DYNAUDIO

Magazine

Issue
03

This is
Confidence

Hello

Welcome to issue 03 of Dynaudio Magazine.

To celebrate the launch of three new high-end product families – Confidence, Evoke and the Core professional studio monitors – we've devoted this edition to exploring high-end listening.

You'll learn from experts about what 'high-end' is all about – why we buy things some people can only dream of *(p20)* – as well as what it *really* means to listen *(p54)*. You'll hear from jazz legend Kirk Whalum about why he chose the saxophone and how he got good at it, plus how you can do the same with your chosen instrument *(p36)*. We give you the lowdown on how to set up a vinyl system so you can rediscover your record collection *(p26)*. And you'll discover how the ingenious new components and technologies in our latest loudspeakers will enrich your listening experience to levels you never thought possible *(p30 and p44)*.

And, of course, we also have everything you need to know about all of our current product ranges.

We hope you enjoy reading.

Your Dynaudio team

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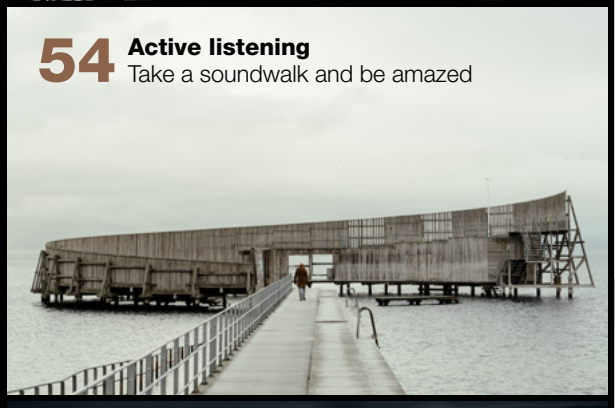

What’s new?

You’ll find three new products in this edition: an update to the legendary Confidence family; an introduction to true high-end in Evoke; and Core: the last word in pro studio monitoring

Confidence

This is performance.

The all-new Confidence family has been years in the making. It’s packed with innovations in materials science, acoustics, design and even airflow technology derived from the aerospace industry.

See it up close on page 8 and read all about it on page 64.

Evoke

A brand-new series of passive hi-fi speakers.

Evoke sits between Emit and Contour in our range – and draws from our highest-end models when it comes to driver design and finishes.

You can read about its new tweeter, Cerotar, on page 30, and get to know the new family properly on page 90.

Core

Professional studio monitoring taken to a new level. It's everything you need to hear.

Core is a brand-new range of high-end monitors for studio professionals. It's inspired by the renowned AIR series, but takes its performance far beyond – so engineers and producers can get even more from their artists' performances.

Find out more on page 130.

This is Confidence

The classic passive speaker has evolved. Confidence takes Dynaudio's celebrated performance to startling heights with new materials, techniques and technologies. It's a masterclass in audio

Confidence 20 (Ruby Wood High Gloss)
Even the stand itself is part of the acoustic design

Confidence 30 (Raven Wood High Gloss)
Featuring the new DDC Lens surrounding the Esotar3 tweeter

Dual-surface feet
Use spikes or pads on the same foot – and adjust the speakers' tilt without having to turn them upside down

Confidence 50 (Raven Wood High Gloss)
Twin 15cm midrange drivers and 18cm woofers, plus the new Esotar3 tweeter

Confidence 20 (Midnight High Gloss)
One Esotar3 tweeter and an 18cm mid/woofer driver

Confidence 30 (Smoke High Gloss)
The new smoke finish offers a premium automotive look

Confidence 60
(Midnight High Gloss)
The flagship's flagship:
the culmination of over
40 years of work

Listen up: The new Evoke

Evoke takes all the acoustic breakthroughs, all the design spirit and all the devotion to performance from our top-tier speakers. We didn't create it for people who agonise over price-tags… we created it for people who agonise over what to listen to next


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Evoke 10 (Blonde Wood)
Listen to your favourite album for the first time. Again

Evoke 30 (Black High Gloss)
What will music sound like in 30 years? Awesome

Evoke 50 (White High Gloss with grilles)
Point your furniture at something new

Evoke 50 (Blonde Wood)
Dust off your record collection. Say goodbye to your weekend

Evoke 20 (White High Gloss)
Take fun seriously

Evoke 10 (Walnut Wood)
'Hey! Want to come over and listen to 4000 of my favourite songs?'

Lead us into temptation

Words: Rachel Ogden

While everyone can recognise when a product is high-end, understanding what makes it so, and why it's desirable, is more complex. We asked a range of experts for their take on luxury…

Imagine a large, expensive gold egg. As time goes on and no one buys it, its makers start to doubt the courage of their convictions in making such a decadent yet purely decorative object. Then one of them has an idea. They double the price. It sells immediately.

While the story might be somewhat apocryphal, it's an illustration of how cost can make material goods more appealing, often feeling exclusive with the perception of being high-end. But it is quite as simple as that? Is price our only indicator of desirability or is it the craft and quality of a product that generates its appeal? Are luxury goods more than the sum of their parts, interwoven with expectation, sensual pleasures and emotional connection? Is the devil truly in the details?

Why we buy

The appeal of high-end products is beautifully simple while being deliciously complicated. Perhaps the best way to start understanding what 'high-end' really means is to examine why buying products makes us feel a certain way.

Professor Hew Gill, Chartered Psychologist, Associate Provost of Sunway University and Associate Fellow of the British Psychological Society, believes that our desire for consumer goods and, by extension, more luxury purchases, is buried deep in our evolutionary history. "We are all hunters and gatherers, so most of us find it pleasurable to find and buy the things we want," he explains. "Everybody enjoys their wishes being gratified, but the evidence is that those who can control this impulse and defer gratification tend to do better in life. Getting what you want can release hormones that are associated with a sense of reward, but the happiness is short-term."

> ***"We're all hunters and gatherers, so most of us find it pleasurable to find and buy the things we want***

> ***Consumers feel that when they own branded goods, a little of the stardust rubs off on them***

As for how valuable one thing is over another, Professor Gill says that perception is key. “As consumer society developed over the 19th century, brands evolved as a way of letting the customer know that the product was of consistent quality and there were clear differences between high-end and cheaper, often locally produced products. Now that we have trading standards and consumer protection laws, so that most products must conform to certain basic standards, quality may not be such a major differentiator. This means that brands now associate themselves with aspirational lifestyles and create an air of exclusivity, so consumers feel that when they own branded goods, a little of the stardust rubs off on them.”

Professor Gill also makes the point that throughout history, things we own – especially our clothes and personal effects – have been indicators of our status in society. “Sumptuary laws were passed in the 14th century, literally to stop people dressing above their station. In the modern world, people still want outward indicators of their success that will be recognised by their peer group. Most of us assess our social status by how we compare with other people, so owning expensive brands makes us feel that we are rising up the social hierarchy.”

The everyday experience

But there’s a big difference between splashing all your cash on a large gold egg (or keeping up appearances) and investing in products that have been made to last. The mantra of ‘buy once, buy right’ still holds true for those who are concerned about flimsy mass-market products that inevitably end up in landfill, or want to feel that they’re purchasing something that may last the rest of their lifetime.

Morten Bo Jensen, Chief Designer at Vipp, a company that specialises in beautifully designed everyday objects, from pedal bins to kitchen roll holders, feels strongly about items that are built to last. “These days, it’s easy to take a pretty picture of a product but when you meet it in real life, quite often you are disappointed because your expectations were much higher. We want to create the opposite effect – meeting our products in real life should be better than the picture and using them should be an everyday joy. It’s about the weight of things, the sound of things, the feeling you get when you hold a product as opposed to just seeing a picture. For example, we spent an additional six months on our salt and pepper grinders, simply refining the sound of the gears. It might sound geeky but the people who know about our grinders appreciate the sound they make.”

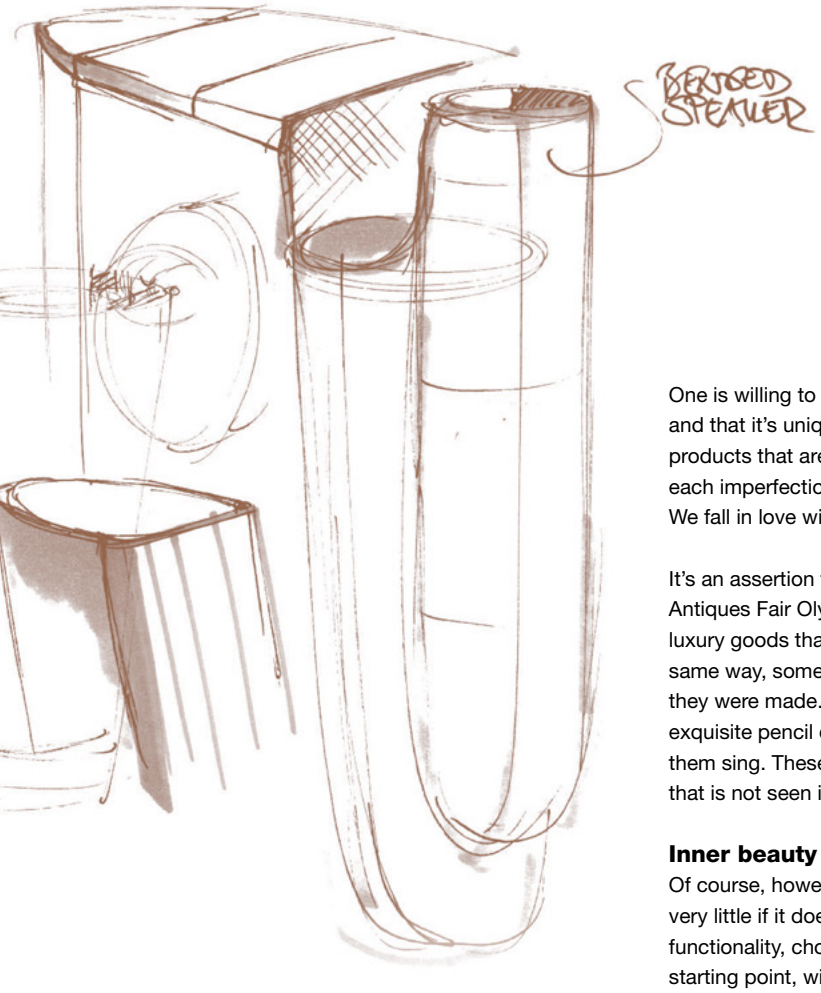
One of a kind
When we know time, effort, talent and genuine emotion has been put into a product, it makes it that much more desirable – regardless of brand

Geeky it may be, but it's a strategy that breeds brand loyalty. "We have customers who have inherited products or bought them in vintage shops and who bring them back to us to be fixed rather than throw them away, so they'll last 20 or 30 years more," explains Morten. "I'm amazed by the fact that you can make people feel so emotionally connected to a trash can that they'll bring it to Copenhagen to get it fixed. I think they understand the effort we put in initially. That rarely happens with cheap stuff."

A material world

For those who question the idea of high-end goods offering something beyond a quantifiable difference, it's helpful to reference the art world. Pieces of art frequently come with a large price tag that isn't based on how much the basic materials cost – you're never paying for the canvas and oils, or block of marble alone. Consider the early Van Gogh landscape that recently sold in Paris for 7 million Euros, despite only being valued at 3-5 million. What imbues a piece of art with value is what the artist has put into the work – their time, inspiration and skill. It may appeal to one person and repel another, yet its price is generated by how it makes us feel.

Nadia Dalle Mese, co-founder of Studioart, a company that creates custom-made leathers for interiors, agrees that art and high-end goods have much in common. "I think where the product is made and it being original is crucial.



One is willing to buy a piece of art for its ability to communicate something, and that it's unique. Everyone is unique, so perhaps that's why we look for products that are unique, too. Certainly with artisanal production processes, each imperfection is not seen as a flaw but the potential for being distinctive. We fall in love with a product with the idea that it can only belong to us."

It's an assertion that's echoed by Mary Claire Boyd, Fair Director at The Art & Antiques Fair Olympia. "I am constantly surprised by what people will pay for luxury goods that have little intrinsic value beyond their brand. But in the same way, some art and antiques would also have had similar intent when they were made. To which end, a beautifully made inlaid cabinet or an exquisite pencil drawing will always appeal and make the space around them sing. These works have craftsmanship, provenance and durability that is not seen in cheaper goods."

Inner beauty

Of course, however good-looking a premium item is on the outside means very little if it doesn't live up to expectations. For most product designers, functionality, choosing the right materials and how it will be crafted is the starting point, with retail price considered further down the line. Many cite a lack of compromise, obsessive attention to the details and the desire to create the ultimate product and an extraordinary experience, rather than a primary aim of designing something that's high-end.

"For us at Dynaudio, it's all about the acoustics and the design should follow and enhance this," says Design Director Malte Köhn. "We don't design just for the looks – even the materials we use are chosen for their acoustic characteristics. Even so, our expression is always a little bit more understated, not screaming in shapes and colours. The legacy in craftsmanship should always be visible through superb details, materials and finish."

Which is not to say that appearance is a secondary factor. More that it's simply one strand of a well-designed product, and when it's executed judiciously, appears effortless. "Products that only look good from the front appear flat and without character; there is nothing to discover," explains Malte. "For us it's important that a product reveals its personality over time. One way to communicate these inner values are layers. By creating a product that has different layers and looks interesting from all angles, you can achieve depth. But you have to start from the inside – the soul of a product."

It's all relative

The 'value' we see in a high-end product also has a lot to do with who we are. We all know luxury when we see it because we each have our own ideas of what it is. In this way, luxury is defined by its relativity. "If it's 'expensive' or 'best of its kind' but we don't really care, we're probably wasting our money," asserts Kim Stephenson, Occupational Psychologist at Stephenson Consulting. "Think of a £1,000 bottle of wine that we can't tell from £5 plonk, or a 'designer suit' that fits badly and is poorly stitched.

"However, if there's a genuine reason for buying something high-end then we're probably getting good value," he continues. "For example, if we have an ear for music that can pick out a flat played by the second violin in an orchestra and we want to enjoy our music at home as if we're in a concert hall, then we buy a high-end sound system. I think you can only really engage with something if you care about it and appreciate the quality more than a good, but not exquisite, substitute. Then the added value is obvious."

People want to spend money on something that creates value to them. To most, it's about enjoying things on a daily basis, whether that's the intoxicating purr (or roar) of a car engine, the reassuring heft of a cast-iron cooking pot that's been handed down through the generations, or hearing the nuances of your favourite song that floods your mind with memories.

High-end continues to mean different things to different people and divide opinion – but one thing is certain: well-made, no-compromise products that are built to last will always be coveted. And loved. ■

> ***We fall in love with a product with the idea that it can only belong to us***

How to...
build a vinyl system

Fed up with plasticky compact discs? Finding streaming just too… digital?
And the less said about compact cassette, the better.
If you want a truly immersive music experience, vinyl is hard to beat

There's something about vinyl. Whether it's the feeling of lowering the needle onto a favourite record, that slight hiss – warm and analogue and comforting – or even just the experience of sitting on the floor and poring over album art and liner notes while a disc plays, listening to a vinyl record is an experience other formats just can't match.

But for those of you who have grown up in the digital domain (or whose last record player was something that resembled a suitcase and had a built-in speaker), starting a new, vinyl-based system from scratch can be a daunting prospect.

It needn't be. Follow this simple guide and you'll be spinning your new collection in no time.

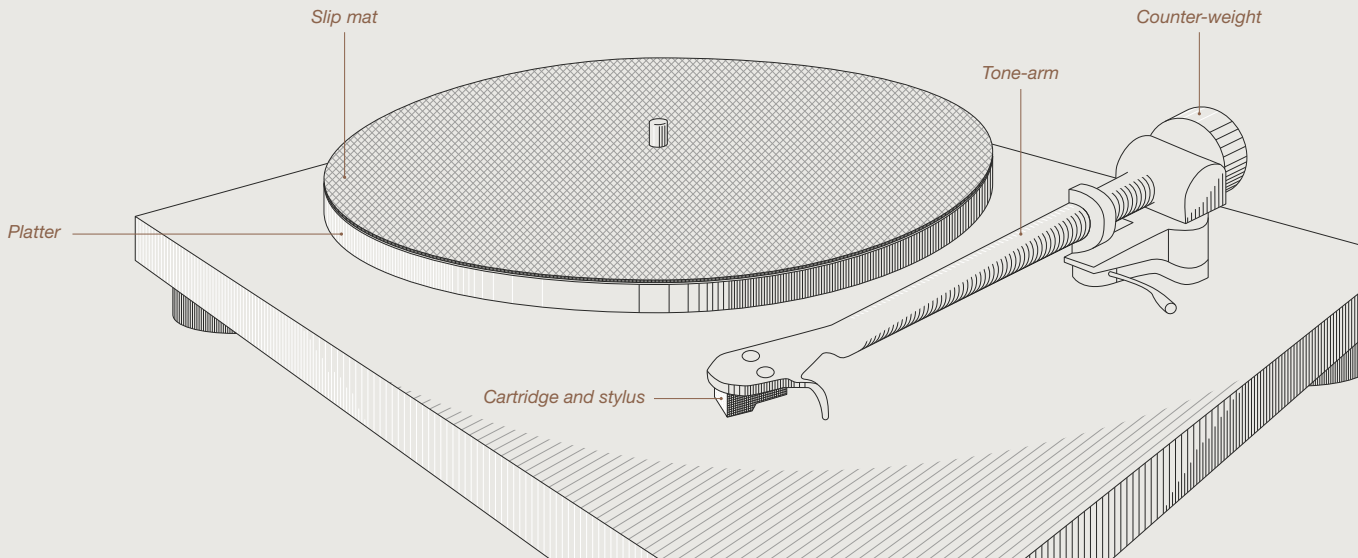
What all the bits of a turntable do

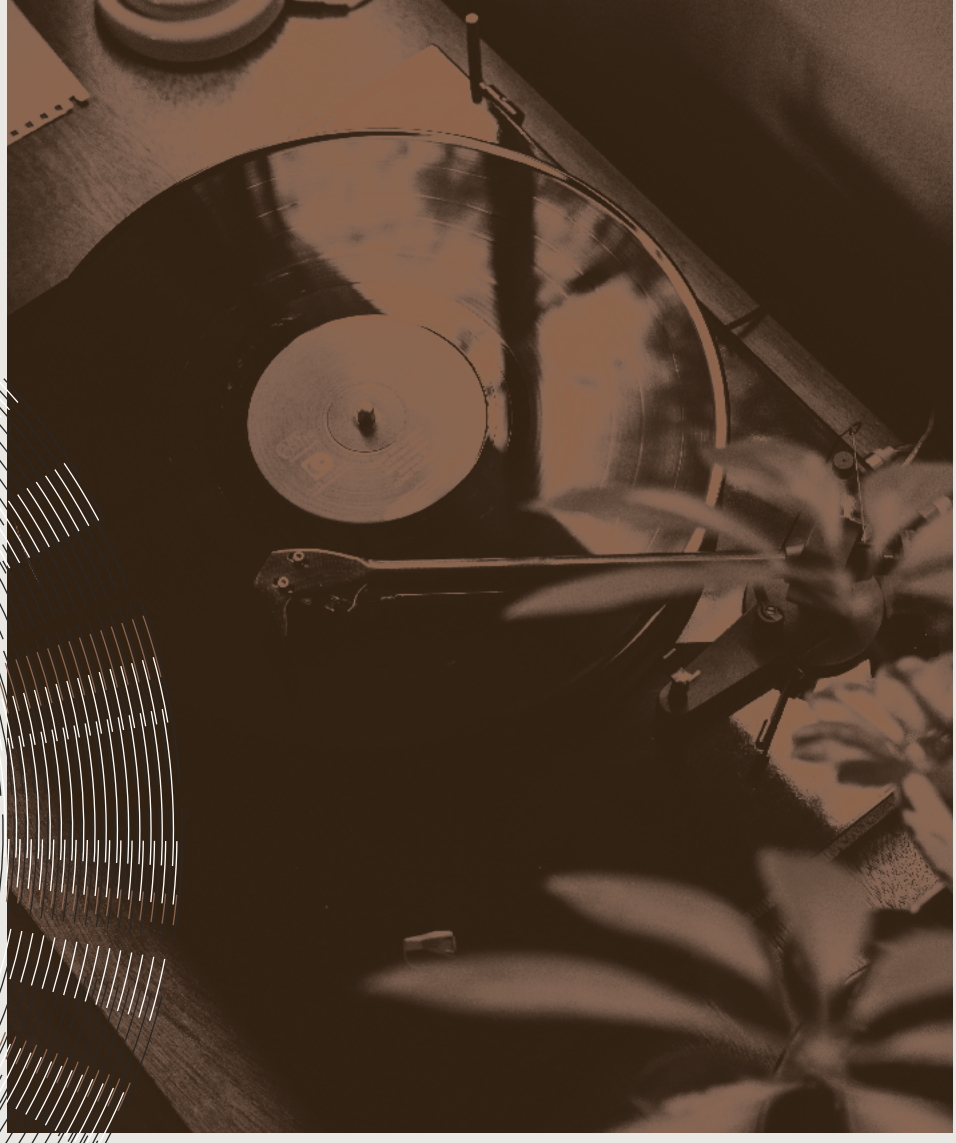
A vinyl set-up has a few more components than you'll find in, say, a CD-based system. There's the turntable itself, of course (more on that in a bit). Then there's the phono stage – a pre-amplifier that takes the incredibly faint signal from the cartridge and ramps it up enough for the main amplifier to deal with.

The cartridge contains the needle and magnets, and is what turns the vibrations from the record groove into an electrical signal. The needle, or stylus, is commonly diamond-tipped – and very delicate. It has to be, because it needs to faithfully communicate the minute physical variations in the record grove to the rest of the system. Treat it as carefully as you would a soft-dome tweeter…

Cartridges primarily come in two flavours: moving magnet (MM) and moving coil (MC).

The cartridge sits on the end of the tone-arm – attached at the other end to a pivot in the corner of the turntable so it can track across the record as it plays. Tone-arms come in a variety of styles, shapes, colours and weights – but the most important thing is to make sure it doesn't put too much pressure on the stylus. If it does, it could damage your records. Many tone-arms feature an adjustable weight at the pivot end so you can fine-tune this yourself (or have someone knowledgeable do it for you).





