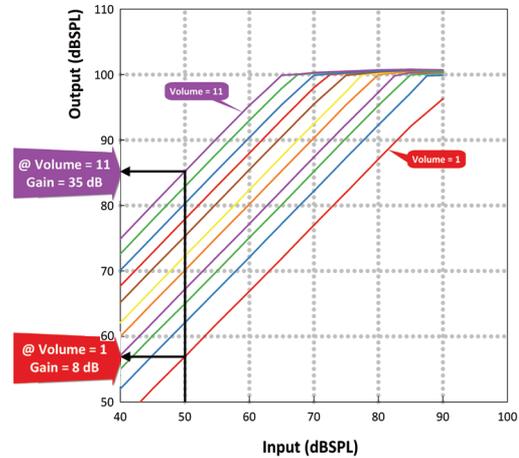


Volume

Function: Gain adjustment

Purpose: Audibility for soft/average sounds

- Lyric3 provides linear amplification with output compression limiting
- Adjusting the volume changes gain, but does not change the compression ratio
- Greater hearing losses will require higher volume settings in order to maintain audibility



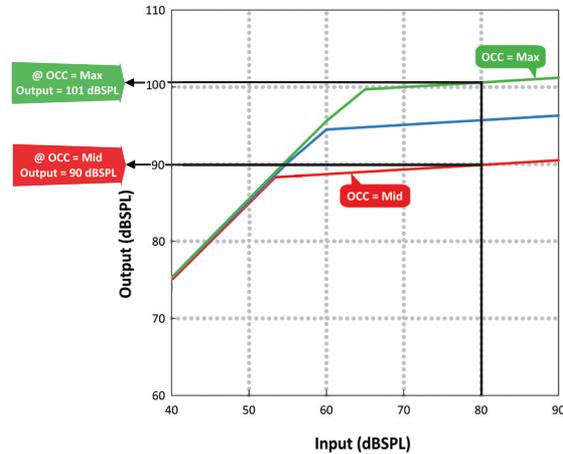
Measured in 0.4cc coupler with a 2000 Hz pure tone input.
Lyric3 settings: OCC = Max, LFC = 200 Hz, SC = Off

Output Compression Control (OCC)

Function: Adjust maximum output

Purpose: Provide headroom for average/loud sounds

- Adjusting OCC changes the maximum output and does not change the compression ratio
- OCC setting will not affect gain for soft sounds, but rather affect the output for loud sounds and some average sounds at high volume settings
- Greater hearing losses will require higher OCC in order to utilize the upper end of the residual dynamic range



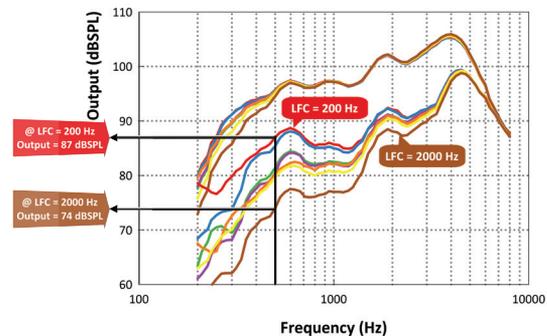
Measured in 0.4cc coupler with a 2000 Hz pure tone input.
Lyric3 settings: Volume = 11, LFC = 200 Hz, SC = Off

Low Frequency Cut (LFC)

Function: Decrease gain for soft and average sounds below the specified cut-off frequency

Purpose: Address complaints associated with amplification of softer, low frequency sounds

- LFC affects soft and average low frequency sounds only
- As you increase LFC (move towards 2000 Hz) the gain for soft and average sounds below the cut-off frequency decrease relative to the gain for loud sounds



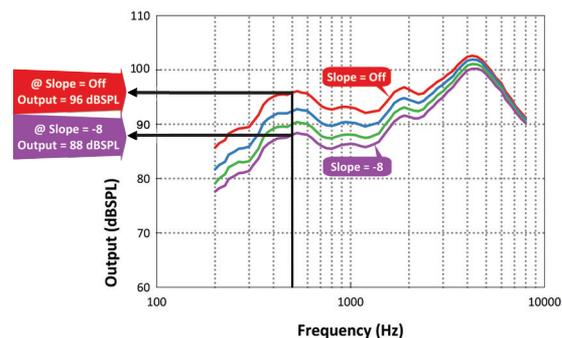
Measured in 0.4cc coupler with a 65 dB SPL speech input.
Lyric3 settings: Volume = 11, OCC = Max, SC = Off

