

I SERIES

IV6 Rigging Frames, Accessories, and Safety Guide (Indoor Elements Only)

Modular Vertical Array 600

Indoor Rigging Frames

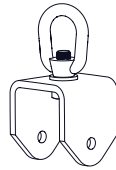
IV6-GP-AF

IV6-LAF-PBB

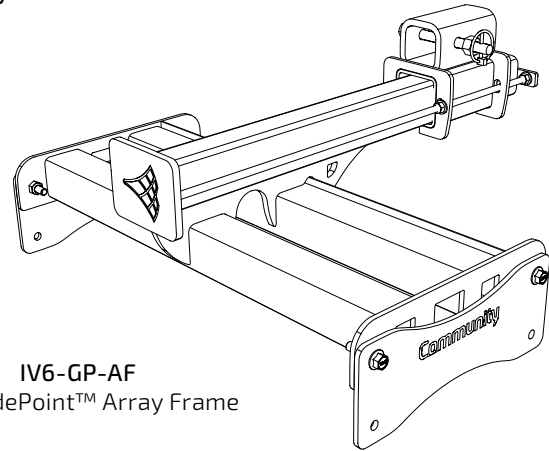
IV6-LAU

IV6-SB-AF

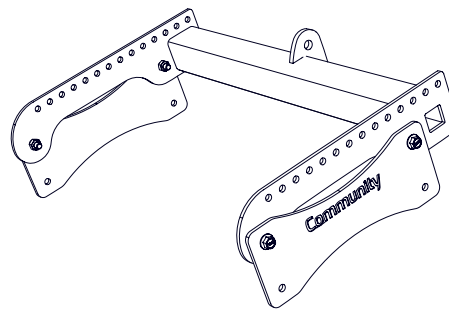
PY1-EN750-1550



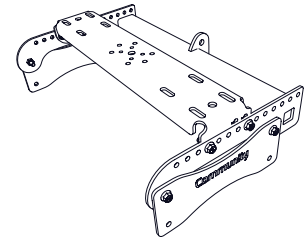
PY1-EN750-1550
Lift Point



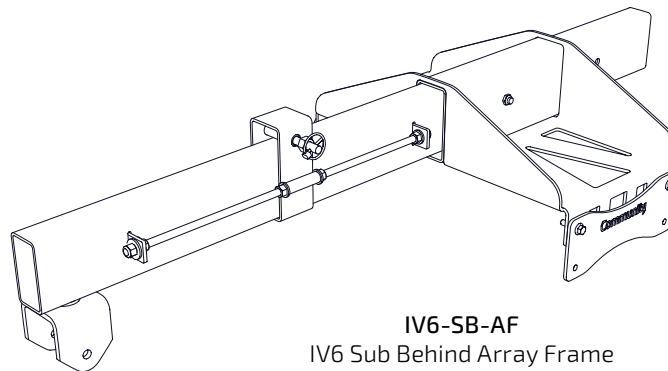
IV6-GP-AF
IV6 GlidePoint™ Array Frame



IV6-LAF-PBB
IV6 Light Array Frame/Pullback Bar



IV6-LAU
IV6 Light Array Frame
Adapter U-Bracket
(on the IV6-LAF-PBB)



IV6-SB-AF
IV6 Sub Behind Array Frame



IMPORTANT: *The Instructions, illustrations, and rigging assemblies in this manual are to be used with INDOOR IV6 cabinets/models only. The IV6-WR loudspeakers differ in width and mounting points and will NOT fit the indoor array frames. Contact Community for information regarding mounting options for WR (outdoor) IV6 loudspeakers.*

IMPORTANT SAFETY INSTRUCTIONS

Always follow these basic safety precautions when using or installing I SERIES loudspeakers and accessories:

- Read these instructions prior to assembly, and keep for reference.
- Heed all warnings.
- Follow all instructions, particularly those pertaining to rigging, mounting, hanging and electrical connections.
- Do not use this apparatus near water (indoor models only).
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instruction.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Only use attachments and accessories that are specified and approved by the manufacturer.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, does not operate normally, or has been dropped.

The terms caution, warning, and danger may be used in this manual to alert the reader to important safety considerations. If you have any questions or do not understand the meaning of these terms, do not proceed with installation. Contact your local dealer, distributor, or call Community directly for assistance. These terms are defined as:



CAUTION: describes an operating condition or user action that may expose the equipment or user to potential damage or danger.



WARNING: describes an operating condition or user action that will likely cause damage to the equipment or injury to the user or to others in the vicinity.



DANGER: describes an operating condition or user action that will immediately damage the equipment and/or be extremely dangerous or life threatening to the user or to others in the vicinity.

These installation instructions are for use by qualified personnel only. To reduce the risk of fire or electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

RIGGING and ELECTRICAL SAFETY



IMPORTANT: The loudspeakers described in this manual are designed and intended to be mounted to differing indoor building surfaces using a variety of rigging hardware, means and methods. Installation of loudspeakers should only be performed by trained and qualified personnel. All electrical connections must conform to applicable local, county, state, and national electrical codes.



DANGER: All rigging fittings must be fully tightened and secured. Any missing fasteners or parts will compromise the structural integrity of the enclosure and constitute a safety hazard. Do not suspend this loudspeaker unless all fasteners are securely in place!



DANGER: It is possible to experience severe electrical shock from a power amplifier. Always make sure that all power amplifiers are in the "OFF" position and unplugged from an AC Mains supply before performing electrical work.



CAUTION: Installation of I SERIES loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting. Severe injury and/or loss of life may occur if this product is improperly installed.

UNPACKING / INSPECTION

Community I SERIES rigging accessories are engineered and manufactured to be rugged and they are carefully packed in sturdy cartons. However, it is recommended to thoroughly inspect each unit after it has been removed from the packaging, as damage could occur during shipping.

Please note that once the shipment has left your dealer or the Community factory, the responsibility for damage is always borne by the freight company. If damage has occurred during shipping, you must file a claim directly with the freight company. It's very important to contact the freight company as soon as possible after receiving your shipment, as most freight companies have a short time limit within which they will investigate claims. Make sure to save the carton and the packing material, as most claims will be denied if these materials are not retained. Your Community dealer and the factory will try to help in any way they can, but it is the responsibility of the party receiving the shipment to file the damage claim.

It is always a good idea to retain the carton and packing materials, if possible, in the event that the unit may need to be returned to your dealer or distributor for repair in the future.





WARNING: I SERIES rigging fittings are rated at Working Load Limits (WLL) with a 10:1 safety margin. All mounting provisions on the IV6 cabinets meet or exceed the 10:1 safety margin to support the cabinet when used with the specified mounting brackets, either from Community or designated 3rd party vendors. Disregarding and/or exceeding the safe working load limits could result in injury or death!

Polar Focus manufactures the rigging frames and splay brackets that Community sells for use with indoor IV6 Modular Vertical Array systems. Polar Focus also manufactures additional mounting accessories that can be used with IV6 systems. Refer to the table on page 18 or their website (www.linearrayframes.com) for additional information.

INSTALLATION BASICS

RIGGING SAFETY

 **IMPORTANT:** IV6 loudspeakers are designed and intended to be mounted to differing indoor building surfaces using a variety of rigging hardware, means and methods. Installation of loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting plan. Severe injury and/or loss of life, and property damage may occur if these products are improperly installed.

 **DANGER:** All rigging fittings must be fully tightened and secured. Any missing fasteners will compromise the structural integrity of the enclosure and constitute a safety hazard. Do not suspend any loudspeakers unless all fasteners are securely in place!


ACCEPTABLE MOUNTING POINT LOADING

Use the custom Rigging Safety Calculator (RiSC) module in EASE® Focus 3 (EF3) to assure mounting point system Safe Working Load (SWL) and required Safety Factor are not exceeded. The RiSC module is described on pages 4-5. The system should be modeled in EF3 prior to ordering, and the system design report generated should be utilized when installing / assembling the array(s). The software, and system information is available on the Community website. Use the QR code on the lower corner of this page for a link to the IV6 downloads page.

In addition, for sub-behind applications, use the "IV6 Sub Behind Hang Point Calculator" to assure proper deployment of the IV6-SB-AF bracket. It is available from the IV6 "Downloads" section on the Community website.

INSTALLATION AND ASSEMBLY TIPS

- Test all cabinets before hanging
- Arrange cabinets in the order that they will hang, and loosely attach appropriate splay brackets to the top of each cabinet
- Set attenuation settings per the EASE® Focus 3 model on each cabinet
- If using the IV6-GP-AF, adjust the carriage on the array frame to the suggested pin setting before attaching the loudspeakers
- Orient cabinets so the horns align along the length of the array - this also aligns the input panels for easy wiring
- Ground-stacked subwoofers should be connected only with S1 splay brackets to prevent any vibration-based movement of the elements
- Leave splay bracket connections slightly loose until all cabinet connections are made, then tighten evenly

 **IMPORTANT:** The hex head Grade 10.9 rigging bolts that are used to secure the splay brackets must also fill any unused holes (at the bottom of a flown array or at the top and bottom of a ground stack) to seal the enclosure from air leaks. If those threaded holes are not sealed, air leaks will occur in the enclosure that will compromise the low-frequency performance with distortion, reduced output, and possible premature driver failure.

SAFETY CABLE

The safety cable and associated hardware are not included. Consult all applicable codes for your application. Confer with a structural engineer for the appropriate cable/hardware for the load, application and locale. If required, the safety cable must be secured to a suitable load-bearing point separate from the array mounting point, with as little slack as possible, so as not to develop undue kinetic force if the primary array mount were to fail.

Light Array Frame (IV6-LAF-PBB)

When required, a secondary safety cable can be attached to an unused hole(s) on the LAF.

GlidePoint™ Array Frame (IV6-GP-AF)

A secondary safety cable mounting point is available from PolarFocus.

Part number: RLP-X2-1800

Sub Behind Array Frame (IV6-SB-AF)

Contact PolarFocus, for a quote for a custom secondary attachment point(s) required for your particular application.



Scan or click to go to the IV6 downloads section on the [Community website](#) for the latest version of this manual.

SYSTEM DESIGN


Community encourages all system designers to use EASE® Focus 3 (EF3) [v 3.1.3, or later], to model the array. In partnership with Community, AFMG (the developer of EASE® software) has developed special modules that are "Community-exclusive". We suggest downloading the latest version of EF3 software from the Community website since it also includes IV6 GLL data files which provide the information to utilize those Community-exclusive modules.

