 **BOSE ArenaMatch Utility AMU Series Small Format Foreground/Fill Loudspeakers**



BOSE ArenaMatch Utility AMU Series Small Format Foreground/Fill Loudspeakers Installation Guide

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BOSE ArenaMatch Utility AMU Series Small Format Foreground/Fill Loudspeakers



Product Information

Specifications

- Models: AMU105, AMU108, AMU108-120, AMU206, AMU208, AMU208-120
- Type: Small-format Foreground/Fill Loudspeakers
- Intended Users: Professional installers
- Manufacturer: Bose Professional
- Website: [BoseProfessional.com](https://www.boseprofessional.com)

Important Safety Instructions

Please read and keep all safety and use instructions.

This product is intended for installation by professional installers only! This document is intended to provide professional installers with basic installation and safety guidelines for this product in typical fixed-installation systems. Please read this document and all safety warnings before attempting installation.

Do not attempt to service this product yourself. Refer all servicing to authorized service centers, installers, technicians, dealers or distributors. To contact Bose Professional or to find a dealer or distributor near you, visit [BoseProfessional.com](https://www.boseprofessional.com).

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
6. Only use attachments/accessories specified by the manufacturer.

7. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.

When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

WARNINGS/CAUTIONS

- Contains small parts which may be a choking hazard. Not suitable for children under age 3.
- This product contains magnetic material. Consult your physician on whether this might affect your implantable medical device.

All Bose Professional products must be installed in accordance with local, state, federal and industry regulations. It is the installer's responsibility to ensure installation of the loudspeakers and mounting system is performed in accordance with all applicable codes, including local building codes and regulations. Consult the local authority having jurisdiction before installing this product.

Unsafe mounting or overhead suspension of any heavy load can result in serious injury or death, and property damage. It is the installer's responsibility to evaluate the reliability of any mounting method used for their application. Only professional installers with the knowledge of proper hardware and safe mounting techniques should attempt to install any loudspeaker overhead.

Do NOT make unauthorized alterations to this product.

Do not mount on surfaces that are not sturdy, or that have hazards concealed behind them, such as electrical wiring or plumbing. If you are not sure about installing the bracket, contact a qualified professional installer. Ensure the bracket is installed according to local building codes.

Do not use hydrocarbon based solvents, lubricants or cleaning agents of any type on or around Bose Professional speakers, and associated mounting hardware, during installation. The use of such hydrocarbon based lubricants, solvents or cleaning agents on or around the mounting anchors and screws can lead to degradation of the plastic material, possibly resulting in cracking and premature failure of the product.

Keep the product away from fire and heat sources. Do NOT place naked flame sources, such as lighted candles, on or near the product.

Regulatory Information



This product conforms to all applicable EU directive requirements. The complete Declaration of Conformity can be found at the product-specific page: [BoseProfessional.com](https://www.boseprofessional.com).




This product conforms to all applicable Electromagnetic Compatibility Regulations 2016 and all other applicable UK regulations. The complete declaration of conformity can be found at the product-specific page: [BoseProfessional.com](https://www.boseprofessional.com)



This symbol means the product must not be discarded as household waste, and should be delivered to an appropriate collection facility for recycling. Proper disposal and recycling helps protect natural resources, human health and the environment. For more information on disposal and recycling of this product, contact your local municipality, disposal service, or the shop where you bought this product.

China Restriction of Hazardous Substances Table

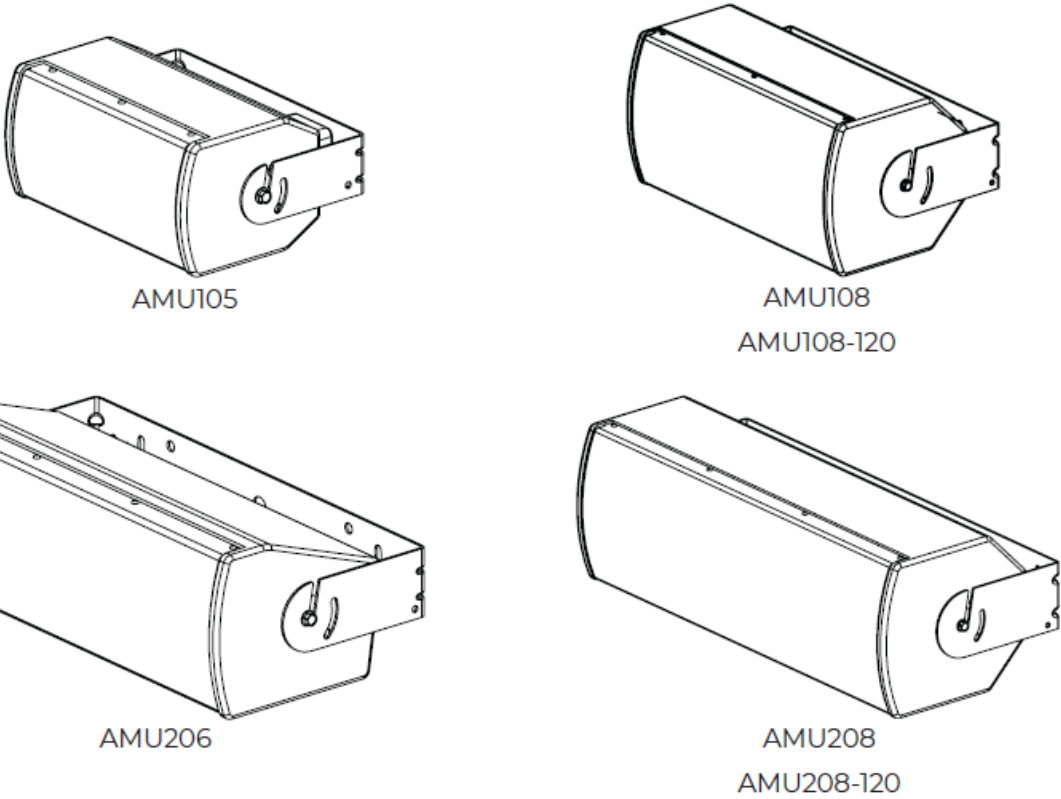
Names and Contents of Toxic or Hazardous Substances or Elements						
	Toxic or Hazardous Substances and Elements					
Part Name	Lead (Pb)	Mercury (Hg)	Cadmium (C d)	Hexavalent (CR(VI))	Polybrominated B iphenyl (PBB)	Polybrominated d iphenylether (PBDE)
PCBs	X	O	O	O	O	O
Metal Parts	X	O	O	O	O	O
Plastic Parts	O	O	O	O	O	O
Speakers	X	O	O	O	O	O
Cables	X	O	O	O	O	O
This table is prepared in accordance with the provisions of SJ/T 11364.						
O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.						
X: Indicates that this toxic or hazardous substance contained in at least one of the homog eneous materials used for this part is above the limit requirement of GB/T 26572.						