Slope Control (SC)

Function: Decrease gain for soft, average and loud low frequency sounds

Purpose: Address complaints associated with low frequency amplification

- SC is the only parameter that will allow adjustment of loud low frequency sounds, like own voice, loud restaurants and traffic noise
- If SC is moved away from OFF, you may need to also increase the volume to help compensate for the decrease in mid and high frequency gain
- More steeply sloping hearing losses will require higher SC settings to avoid over-amplifying low frequency sounds



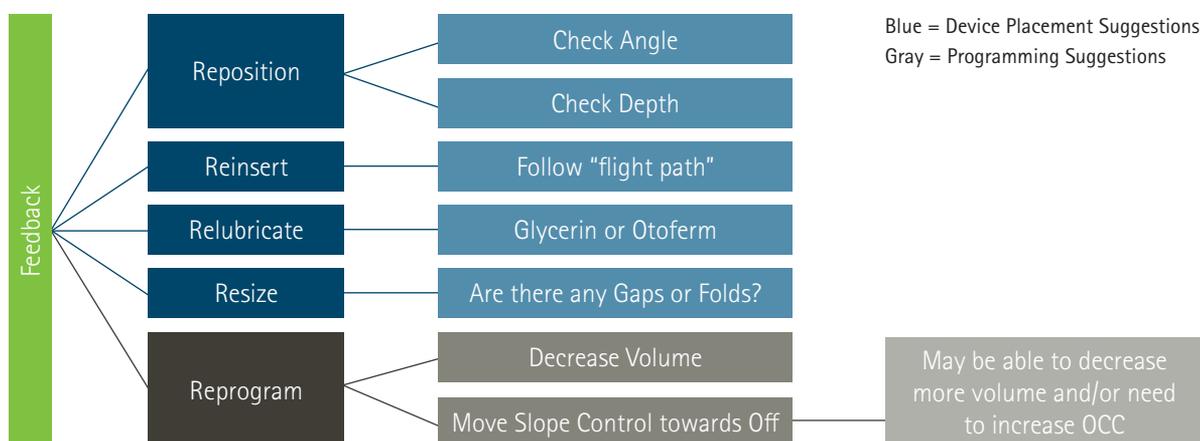
Measured in 0.4cc coupler with a 65 dB SPL speech input.
Lyric3 settings: Volume = 11, OCC = Max, LFC = 200 Hz

Complaint

Troubleshooting Steps

Feedback

- 1 Rule out physical placement/size (see flow chart below).
- 2 Decrease high frequencies. Move **[Slope control]** toward 'Off' and decrease **[Volume]**. This will decrease the high frequencies (more than mid and low frequencies) for soft sounds (more than average and loud sounds). If more gain is needed for average and loud sounds, increase **[Output Compression Control]** toward 'Max'.



Occlusion/ own voice

- 1 Rule out physical placement/size. Did you reach the maximum insertion depth? If not, is it possible to achieve a deeper insertion by moving device in or decreasing device size? Is there a complete medial seal? If not, is it possible to change device size to achieve a complete seal?
- 2 Increase **[Output Compression Control]** towards 'Max' to keep the device more linear for average and loud sounds.
- 3 Lower **[Low Frequency Cut]** towards '200 Hz' or **[Slope Control]** towards 'Off' to help with insertion loss.
- 4 Move **[Slope Control]** towards '-8dB' in one step increments for own voice to help with over amplification.

Background noise

- 1 Move **[Slope Control]** toward '-8dB' in one step increments to decrease the gain for loud low frequency sounds.
- 2 Increase **[Output Compression Control]** towards 'Max' to keep the device linear longer.
- 3 Increase **[Low Frequency Cut]** towards '2000 Hz' to decrease gain for soft and average low frequency sounds.
- 4 Add more high frequency gain for clarity by moving **[Slope Control]** towards '-8dB' and simultaneously increase the **[Volume]**.

Lack of sharpness or dull sounding

- 1 Increase **[Volume]**.
- 2 Increase high frequency gain. Move **[Slope Control]** towards '-8dB' and simultaneously increase **[Volume]**.
- 3 Increase **[Output Compression Control]** towards 'Max'.

Too sharp

- 1 Decrease **[Volume]**.
- 2 Decrease high frequency gain. Move **[Slope Control]** towards 'Off' and simultaneously decrease **[Volume]**. This will decrease the high frequencies (more than mid and low frequencies) for soft sounds (more than average and loud sounds). If more gain is needed for average and loud sounds, increase **[Output Compression Control]** towards 'Max'.