

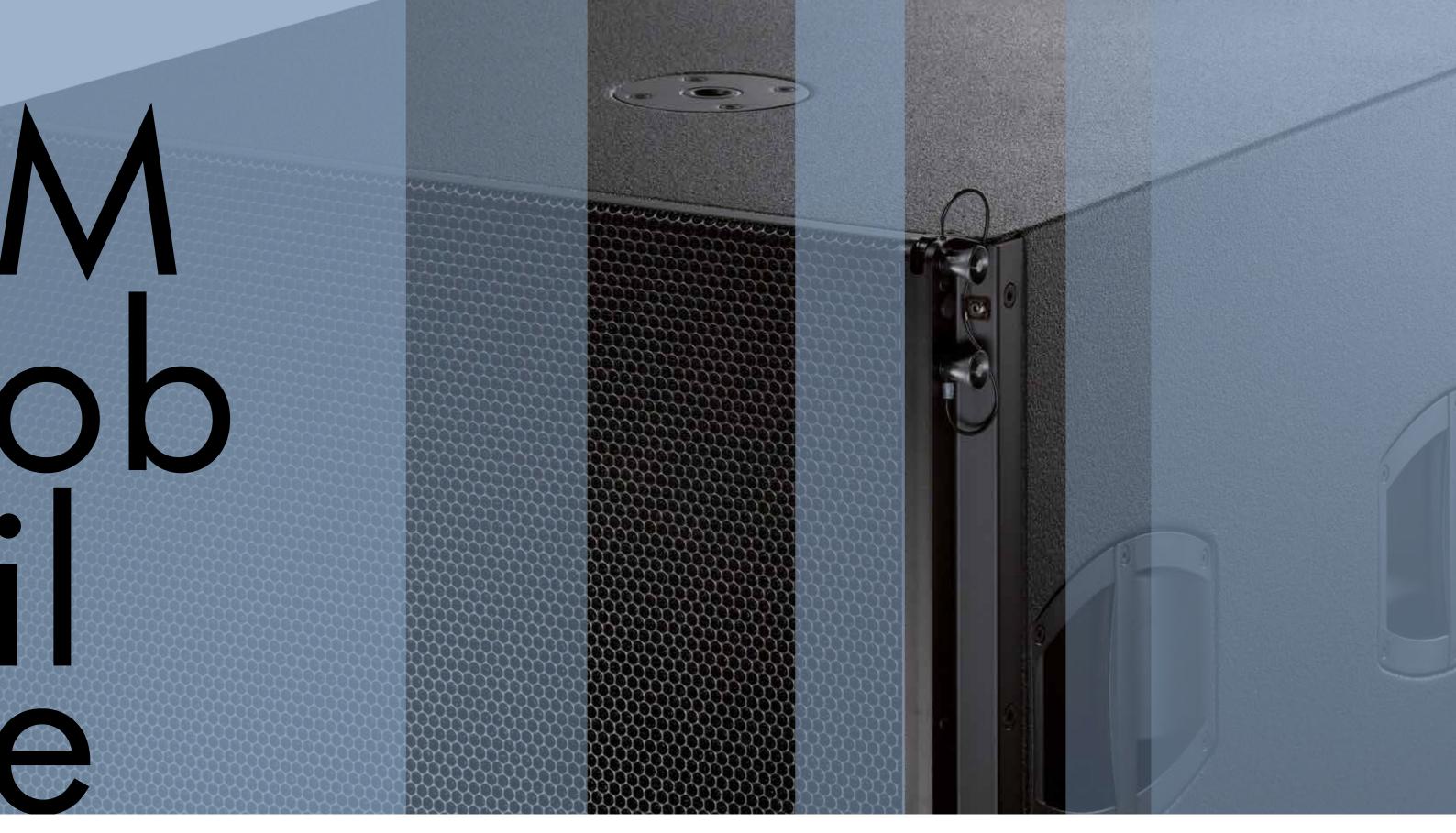
Sound products.

# service support distribution nerwork # education

# d&b Sys tem rea

As the name implies a d&b audiotechnik system is not just a loudspeaker. Nor is it merely a sum of the components: loudspeakers, amplifiers, accessories and software. Right from the outset the d&b audiotechnik approach was to build integrated sound reinforcement systems that actually are more than the combination of parts: an entirety where each fits all. Every element is tightly specified, precisely aligned and carefully matched to achieve maximum efficiency. For ease of use, all the user-definable parameters are incorporated, allowing

the possibility of adjustment, either via remote control surfaces or directly on the amplifiers. Neutral sound characteristics leave the user all the freedom needed to realize whatever the brief. At the same time d&b offers finance, service and support, a knowledgeable distribution network, education and training as well as technical information, so the same optimal acoustic result is achieved consistently by every system anywhere, at any time. In reality: the d&b System reality.



The Mobile range of d&b systems fulfil a broad spectrum of application demands, from touring productions and sports events, to live sound, performing arts and speech reinforcement. The loudspeakers and amplifiers have been specifically designed to deliver scalability, flexibility and maximum efficiency, with dedicated rigging and transport accessories to ensure easy redeployment from one venue to the next. Each loudspeaker Series features trademark d&b qualities: low weight, constant directivity control down to low frequencies, cardioid subwoofer technology and integrated flying equipment. The Digital Signal Processing power of the d&b amplifiers provides comprehensive loudspeaker management, switchable

filter functions, remote capabilities and user-definable control, to meet the distinct requirements of every task. The d&b workflow integrates d&b software and amplifiers, to make mobile setups an even easier business. The d&b ArrayCalc simulation tool allows a complete electroacoustic solution to be planned ahead, through system design, performance prediction and optimization. All final data is assimilated by the d&b R1 Remote control software into an intuitive graphical user interface, providing all that's needed to manage the amplifiers, and loudspeakers, from anywhere in the venue.





