

TANNOY®

CMS 1201

Professional **loudspeakers**



Operation Manual

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1. Introduction

Thank you for purchasing this Tannoy product.

The CMS 1201DC is a powerful state-of-the-art large format in-ceiling loudspeaker device conceived, designed and built to complement Tannoy's 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 brand new evolution of the high power handling 12" (300 mm) 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 34 mm (1.34") 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; 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.

2. Unpacking and visual checks

Every Tannoy product and accessory is carefully inspected before packing. After unpacking, please inspect your product to make sure no damage has occurred in transit. In the unlikely event of any damage, would you please notify your dealer immediately and retain your shipping carton, as your dealer may ask you to return the faulty unit to him for inspection.

3. Product overview

The CMS1201 DC comprises three discrete components that are ordered separately under different part numbers.

- A loudspeaker assembly that includes a Dual Concentric drive unit mounted on a ported steel baffle, and its crossover. This baffle may also include a line transformer (CMS 1201DCt).
- A steel back-can with multiple mounting points
- A grille assembly with its moulded bevel cover

3.1 Ordering Information

Part Number	Description
8001 4750	Loudspeaker CMS 1201DC
8001 4751	Loudspeaker CMS 1201DCt
8001 4760	Back-can - CMS 1201
8001 4780	Grille Assembly - CMS 1201

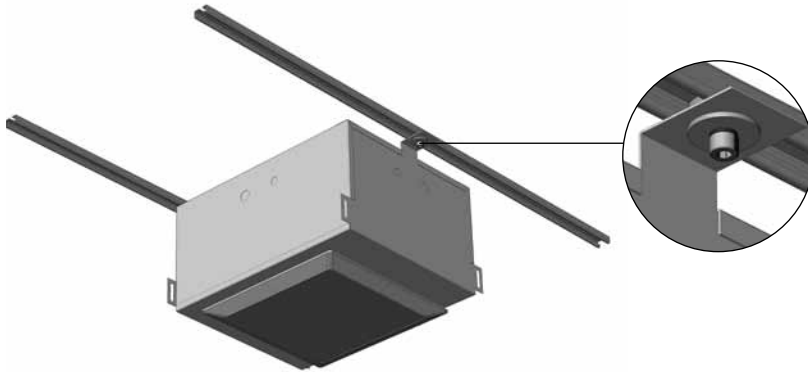
4. Installation guide

4.1 Back-can

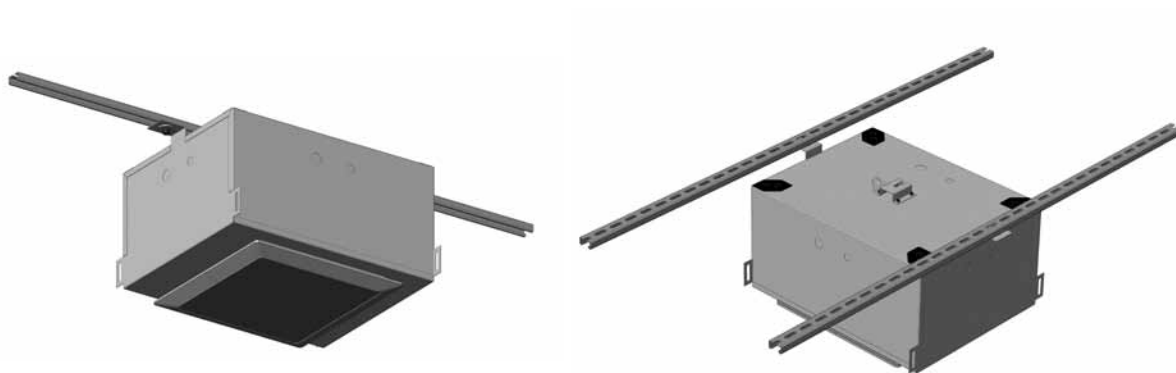
The custom engineered powder coated steel back-can has been designed to cater for all conceivable installation possibilities making the CMS 1201DC extremely versatile. Internally dampened with 11 mm (0.43") OSB2 board, the addition of the back-can provides exceptional low frequency performance.

