

# SP E A V E Y E L E C T R O N I C S

## SP™ 118X

### 4 Ohms

#### SPECIFICATIONS

Frequency response, 1 meter on-axis, swept-sine in anechoic environment:

50 Hz - 128 Hz ( $\pm 3$  dB)

Usable low frequency limit (-10 dB point):

31 Hz

#### Power handling:

Full Range:

500 W continuous  
1,000 W program  
2,000 W peak

Sound pressure level, 1 Watt, 1 meter in anechoic environment:

Full Range:

98.0 dB SPL, (2.00 V input)

Sub Bass Section:

98.0 dB SPL, (2.00 V input)

Maximum sound pressure level (1 meter):

Full Range:

125.0 dB SPL continuous  
131.0 dB SPL peak

Sub Bass Section:

125.0 dB SPL continuous  
131.0 dB SPL peak

#### Transducer complement:

Low Frequency Section:

1x 18 in., vented  
1808 8 SPS BWX

#### Box tuning frequency:

Low Frequency Section:

39 Hz

#### Harmonic distortion:

1% rated power

2nd Harmonic:

100 Hz: 1.12%  
1 kHz: 0.06%

3rd Harmonic:

100 Hz: 0.33%  
1 kHz: 0.25%



10% rated power

2nd Harmonic:

100 Hz: 3.14%  
1 kHz: 0.07%

3rd Harmonic:

100 Hz: 0.12%  
1 kHz: 0.35%

#### Crossover frequency (internal passive):

Sub Bass - Low Frequency:

125 Hz

High Out - Mid / High Frequency:

125 Hz

#### Impedance (Z):

Full Range:

Nominal: 4.0  $\Omega$   
Minimum: 3.9  $\Omega$

Sub Bass (direct input):

Nominal: 4.0  $\Omega$   
Minimum: 4.4  $\Omega$

#### Input connections:

One 1/4 in. phone jack passive input,  
One 1/4 in. phone jack passive hi out,  
One Neutrik® NL4 direct input

#### Enclosure materials and finish:

3/4" OSB and MDF, finished in carpet

#### Dimensions (H x W x D):

Front:

32.50 in. x 20.75 in. x 29.97 in.  
826 mm x 527 mm x 761 mm

Rear:

32.50 in. x 20.57 in. x 29.97 in.  
826 mm x 522 mm x 761 mm

#### Net weight:

125 lbs. (56.9 kg)

#### Features:

This loudspeaker system delivers high output, low distortion bass from a single 1808-8 SPS BWX woofer mounted in a vented enclosure. A versatile passive crossover is included, which provides a filtered high-pass output and direct input. It is designed for portability and includes handles, metal grille, reinforcing corners, durable carpet finish and rubber feet. A pole mount is included for mounting of a high-pass enclosure.

## Description

The SP 118X 4 Ohm is an add-on subwoofer designed to make it easy to add more low end to the SP X Series or other full-range speaker systems. Other uses include bass guitar and drum monitoring.

The enclosure is constructed of 3/4" high density OSB and MDF, and covered with a heavy-duty black carpet and reinforced with polymer corners. A black metal grille covers the front of the enclosure. Recessed handles on either side provide portability.

This low frequency system consists of an 18" BWX Black Widow® woofer with Kevlar® impregnated cone, mounted in a vented enclosure along with a passive crossover. This design provides strong bass extension and high power handling to complement a full-range sound system.

The SP 118X 4 Ohm includes a passive subwoofer crossover, set at 125 Hz. This crossover supplies both a low-pass output to the 18" woofer in the enclosure, and a high-pass output to a 1/4" panel jack. For biamp / direct input use, a Neutrik® jack is also provided.

## Frequency Response

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of

the SP 118X 4 Ohm is measured at a distance of 1-meter using a 1 Watt (into the nominal impedance) swept-sine input signal. The solid line represents anechoic filtered response; the dotted line is anechoic direct input; and the dashed line shows typical room response through the filtered input. As shown in figure 1, the selected driver in the SP 118X 4 Ohm combines to give a smooth frequency response from 50 Hz - 128 Hz.