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#### E-Series.





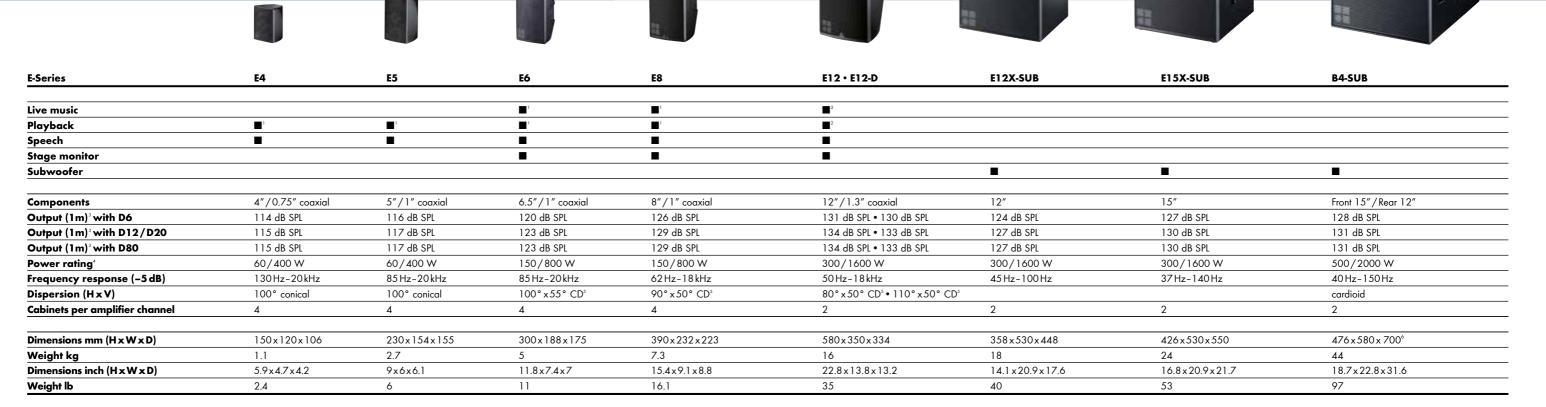




The tiniest E-Series loudspeaker is a tad taller than a postcard, while the biggest measures a mere 58 cm in height. Together, the E4, E5, E6, E8 and E12 / E12-D present a d&b product Series as varied as it is versatile. The cabinets, functionally formed, with robust, lightweight enclosures and bespoke hardware, can be deployed horizontally or vertically providing added flexibility. With their ultra compact design and finely scaled formats, along with remarkable output and performance levels, the E-Series ensemble provides the answer to a broad spectrum of production requirements. Quick and easy to handle, the Series offers elegant solutions for speech, music and distributed reinforcement and, without being modest, performs impressively as stand-alone, full range, flown or high stand, surround, delay and fill, even as stage monitors.

#### E-Series.

Two dedicated and similarly compact subwoofers provide substantial bass extension for all E-Series loudspeakers. Alternatively, for ground stacked applications, the actively driven B4-SUB requires just a single amplifier channel to create a cardioid dispersion pattern, which avoids the transmission of energy towards the rear. Finally, to meet the specific needs of each and every application, the loudspeakers are available in custom colours and can be weather protected. In short: an earnest little Series.



<sup>■:</sup> recommended use CD: loudspeaker with constant directivity horn 'with subwoofer 'with a subwoofer suitable for music and high level program 'SPL == peak, test signal: pink noise with crest factor 4 'RMS/peak 'horn 90' rotatable 'dimensions without wheels

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Pus hing all the bou nda ries.



J-Series.



The spectrum of applications d&b systems embrace is expanded by, the somewhat larger, yet incredibly powerful J-Series: the large scale sound reinforcement solution. With transparent, detailed audio performance, extraordinarily smooth and even frequency response, dynamic bandwidth and high power and headroom capability, the J-Series is an exceptionally good choice for far reaching sound of any style or genre.

#### J-Series.

This high fidelity Series comprises two loudspeakers, J8 and J12, providing 80° and 120° horizontal dispersion respectively. These line array modules maintain constant directivity control down to extremely low frequencies, while the J-SUB offers either cardioid or hypercardioid performance to avoid unwanted energy behind the system: all acoustically matched and constructed to be mechanically compatible in flown or ground stacked arrays. The Series also includes the J-INFRA cardioid subwoofer, extending the frequency response of this powerhouse system even further.









J-Series	J8	J12	J-SUB	J-INFRA
Live music	<b>■</b> ¹	■1		
Playback	2			
Speech				
Stage monitor				
Subwoofer				•
Components	2x12"/10"/2x1.4"	2×12"/10"/2×1.4"	3x18″	3x21"
Output (1 m) <sup>3</sup> with D12	145 dB SPL	143 dB SPL	138 dB SPL	141 dB SPL
Output (1 m) <sup>3</sup> with D80	145 dB SPL	143 dB SPL	139 dB SPL	143 dB SPL
Power rating LOW	500/2000 W	500/2000 W		
Power rating⁴ HIGH	200 / 800 W	200/800 W		
Power rating <sup>4</sup>			800 / 3200 W <sup>s</sup> , 400 / 1600 W <sup>s</sup>	1200 / 4800 W <sup>s</sup> , 600 / 2400 W <sup>s</sup>
Frequency response (-5 dB)	48 Hz - 17 kHz	48 Hz - 17 kHz	32 Hz - 100 Hz	27 Hz -60 Hz
Dispersion (H)	80°7	120°7	cardioid	cardioid
Cabinets per D12/D80 (2-Way Active)	2/4	2/4	1/2	1/2
Dimensions mm (H x W x D)	360×1100×570	360×1100×570	540×1100×945°	685×1180×1040°
Weight kg	60	60	106	152
Dimensions inch (H x W x D)	14.2×43.3×22.4	14.2×43.3×22.4	21.3×43.3×37.2°	27×46.5×41 <sup>8</sup>
Weight lb	132	132	234	335

■: recommended use  $^1$  with subwoofer  $^2$  with a subwoofer suitable for music and high level program  $^3$  SPL $_{max}$  peak, test signal: pink noise with crest factor 4  $^4$  RMS/peak  $^5$  front drivers  $^6$  rear driver  $^7$   $\ge 250$  Hz  $^8$  dimensions without wheels

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Lou dspe akers Wi th a twi St.