The custom Rigging Safety Calculator (RiSC) module (found under the "Loads" tab) automatically populates and updates in real-time as an array is configured and aimed.

RIGGING SAFETY CALCULATOR (RiSC)

After your initial array has been designed, and before proceeding to fine tuning and optimizing, it is critical to ensure that the array as designed is safe to deploy. As changes are made to the array during the design process, it is important to continuously check that the array remains within desired safety conditions. To help you and your qualified structural engineering team make decisions about the safety of the array, we have worked with AFMG to develop a Community-exclusive custom module for EF3 that we call the Rigging Safety Calculator (RiSC).

RiSC calculates the static loads and resultant safety factor for each array cabinet connection point to adjacent cabinets (including loads through the IV6-S1, IV6-S2, and IV6-S3 splay plates) and the top cabinet's attachment to the Array Frame.

 **IMPORTANT:** RiSC should NOT be used to determine the safety factor for arrays deployed outdoors or in any other conditions where additional forces (like wind or vibration) may act upon the array.

To view the RiSC display in EF3, click on the "Loads" tab (Figure 1). By default, it is located just to the left of the "Rigging" tab. At the top of the "Loads" tab is box for the user to enter the "Desired Safety Factor" for the array.

Community recommends using a 10:1 Safety Factor whenever possible. The RiSC module is set to a 10:1 Safety Factor by default. Consult all applicable codes to determine the required safety factor for your application.

In the lower left corner of the EF3 window, a "Status" notice shows if the Desired Safety Factor conditions have been fulfilled (Figure 2). If the status displays "condition failed" warning, the array must be re-configured until the status displays "condition fulfilled".

Note: In EASE® Focus 3 the "Desired Safety Factor" on the "Loads" tab is equivalent to the "Global Safety Factor" in the status notifications. "Global" only refers to the selected array. It does NOT mean that the warning refers to all of the arrays in the project. The "Global Safety Factor" status for each array in the project must be checked independently.

Designer's Hint: A number of factors contribute to whether an array fulfills the Desired Safety Factor criteria, including overall array weight, array shape (curvature), and overall array tilt angle. Each array must be checked individually even if constructed identically to another one that passes.

Designer's Hint: It is worth checking the "Status" window before proceeding to calculating the Passive Acoustic Optimization settings so that you do not spend time optimizing an array that, ultimately, is not safe to deploy.

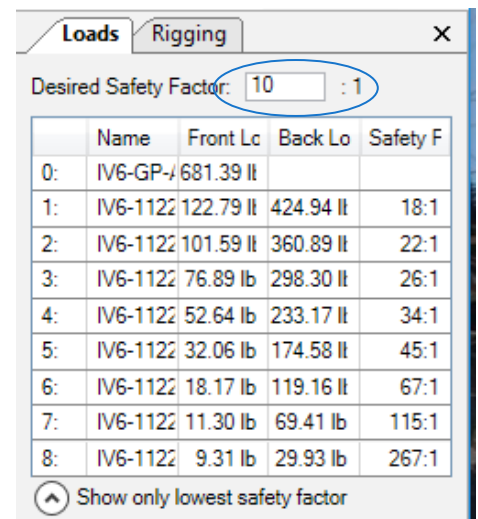


Figure 1. Loads tab
Enter Desired Safety Factor (circle)

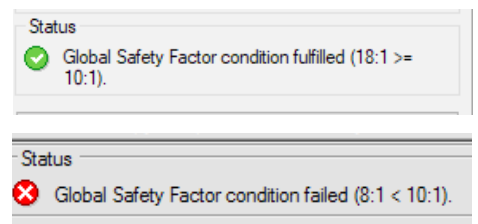


Figure 2. Safety Factor Pass / Fail

RiSC (CONTINUED)

RiSC does NOT calculate the safety factor for the array frame lift point(s), where the array frames are connected to the supporting structure. That feature is natively built into EF3 and is hard-coded with a Desired Safety Factor of 10:1. If the weight limit of an array frame, with a 10:1 safety factor, is exceeded a secondary "Status" warning (circled) will appear (Figure 3) stating that the array frame lift point(s) maximum weight has been exceeded. Each array frame has a different maximum allowable load. If this warning appears, change to a higher rated array frame, or remove cabinets from the array until within allowable limits. Due to the complex forces acting on arrays, consult a qualified structural engineer to determine if using the IV6-LAF-PBB as a pullback bar at the bottom of the array can be used to help distribute array loads rather than just as an assistive aiming device. Currently, EF3 (and the RiSC module) does not offer the option of using the IV6-LAF-PBB as a pullback bar.

By default, the "Loads" tab shows a simplified RiSC summary for the array, displaying only the connection point in the array with the LOWEST Safety Factor (Figure 4A). To view the loads and safety factors for all connection points in an array, expand the "Loads" table by clicking on the arrow next to "Show all cabinets" (Figure 4B, 4C)

The loads and safety factor values will update automatically, in real time, as changes are made to the array size, curvature, aiming angle, cabinet type, array frame, etc.

THE PROJECT REPORT

The expanded loads and safety factor values, along with the "Status" confirmation messages are included in section 5.1 and 5.2 of the EASE® Focus 3 Project Report. In EF3 click on "File", then "Create Report". This PDF report includes all of the important information about the array, including cabinet types, aiming angles, array frame types, acoustic simulation results, etc. (Figure 5). This makes it easy to inform customers, engineers, installers, AHJ's (Authorities Having Jurisdiction) or any other stakeholders of the array design status and critical design parameters.

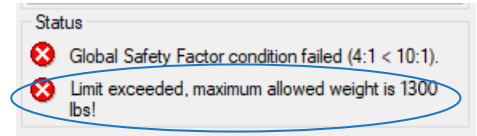


Figure 3. Safety Factor and weight limit failures

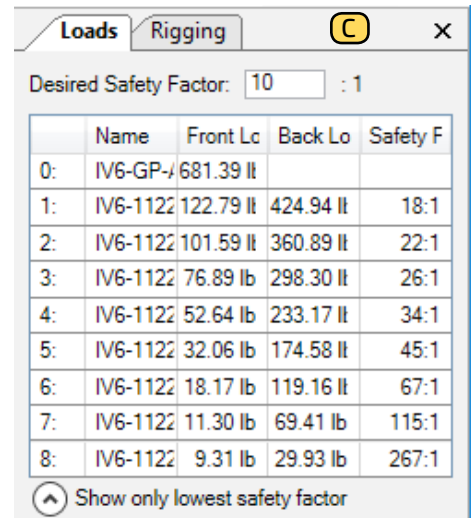
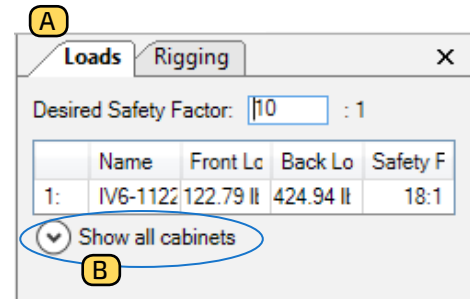


Figure 4.

A. Loads tab

B. Toggle to show all cabinets

C. All cabinets shown

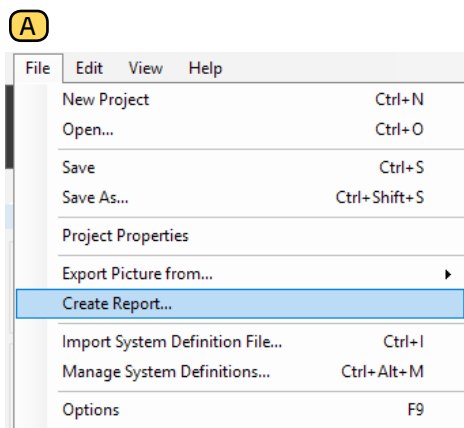
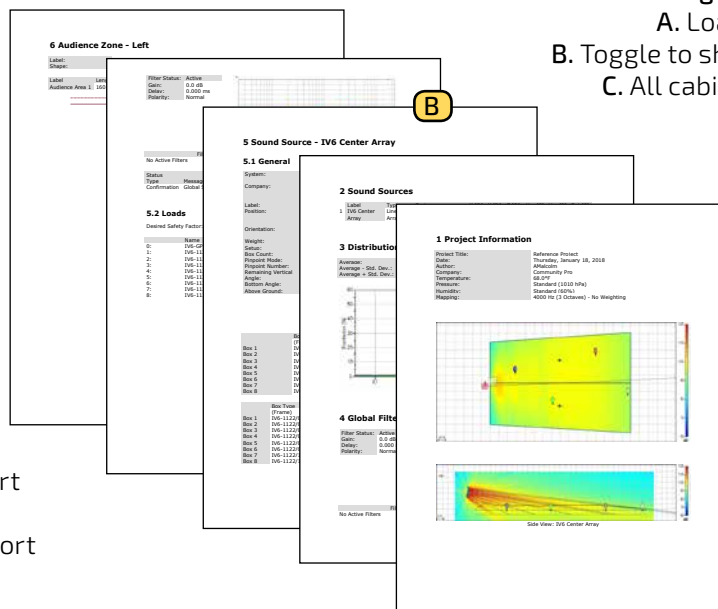


Figure 5. EF3 Project report
A. Create the report
B. Pages from a sample report



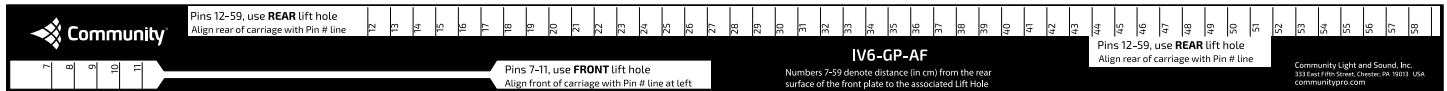
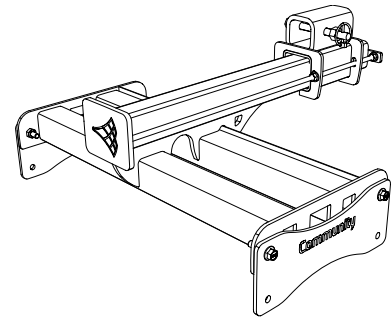
GLIDEPOINT™ ARRAY FRAME

Designed to suspend a maximum of sixteen (16) IV6 -1122 or nine (9) subwoofers in a single indoor array with a 10:1 safety factor.