The impedance response in Figure 2 shows the impedance curve for filtered response as a solid line, and direct input as a dotted line.

## Power Handling

There are many different approaches to power handling ratings. Peavey rates this loudspeaker system's power handling using a full-range form of the AES Standard 2-1984. Using audio band 20 Hz to 20 kHz 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 of amplifier headroom available.

## Harmonic Distortion

Second and third harmonic distortions vs. frequency are plotted in figures 5 & 6 for two power levels, ten percent (10%) of rated input power and either one percent

(1%) of rated input power or one watt, whichever is greater. Distortion is read from the graph as the difference between the fundamental signal (frequency response) and the desired harmonic. As an example, a distortion curve that is down 40 dB from the fundamental is equivalent to 1% distortion.

## Architectural and Engineering Specifications

The loudspeaker system shall have an operating bandwidth of 50 Hz - 128 Hz. The nominal output level shall be 98.0 dB when measured at a distance of one meter with an input of one Watt. The nominal impedance shall be 4.0 Ohms. The maximum continuous power handling shall be 500 Watts, maximum program power of 1,000 Watts and a peak power input of at least 2,000 Watts, with a minimum amplifier headroom of 3 dB. The outside dimensions shall be 32.50 inches high by 20.75 inches wide by 29.97 inches deep. The weight shall be 125 pounds. The loudspeaker system shall be a Peavey model SP 118X 4 Ohm.

