

# **BOSE AMU206 ArenaMatch Utility Small-format** Foreground/Fill Loudspeakers Installation Guide

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BOSE AMU206 ArenaMatch Utility Small-format ForegroundFill Loudspeakers Installation Guide



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# **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 **PRO.BOSE.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 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.

The AMU105 wall mounting kit is only for use with model AMU105.

The AMU108 wall mounting kit is only for use with model AMU108.

The AMU206 wall mounting kit is only for use with model AMU206.

The AMU208 wall mounting kit is only for use with model AMU208.

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 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 <a href="https://www.Bose.com/compliance">www.Bose.com/compliance</a>.

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	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	Х	0	0	0	0	0			
Metal Parts	Х	0	0	0	0	0			
Plastic Parts	0	0	0	0	0	0			
Speakers	Х	0	0	0	0	0			
Cables	Х	0	0	0	0	0			
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 DeltaQ Utility Loudspeakers , Type designation: 811433, 811434, 811435, 8114 36

	Restrict	Restricted substances and its chemical symbols						
Unit	Lead ( Pb)	Mercury ( Hg)	Cadmium (C d)	Hexavalent c hromium (Cr +6)	Polybrominated bi phenyls (PBB)	Polybrominated di phenyl ethers (PB DE)		
PCBs	_	0	0	0	0	0		
Metal Parts	_	0	0	0	0	0		
Plastic Parts	0	0	0	0	0	0		
Speakers	_	0	0	0	0	0		
Cables	_	0	0	0	0	0		

**Note 1:** "O" indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

**Note 2:** The "-" indicates that the restricted substance corresponds to the exemption.

**Date of Manufacture:** The eighth digit in the serial number indicates the year of manufacture; "7" is 2007 or 2017.

China Importer: Bose Electronics (Shanghai) Company Limited, Part C, Plan 9,

No. 353 North Riying Road, China (Shanghai) Pilot Free Trade Zone

EU Importer: Bose Products B.V., Gorslaan 60, 1441 RG Purmerend, The Netherlands

Mexico Importer: Bose de México, S. de R.L. de C.V., Paseo de las Palmas 405 204, Lomas de Chapultepec,

11000 México, D.F. For importer & service information: +5255 (5202) 3545

Taiwan Importer: Bose Taiwan Branch, 9F-A1, No. 10, Section 3, Minsheng East Road, Taipei City 104, Taiwan.

Phone Number: +886-2-2514 7676

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Bose Corporation Headquarters: 1-877-230-5639

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# Warranty Information

This product is covered by a limited warranty. For warranty details, visit **PRO.BOSE.COM.** 

#### **Overview**

Built for zone-fill coverage or high-SPL foreground music, Bose ArenaMatch Utility loudspeakers feature similar tonal balance to ArenaMatch array modules but in compact designs. With an outdoor direct-exposure rating and the same EMB2S compression driver as ArenaMatch arrays, ArenaMatch Utility loudspeakers ensure consistent and intelligible high-level sound for any outdoor venue.

#### **Product Features**

**Deploy as zone-fill to support ArenaMatch arrays systems**, delivering powerful, intelligible sound and ensuring consistent tonal balance with EMB2S compression drivers in every speaker.

Deploy for high-level foreground music in any outdoor venue.

**Install outdoors** in direct-exposure applications with a three-layer stainless steel grille, water-resistant coating on woofer cone, industrial polyurethane exterior coating, and molded cover to protect inputs.

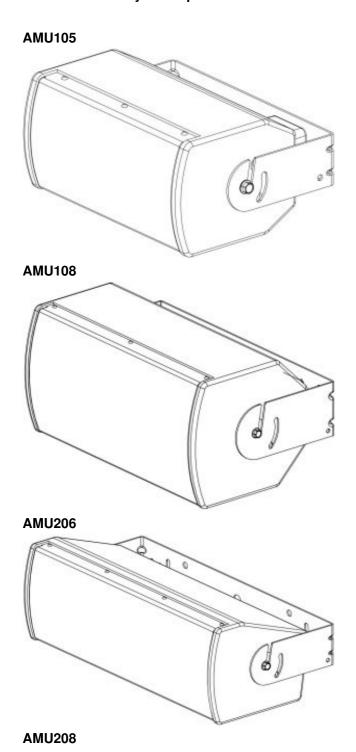
**Adapt to a variety of configurations** — all models ship standard with 70/100V transformer inputs and passive crossover with optimized filters for each transducer for more consistent frequency and polar response.

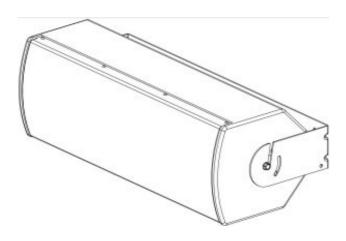
**Streamline the design process** by combining with complementary Bose Professional products, such as PowerMatch amplifiers and ControlSpace DSP.

**Mount easily with included powder-coated steel U-bracket**; rear enclosure panel also includes M8 threaded inserts to accept third-party accessory mounting bracket.

