

GSB8

8" In-Ground Subwoofer



OVERVIEW

The **JBL GSB8** in-ground 8-inch landscape subwoofer augments the low-frequency performance of JBL GSF full-range landscape speakers to provide rich, full-range sound in lawn and garden areas of hospitality, corporate and retail spaces.

The **GSB8** focuses on fidelity, with true subwoofer extension down to 35 Hz and a steep, multiple-slope lowpass filter for superior sound. Its premium-grade, 100-watt subwoofer-band transformer allows use in 70V/100V systems or can be connected for low-impedance direct operation.

This sleek, ultra-low-profile speaker—winner of the RedDot international design award for industrial design excellence—installs underground, with only the audio port visible. It's designed to withstand the elements: Its chamber is oriented directly below the audio port to prevent accidental damage from landscaping, which can be a problem with side-located chambers. Grab handles allow easy installation and tabs secure the subwoofer to blocks or anchors.

Add the **GSB8** to landscape areas of hotels, shopping complexes, restaurants, public spaces, theme parks or any application that demands legendary JBL sound with deep, rich, powerful bass.

FEATURES

Transducers: 200 mm (8") polypropylene driver, 25mm (1") voice coil on aluminum former

True subwoofer performance down to 35 Hz

Built-in steep, multiple-slope **lowpass filter**

Low-impedance direct operation, plus premium-grade subwoofer-band transformer for use in 70V/100V systems

Forms complete system with JBL GSF full-range landscape speakers

Chamber oriented directly below opening to prevent accidental damage from landscaping

Grab handles allow easy installation

Anchor points for securing cabinet to block or anchors

Available in hunter green or tan finishes to fit a wide variety of landscapes

Dimensions: 309 x 774 mm (12 x 31 in) (Diameter x H)

UL 1480A listed

SPECIFICATIONS

| SYSTEM | |
|-----------------------------------|---|
| Frequency Range (-10 dB): | 35 Hz – 130 Hz |
| Frequency Range (±3 dB): | 43 Hz – 120 Hz |
| Power Rating ¹ : | 500 W Continuous Program (2 hrs) 250 W (1000 W Peak), Continuous Pink Noise (2 hrs) 150 W (600 W Peak), Continuous Pink Noise (100 hrs) |
| Maximum Input Voltage: | 34 V (based on 2 hr Continuous Pink Noise rating) |
| Sensitivity ² : | 85 dB (ave. 40 Hz – 105 Hz) |
| Nominal Coverage Angle: | 360° horizontal, 160° vertical (primary listening 10° to 50° up from ground). |
| Rated Maximum SPL ³ : | 115 dB peak (109 dB continuous, 2 hr) @ 1m |
| Nominal Impedance: | 6Ω (at 6Ω tap) |
| Minimum Impedance: | 5.0Ω at 52Hz |
| Transformer Taps: | 70V: 100 W, 50 W, 25 W 100V: 100 W, 50 W |
| Insertion Loss: | <0.5 dB at any tap setting |
| Thru Setting: | 6Ω nominal |
| Crossover Type: | 2nd order |
| Recommended Protective High-Pass: | 35 Hz for 6Ω operation and for all tap settings, 24 dB/oct |
| TRANSDUCER | |
| Driver: | 200 mm (8-inch) driver, polypropylene injection cone, TPV thermoplastic vulcanizate surround, 50 mm (2-inch) voice coil on glass fiber former |
| PHYSICAL | |
| Enclosure Material: | LDPE Polyethylene plastic, 6 mm minimum wall thickness, color throughout. |
| Grille: | Powder coated stainless steel |
| Environmental: | IP-66 rating per IEC529 (dust protected and protected against strong jets of water). Exceeds MilSpec 810 for humidity, salt spray, temperature, & UV. Passes Mil-Std-202F for salt spray. |
| Agency Ratings: | UL1480A Speakers for Commercial and Professional Use, for outdoor wet locations; CSA C22.2 No. 205-12, Signal Equipment. Transformer UL Recognized per UL1876, ROHS compliant. |
| Terminals: | Bare wire with dielectric-gel-filled wire nuts (1meter single jacketed cable 7wires with 14 AWG) |
| Colors: | Hunter Green (RAL 6018) or Tan (RAL7004) |
| Dimension (H X D): | 768 mm height x 311 mm diameter (30.1 x 12.2 in) |
| Net Weight: | 9.3 kg (20.5 lbs) |
| Included Accessories: | (7) gel-filled wire nuts |
| SKU Numbers: | JBL-GSB8-GN (green), JBL-GSB8-TN (tan) |

¹ Continuous Pink Noise rating IEC spectrum, with 6 dB crest factor. Continuous program power is defined as 3 dB above the Continuous Pink Noise Rating. In 6 ohm mode.

² Half-space, 2π loading (in-ground recessed), 360° horizontal, vertical averaged 10 to 50 degrees from ground.

³ 6 ohm mode, calculated from sensitivity and power handling, exclusive of power compression.

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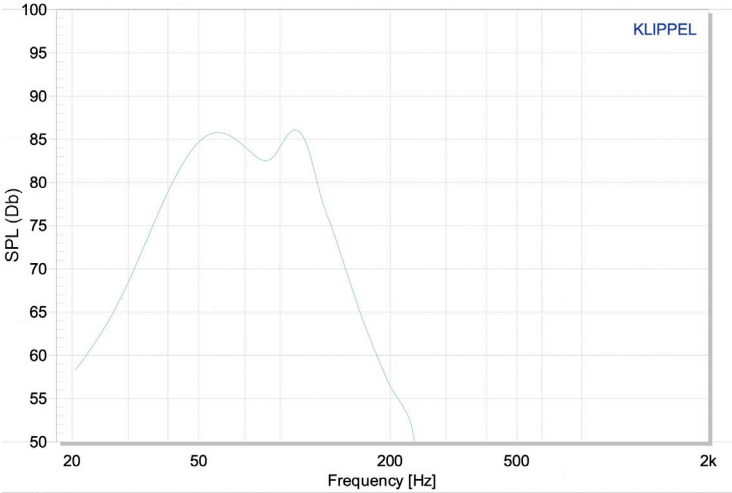
GSB8

8" In-Ground Subwoofer



Frequency Response:

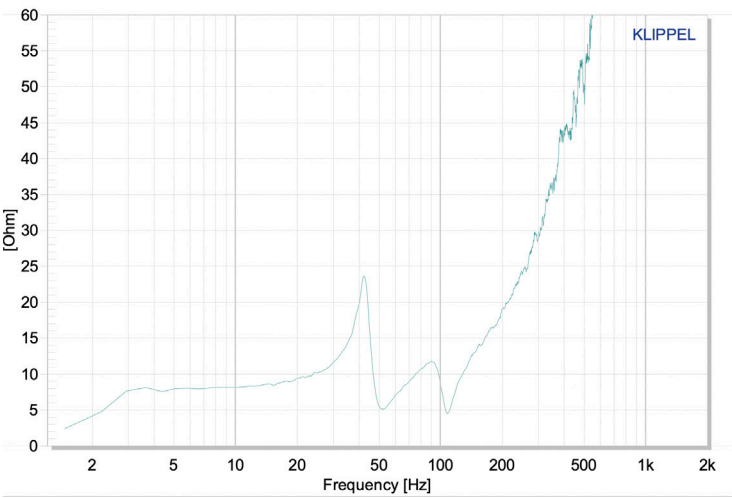
In half-space (2π , in-ground).



Dimensional Drawing:



Impedance:



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SS-GSB8
Issued: 5/2022

GSB12

12" In-Ground Subwoofer



HIGHLIGHTS

The **JBL GSB12** in-ground 12-inch landscape subwoofer augments the low-frequency performance of JBL GSF full-range landscape speakers to provide rich, full-range sound in lawn and garden areas of hospitality, corporate and retail spaces.

The **GSB12** focuses on fidelity, with true subwoofer extension down to 35 Hz and a steep, multiple-slope lowpass filter for superior sound. Its premium-grade, 200-watt subwoofer-band transformer allows use in 70V/100V systems or can be connected for low-impedance direct operation.

This sleek, ultra-low-profile speaker—winner of the RedDot international design award for industrial design excellence—installs underground, with only the audio port visible. It's designed to withstand the elements: Its chamber is oriented directly below the audio port to prevent accidental damage from landscaping, which can be a problem with side-located chambers. Grab handles allow easy installation and tabs secure the subwoofer to blocks or anchors.

Add the **GSB12** to landscape areas of hotels, shopping complexes, restaurants, public spaces, theme parks or any application that demands legendary JBL sound with deep, rich, powerful bass.

