SPECIFICATIONS EU™ 218 Sub

Frequency Response, 1 meter on-axis, swept-sine:
Anechoic environment: 44 Hz – 375 Hz (±3 dB)

Usable Low Frequency limit (-10 dB point):
Anechoic environment: 33 Hz

Power Handling:
800 W continuous
1,600 W program
3,200 W Peak

Sound Pressure Level, 1 Watt (2.00V input), 1 meter:
Anechoic environment: 96 dB SPL
Half-space environment: 102 dB SPL

Maximum Sound Pressure Level (1 meter):
Anechoic environment:
124 dB SPL continuous
130 dB SPL peak

Half-space Environment:
130 dB SPL continuous
136 dB SPL peak

Transducer Complement:
2x 18 in. vented
Pro Plus 18-8 Neo woofer

Box Tuning Frequency:
38 Hz

Harmonic Distortion:
1% rated power
2nd Harmonic:
100 Hz: 0.71%
500 Hz: 0.22%
3rd Harmonic:
100 Hz: 0.81%
500 Hz: 0.32%
10% rated power
2nd Harmonic:
100 Hz: 2.12%
500 Hz: 0.89%
3rd Harmonic:
100 Hz: 3.65%
500 Hz: 0.87%

Recommended Active Crossover Frequency Region and Slope:
120 Hz maximum at 18 dB/octave minimum

Impedance (Z):
Nominal: 4.0 Ω
Minimum: 3.8 Ω

Input Connections:
2 x 4 pin twist-lock connectors in Parallel

Enclosure Materials & Finish:
Nine ply 18 mm Ultra-light plywood & 12 mm plywood internal trim pieces, finished in Hammer Head™ acrylic polyurethane black finish

Mounting provisions:
This unit is not designed for over head suspension. Satellite stand mounting provided for via built-in pole mount tunnel. Four rubber feet for floor use.

Dimensions (H x W x D):
22.75 in. x 27.00 in. x 24.50 in.

Net Weight:
76 lbs. (34.5 kg)

Companion Speaker Systems (sold separately):
EU™ 112 speaker system, EU™ 115 speaker system

Optional Accessories:
Pole for pole stand mounting, use the Versarray™ pole, part number 00584860

Features

- **Dual Peavey exclusive Pro Plus 18" Neo woofers**
- **1,600 Watts of Program Power Rating**
- **Vented cabinet with Isobaric chamber configuration**
- **Patented UniVent™ vented cooling system**
- **Two 4-pin twist lock input connectors**
- **Compact light-weight design for a dual 18 inch system**
- **Speaker pole mount tunnel built-in**
- **Heavy-duty steel handles inset on both sides**
- **Hammer Head™ polyurethane black finish**
- **Full-length steel grille for speaker protection**
- **Made in U.S.A.**

SPECIFICATIONS EU™ 218 Sub

Description
The EU™ 218 Sub incorporates dual lightweight Neo magnet 18" woofers and a new compact cabinet design. The EU™ 218 Sub is a vented isobaric subwoofer designed specifically for the demanding Pro-Audio user.
The EU™ 218 Sub is compact for its power handling, SPL output, distortion performance and bass extension. This is made possible by the isobaric cabinet design and the neodymium based woofers.
The Pro Plus 18 Neo magnet woofers in the EU™ 218 Sub cabinet, in conjunction with the premium 9 ply 18mm ultra-light plywood, allow for a light-weight dual 18 inch system,. It is finished with Peavey's tough Hammer Head™ polyurethane finish, for good looks and durability. A full-length 16 gauge powder-coated perforated metal grille covers the front of the system to protect the speakers from external damage. The grille is lined on the inside with a polycloth fabric for a good cosmetic presentation.
The EU™ 218 Sub incorporates Peavey's patented UniVent™, covered under US patent #6,549,637. Normal vented enclosures merely pump the same slug of air back and forth, and any cooling is incidental. The UniVent™ venting system literally pumps air through the enclosure, exchanging the stale hot air inside the cabinet for the cooler outside air. This helps keep the woofer operating temperatures from getting so high, and increases reliability and reduces power compression under heavy continuous drive conditions. The UniVent™ air pumping action is achieved without excessive turbulence or any significant net asymmetry of total vent airflow.
Input connection to the system is made via two 4-pin twist lock connectors in parallel. The inclusion of a pair of standard 4 pin Neutrik® jacks in parallel for the main inputs allows for daisy chaining to another cabinet.
A pole tunnel is built-in so that a full-range speaker system can be mounted up high above the subwoofer cabinet for optimal venue coverage.
Despite it's extremely compact dimensions and light weight for a dual 18" bass enclosure, this system can put out some serious sound levels, and take 1,600 watts program of clean amplifier power, resulting in large area coverage with excellent punch and high reliability.

