SPECIFICATIONS Versarray™ 112



Features:

- 2-way Bi-Amp Ribbon Line Source Array SR System
- 12" Neo Black Widow 4" VC Woofer
- 1,000 watt program, 2000 watt peak power handling
- Ribbon Tweeters with Neo magnet and composite material sandwich ribbon
- 90° H by 15° V coverage pattern (per one cabinet)
- Easy aiming angle adjustment rigging system
- Angle adjustable in 2 1/2 degree increments from 0 to 15 degrees, total angle between adjacent cabinets
- Sound Guard tweeter protection
- Dual stand mount cups, one perpendicular, one 5° angled down
- Inputs are two Neutrik Speakon 4-pin jacks in parallel
- 18 mm 13-ply Baltic birch enclosure

Description

The Versarray 112 Ribbon Tweeter Line Source Array module consists of a new 12" Neo Black Widow® woofer combined with a Neodymium based Peavey RD™ 1.6 ribbon tweeter in a cabinet with a highly flexible rigging system. Designed to provide modular coverage of small to medium venues, and intended for use with the companion Versarray Sub models, the Versarray 112 offers extreme versatility for such high performance capability.

The two-way system consists of a 12" Black Widow Neo series woofer with a Neodymium magnet structure, capable of handling over 500 watts of continuous power, and two Peavey RD 1.6 ribbon tweeters utilizing a composite sandwich ribbon, a Neodymium magnet system, and a low distortion waveguide.

Full range input connection to the system is made via two 4-pin Neutrik® Speakon® jacks. The total impedance presented by the ribbons can be adjusted to 16 ohms or 4 ohms via an internal jumper on the input cup, providing flexibility in how the line array is wired for your amplifier application. Sound Guard™, Peavey's proprietary protection circuitry, provides long and medium term driver overload protection for the tweeter without impairing musical transients or dynamics.

The adjustable rigging system allows a classic straight line array configuration, or a number of different angling options for aiming the system easily. Angles between the array modules are adjustable from 0 degrees (straight), to 7.5 degrees in 2.5 degree increments. Total angle between two cabinets is 15 degrees. This provides the capability to create a completely straight line array of 6 or more modules, or a curved array of 6 or more modules, with a recommended maximum total of 5 degrees of angle between each module for continuous and even coverage, for a total vertical coverage pattern of up to 40 degrees, or somewhere in between a 5 degree pattern (straight line array) and a 40 degree pattern (8 cabinets with 5 degree curve).

Bolts are supplied with the rigging hardware to couple the Versarray 112 modules together and lock the angles between them into place, but optional quick release pins are available for quick and easy field adjustments or re-configurations of a line array.

The flexibility of the Versarray™ system allows the use of 1 to 8 or more Versarray 112 modules in conjunction with anything from one Versarray 118 Sub to a pair of Versarray 218 Subs.

Two stand mount cups on the Versarray 112 allow for stand mounting at either a standard straight ahead angle, or a 5 degree tilt down for better crowd coverage.

A pole tunnel is built into the Versarray 118 Subwoofer so that one or two Versarray 112 speakers can be mounted on the Versarray system-specific pole.

An optional special bracket set mounts to the Versarray 218 Sub, and allows up to three of the Versarray 112's to be mounted on top of the Versarray 218 Sub, and angled upward, for use on stage in a stadium seating situation.

A lift kit co-designed with Vermette is available as a Versarray system accessory. The Vermette list can elevate up to six Versarray 112 modules 13 feet high above a Versarray 218 Sub, and then fold down for easy transportation and storage.

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Frequency response, 1 meter on-axis, swept-sine in anechoic environment:
110 Hz to 20 kHz (±3 dB, with processing)

Usable low frequency limit (-10 dB point):
85 Hz (with processing)

Power handling:
Low Frequency Section:
500 W continuous
1,000 W program
2,000 W peak
High Frequency Section:
80 W continuous
160 W program
320 W peak

Sound pressure level, 1 watt, 1 meter in anechoic environment:
Low Frequency Section:
96 dB SPL, (2.83 V input)
High Frequency Section:
99 dB SPL, (4.0 V input for 16 ohm wiring; 2.0 V for 4 ohm wiring)

Maximum sound pressure level (1 meter)*:
Low Frequency Section:
123 dB SPL continuous
129 dB SPL peak
130 dB SPL measured peak**
High Frequency Section:
118 dB SPL continuous
124 dB SPL peak
130 dB SPL measured peak***

*Note: This spec is for one module at 1 meter. A line array of 6 units has much higher output at distance due to line source effect where SPL falls of at 3 dB per distance doubling rather than 6 dB.

**Note: This is measured using transient tone burst signals with a crest factor of 12 dB, and over 4,000W of power available.

***Note: This is measured using transient tone burst signals with a crest factor of 12 dB, and over 1,200W of power available.

Nominal Radiation Angle measured at -6 dB point of polar response:
90 degrees Horizontal by 15 degrees Vertical
(One module only, straight line array of more than 1 module narrows vertical dispersion accordingly)

Radiation angle measured at -6 dB point of polar response:
500 Hz – 1.6 kHz:
Horiz. 1200 +/- 550
Vert. 1170 +/- 750
1.6 kHz - 5 kHz:
Horiz. 840 +/- 200
Vert. 340 +/- 200
5 kHz - 16 kHz:
Horiz. 940 +/- 50
Vert. 150 +/- 30

Directivity factor, Q (Mean):
19.78 +19.4, -17.4

Directivity index, Di (Mean):
11.44 dB +4.5 dB, -7.6 dB

Transducer complement:
Low Frequency Section:
1 x 12" Woofer,
1212-4 Neo Black Widow® 4" VC Woofer, in a sealed box
High Frequency Section:
2 x 4.75 in. Ribbon Tweeters
Two RD™ 1.6 Peavey Ribbon Tweeters, on a waveguide

Box tuning frequency (sealed):
Low Frequency Section: 100 Hz

Harmonic distortion*:
1W power
Second Harmonic:
200 Hz: 0.18 %
1 kHz: 0.15 %
4 kHz: 0.09 %
Third Harmonic:
200 Hz: 0.22 %
1 kHz: 0.48 %
4 kHz: 0.12 %

10W power
Second Harmonic:
200 Hz: 0.71 %
1 kHz: 0.73 %
4 kHz: 0.42 %
Third Harmonic:
200 Hz: 0.19 %
1 kHz: 0.74 %
4 kHz: 1.08 %

*Note: Distortion levels may be measurement setup limited in some instances

Electroacoustic Crossover Point, Peavey Active Digital Crossover:
(Applies to Digitool and VSX settings provided by Peavey)
Sub–Low Frequency:
120 Hz at 24 dB/octave
Low Frequency–High Frequency:
1800 Hz at 24dB/octave

Recommended active crossover frequency region and slope:
Sub –Low Frequency:
125 Hz at 24 dB/octave LR
Low Frequency – High Frequency:
2000 Hz at 24 dB/octave LR

Time offset:
Low Frequency:
Ahead of tweeter by 0.073 ms

Impedance (Z):
Low Frequency:
Nominal: 8.0 Ω
Minimum: 6.5 Ω
Passive HF:
Nominal: 16 Ω or 4 Ω
Minimum: 13.6 Ω or 3.4 Ω

Input connections:
2x Neutrik® 4-pin Speakon® jack

Enclosure materials & finish:
18 mm 13-ply Baltic birch plywood finished in black or white painted finish, perforated steel grille finished in silver-vein powder coat paint.

Mounting provisions:
Custom array brackets and hardware, and a custom array angle adjustment system are included with each module. Quick release pins, and a crank-lift system co-designed with Vermette specifically for the Versarray system, are available as accessories.

Dimensions (H x W x D):
Front:
14.06 in. x 25.25 in. x 11.75 in.
357 mm x 641 mm x 298 mm
Rear:
12.62 in. x 25.25 in. x 11.75 in.
321 mm x 641 mm x 298 mm

Net Weight:
54 lbs. (24.5 kg)
(includes two of the rigging coupling brackets)

Companion Subwoofers (sold separately):
Versarray™ 118 Sub single 18" Lo Max® woofer subwoofer
Versarray™ 218 Sub double 18" Lo Max® woofer subwoofer

Optional Accessories:
Custom Vermette Lift, for flying arrays (Peavey part number 00595760); Peavey Array Fly Bar (Peavey part number 00584970) A Versarray™ subwoofer stand mount pole (Peavey part number 00584860); 3 foot speaker cable, with 16 gauge 4 conductor wires with 4-pin to 4-pin Neutrik connectors (Peavey part number 00585240); and Quick Release Positive Lock Pins (Peavey part number 00594020 for a set of four) for array rigging.

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Frequency Response

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the Versarray 112 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 Versarray 112 combine to give a smooth frequency response from 110 Hz to 20 kHz, with signal processing.

Directivity

Beamwidth is derived from the -6 dB points from the polar plots which are measured in a whole space anechoic environment. Q and Directivity Index are plotted for the on-axis measurement position. These are specifications that provide a reference to the coverage characteristics of the unit. These parameters provide insight for proper placement and installation in the chosen environment. The blending of the components of the Versarray 112 and the Peavey VSX™ 26 or Peavey Digitool™ MX speaker processor and crossover with the Versarray 112 pre-sets, exhibit a desirable beamwidth and directivity (figure 3 & 4) suitable for sound reinforcement applications.

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 audio band pink noise of the proper range for each driver, with peaks of four times the RMS level, and then running the signal through either the Peavey VSX 26 or Peavey Digitool MX speaker processor and crossover with the Versarray 112 pre-sets, 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 5 & 6 for two power levels. Those levels are one watt of input power and ten watts of input power, to the woofer, at 1 kHz. 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: Before attempting to suspend this speaker, consult a certified structural engineer.

Speaker can fall from improper suspension, resulting in serious injury and property damage. Other enclosures may be suspended below one. However, the combined weight of additional enclosures and all cables, clamps and other hardware must not exceed 270 pounds. The Versarray 112 weighs 54 pounds and the maximum combined weight suspended from the uppermost mounting bracket assemblies must not exceed 324 pounds. Maximum enclosure angle 45°. Use only the correct mating hardware. All associated rigging is the responsibility of others.