The records themselves sit on the platter. This can be made from a variety of materials – including acrylic, MDF, metal and even glass. You might also get a mat with it to keep the record from slipping.

Finally, there's the drive mechanism. Belt drive, where the motor is connected to the platter via a rubber band, is the most common. Why? Because the rubber absorbs vibrations from the motor and stops them being transferred to the platter. You might also find direct-drive systems, where the motor is connected to the platter itself. These ensure a consistent rotational speed, but could be prone to vibration.

Which turntable should I buy?

You can go a few ways with this. If you're just starting out, though, you're probably best-served with a plug-and-play model. These come out of the box with everything already set up: you won't have to assemble anything, they have a built-in phono stage (just connect it to your amp or active speakers), and they might even have a USB port for converting your collection to digital formats (although we think that takes the fun out of it a little bit).

At the other end of the spectrum is the full-on, build-your-own route. Your local hi-fi dealer can help you with this. You'll pick every single component yourself – the tone-arm, cartridge, phono stage and more – to build a bespoke

turntable. Some manufacturers offer packages of components they know will work together, but the beauty of this route is that you can pick the ones that sound best to you. And you can fettle and upgrade them later as you please.

The middle-ground is the package that comes with the tone-arm and cartridge, but requires you to supply the phono stage. This is where demoing comes into its own – take your turntable and a few favourite records to your hi-fi shop and try out different phono stages to see which one you like best. This approach also lets you upgrade the cartridge and phono stage at a later date for even better sound.

How to set up a turntable

First things first: make sure it's level. Absolutely level. Spirit-level level. Your turntable needs to sit on something rigid and well damped, too – any external vibrations will affect its performance. You might find your turntable has internal adjustment in the form of feet or even platter suspension, too – and it's worth tweaking these to make sure everything is *just so* before you do anything else.

When you're setting up the tone-arm, make sure it sits parallel to the platter. And then it's time to set the tracking weight – the amount of force the stylus puts on the record. The cartridge manufacturer will have a specified figure here, so there's no guesswork: just use a tracking-force gauge and take your time. If the weight is too high, the sound will be dull; too low and it'll sound thin.

Finally, there's the bias adjustment. This is a sideways force on the cartridge to act against the inward-pulling force the record groove puts on the stylus. The bias is usually set to the same as the tracking weight.

Keeping it all clean

Prevention is best, of course. Keep everything dust- and gunk-free and you won't have to do a huge spring-cleaning job later on. Anti-static cloths can really help here: just give everything a wipe down before and after use. At a push, a slightly damp microfibre cloth will do the job, too.

When it comes to your records, don't use isopropyl alcohol. It'll de-gunk the grooves, but it also removes the vinyl's protective coating and will ultimately make your discs sound brittle and harsh. Likewise, don't just wash them with soap and water under the tap. Not that you would…

Again, a microfibre cloth or dedicated record-cleaning brush is your best friend here. As is washing your hands before you handle your discs – the less oil and muck you transfer to them, the better.

When it comes to cleaning your stylus, if you've been keeping your records clean you shouldn't really need to. But if you do, there are dedicated stylus-cleaning brushes and kits available. Just take your time, be careful and, again, avoid isopropyl alcohol in any of the cleaning products.

Enjoy your new system

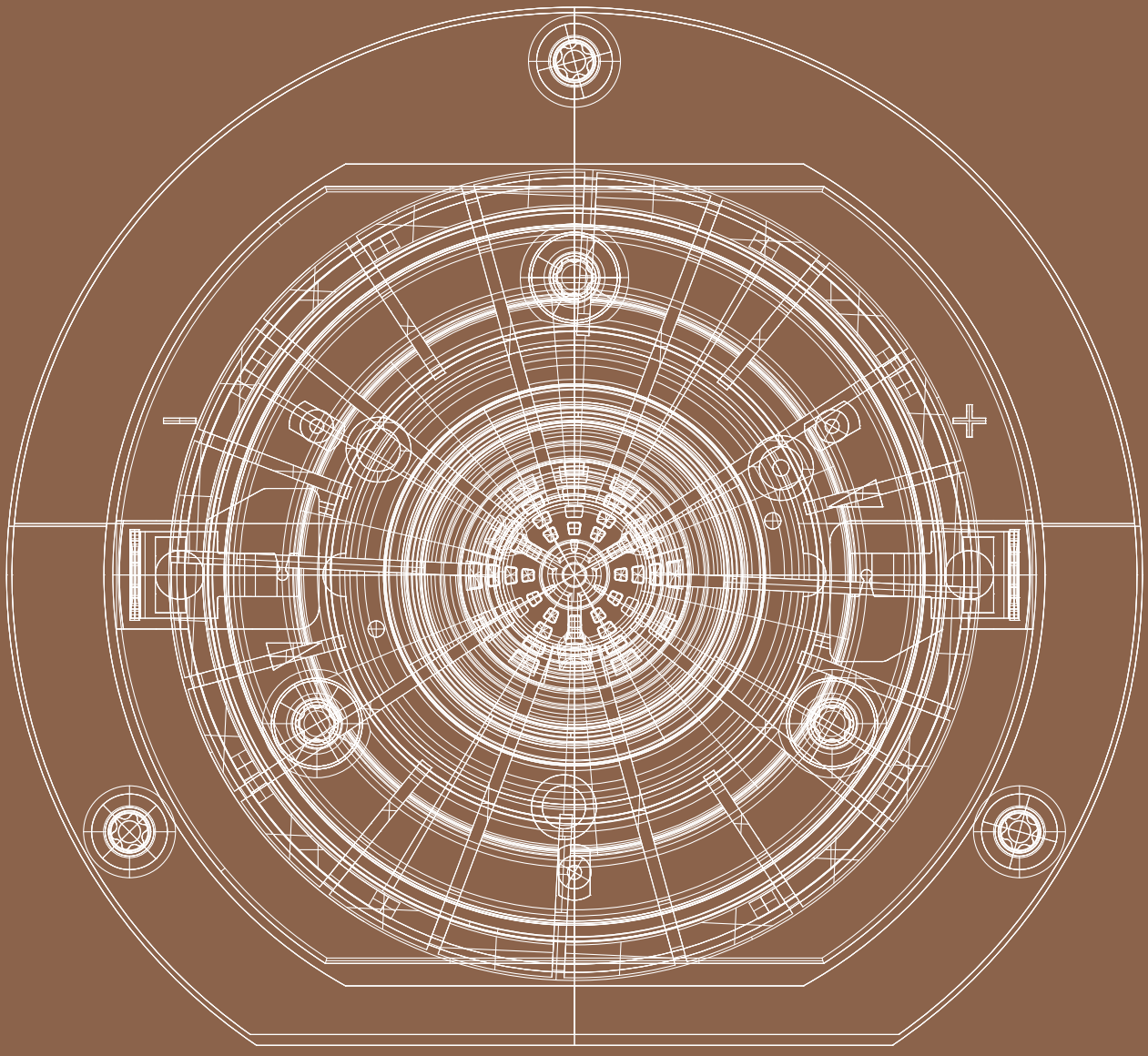
By now you should be armed with all the knowledge you need to get up and running with your vinyl-based system. It's worth remembering, too, that you can get the best of both worlds if you're using Dynaudio equipment. You can build a stellar traditional system using our passive speakers or, if you want to break the mould a little, you can connect your phono stage to a Dynaudio Connect box (see p116) and then play your collection through active digital Focus XD (p104) or Xeo loudspeakers (p110). No external amp required.

Whichever route you choose, enjoy the music. ■

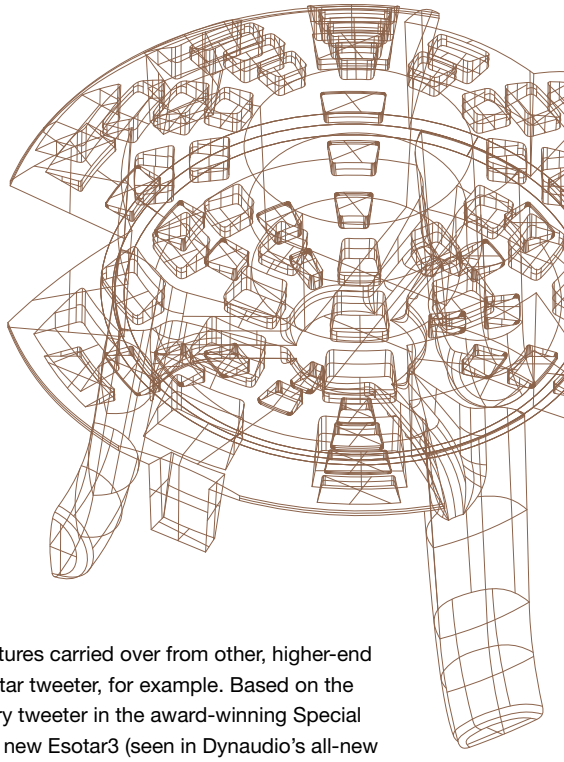
Meet Cerotar: Dynaudio's newest tweeter

The Cerotar, Evoke's new high-frequency driver, harnesses the latest breakthroughs from our top-end Esotar3 and Esotar Forty tweeters

Words: Dave Stevenson



High-end high end
Cerotar uses advanced airflow techniques simulated, researched and perfected by Dynaudio Labs



It's fair to say that 2018 was pretty busy for the Dynaudio Labs team. And the most exciting stuff is the technology we haven't been able to talk about until now.

A warm welcome, then, to the brand-new Evoke range. Evoke is a family of five new hi-fi speakers that brings a true audiophile-level experience to music-lovers, from dyed-in-the-wool enthusiasts to total hi-fi newcomers.

All the things you'd expect from Dynaudio are present and correct – clean, melt-away design only our genius team could dream up, components and features derived from far more expensive equipment, and audio quality of a level that will genuinely raise your eyebrows for this kind of money.

But what makes Evoke so special? Possible answers include the extensive testing undertaken in Dynaudio's world-class, custom-built Jupiter testing facility, or the aerospace-derived airflow-management techniques used in its tweeters.

Fortunately we're able get the story straight from the horse's mouth by going next door into Dynaudio Labs, the top-secret R&D department where our latest creations take shape.

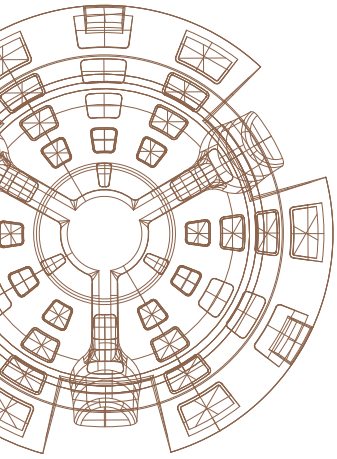
The Evoke range has plenty of features carried over from other, higher-end Dynaudio products. Take the Cerotar tweeter, for example. Based on the formidable Esotar Forty anniversary tweeter in the award-winning Special Forty anniversary speaker and the new Esotar3 (seen in Dynaudio's all-new Confidence speakers), developing the Cerotar wasn't just a case of taking an existing design and dropping it in a new enclosure.

Unlike the Esotar Forty, for instance, its AirFlow Magnet isn't made from neodymium. Instead it's a new strontium carbonate ferrite+ ceramic design that provides the ideal balance between power and finesse for this particular speaker family. Ferrite-ceramic magnet; 'Cerotar' on the nameplate. Simple.

Proven innovation

Like all other Dynaudio tweeters, it has a 28mm precision-coated soft-dome diaphragm. The coating – applied in the right places, at the right density – helps the tweeter's frequency response reach north of 20,000Hz without distorting, without delivering unwanted resonances and without experiencing wavering or compression in its transient response. It's a technology that's been proven to work since Dynaudio's inception, and has been refined and improved ever since.

That's a solid foundation from which to work. The true advances came from the idea of basing the Cerotar on advanced airflow-management technologies developed for the Esotar Forty. Behind the diaphragm in the magnet is a new pressure conduit – a specially shaped vent that lets us devote more space to the rear chamber and controls how the air moves from the back of the diaphragm into that space. The chamber, in conjunction with the pressure conduit, helps to reduce back-pressure on the rear of the tweeter diaphragm.



There's also another very special ingredient in the mix: the Hexis. Until Evoke, this ingenious device was only found on the new (and money-no-object) Esotar3 tweeter in the new Confidence range.

It's an inner dome that replaces the felt ring behind the playing surface, and has been engineered to optimise airflow even further. It has the effect of further smoothing out the tweeter's frequency response and controlling resonances – so all you get are the desirable ones.

If you look very closely, you can see it just under the soft-dome diaphragm. It's dimpled in a very specific pattern to do its job. And it does it incredibly well compared with just using felt alone, or nothing at all.

Refining a refinement

Alex Newman was an acoustic designer on the Evoke range, and no sooner had he been allowed out of the impulse-measurement room, we wrestled him into a comfy chair and demanded answers about how it works.

We leave nothing to chance
Cerotar was the result of hundreds of hours of simulation, prototyping, measuring and listening

"We spent a lot of time listening to the tweeter," says Alex. "At first, there was something bugging me when they started doing tuning and testing." Much work later and the problem became clear. "We didn't have absorption material behind the Hexis. If you don't have any in there, you get some resonance."

A piece of foam and the Hexis. That's what made the difference between 'no, it isn't right yet', and 'shut up and take my money'. It's that attention to detail in the measuring room – and hundreds of hours in the listening room – that make this kind of advance possible.

Alex's eureka moment – and plenty of others like it – was the result of hundreds of hours of testing and many different development prototypes. How many versions did they make? "I don't even remember," he laughs. "I don't really want to!"

Extended driver integration

All this technology – materials science, airflow dynamics and magnetic flux optimisation – result in the Cerotar having a very low resonant frequency. It sits at around 700Hz, in fact – the lowest we've achieved to date in this type of magnet system. A low resonant frequency means the tweeter's performance is much easier to control around the point it crosses over with the next driver (either the woofer or, in the case of Evoke 50, the midrange unit).

The frequency overlap is much smoother because the tweeter can play lower – and because the woofer or midrange driver is still capable of amazing performance at higher frequencies, that handover is all but imperceptible. It's a seamless transition, and it's all done with cutting-edge materials and knowledge – not by adding more components in the crossover.

And that's just the tweeter. There are also two types of woofer, a midrange driver, the crossover, the design and construction themselves… no wonder the team's been busy. ■

Small but mighty
This is the Hexis at actual size. But you'd be amazed at the scale of its effect…

The sound of humanity

What drives musicians to pick up an instrument and dedicate their lives to it? And does practice *really* make perfect?

Words: Jimi Famurewa

If you have even a loose grasp on your rock history, then you know that Bruce Springsteen did not roar onto the scene fully-formed with the 1975 release of *Born to Run*. No, before he emerged as music's foremost chronicler of the tears, triumphs and turmoil of the American blue-collar experience, he had made two albums that had merely smouldered rather than set the world ablaze. Except that's not right either. Because the truth is that Springsteen's path to becoming The Boss began way, way before that.

In the mid-Sixties, he was lead guitarist and, ultimately, lead singer with a New Jersey band called The Castiles. These kids ripped through covers of The Who and Van Morrison but they were perhaps most notable for their willingness to play a gig in practically any venue that would have them. They played at sweet sixteen parties and the opening ceremonies held for local convenience stores. They played at army bases and in trailer parks. They even played a number of shows for patients at a facility called Marlboro Psychiatric Hospital.

10,000 hours

Now, in the context of that time, this indiscriminate performing may have been merely seen as an inevitability. A fact of life as a fledgling band; the bottom rungs on a well-worn ladder to fame. However, now we know it to be something else. Now we recognise that what Bruce Springsteen was acquiring – beyond a certain comfort with unconventional amplification systems and, you'd wager, a healthy store of entertaining future anecdotes – was the 10,000 hours of practice needed to attain the greatness he was destined for.

Just like The Beatles sharpening their skills during eight-hour sets at grimy Hamburg clubs between 1960 and 1962. Or Eminem perfecting his tongue-twisting wordplay amid the cauldron of the mid-90s battle rap scene. Or even Madonna figuring out how to, well, be Madonna up on the stage of early '80s New York clubs like The Roxy and Danceteria.

Wherever you see genre-defining talent, if you look back far enough, you see the 10,000 hours (or 10 years) required to hone it into something blazing, unique and utterly undeniable.

It was author and thinker Malcolm Gladwell who popularised the idea. His 2008 book *Outliers* shone a light on a 1993 study by academic K Anders Ericsson that discovered that a group of young violinists who hit a certain threshold of practice hours could sweat their way to supremacy. It is a theory that, in the years since, has become an accepted truth. It's even the title of a song by 2018 R&B breakout star Ella Mai. But it has been challenged too, dismissed by some as an oversimplified reading of the strange alchemic forces that all combine to create a virtuoso.

"I definitely think it's true," says Spencer Brown, a musical educator and professional bassist who has played with superstar jazz pianist Anthony Strong and former Libertines co-frontman Carl Barat. "Talent is nothing on its own and it needs nurturing. I see that pattern where the people who have got very good have had some intense period in their life where they have 'woodshedded', as people say. I probably had a nine-month period of continuous listening and playing; constantly studying, practising and searching for answers in the records. It was like an awakening."

Pick it up and play it
Kirk Whalum performed an astonishing amount of gigs while honing his craft

Brown also notes that, particularly in the genre of jazz, there is a gigging ecosystem in place that can speed up professional progress. “In the golden era of jazz in the 1950s in America, there were a lot of young guys who were very influential and pushed things forward with their technique,” he says. “You think, how were they so talented at such a young age? The truth is that if they were good, they were working maybe three sets a night.”

This was certainly true for jazz saxophonist Kirk Whalum, when he was emerging as a college student in Texas during the 1980s. “We had residencies so I would be at a given place for two or three months, five or sometimes six times a week,” says Whalum. “Man, it was gigs on top of gigs. I was turning stuff down! That was where I made my mistakes.”

Maintaining focus

However, this technique-tightening schedule was only made possible by the economic moment a young Whalum was lucky enough to find himself in. “The entertainment scene in Texas was thriving because the oil money was flowing into Houston,” he says. And it is these other crucial factors or pieces of good fortune that skeptics have said the 10,000 hours rule diminishes.

One of the most forthright critics of Gladwell’s reading of the phenomenon was Ericsson, the man who first set this whole line of thinking in motion. Ericsson accused Gladwell of citing his “research on expert musicians as a stimulus for his provocative generalisation to a magical number” and even turned the basis of his rebuttal into a book called *Peak: Secrets From the New Science of Expertise*.

And if you consider it, it makes sense. Musical toil through a club residency or obsessive practice sessions in a garage may lead to a certain mastery but it won’t give you the secret sauce that you need to get to that next, stadium-filling level. Ericsson is keen to stress that the *type* of practice a musician engages in is just as crucial as the hours clocked.

Talent needs to be shaped as well as sharpened. And there is generally a point when – even with all those early miles on the musical odometer – fledgling acts reach another critical point that helps seal their fate. Think of Springsteen uniting with The E Street Band and finding his voice. The Beatles becoming a four-piece and enlisting the services of George Martin. Eminem being introduced to Dr Dre after impressing a record company intern during a Californian rap contest.

And that’s where the element of pure chance comes in. What if Buddy Holly and Ritchie Valens chose to take the tour bus to Moorhead, Minnesota rather than chartering a plane? Or if Alf Lennon succeeded in his plan to

● = 1 hour

Destiny or chance?
One person's muse is another's nemesis. The lucky ones find their inspiration early enough to turn it into genre-defining talent. Eddie Van Halen, Jack White, Paul McCartney and even Miles Davis all started out playing a different instrument to the one that made them famous

emigrate to New Zealand, meaning his six-year-old son John never meets a boy named Paul McCartney at a Liverpool church fête in 1957? Modern music history is strewn with plenty of these *Sliding Doors* moments, where our known pop reality seems to be decided by the flip of a coin. And where what might be considered nascent talent is allowed to flourish.

Few of them fascinate and befuddle quite like the near-miss that is Eddie Van Halen: rock 'n' roll drummer. No, that isn't a mistype. When Pasadena schoolkids Alex and Eddie Van Halen first broke free of the shackles of their concert piano lessons (inspired by a world-shaking blast of the Dave Clark Five's *Glad All Over*), it was Eddie who took up the drums while Alex began to learn guitar. But then, as Alex dabbled on the skins – infamously nailing the rolling surf licks of The Surfaris' *Wipe Out* – Eddie surrendered his stool, started to swing the axe and became one of the most inventive and influential guitar virtuosos of all time.

Choose your weapon

And he isn't the only musician to have started toiling with one instrument only to discover that, for whatever mystical reason, a different piece of brass or wood provided a better vehicle for their talent. Jack White started as a drummer before he became a master of the muscular, amp-frazzling guitar style that made The White Stripes so thrilling. Joanna Newsom was a pianist before she brought an inimitable modern sensibility to the harp. Onetime drummer Joey Ramone only became his band's lead vocalist when Dee Dee Ramone realised he couldn't sing and play bass at the same time.

Everywhere you look, there are examples of players unlocking some new level of skill or creativity, once they surrender to their destiny and are paired with the 'correct' instrument.

"My dad was a pastor – so I had early access to the church's piano organ and drums – but he also worked in the postal system," says Kirk Whalum. "And I guess he must have been bragging about me at work, saying what instruments I could play, and his friend said, 'Do you know what? I've got a bass and an amp sitting in my attic. I'm going to go and get it and give it to your boy.'" Thus, Whalum – who would make his name and win a Grammy as a master of the tenor sax – began his musical life as a bassist.

Rage against the music teacher

But he is quick to point out that the perceived lines between instrumental disciplines are blurrier than we would expect. "I identified with the bass and if I kept it up I could have been pretty good," he says. "But that pairing is interesting. I can name three other guys that play the bass and the sax."

For Katherine Blamire, guitarist and singer in British folktronica duo Smoke Fairies, her childhood switch represented a crucial creative emancipation. "I started on the piano, having lessons with a teacher who was really strict," she says. "It was this rigid way of learning and I was being taught scales so I had a love/hate relationship with it. The guitar became so important to me because it was a rebellion against that. It represented freedom. It was portable. And I didn't have any predefined idea of what I was supposed

to do on it. Which meant the possibilities were limitless." This notion of rebellion – of kicking against expectations with your instrument – strikes a chord. Particularly in light of the fact that a certain Miles Davis initially disappointed his violinist mother when he chose the trumpet.

