



# **DesignMax DM6C**

In-ceiling Loudspeaker

Installation Guide

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](http://PRO.BOSE.COM).

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produces heat.
9. Only use attachments/accessories specified by the manufacturer.

**WARNINGS/CAUTIONS**

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 mount the product in locations where it may be exposed to water or condensation.
- This product is not intended for installation or use in indoor water facility areas (including, without limitation, indoor pools, indoor water parks, hot tub rooms, saunas, steam rooms and indoor skating rinks).
- 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.
- Use only the hardware and accessories included or specified by Bose for use with DesignMax DM6C loudspeakers. For information on compatible accessories, see the product's technical data sheet at [PRO.BOSE.COM](http://PRO.BOSE.COM).
- Keep the product away from fire and heat sources. Do not place naked flame sources, such as lighted candles, on or near the product.
- Do not make unauthorized alterations to this product.
- Do not expose loudspeaker or mounting components to any chemical substances that are not specified by Bose, including but not limited to lubricants, cleaning agents, contact sprays, or other hydrocarbon-based solvents. Exposure to such substances can lead to degradation of the plastic material, resulting in cracking and creating a falling hazard.
- Clean speakers using only a dry cloth. Do not expose loudspeaker to soap, detergent, mineral oil, alcohol or other cleaning agents or chemicals.
- The grille is equipped with a safety lanyard pin designed for a single use.

**Product Ratings:**

Input Voltage: 70V/100V  
 Impedance: 8 Ω, 100 W  
 Current or Power: (70V): 2.5W, 5W, 10W, 20W, 40W, 80W; (100V): 5W, 10W, 20W, 40W, 80W

**Regulatory Information**

This product conforms to all applicable EU directive requirements. The complete declaration of conformity can be found at: [www.Bose.com/compliance](http://www.Bose.com/compliance).

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						
Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated Biphenyl (PBB)	Polybrominated diphenylether (PBDE)
PCBs	X	0	0	0	0	0
Metal Parts	X	0	0	0	0	0
Plastic Parts	0	0	0	0	0	0
Speakers	X	0	0	0	0	0
Cables	X	0	0	0	0	0

This table is prepared in accordance with the provisions of SJ/T 11364.  
 0: 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 homogeneous materials used for this part is above the limit requirement of GB/T 26572.

**Taiwan Restriction of Hazardous Substances Table**

Equipment name: DesignMax DM6C, Type designation: 829679						
Unit	Restricted substances and its chemical symbols					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr+6)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
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: "0" 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, Plant 9, No. 353 North Ruyi 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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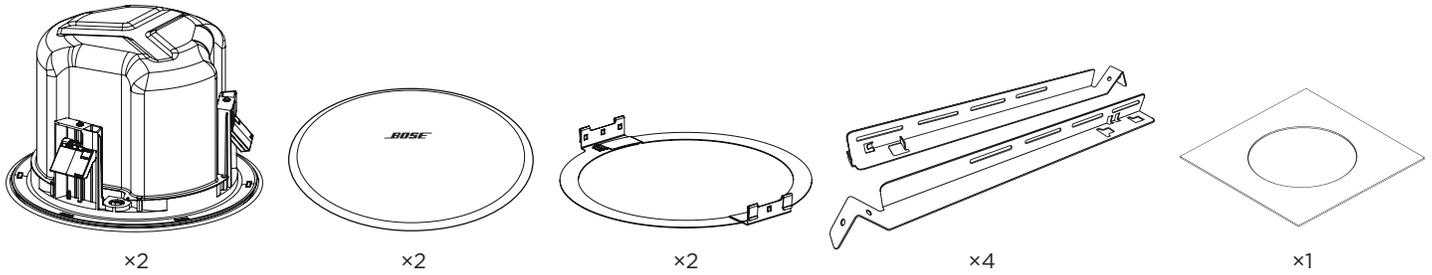
Bose Corporation Headquarters: 1-877-230-5639

