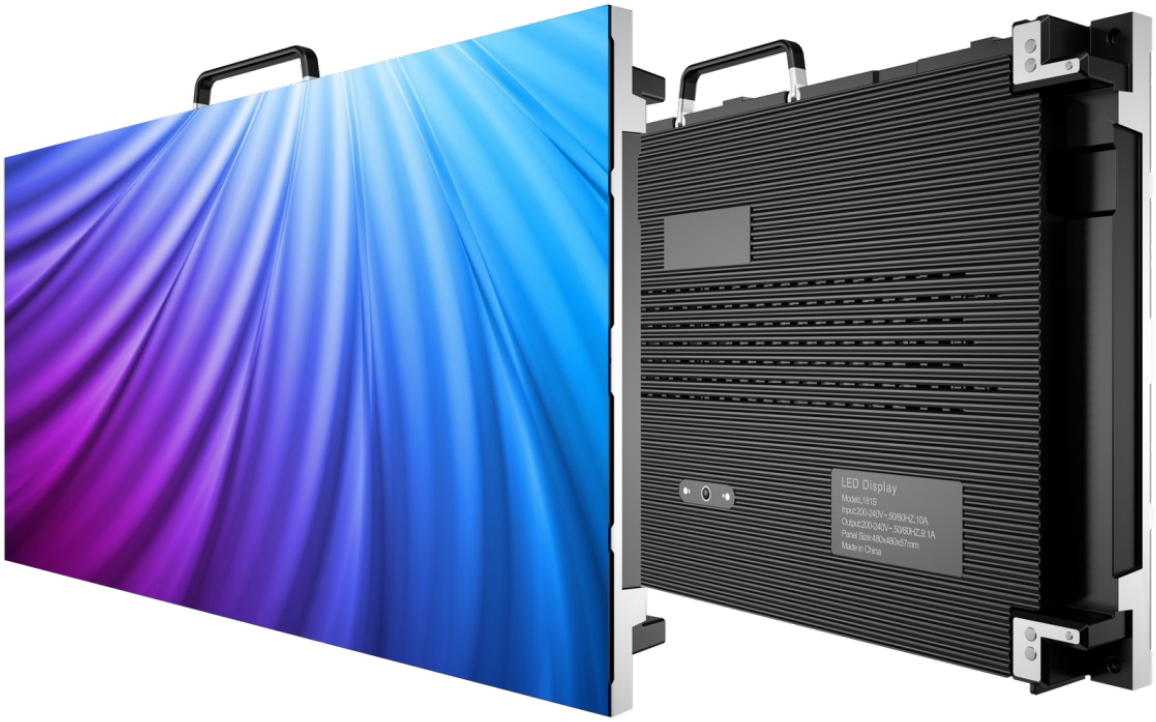
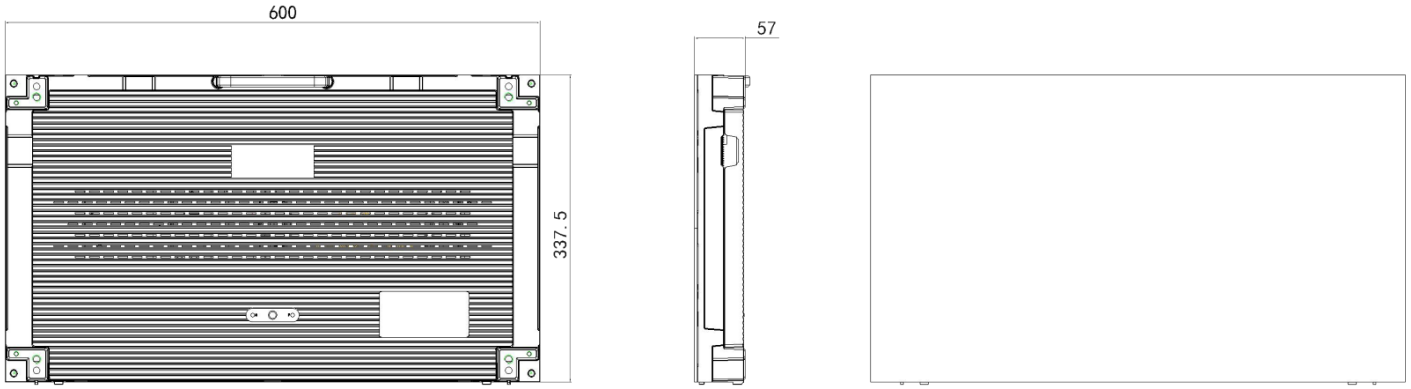


Pixel pitch: P0.9/P1.25/P1.56

Dimensions

All dimensions are in millimeters



Note: 1. The design and specifications are subject to alternation without notice

2. The figures for size shown in the chart is an approximation

Specifications

Parameters	Values
Pixel Pitch (mm)	1.25 mm
Pixel Configuration	SMD 1010
Pixel Matrix per Panel (dots)	480x270 dots
Pixel Density (dots/m²)	640,000 dots/m²
Panel Dimension (W×H×D)	600 x 337.5 x 57mm
Panel Material	Die-casting Aluminum
Panel Weight (kg/panel)	4.5 kg/panel
Color Depth (Bit)	14 bit
Refresh Rate (Hz)	≤3840Hz
Driver Method/scan	Scan 1/27
Brightness (nits)	450 nits
Horizontal Viewing Angle (°)	160 °
Vertical Viewing Angle (°)	140 °
AC Power Input (V)	AC200V~ 240V ±10%
AC Power Frequency (Hz)	50 ~ 60 Hz
Max. Power (W/m²)	700 W/m²
Avg. Power (W/m²)	230 W/m²
Storage Temperature (℃)	-20℃ ~ 50℃
Operating Temperature (℃)	- 0℃ ~ 40℃
Storage/Operating Humidity (RH)	10% ~ 60%RH
IP Rating (IP)	IP30 / IP30
Lifetime Typical Value (Hrs)	100,000 Hrs
Installation Type	Fix , Front & Rear installation
Maintenance Method	Front & Rear Maintenance

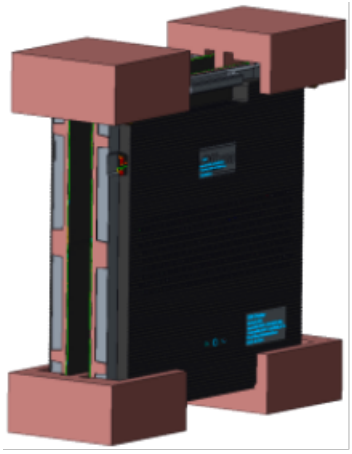
Note: 1. The design and specifications are subject to alternation without notice
2. The weight and the size shown in the chart is an approximation

Package

In the process of transportation, removal and storage of LED display, please strictly follow the notices marked on the external package.
Please be noted that LED display is fragile and easily damaged, protection during installation is needed.
In order to protect the screen from collision which may eventually cause the failure of installation and normal use, please do not knock on the surface of module, panel or

The module and panel are packaged separately.

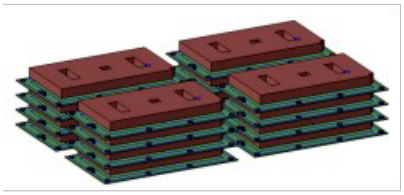
Panel Package (1 for 2)



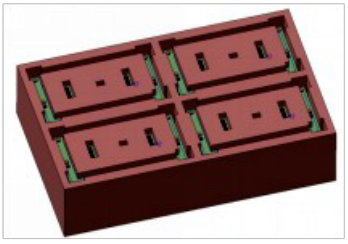
EPE slot

Standard Box

Light Board Package (1 for 16):



EPE slots



EPE protection

Placed in the same box for panels

Product Installation

Requirement :

Weight: Please make sure the floor, truss, or wall are used to set screens can bear the weight of the whole screen.
Horizontal surface: The mounting surface and truss of the display screen must be kept level. Please don't install the display screen on the sloping surface and truss.

Please finish the welding work of steel structure and confirm its safety before framing the cabinet and other follow up work.

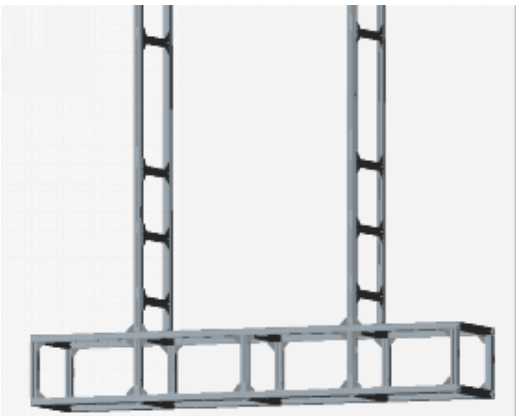
If you conduct the welding jobs while mounting or weld after mounting the screen, please carefully protect the screen components from welding slags, arc, etc. Otherwise damages to the modules may be caused. When framing the cabinets, you must mount the first row and make sure there's no obvious gap or mismatch. Only after that can you continue to frame the cabinets upwards. For other's safety, please block the possible drop out area during the installation or maintenance.
LED display has high consistency, please avoid paint, dust, welding slags or other dirt being glued into LEDs or on panel surface, or it will influence display effect.

It is not recommend to set the LED display is installed near seaside or water because high salt spray, high temperature, high humidity will easily damp, oxidize or corrode the screen. If it must be installed near such surroundings, please tell us so we can take special measures to protect the screen and pay more attention to ventilation, dehumidification and cooling.

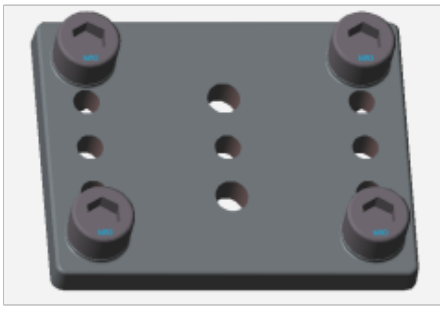
▪ Bracket Installation :

Main Spare Parts

This installation is equipped with structural bracket and various connecting pieces.

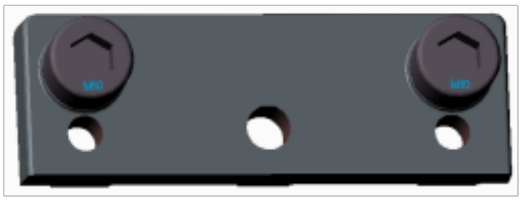


Structural bracket

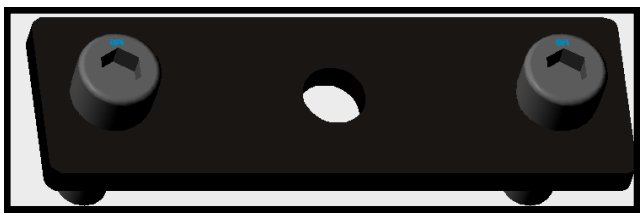


Connecting pieces for panels in the middle of the screen

Connecting pieces between upper and lower panels in the left and right of the screen



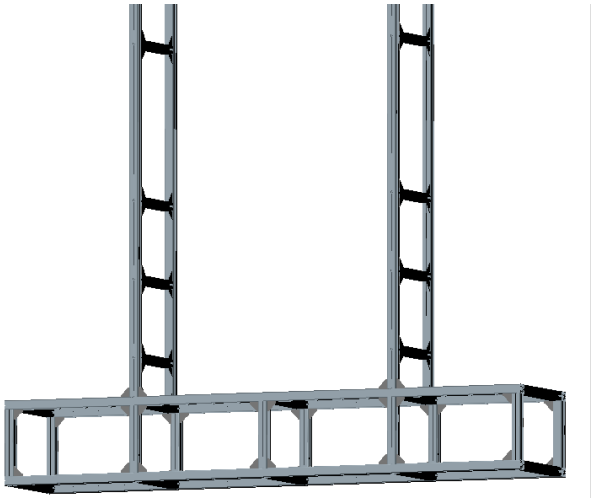
Connecting pieces between left and right panels in the lower screen