Just temperament

"I think certain people are more suited to certain instruments," says Whalum. "There's a personality type that makes for a better keyboard player because they tend to be balanced between the right and the left brain. Those of us who are guitar or saxophone players, we're pretty much all right brain." He chuckles. "A pianist can do his own taxes, you know?" Though, in the matter of drummers, it seems The Who's Keith Moon (and the snare-bothering Muppet modelled on him) have a lot to answer for. "With drummers I think it breaks down more along genre lines," explains Whalum. "A drummer attracted to rock will tend to have a bit of nervous energy. But drummers I know who play traditional jazz tend to be cerebral."

Blamire, meanwhile, takes it even further, suggesting that someone's particular approach to a chosen instrument can be far more revealing as far as temperament goes. Think of Jimi Hendrix's flamboyant fretwork versus Keith Richard's laconic otherworldliness. "I think you can really see people's personalities in the way they play, rather than in what they play," she notes.

Those of us on the outside tend to crave the neatness of boxes and brackets; the intense, singular focus of a guitarist or drummer or pianist working to attain a kind of intense, creative purity and perfection. But for most musicians, the magic really comes when they embrace the unfamiliar; when they terrify and challenge themselves.

And, once you've figured out how to bring forth those desired sounds from your instrument, the next impulse – the only impulse – is to play that instrument with other people. Musical talent might be singular or obstinate or maverick but it tends to be supported by the urge to share; the urge, literally, to band together.

> *Researchers found that brain activity aligned between musicians whenever they needed to keep in time*

We have heard the mythical band formation stories; we've heard about a 15-year-old budding drummer called Larry Mullen Jr pinning a 'Musicians Wanted' advert to the noticeboard at Mount Temple Comprehensive School in Dublin and assembling the group that would become U2 in his family kitchen. We have, in all likelihood, also heard the story of Led Zeppelin forming from the smouldering rubble of separate acts the Yardbirds and Band of Joy. Generally, we know how these unions happen. But why do they happen? Where does the urge to share these private sonic breakthroughs come from? What prompts this craving for collaborators and, ultimately, an audience? And where do soloists and lone, hermetic multi-instrumentalists fit into all of this?

Social security

"For me, the discovery of music on my own and the urge to play with others was simultaneous," says Whalum. "There was that discovery that came [from] sitting in a room, alone, late at night with some instruments. But also, Memphis [where Whalum was born and grew up] was a band town. It was about groups like the Bar-Kays, Booker T & the MGs and everything that was happening at Stax records. From early on I was tuned into that and very much wanted to be in bands because it was the cool thing."

There's no quibbling with the fact that all of us, whether players or audience members, are socialised to see music as, well, something social. And in the pre-internet age, this was even more true of budding post-war musicians who traded notes on how to self-build reliable guitars and saw collaboration and communion as indivisible from musical creativity. "There would be skiffle bands on every street," is how The Who frontman Roger Daltrey vividly explained his 1950s London childhood, during a 2018 interview on Marc Maron's *WTF* podcast. "Some were good, some were not very good. But every pub you went past on a Saturday there'd be someone on a piano and all these old-fashioned Cockney songs coming out. Something wonderful happens when you sing. We know now that when a choir sings together, their heartbeats go down to the same rhythm. It's metaphysical."

A meeting of minds

This idea of physiological synchronicity between groups of players may seem romantic but there is scientific evidence to back it up. And it goes beyond heartbeats. In 2012, researchers working at the Max Planck Institute for Human Development fitted electrodes onto groups of duetting guitarists and found that brain activity aligned whenever the players needed to keep in time, even if they were not strumming the exact same notes. Music, it's clear, has the power to knit two separate consciousnesses together.

But it is also more than brain chemistry. There is something that drives musicians – particularly in a live setting – to hunt down the feeling that comes from locking in, being in time, being a unit. It's the reason why Prince, before his death in 2016, would tour relentlessly, ripping through towns with smash and grab gigs where his band could reportedly cherry-pick from a catalogue of around 300 rehearsed songs. It's why, during a 2015 Foo Fighters gig, Dave Grohl didn't let an inconvenience like a broken leg get in the way of him finishing the set ("I may not be able to walk or run but I can still play guitar and scream," he said, after re-emerging on a stretcher to triumphant cheers).

"Music is a very interactive medium," says Tal-Chen Rabinowitch, a musical educator and concert flautist who has comprehensively researched the social benefits of playing music in groups. "Greek philosophers talked about its ability to build the soul and structure the mind. It's something that we have been using to communicate for such a long time."

Playing bonds people in ways that they can't fully articulate. In fact, when infighting, jealousy and squabbles inevitably test the bond between successful musical groups it is no accident that the stage can often become something of a sanctuary. Just see the 1980 Eagles show when feuding

members Don Felder and Glenn Frey called a momentary truce for the length of their set. As Frey remembered: “We’re out there singing *Best of My Love* but inside both of us are thinking, ‘As soon as this is over I’m gonna kill him.’”

Rabinowitch led a year-long research study – published in 2012 – that found group music sessions significantly boosted empathy and compassion in a sample of 8- to 11-year-olds. And so it’s not the biggest leap to suggest that we are seeking out these soul-nourishing benefits, even if we are merely buying tickets and taking our place in the crowd. “You feel that connection as part of the audience and you merge with it,” says Rabinowitch. “I don’t have a scientific answer for it, but it is something we all recognise.”

One of the functions of teaming up to create music or perform it for gathered strangers is to nurture the childish thrill of it. It is a way to stop it feeling like work, even when it is literally how you pay the bills. As Whalum says: “Wearing the same outfits, playing with your friends; there’s nothing like it.” Uniting to make noise awakens mischief and experimentation and youthful abandon. They don’t call it ‘playing’ for nothing. ■

This feature is an abridged version of a series lifting the lid on the inner workings of music. See www.dynaudio.com over the course of 2019 for more.

Melodic metal: delving inside our newest woofer motors

A loudspeaker is extremely simple in principle. In practice, it's about as complicated as it gets… especially when you're inventing new ones

Words: Dave Stevenson

Most discussions about metal concern Black Sabbath vs Judas Priest, or David Lee Roth vs Sammy Hagar. Step into Dynaudio Labs and, alongside those two perennially raging debates, you'll hear another (perhaps more relevant) one: aluminium vs copper for voice-coils.

And in this, at least, everyone is on the same side: the best one is the one that's best for the job. That's why the new Confidence and Evoke ranges use both for their woofers and midrange drivers.

How to build a loudspeaker

If you think back to your school physics lessons, you'll remember that if you pass an electric current through a coil of wire surrounded by a magnetic field, that coil will move. Connect the coil to the back of a cone and make the electric current come from an amplifier in the form of a musical signal, and you've just built a loudspeaker motor.

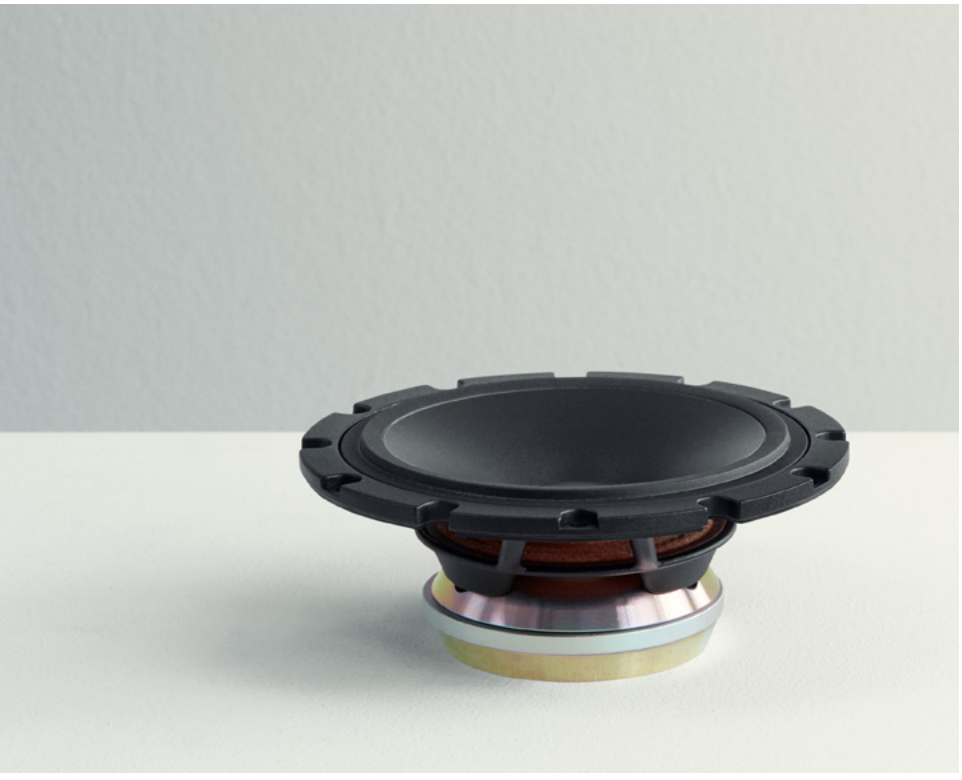
Traditionally, Dynaudio engineers have favoured aluminium wire for our speakers' voice-coils. It's extremely light, which means it's possible to use more windings for a given total weight. More windings gives finer control over the cone's movement, which means its sound can be manipulated in different ways at high volumes and high frequencies.

So why not use it all the time? Because each speaker is unique, and as we refine our measuring, simulation and prototyping techniques, we want to be able to design their drivers individually for optimum performance.

Regardless, all the woofers still have diaphragms made from MSP (Magnesium Silicate Polymer), a proprietary material formulated, refined and developed by Dynaudio over the past four decades. MSP provides exactly the right combination of lightness, stiffness and damping for the most faithful sound reproduction. We've yet to find anything better.

But behind the cones, there are all sorts of exciting things happening. Confidence leads the way, of course, but Evoke is also invited to the party. Not only does it benefit from direct trickle-down technology from this all-new series, it also uses tech from the Contour series and Special Forty.


VS



Tailored for each unit
Confidence's midrange driver (left) uses a lightweight, fleet-footed aluminium voice-coil. The woofer in Confidence 60 (below) uses copper for more power. Both drivers use a neodymium magnet

Listening matters
We used copper for Evoke 50's woofer voice-coil, along with a thinner diaphragm. It's the same moving mass as an aluminium coil and a thicker cone – but, in this case, it sounded better

Using copper is new for Dynaudio, and it was a huge step to make after exclusively using aluminium in our hi-fi speakers for so long. It wasn't a knee-jerk decision, or one driven by marketing. It was driven purely by science… and ears. We spent many months researching, measuring and, most importantly, listening to many different aluminium and copper voice-coils in a variety of configurations.

Confidence 30 and Confidence 50 use copper in their 18cm NeoTec woofers' voice-coils. They also use a 0.5mm diaphragm thickness rather than 0.4mm. (That's right: we – and you – can hear the difference that one tenth of one millimetre makes. That's around the thickness of a human hair.) Confidence 60, meanwhile, uses a 1mm diaphragm thickness for its 23cm woofer – and, again, copper in its voice-coil.

In Evoke 50, the biggest model in its range, we discovered that we preferred the sound of a copper coil with a thinner diaphragm than an aluminium one with a thicker cone. Its 18cm woofers use 52mm copper voice-coils and ferrite+ strontium carbonate magnet systems. Both had identical moving masses; the numbers were the same on paper. But our ears had the final say.

Tailored for each speaker

What do the woofers in the floor-standing Confidence and Evoke models have in common, then? They all have one job: delivering bass. Copper is heavier and offers more moving mass; full-on bass drivers need a low resonance frequency, and more mass – and where better to add that than in the coil, where it has the added benefit of improved sensitivity? The higher force-factor gives them more punch too, which means better-quality bass.

Evoke 30, with its twin 14cm woofers, takes a slightly different direction. It uses aluminium in its 52mm voice-coils. That's because the lower woofer works in parallel with the upper one, but cuts out at a lower frequency to reinforce bass performance.

The midrange drivers in both Confidence and Evoke use aluminium voice-coils. It's because they need the finesse – after all, the midrange is where most of our hearing sensitivity is concentrated. It's where we hear the most detail.

And then there's the magnets. They're also made from metal – but, again, there isn't a one-size-fits-all solution when it comes to real-world performance. That's why we use a combination of neodymium and ferrite+ strontium carbonate units across our product portfolio.

Confidence uses neodymium throughout, including in its Esotar3 tweeter. It's all a question of flux; magnetic energy. The more magnetic flux you have, the more detailed the midrange becomes because it helps the super-sensitive voice-coil take advantage of vanishingly small signals and convert them into vanishingly small driver movements… detail, in other words.

Evoke uses a combination of neodymium and ferrite+ in its drivers (notably, it uses a strontium carbonate ceramic magnet in the Cerotar tweeter, which you can read more about on p30).

We magnetise the metal blanks ourselves, in our factory in Denmark. It gives us total control over how strong we want them to be – which means even finer control over the speakers' performance. It also helps the design process: we can try out new and interesting ideas as much as we like – and extremely quickly too.

In the end, it's all about balance. The choice of metal optimises a driver for its particular purpose to get the very best performance from it. So, when we're asked whether we use aluminium or copper in our drivers, the answer is, simply, "yes".

(Oh. It's Sabbath and Roth, by the way.) ■

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UNHEARD

The touring studio
supporting talent right from the beginning

1%

Did you know that the top one per cent of artists earn 77 per cent of all record-industry income? A staggering 91 per cent of all artists are completely undiscovered.

The unheard are everywhere. They're the beat behind the music industry, and they deserve to be listened to.

Dynaudio Unheard is for those music-makers. The people playing to no-one in sweaty rehearsal rooms and garages, in basements, on street corners and in tiny venues. It's a sophisticated touring studio with a professional producer, and it's open – free of charge – to the best undiscovered artists. Half of it is soundproof glass and there's a full sound-system outside… so everyone is part of the session.

But this is more than just a free recording for unsigned acts; it's a break. A voice. And there's no catch: artists take their music away and then, maybe, take a big step.

It's already appeared at the massive Smukfest music festival in Denmark, at the NAMM pro-audio show in Anaheim, California and, as this magazine goes to press, will be at the High-End Show in Munich. And that's just the beginning… because we can put it on trucks and take it wherever we (and the artists) want.

Dynaudio Unheard gives music back to its creators. Because music never rests.


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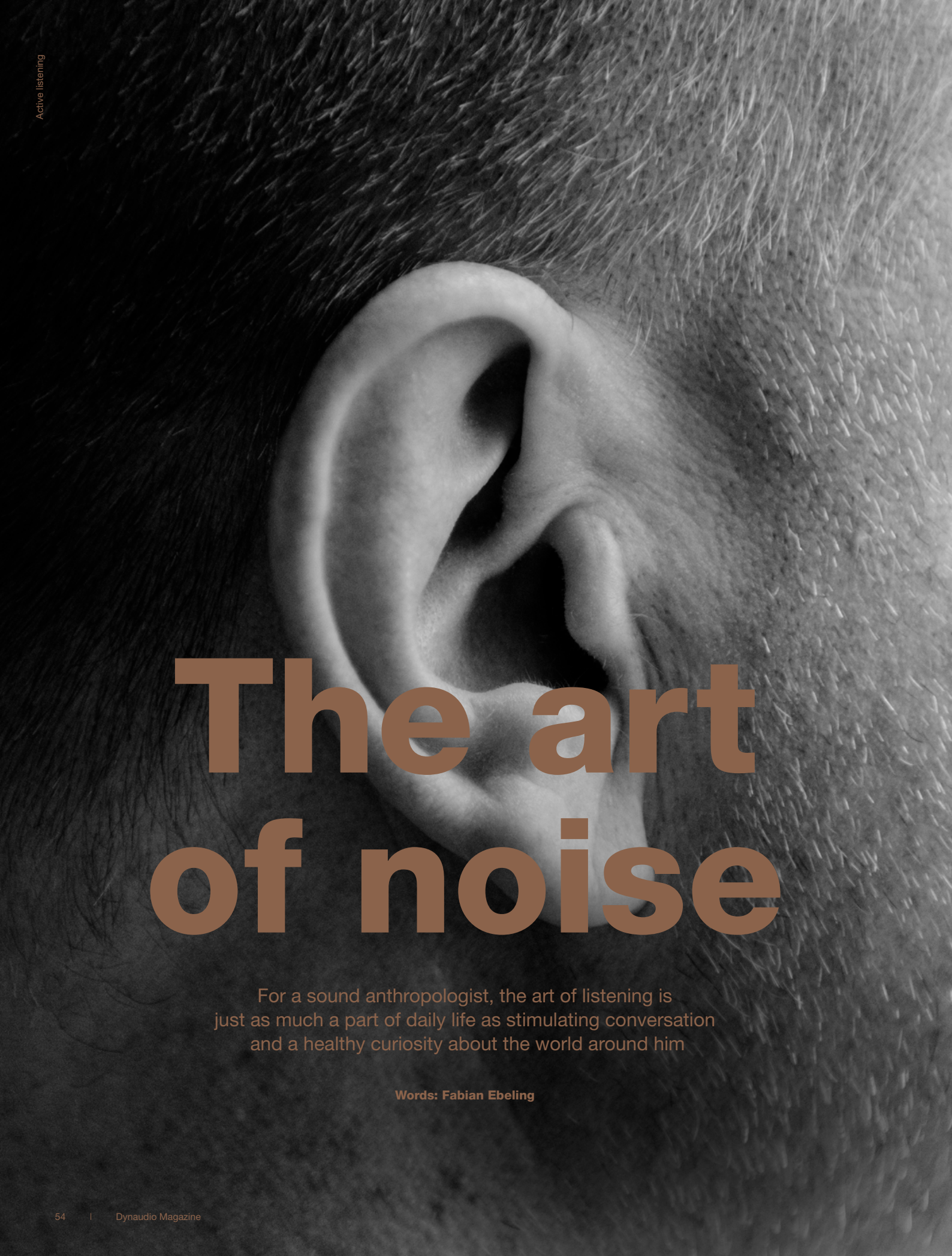


The art of noise

For a sound anthropologist, the art of listening is just as much a part of daily life as stimulating conversation and a healthy curiosity about the world around him

Words: Fabian Ebeling

If listening is a revolutionary act, the approach is a rather relaxed one. It can start anywhere, at any time—at Il Buco, a restaurant in Copenhagen's Islands Brygge neighbourhood, for example. It's eight thirty in the morning, The Beatles song *Come Together* is playing faintly in the background.

Holger Schulze is sitting at the window with a book. While reading, he focuses on the sound environment and, looking up, says, "there are five loud sound sources here. The music, the woman who is currently Skype-ing, the man with the husky voice having a conversation, the kitchen clatter and people paying." Pointing out that there are, in fact, two couples talking a bit more quietly and some are sitting wearing headphones, Schulze calls them "wellsprings of silence."

Listening, he describes, is a process in which people intensely focus on their surroundings and other people within it: "For the woman at the counter, the experience here is completely different. She listens to the music and sounds in this environment every day." Focusing on the sounds around you sharpens your awareness about how other people perceive the world. It's a location of self within the present. It's a counter model against day-to-day sensory self-encapsulations – gazing at smartphones on the subway, people who dive into their own zones at cafés wearing headphones, looking at their laptops. And yet, sensory withdrawal from the environment can be an impactful, necessary experience.

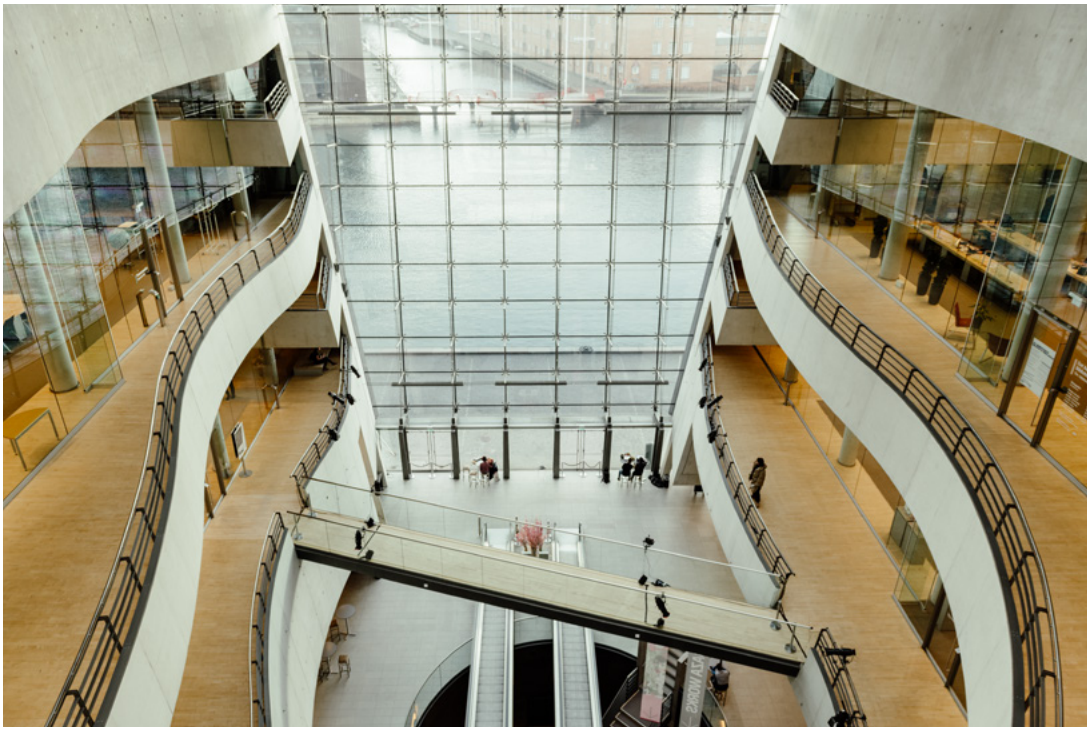
"Concentrated listening is something immersive; it helps us to shut down. It is also like meditation in everyday life," explains Schulze. "Part of my job has to do with recreation and enjoyment and that's great." The private-listener Holger can hardly be separated from the academic who researches sounds. True to the title of one of his recent books, he is The Sonic Persona.

