification (yellow, orange, red)
- ☉ 3 distinct levels of noise blocking performance
- ☉ Clear numbered product labelling (Zone 1, Zone 2, Zone 3)
- ☉ Optimised cushion pressure provides excellent balance between comfort and protection
- ☉ Full integration with other PPE
- ☉ Low profile twin stirrup design maintains stability and protection
- ☉ Supple cushion materials maintain performance & comfort
- ☉ Easy size adjustment mechanism
- ☉ Consistent high calibre attenuation performance ensures low through life costs
- ☉ Lightweight earmuff design
- ☉ Impact resistant cup material
- ☉ Approved to global hearing protection standards (CE, ANSI, AUS/NZ)
- ☉ Face Protection Solutions (VMC)
- ☉ Headband and Helmet mounted dielectric design
- ☉ Universal maintenance and hygiene kits extend product lifetime without compromising safety

## ZONE – NOISE PROTECTION APPLICATION GUIDE





# Zone 1

Environments with low to medium noise levels.

# Zone 2

Environments with medium to high noise levels.

# Zone 3

Environments with extreme high noise levels.



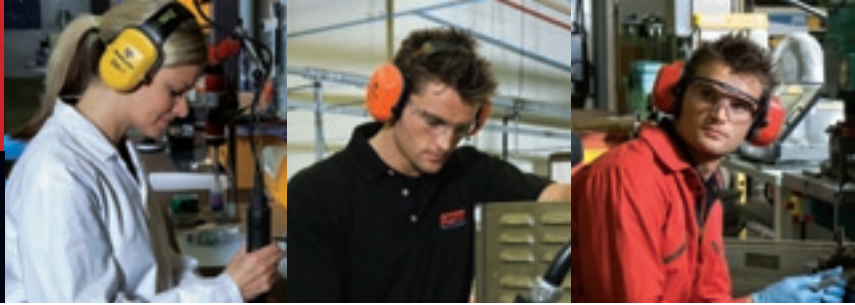
Zone ear defenders are suitable for providing protection against harmful noise generated during machine and power tool operation, maintenance or manufacturing processes in a wide range of industrial environments:

- Construction
- Utilities
- Oil & Gas
- Pharmaceutical

- Aerospace
- Forestry
- Automotive
- Commercial printing
- Food & beverage production



# HEADBAND EAR DEFENDERS



Zone headband ear defenders offer the perfect balance between protection and comfort. Optimised headband clamping force and stable twin stirrup ear cup attachment ensure Zone delivers an even and comfortable cushion pressure with consistent attenuation performance throughout the products lifetime. Lightweight and easy to adjust Zone fits a wide range of head size and a foam pad on the underside of the headband ensures comfort regardless of the duration of use.

- ⊗ Choice of 3 levels of attenuation performance
- ⊗ Headband construction maintains optimum cushion pressure
- ⊗ Twin stirrup design maintains stability and attenuation performance
- ⊗ Face protection solutions (VMC)
- ⊗ Impact resistant ABS ear cups
- ⊗ Simple head size adjustment
- ⊗ Lightweight design
- ⊗ Suitable for working with electricity (Dielectric)
- ⊗ Approved to global hearing protection standards (CE, ANSI, AUS/NZ)
- ⊗ Headband comfort pad
- ⊗ Universal maintenance and hygiene kits

## Performance Attenuation Data

Frequency Hz	63	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	SNR	WEIGHT
<b>ZONE 1 HEADBAND EN 352-1:2002</b>															
Mean Attenuation	16.3	13.0	20.5	30.5	35.1	33.1	33.3	35.0	37.6	36.5					
St.dev.	2.7	2.6	2.1	3.2	3.7	3.5	3.5	3.0	1.9	2.6	31	27	18	29	252g
APV	13.6	10.4	18.4	27.3	31.4	29.5	29.7	31.9	35.6	33.8					
<b>ZONE 2 HEADBAND EN 352-1:2002</b>															
Mean Attenuation	19.8	14.7	22.0	32.4	37.7	34.2	35.9	34.9	37.8	38.7					
St.dev.	4.4	3.2	2.7	2.7	3.6	2.0	3.2	2.3	2.9	3.5	34	29	20	31	281g
APV	15.4	11.6	19.3	29.7	34.1	32.2	32.7	32.7	34.9	35.2					
<b>ZONE 3 HEADBAND EN 352-1:2002</b>															
Mean Attenuation	19.8	18.7	24.8	35.2	39.4	35.5	38.0	40.8	43.3	42.3					
St.dev.	5.1	3.1	2.2	3.5	1.9	2.6	4.1	2.5	3.1	2.3	36	32	23	34	346g
APV	14.6	15.7	22.6	31.7	37.5	32.9	33.9	38.3	40.2	39.9					

