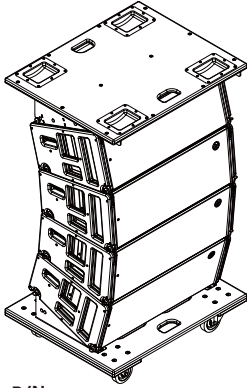


**IWAC220** *SYSTEM*

**IWAC220i / IWAC220iW**

用户手册/User'manual

***Closer to music!***



P/N:  
06020000178000 (IWAC220-4UVTS)

### 声学部分

承受功率(100~20kHz) : LF:500W / HF: 110W (AES)  
 音乐功率(100~20kHz) : LF: 1000W / HF: 220W  
 标称阻抗: LF: 16Ω / HF: 16 Ω  
 频率响应: LF:80~3.2kHz HF:1.5k~18kHz  
 工作频响范围: 80~18kHz(-10dB)  
 标称灵敏度: LF: 100dB; HF: 113dB  
 最大声压: > 136dB(在半空间下1米处的峰值水平)

### 覆盖范围

水平覆盖: 120°  
 垂直覆盖: 10°每单元; 阵列后这取决于阵列长度和角度配置

### 扬声器单元

低频: 2x10"钹外磁锥形驱动单元  
 音圈直径: 2.5"(65mm)  
 高频: 2x1.73"压缩驱动器  
 音圈直径: 1.73"(44mm)  
 喉咀直径: 1" (25.5mm)

### 连接

2xNEUTRIK® NL4型音箱螺旋座并联  
 LF: ±1 HF: ±2

### 箱体材质

数控加工, 入隼拼接, 15mm桦木多层胶合板  
 砂质文理耐磨环保喷漆涂层

### 悬挂配件

箱体集成、钢板拼接, 喷漆/电泳处理;  
 配4条 Ø10不锈钢安全磁力插销  
 1°/步, 单机最大10°可调;  
 最大吊挂数量: ≤16只

### 产品尺寸

IWAC220:W742xH287xD425mm  
 IWAC220-4UVTS:W810xH1370xD660mm

### 重量

IWAC220:34.5kg  
 IWAC220-4UVTS:175kg

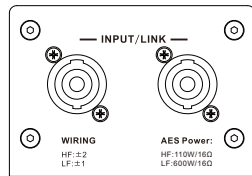
IWAC220是由双10寸中低频和双1.73寸高频单元组合而成的全频两分频垂直直线阵音箱模块。

IWAC线阵列崇尚以物理纠正和贴合应用的方法设计产品, 专业的安装设计, 简单的应用调整, 具有优良的相位和频率响应, 令你远距离聆听也倍感亲和。

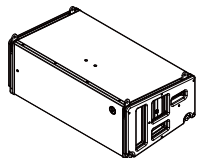
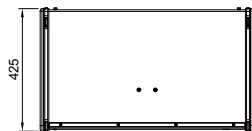
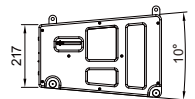
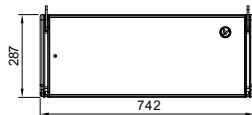
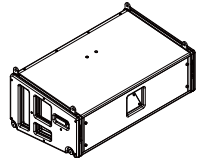
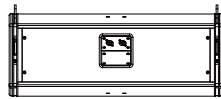
产品设计覆盖角是120°x10°, 中低频16Ω, 高频16Ω。AES功率能承受500W, 具有最高达136dB的高声压输出。(数据为单只模块1米距离测量) 桦木隼拼结构和CNC加工制造的箱体, 加以耐磨涂层, 专利技术的快速悬挂设计, 令这款产品可涵盖各类型的中小型流动演出和各种需要一定中程覆盖的扩声场合。

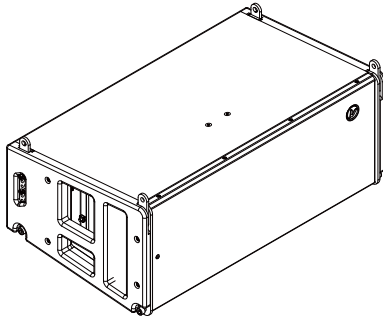
IWAC220可搭配超低频音箱是SUB136T。

### 接线板:



高频单元: ±2  
 中低频单元: ±1  
**建议交叉分频点低频90Hz, 高频1.8~2kHz(>18dB/oct)**





**P/N:**  
06020000164000 (IWAC220i)  
06020000165000 (IWAC220iW)白色

**声学部分**

承受功率(100~20kHz) : LF:500W / HF: 110W (AES)  
音乐功率(100~20kHz) : LF: 1000W / HF: 240W  
标称阻抗: LF: 16Ω / HF: 16 Ω  
频率响应: LF:50~3.2kHz HF:1.5k~15kHz  
工作频响范围: 80~18kHz(-10dB)  
标称灵敏度: LF: 100dB; HF: 113dB  
最大声压: > 136dB(在半空间下1米处的峰值水平)

**覆盖范围**

水平覆盖: 120°  
垂直覆盖: 10°每单元; 阵列后这取决于阵列长度和角度配置

**扬声器单元**

低频: 2x10"钹外磁锥形驱动单元  
音圈直径: 2.5"(65mm)  
高频: 2x1.73"压缩驱动器  
音圈直径: 1.73"(44mm)  
喉咀直径: 1" (25.5mm)

**连接**

2x**NEUTRIK**® NL4型音箱插座并联  
LF: ±1 HF: ±2

**箱体材质**

数控加工, 入单拼接, 15mm桦木多层胶合板  
沙质文理耐磨环保喷漆涂层

**悬挂配件**

箱体集成、钢板拼接, 喷漆处理;  
配8颗M6、4颗M10螺钉  
1°/步, 单机最大10°可调;  
最大吊挂数量: ≤12只

**产品尺寸/外包装尺寸**

W730xH287xD421mm / W840xH625xD390mm

**净重/毛重:**

25.3kg / 33.5kg

IWAC220i是由双10寸中低频和双1.73寸高频单元组合而成的全频两分频线阵音箱模块。

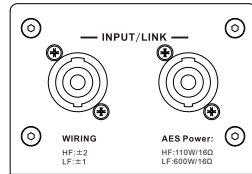
IWAC线阵列崇尚以物理纠正和贴合应用的方法设计产品, 专业的安装设计, 简单的应用调整, 具有优良的相位和频率响应, 令你远距离聆听也倍感亲和。产品设计覆盖角是120°x10°, 中低频16Ω, 高频16Ω。

