

SPECS

PEAVEY ELECTRONICS

SP™ 4XT

Sound Reinforcement Enclosure

SPECIFICATIONS

Enclosure:

SP™ 4XT

Frequency Response:

48 Hz - 17 kHz

Low-Frequency Limit (-3 dB point):

48 Hz

Useable Low-Frequency Limit (-10 dB point):

38 Hz

Power Handling:

350 watts continuous (37.4 V RMS)

700 watts program

Sound Pressure Level 1 Watt at 1 Meter Swept Sine Input in Anechoic Environment:

102 dB

Maximum Sound Pressure Level:

127 dB

Radiation Angle Measured @ -6 dB Point of Polar Response:

500 - 1.6 kHz:

Horizontal: 105° ±25°

Vertical: 60° ±10°

1.6 K - 5 kHz

Horizontal: 75° ±15°

Vertical: 55° ±5°

5 K - 16 kHz

Horizontal: 90° ±5°

Vertical: 45° ±5°

Directivity Factor Ro (Q)

500 Hz - 16,000 Hz Median:

8.63

Directivity Index Di

500 - 16,000 Hz Median:

9.36 dB

Transducer Complement:

Two 15" Kevlar® impregnated 1505-

8KADT Black Widow® woofers

One 22XT™ titanium compression driver

on a CH-941 90° H x 45° V horn

Box Tuning Frequency (Fbox):

45 Hz

Crossover Frequency:

300 Hz, 1200 Hz



Crossover Type:

Quasi three-way passive internal

Crossover Slope:

High pass and upper low pass, modified 12 dB/octave (2nd order); lower low pass, modified 18 dB/octave (3rd order)

Impedance (Nominal):

4 ohms

Impedance (Minimum):

3.9 ohms

Input Connections:

Two full-range 1/4" female connectors in parallel, one 1/4" female connector for biamp high, and one 1/4" female biamp low

Enclosure Materials and Finish:

7-ply high-density, 3/4" plywood covered with wear-resistant black carpet

Mounting:

Four large rubber feet and two Peavey exclusive pocket casters.

Dimensions:

Front:

21 3/16" W x 52 11/16" H x 26 3/4" D
(53.82 cm W x 133.83 cm H x 67.95 cm D)

Back:

9" W x 52 11/16" H x 26 3/4" D
(22.86 cm W x 133.83 cm H x 67.95 cm D)

Net Weight:

139 lbs. (63.2 kg)

Shipping Weight:

155 (70.45 kg)



DESCRIPTION

The SP™ 4XT's versatile design makes this two-way, full-range enclosure suitable for sound reinforcement, public address, musical playback, and monitoring systems. This two-way system is comprised of two 15" 1505-8KADT Black Widow® speakers supplying the lows and a 22XT™ compression driver coupled to a CH™ 941 constant-directivity horn for the high end. The Black Widow low-frequency drivers feature Kevlar® impregnated cones for increased power handling and low distortion.

The 22XT™ driver features a titanium diaphragm for the ultimate in silky smooth response at high frequencies and an all-new aerospace adhesive system which greatly improves its life. The input frequency spectrum is divided by a two-way passive crossover, allowing the devices to operate in an optimum time alignment, giving the system a smooth response from 48 Hz out to 17,000 Hz. Full-range or biamp operation is available via 1/4" inputs.

FREQUENCY RESPONSE

This measurement is useful in determining how accurately a given enclosure reproduces an input signal. The frequency response of the SP 4XT is measured at 1 meter using a 2.00 volt swept sine input. As shown in Figure 1, the selected drivers in the SP 4XT combine to give a smooth frequency response from 48 Hz to 17 kHz (± 3 dB).

DIRECTIVITY

Beamwidth and directivity factors are derived from the -6 dB points from the polar plots, which are measured in a whole-space anechoic environment. These are specifications which provide a reference to the coverage characteristics of the enclosure. These parameters provide insight for proper enclosure placement and installation in the chosen environment. The SP™ 4XT exhibits a desirable beamwidth and directivity factor suitable for all high-level sound reinforcement applications.

