Steerable line array column speaker

Consisting of high-quality full-range units in a linear array installation, each unit has an independent channel of DSP and amplifier. Through digital audio technology and proprietary algorithms, the SLA line array column can achieve precise control over the sound beam vertical spread angle and the vertical beam steering angle.

As needed, this control can be further refined, By the software, sound beam of a column can be split into 2 or even 3 beams, each of which can be independently adjusted. This flexible control over vertical sound diffusion brings a new revolution to engineering designers and installers. It allows system designers to install the columns in a concealed manner, either flush against the wall or embedded in the wall, while still being able to accurately target the required coverage area, greatly simplifying the design and installation process. At the same time, this product has the characteristics of long projection distance, full range response, small acoustic feedback and so on, to ensure the perfect use effect.

Application: conference rooms, multi-function halls, churches, auditoriums, and other places.

Feature

- Adjustable vertical spread angle:15°-35° (SLA-8 Single Beam), 10°-30° (SLA-12 Single Beam) .
- With ± 30° in 1° increments vertical beam steering adjustment, for precise coverage of the required area.
- By using beam splitting technology, the beam of single column can be divided into several sections, each of which can be adjusted as an independent column. The SLA-8 can be divided into dual beams (4+4), and the SLA-12 can be divided into dual beams (6+6, 4+8, 8+4) and triple beams (4+4+4).
- Specially optimized 3-inch neodymium full-range driver units, characterized by high efficiency, wide frequency range, and low distortion.
- Each unit is equipped with an independent channel DSP (96kHz sampling) and an 80W (up to 160W) digital power amplifier.
- The concise control software allows for precise adjustments of the sound beam.
- Wooden cabinet ; pure sound quality.
- It has a variety of application modes stored internally, which can be flexibly applied to various situations.
- 1 USB interface, 1 RJ45 control interface, which includes 1 RS485 serial port and DC24V power output, for connecting to a control panel or external control devices.
- Some models are equipped with Dante network audio port.



SLA-8

- 8 X 3-inch neodymium full-range cone drivers.
- 8-channel DSP processor and 8-channel power amplifiers.
- Maximum peak SPL of 96 dB at 20 meters .



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SLA-12

- 12 X 3-inch neodymium full-range cone drivers.
- 12-channel DSP processor and 12-channel power amplifiers.
- Maximum peak SPL of 96 dB at 30 meters .



Variable Vertical Spread and Beam Steering & Vertical Beam Splits

Variable Vertical Spread



Variable Beam Steering



Vertical Beam Splits



Dual Beams: SLA-8: 4+4 SLA-12: 6+6, 8+4, 4+8

Triple Beams:

SLA-12: 4+4+4

Note: After beam splitting, as the number of array units in the split section decreases, the adjustable range of the vertical dispersion angle for that section will also change. For the 4-unit section, options are available at 20° and 30°. For the 6-unit section, options are available at 20° and 30°, 40°.

Specifications

MODEL	SLA-8	SLA-12
system	Self-powered full range steerable column speaker	Self-powered full range steerable column speaker system
Acoustical Performance		
frequency range(-10dB)	80 Hz-19 KHz	80 Hz-19 KHz
Frequency response(±3dB)	95 Hz-18 KHz	95 Hz-18 KHz
Maximum Peak SPL	96 dB SPL peak at 20 m	96 dB SPL peak at 20 m
Horizontal coverage	100°	100°
Vertical coverage	Variable, 5 to 30 degrees in 5-degree increments	Variable, 5 to 30 degrees in 5-degree increments
Vertical steering	\pm 30 degrees in 1-degree increments	\pm 30 degrees in 1-degree increments
transducers	8 full range 3 inch Neodymium magnetic cone	8 full range 3 inch Neodymium magnetic cone drivers
	drivers	
Electronic Performance		
Amplifier output	80W (Rated@40hm) per channel, 8 channels	80W (Rated@40hm) per channel, 12 channels
amplifier type	Class D	Class D
Analog Audio	One input and one output , 1*5.08-6P euro block	One input and one output , 1*5.08-6P euro block
Control port	1RJ45,1 USB port	1RJ45,1 USB port
AC mains	AC170~260V, 1 powerCON	AC170~260V, 1 powerCON
Power consumption	10W (idle) , AC240V	15W (idle) , AC240V
Mechanical performance		
Enclosure	12mm MDF, painting	12mm MDF, painting
Grill	powder-coated perforated steel	powder-coated perforated steel
Color	black	black
Dimensions	$1000 \times 108 \times 186(H \times W \times D)mm$	1505×108×186(H×W×D)mm
Weight	9.4Kg	14Кg
Mounting	JB-B60A bracket included	JB-B60A bracket included