Architectural & Engineering Specifications

The loudspeaker system shall be a two-way, sealed enclosure with a built-in cabinet-to-cabinet rigging and angle adjustment system included. The unit shall have an operating bandwidth of 110 Hz to 20 kHz, with signal processing. The nominal output level of the woofer shall be 96 dB, and of the tweeters 99 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 8 ohms for the woofer, and internally switchable to either 4 or 16 ohms for the tweeters. The maximum continuous power handling for the woofer shall be 500 watts, maximum program power of 1,000 watts and a peak power input of at least 2,000 watts, and for the tweeters it shall be 80 watts continuous, maximum program power of 160 watts and a peak power input of at least 320 watts, with a minimum amplifier headroom of 3 dB. The woofer shall be a Peavey Black Widow® Neo series, with a 4" voice coil, and the two tweeters shall be a Peavey RD™ 1.6 with true ribbon construction, transformer coupled to the driving amplifier used. The tweeters shall be provided with a self-resetting protection circuit internal to the cabinet to help prevent damage to the tweeters during a power overload condition.

Input shall be via two Neutrik Speakon type 4-pin jacks connected in parallel.

The nominal radiation geometry shall be 90 degrees in the horizontal plane and 15 degrees in the vertical plane for a single Versarray 112 cabinet. There shall be stand mount cups provided for stand use, one cup on one side for a stand angle perpendicular to the cabinet side, the other cup on the other side angled 5 degrees down from perpendicular, with regard to the front of the cabinet.

The outside dimensions shall be 14.06 inches high by 25.25 inches wide by 11.75 inches deep. The cabinet shall be constructed of 18 mm 13 ply birch plywood. The weight shall be 54 pounds. The loudspeaker system shall be a Peavey model Versarray 112.

Caution! Important Safety Information for Rigging and Flying the Versarray 112 Speaker System

Caution: Before attempting to suspend these speakers, consult a certified structural engineer. The speaker can fall from improper suspension, resulting in serious injury and property damage. Other enclosures may be suspended below one Versarray 112 cabinet. However, the combined weight of additional enclosures and all cables, clamps, and other hardware must not exceed 378 pounds. The Versarray 112 weighs 54 pounds and the maximum combined weight suspended from the uppermost mounting bracket assemblies must not exceed 432 pounds.

Before you fly the array, be sure to inspect the rigging and flying hardware to insure that it is mechanically sound and has not been damaged, there should be no significant distortion of the shape of the coupling brackets, cabinet brackets, or fly bar, and the hardware should be checked for tightness.

IF ANY OF THE BRACKETS, OR THE FLY BAR HAS BEEN DAMAGED OR DISTORTED, DO NOT USE, AND DO NOT FLY THE ARRAY UNTIL THEY CAN BE REPLACED OR REPAIRED!
DO NOT USE THE COUPLING BRACKETS AS HANDLES TO TRANSPORT THE CABINETS!

Use only the correct mating hardware. All associated rigging is the responsibility of others.

Warning! Do not feed a full-range signal to the tweeters in the Versarray 112! This could damage the tweeters and/or the driving amplifier!

These ribbon tweeter diaphragms are transformer coupled to the power amp, and present a very low impedance load below 300 Hz.

It is recommended that for set-up or testing purposes, a high frequency sweep starting or ending no lower than 300 Hz be used to verify that the tweeters are connected to the high frequency output of the crossover/processor. If the wiring has been swapped, and the signal is mistakenly fed to the woofers, output will fall off significantly above 5 kHz. Always double-check and test your wiring before applying any music signals to the system! The ribbon tweeters are connected to the Neutrik® Speakon® pins 2+ and 2-, as per industry standards.

If there is any chance that trained personnel are not going to be connecting and operating the system, then it would be advisable to place a high quality polypropylene film cap in series with the tweeters, 40 uF for a 4 ohm wiring, and 10 uF for a 16 ohm wiring.

Caution! Ribbon Tweeters do not exhibit audible signs of distress when overloaded! It is possible to exceed the physical and/or thermal limits by overloading the unit suddenly with excess power, even though there are no obvious sounds of distress.

CAUTION! In order to prevent damage to the ribbon tweeters, keep the Versarray 112 system away from metal filings at all times. Do not expose ribbons to blasts of air, and do not use canned air to spray the ribbons, as this can result in damage. Do not expose ribbons to liquids or caustic fumes, and keep away from salt spray.

3 + 2 YEAR LIMITED WARRANTY

NOTE: For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P.O. Box 2898, Meridian, Mississippi 39301-2898.

Amplitude Response (1m Equivalent On-Axis)

