



**ONE SYSTEMS**<sup>®</sup>  
ACOUSTIC EXCELLENCE<sup>®</sup>

## SL.PMT INSTALLATION MANUAL v1.0 POLE MOUNT SYSTEM WITH TILT CAPABILITY

The Pole Mount System SL.PMT is an easy to install and flexible suspension system designed to allow One Systems loudspeaker systems to be mounted to pole structures and it provides tilt aiming. The only models approved for use with the SL.PMT are the ONE.SL12 and ONE.SL15 speakers.

### **NO OTHER LOUDSPEAKERS SHOULD BE SUBSTITUTED!**

The following actions **MUST** be performed **PRIOR** to beginning the installation of the SL.PMT:

1. This installation guide must be read and completely understood
2. The instruction manual “Rigging and Suspension of One Systems Products” must be read and understood.(This instruction manual is available at [www.onesystems.com](http://www.onesystems.com).)
3. The manufacturer of the mounting pole **MUST** be consulted to verify the applicability of the SL.PMT and ONE SYSTEMS SL loudspeaker model to the specific pole being used. The pole must be capable of supporting the weight of the SL.PMT, the loudspeaker system and all associated rigging and **ALSO** meet all required safety factors specified by local and national codes and safe rigging practices.

The weight of the SL.PMT is 16.1 kg (35.5 lb). The combined weight of the SL.PMT bracket and a ONE.SL12 speaker is 42.1 kg (92.8 lb); the combined weight of the SL.PMT bracket and a ONE.SL15 speaker is 51.1 kg (112.7 lb).

4. The SL.PMT and attached speaker should be installed only by one experienced in the overhead suspension of items and familiar with the applicable local and national codes governing installation of these products and also governing the attachment of these products to the specific pole structure.
5. The installer should be experienced with the use of stainless steel banding systems and banding system tools.
6. The SL.PMT is constructed from structural steel and is coated with a dual-layer, zinc-rich powder coating.

**NOTE:** Caution should be exercised when connecting One Systems speakers, suspension hardware and pole structures (in regard to dissimilar metals). Compatible metals and appropriate anode to cathode area ratios must be maintained. A structural engineer with galvanic corrosion experience should be consulted prior to installation.

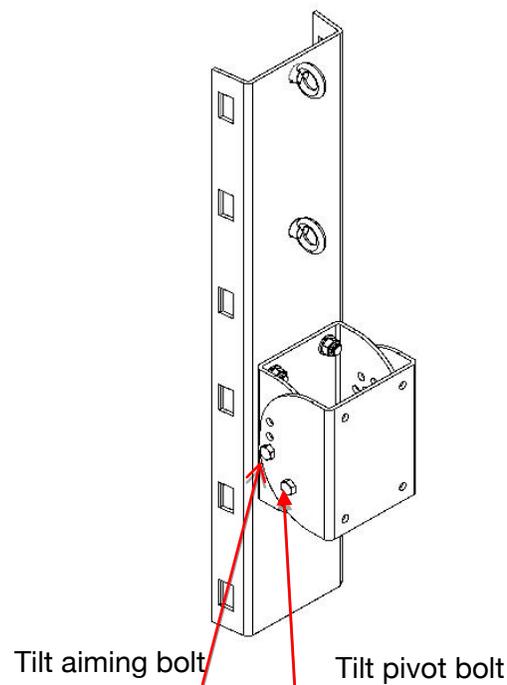
**CAUTION:** All structures outdoors are subjected to wind forces. These forces must be considered when suspending any product outdoors. It is necessary to know the “Effective Projected Area” (EPA) of the loudspeaker and SL.PMT.

This data must be supplied to the pole manufacturer in order to determine safe operating conditions for the loudspeaker and SL.PMT when mounted to a specific pole. See Appendix 1 in this installation guide for effective projected areas for each system designed for use with the SL.PMT. Periodic inspections of the bracket, loudspeaker enclosures and installation are highly recommended!

**IMPORTANT NOTE:** All products in direct weather installations can be subjected to high wind speeds. For wind speed exposure over 74 miles per hour (119.1 kilometers per hour, 64.3 knots) the loudspeaker enclosure, bracket, banding, link assembly and any secondary safety must be inspected for signs of damage or fatigue!

