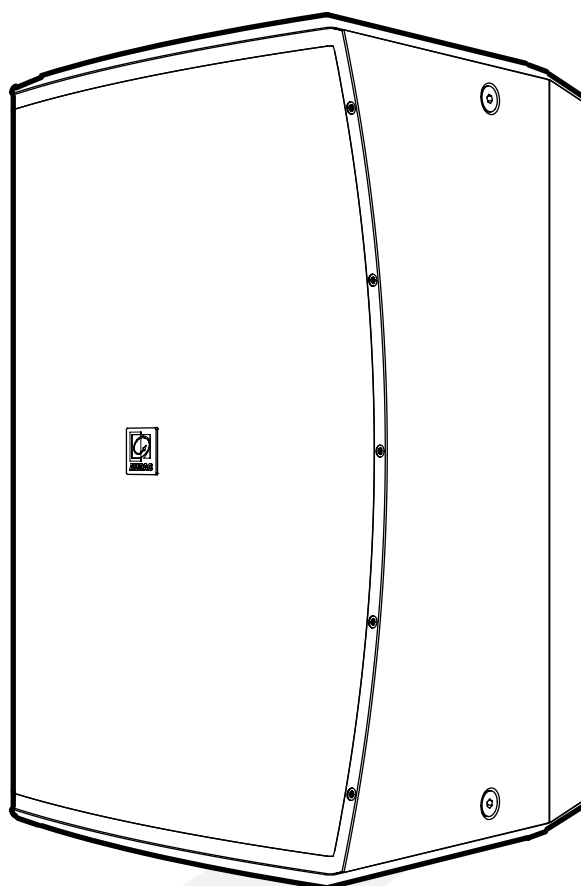


VEXO1xxA



ADDITIONAL INFORMATION

This manual is put together with much care, and is as complete as could be on the publication date. However, updates on the specifications, functionality or software may have occurred since publication. To obtain the latest version of both manual and software, please visit the Audac website @ www.audac.eu.



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Active high performance loudspeaker

The VEXO1xxA is a high-output active loudspeaker, providing powerful and detailed sound in a compact cabinet.

Their elegant enclosure allows them to be used in modern and trendy installation applications such as bars and nightclubs, while their functional features make them perfect for use as compact mobile systems. The integrated amplifier can deliver an impressive amount of power, and the built-in powerful DSP allows diverse processing and convenient connection with any kind of audio source. Compression driver overload protection is provided through an internal limiting circuit. Mounting in both horizontal and vertical directions is possible with the optional wall bracket and the rotatable horn. A standard 35mm pole adapter can be installed when used in mobile applications. The VEXOxxA loudspeaker is available in Black (/B) or White (/W).

Precautions



READ FOLLOWING INSTRUCTIONS FOR YOUR OWN SAFETY

ALWAYS KEEP THESE INSTRUCTIONS. NEVER THROW THEM AWAY

ALWAYS HANDLE THIS UNIT WITH CARE

HEED ALL WARNINGS

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

NO NAKED FLAME SOURCES, SUCH AS LIGHTED CANDLES, SHOULD BE PLACED ON THE APPARATUS

DO NOT PLACE THIS UNIT IN AN ENCLOSED ENVIRONMENT SUCH AS A BOOKSHELF OR CLOSET. ENSURE THERE IS ADEQUATE VENTILATION TO COOL THE UNIT. DO NOT BLOCK THE VENTILATION OPENINGS.

DO NOT STICK ANY OBJECTS THROUGH THE VENTILATION OPENINGS.

