

SPECS

PEAVEY ELECTRONICS

Impulse™ 200 Two-Way Weather-Resistant Injection-Molded Speaker System

SPECIFICATIONS

Enclosure:

Peavey Impulse™200 (8 ohm)

Frequency Response:

78 Hz to 18 kHz

Low - Frequency Limit (-3 dB point):

78 Hz

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

55 Hz

Power Handling:

300 watts continuous (49.0 V RMS)

600 watts program

1200 watts peak

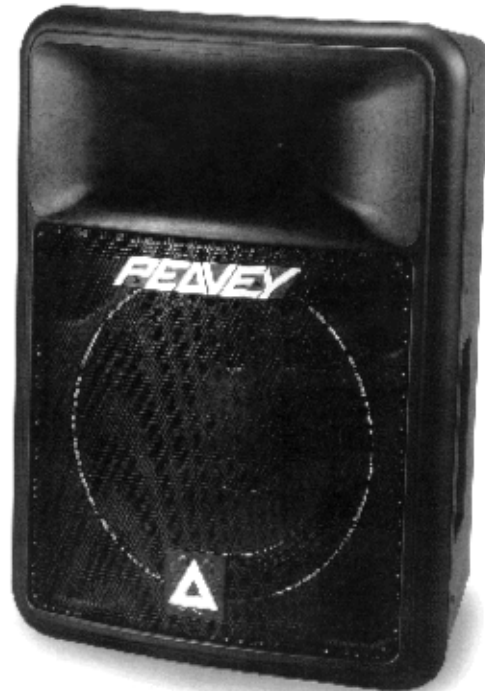
Sound Pressure Level (1W @ 1M, swept sine input in anechoic environment):

101 dB

Maximum Sound Pressure Level:

123 dB continuous

133 dB peak



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

Horizontal Plane:

500 Hz - 1.6 kHz: 110 degrees

+/- 25 degrees

1.6 kHz - 5 kHz: 90 degrees

+/- 5 degrees

5 kHz - 16 kHz: 90 degree

/-10 degrees

Vertical Plane:

500 Hz - 1.6 kHz: 105 degrees

+/- 25 degrees

1.6 kHz - 5 kHz: 60 degrees

+/- 10 degrees

5 kHz - 16 kHz: 40 degrees

+/- 5 degrees

Directivity Factor Ro (Q):

500 Hz - 16 kHz Median:

7.9 + 5.4, -4.3

Directivity Index Di:

500 Hz Median:

9 dB + 2.3dB, -3.5 dB

Transducer Complement:

Model 1268 12" Black Widow® woofer, and 22XT™ 2" titanium diaphragm compression driver tweeter.

Box Tuning Frequency (F_{box}):

70 Hz

Crossover Type:

Passive Internal Two-Way

Electroacoustic Crossover

Frequency:

1500 Hz

Crossover Slope:

12 dB/octave (2nd order) low pass, 12dB/octave (2nd order) with padding and CD horn EQ high pass.

PEAVEY®

Impedance (Nominal):

8 ohms

Impedance (Minimum):

6.7 ohms

Input Connections:

Two 1/4" phone jacks and two 4 pin Neutrik Speakon® connectors all in parallel.

Enclosure Materials and Finish:

Injected-molded high-impact polypropylene of a nominal thickness of 1/4" and with textured finish.

Mounting:

Stand - mounted via molded-in mount, flying via Versamount 70 (top or bottom of cabinet) and 4 rubber feet for floor use.

Dimensions:

23 11/16" (60.17cm) tall
by 17 13/16" (45.24 cm) wide
10" (24.5cm) wide in rear
by 13 3/4" (34.92 cm) deep.

Optional Accessories:

Impulse™ 200 Floor Monitor Kit

Net Weight:

44 lbs.

Shipping Weight:

51 lbs.

