SPECS

PEAVEY ELECTRONICS

SP™ 7X

SPECIFICATIONS

Frequency response, 1 meter on-axis, swept-sine in anechoic environment:
50 Hz to 19 kHz (±3 dB)

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

Power handling:
Full Range:
1,000 W continuous
2,000 W program
4,000 W peak
Low Frequency Section:
1,000 W continuous
2,000 W program
4,000 W peak
High Frequency Section:
80 W continuous
160 W program
320 W peak

Sound pressure level, 1 Watt, 1 meter in anechoic environment:
Full Range:
99.0 dB SPL, (2.00 V input)
Low Frequency Section:
100.0 dB SPL, (2.00 V input)
High Frequency Section:
110.0 dB SPL, (2.83 V input)

Maximum sound pressure level (1 meter):
Full Range:
129.0 dB SPL continuous
135.0 dB SPL peak
Low Frequency Section:
130.0 dB SPL continuous
136.0 dB SPL peak
High Frequency Section:
129.0 dB SPL continuous
135.0 dB SPL peak

Radiation angle measured at -6 dB point of polar response:
80 degrees horizontal by
40 degrees vertical

Transducer complement:
Low Frequency Section:
2x 15 in. woofer, vented
1508-8 HE BWX
High Frequency Section:
1x 1.6 in. exit/100 mm voice coil compression driver on CD Horn 44XT (w/o adapter) on a CH®7

Box tuning frequency:
Low Frequency Section:
50 Hz

Crossover frequency (internal passive):
Low Frequency - High Frequency:
1,400 Hz

Recommended active crossover frequency region and slope:
Low Frequency - High Frequency:
1,600 Hz at 12 dB/octave

Time offset:

Low Frequency:	delay 0.69 ms
High Frequency:	0.00 ms

Impedance (Z):
Full Range:

Nominal:	4.0 Ω
Minimum:	3.9 Ω

Low Frequency:

Nominal:	4.0 Ω
Minimum:	3.6 Ω

High Frequency:

Nominal:	8.0 Ω
Minimum:	7.1 Ω

Input connections:
2x 1/4 in. phone jack and 1x Neutrik® NL4 Speakon® (bi-amp only)

Enclosure materials and finish:
3/4" OSB finished in black carpet

Mounting provisions:
This unit is not designed for overhead suspension.

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Dimensions (H x W x D):

Front:

49.25 in. x 21.38 in. x 23.00 in.
1251 mm x 543 mm x 584 mm

Rear:

49.25 in. x 14.00 in. x 23.00 in.
1251 mm x 356 mm x 584 mm

Net weight:

139 lbs. (63.2 kg)

Features

- 2,000 W program, 4000 W peak
- SoundGuard™ 44 tweeter protection
- Two 15" BWX Black Widow® 4" VC woofers
- 44XT™ 4" titanium compression driver
- Trapezoidal enclosure design
- Built-in pocket casters for easy transport

Description

The latest version of the SP™ 7 has the new BWX high power Black Widow woofers incorporated, as well as a very nice looking cabinet design. The SP 7X is a quasi three-way speaker system comprised of a pair of 15" Black Widow BWX woofers with Kevlar® impregnated cones, and a 44XT compression driver loaded onto a CH 7 constant directivity horn.

The SP 7X has a trapezoidal shaped enclosure, which reduces the build-up of standing waves inside the enclosure, which minimizes mid-bass and mid-range colorations due to the cabinet. It is constructed of 3/4" OSB and is covered with a durable black carpet. The enclosure corners are reinforced with polymer caps, and a black powder-coated expanded metal grille covers the lower portion of the system to protect the woofers from external damage. Built-in pocket casters on the rear bottom edge ease transport when smooth flooring or paved areas are present.

The quasi three-way system consists of a pair of 15" Black Widow BWX woofers with Kevlar impregnated cones, and a water-resistant treated cone and dust cap for superior environmental stability. Capable of over 500 W of continuous power handling each (AES Std 2-1984), the woofers can handle a lot of sheer power. The high frequencies are handled by a 44XT™ 4" titanium diaphragm compression driver, utilizing ferrofluid cooling, coupled to a CH 7 constant directivity horn. This horn has a smooth, even response with good pattern control. The 44XT driver features the Radialinear Planar Phase Correction System, under US Patent 6,064,745, which provides smoother and extended high frequency response.

