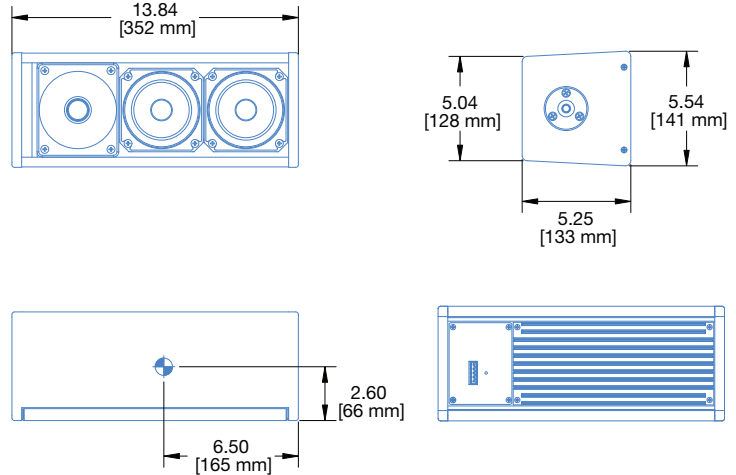


UP-4XP UltraCompact Loudspeaker



Meyer Sound designed the UP-4XP UltraCompact loudspeaker (with IntelligentDC technology) for applications requiring a small, inconspicuous cabinet that also delivers high sound pressure levels, low distortion, and uniform directional control. The self-powered UP-4XP offers exceptional audio performance in a compact package with the advantages of a remote power supply.

As a standalone loudspeaker, the UP-4XP is ideal for vocal reinforcement, frontfill coverage, and delay coverage for under-balcony applications. Alternatively, pairing the UP-4XP with an optional subwoofer creates a full-range system.

The UP-4XP boasts a wide operating frequency range of 66 Hz to 18 kHz and linear peak SPL of 117.5 dB with crest factor >17 dB⁴. The unit's high-frequency section includes a 1-inch metal dome tweeter on a constant-directivity, high-frequency horn with a 100° beamwidth. The low/mid-frequency section includes two 4-inch cone transducers that work in parallel at low frequencies—delivering a combined acoustic output—with one of the drivers rolling off at higher frequencies to prevent interference (due to comb filtering effects) in the crossover region. Three channels of on-board power amplification, which include an active crossover, driver protection, and frequency and phase correction circuitry, power the proprietary UP-4XP drivers that Meyer Sound manufactures in its Berkeley, California factory.

With IntelligentDC technology, the UP-4XP receives DC power and balanced audio from a single loudspeaker connector, available as Phoenix™ 5-pin male or sealed SwitchCraft® EN3™ 5-pin male. Powering the unit from an external source eliminates the need for wiring conduits while still preserving the

advantages of self-powered systems. The UP-4XP's amplifier and signal-processing circuits store DC power and tolerate voltage drops, thereby accommodating light-gauge cables and lengthy cable runs.

The UP-4XP requires an external Meyer Sound IntelligentDC power supply. The MPS-488HP single-space rack-mount unit distributes DC power and balanced audio to up to eight UP-4XP loudspeakers, or other Meyer Sound IntelligentDC loudspeakers. For smaller installations, the 1RU one-half width rack-mount MPS-482HP IntelligentDC power supply offers two channels of audio and DC power. Composite multiconductor cables, such as Belden® 1502 or equivalent, can deliver both DC power and balanced audio to loudspeakers at cable lengths up to 150 feet with just 1 dB of loss in peak SPL using 18 AWG wire. Longer cable lengths are possible with heavier gauge wires. Meyer Sound's RMS™ remote monitoring system module, which provides comprehensive monitoring of loudspeaker parameters from a host computer running Compass® software, is optionally available for the MPS-488HP.

Meyer Sound coats the UP-4XP's durable cabinet with a slightly textured black finish and includes top and bottom mounting plates with 3/8-inch-16 or metric M10 threaded nuts. QuickFly® mounting options include the MUB-UP4 U-bracket, MYA-UP4 cradle-style yoke, and the 1-3/8-inch (35 mm) diameter pole-mount adapter.

