

WX_{mk2} series

Outdoor

User & Installation

Manual



www.audac.eu

Introduction

Outdoor universal wall speaker

The WX series are 2–way performance speakers suited for a wide variety of applications, delivering true to nature, high fidelity reproductions of music and speech.

The outdoor series make the difference through a drain hole which makes sure the moisture flow out when condensation occurs and a special designed waterproof AWX5™ connector lets you set the power for the speakers in three adjustable steps for 70V/100V and low impedance applications. The speaker is available in three sizes, 3", 5 1/4" and 8". All speakers are available in black and white, making them blend into every environment,

The enclosure is made of durable weather & UV resistant ABS while the grill and mounting bracket and grill are made out of powder coated aluminium, making them even more resistant to extreme weather conditions.

For optimal directional placement, the included mounting bracket allows for horizontal or vertical mounting as well as focusing of the speaker in the desired direction.

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.
- ALWAYS FOLLOW THE LOCAL REGULATIONS AND REQUIREMENTS REGARDING INSTALLATION, SUSPENSION AND CONNECTION OF THIS LOUDSPEAKER. EVEN WHEN OTHERWISE SPECIFIED IN THIS DOCUMENT.
- THE INSTALLATION OF THIS LOUDSPEAKER SHALL BE DONE BY QUALIFIED PERSONNEL ONLY.

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.

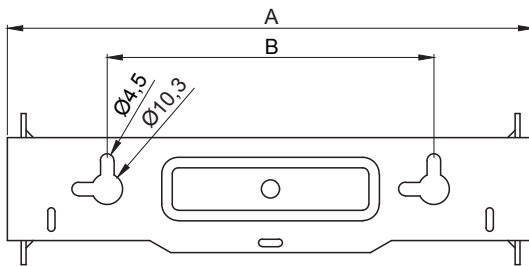
Installing the WXMK2

Mounting the speaker

The loudspeaker can be mounted both horizontally and vertically through the supplied mounting bracket. For mounting the loudspeaker on the desired mounting location, the mounting bracket should be removed from the loudspeaker, which is done through loosening the thumbscrews on either side of the loudspeaker. After this is done, the bracket can be taken apart from the loudspeaker.

For a stable mounting of the loudspeaker it should always be fastened by two screws. The position of the mounting holes depends on the mounting orientation, horizontally or vertically. The fixation points of the bracket should be marked on the desired location and the bracket can get mounted. The type of used fasteners shall be chosen according to the most suitable type for the mounting surface (brick, concrete, wood, ...).

The bracket dimensions and mounting hole positions are indicated in the below drawing and table for the various sizes of speakers.



Model	Dimension A	Dimension B
WX302MK2	174 mm	108 mm
WX502MK2	219 mm	160.4 mm
WX802MK2	358 mm	248 mm

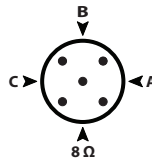
Once the bracket is mounted onto the desired position, the speaker can be re-assembled to the bracket by inserting and tightening both thumb screws on either side of the speaker. The speaker can be tilted in various steps of inclination into the desired listening direction.

Connecting the speaker

The WX series loudspeakers are designed for use in 70V and 100V public address systems. Before connecting the loudspeakers to the system, make sure the amplifier is switched off.

The power tap selection of the WX outdoor series speakers is made through the orientation of the waterproof AWC5™ connector on the rear side of the loudspeaker. This allows connection to the amplifier output using the included connection cable (AWC07) with a length of 0.7 meter. The blue conductor shall always be connected to the COM terminal of the amplifier output and red conductor shall always be connected to the positive terminal of the amplifier output. Mind the polarity markings when wiring the loudspeaker cables.

The power tap selection is made by adjusting the rotation angle of the waterproof connector. A dot on the connector indicates the direction of the connector and the various power tapings are indicated on a label attached to the speaker and in the image below.



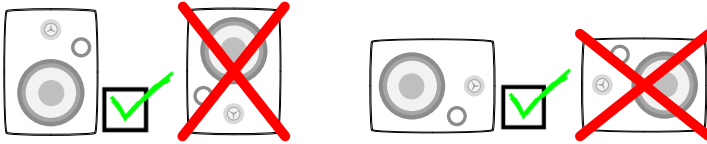
Tapping	WX302/0x			WX502/0x			WX802/0x		
	100V	70V	Imp.	100V	70V	Imp.	100V	70V	Imp.
A	DO NOT USE	20 W	250 Ω	DO NOT USE	40 W	125 Ω	DO NOT USE	60 W	83 Ω
B	20 W	10 W	500 Ω	40 W	20 W	250 Ω	60 W	30 W	167 Ω
C	10 W	5 W	1000 Ω	20 W	10 W	500 Ω	30 W	15 W	333 Ω

After the connector is correctly plugged into the socket, make sure the screw nut is well tightened to guarantee the IP55 waterproof performance of the loudspeaker.

