



Xtra Series LED Screen
User Manual

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CAUTION

Warning: This is a CALSS A-level product. In the living environment, this product may cause radio interference. In this case, the user may be required to take practical actions for the interference.



Caution 1

In order to avoid any physical damage, please read carefully the User Manual before connecting the switches.

1. LED screen should only be operated by trained professionals.
2. Do not expose any part of the LED screen to naked flame/smoke.
3. Personnel operating the LED screen are advised to wear a safety helmet during operation.
4. Check all the AC power is connected before turning on the switch.
5. Turn off all switches of the LED screen, computer terminals, system box and monitors before performing any maintenance work.
6. Do not touch the power supply when the switch is turned on.
7. Indoor LED screen is strictly prohibited from being used in outdoor working environments;
8. Indoor screen should be equipped with air conditioner when there is no one or indoor ambient temperature is higher than 30°C;
9. When indoor screens are not used for a long time, they must be powered on regularly for testing (regular power-on testing standard: at least 2 hours of power-on testing per week).

10. Long-time white balance working will accelerate aging of components and affect lifespan of LED screen.

11. Do not climb directly on the cabinet. Do not step on the handle, control box, frame and other components of the cabinet. If need to climb, please use auxiliary tool such as stacking system.

12. Indoor screen cannot be installed in humid environment. Air conditioner can not blow against the screen.

Special attention: The ambient temperature and humidity for LED screen use must be handled properly, otherwise LED screen will be seriously damaged!

Caution 2

Please read the installation and operation instruction manual carefully in order to make sure the normal lifespan of LED screen and avoid any damage of electronic components, device driver and lose of data.

1. Turn off all switches including LED screen, computer terminal, system box and monitor before connecting any cables.
2. Wear anti-static ring before replacing any electronic components.
3. Do not hot plug any cables connected to computer terminals while the power is running. Ensure that all power is disconnected before unplugging any cable from the ports especially the serial line ports.
4. In order to ensure the safety, please check the condition of power cables once a year.

Caution 3

1. Making sure the LED screen should be properly grounded before working.
2. The leakage current is less than or equal to 3.5mA/m², under 240V voltage input.

3. Indoor LED screen grounding resistance must be less than 1Ω .
4. If LED screen is equipped with flight case, the flight case can not be exposed to rain. After each performance, please take good care of moisture-proof treatment of flight case.

Caution 4

1. The use/storage environment of the LED screen should be performed according to the requirements of the parameter table, otherwise it will seriously damage the display screen;
2. The cabinet should avoid working in the environment with high content of organic solvent detergent (such as kerosene, anti-rust oil, etc.).

Caution 5

1. Warnings regarding to the CE certification:
This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.
2. Warnings regarding to the FCC certification.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions;
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.
Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could cause the user can not operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and radiate radio frequency energy, and if it is not

installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Special statement:

Our company does not compensate for the personal injury or material loss caused by the users' arbitrarily transforming or repairing this product. If you need to repair or modify this product, please contact our company in advance.

Warranty Period:

In principle, the product warranty period is based on the product warranty period specified on the quotation.

During the warranty period, our company will not guarantee any problems due to the following reasons.

- Problems caused by the user's arbitrarily dismantling the product or failing to perform maintenance properly.
- Problems caused by incorrect transport and storage.
- Problems caused by the use of exceeding the rated parameters of the product.
- Problems caused by improper installation.
- Problems caused by fires, earthquakes, storms, floods, lightning and other natural disasters or riots, wars, radioactivity, etc, and other

natural and man-made disasters.

Signs of restricted use of hazardous substances in electrical and electronic products:



1. The logo indicates that the environmental protection use period of electronic and electrical products is 10 years;
2. It means that the electrical and electronic products contain certain hazardous substances and can be used with confidence within the environmental protection use period. After the environmental protection period is exceeded, they should enter the recycling system.

Preface

Xtra Series indoor/outdoor flexible cabinet adopts die-cast aluminum cabinet. It is applied with modular and standardized design concepts. Thus, it can be compatible with multiple models (pixel pitch can be expanded), covering pixel pitches for both indoor and outdoor. It is a mid-to-high end flexible rental product of YES TECH.

Xtra series flexible cabinet currently has only one size 500*500mm. Xtra indoor has P1.9/P2.6/P3.9, and outdoor has P2.9/P3.9. The cabinet weight is within 7.5KG. It supports front and rear maintenance, is quick and easy to install, and is more user-friendly. Refresh rate can be up to 3840Hz in 60Hz, with no flicker or dark line under shooting. With super large size and super high brightness, it can realize flexible surface installation of LED display, such as wave curved screen and cylindrical screen. It can be also combined with the MU series, MG series, and Rubik series to make a big screen. It supports hanging, truss fixed, and floor stacking installation.

