LED DISPLAY SCREEN INSTALLATION MANUAL


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Brief Introduction

Thank you for choosing this series LED display. Through reading this manual, you could have a total understanding about LED display installation and operation, and know its perfect and advanced function and simple operation method.

Safety Notice

1. Before using the product please read all the instruction carefully.
2. Keep in the entire manual as to the future reference.
3. Do not use the attachments not recommended by the manufacturer, as it may cause danger.
4. as safety, this screen electricity power with a three-pin power plug, the third pin will be connected with the ground. If your plug cannot plug into the electricity outlet, please contact with the electrician and change to a new one. Do not let the safe function of the
three pin plug disabled.
5. Please make sure power supply socket and power cable which you used can resist the sum of all rated current.
6. Carefully observe all warnings, precautions and the one described in the manual.
7. Do not overload power supply socket, since this can result in fire or electric shock.
8. Do not attempt to check and maintain the display yourself because open or move cabinets will have high voltage or other hazards. Refer all servicing to professional and qualified technician.
9. It show the LED display need to be checked if LED display appear obvious abnormal conditions first shut off electricity power and then ask professional and qualified technician to check and repair.
10. Please take care of the maintenance of display. Never let water enter into the LED display body.
11. Please take care of cooling system (such as fan, air-conditioner) and see if it runs in normal. It will produce some heat during display working and cause the LED display body temperature increase if the heat could not be emitted effectively. The too high temperature of display will decrease the lifespan of LED, and even damaged IC or LED lamp.
12. Better shut off the electricity power of LED display in thundering weather, to prevent current caused the hurt to LED display.
13. Avoid the communication cable touching or getting near to high voltage alternating current or any other interferential source which have the electromagnetic radiation. Or else it will affect the screen picture; even seriously will hurt to screen.

Notes of LED display installing and using
1. Before installing must check the frame structure has been made reasonably and make sure that the frame structure has been constructed correctly. Avoid any return work due to frame structure problem.
2. Pay highly attention to install bottom layer of cabinets. Make sure cabinets be placed flat. Or the cabinets above are hard to be installed and may return work.
3. Before debugging, make sure that power line and data line connecting is correct, reliable. Then turn on the power.
4. Pay attention to the position of the communication cable, avoid the communication cable touching or getting near to high voltage alternating current cable or any other interferential source which have the electromagnetic radiation.
5. Strictly abide by the sequence of turn on and off LED display and PC . Better do not turn on LED display electricity power until the PC monitor enter the needed pictures.
6. The turn on and off sequence of LED display:
Turn on: Turn on the control computer until normal running, and then turn on LED display
Turn off: First turn off LED display then turn off computer
7. The LED display body strictly forbid the enter in of water or other easy electricity-conductive metal objects such as iron powder
8. Please immediately shut off power if water enter in due to various reasons and do not use with electricity, and could use until the PCB of Led display body dry enough
9. Led display is combined by lots of electric components which have power consumption, although single component is low power consumption, but we could not despise the power consumption produced from lots of components working at the same time. The continuous long time using will emit heat in large quantity and prick up the attenuation of LED lamp and affect its lifetime, so please pay attention to the treatment of heat emission.
10. Do not put LED display at full brightness state for long time, it will result in temperature increase of LED display and affect its lifetime, due to the big increase of temperature will cause the picture color look not vivid.
11. Do not move the PC frequently, turn off it if not working.
12. Please turn off the LED display in case of special weather such as thunder, bolt, etc. or the AC voltage not stable.
13. Every month check one time of 220V AC power and heat emission equipment inside LED display
14. Do not change easily the fixed technical parameter setup by manufacturer. If the parameter is not set correctly, the display quality of screen will be affected much.
15. To achieve the best display effect, please setup reasonably for screen brightness and contrast degree when display different contents.
16. Please use the spare parts which provided or permitted by manufacturer, the manufacturer will not be responsible for any loss due to use the spare parts which did not get the permission from manufacturer.
Subassembly Instruction

1. The module is smallest unit of outdoor full color LED display, modules compose to cabinets, cabinets compose the LED display with different sizes needed by customer.