FEATURES

Transducer: 305 mm (12") polypropylene driver, 28mm (1.5") voice coil on Kapton former

True subwoofer performance down to 35 Hz

Built-in steep, **multiple-slope lowpass filter**

Low-impedance direct operation, plus premium-grade subwoofer-band transformer for use in 70V/100V systems

Forms a complete system with JBL GSF full-range landscape speakers

Chamber oriented directly below opening to prevent accidental damage from landscaping

Grab handles allow easy installation

Anchor points for securing cabinet to block or anchors

Available in Hunter Green or Tan finishes to fit a wide variety of landscapes

Dimensions (H x Dia.): 867 x 400 mm (34.2 x 15.8 in)

UL 1480A listed

www.jblpro.com

SPECIFICATIONS

| SYSTEM | |
|-----------------------------------|---|
| Frequency Range (-10 dB): | 30 Hz – 120 Hz |
| Frequency Response (±3 dB): | 39 Hz – 107 Hz |
| Power Rating ¹ : | 800 W Continuous Program (2 hrs) 400 W (1600 W Peak), Continuous Pink Noise (2 hrs) 300 W (1200 W Peak), Continuous Pink Noise (100 hrs) |
| Maximum Input Voltage: | 45 V (based on 2 hr Continuous Pink Noise rating) |
| Sensitivity ² : | 85 dB (ave. 40 Hz – 105 Hz) |
| Nominal Coverage Angle: | 360° horizontal, 160° vertical (primary listening 10° to 50° up from ground). |
| Rated Maximum SPL ³ : | 117 dB peak (111 dB continuous, 2 hr) @ 1m |
| Nominal Impedance: | 6Ω (at 6Ω tap) |
| Minimum Impedance: | 5.2Ω at 42Hz |
| Transformer Taps: | 70V: 200 W, 100 W, 50 W 100V: 200 W, 100 W |
| Insertion Loss: | <0.5 dB at any tap setting |
| Thru Setting: | 6Ω nominal |
| Crossover Type: | 2nd order |
| Recommended Protective High-Pass: | 27 Hz for 6Ω operation and for all tap settings, 24 dB/oct |
| TRANSDUCER | |
| Driver: | 305 mm (12-inch) driver, polypropylene injection cone, TPV thermoplastic vulcanizate surround, 50 mm (2-inch voice coil on glass fiber former. |
| PHYSICAL | |
| Enclosure Material: | LDPE Polyethylene plastic, 6 mm minimum wall thickness, color throughout. |
| Grille: | Aluminum |
| Environmental: | IP-66 rating per IEC529 (dust protected and protected against strong jets of water). Exceeds MilSpec 810 for humidity, salt spray, temperature, & UV. Passes Mil-Std-202F for salt spray. |
| Agency Ratings: | UL1480A Speakers for Commercial and Professional Use, for outdoor wet locations; CSA C22.2 No. 205-12, Signal Equipment. Transformer UL Recognized per UL1876, ROHS compliant. |
| Terminals: | Bare wire with dielectric-gel-filled wire nuts (1 meter single jacketed cable 7 wires with 14 AWG) |
| Dimension (H X Dia.): | 867 x 400 mm (34.2 x 15.8 in) |
| Net Weight: | 16.2 kg (35.7 lbs) |
| Included Accessories: | (7) wire nuts |
| Colors: | Hunter Green (RAL 6018) or Tan (RAL7004) |
| SKU Numbers: | JBL-GSB12-GN (green), JBL-GSB12-TN (tan) |

1 Continuous Pink Noise rating IEC spectrum, with 6 dB crest factor. Continuous program power is defined as 3 dB above the Continuous Pink Noise Rating. In 6 ohm mode.

2 Half-space, 2π loading (in-ground recessed), 360° horizontal, vertical averaged 10 to 50 degrees from ground.

3 6 ohm mode, calculated from sensitivity and power handling, exclusive of power compression.

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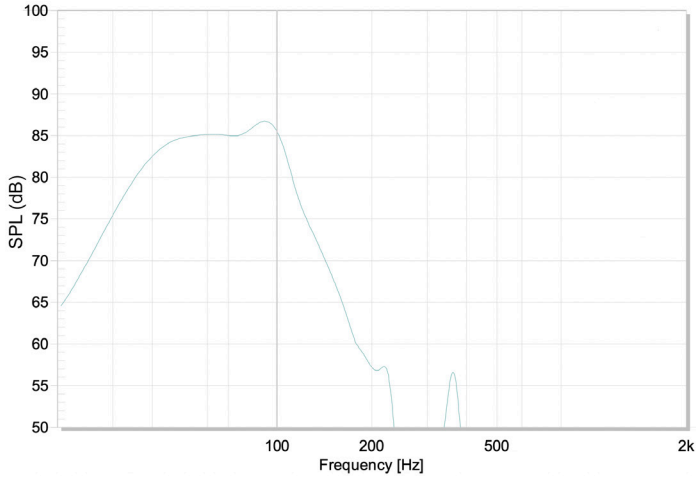
GSB12

12" In-Ground Subwoofer



Frequency Response:

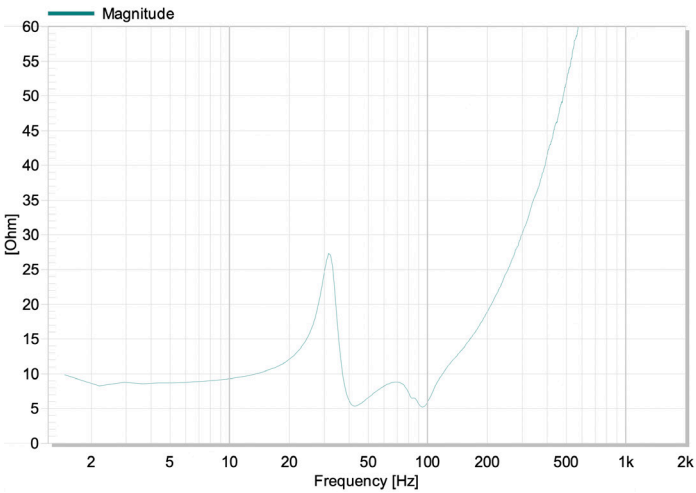
In half-space (2π , in-ground).



Dimensional Drawing:



Impedance:



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SS-GSB12
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GSF3

3" Ground-Stake Loudspeaker



With included ground stake.

With included L-bracket.



HIGHLIGHTS

The compact, weather-resistant **JBL GSF3** landscape loudspeaker provides superior fidelity and wide coverage in a range of outdoor commercial applications, with a custom two-way coaxial 3-inch driver system that delivers full-range, crystal-clear sound. (Extend system bass response with JBL GSB8 or GSB12 in-ground landscape subwoofers.) This versatile speaker features a 15-watt multi-tap transformer for use on 70V/100V distributed systems, and is switchable for 8-ohm direct operation.

Versatile mounting options include an included ground stake for in-ground installation and an L-bracket for secure mounting on either horizontal or vertical surfaces. A low-profile, unobtrusive speaker, the **GSF3** blends right into its surroundings, and is aimable for precise coverage via an adjustable hinge. Available in hunter green and tan finishes.

The elegant, discreet **GSF3**—winner of the prestigious RedDot international design award for industrial design excellence—is the perfect sound solution for diverse outdoor applications including shopping malls, theme parks, sports venues, hospitality venues, and any application calling for a stylish, robust, great-sounding landscape speaker system.

FEATURES

Transducers: 76 mm (3") woofer with polypropylene cone and 20 mm (0.8 in) titanium dome tweeter.

Frequency Range: 90 Hz–20 kHz

Power Handling (at 8Ω setting): 30W continuous pink noise, 60W continuous program

IP56 rated against water and dust ingress

Multi-tap 15W transformer is switchable for 8Ω direct operation or use in 70V/100V distributed systems