Response:



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FL-V8

Mounting



- Step 1 After determining the mounting locations on the wall or other mounting surface, attach the wall piece(part A) to the wall with expansion screws or appropriate fasteners..
- Step 2 Attaching the loudspeaker bracket piece (part B) on the attachment location for the bracket on the enclosure rear panel and fix it with the provided screws.
- Step 3 Attaching the loudspeaker to the wall piece. You can initially install the screws on one side without fastening them completely, which allows for easier rotation of the loudspeaker and facilitates wiring.
- Step 4 After the user has connected the wires, they should install the screws on the other side of the bracket, adjust the distance of the loudspeaker from the wall, which can be adjusted within the range of 45~60 mm, and once the appropriate adjustment is made, promptly fasten the screws to complete the installation.

Connection:

1. Balanced Input/Output Interface for Analog Audio Signals



INPUT and LINK OUT are the same balanced audio signals.

2. RJ45 Control Port

Use CAT5e or higher specification cables for connection. It includes a 24V power supply output and RS485 control signal, which is used for connecting to an control panel or other control devices for a longdistance up to 100M.

3. USB Serial Port

Used to connect to a PC, making it convenient for users to configure the parameters of the loudspeaker with software.



Software

4 Power PowerCON connector,

Input Power:AC170-260V, 50/60Hz.

5 Digital Audio Signal Input DANTE Digital Audio Input, RJ45 port

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SLA-8, SLA-12 Interface Board



SLA-8D, SLA-12D Interface Board



Installation and Operation of SLA Control Software

The configuration software SLA-CS. Through the graphical user interface, it provides editing, storage, and recall of technical parameters for the FL-V series of products. It features include vertical spread, beam split, and beam steering setting;

This software supports running in WIN10 operating system, Microsoft. NET Framework 4.5.2 and above must be installed. Advise installation of Microsoft. NET Framework 4.8.

This software is green version, no need to install.



(1) Serial Port Connection Setup, select the serial port and baud rate to establish communication between the PC and the loudspeaker.



- (2) Vertical sound diffusion settings
- (3) Select product model, SLA-8 and SLA-12 can be selected
- (4) Beam split modes: SLA-8 can choose single beams or dual beams (4+4), while SLA-12 can choose single beams, dual beams (6+6)/(4+8)/(8+4), or triple beams (4+4+4).
- **(5)** Bottom to floor:

Selection of column speaker installation height from the bottom of the loudspeaker to the floor.

- 6 "+"and "-" button, one step of 0.1 meter
- (7) Open, Save and Apply settings:

Open, open a setting file from the PC.

Save, save the current parameters to the current preset option. Apply, send the current parameters into the connected loudspeaker.

(8) Read in:

Read the setting data from the connected loudspeaker in the software.

(9) 2 presetting options for users.

The options include presetting 1, presetting 2. Clicking on them will load the selected setting parameters. Users are allowed to store 2 sets of parameters, which they can open, edit, and save at any time.

(10) Adjust the vertical spread and beam steering angle of each split. The vertical spread options vary depending on the number of units, and the steering angle can be adjusted in increments of 1 degree within a +/- 30-degree range.



- (11) The speaker beam vertical diffusion diagram allows for an intuitive display of the user's adjustments to sound diffusion, assisting users in precisely controlling the sound field in engineering applications.
- (12) Volume Control.

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