Taiwan Restriction of Hazardous Substances Table

Equipment name: ArenaMatch Utility Loudspeakers , Type designation: 811433, 811434, 811435, 811436, 893798, 893797						
	Restricted substances and its chemical symbols					
Unit	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr+6)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
PCBs	—	○	○	○	○	○
Metal Parts	—	○	○	○	○	○
Plastic Parts	○	○	○	○	○	○
Speakers	—	○	○	○	○	○
Cables	—	○	○	○	○	○
<div>1. Note 1: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.</div> <div>2. Note 2: The “—” indicates that the restricted substance corresponds to the exemption.</div>						

Post Netherlands UK, Squires House 205a High Street, West Wickham, BR4 0PH | Japan Importer: Transom Post International Japan KK Co., Ltd. PMO Tamachi IV Shiba5-29-19, Minato-ku, Tokyo | Australia Importer: Transom Post Australia Pty. Ltd., Level 14, 60 Margaret Street, Sydney, NSW 2000 | China Importer: Transom Post (Shanghai) Audio Co. Ltd Room 2209, Building 1, 175 Longyao Road, Xuhui District, Shanghai | Mexico Importer: POST INTL MEXICO, S. DE R.L. DE C.V. Insurgentes Sur No. 1079, 1st floor, Colonia Noche Buena, Benito Juárez, C.P. 03270, Mexico City | UAE Importer: 102 A, Sama

ArenaMatch Utility Loudspeakers



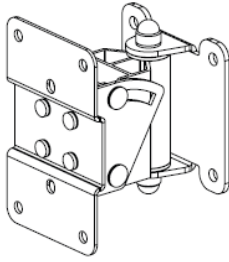
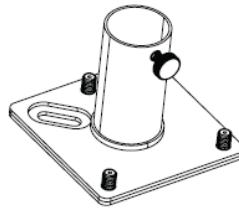
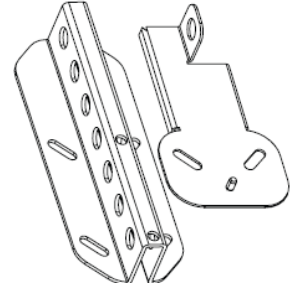
Package Contents

Each ArenaMatch Utility loudspeaker carton includes the following:

	AMU105	AMU108/ AMU108-120	AMU206	AMU208/ AMU208-120
Loudspeaker	1	1	1	1
U-bracket	1	1	1	1
M8 screws	4	4	4	4
M4 screws	4	4	4	4
Input cover	1	1	1	1
Rubber washers	2	2	2	2
T3 square drive	1	1	1	1

Optional Accessories

Note: The optional mounting accessories have not been assessed to EN 54-24.

1**2****3**

1. Surface-Mount Pan and Tilt Bracket
2. AMUPOLEAT Pole Adapter
3. AMURAIL Suspension Rail

Overview

Inspection & Maintenance

WARNING: The loudspeaker and all mounting components must be inspected annually by a qualified professional who is trained and certified in suspending loudspeaker systems. All rigging parts and components used in the suspension of the loudspeaker system should be visually inspected for signs of cracking, bending, water damage, corrosion, de-lamination, or any other condition that could compromise the system's integrity and create a dangerous falling hazard.

Maintaining Weather Resistance

ArenaMatch Utility loudspeakers are rated for direct-exposure outdoor installations. To maintain weather resistance, please observe the following precautions:

1. Before, during, and after installation, check the surface of the loudspeaker enclosure to ensure that the factory-applied, weather-resistant coating has not been damaged.
2. During install, angle the loudspeaker at least 5° downward to reduce the potential of rain compromising the performance of the loudspeaker.
3. All mounting holes must be sealed off with steel screws (included with applicable accessories) or the included plastic plugs (pre-installed).
4. The gland nut that secures the loudspeaker cable is factory sealed. Do not remove the gland nut or the weather-resistant seal will be broken.
5. The loudspeaker is rated for direct-exposure installations, which means the grille is designed to withstand normal and wind-driven rain. The grille is not designed to withstand direct spraying of water from a hose or pressure washer.

CAUTION: If the above instructions are not observed, the weather-resistant integrity of your ArenaMatch Utility loudspeaker could be compromised.

For fire and evacuation notification applications, environmental rated to IP33C per EN 54-24. For general purpose audio installation applications, environmental rated to IP55 per EN60529.

Recommended Tools

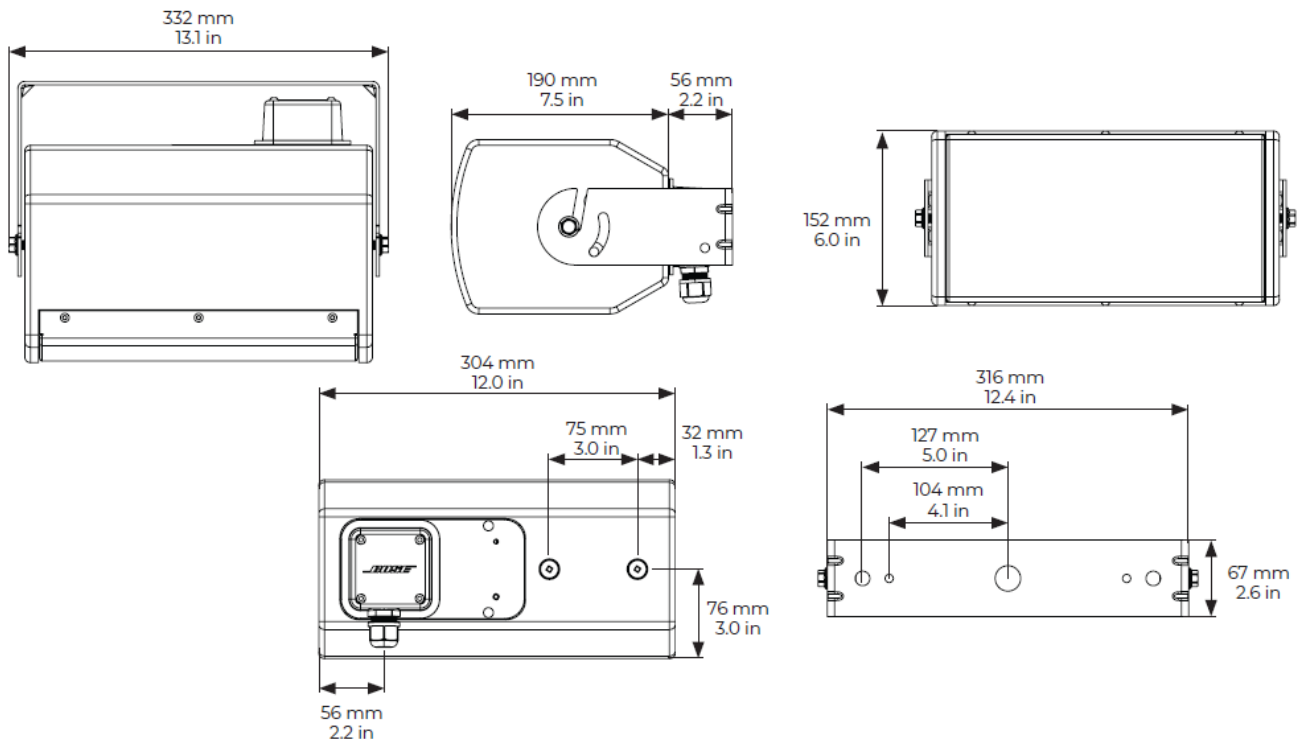
The following tools are recommended for assembly of an ArenaMatch Utility loudspeaker system:

- Flathead screwdriver
- #2 Phillips-head screwdriver
- 10-millimeter socket or wrench
- 5-millimeter hex key
- T3 square drive (included)

Product Dimensions

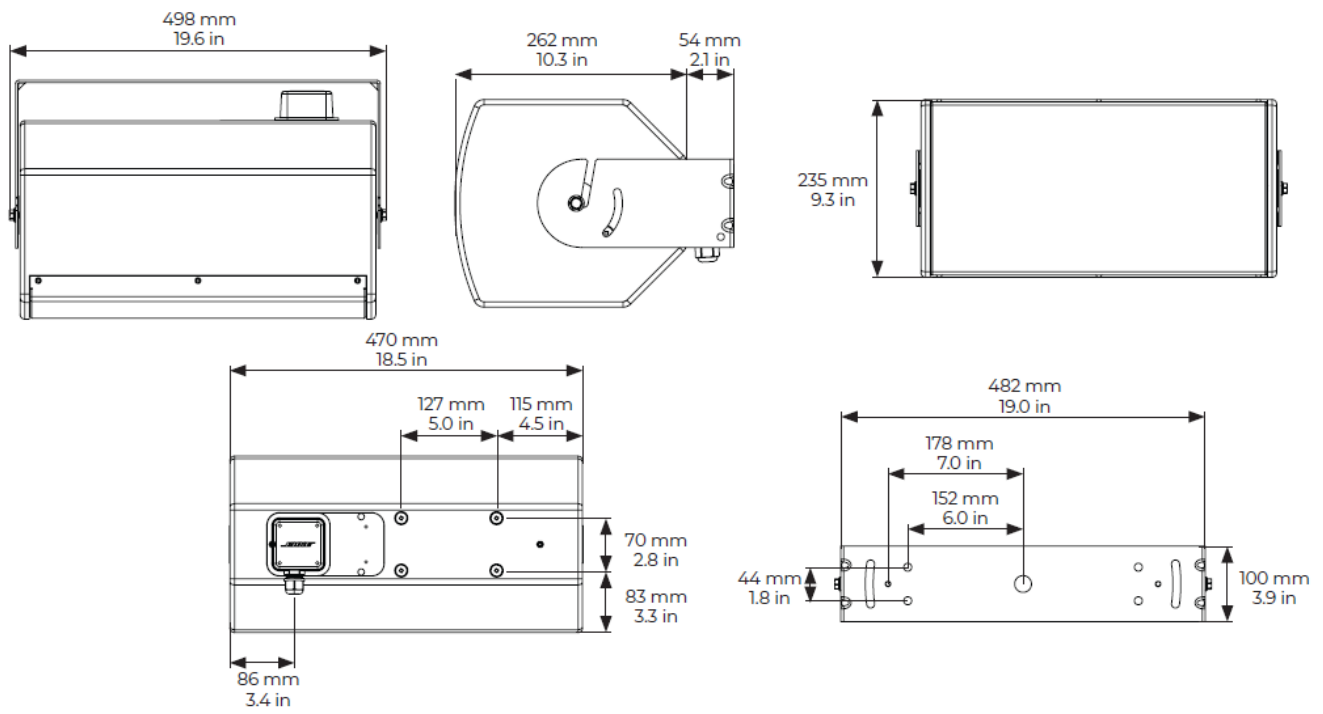
ArenaMatch Utility AMU105

Product net weight: 6.5 kg (14.4 lb) / 7.5 kg (16.5 lb) with U-bracket



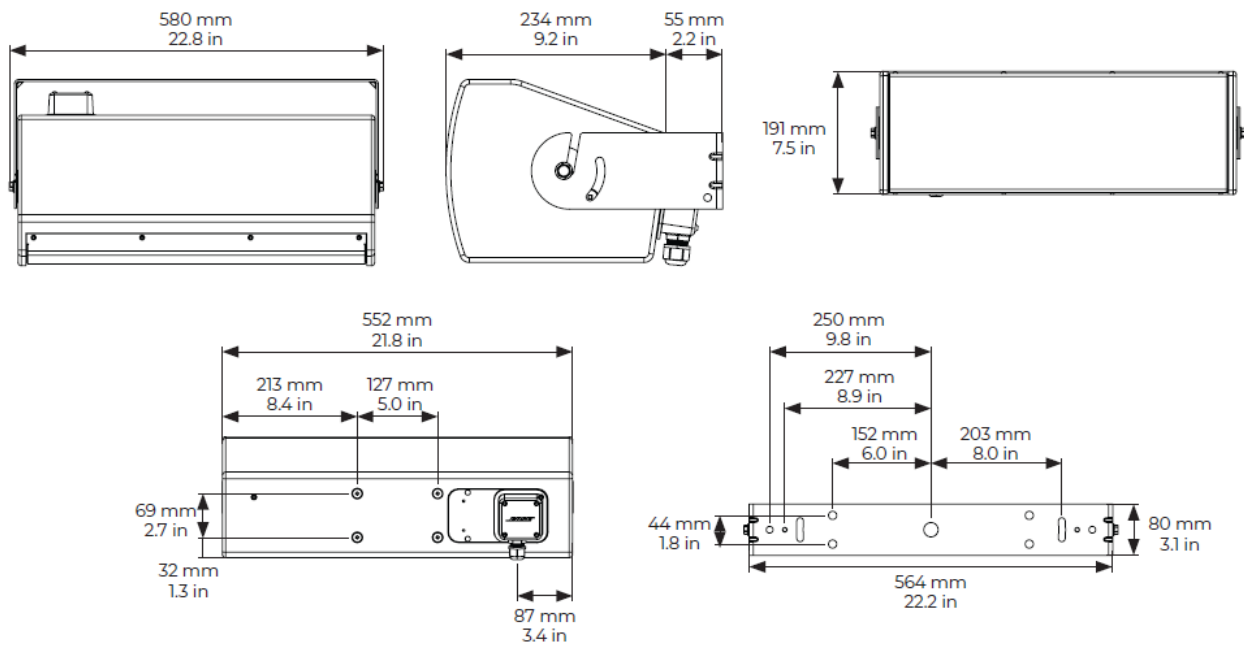
ArenaMatch Utility AMU108 and AMU108-120