Schulze is a Professor of Musicology at Copenhagen University. There are many names for what he does: sound anthropologist, sound researcher, cultural scientist. The father of three was born in Baden-Baden in southwest Germany. His mother escaped from a bomb-riddled Dresden after the Second World War. The French military had their headquarters in Baden-Baden and she worked there as a secretary. A French musician of the military orchestra caught her eye and, later, along came Holger. He fondly recalls long dinners with French family friends: "From six in the evening until late into the night we sat around the table and the intellectual but playful exchange definitely left its mark on me."

Shaped by sound

In Baden-Baden, a young Schulze found access to sound, in the form of music: "As a student, I could attend free concerts, of Neue Musik, for example. The regional broadcasting centre made that possible," he recalls. As a teenager in the early 1980s, he became fascinated by music that utilised samples. In 1984, it was the theme music of the Los Angeles Olympic Games that stuck with him: *People are People*, by Depeche Mode. From Baden-Baden, Schulze moved to Erlangen to study comparative literature, theatre, and media studies as well as philosophy. His PhD focused on aleatoricism – the incorporation of chance into the artistic process – which meant working with sound samples of William S. Burroughs and the sound art of John Cage.

As a post-doctorate at Berlin University of Arts (UdK), Schulze founded the Sound Studies degree program in 2006 with a group of designers, artists, and musicians. The program incorporated sound design, sound art, theory, and conception. Two research projects led Schulze to Humboldt University in Berlin after working at UdK. One of them, entitled Functional Sounds, will be wrapping up with the publication of his book *Sound Works: A Cultural Theory of Sound Design*. He also founded Sound Studies Lab, a platform where researchers come together to push the discourse in their respective fields. Via Leuphana University in Lüneburg, Schulze found his way to a tenure track in Copenhagen. And, of course, to the café where we're sitting now.



"It's the best practice or meditation to actually or figuratively close your eyes and focus on the soundtrack of the environment," he says, literally closing his eyes while sitting at Il Buco. "That's how I centre myself, find out what's going on, and discover how pleasant or unpleasant it really is." For Schulze, listening is an all-encompassing kinesthetic and multi-modal process: "We'll remember the sounds in this place, the taste of the coffee, the pictures on the wall, the mood," he says, wandering through the restaurant, looking for further sound traces.

Schulze trained his hearing in order to grasp the subtleties of sounds. He uses 'ear-cleaning' – a technique developed by Canadian sound researcher R. Murray Schafer. "When you focus on the sounds of the surrounding area, it deepens; you can hear into the distance and train your way of listening," Schulze explains. The human hearing spectrum reaches up to 20,000Hz. Schulze recently had a hearing test done and his results were about 18,000 – unusually good for a 48-year-old. Thanks to the ear-cleaning, his hearing remains agile.

A not-so-quiet place

The open atrium of the Danish Royal Library stretches several floors up. An escalator runs through it, leading to a passage in the old part of the building. From bridges and galleries you can look down into the whole room. Steps are heard, conversations from the canteen spill into the scenery, blending with the hum of the escalator. "Listening is a lever to other senses and sound is a way to talk about culture," says Schulze, explaining how he always focuses on technology first in such spaces, as contradictory symbols of our culture today.

"Lifts, poorly covered cables, computer screens, air conditioners. It could be an elevator. Often the shells of the equipment are sources of noise; in the case of the escalator it is the panelling," describes Schulze. The sounds in the atrium seem insulated, soothing. "It's because there are different surfaces where the sound can break," he adds. "You almost feel secure." Edges, niches, projections… the architecture varies and prevents the sound from bouncing off the smooth surfaces of concrete and glass.

It isn't just buildings steeped in technology where sound researchers like Schulze find their subjects. They can be picked up in the streets, pretty much.

During so-called 'soundwalks', researchers and other interested participants look for new impressions. They delve into the environment, sonically. Hildegard Westerkamp, a colleague of R. Murray Schafer's, came up with the concept of soundwalks and Schulze often comes back to this method for his research. One way of soundwalking is that a group will walk a determined route, nobody talks and everybody focuses on the sounds around them. Once in a while, the group stops and reflects upon what's been heard.

The sounds of a city

In front of the library, bicycles rattle past and Schulze starts walking, absorbing the surroundings. Bridges vibrate under the weight of trains and cars, the streets are wet and the sounds of traffic are masking the entire environment, Schulze notes. He stops at a junction and tries to locate the high-pitched tones of the beeping traffic lights. Once located, the tone appears to come from the other side of the street. "The sources of these sounds are really hard to find," says Schulze, standing under a traffic light, listening. The sounds of everyday life are not trivial – especially when one listens to them carefully, looks into them and tries to figure out where they come from. They

determine a huge portion of human sensory experiences and can be poetic at times: “The sound of a song, bouncing off a room onto the balcony, even at a poor quality can be something very beautiful,” he ponders.

At Öresund, the stretch of water between Copenhagen and the Swedish city of Malmö, the waves roll calmly to the beach. A wooden deck leads out to an open, shell-like structure in the water, made of wood, called Kastrup Søbad. The water sloshes beneath the dock and on the beach people are running from the sauna into the sea. The water carries their voices and the wood throws them back inside the shell.

Schulze picked this public swimming pool once for a lecture, because of its tonal peculiarities. “This swimming pool works like a parabolic antenna, like an amplifier,” he explains. “You smell the water and the wood; you’re close to the elements in an almost enclosed space on the open water. That’s unusual for a lecture.” The wind turbines spin in the background, cars drive on the bridge and planes take off and land at the airport.

Listening, as Holger Schulze knows, is a holistic experience. Anyone who gets involved in it enters into intense sensory contact with their environment and always discovers something new. So, next time you nod at someone’s record collection and ask what they like to listen to, and they say, “Oh, everything really,” they could well mean that literally… ■

Passive speakers

Confidence

Meet Dynaudio’s new flagship speaker family.
Confidence is the culmination of more than 40 years
of expertise, research, acoustic science and love of music.

It’s the finest loudspeaker we’ve ever created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Nothing compares to the satisfaction of knowing – for a fact – that something is as good as it gets.

Sit back in your chair and listen, secure in the certainty that every detail of the speakers in front of you is dedicated to revealing every detail of the music they're playing. Close your eyes and be delighted.

Confidence means pure performance.

It's the best speaker range we've ever produced, and it's packed with science specifically developed to honour art. Brand-new drivers – including the mighty new Esotar3 tweeter – combine with a precision composite baffle, innovative cabinet design and optimised crossover to create the most advanced passive speaker in our history.

Intensive analysis in our Jupiter measuring facility has resulted in the next-generation of Dynaudio's DDC sound-beaming technology – including the new DDC Lens waveguide system. The Esotar3 tweeter in the DDC Lens works in tandem with the new NeoTec woofers, the radical Horizon midrange driver surround and the innovative Compex baffle to ensure music goes exactly where you want it: your ears.

But you won't focus on the tech – you'll be lost in the music.

Experience the art of listening on a Confidence system. It's a masterclass in audio.

Confidence 20

We don't think a speaker's size should dictate how good it sounds… so we don't let it.

The compact Confidence 20 takes the performance, the passion and the power of the range's larger speakers, and puts it on a stand.

We've spent years looking at how we could improve on the previous range of Confidence speakers. And, after almost countless hours in design labs, our state-of-the-art Jupiter measuring facility, modelling and simulation suites – and, of course, listening rooms – we've done it.

Like the rest of the range, the Confidence 20 features the all-new 28mm Esotar3 soft-dome tweeter, plus a new 18cm NeoTec MSP woofer and an innovative down-firing bass port.
Its drivers feature cutting-edge developments in airflow technology (including a much larger rear chamber and optimised venting in the tweeter, plus the new resonance-stabilising Hexis inner dome); simulation-derived diaphragm thickness; super-powerful neodymium magnets; and the new Compex front baffle.

The new 28mm Esotar3 soft-dome tweeter takes over 40 years of Dynaudio expertise, plus plenty of new learnings from the development of the award-winning Esotar Forty unit – and rolls it all into the finest tweeter we've ever created. A powerful neodymium magnet system, innovations in airflow routing, the new resonance-busting Hexis inner dome… it all combines to increase detail, clarity and sensitivity.

The new 18cm NeoTec MSP woofer also has neodymium under the hood, and uses glass-fibre in its voice-coil former for optimum stiffness. The voice-coil itself is aluminium, which provides the right combination of weight and power-handling for tighter, more powerful and more controlled bass along with clear midrange frequencies (this woofer must be able to handle them both with equal precision). And the entire woofer motor has been designed to harness airflow using an innovative new venting system that's been machined directly into the magnet.

We're guessing you want to know how it sounds… and the answer is, simply, "like your favourite artist". Nothing more, nothing less.

Confidence 30
Perfect in every detail: our designers left nothing to chance when it came to creating the smallest floorstander in the new Confidence family

Confidence 30

Next-generation DDC sound-beaming technology leads the way in the smallest of the all-new Confidence floor-standers.

The tricky thing about producing the best is that at some point you have to beat it. The good thing is that when you're working with the team that created the original, the job becomes easier – and more fun.

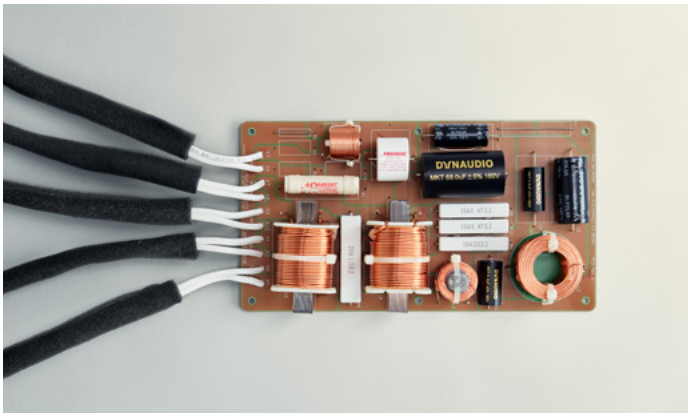
So, when the new Confidence 30 three-way floor-stander rolled out of Dynaudio Labs in Skanderborg, there was much rejoicing. It tips an affectionate nod to Confidence models past while taking their innovations and their performance to the next level.

Like the rest of the range, the Confidence 30 features the brand-new Esotar3 tweeter. This takes lessons learned during the development of the award-winning Esotar Forty anniversary tweeter – including optimised airflow technology, a new neodymium magnet design and the ingenious Hexis resonance-busting inner dome – and takes things up a notch or three.

Also on board are two all-new 18cm NeoTec MSP woofers (which, too, feature powerful neodymium magnet systems and some intensely clever airflow tech); the new, ultra-stable, ultra-rigid Compex composite front baffle; a completely new 15cm midrange driver with the new airflow-correcting Horizon Surround; the new down-firing bass port… and the next generation of the DDC (Dynaudio Directivity Control) sound-beaming technology, including the brilliant DDC Lens around the tweeter.

All of Confidence 30's key acoustic components work in perfect harmony as part of the DDC platform to vastly reduce floor and ceiling reflections while maintaining an accurate horizontal image. It means you can place the speakers in a larger space without needing room treatment, special rugs or ceilings or… well, anything. It just works.

And it means you hear only what the artist intended.



Inner beauty
Even the hidden crossover has been engineered to perfection

High-end highs
The DDC Lens focuses the tweeter's sound vertically at your listening position – meaning you hear more of what you're supposed to, and less of what you aren't

Confidence 50

The all-new Confidence 50 stands shoulder-to-shoulder in height with the Confidence C4 – the previous flagship of the range. It's a three-way design with twin woofers and twin midrange drivers. It's stunningly constructed. Stunningly finished. And a stunning performer. It uses DDC (Dynaudio Directivity Control) technology to form a sound 'beam' that avoids reflections from floors and ceilings. And it features an Esotar3 tweeter and MSP woofers.

But it takes all of this – every single component – to a new level.

It all centres on the new DDC Lens – the stunning waveguide around the brand-new Esotar3 tweeter. The DDC Lens has been simulated and topology-optimised to vertically focus the tweeter, midrange drivers and woofers on the listening position. That results in dramatically reduced reflections from floors and ceilings – which means you hear exactly what the driver system, and not the room, is doing.

The new 28mm Esotar3 soft-dome tweeter takes over 40 years of Dynaudio expertise, plus plenty of learnings from the award-winning Esotar Forty unit, and rolls it all into the finest tweeter we've ever developed. A powerful neodymium magnet system, innovations in airflow, the new resonance-busting Hexis inner dome… it all combines to increase detail, clarity and sensitivity.

The new 18cm NeoTec MSP woofers also have neodymium magnets under the hood, and use glass-fibre in their voice-coil formers for optimum stiffness. The voice-coils themselves are copper (which provides extra moving mass for tighter, more powerful and more controlled bass in this specific driver design). And the entire woofer motor has been engineered to harness airflow using an innovative new venting system that's been machined directly into the magnet.

The Confidence 50's new MSP midrange drivers are a big departure from our previous designs.

They use a radical surround – the Horizon – that follows the cone's shape to the edge of the driver. This reduces its first resonant mode to increase the playing surface and improve performance. The surrounds also sit flush with the baffle to reduce diffraction from the diaphragm and tweeter.

Behind, the basket has a new lightweight organic design – one that's come from extensive simulation sessions. It increases airflow, maintains its stability and rigidity and reduces weight simultaneously without sacrificing performance.

Everything is held securely in place in the ultra-rigid, super-damped and acoustically inert Compex composite baffle. It echoes the design of previous Confidences – but brings the look up to date in aesthetics and acoustic principles. That's because it forms an integral part of the DDC Lens system, while providing perfect coupling and decoupling of the drivers.

The bass port is underneath. And because it fires downwards, we've been able to design it to perform exactly as we want it to without having to worry about putting a big hole in the beautiful finish.


DYNAUDIO

Confidence 60

Hidden gem
This is the Hexis. It sits in the new Esotar3 tweeter, unseen, and gently guides airflow into the rear chamber to increase high-frequency performance to stellar levels

Confidence 60

Ultimate performance. Ultimate quality. Ultimate innovation. Meet the new flagship of Dynaudio's most advanced speaker range

Sometimes size does matter. The all-new Confidence 60, the flagship of the new Confidence family, towers above the outgoing Confidence C4 model. It's unashamedly big; it's unselfconscious hi-fi royalty. And it sounds like nothing else you've heard. Have a seat.

While your ears are captivated by the Confidence 60's astonishing power, scale and detail, your eyes will probably be drawn to the single Esotar3 28mm soft-dome tweeter in the middle. Then the twin 15cm MSP midrange drivers with Horizon surrounds. And, finally to the two 23cm MSP NeoTec woofers.

The drivers are all new. And they're all part of the next generation of our new DDC sound-shaping platform. As it does in Confidence 30 and Confidence 50, it focuses the sound waves radiating from the speakers into a tight vertical 'beam' that avoids reflections from floors and ceilings while maintaining a wide horizontal image. That means a bigger sweet-spot on the couch, a happier audience, and the knowledge that you're only hearing what the drivers are producing – and not what the room itself is bringing to the party.

The star of the show, the DDC Lens, is integrated into the precision Compex composite baffle. This ingenious part (the result of hundreds of hours of simulations, prototyping and listening tests) works in conjunction with the baffle shape, the tweeter and the midrange drivers (notice their brand-new Horizon surround, also part of the system) and the woofers to focus sound waves where they need to go: you. In fact, everything in the Confidence 60 is designed precisely for that purpose. Even the gasket that decouples the baffle from the cabinet, and the screws that hold everything in place.

The brand-new Esotar3 28mm soft-dome tweeter takes lessons we learned while developing the award-winning Esotar Forty unit, adds a raft of new technology and rolls it all into an object of astonishing precision and performance. A powerful neodymium magnet system, innovations in airflow routing, the new resonance-busting Hexis inner dome… all of it works to increase detail, clarity and sensitivity.

The new 23cm NeoTec MSP woofers also have neodymium magnets under the hood, and use three layers of glass-fibre in their voice-coil formers for optimum stiffness. The voice-coils themselves are copper (which provides extra moving mass for tighter, more powerful and more controlled bass in this specific driver design). And the entire motor has been designed to harness airflow using an innovative new venting system that's been machined directly into the magnet.

Confidence 60's bespoke midrange drivers also use the new Horizon surround, which follow the cones right to the edge of the drivers. The Horizon reduces the first resonant mode, increases the whole playing surface and, because it sits flush with the baffle, reduces diffractions from the diaphragm and the adjacent tweeter. Like the Confidence 50's unit, their baskets have a new organic design (the product of many hours of simulation and testing in Dynaudio Labs).

And – of course – it's all finished in our trademark Danish-designed furniture-grade cabinetry. Perfect performance, perfect quality.

Contour

When you get a Dynaudio Contour you're up in the big leagues.
You can see it from the craftsmanship; you can hear it in the performance.
And everyone else can, too…

Contour 60

Contour 30

The performance of the original Contour dropped jaws all over the world – and each update has done the same over the past 30 years.

Your jaw is about to drop again. We've moved on since 1989. You've moved on, too.

That's why we've applied all our experience, all our expertise – and all our passion – to looking at what made the original so good… and then making it even better.

It's time for a new legend. This is a speaker completely re-thought, re-designed, re-engineered and re-built for modern listeners.

Four models. One single-minded obsession with uncovering the truth in your music. (Also, something that'll make all your friends jealous.)

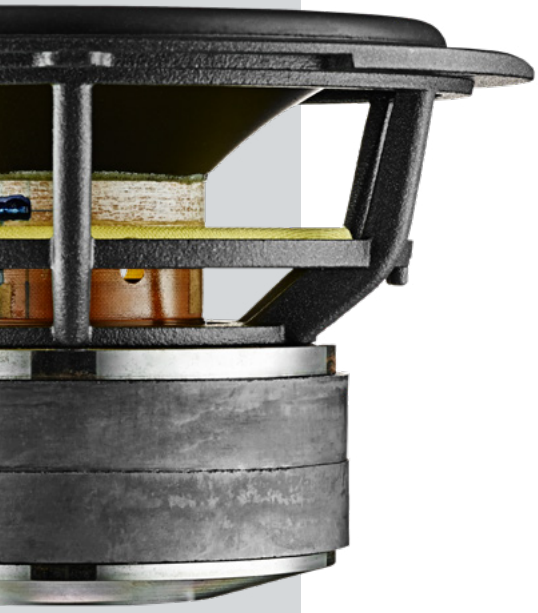
The Contour range takes everything we know about speaker technology – we're Danes; we know a lot – and puts it in four great-sounding packages. One for every room size (or, if you're in a studio flat, one for every neighbour type).

They all use the sweet-toned Esotar2 soft-dome tweeter, which has been a legend in its own right for years. It's commonly regarded as one of the world's best-ever drivers – and because it's been such a great friend to so many millions of ears (and a key part of Dynaudio's past), we just had to give it another outing.

Winning formula
The Contour 20 was selected by a jury of audio and video magazines from over 20 European countries

Contour 25C
The one for movie-lovers. It's the ideal companion to our stereo Contours – and integrates seamlessly for the ultimate in surround-sound

Behind the music
Aluminium voice-coils and our own diaphragm material, MSP, give Contour's woofers an incredible combination of power and control



Designed from the ground up

The woofers, though, are brand-new. They're powered by lightweight aluminium voice-coils and a vented dual-ferrite magnet system, and were created by driver specialists Danny Pasfall Christensen and Andreas Eberhardt Sørensen and their team under acoustic maestro Daniel Emonts. (They can hear differences between alternative glues. We love those guys.)

Their cones are made from MSP – a material we developed ourselves, and have been using in our drivers since 1985. MSP gives exactly the right combination of stiffness and damping – which you'll hear as exactly the right combination of power, finesse and control. Just what a Contour should have. But we've taken it further: we've varied the diaphragm's thickness between models for even more control over their performance.

The Contour 60 has a bespoke 15cm midrange driver. Like the rest of our drivers it uses an aluminium voice-coil. It also uses a neodymium magnet system, and was designed using Finite Element Method optimisation techniques. We wanted the Contour 60 to retain that authentic midrange quality in a large cabinet, without having to repurpose an existing driver for a job it wasn't designed to do.

Hold steady
A lightweight yet rigid aluminium baffle gives the drivers a solid foundation

Contour 30

Solid aluminium baffle

At Dynaudio we feel there's always room for improvement – and our designers love to stretch their legs (you should see the number of sketches they produced for just this part). This baffle is aluminium, and set into the cabinet. Its chamfer is included in the driver's basket – which not only looks great, but also improves the treble and provides a solid foundation for the drivers to do their work. A solid foundation means improved high-volume performance at low frequencies, too (although your neighbours might not thank us for that).

And although we might have changed the cabinet's shape (square is out; curves are in), the new design tips a respectful nod to older Contours. Look at it from the top; you'll see the previous baffle design in its shape. But it isn't just for show – the new shape marries those aesthetics with cutting-edge physics. Its multi-layered construction is extremely well-damped, which means the Contour's sound goes exactly where it's supposed to: forwards.

We've redesigned the internal wiring and crossover, too. You won't see what we've done, but you'll hear the effect: amazingly clear sound, even off to the sides of the speakers. We love it – and you will, too.

And, of course, they all use the highest-quality materials and finishes we can lay our hands on. Our factory technicians make sure all Contours are furniture-grade: perfectly built, perfectly finished and perfectly packaged.

Contour 20
Compact? Yes. Compact-sounding? No. Contour 20's sweet-toned Esotar2 soft-dome tweeter has been a legend in its own right for years. It's commonly regarded as one of the world's best-ever drivers – and because it's been such a great friend to so many millions of ears (and a key part of Contour's past), we just had to give it another outing.

The extended-excursion 18cm woofer is powered by a lightweight aluminium voice-coil and a vented dual-ferrite magnet system. It's made from MSP, naturally, for extreme control over its sound.

Making a Contour without its signature baffle would be like making a car without wheels. Unthinkable. But reimagining a speaker means reimagining everything – and our designers relish that kind of challenge. This baffle is made from solid aluminium, and it looks as if it's growing out of the wood itself. By blending its edges and curve into the driver basket shape, they've managed to reduce unwanted high-frequency diffraction effects (which means clearer treble) and also given the drivers a better mechanical foundation (which means improved high-volume performance at low frequencies).

We've redesigned the internal wiring and crossover, too. You won't see what we've done, but you'll hear the effect: amazing clarity, even off to the sides.