## INSTALLATION OF THE SL.PMT

The SL.PMT consists of three parts: the pole bracket, the loudspeaker bracket and the Link assembly. The bracket is designed for pole diameters of a minimum of 10 inches (254 mm) at the speaker's mounting height. **Pole diameters smaller than 10 inches (254 mm) at mounting height must not be used. The pole manufacturer MUST be consulted to determine the structural capacity of the pole. The pole must be able to support the weight of the bracket, loudspeaker, and all associated rigging with all required safety factors!**



**FIGURE 1.** The SL.PMT bracket showing the tilt aiming bolt and tilt pivot bolt

Figure 1 represents the isometric and top views of the pole bracket, including the loudspeaker bracket section.

The loudspeaker bracket must be removed from the main bracket before mounting the pole bracket to the pole. The loudspeaker bracket is shown separately in Figure 2 below.

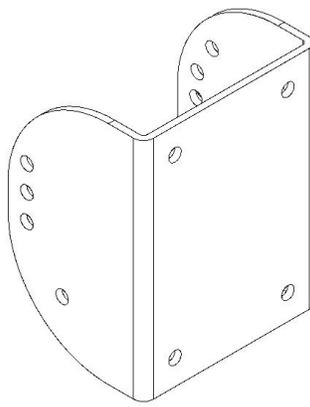


Figure 2

Figure 3 is a representation of the Link assembly. This assembly should be used whenever the SL.PMT is being used.

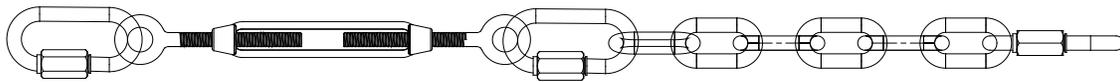


Figure 3

Mount the pole mount section (see Figure 4a below) of the bracket to the pole at the desired height on the pole. The loudspeaker bracket shown in Figure 2 should be removed prior to hanging the pole mount section. The bracket is attached to the pole using BAND-IT stainless steel bands. **DO NOT SUBSTITUTE bands of other materials or other widths! There are SIX slots on each side of the pole bracket for bands. ALL SIX LOCATIONS MUST BE USED.**

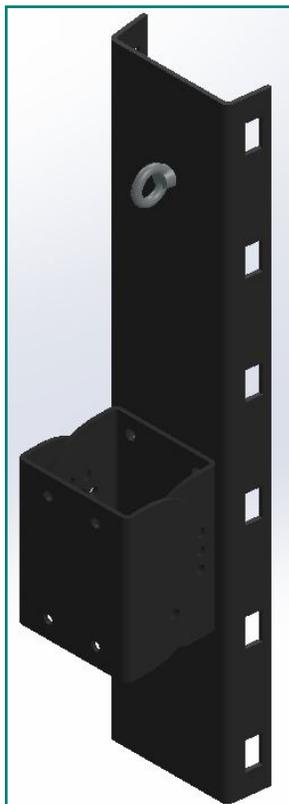
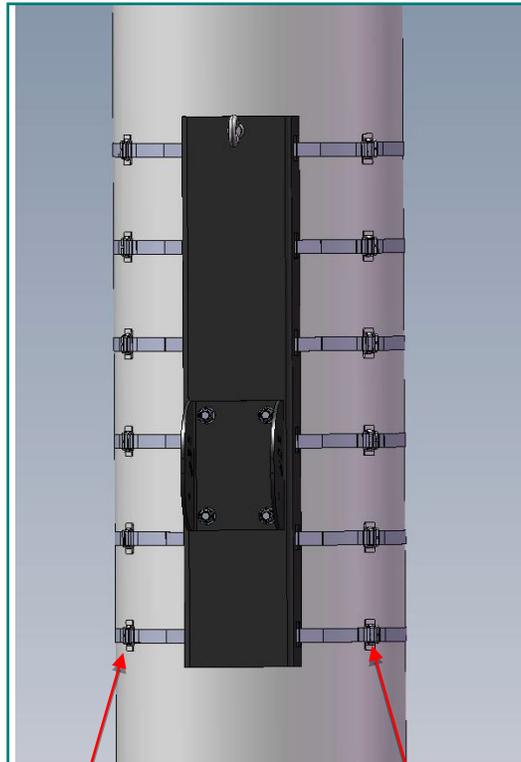


Figure 4

**IMPORTANT: It is REQUIRED that each of the six (6) band slots be wrapped TWICE (TWO INDEPENDENT SINGLE WRAPS PER SLOT). This should not be confused with “double wrapping”, which is two wraps of the band through a single buckle. This means that a total of 12 bands and 12 buckles are required for a single SL.PMT bracket. Two independent single wraps per slot will ensure a strong and secure mounting of the bracket to the pole. Make certain that the two buckles are separated from each other in each slot as shown below!**

The image below illustrates the double wrapping required for each of the six slots.



