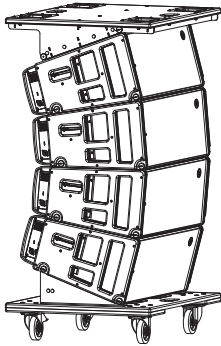


**IWAC220P** *ACTIVE SYSTEM*  
**IWAC220iP / IWAC220iPW**

用户手册/User'/manual

***Closer to music!***

# SPECIFICATIONS



**P/N:**  
060200000183000 (IWAC220P-4UVTS)  
060200000148000 (IWAC220P)

## Electroacoustic

Input sensitivity:1v  
Short term max SPL:> 138dB  
(Peak level at 1 m under half space)  
Frequency Range:LF:80~3.2kHz HF:1.5k~18kHz  
Frequency Response:80~18kHz(-10dB)  
Electric power:100~240V/AC 50~60 Hz  
Diffusion Angle:H120°xV10°(1 Box)  
Speaker Drivers:  
LF:2x10"Neodymium driver (V.C:2.5"8Ω )  
HF:2xNeodymium compression drivers  
(V.C:1.73";Throat:1";8Ω )  
Amplifier:2x860W+ 2x230W@8Ω CLASS D  
Cooling:Natural convection  
Processor:24 Bit DSP  
DSP Max Delay:5ms(1.7m);  
10 bands PEQ;Q:0.2-25 adjustable;  
Bes/BW 6~24dB/oct & L-R 12~24dB/oct Optional  
Bell/Notch/Hi-shelf/Lo-shelf/All Pass Optional

## Connector

2x**NEUTRIK**® PowerCon®  
2x**NEUTRIK**®XLR  
DSP control:USB-B

## Cabinet

CNC made 15mm birch wood sandy wear-resisting  
environmental polyurea spray paint

## Hanging side frame

Auto-locking Suspension System  
Laser processing steel plate joining together  
with black paint Have 4PCS Ø10 stainless steel

## Application

Minimum 1,maximum 12 units line array

## Product Dimensions

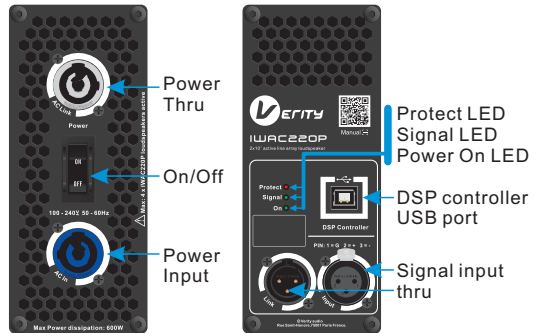
IWAC220P:W742xH287xD513mm  
IWAC220P-4UVTS:W810xH1370xD660mm

## Weight:

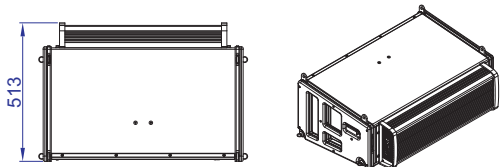
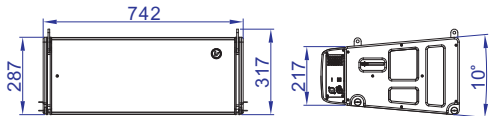
IWAC220P:42kg(1 box)  
IWAC220P-4UVTS:204kg

