UNITED SIGN GROUP

ARCHITECTURAL | ENGINEERING | DIGITAL

OMNI
INDOOR LED DISPLAY

Product Manuals

Design | Project Management | Service | Technical Support

www.unitedsigns.com

Safety Tips

01. Read these safety guidelines carefully before installation;
02. Keep these safety guidelines properly maintained;
03. Compliance with all safety guidelines;
04. Do not install the equipment in the dust and liquid dripping environment, especially the indoor series displays;
05. Do not expose the indoor series screens and equipment in the water or watermist;
06. Do not install the equipment close to the heat source,the heat source here includes: heating, radiator, electric furnace, furnace and other equipment that can produce high heat(including amplifier);
07. Do not block any air vents. Install the equipment according to the manufacturer's instructions;
08. Please properly protect the power cord and related electrical facilities,especially the power plug, simple power socket, and the connection of the power cord and equipment. Do not trample or squeeze the above facilities;
09. Only the electrical accessories certified by the equipment manufacturer are allowed;
10. Please find a qualified professional technician to deal with maintenance and service matters, when you encounter the following matters: power cord or power plug damage; liquid into the equipment; items fall into the equipment; equipment once exposed in water or water mist, equipment failure, equipment fall, etc.;
11. Do not use the chemical solvent for cleaning the equipment;
12. When on-site assembly, additional assembly and reliable grounding are required.
13. Requirements for using ambient altitude humidity temperature: altitude 2000m, maximum working environment temperature 40℃,maximum working environment humidity 80%;
14. The equipment shall be cut off by plugging the coupler;
15. The equipment is not equipped with the plug, during the assembly, provide the circuit breaker or the power switch near the equipment, and provide the rated parameters of the circuit breaker or switch (recommended 250VAC, 16A or better);
16. No exposed flame source (such as candles) should be placed on the equipment, and if the working temperature of the equipment exceeds 40 , air conditioning is needed to provide ventilation and heat dissipation to ensure the working temperature range required by the equipment;
17. The equipment shall be connected to the power grid supply with a protective grounding connection;
18. The size of the grounding connection conductor is 1.5mm^2;
19. Calculation formula of heat load power: P (BTU / hr) = 3.412 x P (W);
20. To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.

Warning

This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Catalogue

Chapter 1 General Description

1.1 Product Overview

OMNI Series, a multi-functional indoor commercial display solution designed to meet diverse visual needs. There are multiple sizes optional, it provides unparalleled flexibility, allowing units of different sizes to seamlessly interlock and create custom display configurations. Ultimate adaptability makes it ideal for a wide range of applications from retail environments to enterprise environments. OMNI Series not only enhances the visual impact, it also provides a dynamic platform for creative expression, ensuring that your content stands out with clarity and style.

- Die-cast aluminum integrated molding, the box body is stronger;
- Thin and light design, the thickness of only 39.5
- Multi-size design, different sizes can be arbitrarily spliced, to meet more modeling design
- Quick installation and maintenance, more humanized use;
- Support right Angle, arc splicing, to meet more mode- ling installation;
- The box supports sitting, lifting, wall hanging, so that the installation is more worry
- Part of the size cabinet support 90° rotating splicing

1.2 Display Unit Appearance

OMNI Cabinet:

Cabinet Product Configuration

Cabinet Size W * H * D (mm)	Model	Pixel Pitch	Module Size	Module Resolution
250x500x39.5 250x750x39.5 250x1000x39.5 500X250x39.5 750X250x39.5 1000X250x39.5 500X500X39.5	OMNI 1.2/OMNI 1.2-HB	1.25	250*250	200*200
	OMNI 1.5/OMNI 1.5-HB	1.5625	250*250	160*160
	OMNI 1.9/OMNI 1.9-HB	1.953	250*250	128*128
250x500x39.5 250x750x39.5 250x1000x39.5 500X250x39.5 750X250x39.5 1000X250x39.5 500X500x39.5 500X1000x39.5	OMNI 2.6/OMNI 2.6-HB	2.604	250*250	96*96
	OMNI 2.9/OMNI 2.9-HB	2.976	250*250	84*84
	OMNI 3.9/OMNI 3.9-HB	3.906	250*250	64*64

Module Product Configuration

Model	Pixel Pitch	Module Size W * H (mm)	Module Resolution
OMNI 1.2 Flex	1.25	250*250	200*200
OMNI 1.5 Flex	1.5625	250*250	160*160
OMNI 1.9 Flex	1.953	250*250	128*128
OMNI 2.6 Flex	2.604	250*250	96*96
OMNI 2.9 Flex	2.976	250*250	84*84
OMNI 3.9 Flex	3.906	250*250	64*64

1. 3 Technical Parameter

Regular Brightness Cabinet

Parameter	OMNI 1.2	OMNI 1.5	OMNI 1.9	OMNI 2.6	OMNI 2.9	OMNI 3.9
Pixel Type	SMD					
Pixel Pitch (mm)	1.25	1.5625	1.953	2.604	2.976	3.906
Module Resolution	200*200	160*160	128*128	96*96	84*84	64*64
Module Size (W x H, mm)	250*250					
Pixel Density /m^2	640,000	409,600	262,144	147,456	112,896	65,536
Cabinet Size (W x H x D, mm)	250x500x39.5 250x1000x39.5 750X250x39.5 500X500X39.5	250x750x39.5 500X250x39.5 1000X250x39.5	250x500x39.5 250x1000x39.5 750X250x39.5 500X500x39.5	250x750x39.5 500X250x39.5 1000X250x39.5 500X1000x39.5		
Cabinet Weight (kg / m^2)	20					
Cabinet Material	Die-Casting Aluminium					
Cabinet Corner Cut	Optional					
IP Rate	IP30					
Maximum Brightness After Calibration (nits)	600	600	1000	1000	800	800
Colour Temperature (k)	3000~10000					
Viewing Angle (Horizontal)	160					
Viewing Angle(Vertical)	140					
Contrast Ratio	4000:1					
Input Voltage	AC100 ~ 240V(50/60Hz)					
Cabinet Maximum Power Consumption	600W/m^2					
Cabinet Average Power Consumption	200W/m^2					
Grey scale	14bit					
Refresh Rate	3840Hz @60Hz		7680Hz @60Hz			
Switching Frame frequency (Hz)	50&60					
LED Life Span (h)	100,000					
Installation Method	Before / after					
Module Maintenance	Before / after					
Power Maintenance Method	Before / after					
Working Temperature (^{0}C)	-20~40					
Storage Temperature (^{0}C)	-40~60					
Working humidity	10~80%					
Storage Temperature (^{0}C)	10~85%					

High Brightness Cabinet

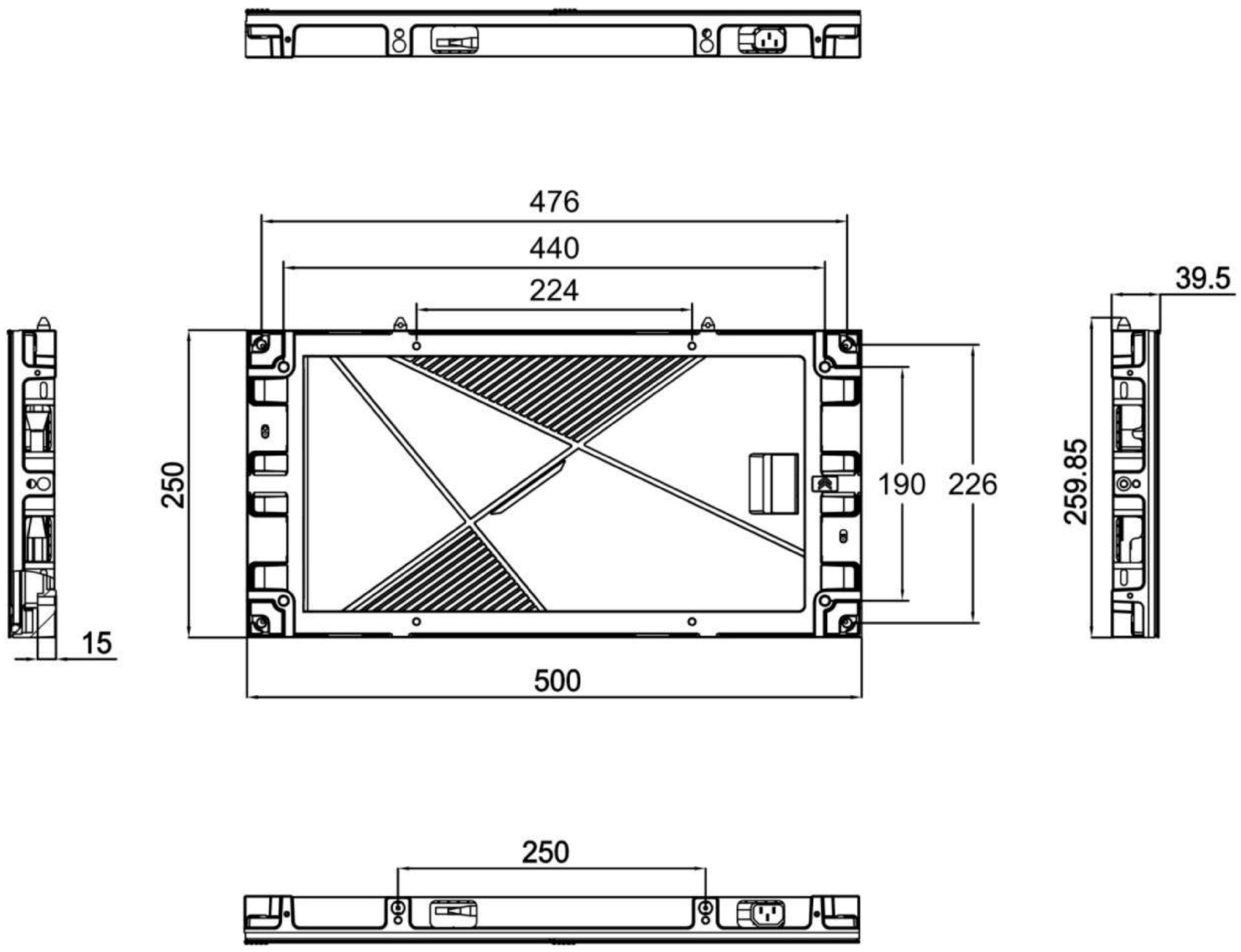
Parameter	OMNI 1.2-HB	OMNI 1.5-HB	OMNI 1.9-HB	OMNI 2.6-HB	OMNI 2.9-HB	OMNI 3.9-HB
Pixel Type	SMD					
Pixel Pitch (mm)	1.25	1.5625	1.953	2.604	2.976	3.906
Module Resolution	200*200	160*160	128*128	96*96	84*84	64*64
Module Size (W x H, mm)	250*250					
Pixel Density /m^2	640,000	409,600	262,144	147,456	112,896	65,536
Cabinet Size (W x H x D, mm)	250x500x39.5 250x750x39.5 250x1000x39.5 500X250x39.5 750X250x39.5 1000X250x39.5 500X500X39.5		250x500x39.5 250x750x39.5 250x1000x39.5 500X250x39.5 750X250x39.5 1000X250x39.5 500X500x39.5 500X1000x39.5			
Cabinet Weight (kg / m^2)	20					
Cabinet Material	Die-Casting Aluminium					
Cabinet Corner Cut	Optional					
IP Rate	IP30					
Maximum Brightness After Calibration (nits)	1800	3000	3000	3000	3000	3000
Colour Temperature (k)	3000 to 10000					
Viewing Angle (Horizontal)	160					
Viewing Angle(Vertical)	140					
Contrast Ratio	5000:1					
Input Voltage	AC100 ~ 240V(50/60Hz)					
Cabinet Maximum Power Consumption	480	480	560	560	560	560
Cabinet Average Power Consumption	160	160	187	187	187	187
Grey scale	14					
Refresh Rate	3840	3840	7680	7680	7680	7680
Switching Frame frequency (Hz)	50&60					
LED Life Span (h)	100,000					
Installation Method	Front / Rear					
Module Maintenance	Front / Rear					
Power Maintenance Method	Front / Rear					
Working Temperature (^{0}C)	-20~40					
Storage Temperature (^{0}C)	-30~60					
Working humidity	10~80%					
Storage Temperature (^{0}C)	10~85%					

Module

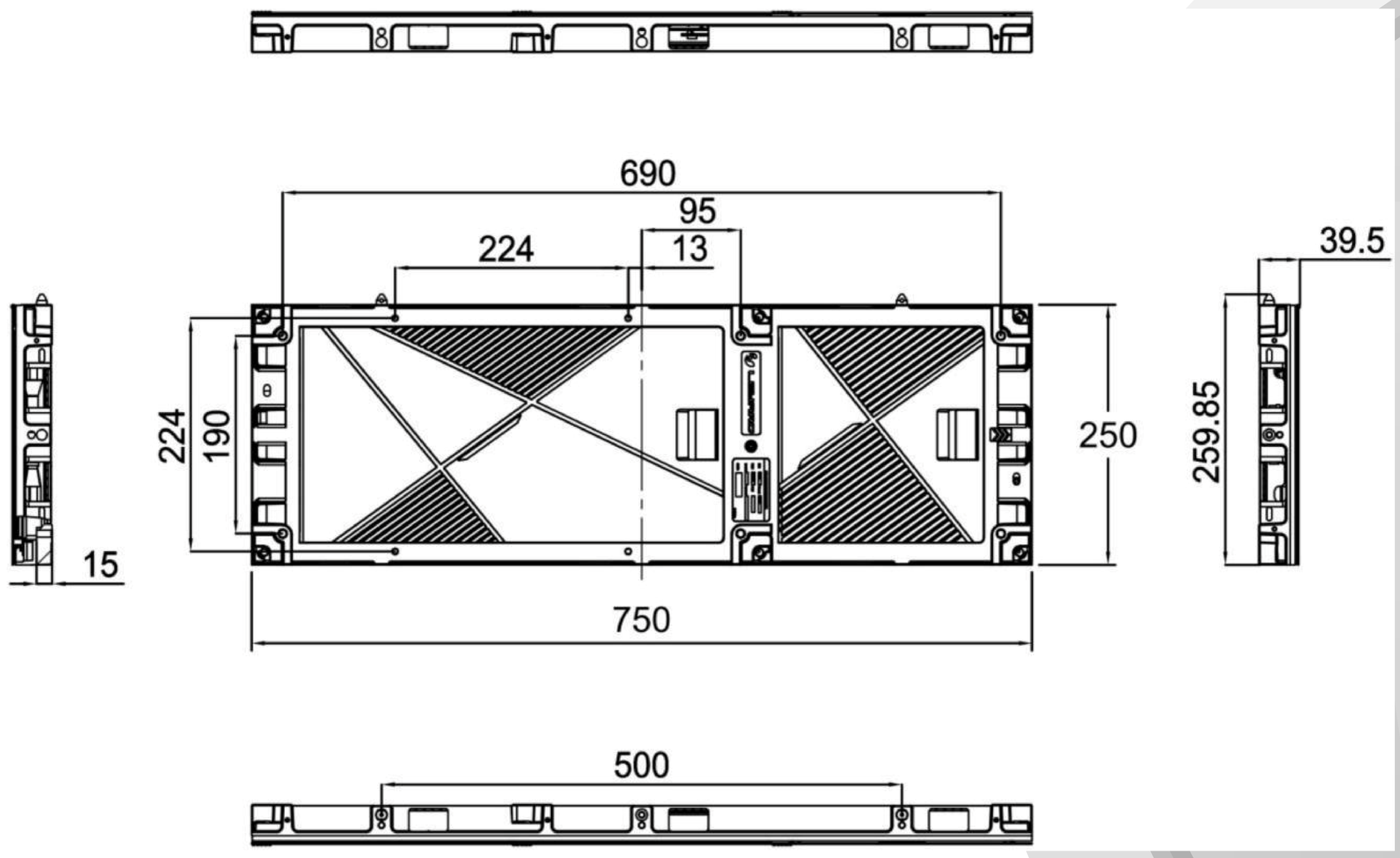
Parameter	OMNI 1.2-Flex	OMNI 1.5-Flex	OMNI 1.9-Flex	OMNI 2.6-Flex	OMNI 2.9-Flex	OMNI 3.9-Flex
Pixel Type	SMD					
Pixel Pitch (mm)	1.25	1.5625	1.953	2.604	2.976	3.906
Module Resolution	200*200	160*160	128*128	96*96	84*84	64*64
Module Size (W x H, mm)	250*250					
Pixel Density /m^2	640,000	409,600	262,144	147,456	112,896	65,536
Weight / m^2	25					
Cabinet Material	Sheet metal (size and curvature can be customized upon request)					
IP Rate	IP30					
Maximum Brightness After Calibration (nits)	600	600	1000	1000	1000	1000
Colour Temperature (k)	3000~10000					
Viewing Angle (Horizontal)	160					
Viewing Angle(Vertical)	140					
Contrast Ratio	4000:1					
Input Voltage	AC100 ~ 240V(50/60Hz)					
Maximum Power Consumption(W/m^2)	480	480	560	560	560	560
Vertical Power Consumption (W/m^2)	160	160	187	187	187	187
Grey scale (Bit)	14					
Refresh Rate	3840	3840	7680	7680	7680	7680
Switching Frame frequency (Hz)	50&60					
LED Life Span (h)	100,000					
Installation Method	Front / Rear					
Module Maintenance	Front					
Power Maintenance Method	Front					
Working Temperature (^0C)	-20~40					
Storage Temperature (^0C)	-30~60					
Working humidity (%RH)	10~80%					
Storage Temperature (%RH)	10~85%					

1.4 Display the unit dimension plot

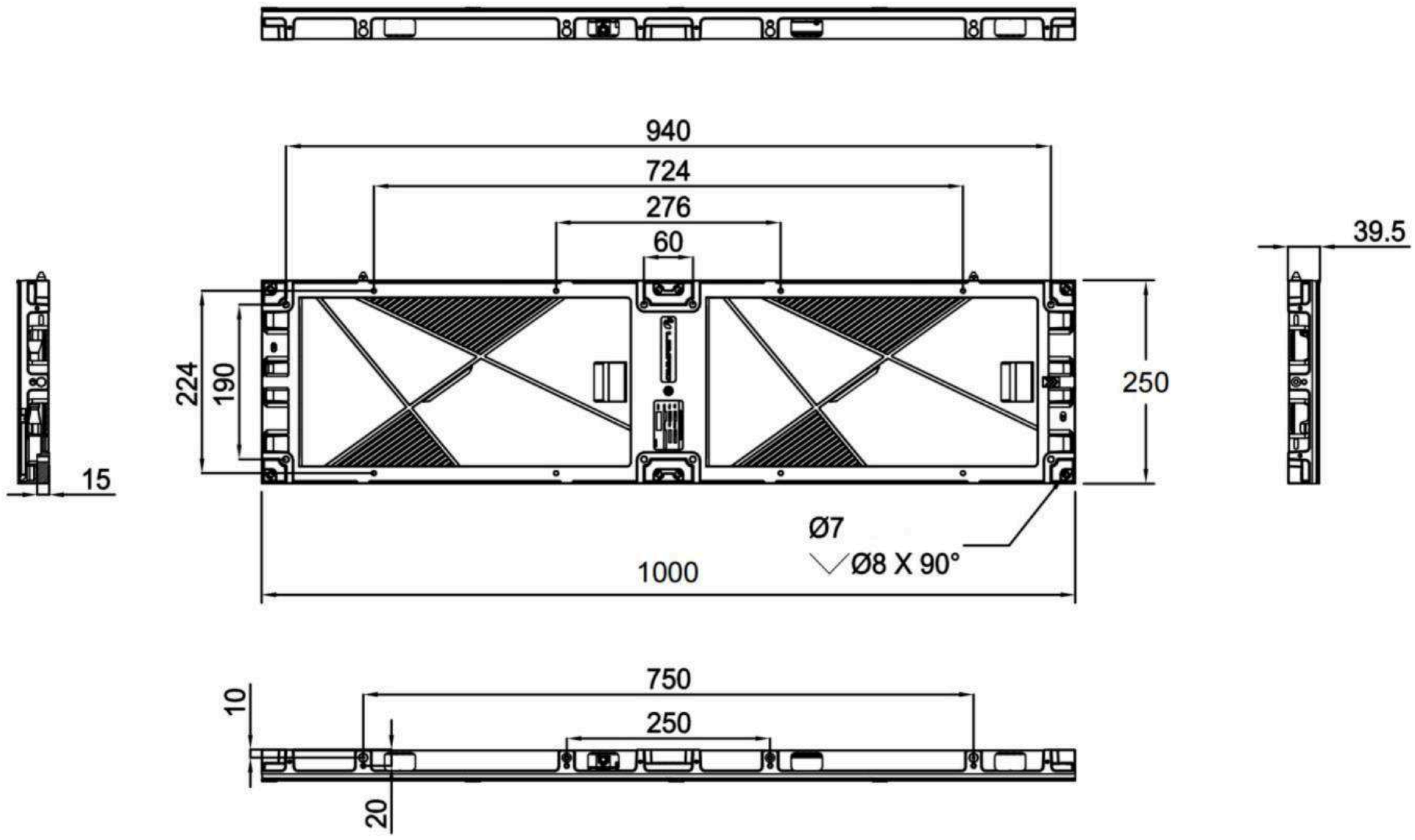
Unit: (mm)
500* 250 / 250 * 500 Dimensions:



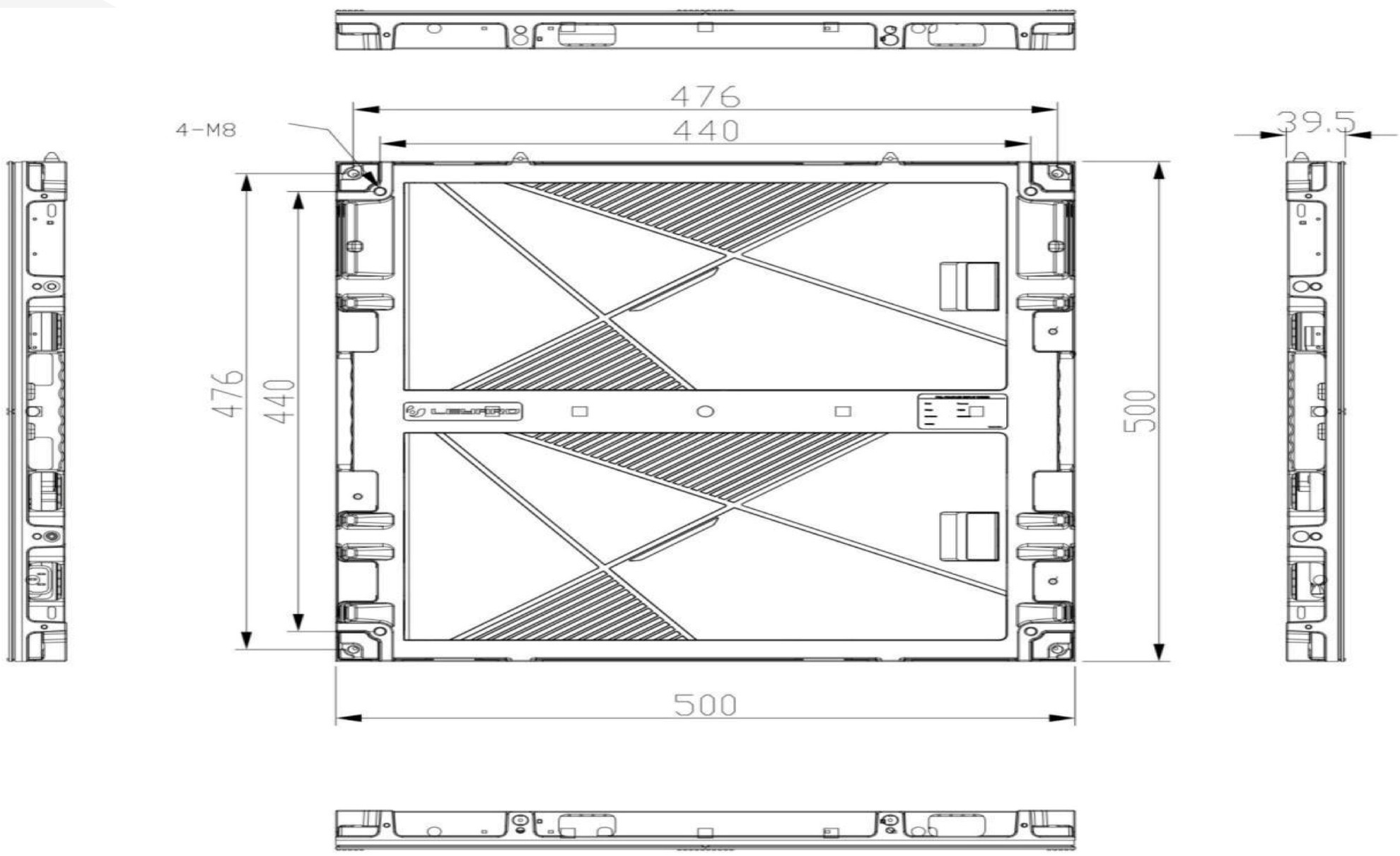
Dimensions: 750* 250 / 250 * 750



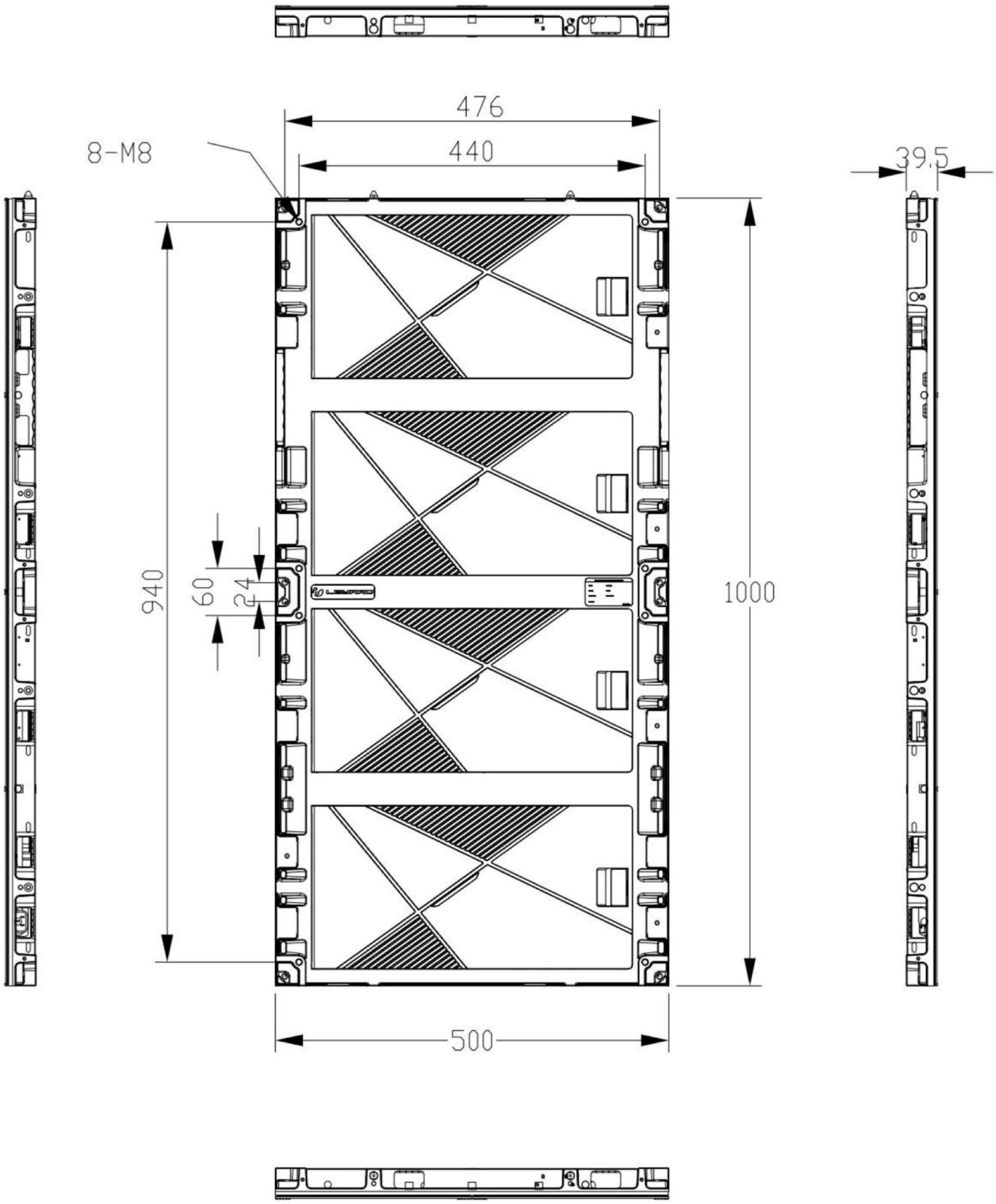
Dimensions: 1000* 250 / 250 * 1000



Dimensions: 500* 500



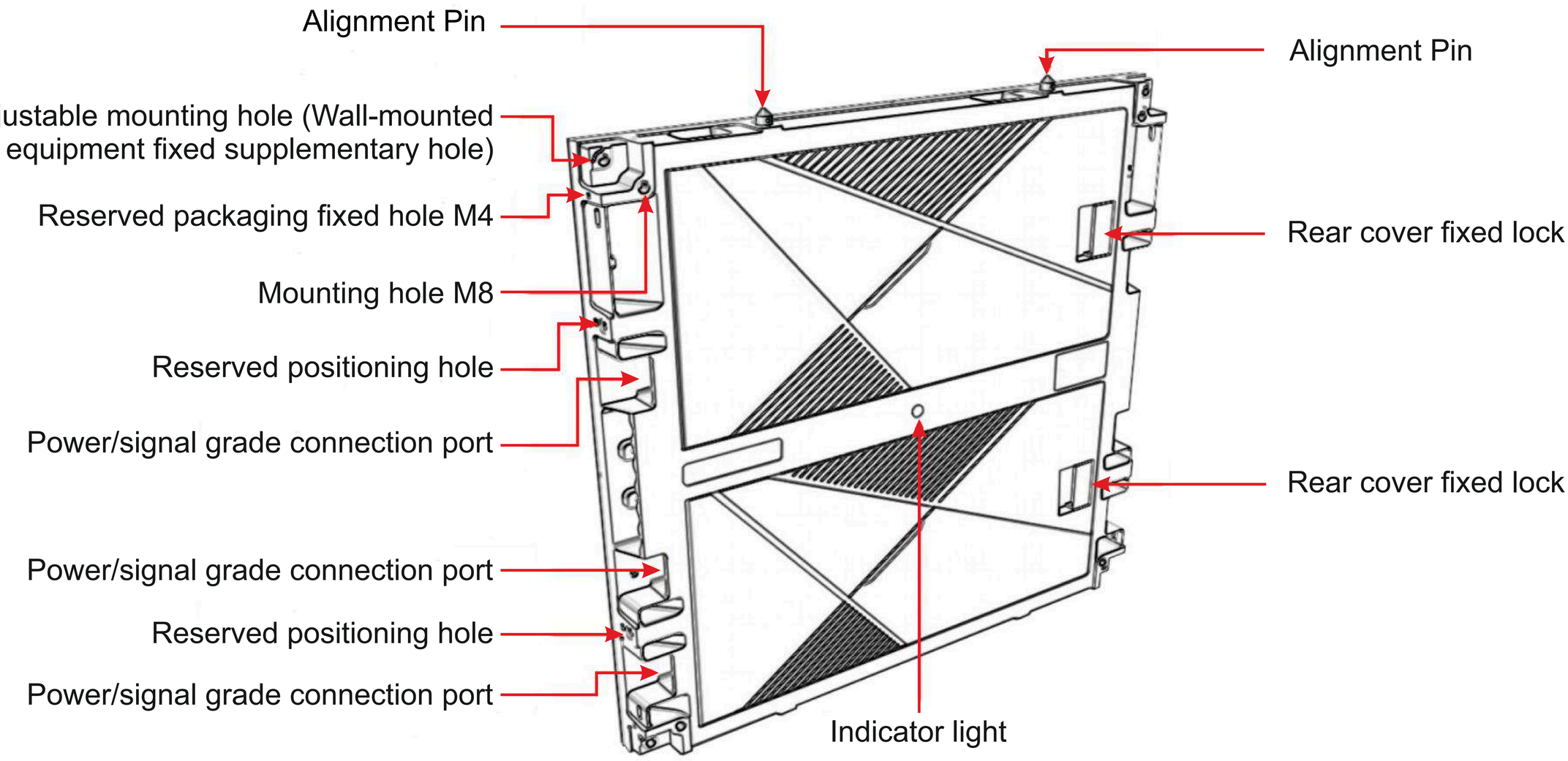
Dimensions: 500* 1000



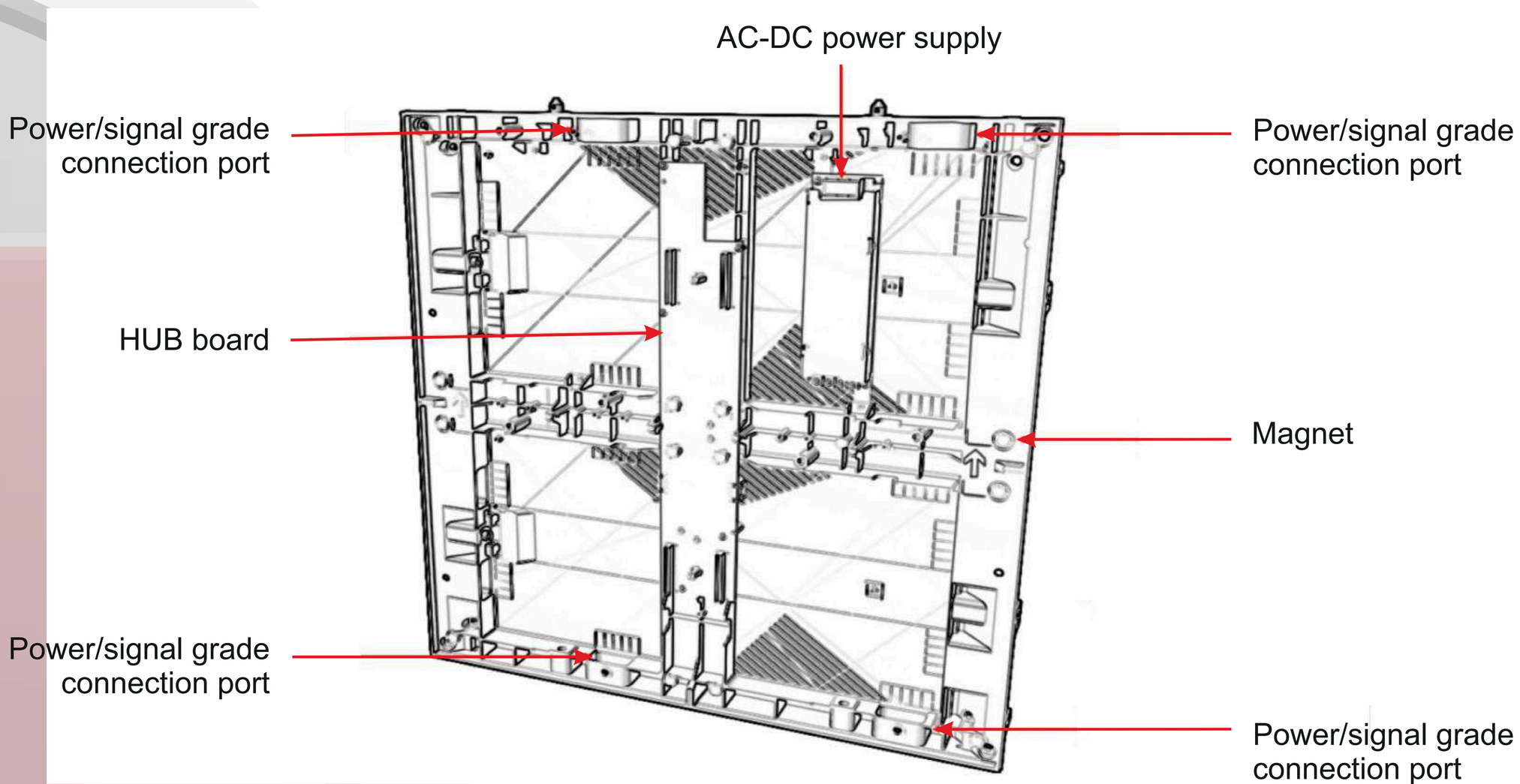
1.5 Display a description of the unit structure

1.5.1 Appearance And Function Diagram Of The Back Side Of The Cabinet

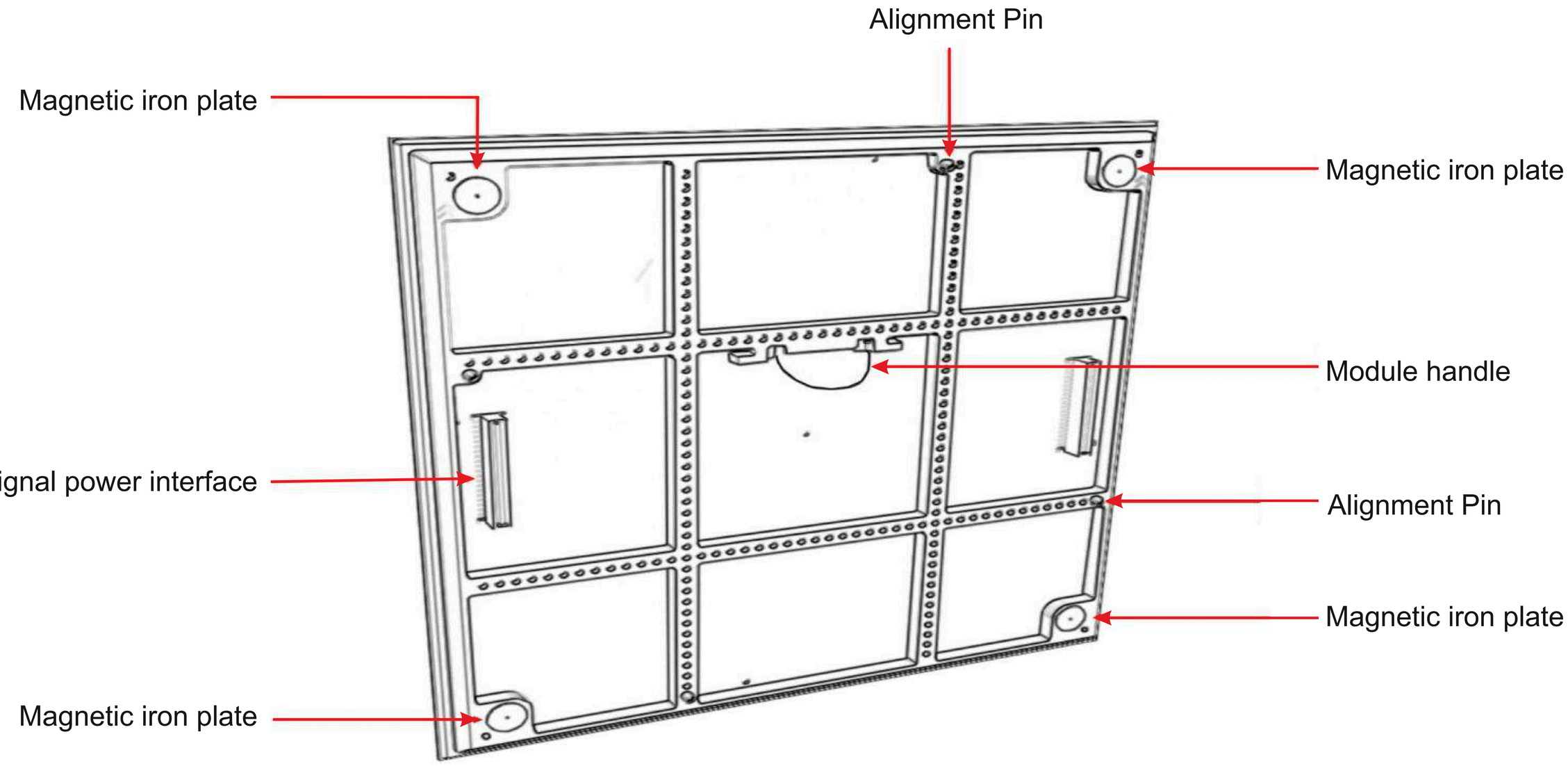
Take the 500 * 500 cabinet as an example（Other cabinets are identical.)



1.5.2 Appearance of front of box



1.5.3 Mode appearance and function diagram



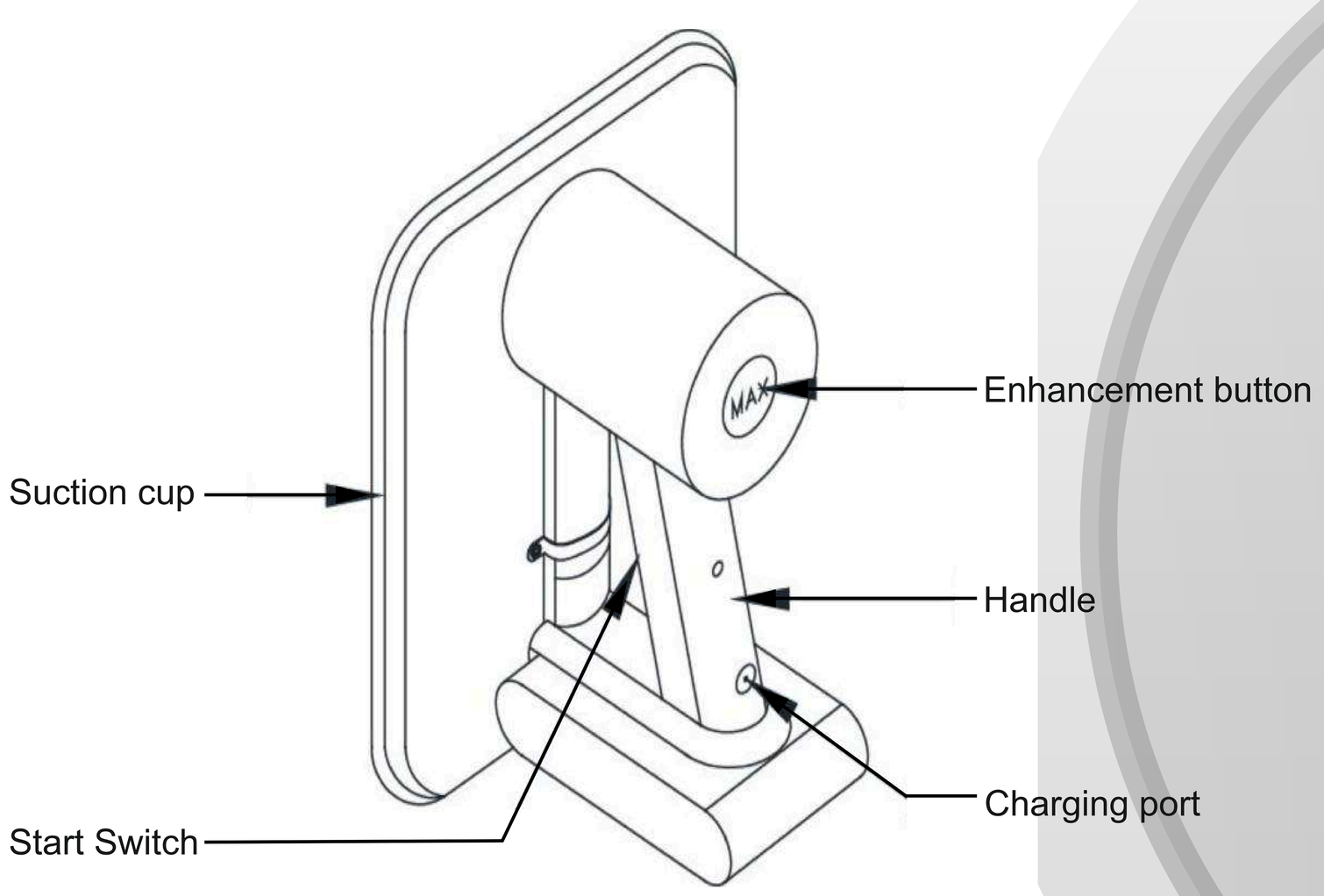
Chapter 2: Product Maintenance

The OMNI series can achieve front and rear maintenance, the specific operation is shown below.

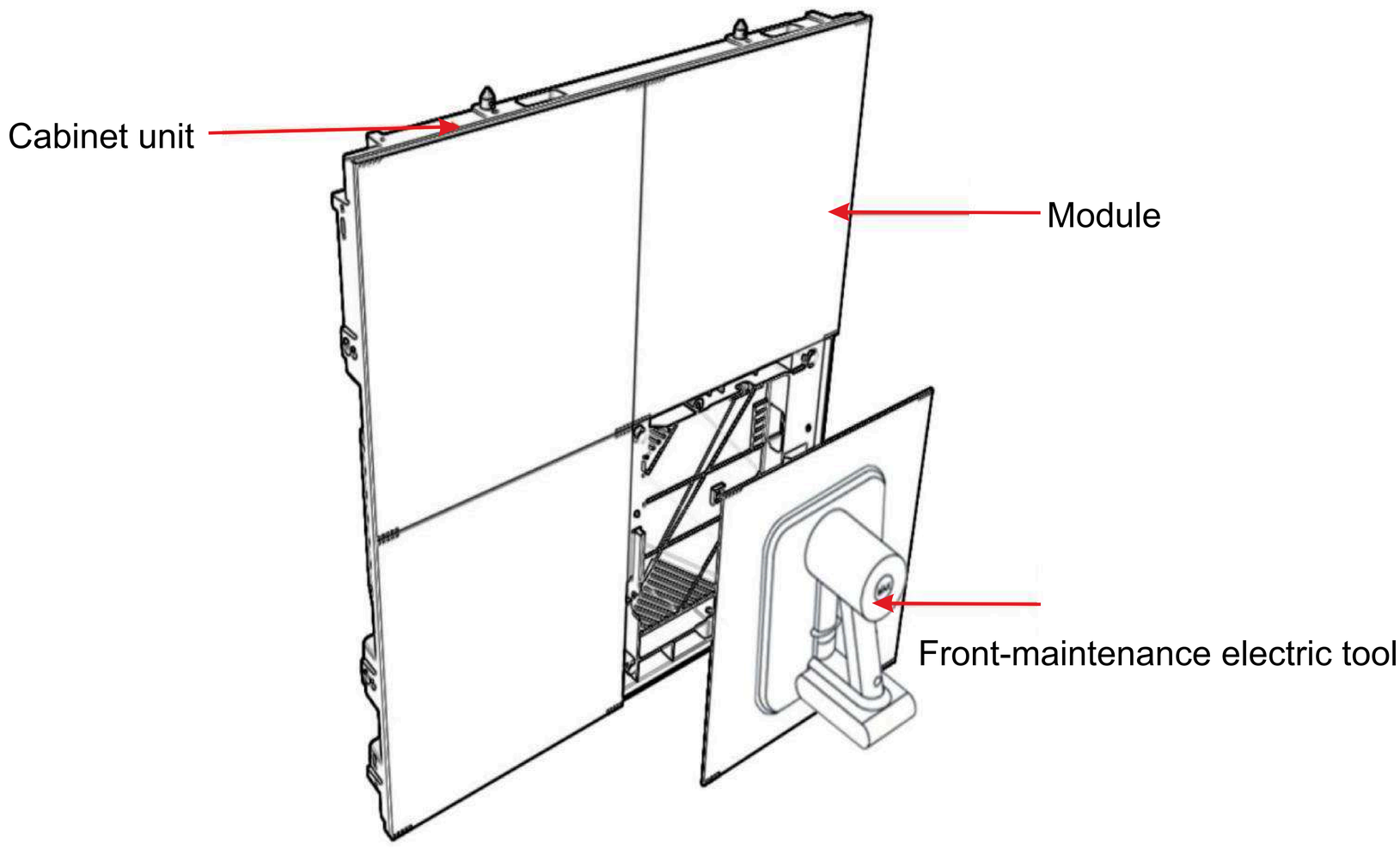
Front Maintenance Introduction

Front-maintenance tool introduction

This product supports front-maintenance, and the specific functions of the front-maintenance electric tool are shown in the following figure:

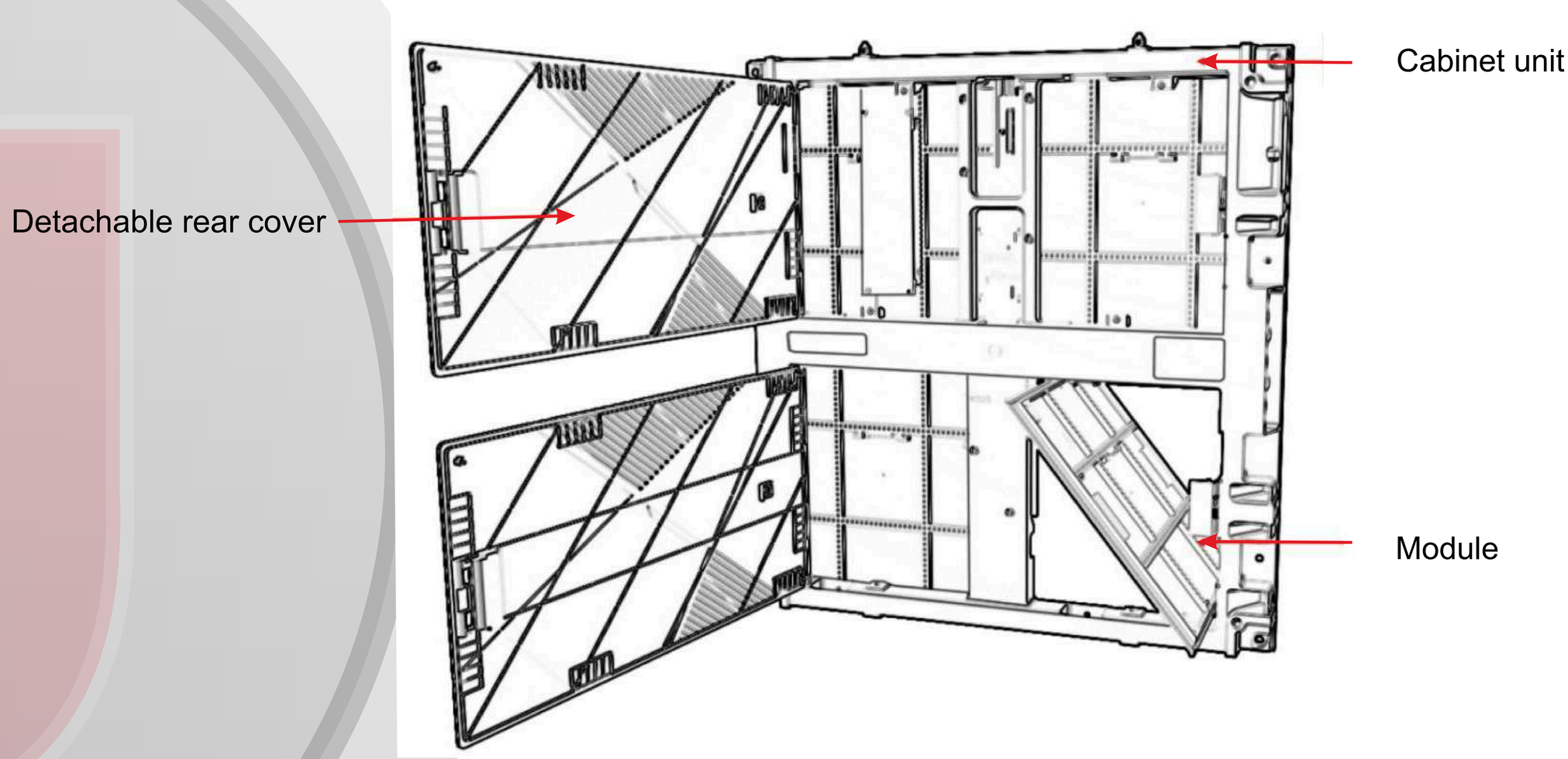


For cabinet maintenance, you need to use the suction cup tool to place in the middle of the cabinet to remove, and then press the start button vertically to take out the box. The specific operation is as follows:



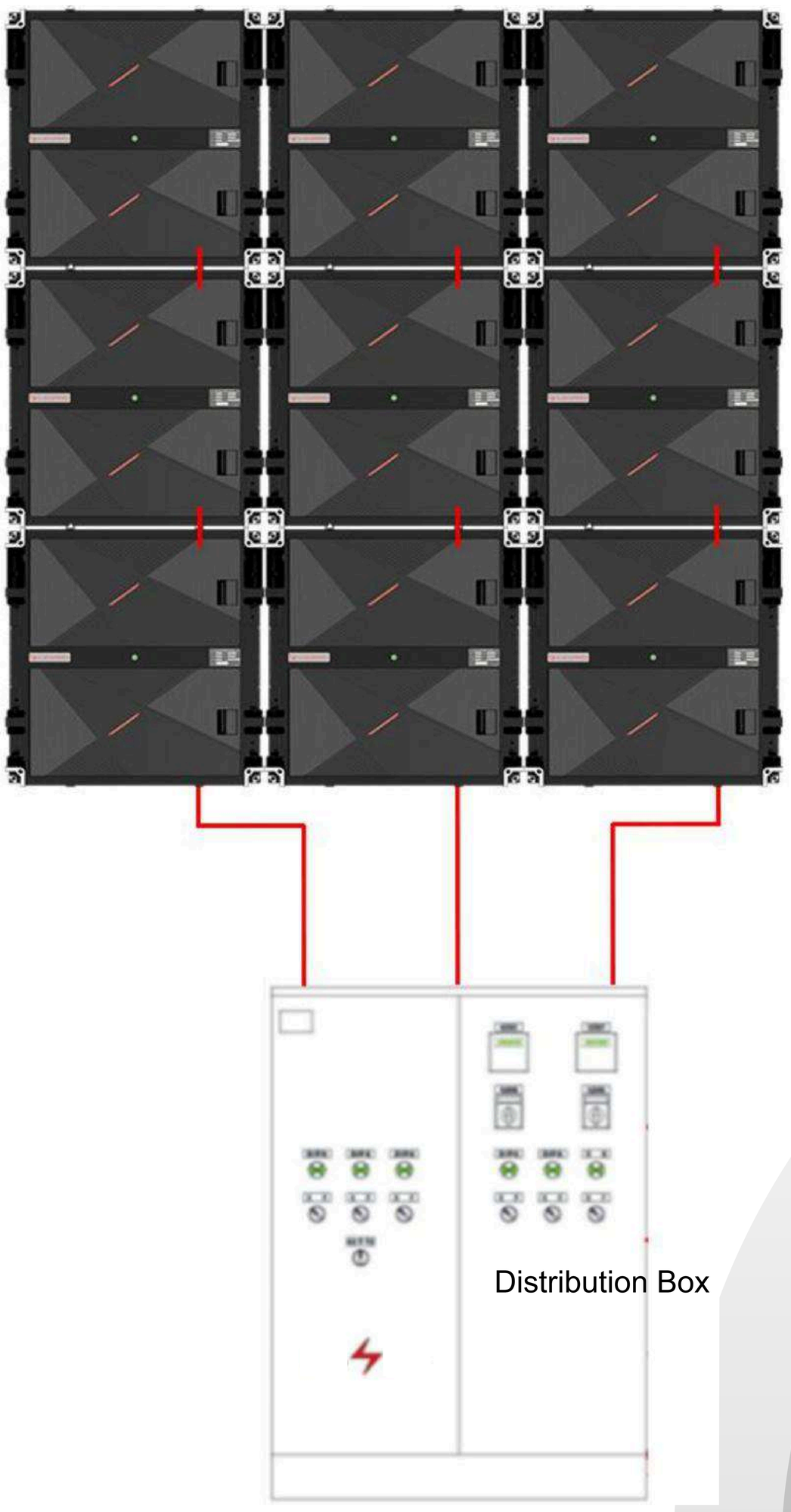
Front maintenance power tool mode switching:
1. To operate the strengthening mode, press the switch down, and then press the "MAX" strengthening button, and the "MAX" strengthening button will light up.
2. To turn off the strengthening mode, press the switch down, and then press the MAX strengthening button again.

Rear-maintenance introduction:
For cabinet maintenance, the back cover needs to be opened, then push the module safety rope forward to remove the module, and then tilt 45 ° back to take the module. The specific operation is as follows:



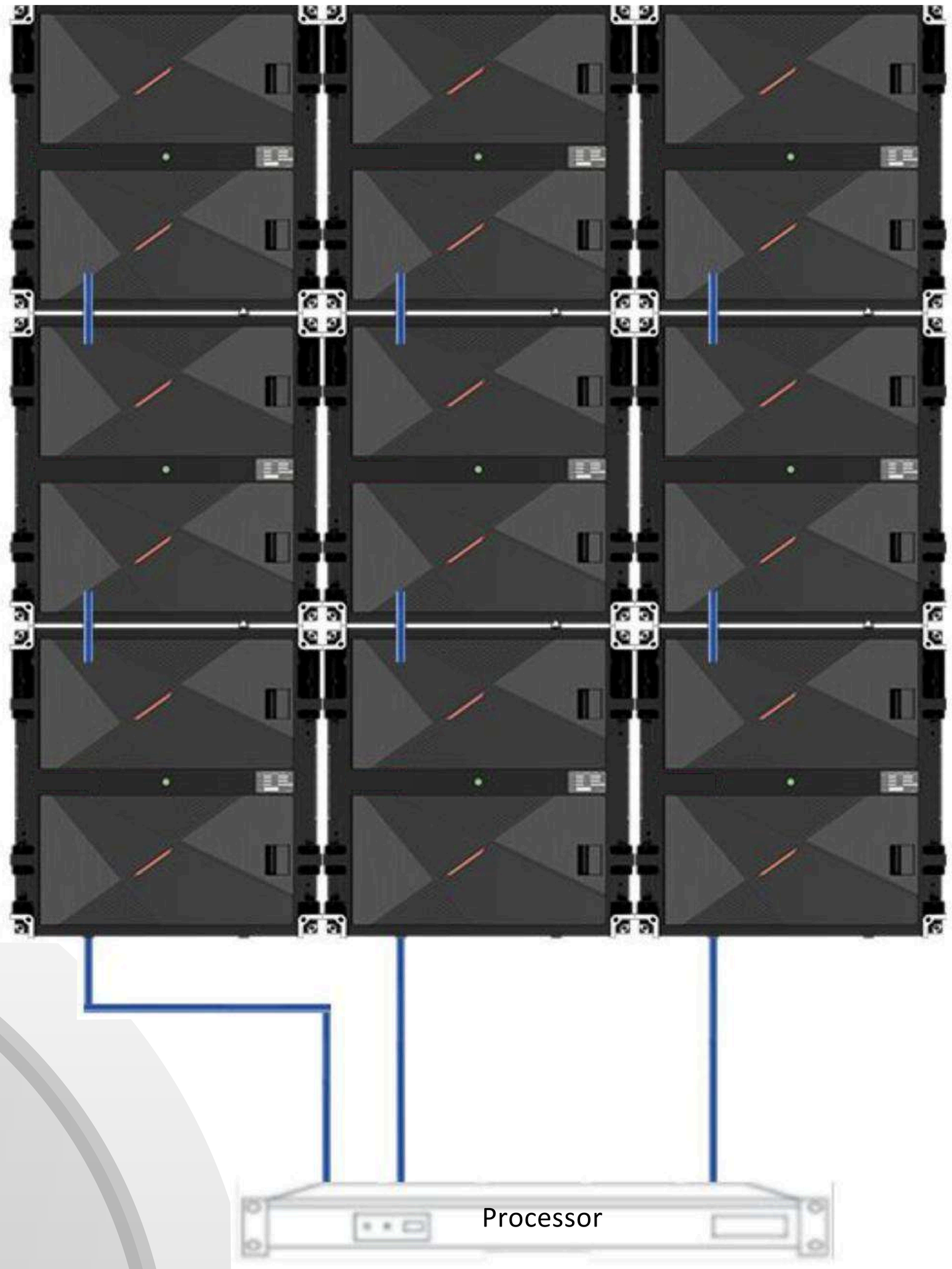
Chapter 3. Cabinet Connection

3. 1 Schematic diagram of the power cord routing



Notes: The above is only a schematic diagram. The OMNI series supports both top/bottom and left/right wiring. When the power cord in the cabinet passes AC220V electricity, the maximum cascade is 14 display units for a 500*500 cabinet.
If AC110V power supply is needed, a special customized cabinet is required. The maximum cascade for AC110V is 8 cabinets. When the single cable carries beyond the limit, it is necessary to enter the line through the left and right reserved through holes of the cabinet cable as shown in the figure.

3.2 Schematic diagram of the signal cable routing



Notes: The above is only a schematic diagram. The OMNI series supports both top/bottom and left/right wiring. When the single network port carries a load and the power cord exceeds the carrying capacity, another network cable can be used to enter the line through the reserved cable through hole on the side of the cabinet. When the network cable carries a load, the principle of not exceeding 65w pixel points per single network port should be followed. If splicing equipment is used, it is necessary to ensure that it does not exceed the single network port carrying limit and does not exceed the splicing limit of the splicing device used. For details, please refer to the specifications and parameters of the equipment used.

Chapter 4. Power Distribution Load Calculation

4. 1 Calculation of the total power of the display screen

Total power of display screen = total screen power + total power of peripheral equipment + total power of heat dissipation equipment

① Switch power power: Output voltage (V) * Output current (A) = single power (W)

② Total screen power: Method (1) Use box number * box power
Method (2) screen area * maximum power per square * 120% (switch power supply reserved 20%)
(Note: See the corresponding product model and specification)

③ Surrounding equipment: processor, screen rear lighting about 2 KW

④ Heat dissipation equipment: air conditioning power 10m² / P 800w (for example, 30m² screen needs heat dissipation air conditioning 3 P, the total power is 800w * 3 = 2.4kw)

4.2 Distribution box cable model selection

Power distribution model (KW)	Type of incoming cable	Maximum current (A)	Minimum tube (mm)
10KW power distribution box	RVV5 × 6mm²	25	25
20KW power distribution box	YJV5 × 10mm²	55	50
30KW power distribution box	YJV5 × 16mm²	70	50
40KW power distribution box	YJV4 ×25+1 × 16mm²	100	50
60KW power distribution box	YJV4 × 35+1 × 16mm²	125	65
80KW power distribution box	YJV4 × 50+1 ×25mm²	150	80
100KW power distribution box	YJV4 ×70+1 ×35mm²	190	80
120KW power distribution box (indoor)	YJV4 ×95+1 × 50mm²	235	80
120KW power distribution box (outdoor)	YJV4 × 120+1 ×70mm²	265	100
150KW power distribution box	YJV4 × 150+1 ×70mm²	300	120
180KW power distribution box	YJV4 × 180+1 ×95mm²	360	150

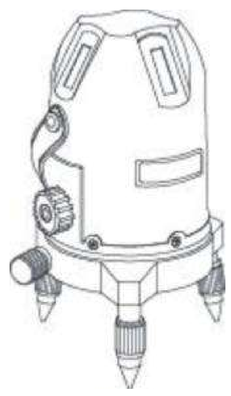
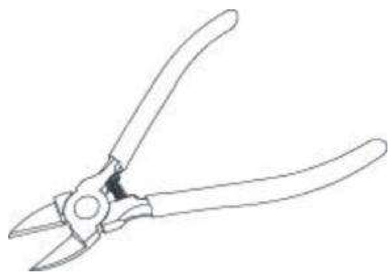
Chapter 5. Product Installation Guide

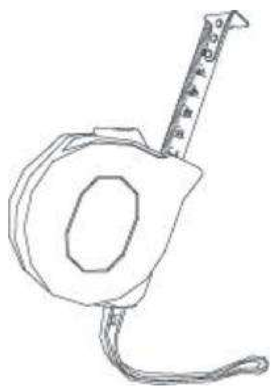
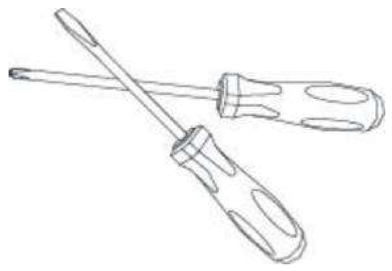
The OMNI series of products is suitable for various forms of installation, including hoisting, seating, and wall mounting. The hoisting configuration includes standard lifting beams, the seating configuration includes standard floor stands and back frames, and the wall mounting configuration includes standard wall mounting brackets. The following describes in detail the installation steps for standard hoisting, standard seating, and standard wall mounting.

5. 1 Preparation before installation

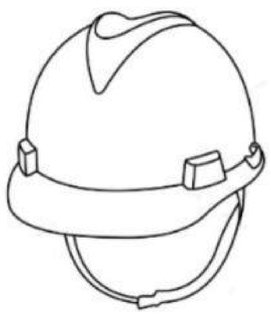
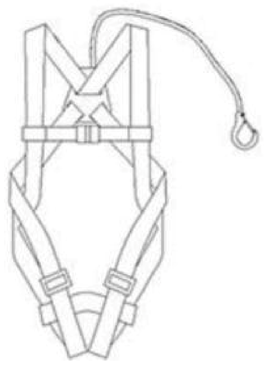
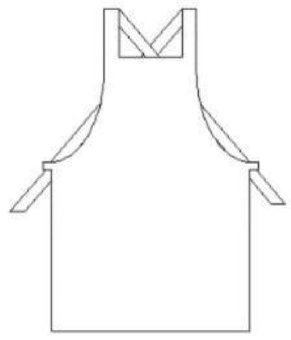
Before installation, prepare the general installation tools and work protection equipment, which are provided by the engineering construction personnel.

1. Common installation tools

Tools form				
Tool name	Laser level meter	Electric drill	Multimeter	Wire cutter

Tools form				
Tool name	Rubber hammer	Adjustable wrench	Tape measure	Screwdriver

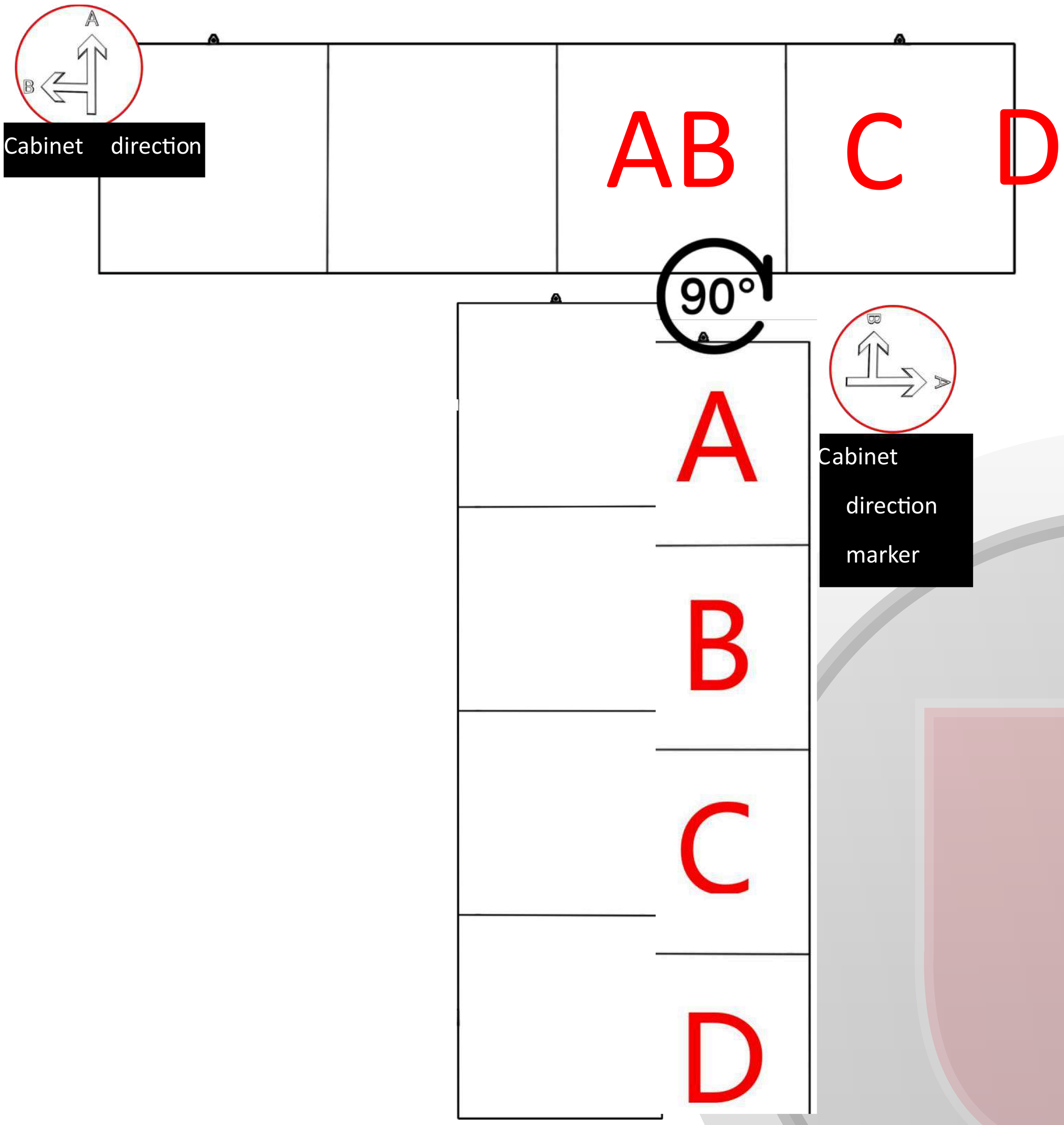
2. Installation protective equipment

Tools form				
Tool name	Safety helmet	Safety harness buckle	Protective gloves	Protective apron

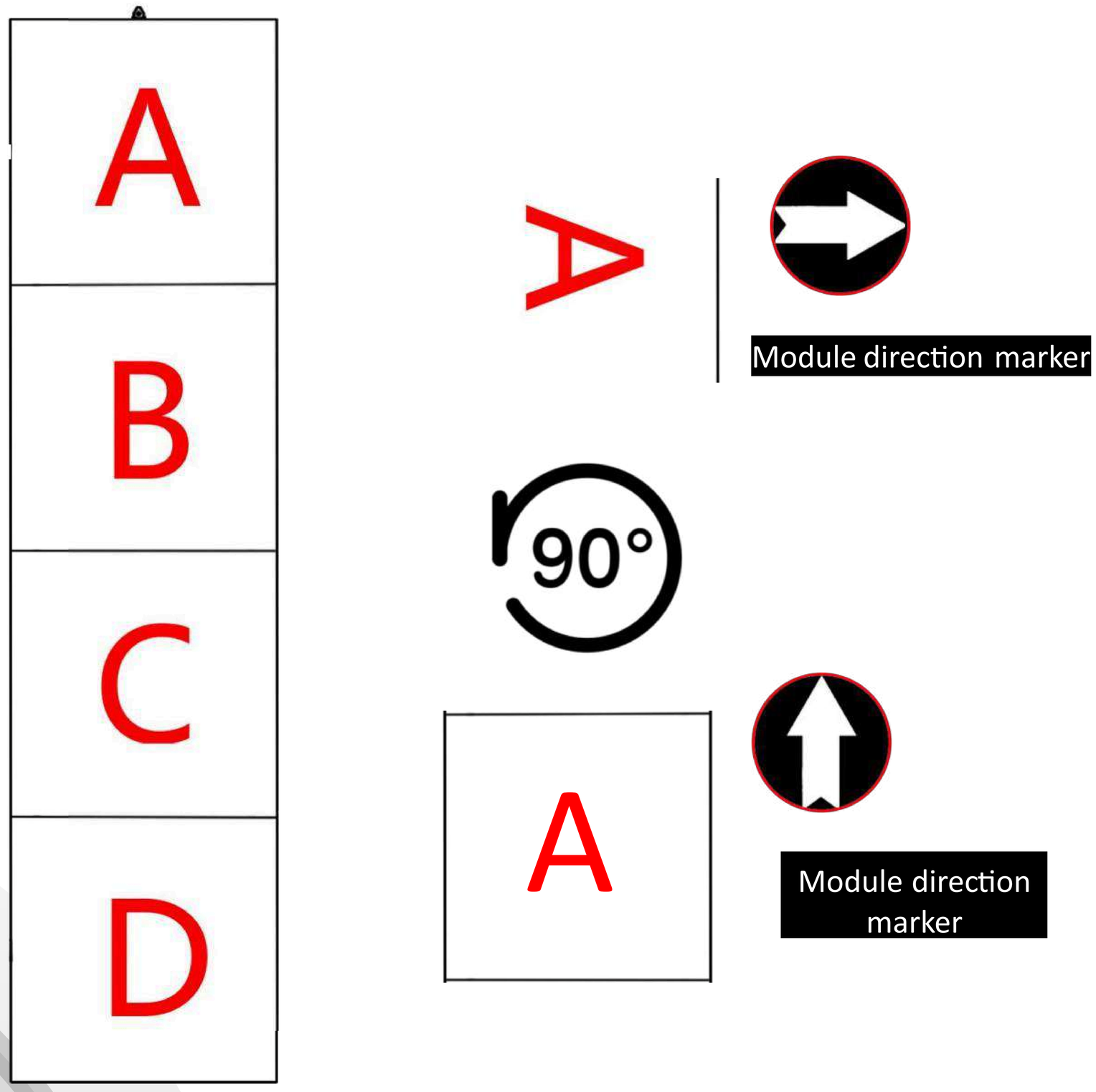
5.2 Schematic diagram of 90° rotation and splicing of the cabinet

Currently, only (500250, 750250, 1000*250mm) size cabinets in the OMNI series support 90° rotation and splicing and 90° rotation display. If the project site requires special-shaped splicing or different shapes, solutions can be provided.

1. The conventional 1000*250 cabinet is arranged horizontally for display, and there are direction signs inside the cabinet. Rotate the cabinet 90° clockwise. According to the splicing method, replace the positioning pin position (ABCD represents the module screen direction):



2. After the cabinet is rotated clockwise, only the cabinet is turned over. The module also needs to be rotated 90° counterclockwise to make the image correct. There are direction signs on the back of the module;



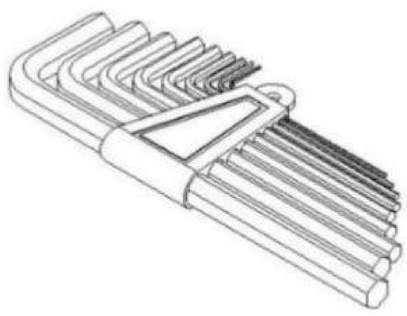
3. Currently, only (500250, 750250, 1000*250mm) size cabinets in the OMNI series support 90° rotation and splicing and 90° rotation display.

5.3 OMNI standard wall-mounted installation introduction

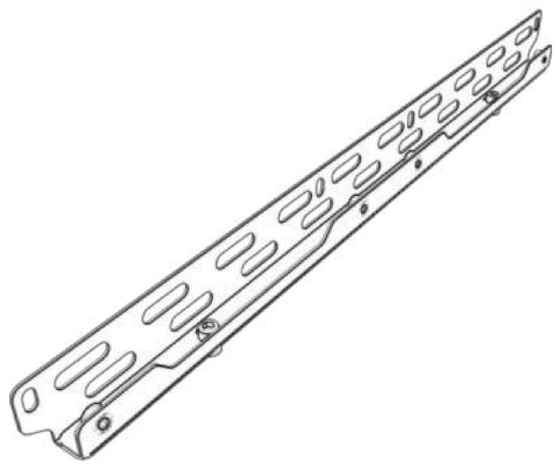
1. Inventory of Accessories

Check the quantity of all necessary tools and corresponding accessories according to the project list. The following is a list of the forms of necessary tools and accessories for standard wall mounting, which can be used as a reference for conventional wall mounting. The specific quantity is subject to the project list.

