

REDEFINING POINT SOURCE SYSTEMS



JM-1P

arrayable loudspeaker

thinking sound



“Our first patents were for horn design and the trapezoidal cabinet shape. Now 30 years later, we have the design tools and technology to enable us to make the quantum leap forward in the JM-1P from point source arrays to modern horizontal array systems.”

– John Meyer



JM-1P

Arrayable Loudspeaker

No one can do every job with only a single tool, no matter how useful it is. In sound reinforcement, the vertical line array has found great popularity in recent years for a number of good reasons. But Meyer Sound looks further, so we built a line of great self-powered curvilinear array loudspeakers, and then turned our attention towards the other major tool in the live sound toolbox: horizontal arrays. The introduction of the JM series redefines point source systems and sets the new standard in the 21st century.

The JM-1P arrayable loudspeaker combines Meyer Sound's famed clarity of sound and robust, self-powered performance with our latest breakthroughs



redefining
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in horn design, rigging and loudspeaker control to produce an extremely easy-to-use, highly versatile arrayable loudspeaker system powerful enough to act as a main system, but flexible enough to serve in any number of supporting roles—whether horizontal or vertical, flown or stacked. With the level of performance and flexibility, the JM-1P is a wise investment that has a place in every job and on every tour.

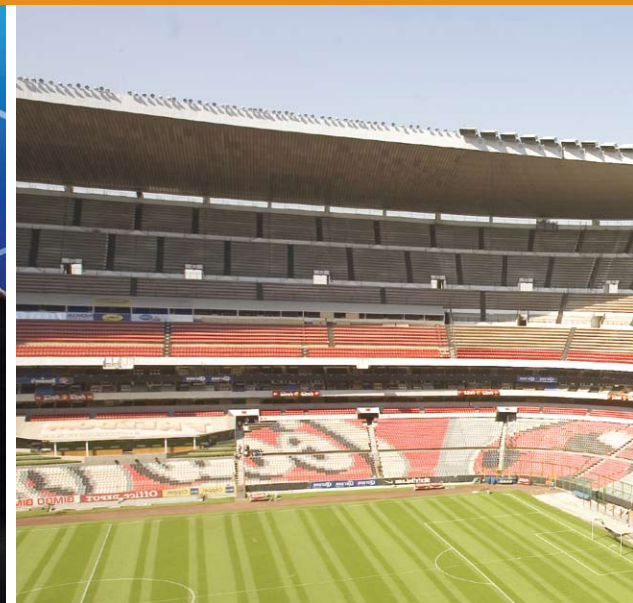
Meyer Sound defined the point source array with the classic UPA-1 in 1980, and the self-powered UPA-1P remains one of our top sellers today. With the tremendous technology advances of the last 12 years built into the JM-1P, we are redefining point source systems.

Features and Benefits

- Applies modern technology to overcome historical point source array limitations
- Tight-packing results in cleaner sightlines and neater appearance, and eliminates angle setting
- Each JM-1P cabinet utilizes an REM and horn for precise 20° horizontal coverage in tight-packed arrays
- Exceptional size-to-power ratio; easily powerful enough to use for main system, delay stacks, or fill duties
- QuickFly rigging offers flexibility of both horizontal and vertical arrays, with option to fly or groundstack
- Consistent and predictable array performance ensures accurate system design

Applications

- Theatres and theatrical sound reinforcement
- Houses of worship
- Portable and installed AV systems
- Center and sidefill in large-scale systems
- Concert halls
- Distributed systems in stadiums and theme parks
- Nightclubs

