

Introduction

This technical bulletin provides all the key information for a correct use of the L-Acoustics GLL in EASE.

For more information and general support on L-Acoustics GLL, please contact soundvision@l-acoustics.com.

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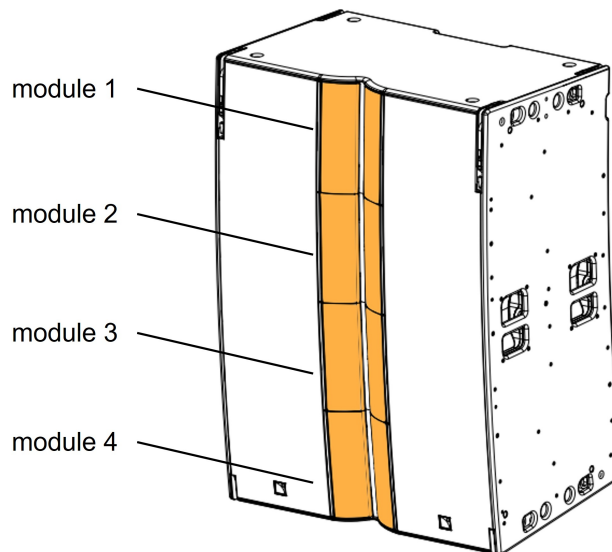
Release notes

Soundvision_EASE_v15.0:

- Added L SERIES L2/L2D GLL to the GLL library.
- Updated A SERIES and K SERIES loudspeakers to support EASE 5 export feature.
- Added EASE 5 export feature documentation to technical bulletin.

L2/L2D GLL architecture

The Panflex™ technology is implemented on L-Acoustics loudspeakers that can be arrayed (K, A, and L Series). This technology adapts the horizontal directivity of a loudspeaker by using adjustable fins in combination with dedicated electronic presets. A single L2 enclosure has 4 Panflex™ modules that can be individually set to achieve 70°, 90° left, 90° right or 110° horizontal directivity.



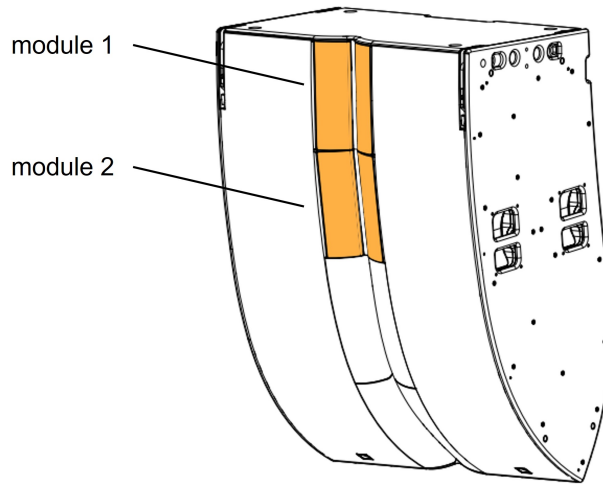
To allow and simplify the selection of any Panflex™ settings in EASE, each L2 enclosure is modeled in the GLL by 4 virtual cabinets, each representing an individual Panflex™ module.

Naming convention for virtual L2 enclosures

	if supercardioid	Panflex™ module (from 1 to 4)	Panflex™ angle (70°/ 90° left/ 90° right/ 110°)
L2	_S	TOP	70 / 90L / 90R / 110
		MID1	
		MID2	
		BOT	

Example: the Panflex™ module 1 of an L2 enclosure set to 90° left in supercardioid mode is the enclosure named "L2_S TOP 90L".