1 Necessary tools:

Tools form		
Tool name	Allen Wrench	Electric hand drill

2 Standard Accessories:

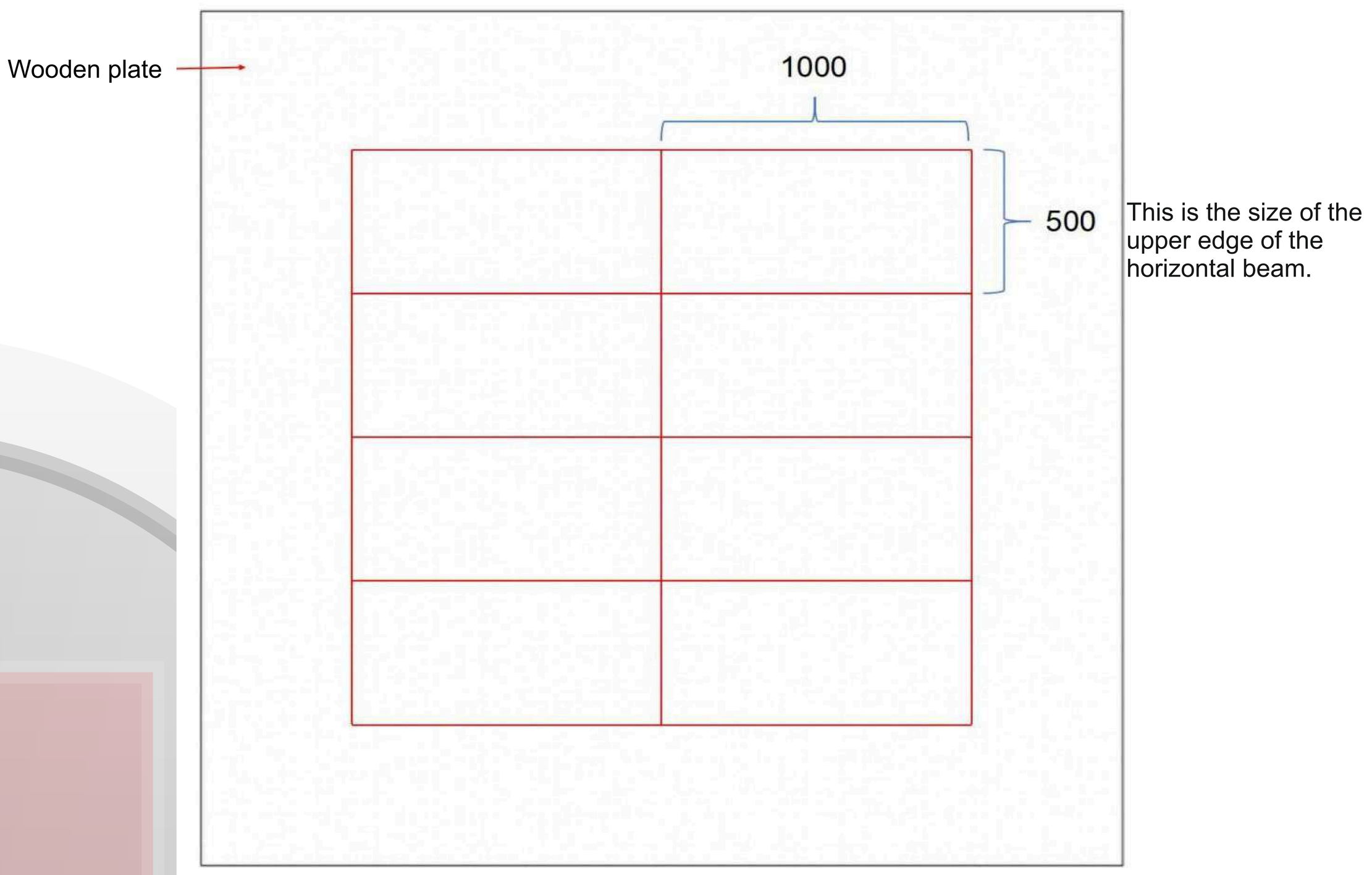
Accessories form	
Accessories name	500Mount Horizontal Beam

Accessories form		
Accessories name	Hexagon Socket Screw	M5 Wood Screw

5.4 OMNI standard wall mount mounting steps

Our product has only one specification of wall-mounted horizontal beam: the 0.5-meter long horizontal beam is selected in different quantities according to the project size and cabinet size. This installation step takes a 500*500 size cabinet with a 4*4 arrangement as an example. The specific installation is as follows: is only one specification: the beam of 0.5 meters long selects different quantities according to the project size and the box size. This installation step takes 500 * 500 size box, 4 * 4 arrangement as an example, the specific installation is as follows:

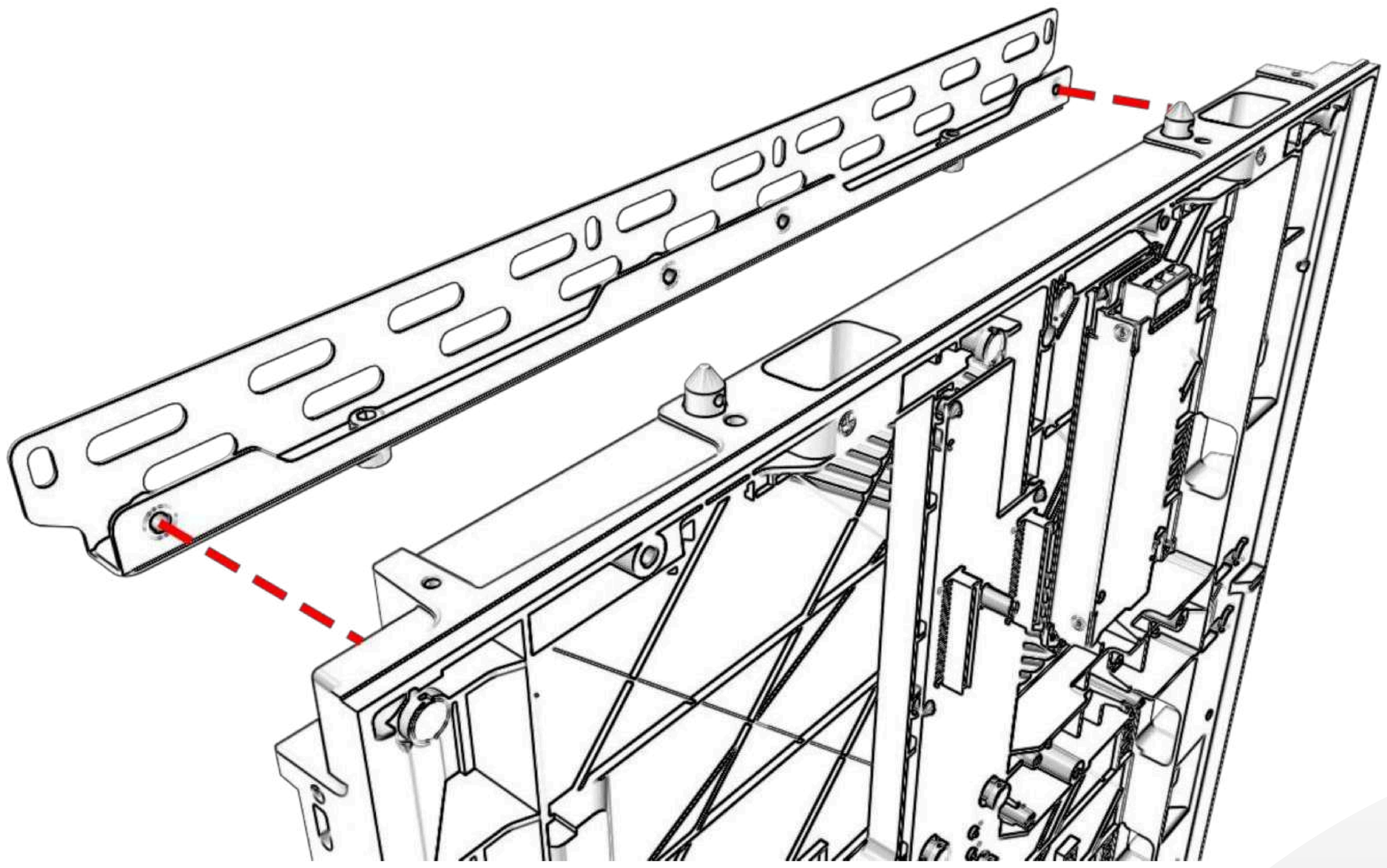
1. According to the project design drawings, use a laser level and tape measure to scribe lines on a 20mm thick blockboard (or a leveled concrete wall); at the same time, route the power cord and signal line. For blockboard, use wood screws to fix the horizontal beam; for concrete walls, use expansion bolts to fix the horizontal beam. The following figure takes the wooden board as an example:



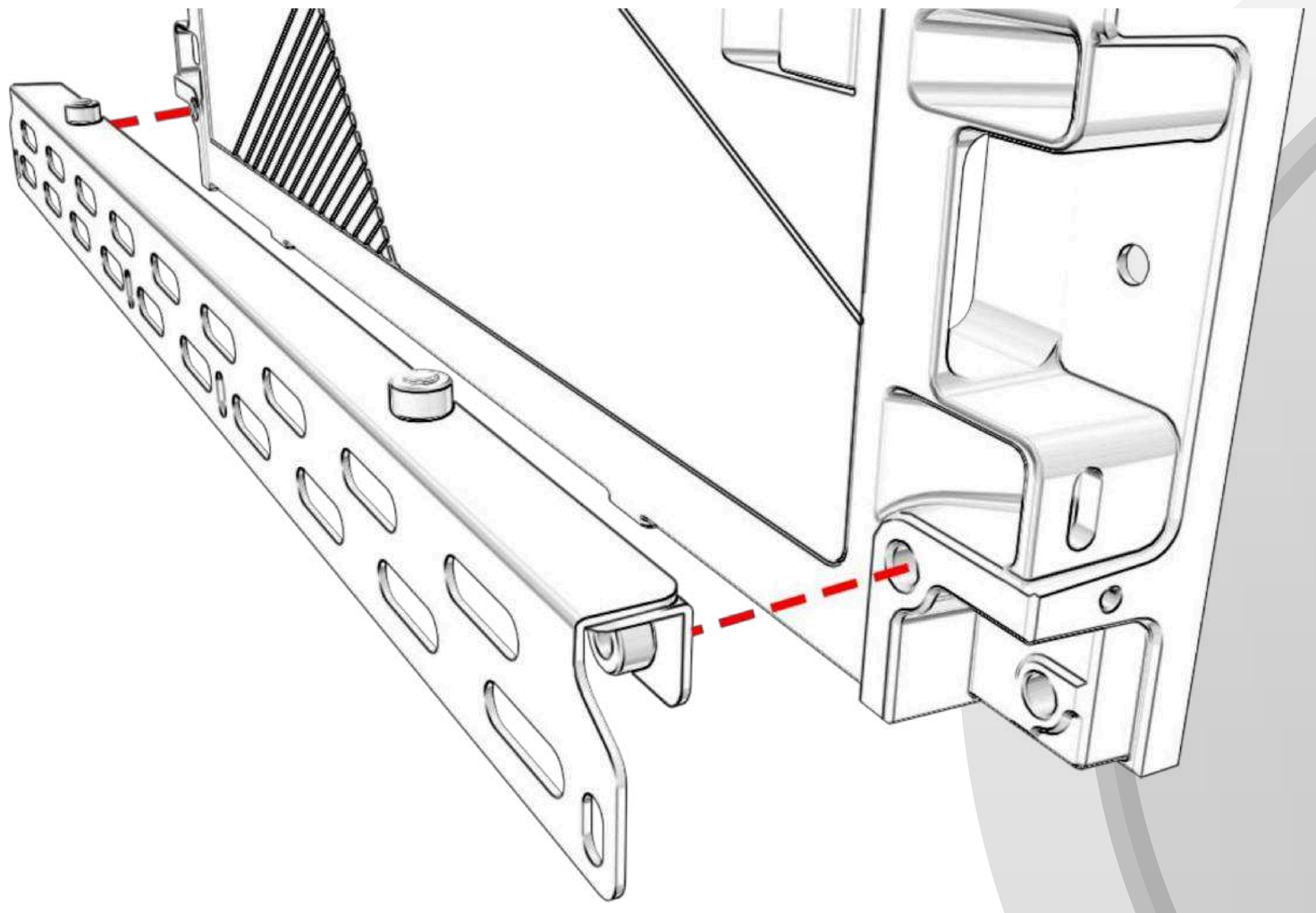
(Auxiliary line)

According to the drawings, use an instrument to find the horizontal reference line and vertical reference line on the wall or wooden board, and mark them with a marker in sequence.

2. First, remove all the modules of the cabinet with the front maintenance tool, then install the wall-mounted horizontal beam on the cabinet, and finally install it on the wall, which can minimize the possibility of misalignment and other problems.
When installing the wall-mounted horizontal beam, pay attention to the front and back and the position, align the two holes with the cabinet holes, and then use M8 hexagon socket screws to fix it. It is recommended to install two horizontal beams for a single cabinet in the first row, and the bottom one needs to be installed upside down. The specific installation is as follows:

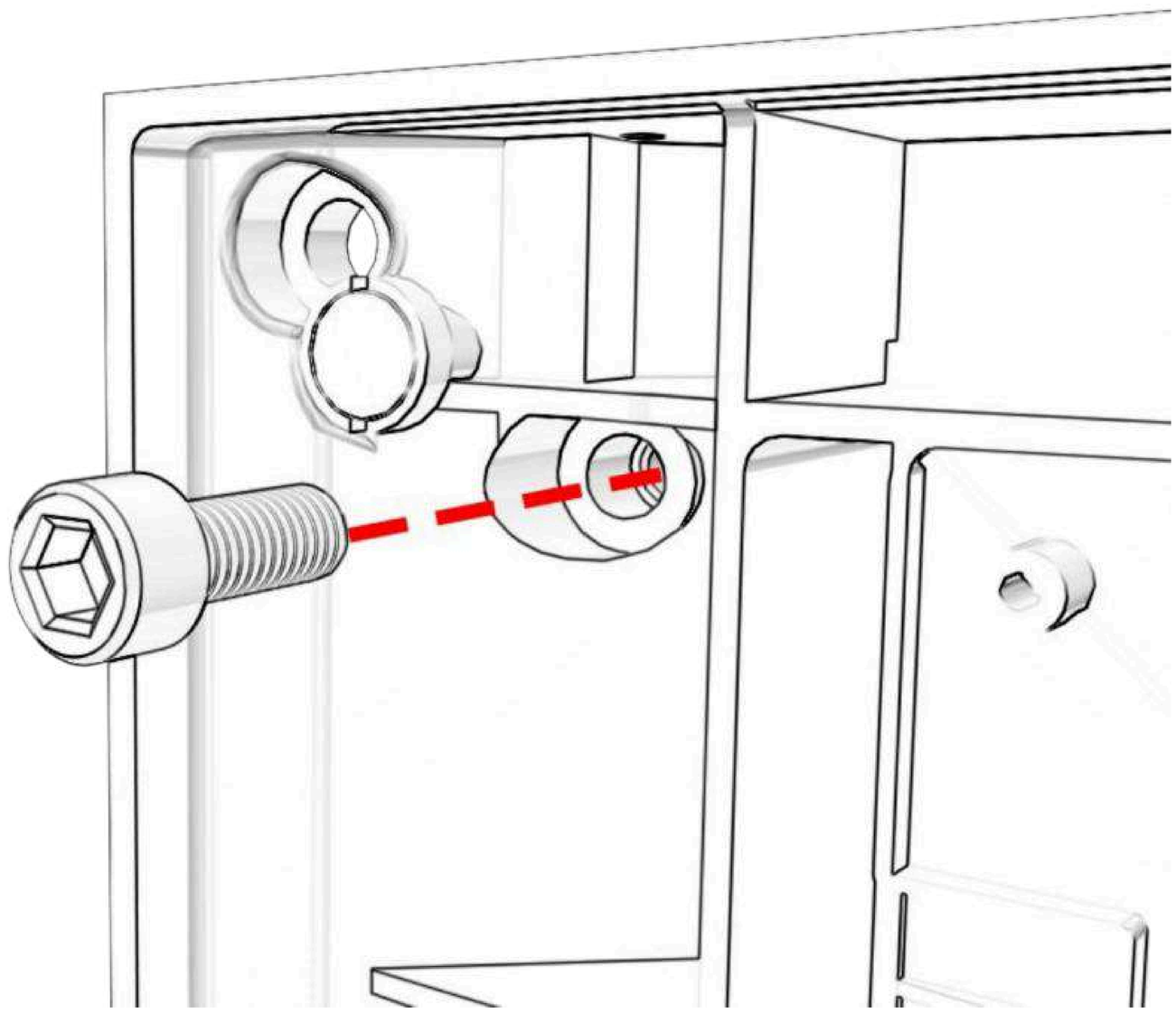


(Top of box body)



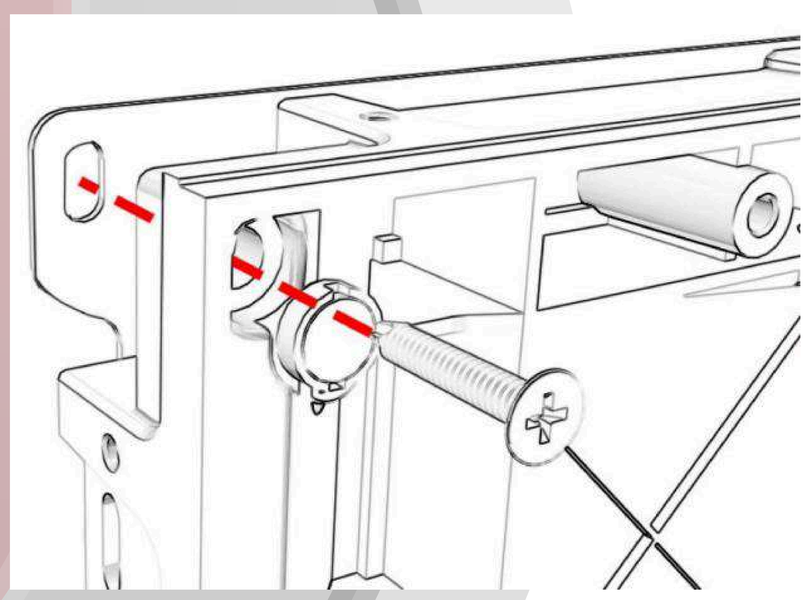
(bottom half)

M8 hexagonal screw fixed the hole position, the following figure shows the upper left corner, the other three corners have the same position.

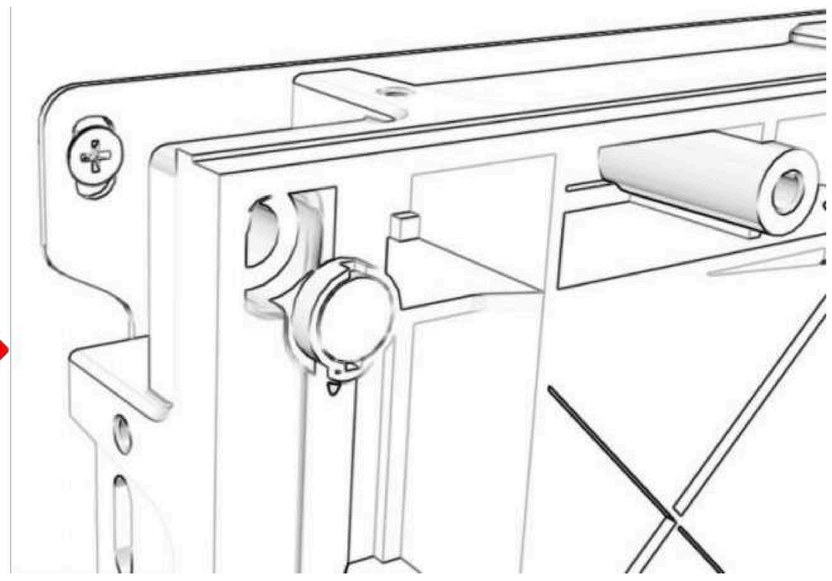


(Installation hole position)

3. Install the cabinet: According to the auxiliary line drawn in the early stage and the horizontal calibration equipment, install the cabinet on the wall. If it is a wooden wall, the cabinet can be directly installed. If it is a concrete wall, you need to mark the hole position and drill holes before installing the cabinet. The following shows the specific operation with a wooden wall as an example:
Find the marked point of the cabinet with the horizontal beam installed, pay attention to the level, and use M5 wood screws to pass through the auxiliary holes fixed by the wall-mounted installation parts at the four corners of the front of the cabinet to enter the screws for fixing. At least two screws should be fixed for one horizontal beam.

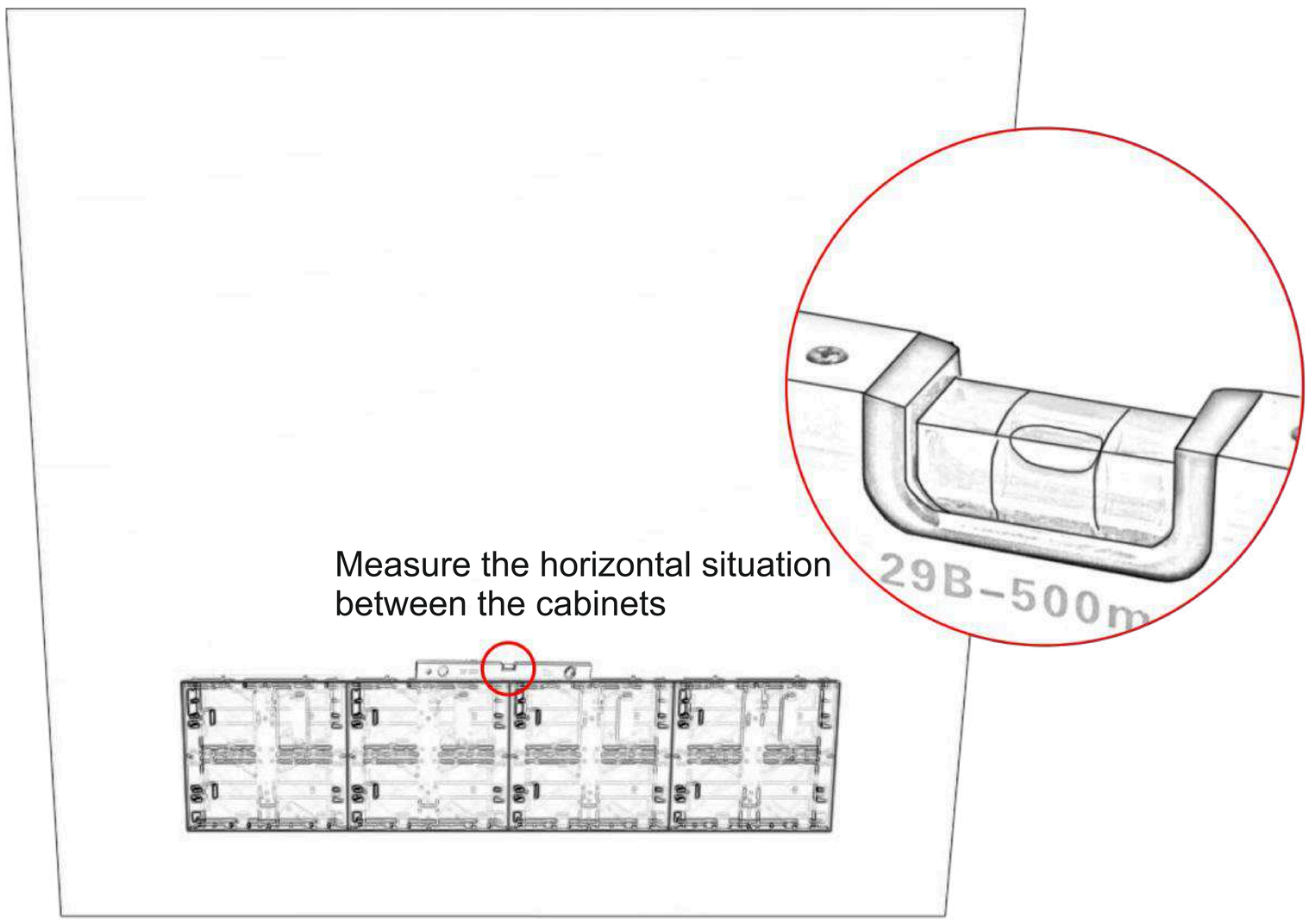


(find the hole)



