

# DX-IC10SUB

10-INCH HIGH OUTPUT  
CEILING MOUNT SUBWOOFER



## APPLICATIONS

Large Conference Rooms · Houses of Worship  
Theaters · Sports Facilities · Health Clubs  
Convention Centers · Auditoriums  
Malls · Airports

## DESCRIPTION

The Desono DX-IC10SUB ceiling mount subwoofer provides powerful, high-impact bass response intended to augment any combination of Desono DX full-range models. By including a complement of DX-IC10SUBs into a distributed system, musical results that equal or exceed that of much larger and more costly surface-mount systems can readily be achieved. The DX-IC10SUB's clean, clear bass response provides a compelling attraction for shoppers in a retail environment, and a memorable experience for bar, pub and restaurant patrons.

Dependent on program content and the size of the full-range DX models, the ratio of DX-IC10SUBs to full-range models may vary from as few as 1:6 to as many as 1:1. For example, one DX-IC10SUB will provide strong supporting bass response for six DX-IC4s, while four DX-IC10SUBs will better complement six of the more powerful DX-IC8s or DX-IC10s.

Patent-pending SpringLock™ clamps allow single-handed placement to speed installation and reduce labor time. The SpringLock spring-loaded clamps support the back can on the included tile rails and snap-on C-ring, so that the installer can just tighten the clamps, securing it in the ceiling.

A magnetic grille and front-face wattage selector switch enables quick adjustment of tap levels, while the high-power internal autoformer permits full power output with 70V or 100V lines. A variety of installation accessories are available to accommodate different ceiling materials.

## FEATURES

- High intelligibility with exceptional uniform coverage
- High-impact bass response
- Fast installation with SpringLock™ mounting clamps
- Attractive edgeless magnetic grille design
- Conduit knock-outs on the input cover meet Chicago plenum air space requirements

## TECHNICAL SPECIFICATIONS<sup>1</sup>

Operating Mode	Passive with DSP		
Operating Environment	Indoor		
Operating Range (-10dB) <sup>2</sup>	39 Hz to 200 Hz		
Nominal Beamwidth (H x V)	Omni-directional		
Transducers	LF 1 x 10" (254 mm)		
Sensitivity <sup>3</sup>	88 dB (2.83 V)	88 dB (1W at rated impedance 8 Ω)	
Nominal Continuous Power Handling <sup>4</sup>	Passive	40 V (200 W @ 8 Ω)	
Nominal Maximum SPL <sup>5</sup>	Passive	Peak 117 dB	Continuous 111 dB
Rated Continuous Voltage <sup>6</sup>	Passive	39.8 V (32 dBV)	
Rated Maximum SPL <sup>7</sup> (Processed)	Passive	Peak 123 dB	Continuous 111 dB
Autoformer	70 V: 200 W, 100 W, 50 W, 25 W; 100 V: 200 W, 100 W, 50 W		
Recommended Amplifiers	Passive	200 W - 400 W into 8 Ω, (40 V - 57 V)	
Required Accessory	30 Hz 12 dB/oct. high pass filter		

## PHYSICAL

Input Connection	4-position Euroblock connector
Controls	Front-face wattage / low impedance selector switch
Mounting Provisions	4 SpringLock mounting clamps with 2.5-inch grip range
Certifications	ETL listed to comply with UL1480A, UL2043 and CSA62368-1 Suitable for use in air handling spaces per NFPA 70 and NFPA 90
Dimensions W x D	394 mm x 263 mm (15.51" x 10.37")
Weight	10.0 kg (22.1 lbs)
Finish	Refer to the Technical Drawing (page 3)
Accessories (included)	C-Ring supporting plate, tile support bridge rails, grille, paint mask, cut-out template
Model	DX-IC10SUB-W - loudspeaker with White grille

## OPTIONS

Accessories	New Construction Brackets (SPA-NC600) Black Grilles (SPA-GRB600) High Humidity Grilles (SPA-GHH600) 48" Tile Rails (SPA-RAIL48)
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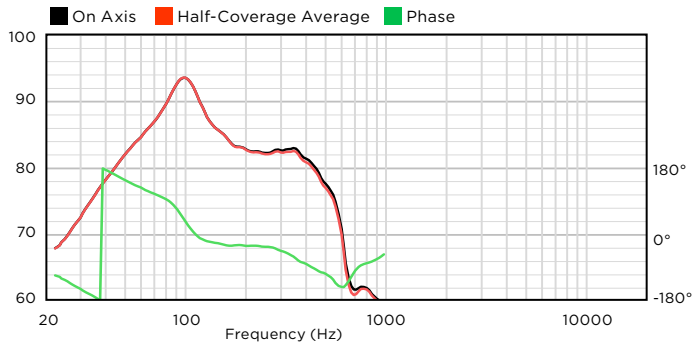
*Biamp strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.*