Contour 30
Mid-size room? Mid-size speaker.

Contour 30 steps it up a notch. We've endowed it with two 18cm MSP drivers, as well as doubling up on the rear ports. What makes our drivers so special? Variable thickness across the diaphragm between models, for one thing. Each speaker gets exactly what it needs.

And aluminium voice-coils, for another. We experimented with small voice-coils on the new Contour. The measurements said they should work for these speakers – but our ears said otherwise, so we went big. Our ears were right.

And, of course, we've included the ultra-pure, ultra-clear, ultra-sweet-sounding Esotar2 soft-dome tweeter. You might also notice that we've put it back on top of the mid/bass drivers rather than underneath, as it was before. Never let it be said that we don't listen to our fans.

More than skin deep
Inside Contour there's a brand-new wiring configuration, new audiophile-grade copper air-coils and capacitors; new low-resonance circuitry; new WBT NextGen™ speaker terminals; our unique Phase Alignment and Impedance Alignment technologies, and more

Contour 60

If our designers loved working on Contour 20 and 30, Contour 60 was an even bigger ticket for them.

It's a three-way design. At the bottom sit two brand-new 23cm MSP woofers (bigger, redesigned brothers of the 18cm drivers we've used in Contour 20 and 30). At the top, like the jewel in the crown, is the magnificent Esotar2 soft-dome tweeter. Between them is a bespoke 15cm midrange driver. Like the rest of our drivers it uses an aluminium voice-coil – but this time it's coated in copper for higher output power with low mass: exactly what we needed for this speaker. It also deploys a neodymium magnet system, and was designed using Finite Element Method optimisation techniques.

All the drivers are powered by low-mass, high-durability copper-clad aluminium voice-coils. And the tweeter's voice-coil sits – as they do across the Contour range – in a special magnetic ferrofluid. It works like a shock absorber and dissipates heat to reduce stress on the moving parts – which improves power-handling and widens the frequency response.

The new multi-layer curved cabinet and sleek-but-solid aluminium baffle provide your music (which was likely mixed using Dynaudio studio speakers, too – see p130) with a robust, defined acoustic foundation. So much so that, if we've done our jobs right, you'll forget they're even there and just… listen.

Contour 25C

Mix and match this dedicated centre-channel with a combination of Contour 20s, 30s and 60s for a seamlessly integrated multichannel system – a system on which you know you'll be able to enjoy stereo music as much as you will a teeth-rattling blockbuster.

Why? Because it's essentially a Contour 30 turned on its side, with the tweeter moved to the middle. The super-detailed Esotar2 soft-dome unit is flanked by a pair of 18cm MSP drivers – all of which use the same high-end lightweight aluminium voice-coils and magnetic ferrofluid technology as the rest of the Contour range.

And if you're investing time in watching a movie (or even a TV show), you want that experience to be as clear, dynamic, assured and powerful as it can be. Most of the speech information comes out of the centre-channel, which is why the Contour 25C's combination of legendary materials and balanced, neutral sound is so ideal.

Cutting-edge acoustic technology
in a classic Dynaudio design

Special Forty

Award-winning performance

Raise your glasses and rejoice: Special Forty is on a roll

WHAT HI-FI? AWARDS 2017

Stereo speakers
Best standmount speaker £2000+
Dynaudio Special Forty

WHAT HI-FI? AWARDS 2018

Stereo speakers
Best standmount speaker over £2000
Dynaudio Special Forty


DYNAUDIO

"What are you going to do for Dynaudio's 40th birthday?", everyone asked back in 2017.

We thought about it for a bit and decided that since we aren't big on huge decorated cakes and candles (although we are partial to a tasty flødeboller), we'd celebrate a little differently…

And yes, we know you're the ones supposed to be giving us gifts – but we just couldn't help ourselves.

Happy birthday to us! Here's your present: Special Forty.

Laurels aren't for resting on. Some people might be content to sit back and be complacent about their successes after 40-odd years of constant innovation. We aren't. In fact, we only get hungrier for new techniques and technologies.

That's why we developed Special Forty. We wanted to revisit those innovations and see what we'd do differently this time.

What you won't find here is anything revolutionary (check out our active speaker range for that – you'll be amazed). Instead, you'll discover a look at our past – along with some special sneak-previews of the future.

Special Forty is classic Dynaudio: all the craftsmanship, attention to detail and total love of authentic sound you've come to expect. It's the connoisseur's choice – a simple pair of high-end passive hi-fi speakers.

But it isn't about looking back, misty-eyed, at past glories and leaving it at that. It's about using those glories as a platform from which to launch our next set of breakthroughs.

We do compact speakers really well. We always have. So, as a nod back to classics including the Special One, Special Twenty-Five, Crafft and the Contour 1.3SE, we kept the Special Forty pure – if incredibly advanced.

The greatest hits of our greatest hits

Of course, it wouldn't be an anniversary speaker if it didn't include some of our greatest hits. But we haven't just got the old band back together to trot out the same old stuff. We've remixed, remastered and rearranged things to bring those old favourites into the present – and beyond.

That's why it has one of our classic crossover designs, incorporating our unique Phase Alignment and Impedance Alignment technologies. The crossover expertly marshals the input signal between the woofer and the tweeter – so each driver gets only the frequencies it's supposed to, and can perform at its very best. Its specially selected components handle the impedance optimisation and, because both drivers have extended frequency ranges for even better overlap and integration, that performance borders on mesmerising.

The song remains the same

Special Forty uses our proprietary MSP (Magnesium Silicate Polymer) material for its mid/woofer driver. MSP delivers precisely the right combination of lightness, stiffness and inner damping for the most faithful sound reproduction. And, unlike some other cone materials, it doesn't change over time – so your speakers will still be singing just as sweetly come our next anniversary.

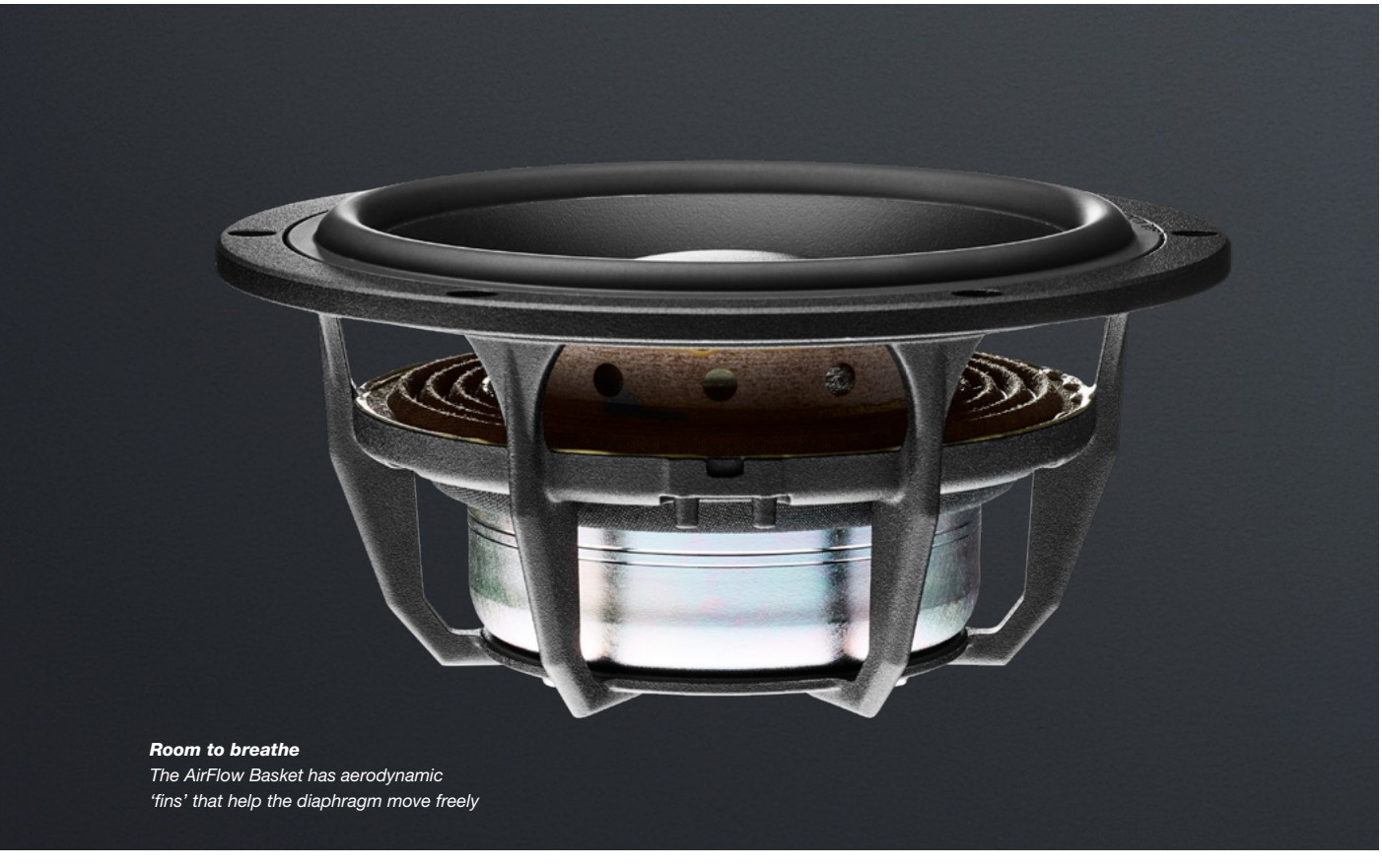
The cone itself uses a painstakingly developed symmetrical excursion for even better midrange performance. Behind it sits our asymmetrical spider – our Passive Harmonic Rectifier. It minimises upper harmonics to further tighten the performance and make it possible not only to pick out individual parts in a piece of music, but even individual instruments in an orchestra. (So now, finally, the Third Violin section can have its day in the sun.) And, like all our other MSP cones, it's a one-piece design (you can tell by the special balance ribs around the integrated dust-cap). This gives it an incredibly solid connection to the voice-coil, as well as stabilising its form – which is crucial when you decide to crank the volume.

Airflow is king

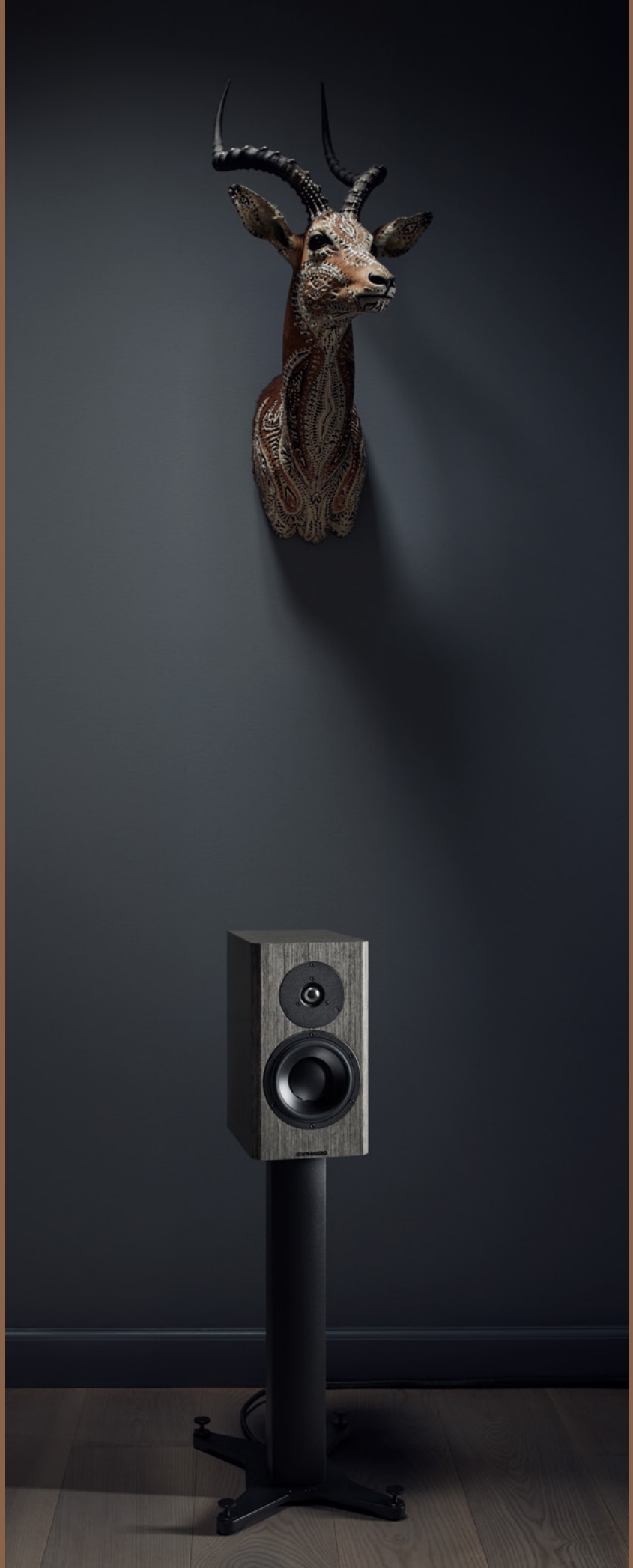
It all sits in our AirFlow Basket – the bit that holds the driver motor securely in place in the cabinet. Its development was one of those 'Eureka!' moments our engineers seem to get a few times a week in Dynaudio Labs (you can often hear them cheering from across the road in our factory).

We asked them to reduce internal reflections and increase air movement without compromising the basket's stiffness or stability, and this ingenious design is what they came up with.

The brand-new Esotar Forty tweeter takes air-movement to another level. It moves the air in typically sweet fashion in front of the precision-coated soft-dome, of course, but there's a lot of advanced engineering going on behind it as well.



Room to breathe
The AirFlow Basket has aerodynamic 'fins' that help the diaphragm move freely



The tip of the iceberg
Behind the tweeter dome is a labyrinth of airflow-optimising conduits and chambers

More than meets the eye
Special Forty serves up the kind of performance you'd expect from much larger speakers

Take the new pressure conduit. It's a shaped vent in the back of the magnet system that allows more space in the rear chamber. That space lets us pack in more damping material to reduce back-pressure, while the shape itself optimises airflow coming backwards from the rear of the dome.

Then there's the outlet; the aero-coupled pressure-release system. It sits underneath the voice-coil and reduces unwanted pressure build-up that could affect its movement. Stopping those pockets of air from forming reduces resonance – and less resonance equals even greater potential for detail.

Flux optimisation and beam control

We love playing with the laws of physics. Physics wins in the end, of course (usually), but we almost always manage to bend it to our will along the way. Just like we have with our advanced magnet systems.

The magnet turns electrical energy that flows from your amplifier to the voice-coil into the physical back-and-forth movement of the driver diaphragm. These movements are very small and very fast (especially in the tweeter), so they need a lot of finesse if you want to hear all that luscious detail and emotion in your music.

In the woofer, we've achieved that finesse in two ways: by placing the magnet inside the voice-coil, and by playing with magnetic energy itself.

Other manufacturers might typically put it around the outside edge, leaving the voice-coil hollow. Putting the magnet inside keeps the magnetic energy (or flux) in the optimum position for getting itself wrapped around the voice-coil – where it should be. That means we can use more of its power for a given weight. It also reduces internal reflections because there's less material for sound to bounce off inside the driver.

Second, we use a hybrid magnet for even greater control over the flux and voice-coil movement. An incredibly powerful neodymium rare-earth magnet provides the muscle and flings flux around with abandon, while a ferrite magnet tempers that enthusiasm by gently moving the flux back to exactly where it's needed most. The result? Symmetrical excursion, a reduction in second-harmonics, and an even more accurate, authentic sound.

Box clever

And then there's the finish. With Special Forty's stunning Grey Birch, our designers have given you a treat. We've always done something special for our anniversary speakers – from the luscious bird's-eye maple of the Contour 1.3 SE to the Special Twenty-Five's stunning burled birch and the Sapphire's amazing Mocca, Bordeaux, Amber and Ivory veneers.

Special Forty takes that to a new level. We pushed our team to come up with something different to the kind of thing we've done in the past, and they took that to heart. That's why they're raw; visceral; striking. We wanted Special Forty to look as authentic and honest as the music they're playing sounds. They're things of beauty to look at as well as to listen with.

Evoke

Evoke is for you.
It’s for living rooms. Home cinema rooms. Listening rooms. Even bedrooms.
It’s serious hi-fi, everywhere

Evoke 20


Evoke 10


Evoke 50

This brand-new speaker range takes advanced technology directly from our top-of-the-range speakers – including finishes, driver technology and design. And that means each of the five Evoke models can vibe with you, grow with you, and stay with you – however you listen.

Every single part has been looked at from the ground up. Every driver has been optimised in Dynaudio's state-of-the-art Jupiter measuring lab. And every finish has been painstakingly formulated and executed to reflect those on our most exclusive speakers.

Music should last a lifetime. With Evoke, it will.

Creating a new family of speakers is something our designers relish. At the start, the whole process is a sandbox – one that's full of out-there ideas, wish-lists and ingenious solutions that had been percolating in brains and notebooks.

And because they have four decades of established research and legendary products to draw on, with Evoke they landed right in the Goldilocks zone.

They combined cutting-edge technology directly from the Contour and all-new Confidence ranges (see p74 and p64) – not to mention ultra-high build and finish quality and traditional, elegant cabinets designed to look great in any listening environment – with exceptional value for money.

Take the new Cerotar tweeter. It's a brand-new, ground-up design based on our award-winning Esotar Forty anniversary tweeter and the mighty Esotar3 found in the new, money-no-object Confidence series. Underneath the 28mm soft-dome diaphragm sits the resonance-defeating Hexis inner dome – the same as you'll find in the Confidence tweeter (see p64). Behind it all, the new motor system uses a strontium carbonate Ferrite+ ceramic magnet for higher sensitivity.

The Esotec+ woofers use MSP (Magnesium Silicate Polymer) in their diaphragms – just like all Dynaudio speakers have done for decades.

The diaphragm is 0.4mm thin, which provides exactly the right combination of lightness, stiffness and damping to ensure optimum performance. It's made of one piece (what appears to be the dust-cap is actually part of the playing surface), and is bonded to the rigid glass-fibre voice-coil former. That means the whole unit moves as one, in a predictable (and carefully tuned) way.

The woofers used in Evoke 10, 20, 30 and 25C feature new surrounds and improved Ferrite+ magnet systems to extend their throw, their frequency response and their low-frequency dynamics – all while maintaining stellar midrange performance. And the 18cm driver in Evoke 50 borrows technology from both the Contour and Confidence ranges to deliver eyebrow-raising low-frequency dynamics and timing.

But we can't perfect all that without some seriously long listening sessions. And that, for us, is the key: we listen like you do. No song is off-limits. Nothing is too cheesy, or too high-brow. We love music, so there's no other way we can design our speakers other than for fellow music-lovers.

Each of the simple, elegant cabinets (themselves the result of months of painstaking prototyping, refinement and care), is available in four finishes: Black High Gloss, White High Gloss, Walnut Wood and Blonde Wood.

New lacquering techniques mean the gloss versions have a stunning, almost glass-like finish, while the wood versions have open veneers for a warm, natural feeling. And they'll only look better over time.

Our designers wanted Evoke to be the kind of speaker you take with you from student residence, to apartment, to house. The kind of speaker you'll rediscover your favourite music with – and then pass it on.

Listen all day (and all night)
The Cerotar tweeter gives you a detailed and natural high-frequency response that's smooth enough to take you through many albums' worth of music in one sitting without feeling tired. Exactly as it should be

Evoke 30

Evoke 10

We've been creating speakers that perform out of all proportion to their physical size for over 40 years, and Evoke 10 is no exception.

The 14cm MSP driver's 38mm voice-coil is made from aluminium, making it extremely light (but extremely controllable at the same time). It's kept stable, centred and true by the Nomex spider (the circular spring assembly that stops the cone from moving when it shouldn't, and lets it move when it should). The whole assembly is driven by one of our new, powerful strontium carbonate Ferrite+ ceramic magnet systems.

Up top is the brand-new 28mm Cerotar soft-dome tweeter. The Cerotar, like the woofer, is powered by a powerful Ferrite+ ceramic magnet assembly.

Linking the drivers together is a high-grade crossover that uses the Confidence's design with different components. So, yes, when we say you're getting high-end tech, we mean it.

And you might notice that you can't see any mounting screws. Evoke has simple, clean trim rings that emphasise the cabinet's finish as well as the moving parts of the drivers. The rings are one-piece moulded, with the surface finish embedded in the moulding process – so what we make is what you get.

Evoke 20

It's true that you can have too much of a good thing. Try as you might, some good things just won't fit in your living room – but Evoke 20 will.

Evoke 20 is a full-size stand-mounted speaker designed for almost any space. Its powerful 18cm mid/bass driver ensures it can flex its muscles when there's heavy lifting to be done, while its 28mm soft-dome tweeter takes care of the fine detail. And, of course, its design looks fantastic wherever you put it.

Its 52mm voice-coil is made from aluminium. We chose that over copper for this speaker because it has the right balance of weight and winding height to give bass frequencies power and enough mechanical and electrical damping, while also letting midrange frequencies sing through clearly.

Our design department took field trips to show-homes, home-interiors stores and real-life dwellings in Denmark to hone Evoke 20's look. It was important for them to be able to imagine the speakers in a variety of living spaces – because, after all, that's how most people listen.

The cabinets themselves are tapered and rounded in a nod to the Contour and Confidence ranges. And because good design doesn't age, you know they'll look every bit as stylish when you're still listening to them in 30 years. Which, we hope, you will be.

Evoke 30

Put a pair of floorstanders in your living room and even the least 'hi-fi' person in the world will know you mean business. Put a pair of Evoke 30 floorstanders in there and they'll also know you have taste. These two-and-a-half-way speakers strike the balance between compactness and restraint, and unabashed, wide-eyed enthusiasm for music.

Evoke 10

Evoke 50

At the head of the table is the all-new Cerotar 28mm precision-coated soft-dome tweeter with the Hexis inner dome. Underneath sit twin 14cm Esotec+ MSP mid/bass drivers. Each speaker cone is made from a single piece of MSP – bonded directly to their 52mm aluminium voice-coils under the Balance Ribs you'll see around the centre.