For ANSI values see page 18



# HELMET MOUNTED EAR DEFENDERS



Zone helmet mounted ear defenders are suitable for environments that require the use of head protection in combination with hearing protection, such as, construction, forestry, oil & gas and heavy industry. Zone helmet mounted ear defenders can be simply converted into a head, face and hearing protection combination utilising the universal 30mm attachment post fitted as standard. Standby and parked positions allow the product to 'stand off the head' ready for use or to park the ear defender out of the way on the rear of the helmet when not in use.



- ⊗ Choice of 3 levels of attenuation performance
- ⊗ Universal 30mm attachment posts (25mm also included, 15mm optional)
- ⊗ Maintains optimum and even cushion pressure
- ⊗ Twin stirrup design maintains stability and attenuation performance
- ⊗ Airing and park positions
- ⊗ Low profile - reduces snagging risk
- ⊗ Lightweight design
- ⊗ Simple head size adjustment
- ⊗ Impact resistant ABS ear cups
- ⊗ Suitable for working with electricity (Dielectric)
- ⊗ Approved to global hearing protection standards (CE, ANSI, AUS/NZ)
- ⊗ Universal maintenance and hygiene kits

### Performance Attenuation Data

Frequency Hz	63	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	SNR	WEIGHT
<b>ZONE 1 HELMET MOUNTED EN 352-3:2002</b>															
Mean Attenuation	12.2	10.8	19.5	25.4	34.2	31.4	30.8	34.4	35.3	34.9					
St.dev.	4.7	2.9	2.7	3.0	3.2	3.6	2.9	3.2	2.5	3.2	30	25	16	27	238g
APV	7.5	7.9	16.8	22.4	31.0	27.8	27.9	31.2	32.8	31.7					
<b>ZONE 2 HELMET MOUNTED EN 352-3:2002</b>															
Mean Attenuation	13.2	12.7	22.3	28.6	34.2	32.5	33.1	35.5	39.2	38.6					
St.dev.	4.8	3.2	3.0	3.1	3.4	3.2	2.8	2.4	2.5	3.7	32	27	18	29	259g
APV	8.4	9.4	19.3	25.5	30.8	29.3	30.2	33.0	36.7	34.9					
<b>ZONE 3 HELMET MOUNTED EN 352-3:2002</b>															
Mean Attenuation	15.4	16.1	25.9	31.6	38.6	34.0	35.6	41.2	42.1	40.5					
St.dev.	4.2	3.1	3.2	3.5	3.5	3.2	3.2	3.2	3.7	3.8	34	30	21	32	302g
APV	11.2	13.0	22.7	28.1	35.1	30.8	32.4	38.0	38.4	36.7					

For ANSI values see page 18

# NECKBAND EAR DEFENDERS



Zone neckband ear defenders offer the ideal solution where safety helmets do not have attachment slots or hearing protection needs to be used in conjunction with a head mounted face shield or a baseball style bump cap. Zone neckband ear defenders offer the user the option to balance the weight on the neck rather than head, which is the personal preference of some users.



- ✪ Maintains an effective seal when wearing head protection
- ✪ Choice of 3 levels of attenuation performance
- ✪ Maintains optimum and even cushion pressure
- ✪ Twin stirrup design maintains stability and attenuation performance
- ✪ Low profile
- ✪ Lightweight design
- ✪ Velcro crown securing point
- ✪ Easy to adjust for the perfect fit
- ✪ Impact resistant ABS ear cups
- ✪ Approved to global hearing protection standards (CE, ANSI, AUS/NZ)
- ✪ Universal maintenance and hygiene kits

