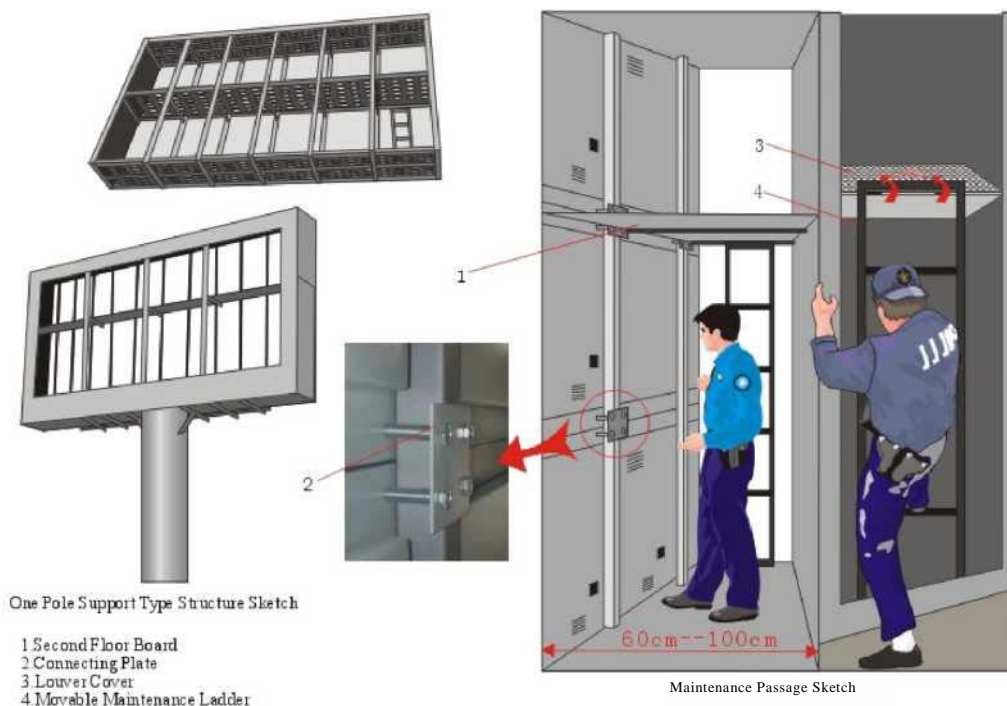


LED Display Screen Installation & Operation Manual

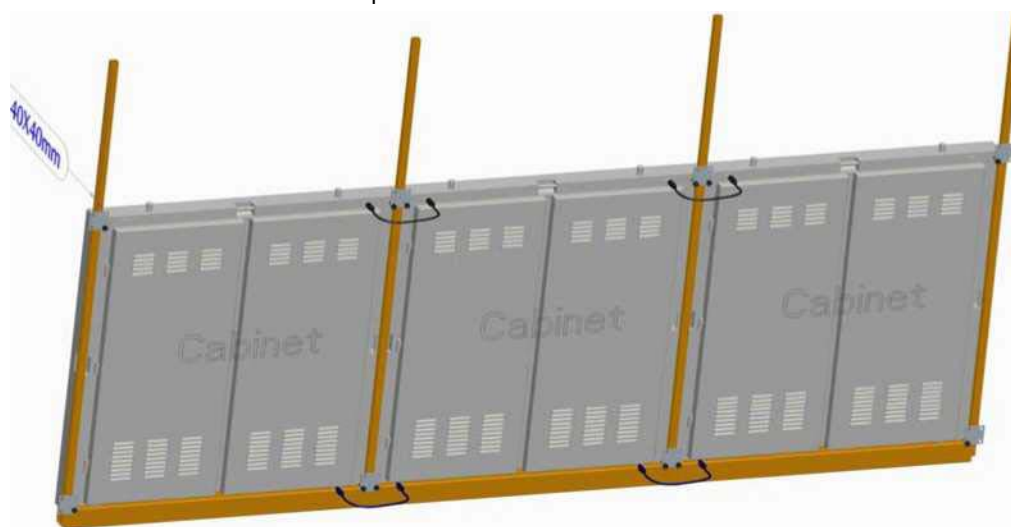
Chapter I Installation

Item One: Cabinet Installation

Fasten cabinets on steel structure according to following sketch map & structure drawing (if needed) which with the delivered goods. Make sure the cabinet order is the same as the connecting drawings.



