

ONUBIS Indoor COB User Manual

Contents

CAUTIONS	4
PREFACE	8
Chapter 1 LED Cabinet	9
1.1 Cabinet Structure	9
Chapter 2 LED Screen Installation	10
2.1 Installation Specification	10
2.2 Front Maintenance Fixed Installation	10
Chapter 3 Frequently Asked Questions	19
3.1 Software Questions	19
3.2 Hardware Questions	20
Chapter 4 LED Screen Maintenance	21

CAUTION

Attention: This product belongs to Class A and may cause radio interference in residential environments. In such cases, practical measures to address the interference are necessary.



Caution 1

Caution 1:

To prevent physical damage, carefully review the user manual before connecting switches.

- 1. LED screens should only be operated by trained professionals.
- Avoid exposing any parts of the LED screen to open flames or smoke.
- 3. Personnel should wear safety helmets during operations.
- 4. Ensure all AC power connections are secure before switching on.
- 5. Turn off all LED screen switches, computer terminals, system boxes, and monitors before conducting maintenance.
- 6. Avoid touching the power supply when the switch is off.

Caution 2:

To safeguard the LED screen's lifespan and prevent damage to electronic components and luminescent tubes, follow these guidelines:

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

2. Wear an anti-static ring when replacing electronic components.

3. Avoid hot-plugging computer connection cables while the power is on; disconnect all power before unplugging any cables, especially serial line ports.

4. Check the condition of the power cables annually to ensure safe operation.

Caution 3.

- 1. Ensure proper grounding of the LED screen before use.
- 2. The leakage current of this product is ≤3.5mA/m2.

Caution 4:

- 1. The LED screen's usage and storage environment must adhere to the parameter sheet requirements to prevent serious damage.
- 2. Avoid exposing the cabinet to environments with high concentrations of organic solvent detergents (e.g., kerosene, rust-proof oil).

Caution 5:

1. CE Certification Warning:

This equipment complies with CISPR Class 32 standards. In residential environments, it may cause radio interference.

2. FCC Certification Warning:

This equipment complies with Part 15 of the FCC rules. Operation is subject to the following conditions:

(1) This equipment must not cause harmful interference.

(2) This equipment must accept any interference received, including interference that may cause unexpected operation.

Warning: Any changes or modifications to the equipment not



Explicit approval from the party responsible for compliance may be required before allowing the user to operate the equipment.

Please note: This equipment has undergone testing and has been found to comply with the regulations for Class A digital devices as outlined in Part 15 of the FCC Rules. These restrictions are designed to provide reasonable protection against interference in residential environments. This equipment generates, utilizes, and emits radio frequency energy. If not installed and used in accordance with the instructions, it may cause interference with radio communications. However, there is no guarantee that interference will not occur in a specific 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 the following corrective measures:

Adjust or relocate the receiving antenna.

Increase the separation between the device and the receiver.

Connect the equipment to a socket on a different circuit than the one to which the receiver is connected.

Seek assistance from the dealer or an experienced radio/TV technician.

Special Notice: If you require repairs or modifications to the product, please contact our company in advance.

Warranty Period: The warranty period for this product is generally based on the duration specified in the quotation. During the warranty period, our company will not be liable for any issues from the following:

Issues stemming from users disassembling the product without proper authorization or failing to maintain it adequately.

Problems resulting from incorrect transportation and storage practices.

Problems arising from the product being used beyond its rated parameters.

Issues resulting from improper installation procedures.

Problems caused by fire, earthquakes, storms, floods, lightning, and other natural or man-made disasters such as riots, wars, radiation, etc.

Restricted Use: Symbol indicating restricted use of harmful substances in electronic and electrical products.



- 1. The symbol signifies that the environmental protection period for electronic and electrical products is 10 years.
- It indicates that the electronic and electrical products contain certain harmful substances. These products can be safely utilized within the environmental protection period. However, they should be entered into the recycling system once the environmental protection period has expired.

The ONUBIS Indoor COB series presents a range of medium and high-end indoor fixed products with fine pixel pitch, suitable for diverse applications including monitoring, broadcasting, conferences, commercial displays, education, and other group activities. Each single cabinet measures 600 x 337.5mm, allowing for easy achievement of a 16:9 golden ratio screen cabinet installation. These cabinets feature flat die-casting aluminum construction, boasting a fashionable and simple appearance. With a fanless design, they offer uniform light, low power consumption, high contrast ratio, excellent stability, silent operation, and effective thermal conductivity.