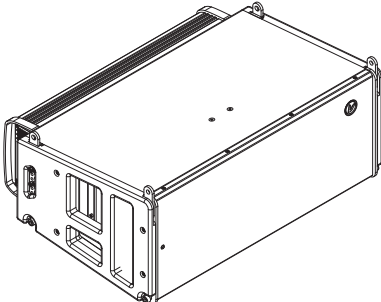
IWAC220P is a full frequency vertical linear array loudspeaker which is composed of dual 10"mid-low frequency and dual 1.73"compression driver. It has professional installation design and easy to use, with excellent phase and frequency response which make you have impressive experience even in far field Module have the design with H120°xV10°frequency coverage angle,independent external active amplify module drive, maxoutput up to 138dB with single module.4 independent channels of power amplifier drive its 4 speaker drive, because of use the same module that can achieve consistent group delay Built-in DSP processor for easy use. Birch plywood cabinet with CNC manufacturing process. A patented auto-locking mechanism allows the selection of angles while components are on the ground, Almost four times the installation efficiency of similar products, even one person can install. IWAC220P will have good performance when it works with SUB136TP.

## Connection panel:



Recommended crossover point:  
LF:90Hz ; HF:1.8~2kHz (>18dB/oct)





P/N:  
060200000174000 (IWAC220iP)  
060200000175000 (IWAC220iPW) white

### Electroacoustic

Input sensitivity: 1v  
Short term max SPL: > 138dB  
(Peak level at 1 m under half space)  
Frequency Range: LF: 80~3.2kHz HF: 1.5k~18kHz  
Frequency Response: 80~18kHz(-10dB)  
Electric power: 100~240V/AC 50~60 Hz  
Diffusion Angle: H120°xV10°(1 Box)  
Speaker Drivers:  
LF: 2x10" Neodymium driver (V.C: 2.5"8Ω)  
HF: 2x Neodymium compression drivers  
(V.C: 1.73"; Throat: 1"; 8Ω)  
Amplifier: 2x860W+2x230W@8Ω CLASS D  
Cooling: Natural convection  
Processor: 24 Bit DSP  
DSP Max Delay: 5ms(1.7m);  
10 bands PEQ; Q: 0.2-25 adjustable;  
Bess/BW 6~24dB/oct & L-R 12~24dB/oct Optional  
Bell/Notch/Hi-shelf/Lo-shelf/All Pass Optional

### Connector

2x **NEUTRIK**® PowerCon®  
2x **NEUTRIK**® XLR  
DSP control: USB-B

### Cabinet

CNC made 15mm birch wood sandy wear-resisting environmental polyurea spray paint

### Hanging side frame

Laser processing steel plate joining together with black paint  
Equipped with 8x(M6x12)/4x(M10x25) screws

### Application

Minimum 1, maximum 12 units line array

### Product Dimensions/Package Dimensions

W730xH287xD514mm/W840xH625xD390mm

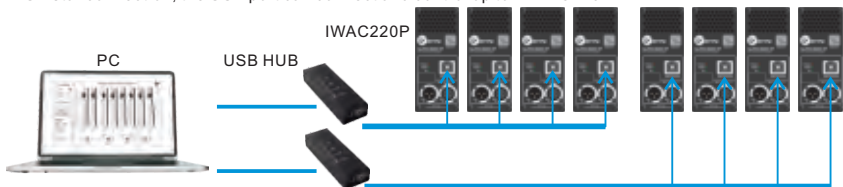
### N.W/G.W:

32.5kg / 41kg

### DSP Software guide

Device connection:

With USB HUB star connection, the USB port can connect and control up to 4 IWAC220P.



IWAC220iP is an active full-range two-way line array loudspeaker composed of dual 10-inch mid-bass and dual 1.73-inch high-frequency units.

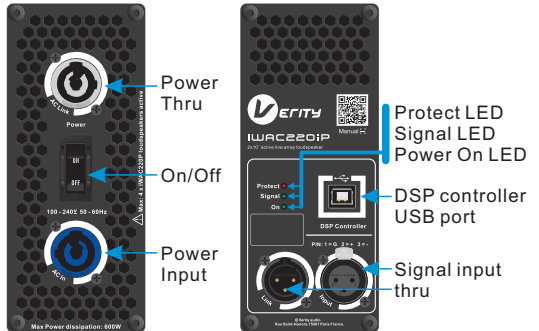
The i version is a product specially designed for fixed installations.