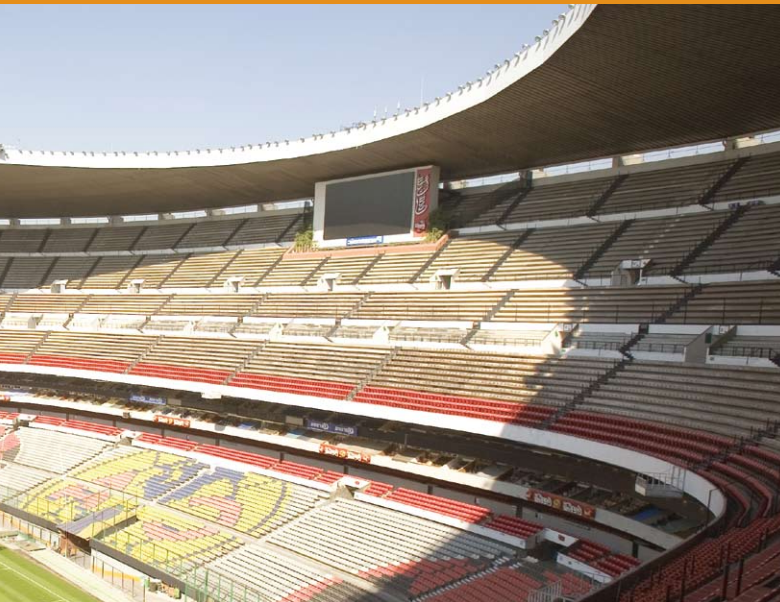


Technology Designed for Horizontal Control

The new horn design in the JM-1P, combined with Meyer Sound's patented REM ribbon emulation manifold, yields extremely tight pattern control.

The technology of the JM-1P provides a versatility few other loudspeakers can match. The new horn design, combined with Meyer Sound's patented REM ribbon emulation manifold, yields extremely tight pattern control. This means that tight-packed JM-1P arrays exhibit very little interaction between horns, and single cabinets or pairs of cabinets can be deployed to deliver coverage only to desired areas, with minimal reflections off of walls and other surfaces, or interactions with other parts of the sound system. Meyer Sound's emphasis on low distortion enables the JM-1P to maintain its clarity and pattern control even at high levels.

These characteristics, along with the ease of creating a groundstacked horizontal array, make the JM-1P an excellent tool for corporate AV applications. The ability to form small arrays of two or three cabinets with strict control of dispersion makes the JM-1P perfect for distributed systems in sports venues. The exceptional size-to-power ratio and the simplicity of self-powered systems make the JM-1P an ideal candidate for AV companies wishing to have a sound system that is simple to set up and use, yet impressively clean and powerful.



Components

The JM-1P is a two-way system employing components designed and manufactured by Meyer Sound at its Berkeley, Calif., headquarters. Meyer Sound's rigorous quality assurance guarantees the performance and consistency of each loudspeaker.

The JM-1P's wide, 53 Hz to 18 kHz operating frequency range and prodigious output of 138 dB max peak SPL (measured at one meter) is produced by one 15-inch, long-excursion, low-frequency cone driver, and a four-inch high-frequency compression driver coupled through a patented REM manifold to an extremely accurate constant-Q horn. This horn, which distinguishes the JM-1P, exhibits sharply controlled 20-degree

horizontal by 60-degree vertical coverage. The unit's consistent polar response and trapezoidal enclosure allows for tightly packed arrays with each loudspeaker adding 20 degrees to the horizontal coverage of the array (with minimal overlap in high frequencies).

As a Meyer Sound self-powered system, the JM-1P houses integrated electronics for crossover, driver protection, and frequency and phase response correction, in addition to its proprietary 1275 W (2550 W peak) class AB/H amplifier. Meyer Sound's RMS remote monitoring system keeps you informed of the status of all important system parameters.



Low-frequency Cone Driver



Constant-Q Horn



The JM-1P can be used horizontally or vertically, flown or groundstacked.

Flexibility and Scalability

With much lighter and simpler captive rigging than that used for traditional point source arrays, setup of the JM-1P is as fast as it is easy.

Few would argue with the idea the JM-1P is built on: a loudspeaker that sounds great, is extremely versatile, and is easy to use. Arrays can be flown horizontally or vertically, and for those times when it's not desirable to fly a system at all, the JM-1P is built to stack just as easily as fly.

Arraying is quicker and easier than ever with the JM-1P, because cabinets are tight-packed, which means there are no angle settings to calculate or spread adjustments to implement for each show. And we made life even easier by making the JM-1P's QuickFly rigging captive.

With precise horizontal coverage of 20 degrees per cabinet, scalable coverage has never been simpler: combine 2 cabinets for 40 degrees of coverage, 3 cabinets for 60 degrees, and so on.

