



HARMAN Luxury Update - SEPTEMBER 2022

Customer Loyalty

By David Tovissi

Vice President and General Manager
HARMAN Luxury Audio



A reliable, loyal customer base is crucial to build a business that can withstand headwinds like we have all been facing. It's important for all of us to keep cultivating customer loyalty by giving your customers a reason to keep coming back. We have all heard the old adage that it costs much more to attract a new customer than it does to retain an existing one. Increasing customer loyalty can have one of the largest impacts on a business.

When I first joined HARMAN in February 2019, I spent my first several months interviewing our employees and our customers to determine what the Luxury Audio Business Unit was doing to attract and retain its customers. The feedback that I received helped formulate a plan that has been in progress since the summer of 2019.

Invest in and Prioritize Customer Service

One of the easiest ways to build loyalty with your customers is by servicing their needs when they have a question or a concern. I remember my first leadership meeting and speaking with Brian Wolfe, Vice President of Global Customer Service, about this topic, and he shared that Luxury Audio had a resolute team of Customer Service agents who were very educated and experienced in assisting both dealers and end-users when they needed help. I validated that assertion but also observed that there were some gaps in our coverage and that we were using the same talent to answer questions about when a product would be available for delivery as well as how to trouble shoot an ARCAM AVR. Brian shared how the rest of the Consumer Audio business was overseeing Customer Service and I challenged him to devise a similar solution for Luxury Audio. Earlier this year, Stefan Happe, the Global Customer Service Manager for Luxury Audio added over a dozen more Customer Service agents to the Luxury Audio team and created two levels of call support. The additional headcount allowed for the average time it took to answer and resolve a customer's issue to decrease dramatically, which increased the level of customer satisfaction.

Our products are very innovative and I am pleased to state that our Customer Service methodology has also seen innovation. Customers expect quick solutions to their problems. They want to invest in companies that answer their questions and resolve their issues.

Communicate Regularly and Transparently



During my initial on-boarding I heard from many customers that they did not receive any news or updates about our products except at trade shows like CEDIA. With six brands and over 100 unique SKUS, it's important for Luxury Audio to share how our business is performing and be transparent in our communication. This newsletter is the result of your feedback about keeping you informed. Of course, timely communication was never more important than during the beginning of the pandemic.

Whilst we are seeing some improvement in lead times and many critical parts and components start to see more inventory, we will use this newsletter to update you on our products that you need to deliver and install for your customers.

Earlier this week, I was made aware that our manufacturing partner for our ARCAM and JBL Synthesis AVRs and Processors will be able to produce another 7,000 units in the coming weeks. Which is much better news than what we were anticipating, and we also see relief in our ability to produce ARCAM and JBL Synthesis Class G amplifiers. We are still struggling to procure the needed components to build the high powered JBL SA4 and MA4 amplifiers. That problem does not see any relief until early next year.

Building loyalty with you is our highest priority. If you have any suggestions on how to better earn and retain your loyalty, please share your thoughts with me by sending me an email at david.tovissi@harman.com.

Tech Talk

U.S. Patent Number 10531181: What is it and why is it important?

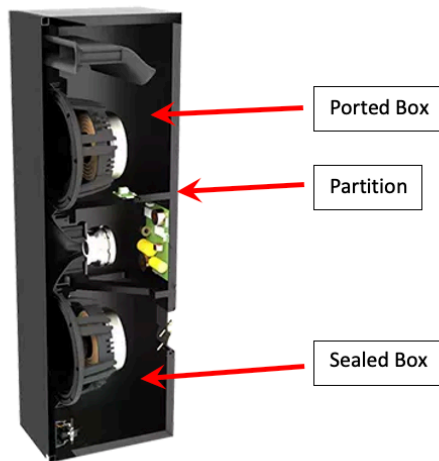
By Chris Hagen
Principal System Engineer

U.S. Patent Number 10531181 is a mouthful, but if you are a Synthesis installer working with the premium models, then you already have heard another name for it. This name is CBAS and it is one of the JBL Synthesis SCL-1's many technological advances. This HARMAN patent can be used with any size driver to produce beneficial outcomes and so the patent is called the Complementary Driver Alignment. But since the SCL-1 employs it for its bass drivers it is called Complementary Bass Alignment System for the SCL-1, or CBAS for short.