T-Series.







Point source or line source? Admittedly an important question, yet no longer a question of which loudspeaker Series. Due to its innovative design, the T-Series offers two different loudspeaker technologies in one flexible package, delivering an impressive performance as the smallest d&b line array and, with a twist of the wrist, transforming into a point source solution. The functionality of the T-Series spans from small to medium sized applications: from multiple cabinet line arrays through to single stand-alone solutions. With an unobtrusive cabinet design, compact dimensions, high power and exemplary directivity performance, the T-Series is the ideal system for speech and music reproduction. Adapting from one application to the other is achieved without tools owing to the unique combination of rotatable horn and acoustic lens, coupled within the loudspeaker grill assembly.

#### T-Series.

Both the T10 loudspeaker and the T-SUB have integrated rigging to enable quick and simple line array configuration. For ground stacked applications, the actively driven B4-SUB requires just a single amplifier channel to create a cardioid dispersion pattern, which avoids the transmission of energy towards the rear. Suffice to say, the T-Series twists and turns to fit the task.





				_
T-Series	т10	T-SUB	B4-SUB	
Live music	<b>_</b> 1			
	<b>■</b>			
Playback	<del>_</del>			
Speech	•			
Stage monitor				
Subwoofer				
Components	2×6.5"/1.4"	15"	Front 15"/Rear 12"	
Output Line / Arc setup (1 m) <sup>3</sup> with D6	129 dB SPL			
Output Line / Arc setup (1m) <sup>3</sup> with D12 / D20 / D80	132 dB SPL			
Output PS setup (1m) <sup>s</sup> with D6	127 dB SPL			
Output PS setup (1m) <sup>3</sup> with D12/D20/D80	130 dB SPL			
Output (1m) <sup>3</sup> with D6		127 dB SPL	128 dB SPL	
Output (1m) <sup>3</sup> with D12/D20		130 dB SPL	131 dB SPL	_
Output (1m) <sup>3</sup> with D80		130 dB SPL	131 dB SPL	
Power rating⁴	200/800 W	300/1600 W	500/2000 W	
Frequency response (-5 dB)	68 Hz-18 kHz	47 Hz-140 Hz	40 Hz - 150 Hz	
Dispersion line source (H)	105°			
Dispersion point source (HxV)	90° x 35°		cardioid	
Cabinets per amplifier channel	4	2	2	
Dimensions mm (HxWxD)	197×470×300	431×470×400	476×580×700°	
Weight kg	11	17	44	
Dimensions inch (HxWxD)	7.8×18.5×11.8	17×18.5×15.8	18.7×22.8×31.6	
Weight lb	24	37	97	



■: recommended use 'with subwoofer 'with a subwoofer suitable for music and high level program 'SPL<sub>max</sub>peak, test signal: pink noise with crest factor 4 'RMS/peak 'dimensions without wheels

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### Afo rmida ble for mu la.



V-Series.



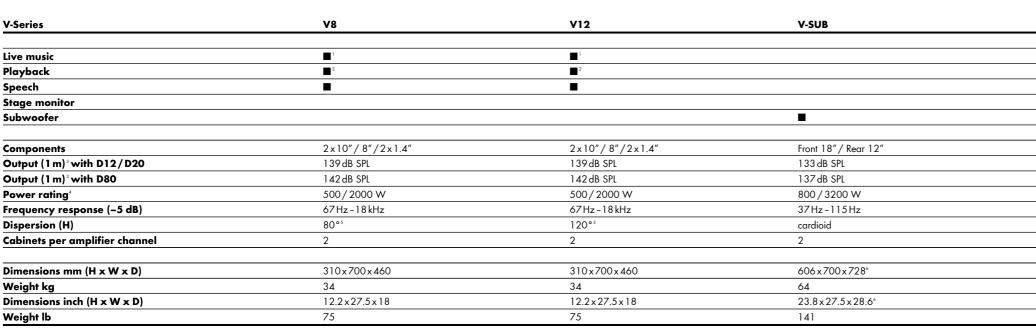


Combine the driver arrangement of the large format J-Series with d&b cardioid subwoofer technology and the V-Series is a verifiable recipe for success. Intended for medium to large scale applications, the 3-way passive V8 and V12 line array loudspeakers provide 80° and 120° horizontal dispersion respectively, maintained down to 250 Hz. The cardioid V-SUB, which can be flown at the top of a V-Series array, provides an impressive rejection of energy towards the rear of the cabinet. The loudspeakers are not only compact but feature an integrated three point rigging system for extra efficiency. However, it isn't its exceptional directivity control or remarkable low weight that sets V-Series out from the crowd. It's the gainful advantage that comes with outstanding headroom, extraordinary power capacity, dynamic bandwidth and an extensive range of accessories. What's more, with similar sonic characteristics and horizontal dispersion options, the V-Series is the ideal companion for J-Series systems.