When mounting the speaker to any wall or ceiling, make sure the mounting surface can structurally support the weight of the speaker and the appropriate fasteners are used depending of the mounting surface. (brick, wood, concrete, ...)

ATTENTION (ONLY FOR WX802/0x)

To make sure that no rain or other liquids can enter the loudspeaker when mounted outside, a special construction is provided at the inner side of the bass port. This construction is only functional when the loudspeaker is mounted in the correct position. The loudspeaker must be mounted according to the woofer orientation as shown below. When mounting upright, the tweeter shall be on top of the woofer, when mounted sideways the tweeter shall be on the right side of the woofer.



Additional Information

Technical specifications

	WX302/0x	WX502/0x
Max Power	60 Watt	100 Watt
RMS Power	30 Watt	50 Watt
Nominal impedance	8 Ω	8 Ω
Line transformer taps	250 Ω – 70V/20W 500 Ω – 100V/20W – 70V/10W 1k Ω – 100V/10W – 70V/5W	125 Ω – 70V/40W 250 Ω – 100V/40W – 70V/20W 500 Ω – 100V/20W – 70V/10W
Sensitivity (1W/1m)	85 dB	87 dB
Sound pressure (Max W/1m) @ 8 Ohm	100 dB	104 dB
Sound pressure (Max W/1m) @ 100 V	95 dB	102 dB
Frequency response (± 3 dB)	90 Hz – 18 kHz	70 Hz – 18 kHz
Frequency range (–10 dB)	60 Hz – 20 kHz	55 Hz – 20 kHz
Dispersion	Horizontal 100° Vertical 100°	110° 110°
Drivers	1" HF + 3" LF	1" HF + 5 1/4" LF
Cross-over network	Passive built-in (2.5 kHz)	Passive built-in (2.5 kHz)
Connectors	AWX5™	AWX5™
Mounting bracket	Powder coated aluminium	Powder coated aluminium
Construction	ABS enclosure	ABS enclosure
Front finish	Fine perforated aluminium grill	Fine perforated aluminium grill
Ingress protection	IP55	IP55
Operation temperature range	–25°C to +70°C	–25°C to +70°C
Incline angle	0 ~ 90° left & right	0 ~ 90° left & right
Colour	White WX302MK2/OW (RAL9003) Black WX302MK2/OB (RAL9005)	White WX502MK2/OW (RAL9003) Black WX502MK2/OB (RAL9005)
Dimensions (W x H x D)	199 x 129 x 120 mm	212 x 147 x 136 mm
Weight	1.66 Kg	2.75 Kg
Packaging	Carton box (pair)	Carton box (pair)
Shipping weight & Volume	3.64 Kg – 0.014 Cbm	5.5 Kg – 0.018 Cbm
Accessories included	AWC07 cable (0.7 meter) Mounting bracket	AWC07 cable (0.7 meter) Mounting bracket
Optional accessories	AWCxx cables (various lengths)	AWCxx cables (various lengths)

WX802/Ox

Max Power	140 Watt
RMS Power	70 Watt
Nominal impedance	16 Ω
Line transformer taps	83 Ω – 70V/60W 167 Ω – 100V/60W – 70V/30W 333 Ω – 100V/30W – 70V/15W
Sensitivity (1W/1m)	89 dB
Sound pressure (Max W/1m) @ 8 Ohm	108 dB
Sound pressure (Max W/1m) @ 100 V	106 dB
Frequency response (\pm 3 dB)	60 Hz – 17 kHz
Frequency range (-10 dB)	50 Hz – 20 kHz
Dispersion	Horizontal 110° Vertical 110°
Drivers	1" HF + 8" LF
Cross-over network	Passive built-in (2.4 kHz)
Connectors	AWX5™
Mounting bracket	Powder coated aluminium
Construction	ABS enclosure
Front finish	Fine perforated aluminium grill
Ingress protection	IP55
Operation temperature range	-25°C to $+70^{\circ}\text{C}$
Incline angle	0 ~ 90° left & right
Colour	White WX802MK2/OW (RAL9003) Black WX802MK2/OB (RAL9005)
Dimensions (W x H x D)	270 x 360 x 215 mm
Weight	7.5 Kg
Packaging	Carton box (pair)
Shipping weight & Volume	15.2 Kg – 0.064 Cbm
Accessories included	AWC07 cable (0.7 meter) Mounting bracket
Optional accessories	AWCxx cables (various lengths)

