

# Hearing Protection

## Important Safety Information



**...Excessive noise exposure is the most common cause of hearing loss...**

If you think you have grown used to a loud noise, it probably has damaged your ears, and there is no treatment – no medicine, no surgery, not even a hearing aid that truly corrects your hearing once it is damaged by noise.

### **Is your workplace noisy?**

- Do you have to shout to make yourself heard?
- Do you go home with ringing in your ears?
- Do any of the tools / equipment you use makes loud noise?

Any source of sound sends vibrations or sound waves into the air. These funnel through the ear opening, down the ear canal, and strike the eardrum, causing it to vibrate. The vibrations are passed to the small bones of the middle ear, which transmit them to the hearing nerve in the inner ear. There, the vibrations become nerve impulses and go directly to the brain, which interprets the impulses as sound. As the exposure time to loud noise increases, more nerve endings are destroyed. As the number of nerve endings decreases, so does the hearing.

Intensity of sound is measured in decibels (dB). Habitual exposure to noise above 85 dB will cause a gradual hearing loss in a significant number of individuals, and louder noises will accelerate this damage.

$$\text{SNR} = \text{NNR} + 2$$

### **Temporary hearing loss (Temporary Threshold Shift)**

Normal hearing will usually return after a rest period away from all sources of intense or loud noise. The recovery period may be minutes, hours, a day or perhaps even longer. It is believed that a temporary hearing loss occurs when hair cells in the inner ear have been bent by vibrations and need time to bounce back, or when the fluid in the inner ear has changed chemically because of over-stimulations, and need time to revert to its original composition.

### **Permanent Hearing Loss (Permanent Threshold Shift)**

Permanent hearing loss is the result of hair cells or nerve destruction within the cochlea. Once these important parts of the hearing process are destroyed, they can never be restored or regenerated. The resulting permanent hearing loss also referred to as permanent threshold shift (PTS), can range from slight to total hearing loss.



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The following factors determine the degree and extent of hearing loss:

- Type and intensity of noise: continuous, intermittent, impact, high or low frequency
- Duration of exposure: length of time subjected to noise,
- Type of noise environment: enclosed, open, reflective surfaces
- Distance from ears to the source of noise: earphones in the ear, centimetres from the ear
- Physical position / posture relative to the noise source
- General health and age of listener
- Individual susceptibility

### Examples of decibel levels in different surroundings

Approximate Decibel Level	Examples of surroundings
0	The quietest sound you can hear
30	Whisper, quiet library
60	Normal conversation, sewing machine, typewriter
90	Lawnmower, shop tools, truck traffic, 8 hours per day is the maximum exposure (protects 90% of people)
100	Chainsaw, pneumatic drill, snowmobile; 2 hours per day is the maximum exposure without protection
115	Sandblasting, loud rock concert, auto horn; 15 minutes per day is the maximum exposure without protection.
140	Gun muzzle blast, jet engine; Noise causes pain and even brief exposure injures unprotected ears. Maximum allowed noise with hearing protector.

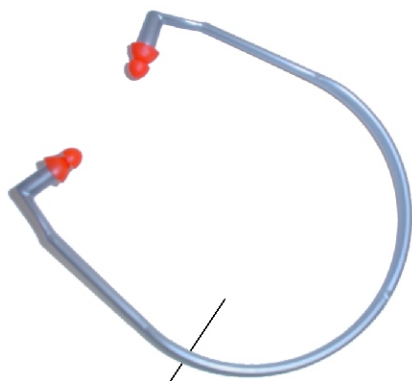


# Hearing Protection

## Afrox Earplugs & Earmuffs



### AFROX HUSH\*



Corded Part no: 050-234  
Banded Part no: 050-235

- Tapered re-usable
- Qty per box –100
- SNR 28db

 **AFROX**  
Hush 



### AFROX EXCLUSIVE EARMUFFS\*

Part no: 053-038

- Designed for enhanced noise reduction and wearer comfort
- Flexible padded headband
- Dielectric, 3 position muff
- Foam filled ear cushion
- CE EN 352-1
- SNR 30dB