#### V-Series.





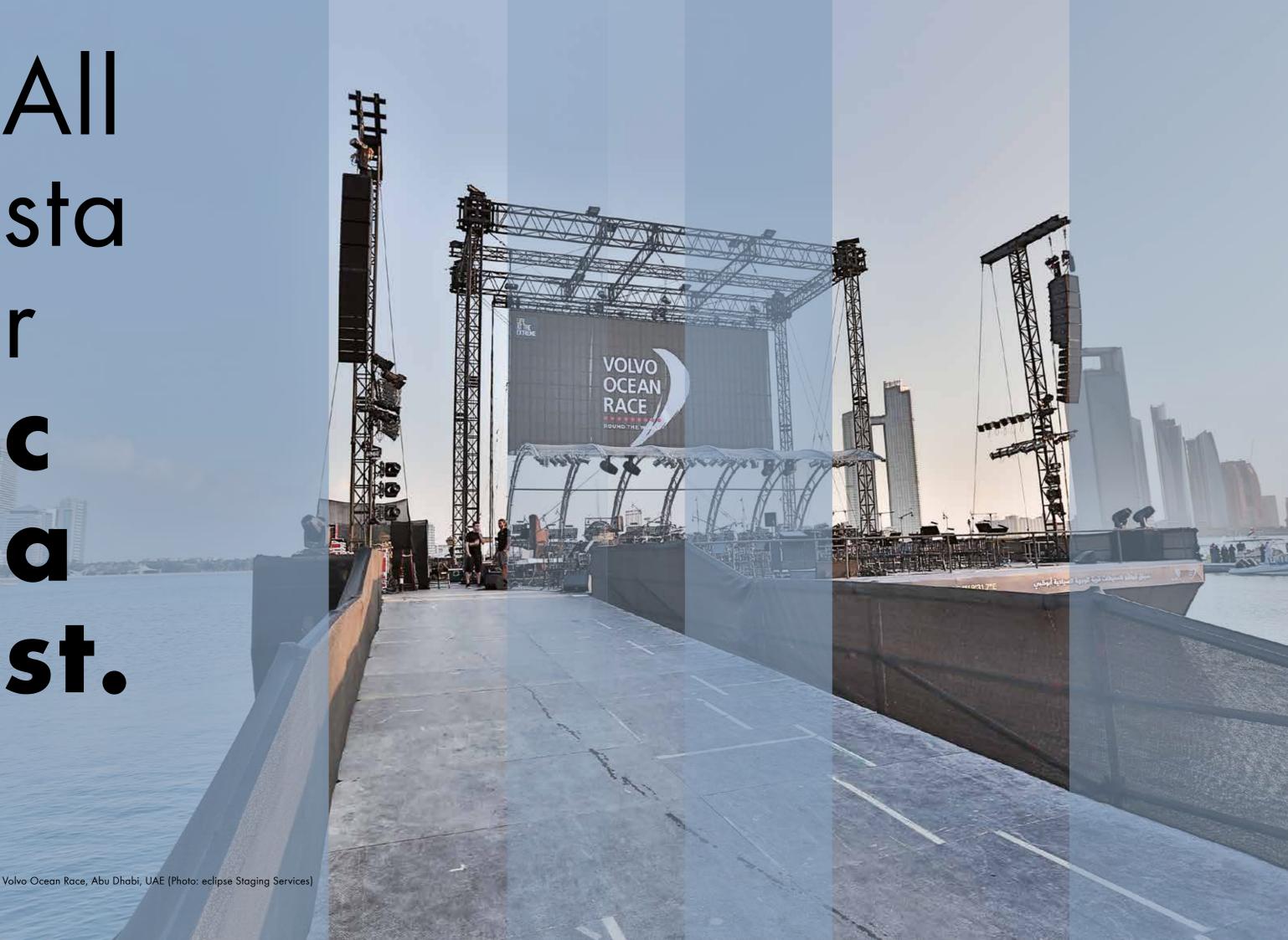




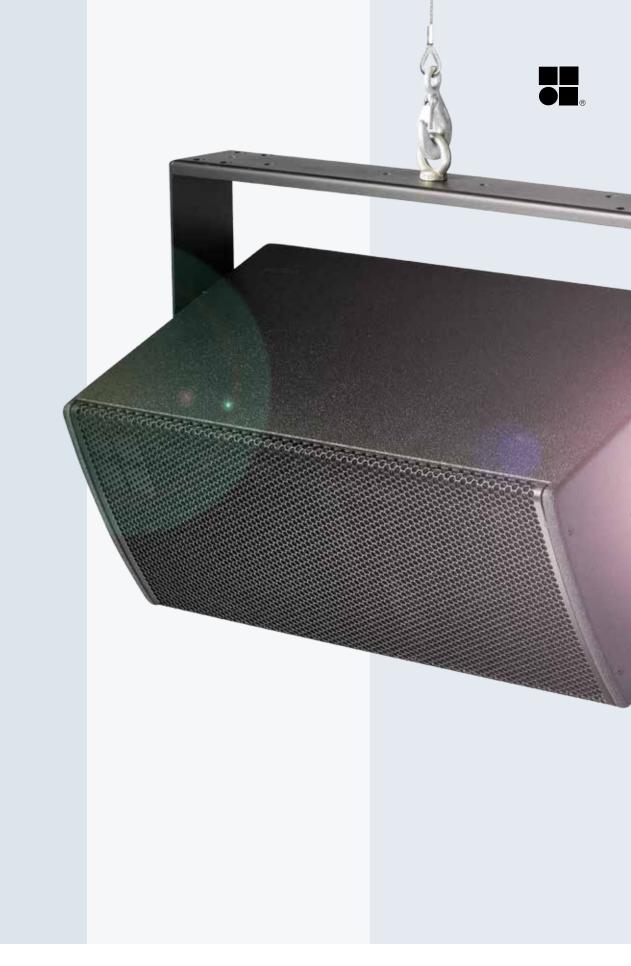
■: recommended use 'with subwoofer 'with a subwoofer suitable for music and high level program 'SPL<sub>max</sub>peak, test signal: pink noise with crest factor 4 'RMS/peak' <sup>3</sup>≥ 250 Hz 'dimensions without wheels

