



With the LA-Stick 4x4, Voice-Acoustic has created a completely new and revolutionary species of loudspeaker: the Line-Array Stick, in short LA-Stick.

At first glance it resembles an ordinary column speaker, of which there are three types:

A basic column with a row of midrange drivers and a high-frequency waveguide either at the top or in the middle. This type of loudspeaker only finds solitary application; it cannot be variably scaled because effective coupling in the high frequency area is not possible when adding loudspeakers; they are singular sound sources.

Then there are column speakers with a continuous row of wide bands or midrange drivers. These columns can be connected to one another, but they cannot be directed. With each additional unit, the vertical directivity becomes inevitably narrower. To expand the directivity in the listener area, the boxes in a loudspeaker series are offered in a multitude of straight and bend forms. This results in a relatively high number of speaker types needed, reducing flexibility and complicating storage.

Another approach is the so-called dsp beam steering. The loudspeakers are operated in-line from top to bottom. Each transducer in the column has to have its own power amplifier channel and DSP-controller. An electric phase and time delay as well as an algorithm compiler calculate and electronically adjust the directivity. However, this technology is extremely expensive and too complicated for many users.

Large line-arrays in trapezoid-shaped boxes can be angled in order to project the narrow vertical directivity field to the listener area in a very practical way. This goal is achieved very precisely, avoiding unintended room reflections, and enhancing the amount and quality of sound. In coupling the line-arrays to a so-called coherent wavefront, interference is prevented and system range increased. This explains the line-array effect in simple terms.

The development of the LA-Stick 4x4 has made it possible to adapt this technology into a column format, incorporating many of the advantages found in a functioning line-array into compact dimensions, making it so much more user friendly. Not a column speaker but a line-array stick! Not only that, but just as with the large line-arrays, the LA-stick boasts a trapezoid-shaped base and top with an 8° slope. The inclination angle can be externally fine-tuned via a newly developed, innovative ball-bearing-mounted spindle mechanism on the back panel. This very sturdy mechanism renders the bending joints in ball-lock-pin form on the front side of the loudspeaker unnecessary. No mechanism or mounting parts are visible on the front side. With this discreet look it is easy to integrate and use the loudspeaker in each sophisticated ambiance.

Through a special woodworking method, the box sides have been given a tapered shape emphasizing their elegant appearance. With the LA-stick, depending on the desired acoustic pressure, any number of long lines can be constructed with only one loudspeaker type. This makes the LA-series the most flexible column-style loudspeaker system in the world. A construction incorporating 16 Ω output impedance allows for operation of up to 8 LA-sticks with one self-powered active base or up to 16 with one HDSP-6 power amplifier.

The next generation lightweight 4" neodymium wide-band transducers are waterproof. The LA-stick can be used in humid or high-moisture environments, even temporarily in rain. Sophisticated accessories allow for diverse applications and installation possibilities.

Frequency range	161 Hz - 18 kHz (- 10 dB) 210 Hz - 15,4 kHz (+/- 3 dB)
Coverage range	70° horizontal, vertical depending on the angle of the elements relative to each other
Power handling	120 W AES / 240 W program / 480 W peak
Sound pressure	116 dB SPL AES / 119 dB SPL program / 122 dB SPL peak
Components	4 x 4" Neodym wideband transducer with 0,75" voice coil
Connectors	2 x Neutrik NL4 Speakon IN/OUT (loop through), configuration: 1+/1-
Mounting	Flying vertical by clickable mechanics and perforated rail for setting up emphasis Several elements among each other connect- and adjustable rear threaded mechanics (without any help of tools) 2 x M6 rear bolt-flange mounting for stand and distance rod operation Bolt-flange mounting 1 x M10 for tripod mounting poles and operating on the bottom Tilt adapter in various angle, instead of rear threaded mechanics Swivel bracket with raster for the fitting on the floor Swivel bracket with raster for top spots on bass and fixation in M20 flange
Dimensions/Weight	419 (h) x 119 (w) x 160 mm (d) / 3,2 kg