

PSX

Compact 15" Self-powered Subwoofer

Preliminary Information

Features

- Compact subwoofer power plant with onboard drive for XD12, XD15 and DD6
- Low distortion, high-excursion 15" (380mm)/4" (100mm) voice coil driver
- 136dB peak output capability
- Onboard DSP, networking and Class D amplification (1400W sub + 1000W full-range)
- Switched-mode power supply with Power Factor Correction and global mains operation
- Tour-grade plywood enclosure with integral pole mount fitting
- Wheelboard and rain cowl options

Applications

- Portable live sound for 100-500 people
- Smaller-scale theatre productions
- Corporate AV events
- Meeting halls and HoW



The PSX is a companion self-powered subwoofer for the DD6, XD12 and XD15 full-range loudspeaker systems. Featuring a powerful 15" (380mm) /4" (100mm) voice coil, long-excursion driver in a very compact reflex-ported enclosure, it houses two channels of Class D amplification — one channel for itself and one channel to power an XD12, an XD15, or up to three DD6's.

The PSX's Class D amplifier section produces a total peak output of 2400W, with 1400W allocated to the 15" subwoofer and 1000W to drive the associated full-range system. Its lightweight, switched-mode power supply auto-ranges to global mains voltages from 100 to 240V 50/60Hz, and Power Factor Correction smoothes out the mains current draw over the whole of the AC waveform. The operating range of the PSX is 48Hz to 150Hz, with a peak SPL capability of 136dB at one metre.

Onboard DSP performs delay, crossover and EQ functions, while the PSX plus full-range system can be controlled and monitored from a laptop or wireless tablet PC via intuitive VU-NET™ proprietary software. PC connection can be made directly via micro USB, or via Martin Audio's proprietary U-NET™ network and Merlin loudspeaker and network management system.

An important feature of the PSX is its internal memory, which allows factory 'plug-and-play' or user-generated DSP preset 'snapshots' of the PSX/full-range combination to be recalled by means of a preset selector button on the rear panel, instead of using computer control.

The PSX's tour-grade plywood enclosure is coated in hard-wearing polyurethane and its Declon® backed steel grille is pre-curved to resist deformation in the field. Practical features include a pole-mount fitting in the top surface, bar handles and protective skids. When stacked, the skids on the base of the upper PSX enclosure align with recesses in the top of the enclosure below.

Options included a wheelboard for ease of transportation and a transit cover. For outdoor use, an optional rain cowl is available to protect the amplifier section from rain and direct sun.

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Technical Specifications

Acoustical

TYPE	Compact, self-powered 15" reflex loaded subwoofer
FREQUENCY RESPONSE (1)	48Hz-150Hz ± 3dB -10dB @ 40Hz
MAXIMUM SPL (3)	133dB continuous, 136dB peak
Driver	1 x 15" (380mm)/4" (100mm) voice coil, ultra-long excursion, high efficiency ferrite magnet
Rated Power (2)	800W AES, 3200W peak
Dispersion	Omnidirectional
Audio Input	
CONNECTORS	Female XLR input, male XLR link output
ANALOGUE INPUT IMPEDANCE	20kΩ balanced to ground
MAXIMUM ANALOGUE INPUT LEVEL	6.15Vrms (+18dBu), over voltage protected
AES/EBU IMPEDANCE	110 ohms balanced, receive and transmit termination
Internal Processing	Multi-channel DSP, programmable via network Up to 1 second of delay Sub output: up to 48dB/Oct LPF 8 PEQ/shelving filters Satellite output: up to 48dB/Oct HPF 8 PEQ/shelving filters Preset selection via rear panel switch

Network

CONNECTORS	IP68 rated 8-way, quick-release type
PROTOCOL	U-NET
PC CONNECTION	Micro USB or via U-NET and Merlin controller

Amplifier Module

TYPE	2 channel switched-mode, class D
PEAK OUTPUT POWER	2400W total 1400W PSX subwoofer 1000W full-range satellite system
CONNECTOR	1 x NL4 output to satellite system
AVERAGE EFFICIENCY	85%
COOLING	Internal fan Temperature controlled external fan
MAXIMUM AMBIENT TEMPERATURE	45°C (113°F) for full output

Power Supply

TYPE	Switch mode, fixed frequency with PFC
AC INPUT OPERATING RANGE	100 – 240V ~ AC, 50 - 60Hz

POWER FACTOR	> 0.95
NOMINAL POWER CONSUMPTION	200W
MAINS CONNECTOR	Neutrik® Powercon True1

General

ENCLOSURE	Extensively braced multi-laminate birch-ply
FINISH	Textured black PU coating
PROTECTIVE GRILLE	Black HEX perforated steel, Declon® backed
FITTINGS	Two skids on base, with mating channels on top M20 top-mounted thread plate for pole Large bar handle on each side Two front-mounted latch plates for wheelboard Optional weather protection cowl

IP Rating

Indoor (without weather protection cowl)	IP 25 (with weather protection cowl)
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DIMENSIONS

(W) 500mm x (H) 565mm x (D) 574mm (674mm with vent flap open)

WEIGHT

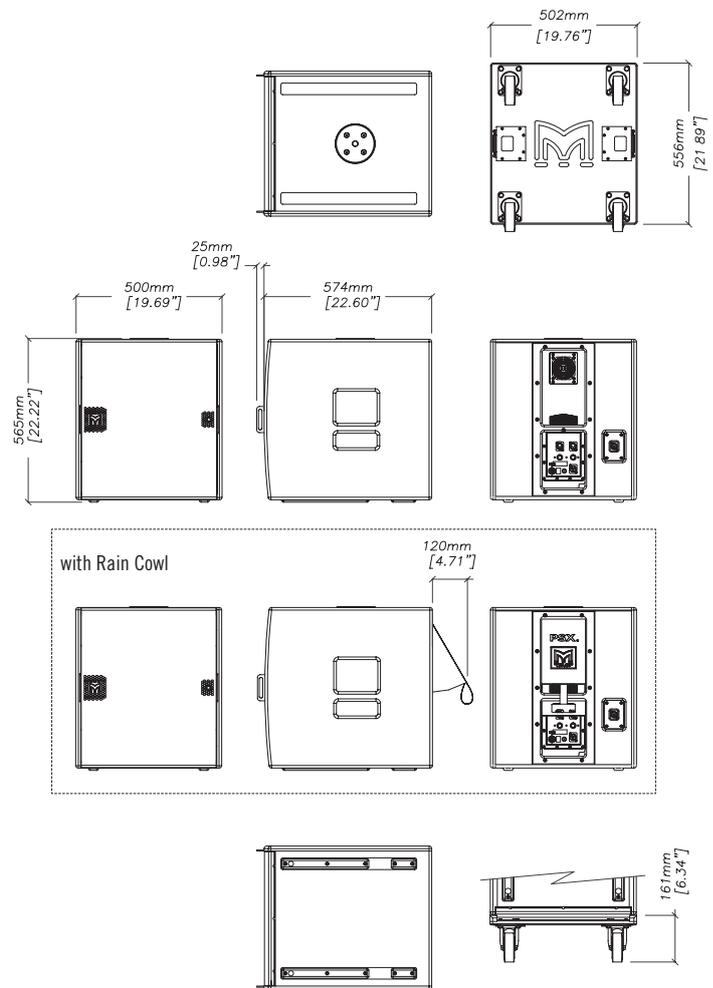
48.2kg (106.2 lbs)

Accessories

56.7kg (124.9 lbs) inc wheelboard
Variable height pole mount
Transit cover with integral plywood lid
Wheelboard with 4 x 100mm castors
Tour-grade network interconnects
Merlin Controller/U-NET Hub

Notes

- Measured on-axis on ground plane (2r space) at 2 metres, then referred to 1 metre.
- AES Standard ANSI S4.26-1984.
- Calculated in half-space at 1 metre.



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