The complementary driver alignment originated with a desire to combine two speakers in two different alignments to result in a third, superior alignment. Basically, it was the acoustic engineer saying, "I want the bass extension of a sealed box with the sensitivity or punch of a ported system". The key to the design is in the mating of the two resonant impedance signatures of the combined systems. Although a similar-looking design was used earlier by HARMAN in the JBL Project K2 S9500 system and its "offspring", those systems were designed around two ported systems, one an over-damped alignment and the other with a small amount of ripple. Tuning of those systems is about 10 to 20 percent different from each other, whereas complementary driver alignment would point towards anywhere from a zero to 50 percent difference and can be any type of alignment, depending on the impedance characters of the two systems that are being blended. For example, in the SCL-1, the two systems are



tuned to the same frequency (zero percent change) and one cabinet is sealed and the other ported.

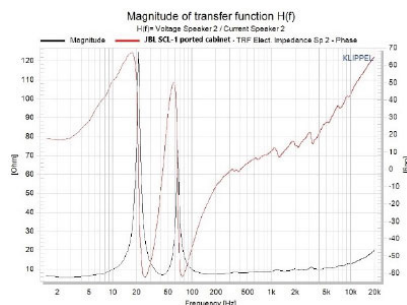
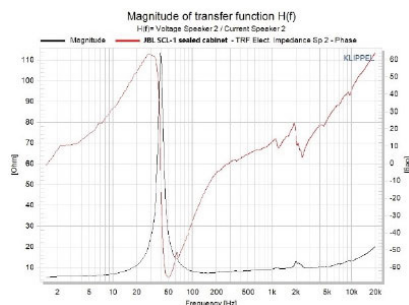
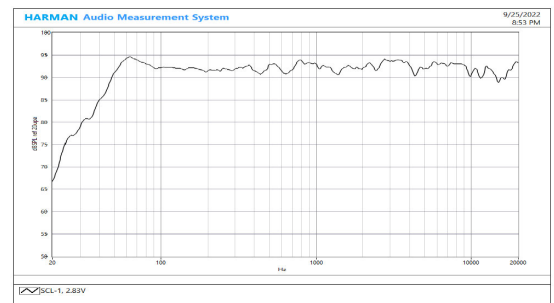


This tuning technique is of interest since virtually all speakers developed have either: (1) a single driver in its cabinet, (2) multiple drivers in one cabinet sharing one alignment, or (3) multiple attached cabinets of the type in (1). So, all drivers share the same alignment one way or another. In these designs, the driver is simply designed so that the number used with the wiring chosen produces an impedance above 4 Ohm.

In the complementary driver alignment system (or CBAS), a peak in one system is aligned to a minimum in the other system(s). Neither the drivers nor the cabinet alignments must be the same. The cabinets will be acoustically separate of unique alignment. This explains why the SCL-1 port is so small – it only ports the upper 12" woofer cabinet. The lower woofer in the SCL-1 is in a sealed cabinet.

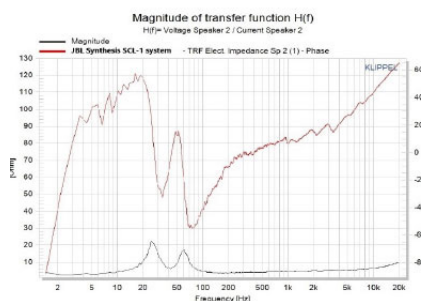
So, what does this patent research do for the SCL-1? First off, it delivers the frequency response goal with an 18 dB per octave low frequency roll-off:

Mark Levinson ML-50
JBL Synthesis SCL-1 axial, 2.83V



The impedance is the black curve, and it ranges from about 8 Ohm to 115 Ohm in the sealed cabinet and to 125 Ohm in the ported cabinet. The red curve represents the impedance phase angle and varies from -65 degrees to +65 degrees for each. Combined in the SCL-1's CBAS design, we can see that the impedance variation reduces massively, ranging

from 4 Ohm to about 25 Ohm, and phase angle is reduced to -55 to +55 degrees, a much easier amplifier load:



Lastly, the SCL-1 benefits from a "smart" power steering phenomenon. Sealed systems can handle their rated power at all frequencies, but ported systems can have issues with excessive power below their tuning frequency. Also, high impedance electrical circuits resist current flow and thus power. In the SCL-1, the CBAS alignment results in the ability for either woofer to push power onto the other, due to the relative impedance of the woofer systems at a given frequency. Looking above at the impedance curves of each cabinet, you can see that the sealed cabinet will do this one time – at the resonance of the ported cabinet – pushing power to the ported cabinet at the frequency that the ported cabinet can handle large quantities of power.

cabinet – pushing power to the ported cabinet at the frequency that the ported cabinet can handle large quantities of power.

The ported cabinet will have an impedance peak above tuning and below it. Above tuning is not so interesting, but below tuning is where the ported system is weakest. This lower impedance peak is at the frequency that easily bottoms a ported system. And at that frequency, the higher impedance of the ported system will push the power to the sealed cabinet, allowing the SCL-1 to handle much more power. Without the sealed system at a lower impedance, the ported system would react like a normal speaker system and potentially bottom out the voice coil. With the sealed system to absorb the power, the overall system can handle much more power.

With the multiple ways that the CBAS alignment helps the SCL-1 – bass extension, minimizing impedance variation, minimizing phase angle, and the steering of power – it is not surprising that it is getting rave reviews in its installs. Many who have heard it at the various installations that use it for the LCR speakers have had only praise for its performance. The systems are said to sound “effortless”, “extremely dynamic”, and “very low distortion”.

When we set up a pair of the SCL-1's with a pair of SSW-1's in Northridge, we found that the system played to 131.8 dB at 15 feet using very demanding signal and then the SCL-1 amplifier clipped, stopping any further level gains.

We do plan to push the JBL Synthesis SCL-1 further, but in the meantime, if you get a chance to hear an install with these speakers featured, you owe it to yourself to experience them!

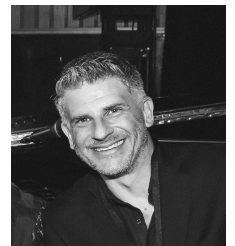


What's New

HARMAN Facility Tour Showcases R&D Excellence

By David Glaubke

Director, Global Corporate
Communications
HARMAN Luxury Audio



At HARMAN Luxury Audio Group we draw our excellence from legacy, science and people.

There is no better place in the world to see how these elements come together to produce unparalleled audio products than at HARMAN's Global Center of Acoustic Excellence in Northridge, California – where some of the finest of audio engineers in the world conduct research and development for future JBL, Revel and Mark Levinson products.

Mark Levinson N05105

In a lead up to our exhibition at CEDIA where the industry will be able to hear many of these latest products, we hosted special guests at the facility which has been at the heart of HARMAN's world-class audio development since Dr. Sidney Harman cut the ribbon nearly 50 years ago.

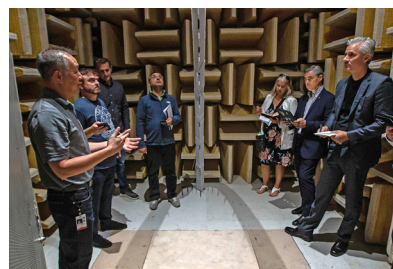
Mark Levinson ML-50

Through lab tours, listening sessions and engineer discussions, our guests were able to see and hear firsthand how HARMAN Luxury's science-based approach to design is derived from a legacy in sound development resulting in proprietary and patented technologies that have powered sound on stages



and in living rooms, recording studios, and cinemas for the past nine decades.