Has consistent acoustic performance with the touring version. It has professional installation design and easy to use, with excellent phase and frequency response which make you have impressive experience even in far field. Module have the design with H120°xV10° frequency coverage angle, independent external active amplify module drive, maximum output up to 137dB with single module. The product is available in two colors, black and white, birch plywood cabinet with CNC manufacturing process, emery spraying craft

It can be installed at a big angle and is the best choice for fixed installation of sound reinforcement application in all kinds of medium and large venues.

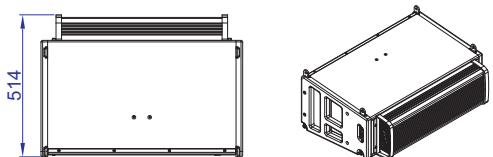
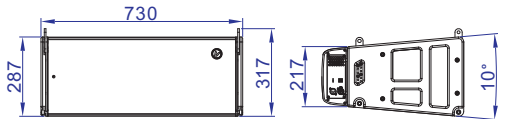
IWAC220iP will have good performance when it work with SUB136P

### Connection panel:

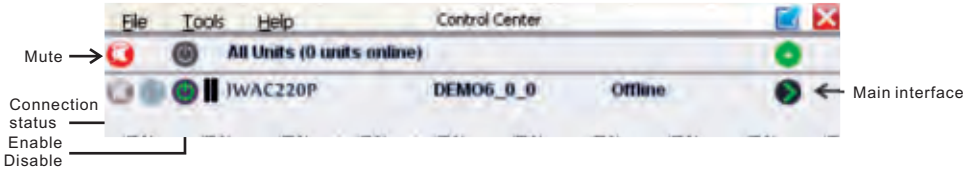


### Recommended crossover point:

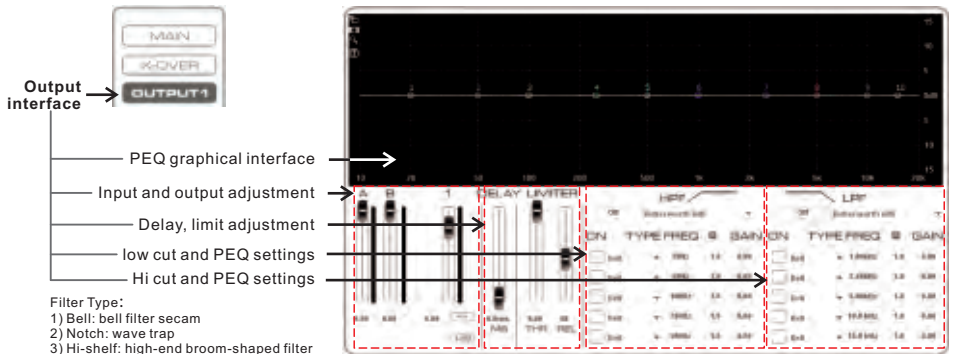
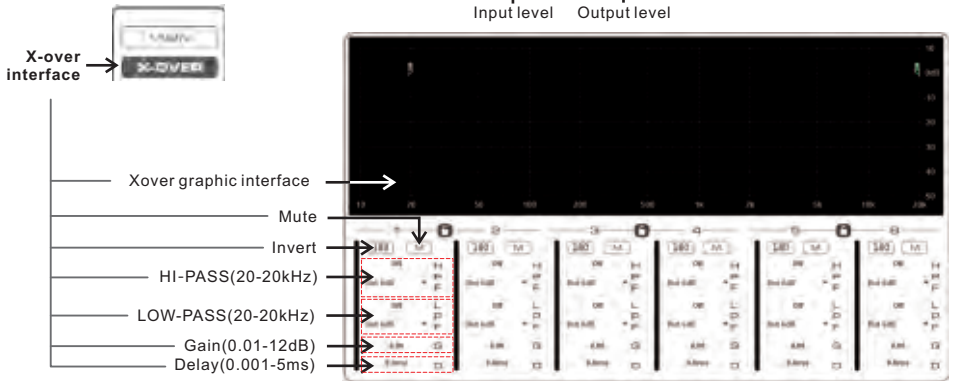
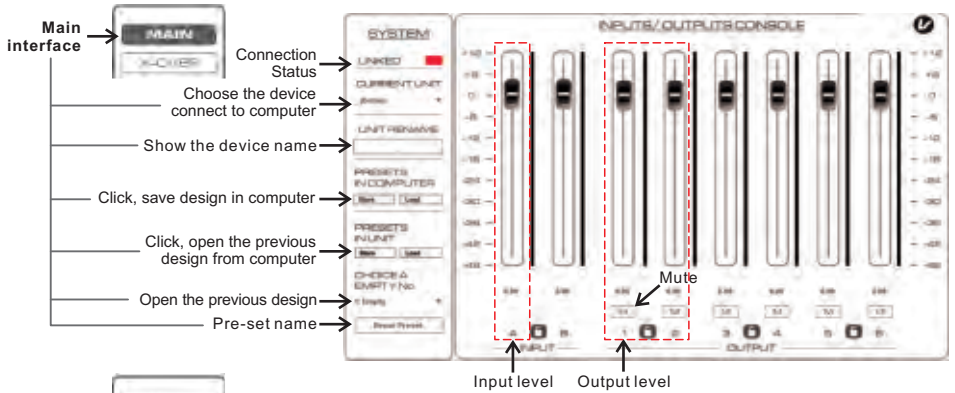
LF: 90Hz ; HF: 1.8~2kHz (>18dB/oct)



