



LDC500 Quick Guide

1 Packing List

Contact your local dealer if the package is damaged or incomplete. The package contents may vary with device model.

No.	Name	Qty	Unit
1	LED display unit	1	PCS
2	Main power cable	1	PCS
3	Main signal cable	1	PCS
4	Connecting piece	1	PCS
5	Mount accessories ⁽¹⁾	1	Set
6	User manual	1	Set

Remarks:

(1) Including bolts, wrenches, plugs, front maintenance tools and other installation and maintenance accessories, the specific number is based on the actual configuration of the screen.

2 Product Introduction

The indoor LED display box is made of die-cast aluminum alloy, which has the advantages of light weight, high precision, thin body, quick installation and convenient maintenance, high product refresh rate, energy saving and low consumption, and low heat dissipation risk. It is widely used in indoor media Advertising, stage performance, meeting monitoring and other places.

- 500*500 standard size design.
- The box body is formed by die-casting aluminum, with high strength, toughness and high precision.
- The cabinet supports front and rear maintenance, which is more convenient and efficient.
- The box module with rope hanging is safe from falling.
- The cabinet design supports three installation methods: wall installation, horizontal hanging installation, and sitting installation.
- Excellent heat dissipation performance, using gold-plated connectors, the product is safe and reliable.

- Aluminum alloy box material is ultra-light and ultra-thin.

Appearance and Dimensions

This manual is applicable to a variety of products. Please refer to the actual product for the appearance of the equipment..



3 Device Installation

3.1 Preparation Before Installation

1 Check the Installation Site

Before installing the indoor fixed display, you need to confirm the following matters:

- Confirm the installation method according to the site conditions.
- Confirm that the construction drawings have been reviewed by the relevant departments before construction.
- Confirm that the installation environment and the installation ground are flat and firm, with strong bearing capacity.

2 Precautions for the Installation Environment of the Screen

Generally, the indoor fixed LED display device has a large area, and the design of its steel structure should consider many factors such as load-bearing, waterproof, dust-proof, moisture-proof, and ambient temperature. Therefore, during implementation, the entire display steel structure should have design drawings that have passed the review of the competent government department to ensure the reliability and safety of the entire steel structure.

3.2 Structural Installation

1 Installation Requirements

Make sure the floor, truss, or wall where the display is installed can withstand the load of the entire display. The mounting surface and truss on which the display is installed must be level. Never install the display in a sloping cabinet. When installing the screen, please weld the steel structure first, and then install the display screen after confirming that it is qualified.

2 Focus

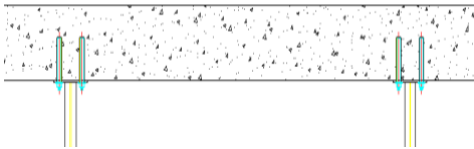
When installing while welding or re-welding after installation, it is necessary to prevent welding slag, arc, etc. from damaging the internal components of the LED display screen. In serious cases, the screen module may be scrapped. When the box is on the screen, the box in the first row at the bottom must be assembled well to ensure that there are no obvious gaps and dislocations before continuing to assemble upwards. When installing and maintaining the LED display, it is necessary to isolate and seal the area that may fall, and ensure that the module will not be in danger of falling.

The LED display has a high consistency. During installation, do not have paint, dust, welding slag and other dirt sticking to the module lamp surface or the surface of the screen, so as not to affect the display effect.

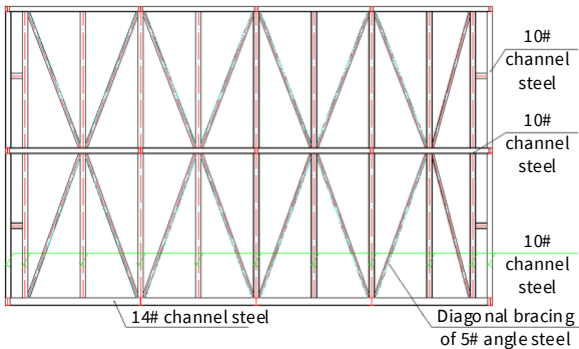
The LED display screen should not be installed near the seaside or waterside. High salt spray, high temperature and high humidity can easily cause the display screen components to be damp, oxidized and corroded. If it is really necessary, you need to communicate with our company in advance for special three-proof treatment. And do a good job of ventilation, dehumidification, cooling and so on.

3.3 Installation Steps

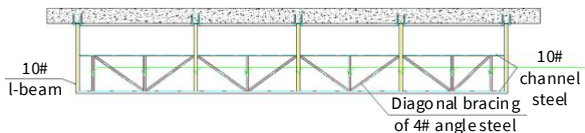
1. Fixing of embedded parts.



2. Steel structure welding.



3. Steel structure fixed installation.



4. The box is installed and connected and fixed. The box is placed in front of the fixed back strip. Here is a four-hole connecting piece, which is fixed with screws at the back.