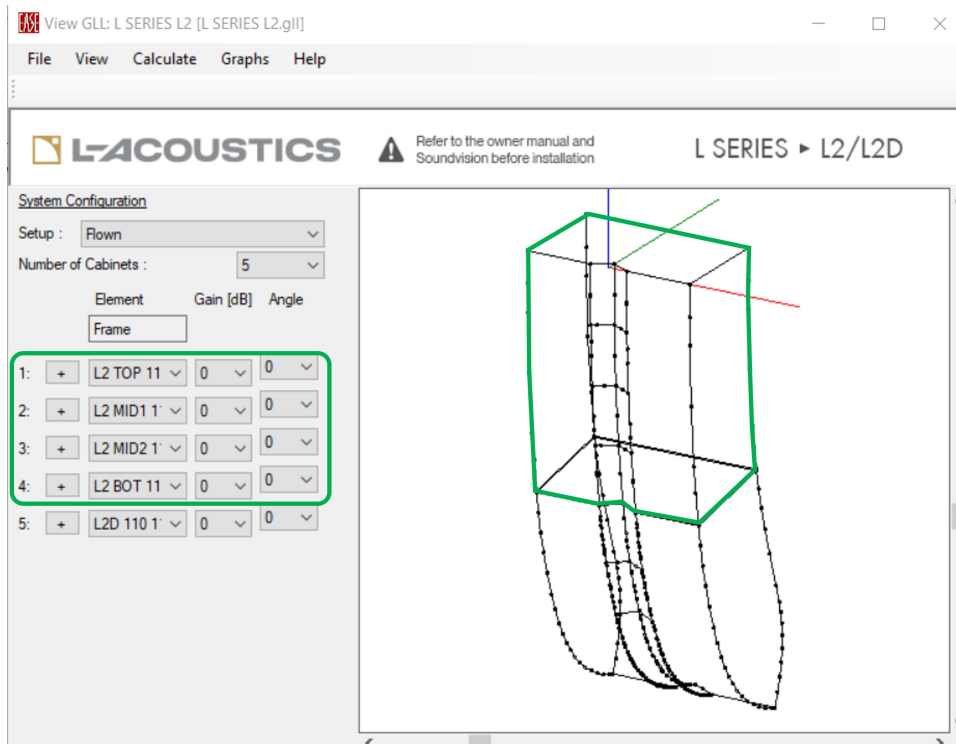
L2D has 2 Panflex™ modules and each combination is modeled as a single L2D enclosure.



Naming convention for L2D enclosures

	if supercardioid	Panflex™ module 1	Panflex™ module 2
L2D	_S	70	70
		90L	90L
		90R	90R
		110	110

The following picture shows how the GLL is setup for a source with one L2 and one L2D.



i It is necessary to use Soundvision to optimize any L2/L2D source. Use the Soundvision Autofilter algorithm then export the result to EASE 5.

Exporting to EASE 5

To speed up the setup of EASE models, the EASE 5 export feature can be used in Soundvision 3.13.

The export generates two types of files:

- one **XLD** file that can be loaded in EASE to setup all sources type, position, orientation and gain.
- **SGLC** files that can be loaded on each source in EASE 5. The SGLC file format is proprietary to L-Acoustics and extends the functional capabilities of the XGLC format. A SGLC file can be loaded on any L-Acoustics source to recall its Soundvision configuration including any mechanical and electronic configuration (filters, delay, etc..).

i GLL compatibility

To use the EASE 5 export, the GLL library v15.0 or higher is mandatory.

i EASE 4 compatibility

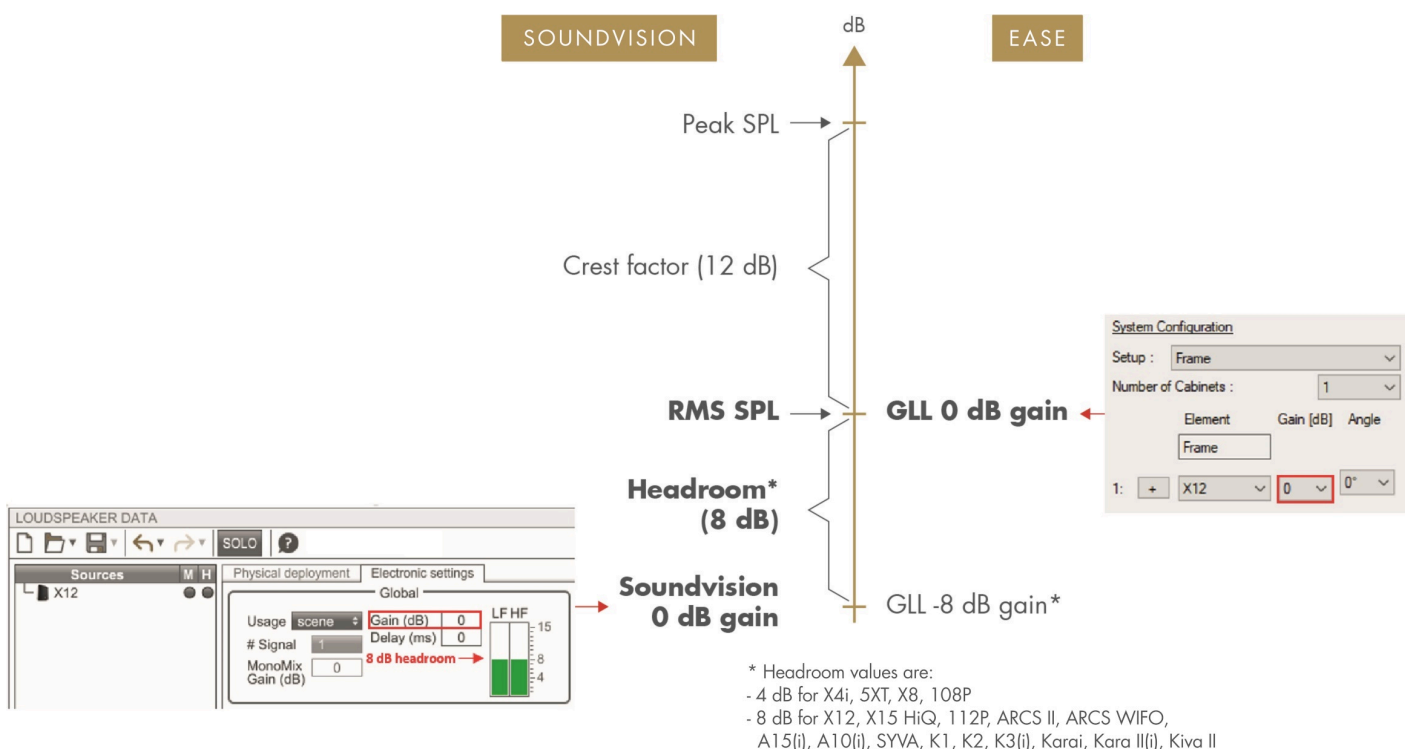
SGLC files cannot be imported in EASE 4 as this is a newly developed format. In EASE 5, it is still possible to save a SGLC file as a XGLC file if the source is not processed in default mode by Autofilter.

