ALTIx4 Series
User & Installation Manual
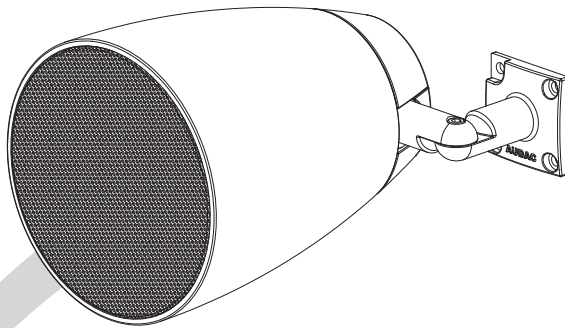
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Introduction
2–Way design wall sound projectors

The ALTIxM series are design wall sound projectors, designed for background and foreground music in both indoor and outdoor applications. They are variants of the ALTI series pendant loudspeakers allowing the same audio system design and identity for throughout the entire installation in case some area's are not allowing pendant solutions being used due to the ceiling heights or structures. Typical applications are big scale retail environments, warehouses and other large open spaces

The elegant construction is finished using high grade materials and fitted with premium acoustic components. This guarantees clear speech intelligence and a warm and detailed sound reproduction.

Mounting the speaker is done through a 2–way revolving mounting bracket system, and connections are made through a waterproof AWX–5 connection terminal. An innovatively designed rear cover of the speaker can be placed after installation and hides the connection.

The 2–way combination with a coaxially mounted 1" soft dome tweeter and is fitted with a phase plug for excellent off axis performance. The high quality polypropylene enclosure and acoustic engineering craftmanship guarantees premium performance for demanding applications.

They come in two different models (ALTI4M and ALTI6M) in terms of size and power handling. A multi–tapping line transformer allows them to be connected to 70V/100V public address systems with various power settings, while connections in low impedance (16Ω) 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.

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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 houshold 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 ALTI
2–Way revolving mounting bracket

The ALTIxM speakers are delivered with a 2–way revolving wall bracket system, allowing the speaker for being installed at each location. The wall bracket can be installed in a horizontal and vertical direction, allowing the speaker for being focussed into any desired direction, even when the installation distance to the wall or ceiling is limited.

The two–way revolving bracket is made out of die–cast zinc alloy material which ensures a solid and secure mounting of the loudspeaker. The wall bracket has to be fixed to the wall by four screws. The used fasteners shall be chosen according to the mounting surface where the speaker will be installed to (brick, concrete, wood, ...). The holes should be provided in a quadrangular shape as shown in following drawing. The mutual distance between the holes is 45 x 45 mm.
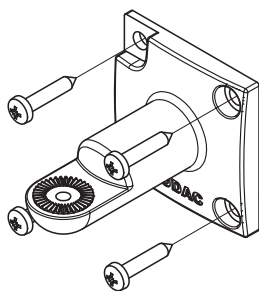

Once this part is correctly mounted to the desired location on the wall or ceiling, the cabinet can be assembled to the bracket. This is done through inserting the supplied bolt (M6) through the hole in the bracket (speaker part) and tighten it into the wall or ceiling part.


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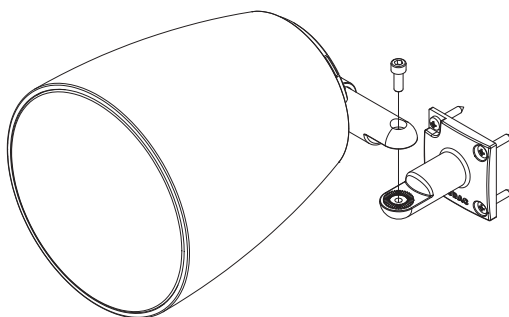
Connecting the speaker

The ALTIxM speakers 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.
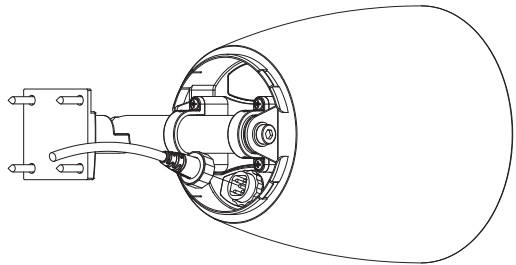
The power tap selection of the ALTIxM outdoor series speakers is made through the orientation of the waterproof AWX5™ connector on the rear side of the loudspeaker. This allows connection to the amplifier output using the included connection cable (AWC07) with a length of 0.7 meter. The blue conductor 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 tappings are indicated on a label attached to the speaker and in the image below.
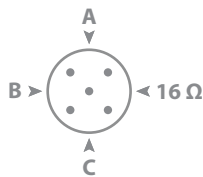
	ALTI4M			ALTI6M		
Tapping	100V	70V	Imp.	100V	70V	Imp
A	DO NOT USE	24 W	208 Ω	DO NOT USE	60 W	83 Ω
B	24 W	12 W	417 Ω	60 W	30 W	167 Ω
C	12 W	6 W	833 Ω	30 W	15 W	333 Ω

