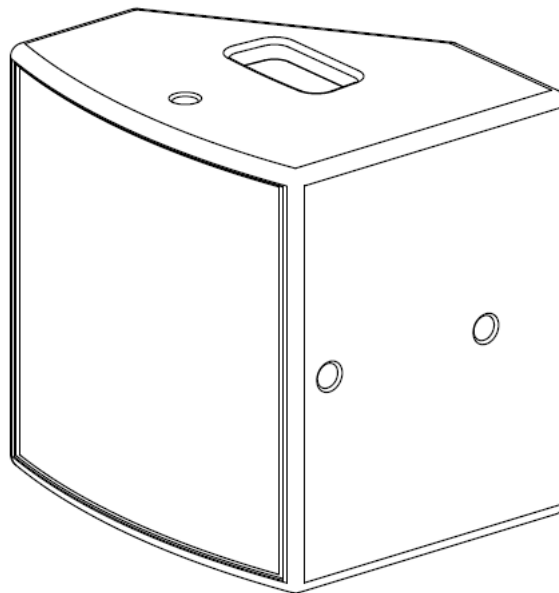


***BOSE***

# **AMM108**

## **Multipurpose Loudspeaker**



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## PRODUCT DESCRIPTION


AMM108 Multipurpose Loudspeakers integrate a coaxially mounted 1.7-inch compression driver with a 8-inch low frequency transducer in a compact, lightweight enclosure.

Ideally suited for a variety of short throw sound reinforcement and monitoring applications, the AMM108 operates from 75 Hz to 20 kHz.

An internal passive crossover network combined with Bose loudspeaker presets ensure the best possible performance in a variety of installed and portable applications.

See [www.pro.BOSE.com](http://www.pro.BOSE.com) for additional product information.

## SAFETY INFORMATION

Parts that have special safety characteristics are identified by the  symbol on schematics or by special notes on the parts list. Use only replacement parts that have critical characteristics recommended by the manufacturer.

**CAUTION:** The Bose® AMM108 Multipurpose Loudspeaker contains no user-serviceable parts. To prevent warranty infractions, refer servicing to warranty service stations or factory service.

### PROPRIETARY INFORMATION

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF BOSE CORPORATION WHICH IS BEING FURNISHED ONLY FOR THE PURPOSE OF SERVICING THE IDENTIFIED BOSE PRODUCT BY AN AUTHORIZED BOSE SERVICE CENTER, AND SHALL NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE.

# Electrostatic Discharge Sensitive (ESDS) Device Handling


This unit contains ESDS devices. We recommend the following precautions when repairing, replacing or transporting ESDS devices:

- Perform work at an electrically grounded work station.
- Wear wrist straps that connect to the station or heel straps that connect to conductive floor mats.
- Avoid touching the leads or contacts of ESDS devices or PC boards even if properly grounded. Handle boards by the edges only.
- Transport or store ESDS devices in ESD protective bags, bins, or totes. Do not insert unprotected devices into materials such as plastic, polystyrene foam, clear plastic bags, bubble wrap or plastic trays.

## WARRANTY

The Bose AMM108 Multipurpose Loudspeaker is covered by a limited 5-year transferable warranty. Units that fail within 90 days of sale should be replaced.

## PART LIST NOTES

1. The individual parts located on the PCBs are listed in the Electrical Part List.
2. This part is referenced for informational purposes only. It is not stocked as a repair part. Refer to the next higher assembly for a replacement part.
3.  This part is critical for safety purposes. Failure to use a substitute replacement with the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards.

