

# Impulse® 1012



Product Specifications

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### Specifications - Peavey® Impulse® 1012

Frequency Response: 67 Hz to 18 kHz, 1 meter on axis, swept sine in anechoic environment

Usable Low Frequency limit (-10 dB point anechoic): 55 Hz

Nominal sensitivity (1W @1M, swept sine input in anechoic environment): 96 dB (average)

Maximum Sound Pressure Level (1 meter):

123 dB continuous

129 dB SPL peak with music

Radiation Angle measured at -6 dB point of polar response:

Nominal: 110 degrees horizontal X 80 degrees vertical

(Axis of the vertical main polar lobe is angled down 10 degrees, resulting in the angular pattern with respect to straight ahead being +30, -50 degrees)

Transducer Complement:

Low Frequency Section:

1 X 12" woofer, vented

Black Widow® 1208-8 BMX WR SS SF (03617970)

High Frequency Section:

1 X 1.0" exit, 50 mm voice coil

RX<sup>™</sup>22N Neodymium compression driver on asymmetrical Quadratic Throat CD Horn

Box Tuning Frequency: 51 Hz

Electro-acoustic crossover frequency: 2 kHz

Crossover type:

Internal passive two-way crossover with driver EQ, and driver level matching incorporated.

**Crossover Slopes:** 

12 dB/octave (2nd order) each driver, both with staggered poles and driver EQ.

Impedance (Z) in ohms ( $\Omega$ ):

Nominal:  $8.0 \Omega$ Minimum:  $5.1 \Omega$ 

Input Connections:

Two NL-4 twist-lock jacks in parallel with a 4 position screw terminal barrier strip.

Enclosure Materials & Finish:

Black polypropylene plastic with textured surface, black powder-coated perforated full-coverage grille.

Mounting provisions:

Four rubber feet provide vibration free floor or stage use, and a molded-in stand mounting cup is on the bottom for use with 1 3/8" stand poles. Unit has two four insert mounting groups (8 inserts total) of M6 metric inserts, for use with the Peavey VM 70 mounting bracket, one on the left side, and one on top.

Overall Dimensions ( H x W x D ) 25.3"H x 14.38"W x 14.00"D 643 mm x 366 mm x 356 mm

Net Weight: 45 lbs. (20.4 kg)

### **Features**

- 2-way full range sound reinforcement system
- Black Widow\* 12" 1208-8 BWX WR SS SF long-throw woofer
- RX<sup>™</sup>22N Neodymium compression driver
- Power Handling: 2000 watts peak, 1000 watts Program
- HF Driver protected by Sound Guard™ III
- Patented Quadratic Throat Waveguide<sup>™</sup> technology, 110 by 80 degree coverage
- Rugged plastic injection-molded trapezoidal enclosure
- Cabinet has dual rear corner angled sides for floor monitor use.
- Full-coverage perforated steel grille, with powder coat finish
- Pole mount molded-in for 1 3/8" diameter poles
- M6 metric fly points for VM-70, top and left side of cabinet
- Weather-resistant for sheltered outdoor use.
- Overall system weatherization rating of IP44

WARNING! The Impulse 1012 is very efficient and powerful! This sound system can permanently damage hearing! Use extreme care setting the overall maximum loudness!

The apparent sound level of the Impulse\*1012 can be deceiving due to its clear, clean sound output. The lack of distortion or obvious distress can make the sound level seem much lower than it actually is. This system is capable of SPL in excess of 129 dB at 1 M from the speaker!

### Description

The Impulse®1012 is a weather-resistant two-way sound reinforcement system based on a 12" Black Widow® woofer and a RX™22N titanium diaphragm dynamic compression driver mounted on a 110 by 80 degree coverage Quadratic Throat Waveguide™. It's contemporary appearance coupled with exceptional performance offer an highly desirable combination.

The light yet durable injection-molded plastic enclosure with molded-in stand mount cup eases portable use for live music or PA sound. The trapezoidal cabinet has three handles for ease of portability, and two extra angled sections on either side to allow use as a floor monitor. Two mounting point locations are available, one on top and one on the side for the Peavey® VM™ 70 mounting bracket. A full length black powder coated perforated steel grille with cloth backing provides system protection and a professional appearance. System is weather-resistant for additional flexibility in sheltered outdoor use.

The two-way system consists of the following driver components: a 12" Black Widow® BWX series woofer with a long throw voice coil. The woofer is capable of over 500 Watts of continuous power handling (AES Std 2-1984). The high frequencies are handled by the new 2" RX™22N Neodymium magnet with titanium diaphragm compression driver. This outstanding driver is coupled to a Quadratic Throat Constant Directivity Waveguide (U.S. Patent #6,059,069) to provide smooth, even response, low distortion and good high frequency dispersion. This horn has an asymmetrical vertical polar response, aiming the main energy lobe down 10 degrees so it reaches the audience instead of going over their heads. This reduces ceiling reflections and ensures greater clarity and gain before feedback.

