

BOSE FS2P FreeSpace Pendant Loudspeaker User Guide

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FreeSpace FS2P Pendant Loudspeaker



PRO.BOSE.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 **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.



This product contains magnetic material. Consult your physician on whether this might affect your implantable medical device.

Contains small parts which may be a choking hazard. Not suitable for children under age 3.

- This product is intended for indoor use only.
- All Bose products must be installed in accordance with local, state, federal, and industry regulations. It is the
 installer's responsibility to ensure the 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.
- Do not expose this product to dripping or splashing and do not place objects filled with liquids, such as vases, on or near the product.
- Do not mount on surfaces that are not sturdy, or that have hazards concealed behind them, such as electrical
 wiring or plumbing. Ensure the bracket is installed by a qualified professional installer and in accordance with
 local building codes.
- Use only the hardware and accessories included or specified by Bose for use with FreeSpace FS2P 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 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 the loudspeaker to soap, detergent, mineral oil, alcohol or other cleaning agents or chemicals.

Cable-specific Warnings:

- The cable 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 use for liftings, such as a crane or pulley, or for hanging installations that include movement or dynamic behavior. Intended for hanging static loudspeakers only.
- Do not walk or stand on the cable installation.
- Do not paint the cable fastener or any other part of the cable assembly.
- If using a cable system not supplied by Bose, the working load limit must be equal to or greater than the supplied cable system.
- Do not apply oil or any other lubricant to the cable fastener or any other part of the cable assembly.
- Never join two cables together. Only use one cable assembly per loudspeaker hang point.
- Only use the pendant suspension cable with Bose pendant loudspeakers.

Product Ratings:

Input Voltage: 70V/100V Impedance: 16Ω , 16 W

Current or Power: (70V): 1W, 2W, 4W, 8W, 16W; (100V): 2W, 4W, 8W, 16W

Regulatory Information

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Do not paint or modify factory-applied finishes.

This product conforms to all applicable EU directive requirements. 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 help protect natural resources, human health, and the environment. For more information on the disposal and recycling

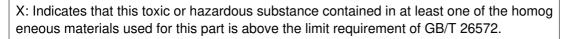
of this product, contact your local municipality, disposal service, or the shop where you bought this product.

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 Bien (PBB)yl | Polybrominated diphenyl (PBDE)her |
| 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.

0: Indicates tha this toxic or hazardous substance contained in all of the homogeneous m aterials for this part is below the limit requirement of GB/T 26572.





Taiwan Restriction of Hazardous Substances Table

| Equipment name: FreeSpace FS2P, Type designation: 841153 | | | | | | |
|--|--|-----------------|-----------------|------------------------|--|---|
| | Restricted substances and its chemical symbols | | | | | |
| Unit | Lead (Pb) | Mercury (Hg) | Cadmium (Cd) | Hexavalent chromium | c(Cm) Polybrominated biphenyls (PBB) | Polybrominated diPhenyl ethers (PBDE) |
| PCBs | - | О | 0 | О | 0 | 0 |
| Metal Parts | - | О | 0 | 0 | О | 0 |
| Plastic Parts | | О | 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 the 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 Rising 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

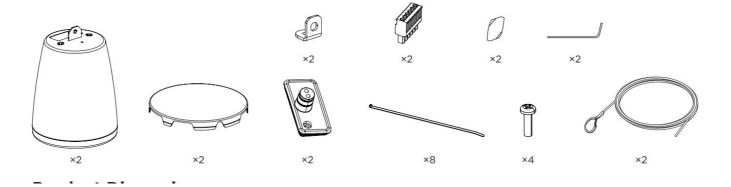
This product is covered by a limited warranty. For warranty details, visit **PRO.BOSE.COM**.