Bottom drip hole provides drainage for drivers

Pairs well with JBL GSB8 and GSB12 in-ground landscape subwoofers

Aimable via adjustable hinge

Includes ground stake and L-bracket for surface mounting

Tap selector located on bottom of speaker, away from water incursion

UL1480A listed

Available in Hunter Green or Tan finish

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SPECIFICATIONS

| SYSTEM | |
|--|---|
| Frequency Range (-10 dB): | 90 Hz – 20 kHz |
| Frequency Response (±3 dB): | 130 Hz – 17 kHz |
| Power Rating¹: | 60 W Continuous Program (2 hrs) 30 W (120 W Peak), Continuous Pink Noise (2 hrs) 20 W (80 W Peak), Continuous Pink Noise (100 hrs) |
| Sensitivity²: | 80 dB (120 Hz – 20 kHz) |
| Nominal Coverage Angle: | 80° conical |
| Directivity (Q): | 2.38 |
| Directivity Index (DI): | 3.76 dB |
| Rated Maximum SPL³: | 101 dB peak (95 dB continuous, 2 hr) @ 1m |
| Nominal Impedance: | 8 Ω (at 8Ω tap) |
| Minimum Impedance: | 6.7 Ω at 350 Hz |
| Transformer Taps: | 70V: 15 W, 7.5 W, 3.75 W 100V: 15 W, 7.5 W |
| Insertion Loss: | <0.5 dB at any tap setting |
| Thru Setting: | 8Ω nominal |
| Maximum Input Voltage: | 14 V RMS (2 hrs), 28 V peak |
| Recommended Protective High-Pass: | 80 Hz for 8Ω operation and for all tap settings, 24 dB/oct |
| TRANSDUCER | |
| Drivers: | <ul style="list-style-type: none">• 76 mm (3 in) woofer, polypropylene cone 25 mm (1 in) voice coil on Kapton™ voice coil former• 20 mm (0.8 in) titanium dome, Neodymium magnet assembly, Kapton™ voice coil former |
| PHYSICAL | |
| Enclosure Material: | Polycarbonate + ABS, UL94V-0 flammability rated |
| Grille: | Aluminum |
| Environmental: | IP-56 rating per IEC529 (dust protected and protected against strong jets of water). Exceeds MilSpec 810 for humidity, salt spray, temperature, & UV. Passes Mil-Std-202F for salt spray. |
| Agency Ratings: | UL1480A Speakers for Commercial and Professional Use, for outdoor wet locations; CSA C22.2 No. 205-12, Signal Equipment. Transformer UL Recognized per UL1876, ROHS compliant. |
| Terminals: | Bare wire with dielectric-gel-filled wire nuts (1 meter single jacked cable 2 wires with 18 AWG) |
| Colors: | Hunter Green (RAL 6018), or Tan (RAL7004) |
| Dimension (H X D): | Cabinet 167mm height/diameter x 131mm deep (6.6 x 5.2 in) |
| Net Weight: | 1.7kg (3.8 lbs) |
| Included Accessories: | (1) Ground Stake Bracket; (1) L-Bracket |
| SKU Numbers: | JBL-GSF3-GN (green), JBL-GSF3-TN (tan) |

¹ Continuous Pink Noise rating IEC-shaped pink noise with a 6 dB peak-to-average crest factor for 100 hours continuously. Continuous Program power is a conservative expression of the system's ability to handle normal speech and music program material and is defined as 3 dB above the Continuous Pink Noise rating.

² Half-space, 2π loading (ground as acoustic boundary), averaged 120 Hz - 20 kHz.

³ 8 ohm mode, calculated from sensitivity and power handling, exclusive of power compression.

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GSF3

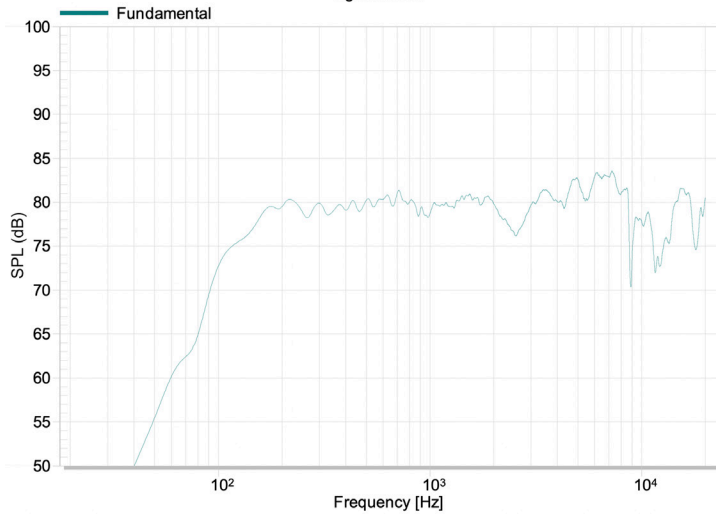
3" Ground-Stake Loudspeaker



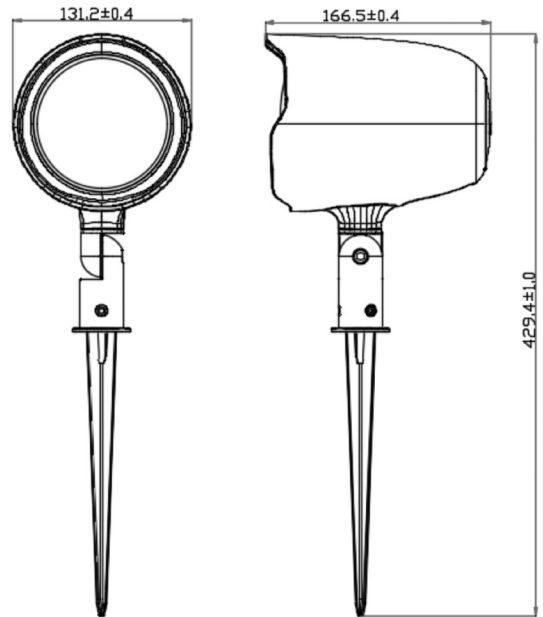
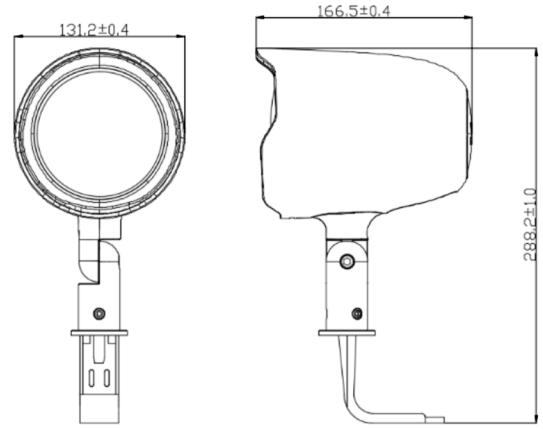
Frequency Response:

In half-space (2π , ground as acoustic boundary).

Fundamental + Harmonic distortion components
Signal at IN1

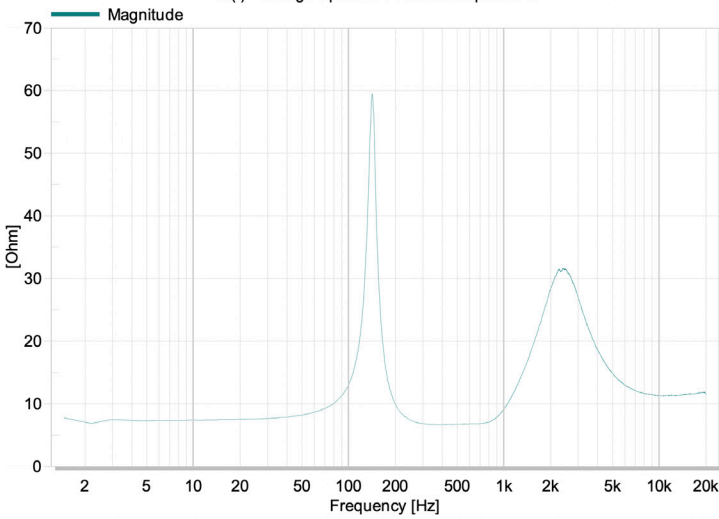


Dimensional Drawing:



Impedance:

Magnitude of transfer function $H(f)$
 $H(f) = \text{Voltage Speaker 1} / \text{Current Speaker 1}$



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SS-GSF3
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GSF6

6.5" Ground-Stake Loudspeaker



HIGHLIGHTS

The mid-size, weather-resistant **JBL GSF6** landscape loudspeaker provides superior fidelity and wide coverage in a range of outdoor commercial applications, with a custom two-way coaxial 6-inch driver system that delivers full-range, crystal-clear sound. (Extend system bass response with JBL GSB8 or GSB12 in-ground landscape subwoofers.) This versatile speaker features a 30-watt multi-tap transformer for use on 70V/100V distributed systems, and is switchable for 8-ohm direct operation.

Versatile mounting options include an included ground stake for in-ground installation and an L-bracket for secure mounting on either horizontal or vertical surfaces. A low-profile, unobtrusive speaker, the **GSF6** blends right into its surroundings, and is aimable for precise coverage via an adjustable hinge. Available in hunter green and tan finishes.

The elegant, discreet GSF6—winner of the prestigious RedDot international design award for industrial design excellence—is the perfect sound solution for diverse outdoor applications including shopping malls, theme parks, sports venues, hospitality venues, and any application calling for a stylish, robust, great-sounding landscape speaker system.

FEATURES

Transducers: 165 mm (6.5 in) woofer with polypropylene cone and 25 mm (1.0 in) titanium dome tweeter.

