



Harman Luxury Update - December

EMEA Special Events

By Dannica Brown, Senior Marketing Specialist

The last few months have been an exciting time at Harman Luxury Audio, with the launches of numerous fantastic products across our famous quintet of brands. This has given us a lot to showcase and talk about with our valued dealer partners at several special events across EMEA!

Pop-Up Event, Soho

In September, we held our first Harman Luxury Audio Pop-Up event in Soho, London. Our objective was to take our UK dealer partner base and other industry attendees on a multi-faceted listening journey to the heart of luxury audio, to share with our attendees the stories behind each of the brands. The event was the UK debut of ARCAM's HDA Home Cinema range, featured in a dedicated cinema room to highlight the power and performance behind the seven new products. It was also a UK first for the ARCAM SA30, Mark Levinson 5101, Lexicon SoundSteer and JBL HDI series of luxury, high-performance loudspeakers.



All in all, we welcomed more than 50 of our UK dealer partners and 35 members of the press, including journalists from *What Hifi?*, *Hifi+*, *Stuff Magazine*, *Phoenix Magazine*, *Esquire* and the

Financial Times. We warmly thank all who attended and helped make the event the great success it turned out to be.

Paris Audio Video Show

In October, we headed to Paris with our distributor, PPL Audio to exhibit at the Paris Audio Video Show, where our brand new ARCAM, JBL and Mark Levinson products left quite the impression on the luxury consumers in attendance.

Hifi Show Live, London

Back in the UK, we exhibited at the glamorous Royal Ascot for the Hifi Show Live, here we demonstrated the Mark Levinson 5101 with Revel F226BE's and the ARCAM SA30 with JBL HDI 1600s. The event received double the amount of visitors from last year and, both set-ups garnered lots of interest from press and audiophiles.

Poland and Spain

In November, two distributors represented Harman Luxury Audio – Audio Center Poland showcased the brand new SA30 and, JBL Support Poland presented Mark Levinson and Revel.

To finish up the year, our distributor for Spain, Supersonido, put together an array of JBL innovations presenting the JBL brand through storytelling alongside live demonstrations. The event attracted over 120 attendees with outstanding feedback on JBL's premium speaker ranges.

More to come in 2020. Watch this space!



What's New

The JBL HDI Series is On Its Way!

By Torsten Sporn, Marketing Coordinator

If you visited us at CEDIA 2019, or you follow JBL Synthesis on Facebook and/or Instagram, you know exactly why we're so excited about the all new HDI-Series of premium loudspeakers from JBL. The speakers are in production and will be arriving in our warehouses shortly. Have you decided where in your showrooms you'll be featuring them? Have you spoken to your Luxury Audio Sales Rep about our special pre-sale promotion?



If you haven't yet been exposed to the new HDI Series, or even if you have, keep reading. They're going to be in your store in the blink of an eye and it's never too soon to get your customers excited.

Here is what the HDI Series is all about:

The HDI Series is a showcase of JBL's industry-leading acoustics technologies, delivering unrivaled performance in combination with elegant cabinetry and a modern design aesthetic. The foundation of the series is JBL's patented High-Definition Imaging waveguide technology coupled with the patented 2410H-2 high-frequency compression driver. Together, this combination delivers incredibly realistic dynamics, lifelike imaging, and that "you-are-there" presence that makes music and movies come alive. HDI woofers feature Advanced Aluminum Matrix cones and take advantage of core JBL engineering techniques to ensure very high output with low distortion. Heavily braced enclosures, computer-optimized tuned flare ports, and premium network designs complete the system to generate maximum performance from the advanced driver complement. With a sophisticated curved cabinet shape, modern design with no visible fasteners, magnetically attached grilles, and a choice of premium finish options, the HDI Series is the embodiment of the modern JBL high-performance loudspeaker.

The HDI-Series is made up of the HDI-3800 triple 8-inch floorstander, HDI-3600 triple 6.5-inch floorstander, HDI-1600 6.5-inch bookshelf, HDI-4500 quadruple 5.25-inch center channel, and HDI-1200P 1,000 Watt powered subwoofer.