# PACKAGING PART LIST

AMM108 Multipurpose Loudspeaker (see Figure 1)

Item Number	Description	Part Number	Note
1	PAPER TRAY-TOP	-	
2	BAG, FOAM-FILM, .5 EPE, 667X130	-	
3	CARTON, SLEEVE	853681-0010	
4	PAPER TRAY-BOTTOM	-	

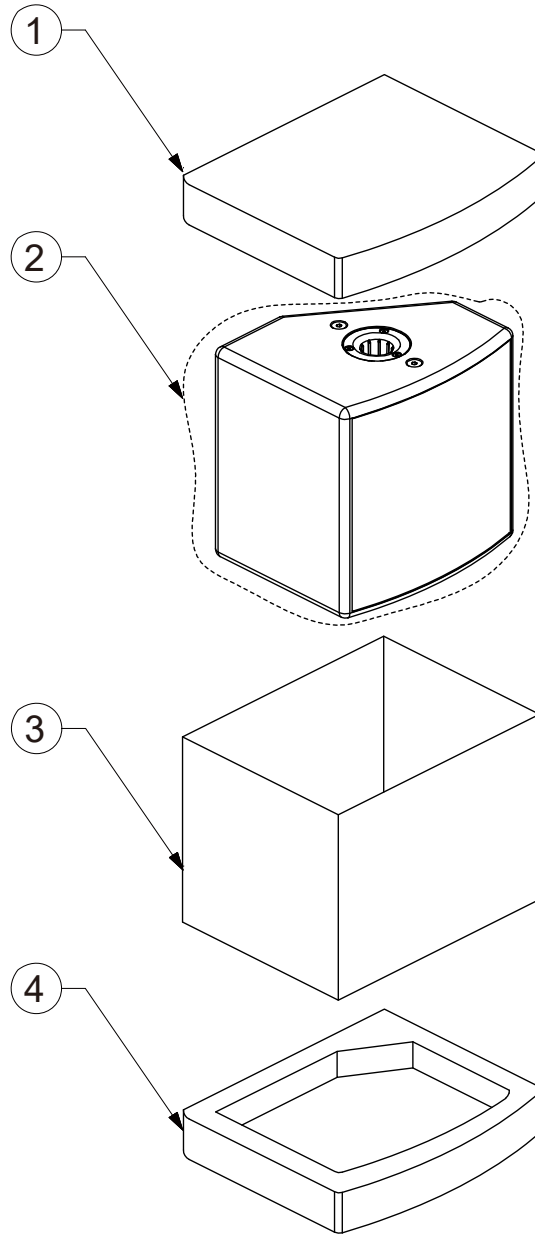


Figure 1. AMM108 Packaging Exploded View

# MAIN ASSEMBLY LIST

AMM108 Multipurpose Loudspeaker (see Figure 2)

Item Number	Description	Part Number	Note
1	ASSY, GRILLE	853627-0110	
2	LEXAN, LABEL	-	
3	ASSY, WAVEGUIDE	-	
4	DRIVER, COAXIAL	841877-0010	
5	CUP, POLE	-	
6	ASSY, ENCLOSURE	-	3 
7	BATTING, ACOUSTIC, BTM	-	
8	ASSY, I/O BOX	-	
9	BATTING, ACOUSTIC, SIDE	-	
10	GASKET, WOOFER BRKT	-	

