



## Product Description

The CMS 1201DC is a powerful state-of-the-art large format in-ceiling loudspeaker device conceived, designed and built to complement Tannoy's existing class-leading CMS range. From the pioneers of point source and large format ceiling speakers the CMS 1201DC is engineered from the ground up with superior full-range performance in mind to handle demanding distributed sound applications such as ballrooms, shopping malls, sports halls, airports and other high ceiling installations.

Built around a new evolution of the high power handling 12" (300mm) Dual Concentric™ point source driver, the CMS 1201DC delivers best-in-class performance for the most even beamwidth and pattern control over the widest range of frequencies of any large format ceiling speaker. Coupled with exceptional clarity, ultra low distortion, and high SPLs, Tannoy has again raised the bar to give the absolute cutting edge performance in ceiling mounted loudspeaker technology.

The new Dual Concentric drive assembly features a treated mid-bass cone and double rolled cambric surround for high sensitivity, as well as a 1.34" (34mm) aluminium dome with ferrofluid cooled Neodymium magnet assembly and a newly designed waveguide for the high frequency unit. These two drivers seamlessly merge into one with the high frequency mounted in the throat of the mid-bass; therefore coincidentally aligning both transducers to a point source. The result is a smooth, uniform response over a very controlled 90 degree coverage area – even in the highest octaves.

The custom engineered powder coated steel back-can has been designed to cater for all conceivable installation possibilities making the CMS 1201DC extremely versatile. The internally dampened 79 litre (2.8 cubic feet) back-can provides exceptional LF performance on a par with conventional wooden enclosure loudspeakers. Steel mounting lugs allow for fitting to a Unistrut roof rail system or be hung via 4 top-mounted eye bolts. Alternatively, the design caters for a single point hang via M10 or 3/8 UNC screwed rod. Mounting of the loudspeaker assembly to the pre-installed back-can is a one man job thanks to the common sense design approach. One edge of the baffle clips onto the steel box to hold it in place while the installer secures the assembly in place. Connection is simple via terminal barrier strips inside the can, easily accessible via 20mm and 29mm conduit knockouts on all 5 sides of the can. Saving time and man-power during installation has been a driving factor behind the design of the CMS 1201 system.

Achieving new standards of controlled coverage means the CMS 1201DC can be specified with absolute confidence and located as efficiently as possible, minimising the number of devices typically required, reducing install time and cost.

The CMS 1201DC is available in both standard low-Z variant (CMS 1201DC) and 60W line transformer-equipped version (CMS 1201DCt) for use on 70V or 100V distributed lines (optional THP 150 Watt transformer also available for high powered applications). The following tappings are configurable on the transformer before screwing driver assembly into the back can:

70V systems: 60W / 30W / 15W / 7.5W / OFF  
100V systems: 60W / 30W / 15W / OFF

If later adjustment to the level is required the baffle can be hung from the can via a hinged edge, leaving both hands free to make the required adjustment. As with all of Tannoy's CMS in-ceiling loudspeakers, the CMS 1201DC benefits from a 5-year warranty.

## Features

- 12" (305mm) point source Dual Concentric™ driver with Ferrofluid cooled Neodymium HF
- High power & high sensitivity with extended LF response and very low distortion
- Highly controlled full-bandwidth 90 degree dispersion
- High power handling (400W rec. power), high SPL (120dB sustained average)
- Highly versatile back-can installation options
- 79 litre Back-can lined with OSB2 board for optimum acoustic performance
- Designed to meet UL-1480 and UL-2043 Listing specification
- One-man install thanks to quick-fix baffle fitment
- Available with optional low insertion loss 60W line transformer
- 5-year warranty

## Applications

- High ceiling applications
- Shopping malls
- Transport hubs
- Ballrooms
- Boardrooms / Corporate AV
- Convention Centres
- Cruise Ships
- Large Bars & Restaurants

## Design with EASE

All Tannoy ceiling loudspeakers are simple to design into a wide variety of applications using our Ease Address™ design software, available to download FREE from the Tannoy website.