Add the eye-catchingly clean cabinets and the result is an instant classic. It's modern, retro, timeless and cutting-edge. The kind of speaker your kids will eye-up expectantly when they're leaving for university. (We'll forgive you for hanging on to them yourself instead.)

Evoke 50

If a pair of Evoke 50s doesn't say "statement of intent", we don't know what does. Use them in stereo. Use them as part of an Evoke multi-channel cinema system. However you listen, the word 'epic' won't be far from your lips.

These full three-way floorstanders boast twin 18cm woofers and a 15cm midrange driver along with the new Cerotar tweeter.

While the Evoke 20 standmount speaker uses aluminium in its 18cm woofer, Evoke 50 uses copper. That's because these are pure bass drivers – they don't need the fleet-footed agility of a dedicated midrange unit, so we were able to give them more moving mass. The 0.4mm diaphragm is the same, though, as is the Ferrite+ ceramic magnet. That means power and detail. It's just one of the solutions arrived at through extensive analysis and simulation in our Jupiter measuring facility.

A design for life
Evoke is available in four beautiful finishes. The shiny versions really are just that: new lacquering techniques have resulted in a sumptuous, almost glass-like finish. The wood versions use a tactile, open natural veneer for either a warm, dark tone or a light, airy look

Evoke 50 is the only speaker in the family to have a dedicated midrange driver, so the engineers in Dynaudio Labs decided to make it a little bit special. The unit they chose is derived directly from the high-end Contour range – which means a powerful neodymium magnet, a 0.4mm-thin diaphragm and a glass-fibre voice-coil former with a trademark Dynaudio aluminium voice-coil.

Why neodymium and not the Ferrite+ of the woofers? Because it's light, and it's powerful. Why aluminium and not copper? Again, because it's light (and lets us put more windings in the voice-coil for a given weight). That's a combination that gives our team amazing control over how the driver responds – they were able to fine-tune it to integrate perfectly with the woofers and tweeter. In fact, the Evoke team did such a good job that you're essentially getting Contour-level performance out of this midrange driver.

Plug them in and rediscover your love of music.

Evoke 25C

Going to the movies is better at home. You don't have to queue, the floor isn't sticky, and you don't get charged through the nose for snacks. Plus, you can create a far superior audio experience. But for that, you need a centre channel.

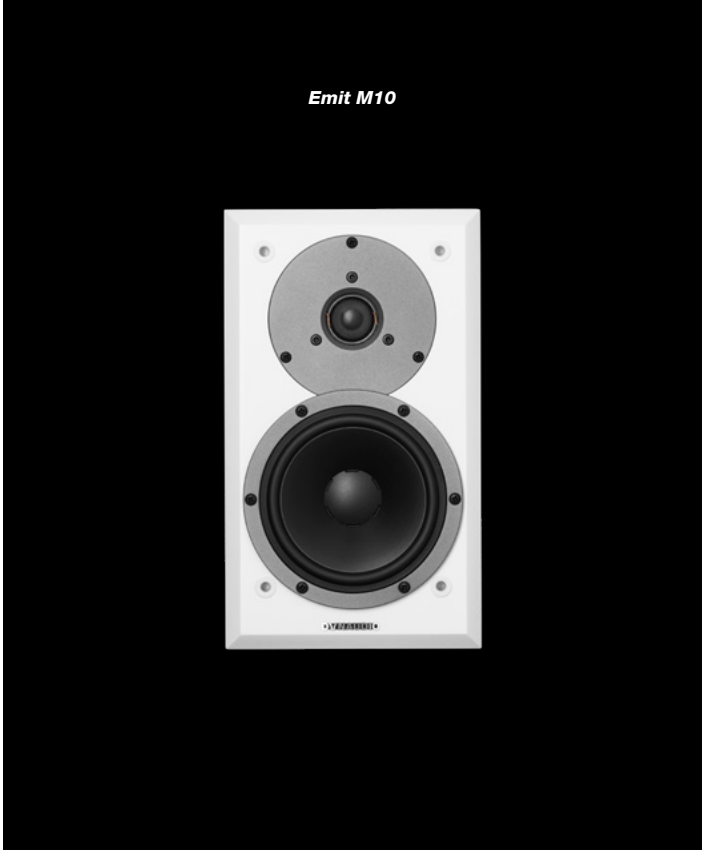
Evoke 25C is a dedicated centre speaker designed to integrate perfectly with any and all other speakers in the Evoke family – so you can bathe your ears in high-quality stereo just as effectively as you can shake the fillings out of your teeth with a summer blockbuster.

The two-way design has one 28mm Cerotar tweeter with the Hexis inner dome and twin 14cm long-throw MSP woofers with 38mm aluminium voice-coils and ceramic Ferrite+ magnets for fine-tuned control. That level of fine movement is especially important in a centre speaker, which predominantly deals with speech – its midrange performance has to be absolutely top-notch.

In non-speaker-designer language, that means "you'll hear your movie the way it was meant to be heard". No rough edges, nothing standing out where it shouldn't – and nothing relegated to a cameo when it should be the lead. And your ears won't get tired when you decide to binge-watch that nine-series box-set…

Like the rest of the family, Evoke 25C is designed for real-life rooms. After all, it's as much a piece of furniture as the couch you sit on to watch your favourite movies.

Like a great movie, a great design doesn't age. Evoke 25C will stay as timeless and thrilling as the classics you're playing through it.



Emit

Who would’ve thought
‘entry-level’ could be so good?

Emit M20

Winning formula
The UK's legendary What Hi-Fi? *magazine named the entry-level Emit M20 Product of the Year*

WHAT HI-FI?
AWARDS 2016

PRODUCT OF THE YEAR
Best standmount speaker £400-£800
Dynaudio Emit M20

Emit M30
Designed and tuned by the same team who make our highest-end high-end speakers

Just because something sits at the introductory end of our loudspeaker range, that doesn't mean we've made any compromises when it comes to sound quality. We just can't bring ourselves to do that.

Instead, we've gone above and beyond to make sure that every speaker in the Emit range can be easily paired with different amplifiers and AV receivers.

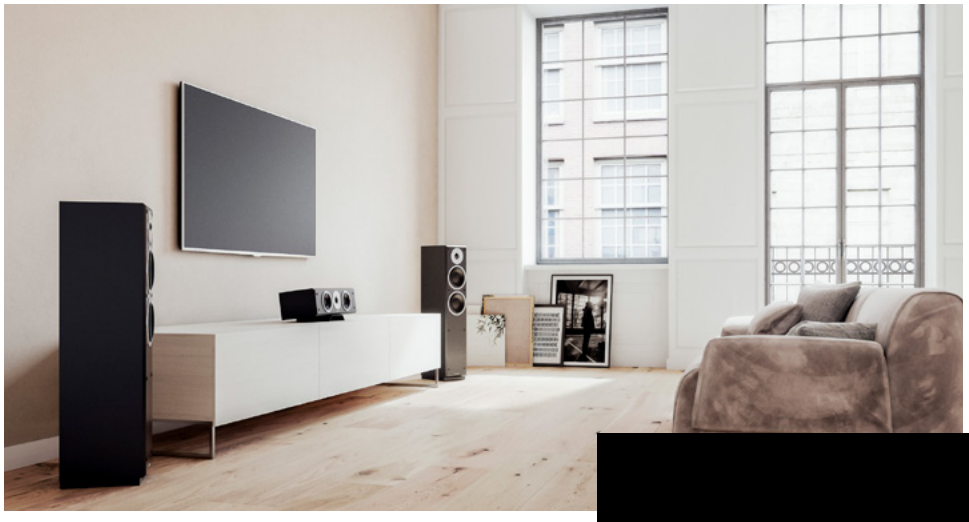
We designed them to be easy to position in your room, and we made sure that they can all be used as part of a stereo or multi-channel surround-sound system.

Make no mistake: we've poured just as much enthusiasm, knowhow and innovation into our Emit range as we have into our ultra high-end Confidence loudspeakers (see p64). We don't believe in cutting corners.

Take a close look at a pair of Emit speakers and you'll find the same materials in their drivers as you'll find on every other model in our range. You get the same Magnesium Silicate Polymer for the mid/bass drivers (a material we developed in-house in our Skanderborg factory), the same philosophy behind the precision-coated soft-dome tweeters, and the same lightweight aluminium voice-coils for greater precision, power-consistency and control.

And they've been designed, engineered and tuned by the same people who've produced some of the most cutting-edge, high-end loudspeakers of the past 40 years.

You're in good hands.



Flexible placement
We've designed the Emits to sound just as great wherever you want to put them

Emit M15C
Complete your home cinema with this dedicated centre channel speaker

Emit M10

Don't go assuming that a compact speaker has small-scale sound. The M10's 14cm MSP mid/bass driver and 28mm soft-dome tweeter team up with a first-order crossover and a forgiving linear 6-ohm impedance that lets them play nicely with pretty much any amp you power them with. The tuned bass-reflex port and long-throw driver are optimised for smaller and mid-size rooms, and our designers have made sure they'll still work shoved up against a wall or on a shelf – because they know not everyone has (or wants) a dedicated listening room.

Emit M20

Move up a step in size and you get a 17cm mid/bass driver designed to fill mid-size and larger rooms. The 28mm soft-dome tweeter remains, of course; we've spent 40 years working on our tweeters, and until one of our engineers rushes in brandishing something revolutionary and shouting "I've done it!" (which, admittedly, does sometimes happen), we see no reason to change.

Because the M20s are a little bigger, we recommend putting them on stands (you can see the matching Dynaudio Stand 20, among other accessories, at www.dynaudio.com), and giving them a bit of space behind to breathe.

Emit M30

The M30 floorstanders share the same DNA as our top-of-the-line loudspeakers. Their twin 17cm MSP bass drivers each feature a large 75mm aluminium voice-coil (larger voice-coils mean more windings, which means more control over dynamics, detail and finesse), and their 28mm soft-dome tweeters have rear damping chambers for even greater precision. It's the sort of thing you might expect to see in much higher-priced speakers (such as the 2017 *What Hi-Fi?* Award-winning Special Forty anniversary speakers on p82). And it's the sort of sound you might expect, too.

The M30s are designed to work just as well in a stereo set-up as they are in a multichannel system.

Emit M15C

It's been said that up to 80 per cent of the movie-watching experience is down to its sound. And when you're watching a movie using a surround-sound system, most of it comes from the centre channel. We've made sure the M15C can live up to that kind of pressure. Two 11cm MSP drivers and a 28mm soft-dome tweeter handle the business end, while the angled centre base lets you position the speaker for listening on a sofa. You can also put it flat on a low sideboard, or fix it to the wall with a dedicated Dynaudio mounting bracket.

Active speakers

Focus XD

A complete hi-fi system…
without the clutter of a complete hi-fi system

No outboard amplifier. No speaker cables. No compromise.

Focus XD is a total, self-contained system. These high-end active speakers bring true high-resolution wireless playback, from every conceivable source, to your home.

Send in a digital signal (wired or wireless, it's your choice), and it'll stay that way right up until the last possible moment – meaning it stays pure all the way from the recording studio to the speaker driver.

There's no clutter, no fuss… and no catch.

Focus 30 XD

Focus 60 XD

When we set out to design the Focus XD series, we had one philosophy and one goal: keep the signal pure for as long as possible… and make the best active speakers ever.

And because our R&D engineers aren't the type of people to back down from a challenge like that, that's exactly what they accomplished.

Focus XD is the pinnacle of Dynaudio active speaker tech. Each individual drive unit is powered by its own tailor-made digital amp. And running the show is cutting-edge digital processing technology capable of handling full-fat, 24-bit/192kHz hi-res files.

All the speakers share common controls and connections – so if you want to mix-and-match, you can. There's digital coaxial in and out, plus analogue input (with adjustable sensitivity), as well as a seven-position control for fine-tuning the speakers' performance for their placement.

And if you add the optional Dynaudio Connect wireless transmitter, you get digital optical, another digital coaxial and RCA and 3.5mm analogue inputs – plus mini-USB (which can stream 24-bit/96kHz files), aptX Bluetooth and Wi-Fi connectivity (including DLNA).

Focus XD's firmware can even be upgraded when our engineers make another breakthrough. In fact, that's exactly what's just happened. In the latest version, not only have they redesigned the crossovers and found a way to use less processing (for an even cleaner sound), they've managed to extract more volume from the drivers without distortion or compression. And because there's less processing happening there, we've been able to use more in the EQ for even better speaker-position compensation. We've also included tech from our LYD pro-studio monitors (see p136) that lets you tweak overall brightness with a switch on the back.

Use them with your existing system (they'll integrate just fine), build a multiroom set-up (you can use them with the Xeo range too; see p110), or even hook them up to your TV… while getting genuine high-end wireless hi-fi into the bargain.

Focus 20 XD

Focus 60 XD

Focus 20 XD

Perfect harmony
All the speakers in the range share common controls and connections – so if you want to mix-and-match between models, you can. There's digital coaxial in and out, plus analogue input (with adjustable sensitivity), as well as a seven-position control for fine-tuning the speakers' performance for their exact placement in your room

Focus 60 XD

The 600W floorstanding Focus 60 XDs are the ultimate union of quality, power and performance. With twin long-throw 18cm woofers and a dedicated 14cm midrange driver – both made from our proprietary MSP material – plus our legendary 28mm soft-dome tweeter, they're designed just as much for finesse as they are outright thump.

Focus 30 XD

These compact 450W floorstanders have two 17cm woofers and a precision-coated soft-dome Esotec+ soft-dome tweeter. Their tri-amp configuration and intelligent digital amplifiers mean each driver gets exactly the right amount of the right frequencies, at the right time, to help your music sound exactly as it should.

Focus 20 XD

Dynaudio has spent decades repeatedly redefining the compact loudspeaker – starting with the legendary Contour 1. And with the 300W Focus 20 XD, it's happened again. The 17cm MSP driver and 28mm tweeter from the rest of the Focus XD range appear here, too – along with all the authority and control of the larger speakers. It's quality, concentrated.

Xeo

Xeo is the world's first high-end wireless
active stereo speaker system.
And we've poured every one of our 42 years
of hi-fi experience into creating it


Bowie Collector


Xeo 20

Xeo 10

Sometimes you just want to listen to some music. You don't want to have to deal with rummaging through your shelves (or somewhere on the floor) for a CD, then find the box for the one you left in the player last night – only to realise, half a song in, that you actually wanted a different CD. Wash, rinse, repeat.

Xeo frees you from all that. It's a family of wireless speakers that can play music from your computer, smartphone, docking station, network player, CD player, TV, portable device, tablet, video system and more.

The speakers are active. That means they contain their own amplifiers and electronics. It also means you don't need to concern yourself with matching other components to the speakers. No speaker cables, no external amplifiers, no big equipment racks. We've done the hard work for you.

All you have to do is pick a song. And your ears will be greeted with the same honest performance that Dynaudio has been legendary for since 1977.

Xeo 10: versatility without compromise

Xeo 10 updates and improves the outgoing Xeo 2 model with new components, new tunings and improved looks… even new packaging. Make no mistake, this is far more than just a new look.

The first thing you'll notice is the smoother, sleeker design. We've mounted the driver to the baffle from behind – meaning no more visible screws – and given the solid aluminium front baffle a new brushed finish. Xeo 10 is available in Black Satin (with a black baffle and grille) or White Satin (with a grey baffle and grille) finishes.

Inside the super-rigid composite cabinet you'll find a new, optimised 14cm MSP woofer and one of our signature 28mm soft-dome tweeters (a technology we've been using since the very beginning on all our high-end loudspeakers).

High performance everywhere
Put it on a shelf. On your desk. On stands. Wherever and however you use it, you're guaranteed all the performance you'd expect from over four decades of audio expertise

And since this is an active speaker, each driver has its own dedicated 65W digital amplifier. That not only means we can fine-tune each amp specifically for the driver it's powering, it means we have even greater control over the speaker's overall performance.

Xeo 10 has an updated tuning with improved limiter algorithms for better high-volume performance, as well as a higher theoretical crossover point – which means the tweeter can reach deeper in its frequency range for more of an overlap with the woofer's upper limit. Want a translation? It means a smoother balance between bass and treble, and also improved off-axis performance – so even if you've been muscled out of the 'sweet spot' by your jealous friends, you can still get the full benefit of your music.

Of course, you still get everything that made Xeo 2 an award-winner: direct inputs, touch-sensitive volume controls, and position-sensitive controls (tell the speakers if they're in free space, against a wall or in a corner and they'll adjust their performance accordingly). That's not to mention full-fat, hi-res 24-bit/96kHz performance and compatibility with the optional Dynaudio Connect box (which gives more inputs, DLNA, multi-room audio and more).

Xeo 10 is specifically designed to work with the optional Dynaudio Xeo desk stand and dedicated Xeo Wall-Mount, as well as Vesa 100 mountings, for massive flexibility in placement.

You can even upgrade the speakers without upgrading them: our R&D engineers can send out future firmware updates to add new features and functions. (They love to tinker.)

Xeo 20: Pure wireless, pure sound

The new Xeo 20 takes all the things we loved about the older Xeo 4, updates them to things we love even more, and adds a few surprises.

You'll have already noticed the facelift. Our designers have rounded the corners and softened the edges. They've moved the infra-red receiver from the top to under the woofer for a neater, cleaner look. And they've made the metal driver parts black for a touch of Nordic simplicity.

The innards are rich with developments, too. The 14cm Esotec MSP driver and 28mm Esotec soft-dome tweeter (both packed with legendary Dynaudio tech, including aluminium voice-coils and innovative magnet systems) are each powered by their own 65W digital amplifiers.

Xeo 20's tuning is based on our celebrated LYD 5 studio monitors – speakers that work at the front line of music production (see p136). It gives you a direct line from performer to mixing desk to living room… what they heard is what you get.

The updated firmware includes improved compressor and limiter algorithms and a simplified


Xeo 10


Xeo 30

Bespoke amplification
Each individual speaker driver in the cabinet has its own amplifier – specifically matched, individually tuned and precisely optimised to drive that one unit. You don't have to worry about matching outboard equipment to your speakers – we've already done it

crossover. That means a larger overlap between the drivers' frequency ranges for incredible integration, improved bass and much better off-axis performance… so if you're jostled out of the best seat, you know you'll still have a great time. We've also given the DSP (digital signal processing) engine more horsepower, as well as simplifying it, to enhance position compensation for corners, walls and free spaces.

Xeo 20 also gets direct inputs, so you don't need to add any external transmitters to plug in your existing equipment – although if you want even more options, including wireless 24-bit/96kHz hi-res audio, the optional Dynaudio Connect box has you covered.

Round the back of the master speaker (which can be set as either the left or right channel) you'll find 24-bit/192kHz Toslink digital optical, stereo RCA phono and 3.5mm minijack inputs for all your sources. So, yes, you can still plug in that old cassette deck or 8-track player…

Xeo 30: Power and nuance

As free-standing speakers go, they're a compact pair – but unleash them and you'll feel your eyebrows rocket skyward.

Xeo 30 replaces the older Xeo 6. Square is out, rounded is in; the metal driver parts are black and sleek; the infra-red control module is integrated under the woofers. A new modern classic? Perhaps…

Take off the smart new black grille and you'll find a 28mm Esotec soft-dome tweeter and twin 14cm Esotec MSP woofers. Inside the integrated 65W amplifiers (one for each drive-unit), cutting-edge DSP works away to keep them performing at their best. As with Xeo 20, our engineers looked towards our LYD 5 professional studio speakers to hone the technology's characteristics.

The new Xeo 30's updated firmware improves compressor and limiter performance for improved dynamics, along with a simplified 2.5-way crossover. It's also widened the overlap between the tweeter and woofers' frequency ranges for incredible integration from top to bottom, as well as giving improved bass and off-axis performance. We used a similar approach on the new Focus XD range (see p104).

You now get direct inputs too. There's 24-bit/192kHz-compatible Toslink digital optical for hi-res sources, as well as stereo RCA phono and 3.5mm minijack inputs for myriad other sources. And, of course, you can stream in wireless 24/96 hi-res from the Dynaudio Connect box.

Want to go full wireless? There's built-in high-quality aptX Bluetooth on board for you. We'd say it's as easy as 'plug-and-play', but… well… no plugs.

Connect

Run one set of speakers, build a multi-room system, go hi-res. Use a turntable, a CD player, a TV, a streamer. It's your choice. Just connect…

Dynaudio Connect brings together all the inputs you need to integrate wireless Focus XD and Xeo speakers into your system.

You can hook up any conceivable source – even those old-school analogue ones you haven't brought down from the attic in years – and then stream their playback to your digital active loudspeakers.

And because it uses Wi-Fi, you can access your own digital files from any DLNA device on your network. High-quality aptX Bluetooth support lets you stream from any Bluetooth device – including smartphones, tablets and computers, while the digital optical and coaxial inputs accept full-on 24-bit/192kHz hi-res audio files (USB is 24/96).

Want to stream wireless hi-res to your Focus XD speakers? No problem: Connect also outputs 24-bit/96kHz over the air.

Total control
Download the free Dynaudio Control app for iOS and you can ditch the remote for the Focus XD or second-gen Xeo. It lets you control both speakers directly, and the Connect itself: flip between inputs (which you can name yourself), change the volume and switch zones in a multi-room set-up

If this, then that

CD player and AV receiver

Input:
- Line in
- Coax in
- Optical in

Tablet and smartphone

Input:
- Wi-Fi
- Bluetooth
- Aux in

Network player

Input:
- Wi-Fi
- Coax in
- Optical in

Computer

Input:
- Wi-Fi
- Bluetooth
- USB in

Turntable

Input:
- Line in

Cassette / Walkman

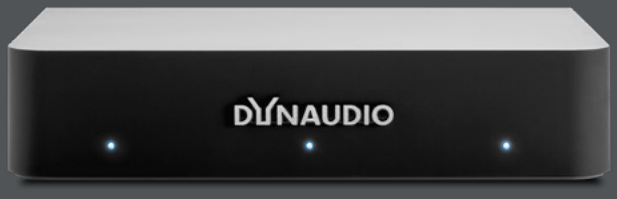
Input:
- Line in
- Aux in

MP3

Input:
- Aux in

TV

Input:
- Optical in
- Line in



Inputs
3.5mm analogue
Stereo RCA analogue
Optical digital (up to 24-bit/192kHz)
Coaxial digital (up to 24-bit/192kHz)
Mini USB (up to 24-bit/96kHz)

Wireless
Bluetooth (A2DP, aptX, AAC),
Wi-Fi (DLNA)

Control
Dynaudio Control app for iOS

Formats
Hi-res mode for streaming one digital input up to 24-bit/96kHz to the Focus XD; multi-room mode for simultaneous streaming of inputs up to 16-bit/48kHz to Xeo (second-generation) and Focus XD

Sub

A great subwoofer won't thunder bass at you. It will enhance your music and films… and make the hairs on the back of your neck stand up

Dynaudio subwoofers are about much more than shaking the pictures off your walls and rattling the fillings out of your neighbours' teeth (although they can probably give it a good try if you want).

