# THE FIRST WORD IN DEPTH

A personal report on the world premiere of the Velodyne SPL-X12





t was a recording I had almost forgotten – not because it lacked meaning, but because it never appeared in any discography. No ISRC code, no barcode, no track divisions. Just an unmarked tape, handed to me years ago by Tatsuo Nishimura, then head of Denon Germany: Boris Blacher's Paganini Variations, performed by the Frankfurt Radio Symphony Orchestra – raw, direct, unedited.

No polished production, no sonic cosmetics. Instead: a cough from the second row, the squeak of a music stand, the soft crack of a cello bow on the downstroke. And above it all, that space – this vast, breathing, resonant space of the Alte Oper in Frankfurt, which didn't just carry the orchestra, but supported every gesture—sometimes subtle, sometimes dramatic, always present.

Anyone who knows this recording and then switches to the official CD version will notice it instantly: things have been smoothed out. Cut. Distilled from multiple takes and polished to a gleam. And with every one of these little corrections, something is lost: the immediacy, the spatial memory of the sound, the human element.

And that's where the real story begins – not about music in the traditional sense, but about how it exists in space. About its physical presence. Its body language. The kind that only fully comes to life when a subwoofer doesn't just go deep – but listens. When it doesn't thunder, but breathes along with the performance.

I've been listening to that old recording again and again in recent weeks, not over a neutral studio chain, but through a setup that truly gets under your skin. At its center: the new Velodyne SPL. A subwoofer that doesn't demand attention – but gives the room its voice back.

Because what is a concert hall without its

air column? Without the subtle motion of low frequencies you don't so much hear as feel? Without that soft rumble left by a horn on the parquet floor, or the foundation that allows a string section to glide forward as if on velvet soles?

That's exactly what the Velodyne SPL does. It builds space – not bombastically, but believably. It reconstructs depth where emotional information has been embedded – not just pressure levels. In recordings like this one, where every bit of uncertainty and asymmetry invites you to reconnect with the humanity of sound, you start to realize what modern subwoofer technology can achieve – when it's treated as an extension of interpretation through technical means.

And once again, it became clear to me: Sometimes, it's the pieces where you least expect to need a subwoofer that reveal just how indispensable it can be. Not in explosions — but in the consistency of space, in the silence between two bow strokes, in the memory of a real place.

# What you were missing – without even knowing it

This isn't a conventional product test. It's a personal record – shaped by experience, questions, insight, and the desire to hear more than just sound.

Years ago, I chose the Canton Vento Reference 1 – a speaker of honest stature, one that doesn't treat low frequencies as a special effect, but as part of its identity. If you own something like that, you don't ask what a subwoofer can fix. You ask what's possible. It's no longer about volume, but about credibility. About those sonic shades that give a double bass its spine, a room its depth, and a recording its backbone.

This is the domain where subwoofers enter

the world of refinement. Not essential—but when properly integrated, a finely tuned enhancement. A subwoofer that doesn't intrude but elevates belongs in the same league as a jazz drummer with brushes: nearly invisible, but absolutely essential.

But I also listen in a different context – two small Dynaudio bookshelf speakers, in another room, in another chapter of life. There, it's not about icing on the cake. It's about the foundation. The element that even allows sound to rise and hold its shape. That's the essential part. Without a subwoofer, no balance. Without a foundation, no architecture.

Between these two poles – the act of refinement and the need for grounding– lies my standard for what a subwoofer should be. Home theater? A chapter I've read but never finished. The effect can impress, yes. But what I'm after is what lasts. What resonates. What remains.

So, if you came here expecting a story about thunder, consider yourself warned: this is a story about the quiet echo, the sense of space, and the subtle addition of truth.

Intelligence at the Push of a Button – or: How the SPL Knows You Better Than You Know Yourself.

I'll admit it: in the first few days, I just let the SPL run. No app. No calibration. Just the gain and crossover knobs on the back, adjusted by ear. And you know what? It worked. Pretty well, actually. The SPL is designed to operate in this kind of "analog emergency mode," and the essential controls –crossover point, phase, volume – are all directly accessible. It's a pragmatic solution, maybe for purists or the impatient. But it doesn't unlock the full potential of the subwoofer. Only with the app – available for iOS and Android – does the SPL truly come to life. And I mean that literally. Because no matter

how much you appreciate build quality or amplifier power, there's one step that matters above all: room calibration. Without it, the subwoofer remains a force – but an uncertain one. With it, it becomes a tailored acoustic solution. A custom fit for your room. And once that's done, you don't just hear better bass. You hear the room breathe differently..

