



Mnano Series
LED Screen User Manual

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CAUTION

Warning: This is Class A product, which may cause radio interference in the living environment. Under this circumstances, practical actions for the interference are required.



Caution 1

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

1. LED screen should only be operated by trained professionals.
2. Do not expose any parts of LED screen to naked flame/smoke.
3. Personal are advised to wear safety helmet during operation.
4. Make sure all AC powers are well connected before turning on the switch.
5. Turn off all switches of LED screen, computer terminals, system cabinet and monitors before performing any maintenance work.
6. Do not touch the power supply when switch is not turned off.

Caution 2:

In order to protect the normal lifespan of LED screen and avoid the damage of electronic components and luminescent tubes. Avoid the damage of device driver and loss of data. Please read the device installation operation rules carefully before operating the LED screen.

1. Turn off all switches of LED screen, computer terminals, system box and monitors before connecting any cables.

2. Wear anti-static ring before replacing any electronic components.
3. Do not hot plug all computer connection cables while the power is running, ensure that all power is disconnected before unplugging any cables from the ports especially serial line ports.
4. To ensure the safety of product operation, please check the condition of the power cables every year.

Caution 3:

1. Make sure the LED screen should be properly grounded before working.
2. The leakage current of this product is less than or equal to 3.5mA/m².

Caution 4:

1. The LED screen usage/storage environment should confirm to the requirements of the parameter sheet, otherwise the LED screen will be seriously damaged.
2. Avoid the cabinet working under condition with high content of organic solvent detergent (such as kerosene, rust-proof oil, etc.).

Caution 5:

1. Warning for CE certification:
Warning: This equipment conforms to CISPR class 32 standard. In a residential environment, the equipment may cause radio interference.
2. Warning for FCC certification:
This equipment conforms to part 15 of the FCC rules. Operation is subject to the following two conditions.
(1) This equipment can not cause harmful interference.
(2) This equipment must accept any interference received, including interference that may cause unanticipated operation.

Warning: Changes or modifications to the equipment that are not expressly approved by the party responsible for compliance may not

allow the user to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for Class A digital devices in accordance with Part 15 of the FCC Rules.

These restrictions are intended to provide reasonable protection against harmful interference with residential facilities. This equipment generates, uses and radiates radio frequency energy, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, users are encouraged to try to correct the interference by one or more of the following measures:

- Adjust and relocate the receiving antenna.
- Strengthen separation between device and receiver.
- Connect the equipment to a socket with a different circuit from that to which the receiver is connected.
- Ask for help from the dealer or an experienced radio/TV technician.

Special statement:

If you need repair or modify the product, please contact our company in advance.

Warranty period:

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

During the warranty period, our company will not guarantee any problem caused by the following reasons.

- Problems caused by users disassembling product arbitrarily or not properly maintaining it.
- Problems arising from incorrect transportation and storage.
- Problems arising from use beyond the rated parameters of the product.
- Problems arising from incorrect installation.
- Problems caused by fire, earthquake, storm, flood, lightning and other natural or man-made disasters such as riots, wars, radiation, etc.

Sign for restricted use of harmful substances in electronic and electrical products :



1. The sign indicates that the environmental protection period of electronic and electrical products is 10 years;
2. It indicates that the electronic and electrical products contain some harmful substances, which can be used safely within the environmental protection period. They should be entered the recycling system after exceeding the environmental protection period.

Chapter 1 LED Cabinet

Preface

Mnano series is a medium and high-end indoor fixed product with fine pixel pitch, which can be widely used in monitoring, broadcasting, conference, commercial display, education and other group activities. Single cabinet size is 600*337.5mm, can easily achieve 16:9 golden ratio screen cabinet installation, flat die-casting aluminum cabinet, fashion and simple appearance, no fan design, with uniform light, low power consumption, high contrast ratio, good stability, good silent effect, good thermal conductivity and other advantages.