To ensure that our products are used within reasonable conditions and get your recognition, we will explain the installation process, use process and cautions in details. Please read this carefully before installing and testing screen.

Tips: If there are no special instructions, the operation method of all the display screens of this series is the same as this manual.

Chapter 1 LED Cabinet

1.1 Cabinet Appearance

Xtra cabinet is 500*500mm flexible cabinet. The appearance is shown in Figure 1.1.1.

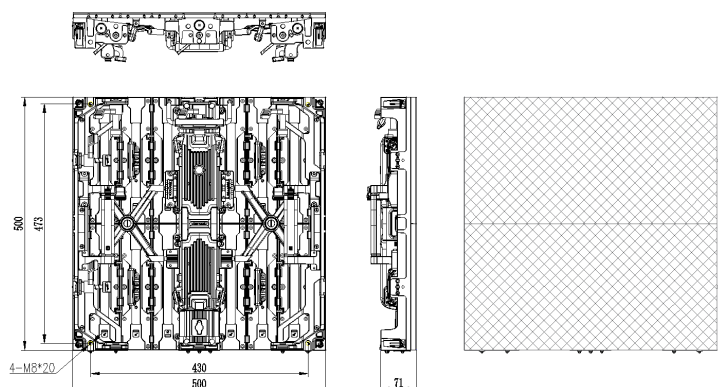


Figure 1.1.1 500*500mm Flexible Cabinet Dimensions

1.2 Cabinet Structure

The cabinet consists of three parts: cabinet frame, module, and control box. The cabinet frame consists of horizontal cabinet frames, front panel, X-shaped arc lock, vertical hanging locks, hanging lock seat, horizontal fast locks, top handle, corner protection, cabinet handle, captive screws, etc. The module consists of LED module, module shell, mask, module shell handle, etc. The control box consists of control box shell, buckle lock, test button, power input and output, signal, power supply, HUB, receiving card, etc. As shown in Figures 1.2.1~1.2.4.

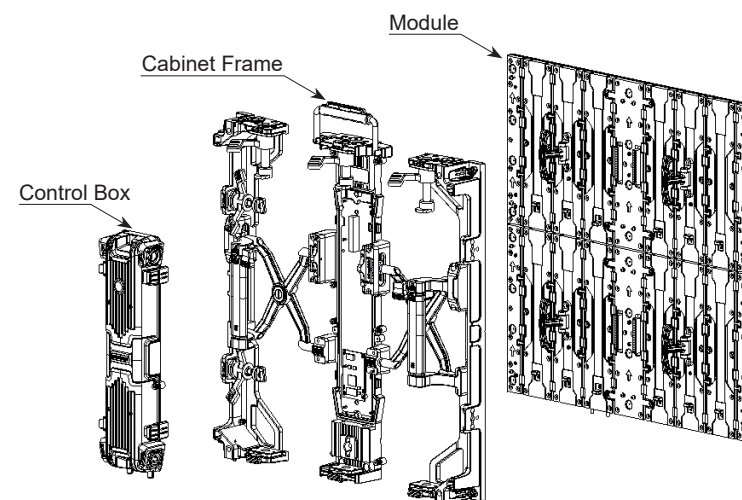


Figure 1.2.1 (500*500 Flexible Cabinet)

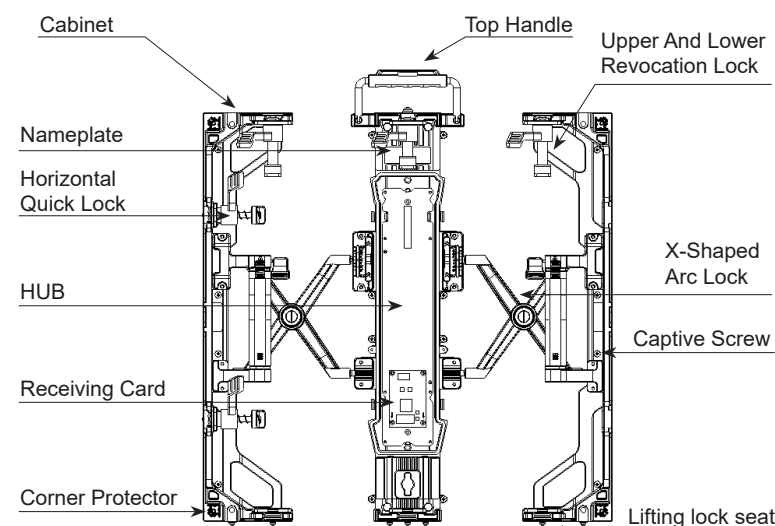


Figure 1.2.2 (500*500 Arc Box Frame)