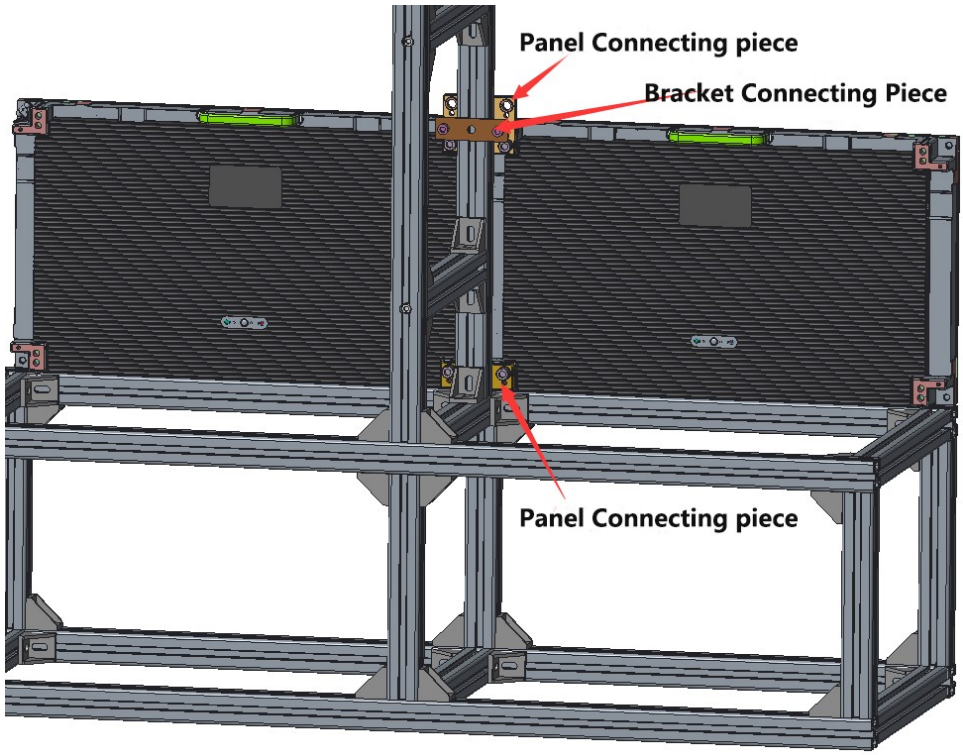
Connecting pieces for bracket

Installation Steps

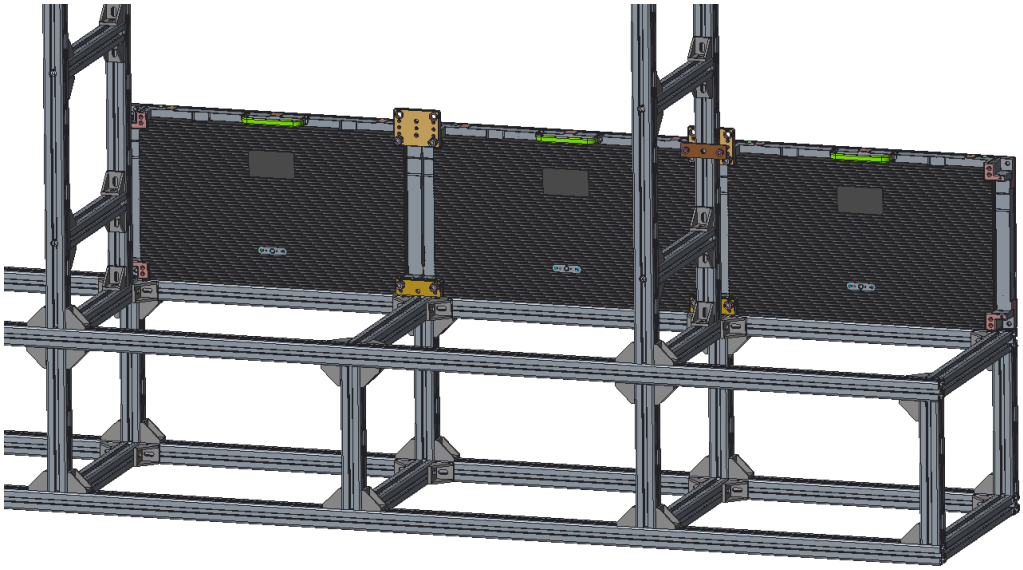
Step 1, Structural bracket installation: assure the flatness and weight holding



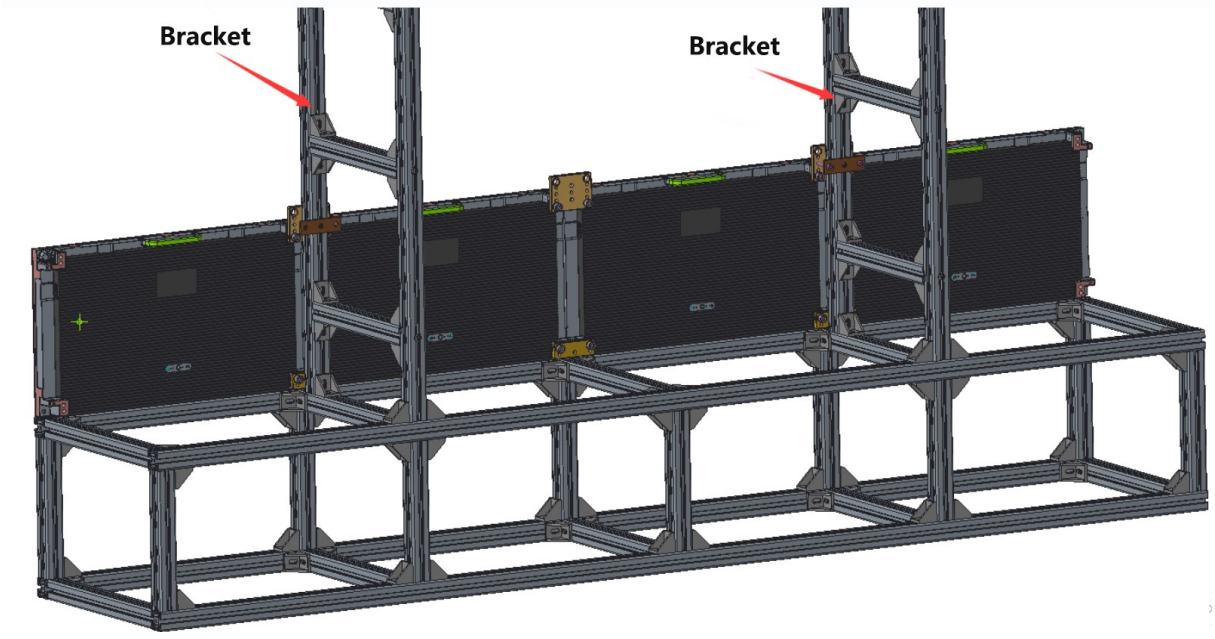
Step 2, Make sure the installation location: Fix the two panels in the first row with panel connecting piece, then fix the panel on the bracket with bracket connecting piece (The bracket connecting piece needn't be used on the bottom of the panel)



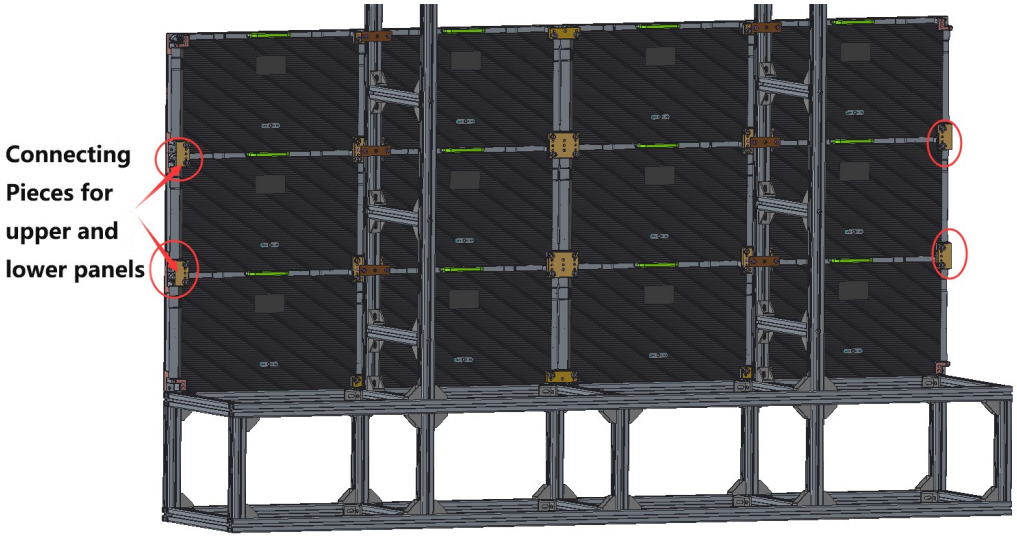
Step3, Fix the second and third panel with connecting piece for panel in the middle screen.



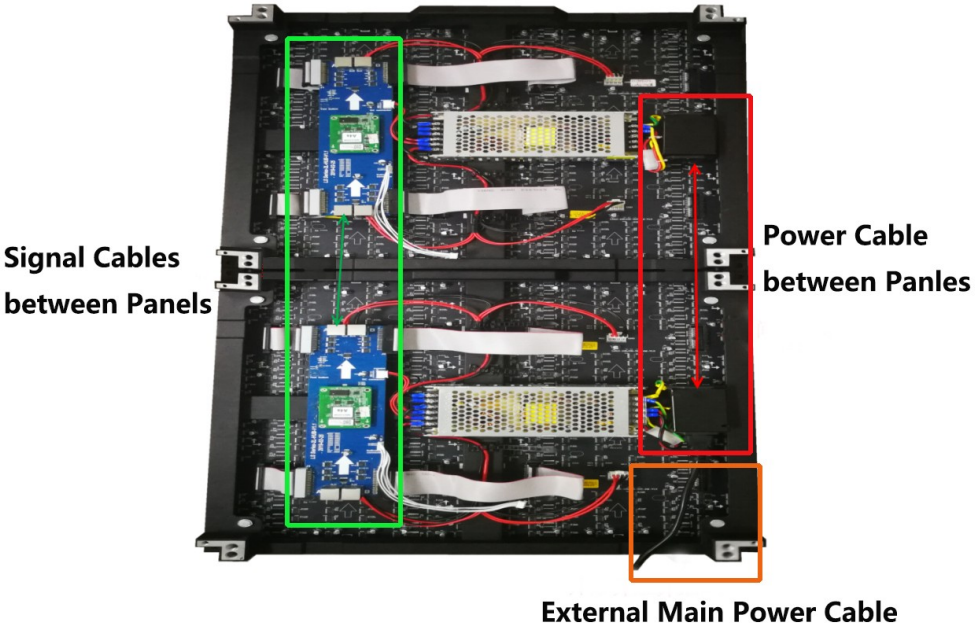
Step4, Repeat the step 3, install the following panels in the first row..Install the connecting piece For bracket if needed.

