

A sensitive organ we need to protect

Hearing impairment

Hearing impairment can be due to a mechanical blockage in the transmission of sound to the inner ear (conductive hearing loss) or damage to the hair cells in the cochlea, part of the inner ear (sensorineural hearing loss). Rarely, hearing impairment may also be caused by central auditory processing disorders (when the auditory centres of the brain are affected).

Noise-induced hearing loss

Noise-induced hearing loss is usually caused by prolonged exposure to loud noise. The first symptom is normally the inability to hear high-pitched sounds. Unless the problem of excessive noise is addressed, a person's hearing will deteriorate further, including difficulties detecting lower-pitched sounds. This will normally occur in both ears. The damage of noise-induced hearing loss is permanent.

Impulsive noise

Hearing loss can occur without long-term exposures. Brief exposure to impulsive noises (even a single strong impulse), such as from gunshots or rivet guns can have permanent effects, including loss of hearing. Since this noise is heard only briefly, the actual volume is not so strongly felt at all. But a single, over-loud bang can damage the hearing for a whole lifetime. Without hearing protection, an acoustic trauma results from this impulse noise. The impulse noise from firearms is as intense as 132-165 dB and thus extremely dangerous to the hearing.

Why should I wear hearing protection?

Simply just because it's the only safe way to avoid hearing loss when exposed to hazardous noise levels. It is our mission to offer you a wide range of hearing protection so you can choose the most suitable for your needs.

Basically there are two types of hearing protectors – passive and active.

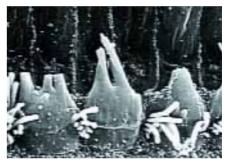
Passive hearing protection damps the noise, which means that all high and annoying noises are reduced to a safe level as they pass through the ear muffs or ear plugs.

Active (electronic) hearing protection has a built-in electronic function with two external microphones detecting the surrounding sound reproducing it inside the ear muffs at a safe level. Combining convenience and safety!

Whichever you prefer, you can always be sure that MSA protects your hearing, with over 20 years of experience in developing products in conjunction with hunters and shooters guaranteeing this.



Undamaged hearing cells under the microscope



Visible hearing damage: damaged hearing cells under the microscope



Electronic Ear Muffs

MSA level dependent electronic ear muffs protect you from hazardous noise at the same time as you can listen to surrounding sounds. The ambient sound is detected by two microphones mounted on the outside of each cup and reproduced through speakers inside the ear muffs. The advanced electronic design compresses hazardous noise down to a safe level while still allowing unharmful noises to be heard.

By wearing an MSA ear muff with this "CutOff" function you can communicate face-to-face with your other persons as well as hearing commands and instructions without removing the hearing protector, even when others are shooting. An amplification of weak sounds also allows you to hear your dog or game at a more far distance than without ear muffs. The electronic function also limit the sound reproduced through the speakers to a maximum of 82 dB so you are always protected against harmful noise levels.

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Model	Supreme Pro	Supreme Pro	Supreme Pro-X	Supreme Pro-X	Supreme Basic	left/RIGHT CutOff Pro	Supreme Pro W
Band versions	Headband	Neckband	Headband	Neckband	Headband	Headband	Headband
Foldable headband	•	_	•	_	•	_	•
Headband padding, black leather	•	_	•	_	•	_	•
Headband padding, camouflage fabric	_	_	•	_	_	_	_
Available colours	Green, black	Green, black	Green, black	Green, black	Green	Blue, yellow	Green
Technical Specifications							
Weight, excl. batteries	310 g	280 g	330 g	280 g	310 g	325 g	340 g
Batteries	2 x AAA/LR03	2 X AA/LR6	2 x AAA/LR0				
Estim. battery life time	200 h	200 h	200 h	200 h	150 h	300 h	200 h
Battery save function	•		•	•	•	•	•
Low battery warning	•	•	•	•		•	•
Level dependent sound reproduction limitation at max 82 dB	•	•	•	•	•	•	•
Amplification of weak signals	•	•	•	•		•	-
Splashproof level dependent microphones	•	•	•	•	•	•	•
Waterproof level dependent microphones				•			
AUX input	•	•		-	(optional)	•	•
Options with gel cushions	•	-	•	-			•
Guarantee	1 year	1 year	5 years*	5 years*	1 year	1 year	1 year
Regulations							
Tested according to	EN 352-1, EN 352-4, EN 352-6						
Attenuation Data							
SNR dB (EN 352)	25	24	25	24	25	27	25
H/M/L dB (EN 352)	28/21/16	26/21/15	28/21/16	26/21/15	28/21/16	31/24/15	28/21/16





Supreme Pro and Supreme Pro-X

The Supreme Pro products come in two versions, Supreme Pro and Supreme Pro-X, both are available with green or black cups. You can also choose between a foldable headband and a neckband version.