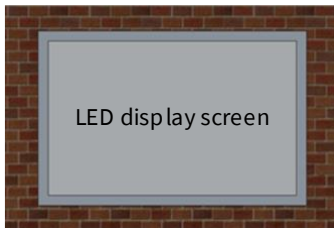
5. Screen frame wrapping processing.

After the installation of the screen is completed, the frame of the screen is edge-

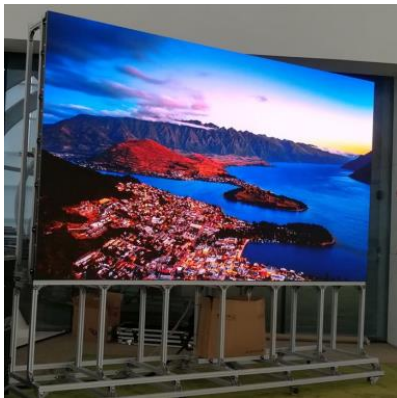
wrapped, and the general materials are stainless steel, aluminum-plastic panels, profiles, etc.

3.4 Common Installation Methods

- Wall-mounted installation



- Aluminum profile installation



NOTE!

- The above is only an example, please select the specific installation method according to the actual needs.
 - If you need technical support, please contact our company.
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4 System Connection

When the total power of the LED display is less than 5KW, single-phase voltage can be used for power supply; when it is greater than 5KW, it is required to use the three-phase five-wire voltage power supply of the distribution box, and the load of each phase is as even as possible; the distribution box must have a ground. The ground wire and the neutral wire should not be short-circuited; the power distribution box needs to be well protected against leakage, and protection devices such as lightning arresters need to be connected, and the connected power supply should be kept away from high-power electrical equipment.

Before the screen is powered on, it is necessary to check the connection of the cables between the boxes, the main cable, etc., and there must be no wrong connection, reverse connection, short circuit, open circuit, looseness, etc. Before performing any maintenance work on the screen, please cut off all power supplies in the screen to ensure the safety of you and the equipment. All equipment and connecting lines are prohibited from live operation.

When unplugging or plugging cables, power cables, network cables, etc., do not pull them directly. Press the head of the cable with two fingers and pull it out slowly. Both the power cable and the network cable need to press the buckle before they can be pulled out. The aviation head cable is generally a buckle type. The female connector is paired, and heavy objects cannot be placed on cables such as power cables, signal cables, and communication cables. The cables should be avoided from being trampled or squeezed.



NOTE!

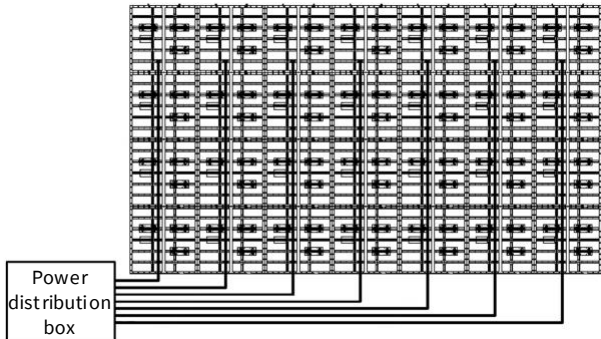
Power supply voltage requirements for LED display: It needs to be consistent with the voltage of the display power supply, 110V/220V±10%; frequency: 50HZ~60HZ.

4.1.1 System Connection Steps

- Power off all screens and devices before connecting.
- Connect the DVI signal of the computer (or other equipment) to the video processor through the DVI cable.
- Connect the output signal on the video processor to the screen with a signal access cable.

After all connections are completed, first power the video processor and computer, and then connect the power of the LED screen.

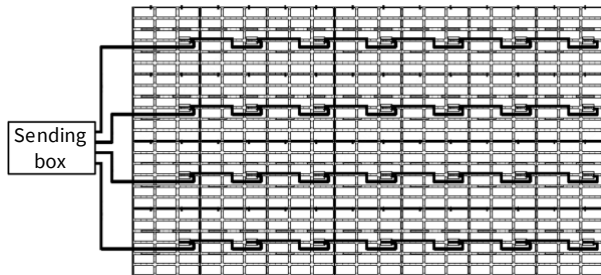
The connection diagram of the power cable of the box is as follows, and the specific items should be implemented according to the project connection standards.



NOTE!

To avoid fire caused by overloading the power cable, please do not overload it. Please refer to the product maximum power. It should be avoided to turn on all load switches at the same time, otherwise it is easy to cause the peak current to be too high and avoid the fire hazard caused by overloading the power cable.

The schematic diagram of the signal connection of the box is as follows, and the specific items should be implemented in accordance with the project connection standards.



4.1.2 Commonly Used Wires

The physical diagram of the power cable between the boxes is shown below.



The physical diagram of the signal line between the boxes is shown below.



5 Common Troubleshooting

The box has a test button and two status LED indicators (need to open the box to be visible), green and red respectively. Two status LED indicators are located on the upper part of the box (on the receiving card). The red LED indicator indicates the power status, and the green LED indicator indicates the communication status of the box. Press the test buttons one by one without a video processor, and the display screen will appear red, green, blue, and diagonal lines.