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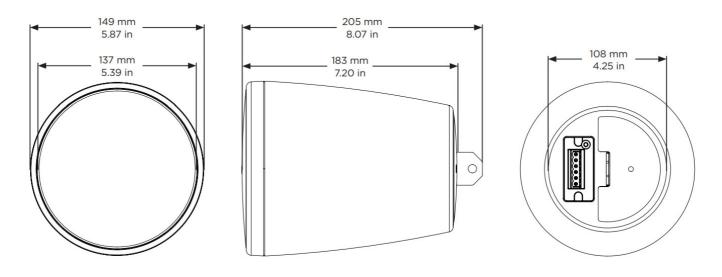
- 1 Overview
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- **2 Technical Specifications**
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Overview

Package Contents



Product Dimensions



Technical Specifications

For additional specifications, see the FreeSpace FS2P technical data sheet at PRO.BOSE.COM. For EN 54-24 specifications (including required external EQ), see the FreeSpace FS2P EN 5424 certified ratings (AM857610 Rev. 00) at PRO.BOSE.COM.

| Physical | |
|--|-------------------------------------|
| Product Dimensions | Grille Diameter: 137 mm (5.39 in) |
| | Enclosure diameter:149 mm (5.87 in) |
| | Depth: 205 mm (8.07 ln) |
| Cable Dimensions | Length: 4.57 m (15.00 ft) |
| | Diameter: 2 mm (0.08 ln) |
| Max Load (Safe Working Load) ' | 45.36 kg (100.0 lb) |
| Net Weight, Loudspeaker with grille (single) | 1.47 kg (3.25 lb) |
| Shipping Weight (pair) | 4.06 kg (8.95 lb) |
| Environmental | Indoor Only |

1. Always use the cable within its stated Safe Working Load. The included suspension cable has a Safe Working Load of 100 lbs.

Important Installation Information



Before installing the loudspeaker, review Important Safety Instructions on page 2.



For fire and evacuation notification applications, environmentally rated to IP21C per EN 54-24.

Setup

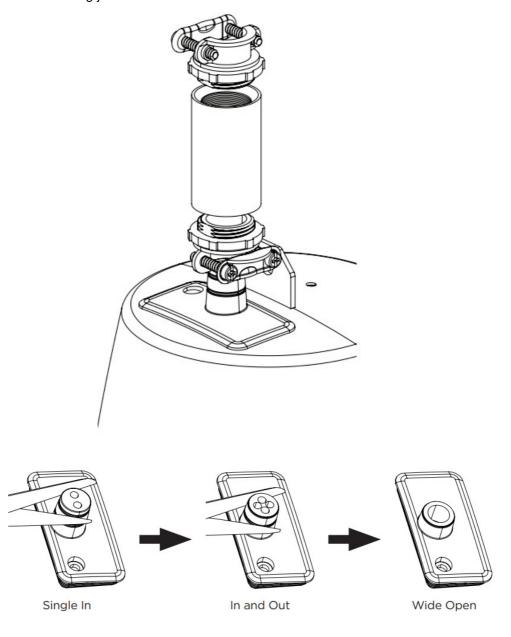
The input cover is designed for three different wiring scenarios. To change the configuration of the input cover to support your wiring scenario, cut along the perforation on the rubber conduit. Use one 1/2-inch to 1/2-inch threaded coupling and two 3/8-inch trade size conduit fittings for 1/2-inch knockouts (see diagram to the right).



CAUTION: Do not use the wide-open wiring scenario when installing the input cover with a flexible conduit.

Note: It is the installer's responsibility to seal against water ingress into the Euroblock connector. Use outdoor or marine-grade silicone to seal all wiring connections to ensure a tight seal.

Note: Flexible conduits and couplings must be UL Listed, suitable for the application, and installed in accordance with the local authorities having jurisdiction.



Wiring the Loudspeaker

Wire Gauge

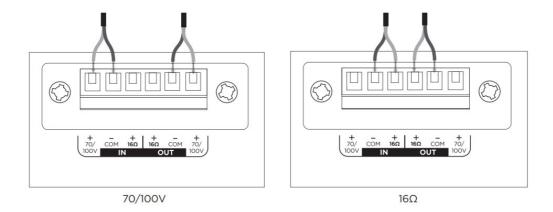
The FreeSpace FS2P loudspeaker is designed to work with 18 AWG (0.8 mm 2) to 14 AWG (2.1 mm 2) size wire only.