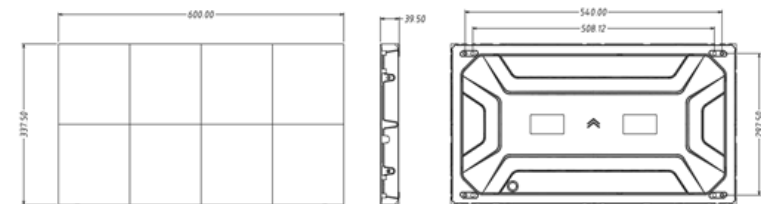
In order to ensure that the product can be used normally under reasonable conditions and get your approval, we will describe the installation and usage procedures and the cautions of product in detail, please read carefully before installing and debugging the display screen.

Warm tip: If there is no special instruction, the operation method of all models of this series display screen is the same as that of this manual.

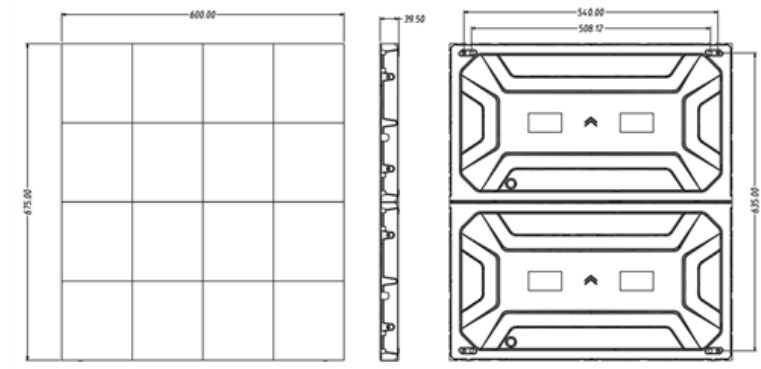
LED cabinet contains the cabinet part and module part and receiving card.

1.1 Cabinet Structure

Mnano series cabinet adopts die-casting aluminum integrated molding, with the characteristics of light weight, good heat dissipation, ultra-thin, which is made by CNC precision machining and higher precision than the traditional cabinet.



Cabinet dimensions 600*337.5



Cabinet dimensions 600*337.5

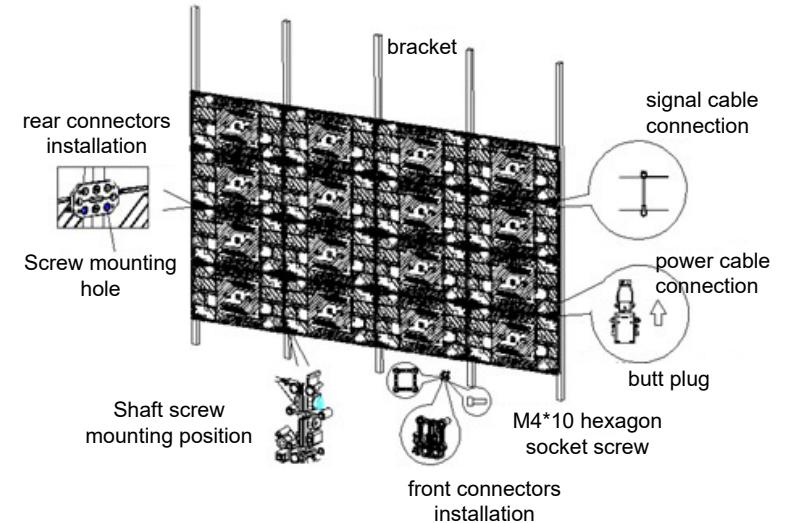
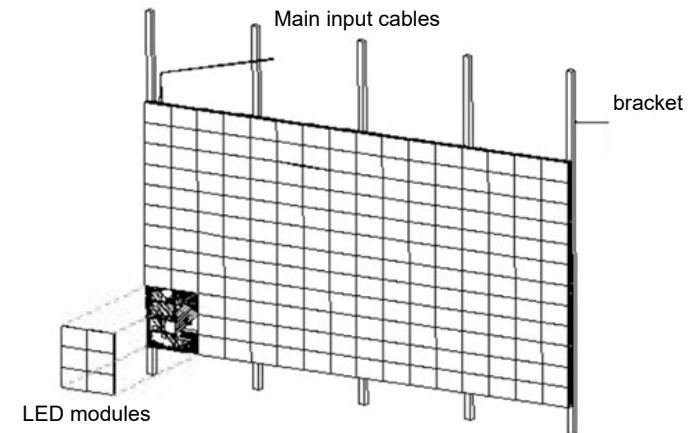
Chapter 2 LED Screen Installation