AES标准功率能承受500W, 具有最高达136dB的高声压输出。(数据为单只模块1米距离测量)

桦木单拼结构的箱体, 加以耐磨涂层, 悬挂设计件是专门为固定安装设计的, 提供黑白两款颜色选择。是流动版本专门用于固定安装工程的版本。

IWAC220可搭配超低频音箱是SUB136。

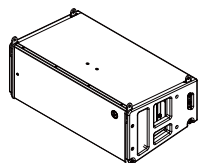
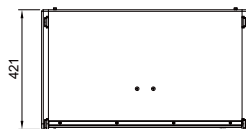
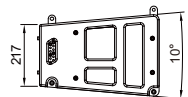
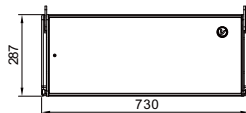
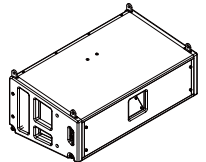
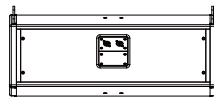
**接线板:**



高频单元: ±2

中低频单元: ±1

**建议交叉分频点**低频90Hz, 高频1.8~2kHz(>18dB/oct)



## 系统配件

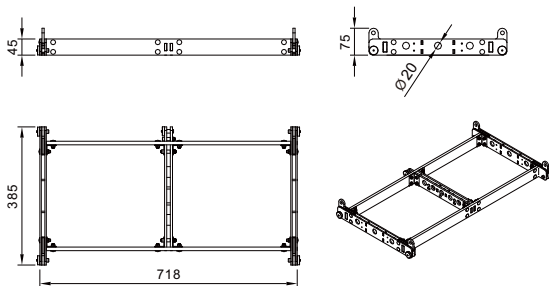
### IWAC220-FF音箱吊架

这个吊架担负吊挂IWAC220或IWAC220i的主吊架,同时也可以作为大角度悬挂时的辅助架用。而连接起重葫芦必须由美标5/8"马蹄形卸扣担当。

净重 : 9.1kg

P/N:

060800000061000



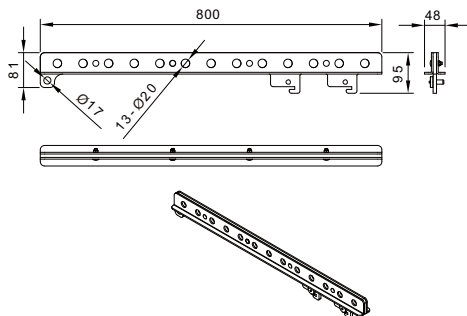
### IWAC220-EB吊架延长杆

这个延长杆是为延伸主吊架吊挂点而设计的。在总弯曲角 > 30°时建议采用。而连接起重葫芦必须由美标5/8"马蹄形卸扣担当。

净重 : 5.3kg

P/N:

060800000060000



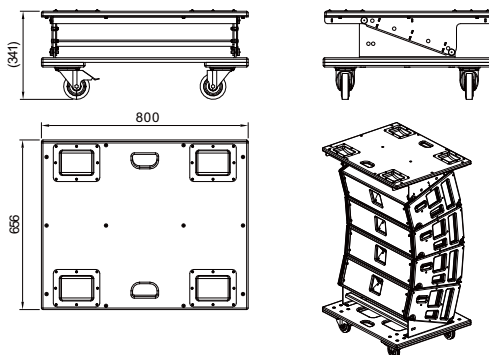
### IWAC220-VT垂直组合运输车

是专门以IWAC220音箱4只为一组堆叠一起的以垂直方式组合的运输车,同时也是整组快速吊挂安装的基础保证。

净重 : 33.3kg

P/N:

040300000013100



P/N:

060200000178000 (IWAC220-4UVT5)

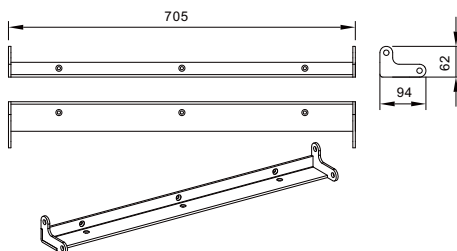
### IWAC220-136-SA堆叠架

这个配件是专为以SUB136为超低频配置时用于地面堆叠的支撑件。

净重 : 2.4kg

P/N:

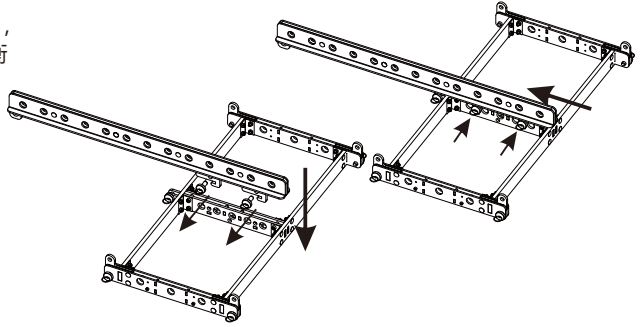
060800000067000



### 延长杆安装：

当音箱超过4个时，因为重心后移，需要安装延长杆，并在相对的平衡点安装卸扣悬挂。

按右图所示件IWAC220-EB扣入吊架中樑，插入插销即可。



### IWAC220侧架功能：

专利的设计可以让你在地面预先设置好需要悬挂的角度以4只音箱为一组进行整组安装。抛弃了以往逐个安装的浪费的时间，同时节省了人力资源成本。

**a:**悬挂角度预置限位滑块(音箱左右侧架各一组)

推动拨杆，拨到你需要的角度即可；



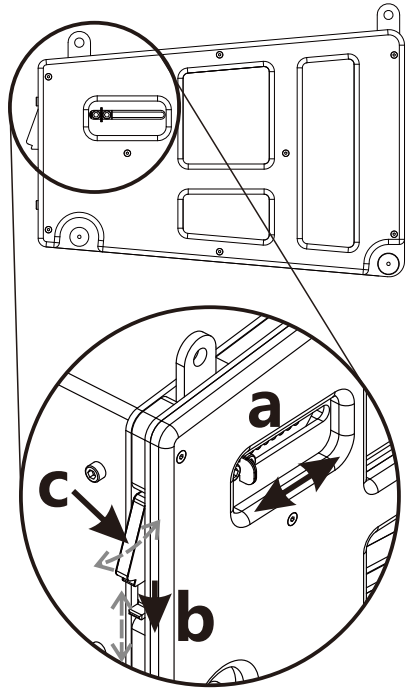
**务必做到左右设置角度一致**

若不一致，将会有一端起不到悬挂点作用，导致受力不一致，严重时甚至会危及安全！

**b/c:**后连杆回落限位锁(音箱左右侧架各一组)

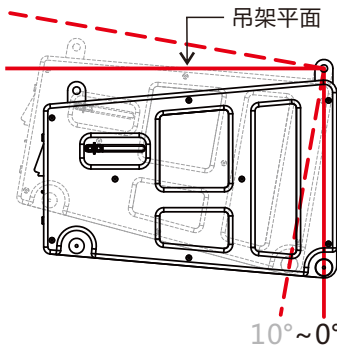
b:按下=释放c:按下=锁定，弹出=释放；

此锁主要限制了后连杆在伸出时只能单向运动，确保在地面堆叠时能保持堆叠角度。

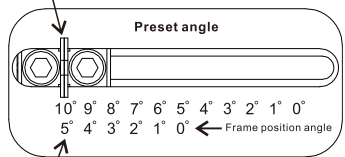


### 音箱角度图解：

0°：线阵音箱正面垂直吊架（地面）平面。  
1°-10°：线阵音箱向吊架（地面）倾斜1°-10°  
在作为与吊架连接的第一只音箱时，可以设置和吊架平面0°-5°夹角



