



Applications

Vocal Monitor
Stage / DJ Monitor
Side Fill | Front Fill
Delay

Features

Coaxial, Horn-loaded
Two-Way Active/Passive
Selectable
Max Output 135 dB SPL
LF Device: 12 in (304.8mm)
HF Device: 3 in (76.2mm)
40°H x 60° V Coverage
Integrated Pole Mount
(12) M10 x 1.5 Mounting Pts.
Standard Configuration:
NL Connectors on 4 Sides
[Option of EP-4 connectors]
(3) Handles

General Description

The Clair Brothers 1AM is the next generation single 12" stage monitor / multipurpose loudspeaker. The engineering behind the 1AM combines the Clair tradition of great stage monitors with the successful Clair coaxial horn technology developed over the past 5 years. The result is a highly capable and compact speaker with excellent coherence between components that is simultaneously in-your-face and smooth and hi-fi sounding. The 1AM is not only a stage monitor, but also very capable of portable and installed PA functions based on its integral mounting points and pole mount. A family of optional mounting accessories is available to facilitate permanent installation configurations.

1AM Transducer Components: The high frequency compression driver features a 1.5" throat diameter (3" voice coil diameter), a pure titanium diaphragm, and a neodymium magnet assembly. The driver is joined to a 40° horizontal by 60° vertical rotatable horn. A 12" cone transducer provides mid-bass and low frequency reproduction.

1AM Connectors: Dual rear mounted connectors allow the use of multiple cabinets from a single amplifier. Additionally, there are three slightly more hidden connectors. Two are positioned within the left and right side handles, and the other is on the bottom. When used for drum fills or in pole-mount positions these additional connectors prove to be extremely

useful for clean cable management.

1AM+ Electronics:

The 1AM is also available as a 'self-powered' version called the 1AM+. The 1AM+ features an extremely lightweight and powerful OEM amplifier module made exclusively for Clair Brothers by Powersoft. The base configuration of the 1AM+ features a similar DSP to the successful kiTseries with 32-bit floating point processing with crossover slopes up to 48dB/oct and FIR filtering. The 1AM+ input panel features PowerCon (In/thru) connectors and a pair of XLRs (In/thru). The 1AM is voltage agile with a PFC corrected PSU that accepts 85-240VAC 50/60Hz.

1AM/1AM+ Preset Modes:

The 1AM presents interesting preset configurations for both Lake processing and native to the 1AM+ built-in DSP. The preset modes include:

- (1) 1AM Stage Monitor Mode
- (2) 12AM Emulation Mode
- (3) 1AM Full Range PA Mode
- (4) 1AM 100Hz HPF Mode (for use with complementary subwoofer)

Low profile styling and ergonomic side handles along with an extended front handle provides great aesthetic appeal and portability. The speaker grille is constructed of high grade 14 gauge perforated steel and is specially treated to create a durable exterior finish.

1AM Coaxial Stage Monitor / Point Source



Description (continued)

Clair Brothers combines amplification, and proprietary DSP processing in portable racks for all monitor systems. Custom cabling for systems is available and can be pre-wired, labeled and delivered in road cases. As with all Clair Brothers products, the cabinet is constructed of the finest Baltic birch and finished with a rugged polyurea paint to withstand the most demanding conditions.

Options & Accessories

RC-1 – Road Case for (2) 1AM+ (PN: 11221)

Horizontal Mounting Bracket (PN: 11148)

Vertical Mounting Bracket (PN: 11149)

Proprietary DSP + Amp Rack Packages

Custom Colors Available

[see **1AM+** for self-powered model]

(5) NL4 SpeakON are Standard Connectors.
(5) EP-4 are *Optional: Must spec on order.

1AM Active Pin Configuration

NL4 PIN	USE
-1	Low (-)
+1	Low (+)
-2	High (-)
+2	High (+)
Terminal Strip	USE
Black	Low (-)
Red	Low (+)
Black	High (-)
White	High (+)

1AM Passive Pin Configuration

NL4 PIN	USE
-1 & -2	(-)
+1 & +2	(+)
Terminal Strip	USE
Black	Low (-)
Black	High (-)
White	High (+)
Red	Low (+)

Passive to Active Mode Instructions

1. Remove terminal strip cover on rear of 1AM speaker cabinet
2. Loosen all 4x terminal screws
3. Remove 2x jumpers (connecting Low- to Hi- AND Low+ to Hi+)
4. Save jumpers for future use
5. Replace wire cover

Audio Specifications

Loudspeaker Type	Two-Way	Coaxial Stage Monitor / Point Source
Frequency Response		60Hz–18kHz (+/- 2dB) 50Hz–20kHz (-10dB)
Recommended Power Amplifier		1200–1400W Peak @ 8 Ohms
Sensitivity (1 Watt @ 1 Meter)	LF	99 dB SPL
	HF	107 dB SPL
Maximum Output	Peak	135 dB SPL
Drivers	LF	(1) 12 in (304.8mm)
	HF	(1) 3 in (76.2mm)
Nominal Impedance	LF	8 Ohms
	HF	16 Ohms
Power Handling	LF	350W Cont. 1400W Peak
	HF	80W Cont. 160W Peak
Dispersion		40° H x 60° V (Rotatable)
Input/Output Connections	Standard	(5) NL4 SpeakON
	*Optional	(5) EP-4 Connectors (1 Male, 4 Female)

Mechanical Specifications

Enclosure	Shell	Baltic Birch Premium Grade
	Finish	Black Polyurea
Grille		Perforated Steel, Foam Backed
Dimensions	Height	including feet 14.82 in (376.3mm) 14.61in (371.1mm) no feet
	Width	including feet 20.32 in (516.2mm) 20.08in (510.0mm) no feet
	Depth	22.0 in (558.4mm)
Weight		56 lbs (25.4kg)
Shipping Weight		71 lbs (32.2kg)

Note: All wattage figures are calculated using the rated nominal impedance.

Clair Brothers products are designed to perform optimally by utilizing factory recommended proprietary DSP settings.

Architect and Engineer Specifications

The loudspeaker shall be a two-way active/passive selectable system featuring a total of two drivers. The low frequency module contains one 12 in. driver capable of handling 350 watts of pink noise with a 6 dB crest factor for 8 hours (as per EIA RS-426-A standard). The high frequency model contains a 1.5 in. exit, 3 in. voice coil diameter compression driver joined to a 40° horizontal by 60° vertical rotatable horn. The 3 in. driver is capable of handling 80 watts (1 kHz to 10 kHz) of pink noise with a 6 dB crest factor for two hours (as per AES-1984 and ANSI S4.26-1984 standards). The signal processing is Clair Brothers proprietary data. The enclosure shall be constructed of premium grade Baltic birch and covered with a durable black polyurea finish. The dimensions shall be 14.82 in high, 20.32 in wide, and 22.0 in deep. The system weight shall be 56 lbs (25.4kg). The loudspeaker shall be the Clair Brothers 1AM.

Technical Drawings

