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112IM™

LIGHTWEIGHT COPOLYMER-BASED ALL-WEATHER LOUDSPEAKER SYSTEM

ONE SYSTEMS®

The One Systems® 112IM™ is an all-weather loudspeaker system with a lightweight, injection-molded, copolymer enclosure. The 112IM may be used in direct weather outdoor installations as well as indoor applications where high vocal intelligibility and accuracy are required. Like all One Systems® products, the 112IM was designed to offer excellent full-range fidelity and superior vocal reproduction and intelligibility as well. The system consists of a single 12-inch One Systems Inside/Only woofer and a large-format ET driver coupled to a fully-rotatable, constant-directivity high frequency horn.

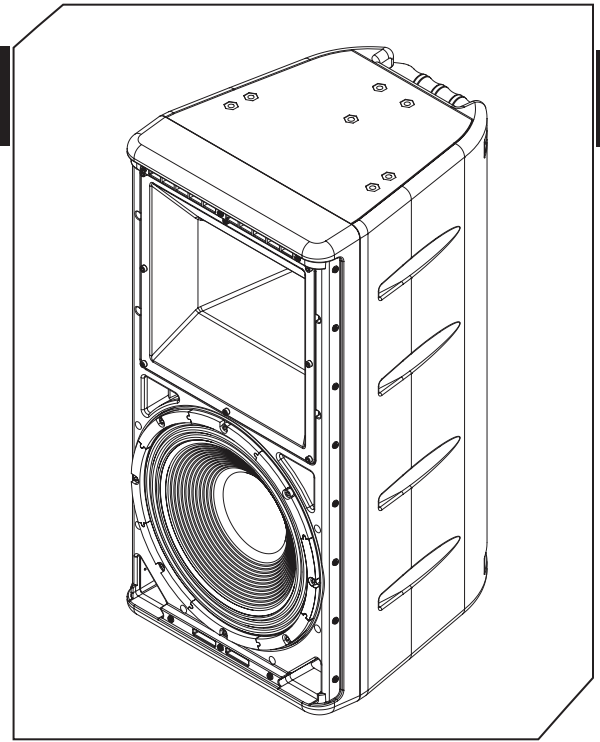
The 112IM system offers a complete selection of optional array and flying/suspension hardware. The system is also available with a 150-watt, 3-tap line-matching transformer. The 112IM transformer version is factory wired to provide operation at both 70.7Vrms and 100Vrms levels. The tap values are 150 watts, 75 watts, and 37.5 watts.

The 112IM is optimized for use in outdoor applications such as football stadiums, baseball stadiums, race tracks and other sports venues where permanent installation is required and direct weather exposure is assumed. The system is also well-suited for outdoor general public address applications. The system is equally suited for general-purpose indoor applications in multipurpose rooms, indoor sports venues and general performance or vocal intensive applications.

The 112IM's enclosure is a copolymer that is optimized for high UV exposure and long life in harsh environments. All internal and external rigging and suspension hardware, as well as the metal grill are made of stainless steel or high-strength aluminum.

The grill is a 3-layer "rain shield" design that will minimize direct rain contact with the systems transducers. The system's unique vent design also allows for easy moisture drainage from the interior of the enclosure. The enclosure and grill design are rated to IEC 529 / IP 45 (solid object penetration to 1 mm (0.04 inches) and water jets from any direction). The 112IM's enclosures and components are also rated to Mil Spec 810.

The input section consists of a stainless steel hardware barrier strip and two 4-pin Neutrik® Speakon® connectors. An input weather cover is provided with an integral gland nut connector for use in outdoor applications. In the outdoor configuration, connections are made thru the 4-position barrier strip.



FEATURES & BENEFITS

- » Direct-weather 12-inch two-way system
- » Optimized for high intelligibility and vocal articulation
- » ET Fully-rotatable and interchangeable high-frequency horns
- » Patent-pending large-format compression driver with titanium diaphragm and ferrite magnet
- » Patent-pending large-format voice coil low-frequency driver
- » Available array, down-fill, and U-Brackets for installation flexibility
- » Weather cover with gland nut plus stainless steel barrier strip and 2 x Neutrik Speakon input connectors
- » Available in black or white finishes with optional 150-watt 3-tap 100V or 70.7V line-matching transformer (112IM-100 or 112IM-70)

SPECIFICATIONS

Frequency Response:	60 – 16kHz
Coverage Pattern:	105 H x 60V (ETS105/60) 60H x 40V (ETS60/40)
Passive Crossover Freq.:	1,300 Hz (ETS-60x40) 1,800 Hz (ETS-105x60)
Inputs:	5-position barrier strip or 2 x 4-pin Speakon
System Sensitivity (1watt / 1meter):	96 dB
Nominal Impedance:	8 ohms



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The gland nut is weather proof and is rated NEMA 6P (IP 68). The connector will accommodate cable with outside diameters from 7 mm to 12 mm (0.236" to 0.472"). The maximum diameter of the Gland Nut will accommodate most 2-conductor AWG 12 cable assemblies.