**EN 54-24 Certified:** EN 54-24: 2008, Loudspeaker for Voice Alarm Systems for Fire Detection and Fire Alarm Systems for Buildings

### **ArenaMatch Utility Loudspeakers**





# **Package Contents**

Each ArenaMatch Utility loudspeaker carton includes the following:

	AMU105	AMU108	AMU206	AMU208
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**

ArenaMatch Utility loudspeakers are compatible with the RMU pan-and tilt bracket (WBPWR-50) and various third-party pole-mount kits.

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

# **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.



 $\searrow$  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)

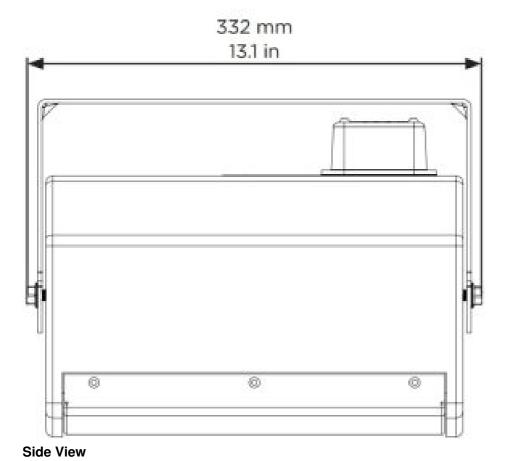
#### **Product Dimensions**

#### **ArenaMatch Utility AMU105**

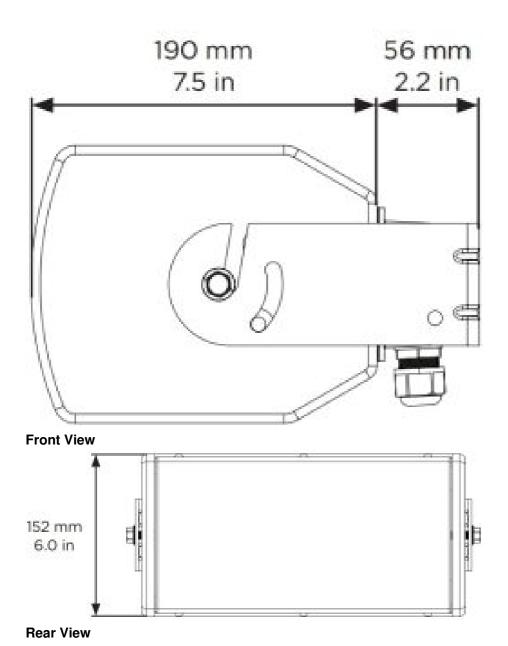
Product net weight: 6.5 kg (14.4 lb) / 7.5 kg (16.5 lb) with U-bracket

