



**MT Series
LED Display Screen
Operation Manual**

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Precautions

Warning: This is a Class A product. In a living environment, this product may cause radio interference, in which case the user may be required to take practical action to correct the interference.



Note one:

To avoid any physical injury, please read these installation rules carefully before connecting the switch.

1. Untrained non-professionals are not allowed to perform any operations on the LED display;
2. Near to smoking or fire are strictly prohibited;
3. A safety helmet must be worn during operation;
4. Before turning on the switch, check whether all AC power supplies are connected properly;
5. Before starting any maintenance work, turn off all switches including LED boards, computer terminals, system boxes and monitors;
6. Please do not touch the power supply when the switch is not turned off.

Note two:

In order to ensure the normal lifespan service of the display and prevent damage to electronic components and light-emitting tubes; to prevent damage to the installed device driver and loss of data, please

read these installation and setting rules carefully before operating the display.

1. Before connecting any cables, please turn off all switches including LED boards, computer terminals, system boxes and monitors;
2. Please wear an anti-static ring on your wrist before replacing electronic devices;
3. All computer cables are strictly prohibited from disconnect without power off advanced. All power must be turned off before being disconnected. Pay special attention to the serial port cable;
4. To ensure the safe operation of the product, the power cable needs to be inspected once a year.

Note three:

1. Before the display screen power on, it must be well grounded.
2. The high voltage input is $\leq 240V$, and the leakage current is $\leq 3.5mA/m^2$.
3. The grounding resistance of the display screen is $\leq 1 \text{ ohm}$.
4. If the display screen is equipped with a flight case, do not let the flight case be exposed to rain. After each performance, please make a moisture-proof treatment of it.

Note four:

1. The usage/storage environment of the display screen must be in accordance with the requirements of the parameter table, otherwise the display screen will be have damage risk;
2. Avoid working in an environment with high content of organic solvent detergents (such as kerosene, anti-rust oil, etc.)

Note five:

1. Warning words for CE certification:

WARNING: This device complies with CISPR Class 32 standard. In a residential environment this equipment may cause radio interference.

2. Warning words for FCC certification:

This device complies with Part 15 of the FCC Rule. The operation has the following two conditions:

(1) This equipment will not cause harmful interference;

(2) This device must accept any interference. Received errors, including interference that may cause unintended operation.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority 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 can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Causes 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:

- Adjust or relocate the receiving antenna.
- Enhanced separation between device and receiver.
- Connect the equipment into an outlet on a circuit different from that to

which the receiver is connected.

-Ask the dealer or an experienced radio/TV technician for help.

Special statement:

When 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 indicated on the quotation.

During the product warranty period, our company will not provide warranty for problems caused by the following reasons.

- Problems caused by users dismantling the product arbitrarily or failing to maintain it properly.
- Problems caused by improper transportation and storage.
- Problems caused by using the product beyond its rated parameters.
- Problems caused by incorrect installation.
- Problems caused by fires, earthquakes, storms, floods, lightning and other natural disasters or riots, wars, radioactive energy and other natural and man-made disasters.

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



1. This logo indicates that the environmentally friendly use period of electronic and electrical products is 10 years;
2. Indicates that the electronic and electrical product contains certain harmful substances and can be used with confidence within the environmental protection period. After the environmental protection period is exceeded, it should enter the recycling system.

Foreword

The MT series LED indoor/outdoor display cabinet adopts die-cast aluminum cabinet and adopts modular and standardized design concepts. It is a mid-to-high-end rental product of Yestech.

The MT series cabinets currently only have one size, with a pixel pitch of P3.9-7.8 and a cabinet size of 1000*500mm, and a single cabinet weight of 6.5kg. Currently, only the rear maintenance mode is supported, and the front maintenance mode is under development and testing; installation is quick Convenient and more user-friendly; the display screen has a visual refresh rate and up to 3840HZ, and there is no flicker or dark stripe phenomenon when shooting with the capture device. It also has super large size and super high brightness, which can realize the curved surface installation of the main body of the display unit, and can be used on the stage. Large-screen displays in performing arts, bars, banquet halls, theaters, shopping malls, buildings, etc. are installed or hoisted using steel frame buckles.

In order to ensure that our company's products can be used normally under reasonable conditions and gain your recognition of the products, we will detail the installation and use procedures and precautions for the products. Please read them carefully before installing and debugging the display.

