Residential Series

In this documentation you will find information about:

Description

The RSL72 Line Array Element is designed to deliver outstanding music and speech reproduction in a variety of applications including residence, classical and theatrical productions.

Where other line-array manufacturers have to develop special waveguides and adaptors to convert a spherical pattern into a flat wave front, SA's SA8535 neodymium ribbon high frequency driver has the perfect radiation pattern for building line arrays. Therefore it is no surprise that this driver is the core of the RSL72 design. Also, the feather light membrane guaranties an unmatched frequency response in excess of 20kHz, without break-up artifacts that are inherent to compression drivers.

The important midrange band is handled by two 8" precision drivers. Direct radiation provides a smooth, warm uncolored sound in this critical band. The efficiency is surprisingly high for a direct radiating design.

Where both midrange and high frequency sections match perfectly in maximum SPL, we needed a similar efficient low frequency section. One direct radiating 15" wouldn't be able to cope with the mid and high section, and a double 15" setup would make the cabinet larger and heavier than we intended. So we opted for a band-pass design with a single 15" loudspeaker, that is tuned for maximum efficiency between 70Hz and 200Hz. This way only a single amplifier channel is needed for the LF channel. The RSL72 is therefore extremely amplifier friendly.

All frequency sections (LF/MF/HF) have a 8Ω impedance, so two stereo amplifiers can drive 4 x AV27 with one amp channel left for subwoofers.

All these components make the RSL72 the world's most powerful "ribbon" line array to date!
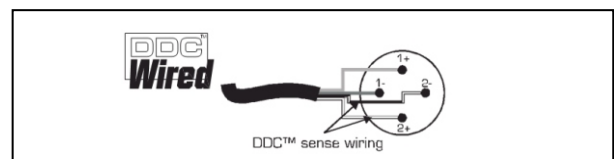
Placement / rigging

With the single 15" loudspeaker mounted at the back of the cabinet, the RSL72 has excellent stability, and can easily be ground stacked up to 6 cabinets high without additional hardware. Note also that the cabinet weighs less than 75 kg (including flying hardware), making it an easy lift.

All the rigging hardware that is needed to fly the cabinet is inside, so no forgotten or missing hardware and no additional flight cases. Flying the system is extremely easy and done in no time. A 16 cabinet array can be hang in less than 30 minutes by two men. The grid is extremely versatile. Arrays can be hang with one, two or three hoists, without additional steels or chains.

Wiring for DDC™

For absolute top quality sound reproduction, the RSL72 is equipped with Dynamic Damping Control™. The DDC™ system is based on two loudspeaker wires that return from the speaker to the (SA) amplifier. The picture on the below shows the wiring of a SpeakON NL4 connector in combination with the DDC™ system.

DDC™ sense wiring

Maintenance

Maintenance on the RSL72, especially on the drivers, is best left to official Stage Accompany service personnel.
However, cleaning of the cabinet can easily be done by yourself with a damp lint-free cloth.

Connections

The RSL72 is fitted with a SpeakON NL8 at the backside of the cabinet. (Caution: when linking, make sure nominal impedance stays within amplifier specification!).

Options

The RSL72 is standard finished in SA Black Protexture, but is also available in any possible RAL color (Multi Color Option™).

Frequency response	:	70Hz – 30kHz (+/- 3dB)
Usable band width	:	55Hz – 30kHz (+/- 10dB)
Transducers	:	1 x SA1508N, 15" neodymium LF driver
		2 x SA0806, 8" MF driver
		2 x SA8535, neodymium HF driver
Cross-over frequencies	:	200Hz - 1700Hz
Nominal impedance	:	8Ω LF, 8Ω MF, 8Ω HF
Sensitivity @ 1W/1m	:	104dB LF, 108dB MF, 115dB HF
Max. RMS power	:	400W LF, 200W MF, 120W HF
Max. Peak power	:	800W LF, 1000W MF, 2000W HF
SPL program	:	130dB
Coverage angles	:	horizontal 75° (300Hz – 30kHz), vertical varies with array configuration
Enclosure angles	:	0°, 0.63°, 1.25°, 2.5°,5°
Signal processing	:	presets for various controllers are available on request
Rigging	:	integrated flying Hardware
Max. load rated per vertical drop	:	16 enclosures
Enclosure construction	:	15mm Birch plywood, 8 handles, Protexture finish
Color	:	SA Black, other colors on request
Front	:	expanded steel with acoustic transparent cloth
Connectors	:	2 x SpeakON NL8 (linked), DDC prewired for LF
Physical dimensions (H x W x D)	:	460mm x 1200mm x 600mm (18.1" x 47.2" x 23.6")
Weight	:	72kg (158.7lb)
Warranty	:	5 years limited (1 year on 'moving parts')

That's How Music Should Sound!