



BOSE PROFESSIONAL DM3C DesignMax In-Ceiling Loudspeaker Installation Guide

[Home](#) » [BOSE PROFESSIONAL](#) » BOSE PROFESSIONAL DM3C DesignMax In-Ceiling Loudspeaker Installation Guide 

Contents

- [1 BOSE PROFESSIONAL DM3C DesignMax In-Ceiling Loudspeaker](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 Important Safety Instructions](#)
 - [4.1 Product Ratings](#)
- [5 Regulatory Information](#)
- [6 Warranty Information](#)
- [7 Overview](#)
- [8 Setup](#)
 - [8.1 Wiring the Loudspeaker](#)
 - [8.2 Preparing the Installation](#)
 - [8.3 Preparing Acoustic Ceiling Tile](#)
- [9 Installation](#)
- [10 More Information](#)
- [11 Documents / Resources](#)
 - [11.1 References](#)



BOSE PROFESSIONAL DM3C DesignMax In-Ceiling Loudspeaker



Product Information

DesignMax DM3C In-Ceiling Loudspeaker

The DesignMax DM3C is an in-ceiling loudspeaker designed for use in commercial and residential settings. It comes with mounting instructions and can be used with attachments/accessories specified by the manufacturer. The product contains magnetic material and caution must be taken if the user has an implantable medical device. The product conforms to all applicable EU directive requirements and Electromagnetic Compatibility Regulations 2016. It should not be discarded as household waste and should be delivered to an appropriate collection facility for recycling.

Product Ratings

- **Input Voltage:** 70V/100V
- **Impedance:** 8 ohms
- **Current or Power:** (70V): 3W, 6W, 12W, 25W; (100V): 6W, 12W, 25W

China Restriction of Hazardous Substances Table

The product contains some toxic or hazardous substances such as lead, mercury, cadmium, hexavalent, polybrominated biphenyls (PBB), and polychlorinated biphenyls (PCBs). The table shows that these substances are below the limit requirement of GB/T 26572 in all of the homogeneous materials for this part.

Taiwan Restriction of Hazardous Substances Table

The table shows that the product does not exceed the percentage of reference for the restricted substances such

as lead, mercury, cadmium, hexavalent chromium (Cr+6), polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), and polychlorinated biphenyls (PCBs) in all of its parts.

Product Usage Instructions

1. Read and keep all safety and use instructions.
2. Avoid installing the loudspeaker near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produces heat.
3. Use attachments/accessories specified by the manufacturer only.
4. Consult your physician if you have an implantable medical device that may be affected by the magnetic material in the product.
5. Deliver the product to an appropriate collection facility for recycling instead of discarding it as household waste.

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 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 DM3C loudspeakers. For information on compatible accessories, see the product's technical data sheet at 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 , 25 W
- **Current or Power:** (70V): 3W, 6W, 12W, 25W; (100V): 6W, 12W, 25W

Regulatory Information

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

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: 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						
	Toxic or Hazardous Substances and Elements					
Part Name	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent (Cr(VI))	Polybrominated Biphenyl (PBB)	Polybrominated diphenylether (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 homogeneous materials used for this part is above the limit requirement of GB/T 26572.

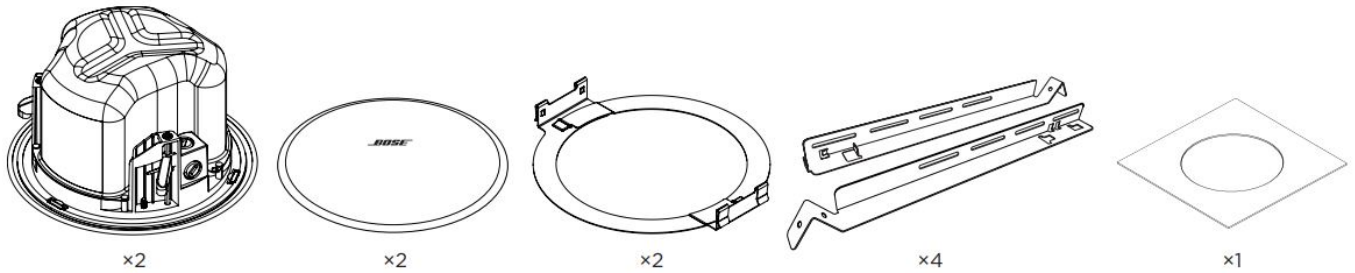
Equipment name: DesignMax DM3C, Type designation: 829708						
	Restricted substances and its chemical symbols					
Unit	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr +6)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
PCBs	—	○	○	○	○	○
Metal Parts	—	○	○	○	○	○
Plastic Parts	○	○	○	○	○	○
Speakers	—	○	○	○	○	○
Cables	—	○	○	○	○	○
<p>Note 1: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.</p> <p>Note 2: The “—” indicates that the restricted substance corresponds to the exemption.</p>						