Learn more about each of them at jblsynthesis.com.

More to come in 2020. Watch this space!



What's New

Integrated Systems Europe 2020

By **Torsten Sporn, Marketing Coordinator**

What do you have planned for the second week in February 2020? If the answer is “nothing yet,” and paying a visit to Amsterdam isn’t out of the question, consider coming to see us at ISE 2020.

Integrated Systems Europe is the world’s largest exhibition for AV and systems integration.

The Harman Luxury Audio group is excited to once again be playing a prominent role with a full JBL Synthesis Cinema.

The new line of JBL Synthesis electronics for 2020 once again firmly establishes JBL Synthesis brand as your turnkey solution to the ultimate home theater experience. Announced earlier in 2019 at CEDIA, the SDR-35 Immersive Surround Sound AV Receiver, SDP-55 Immersive Surround Sound Processor, and JBL Synthesis SDA-2200 and SDA-7120 Class G Amplifiers with Dante deliver exceptional performance, value and flexibility without compromise for a broad range of custom install applications.

The SDR-35 and SDP-55 provide a plethora of ways to experience content- over Ethernet or Wi-Fi with Google Chromecast® built-in and Apple® AirPlay 2™, playback from network media servers, or a USB flash drive. High resolution audio can be sourced from a smart TV via eArc. Bluetooth with aptX™ HD is supported, as well as DAB/FM for terrestrial radio. The MusicLife™

app enables seamless control of the streaming content from iOS and Android devices. In addition, the SDP35 and SDP-55 are Roon Ready.

This new line of products features Dante, an uncompressed multi-channel digital media networking technology, with near-zero latency and synchronization. All 16 channels of 24 bit / 192K processed audio, plus Zone 2 (18 channels total) can be routed to any Dante-enabled receiving device over a standard network. Eliminating the need for expensive analog or multicore cabling, replacing it with CAT5e or CAT6 cable.

The SDR-35 AVR, SDA-2200 and SDA-7120 feature dynamic Class G amplification, implementing multiple power supplies. The first power supply runs in pure Class A, which has no crossover distortion. If a dynamic signal is received that goes beyond the capability of this first power supply, the secondary supply is gradually incorporated up to full rated power output as required. This efficient design means additional power is only used when required and delivers exceptional fidelity.

In addition, we'll be unveiling the brand new JBL Conceal series of loudspeakers, designed to envelop you in premium sound with an invisible footprint. The new JBL Conceal Series loudspeakers combine patented Stealth Acoustics invisible loudspeaker innovations with industry-leading JBL acoustic design to deliver the most advanced, highest performance invisible loudspeakers available.

The speakers utilize Stealth's patented transducer implementation into a rigid compression molded baffle that is skinned with seventh generation Fidelity Glass™ acoustic panels. They feature JBL premium acoustic crossover networks and spring-loaded connections, as well as an integrated back box enclosure. The design results in a loudspeaker that installs like a drywall patch. The surface can be painted to match the wall, or custom finished for blending into any creative decor.

In addition to learning about fantastic new products, ISE 2020 offers the opportunity to participate in a unique variety of conferences, training sessions, keynote speeches, and much more.

INTEGRATED SYSTEMS EUROPE 2020 HALL 1, STAND: 1-M50

TUESDAY, FEBRUARY 11TH - 10:00 AM - 18:00 PM

WEDNESDAY, FEBRUARY 12TH - 9:30 AM - 18:00 PM

THURSDAY, FEBRUARY 13TH - 9:30 AM - 18:00 PM

FRIDAY, FEBRUARY 14TH - 9:30 AM - 16:00 PM

*Arcam/JBL Synthesis/Lexicon/Revel invite you to register for FREE using the invitation code **435559**.*



Dealer Profile

Házimozi Stúdió

Törökbálint, Hungary

Technical Director

Sandor Snell

Key Statistics and Information

Founded: 1997

Harman Brands Supported: Arcam, JBL Synthesis, Lexicon, Mark Levinson, Revel

The Harman Luxury Audio Group is proud of the strong professional relationships we share with our dealer partners. This month, we talked with Sandor Snell from Hazimozi Studio to discuss their business and stunning purpose-built studio in Hungary.

