

SPECS

PEAVEY ELECTRONICS

DTH® S2

Minimum-Profile Enclosure

SPECIFICATIONS

**Frequency Response, 1 Meter
On-Axis, Swept-Sine in Anechoic
Environment:**

55 Hz to 18 kHz

Low-Frequency Cut-Off (-3 dB point):

55 Hz

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

40 Hz

Power Handling:

Full Range:

400 W continuous (56.5 V RMS)

800 W program

1,600 W peak

Bi-amp Low:

350 W continuous (52.9 V RMS)

700 W program

1,400 W peak

Bi-amp High:

80 W continuous (25.3 V RMS)

160 W program

320 W peak

**Sound Pressure Level, 2.8 V (1 watt),
1 Meter in Anechoic Environment:**

98 dB

Maximum Sound Pressure Level:

122 dB

Radiation Angle Measured at -6 dB

Point of Polar Response:

500 Hz to 1.6 kHz:

Horizontal: 90.7° ±13.7°

Vertical: 88.8° ±24.3°

1.6 kHz to 5 kHz:

Horizontal: 82.5° ±11.8°

Vertical: 51.7° ±9.5°

5 kHz to 16 kHz:

Horizontal: 61.0° ±17.7°

Vertical: 42.7° ±6.0°

Directivity Factor, Q (Mean):

12.7 ±8.8

Directivity Index, DI (Mean):

10.3 dB ±2.5 dB



Transducer Complement:

One 1505-8 DT Black Widow® woofer

One 44T™ compression driver coupled to
a CH™-7 constant-directivity horn

Box Tuning Frequency:

50 Hz

Crossover Frequency:

2 kHz

Time Offset:

0.69 mS (delay lows)

Impedance, Z:

8 ohms nominal

5.6 ohms minimum

Input Connections:

Two Neutrik® 4-conductor Speakon®
connectors (NL4MD-V-1)

Enclosure Materials & Finish:

3/4" plywood with Battleship Grey carpet
and plasticized metal grille

Dimensions (H x W x D):

32.375" x 18.5" front (9" rear) x 30"
(82.2 cm x 47 cm front [23 cm rear]
x 76.2 cm)

Net Weight:

106 lbs. (48.2 kg)

FEATURES

- Externally switchable, full-range/
bi-amp operation
- 1505-8 DT Black Widow® woofer
- 44T™ Compression driver
- High power-handling, polypropylene
capacitors
- 16-Gauge, plasticized metal grille
- "Lockable" mode select switch
- 80° x 40° Constant-directivity horn

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DESCRIPTION

The DTH® S2 was designed as a true minimum-profile enclosure. It measures only 18-1/2" at its widest point in the front and tapers to a mere 9" in the back. Because of the trapezoidal geometry of these enclosures, building arrays is much easier. This shape also greatly reduces standing wave buildup within the enclosure.

The DTH® S2 is a two-way system consisting of a 1505-8 DT Black Widow® woofer and a 44T™ compression driver coupled to a CH™-7 horn. An internal passive crossover is utilized to enable the system to run full range, directly from the factory. Bi-amp operation is also possible by simply flipping a switch on the input plate. The switch can be locked into either mode position by tightening down two screws to prevent tampering and/or accidental switching. High power-handling, polypropylene capacitors are used throughout the crossover. This results in a cleaner sound, especially at high power levels, as well as improved reliability.

Two Neutrik® 4-conductor Speakon® connectors are provided for input to the speaker. One of these connectors can be utilized to parallel or "daisy chain" another enclosure, if desired. (If used in this manner, the amplifier must be rated for operation into the resulting load).

A Battleship Grey velour carpet covers the DTH® S2. This is a low-wear, high-abrasion-resistant carpet, similar to those used in the automotive industry. A heavy-duty, 16-gauge metal grille dresses off the enclosure and provides superior protection for the drivers. The grille has been specially coated with a plasticized

paint. This aids greatly in damping grille vibration at high sound pressure levels.

All this combines to give you a great looking and great sounding loudspeaker perfectly suited for any sound reinforcement application.