Input connection to the system is made via two 1/4" phone jacks in parallel, and a 4-pin Neutrik switching jack is provided for bi-amping flexibility, while maintaining superior signal integrity. The internal passive crossover features Sound Guard 44 tweeter protection circuit, an advanced topology crossover with high performance components, to provide high power handling and reliability. Peavey's proprietary high-frequency driver protection circuitry, Sound Guard, provides long and medium-term driver overload protection when the system is used full-range, or when it is bi-amped, without impairing musical transients or dynamics. The crossover provides driver roll-off and protection, as well as driver EQ for the woofers and horn; the sum total is a clean, clear and smooth response. The lower woofer is rolled off before the mid-range crossover point, so it does not interact adversely with the upper woofer, which operates into the mid-range. High-quality, reliable crossover components include polypropylene capacitors, and linear high current inductors. The optimal integration of the crossover with the selected drivers results in a smooth frequency response from 50 Hz to 19 kHz. A crossover EQ switch is provided to tailor the response in the mid-range, providing a nominally flat frequency response position, and an EQ'd position that pulls the mids back to help keep bright rooms from overloading, or to help achieve a mellower voicing for those applications that prefer it, such as DJ use.

With a double 15" woofer based enclosure and a horn-loaded 2" throat compression driver, this system can put out some very serious sound levels, and take 2,000 Watts program of clean amplifier power, resulting in precise coverage with awesome clarity and high reliability.

Frequency response

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the SP 7X is measured at a distance of 1-meter using a 1 Watt (into the nominal impedance) swept-sine input signal. As shown in figure 1, the selected drivers in the SP 7X combine to give a smooth frequency response from 50 Hz to 19 kHz.

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.

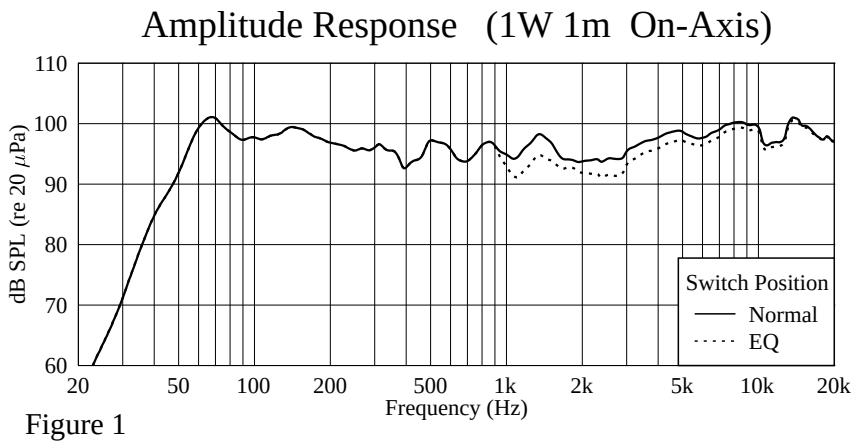


Figure 1

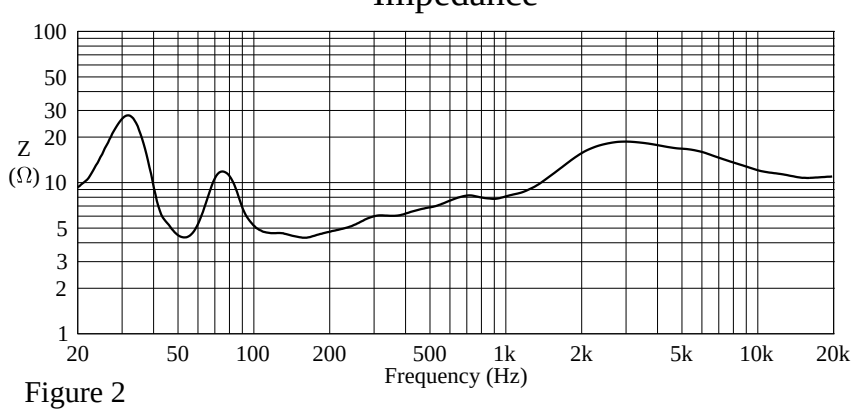


Figure 2

Mounting

⚠ This unit is not designed for overhead suspension.