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 WHICH CONTAIN HIGH LEVELS OF DUST, HEAT, MOISTURE OR VIBRATION

THIS UNIT IS DEVELOPED FOR INDOOR USE ONLY. DO NOT USE IT OUTDOORS

PLACE THE UNIT ON A STABLE BASE OR MOUNT IT IN A STABLE RACK

ONLY USE ATTACHMENTS & ACCESSORIES SPECIFIED BY THE MANUFACTURER

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME

ONLY CONNECT THIS UNIT TO A MAINS SOCKET OUTLET WITH PROTECTIVE EARTHING CONNECTION

THE MAINS PLUG OR APPLIANCE COUPLER IS USED AS THE DISCONNECT DEVICE, SO THE DISCONNECT DEVICE SHALL BE READILY OPERABLE

USE THE APPARATUS ONLY IN MODERATE CLIMATES

CAUTION

The symbols shown are internationally recognized symbols that warn about potential hazards of electrical products. The lightning flash with arrow point in an equilateral triangle means that the unit contains dangerous voltages. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the users manual.



These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent 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)

**EC DECLARATION OF CONFORMITY**

This product conforms to all the essential requirements and further relevant specifications described in following directives: 2014/30/EU (EMC) & 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 life cycle. This regulation is created to prevent any possible harm to the environment or 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 at your local collection point or recycling centre for electrical and electronic waste. This will make sure that it will be recycled in an environmentally friendly manner, and will help to protect the environment in which we all live.

Chapter 1

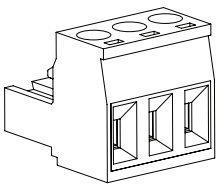
Connections and connectors

CONNECTION STANDARDS

The input and output connections for AUDAC audio equipment are performed according to international wiring standards for professional audio equipment

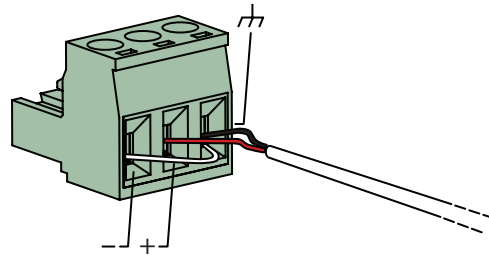
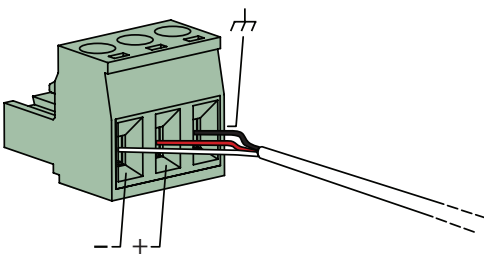
3-Pin Terminal block:

For balanced signal input and output connections



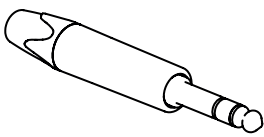
- Left:** Signal -
- Center:** Signal +
- Right:** Ground

For balanced signal input and output connections For unbalanced signal input and output connections



6.3 mm Jack (AUX):

