

# PRO SOUND SOLUTIONS FOR INSTALLATION





## ENGINEERED FOR HIGH-END INSTALLATIONS

**RCF Pro Sound Solutions** catalog suggests a wide range of integrated audio install solutions with superior acoustic performance and precision. The vast experience in live sound allows RCF to have a great technical background in solving complex acoustic problems with multiple systems maintaining the most desirable tonal balance. All products are able to provide incredibly even SPL, consistent coverage, and maximum compatibility to an extended market of professional installers and integrators. Discover the added flexibility of our active speakers - perfect in fixed installation and ready to be configured in multiple arrangements. Explore the convenience of RDNet networked audio management - centralized control and monitoring platform able to manage all RCF compatible speakers from a single network interface - also with RCF connected amplifiers, able to drive our passive speakers as one single network. This catalog includes speaker systems designed to meet all pro-audio contractors' requirements for fixed installations like places of worship, theatres, live venues, dance clubs, theme parks, auditoriums, congress centers, sporting facilities, etc.

### RCF SOUND CULTURE

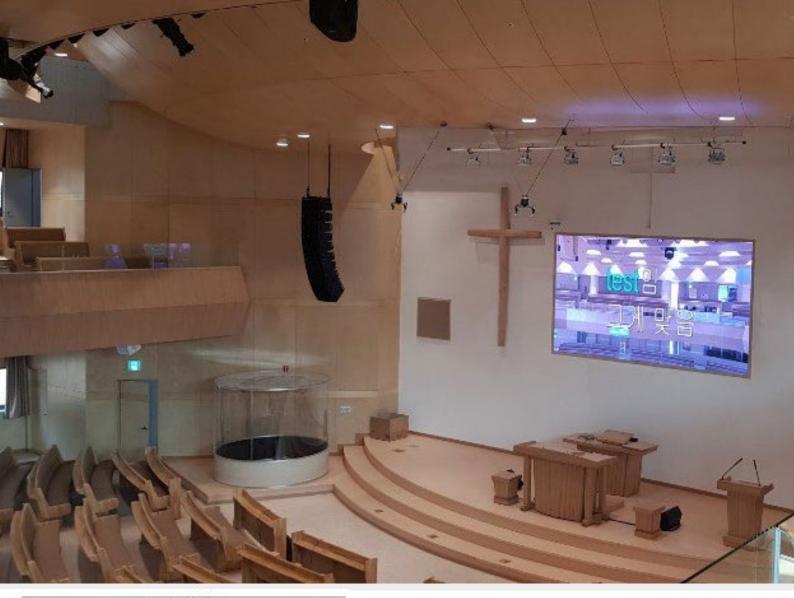
RCF is a leading technology brand of professional audio equipment, transducers, electronics, DSP, and custom solutions for any sound and any place. Established in Italy in 1949, RCF has been committed to the perfect reproduction and amplification of sound for events and concerts, recording, public address, broadcast, and portable audio. RCF has consistently transformed the pro-audio industry, developing components and products in-house to ensure maximum quality and reliability to the end-user.

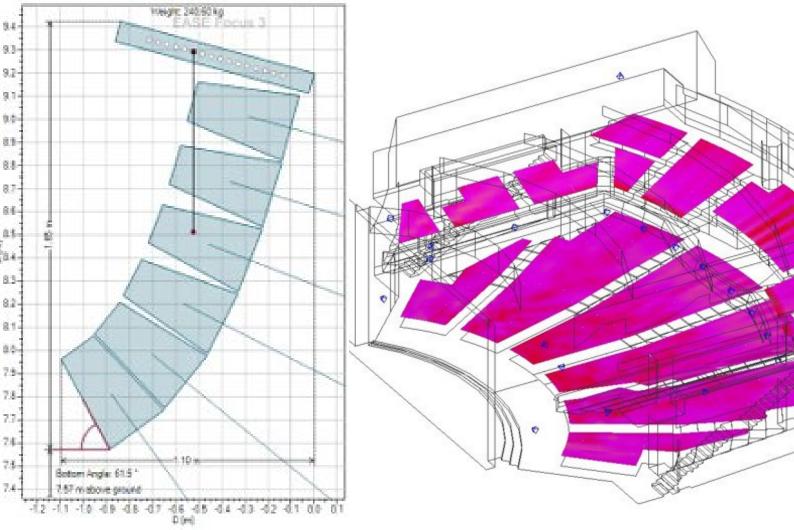
### FOREFRONT TECHNOLOGY

Innovation comes first and foremost, thanks to the RCF R&D team, developers of many original products and technologies, such as the hyper-venting system, the inside/outside voice coil, the dual silicone spiders, and countless mechanical, digital, and leading-edge electronic solutions. RCF is one of the few loudspeaker companies worldwide that internally manufacture transducers, speaker systems, electronics, and software. All products feature RCF's exclusive designs and technologies.

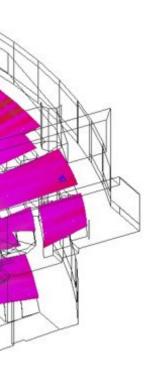
### A REFERENCE IN INDUSTRY

RCF is always at the forefront of technologies and materials research, providing tools, documentation, technical support to help professionals deliver optimized sound to the listener. Training activities for all audio professionals and enthusiasts draw into 70 years of experience and knowledge of its engineers. The internal support engineering team is on hand to assist architects, system designers, or integrators during the design and customization of complex systems. Tangible technical expertise, modern Italian manufacturing facilities, and continuous technological refinement set RCF as an essential reference for all audio professionals and enthusiasts. RCF supports customers in its offices in the United States of America, France, Germany, Italy, Spain, the United Kingdom, and a network of more than hundreds of trusted distributors throughout the rest of the world.









## **ENGINEERING SUPPORT GROUP**

### CUSTOMIZATION WITHOUT BOUNDARIES

Our Engineering Support Group works side by side with the R&D Department to create tailor-made equipment based on the client's real needs – complete with rigging accessories, signal processing, or custom mechanics. We are not only suppliers of standard products but also a team of highly skilled engineers who develop personalized audio solutions. Contact the RCF team to learn more about customization and color options to suit your unique environment. Each project has important benchmarks and we will help you to get the job done.

## RCF EXPERIENCE AT YOUR SERVICE

The direct involvement in particularly complex projects Worldwide is continually raising the know-how and reputation of our team of specialists that is considered one of the best Engineering Support Groups in our industry. A system design must always consider the environment's acoustics, the architectural and installation constraints, the maintenance costs, and the user's requirements. According to cost and performance requirements, the extensive and complete range of RCF products enables the Engineering Support Group to submit multiple design solutions optimized for each project.

RCF is committed to providing complete support, helping our customers choose the most suitable solutions for their projects to achieve the best results. This support team is crucial to RCF's continual success. We continue to invest in our knowledge and skill by expanding our engineering team of product specialists and the latest equipment and software technologies.