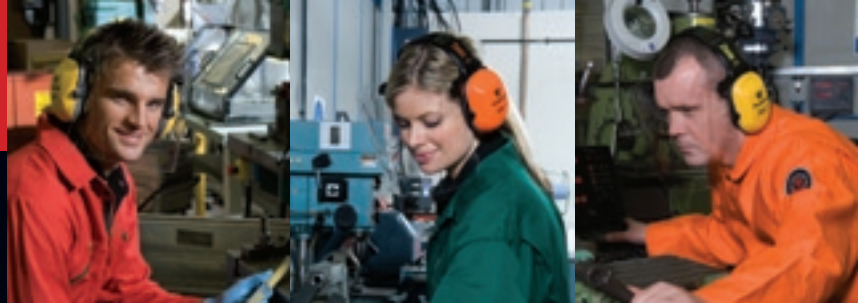
### Performance Attenuation Data

Frequency Hz	63	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	SNR	WEIGHT
<b>ZONE 1 NECKBAND EN 352-1:2002</b>															
Mean Attenuation	15.7	14.6	18.3	27.8	34.4	32.7	29.4	30.1	35.2	33.8					
St.dev.	5.6	2.4	1.6	2.7	3.4	2.8	1.9	2.8	2.6	2.8	30	26	19	28	214g
APV	10.1	12.2	16.7	25.2	31.1	29.9	27.5	27.3	32.6	31					
<b>ZONE 2 NECKBAND EN 352-1:2002</b>															
Mean Attenuation	16.1	16.6	22.2	31.6	36.7	34	34.4	36	39.3	40					
St.dev.	4.1	2.3	3.5	2.7	3.3	3.0	3.3	3.4	3.2	3.2	33	29	21	31	230g
APV	12.0	14.4	18.7	28.9	33.4	31.1	31.1	32.6	36.1	36.8					
<b>ZONE 3 NECKBAND EN 352-1:2002</b>															
Mean Attenuation	17.7	16.2	24.3	32.2	37.9	34.8	37.9	40.4	42.9	42.9					
St.dev.	5.3	1.7	2.4	2.3	2.4	2.8	4.0	2.8	2.8	3.0	35	30	22	33	296g
APV	12.5	14.5	21.9	29.9	35.6	31.9	33.9	37.6	40	39.9					

For ANSI values see page 18



# VISOR MUFF COMBINATION (VMC)



Zone head mounted ear defenders offer the flexibility to be simply converted to attach a clear polycarbonate or nylon mesh visor to suit your working environment.



- ⊗ Lightweight, PPE combination protection system
- ⊗ Additional EN166 face protection (Polycarbonate or Nylon Mesh visor options)
- ⊗ Available complete with hearing protection or VMC conversion kit
- ⊗ Wraparound visor design for maximum protection
- ⊗ Easy to fit, adjust and replace visors
- ⊗ Retractable visor mechanism
- ⊗ Headband construction maintains optimum cushion pressure
- ⊗ Impact resistant ABS ear cups
- ⊗ Twin stirrup design maintains stability and attenuation performance
- ⊗ Headband comfort pad
- ⊗ Universal maintenance and hygiene kits
- ⊗ Extends range of application without compromising safety

## Performance Attenuation Data

Frequency Hz	63	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	SNR	WEIGHT
<b>ZONE 1 HEADBAND EN 352-1:2002</b>															
Mean Attenuation	16.3	13.0	20.5	30.5	35.1	33.1	33.3	35.0	37.6	36.5					
St.dev.	2.7	2.6	2.1	3.2	3.7	3.5	3.5	3.0	1.9	2.6	31	27	18	29	252g
APV	13.6	10.4	18.4	27.3	31.4	29.5	29.7	31.9	35.6	33.8					
<b>ZONE 2 HEADBAND EN 352-1:2002</b>															
Mean Attenuation	19.8	14.7	22.0	32.4	37.7	34.2	35.9	34.9	37.8	38.7					
St.dev.	4.4	3.2	2.7	2.7	3.6	2.0	3.2	2.3	2.9	3.5	34	29	20	31	281g
APV	15.4	11.6	19.3	29.7	34.1	32.2	32.7	32.7	34.9	35.2					
<b>ZONE 3 HEADBAND EN 352-1:2002</b>															
Mean Attenuation	19.8	18.7	24.8	35.2	39.4	35.5	38.0	40.8	43.3	42.3					
St.dev.	5.1	3.1	2.2	3.5	1.9	2.6	4.1	2.5	3.1	2.3	36	32	23	34	346g
APV	14.6	15.7	22.6	31.7	37.5	32.9	33.9	38.3	40.2	39.9					

For ANSI values see page 18

# ELECTRONIC HEARING PROTECTION



Noise blocking is a simple and effective method to avoid hearing damage, but an appropriate ear defender is one that is worn constantly during the whole time the noise occurs. In some applications where harmful noise is intermittent and unpredictable or the use of hearing protection is required for extended durations, noise blocking performance alone is often not enough to prevent short term removal of hearing protection. In the constant quest for 100% appropriate hearing protection the development of Zone active listening and AM/FM radio ear defenders means there is no longer a reason for the temporary, potentially damaging short term removal of ear defenders. The benefits of electronic protection are clear, a safe, motivated workforce with improved moral and productivity without compromising safety.