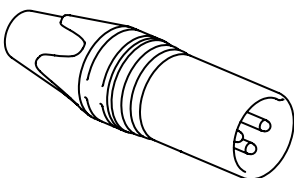
For balanced line input connections



- Tip:** Sig +
- Ring:** Sig -
- Sleeve:** Ground

XLR

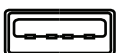
For balanced line input connections



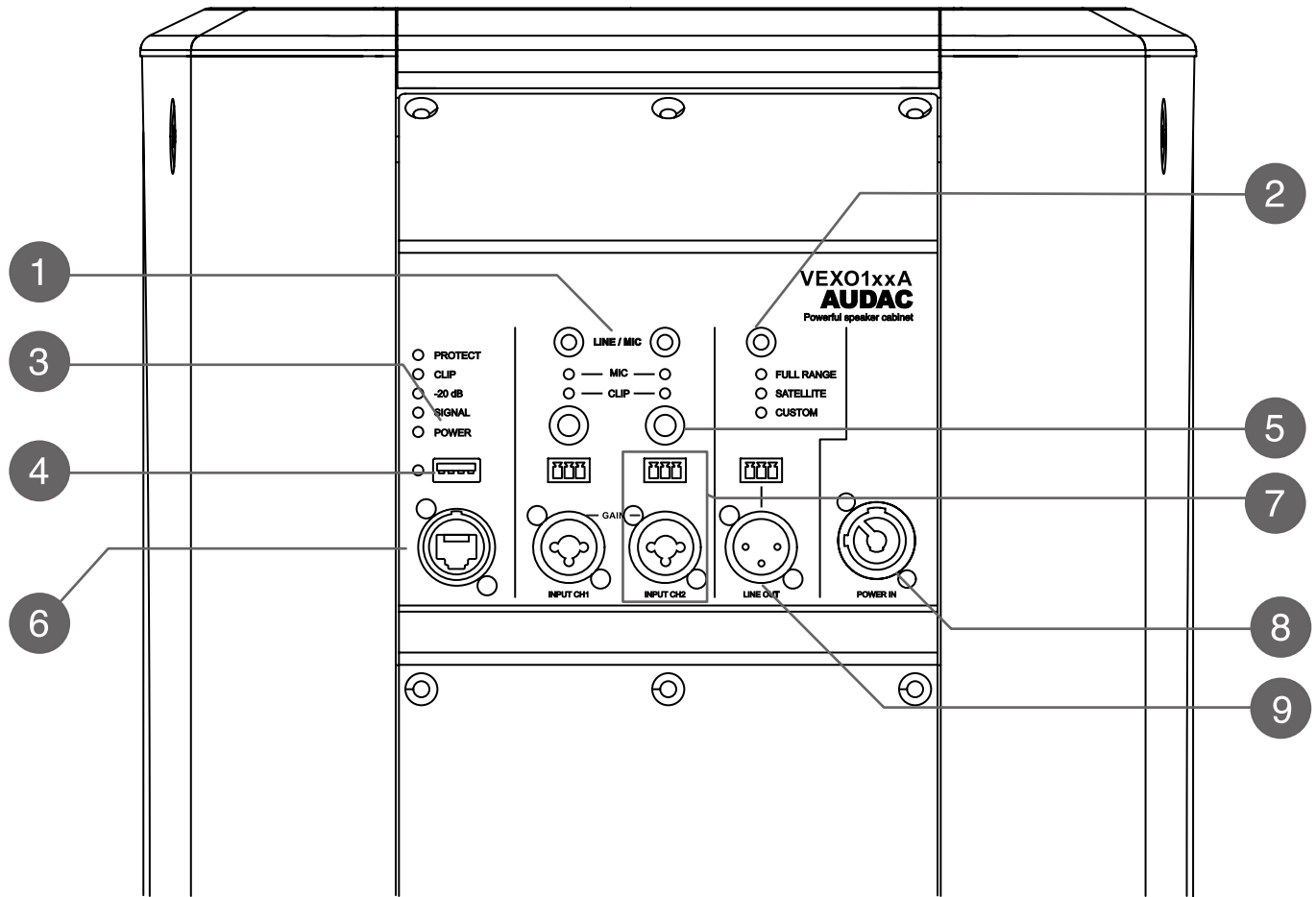
- PIN 1:** Ground
- PIN 2:** Sig +
- PIN 3:** Sig -

USB

USB-A: For firmware updates and loading custom WaveDynamics™ settings



Overview VEXO1xxA: Back



1) Mic / line switch

The VEXO is designed to accept both mic and line level inputs. The switch changes the input level between Mic to Line levels. For safety reasons, press and hold for three seconds to change the input. **CAUTION:** line-level source to a mic-level input will cause the sound to be loud and distorted. The line-level signal is stronger (+23dB) than what the mic-level input can accept.

2) Mode selection:

The VEXO has three frequency modes for various applications. A dedicated switch changes the VEXO's frequency response between Full Range, Satellite, and Custom modes.

In full range, the speaker covers the entire frequency range as standard. In satellite, the low frequencies are cut away for an external subwoofer cabinet reinforcement.

In custom mode WaveDynamics™ can be configured live thanks to the ANI44XT module or can be uploaded thanks to the provided USB-port.