Warranty Information

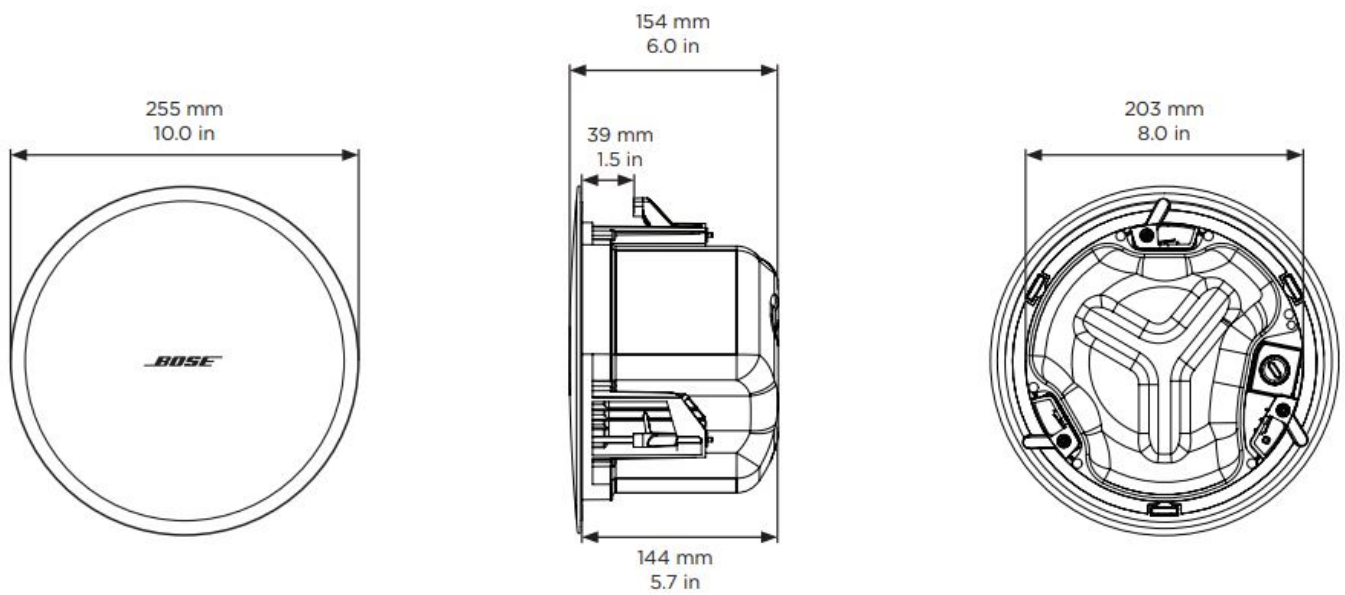
- This product is covered by a limited warranty.
- For warranty details, visit [PRO.BOSE.COM](https://www.pro.bose.com).

Overview

Package Contents



Product Dimensions



Technical Specifications

For additional specifications, see the DesignMax DM3C technical data sheet at [PRO.BOSE.COM](https://www.pro.bose.com).

Physical	
Product Dimensions	Grille diameter: 255 mm (10.0 in)
Enclosure diameter: 203 mm (8.0 in)	
Backcan depth: 144 mm (5.7 in)	
Hole cutout	208 mm (8.2 in)
Maximum Ceiling Thickness	39 mm (1.5 in)
Net Weight, Loudspeaker with grille (single)	2.68 kg (5.9 lb)
Net Weight, Tile Bridge (single)	0.77 kg (1.7 lb)
Shipping Weight (pair)	8.70 kg (19.2 lb)

