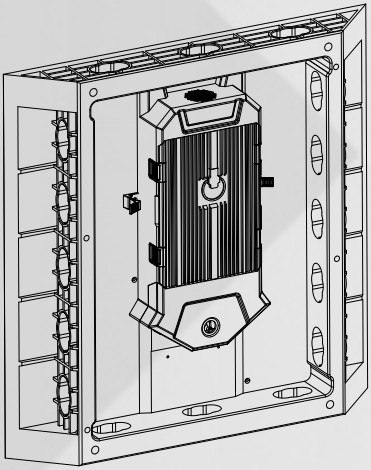
MG6S Cube Series LED Screen

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 or smoke.
3. Personnel operating the LED screen are advised to wear a safety helmet during operation.
4. Check all the AC power is connected well 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.

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, 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. Indoor display series is strictly prohibited for outdoor working environment.

5. In order to ensure the safety, please check the condition of power cables every three months if rental usage, every year if fixing installation.

Caution 3:

1. Making sure the LED screen should be properly grounded before working.

2. LED screen grounding resistance must be less than 1Ω.

3.The 240V high voltage input leakage current of this product is less than or equal to 4.5mA/m^2.

Caution 4:

1. Indoor screen can not be installed in a humid environment, not in the absence of electrostatic protection directly touch the display lamp surface with their hands;

2. Indoor screens should be equipped with air conditioning in environments where there is no indoor air conditioning or where the indoor ambient temperature is higher than 30°C;

3. Regular electricity testing is required for indoor LED screen if long time no use. (regular electricity testing process: at least 2 hours in a week increase gray scale stepwise)

4. The operating/storage environment should conform to the requirements in product parameter&specification sheet, otherwise it will damage the LED screen seriously.

5. Avoid the cabinet work under the conditions of high organic solvent

detergent (such as kerosene, rust-proof oil, etc).

Caution 5:

1. Warnings regarding to the CE certification:

Warming: 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 to 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 radiates radio frequency energy and, if not installed and used in accordance with the instructions, 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:

When the indoor screen is used outdoors, our company will not be responsible for the damage to the display caused by rain and moisture; we will not compensate for personal injury or material damage caused by the user's arbitrary transformation or maintenance of this product; please contact us in advance when you need to repair or transform this product.

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

Magic Stage-MG6S Cube series LED indoor display cabinet, using polymer nano-materials and modular and standardized designs, currently realize the same cabinet compatible with a variety of models of modules, covering a variety of pixel pitches.

The cabinet of MG6S series is thin and light, the mass is only 5.6kg~5.9kg; support both front and rear maintenance; fast and convenient installation; with refresh rate up to 3840Hz. The series capture shooting picture without flicker and dark stripes phenomenon; achieving large screen and ultra-high brightness.MG6S cube series as a supporting product of MG6S, it can realize the creative installation method such as curved installation of the main body, which can meet the market demand more and widen the application place, making it an important choice for stage performance/rental, exhibition, performance, gathering and other commercial advertisement.

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

Warm tip: If there is no extra instructions, all models of this product display and the operation method of this manual is the same.

Chapter 1 LED Cabinet

LED screen cabinet contains the internal power supply part, module part and control receiving part, and power box cover mainly plays a fixed, protective role which is to say that all components must be fixed inside the box to facilitate the splicing of the entire screen.

1.1 Cabinet Structure

The cabinet structure of MG6S series is made of polymer nano-materials instead of the traditional aluminum alloy die-castings or steel material so that the cabinet weight is much lighter.
The cabinet size is 500mm*500mm*73mm. (Figure 1.1.1)