**Figure 5**

Figure 5 illustrates the use of two independent bands per slot and also illustrates the use of all six slots.

The required banding and buckle material for non-marine / non-coastal environments is:

BAND-IT	# C206R9 stainless steel bands
BAND-IT	# C25699 buckles
BAND-IT	# C00169 tensioning tool

The stainless steel band is Type 201SS which is 0.030 inches (0.762 mm) thick and 0.750 inches (19 mm) wide. This banding material is only used for “inland” environments (which is what the SL.PMT and ONE.SL speakers are designed for).

**ANY QUESTIONS REGARDING THE BANDING SYSTEM SHOULD BE REFERRED TO BAND-IT-IDEX TECHNICAL SUPPORT**

**WARNING: Do NOT Substitute banding materials or banding dimensions.**

Installation instructions from BAND-IT should be followed exactly. Operating instructions are supplied with the tensioning tool. (ALL BAND-IT parts and tools must be purchased separately from BAND-IT or from their distributors. These parts and tools are not supplied by and are not available from One Systems).

The stainless steel banding material, buckles, and tensioning tools are available from the following locations (or through distributors recommended by these locations):

BAND-IT IDEX, Inc.  
4799 Dahlia Street  
Denver, CO 80216 USA  
800-525-0758

FELIX PONCE  
Calle Ignacio Zaragonza No. 8  
Colonia Ahuehuetes Atizapan 52953  
Edo. de Mexico  
(52) 555825 8502

BAND-IT Company Limited  
Speedwell Industrial Estate  
Stavely, Nr. Chesterfield  
Derbyshire, S43 3 PF England  
Home Sales (44) 1246-479479  
Export Sales (44) 1246-479480

BAND-IT Clamps (ASIA) Pte. Ltd.  
11 Second Chin Bee Road  
Singapore 618777  
65-62658853

BAND-IT Shanghai Sales Office  
207 Room  
Wanbao International Business Centre  
#660 Xinhua Road  
Shanghai, China 200052  
021-62826348-308

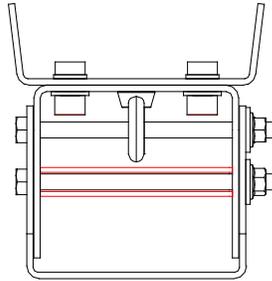
1. The loudspeaker bracket (Figure 2) should be attached to the loudspeaker's U-Bracket (ONE.SL12 or ONE.SL15's U-Bracket) only using the supplied stainless steel bolts and washers. DO NOT SUBSTITUTE ANY PARTS.
2. The combination of the U-Bracket and the loudspeaker bracket from the pole mount should be attached to the speaker.
3. The loudspeaker with its U-Bracket attached, may now be attached to the pole bracket (Main bracket (see Figure 4A).

**USE EXTREME CAUTION!** The loudspeaker is heavy and it is likely that the desired mounting location is high off the ground. This process should never be attempted by a single person.

**TWO OR MORE PEOPLE ARE REQUIRED TO MOUNT THE LOUDSPEAKER ENCLOSURE WITH ITS U-BRACKET ATTACHED TO THE POLE BRACKET! Safety harnesses should always be worn when working from an elevated platform.**