Picture 1: Sketch map of steel structure and inner structure



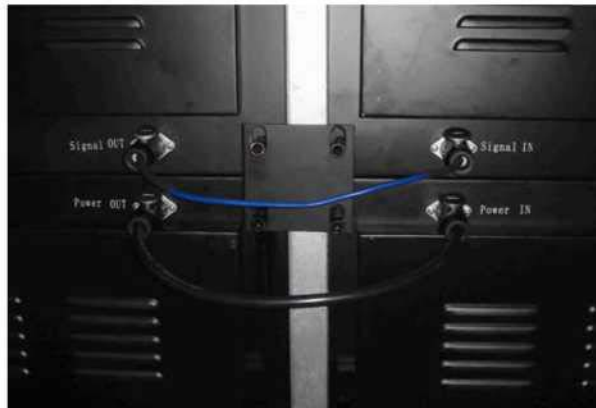
Picture 2 Cabinet Installation

Item Two: Signal and Power Connection between Cabinets

Connect cabinets according to the connecting drawing (with delivered goods), and check whether there is any short circuit between cabinets.



Picture 3



Picture 4



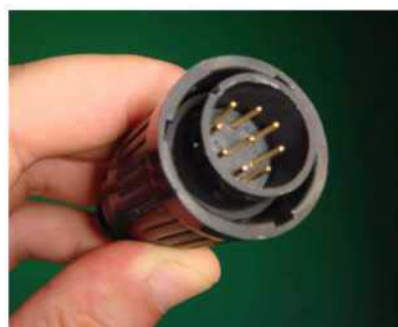
Picture 5 Power cable connecting cabinets



Picture 6 Power connector



Picture 7 Signal cable connecting cabinets



Picture 8 Signal connector

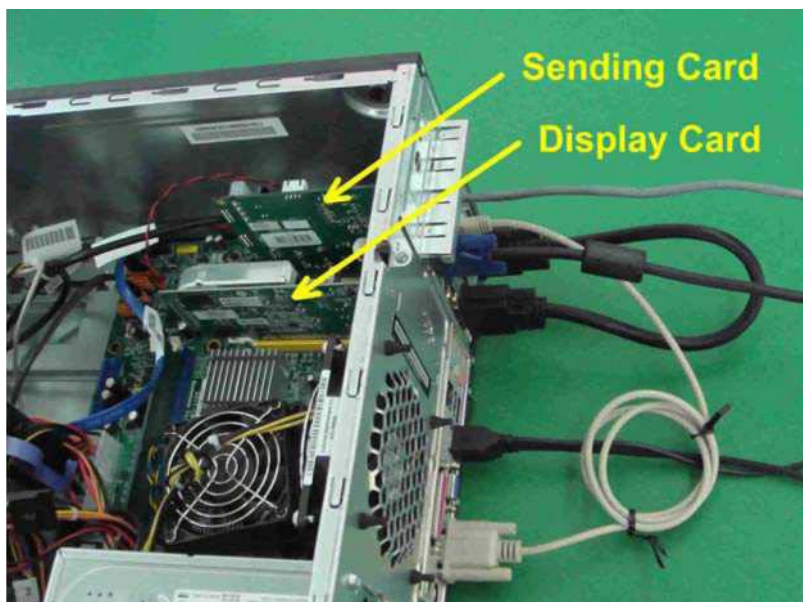


Please NOTE:

Turn Right the Connector when inserting it into the other interface, so it will be firmly connected.

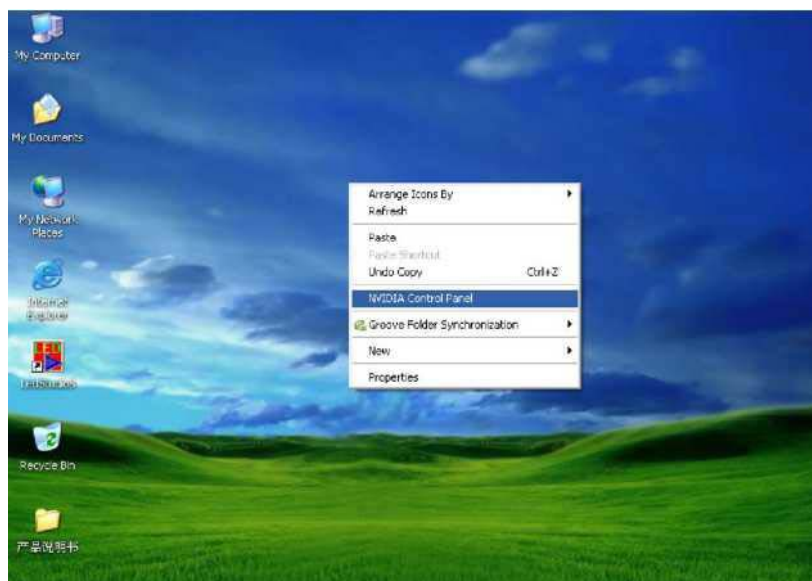
Item Three: Install LED control system (if client buy the control computer from Comcreating then don't need this item)