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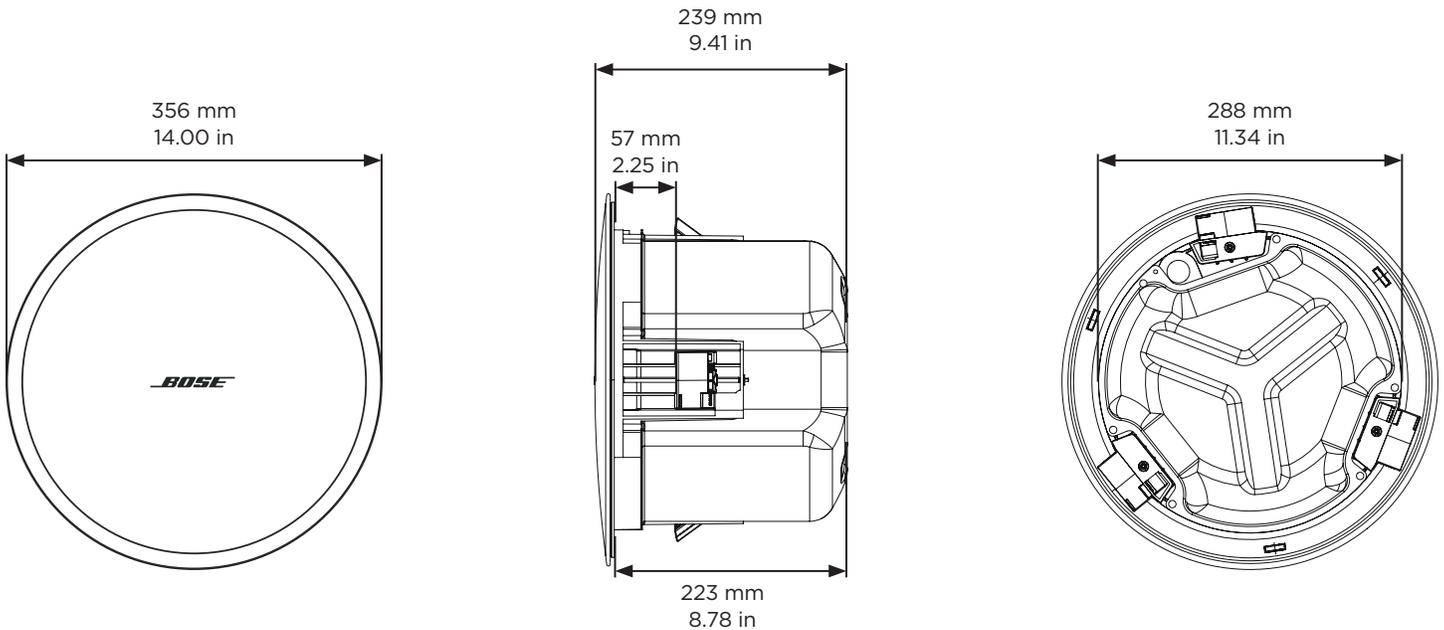
**Warranty Information**

This product is covered by a limited warranty. For warranty details, visit [PRO.BOSE.COM](http://PRO.BOSE.COM).

## Package Contents



## Product Dimensions



## Technical Specifications

For additional specifications, see the DesignMax DM6C technical data sheet at [PRO.BOSE.COM](http://PRO.BOSE.COM).

Physical	
<b>Product Dimensions</b>	Grille diameter: 356 mm (14.00 in)
	Enclosure diameter: 288 mm (11.34 in)
	Backcan depth: 223 mm (8.78 in)
<b>Hole cutout</b>	292 mm (11.5 in)
<b>Maximum Ceiling Thickness</b>	57 mm (2.25 in)
<b>Net Weight, Loudspeaker with grille (single)</b>	6.50 kg (14.3 lb)
<b>Net Weight, Tile Bridge (single)</b>	0.82 kg (1.8 lb)
<b>Shipping Weight (pair)</b>	17.74 kg (39.1 lb)

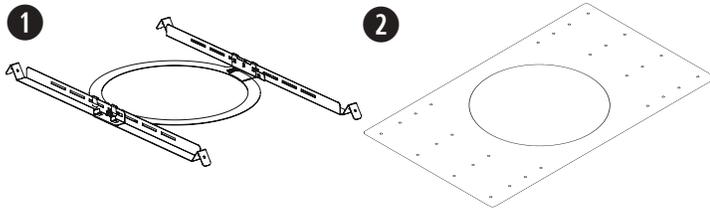
## Important Installation Information

- This product is intended for indoor use only. 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.
- It is the responsibility of the installer to ensure the safety of the loudspeaker installation. Failure to properly install the loudspeaker could result in damage, injury, or death.
- Do not mount the product in locations where it may be exposed to water or condensation.
- This product is not intended for installation or use in indoor water facility areas (including, without limitation, indoor pools, indoor water parks, hot tub rooms, saunas, steam rooms and indoor skating rinks). Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produces heat.
- 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 expose loudspeaker or mounting components to any chemical substances that are not specified by Bose, including but not limited to lubricants, cleaning agents, contact sprays, or other hydrocarbon-based solvents. Exposure to such substances can lead to degradation of the plastic material, resulting in cracking and creating a falling hazard.

