

Using Counselling Tools in the AC440 Module

Counselling is a crucial part of the audiological evaluation. It provides both relatives and patient with a better understanding of the measuring results, why they may have been experiencing problems, and what they are likely to gain from hearing aid amplification. This may later on have a considerable influence on their motivation to use the instruments.

In the AC440 module Interacoustics provides two dedicated counselling tools: The Hearing Loss Simulation (HLS) and Master Hearing Aid (MHA), which address the needs of relatives and the patient respectively.

The HLS offers a simulation of the hearing loss through the audiometric headphones or the high frequency headset and is primarily addressed to family members. This is valuable as a hearing loss in many families may result in frustrations and misunderstandings. Knowing what the hearing loss actually sounds like gives an impression of what the hearing impaired goes through every day and why they have to be extra considerate in some situations.

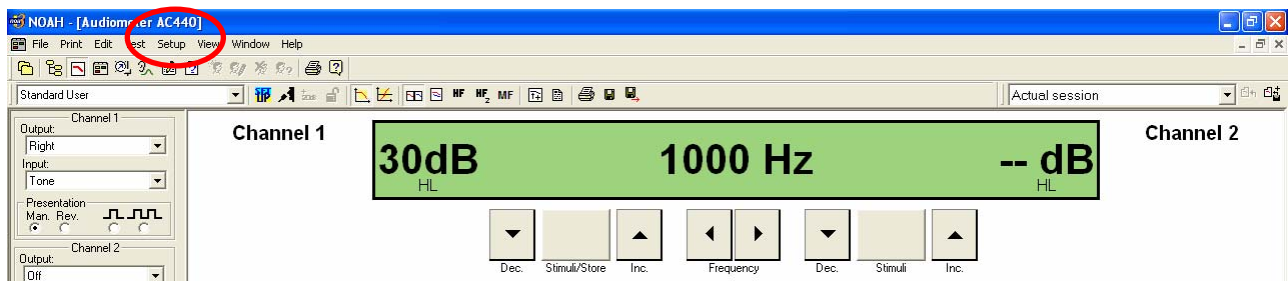
The MHA is addressed towards the patient and adds different filters to the hearing loss also through the headphones. This gives a sense of the benefits of a hearing aid in relation to their daily life and what they have been missing before.

To give an idea of how these counselling tools may be used this paper provides a step-by-step guide describing how to setup the counselling tools and using them in practice.

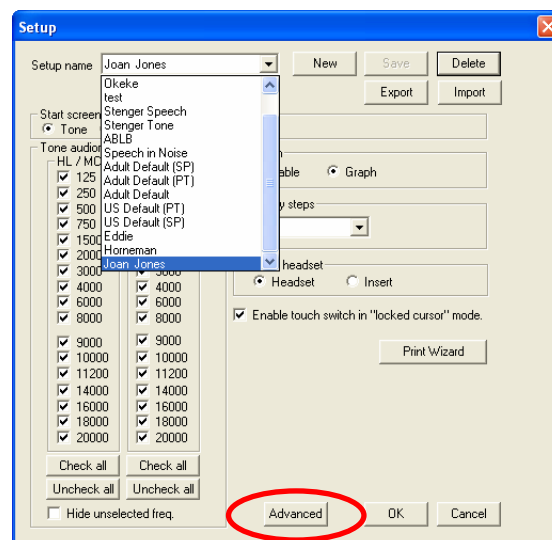
Considerations before you begin

The HLS and MHA can be setup according to the preference of the individual clinician in the AC440 Setup. However it is also possible to use the setup in one of the standard protocols in the AC440 module. If this is preferred please jump to **“Getting started”** on page 3.