滑块拨杆



作为与吊架连接的第一只音箱时预设角度

## 悬挂安装：

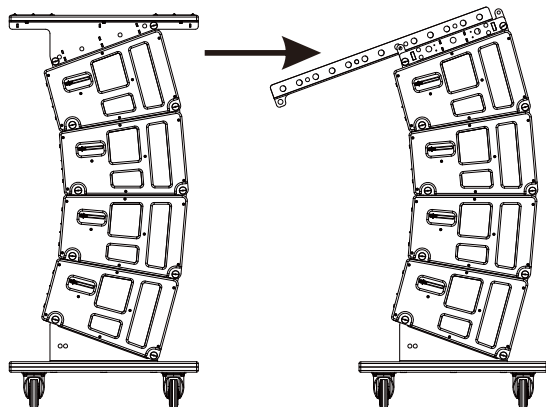
①将音箱组推到安装悬挂点并卸去顶盖；

②安装吊架和连杆并设定好每只音箱的角度；

③挂上起重葫芦

**(选择挂点位置。非常重要)**

该点决定了最终整个音箱组的角度，通常的使用建议在延长杆的中间前后两个孔之间选择；也可以采用两个卸扣挂相邻两个孔，这样更容易掌握水平角度；



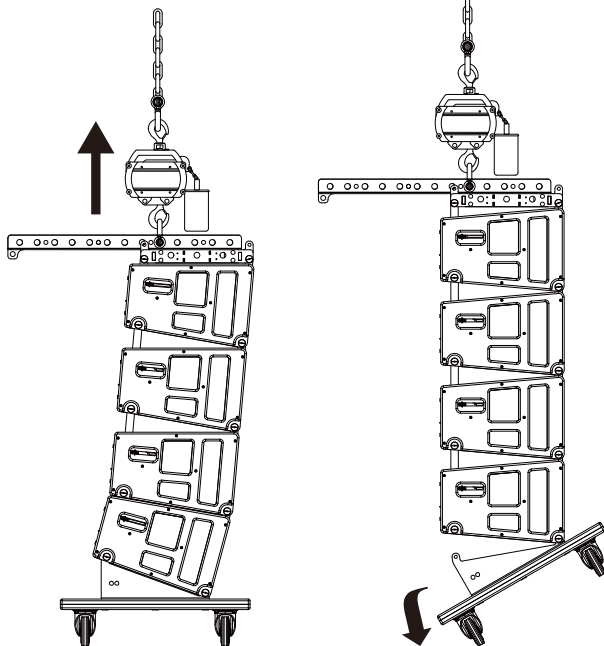
将音箱组推到悬挂位置

安装吊架和延长杆

④升起葫芦令音箱组离开地面并拆卸底部的板车；

⑤升起音箱组，再推入第二组音箱，降下音箱组，首先对接前连杆，并用插销紧固；

⑥继续小心下降音箱组，进行后连杆对接。



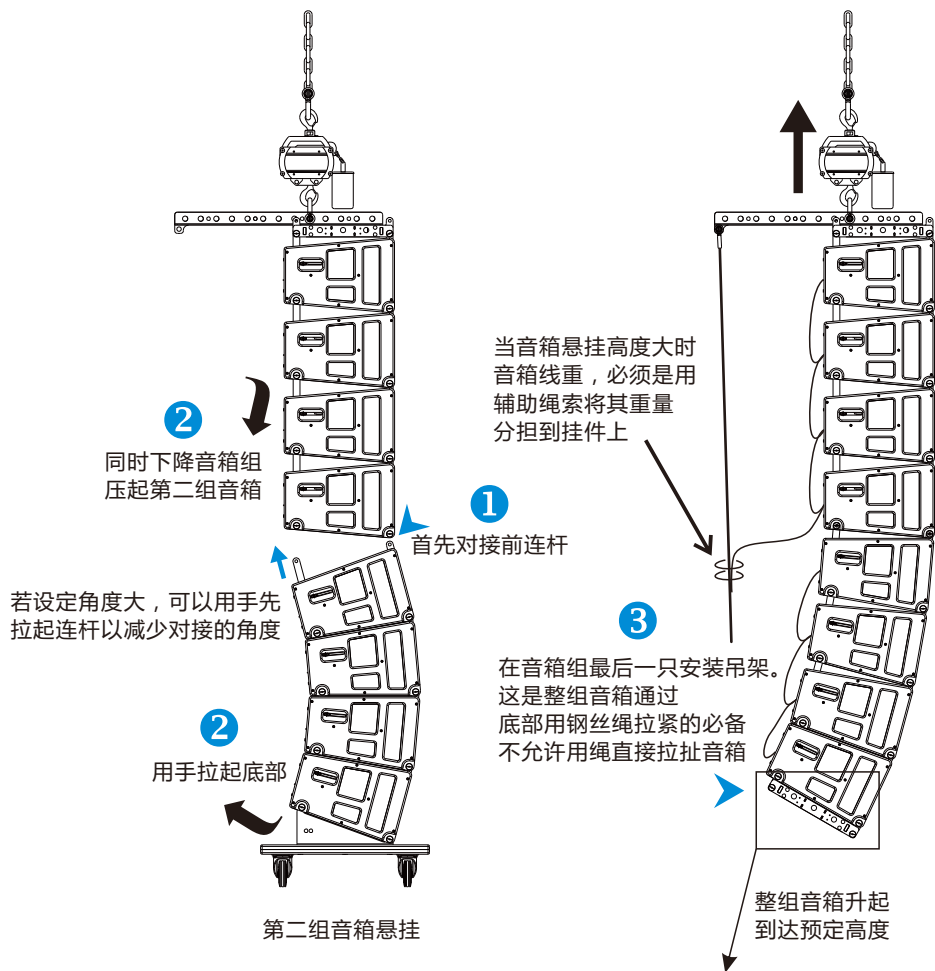
选择合适吊点  
通过起重葫芦升起音箱组

拆卸底部板车



## 对接技巧：

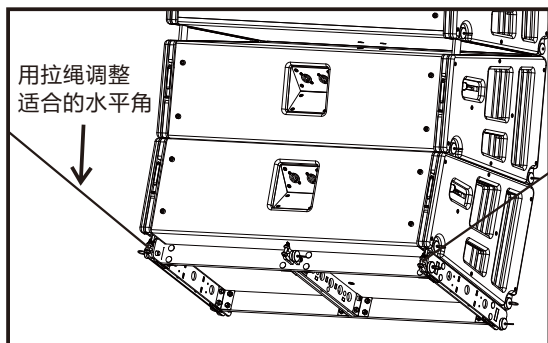
用手在下降音箱组的同时拉起底部板车令第二组音箱的后部贴近第一组音箱的底部，此时注意失去平衡的第二组音箱用力问题，动作需要缓慢并注意安全。



**底部安装吊架的重要性：**

①是为紧固音箱在设计水平辐射角而设定。  
重要的是不能贪图方便，直接将绳拉在音箱上，若是力很大这样会对音箱结构产生不利影响。

②在大角度悬挂时，作为音箱的另一端吊架使用。



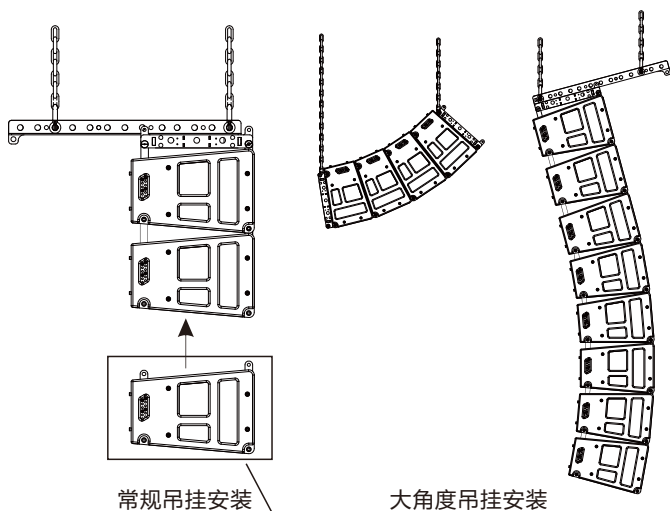


## 音箱安装

### 固定悬挂安装：

IWAC220i(W)是专门为固定安装工程设计的。挂件从插销连接改为螺丝连接，具有简单可靠，一劳永逸的特点。

吊架通用流动版本的，但每只音箱都需要按传统方式逐一安装。



### ①调整后连杆：

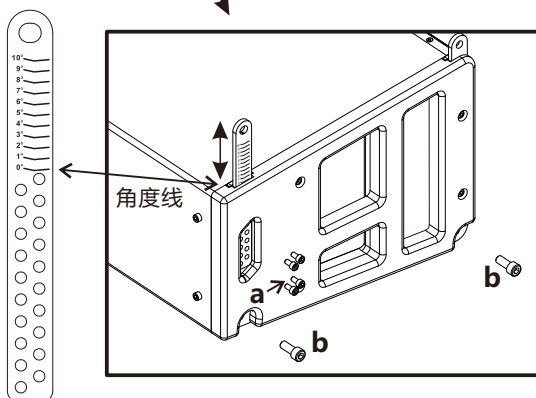
卸下螺丝a，拔出后连杆，仔细观察丝印指示的角度，调整需要的角度后紧固螺丝即可完成角度设置。