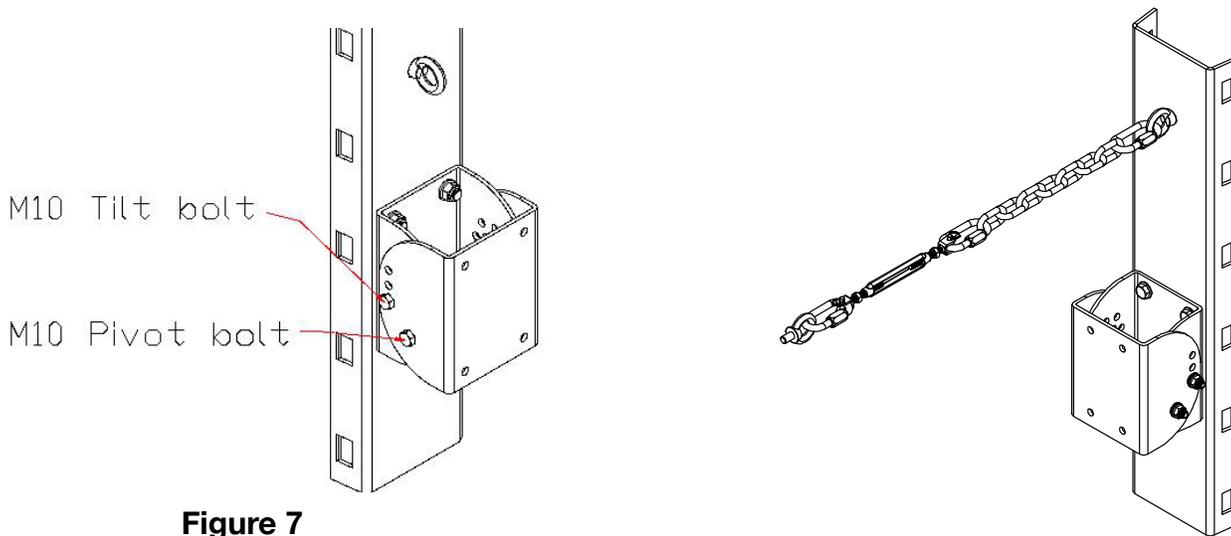
First, insert the M10 bolt into the pivot bolt location as shown in Figure 5 below and secure, but do not fully tighten using the supplied M10 nylon insert nut. (DO NOT DO THIS UNTIL THE NOTE BELOW IS READ AND UNDERSTOOD!)

**NOTE:** The 18 mm diameter hollow tube must be used with the pivot bolt. Insert the M10 pivot bolt through the 18 mm diameter hollow tube in the position shown below in red.



**Figure 6**

Now the enclosure may be set at its desired down tilt angle using the second M10 bolt (“Tilt” bolt). The SL.PMT allows the loudspeaker to be oriented from a 0 degree down tilt to a maximum down tilt of 35 degrees adjustable in 5 degree increments. After being positioned, both M10 bolts should be tightened using the supplied nylon insert nuts and washers.

