



Compact line source speaker

Application

Well-suited for indoor and outdoor usage: multi-purpose spaces, bands, restaurants, churches, malls and gymnasiums. Usage in difficult acoustic conditions (long and low halls).

Kit contents:

- **VA408** Sound Column 4 pcs.
- **ND 115-P** Active Subwoofer 2 pcs.

VA408 Compact Loudspeaker

VA408 compact loudspeaker is a system composed of 8 full-range speakers, installed in a vertical line. The 8 transducers are placed as a line array system to create a cylindrical dispersion (waveform). The sound pressure level only decreases by 3 dB (instead of 6 dB) each time the distance doubles (minimum loss). As a consequence, it is possible to double coverage for the same acoustic pressure. It also gives a more targeted sound transmission to audience areas.

By focusing the speaker sound to the audience, **VA408** guarantees excellent results in reverberant acoustic conditions and so perfect speech intelligibility.

This system is perfect for location with complex acoustics: it avoids potential reflections from ceilings and walls to make the sound more pleasant for the audience, with an outstanding reproduction of vocal and instruments. It is also very interesting for musicians on stage, because they are not affected by sound reflections.

Speaker, consisting of full-range speaker group, has a high linear phase response, which together with their very low harmonic distortion gives a very clear sound reproduction in the vocal range.

The use of two **VA408** systems installed to each other can reduce the frequency from which the set can generate sound waves with attenuation 3 dB when doubling the distance.

High resistance to acoustic feedback makes it possible to use in a karaoke bars, where the non-professional performers enjoy the microphone.

The **VA408** cabinet is made of birch plywood with black water-polymer paint finish (other colors available). Speakers are protected by a steel grid. Additional protection against moisture is provided by acoustically transparent foam, glued to the inner surface of the grid.

In order to hide the connection elements the input connector (Speakon) is located in a recess on the bottom of the cabinet. After assembling the systems connecting cables are not visible from the outside.



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Line source loudspeaker – sound column
composed of 8 x 4" full range speakers

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The active subwoofer with 15" loudspeaker
(neodymium magnet)

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Integrated in subwoofer amplifier 2 x 1000 W RMS
with powerful DSP engine

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Three preset equalization settings

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Frequency range 43 Hz - 17 kHz

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Coverage 130°H x 15°V

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Maximum SPL 108 dB SPL / 12 m

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Connecting sound columns without visible wires

ND115-P Active Subwoofer

The **ND115-P** is a powered 15" subwoofer in the **SPIKE-series** loudspeaker line. It is designed to compliment **SPIKE-series** sound column. Acoustic design – bass reflex.

The **ND115-P** cabinet is made of 18mm birch plywood with black water-polymer paint finish. The front panel of the loudspeaker is covered with a decorative protective steel grid. Additional protection against moisture is provided by acoustically transparent foam, glued to the inner surface of the grid.

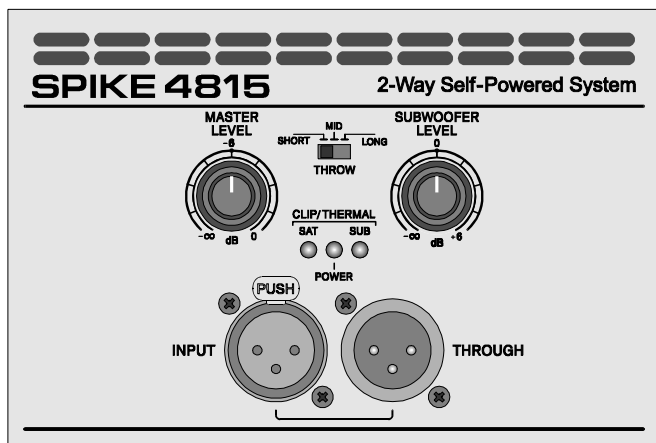
There are two ergonomic handles on the side walls for the convenience of carrying.

Two-channel **D** class amp (2 x 1000 W) is installed on insulated compartment to the rear. Amplifier has an output for connecting an additional passive subwoofer (500 W, 8 Ohms).

The amplifier is equipped with powerful **DSP** engine, acting as crossovers, optimal EQ, time alignment, limiting and speakers overload protection.