How did Hazimozi Studio start-up?

Hazimozi Studio has specialised in Home Cinema for more than 20 years. We design, install, deliver, set-up and test to ensure acoustics are optimized for the perfect home cinema. We have

a wealth of experience and technical knowledge that enables us to deliver tailor-made solutions to our customers. We have a holistic approach that means we can provide the best advice and best value when creating bespoke home cinemas. Home Cinema is our passion as well as our sole focus for the business.

What differentiates Hazimozi Studio in the market?

We design and install home cinemas bringing all the elements together to design the very best system. We keep in mind all of the smaller details to ensure that customers get the best out of their products and devices. User experience is the key to providing the dream home cinema, and we do this by ensuring we meet the exact needs of our customers, taking into account their home theatre room design and construction to deliver flawless music and movie experiences.

What makes us special is our purpose-built studio – we took a residential property and turned it into a full demonstration house. We have 5 rooms dedicated to home cinema, each of these include Harman products to showcase the products and what they can really do. Our customers can get the real experience of a home cinema as our studio is set-up in a home environment. We showcase all 5 brands for Harman in our studio. Demonstrations are really important to us to show sophisticated systems to our customers – we offer value by consulting and educating our customers on products and presenting the benefits of a room designed for home cinema.

Which brands do you see as the key brands for Home Cinema?

We sell and present all 5 luxury audio brands for Harman, but ARCAM and Revel are key brands as they provide an affordable solution for our market – we do very well despite a niche market in Hungary which is because we offer the value and support to our customers.

Any final comments?

We are very proud of our studio, our expertise and the value we can offer customers. We have a very strong partnership with Harman and a perfect relationship with our Account Manager, Alan Davidson. Please watch our video [at <https://www.harmanluxuryaudionews.com/2019/12/19/dealer-profile-hazimozi-studio/>] for a glimpse of our amazing home cinema rooms.

For more on Hazimozi Studio, visit their website at hazimozistudio.hu

Tech Talk

DANTE: Introduction and Overview

By Nick Clarke - Senior Director, Global Engineering



What is DANTE?

For many people, this is likely to be their first question – DANTE (or Digital Audio Network Through Ethernet) is a multi-channel, low latency method of transporting multiple channels of audio digitally over a standard Ethernet network.

What is it doing on a JBL Synthesis AVR?

DANTE is more normally used to transmit audio over long distances, typically in large auditoriums so what is it doing on an AVR? As channel counts in AVRs have gone up this has resulted in an increase in the number of analogue connections that are required between an AV pre-pro and the associated power amps. Not only is this time-consuming and expensive, but adds to the chance of a faulty cable resulting in a service call. By adding DANTE, it is possible to take a single Ethernet cable from the AVR to a switch and then to as many power amps as is required for the number of channels.

Why DANTE?

Aside from the requirement for multiple channels of digital audio, there were several key reasons for settling on DANTE:

- Compatibility with standard Ethernet equipment and co-existence with other network traffic
- Native Gigabit Ethernet support
- Low latency (minimum 150uS)
- Easily configured and managed using controller application of PC or Mac
- As a third-party standard, it has been well adopted by multiple manufacturers, allowing for flexibility for installers

How does it actually send audio?

The multiple channels of digital audio data are sent within IP packets and transmitted over the Ethernet network. These packets also contain timing information as well as source and destination IPs, to ensure correct routing. The receiving device then takes these packets and builds them back into the correct digital audio stream which, in the case of the JBL Synthesis SDA-7120 & SDA-2200 amplifiers, is then fed into an ESS Sabre DAC to get analogue audio. These analogue signals are then amplified with the class G amplifiers contained within those products to ensure maximum possible quality and fidelity.