3) Status LED:

PROTECT: The Amplifier Protection Mode is a shutdown state that amplifiers can enter in critical situations. The purpose of the shutdown state is to prevent damage to the amplifier or other system components.

CLIP: The Clip LED illuminates when the corresponding channel is working at maximum level. To ensure the best signal-to-noise ratio, the Clip LED may only illuminate at peak levels.

-20 dB: the -20dB LED illuminates when the input signal reaches the -20 dBV level.

SIGNAL: The Signal LED illuminates whenever a signal is detected.

POWER: When the VEXO is on, the LED is blue. By default, the VEXO will go into standby mode after 20 minutes of inactivity. This is indicated by the LED turning orange. Disabling and changing time period for activating standby can be adjusted in the AUDAC Touch2™ app.⁴

4) USB port for custom WaveTune™ settings

WaveTune provides installers and end-users with an intuitive tool for adjusting audio processing. The powerful DSP processor built in the amplifiers, can deliver control over the most advanced acoustic configurations. Custom WaveTune™ can be made in the AUDAC Touch2™ app under WaveDynamics™ and imported true this USB port.

5) Gain control:

The gain for the inputs is adjustable within a range of $-\infty$ dB to +7 dB which can accept either microphone or line level signals.

6) Optional Dante network audio

The VEXO has the option to be equipped with a ANI44XT Dante™ audio network. The installation of this optional module allows these amplifiers to be integrated into any DANTE enabled AV network and transfer digital audio with any compatible product on the market, ranging from music sources to microphone systems, mixers, and many more.

When the optional ANI44XT module is installed, the VEXO1xxA can be connected to the network via this port using a CAT cable.

7) Input connections

The combination input of XLR / 6.3mm Jack and the 3-pin terminal block accepts both XLR or TRS balanced connections (such as microphones or other professional audio signals) and unbalanced 6.3mm Jack connections (such as laptops, phones, CD players,...).

8) PowerCON mains input connection:

For power supply, the VEXO model is equipped with a compatible PowerCON TRUE1 connector. The powerCON TRUE1 is a locking 3 conductor equipment AC connector.

9) Line output connections:

This XLR or 3-pin terminal block output connection should be used to carry line-level output to another active VEXO loudspeaker. It is possible to assign INPUT CH1, INPUT CH2 or MONO MIX for LINE OUTPUT connection.

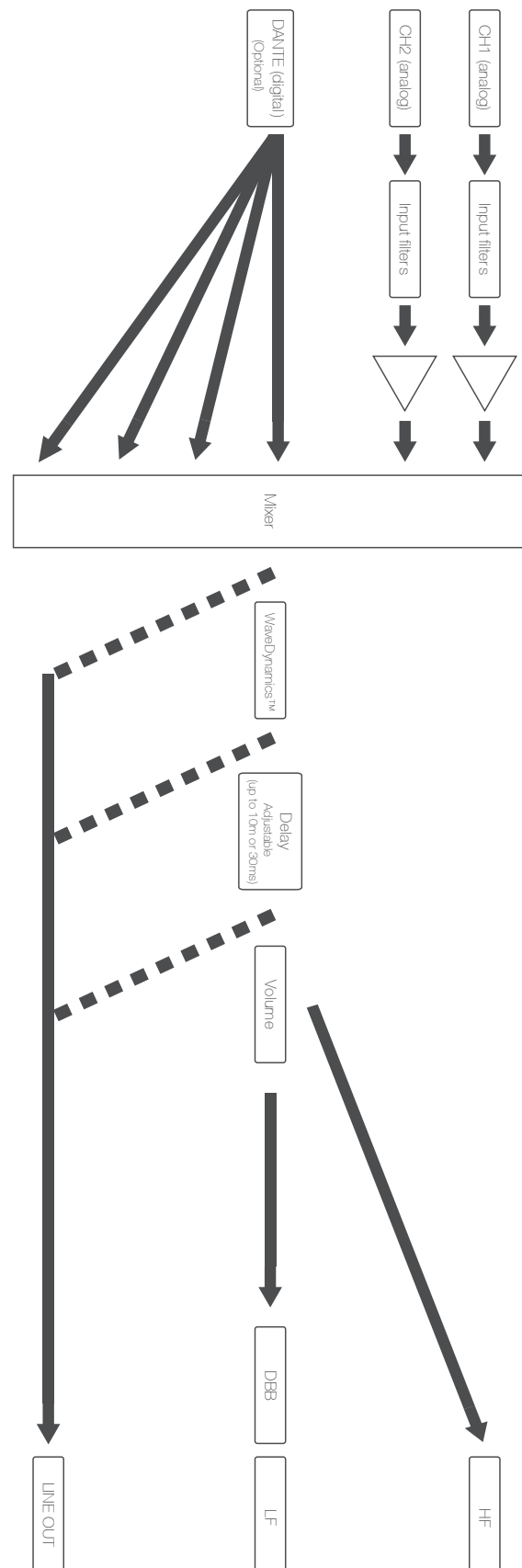
In factory default, LINE OUTPUT signal will be set to 'full range'. The full factory default settings are available at the end of this user manual.

