

A detailed technical line drawing of a cylindrical mesh component. The mesh consists of interconnected hexagonal cells. The drawing shows the component from a perspective view, highlighting its curved surface and the way the mesh cells are formed. A vertical line is drawn to the right of the mesh, separating it from the text area.

IS7

USER MANUAL

Distribution Date: May 1st, 2021

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This manual must be accessible to the person operating this product. As such, the product owner must store it in a safe place and make it available upon request to any operator.

Resale of this product must include a copy of this manual.

This manual can be downloaded from

<https://adamsonsystems.com/support/downloads-directory/is-series/is7>

Declarations

EU Declaration of Conformity

Adamson Systems Engineering declares that the products stated below are in conformance with the relevant fundamental health and safety criteria of the applicable EC Directive(s), in particular:

Directive 2014/35/EU: Low Voltage Directive

IS7 - 971-0003, 971-0004, 971-0006, 971-5003, 971-5004, 971-5006

Directive 2006/42/EC: Machinery Directive

IS7/IS118 Rigging Frame - 930-0026, 930-5026
Extended Beam - 930-0021, 930-5021
Moving Point Extended Beam - 930-0033, 930-5033
IS7 Micro Frame - 930-0029, 930-5029
Extended Lifting Plates - 932-0043
Line Array H-Clamp - 932-0047



Signed at Port Perry, ON. CA - May 1st, 2021

A handwritten signature in blue ink, appearing to read 'Brock Adamson', is written over a horizontal dashed line.

Brock Adamson (President & CEO)

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Safety & Warnings



Read these instructions, keep them available for reference.

This manual can be downloaded from

<https://www.adamsonsystems.com/en/support/downloads-directory/is-series/is7>



Heed all warnings and follow all instructions.



A qualified technician must be present during the installation and use of this product. This product is capable of producing extremely high sound pressure levels and should be used according to the specified local sound level regulations and good judgement. Adamson Systems Engineering will not be liable for damages caused by any possible misuse of this product.



Servicing is required when the loudspeaker has been damaged in any way, such as when the loudspeaker has been dropped; or when for undetermined reasons the loudspeaker does not operate normally. Inspect your products regularly for any visual or functionality irregularities.

Protect the cabling from being walked on or pinched.

Read the appropriate IS-Series Rigging Manual before installing the product.

Pay attention to rigging instructions included in both Blueprint AV™ and the IS-Series Rigging Manual.

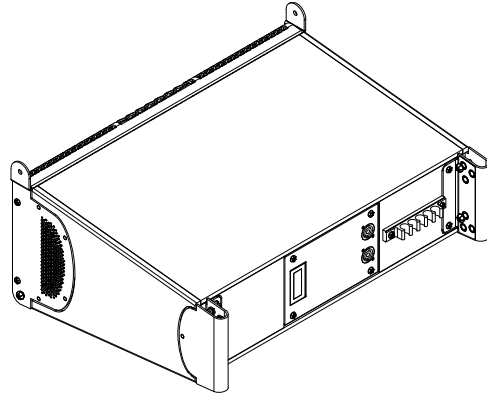
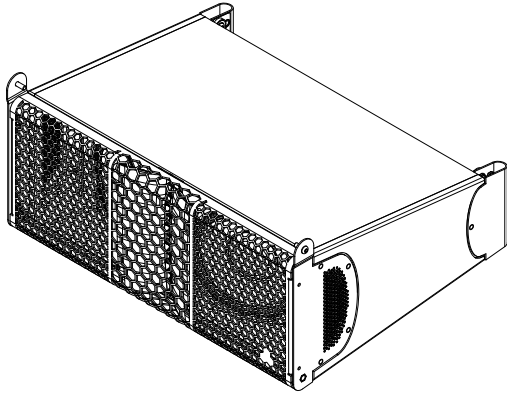
Use only with the rigging frames/accessories specified by Adamson, or sold with the loudspeaker system.

This speaker enclosure is capable of creating a strong magnetic field. Please use caution around the enclosure with data storage devices such as hard drives.