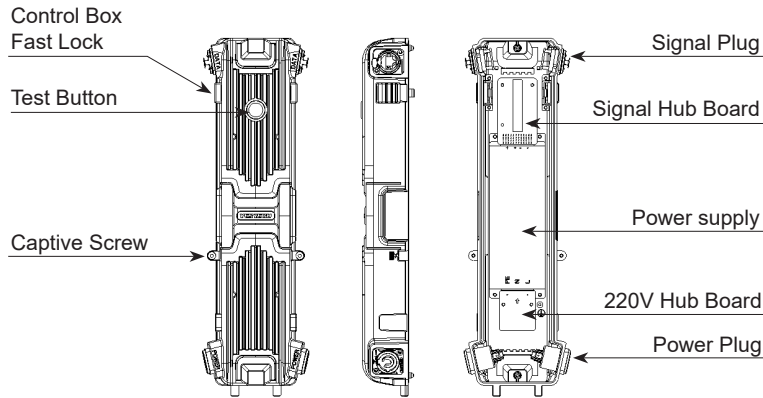


Figure 1.2.3 (Control Box - Indoor)

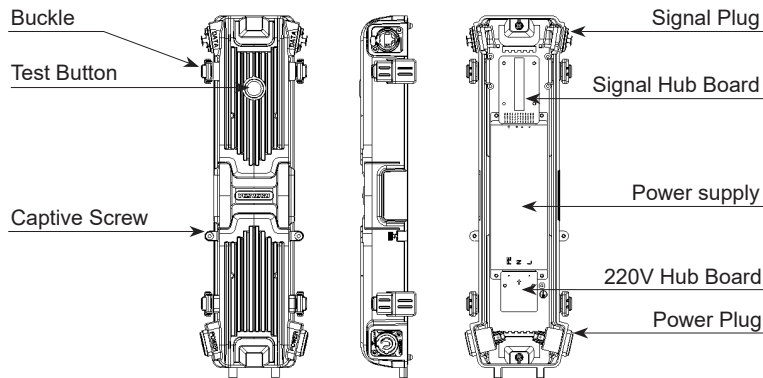
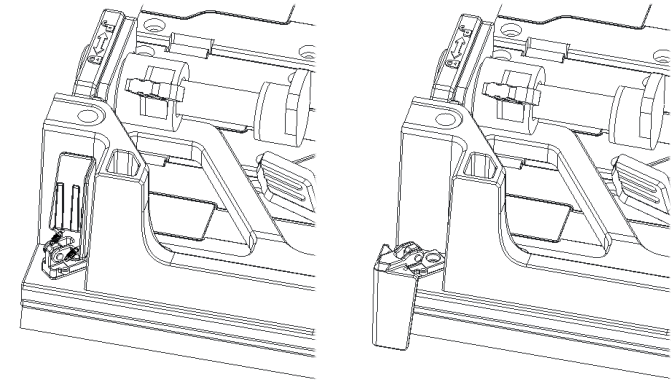


Figure 1.2.4 (Control Box - Outdoor)

1.3 Corner Protection Using Instruction

Pull the corner protection and change from the protection state to the folded state, perpendicular to the cabinet. Shown in Figure 1.3.1.



Corner Folded State

Corner Protection State

Figure 1.3.1 (Corner Protection Installation Method)

1.4 Arc Module Quick Buckle Installation Instructions

Align Xtra arc module A and module B, push the module quick buckle downward, and align the U-shape positioning column into module B, thus making sure two modules form a connected state. Figure 1.4.1.

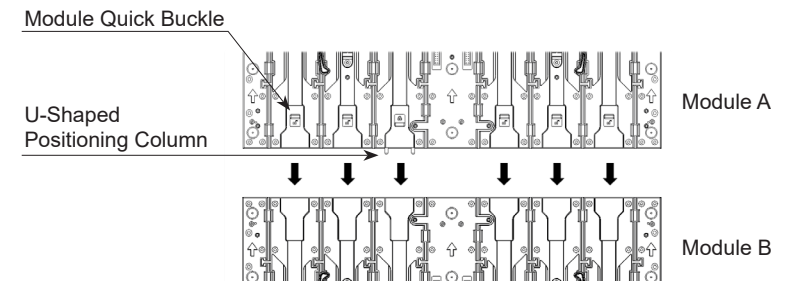


Figure 1.4.1 (Module Quick Buckle Installation Method)