### DESIGN PROPOSAL

Based on supplied venue details, including environmental acoustic simulation, product list, block diagram, and speaker coverage mapping.

### DESIGN VALIDATION

Based on the client's design, we guide the proper selection and placement of RCF products.

### DESIGN OF ALTERNATIVE SOLUTIONS

Based on existing specs, we provide advice and improved system configurations based upon RCF products to optimize the installation.

### ACOUSTICAL CONSULTANCY

We help with the definition of the project's specifications in cooperation with architects and contractors.

• ON SITE

We provide system start-up and commissioning. RCF produces pre-wired racks on request, complete with connection diagrams and operation manuals.

## AUDIO ACADEMY TRAINING ACTIVITIES

Our training sessions are available in our worldwide educational program or can be customized according to the client's requirements. ESG members are involved in education and training activities where they can exchange information and ideas with consultants and contractors participating in the RCF Audio Academy program. RCF provides an extensive selection of courses and workshops covering several subjects such as new products, technologies, user cases, and indepth professional training. Sessions are organized worldwide by our Instructors/Engineers and also in RCF Audio Academy facilities in Italy.



## PLACES OF WORSHIP

### Tunbridge Wells Baptist Church - Kent (UK)

Tunbridge Wells Baptist Church in Kent, UK, has substantially upgraded its PA with an RCF HDL 26-A ultra-compact active two-way line array. The system was specified and installed by Adlib after the company successfully bid for the full audio-visual contract—including lighting and projection—after the previous system had reached end of life.

Stated Adlib's, Tim Robinson, "The process started back in October 2017 and we have been through several iterations along the way." The quotation they provided not only exceeded the remit for performance but also met the budget, as well as the requirement for a discreet, elegant system, finished in white. After considering various options Robinson was convinced that "the HDL 26-A has provided the church with the best outcome available." He explained, "The acoustic modelling in EASE Focus showed that we could achieve incredibly even SPL and consistent tonal balance throughout the audience, whilst maximising gain before feedback on stage. The availability of the system in white was key to accommodating a system of this size with the interior design."

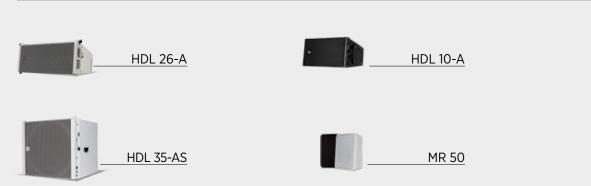
Each of the two hangs comprises seven HDL 26-A elements, integrated with a pair of flyable HDL 35-AS 15" subwoofers. Despite the loudspeakers being self-powered, there were no practical weight constraints. "Even though they're self-powered, the HDL 26-A system is still lighter than some externally-powered competitors," he confirmed. "The structural engineer had confirmed that there was plenty of capacity in the roof, thanks to the PA being sited directly under a massive concrete beam, so installation with RCF's flying hardware was ideal."

One design criterion was that all LF elements should be flown. "The compatibility between the HDL 35-AS and HDL 26-A made that an easy decision. For practical reasons, it keeps the floor clear and all items out of harm's way; and for acoustic reasons it maximises the efficiency and coherence of the arrays and meant we would not be murdering the front rows with sub."

In addition, the provision of six RCF HD 10-A active two-way wedge monitors provides additional flexibility. "Being self-powered, this provides maximum value to the client because they can be used in different configurations in other parts of the church, redeployed as three stereo PAs," says Robinson, who favours self-powered monitors in multi-use facilities. Finally, a pair of RCF MR 50 have been installed in the foyer, driven from the matrix on the mixer so that it can be run independently.

Finally, he says, the support received from RCF throughout the process was exemplary. "They were always highly communicative, and all components arrived on time from the factory, despite being in the middle of a pandemic."

Worship Team Leader, Jack Beattie agreed. "When I first heard the system it blew me away. The consistency and spread of the sound, and the way in which it remains smooth at both low and high volume, is incredible. I can't recall being inside a venue and noticing the sound being this good. I've also been pleasantly surprised by the monitors, which sound balanced—and whether using in-ears or stage monitors I expect the experience to be on par in terms of clarity."











## Evangeliums Christen Baptist - Paderborn (Germany)

The Evangeliums Christen Baptist congregation Paderborn is a congregational chapel which maintains its own house of prayer in the German city. For the audio system renewal the congregation, together with audio service provider Musik Aktiv Musikequipment GmbH from Paderborn, decided on a new HDL series line array system from RCF. Musik Aktiv tested several systems available on the market and decided on the HDL 10-A as the most suitable system for this project. The system was planned and designed by the German department of the RCF Engineering Support Group and installed by the community members themselves.

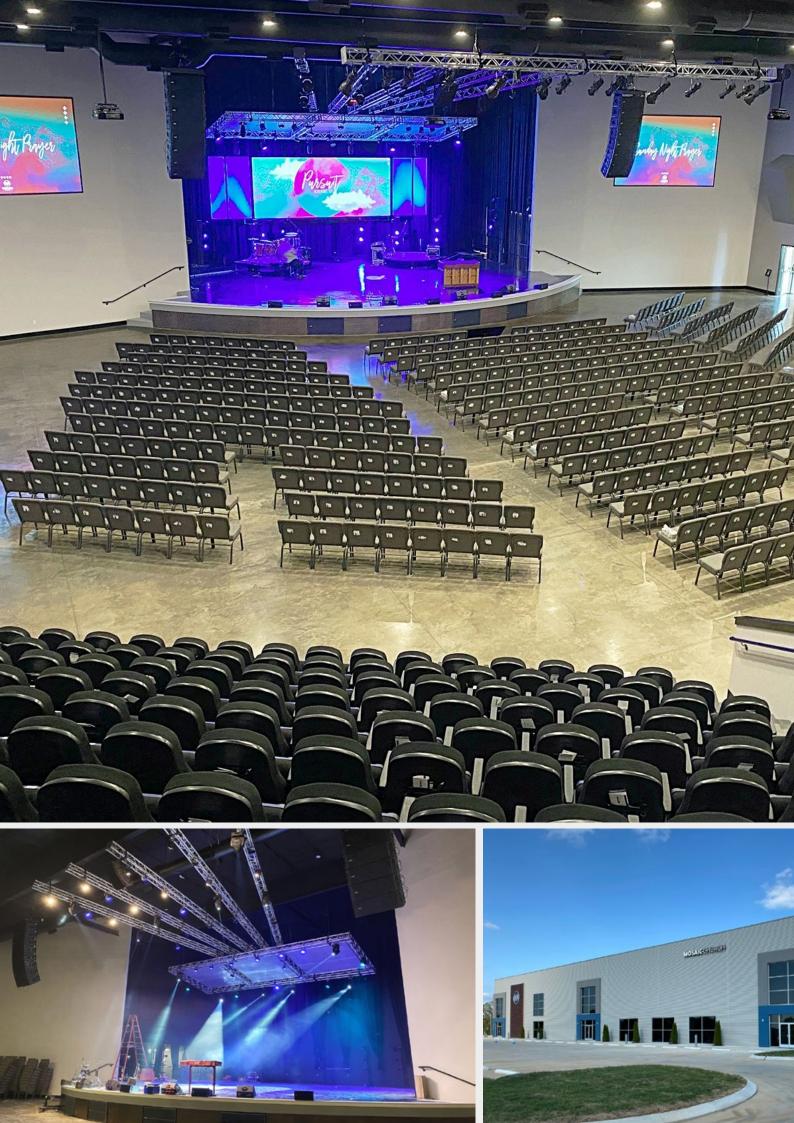
Frank Schallenberg, owner of Musik Aktiv, on opting for RCF: "For this project, we use RCF because we appreciate the competent support from their sales department. A decisive point we have experienced with many other projects already installed. The RCF engineers are very conscientious and detail-oriented in all they do plus the quality of the components, no matter in which category, is very high. When using RCF equipment, we experience practically no complaints or repairs. If there should be a difficult situation, the flexibility of the RCF team always gives you the feeling you are in good hands."