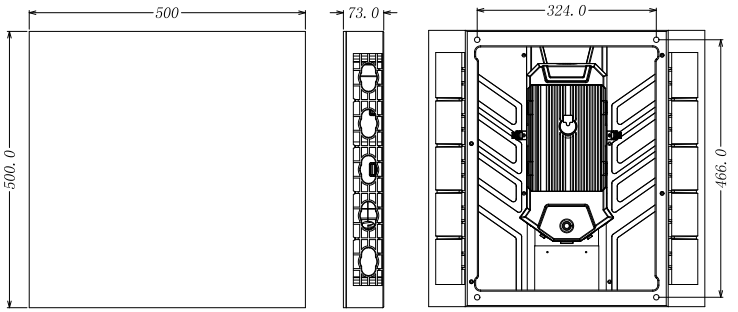


Figure 1.1.1 Cabinet view from all sides

Chapter 2 Cabinet Connection

2.1 Connectors and Cabinet Mounting Socket Connection

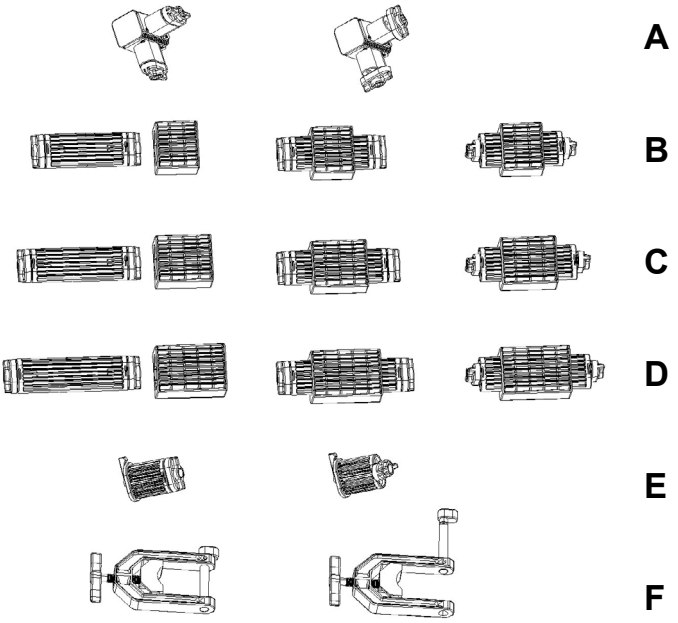


Figure 2.1.1 Connectors

As shown in Figure 2.1.1. A, B, C and D are used to connect the cabinets horizontally, while connector E is used to connect the cabinets vertically. Connector A is used for right angle installation. Connector F is mainly used for fixing installation.

The maximum horizontal bearing capacity of Connector type A is 500 N, the safety bearing capacity is 200 N. It can be used more than 2000 times, and stored more than 3 years;

The maximum horizontal bearing capacity of Connector type B, C, D is

1500 N, the safety bearing capacity is 500 N. It can be used more than 2000 times, and stored more than 3 years;
The maximum vertical bearing capacity of Connector type E is 7000 N, the safety bearing capacity is 1200 N. It can be used more than 2000 times, and stored more than 3 years.