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# CMS 1201DC

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## TECHNICAL SPECIFICATIONS

System	CMS 1201DC	
Frequency Response (-3dB) <sup>(1)</sup>	60Hz - 20kHz	
Frequency Range (-10dB) <sup>(1)</sup>	45Hz - 30kHz	
System Sensitivity (1W @1m) <sup>(2)</sup>	97dB (1W = 2.83V for 8 Ohms)	
Nominal Coverage Angle	90 Degrees Conical	
Coverage Angle (1kHz to 16kHz)	90 Degrees Conical	
Crossover	1.6kHz - 2nd order LF, 2nd order HF	
Directivity Factor (Q)	8.9	
Directivity Index (DI)	9.5	
Rated Maximum SPL (2)		
Average	120dB	
Peak	126dB	
With THP60 - Average	115dB	
Power Handling		
Average	200W	
Programme	400W	
Peak	800W	
Recommended Amplifier Power	400W @ 8 Ohms	
Nominal Impedance	8 Ohms	
Transformer Taps (CMS 1201 Dct only)		
70V	60W / 30W / 15W / 7.5W / OFF	
100V	60W / 30W / 15W / OFF	

Distortion			
<b>10% Full Power (5.5V)</b>	2nd Harmonic	3rd Harmonic	
	250Hz	1.6	0.28
	1kHz	2.45	0.73
	10kHz	4.5	0.32
<b>1% Full Power (1.73V)</b>	2nd Harmonic	3rd Harmonic	
	250Hz	0.48	0.08
	1kHz	1.06	0.59
	10kHz	1.57	0.04
Crossover	1.6kHz - 2nd order LF, 2nd order HF		

Transducers	
Low Frequency section	1 x 300mm (12.00") Dual Concentric™ constant directivity driver with treated cone
High Frequency section	34mm (1.34") aluminium dome with neodymium magnet systemem
Physical	
Enclosure Backcan	1.6 mm black powder coated steel, damped with 11 mm OSB board
Baffle	1.2 mm black powder coated steel
Grille	1.0 mm white powder coated perforated steel
Connectors	Terminal barrier strip inside the can, with loop thru capability
Safety Features	Safety ring locted at the rear of enclosure for load bearing safety bond
Cable Entry Options	20mm and 28mm on knockouts
Conduit Knockouts	4 sides + top
Safety Agency Ratings (pending)	UL-1480, UL-2043, CE
Dimensions HxWxD	331mm x 725mm x 516mm
Net Weight	TBC
Backcan	TBC
Baffle	TBC
Grille	TBC

Notes:  
 (1) Average over stated Bandwidth. Measured in an IEC baffle in an Anechoic Chamber  
 (2) Unweighted Pink noise input, measured at 1m on axis  
 (3) Long term power handling capacity as defined in EIA - 426B test

A full range of measurements, performance data, CLF and Ease™ Data can be downloaded from [www.tannoy.com](http://www.tannoy.com)

Full independent verification of published specifications carried out by NWA Labs, California can also be obtained from the downloads section of [www.tannoy.com](http://www.tannoy.com)

Tannoy operates a policy of continuous research and development. The introduction of new materials or manufacturing methods will always equal or exceed the published specifications, which Tannoy reserves the right to alter without prior notice. Please verify the latest specifications when dealing with critical applications.

### Ordering Information

PART NUMBER	MODEL NAME	COLOUR	PACKED QUANTY	PACKED WEIGHT
8001 4750	CMS 1201DC	BLACK	1	TBC
8001 4751	CMS 1201DCt	BLACK	1	TBC
8001 4760	CMS 1201 Backcan	BLACK	1	TBC
8001 4780	CMS 1201 Grille Assembly	WHITE	1	TBC
3212 0141	THP 150 Transformer	N/A	1	

