

## Safe Exposure Times

EXPOSURE TIME	dB	EXAMPLE SOUNDS
Instantaneous permanent damage	140+	Shotgun, rifle, jet engine
Less than one second	130	Jackhammer, heavy industrial
Less than ten seconds <i>Threshold of pain</i>	120	Rock concert
1.5 minutes	110	Power tools, snowmobile
15 minutes	100	Chainsaw, motorcycle
2.5 hours	90	Lawn mower
8 hours	85	Beginning of Danger Zone
Prolonged exposure to noise levels 85 dB and higher can result in permanent hearing loss	80	City traffic
	70	Vacuum cleaner, hair dryer
	60	Office, sewing machine
	50	Normal conversation
	40	Refrigerator
Common noise levels (dB) and their effect upon hearing	30	Whisper
	20	Rustling leaves
	10	Breathing
	0	Threshold of normal hearing

<sup>1</sup>DHHS (NIOSH) publication #98-126, Table 1-1

## ➤ Hearing Protection Accessories



### Oto-Ease® Earpiece Lubricant

Oto-Ease® is a sterile, unscented lubricant for custom earpieces. The unique formula provides a non-greasy, water-soluble solution for patients while also helping create an effective acoustic seal. SKU# 54015



### HPD Zippered Pouch

The Accessory Pouch is ideal for storing hearing protection devices. SKU# 42300

## ➤ Don't forget Slick-Sil®!

Slick-Sil® is an anti-microbial, chemically bonded coating for silicone earpieces that creates a low friction surface for easy insertion. It is proven to be 99.99 percent effective against bacteria, germs, and other pathogens.

# DefendEar®

 Handcrafted in the USA

Westone has handcrafted the finest in custom earpieces since 1959. Our products are sold through hearing care professionals who make the proper impressions of your ears and assist in finding the DefendEar style that is right for you. Please contact us or visit our website for the name of an authorized DefendEar hearing professional near you.

phone: 800.525.5071 / 719.540.9333

website: westone.com

e-mail: defendear@westone.com

**Westone**  
THE IN-EAR EXPERTS®

# DefendEar®

## Recreational Earpieces



[westone.com/defendear](http://westone.com/defendear)

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THE IN-EAR EXPERTS®

DefendEar custom-fit earpieces are offered in a variety of styles and colors for any application, from work to play.

**PASSIVE**

**DefendEar Solid** NRR 29

The maximum noise reduction available in the DefendEar Recreational line. Optimal for high-noise environments. Also available in modified styles. (Style 40)

**DefendEar Duo** NRR 21/28

A detachable cord allows selectable protection between NRR 21 and NRR 28. Great for industrial environments with a wide range of noise exposure. Communication, metal detectability, and custom engraving options available. Also available in a full shell style. (Style 47-Duo)

**DefendEar Filtered** NRR 21

This half shell hearing protector provides a moderate amount of hearing protection that is easy to insert/remove. The filtered design allows for face-to-face verbal communication in light to moderate noise situations. Also available in modified styles. (Style 47)

**DefendEar Concert** Filter Choices: 9/15/25 dB

The Concert is ideal for musicians and concerts, but is also popular with music teachers, dentists, flight attendants, and anyone who needs to hear accurately in high-noise environments. Flat attenuation allows the wearer to hear sounds accurately but at reduced levels. (Style 49)

**DefendEar Sleep** NRR 27

The Sleep is designed to promote comfortable and uninterrupted rest. Great for shift workers and credited with saving many a relationship! (Style 40-4)



► **Customize It.**

DefendEar offers colors and finishes from discreet skin tones to high-visibility colors, as well as several combinations to meet personal tastes or application requirements. View all of our color options at [westone.com/defendear](http://westone.com/defendear)

**PERSONAL EARPIECES**

*Not intended as protection from noise.*

**DefendEar Surfer**

The Surfer is designed to prevent Surfer's Ear and Swimmer's Ear caused by exposure to cold water and wind. The floatable material is molded with a sealed membrane spanning a sound bore that keeps cold water and air out of the ear canal but allows for conversation and hearing while in the ear. (Style 70)

(Glitter, Clear, and Cat Eye not available in AquaNot material)

**DefendEar AquaNot**

AquaNots prevent moisture from entering the ear canal; optimal for swimming, water sports, and showering to prevent infection. AquaNots float and feature added finger grips for easy removal. (Style AQ)

(Glitter, Clear, and Cat Eye not available in AquaNot material)

**DefendEar Motorsport**

The Motorsport is designed for under helmet use to reduce wind buffeting. It is comfortable and easy to insert and remove. Check local laws governing use. (Style 4RT)

**TRU™ Custom**

With a low profile and selection of four interchangeable filters, TRU Customs allow you to protect your hearing and select attenuation to match your listening style. Precisely fitted to your ear canal, providing maximum comfort, discreet size, and incredible clarity.

**DefendEar Hunter Passive** NRR 4

For hunting environments where a low number of shots are fired. The Hunter Passive utilizes small orifice non-linear acoustic filters. A low NRR of 4 allows for awareness and communication. (Style 39)

*IPIL Rated\**



**DIGITAL** Custom-Fit is IPIL Rated\*

Each product in the DefendEar Digital product line uses CENS® electronic modules for impulse noise suppression and ambient noise amplification. Not recommended for indoor use or as a replacement for hearing aids.\*\*

**DefendEar DIGITAL 1** NRR 26

The Digital 1 provides excellent universal noise suppression, wind reduction, and ambient amplification for a variety of shooting environments.

**DefendEar DIGITAL 2** NRR 26

The Digital 2 includes two modes allowing for flexible noise suppression. The Game Mode is optimized for intermittent shots and the Clay Mode is optimized for continued shots.

**DefendEar DIGITAL Hunter** NRR 26

The Digital Hunter Normal Mode provides the most amplification of low volume sounds for detecting game movement. The Wind Mode reduces wind noise typical in the open range and in hunting stands.

**NEW DefendEar Shooter** NRR 30

Specifically designed to fit into any ear without the need for ear impressions. The shooters allows for clear communication and enhanced ambient awareness with 3 user-selectable amplification levels.

► **Hunting & Shooting Attenuation Performance Metrics**

	Digital 1, 2, Hunter	Hunter Passive
<b>NRR</b>	26 dB	4 dB
<b>IPIL*</b>		
Attenuation @ 132 dB	37.3 dB	15.1 dB
Attenuation @ 150 dB	44 dB	22.8 dB
Attenuation @ 168 dB	42 dB	26.7 dB

\* IPIL Rated = Impulsive Peak Insertion Loss according to ANSI S12.42-2010

\*\* While the DefendEar Digital lineup does provide some gain of ambient noises, because the EQ and multi-band compression are pre-programmed, they are not suitable as replacements for hearing aids as they cannot be programmed to account for a user's existing hearing loss.

<sup>1</sup>Slick-Sil™ is a registered trademark licensed from Surface Solutions Group, LLC.

<sup>2</sup>CENS® is a registered trademark of Puretone Ltd. | CENS® module is protected by EC Design Registration No. 001861998-0001 | Norwegian Design Registration No. 083344 | US Patent Pending