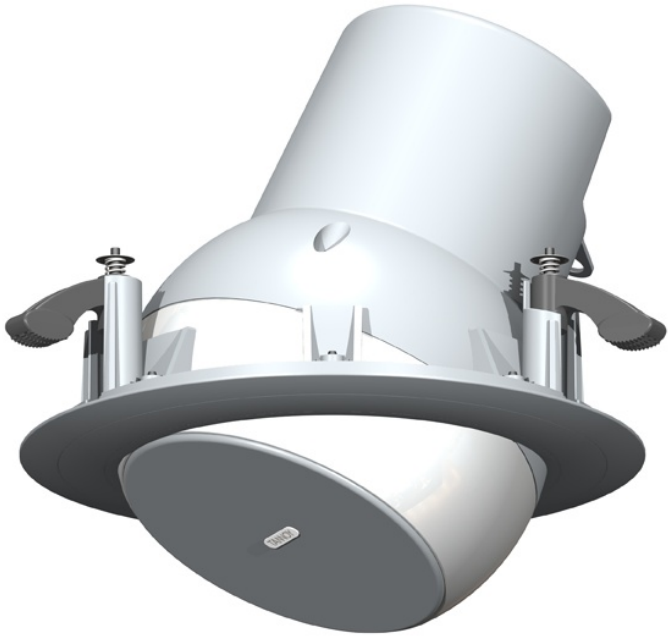
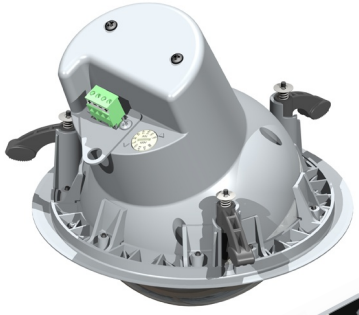
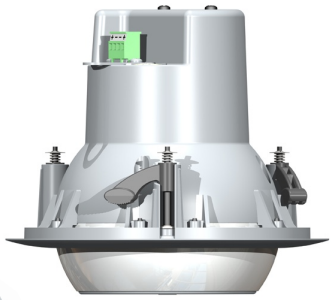
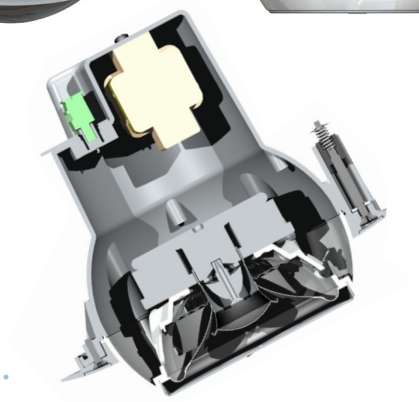
CMS401e









Product Description

The Tannoy CMS401e Ceiling Monitor System is suited to high-level music and speech reinforcement applications requiring exceptional sonic quality with uncompromised reliability.

The point source configuration of the Tannoy ICT™ driver's mid-bass and tweeter sections ensures a wide and controlled dispersion for optimum coverage; this while avoiding the massive loss of energy, in the vertical plane at the crossover frequency, inherent in two-way discreet designs. The (Inductive Coupling Technology) drive unit also address the two most common component failures experienced in background music and sound reinforcement systems, the tweeter and the crossover reliability. The use of a wireless electromagnetic tweeter means that no crossover is required in the design; this therefore ensures that an ICT™ unit cannot be burned out through system misuse or by constant heavy usage. This 19mm (0.75") aluminium high frequency dome has a deep drawn skirt that sits on the inside of the low frequency voice coil in the same magnetic gap. The skirt is like a single shorted turn, which is induced with high frequency information generated by the low frequency voice coil, which is fed a full bandwidth signal. The mineral loaded polypropylene cone material and nitrile rubber surround of the 100mm (4.00") mid bass cone further enhance durability and long-term reliability.

The inclusion of a premium quality 30W Tannoy THP 30 multi-tap transformer, for distributed-line operation, provides high system sensitivity, wide bandwidth and dynamic range; achieved with very low insertion loss.

Specifically designed for fast, simple and cost effective installation in new and existing buildings, the CMS401e can be entirely angled towards the listener within the fixed ceiling-mounting ring. The challenge of difficult speaker placement, in less than perfect room configurations, is therefore eliminated by being able to discreetly pivot the loudspeaker towards the desired area of coverage.