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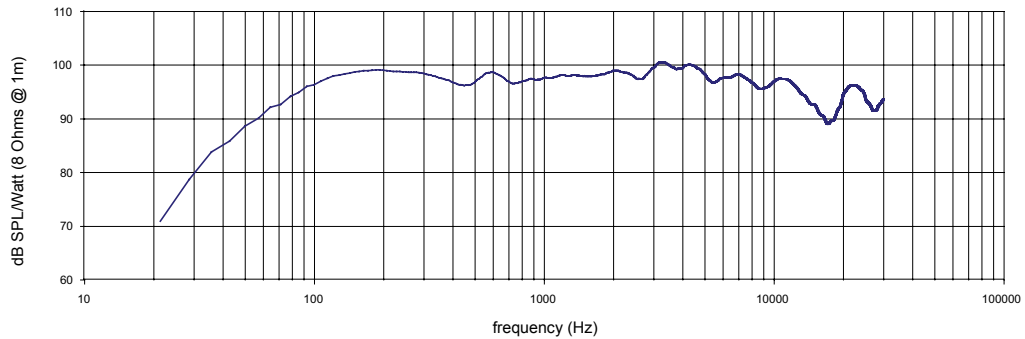
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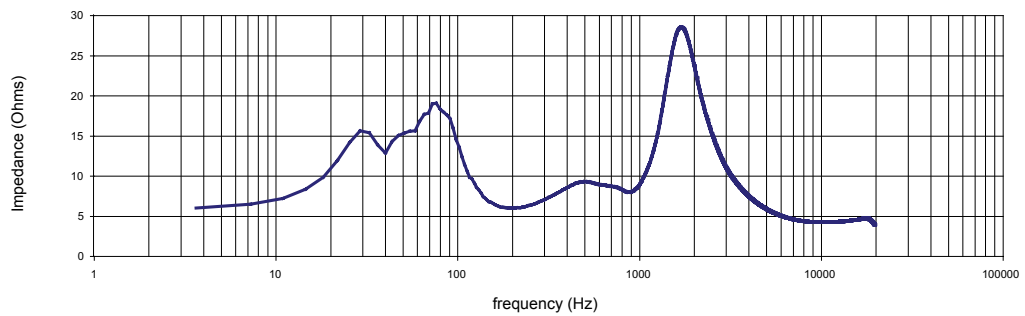
## PERFORMANCE MEASUREMENTS

1m on-axis Sensitivity (IEC baffle)