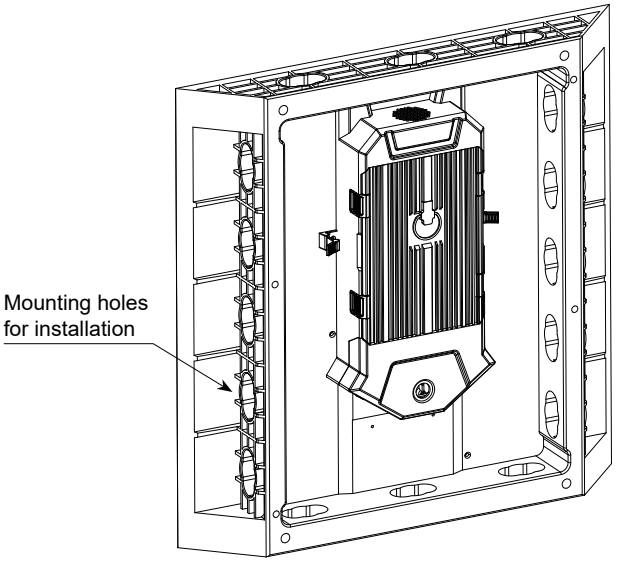


Figure 2.1.2 Mounting holes of the cabinet

As shown in Figure 2.1.2, there are 3 mounting holes and 2 half mounting holes on the top and bottom of the frame. 5 holes on left and right side of the frame, where the connectors can be inserted. Tightly twist the end of the connectors to lock the cabinets in place. One by one, the cabinets can be connected easily and fast with "one slot and one twist".
Please note: Our standard issue of the connectors would be 2 vertical connectors, 3 horizontal connectors(150mm) and 2 right angle connectors as shown in Figure 2.1.3.

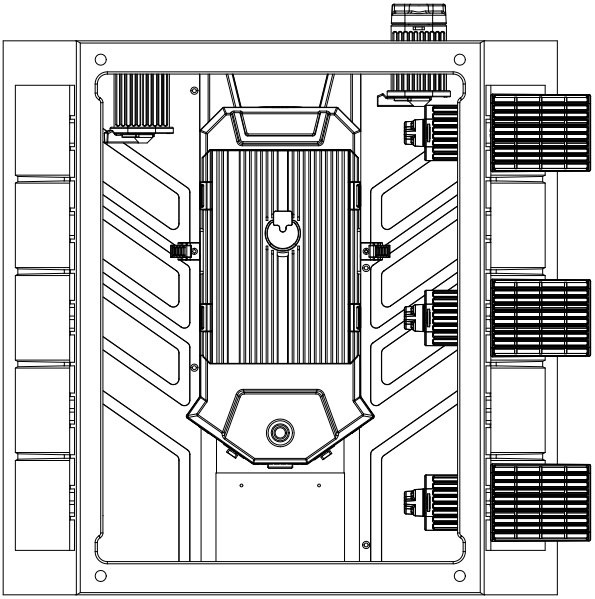


Figure 2.1.3 Standard connectors for cabinet

2.2 Signal and Power Cable Connection

MG6S series provide no outlet way, the cabinets are connected to each other with CAT5 (signal cable) and power cable, which is convenient for the connection between the cabinets. We only need to take the signal cable connector of the cabinet and plug it into the idle socket at the input of the next cabinets, and the same for the power cable connection. Each cabinet plays the role of transfer station.

However, the signal transmission between the cabinets and the sending card (PC, video processor, etc.) uses a network cable (long-distance signal transmission is recommended to use optical fiber + photoelectric converter method).

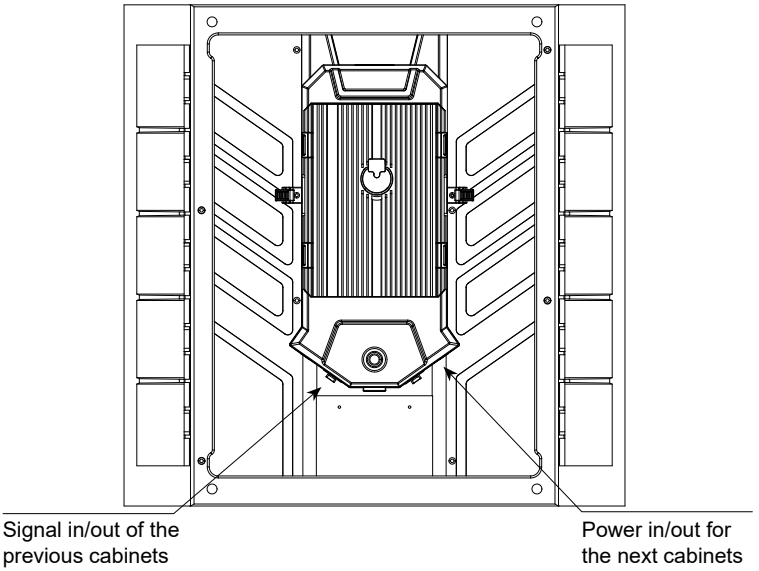


Figure 2.2.1 Signal cable and power cable connection between cabinets

The both 2 signal ports can be flexibly as input or output according to your actual operation, as shown in Figure 2.2.1.