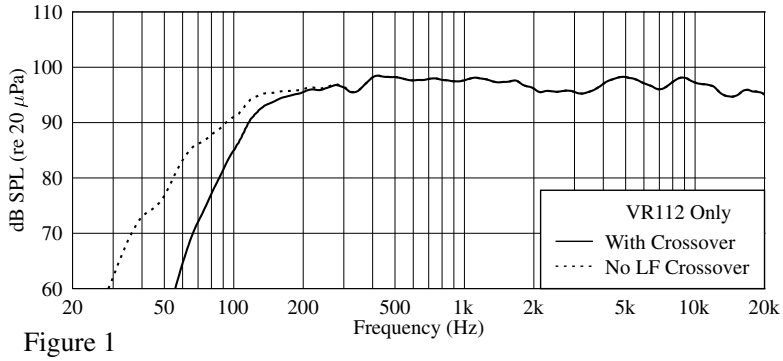


Figure 1

Impedance

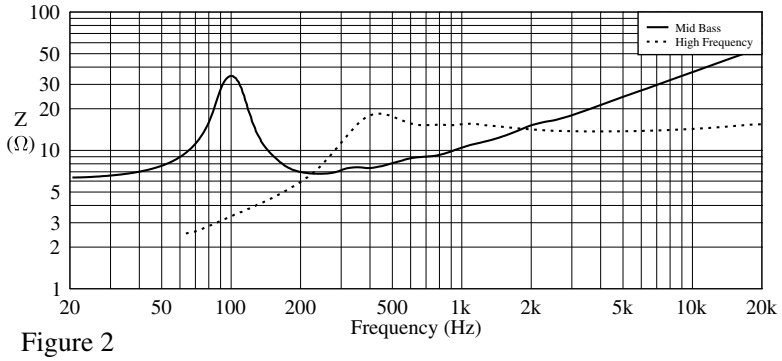


Figure 2

Beamwidth

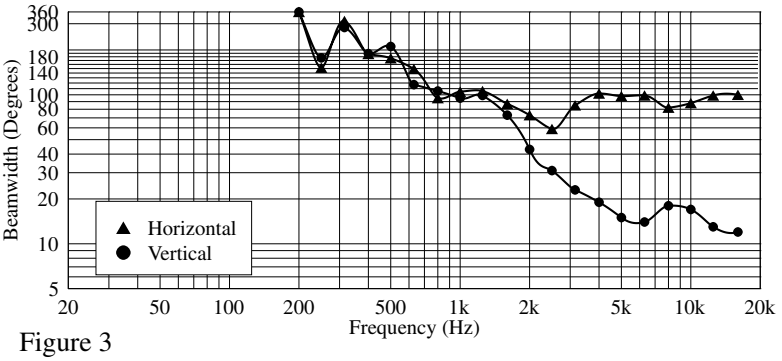


Figure 3

Q & Directivity Index

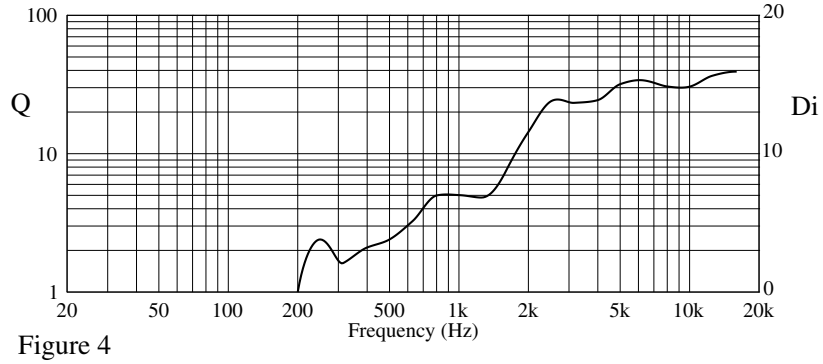


Figure 4

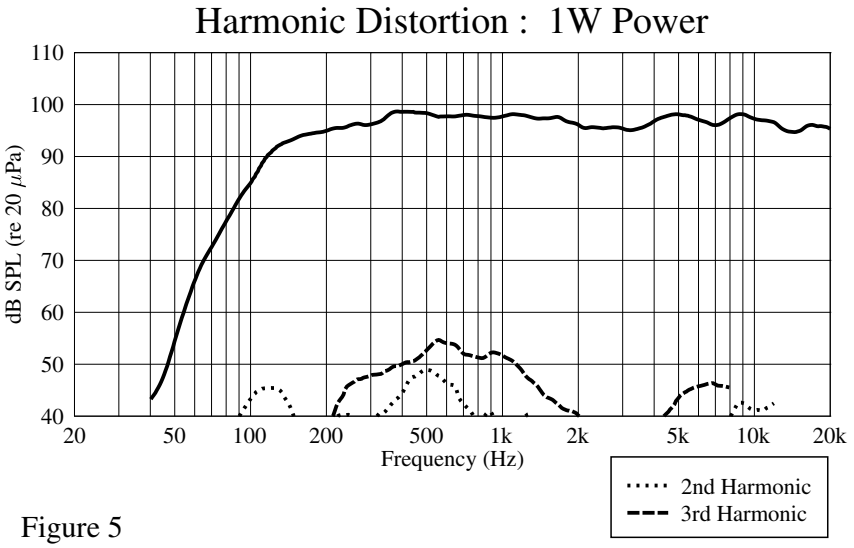


Figure 5

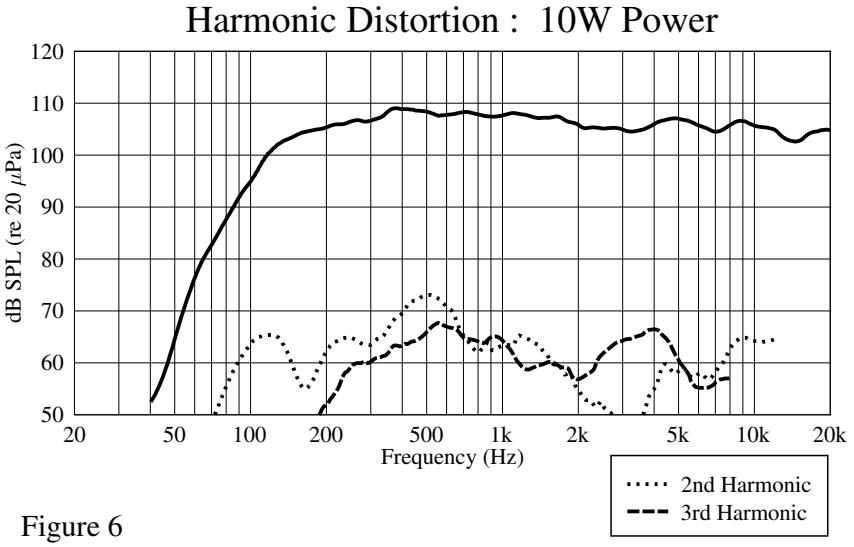
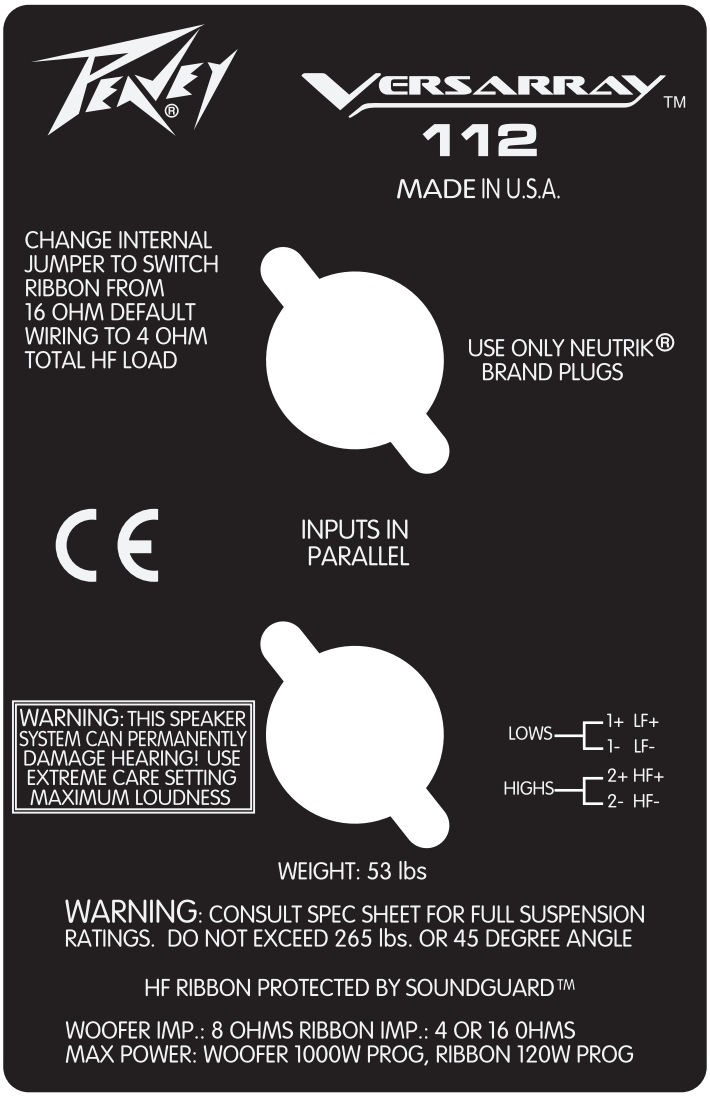
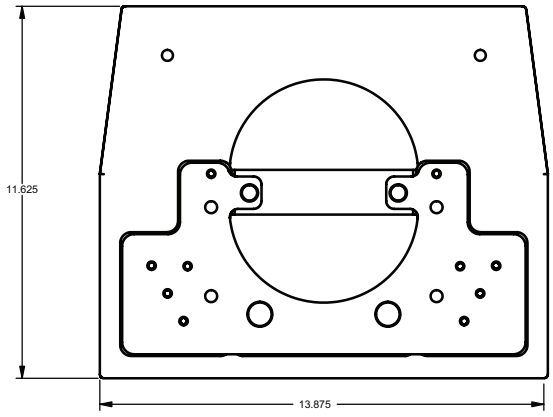


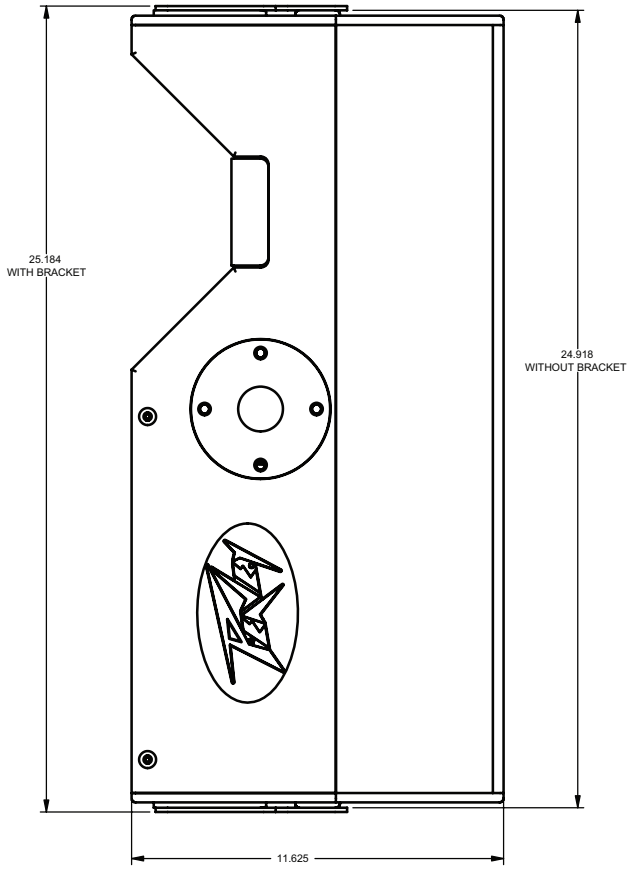
Figure 6

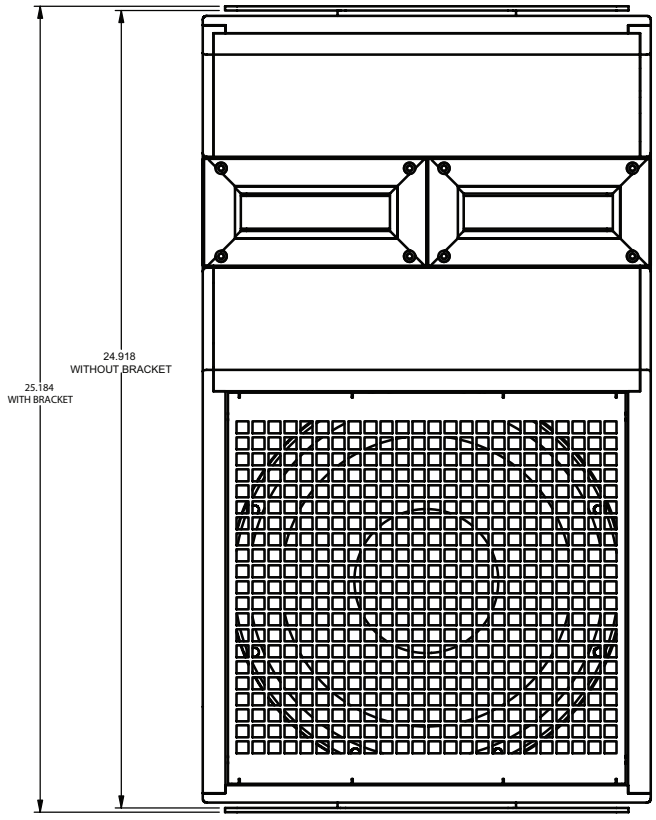
Input Cup


PEAVEY
VERSARRAY™
112
MADE IN U.S.A.
CHANGE INTERNAL JUMPER TO SWITCH RIBBON FROM 16 OHM DEFAULT WIRING TO 4 OHM TOTAL HF LOAD
USE ONLY NEUTRIK® BRAND PLUGS
CE
INPUTS IN PARALLEL
WARNING: THIS SPEAKER SYSTEM CAN PERMANENTLY DAMAGE HEARING! USE EXTREME CARE SETTING MAXIMUM LOUDNESS
LOWS 1+ LF+ 1- LF-
HIGHS 2+ HF+ 2- HF-
WEIGHT: 53 lbs
WARNING: CONSULT SPEC SHEET FOR FULL SUSPENSION RATINGS. DO NOT EXCEED 265 lbs. OR 45 DEGREE ANGLE
HF RIBBON PROTECTED BY SOUNDGUARD™
WOOFER IMP.: 8 OHMS RIBBON IMP.: 4 OR 16 0HMS
MAX POWER: WOOFER 1000W PROG, RIBBON 120W PROG

Dimensions


11.625
13.875


25.184
WITH BRACKET
24.918
WITHOUT BRACKET
11.625


24.918
WITHOUT BRACKET
25.184
WITH BRACKET

Using the Versarray 112

General Usage Notes
Note that the Versarray 112 is intended to be used with a subwoofer, an electronic crossover, and three channels of amplification to provide full range performance. The Versarray 112 is not a full range system by itself, and after bi-amplification and EQ, only covers the range from approximately 125 Hz and up. A number of suitable crossover options are available from Peavey: the Peavey VSX™ 26 Loudspeaker Management System, the VSX 48 Loudspeaker Management System, and the Peavey Digitool™ MX. These Peavey products provide pre-configured set-up files that include an optimized crossover, an EQ tuned for flat response, and proper level settings that serve as a starting place for any permanent installation.

There are two subwoofers in the Versarray™ product family that are designed to be used with the Versarray 112 module; the Versarray 118 Sub and the Versarray 218 Sub.

Using a single Versarray 112 pole mounted over a Versarray 118
While the Versarray 112 is meant to be used in multiple cabinet arrays, it can be used as a single cabinet as long as it has a subwoofer to provide the frequencies below 125 Hz.