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.
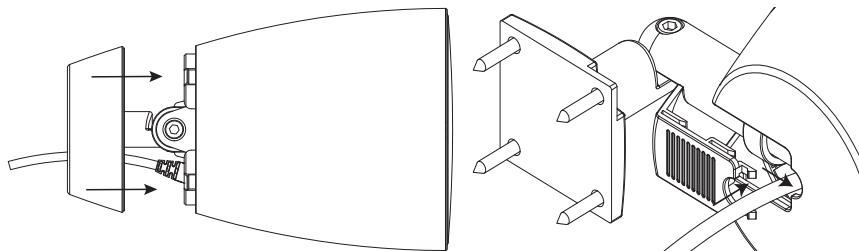
Adjusting the angles

The speakers direction can be adjusted in 2 different angles. The image below shows in which direction the adjustment is possible. The direction of the speakers can be done by loosen the screws, positioning the speakers and firmly tighten the screws for fixation.
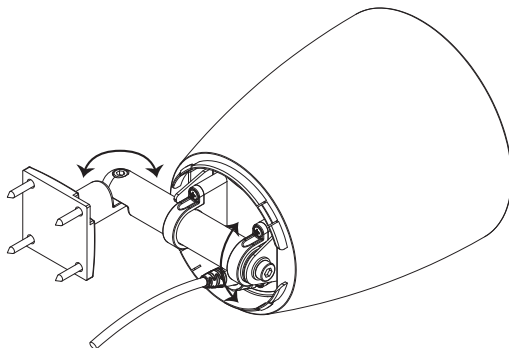
Attaching the rear cover

The last step in the installation process of the loudspeaker is the assembly of the cover to the rear side of the cabinet. The cover is designed in two parts, a cover and a sliding tab which can be taken out, allowing it being assembled after the speaker is mounted and connected.

Position the cover on the rear of the cabinet, and it will click and latch in position. Once assembled, the sliding tab can be inserted to the cover and can be slide into position, offering a nice and clean outlook of the cabinet.

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Additional Information
Technical specifications

	ALTI4M	ALTI6M
Max Power	60 Watt	120 Watt
Continuous power (AES)	30 Watt	60 Watt
Nominal impedance	16 Ohm	16 Ohm
Line transformer taps	208 Ω – 70V/24W	83 Ω – 70V/60W
	417 Ω – 100V/24W – 70V/12W	167 Ω – 100V/60W – 70V/30W
	833 Ω – 100V/12W – 70V/6W	333 Ω – 100V/30W – 70V/15W
Sensitivity 1W/1m	80 dB	83 dB
Sound pressure Max W / 1m	95 dB	101 dB
Frequency response (±3 dB)	85 Hz – 20 kHz	75 Hz – 20 kHz
Frequency range (–10 dB)	65 Hz – 20 Hz	61.5 Hz – 20 Hz
Drivers	1" HF dome tweeter	1" HF dome tweeter
	4" MF/LF woofer	6.5" MF/LF woofer
Cross–over network	Passive built–in	Passive built–in
Connectors	AWX5™ waterproof connector	AWX5™ waterproof connector
Connection cable length	0.7 m	0.7 m
Mounting & handling	2–Way revolving die–cast metal mounting bracket	2–Way revolving die–cast metal mounting bracket
Construction	Polypropylene housing	Polypropylene housing
Front finish	Fine perforated aluminum grill	Fine perforated aluminum gril
Ingress protection	IP55	IP55
Operation temperature range	–20°C to +50°C	–20°C to +50°C
Colour White	ALTI4M/W (RAL9003)	ALTI6M/W (RAL9003)
Black	ALT4M/B (RAL9005)	ALTI6M/B (RAL9005)
Dimensions (Ø x H)	205 x 170 x 257 mm	235 x 230 x 336 mm
Weight	1.5 Kg	4 Kg

Packaging	Carton box	Carton box
Shipping weight & Volume	1.69 Kg – 0.014 Cbm	4.25 Kg – 0.034 Cbm
Accessories included	AWC07 0.7m connection cable	AWC07 0.7m connection cable
	2–Way revolving die–cast metal mounting bracket	2–Way revolving die–cast metal mounting bracket
Optional accessories	AWC25 2.5 m connection cable	AWC25 2.5 m connection cable
	AWC50 5 m connection cable	AWC50 5 m connection cable

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