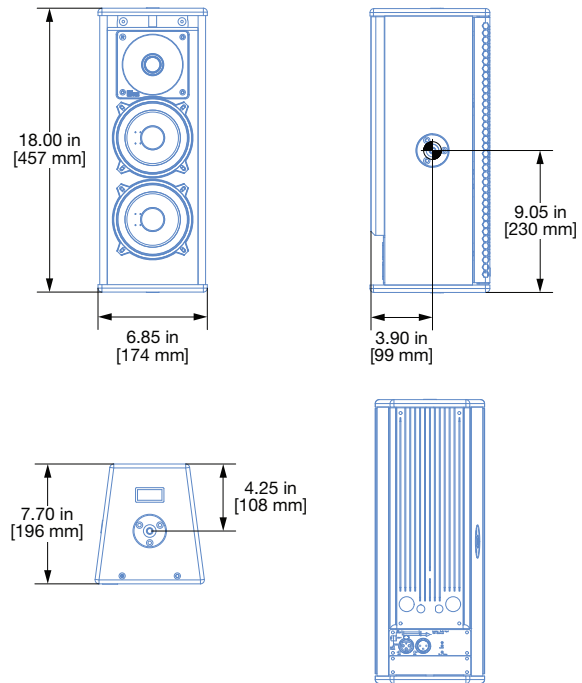
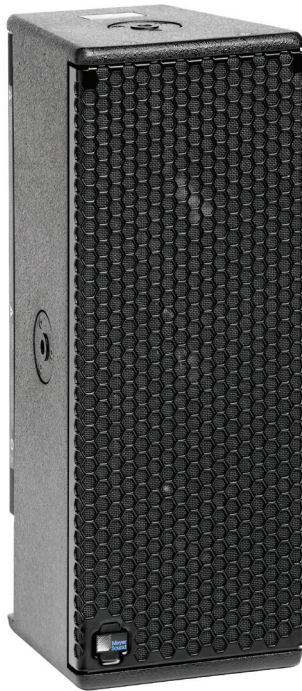


## UPM-2P Ultracompact Narrow Coverage Loudspeaker



The UPM-2P is a remarkably compact, self-powered, professional sound reinforcement loudspeaker system. It is ideally suited to applications requiring a relatively small and inconspicuous loudspeaker that can also provide high sound pressure levels, extremely low distortion, and uniform directional control.

The UPM-2P loudspeaker provides vocal-range reinforcement as a small PA system or as a fill or delay loudspeaker in larger indoor or outdoor systems. A full-range system can be created with the addition of an optional subwoofer. The UPM-2P's narrow beamwidth makes it ideally suited to applications where coverage must be restricted to defined areas, often to prevent unwanted reflections or bleed into microphones.

The UPM-2P high-frequency section comprises a 1-inch metal dome tweeter on a symmetrical, constant-directivity, high-frequency horn with 45° beamwidth. At lower frequencies, sophisticated phase-correction circuitry ensures true point-source performance without the off-axis cancellation effects that plague customary dual-woofer designs. Two 5-inch low-frequency cone drivers are driven in parallel at low frequencies to take advantage of their combined acoustic output. To prevent destructive interference and comb filtering effects in the mid-band frequencies close to the

crossover area, one of the drivers rolls off above 320 Hz.

Two channels of power amplification are provided, along with an active crossover, driver protection voltage limiters, and frequency- and phase-response alignment circuitry. A laser-trimmed differential input stage affords superior common-mode rejection to allow long signal runs through shielded twisted-pair cable. The standard UPM-2P is switchable between the 115 V AC and 230 V AC ranges. A 100 V AC version is also available. The UPM-2P loudspeaker's integral power supply suppresses high-voltage transients, while two PowerCON AC connectors facilitate AC looping.

Meyer Sound coats the rugged cabinet with a slightly textured black finish. Mounting is via three 3/8-inch-16 or metric M10 threaded recessed nut plates. Optional U-bracket, yoke, and pole-mount hardware are available. The optional RMS™ remote monitoring system module provides comprehensive monitoring of loudspeaker parameters from a Mac® or Windows®-based computer running Compass® control software.

Options available for the UPM-2P cabinet include weather protection and finishes in custom colors for fixed installations and situations requiring specific cosmetics.

## FEATURES AND BENEFITS

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- Exceptional fidelity and power capability delivered in an ultracompact package
- Narrow, symmetrical pattern provides precise coverage control
- Unique crossover design eliminates combing for consistent midrange response
- Metal dome driver provides exceptionally smooth high-frequency characteristic

## APPLICATIONS

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- Frontfill and under balcony
- Theatrical sound reinforcement
- Portable and installed audio-visual systems
- Effects for theater
- Compact voice reinforcement systems

## ACCESSORIES AND ASSOCIATED PRODUCTS

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**MUB-UPM U-Bracket:** Allows a UPM-2P loudspeaker to be mounted to a wall (in either vertical or horizontal orientations), to the ceiling or onto the floor.

