

More than words.

Houses of worship

d&b
audiotechnik 

Welcome to a journey in sound.

Looking for ways to support intimate, transparent and engaging worship is a dedicated occupation at d&b. Working with churches of all scales and ages to ensure moving modern music and cascading choral song can be a part of daily life. For services not just made clear, but which arrive at the congregation exactly as intended. Because a whisper can be as powerful as a call. And words mean nothing without feeling the humanity behind them.

In truth, all audio technology sits between expression and experience, like a membrane between the world and self inside. Only the most transparent in design can overcome, what is experienced by the listener, as discoloration and fatigue.

Herein lies the d&b endeavor: to constantly elevate the quality of sound systems, to accurately transfer passions.

A few guiding principles lead the way: precision engineering for quality and accuracy, ease of use for a more enjoyable working day, and always – essentially – the utmost transparency. To connect the listener emotionally to sound, to its every subtlety and nuance. For spoken word and musical encounters that resonate as true.

Today, d&b systems find themselves in every walk of life, from theaters to tours of superstar proportions, cruise ships to stadiums, nightclubs to churches. Prestigious concert halls and famous festivals sit alongside local venues and events, the one every bit as remarkable as the other.

Each system comes with the assurance that d&b is conscientious in its social and environmental actions, providing co-workers a healthy and enriching place to work and taking long term steps to protect the natural world.

So it is that for over twenty years d&b, together with its global partners, has been helping church audio teams and their loudspeaker systems work unnoticed. No matter the physical complexities of the environment, historic, modern, or on the road, the intention is always the same: to make the worship space a soul space. A place where clarity replaces distortion, interference and discomfort. So that every word arrives at the ears and goes straight to the heart.

“... people have come to me after the service and commented on the difference of experience. They use words like ‘connected’ to describe what they hear, ‘it’s as if the Pastor is stood right in front of us’ they say.”

Andrew Illgner, Head of Sound, Rivers Church, Johannesburg, South Africa



Royal Albert Hall, London, UK



Sydney Opera House, Sydney, Australia



Life Church, Auckland, New Zealand



York Minster, York, UK

More than technology.

Since the company was founded in 1981 the world has experienced some of the greatest technological and social changes. But at d&b two ideas have stood the test of time, supporting and uniting a global community of audio enthusiasts.

First is the belief that everyone should experience the same impeccable quality of sound, regardless of where they're sitting or standing. This fair minded preoccupation embedded in the company its mission: Democracy for listeners.

Second is the idea that loudspeakers and electronics should be built systematically, that is, to work in total harmony. As a result d&b loudspeakers can only be driven by d&b amplifiers; it's an exclusive but technically beneficial union, maximizing efficiency, consistency and ease of use. A fully integrated way of working, known as the d&b System reality.

For d&b, taking a systematic, or holistic approach is key to everything the company does, a thinking-round-corners commitment to audio quality, so the same optimal acoustic result can be achieved by every system anywhere, at any time.

It's a goal as dedicated to people and their needs as the technology that serves them.

All this makes an ever-evolving d&b System reality about more than technology. It's a human orientated service and support structure in orbit around every d&b system. Ready to help fix, fine tune, and develop. Together. As and when required. From the first day to the last.

“A sound system at a church is really only a tool to help us do what we do. Sing. Pray. Teach... The d&b sound system uncompromisingly allows us to serve our community and focus on the ministry.”

David Lewis, Worship Pastor, Living Hope Church, Piperton, TN, USA





“We are helping people worship, and that’s important. I’m thankful for that, and thankful for a system that allows us to do that better.”

Joe Diaz, AV Director, LifeAustin Church, TX, US

Welcome to System reality.

As soon as a project gets started, the following d&b services and support are there to ease the way. For a little all-inclusive expertise where it’s needed most.

Application support

At d&b support means empowering projects and people with the tools and techniques to realize their goals. Dedicated application support specialists can be found roaming the globe, working with onsite teams, or at the end of a laptop or phone.

Education

It’s the dream of the international education team to see every d&b solution working to its full potential. And to help users achieve theirs. To that end the education program is open to anyone enthusiastic about sound.

d&b workshops are product specific, designed to help users get to know the systems better. And they’re an easy, informal way to see and hear them perform first hand. Seminars, meanwhile, focus on the general principles of electroacoustics and aim to fill in any gaps in knowledge, to improve participants’ confidence and understanding in their work.

Service

d&b products are renowned for their healthy constitution even into old age, but if things do go wrong, telephone support is on hand to help solve equipment issues; checklists take the trouble out of troubleshooting, and for amplifiers, a 48 hour exchange process is in place within Europe. Not to mention a comprehensive maintenance service for loudspeakers.

Custom solutions

Whenever a project cannot be realized with the standard product portfolio, the d&b Custom solutions team happily steps in. Close up, a project will often require something unique, where the audio expectation meets with additional installation and design criteria: a special set of features to satisfy the construction, weatherization, or the look of the environment. When these demands come into play, d&b can help define exactly what’s needed to perfect the project, to deliver a result that looks and feels just right.

