



# LED Floor Screen Construction And Maintenance Manual



# LED Floor Screen Construction Management And Daily Maintenance

Thank you for choosing our company's LED screen. In order to ensure the smooth construction and using effect of this project, the following are the precautions for LED floor screen before construction and daily use. Please read this manual carefully!

## 1 Precautions before installation

1. After the user signs the contract with our company, please contact our sales manager before installation. We will provide relevant drawings for the contracted product. Please prepare for installation according to the installation drawings provided by our company. For example, the size of the foundation pit, the layout of network cables and 220V power supply lines, the distribution system, waterproofing, moisture-proof and other preliminary preparations need to be carried out on site. Our after-sales engineer will also communicate with user to provide technical support and guidance.
2. When receiving the goods, please check the integrity of the outer packaging of the goods, open the box to check if the goods are in good condition, and check whether the goods match our packing list. If there are any discrepancies, please contact our sales manager immediately.
3. In order for users to better understand and use our products, customers who are not familiar with floor screen installation or have never installed them can apply to our company for on-site guidance and training from manufacturer engineers when signing the contract. The on-site installation personnel must comply with the work arrangements of our engineers.
4. If our engineer arrive at the site and the installation conditions are not met, our engineer may need to temporarily leave for other places after feedback from our sales personnel and communication with the user. After the installation conditions are met on site, The engineer will return to guide the installation. The round-trip travel and accommodation expenses will be borne by the user.
5. Our engineer's salary standard for business trips is 75 USD/person/day, calculated from the day of departure to the day of return to the company. Note: For projects with an area of less than 50m<sup>2</sup>, free on-site guidance is 1-2 days, and for projects with an area of 50-100m<sup>2</sup>, free on-site guidance is 2-3 days. (If the project is special, the installation time can be negotiated with the sales manager in advance). If the project cannot be installed and debugged as scheduled due to on-site reasons or other reasons, and the user requests that the engineer cannot leave the site, the user needs to pay the engineering fee to our company. After confirmation between the customer and our sales personnel, the expenses were transferred to our designated account. After the company received the payment, the company notified the engineer to continue to stay and wait. The round-trip transportation, accommodation, and other expenses shall be borne by the user.

## 2 LED Floor Screen Construction Management

1. Please verify according to the installation drawings provided by our company: for example, whether the size of the foundation pit on site meets the installation requirements, whether the network cable and 220V power supply line, distribution system, waterproof, moisture-proof, and other preliminary preparations are qualified.
2. When excavating the foundation pit, a space of more than 20MM should be reserved around the walls according to the length and width dimensions of the product installation, to avoid causing the product to not fit properly during installation or insufficient space for thermal expansion and contraction of the product. (Please refer to the drawings for specific dimensions)
3. During installation, it is necessary to first confirm the on-site size and whether other equipment installed under the screen

is working properly. The network cables and power cables under the screen should be routed separately using sleeves, and the junction of the power cables should be insulated and treated with waterproof and moisture-proof measures.

4. The ground of the installation site should be kept flat with a height error of  $\pm 5\text{MM}$ . For embedded installation, the waterproof, moisture-proof, and drainage system inside the foundation pit should be well prepared. Prevent the risk of product moisture or blistering caused by accumulated water in the foundation pit.

5. Installation should identify the vertical and horizontal centerline of the installation site according to the drawings and on site. Install a row of cabinets vertically and horizontally along the centerline, adjust the gaps and distances around the cabinets, and then install them on all four sides according to the connection shown in the drawings.

6. When installing the screen, users should follow the direction of the cabinet and connect the network and power cables according to our screen installation drawings. The order in which network cables and power cables are connected and the number of cabinets cannot be changed arbitrarily. Improper connection of network cables can cause inability to carry load and increase debugging difficulty. Improper connection of 220V power cables can cause insufficient load, which can easily lead to wire burning and potential safety hazards in the later stage.

7. When installing the screen, users should handle it gently to avoid damaging and loosening the mask and pixels on the edge of the cabinet. During installation, please do not forcefully kick the cabinet or hit it with hard objects. It is easy to cause deformation of the cabinet, detachment and damage of the edge pixels.