Two pixel pitch options are available: COB flip (P0.9/1.25/1.56) and IMD (P0.9/1.25/1.56), catering to diverse customer needs and ensuring the best visual effects.

To ensure proper usage and obtain your approval, detailed installation and usage procedures, as well as product precautions, will be provided. Please carefully review these instructions before installing and configuring the display screen.

A friendly reminder: Unless otherwise specified, the operation method for all models within this series follows the instructions outlined in this manual.

Chapter 1 LED Cabinet

LED cabinet contains the cabinet part and module part.

1.1 Cabinet Structure

The ONUBIS series cabinet features die-cast aluminum integrated molding, offering lightweight construction, excellent heat dissipation, and an ultra-thin profile. Crafted through CNC precision machining, it boasts higher precision compared to traditional cabinets.



Cabinet dimensions

Chapter 2 LED Screen Installation

2.1 Installation Specification

This product is intended for indoor use only; avoid installation in semioutdoor or outdoor environments to protect against rain, sunlight, and dust exposure.

It is recommended to utilize aluminum profiles (excluding edges mentioned in these installation instructions) to enhance installation precision, minimize physical errors, and ensure proper alignment both horizontally and vertically.

Prior to installation, gather all necessary materials and tools (such as wrenches, connectors, screws, nuts, etc.) to facilitate a smooth installation process.

Grounding cables must be connected to both the screen and the structure to prevent the risk of electric shock.

When installing a lamp PCB, utilize a magnetic tool, wear rubber gloves, and handle the panel vertically. Exercise caution around the edges and other protrusions on the light board.

Upon completion of installation, clean the screen surface using clean water and a dust-free cloth; refrain from using any other solvents.

2.2 Front Maintenance Fixed Installation







Gradienter

M5 hex wrench





Lifting locks

Expansion screw/Self drilling screws(optional)

Connecting plate+Metric screw



Dimensions of cabinet mounting holes

As illustrated below (frame installation diagram): The design of the screen structure drawing must adhere strictly to the cabinet dimensions. It is recommended to utilize aluminum profiles as support material. Employ X/Y/Z axis measurements to verify the horizontal and vertical alignment of the support structure, ensuring no elevation irregularities occur and that any bracket installation errors are kept within a deviation of ± 1 mm to maintain installation accuracy. This installation guide is demonstrated using front maintenance installation as a reference.

The installation shelf can accommodate hanging 2 boxes horizontally and connecting 3 boxes vertically. Below outlines the process for constructing cabinets in a 2x3 arrangement.



Schematic diagram of mounting rack installation

As depicted in the installation diagram of the shelf: Follow the sequence Order(1): Begin by fixing the first horizontal bar at the bottom. Use a level to ensure it is horizontally aligned in the XY direction. Once leveled, secure it by punching an expansion screw/drill tail screw, fine-tune as necessary, and then proceed to punch the remaining two screws. Follow Order(2): After securing the first horizontal bar, affix the second horizontal bar using the vertical bar. Align the positioning column on the vertical bar with the positioning hole on the horizontal bar, then fasten using the PF screw on the vertical bar. If continuing upward with the left and right screens, repeat this operation method accordingly.







Assembly Shelf Schematic Diagram

As illustrated in the cabinet installation diagram 1: Begin by connecting the left and right sides of the cabinet, then hang it onto the mounting rack, and secure it using connecting pieces and KM 4*8 screws.

Order 1: Secure the left and right connections using hoisting locks, connecting the cabinets clockwise. Once connected, hang them onto the mounting shelf to ensure a secure fit. Finally, insert a safety pin from inside the cabinet to the crossbar to prevent the cabinet from dislodging under external forces, ensuring safety. Only the bottom row of bars requires insertion into the safety pins; the remaining rows do not (refer to installation diagrams A and C).

Order 2: Connect the left and right cabinets using connecting pieces (refer to Diagram B).





- 1. Align the box and thread it through the gourd hole on the horizontal bar.
- 2. Lower it smoothly to securely hang the box in place.
- After wall-mounting the box, insert the safety pin to prevent it from dislodging. (Safety pins are only necessary for the bottom row; the rest do not require them.)





Cabinet installation diagram b



Cabinet installation diagram c

Cabinet installation diagram 1

As depicted in cabinet installation diagram 2: Once the two cabinets at the bottom are installed, proceed to install the second cabinet on the upper base following the instructions in cabinet installation diagram 1.

Order 1: After erecting the base, secure the upper and lower cabinets with the upper and lower lifting locks. Refer to cabinet installation diagram C for guidance.