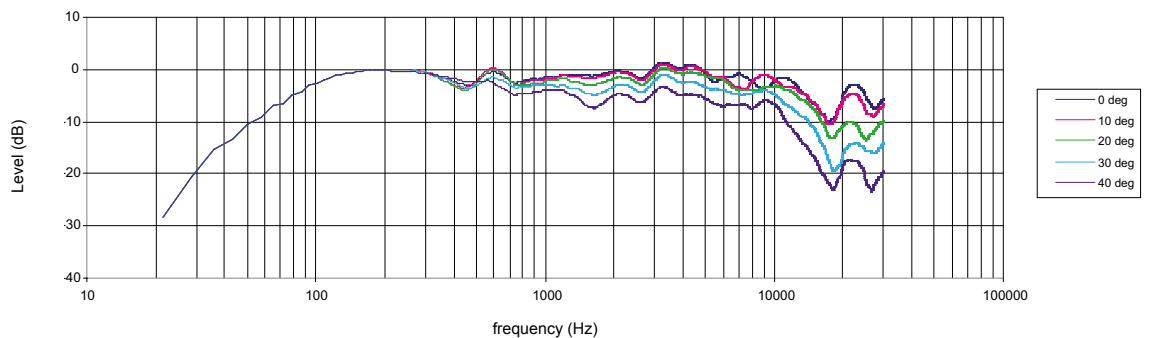
### ANECHOIC FREQUENCY RESPONSE

Impedance vs frequency



### IMPEDANCE

Off-axis Frequency Response IEC baffle



### OFF AXIS RESPONSE

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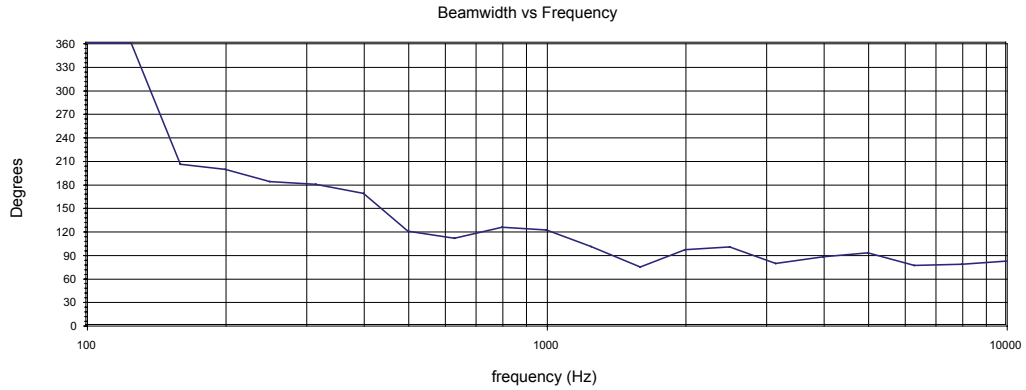
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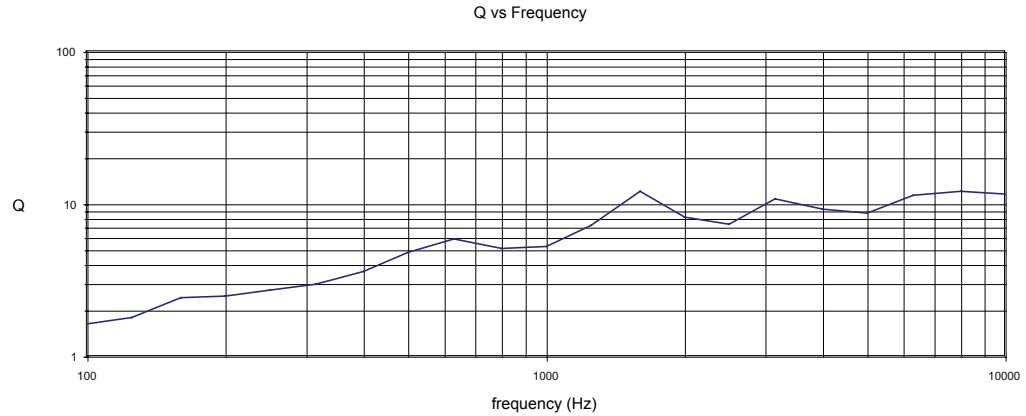
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## PERFORMANCE MEASUREMENTS