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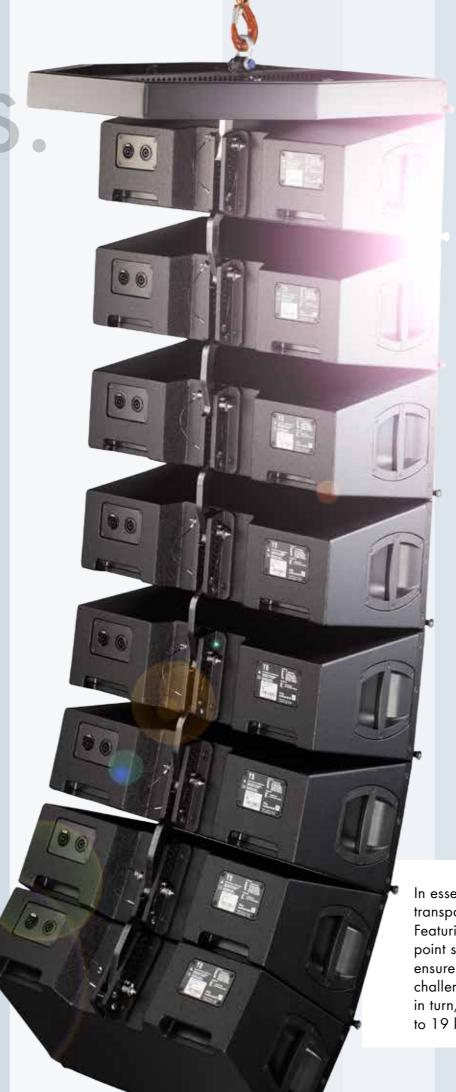
All 







With the epitome of line array loudspeakers and a new generation of point sources, the Y-Series offering is all-encompassing. Including dedicated subwoofers, this comprehensive Series addresses small to midsized applications. From concerts and church services to symposiums and car expos, the Y-Series meets the individual needs of each and every discipline.



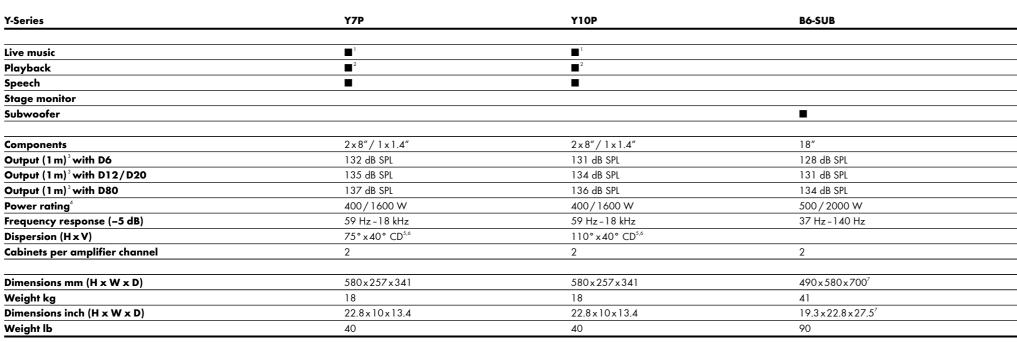


In essence all Y-Series cabinets house two 8" low frequency drivers for transferring a vibrant and transparent performance, while a 1.4" compression driver delivers precise and velvety high frequencies. Featuring rotatable horns for easy deployment in either orientation, the lightweight Y7P and Y10P point source loudspeakers offer horizontal dispersion angles of 75° and 110° respectively and ensure horizontal directivity control down to 500 Hz; beneficial especially in reverberant or acoustically challenging environments. Meanwhile the compact, passive 2-way Y8 and Y12 line array modules deliver, in turn, 80° and 120° horizontal dispersion, while sharing a frequency response extending from 54 Hz to 19 kHz and patented, integrated three point rigging.





The versatility of the Y-Series is matched with advanced components: drivers in dipole arrangements, innovative waveguides and port designs, rotatable horns and cabinet finishing. With the omnidirectional, B6-SUB, featuring an 18" driver with extended excursion capabilities, and the arrayable, cardioid Y-SUB, for a precise and dry low end, the Y-Series is quite simply a system with everything.



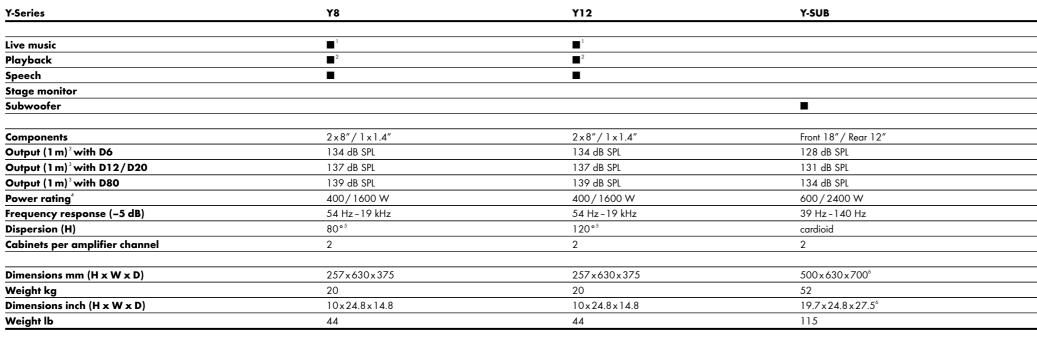


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<sup>■:</sup> recommended use CD: loudspeaker with constant directivity horn ¹with subwoofer ²with a subwoofer suitable for music and high level program ³SPL<sub>mex</sub>peak, test signal: pink noise with crest factor 4 ⁴RMS/peak ⁵≥ 500 Hz ⁴horn 90° rotatable 7dimensions without wheels