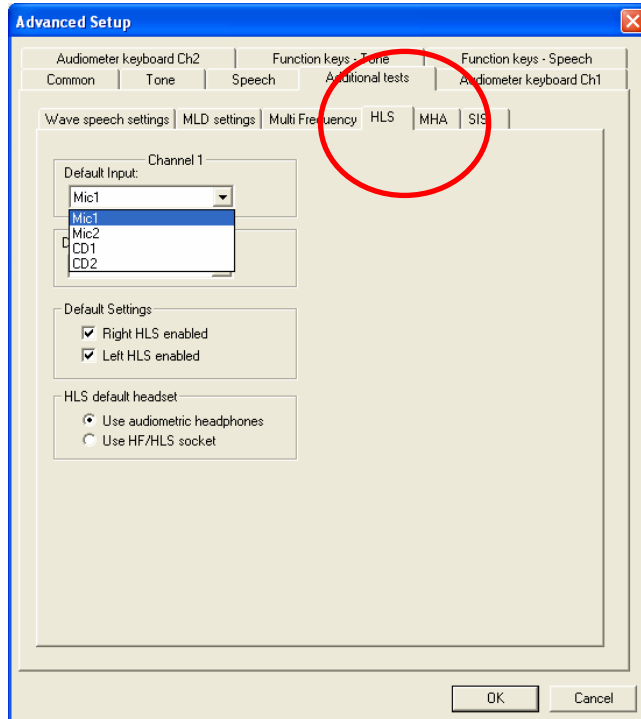
- 1) If wanting to create an individual counselling tool setup enter the AC440 Setup in the top tool bar.



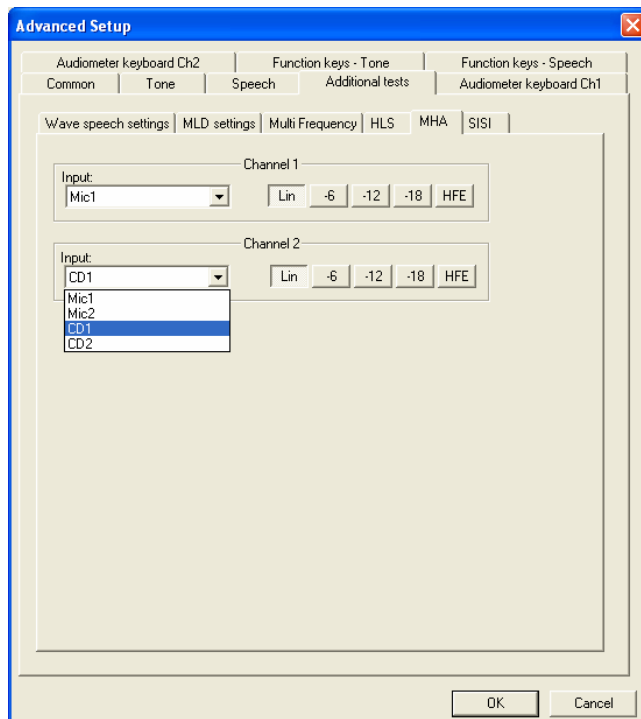
- 2) Select the desired protocol in the dropdown menu or create a new one (See **“Working with Protocols in the AC440 Module”**).



3) Press the "Advanced" button which will prompt the message box below:



4) Choose "Additional tests" followed by the HLS tab. It is now possible to change the input and other default settings. Both HLS and MHA can be used with either live speech through the microphone or a CD player, depending on the preference of the individual clinician. When satisfied click on the MHA tab.



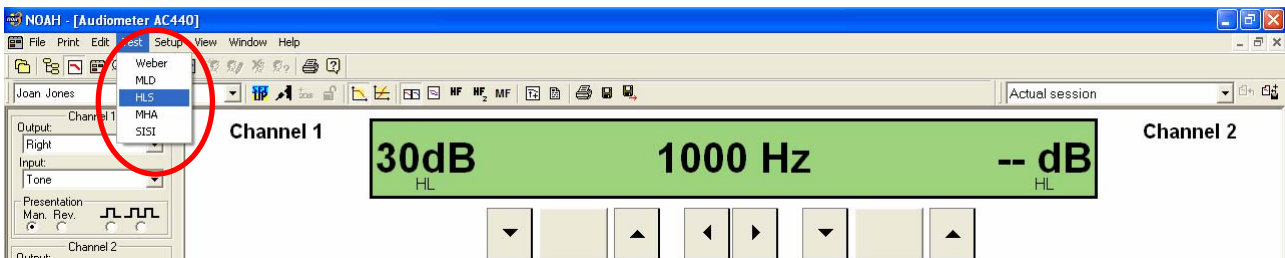
5) Here the default MHA settings can be changed. Choose the preferred input and different default filters. When satisfied click "OK" and save the test.