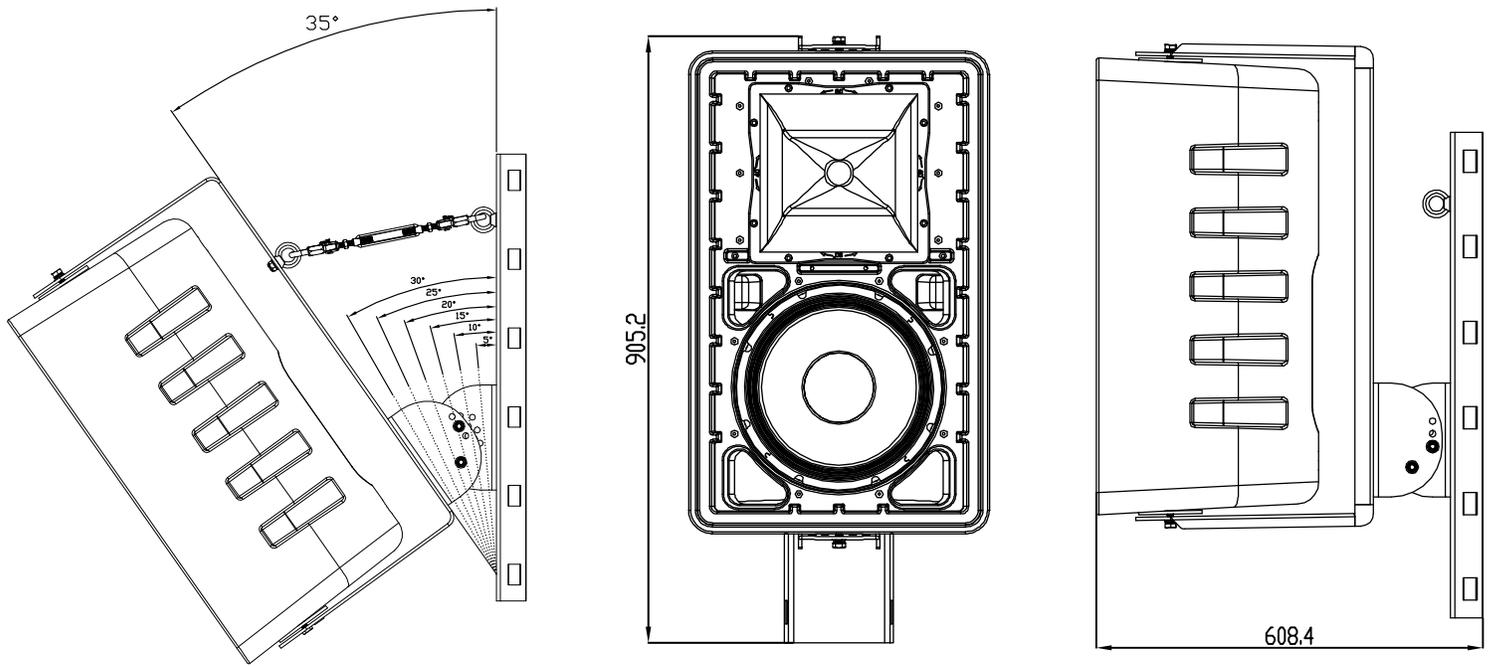


**Figure 7**

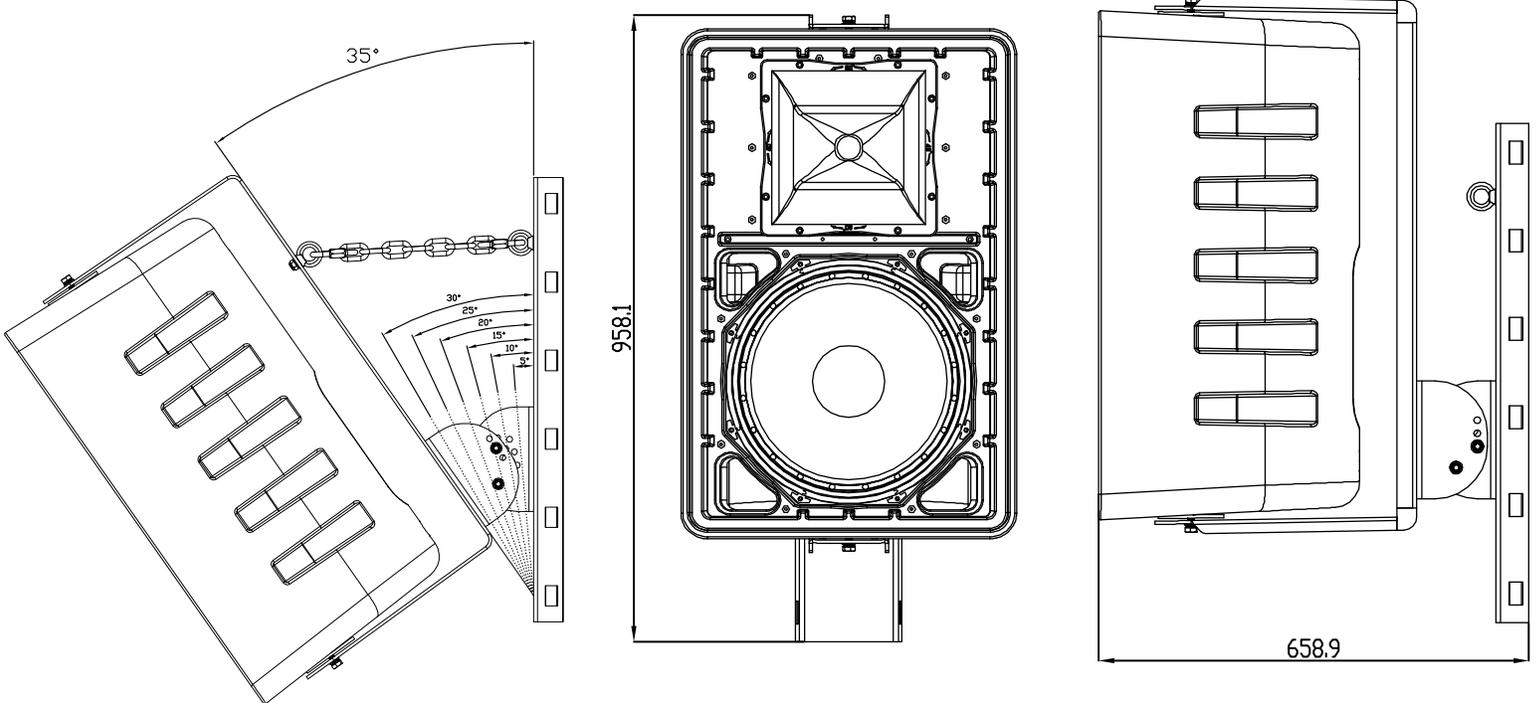
**UNDER NO CIRCUMSTANCES SHOULD THE LOUDSPEAKER’S DOWN TILT EXCEED 35 DEGREES FROM VERTICAL!**