Meyer Sound's Galileo loudspeaker management system incorporates simple presets for JM-1P arrays to quickly optimize your system. With the MAPP Online Pro acoustical prediction program you can create accurate predictions for the behavior of JM-1P arrays and their interaction with all other Meyer Sound loudspeakers.



Horizontal array of 3 JM-1Ps with single pick-up plate



Vertical array of 3 JM-1Ps with top grid



Horizontal array of 6 JM-1Ps with 2 MPA-JM pickup plates and 1 MTGSB-4B load spreader bar

QuickFly Rigging And Accessories

The JM-1P hardware is designed to make it fast and easy to use in a broad range of applications.

- Cabinets are joined into arrays using only the captive links and quick-release pins. Links are spring-loaded to prevent rattling. Pins can be inserted while the array is on the ground or a surface.
- **The MPA-JM pickup plate** is used to fly horizontal arrays. Up to four cabinets can be flown from a single pickup plate. The pickup plate allows uptilt and downtilt of arrays from a single hanging point. Two pickup plate kits are required for arrays of five or six cabinets.
- **The MTG-JM1 top grid** is used when flying JM-1P cabinets as a vertical array. Up to six cabinets can be flown using the vertical grid.
- **The MDB-JM1 dolly board** carries a single JM-1P. Dolly boards interlock and cabinets can be pinned while on caster boards, enabling up to three cabinets to be transported fully assembled for rigging.
- **The MTGSB-4B load spreader bar** enables two MPA-JM pickup plates to be suspended from a single motor point for hanging arrays of up to six JM-1Ps.
- Durable nylon covers for a single JM-1P on a dolly board are also available.

While the JM-1P provides an outstanding main system in small to medium venues, it is also an excellent choice to provide center or sidefill support in larger systems.

Integration With Other Meyer Sound Products

Advanced technology doesn't have to be hard to use if it has been optimized before the user even opens the box. This is the point of view that led to Meyer Sound's self-powered systems, and it is the approach taken to every aspect of every product we make.

Subwoofers

While the JM-1P provides an outstanding main system in small to medium venues, it is also an excellent choice to provide center or sidefill support in larger systems. With its precisely controlled horn coverage, it is easy to position the JM-1P to provide clear sound to areas not fully reached by the main system, while minimizing unwanted interactions and room reflections.

The 700-HP ultrahigh-power subwoofer is an ideal match for the JM-1P, especially in the ease with which up to four JM-1P cabinets can be groundstacked on top of a 700-HP cabinet. The 700-HP supports the JM-1P with its operating frequency range of 28 Hz to 150 Hz and maximum peak output of 139 dB SPL.