Warm reminder: Unless otherwise specified, the operation methods of all models of the display screen in this series are the same as in this manual.

Chapter 1 LED Cabinet

1.1 Appearance of the cabinet

The MT cabinet is a 1000*500mm cabinet. Appearance as shown in Figure 1.1.1

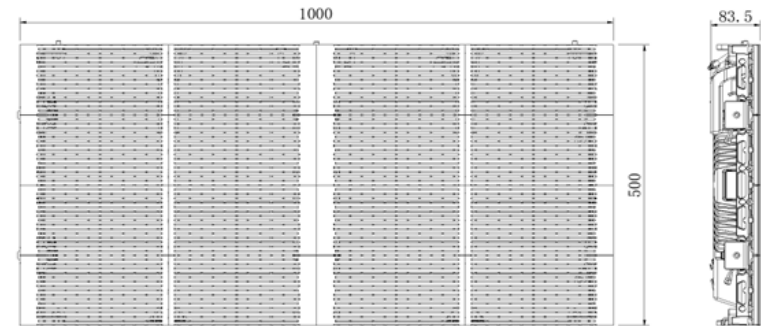


Figure 1.1.1 Outdoor P3.9-7.8 cabinet dimensions

1.2 Cabinet structure

The cabinet is composed of three parts: cabinet frame, module and control box. The cabinet frame is composed of cabinet body, vertical lifting locks, lifting lock location seats, horizontal quick locks, arc locks, top handles, cabinet handles, etc. . The module kit consists of a LED module, bottom shell, etc. The control box is composed of control box shell, hasp lock, switch, power input, power output, signal input and output, power supply, HUB, receiving card, etc. As shown in Figure 1.2.1~1.2.3.

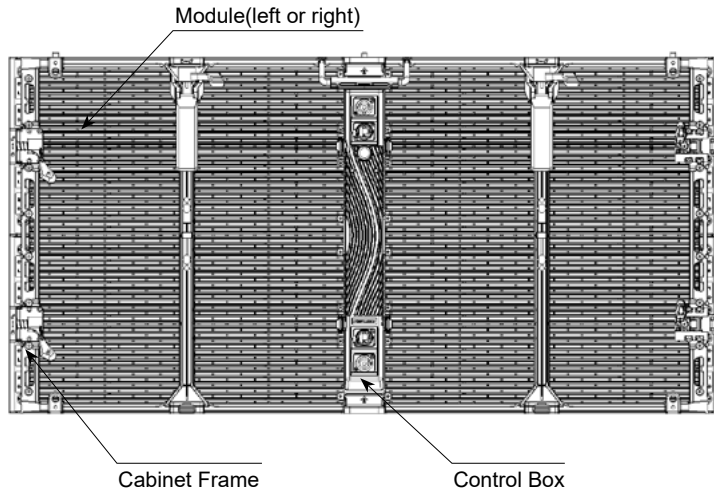


Figure 1.2.1 (1000*500mm cabinet)

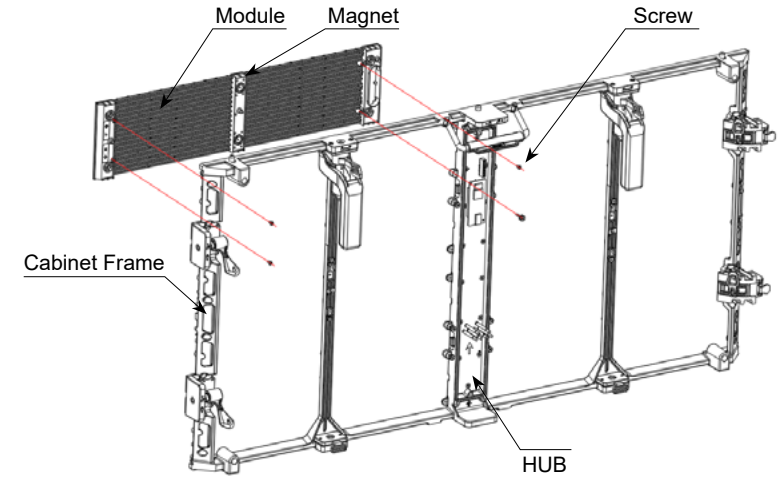


Figure 1.2.3 (1000*500mm cabinet)