4.2 Mounted Using Unistrut roof rail system

Steel mounting lugs allow for fitting to a Unistrut roof rail system in a variety of configurations both directly or via secondary prefixed cross struts.



Screw at fixing point should use a large series washer to help spread the load.



Speaker mounted to a single rail

Back-can mounted between rails

4.3 Flying using Eyebolts

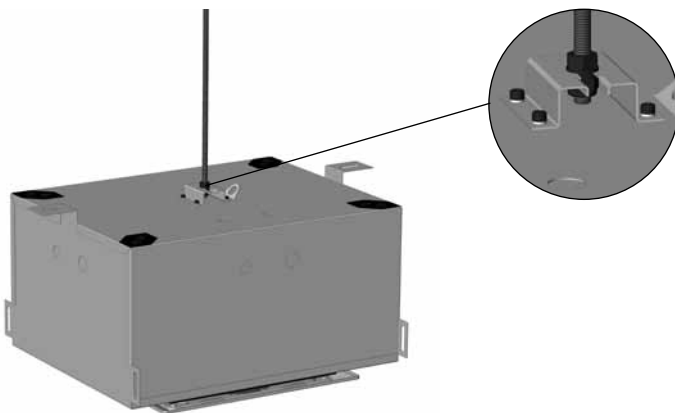
WARNING: As the legal requirements for flying change from country to country, please consult your local safety standards office before installing any product. We also recommend that you thoroughly check any laws and bylaws prior to commencing work.

The device can also be hung via 4 top-mounted eye bolts. Rear of back can has mounting points for both M10 and 3/8 UNC threaded eyebolts.



4.4 Flying using Screwed rod

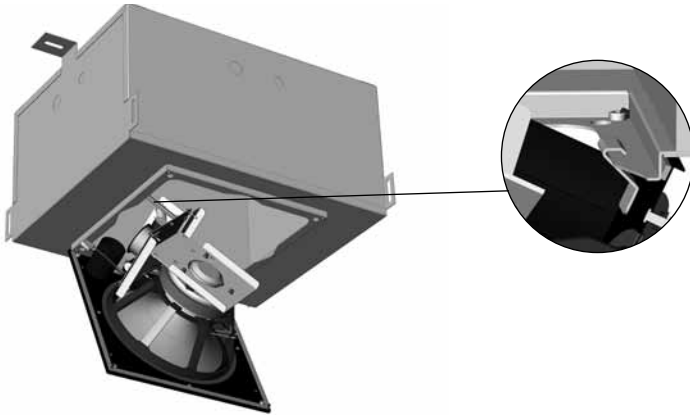
The design also caters for a single point central hang via M10 or 3/8 UNC screwed rod – made easy thanks to the slotted mounting saddle on the top of the back-can. If required a safety wire can be attached to any of the M10 flying points.



To fit the back can to threaded rod support, first run a nut 50 mm (2") up the rod followed by two plain washers and then a locking nut (Nyloc®). Hook the back can on to the rod between the two plain washers. Once the nut has cleared the guide slot the top nut can be locked down to secure.

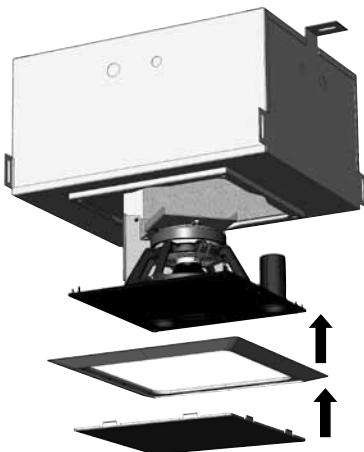
4.5 Fitting the loudspeaker assembly

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 20 mm (0.79") and 29 mm (1.14") conduit knockouts on all five sides of the can. Saving time and manpower during installation has been a driving factor behind the design of the CMS 1201 system.