**务必做到左右两侧  
设置角度一致**

### ②逐个音箱组合：

拆卸螺丝b，连接前后连杆并紧固即可。



### 堆叠安装：

通用于流动版本和固定安装版本

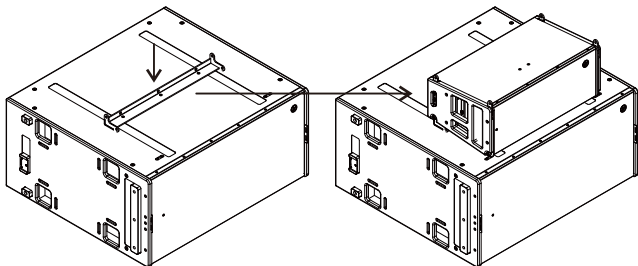
①拆卸SUB136顶板上的M6螺丝

②安装支撑架

第一只音箱角度设计

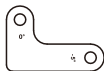
下图A安装0°，图B=-5°

③逐个堆叠安装上IWAC220，  
紧固螺丝或者插销即可



### 堆叠数量限制：

视整体堆叠重心而定，不宜超过4只



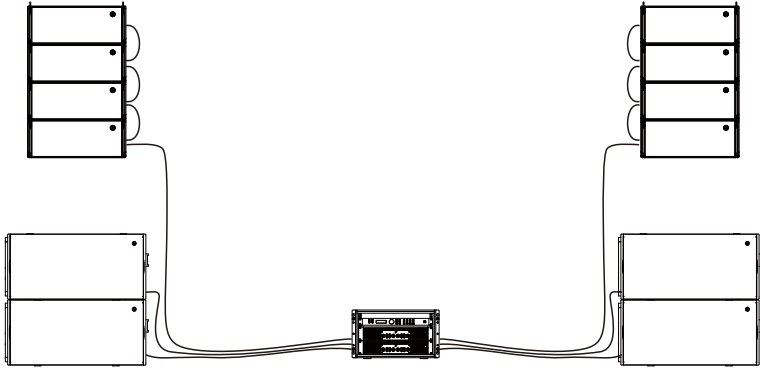
图A=0°



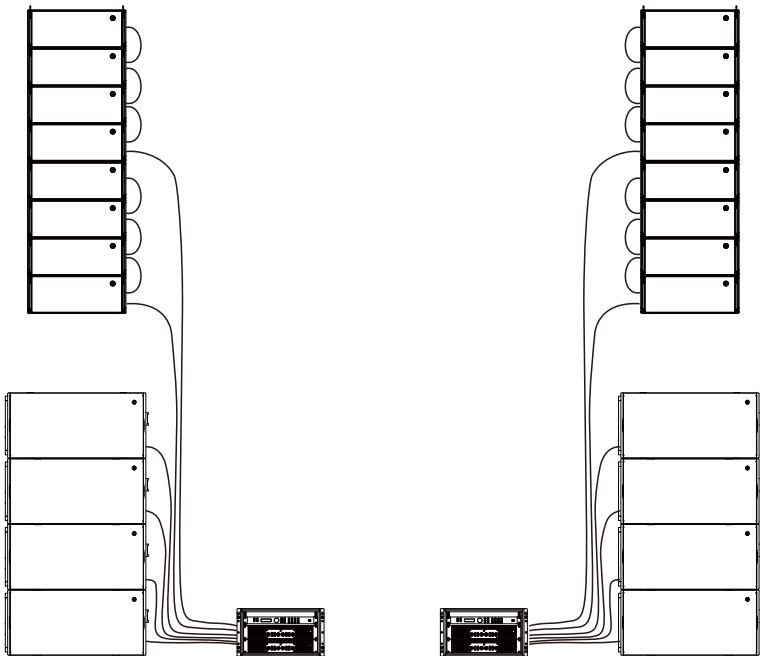
图B=-5°

**(4+2)x2系统：**

每声道配置4只IWAC220配搭2只SUB136T。  
共2台4通道功放(V4.25+4.30)+1台处理器(DP226)。  
以上属于基本配置。建议在500人以内的音乐会以内

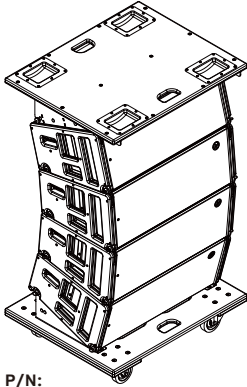
**(8+4)x2系统：**

每声道配置8只IWAC220配搭4只SUB136T，2台4通道功放(V4.25+4.30)+1台处理器(DP226)。  
建议在1500人以内的普通音乐会，电音类建议增加一倍数量的SUB136T。



基于音箱线长度不一，为保证电流传输质量，应采用4x2.5mm<sup>2</sup>(AWG13)无氧铜专业线缆。

# SPECIFICATIONS



P/N:  
060200000178000 (IWAC220-4UVTS)

## Acoustics

Power Handling: LF: 500W/HF: 110W (AES)  
 Program Power: LF: 1000W/HF: 220W  
 Nominal impedance: LF: 16Ω/HF: 16Ω  
 Frequency Response: 80-18kHz(-10dB)  
 Sensitivity: LF: 100dB; HF: 113dB  
 Maximum SPL: >136dB (Peak level at 1 m under half space)

## Coverage angle

Horizon: 120°  
 Vertical: 10° (1box)

## Drivers

LF driver: 2x 10" Neodymium driver  
 Voice coil: 2.5" (65mm)  
 HF driver: 2x 1.73" driver  
 Voice coil: 1.73" (44mm)  
 Exit: 1" (25.5mm)

## Connector

2x NEUTRIK® NL4 SPEAKON® parallel  
 LF: ±1 Hf: ±2

## 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 Have 4PCS Ø10 stainless steel

## Application

Minimum 4, maximum 16 units line array

## Product Dimensions

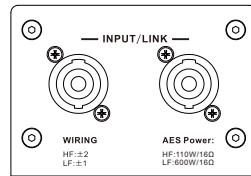
IWAC220: W742xH287xD425mm  
 IWAC220-4UVTS: W810xH1370xD660mm

## N.W:

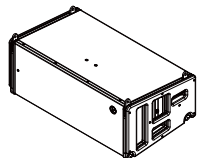
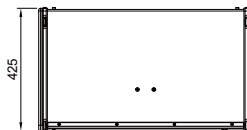
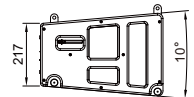
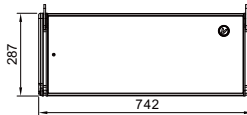
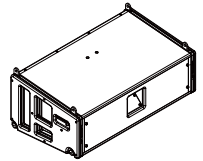
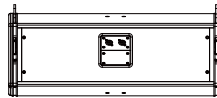
IWAC220: 34.5kg  
 IWAC220-4UVTS: 175kg

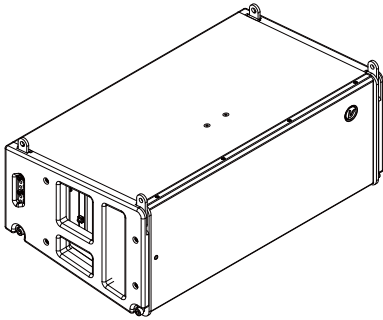
IWAC220 is a full frequency vertical linear array loudspeaker which is composed of dual 10" mid-low frequency and dual 1.73" compression driver. The IWAC linear array speaker is a product that advocates physical correction and simple application, professional installation design, simple application adjustment, with excellent phase and frequency response which make you have impressive experience even in far field. it have the design with H120°xV10° frequency coverage angle, 16Ω low frequency, 16Ω compression driver. with the AES power up to 500W it can delivery Sound pressure up to 136dB (Peak level at 1 m under half space) birch plywood cabinet with CNC manufacturing process, emery spraying craft make it highly durable, patented rigging design make it easy to install, which make it can be able use in small and medium tour show and need medium throw distance situation. IWAC220 will have good performance when it work with SUB136T.

## Connection panel:



HF driver: ±2  
 LF driver: ±1  
 Recommended crossover point:  
 LF: 90Hz ; HF: 1.8-2kHz (>18dB/oct)





P/N:  
060200000164000 (IWAC220i)  
060200000165000 (IWAC220iW)white

IWAC220i is a full frequency vertical linear array loudspeaker which is composed of dual 10" mid-low frequency and dual 1.73" compression driver; The IWAC linearray speaker is a product that advocates physical correction and simple application ,professional installation design,simple application adjustment ,with excellent phase and frequency response which make you have impressive experience even in far field .It have the design with H120°xV10° frequency coverage angle,16 ohm low frequency.16 ohm compression driver.with the AES power up to 500W it can delivery Sound pressure up to 137dB(Peak level at 1 m under half space).birch plywood cabinet with CNC manufacturing process,emery spraying craft make it highly durable,The suspended design is specially designed for fixed installation,providing black and white color for the customer IWAC220i is the special designed for the fixed installation. IWAC220i will have good performance when it work with SUB136.