The church's house of prayer exists since 2004, holds 600 people and is the centre of the church community. The previously installed audio system was outdated and had to be replaced. Therefore the community decided on installing a completely new system using a modern line array from RCF. The HDL 10-A is an active 2-way system and is installed as a stereo full-range line array with 2x9 modules, hanging from the ceiling. Since multicore cabling already existed in the house of prayer, the decision to use RCF's active HDL 10-A plus the construction work was easy in terms of cabling. The previous system was installed located in the middle of the ceiling. For the new RCF system the team opted for a classic outline with two curves located to the right and left of the stage to achieve better coverage. Special suspensions were installed in the ceiling to mount the line arrays.

During the liturgy, the congregation stresses particular importance to choral support of the sermon. Therefore, great attention was paid to good audibility and excellent sound characteristics at various positions within the hall. Besides the sermons, choirs, orchestras and further musical contributions are an essential pillar of the services. Furthermore, all sermons are recorded and later made available as audio files for download if parishioners weren't able to attend. A simultaneous translation of the service in the Russian language is available for the parishioners.

During installation and calibration of the system, structural conditions such as balconies and different surfaces had to be taken into account. In such demanding environments, the HDL 10-A offers many adjustment possibilities regarding radiation angle or coverage – quickly to implement using the RCF Shape Designer. The active 2-way system is extremely reliable, especially in fixed installations, and offers 1400 Watt peak power leveraging the integrated, efficient class D power amplifier.









## Mosaic Church - Nashville (USA)

With over 50 years of ministry and community service, Tabernacle Church, located just outside Nashville, in Clarksville Tennessee, decided in 2017 that to keep up with their tremendous growth, they would undergo a monumental change with a grand new construction project, to reemerge as Mosaic Church—adding 65,000 square feet to their campus, including a 1,500 seat performance space.

When audio and integration firm, Holly Media was asked to oversee the expansion of the performance space, owner Fred Holly, with over 30 years of pro audio experience, led the design effort. "With new dynamics and changing needs, the scope of the ministry has changed—it's become a new work," said Holly. "Tabernacle seemed old fashioned. The name didn't match the demographic of our church because it's very diverse—and it's thriving. The new Mosaic Church wanted to reflect that."

When Holly was referred to RCF and was introduced to Jim Reed [RCF product specialist and system designer] his curiosity was piqued. "When we spoke, Jim said he was willing to demo an RCF TT rig personally, he had my attention." noted Holly. "I sent him the final room schematic and he returned an EASE drawing, and I was like, 'when can you come'? [laughs] I was very excited about the possibilities."

Reed put together a complete system which included: 16 [2x8] TTL 55-A active line array modules, four companion TTS 56-AS active subwoofers, two TT 25-CXA active floor monitors, and four TT 20-CXA active monitors for the stage. For added coverage, Reed also added nine HDL 26-A active line arrays for center and front fills for added coverage.

Upon completion of the installation, RCF product specialist Zachary Anthony was brought in to provide tuning, optimization, and training. "The sound quality from a TT rig is exceptional, and paired with the acoustic treatments, the room is near perfect." said Anthony. "I stopped turning up at 110db at mix position. Listening to that system is like listening to a giant pair of studio monitors — this room is an absolute pleasure to mix in. I don't know where you can go to get a better [sound] experience. The performance space at the Mosaic is the best I ever heard. I can't say that I've heard better."





## PUBLIC BUILDINGS

### Central Office of Sberbank - Moscow (Russia)

Sberbank is the largest bank in Russia and a leading international financial institution. It is Russia's most valuable brand and one of the top 25 brands in the world. Sberbank has 11 regional banks that are responsible for the operations of more than 14,000 branches in 83 of Russia's regions. RCF's Russian distributor ARIS and Polymedia equipped the central office's entrance zone with a sound system for background broadcasting and vocal announcements.

"The main goal was to equip the entrance zone of the central office with a sound system for background music and vocal announcements and a mobile system for events. Glass walls and the abundance of reflective surfaces are the real acoustic challenge of this project," says Alexandr Shamray, Sales Director of Aris. "We decided to implement a steerable vertical array RCF VSA 850 MKII and the point source wall speakers RCF MQ 30P-W."

The installation extends to more than 750 square meters covering the waiting area, self-service area, thematic exhibitions, meeting and customer service areas, access control zone, and the balcony.

"The RCF VSA 850 II column is a vertical controlled array with eight amplifiers and eight 3.5 inches speakers," says Dmitry Semenov, Lead Project Manager of Polymedia "VSA 850 II provides accurate sound directivity to the listening area. Using RCF's RDNet software, you can control the radiation pattern by controlling the width and inclination of the sound beam, which allows you to accurately articulate our audio sources."

The miniature two-way coaxial sound projector RCF MQ 30P is ideal for complex architectural solutions," continues Shamray "The loudspeaker features high intelligibility and a wide frequency range to ensure background music is smooth. The integrated support makes it easy to mount the speaker to a wall or ceiling and orient it in any direction. It's compact and looks great, perfect for our application."

As a mobile speaker system, the RCF D-LINE line array series was proposed. "The HDL 30-A with HDL 38-AS became the absolute right decision for Polymedia. "The HDL 30-A has the necessary sound pressure level and sufficient headroom for these rooms and RDNet control helps to quickly achieve a good result". states Semenov.

The stack is extremely lightweight, the cabinet is made of composite polypropylene with the revolutionary concept of wood reinforcement. In addition, all the necessary branded accessories were delivered: frames for suspension and installation in the ground stack, tour trolleys, and covers, all this allows you to quickly deploy equipment and then remove it without delaying the organization of the event.