One guest is quoted as saying, “perhaps the biggest takeaway and the greatest impact was the people. The audio industry is a passionate one. And these products are the result of a team’s dedication. We noted the camaraderie and the pride each and every HARMAN employee has in the luxury brand products. That pride is expressed in the performance.”



From the Audio Files

Enjoy the Music Review of Mark Levinson No.5909 Headphones

The praise keeps coming for the Mark Levinson No 5909 Headphones! This month, Keith Howard from EnjoyTheMusic.com gave the headphones a detailed and solid review summing it up with the below quote:

‘The No.5909 is versatile, solidly built, and demonstrates the virtues of a neutral tonal balance.’

See the full review [here](#).



Training Tips

The HARMAN e-Learning Difference

By Dave Chace, Cogent360



For years, HARMAN has been committed to delivering training programs and resources that clearly stand out from other brands in the industry. The e-Learning program is a perfect example of how HARMAN is dedicated to raising the bar when it comes to educating their dealers.

Unlike numerous other online training programs, often comprised of static slides loaded with countless bullet points and product details, or “talking head” videos that ramble on endlessly, HARMAN’s e-Learning is clearly different — providing visually compelling, interactive and enjoyable content that’s easy to comprehend and digest.

The program, developed by Cogent360 — a training and media design firm specializing in the AV industry — is rooted in the science of instructional design; meaning the focus is on presenting information in the most compelling manner, so the learning experience is both engaging and effective. Instead of endless bullet points, HARMAN e-Learning is loaded with graphics, animation, interactive elements, and professional narration to make the experience more absorbing. Additionally, the training modules are typically less than 10 minutes, so topics can be digested quickly and easily.

The online training program is great way to get up to speed efficiently on a broad array of HARMAN Luxury products, so you can clearly communicate their value and differentiation to your customers. As any successful HARMAN Luxury dealer will tell you, understanding the product is critical, and dramatically impacts your success in presenting and selling HARMAN brands.

All HARMAN e-Learning content is available 24/7 on HARMAN University (also developed by Cogent360), so it’s readily accessible. New content is posted on a continual basis, so it’s worthwhile to check out the University regularly, and experience the HARMAN e-Learning difference for yourself!

As always you may access all the training courses by clicking [here](#).

Once you sign in, if these courses are not populated on your home page, click “Go to Courses” to sign up. Stay tuned next month as more training becomes available.

Meet The Team

Meet the HARMAN Luxury Audio Team

Name: **Sam Burkin**

Position/Job Title: **Product Test Engineer**

With HARMAN Since 2016



With Meet The HARMAN Luxury Team, our goal is for you to get to know us better. In each edition we feature a different member of the team, and this month it's Sam Burkin, Product Test Engineer.

How would you describe what you do in your current role?

The essence of my role is that I try and break things (although I should point out I do this in a specific and organized manner).

Aiming primarily at functions of products and apps, I devise and then carry out test plans which put a product or app through its paces in an attempt to provoke and uncover software, firmware and/or hardware issues. This is both during the development process of a product/app, and also after release. When an issue is found I then need to log it in a comprehensive and clear manner and assign it to the relevant party for it to be addressed.

I am also tasked with expanding the scope and effectiveness of the test department for the future. It's currently an exciting time as there is real backing and enthusiasm from the business to do this. I see commitment to investment in testing and I have the privilege of helping to steer where and how investment should be applied.

What did you study in school? Did you always imagine yourself doing something like what you're doing now, or did the fates just take you in that direction?

I really had no idea what I wanted to do while I was at school and so my studies haven't really had a direct influence on where I've ended up. The winds of fate have very much blown me to where I am now. I do believe my strengths lend themselves to my role though, and I do enjoy it.

How did your career path lead you to HARMAN?

I guess you can mainly trace it back to my days working for a department store in the UK called John Lewis. From an early age I was always into music in a big way. John Lewis gave employees a discount on in-store purchases so one of the things I treated myself to when I was young, working there and had a bunch of disposable income, was a quality sound system from the John Lewis Audio and TV department. The components I chose were from a UK luxury audio brand called ARCAM who coincidentally were based just four miles from where I was living at the time.