8. All floor screen projects must have heat dissipation fans or air conditioners installed below the screen to ensure there is air circulation blowing in and out, to avoid damage to electronic components and deformation of plastic components caused by high screen temperature, which affects product stability and lifespan. (Please operate according to the drawings we provide for specific installation locations and quantities)

9. The use environment and installation of floor screen are different from normal screen, and the material of the mask is also different. After the installation of a normal screen, it is required to have no obvious seams, bright and dark lines. According to the principle of thermal expansion and contraction, the installation of floor screen requires a reserved contraction joint. Based on the thermal expansion and contraction coefficient of the product, all our floor screen products should have a gap of  $\geq 0.5\text{mm}$  reserved during installation to ensure the safe use of the product.

10. During the installation process, live work should be avoided, and the brightness should be lowered during playback. After installation and debugging are completed, the brightness should be adjusted according to the actual situation.

11. If the installation is not carried out in accordance with our company's construction management requirements or does not meet the drawing requirements, resulting in screen malfunction, the user shall bear the consequences on their own.

12. After installation and debugging, the surface of the screen must be protected to prevent contamination, scratches and damage to the mask due to other reasons. If on-site decoration or due to the special installation location of the screen, the floor screen installation should be carried out after the on-site decoration is completed. Effective protective measures should be taken for the screen, and goods should not be stacked on top of the screen, nor should scaffolding be erected. Sharp tools or other objects should not be used to collide with the screen, to avoid damaging the mask and pixels, causing the screen to be unable to function normally.

13. After the screen is installed and used normally, the engineer provides operation and daily maintenance training to the user. The user needs to arrange at least 2 people to receive training. After the training is completed, the engineer must carefully fill out the "After Sales Customer Review Form", and the "Engineering Installation Acceptance Form". Which must be reviewed and signed by the user and bring back to our company.

### 3 Matters needing attention for use environment

1. Working environment temperature range  $-20\text{ }^{\circ}\text{C} \leq t \leq 50\text{ }^{\circ}\text{C}$ , working environment humidity range 10% to 90% RH.
2. Avoid using or storing in high temperature, high humidity, high acid/alkali/salt environment.
3. Keep away from flammable materials, gases, corrosive products, and dust.
4. Avoid strong collisions during transportation and avoid collision of sharp objects.
5. When the temperature of environment is too high or the heat dissipation conditions are not good, you should be careful not to use the screen for a long time.
6. When LED products are used in excess of the specified humidity, It will lead to corrosion of parts, even short circuit, and damage to the product.
7. It is strictly forbidden water, iron powder and other easily conductive metal objects enter the screen. The LED display should be placed in a low-dust environment as much as possible. Using it in a heavy dust environment will affect the display effect, and too much dust will cause damage to the circuit. If water enters whatever because various reasons, please cut off the power immediately until all the components in the screen are treated and dry before use.
8. Because the surface of the screen is made of plastic material, do not put cigarette butts or high-temperature appliances directly on the surface of the screen to avoid damage to our products and hidden safety hazards.

### 4 Turn on screen and off needing attention

1. Turn on the screen: First turn on the control computer to make it work normally, then turn on the LED floor screen.
2. Turn off the screen: First turn off the power of the LED floor screen; Second, turn off the control software; Last, shut down the computer correctly; (Turning off the computer without turning off the display first will cause highlights on the screen, Will cause damage to LED lamp beads and driver IC, the consequences are very serious.)
3. The time interval between turn on and off the screen should be greater than 5 minutes.
4. Avoid turning on the floor screen when the computer is completely white, because this is a high-power state, its impact current on the entire power distribution system is large.

### 5 Power supply needing attention

1. The LED module is powered by DC power supply (operating voltage: 4.2 ~ 5.2V), it is forbidden to use AC power supply; the positive and negative poles of the power terminals are strictly forbidden connected reversed. (Once connected reversed, it will burn out the product or even caused a serious fire).
2. LED display power supply voltage:  $220\text{V} \pm 10\%$  frequency:  $50 \pm 5\text{HZ}$ .
3. The safety ground must be reliable, the ground wire and the neutral wire are isolated and reliable, and the power supply is connected away from high-power equipment.