# What doesn't fit – gets fine-tuned

The procedure is as simple as it is essential: Plug the included wired microphone into the back of the SPL. Press the Auto-EQ button on the unit—or tap "Scan" in the app – and the first measurement begins. Place the mic about one meter in front of the subwoofer. The sound it makes? Let's call it... functional. Not exactly pretty – but absolutely necessary. Next, move the mic to your usual listening position. Important: aim it slightly toward the SPL – not at the ceiling. Then press Auto-EQ again, this time a bit longer – or hit "Start" in the app. That's it.

A word of advice from experience: warn the people you live with. When the SPL runs through its test tones, the result can sound like a low-flying NATO exercise or a minor earthquake. For a few seconds, your living room turns into a laboratory. But the result is worth it: the SPL adapts to the room not the other way around. Peaks are tamed, dips are smoothed, and the overall frequency response becomes more linear. The soundstage feels calmer, more organized, more stable. And most importantly: more natural. What stood out especially was how well thought-out the manual EQ is. The app gives you detailed control over six frequency bands - but not without limits. Boosting is capped at +6 dB, while cuts are more generously allowed. A smart safeguard, preventing enthusiastic users from overloading the amplifier where the room already reinforces low frequencies. Velodyne isn't being paternalistic – it's being prudent.

In short: yes, the SPL will play without the app. But with the app, it breathes. Room calibration isn't a bonus feature – it's the gateway to what this subwoofer truly offers. It doesn't just fit into the room – it becomes part of it. And in the world of bass, that's far more than a convenience. It's your ticket to an acoustic reality where the room is no longer the enemy – but the ally.

## The best part? It's what's inside

When you listen to the SPL-X, you're not just hearing a subwoofer. You're hearing a piece of engineering – and you feel that this sound doesn't happen by accident. Behind the experience lies a wealth of thoughtful design decisions that don't push themselves into focus, but unfold their effect the moment they're needed.

Let's begin with the exterior, which is far more than packaging. The SPL-X series is built on a fully sealed enclosure made from 38 mm high-density fiberboard – a material widely used in the high-end world for its exceptional density and structural integrity. This cabinet eliminates resonances from the start. Try lifting the subwoofer – or even just tilting it – and you'll feel it instantly: this is mass with intent. And sound with substance. You might say the cabinet functions like the stonework of a concert hall – making sure the music stays in the room instead of leaking through the walls.

Inside, a driver handles the heavy lifting. It features a carbon fiber cone, a 4-inch voice coil (in the SPL-X12 and larger models), triple rear venting, and a dual-spider suspension system. Technical? Absolutely. But in practice, it means maximum control and minimal

distortion - even at the lowest frequencies. The extreme linear excursion of 38 mm ensures that even under full load, there's no smearing, no boom, no exaggeration. Imagine a precision engine running at redline - steady, calm, effortlessly balanced. That's how the SPL-X handles deep impulses. At its core lies a highly efficient Class D amplifier delivering up to 2,500 watts of peak power. It stays cool, clear, and distortion-free even under sustained load, and always holds something in reserve for complex movie scenes or cathedral organ notes. Anti-clipping circuitry and temperature monitoring protect the electronics - not just at the edge, but in everyday use.

Everyone talks about DSP - the digital signal processor. Few really understand what it does. It sounds like NASA tech or medical imaging. But the principle is simple: a DSP is a high-speed, specialized microprocessor that analyzes and adjusts sound in real time. Not randomly - but with intention, subtlety, and speed. It measures what's happening in the room, compares it to the ideal, and applies corrections. Instantly. Transparently. Think of it as an acoustic tailor. The room is the body - with corners, angles, and reflections. The DSP is the tailor that fits each bass impulse with a perfectly tailored suit. Too much belly? Trimmed. A frequency hump in the back corner? Smoothed out. And all this happens without the subwoofer ever needing to show off.

