www.yes-led.com

Facebook

HQ address: YES TECH Optoelectric Industrial Park, No.108 Qingzhuhu Road,
Kaifu District, Changsha City, Hunan Province, China
Tel: +86-731-84539619/84530058
Web: www.yes-led.com
E-mail:yestech@yes-led.com

MG15 Series LED Screen
User Manual

CONTENTS

CAUTION 01

PREFACE 05

Chapter 1 LED Cabinet 06

1.1 Cabinet Structure 06

Chapter 2 Cabinet Connection 07

2.1 Connectors and Cabinet Mounting Socket Connection 07

2.2 Signal and Power Cable Connection 08

Chapter 3 LED Screen Installation and Packing 09

3.1 MG15 Series LED Display Installation 10

3.2 MG15 Series LED cabinets Packing 16

Chapter 4 Frequently Questions For LED Screen 18

4.1 Software Questions 18

4.2 Hardware Questions 19

Chapter 5 LED Screen Mainterance 20

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:

n 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.

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.

YES TECH

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. Avoid the cabinet work under the conditions of high organic solvent detergent (such as kerosene, rust-proof oil, etc).
5. Regular electricity testing is required for indoor LED screen if long time no use. (regular electricity testing standard: at least 2 hours in a week increase gray scale stepwise)
6. The operating/storage environment should conform to the requirements in product parameter&specification sheet, otherwise it will damage the LED screen seriously.
7. In order to ensure the safety, please check the condition of power cables every three months if rental usage, every year if fixing installation.

Caution3:

1. Making sure the LED screen should be properly grounded before working.
2. LED screen grounding resistance must be less than1Ω.
3. If the LED screen is equipped with flight cases, the flight cases should not be exposed to rain. After each performance is completed, please pay attention to the moisture-proof treatment of the flight cases.

Caution 4:

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, and (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 radiate 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.

Caution 5:

Pay attention to the use of floor cabinets:
1. Avoid metal sharps, shoe spikes, glass and other hard objects from scratching or hitting the floor;
2. Do not drag on the surface when moving heavy objects.
3. When the vehicle passes through the ramp pad, the speed of the vehicle should be slow and gentle, and can not accelerate rapidly.
4. When water enters between the mask of floor cabinets and the lamp surface, the mask should be removed to allow the water to dry naturally or with a fan;
5. When the cabinet maintained, if disassemble the cabinet mask, after finishing maintenance, the screw use for fasten the mask cannot higher than the brim.
6. After use, please clean the sand and water stains on the surface of the mask of floor cabinets before putting it back into the air box.

Special statement:

Our company does not compensate for the personal injury or material loss caused by the users' arbitrarily transforming or repairing this product. Please contact our company beforehand when it is needed to repair or remould the 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 MG15 series LED display cabinet, as a MG accessory products. The product is divided into 0° direction cabinet and 90° direction cabinet. At present, there are two models of YMG15-M04NFD, YMG15-M04UFQ. MG15 by connecting with other MG series products, can realize creative installation methods such as circle, more meet the market demand, widen the application place, make it become stage show, lease, important choices for commercial advertisements such as exhibitions, performances, rallies, etc.

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. If there is no special instruction, the operation method on the manual can apply to all the models of this series products.

Chapter 1 LED Cabinet

The LED cabinet mainly includes power supply, modules, and receiving card.

1.1 Cabinet Structure

Magic MG15 series cabinets frame structure is made of polymer nanotechnology material, compared with traditional metal structure, the weight of cabinet body is reduced.
The cabinet size is 250mm*500mm*73mm. (Figure 1.1.1)

