

# FreeSpace® DS Loudspeaker Family

The Bose® FreeSpace® DS loudspeakers are a family of high-quality loudspeakers engineered to provide three distinct levels of audio performance for a wide range of background and foreground music applications. These versatile surface-mount and flush-mount loudspeakers easily integrate into sound systems – indoors and outside – with flexible mounting hardware and optional installation accessories. Complete entire projects with a single family of Bose loudspeakers that deliver consistent high-fidelity sound, installation methods and contemporary styling.



## FreeSpace DS 16S/DS 16SE and DS 16F

These 16-watt loudspeakers deliver background music with notable presence and detail as well as clear, natural-sounding speech reproduction. They are well-suited for retail stores, restaurants, hospitality venues, public spaces, offices, meeting rooms, hallways, entrance ways, lobbies and restrooms.

## FreeSpace DS 40SE and DS 40F

These 40-watt loudspeakers deliver background and foreground music with fullness, notable presence and detail, as well as clear, natural-sounding speech reproduction. They are well-suited for retail stores, restaurants, patios/outdoor dining, bars/nightclubs, houses of worship, hospitality venues, public spaces, offices, meeting rooms, hallways, entrance ways, lobbies and concourses.

## FreeSpace DS 100SE and DS 100F

These 100-watt loudspeakers deliver foreground music with full bass, notable presence and detail as well as clear, natural-sounding speech reproduction. They are well-suited for bars/nightclubs, restaurants, patios/outdoor dining, retail stores, houses of worship, hospitality venues, public spaces, entrance ways, lobbies and concourses.