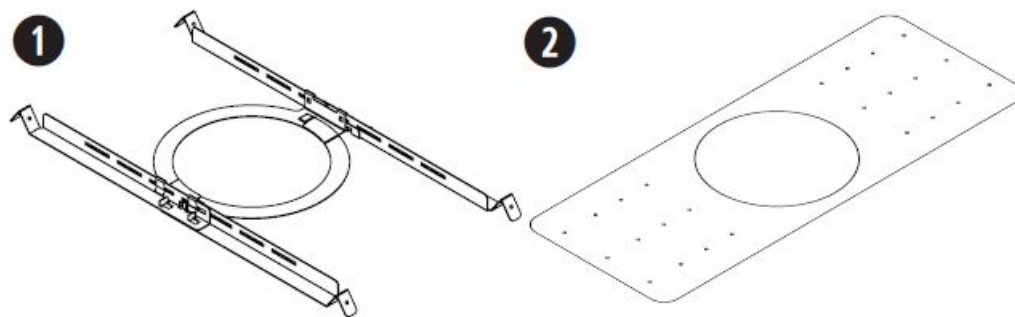
Important Installation Information

- 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.

Setup

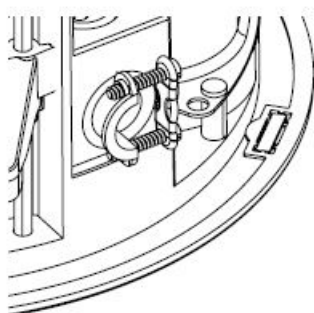
Installation Options

Installation Options and Accessories

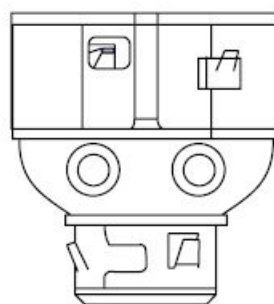


1. Adjustable Tile Bridge (included)
2. Rough-in Pan (optional)

Conduit Fitting



$\frac{3}{8}$ -inch single in

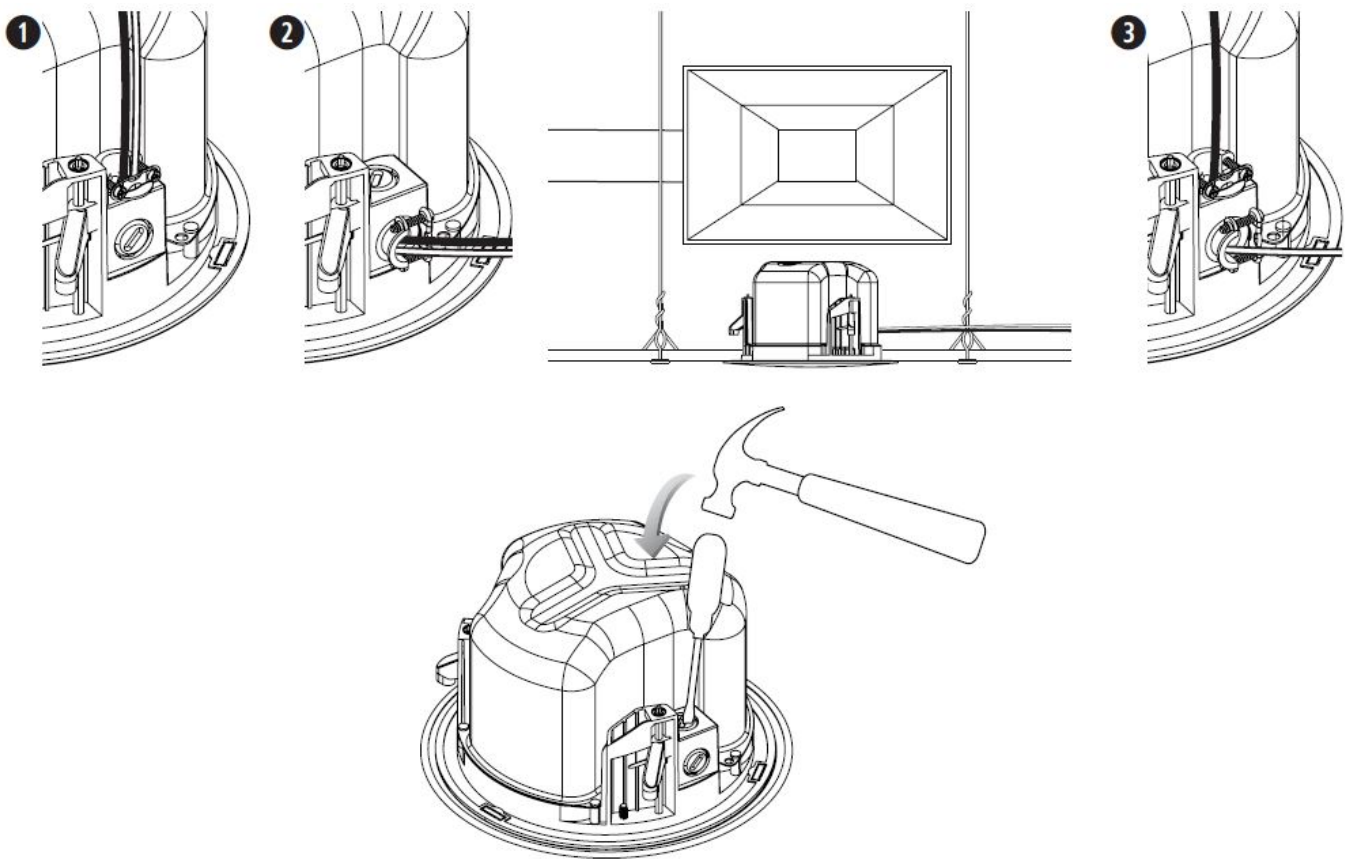


$\frac{3}{8}$ -inch duplex in/loop

- 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.

Choosing an Installation Method



1. Top Knockout

