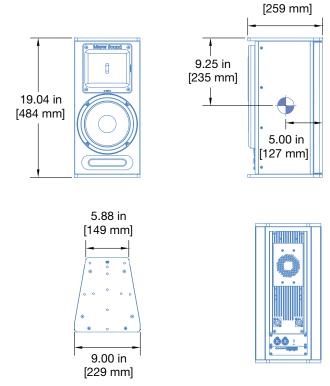
DATASHEET ULTRA

UPJunior Ultra Compact VariO™ Loudspeaker



10.20 in





Meyer Sound's UPJunior ultracompact VariO[™] loudspeaker brings the sonic signature, flexible rigging, and extraordinary power-to-size ratio of the award-winning UPJ-1P to an even more compact package suitable for a broad range of applications. The UPJunior combines the advantages of self-powered systems with the placement and arraying flexibility afforded by an 80° x 50° VariO rotatable horn and QuickFly® rigging.

Though remarkably compact and lightweight, the UPJunior delivers a linear peak SPL of 123.5 dB with 18.5 dB crest factor, making it suitable for use as either a single, primary loudspeaker or within multi-cabinet horizontal and vertical arrays. Applications include audio-visual presentations, small- to medium-sized sound reinforcement systems, fill, delay, effects, and under-balcony coverage, as well as distributed systems.

Meyer Sound designed the UPJunior for flexibility. Whether oriented vertically or horizontally, its easily rotatable VariO horn facilitates the optimum horizontal and vertical coverage in any situation.

As a self-powered loudspeaker, the UPJunior incorporates a two-channel, class AB/bridged power amplifier and sophisticated control circuitry housed within the cabinet, dramatically simplifying setup and installation. The UPJunior's on-board amplifier delivers 580 W of total burst power.

The optional RMS™ remote monitoring system provides comprehensive monitoring of loudspeaker parameters from a Mac® or Windows®-based computer running Compass® control software.

The UPJunior's low-mid frequency section employs an 8-inch neodymium magnet cone driver, while the high-frequency section utilizes a 2-inch diaphragm compression driver. Meyer Sound designed and manufactures both drivers in its Berkeley, California factory.

The UPJunior is extraordinarily versatile: mounted, flown, and arrayed, use it as either a main loudspeaker or fill loudspeaker, or even as a stage monitor. The UPJunior's cabinet includes end plates made of heavy-duty, high-strength, corrosion-resistant 6061-T6 aluminum, complete with threaded M8 attachment points for basic eyebolt rigging or third-party pole assemblies. QuickFly rigging options including the MAAM-UPJunior array adapter (also made from 6061-T6 aluminum), the MUB-UPJunior U-bracket, and the MYA-UPJunior mounting yoke assembly.

Other options include weather protection for fixed applications and custom color finishes for specific cosmetic requirements.

FEATURES AND BENEFITS

- Exceptional fidelity and extended high frequency enhance performance
- Compact package delivers outstanding power capability
- Predictable and consistent performance ensure system design flexibility
- VariO horn enables versatile coverage options, whether orienting loudspeakers horizontally or vertically
- Extraordinarily flat amplitude and phase response provide tonal accuracy and precise imaging
- Constant-Q horn affords uniform response throughout the coverage area
- QuickFly rigging facilitates mounting as a single cabinet or flying within arrays

APPLICATIONS

- Portable and installed audio-visual systems
- Theatrical sound reinforcement
- Front and under-balcony fill
- Stage monitoring (with optional MAAM-UPJunior array adapter)
- Conference centers, presentations, ballrooms, and houses of worship

ACCESSORIES AND ASSOCIATED PRODUCTS

MAAM-UPJunior Array Adapter: Facilitates installation of multiple UPJuniors in both horizontal and vertical arrays.

MYA-UPJunior Mounting Yoke Assembly: Cradle-style mounting yoke that suspends a single UPJunior loudspeaker and supports a wide range of horizontal and vertical adjustments.

MUB-UPJunior U-Bracket: Allows the UPJunior to be mounted on any flat surface at adjustable angles.

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.

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

35MM Pole Stand Adapter: This large base stand adaptor mounts the loudspeaker on a 35 mm pole. In addition, this adapter can be used to mount the MYA-UPJunior yoke on a pole to allow easy panning and tilting.

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.