#### Products installed

EP15/ALIK







## ERA Technopolis - Anapa (Russia)

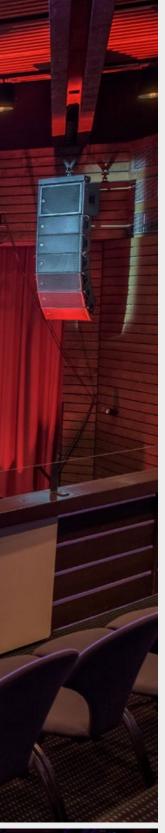
Located in the Black Sea resort town of Anapa, military innovative technopolis "ERA" is built to reduce the time from the creation of innovative scientific projects for the country's defense capability and for peaceful purposes. The Russian solution provider Avilex was selected to develop the multi-zone warning system for the facility covering more than 17 hectares area and 5 buildings, also integrating the buildings together creating a unique broadcasting system.

Functioning structures include an assembly hall and life support facilities, a residential unit for soldiers (for approx. 2000 people) a sports and health complex with a swimming pool and fitness equipment, as well as a number of technical facilities and sites. The construction of this military complex advanced at an unprecedented pace to have a fully working facility in less than one year after the foundation was laid.

With the assistance of ARIS, the Russian RCF distributor, Avilex deployed more than 300 RCF products on the area. All powered by RCF IPS amplifiers, the installation features a vast range of RCF passive speakers - MR series of point source speakers, CS column speakers, VSA steerable column speakers, HD weatherproof horn speaker, and also active line arrays such as the HDL 20-A with SUB 9006-AS.









## THEATERS, CONCERT HALLS

## Stadthalle Osterode - (Germany)

Situated in the German town of Osterode am Harz, the Stadthalle Osterode hosts many varied events throughout the course of the year. Central to the cultural life in the region since 1973, and renovated a few years ago, the theatre has firmly established itself on the local landscape and frequently welcomes well-known stage names in both the classical as well as modern dramatic world, as well as big names from all music genres.

In addition, fairs, exhibitions, balls, and other occasions frequently take place in the large hall, with seating for 872 (or around 2,000 standing).

However, the venue does not only promote its own events but rents out to third-party promoters. And so when it came to installing a new permanent sound system it had already been exposed to a range of PA systems from local rental companies.

The one that stood out was RCF's HDL 20-A highly popular composite line array. And so a team from the Stadthalle approached Georg Hofmann, Product Manager Commercial Audio and Installed Sound, at dBTechnologies—RCF's German distributor.

Hofmann recalls, "The HDL 20-A's had been to the Stadthalle many times with rental companies, and they were convinced that it would provide the best solution for their new permanent sound system."

Immediately after Prolight+Sound 2017 in Frankfurt he made a site visit and carried out an acoustic simulation for optimum 3D modeling, using EASE.

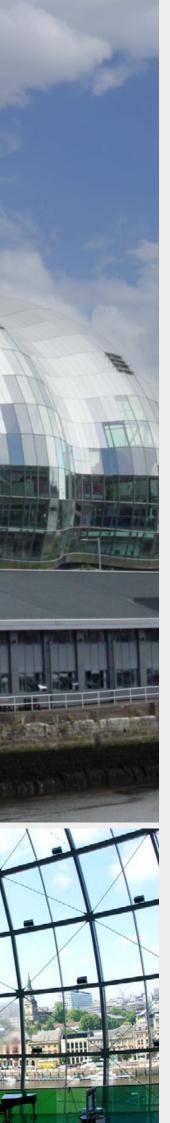
Based on this solution, a public tender was issued, and the order for the PA was duly placed with dBTechnologies' installation partner M-Akustik, based in Hessisch-Oldendorf.

The newly designed system comprised flown hangs of six HDL 20-A and an HDL 18-AS sub, along with a pair of SUB 8004-AS subwoofers per side. Four TT 052-A, from RCF's Touring & Theatre series, provided the front fills, with a further pair of TT 052-A as under-balcony delays. The entire system is controlled from RCF's dedicated DX-1616 Matrix Audio Processor.

Late last year the Stadthalle technical team visited Georg Hofmann again at an industry convention. "They explained how happy they were with the new system," he confirmed.







## Sage Gateshead - Gateshead (UK)

One of the most unusual deployments of RCF's active HDL 6-A line array has taken place at Sage Gateshead to coincide with the Great Exhibition of the North.

The installation of 40 of these compact elements was sensitively carried out by RCF partner Nitelites, to contour the curvilinear glass and stainless superstructure of the magnificent building. Its purpose is to reproduce a unique and newly commissioned work by Sheffield-based 'sound sculptor' Mark Fell, called Protomusic #1.

The installation was carried out in just three days and involves bespoke mounting bracketry, manufactured in house by Nitelites, enabling each speaker to be optimised at the correct tilt angle, while remaining discreet

Fell's soundscape of real world sounds that represent the north of England, have been reproduced by 60 traditional instruments from around the world by Royal Northern Sinfonia, as well as non-professional players and independent musicians, in what amounts to three hours' worth of material, recorded over a two-month period.

Nitelites project manager Ed Gamble also added that the speaker's 100° x 10° vertical coverage was perfect for the project, focusing the sound on the listener. "Because of the control pattern, HDL 6-A provides a seamless audio experience from area to area along the concourse. The other benefits of using the HDL 6-A are the weight and size, which are incredible." Mark Fell also invited participation from the public. He made an iOS and Android app whereby users could record sound, images and add text and this was automatically sent to his server.

In conclusion, the artist says, "I'm really happy with the work, it was a new experience for me to work with so many musicians and that was a great part of the process. Without doubt the HDL6-A enclosures delivered the level of sonic quality that I had hoped for. I'm super happy because I like sonic detail and clarity, and the speakers delivered that."









## SCHOOLS AND UNIVERSITIES

### Northumbria University - Newcastle (UK)

Based in the heart of Newcastle-upon-Tyne, the Students Union at Northumbria University boasts excellent campus facilities.

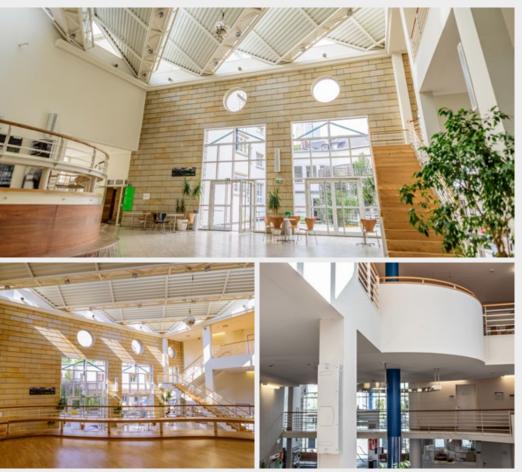
Following a series of upgrades in the past 12 months all the principal Student Union (NSU) spaces have been equipped with premium RCF sound systems. This applies to Reds Bar, with its leather upholstered booth seating and full 300-capacity performance stage, which can accommodate up to 900 students; Domain, its biggest, multipurpose venue, which has already hosted some of NSU's bigger gigs, including Ed Sheeran, Ella Eyre, Anthrax, London Grammar and Soul II Soul; Habita, its award-winning stylish and relaxed cocktail bar; and finally Stage 2, a purpose built theatre performance space, which is used for student assessments and shows.

