

# SPECS

PEAVEY ELECTRONICS

## SP™ 2XT

### Sound Reinforcement Enclosure

#### SPECIFICATIONS

**Enclosure:**

SP™ 2XT

**Frequency Response:**

50 Hz - 17.6 kHz

**Low-Frequency Limit (-3 dB point):**

50 Hz

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

43 Hz

**Power Handling:**

300 watts continuous (49 V RMS)

600 watts program

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

101 dB

**Maximum Sound Pressure Level:**

126 dB

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

500 - 1.6 kHz:

Horizontal: 90° ±20°

Vertical: 100° ±30°

1.6 K - 5 kHz

Horizontal: 85° ±15°

Vertical: 55° ±10°

5 K - 16 kHz

Horizontal: 90° ±5°

Vertical: 40° ±5°

**Directivity Factor Ro (Q)**

**500 Hz - 16,000 Hz Median:**

7.2

**Directivity Index Di**

**500 - 16,000 Hz Median:**

8.5 dB

**Transducer Complement:**

One 1505-8 KADT Kevlar® cone Black  
Widow® woofer

One 22XT™ titanium compression driver  
loaded onto a CH™ 941 90° H x 45° V  
horn

**Box Tuning Frequency (Fbox):**

55 Hz



**Crossover Frequency:**

1200 Hz

**Crossover Type:**

Passive, internal

**Crossover Slope:**

Modified 12 dB/octave high and low pass

**Impedance (Nominal):**

8 ohms

**Impedance (Minimum):**

5.1 ohms

**Input Connections:**

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

**Enclosure Materials and Finish:**

7-ply high-density, 3/4" plywood covered

in heavy-duty black carpet, reinforced with  
high-impact polymer corners

**Mounting:**

SA-1 stand adaptor

**Dimensions:**

21 1/8" W x 31 1/2" H x 18 3/4" D  
(53.66 cm W x 80.01 cm H x 47.63 cm D)

**Net Weight:**

83 lbs. (37.7 kg)

**Shipping Weight:**

92 (41.8 kg)



## DESCRIPTION

The SP™ 2XT'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 one 15" 1505-8KADT Black Widow® speaker 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 driver features a Kevlar® impregnated cone 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 50 Hz out to 17,600 Hz. Full-range or biamp operation is available via 1/4" inputs. An SA-1™ stand adaptor is mounted on the bottom of the enclosure, allowing stand mounting on all 1 3/8" shafts.

## FREQUENCY RESPONSE

This measurement is useful in determining how accurately a given enclosure reproduces an input signal. The frequency response of the SP 2XT is measured at 1 meter using a 2.82 volt swept sine input. As shown in Figure 1, the selected drivers in the SP 2XT combine to give a smooth frequency response from 50 Hz to 17.6 kHz ( $\pm 3$  dB).

## DIRECTIVITY

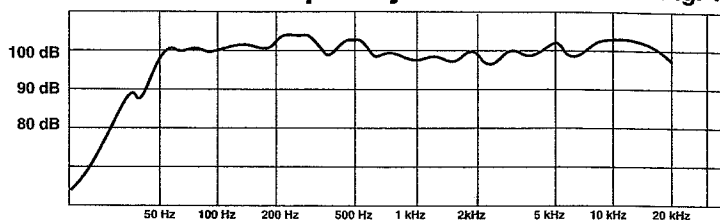
Beamwidth and directivity factors are derived from the -6 dB points from the polar plots, which are measured in a whole-space anechoic environment. These are specifications which provide a reference to the coverage characteristics of the enclosure. These parameters provide insight for proper enclosure placement and installation in the chosen environment. The SP™ 2XT 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