The Versarray 112 has a very narrow vertical coverage pattern of approximately 15 degrees. Because of this, it should be aimed accurately at an angle that will cover the desired space. There are two different pole mount cups on the Versarray 112, one that provides an angle of o degrees to perpendicular, and a cup on the other side that provides an angle of 5 degrees down from perpendicular.

Using a combination of the height of the enclosure (where the sub is placed, such as up on a stage, or down on the floor) and the two angles, be sure to aim the coverage pattern of the Versarray 112 at the desired listening space.

Using Multiple Versarray 112's mounted over a Versarray 118/218 Sub
The rigging plate hardware allows up to two coupled cabinets to be arrayed over a Versarray 118 on a pole, and up to three coupled Versarray 112's mounted over a Versarray 218 with the use of an optional subwoofer mounting bracket set. With the angle between cabinets adjustable in 2.5 degree increments, the second (or third) cabinet can be aimed as needed at the coverage area.

We do not recommend more than two Versarray 112 cabinets be pole mounted over a Versarray 118 Sub, or more than three cabinets above a Versarray 218 Sub.

Using the Versarray 112 in a Line Source Array
Set-up and use of line arrays differs considerably from typical point source speaker systems, or arrays of point source speaker systems. In addition, the Versarray 112 has a versatile rigging system that allows a substantial range of adjustment and abundant options for aiming the loudspeakers. In this section, we will discuss how to best use the Versarray 112 in line arrays, and how to set the angle adjustments between cabinets.

There are three major aspects to configuring and using a line array: choosing the geometry (or the curved shape) of the line array, aligning and aiming the complete line array, and equalizing the line array in its final form.

Line Array Geometry
Classic line arrays used a simple straight line geometry that provided the classic "laser beam" vertical coverage pattern that has become associated with line arrays today. However, many do not realize that the vertical coverage pattern is extremely tight and limited, typically not extending vertically past the ends of the array at a distance.

Accurate measurements of the amount of angular coverage are difficult with line arrays, because the effective coverage angle keeps getting smaller as you get further and further away, until it approaches a fraction of a degree at some very far distance.

The upshot of this is that unless you truly need the extremely tight vertical coverage pattern, AND can successfully aim the entire array at the exact spot you wish to cover, a classic straight line geometry is not going to be the best choice. A more useful and general-purpose geometry is a gentle and continuous curve, with the angle between each cabinet a total of 2.5 degrees. This would provide approximately 18 degrees of seamless vertical coverage with a 6 cabinet array, and maintain a fairly smooth frequency response. This creates a system with a coverage pattern of approximately 90 degrees horizontal and 18 degrees vertical.

If the venue is smaller, or needs a more open vertical pattern for coverage, then there are several options that can address this. You can increase the angle between all the cabinets to 5 degrees total, providing a vertical coverage of approximately 30 degrees.

If that is too much vertical coverage, but there are still some seats up front that need to be covered, then there are two other recommended geometries to use. One is a dual radius, as pioneered by Peavey on the Peavey SSE™ LA. The upper 3 cabinets would be set to a total angle between cabinets of 2.5 degrees, while the bottom three would be set to 5 degrees. This arrangement provides a smooth, seamless vertical coverage pattern of approximately 28 degrees.

The other geometry is a modification of the classic "J" line, using a continuously curved array for the top section instead of a straight line, and then an abruptly curved section for the bottom few cabinets. This might consist of the top 4 or 5 cabinets angled at 2.5 or 5 degrees, with the bottom one or two each angled the maximum amount of 15 degrees total. Up until now, we have been talking about a relatively smooth vertical coverage, with no gaps or suck-outs in the vertical pattern. However, the use of the "J" precludes this due to the sharper angles between the individual bottom cabinets. Anything over about 5 degrees total angle between cabinets will tend to cause a "gap' or a "hole" in the response at certain frequencies, and while it is not too bad, the sharper the angle, the worse it gets.

Why not use a classic "J" line geometry? This combines the narrow "laser beam" pattern with a "gaps in the coverage" pattern, combining the worst of both worlds. This is why we recommend one form or another of a gentle and continuous curve, to avoid these common problems, and provide maximum performance.

Using the Versarray 112

Aiming the Line Array

If a classic straight line array geometry is used, then aiming becomes critical; coverage pattern at high frequencies will only be about 7.5 feet tall for a set of six Versarray 112 cabinets. You will need to pick the 7.5 feet of vertical space you want covered very carefully, and aim the array precisely. Here, use of an inexpensive laser pointer temporarily taped to the top and/or bottom of the array can be an invaluable aiming aid.

If you have chosen one of the geometries that provide a smooth curvature and a relatively narrow vertical coverage, then aiming will be more in line with the kinds of concerns and methods used for high Q point sources, but you still must pay attention to assuring that seating areas of primary concern are within that pattern.

If you have chosen one of the dual radius curvatures, the top section will be handling the long throw coverage, and the bottom section will be providing the short throw coverage. Once again, use of the familiar tools for aiming point sources and clusters will be helpful here, as long as you realize that you have two different coverage zones.

Peavey has teamed with EASE Focus software to provide you access to line array aiming software for configuring your Peavey Versarray system. Check with your Peavey representative, or visit the Peavey web site for download information.

Equalizing the Line Array

The sad truth of the matter is, you cannot EQ a line array using a single microphone position or even several different mic positions averaged out, unless special techniques are used and fully understood. Due to the way a line array works, it just isn't very accurate to try and use point source techniques for EQ.

It is strongly advised that you do not try to use a single mic placed out in the listening area, and use an RTA or other spectrum analyzer to try and "fix" things, as the single mic location will create an erroneous impression of what is going on. Line arrays have special properties that make equalizing via measurement much more difficult to do without taking a lot more variables into account.

Peavey provides proper settings for the Versarray system within our digital signal processors/crossovers, the VSX™ series and the Digitool™ MX. These settings provide a nominally flat response from the Versarray system, and can be used as the best starting point for line array use in most any venue. Once you have the system up and running with these settings, minor overall tonal balance changes can be made BY EAR to suit that particular venue and situation.

Listen for overall EQ for the room only, which should involve simple tone control type adjustments, rather than several 1/3 octave EQ or parametric EQ adjustments. Instead, the use of a shelf filter for boost or cut at the frequency extremes as a whole would be more appropriate.

Processor Settings

Check with Peavey Electronics Corp., or visit the Peavey web site at http://www.peavey.com for the latest crossover and EQ setting information.

Assembling and Flying the Array

Caution: Before attempting to suspend this speaker, consult a certified structural engineer. Speakers can fall from improper suspension, resulting in serious injury and property damage. Use only the correct mating hardware. All associated rigging is the responsibility of others.

The coupling brackets can be mated to the Versarray 112 cabinet brackets by using the supplied 1/4" x 20 x 1.25" hex head grade-5 bolts OR by using the optionally available Quick Release Positive Lock Pins (Peavey part number 00594020 for a set of four pins). If more of the grade-5 bolts are needed, please order Peavey part number 71501019.

If bolts are used, a lock washer should be placed between the bolt head and the bracket, and the bolt tightened firmly. If the Quick Release Positive Lock Pins are used, they should be fully seated, so that the C-clamp near the middle of the pin has been placed nearly flush with the side of the bracket. You should not be able to pull these pins out unless the center push-button is fully depressed.

On the following pages are diagrams of how the bolts/pins should be placed to achieve the various angles in which the rigging hardware may be set. Note that once the angle has been set, that one of the pins in a rotation slot may be removed, and the cabinets flown with two pins/bolts per cabinet/per side, for a total of 4 pins/bolts per side.

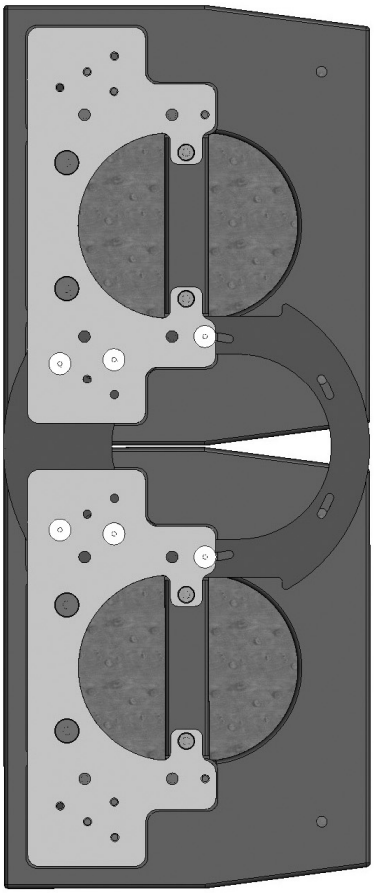
If you are not sure how to assemble the rigging or how to fly the array once it has been arrayed, consult a certified structural engineer.

Before you fly the array, be sure to inspect the rigging and flying hardware to insure that it is mechanically sound and has not been damaged, there should be no significant distortion of the shape of the coupling brackets, cabinet brackets, or fly bar, and the hardware should be checked for tightness.

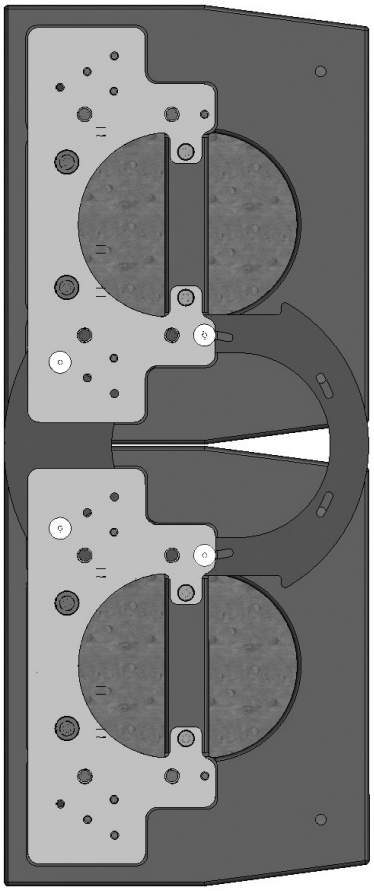
IF ANY OF THE BRACKETS, OR THE FLY BAR HAS BEEN DAMAGED OR DISTORTED, DO NOT USE, AND DO NOT FLY THE ARRAY UNTIL THEY CAN BE REPLACED OR REPAIRED!