The man responsible for standardising on RCF is NSU's Technical Services Manager, Seb Cockcroft explains, "I borrowed some HDL10 which we ground stacked after our old system failed on a club night — and we fell in love with it. This got us through until we purchased the system. We needed to upgrade anyway because the old system was 15-20 years old." Nitelites supplied and installed four HDL10-A per side, with a pair of 21" TTS56-A subwoofers adding high-powered LF extension. Other rooms also features RCF speakers. Summarising, Cockcroft says of the NXL44-A, "It's a great general purpose box, since it sounds great and there's no drop off and. Previously the sound in the front had to be so loud but you would still would lose it at the back. These columns have all the advantage of a line source so coherence over distance is good."



## SCHOOLS AND UNIVERSITIES

Frankfurt University - (DE)



#### Products installed



## Oakham School Drama Theatre (UK)





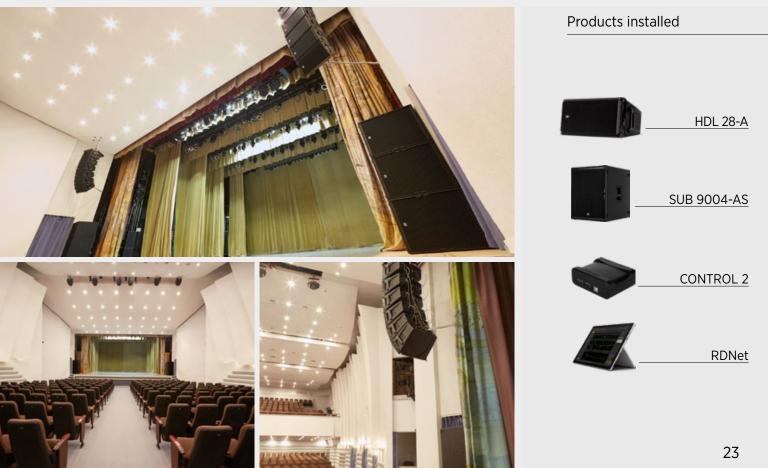
## Lambs Chapel - Burlington Campus (USA)





## THEATERS

The Palace of Culture of Podolsk (RU)



## **BARS, PUBS AND RESTAURANTS**

Zarza Lounge Bar - Jaipur (India)





Leipziger Stadtbad - Leipzig (DE)





### Picnic Restaurant - Novi Sad (Serbia)



#### Products installed



## PUBLIC BUILDINGS

International Convention Centre Wales (UK)





## HDL SYSTEM

## ACTIVE LINE ARRAY

The HDL System is changing the concept of large format arrays, providing first-class performance to an extended market of professional users.

The HDL System is equipped with modern and innovative technology. Each component has been consistently and specially developed by RCF's experienced engineering teams, carefully matched to each speaker. This complete integration of all elements allows not only superior performance and maximum operational reliability, but also provides users easy installation and plug & play comfort. Having an HDL system gives you the freedom to adapt each system to the location, with powerful software tools for system design and tuning.

#### THE TRANSDUCERS INNOVATORS

The RCF loudspeaker line incorporates a vast range of transducers covering the entire audio spectrum. We design our transducers to optimize the relationship between

the purity of sound, combining the absence of distortion and the ability to withstand high power levels over a long period of time.



#### **HDL 30-A**

- 137 dB SPL Max
- 2200 W peak 2-ch amplifier
- 50 ÷ 20000 Hz Freq. Range
- 100° x 15° coverage angle
- 4" neo C.Driver
- 2 x 10" neo Woofer
- 680 Hz Crossover
- FiRPHASE on-board
- RDNet



#### HDL 38-AS

- Flyable Sub for the HDL 30-A array
- 136 dB SPL Max
- 3200 W Class-D Amplifier
- 30 ÷ 140 Hz Freq. Response
- 18" Neo Woofer, 4" v.c.
- RDNet



#### **HDL 28-A**

- 135 dB SPL Max
- 2200 W peak 2-ch amplifier
- = 50 ÷ 20000 Hz Freq. Range
- 100° x 15° coverage angle
- 3" neo C.Driver
- 2 x 8" neo Woofer
- 750 Hz Crossover
- FIRPHASE on-board
- RDNet



#### HDL 36-AS

- Flyable Sub for the HDL 28-A array
- 135 dB SPL Max
- 3200 W Class-D Amplifier
- 40 ÷ 140 Hz Freq. Response
- 15" Neo Woofer, 4" v.c.
- RDNet



#### HDL 26-A

- 135 dB SPL Max
- 2000 W peak 2-ch amplifier
- 55 ÷ 20000 Hz Freq. Range
- 100° x 15° coverage angle
- 3" neo C.Driver
- 2 x 6" neo Woofer
- 750 Hz Crossover
- FIRPHASE on-board
- RDNet



#### HDL 35-AS

- Flyable Sub for the HDL 26-A array
- 134 dB SPL Max
- 2200 W Class-D Amplifier
- 40 ÷ 140 Hz Freq. Response
- 15" Neo Woofer, 4" v.c.
- RDNet



#### PERFECT ISOPHASIC DESIGN

The specially-designed front baffle provides coplanar woofers and controlled LF dispersion for identical left-right coverage. Optimal components arrangement and special DSP algorithms take care of the constant directivity without spots of break up or attenuation. The HDL 4PATH waveguide allows precise coverage while also delivering a superb, linear high-frequency response. The unique shape of the ducts forming the guide creates an ideal isophasic load from the crossover frequency to the highest audible frequencies.

#### NEW PERSPECTIVE ON LINEARITY

RCF speakers are designed using a proprietary and advanced FiR filtering technology, conceived to deliver transparent sound, absolute clarity, and perfect sound image to the listener. The special FiRPHASE filters allow coherent distribution of sound for all listeners without phase distortions, ensuring minimum latencies to the system.