### BEAMWIDTH



### DIRECTIVITY INDEX

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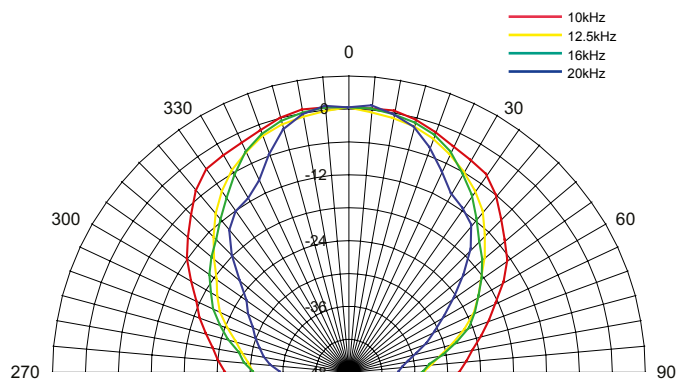
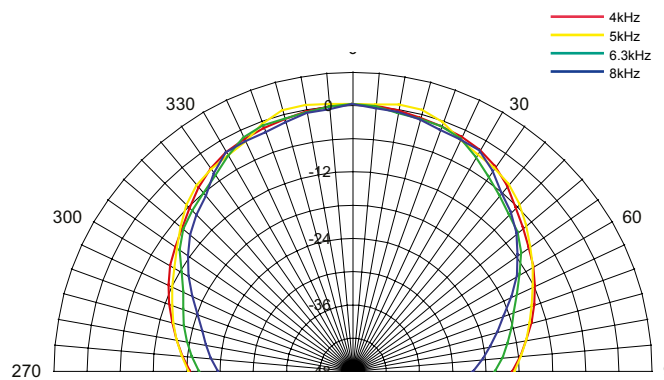
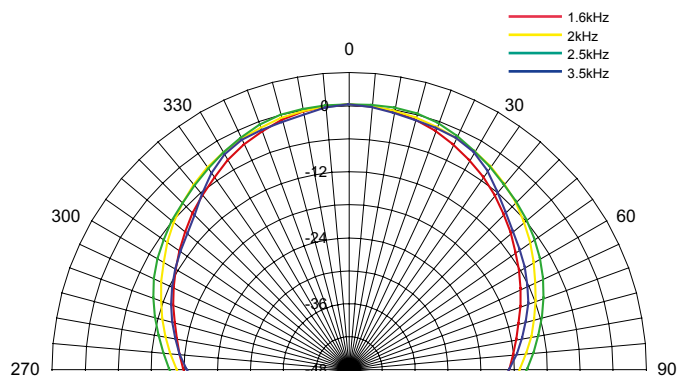
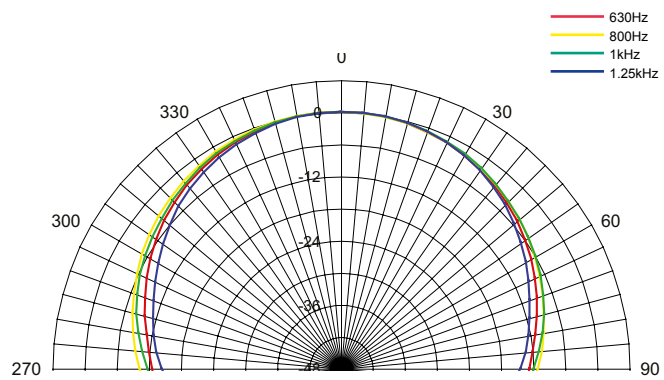
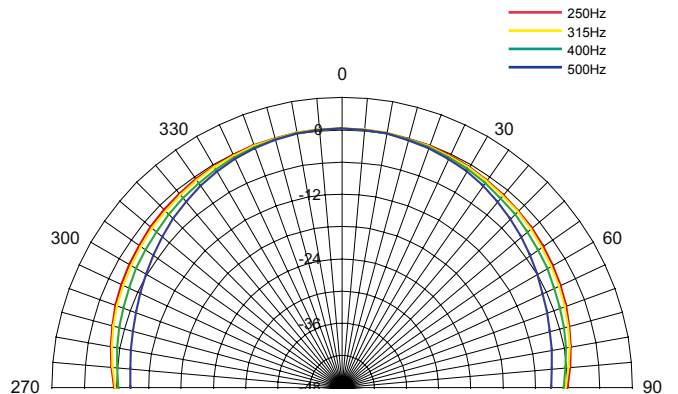
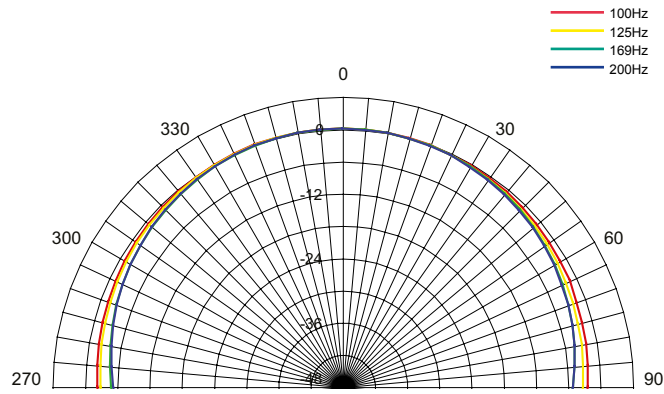
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## PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)