- Use the top knockout when there is available space above the ceiling.

2. Side Knockout

- Use the side knockout when there is limited space above the ceiling.

3. Both Knockouts

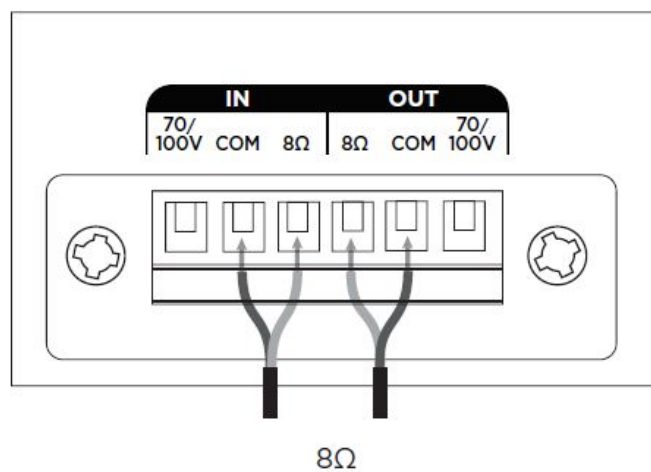
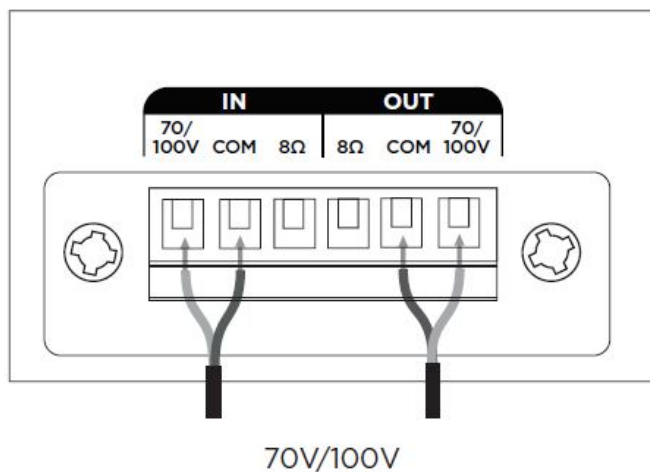
- Use both knockouts when an independent signal-in and signal-out wiring scheme is required and there is available space above the ceiling.

Wiring the Loudspeaker

Wire Gauge

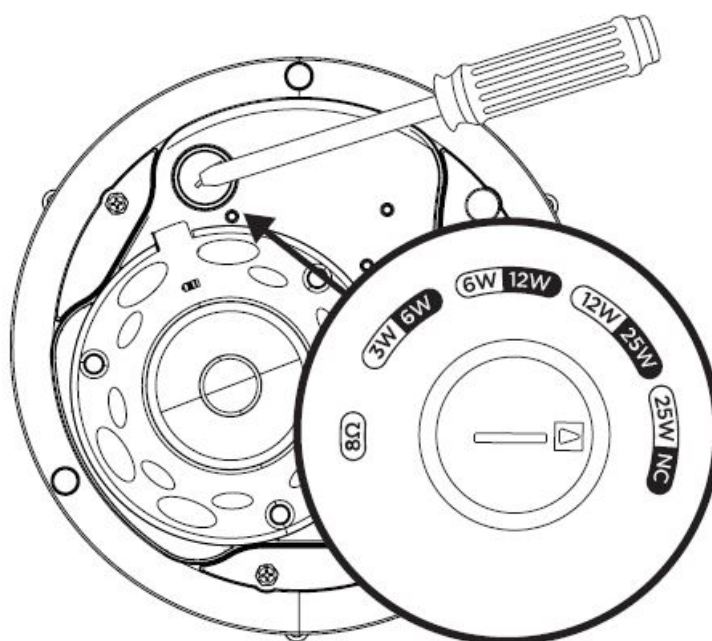
- The DesignMax DM3C loudspeaker is designed to work with 18 AWG (0.8 mm²) to 14 AWG (2.1 mm²) size wire only.