## 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.

## Amplitude Response (1W 1m On-Axis)

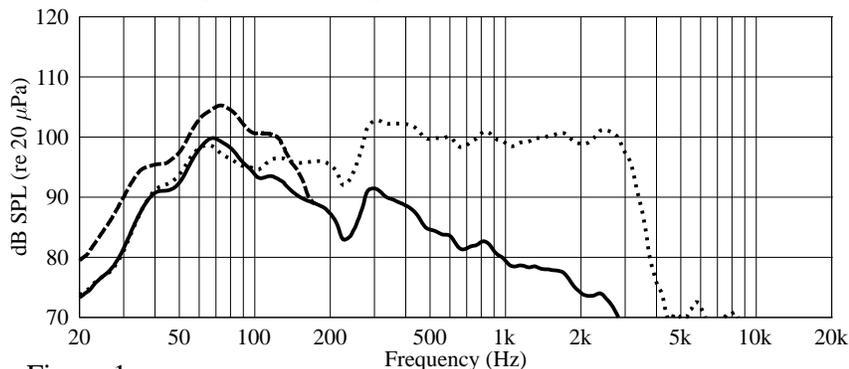


Figure 1

## Impedance

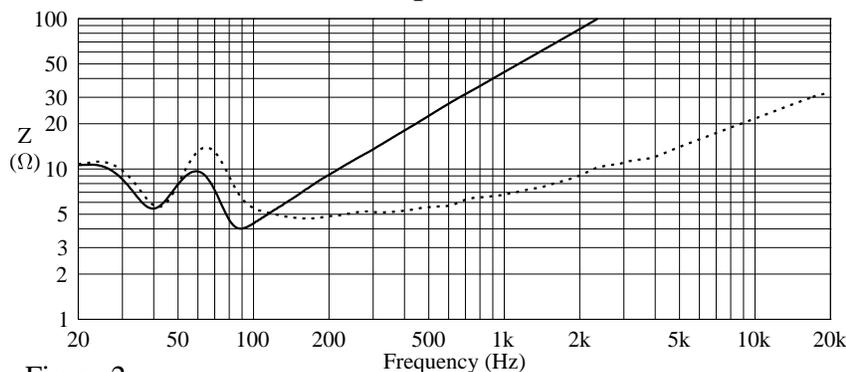


Figure 2

### Harmonic Distortion at 1/100 Rated Power

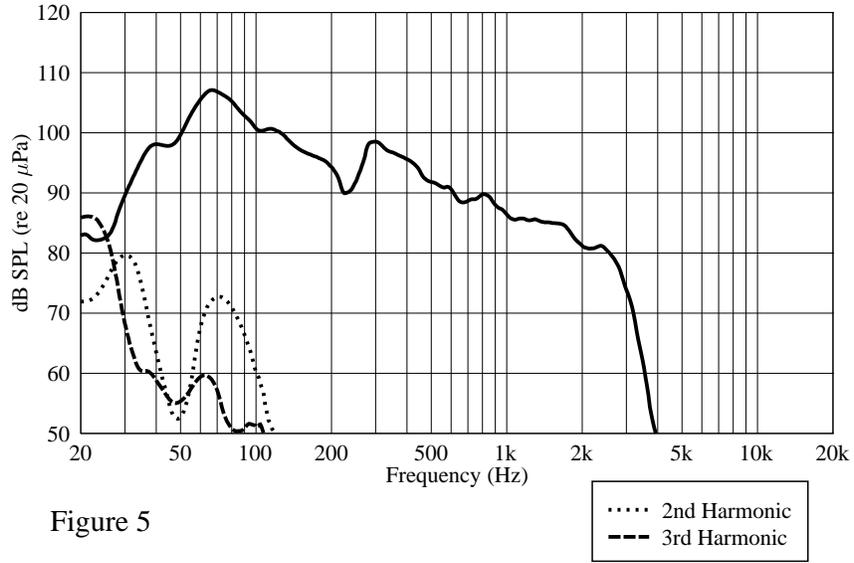


Figure 5

### Harmonic Distortion at 1/10 Rated Power

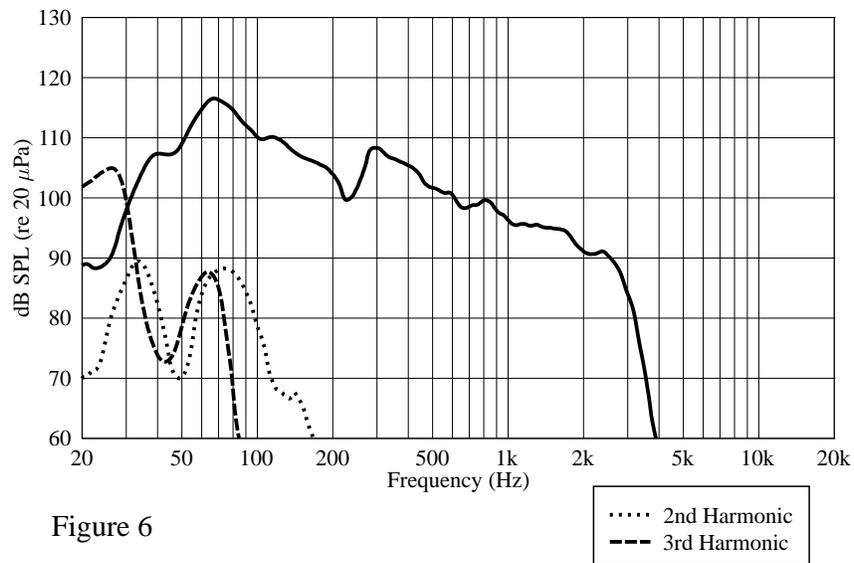


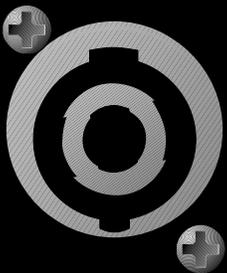
Figure 6

SP™ 118X 4 OHMS INPUT

**SP™ 118X 4 OHM**



UNFILTERED DIRECT INPUT



LOWS  $\left\{ \begin{array}{l} 1+ \\ 1- \end{array} \right.$

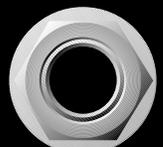
CAUTION: VERIFY WIRING FOR BRIDGED USE.

MAX POWER: 1000 W PROGRAM

WARNING: THIS SPEAKER SYSTEM CAN PERMANENTLY DAMAGE HEARING! USE EXTREME CARE SETTING MAXIMUM LOUDNESS



FULL RANGE INPUT  
4 OHMS



HIGH OUT  
8 OHMS  
150 Hz

126 LBS.  
57.3 kg.



*LISTEN TO THIS™*

Features and specifications subject to change without notice.

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