2.1 Installation Specification

- This product is an indoor series, avoid semi-outdoor and outdoor installation, protect against rain, sun and dust.
- It is recommended to use aluminum profiles (excluding edges in this installation instructions) to improve installation accuracy, reduce physical errors, and effectively ensure horizontal and vertical.
- Prepare relevant materials and tools (such as wrenches, connectors, screws, nuts, etc.) before installation to ensure a smooth installation.
- Grounding cables need to be connected to the screen and structure to prevent the danger of electric shock!
- The screen shall be strictly grounded with a grounding resistance ≤ 10 ohms. Spot inspection shall be carried out once every six months.
- To install a lamp PCB, use a magnet tool, wear rubber gloves, and remove and install the panel vertically. At the same time, attention should be paid to the light board around the edge and other bumps.
- After the installation is complete, wipe the surface of the screen with clean water and a dust-free cloth, without using any other solvent.

2.2 Fixed Installation

2.2.1 Front Installation Diagram



A. Cabinet frame fixing:

First, the rear connectors are fixed on the force wall, and then the cabinet is fixed on the connectors;

B. Cabinet assembly:

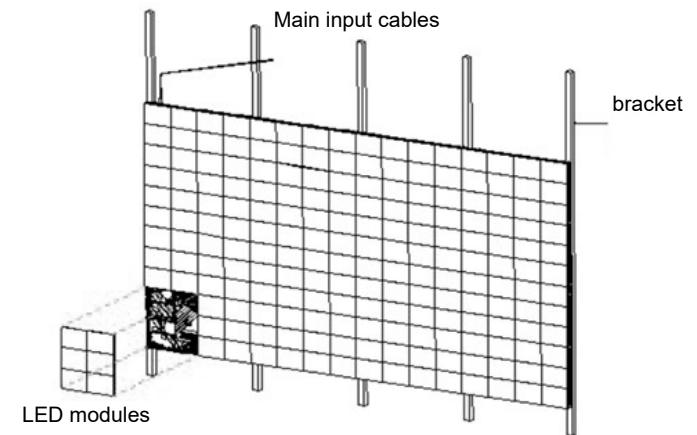
Install the shaft screws first (do not tighten them first), and then install the front connectors

C. Cable connection:

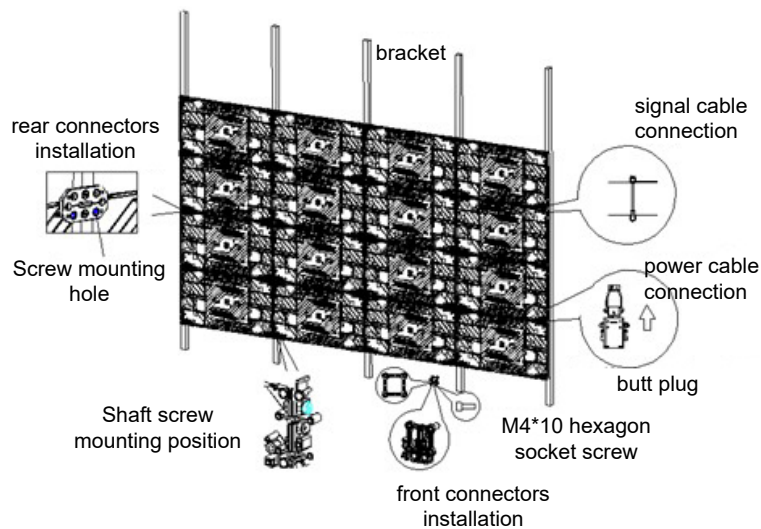
Tighten all screws, connect power cables and signal cables;

D. Module installation:

Use the vacuum sucker maintenance tool to assemble the modules on the cabinet.