They're all about giving your films and music that extra push; the extra punch that really makes the hairs on the back of your neck stand up. They're about that final polish on the performance.

Listen to an orchestra at full throttle and it's really loud. It's pure, and musical, and dynamic, and lifting. And there's also a lot of bass. The same goes for live gigs. Or a blockbuster film in a good cinema.

If you want to give your films and music that little bit extra, a Dynaudio subwoofer is the way.

The compact 300W Sub 3 is designed to deliver size-defying weight, authority, punch and power for those critical thunderous movie moments, but remain supple, precise and musical enough to bring something extra to stereo music on your hi-fi. Its Contour-level components and construction, along with a double-thickness front baffle and brand-new 23cm driver, make it the ideal companion subwoofer for any stereo or multichannel system. It can connect to any AV receiver or stereo preamp, and you can fine-tune the satellite speakers' crossover point to ensure seamless integration with the rest of your equipment.

Sub 6 uses advanced intelligent DSP technology that tailors its performance to speakers from Contour and upwards in our range. Our engineers painstakingly modelled the acoustic characteristics of our most popular high-end hi-fi speakers and created custom performance maps for each one for the subwoofer – so now, two-way set-ups can instantly become three-way systems. Sub 6's punch is delivered by two of our brand-new MSP+ Hybrid Drive units, which combine our own Magnesium Silicate Polymer material with optimised aluminium and paper construction for two kinds of resonance damping. It's all powered by a high-quality 500W amplifier.

Where to put them
A sub's job is to blend in. It should contribute without taking charge, and you shouldn't hear it during dialogue.

Bass is less directional than treble or midrange. That means it's easier to experiment with your subwoofer(s) position to find the best solution for your room

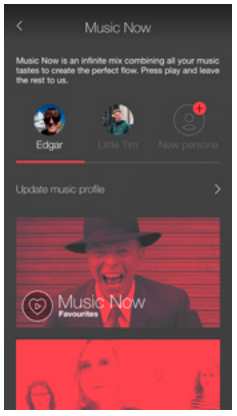
Wireless speakers

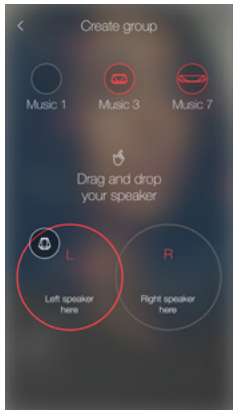
Music

Want to listen to music?
Listen to Music… our intelligent wireless speaker system


DYNAUDIO

Music 1
Music 1 contains a 28mm soft-dome tweeter and a 4in woofer, plus a built-in rechargeable battery that will give you up to eight hours of continuous listening





The system that adapts to your lifestyle
Create intelligent playlists for yourself and your friends – so you can keep their dubious musical tastes away from your awesome ones. You can even drag-and-drop Music speakers into stereo pairs or multi-room groups

You love music. We understand. We love music, too.

Dynaudio is world-famous for making hand-crafted high-end loudspeakers for living rooms, pro recording studios and cars. We think you should be able to get that kind of quality at any level, so we've engineered the products in our brand-new range of wireless all-in-one speaker systems with the same attention to detail (and love of music) that's driven us since the very beginning.

Dynaudio Music provides one-touch simplicity. It adapts seamlessly (and automatically) to any room or position, and to surrounding noise levels – so your music always sounds its best. It even gives you personalised playlists of all the music you love with Music Now. All at the touch of a button.

Remember when listening to some tunes was as simple as turning on a radio? All you had to do was let the DJs entertain you.

Nowadays, we're betting you spend a few minutes trawling through your TIDAL or Spotify playlists, debating which of your 40 favourite internet radio stations to listen to or scrolling through all the songs on your network drive. And after all that, you might even get fed up, then just go and do something else.

You do everything except actually listen to music.

Your music, your way… every time

There's such a thing as too much choice. We like all the stuff in our vast music libraries – and because of that, we just can't decide what to listen to. Dynaudio Music can help. Its sophisticated Music Now algorithm learns your musical tastes and plays automatically generated smart playlists with one touch of a button on the speaker.

Music 7
Music 7 has two 28mm soft-dome tweeters, two 3in midrange drivers and twin 5in woofers. Like the Music 5, it's mains-powered with an optical input. It also has an HDMI input with Audio Return Channel so you can use it as a soundbar under your TV

It means there's no need to scroll through endless playlists, only to get bored trying to find something to listen to. This is just like turning on a radio – but the station is guaranteed to only play the kind of music the listener wants to hear. (The added benefit? No irritating DJs.)

The speaker connects to popular music-streaming services including TIDAL (natively) and Spotify (via Bluetooth and Apple AirPlay). Each Music speaker has five presets. These can be filled with anything accessible from the app: smart Music Now playlists (from multiple user profiles), internet radio stations, TIDAL albums, artists and more. TIDAL content can be accessed straight from the app, too. Then whenever you want music, all you do is press the button on the speaker and you're listening.

It doesn't matter where you put it

Music is smart in other ways, too. It doesn't matter if the speaker is in a corner, up against a rear wall or in free space: its built-in RoomAdapt technology senses where it's been placed and continually optimises the speaker's tonal characteristics to deliver the best performance possible. You'll hear it most in the clean, accurate bass and midrange.

Essential musical details will always be clear too, thanks to NoiseAdapt – even when the room is noisy, and the speaker volume is low. You don't need to alter the volume to hear your tunes properly when the conversation gets louder (or quieter), and you don't need to adjust any tone controls. It's all automatic.

All this is based on our expertise in DSP (digital signal processing), gained from researching and developing high-end active speakers (p104), professional studio monitor set-ups (p130) and cutting-edge in-car systems (see p146).

All the connectivity you need

Every speaker in the Music range can stream via Wi-Fi, high-quality aptX Bluetooth and Apple AirPlay, and can access DLNA devices on your home network. They all have USB inputs for iOS audio and charging iOS devices, and can all accept 3.5mm analogue inputs too (so you can even hook up your old personal stereo if you want).

The Music 5 and Music 7 add digital optical inputs to the mix (both support signals up to 24-bit/96kHz), while the Music 7 also has an HDMI input with Audio Return Channel to turn it into a soundbar under your TV.

Up to six speakers can be connected at a time, and arranged into multi-room groups or controlled individually from the Dynaudio app.

Music 3
Music 3 has two 28mm soft-dome tweeters and a 5in woofer. Like the Music 1, its rechargeable battery will last for up to eight hours of continuous listening

HOME CINEMA Choice RECOMMENDED

Music Now
Instant intelligent playlists of only the music you love

RoomAdapt
Optimises performance for any room position

NoiseAdapt
Compensates for varying noise levels in your room

All-in-one
Plug it in and you're ready to go. It's that simple

Buttoned up
Our design director Malte and his crew talked about all sorts of fancy control methods – touch-sensitive glass, hidden sensors and more "But eventually we just said: 'You know what? This should be simple. The feeling of touching a button hasn't changed in the past 100 years'. So we went with buttons."

Traditional Dynaudio craftsmanship

All the speakers use the same construction techniques in their woofers and midrange drivers as you'll find across our entire product family, right up to the range-topping Confidence series; see p64). Their soft-dome tweeters are based on our high-end speakers. And it's all been tuned by the same team who work on our money-no-object hi-fi speakers and no-compromise pro studio systems.

Each model is available in Light Grey, Dark Grey, Red and Blue designer cloth finishes, custom-made by the acclaimed Danish textile house Gabriel, and is constructed from honest, high-quality materials – including a one-piece brushed aluminium surround on the Music 5 and Music 7. Make no mistake: these are built to last – both in terms of style and wear-and-tear. The grille cloths on the Music 5 and Music 7 are interchangeable too, so you can change the look as you change your tastes, and both the Music 5 and Music 7 can be wall-mounted using a dedicated steel wall-bracket.

And it all adds up to one thing: simplicity. Just push play.

Music 5
Music 5 uses two 28mm soft-dome tweeters, twin 3in midrange drivers and a single 5in woofer. It's mains-powered, and also has a digital optical input

GERMAN DESIGN AWARD WINNER 2019

Pro speakers

Core

Core is the most revealing reference monitor series in Dynaudio history: breathtaking accuracy for when you absolutely must hear every single detail

Only pros... no cons
Dead-accurate midrange so vocals and dialogue end up at the right level on every system. No more trips to the car to check the bass. Effortless treble that doesn't fatigue your ears after a long day. These are the hallmarks of a Dynaudio monitor, and Core takes them to a new level

Every great studio has a great reference system at its heart. Producers, engineers and musicians rely on reference monitors to reproduce exactly what was recorded – warts and all – so they can listen to, tweak and perfect their work.

The new Core series meets the toughest demands that career professionals can place on their monitors to help them create the most compelling audio productions. They give you everything you need to hear.

If it sounds great, it is great

Our engineers and designers have taken the legendary Dynaudio AIR-series speakers found in the best studios worldwide, then evolved them, enhanced them, simplified them and perfected them. Each Core model has been engineered and built in Denmark to perform flawlessly in this high-stress environment, faithfully reproducing your sound as you create it.

Trust is critical in this business. Whether you're recording a power-trio or an orchestra, mixing a solo voiceover or video-game soundtrack, or mastering a full immersive audio project (such as a Dolby ATMOS mix), you need to know that your monitors reproduce everything you need to hear – warts and all. From pounding electronic drums and explosive low-frequency effects in the latest movie trailer to the finesse of pianissimo strings and breathy, airy vocals, Core monitors deliver the truth to your ears without compromise. If it sounds great, it *is* great. If there are problems in the mix, you won't be lied to.

Thanks to our new Jupiter testing facility (among the largest in the world) and our ever-expanding engineering and design departments, we've been able to pursue advanced technology breakthroughs at a feverish pace.

Treble you can trust
Core 7 and Core 59 both use the Hexis inner dome in their Esotar Pro tweeters. It reduces unwanted resonance and smooths the frequency response for more detail, while banishing listener fatigue

And they aren't just drawing-board concepts: witness Core's all-new Esotar Pro tweeter, which incorporates the ingenious new resonance-defeating, frequency-response-smoothing Hexis inner dome. Get ready to hear things in the mix you've never heard before.

A copper voice-coil, glass-fibre former and ceramic magnet are implemented in the low frequency drive units to enhance the 'BI' (force factor) needed for punchy, deep, and accurate bass – whether you're monitoring at low-level or the band is standing behind you and they've demanded you crank it.

Active, digital and awesome

Dynaudio has been at the forefront of digital processing in monitor systems since we introduced the AIR series in 2002. Core builds on that legendary design with the latest in DSP and AES3 digital connectivity, giving you all the refinements that come from the AIR experience found in so many studios. And more: Core also features both analogue and digital inputs with simplified (yet more usable) DSP settings.

Using the analogue inputs, all audio is processed at 192kHz for the crossover and tuning, yielding the most accurate reproduction possible. Class-D amplification from Pascal provides the power and punch, delivering the finest details along with the deep, visceral bass that our reference monitors are famous for. AES digital inputs are provided for the most direct signal path available, with external word clock to synchronise with your studio's infrastructure.

Core 7

Core 7 is designed for maximum flexibility and performance where its compact size is desirable. This includes recording studios, edit suites, broadcast trucks, mobile facilities, broadcast and theatrical dub stages, immersive audio mixing rooms and custom installations. And because its size doesn't diminish its performance either in frequency response or output SPL, it plays seamlessly with Core 59 monitors in calibrated multi-channel monitoring systems.

This no-compromise two-way design features two class-D amplifiers (one 500W amp for the mid/woofer and a 150W unit for the tweeter), plus the best of modern DSP technology and bass response that's flat down to 44Hz.

Positioning is critical when installing a monitor system. That's why each Core 7 has two DSP filter switches to address its position and boundary locations. For example, if you place the monitors on the meter bridge of a large-format mixing console, set them to 'Desk'. This will help compensate for the first reflection created by the mixing surface. If you put them into a purpose-built wall, setting the Position 1 filter to 'Soffit' compensates for the increased bass.

Boundary effects created by placing a monitor close to walls or a ceiling can be compensated for by adjusting the Position 2 filter between 'Wall' or 'Corner'. These filters help compensate for the reflections created by the boundary walls, especially in the lower frequencies. There's also a low-frequency 80Hz Linkwitz-Riley cut-off for pairing with a subwoofer.

Users can alter the overall presentation with the Sound Balance filter – a different design to typical shelving-EQ tweeter and woofer adjustments found on most active monitors. Instead of simply fine-tuning the tweeter level up or down, Core 7 uses a full-spectrum band-pass filter that tilts depending on the desired tonal response. It maintains the proper phase response between the drivers while providing a balance that meets your tastes.

Built to perform

We've made sure Core 7's cabinet is as stiff and inert as we could make it – hence the 32mm thick baffle, which contributes to its excellent linearity across the spectrum. And since every application is unique, we've put indentations for the Core 7's specially designed feet on all four sides to make positioning as straightforward as possible.

Working in a multichannel environment? No problem. There are custom K&M brackets available for mounting Core 7 in orientations suitable for surround sound, immersive audio and other custom configurations.

And, of course, each driver unit is handmade in Denmark. Since we control the whole process, we can ensure extreme consistency. You can use Core monitors in multiple studios and have them all perform at the same high level.

Accuracy matters
Core 7 handles analogue signals at 64-bit/192kHz in the DSP (from the 24-bit analogue-to-digital converter) for the greatest mathematical precision

Core 59

Say hi to the flagship of our high-end professional reference monitor series: a three-way speaker featuring uncompromising class-D amplification, cutting-edge digital signal processing, an inert 32mm-thick baffle and bass response that's flat down to 42Hz (-6dB at 36Hz).

Core 59 has been made for the highest-demand environments that engineers, mixers, producers, and editors work in – and has been specifically designed to solve many of the monitoring issues that career professionals face every day.

The speaker's 5in midrange driver provides staggering detail. It uses our proprietary MSP (Magnesium Silicate Polymer) material in its cone for the best combination of lightness, stiffness and damping and, coupled with an aluminium voice-coil, has an incredibly fast response and authoritative control from its neodymium magnet system. With crossover points at 312Hz and 5.1kHz, Core 59 delivers so much more of the critical vocal range in one driver than typical designs, ensuring your mix decisions on vocal balances and dialogue subtleties are made with total confidence.

Core 59's new bass driver has emerged from over 18 months of intensive study into subwoofer driver technology, including our 18S subwoofer (see p142), which dives all the way down to 16Hz. The outcome of that research is a new copper voice-coil and glass-fibre former, pushed by ceramic magnets and a 500W class-D Pascal amplifier. It gives the long-excursion woofer even more grip on the bottom without sacrificing a deep frequency response.

Serious performance for serious professionals

When we revolutionised studio monitoring with the AIR series, we also revolutionised speaker positioning. Literally. AIR's sealed mid/tweeter unit made it possible to use a three-way speaker in multiple orientations without compromising the midrange driver and tweeter's phase response. Core 59's Orbit baffle rotates too, so you can use it in left, right, or centre-channel orientation. You can even position the woofer above the tweeter/midrange assembly for placement in front of a console in an LCR array.

The AIR series was famous for its advanced DSP system. But our acoustic engineers don't believe hands are for sitting on, so they've constantly been looking for better and more innovative ways of doing things. That work has resulted in some great leaps in DSP sophistication – but also in the way it's applied in everyday use. You, our users, wanted something easier to use, and that's exactly what you get with Core – with even better performance.

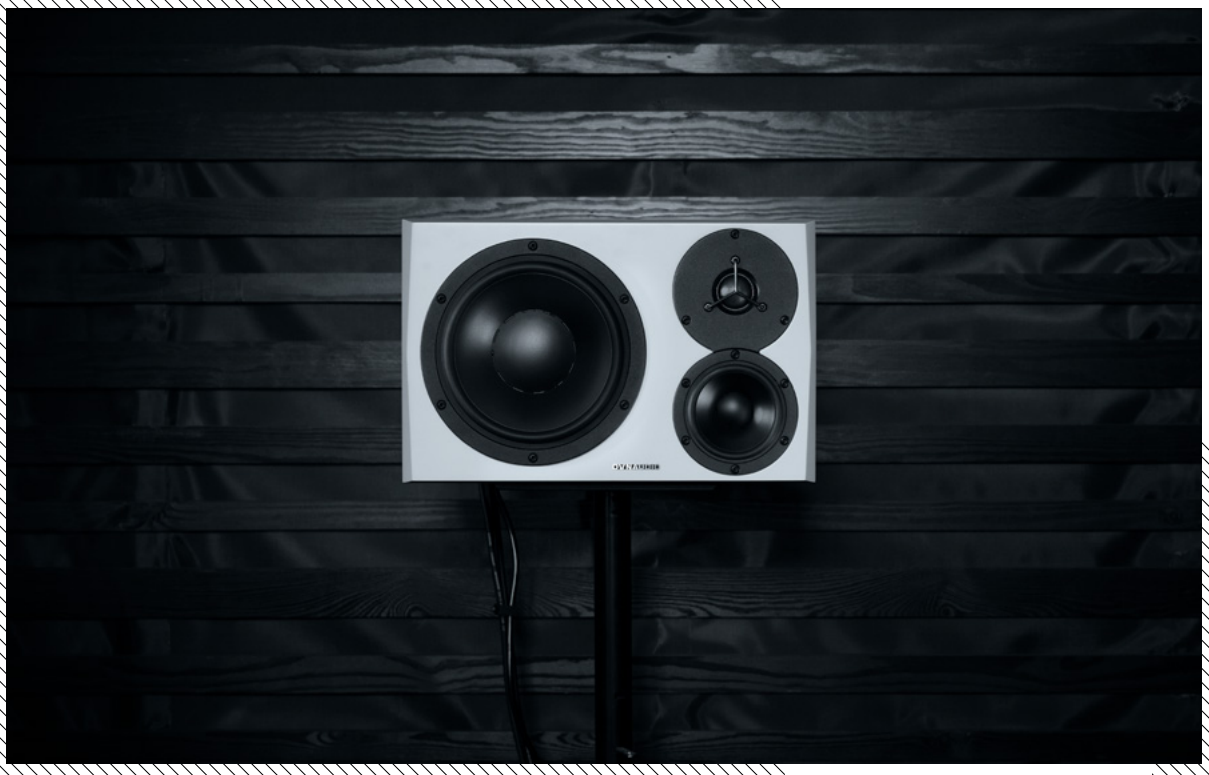
Like Core 7, each Core 59 has two DSP filter switches to address its position and boundary locations, as well as a low-frequency 80Hz Linkwitz-Riley cut-off for subwoofer pairing, and the powerful Sound Balance full-spectrum band-pass filter for setting the overall tonal response. And, again, you can match the analogue input sensitivity to the output level.

Core 59 is ready to be installed in high-SPL immersive audio and other multi-channel environments with both analogue and digital connectivity, DSP-controlled acoustic response, and versatile positioning. That means complete tonal consistency whatever your monitoring needs.

It really does give you everything you need to hear.


DYNAUDIO

LYD 48



LYD

What if you could use the same technology in your own studio as the major players use in theirs? You can…

LYD uses all the knowhow we've gained through supplying some of the world's most legendary recording studios with full-on reference monitor systems – and fits it into a pair of compact nearfield speakers.

And it isn't a poor cousin of our larger systems, either. LYD is a complete redefinition of our own products – we went back to the drawing board to find out exactly how much further we could take those concepts.

As it turns out, the answer was 'quite a lot'.

Immersed in the moment
Bass and drums. Or drum 'n' bass. Whatever you're producing, you need to do it on speakers you can trust

No compromise
Alexandra Dröner – one of the titans of the Berlin techno scene – knows what 'good' sounds like

Active nearfield studio monitors need to present the unvarnished truth: no colouration, no distortion, no flattery of the music running through them. You need to be able to hear exactly what each thread of the music is doing – so, when it comes to mixing and mastering, you know you can deliver exactly what the artist wants.

LYD combines decades of experience in producing no-compromise reference systems for major studios all over the world, with expertise in home and car audio, digital processing technology and materials science. And that combination means you'll hear nothing but the truth.

But we don't believe personal monitors need to look like standard black boxes. You've taken great pride in building your studio; you want artists to feel invited, inspired, immersed in the music. So we've applied the same creativity to LYD as we do with our home hi-fi speakers – and we're glad the people in the design department insisted on it, because they've created something beautiful.

LYD is designed to be a monitor anyone can use without a manual. Just getting started in your engineering or producing career? That's daunting enough as it is without needing to decipher another complicated set of switches and dials on the back of your speakers. Seasoned pro? Then why should you have to learn a new set of controls? You shouldn't.

Just tweak the wall-position or Sound Balance tilt-filter (for a brighter or darker sound) and you're done. Best of all, you don't have to crank them to hear them at their best – which is hard to do if you're in a smaller or home studio. LYD is designed to sound the same however loud you turn up the music.

Now it's time to create…

LYD 5

LYD 7

Measures of success
We don't do things by halves when we design new speakers. We measure, we test, we prototype, we listen… and then we do it all over again. And again. It's all done at Dynaudio Labs in Denmark

LYD 5
LYD 5, with its low-volume precision, is the ideal complement for any small studio set-up. It uses the same lightweight aluminium voice-coils in its handmade 5in MSP drive-units as our high-end hi-fi speakers, and pairs them with cutting-edge Class-D amplification as well as a 24-bit/96kHz signal path with advanced DSP.

LYD 7
This monitor uses sophisticated DSP to extend or curtail its low-frequency response by 10Hz, while Position and Sound Balance controls let you fine-tune for total neutrality in your environment. Its larger 7in woofer helps extend bass, while the low-mass aluminium voice-coil, vented ferrite magnet and MSP driver take care of precision.