The signal line source is sending card end, including the PC with the sending card, control box, the video processor with sending card.

Chapter 3 LED Screen Installation

3.1 Cautions

All installation methods are required to avoid collision of the frontage 4 corners of the cabinet (as Figure 3.1.1), causing unnecessary damage and affecting the normal use of the cabinet.

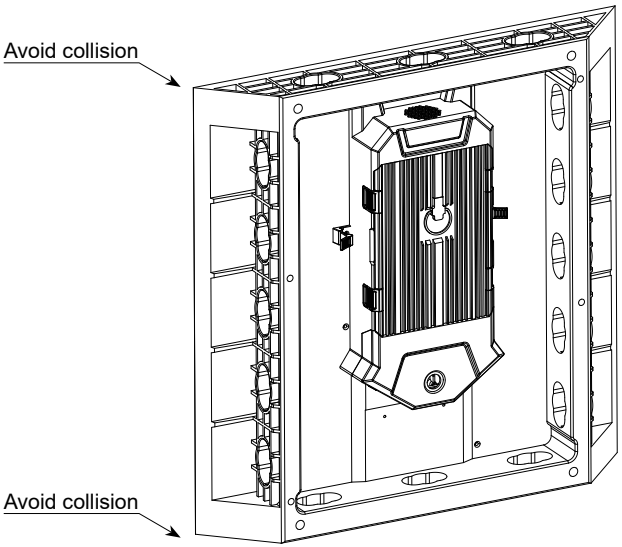


Figure3.1.1 Cabinet front corners

Note 2:

When taking out cabinets from flight case, make sure the cabinets remain level and in a steady speed. Avoid any possible friction between the flight case clapboard and the cabinet if the cabinet inclined (Figure 3.1.2), which will affect the outlook and performance of the cabinet. When using Flight case open from top, please be noticed the installation method (Figure 3.1.2), when you put the cabinet into flight case, the first row and last row need to be put opposite, both towards the interior of the flight case, to prevent damage to the lamp surface during transportation.

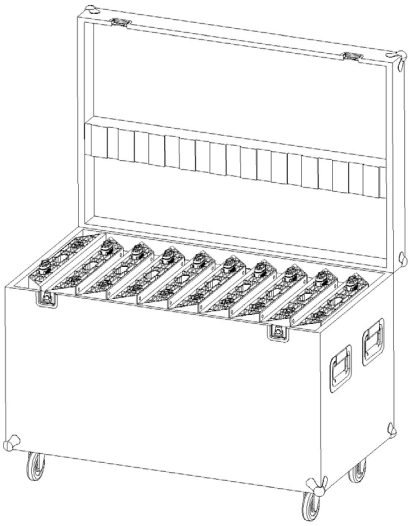
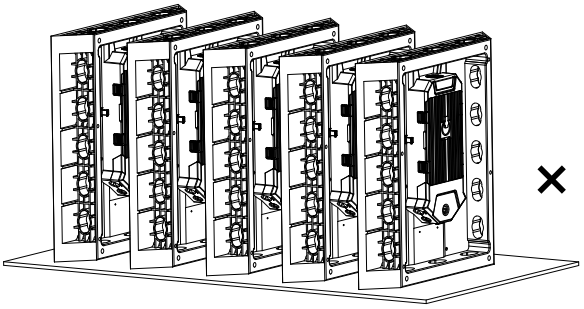


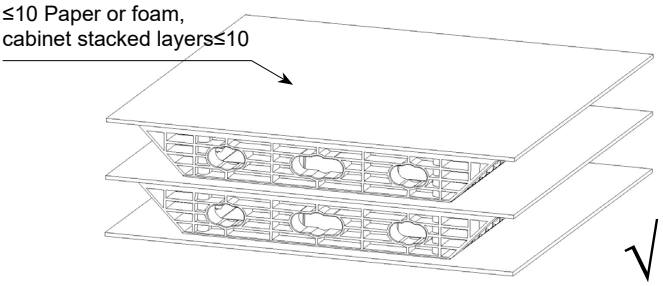
Figure 3.1.2 Taking out cabinets from flight case