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 that provide a reference to the coverage characteristics of the enclosure. The parameters provide insight for proper enclosure placement and installation in the chosen environment. The blending of the components of the DTH® S2 exhibits a desirable beamwidth and directivity factor (see Figures 3 and 4), 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 DTH® S2 is measured at 1 meter using a 2.8-volt, swept-sine input. As shown in Figure 1, the selected drivers in the DTH® S2 combine to give a smooth frequency response between 55 Hz and 18 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 to 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 synthesized tones that may extend beyond audibility. This rating is contingent on having a minimum 3 dB of amplifier headroom available.

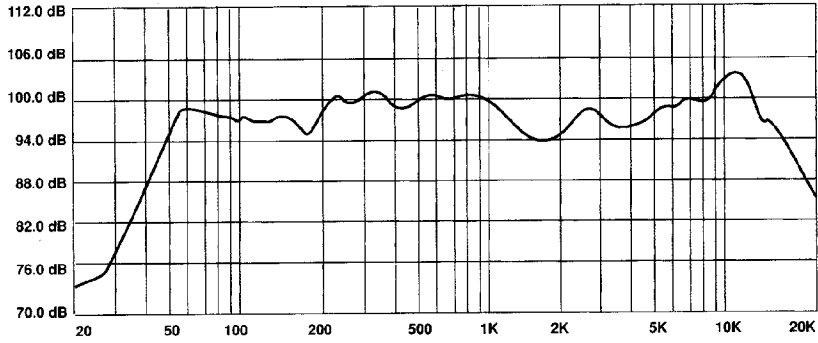
ARCHITECTURAL & ENGINEERING SPECIFICATIONS

The loudspeaker system shall have an operating bandwidth of 55 Hz to 18 kHz. The output level shall be 98 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 400 watts, with maximum program power of 800 watts and minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 80° in the horizontal plane and 40° in the vertical plane. The outside dimensions shall be 32-3/8 inches high by 18-1/2 inches wide—front (9 inches wide—rear) by 30 inches deep. The weight shall be 106 lbs. The loudspeaker system shall be a Peavey model DTH® S2.

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.

Frequency Response, Fig. 1



Impedance, Fig. 2

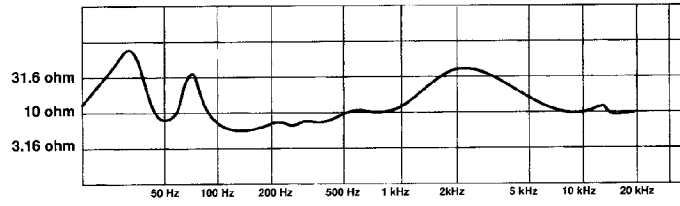


FIG. 3

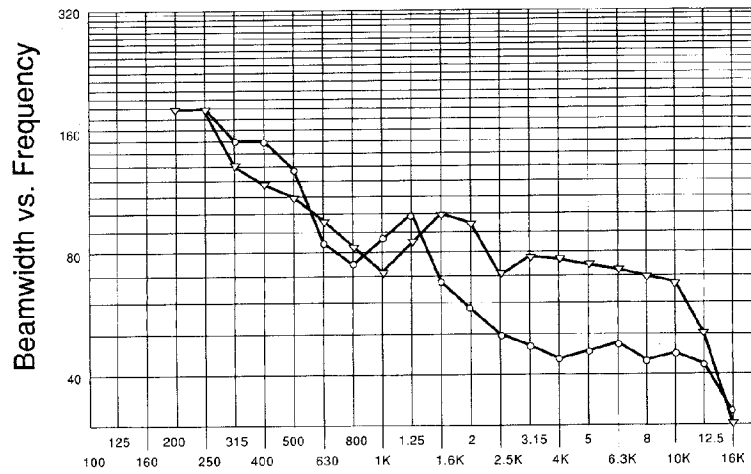
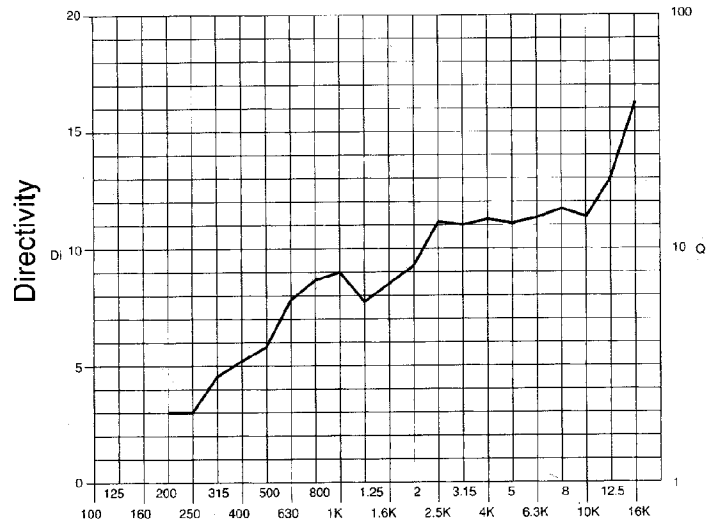
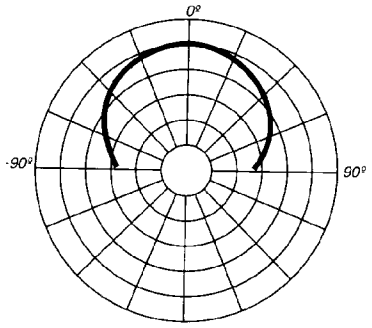