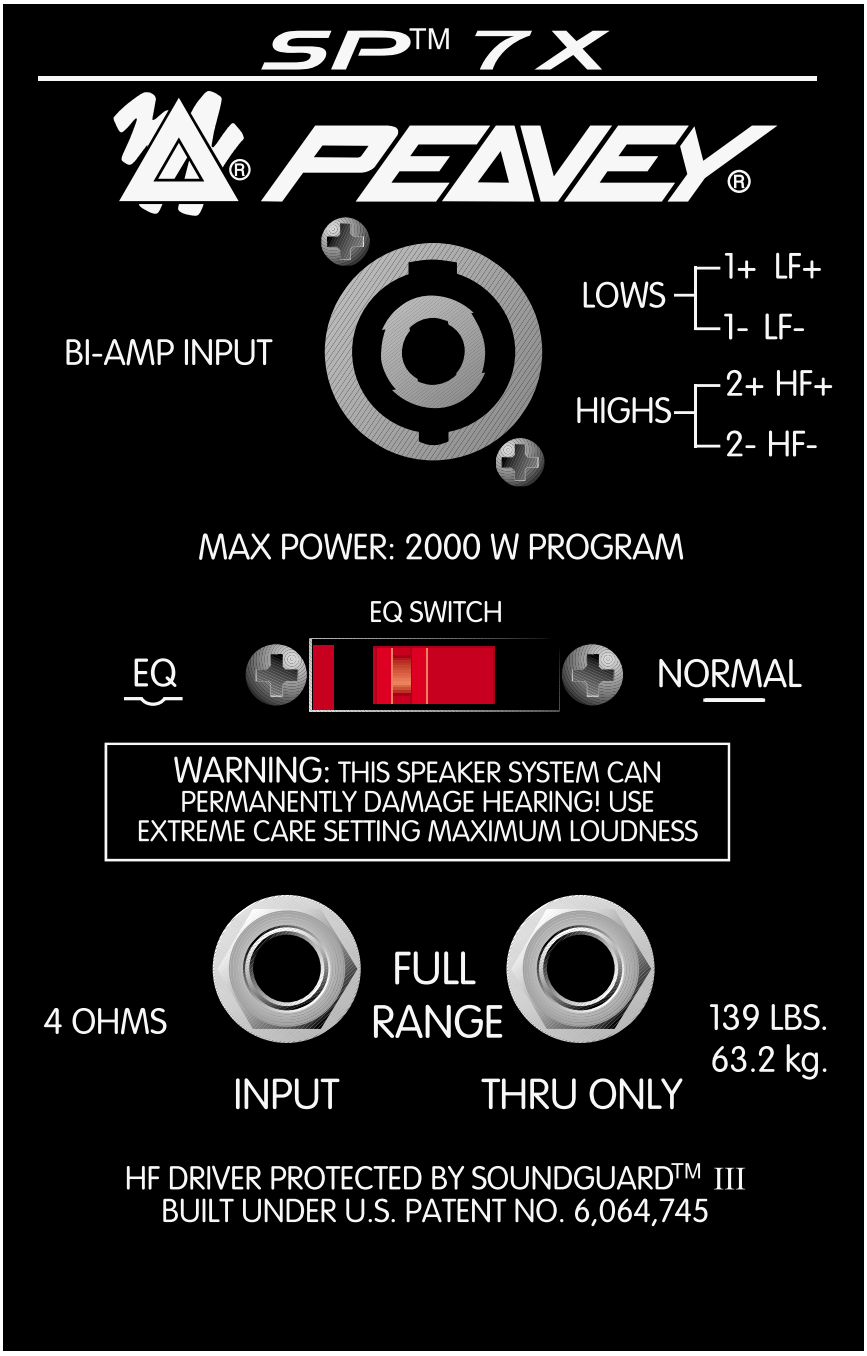
Architectural and engineering specifications

The loudspeaker system shall have an operating bandwidth of 50 Hz to 19 kHz. The nominal output level shall be 99.0 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 1,000 Watts, maximum program power of 2,000 Watts and a peak power input of at least 4,000 Watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 80 degrees in the horizontal plane and 40 degrees in the vertical plane. The outside dimensions shall be 49.25 inches high by 21.38 inches wide by 23.00 inches deep. The weight shall be 139 pounds. The loudspeaker system shall be a Peavey model SP™7X.

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.

SP™ 7X INPUT



Features and specifications subject to change without notice.

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