APPLICATION: Suspend and aim a loudspeaker array from a single adjustable point.

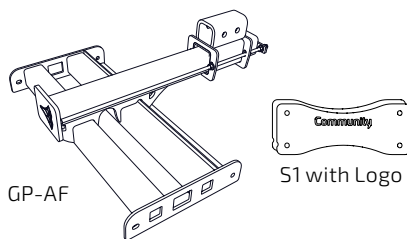
Before assembly: Retrieve rigging and Pin# (pinpoint) information from the system design / model in EASE® Focus 3 (EF3).

The Pin# information from the rigging section of EF3 represents the distance (cm) from the back of the front logo plate to the designated lifting point. Pins 1-6 do not exist due to the offset of the front lift point on the carriage.



IV6-GP-AF carriage placement label

Parts:



IV6-GP-AF

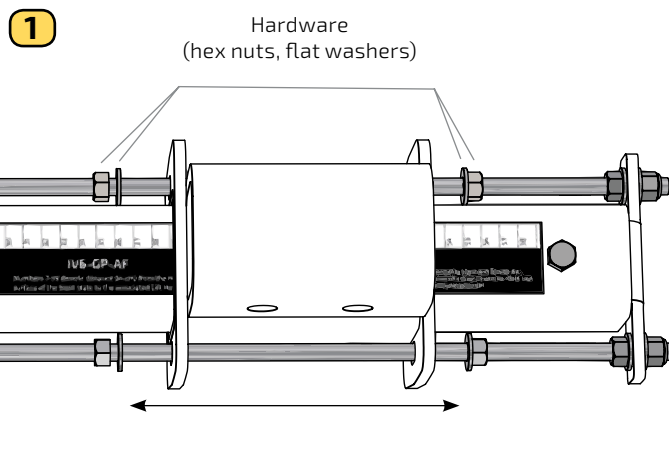
- GP-AF: GlidePoint™ Array Frame (1)
- S1 with Logo: Splay brackets w/logo (2)

Hardware:

Qty	Code	Description
4	HHB-F	Grade 10.9 Flanged Hex Head Bolts
4	HN-F	Flanged Nuts
1	C-HB	Carriage Hex Bolt
1	C-HN	Carriage Hex Nut
1	LR	Locking Ring

Kit Weight: 76 lbs (34.5 kg)

Working Load Limit: 1300 lbs (589.7 kg)
(10:1 safety factor)



GP-1. Loosen carriage hardware, move the carriage to suggested pin# position, and re-secure hardware

ASSEMBLY

1. Move the carriage to the pin setting suggested by the Rigging panel following the system design in EF3. Loosen the nuts on the rods enough to slide the carriage to the pin# line and then tighten the nuts on both sides to secure it. Follow instructions on the frame label regarding carriage alignment and which lift hole to use:

- Pin# 7-11 align front of carriage with pin # line, and use front lift hole
- Pin# 12-59, align rear of carriage with the pin# line and use rear lift hole

INSTALLER'S HINT: With most small to medium-size arrays, the carriage location can be changed while under load (with the array attached and in the air). This is helpful, when the recommended pinpoint is farther back on the frame. The carriage can be started toward the front to keep the array relatively level as it is being built, and then moved back as the array gets longer.

- Loosen the nuts on the side of the carriage in the direction it should be moved.
- The carriage can be moved by hand if there isn't too much weight on the frame, or "tighten" the nuts (with a wrench) on the other side of the carriage to move it along the threaded rods.
- After the carriage is in its final position (and the system is aimed), one at a time, loosen each nut a few threads, apply a drop of red thread-locking compound, and re-tighten the nut. This will help prevent movement of the carriage over time.

Additional rigging accessories are available from Polar Focus - See table on Page 18 of this manual.

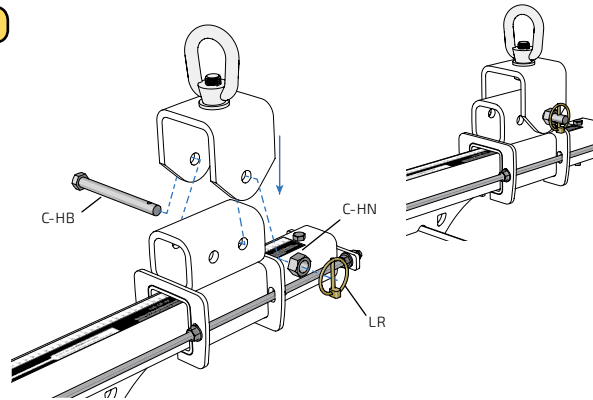
GLIDEPOINT™ ARRAY FRAME (CONTINUED)

ASSEMBLY (CONTINUED)

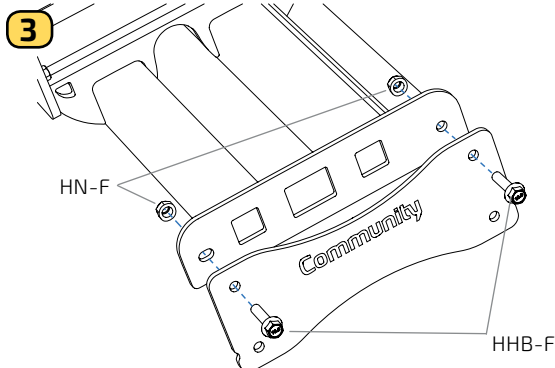
2. Attach the lift point to the appropriate hole in the carriage with the included carriage hex bolt and secure with a hex nut and locking ring.

3. Using the flanged Grade 10.9 bolts and nuts, loosely attach the S1 brackets to the array frame with the Community name facing out.

2



GP-2. Attach the lift point to the carriage using the designated lift hole (PY1-EN750-1550 shown)



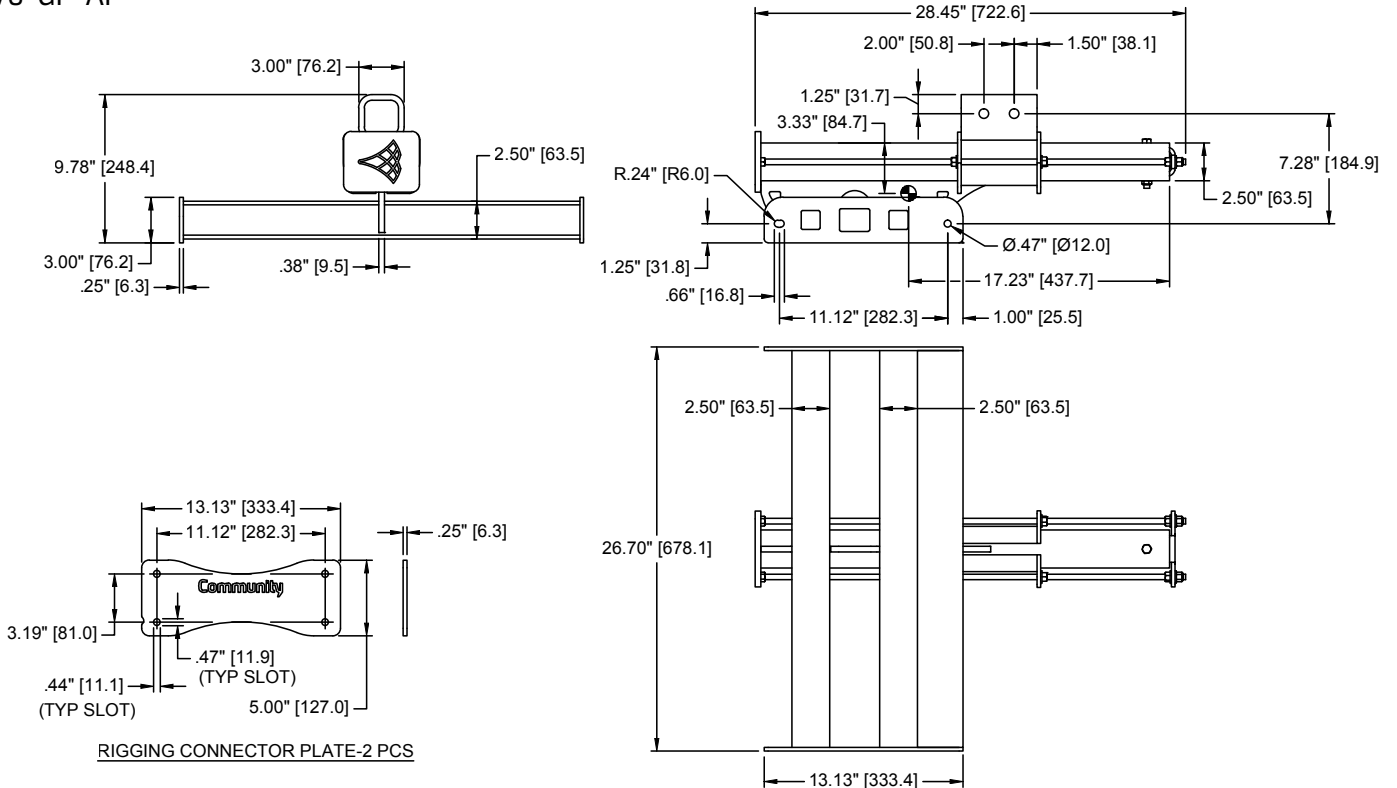
GP-3. Loosely connect the splay brackets to the frame with "Community" facing out



IMPORTANT: Leave bracket hardware slightly loose until the cabinet is attached to the brackets. This allows cabinet to fit between the brackets easily. After all eight (8) bolts are started, fully tighten bolts. Do not place under load until connections are tight!

Technical Drawing

IV6-GP-AF



LIGHT ARRAY FRAME / PULLBACK BAR

APPLICATION: Suspend a small indoor loudspeaker array of up to ten (10) IV6-1122 elements or provide pullback point for a larger curved array.

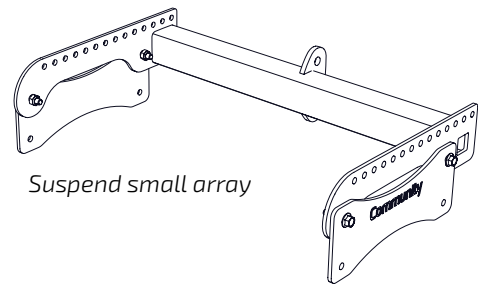
Before Assembly: Record the Pin# from EASE® Focus 3 (EF3) to define the lift points for the array. Refer to the "Pin" Point Reference on the next page.