#### **HDL 20-A**

- 135 dB SPL Max
- 1400 W Peak 2-ch amplifier
- = 55 ÷ 20000 Hz Freq. Range
- 100° x 15° coverage angle
- 3" C.Driver
- 2 x 10" Woofer
- 800 Hz Crossover



#### **HDL 10-A**

- 133 dB SPL Max
- 1400 W 2-ch amplifier
- 65 ÷ 20000 Hz Freq. Range
- 100° x 15° coverage angle
- 2.5" neo C.Driver
- 2 x 8" neo Woofer
- 800 Hz Crossover



#### HDL 6-A

- 131 dB SPL Max
- 1400 W peak 2-ch amplifier
- 65 ÷ 20000 Hz Freq. Range
- 100° x 10° coverage angle
- 1.7" neo C.Driver
- 2 x 6" neo Woofer
- 900 Hz Crossover
- FiRPHASE on-board



#### **HDL 12-AS**

- Flyable Sub for the HDL 6-A array
- 131 dB SPL Max
- 1400 W Peak power
- 40 ÷ 140 Hz Freq. Response
- 12" Neo Woofer, 3" v.c.

## **TT+ TOURING AND THEATRE**

## **ACTIVE LINE ARRAY**

TT+ High Definition Touring and Theatre is the flagship RCF touring solution for first-class sound reinforcement in live and installed systems, suitable for both music and speech reinforcement in high-end installations.

TT+ systems feature highly advanced digital and analog electronic processing, baltic birch plywood cabinets with heavy-duty finishing, high-quality steel mechanical fittings, and robust powder-coated grilles. TT+ high power Class-D amplifiers offer very low distortion and natural sound with very efficient heat dissipation coupled with low energy consumption. The integration of accurately tuned DSP and advanced proprietary algorithms, such as FiRPHASE 0 degrees phase response and innovative, dynamic woofer excursion control paired with RDNet management software, deliver unmatched results in the audio industry.

#### POWER AND CONTROL

The TT+ range consists of both powerful active, passive speakers and amplifiers for point-source, vertical, and horizontal deployment with a top of the class sound performance, full weatherproof protection, and maximum scalability. Rider-friendly speakers with low weight, robust and reliable hardware, and efficient remote monitoring and control.

#### LARGE VENUES

When large scale music applications require absolute precision and clarity, the TT+ sound system is easily scalable, from a few modules to full-size line arrays. The FiRPHASE controlled linearity avoids phase distortion, so the system engineer requires simple time delay alignments for any desired system design.



#### TTL 55-A

- 143 dB SPL Max
- 3500 W, 4 way
- 50 ÷ 20000 Hz Freq. Range
- 90° x 7° coverage angle
- 3 x 2.5" neo C.Driver
- 10" neo midrange
- 2 x 12" neo Woofer
- 320 ÷ 1300 Hz Crossover Freq.
- FiRPHASE on-board
- RDNet



#### TTL 33-A II

- 135 dB SPL Max
- 1250 W switching amplifiers
- 60 ÷ 20000 Hz Freq. Range
- 100° x 15° coverage angle
- 3 x 1.5" neo C.Driver
- 8" neo midrange
- 2 x 8" neo Woofer
- 400 ÷ 1800 Hz Crossover Freq.
- FiRPHASE on-board
- RDNet



#### **TTS 56-A**

- 145 dB SPL Max
- 2 x 3400 W digital amplifiers
- 35 ÷ 100 Hz Freq. Response
- 2 x 21" high power neo woofers, 4.5" v.c
- RDNet



#### THEATRE SYSTEMS

When large scale music applications require absolute precision and clarity, the TT+ sound system is easily scalable, from a few modules to full-size line arrays. The FiRPHASE controlled linearity avoids phase distortion, so the system engineer requires simple time delay alignments for any desired system design.

#### HOUSE OF WORSHIP

TT+ systems deliver unique intelligibility, well-defined coverage control, and excellent microphone feedback rejection. From small and medium-sized houses of worship to large community churches, enjoy high definition voice and music at the desired SPL level.

#### CONCERT HALLS

The least distortion possible at any volume level, paired with complete remote management of every speaker, makes the TT+ the perfect indoor sound system. Enjoy the pinpoint accurate coverage with full dynamic range, from pianissimo to fortissimo, from symphonic music to electronic performances.

#### STADIUMS AND ARENAS

Whether the venue hosts a live performance or a sport match, TT+ delivers superior vocal coherence with optimal intelligibility. The advanced electro-acoustic design, with extended SPL, can withstand crowd noise with absolute clarity.



#### **TTL 6-A**

- 139 dB SPL Max
- 4 x Class D amplifier, 2200 W
- 45 ÷ 20000 Hz Freq. Range
- 90° x 30° coverage angle
- 1.4" neo C.Driver, 3.0" v.c.
- 4 x 6" neo midranges
- 2 x 12" neo woofers
- 200 ÷ 800 Hz Crossover Freq.
- FiRPHASE on-board
- RDNet



#### **TT 25-CXA**

- 133 dB SPL Max
- 1100 W Class D Amplifier
- 65 ÷ 20000 Hz Freq. Range
- 60° x 60° coverage angle
- 15" neo coaxial woofer, 3.5" v.c.
- 1.5 " neo coaxial C.Driver, 2.5" v.c.
- 900 Hz Crossover
- FiRPHASE on-board
- RDNet



#### **TT 20-CXA**

- 131 dB SPL Max
- 1000 W Class D Amplifier
- 60 ÷ 20000 Hz Freq. Range
- 90° x 70° coverage angle
- 2 x 8" neo Woofers, 2.5" v.c.
- Horn loaded 1.4" neo C.Driver, 3" v.c.
- 900 Hz Crossover
- FiRPHASE on-board
- RDNet

## NETWORKED SOUND SYSTEM MANAGER

RDNet is a robust management network and control platform for small, medium and large arena-sized sound systems, as well as complex and extended installations.

RDNet is the RCF management software suite for Sound System Engineers. A robust management network for RCF devices, a line-array design tool, a monitoring platform, and a complete audio analyzer in one package. RDNet provides intuitive management of every connected device/ object on the network. A network user can control all DSP settings inside any compatible device, including advanced subwoofer configurations, from a single object to a group of objects.

#### TOOLBOX FOR SOUND SYSTEM DESIGN

RDNet is more than just a speaker management software - you can control parameters and internal routings of multiple RCF devices, such as digital matrixes or amplifiers, both in live or installed applications. Featuring an advanced measurement suite and the ability to save/ recall presets on the cloud, RDNet is the all-in-one solution for both touring and installed sound systems.

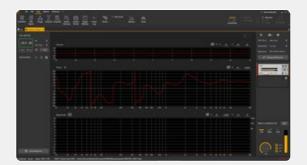
#### STRAIGHT-FORWARD SOUND DESIGN

Shape Designer prediction software enables a twodimensional acoustic simulation of the array configuration and suggest LF Corrections based on the cluster size. The system curvature angles and sound projection data are computed with maximum sound pressure levels for the given design. The software provides system curvature and weight, system rigging points, and cabinet angles.



#### MONITOR AND MANAGE

The RDNet Scan function sequentially scans all audio devices, recognizes, assigns digital address labels, and adds devices as objects in the main window. The real-time monitoring features a multitude of parameters such as fan speed, temperature, the inclination of a single speaker, VU Meters, peak levels and more. RDNet takes direct control on the internal EQ and High-Pass filter on each cabinet.





