LF



X-400C

X-800C

900-LFC

Amie-Sub

MM-10XP

X-400C : Compact Cinema Subwoofer





Dimensions31.00" w x 20.65" h x 20.79" d
(787 mm x 525 mm x 528 mm)Weight85 lbs (38.6 kg)EnclosurePremium birch plywood
FinishProtective GrilleOptional grille frame with
black cloth



Part of Meyer Sound's EXP cinema series, the X-400C compact subwoofer boosts lowfrequency headroom in cinema applications and other fixed installations. The linear, self-powered X-400C offers similar sonic characteristics as the X-800C subwoofer low-frequencies down to 20 Hz, clean, punchy transients, and excellent phase coherence though in a more compact cabinet that can be installed singly or as multiple units.

The X-400C is comprised of a single 18-inch low-frequency, long-excursion cone driver

housed in an optimally tuned, vented cabinet and powered by a single-channel amplifier. Onboard processing includes driver protection circuitry, low-pass filtering, and correction filters for flat phase and frequency responses.

The IntelligentAC[™] power supply affords automatic voltage selection, EMI filtering, soft current turn-on, and surge suppression.

The X-400C integrates seamlessly with other EXP cinema loudspeakers, including the Acheron screen channel loudspeakers and HMS

surround loudspeakers.

Meyer Sound's optional RMS[™] remote monitoring system provides comprehensive monitoring of system parameters on a Mac[®] or Windows[®]based computer.

The X-400C cabinet is constructed of premium birch plywood and coated with a low-gloss, black-textured finish. The cabinet includes attachment points for an optional grille frame with black cloth.

FEATURES & BENEFITS

- High peak power output with excellent transient reproduction
- Extended low frequency range down to 20 Hz
- Extremely low distortion for exceptional low-frequency clarity
- Flat amplitude and phase responses for tonal accuracy
- Integrates with Acheron Studio and Acheron Designer screen channel loudspeakers
- Integrates with HMS-5, HMS-10, and HMS-12 surround loudspeakers

APPLICATIONS

- Sound design suites
- Small theatres and custom, private theatres
- Screening rooms
- Mixing for postproduction facilities
- Immersive surround applications

X-400C SPECIFICATIONS

Operating Frequency Pangal	20 Hz - 200 Hz
Operating Frequency Range	
Prequency Response	23 HZ - 100 HZ I4 dB
Maximum Book SPI 3	32 HZ - 173 HZ - 30
Maximum Peak SPL-	110 dB
COVERAGE	7110 dB
COTENAGE	Varies with number of units and configuration
TRANSDUCER	varies with humber of units and configuration
	One 18" long-excursion cone driver
2011 11 24 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Nominal impedance: 4 o
Audio Input	······································
Туре	Differential, electronically balanced
Maximum Common Mode Range	±15 V DC, clamped to earth for voltage transient protection
Connectors	XLR 3-pin female input with XLR 3-pin male loop output
Input Impedance	10 kΩ differential between pins 2 and 3
Wirina	Pin 1: Chassis/earth through 220 kg. 1000 pF. 15 V clamped network
	to provide virtual ground lift at audio frequencies
	Pin 2: Signal +
	Pin 3: Signal –
	Case: Earth ground and chassis
DC Blocking	Differential DC blocking up to the maximum common mode voltage
CMRR	>50 dB, typically 80 dB (50 Hz – 500 Hz)
RF Filter	Common mode: 425 kHz: Differential mode: 142 kHz
TIM Filter	Integral to signal processing (<80 kHz)
Nominal Input Sensitivity	0 dBV (1.0 V rms, 1.4 V peak) continuous is typically the onset of
	limiting for noise and music
Input Level	Audio source must be capable of producing +20 dBV (10 V rms,
	14 V peak) into 600 Ω to produce the maximum peak SPL over the
	operating bandwidth of the loudspeaker
AMPLIFIER	
Туре	Single channel
Output Power ⁴	450 W
Total Output	900 W peak
THD, IM, TIM	<.02%
Load	4 Ω
Cooling	Convection
AC POWER	
Connector	powerCON 20 with loop output
Voltage Selection	Automatic, continuous range from 90–265 V AC
Safety Agency Rated Operating Range	100–240 V AC, 50/60 Hz
Turn-on and Turn-off Points	90 V AC on, no turn-off, only fuse-protect above 265 V AC
Current Draw: Idle Current	0.26 A rms (115 V AC); 0.16 A rms (230 V AC); 0.30 A rms (100 V AC)
Maximum Long-Term Continuous Current (>10 sec)	1.4 A rms (115 V AC); 0.7 A rms (230 V AC); 1.6 A rms (100 V AC)
Burst Current (<1 sec) ⁵	2.7 A rms (115 V AC); 1.1 A rms (230 V AC); 3.0 A rms (100 V AC)
Maximum Instantaneous Peak Current	9 A peak (115 V AC); 6 A peak (230 V AC); 10 A peak (100 V AC)
Inrush Current	10 A peak (115 V AC); 8 A peak (230 V AC); 10 A peak (100 V AC)
KMS NETWORK (OPTIONAL)	
	- Consideration with the second contraction to similar and the second contraction of the second s
	Equipped with two-conductor twisted-pair network, reporting

NOTES:

- Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- Free field measured with 1/3-octave frequency resolution at 4 meters.
 Measured with music referred to
- Measured with music referred t 1 meter, half-space loading.
- Amplifier waltage rating based on the maximum unclipped burst sinewave rms voltage the amplifier will produce into the nominal load impedance: 42 V rms (60 V peak) into 4 ohms.
- 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.