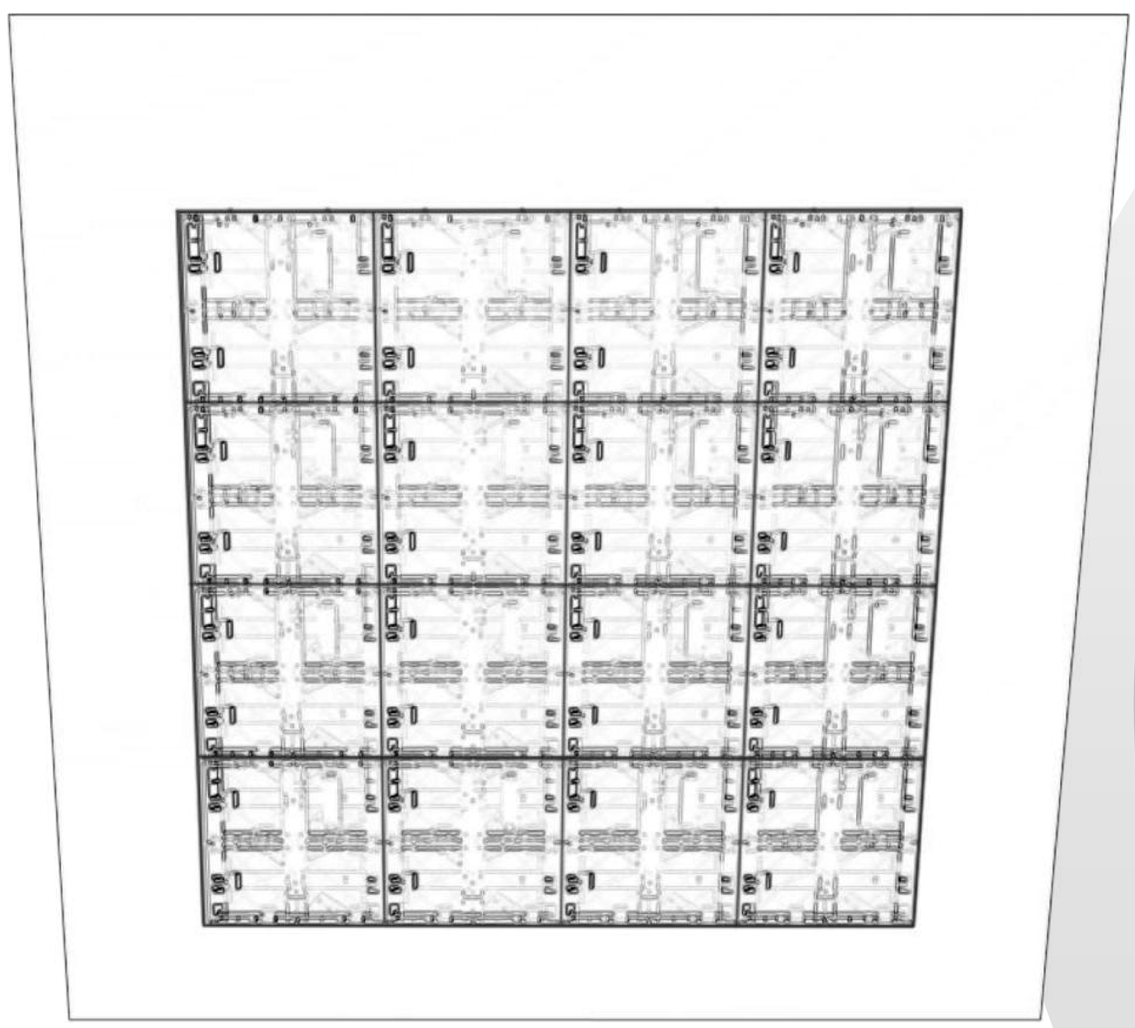
(mounting screw)

4. Install the first column of remaining boxes on the wall in turn, and pay attention to the horizontal installation, as shown in the figure below



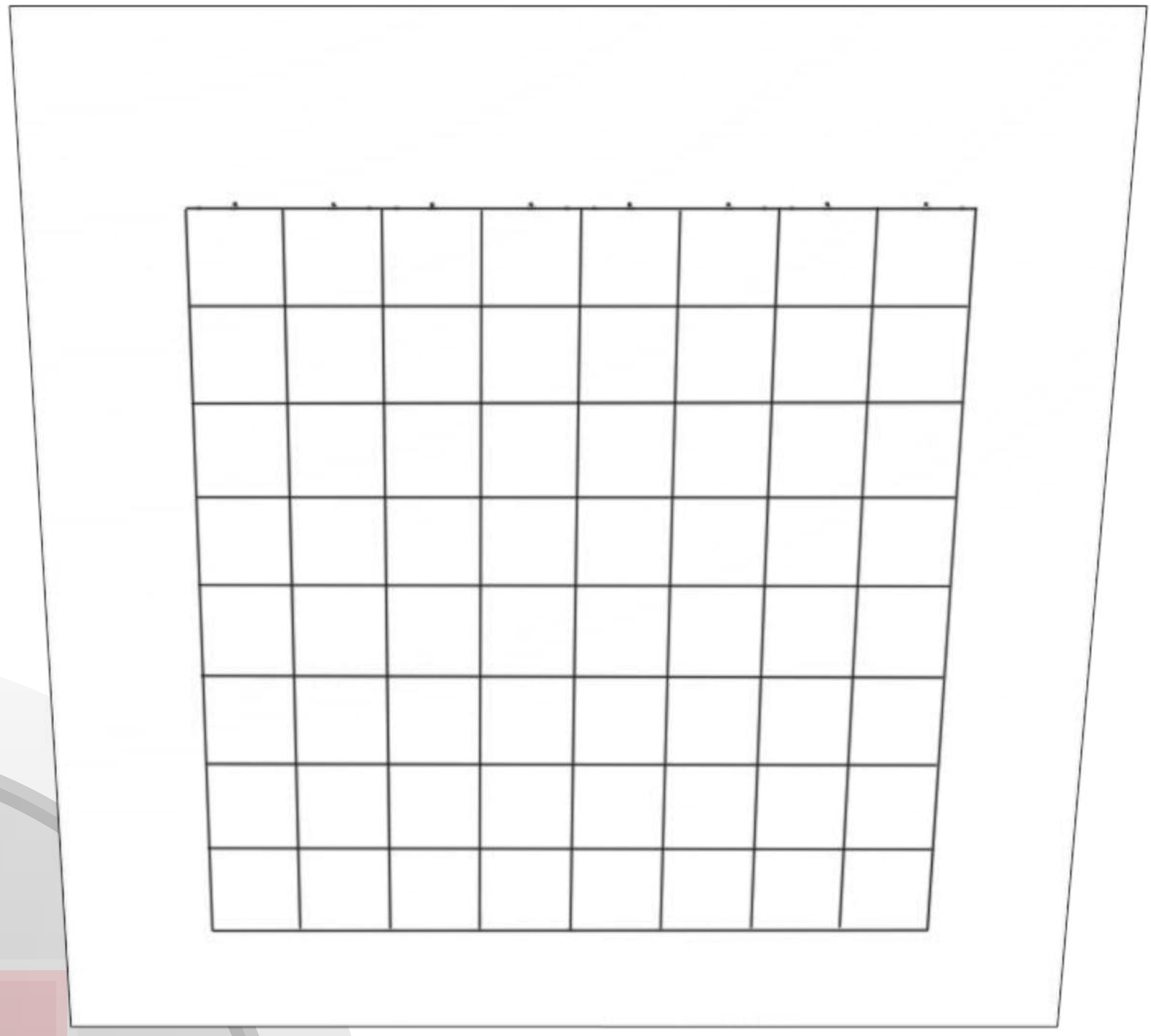
(Measurement level)

5. The remaining display unit is installed by the previous method, and start the wiring (refer to the instructions on page 15 for the wire direction). After the wiring, check that it is correct, and check whether each display unit has power supply and the signal is normal, normal and correct can be power off for the next operation.



(Installation box)

6.Finally, the module is assembled back to the display unit in turn.



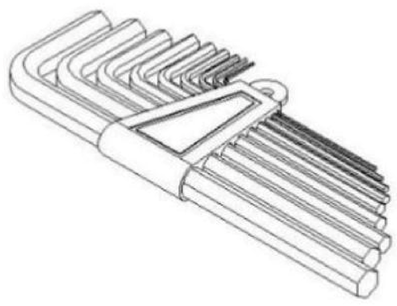
(Pit back module)

5.5 Introduction to OMNI standard hoisting installation

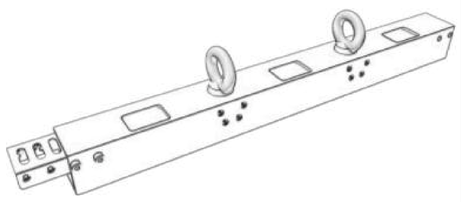
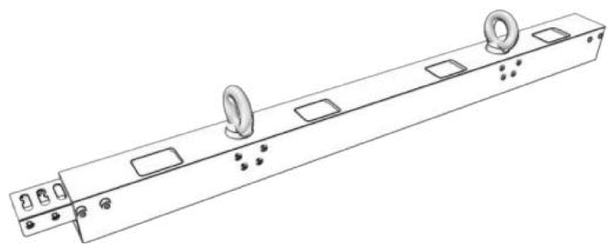
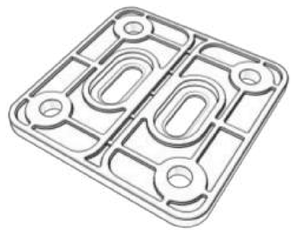
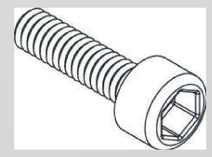
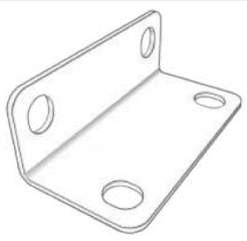
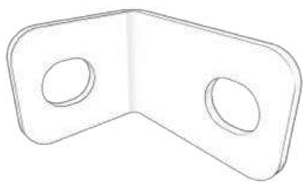
1. inventory of Accessories

Check the quantity of all necessary tools and corresponding accessories according to the project list. The following is a list of the forms of necessary tools and accessories for standard hoisting, which can be used as a reference for conventional wall mounting. The specific quantity is subject to the project list.

1 Necessary tools:

Tools form	
Tool name	Allen Wrench

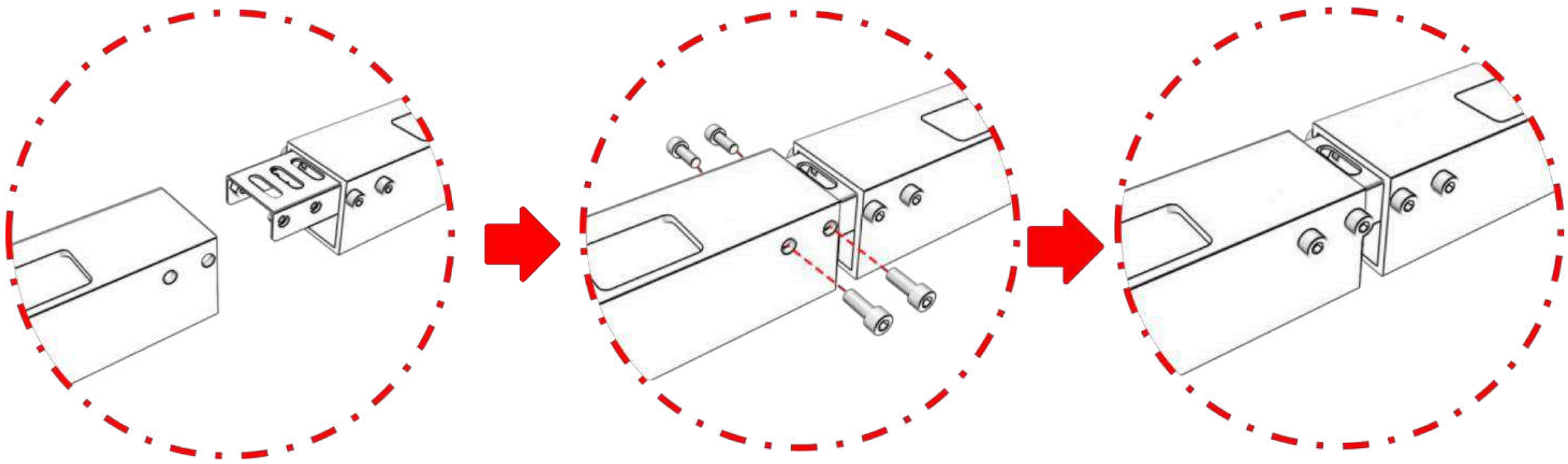
2 Standard Accessories:

Accessories form				
Accessories name	750 hanging beam	1000 hanging beam		
Accessories form				
Accessories name	Regular connection piece	Side position connection sheet	M6 inner hexagon screw	M8 inner hexagon screw
Accessories form				
Accessories name	Conventional lifting beam connecting piece	Side-position lifting beam connection plate		

5.6 OMNI standard hoisting and installation steps

The standard lifting girder of OMNI box is divided into two kinds: 0. 75 and 1 meter lifting beams, and different lifting beams are selected according to the size of the box (different sizes can be assembled at will); This installation step takes 1 meter lifting beam as an example, the specific installation is as follows:

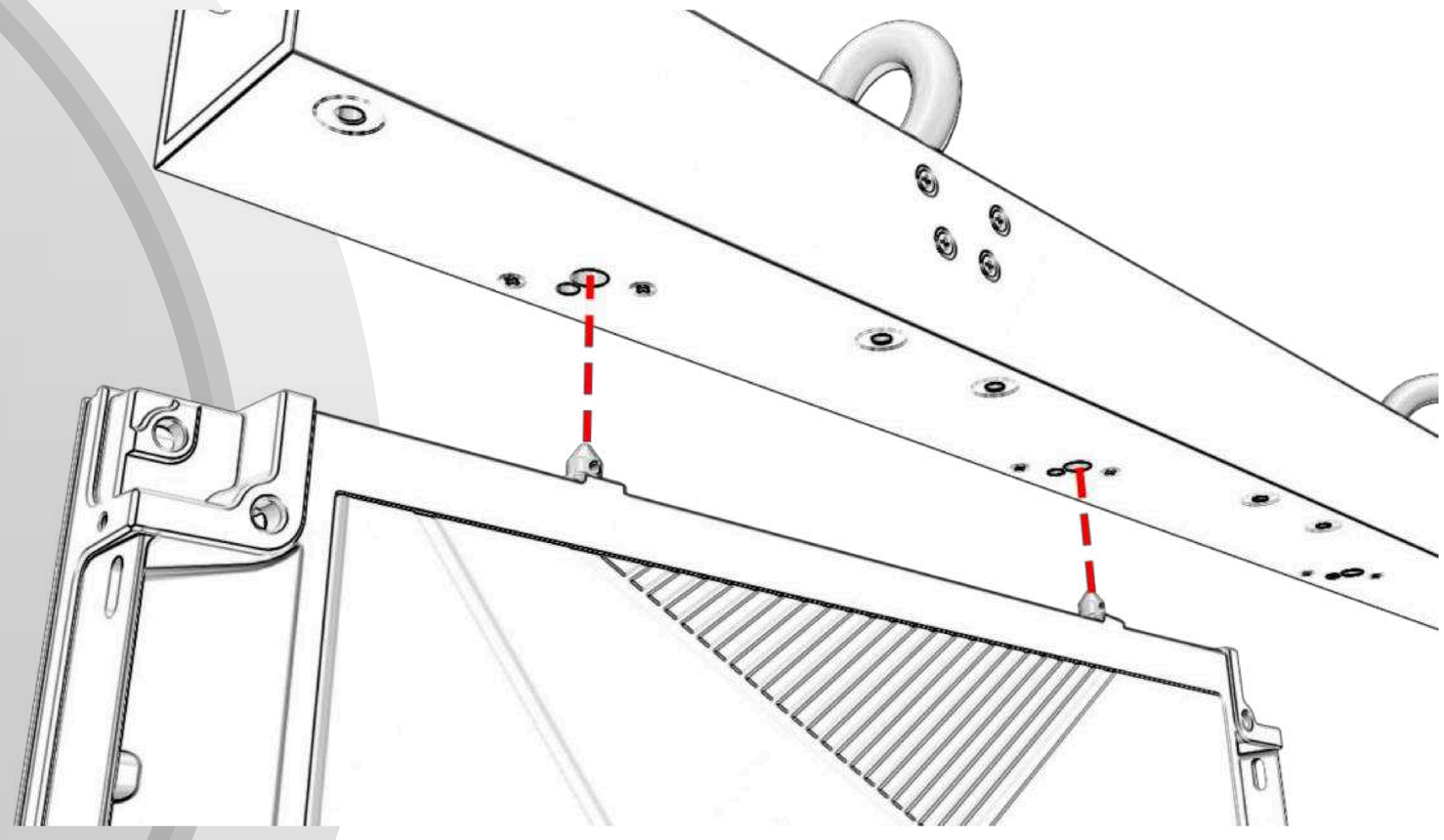
1. According to the project requirements, the hexagonal screw in M6 should be locked into the corresponding sink hole to fix the lifting beam. See the following figure:



(Splicing hanging beam)

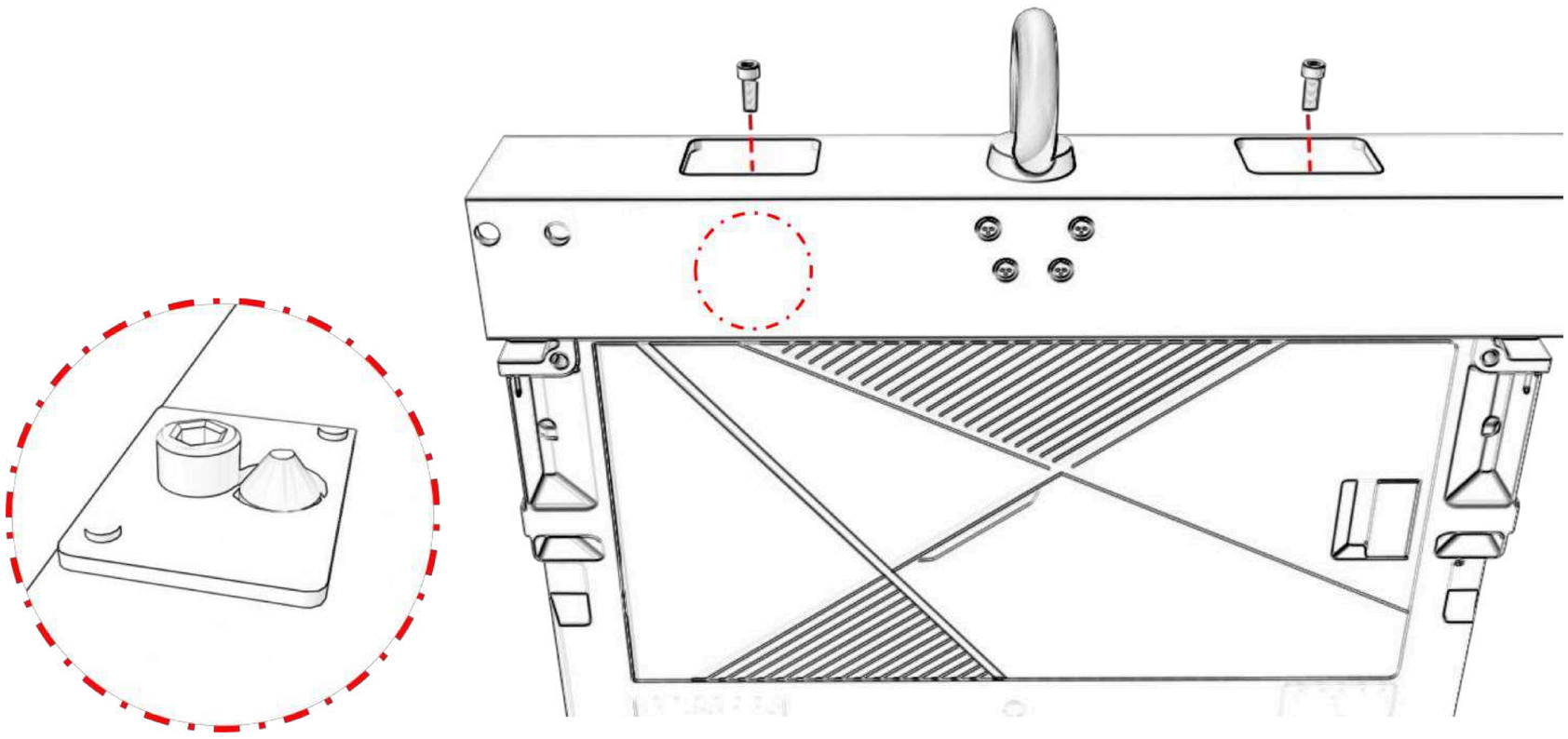
2. Splice the hanging beam, hang the assembled steel wire beam with the project calculation in the designated position of the project, the connection and construction technology of the steel wire rope should conform to the corresponding specifications;

3. After hoisting the girder, the box can be installed. First, pay attention to the positive and back positions of the box, as shown in the following figure:



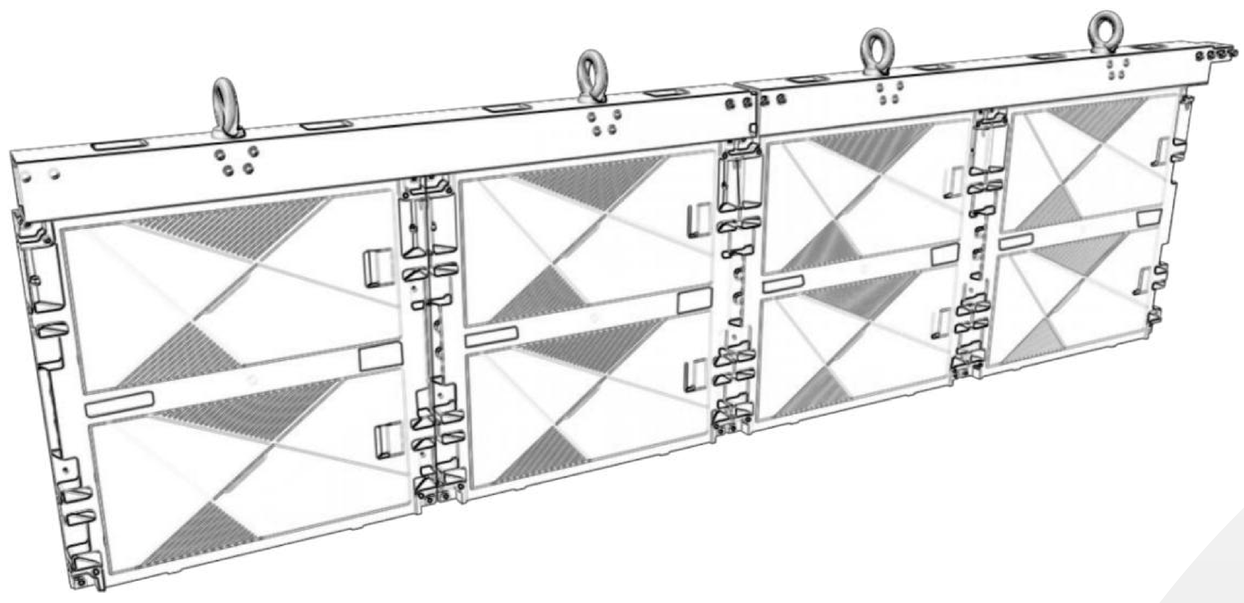
(Positioning box)

4. After installing the upper crane beam slightly, fix the box (mounted from the top of the crane beam, with the hexagonal screw in M6) as shown in the following figure:



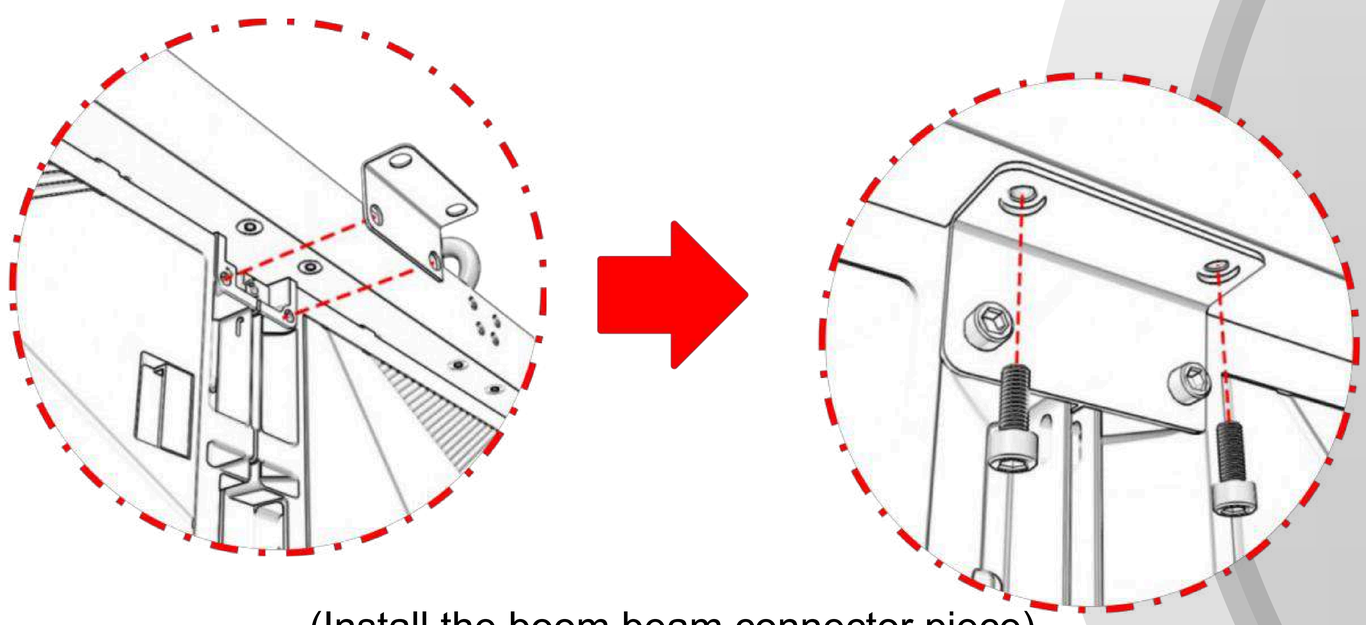
(Fixed box)