1. Install the sending card and display card as shown in picture 9;

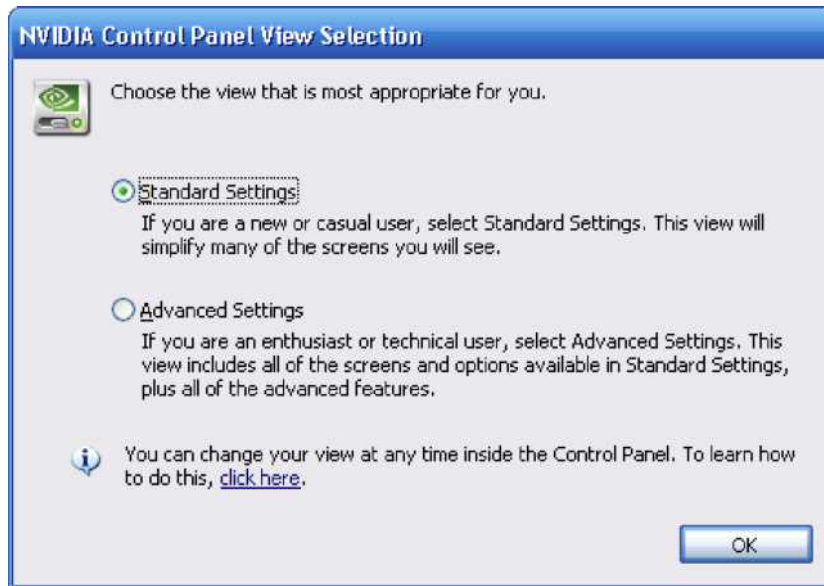


Picture 9

2. Install driver of display card;
3. Restart control computer;
4. Connecting the display card to sending card with DVI cable;
5. Right click the desktop of WINDOWS-*choose "NVIDIA Control Panel" -*choose "Standard Setting" -*"OK";



Picture 10

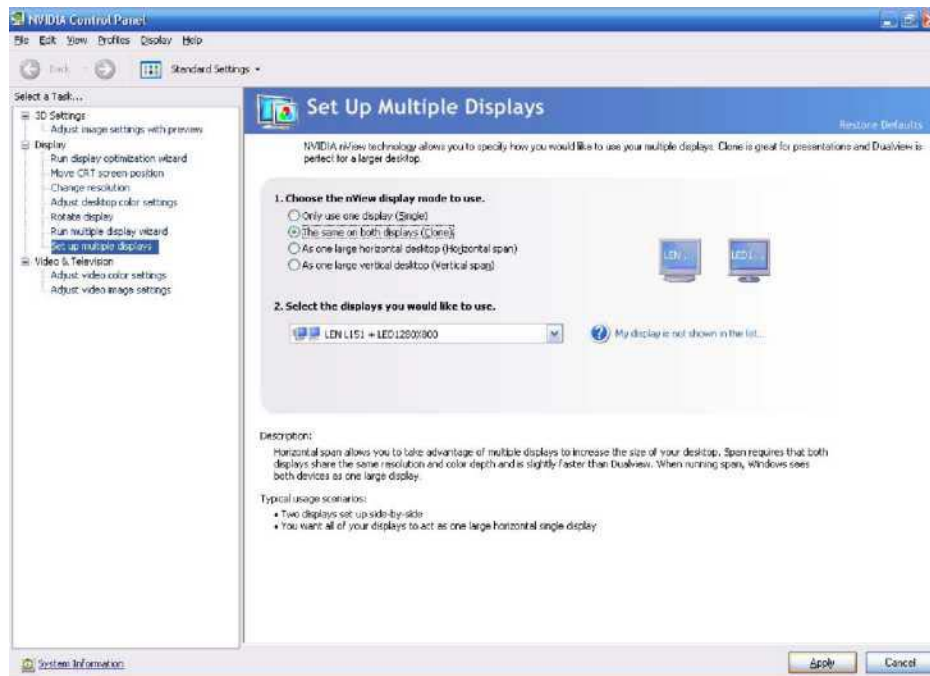


Picture 11

6. Modify the display settings referring to following steps.

Right click the desktop of WINDOWS --choose "NVIDIA Control Panel" choose "Set up multiple displays" ^choose "The same on both displays (clone)" and then all set.