Front of module

Front & Side of module

Back of module

Back & Side of module

2. Cabinets are the basis of LED display with different sizes which needed by customer

Cabinet frame

Front view of cabinets
Above is cabinet structure of our LED display Absen-OF20V, which is our hot-selling product of outdoor full color LED display. Other outdoor full color LED display has similar structure.
Installation Instruction

1. Common Installation type

(A) Base Type

(B) Inlaid Type

(C) Hang Type

(D) Double Poles Support Type

(E) Wall mounted Type

(F) Single Pole Support Type

Above are six common installation types. Commonly, outdoor LED display could adopt type A/B/C/D/E/F, indoor LED display normally adopt type A/B/C/D.
Outside framework structure and decoration

The design of the outside framework structure is decided by the installation requirements of LED display, screen size and color of surround circumstance. With the condition of guarantee adequate installation intension, try to minimize the weight of the framework.

For indoor LED display, normally there are two kinds of material of outside framework: black aluminum alloy, aluminum alloy covered with stainless steel (Dull and Bright)
1) Black aluminum framework is simple in structure; the color is close to the background color of LED display.
2) Aluminum alloy covered with stainless steel framework is very beautiful and elegant.

For outdoor LED display, in order to make sure having enough installation intensity and strict water proof effect, outside framework should be steel structure. According to onsite circumstance and user’s requirement, normally aluminum panel with plastic coat be used for the decoration. Their advantages listed below:
1) The color for aluminum panel with plastic coat is abundant and versatile, could be selected as per different request.
2) The surface of the aluminum panel with plastic coat is high quality and smooth.
3) It could realize glue and connect in case of gaps and meet with the nice looking demand.

Check whether the structure of LED display is made in reason or not
a. The bottom layer structure should be solid
b. The width and height of the structure is correct or not, normally 5-10mm larger than LED display is proper.
c. The distance between two pillars from the bottom to the top should be strictly the same. Otherwise, it will cause gap when install the LED display cabinets. Badly, it will be difficult to install the top layers of cabinets or could not install and return work.
d. Check the passage position inside the maintenance box is suitable or not and if it will block the cabinet door, if not suitable the cabinet door could not be opened after LED display finished installation.
e. The holes for cables going through at two sides of cabinets will not be blocked
One Pole Support Type Structure Sketch

1. second floor board
2. Connecting Plate
3. Louver Cover
4. Movable maintenance ladder

Maintenance Passage Sketch

60 cm -- 100 cm
2) According to the number of cabinets, please install the cabinets from the bottom to the top. The connection between cabinets method is showed as following.

Make sure that the bottom layer of cabinets should be very flat, and then install the upper layer cabinets. Put water-proof glue onto the joint between two cabinets. After the whole LED display finish debugging, the LED display framework around should do strict water proof treatment.

3. Connect well the electricity power line and net-line according to cable layout illustration
Installation drawing for first Cabinet

Installation drawing for second Cabinet

Installation drawing for first layer
Software Installation

Basic Configuration requirement for computer:
Operating system : Windows 98/me/2000/NT/XP
Hardware system : CPU Pentium 300Mhz or above
  EMS memory: 64M
  Display card: Standard VGA 256 display mode or above

Relevant software:
  Windows and Media Player ---- Must Install
  Office 2000 --- If need to use WORD file must install
  Realplayer --- If need to play REALPLAYER file must install


Installation for Cards

1). Install driver of Display card
   Shut off the PC power, remove its host back cover and insert the display card into AGP slot. Power on and start PC and then put the display card driver disk provided by us into CD-ROM after the PC run stably, then install the display card driver as per PC indication(See below pictures)

   (1. display card slot; 2-5 slots for sending card and TV or Video capture card; 6 display card; 7 reinforcement screw for display card)

2). Data sending card installation
   Shut off PC after finished above step 1) and shut off electricity power , insert data sending card into PCI slot. Put on host back cover, connect the cables well as per “Connection between PC and LED Display“ requirement.
DataSending card, transfer card Insert data sending card and transfer card Connect DVI line