## Equipment state control panel



## DSP Control dialog (hardware preset for A channel input and 1&2 channel output)



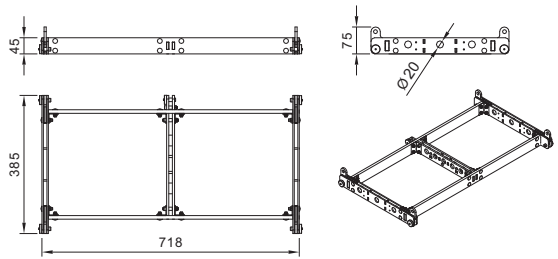
- Filter Type:
- 1) Bell: bell filter secam
  - 2) Notch: wave trap
  - 3) Hi-shelf: high-end broom-shaped filter
  - 4) Lo-shelf: low-end broom-shaped filter
  - 5) All Pass: all pass filter

# ACCESSORIES

## IWAC220-FF(Array flying frame)

This flying frame is the main part to hand the IWAC220 or IWAC220i, which can use as auxiliary frame when it used in large angle situation, it must use the ANSI 5/8" shackle to link electric hoist.

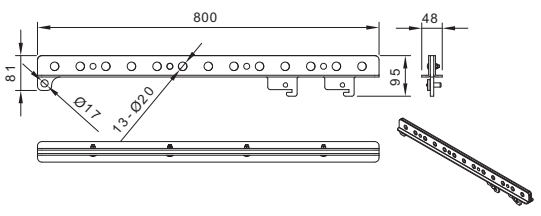
N.W:9.1kg      P/N: 060800000061000



## IWAC220-EB(Array frame extension bar)

The extend bar is designed to extend the hanging point of flying frame. It is recommended to use this part when the bending angle > 30°. It must use the ANSI 5/8" shackle to link electric hoist.

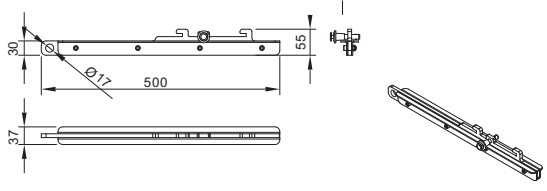
N.W:5.3kg      P/N: 060800000060000



## IWAC220-PR(Flying frame pull rod)

IWAC220-PR flying frame pull rod the special design for iwac220p flying frame it's specially used to extend the role of flying frame after installing flying frame at the bottom of line array.