Getting Started

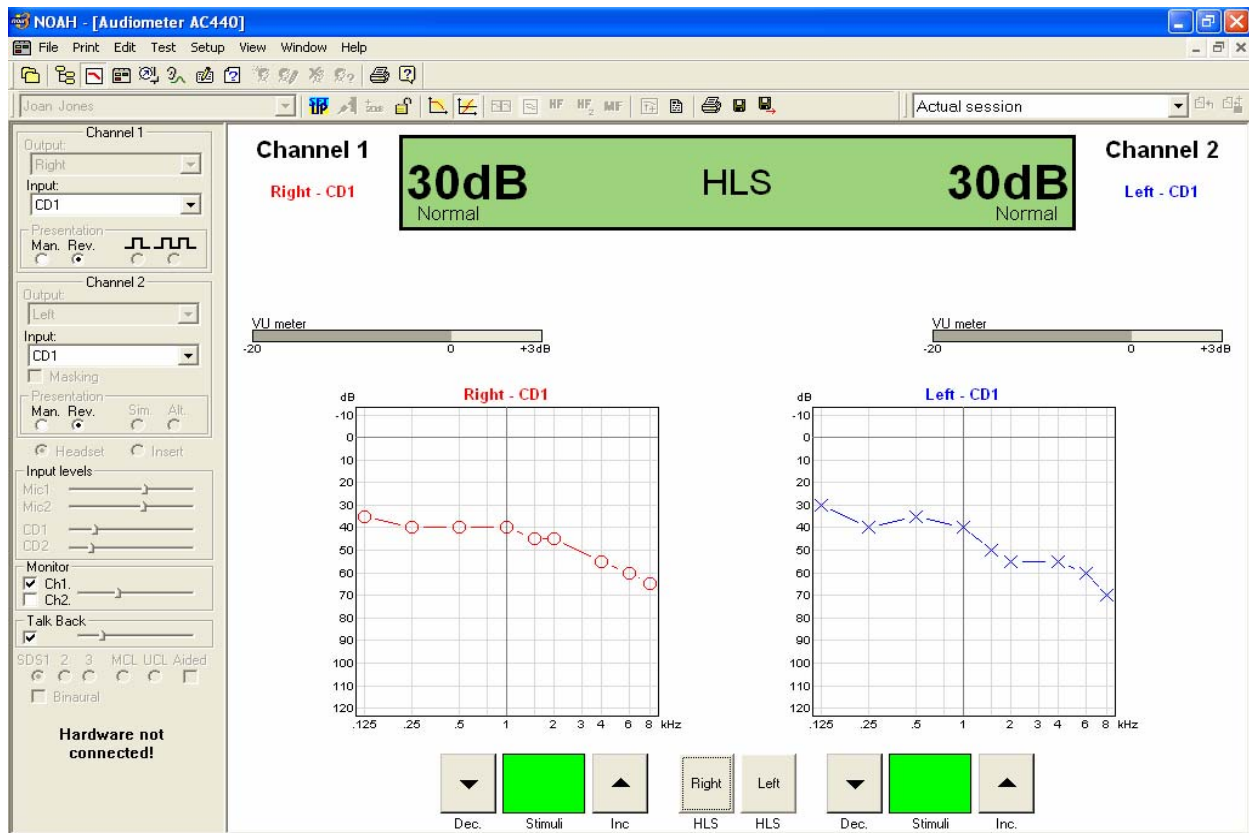
After setting up the counselling tools they are ready to be used in a counselling session. However there are many ways of structuring and managing such a session. This section only attempts to describe one possible procedure.

Hearing Loss Simulation

- 1) Choose the preferred protocol in the dropdown menu as usual and do the audiometry.
- 2) Explain the audiogram to patient and relatives. Use examples of what the hearing impaired may not be able to hear anymore such as some speech sounds and other sounds that are likely to occur in everyday surroundings. Emphasize what this means to both them and their relatives who should know the limitations the given hearing loss results in.
- 3) To make this more clear put the headphones on a relative and enter the HLS. This is done in the top tool bar in the "Test" drop down menu.



- 4) This will prompt the screen below:



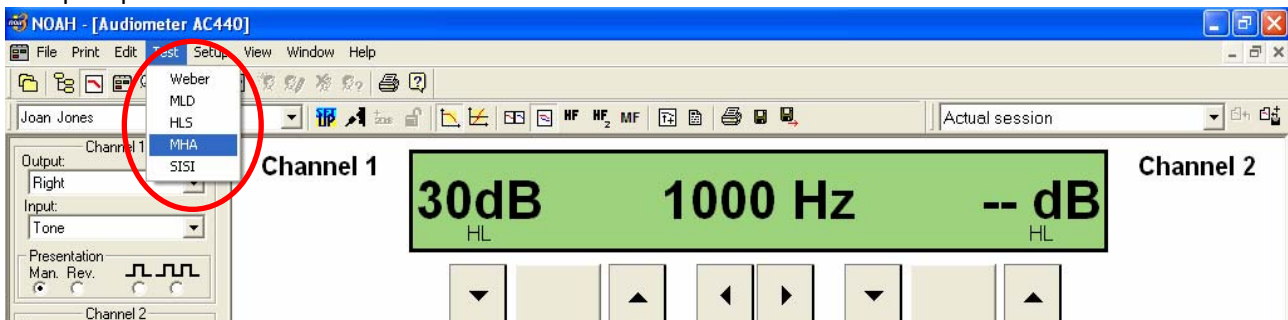
- 5) If microphone was chosen in the Setup it is now possible to start speaking into it. The "Right" and "Left" simulation buttons in the bottom of the screen may be pressed at any time if they were not already set to be default on in the Setup menu. It may, however, not be advisable to start simulating straight away as listening to the input signal with normal hearing for a moment is likely to have a strong effect when having to compare with the simulation.

Explain that this is what the signal sounds like with normal hearing. However in a minute the simulation will begin and they will then be able to hear what the same signal would sound like to their hearing impaired relative.

- 6) Start simulating when ready. During the simulation it is possible to adjust the volume of the signal on the "Increase" and "Decrease" buttons next to each ear (see picture on page 3).