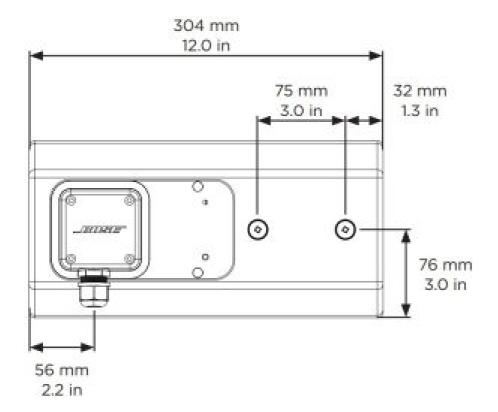
**Top View** 

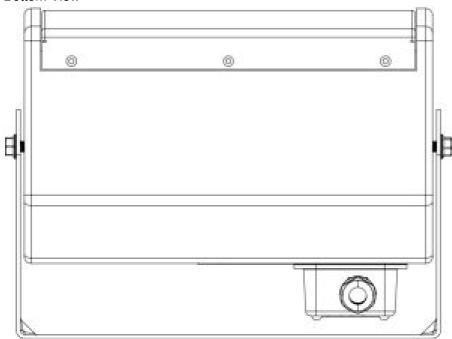
# **Top View**



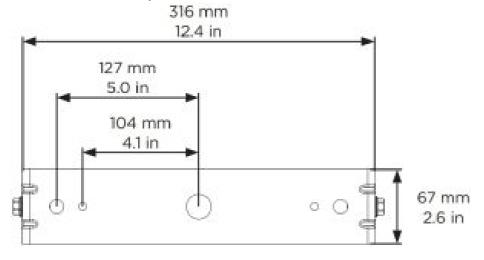
# **Side View**





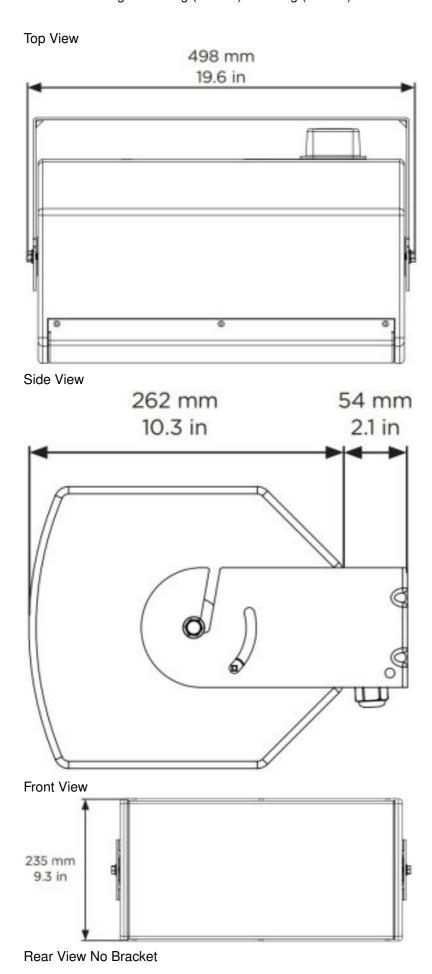


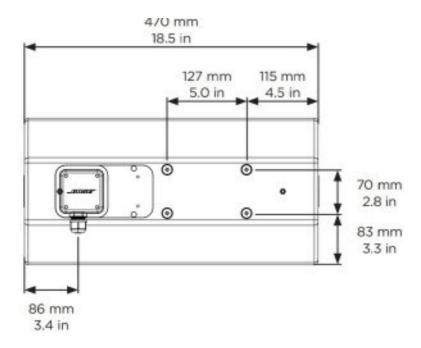
Rear View Bracket Only

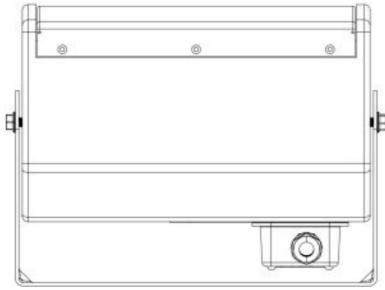


# ArenaMatch Utility AMU108

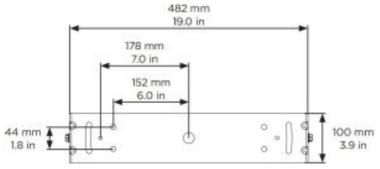
Product net weight: 10.6 kg (23.3 lb) / 12.6 kg (27.7 lb) with U-bracket







