SPECIFICATIONS SP™ 218



Frequency response, 1 meter on-axis, swept-sine in anechoic environment:
51 Hz to 300 Hz (±3 dB)

Usable low frequency limit (-10 dB point):
40 Hz

Power handling:
1,200 watts continuous
2,400 watts program
4,800 watts peak

Sound pressure level, 1 watt, 1 meter in anechoic environment:
99.0 dB SPL
(2.00 V parallel input)

Maximum sound pressure level (1 meter):
130 dB SPL continuous
136 dB SPL peak

Radiation angle measured at -6 dB point of polar response:
Essentially omnidirectional

Transducer complement:
2 x 18" woofer, vented
Pro Rider® 1808-8 ALCP

Box tuning frequency:
36 Hz

Minimum recommended active crossover frequency and slope for bi-amping:
90 Hz at 18 dB/octave
High pass filter 35 to 40 Hz at
12 to 24 dB/octave is recommended

Impedance (Z):
Parallel input:
nominal 4.0 Ω
minimum: 3.3 Ω

Dual-woofer input:
nominal 2 x 8.0 Ω
minimum: 2 x 6.6 Ω

Input connections:
One four-pin Neutrik® Speakon® non-switching jack
One four-pin Neutrik Speakon switching jack
Two 1/4" jacks

Enclosure materials & finish:
Aspen hardwood plywood with internal bracing finished in Hammertex™ covering

Dimensions (H x W x D):
Width: 21.55" / 547 mm
Depth: 29.88" / 759 mm
Height: 50.21 " / 1275 mm

Net Weight:
147 lbs. (66.7 kg)

Features
This loudspeaker system delivers high output, low distortion bass from two 18" Pro Rider woofers mounted in a vented enclosure. This unit is designed for portability. The enclosure is constructed of aspen hardwood plywood augmented with dual-layered top and bottom panels covered with heavy-duty, textured black Hammertex™ and reinforced with high-impact plastic corners. A full-length, wrap-around perforated steel grille protects the front of the enclosure. Casters are mounted to assist in portability. A pole mount is also included for support of a high-pass enclosure.

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Description

The SP 218 is a subwoofer designed enhance the low-end tin SP Series or other full-range speaker systems. Other uses include bass guitar, keyboard and drum monitoring.

The enclosure is constructed of aspen hardwood plywood with internal bracing covered in a heavy-duty, textured Hammertex™ covering.

A powder-coated, perforated steel grille covers the front of the enclosure. Recessed steel handles on either side provide portability. A pole guide for support of a pole-mounted, high-pass enclosure is provided on one side of the SP 218. Rubber feet are provided on the opposite side for horizontal use. Rubber feet and corner casters on the bottom and a corner handle on top make moving the enclosure an easy, one-person operation.

Inputs are at the rear of the enclosure and consist of two 1/4" jacks, one four-pin Neutrik® Speakon® non-switching jack and one Neutrik Speakon switching jack. The enclosure input is configurable, with the default being 4 ohms with both drivers in parallel when using the parallel inputs. A dual-woofer 2 x 8 ohm configuration is available through the switching Neutrik jack, which disconnects the 4 ohm inputs and provides separate inputs to the woofers when used. This ingenious input design provides maximum flexibility for single- or dual-amplifier operation, without having to manually rewire the enclosure.

This low frequency enclosure is comprised of two 18" Pro Rider® subwoofer drivers in a vented alignment. The Pro Rider driver delivers superior performance due to its advanced cooling system, large 4" voice coil with edge-wound aluminum wire and Kevlar® composite cone. This design provides strong bass extension and high power handling to complement a full-range sound system.

As the SP 218 does not include a passive subwoofer crossover, input should be electronically filtered for subwoofer applications. In addition, for high power operation, a high-pass filter set at 35 to 40 Hz and 12 to 24 dB Butterworth should be used to improve performance and reliability.

Frequency response

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the SP 218 is measured at a distance of 1 meter using a 1 watt (into the nominal impedance) swept-sine input signal in an anechoic environment. As shown in figure 1, the SP 218 produces a smooth frequency response from 51 Hz to 300 Hz.

Power handling

There are many different approaches to power handling ratings. Peavey rates this loudspeaker system's power handling using a modified form of the AES Standard 2-1984. Using 40 Hz to 400 Hz pink noise with peaks of four times the RMS level, this strenuous test signal assures the user that every portion of this system can withstand today's high technology music. This rating is contingent upon having a minimum of 3 dB available amplifier headroom.

Harmonic distortion

Second and third harmonic distortions vs. frequency are plotted in figures 3 and 4 for two power levels, ten percent (10%) of rated input power and either one percent (1%) of rated input power or 1 Watt, whichever is greater. Distortion is read from the graph as the difference between the fundamental signal (frequency response) and the desired harmonic. For example, a distortion curve that is down 40 dB from the fundamental is equivalent to 1% distortion.

Architectural & engineering specifications

The loudspeaker system shall have an operating bandwidth of 51 Hz to 300 Hz. The nominal output level shall be 99 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 4.0 ohms or 2 x 8 ohms, depending on configuration.

The maximum continuous power handling shall be 1,200 watts, maximum program power of 2,400 watts, a peak power input of at least 4,800 watts and a minimum amplifier headroom of 3 dB. The outside dimensions shall be 50.21 inches high by 21.55 inches wide by 29.88 inches deep. The weight shall be 147 lbs. The loudspeaker system shall be a Peavey model SP 218.

3 + 2 Year Limited Warranty

NOTE: For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P.O. Box 2898, Meridian, Mississippi 39301-2898.