**Acoustics**

Power Handling:LF:500W/HF:110W (AES)  
Program Power:LF:1000W/HF:220W  
Nominal impedance:LF:16Ω/HF:16Ω  
Frequency Response:80~18kHz(-10dB)  
Sensitivity:LF=100dB;HF=113dB  
Maximum SPL:>136dB(Peak level at 1 m under half space)

**Coverage angle**

Horizon:120°  
Vertical:10°(1box)

**Drivers**

LF driver:2x 10"Neodymium driver  
Voice coil:2.5"(65mm)  
HF driver:2x1.73" driver  
Voice coil:1.73"(44mm)  
Exit:1"(25.5mm)

**Connector**

2xNEUTRIK® NL4 SPEAKON® parallel  
LF:±1 HF:±2

**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

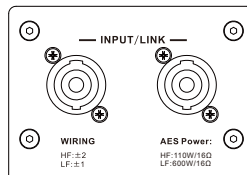
**Product Dimensions/Package Dimensions**

W730xH287xD421mm/W840xH625xD390mm

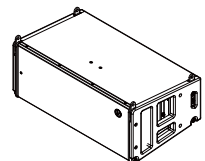
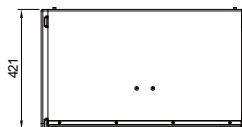
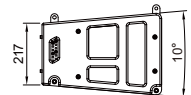
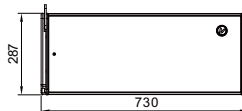
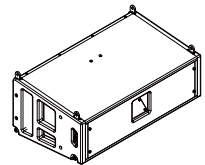
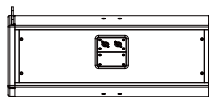
**N.W/G.W:**

25.3kg / 33.5kg

**Connection panel:**



HF driver:±2  
LF driver:±1  
Recommended crossover point:  
LF:90Hz ; HF:1.8~2kHz (>18dB/oct)



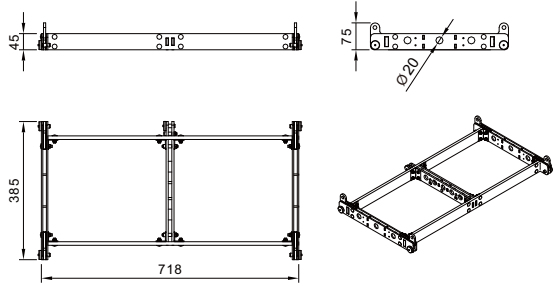
# ACCESSORIES

## 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

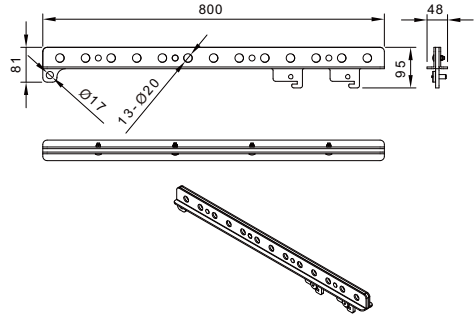


## IWAC220-EB(Array frame extension bar)

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

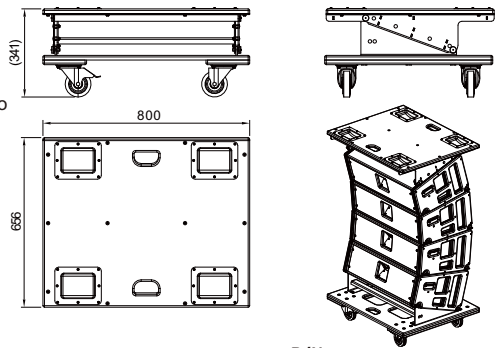


## IWAC220-VT(Vertical transporter)

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



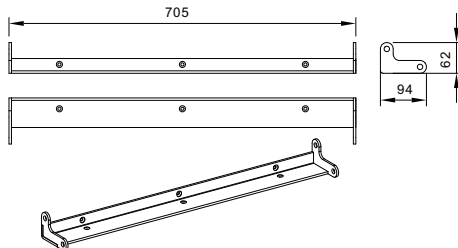
P/N:  
060200000178000 (IWAC220-4UVTS)

## IWAC220-136-SA (Stack adapter)

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

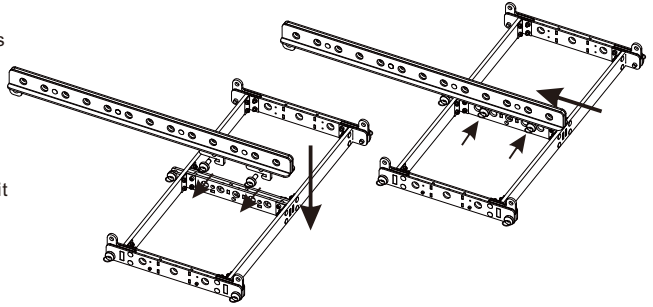
N.W:2.4kg

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 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 on) 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;

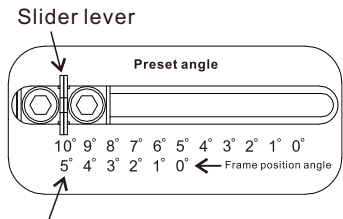
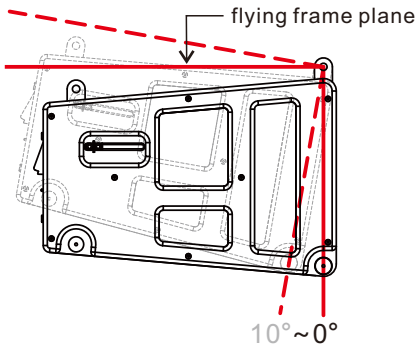
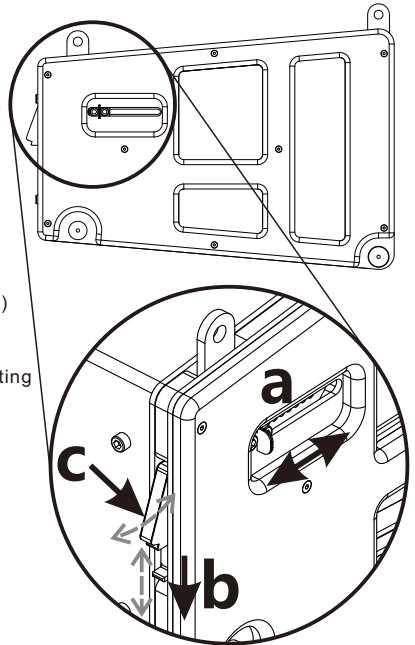
The Reset & Limit device mainly function is restrict the connecting rod only move in the single direction when it stretch out

**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



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.