Velodyne was among the first manufacturers to integrate this technology into subwoofers – and with the new SPL-X series, they've gone a step further. The entire DSP system is now controlled via app, offering automatic calibration and manual fine-tuning. Delay, gain, crossover frequency, filter slope – all adjustable. Intuitive. Precise. Right from your listening chair.

For high-end enthusiasts, it's a powerful tool. For everyone else, it's a reassuring promise:



**Engineering that doesn't hide—just convinces.** This is how the SPL-X12 presents itself when it reveals its core: clean, controlled, uncompromising. The front view without the grille showcases the massive driver system—pure power, but without aggression. Every detail serves a function, yet nothing is without purpose or presence.

even without golden ears, the SPL-X can be perfectly tuned to any room – because the DSP quietly takes care of what once required an experienced studio technician.

Whether RCA, XLR, or high-level inputs – the SPL-X is ready for any setup. Even complex multi-subwoofer systems are easy to integrate, thanks to passthrough outputs (including a switchable high-pass filter) and trigger control. A small but smart detail: the optional WiConnect II wireless system draws power directly from the subwoofer – no extra wall wart required.

And for all its power and precision – what matters most is the sonic character. The SPL-X doesn't demand attention. It can go deep – of course. But it can also go quiet. Subtle. Most of all, it integrates so completely into the soundstage that you stop hearing it as a separate source. It simply becomes part of the music.

### **Balancing Stage and Bass**

This level of integration is made possible by steep-slope low-pass filters adjustable up to 48 dB per octave – the acoustic equivalent of a perfectly drawn dividing line that precisely defines where the subwoofer's responsibility begins and ends. It's further refined by a delay function of up to 500 milliseconds, allowing the SPL-X to be timed so precisely with the main speakers that the entire image feels seamlessly unified – cut from the same cloth, so to speak.

Looking for a fitting analogy? Picture an orchestra where a second double bassist steps in. He doesn't just play "more bass" – he listens carefully, places his notes exactly where the foundation needs reinforcement, and otherwise stays in the background. No rupture, no boom, no "here comes the subwoofer" moment – just a continuation of the musical breath. That's what the SPL-X does. And that's what sets it apart from so many

of its kind. Initial takeaway: technology that doesn't feel like technology.

What defines the SPL-X isn't any single feature – it's the sum of well-considered elements that, in use, feel almost effortless. The subwoofer becomes a tool of spatial design. Not a showpiece, but a sonic foundation. Or, as a colleague recently put it: "The best part is, you forget it's there – until you turn it off."

That's a good moment to shift our attention to recordings that aim to capture presence, space, and authenticity – like the productions from Stockfisch Records, realized by Günter Pauler in his legendary monastery basement in Northeim.

Admittedly, there's room for debate. To some ears, these recordings come across as a bit too generous in the low end – too warm, too forward, too "fat." I get it..

### **Between Recording and Reality**

But maybe it's worth shifting perspective. What if the issue isn't in the production, but in the reproduction? What if that seemingly "too much" bass is actually a lack of definition? This is exactly where the SPL-X12 begins to shine. Because with it, the fullness of the bass isn't bloated – it becomes transparent. Layer by layer, it reveals what other systems only hint at.

It's that subtle, almost invisible transition – the moment when a recording sheds a hint of its limitation. Not entirely, but noticeably. The SPL gives space its depth and music that slight shimmer of live presence that can't be captured any other way.

You're not just hearing deeper. You're hearing further into the sound.

Listening with the SPL – or: The Controlled Indulgence of the Forbidden

Then there are tracks that tempt me to do things I normally wouldn't. Things that go



Intuitive, streamlined, and spatially smart. The AutoEQ app is no toy—it's a precision tool. Cleanly laid out, stable, and purpose-built for landscape orientation. Instead of getting lost in graphic gimmicks, it focuses your attention on what truly matters: control, integration, precision. This is where sound design begins—with clarity.



The base-mounted feet of the SPL-X12 may seem inconspicuous—but they play a vital role in shaping its character. They isolate, stabilize, and absorb vibrations with a level of engineering usually reserved for professional studio gear. It's details like these that separate the good from the truly exceptional.

against every rule of clean integration. With fun, beat-heavy pop - let's say, Yello - I'll sometimes raise the crossover point from 35 to 60 Hz. And the level right along with it. It's like giving a baritone an octave of extra foundation - just because it feels good. One track in particular brings this to life: "The Race". This kaleidoscope of beats, samples, voice clips, and screeching tires thrives on drive, on pressure, on pulse. With the SPL at full throttle, it becomes something like acoustic widescreen cinema – you don't just hear the race, you feel it. In your gut. Every break, every synthetic attack gets a physical body. Subtle? Not exactly. But insanely entertaining.