# MAIN ASSEMBLY EXPLODED VIEW

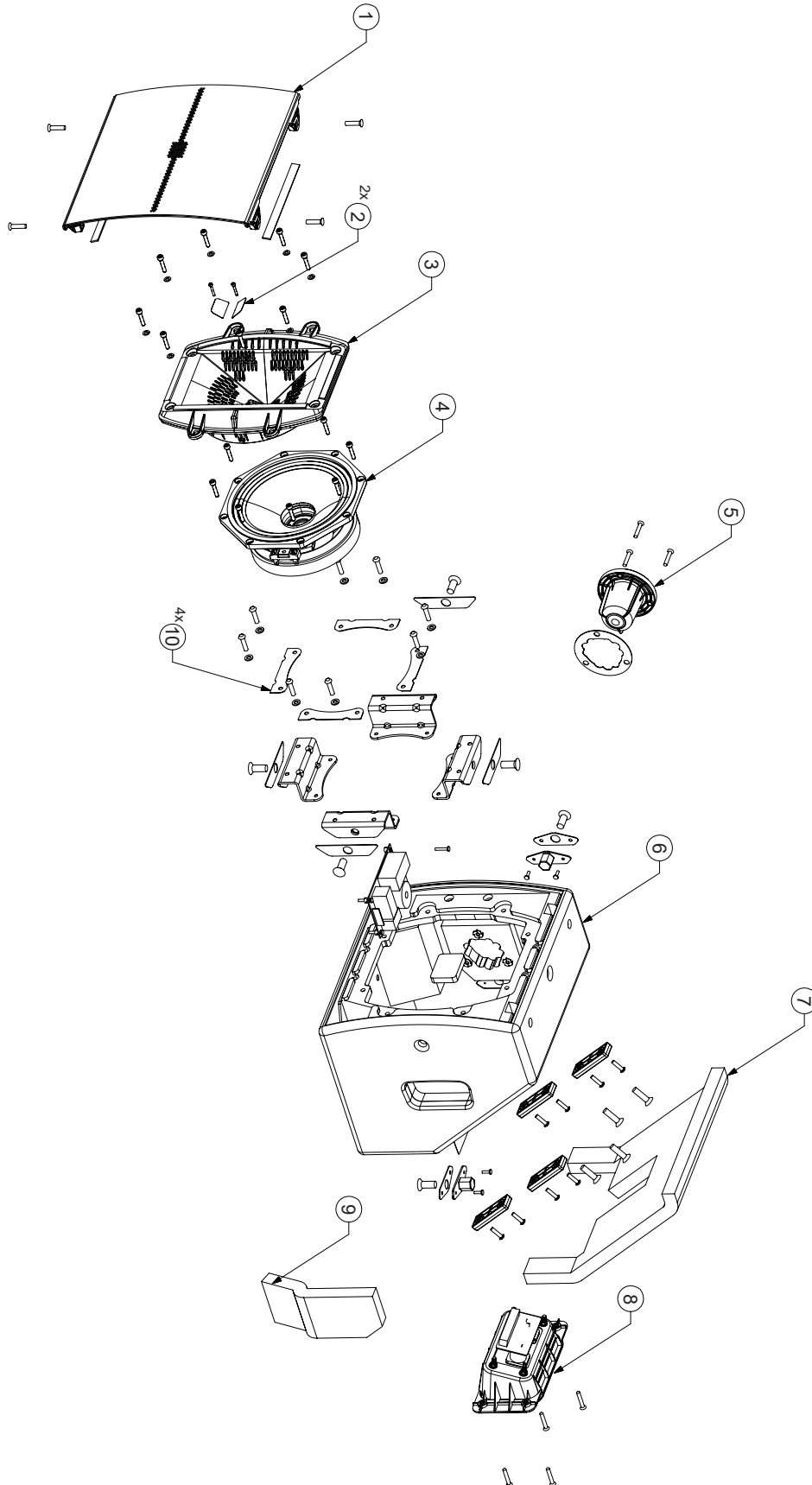


Figure 2. AMM108 Exploded View

# CROSSOVER PCB PARTS LIST

Miscellaneous

Reference Designator	Description	Material Number	Note
-	CAP, FILM, 125, 250V, 5%, 15uF	863360-156J2E	
-	CAP, FILM, 125, 250V, 5%, 5uF	863360-505J2E	
-	INDUCTOR, CUSTOM, 1mA, DCR0.22, 5%, 1.5mH	863381-1R5J	
-	INDUCTOR, CUSTOM, 1mA, DCR0.45, 5%, 0.8mH	863385-R80J	
-	TERMINAL, 250#0.8T, TIN PLATED, IN+	862850-0010	
-	TERMINAL, 205#0.8T, TIN PLATED, IN-	862852-0010	
-	CABLE TIE, PA66, 160X2.5mm	862857-0010	
-	SUPPORT, SPACER, SS4-6, PA66	862859-0010	
-	SOLDER, WIRE, D9930C, Sn/0.7Cu, D1.2mm	862860-0010	
-	ADHESIVE, HIGH BONDING, SA-6060P	863031-0010	
-	ADHESIVE, SILICONE RTV, KE-45	863034-0010	
-	CABLE ASSY, CROSSOVER, HF	863541-0010	
-	CABLE ASSY, CROSSOVER, LF	863545-0010	