Baffle assemble can be hooked onto the back can with care.

4.6 Fitting the Grille



5. Wiring and setting up

The CMS 1201 is available in both a standard low-impedance variant (CMS 1201DC) and a low insertion loss 60 W line transformer-equipped version (CMS 1201DCt) for use on 70 V or 100 V distributed lines. The following tapings are configurable on the transformer before screwing driver assembly into the back can:

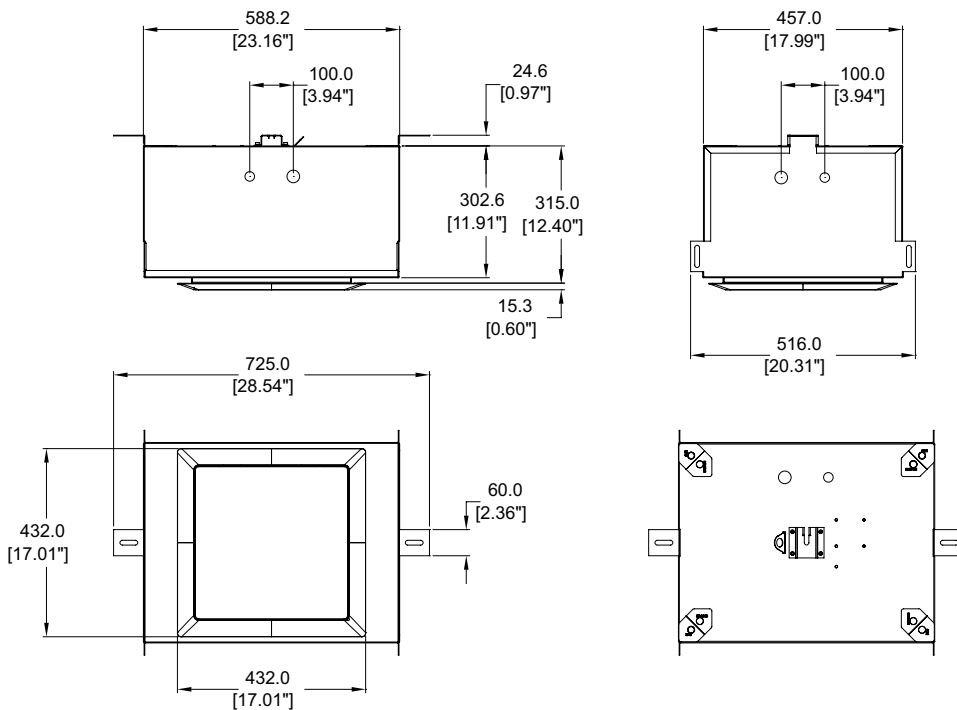
70 V systems: 60 W / 30 W / 15 W / 7.5 W / OFF

100 V systems: 60 W / 30 W / 15 W / 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.

Tannoy's focus on maintaining the highest standards of continuous product performance and reliability, through uncompromising quality control of components and manufacturing processes, means you can specify and install CMS 1201DC with confidence. As with all of Tannoy's CMS in-ceiling loudspeakers, the CMS 1201DC benefits from a 5-year warranty.