 **AFROX**

 **AFROX**  
Safety 

# Hearing Protection Disposable Earplugs



## HOWARD LEIGHT MAX LITE®

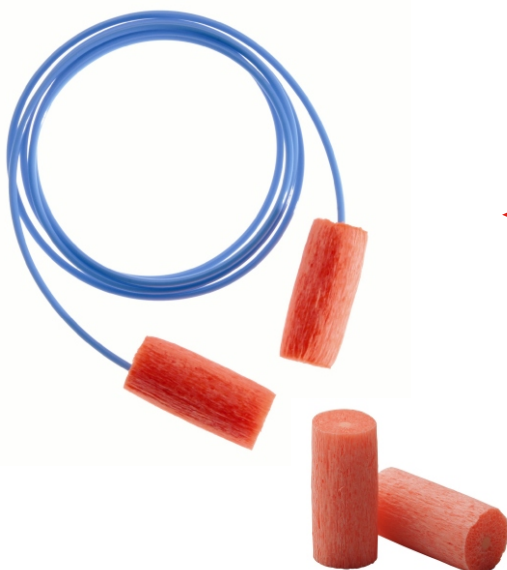
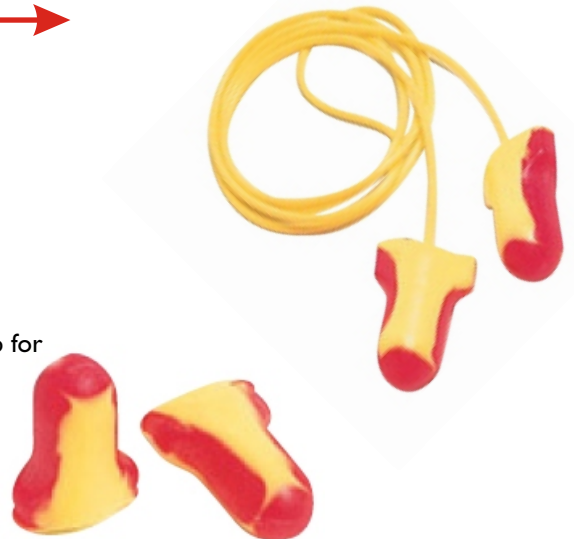
Corded Part no: 050-158  
Uncorded Part no: 050-161

- Foam
- Ideal size for female workers
- Low-pressure foam expands gently for comfortable long-term wear
- Contoured T-shape for easy handling and wear
- SNR 34dB

## HOWARD LEIGHT LASER LITE®

Corded Part no: 053-702  
Uncorded Part no: 053-718

- Non-irritating, non-allergenic
- Ideal for smaller ear canals
- Tapered and pre-shaped
- Follows the contour of the ear canal
- Easy insertion and a comfortable natural seal
- Winged end promotes optimum insertion depth and easy grasp for removal
- SNR 35 dB



## HOWARD LEIGHT MATRIX ORANGE™

Corded Part no: 050-422  
Uncorded Part no: 050-421

- Foam
- Smooth outer skin
- Delivers instant protection –no need to wait for foam to expand
- Screens harmful noise, but lets voices pass through
- SNR 29dB

# Hearing Protection Reusable Earplugs



## HOWARD LEIGHT QUIET<sup>®\*</sup>

Corded Part no: 053-700  
Uncorded Part no: 050-160

- Patented “no-roll” design is easy to handle and fit
- Offers a smooth non-irritating outer skin, comfortable enough for all day use
- Expands naturally for a comfortable custom fit
- Hygienic – washable
- Reusable
- SNR 28 dB

## HOWARD LEIGHT AIRSOFT<sup>™</sup>

Corded Part no: 050-159

- Moulded
- Patented internal air cushion
- Maintains superior comfort during extended wear
- SNR 30 dB