## Installation Options

### Installation Options and Accessories

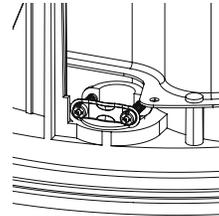
- ❶ Adjustable Tile Bridge (included)
- ❷ Rough-in Pan (optional)



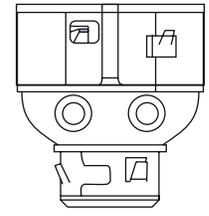
### Conduit Fitting

If using a flexible metal conduit, use with a 3/8-inch conduit fitting or a 3/8-inch dual (duplex) connector.

**Note:** Conduit fittings are not provided.



3/8-inch single in



3/8-inch duplex in/loop

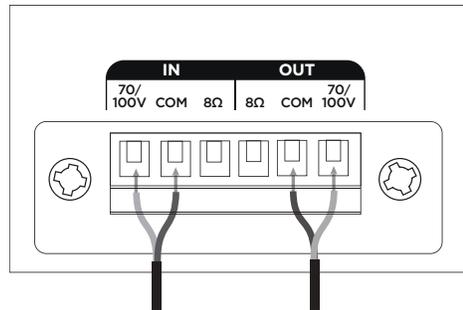
## Wiring the Loudspeaker

### Wire Gauge

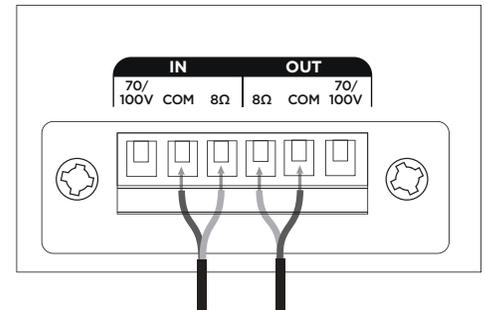
The DesignMax DM6C loudspeaker is designed to work with 18 AWG (0.8 mm<sup>2</sup>) to 14 AWG (2.1 mm<sup>2</sup>) size wire only.

### Connection Diagrams

Expose six millimeters (1/4 inch) of bare wire to attach to the terminals.

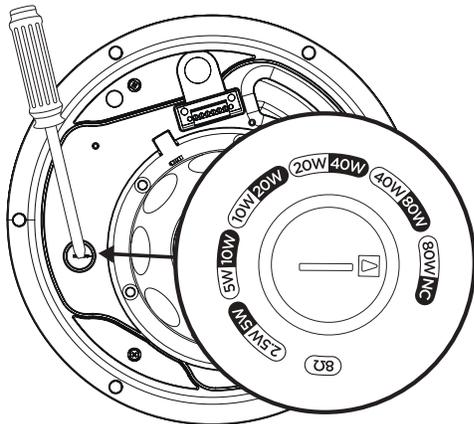


70V/100V



8Ω

## Loudspeaker Settings



70V						8Ω
2.5W	5W	10W	20W	40W	80W*	
5W	10W	20W	40W	80W	NC**	
100V						8Ω

\* Factory default

\*\* NC: No Connection (do not use)

### Transformer Tap Setting

Set tap by turning. Use a flat head screwdriver.

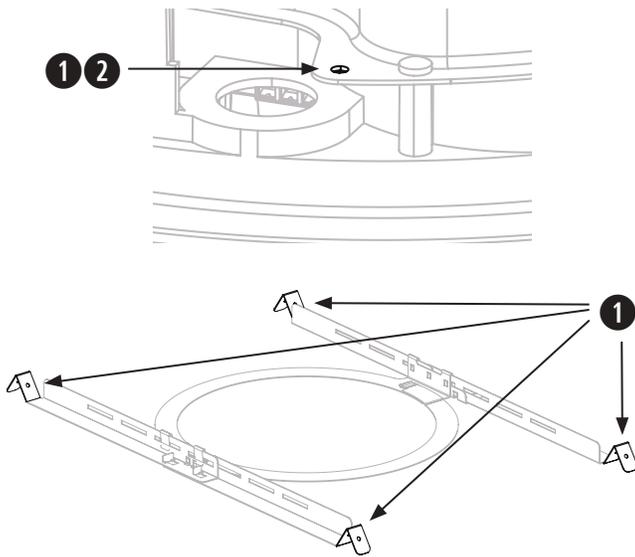
## Preparing the Installation

### Using a Safety Cable

Some regional construction codes require the use of a secondary method of securing loudspeakers to support structures to provide additional safety. Choose a mounting position, method, and hardware consistent with local building codes and regulations.