	DS 16S/DS 16SE	DS 16F	DS 40SE	DS 40F	DS 100SE	DS 100F
<b>PRODUCT FEATURES</b>						
<b>Applications</b>	Background Music, Paging	Background Music, Paging	Background and Foreground Music, Paging	Background and Foreground Music, Paging	Foreground Music, Paging	Foreground Music, Paging
<b>Indoor</b>	•	•	•	•	•	•
<b>Outdoor Weather-Rated</b>	DS 16SE only; Direct exposure, IP 55 per IEC 60529 Edition 2.1 2001-02	N/A	Direct exposure, IP 55 per IEC 60529 Edition 2.1 2001-02	N/A	Direct exposure, IP 55 per IEC 60529 Edition 2.1 2001-02	N/A
<b>Flush-Mount</b>		•		•		•
<b>Surface-Mount</b>	•		•		•	
<b>Pendant-Mount</b>		•		•		•
<b>Pole-Mount</b>	•		•		•	
<b>SYSTEM PERFORMANCE</b>						
<b>Frequency Response (-3 dB)</b>	90 Hz - 16 kHz	90 Hz - 16 kHz	80 Hz - 16 kHz	80 Hz - 16 kHz	65 Hz - 16 kHz	65 Hz - 16 kHz
<b>Sensitivity (1W @ 1m)</b>	84 dB-SPL	84 dB-SPL	87 dB-SPL	87 dB-SPL	85 dB-SPL	85 dB-SPL
<b>Power Handling (continuous)</b>	16W	16W	40W	40W	100W	100W
<b>Maximum SPL (pink noise @ 1m @ rated power)</b>	96 dB-SPL (102 dB-SPL peak)	96 dB-SPL (102 dB-SPL peak)	103 dB-SPL (109 dB-SPL peak)	103 dB-SPL (109 dB-SPL peak)	105 dB-SPL (111 dB-SPL peak)	105 dB-SPL (111 dB-SPL peak)
<b>Beamwidth (-6 dB point, average 1-4 kHz)</b>	170°H x 160°V	140° conical	125°H x 125°V	125° conical	180°H x 75°V	160° conical
<b>Operation Modes</b>	8Ω, 70V, 100V	8Ω, 70V, 100V	8Ω, 70V, 100V	8Ω, 70V, 100V	8Ω, 70V, 100V	8Ω, 70V, 100V
<b>Tap Settings (70/100V)</b>	2, 4, 8, 16W (+1W @ 70V)	2, 4, 8, 16W (+1W @ 70V)	5, 10, 20, 40W (+2.5W @ 70V)	5, 10, 20, 40W (+2.5W @ 70V)	25, 50, 100W (+12.5W @ 70V)	25, 50, 100W (+12.5W @ 70V)
<b>Equalization</b>	Recommended loudspeaker EQ available, or use with 80 Hz high-pass filter.	Recommended loudspeaker EQ available, or use with 80 Hz high-pass filter.	Recommended loudspeaker EQ available, or use with 70 Hz high-pass filter.	Recommended loudspeaker EQ available, or use with 70 Hz high-pass filter.	Recommended loudspeaker EQ available, or use with 55 Hz high-pass filter.	Recommended loudspeaker EQ available, or use with 55 Hz high-pass filter.
<b>TRANSDUCERS</b>						
<b>Driver Complement</b>	One 2.25" (57mm) full-range driver	One 2.25" (57mm) full-range driver	One 4.5" (114mm) full-range driver	One 4.5" (114mm) full-range driver	Two 2.25" (57mm) Twiddler® drivers in an Articulated Array® loudspeaker design, one 5.25" (133mm) woofer	One 2.25" (57mm) Twiddler® driver, one 5.25" (133mm) woofer
<b>PHYSICAL</b>						
<b>Enclosure Material</b>	PC/ABS (white), Polypropylene (black)	PC/ABS	PC/ABS	Polypropylene (front baffle), Powder-coated steel (rear enclosure)	PC/ABS	Polypropylene (front baffle), Powder-coated steel (rear enclosure)
<b>Grille Material</b>	Powder-coated steel	Powder-coated steel	Powder-coated steel	Powder-coated steel	Powder-coated steel	Powder-coated steel
<b>Color</b>	Black or White, Paintable	Black or White, Paintable	Black or White, Paintable	Black or White, Paintable	Black or White, Paintable	Black or White, Paintable
<b>Connectors</b>	The included mounting bracket features a three-terminal barrier strip. Optional accessories available for use when ceramic connector and thermal fuse are required.	Three-terminal barrier strip. Optional accessory available for use when ceramic connector and thermal fuse are required.	The included mounting bracket features a three-terminal barrier strip. Optional accessories available for use when ceramic connector and thermal fuse are required.	Three-terminal barrier strip; two-terminal barrier strip (8 Ohm variant). Optional accessory available for use when ceramic connector and thermal fuse are required.	The included mounting bracket features a three-terminal barrier strip. Optional accessories available for use when ceramic connector and thermal fuse are required.	Three-terminal barrier strip. Optional accessory available for use when ceramic connector and thermal fuse are required.
<b>Suspension Attachment</b>	Hole on rear of enclosure sized for #8 or M4 self-tapping screw for use with safety cable.	0.35" (8.9mm) diameter hole on junction box cover for use with safety cable. Three mounting points on rear of enclosure for use with optional accessory pendant-mount kit.	Insert on rear of enclosure sized for M4 x 14mm screw for use with safety cable.	0.35" (8.9mm) diameter hole on junction box cover for use with safety cable. Three mounting points on rear of enclosure for use with optional accessory pendant-mount kit.	Insert on rear of enclosure sized for M4 x 14mm screw for use with safety cable.	0.35" (8.9mm) diameter hole on junction box cover for use with safety cable. Three mounting points on rear of enclosure for use with optional accessory pendant-mount kit.
<b>Dimensions – Loudspeaker Only</b>	4.6"D x 9.9"W x 4.9"H (117mm x 250mm x 124mm)	Outer flange diameter: 9.4" (239mm) Ceiling hole diameter: 8" (203mm) Height to top of housing: 6.2" (158mm)	6.9"D x 12.8"W x 6.3"H (175mm x 326mm x 159mm)	Outer flange diameter: 11.8" (299mm) Ceiling hole diameter: 10.5" (267mm) Height to top of housing: 5.7" (146mm)	8.5"D x 15"W x 7"H (216mm x 381mm x 178mm)	Outer flange diameter: 11.8" (299mm) Ceiling hole diameter: 10.5" (267mm) Height to top of housing: 7.6" (193mm)
<b>Dimensions – Loudspeaker with Wall-Mount Bracket* (D x W x H)</b>	6.4"D x 9.9"W x 4.9"H (161mm x 250mm x 124mm)	N/A	9.4"D x 12.8"W x 6.3"H (238mm x 326mm x 159mm)	N/A	11"D x 15"W x 7"H (280mm x 381mm x 178mm)	N/A
<b>Loudspeaker Weight</b>	4.0lb (1.8kg)	4.4lb (1.9kg)	8.5lb (3.9kg)	8.3lb (3.7kg) 6.3lb (2.8kg) – 8 Ohm variant	14lb (6.4kg)	13lb (5.9kg)
<b>Shipping Weight</b>	5.1lb (2.3kg)	6lb (2.7kg)	10.8lb (4.9kg)	11lb (5kg) 9lb (4.1kg) – 8 Ohm variant	16.9lb (7.7kg)	16lb (7.3kg)