10) Integrated 35 mm pole adapter at the bottom of the device:

The pole adapter makes it possible to install the VEXO quickly and conveniently on speaker stands with a tube diameter of 35 mm.

Block diagram DSP structure

The VEX01xxA features a digital signal processor specially designed for delivering outstanding performance from inputs to outputs. In this block diagram, an overview of the processor's operation is shown.



DSP functions

DSP functions can be adjusted via AUDAC Touch2™ app when the ANI44XT module is installed. The AUDAC Touch™2 app can be downloaded for free from the AUDAC website, Google play or Apple App store. The default administrator password (access to all functions) is “VEXO” and the default user password (access to basic functions) is “user”. If you want to make changes to the settings, you must log in with the administrator password.

After adjustment, DSP adjustments can be exported into a USB and loaded to other VEXO1xxAs using the USB port.

How to save a settings file from a VEXO1xxA to a USB drive (as backup, or to duplicate to another cabinet)

- Save a SET file to a USB (in a box format like in the email)
- Make a folder AUDAC in the root of the USB drive
- Create SaveSET.txt in this audac folder
- Place the USB drive into the USB port VEXO1xxA
- The USB LED will blink shortly
- The SET file can be found in the AUDAC folder

How to load a settings file into VEXO1xxA:

- Upload a SET file to the VEXO1xxA (in a box format like in the email)
- Copy a VEXO1xxA SET file into AUDAC folder in the root of the USB drive. (eg: myVexoSettings.SET)
- Place the USB drive into the USB port VEXO1xxA
- The USB LED will blink shortly
- Settings are now copied to the VEXO1xxA

Adjustable DSP functions:

Line out selectable: In order to link two or more VEXO1XXAs, the output signal can be routed either through XLR or terminal block.

Talkover: The talkover functionality ducks other music sources to a certain level so spoken messages can be heard.

Maximum volume: This function allows you to manually set a maximum level on the output of the VEXO1XXA. This limitation is useful to prevent accidentally playing too loud sound or damaging the speaker.

Delay: A maximum of 31 milliseconds of delay can be set on all outputs, to compensate for a maximum distance of 10.54 meters between audio sources. For convenience, distance information is shared under the delay time.

WaveTune™: WaveTune provides installers and end-users with an intuitive tool for adjusting audio processing. At the moment it replaces the equalizer functionality. We aim to include all types of filters for management with WaveTune.

Auto mute: The auto mute will automatically mute the amplifier when the level of the input signal is below a certain predefined level. This eliminates unwanted noise caused by an unused input on the outputs. This works separately for both output channels.

Antiphase: Anti-phase feature inverts the output signal phase to avoid any phase cancellations due to loudspeaker placing.

Standby: When standby mode is enabled a default standby time is 20 minutes and can be adjustable via AUDAC Touch™ 2 app.

