



# HDH™ 244T

## Flying Trapezoidal Enclosure

### SPECIFICATIONS

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##### Enclosure:

HDH™ 244T

##### Frequency Response, 1 Meter on Axis, Swept Sine Averaged Across Operating Bandwidth in Anechoic Environment:

55 Hz - 18 kHz

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

55 Hz

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

50 Hz

##### Power Handling:

400 watts continuous (566 volts RMS)

800 watts program

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

100 dB SPL

##### Maximum Sound Pressure Level (with music):

124 dB SPL

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

<b>Horizontal Plane</b>	<b>Vertical Plane</b>
<b>500 Hz-1.6 kHz</b>	<b>500 Hz-1.6 kHz</b>
100° ±15°	90° ±30°

<b>1.6 kHz-5 kHz</b>	<b>1.6 kHz-5 kHz</b>
80° ±15°	60° ±15°

<b>5 kHz-16 kHz</b>	<b>5 kHz-16 kHz</b>
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##### Directivity Factor Q

##### 500 Hz - 16 kHz Median:

12.9 (+8.5, -9.5)

##### Directivity Index Di

##### 500 Hz - 16 kHz Median:

11.1 dB (+2.5 dB, -5.8 dB)

##### Transducer Complement:

One 1505-8 Kevlar Black Widow woofer; one 44T titanium compression driver loaded onto a CH-5 80° H x 40° V horn.

##### Tuning Frequency (F box):

60 Hz

##### Crossover Frequency:

1200 Hz

(electro acoustic crossover points)

##### Crossover Type:

Passive internal

##### Electrical Crossover Slope:

12 dB/octave: high and low pass

##### Impedance (Nominal):

8 ohms

##### Impedance (Minimum):

5.6 ohms

##### Input Connections:

Two ¼" female full-range inputs in parallel, one ¼" female biamp low and one ¼" female biamp high

##### Enclosure Materials and Finish:

High density ¾" plywood, covered in durable black carpet

##### Mounting:

Provided - 5 fixed flying points (ring-in-par style) 2 top, 2 bottom, 1 back

##### Net Weight:

105 lbs.

#### DESCRIPTION

The HDH™ 244T is a full range/biamp flying trapezoidal enclosure permitting multi-enclosure arrays. The flexibility and performance of this enclosure make it ideal for sound reinforcement, musical playback, and public address. The cabinet is constructed of ¾" 7-ply high density plywood covered with a durable black carpet. A black perforated metal grille is permanently attached to the baffle to provide component protection and cosmetic appeal.

The HDH 244T is a high level, high performance enclosure with an exceptional power handling of 400 watts continuous and 800 watts program. The frequency response is 55 Hz to 18 kHz. The high end is provided by the 44T (4" titanium compression driver), loaded onto a CH-5 80° H x 40° V horn, which delivers high power, low distortion, and long term reliability. The low frequency section is a vented design driven by one 15" Kevlar impregnated 1505-8KA Black Widow low frequency driver.

## FREQUENCY RESPONSE

This measurement is useful in determining how accurately a given enclosure reproduces an input signal. The frequency response of the HDH 244T is measured at 1 meter using a 2.82 volt swept sine input. As shown in Figure 1, the selected drivers in the HDH 244T combine to give a smooth frequency response from 55 Hz to 18 kHz.

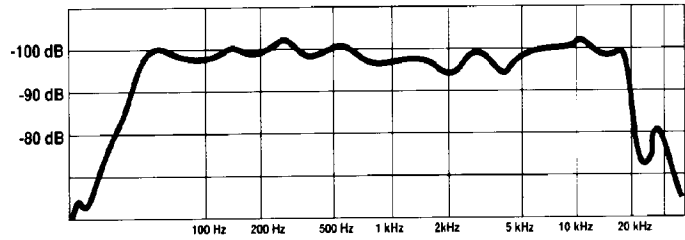


Figure 1. FREQUENCY RESPONSE

## 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 HDH 244T exhibits a desirable beamwidth and directivity factor (figure 4 and 5) suitable for all high-level sound reinforcement applications.