Additional Remarks:

Also available as a bi-amplified powered unit (Impulse™ 200P)

Specifications: (Impulse™ 200 4 ohm)**Enclosure:**

Peavey Impulse™ 200 (4 ohm)

Power Handling:

400 W Continuous (40 V RMS)
800 W Program
1600 W Peak

Sound Pressure Level (1 W @ 1 M, swept sine input in anechoic environment:

100 dB

Maximum Sound Pressure Level:

124 dB Continuous
134 dB Peak

Transducer Complement:

Model 1254 12" Black Widow®

woofer, and 22 XT™ 2" titanium diaphragm compression driver tweeter.

Impedance (Nominal):

4 ohms

Impedance (Minimum):

3.2 ohms

FEATURES:

- * 300 W Continuous, 1200 W Peak
- * Sound Guard™
- * Black Widow® 12" Premium Woofer
- * 22XT™ 2" Titanium Compression Driver
- * Multiple Handgrips & Stand Mount
- * Peak SPL In Excess of 133 dB!
- * Weather-Resistant Woofer and Grille
- * Top and Bottom Flying Point Inserts
- * Molded-In Horn has exceptionally smooth response and pattern control

DESCRIPTION

The Impulse™ 200 is a two-way, full range speaker system engineered to provide ultra-high performance in a portable, compact weather-resistant package. The enclosure utilizes high-impact polypropylene in an injection-molded plastic trapezoidal shape, along with a coated perforated metal grille to offer a cosmetically elegant yet durable system.

The two-way system is comprised of a 12" Black Widow® woofer (1268) with a Kevlar™ impregnated cone and a specially - treated surround cone and dust cap for excellent weather resistance. The 22XT™ compression driver features a 2" titanium diaphragm, and is coupled to an extremely smooth and well controlled constant directivity horn, with a coverage pattern of 90 degrees by 45 degrees, that is molded into the enclosure. Input connection to the system is made via either 1/4" phone jacks (2) or 4-pin Neutrik Speakon® connectors, all connected in parallel. The internal passive crossover features Sound Guard™ to protect the tweeter, and utilizes high performance components and an advanced topology crossover to provide high power handling and a smooth yet clear response. The optimal integration

of the crossover with the selected drivers results in a smooth frequency response from 78 Hz to 18 kHz. The free-flow vented cabinet offers mounting point inserts top and bottom as well as a molded-in stand adapter for maximum utility and ease of use.

FREQUENCY RESPONSE

This measurement is useful in determining how accurately a given enclosure reproduces an input signal. The frequency response of the Impulse™ 200 is measured at 1 meter using a 2.82-volt, swept-sine input. The selected drivers in the Impulse™ 200 combine to give a smooth frequency response from 78 Hz to 18 kHz, as shown in Figure 3.

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 to synthesized tones that may extend beyond audibility. This rating is contingent on having minimum 3 dB of amplifier headroom available.

ARCHITECTURAL & ENGINEERING SPECIFICATIONS

The loudspeaker system shall have an operating bandwidth of 78 Hz to 18 kHz. The output level shall be 101 dB when measured at a distance of 1 meter with an input of one watt. The nominal impedance shall be 8 ohms. The continuous power handling shall be 300 watts, maximum program power of 600 watts and a peak power handling of 1200 watts, with a minimum amplifier headroom of 3dB. The peak SPL with inaudible distortion shall reach 133 dB with music as a source, when measured at a distance of 1 meter and driven to rated power. The system shall utilize a 12" Black Widow woofer and a 22XT compression driver tweeter. The nominal radiation geometry shall be 90 degrees in the horizontal plane and 45 degrees in the vertical plane. The cabinet is to consist

of injection-molded polypropylene of 1/4 inch nominal thickness, with internal reinforcing ribs. A handgrip shall be present on each side of the cabinet next to the woofer, and a handle on the top rear edge. A vinyl - coated perforated metal grille shall be provided for woofer protection. The cabinet shall incorporate four tall sturdy rubber feet for floor standing use, and 5 mounting point inserts top and bottom for flying use. The outside dimensions shall be 23 11/16" tall by 17 13/16" wide by 13 3/4" deep. The weight shall be 44 lbs. The input connection shall be made available via two 1/4" phone jacks and two 4-pin Neutrik Speakon® connectors, all of which are connected in parallel. The loudspeaker system shall be a Peavey model Impulse™ 200.

