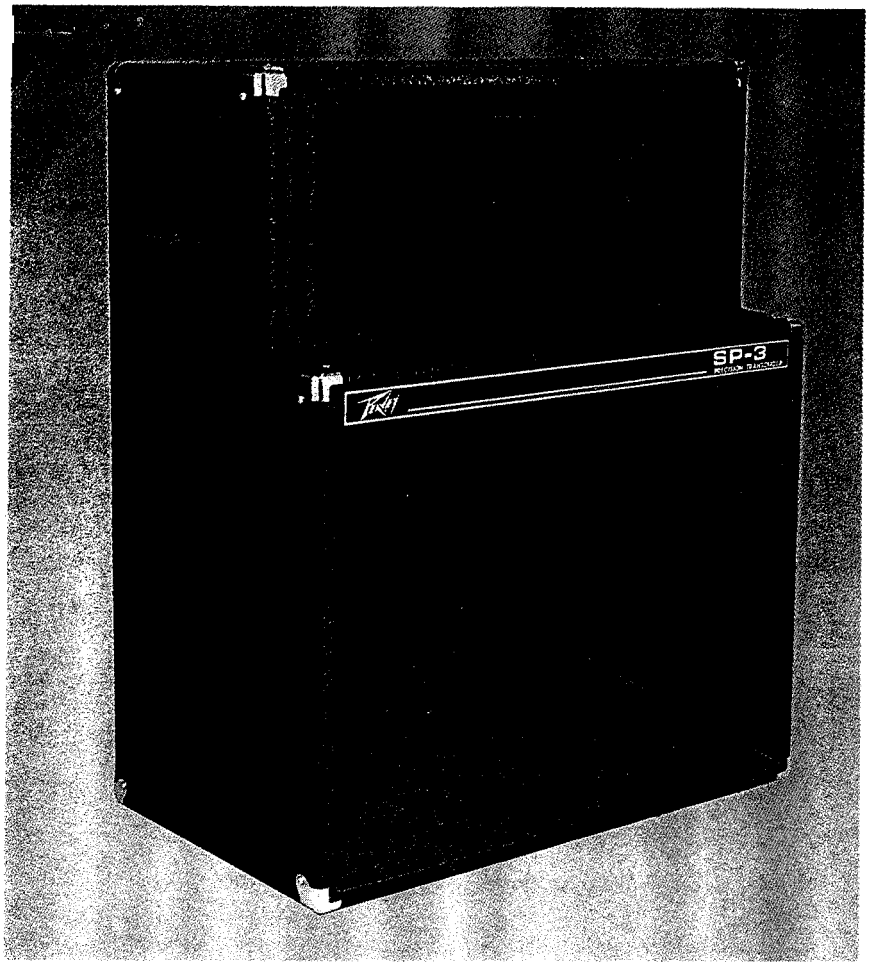


SP™-3

Wide-Range Horn-Loaded Two-Way System Constant Directivity

SPECIFICATIONS

Enclosure:
SP™-3

Frequency Response, 1 Meter on Axis, Swept Sine Averaged Across Operating Bandwidth in Anechoic Environment:
80 Hz - 16 kHz (+/- 3 dB)

Low Frequency Limit (-3 dB Point):
80 Hz

Usable Low Frequency Limit (-10 dB Point):
70 Hz

Power Handling:
150 watts continuous (34.6 volts RMS)
300 watts program

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

Maximum Sound Pressure Level:
125 dB

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

Horizontal Plane:	Vertical Plane:
250—500 Hz	**250—500 Hz**
180° +/-60°	180° +/-100°
500—10,000 Hz	**500—10,000 Hz**
110° +/-10°	80° +/-20°
10,000—16,000 Hz	**10,000—16,000 Hz**
90° +/-5°	55° +/-10°

Directivity Factor Q, 500 Hz—16,000 Hz Median:
6.8 (+3.9, - 2.3)

Directivity Index D_i, 500-16,000 Hz Median:
8.3 dB (+2.0 dB, - 1.8 dB)

Transducer Complement:
1 15 inch 15825B Scorpion® woofer
1 CH™-2 loaded 22A™ compression driver

Box Tuning Frequency (F_{box}):
62 Hz

Crossover Frequency:
800 Hz

Crossover Type:
2-way Passive

Crossover Slope:
12 dB/octave low pass, 12 dB/octave high pass

Impedance (Nominal):
8 ohms

Impedance (Minimum):
6.5 ohms

Input Connections:
Two ¼" female full-range inputs

Enclosure Materials and Finish:
7 ply, high density, ¾" plywood, texture painted

Dimensions:
26" (66.0 cm) W × 32½" (82.6 cm) H × 16" (40.6 cm) D

Net Weight:
85 lbs. (38.6 kg)

DESCRIPTION:

The SP™-3 is a full-range, 2-way all-horn-loaded enclosure designed for general purpose public address and vocal sound reinforcement. The cabinet is constructed of 7 ply, ¾", high-density plywood, splatter painted, then reinforced with steel corners. The two-way system is comprised of a 15 inch 15825B Scorpion® low-frequency driver and a 22A™ compression driver mounted onto a CH™-2 90° × 45° constant directivity horn supplying the high frequencies. Its all-horn-loaded design increases sound pressure level to high level in sound reinforcement. The frequency spectrum is divided by a 2-way passive crossover, allowing the drivers to operate in optimum time alignment giving the system a smooth frequency response from 80 Hz out to 16,000 Hz. Two ¼" female full-range jacks are supplied as input connections.

