

# SPECIFICATIONS

# SP® 2BX



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

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

Power handling:  
Full range:  
500 watts continuous  
1,000 watts program  
2,000 watts peak

Low frequency section:  
500 watts continuous  
1,000 watts program  
2,000 watts peak

High frequency section:  
50 watts continuous  
100 watts program  
200 watts peak

Sound pressure level, 1 watt,  
1 meter in anechoic environment:  
Full range:  
98 dB SPL (2.83 V input)

Low frequency section:  
99 dB SPL (2.83 V input)  
Mid/high frequency section:  
107 dB SPL (2.83 V input)

Maximum sound pressure level  
(1 meter):

Full range:  
125 dB SPL continuous  
131 dB SPL peak

Low frequency section:  
126 dB SPL continuous  
132 dB SPL peak

High frequency section:  
126 dB SPL continuous  
132 dB SPL peak

Radiation angle measured at  
-6 dB point of polar response:  
90° horizontal by 40° vertical; the  
vertical main polar lobe is angled  
down 10° with respect to straight  
ahead being +10, -30°

Transducer complement:  
Low frequency section:  
1 x 15" woofer, vented  
Black Widow® 1508-8 HE SF

High frequency section:  
1 x 1" exit /51 mm voice coil  
RX™ 22CT compression driver on an  
asymmetrical Quadratic Throat  
CD horn

Box tuning frequency:  
Low frequency section: 55 Hz

Crossover frequency  
(internal passive):  
Low frequency – high frequency  
1,800 Hz

Recommended active crossover  
frequency region and slope:  
Low frequency – high frequency:  
1,800 Hz at 12 dB/octave

Time offset:  
Low frequency: 0.0 ms  
High frequency: 0.48 ms

Impedance (Z):  
Full range:  
Nominal: 8.0  $\Omega$   
Minimum: 8.0  $\Omega$

Low frequency:  
Nominal: 8.0  $\Omega$   
Minimum: 7.9  $\Omega$

Passive HF:  
Nominal: 8.0  $\Omega$   
Minimum: 7.9  $\Omega$

Input connections:  
Full range: two 1/4" phone jacks, one  
four-pin, twist lock connector & one  
Neutrik® NL4 Speakon® (bi-amp only)

Enclosure materials and finish:  
Hardwood panel coated with  
Heavy Duty Polyurea finish.

Mounting provisions:  
This unit is not designed for  
overhead suspension. Built-in  
stand-mount adapter and four large  
rubber feet on bottom for floor use.

Dimensions (H x W x D):  
Front:  
31" x 20.56" x 23.56"  
787 mm x 522 mm x 598 mm

Rear:  
31" x 12.63" x 23.56"  
787 mm x 321 mm x 598 mm

Net Weight:  
88 lbs. (40 kg)



## SPECIFICATIONS

## SP® 2BX

### Features

- Two-way, full-range/bi-ampable Sound Reinforcement system
- RX™ 22CT compression driver with ferrofluid cooling
- 15" BWX Black Widow ® 4" VC woofer
- 1000 watts program, 2000 watts peak
- Patented Quadratic Throat Waveguide™ technology
- Asymmetrical horn aims the sound down 10° (at the audience, not over their heads)
- Sound Guard™ III tweeter protection
- Full-range inputs include one four-pin twist lock connector and two 1/4" phone jacks
- Bi-amp input via four-pin switching Neutrik® Speakon®
- Trapezoidal enclosure
- Stand-mount adapter

### Description

The new SP 2BX features the Peavey Quadratic Throat Waveguide with an RX™ 22CT compression driver loaded onto the constant directivity waveguide. The SP 2BX is a two-way speaker system comprised of the new 15" Black Widow BWX SF series woofer with a heavy duty cone.

The SP 2BX has a trapezoidal-shaped enclosure, which reduces the buildup of standing waves inside the enclosure to minimize mid-bass and mid-range coloration. The enclosure is constructed of a hardwood panel coated with Peavey's heavy-duty polyurea finish for increased durability and ruggedness. A full-length, wrap-around perforated steel grille protects the front of the enclosure. A stand-mount adapter is incorporated to accommodate a speaker stand.

The two-way system consists of a 15" Black Widow BWX SF series woofer with a high strength cone and dust cap. The woofer is capable of over 500 Watts of continuous power handling (AES Std 2-1984). The high frequencies are handled by a 2" RX™ 22CT

titanium diaphragm compression driver utilizing ferrofluid cooling. This superb driver is coupled to a Quadratic Throat Constant Directivity Waveguide (U.S. Patent #6,059,069) to provide smooth, even response, low distortion and good high frequency dispersion. This horn has an asymmetrical vertical polar response, aiming the main energy lobe down 10 degrees so it reaches the audience instead of over their heads. This reduces ceiling reflections and ensures greater clarity and gain before feedback.