ASSEMBLY

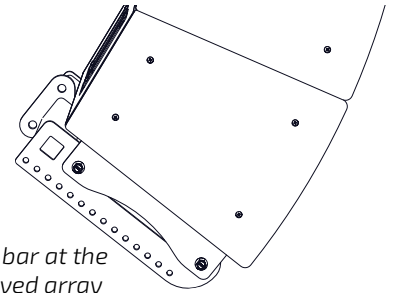
1. If the frame will be at the top of an array, position the S1 splay brackets against the array frame with the Community name facing out. Loosely attach the brackets with the flanged Grade 10.9 bolts and nuts.

Note: If the frame is being used as a pullback bar at the bottom of the array, reverse the plates, turning the Community art inward.

2. Attach the splay bracket to the IV6 cabinet as shown in the array assembly instructions. Leave all connections slightly loose until all frame-to-cabinet bolts are started, then tighten the hardware.



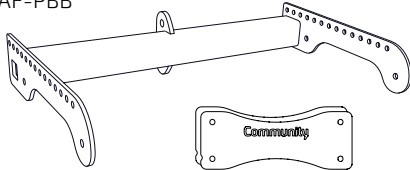
Suspend small array



Use as pullback bar at the bottom of a curved array

Parts:

LAF-PBB



S1 with Logo

IV6-LAF-PBB

LAF-PBB: Light Array Frame (1)

S1 w/ Logo: Splay brackets w/wordmark (2)

Hardware:

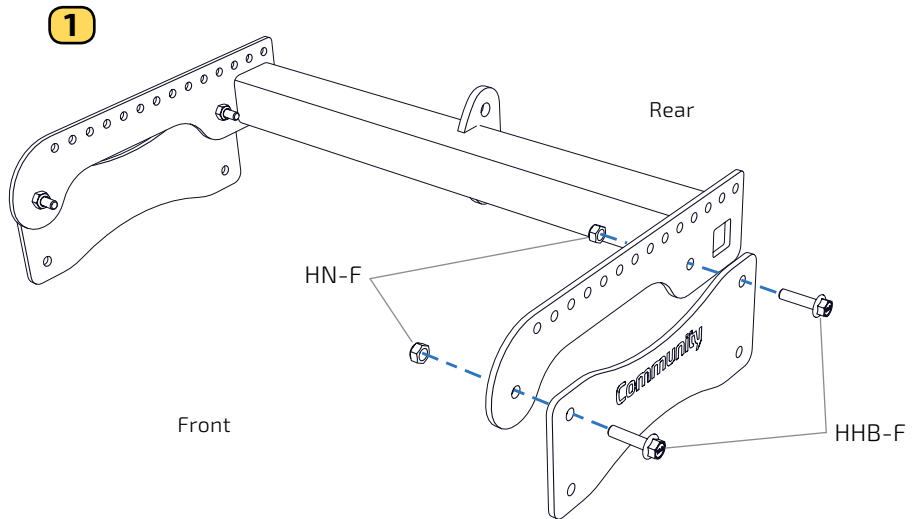
Qty	Code	Description
4	HHB-F	Grade 10.9 Flanged Hex Head Bolts
4	HN-F	Flanged Nuts

Kit Weight: 23 lbs (10.4 kg)

Working Load Limit: (10:1 safety factor)

As a Light Array Frame: 850 lbs (385.6 kg)

As a Pullback Bar: 1600 lbs (725.7 kg) at the cable attachment tab



LAF-1. When used at the top of an array, use the Grade 10.9 hardware, loosely connect the splay brackets to the array frame with "Community" facing out



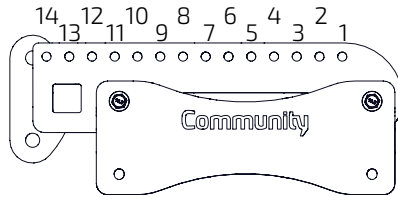
IMPORTANT: When the IV6-LAF-PBB is used as a pull-back bar, its weight must be added to the overall array weight before recalculating array suspension forces and resultant safety factors.



IMPORTANT: Leave bracket hardware slightly loose until the cabinet is attached to the brackets. This allows cabinet to fit between the brackets easily. After all eight (8) bolts are started, fully tighten bolts. Do not place under load until connections are tight!

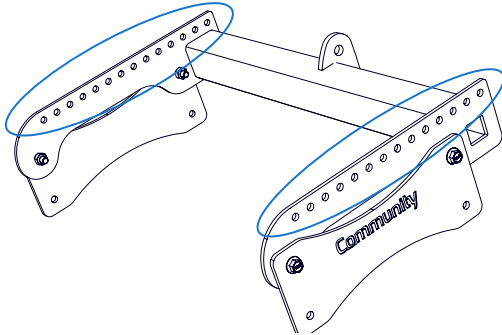
LIGHT ARRAY FRAME / PULLBACK BAR (CONTINUED)

"PIN" POINT REFERENCE



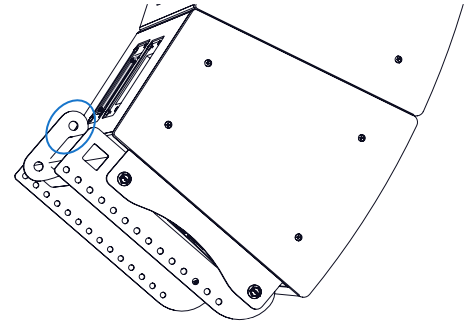
"Pin" point reference for suspension
(Pin Number from EF3)

USED AS LIGHT ARRAY FRAME



Connect suspension hardware to upper holes along the side rails (circled)
Use defined Pin# from EF3 for the lift points

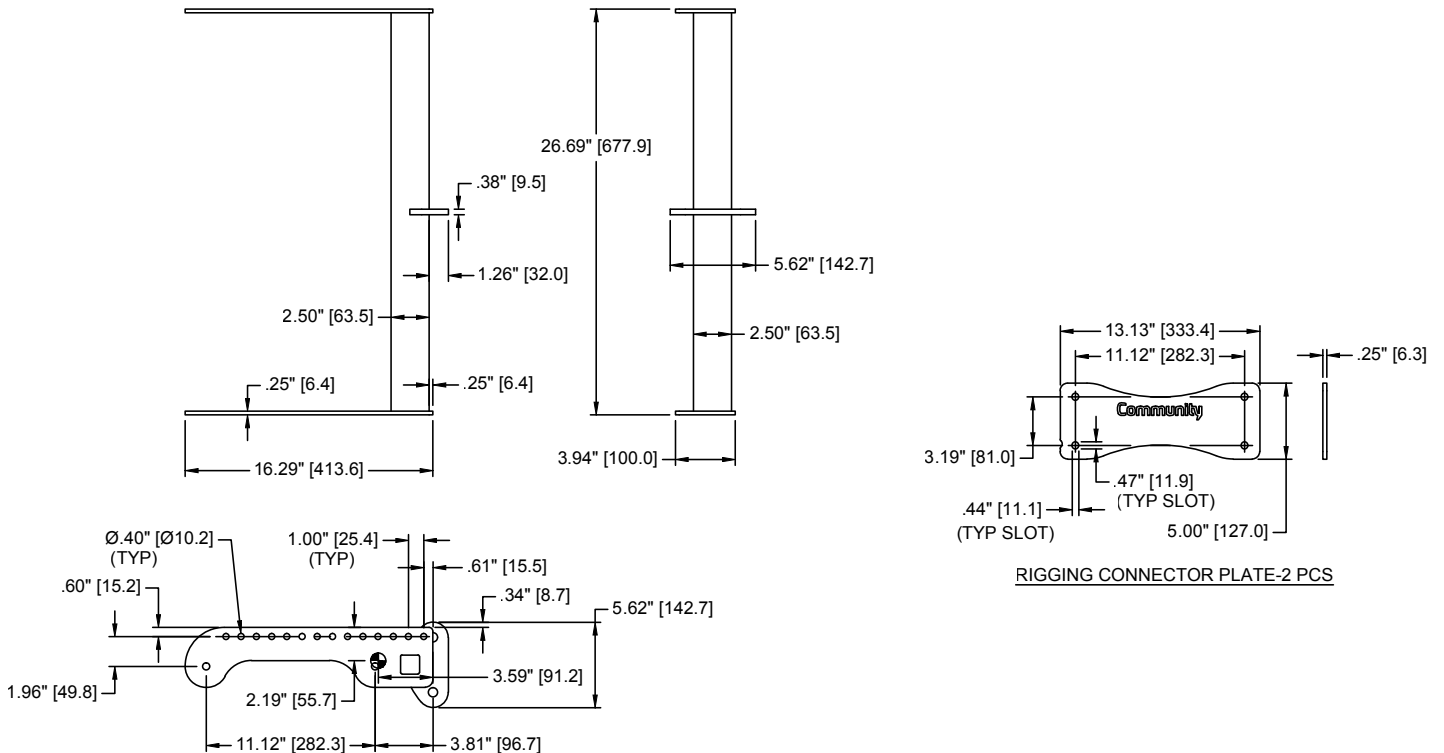
USED AS PULLBACK BAR



Connect pullback cable hardware to the upper hole of the center tab (circled) welded to the square tube

Technical Drawing

IV6-LAF-PBB



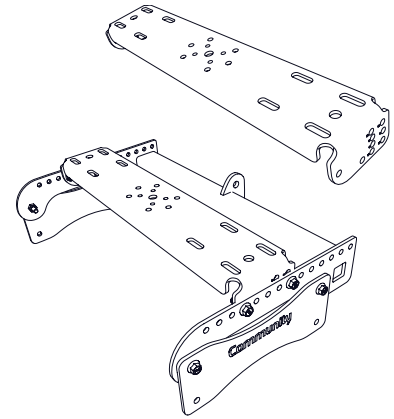
LIGHT ARRAY FRAME ADAPTER U-BRACKET

The IV6-LAU must be used with the IV6-LAF-PBB Array Frame. It is designed to support a variety of ancillary array mounting configurations and as a tool to integrate IV6 indoor arrays with I SERIES BalancePoint™ Flyware and other 3rd party mounting systems.

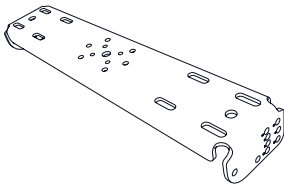
Before assembly: The IV6-LAU U-Bracket must be used with the IV6-LAF-PBB to integrate with an IV6 array. Determine tilt angle and approximate center of balance of the array for placement on the light array frame.

