

360 Franklin Street Box 15054

Worcester, MA 01615-0054 Tel: (508) 751-5800

Email: Sales@DavidClark.com

Fax: (508)753-5827

*WWW.DAVIDCLARK.COM* 

Noise
Reduction
Rating (WHEN WORN AS DIRECTED)

THE RANGE OF NOISE REDUCTION RATINGS
FOR EXISTING HEARING PROTECTORS
IS APPROXIMATELY 0 TO 30
(HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)

David Clark Co. Inc. MODEL H3530

Federal law prohibits
Federal Law Prohibi

#### USE AND CARE INFORMATION

The effectiveness of a hearing protector in reducing noise is known as its "attenuation". Attenuation is measured in decibels (dB). Federal law requires a standardized method of measuring and summarizing a hearing protector's noise attenuation, known as the Noise Reduction Rating (NRR).

The following information can be obtained from the NRR:

- A hearing protector with a higher NRR than another model hearing protector is likely to give the wearer more protection. For example, if hearing protector A has an NRR of 25 and hearing protector B has an NRR of 21, hearing protector A will give most users 4 dB more protection than hearing protector B.
- 2. The noise level (dB) to which you are exposed while wearing a hearing protector can be <u>estimated</u> by subtracting the NRR from the measured work place noise level. For instance, if the work place noise level is measured to be 100 dB and a hearing protector with an NRR of 21 is properly worn, most users would experience a noise level no greater than 79 dB while wearing the hearing protector (100 21=79).

Federal law requires the following statement concerning use of the NRR:

"The level of noise entering a person's ear, when a hearing protector is worn as directed, is closely approximated by the difference between the A - weighted environmental noise level and the NRR.

EXAMPLE: 1. The environmental noise level as measured at the ear is 92 dBA.

- 2. The NRR is 17 decibels (dB).
- 3. The level of noise entering the ear is approximately equal to 75 dBA.

<u>CAUTION</u>: For noise environments dominated by frequencies below 500 Hz the C - weighted environmental noise level should be used."

	MODEL(S) H3530									
	ATTENUATION CHARACTERISTICS									
Frequency (Hz)	125	250	500	1000	2000	3000	4000	6000	8000	
Attenuation (dB)	14.3	21.5	21.7	31.8	36.0	39.6	41.8	39.7	37.0	
Standard Deviation	3.3	2.4	1.5	1.6	1.3	2.1	2.1	2.0	1.3	

## **CAUTIONS:**

# Limitations on Effectiveness of NRR

The NRR is required by federal law and may not be an accurate indicator of afforded protection for your particular use. The use of a hearing protector device, regardless of the NRR, will not guaranty adequate protection from hearing loss for all people under all possible circumstances. Consult your physician frequently when being exposed to high noise levels. If exposure to high noise levels occurs during employment, consult with your employer regularly as well.

The NRR does not address other important factors such as durability, suitability for the work environment, maintenance, or wearer comfort; therefore, NRR should not be the only reason for choosing the most appropriate hearing protector for the work environment.

The hearing protector should provide the necessary attenuation at the specific frequencies prevailing, which the NRR does not take into consideration, i.e., a hearing protector with a high NRR may attenuate poorly at the frequencies in your work environment.

## **CAUTIONS** (continued)

#### 2. Use in Impulsive Noise Areas

#### Federal Law requires the following statement:

"Although hearing protectors can be recommended for protection against the harmful effects of impulsive noise, the noise reduction rating (NRR) is based on attenuation of continuous noise, and may not be an accurate indicator of the protection attainable against impulsive noise, such as gunfire."

Firing range instructors and frequent shooters, more than 100 rounds in an eight hour day, should use ear plugs in addition to the device to which this instruction sheet is attached, for maximum hearing protection.

### 3. Proper Fit

Proper fit of this device is critical to its noise attenuation effectiveness. Consult the instructions below for proper fit.

- For models worn over-the-head, open the headband adjustment all the way and put the hearing
  protector over your ears. Push the headband down until the headpad (headband) rests comfortably
  on top of your head. Move the earcups slightly up or down or from side to side until you feel you have
  maximum attenuation.
- 2. For behind-the-head or under-the-chin use, close the headband adjustment and follow the same fitting procedure as noted above. Should you feel the need for over-the-head support, you may purchase the velcro adjusted overhead support strap (P/N 10370G-03).
- 3. The use of eyeglasses will reduce the attenuation afforded by this device. Use the thin temples on your glasses. Thin temples keep noise leakage at a minimum. Use "Stop Gaps", P/N 12500G-02; they are inexpensive and effective in restoring some of the attenuation which you would otherwise lose.

## 4. Maintenance and Cleaning

In order for your hearing protector to perform properly, always comply with the following:

- Never alter or modify your hearing protector. If you re-form the headband or muff, cut or punch holes in the ear seal, drill or punch holes in the ear cup or insert, or paint or coat the device, you will seriously jeopardize the hearing protector's performance and hearing damage could occur.
- Seek repair or replacement of the hearing protector, immediately, if you see a defect, such as any sign of cracks or splits in cups, seals, or headbands.
- Follow the manufacturer's recommendations for storage and cleaning. Storage in direct sunlight or at high temperatures, or cleaning in unrecommended cleaning solutions, may shorten the useful life of the hearing protector.
- 4. Each individual's body chemistry is different. Perspiration, body oils, and hair grooming cosmetics may effect the hearing protector materials; loss in elasticity or softness of ear cup seals and of the foam pads inside ear cups may result. Replace parts immediately, if these signs of wear occur.

## **CLEANING INSTRUCTIONS**

- Hearing protectors should be cleaned regularly using mild soap and water. Sponge off headpad and ear seals, taking care to rinse thoroughly.
- 2. Communication headsets should be cleaned in the same manner. DO NOT IMMERSE IN WATER.

Most importantly, always wear your hearing protector in areas that have been identified as hazardous noise locations!