The system's design utilizes a patent-pending high frequency driver that will accommodate a variety of high-frequency radiation patterns. There are two fully rotatable high frequency horns available. Both horns are Equivalent Throat designs that offer extended bandwidth polar control with very low distortion. The standard ET-60/40 delivers a 60 degree horizontal by 40 degree vertical radiation pattern and is also fully rotatable. Although the 112IM is shipped with the ET-60/40 horn installed, an ET-105/60 will be supplied at no charge upon ordering. The ET-105/60 is a 105 degree horizontal by 60 degree vertical pattern and may be rotated to also provide a 60 degree horizontal by 105 degree vertical for down-fill applications. A simple internal jumper optimizes the crossover for either high frequency horn. (For details related to changing high frequency horns, see the "Tech Papers/Install Guides" section of the One Systems web site, www.onesystems.com)

The patent-pending ET compression driver (full details are available at the One Systems web site, www.onesystems.com) is a unique "equivalent throat" design that allows the driver's radiation pattern to be controlled by the phase plug summation plane rather than the conventional exit diameter at the end of the driver's structure. The ET driver has a large format titanium diaphragm and a close-spaced circumferential ring phase plug to insure extended high frequency bandwidth.

The low frequency driver's design is also patent-pending. The 12-inch 12I/O Inside Only woofer utilizes a unique voice coil wound on the inside of the voice coil's support structure. This design ensures both high magnetic system displacement as well as increased thermal transfer for reduced power compression and higher reliability.

Because the ONE SYSTEMS' 112IM is designed for permanent installation applications, a variety of rigging and suspension options are available. The 112IM has 19 x M10 mounting points. An optional Eye Bolt Kit with 4 x M10 forged-shoulder, 15 mm eye bolts is available from One Systems.

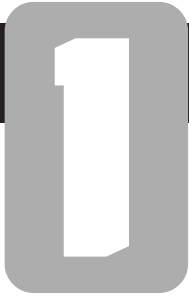
The 112IM may be suspended as a single unit using the optional One Systems 112IM-U U-Bracket in either a vertical or horizontal configuration.

The 112IM may be mounted in selected installations (when permitted by local codes and appropriate substrates) using a ONE SYSTEMS pan and tilt bracket (PT-70-2). Additionally, the 112IM may also be pole mounted using the Pole Mount System-2.

SPECIFICATIONS (continued)

Power Handling:	800 watts continuous, 1600 watts program, 3200 watts peak*
Low Frequency:	One Systems 12 I/O
High Frequency:	One Systems ET Driver
Suspension/Mounting points:	19 x M10
Weather Performance:	IEC 529 / IP 45 Mil Spec 810
Dimensions (H x W x D) mm:	748 x 368 x 398.3
Dimensions (H x W x D) in:	29.5 x 14.5 x 15.7
Net Weight:	30 kg (66.1 lb)
70.7/100V versions:	33.5 kg (73.8 lb)
Optional Accessories:	112IM-U U-Bracket kit; PT-76 Pan-Tilt bracket; Pole Mount System-3; M10 Forged Shoulder Eye Bolt Kit
Additional Supporting Systems:	212Sub-W subwoofer