Note 3:

In general, unused cabinets must be placed in flight cases or carton. However, in case of no flight cases or in other special conditions, the LEDs should be placed upwards, separating cabinets with foam or soft paper and when stack (stacked layers ≤ 10PCS cabinet). Prohibit placing cabinet upright, in line of dominoes form (Figure 3.1.3).



Wrong deposition



Right deposition

Figure 3.1.3 Cabinet deposition

Note 4:

When make the cascade connection of power cable and signal cable, in order to ensure the cables in queue and beautiful, cables between two cabinets can be connected through the mounting hole. After finishing the cascade connection of power cable and signal cable, ought to be cover tightly the unused connector jack lid. (Figure 3.1.4)

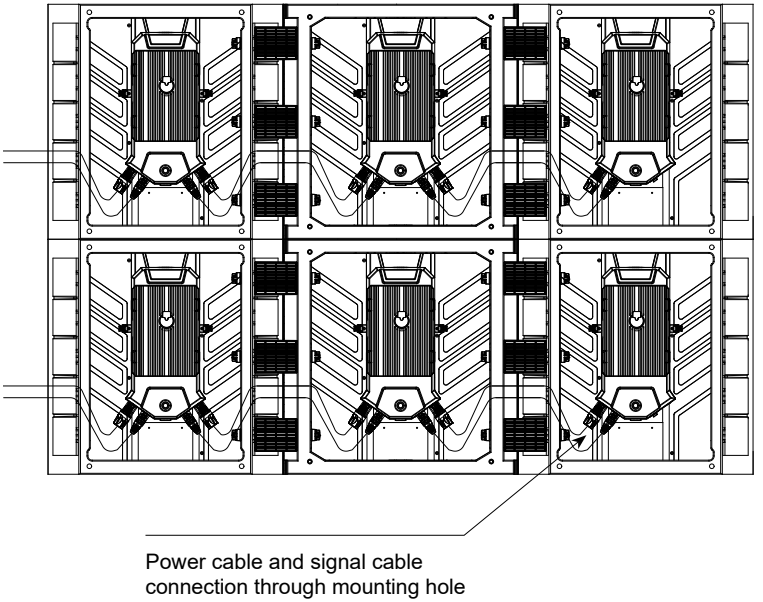


Figure 3.1.4 Power cable and signal cable connection through mounting hole

Note 5:

As shown in Figure 3.5, there are four multi-functional holes in the corners of the cabinet. Multi-functional holes are mainly used for static discharge when fixed installation, you need to ensure that the structural parts connected with these four holes (including trusses, steel frames, etc.) to be connected with the earth; separate use of MG6S Cube cabinet rental lifting, you need to be additionally equipped with a connection piece between the fixed cabinet.

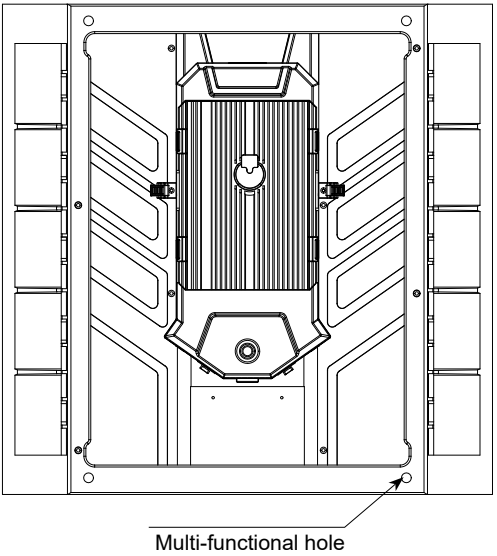


Figure 3.1.5
The diagram of position of multi-functional holes in the cabinet

Note 6:

When using all types of connectors, in order to ensure the maximum strength connection effect, the locking head needs to be screwed into right place, that is, the locking head and the connector itself are in a perpendicular state.

