

# Music for Your Ears



With new high-tech earmuffs, you can drown out the drone of machines and karaoke while you cut

**BY**  
**ANATOLE BURKIN**

Standard hearing protectors make me feel like I'm enveloped in a mushy, foamy sound bubble, cut off from the world. In this state, the boredom of endless repetitive tasks such as power-sanding can lead to a mind-numbing stupor. That all changed recently when I tried the new generation of electronic earmuffs that both protect my hearing and serve up my favorite music.

Most electronic hearing protectors employ passive noise reduction, much like standard shop earmuffs. Foam-enclosed plastic cups that fit snugly around the ear seal out harmful noises. But they have added internal speakers for audio, supplied by either a built-in FM tuner or an outside source, such as a portable CD player.

However, the newest twist in hearing protection is active noise reduction (ANR), a technology

## Peltor HT7A-03

If you already own a portable radio with a head-phone jack, this unit makes economic sense. It comes with a sturdy spiral cable to plug into your favorite listening device. The stereo speakers perform well in the mid- and high ranges but don't put out much bass. The NRR is 24 decibels, and the audio output goes to 82 decibels.

**Pro:** Low price  
**Con:** Lacks bass  
**Price:** \$99  
**Contact:** Aearo at (800) 327-3431 or [www.aearo.com](http://www.aearo.com)



## Peltor HTRXS7A

There's something nice about not having any dangling cords around your head, and that's one of the best features of the earmuffs with built-in radios. The HTRXS7A is similar in function to the Elvex (see p. 48). An FM stereo radio is built into the earmuffs, which have decent speakers, although I'd like a bit more bass. Audio output is limited to 82 decibels, and the NRR is 24 decibels. There is no jack for connecting other audio devices. The unit runs on two AA batteries.

**Pro:** Better-than-average speakers  
**Con:** Limited to radio play  
**Price:** \$150  
**Contact:** Aearo at (800) 327-3431 or [www.aearo.com](http://www.aearo.com)



## Noise Cancellation Technologies PA-3000

You'd expect a company that makes acoustical speakers to make high-fidelity earmuffs, and Noise Cancellation Technologies (NCT) doesn't disappoint. Beside the best sound quality, the PA-3000 provides two-tiered hearing protection, both passive and through ANR electronics. The NRR is 21 decibels, but the ANR circuitry may provide up to 20 decibels of additional noise reduction for low-frequency sounds. (The ANR circuit is aimed at frequencies ranging from 50 to 500 hertz.) The electronics are quite effective at quieting rumbling machines such as compressors and thickness planers. In fact, the first time I used the unit, I thought my compressor was broken, so tinny was the sound inside the headset. A portable listening device such as a radio or CD player may be plugged into the PA-3000. Because the audio-input limit is a booming 120 decibels, you have to be careful not to rock too hard and blow your eardrums out. The PA-3000 comes with a rechargeable battery and charger. NCT also makes smaller, low-priced portable headphones with the ANR feature, which are perfect for airline travel.

**Pros:** Best speakers; cool ANR feature  
**Con:** Exercise caution with the audio volume!  
**Price:** \$189  
**Contact:** NCT at (800) 278-3526 or [www.nct-active.com](http://www.nct-active.com)





once available only to pilots. ANR employs clever electronics that mask out unwanted noise by creating opposing sound waves. The sound waves are particularly effective at blocking low-frequency noises that are tough to filter out with foam-filled muffs. Only one brand of earmuffs uses ANR. There are a number of audio headsets on the market with this technology; however, they are not appropriate for shop use. Stick to earmuffs designed for industrial applications.

Some earmuffs have built-in microphones that automatically amplify soft sounds but immediately cut out when noise levels rise. The microphones, which are tuned to midrange tones, allow you to carry on a conversation in a noisy environment while wearing hearing protectors.

All earmuffs have noise-reduction ratings (NRR) expressed in decibels. The higher the number, the greater the protection. In a woodworking-machine environment, earmuffs with an NRR of 20 to 30 decibels are usually adequate.

Listening to music while woodworking may sweeten the experience, but it can turn sour if your concentration wavers. Your hearing can tell you whether machines are running or if something sounds wrong, such as when stock is being fed too quickly. Exercise common sense, and don't totally blot out the sound of machinery. And one more thing: If you're an audiophile, you may be disappointed with the performance of these units compared with \$150 stereo headsets without hearing protection. For truly fabulous audio, get out of the workshop and go listen to your hi-fi. □

Anatole Burkin is a senior editor.



## Elvex COM-80R

The Elvex COM-80R has very comfortable ear cups, something you come to appreciate after eight hours of use. The unit has a built-in FM stereo radio, and it works surprisingly well for such a small unit. As with all portable radios, movement may affect the quality of reception. The internal rechargeable battery will last up to 40 hours on one charge, which takes 12 hours. An easy-to-reach volume knob can be adjusted for balance. The audio output is limited to 82 decibels, and the NRR is 27 decibels. Additionally, a CD or tape player may be plugged into the recharging port. (Elvex also makes earmuffs with microphones, but they were not made available for reviewing.)

**Pro:** Highest NRR

**Con:** Speakers are weak in bass and high frequencies

**Price:** \$168

**Contact:** Elvex at (203) 743-2488 or [www.elvex.com](http://www.elvex.com)

## Peltor MRX7A

Wouldn't it be nice if you could carry on a conversation in a noisy environment while still wearing hearing protection? These earmuffs allow just that. With built-in microphones that amplify soft sounds, it's possible to hear someone talking over the din of machinery. (There's also a jack for plugging in other communication devices such as a two-way radio or telephone.) If there's a sudden increase in loud noises, the microphones cut out, protecting one's ears. The unit also comes with a good-quality automotive-like FM tuner with electronic search and preset buttons. The NRR is 24 decibels, and maximum radio audio output is 82 decibels. With nine push buttons, this unit takes a bit of getting used to, but it's designed logically, so you can make all adjustments while wearing the unit. Two AA batteries provide power.

**Pro:** You can talk over the din of machinery

**Con:** Be prepared to shell out a few bucks for the privilege

**Price:** \$245

**Contact:** Aearo at (800) 327-3431 or [www.aearo.com](http://www.aearo.com)