Finance-Series

The flexible d&b Finance-Series is designed to help make aspirations a reality. In simple terms the program is nothing more than a purchase contract with an agreement for payment in instalments, combining variable finance values with customer specific payment periods.



Riverside Church, New York City, NY, US.

First opened in 1930, Riverside Church in New York City has a reputation both traditional and radical, inclusive and affirming. In 2017, following the implementation of an extensive new fiber network, itself a long term project, the church had completely refreshed its sound reinforcement system within its 300 foot Gothic style nave.

“The fiber and network infrastructure project was completed in 2016,” explains the church’s resident Director of IT and Technical Services, Darvin Darling. But there were still big issues with intelligibility in certain parts of the nave; issues that back in 2000 loudspeaker technology was incapable of overcoming. The improved signal path only made this more apparent.”

Consultants Acoustic Distinctions (AD), along with d&b Installation partner, Specialized Audio Visual Inc. (SAVI), had already addressed the need for a portable audio system, in the form of the d&b E-Series, for the more ad hoc functions that take place in other parts of the church. But the nave, with its high reverberation time, especially in the low frequency end of the spectrum, required a loudspeaker solution of an entirely different order.

Michael Cusick of SAVI was asked to make a recommendation: “The d&b column loudspeaker doesn’t do any fancy active steering with DSP; d&b abandoned that approach very early on. As is so often the case with their products, they achieve the desired result through the sophisticated design of their cabinets and the selection of components. If you listen to a pair of 24C columns from thirty feet away what you hear is just sonically precise. When I’d first heard them I was amazed, you are not listening to the cabinet, what you hear is the content.”

“Now we have no echoes and already are getting rave reviews from our congregation. The speech intelligibility is much, much better, and for classical music reproduction the sound is much crisper.”

Darvin Darling, Director of IT and Technical Services, Riverside Church, New York City, NY, USA


“We made the comparison using quality of reproduction and cost effectiveness as our principal determinants,” explains Darling. “In tests within the nave, the d&b product proved better in both instances. Specifically, their column speakers are both inherently cardioid. Mounted to the columns of the nave, there is a situation that with bleed-back you get echoes off the stone columns. Now we have no echoes and already are getting rave reviews from our congregation. The speech intelligibility is much, much better, and for classical music reproduction the sound is much crisper.”

“Throughout the system we were able to apply only the minimum of EQ, leaving the spoken word natural and open,” adds Cusick.

“The attention to detail by SAVI was phenomenal, and this was not easy,” concludes Darling. “I mandated them not to drill any additional holes in the fabric of the building, to only use existing ones. They made good on that promise, having custom brackets fabricated that fit to pre-existing holes, to allow fixing of the d&b speakers on their correct mountings. This and the cable runs were completed in just two weeks. Jacob Schmidt, our in-house recording engineer, loves the new system and is doing a great job.”



- Products employed**
- 24C-E column
 - 5S loudspeaker
 - 16C column
 - E8 loudspeaker
 - 10D amplifier



Products employed

E8 loudspeaker

E0 loudspeaker

E3 loudspeaker

Vi-GSUB subwoofer

Y8 loudspeaker

30D amplifier

ArrayCalc

Trent Vineyard, Nottingham, UK.

Trent Vineyard is a vibrant, contemporary church located in an edge-of-town location just two miles from the historic city of Nottingham, England. It's one of approximately 120 Vineyard churches in the UK and Ireland and 2,500 worldwide.

With a central auditorium, capable of welcoming over 1,200 people for Sunday services, talks, and music events, it is also one of the largest auditorium spaces in the region. When not in use by the church, the venue and its amenities are made available as a conference centre to the wider corporate community.

When the church recently expanded and refurbished it turned to leading AV supplier and d&b Sales partner, SFL Group, to design and install an audio system to meet its various needs, along with those of a fast turnaround corporate conferencing clientele.

"Trent Vineyard was already a happy d&b customer," explains Pat Smith of SFL. "So, when it came to designing a new system for the larger, differently shaped space, we had a good starting point in terms of what the outcome should be."

As well as using d&b ArrayCalc to model the performance of various designs in the new space prior to the construction being completed, SFL physically configured a number of different installation options for testing to ensure that the ideal audio setup was achieved.

"Much of the old d&b system was used in equipping Trent Vineyard's purpose built onsite Kids' Centre, itself a new, fairly big space," adds Smith. "The rest we were able to repurpose seamlessly in the expanded auditorium. First, we tested those loudspeakers, measuring their performance today against what it was when they were brand new. We found that for the most part, the difference was undetectable, even after fifteen years of hard use."

Particular to an auditorium of this kind is the variety of uses for which the inhouse sound team must cater, as James McBrien, Sound Overseer at Trent Vineyard, explains: "Large scale corporate conference events place very different demands on our sound system compared to those of a wedding with 300 guests. Even for our two Sunday services, there's a wider age range in the morning than in the evening, so we can mix bands differently at the services.

The d&b R1 Remote control software allows me to make subtle adjustments quickly and easily. It's not so much a case of being as loud as possible, it's all about being flexible, and as loud as is appropriate. The feedback I've had on a Sunday and from conferencing clients is that the recent upgrade has massively elevated the level of sound quality."

