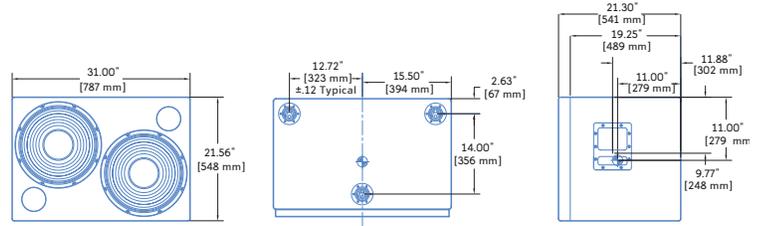




USW-1P : Compact Subwoofer



Dimensions	31.00" w x 21.56" h x 21.30" d (787 mm x 548 mm x 541 mm)
Weight	137 lbs (62.14 kg)
Enclosure	Premium birch plywood
Finish	Black textured
Protective Grille	Powder-coated hex-stamped steel, foam covering
Rigging	Three ring and stud pan fittings (on top); working load is 420 lbs (190.51 kg), based on a 5:1 safety factor

Combining advanced loudspeaker technology with equally advanced power capabilities, the Meyer Sound USW-1P self-powered subwoofer provides flat, low-frequency response from 35 Hz to 180 Hz. The USW-1P performs seamlessly within a full-range system, in conjunction with UPA-1P, UPA-2P and UPJ-1P loudspeakers. The USW-1P is also fully compatible with other Meyer Sound self-powered loudspeakers.

The USW-1P cabinet houses two 15-inch drivers, each powered by a dedicated channel of the proprietary built-in class AB/bridged power amplifier (550 watts total peak power) with complementary MOSFET output stages. Each channel incorporates a limiter that prevents driver over-excursion and regulates the voice coil temperature. A smooth limiting characteristic effectively protects the drivers without the compression effects imposed by typical limiters, allowing high output levels across the drivers' entire frequency range.

Integrating a built-in low-pass crossover while accepting a full-range signal, the USW-1P's input allows for simple daisy-chain signal distribution and eliminates the need for external crossovers. Field-replaceable audio input modules accommodate a range of applications. The standard version offers looping XLR input and output connectors, while an enhanced looping version adds polarity switching (the looping output is not affected) and input attenuation (0 dB to -18 dB). A summing mono version with two inputs is also available.

The amplifier/processing package, also field-replaceable, incorporates Meyer Sound's Intelligent AC™ system, which performs automatic voltage selection, EMI filtering, soft current turn-on and surge suppression. Intelligent AC allows fail-safe operation worldwide, with no need to manually select the AC mains voltage.

The USW-1P's durable enclosure is constructed from premium birch plywood and is covered with a black textured hard-shell finish. A hex-stamped steel grille and a charcoal grey foam cover are included. Standard rigging points are three ring and stud pan fittings (on top) with a load rating of 420 lbs (190.51 kg) per fitting, based on a 5:1 safety factor. (3/8"-16 and M10 metric nut plates are also available.) The cabinet's rectangular shape makes groundstacking on the floor or stage a simple and stable option. Options available include weather protection and finishes in custom colors for applications requiring specific cosmetics.

The USW-1P is compatible with the RMS™ remote monitoring system, which offers comprehensive monitoring of system parameters on a Windows®-based network.

FEATURES & BENEFITS

- Classic design configuration with proven heritage from USW-1 model
- High peak power capability for excellent transient reproduction
- Built-in crossover allows for simple daisy-chain signal distribution and eliminates the need for external crossovers

- Compact cabinet satisfies a broad range of installation requirements
- Flat phase response for optimal crossover to mid/high systems

APPLICATIONS

- Concert halls, clubs and houses of worship
- Theatrical sound reinforcement
- Surround sound presentations
- Stage monitoring drum fill (in combination with UM-P model monitors)
- Portable and installed audio-visual systems

USW-1P SPECIFICATIONS

ACOUSTICAL	Operating Frequency Range¹ Frequency Response² Phase Response Maximum Peak SPL³ Dynamic Range	32 Hz – 200 Hz 35 Hz – 180 Hz ±4 dB 45 Hz – 155 Hz ±30° 135 dB >110
COVERAGE		360° single unit; varies for multiple units, depending on number and configuration
TRANSDUCERS	Low Frequency	Two 15" cone drivers Nominal impedance: 4 Ω Voice coil size: 3" Power-handling capability: 400 W ⁴
AUDIO INPUT	Type Maximum Common Mode Range Connectors Input Impedance Wiring DC Blocking CMRR RF Filter TIM Filter Nominal Input Sensitivity Input Level	Differential, electronically balanced ±15 V DC, clamped to earth for voltage transient protection Female XLR input with male XLR loop output or VEAM all-in-one (integrates AC, audio and network) 10 kΩ differential between pins 2 & 3 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) ⁵ Case: Earth ground and chassis Differential DC blocking up to max common mode voltage >50 dB, Typically 80 dB (50 Hz – 500 Hz) Common Mode: 425 kHz; Differential Mode: 142 kHz <80 kHz, integral to signal processing 0 dBV (1 V rms, 1.4 V pk) continuous is typically the onset of limiting for pink noise and music Audio source must be capable of producing a minimum of +20 dBV (10 V rms, 14 V pk) into 600 Ω in order to produce maximum peak SPL over the operating bandwidth of the loudspeaker
AMPLIFIER	Type Output Power⁶ THD, IM, TIM Load Capacity Cooling	Two-channel complementary MOSFET output stages (class AB/bridged) 550 W total <.02 % 4 Ω both channels Convection; 24 V DC output for optional external fan
AC POWER	Connector Automatic Voltage Selection Safety Agency Rated Operating Range Turn-on and Turn-off Points Current Draw: Idle Current Max Long-Term Continuous Current (>10 sec) Burst Current (<1 sec) Ultimate Short-Term Peak Current Draw Inrush Current	PowerCon or VEAM Automatic, continuous range from 90 V AC – 265 V AC 100 V AC – 240 V AC; 50/60 Hz 90 V AC on, no turn-off, only fuse protected above 265 V AC ⁷ .025 A rms (115 V AC); 0.13 A rms (230 V AC); 0.3 A rms (100 V AC) 2.8 A rms (115 V AC); 1.4 A rms (230 V AC); 3.2 A rms (100 V AC) 3.2 A rms (115 V AC); 1.6 A rms (230 V AC); 3.7 A rms (100 V AC) 5.0 A pk (115 V AC); 2.5 A pk (230 V AC); 5.8 A pk (100 V AC) <9 A pk (115 V AC and 230 V AC)
RMS NETWORK (OPTIONAL)		Equipped for two-conductor twisted-pair network, reporting amplifier operating parameters to system operator's host computer.

NOTES:

1. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
2. Free field, measured with 1/3-octave frequency resolution at 4 meters.
3. Measured with music at 1 meter.
4. Power handling is measured under AES standard conditions: transducer driven continuously for two hours with band-limited noise signal having a 6 dB peak-average ratio.
5. Two additional input module options are available with a polarity reversal switch and an attenuator (0 dB to -18 dB): one looping and one with two inputs for mono summing.
6. Amplifier wattage rating based on the maximum unclipped burst sine-wave rms voltage that the amplifier will produce into the nominal load impedance. Both channels 32 V rms (42 V pk) into 4 ohms.
7. 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.

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ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self-powered, sub-bass system which may be flown singly or groundstacked with multiple cabinets. The transducers shall consist of two 15-inch cone drivers with 3-inch voice coils.

The loudspeaker shall incorporate internal processing electronics and a two-channel amplifier. Each amplifier channel shall be class AB/bridged with complementary MOSFET output stages. Burst capability shall be 550 watts total with a nominal resistive load of 4 ohms both 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 32 Hz to 200 Hz. Phase response shall be ±30 degrees from 45 Hz to 155 Hz. Maximum peak SPL shall be 135 dB at 1 meter. Beamwidth shall be 360 degrees for a single unit. Directional characteristics can be achieved with multiple cabinets.

The audio input shall be electronically balanced with a 10 kΩ impedance and accept a nominal 0 dBV (1 V rms, 1.4 V pk) signal (+20 dBV to produce maximum peak SPL). Connectors shall be XLR (A-3) type male and female or VEAM all-in-one (integrates AC, audio and network). RF filtering shall be provided. CMRR shall be greater than 50 dB (typically 80 dB 50 Hz to 500 Hz). Two additional input module options shall be offered with an attenuator and polarity reversal switch; one with loop-through output, and another with two summing inputs instead of the loop-through input and output.

The internal power supply shall perform automatic voltage selection, EMI filtering, soft current turn-on and surge suppression. Powering requirements shall be nominal 100, 110 or 230 V AC line current at 50 or 60 Hz. UL and CE operating voltage range shall be 100 to 240 V AC. Maximum peak current draw during burst shall be 5 A at 115 V AC, 2.5 A at 230 V AC

and 5.8 A at 100 V AC. Current inrush during soft turn-on shall not exceed 9 A at 115 V AC. AC power connectors shall be PowerCon or VEAM all-in-one multi-pin connector.

The loudspeaker system shall provide facilities for installing the optional RMS remote monitoring system.

All loudspeaker components shall be mounted in an acoustically vented rectangular enclosure constructed of premium birch plywood with a hard black textured finish. The front protective grille shall be hex-stamped steel covered by charcoal gray foam. Dimensions shall be 31.00" wide x 21.56" high x 21.30" deep (787 mm x 548 mm x 541 mm). Weight shall be 137 lbs (62.14 kg). Rigging points shall be three ring and stud pan fittings (on top), rated at 420 lbs (190.51 kg) per fitting, based on a 5:1 safety factor; 3/8-inch or metric M10 nut plates are optional.

The loudspeaker shall be the Meyer Sound USW-1P subwoofer.