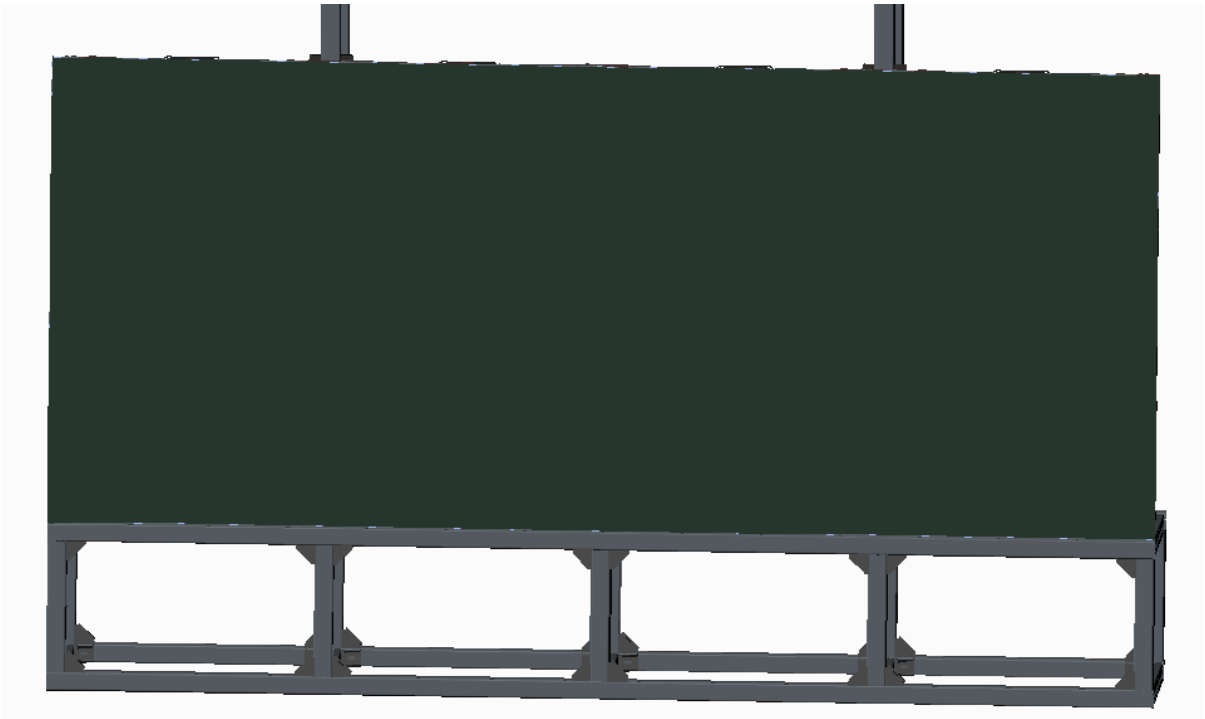


Step5, Repeat the steps mentioned above, install the last panels. When installing the first and last panel in the row above the second row, the connecting pieces for upper and lower panels in the left and right screen are needed.



Step6, After finishing the panel installation, then connecting the power and signal cables between the panels (Take the next cables connecting pictures for reference). After that, connecting the cables in the light board and splicing the module with gap as small as possible.





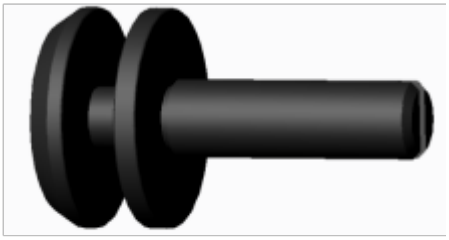
Wall Mounting

Spare Parts

Bottom Beam

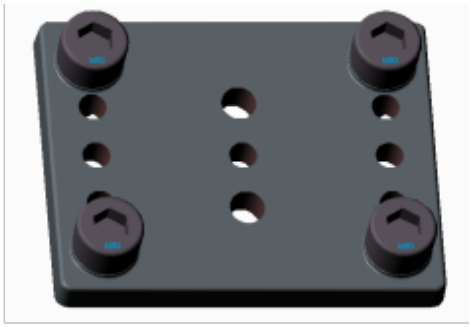
Hanging kits for middle panels of the screen

Hanging kits for left and right panels of screen



Fixed bolt

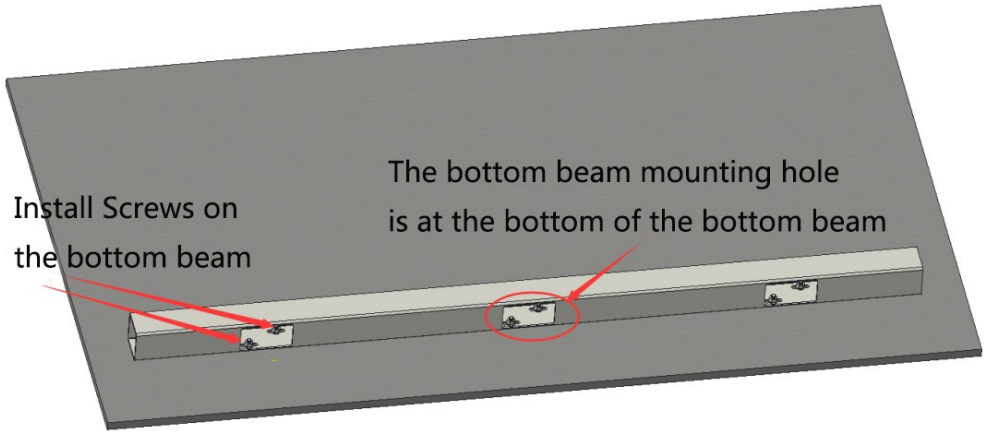
Front Mounting Screw



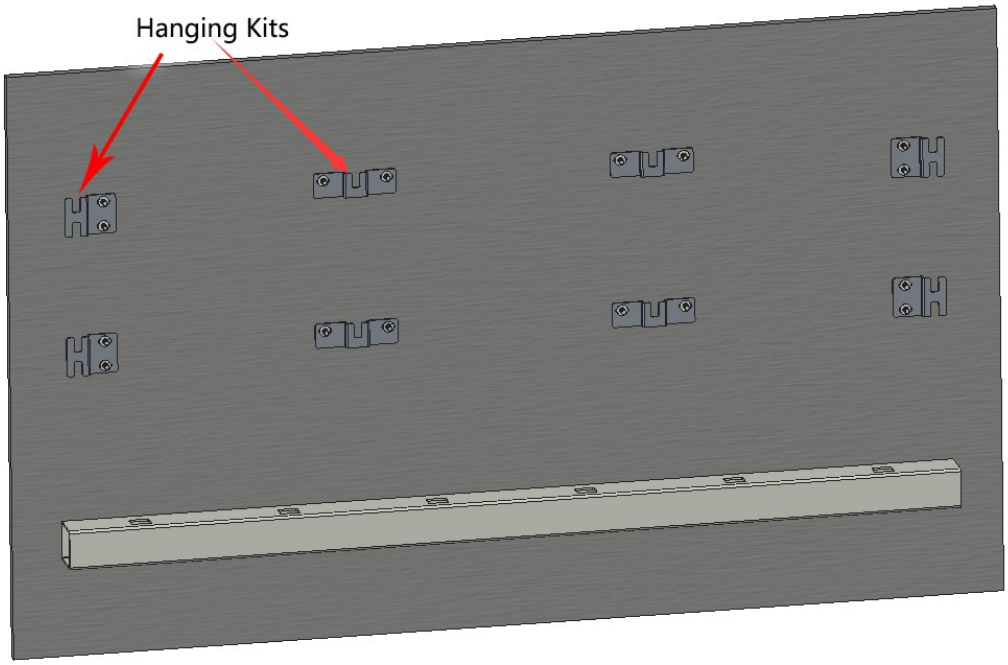
Multiple connecting pieces
Same with that in bracket installation

Installation Steps

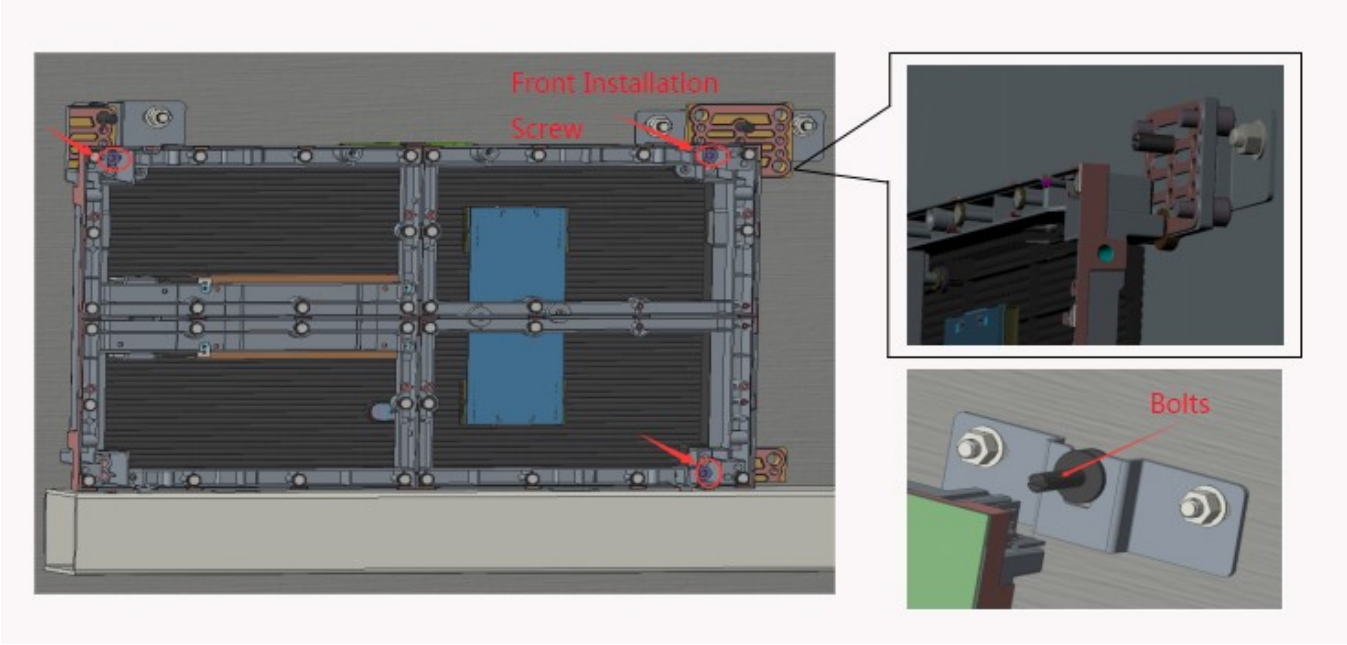
Step 1, Find the holes according to the picture, then fix the bottom beam on the wall with the screws.



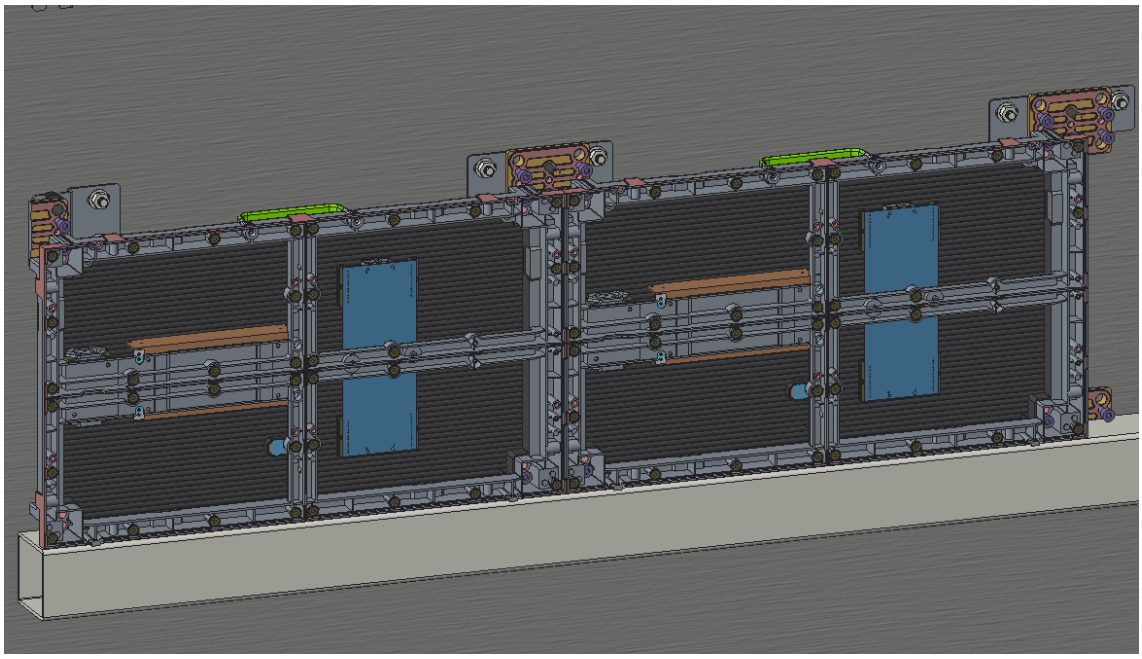
Step 2, Fix the hanging kits on the wall with the screws. The different hanging kits are used for the middle and two sides of the screen.