1. Attach the U-Bracket to the IV6-LAF as shown (LAU-1). Insert bolts in the "pivot" position first (see below) and then secure desired angle with the other bolt. There is a slightly different connection for downfill applications - see LAU Application #5.

Note: In close surface mount applications, it is easier to mount the U-Bracket to the surface before adding the IV6-LAF-PBB frame and loudspeakers.



Parts:



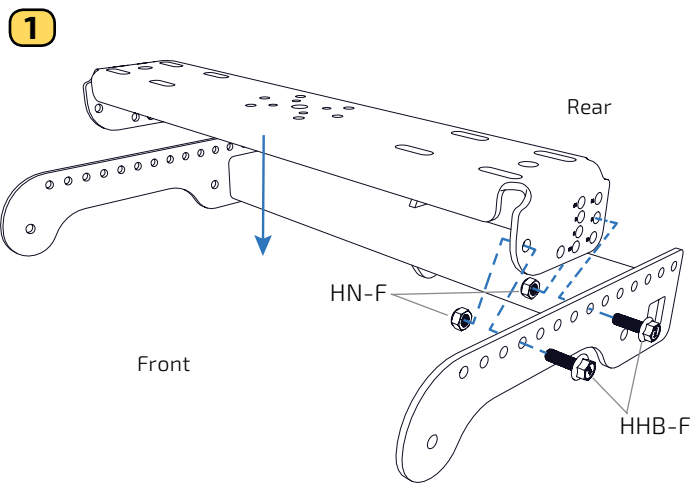
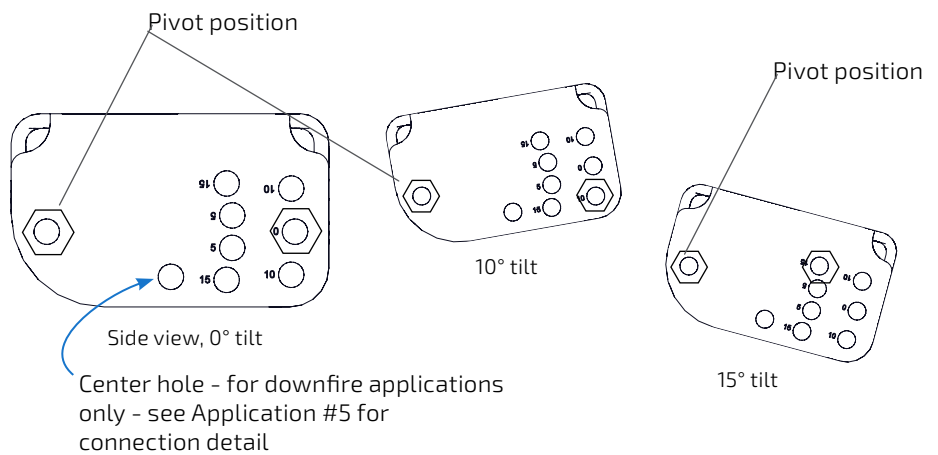
LAU

IV6-LAU
LAU: Light Array U-Bracket (1)

Hardware:

Qty	Code	Description
4	HHB-F	Grade 10.9 Flanged Hex Head Bolts
4	HN-F	Flanged Nuts

Kit Weight: 13.5 lbs (6.1 kg)
Working Load Limit: 500 lbs (226.8 kg)
(10:1 safety factor)



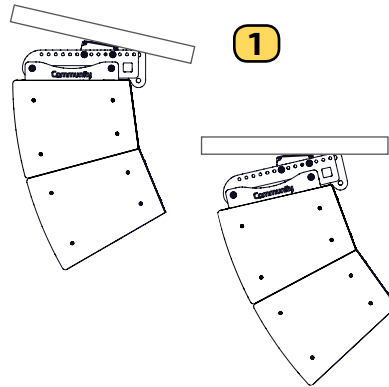
LAU-1. Attach the U-bracket to the frame at the desired angle, centered around the specified pin point# from EASE® Focus 3

IMPORTANT: When used with the IV6-LAF-PBB to hold a downfill loudspeaker at the bottom of an array, the weight of the added elements must be considered when calculating the SWL of the array.

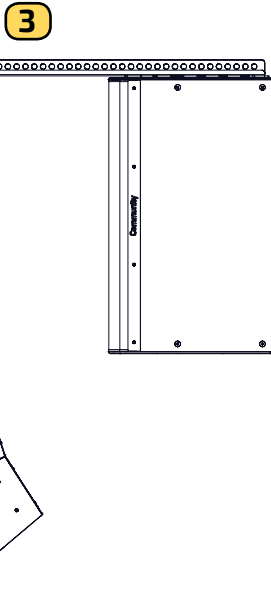
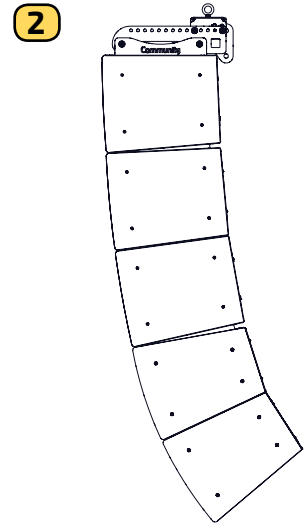
WARNING: For safety reasons, for the applications listed on the next page, the center of mass of the array must be located directly beneath the IV6-LAF-PBB Frame. If the center of mass is located behind the array frame, it may result in an unsafe rigging condition.

IV6-LAU APPLICATIONS

1. Under-balcony mount for a two to three element IV6 array. The LAU provides a very low profile mechanism for rigidly mounting a small array to a solid overhead surface. The built-in 0°, 5°, 10°, and 15° aiming options allow adjustments to the overall array aiming angle.

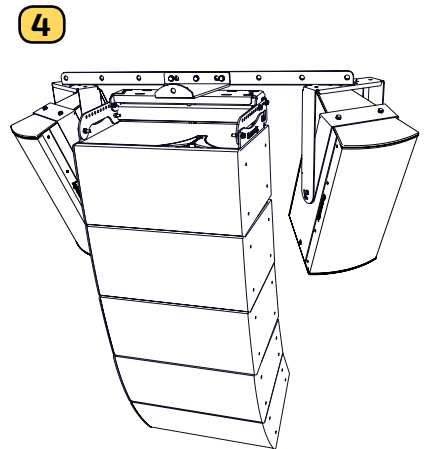


2. Suspend an array of up to six IV6-1122 or up to three IV6-1185 elements (not to exceed WLL of 500 lbs. @ 10:1 safety ratio) from one or more load-rated eyebolt(s) or other similar sized load-rated lifting hardware. For this application, the IV6-LAU must be bolted to the IV6-LAF in the 0° position.



3. Suspend I SERIES 600 or I SERIES 800 subwoofers behind an array of up to six (6) IV6-1122 elements using the BalancePoint™ Flyware SBR54 (54" long Sub Behind Fly Rails). For this application, the IV6-LAU must be bolted to the IV6-LAF in the 0° position.

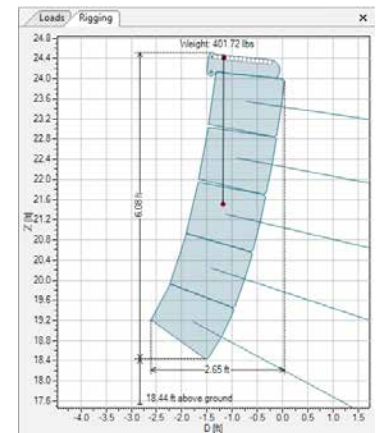
4. Suspend an array of up to six IV6-1122 elements using the BalancePoint™ Flyware IAF55 (55" wide Isometric Array Frame). The IAF55 allows flying a central IV6-1122 array with additional I SERIES fill speakers to the left and right. The IAF55 may also be combined with the SBR54. For this application, the IV6-LAU must be bolted to the IV6-LAF in the 0° position.



I SERIES BalancePoint™ Flyware instructions are available by following this link to the Community website: www.communitypro.com/products/iserie and finding BalancePoint™ Flyware.

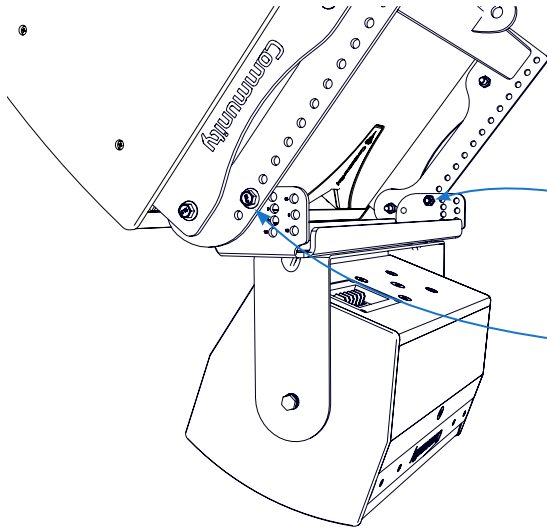
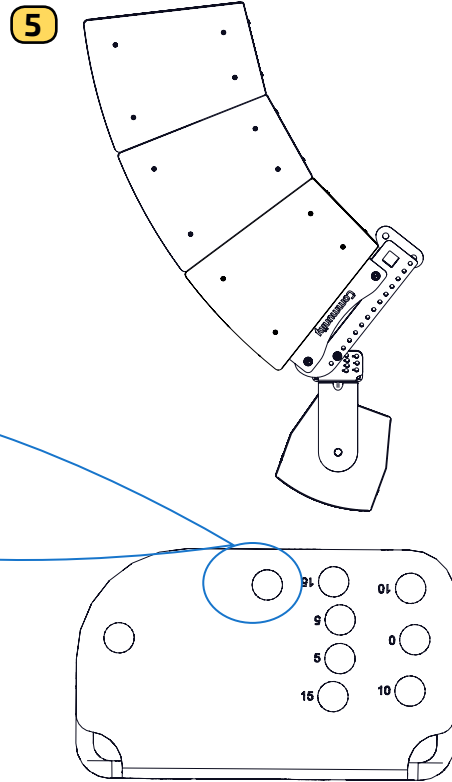


WARNING: For safety reasons, for the applications listed above, the center of mass of the array MUST be located directly beneath the IV6-LAF-PBB Array Frame. If the center of mass is located behind the array frame, it may result in an unsafe rigging condition. To verify center of mass is directly beneath the Array Frame, build the intended array (using the IV6-LAF-PBB Array Frame) in EASE® Focus 3 (EF3) and verify the center of mass position meets this condition as displayed the "Rigging" pane. (See image at right from EF3). **IMPORTANT:** The LAU can only be used with LAF pin positions 3-12. Always have rigging safety conditions verified by a certified engineer before installation. Failure to do so can lead to severe injury or even death!