# IO ASSY PARTS LIST

Miscellaneous

Reference Designator	Description	Material Number	Note
-	PLATE, CONN MTG, I/O	843682-0110	
-	GASKET, I/O PANEL	843982-0110	
-	GASKET, CONNECTOR, I/O	843986-0110	
-	SOLDER, WIRE, D9930C, Sn/0.7Cu, D1.2mm	862860-0010	
-	CONN, NL4, 4P, R, ST, TH, 31X26mm, 2NUTS	862939-0010	



# DISASSEMBLY PROCEDURE

## 1. Grille Removal

1.1 On the Enclosure of the unit, remove the 4 M6 screws securing the Grille as indicated in Figure 3.

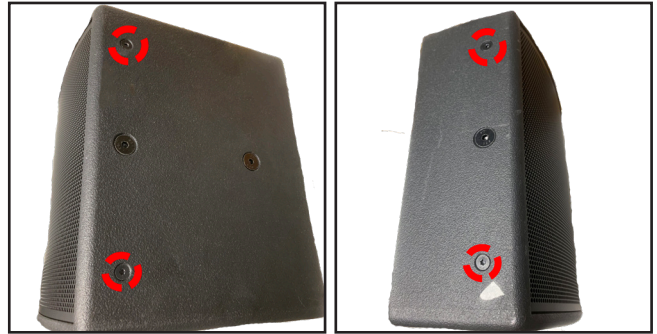


Figure 3. Grille Screws Removal

1.2 Using a spudger, lift up the Grille at the edge to release the Grille edge from the snaps. Figure 4.



Figure 4. Grille Removal With Spudger

**Re-assembly Note:** When installing the Grille, make sure the grille is inserted in the grille guides.

The install torques of the Grille is around 20 +/-1 kgf\*cm.