A key element of the system is the exceptionally low latency (which can be as low as 150uS), especially critical in AV systems. This is achieved by the presence of a single master clock, which provides the synchronisation information for all devices in the network. The DANTE system automatically ensures that the device with the most stable and accurate clock becomes the master, with all other devices locking to that device.

This all sounds great — how do I set it up?

First, connect the audio devices to the network from the DANTE ports. Next, download and install the DANTE controller application from Audinate.com.

It is then simply a case of detecting all the devices and routing the source channels to the receive channels through a straightforward matrix. After configuration, it is possible to remove the configuring computer as it is no longer required for day-to-day operation. Though if required, the network can be monitored in real time, including device-level latency and clock stability information, which helps quickly diagnose any issues.

All JBL Synthesis products feature two DANTE network ports, so there will be a temptation to “daisy chain” from one product to the next. This, however, should be avoided. The primary reason for the dual ports is to provide a complete backup network and should be connected as such in a “star” configuration (each product connected to the network switch), so in the event of primary network failure, the audio path is not interrupted. This also reduces the number of hops that the data has to pass through as well as avoiding the situation where the failure of a single device causes the entire system to fail.

Going further...

As a widely adopted system, there is a wealth of information on configuring and maintaining DANTE audio network systems both on the [Audinate website](http://Audinate.com) as well as the wider community. In addition, the Harman Luxury Audio group will be creating support materials specific to DANTE, so please watch this space...

Tech Talk

Maximizing Low-frequency Performance in a Multichannel Audio System

By Kevin Kent – Field Technical Trainer

When designing a multichannel audio system, one of the most problematic areas is how to deliver similarly good bass to all listeners. Our Harman research team has found through subjective listening tests that bass quality accounts for at least 30% of the overall sound quality in any system. Bass level, blending to the mains, and seat-to-seat variation due to standing waves all impact the overall quality of a system.

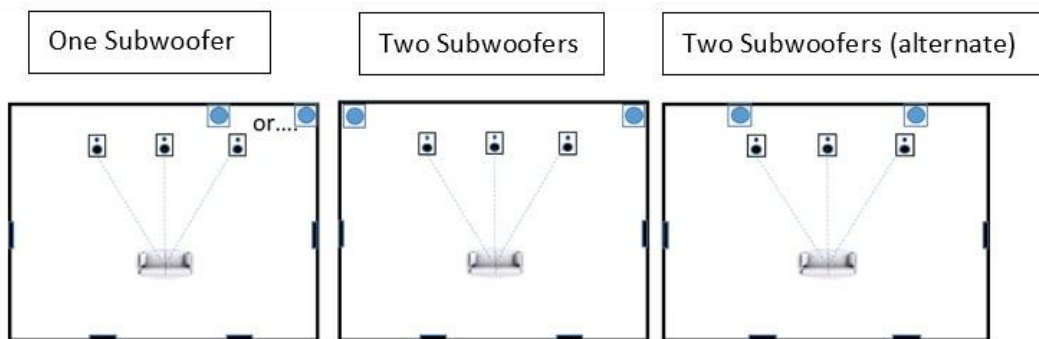


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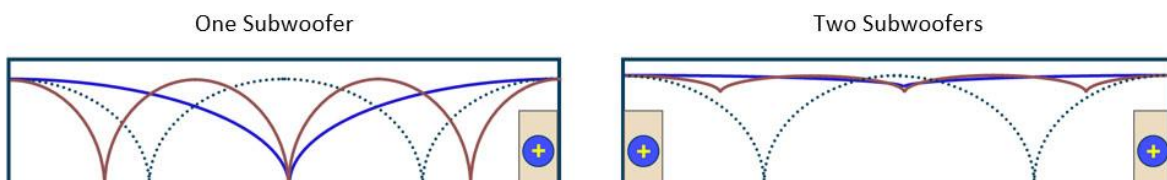
Standing waves within the room cause large frequency-response variations at the listening locations. Standing waves are created when low frequencies reinforce each other as they reflect back and forth in the room. The most noticeable effect of these “room modes” is that some frequencies will be too loud. Using multiple subwoofers can greatly minimize these variations by smoothing or cancelling many low frequency peaks. Additionally, you can further increase your chances at achieving great bass by taking into consideration subwoofer location, implementing delays to match arrival time of all speakers at the listening position, correcting polarity and adjusting levels.