Chapter 2 LED Screen Installation

2.1 Installation Instructions

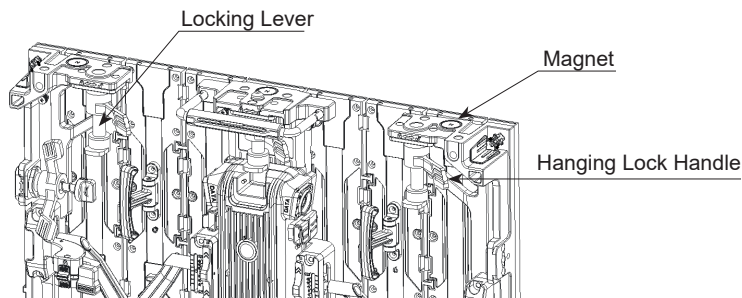


Figure 2.1.1

As shown in Figure 2.1.1, when hanging, firstly check whether the left and right X-shaped arc angles are consistent, and then check whether the handles of hanging locks are all in the loose state. If the handles of the hanging locks are not in the loose state, please turn to the loose state, and then hold the left and right handles of the cabinet respectively, the upper and lower magnets on the cabinet will automatically attract each other.

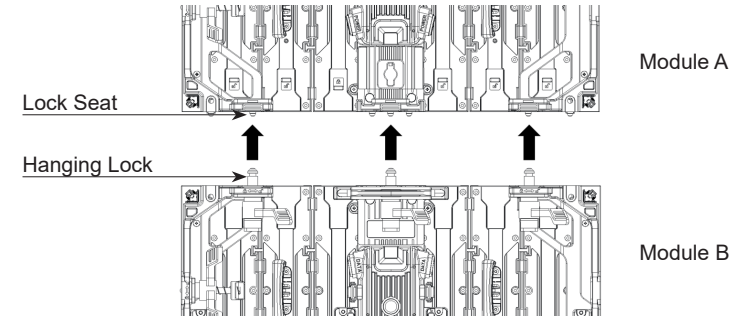


Figure 2.1.2

As shown in Figure 2.1.2, hold the left and right handles of cabinet B, lift the box up, and align it with the positioning column. The upper and lower magnets of the cabinet will automatically attract the cabinet. Push the lock rod of the hanging lock of box B directly up. The lock seat of box A will automatically hook the lock pin of cabinet B. Slowly release your hands, and then lock the hanging lock handle of cabinet B.

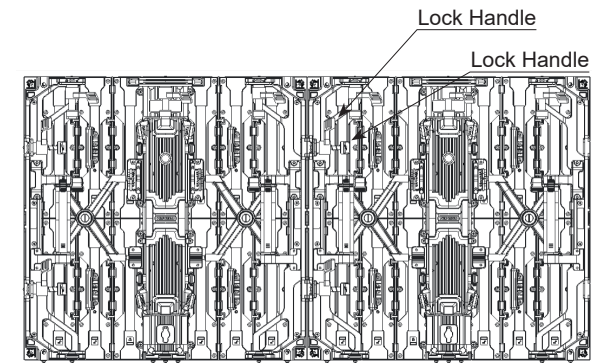


Figure 2.1.3 (Schematic diagram of horizontal splicing of the box)

As shown in Figure 2.1.3, push the lock cap into the box, rotate it to 90 degree, directly buckle the cabinet, and then lock the lock handle tightly.

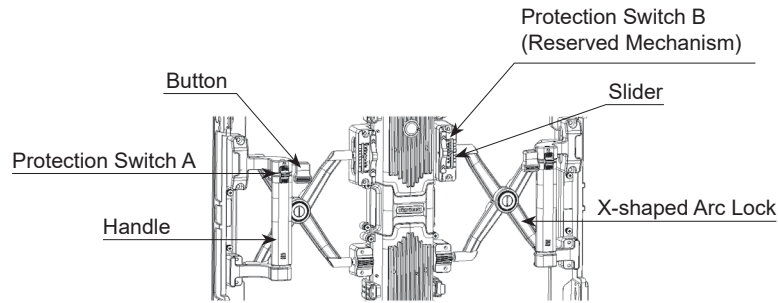


Figure 2.1.4
(Schematic diagram of adjusting the angle of the X-shaped arc lock)

As shown in Figure 2.1.4, when adjusting the angle (left and right can be operated simultaneously), hold the left and right handles of the cabinet, turn on the protection switch A with your thumb, and then keep pressing the button down to slide. After the slider is adjusted to the appropriate angle, release the button to lock the angle of the cabinet. After locking the protection switch A, then assemble the cabinet.