## KEY FEATURES OF ZONE ELECTRONIC HEARING PROTECTION SOLUTIONS (ADDITIONAL TO PASSIVE)

- ☉ Easy to operate controls
- ☉ Hi-Fi sound quality & speech amplification
- ☉ Enables user to communicate effectively
- ☉ Enables user to hear vital warning signals
- ☉ Improves productivity & morale
- ☉ Reduces feelings of isolation
- ☉ Protects against damaging and unexpected impulse noise
- ☉ Long duration use from standard alkaline batteries

## KEY FEATURES OF ZONE ACTIVE HEARING PRODUCTS (COMMON WITH PASSIVE)

- ☉ Intuitive selection - easy identification (yellow, orange spacers)
- ☉ Full integration with other forms of PPE
- ☉ Optimised cushion pressure provides excellent balance between comfort and protection

- ☉ Low profile twin stirrup design maintains stability and protection
- ☉ Consistent high calibre attenuation performance ensures low through life costs
- ☉ Headband and helmet mounted variants
- ☉ Supple cushion materials maintain performance & comfort
- ☉ Simple size adjustment mechanism  
Lightweight earmuff design
- ☉ Impact resistant cup material
- ☉ Optimum cushion pressure
- ☉ Flexible helmet mounted attachment system
- ☉ Helmet mounted – standby and parked positions
- ☉ Headband comfort pad
- ☉ Face Protection Solutions (VMC)
- ☉ Dielectric design
- ☉ Universal maintenance and hygiene kits extend product lifetime without compromising safety
- ☉ Approved to global hearing protection standards (CE, ANSI, AUS/NZ)





**Alert Zone** ear defenders offer the additional benefit to the wearer of hearing instructions and warning signals without being exposed to dangerous levels of noise.

**Focus Zone** ear defender meets the needs of any worker in a repetitive working environment by providing internal, high quality FM radio whilst delivering appropriate protection.



# ALERT ZONE EAR DEFENDERS



The selection of noise blocking ear defenders in environments where harmful noise is intermittent and unpredictable is not always the most appropriate choice of hearing protection. The Alert Zone “active listening” ear defender with intelligent Electronic Protection System, safeguards wearers against the dangers of short-term removal by preventing feelings of isolation; enabling the wearer to remain fully aware and alert to their surroundings. Vital warning signals can be heard and optimum speech clarity is received from verbal communication, without compromising protection.



- ⊕ Active listening microphones provide perfect directional hearing and spatial awareness
- ⊕ Sound amplification up to 8 dB(A) delivers optimum speech clarity
- ⊕ Electronic Protection System (EPS) limits speaker sound level to 82 dB(A)
- ⊕ Easy connection for com-radio, mobile phone, ipod etc.
- ⊕ Stereo/Stereo and Stereo/Mono connection cables included
- ⊕ Supplied complete with 2 x AAA batteries (approx 400hrs use)
- ⊕ Zone 1 level passive performance
- ⊕ Headband or helmet mounted models
- ⊕ Non conductive dielectric design
- ⊕ Twin stirrup design distributes ear cup pressure evenly for an excellent seal
- ⊕ Flexibility to integrate with Protector head and face protection

## Performance Attenuation Data

Frequency Hz	63	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	SNR	WEIGHT
<b>ALERT ZONE (HEADBAND) EN 352-1:2002</b>															
Mean Attenuation	15.3	14.6	19.2	27.9	33.8	33.4	39.4	42.3	42.6	41.6					
St.dev.	3.5	3.7	2.3	2.6	3.7	3.0	3.7	3.3	3.3	2.9	33	26	18	29	367g
APV	11.8	11.0	16.9	25.2	30.1	30.3	35.8	39.0	39.3	38.7					
<b>ALERT ZONE (HELMET MOUNTED) EN 352-3:2002</b>															
Mean Attenuation	-	-	-	-	-	-	-	-	-	-					
St.dev.	-	-	-	-	-	-	-	-	-	-					378g
APV	-	-	-	-	-	-	-	-	-	-					

Note: - Attenuation data not available at the time of printing  
For ANSI values see page 18



# FOCUS ZONE EAR DEFENDERS



The Focus Zone AM/FM radio ear defender has been designed to counteract feelings of isolation and to improve the morale and productivity of people working continuously in hazardous noise. The risk of short term removal most commonly associated with standard passive hearing protection is greater in environments that require their use for long periods of time. Focus Zone is suitable for a wide range of industrial applications and enables the wearer to listen to their preferred radio station and to connect an external sound source including, mp3-players, mobile phones or com-radios, without compromising protection.