Frequency Range: 65 Hz–20 kHz

Power handling (at 8Ω setting): 50W continuous pink noise, 100W continuous program

IP56 rated against water and dust ingress

Multi-tap 30W transformer is switchable for 8Ω direct operation or use in 70V/100V distributed systems

Bottom drip hole provides drainage for drivers

Pairs well with JBL GSB8 and GSB12 in-ground landscape subwoofers

Aimable via adjustable hinge

Includes ground stake and L-bracket for surface mounting

Tap selector located on bottom of speaker, away from water incursion

UL1480A listed

Available in Hunter Green or Tan finish

www.jblpro.com

SPECIFICATIONS

| SYSTEM | |
|--|---|
| Frequency Range (-10 dB): | 65 Hz – 20 kHz |
| Frequency Response (±3 dB): | 95 Hz - 20 kHz |
| Power Rating¹: | 100 W Continuous Program (2 hrs) 50 W (200 W Peak), Continuous Pink Noise (2 hrs) 30 W (120 W Peak), Continuous Pink Noise (100 hrs) |
| Sensitivity²: | 88 dB (ave. 2 kHz – 20 kHz) |
| Nominal Coverage Angle: | 70° conical |
| Directivity (Q): | 10.5 (with half-space, 2π, loading) |
| Directivity Index (DI): | 10.2 |
| Rated Maximum SPL³: | 111 dB peak (105 dB continuous, 2 hr) @ 1m |
| Nominal Impedance: | 8Ω (at 8Ω tap) |
| Minimum Impedance: | 7.2Ω at 205Hz |
| Transformer Taps: | 70V: 30 W, 15 W, 7.5 W 100V: 30W, 15 W |
| Insertion Loss: | <0.5 dB at any tap setting |
| Maximum Input Voltage: | 18 V RMS (2 hrs), 36 V peak |
| Recommended Protective High-Pass: | 65 Hz for 8Ω operation and for all tap settings, 24 dB/oct |
| TRANSDUCER | |
| HF Driver: | <ul style="list-style-type: none">• 165 mm (6.5 in) woofer, polypropylene cone 25 mm (1 in) voice coil on aluminum voice coil former• 25 mm (1.0 in) titanium dome, Neodymium magnet assembly, Kapton™ voice coil former |
| ENCLOSURE | |
| Enclosure Material: | Polycarbonate + ABS, UL94V-0 flammability rated |
| Grille: | Aluminum |
| Environmental: | IP-56 rating per IEC529 (dust protected and protected against strong jets of water). Exceeds MilSpec 810 for humidity, salt spray, temperature, & UV. Passes Mil-Std-202F for salt spray. |
| Agency Ratings: | UL1480A Speakers for Commercial and Professional Use, for outdoor wet locations; CSA C22.2 No. 205-12, Signal Equipment. Transformer UL Recognized per UL1876, ROHS compliant. |
| Terminals: | Bare wire with dielectric-gel-filled wire nuts (1 meter single jacketed cable 2 wires with 18 AWG) |
| Colors: | Hunter Green (RAL 6018), or Tan (RAL7004) |
| Dimension: | Cabinet 217mm height/diameter x 293mm depth (8.6 x 11.6 in) |
| Net Weight: | 3.5 kg (7.7 lbs) |
| Included Accessories: | (1) Ground Stake Bracket; (1) L-Bracket |
| SKU Numbers: | JBL-GSF6-GN (green), JBL-GSF6-TN (tan) |

¹ Continuous Pink Noise rating is IEC spectrum (45 Hz – 20 kHz), with 6 dB crest factor. Continuous program power is defined as 3 dB above the Continuous Pink Noise Rating. In 8 ohm mode.

² Half-space, 2π loading (in-ground)

³ 8 ohm mode, calculated from sensitivity and power handling, exclusive of power compression.

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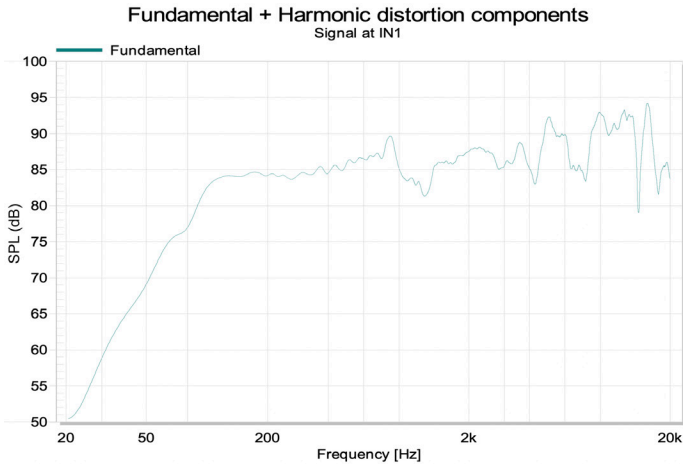
GSF6

6.5" Ground-Stake Loudspeaker



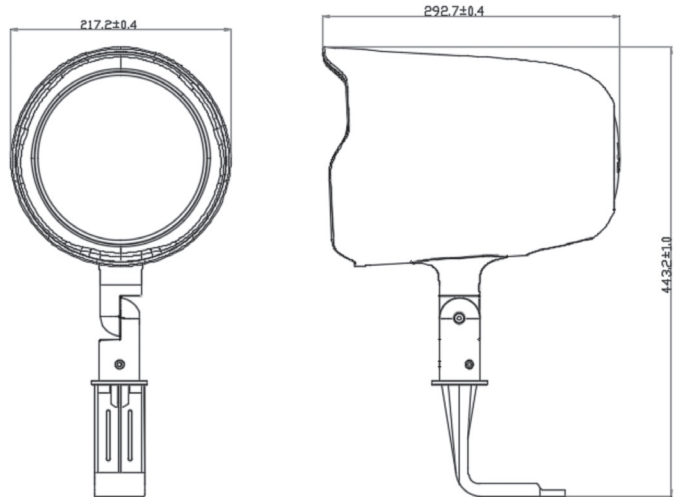
Frequency Response:

In half-space (2π , in-ground)

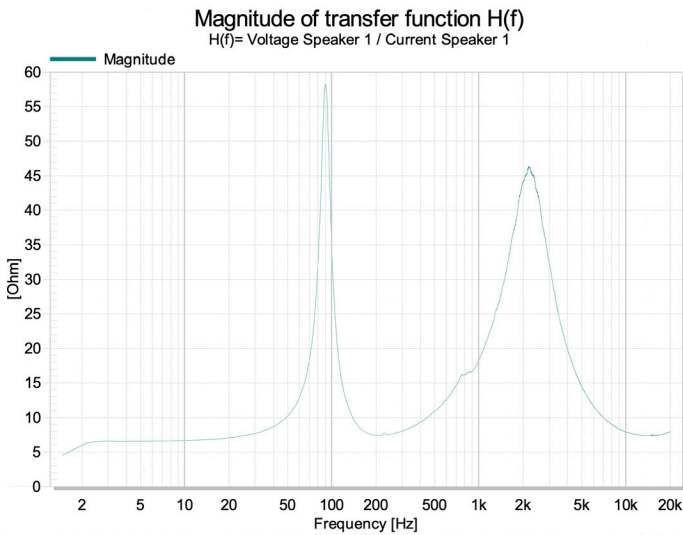


Dimensional Drawing:

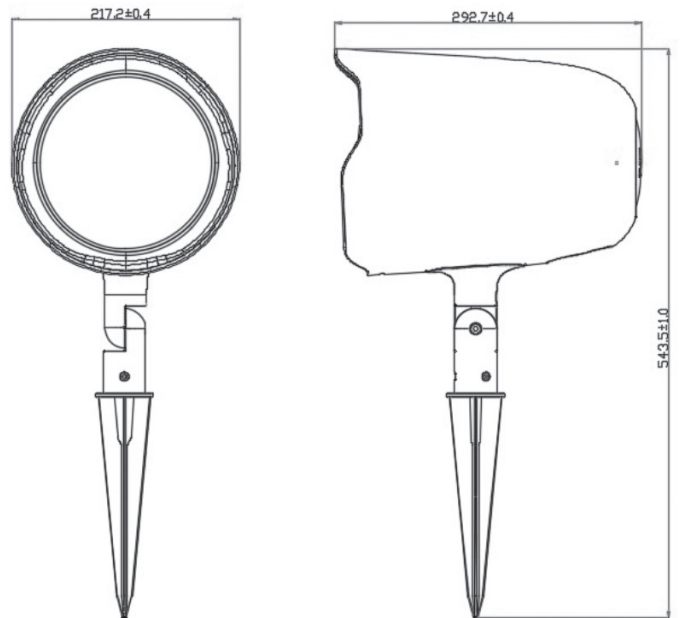
With included L-shaped bracket



Impedance:



With included ground stake



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SS-GSF6
Issued: 6/2022



CONTROL 85M

5 1/4" Two-Way Co-axial Mushroom Landscape Speaker

Professional Series

Key Features:

- ▶ Components:
 - 5 1/4" highly weather-resistant driver
 - 3/4" soft-dome highly weather-resistant tweeter
- ▶ 80W Pink Noise Power Handling (160W program) in direct 8Ω setting, plus built-in 30W 70V/100V multi-tap transformer
- ▶ Tough polyethylene highly weather resistant enclosure
- ▶ Fully isolated center chamber for wiring protection
- ▶ High fidelity sound character with broad frequency range of 55Hz - 18kHz



Applications:

The Control 85M Mushroom-Style Landscape Speaker is a two-way highly weather resistant speaker providing 360 degree coverage of the listening space. A highlighted mid-range presence cuts through in high ambient environments for especially clear paging and voice content while providing excellent full-range sound quality. Designed to be mounted on or in the ground, the Control 85M can be used in a wide variety of applications including hotels, casinos, pool areas, shopping malls, theme parks, sports venues, resorts, restaurants, hospitality and leisure venues, entranceways, and anywhere a high quality music and/or paging speaker landscape speaker is required.