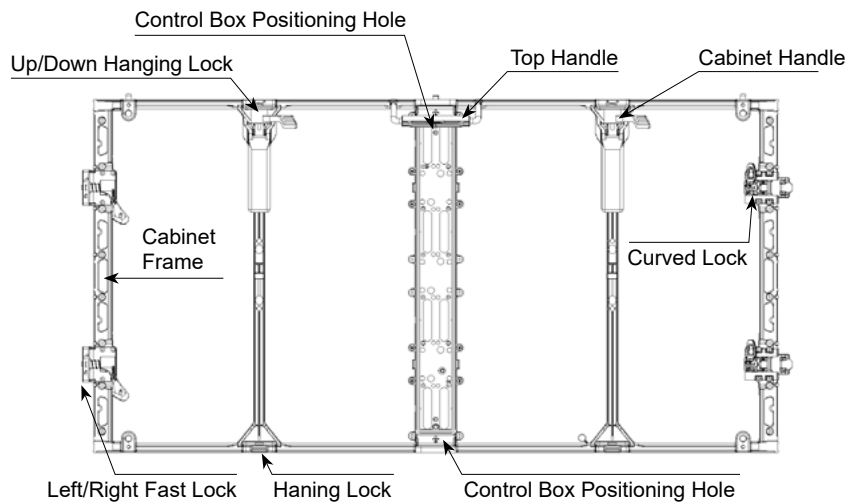


Figure 1.2.2 (1000*500mm cabinet)

1.3 Control box operating instructions

MT control box removal method: push the four hasp locks of the control box down on both sides to pull the control box out of the box. To install the control box, first align the upper and lower positioning posts of the control box with the two positioning holes on the box and then fasten them. Then push the four buckle locks of the control box down on both sides to tighten the control box. Lock with the box. Note: During removal or installation, the control box and box must be aligned horizontally to avoid damage to the connector on the HUB and the upper and lower positioning posts of the control box. As shown in Figure 1.3.1~1.3.2, the front and back sides of the power box.

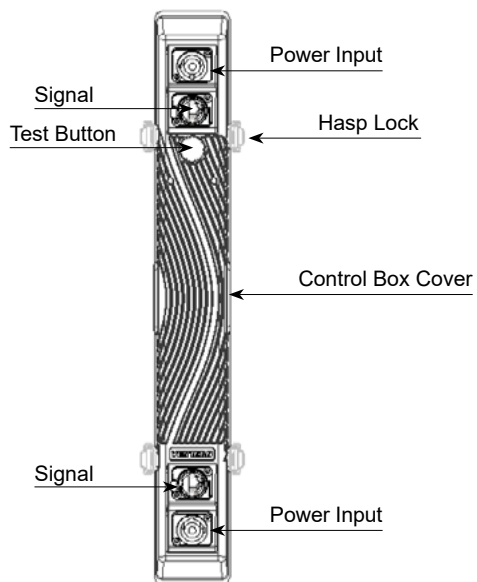


Figure 1.3.1 (front of power box)

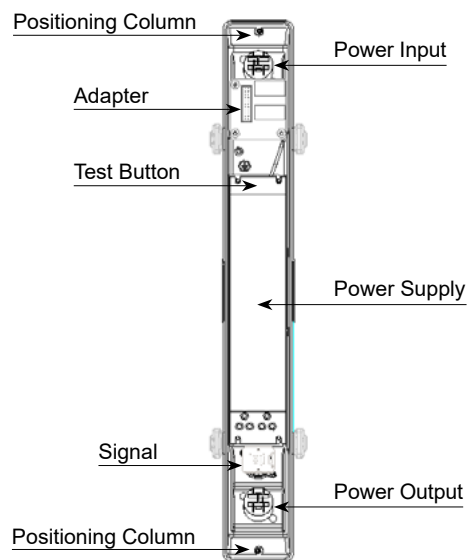
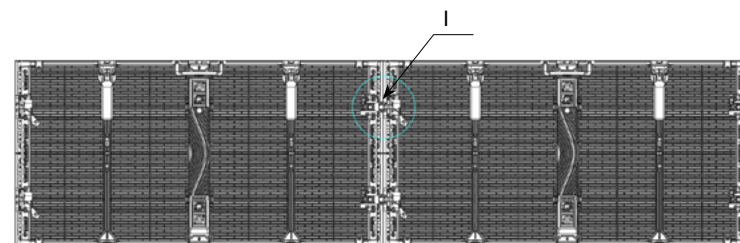