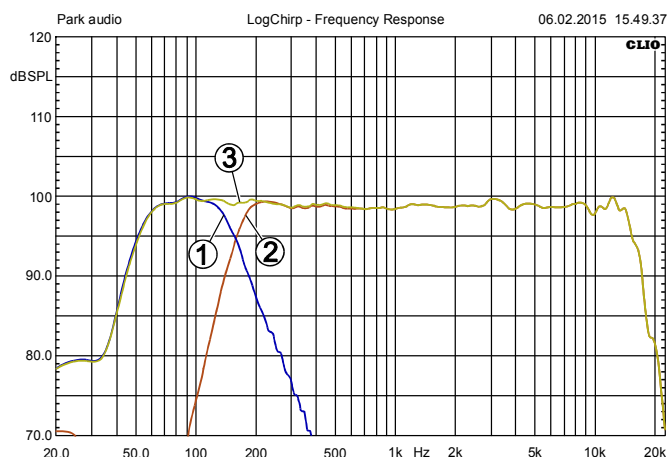
DSP accurately handles the audio signal thanks to its functions of equalization, filtering, delay, limiter and protection. Thanks to the technology of FIR filters the speaker has a high linear phase and amplitude response.

DSP enables users to choose between three preset equalization settings, in order to adapt the system output in various situations.



SPL curves are shown below (the **THROW** switch is in the **MID** position):

- ① – **ND115-P** SPL curve;
- ② – **VA 408** SPL curve;
- ③ – overall SPL curve.



Operation mode

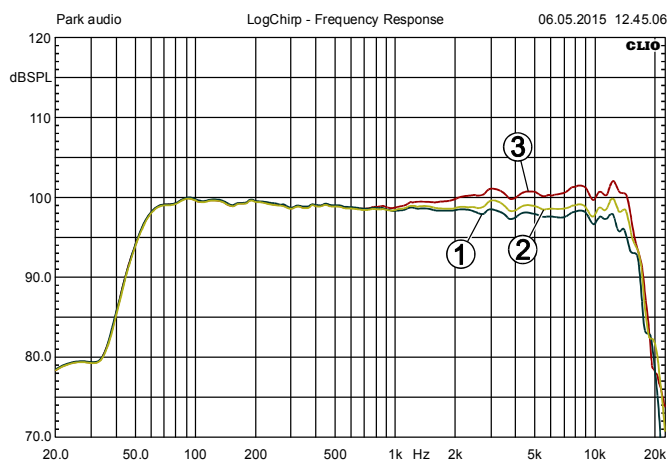
SHORT Throw – optimized for near field reproduction.

MID Throw – balanced response for most applications.

LONG Throw – optimized for far field reproduction or the need to compensate for increased low frequencies level.

SPL curves are shown below:

- ① – **SHORT**;
- ② – **MID**;
- ③ – **LONG**.



TECHNICAL DATA

VA 408 Speaker

Configuration

Line source loudspeaker - sound column.

Transducers:

8 x 4" dia full range speaker

Acoustic design

Trapezoid cabinet, sealed box.

Acoustical performance

Power Handling (nominal/cont.)	240/480 W
Impedance	8 Ohms
Frequency Response*	140 Hz - 17 kHz
Axial Sensitivity	99 dB
Maximum Output SPL**	105 dB / 12 m
Coverage:	
– horizontal	130°
– vertical	15° (array effect)
Weight	9 kg
Dimensions:	
– width	132 mm
– height (front/ rear)	860 mm
– depth	151 mm

ND115-P Subwoofer

Configuration

Active subwoofer.

LF Driver:

15"dia **B&C SPEAKERS**, voice coil 3"

Acoustic design

Rectangular cabinet, bass reflex.

Acoustical performance

Power Handling (nominal)	500 W
Power Handling (continuous)	1000 W
Frequency Response*	43 - 200 Hz
Sensitivity	95 dB
Max. Output SPL (half space) **	128.5 dB / 1 m
Weight	27 kg
Dimensions:	
– width	580 mm
– height	445 mm
– depth	510 mm

Electrical Performance

Power Rating (RMS)	2 x 1000 W, D class
Sensitivity	775 mV
Impedance	10 kOhms
Signal-to-Noise Ratio	98 dB (unweighted)
Input / Line Output	XLR / XLR
Cooling System	forced ***
Power Requirements	~160-280 V, 50/60 Hz
DSP engine: Sampling rate – 48 kHz, DAC/ADC – 24-bit, internal processing – 56-bit	

Note.

* **VA408 + ND115-P** Frequency response: 43 Hz - 17 kHz.

** For comparison purposes and in accordance with common industry practice, maximum SPL specifications are calculations based upon transducer sensitivity, amplifier output voltage and speaker impedance.

*** With smoothly variable intensity. At a normal temperature and low output level the fan is OFF.