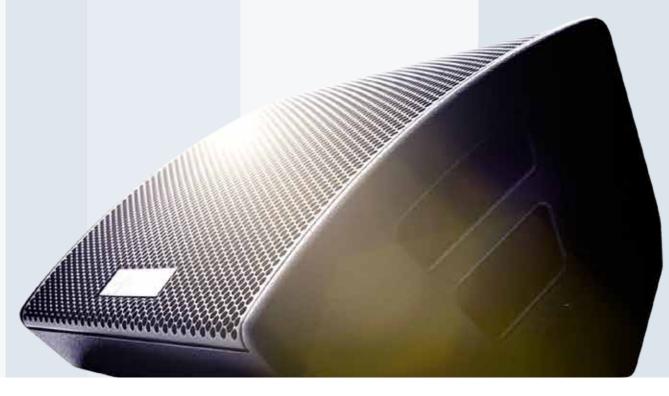
■: recommended use <sup>1</sup>with subwoofer <sup>2</sup>with a subwoofer suitable for music and high level program <sup>3</sup>SPL<sub>max</sub>peak, test signal: pink noise with crest factor 4 <sup>4</sup>RMS/peak <sup>5</sup>≥ 500 Hz <sup>6</sup>dimensions without wheels

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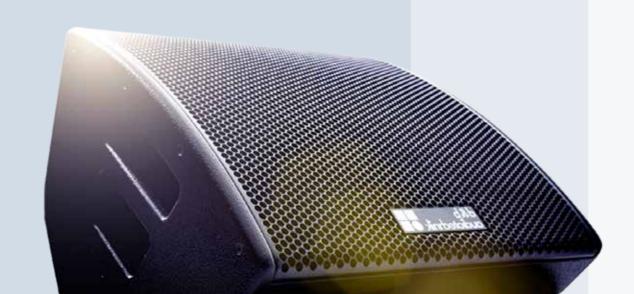
Hea rd but not se en.



#### Monitors.



Whether providing sound reinforcement for the audience or monitoring for the artist, who could deny both are equally integral to the success of a performance? This is why the M2, M4, M6 and MAX2 monitors present compact dimensions, more than adequate power, functional design, exceptional performance, remarkable vocal presence and uncompromising clarity. Ease of operation, neutral sound reproduction, well defined dispersion and guaranteed high feedback stability even at the most extreme levels, combine to realize an efficient tool and neutral platform for the engineer and artist alike.



#### Monitors.









Monitors	M2	M4	M6	MAX2
Live music		<b>1</b>		■1
Playback		2	2	<b>1</b> 2
Speech				
Stage monitor				
Subwoofer				
Components	2x12"/1.4" coaxial	15"/1.3" coaxial	12"/1.3" coaxial	15"/1.4" coaxial
Output (1m) <sup>3</sup> with D6		134 dB SPL <sup>4</sup>	132 dB SPL⁴	131 dB SPL
Output (1m) <sup>3</sup> with D12	143 dB SPL	138/140 dB SPL <sup>4</sup>	135/138 dB SPL⁴	135 dB SPL
Output (1m) <sup>3</sup> with D20		138/140 dB SPL <sup>4</sup>	135/138 dB SPL⁴	135 dB SPL
Output (1m) <sup>3</sup> with D80	143 dB SPL	138/140 dB SPL <sup>4</sup>	135/138 dB SPL⁴	135 dB SPL
Power rating <sup>s</sup>		400/1600 W	400/1600 W	250/1600 W/8 Ω
Power rating <sup>s</sup> LOW	500/2000 W			
Power rating <sup>5</sup> HIGH	50/200 W			
Frequency response (-5 dB)	50 Hz-17 kHz°	55 Hz-17 kHz°	65 Hz-17 kHz°	55 Hz-20 kHz <sup>6</sup>
Dispersion (H x V)	45°x60° CD <sup>7</sup>	50°x70° CD°	50° x 80° CD°	75° conical
Cabinets per amplifier channel D6		2°	2°	2°
Cabinets per amplifier channel D20		211	2"	2°
Cabinets per amplifier channel D12/D80	210	2"	211	2°
Dimensions mm (H×W×D)	419 x 680 x 560 <sup>12</sup>	363 x 580 x 505 <sup>12</sup>	332×486×455 <sup>12</sup>	354×580×49612
Weight kg	38	20	16	23
Dimensions inch (HxWxD)	16.5 x 26.8 x 22.1 <sup>12</sup>	14.3 x 22.8 x 19.9 <sup>12</sup>	13.1 x 19.1 x 18 <sup>12</sup>	14x22.8x19.5 <sup>12</sup>
Weight lb	83	44	35	50

■: recommended use CD: loudspeaker with constant directivity horn ¹with subwoofer ²with a subwoofer suitable for music and high level program ³SPL<sub>max</sub>peak, test signal: pink noise with crest factor 4 ⁴passive/2-Way Active mode ⁵RMS/peak °with floor coupling ⁻ 600 Hz ⁵90° rotatable for 70° (M4)/80° (M6) x 50° dispersion °used in passive mode only ¹used in 2-Way Active mode only, 2x M2 per D12 or 4x M2 per D80 ¹used in passive mode, when used in 2-Way Active mode up to 2 loudspeakers per D12 or 4 per loudspeakers D20/D80 may be connected ¹u²overall dimensions (projected footprint)