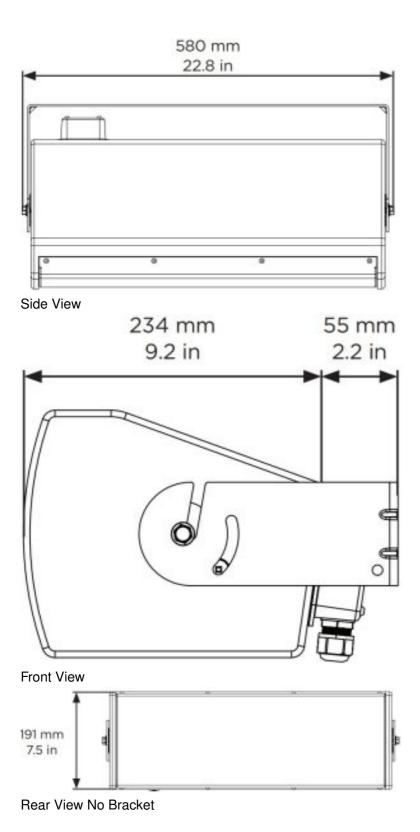


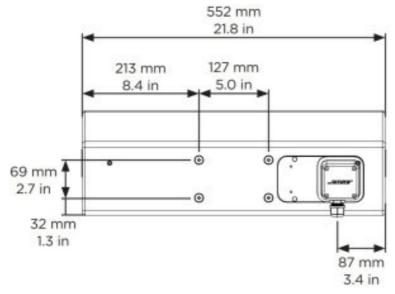


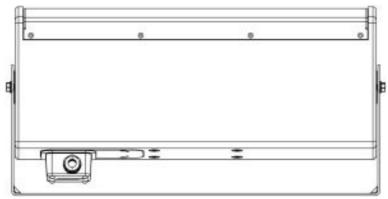
# ArenaMatch Utility AMU206

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

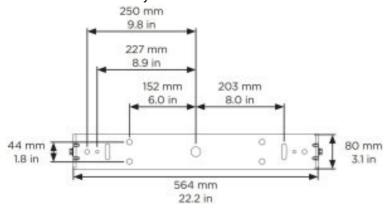
Top View







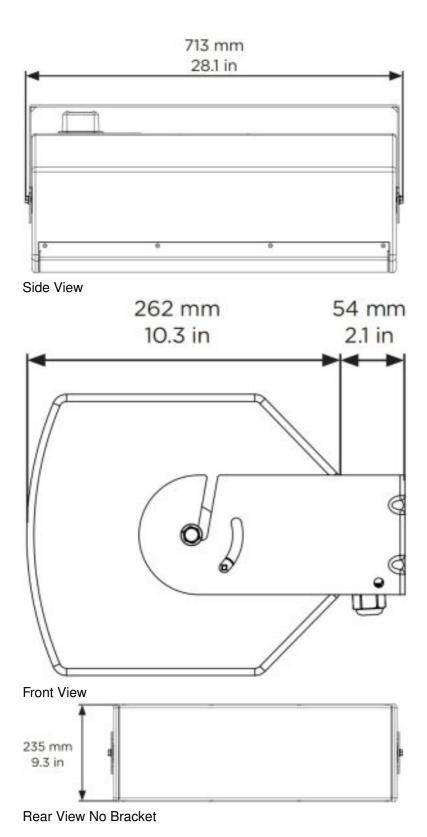
Rear View Bracket Only

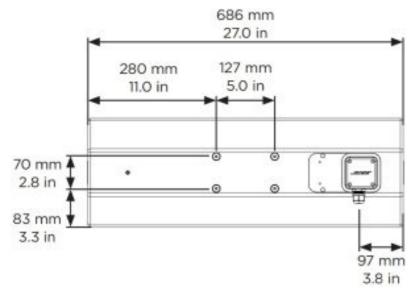


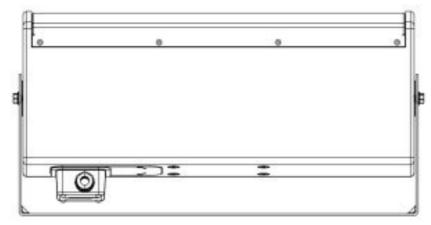
# ArenaMatch Utility AMU208

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

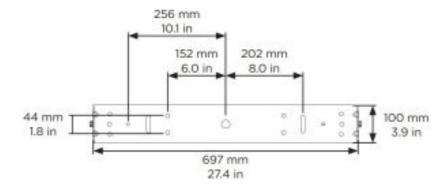
Top View







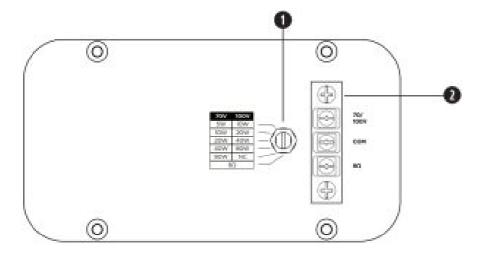
Rear View Bracket Only



# 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 to 18 AWG.



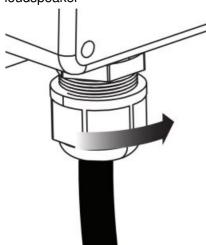
- 1. **Tap switch:** Rotate to adjust tap setting. Use a flathead screwdriver.
- 2. Barrier strip

### **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.

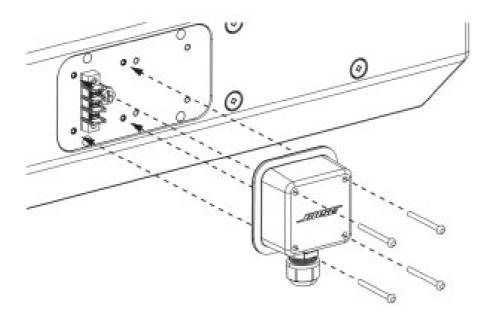
**CAUTION:** If the gland nut is not properly fastened, water could get into the input panel and damage the loudspeaker



#### **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°
AMU206	-110°	-110°
AMU208	-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

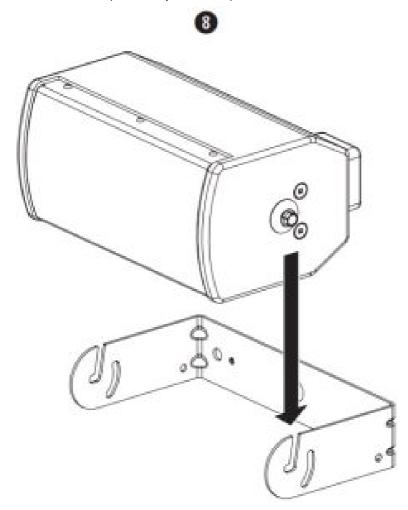
CAUTION: Before installation, determine the location and position of your AMU loudspeaker. Only remove the plastic inserts that are necessary for your installation. The plastic inserts are factory sealed to prevent water damage. If any insert is left unsealed after installation, the weather-resistant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

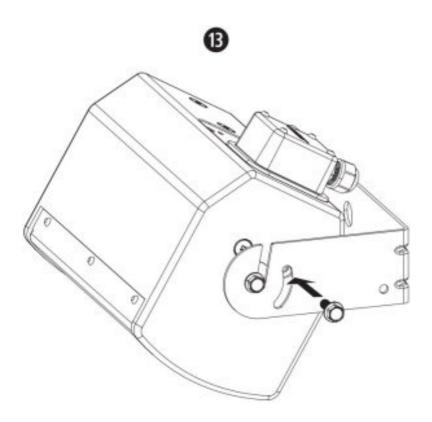
- 1. Choose a mounting location that will safely support the weight of the loudspeaker.
- 2. Remove packing materials and place the loudspeaker on the floor beneath the planned suspension point.
- 3. Using the included T3 square drive, remove the center plastic insert and one other insert (determined by your loudspeaker installation design) on each side of the loudspeaker.
- 4. Insert an M8 screw through a rubber washer and into the center threaded hole on each side of the loudspeaker. Do not tighten.
- 5. Hold the U-bracket in the mounting location and mark the holes.