The Supreme Pro-X has waterproof microphones and a 5 year warranty on the electronic functions. It is also available with a foldable camouflage headband.

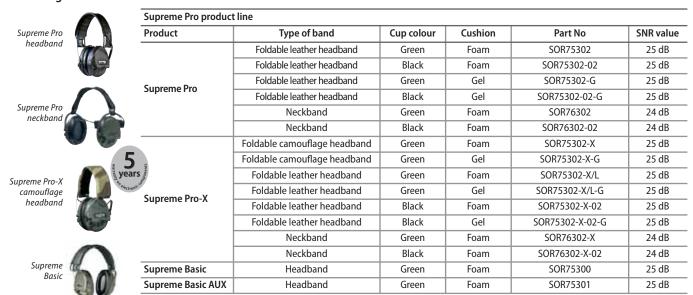
The standard products are equipped with a comfortable foam cushion. For increased comfort, especially during prolonged use in hot areas, there are also versions equipped with silicon gel filled cushions. See table below.

The Supreme is also available as an entry level version, Supreme Basic, designed with basic level dependent functions.

Key product features

- Slim design to the cups suits both right and left-handed shooters
- Two well protected microphones provide excellent sound direction location
- Waterproof battery compartment accessible from the outside
- 3.5 mm AUX inlet for connecting external audio sources like hunting radios
- Low battery consumption (200 hours battery lifetime with 2 AAA batteries)
- Foldable for convenient storage
- Easy volume control (2 buttons) even if you wear gloves
- Automatic shut off function saves battery life even if you forget to turn it off when not in use
- A warning signal indicates when around 40 hours of battery life are left
- High amplification of weak sounds

Ordering information



Supreme Pro WW

Supreme Pro WW adds wireless 2 way communication to the features of the Supreme Pro. It is equipped with Bluetooth® technology to wirelessly connect the headset to all Bluetooth® enabled devices, such as mobile phones and communication radios. No more wires to interfere with your movements.

Key product features

- Identical electronic features to the Supreme Pro
- Waterproof battery compartment accessible from the outside
- Bluetooth® wireless communication technology
- Range between headset and mobile phone is around 10 meters
- A LED reading light is available for maps and other information sources in low light environments
- Noise cancelling boom microphone, providing clear and crisp communication even in noisy environments

Ordering information

Product	Type of band	Cup colour	Cushion	Part No	SNR value
Supreme Pro WW	Foldable leather headband	Green	Foam	SOR75318	25 dB









left/RIGHT CutOff Pro

left/RIGHT CutOff Pro is a level dependent ear muff based on all the unique and innovative features of the left/RIGHT platform.

The built-in electronics allows you to hear all activity going on a shooting range while still protected to hazardous noise levels. Ideal for all kind of shooting applications.

Key product features

- · Individually designed cups for left and right ear
- · Anatomic cup shape following the contour of the head
- Limit the sound reproduced by the speakers to a maximum of 82 dB at the ear
- Low battery consumption (300 hours battery lifetime with 2 AA batteries)
- Two microphones provide excellent sound direction location
- Easy volume control (2 buttons) even if you wear gloves
- Automatic shut off function saves battery life
- A warning signal indicate when around 40 hours of battery life remains
- 3.5 mm AUX inlet for connecting external audio sources like hunting radios

Ordering information

Product	Part No blue	Part No yellow	SNR value	Weight
left/RIGHT CutOff Pro	10108383	10111789	27 dB	325 g (excl. batteries)

Passive Ear Muffs



left/RIGHT range

The left/RIGHT muff has an innovative design, differentiating them from all existing hearing protection. Designed with individual cups for the left and right ear it considers the anatomical individuality of the user.

left/RIGHT is available in 4 colours and with 3 different noise attenuation levels – Low, Medium and High.