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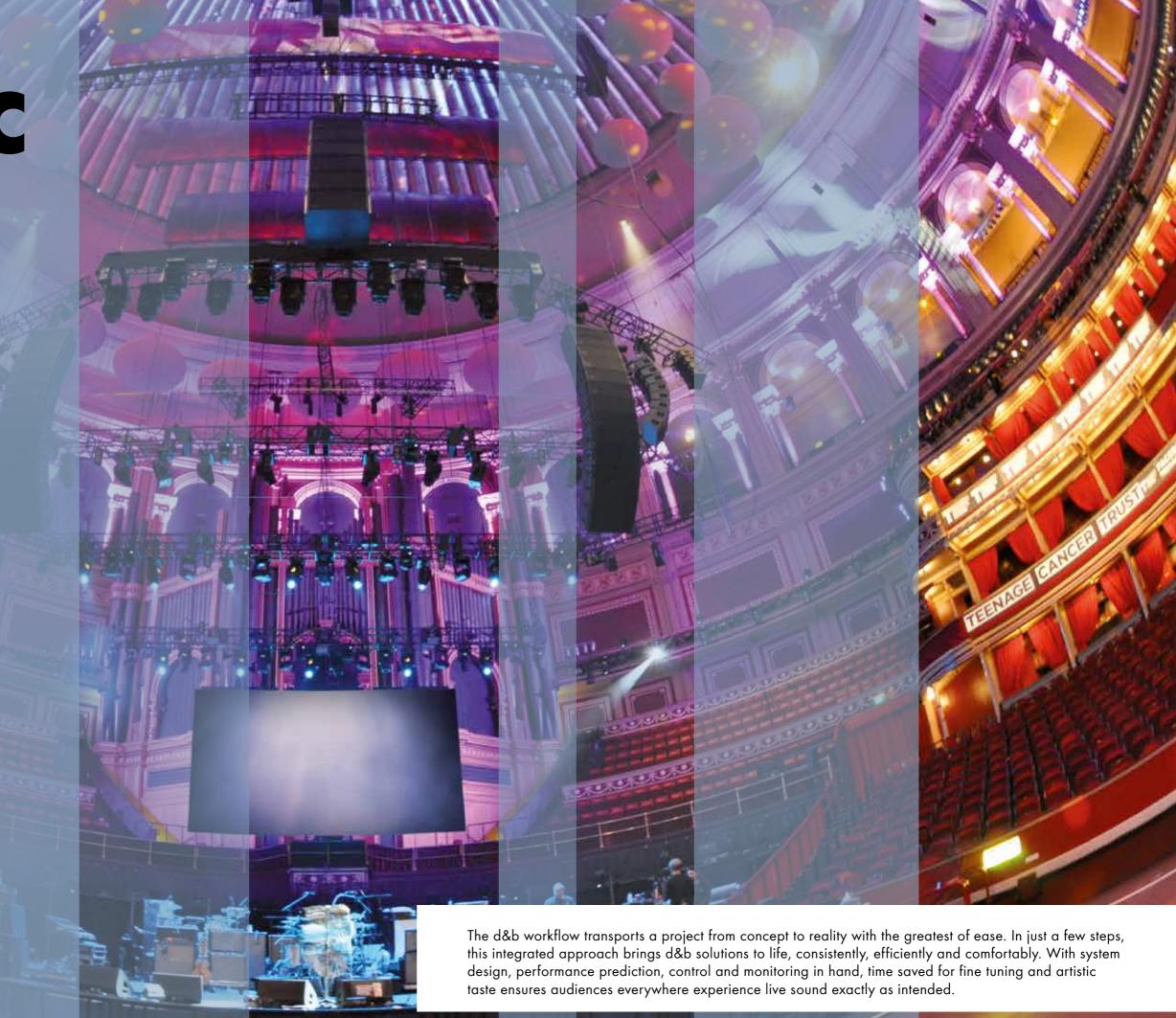
Acce ssories. Not w itho ut the trap pings.





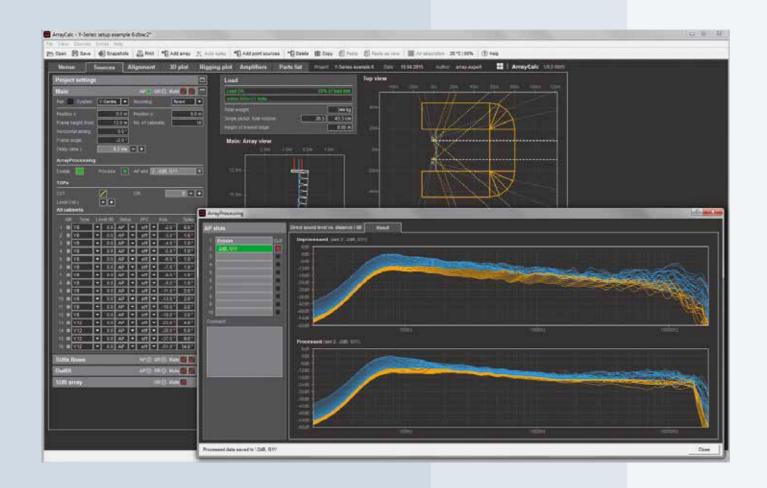
Just a few examples: Pipe clamp, Horizontal bracket, Flying frame or Super clamp; mechanical accessories to fix, fly, hold or attach d&b loudspeakers for all their worth. In sum, d&b offers more than a hundred accessories, not just universal ones, but Series specific as well; meticulously tailor made for purpose and designed for setup and use within situations requiring compliance with the provisions and directives of the DGUV regulation 17 (formerly BGV C1). Trappings to adhere to.