Product net weight: 10.6 kg (23.3 lb) / 12.6 kg (27.7 lb) with U-bracket



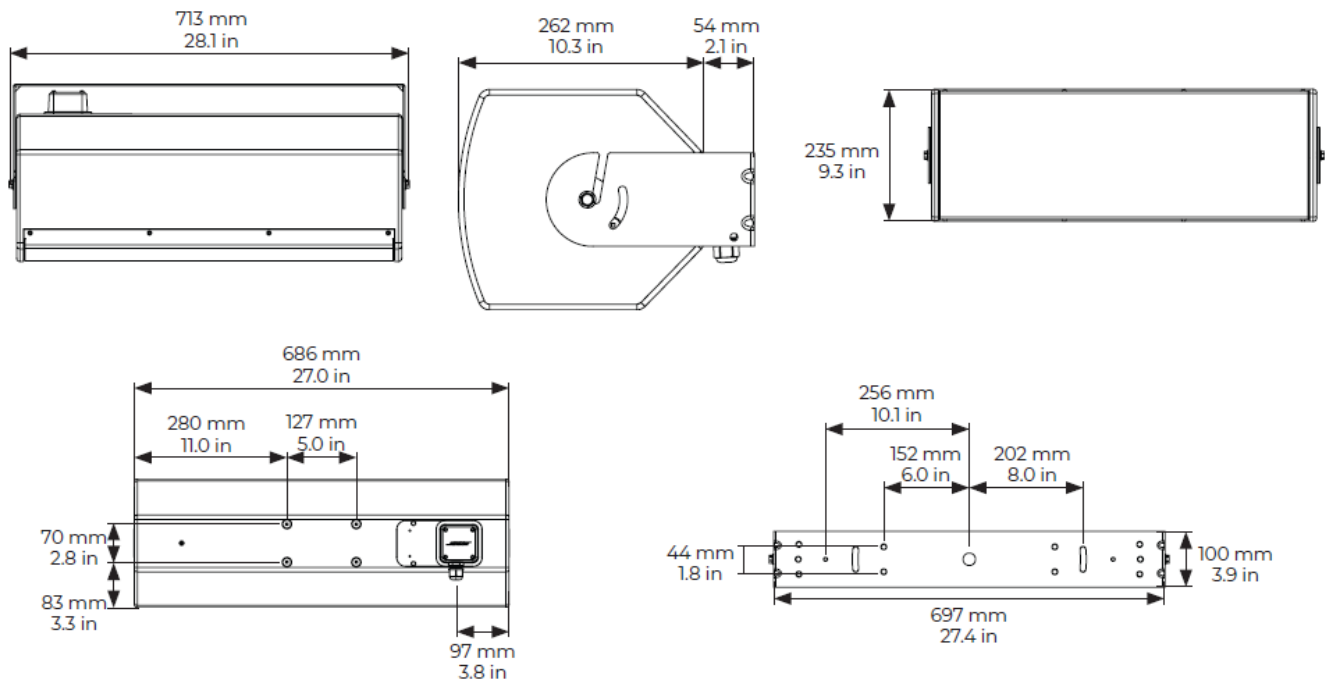
ArenaMatch Utility AMU206

Product net weight: 12.2 kg (26.8 lb) / 13.8 kg (30.5 lb) with U-bracket



ArenaMatch Utility AMU208 and AMU208-120

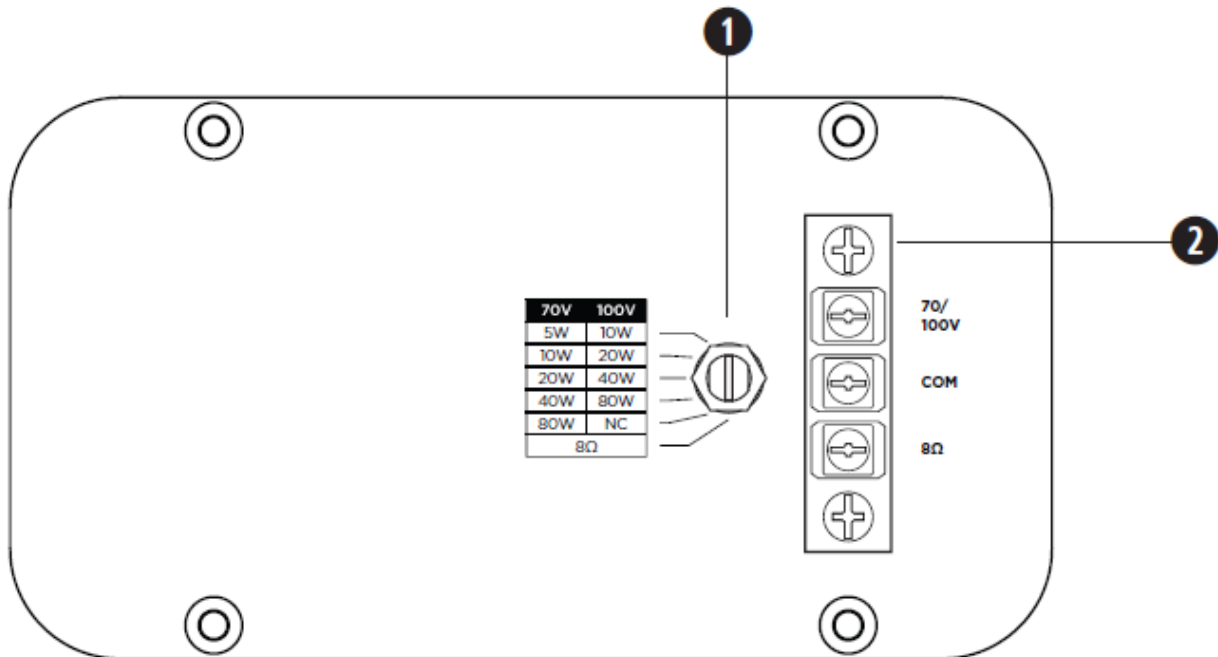
Product net weight: 17.0 kg (37.5 lb) / 19.5 kg (43.0 lb) with U-bracket



Installation

Input Panel

The input panel for all models are identical. They include a single screw-terminal barrier strip. Each terminal accepts a wire gauge of 10 AWG (5.3 mm²) to 18 AWG (0.8 mm²).