FIG. 4

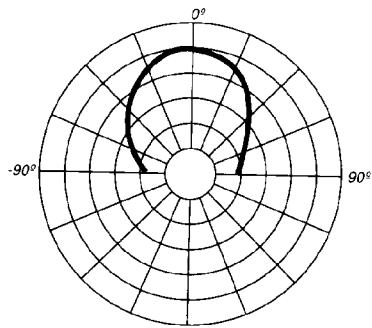


HORIZONTAL POLAR PATTERNS

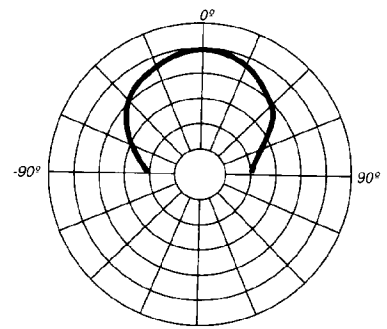
6 dB per division



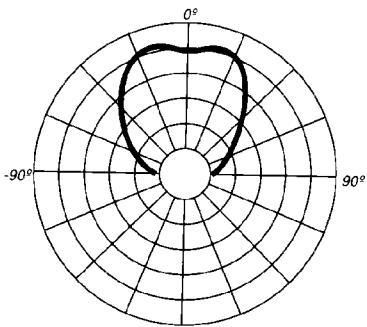
500 Hz



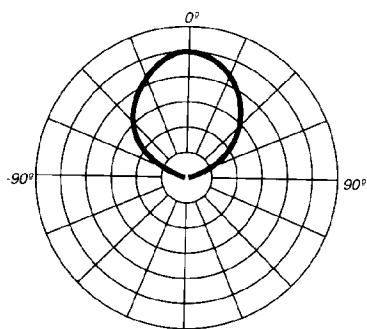
1 kHz



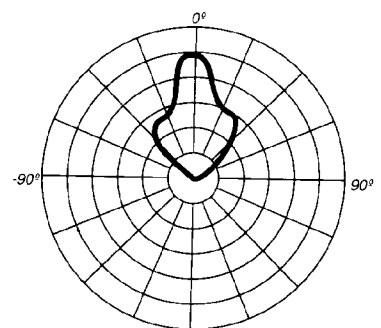
2 kHz



4.0 kHz



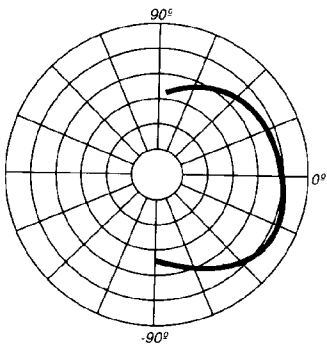
8 kHz



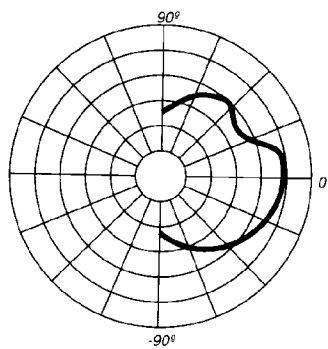
16 kHz

VERTICAL POLAR PATTERNS

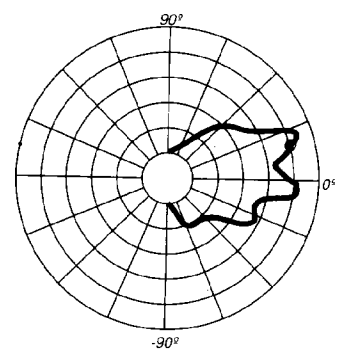
6 dB per division



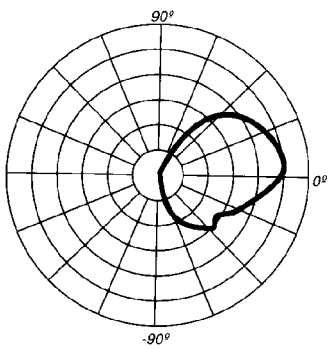
500 Hz



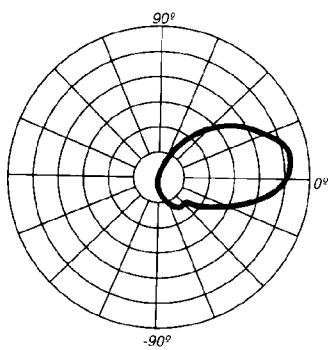
1 kHz



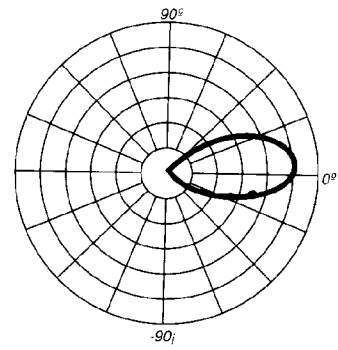
2 kHz



4 kHz