IV6-LAU APPLICATIONS (CONTINUED)

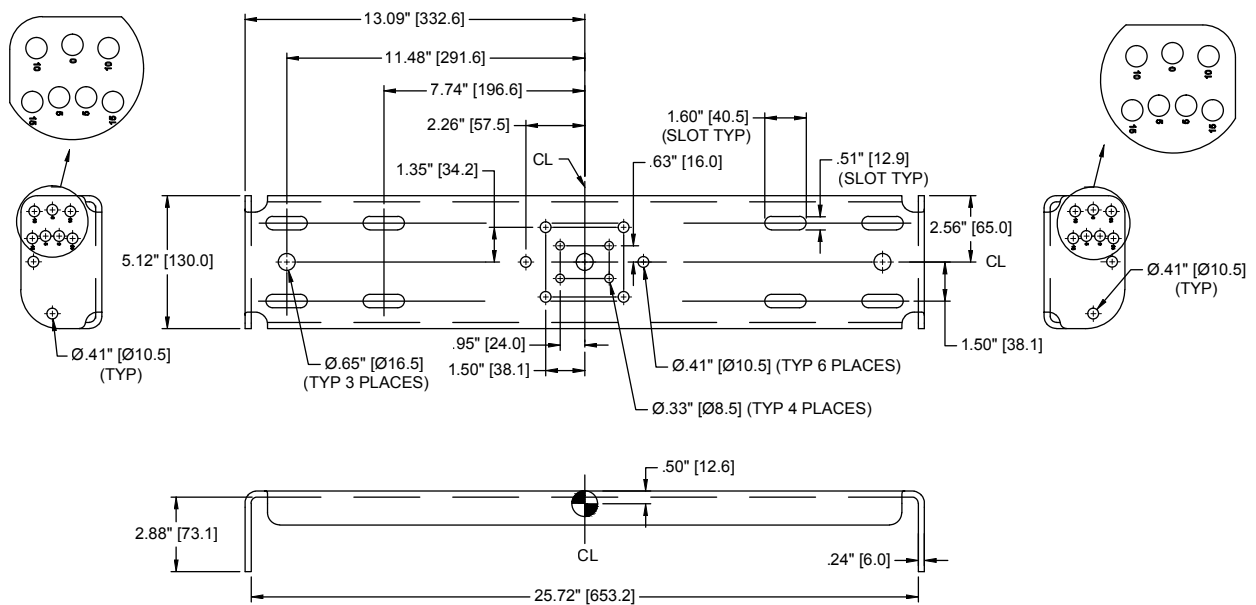
5. Attach an I SERIES COMPACT (IC6) loudspeaker to the bottom of an IV6 array for downfill applications. Attach the LAU to the IV6-LAF-PBB frame as close as possible beneath the center of mass of the array. Connect the IC6 yoke to the LAU securely. Hardware to connect the IC6 yoke to the LAU must be supplied by the installer.



For "downfill" applications only, connect the IV6-LAU U-bracket using the center hole (circled)
 One Grade 10.9 hex head bolt/hex nut connection per side
 Allow the IV6-LAU to rotate into a self-leveled position before tightening the bolts

Technical Drawing

IV6-LAU




SUB BEHIND ARRAY FRAME

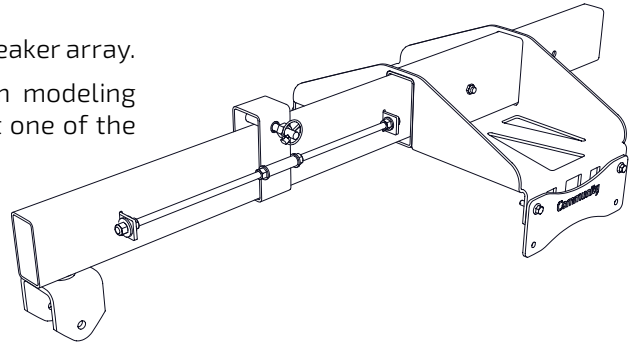
Hang up to eight (8) IV6 subwoofers behind the main indoor array.

APPLICATION: Connect to and suspend subwoofers behind a loudspeaker array.

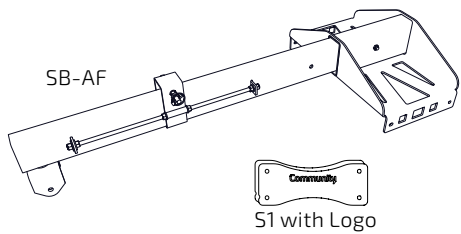
Before assembly: Determine the weight of the main array (from modeling the system in EASE® Focus 3). Connect S1 splay brackets to all but one of the subwoofers - that one will be mounted to the IV6-SB-AF.

Tips:

- The mounting frame is preinstalled at the rear position
- Using the rear position will better counterbalance the weight of a larger main array
-  **IMPORTANT:** *The IV6-SB-AF must always hang level.* Use the Sub-behind Hang Point Calculator to help determine the mounting frame position.
- When building the main array along with the sub-behind array, the main array can be rotated (up to 90°) to prevent the cabinets from potentially hitting while lifting the assembly and adding to the length of the array.



Parts:



IV6-SB-AF
SB-AF: Sub Behind Array Frame (1)
S1 w/ Logo: Splay brackets w/wordmark (2)

Hardware:

Qty	Code	Description
4	HHB-F	Grade 10.9 Flanged Hex Head Bolts
4	HN-F	Flanged Nuts
1	C-HB	Carriage Hex Bolt
1	C-HN	Carriage Hex Nut
1	LR	Locking Ring

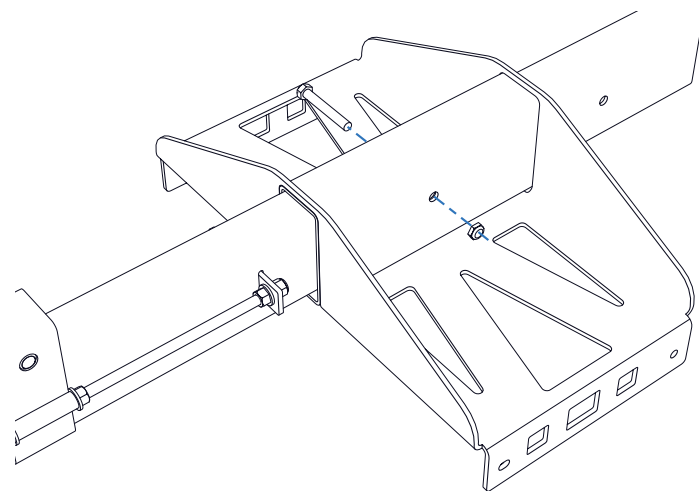
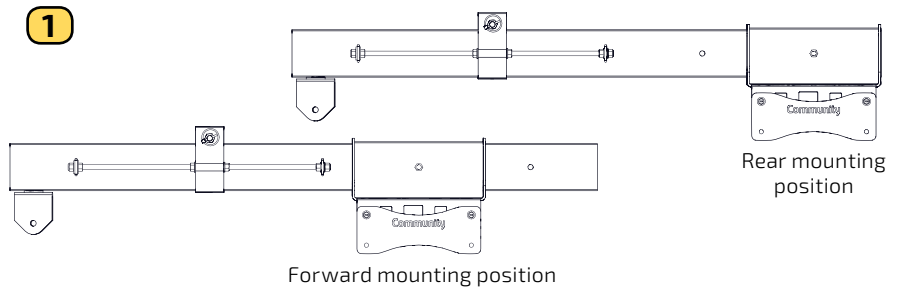
Kit Weight: 108.0 lbs (49.0 kg)

Working Load Limit: 2000 lbs (907.2 kg)
 (10:1 safety factor)

Additional rigging accessories are available from Polar Focus - See table on [Page 18](#) of this manual.

ASSEMBLY

1. Move the sub mounting frame to the forward position if only 1-2 subwoofers are being mounted.



SB-1. Determine sub mounting position (Reposition frame, forward if needed, using installed bolt/nut)

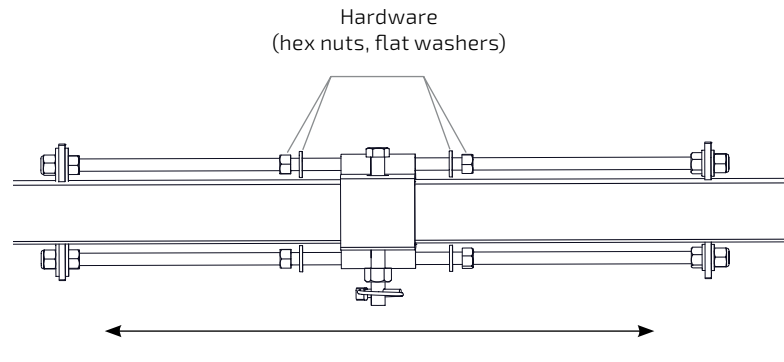
SUB BEHIND ARRAY FRAME (CONTINUED)

ASSEMBLY (CONTINUED)

2. Move the carriage to the suggested hang point distance so that the frame will hang level under load. **Refer to the *Sub-behind Hang Point Calculator*.** (IV6 Downloads) The hang point distance is measured from the front of the frame to the lift hole in the carriage.