And that's exactly what every SPL-X12 owner – or anyone with a subwoofer in this league – will do at some point. Maybe often. Maybe only in the beginning. And maybe – eventually – you'll come back down to the ground of sonic reason.

Because that's when the real listening begins. When the crossover returns to 35 Hz. And you start to ask yourself: What are those sounds, really? Where do they come from? Is this still music – or already room information?

What the SPL delivers here isn't just bass – it's presence. Depth that doesn't demand anything. It's simply there. And that's the moment when you realize: This subwoofer isn't about effect. It's about truth.

### When One Is All It Takes

The SPL-X12 is, without question, an exceptional subwoofer – and in many listening situations, the only one that truly convinces. Especially if – like me – you've spent years experimenting with all kinds of subwoofers. Whether as a foundation beneath floorstanding speakers or as support for slim bookshelf monitors – something was always off. The spatial balance would shift, the character of the speakers would blur, and in the end, it

usually took two subs – one left, one right, carefully matched and placed close to the mains – to get anything resembling cohesion. Everything else felt like compromise.

The SPL-X12 changed that. And not by simply adding something – but by expanding the experience. It doesn't sound like a subwoofer – it feels like a missing acoustic dimension has returned. Even at moderate volume, it brings a depth that used to require far more effort and hardware. The musical balance remains intact. The room stays a room. And the music gains body – not more volume, but more truth.

Could two SPL-X12s take that experience even further? Maybe. Maybe another door would open – quietly, somewhere in the back of the room. I don't know. But the idea alone is enough to feel how far this has already come. With just one.

# Drop the Needle – or: When the Room Falls into Place

I wanted to know. Not technically. Musically. And so I put on "The Loneliest Monk" by Victor Wooten – a track that reveals its character within seconds. What happens here in terms of control, precision, and spatial order is more than just deep bass. It's the opposite of boom, the opposite of forced acoustic treatment. Suddenly, the furniture goes quiet, the room falls into place, and the bass lines become springy and free. The SPL-X12 brings structure – not pressure.

Reason enough to dig deeper. So I pulled an old Jeton direct-to-disc LP from the shelf, dusted it off, gave it a clean, and put it on: "Moonlight Serenade" by Ray Brown and Laurindo Almeida. I originally bought that record to track progress – especially because of a passage around the three-minute mark, where Ray Brown bows his bass all the way down to 40 Hz. In the past, that moment could be impressive – but acoustically a bit unruly. The music would resonate – but so

would the furniture. Not this time. No rumble, no sympathetic vibrations from the shoe cabinet. Just Brown. Just wood. Just music. Apparently, one is enough – if it's the right one. ist.

# Final Thoughts – Why a Review Should Be More Than Just a Review

In a time when standalone reviews have become the norm, the format is losing its original meaning. In the past, an in-depth single review was considered a badge of honor – a special recognition for an outstanding component. Today, it feels as though every new release automatically receives one – the bar has shifted. And the direct comparison test, once regarded as the gold standard of specialist journalism, has nearly disappeared.

A product like the Velodyne SPL makes us realize just how much we miss those comparisons. Because this isn't just about spec sheets and features - it's about a result that passes through many hands. The dedication of Mansour Mamaghani, who continues to develop the Velodyne brand with genuine passion, deserves just as much recognition as the technical execution by Thomas Wolff, whose expertise anchors the acoustic reality. Without global structures - yes, even without the much-criticized concept of globalization - a product like the SPL, at this level of quality and price, would hardly be possible. Engineering in the USA, manufacturing in Asia, distribution by passionate professionals in Europe - all of this has to come together. And it does.

A true comparison test, featuring similar concepts and alternatives, would do justice to what has been achieved here. It would show what it really takes for a subwoofer not just to go deeper – but to go deeper emotionally.

Until then, this article may remain a singular case – but one with conviction. And with a clear conclusion: the SPL is more than a subwoofer. It is an instrument of sonic truth – and proof that genuine care in development and distribution is still possible today.