- ⊗ Integrated AM/FM stereo radio
- ⊗ Ergonomic one handed operation
- ⊗ Electronic Protection System limits speaker sound level to 82 dB(A)
- ⊗ Supplied complete with 2xAAA batteries (approx 300hrs use)
- ⊗ Easy connection for com-radio, mobile phone, ipod etc.
- ⊗ Stereo/Stereo connection cable included
- ⊗ Zone 2 level passive performance
- ⊗ Easy to install aerial and amplifier accessory
- ⊗ Headband or helmet mounted models
- ⊗ Non conductive dielectric design
- ⊗ Twin stirrup design distributes ear cup pressure evenly for an excellent seal
- ⊗ Flexibility to integrate with Protector head and face protection

### Performance Attenuation Data

Frequency Hz	63	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	SNR	WEIGHT
<b>FOCUS ZONE (HEADBAND) EN 352-1:2002</b>															
Mean Attenuation	15.7	14.3	22.1	31.5	36.2	34.6	40.1	40.8	41.4	40.4					
St.dev.	3.7	3.0	2.7	2.6	3.5	3.5	3.7	3.5	3.2	4.0	34	28	19	31	439g
APV	12.0	11.3	19.4	28.9	32.7	31.0	36.4	37.3	38.2	36.4					
<b>FOCUS ZONE (HELMET MOUNTED) EN 352-3:2002</b>															
Mean Attenuation	-	-	-	-	-	-	-	-	-	-					
St.dev.	-	-	-	-	-	-	-	-	-	-					450g
APV	-	-	-	-	-	-	-	-	-	-					

Note: - Attenuation data not available at the time of printing  
For ANSI values see page 18







# ACCESSORIES & SPARES



Maintenance of hearing protection is crucial to maintain the attenuation performance and to ensure low through life costs. A range of accessories including replacement cushions and first stage interior ear cup foam are available to maintain performance and hygiene when hearing protection is shared by multiple users.

## Visor Muff Combination (VMC)



Zone headband versions can be specified or easily converted into visor muff combinations (VMC)

## VMC Conversion Kit



Supplied with choice of Polycarbonate or Nylon Mesh visor.

## Antibacterial Hygiene Pads



Sweat absorbing self-adhesive antibacterial hygiene pads make the hearing protector more comfortable and hygienic to wear.

## Aerial and Signal Amplifier



Some buildings with lots of concrete and/or steel can sometimes block out FM signals, leading to poor radio reception. An aerial and signal amplifier is available to compliment Focus Zone providing maximum amplification of the FM range 88 – 108 MHz. Each slave aerial covers a radius from the vertical antenna of approximately 20–50 meters, depending on the premises. A total of 3 slave aerials can be connected to each amplifier.

## Universal Maintenance Kit



New cushions and outer sound absorbent pads should be replaced at least every 6 months, standard for all Zone ear defenders.

## Accessory Posts



30mm, 25mm and 15mm accessory posts available to add further PPE to many helmet designs.



# PERFORMANCE DATA & WEIGHTS



## CE APPROVAL (SNR)

### PASSIVE HEARING PROTECTION

Frequency Hz	63	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	SNR	WEIGHT
--------------	----	-----	-----	-----	------	------	------	------	------	------	---	---	---	-----	--------

ZONE 1 HEADBAND EN 352-1:2002															
Mean Attenuation	16.3	13.0	20.5	30.5	35.1	33.1	33.3	35.0	37.6	36.5					
St.dev.	2.7	2.6	2.1	3.2	3.7	3.5	3.5	3.0	1.9	2.6					252g
APV	13.6	10.4	18.4	27.3	31.4	29.5	29.7	31.9	35.6	33.8					

ZONE 2 HEADBAND EN 352-1:2002															
Mean Attenuation	19.8	14.7	22.0	32.4	37.7	34.2	35.9	34.9	37.8	38.7					
St.dev.	4.4	3.2	2.7	2.7	3.6	2.0	3.2	2.3	2.9	3.5	34	29	20		281g
APV	15.4	11.6	19.3	29.7	34.1	32.2	32.7	32.7	34.9	35.2					

ZONE 3 HEADBAND EN 352-1:2002															
Mean Attenuation	19.8	18.7	24.8	35.2	39.4	35.5	38.0	40.8	43.3	42.3					
St.dev.	5.1	3.1	2.2	3.5	1.9	2.6	4.1	2.5	3.1	2.3	36	32	23		346g
APV	14.6	15.7	22.6	31.7	37.5	32.9	33.9	38.3	40.2	39.9					

