



emaoustics

R5

ULTRA-COMPACT PRECISION PASSIVE POINT SOURCE

TECHNICAL DATA SHEET

The EM Acoustics Reference Series of loudspeakers was a revolutionary step forwards in terms of the standard for point source passive loudspeakers. The series quickly became a benchmark in physical and sonic excellence, for applications requiring a powerful solution in a compact and discreet physical package. The R5 is the natural progression of this series, scaling the Reference Series concept down to a format suited to a variety of compact applications, including front-fill and under-balcony work. With the addition of the R5, the ultimate no-compromise approach offered by the R8, R10 and R12 can now be adopted for even the smallest loudspeakers in a system.

FEATURES AND BENEFITS

- Three-way passive design
- Unrivalled headroom
- Natural, open and elegant voicing
- Unique crossover approach combined with FIR for unrivalled impulse response
- Interchangeable wide (110 x 50) and narrow (80 x 50) rotatable waveguides
- 2 x 5" neodymium LF/MF, 1.5" annular HF drive units
- Flexible rigging and mounting options
- Impact and weather resistant black or white finishes as standard
- RAL colour options

APPLICATIONS

- Theatrical fills & delays
- Houses of Worship
- Corporate and audio-visual
- Cafes and bars
- Retail spaces



Continuing the heritage of the Reference Series, the R5 is a 3-way passive system engineered to convey the elegance, performance and headroom of the Reference Series in a compact, discreet and versatile package. The R5 retains the same DNA as its larger siblings, delivering truly abundant audio that defies its physical size, making it perfect for front fills and delays in theatres, sleek speech reinforcement in a corporate or audio/ visual setting, or subtle and sympathetic deployment in Houses of Worship.

The slim enclosure houses a pair of bespoke state-of-the-art 1.25" (32mm) voice coil 5" (127mm) neodymium LF/MF drive units, and a 1.5" (38mm) voice coil annular HF compression drive unit. The use of an annular diaphragm retains the ultra-low harmonic distortion levels that the Reference Series has become renowned for throughout the industry.

These drive units are fed via a unique 3-way crossover topology, minimising off-axis parallax and lobing effects whilst retaining consistency of sonic character right across the operating range.

Unusually for a loudspeaker of this size, but in keeping with the other Reference Series models, the R5 is supplied with two waveguide options - 80 x 50 and 110 x 50 - giving unrivalled flexibility and return on investment for rental users and installation applications alike. In common with the rest of the series, the installed waveguide type and orientation is in are visible without removing the front grille.

The use of intelligent bracing means the R5 retains the longevity and sonic advantages of a genuine plywood enclosure, whilst keeping weight remarkably low. The Birch plywood enclosure is coated in an impact and

weather-resistant polyurethane finish which enables the R5 to stand up to harsh conditions and tough touring regimes. The finish is available in both black and white as standard, with custom RAL colour matching options and permanent outdoor enhancements also available.

The front grille is manufactured from stainless steel for an enhanced lifespan, and is backed by an acoustically transparent fabric to complete the discreet appearance of the unit. Innovative quick-release attachments, allowing rapid tool-free connection of flying hardware, along with threaded

rigging points, allow suspension and installation using a variety of different methods. The R5 package also includes an external 35mm polemount adapter for simple stand mounting.

The architecture and construction of the R5 combined with EM Acoustics' state-of-the-art FIR processing liberates each component to achieve levels of sonic performance never yet attained by a loudspeaker of this size and form factor.