Connection Diagrams

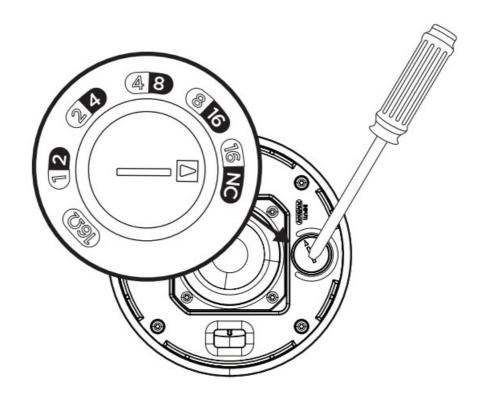
Expose six millimeters (1/4 inch) of the bare wire to attach to the terminals.

Note: The loudspeaker is not rated for use with a rigid conduit. The loudspeaker is suitable for a flexible conduit or wiring connection only.

Note: Wiring method must be in accordance with: In Canada, CSA C22.1, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations, Section 32; In the United States, The National Electrical Code, NFPA 70, and the National Fire Alarm and Signaling Code, NFPA 72.



Loudspeaker Settings



| 70V | | | | | |
|------|----|----|-----|------|------|
| 1W | 2W | 4W | 8W | 16W* | 16Ώ |
| 2W | 4W | 8W | 16W | NC** | 1022 |
| 100V | | | | | |

^{*} Factory default

Transformer Tap Setting
Set tap by turning. Use a flat head screwdriver.

Installation

^{**} NC: No Connection (do not use)

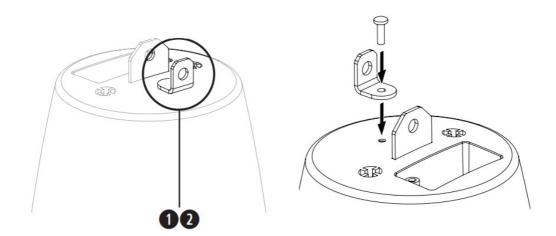
Preparing the Installation

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.

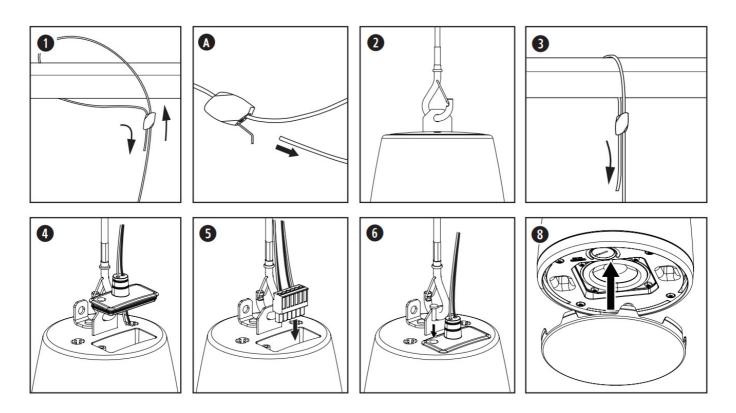
Bose recommends using (1) a safety wire or (2) a safety cable as a secondary securing mechanism (not included). See the diagram to the right for safety attachment points.

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



Mounting the Loudspeaker

- 1. Insert the included suspension cable through the cable fastener and wrap the cable around a support structure; secure the cable using the cable fastener. Note: Arrows on the cable fastener indicate the cable direction.
 - A. To loosen the cable, insert the fastener tool into the release hole and adjust the cable.
- 2. Secure the cable clip to the loudspeaker suspension cable attachment point.
- 3. Pull the loose end of the suspension cable to adjust the loudspeaker to the desired height. Once you've reached the desired loudspeaker height, cut away any excess cable.
 - **Note:** Trim any frayed filaments with wire cutters after cutting to length.
- 4. Insert the loudspeaker wiring through the rubber conduit of the input cover (see Preparing the Input Cover on page 4).
- 5. Wire the connector and insert the connector into the loudspeaker. For wiring information, see Wiring the Loudspeaker on page 4.
- 6. Place the input cover over the connector and press it firmly against the loudspeaker to create a tight seal. Secure the input cover using the input cover screw.
- 7. Use the included cable ties to secure the wiring to the suspension cable.
 - **Note:** Before attaching the grille, adjust the loudspeaker tap settings to the appropriate setting for the installation. See Loudspeaker Settings on page 4.
- 8. Line up the grille with the inside of the loudspeaker enclosure so that the two smallest grille tabs are on either side of the tap switch.
 - Push the grille on the loudspeaker until it is secured into place. If necessary, push the grille tabs inward to properly fit into the loudspeaker enclosure.