Gains in EASE

In EASE, only negative gain can be applied per enclosure. The maximum gain available is 0 dB and corresponds to the maximum gain allowed in Soundvision for an enclosure (including headroom).

The EASE 5 export feature exports the correct source level to obtain similar SPL between Soundvision and EASE.

In EASE, setting the gain to 0 dB delivers the maximum continuous SPL. For the peak SPL, add a crest factor of 12 dB to the RMS value.



! SPL capability reduction

For enclosures driven by LA2Xi in single-ended (SE) mode, the source gain in EASE needs to be manually adjusted down to reflect the SPL capability reduction.

The SPL capability is visible in the resources gauges in Soundvision (**Loudspeaker data > Electronic settings > Groups**).

For more information, refer to the Soundvision help.

SPL variations between Soundvision and EASE

Overall SPL

Due to differences in the calculation methods between the two software, differences can be observed in direct SPL. Direct SPL values in EASE are slightly higher and variations range between +0.1 dB and +1.4 dB.

These differences shall be kept in mind when comparing designs between Soundvision and EASE.

Banded SPL

Due to the use of different conventions, banded SPL differ between the two softwares.

SPL displayed in Soundvision for a selected bandwidth is higher than in EASE. To display a banded SPL comparable to EASE in Soundvision, a gain offset needs to be entered in the console output level in Soundvision.

This gain offset depends on the number of third-octave bands contained in the selected bandwidth. The gain offset is calculated with the following formula:

Gain offset: $-14.9 + 10 \cdot \log_{10}(\text{number of considered bands})$

For example, the gain offset for the 1000 Hz - 5000 Hz frequency range (8 third-octave bands) corresponds to:

Gain offset: $-14.9 + 10 \cdot \log_{10}(8) = -5.9$ dB

In Soundvision, apply a gain offset of -5.9 dB in the console output level.

In EASE, the total SPL for this frequency band is obtained by summing the energy contributions of all 8 third-octave bands contained in it. No gain offset needs to be applied.

Compatibilities

The following configurations are not supported by the export:

- stacked configurations
- K3i source with a K3i-CEILINGBRACKET or K3i-CEILINGBRACKET Inv rigging element
- Kara Ili source with a KARAIli-TILTBRACKET, KARAIli-TILTBRACKET Inv, or KARAIli-TILT Inv rigging element
- A Series horizontal sources with more than six enclosures
- A Series horizontal sources with mixed enclosures (Wide and Focus)
- A Series horizontal sources with mixed horizontal angles for the adjustable fins (**H Opening** set to 35/35, 55/35, ...)
- Subwoofer sources

Physical deployment limitations

L-Acoustics GLL were built accounting for most deployment possibilities (connections between enclosures and inter-element angles) available in Soundvision. For unavailable deployment options, please contact soundvision@l-acoustics.com.

Mechanical safety



Mechanical safety limitations are not accounted for in EASE

Always refer to the mechanical data and warning indications in Soundvision (in **Mechanics View**) to check the mechanical conformity of the system before installation.

Refer to the rigging procedures of each product for additional instructions.