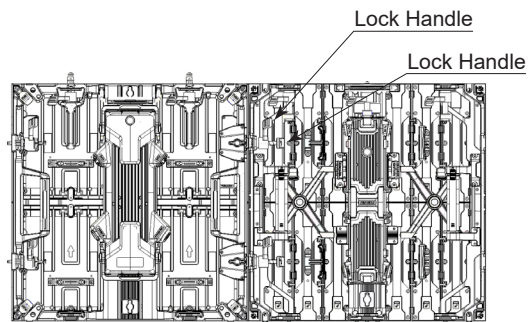


Figure 2.1.5 (Schematic diagram of Xtra cabinet and MU assembly)

As shown in Figure 2.1.5, push the lock cap into the cabinet, rotate to 90 degree, directly buckle the cabinet, and then lock the lock handle tightly.

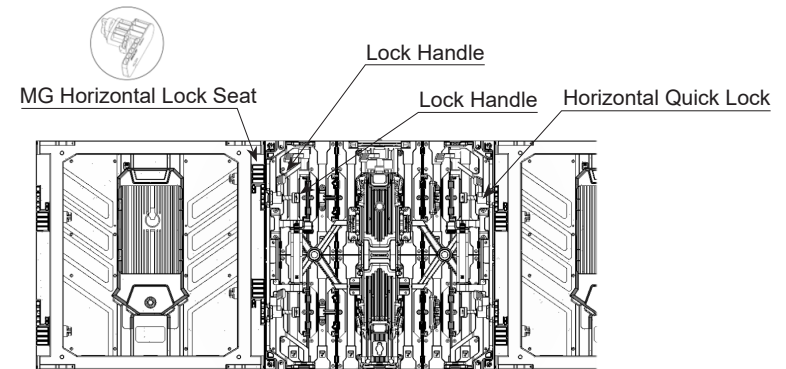


Figure 2.1.6 (Schematic diagram of Xtra cabinet and MG10 assembly)

As shown in Figure 2.1.6, install the horizontal MG lock seats into the MG10 cabinet respectively, paying attention to the assembly direction; after two cabinets are aligned, push the lock cap into the cabinet, rotate 90 degree, directly buckle the cabinet, and then lock the lock handle. (Please note that when assembling with MG10 cabinet on the right, 2 horizontal quick locks are required.)

2.2 Hanging Beam Installation Instruction

The hanging method is to hang the cabinet with the aluminum hanging beam. For such installation method, it must have a suitable installation location, such as overhead beams or hanging beam above. To install in this way, it can also be mounted on a TRUSS frame or other similar firm structures, as Figure 2.2.1.

In this way, the uppermost of the display is aluminum hanging beam, and below cabinets are connected, and then the lower cabinet is fastened with the upper one, and the right one is connected with the left one, thus it can form a whole screen. The hanging beam structure as Figure 2.2.2, and the diagram of hanging beam mounted on the TRUSS frame with rope as Figure 2.2.3.

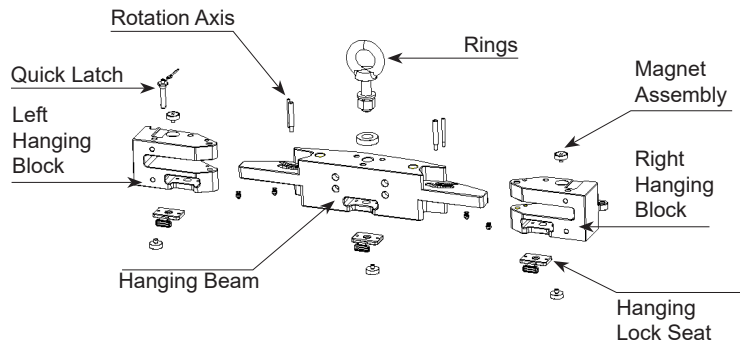


Figure 2.2.1

Schematic diagram of aluminum hanging beam structure installation

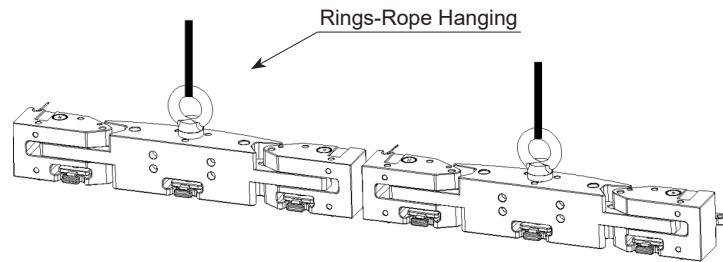


Figure 2.2.2 Aluminum hanging beam structure installation (rope)

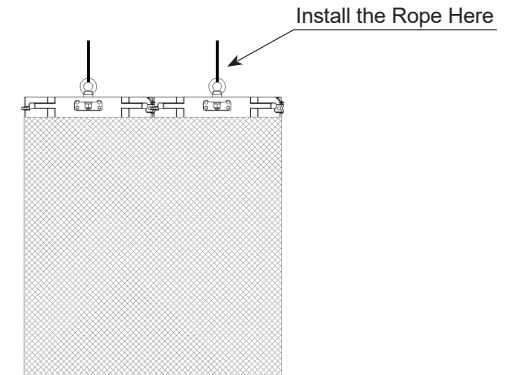


Figure 2.2.4 Front view of hanging

When using a hanging beam for installation, after testing by our company, each cabinet can bear 10000N, with a safety factor of 8:1, 170kg. It is safe to install 20 cabinets (500*500mm) high for hanging.