click "Display" -*
-"Apply" -*"Yes",

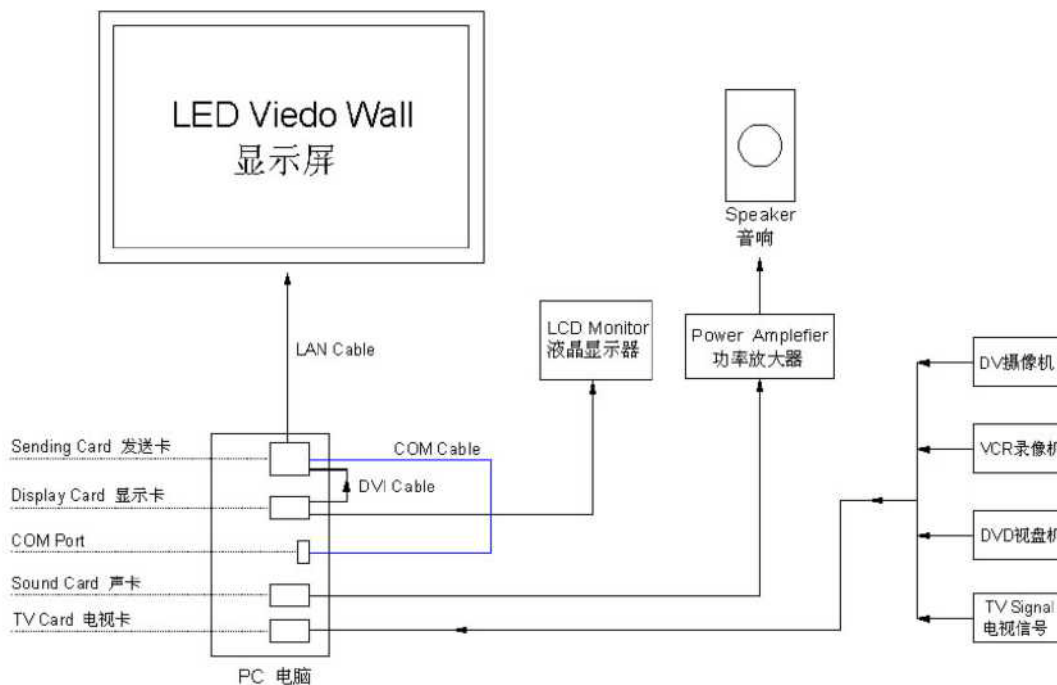


Picture 12

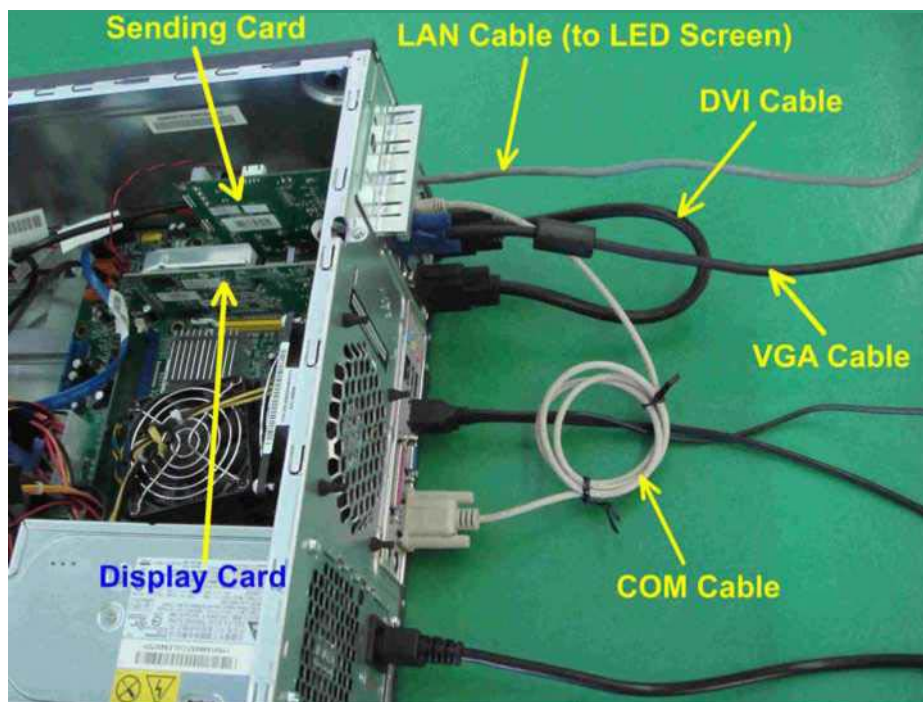
7. Install the LED software according to "LED Studio user's manual".