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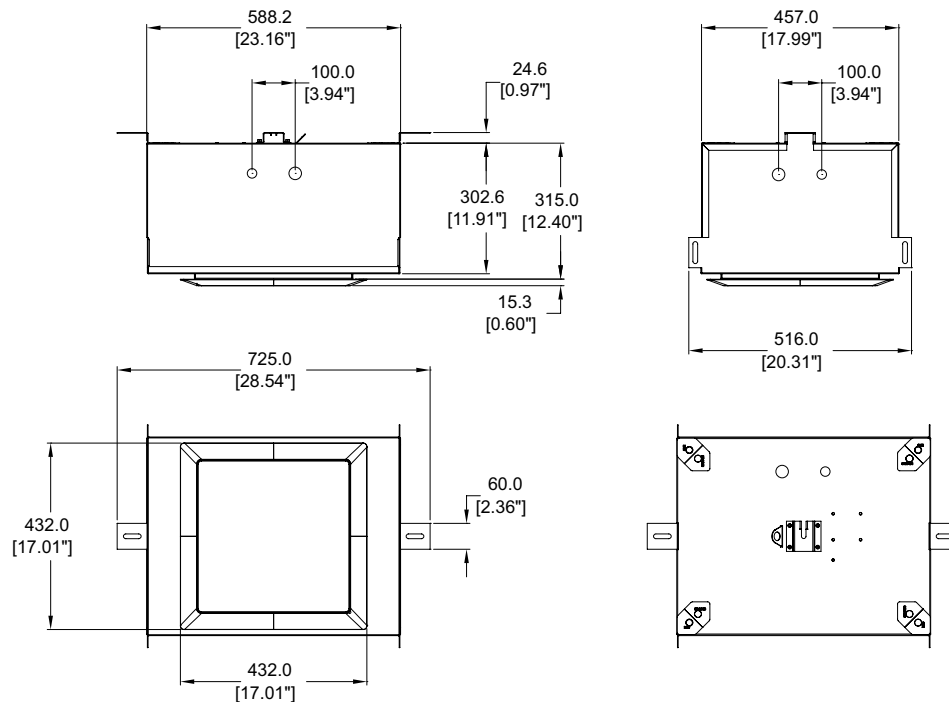
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# CMS 1201DC

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## DIMENSIONAL SKETCHES



### Architectural specifications

The CMS 1201DC Ceiling Monitor System shall consist of a 300mm (12") full range, point source, constant directivity Dual Concentric™ transducer and passive frequency dividing network mounted in a ported, black powder coated 1.2mm steel baffle. The separate back-can shall be constructed of black powder coated 1.6mm steel and lined with 11mm OSB2 board for superior acoustic performance. 20mm and 29mm knockouts for cable access on all 5 sides with "loop through" facility shall be provided. A safety ring is located on the top of the back can for a load bearing safety bond.

Performance of the Ceiling Monitor System shall meet or exceed the following criteria: The system shall have a conical coverage pattern of 90 degrees (1kHz to 16kHz). Frequency response measured on axis shall be 45Hz – 30kHz (-10dB from rated sensitivity, measured in an IEC baffle in an anechoic chamber) with no equalization. Sensitivity shall be 97dB (1W @ 1m). Long term recommended power handling capacity will be 400W. Dynamic high frequency protection is provided for occasional overpowering.

The CMS 1201DC shall have a nominal impedance of 8 Ohms. The CMS 1201DCt shall be equipped with a 60W high performance line transformer for use in 70.7 or 100 Volt distributed audio systems with 60,30, 15, 7.5\* Watt taps available. A rotary switch located on the driver assembly (accessible by dropping the hinged baffle hatch) shall be available for selecting transformer and low impedance settings.

The back-can will have steel mounting lugs for fixing to Uni-strut ceiling rail systems in a variety of configurations – both directly and via secondary uni-strut spars (pre-fitted to back-can before fitting to the ceiling rail system). The back-can will also allow for 4 point hanging via eyebolts and also via single point central hang via M10 or 3/8 UNC screwed rod and Nylok nut assembly. An aesthetically sensitive perforated white powder coated steel grille covers the transducer.