Step 3, Install fix bolt on the connecting piece, then locking it on the panel with front mounting screw; Locking steps: remove the module, plug in the fix bolt through the hole and hanging in the kits. The different hanging kits are used for the middle and two sides of the screen.



Step 4, Fix the first row the second panel. Fix the connecting piece on the end of the second panel near the third panel and hang it to the kits. Fix the end of the second panel near the first panel to the connecting piece. The first row needn't to connect the bolt.



Step 5, Repeat the step 3 and 4, install the last panels.

Connect the power and signal cables when the structure is finished (the same as the ground stacking). Then install the modules and make sure the gap will not affect the performance of the screen.

System Connection

The power supply should be 110V/220V±10%, frequency 50HZ~60HZ.

The single-phase voltage can be used when the total power is less than 5KW. The three-phase five line and distribution box should be used when the total power is more than 5KW. Please make the voltage in every phase as average as possible. The distribution should connect the Earth wire and touch the ground. Not connect Earth wire with Live wire. The distribution box needs to be protected from leakage and the protecting devices like lightning arresters need to be accessed. The power supply to be connected should be away from high-power electrical equipment.

Before turn it on, please make sure that all the cables are connected well and test them via multimeter. Please turn it off when you maintain the screen to ensure the safety. All the equipments and cables cannot be operated when they are energized.

Do not pull them directly when pulling out the cables like ribbon cable, power cable and signal cable. Two fingers press the head of the ribbon cable and slowly pull it out. The power cable and signal cable need to be pulled out when pressing the buckle. Do not load heavy things on the cables and connect the wrong cables.

System Connection Steps

1. Turn off the power of all screens and devices before connecting.
2. Connect the DVI signal of the computer (or other device) to the video processor via the DVI cable.
3. Connect the output signal on the video processor to the screen with a signal access line.
4. When all the connections are completed, first power the video processor and the computer, then connect the power of the LED screen.

Product Wire

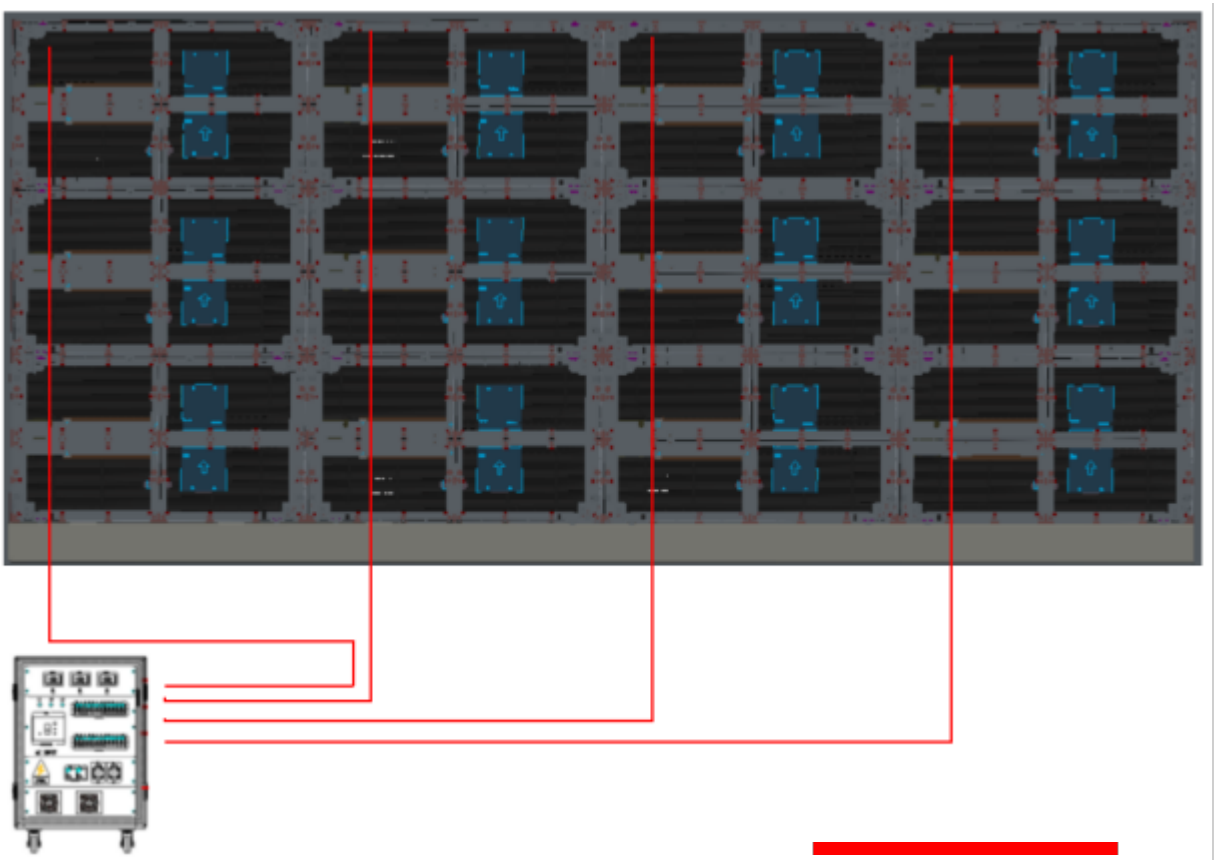
Main power cord

Cable between cabinets

Power cable between cabinets

Power Cable connection

4 (wide)*3(high) Following is the connection diagram of the power cord between cabinets, the specific project should be implemented according to the specific standards

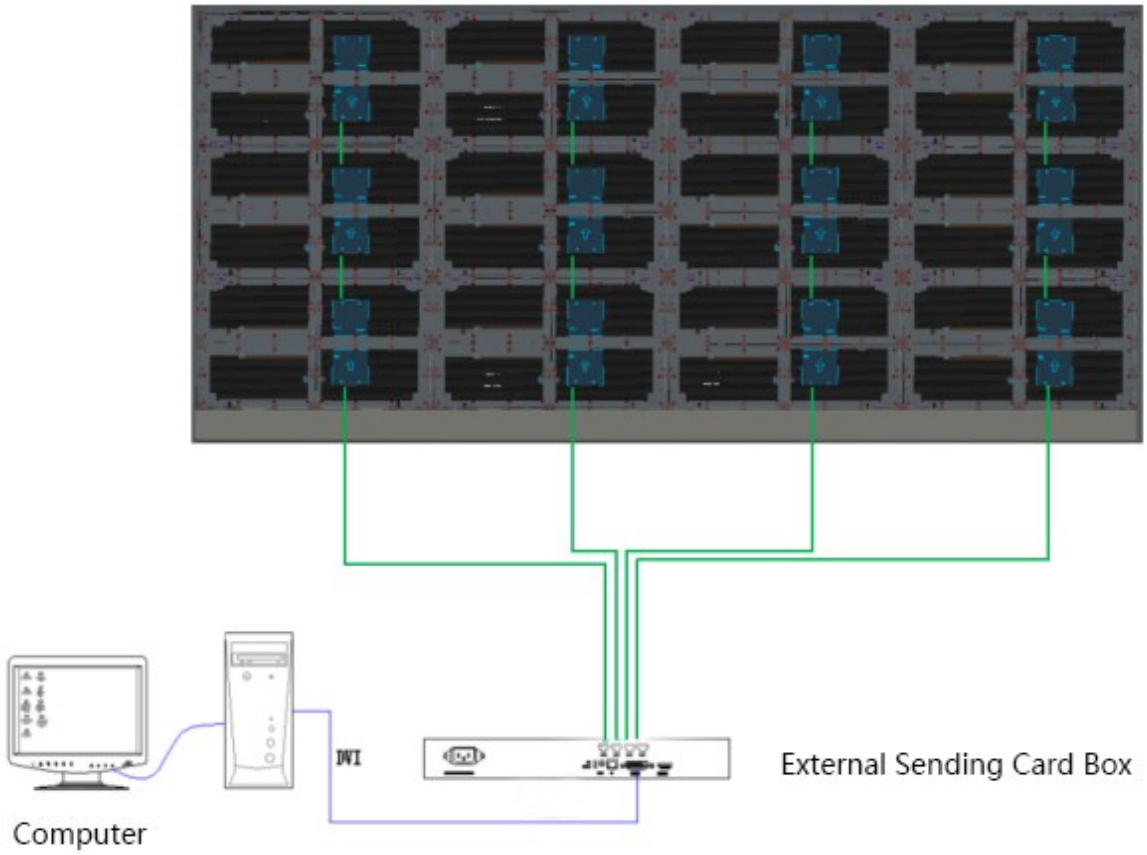


Distribution Cabinet **AC power cord**

Please do not overload. Do not open the switch at the same time

Signal Cable connection

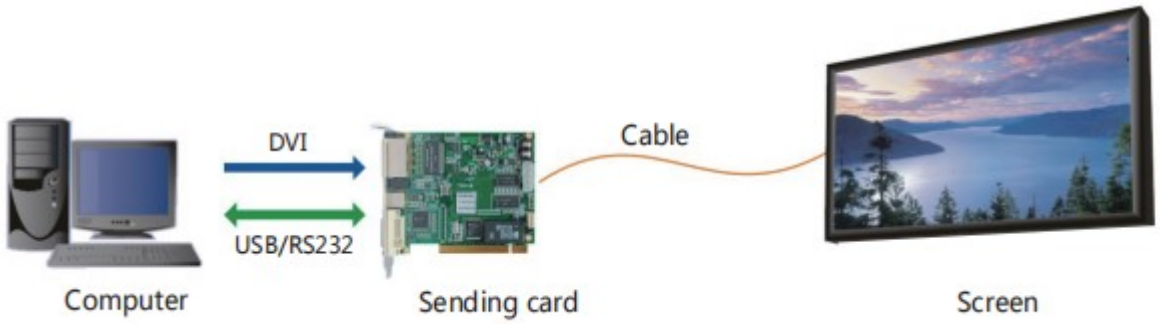
4 (wide)*3(high) Following is the connection diagram of the signal cord between cabinets, the specific project should be implemented according to the specific standards.



Display Debugging

Preparation for Debugging

In order to ensure the stability and safety of the system, the following suggestions are made for the working environment:
Hardware environment: CPU frequency >=1.6GHZ, memory >=1G, RAM above 512M.
Software environment: Client operating system: XP, win7, etc..
Network environment: the network is needed when the display is corrected online



Connect the cables between computer and sending card, sending card and screen (as shown above).
After confirming all connection are correct, then we can power the computer and screen.

Steps to turn on and off the LED display:

① Turn on the computer, when the system is running, then turn on the LED display.

② Turn off the LED display power, control system and computer orderly.

Control System Operation

Before debugging the display, please confirm that each device is connected correctly:

1, Before the display is powered on, the multimeter must be used to make sure the live, neutral and earth wires of the incoming end of the AC power supply don′ t connect.

2, Connect the USB cable of the sending box to the USB interface of the control computer.

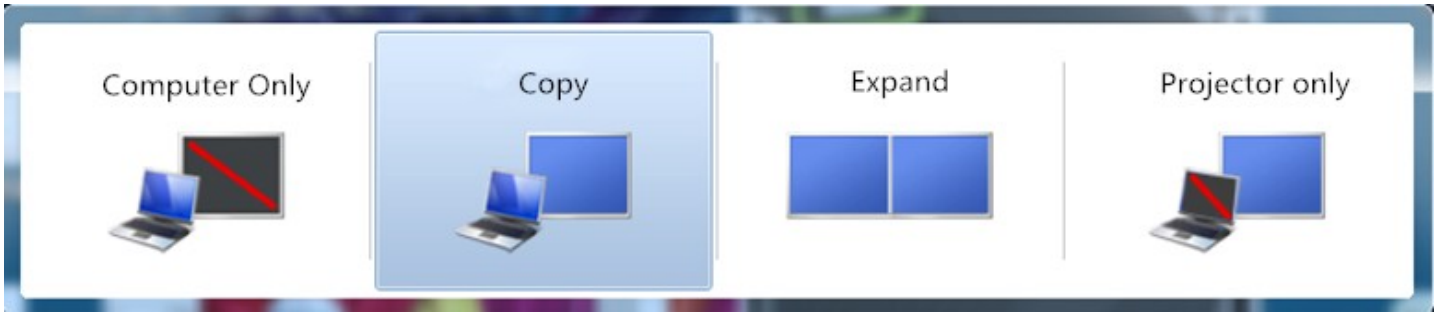
3, Check the display connection is consistent with the power and signal connection diagram of the shipping configuration.