Its compact size allows the speaker to blend into landscaping and shrubbery, while its tough hunter green polyethylene enclosure resists abuse from lawn care equipment and the elements. The enclosure color extends throughout the material so the speaker will maintain color even when scraped or scratched.

The two part enclosure is designed to open with a twist for wiring and then close securely. The bottom base section of the enclosure can be pre-installed and then wired to the top speaker section of the enclosure. When assembled, the bottom base section becomes a fully isolated chamber, keeping the speaker and transformer (in the speaker section) highly isolated from the possibility of intruding moisture. Multiple locations on the bottom and sides are provided for the mounting of the exterior gland nut (installed by drilling a 22 mm (0.875 in, 7/8 in) diameter hole in the chosen location), and a second gland nut is positioned between the bottom base and the top speaker sections, to keep the speaker system highly weather tight.

Included gland nuts maintain a water-tight seal only when used with round-jacketed cable with outside diameter between 4.0 and 9.0 mm (0.16 and 0.35 inches).

All external hardware is stainless steel, and the powder-coated stainless steel grille resists rusting. The Control 85M can be secured to the ground via third-party ground stakes using the three attachment points that extend out from the bottom section of the speaker.

The 135 mm (5.25 in) diameter low-frequency driver features a Kapton former with 35.5 mm (1.4 in) voice coil for high power handling and superior long term reliability. The polypropylene cone and polyurethane surround provide high strength and superior moisture resistance. The 19 mm (0.75 in) high frequency driver utilizes a polyetherimide dome, providing high rigidity, strength, and high temperature resistance. The high slope crossover provides natural sonic character and SonicGuard™ protected HF driver ensures long-term reliability from occasional overdriving.

In addition, the speaker contains a high-quality 30 Watt multi-tap transformer for use on 70V or 100V distributed loudspeaker lines, and is switchable for 8 ohm voice-coil direct operation. The speaker handles 80 Watts Continuous Pink Noise (160W Program, 320W Peak) in the 8 ohm mode.

The Control 85M is UL certified, per UL1480.

CONTROL 85M 5 1/4" Two-Way Co-axial Mushroom Landscape Speaker

Specifications:

| | |
|------------------------------------|---|
| Frequency Response (-10 dB): | 55 Hz - 18 kHz |
| Frequency Response (±3 dB): | 65Hz - 16 kHz |
| Power Rating ¹ : | 160 W Continuous Program (2 hrs) 80 W (320W peak), Continuous Pink Noise (2 hrs) 45 W (180W peak) Continuous Pink Noise (100 hrs) |
| Maximum Input Voltage: | 23.3 V |
| Sensitivity ² : | 86 dB, 1W @ 1m (ave. 80Hz - 16kHz) |
| Nominal Coverage Angle: | 360° horizontal, 160° vertical (primary listening 10° to 50° up from ground). |
| Directivity (Q): | 2.2 |
| Directivity Index (DI): | 3.4 dB |
| Maximum SPL ³ : | 105 dB @ 1m |
| Nominal Impedance: | 8Ω (at 8Ω setting) |
| Transformer Taps: | 70V: 30W, 15W, 7.5W & 3.8W 100V: 30W, 15W, 7.5W |
| Insertion Loss: | <1.0 dB at any tap setting |
| Thru Setting: | 8Ω nominal |
| Crossover Type: | 2 nd Order LPF on LF and 2nd Order HPF on HF |
| Recommended Protective High-Pass: | 65 Hz for 8Ω operation, 24 dB/oct 60 Hz for 30W tap, 24 dB/oct 50 Hz for 15W, 7.5W, and 3.7W taps, 24 dB/oct |
| Transducer: | |
| Low Frequency Driver: | 135 mm (5.25 in) diameter LF driver, Kapton™ former, 35.5mm (1.4 in) voice coil, polypropylene cone and polyurethane surround. |
| High Frequency: | 19mm (0.75 in) diameter HF driver Polyetherimide (PEI) dome. |
| Physical: | |
| Enclosure Material: | LDPE Polyethylene plastic, 6 mm wall thickness, UL94V-0 rated. |
| Grille: | Powder coated stainless steel. |
| Environmental: | IP-56 rating per IEC529 (dust protected and protected against strong jets of water). Exceeds MilSpec 810 for humidity, salt spray, temperature & UV. Passes Mil-STD-202F for salt spray. Enclosure UL94V0 rated. |
| Agency Ratings: | UL 1480 Speakers for Fire Alarm, Emergency, and Commercial and Professional Use, 5th Edition, for outdoor wet locations; UL 1480A Speakers for Commercial and Professional Use, 1st Edition; CSA C22.2 No. 205-12, Signal Equipment. Transformer UL Recognized per UL1876, ROHS compliant. |
| Terminals: | Bare wire with dielectric-gel-filled wire nuts (internal to top speaker section). |
| Wiring: | Water ingress protected by two stages of gland nuts, one mounted on outside of enclosure (installed by installer via drilling 22 mm (0.875 in, 7/8 in) hole in any of multiple provided locations) and one between the bottom base and top speaker sections. Included gland nuts require round-jacketed wire with outside diameter between 4.0 mm and 9.0 mm (0.16" in and 0.35" in). For installation instructions see Installation Guide (# IS C80MLS). |
| Colors: | Hunter Green, RAL6018 |
| Dimensions (H x W x D): | 432 x 291 x 291mm (17 x 11.5 x 11.5 in.) |
| Net Weight: | 5.5 kg (12 lb) |
| Shipping Weight: | 7.3 kg (16 lb) |
| Included Accessories: | (2) wire nuts, (2) gland nuts, (1) security screwdriver |
| Installer-Supplied Required Tools: | 22mm (0.875 in, 7/8 in) twist-type drill bit (or other type suitable for plastic) for installing gland nut into enclosure. |

¹ Continuous Pink Noise rating is IEC-shaped pink noise with a 6 dB crest factor. Continuous program power is defined as 3 dB above the Continuous Pink Noise Rating. In 8 ohm mode.

² Half-space, 2π loading (in-ground recessed), 360° horizontal, vertical averaged 10 to 50 degrees from ground.

³ 8 ohm mode, calculated from sensitivity and power handling, exclusive of power compression.

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SPL Level Variation Chart by Layout Spacing

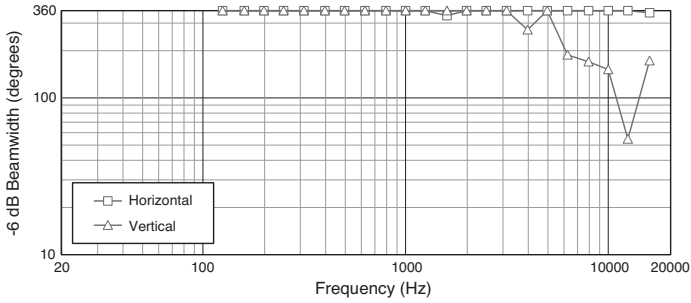
| SPL Level Variation Within the Listening Space | Distance Apart |
|--|-----------------------------|
| ± 1.5 dB | 4.0 meters (13 feet) apart |
| ± 3.0 dB | 6.7 meters (23 feet) apart |
| ± 4.5 dB | 10.0 meters (33 feet) apart |

At listening height of 1.5 meters (5 feet)

▶ CONTROL 85M 5 1/4" Two-Way Co-axial Mushroom Landscape Speaker

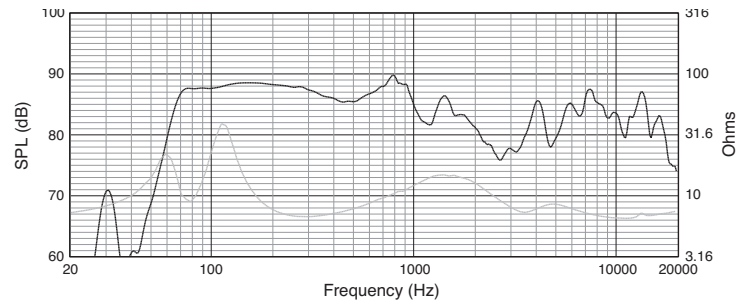
Beamwidth:

-6 dB coverage by frequency



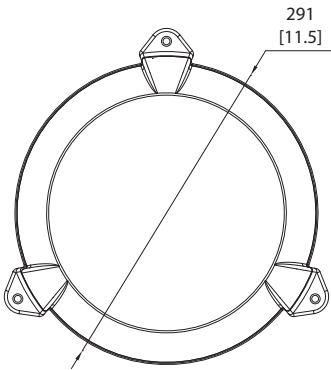
Frequency Response:

In half-space (2π , in ground), plus impedance curve
[Frequency response², Impedance graph]



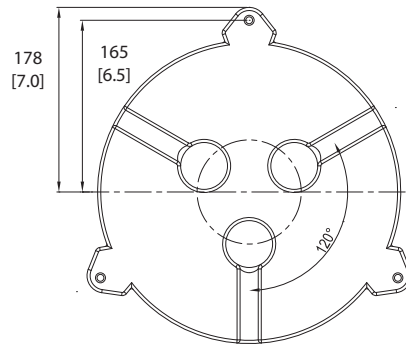
Dimensions:

TOP VIEW

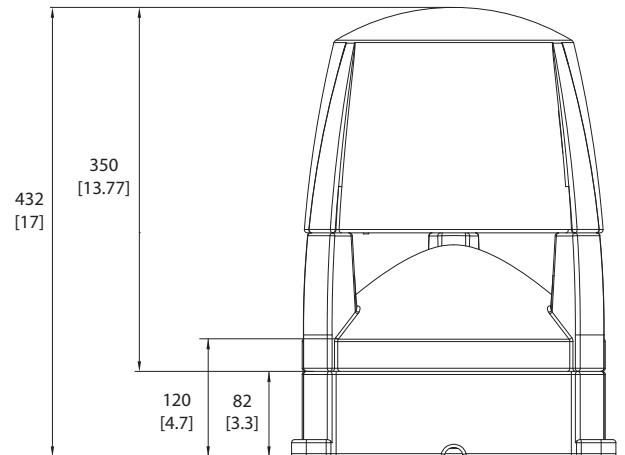


Dimensions in mm [inches]

BOTTOM VIEW



SIDE VIEW



JBL Professional
8500 Balboa Boulevard, P.O. Box 2200
Northridge, California 91329 U.S.A.

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CONTROL 88M

8" Two-Way Co-axial Mushroom Landscape Speaker

Professional Series

Key Features:

- ▶ Components:
 - 8" highly weather-resistant driver
 - 1" soft-dome highly weather-resistant tweeter
- ▶ 120W Pink Noise Power Handling (240W program) in direct 8Ω setting, plus built-in 60W 70V/100V multi-tap transformer
- ▶ Tough polyethylene highly weather resistant enclosure
- ▶ Fully isolated center chamber for wiring protection
- ▶ High fidelity sound character with broad frequency range of 47Hz - 16kHz



Applications:

The Control 88M Mushroom-Style Landscape Speaker is a two-way highly weather resistant speaker providing 360 degree coverage of the listening space. The extended bass capability and flat spectral response provides exceptionally high fidelity sound quality for music and music/speech program material. Designed to be mounted on or in the ground, the Control 88M can be used in a wide variety of applications including hotels, casinos, pool areas, shopping malls, theme parks, sports venues, resorts, restaurants, hospitality and leisure venues, entranceways, and anywhere a high quality music and/or paging speaker landscape speaker is required.

Its compact size allows the speaker to blend into landscaping and shrubbery, while its tough hunter green polyethylene enclosure resists abuse from lawn care equipment and the elements. The enclosure color extends throughout the material so the speaker will maintain color even when scraped or scratched.

The two part enclosure is designed to open with a twist for wiring and then close securely. The bottom base section of the enclosure can be pre-installed and then wired to the top speaker section of the enclosure. When assembled, the bottom base section becomes a fully isolated chamber, keeping the speaker and transformer (in the speaker section) highly isolated from the possibility of intruding moisture. Multiple locations on the bottom and sides are provided for the mounting of the exterior gland nut (installed by drilling a 22 mm (0.875 in, 7/8 in) diameter hole in the chosen location), and a second gland nut is positioned between the bottom base and the top speaker sections, to keep the speaker system highly weather tight. Included gland nuts maintain a water-tight seal

only when used with round-jacketed cable with outside diameter between 4.0 and 9.0 mm (0.16 and 0.35 inches).

All external hardware is stainless steel, and the powder-coated stainless steel grille resists rusting. The Control 88M can be secured to the ground via third-party ground stakes using the three attachment points that extend out from the bottom section of the speaker.

The 200 mm (8.0 in) diameter low-frequency driver features a Kapton former with 38 mm (1.5 in) voice coil for high power handling and superior long term reliability. The polypropylene cone and polyurethane surround provide high strength and superior moisture resistance. The 25 mm (1.0 in) high frequency driver utilizes a polyetherimide dome, providing high rigidity, strength, and high temperature resistance. The high slope crossover provides natural sonic character and SonicGuard™ protected HF driver ensures long-term reliability from occasional overdriving.

In addition, the speaker contains a high-quality 60 Watt multi-tap transformer for use on 70V or 100V distributed loudspeaker lines, and is switchable for 8 ohm voice-coil direct operation. The speaker handles 120 Watts Continuous Pink Noise (240W Program, 480W Peak) in the 8 ohm mode.

The Control 88M is UL certified, per UL1480.

CONTROL 88M 8" Two-Way Co-axial Mushroom Landscape Speaker

Specifications:

| | |
|------------------------------------|---|
| Frequency Response (-10 dB): | 47 Hz - 16 kHz |
| Frequency Response (± 3 dB): | 60Hz - 15 kHz |
| Power Rating ¹ : | 240 W Continuous Program (2 hrs) 120W (480W peak), Continuous Pink Noise (2 hrs) 100W (400W peak) Continuous Pink Noise (100 hrs) |
| Maximum Input Voltage: | 28.0 V |
| Sensitivity ² : | 87 dB, 1W @ 1m (ave. 80Hz - 16kHz) |
| Nominal Coverage Angle: | 360° horizontal, 160° vertical (primary listening 10° to 50° up from ground). |
| Directivity (Q): | 2.1 |
| Directivity Index (DI): | 3.2 dB |
| Rated Maximum SPL ³ : | 108 dB @ 1m |
| Nominal Impedance: | 8 Ω (at 8 Ω setting) |
| Minimum Impedance: | 6.6 Ω at 9.5kHz |
| Transformer Taps: | 70V: 60W, 30W, 15W & 7.5W 100V: 60W, 30W, 15W |
| Insertion Loss: | <0.5 dB at any tap setting |
| Thru Setting: | 8 Ω nominal |
| Crossover Type: | 2 nd Order LPF on LF and 2 nd Order HPF on HF |
| Recommended Protective High-Pass: | 45 Hz for 8 Ω operation, 24 dB/oct 80 Hz for 60W tap, 24 dB/oct 50 Hz for 30W, 7.5W, and 7.5W taps, 24 dB/oct |
| Transducer: | |
| Low Frequency Driver: | 200 mm (8.00 in) diameter LF driver, Kapton™ former, 38mm (1.5 in) voice coil, polypropylene cone and polyurethane surround. |
| High Frequency: | 25mm (1.0 in) diameter HF driver Polyetherimide (PEI) dome. |
| Physical: | |
| Enclosure Material: | LDPE Polyethylene plastic, 6 mm wall thickness, UL94V-0 rated. |
| Grille: | Powder coated stainless steel. |
| Environmental: | IP-56 rating per IEC529 (dust protected and protected against strong jets of water). Exceeds MilSpec 810 for humidity, salt spray, temperature & UV. Passes Mil-STD-202F for salt spray. Enclosure UL94V0 rated. |
| Agency Ratings: | UL 1480 Speakers for Fire Alarm, Emergency, and Commercial and Professional Use, 5th Edition, for outdoor wet locations; UL 1480A Speakers for Commercial and Professional Use, 1st Edition; CSA C22.2 No. 205-12, Signal Equipment. Transformer UL Recognized per UL1876, ROHS compliant. |
| Terminals: | Bare wire with dielectric-gel-filled wire nuts (internal to top speaker section) |
| Wiring: | Water ingress protected by two stages of gland nuts, one mounted on outside of enclosure (installed by installer via drilling 22 mm (0.875 in, 7/8 in) hole in any of multiple provided locations) and one between the bottom base and top speaker sections. Included gland nuts require round-jacketed wire with outside diameter between 4.0 mm and 9.0 mm (0.16" in and 0.35" in). For Installation instructions, see Installation Guide (#IS-C80MLS). |
| Colors: | Hunter Green, RAL6018 |
| Dimensions (H x W x D): | 524 x 355 x 355 mm (20.7 x 14 x 14 in.) |
| Net Weight: | 7.8 kg (17 lb) |
| Shipping Weight: | 10.5 kg (23 lb) |
| Included Accessories: | (2) wire nuts, (2) gland nuts, (1) security screwdriver |
| Installer-Supplied Required Tools: | 22mm (0.875 in, 7/8 in) twist-type drill bit (or other type suitable for plastic) for installing gland nut into enclosure. |

¹ Continuous Pink Noise rating is IEC-shaped pink noise with a 6 dB crest factor. Continuous program power is defined as 3 dB above the Continuous Pink Noise Rating. In 8 ohm mode.

² Half-space, 2 π loading (in-ground recessed), 360° horizontal, vertical averaged 10 to 50 degrees from ground.

³ 8 ohm mode, calculated from sensitivity and power handling, exclusive of power compression.