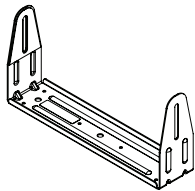
**MYA-UPM Yoke:** Cradle-style mounting yoke that suspends a single UPM-2P loudspeaker and supports a wide range of horizontal and vertical adjustment. The yoke attaches to the top and bottom nut plates and includes 3/8-inch-16 and M10 hardware.

**MSA-STAND Adapter Cup 35MM:** This compact cup-type adapter mounts the UPM-2P loudspeaker on a 35 mm pole. In addition, this adapter can be used to mount the MYA-UPM yoke on a pole to allow easy panning and tilting of the UPM-2P.

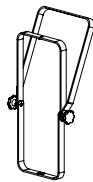
**MPK-POLE 35MM Adjustable Pole:** Adjustable length 927–1524 mm (36.5–60 in), 35 mm (1.375 in) pole with assisted lift. Lower shaft fits 35 mm cups or use the removable M20 threaded lug for added stability. Upper shaft includes a PAS-M20 Adapter Sleeve to fit loudspeakers with 35 mm and M20 internal pole mounts onto a 35 mm speaker stand. (Can also buy the PAS-M20 Adapter Sleeve separately). Additional 35 mm to 38 mm (1.5 in) adapter included.

**Galileo GALAXY Network Platform:** The Galileo GALAXY Network Platform provides state-of-the-art audio control technology for loudspeaker systems with multiple zones. With immaculate sonic performance, it provides a powerful tool set for corrective room equalization and creative fine-tuning for a full range of applications.

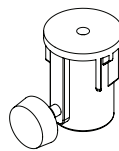
**MDM-832 Distribution Module:** MDM-832 units conveniently power multiple UPM-2Ps, routing up to eight channels of AC power, balanced audio and RMS signals to the loudspeakers.



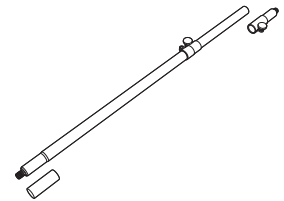
**MUB-UPM U-Bracket**



**MYA-UPM Yoke**



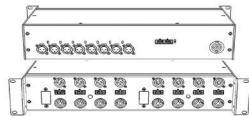
**MSA-STAND Adapter Cup 35MM**



**MPK Pole 35MM Adjustable Pole**



**GALAXY Network Platform**



**MDM-832 Distribution Module**

## SPECIFICATIONS

ACOUSTICAL <sup>1</sup>	
Operating Frequency Range <sup>2</sup>	80 Hz - 20 kHz
Frequency Response <sup>3</sup>	85 Hz - 19 kHz $\pm 4$ dB
Phase Response	415 Hz – 16 kHz $\pm 45^\circ$
Linear Peak SPL <sup>4</sup>	<b>123 dB with 18 dB crest factor (M-noise)</b> , 120 dB (Pink noise), 120.5 dB (B-noise)
COVERAGE	
Horizontal Coverage	45°
Vertical Coverage	45°
TRANSDUCERS	
Low Frequency <sup>5</sup>	Two 5-inch cone drivers; 8 $\Omega$ nominal impedance
High Frequency	One 1-inch metal dome tweeter; 8 $\Omega$ nominal impedance
AUDIO INPUT	
Type	Differential, electronically balanced
Maximum Common Mode Range	$\pm 15$ V DC, clamped to earth for voltage transient protection
Connectors	XLR 3-pin female input with male loop output; optional 5-pin connectors accommodate both balanced audio and RMS signals
Input Impedance	10 k $\Omega$ differential between pins 2 and 3
Wiring	Pin 1: Chassis/earth through 220 k $\Omega$ , 1000 pF, 15 V clamp network to provide virtual ground lift at audio frequencies Pin 2: Signal + Pin 3: Signal – Case: Earth ground and chassis
Nominal Input Sensitivity	0 dBV (1.0 V rms) continuous is typically the onset of limiting for noise and music
Input Level	Audio source must be capable of producing of +20 dBV (10 V rms) into 600 $\Omega$ to produce the maximum peak SPL over the operating bandwidth of the loudspeaker.
AMPLIFIER	
Type	Complementary MOSFET output stages (class AB/bridged)
Total Output Power <sup>7</sup>	650 W peak
THD, IM, TIM	< 0.02%
Cooling	Convection
AC POWER	
Connector	powerCON with loop output
Voltage Selection	External 115/230 V AC switch (100 V AC version available) <sup>7</sup>
Safety Rated Voltage Range	Input rating: 115/230 V AC, 50–60 Hz, 3 A MAX; Loop output rating: 115/230 V AC, 50–60 Hz, 12 A MAX
Turn-on and Turn-off Points	Fuse-protected above 135 V AC (115 V AC switch position) and 265 V AC (230V AC switch position).
CURRENT DRAW	
Idle Current	0.13 A rms (115 V AC); 0.065 A rms (230 V AC); 0.15 A rms (100 V AC)
Maximum Long-Term Continuous Current (> 10 sec)	1 A rms (115 V AC); 0.5 A rms (230 V AC); 1.2 A rms (100 V AC)
Burst Current (< 1 sec) <sup>8</sup>	1.3 A rms (115 V AC); 0.65 A rms (230 V AC); 1.5 A rms (100 V AC)
Maximum Instantaneous Peak Current	2.9 A pk (115 V AC); 2 A pk (230 V AC); 3.3 A pk (100 V AC)
Inrush Current	18 A pk (115 V AC); 12 A pk (230 V AC); 15 A pk (100 V AC)
RMS NETWORK (OPTIONAL)	
	Two-conductor twisted-pair network that reports all operating parameters of amplifiers to system operator's host computer.

