

GENELEC®

# CASE STUDY

**Creating emotions**

GENELEC POWERS MORTEN  
LINDBERG'S NEWLY UPGRADED  
IMMERSIVE FACILITY





**GENELEC'S** 'THE ONES' POINT SOURCE MONITORS DELIVER AMAZING IMAGING TO GRAMMY-WINNING IMMERSIVE AUDIO PIONEER

In the world of immersive music recording, no-one has done more than Norwegian sound engineer and music producer Morten Lindberg to set the gold standard for what can be achieved in this field. Having embarked on his recording career back in 1992 through his production company Lindberg Lyd, Lindberg set up the [2L record label](#) to specialise in high quality recordings featuring Norwegian composers

and performers and an international repertoire. To raise the bar of sonic excellence even further, Lindberg has recently upgraded the monitoring system in his post production studio, deploying Genelec smart active monitors and woofer systems in a 7.1.4 configuration.

Having developed a childhood passion for both electronics and music, the teenaged

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Lindberg encountered an elderly violinist who showed him two microphones and an open reel recorder, thus sparking his interest in recording art. Having spent two years at an audio school learning the fundamental techniques of his craft, Lindberg was already focussing on acoustic music and obtaining a lower noise floor and better resolution in his recordings.

As his career developed and the 2L record label gained much-deserved global attention, Lindberg received a staggering (and record-breaking) 28 Grammy nominations, finally picking up a Grammy award in 2020 for Best Immersive Audio Album with LUX.

Lindberg explains that “Once you’ve experienced immersive audio, then coming back to stereo is really difficult. When I started doing recordings back in the early 90s, stereo

was our perspective to work with, it was what we had. Then came surround sound in the early 2000s, and that opened up a whole new wide image to music reproduction. When we started to experiment with immersive audio, what we expected to gain with adding the height dimension was to simply increase the level of detail and resolution. How much space would be available to the instruments and to the musical lines, the size of the canvas available to the chords, and so on. But, that was not what we got. What we got was an emotional component. By adding the third dimension of the soundscape, the emotional impact to the listener was increased tenfold.”

Lindberg’s newly upgraded post production facility is designed specifically for the editing, mixing and mastering of immersive audio. Compatible with both Dolby Atmos and Auro-3D, the monitoring system is largely based on

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models from ‘The Ones’ series, starting with seven 8351B coaxial three-way monitors in the bed layer, all complemented by W371A adaptive woofer systems. The height positions are handled by four of the lighter, more compact 8341A models, with a 7380A subwoofer handling the LFE. Additionally, an 8320A compact two-way nearfield monitor sits atop the 7380A, to provide an upwards frequency extension above 120 Hz. This acts as a checkpoint into the true content of the LFE channel before it is distributed.

“This is my first new control room, designed after we started working with immersive audio ten years ago. The shape and design of the room is slightly different from the considerations you make for traditional stereo work, and as a listener your place is in the centre. You not only have the symmetry left to right, but you also have to consider

your ‘front to back’, and ‘floor to ceiling’ in quite a different way from what we’re used to,” says Lindberg.

“I found that the coaxial design of The Ones gives amazing imaging not only in surround, but it actually adds to the full surround and extends to the height dimension, preserving that precise detail of our source,” he continues. “All The Ones models that we used have full bandwidth capabilities on their own, so the intention with the W371A was really to reach down into that tactile, haptic aspect of sound, to reach down into the part of the sound experience which transitions from audio into the vibration range. Our whole body is actually a very sophisticated sensory system and the body’s experience of music is much broader than our traditional definition of audio. There are different directivity modes you can use on the W371A woofer which might help out



if you're in a smaller or compromised room - but in a room like this, which is spacious and has an overall good sound quality - I found that the basic complementary mode of the W371A sounds to me the most open and natural extension into the tactile area, where it kind of moves your belly."

Lindberg uses Genelec GLM loudspeaker manager software to connect, calibrate and control the monitoring system. "By measuring out our listening positions and our workspace we can do some pretty clever optimising of the speakers to this particular room," he comments. "What I found most useful about GLM is how 'elastic' it is in terms of how many speakers we can connect to the network,

and how they are placed and configured. Additionally, GLM can also act as a monitor controller, giving you access to all the speakers."

But while experience, expertise and the finest technology are obviously essential components in Lindberg's impressive recording toolbox, it's also clear that he has never lost sight of his real mission in music.

"A perfect recording for us, is if we can make you cry...or laugh. It's about emotions."



## THE KIT:

- 7 x 8351B
- 7 x W371A
- 4 x 8341A
- 1 x 7380A
- 1 x 8320A
- 1 x GLM Software