Other options include weather protection (with the sealed EN3 connector) and custom color finishes for installations and applications with specific cosmetic requirements.

FEATURES AND BENEFITS

- Extraordinary fidelity and power capability come in an ultra compact package
- Metal dome tweeter delivers a smooth high-frequency response
- Wide, symmetrical pattern covers a broad listening area
- Unique crossover design eliminates combing and yields a consistent midrange response
- Exceptional SPL to size ratio provides flexibility
- Supports long cable runs with light-gauge cables

APPLICATIONS

- Frontfill and under-balcony fill coverage
- Theatrical sound reinforcement and special effects
- Portable and installed audio-visual systems
- Compact voice reinforcement systems

ACCESSORIES AND ASSOCIATED PRODUCTS

MUB-UP4 Mounting U-Bracket: Allows the UP-4XP to be mounted on any flat surface at adjustable angles (includes either 3/8 in-16 or M10 mounting hardware).

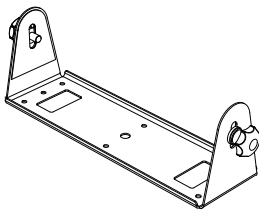
MYA-UP4 Cradle-style Yoke: Suspends a single UP-4XP loudspeaker and allows a wide range of horizontal and vertical adjustment (includes either 3/8 in-16 or M10 mounting hardware).

MSA-UPM Stand Adapter: Allows mounting of the UP-4XP on a third-party loudspeaker stand; includes both 3/8 in-16 and M10 hardware; does not include pole assembly.

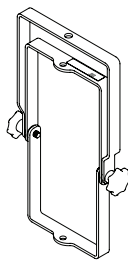
MPK-POLE-35MM-M20 Adjustable Pole Mount: Adjustable length 927–1524 mm (36.5–60 in), 35 mm (1.375 in) pole with assisted lift. Lower shaft fits 35 mm cups or use the removable M20 threaded lug for added stability. Upper shaft includes a PAS-M20 Adapter Sleeve to fit loudspeakers with 35 mm and M20 internal 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.

MPS-488HP External Power Supply: IntelligentDC external power supply that distributes DC power and balanced audio to up to eight UP-4XP loudspeakers or other Meyer Sound IntelligentDC loudspeakers; versions available with either Phoenix or EN3 channel output connectors.

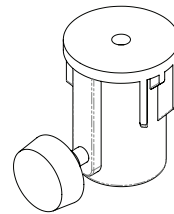
MPS-482HP External Power Supply: 1RU 1/2 width rack unit that delivers balanced audio and high-current DC power to up to two audio channels; rack mount or use available options to mount on ceiling, wall, pole or truss configurations.