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SPL Level Variation Chart by Layout Spacing

| SPL Level Variation Within the Listening Space | Distance Apart |
|--|----------------------------|
| ± 1.5 dB | 4.0 meters (13 feet) apart |
| ± 3.0 dB | 6.5 meters (21 feet) apart |
| ± 4.5 dB | 9.0 meters (30 feet) apart |

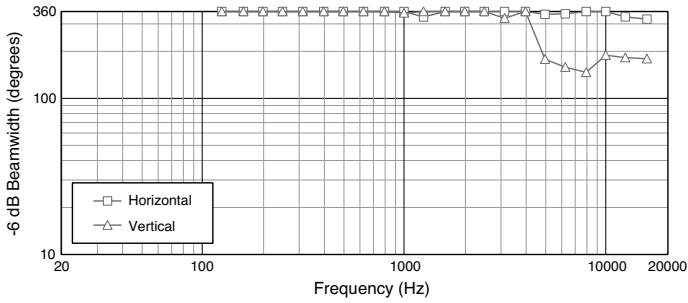
At listening height of 1.5 meters (5 feet)



▶ CONTROL 88M 8" Two-Way Co-axial Mushroom Landscape Speaker

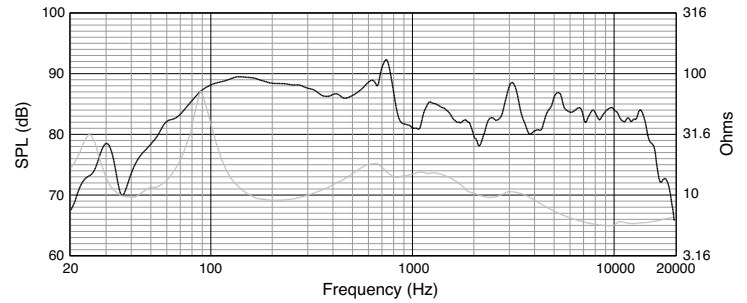
Beamwidth:

-6 dB coverage by frequency

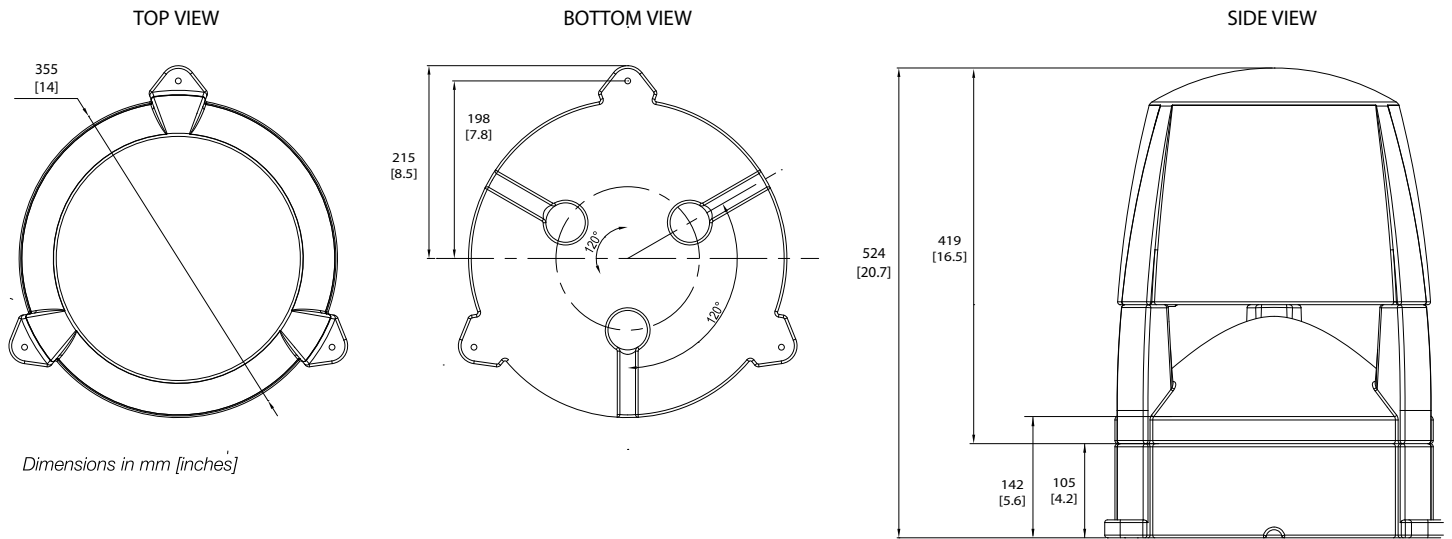


Frequency Response:

In half-space (2π , in ground), plus impedance curve
[Frequency response, Impedance graph]



Dimensions:



JBL Professional
8500 Balboa Boulevard, P.O. Box 2200
Northridge, California 91329 U.S.A.
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CONTROL[®] 89MS

8" MUSHROOM LANDSCAPE SUBWOOFER

PROFESSIONAL SERIES

Key Features:

- **Component:**
 - 200 mm (8-inch) long-throw driver with polypropylene cone, long-excursion TPV surround, and large-diameter 50 mm (2-inch) voice coil on glass fiber former
- 150W Pink Noise Power Handling (300W program) in direct 8Ω setting, plus built-in 80W subwoofer-band 70V/100V multi-tap transformer
- Tough polyethylene enclosure resists abuse from lawn care equipment and the elements
- Fully sealed center chamber for wiring protection
- Frequency range: 40 Hz–150 Hz



Applications:

The JBL-Control 89MS Mushroom-Style Landscape Subwoofer augments the low-frequency performance of the JBL Control 80 Series landscape speaker line (and other outdoor systems) to provide rich bass in lawn, garden, and entrance areas of hotels, restaurants and other hospitality and retail complexes, as well as theme parks, sports venues, resorts, entrances, and anywhere a highly weather-resistant speaker is required.

This sleek, attractive, compact subwoofer features a down-firing, long-throw 200 mm (8-inch) driver which delivers 115 dB (peak) of clean, powerful bass down to 40 Hz. The built-in low-pass crossover features a dual-slope filter which begins with a gentle slope at the crossover frequency and transitions to a steeper slope at higher frequencies), creating a balanced subwoofer transition regardless whether the speaker is driven from a full-range or a dedicated subwoofer amplifier channel. The premium-grade dedicated-subwoofer-band multi-tap transformer (and tap selector with 8Ω bypass) allows the JBL-Control 89MS to be used in 70V and 100V distributed systems or driven directly at low impedance, for maximum versatility.

The JBL-Control 89MS is IP56-rated to withstand the elements, with a tough polyethylene enclosure and a fully-sealed center wiring chamber. The enclosure color extends throughout the cabinet so the speaker maintains color even when scraped or scratched. All external hardware is stainless steel, and the powder-coated stainless steel grille resists rusting.

The two-part enclosure is designed to open with a twist for wiring and then close securely with an included security screw. The bottom base section of the

enclosure can be preinstalled and then wired to the top speaker section of the enclosure when the top gets installed. When assembled, the bottom base section becomes a fully isolated chamber, and the wiring/speaker chamber is further sealed by a water-tight bulkhead, keeping the speaker and transformer (in the top speaker section) highly isolated from the possibility of intruding moisture. Multiple locations on the bottom and sides are provided for the mounting of the exterior gland nut (installed by drilling a 22 mm [0.875 in, 7 / 8 in] diameter hole in the chosen location), and a second, interior gland nut is positioned in the bulkhead between the bottom base and the top speaker sections to keep the speaker system highly weather tight. Included gland nuts maintain a water-tight seal only when used with round-jacketed cable with outside diameter between 4.0 and 9.0 mm (0.16 and 0.35 inches). The Control 89MS can be secured to the ground via third-party ground stakes using the three attachment points that extend out from the bottom section of the speaker.

The 200 mm (8.0 in) diameter long-throw subwoofer driver features a waterproof and highly corrosion-resistant polypropylene cone and long-excursion corrosion-resistant TPV (thermoplastic vulcanized surround), and a large 50 mm (2-inch) voice coil on a glass fiber coil-former for high power handling and superior long-term reliability.

The speaker handles 150 Watts Continuous Pink Noise (300W Program, 600W Peak) in the 8Ω mode. The Control 89MS is UL certified, per UL1480A.