POWER HANDLING

There are many different approaches to power handling ratings. Peavey rates this speaker system's power handling using a modified form of the AES Standard 2-1984. Utilizing audio band

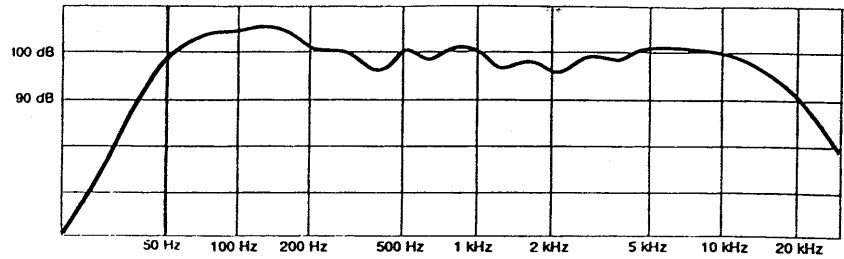


Figure 1. FREQUENCY RESPONSE

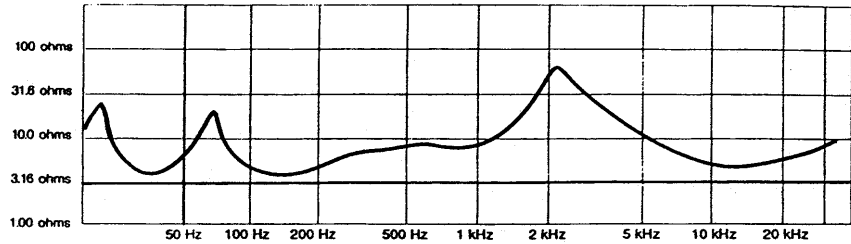


Figure 2. IMPEDANCE

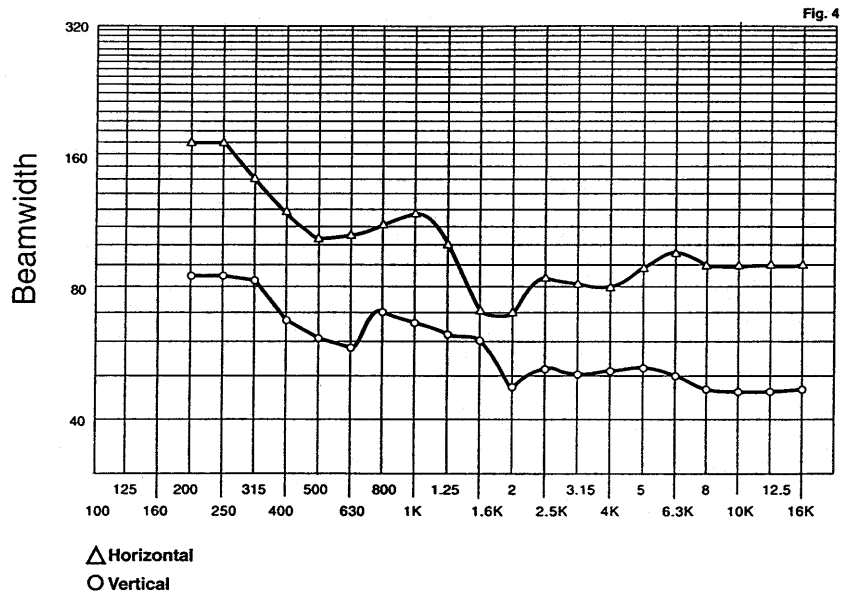


Fig. 4

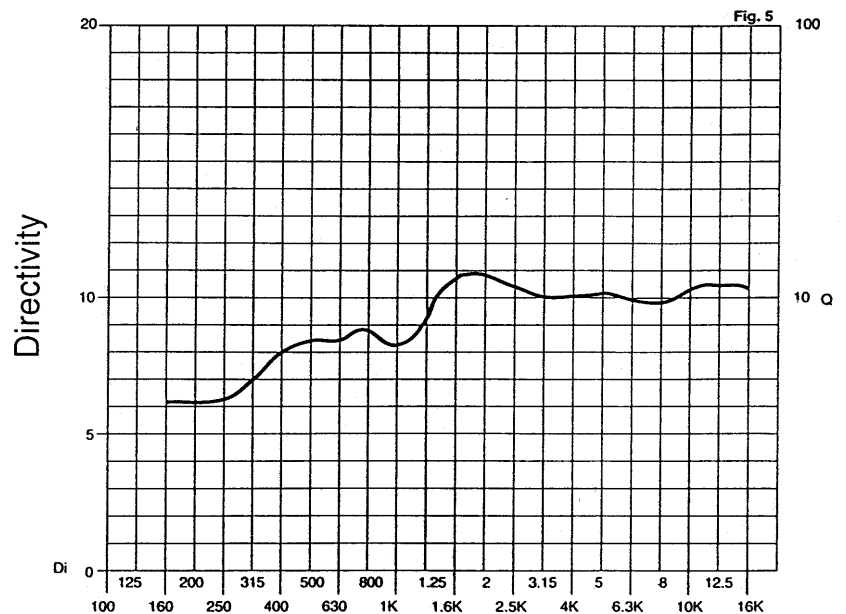
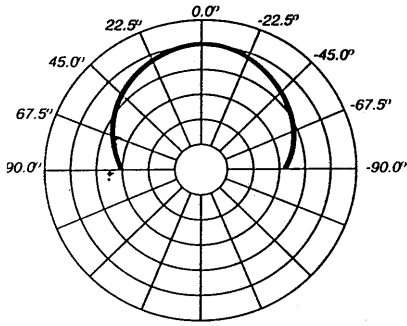