LYD 8
With its 8in MSP woofer and state-of-the-art DSP, LYD 8 provides the kind of performance, precision and bass heft that dreams (and maybe hits) are made of. Like the rest of the range, these nearfield monitors let you tune them for their position, have handmade drivers, and contain advanced Class-D amps.

LYD 48
This three-way near-to-midfield monitor reaches eyebrow-raising levels of accuracy thanks to a new soft-dome tweeter and Dynaudio's proprietary MSP midrange driver and woofer. Each driver is fuelled by a powerful, state-of-the-art Class-D amplifier and a full 24-bit/96kHz signal path. And, like the rest of the LYD range, it lets you fine-tune low frequency response, position and sound-balance using cutting-edge DSP.

Pro subs

Studio engineers need powerful, precise bass just as much as home users, which is why we've developed two compact subwoofers – the 9S and 18S – specifically for professional use

The 300W 9S is engineered to withstand the demands of high-volume-level listening, but still retain all the precision and musicality you need for even the most demanding projects.

It uses studio-quality components and construction, along with a double-thickness front baffle and new 24cm driver.

And not only does it dig right down to an astonishing 18Hz, its adjustable low-pass corner frequencies (from 50–150Hz) and low-power LFE output mean it's versatile enough to work in a variety of studio environments.

It even has signal-sensing auto power on/off technology to save energy when it's sitting idle.

The 18S uses smart, menu-driven DSP technology to tailor its roll-off to a variety of speakers from our range of professional monitors. As with the two Dynaudio home subs (see p118), our engineers modelled the acoustic characteristics of our pro family and created custom subwoofer-specific performance maps for each.

And the intelligence doesn't end there: set the distance from the 18S to the speakers and it does the maths for you, setting its own time delay. Finally, the full three-filter parametric EQ lets you defeat room modes with ease. The 18S's punch is delivered by two of our brand-new innovative MSP+ Hybrid Drive units, and a high-quality 500W amplifier.

Car speakers

Car audio

It’s easy to make car audio sound simply decent.
It’s a different story if you want to make it sound outstanding…

Moving performance
The Confidence system in the new VW Touareg gives you true hi-fi on the move

Chances are you spend a lot of time sitting in your car, and chances are you listen to music while you do it. We don't believe you should have to compromise on sound quality – especially when you might spend more time listening to music on the road than you do at home.

We've built a dedicated automotive research-and-development centre to explore new technologies (and adapt our tried-and-tested ones) specifically for use in cars. Our long-standing relationship with Volkswagen means you can experience top-quality Dynaudio sound wherever you go.

That's why we have our own R&D team dedicated to making 'outstanding' the norm when it comes to our in-car systems. It couldn't be anything less: our partner is Volkswagen and, like us, they'll never just settle for 'simply decent'.

We want you to feel more relaxed when you get out of your car than you were when you got in.

We've combined the knowledge we've gained from designing and producing nearfield reference systems for recording studios (where the engineer sits really close to the speakers), with our expertise in building award-winning home hi-fi speakers. Why those two areas? Because you sit close to your speakers in the car… and you want the same music experience you get in your living room.

Variables are predictable

A car's interior is a variable but controlled space. One day it might be just you, wearing a T-shirt and jeans. The next, there could be four or five people – all in coats and scarves (let's face it: Danish weather isn't exactly predictable). More people (and more clothes) means the character of the sound will change.

You might think that would present a nightmare for our engineers – but it actually helps. That's because they know there's only a certain amount of variables to take into account. The size of the

A concert-hall on four wheels
Sit in the new VW Passat B8 and let us entertain you with 12 speakers and cutting-edge sound processing

space never changes; the hard surfaces are always hard, and the soft ones always soft; the position of the speakers never changes; the sources are always the same. They know the kinds of temperature variations they'll be dealing with, the level of noise outside the car as it moves, the type of vibrations it'll be subjected to, even which parts are likely to get wet if you open the doors when it's raining. It's a stable environment – and that means a stable base for measurements and tuning.

And if they can take into account the variable human aspect, and make every situation sound equally precise, controlled – and entertaining – they've done the difficult bit.

So, we developed a new range of speakers especially for the automotive market. They're still made from our proprietary MSP (Magnesium Silicate Polymer) material, but they're optimised for in-car use rather than for the home or studio. The speakers, the baskets they sit in and the electronics that power them have all been developed for use in cramped, hostile environments such as car doors, pillars, rear compartments and the like.

Our engineers have become really rather good at it, too. We've developed sophisticated DSP (digital signal-processing) technology to help: it has settings for you to tune your system to your preference: Authentic (for the unaltered experience); Dynamic (for recreating the power and punch of driving rock or pop); Soft (for low-resolution broadcasts or recordings); and Speech (designed for voices – whether that's the news, audio-books or hands-free phone calls).

And, crucially, it takes into account the fact that you aren't sitting in an ideal position, like you might be at home. We map how every curve and surface inside the car reflects sound, and then delay the signal to each speaker to match the distance to their position. That means you'll hear everything as you would if you were in the ideal central position at home.

Every millimetre – every fraction of a millimetre – of our in-car systems is meticulously built, optimised and researched to produce the very best. It's sound that drives you.

The 2019 VW Passat B8

The Confidence system in the VW Passat B8 uses 12 speakers. There are seven in the front: three in each door (one 28mm soft-dome tweeter, one midrange and one woofer) and one in the middle of the dashboard. Each rear door has a woofer and a tweeter, and there's a subwoofer in the trunk to complete the soundscape. The subwoofer works in tandem with the rest of the speakers to give overall bass performance.

With Dynaudio's technology, sound reaches you from all the speakers in perfect sync, just like in your home cinema. It doesn't bounce around in the cabin to muddy the performance. You're always in the centre of the music. You can even direct the sound no matter where you sit – so if you're in the back, being driven, you'll hear the performance as you should.

2019 VW Touareg

The Touareg's new Confidence system has 14 speakers. In the front there are tweeters in the A pillars, a midrange speaker in the dashboard and two completely new midrange speakers in the doors.

The rear has two woofers, two of Dynaudio's legendary soft-dome tweeters and an impressively clear, punchy and powerful subwoofer. It's all supported by 'effect' speakers in the D-pillars. These small midrange units work with the rear speakers for multi-channel music and videos, and effects.

As with all systems in the larger VW models, the Touareg's Confidence system has four pre-configured settings. 'Soft' is suited to MP3; 'Speech' is tailored for phone-calls, audio-books and talk-heavy radio; 'Dynamic' is designed for stellar concert performance; and 'Authentic' reproduces the unfiltered original.

Made to measure
Each car has its own system. It's designed, built and tuned for that exact model's interior, whether it's a three-door, a five-door or an SUV

Custom speakers

Custom

Engineered to entertain:
bespoke audio that's heard… not seen

They're all but invisible, but you'll know they're there. Dynaudio Custom takes everything we know about speaker design… and tailors it just for you.

It shouldn't be hard to get great sound. When we set out to design our custom-install architectural speakers, we knew they had to be simple to understand, neat and easy to install, and flexible enough to work in even the most challenging listening environments.

Most importantly, our range of in-ceiling and in-wall speakers had to sound every bit as good as our acclaimed free-standing hi-fi and pro-audio kit. There was no room for compromise – and we didn't stop until we'd nailed it.

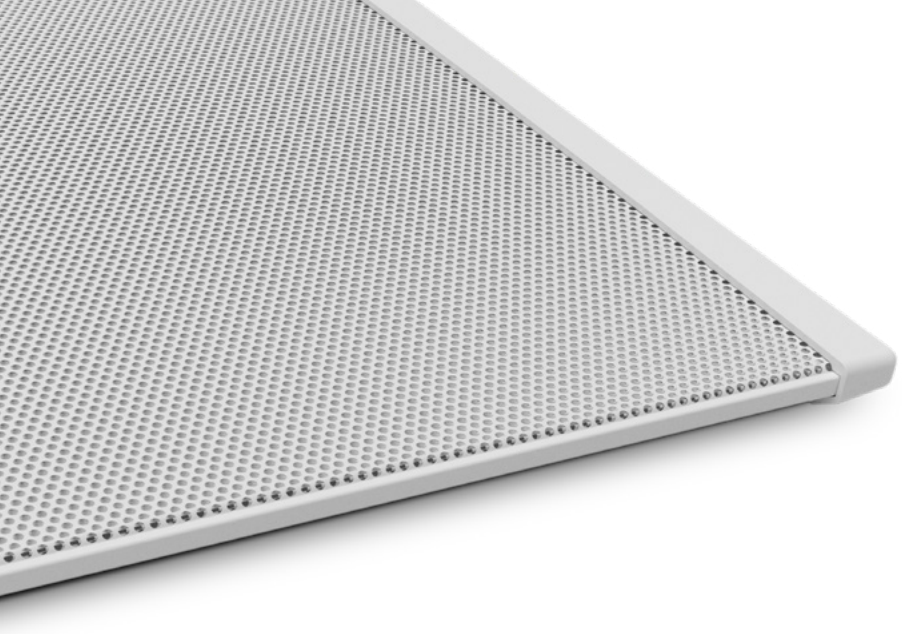
The whole Dynaudio Custom range harnesses the same core technology, expertise and fanatical attention to detail that's made our hi-fi range so celebrated over the past 42 years. It's the same stuff – it's just inside the walls instead of in front of them.

It's a system that works around you, too. Pick between our in-wall or in-ceiling speakers, or even combine the two. The frames can then be pre-installed during renovation and decorating, or retrofitted into existing cavities. You can even paint their magnetic grilles to suit your décor. And then, when it's time, an expert installer comes to fit and fine-tune the speakers themselves – so it's exactly right, first time.

When you hear Dynaudio Custom, you're hearing decades of research, care and pride. Only this time, it's tailored for you.

Make it yours

Regardless of what you need, you can create a Dynaudio Custom system to suit you. Cinema, distributed audio and more – anything's possible



Round or square? *Dynaudio Custom systems can evolve with your needs and tastes. Don't want round grilles in the room? No problem – you can fit a square one onto your round speaker. Changed your mind? Just pop it off (it's magnetic) and fit a circular one*

S4-LCR65 system

Intelligent modular design means incredible flexibility. The S4-LCRMT mid/tweeter and S4-LCR65W woofer modules fit around standard 16in studs (no cutting required). You can position the tweeter either way up and at any height in the array for total focus. And the modules are easily connected using speaker wire, with their frames either joined in a single area or spaced in multiple cut-outs to create a bespoke single channel.

Each module uses a passive crossover with a three-position switch, pre-configured to standard LCR configurations that use one or two connected woofer modules. There's also a bypass position to enable an unlimited number of fully active and completely customised S4-LCR65 system set-ups with external DSP processing and a dedicated amp channel for every driver.

The S4-LCR65 system has five optional paintable white grilles that attach magnetically (four standard-sized and one customisable), and it can also be installed behind acoustic fabric or acoustically transparent screens.

S4-C65

The S4-C65 might be the smallest in-ceiling speaker in Dynaudio's Custom Architectural Studio range, but you'd never know from its performance. The 17cm mid/bass driver takes some cues from Dynaudio's high-end speakers – such as positioning its magnet system inside the voice-coil, to keep things sounding as they should… even when it's turned up to 11.

This complements the 28mm precision-coated soft-dome tweeter with neodymium magnet, which can pivot to direct sound exactly where it's needed in the room.

Like the rest of the Studio range, the S4-C65 couldn't be simpler to install and, once it's in place, can be cleverly re-positioned through 360 degrees should you decide to have a furniture reshuffle. Not just that, but paintable grilles, in round or square variants, mean you can customise their design to suit you.

S4-C80

Bigger rooms need bigger sound to fill them, and the Dynaudio Custom S4-C80 in-ceiling speaker certainly won't leave larger spaces wanting. While it shares lots of what's great about the smaller S4-C65 in its design – including its ability to rotate through 360 degrees to suit your room – it boasts a larger 20cm mid/bass driver for a more powerful sound that'll go deeper and louder when it really counts.

The higher frequencies are handled by the same excellent 28mm soft-dome tweeter as its smaller sibling too, which can also be pivoted to tailor the sound perfectly to your room.

The bigger size of this speaker will require a little more room in your ceiling, but don't worry. With a choice of round or square paintable grilles, the S4-C80 can stand out or blend in as much as you want it to.

Tool-free installation means just that. Slide the frame in the cavity, slide the speaker in the frame... then just add music

Confined space?
The S4-DVC65 dual-voice-coil speaker lets you listen to mono or stereo in one unit

Plug and play
And we mean that literally. Plug the wires in, slide the speaker into its frame, listen for the clicks and you're ready to go. It's that simple

S4-W65

No visible wires, no fuss – just great performance. The S4-W65 from the Dynaudio Custom Architectural Studio range is an in-wall speaker with no compromises. The smaller of the two in-wall options, it makes the perfect companion for small to medium-sized rooms, offering a 17cm mid/bass driver to support its 28mm precision-coated soft-dome tweeter.

Like our in-ceiling options, the S4-W65 fixes on to a pre-installed frame, which can be fitted either way up for total flexibility. The patent-pending baffle latch makes mounting the speakers a breeze, and the frames even retrofit into many existing popular-sized cavities (or cut-outs), so you don't have to start from scratch if you don't want to.

Changing your décor? No problem. The Dynaudio Custom Studio range can adapt as your room does, with paintable magnetic grilles that can be swapped out as quickly as your colour scheme changes.

S4-W80

Just add music. Or movies, for that matter. Whatever you're listening to, the S4-W80 in-wall speaker delivers all the accuracy and refinement of the smaller S4-W65, and turns it up a notch.

Offering a bolder, even more authoritative sound, the S4-W80 makes easy work of bigger rooms. That's thanks to its larger 20cm mid/bass driver, which – like the rest of the Custom Studio range – is matched to Dynaudio's iconic 28mm soft-dome tweeter for powerful bass and treble that sings.

Getting custom audio into your home shouldn't be hard, and our specially designed easy-mount frames can be installed quickly and simply during any building or renovation process. You don't even need tools once you've cut the hole.

Not planning on tearing down your walls any time soon? The frames can also be retrofitted into the majority of existing wall cavities for fuss-free installation.

Finishes

What do you do when you find high-end furniture-polishing too easy? You come to Skanderborg and see what you're *really* made of

Every speaker that comes out of our factory is painstakingly finished, polished and inspected by experts. Every screw is tightened; every connection checked. Just as it should be.

Some of our range receives up to 13 coats of lacquer – all finished within a 50-hour window (and we really mean 50; 51 hours is too long. If we go over time, we have to start all over again). We only use materials from sustainable sources. And we never let anything leave us unless it's perfect.

After all, hi-fi speakers should be just as great to look at as they are to listen to.

	Emit	Evoke	Xeo	Focus XD	Special Forty	Contour	Confidence	Sub 3	Sub 6
Black High Gloss		●		●		●			
Black Satin	●		●					●	●
Blonde Wood		●					●		
Grey Birch High Gloss					●				
Grey Oak High Gloss				●		●			
Ivory Oak Satin						●			
Midnight High Gloss							●		
Raven Wood High Gloss							●		
Rosewood Dark High Gloss				●		●			
Ruby Wood High Gloss							●		
Smoke High Gloss							●		
Walnut High Gloss				●					
Walnut Light Satin						●			
Walnut Wood		●							
White High Gloss		●				●			
White Satin	●		●	●				●	●

Meet the family

Confidence

Confidence 60
Confidence 50
Confidence 30
Confidence 20

Confidence 50

Contour

Contour 60
Contour 30
Contour 20
Contour 25C

Special Forty

Evoke 30

Evoke

Evoke 50
Evoke 30
Evoke 20
Evoke 10
Evoke 25C

Emit

Emit M30
Emit M20
Emit M10
Emit M15C

Emit M20

Focus XD

Focus 60 XD
Focus 30 XD
Focus 20 XD

Xeo

Xeo 30
Xeo 20
Xeo 10

Subs

Sub 6
Sub 3

Music

Music 7
Music 5
Music 3
Music 1

Music 1

Core 7

Pro

Professional reference monitors
Core 59
Core 7

Personal reference monitors
LYD 48
LYD 8
LYD 7
LYD 5

Classic monitors
BM15A
BM6A
BM5 mkIII

Studio main systems
M3VE
M3XE

Subwoofers
18S
9S

Custom install

S4-C65
S4-C80
S4-W65
S4-W80
S4-DVC65

S4-LCRMT
S4-LCR65W


S4-LCRMT and S4-LCR65W

Made in Denmark

A company like Dynaudio doesn’t emerge fully-formed.
It takes a clear philosophy – an enduring one – to guide it

1. *Our first building in Skanderborg. Our factory is a lot larger now*
2. *Our newest building in Skanderborg, home of Dynaudio Labs – our sprawling R&D department*
3. *The all-new Confidence family: designed and developed using our Jupiter measuring facility*
4. *Measuring techniques have improved since 1977, but our philosophy hasn't*

The whole truth
Wilfried Ehrenholz started Dynaudio in 1977 with one mission: to deliver music exactly as the artist intended. And that mission has never changed

Back in 1977 Dynaudio's founder, Wilfried Ehrenholz, decided that the off-the-shelf speakers available at the time weren't telling the whole truth. He and his colleagues started out by putting drivers made by other companies into tweaked cabinets, with crossovers designed and built in-house. But they still weren't right: it wasn't *all* made in-house. And we all know there's only one way to get something right if no one else can do it…

"Whatever I do, I want to make a perfect thing. I talked to a lot of other engineers at the time, and I could see how limited their understanding of speaker technology was," says Wilfried. "So we did everything ourselves."

They began in Skanderborg, Denmark. It's a small town by a lake; you'd like it, it's lovely. And because there isn't a lot to do in Skanderborg, they turned their attention to making the most honest speakers possible. That meant total transparency: simply and faithfully reproducing the music of the original performance.

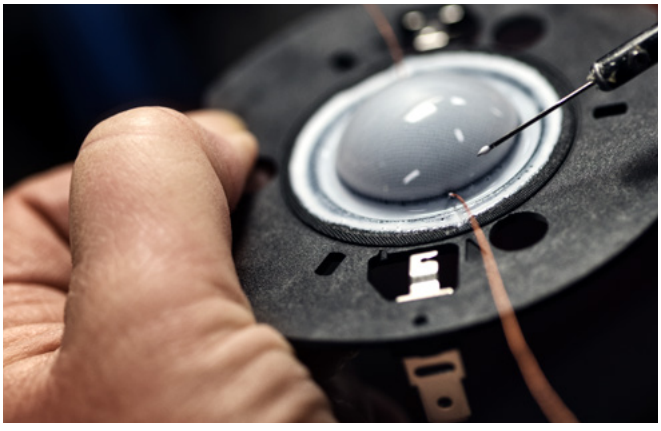
The drivers available at the time just weren't good enough, so they built their own – but it wasn't just a test-the-water-and-dive-in job. They did their homework. Dynaudio was reaching for the next level; a level its established competitors – some of whom were leviathans of the hi-fi industry – either couldn't get to, or hadn't even realised existed. The goal? To stop picking apart frequencies and just… sit. Listen. Enjoy. "If a musician expresses what's in the music, when you listen to it you aren't analysing it, it's just emotion," Wilfried says.

That philosophy – that pursuit of truth through emotion – permeates the entire company. There's always another level to hit. "I'm very proud that we kept all our principles from the beginning; we didn't have to change anything. Most concepts we started are still valid after 40 years, and I think this is very impressive," Wilfried says.

"When I think back, I can't understand how I have been so brave! When we started, I was only 22 years old, no experience, just finished my studies – but I never doubted that we would be successful. We never did anything just for the money. Ever. I thought we might build a company with 30, 40 people or so, but it went better than I thought!"

It's always been this way, ever since we started in one building in 1977, with a handful of employees. Now we have around 300… and they're all fussy. Just as it should be.

Miracle materials
We make our drivers in-house from our own version of a material called MSP. The whole thing is made in one piece – including the integrated dust-cap – so there's no need for glue. (Although our engineers can tell the difference between different glues just by listening; never let it be said we don't know how to have a good time)



Our people are the key to everything: they know exactly how to create quality. They test, and listen, and test, and refine, and listen. They're experts. It means if something isn't right, we can fix it – not just change something else further down the line and hope it solves the problem.

Magnets and wires and robots

The drivers sit at the heart of it all. We develop and manufacture them ourselves – right down to magnetising the magnets and winding the voice-coils. Winding is an automated process these days (although even the robots we built can't escape the eagle eyes or ears of our quality-control people), but at one point even this was done by expert pairs of hands.

Most of our voice-coils are made from aluminium wire instead of copper. It's lighter, which lets us double the coil diameter for any given weight. It also lets us use longer windings – which gives the driver longer excursion and better heat dissipation. (And that, in English, means we have tighter control over the sound.) Others are made from copper when we need extra power (for bass drivers, for example). We'll use the best material for the job. Which means you get the best performance we can deliver.

You might notice our cones are shallower than those of our competitors. That isn't an accident, and it isn't just because we want to be different. It's to improve our speakers' off-axis performance – so the sound you get off to the side is far closer to what you hear out in front… perfect if you have friends over and don't want to give up the best seat.

There are other, less obvious details, too. Some you won't even see – like the spider. That's the springy piece of material that acts as the voice-coil's suspension. It's springy because it needs to control how much the voice-coil moves back and forth, and how much air there is behind the speaker cone. We've improved its symmetry by measuring, simulating and, ultimately, listening.

It all sits in the basket. That's the physical housing for the whole driver motor. It's just as important – so we've spent just as much time refining its design as we have every other part of our speakers. Ventilation is crucial: it's made to reduce turbulence behind the driver, which, again, helps them sound their best.

Then there's our signature soft-dome tweeters. We've been refining our tweeter designs ever since we started the company: geometry, shape, materials, stiffness… even the coating. We use the right amount, in the right places, at the right density, to control roll-off and keep a steady hand on the treble response. Because Dynaudio tweeters aren't made of metal, they have a flatter, more linear frequency response – which means more honest performance.

But, in the end, it all comes down to our people. They're fanatical about what they do, and they're incredibly proud of what they produce. We hope you're proud to own our speakers, too. ■

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Creating a new product – or updating a legendary one – is never an easy task. Before we get the great photography, the in-depth product descriptions and the glitz of the launch, we're involved in months (or even years) of development. And it doesn't always go to plan along the way.

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