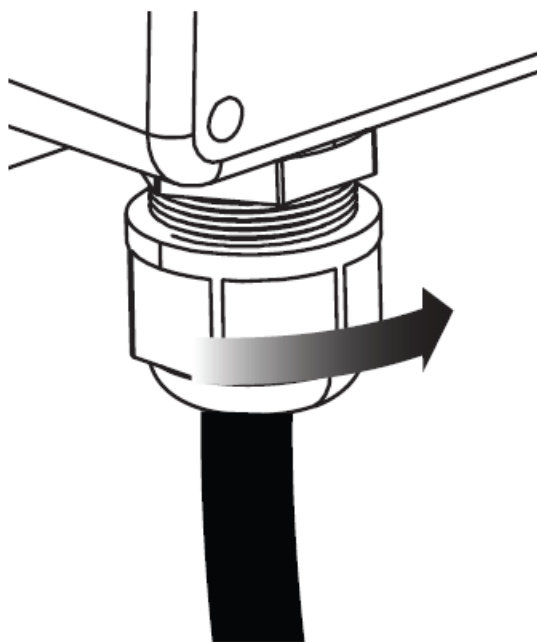
1. **Tap switch:** Rotate to adjust tap setting. Use a flathead screwdriver.
2. Barrier strip

Securing the Wiring

Feed the wiring through the gland nut on the bottom of the input panel. Once you are done wiring your loudspeaker, rotate the gland nut clockwise to seal the wire. Tighten the gland nut by hand until the wire is held firmly in place, then tighten the gland nut an additional quarter turn. Do not over-tighten.

Note: Gland nut is rated IP68.

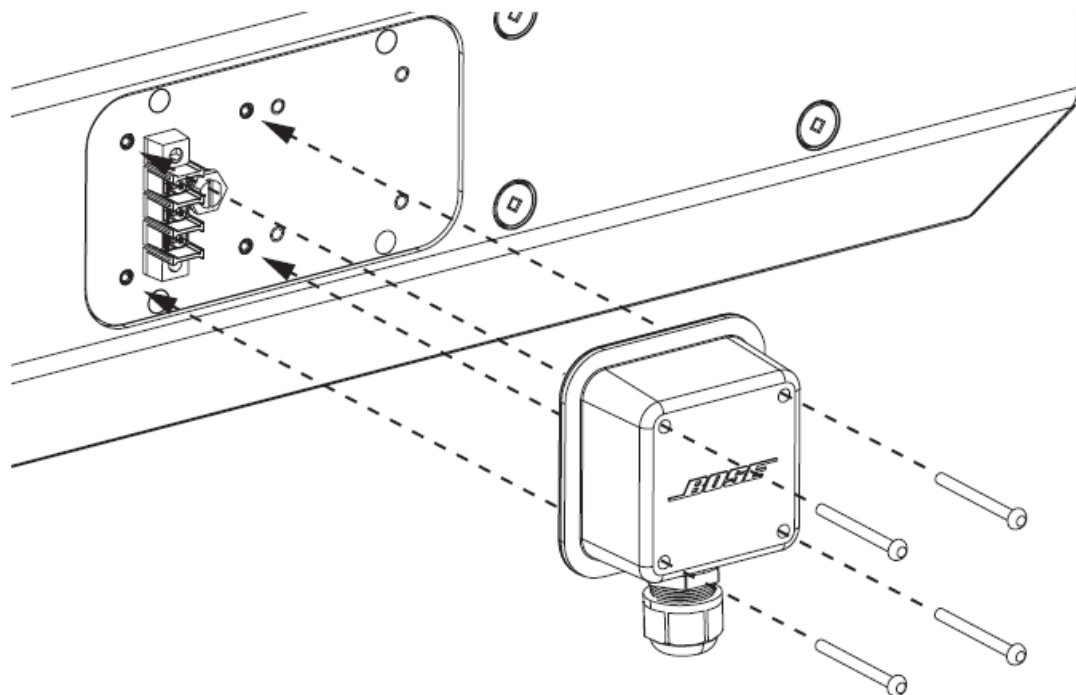
CAUTION: If the gland nut is not properly fastened, water could get into the input panel and damage the loudspeaker.



Attaching the Input Panel Cover

ArenaMatch Utility loudspeakers are shipped with the rear input panel cover not installed. Once you've made input wiring connections, secure the cover over the input panel with the included M4 screws.

Note: The input cover can be rotated to support four different orientations. Always be sure the gland nut and wiring are facing downward.



Loudspeaker Pitch Angles

The maximum pitch angles for AMU loudspeakers when horizontally mounted with the included U-bracket are as follows:

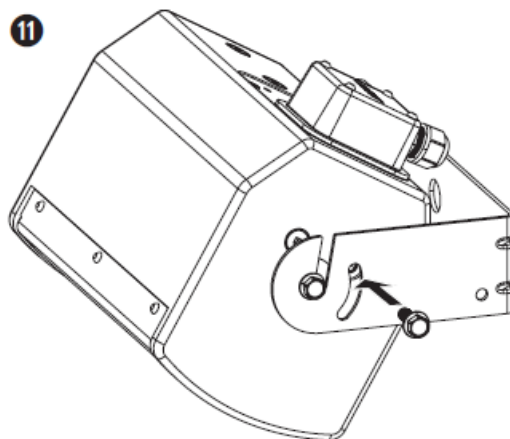
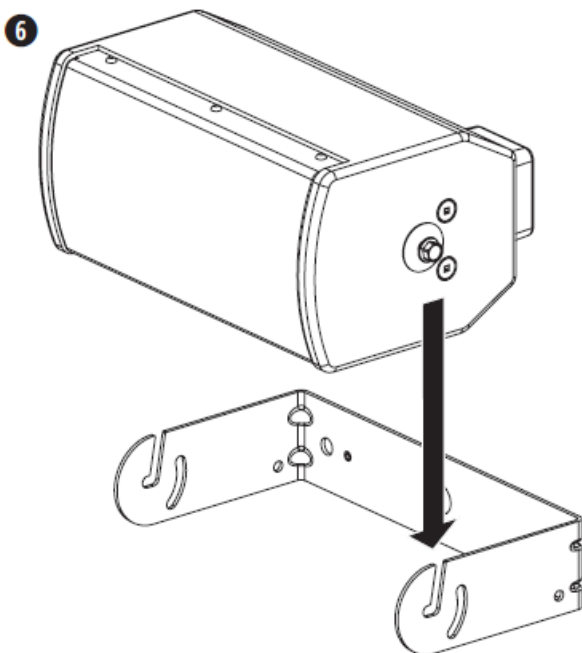
Wall-mounted		Ceiling-mounted
AMU105	–110°	–110°
AMU108	–110°	–110°
AMU108-120	–110°	–110°
AMU206	–110°	–110°
AMU208	–110°	–110°
AMU208-120	–110°	–110°

Note: The pitch angle is defined between the loudspeaker reference axis and the perpendicular axis to the mounting surface.