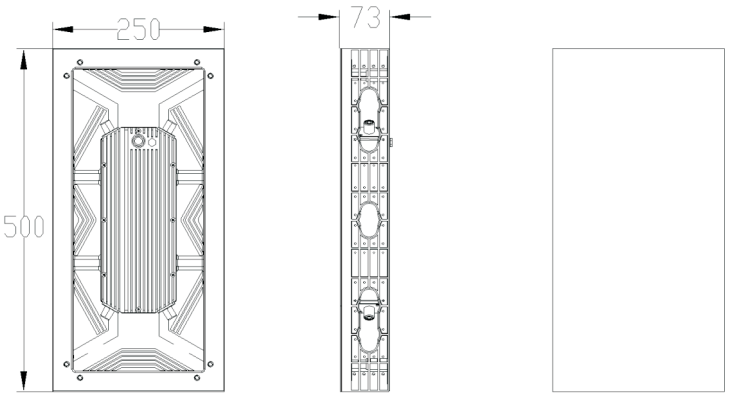


Figure 1.1.1 Cabinet view from all Sides

Chapter 2 Cabinet Connection

2.1 Connectors and Cabinet Mounting Socket Connection

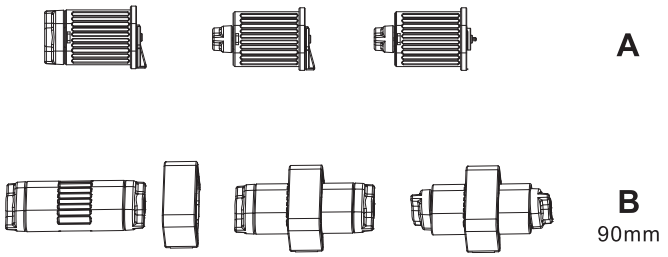


Figure 2.1.1 Connectors for cabinet

As shown in Figure 2.1.1. A&B is the connector of the cabinet. Connectors are mainly used for connecting and fixing between cabinets.

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

The maximum horizontal bearing capacity of Connector B is 1500 N, the safety bearing capacity is 500 N. It can be used more than 2000 times, and stored more than 3 years.

On the back of each cabinet frame (figure 2.1.2), there are three fixed mounting sockets on the 500mm direction border, and one fixed installation socket on the 250mm direction frame, which is inserted into the connecting member respectively, and the two cabinets can be stitched together by tightening and fixing. That is, a set of rotation can quickly and stably realize the connection between the cabinet body.

YES TECH

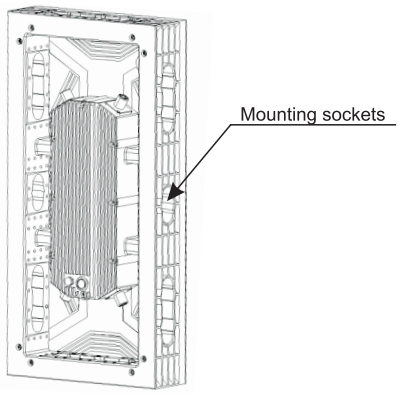


Figure 2.1.2 mounting sockets of the cabinet

2.2 Signal and Power Cable Connection between Cabinets

Cabinets are connected by Cat5 Cable(signal cable) (Figure. 2.2.1) and power cable (Figure. 2.2.2). The MG15 standard cabinet adopts separate cables, that is, the cabinet has two signal lines and two power lines. Signal connection between two cabinets requires Signal connector, the power can be connected directly.

A cabinet is connected by two signal cables, one port is input and the other is output. The input signal of the cabinet comes from the output signal of the previous cabinet, and the output signal of the cabinet is connected to the input signal of the next cabinet. The same is true for the power cable.

Figure 2.21 Cat5 Cable (Signal Cable)

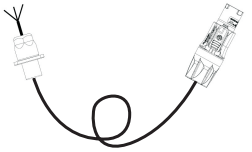


Figure 2.2.2 Power Cable

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

Chapter 3 LED Screen Installation and Packing

In order to achieve the effect of various shapes, the MG15 cabinet is designed with different mounting holes, which can be realized by dislocation installation with other MG series products. Before installation, please pay special attention to the following two points:

Note 1:

During the installation of the cabinet, it is necessary to avoid collisions between the front of the cabinet, especially the four corners of the panel with lamp side (as shown in Figure 3.1), which may cause unnecessary damage to the cabinet and affect the normal use of the cabinet.

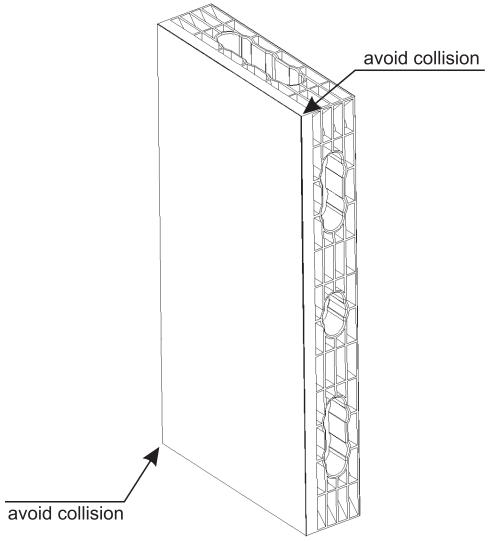


Figure3.1 Four corners of Cabinet front

Note 2:

When the lock head of all types of connectors is in use, in order to ensure the maximum strength of the connection, it needs to be screwed in place, that is, the lock head and the connector itself are in a vertical state.