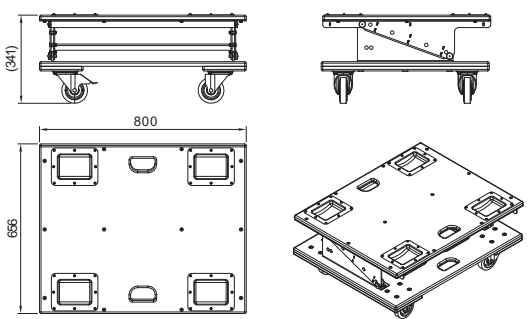
N.W:1.8kg      P/N: 060800000064000



## IWAC220-VT(Vertical transporter)

The IWAC220-VT is the special designed transporter to carry 4 units IWAC220; it is also the basic guarantee for the whole group fast and easy to hand.

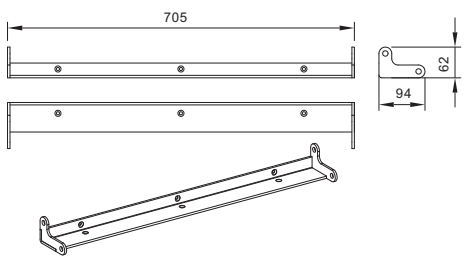
N.W:33.3kg      P/N: 040300000013100



## IWAC220-136-SA (Stack adapter)

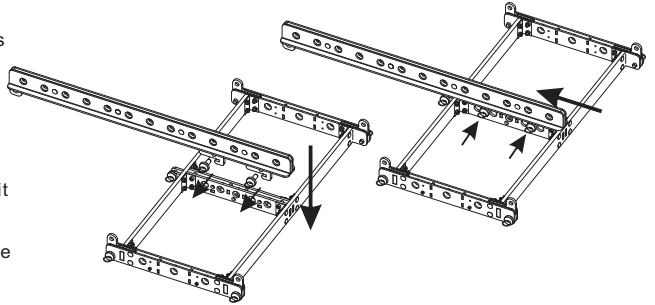
The part is designed for ground stacking with SUB136(T)

N.W:2.4kg      P/N: 060800000067000



## IWAC220-EB install

It needs to install extension rod because the center of gravity moves backward When the number of speakers over 4 pcs, and install the hoisting suspension at the relative point of balance. According to the picture shown in the right side, it need put the IWAC220-EB into the middle of the flying frame then lock it with the magnet pin.



**IWAC220-PR** is installed in the same way on the bottom of flying frame.

## IWAC220P slide frame

The patented slide frame design allows it to use 4 speakers as a group to hang at the preset angle. These not only reduce labor costs, but also improve installation efficiency.

**a**: Limit slider to preset the suspend (each slide frame have one)  
put the rod on the limit slider to select the angle you need



**Be sure to set the same angle in the left and right sideframes. If they are different, it will endanger personal safety because imbalance load on both sides**