Bose recommends using (1) a safety wire or (2) a safety cable as a secondary securing mechanism. See the diagrams below for safety attachment points.

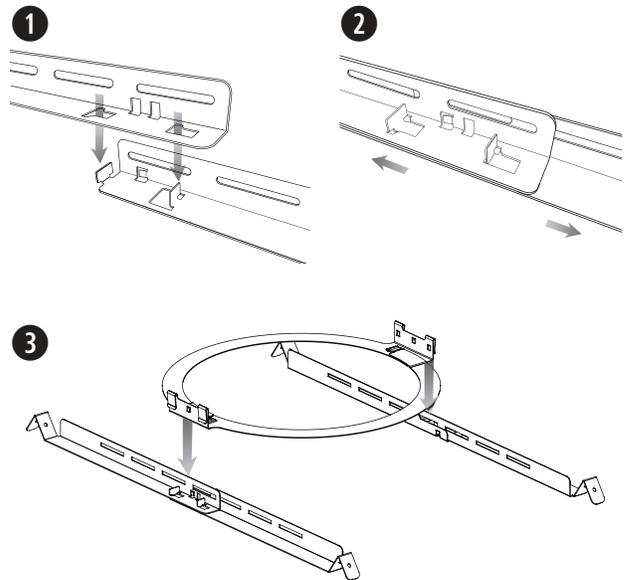
Follow the manufacturer's instructions for any secondary securing mechanism implemented.



### Assembling the Tile Bridge

**Note:** If you are installing in a hard ceiling, assemble the tile bridge after inserting the rails and ring through the hole cutout (see page 6).

1. Align the rails and insert the tabs into the slots.
2. Pull the rails outward to secure them together.
3. Align the rails parallel to each other and press the tile bridge ring down to secure the ring to the rails.

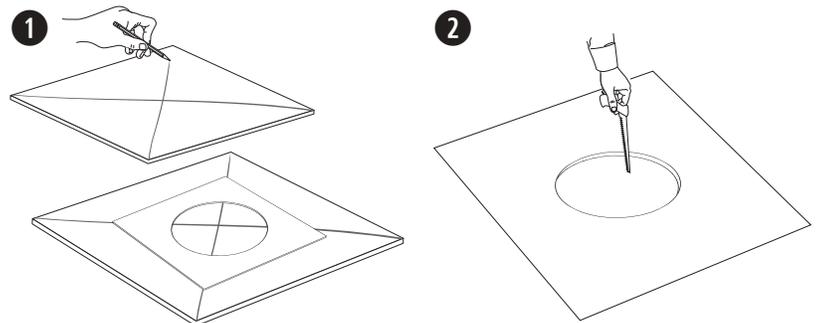


**Note:** Installation in close proximity to cooking surfaces where the loudspeaker may be directly exposed to cooking oils, such as in commercial cooking environments, may decrease the performance or functionality of the loudspeaker.

## Preparing Acoustic Ceiling Tile

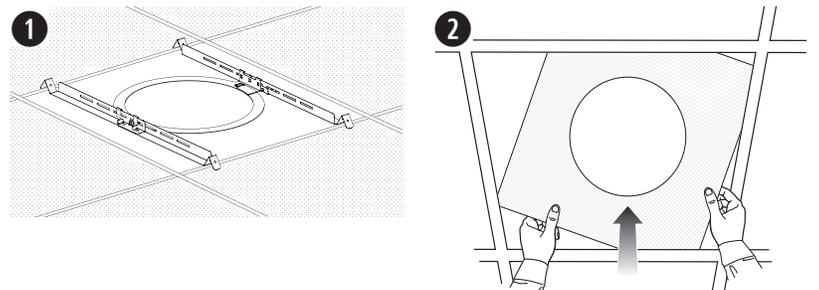
### Cutting the Ceiling Tile

1. Remove the tile and use the template to trace a loudspeaker hole onto the tile. To center the template on the tile, draw an X by connecting the corners diagonally and center the template using the crossing point.
2. Cut a hole into the tile.