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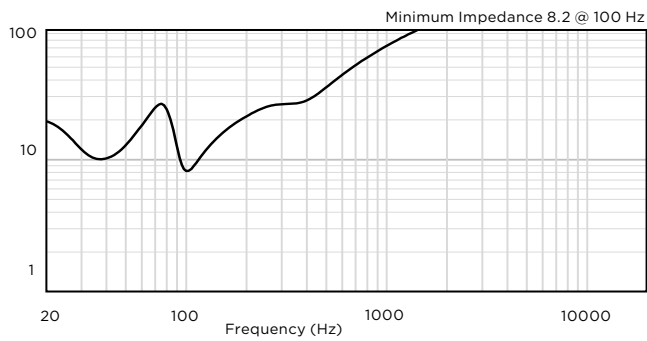
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## AXIAL SENSITIVITY (dB SPL)<sup>8</sup>



## IMPEDANCE ( $\Omega$ )



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## TECHNICAL DRAWING / DIMENSIONS / FINISH

W (bezel diameter) x D

394 mm x 263 mm (15.51" x 10.37")

Cutout Diameter

360 mm (14.17")

Unit Weight

10.0 kg (22.1 lbs)

Shipping Weight (shipped in pairs)

28.0 kg (61.74 lbs)

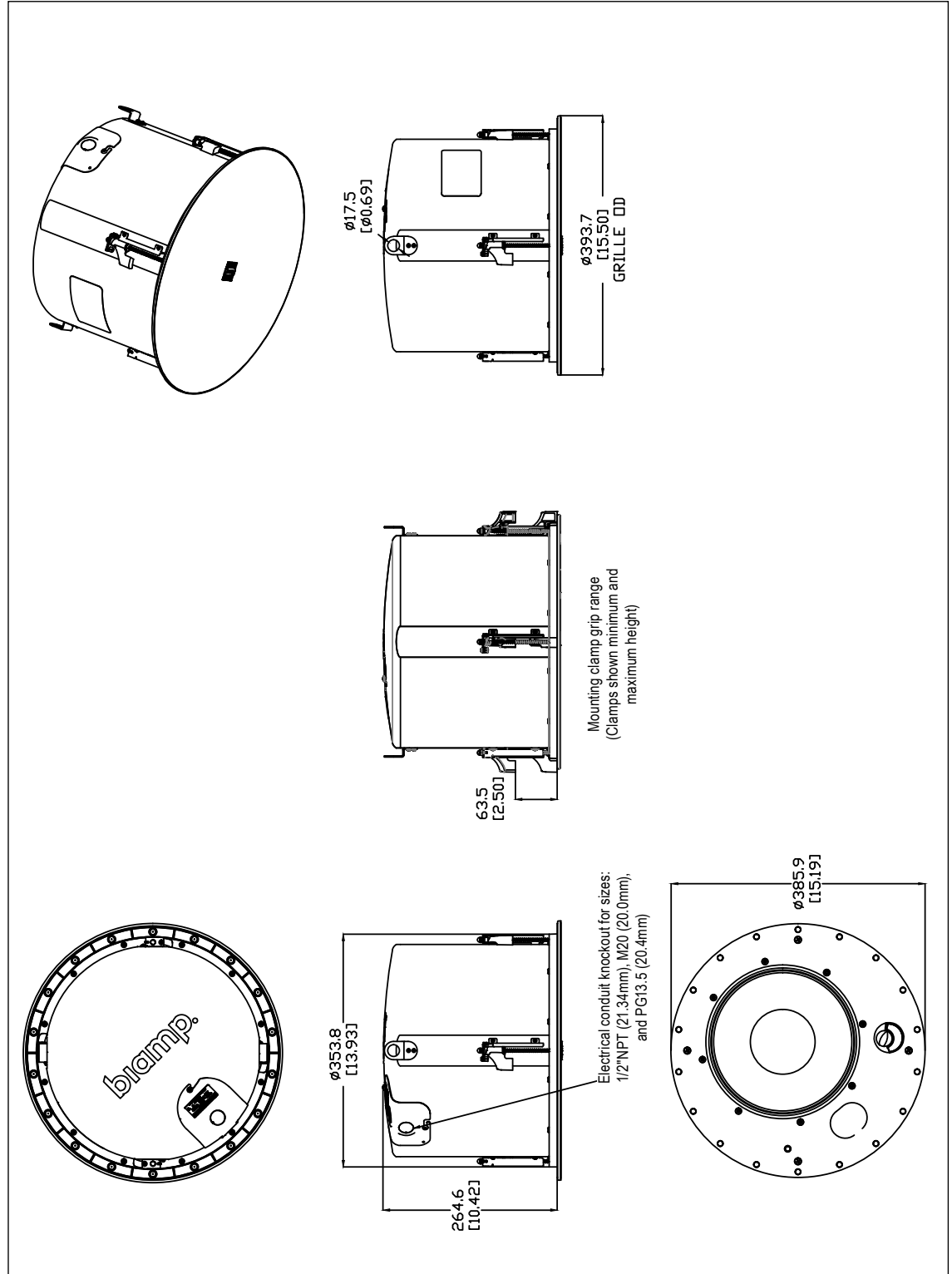
### Grille:

Powder-coated perforated steel backed with color-matched woven fabric with safety line. White finish.