Key product features

- Individual cups to compensate for the asymmetric position of the ears on the head
- Anatomic shaped cups follow the contour of the head, providing a more secure protection against hazardous noise
- Thinner and more flexible sealing rings ensure an optimal fit for wearer comfort
- Large muffs provide more room for the ear to guarantee protection for all shapes and sizes of ears.

Ordering information

Product	Part No blue	Part No yellow	Part No dark grey	Part No white	SNR value	H/M/L	Weight
LOW	10087435	10087434	10100455	10087436	24 dB	27/22/14 dB	185 g
MEDIUM	10087426	10087425	10099847	10087427	28 dB	32/26/17 dB	227 g
HIGH	10087400	10087399	10101164	10087421	33 dB	33/31/23 dB	316 g



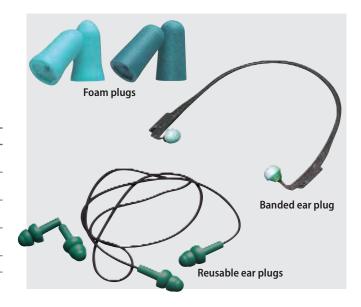


RIGHT ear plugs

The RIGHT ear plug range provides high noise attenuation and comfort. You will find 2 sizes of foam plugs, corded, non corded, reusable and banded plugs in the range.

Ordering information

Product	Part No	SNR value	H/M/L
Foam plug, small/medium	10087441	33 dB	33/30/29 dB
Foam plug, medium/large	10087444	37 dB	36/34/34 dB
Reusable ear plug, uncorded	10087449	23 dB	24/20/17 dB
Reusable ear plug, corded	10087450	23 dB	24/20/17 dB
Banded ear plug	10087452	24 dB	27/19/18 dB



Accessories

Hygiene kits

To maintain the sound attenuation performance of the muffs it is important to regularly replace cushions and inserts. In normal use, replace the hygiene kit at least twice a year.

For left/RIGHT ear muffs

Hygiene kit for left/RIGHT Low	10092878
Hygiene kit for left/RIGHT Medium	10092879
Hygiene kit for left/RIGHT High	10092880
Hygiene kit for left/RIGHT CutOff Pro	10094605

For Supreme electronic ear muffs

Hygiene kit standard for Supreme	SOR60089
Hygiene kit comfort (silicone ear cushions) for Supreme	SOR60092

Special headbands for Supreme Pro-X

Fluorescent orange headband	SOR70001
Black headband	SORBD009
Camouflage headband	SORBD016





MSA Eye Protection Solutions



In hunting and shooting applications, there are hazards that can cause severe damage to human vision within a split-second.

Possible consequences of such accidents range from simple temporary irritation up to total loss of sight. For decades MSA has offered a comprehensive range of high quality safety spectacles.

Racers

A perfect combination of dynamic style and the highest protection level.

- Adjustable soft nose buds for perfect fit on different nose shapes
- Formable wire temples adapt to different head sizes and provide a comfortable fit
- Very high impact resistant single lens, compliant to MIL-V-43511C clause 3.5.10. and MIL-PRF-31013 clause 3.5.1.1 (198 m/s)



Racers EN 166 1 FT (pack of 12)	
Racers clear lens, Sightgard coating	10104614
Racers amber lens, Sightgard coating	10104615
Racers light gold mirror lens, Sightgard coating	10104616
Racers smoke lens, Sightgard coating	10104617
Racers red rainbow mirror lens, Sightgard coating	10104618

Alternator

A complete solution, offering different levels of protection and comfort in an exclusive style.

- Vented & non-vented dust inserts
- Exchangeable lenses
- · Vented temples with good lateral protection
- Stylish two colour frame

Alternator EN 166 1 FT (pack of 12)	
Alternator, clear lens, Sightgard coating	10104619
Alternator, amber lens, Sightgard coating	10104620
Alternator, smoke lens, Sightgard coating	10104661
Alternator, gold mirror lens, Sightgard coating	10104662



For spectacle details please ask for the separate leaflet



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.