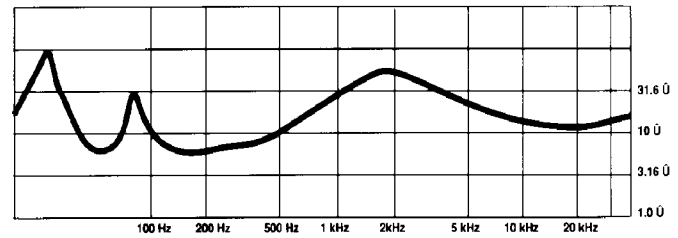


Figure 2. IMPEDANCE

## 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.

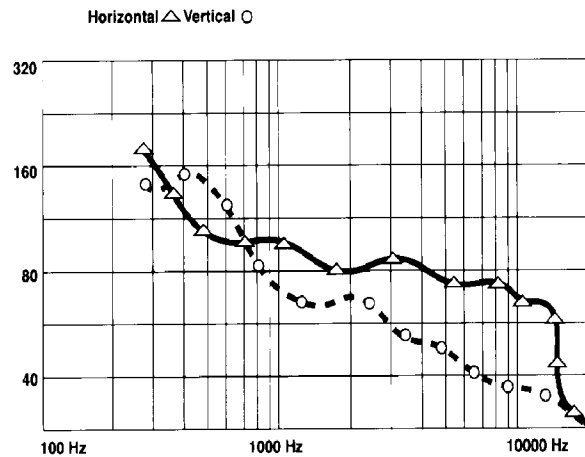


Figure 4. BEAMWIDTH VS. FREQUENCY

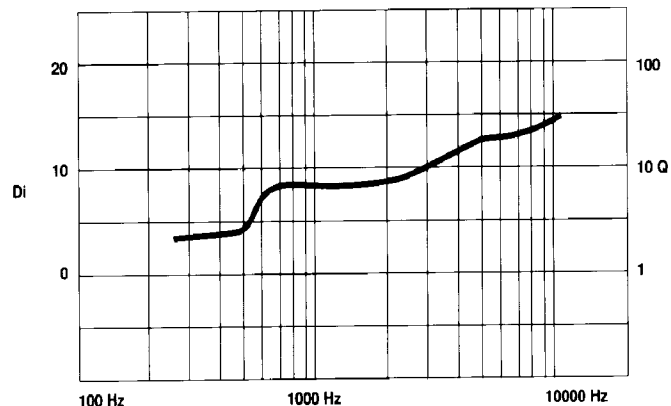
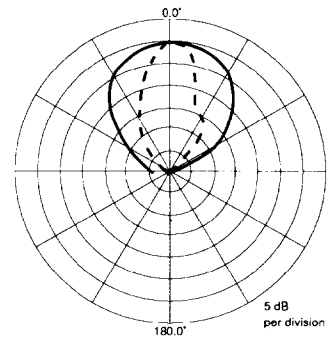
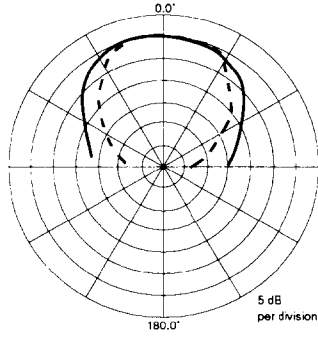
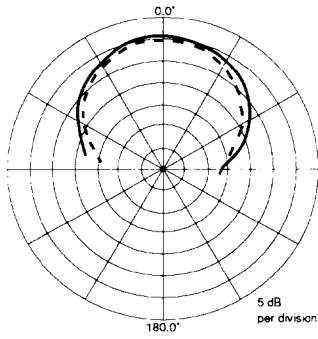


Figure 5. DIRECTIVITY

**HORIZONTAL**

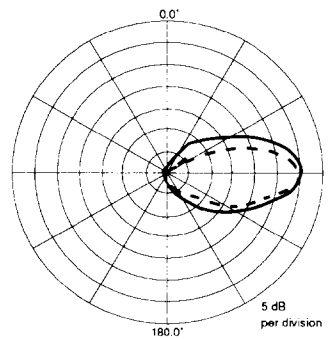
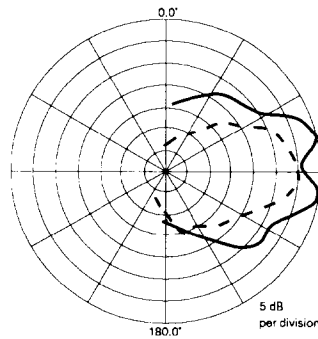
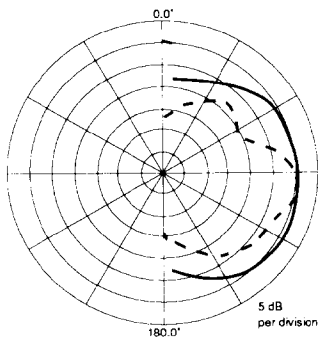


— 500 Hz  
- - - 1 kHz


— 2 kHz  
- - - 4 kHz

— 8 kHz  
- - - 16 kHz

**VERTICAL**



**Figure 3. POLAR PATTERNS**




**2-WAY Sound Reinforcement System**  
 PEAVEY ELECTRONICS CORP. MERIDIAN, MS. MADE IN U.S.A.  
**WEIGHT: 105 LBS.**

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

**DANGER**

BEFORE ATTEMPTING TO SUSPEND THIS SPEAKER, CONSULT A CERTIFIED STRUCTURAL ENGINEER. SPEAKER CAN FALL FROM IMPROPER SUSPENSION, RESULTING IN SERIOUS INJURY AND PROPERTY DAMAGE. OTHER ENCLOSURES MAY BE SUSPENDED BELOW ONE HDH 244T. HOWEVER, THE COMBINED WEIGHT OF ADDITIONAL ENCLOSURES AND ALL CABLES, CLAMPS AND OTHER HARDWARE MUST NOT EXCEED 143 POUNDS. THE HDH 244T WEIGHS 105 POUNDS AND THE MAXIMUM COMBINED WEIGHT SUSPENDED FROM THE UPPERMOST RING AND PAN ASSEMBLIES MUST NOT EXCEED 248 POUNDS. MAXIMUM ENCLOSURE ANGLE 45°.

**NORMAL**                      **BI-AMP**



**FULL RANGE**                      **HI**                      **LOW**

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

## ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The loudspeaker system shall have an operating bandwidth of 55 Hz to 18 kHz. The output level shall be 100 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, maximum program power of 800 watts with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 80 degrees in the horizontal plane and 40 degrees in the vertical plane. The outside dimensions shall be 21.75" wide by 29.5" high by 18.5" deep. The weight shall be 105 lbs. The loudspeaker shall be a Peavey model HDH 244T.

## 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.

## DANGER

Before attempting to suspend this speaker, consult a certified structural engineer. Speaker can fall from im-

proper suspension, resulting in serious injury and property damage. Other enclosures may be suspended below one HDH 244T. However, the combined weight of additional enclosures and all cables, clamps, and other hardware must not exceed 143 pounds. The HDH 244T weighs 105 pounds, and the maximum combined weight suspended from the uppermost ring and pan assemblies must not exceed 248 pounds. Maximum enclosure angle 45°.

## WARNING

This speaker system can permanently damage hearing! Use extreme care setting maximum loudness.



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