4, The earth wire must contact with the earth and be properly away from the neutral line. The power supply must be kept away from high-power electrical equipment;

5, When using three-phase five-wire system power supply, it is necessary to evenly distribute the load of each phase to ensure the balance of three phases as much as possible;

6、The input voltage must comply with the voltage requirements of the enclosure nameplate.

Turn on the computer, after the system is booted, set the graphics card of the computer to the copy mode, and confirm that the green light of the send box is flashing normally (once per second).



Requirement for the operation environment

■In order to ensure the stability and safety of the system, the following suggestions are made for the working environment:

■Hardware environment: CPU frequency >=1.6GHZ, memory >=1G, RAM above 512M.

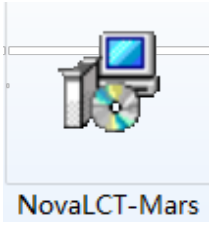
■Software environment: Client operating system: XP, win7, etc..

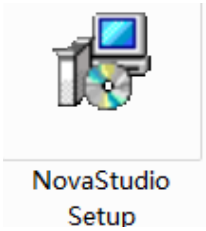
■Network environment: the network is needed when the display is corrected online.

System Operation

Software Installation

Open the USB flash drive in the package, install Nova LCT-Mars in the USB flash drive on the control computer then install the playback software Nova Studio.

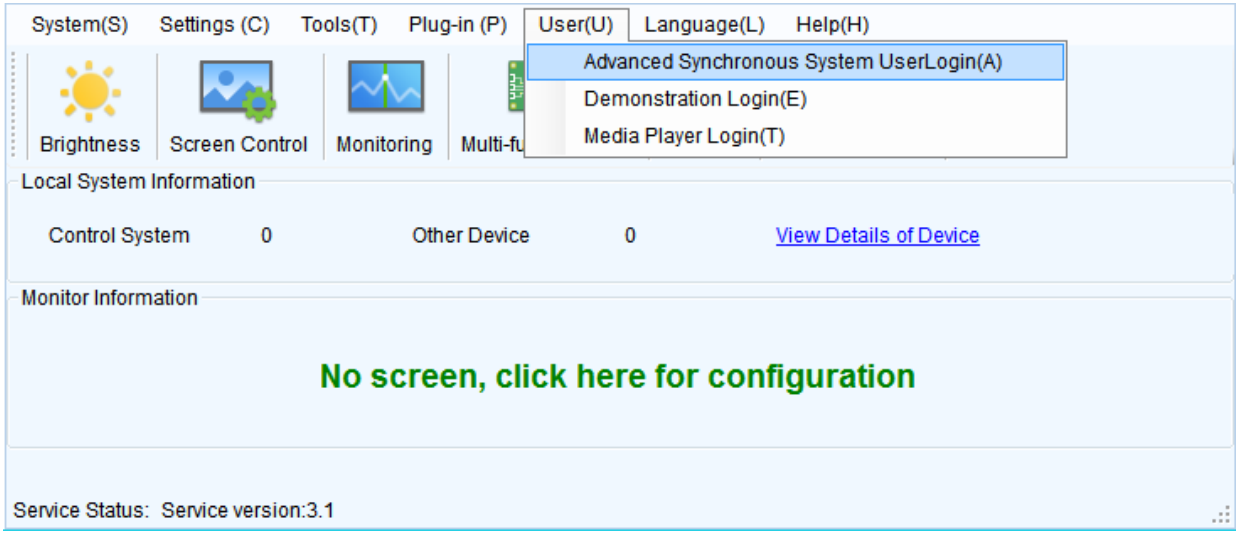




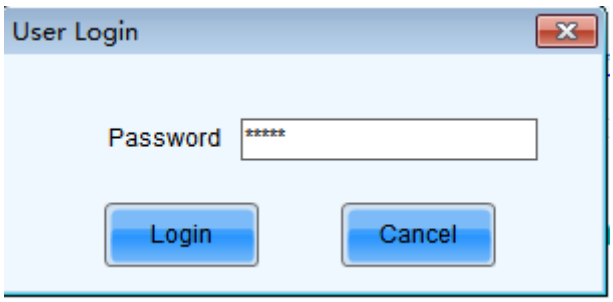
Note: Please follow the steps of the software installation.

Display Configuration

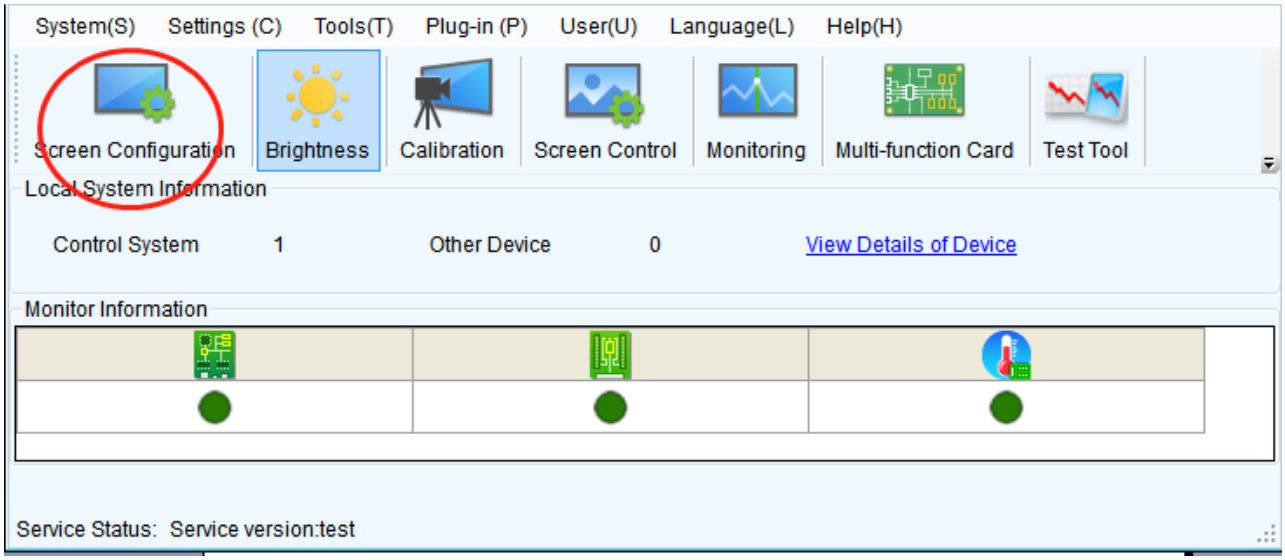
Open the software UniLCT-Mars, make sure that the "Control System" is displayed as "1", and click the "User" to select "Advanced Synchronous User Login", as shown below:



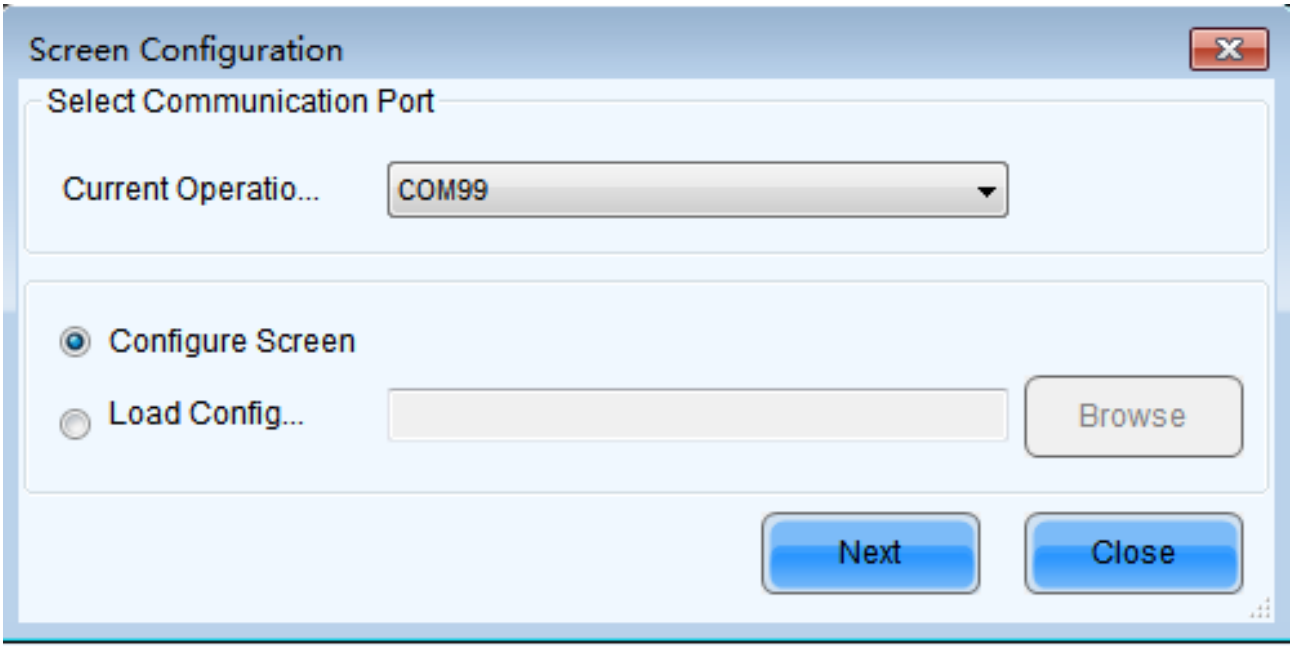
When logging for the first time, please enter the initial password "admin" and enter the advanced user interface, as follows



After logging in, click "Screen Configuration" in the main window, as shown below:



Click “Next”, as follows：



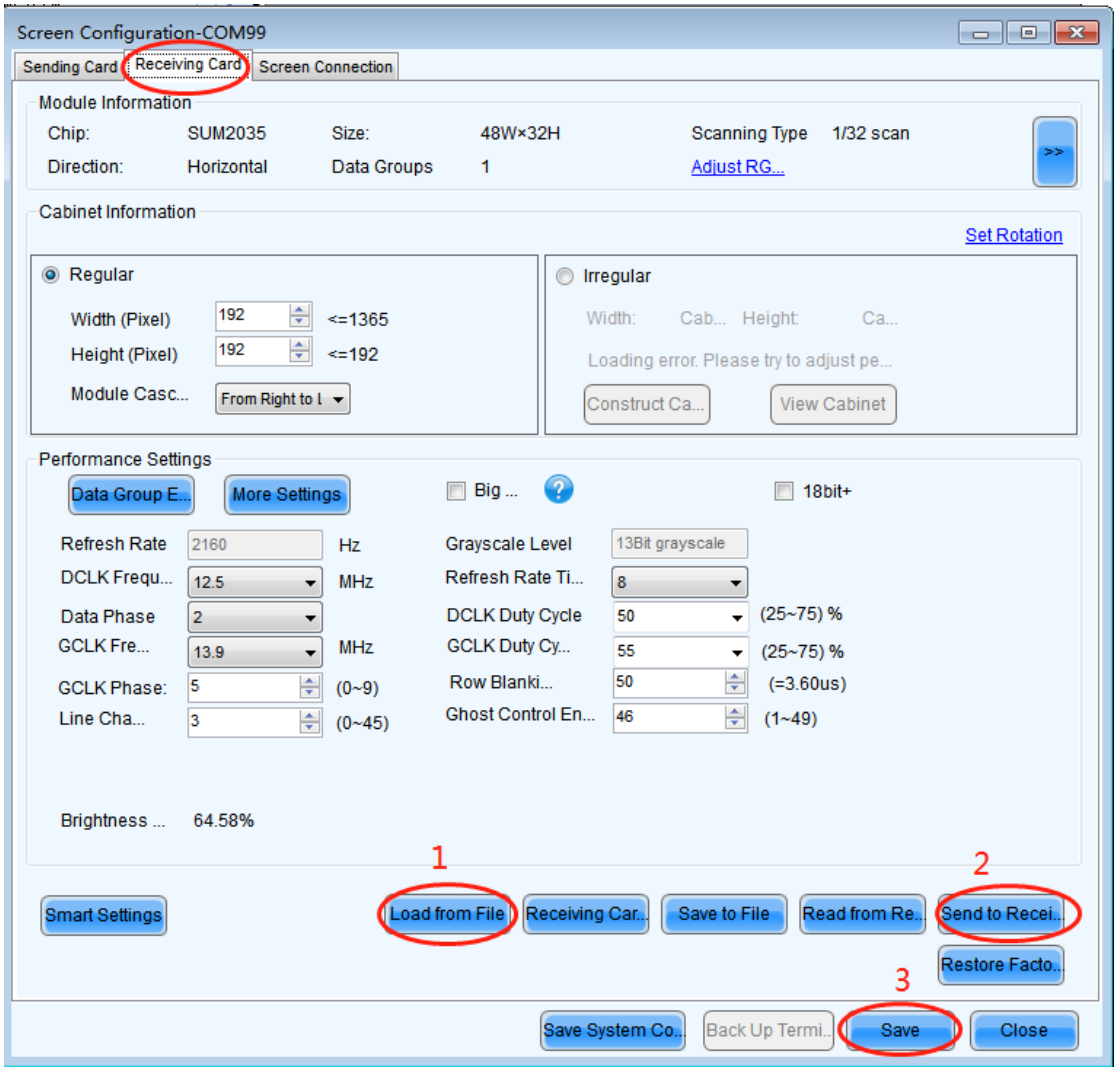
The following window pops up, set the resolution of the sending card (1920*1080 is recommended), and the same resolution of the graphics card , after that, click “Save” to save.

Click "Receive Card" to pop up the following window:

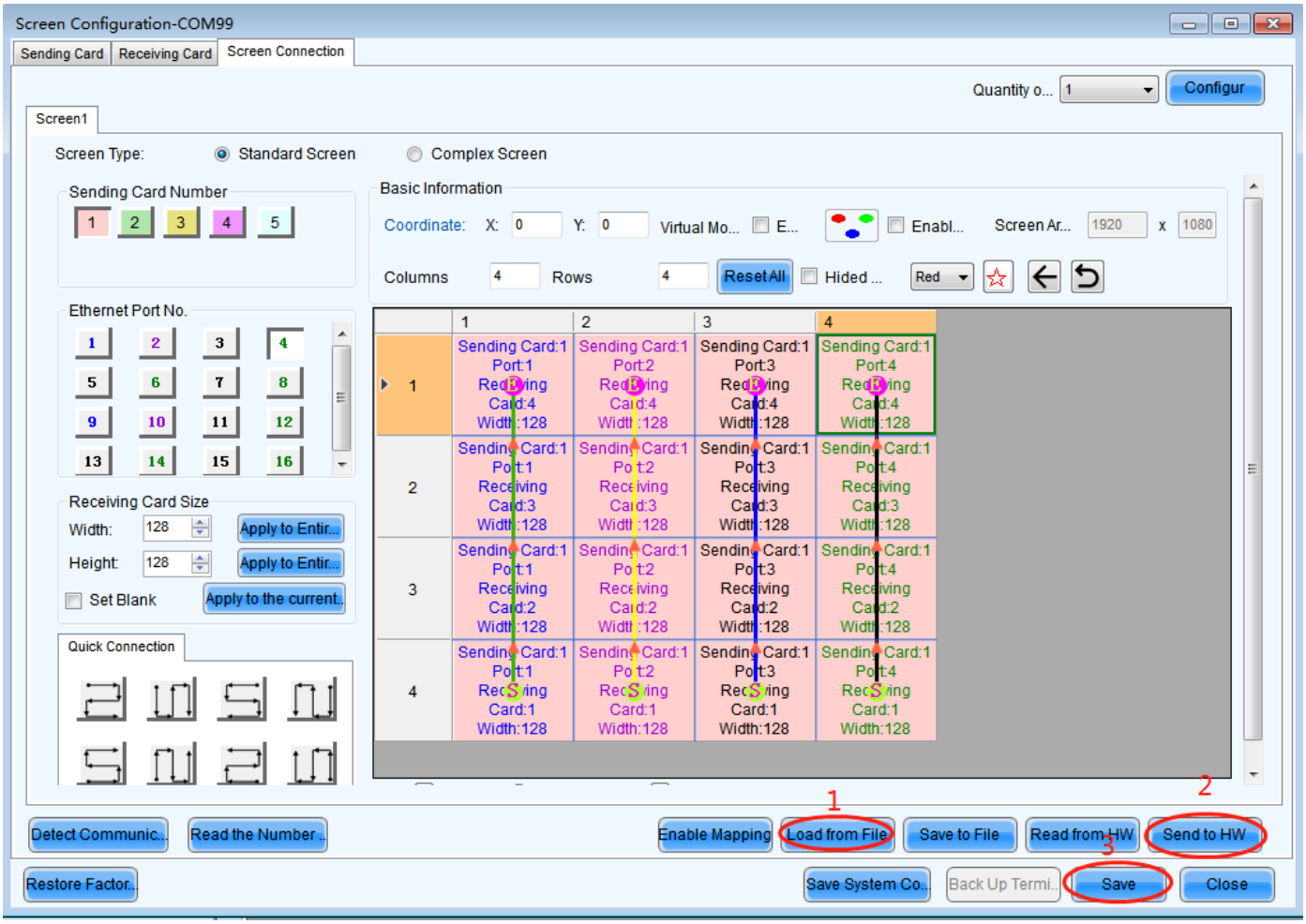
1、Click "Load from file" to load the xxxx. rcfg file in the U disk.

2、Click "Send to Receive Card"

3、After sending to the receiving card, confirm that the picture of the single receiving card is normal, click "Cure" to save.



After setting the receiving card, click "Screen Connection" to pop up the following window:
1. Click "Load from file" to load the xxxx.scr file in the U disk.
2. Click "Send to Hardware";
3. After sending to the hardware, confirm that the picture on the screen display is normal, click "Cure" to save;



Remarks:

1. The above operation steps are based on the product standard configuration control system and version, and the actual operation steps may be different. User manual is subject to change without prior notice.

2. If the parameters in the configuration file are not satisfied for your need, you can adjust it according to the corresponding software instructions.

3. If you need technical support, please contact us.

Playback Software Settings

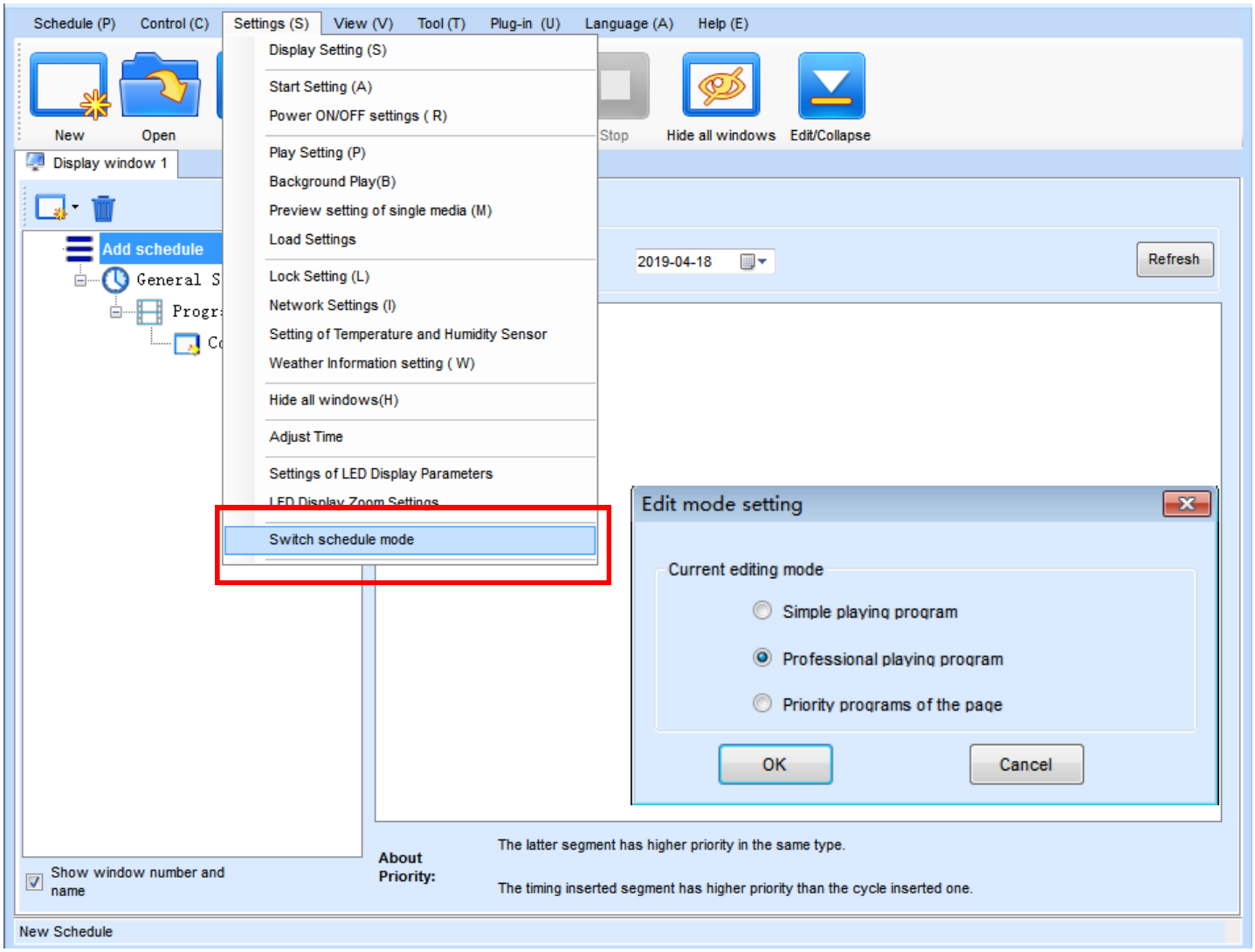
Software running environment

- Test and pass under Windows XP \ Windows2000\ Windows7 (32 bit) \ Windows7 (64 bit) \ Windows8 (32 bit);
- CPU frequency >=1.6GHZ, memory >=1G, RAM above 512M;
- If you want to run word and Excel files, please install Microsoft Office;
- If you want to run the flash file, install the Flash OCX plug-in;
- Before run video files, please ensure that the following information is required: the video card is required to support DirectX9, and the DirectX function is enabled.