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™-3 exhibits a desirable beamwidth and directivity factor (Figures 4 and 5) suitable for all high-level sound reinforcement applications.

FREQUENCY RESPONSE:

The frequency response of the SP™-3 is measured in an anechoic environment at a distance of 1 meter while using a 2.82 volt logarithmically swept sine input. This measurement is useful in determining the accuracy in which the enclosure reproduces the input signal. The combination of the 15 inch 15825B Scorpion® and the CH™-2 loaded 22A™ compression driver results in a flat desirable response as shown in Figure 1.

POWER HANDLING:

There are many different approaches to power handling ratings, the most common being EIA Standard RS-426A. The derived shape of this test spectrum was an attempt to simulate the spectral content of contemporary music. Although it does resemble contemporary music, EIA-RS-426A does not contain the same levels of very low frequency material found in live music situations. Very high levels of low frequency material produce distortion and, ultimately, device failure. The presence of the low frequency material will therefore yield lower device ratings than produced by EIA Standard RS-426A.
Although the device ratings are lower than those produced by the EIA test spectrum, they are far more reliable and will have a direct correlation to real world situations.

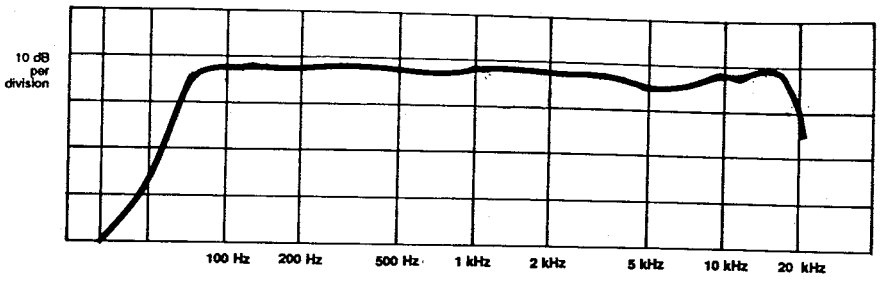


Figure 1. FREQUENCY RESPONSE

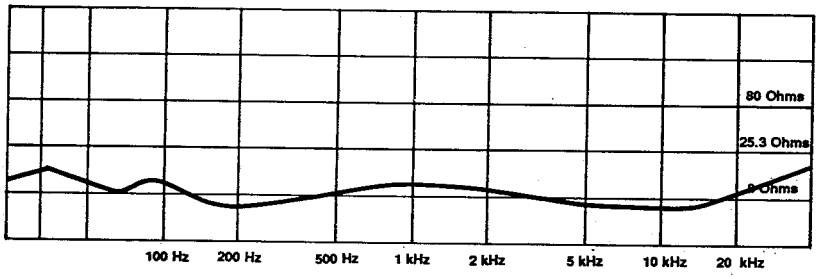


Figure 2. IMPEDANCE

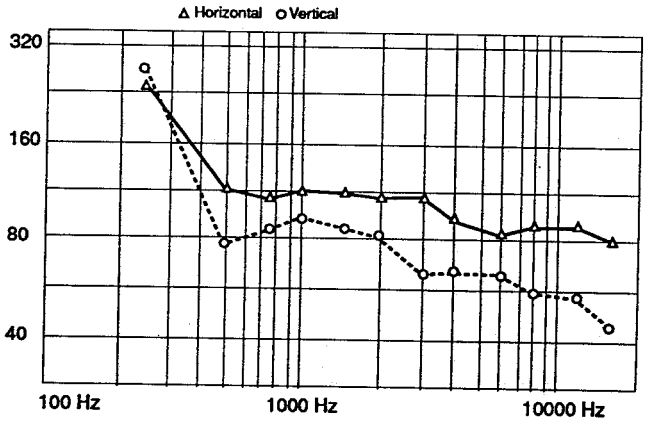


Figure 4. BEAMWIDTH VS. FREQUENCY

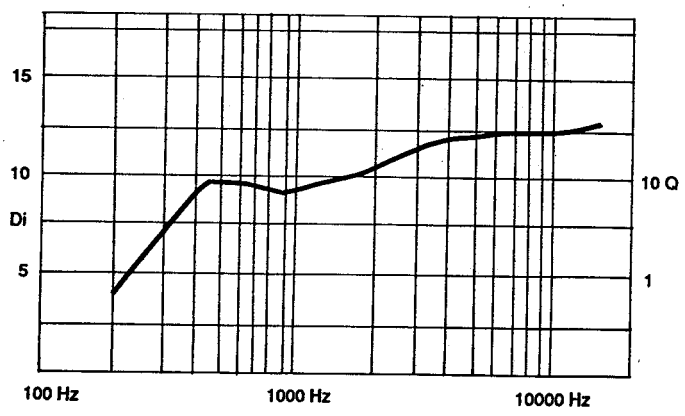
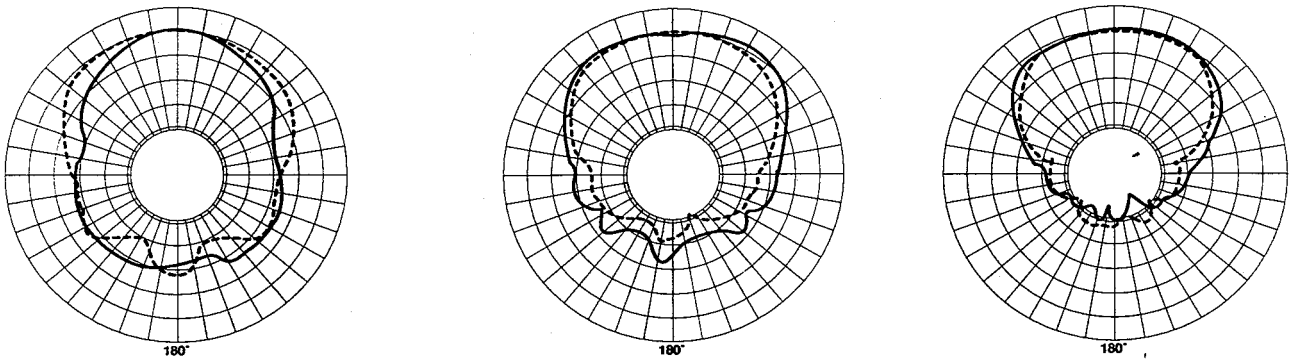


Figure 5. DIRECTIVITY

HORIZONTAL

5 dB per Division



——— 500 Hz
- - - - - - - 1 kHz

——— 2 kHz
- - - - - - - 4 kHz

——— 8 kHz
- - - - - - - 16 kHz

5 dB per Division

VERTICAL

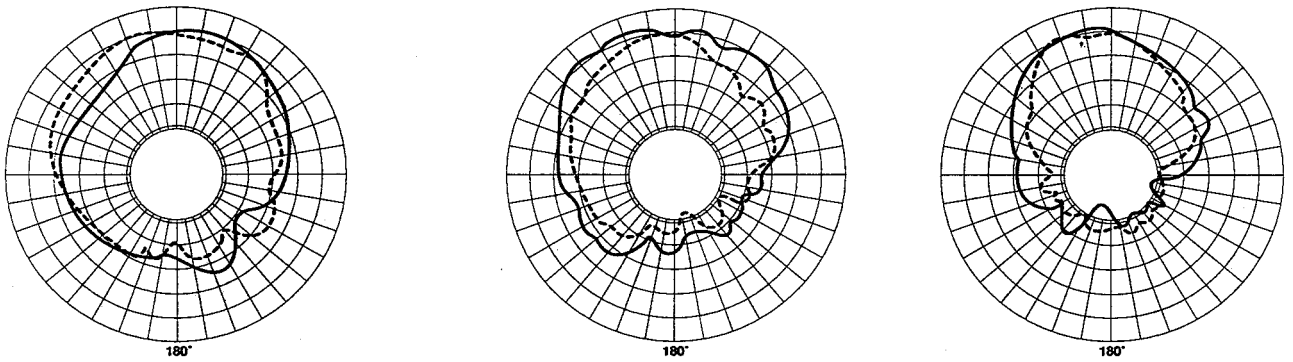
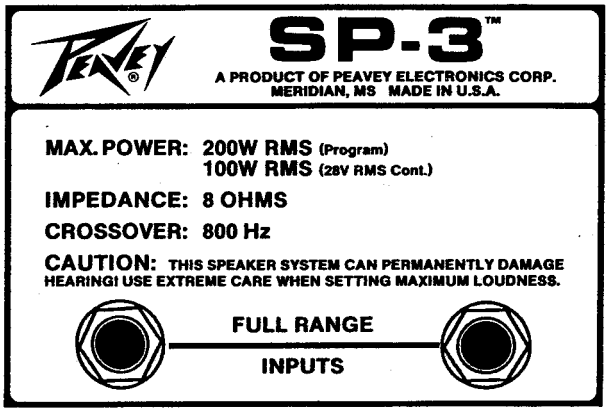


Figure 3. POLAR PATTERNS



REAR PANEL DETAIL

ARCHITECTURAL & ENGINEERING SPECIFICATIONS

The loudspeaker system shall have an operating bandwidth of 80 Hz to 16 kHz. The output level shall be 103.5 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 150 watts, maximum program power of 300 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 26 inches wide by 32½ inches high by 16 inches deep. The weight shall be 85 lbs. The loudspeaker system shall be a Peavey Model SP™-3.

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. / Telephone: (601) 483-5365 / Telex: 504115 / Fax: 484-4278

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