4. If abnormal phenomena such as short circuit, trip, wire burning, or smoke are found, the power test should not be repeated, and hidden dangers should be eliminated in time before power on.
5. Keep the power supply voltage stable, because the full-screen high-power state will have an impact on the entire distribution system.
6. The floor screen must be powered in a hierarchical manner, because the high power state of the entire screen will have an impact on the entire distribution system.
7. The LED floor screen does not allow playing high-brightness all-white images for more than 2 hours, in order to avoid excessive current, the power cord heats up, and the LED lamp is damaged, affect the service life of the display, it is recommended to mainly play dynamic video.
8. LED floor screen products cannot be turned on and off continuous during use. The operating time of the two should be at least 1 minute apart.
9. The internal circuit of LED floor screen, Non-professionals are forbidden to touch to avoid electric shock, or cause line damage; If there is a problem, ask a professional to perform an overhaul.

## 6 Cleaning matters needing attention

1. Regular cleaning and maintenance: The LED floor screen always have many people walk on it. After a long time, more dust and dirt will accumulate on the PC housing. This needs to be cleaned regularly and in time to prevent affecting the viewing effect.
2. If you clean the surface of the screen, please use a soft brush and wipe gently. It is forbidden to use hard objects and any corrosive liquid substances to clean the surface of the LED screen, otherwise the PC housing may be damaged.
3. Wipe correctly: the surface of the LED floor screen can be wiped with a clean water wet cloth, or using a brush or vacuum cleaner to remove the dust. Do not directly clean with alcohol or corrosive solvents to avoid damage to the PC housing or discoloration of the PC housing. When cleaning, the power of the screen should be cut off. Mop or rag should be used to wring out the water and cleaned. It can not be cleaned with a cleaning machine. After cleaning, wait for about 1 hour before turning it on.

## 7 Moisture-proof and storage requirements

1. Storage temperature requirements: ambient temperature  $-40\text{ }^{\circ}\text{C} \leq t \leq 60\text{ }^{\circ}\text{C}$ , after the package is opened, LED products must be stored in the environment of temperature  $<30\text{ }^{\circ}\text{C}$  and humidity  $<60\%$ .
2. According to the environment of the screen display and the control part, avoid insect bites and rats.
3. The LED floor screen should not be turned off for a long-time. If it is not used for a long time, it should be turned on once a week, turn it on at least 1 hour each time and then turn off to prevent the product will be moist for a long time. In a high humidity environment, if the screen is not used for more than 15 days, the preheating lighting method should be used every time: 30% -50% brightness is preheated for 4-8 hours, and then adjusted to normal brightness (80% -100%) to light the

screen, so as to eliminate moisture, so that there is no abnormality when using; if the screen is not used for more than 30 days, the preheating lighting method also needs to be used every time : The brightness of 30% -50% is preheated for more than 12 hours, and then adjusted to normal light (80% -100%) to light the screen, so as to eliminate moisture, so that there is no abnormality when using.

## 8 Troubleshooting

1. If the driver loader is wrong, reload it correctly.
2. The network cable between the computer and the screen is too long or the network cable is faulty (The length of the cable is recommended to be within  $\leq 100$  meters).
3. The sending box (or sending card) is broken. Replace the sending box or sending card.
4. The receiving card is broken. Check whether the indicator on the receiving card is on? If it is not lit, the receiving card is broken. Replace the receiving card.
5. Whether the connection line between the power supply and the controller is short-circuited or broken circuit.
6. The output voltage and current of the power supply are unstable, replace the power supply.
7. Troubleshoot the whole screen flower dots, picture twisting and flickering:
  - ① The driver loader is wrong, recheck the driver loader, or uninstall and reinstall.
  - ② The sending box or sending card is broken, and you need to replace the sending box or sending card.
  - ③ Irregular flashing is generally a problem of system frequency. Replace the system, or adjust the setting parameters to eliminate the fault.
  - ④ The blinking state of the stars may be a problem with the graphics card driver or the resolution setting of the sending card.
  - ⑤ Another possibility is the problem of power supply (Insufficient power supply, information clutter, electromagnetic interference)
  - ⑥ If the text flashes (there are irregular white borders around the text, irregular flashing, and the text disappears it also disappearing), check the graphics card setting problem, and cancel "Hide shadow under menu" and "Edge smooth transition effect" in the display properties. Can solve such problems.

Please call

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Our customer service center warmly serves you