## SPECIFICATIONS, CONT'D.

PHYSICAL	
Dimensions	W: 6.85 in (174 mm) x H: 18.00 in (457 mm) x D: 7.70 in (196 mm)
Weight	21 lb (9.53 kg)
Enclosure	Premium multi-ply birch with slightly textured black finish
Protective Grille	Powder-coated, hex-stamped steel with black mesh
Rigging	Three 3/8-inch-16 or metric M10 nut plates

## NOTES

- Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
- Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- Free-field, measured with 1/3 octave frequency resolution at 4 m.
- Linear Peak SPL** is measured in free-field at 4 m referred to 1 m. Loudspeaker SPL compression measured with M-noise at the onset of limiting, 2-hour duration, and 50 °C ambient temperature is < 2 dB.  
**M-noise** is a full bandwidth (10 Hz – 22.5 kHz) test signal developed by Meyer Sound to better measure the loudspeaker's music performance. It has a constant instantaneous peak level in octave bands, a crest factor that increases with frequency, and a full bandwidth Peak to RMS ratio of 18 dB.  
**Pinknoise** is a full bandwidth test signal with Peak to RMS ratio of 12.5 dB.  
**B-noise** is a Meyer Sound test signal used to ensure measurements reflect system behavior when reproducing the most common input spectrum, and to verify there is still headroom over pink noise.
- To eliminate interference at short wavelengths, the two 5-inch drivers work in combination at low frequencies below 320 Hz. Above 320 Hz only the cone driver closer to the tweeter is fed from the crossover up to the crossover frequency to maintain optimal polar and off-axis frequency response characteristics.
- Peak power based on the maximum unclipped peak voltage the amplifier will produce into the nominal load impedance.
- 100 V AC version, range 90 - 100 V AC; recommended maximum 115 V AC.
- AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not cause the loudspeaker's voltage to drop below the specified operating range.

## ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be a self-powered, full-range system. The transducers shall consist of two 5-inch diameter cone drivers and a 1-inch metal dome tweeter.

The loudspeaker system shall incorporate internal processing electronics and a two-channel amplifier. Processing functions shall include equalization, phase correction and signal division, and driver protection for the high- and low-frequency sections. Each amplifier channel shall be class AB/bridged with complementary MOSFET output stages. Peak capability shall be 650 W total with nominal impedance of 8  $\Omega$  low channels and 8  $\Omega$  high channel. Distortion (THD, IM, TIM) shall not exceed 0.02%.

Performance specifications for a typical production unit shall be as follows: operating frequency range shall be 80 Hz – 20 kHz; phase response shall be 415 Hz – 16 kHz  $\pm 45^\circ$ ; linear peak SPL shall be 123 dB with 18 dB crest factor, measured with M-noise, free-field at 4 m referred to 1 m; horizontal coverage and vertical coverage shall both be 45°.

The audio input shall be electronically balanced with a 10 k $\Omega$  impedance and accept a nominal 0 dBV (1 V rms) signal. Connector shall be XLR 3-pin female with male loop.

Two versions shall be available: a switchable 115/230 V and a non-switchable 100 V-only version. The voltage selection must be manually selected. The internal power supply shall perform EMI filtering, soft current turn-on and surge suppression. Power requirements shall be nominal 100 V AC (100 V version) and 110 or 230 V AC (115/230 version) line current at 50 or 60 Hz. Ultimate short-term peak current draw shall be 2.9 A at 115 V AC, 2 A at 230 V AC and 3.3 A at 100 V AC. Current inrush during turn-on shall not exceed 18 A at 115 V AC. AC power connectors shall be PowerCON with looping output. The loudspeaker system shall provide facilities for installing Meyer Sound's optional RMS™ remote monitoring system.

All loudspeaker components shall be mounted in an acoustically vented trapezoidal enclosure constructed of premium multi-ply birch with a slightly textured black finish. The front protective grille shall be powder-coated, hex-stamped steel with black mesh. Dimensions shall be W: 6.85 in (174 mm) x H: 18.00 in (457 mm) x D: 7.70 in (196 mm). Weight shall be 21 lb (9.53 kg). Rigging shall be three 3/8-inch-16 or M10 nut plates.

The loudspeaker shall be the Meyer Sound UPM-2P.