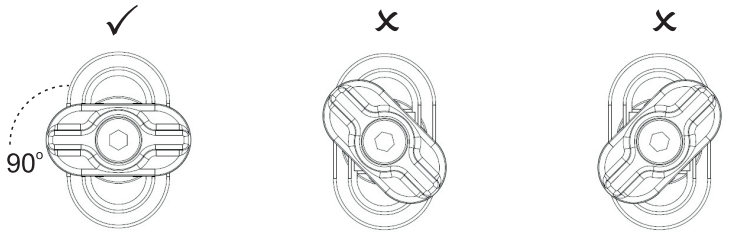
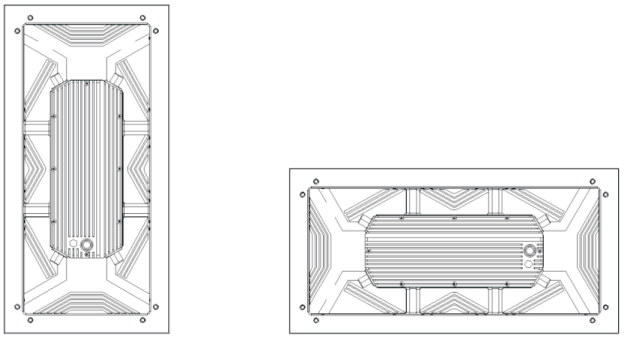


Figure 3.2 Notes for the use of connector Locks

3.1 MG15 Cabinet Installation

MG15 has two specification definitions. By rotating the lamp beads, the problem of viewing angle under different assembly methods is solved. Contains: two models with 0° direction and 90° direction, as shown in Figure 3.1.1.



0° direction　　90° direction

Figure 3.1.1 Two cabinet specifications definition

When MG15 is connected to MG6/MG7/MG12/MG13/MG14 cabinets, MG upper and lower connectors (A connector) are required for assembly and connection, as shown in Figure 3.1.2~Figure 3.1.6. However, when MG15 is connected to the MG6/MG7 in the horizontal direction, a 90mm through connector (B connector) is required as shown in Figure 3.1.3.

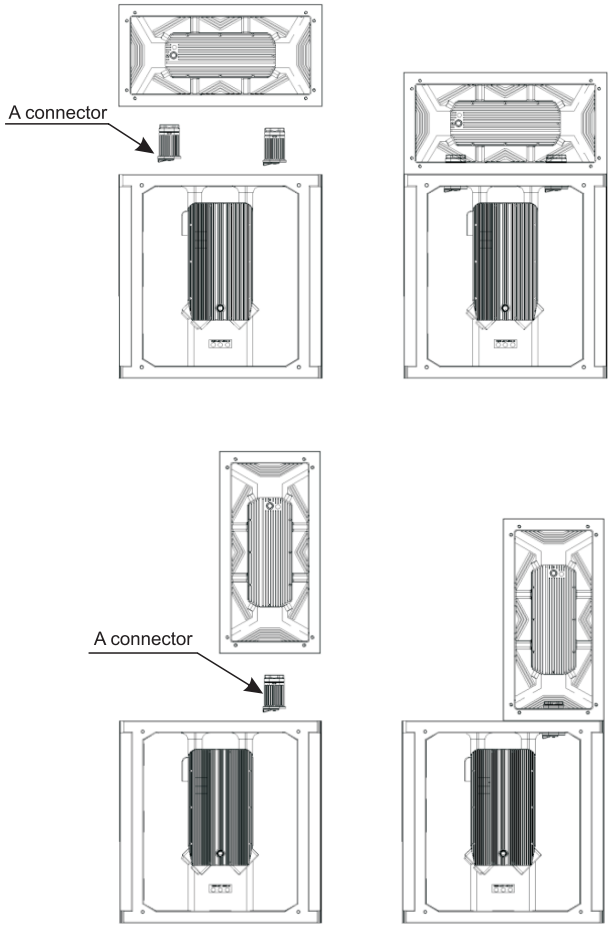


Figure 3.1.2 MG15 Connected to MG7 (or MG6)