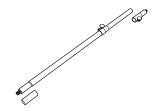
MAAM-UPJunior Array Adapter



MYA-UPJunior Mounting Yoke Assembly



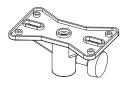
MUB-UPJunior U-Bracket



MPK-Pole-35MM-M20 Adjustable Pole Mount



MSA-STAND Adapter Cup 35MM



35MM Pole Stand Adapter



GALAXY Network Platform

SPECIFICATIONS

ACOUSTICAL ¹	
Operating Frequency Range ²	70 Hz – 20 kHz
Frequency Response ³	76 Hz – 18 kHz ±4 dB
Phase Response	250 Hz – 18 kHz ±45°
Linear Peak SPL ⁴	123.5 dB with 18.5 dB crest factor (M-noise), 121.5 dB (Pink noise), 121 dB (B-noise)
COVERAGE ⁵	
	80° x 50° (rotatable horn)
TRANSDUCERS	
Low Frequency	One 8-inch cone driver with neodymium magnet; 4 Ω nominal impedance
High Frequency ⁵	One 2-inch compression driver; 12 Ω nominal impedance
AUDIO INPUT	
Туре	Differential, electronically balanced
Maximum Common Mode Range	±15 V DC, clamped to earth for voltage transient protection
Connectors ⁶	XLR 3-pin female input with male loop output; optional 5-pin XLR 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 kΩ, 1000 pF, 15 V clamp network to provide virtual ground lift at audio frequencies Pin 2: Signal +
	Pin 3: Signal – (optional polarity reversal switch) 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 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker.
AMPLIFIER	
Туре	Two-channel complementary MOSFET output stages (class AB/bridged)
Total Output Power ⁷	580 W peak
THD, IM, TIM	< 0.02% Forced air cooling over amplifier heatsink
AC POWER	Torced all cooling over ampliner heatslik
Connector	powerCON 20 input with loop output
Automatic Voltage Selection	90–265 V AC
Safety Rated Voltage Range	100-240 V AC, 50-60 Hz
Turn-on and Turn-off Points ⁸	90 V AC turn-on, no turn-off; internal fuse-protection above 265 V AC
CURRENT DRAW®	
Idle Current	0.448 A rms (115 V AC); 0.285 A rms (230 V AC); 0.497 A rms (100 V AC)
Maximum Long-Term Continuous Current (>10 sec)	2.55 A rms (115 V AC); 1.55 A rms (230 V AC); 2.75 A rms (100 V AC)
Burst Current (<1 sec)	2.90 A rms (115 V AC); 1.70 A rms (230 V AC); 3.20 A rms (100 V AC)
Maximum Instantaneous Peak Current	12.0 A peak (115 V AC); 9.0 A peak (230 V AC); 13.0 A peak (100 V AC)
Inrush Current	15.0 A peak (115 V AC); 13.0 A peak (230 V AC); 15.0 A peak (100 V AC)
RMS NETWORK (OPTIONAL)	
	Equipped with two-conductor twisted-pair network, reporting all operating parameters of amplifiers to system operator's host computer.

SPECIFICATIONS, CONT'D.

PHYSICAL	
Dimensions	W: 9.00 in (229 mm) x H: 19.04 in (484 mm) x D: 10.20 in (259 mm)
Weight	28 lb (12.7 kg)
Enclosure	Premium multi-ply birch with slightly textured black finish
Protective Grille	Powder-coated, hex-stamped steel with acoustical black mesh
Rigging	Aluminum end plates for mounting/flying cabinets with QuickFly and standard rigging options; metric M8 threaded points used for all UPJunior rigging

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.

Pink noise 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. The UPJunior horn can be rotated to provide an 80° x 50° coverage pattern in either the horizontal or vertical plane.
- 6. An optional 3-pin XLR input module is available that includes a polarity switch and an attenuator (0-18 dB).
- 7. Amplifier wattage rating based on the maximum unclipped burst sine-wave rms voltage the amplifier will produce for at least 0.5 seconds into the nominal load impedance.
- 8. No automatic turn-off voltages. Voltages above 265 V AC are fuse protected but may cause permanent damage to the power supply. Voltages below 90 V AC may result in intermittent operation.
- 9. Current draw for a single loudspeaker. Loop output not used.

ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be a self-powered, full-range system. The transducers shall consist of an 8-inch diameter cone driver and a 2-inch diaphragm compression driver on an 80° x 50° horn. The horn shall allow rotation to provide the wider coverage pattern in either the horizontal or vertical plane relative to the cabinet's vertical axis.

The loudspeaker system shall incorporate internal processing electronics and a two-channel amplifier. Processing functions shall include equalization, phase correction, 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. Burst capability shall be 580 W total into nominal loads of 4 Ω low channel and 12 Ω 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 70 Hz - 20 kHz; frequency response shall be 76 Hz - 18 kHz ± 4 dB; phase response shall be 250 Hz - 18 kHz $\pm 45^{\circ}$; linear Peak SPL shall be 123.5 dB with 18.5 dB crest factor, measured with M-noise, free-field at 4 m referred to 1 m. Coverage (–6 dB points) shall be 80° by 50°, horizontal or vertical dependent on horn orientation.

The audio input shall be electronically balanced with a 10 $k\Omega$ impedance

and accept a nominal 0 dBV (1.0 V rms) input signal. Connectors shall be XLR 3-pin female input with male loop output.

The internal power supply shall perform automatic voltage selection, EMI filtering, soft current turn-on and surge suppression. Power requirements shall be nominal 100 V, 115 V or 230 V AC line current at 50 Hz or 60 Hz frequency. Current draw during burst (< 1 sec) shall be 2.9 A at 115 V, 1.7 A at 230 V and 3.2 A at 100 V. Current inrush during soft turn-on shall not exceed 15 A at 115 V. The AC power connector shall be a 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 acoustical black mesh. Dimensions shall be W: 9.00 in (229 mm) x H: 19.04 in (484 mm) x D: 10.20 in (259 mm). Weight shall be 28 lb (12.7 kg). Integral high-strength, 6061-T6 aluminum top plates with threaded M8 metric holes shall accommodate Meyer Sound proprietary rigging hardware and third-party accessories.

The loudspeaker shall be the Meyer Sound UPJunior.