Indicator	Condition	Diagnosis	Solution
red LED indicator	Always bright	The power supply of the box is working normally	-
	extinguished	The power supply of the box is not working properly	<ul style="list-style-type: none"> ● If the cabinet is connected to the main power supply, check whether the power access cable is plugged in properly, whether the power input port of the cabinet is normal, and whether the main power supply is powered on. ● If the cabinet is not connected to the main power supply, but obtains power from the previous cabinet, check whether the power cascade cable and the power output of the previous cabinet and the power input of the cabinet are normal.
Green LED indicator	flash	Communication with adjacent modules or video processors is normal	-
	slow flash	Poor communication with adjacent enclosures or video processors	<ul style="list-style-type: none"> ● If the box is connected to a video processor, check whether the signal access line is plugged in properly and whether the signal

Indicator	Condition	Diagnosis	Solution
			<p>input port of the box is normal.</p> <ul style="list-style-type: none"> ● If the cabinet obtains the signal from the previous cabinet, check whether the signal cascade line and the signal output of the previous cabinet and the signal input of the cabinet are normal.

6 Product Maintenance and Simple Maintenance

6.1 Module Disassembly and Maintenance

Use the air suction tool to take out the module from the front of the screen, determine the direction of the module according to the logo, and replace the module.



6.2 Switching Power Supply Maintenance

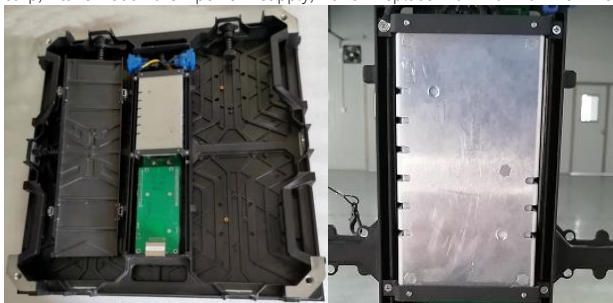
6.2.1 Pre-maintenance

Remove the front module of the box, remove the screws of the HUB board, remove the fixing screws of the power supply, and replace the power supply.



6.2.2 Post Maintenance

Open the back door cover of the box, remove the screws that fix the power supply strip, take out the power supply, and replace it with a new one.



6.3 Control System Maintenance

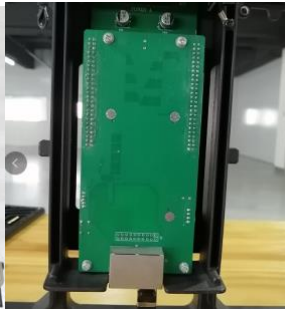
6.3.1 Pre-maintenance

Remove the front module of the box, remove the screws of the HUB board, remove the fixing screws of the power supply, and replace the power supply.



6.3.2 Post Maintenance

Open the back door cover of the box, remove the screws that fix the power supply strip, take out the power supply, and replace it with a new one.



NOTE!

The above operations are all performed when the power is cut off. Tools used: Phillips screwdriver, electric screwdriver.

7 Notes

- The LED lights used in the modules are susceptible to ESD (Electrostatic Discharge) damage. To prevent damage to the LED lights, do not touch the unit while it is running or when it is turned off.
- It should be avoided to turn on all load switches at the same time, otherwise, the peak voltage will be too high, and the overload of the power cable will cause fire hazards.
- Do not let any part of the display come into contact with any abrasive substances.
- Do not expose the display to extremely hot or cold environments that exceed temperature specifications.
- The use of the product must conform to the design characteristics of the product; the product must be regularly inspected to check whether it is safe and reliable, whether there is wear, deformation, corrosion and other conditions that may affect the load handling capacity of the parts.
- It is recommended to check all installation components regularly; for important components, the frequency of inspection should be increased. Damaged parts may reduce load handling capacity and must be removed immediately for repair or replacement.
- The LED display is recommended to be equipped with a dedicated computer, do not install software unrelated to the display, and regularly disinfect other storage devices such as U disks. The working mode of the LED display is copy mode, and the sound and image are displayed synchronously with the computer, so the computer cannot be moved. Do not use it for other purposes or play or watch irrelevant videos on it, so as not to affect the playback effect. Non-professional staff are not allowed to dismantle or move the equipment related to the display screen without authorization.
- New screen trial operation: The new screen stored within 3 months can be played at normal brightness. For a new screen that has been stored for more than 3 months, the screen brightness is set to 30% for the first time it is turned on, it runs continuously for 2 hours, shuts down for half an hour, turns on and then sets the screen brightness to 100%, runs continuously for 2 hours, and observes whether the LED screen is normal. After normal, set the screen brightness as required.
- LED display is an electronic product, it is recommended to open the screen to run it regularly. For the display that has been installed indoors and has not been turned on for more than 15 days, the brightness of the screen should be reduced when it is used again. Refer to the new screen for the process. Trial operation, can't highlight and keep running in white.