- 6. Drill holes into the mounting surface using previously marked positions.
- 7. 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.

- 8. 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.
- 9. Connect your wiring to your loudspeaker.
- 10. Feed the wiring through the gland nut on the input panel cover and tighten the gland nut (see Securing the Wiring on ).
- 11. Attach the input cover using the included M4 screws (see Attaching the Input Panel Cover on page 17).
- 12. Position the loudspeaker in your desired pitch angle.
- 13. Insert an M8 screw through the remaining open insert on each side of the loudspeaker.
- 14. 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).

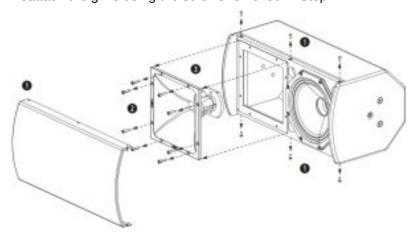




# **Rotating the High-frequency Waveguides**

**Note:** Only the horizontal mounting orientation has been assessed to EN 54-24 specifications. The high-frequency waveguide in the AMU108, AMU206, and AMU208 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: 6 screws; AMU206/AMU208: 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	8Ω	200 W to 800 W
AMU206	Ω8	250 W to 1000 W
AMU208	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 ControlSpace Designer software and are designed for use with Bose PowerMatch configurable professional amplifiers and ControlSpace ESP and EX processor hardware (sold separately)

# **Technical Specifications**

System Performance				
Frequency Response (–3 dB) 1	100 Hz to 16 kH			
Frequency Range (-10 dB)	90 Hz to 16 kHz			
Nominal Coverage Pattern (H × V)	100° × 100°			
Recommended High-pass Filter	80 Hz with minimu	um 12-dB/octave fi		
Crossover	Passive (2.0 kHz cy)	crossover frequen		
70V/100V transformer tap settin gs	70V: 5W (862 Ω), 10W (455 Ω), 20W (237 Ω), 40W (118 Ω), 80W (58 Ω); 1 00V: 10W (862 Ω), 20W (455 Ω), 40W (237 Ω), 80W (118 Ω)			
	Bose Extended L	ifecycle Test 2	AES Transducer	Test 3
Power Handling, long-term cont inuous	100 W		150 W	
Power Handling, peak	400 W		600 W	
	Free Field	Wall/Ceiling	Free Field	Wall/Ceiling
Sensitivity (SPL / 1 W @ 1 m) 4	90 dB	92 dB	90 dB	92 dB
Calculated Maximum SPL @ 1 m 5	110 dB	112 dB	111 dB	113 dB

Calculated Maximum SPL @ 1 m, peak	116 dB	118 dB	117 dB	119 dB
EN 54-24 Certified Ratings 6	100V/80W		Passive	
Sensitivity (1 W @ 4 m)	75.3 dB		75.5 dB	
Measured max. SPL @ 4 m	93.1 dB		93.8 dB	
Coverage Angle Octave Band	500 Hz	1000 Hz	2000 Hz	4000 Hz
Horizontal Coverage	230°	342°	54°	106°
Vertical Coverage	204°	162°	106°	100°
Passive Nominal Impedance	Ω'8			
Rated Noise Voltage / Transfor mer Rated Noise Power	100V / 80W			
Transducers				_
Low Frequency	1 × Bose LF5 high-excursion 5-inch woofer (2-inch voic e coil)			
High Frequency	1 × Bose EMB2S titanium-diaphragm, neodymium com pression drivers (2-inch voice coil)			
Nominal Impedance	8 Ω			
Physical				
Enclosure Material	Exterior-grade bi rch plywood			
Finish	Two-part polyuretlk or white	nane coating, blac		
Grille	Powder-coated pe m, stainless steel	erforated stainless s mesh	steel, acoustic foa	
Environmental 7	Rated for direct-ei er EN60529; IP33	xposure outdoor ins C per EN54-24)	stallations (IP55 p	
Connectors	1 × barrier strip (a re gauge)	ccepts 10 to 18 wi		
Suspension/Mounting		nserts for U-bracke mm, 2-bolt pattern		threaded inserts o
Dimensions (H × W × D) – milli meters	152 × 332 × 246 with U-bracket			
Dimensions (H × W × D) – inches	6.0 × 13.1 × 9.7 with U-bracket			
Net Weight (loudspeaker only)	6.5 kg (14.4 lb)			
Net Weight (with U-bracket)	7.5 kg (16.5 lb)			
Shipping Weight	9.5 kg (21.0 lb)			
Accessories	Included powder-o	coated steel U-brac	ket; optional pan-	

#### Footnotes

- 1. Frequency response and range measured on-axis (reference axis) in anechoic environment with recommended bandpass and EQ.
- 2. Bose extended-lifecycle test using pink noise filtered to meet IEC268-5, 6-dB crest factor, 500-hour duration.
- 3. AES standard 2-hour duration with IEC system noise.
- 4. Sensitivity measured in anechoic environment with recommended high-pass filter.
- 5. Maximum SPL calculated using sensitivity and power ratings, exclusive of power compression.
- 6. 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.
- 7. Tested to IP55 per EN60529 when used in General Purpose Audio installation, not for Fire and Evacuation notification applications. Notified Body certified by UL per the EN54-24 standard for an IP33C rating, acceptable for use in a Fire and Evacuation Notification System application.