Removing the Grille

Insert a small tool (no larger than 1.5 millimeters in diameter) through the grille perforation at the edge of the grille and pull to disengage the grille.

CAUTION: Do not use a screwdriver to pry the grille from the enclosure. This could result in damage to the loudspeaker.

Safety and Regulatory Compliance

The Bose FreeSpace FS2P loudspeaker has passed testing and complies with the following specifications and uses:

Listed to ANSI/UL 1480-2016, CAN/ULC-S541

Fire Protective Signaling Use – UL Category UUMW/UUMW7, File Number S 3241. Control Number 42S9.

Not for use with DC-supervised systems.

Suitable for use indoors in dry locations.

EN 54-24: 2008, Loudspeaker for Voice Alarm Systems for Fire Detection and Fire Alarm Systems for Buildings Environmental: Type A (indoor applications)

Suitable for installation using Class 1, Class 2, or Class 3 wiring methods in accordance with NFPA 70, National Electric Code, 2002, Article 640.

Suitable for use with fire alarm circuit wiring methods in accordance with NFPA 70, National Electric Code, 2002, Article 760.

NFPA 70, National Electric Code, 2002, Article 300-22 (c).

NFPA 90-A, 2002, Installation of Air Conditioning and Ventilation Systems, Paragraph 4.3.10.2.6.5.

EMC Directive 89/336/EEC and Article 10 (1) of the directive, EN50081-1 and EN50082-1 as signified by the CE mark.

The FreeSpace FS2P loudspeaker has been designed to the requirements defined in the following European regulatory specification for combination systems:

British Standard Code of Practice BS 5839, Part 8, when used with the ceramic terminal block and thermal fuse.

Tested to IEC60268-5.

Nominal Coverage Angle (per UL 1480) Vertical: 120°/60° at –3 dB; 150°/30° at –6 dB

Horizontal: 110°/70° at -3 dB; 140°/40° at -6 dB

UL Sensitivity Wattage Tap Sound Pressure Level dBA at 3.1 meters (10 feet):

| Watta ge | CAN/ULC-S541Canada | | |
|-------------|--------------------|----------|--|
| Тар | 70 V | 100 V | |
| 1 W | 78.0 dBA | _ | |
| 2 W | 80.3 dBA | 80.1 dBA | |
| 4 W | 82.9 dBA | 82.6 dBA | |
| 8 W | 85.4 dBA | 85.2 dBA | |
| 16 W | 87.2 dBA | 87.1 dBA | |
| 16 Ω | 86.7 dBA | _ | |

| Watta ge | ANSI/UL 1480-2016 United States | | |
|-------------|---------------------------------|----------|--|
| Тар | 70 V | 100 V | |
| 1 W | 72.4 dBA | _ | |
| 2 W | 75.1 dBA | 75.0 dBA | |
| 4 W | 77.8 dBA | 77.6 dBA | |
| 8 W | 80.4 dBA | 80.1 dBA | |
| 16 W | 82.7 dBA | 82.6 dBA | |
| 16 Ω | 83.0 dBA | _ | |

SPLs given are per the UL 1480 specified reporting method. Frequency response: Fire alarm (UL): 95 Hz to 17000 Hz



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Bose Corporation 100 The Mountain Rd, Framingham, MA 01701

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DOP 434849-7

EN 54-24: 2008

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

FreeSpace FS2P

Provided options:

Type A

For DOP 434849-7, see pro.Bose.com/FS2PDOP_UK



861340-0020

Documents / Resources



BOSE FS2P FreeSpace Pendant Loudspeaker [pdf] User Guide FreeSpace, Pendant Loudspeaker, FS2P

References

- Bose Professional
- Bose European Union Regulatory and Compliance Information

Manuals+, home privacy