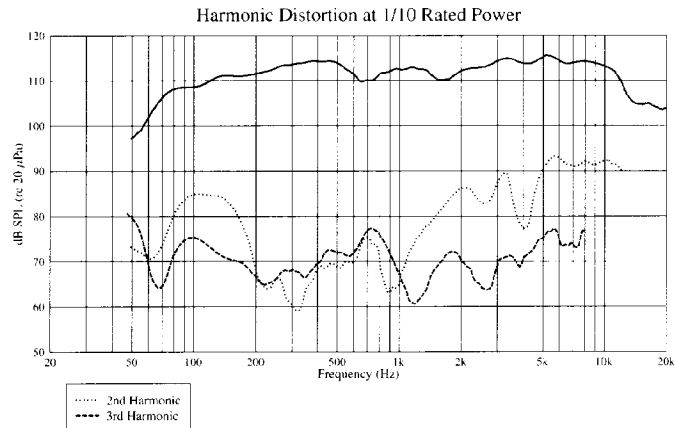
DIRECTIVITY

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 Impulse™ 200 exhibits a desirable beamwidth and directivity factor suitable for all high-level sound reinforcement applications, as shown in Figure 5 and 6 and in the horizontal and vertical polar pattern graphs.

▲ WARNING: When using the Impulse™ 200 with a stand, be sure to place one of the stand legs facing in the same direction as the face of the unit for maximum stability. Use of a Peavey S-1 stand is recommended.

▲ CAUTION: FOR PERMANENT OUTDOOR INSTALLATION AVOID DIRECT CONE EXPOSURE TO SUNLIGHT AND RAIN BY TILTING SPEAKER DOWN.

Fig. 1



HARMONIC DISTORTION

Second and third harmonic distortion vs. frequency is plotted at two power levels: one-tenth of rated input power (Figure 1) and either one one-hundredth of rated input power or 1 W (Figure 2), whichever is higher. Distortion is read from the graph as the difference between the fundamental signal and the desired harmonic. As an example, distortion that is 40 dB down from the fundamental signal is equivalent to 1% distortion.