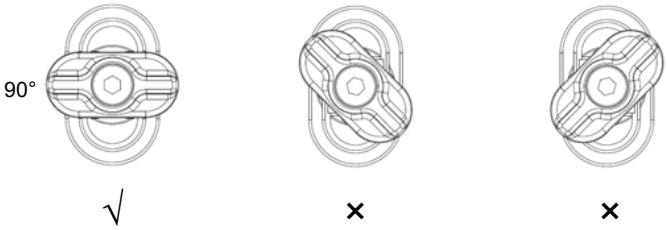


Figure 3.1.6 The using caution of the locking head of connector

3.2 MG6S Cube Cabinet Installation

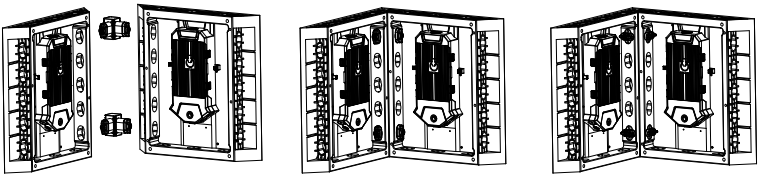


Figure 3.2.1 Right-angle diagram of splicing two cabinets

If the multi-layer cabinets are spliced at right angles, the installation position of the A-type connector is only installed in the first and fifth installation hole positions of the topmost cabinet, and the other layers of cabinets are installed in the first and fourth installation hole, as shown in Figure 3.2.2.

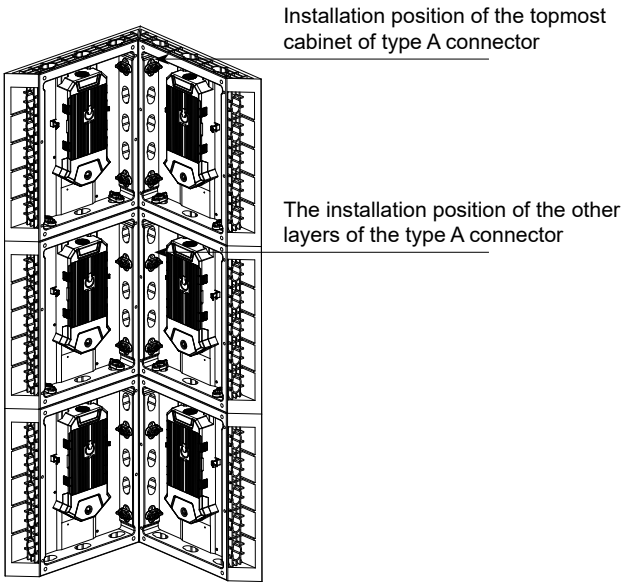


Figure 3.2.2 Installation position diagram of Type A connector

When connecting the MG6S Cube cabinet to the left and right sides of the MG7S cabinet, use C-type connectors; when connecting to the left and right sides of the MG6S-T cabinet, use B-type connectors; when connecting to the MG6S Cube cabinet, use D-type connectors, as shown in Figure 3.2.3.