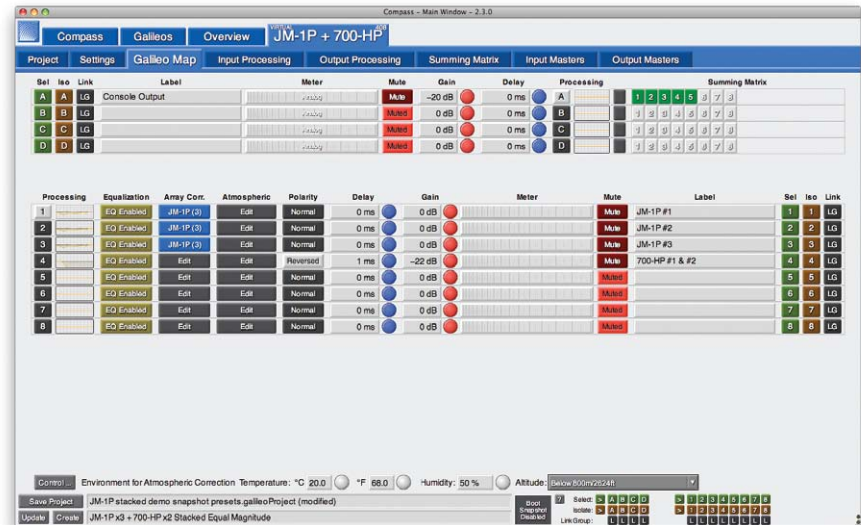
700-HP Ultrahigh-power Subwoofer

Galileo/Compass

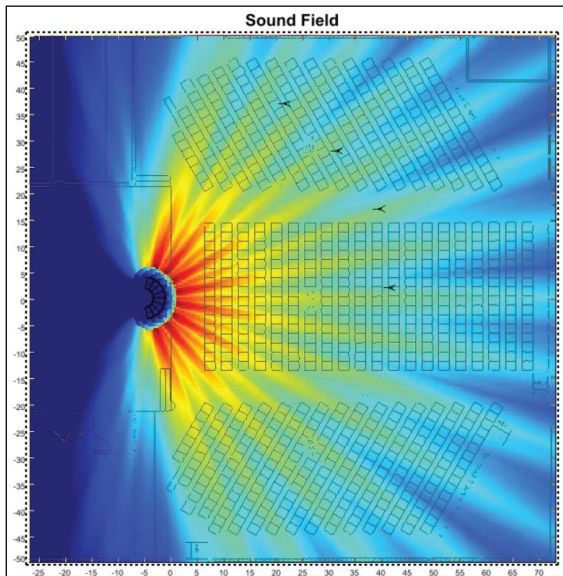
We know there are a few common applications for the JM-1P, so we asked ourselves how we could simplify setup even further. The JM-1P's rigging and precise coverage do most of the work, but we've developed preset snapshots in Compass control software for Galileo for some of the most common scenarios, in which the JM-1P is used as a main system stacked on top of 700-HP subwoofers. The first preset will result in an equal magnitude frequency response, for jobs such as classical music or theatre. Some jobs call for extra emphasis in the low frequencies, so the other two presets are designed to produce moderate and strong boosts in the low end.

MAPP Online Pro

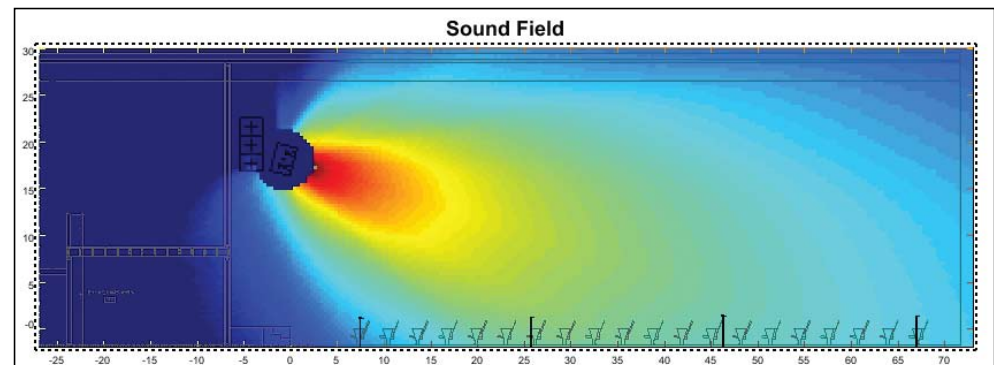
In MAPP Online Pro, users can adjust the defined setup to more accurately evaluate their situation, and use its highly accurate predictions to obtain the best performance possible.



A sample preset in Compass control software



MAPP Online Pro prediction of a JM-1P horizontal array @ 8kHz (8 cabinets).



MAPP Online Pro vertical prediction @ 4kHz

The UPA-1, released in 1980, was the first trapezoidal cabinet used for sound reinforcement.

The Road to the JM-1P

The road to the JM-1P is paved with patents, more than three dozen of which have been awarded to Meyer Sound.

The UPA-1, released in 1980, was the first trapezoidal cabinet used for sound reinforcement. Its design encompassed two patents: one issued for John Meyer's breakthrough horn loudspeaker design that brought a major improvement in distortion levels, and one for its trapezoidal cabinet shape, which is descended to the JM-1P.