Note: When using hanging ropes for installation, must make sure that each rope is stressed (the rope is tight). Each hanging beam can lift a maximum of 10 meters of cabinet.

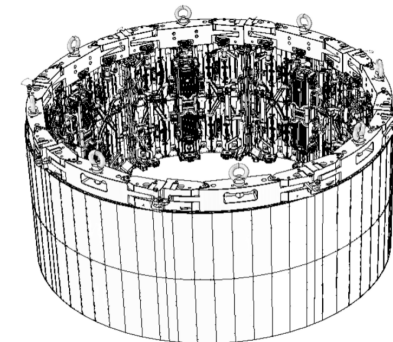


Figure 2.2.5 Column hanging effect diagram

As shown in Figure 2.2.5, the left and right X-shaped arc lock angles of a single cabinet are adjusted to 22.5 degrees at the same time. Eight arc-shaped cabinets can be assembled into a minimum 1.27M cylinder.

2.3 Stacking Installation and Use

When stacking the cabinet, use the ground beam, ground frame, gripper and stacking frame to realize rapid assembly of the screen. The stacking frame can be stacked up to 10 meters, and the counterweight must be used. The counterweight shall be provided by the customer, and the weight should be matched according to the use environment of the cabinet installation, such as the wind force at the installation site, the flatness of the installation ground, etc. Be sure to balance the weight under the guarantee of screen safety. When the ground is uneven, use the ground beam and the ground frame to adjust the foot to ensure that the display is installed flat, as shown in Figure 2.3.1 and Figure 2.3.2.

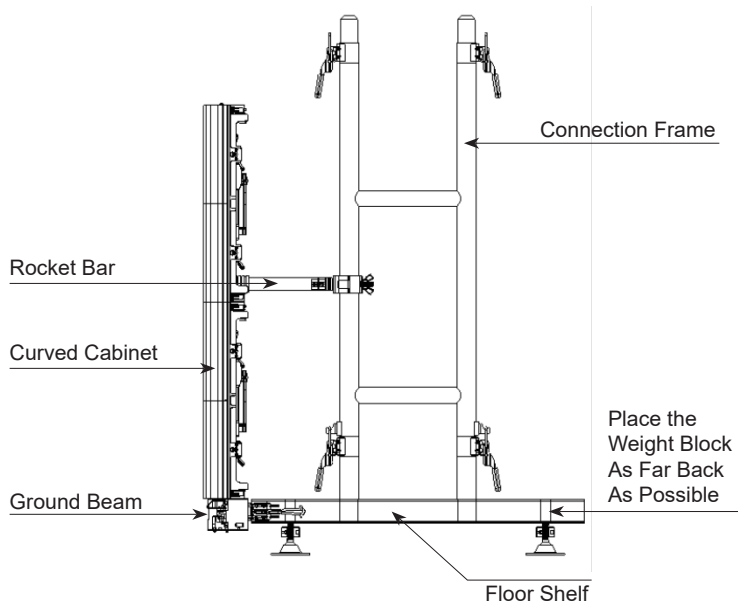


Figure 2.3.1 Installation effect diagram of stacked screen

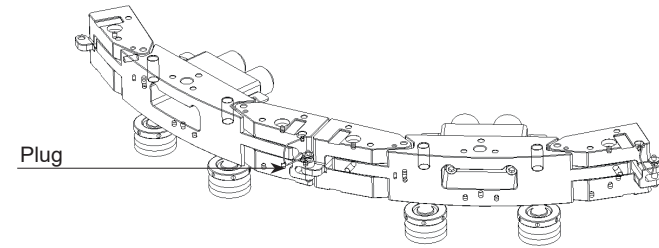


Figure 2.3.2 Exploded view of stacking screen

The ground beam, ground frame and connecting frame are assembled together and connected by locks to form an arc. Each row of ground beams must be installed, and one ground frame is installed every 0.5 meters. The light hook of the rocket rod is fixed on the pipe of the connecting frame, and the screws do not need to be tightened for the time being. Figure 2.3.3~2.3.4.