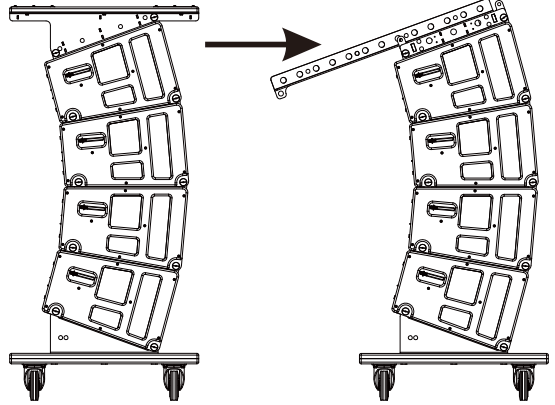
② Fixed the Flying Frame and Extension bar to the cabinet and preset the angle of each cabinet.

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.

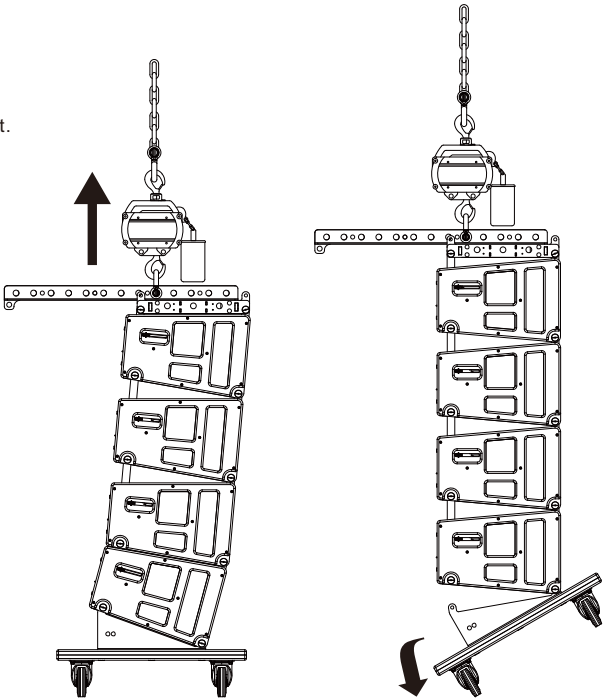
⑤ Lift the first cabinets group and move the second cabinets group below the first array cluster, and then carefully lower the suspended cabinets group when front attachment points come together and use the magnet pin locked it.

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



Move the cabinet group to a hanging position

Installation flying frame and extension rod



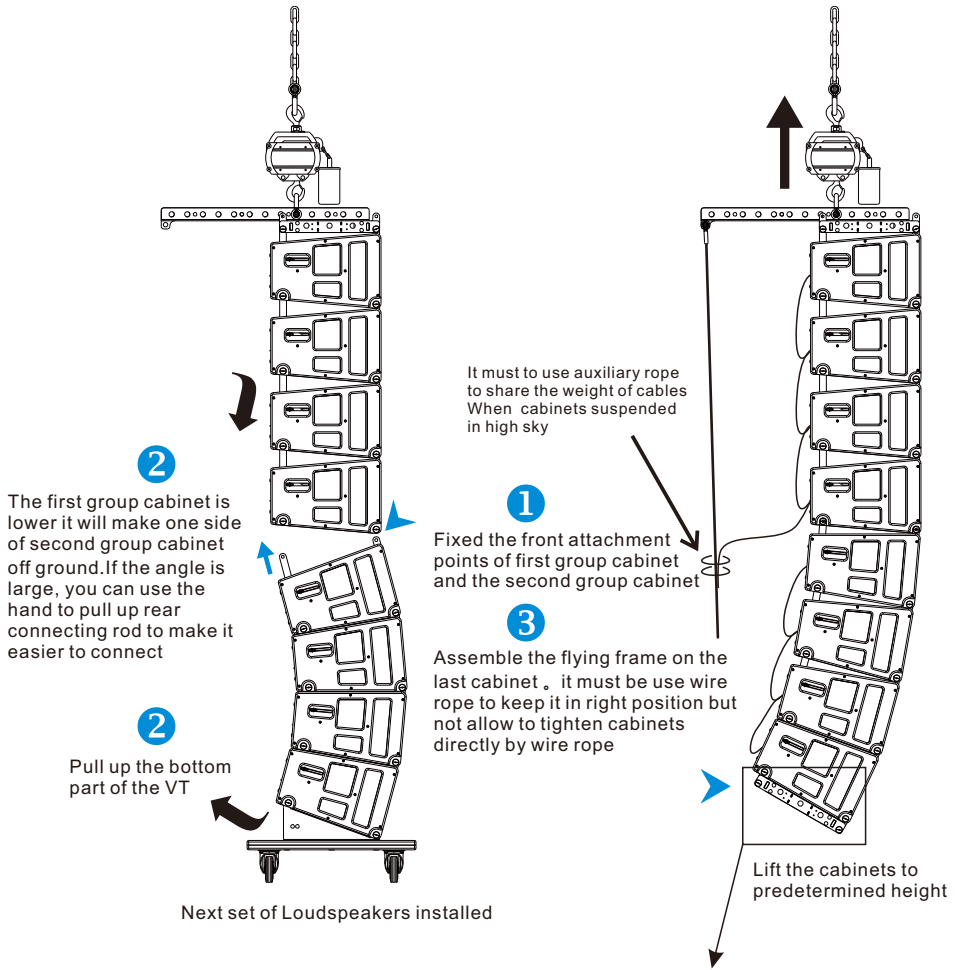
Choosing the right lifting point to raise the cabinet group through electric hoist

Remove the bottom part of the VT



## Suspension skill:

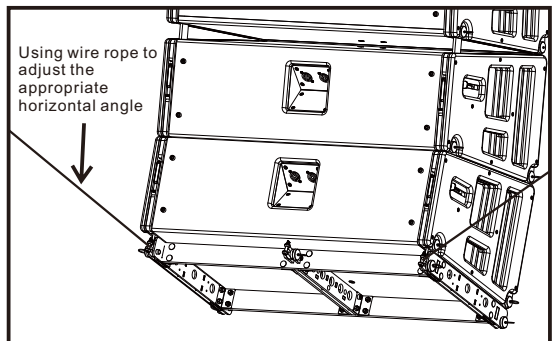
It can use hand to pull up the bottom part of the VT and make the second cabinets group cabinet rear attachment points close the rear attachment point of the first cabinets group cabinet, it need be careful about the safely when pull up the second cabinets group cabinet.