Order 2: Connect the upper and lower cabinets using connecting pieces as shown in cabinet installation diagram B.





As illustrated in Cabinet Installation Diagram 3: Repeat the previous two steps to finalize the installation of the full screen.



As depicted above, the installation shelf is arranged in a 2x3 configuration, consisting of 2 horizontal cabinets and 3 vertical cabinets. The horizontal rod comes in two lengths: 1.2 meters and 1.8 meters, allowing for placement of 2 or 3 cabinets horizontally. Similarly, the vertical rod is available in two lengths: 1.013 meters and 0.675 meters, accommodating 3 or 2 cabinets vertically. If the length of the crossbar is extended to 1.8 meters, a 3x3 cabinet configuration can be assembled.

Chapter 3 Frequently Asked Questions

3.1 Software Questions

1. If the software prompts connection interruption, inability to detect the control card upon startup, or displays a non-adjustable gray interface without the main controlling icon in the LED control equipment list, follow these solutions:

a. Try changing the USB cable.

b. Verify equipment connections in the equipment manager.

c. Ensure the computer is free from viruses.

d. If it involves the internal sending card, it could be due to loose slots, damaged PCI, or foreign interference. Reinsert the sending card or clean the PCI interface using rubber.

2. If the indicator light of the output port of the sending card is not illuminated, consider these solutions:

a. Confirm whether the relevant control software has been installed. If not, ensure successful installation.

b. Check if the FPD (Flat Panel Display) of the graphics card is disabled. If so, right-click "My Computer" on the desktop, navigate to Properties \rightarrow Settings \rightarrow Advanced \rightarrow Display \rightarrow FPD.

3.2 Hardware Questions

If the LED display is blank, consider the following solutions:

- a. Verify if the screen is powered on.
- b. Check if the output signal is active.
- c. Ensure that the display area is configured correctly.
- If certain cabinets of the LED display appear blurred or dim:
- a. Confirm if modules and HUB are properly connected.
- b. Check if the configuration file has been uploaded correctly.
- c. Ensure that calibration is enabled and accurate.
- d. Replace any broken masks if necessary.
- If the picture on the LED indoor screen appears in the wrong order:
- Solution: Recheck and correctly connect the signal cables.
- If individual LED lamps are not illuminated:
- Solution: Repair or replace the malfunctioning LEDs.

Chapter 4 LED Screen Maintenance

Proper usage is crucial for ensuring the longevity and optimal performance of LED screens. Therefore, regular maintenance of LED screens is essential.

- Carefully review the user manual for the ONUBIS series LED display. The manufacturer cannot be held legally responsible for any consequences resulting from incorrect, incomplete, irresponsible, or unsafe installation system usage.
- 2. Handle LED cabinets with care to avoid collisions and impacts.
- Before use, thoroughly inspect cabinets to ensure there are no loose screws.
- 4. Confirm that steel frames are securely in place before installation. For screens that have been installed for a long time, regularly check connection parts for any signs of looseness. If any loose parts are found, promptly reinforce or replace hanging parts.
- 5. Keep entire cabinet frames away from oil, acid, and other corrosive materials.
- Take precautions against static electricity when working with the screen body. Avoid direct contact with LED faces by hand; it's recommended to wear gloves during installation and debugging.
- Ensure that the null line and firing of the power cable in the computer or control system are connected strictly according to the original position; reversal is not allowed.
- 8. If the power switch frequently trips, inspect the screen body or replace the power switch.
- 9. When powering on the screen, turn on the PC first, then the LED screen. When shutting down the screen, turn off the LED screen first, then the PC to avoid serious consequences such as screen highlights or lamp burnouts.



- In case of abnormalities like short-circuiting, tripping, wire burning, or smoking after moving the screen, promptly diagnose and address the issue instead of repeating power-on tests.
- Familiarize yourself with the installation method and data recovery, and regularly back up controlling parameter settings and basic data presets.
- 3. Regularly scan for viruses and delete irrelevant data.
- 4. Software operation should be handled by professional engineers.
- 5. Take care to protect the LEDs on all four sides of the cabinet during installation and disassembly of the LED screen.
- 6. Ensure that the warehouse storing products is well-ventilated and dry to prevent moisture buildup. Choosing a site in higher terrain is advisable.



BrightBox LED | 2422 Lee Ave, South El Monte, CA 91733 (626) 380-0883 | www.jmazlighting.com | info@jmazlighting.com