System Performance				
Frequency Response (-3 dB) 1	90 Hz to 16 kHz			
Frequency Range (-10 dB)	80 Hz to 16 kHz			
Nominal Coverage Pattern (H × V)	90° × 60° (rotatab horn)	le high-frequency		
Recommended High-pass Filter	80 Hz with minimulter	um 12-dB/octave fi		
Crossover	Passive (1.4 kHz crossover frequen cy)			
70V/100V transformer tap settin gs	70V: 5W (763 $\Omega$ ), 10W (414 $\Omega$ ), 20W (216 $\Omega$ ), 40W (108 $\Omega$ ), 80W (53 $\Omega$ ); 1 00V: 10W (763 $\Omega$ ), 20W (414 $\Omega$ ), 40W (216 $\Omega$ ), 80W (108 $\Omega$ )			
	Bose Extended L	ifecycle Test 2	AES Transducer	Test 3
Power Handling, long-term cont inuous	200 W		250 W	
Power Handling, peak	800 W		1000 W	
	Free Field	Wall/Ceiling	Free Field	Wall/Ceiling
Sensitivity (SPL / 1 W @ 1 m) 4	91 dB	93 dB	91 dB	93 dB
Calculated Maximum SPL @ 1 m 5	114 dB 116 dB		115 dB	117 dB
Calculated Maximum SPL @ 1 m, peak	120 dB	122 dB	121 dB	123 dB

EN 54-24 Certified Ratings 6	100V/80W		Passive	
Sensitivity (1 W @ 4 m)	77.3 dB		77.8 dB	
Measured max. SPL @ 4 m	96.7 dB		99.4 dB	
Coverage Angle Octave Band	500 Hz	1000 Hz	2000 Hz	4000 Hz
Horizontal Coverage	172°	106°	84°	72°
Vertical Coverage	182°	106°	86°	64°
Passive Nominal Impedance	7.6 Ώ			
Rated Noise Voltage / Transfor mer Rated Noise Power	100V / 80W			
Transducers				
Low Frequency	1 × Bose LF8 high e coil)	n-excursion 8-inch v	voofer (2-inch voic	
High Frequency	1 × Bose EMB2S pression drivers (2	titanium-diaphragm 2-inch voice coil)	ı, neodymium com	
Nominal Impedance	8 Ω			
Physical				
Enclosure Material	Exterior-grade bi rch plywood			
Finish	Two-part polyureth	nane coating, blac		
Grille	Powder-coated pe m, stainless steel	erforated stainless s mesh	teel, acoustic foa	
Environmental 7	Rated for direct-exer EN60529; IP33	xposure outdoor ins C per EN54-24)	stallations (IP55 p	
Connectors	1 × barrier strip (a re gauge)	ccepts 10 to 18 wi		
Suspension/Mounting		nserts for U-bracke 7 × 70 mm, 4-bolt p	"	threaded inserts o
Dimensions (H × W × D) – milli meters	235 × 498 × 316 with U-bracket			
Dimensions (H × W × D) – inches	9.3 × 19.6 × 12.4 with U-bracket			
Net Weight (loudspeaker only)	10.6 kg (23.3 lb)			
Net Weight (with U-bracket)	12.6 kg (27.7 lb)			
Shipping Weight	14.2 kg (31.2 lb)			
Accessories	Included powder-o	coated steel U-brac	ket; optional pan-	

- 1. Frequency response and range measured on-axis in anechoic environment with recommended bandpass and EQ.
- 2. Bose extended-lifecycle test using pink noise filtered to meet IEC268 5, 6-dB crest factor, 500-hour duration.
- 3. AES standard 2-hour duration with IEC system noise.
- 4. Sensitivity measured in anechoic environment with recommended high-pass filter.
- 5. Maximum SPL calculated using sensitivity and power ratings, exclusive of power compression.
- 6. 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.
- 7. Tested to IP55 per EN60529 when used in General Purpose Audio installation, not for Fire and Evacuation notification applications. Notified Body certified by UL per the EN54-24 standard for an IP33C rating, acceptable for use in a Fire and Evacuation Notification System application.