**The importance of assemble flying frame at the bottom**

① Special 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

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



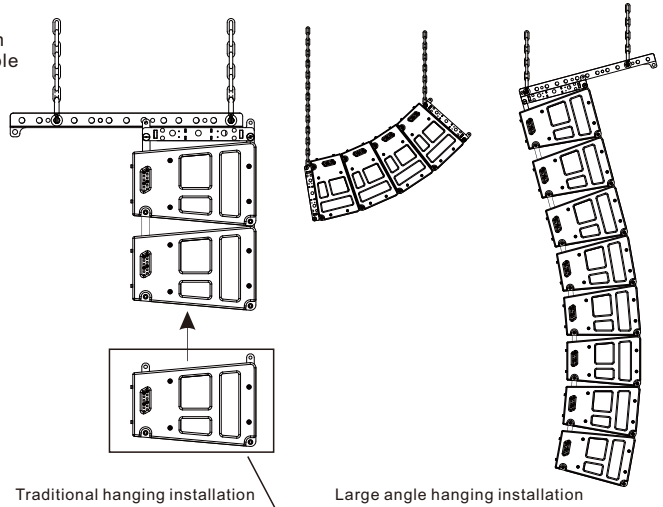


# INSTALLATION

## 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 four version but each cabinet need install like traditional way

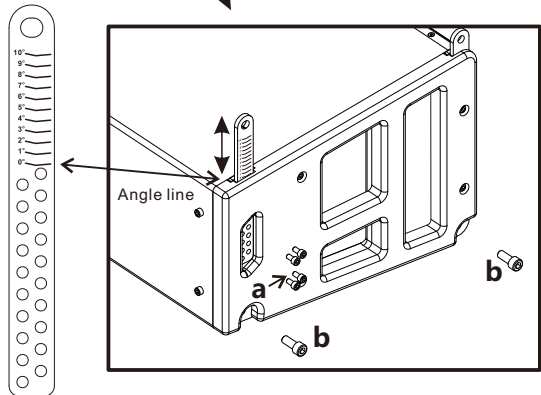


- ① Adjust the rear connection rod: Remove screw **a**, pull out connection rod and adjust the angle what it need and lock it with screw **a**



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

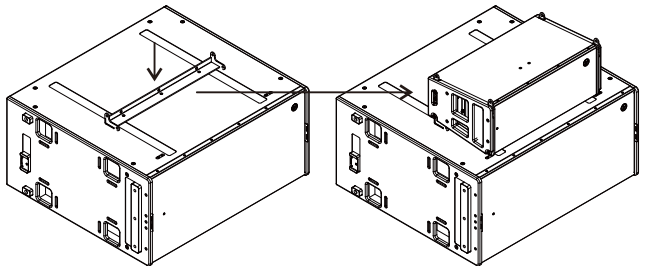
- ② Cabinet installation: Remove screw **b** and then connect the front and rear connecting rod and fix it by screw **b**



## Stacked installation:

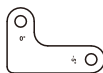
It can apply for four version and installation version

- 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.



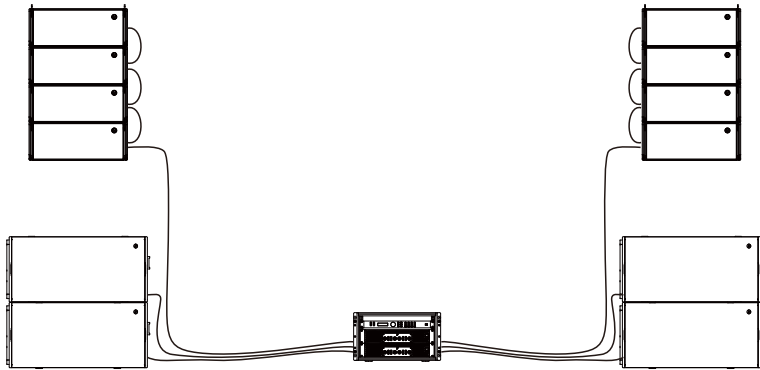
A = 0°



B = -5°

**(4+2)x2 System:**

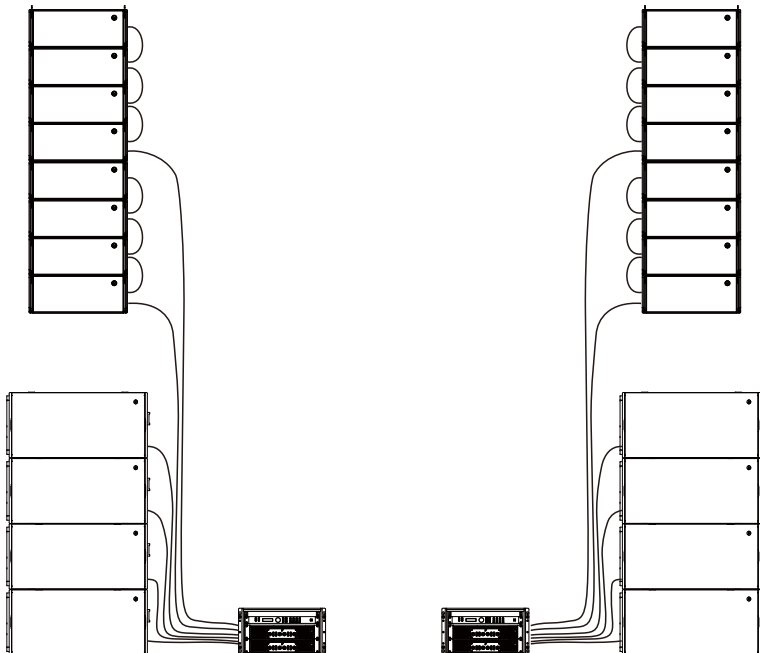
(4+2) x2 system configuration Each channel is configured with 4 IWAC220 and 2 SUB136T  
 We recommended two 4 channel amplifiers (V4.25+4.30) and one processor (DP226)  
 It is the basic configuration .We suggest using in the concert within 500 people.

**(8+4)x2 System.**

Each channel is configured with 8 IWAC220 and 4 SUB136T.

We recommended two 4 channel amplifiers (V4.25+4.30) and one processor (DP226).

We suggest using in the concert within 1500 people , If the number of SUB136T used at the party is doubles, there will be a better experience



To ensure the quality of current transmission, the oxygen free copper professional cable with 4x2.5mm<sup>2</sup> should be used in the system

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.