In an effort to continuously improve its products, Adamson releases updated accompanying software, presets and standards for its products. **Adamson reserves the right to change the specifications of its products and the content of its documents with no prior notice.**

IS7

IS7 Ultra Compact Line Array

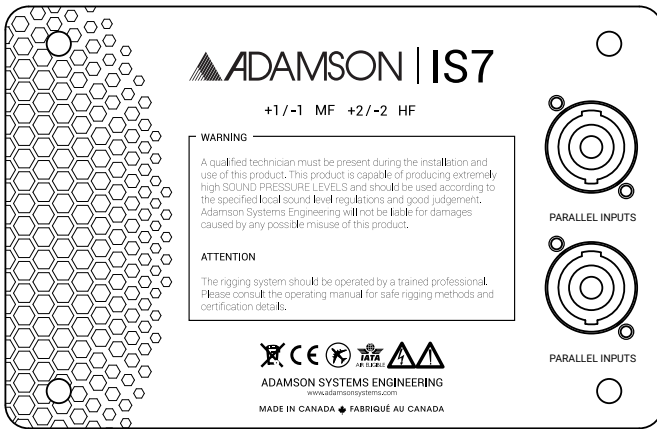


- The IS7 is an ultra-compact line array enclosure designed for medium throw applications. It contains two symmetrically arrayed 7" LF transducers and a 3" HF compression driver mounted onto an Adamson sound chamber. The high frequency sound chamber is designed to couple multiple cabinets across the entire intended frequency band without loss of coherence.
- The operational frequency range of the IS7 is 80 Hz to 18 kHz. The use of proprietary technologies such as Controlled Summation Technology and Advanced Core Architecture allow high maximum SPL and maintains a consistent nominal horizontal dispersion pattern of 100° down to 400 Hz.
- The enclosure has an unobtrusive visual design which blends seamlessly into the surrounding space, is made of marine grade birch plywood, and has a four-point rigging system. Without sacrificing low resonance to composite material, the IS7 weighs only 14 kg / 30.9 lbs.
- Up to sixteen IS7 can be flown in the same array when using the IS7/IS118 Rigging Frame and up to eight when using the IS7 Micro Frame. Nine rigging positions are available, allowing vertical inter-cabinet splay angles from 0° to 10°. Always consult Blueprint AV™ and the IS-Series Line Array Rigging Manual for correct rigging positions (including ground stacking options) and installation procedures.
- The IS7 is intended to be used as a standalone system or with the IS118 companion subwoofer, which brings the usable frequency range down to 35 Hz. The IS7 can also be paired with other IS-Series subwoofers.
- The IS7 is designed for use with Lab.gruppen's D-Series line of installation amplifiers. The nominal impedance of the IS7 is 16 Ω per band, maximizing amplifier efficiency.

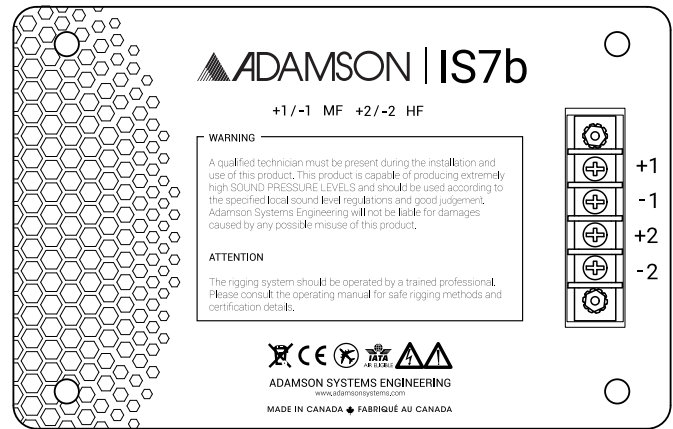
IS7

Wiring

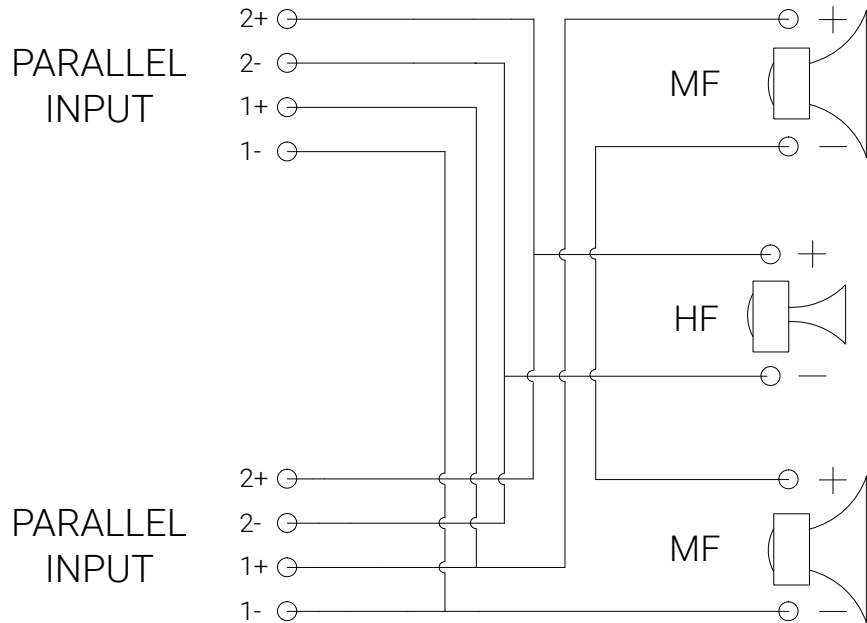
- The **IS7** (971-0003, 971-5003) comes with 2x Neutrik Speakon™ NL4 connections, wired in parallel.
- The **IS7b** (971-0004, 971-5004) comes with an external barrier strip.
- Pins 1+/- are connected to the 2x ND7-LM8 MF transducers, wired in parallel.
- Pins 2+/- are connected to the NH3-16 HF transducer.