Connection Diagrams



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

Loudspeaker Settings

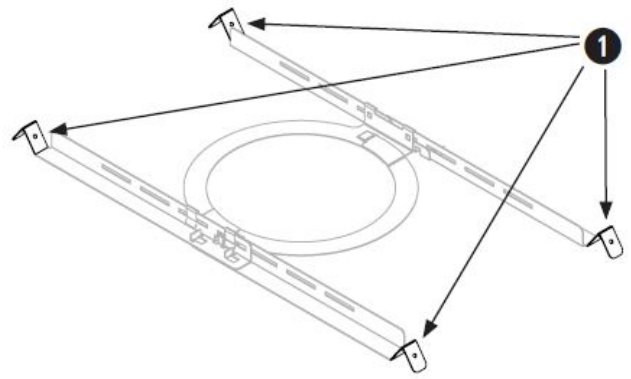
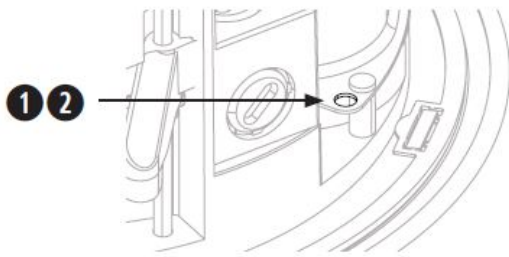


70V				
3W	6W	12W	25W*	8Ω
6W	12W	25W	NC*	
	100V			

- * Factory default
- ** **NC**: No Connection (do not use)

Preparing the Installation

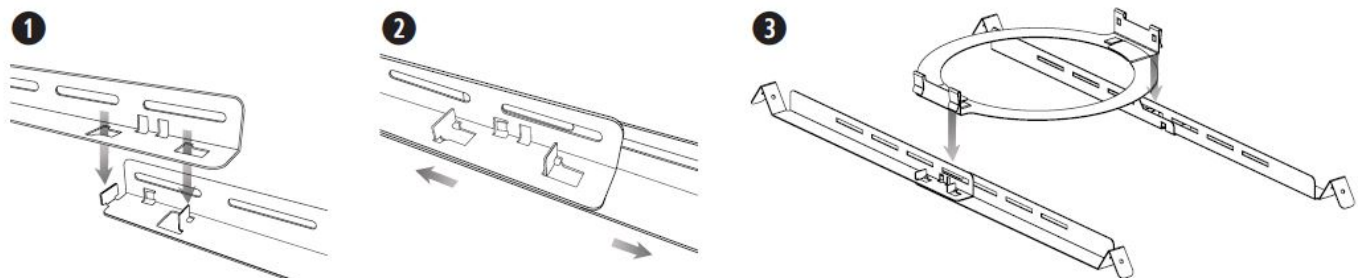
Using a Safety Cable



- 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.

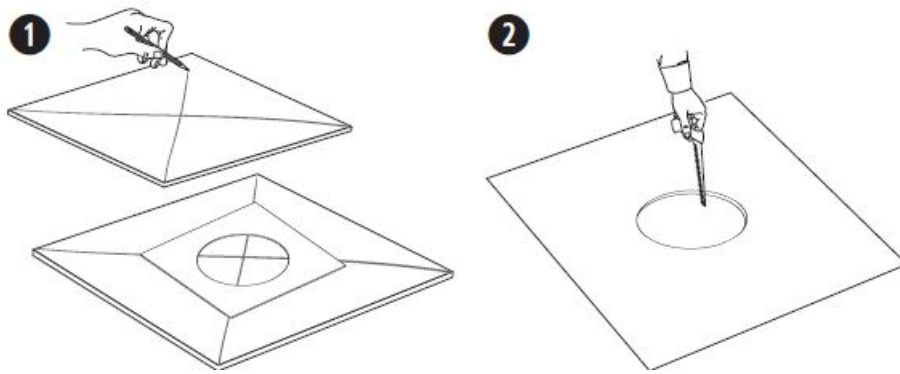


1. Align the rails and insert the tabs into the slots.
2. Pull the rails outward to secure them together.
3. Align the rails parallel to each other and press the tile bridge ring down to secure the ring to the rails.