X-400C - 04.213.022.01 A

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ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self-powered, sub-bass system with a single 18-inch low-frequency, longexcursion cone driver.

The loudspeaker shall incorporate internal processing electronics and a single-channel amplifier. Burst power shall be 450 watts (900 watts peak) with a nominal 4-ohm resistive load. Distortion (THD, IM, TIM) shall not exceed 0.02 percent. The audio input shall be electronically balanced with a 10 kOhm impedance and accept a nominal 0 dBV (1 V rms) signal (20 dBV to produce maximum SPL). Connectors shall be XLR 3-pin male and female. RF filtering shall be provided, and CMRR shall be greater than 50 dB (50 Hz - 500 Hz).

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 20 Hz to 200 Hz; phase response, 32 Hz to 175 Hz \pm 30 degrees; maximum peak SPL, 130 dB at 1 meter.

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, 110 V or 230 V AC line current at 50 or 60 Hz. UL and CE operating voltage ranges shall be 200 to 240 V AC. The maximum long-term continuous current draw (>10 sec) shall be 1.4 A rms at 115 V AC, 0.7 A rms at 230 V AC, and 1.6 A rms at 100 V AC. Current

inrush during soft turn-on shall not exceed 10 A peak at 115 V AC, 8 A peak at 230 V AC, and 10 A peak at 110 V AC. AC power connectors shall be powerCON 20 with loop output. The loudspeaker shall optionally include an RMS remote monitoring system module.

Loudspeaker components shall be mounted in a premium birch plywood enclosure with a low-gloss, blacktextured finish. Dimensions shall be 31.00 inches wide x 20.65 inches high x 20.79 inches deep (787 mm x 525 mm x 528 mm). Weight shall be 85 lbs (38.6 kg).

The loudspeaker shall be the Meyer Sound X-400C.

X-800C : High-Power Cinema Subwoofer





The Meyer Sound X-800 high-power subwoofer is designed to provide very low-frequencies with ample headroom in critical applications. The X-800 Studio and X-800C Cinema versions from the EXP line of products excel in environments requiring very low distortion, extended bandwidth and extreme low frequency transients.

The X-800C is a linear, powerful selfpowered subwoofer offering excellent phase coherence for smooth transitioning from screen channels to low-frequency effects (LFE), The X-800C delivers extended low frequency output down to 20 Hz with clear, punchy transients even at very high levels.

The X-800C houses two Meyer Sound long excursion, high efficiency 18-inch drivers in an optimally tuned, vented cabinet. The X-800C output rolls off well below 250 Hz, avoiding any adverse comb filtering effects that could be generated by the proximity of other X-800C subwoofers when used in arrays.

An integral two-channel class AB/H amplifier with complementary MOSFET output stages supplies a total output of 1240 Watts (2480 Watts peak), providing the system with sufficient headroom to accommodate lowest frequencies of the most extreme digital soundtrack's.

Each amplifier channel features TruPower® limiting technology to maximize loudspeaker reliability, minimize power compression and extend component life. An Intelligent AC™ power supply affords automatic voltage selection, EMI filtering, soft current turn-on and surge suppression.

A laser-trimmed differential input with high common-mode rejection enables long line-level signal runs using shielded, twistedpair cable. As with all Meyer Sound selfpowered products, sophisticated onboard processing includes phase and frequency response correction filters. This selfpowered design not only assures consistent results but also simplifies installation in both new and existing rooms.

The X-800C subwoofer's premium birch plywood cabinet is coated with a durable textured low gloss finish. Meyer Sound's optional RMS[™] remote monitoring system provides comprehensive system monitoring over a Windows-based network.

With a 30-year history of successful solutions, Meyer Sound understands the science of sound reproduction. Our selfpowered loudspeakers offer unsurpassed intelligibility, power and clarity. And in conjunction with a suite of powerful integration tools, Meyer Sound is able to offer a complete, dedicated cinema sound solution that is designed to meet the demands and opportunities of the next generation of cinema sound.

FEATURES & BENEFITS

- High peak power yields excellent transient reproduction
- Extended low frequency range down to 20 Hz
- Extremely low distortion for ultimate lowfrequency clarity
- Exceptionally reliable and durable

APPLICATIONS

- Motion picture theaters
- Dub stages
- Production and post production facilities
- Soundtrack recording and mixing

X-800C SPECIFICATIONS

ACOUSTICAL Operating Frequency Parcel	20 Hz 200 Hz
Prequency Response	23 HZ - 100 HZ ±4 dB
Mauinum Dack CDI 3	32 HZ 10 1/3 HZ ±30
Maximum Peak SPL	136 dB
	,110 dB
COVERAGE	360° (single unit); varies with number of units and configuration
TRANSDUCERS	
Low Frequency	Two 18" cone drivers
	Nominal impedance: 8 Ω
	Voice coil size: 3"
	Power-handling capability: 600 AES W ⁴
	Differential electronically balanced
Maximum Common Mode Bange	+15 V DC clamped to earth for voltage transient protection
Connectors	Female XI P input and male XI P loop output (integrates AC audio
connectors	and network)
Input Impedance	10 $k \Omega$ differential between pin 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 –
	Case: Earth ground and chassis
DC Blocking	None on input; DC blocked through signal processing
CMRR	>50 dB, typically 80 dB (50 Hz – 500 Hz)
RF Filter	Common mode 425 kHz; Differential mode 142 kHz
TIM Filter	Integral to signal processing (< 80 kHz)
Input Level	Audio source must be capable of producing a minimum of +20 dB V
	(10 V rms, 14 V pk) into 600 $\boldsymbol{\Omega}$ in order to produce maximum peak SPL
	over the operating bandwidth of the loudspeaker
Nominal Input Sensitivity	0 dB V (1 V rms, 1.4 V pk) continuous is typically the onset of limiting
	for noise and music
AMPLIFIER	Complementary power MOSEET output stages (class AB/H)
Output Down	1240 W (2480 Watts post)
	1240 w (2400 walls peak)
	8 O minimum impedance oach channel
Load Capacity	Enced air cooling 2 internal fans (one low-sneed and one reserve fan)
AC POWER	Force an cooling, 2 internal rans (one low speed and one reserve ran)
Connector	250 V AC NEMA L6-20 inlet or IEC 309 male inlet
Automatic Voltage Selection	Automatic, two ranges, each with high-low voltage tap
	(uninterrupted)
Safety Agency Rated Operating Range	95 V AC - 125 V AC; 208 V AC - 235 V AC; 50/60 Hz
Turn-on and Turn-off Points	85 V AC - 134 V AC; 165 V AC - 264 V AC; 50/60 Hz
Current Draw:	
Idle Current	0.640 A rms (115 V AC); 0.320 A rms (230 V AC); 0.850 A rms (100 V AC)
Max Long-Term Continuous Current (>10 sec)	8 A rms (115 V AC); 4 A rms (230 V AC); 10 A rms (100 V AC)
Burst Current (<1 sec)	15 A rms (115 V AC); 8 A rms (230 V AC); 18 A rms (100 V AC)
Ultimate Short-Term Peak Current Draw	22 A pk (115 V AC); 11 A pk (230 V AC); 25 A pk (100 V AC)
Inrush Current	<7 A (115 V AC & 230 V AC); 10 A pk (100 V AC)
RMS NETWORK	
(OPTIONAL)	
	Equipped for two-conductor twisted-pair network reporting
	Equipped to: the conductor thisted par hethold, reporting
	all operating parameters of amplifiers to system operator's host

OTES:

- Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- Free field, measured with one-third octave frequency resolution at 4 meters.
- Measured with music at 1 meter
- 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
- Amplifier wattage rating is based on the maximum unclipped burst sine-wave rms voltage the amplifier will produce into the nominal load impedance. Both Channels 70 V rms (100 V pk) into 8 ohms.



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ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self-powered, sub-bass system. The transducers shall consist of two 18-inch cone drivers (3-inch voice coil) each rated to handle 600 AES* watts.

loudspeaker shall incorporate internal processing The electronics and a two-channel amplifier. Each amplifier channel shall be class AB/H with complementary MOSFET output stages. Burst capability shall be 1240 watts total with nominal 8-ohm resistive load, Distortion (THD, IM, TIM) shall not exceed 0.02%. Protection circuits shall include TruPower limiting. The audio input shall be electronically balanced with a 10 kOhm impedance and accept a nominal 0 dBV (1 V rms) signal (20 dBV to produce maximum SPL). Connectors shall be XLR type male and female or VEAM all-in-one. RF filtering shall be provided, and CMRR shall be greater than 50 dB (50 - 500 Hz).

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: Operating frequency range shall be 20 Hz to 200 Hz. Phase response shall be $\pm 30^{\circ}$ from 35 Hz to 120 Hz. Maximum peak SPL shall be 136 dB at 1 meter.

The internal power supply shall perform automatic voltage selection, EMI filtering, soft current turn-on and surge suppression. Powering requirements shall be nominal 100 V, 110 V or 230 V AC line current at 50 Hz or 60 Hz. UL and CE operating voltage ranges shall be 95 to 125 V AC and 208 to 235 V AC. Current draw during burst shall be 15 A rms at 115 V AC, 8 A rms at 230 V AC and 18 A rms at 100 V AC. Current inrush during soft turn-on shall not exceed 7 A at 115 V AC. AC power connectors shall be L6-20. IEC 309 male or VEAM all-in-one.

The loudspeaker shall optionally incorporate the electronics module for Meyer Sound's RMS remote monitoring system.

Loudspeaker components shall be mounted in a premium birch plywood enclosure with a durable textured finish (optional smooth medium-gloss black finish available). Dimensions shall be 31.00" wide x 40.00" high x 21.33" deep (787 mm x 1016 mm x 542 mm). Weight shall be 221 lbs (100.24 kg).

The loudspeaker shall be the Meyer Sound X-800C high-power cinema subwoofer

*Driven continuously for two hours with band-limited noise signal having a 6 dB peak-average ratio.

DATASHEET

900-LFC Compact Low-Frequency Control Element

thinking sound

Meyer Sound's 900-LFC compact low-frequency control element reproduces low frequencies at high, continuous output levels with extremely low distortion. The 900-LFC offers the same sonic linearity as Meyer Sound's 1100-LFC low-frequency control element in a smaller, lighter cabinet, making it ideal for building



scalable systems to suit touring applications or fixed installations of any size.

A newly-designed class D amplifier affords unprecedented efficiency to the 900-LFC, significantly lowering distortion while reducing power consumption and operating temperature. The onboard amplifier and control circuitry are contained in a single, field-replaceable module. In addition to pairing with LEOPARD[™] systems, the 900-LFC integrates easily with other Meyer Sound loudspeaker systems, including LEO-M[™], LYON[™], and ULTRA Series loudspeakers.

LEOPARD and 900-LFC can be driven by Meyer Sound's Galileo Callisto™ 616 array processor,

> which provides matrix routing, alignment, and processing for array components. To guarantee optimum performance, systems with the 900-LFC should be designed with Meyer Sound's MAPP™ software. LEOPARD and 900-LFC loudspeakers work with Meyer Sound's RMS™ remote monitoring system, which provides comprehensive monitoring of system parameters from a Mac[®] or Windows[®]-based computer.

The 900-LFC is available with or without Meyer Sound's QuickFly® rigging. When equipped with the optional MRK-900 rigging kit, the 900-LFC's captive GuideALinks™ allow it to be flown from the MG-LEOPARD/900 multipurpose grid in LEOPARD arrays without a transition frame. 900-LFCs can also be flown separately as a subwoofer array with

variable splay angles from 0 to 5 degrees. The MG-LEOPARD/900 grid can also be used for groundstacks with uptilt or downtilt.

Both versions of the 900-LFC can be transported in stacks with the optional MCF-900 caster frame.



FEATURES & BENEFITS

- Compact cabinet with small footprint and extraordinary power-to-size ratio
- High peak power output with extremely low distortion
- Exceptional linearity, transient reproduction, and low-frequency clarity
- Self-powered for simplified setup and increased reliability
- Stackable and flyable in regular and cardioid arrays, with tilt and splay options
- Integral pole-mount receptacle easily pairs the subwoofer with ULTRA Series loudspeakers

SOLUTIONS

- Scalable low-frequency control for touring applications or fixed installations of any size
- Clubs, theatres, houses of worship, corporate AV, and theme parks
- Low-frequency complement for LEO-M, LYON, and LEOPARD systems

900-LFC ACCESSORIES

MG-LEOPARD/900 MULTIPURPOSE GRID Flies LEOPARDs, 900-LFCs, and mixed arrays. Also supports LEOPARD and 900-LFC groundstack configurations.



MVP MOTOR VEE PLATE Attaches to MG-LEOPARD/900 grid and fine tunes horizontal aim of LEOPARD and 900-LFC arrays.



PBF-LEOPARD PULL-BACK FRAME Provides pull-back for extreme downtilt of flown LEOPARD and 900-LFC arrays, and allows additional downtilt in groundstacked arrays.



MCF-900 CASTER FRAME Safely transports up to two 900-LFCs, making it easy to assemble and disassemble arrays in blocks of two cabinets.



CALLISTO 616 ARRAY PROCESSOR Drives and aligns Meyer Sound array systems with 6 x 16 matrix processing, delay integration, and EQ, using Compass software.



MDM-5000 DISTRIBUTION MODULE Integrates routing of audio, power, and RMS to loudspeaker arrays.



900-LFC SPECIFICATIONS

ACOUSTICAL ¹		NOTES	
Operating Frequency Range ² Phase Response	31 Hz – 125 Hz 40 Hz – 110 Hz ±30 degrees	 Loudspeaker system predictions for coverage and SPL available in Mever Sound's MAPP software. 	
TRANSDUCER		2 Recommended maximum operating	
Low Frequency	One 18-inch dual-coil, long-excursion cone driver	frequency range. Response depends on loading conditions and room acoustics.	
Αυσιο Ι/Ο		3 XLR 5-pin connectors accommodate both balanced audio and DMS signals	
Connectors ³	XLR 3-pin or 5-pin female input with male loop output	balanceu auulo anu Rino signais.	
Amplifier			
Туре	2-channel, open-loop, class D		
AC POWER			
Connectors Safety Rated Voltage Range Turn-on/off Points Max. Long-Term Cont. Current	powerCON 20 input with loop output 100–240 V AC, 50–60 Hz 90 V AC turn–on, no turn–off; internal fuse–protection above 265 V AC 4.9 A rms (115 V AC); 2.5 A rms (230 V AC); 5.2 A rms (100 V AC)		
RMS NETWORK			
	Equipped with 2-conductor, twisted-pair network, reporting all amplifier operating parameters to host computer	900-LFC — 04.246.004.02 C3	
PHYSICAL		Copyright © 2015, 2016 Meyer Sound Laboratories Inc	
Dimensions Dimensions w/Rigging Weight Weight w/Rigging Enclosure Protective Grille Rigging Load Ratings	 27.43 in W x 24.43 in H x 24.89 in D (697 mm x 621 mm x 632 mm) 27.47 in W x 24.43 in H x 24.89 in D (698 mm x 621 mm x 632 mm) 136 ibs (61.7 kg) 159 lbs (72.1 kg) Multi-ply hardwood with black textured finish Hex-stamped steel with acoustical black mesh Endframes with captive GuideALinks (0 to 5-degree splay angles), quick-release pins, and detachable side handles MG-LEOPARD/900 multipurpose grid flies 16 900-LFCs (5:1 safety factor) or 11 900-LFCS (7:1 safety factor), with some restrictions 	All rights reserved MEYER SOUND LABORATORIES INC. 2832 San Pablo Avenue Berkeley, CA 94702 +1 510 486.1166 techsupport@meyersound.com www.meyersound.com	



ARCHITECT SPECIFICATIONS

The loudspeaker shall be a compact, self-powered, linear, low-distortion, low-frequency control element and shall be capable of flown, groundstacked, and cardioid configurations. Its transducer shall be one 18-inch dual-coil, long-excursion cone driver.

The loudspeaker shall incorporate internal processing and a 2-channel, open-loop, class D amplifier. Processing shall include equalization, phase correction, and driver protection. Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 31 Hz to 125 Hz; phase response, 40 Hz - 110 Hz ±30 degrees.

Audio connectors shall be XLR 3-pin, female and

male, accommodating balanced audio, or XLR 5-pin, accommodating both balanced audio and RMS.

The internal power supply shall perform EMI filtering, soft current turn-on, and surge suppression. Power requirements shall be nominal 100, 110, or 230 V AC line current at 50–60 Hz. UL and CE operating voltage range shall be 100–240 V AC at 50–60 Hz. AC power connectors for input and loop output shall be powerCON 20. Maximum long-term continuous current draw shall be 4.9 A rms at 115 V AC, 2.5 A rms at 230 V AC, and 5.2 A rms at 100 V AC. The loudspeaker shall include an RMS remote monitoring system module.

Components shall be mounted in an optimally tuned, vented enclosure constructed of multi-ply hardwood with a black textured finish. Optional rigging for the enclosure shall include endframes with captive GuideALinks for linking units in vertical arrays at splay angles from 0 to 5 degrees. The front protective grille shall be powder-coated, hex-stamped steel with black mesh.

Dimensions shall be 27.43 inches wide x 24.43 inches high x 24.89 inches deep (697 mm x 621 mm x 632 mm). Dimensions with optional rigging shall be 27.47 inches wide x 24.43 inches high x 24.89 inches deep (698 mm x 621 mm x 632 mm). Weight shall be 136 lbs (61.7 kg). Weight with optional rigging shall be 159 lbs (72.1 kg).

The loudspeaker shall be the Meyer Sound 900-LFC.

CINE-STUDIO

AMIE-SUB Compact Cinema Subwoofer



The Amie-Sub compact subwoofer is the perfect complement for Amie Precision Studio monitor. The linear, self-powered Amie-Sub offers outstanding sonic characteristics such as clean, punchy transients and excellent phase coherence with impressive low-frequencies down to 25 Hz in a compact cabinet. The Amie-Sub can be installed in stereo systems and has ample headroom to be used in multichannel LCR, 5.1, and 7.1 systems.

The Amie-Sub includes a single 15-inch lowfrequency, long-excursion cone driver. The driver is housed in an optimally tuned, vented cabinet and powered by a single-channel amplifier. The cabinet's shape provides easy access to all connectors while being placed directly in front of a wall. On-board processing includes driver protection circuitry, low-pass filtering, and correction filters for phase and frequency responses.

The Amie–Sub has been optimized for use with Amie but can also be used with other Meyer Sound cinema loudspeakers, including Acheron Designer screen channel loudspeakers

and the HMS-5, HMS-10, and HMS-12 surround loudspeakers in immersive surround applications.

The Amie-Sub cabinet is constructed of premium birch plywood and coated with a

low-gloss, black-textured finish. A protective hex-stamped grille is standard and an optional grille frame with black cloth is available.

Options include the MUB-Amie-Sub U-bracket for mounting the subwoofer from ceilings.

FEATURES & BENEFITS

- High peak power output with excellent transient reproduction
- Extended low frequency range down to 25 Hz
- Extremely low distortion for exceptional low-frequency clarity
- Flat amplitude and phase responses for tonal accuracy
- Integrates with Amie and Acheron Designer screen channel loudspeakers
- Integrates with HMS-5, HMS-10 and HMS-12 surround loudspeakers

SOLUTIONS

- Small- to medium-sized editing rooms
- Stereo and surround mixing for film and video postproduction
- Broadcast monitoring

PRELIMINARY SPECIFICATIONS

ACOUSTICAL		NOTES
Operating Frequency Range ¹ Frequency Response ² Phase Response TRANSDUCER	22 Hz – 160 Hz 25 Hz – 145 Hz ±4 dB 33 Hz – 145 Hz ±30 degrees	 Recommended maximum operating frequency range. Response depends o loading conditions and room acoustics Free field, measured with 1/3-octave frequency recolution at 4 meters.
Low Frequency	One 15-inch long-excursion cone driver	frequency resolution at 4 meters.
AUDIO INPUT		
Connectors Input Impedance Nominal Input Sensitivity	XLR 3-pin female input with XLR 3-pin male loop output 10 ko differential between pins 2 and 3 6.0 dBV (2.0 V rms) continuous average is typically the onset of limiting for noise and music	Amie-Sub 04.251.004.01 A Copyright © 2016 Meyer Sound Laboratories Inc.
AMPLIFIER		All rights reserved
Type Load Cooling	Single channel 3 ohms Convection	MEYER SOUND LABORATORIES INC. 2832 San Pablo Avenue Berkeley, CA 94702
AC POWER		+1 510 486.1166
Connectors Voltage Selection Safety Rated Voltage Range	powerCON 20 inlet (with loop outlet to feed Amie loudspeakers) Automatic, continuous range from 90 V AC to 265 V AC 100–240 V AC, 50–60 Hz	techsupport@meyersound.com www.meyersound.com
PHYSICAL		
Dimensions	24.00 inches W x 17.5 inches H x 19.00 inches D (609 mm x 444 mm x 482 mm)	
Weight	74 lbs (33.5 kg)	
Enclosure Mounting	Premium birch plywood with low-gloss, textured black finish Side nut-plates with 3/8" threads for optional MUB-Amie-Sub U-bracket	

MM-10[™] Miniature Subwoofer





The MM-10 miniature subwoofer delivers expanded low frequency for applications that require excellent audio quality from a compact system. Designed primarily as a companion to Meyer Sound's MM-4XP miniature loudspeaker, as well as the UP-4XP ultracompact loudspeaker, both with IntelligentDC technology, the MM-10 allows system designers to create full-range systems where space limitations are a concern.

The MM-10 features an operating frequency range of 33 Hz to 228 Hz with a conservatively rated maximum peak SPL of 123 dB. The MM-10 bass reflex cabinet houses a single 10-inch driver and a single-channel power amplifier complete with onboard processing, including a crossover, driver protection, and frequency and phase correction. The builtin crossover accepts full-range signals, facilitating basic daisy-chaining for signal distribution, eliminating the need for external crossovers in small setups.

The MM-10 subwoofer is available from the factory in three models — the MM-10XP, with IntelligentDC technology, MM-10AC, and MM-10ACX — each offering different internal configurations and audio and power connectors (which cannot be upgraded).

The MM-10XP model is powered by an external power supply, eliminating the need for wiring conduits while still preserving the

advantages of self-powered loudspeaker systems. The unit's onboard amplifier and signal-processing circuits were designed to store DC power and tolerate voltage drops, thereby accommodating light-gauge cables and lengthy cable runs. The MM-10XP is available with either a Phoenix[™] 5-pin male or sealed SwitchCraft[®] EN3[™] male connector for receiving balanced audio and DC power. The EN3 connector is ideal for outdoor, allweather use.

MM-10XPs require an external MPS-488HP IntelligentDC power supply. The single-space 19-inch rack unit receives balanced audio from its XLR female inputs and routes the audio, along with DC power, to its channel outputs. The channel outputs - equipped with either Phoenix 5-pin male connectors or EN3 5-pin female connectors - can deliver DC power to up to eight MM-10XP subwoofers at cable lengths of up to 150 feet with just 1 dB of loss in peak SPL using 18 AWG wire. The use of composite multiconductor cables (such as Belden® 1502) allows a single cable to carry both DC power and balanced audio to the MM-10XPs. Longer cable runs are possible for moderate applications that don't drive the subwoofers to maximum output, or for installations with heavier wire gauges.

The **MM-10AC** model is ideal for fixed installations and portable applications where

AC power is readily available to power the unit. The MM-10AC includes an internal power supply and locking powerCon[®] 20 connectors for AC input and AC loop output (for powering additional MM-10AC subwoofers). The MM-10AC receives audio from an XLR female input, and also includes an XLR male loop output for daisy-chaining audio signals.

The MM-10ACX model includes onboard DC power and audio routing for driving a pair of MM-4XP miniature loudspeakers, or a single UP-4XP ultracompact loudspeaker, effectively placing the MM-10ACX at the heart of an extremely capable compact, full-range loudspeaker system. Three XLR female inputs are included for receiving audio independitely for the subwoofer and satellite loudspeakers. The two output connectors for the satellite loudspeakers are available with Phoenix 5-Pin male or EN3 5-pin female connectors. In addition, a two-channel signal can be patched to the satellite inputs and summed and routed to the subwoofer with the input select switch.

Other options for all MM-10 models include the MUB-MM10 U-bracket for mounting the subwoofer on ceilings and walls; weather protection, complete with rain hoods, for outdoor, all-weather use; and custom color finishes for installations and applications with specific cosmetic requirements.

FEATURES & BENEFITS

- Powerful low-frequency response from a very small cabinet
- Low distortion affords exceptionally clean bass
- Adaptable to complement MM-4XP and UP-4XP loudspeakers
- Versions include external IntelligentDC power supply or built-in AC power for driving satellite loudspeakers

SOLUTIONS

- Background music
- Small theatres
- Portable AV systems
- Compact voice reinforcement systems

The loudspeaker shall be a self-powered, sub-bass system with one 10-inch cone driver (with a 2-inch voice coil) rated to handle 400 watts. The loudspeaker shall incorporate internal processing electronics and a single-channel class D amplifier.

Processing functions shall include equalization, phase correction, signal division, and driver protection. Amplifier output power shall be 220 W (440 W peak). Distortion

MM-10XP

(THD, IM, TIM) shall not exceed 0.02%

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 33 Hz to 228 Hz; phase response, ±45° from 38 Hz to 138 Hz; maximum peak SPL, 123 dB at 1 meter, measured free field. Coverage shall be 360 degrees. Loudspeaker components shall be mounted in a cabinet constructed of multi-ply hardwood with a black textured finish. Its front protective grille shall be hex-stamped steel with black mesh screen.

The loudspeakers shall be the Meyer Sound MM-10XP, MM-10AC, or MM-10ACX.



MM-10AC



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-kOhm impedance and accept a nominal –2.0 dBV (0.8 V rms, 1.1 V peak) input signal. DC blocking and RF filtering shall be provided, and CMRR shall be greater than 50 dB and typically 80 dB (50 Hz to 500 Hz).

The loudspeaker shall be equipped with either a Phoenix 5-pin

Power requirements for the loudspeaker shall be an external Meyer Sound MPS-488HP IntelligentDC power supply capable of delivering 48 V DC. Current draw during burst (< 1 sec) shall be 2.5 A rms at 48 V DC; current inrush during turn-on shall not exceed 7.0 A peak at 48 V DC.

Dimensions shall be 19 inches wide x 11 inches high x 12 inches deep (482 mm x 279 mm x 305 mm). Weight shall be 26.7 lbs (12.11 kg).

The loudspeaker shall be the Meyer Sound MM-10XP.

The audio input shall be electronically balanced with a 10-kOhm impedance and accept a nominal -2.0 dBV (0.8 V rms, 1.1 V peak) input signal. Connectors shall be XLR female for input and XLR male for loop output. Dc blocking and RF filtering shall be provided, and CMRR shall be greater than 50 dB and typically 80 dB (50 Hz to 500 Hz).

Power requirements shall be nominal 100 V, 110 V, or 230 V AC line current at 50–60 Hz. UL and CE operating voltage ranges shall be 100 to 240 V AC. AC power connectors shall be powerCon 20 with looping output. Current draw during burst (< 1 sec) shall be 0.9 A rms at 115 V, 0.4 A rms at 230 V AC, and 1.1 A peak at 100 V AC; current inrush during turn-on shall not exceed 4.0 A rms at 115 V AC, 2.4 A rms at 230 V AC, and 4.0 A peak at 100 V AC.

Dimensions shall be 19 inches wide x 11 inches high x 12 inches deep (482 mm x 279 mm x 305 mm). Weight shall be 28.2 lbs (12.79 kg).

The loudspeaker shall be the Meyer Sound MM-10AC

MM-10ACX



The audio input shall be electronically balanced with a 10-kOhm impedance and accept a nominal -2.0 dBV (0.8 V rms, 1.1 V peak) input signal. Three XLR female input connectors shall be provided, one for the subwoofer and two for satellite loudspeakers. DC blocking and RF filtering shall be provided, and CMRR shall be greater than 50 dB and typically 80 dB (50 Hz to 500 Hz). Two output connectors shall be provided for routing balanced audio and 48 V of DC power to the satellite loudspeakers.

Satellite output connectors shall be either Phoenix 5-pin male or EN3 5-pin female (three pins for balanced audio, two pins for DC power). An input select switch shall determine whether the subwoofer receives its source from the subwoofer input or from the satellite inputs (summed). The subwoofer output shall be adjusted with a gain control.

Power requirements shall be nominal 100 V, 110 V, or 230 V AC line current at 50–60 Hz. UL and CE operating voltage range shall be 100 to 240 V AC. AC power connectors shall be powerCon 20 with looping output. Current draw during burst (r 1 sec) shall be 1.1 A rms at 115 V, 0.6 A rms at 230 V AC, and 1.3 A peak at 100 V AC; current inrush during turn-on shall not exceed 6.6 A rms at 115 V AC, 3.7 A rms at 230 V AC, and 7.2 A peak at 100 V AC.

Dimensions shall be 19 inches wide x 11 inches high x 12 inches deep (482 mm x 279 mm x 305 mm). Weight shall be 30.8 lbs (13.97 kg).

The loudspeaker shall be the Meyer Sound MM-10ACX.



MM-10 RIGGING

Top and side nut plates available with 3/8" or M10 threads. The MUB–MM10 U-bracket mounts the MM–10 on walls and ceilings at adjustable angles.





MM-10 SPECIFICATIONS (ALL MODELS)

ACOUSTICAL	
Operating Frequency Range ¹	33 Hz – 228 Hz
Frequency Response ²	35 Hz – 208 Hz ±4 dB
Phase Response	38 Hz – 138 Hz ±45 degrees
Maximum Peak SPL ³	123 dB
Dynamic Range	< 100 dB
COVERAGE	
	360 degrees
TRANSDUCED	Soo degrees
TRANSDUCER	
Type	10-inch cone driver
Nominal Impedance	4 ohms
Voice Coil Size	2 inches
Power Handling	400 W (AES) ⁴
Audio Input	
Туре	Differential, electronically balanced
Maximum Common Mode Range	±5 V DC
Input Impedance	10 kOhms electronically balanced
DC Blocking	4.8 Hz high pass
CMRR	< -60 dB, typically < -72 dB (200 Hz - 3 kHz)
RF Filter	Common mode: 616 kHz
	Differential mode: 616 kHz
Nominal Input Sensitivity	-2.0 dBV (0.8 V rms) continuous 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.
	9.0 V neak) into 600 ohms to produce the maximum neak SPI
	over the operating bandwidth of the loudsneaker
	Class D
Output Power ⁵	220 W
Total Output	
	440 W peak
IND, IM, IIM	
	4 UIIIIS
Cooling	Convection

NOTES

- Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- Free field, measured with 1/3octave frequency resolution at 4 meters.
- Measured with music referred to 1 meter.
 Power handling measured under
- Power handling measured under AES standards: transducer driven continuously for two hours with a band-limited noise signal having a 6 dB peak-average ratio.
- Amplifier wattage rating based on the maximum unclipped burst sine-wave rms voltage the amplifier will produce into the nominal load impedance: 30 V rms (42 V peak) into 4 ohms.

MM-10XP SPECIFICATIONS

Phoenix 5-pin male or EN3 5-pin male
(two pins for DC power, three pins for balanced audio)
Pin 1: DC power negative (–)
Pin 2: DC power positive (+)
Pin 3: Balanced audio shield, chassis/earth
Pin 4: Balanced audio (–)
Pin 5: Balanced audio (+)
Reverses audio input polarity between pins 4 and 5
Displays loudspeaker status
48 V DC
0.16 A rms
0.90 A rms
2.5 A rms
3.0 A peak
< 7.0 A peak
For information and specifications for the Meyer Sound MPS-488HP

MM-10AC SPECIFICATIONS

MM-10AC REAR PANEL	
Audio Connectors	XLR female input with XLR male loop output ⁷ Pin 1: Chassis/earth through 220 kOhms, 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
Input Polarity Switch AC Power Connectors LED	Reverses audio input polarity between pins 2 and 3 powerCon 20 with loop output Displays loudspeaker status
MM-10AC AC POWER	
Voltage Selection Safety Agency Rated Operating Range Turn-on and Turn-off Points ⁸	Automatic 100–240 V AC, 50–60 Hz 90–264 V AC, 50–60 Hz
Current Draw: ⁹ Idle Current Max. Long-Term Continuous Current (>10 sec) Burst Current (<1 sec) Ultimate Short-Term Peak Current Inrush Current	0.13 A rms (115 V AC); 0.13 A rms (230 V AC); 0.14 A rms (100 V AC) 0.40 A rms (115 V AC); 0.25 A rms (230 V AC); 0.46 A rms (100 V AC) 0.9 A rms (115 V AC); 0.4 A rms (230 V AC); 1.1 A rms (100 V AC) 2.0 A peak (115 V AC); 1.4 A peak (230 V AC); 2.3 A peak (100 V AC) 4.0 A peak (115 V AC); 2.4 A peak (230 V AC); 4.0 A peak (100 V AC)

MM-10ACX SPECIFICATIONS

MM-10ACX REAR PANEL	
Subwoofer Audio Connector Input Polarity Switch Input Select Switch ¹⁰ Gain Knob ¹¹ AC Power Connectors Satellite Loudspeaker Connectors ¹² LED	XLR female input Pin 1: Chassis/earth through 220 kOhms, 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 Reverses audio input polarity between pins 2 and 3 (subwoofer only) Determines whether the subwoofer receives it source signal from the subwoofer input or satellite inputs (summed) Adjusts the subwoofer signal from completely attenuated to +10 dB powerCon 20 with loop output Two Noenix 5-pin male or EN3 5-pin female outputs (two pins for DC power, three pins for balanced audio) Displays loudspeaker status
MM-IDACK AC POWER	
Voltage Selection Safety Agency Rated Operating Range Turn-on and Turn-off Points ¹³	Automatic 100–240 V AC, 50–60 Hz 90–264 V AC, 50–60 Hz
Current Draw (Subwoofer Only),14 Idle Current Max. Long-Term Continuous Current (>10 sec) Burst Current (<1 sec) Ultimate Short-Term Peak Current Inrush Current	0.21 A rms (115 V AC); 0.20 A rms (230 V AC); 0.23 A rms (100 V AC) 0.48 A rms (115 V AC); 0.31 A rms (230 V AC); 0.55 A rms (100 V AC) 1.1 A rms (115 V AC); 0.6 A rms (230 V AC); 1.3 A rms (100 V AC) 2.2 A peak (115 V AC); 1.6 A peak (230 V AC); 2.5 A peak (100 V AC) 6.6 A peak (115 V AC); 3.7 A peak (230 V AC); 7.2 A peak (100 V AC)
Current Draw (with Two MM-4XPs). ¹⁵ Idle Current Max. Long-Term Continuous Current (>10 sec) Burst Current (<1 sec) Ultimate Short-Term Peak Current Inrush Current	0.32 A rms (115 V AC); 0.26 A rms (230 V AC); 0.36 A rms (100 V AC) 0.90 A rms (115 V AC); 0.51 A rms (230 V AC); 1.02 A rms (100 V AC) 2.5 A rms (115 V AC); 1.3 A rms (230 V AC); 3.0 A rms (100 V AC) 4.5 A peak (115 V AC); 2.8 A peak (230 V AC); 5.0 A peak (100 V AC) 7.6 A peak (115 V AC); 4.4 A peak (230 V AC); 8.4 A peak (100 V AC)

Notes

- 6. Tolerates voltage drops up to 30% with long cable runs.
- Audio loop output only included on the MM-10AC model.
 No automatic turn-off voltages.
- 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.
 Current draw values for a single
- Current draw values for a single MM-10AC. AC Loop output not used.
 Input Select switch only included on
- 10. Input Select switch only included on the MM-10ACX model.
- 11. Gain knob only included on the MM-10ACX model.
- Satellite loudspeaker connectors only included on the MM-10ACX model.
 No automatic turn-off voltages. Voltages above 265 V AC are fuse
- 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.
- intermittent operation. 14. Current draw values for one MM-10ACX with no satellite loudspeakers connected. AC Loop output not used.
- Current draw values for one MM-10ACX with two MM-4XP satellite loudspeakers connected. AC Loop output not used.

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