Full-range input connection to the system is made via two NL-4 four-pin twist-lock jacks and one four screw terminal barrier strip all in parallel. The internal passive crossover features the Peavey-exclusive Sound Guard™ protection circuit for the tweeter and an advanced topology crossover with high-performance components to provide high power handling and reliability. Sound Guard™ provides long- and medium-term driver overload protection without impairing musical transients or dynamics on the tweeter.

The crossover provides driver roll-off and protection as well as driver EQ for the woofer and horn for a clean, clear and smooth response. High-quality, reliable crossover components include polypropylene capacitors and high-current inductors. The optimal integration of the crossover with the selected drivers results in a smooth frequency response from 67 Hz to 18 kHz.

Despite its compact dimensions, this system can produce very high sound levels and handle 1000 watts program power, resulting in high articulation and long-term reliability.

# Flying or Mounting the Impulse™ Enclosure

IMPORTANT SAFETY INFORMATION FOR THE MOUNTING AND FLYING OF THE PEAVEY Impulse®1012

CAUTION: Before attempting to suspend this speaker, consult a certified structural engineer. Speaker can fall from improper suspension, resulting in serious injury and property damage. Do not suspend or mount any other product or device from this enclosure! Maximum enclosure angle 30 degrees. Use only the correct mating hardware. All associated rigging is the responsibility of others.

ALWAYS USE A SUITABLE SAFETY CHAIN or wire rope, attached to an unused group of fly points or to the cabinet as directed by a certified structural engineer, and firmly attached to a suitable structural member as indicated by a certified structural engineer.

The recommended range of torque for the mounting bolts is 3.5 to 4.0 foot-lbs. (4.75 to 5.42 N-m). DO NOT OVERTIGHTEN! If an insert spins free, it has been damaged, and the cabinet can not be safely flown from that set of inserts!

Never transport the cabinet while mounted on an array bracket or other mounting bracket, this may unduly stress the mounting inserts.

The use of threadlocker (blue type/medium strength) on the mounting bolts is recommended, as are the appropriate lockwashers, to insure that the mounting hardware will not vibrate loose over time.

CAUTION: FOR CONTINUED SAFETY INSPECT RIGGING ANNUALLY.

#### **GROUPING OF INSERT SETS**

#### Group A

A set of four M6 inserts on the top, designed to be used with the Peavey VM 70 mounting bracket. The inserts can also be used with the proper forged machinery eyebolts to hang the cabinet. See Eyebolt Use and Eyebolt Specifications below.

#### Group B

A set of four M6 inserts on the left side, designed to be used with the Peavey VM 70 mounting bracket.

Both groups should always use all four inserts of a given group as a set; NEVER use just one insert to fly a cabinet! The pair of insert groupings are meant to have all four inserts used at once within a group.

Both groups should use an M6 x 1.0 mm per thread metric bolt, grade 8.8 or better, that penetrate the cabinet past the cabinet surface at least 1/2" (approx. 12 mm).

A maximum length of cabinet penetration is recommended not to exceed approx. 1.00" (approx. 25 mm) to avoid fouling the tip of the bolt on the sound absorbing material inside the cabinet.

When using a Peavey° VM 70 mounting bracket and lock washer, the length of the bolt should be a minimum of 0.75" (approx. 19 mm). A maximum length of cabinet penetration is recommended not to exceed approx. 1.25" (approx. 32 mm) to avoid fouling the tip of the bolt on the sound absorbing material inside the cabinet.

Both groups are designed to be used with the Peavey\* VM 70 mounting bracket (03011050 black, 03011040 white). The Impulse\*1012 can also be used with the Peavey\* Wall-Mount Speaker Stand (00922940 black), which will fit into the built-in stand mount cup on the bottom of the cabinet.

#### **EYEBOLT USE**

The group A insert group can be used with the proper eyebolts to fly the cabinet.

Two eyebolts can be used to hang the cabinet using the front two inserts of Group A, and the rear two inserts can be used to pull up and angle the cabinet downward for small angles. For aiming the cabinet downward greater than a small angle, the use of the thumbscrew insert on the rear bottom of the cabinet, in the pole mount recess, can allow an  $M8 \times 1.25$  mm eyebolt to pull the cabinet back. Maximum angle is 45 degrees.