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.

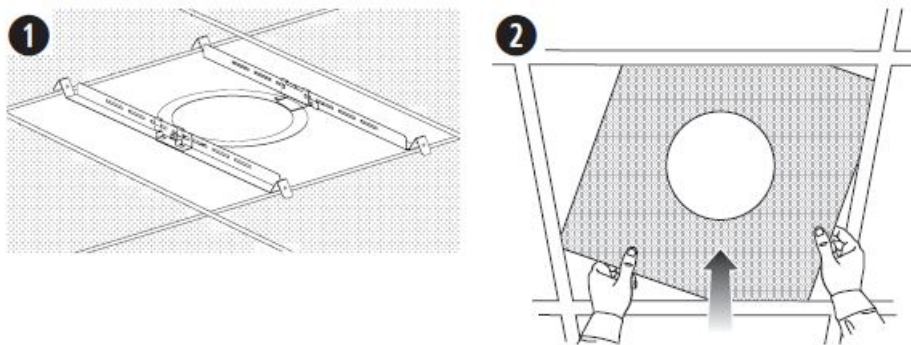
Preparing Acoustic Ceiling Tile

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

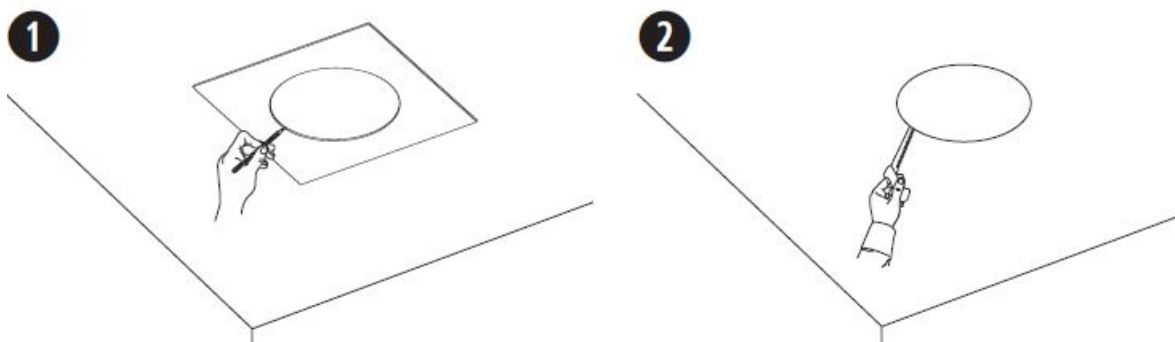


1. Place the assembled tile bridge across the ceiling grid. If necessary, adjust the tile bridge so the rails rest on the ceiling grid.
2. Replace the tile in the ceiling.

Installation

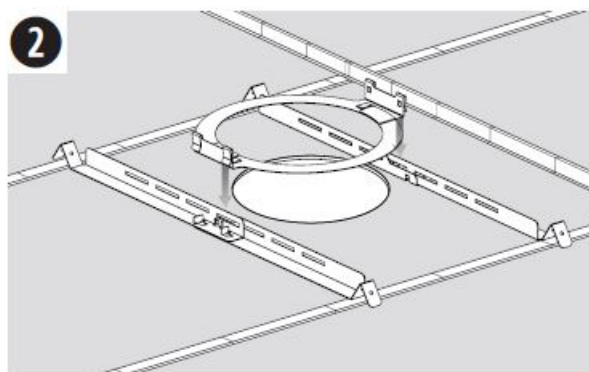
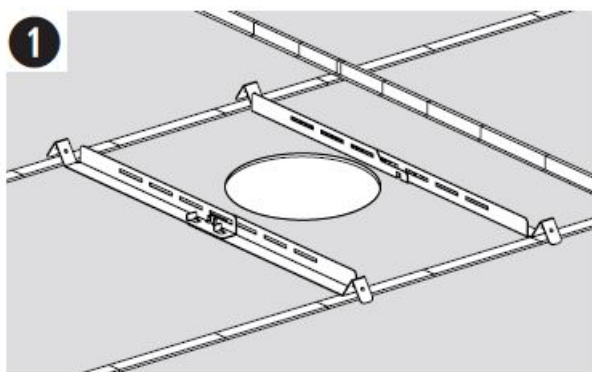
Preparing Hard Ceiling (Existing Construction)