## HOWARD LEIGHT SMARTFIT<sup>™\*</sup>

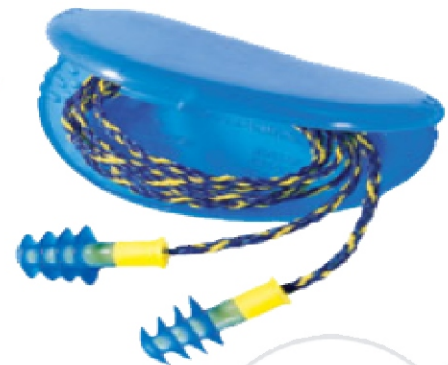
Part no: 050-425

- Use as corded and uncorded
- Advanced material uses body heat to adapt to the individual shape of each wearer’s ear canal
- Delivers superior comfort and a truly individual fit
- Simplifies inventory control -a single product fits almost every wearer
- HearPack<sup>™</sup> storage case
- Unique detachable cord system
- SNR 30dB

## HOWARD LEIGHT FUSION<sup>™</sup>

Part no: 050-426

- Moulded
- Flexifirm<sup>™</sup> core for easy handling
- SoftFlange<sup>™</sup> design for comfort and fit
- Unique detachable cord system
- SNR 28dB



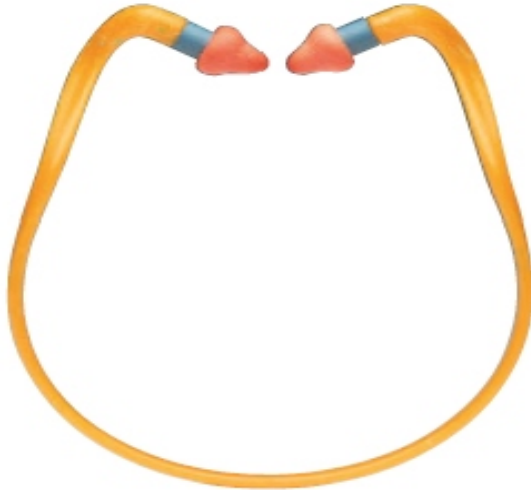
# Hearing Protection

## Reusable Earplugs



### HOWARD LEIGHT QB2® HYG

Part no: 050-184



- Supra-aural protection
- Soft pads rest partially in the ear for a balance of protection and comfort
- Patented band design prevents ear pads from touching dirty or contaminated surfaces
- Lightweight and portable
- SNR 24 dB

### HOWARD LEIGHT QB3® HYG

Part no: 053-040

- Semi-aural protection
- Super soft pads rest outside the ear for outstanding comfort
- Patented band design prevents ear pads from touching dirty or contaminated surfaces
- Lightweight and portable -designed especially for environments with intermittent noise hazards
- SNR 23dB



# Hearing Protection Earmuffs



## BILSOM® THUNDER®

Thunder (T1) Part no: 050-427  
Thunder (T2) Part no: 050-503

- Maximum protection from an earmuff
- Non-deforming comfort headband to fit all head sizes
- Ventilated inner headband and soft pads for maximum comfort
- Quick-click height adjustment
- Dielectric design safe for electrical environments
- SNR: T1 26dB, T2 30dB

## BILSOM® LEIGHTNING®

L1H Helmet earmuff Part no: 050-428  
L2H Helmet earmuff Part no: 050-504  
L1N Neckband earmuff Part no: 050-429  
L2N Neckband earmuff Part no: 050-505

- Maximum protection from an earmuff
- Robust steel headband withstands demanding use
- Padded foam headband and super soft ear cushions deliver long wearing comfort
- Contemporary design improves wearer compliance
- Telescoping height adjustment
- SNR: L1 28dB, L2 30dB



## BILSOM® MACH I®

Part no: 050-430

- Adjusts to fit any head size
- Broad ear cushions reduce pressure on the head
- Low weight provides greater wearing comfort
- Modern low profile design for greater user compliance
- Spacious cups give plenty of space for the ears to improve wearing comfort
- Dielectric design of the entire earmuff reduces risk when working in high-voltage areas
- SNR 23dB