I worked in a number of areas in the store, but it was noticed I had a technical leaning. The management of the Audio and TV department therefore asked me to transfer there. Over the course of some years I became an AV specialist and had a few interesting experiences including selling Professor Stephen Hawking a TV. Eventually I was then promoted to a coaching/training role in the department. I was therefore deep into the world of technology and specifically audio and video.

After some time in that role the business decided upon a periodic rotation of all the coaches/trainers in the store. The rotation was going to take me to the second floor which was lady's fashion. There were a lot of lovely young ladies there and if I'd still been a single man at that point it would no doubt have held a great deal of appeal. I was however a married man by this time with no interest in fashion so I suspected I'd be a bit bored. I therefore started looking for another job.

My lovely and amazing wife spotted a role which was advertised by a recruitment firm. It was to run technical support for "a local technology firm". The specific company wasn't named in the advert but it sounded like it was in my wheelhouse. I applied in order to find out more.

As it turns out the company was ARCAM and things very much started to fall into place. They had been looking for the right person to fill the role for a little while and had exhausted their list of candidates without finding a suitable one. As mentioned previously I had some of their kit already (albeit quite old by that point) so had a slight head start with product knowledge. During the interview process one of the questions was how I would travel to work. I replied that I would likely be cycling in on my road bike. It turned out later that the person interviewing me was a big cycling nut which no doubt worked in my favor. On my application I had made a reference to "The Dark Side of the Moon" and it turned out that one of the other interviewers was a massive Pink Floyd fan. On my second interview I was asked a technical question, the answer to which I had been reading about in great detail the day before. I was therefore able to answer in more detail than even I was expecting. The waves seemed to just part in front of me to walk in to the job.

I did indeed get the job and the now over-20 year old ARCAM DV88 which I had treated myself to from John Lewis as a teenager came home to the ARCAM offices landing on my desk as a decorative monitor stand.

In 2017 ARCAM was bought by HARMAN International Industries and became a HARMAN brand. I continued in Tech Support until early 2022 when I saw the role of Product Test Engineer advertised internally. I reasoned that the role had quite a large overlap with support and looked interesting. I applied, eventually getting the role in May 2022.

What is the most important thing you have learned over your career?

I think the most important thing is that people thrive when focus is primarily on what they are doing well. When people have an air of positivity around them, and towards them, they will generally perform better and be more receptive to adjustment in the areas they might need to work on. I've seen a big variety of management styles and the managers that seem to get the most from their team are the ones that realize and apply this.

Any other advice you would offer people just starting out in this industry?

Gobble up as much relevant training and knowledge as you can, it invariably comes in useful.

Be truthful. That doesn't mean you have to tell everyone everything but make sure that what you do choose to share is truthful as far as you can reasonably be sure. Short term it may seem advantageous to be untruthful but long term people start to realize when a person can't be trusted and trust goes an awfully long way. Also the old saying rings true: "the softest pillow is a clean conscience"

What are you most proud of in your life?

Sorry it's a cliché, but my kids.

When did you first realize you had a passion for music or audio?

As far back as I remember, which is probably about age four or five, I was aware of the strong effect that music had on how I was feeling. I remember roughly age seven digging around my parents old vinyls which would have been presses from the '60s and '70s and specifically listening to "Do you know the way to San Jose" by Dionne Warwick and "That same old feeling" by Pickettywitch.

My musical taste was soon influenced though by the tunes I could hear coming out of my older brother's room. He was playing Def Leppard, Aerosmith, Queen, Kiss and so on and so I was inducted into the world of rock music. From then on I constantly had a Walkman welded to my hip and a pair of headphones on. Even when my parents thought I was in bed going to sleep I was lying there wearing out some audio cassette or other. Albums that stand out in the earlier days of this kind of listening would be Guns and Roses "Appetite for Destruction", Metallica's "Black Album" and Nirvana's "Nevermind".