ZONE 1 HELMET MOUNTED EN 352-3:2002															
Mean Attenuation	12.2	10.8	19.5	25.4	34.2	31.4	30.8	34.4	35.3	34.9					
St.dev.	4.7	2.9	2.7	3.0	3.2	3.6	2.9	3.2	2.5	3.2	30	25	16		238g
APV	7.5	7.9	16.8	22.4	31.0	27.8	27.9	31.2	32.8	31.7					

ZONE 2 HELMET MOUNTED EN 352-3:2002															
Mean Attenuation	13.2	12.7	22.3	28.6	34.2	32.5	33.1	35.5	39.2	38.6					
St.dev.	4.8	3.2	3.0	3.1	3.4	3.2	2.8	2.4	2.5	3.7	32	27	18		259g
APV	8.4	9.4	19.3	25.5	30.8	29.3	30.2	33.0	36.7	34.9					

ZONE 3 HELMET MOUNTED EN 352-3:2002															
Mean Attenuation	15.4	16.1	25.9	31.6	38.6	34.0	35.6	41.2	42.1	40.5					
St.dev.	4.2	3.1	3.2	3.5	3.5	3.2	3.2	3.2	3.7	3.8	34	30	21		302g
APV	11.2	13.0	22.7	28.1	35.1	30.8	32.4	38.0	38.4	36.7					

ZONE 1 NECKBAND EN 352-1:2002															
Mean Attenuation	15.7	14.6	18.3	27.8	34.4	32.7	29.4	30.1	35.2	33.8					
St.dev.	5.6	2.4	1.6	2.7	3.4	2.8	1.9	2.8	2.6	2.8	30	26	19		214g
APV	10.1	12.2	16.7	25.2	31.1	29.9	27.5	27.3	32.6	31					

ZONE 2 NECKBAND EN 352-1:2002															
Mean Attenuation	16.1	16.6	22.2	31.6	36.7	34	34.4	36	39.3	40					
St.dev.	4.1	2.3	3.5	2.7	3.3	3.0	3.3	3.4	3.2	3.2	33	29	21		230g
APV	12.0	14.4	18.7	28.9	33.4	31.1	31.1	32.6	36.1	36.8					

ZONE 3 NECKBAND EN 352-1:2002															
Mean Attenuation	17.7	16.2	24.3	32.2	37.9	34.8	37.9	40.4	42.9	42.9					
St.dev.	5.3	1.7	2.4	2.3	2.4	2.8	4.0	2.8	2.8	3.0	35	30	22		296g
APV	12.5	14.5	21.9	29.9	35.6	31.9	33.9	37.6	40	39.9					

## ACTIVE AND AM/FM RADIO HEARING PROTECTION

Frequency Hz	63	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	SNR	WEIGHT
--------------	----	-----	-----	-----	------	------	------	------	------	------	---	---	---	-----	--------

ALERT ZONE (HEADBAND) EN 352-1:2002															
Mean Attenuation	15.3	14.6	19.2	27.9	33.8	33.4	39.4	42.3	42.6	41.6					
St.dev.	3.5	3.7	2.3	2.6	3.7	3.0	3.7	3.3	3.3	2.9	33	26	18		29
APV	11.8	11.0	16.9	25.2	30.1	30.3	35.8	39.0	39.3	38.7					

ALERT ZONE (HELMET MOUNTED) EN 352-3:2002															
Mean Attenuation	-	-	-	-	-	-	-	-	-	-					
St.dev.	-	-	-	-	-	-	-	-	-	-					378g
APV	-	-	-	-	-	-	-	-	-	-					

FOCUS ZONE (HEADBAND) EN 352-1:2002															
Mean Attenuation	15.7	14.3	22.1	31.5	36.2	34.6	40.1	40.8	41.4	40.4					
St.dev.	3.7	3.0	2.7	2.6	3.5	3.5	3.7	3.5	3.2	4.0	34	28	19		31
APV	12.0	11.3	19.4	28.9	32.7	31.0	36.4	37.3	38.2	36.4					

FOCUS ZONE (HELMET MOUNTED) EN 352-3:2002															
Mean Attenuation	-	-	-	-	-	-	-	-	-	-					
St.dev.	-	-	-	-	-	-	-	-	-	-					450g
APV	-	-	-	-	-	-	-	-	-	-					

Note: - Attenuation data not available at the time of printing

## ANSI APPROVAL (NRR)

### PASSIVE HEARING PROTECTION

Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR	WEIGHT
--------------	-----	-----	-----	------	------	------	------	------	------	-----	--------