The Ceiling Monitor System shall be the... CMS 1201DC

\*70 Volt only

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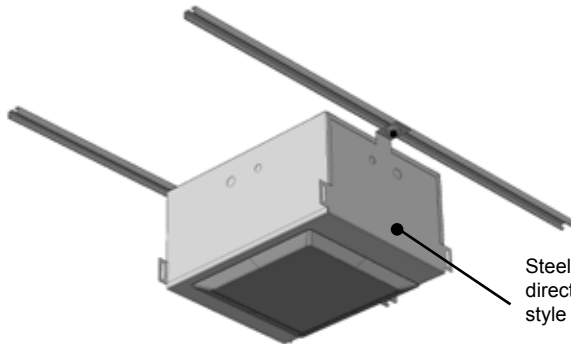
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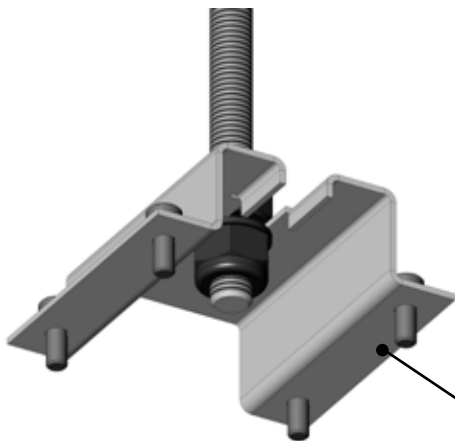
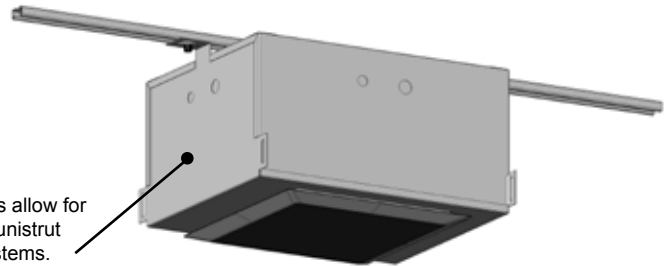
# CMS 1201DC

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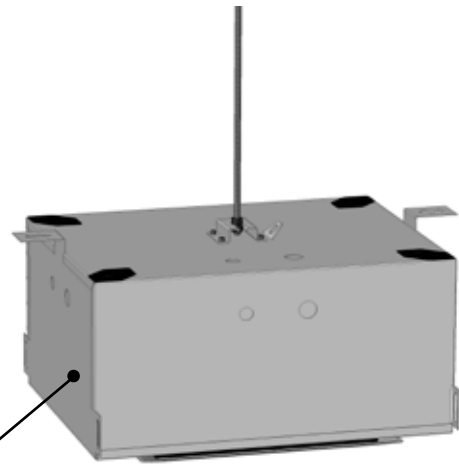
Highly versatile back-can provides limitless mounting possibilities.



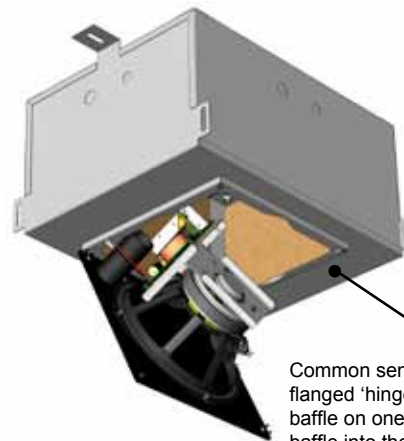
Steel mounting lugs allow for direct mounting to unistrut style ceiling rail systems.



Custom engineered slotted mounting saddle allows for easy and hassle free single-point hang via M10 (3/8) UNC threaded rod and pre-fixed Nylok nut.



4-point hang via corner located eyebolts.



Common sense design provides a flanged 'hinge' point for safely locating baffle on one edge while securing the baffle into the back-can, making it an easy one-man fit.

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## NOTES

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