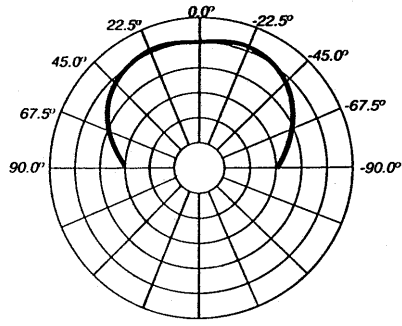
Fig. 5

HORIZONTAL POLAR PATTERNS

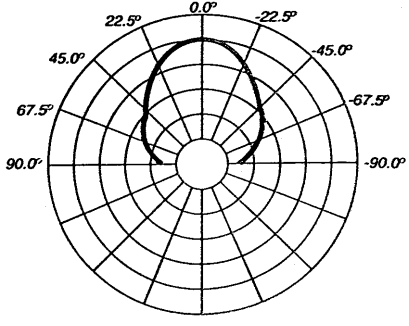
6 dB per division



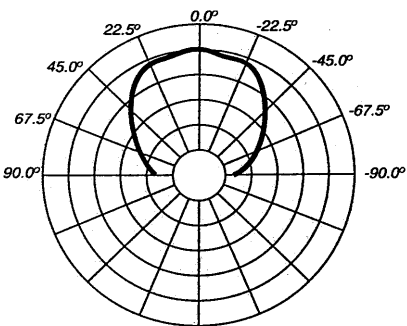
500 Hz



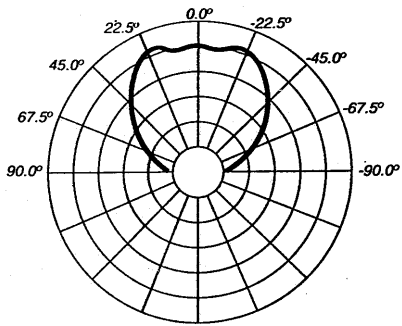
1 kHz



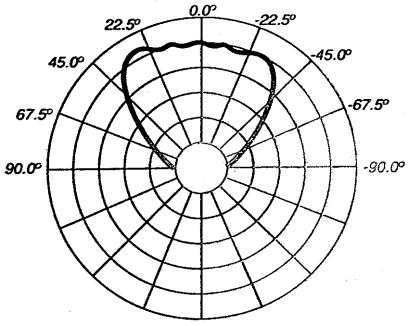
2 kHz



4 kHz



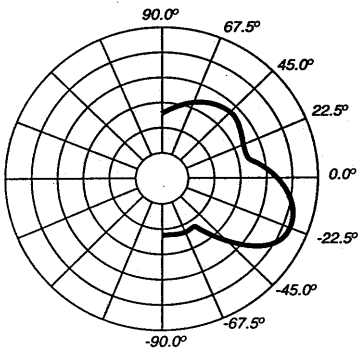
8 kHz



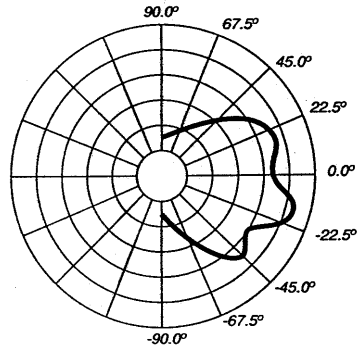
16 kHz

VERTICAL POLAR PATTERNS

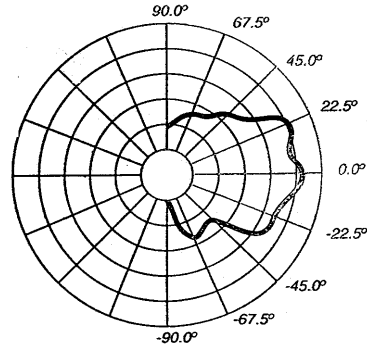
6 dB per division



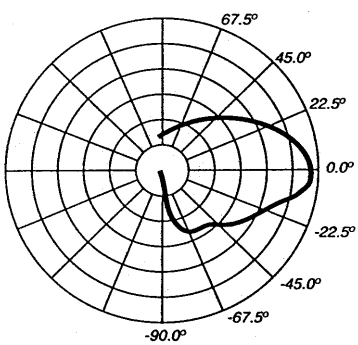
500 Hz



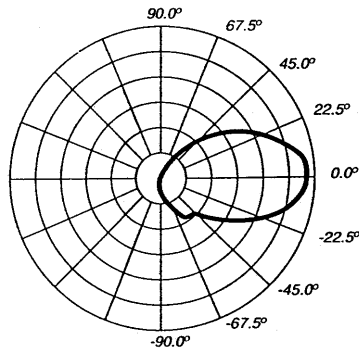
1 kHz



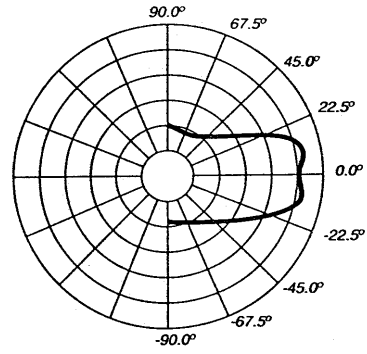
2 kHz



4 kHz



8 kHz



16 kHz

(20 Hz - 20 kHz) pink noise with peaks over 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. The test signal contains large amounts of very low-frequency energy, effectively simulating the frequency content of live music situations. The full measure of high frequencies in the test signal allows for exposure of the speaker system to synthesized tones that may extend beyond audibility. This rating is contingent on having a minimum 3 dB of amplifier headroom available.

ARCHITECTURAL & ENGINEERING SPECIFICATIONS

The loudspeaker system shall have an operating bandwidth of 48 Hz to 17 kHz. The output level shall be 102 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 4 ohms. The continuous power handling shall be 350 watts; maximum program of 700 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 90 degrees in the horizontal plane and 45 in the

vertical plane. The outside dimensions shall be 21 3/16 inches wide by 52 11/16 inches high by 26 3/4 inches deep. The weight shall be 139 lbs. The loudspeaker system shall be a Peavey model SP™ 4XT.

ONE-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 39302-2898.



SP™ 4XT

Sound Reinforcement System

A PRODUCT OF PEAVEY ELECTRONICS CORP.
MERIDIAN, MS MADE IN U.S.A.

MAX POWER: 700W RMS (PROGRAM)
350W RMS (37.4V RMS)
IMPEDANCE: 4 OHMS
CROSSOVER: 1200 Hz

EQUIPPED WITH PEAVEY BLACK WIDOW® LOUDSPEAKER
BUILT UNDER U.S. PATENT NUMBER 4,421,956

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

NORMAL



FULL RANGE



BI-AMP



HI



LOW



WARNING

Use caution when moving on casters. Grip top front of enclosure to improve stability.



Features and specifications subject to change without notice.

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