5. According to the above steps, install the first column of the remaining box.



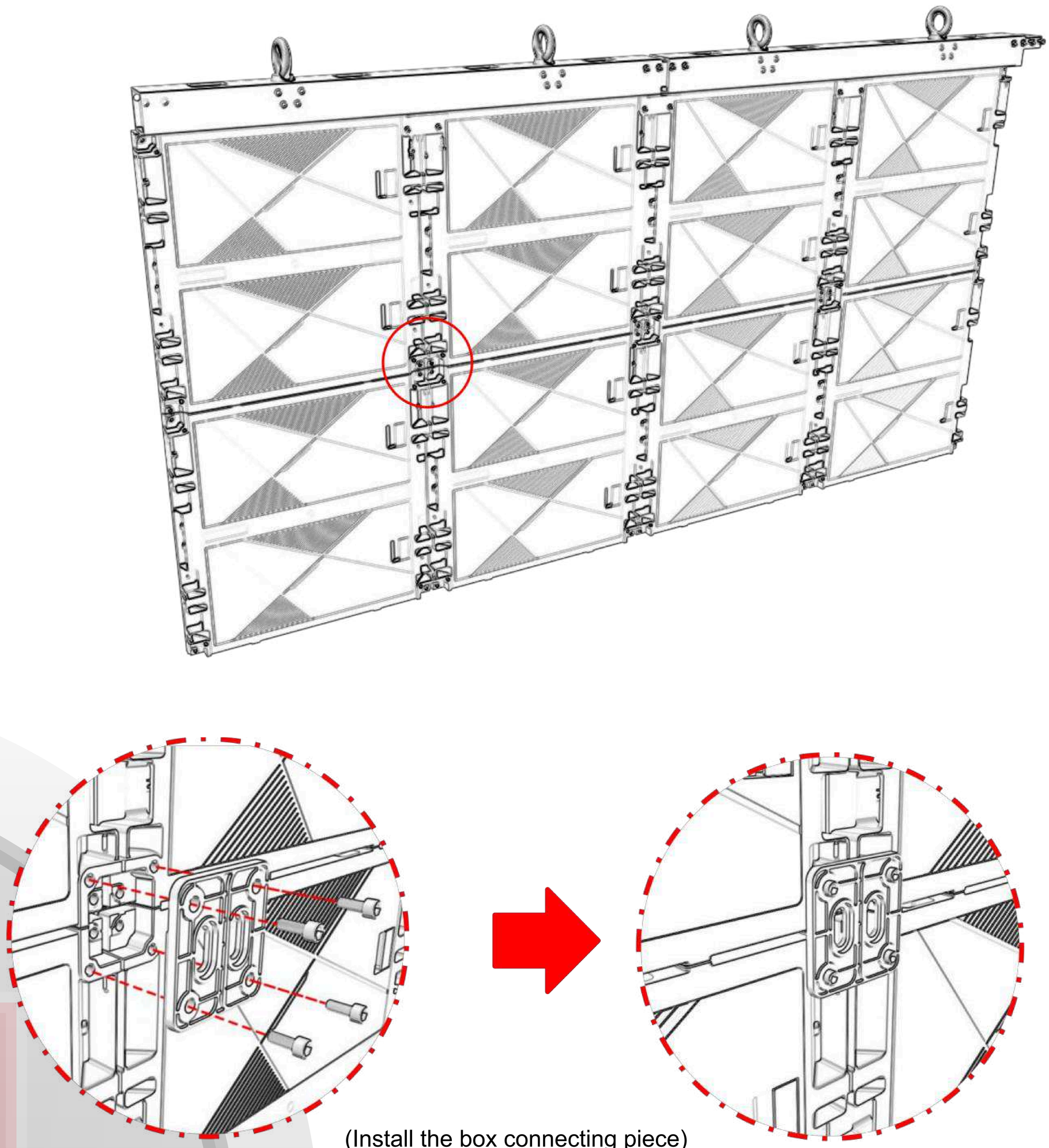
(Installation box)

6. After the first column of box is installed. The conventional lifting girder joints shall be installed with M8 inner hexagon screws at the two box connections, as shown in the following figure:



(Install the boom beam connector piece)

7. After the installation of the lifting beam connecting piece, the remaining boxes can be installed. The remaining boxes below the second column are required to fix the four adjacent boxes (using M8 inner hexagon screw), as shown in the following figure:



(Install the box connecting piece)

8. The installation sequence of the hoisting box starts from the top to both sides, and gradually installed to the lower level to complete the installation of the box.

9. Cable connection Connect the relevant cables according to the project power distri- bution system diagram and the system connection diagram.

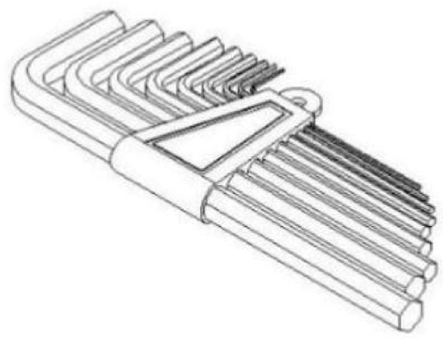
10. After electrical test with multimeter and power commissioning.

5.7 Introduction to the installation of OMNI standard mount

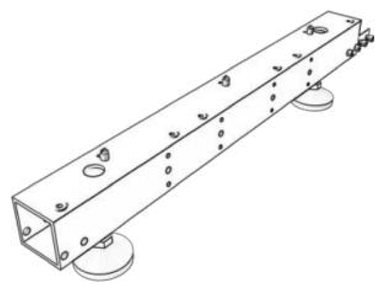
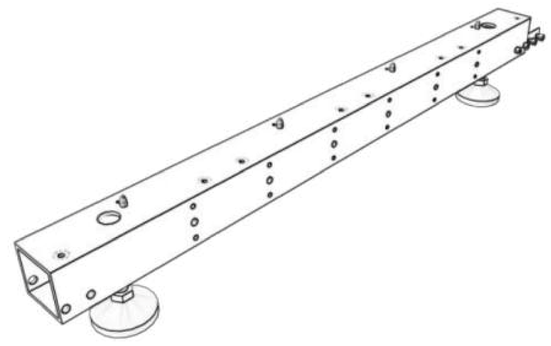
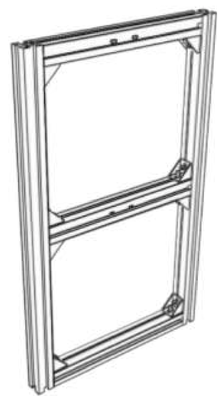
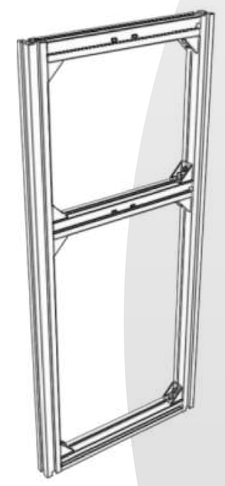
1. Accessories inventory

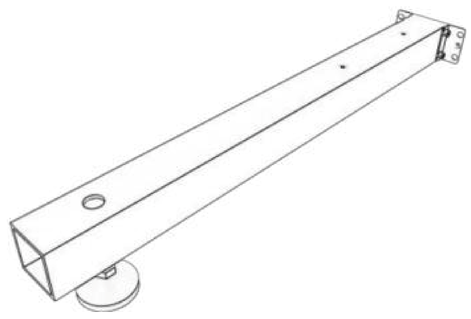
Check the quantity of all necessary tools and corresponding accessories according to the project list. The following is the form list of necessary tools and accessories for standard seats for conventional lifting reference. The specific quantity shall be subject to the project list.

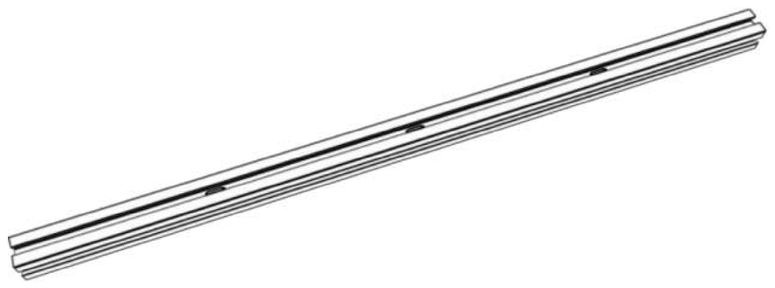
1 Essential tools:

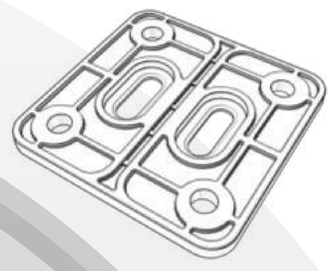
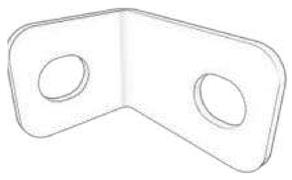
Tools form		
Tool name	Inner hexagon spanner	Monkey Wrench

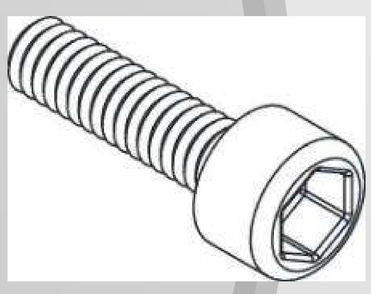
2 Standard fitting:

Accessories form		
Accessories name	750 grade beam	1000 grade beam
Accessories form		
Accessories name	750 Day word frame	1000 Day word frame

Fittings of a machine Form	
Fittings of a machine name	Back frame beam

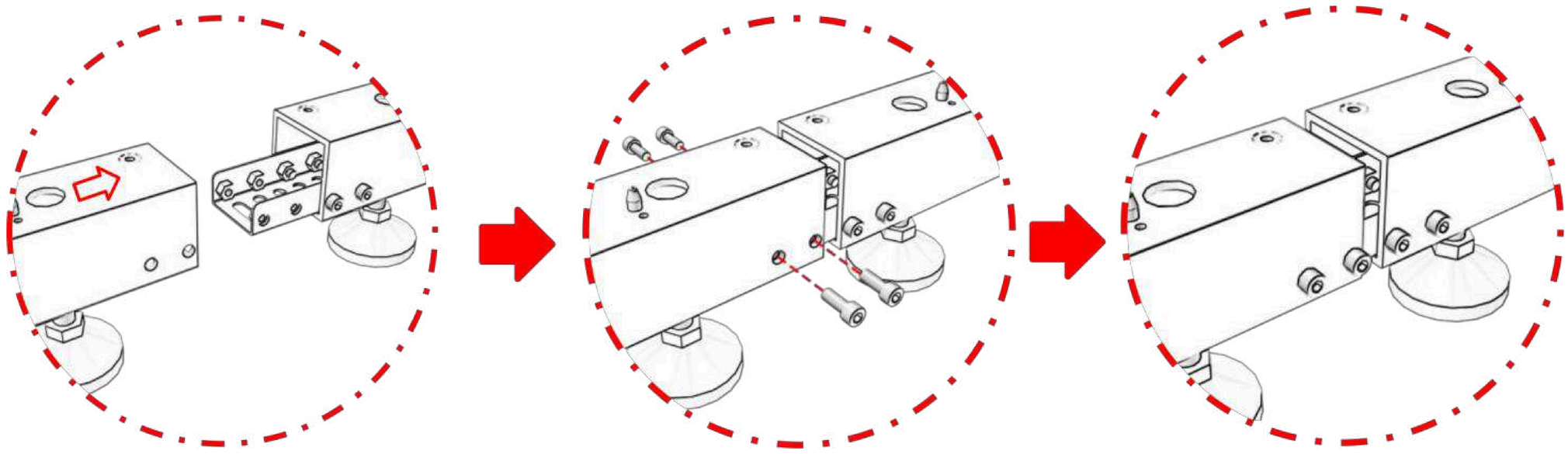
Fittings of a machine Form		
Fittings of a machine name	500 dead lever	1000 dead lever

Fittings of a machine Form				
Fittings of a machine name	Conventional connection piece	Side position connection sheet	Conventional ground beam connecting plate	Side-position ground beam connecting plate

Fittings of a machine Form			
Fittings of a machine name	M6 inner hexagon screw	M8 inner hexagon screw	M8 with a nut inner hexagon screw

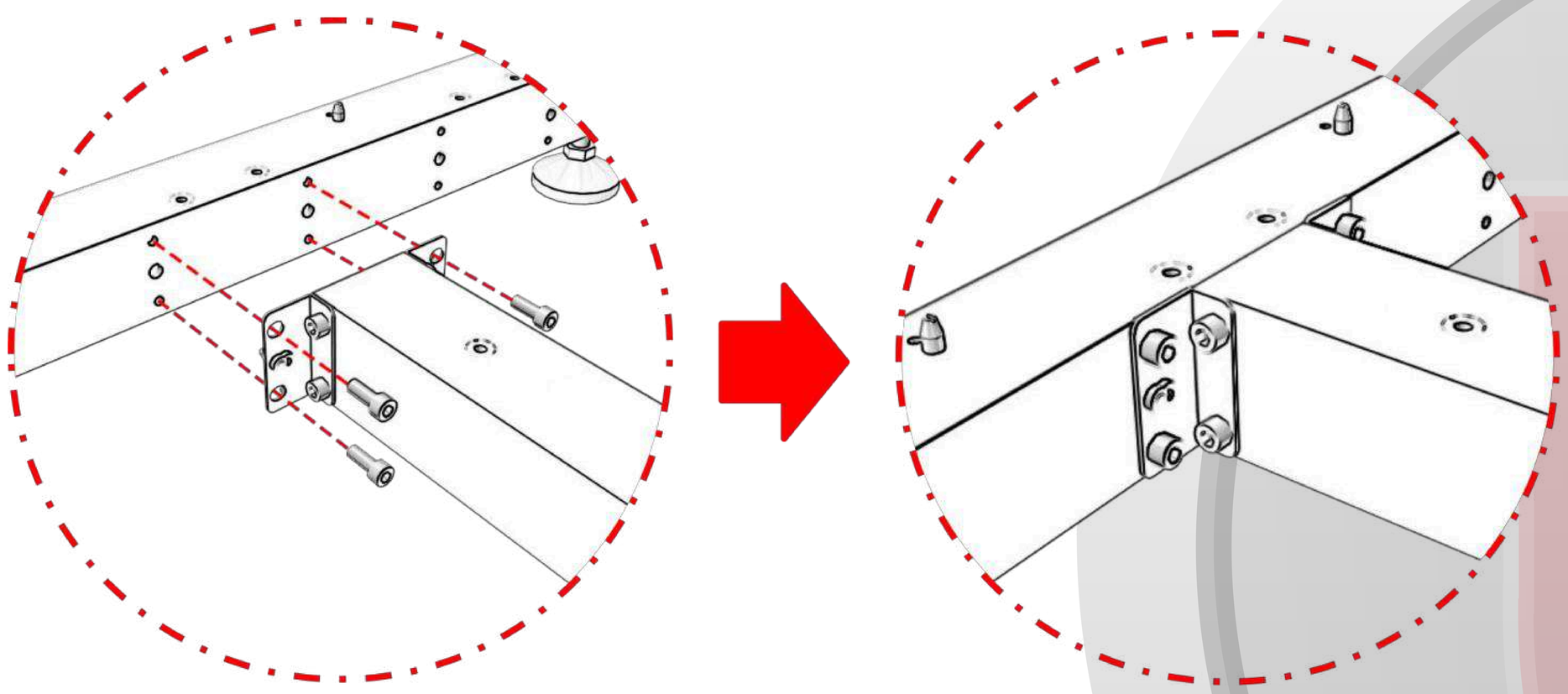
5.8OMNI standard seat mount installation steps

OMNI product standard ground beam and back beam have two sizes, which can meet various screen splicing schemes. The two lengths of ground beam are 0. 75 m and 1 m m; the two dimensions of back beam and Japanese frame are 0. 75 m and 1 m respectively. The specific installation steps are as follows:
1. Connect the ground beam, select the ground beam of corresponding length according to the project requirements. The connection of the 1 meter ground beam and 1 meter ground beam is shown in the following figure (other dimensions have the same connection mode, using M6 hexagon screw):



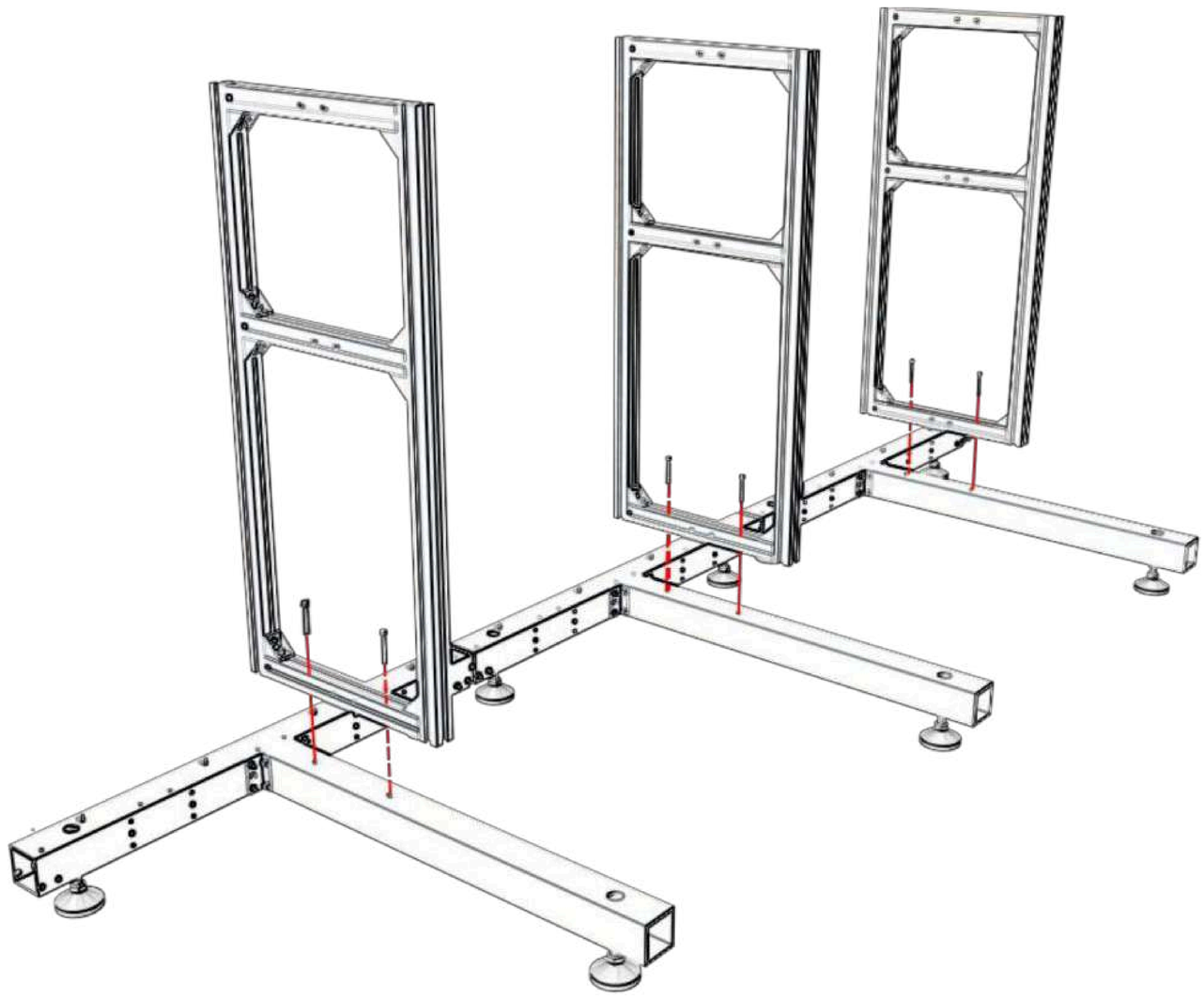
(Splicing ground beam)

2. Install the back beam, install the ground beam and then install the back beam (using M6 hexagon screw). It is recommended to install a back beam to select the installation quantity according to the weight requirements of the project and the actual situation of the site. For specific installation, please see in the following figure:

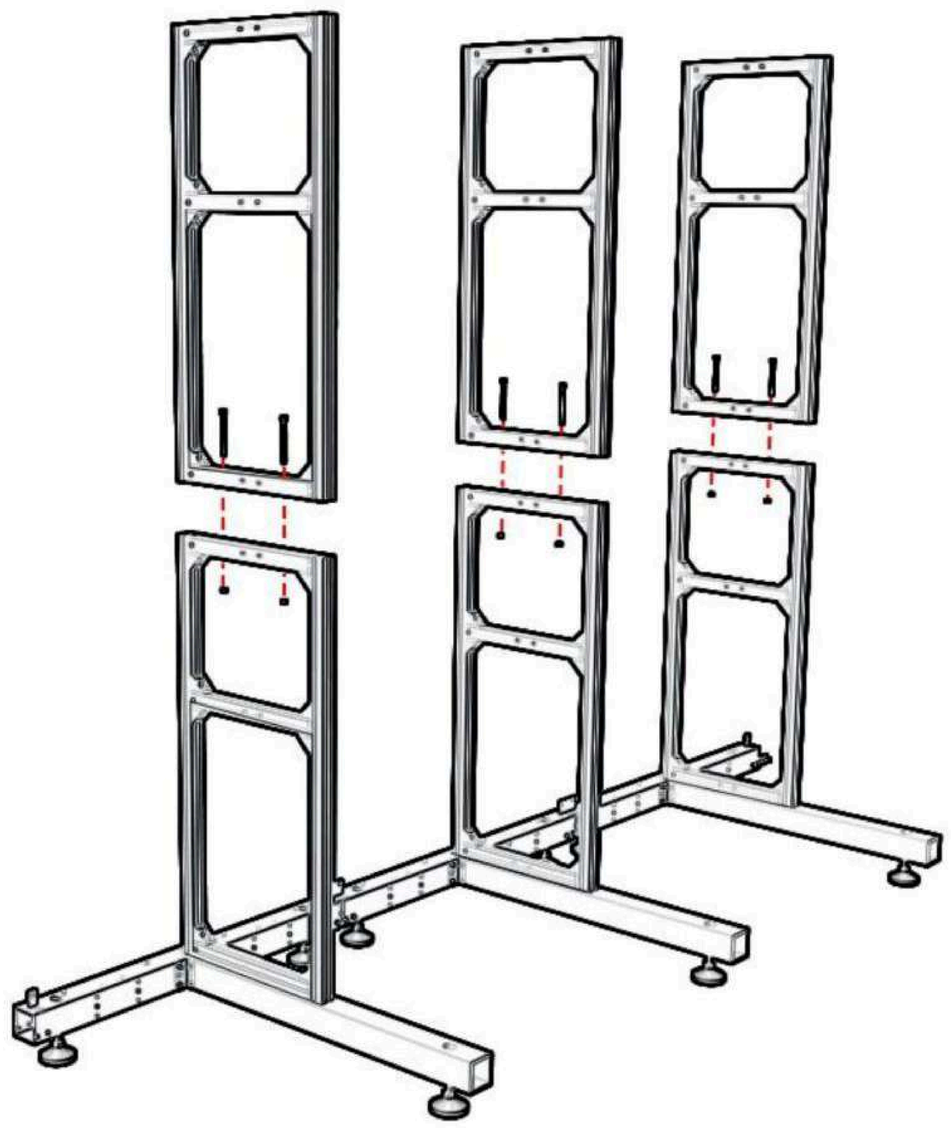


(Spliced back frame cross member)