\*Bracket angle set at 0°

SURFACE-MOUNT ACCESSORIES										FLUSH-MOUNT ACCESSORIES										BOTH

## ACCESSORY INFORMATION

Description	Indoor	Outdoor Weather-Rated	Material	Color	Sold As	Contents
Designed for mounting DS surface-mount loudspeakers to vertical surfaces (walls). Mates with Bose® junction boxes, standard U.S. steel 4" x 4" junction boxes, and Bose pole-mount bracket kit. Recommended for DS 16SDS 16SE when a more robust bracket is required.	•	•	Glass-filled PC/ABS with pre-coated steel braces	Black or White, Paintable	Single	Bracket, loudspeaker arm, (4) loudspeaker arm screws with washers, (2) pivot screws, installation guide
Designed for mounting DS surface-mount loudspeakers to cylindrical surfaces and mating with DS surface-mount loudspeakers via wall-mount bracket. Included clamps work with poles 4" - 8" (101.6mm - 203.2mm) in diameter. Can be mounted to poles 1.5" - 4" (38.1mm - 101.6mm) in diameter with standard machine screws (bolts).	•	•	Stainless steel	Black or White, Paintable	Single	Bracket, (2) pole clamps, (6) wall-mount bracket screws with washers, installation guide
Designed for surface-mounting and mating with DS surface-mount loudspeakers via wall-mount bracket. Required for compliance with fire protective signaling use specification. Includes ceramic terminal and thermal fuse to meet European regulatory combination systems. Recommended for outdoor use when a more weather-resistant installation is required.	•	•	PBT with steel inserts	Black or White, Paintable	6 Pack	On-wall junction box, (4) wall-mount bracket screws with washers, ceramic terminal and thermal fuse components, installation guide
Designed for flush-mounting and mating with DS surface-mount loudspeakers via wall-mount bracket. Required for compliance with fire protective signaling use specification. Includes ceramic terminal and thermal fuse to meet European regulatory combination systems.	•	•	PBT with steel inserts	Black or White, Paintable	6 Pack	In-wall junction box, ceramic terminal and thermal fuse components, installation guide
Designed to conceal gaps between sheetrock and standard U.S. steel 4" x 4" in-wall junction box.	•	•	PC/ABS with brass inserts	Black or White, Paintable	Single	Trim plate, (4) screws, installation guide
Designed for mounting DS 16F loudspeakers in new construction hard deck ceilings. Makes cutting loudspeaker ceiling holes easier.	•	•	Pre-coated steel	N/A	6 Pack	(6) Rough-in pans, installation guide
Designed for mounting DS 40F and DS 100F loudspeakers in new construction hard deck ceilings. Makes cutting loudspeaker ceiling holes easier.	•	•	Pre-coated steel	N/A	6 Pack	(6) Rough-in pans, installation guide
Designed for mounting DS 16F loudspeakers in hung tile ceilings.	•	•	Pre-coated steel	N/A	6 Pack	(6) Tile bridges, installation guide
Designed for mounting DS 40F and DS 100F loudspeakers in hung tile ceilings.	•	•	Pre-coated steel	N/A	6 Pack	(6) Tile bridges, installation guide
Designed for mounting DS 16F loudspeakers in hard deck and hung tile ceilings. Intended for installations that require a tile bridge that can fit through loudspeaker hole in ceiling. Use in hung tile ceilings when loudspeaker must be positioned off-center in the tile.	•	•	Pre-coated steel	N/A	Pair	(2) Speaker rings, (4) rails, (8) screws, installation guide
Designed for mounting DS 40F and DS 100F loudspeakers in hard deck and hung tile ceilings. Intended for installations that require a tile bridge that can fit through loudspeaker hole in ceiling. Use in hung tile ceilings when loudspeaker must be positioned off-center in the tile.	•	•	Pre-coated steel	N/A	Pair	(2) Speaker rings, (4) rails, (8) screws, installation guide
Suspension hardware and loudspeaker cosmetic cover designed for hanging DS 40F and DS 100F loudspeakers from open ceilings.	•	•	PC/ABS cover with steel cables	Black or White, Paintable	Single	(1) Cosmetic cover, suspension cable assembly, (3) eye screws, installation guide
Suspension hardware and loudspeaker cosmetic cover designed for hanging DS 16F loudspeakers from open ceilings.	•	•	PC/ABS cover with steel cables	Black or White, Paintable	Single	(1) Cosmetic cover, suspension cable assembly, (3) eye screws, installation guide
Designed for use with DS flush-mount loudspeakers. Recommended for installations where a square grille suits the architecture and décor.	•	•	PC/ABS with expanded steel grille and stainless steel spring clips	White	Pair	(2) Square grille assemblies, (20) spring clips, installation guide
Designed for DS 16F loudspeakers in air-handling (plenum) spaces. Required to meet plenum rating for air handling spaces.	•	•	Steel	N/A	6 Pack	(6) Plenum covers, installation guide
Designed for installing DS 16F loudspeakers in existing ceiling holes. Recommended for retrofit applications with existing ceiling holes 8" - 12" (203.2mm - 304.8mm) in diameter.	•	•	Aluminum with PC/ABS adapter ears	White, Paintable	6 Pack	(6) Trim rings, (18) anchor extensions, installation guide
Designed to work with DS flush-mount loudspeakers. Designed to work with DS surface-mount loudspeakers via ceiling-mount bracket. Required to meet European regulatory specification for combination systems.	•	•	Ceramic terminal and thermal fuse wiring with steel screws	N/A	10 Pack	(10) Ceramic terminal and thermal fuse assemblies, (10) ceiling-mount bracket screws, (10) flush-mount loudspeaker screws, installation guide

## LOUDSPEAKER-ACCESSORY COMPATIBILITY

DS 16S/DS 16SE	DS 16F	DS 40SE	DS 40F	DS 100SE	DS 100F
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For more information about the DS loudspeaker family, please visit:

[pro.bose.com](http://pro.bose.com)

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