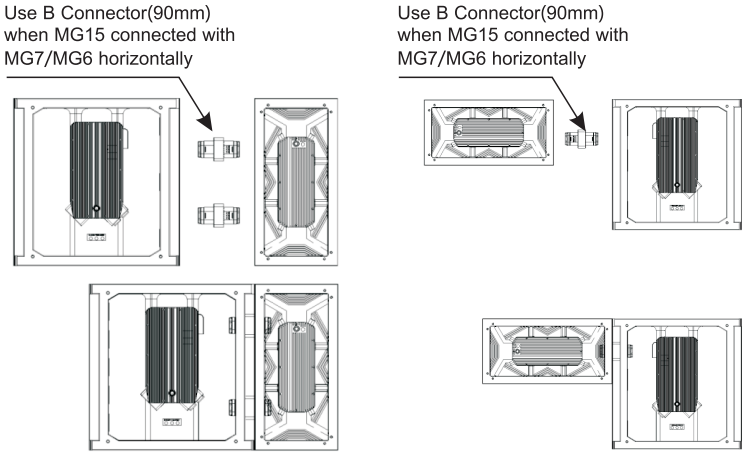


Figure 3.1.3 MG15 Connected to MG7 (or MG6)

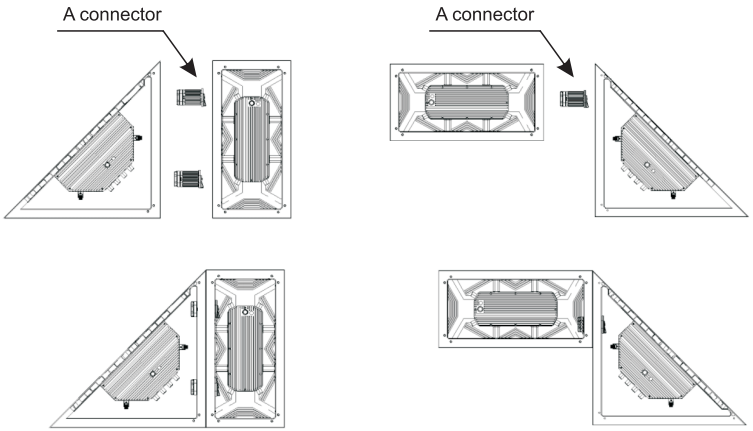


Figure 3.1.4 Connection between MG15 and MG12

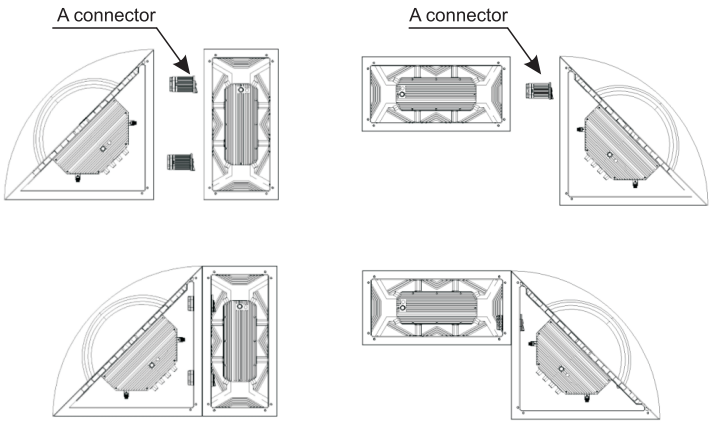


Figure 3.1.5 Connection between MG15 and MG13

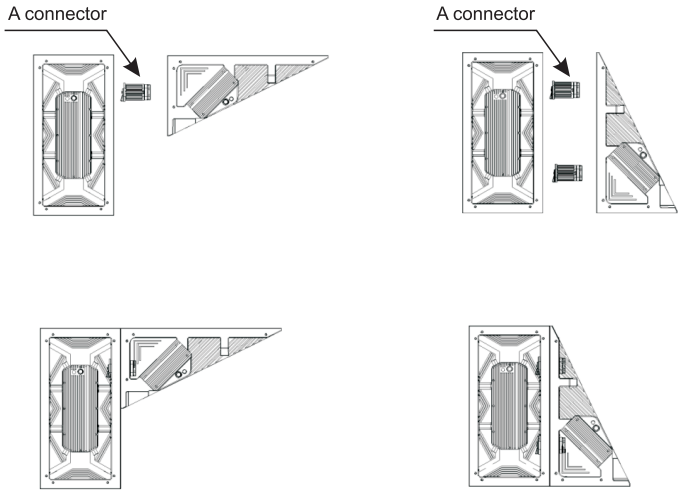


Figure 3.1.6 Connection between MG15 and MG14

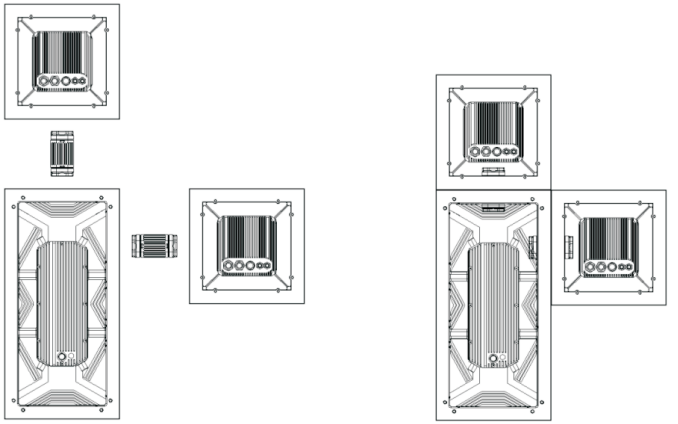


Figure 3.1.6 Connection between MG15 and MG16

Using the MG15 cabinet, combined with the conventional MG7 (or MG6) cabinet and MG12, MG14, it can be spliced into a more circular screen, as shown in Figure 3.1.8. The minimum splicing circle diameter is 2m, as shown in Figure 3.1.9.

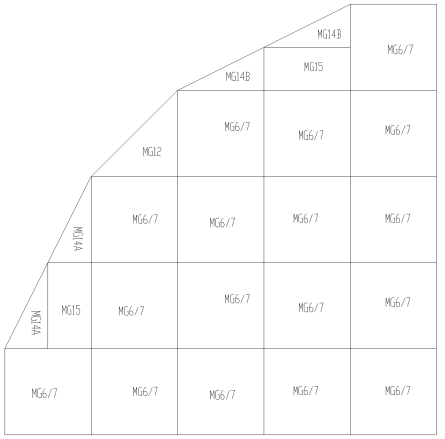


Figure 3.1.8 Circle screen (d≥2) by MG15