IS7 Jackplate



IS7b Jackplate



IS7 & IS7b Internal Wiring (IS7b has only one input)

IS7

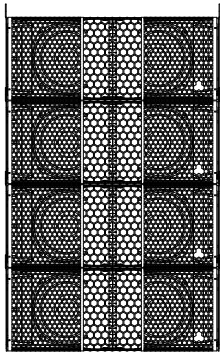
Amplification

The IS7 is paired with Lab.gruppen **D-Series** amplifiers.

Maximum quantities of the IS7 per amplifier model are shown below.

For a master list, please refer to the Adamson Amplification Chart, found on the Adamson website.

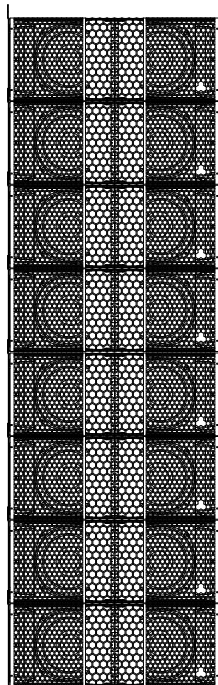
<https://adamsonsystems.com/support/downloads-directory/design-and-control/e-rack/283-amplification-chart-9/file>



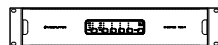
4x IS7



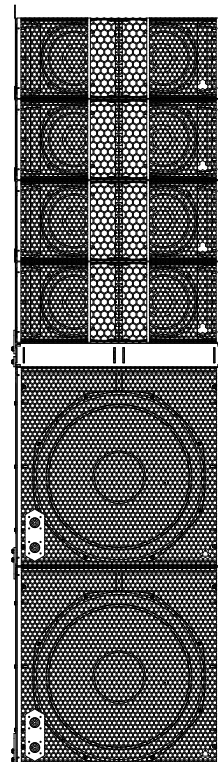
D40:4L



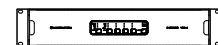
8x IS7



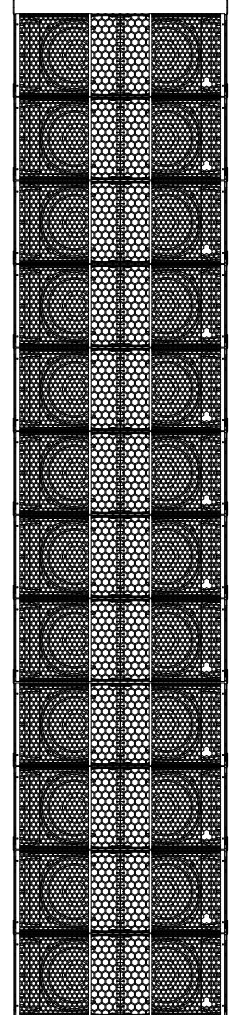
D80:4L



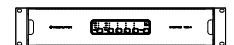
2x IS118, 4x IS7



D80:4L



12x IS7



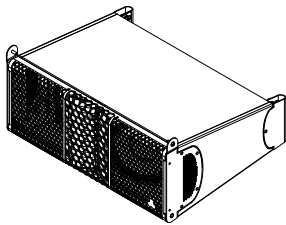
D120:4L

IS7

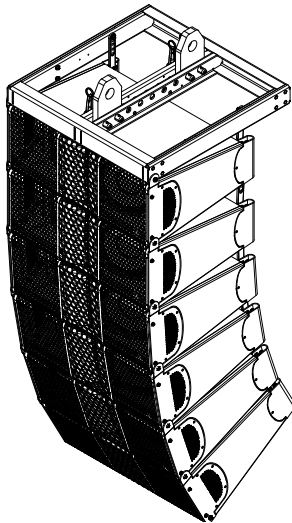
Presets

The Adamson LoadLibrary (<http://adamsonsystems.com/support/downloads-directory/design-and-control/e-rack/245-adamson-load-library-5-0-1/file>) contains presets designed for a variety of IS7 applications. Each preset is intended to be phase-linear with either the IS118 or IS119 subwoofers.