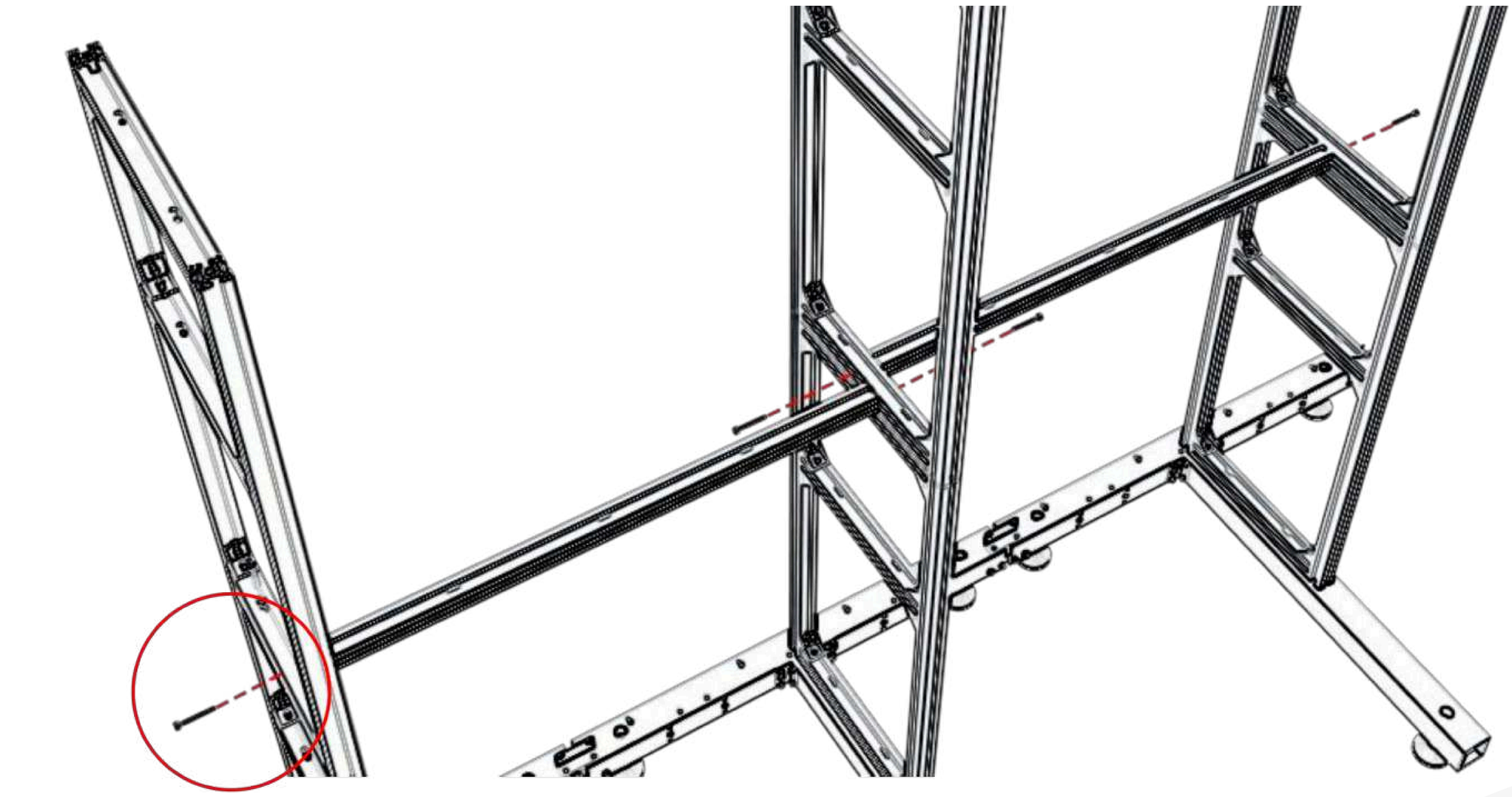
3. After installing the Japanese frame and the back beam, the Japanese frame of different sizes is selected according to the size of the project screen. The Japanese frame is fixed to the beam with M8hexagonal screws. Please see the following figure for specific installation:

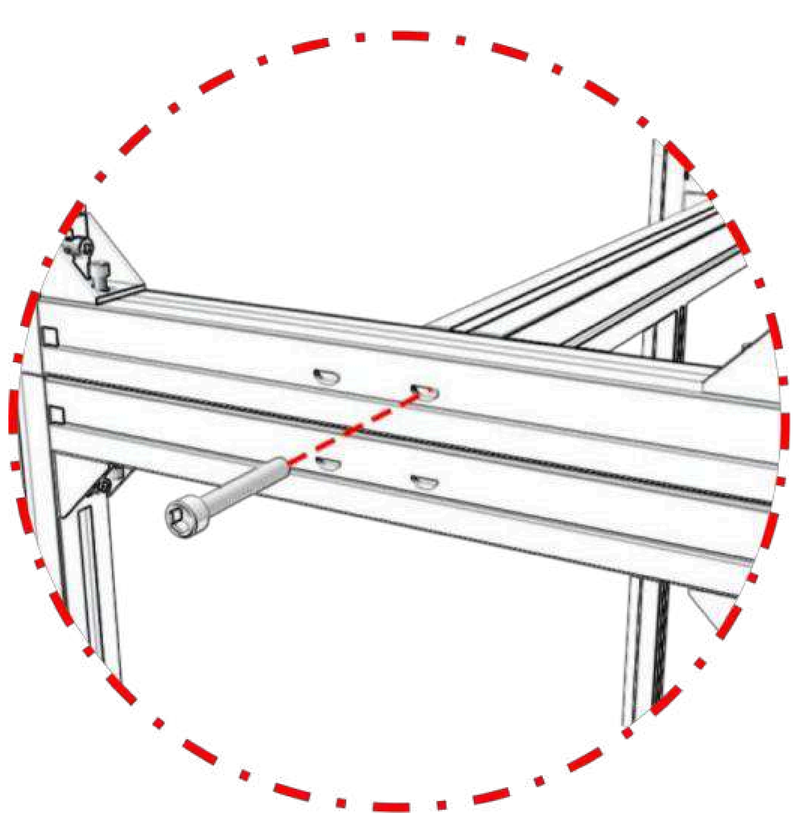


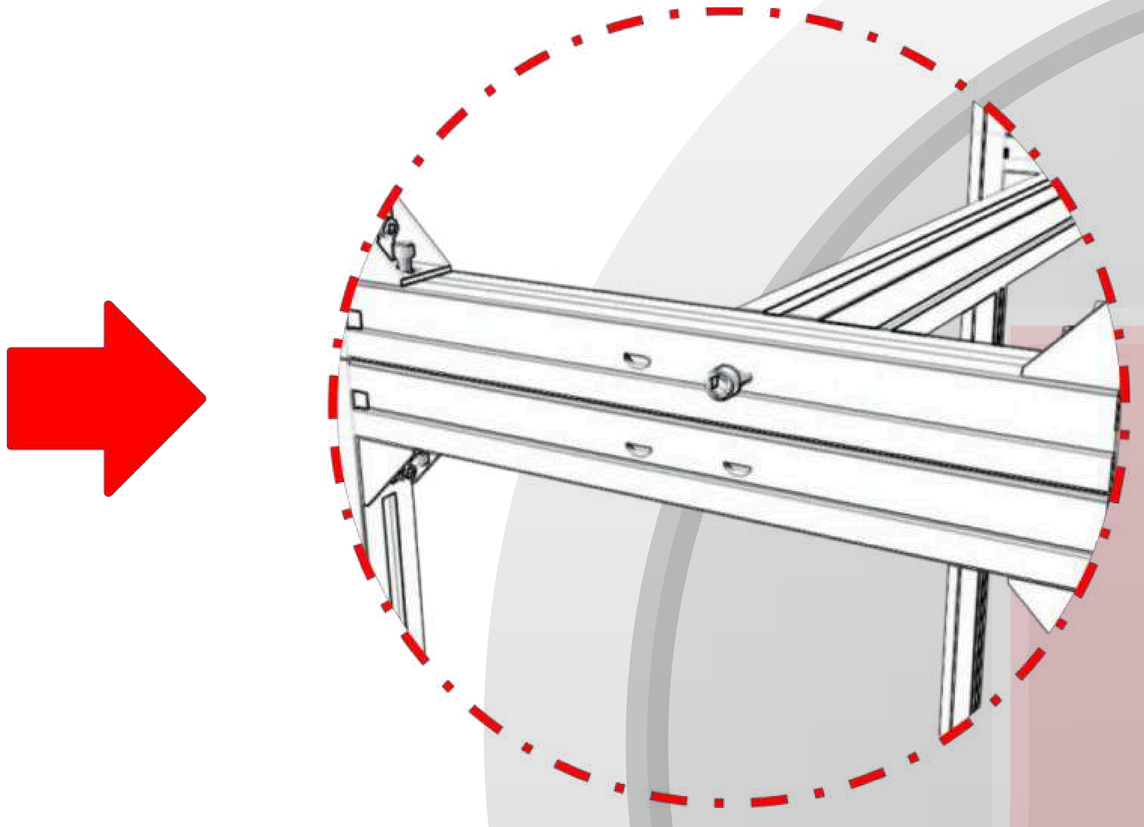
4. After installing the first row of frame frame, M8 inner hexagon screw is used to go up the frame, align the screw from the top to the bottom, and use the wrench to tighten the nut. Please see the following figure for specific installation:



5. Install the fixing rod, according to the actual demand to install the fixing rod (0.5 meters and 1 meters in length) using the M8 hexagon screw from the side mounting hole of the day character frame forinstallation, mainly used for strengthening the structure (according to the actual situation and calculationcan be added counterweight), specific installation please see the following figure:

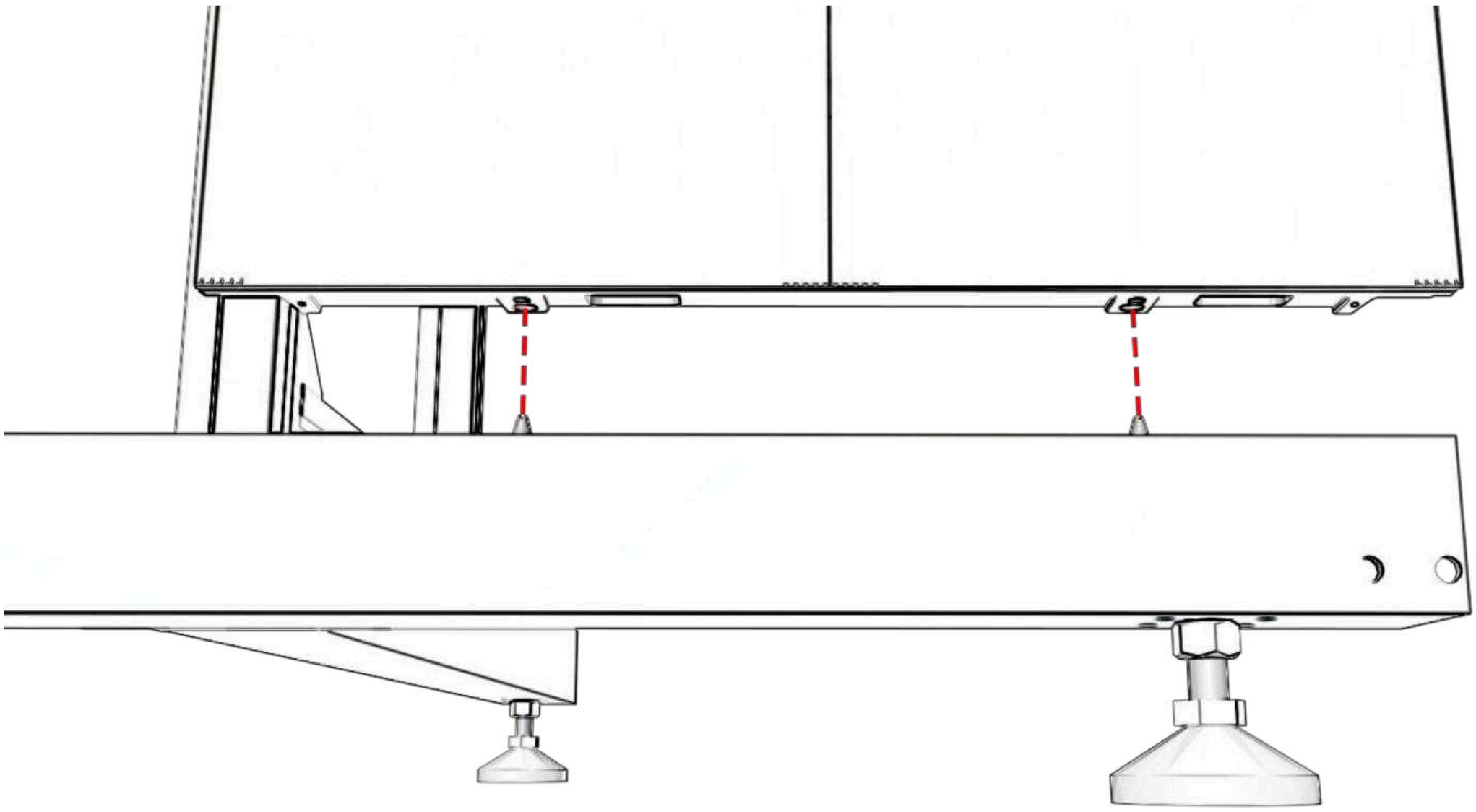






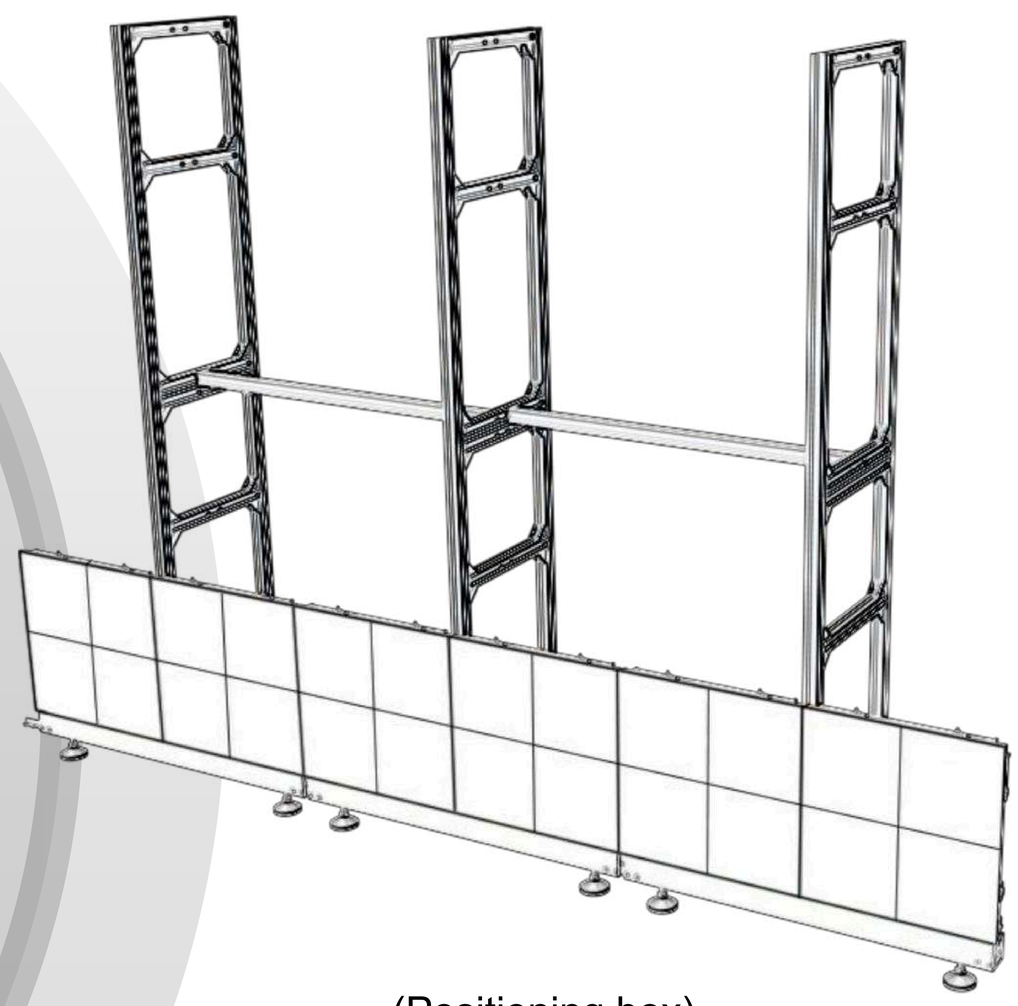
(Install the retaining rod)

6. Install the box, each ground beam will have a little position. Position the box according to the location. See the following figure for specific installation:



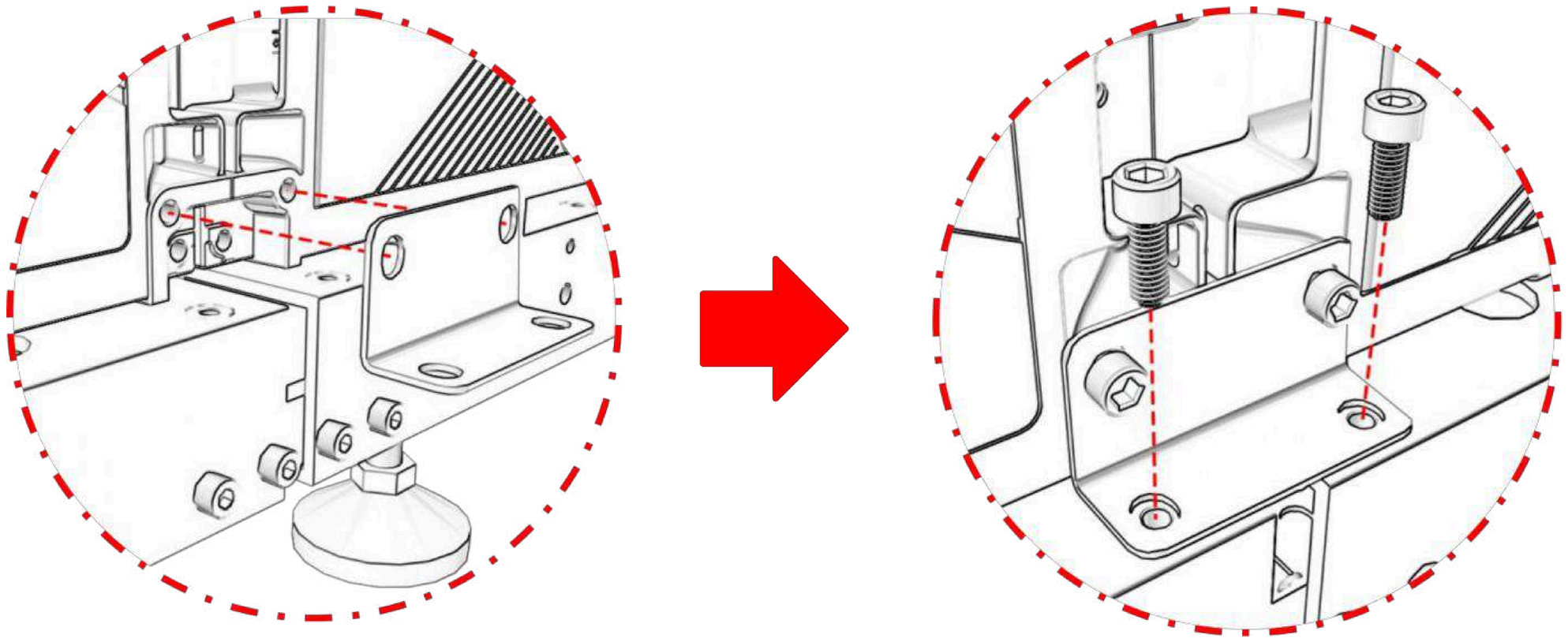
(Positioning box)

7. Install from the first row and locate a row of boxes according to the above step



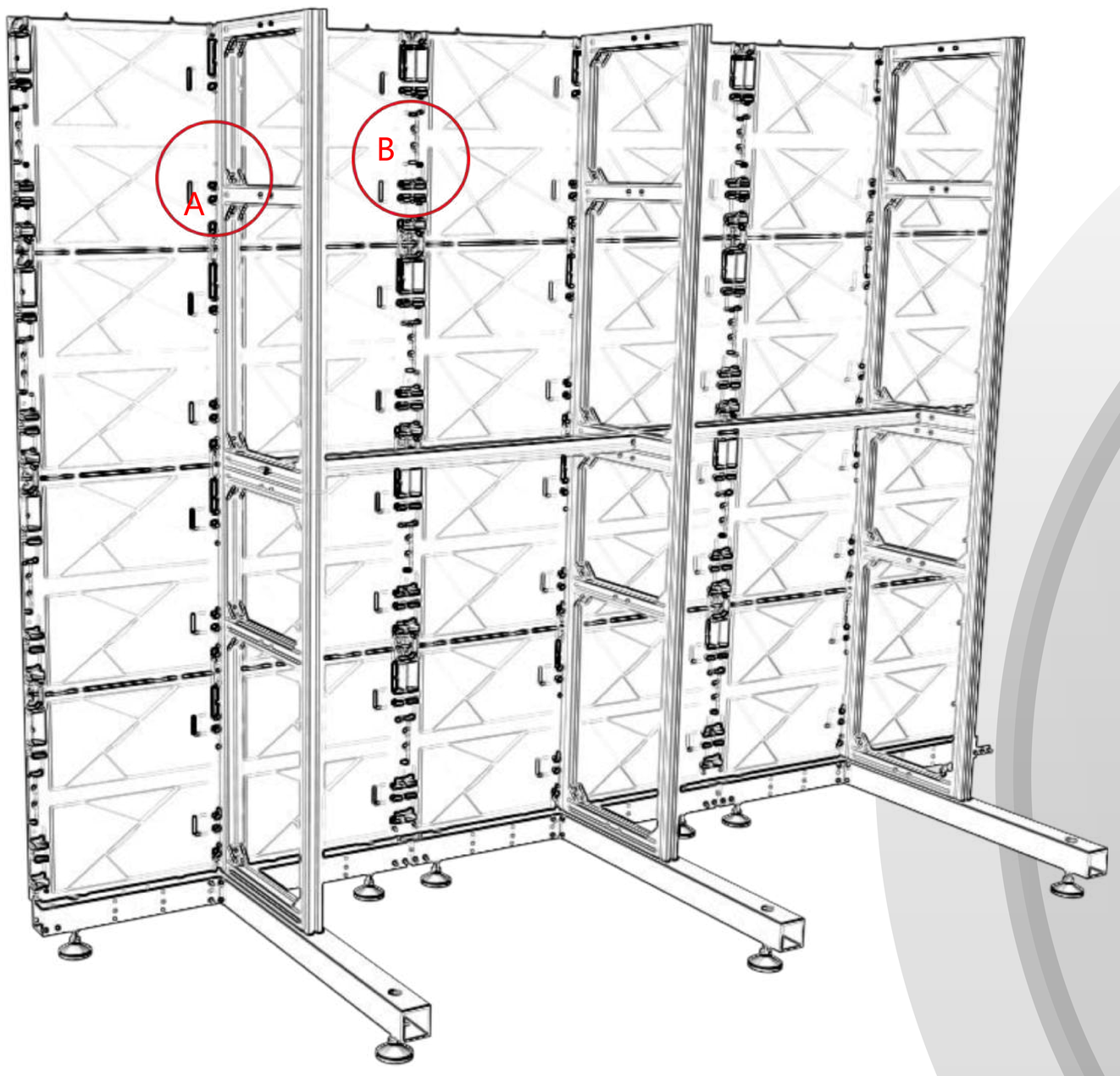
(Positioning box)

8.Fixed the box, locate the box, and then fix the box with the side box connecting plate (the groundbeam near the Japanese frame does not install the ground beam connecting plate). For specific installation, see the following figure:

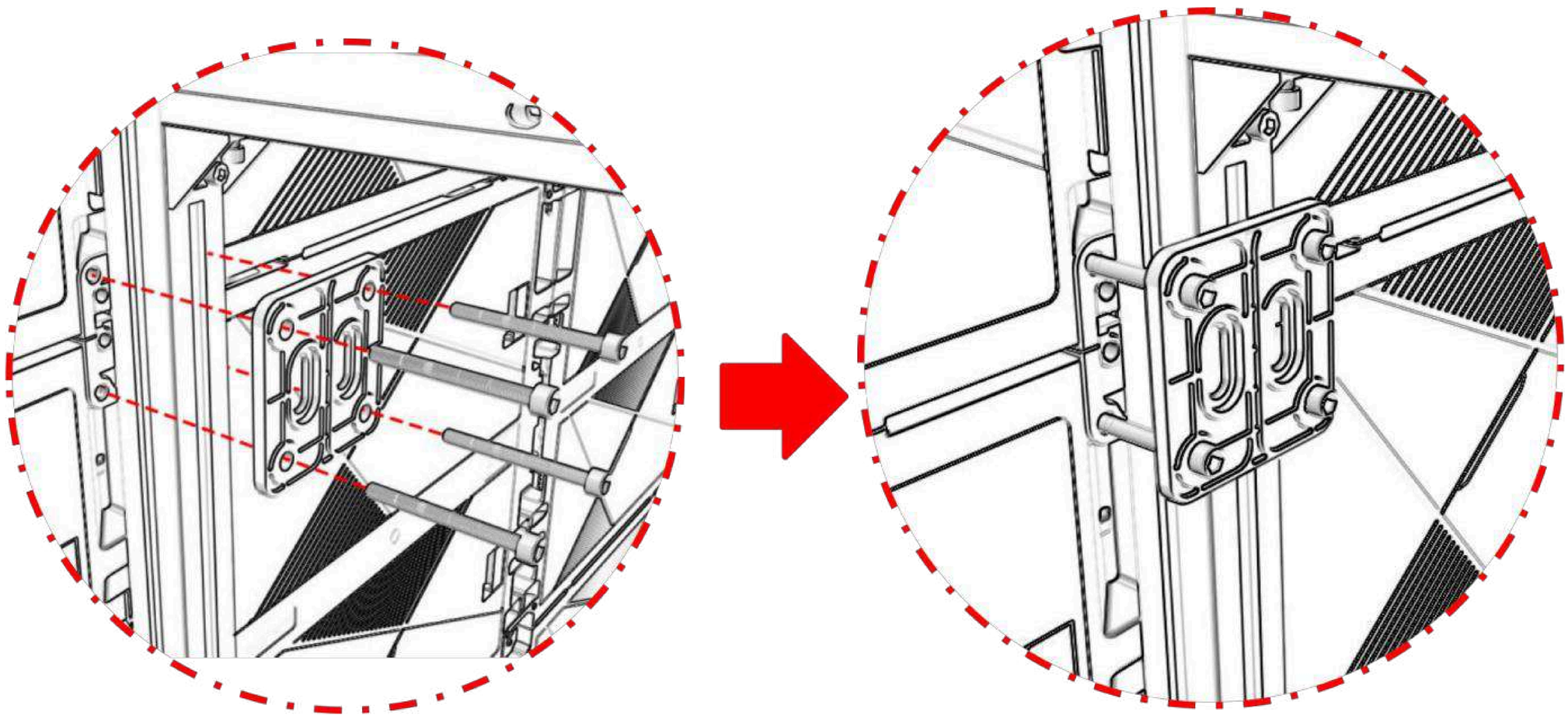


(Installation of ground beam connector piece)