Frequency Response
This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the EU™ 218 Sub is measured at a distance of 1-meter using a 1 watt (into the nominal impedance) swept-sine input signal. As shown in figure 1, the selected drivers in the EU™ 218 Sub combine to give a smooth frequency response on the central axis from 44 Hz to 375 Hz.

Power Handling
There are many different approaches to power handling ratings. Peavey rates this loudspeaker system's power handling using the AES Standard 2-1984. Using pink noise with a bandwidth of 40 Hz to 400 Hz, and peaks of 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. This rating is contingent upon having a minimum of 3 dB of amplifier headroom available.

Harmonic Distortion
Second and third harmonic distortions vs. frequency are plotted in figures 3 & 4 for two power levels. Ten percent (10%) of rated input power and either one percent (1%) of rated input power or one watt, whichever is greater. Distortion is read from the graph as the difference between the fundamental signal (frequency response) and the desired harmonic. As an example, a distortion curve that is down 40 dB from the fundamental is equivalent to 1% distortion.

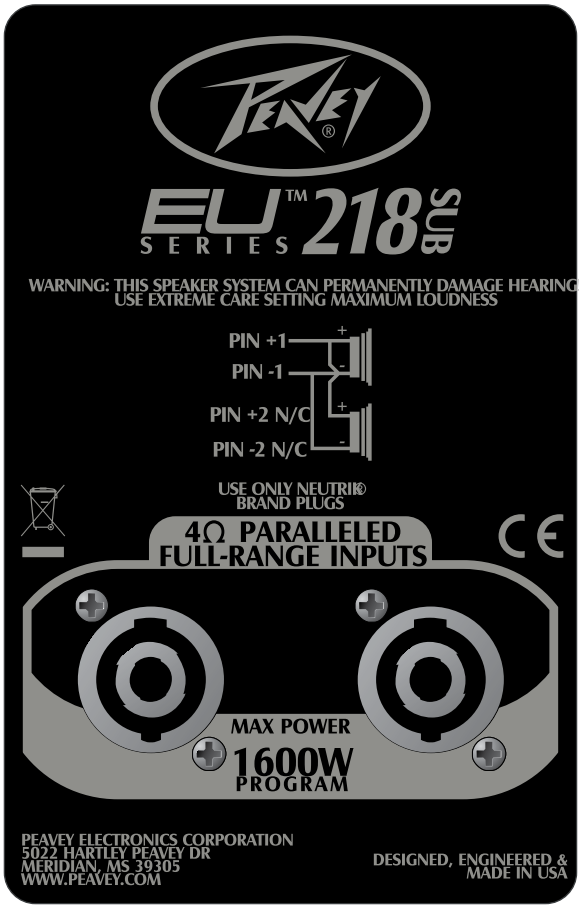
Mounting
Caution: This unit is not designed for overhead suspension!

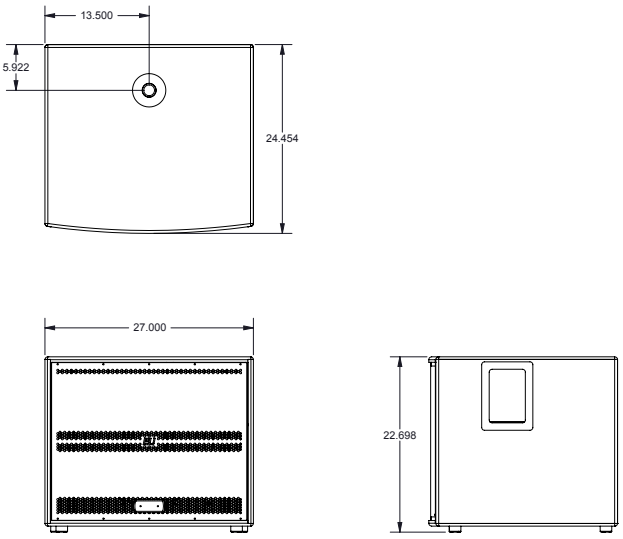
Architectural & Engineering Specifications-
The loudspeaker system shall have an operating bandwidth of 44 Hz to 375 Hz, measured on axis at 1m in an anechoic environment, with +/- 3 dB tolerance. The nominal output level shall be 96 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 4 ohms. The maximum continuous power handling for a single cabinet shall be 800 watts, maximum program power of 1,600 watts and a peak power input of at least 3,200 watts, with a minimum amplifier headroom of 3 dB. The outside dimensions shall be 22.75 inches high by 27.00 inches wide by 24.50 inches deep. The weight shall be 76 pounds. The loudspeaker system shall be a Peavey model EU™ 218 Sub.

WARNING!: The EU™ 218 Sub is extremely efficient and handles a lot of power! This sound system can permanently damage hearing! Use extreme care setting the overall maximum loudness! Due to the clear, clean sound output of the EU™ 218 Sub and the lack of distortion or obvious distress, the sound level seems much lower than it actually is. This system is capable of SPL's in excess of 136 dB at 1 meter from the speaker!