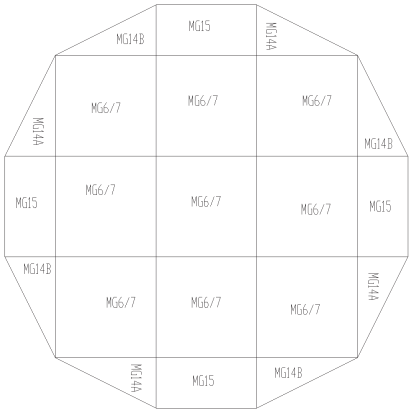


Figure 3.1.9 MG15 is assembled into the smallest circle (d=2m)

Compared with the traditional LED screen, MG15 product is designed with multiple dislocation mounting holes, which provides customers with more creative installation possibilities. Different installation method makes different display, as shown in Figure 3.1.10.

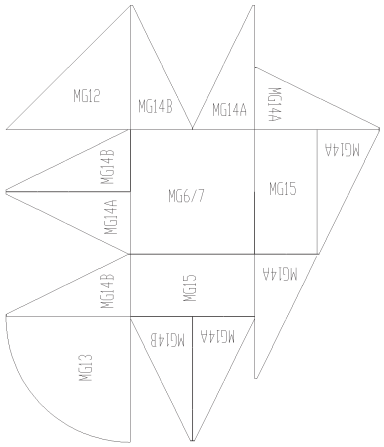


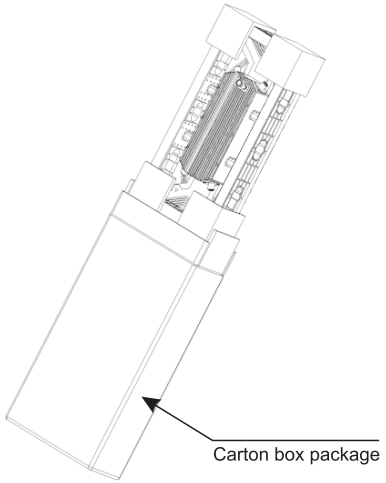
Figure 3.1.10 Connection diagram between MG15 and other MG products

3.2 Packaging of MG15 cabinet

There are two packaging solution for the MG15 cabinet, one is to use Flight case(10 cabinets in 1 case), the other is to use carton packaging, and then the cartons box are packed in wooden boxes for transportation. As shown in Figure 3.2.1-3.2.2.

