SPECS

PEAVEY ELECTRONICS

SP™ 3X

SPECIFICATIONS

Frequency response, 1 meter on-axis, swept-sine in anechoic environment:
54 Hz to 17 kHz (±3 dB)

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

Power handling:
Full Range:
500 W continuous
1,000 W program
2,000 W peak
Low Frequency Section:
500 W continuous
1,000 W program
2,000 W peak
Passive Mid/High Frequency Section:
150 W continuous
300 W program
600 W peak

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

Maximum sound pressure level (1 meter):
Full Range:
126.0 dB SPL continuous
132.0 dB SPL peak
Low Frequency Section:
127.0 dB SPL continuous
133.0 dB SPL peak
Passive Mid/High Frequency Section:
120.0 dB SPL continuous
126.0 dB SPL peak

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

Transducer complement:
Low Frequency Section:
1x 15 in. woofer, vented 1508-8 HE BWX
Mid Frequency Section:
1x 6.5 in. professional grade mid-range
High Frequency Section:
1x .875 in. exit/51 mm voice coil compression driver on CD Horn RX™22 on a CH®3 CD Horn

Box tuning frequency:
Low Frequency Section: 58 Hz

Crossover frequency (internal passive):
Low Frequency - Mid Frequency:
800 Hz
Mid Frequency – High Frequency
2,000 Hz

Recommended active crossover frequency region and slope:
Low Frequency – Mid/High Frequency:
750 Hz at 12 dB/octave

Time offset:

Low Frequency:	0.04 ms delay
Mid/High Frequency:	0.0 ms

Impedance (Z):

Full Range:	
Nominal:	8.0 Ω
Minimum:	5.4 Ω
Low Frequency:	
Nominal:	8.0 Ω
Minimum:	6.9 Ω
Passive MF/HF:	
Nominal:	8.0 Ω
Minimum:	6.2 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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SA-1 stand mount adapter built-in, and four large rubber feet on bottom for floor use.

Dimensions (H x W x D):

Front:
33.63 in. x 21.38 in. x 22.88 in.
854 mm x 543 mm x 581 mm

Rear:
33.63 in. x 14.25 in. x 22.88 in.
854 mm x 362 mm x 581 mm

Net weight:

92 lbs. (41.8 kg)

Features

- Three-way full range system
- RX™22 compression driver with ferrofluid cooling
- 6.5" pro mid-range in sealed sub-enclosure
- 15" BWX Black Widow® 4" VC woofer
- 1,000 W program, 2,000 W peak
- Sound Guard™ III tweeter and mid-range protection
- Trapezoidal enclosure
- Stand mount adapter

Description

The latest version of the SP™3 has the new BWX high power Black Widow woofer incorporated, as well as a very nice looking cabinet design. The SP 3X is a three-way speaker system comprised of a 15" Black Widow BWX woofer with a Kevlar® impregnated cone, a 6-1/2" pro mid-range in a sealed sub-enclosure, and an RX 22 compression driver loaded onto a CH®3 constant directivity horn.

The SP 3X 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 half of the system to protect the woofer from external damage. An SA-1 stand mount adapter is built-in for ease of speaker stand use.

The three-way system consists of the following driver components: a 15" Black Widow BWX woofer with a Kevlar impregnated cone, and a water-resistant treated cone and dust cap for superior environmental stability. Capable of over 500 W of continuous power handling (AES Std 2-1984), the woofer can handle a lot of sheer power. The mid-range is carried by a 6-1/2" professional grade direct radiator with a treated cone and surrounded in a sealed sub-enclosure, and it provides high articulation in the vocals. The high frequencies are handled by an RX 22 two-inch titanium diaphragm compression driver utilizing ferrofluid cooling, coupled to a CH 3 constant directivity horn. This horn has a smooth, even response with good high frequency dispersion. The RX22 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 Peavey's exclusive Sound Guard protection circuit for both the tweeter and the mid-range speaker, and an advanced topology crossover with high performance components, to provide high power handling and reliability. Peavey's proprietary 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 on either the mid-range or the tweeter. The crossover provides driver roll-off and protection, as well as driver EQ for the woofer, mid-range and horn, the sum total is a clean, clear and smooth response. High-quality, reliable crossover components include polypropylene capacitors, and high current inductors. The optimal integration of the crossover with the selected drivers results in a smooth frequency response from 54 Hz to 17 kHz. A crossover EQ switch is provided to tailor the response in the mid-range and highs, providing a nominally flat frequency response position, and an EQ position that pulls the mids and highs 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.