TECHNICAL SPECIFICATIONS

ENCLOSURE TYPE: :	Three-way passive point source, infinite baffle
DIMENSIONS (HxWxD):	400 (15.8) x 172 (6.8) x 210 (8.3) mm/(ins)
NET/SHIPPING WEIGHT: :	7/8.2kg (15.4/18lbs)
FREQUENCY RESPONSE ¹ : :	80Hz - 20kHz ±3dB
SENSITIVITY ² : :	94dB
DISPERSION ³ : :	Wide 110° x 50°, narrow 80° x 50°, both rotatable
DRIVE UNITS: :	LF/MF: 2 x 5" (127mm) neodymium cone drive unit HF: 1.5" (38mm exit) neodymium HF annular compression drive unit
LOUDSPEAKERS PER AMPLIFIER (maximum for full loudspeaker SPL):	DQ6: 2 per channel, DQ10: 4 per channel, DQ20: 4 per channel Di06: 1 per channel, Di10: 2 per channel, Di20: 3 per channel
LOUDSPEAKERS PER AMPLIFIER (recommended absolute maximum) ⁴ :	DQ6: 3 per channel, DQ10: 4 per channel, DQ20: 4 per channel Di06: 2 per channel, Di10: 3 per channel, Di20: 4 per channel
POWER HANDLING: :	300W RMS, 600W program
MAXIMUM SPL ⁵ : :	118dB continuous, 124dB peak
NOMINAL IMPEDANCE: :	8 ohms
CROSSOVER: :	Asymmetric internal passive
CONNECTORS: :	2 x Neutrik® speakON™ NLT4MP
ENCLOSURE: :	12mm (1/2") & 24mm (1") multi-laminate Birch plywood - rebated, pinned and glued Finished in impact and weather resistant black or white polyurethane
RIGGING & HARDWARE: :	Quick-release locating plate for vertical cradle 4 x M8 threaded mounting points 4 x M6 threaded points for OmniMount™ Series 30/Powerdrive™ Series 75 brackets
GRILLE: :	Hex-punched stainless steel backed with acoustically transparent fabric
OPTIONS: :	Colours, Weather Protection, connector options
ACCESSORIES:	FC-R5h horizontal flying yoke FC-R5v vertical flying yoke WHH75 wall bracket

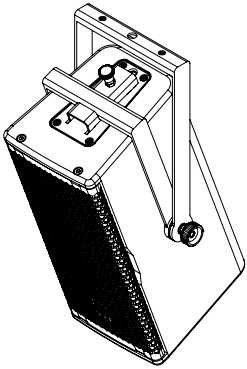
NOTES ON MEASUREMENT CONDITIONS:

¹Measured on-axis at 2m in an anechoic environment and referenced to 1m. ²Measured in half space at 2m with 4W sine wave input and referenced to 1m. ³Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth. ⁴These loudspeaker quantities are the recommended maximum, and will not drive the loudspeaker to full output. ⁵Calculated and verified by subjective listening test of familiar program material.

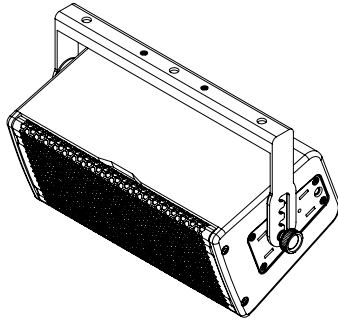


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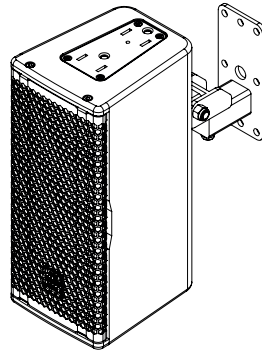
RIGGING ACCESSORIES



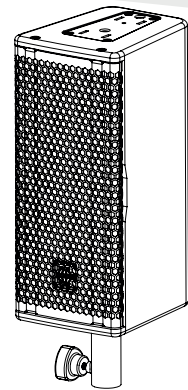
FC-R5v



FC-R5h



WHH75



PM-61

ENCLOSURE OPTIONS

R5 enclosures are available as standard in black or white textured polyurethane finish. Custom RAL colours can be supplied on request; extended lead times and set up costs apply. R5 enclosures can also be supplied as an outdoor version (OD), with enhanced weather protection features, many bespoke to the customer's request. Please contact your local EM Acoustics representative for details.

ENGINEERING DRAWING