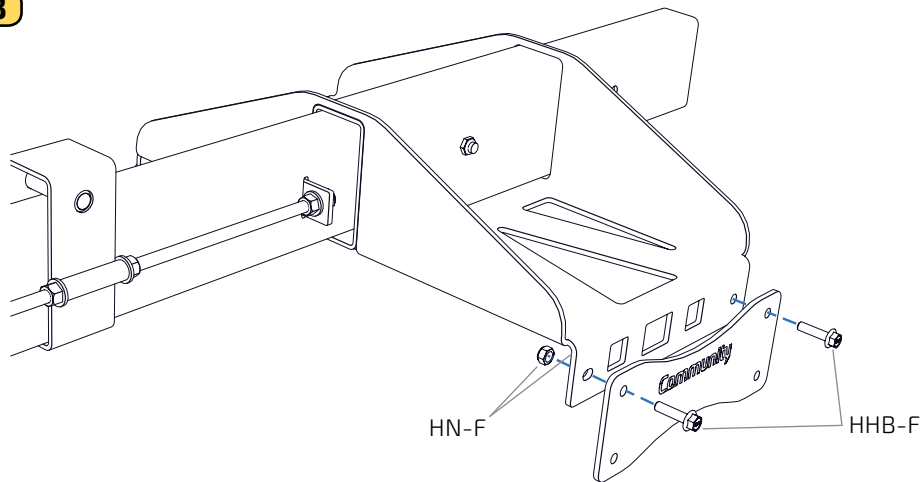
3. Using the Grade 10.9 flanged bolts and nuts, loosely attach the S1 brackets to the array frame with the Community name facing out.

2



SB-2. Loosen nuts in the direction the carriage has to go, move carriage to designated position, and tighten hardware

3

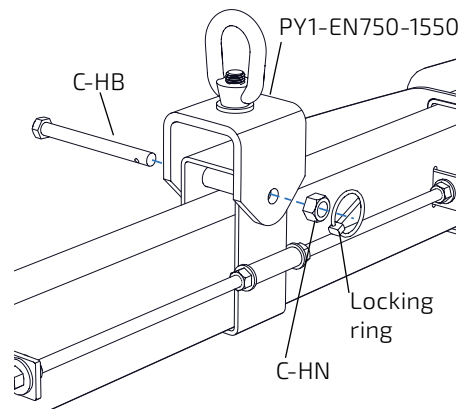


SB-3. Loosely connect the splay brackets to the array frame

4. If using the PY1-EN750-1550 lift point, attach it to the carriage with the included carriage hex bolt and secure with the hex nut and locking ring.

! **Final Step.** After the carriage is in its final position (and the system is aimed), **one at a time**, loosen each hex nut securing the carriage a few threads, apply a drop of red thread-locking compound, and re-tighten the nut. Repeat for each of the 4 hex nuts securing the carriage on the threaded rods. This will help prevent movement of the carriage over time.

4

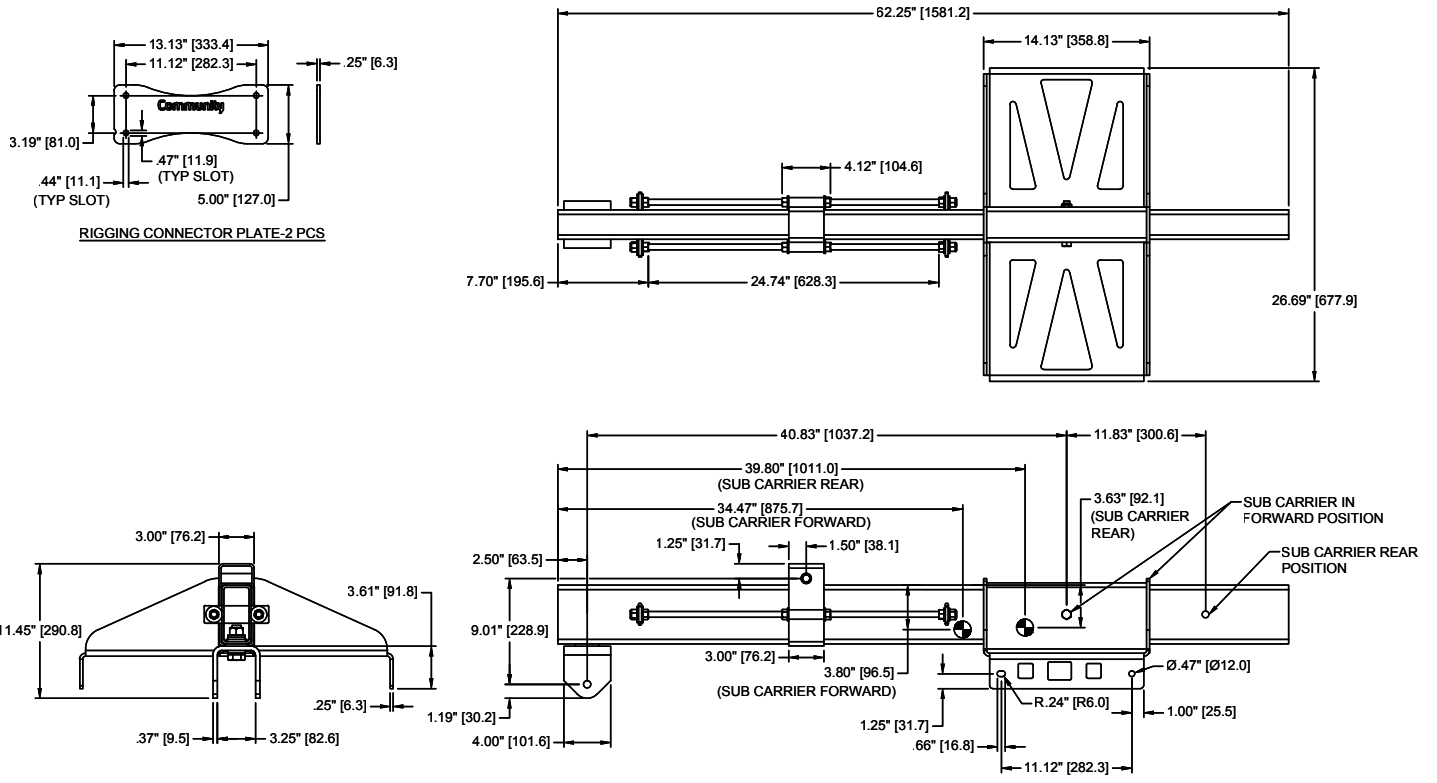


SB-4. Attach Lift Point to carriage hang point

SUB BEHIND ARRAY FRAME (CONTINUED)

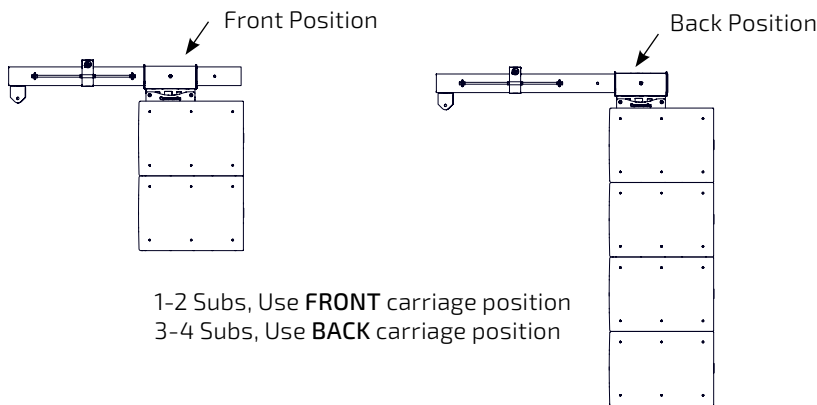
Technical Drawing

IV6-SB-AF



SUB BEHIND HANG POINT CALCULATOR

Community provides an easy calculation tool to determine where the hang point should be located based upon the full weight of the main array when attached to the Sub Behind Array frame so that the IV6-SB-AF stays level. This tool calculates the distance for 1-4 subwoofers. The tool is available under the [downloads](http://www.communitypro.com/products/i-series/IV6-1122) tab here: <http://www.communitypro.com/products/i-series/IV6-1122> and is also included in the "IV6 Manuals and Tools" zip file.



Loads		Rigging			
Desired Safety Factor: <input type="text" value="10"/> : 1					
	Name	Front L	Back L	Safety	
0:	IV6-GP-1	531.19 lb			
1:	IV6-1122	17.07 lb	243.30 lb	14:1	
2:	IV6-1122	17.03 lb	196.45 lb	17:1	
3:	IV6-1122	12.15 lb	151.37 lb	23:1	
4:	IV6-1122	12.89 lb	106.05 lb	33:1	
5:	IV6-1122	13.97 lb	62.97 lb	55:1	
6:	IV6-1122	10.65 lb	26.33 lb	132:1	
^ Show only lowest safety factor					

1. Retrieve the weight of the main array from Line 0 of the "Loads" tab in EASE® Focus 3 (EF3), or from section 5.1 of the EF3 project report. Enter that value into the cell, and select lbs or kg.
2. Choose the sub configuration from the drop down list.
3. Record the carriage location and hang point distance (inches or cm) for use during installation.

Sub Behind Hang Point Calculator		
FR Array	531.19	lbs
Sub Config	1 Sub, Front	
Hang Point dist.	14.7	in
Safety Factor	30.1	:1

Figure SB. Sub Behind Hang Point Calculator

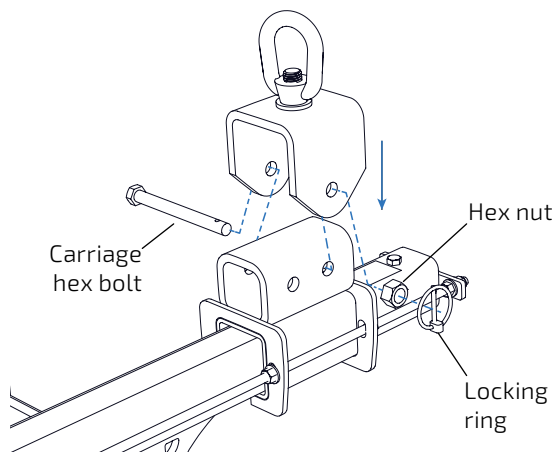
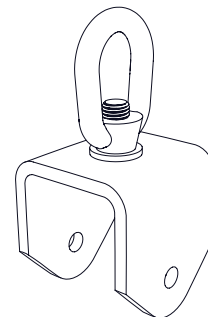
LIFT POINT FOR ARRAY FRAMES

Determine the lift point, and attach to the carriage on either the IV6-GP-AF or IV6-SB-AF with the carriage hex bolt, nut and locking ring included with the array frame. Assembly illustrations (shown below) are also in IV6-GP-AF and IV6-SB-AF assembly instructions.