8 kHz



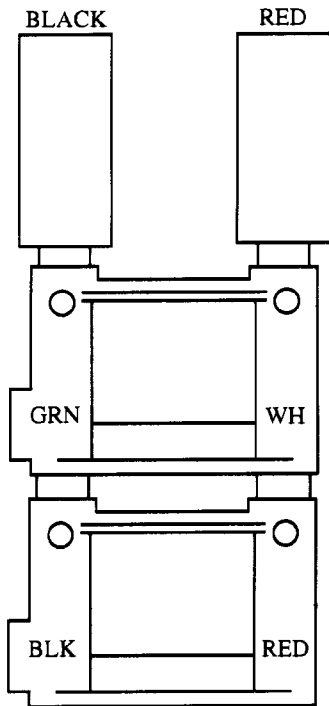
16 kHz

Speaker / Amplifier Connection Information

CAUTION: MODE SELECT SWITCH MUST BE IN PROPER POSITION

Full-Range Mode

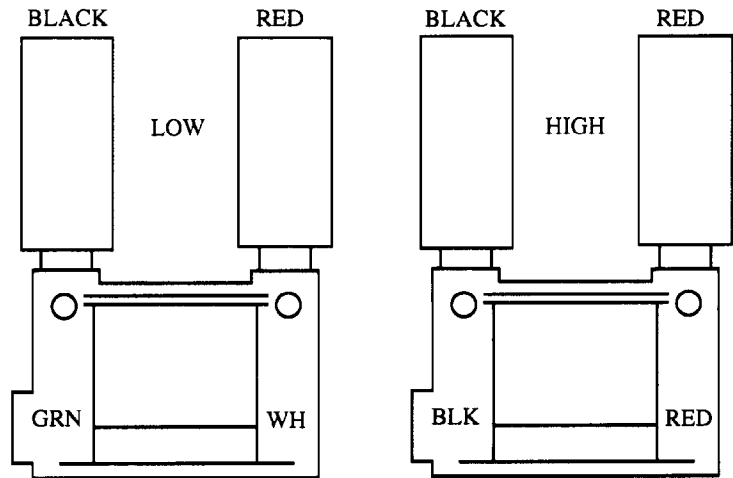
Amplifier
Binding Posts



DTH Four-Conductor Cable
Banana Plugs

Bi-amp Mode

Amplifier
Binding Posts



DTH Four-Conductor Cable
Banana Plugs

DTH Four-Conductor Cable Pin-Out Data

<u>Neutrik® Four-Conductor</u>	<u>Wire Color</u>
1+	WHITE
1-	GREEN
2+	RED
2-	BLACK

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Features and specifications subject to change without notice.



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