#### TAKE ALL APPROPRIATE MEASURES

RDNet Measure is a powerful 4-input Dual-Channel FFT Audio Analyzer able to measure Magnitude, Phase, RTA, Coherence, and Impulse response. Functions included spans from a delay finder, a multiple signal generator, and an integrated SPL meter/logger with calibration tools.

- Array and Zones Grouping
- Multiple-type EQ, Bass Shaper and FiRPHASE EG
- Auto Scan and complete monitoring
- Shape Designer Array Calculator
- Real-time Measurement Suite
- Automatic Cluster Size shaping and Air Compensation
- Subwoofer configuration tool
- Cloud Storage

#### NETWORKED SPEAKER CONTROL

When the RCF sound system is connected via CONTROL 2 or CONTROL 8 interfaces, the system engineer has complete control of time delay and equalization of all speakers, individually or grouped. With its built-in communication board and DSP, each device is an active part of the system, able to store presets, receive commands, and continuously send status information of single components or transducers. Comprehensive monitoring is standard in RDNet: VU metering, clip indicator, limiter intervention, device inclination, communication issues, and much more.

#### EASY SUBWOOFER CONFIGURATION

Guided subwoofer configurations help the engineer to set up subwoofer Cardioids, Arcs, or EndFire configurations in one pass, while the Bass Shaper fine-tunes the desired timbre on low frequencies. With three slides and a few steps, it's easy to correct lowend behavior, while maintaining tonal balance across the entire system.



#### GET THE MOST OF YOUR SYSTEM

RDNet gives the ability to control devices in Groups for easy supervision. Arrays customizable Group properties are Zones, Air Compensation, Cluster Size, FiRPHASE Gain. When assigning Group Array objects in Zones: every Zone has its color for quick reference of set parameters. An incremental control shapes the Air Absorption Compensation, which can be very useful with changes in humidity or temperature (e.g., soundcheck on a sunny day, concert on a humid night). The line array's low-mid shaping is automatically calculated on the Cluster size to obtain the perfect linear frequency response from the entire system.

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#### TRAVEL LIGHT ON CLOUDS

You don't need your personal computer anymore. Simply connect any computer to the Internet, sign-in to your account, and you are ready to go with a complete set of audio tools for your RCF audio system. You can also save and recall your projects and measurements.

## **ART 7 & NX SPEAKERS**

## **TWO-WAY SPEAKERS**

Multi-purpose active speakers packed with professional transducers, advanced DSP, and Class-D power amplifier technology. Quality and power into a lightweight and reliable solution for a multitude of applications.

#### POWERFUL CLASS D AMPLIFIERS

RCF's Class-D power amplifier technology packs huge performance operating with high efficiency into a lightweight solution. ART 7 amplifiers deliver ultra-fast attack, realistic transient response, and impressive audio performance. The amplifier features a solid mechanical aluminum structure which not only stabilizes the amplifier during transportation but also helps the fan-less heat dissipation. All the ART 7 amplifiers present SMPS power supply section in order to produce maximum output and minimum transportation weight.

#### SUPERIOR TRANSDUCERS

Woofers and compression drivers are precision built taking advantage of RCF's technologies and a wealth of professional knowledge and experience dedicated to achieving extremely high standards.



#### **ART 745-A MK4**

- 133 dB SPL Max
- 1400 W 2-way peak power
- 45 ÷ 20000 Hz Freg. Range
- 90° x 60° coverage angle
- 1.4" Neo C.Driver. 4" v.c.
- 15" Neo Woofer. 3.5" v.c.
- 650 Hz Crossover Freq.
- FiRPHASE on-board



#### **ART 735-A MK4**

132 dB SPL Max

- 1400 W 2-way peak power
- 45 ÷ 20000 Hz Freg. Range
- 90° x 60° coverage angle
- 1.4" Neo C.Driver, 3" v.c.
- 15" Woofer. 3" v.c.
- 800 Hz Crossover Freq.
- FiRPHASE on-board



#### **ART 715-A MK4**

130 dB SPL Max

- 1400 W 2-way peak power
- 45 ÷ 20000 Hz Freg. Range
- 90° x 60° coverage angle
- 1" C.Driver, 1.75" v.c.
- 15" Woofer. 2.5" v.c.
- 1600 Hz Crossover Freq.
- FiRPHASE on-board



#### **ART 732-A MK4**

- 131 dB SPL Max
- 1400 W 2-way peak power
- 50 ÷ 20000 Hz Freq. Range
- 90° x 60° coverage angle
- 1.4" Neo C.Driver, 3" v.c.
- 12" Woofer. 2.5" v.c.
- 700 Hz Crossover Freq.
- FiRPHASE on-board



#### **ART 712-A MK4**

- 129 dB SPL Max
- 1400 W 2-way peak power
- 50 ÷ 20000 Hz Freg. Range
- 90° x 60° coverage angle
- 1" C.Driver, 1.75" v.c.
- 12" Woofer. 2.5" v.c.
- 1600 Hz Crossover Freq.
- FiRPHASE on-board



#### **ART 710-A MK4**

- 129 dB SPL Max
- 1400 W 2-way peak power
- 50 ÷ 20000 Hz Freg. Range
- 90° x 70° coverage angle
- 1" C.Driver, 1.75" v.c.
- 10" Woofer. 2.5" v.c.
- 1600 Hz Crossover Freq.
- FiRPHASE on-board



#### **ART 708-A MK4**

- 127 dB SPL Max
- 800 W 2-way peak power
- 60 ÷ 20000 Hz Freg. Range
- 90° x 70° coverage angle
- 1" C.Driver, 1" v.c.
- 8" Woofer. 2.5" v.c.
- 1600 Hz Crossover Freq.
- FiRPHASE on-board



#### FLEXIBLE CABINETS

Every ART or NX model can be used in the standard, stage monitor configuration or easily rigged vertically or horizontally. ART 7 cabinets are molded on a special polypropylene composite material designed to dampen down vibrations even at maximum volume settings. From molding to the final texture, ART 7 offers maximum reliability and strength for intensive use.

The heavy-duty birch plywood NX cabinets are coated with a black textured polyurethane coating. A sturdy powder-coated metal grille protects the front, and the acoustically transparent sound foam backing on the inside ensures protection from dust and humidity.



#### **NXL 44-A**

- 134 dB SPL Max
- 1400 W 2-way peak power
- = 45 ÷ 20000 Hz Freq. Range
- 90° x 30° coverage angle
- 1.4" Neo C.Driver, 3" v.c.
- 3 x 10" Neo Woofer, 2.5" v.c.
- 800 Hz Crossover Freq.