Item Four: System Connection

Connect your system according to following drawing:



Picture 13 System Connection



Picture 14 Control system connection

Item Five: Connection between Cabinets and Power Distributor Box.

1. Please check the stability of voltage of power grid. LED display requires the voltage fluctuation of power grid less than 10% and needs reliable grounding system. Usually, LED display adopts AC220V power supply and factory setting is "230V", as shown in picture 15:



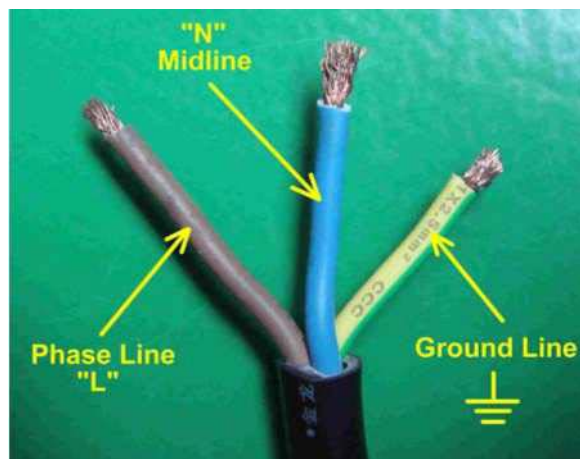
Picture 15

2. If customer's local voltage is 110v, then switch the power supply to 115v, as shown in picture 16:



Picture 16

3. Connect the power wire to the power distributor box according to picture 17:
Wrong connection will damage LED display.



Picture 17

Item Six: Test with Power

1. Start up the control computer and run "LED Studio";
2. Turn on the power switch of LED display;
3. Please check if the LED display is working well. Any problem, please turn it off and solve the problem after referring to the Solutions to common problems;

Chapter II Notices of Daily Operation & Maintenance

1. Notices of Daily ON-OFF Switch of LED display screen:

- 1) Turn On: Please startup the Control Computer, and then turn on the power of the screen;
- 2) Shutdown: Please turn off the power of the screen, and then turn off the Computer
(Serious result if turning off Control Computer first: High brightness LEDs will damage the board);
- 3) Please run the control software first, and then turn on the display screen;
- 4) Avoid turning on the display screen when it's on the state of full white color, because the impact current in system is the biggest;
- 5) Avoid turning on the display screen when out of control:
 - a. The Control Computer is not on;
 - b. The control software is not running;
- 6) Please don't keep the display screen working for a long time when the environmental temperature is too high or cooling condition is no good;
- 7) Shutdown the display screen timely when some certain row modules appear to high brightness, this state is not suitable to keep the display screen running for a long time;
- 8) Check the display screen timely or change the power supply when the Power switch often trip off;
- 9) Check the connections of the display /cabinets regularly; fix or strengthening the connections in time when loose part is found;
- 10) Make a good environment for display screen (and control system), make sure the cables won't be damaged by insects, and mouse;
- 11) Programming: Please turn off the display screen and then edit programs;
- 12) Problem turn-up: Please turn off the display screen, and then follow "Common Problems and Solutions" and solve the problem(s);
- 13) Temperature Requirements for LED display screen: Operating Temperature: $-20^{\circ}\text{C}\sim+50^{\circ}\text{C}$;
Storage Temperature: $-40^{\circ}\text{C}\sim+60^{\circ}\text{C}$;
- 14) LED display screen reaches the highest power when display WHITE color; keep displaying WHITE color for long time will shorten the Use Life of the display screen;
- 15) Power Supply Voltage:
 - a. Power supply for LED display screen: AC220V/50HZ or AC110V/60HZ;
 - b. LED display screen needs usable Grounding, and insulation between Ground Wire & Null Line.
Also, keep the MAIN input power supply away from other high-power electrical equipments.

2. Notices for Changes of Control work:

- 1) . Connect all the wires/cables as the original connections; make sure the Null lines and Live wires of computer and control part are connected right; if connects to Peripheral device, please check whether if the circuit is set up;
- 2) . After moving the Control system, check the connections of the cables and the control card first before power it on;
- 3) . Do not change the position, length of the signal cables and flexible flat cables (FFC);
- 4) . Do not test with power when unusual appearances like Short circuit, Trip off, Smoking after

Moving the Control system, serious check should be carried out immediately.