**b/c**: Rear connection rod limit lock (each slide frame have one)

**b**: press=unlock **c**: press=lock, eject=unlock **c**;

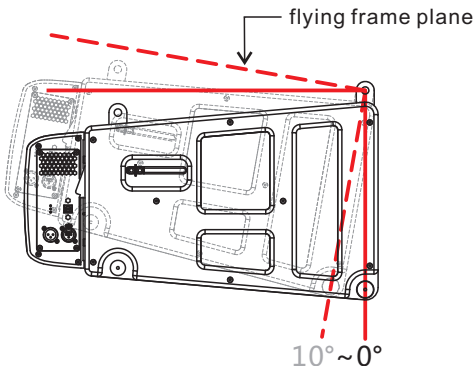
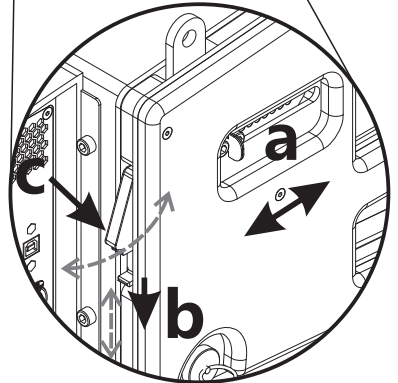
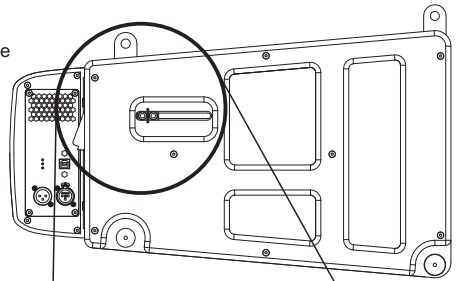
The Reset & Limit device mainly function is restrict the connecting rod only move in the single direction when it stretch out

## The graphic of angle

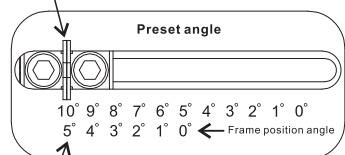
0°: The front side of line array speaker is Vertical to flying frame (Ground)

1° - 10°: The tilt angle of line array speaker to flying frame (Ground)

It can be set to 0~5° when the first cabinet is hang with the flying frame



Slider lever



The preset angle when the first cabinet is connected to the flying frame

# INSTALLATION

## Hanging installation:

① Move one set cabinets to the right place and remove top cover of the VT.

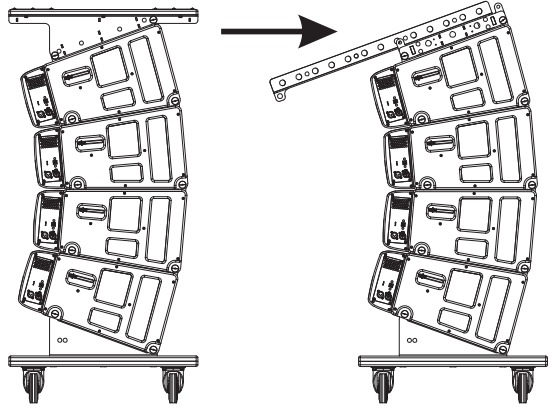
② Fixed the Flying Frame and Extension bar to the cabinet and preset the angle of each cabinet.

③ Suspension the electric hoist (Select the suspension position. It very important) This point determines the final angle of the entire linear array. It is generally recommended to choose between the two holes in the middle of the extension bar. It can also use two shackles to hang two adjacent holes which makes it easier to adjust the horizontal angle.

④ Lift the electric hoist make the cabinets off the ground and remove the bottom part of the VT.

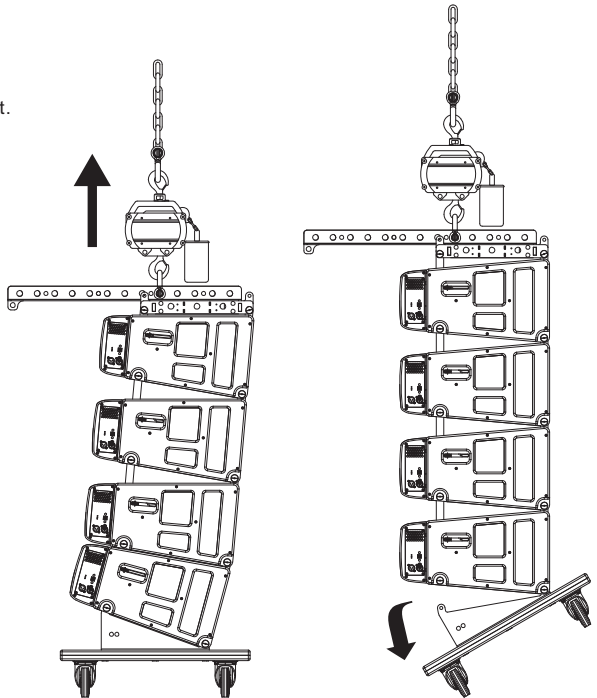
⑤ Lift the first cabinets group and move the second cabinets group below the first array cluster, and then carefully lower the suspended cabinets group when front attachment points come together and use the magnet pin locked it.