DO NOT USE THE COUPLING BRACKETS AS HANDLES TO TRANSPORT THE CABINETS!

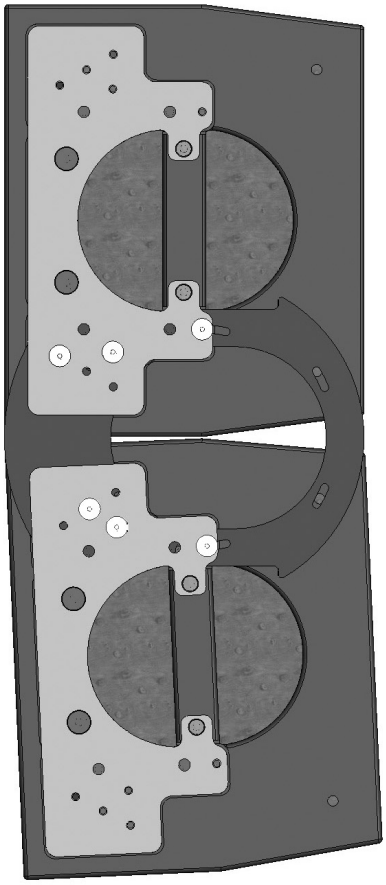
Use only the correct mating hardware. All associated rigging is the responsibility of others.