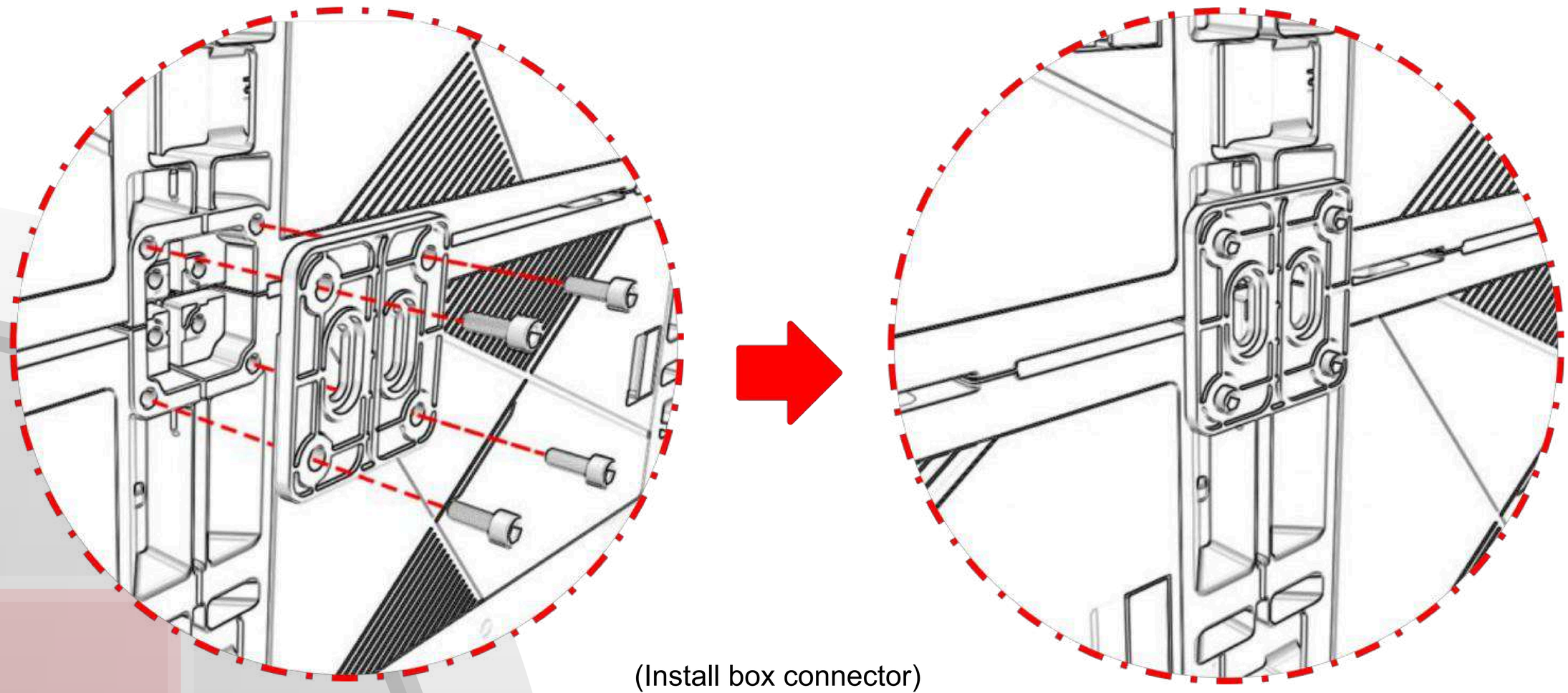
9. Fixed the box, install the remaining box after the first row box body, the connecting box isfixed between the box and the box, and the side box (the box near the Japanese frame needs to beinstalled after the frame). For specific installation, please refer to the following figure:



A. Installation of rack rear connector (with M8)



B. General connector installation (using M8 hexagonal short screw)



(Install box connector)

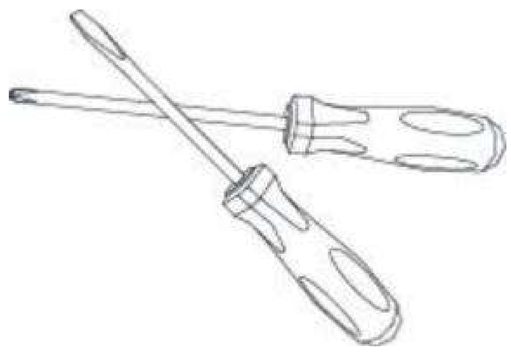
10. Cable connection Connect relevant cables according to the project distribution system diagramand system connection diagram.

11. After electrical test with multimeter and power commissioning.

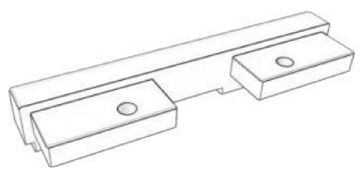
5.9 Introduction to the installation of OMNI standard package

Check the quantity of all necessary tools and corresponding accessories according to the project list. The following is the form list of the necessary tools and accessories for the reference of the package edge installation. The specific quantity is subject to the project list.

1 Essential tools:

Tools form	
Tools name	Bolt driver

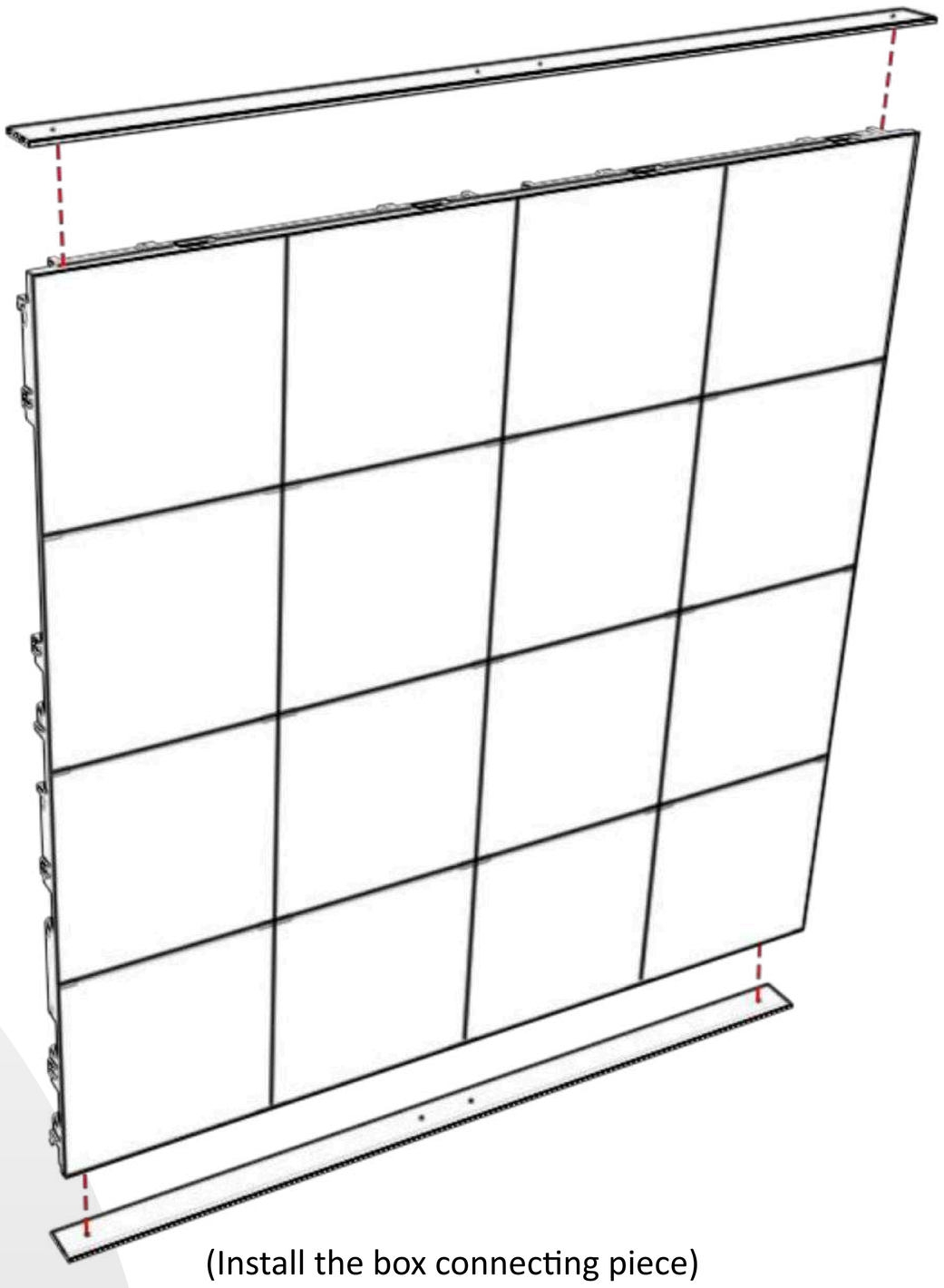
2 Standard fitting:

Accessories form		
Accessories name	On the edge of the package	Under the package edge
Accessories form		
Accessories name	Left and right package edge	
Accessories form		
Accessories name	Corner connection	M4 cross screws

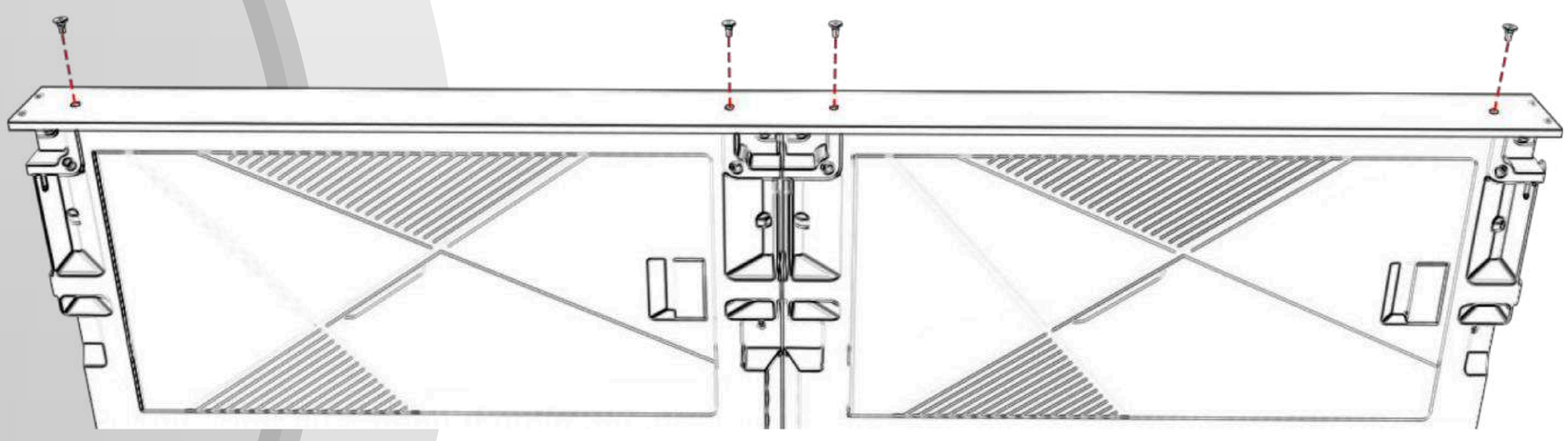
5. 10 OMNI standard package edge installation steps

OMNI product standard edges has two sizes, which can meet various screen package schemes. The two lengths are 0. 75 m and 1 m long ; they can also be customized, and the edges can be installed in any installation method. The specific installation steps are as follows:

1. Install the upper and lower edges, select the corresponding length and quantity according to the project requirements (other sizes have the same connection mode), and fix the edges to the box with M4 cross screw. See the following figure for specific installation:

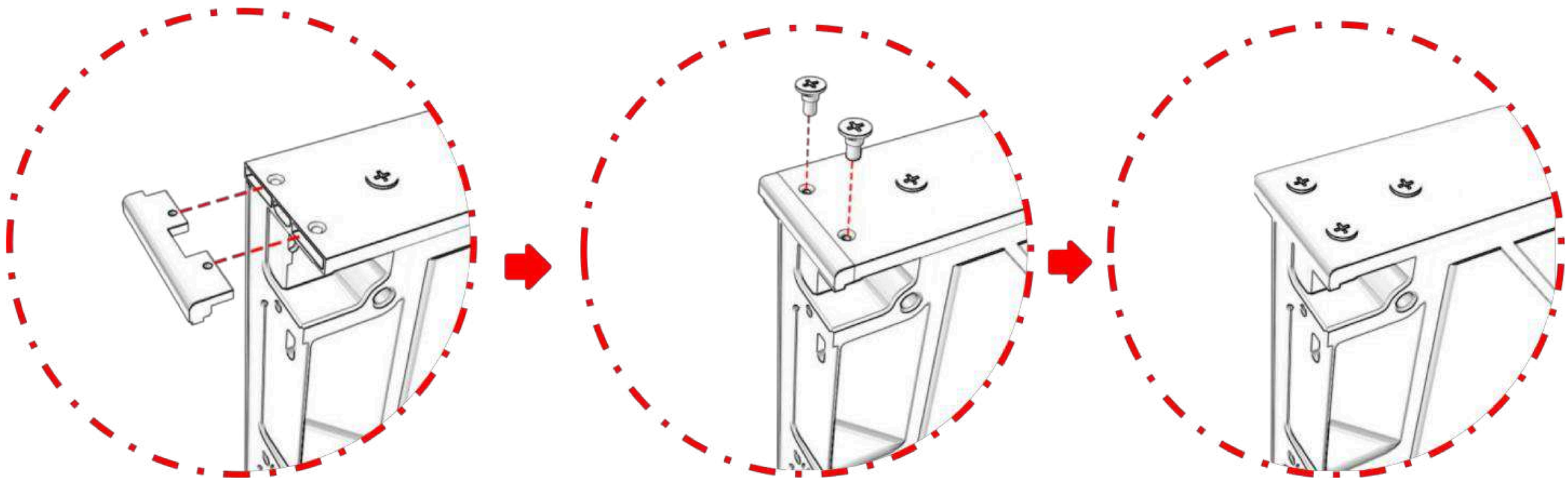


(Install the box connecting piece)



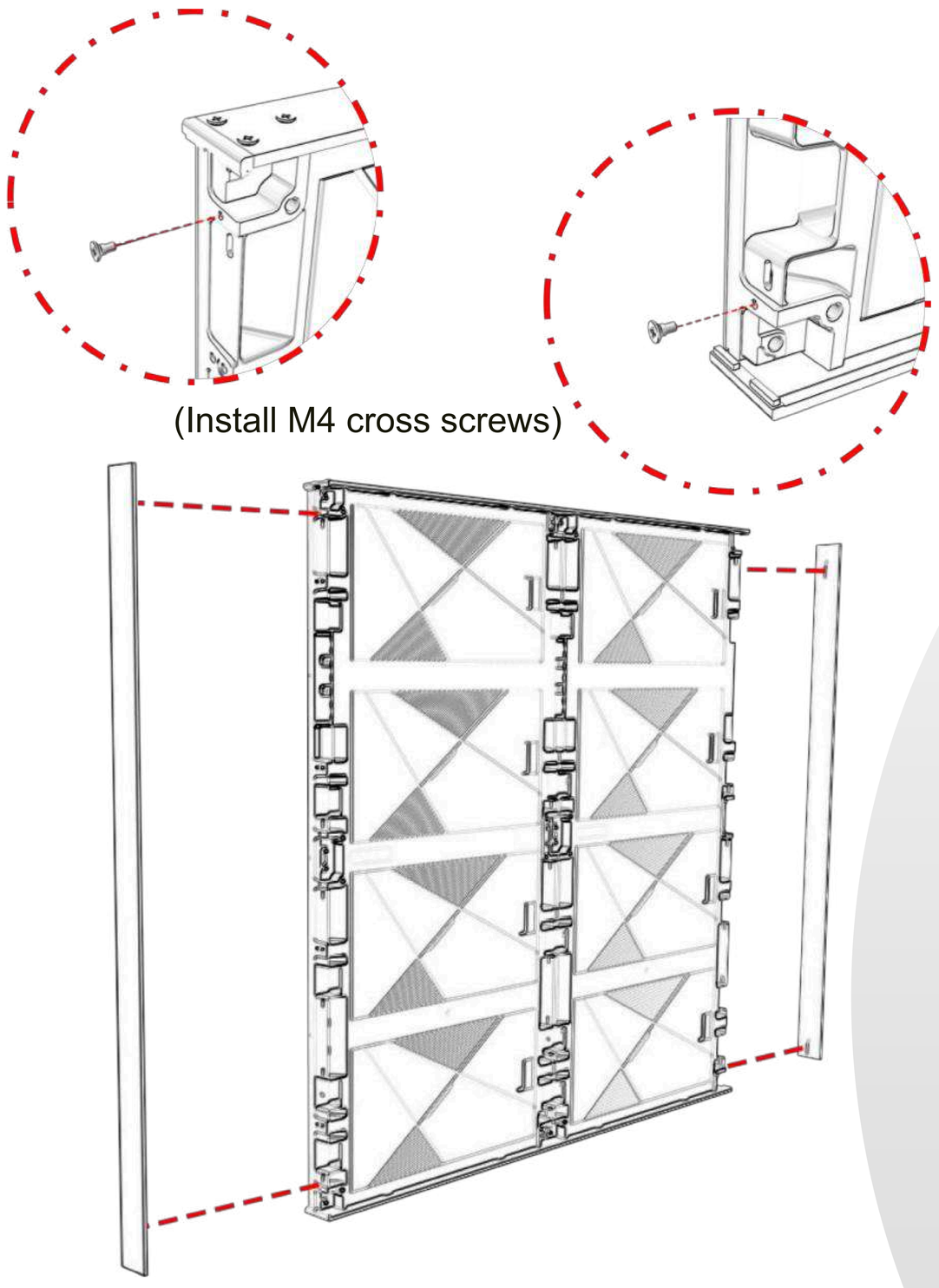
(Install M3 cross screws)

2. Install the corner connector, pay attention to the hole position, and use the M4 cross screw to install the corner connector to the corner of the package edge. Please see the following figure for details:



(Install the corner connector)

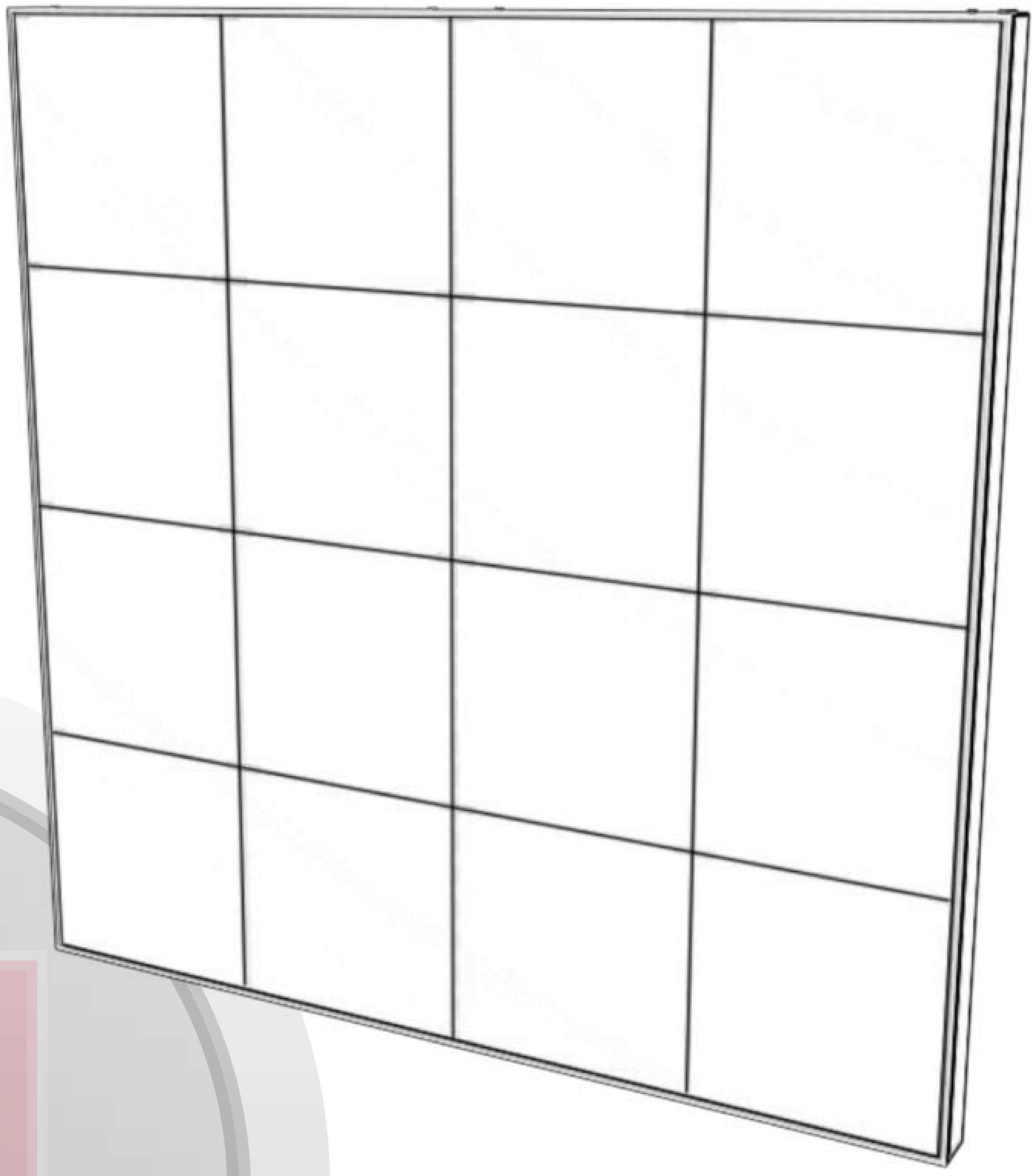
3. Before installing the left and right edges, install M4 cross screws in advance on the left and right of the box and then install the package edge (directly stuck on the edge of the screws installed in advance). See the following figure for details:



(Install M4 cross screws)

(Install the left and right sides)

4. Installation completion diagram:



Chapter 6: Common Faults And Solutions

Fault description	Description
1.The entire LED screen does not display the image	1.Whether the display screen is powered on.
	2.Whether the display screen has HDMI signal input, connect to the LCD display to check, whether it is caused by the signal transmission link failure.
	3.Whether the brightness setting of the display control soft- ware is normal.
2.Some LED screens do not display images	1.Do not show whether the display power supply of the image part is normal, including the input power supply and the switching power supply.
	2.If no abnormality is found in the first step, then the power switch in the opposite area is restarted, and the power interval is not less than 1 minute. When the power is reactivated, the display unit may solve the problem.
	3.Displays the unit cascade cable transmission issues.
	4.If the display unit image of the replacement control panel cannot be connected to the periphery, the corresponding address coordinate and brightness color value should be set by the software.
3.Some LED screen images flicker	1.Display unit cascade signal transmission issues. Try to replace the cascade signal cable or control panel, if the display unit image of the replacement control panel cannot be connected to the periphery, the corresponding address coordinate and brightness color value should be set by the soft- ware.
	2.Input the signal problem, connect to the LCD display to check.
	3.The processor resolution exceeds the maximum sending card resolution
	4.Screen power supply problem
4.The LED display module is not properly displayed often, all or part of the module is missing color, long bright, in the out of control or half out of control state	1.Display unit is not initialized properly, restart the power supply in the area, the time interval is not less than 1 Minutes, sometimes it can take 2-3 times to eliminate the problem.
	2.If step 1 is not solved, the preliminary judgment may be caused by the poor contact between the LED module and the control board, and they can be re-plugged to solve the poor physical contact problem.
	3.If the above two steps problems still exist, it may be the LED module or control board circuit, the LED module or control board can be replaced to solve the problem, making it consistent with the color of the leveling image.
	4.Setting the box resolution is inconsistent with the actual resolution
5.Video window image is incomplete	1. Connect the LCD monitor to check the signal input or output of the video processor.
	2.Check whether the input signal resolution is consistent with setting the already saved resolution.
	3.Check if the video processor is set correctly.
6.No sending card was detected	1.The equipment is not in normal power supply
	2.Serial port line or computer USB interface damage
	3.The serial port is occupied by the other software
	4. Serial port drive computer is not installed

When an abnormality occurs on the LED display, it is necessary to analyze the problem based on experience and a comprehensive analysis of different situations to determine which part of the display has the problem. If it is finally determined that it is a problem with a certain component in the display unit, it is recommended to directly replace it onsite. For example, LED light board modules, power supplies, or LED control boards, etc. After replacing the LED module, you need to use the software to read back the data to the LED control board. After replacing the LED control board, you need to make software settings. See the software operation guide section for details.