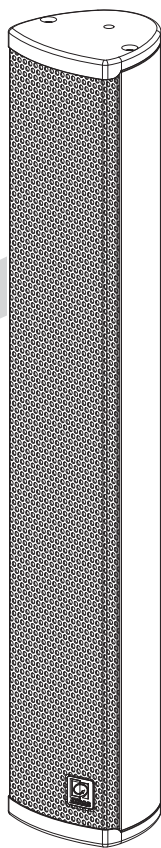


# LIN04/10

## User & Installation Manual



[www.audac.eu](http://www.audac.eu)



# Introduction

## Column speakers

The LINO series are column speaker series designed for a wide variation of general-purpose applications in acoustic difficult environments, ranging from speech and announcement applications to background music systems. Typical applications are houses of worship, auditoria, presentation rooms, public transportation hubs, ... and many more. They are solid constructed using solid aluminum materials and finished through a rigid finely perforated front grill.

They come in two different models (LINO4 and LINO10) in terms of length and driver count, consisting of 2" low/mid-frequency drivers with a 1" central positioned tweeter for the high frequencies. Both models are having a specific pattern in terms of dispersion and throw distance. They offer solutions for uniform acoustic performance in any type of system in reverberant venues, while reducing echo and microphone feedback to optimizes the intelligibility of music & speech.

Mounting is done through an L-shaped bracket on top and bottom, offering optimal flexibility for fixation and directional placement. Connections are made through multi-tapping terminal block connector and A multi-tapping line transformer allows them to be connected to 70/100V public address systems with various power tapping settings, while connections in low impedance systems are also possible.

# Precautions

## READ FOLLOWING INSTRUCTIONS FOR YOUR OWN SAFETY

- ALWAYS KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE. NEVER THROW THEM AWAY
- ALWAYS HANDLE THIS UNIT WITH CARE
- CLEAN ONLY WITH DRY CLOTH
- HEED ALL WARNINGS AND FOLLOW ALL INSTRUCTIONS
- NEVER EXPOSE THIS EQUIPMENT TO RAIN, MOISTURE, ANY DRIPPING OR SPLASHING LIQUID. AND NEVER PLACE AN OBJECT FILLED WITH LIQUID ON TOP OF THIS DEVICE
- DO NOT INSTALL THIS UNIT NEAR ANY HEAT SOURCES SUCH AS RADIATORS OR OTHER APPARATUS THAT PRODUCE HEAT
- DO NOT PLACE THIS UNIT IN ENVIRONMENTS WITH A HIGH LEVEL OF DUST, HEAT, MOISTURE OR VIBRATION
- THIS UNIT IS DEVELOPED FOR INDOOR USE ONLY. DO NOT USE IT OUTDOORS
- ONLY USE ATTACHMENTS & ACCESSORIES SPECIFIED BY THE MANUFACTURER.
- ONLY INSTALL THE SPEAKER IN LOCATIONS THAT CAN STRUCTURALLY SUPPORT THE WEIGHT OF THE SPEAKER. IGNORING THIS CAN BRING THE SPEAKER DOWN.
- DO NOT USE ANY OTHER METHOD THAN SPECIFIED TO MOUNT THE SPEAKER. IF EXTREME FORCE IS APPLIED TO THE SPEAKER, IT COULD FALL DOWN
- ATTACH A SAFETY WIRE TO THE SPEAKER WHEN IT IS MOUNTED HIGH UP. ONLY USE INDUSTRY-ACCEPTED RIGGING TOOLS AND METHODS
- CAREFULLY CHECK THE UNIT'S CONDITION AFTER UNPACKING. IF THERE IS ANY DAMAGE TO THE CARTON BOX OR THE UNIT ITSELF, INFORM YOUR VENDOR IMMEDIATELY.

## CAUTION

- USE CABLES OF THE RIGHT GAUGE TO CONNECT THE LOUDSPEAKER
- USE CABLES WITH CLEAR COLOR CODING INDICATING THE POLARITY AND MAINTAIN THE SAME POLARITY THROUGHOUT THE WHOLE SYSTEM.
- ONLY USE THE CORRECT AMPLIFIER OUTPUT VOLTAGE AND IMPEDANCE. EXCEEDING THESE LIMITS COULD CAUSE FIRE OR OTHER FAILURES.  
**AVOID EXPLOSIONS:** DO NOT USE THE SPEAKER AROUND GASOLINE, THINNER OR OTHER COMBUSTIBLES
- AVOID ELECTRIC SHOCKS: SWITCH OFF THE AMPLIFIER WHEN CONNECTING THE LOUDSPEAKER
- DO NOT USE THE LOUDSPEAKER FOR AN EXTENDED PERIOD OF TIME AT DISTORTED SOUND. THIS COULD CAUSE PERMANENT DAMAGE.



## CAUTION – SERVICING

This product contains no user serviceable parts. Refer all servicing to qualified service personnel. Do not perform any servicing (unless you are qualified to do so.)