6. Dimensions



7. Technical specifications

Model	CMS 1201	
Performance		
Frequency Response (-3 dB) ¹	60 Hz - 20 kHz	
Frequency Range (-10 dB) ¹	45 Hz - 30 kHz	
System Sensitivity (1 W @ 1 m) ²	99 dB (1 W = 2.83 V for 8 ohms)	
Nominal Coverage Angle	90 Degrees Conical	
Coverage Angle (1 kHz to 6 kHz)	90 Degrees Conical	
Directivity Factor (Q)	8.9	
Directivity Index (DI)	9.5	
Rated Maximum SPL ²	122 dB (average), 128 dB (peak), 117 dB (With THP60 - Average)	
Power Handling ³	Average: 200 W Programme: 400 W Peak: 800 W	
Recommended Amplifier Power	400 W @ 8 ohms	
Nominal Impedance (Low Z operation)	8 ohms	
Transformer Taps (via front rotary switch)	70 V: 60 W / 30 W / 15 W / 7.5 W / OFF & Low Z operation 100 V: 60 W / 30 W / 15 W / OFF & Low Z operation	
Distortion		
10% Full Power (12.65 V)	2nd Harmonic	3rd Harmonic
250 Hz	1.6%	0.28%
1 kHz	2.45%	0.73%
10 kHz	4.5%	0.32%
1% Full Power (4.0 V)	2nd Harmonic	3rd Harmonic
250 Hz	0.48%	0.08%
1 kHz	1.06%	0.59%
10 kHz	1.57%	0.04%
Crossover	1.6 kHz - 2nd order LF, 2nd order HF	
Transducers		
Low Frequency section	Dual Concentric point source driver	
High Frequency section	1x 300 mm (12.00") Dual Concentric constant directivity driver 34 mm (1.34") aluminium dome with neodymium magnet system	
Physical		
Enclosure materials		
Back-can	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	
Safety Features		
Safety Features	Safety ring located at rear of enclosure for load bearing safety bond	
Cable Entry Options		
Cable Entry Options	20 mm and 28 mm on knockouts (see below)	
Conduit Knockouts		
Conduit Knockouts	4 sides + top	
Connectors		
Connectors	Terminal barrier strip inside the can, with loop thru capability	
Safety Agency Ratings (pending)		
Safety Agency Ratings (pending)	UL-1480, UL-2043, CE	
Overall Dimensions (H x W x D)		
Overall Dimensions (H x W x D)	H: 331 mm (13.0") W: 725 mm (28.5") D: 516 mm (20.3")	
Net Weight (ea)		
Net Weight (ea)	Back-can: 20.0 kg (44.0 lbs) CMS 1201DC Baffle: 9.0 kg (19.8 lbs) CMS 1201DCt Baffle: 10.0 kg (22.0 lbs) Grille: 1.1 kg (2.4 lbs)	

Notes:

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

A full range of measurements, performance data, and Ease™ Data can be downloaded from 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.

8. Warranty

No maintenance of the CMS loudspeaker is necessary.

All Tannoy professional loudspeaker products are covered by a five year warranty from the date of manufacture subject to the absence of misuse, overload or accidental damage. Claims will not be considered if the serial number has been altered or removed. Work under warranty should only be carried out by a Tannoy Professional dealer or service agent. This warranty in no way affects your statutory rights. For further information please contact your dealer or distributor in your country. If you cannot locate your distributor please contact Customer Services, Tannoy Ltd at the address given below.

Customer Services, Tannoy Ltd., Rosehall Industrial Estate, Coatbridge, Strathclyde, ML5 4TF, Scotland
Telephone: +44 1236 420199
Fax: +44 1236 428230
E-Mail: prosales@tannoy.com

Do not ship any product to Tannoy without previous authorisation.

9. Declaration of conformity

The following apparatus is/are manufactured in the United Kingdom by Tannoy Ltd of Rosehall Industrial Estate, Coatbridge, Scotland, ML5 4TF and conform(s) to the protection requirements of the European Electromagnetic Compatibility Standards and Directives relevant to Domestic Electrical Equipment. The apparatus is designed and constructed such that electromagnetic disturbances generated do not exceed levels allowing radio and telecommunications equipment and other apparatus to operate as intended, and, the apparatus has an adequate level of intrinsic immunity to electromagnetic disturbance to enable operation as specified and intended.

Details of the Apparatus:	Tannoy Contractor Loudspeaker
Model Numbers:	CMS 1201 DC CMS 1201 DCT
Applicable Standards:	EN 50103-1 Emission EN 50103-2 Emission
Electrical Safety:	EN 60065



Engineering Director
12/07/2011

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