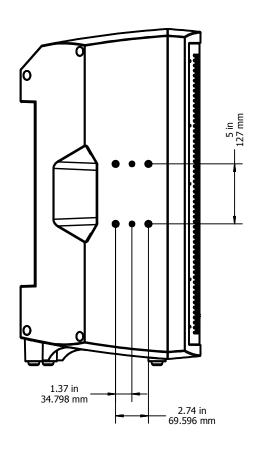
#### **EYEBOLT SPECIFICATIONS**

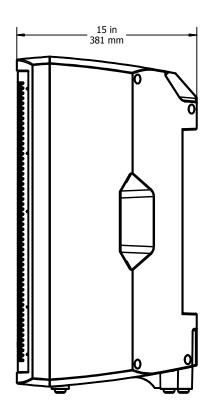
Eyebolts used in the Group A should be M6 metric thread. Eyebolts and bracket bolts must conform to certain minimum strength criteria for safety reasons. Unspecified eyebolts found at local hardware stores are not strong enough to maintain safety for overhead flying or rigging. Use only forged steel shoulder machinery eyebolts designed for rigging use, which adhere to the stated standards as outlined below.

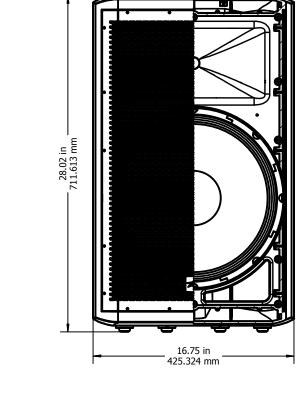
Forged shoulder machinery eyebolts used for Group A inserts should be an M6 size, 1.0 mm per thread, and must conform to DIN 580 or ASTM A489 standards, for Germany, DGUV 17 (formerly BGV-C1) is the relevant standard. Minimum shank length should be 12 mm. Maximum recommended shank length is 26 mm (to avoid fouling the sound absorbent liner inside). The eyebolts should be rated for a minimum of 150 lbs straight pull working load.

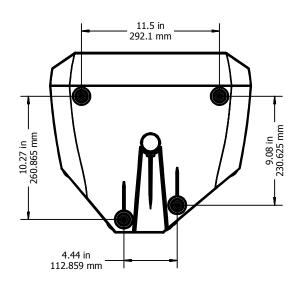
For the pull-back eyebolt used on the thumbscrew position down at the bottom rear of the cabinet, this should be an M8 x 1.25 mm size eyebolt conforming to the same standards as the main eyebolts above.

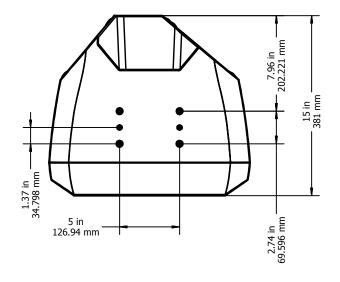
If there are any questions regarding the proper hardware or practices for safe flying or rigging of the Peavey Impulse® 1012, contact a certified structural engineer, or consult with those local rigging companies who have trained and certified personnel.











# **Architectural & Engineering Specifications**

Impulse® 1012

The loudspeaker shall consist of a 12 inch nominal low frequency transducer and a high frequency compression driver on a quadratic throat waveguide horn with a 110 deg. x 80 deg. nominal coverage pattern. The frame of the low frequency transducer shall be made of cast aluminum, and the magnetic assembly shall use a ferrite magnet and the voice coil shall be 4 inches in nominal diameter and made of edgewound aluminum ribbon wire. The high frequency section shall be driven by a compression driver capable of 60 watts power input above 1 kHz. The compression driver voice coil shall be no less than 2 inches in nominal diameter, utilize a titanium diaphragm and a Neodymium magnet structure. Input to the loudspeaker system shall consist of two NL-4 four-pin twist-lock connectors, both in parallel with a 4 position screw terminal barrier strip with contact guard cover. The speaker system shall have an IP rating of IP44, when properly installed, according to the instructions.

The loudspeaker system shall have an operating bandwidth of 67 Hz to 18 kHz. The nominal output level shall be 96 dB when measured at a distance of 1 meter with an input of 1 watt. The nominal impedance shall be 8 ohms. The maximum continuous power handling shall be 500 watts, with maximum program power of 1,000 watts, peak power input of at least 2,000 watts and a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 110 degrees symmetrical about the center axis in the horizontal plane, and +30, -50 degrees about the center axis in the vertical plane.

Fly point inserts shall be provided, 8 per cabinet, at the following locations: 4 top, and 4 on the left side. The outside dimensions shall be 25.30 inches high by 14.38 inches wide by 14.00 inches deep. The weight shall be 45 lbs. The loudspeaker system shall be a Peavey® model Impulse®1012.

Specifications subject to change without notice.



Warranty registration and information for U.S. customers available online at www.peavey.com/warranty or use the QR tag below



Features and specifications subject to change without notice.

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