⑥ After front attachment points is locked carefully lower suspended cabinets until the rear attachment points come together and use the magnet pin locked it.



Move the cabinet group to a hanging position

Installation flying frame and extension rod



Choosing the right lifting point to raise the cabinet group through electric hoist

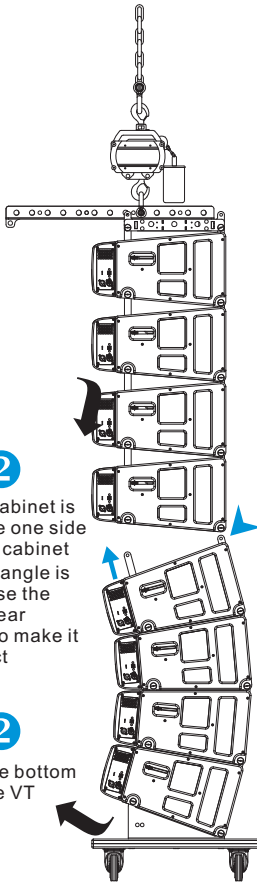
Remove the bottom part of the VT



## Suspension skill:

It can use hand to pull up the bottom part of the VT and make the second cabinets group cabinet rear attachment points close the rear attachment point of the first cabinets group cabinet. It need be careful about the safety when pull up the second cabinets group cabinet.





2

The first group cabinet is lower it will make one side of second group cabinet off ground. If the angle is large, you can use the hand to pull up rear connecting rod to make it easier to connect

2

Pull up the bottom part of the VT

Next set of Loudspeakers installed

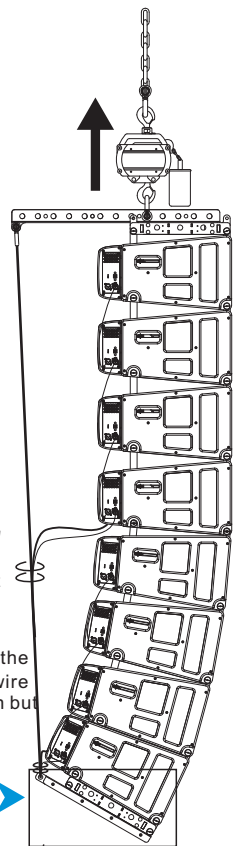
It must use auxiliary rope to share the weight of cables When cabinets suspended in high sky

1

Fixed the front attachment points of first group cabinet and the second group cabinet

3

Assemble the flying frame on the last cabinet , it must be use wire rope to keep it in right position but not allow to tighten cabinets directly by wire rope

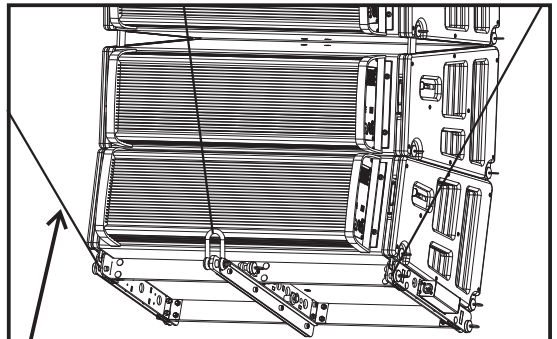


Lift the cabinets to predetermined height

## The importance of assemble flying frame at the bottom

①Special design flying frame for Horizontal radiation angle, it must be use wire rope to keep it in right position but not allow to tighten cabinets directly by wire rope