### Installing the Tile Bridge

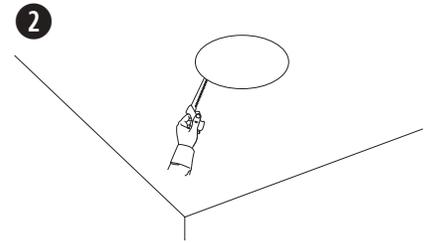
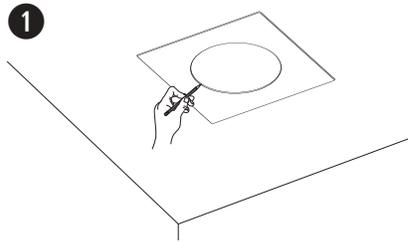
1. Place the assembled tile bridge across the ceiling grid. If necessary, adjust the tile bridge so the rails rest on the ceiling grid.
2. Replace the tile in the ceiling.



## Preparing Hard Ceiling (Existing Construction)

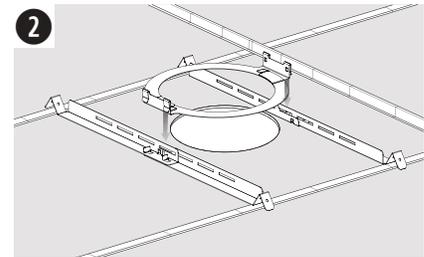
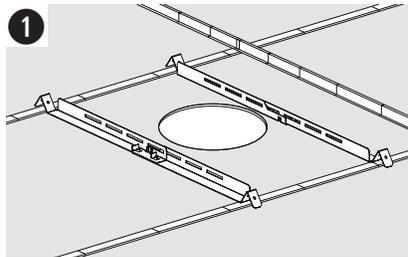
### Cutting the Ceiling

1. Use the template to trace a hole onto the ceiling.
2. Cut a hole into the ceiling.



### Installing the Tile Bridge

1. Insert the tile bridge rails and ring through the hole and place the rails parallel to each other across the ceiling grid or ceiling furring.
2. Assemble the tile bridge.

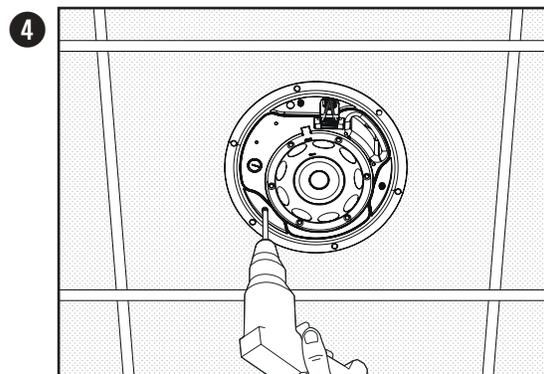
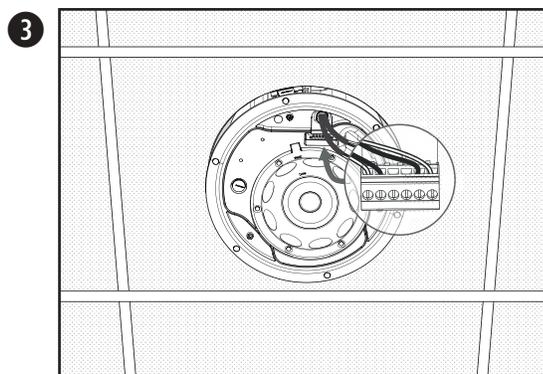
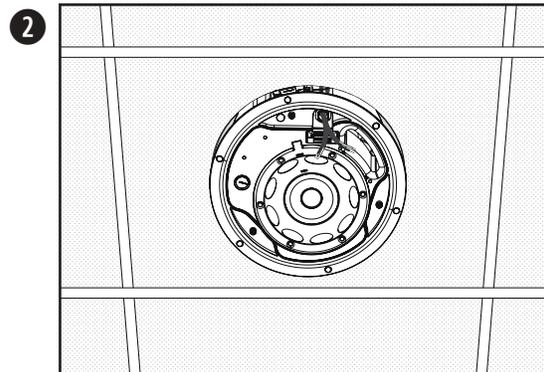
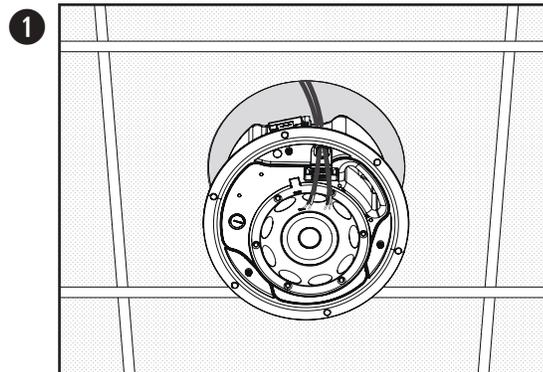