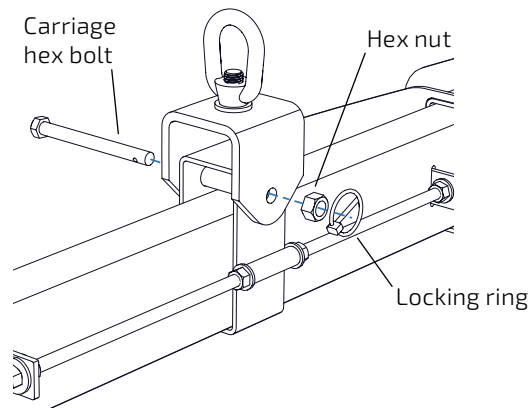
PY1-EN750-1550

Kit Weight: 6 lbs (2.7kg)

Working Load Limit: 1550 lbs (703.1 kg)
(10:1 safety factor)



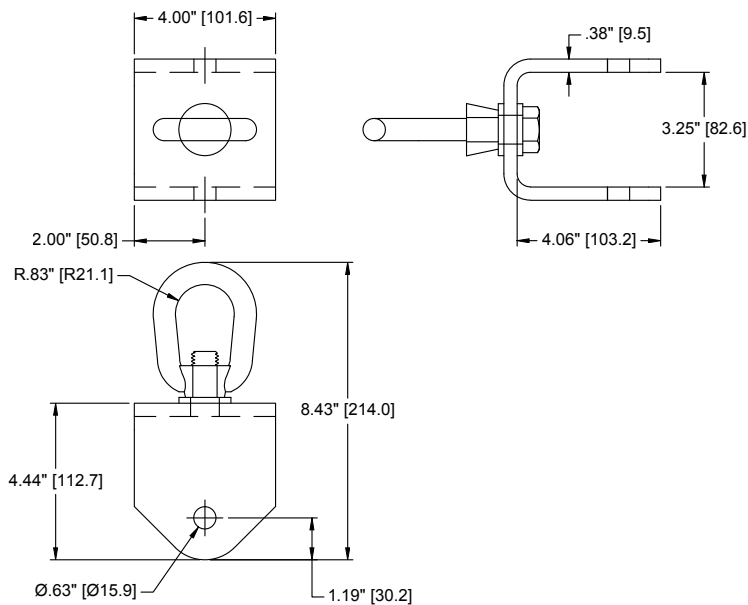
PY1 to GP-AF. Attach to the lift point specified by the pin# position on IV6-GP-AF label.



PY1 to SB-AF. Attach to the lift point on carriage of IV6-SB-AF.

Technical Drawing

PY1-EN750-1550



ACCESSORY BRACKET REFERENCE

Available from Polar Focus

Polar Focus offers additional brackets for other mounting applications.

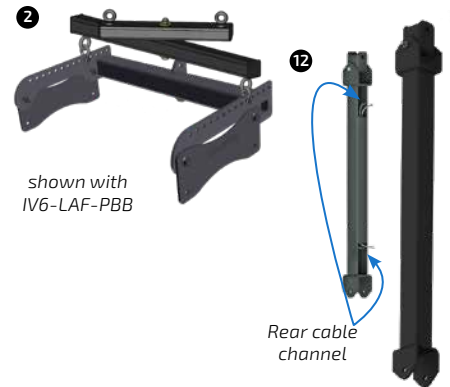
Below is a quick reference table to choose from. The model numbers are also hyperlinks to the associated pages on PolarFocus's website noted below.

Contact Polar Focus (linearrayframes.com) for additional information.

OFF THE SHELF		
1	IV6-ZB-TCK	Z-Beam and Tilt Cable Kit (for use with IV6-LAF-PBB)
2	IV6-ZB-DHB	Z-Beam "Dead Hang" Bracket (for use with IV6-LAF-PBB)
3	PY1-ZBH-1550	Two Point Permanent Install Mount with Center Service Pick Point
4	PY1-ZBR-1550	Self-Leveling Dual Hoist Mount
5	PY1-SLH	Self-Leveling Two Point Bridle Mount (1200lbs. WLL)
6	PY1-RBC-1-1100	Level, Steel I-Beam Mount
7	PY1-BTO1212-1550	12" x 12" Box Truss Plate Mount
8	RLP-X2-1800	Redundant Load Point
9	PY0-WMV-2226-250	Wall Mount (250lbs. WLL)
10	PY0-STEM	Hidden Two Point Permanent Install Through-Ceiling Mount (300lbs. WLL)
11	PY0-ZBH-300	Two Point Permanent Install Mount with Center Service Pick Point (300lbs. WLL)
SEMI-CUSTOM		
12	PY1-UJEXT-POST	Custom Length Ceiling Extension Post (available from 2ft. to 16ft.)
13	PY1-CBA-3	Custom Sized Mount for Level or Sloped Wood-Based Beams (500lbs. WLL)
14	PY1-CBA-4	Custom Sized Mount for Rolled Wood-Based Beams (450lbs. WLL)



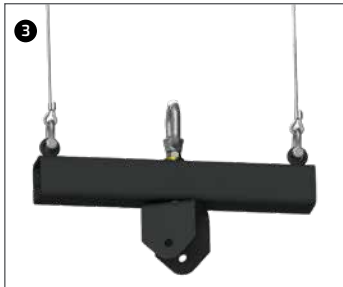
shown with IV6-LAF-PBB



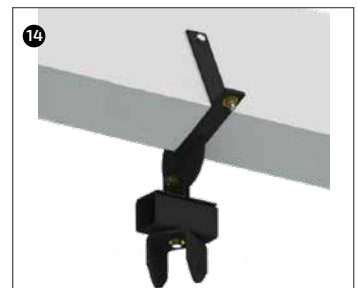
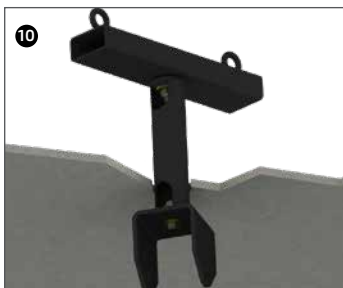
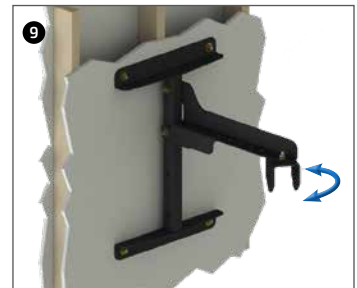
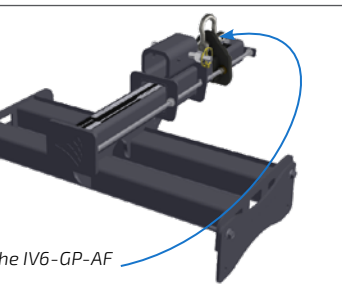
shown with IV6-LAF-PBB

Rear cable channel

All PY0/PY1 brackets shown are infinitely adjustable, and will connect to the carriage hang points on the IV6-GP-AF and IV6-SB-AF.



On the IV6-GP-AF



Rigging images courtesy of Polar Focus

WEIGHTS

LOUDSPEAKERS <i>(includes 1 pair splay brackets)</i>	Indoor [lbs (kg)]	Outdoor / WR [lbs (kg)]
IV6-1122/05	77.3 (35.1)	62.5 (28.3)
IV6-1122/15	73.5 (33.3)	59.1 (26.8)
IV6-1185	132.9 (60.3)	99.3 (45.0)
ACCESSORIES <i>(available from Community)</i>	Weight Indoor [lbs (kg)]	Working Load Limit [lbs (kg)]
IV6-GP-AF	76 lbs (34.5kg)	1300 lbs (589.7 kg)
IV6-LAF-PBB	23 lbs (10.4kg)	850 lbs (385.6 kg)
IV6-SB-AF	108.0 (49.0)	2000 lbs (907.2 kg)
IV6-LAU	13.5 lbs (6.1 kg)	500 lbs (226.8 kg)
PY1-EN750-1550	6 lbs (2.7 kg)	1550 lbs (703.1 kg)

TYPICAL PRODUCT LABELS

IV6-GP-AF

IV6 GLIDEPOINT ARRAY FRAME



! Before installation, read manual and comply with all safety instructions. Follow splay bracket configuration and load conditions as indicated by modeling software.

CAUTION: The array must be installed by qualified professionals in accordance with all applicable regulations, and the configuration must be approved by a licensed structural engineer.




Community Light & Sound, Inc.
Chester, PA 19013 USA
www.communitypro.com

Lot #:

IV6-GP-AF

IV6-GP-AFW

WLL: 1300 lbs (589.7 kg)

Working Load Limit
@10:1 Design Factor

Typical product identification, warning and WLL labels on accessories (IV6-GP-AF SHOWN)

WARRANTY INFORMATION

TRANSFERABLE WARRANTY “(LIMITED)” VALID IN THE USA ONLY

The I SERIES loudspeakers are designed and backed by Community Professional Loudspeakers. For complete warranty information within the USA please refer to www.communitypro.com/warranty. Please call 610-876-3400 or visit the website to locate your nearest Authorized Field Service Station. For Factory Service call 610-876-3400. You must obtain a Return Authorization (R/A) number prior to the return of your product for factory service.

WARRANTY INFORMATION AND SERVICE FOR COUNTRIES OUTSIDE THE USA

To obtain specific warranty information and available service locations for countries other than the United States of America, contact the authorized Community Distributor for your specific country or region.

SHIPPING DAMAGE / CLAIMS

If the product is damaged during transit you must file a damage claim directly with the freight company. It's very important to contact the freight company as soon as possible after receiving your shipment, as most freight companies have a short time limit within which they will investigate claims. Be sure to save the carton and packing materials, as damage claims can be denied if these materials are not retained. If evidence of physical damage exists upon arrival, be cautious before signing the delivery acceptance receipt. Often, the fine print will waive your right to file a claim for damage or loss after you sign it. Make sure that the number of cartons shown on the freight documents have actually been delivered.

CUSTOMER SUPPORT

FOR MORE INFORMATION AND APPLICATION ASSISTANCE

For more information on installing and operating your I SERIES loudspeaker, please refer to Community's website at www.communitypro.com, or contact our Technical Applications Group (TAG) at tagteam@communitypro.com, or by phone at 610-876-3400 or toll-free (within the US and Canada) at 800-523-4934.

For application support, service or warranty information, refer to Community's website or contact Community at 610-876-3400 or toll-free (within the US and Canada) at 800-523-4934.

Note: Every effort has been made to insure that the information contained in this manual was complete and accurate at the time of printing. However, due to ongoing technical advances, changes or modifications may have occurred that are not covered in this manual. The latest version is available at communitypro.com.