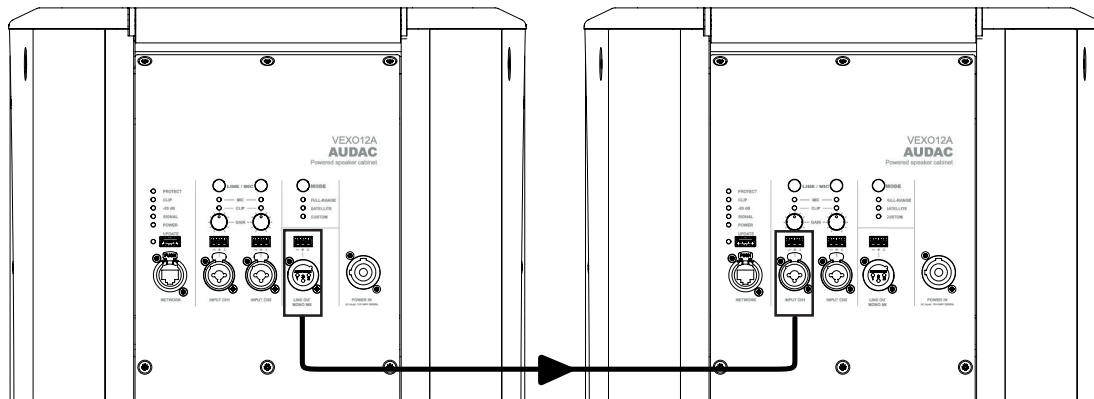
Dynamic bass boost: Dynamic bass boost applies a correction filter on the low frequencies depending on the low-frequency level of the content. This correction makes the reproduction warm and detailed at low volumes. The same correction filter reduces the low-frequency levels at the higher volumes, allowing the loudspeaker to handle higher sound pressure levels with less distortion.

TouchLink™: TouchLink™ is a system that can be used for creating virtual zones by linking multiple compatible devices with each other. In AUDAC Touch™ 2 you can select multiple devices or outputs that should react to the user as one zone.

Connecting VEXO1xxA

Linking two or more VEXO1xxA:

Insert an XLR cable or terminal block into the 'LINE OUT' output of the first VEXO1xxA. The other end of this cable can be connected to the next VEXO1xxA's 'INPUT CH1' or 'INPUT CH2'. Make sure to set or load the same DSP settings on all of the speakers to avoid unpleasant listening experience. You can repeat these steps for as many speakers as you desire.



Updating VEXO1xxA

The USB slot can also be used for firmware updates to the cabinet. The VEXO1xxA firmware is constantly being improved for better performance. The new firmware files (*.img files) will be available for download from the VEXO1xxA product page on the AUDAC website. Please check www.audac.eu for updates.

Loading firmware updates:

Firmware updates can be performed by copying the firmware files to a USB drive and placing the USB drive into the USB port of VEXO1xxA. These updates are only required for servicing and/or when implementing new functionalities to the system. They are not required to be performed by the user. Please contact your distributor/seller/technical service for further assistance.

Make sure the files are stored inside the root of the USB drive and the filename is: 'PX2XX.IMG'. (The complete file path should be '..\PX2XX.IMG')