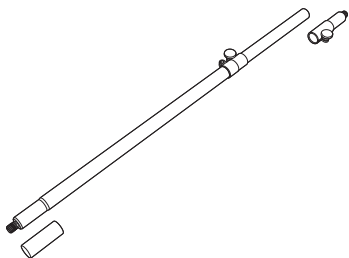
MUB-UP4 Mounting U-Bracket



MYA-UP4 Cradle-style Yoke



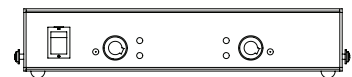
MSA-STAND Adapter Cup 35MM



MPK-POLE-35MM-M20 Adjustable Pole Mount



MPS-488HP External Power Supply



MPS-482HP External Power Supply

SPECIFICATIONS

ACOUSTICAL ¹	
Operating Frequency Range ²	66 Hz – 18 kHz
Frequency Response ³	72 Hz – 17.5 kHz \pm 4 dB
Phase Response	360 Hz – 12 kHz \pm 45°
Linear Peak SPL ⁴	117.5 dB with crest factor >17 dB (M-noise) , 111 dB (Pink noise), 114.5 dB (B-noise)
COVERAGE	
Horizontal Coverage	100°
Vertical Coverage	100°
TRANSDUCERS	
Low Frequency ⁵	Two 4-inch low-frequency cone drivers
High Frequency	One 1-inch metal dome tweeter
AUDIO INPUT	
Type	Differential, electronically balanced
Maximum Common Mode Range	\pm 5 V DC
Connectors	Phoenix or SwitchCraft EN3 5-pin male (two pins for 48 V DC power, three pins for balanced audio)
Input Impedance	10 k Ω differential between positive (+) and negative (-) audio pins
Wiring ⁶	Pin 1: DC Power (-) Pin 2: DC Power (+) Pin 3: Audio Shield, Chassis/Earth Pin 4: Audio (-) Pin 5: Audio (+)
Nominal Input Sensitivity	-2.0 dBV (0.8 V rms) continuous average is typically the onset of limiting for noise and music
Input Level	Audio source must be capable of producing +16 dBV (6.3 V rms) into 600 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker
AMPLIFIER	
Type	3-channel, Class-D
Total Output Power ⁷	500 W peak
THD, IM, TIM	< 0.02%
Cooling	Convection
DC POWER	
Connector	Phoenix or SwitchCraft EN3 5-pin male (two pins for 48 V DC power, three pins for balanced audio)
Safety Rated Voltage	48 V DC
RMS NETWORK (OPTIONAL ON REQUIRED MPS-488HP POWER SUPPLY)	
	Equipped with two-conductor twisted-pair network, reporting all operating parameters of amplifiers to system operator's host computer.
PHYSICAL	
Dimensions	W: 13.84 in (352 mm) x H: 5.54 in (141 mm) x D: 5.25 in (133 mm)
Weight	12.2 lb (5.53 kg)
Enclosure	Premium multi-ply birch with slightly textured black finish
Protective Grille	Powder-coated, hex-stamped steel with black mesh screen
Rigging	Top and bottom plates available with 3/8"-16 or M10 threads nuts

NOTES

1. Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
2. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
3. Free field, measured with 1/3 octave frequency resolution at 4 m.
4. **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-degree 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. The presence of a greater-than (>) symbol with regard to crest factor indicates it may be higher depending on EQ and boundary loading.

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.

5. Below 400 Hz, both low frequency drivers are active. At 400 Hz, the bottom low-frequency driver is attenuated by –3 dB and rolled off at higher frequencies. This design reduces interaction in the higher frequencies (shorter wavelengths) of the tweeter and maintains optimum polar and off-axis frequency responses.
6. Audio shield, chassis/earth through 220 kΩ, 1000 pF, 15 V clamped network to provide virtual ground lift at audio frequencies.
7. Amplifier wattage based on the maximum unclipped burst sine-wave rms voltage the amplifier will produce into the nominal load impedance.

ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be a self-powered, full-range system; the transducers shall consist of two 4-inch low-frequency cone drivers and one 1-inch high-frequency metal dome tweeter. The loudspeaker system shall incorporate internal processing electronics and a three-channel amplifier, one channel for each driver. Processing functions shall include equalization, phase correction, signal division, and driver protection. Amplifier channels shall be class D. Amplifier output power shall be 500 watts total for all three channels. 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 66 Hz – 18 kHz; phase response shall be from 360 Hz to 12 kHz $\pm 45^\circ$; linear peak SPL shall be 117.5 dB with crest factor >17 dB, measured with M-noise, free-field at 4 m referred to 1 m; coverage shall be 100° horizontal by 100° vertical.

The loudspeaker shall be equipped with either a Phoenix 5-pin male or EN3 5-pin male connector (three pins for balanced audio and two pins for DC power). The audio input shall be electronically balanced with a 10 kΩ

impedance and accept a nominal –2.0 dBV (0.80 V rms) input signal.

Power requirements for the loudspeaker shall be a Meyer Sound IntelligentDC power supply capable of delivering 48 V DC. Maximum long-term continuous current draw for the loudspeaker (< 10 s) shall be 1.0 A rms at 48 V.

All components shall be mounted in an acoustically vented trapezoidal enclosure constructed of premium multi-ply birch with a slightly textured black finish. Top and bottom rigging plates shall be available in 3/8-inch-16 or M10 threads. The front protective grille shall be powder-coated, hex-stamped steel with black mesh screen.

Dimensions for the loudspeaker shall be W: 13.84 in (352 mm) x H: 5.54 in (141 mm) x D: 5.25 in (133 mm). Weight shall be 12.2 lb (5.5 kg).

The loudspeaker shall be the Meyer Sound UP-4XP.