#### **NXL 24-A**

- 131 dB SPL Max
- 1400 W 2-way peak power
- 65 ÷ 20000 Hz Freq. Range
- 100° x 30° coverage angle
- 1.4" C.Driver, 2.5" v.c.
- 4 x 6" Woofer, 1.5" v.c.
- 800 Hz Crossover Freq.



#### NX 45-A

- 133 dB SPL Max
- 1400 W 2-way peak power
- 45 ÷ 20000 Hz Freq. Range
- 90° x 50° coverage angle
- 1.4" Neo C.Driver, 4" v.c.
- 15" Neo Woofer, 3.5" v.c.
- 650 Hz Crossover Freq.
- FIRPHASE on-board



#### NX 32-A

131 dB SPL Max

- 1400 W 2-way peak power
- 50 ÷ 20000 Hz Freq. Range
- 90° x 60° coverage angle
  1.4" Neo C.Driver, 3" v.c.
- 12" Woofer. 2.5" v.c.
- 700 Hz Crossover Freq.
- FiRPHASE on-board



#### **NX 10-A II**

- 129 dB SPL Max
- 1400 W 2-way peak power
- 50 ÷ 20000 Hz Freq. Range
- 90° x 60° coverage angle
- 1" C.Driver, 1.75" v.c.
- 10" Woofer, 2.5" v.c.
- 1700 Hz Crossover Freq.
- FIRPHASE on-board

## **SUBWOOFERS**

The low-frequency matching complement for RCF professional speakers feature strong baltic birch construction, high-quality mechanics, superior acoustic design, and premium RCF Precision Transducers. The SUB Series brings the legendary RCF low-frequency efficiency and power to your sound system.

#### TOP END ELECTRONICS

Amplifiers integrate low-noise DSP circuits, controlled through the RCF proprietary RDNet network to easily handle the soft clipping limiters, RMS limits, polarity, amplitude, timing, and equalization. All settings, monitoring, and advanced features are available inside the RDNet Networked Management software. The control panel on the back allows multiple operations such as input sensitivity, Low Cut, Xover, volume, bypass, delay, and presets selection. The amplifier houses on a unique Vibrostop floating aluminum panel for extra protection.

#### HIGH PERFORMANCE HYPERVENTED WOOFERS

RCF manufactures these components to deliver the cleanest, punchiest, and undistorted low-frequency reproduction. RCF engineers have developed a unique internal ventilation system with very low power compression to dissipate the powerful voice coil's heat. The Hyper Vented System results from a complex combination

#### **STURDY CABINETS**

All cabinets are made of high-quality birch plywood with weatherproof treatment. The subs are stackable and lightweight for an easy set-up and tear down. The heavy-duty coating and the cabinet's rugged structure withstand long-term use—separate housing for the amplifier guarantees component efficiency and reliability.

of ventilation ducts in the voice coil former, in the magnetic structure, and in the woofer's basket. Also, the demodulation rings reduce the harmonic and intermodulation distortion associated with the voice coil displacement and, as input current varies, the system inductance is more linear. RCF Precision cones are water-resistant.



#### **SUB 9006-AS**

- 142 dB max SPL
- 7200 W Peak power
- 2 x 18" Woofer
- 30 ÷ 400 Hz Freq. Response
- RDNet



#### SUB 8005-AS

- 137 dB max SPL
- 2500 W Peak power
- 21" Woofer, 4.5" v.c.
- 27 ÷ 120 Hz Freq. Response
- Compatible with NXL 24-A



#### **SUB 9004-AS**

- I36 dB max SPL
- 2800 W Peak power
- 18" Neo Woofer
- 30 ÷ 400 Hz Freq. Response
- RDNet



#### **SUB 8004-AS**

- 136 dB max SPL
- 2500 W Peak power
- 18" Woofer, 4" v.c.
- 30 ÷ 120 Hz Freq. Response
- Compatible with NXL 24-A



#### **SUB 8006-AS**

- 137 dB max SPL
- 5000 W Peak power
- 2 x 18" Woofer
- 30 ÷ 120 Hz Freq. Response
- Compatible with HD 20-A



#### **SUB 8003-AS II**

- 135 dB max SPL
- 2200 W Peak power
- 18" Woofer, 4.0" v.c.
- 35 ÷ 120 Hz Freq. Response



# PART NUMBERS

HDL SYSTEMS						
PRODUCT	Colour	90-240V	220-240V	115V		
HDL 30-A	Black	13000511	-	-		
HDL 38-AS	Black	13000580	-	-		
HDL 28-A	Black	13000579	-	-		
HDL 28-A W	White	13000605	-	-		
HDL 36-AS	Black	13000583	-	-		
HDL 26-A	Black	13000588	-	-		
HDL 26-A W	White	13000606	-	-		
HDL 35-AS	Black	13000575	-	-		
HDL 35-AS W	White	13000664	-	-		
HDL 20-A	Black	-	13040007	13040008		
HDL 10-A	Black	-	13040016	13040017		
HDL 10-A W	White	-	13040022	13040023		
HDL 6-A	Black	-	13000496	13000509		
HDL 6-A W	White	-	13000514	13000515		
HDL 12-AS	Black	-	13000505	13000510		
HDL 12-AS	White	-	13000532	13000533		

ART 7 SERIES					
PRODUCT	Colour	90-240V	220-240V	115V	
ART 745-A MK4	Black	-	13000530	13000531	
ART 735-A MK4	Black	-	13000528	13000529	
ART 715-A MK4	Black	-	13000524	13000525	
ART 732-A MK4	Black	-	13000526	13000527	
ART 712-A MK4	Black	-	13000522	13000523	
ART 710-A MK4	Black	-	13000520	13000521	
ART 708-A MK4	Black	-	13000518	13000519	

RCF

NX SERIES						
PRODUCT	Colour	90-240V	220-240V	115V		
NXL 44-A	Black	-	13000479	13000480		
NXL 24-A	Black	-	13000399	13000400		
NX 45-A	Black	-	13000552	13000553		
NX 32-A	Black	-	13000550	13000551		
NX 10-A II	Black	-	13000625	13000626		

### TT+ TOURING AND THEATRE

PRODUCT	Colour	90-240V	220-240V	115V
TTL 55-A	Black	-	13000188	13000189
TTL 33-A II	Black	-	13000360	13000361
TTS 56-A	Black	13000190	-	-
TTL 6-A	Black	-	13000475	13000476
TT 25-CXA	Black	-	13000448	13000449
TT 20-CXA	Black	-	13000544	13000560

#### **SUBWOOFERS**

PRODUCT	Colour	90-240V	220-240V	115V	
SUB 9006-AS	Black	13000494	-	-	
SUB 9004-AS	Black	13000546	-	-	
SUB 8006-AS	Black	-	13000372	13000373	
SUB 8005-AS	Black	-	13000422	13000423	
SUB 8004-AS	Black	-	13000392	13000393	
SUB 8003-AS II	Black	-	13000432	13000433	



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