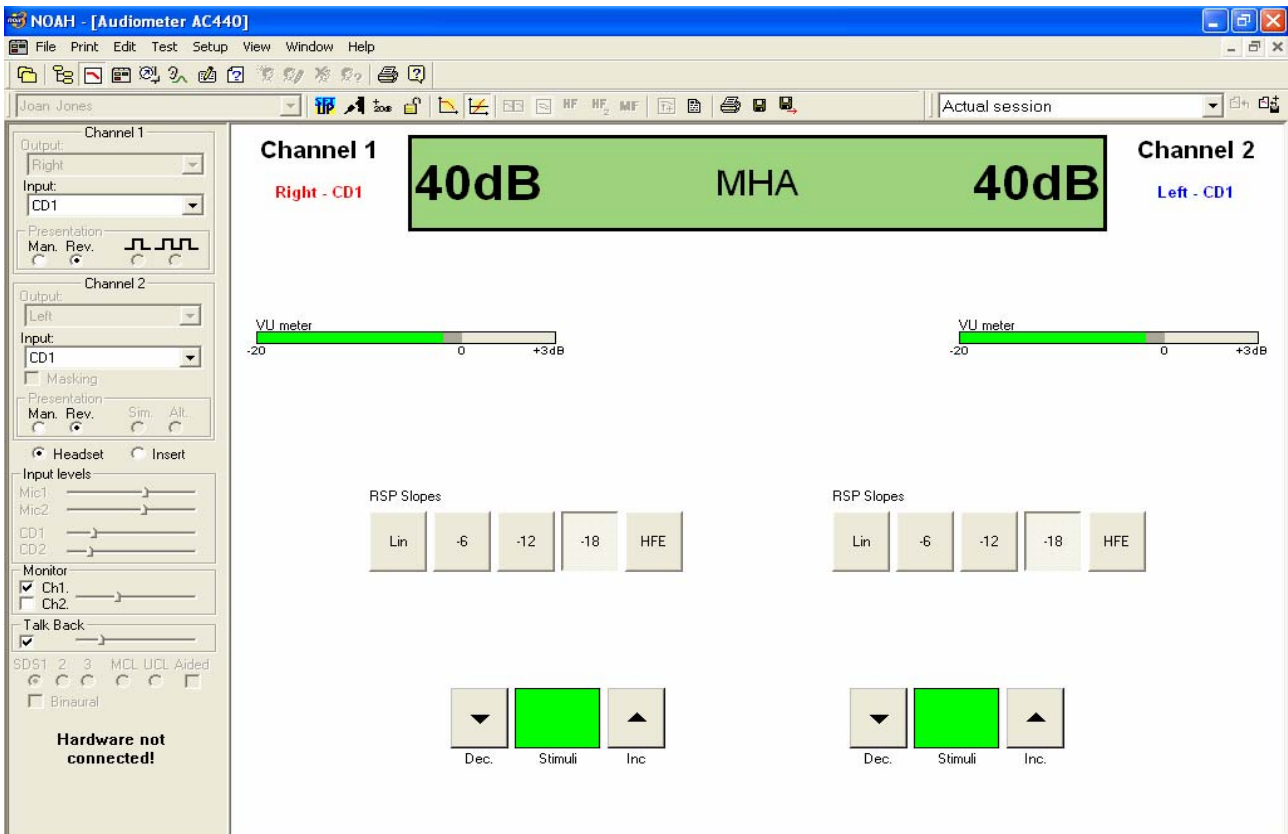
Master Hearing Aid

When finished explaining the audiogram and simulating the hearing loss to the relatives the clinician may want to start discussing a possible hearing aid solution. However there is no guarantee that the patient is positive towards such a solution. He or she might not even have acknowledged their hearing impairment and may therefore not be motivated or prepared for this prospect.



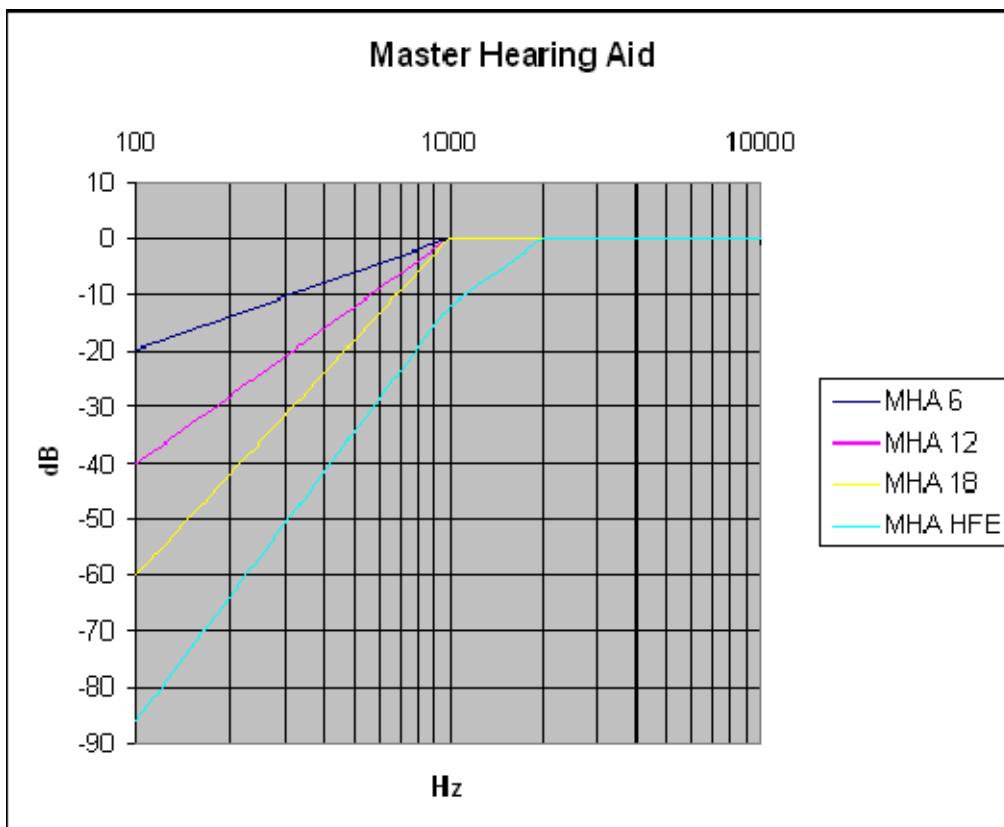
- 7) Enter the MHA the same way as for HLS only this time select MHA.

8) This will prompt the screen below:



- 9) If preferred use the same procedure as for HLS and let the patient listen to the signal with his or her own hearing as it is without manipulating the sound. As mentioned above this may be powerful for comparison purposes. Explain that they are now listening to the CD (or the voice of the clinician) with their own natural hearing. In a minute, though, the sound will be changed trying to give them an impression of what it could sound like if they acquired hearing aids. It may, however, be necessary to point out that a hearing aid will sound even better than what they are about to hear which is an approximation. A hearing aid will be fitted more accurate based on the individual hearing loss. The MHA is meant to give them an idea of how the amplification can provide them much more audibility and thereby improve their quality of life significantly.

The different MHA filters are shown below:



- 10) After completing the counselling with HLS and MHA continue by re-entering the audiogram screen (by clicking on the "Tone Audiogram" button) discussing the specific hearing loss and possible solution.