Figure 1.3.2 (back of power box)

Chapter 2 Installation of Display Screen

2.1 Installation instructions



Partial view I

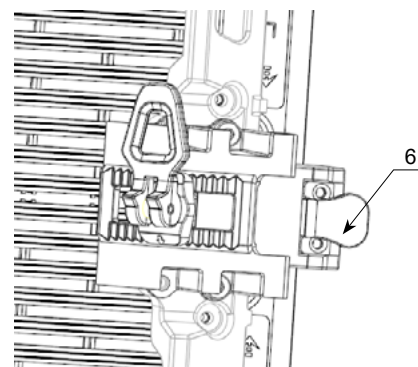


Figure 2.1.1 Left and right lock installation diagram

As shown in Figure 2.1.1, Item 5 is the quick lock and item 6 is the arc lock. First, slide the arc lock to the specified angle, push the horizontal quick locks of the adjacent cabinet into the side holes of the arc lock, and rotate quickly lock the handles to lock the cabinet.

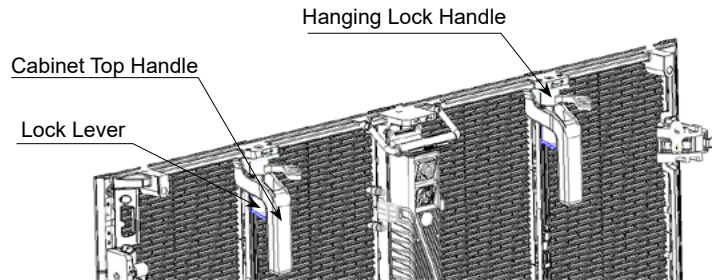


Figure 2.1.2 Up and Down lock diagram

As shown in Figure 2.1.2, when hoisting, first check whether the handles of the hoisting lock are all in the open state. If the handles of the hoisting lock are not in the open state, they should be turn to the open state, and then hold top handles with both left and right hands. Use the handle on the cabinet to push up the lock rod of the hoisting lock.

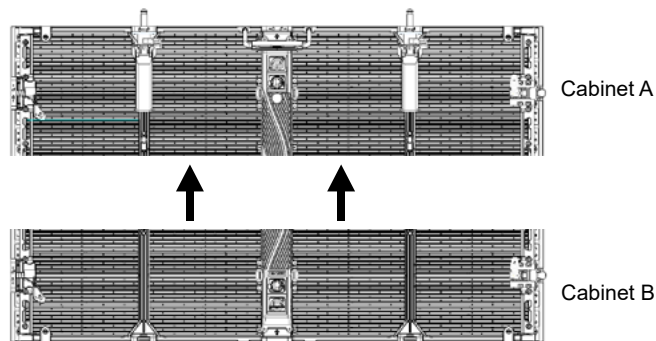


Figure 2.1.3 Up and Lock lock installation diagram

As shown in Figure 2.1.3, hold the upper handle of box B, lift the box, align the lock pin of box B with the lifting lock seat hole of box A, and lift it directly. The base will automatically catch the lock pin of box B. After slowly letting go, lock the lifting lock handle of box B. The cabinet hoisting method is the same as that of 500*500/500*1000 cabinets. Note: 500*500 cabinets and 500*1000 cabinets can be hoisted to each other.

2.2 Installation and use of hanging beams

The hoisting method is to hoist the box on the aluminum hanging beam. This method must have a suitable installation location, such as a beam or hanging beam above. This method can also be hoisted on a TRUSS frame, and can also be installed on other similar structures with strong structures, as shown in Figure 2.2.1.

In this method, the uppermost part of the display screen is an aluminum hanging beam, and then low line cabinet is connected to the hanging beam, and the lower line cabinet is buckled to the upper cabinet, and the right cabinet is connected to the left cabinet. This way to form a whole screen. The structure of the aluminum hanging beam is shown in Figure 2.2.2. Figure 2.2.4 is the completed installation structure diagram of the rope and TRUSS frame.