System Performance					
Frequency Response (-3 dB) 1	90 Hz to 16 kHz				
Frequency Range (–10 dB)	80 Hz to 16 kHz				
Nominal Coverage Pattern (H × V)	120° × 60° (rotata frequency horn)	ble high-			
Recommended High-pass Filter	80 Hz with minimulter	um 12-dB/octave fi			
Crossover	Passive; separate bandpass filters per transducer (300 Hz and 1.5 kHz)				
70V/100V transformer tap settin gs	70V: 5W (882 $\Omega$ ), 10W (476 $\Omega$ ), 20W (242 $\Omega$ ), 40W (120 $\Omega$ ), 80W (58 $\Omega$ ); 1 00V: 10W (882 $\Omega$ ), 20W (476 $\Omega$ ), 40W (242 $\Omega$ ), 80W (120 $\Omega$ )				
	Bose Extended Lifecycle Test 2		AES Transducer Test 3		
Power Handling, long-term cont inuous	250 W		300 W		
Power Handling, peak	1000 W		1200 W		
	Free Field	Wall/Ceiling	Free Field	Wall/Ceiling	
Sensitivity (SPL / 1 W @ 1 m) 4	90 dB	92 dB	90 dB	92 dB	
Calculated Maximum SPL @ 1 m 5	114 dB	116 dB	115 dB	117 dB	
		120 dB 122 dB			
Calculated Maximum SPL @ 1 m, peak	120 dB	122 dB	121 dB	123 dB	

Sensitivity (1 W @ 4 m)	77.0 dB		77.5 dB	
Measured max. SPL @ 4 m	96.3 dB		99.8 dB	
Coverage Angle Octave Band	500 Hz	1000 Hz	2000 Hz	4000 Hz
Horizontal Coverage	110°	134°	72°	94°
Vertical Coverage	192°	138°	92°	58°
Passive Nominal Impedance	Ω 8			
Rated Noise Voltage / Transfor mer Rated Noise Power	100V / 80W			
Transducers				
Low Frequency	2 × Bose LF6 high e coil)	n-excursion 6-inch v	voofer (2-inch voic	
High Frequency	1 × Bose EMB2S titanium-diaphragm, neodymium com pression drivers (2-inch voice coil)			
Nominal Impedance	8 Ω			
Physical		•	•	•
Enclosure Material	Exterior-grade bi rch plywood			
Finish	Two-part polyurethane coating, blac k or white			
Grille	Powder-coated perforated stainless steel, acoustic foa m, stainless steel mesh			
Environmental 7	Rated for direct-exer EN60529; IP33	xposure outdoor ins C per EN54-24)	stallations (IP55 p	
Connectors	1 × barrier strip (a re gauge)	ccepts 10 to 18 wi		
Suspension/Mounting		nserts for U-bracke 7 × 70 mm, 4-bolt p	••	threaded inserts o
Dimensions (H × W × D) – milli meters	191 × 580 × 289 with U-bracket			
Dimensions (H × W × D) – inches	7.5 × 22.8 × 11.4	with U-bracket		
Net Weight (loudspeaker only)	12.2 kg (26.8 lb)			
Net Weight (with U-bracket)	13.8 kg (30.5 lb)			
Shipping Weight	16.1 kg (35.5 lb)			
Accessories	Included powder-o	coated steel U-brac	ket; optional pan-	

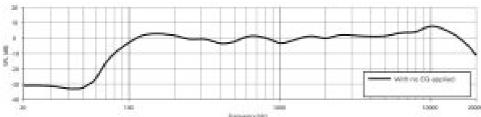
- 1. Frequency response and range measured on-axis in anechoic environment with recommended bandpass and EQ.
- 2. Bose extended-lifecycle test using pink noise filtered to meet IEC268-5, 6-dB crest factor, 500-hour duration.
- 3. AES standard 2-hour duration with IEC system noise.
- 4. Sensitivity measured in anechoic environment with recommended high-pass filter.
- 5. Maximum SPL calculated using sensitivity and power ratings, exclusive of power compression.
- 6. 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.
- 7. Tested to IP55 per EN60529 when used in General Purpose Audio installation, not for Fire and Evacuation notification applications. Notified Body certified by UL per the EN54-24 standard for an IP33C rating, acceptable for use in a Fire and Evacuation Notification System application.

System Performance					
Frequency Response (-3 dB) 1	80 Hz to 16 kHz				
Frequency Range (-10 dB)	70 Hz to 16 kHz				
Nominal Coverage Pattern (H × V)	90° × 60° (rotatab horn)	le high-frequency			
Recommended High-pass Filter	70 Hz with minimulter	um 12-dB/octave fi			
Crossover	Passive; separate bandpass filters per transducer (200 Hz and 1.2 kHz)				
70V/100V transformer tap settin gs	70V: 5W (876 Ω), 10W (485 Ω), 20W (250 Ω), 40W (125 Ω), 80W (62 Ω); 1 00V: 10W (876 Ω), 20W (485 Ω), 40W (250 Ω), 80W (125 Ω)				
	Bose Extended Lifecycle Test 2		AES Transducer Test 3		
Power Handling, long-term cont inuous	300 W		400 W		
Power Handling, peak	1200 W		1600 W		
	Free Field	Wall/Ceiling	Free Field	Wall/Ceiling	
Sensitivity (SPL / 1 W @ 1 m) 4	94 dB	96 dB	94 dB	96 dB	
Calculated Maximum SPL @ 1 m 5	119 dB	121 dB	120 dB	122 dB	
Calculated Maximum SPL @ 1 m, peak	125 dB	127 dB	126 dB	128 dB	
	100V/80W		Passive		

