## MoreSound Optimizer™



**MoreSound Optimizer** (MSO) is an extremely fast feedback system that detects and prevents feedback proactively, before it occurs, enabling optimal gain all day without compromising sound quality or audibility.

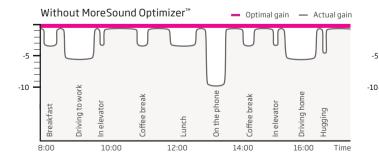
## Optimal gain all day without feedback

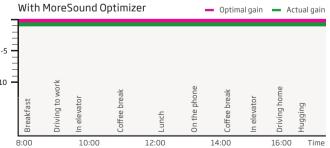
Life is dynamic. Everyday situations occur throughout the day: wearing a hat, hugging, eating, talking, holding a phone to the ear. When these things happen, conventional feedback systems in hearing aids are challenged and react by turning down the gain. This creates an under-fitted hearing aid for the patient during a significant part of the day, and results in a poorer neural code delivered to the brain.

MSO works together with Feedback shield to counteract acoustic feedback from the receiver to the microphone to prevent audible feedback. MSO uses a patented modulated breaker-signal technology, Spectro-Temporal Modulation. As soon as the open loop gain exceeds 0 dB, MSO introduces a spectro-temporal modulation signal to break the feedback path, which prevents audible feedback. MSO can handle a positive loop gain of +6 dB, which prevents gain reductions due to normal, dynamic movements around the head and neck.

Powered by the Polaris<sup>™</sup> platform, MSO protects sound quality by using ultra-fast signal processing:

- Predicts acoustic response by performing measurements in 28 independent channels
- Counters detected acoustic changes immediately using targeted breaker signals in one or more frequency channels
- Stops breaker signal as soon as the acoustic response is stabilized







# MoreSound Optimizer™



#### Works with Feedback shield to avoid false detections

MSO and Feedback shield combine the strengths of rapid, proactive feedback elimination with a stable, adaptive system to avoid false detections and activation of Feedback shield's gain control. If the feedback risk persists, the continued modulation ensures that Feedback shield can adapt and stabilize. As Feedback shield engages, MSO's modulation is gradually tapered off. Combined, these two technologies allow you to add more gain to reach the target, giving you greater flexibility in the fitting process.

## Upgrade from OpenSound Optimizer™

MSO technology is an upgrade of OpenSound Optimizer. It adds a Low setting to improve sound quality for patients who occasionally hear the modulated breaker signal, which is triggered by certain voices, and also for some patients, such as musicians. MSO represents a breakthrough in accessing speech details with more natural sound, increased comfort and improved speech understanding – even in the most challenging listening environments.

## **Key takeaways**

- Controls feedback before it occurs
- Provides optimal gain all day
- Enhances speech understanding, even in challenging listening environments
- Allows for greater flexibility in the fitting process