Attention: When using flight case packaging, before putting indoor products into flight case or carton box, you need to use PE bag + desiccant bag for moisture-proof treatment. Outdoor products only need to be placed in flight case or carton box; When packed with carton box, whether outdoor or indoor products, PE bags + desiccant bags are required for moisture-proof treatment.

Figure 3.2.1 MG15-Flight case Packaging



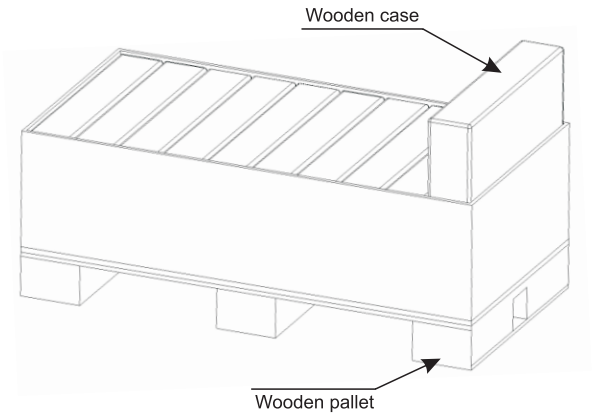


Figure 3.2.2 MG15 -Carton box packaging

Chapter 4
Frequently Questions For LED Screen

4.1 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:
① Change USB cable.
② Check the equipment connection in the equipment manager.
③ Ensure that the computer is no virus.
④ 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:
①Relevant control software has not been installed, please ensure the software is successfully installed .
② 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 Questions

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.

YES TECH

Chapter 5 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.

5.1 Indoor LED display maintenance

1, Please read the MG 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 display 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 display 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 display body, do not touch the LED face directly by hand. It is recommended to wear gloves for the installation and debugging of the display screen.

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 connect strictly according to the original position.

8, If the power switch trip happened frequently, please check the display or replace the power supply switch.

9, Before lighting the display, turn on the PC first, and then turn on the LED display. When stopping work of the display, first turn off the LED display, then turn off the PC (otherwise, it will cause the display highlights, burn the lamp, the consequence 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, The proper way to remove a power supply: Place the back of cabinet face up, and keep the air connector face down; loosen the screws on aluminum cooling board and lift the aluminum cooling board up horizontally to 30~40mm (meanwhile observing the power supply box interior), overturn the aluminum cooling board to right slowly, then start checking and repairing.

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

13, Inspect virus regularly, and remove irrelevant data.

14, Software operation is under professional engineers.

15, Dismantle the LED display after the events, please clean the water stains and dust on the front and back 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 then 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.

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

YES TECH

17, 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 Alcohol).

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

Attention 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 a mask and protective glass, to avoid the cleaning liquid splash into the human eyes and mouth.

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

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

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

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

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

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

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

5.1 Outdoor LED display maintenance

1, Please read the MG 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 display 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 display 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 display body, do not touch the LED face directly by hand. It is recommended to wear gloves for the installation and debugging of the display screen.

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 connect strictly according to the original position.

8, If the power switch trip happened frequently, please check the display or replace the power supply switch.

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

YES TECH

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, The proper way to remove a power supply: Place the back of cabinet face up, and keep the air connector face down; loosen the screws on aluminum cooling board and lift the aluminum cooling board up horizontally to 30~40mm (meanwhile observing the power supply box interior), overturn the aluminum cooling board to right slowly, then start checking and repairing.

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

13, Inspect virus regularly, and remove irrelevant data.

14, Software operation is under professional engineers.

15, Please do not perform in the storm (rain, dust) and strong wind.

16, Dismantle the LED display after the events, please clean the water stains and dust on the front and back 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 then 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.

17, When installing and removing the LED display, specially attention must be paid to the protection of the LEDs on the four sides of the LED cabinet to prevent LEDs from damage.

18, 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 Alcohol).

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

Attention 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 a mask and protective glass, to avoid the cleaning liquid splash into the human eyes and mouth.

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

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

19, Outdoor display not only need to consider the wet problem, but also to do waterproof, dust proof and other routine maintenance work; good sealed installation can help the LED display to reduce the risk of water go inside. Regular cleaning attached to the dust of inside and outside the display also help LED display better heat dissipation, reduce the water vapor attached.

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

21, For the warehouse where products are placed, it is necessary to keep it dry and ventilated, so that damp air cannot be concentrated in the warehouse. It is suggested to locate the site at a higher place.