3. Notices of Software Operation:

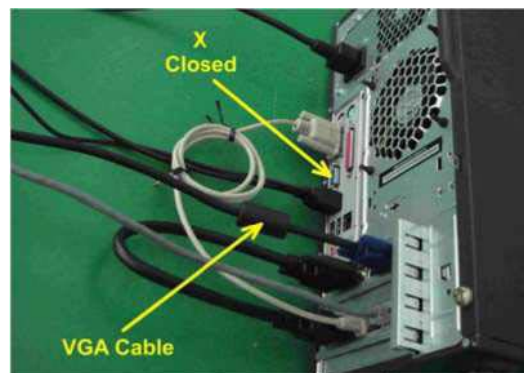
- 1) . Software Backup: WIN2003, WINXP, Applications, Software installation program, Database, etc;
- 2) . Have a good command of Setup methods, Original data recovery and Backup;
- 3) . Good command of settings of Controls parameter, also the modification of basic data settings.
- 4) . Good command of program, operation, and editing;
- 5) . Virus checking regularly and delete data or files that irrelevant;
- 6) . Unprofessional person, please don't run the control system.

Chapter H Problems & Solutions

Case I : No image shows on computer monitor after startup, but have image on LED display.

Problem I: Wrong connection of signal cable on computer

Solution I: Connect VGA cable to the right place (connect it to video card), as shown in Picture 18.



Picture 18

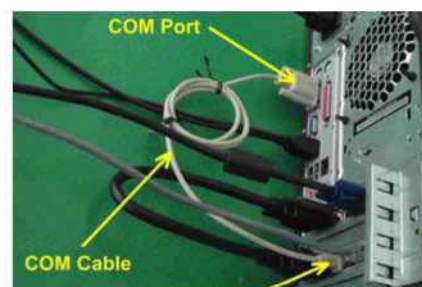
Case II: After startup of the computer and when we run the LED Studio, this is a note of “LED screen system not found” displayed.

Problem II: The COM cable between Sending Card and COM port is not connected well.

Solution H: Make sure the connection of COM cable between Sending Card and COM port is correct. If the problem still exists after right connection, then we need to change the COM cable. (As shown in Picture 19 & 20)



Picture 19



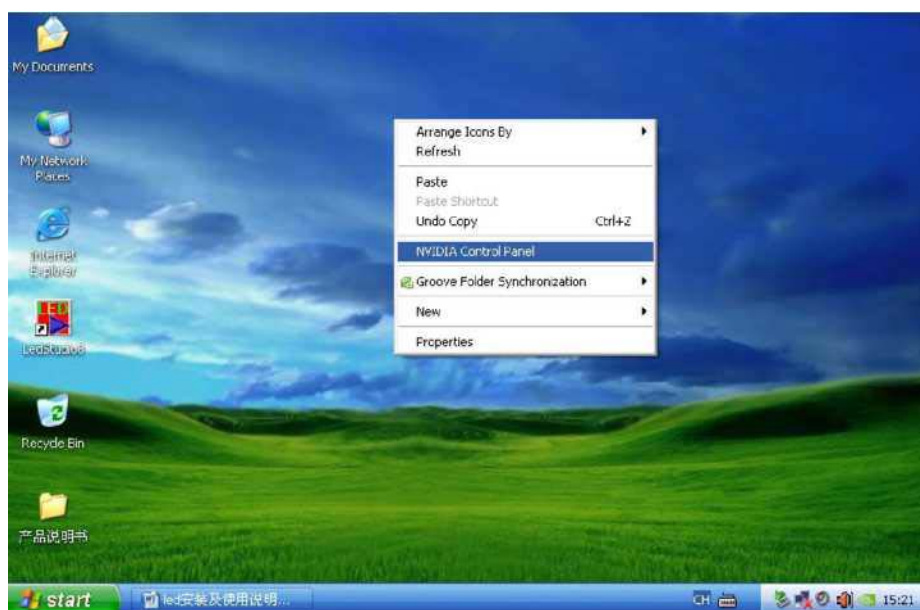
Picture 20

Case H: After startup of the computer, there is no signal out from Sending Card (the GREEN Indicator Light on Sending Card doesn't flickering).

