

SP™ 4Ti

SPECIFICATIONS

SPECIFICATIONS

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 volts 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 at -6 dB Point of Polar Response

Horizontal Plane	Vertical Plane
500-1.6 kHz 100° ±30°	500-1.6 kHz 115° ±35°
1.6 kHz-5 kHz 90° ±25°	1.6 kHz-5 kHz 70° ±25°
5.0 kHz-16.0 kHz 100° ±5°	5.0 kHz-16.0 kHz 50° ±5°

Directivity Factor Q

500 Hz-16,000 Hz Median:

4.3, +6.9, -0.8

Directivity index Di 500-16,000 Hz Median:

6.3 dB, +4.2 dB, -0.9 dB

Transducer Complement:

Two 15" Kevlar impregnated 1505-8KA Black Widow® woofers, one 22T™ titanium compression driver on a CH™-2 90° x 45° horn

Tuning Frequency (F box):

42 Hz

Crossover Frequency:

300 Hz, 1200-Hz

Crossover Type:

Quasi-three-way passive internal

Electrical 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):

4.0 ohms

Impedance (Minimum):

3.9 ohms

Input Connections:

Two full-range ¼" female connectors in parallel; one each ¼" female connector for biamp, high & low

Enclosure Materials & Finish:

7 ply, high density, ¾" plywood covered with wear-resistant black carpet

Mounting:

Four large rubber feet

Dimensions:

26" (66 cm) W x 53" (134.6 cm) H x 20" (50.8 cm) D

Optional Accessories:

Dynamic System Controller™ Series 23, an active electronic crossover system with built-in high & low frequency signal processing. Also available is the Dynamic System Controller™ Series 12, a stereo version of the above, and the PCS™ unit (Processor Controller System)

Net Weight:

135 lbs.

Additional Remarks:

Unit may be used with or without signal processing in biamp mode, integral passive crossover provides outstanding full range use.

DESCRIPTION

The SP™ 4Ti is a full-range, quasi-three-way speaker system with a trapezoidal shaped enclosure, permitting multi-enclosure arrays. The flexibility and performance of this enclosure make it ideal for sound reinforcement, musical play back, and public address. The cabinet is constructed of ¾" 7 ply, high density plywood, covered with a durable black carpet. The quasi-three-way system is comprised of two 15" Kevlar impregnated 1505-8KA Black Widow® drivers supplying extended low end and up to the low mid-range, and a 22T™ titanium compression driver loaded onto a CH™-2 90° x 45° constant directivity horn providing the mids & highs. The input spectrum is divided by a passive crossover which sends the ex-

treme lows to both 15" drivers, while allowing only the top 15" driver to operate up to the low mid-range, giving the system a smooth frequency response from 48 Hz to 17 kHz. Full-range or biamp operation is available via 1/4" female inputs. The SP-4Ti may be operated with a Dynamic System Controller Series 23 processor to extend the low end to 38 Hz.

DIRECTIVITY

Beamwidth and directivity factors are derived from the -6 dB points from the polar plots (see figure 3) 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 blending of the components of the SP-4Ti exhibits a desirable beamwidth and directivity factor (figure 4 and 5) suitable for all high-level sound reinforcement applications.

FREQUENCY RESPONSE

This measurement is useful in determining how accurately a given enclosure reproduces an input signal. The frequency response of the SP-4Ti is measured at 1 meter using a 2.82 volt swept sine input. As shown in Figure 1, the selected drivers in the SP 4Ti combine to give a smooth frequency response from 48 Hz to 17 kHz.

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 (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 allow for exposure of the speaker system to synthesize tone that may extend beyond audibility. This rating is contingent on having a minimum 3 dB of amplifier headroom available.