Addressing subwoofer location, for example: placing two identical subwoofers in each front corner will provide the most room gain and cancel peaks in the listening area. Placing the subs at the 1/4 mark along the front wall may provide even smoother seat-to-seat response but with significantly less overall bass output and impact.

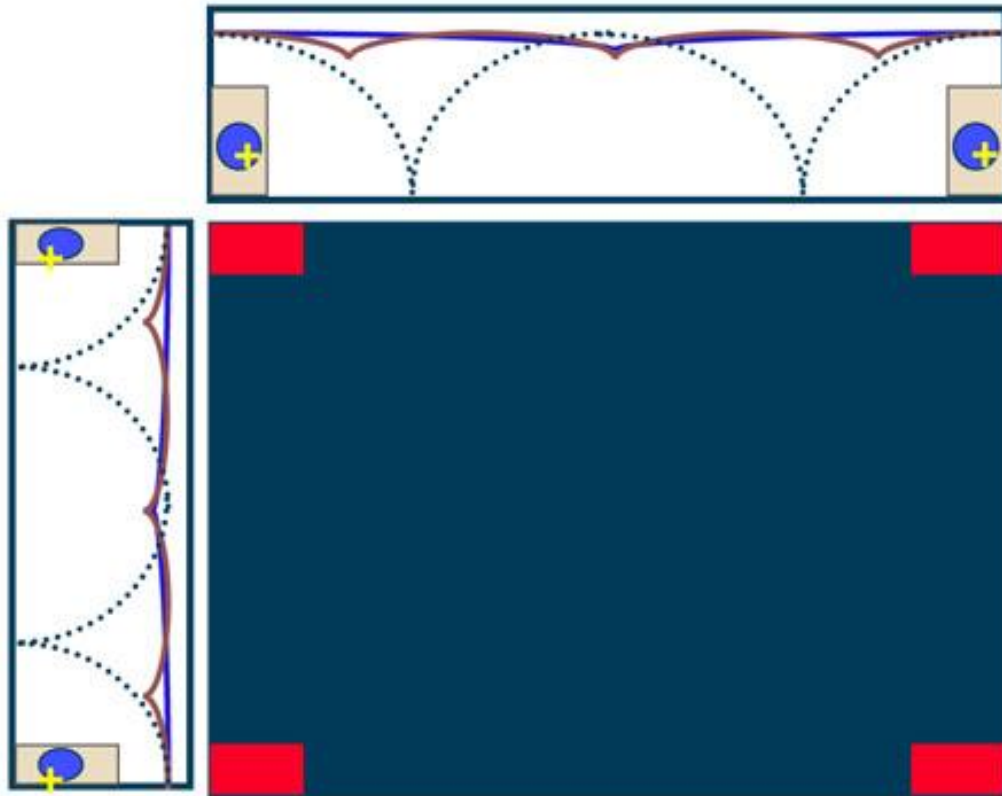
If a single subwoofer is used, try placing it on the 1/3rd mark for smoother response or alternatively a corner location in a larger room if more bass is needed. Corner location will result in greater variances in seat-to-seat bass response but in many rooms, throwing away bass is not the better option.