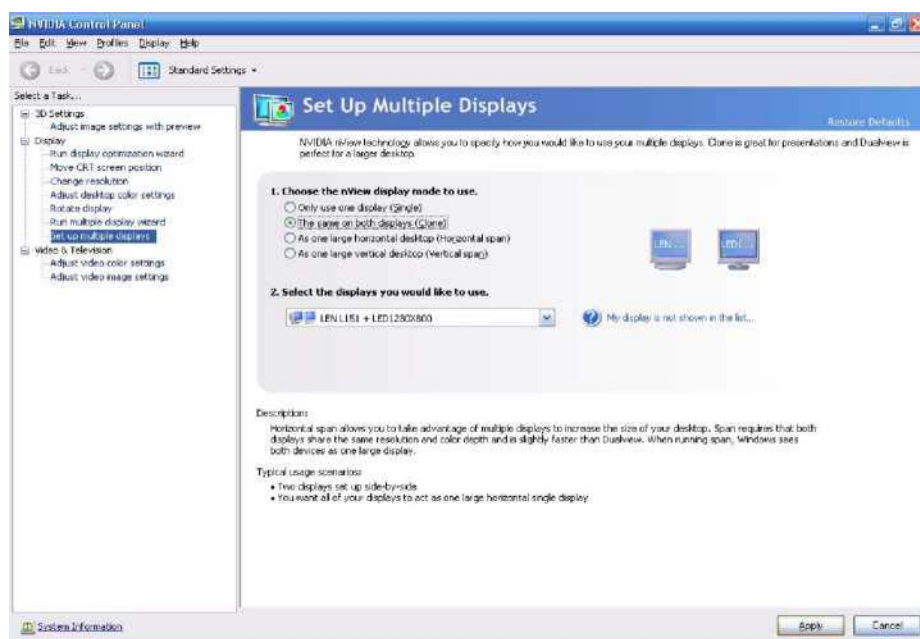
Problem H: This is the display settings change caused by failure connection of DVI cable before the first startup of computer.

Solution H: Turn off the computer, connect the DVI cable and modify the display settings referring to following steps and pictures (21 & 22).

Right click the desktop of WINDOWS-*choose "NVIDIA Control Panel" -* click "Display" -* choose "Set up multiple displays" -* choose "The same on both displays (clone)" -^"Apply" -^"Yes", and then all set.



Picture 21



Picture 22

Case W: Nothing shows on the Whole Screen after turning on Control Computer

- 1) Please confirm if the Monitor is set on "screen savers" mode; also check the "power".
Right click the desktop, choose "Properties", "screen savers", and then choose "None";
Click "Power" then choose "Never" for all the check boxes;
- 2) Check the corresponding screen area on Monitor and see whether it's "Black" or "Pure Blue";
- 3) Check if there is signal out from Sending Card (find the GREEN Indicator Light on Sending Card). If the light is not flickering, then see the solution of "Problem III"; If the Light works well, then forwards the following steps;
- 4) Check if the Power Supplies are turned on in the cabinet where the first Receiving Card is installed (see if the fans inside cabinet are working);
- 5) Check if the DC 5V Power Supply is working well;
- 6) Check if the GREEN Indicator Light is flickering (Flickering means signals from Sending Card is receiving; if not, then no signal comes from sending card). When the light is flickering in this case, the Hub (adhere to Receiving Card) needs to be changed and then try again; If no flickering, then follow the steps as below:
 - a) Replace the LAN cable that connecting to Sending Card & Receiving Card;
 - b) Insert the LAN cable to "D" port of Sending Card (The RJ45 port closed to DVI Cable);
 - c) Replace the Receiving Card.

Case V: Nothing shows on Several Cabinets:

- 1) Please check if the Power Supplies are turned on in the first cabinet which shows nothing;
- 2) Check if the DC 5V Power Supply in the cabinet is working well;
- 3) Replace the LAN cable which connecting to this cabinet and the previous one;
- 4) Replace the Receiving Card in the cabinet.