1, Playback Software Introduction

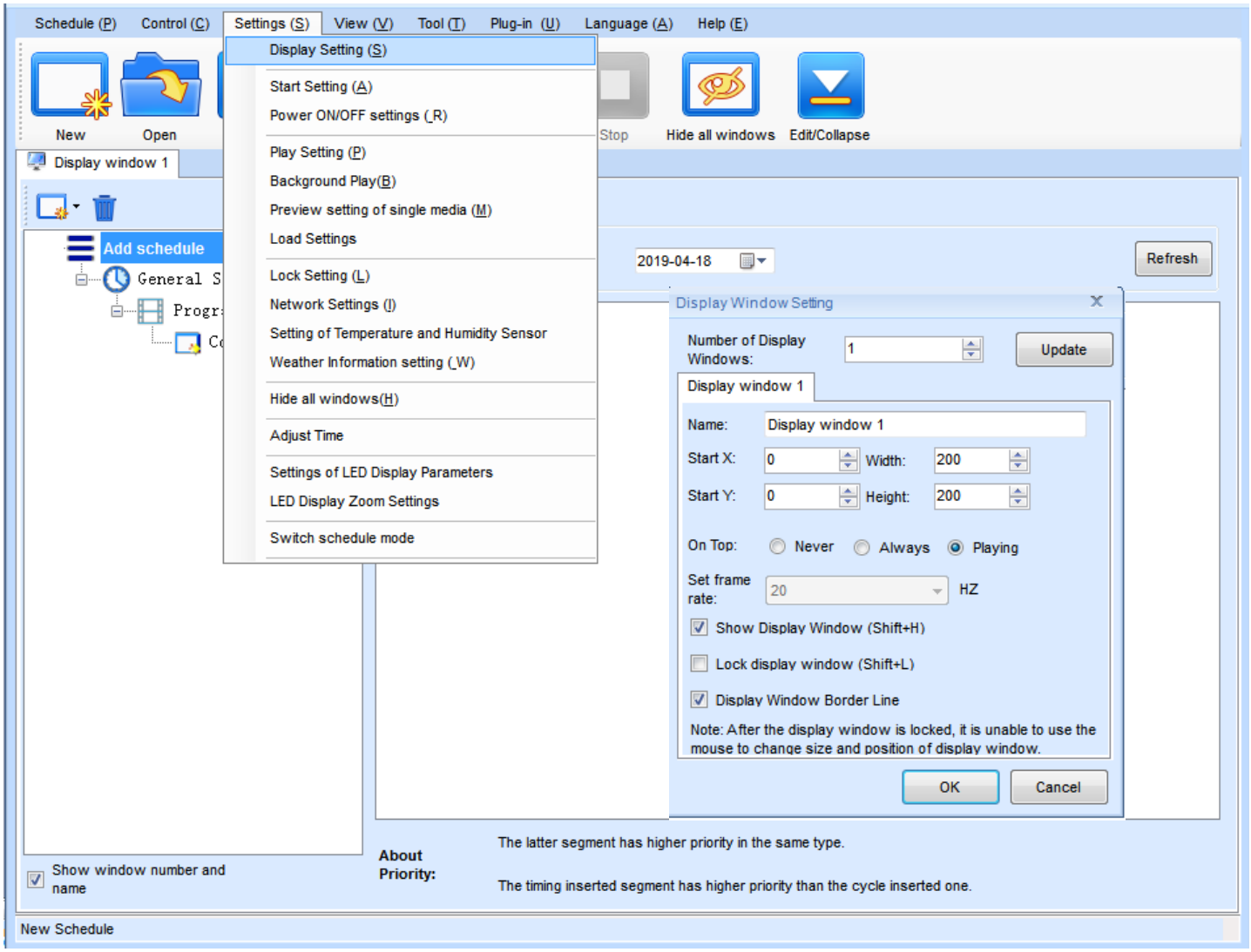
The playback software has three modes: simple mode, professional mode and page priority mode, among which the “professional mode” is most commonly used, so this section only introduces the “professional mode”.

Run the software, click the "Settings" →"Switch schedule Mode"→ "Professional playing program"



2, Playback Software Settings

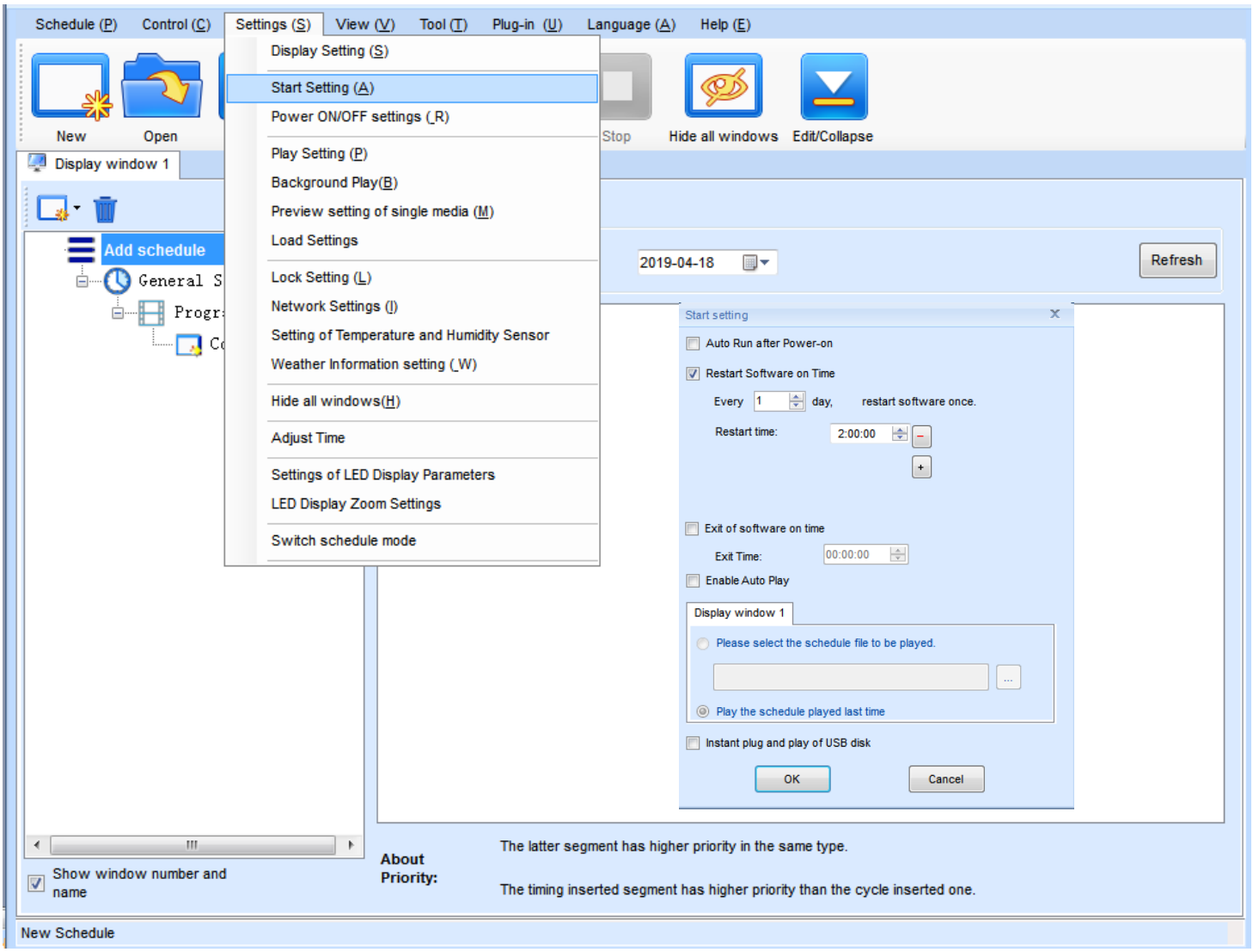
In the main window of the software, click "Settings"→ "Display Settings" to enter the Display Window settings interface, as shown below:



■ Number of display windows: the number of displays.
To increase or decrease the display, re-enter the number of displays in the “Number of Playbacks” and click “Update”.
■ Start X: The horizontal starting point of the playback window.
■ Start Y: The vertical starting point of the playback window.
■ Width: The horizontal pixel value of the display.
■ Height: The vertical pixel value of the display.
■ Other options are set by default values.

3、Startup Settings

In the main window of the software, click the "Settings" →"Start Setting" to enable the software to automatically start when the computer turns on, and automatically start playing a program, as shown below:



■Auto Run after Power-on: Choose it, Nova Studio will operate automatically in the next time when the computer is turned on.

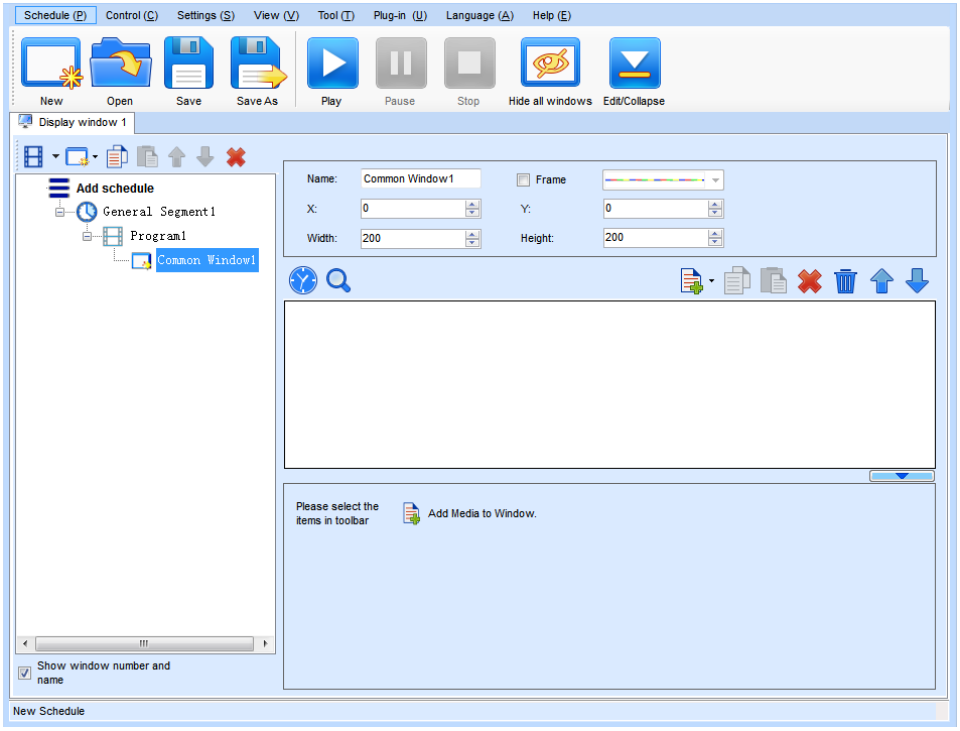
■Restart Software on Time: Set the restart interval and restart time then clicking “OK”, Nova Studio will restart automatically when it reaches the set restart time. After restart, the window information and play-back status before restart will be automatically restored.

■Exit of software on time: After setting the exit time, the software will automatically exit at the set time. This function will avoid uploaded data damage caused by forcibly exiting the software.

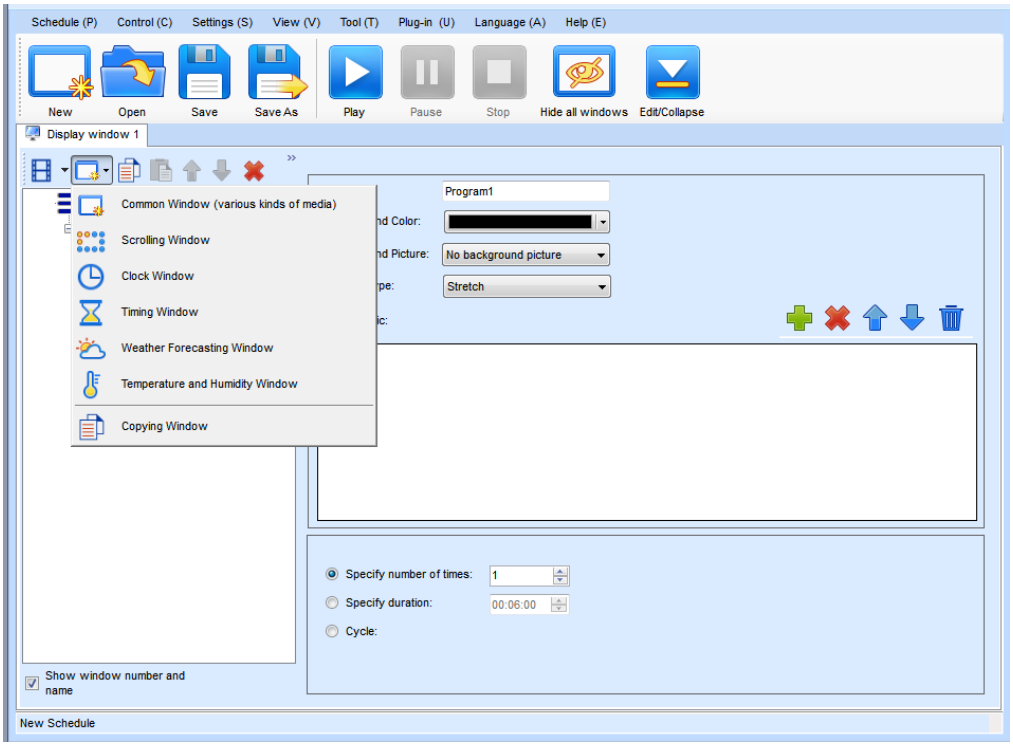
■Enable Auto Play: Choose it and specify a schedule file, the software will automatically play the set video after each boot.