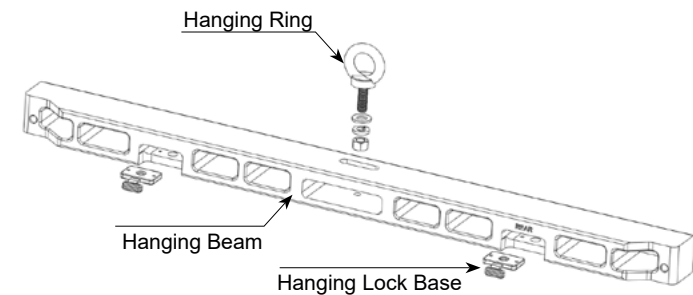


Figure 2.2.1 Installation diagram of aluminum hanging beam structure

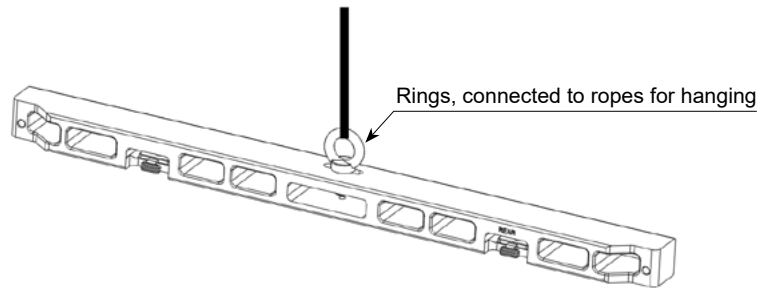


Figure 2.2.2 Installation diagram of aluminum hanging beam structure (rope)

Connection method between hanging beam and cabinet:
Aluminum hanging beams are installed in alignment with a single cabinet (Figure 2.2.3);

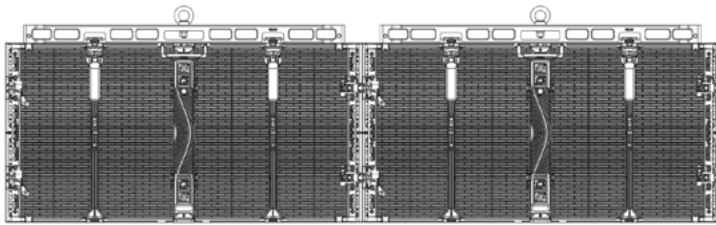


Figure 2.2.3 Connection diagram between aluminum hanging beam and cabinet

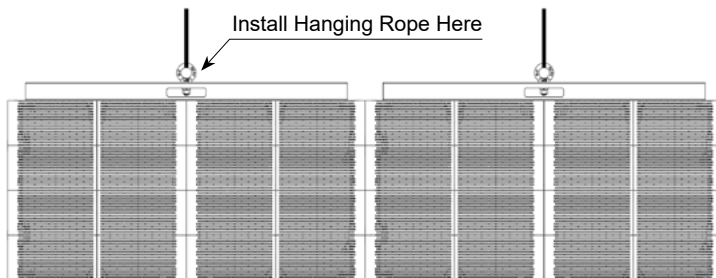


Figure 2.2.4 Front view of hanging

Use hanging beams for installation. After testing by our company, each cabinet can bear a load of 15,000N, with a safety factor of 6:1 and safe install less than 250KG. So it could hang with 30 boxes (1000*500mm boxes) high.

Note: When using hanging ropes for hoisting, make sure that each rope is stressed (the rope is tight). Each lifting beam can lift up to 15 meters of cabinets (30 pcs 1000*500mm cabinets).

2.3 Fixed installation and use

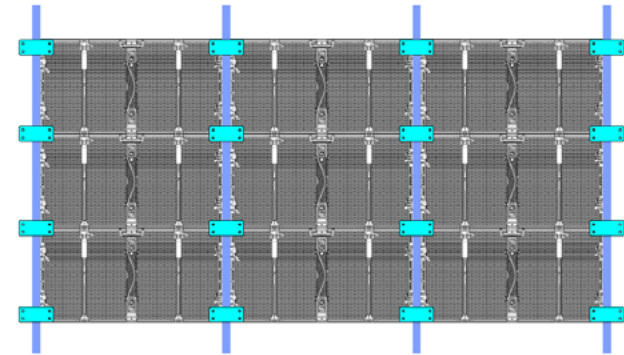


Figure 2.2.3 Installation of cabinet connection piece

2.4 Dislocation installation method

Compared with the traditional LED display cabinet installation method, MT products are designed with multiple mounting holes in the installation method, providing to customers with more creative splicing possibilities and enabling various dislocation splicing installations. The specific splicing and installation methods are shown in Figure 2.4.1 and Figure 2.4.2.