Despite its compact dimensions for a 15"-based 3-way enclosure, this system can put out some very serious sound levels, and take 1,000 Watts program of clean amplifier power, resulting in excellent clarity 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 3X 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 3X combine to give a smooth frequency response from 54 Hz to 17 kHz.

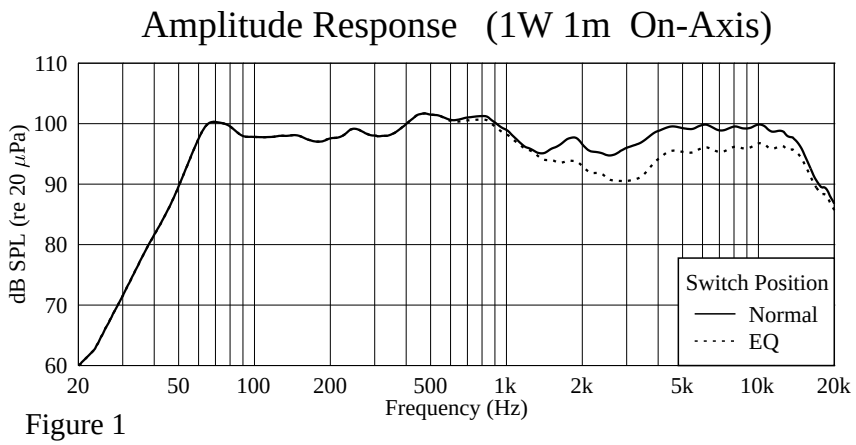


Figure 1

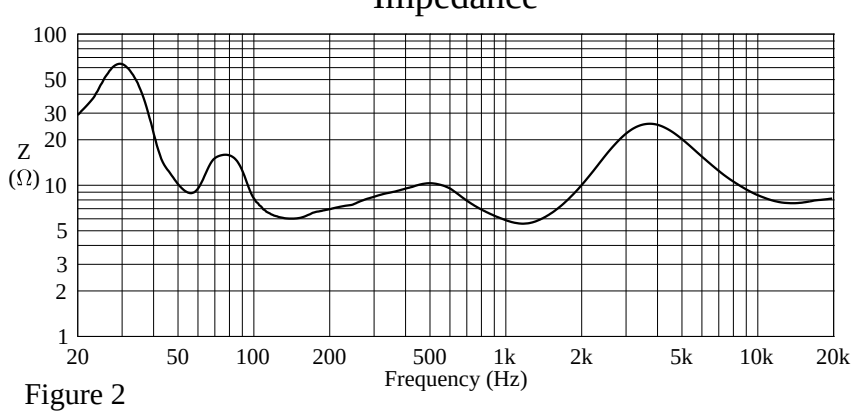


Figure 2

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.

Mounting

⚠ This unit is not designed for overhead suspension. SA-1 stand mount adapter built-in, and four large rubber feet on bottom for floor use.