## EC DECLARATION OF CONFORMITY

This product conforms to all the essential requirements and further relevant specifications described in following directives: 2014/30/EU (EMC) and 2014/35/EU (LVD)



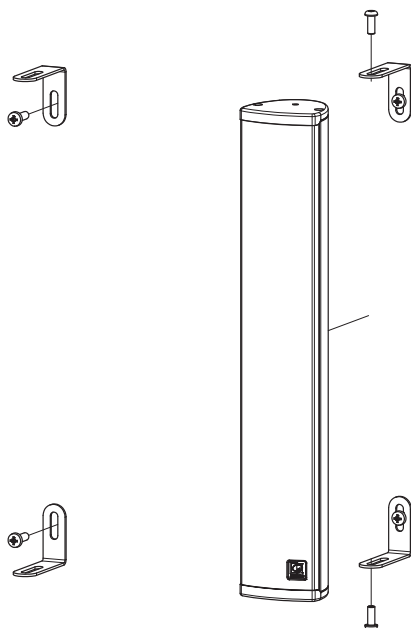
## WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

The WEEE marking indicates that this product should not be disposed with regular household waste at the end of its product life. This regulation is created to protect both the environment and human health.

This product is developed and manufactured with high quality materials and components which can be recycled and/or reused. Please dispose this product to your local collection point or recycling centre for electrical and electronic waste. This will make to sure that it will be recycled on an environmentally friendly manner, and will help to protect the environment in which we all live.

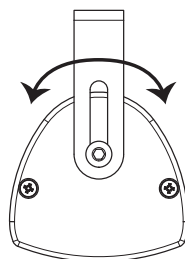
# Installing the LINO Mounting bracket

Every LINO speaker comes delivered with two L-shaped brackets making it possible to install the speaker at each location and focussing it into the desired direction. The metal constructed L-brackets ensures a solid and secure mounting of the loudspeaker to any possible surface or location.



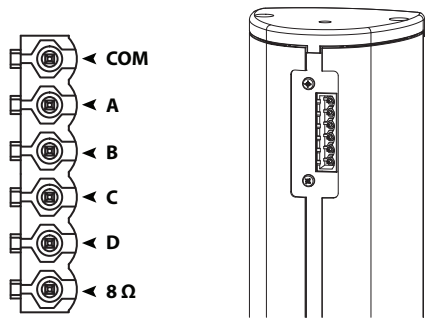
The L-shaped brackets have to be fixed to the wall through 2 screws. The used fasteners are depending on the mounting surface (brick, concrete, wood, ...) and should be chosen accordingly.

Once the wall brackets are mounted to the installation position, the speaker should get fixed to the brackets. This is done through inserting both supplied bolts and tightening them. The slot shaped holes allow vertical directional adjustments while horizontal adjustments are possible through rotation.



# Connecting the speaker

For connecting the LINO, the wires coming from the amplifier shall be connected to the 6-pin terminal block connector on the rear of the speaker. Depending whether the speaker will be used in a low impedance system or a constant voltage (70/100V) system, the appropriate terminals of the connector should get connected as indicated in the below drawing.



When using in constant voltage 70/100V systems, the power taps can be adjusted in 4 steps of impedance through connecting the appropriate terminals of the 6-pin terminal block connector. Each position corresponds with a specific impedance / power setting indicated on a label attached to the speaker, and in the table below.

Tapping	LINO4			LINO10		
	100V	70V	Imp.	100V	70V	Imp
A		20 W	250 Ω		40 W	125 Ω
B	20 W	10 W	500 Ω	40 W	20 W	250 Ω
C	10 W	5 W	1000 Ω	20 W	10 W	500 Ω
D	5 W	2.5 W	2000 Ω	10 W	5 W	1000 Ω
Low-Z			8 Ω			20 Ω

# Additional Information

## Technical specifications

	LIN04	LIN010
Max Power	40 Watt	80 Watt
Continuous power (AES)	20 Watt	40 Watt
Nominal impedance	8 $\Omega$	20 $\Omega$
Line transformer taps	250 $\Omega$ – 70V/20W 500 $\Omega$ – 100V/20W – 70V/10W 1k $\Omega$ – 100V/10W – 70V/5W 2k $\Omega$ – 100V/5W – 70V/2.5W	125 $\Omega$ – 70V/40W 250 $\Omega$ – 100V/40W – 70V/20W 500 $\Omega$ – 100V/20W – 70V/10W 1k $\Omega$ – 100V/10W – 70V/5W
Frequency response ( $\pm$ 3 dB)	170 Hz – 15 kHz	170 Hz – 15 kHz
Frequency range ( $-$ 10 dB)	120 Hz – 20 kHz	120 Hz – 20 kHz
Sensitivity (1W/1m)	88 dB	90 dB
Sound pressure (Max. W/1m)	101 dB	107 dB
Cross-over network	Passive built-in	Passive built-in
Drivers	4 x 2" + 1" HF	10 x 2" + 1" HF
Connectors	6-pin Terminal block (5.08 mm)	6-pin Terminal block (5.08 mm)
Mounting bracket	Adjustable L-brackets (steel)	Adjustable L-brackets (steel)
Construction	Alu extrusion + end caps	Alu extrusion + end caps
Front finish	Fine perforated alu grill	Fine perforated alu grill
Ingress protection	IP3x	IP3x
Operation temperature range	$-20^{\circ}\text{C}$ to $+50^{\circ}\text{C}$	$-20^{\circ}\text{C}$ to $+50^{\circ}\text{C}$
Colour	White Black	LIN04/W (RAL9003) LIN04/B (RAL9005)
Dimensions (W x H x D)	72 x 414 x 68.3 mm	72 x 796 x 68.3 mm (excl bracket)
Weight	1.81 Kg	3.7 Kg
Packaging	Carton box	Carton box
Shipping weight & Volume	2.1 Kg – 0.008 Cbm	4.2 Kg – 0.014 Cbm
Accessories included	6-pin terminal block connector Adjustable L-brackets (steel)	6-pin terminal block connector Adjustable L-brackets (steel)