②It can use as flying frame when it work in large angle



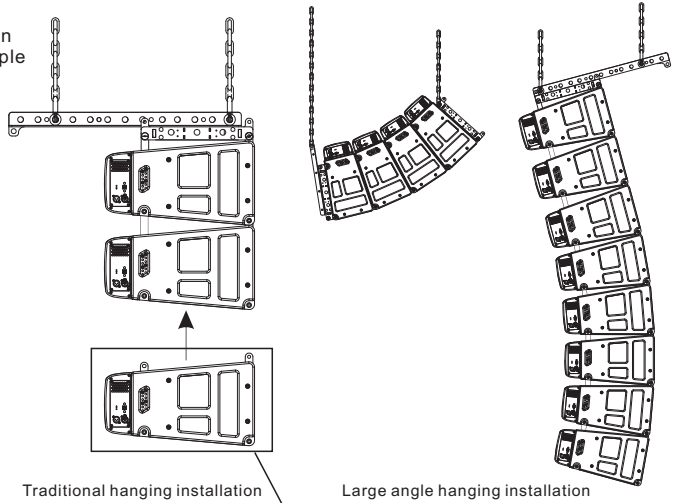
Using wire rope to adjust the appropriate horizontal angle

# INSTALLATION

## Fixed installation:

IWAC220i(W) is the special design for fix installation and it has simple and reliable characteristic

It is the same flying frame as tour version but each cabinet need install like traditional way

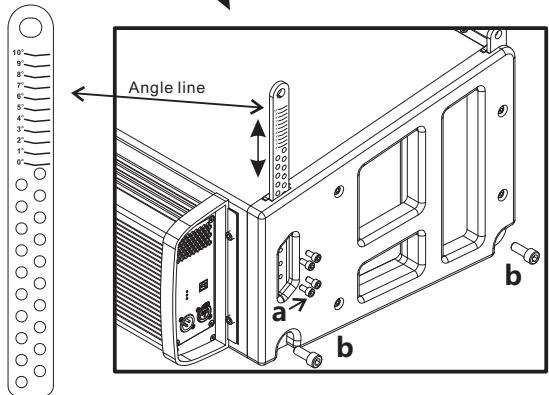


① Adjust the rear connection rod:  
Remove screw **a**, pull out connection rod and adjust the angle what it need and lock it with screw **a**



**Be sure to set the same angle in the left and right side frames**

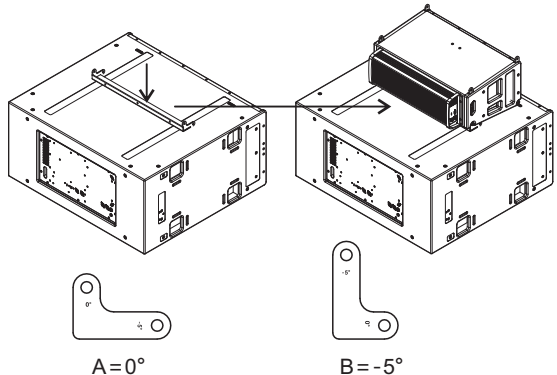
② Cabinet installation  
Remove screw **b** and then connect the front and rear connecting rod and fix it by screw **b**



## Stacked installation:

It can apply for tour version and installation version

- ① Remove the M6 screw on top panel.
- ② The first cabinet angle is depending on the SA position as below picture picture A 0°, picture B - 5°.
- ③ Stacking and installing IWAC220 one by one and use screw or magnet pin to lock it.



## Maximum stacking units:

We recommend not exceed 4 cabinets to stacking because of the center of gravity of the whole stack.

Verity Audio reserves the right to make any changes to the product specifications without prior notice.  
Final specifications to be found in the user manual.