Cutting the Ceiling



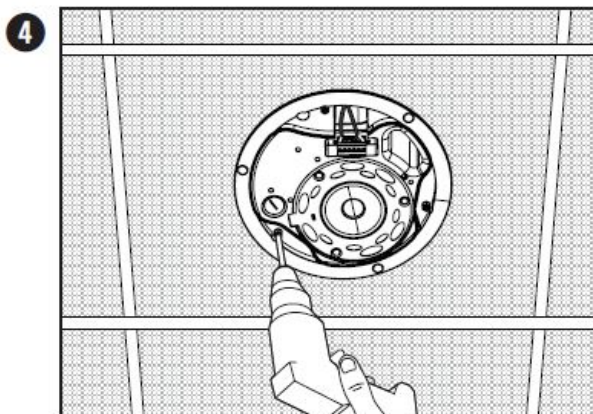
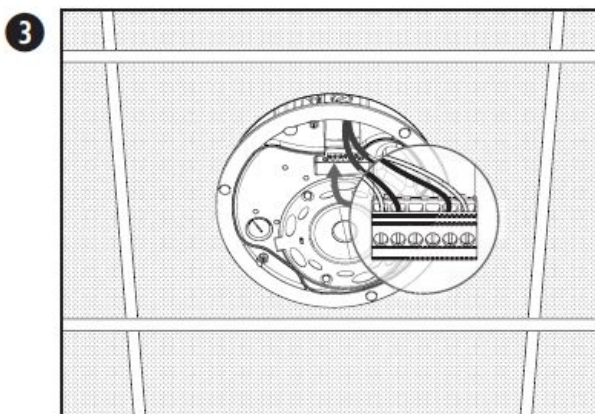
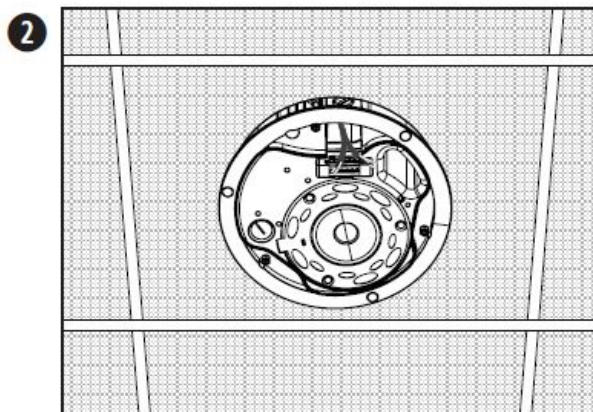
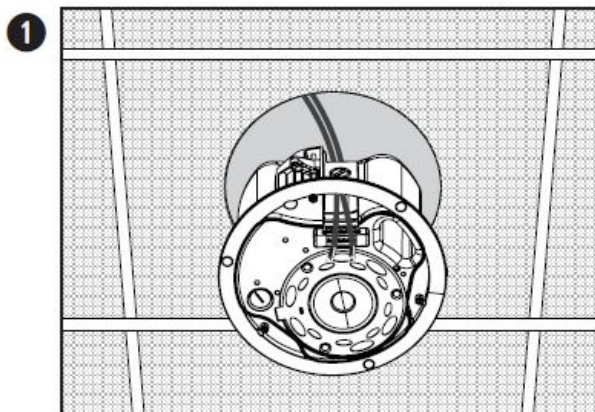
1. Use the template to trace a hole onto the ceiling.
2. Cut a hole into the ceiling.