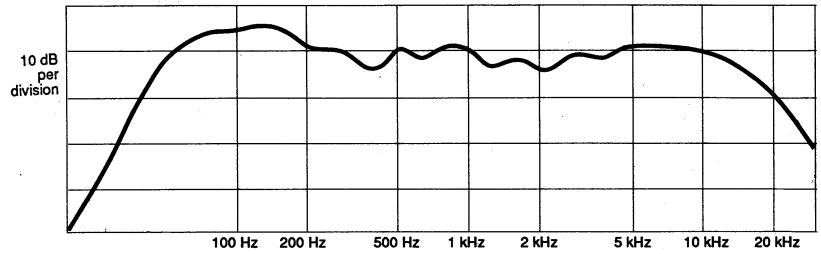


Figure 1. FREQUENCY RESPONSE

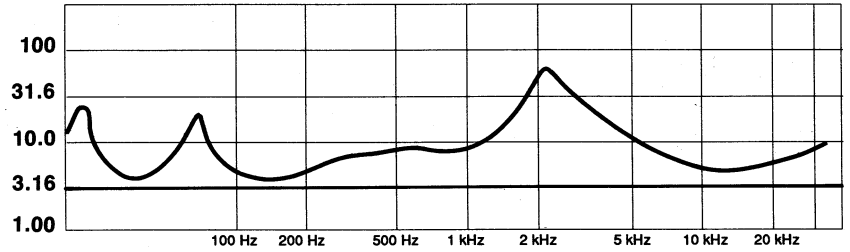


Figure 2. IMPEDANCE

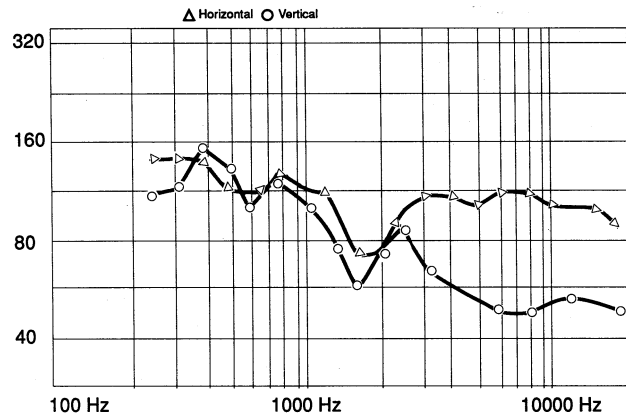


Figure 4. BEAMWIDTH VS. FREQUENCY

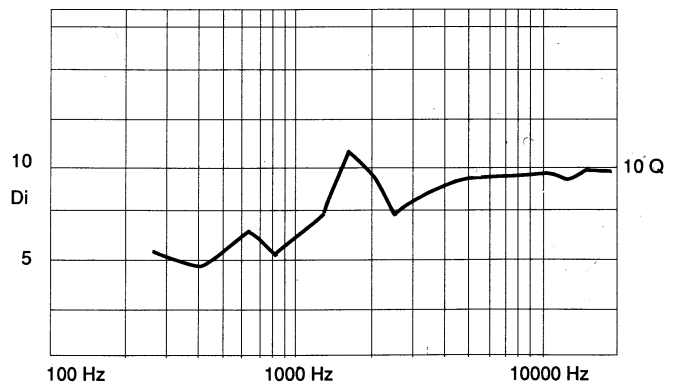
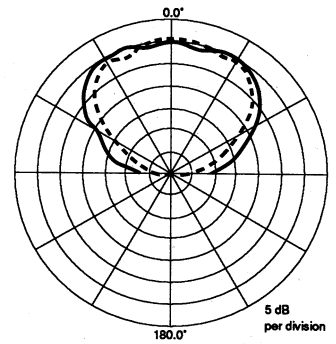
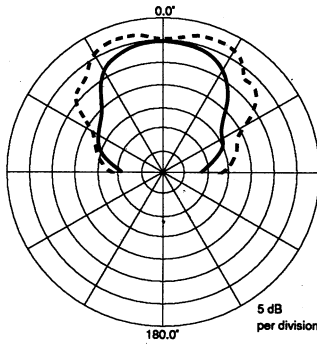
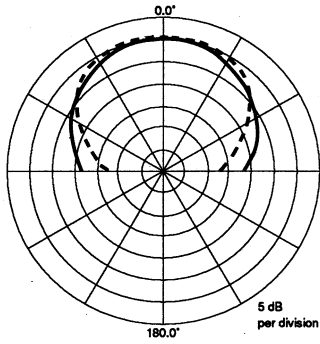


Figure 5. DIRECTIVITY

Figure 3. POLAR PATTERNS

HORIZONTAL

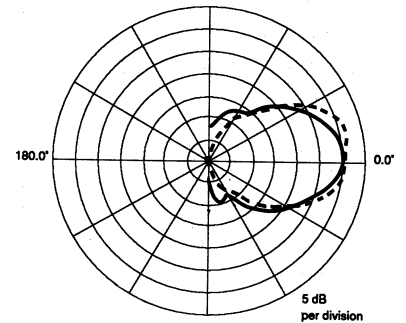
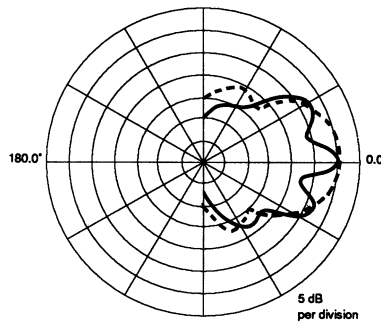
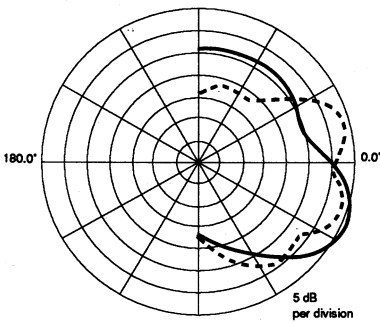


— 500 Hz
 1 kHz

— 2 kHz
 4 kHz

— 8 kHz
 16 kHz

VERTICAL



SP-4Ti

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

BI-AMP



FULL RANGE



HI

LOW

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 power of 700 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 90° in the horizontal plane and 45° in the vertical plane. The outside dimensions shall be 26" wide by 53" high by 20" deep. The weight shall be 135 pounds. The loudspeaker system shall be a Peavey model SP-4Ti.

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.



Features and specifications subject to change without notice.

Peavey Electronics Corporation 711 A Street / Meridian, MS 39302-2898 / U.S.A. / (601) 483-5365 / Telex: 504115 / Fax: 484-4278