Axial modes in a rectangular room



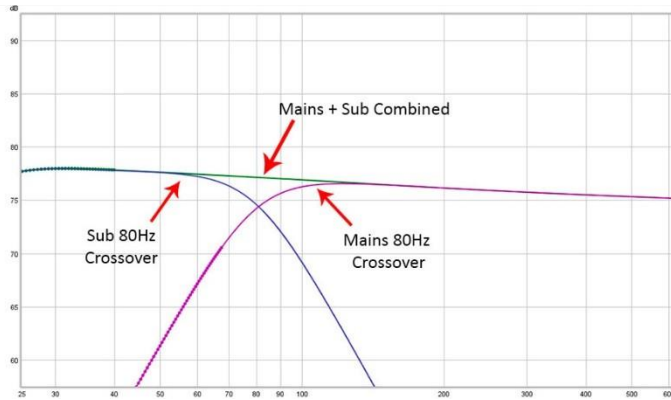
By placing a subwoofer in each of the four corners, we can cancel the first and third axial modes in the length and width of the room. As a result, we have eliminated 2/3rds of the most significant standing waves in a symmetrical room!



Subwoofer blending is critical to the performance and affects the spectral balance of the whole audio system. The system should have equal energy at every note; you should not hear the subwoofer, rather, it should integrate perfectly into the main array. A number of controls are available to facilitate the integration.

Volume – Use an SPL meter, set to C-weighting and slow, and play band-limited pink noise generated from the AV Processor or use a test disc such as ones from Dolby, AIX records and Digital Video Essentials. If the subwoofer has its own level adjustment, corrections should be implemented there. If you are using multiple subwoofers, the level of each subwoofer, one at a time, should be equal at the listening area. The overall level should be 3 to 5dB higher than the mains based on the target in-room response as shown below. Ultimately, you must use your ears from multiple music and movie sources to arrive at the best level.

Crossover point – The crossovers are implemented in the AV Processor and should not be duplicated in the subwoofer. If the subwoofer has its own crossover control, set it to fully open, i.e. the highest point possible or bypass the crossover in the sub by using a direct LFE input.



Polarity – Some subwoofers include a “Phase” control. It can be set to its nominal (0) position, but better results may be obtained by setting the Phase control in the position that results in the greatest output at the crossover frequency. That can be seen by using a high-resolution RTA, or an app such as “Audio Tools,” while playing band-limited pink noise.

But can we do better? YES! We developed Sound Field Management (SFM), a patented method to reduce seat-to-seat variation by active adjustment of multiple subwoofers. SFM measures the in-room results of the installed subwoofers and adjusts gain, delay and one band of parametric EQ of each subwoofer so that mode canceling is optimized. Seat-to-seat variation is reduced. Output is maximized. Global EQ can then be applied.

SFM provides the ultimate in bass response over multiple rows and multiple seats so that everyone gets “the good seat.”

Advanced certified JBL Synthesis Elite calibrators are able to implement Sound Field Management when using our SDP75 Processor, SDEC or SDA4600 amplifiers with any of our AV Processors or AV Receivers. More information about SFM and our latest developments with SFM2 will be covered in a later article.

Great bass is significant and may be the most important tuning adjustment to make in any multichannel audio system. Take extra time, even in modest systems, to get this right and your efforts will provide a huge impact in the overall enjoyment of any audio system.

Author’s note: *Chris Robinson contributed to this article.*

Additional recommended references:

“Low-Frequency Optimization Using Multiple Subwoofers”
by Todd Welti and Allan Devantier,
Journal of the Audio Engineering Society, Vol. 54, No. 5, 2006 May

Sound Reproduction: The Acoustics and Psychoacoustics of Loudspeakers and Rooms, Third Edition (Audio Engineering Society Presents) by Floyd E. Toole

CEDIA Bulletin CEA/CEDIA-CEB23 – Home Theater Recommended Practice

Solutions Center

Preparing for the Spectacular

By Stefan Happe – Customer Service Manager

The Robert Schuller once said, “Spectacular achievement is always preceded by unspectacular preparation.”

The luxury consumer, perhaps more than any other consumer segment, demands the spectacular; this is true of both the performance of their products and the expertise of the dealers from whom they purchase them.

Today’s technology is evolving and advancing more rapidly than at any time in history. This means more new products with more features and farther advanced tech are hitting the market at a faster rate than ever before. Being consistently on the forefront of advanced acoustic science and technology, this holds true for Harman Luxury Audio’s family of brands as well.