Features

- 100mm (4.00") point source ICT™ driver
- Wide, controlled constant directivity dispersion for optimum coverage
- Does not suffer from massive loss of energy in the vertical plane at crossover caused by two way discrete designs
- UV/weather resistant UL94V-0 ABS construction for structural integrity
- Low insertion loss 30 Watt line transformer - for a more powerful and dynamic performance
- Tapping switch for settings
- 3 clamp self-aligning mounting system
- Packaged with tile rails and C-ring for quick & easy installation and simple stocking logistics
- Five year warranty

Applications

- Foreground music & paging systems
- Multi-room stereo systems
- Home theatre
- Business music systems
- Boardrooms and offices
- Retail environments
- Public address systems
- Reception / waiting rooms
- Airports, convention centres and hotels

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tannoy.com

CMS401e

TECHNICAL SPECIFICATIONS

System		CMS401e	
Frequency Response (-3dB)	(1)	100Hz - 50kHz	
Frequency Range (-10dB)	(1)	80Hz - 54kHz	
System Sensitivity (1W @1m)	(2)	88dB (1W = 2.45V for 6 Ohms)	
Nominal Coverage Angle		90 degrees conical	
Coverage Angle (1kHz to 6kHz)		105 degrees	
Directivity Factor (Q)		5.6 averaged 1kHz to 6kHz	
Directivity Index (DI)		7.0 averaged 1kHz to 6kHz	
Rated Maximum SPL		105dB (average) 111dB (peak)	
Power Handling	(3)		
Average		50W	
Programme		100W	
Peak		200W	
Recommended Amplifier Power		100W @ 6 Ohms	
Nominal Impedance		6 Ohms	
Transformer Taps (via front rotary switch) 70V		30W / 15W / 7.5W / 3.75W / OFF & low impedance operation	
100V		30W / 15W / 7.5W / OFF & low impedance operation	
Distortion			
10% Full Power		2nd Harmonic	3rd Harmonic
250Hz		2.81%	0.14%
1kHz		0.5%	0.25%
10kHz		1.77%	0.04%
1% Full Power		2nd Harmonic	3rd Harmonic
250Hz		0.18%	0.09%
1kHz		0.16%	0.22%
10kHz		0.32%	0.09%
Crossover		7kHz inductively coupled	

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

Transducers	
Low Frequency	100mm (4.00") mineral loaded polypropylene ICT™

Physical	
Enclosure	
Baffle	UL 94V-0 rated ABS
Grille	Steel, with weather resistant coating
Safety Features	Safety ring located at rear of enclosure for load bearing safety bond
Clamping Design	Security toggle clamp
Connectors	Removable locking connector with sctrew terminals with "loop through" facility
Hole Cutout Diameter	187mm (7.36")
Dimensions Bezel diameter	205mm (8.07")
Front of ceiling to rear of pod	147.6mm (5.81")
Net Weight (ea) CMS401e	TBA
Included Accessories	C Ring, tile bridge, paint mask, cutout template, grille
Optional Accessories	Plaster (mud) ring

Architectural Specifications

The in-ceiling system shall consist of one 100mm (4.00") ICT™ full range, point source, constant directivity transducer. Performance of the CMS 401e shall meet or exceed the following criteria; Frequency response measured at 1 metre on axis with a swept sine wave shall be 80Hz-54kHz (-10dB), sensitivity shall be at least 88dB for 1W @ 1 metre with minimal loss accounted for.

The driver impedance and maximum power handling (without transformer) shall be 6 Ohms and 100W respectively. The dispersion of the in-ceiling system shall be 105° conical (1kHz-6kHz).

In 70V or 100V distributed audio systems the CMS401e shall use the integral THP30 high performance transformer with the optional 30, 15, 7.5 & 3.75W taps* available via the tapping switch. Utilising a self-aligning three way clamping mechanism, the baffle shall be constructed from 19mm (0.75") moulded ABS and supplied with a perforated metal grille, both components shall be paintable.

The system shall not exceed the following dimension:
205mm diameter x 151mm deep (8.00" diameter x 5.90" deep)
Hole cutout size shall be 181mm (7.25")

The in-ceiling system shall be…the Tannoy CMS 401e.

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