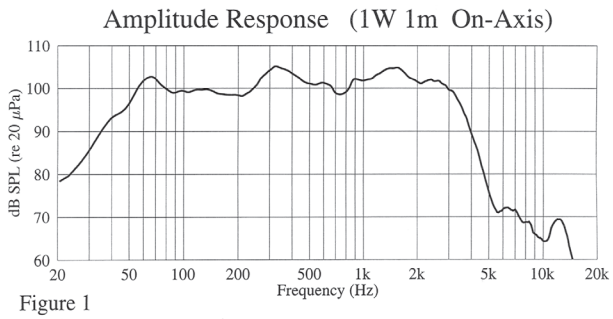


Figure 1

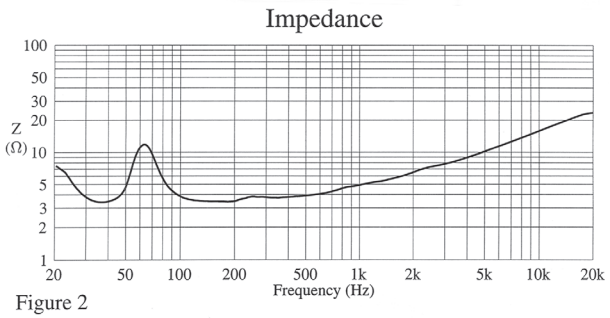


Figure 2

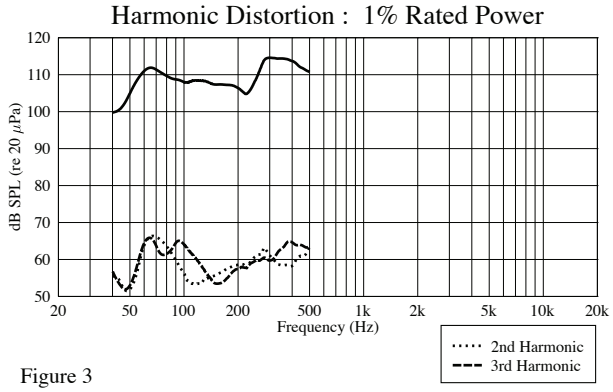


Figure 3

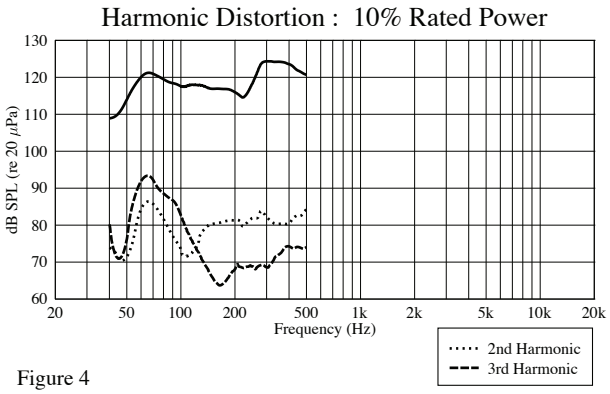
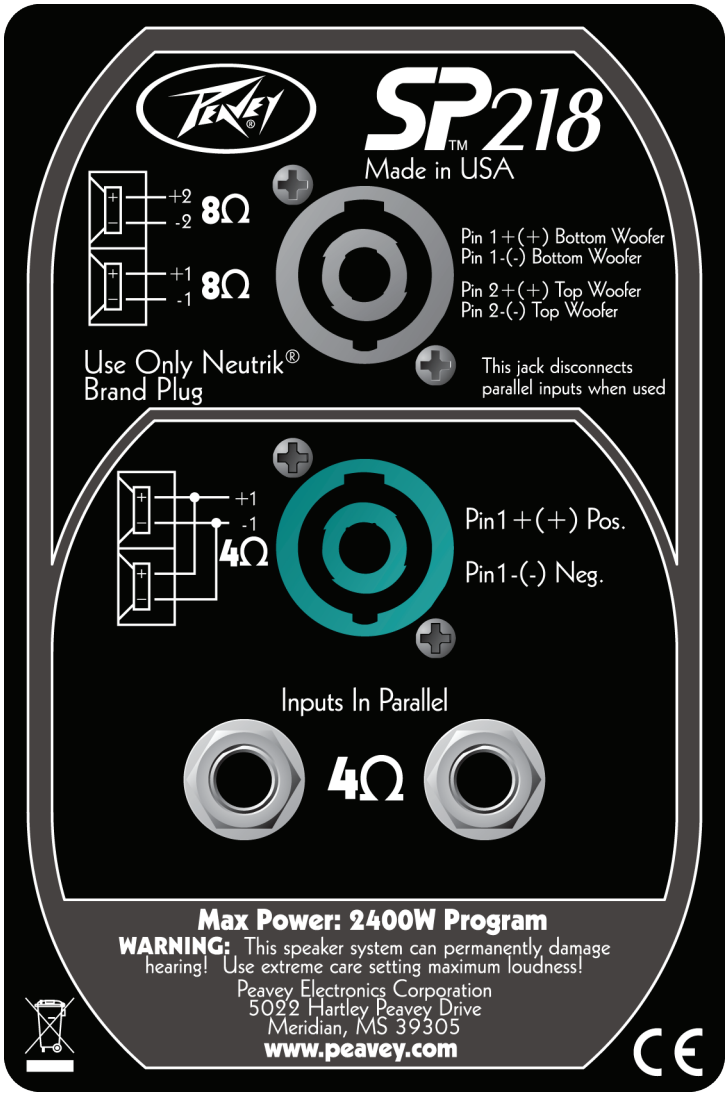


Figure 4

SP 218 Input Plate



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Features and specifications are subject to change without notice.

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