## 2. Woofer Removal

2.1 Perform step 1.

2.2. Remove the 8 screws securing the Wave-guide as indicated in Figure 5.

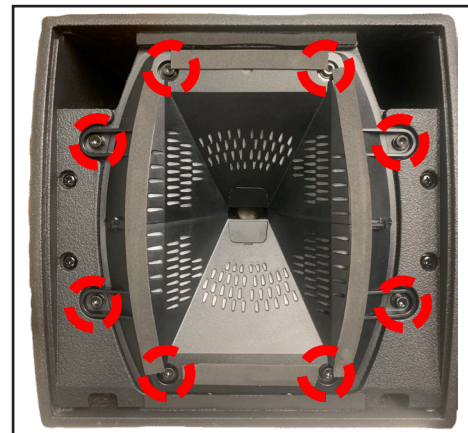


Figure 5. Waveguide Screws Removal

2.3 Use your finger to peel off the 2 Lexan Labels. Figure 6 (left).

**Re-assembly Note:** Both 2 Lexan Labels need to be reused.

2.4 Remove the 2 screws securing the Wave-guide as indicated in Figure 6 (right).

2.5 Lift out the Wave-guide from the enclosure.

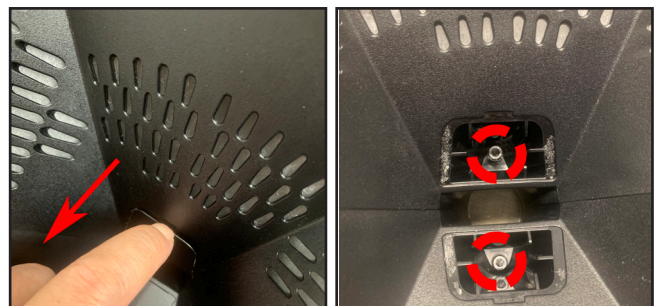


Figure 6. 2 Lexan Labels Removal

# DISASSEMBLY PROCEDURE

**2.6** Remove the 8 screws securing the Woofer Figure 7.

**Re-assembly Note:** The install torques of Woofer is around 20 +/-1 kgf\*cm.

**2.7** Detach the 4 Cable harnesses from the Woofer by pressing the white fastener as indicated in Figure 8.

**Note:** Be careful When removing the Woofer because it is very heavy for magnetism.

## Re-assembly Woofer:

**3.1** Insert the 2 guiding columns (less than 10cm) into the Woofer's screws holes to ensure the Woofer moving downward straightly as the red arrow indicated in Figure 9.

**3.2** The waveguide mounting holes should be top/bottom as the red circles indicated in Figure 9.

**Note:** You can use chopsticks or similar as guiding columns.

**3.3** First install the 6 Screws and then remove the 2 guiding columns, screw the remaining 2.

**Note:** Screw the Woofer on the flat surface.



Figure 7 Woofer Screws Removal

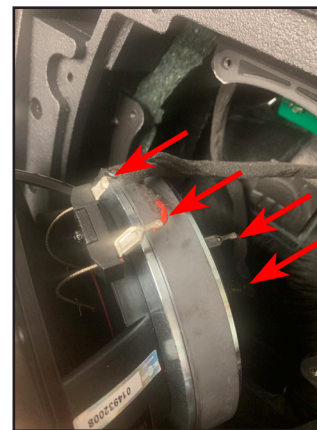


Figure 8. Woofer Cable Harnesses Removal

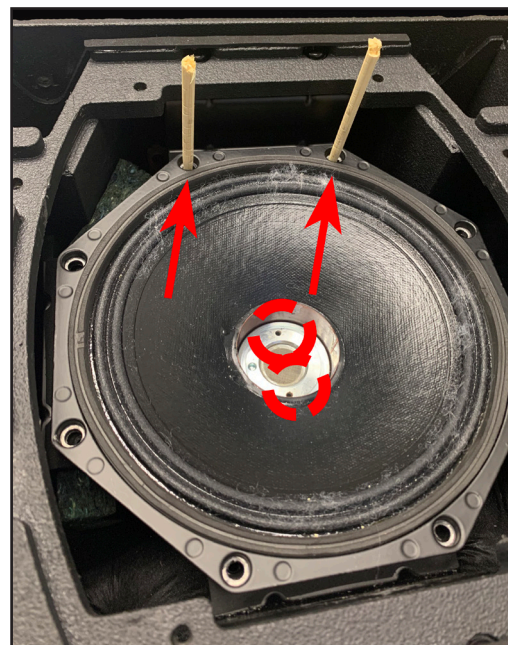


Figure 9. Guiding Columns & Waveguide Mounting Holes

# FUNCTIONAL TEST PROCEDURES

## Required Equipment

- Audio Sweep Generator
- L2400 Power Amplifier

## 1. Air Leak Test

**1.1** Apply a 50 Hz, 10 Vrms tone signal to the unit's PARALLEL (left) input.

**1.2** Listen for any air leaks from sealed areas such as the Grille Assy and Cup Pole.

## 2. Buzz and Sweep Test

**2.1** Apply a 15 Vrms signal to the unit's PARALLEL (left) input.

**2.2** Sweep the generator from 70 Hz to 10 KHz, input sweep sine wave to power amplifier (Filter: -6dB slope, low pass, 100Hz cut-off).

**2.3** Duration Time is 10s - 10s and Listening Distance is 60cm.

**2.4** Listen for buzz, rub, or extraneous sounds. Localize and repair any buzz. Replace any Woofer that rubs or produces extraneous sounds.

# SERVICE MANUAL REVISION HISTORY

Date	Revision Level	Description of Changes	Changes Driven By	Pages (s) Affected
4/13/2021	00	Document released at revision 00	Initial Release	ALL



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Reference Number 843160-SM REV 00, 4/2021  
<http://serviceops.bose.com>