## Mounting the Loudspeaker

1. Pass the audio wire through the wire opening.
2. Insert the loudspeaker through the hole and into the tile bridge. Make sure the anchors engage on the tile bridge before loosening your grip on the loudspeaker.
3. Remove the connector, wire the connector, and reinsert the connector into the loudspeaker. For wiring information, see **Wiring the Loudspeaker** on page 4.
4. Tighten the anchor arm screws to secure the loudspeaker. If using a power drill, set to a low torque setting.



**WARNING:** Over-tightening the screws may result in damage to the anchor attachment point or the ceiling, which could lead to a falling hazard.

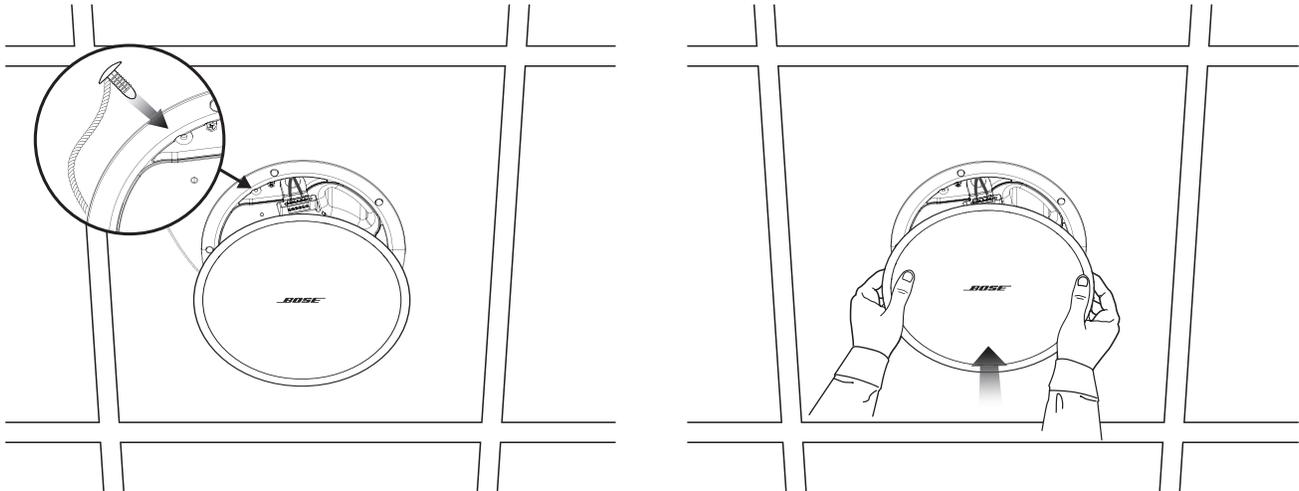


## Installing in Hard Ceiling Using a Rough-in Pan (New Construction)

For information on installing a rough-in pan, see the DesignMax Rough-in Pan installation guide at [PRO.BOSE.COM](http://PRO.BOSE.COM). Once the rough-in pan is installed, see **Mounting the Loudspeaker** on page 6.

### Attaching the Grille

Insert the safety lanyard pin into the hole in the loudspeaker. Using both hands, position the grille against the loudspeaker. The grille secures to the loudspeaker magnetically.



## Safety and Regulatory Compliance

The Bose DesignMax DM6C loudspeaker has passed testing and complies with the following specifications and uses:

Listed to ANSI/UL 1480A-2016, Speakers for Commercial & Safety Professional Use

General-Purpose Use - UL Category UEAY, File Number S 5591 Control Number 3N89

UL-2043, 2013, Fire Test and Visible Smoke Release for Discrete Products and their Accessories Installed in Air Handling Spaces. Suitable for use in air handling (plenum) spaces.

Suitable for installation using Class 1, Class 2, Class 3 wiring methods in accordance with NFPA 70, National Electrical Code, 2017, Article 640

NFPA 70, National Electrical Code, 2017, Article 300-22(c)

NFPA 90-A, 2015, Installation of Air Conditioning and Ventilation Systems, Paragraph 4.3.11.2.6.5

The DesignMax DM6C loudspeaker has been designed to the requirements defined in the following European regulatory specification for combination systems:

Tested to IEC60268-5, 2007



837250-0010

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