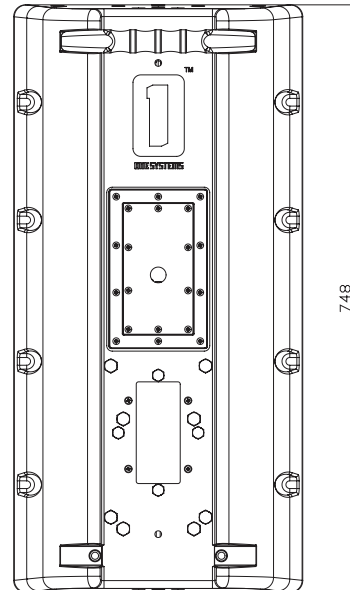
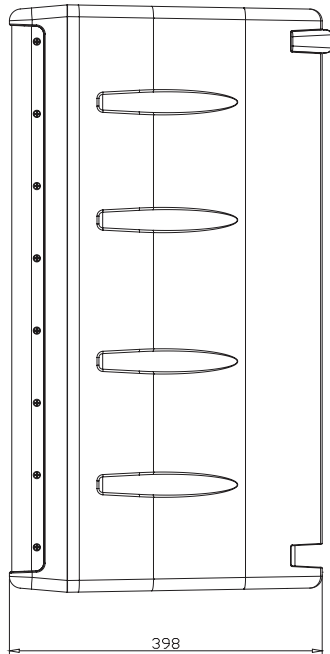
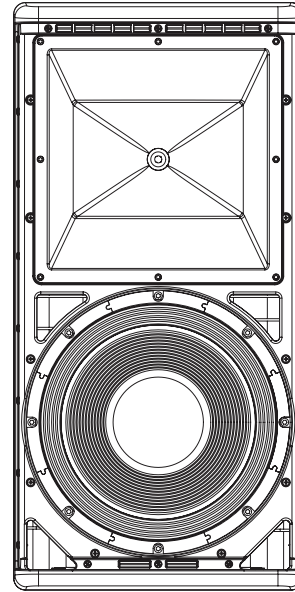
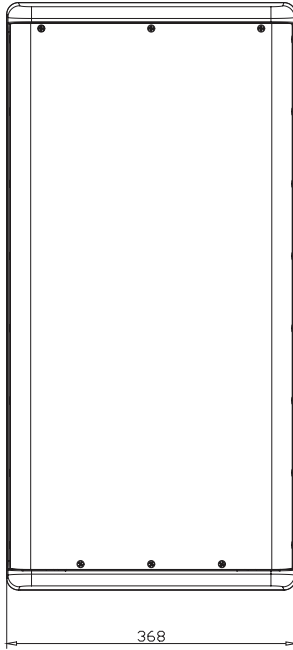
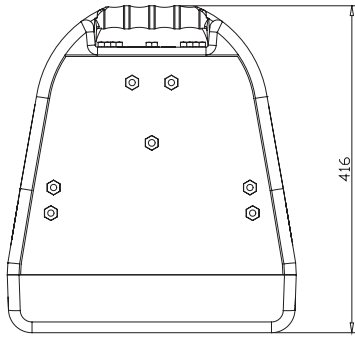
* All power handling ratings are amplifier headroom dependent.



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ALL-WEATHER LOUDSPEAKER SYSTEM

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112IM™

Constant Voltage Transformer Wiring

LIGHTWEIGHT COPOLYMER-BASED
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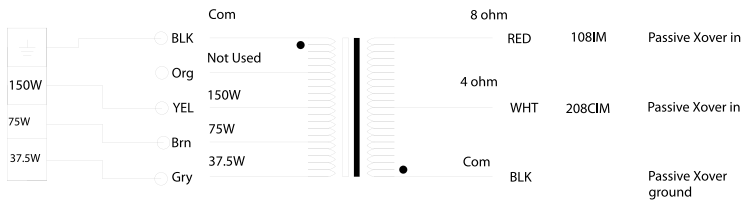
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All ONE SYSTEMS enclosures that feature constant voltage transformers may be wired as shown below. The 112IM-70/100 allows for both 70.7V and 100V wiring. The taps are 150 watts, 75 watts, and 37.5 watts. All wiring is via the five-position barrier strip. The wiring is shown in Table 1.

CAUTION: The weather cover must be installed (even if the enclosure is not installed in an outdoor venue) after the connections to the barrier strip are made. Installation of the weather cover is mandatory and will isolate the high voltages present on the terminal strip from contact.

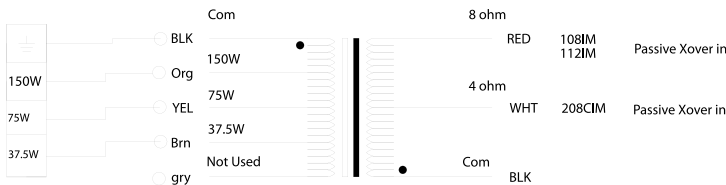
Figure 1 is a schematic diagram of the transformer wiring for both the 100 volt and 70.7 volt models.

100V Wiring



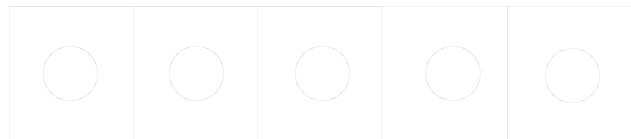
INPUT	POWER LEVEL
1+	Ground
1-	150 Watts
2+	75 Watts
2-	35 Watts

70.7V Wiring



Wire color to barrier strip pin

BLK Org YEL Brn gry



100 V		NC	150 W	75W	37.5W
70.7V		150 W	75W	37.5W	NC

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