### Enclosure / Finish

Back Can: Black, Matte finish Steel

Face: UL 94V-0 rated ABS plastic, paintable Black finish.



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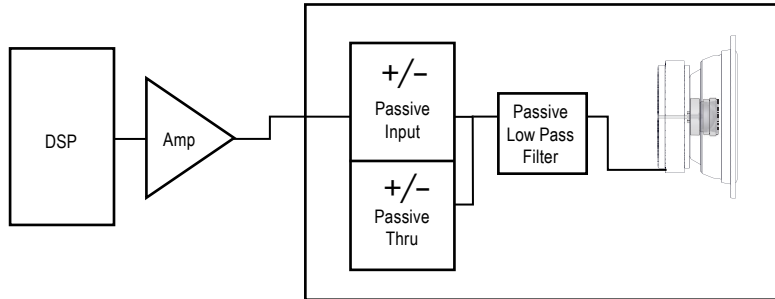
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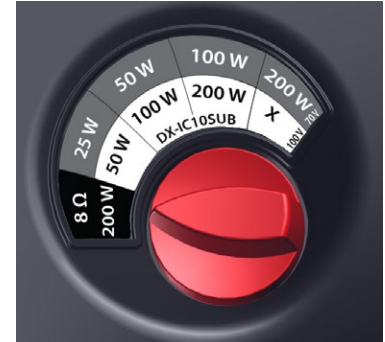
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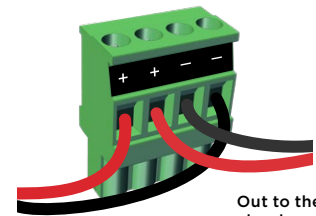
## CONNECTION DIAGRAMS



Single amp



Tap Switch (on face)



In from the amplifier or previous loudspeaker, terminals 1[+] & 4[-]  
Out to the next loudspeaker, terminals 2[+] & 3[-]

Input

## NOTES

- 1. PERFORMANCE SPECIFICATIONS** All measurements are performed using a time-windowed impulse response to eliminate reflections, approximating an anechoic environment, at a distance of at least 6.0 m. All acoustic specifications are rounded to the nearest whole number. An external DSP using settings provided by Biamp is required to achieve the specified performance; further performance gains can be realized using the FIR loudspeaker optimization presets available in Biamp's Community Amplified Loudspeaker Controllers (ALC SERIES).
- 2. OPERATING RANGE** The frequency range over which the on-axis equalized/processed response remains within 10 dB of the rated sensitivity, in accordance with IEC 60268-5.
- 3. SENSITIVITY** The broadband SPL of the loudspeaker when pink noise is applied (band limited to the loudspeaker's Operating Range) at an input voltage of 2.83 V, in accordance with IEC 60268-5. Also listed for a voltage that would produce 1 watt into the nominal impedance. Measured in whole space with no external processing applied, except where indicated.
- 4. NOMINAL CONTINUOUS POWER HANDLING** The maximum continuous nominal input voltage at the rated impedance that the system can withstand, without damage, for a period of 2 hours using an IEC 60268-1 defined spectrum with recommended signal processing and protection filters.
- 5. NOMINAL MAXIMUM SPL** The SPL produced when an IEC 60268-1 signal is applied, at the nominal input voltage, to the equalized/processed loudspeaker system. Referenced to a distance of 1 meter. The peak SPL represents the 2:1 (6 dB) crest factor of the IEC 60268-1 test signal.
- 6. RATED CONTINUOUS VOLTAGE** The maximum continuous rated input voltage for the system that results in no more than a 3 dB change in the system's response during operation.
- 7. RATED MAXIMUM SPL** The SPL produced when a typical program material signal is applied to the equalized/processed loudspeaker system, at a level which drives at least one subsection to its rated continuous voltage limit. Referenced to a distance of 1 meter. The peak SPL represents the 4:1 (12 dB) crest factor of the program signal.
- 8. AXIAL (PROCESSED) SENSITIVITY** The variation in acoustic output level with frequency for a swept-sine measurement signal. The Processed measurement uses the recommended signal processing for the loudspeaker system. The other sensitivity measurements use no additional external processing. All data are referenced to 1 meter. The on-axis magnitude and phase responses, as well as the average magnitude response, calculated over one-half of the nominal coverage angles, are shown. The responses have 1/6 octave smoothing applied.

Data presented on this data sheet represents a selection of the basic performance specifications for the model. These specifications are intended to allow the user to perform a fair, straightforward evaluation and comparison with other loudspeaker spec sheets. For a detailed analysis of this loudspeaker's performance, please download the GLL file and/or the CLF file from our website: [www.biamp.com](http://www.biamp.com)