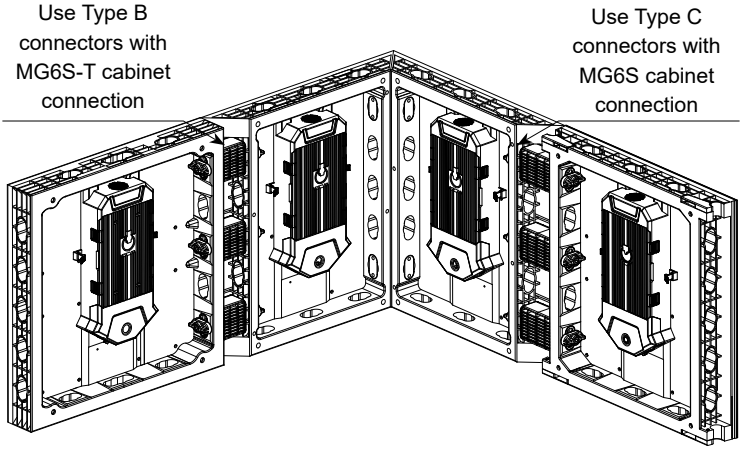
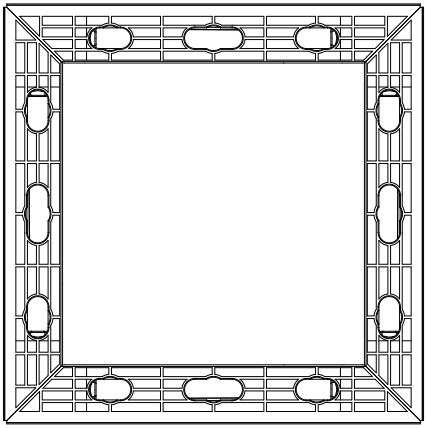


Figure 3.2.3 Splicing with MG6S and MG6S-T cabinets



MG6S cube cabinet

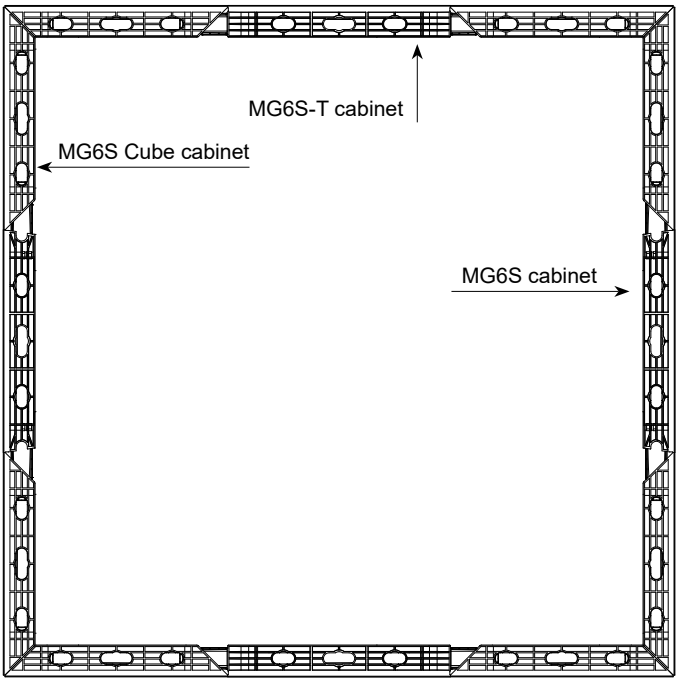


Figure 3.2.4 Effect drawing of cabinet splicing cube

By customizing the connecting pieces at different angles, the MG6S Cube cabinet can realize the splicing of regular polygonal shapes such as pentagons, hexagons, heptagons, and octagons, as shown in Figure 3.2.5.