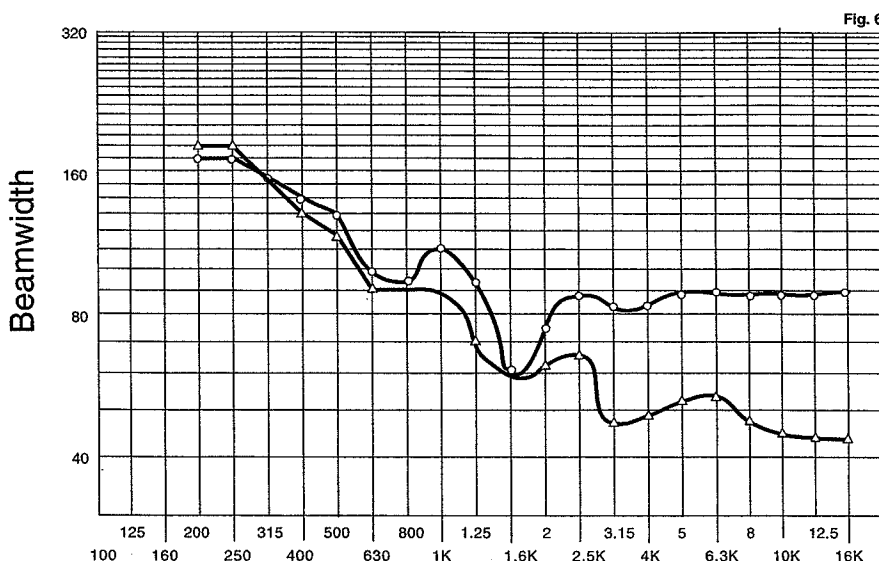
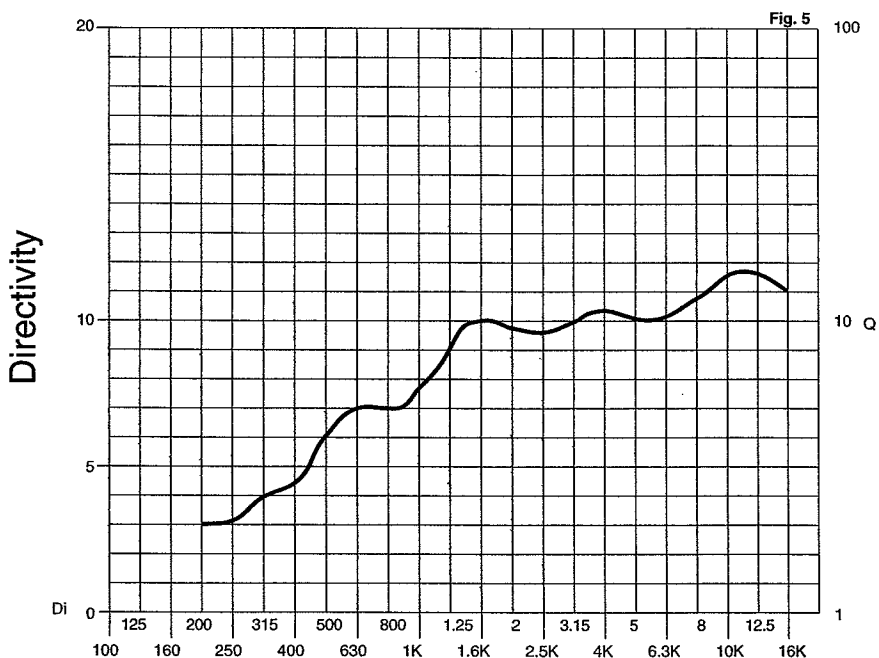
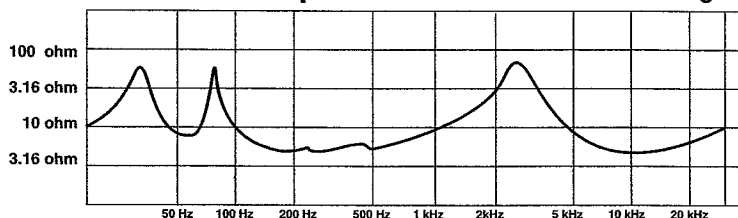
Frequency