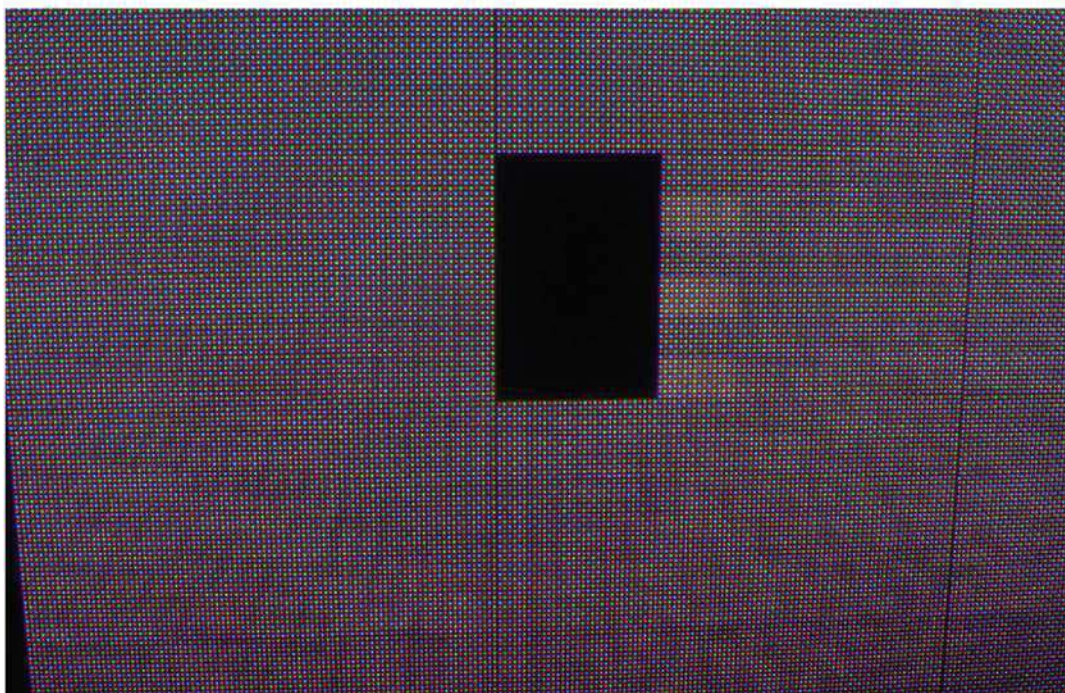


Case ^: Nothing shows on One or Several LED modules:

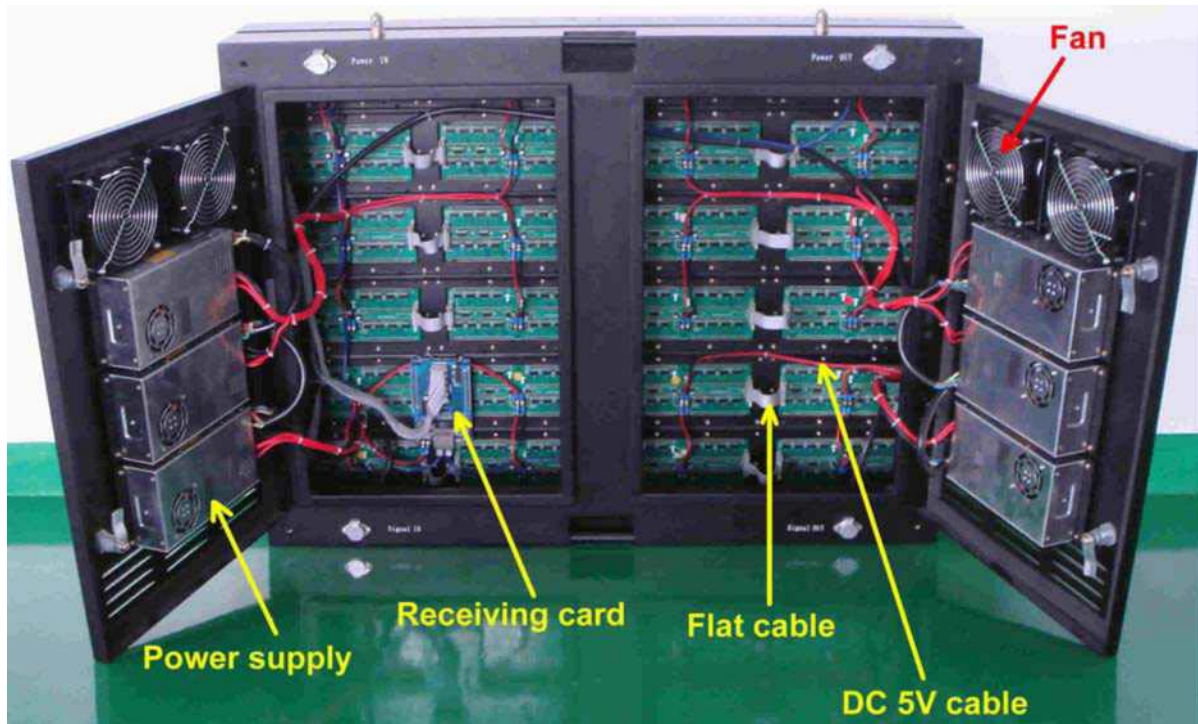
- 1) Please check if the DC 5V Power Supply for Modules is working well;
- 2) Replace the FFC (Flexible Flat Cable) connecting to Module(s);
- 3) Replace Module(s).



Picture 24



Picture 25



Picture 26

Case W: Color (R/G/B) missing in single Module or some certain color in higher brightness:

- 1) Replace the FFC (Flexible Flat Cable) connecting to Module;
- 2) Replace Module.

Case W: Image Dithering/Lines on Screen/Rows bright & Rows down:

- 1) Please check if the Ground Wire connecting to Computer is usable; check the Ground Wire connecting to LED display screen too;
- 2) Check if the LAN cable is connected well.