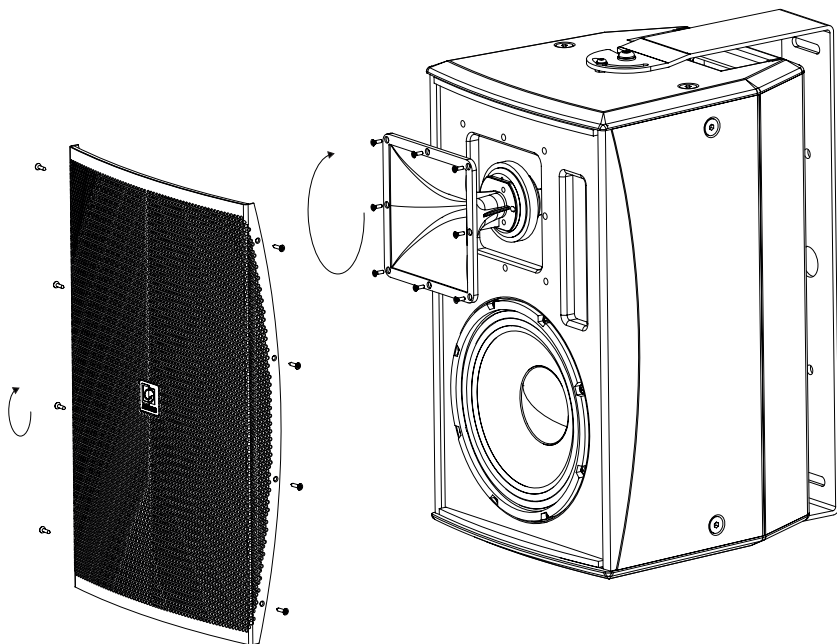
For loading the firmware update, simply insert the USB memory drive into the USB port of the VEXO1xxA. The firmware update files will be automatically discovered and loaded when stored in the correct path.

If the new firmware on the USB is the same as the one already installed on the VEXO1xxA, nothing will happen.

The POWER LED will blink when the data transfer is active. Make sure the data transfer is complete (LED stopped blinking) before the USB drive is removed. During the firmware update process, the first MIC light will turn green. Loading the firmware update can take several minutes before complete. When the update is completed the POWER LED will turn blue.

Horizontal mounting - rotate the horn

By default, on vertical mounting, the horn coverage pattern is 90° vertical and 70° horizontal. If the speaker is mounted horizontally, the horn must be rotated 90°. This is needed to maintain the correct coverage pattern (90° x 70°).

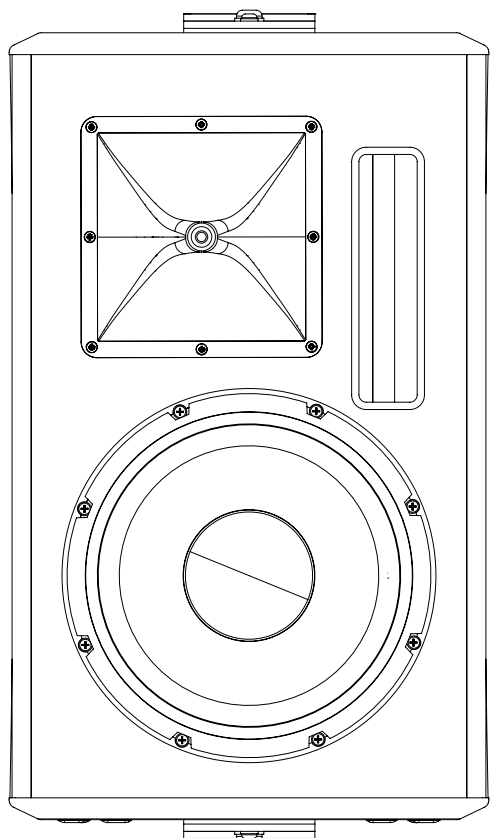


To rotate the VEXO1xxA's horn, the grille must be removed first. To do this, the eight screws on the sides must be unscrewed.

Once the grille is removed, the eight screws that holds the horn must be unscrewed. Once these are unscrewed, the horn can be rotated 90°.