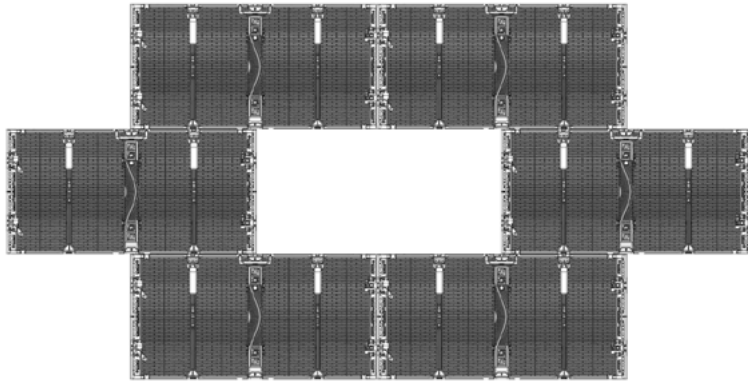


Figure 2.4.1 Up and down misaligned installation diagram

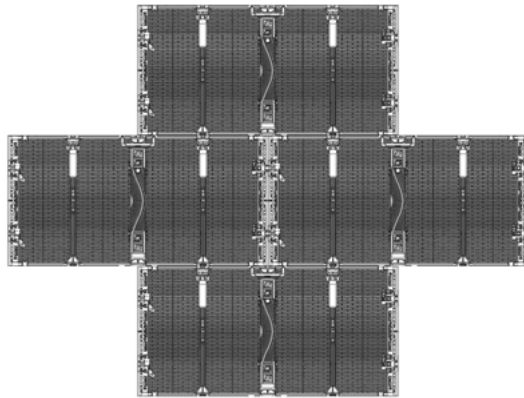


Figure 2.4.2 Up and down dislocation installation diagram

2.5 Module maintenance

Remove the 4 screws from back that fix the module, and then use the module removal tool to push out the module from the back of the cabinet. As shown in Figure 2.5.1~2.5.2 module maintenance diagram.

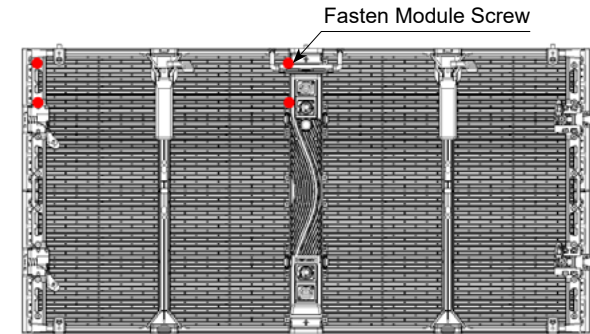


Figure 2.5.1

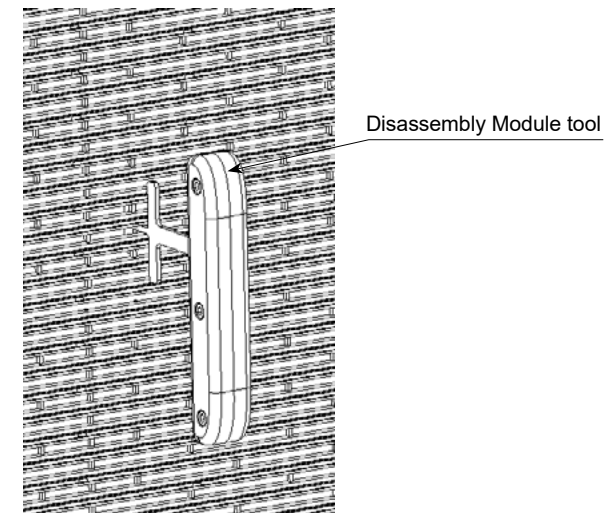


Figure 2.5.2 Schematic diagram of module maintenance

2.6 HUB maintenance

Lock the tool into the copper pillar of the HUB, and then take out the HUB. As shown in Figure 2.6.1