Speaker Cables
For best results, do not daisy-chain the speaker cable runs, or use small speaker cables to power the EU™ 218 Sub, run a single dedicated speaker cable to each EU™ 218 Sub.
A minimum of 12 ga. Speaker cable is recommended, to help maintain damping factor, and due to the high amount of power that will be sent to the EU™ 218 Sub. If the speaker cable run is longer than 50 feet, we recommend locating the power amp nearer the EU™ 218 Sub, and running a line level signal out to the power amp.

Crossover Settings
A number of suitable crossover options are available from Peavey: the Peavey VSX™ 26 Loudspeaker Controller, the VSX™ 48 Loudspeaker Controller, and the Peavey Digitool™MX. These have available pre-configured set-up files that provide an optimized crossover, and EQ for a flat response and level set as a starting place for any permanent installation.





Amplitude Response (1W 1m On-Axis)

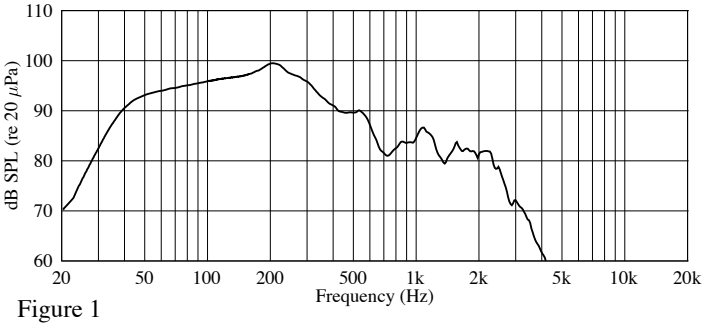


Figure 1

Impedance

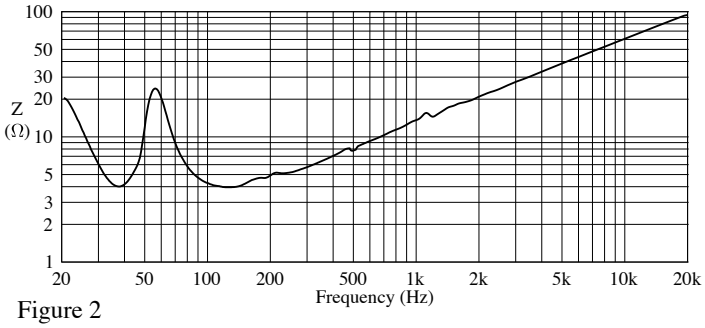


Figure 2

Harmonic Distortion : 1% Rated Power

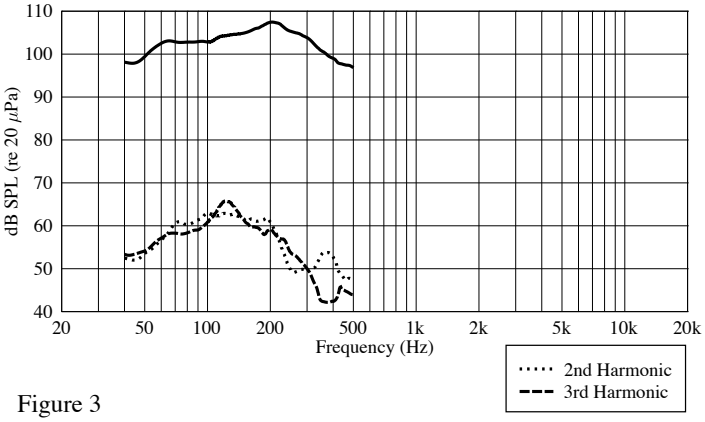


Figure 3

Harmonic Distortion : 10 % Full Rated Power

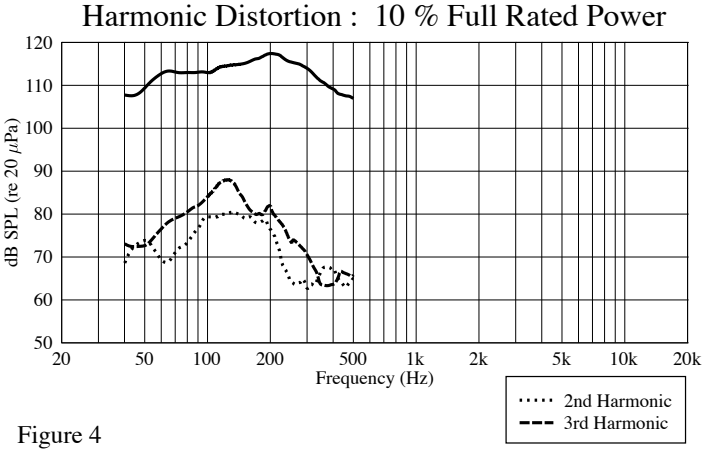


Figure 4