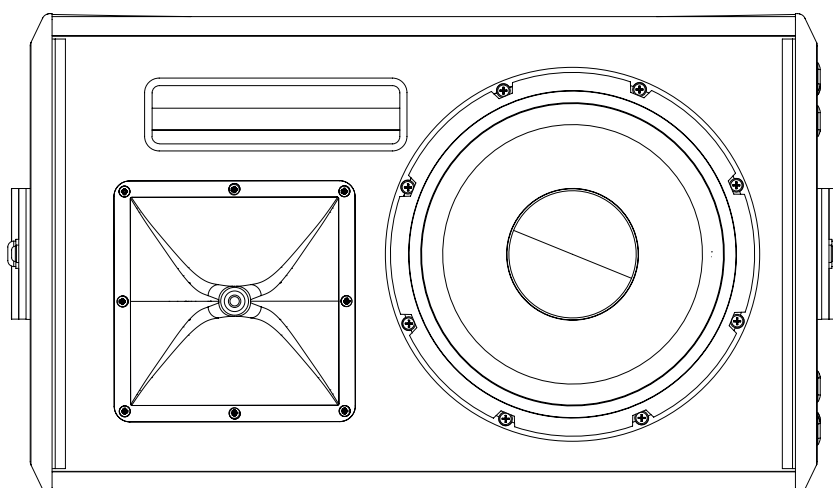
After the horn is rotated, the horn and the grille can be reattached using the same screws respectively.

The AUDAC logo can be also rotated. No tools are required for this. Simply, pull the logo out slightly and rotate it.



In case of uncertainty, check the rotation of the horn to ensure the best sound experience.

Compare the position of the horn with the corresponding drawings.



Technical specifications

	VEXO110A	VEXO112A	VEXO115A
Peak Power handling	1200 Watt	1600 Watt	2000 Watt
Program Power handling	450 Watt	600 Watt	750 Watt
RMS/AES power handling	300 Watt	400 Watt	500 Watt
Nominal impedance	8 Ohm	8 Ohm	8 Ohm
Sensitivity 1W/1m	96 dB	99 dB	100 dB
Sound pressure Max W/1m	121 dB	125 dB	127 dB
Frequency response - 3dB	65 Hz - 20 kHz	58 Hz - 20 kHz	50 Hz - 20 kHz
Drivers	1.7" HF compression horn tweeter 10" MF / LF woofer 12" MF / LF woofer 15" MF / LF woofer		
Coverage	90° x 70° (rotatable)		
Connectors	Input	Balanced 3.81mm 3-pin Terminal block Combo Balanced XLR / 6.3 mm Jack Remote control RJ45 (Optional with ANI44XT module)	
	Output (linkthrough)	XLR/M connector 3.81 mm 3-pin Terminal block connector	
Power consumption	Standby	3.3W	
	Idle	22W	
	1/8 rated output power	90W	
	1/3 rated output power	190W	
Construction	Plywood with Polyurethane coating		
Front finish	Powder coated steel grill with acoustical foam		
Rigging points	10 x M10 (2 x top, 3 x bottom, 2 x each side, 1 x rear)		
Pole socket	35 mm pole adapter on bottom		
Handle	1 x on top		
Mounting pattern	108 x 50.8 mm	127 x 70 mm	127 x 70 mm
Colour	White (RAL9003) Black (RAL9004)		
Dimensions (w x h x d)	329 x 40 x 345 mm	369 x 610 x 390 mm	429 x 690 x 450 mm
Weight	17.7 Kg	23.3 Kg	28.9 Kg
Optional accessories	ANI44XT Dante module Wall & ceiling mounting bracket (MBK series)		

Factory defaults settings

Input	Gain	Line
	Wavetune	Disabled
	Gain	0 dB
	Frequencies	60. 150. 400. 100. 2600. 6800. 15 000
	Q-factor	0.7
	Boost	0 dB
Output	Talk over	Disabled
	Threshold	50 dB
	Matrix level	60 dB
	Talk over level	0 dB
	Attack	500 ms
	Hold	500 ms
	Decay	500 ms
	Max volume	0 dB
	Wavetune	Disabled
	Gain	0 dB
	Frequencies	60. 150. 400. 100. 2600. 6800. 15 000
	Q-factor	0.7
	Boost	0 dB
	Auto mute	Enabled
	Threshold	-100 dB
	Hold time	1500 ms
Output settings	Anti phase	Disabled
	Standby timeout	Enabled
		1200 s
	Dynamic bass boost	Disabled
	Mode	Full range
	Signal	Signal+EQ+Delay