Fig. 2

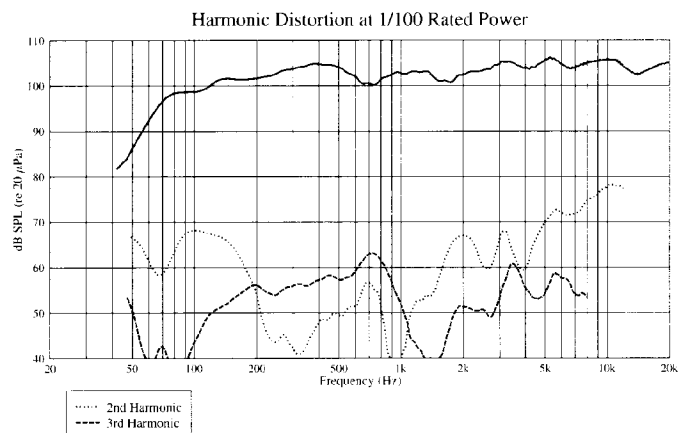


Fig. 3

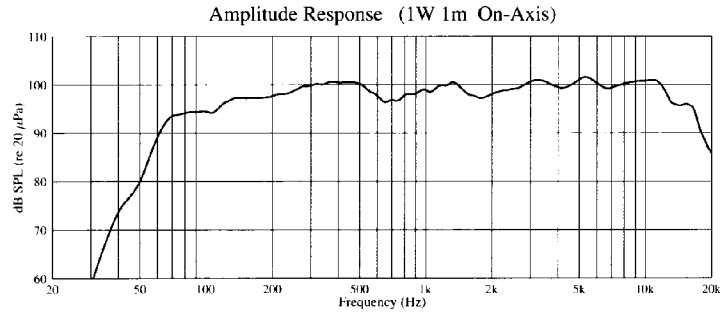


Fig. 4

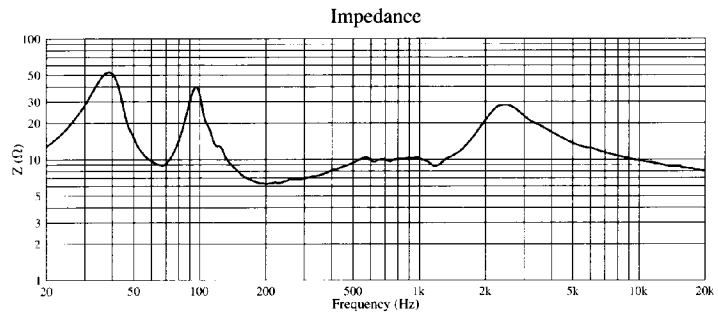


Fig. 5

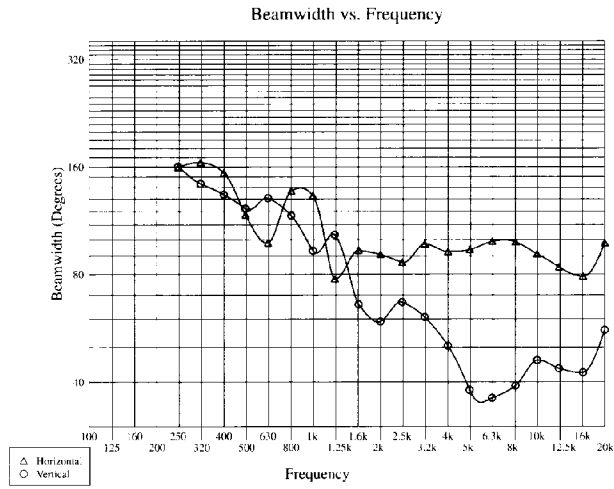
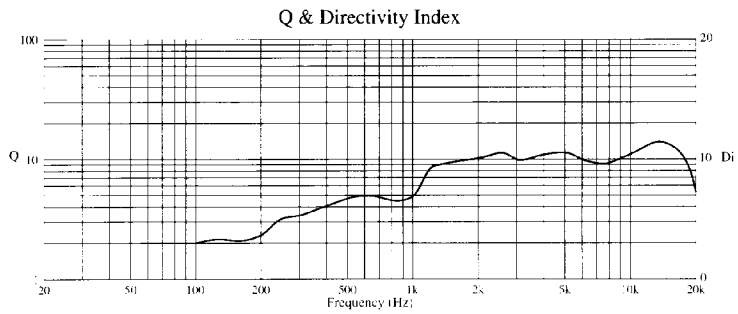
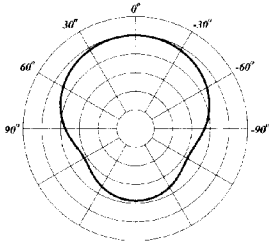


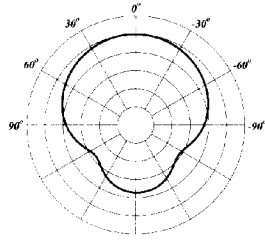
Fig. 6



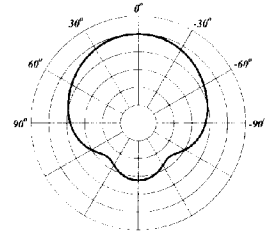
Horizontal Polar Patterns
6 dB per Division