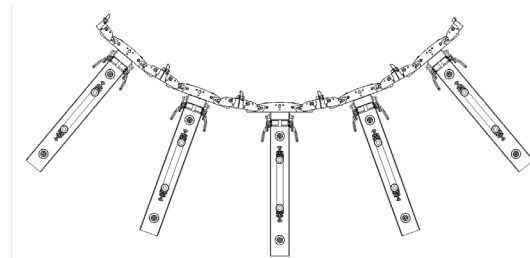


Figure 2.3.3 Stacking rack installation diagram 1

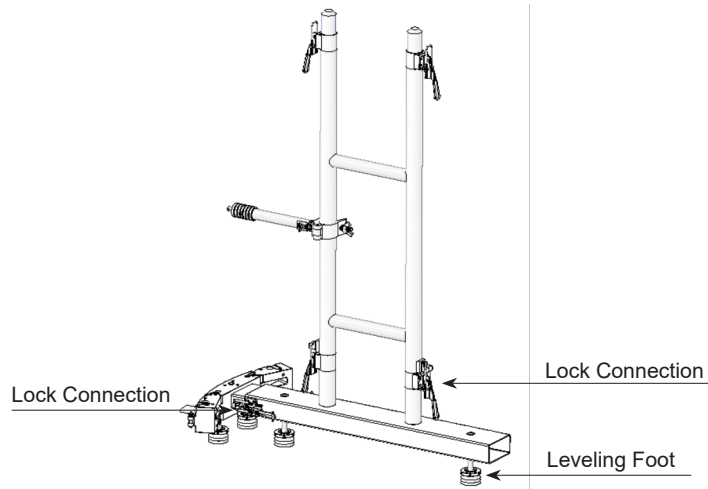


Figure 2.3.4 Stacking rack installation Figure 2

Insert the cabinet into the positioning pin hole of the ground beam, insert the pin of the rocket rod into the hole of the cabinet, rotate the pin of the rocket rod to 90 degrees, rotate and tighten the sleeve of the rocket rod, fix it with the cabinet, and finally tighten the light hook screw of the rocket rod. Pay special attention to check whether the cabinet is tilted after the cabinet is fixed by the rocket rod. If it is tilted, be sure to adjust the telescopic stroke of the rocket rod. If there is unevenness between the cabinets, solve it by adjusting the Leveling Foot of the ground beam and the ground rack. Figure 2.3.5.

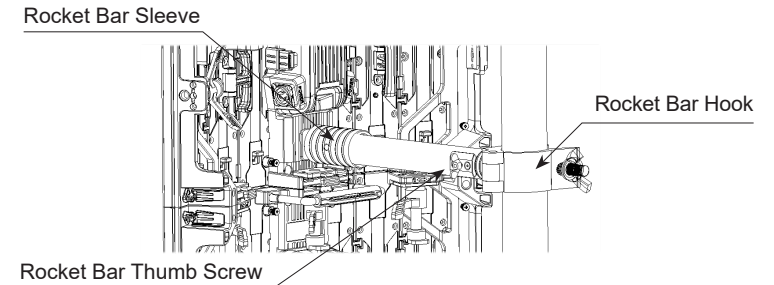


Figure 2.3.5 Stacking rack installation diagram 3

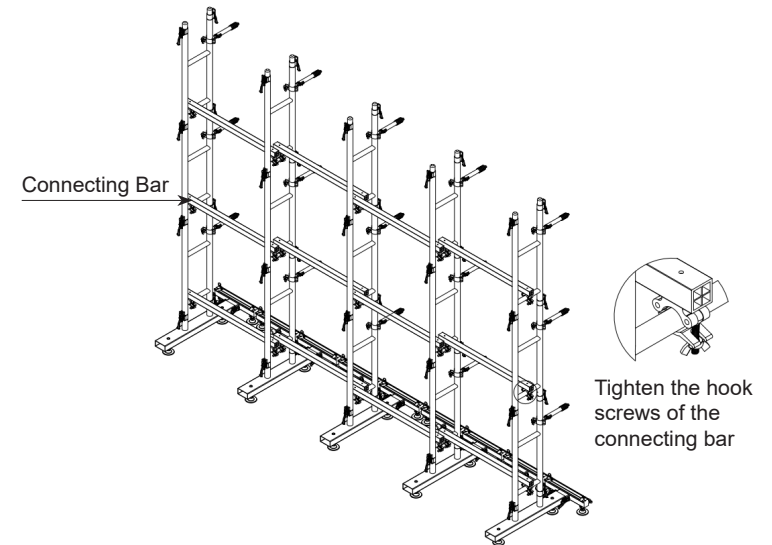


Figure 2.3.6 Stacking rack installation diagram 4

Chapter 3

Frequently Asked Questions For LED Screen

3.1 Software Questions

1. Connection interruption or prompt unable to find the control card when starting the software, or the interface of the software is not adjustable, that is, gray status, and there is no main controlling icon of the software LED control equipment list.