3). Connections between PC and LED Display

DVI line connection, UTP net line between sending card (system card) and receiving card refer to below diagrams:
1. DVI output port
2. DVI line
3. Port for S terminal (i.e. video output port, could be connected with TV)
4. Display card output signal port (Connect with PC monitor)
5. DVI input port (Use DVI line to connect with display card’s DVI port)
6. RJ45 data output port
7. Indicator light (green glitter indicate having data output; red constant lighting indicate data sending card electricity supply is normal)
8. RJ45 net line input port (CAT-5 net line)
9. RJ45 net line output port (for connect with next receiving card)
10. 5V power supply connecting end
11. Receiving card Indicator light (green glitter indicate data is normal; red constant lighting indicate power supply is normal)
12. Net line (output)
13. Net line (input)
Power Line Connection Inside Single Cabinet

Power Line Connection Diagram for Same Row Cabinet
## Problems and solutions

<table>
<thead>
<tr>
<th>Phenomena</th>
<th>Reason</th>
<th>Solutions</th>
</tr>
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<tbody>
<tr>
<td>Indicate lights of part of the driving board are not lighting</td>
<td>1) No electrical supply (220V)</td>
<td>1) Test the power supply if have electricity or not</td>
</tr>
<tr>
<td></td>
<td>2) Not proper touching of circuit</td>
<td>2) Check the switch and power supply line</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) Power supply damaged or not</td>
</tr>
<tr>
<td>No picture displayed for screen, the green light of the sending card glint, the green light of the receiving card do not glint</td>
<td>1) (RJ45) head of net line not plug well</td>
<td>1) Re-insert (RJ45) head</td>
</tr>
<tr>
<td></td>
<td>2) Something wrong with output and input port of the data</td>
<td>2) Validate the port of the output and input</td>
</tr>
<tr>
<td></td>
<td>3) Receiving card without electricity supply</td>
<td>3) Check receiving card with power supply of 5V</td>
</tr>
<tr>
<td></td>
<td>4) Something wrong with the receiving card and sending card damaged</td>
<td>4) Delivered to professional staff to check and repair</td>
</tr>
<tr>
<td>No pictures displayed for screen, the green light of the sending card do not glint</td>
<td>1) DVI line not connected well</td>
<td>1) Check the DVI connection head</td>
</tr>
<tr>
<td></td>
<td>2) The setup of the display attributes are not right</td>
<td>2) Re-setup again.</td>
</tr>
<tr>
<td></td>
<td>3) Something wrong with the sending card</td>
<td>3) Delivered to professional staff to check and repair</td>
</tr>
<tr>
<td>“No big screen system found” appeared when the PC launched</td>
<td>1) Serial port and big screen system not connected</td>
<td>Validate, re-connecting</td>
</tr>
<tr>
<td></td>
<td>2) Sending card Damaged</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) COM of the PC Damaged</td>
<td></td>
</tr>
<tr>
<td>The long bar equal to the height of 1</td>
<td>1) Flat line disconnected or connect not well</td>
<td>1) Re-insert or change</td>
</tr>
<tr>
<td>Issue</td>
<td>Possible Causes</td>
<td>Solutions</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Module do not display</td>
<td>2) Something wrong with input or output of front module or next module</td>
<td>2) Check, dredge</td>
</tr>
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</table>
| 4~5 cell boards do not display             | 1) Power supply protected or damaged  
2) The AC power line not connected well                                                               | Test, change                             |
| The whole cabinet no display               | 1) 220V power supply line not connected  
2) RJ45 head of netline not plugged  
3) Receiving card damaged                   | 1) Check the power line  
2) Plug the RJ45 head of netline well  
3) Change the receiving card                |
| Whole screen disorder or has distorted      | 1) Something wrong with LED Para program or do not run  
2) The net line sequence not right  
3) The signal of the transmission is too weak                                                        | 1) Operating again  
2) Tidy the order of the net line  
3) Shorten the distance of transmission          |