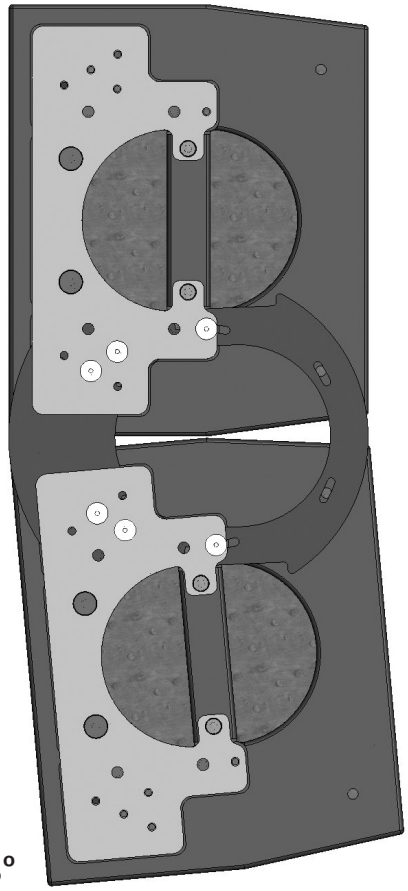
0°



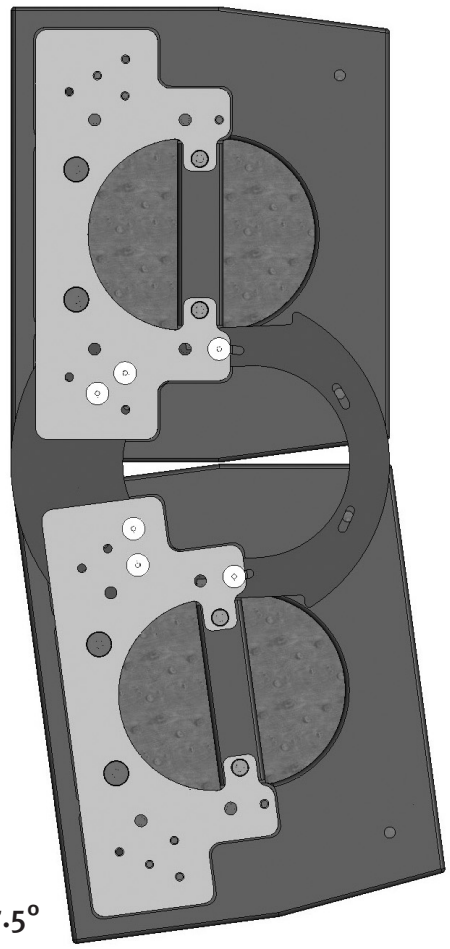
0° 2 Pin



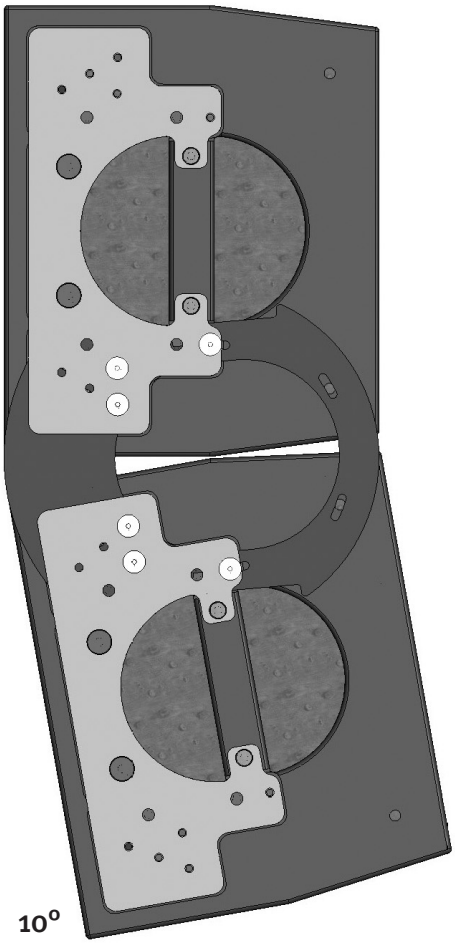
2.5°



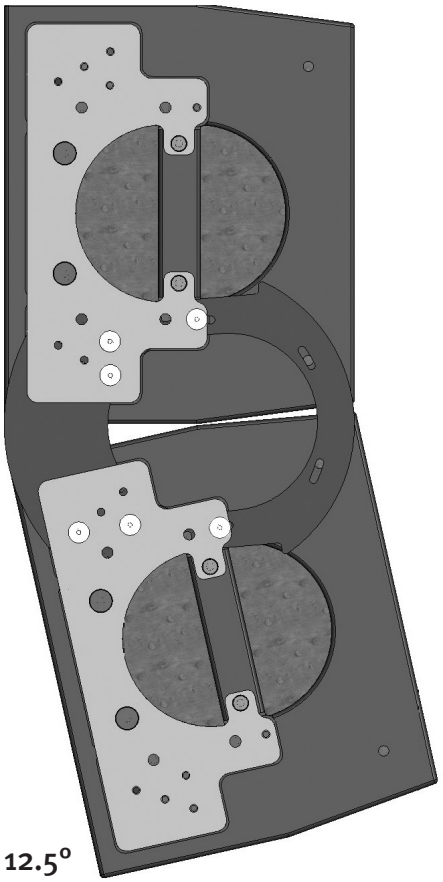
5°



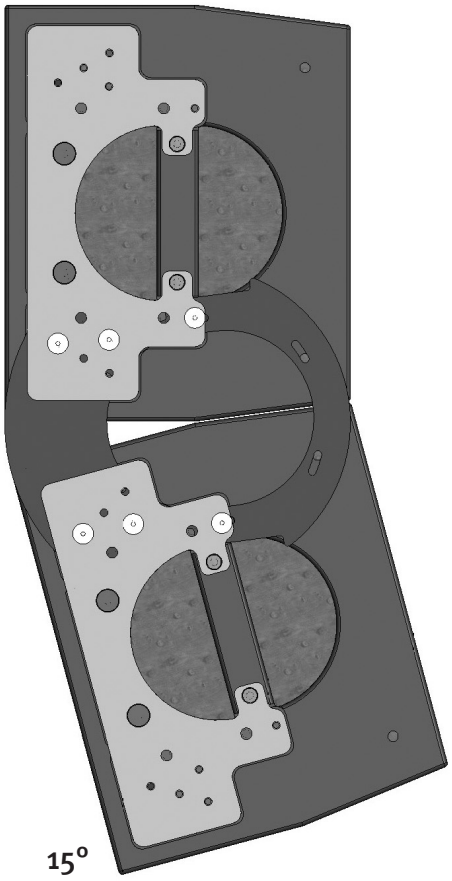
7.5°



10°

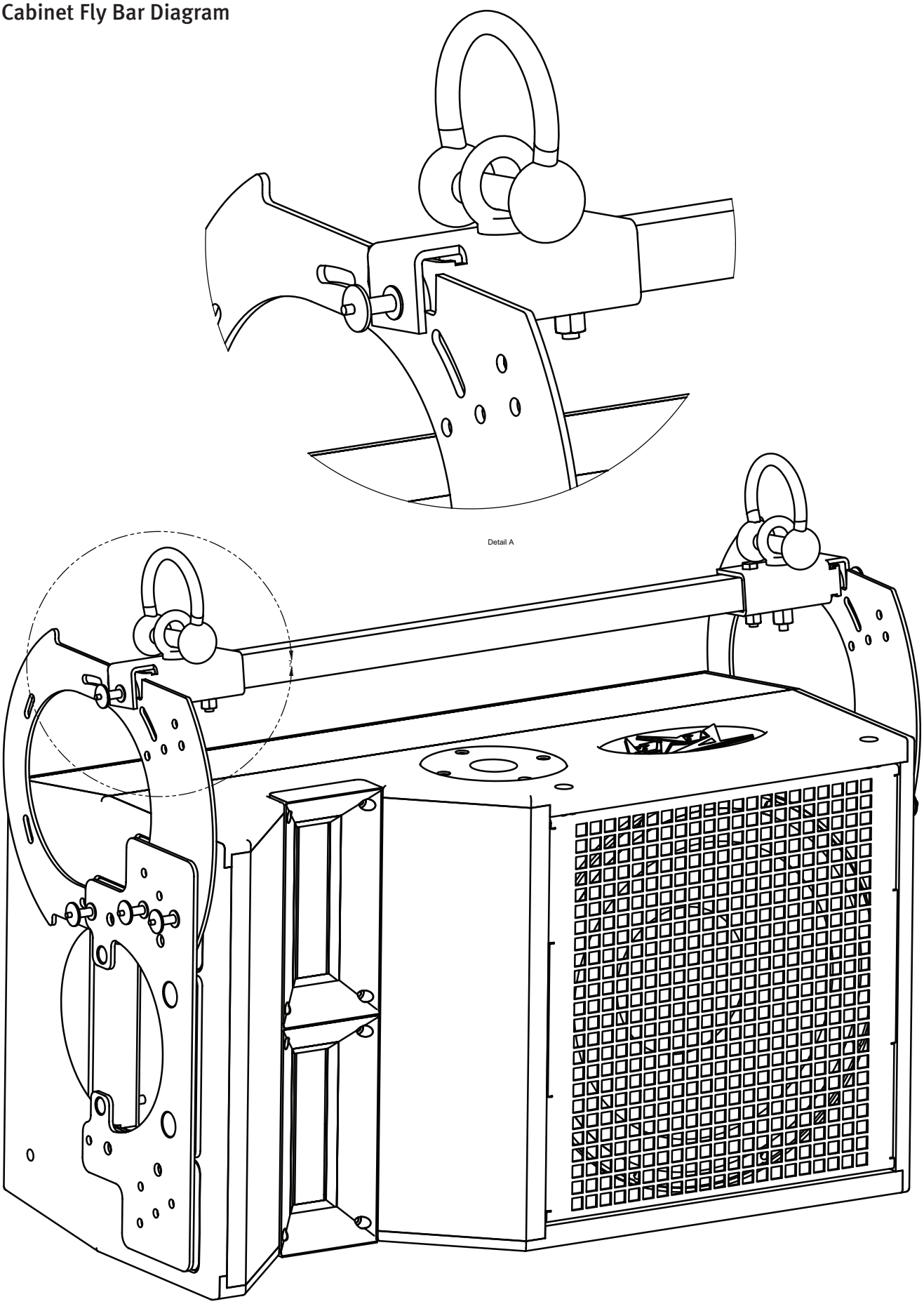


12.5°

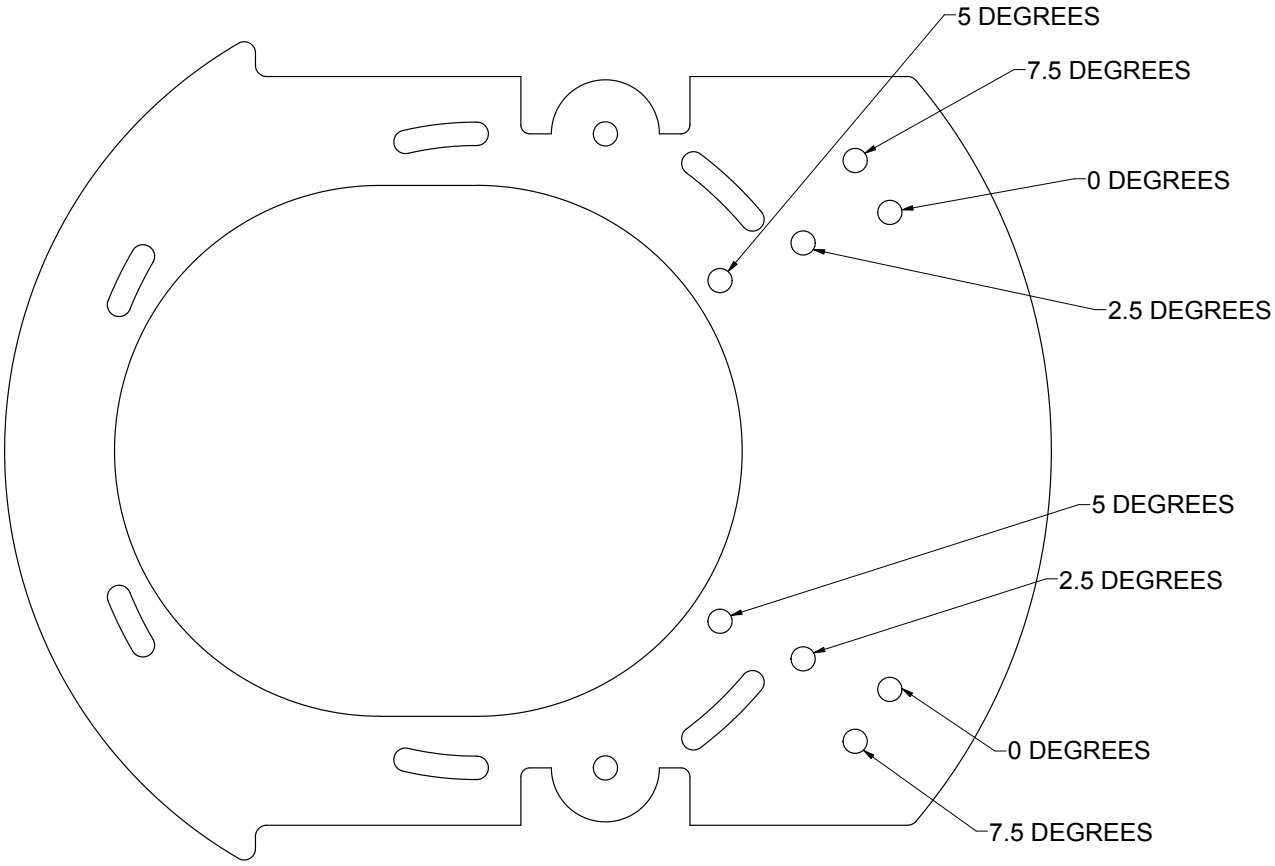


15°

Cabinet Fly Bar Diagram



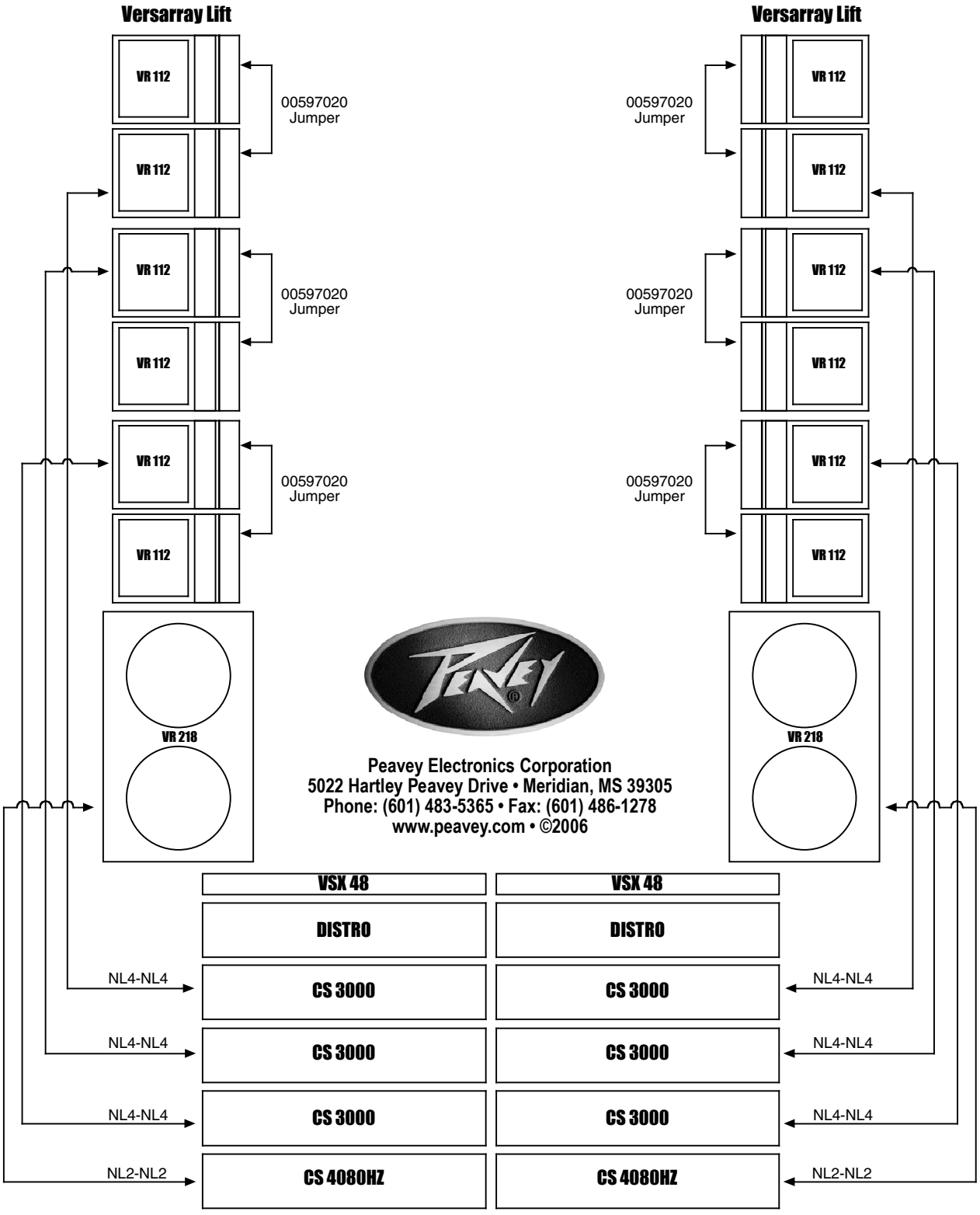
Coupling Bracket Diagram



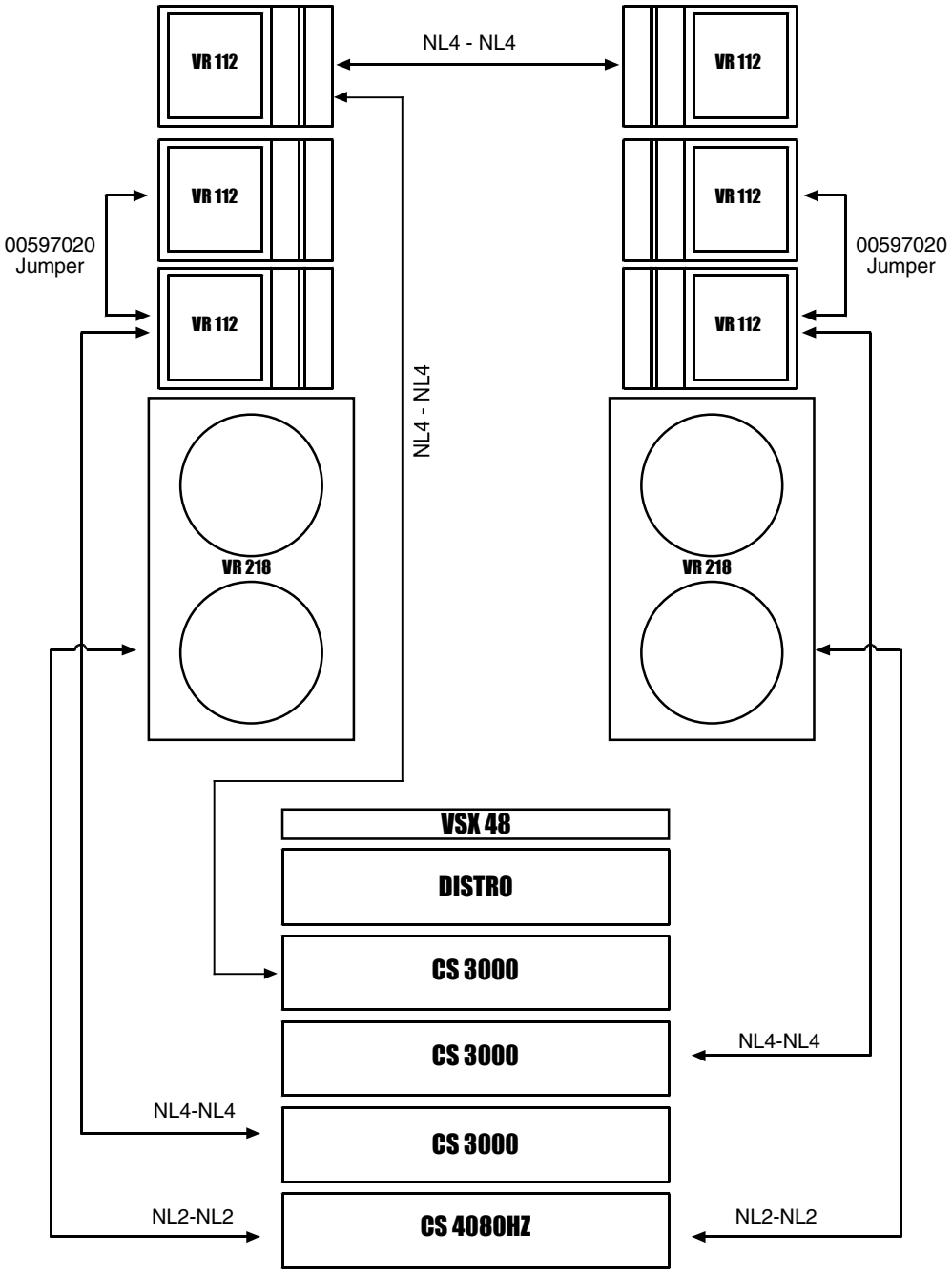
Cabinet Bracket Diagram



Versarray™ Project Twelve

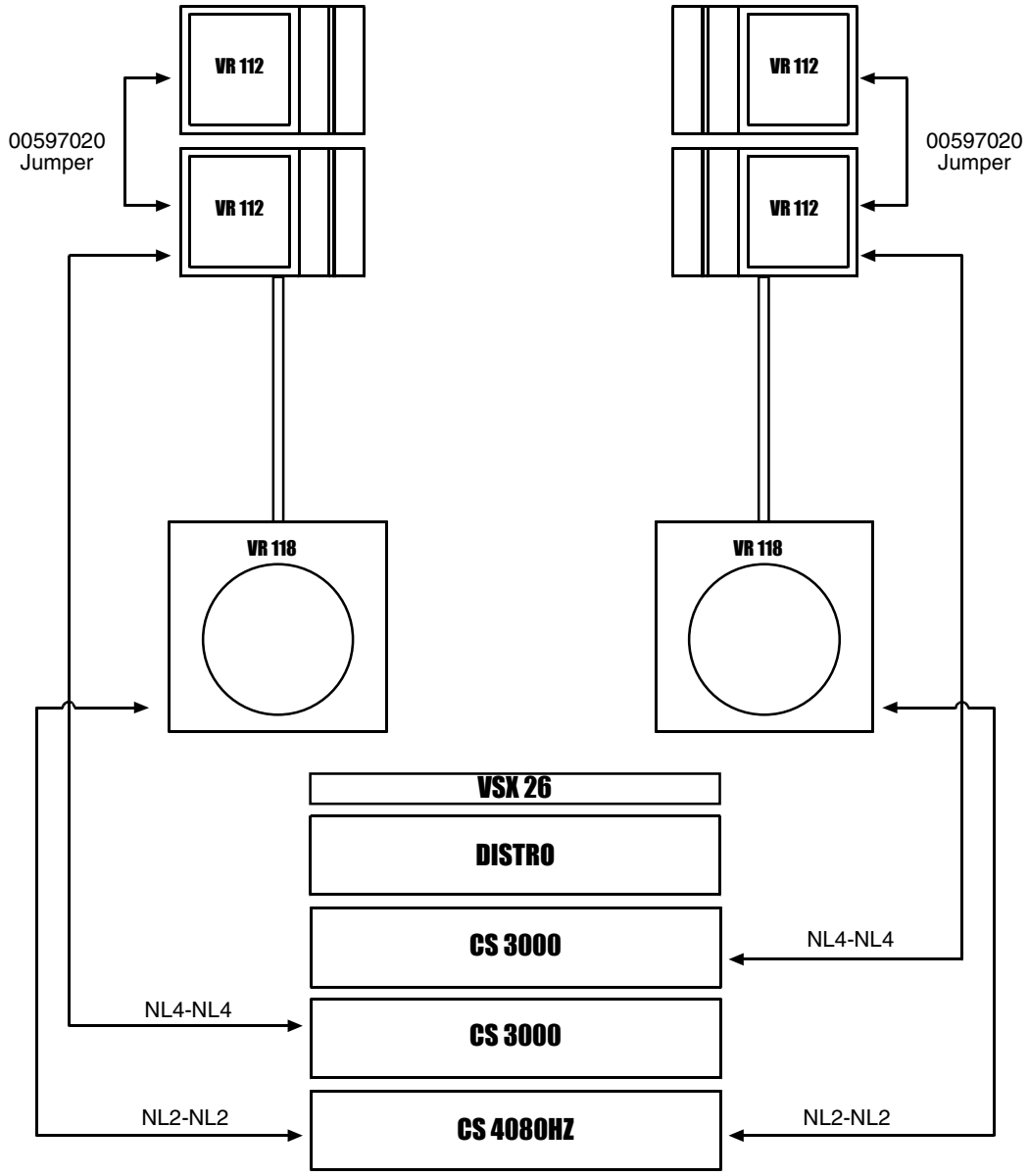


Versarray™ Project Ten



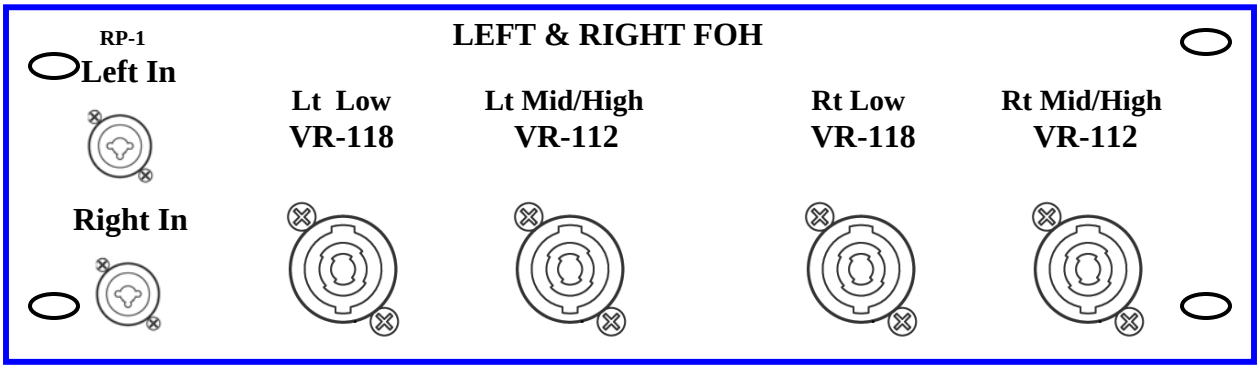
Peavey Electronics Corporation
5022 Hartley Peavey Drive • Meridian, MS 39305