After the loudspeaker and U-Bracket are attached to the main bracket, the Link assembly must be installed. The Link (see Figures 3 and 5 above) consists of stainless steel quick links, a stainless steel turnbuckle, and several links of stainless steel chain.

**THE SL.PMT SHOULD ONLY BE INSTALLED USING THE LINK!**



**FIGURE 8**  
ONE.SL12 Loudspeaker mounted on the SL.PMT Bracket



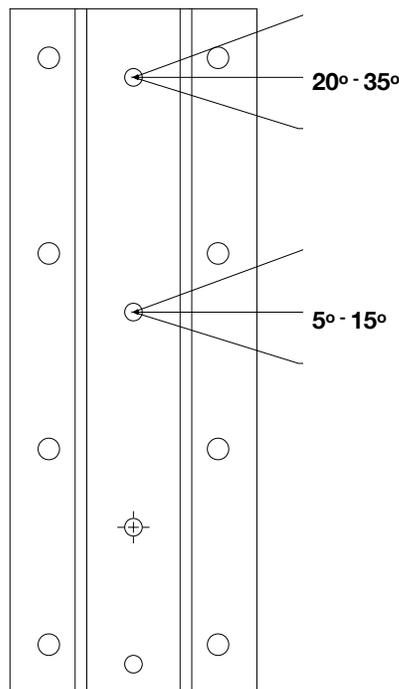
**FIGURE 9**  
ONE.SL15 Loudspeaker mounted on the SL.PMT Bracket

**CAUTION: DO NOT REMOVE THE PAN PIVOT BOLT AFTER INSTALLATION!**

The pan angle may be adjusted by removing the tilt aiming bolt, setting the desired angle and then re-inserting the bolt.

After the tilt angle is set, positioning of the Link offers additional aiming angles. Positioning the Link on the lower position will provide support for short aiming angles (0 - 15 degrees) and positioning it on the higher position will provide support for greater downward tilt angles (20 - 35 degrees). These Link attachment points are shown on Figure 10 below.

When choosing the tilt angle, please remember that One Systems recommends a downward tilt angle of at least 5 degrees to help minimize moisture intrusion into the loudspeaker's enclosure.



**FIGURE 10**



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The purpose of the Link is to provide support for the SL.PMT's tilting at the bottom of the bracket assembly. **ONLY VERY SLIGHT TENSION SHOULD BE APPLIED WITH THE TURNBUCKLE!**

**Warning: if the turnbuckle assembly is turned and the loudspeaker enclosure angle begins to change (if the down tilt angle begins to move toward 0 degrees vertical), then the turnbuckle has been OVER-TIGHTENED. Turn the turnbuckle until there is VERY slight tension on the Link assembly and the down tilt of the enclosure is set by the tilt bolts on the SL.PMT.**

Make sure to use the appropriate combination of Link parts to insure proper connection between the SL.PMT and the specific One Systems speaker. The required combination of Link parts is determined by the down tilt angle of the enclosure, but the turnbuckle must always be used. In certain situations, only the turnbuckle will need to be used.

### APPENDIX 1 Projected Area Values

The values below should be supplied to the specific pole manufacturer for safety calculations. These values were determined by adding the projected areas of the high frequency horns, the woofer cones and ports to the cross sectional area of the front of each speaker listed below. The Effective Projected Area (EPA) will vary based on wind direction. The values shown are for wind directions directly into the front of the enclosure and represent maximum values.

**ONE.SL12** - - - 634.3 in<sup>2</sup> (406,450 mm<sup>2</sup>)

**ONE.SL15** - - - 894.0 in<sup>2</sup> (576,773 mm<sup>2</sup>)



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