Audiological Bulletin no. 11

Changing the feature settings in
Inteo fittings using Compass V4

News from Audiological Research and Communication

WIDEX®
high definition hearing

This bulletin describes the features you can change and how to do it using Compass V4. The descriptions refer to the feature setting options in the Fine tuning window in the Sound Explorer section. The feature setting may be changed for the microphone mode, the speech and noise mode and the feedback cancelling mode. Please refer to Compass in order to see the details of the screen. Remember that Compass offers several help functions to explain the different options in the program: Tooltips, Using this window panels and the help manual.

The feature settings may be changed individually for each of the listening programs in Inteo. Such changes are easily made in the Feature settings panel in Sound Explorer in Compass. In this panel you may change the mode in which the microphone works, the mode in which speech and noise is handled in the hearing aid and the mode in which acoustic feedback is handled in the hearing aid.
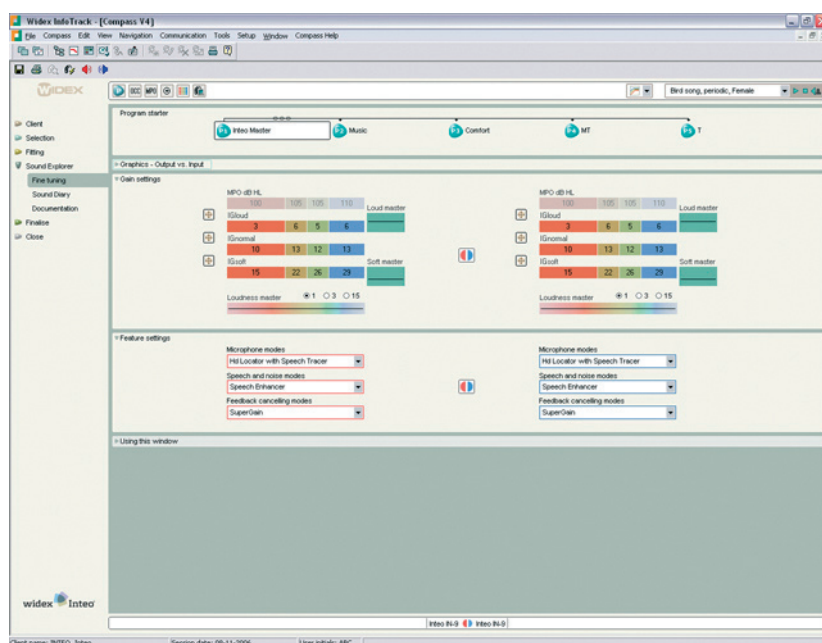
Microphone mode

The Microphone mode can be set to one of four settings: The default setting in the Master program is **Hd Locator with Speech Tracer**. The High definition Locator is a 15-channel fully adaptive directional microphone system that exploits frequency-specific information about the listening environment to improve the signal-to-noise ratio. The Speech Tracer ensures full audibility of single speakers in relatively quiet rooms, regardless of the intensity level and the azimuth of the speaker. You have the option to select **Hd Locator without Speech Tracer** if your client prefers all sounds from the side and back to be dampened. This might be appropriate in situations where you client has previous experience with traditional adaptive directional microphone systems. The last two options are **Hd Locator dir** (fixed directional characteristic) and **Hd Locator omni** (fixed omnidirectional characteristic). We recommend that these two modes are primarily used for demonstration purposes.

Speech and noise mode

The Speech and noise mode can be set to one of six settings. The default setting in the Master program is **Speech Enhancer**. This is a signal-processing scheme that utilises information about the individual hearing loss along with current information on the spectrum of the speaker and the noise source to optimise intelligibility according to the Speech Intelligibility Index (SII). You can also select a classic Widex noise reduction scheme, **Noise reduction,** in the drop-down list. This would be an option for clients who have previous successful experience with Widex hearing aids and our classic approach to noise reduction. These two settings are supplemented by a less and a more active version, **Noise reduction minimal** and **Noise reduction enhanced**, and a version with special focus on listening comfort in all types and degrees of background noise, **Noise reduction comfort**. Finally you can choose to deactivate the Speech and noise mode altogether using the setting **Off**.

Feedback cancelling modes

The Inteo Multi-directional active feedback cancelling feature integrates knowledge of the acoustic properties of the hearing aid in the ear with directional sensitivity for each of Inteo's 15 frequency channels. Its mode of operation can be set to one of four settings. The default setting of the Feedback cancelling mode in the Master program is **SuperGain**, meaning that the hearing aid gives as much gain as possible without the risk of whistling. You can use the drop-down list to change the setting to **SuperGain music**, especially designed for listening to music, or to **SuperGain max**, designed to give as much gain as possible, even if you risk that the hearing aid occasionally whistles. You also have the option to turn the feedback cancelling system **off** altogether, in which case an extra adjustment parameter will appear. This parameter allows you to adjust the static max gain limit across frequencies in case of whistling. Deactivating the Multi-directional feedback cancelling feature is only recommended in fittings with considerable headroom in the maximum available gain without feedback. Otherwise recurring acoustic feedback may be a considerable problem for your client.