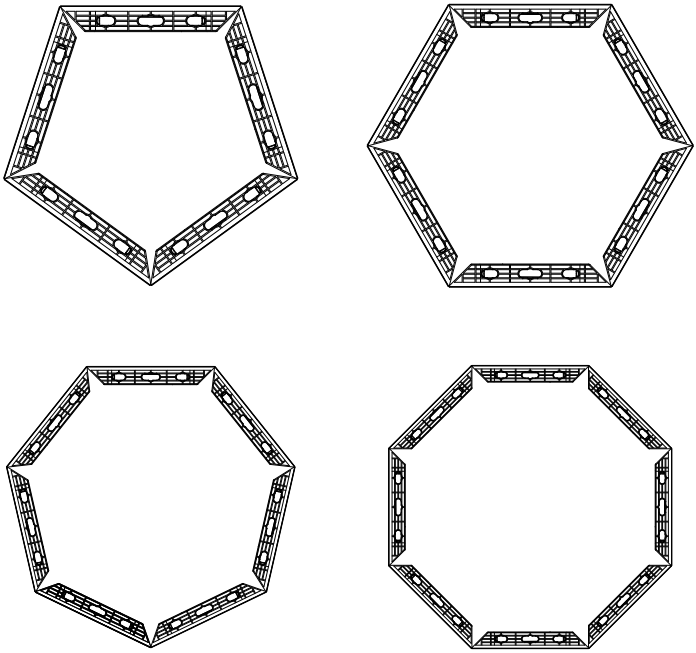


Figure 3.2.5 Effect drawing of cabinet splicing regular polygon

Chapter 4: Common problems For LED Screen

4.1 Software Problems

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 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 sending card again or clean 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.

4.2 Hardware Problems

1. There is no content on the LED screen.
Solution:
a. Check whether the screen is powered on.
b. Check whether the output signal is open.
c. Check whether display area is correct.

2. The cabinet of the LED screen is blurred or not bright enough in certain cabinets.
Solution:
a. Check whether modules and HUB card is connected.
b. Check whether the configuration file is uploaded correctly.
c. Check whether the calibration is open or correct.
d. Please change the broken masks if there is.

3. The picture of the cabinet is in a wrong order.
Solution:
Please check the inner connection of each LED module to see if cables are well connected.

4. Some individual LED lamps are extinguished.
Solution:
Please repair these dead LEDs.

Chapter 5 LED Screen Maintenance

Proper use of the LED screen is vital 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 MG6S series LED Screen User Manual carefully. The manufacturer do 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, 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 already been installed for a long time, regular checking the situation of the connection part is required. If found any loose part, adjust it timely, reinforce or change new hanging parts in time.
5. Keep the whole cabinet frame structure away from oil, acid and other corrosive material.
6. Pay attention to the anti-static work of the screen body, do not touch the LED face directly by hand, wearing gloves when you install and debugging of the screen is recommended.
7. 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 happened 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, burn the lamp, the consequences are serious).

10. If there is short circuit, switch trip, wire burning, smoke and other abnormal phenomenon after removing, please don't repeat electricity test, and check the problem timely.

11. Proficiency in installation methods, original data recovery and backup, mastering the setting of control parameters and modification of basic data presets.

12. Inspect virus regularly, and remove irrelevant data.

13. Software operation is under professional engineers.

14. 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 cabinet and inner part of the flight case.

15. 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 LEDs from damage.

16. Regarding the maintenance of the connectors:

a. Fill the cleaning liquid to the cleaner guns, such as DJW-618X cleaning liquid (Major element is: Dichloroethane, Trichloroethane or ethyl Alcohol).

b. Pointing the cleaner guns in a 45 degree, distance around 10-15cm, pointing to the dirty area of the connectors, press the switch , spot-spray clean the dirty area.

Attentions about cleaning the connectors:

a. cleaner gun is high pressure, pointing to the people is very dangerous. Please keep it in a high position after use.

b. Please wear mask and protection glass, to avoid the cleaning liquid splash into the human eyes and mouth.

c. Cleaning work should be kept far away from fire. Firework is prohibited.

d. Cleaning work should be arranged in a natural ventilation atmosphere, or the open area.

17. The indoor screen should be moderately ventilated, which can make the water vapor attached to the display evaporate quickly and reduce the relative humidity of the indoor environment. However, avoid ventilation in some windless and humid air, which will aggravate the indoor humidity.

18. Indoor screen in the room can be placed desiccant, using physical moisture absorption methods to reduce the moisture in the air and reduce the chance of moisture.

19. If there is an air conditioner in the space where the display is installed, it can be turned on in humid weather for dehumidification.

20. 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.

21. For the warehouse where the products are placed, the air must be kept dry, and the humid air cannot be allowed to accumulate in the warehouse. It is recommended to choose a location with a relatively high terrain.

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Facebook

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