Solution: Change the USB cable; Check the equipment connection in the equipment manager; Ensure that the computer is no virus; If it is the internal sending card, it is probably due to the loose slot or damaged PCI, or the interference of foreign matter. Please insert the sending card again or clean the PCI interface by rubber.

2. Indicator light of the output port for sending card is extinguished.

Solution: Relevant control software has not been installed, please ensure the software is successfully installed; The FPD of the graphics card is closed. Please right click "my computer" on the desktop, and then click properties→setting→advanced→display→FPD.

3.2 Hardware Questions

1. There is no content on the LED screen.

Solution:

- Check whether the screen is powered on.
- Check whether the output signal is open.
- Check whether display area is correct.

2. The cabinet of the LED screen is blurred or not bright enough in certain cabinets.

Solution:

- Check whether modules and HUB card are connected.
- Check whether the configuration file is uploaded correctly.
- Check whether the calibration is open or correct.

d. Please change the broken masks if there are.

3. The picture of the cabinet is in the wrong order.

Solution: Please check the inner connection of each LED module to see if the cables are well connected.

4. Some individual LED lamps are extinguished.

Solution: Please repair these dead LEDs.

Chapter 4 LED Screen Maintenance

Proper use of the LED screen is very important for the long lifespan of the LED screen and the proper function. Daily maintenance of the LED screen must be finished carefully.

1. Please read the "Xtra Series LED Display User Manual" carefully. The manufacturer does not take any legal liability of the consequence due to the incorrect, incomplete, irresponsible, or unsafe use of the installation system.

2. Handle the LED screen cabinet with care, to avoid collision and strike.

3. Check the cabinet carefully to make sure there is no loose screw before using.

4. Please confirm the steel frames are kept in place firmly before installation, for the screen has already been installed for a long time, and regular checking of the situation of the connection part is required. If found any loose part, adjust it timely, and reinforce or change new hanging parts in time.

5. Keep the whole cabinet frame structure away from oil, acid, and other corrosive materials.

6. Pay attention to the anti-static work of the screen body, do not touch the LED face directly by hand, and wearing gloves when you install and

debugging of the screen is recommended.

7. The null line and firing line of the power cable in a computer or the control system can't be connected reversely. It should be connected strictly according to the original position.

8. If the power switch trip happens frequently, please check the screen or replace the power supply switch.

9. Before lighting the screen, turn on the PC first, then turn on the LED screen. When stopping work of the screen, first turn off the LED screen, then turn off the PC (otherwise, it will cause the screen highlights, and burn the lamp, the consequences are serious).

10. If abnormalities such as short-circuit, tripping, wire burning, or smoking are found after moving the screen, the power-on test should not be repeated and the problem should be searched in priority.

11. Master the installation method, the original data recovery, backup, and controlling parameter setting, and basic data preset modification.

12. Inspect viruses regularly, and remove irrelevant data.

13. Software operation is under professional engineers.

14. Can not perform in a storm or dust storm.

15. Dismantle the LED screen after the events, please clean the water stains and dust on the two sides of each cabinet before putting them into the flight case, the internal space of flight case must be clean and dry, if there is moist, you must dry them in the sun, or dry it with the dryer. At the same time, too much friction should be avoided between the cabinet and the inner part of the flight case.

16. When installing and removing the LED screen, special attention must be paid to the protection of the LEDs on the four sides of the LED cabinet to prevent the LEDs from damage.

17. Outdoor screens should not only consider moisture issues but also do daily maintenance such as waterproofing and dust-proof. Well-sealing installation can help reduce the risk of water ingress to the display screen. Regularly cleaning the dust attached to the inside and outside of the display screen can also help the display screen dissipate heat better and reduce the attachment of water vapor.

18. Indoor LED screen need to be well-ventilated, so the adhering moisture can be evaporated quickly, to reduce the humidity of the inside environment. But, please avoid the ventilation under calm winds and wet weather.

19. For the Indoor screen, desiccant can be put in an indoor environment, adopting physical moisture absorption to reduce the moisture of the air, reducing the probability of damping.

20. If there is an air conditioner in a LED screen installation place, you can turn on the dehumidification mode to reduce the moisture.

21. Wet and rainy weather can cause the dew on the wall, please keep the cabinet away from the wet wall, to avoid contact with the dew on the wall.

22. Please keep the LED screen storage warehouse to be well-ventilated, a dry environment is a must. You can't let the wet weather inside the warehouse, please choose a high and dry location.



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