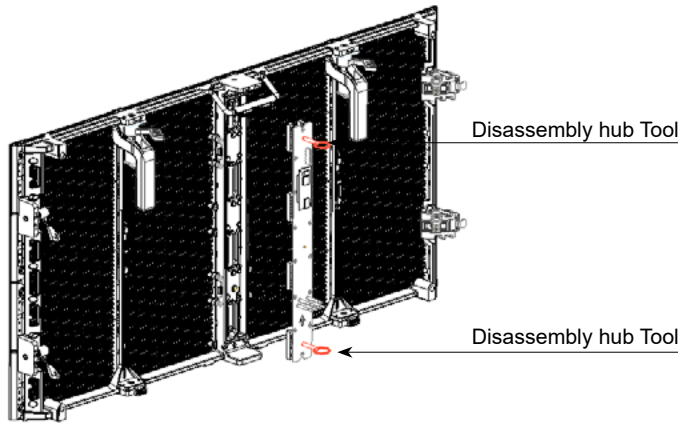


Figure 2.6.1 HUB maintenance diagram

2.7 Installation precautions

1. When the product is exposed to rain or there are water droplets on the surface, it is strongly recommended to completely dry the product before placing it in the flight case.
2. If the display has been no used for a long time (generally 10-30 days, the specifics need to be determined according to the environment, climate and other factors), dehumidification should be carried out before use; such as editing a simple program and gradually increasing the brightness, through Slowly heat up to remove accumulated moisture. For example, use the following method:
3. Use the power-on black screen state → 2-4 (Hours), use 10-level brightness to light up the state 4-6 (Hours), use 20-level brightness to light up the state 68 (Hours) use 30-level brightness to light up

the state 8- 10(Hours), adopt the 40-level brightness lighting state → 10-12(Hours), adopt the 50-level brightness lighting state → 12-14(Hours) adopt the 70-level brightness point state 14-16(Hours), adopt the 90-level brightness Lighting state→16-18(Hours) adopts 120-level brightness lighting state→18-20(Hours)) adopts 150-level brightness lighting state, →20-22(Hours) adopts 200-level brightness lighting state (According to actual usage environment, climate and screen off time should be appropriately reduced or extended).

Chapter 3 Packing

3.1 Module Packaging (2 in 1) Figure 3.1.1

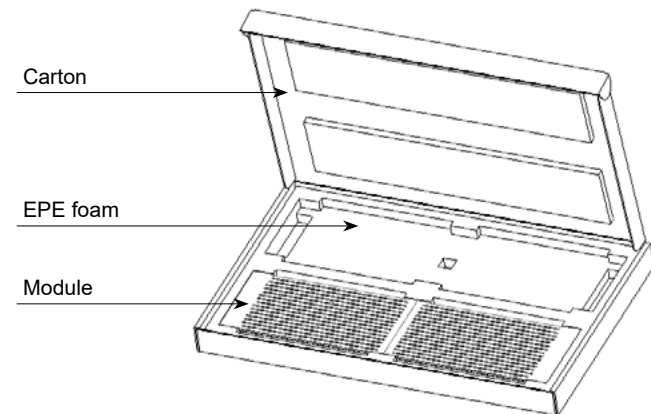


Figure 3.1.1 Carton packaging diagram

3.2 Cabinet Packaging (5 in 1) Figure 3.1.2

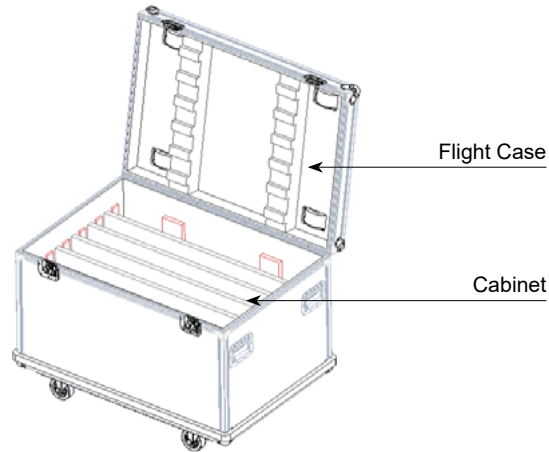


Figure 3.2.2 Flight case packaging diagram

Chapter 4 Questions about Display Screens

4.1 Software issues

1. The connection is interrupted during startup or it prompts that the main control card cannot be found, or the software interface is nonadjustable, that is, in a gray state, and there is no main control icon in the software "LED control device list".