Phone: (601) 483-5365 • Fax: (601) 486-1278
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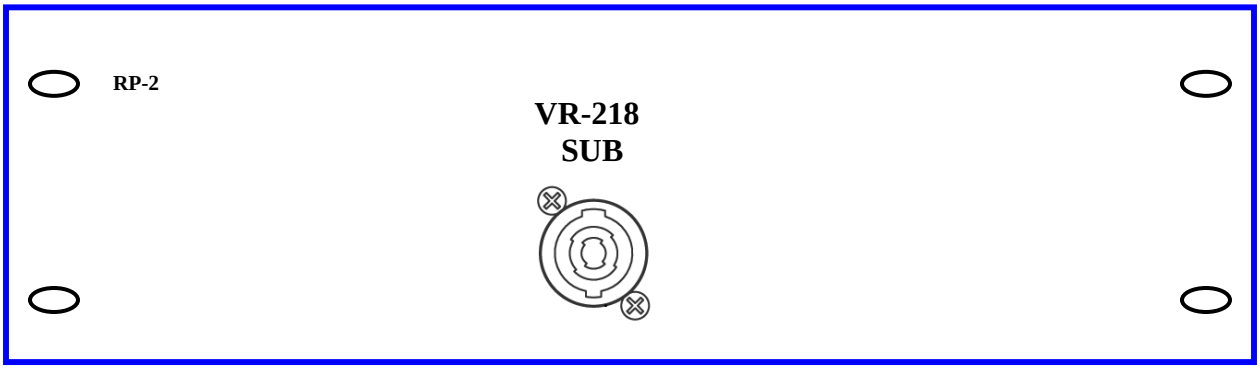
Versarray™ Project Eight



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Note Panel is a rendering, but not to scale





VersArray 1 - Hang System+
with 1 VR-118 Sub per side
+ 1 VR-218 Aux Fed Sub

By Marty McCann
Peavey Electronics Corporation

5,920 Watts

Left & Right FOH System

QTY	Model	Description
2	VR-112	Two-way Loudspeaker Enclosure
2	VR-118	Low Frequency Loudspeaker Enclosure
1	VR-218	Low Frequency Loudspeaker Enclosure
1	CS-1400	Power Amplifier
1	CS-3000	Power Amplifier
1	CS-4080HZ	Power Amplifier
1	VSX-26	Digital Signal Processor