2.2.2 Rear Installation Diagram



A. Cabinet frame fixing:

The box is fixed on the bracket with the connecting piece first;

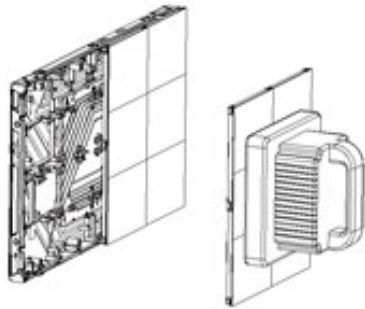
B. Cabinet assembly:

Install the shaft screws first (do not tighten them first), and then install the front connectors;

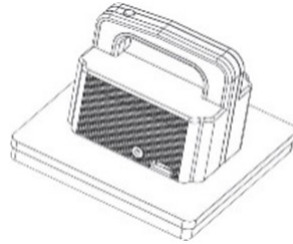
C. For other steps, refer to the front installation method.

Remarks: The preceding installation instructions are for reference only. The detailed installation procedure depends on the installation environment.

2.2.3 Module Maintenance Diagram



maintenance diagram



vacuum sucker

2.2.4 Input Signal&Power Cable Load Remarks

Input power cable: When the voltage is 220V~, a single power cable can carry a maximum of 20 cabinets, and when the voltage is 110V~, the number can be halved.

Input signal cable: For P1.2, Single cable can carry up to 5pcs cabinets, P0.93 can carry up to 2pcs cabinets;

Chapter 3 Frequently Asked Questions

3.1 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.

Solutions:

- Change USB cable.
- Check the equipment connection in the equipment manager.
- Ensure that the computer is free of virus.
- If it is the internal sending card, 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 of sending card is not on.

Solutions:

- Probably relevant control software has not been installed, if so, please ensure the software is successfully installed.
- Or the FPD of the graphics card is closed, if so, please right click "my computer" on the desktop, and then click properties → setting → advanced → display → FPD.

3.2 Hardware Problems

1. There is no content on the LED display.

Solutions:

- a. Check whether the screen is powered on.
- b. Check whether the output signal is open.
- c. Ensure whether the display area is correct.

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

Solutions:

- a. Check whether modules and HUB is connected.
- b. Check whether the configuration file is uploaded correctly.
- c. Ensure the calibration is open and correct.
- d. Please change the broken masks if there is.

3. The picture of the LED indoor screen cabinet is in a wrong order.

Solution: Please recheck and connect signal cables in right way.

4. Individual LED lamps are not on.

Solution: Please repair or replace the dead LEDs.

Chapter 4 LED Screen Maintenance

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

1. Please read the user's manual of Mnano series LED display screen carefully. The manufacture do not take any legal responsibility of the consequence due to the incorrect, incomplete, irresponsible, or unsafe use of the installation system.
2. Please handle the LED cabinet carefully, avoid collision and strike.
3. Please check the cabinet carefully to ensure 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 along time, regular checking for the connection parts are required. If found any loose part, strengthen or change new hanging parts in time.
5. Keep the whole cabinet frames 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 during installing and debugging screen is recommended.
7. Neutral wire and Live wire of the power cable in the computer or the control system can't be connect reversely, it should be connected strictly according to the original position.
8. If the power switch trip happened frequently, please check the screen cabinet or replace the power switch.
9. When lighting the screen, turn on the PC first, then turn on the LED screen. When stopping the work of the screen, turn off the LED screen firstly, then turn off the PC (otherwise, it will cause serious consequences such as the screen highlights, burning the lamp).

10. If abnormalities such as short-circuit, tripping, wire burning, or smoking are exist after moving the screen, the problem should be figured out in time instead of repeating the power-on test.
11. Master the installation method well, as well as the original data recovery, backup the controlling parameter setting and basic data preset modification.
12. Inspect the virus regularly, delete irrelevant data.
13. Software operation is under professional engineers.
14. Pay attention to protect the LED on the four sides of the cabinet from damage during installing and disassembling the LED screen.
15. For the warehouse where the product is placed, it must be kept ventilated and dry, and can not allow the humid air to gather in the warehouse. It is recommended to locate in a higher place.



www.yes-led.com



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HQ address: YES TECH Optoelectric Industrial Park, No.108 Qingzhuhu Road,
Kaifu District, Changsha City, Hunan Province, China

Tel: +86-(0)731-84539619

Web: www.yes-led.com

E-mail: yestech@yes-led.com

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