Mounting AMU Loudspeakers with the U-bracket

CAUTION: Before installation, determine the location and position of your AMU loudspeaker. Only remove the plastic inserts that are necessary for your installation. The plastic inserts are factory sealed to prevent water damage. If any insert is left unsealed after installation, the weather-resistant integrity of your loudspeaker could be compromised.

1. Using the included T3 square drive, remove the center plastic insert and one other insert (determined by your loudspeaker installation design) on each side of the loudspeaker.
2. Insert an M8 screw through a rubber washer and into the center threaded hole on each side of the loudspeaker. Do not tighten.
3. Hold the U-bracket in the mounting location and mark the holes.
4. Drill holes into the mounting surface using previously marked positions.
5. Attach the U-bracket to the building surface using appropriate fasteners (not included).
CAUTION: For attaching U-brackets to a surface, choose fasteners that are consistent with all local building codes and requirements to support the weight of the loudspeaker.
6. Hang the loudspeaker on the bracket by lowering the M8 screws into the bracket slots, keeping the rubber washers between the bracket and the speaker enclosure.
7. Connect your wiring to your loudspeaker.
8. Feed the wiring through the gland nut on the input panel cover and tighten the gland nut (see Securing the Wiring on page 7).
9. Attach the input cover using the included M4 screws (see Attaching the Input Panel Cover on page 8).
10. Position the loudspeaker in your desired pitch angle.
11. Insert an M8 screw through the remaining open insert on each side of the loudspeaker.
12. Tighten the four M8 screws with a 10-millimeter socket tool using a torque not to exceed 13.6 to 20.3 newton-meters (10 to 15 pound-feet).

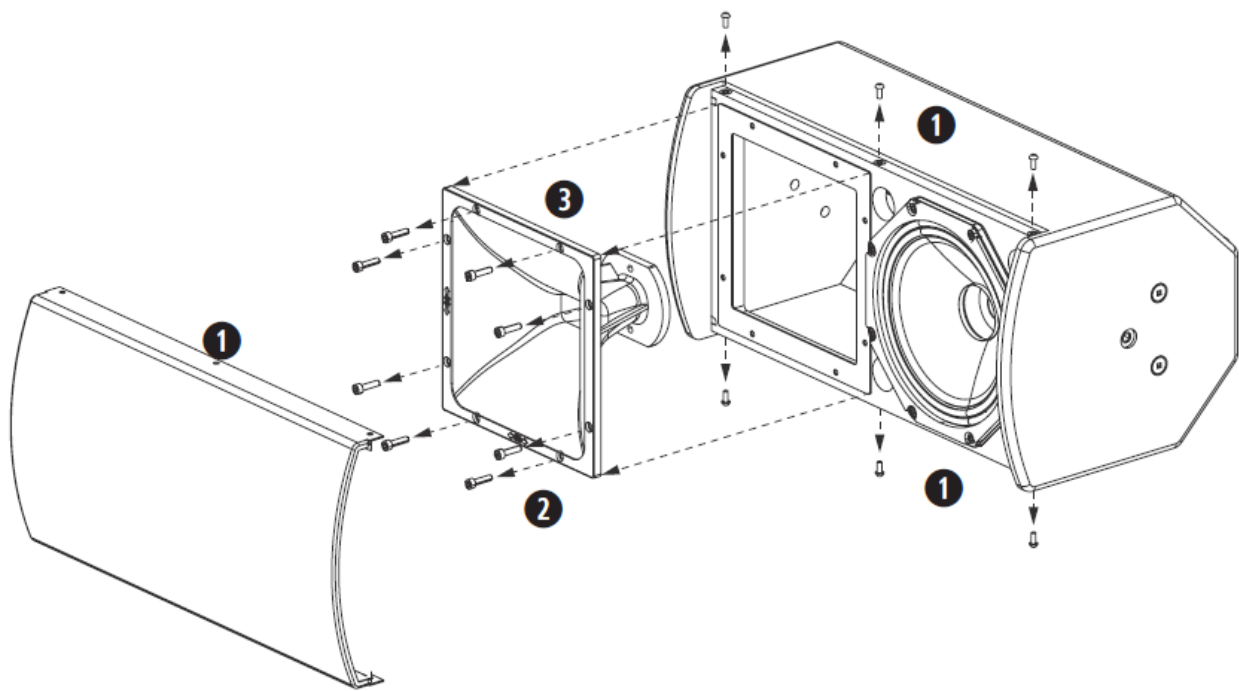


Rotating the High-frequency Waveguides

Note: Only the horizontal mounting orientation has been assessed to EN 54-24 specifications.

The high-frequency waveguide in the AMU108, AMU108-120, AMU206, AMU208, and AMU208-120 loudspeakers can be rotated to provide the desired coverage pattern for horizontal or vertical loudspeaker mounting. These loudspeakers are assembled in the factory for horizontal mounting. To rotate the waveguide for vertical mounting, do the following.

1. Remove the screws (AMU108 and AMU108-120: 6 screws; AMU206, AMU208, and AMU208-120: 8 screws) from around the loudspeaker grille and remove the grille from the enclosure.
2. Remove the eight waveguide screws.
3. Pull the waveguide forward, rotate it 90°, and place it back into the enclosure.
4. Secure the waveguide using the screws removed in Step 2.
5. Reattach the grille using the screws removed in Step 1.



Recommended Amplifier Power

Selecting the proper amplifier size for a given loudspeaker requires analysis of the transducer long-term (or RMS) power rating, dynamic range of the input-source material (crest factor), desired sound pressure levels, and other factors. As a general guideline, to optimize ArenaMatch Utility system performance, the following amplifier configurations are recommended.

Loudspeaker	Nominal Impedance	Amp Power Rating
AMU105	8 Ω	100 W to 400 W
AMU108	8 Ω	200 W to 800 W
AMU108-120	8 Ω	200 W to 800 W
AMU206	8 Ω	250 W to 1000 W
AMU208	8 Ω	300 W to 1200 W
AMU208-120	8 Ω	300 W to 1200 W

Recommended Signal Processing

Digital signal processing (DSP) equipment is required for infrasonic protection, equalization, and voltage limiting protection.

Recommended loudspeaker DSP presets are available in Bose Professional Control Space Designer software and are designed for use with Bose Professional Power Share X configurable professional amplifiers and Control Space ESP and EX processor hardware (sold separately).

