



emacoustics

TECHNICAL DATA SHEET

M-C12

COAXIAL PASSIVE STAGE MONITOR

The M-C12 is the smaller of the two coaxial stage monitors from EM Acoustics – a compact two-way design intended to satisfy the most exacting artist and engineer alike. The M-C12, and the larger companion M-C15 – are intended not only to be world-class stage monitors, but also to suit today's rental market by being genuine multi-purpose loudspeakers.

FEATURES AND BENEFITS

- Coaxial design for true point-source performance in compact footprint
- Precise, controlled HF coverage pattern for high feedback stability
- Signature EM Acoustics passive crossover for unprecedented frequency and phase response
- Concealed polemount and rigging options allow additional use as FOH or installation product

APPLICATIONS

- Stage monitoring
- Small-to-medium scale FOH use
- Corporate and audio-visual

The low-profile enclosure contains a 12" (305mm) neodymium LF drive unit with a coaxial 1.3" (33mm) exit HF compression drive unit, linked via the internal passive crossover network. Both the LF and HF drive units share the same magnet assembly, reducing overall weight and enclosure profile – making the M-C12 one of the lowest profile 12" stage monitors on the market today at only 316mm (12.4") tall. The HF drive unit is coupled to a bespoke constant-directivity waveguide, which produces a 40°H x 60°V dispersion pattern on stage. This pattern ensures presence and clarity for the artist, whilst providing high feedback stability on-stage. When used as a powerful front-of-house loudspeaker, the waveguide produces a 60°H x 40°V coverage pattern, and for installation applications, with only an Allen key the dispersion characteristics of the M-C12 can be rotated.

The robust enclosure is constructed from premium multi-laminate Birch plywood and is finished in impact and weather-resistant polyurethane. Integral bracing removes unwanted panel vibration and tightens the LF response, whilst large area ports ensure reduced turbulence and associated port noise at high power. The enclosure contains a pair of M8 threaded mounting points in each end for attaching the optional flying hardware,



and a 35mm polemount is hidden discreetly inside one of the handles to allow stand mounting.

The M-C12 is supplied in black or white as standard, however RAL colour matching options are available if required. The front of the loudspeaker is protected by a rigid 2mm stainless steel grille backed with acoustically transparent fabric and supported by steel braces for additional strength. Two flush handles and protective floor skids complete the hardware package, and a single Neutrik® speakON™ NL4 connector is provided on each end within a sculpted recess for discreet cabling.

The M-C12 requires a single amplifier channel, and the use of external DSP for system protection (high pass filters and limiters) is recommended - as such an efficient solution is one of EM Acoustics' range of Advanced System Amplifiers. Alternative DSP-enabled amplifiers can also be used, or conventional amplifiers with external processing - suitable DSP settings are provided on the EM Acoustics website for this purpose. The M-C12 requires a single amplifier channel that is capable of delivering 750-1000W RMS into an 8-ohm load.



TECHNICAL SPECIFICATIONS

ENCLOSURE TYPE:

DIMENSIONS (HxWxD)

NET/SHIPPING WEIGHT:

FREQUENCY RESPONSE¹:

SENSITIVITY²:

DISPERSION³:

DRIVE UNITS:

LOUDSPEAKERS PER AMPLIFIER (maximum for full loudspeaker SPL)

LOUDSPEAKERS PER AMPLIFIER (recommended absolute maximum)⁴

POWER HANDLING:

MAXIMUM SPL⁵:

NOMINAL IMPEDANCE:

CROSSOVER:

CONNECTORS:

ENCLOSURE:

RIGGING & HARDWARE:

GRILLE:

OPTIONS & ACCESSORIES:

SPARE PARTS:

Two-way coaxial passive, reflex loaded

313 (12.3) x 500 (19.7) x 418 (16.5) mm/(ins)

21/22.3kg (46.2/49lbs)

65Hz – 20kHz ±3dB

98dB

40°H x 60°V (monitor orientation)

60°H x 40°V (FOH orientation)

Coaxial 12" (305mm) LF/1.3" (33mm) exit HF with bespoke waveguide

DQ6: 2 per channel, DQ10: 3 per channel, DQ20: 4 per channel

Di06: 1 per channel, Di10: 1 per channel, Di20: 2 per channel

DQ6: 3 per channel, DQ10: 4 per channel, DQ20: 4 per channel

Di06: 1 per channel, Di10: 2 per channel, Di20: 3 per channel

400W RMS, 800W program

128dB continuous, 134dB peak

8 ohms

Asymmetric internal passive

2 x Neutrik® speakON™ NL4

15mm (5/8") multi-laminate Birch plywood – rebated, screwed and glued,

Finished in impact and weather resistant textured polyurethane

2 x flush handles

2 x floor skids

4 x M8 rigging points

35mm polemount

Fabric-backed 2mm perforated stainless steel with additional support

Custom Colours

FC-MC12 flying cradle

IB-MC12 installation mounting bracket

CAD-1201 12"/1.4" coaxial drive unit

RD-C301 replacement HF diaphragm

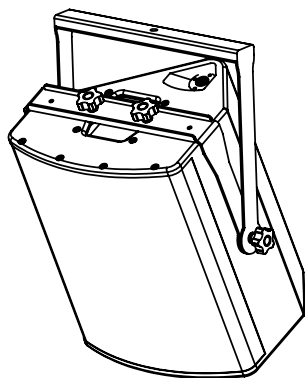
PX-MC12 passive crossover assembly

RFG-MC12 replacement grille

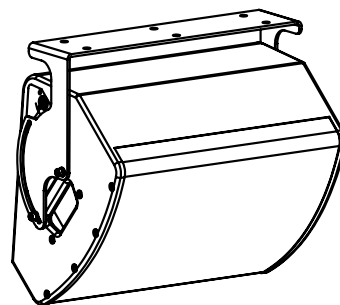
NOTES ON MEASUREMENT CONDITIONS:

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.

RIGGING ACCESSORIES



FC-MC12



IB-MC12

ENCLOSURE OPTIONS

M-C12 enclosures are finished in black or white impact resistant textured polyurethane finish. Custom RAL colours can be supplied on request; extended lead time and setup charges apply. Please contact your EM Acoustics representative for details.

ENGINEERING DRAWING