Systemware

QTY	Model	Description	
2	Pak Locking Pins	VR-112 Pins (4 Pak)	#00594020
6	3 Ft Low Z	Balanced Cable	#00380220
2	D3F	Female XLR Panel Mount	#00382340
2	NC3MX-BAG	Male XLR	#00383560
2	10 Ft 4 Cond	12-Gauge Spkn/Spkn Cable	#00575030
3	25 Ft 4 Cond	12-Gauge Spkn/Spkn Cable	#00575040
5	NL4MP	4 Pole Speakon Panel Mount	#00384870
2	Pole Stand	VersArray	#00584860

Amp Rack

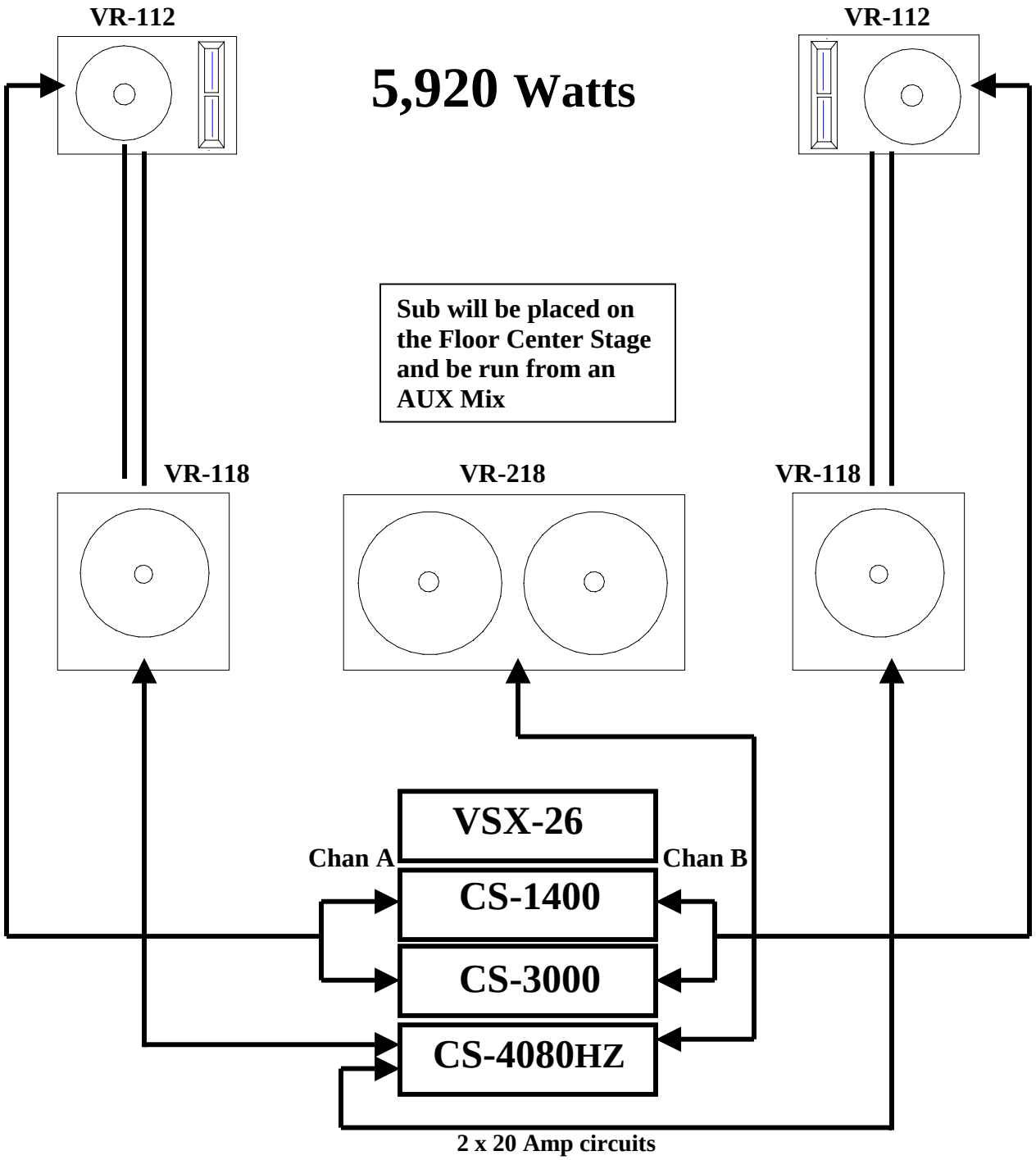
VSX-26
CS-1400
CS-3000
CS-4080HZ

Note: This system does not include the equipment rack.

Note: The Aux Fed Sub Input will be via the front panel RTA Mic input.

Note: This system is only Stereo above 100 Hz.

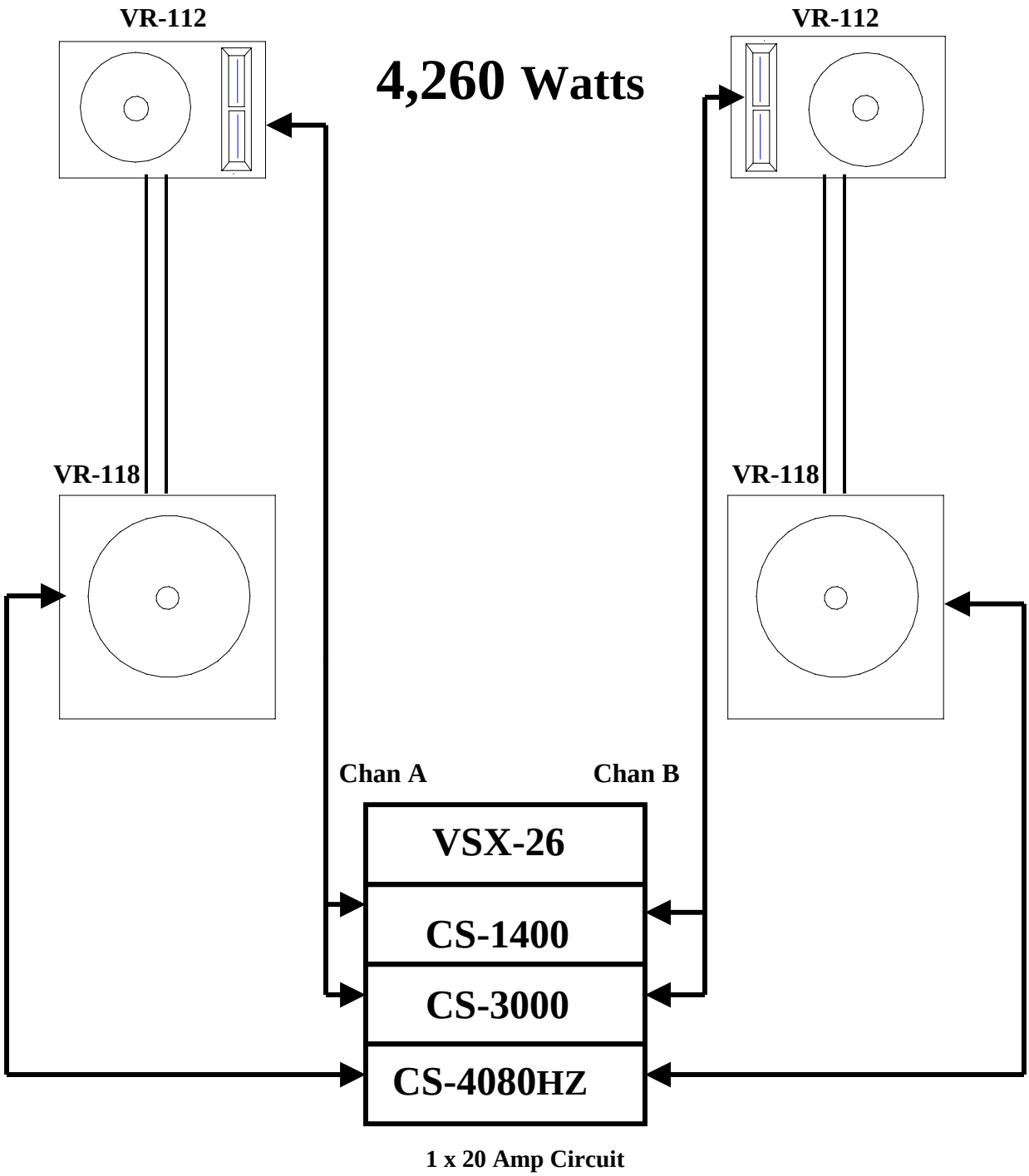
VersArray 1 – Hang System+
with 1 VR-118 Sub per side
+ 1 VR-218 Aux Fed Sub



Note: This system is only Stereo above 100 Hz.

The Aux Fed Sub Input will be via the front panel RTA Mic input.

VersArray 1 – Hang System
with 1 VR-118 Sub per side



VersArray 1 - Hang System
with 1 VR-118 Sub per side

By Marty McCann\
Peavey Electronics Corporation

4,260 Watts

Left & Right FOH System

QTY	Model	Description
2	VR-112	Two-way Loudspeaker Enclosure
2	VR-118	Low Frequency Loudspeaker Enclosure
1	CS-1400	Power Amplifier
1	CS-3000	Power Amplifier
1	CS-4080HZ	Power Amplifier
1	VSX-26	Digital Signal Processor

Systemware

QTY	Model	Description	
2	Pak Locking Pins	VR-112 Pins (4 Pak)	#00594020
6	3 Ft Low Z	Balanced Cable	#00380220
2	D3F	Female XLR Panel Mount	#00382340
2	NC3MX-BAG	Male XLR	#00383560
2	10 Ft 4 Cond	12-Gauge Spkn/Spkn Cable	#00575030
2	25 Ft 4 Cond	12-Gauge Spkn/Spkn Cable	#00575040
4	NL4MP	4 Pole Speakon Panel Mount	#00384870
2	Pole Stand	VersArray	#00584860

Amp Rack

VSX-26
CS-1400
CS-3000
CS-4080HZ

Note: This system does not include the equipment rack.

Note Panel is a rendering, but not to scale