CONTROL[®] 89MS

8" MUSHROOM LANDSCAPE SUBWOOFER

PROFESSIONAL SERIES

Specifications:

| | |
|---|--|
| Frequency Range (-10 dB) ¹ | 40 Hz – 150 Hz |
| Frequency Response (± 3 dB) ¹ | 53 Hz – 110 Hz |
| Power Rating ² | 300 W: Continuous Program (2 hrs) 150 W: (600 W Peak), Continuous Pink Noise (2 hrs) 100 W: (400 W Peak), Continuous Pink Noise (100 hrs) |
| Maximum Input Voltage | 31V (based on 2 hr. Continuous Pink Noise rating and min-Z) |
| Sensitivity ³ | 87 dB (ave. 60 Hz – 105 Hz) |
| Nominal Coverage Angle | 360° horizontal, 160° vertical (primary listening 10° to 50° up from ground). |
| Directivity (Q) | 2.0 (with half-space, 2π , on-ground loading) |
| Directivity Index (DI): | 3.0 |
| Rated Maximum SPL ⁴ | 115 dB peak (109 dB continuous, 2 hr) @ 1m |
| Nominal Impedance | 8 Ω (at 8 Ω tap) |
| Minimum Impedance | 7.2 Ω at 85 Hz |
| Transformer Taps | 70V: 80 W, 40 W, 20 W, 10 W 100V: 80 W, 40 W, 20 W |
| Insertion Loss | <0.8 dB at any tap setting |
| Thru Setting | 8 Ω nominal |
| Crossover Type | Complex dual-slope 2nd order low-pass with additional impedance compensation |
| Recommended Protective High-Pass | 40 Hz for 8 Ω operation and for all tap settings, 24 dB/oct |

Transducers

| | |
|--------|--|
| Driver | 200 mm (8-inch) driver, polypropylene injection cone, long-excursion corrosion-resistant TPV (thermoplastic vulcanizate) surround, and 50 mm (2-inch) voice coil on 80% glass fiber + polyamide coil former. |
|--------|--|

Physical

| | |
|--------------------|---|
| Enclosure Material | LDPE Polyethylene plastic, 6 mm minimum wall thickness, UL94V-HB rated, color throughout. |
| Grille | Powder coated stainless steel |
| Environmental | IP-56 rating per IEC529 (dust protected and protected against strong jets of water). Exceeds MilSpec 810 for humidity, salt spray, temperature, & UV. Passes Mil-Std-202F for salt spray. Enclosure UL94V-HB rated. |
| Agency Ratings | UL1480A Speakers for Commercial and Professional Use, for outdoor wet locations; CSA C22.2 No. 205-12, Signal Equipment. Transformer UL Recognized per UL1876, ROHS compliant. |
| Terminals | Bare wire with dielectric-gel-filled wire nuts (internal to top speaker section) |

| | |
|-----------------------------------|--|
| Wiring | Water ingress protected by two stages of gland nuts, one mounted on outside of enclosure (installed by installer via drilling 22 mm (0.875 in, 7/8 in) hole in any of multiple provided locations) and one in the bulkhead between the bottom base and top speaker sections. Included gland nuts require round-jacketed wire with outside diameter between 4.0 mm and 9.0 mm (0.16" in and 0.35" in). For Installation instructions, see Installation Guide (#IS-C80MLS-B) |
| Colors | Hunter Green, RAL 6018 |
| Dimension (H x W x D) | 524 x 355 x 355 mm (20.7 x 14.0 x 14.0 inches) |
| Net Weight | 10.9 kg (24.0 lbs) |
| Shipping Weight | 13.6 kg (30.0 lbs) |
| Included Accessories | (2) wire nuts, (2) gland nuts, (1) security screwdriver |
| Installer-Supplied Required Tools | 22 mm (0.875 in, 7/8 in) twist-type drill bit (or other type suitable for plastic) for installing gland nut into enclosure. |

¹ In half-space (located on the ground, 2π loading)

² Continuous Pink Noise rating is AES spectrum (45 Hz – 450 Hz), with 6 dB crest factor. Continuous program power is defined as 3 dB above the Continuous Pink Noise Rating. In 8 ohm mode.

³ Half-space, 2π loading (on-ground recessed), 360° horizontal, vertical averaged 10 to 50 degrees from ground.

⁴ 8 ohm mode, calculated from sensitivity and power handling, exclusive of power compression.

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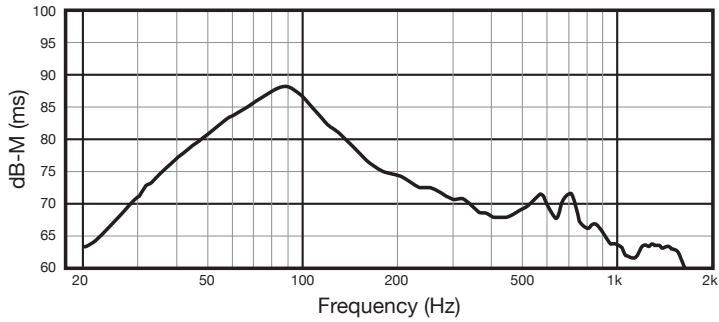
CONTROL[®] 89MS

8" MUSHROOM LANDSCAPE SUBWOOFER

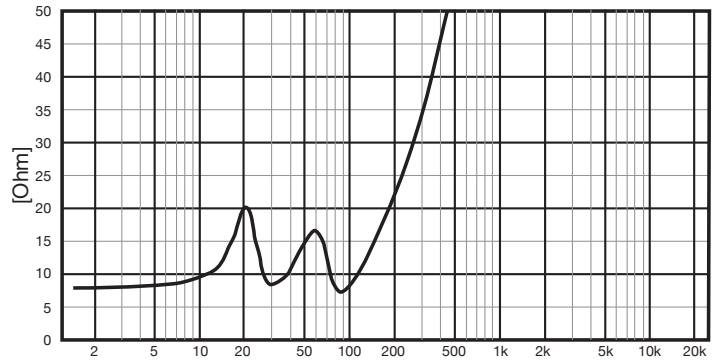
PROFESSIONAL SERIES

Frequency Response:

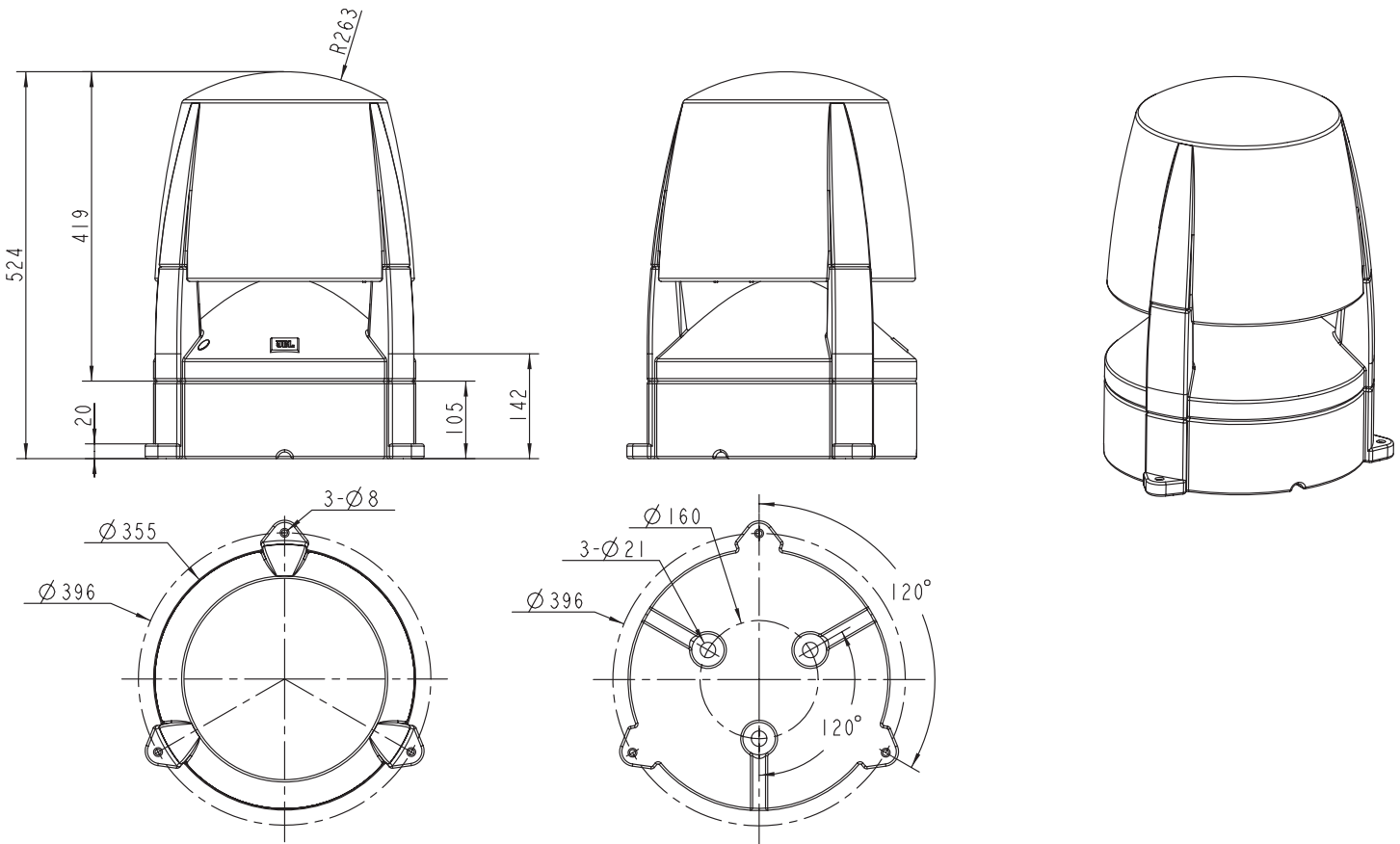
In half-space (2π , on-ground).



Impedance:



Dimensions:



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