Solution: Replace the USB cable; check the device connection in device management; make sure the computer does not have viruses; if it is a built-in type, the slot may be loose or the PCI may be damaged or foreign matter may interfere with it. Please re-insert it or try clean the PCI interface with an eraser.

2. The main control output network port indicator light does not light up. Solution: There may be two situations. The relevant control system software may not be installed, please confirm the installation; or the FPD of the graphics card didn't open. Right-click My Computer on the desktop → Properties → Settings → Advanced → Display → FPD.

4.2 Hardware problems

1. The LED display does not show anything.

Solution:

- Check whether the power is on;
- Check whether the output signal source is turned on;
- Confirm whether the display area is correct.

2. The LED display box display is blurry or color block and does not light up.

Solution:

- Check whether the module and HUB are connected;
- Make sure the configuration file is loaded correctly;
- Confirm that the calibration is turned on or the calibration is

correct;

d. If there is any problem with the mask being damaged, it needs to be resolved.

3. The picture of the LED display box is misaligned.

Solution: Please reconfirm and connect the signal cable in the correct way.

4. Some pixels do not light up.

Solution: The LED may be dead, please repair and replace it.

Chapter 5 Maintenance of the display screen

The correct use of LED displays is crucial to the lifespan and normal operation of LED displays. Therefore, it is necessary to do a good job in the maintenance of LED displays in daily life.

1. Please read the "MT Series LED Display Operating Manual" carefully. The manufacturer does not assume any legal responsibility for the consequences caused by incorrect, incomplete, irresponsible or unsafe use of the installation system;
2. When moving the display cabinet, please handle it with care and avoid hitting or colliding with hard objects;
3. Please check whether the screws in each part of the cabinet are tight fixed before use;
4. Before installing the screen, please confirm whether the steel frame, etc. is firmly fixed in place. For displays that have been installed for a long time, the firmness of the mounting points should be checked regularly. If there is any looseness, make timely adjustments and re-reinforce or update the hanging parts;
5. The entire cabinet frame structure is prohibited from contact with corrosive substances such as oil and acid;

6. Pay attention to the anti-static work of the screen body. Do not touch the lamp surface directly with your hands. It is recommended to wear gloves when installing and debugging the display screen;
7. The neutral and live wires of the power cords of the computer and control parts cannot be connected in reverse and should be connected in strict accordance with the positions required by safety regulations;
8. The power switch of the display screen often trips. The screen body should be checked or the power switch should be replaced in time;
9. When turning on the screen, turn on the PC first and then turn on the LED screen; when turning off the screen, turn off the LED screen first and then turn off the PC (turning off the PC first without turning off the LED screen will cause high spots on the screen and burn out the lamp, with serious consequences.);
10. If any abnormalities such as short circuit, tripping, wire burning, smoke, etc. are found after moving, it should not be repeatedly tested the screen and power on, should be check each part to find reason.
11. Be proficient in installation methods, original data recovery and backup, master the setting of control parameters and the modification of basic data presets;
12. Check for viruses regularly and delete irrelevant data;
13. Non-professional personnel are not allowed to operate the control system software;
14. When installing and disassembling the display screen, special attention must be paid to protecting the LEDs on the four sides of the display screen and to prevent damage to the LED lamps;
15. Indoor screens should be moderately ventilated, which can quickly evaporate the water vapor attached to the display and reduce the relative humidity of the indoor environment. However, avoid ventilation on days when there is no wind and the air is humid, as this will increase indoor humidity;
16. Desiccant can be placed indoors to use physical moisture absorption methods to reduce moisture in the air and reduce the chance of getting damp;

17. If there is an air conditioner installed in the space where the display screen is installed, you can turn on the air conditioner for dehumidification in humid weather;

18. When it is humid and rainy, the walls are prone to condensation. Do not place the LED cabinet against the wall to avoid water droplets on the wall;

19. The warehouse where products are placed must be kept ventilated and dry, and humid air cannot be allowed to accumulate in the warehouse. It is recommended to locate it in a higher place.



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