What current technology impresses you the most?

In terms of audio, our class G amps coupled with Dirac room correction are such a complete, accurate, potent force I can't help but be impressed. More generally, mobile phone technology impresses me. The amount they can now do, funky folding screens, taking on the role of car keys and credit cards, quite sophisticated gaming and so on. They've come a long way from the days when you had to choose which 15 text messages you wanted to store.

What's your favorite music genre?

Classic Rock

The desert island question, of course. If you were marooned for eternity and could listen to only three albums, what would they be?

Led Zeppelin

Led Zeppelin II

Led Zeppelin III

You have the floor. In closing, tell us anything else you want us to know about yourself.

I suspect I've already given you enough information to steal my identity so I'll leave it there.

Dealer Profile

Stereotypes

with Charley Gonzalez

President, Steretypes

How long have you been in business?

November 2022 is Stereotypes 40th Anniversary. We have weathered many recessions and watched many Audio/Video stores close around us for years. We are very proud to say this is our 40th Anniversary!

How many locations do you have?

We have one location in Daytona Beach, Florida.





How did Stereotypes get its start?

It was always the love of music. Before opening my own store I was a professional skateboarder and DJ. After being on the road for years I returned to Daytona Beach and worked for two different stereo stores before starting "Car Stereotypes". I sold home equipment as well and after a short time evolved to "Stereotypes" and the car audio went away. My parents Carlos and Clara retired and originally were a part of the business. They added the family touch, often

made Cuban coffee for our clients, and enjoyed watching the business take off. We definitely have a reputation of being a family-owned business.

How many people are on the Stereotypes team?

We are running with the smallest team in years. There are four of us and business couldn't be better!

Thoughts on the importance of training?

Without training and keeping up to date there is no progression to new advances and technologies. It's so important to understand the past and respecting the needs of each individual client, but along the way helping them progress with the new technology is exciting. Most of our clients get as excited as we do. Whenever we are offered education, our sales team takes advantage of training and comes out refreshed and inspired. Having a personal relationship with our clients, training leads to a call and brings in more sales.

What do you like most about HARMAN Luxury Audio products and which lines do you feature?

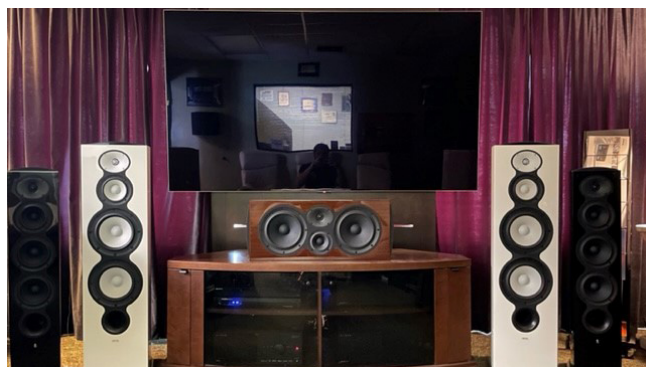
We are proud to say that HARMAN is our #1 vendor. We love the HARMAN line and sell it with confidence. Another asset to HARMAN is our great sales Representative Chris Trojnar. We are very proud to represent and sell Revel, JBL, JBL Synthesis, Mark Levinson, Crown and ARCAM.

How do you think the luxury audio industry is currently doing?

Since the economic crash of 2008, 2021 was our best year. However, this year, 2022 is surpassing last year by a landslide.

What is Stereotypes' mission?

We offer very personal individual care to our clients. We spend any amount of time with the clients needed to help them create the sound they want in their homes. Our closing percentage is very high. And having nine showrooms helps.



You have the floor. Anything else you want to share with us about Stereotypes that you would like the world to know?

I am so thankful to have such a great team. We may be small but all are very passionate about music and this industry. We aren't looking back, after 40 years we are still looking forward for many more years with our favorite vendor HARMAN.