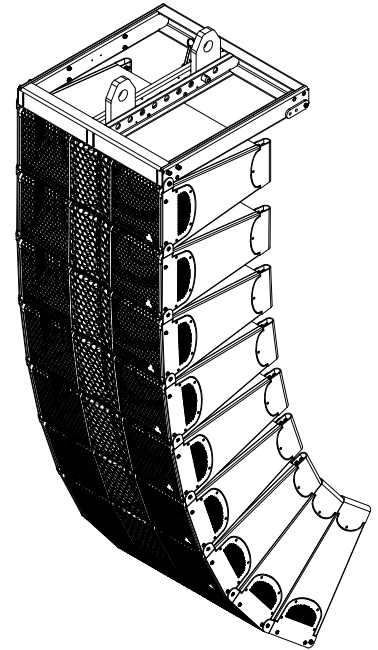
When cabinets and subwoofers are positioned separately, phase alignment should be measured with suitable software.



IS7 Lipfill
Intended for use with a single IS7



IS7 Short
Intended for use with an array of 4 to 6 IS7



IS7 Array
Intended for use with an array of 7 to 11 IS7

Control

Array Shaping overlays (found in the *Array Shaping folders of the Adamson Load Library*) can be recalled in the EQ section of Lake Controller to adjust the contour of the array. Recalling the appropriate EQ overlay or preset for the number of cabinets being used will give the standard Adamson frequency response of your array, compensating for different low-frequency coupling.

Tilt overlays (found in the *Array Shaping folders of the Adamson Load Library*) can be used to alter the overall acoustic response of an array. Tilt overlays apply a filter, centered at 1kHz, which reaches the noted decibel cut or boost at the extreme ends of the listening spectrum. For example, a +1 Tilt will apply +1 decibel at 20 kHz and -1 decibel at 20 Hz. Alternately, a -2 Tilt will apply -2 decibels at 20 kHz and +2 decibels at 20 Hz.

Please refer to the Adamson PLM & Lake Handbook for detailed instructions on recalling Tilt and Array Shaping overlays. <https://adamsonsystems.com/support/downloads-directory/design-and-control/e-rack/205-adamson-plm-lake-handbook/file>

Weatherized

IS-Series weatherized models add an additional layer of environmental and corrosion protection to Adamson's already durable cabinet design. Weatherized enclosures are ideal for marine and coastal venues, outdoor stadiums, open-air performance spaces, and other permanent outdoor installations.

IS-Series weatherized cabinets feature the following additional protective features.

Corrosion resistance

Corrosion resistance extends the lifetime performance of your system in outdoor venues where water, salt and acidity can impact durability and function.

All structural steel elements of Adamson weatherized cabinets – including rigging and rigging links – are made of a high yield strength stainless steel alloy that offers 100% corrosion resistance.

Cabinet hardware is made of non-plated stainless steel, designed to provide exceptional rust and corrosion resistance, particularly in high-saline environments.

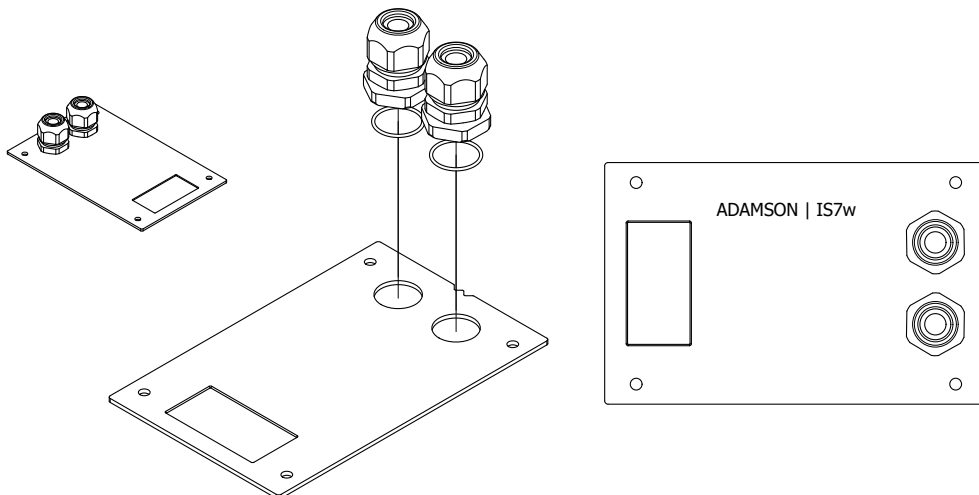
Environmental sealing

Additional protection of the cabinet helps ensure that loudspeaker performance isn't impeded by the harsh environments in which your system is deployed.