Developing the UPA-1, circa 1980

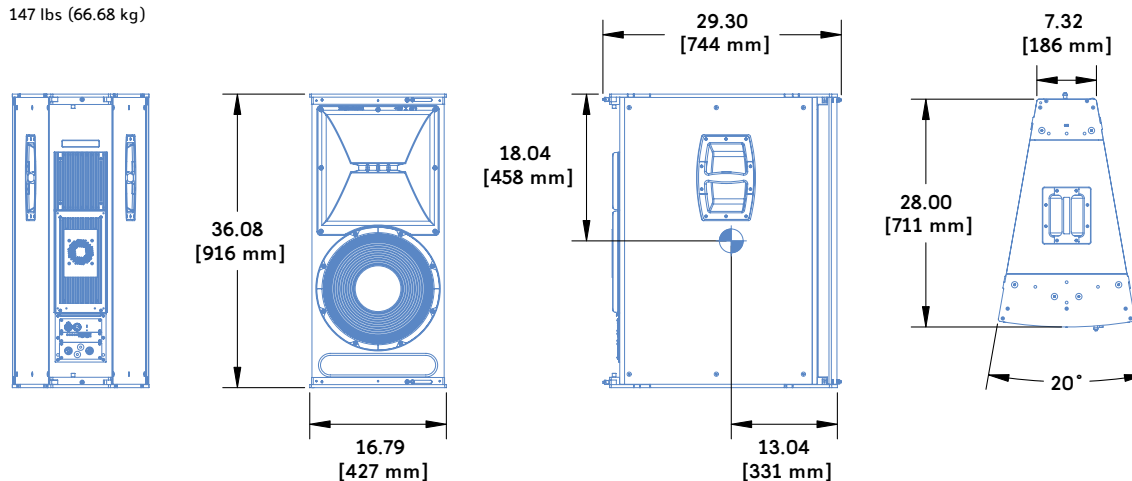
These fundamental innovations in horn and array design have been the starting point for many of Meyer Sound's greatest research discoveries and groundbreaking products. From the legendary MSL-3 through the MSL-6 more than 15 years later, our loudspeakers have defined and advanced point source array usage. This work was recognized in a 1990s patent awarded for an array method relying on a common, frequency-independent acoustic center.

Horn research has impacted nearly every loudspeaker design from Meyer Sound in the last 30 years, especially since the company built its own anechoic chamber in the mid-1990s. Research in the chamber resulted in the patented CQ series horns, another significant step forward in distortion reduction. The REM manifold used in many M Series products as well as the JM-1P received a patent in 2003. The horn developed in 2008 for the Acheron screen channel loudspeaker is the subject of a pending patent application as well. And now, the JM-1P brings you Meyer Sound's latest technology applied to point source systems.

Specifications

Operating frequency range ¹	53 Hz – 18 kHz
Frequency response ²	56 Hz – 16.5 kHz, ± 4 dB
Phase response	580 Hz – 16 kHz, $\pm 45^\circ$
Maximum peak SPL ³	138 dB
Coverage	20° x 60°
Transducers	One high-power 15" cone driver with neodymium magnet One 4" compression driver
Audio connectors	Female XLR input with male XLR loop output
Amplifier	Two-channel complementary MOSFET output stages (class AB/H)
Output power	1275 W (1 x 1000 W, 1 x 275 W)
Total output	2550 W peak
THD, IM, TIM	< .02%
Load capacity	2 Ω low channel; 8 Ω high channel
Cooling	QuietCool™ with convection cooling at low to mid audio levels; fan-assisted only at high audio levels
AC Power connectors	PowerCon® with loop output or VEAM
Voltage requirements	85–134 V AC, 165–264 V AC
Enclosure	Multi-ply hardwood
Finish	Black textured
Protective grille	Hex-stamped steel with black mesh screen
Rigging	QuickFly rigging options
Dimensions	16.79" w x 36.08" h x 29.30" d (427 mm x 916 mm x 744 mm)
Weight	147 lbs (66.68 kg)

- ¹ Recommended maximum operating frequency range. Response depends upon loading conditions and room acoustics.
- ² Free field measured with 1/3 octave frequency resolution at 4 meters.
- ³ 138 dB at 1m, free-field, measured with music.



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Mixed Sources

Product group from well-managed
forests, controlled sources and
recycled wood or fiber

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