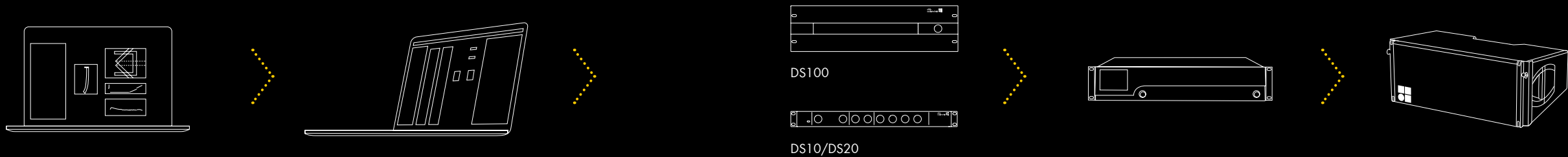
"The d&b R1 Remote control software allows me to make subtle adjustments quickly and easily. It's not so much a case of being as loud as possible, it's all about being flexible, and as loud as is appropriate."

**James McBrien, Sound Overseer,
Trent Vineyard, Nottingham, UK**

d&b Workflow.

What began with the integration of amplifier and loudspeaker exists today as the globally adopted d&b Workflow. Born from the System reality principle, this integrated toolkit incorporates all that’s needed to take projects comfortably through design, performance prediction, optimization and control.

As new products emerge – loudspeakers, electronics, software, and apps – the workflow updates and adapts, meaning it’s always business as usual for existing d&b users and operators, and nothing to worry about for newcomers. And because d&b is wholly committed to open standards, using the workflow is anything but a closed experience.



d&b ArrayCalc simulation software

The system design process begins with loudspeaker selection, positioning, prediction, and optimization, until the achievable result exceeds expectation. This software mapping process provides precise, transparent and verifiable information trustees can depend on.

d&b R1 Remote control software

Here the ArrayCalc simulation data is transformed into a project specific user interface, allowing the complete loudspeaker system to be centrally controlled and monitored.

This makes all system functions easily accessible to worship leaders and other members of the church, with restriction settings available depending on the operator’s needs and technical responsibility.

The R90 Touchscreen remote control simplifies things further. This 7” panel PC can be used day-to-day to quickly and reliably operate a pre-configured d&b system, with no expert audio knowledge needed.

d&b network and processing

Ease of use and predictability ensure these highly developed processing and matrix devices are both intuitive and workable for church audio teams.

Because the DS10 Audio network bridge works with one piece of remote control software (R1), and one consistent DSP amplifier platform, the complete sound reinforcement system is streamlined for more efficient and effective results.

Otherwise known as d&b Soundscape, the DS100 Signal Engine makes possible more natural source positioning, or creative works of pure imagination. It can also be used as a multifunctional standalone matrix.

d&b amplifiers

With powerful Digital Signal Processing capabilities, the amplifiers are the beating heart of any d&b system, breathing fresh life into audio toolkits as new enabling technologies emerge.

For many houses of worship, the loudspeaker system must integrate into a general control and monitoring platform. d&b amplifiers are designed to meet this demand, with a broad range of plug-ins for system controllers from leading manufacturers and technologies on the market.

d&b loudspeakers

Inside the cabinets the d&b team’s fixation for honing better and better dispersion behaviour has resulted in loudspeakers with full bandwidth directivity control. So every member of the congregation experiences the same high quality sound.

On the outside, so as to meet strict installation guidelines in historic churches, or to integrate unobtrusively in modern ones, all loudspeakers can be customized with color, rigging and weatherization options to perfectly match the structure and functionality of the worship space.

Impossible isn't impossible.

From a tiny church nestled inside a thirteenth century Swiss monastery, to purposely built megachurches, d&b systems are thoughtfully and efficiently developed to match any space and situation – sonically and aesthetically. Permanently installed, or configured to load-in load-out for multifunctional flexibility.



Our Lady of Victory Chapel, Saint Paul, MN, US



Green Acres Baptist Church, Tyler, TX, US



Planetshakers at Dallas Brooks Center, Melbourne, Australia



Kwanglim Church, Seoul, South Korea

Taking a step beyond with d&b Soundscape.

In short, this evolutionary toolkit is about enhancing emotional connectedness through sound. By putting artistic engineering at the centre of the sound production process, Soundscape technologies bridge the gap between physics and creativity, logic and feeling.

- Soundscape reduces distractions in the ear-eye-brain system caused by misaligned information, increasing attentiveness and engagement
- As a distributed, coherent system, Soundscape delivers higher gain before feedback than a traditional loudspeaker setup
- Soundscape leaves room in the sound design process for expressions of space, truth, and beauty
- With its intuitive control interface, the advanced hardware and software package (and clever algorithms) do all the heavy lifting
- Soundscape is flexible for rooms of all shapes and sizes, for music, spoken word, and more

d&b Soundscape.

As for delivering on the promises it makes, d&b believes that history speaks for itself, that the future is built on trust, and above all else, that words should never fall empty. To continue the conversation with the d&b team, please visit **dbaudio.com/worship**