### Sonic con cept to syst em re ality.



#### Simulation.





The d&b ArrayCalc simulation software is the planning tool for accurately configuring d&b line arrays, column and point source loudspeakers and subwoofers, in any given space. ArrayCalc provides a virtual platform for precisely predicting the actual performance of a system, taking account of level and switch selection, the alignment of flown and ground stacked loudspeakers and subwoofers as well as safety parameters and rigging. What's more, the software's optional ArrayProcessing feature optimizes the tonal and level balance of J-Series, V-Series and Y-Series line array systems across an entire listening area, significantly improving the consistency of frequency response over distance, and seamlessly correcting for air absorption. ArrayProcessing also applies a target frequency response to different loudspeaker columns, giving each array the same sonic character regardless of Series, column length and splay settings. Whether a temporary or permanent solution, modelling any d&b system flows smoothly through each step and decision. Ultimately all final data, including specified loudspeaker types and amplifier settings, is integrated within the d&b R1 Remote control software.

## Remote control.





The d&b R1 Remote control software transforms the ArrayCalc simulation data into a project specific user interface, in which the system is presented graphically, channel by channel, loudspeaker by loudspeaker, grouped functionally as well as visually. This is the foundation, the depiction of everything to be controlled and monitored: a complete system configuration. Faders, buttons, dials and displays to control equalization, delay, CUT, HFA, HFC, Coupling, Mute and Power, and for preparation in advance, even an offline mode is included. The R1 Remote control software is the virtual centre of any d&b Remote network, unlocking a relaxed approach to the d&b amplifiers wherever they may be located; be it from a laptop in the control room, mix position or somewhere in the auditorium.

## Amplifiers.

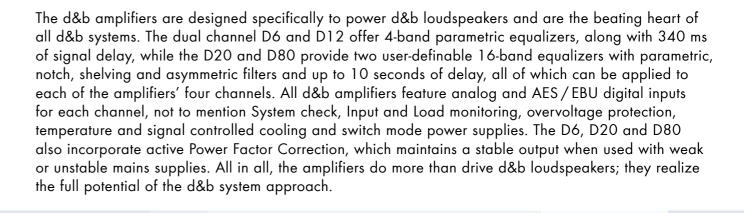


The all-embracing functionality of the d&b amplifiers can be accessed via the d&b Remote network, through either Ethernet or CAN-Bus, providing all the power to effectively control. All d&b amplifiers incorporate sophisticated Digital Signal Processing capabilities for comprehensive loudspeaker management, switchable filter functions, remote capabilities and user-definable controls. All this makes living in a live world somewhat more straightforward and above all, considerably easier.

### Amplifiers.











Amplifiers	D6	D12	D20	D80
User interface	Encoder / LC display	Encoder/LC display	Encoder/colour TFT touchscreen	Encoder/colour TFT touchscreen
Input channels	2 x AES, 2 x analog	2 x AES, 2 x analog	4 AES or analog	4 AES or analog
Output channels	2	2	4	4
Output connectors	NL4	NL4/EP5/NL8	NL4 plus central NL8	NL4/EP5 plus central NL8
Output routing	Dual Channel	Dual Channel, Mix TOP/SUB and 2-Way Active	Dual Channel, Mix TOP/SUB and 2-Way Active	Dual Channel, Mix TOP/SUB and 2-Way Active
Rated output power	2 x 350 W into 8 Ω	2 x 750 W into 8 Ω	4 x 800 W into 8 Ω	4 x 2000 W into 8 Ω
(THD+N < 0.5%, 12 dB crest factor)	$2 \times 600 \text{ W}$ into $4 \Omega$	$2 \times 1600 \text{ W}$ into $4 \Omega$	4 x 1600 W into 4 Ω	4 x 4000 W into 4 Ω
Cable compensation		SenseDrive	LoadMatch	LoadMatch
Latency	0.3 ms	0.3 ms	0.3 ms	0.3 ms
Delay	340 msec/116.9 m	340 msec/116.9 m	10 sec/3440 m	10 sec/3440 m
User equalizers (per channel)	4-band	4-band	2 x 16-band	2 x 16-band
Remote	CAN	CAN	OCA via Ethernet / CAN	OCA via Ethernet / CAN
Power Supply	Autosensing switched mode power supply with active PFC Autosensing switched mode power supply		Universal range switched mode power supply with active PFC	Autosensing switched mode power supply with active PFC
Mains voltage	100 - 120/220 - 240 V, 50 - 60 Hz	115/230 V or 100/200 V, 50 - 60 Hz	100 - 240 V, 50 - 60 Hz	100 - 127/208 - 240 V, 50 - 60 Hz
	<u> </u>			<u> </u>
Dimensions (H x W x D)	2 RU x 19" x 353 mm	3 RU x 19" x 353 mm	2 RU x 19" x 460 mm	2 RU x 19" x 530 mm
Weight kg	8	13	10.8	19
Weight lb	17.6	28.7	23.8	42

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# d&b W ork flow.







An empty model of the venue, depicting shape and size, curves and obstacles, is first defined within the d&b ArrayCalc simulation software. Within this virtual space, the electroacoustic design, incorporating loudspeakers, placement, levels and configurations is created, enabling the exact sonic results to be predicted and perfected. This comprehensive simulation data is assimilated by the d&b R1 Remote control software, which automatically generates a graphical user interface depicting every detail. R1 transfers all final settings to the d&b amplifiers for complete control and monitoring of the system, with further adjustments possible from a central location. Accomplished with maximum ease and efficiency, what follows is live, the real life of the venue: the exceptional sonic experience.

Sound products.