Full-range input connection to the system is made via two 1/4" phone jacks and one four-pin twist lock connector in parallel. A four-pin Neutrik switching jack is provided for bi-amping flexibility while maintaining superior signal integrity. The internal passive crossover features the Peavey-exclusive Sound Guard protection circuit for the tweeter and an advanced topology crossover with high-performance components to provide high power handling and reliability. Sound Guard provides long- and medium-term driver overload protection without impairing musical transients or dynamics on either the mid-range or the tweeter when the system is used full range or when it is bi-amped. The crossover provides driver roll-off and protection as well as driver EQ for the woofer and horn for 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.

Despite its compact dimensions, this system can produce very high sound levels and handle 1000 watts program power, resulting in high articulation and long-term reliability.

### Mounting

This unit is not designed for overhead suspension. The stand-mount adapter may be incorporated, and four large rubber feet are included on the bottom for floor use.

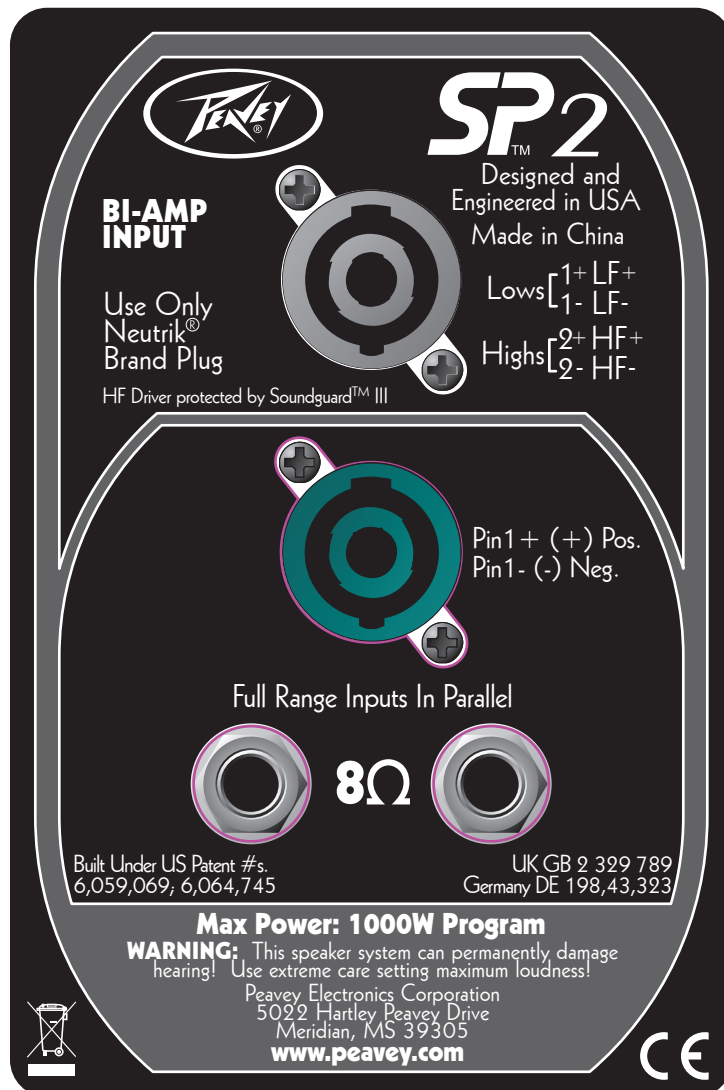
## SPECIFICATIONS

### Architectural & engineering specifications

The loudspeaker system shall have an operating bandwidth of 54 Hz to 17 kHz. The nominal output level shall be 98.0 dB when measured at a distance of 1 meter with an input of 1 watt. The nominal impedance shall be 8.0 ohms. The maximum continuous power handling shall be 500 watts, with maximum program power of 1,000 watts, peak power input of at least 2,000 watts and

## SP® 2BX

a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 90 degrees symmetrical about the center axis in the horizontal plane, and +10, -30 degrees about the center axis in the vertical plane. The outside dimensions shall be 31" high by 20.56" wide by 23.56" deep. The weight shall be 88 lbs. The loudspeaker system shall be a Peavey model SP® 2BX.





[www.peavey.com](http://www.peavey.com)

Warranty registration and information for U.S. customers available online at  
[www.peavey.com/warranty](http://www.peavey.com/warranty)  
or use the QR tag below



Features and specifications subject to change without notice.

Peavey Electronics Corporation 5022 Hartley Peavey Drive Meridian, MS 39305 (601) 483-5365 FAX (601) 486-1278



Logo referenced in Directive 2002/96/EC Annex IV  
(OJ(L)37/38, 13.02.03 and defined in EN 50419: 2005  
The bar is the symbol for marking of new waste and  
is applied only to equipment manufactured after  
13 August 2005