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

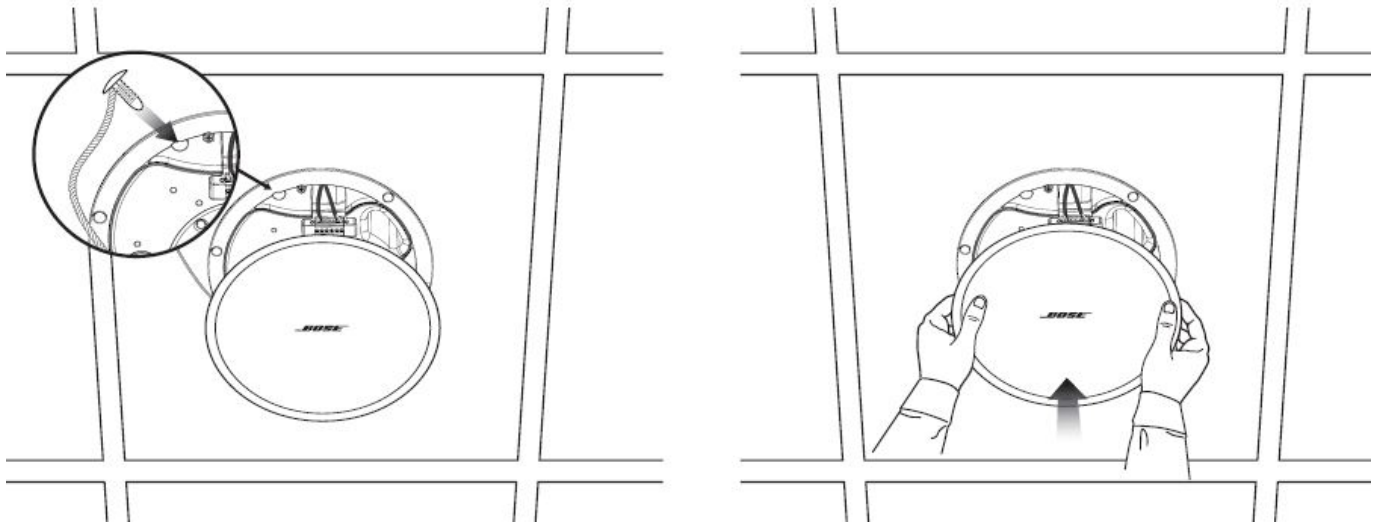


1. Pass the audio wire through the wire opening.
2. Insert the loudspeaker through the hole and into the tile bridge. Make sure the anchors engage on the tile bridge before loosening your grip on the loudspeaker.
3. Remove the connector, wire the connector, and reinsert the connector into the loudspeaker. For wiring information, see [Wiring the Loudspeaker](#).
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.
- Once the rough-in pan is installed, see Mounting the Loudspeaker.

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 DM3C 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 DM3C loudspeaker has been designed to the requirements defined in the following European regulatory specification for combination systems:
 - Tested to IEC60268-5, 2007

More Information

- **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 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
- **UK Importer:** Bose Limited, Bose House, Quayside Chatham Maritime, Chatham, Kent, ME4 4QZ, United Kingdom
- **Bose Corporation Headquarters:** 1-877-230-5639
- Bose and DesignMax are trademarks of Bose Corporation.

©2021 Bose Corporation. No part of this work may be reproduced, modified, distributed or otherwise used without prior written permission.

©2021 Bose Corporation, All rights reserved.

Framingham, MA 01701-9168 USA

[PRO.BOSE.COM](https://www.pro.bose.com)

AM837246 Rev. 02

November 2021



837246-0020

Documents / Resources

 <p>DesignMax DM3C In-Ceiling Loudspeaker</p> <table border="1"><tr><td>Model</td><td>DM3C</td></tr><tr><td>Power Rating (W)</td><td>100</td></tr><tr><td>Frequency Response (Hz)</td><td>40 - 20,000</td></tr><tr><td>Impedance (ohms)</td><td>16</td></tr><tr><td>Dimensions (H x W x D)</td><td>1.5 x 1.5 x 1.5</td></tr><tr><td>Weight (lb)</td><td>1.5</td></tr></table>	Model	DM3C	Power Rating (W)	100	Frequency Response (Hz)	40 - 20,000	Impedance (ohms)	16	Dimensions (H x W x D)	1.5 x 1.5 x 1.5	Weight (lb)	1.5	<p>BOSE PROFESSIONAL DM3C DesignMax In-Ceiling Loudspeaker [pdf] Installation Guide DM3C DesignMax In-Ceiling Loudspeaker, DM3C, DesignMax In-Ceiling Loudspeaker, In-Ceiling Loudspeaker, Ceiling Loudspeaker, Loudspeaker</p>
Model	DM3C												
Power Rating (W)	100												
Frequency Response (Hz)	40 - 20,000												
Impedance (ohms)	16												
Dimensions (H x W x D)	1.5 x 1.5 x 1.5												
Weight (lb)	1.5												

References

-  [Bose Professional](#)