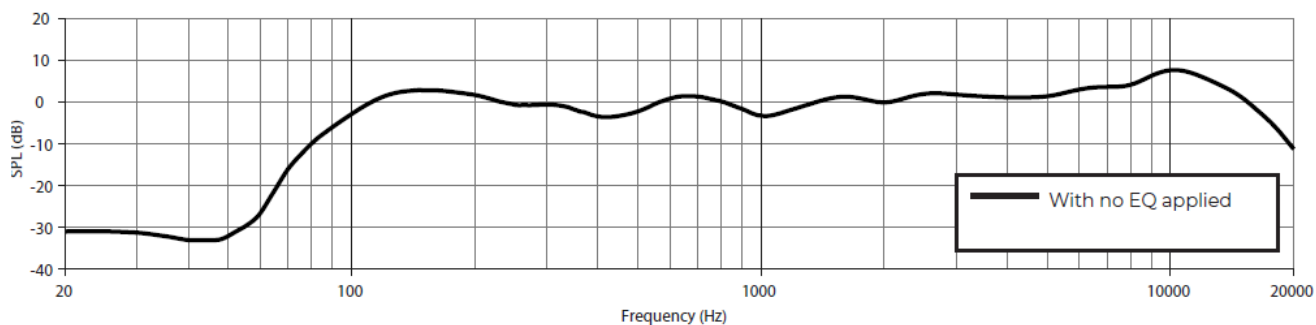
Technical Specifications

EN 54-24 Certified Rating s1		AMU105	AMU108	AMU108-1 20	AMU206	AMU208	AMU208-1 20
Sensitivity (1W @ 4m)							
100V/80W		75.3 dB	77.3 dB	76.8 dB	77.0 dB	81.0 dB	79.8 dB
Passive		75.5 dB	77.8 dB	77.3 dB	77.5 dB	81.0 dB	79.8 dB
Measured max. SPL @ 4 m							
100V/80W		93.1 dB	96.7 dB	96.2 dB	96.3 dB	99.3 dB	98.1 dB
Passive		93.8 dB	99.4 dB	98.9 dB	99.8 dB	103.8 dB	102.6 dB
Coverage Angle Octave Band							
500Hz	Horizontal:	299°	196°	272°	138°	110°	122°
	Vertical:	278°	186°	186°	216°	189°	193°
1000Hz	Horizontal:	347°	107°	98°	144°	81°	62°
	Vertical:	172°	108°	115°	143°	128°	127°
2000Hz	Horizontal:	67°	105°	145°	93°	113°	146°
	Vertical:	121°	86°	108°	97°	80°	115°
4000Hz	Horizontal:	135°	73°	81°	121°	76°	82°
	Vertical:	113°	65°	61°	64°	65°	57°
Passive Nominal Impedance		8 Ω	7.6 Ω	7.6 Ω	8 Ω	8 Ω	8 Ω
Rated Noise Voltage/ Transformer Rated Noise Power		100V / 80W	100V / 80W	100V / 80W	100V / 80W	100V / 80W	100V / 80W

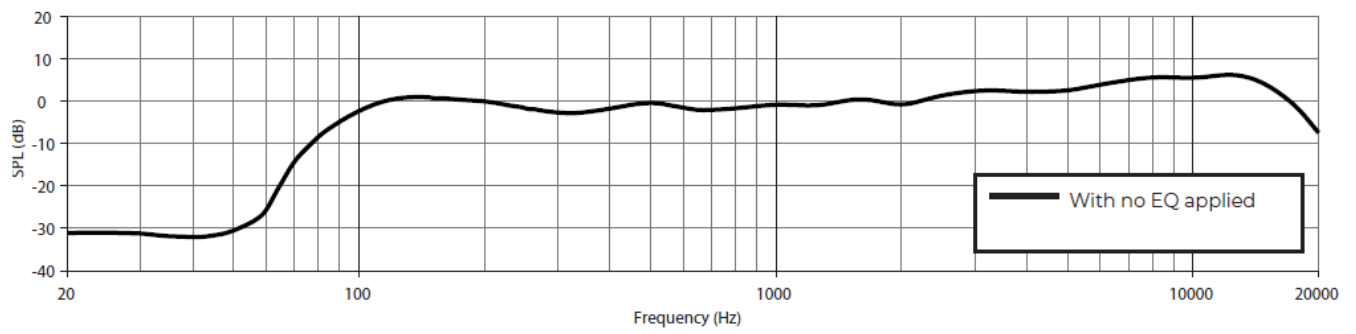
Footnotes

The specifications data was measured in an anechoic chamber, free-field. Reference plane is on the grille surface. Reference axis is perpendicular to center of grille surface. Horizontal plane contains the reference axis and is parallel to the horizontal axis defined by the longest baffle dimension.