This means that we in Customer Service have more products than ever to become experts at, and learn every function, feature, nook and cranny of. How do we confront and embrace the challenge of becoming experts in every highly anticipated product before hits the showrooms of our valued dealer partners? What do we do to learn everything about the product before it is released into the wild?

The answer is the “unspectacular” and unglamorous behind-the-scenes nitty gritty work of preparation. At Harman Luxury Audio Customer Service, preparation is an obsession.

We subscribe to the philosophy that Customer Service is more than just repairing something. It is the process that cares for a product from the birth of the idea to its last day on Earth. The people involved in the development of a product share this philosophy with us. The Customer Service department is getting full inclusion from Day One – and not just an emergency call once brand reputation has been irreparably damaged. We fully understand that the better we care for the customer and his product, the higher his loyalty to us will be.

Long before there is ever a tangible product, Customer Service and Research & Development work closely together. Trust built over time, working on challenges and solutions has evolved into true team spirit. Part of this close connection between R&D and Customer Service is the reason why our Harman Luxury Audio Customer Service team is based in the three main R&D locations. The information flow within the teams is facilitated by inclusive meetings, collaboration on shared documents (Google Docs), videos and social media.

This collaboration of ideas eventually takes form, more concrete ideas are passed back and



forth, and ultimately the NPI (New Product Introduction) process starts, and with it, the training of the Customer Service department begins. This includes:

- Regular process updates, gate statuses and launch plans
- Preliminary Operators Manuals to study
- Hands on physical training from the NPI team
- Sample allocation for the Customer Service team to use as a learning tool
- Consistent interaction with the development engineers. (CS acts here as the Voice of the Field and provides a 'reality check' for features and solutions)
- Sales training to understand the point of sale and unique selling propositions for a product better
- Understanding how a product is marketed will help us prepare for the questions coming in from the customers.

As soon as production is reaching the planning stage, Customer Service will:

- Request the Bill of Material (BOM) and the "exploded views" of the products to determine spare parts. This way we can make sure to include all necessary components and assemblies, without wasting time, money and inventory space on parts and components we don't need
- Work with our sales teams on forecast numbers to make sure we order just the right amount of spares
- Collaborate with the Harman Materials Team to get all parts setup in the operating system
- Place the first purchase order

At this point, we are ready to be the expert VIP service resource for our dealers and distributors, our custom installers and end-user clients.

But this is not the point where we are done learning and preparing. New features and software releases will be tested and inspected by us. New formats the market brings up will demand long and intensive hours of testing and 'playing around.'

And then there is always the next generation of industry-leading products already taking form in the minds of the R&D department...

Lastly, none of this preparation and expertise means anything without accessibility to you. When you email CSupport@Harman.com, you will get a prompt and courteous response every time. And if you're ever feeling like your expectations were not met, you can email me directly at Stefan.Happe@Harman.com.



From the Audio Files

'Tis the Award Season

The Harman Luxury Audio Group is pleased to announce that our products have added a couple more awards to their already impressive tally.

Prestigious audiophile magazine *HiFi News & Record Review* designated both the Mark Levinson N°5805 and Revel PerformaBe F228Be as "Outstanding Products."

The N°5805 may be a relative newcomer to the luxury audio integrated amp scene, but people sure have taken notice. In particular, *HiFi News* noted the amplifier's impressive performance even when challenged by Hiroshi Fukamizu's "Everything for Drums," and Mahler's Symphony No. 7.

Don't take our word for it. Read the entire review [here](#).

Regarding the F228Be, *HiFi News* had complimentary things to say about everything from the soundstage to the finish, but we took particular joy in their sentiment that "there are times when these loudspeakers are just breathtaking." Click [here](#) to read the entire review.

These award-winning products are in stock and available for purchase. Contact your Harman Luxury Audio sales rep to get them into your showrooms.

Learn more about Revel at revelspeakers.com.
For more on Mark Levinson, visit marklevinson.com.