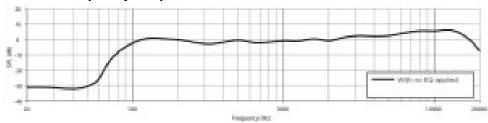
Sensitivity (1 W @ 4 m)	81.0 dB		81.0 dB	
Measured max. SPL @ 4 m	99.3 dB		103.8 dB	
Coverage Angle Octave Band	500 Hz	1000 Hz	2000 Hz	4000 Hz
Horizontal Coverage	68°	38°	110°	74°
Vertical Coverage	186°	124°	80°	64°
Passive Nominal Impedance	Ω'8			
Rated Noise Voltage / Transfor mer Rated Noise Power	100V / 80W			
Transducers				
Low Frequency	2 × Bose LF8 high-excursion 8-inch woofer (2-inch voic e coil)			
High Frequency	1 × Bose EMB2S titanium-diaphragm, neodymium com pression drivers (2-inch voice coil)			
Nominal Impedance	8 Ω			
Physical				
Enclosure Material	Exterior-grade bi rch plywood			
Finish	Two-part polyurethane coating, blac k or white			
Grille	Powder-coated perforated stainless steel, acoustic foa m, stainless steel mesh			
Environmental 7	Rated for direct-exposure outdoor installations (IP55 p er EN60529; IP33C per EN54-24)			
Connectors	1 × barrier strip (accepts 10 to 18 wi re gauge)			
Suspension/Mounting	$3 \times M8$ threaded inserts for U-bracket (per side); $4 \times M8$ threaded inserts on rear surface (127 $\times$ 70 mm, 4-bolt pattern)			
Dimensions (H × W × D) – milli meters	235 × 713 × 316 with U-bracket			
Dimensions (H × W × D) – inches	9.3 × 28.1 × 12.4 with U-bracket			
Net Weight (loudspeaker only)	17.0 kg (37.5 lb)			
Net Weight (with U-bracket)	19.5 kg (43.0 lb)			
Shipping Weight	23.1 kg (51.0 lb)			
Accessories	Included powder-coated steel U-bracket; optional pan- and-tilt bracket			

- Frequency response and range measured on-axis in anechoic environment with recommended bandpass and EQ.
- 2. Bose extended-lifecycle test using pink noise filtered to meet IEC268-5, 6-dB crest factor, 500-hour duration.
- 3. AES standard 2-hour duration with IEC system noise.
- 4. Sensitivity measured in anechoic environment with recommended high-pass filter.
- 5. Maximum SPL calculated using sensitivity and power ratings, exclusive of power compression.
- 6. 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.
- 7. Tested to IP55 per EN60529 when used in General Purpose Audio installation, not for Fire and Evacuation notification applications. Notified Body certified by UL per the EN54-24 standard for an IP33C rating, acceptable for use in a Fire and Evacuation Notification System application.

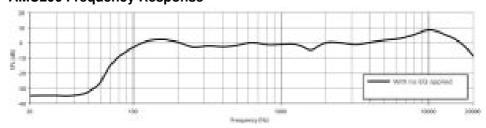
### **AMU105 Frequency Response**



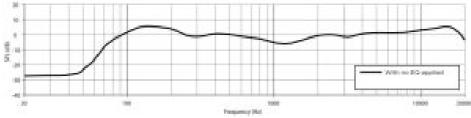
#### **AMU108 Frequency Response**



### **AMU206 Frequency Response**



# **AMU208 Frequency Response**



### **Technical Specifications**



# Bose Corporation 100 The Mountain Rd, Framingham, MA 01701 20 DOP 429534-5

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 429534-5, see <a href="mailto:pro.Bose.com/AMU105DOP\_UK">pro.Bose.com/AMU105DOP\_UK</a>



Bose Corporation 100 The Mountain Rd, Framingham, MA 01701 20 DOP 429534-6

EN 54-24: 2008

Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings

ArenaMatch Utility AMU108
Provided options: Type B

For DOP 429534-6, see pro.Bose.com/AMU108DOP\_UK



Bose Corporation 100 The Mountain Rd, Framingham, MA 01701 20 DOP 429534-7

EN 54-24: 2008

Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings ArenaMatch Utility AMU206

**Provided options: Type B** 

For DOP 429534-7, see pro.Bose.com/AMU206DOP\_UK



Bose Corporation 100 The Mountain Rd, Framingham, MA 01701 20 DOP 429534-8

EN 54-24: 2008

Loudspeaker for voice alarm systems for fire detection and fire alarm systems for buildings

ArenaMatch Utility AMU208

Provided options: Type B

For DOP 429534-8, see pro.Bose.com/AMU208DOP\_UK

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# **Documents / Resources**



BOSE AMU206 ArenaMatch Utility Small-format Foreground/Fill Loudspeakers [pdf] Instal lation Guide

AMU105, AMU108, AMU206, AMU208, AMU206, ArenaMatch Utility Small-format Foreground, Fill Loudspeakers

Manuals+,