Fig. 1



Impedance

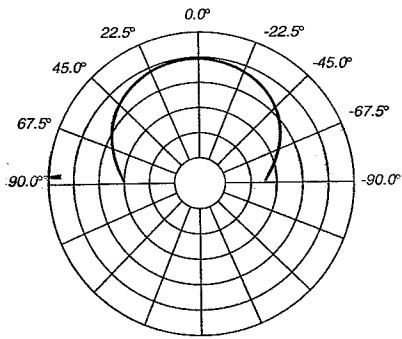
Fig. 2



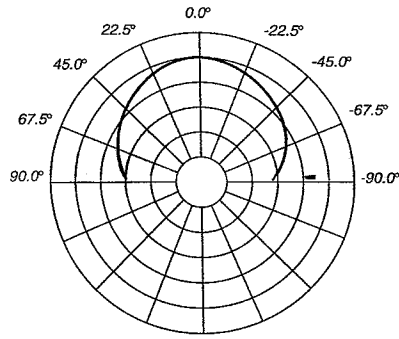
△ Vertical  
○ Horizontal

## HORIZONTAL POLAR PATTERNS

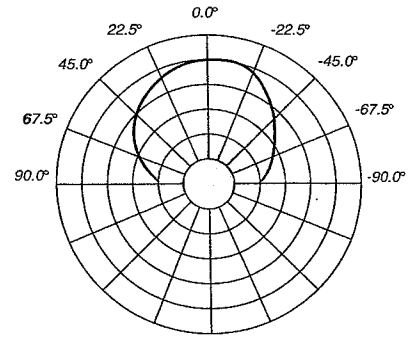
6 dB per division



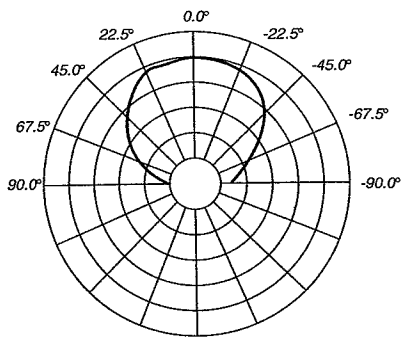
500 Hz



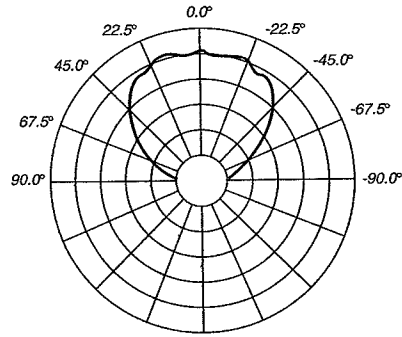
1 KHz



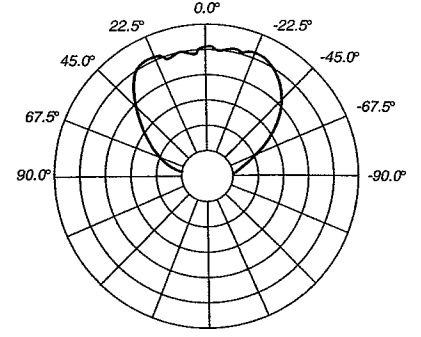
2 KHz



4 kHz



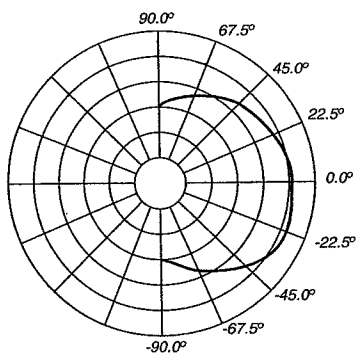
8 KHz



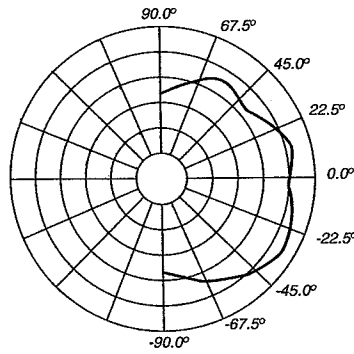
16 kHz

## VERTICAL POLAR PATTERNS

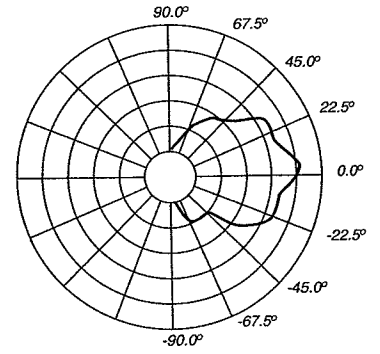
6 dB per division



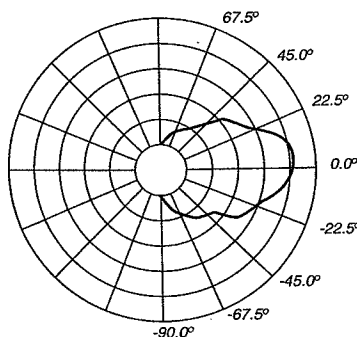
500 Hz



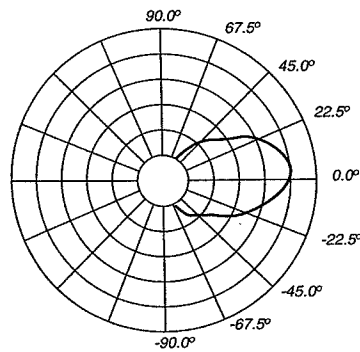
1 kHz



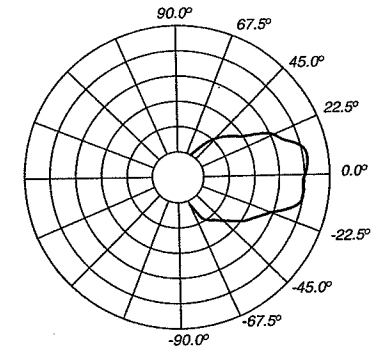
2 kHz



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 stimulating the frequency content of live music situations. The full measure of high frequencies in the test signal allow 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 50 Hz to 17.6 kHz. The output level shall be 101 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 8 ohms. The continuous power handling shall be 300 watts; maximum program of 600 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 1/8 inches wide by 31 1/2 inches high by 18 3/4 inches deep. The weight shall be 83 lbs. The loudspeaker system shall be a Peavey model SP™ 2XT.

## 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.

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**Sound Reinforcement System**

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

**MAX POWER: 600W RMS (PROGRAM)  
300W RMS (49V RMS)**



**IMPEDANCE: 8 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**



Features and specifications subject to change without notice.

Peavey Electronics Corporation 711 A Street / Meridian, MS 39301 / U.S.A. / (601) 483-5365 / Telex: 504115 / Fax: 486-1278