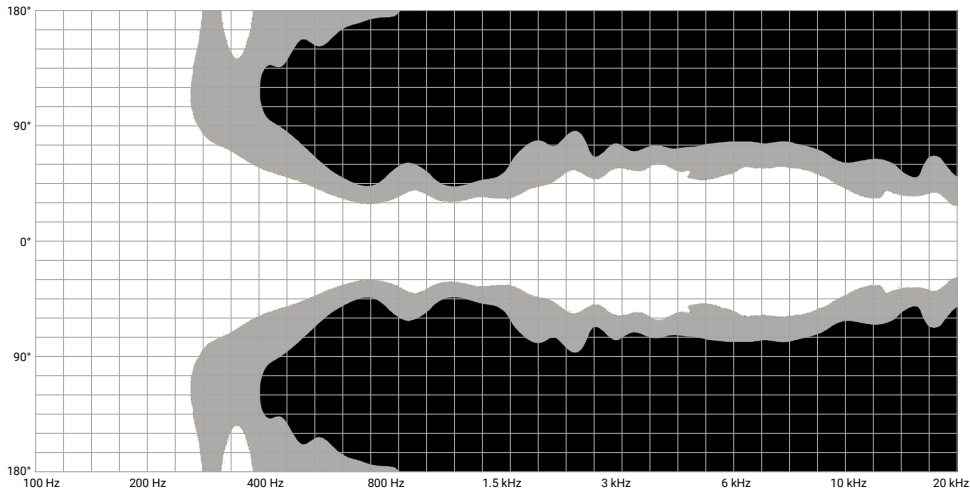
To guard against water and particle intrusion, the same two-part polyurea coating that gives Adamson cabinets their life-extending exterior protection is applied to the interior of the enclosure, creating a complete seal. Weatherized models feature an exterior coating with a distinctive smooth finish that allows for easy cleaning and removal of contaminants like dirt, grime, salt water or sand.

To protect against dust and other particles, a fine stainless steel mesh has been added to all points of entry including behind the front grille screens.

Cabling for the IS-Series weatherized cabinets is pre-wired and protected inside a gasket-sealed jackplate, with gland nuts in place to seal the connection points.

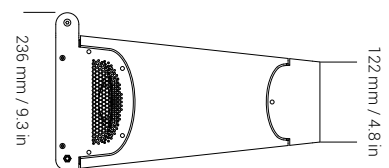
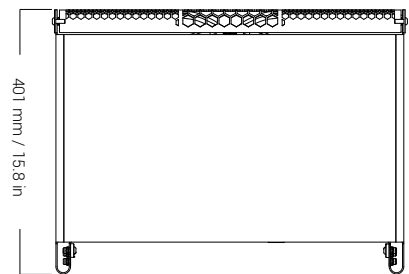
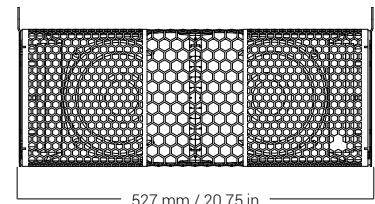


Technical Specifications



IS7 Horizontal Pattern

Frequency Range (-6 dB)	80 Hz - 18 kHz
Nominal Directivity (-6 dB) H x V	100° x 12.5°
Maximum Peak SPL **	138
Components LF	2x ND7-LM8 7" Neodymium Driver
Components HF	NH3 3" Diaphragm / 1.4" Exit Compression Driver
Nominal Impedance LF	16 Ω (2 x 8 Ω)
Nominal Impedance HF	16 Ω
Power Handling (AES / Peak) LF	500 / 2000 W
Power Handling (AES / Peak) HF	110 / 440 W
Rigging	Integrated Rigging System
Connection	2x Speakon™ NL4 or Barrier Strips
Height Front (mm / in)	236 / 9.3
Height Back (mm / in)	122 / 4.8
Width (mm / in)	527 / 20.75
Depth (mm / in)	401 / 15.8
Weight (kg / lbs)	14 / 30.9
Colour	Black & White (RAL 9010 as standard, other RAL colours on demand)
Processing	Lake



**12 dB crest factor pink noise at 1m, free field, using specified processing and amplification