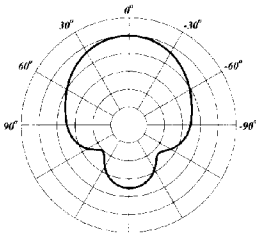
250 Hz



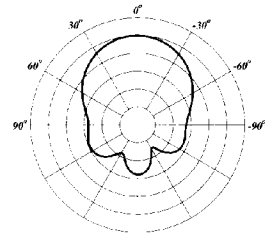
315 Hz



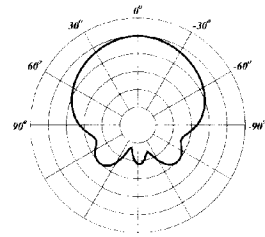
400 Hz



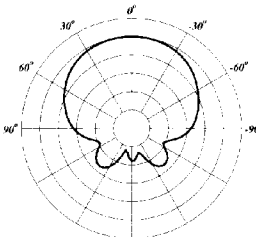
500 Hz



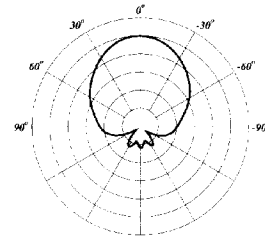
630 Hz



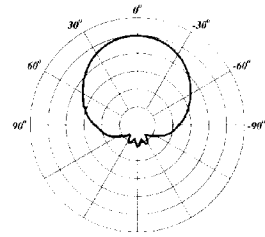
800 Hz



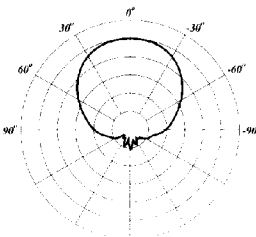
1 kHz



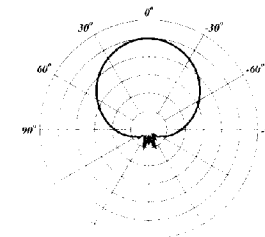
1.25 kHz



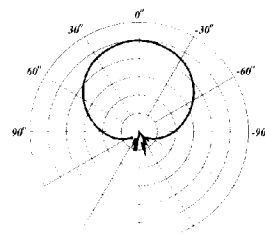
1.6 kHz



2 kHz

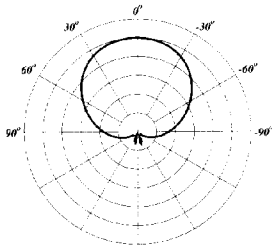


2.5 kHz

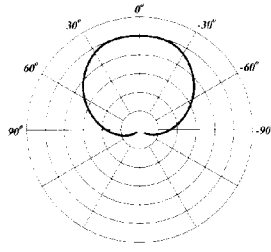


3.15 kHz

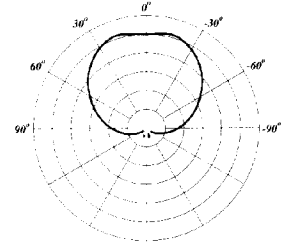
Horizontal Polar Patterns
6 dB per Division



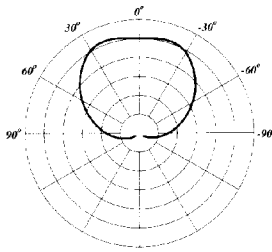
4 kHz



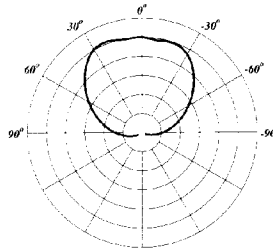
5 kHz



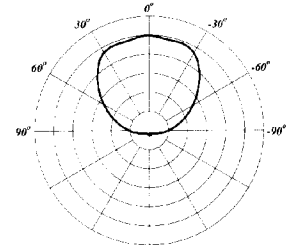
6.3 kHz



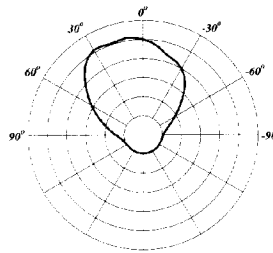
8 kHz



10 kHz

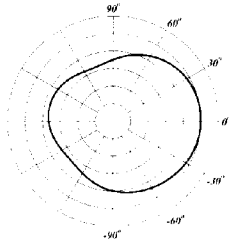


12.5 kHz

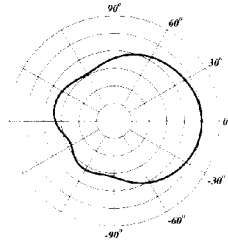


16 kHz

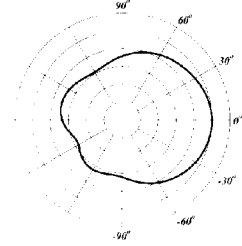
Vertical Polar Patterns
6 dB per Division



