



# Hearing protector selection guide

## NorProtector

### Nor1025

Imagine you've just made an octave band noise measurement and that you detected noise levels far too loud to allow people stay in the area without adequate hearing protection.

Back in your office you have piles of hearing protectors for nearly every application and situation, but which one should you recommend to the operator?

Enter NORPROTECTOR (Nor1025). This is a software utility which runs on your own MICROSOFT WINDOWS® based PC. Hardware requirements are modest, but even the most recent operating systems, like WINDOWS XP are supported.

Just connect your Nor121 analyser or your Nor118 real time sound level meter to the PC, start NORPROTECTOR and use the transfer part to view the files stored in your sound level meter.

The familiar drag and drop principle is now used to drag the measurement into the NORPROTECTOR program and the spectrum is displayed there.

The program comes with a built-in database containing a multitude of hearing protectors and their associated attenuating properties. The hearing protectors you do not keep in stock at your place can easily be deactivated, so the database list will contain those you use only.

Should you start to use a hearing protector type not listed, this one is easily included in the database. All you need is the manufacturer's (or any other reliable source's) data on its attenuating properties, which you simply just key in.

NORPROTECTOR lists all the hearing protectors you have activated, the calculated level inside each protector when the operator is wearing it, the time it will take to reach 100% noise dose and finally the equivalent noise level the operator will be exposed to. Those of the hearing protectors deemed acceptable are clearly marked as shown in the Fig. The rest should not be used in this situation.

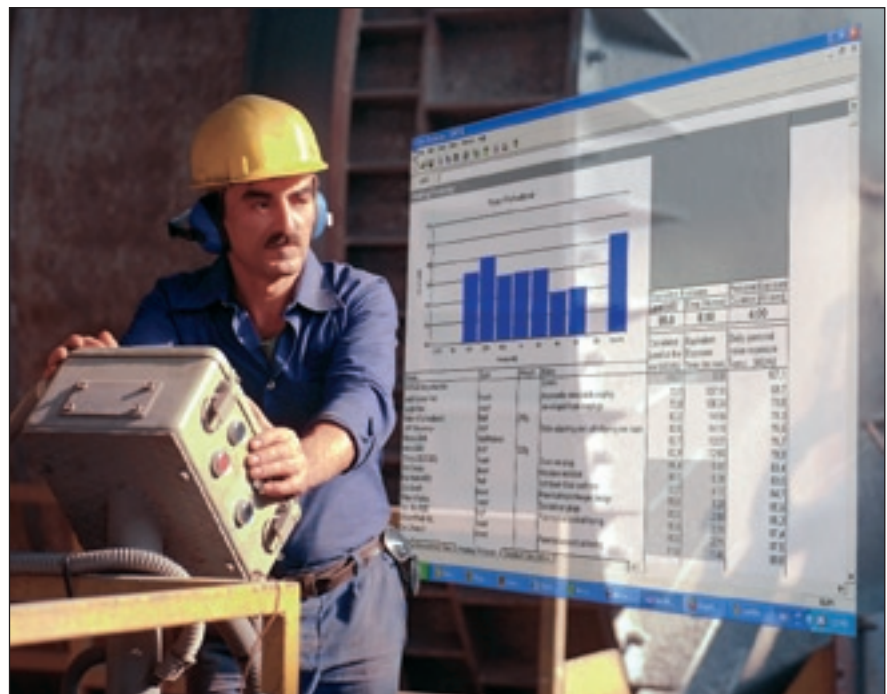
However, what about the situation occurring when the operator stays in the noise area for less than 8 hours (if that is the applicable limit)? Imagine your operator is exposed to the noise for only 4 hours a day. Suddenly, the range of acceptable protectors will broaden.

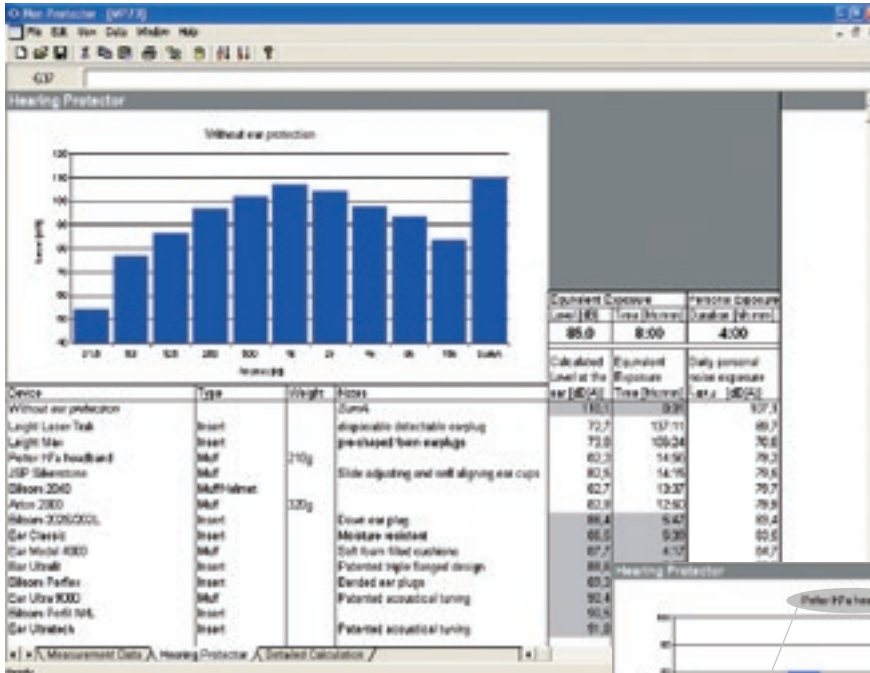
Maybe the one that is so famous for its comfort, but not at all for its attenuation could be used after all?