ZONE 1 HEADBAND ANSI S-3.19-1974											
Mean Attenuation	13.5	21.4	28.8	33.2	34.0	34.6	35.6	36.0	35.7		23
St.dev.	3.4	2.4	1.9	2.2	2.5	2.9	3.1	2.9	2.2		

ZONE 2 HEADBAND ANSI S-3.19-1974											
Mean Attenuation	16.5	24.3	32.2	37.8	34.8	35.8	36.5	37.3	38.1		26
St.dev.	2.6	2.2	3.2	2.8	2.5	2.9	3.1	3.4	2.1		

ZONE 3 HEADBAND ANSI S-3.19-1974											
Mean Attenuation	19.9	27.9	33.1	37.4	37.5	36.9	38.1	41.5	42.3		29
St.dev.	2.2	1.8	2.2	2.5	2.9	2.2	3.1	2.7	3.7		

ZONE 1 HELMET MOUNTED ANSI S-3.19-1974											
Mean Attenuation	14.2	20.8	27.2	32.5	31.4	33.0	35.0	36.4	36.0		22
St.dev.	3.3	3.1	2.3	3.3	3.2	2.4	2.6	2.9	3.5		

ZONE 2 HELMET MOUNTED ANSI S-3.19-1974											
Mean Attenuation	16.5	23.8	29.6	34.4	33.6	33.9	34.0	37.5	36.1		25
St.dev.	2.8	2.4	2.9	2.5	2.0	2.6	2.4	3.4	4.1		

ZONE 3 HELMET MOUNTED ANSI S-3.19-1974											
Mean Attenuation	19.4	25.4	30.3	35.8	35.4	36.6	37.9	40.2	41.5		27
St.dev.	2.5	2.6	2.2	3.0	2.6	2.3	3.1	2.5	3.4		

ZONE 1 NECKBAND ANSI S-3.19-1974											
Mean Attenuation	15.5	21.2	26.7	33.7	34.1	35.0	35.0	37.3	37.0		23
St.dev.	2.7	2.4	2.8	3.6	2.7	2.3	2.8	3.3	3.7		

ZONE 2 NECKBAND ANSI S-3.19-1974											
Mean Attenuation	16.6	24.4	31.0	38.7	36.1	37.1	35.8	38.1	38.4		25
St.dev.	3.3	3.0	3.5	2.7	3.2	3.1	2.8	2.8	3.4		

ZONE 3 NECKBAND ANSI S-3.19-1974											
Mean Attenuation	17.4	25.3	34.0	37.6	34.9	38.0	37.1	38.8	41.2		27
St.dev.	2.5	2.3	2.5	2.8	2.5	3.0	2.9	3.2	4.0		

## ACTIVE AND AM/FM RADIO HEARING PROTECTION

Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR	WEIGHT
--------------	-----	-----	-----	------	------	------	------	------	------	-----	--------

ALERT ZONE HEADBAND ANSI S-3.19-1974											
Mean Attenuation	15.3	21.8	28.6	36.7	36.3	39.0	38.8	41.1	41.7		25
St.dev.	2.9	2.5	2.8	2.6	2.2	2.5	3.2	2.3	3.2		

ALERT ZONE HELMET MOUNTED ANSI S-3.19-1974											
Mean Attenuation	-	-	-	-	-	-	-	-	-	-	378g
St.dev.	-	-	-	-	-	-	-	-	-	-	

FOCUS ZONE HEADBAND ANSI S-3.19-1974											
Mean Attenuation	17.1	22.9	30.6	34.3	34.2	36.6	39.7	41.9	42.3		25
St.dev.	2.8	2.6	2.8	2.7	2.5	3.0	2.7	2.9	3.9		

FOCUS ZONE HELMET MOUNTED ANSI S-3.19-1974											
Mean Attenuation	-	-	-	-	-	-	-	-	-	-	450g
St.dev.	-	-	-	-	-	-	-	-	-	-	

Note: - Attenuation data not available at the time of printing



# ORDERING DETAILS



## PASSIVE HEARING PROTECTION

### HEADBAND EARMUFFS

PART CODE	SAP CODE	DESCRIPTION	STANDARD	PK
EH4	2018025	Headband Earmuff SNR 24 (Green) (20) - Protector EC single attachment cup design	EN352-1	1
Z1HBE	2018026	Zone 1 - Headband Earmuff SNR 29 (Yellow) (20)	EN352-1	1
Z2HBE	2018027	Zone 2 - Headband Earmuff SNR 31 (Orange) (20)	EN352-1	1
Z3HBE	2018028	Zone 3 - Headband Earmuff SNR 34 (Red) (20)	EN352-1	1

### HELMET MOUNTED EARMUFFS

PART CODE	SAP CODE	DESCRIPTION	STANDARD	PK
		NB: All Zone helmet mounted earmuff's come complete with a prefitted 30mm attachment post. A pair of 25mm attachment posts are also included.		
Z1HME	2018022	Zone 1 - Helmet Mounted Earmuff SNR 27 (Yellow) (20)	EN352-3	1
Z2HME	2018023	Zone 2 - Helmet Mounted Earmuff SNR 29 (Orange) (20)	EN352-3	1
Z3HME	2018024	Zone 3 - Helmet Mounted Earmuff SNR 32 (Red) (20)	EN352-3	1

### NECKBAND EARMUFFS

PART CODE	SAP CODE	DESCRIPTION	STANDARD	PK
Z1NBE	2018029	Zone 1 - Neckband Earmuff SNR 28 (Yellow) (20)	EN352-1	1
Z2NBE	2018030	Zone 2 - Neckband Earmuff SNR 31 (Orange) (20)	EN352-1	1
Z3NBE	2018031	Zone 3 - Neckband Earmuff SNR 33 (Red) (20)	EN352-1	1

### VISOR MUFF COMBINATIONS (VMC)

PART CODE	SAP CODE	DESCRIPTION	STANDARD	PK
Z1VMCNY	2018032	Zone 1 - Headband Earmuff with Nylon Mesh Visor SNR 29 (10)	EN352-1/EN1731 S	1
Z1VMCPC	2018033	Zone 1 - Headband Earmuff with Polycarbonate Visor SNR 29 (10)	EN352-1/EN166 1 B39	1
ZXVMCKITNY	2018034	Nylon Mesh Visor with VMC conversion kit (10) - 185mm	EN1731 S	1
ZXVMCKITPC	2018035	Polycarbonate Visor with VMC conversion kit (10) - 200mm	EN166 1 B39	1

## ELECTRONIC HEARING PROTECTION

### ACTIVE EARMUFFS

PART CODE	SAP CODE	DESCRIPTION	STANDARD	PK
ZALERTHBE	2018040	Alert Zone - Headband Earmuff SNR 29 - Level Dependent earmuff (5) - complete with 2 x standard AAA batteries	EN352-1:2002, EN352-4:2001, EN352-6:2002	1
ZALERTHME	2018037	Alert Zone - Helmet Mounted Earmuff SNR -- - Level Dependent earmuff (5) - complete with 2 x standard AAA batteries	EN352-3:2002, EN352-4:2001, EN352-6:2002	1

### AM/FM RADIO EARMUFFS

PART CODE	SAP CODE	DESCRIPTION	STANDARD	PK
ZFOCUSHBE	2018039	Focus Zone - Headband Earmuff SNR 31 - FM/AM Radio earmuff (5) - complete with 2 x standard AA batteries	EN352-1:2002, EN352-8:2005, EN352-6:2002	1
ZFOCUSHME	2018036	Focus Zone - Helmet Mounted Earmuff SNR -- - FM/AM Radio earmuff (5) - complete with 2 x standard AA batteries	EN352-3:2002, EN352-8:2005, EN352-6:2002	1

### ACCESSORIES & SPARES

PART CODE	SAP CODE	DESCRIPTION	STANDARD	PK
ZXAHP	2018053	Zone antibacterial hygiene pad (100)	n/a	1
ZXHKIT	2018054	Zone Hygiene Kit (Zone - all models) consists 2 cushions and 2 - 5mm foam liners (40) (20 pairs)	n/a	1
FMNY	2018055	185mm Nylon Mesh Visor (VMC) (10)	n/a	1
FCPC	2018056	200mm Polycarbonate Visor (VMC) (10)	n/a	1
FXVP30Z	2018057	30mm spare visor post (20) - 10 pairs - zone hearing range compatible	n/a	1
FXVP25Z	2018058	25mm spare visor post (20) - 10 pairs - zone hearing range compatible	n/a	1
FXVP15Z	2018059	15mm spare visor post (20) - 10 pairs - zone hearing range compatible	n/a	1
ZFOCUSAERIAL	2018661	Focus Zone Aerial and signal amplifier (1)	n/a	1

Note: -- SNR data not available at the time of printing



### THE ULTIMATE HEARING PROTECTION SYSTEM

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In accordance with our policy of continual product improvement, equipment supplied may differ from the specification detailed herein.