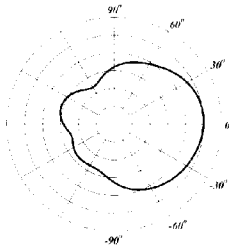
250 Hz



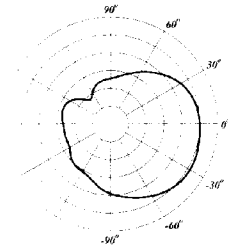
315 Hz



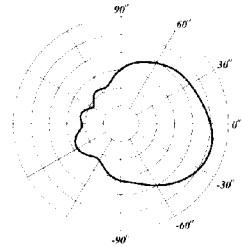
400 Hz



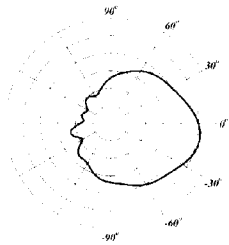
500 Hz



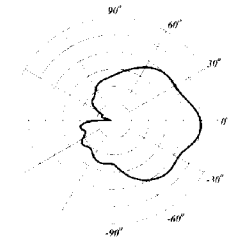
630 Hz



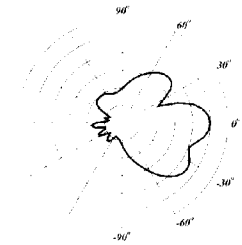
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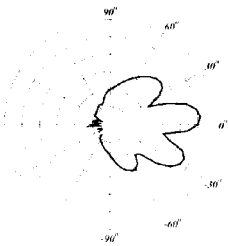
1 kHz



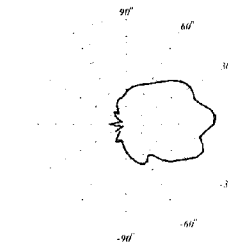
1.25 kHz



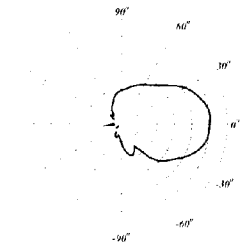
1.6 kHz



2 kHz

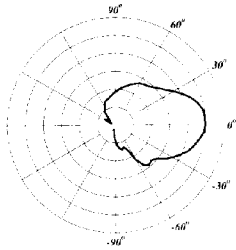


2.5 kHz

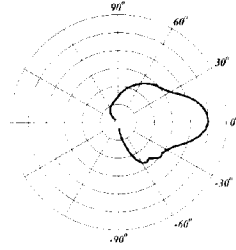


3.15 kHz

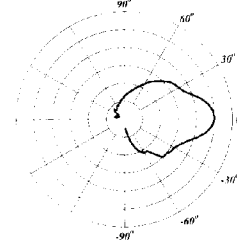
Vertical Polar Patterns
6 dB per Division



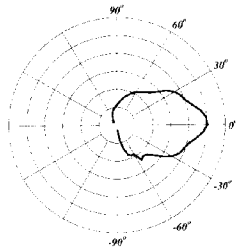
4 kHz



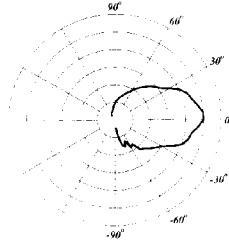
5 kHz



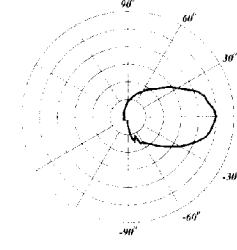
6.3 kHz



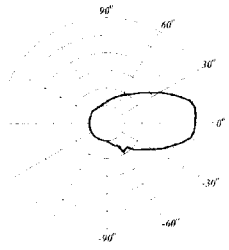
8 kHz



10 kHz



12.5 kHz



16 kHz

ONE-YEAR LIMITED WARRANTY

Note: For more details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P.O. Box 2898, Meridian, MS 39302-2898



Features and specifications subject to change without notice.



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