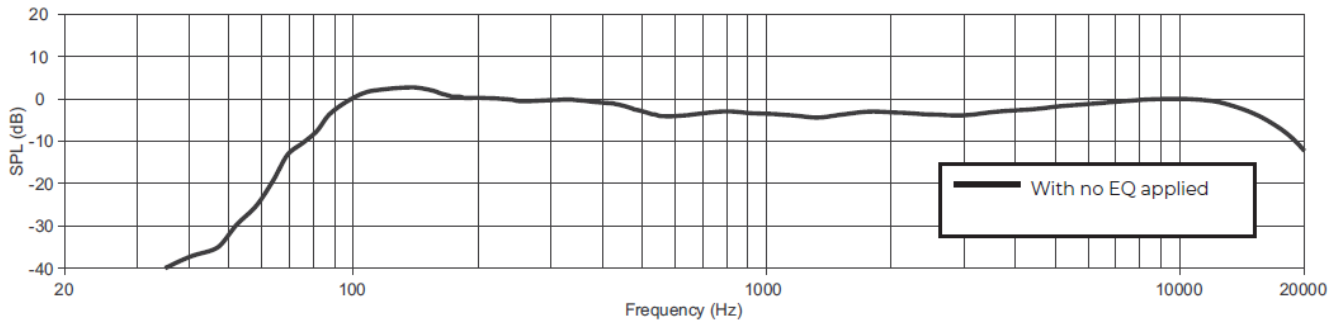
AMU105 Frequency Response



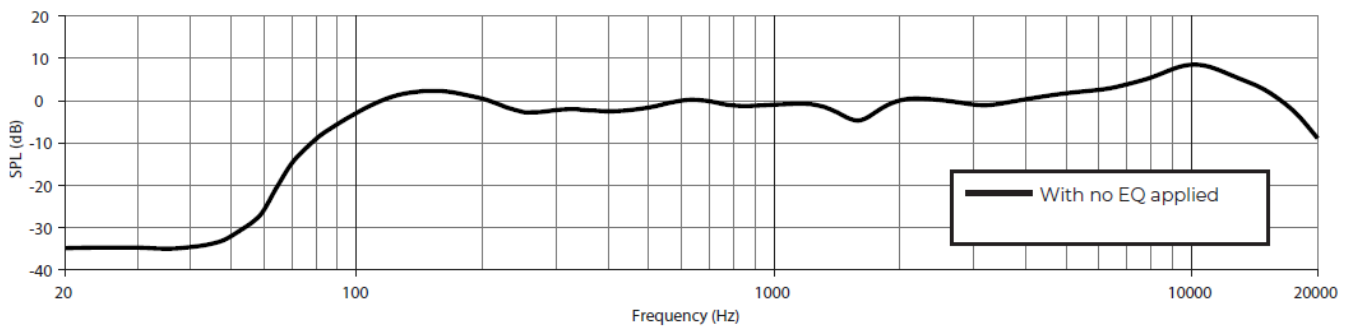
AMU108 Frequency Response



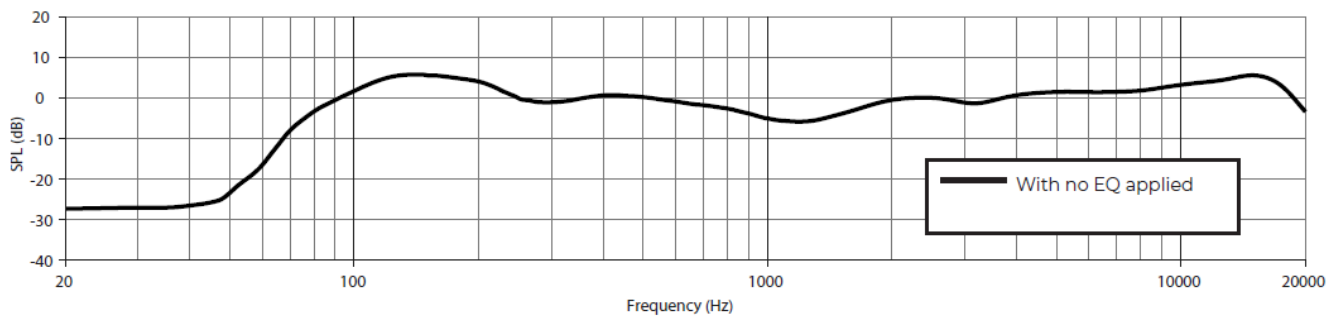
AMU108-120 Frequency Response



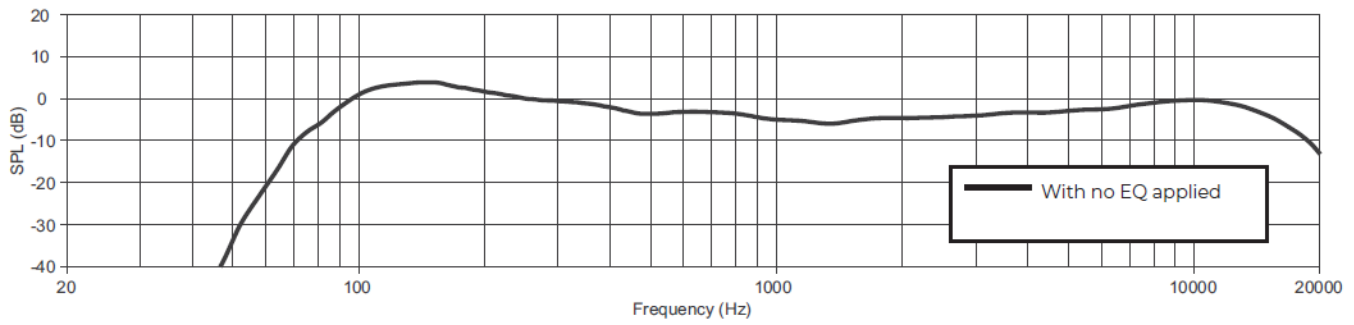
AMU206 Frequency Response



AMU208 Frequency Response



AMU208-120 Frequency Response



<div>UK CA</div> <div>0843</div>	<div>C€</div> <div>2821</div>
Bose Professional	
117 South St, Hopkinton, MA 01748	
24	
DOP 811105	
EN 54-24: 2008	
Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings	
ArenaMatch Utility AMU105	
Provided options: Type B	
For DOP 811105, see BoseProfessional.com/AMU105DOP	

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August 2024

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- Bose Professional, 117 South St, Hopkinton, MA 01748 USA

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Warranty Information

- This product is covered by a limited warranty.
- For warranty details, visit BoseProfessional.com/Warranty.

Frequently Asked Question

- **Q: Can the product be used by non-professional installers?**
 - A: No, this product is intended for installation by professional installers only. Please refer to authorized service centers for assistance.
- **Q: Can the product be cleaned with any type of cleaning agents?**
 - A: No, avoid using hydrocarbon-based solvents or cleaning agents on or around the Bose Professional speakers to prevent damage.
- **Q: What should I do if I am unsure about installing the bracket?**
 - A: Contact a qualified professional installer to ensure proper installation according to local building codes and regulations.

Documents / Resources

 <p>ArenaMatch Utility Small Format Foreground/Fill Loudspeakers</p> <table border="1"><thead><tr><th>Model</th><th>Power (W)</th><th>Frequency Response (Hz)</th><th>Impedance (ohms)</th></tr></thead><tbody><tr><td>AMU108</td><td>100</td><td>60-20,000</td><td>16</td></tr><tr><td>AMU108-120</td><td>100</td><td>60-20,000</td><td>16</td></tr><tr><td>AMU105</td><td>100</td><td>60-20,000</td><td>16</td></tr><tr><td>AMU206</td><td>200</td><td>60-20,000</td><td>16</td></tr><tr><td>AMU208</td><td>200</td><td>60-20,000</td><td>16</td></tr><tr><td>AMU208-120</td><td>200</td><td>60-20,000</td><td>16</td></tr></tbody></table>	Model	Power (W)	Frequency Response (Hz)	Impedance (ohms)	AMU108	100	60-20,000	16	AMU108-120	100	60-20,000	16	AMU105	100	60-20,000	16	AMU206	200	60-20,000	16	AMU208	200	60-20,000	16	AMU208-120	200	60-20,000	16	<p>BOSE ArenaMatch Utility AMU Series Small Format Foreground/Fill Loudspeakers [pdf] Installation Guide</p> <p>AMU108, AMU108-120, AMU105, AMU206, AMU208, AMU208-120, ArenaMatch Utility AMU Series Small Format Foreground Fill Loudspeakers, ArenaMatch Utility AMU Series, Small Format Foreground Fill Loudspeakers, Format Foreground Fill Loudspeakers, Foreground Fill Loudspeakers, Fill Loudspeakers, Loudspeakers</p>
Model	Power (W)	Frequency Response (Hz)	Impedance (ohms)																										
AMU108	100	60-20,000	16																										
AMU108-120	100	60-20,000	16																										
AMU105	100	60-20,000	16																										
AMU206	200	60-20,000	16																										
AMU208	200	60-20,000	16																										
AMU208-120	200	60-20,000	16																										

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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