To see if this is true, all you need to do is to key in the actual exposure time. Immediately, you will spot those of the protectors that now qualify for a promotion – see Figs overleaf for details.

Choosing the best hearing protector for the occasion is no longer a cumbersome process involving a lot of guesswork. You don't have to be an expert any more. Now, this is reduced to a simple sound measurement and the running of a simple PC program.

That's why we call NORPROTECTOR a selection guide rather than a software program. It can hardly get easier!

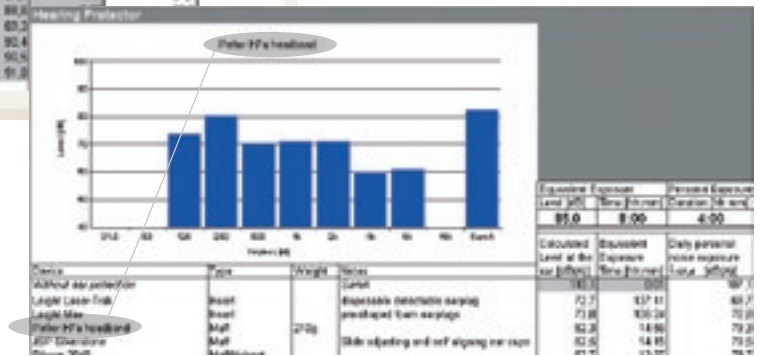




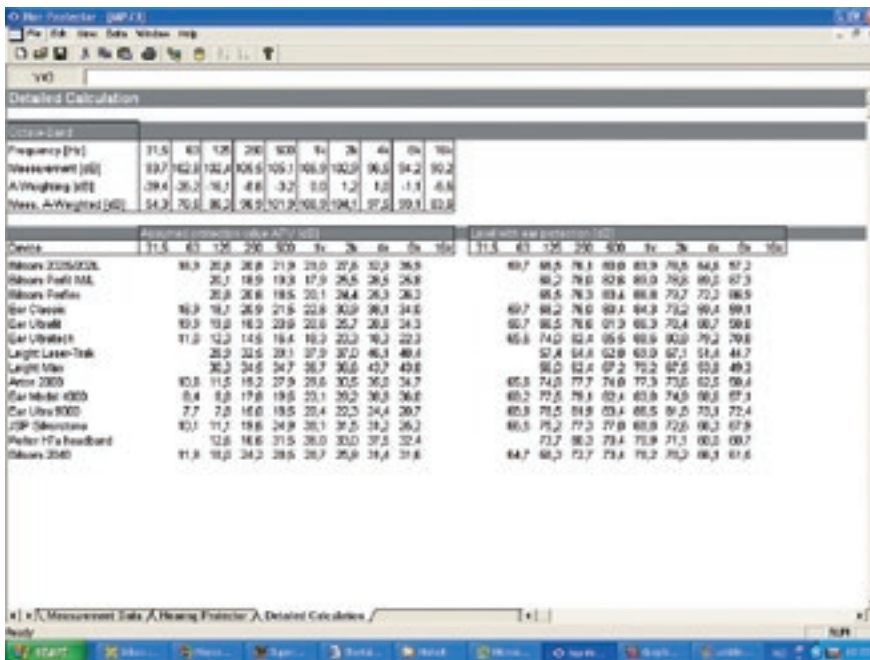
Left. An example showing a list of different hearing protectors, calculated level at the ear for each of them, exposure time before a noise dose of 100% is reached, and the daily personal noise exposure expressed in dB. If this is significantly shorter than the full day, some hearing protectors may still qualify, even if they fail to meet the full day requirements.

Acceptable hearing protectors are those not shown shaded.

Right. You may even display the calculated spectrum as it will be inside the hearing protector based on what you measured.



Left. Detailed calculations can also be made to give you the complete overview.



**System requirements**

- Sound level meter Nor118 or Nor121
- Personal computer running Microsoft Windows® 95/98/ME/NT4/2000/XP
- Nor1441 Cable (Nor118-PC)
- Nor1463 Cable (Nor121-PC)
- NorProtector software

Representative: