

# MSW-2

UltraSeries™  
Subwoofer

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## Features

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High power

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Extremely low distortion

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Long-term reliability

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Rugged and arrayable

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Compact and easily handled

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## Applications

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Road use or installations

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Sound reinforcement

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Concert, film, and theater

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Live music clubs

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Music playback systems

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Bass instrument amplification

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Inches

The compact, high-power MSW-2 extends the frequency range and power bandwidth of Meyer Sound reinforcement systems to 35 Hz. Arrayable and rugged, the subwoofer consists of one 18-inch cone driver capable of long excursion with extremely low distortion, housed in a heavily braced 2.3 cubic foot vented enclosure of multiple-ply hardwood.

Fitted with handles, the roadworthy cabinet has a durable textured finish and, optionally, aircraft-style rigging pan fittings for ease of installation.

The MSW-2 requires a professional quality power amplifier capable of delivering up to 400 watts into 8 ohms, with a signal voltage gain of 20 dB (minimum) to 30 dB (maximum).



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# MSW-2 Specifications

## Acoustical – MSW-2/B-2EX System

Frequency Response <sup>1</sup>	35 to 110 Hz $\pm$ 4 dB
Maximum SPL <sup>2</sup>	
Continuous	125 dB
Peak	130 dB
Acoustical Crossover Frequency	100 Hz

## MSW-2 Loudspeaker

Transducers	(1) MS-18 18-inch cone, 8 ohms nominal impedance
Enclosure	2.3 cu. ft. vented, multi-ply Finnish birch
Finish	Black textured, weather protected (optional)
Protective Grill	Perforated steel screen, charcoal-grey foam covering
Connector	EP-4 male, EP-5 male (Europe only)
Rigging (optional)	Aircraft pan fittings or $\frac{3}{8}$ " - 16 or M-10 nut plates
Physical Dimensions	21 $\frac{1}{4}$ " W x 24 $\frac{1}{4}$ " H x 20 $\frac{1}{4}$ " D with grill frame and foam
Weight	66 lbs. (30 kg)

## B-2EX Control Electronics Unit

Input Type	Balanced (active), 47k ohms
Output Type	Active push-pull, will drive 600 ohms
Maximum Input/Output Level	
Balanced	+26 dBu
Unbalanced	+20 dBu
Hum and Noise <sup>3</sup>	-90 dBV
Dynamic Range	>110 dB
Sense Input	10k ohms true differential, opto-isolated
Driver Protection Circuitry	RMS limiter, switchable excursion limiter
Indicators	
Limit	Red LED
Excursion	Red LED
Sense	Green LED
Safe	Green LED
Power	Green LED
Controls	
Front Panel	Input level control, AC on/off switch
Preset Panel	Safe switch, Crossover Bypass switch
Connectors	
Balanced Inputs/Output	3-pin XLR (A-3)
Sense Inputs	Banana jacks
Power	120/240V AC, 50/60 Hz (rear-panel switchable)
Physical Dimensions	19" W x 1 $\frac{3}{4}$ " H x 7 $\frac{3}{4}$ " D
Weight	8 lbs. (3.25 kg)

**Note 1:**  
Measured 1 meter on-axis, half-space conditions, pink noise input, in third-octave bands.

**Note 2:**  
Loudspeaker driven by power amplifier rated at 400 W into 8 ohms, weighted noise signal source.

**Note 3:**  
"A"-weighted, unbalanced.

## The B-2EX Control Electronics Unit



The MSW-2 operates as a system with the B-2EX Control Electronics Unit (one per channel). Optimized for use with Meyer Sound subwoofers, and pre-aligned at the factory, the B-2EX contains frequency response and phase response alignment circuitry, and Meyer Sound's exclusive SpeakerSense™ driver protection circuitry, incorporating RMS signal limiting and switchable excursion limiting.

A single-channel device operating at line level, the B-2EX is intended to be the final component in the signal chain before the power amplifier. It is connected in parallel with the input to the system being supplemented by the MSW-2, and incorporates a summing input for deriving a mono subwoofer signal from a stereo program.

The factory-calibrated SpeakerSense circuitry protects the MSW-2 loudspeaker components from damage due to overheating under high power conditions. This unique circuit continuously monitors the power applied to the MSW-2 drivers, and limits the B-2EX output when the safe operating limits of the drivers are exceeded. Until the onset of overload, the SpeakerSense circuitry has no effect on the B-2EX output signal.

Included in the SpeakerSense circuit is a Safe switch, which moves the limit point downward from the factory setting and engages the excursion limiter. This has the effect of increasing the safety margin of the system, and is intended to be used when extended periods of overload are anticipated. In addition to these features, the B-2EX incorporates a Crossover switch which engages/disengages the lowpass rolloff of the subwoofer output. This feature may be used whenever it is desirable to operate the MSW-2 full-range as, for example, in instrument amplification.

The setup controls are located behind a cover plate on the B-2EX front panel, providing a means for securing the system installer's presets.

The low frequency speaker system shall consist of one 18" low frequency loud-speaker front-mounted in a heavily braced hardwood-plywood bass-reflex direct-radiating enclosure, and a separate Control Electronics Unit.

The Control Electronics Unit shall contain a power supply capable of operating from a 120/240V AC, 50/60 Hz line, a level control, an active crossover set at 95 Hz, an RMS limiter for speaker protection, a switchable excursion limiter, and two active balanced summing inputs. The Control Electronics Unit shall meet the following criteria: total harmonic distortion less than .1%; "A"-weighted noise level 110dB below rated output of +26 dBu.

The speaker system, its companion Control Electronics Unit, and a power amplifier rated at 400 watts into 8 ohms shall meet the following criteria: pressure sensitivity, 96 dB SPL measured with

1 watt of pink noise, one meter on axis; frequency response, 35 Hz to 110 Hz plus or minus 4 dB measured with 1/3 octave pink noise, one meter on axis; output of 125 dB SPL one meter on axis with peaks of 130 dB SPL when driven with weighted noise. Total harmonic distortion shall be less than 3% at 120 dB SPL one meter on axis at 60 Hz.

Speaker enclosure dimensions are 21 1/4" W x 24 1/4" H x 20 1/4" D with grill frame and foam, weight 66 lbs (30 kg).

Control Electronics Unit dimensions are 19" W x 1 3/4" H x 7 3/4" D, weight 8 lbs (3.6 kg).

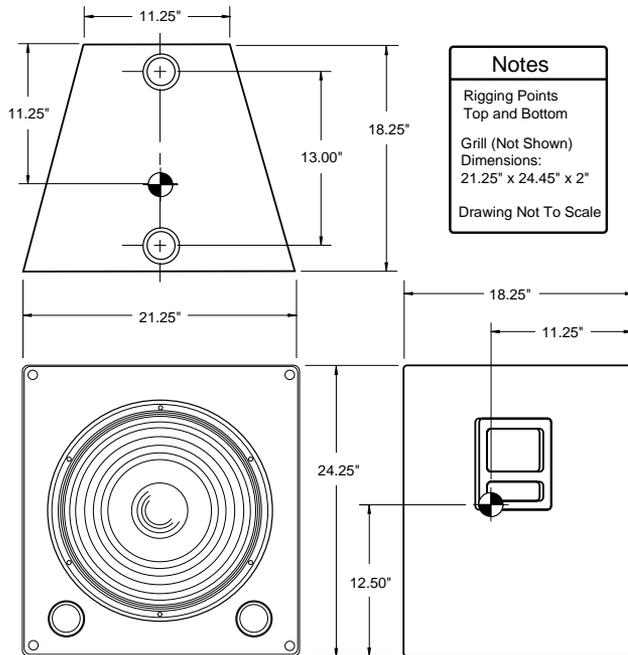
The speaker system shall be the Meyer Sound MSW-2.

The Control Electronics Unit shall be the Meyer Sound B-2EX.

*Meyer Sound Laboratories has devoted itself to designing, manufacturing, and refining components that deliver superb sonic reproduction. Every part of every component is designed and built to exacting specifications and undergoes rigorous, comprehensive testing in the laboratories.*

*Research remains an integral, driving force behind all production. Meyer strives for sound quality that is predictable and neutral over an extended lifetime and across an extended range.*

## Physical Dimensions



**Sound  
engineering  
for the art  
and science  
of sound.**