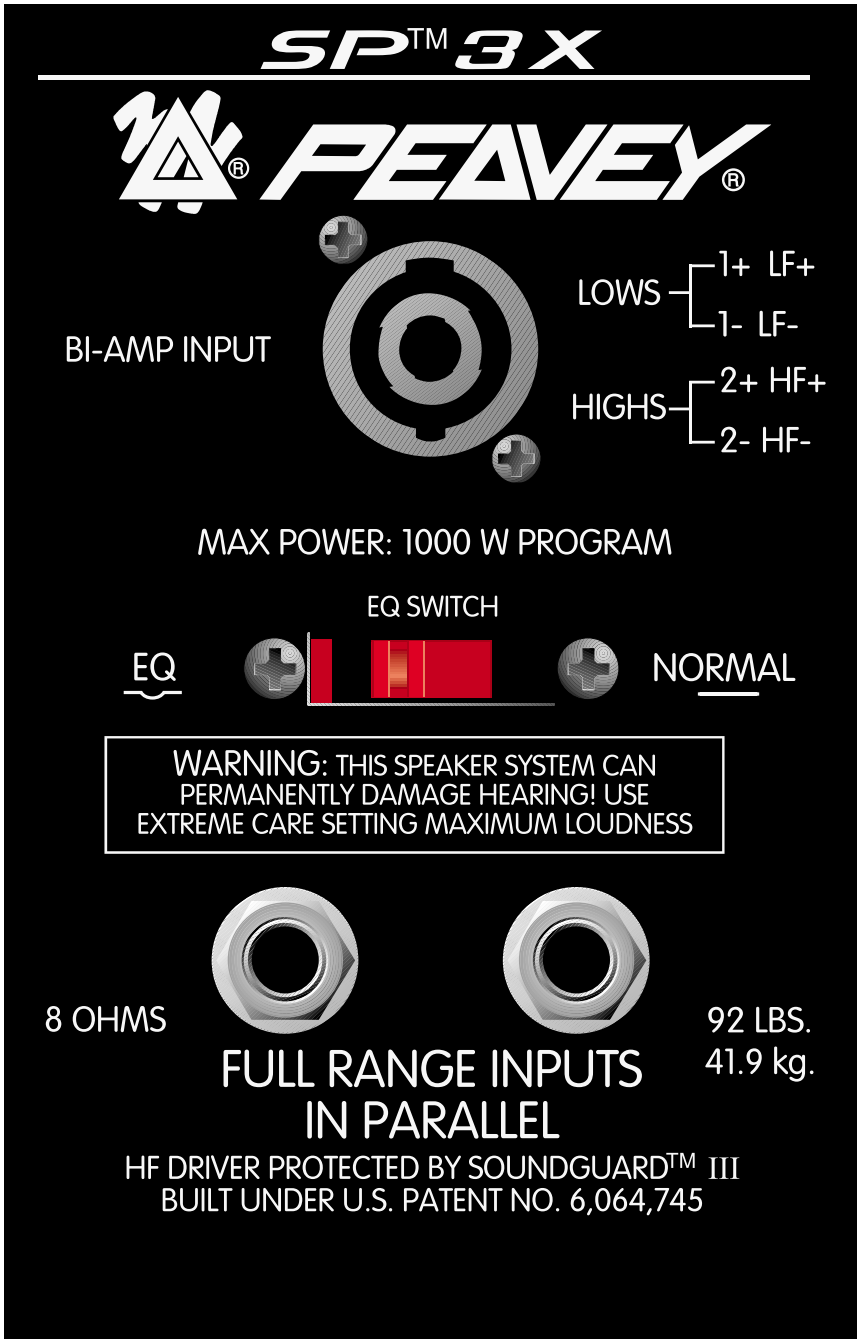
Architectural and Engineering Specifications

The loudspeaker system shall have an operating bandwidth of 54 Hz to 17 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 8.0 Ohms. The maximum continuous power handling 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 nominal radiation geometry shall be 90 degrees in the horizontal plane and 45 degrees in the vertical plane. The outside dimensions shall be 33.63 inches high by 21.38 inches wide by 22.88 inches deep. The weight shall be 92 pounds. The loudspeaker system shall be a Peavey model SP 3X.

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™ 3X INPUT



Features and specifications subject to change without notice.

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