4, Edit program

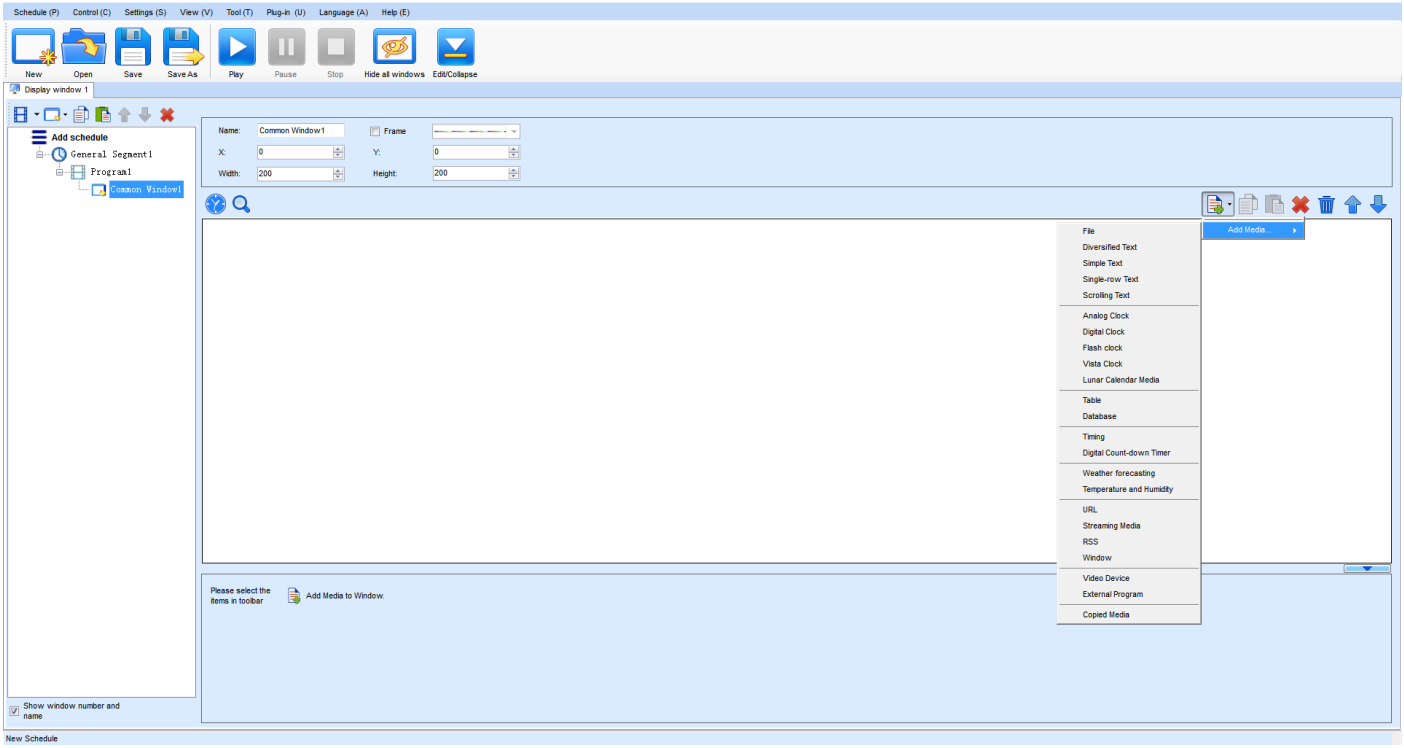
1. Right click on "General Section" or click the "Add schedule" to add a new program page, as shown below



2. Add a new display window to the video. Edit the window properties as shown below:

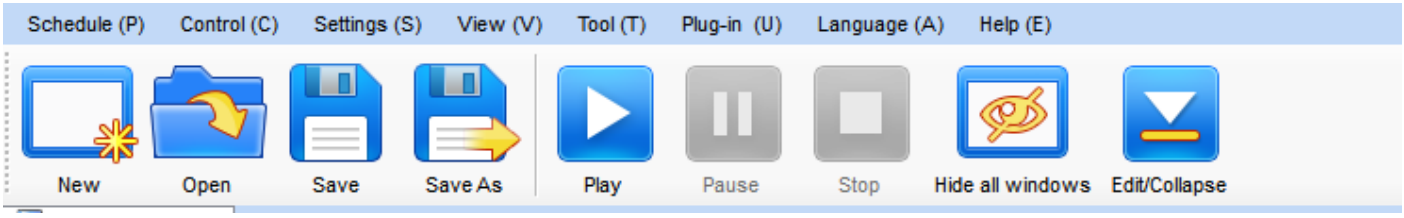


3、After adding a new media window, you can select different media types to add to the media list as shown below:



5, Preview and Play

After editing, you can select any page to preview the display effect in the playback window. Click "Play" to start looping from top to bottom. Click "Stop" to stop playback.



Remarks:

1. Above operation steps are based on standard product and standard software version, and the actual operation steps may be different. Our company will modify the contents of the manual without further notice.
2. For more detailed operation, please refer to the specification of the specific software system.
3. If you need technical support, please contact us.

Malfunction Diagnosis

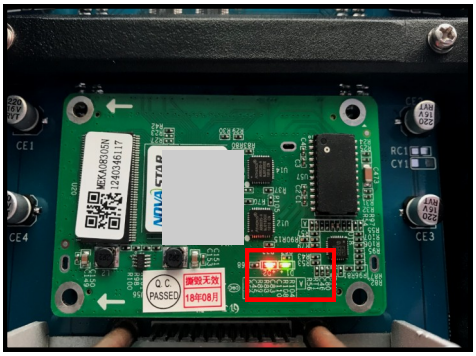
1. The common malfunction diagnosis of control system:

Faults	Solution
Software show “No Hardware”	Please check whether the hardware device is energized and the serial port line is connected properly.
Show "no screen information" on the software	If the screen has already configured the screen information, please try to load from the hardware on the screen connection page. If you have not configured the display screen, please configure the screen first.
Display error	Please check whether the resolution of the sending card page is the same as the resolution of the display output. If it is not the same, please set the same resolution.
	If the resolution is the same, please check if the parameters of the smart setup guidance is correct.

2、The common malfunction diagnosis of display:

The cabinet has a test button, green and red LED indications.

The LED indications are on the top of the cabinet (on the receiving card). The red indicates the power status and the green indicates the communication status of the cabinet. In the absence of a video processor, if you press the test button orderly, the red, green, blue, and diagonal lines will appear on the display.



The Led indications

The test button and led light

LED Indication	Status	Diagnosis	Solution
The red Led indication	ON	The power supply of the cabinet works normally.	-
	OFF	The power supply of the cabinet works abnormally.	• If the cabinet is connected to the main power supply, check whether the power supply cable is plugged in, the power input port of the cabinet is normal and the main power is energized. • If the cabinet isn't connected to the main power supply while to a previous cabinet, please check out the power output of the power cascade cable and the previous cabinet and the power input of the cabinet is normal, then replace it.
The green Led indication	Slow flash	Communication with the adjacent cabinet or video processor works abnormally	If the box is connected to the video processor, check whether the signal access line is plugged in and the signal input port of the mold box is normal. If the box receives the signal from the previous box, check the signal output of the signal cascade and the previous box and whether the signal input of the box is normal, and then replace it.
	Quick flash	Communication with the adjacent cabinet or video processor works normally	-

3、The common malfunction diagnosis of video processor.

Malfunction	Solution
Can't control the screen	Check whether the indicator light of video process or output is normal. If the yellow light flashes while the green one doesn't shine, please check whether the DVI cable between computer and video controller is connected well or not, and whether the computer "replication mode" is set or not. If the yellow one flashes and the green one shines normally, it means the video processor is working well.
	If the indicator light of video processor works well, then check whether the power cable is well connected and power on or not, whether the signal cable from processor to screen is well connected or not
Fail to send data	Check whether the USB cable from video controller to computer is well connected or not.
No duplicator option when setting graphic card	Make sure the video processor is power on.
	Connect the DVI cable again.
	Check whether the DVI or HDMI port is damaged or not

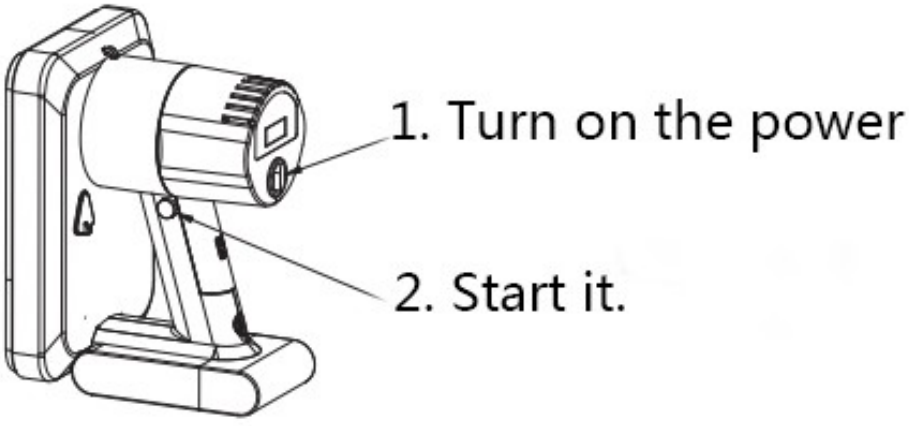
Product Maintenance

※ **Modules Maintenance**

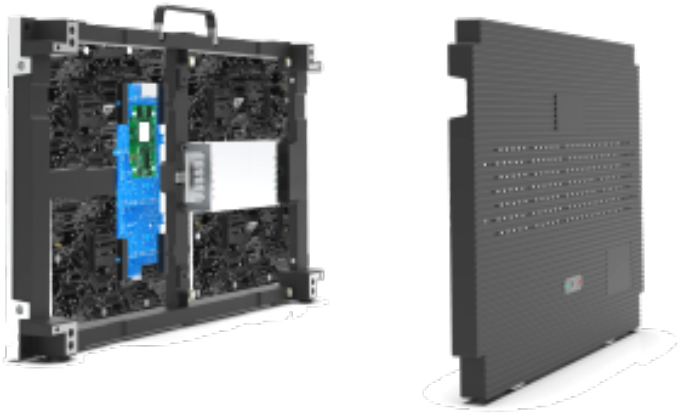
1. Module Front Maintenance

Step 1, Air suction tool

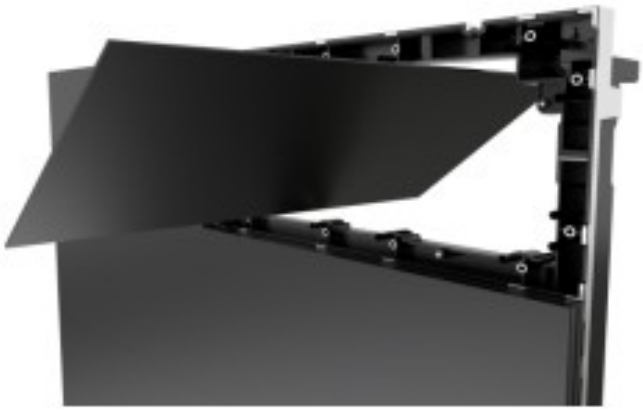
Step 2, Turn it on and change the module.



2. Module Rear Maintenance



Step 1, Remove the back cover vertically

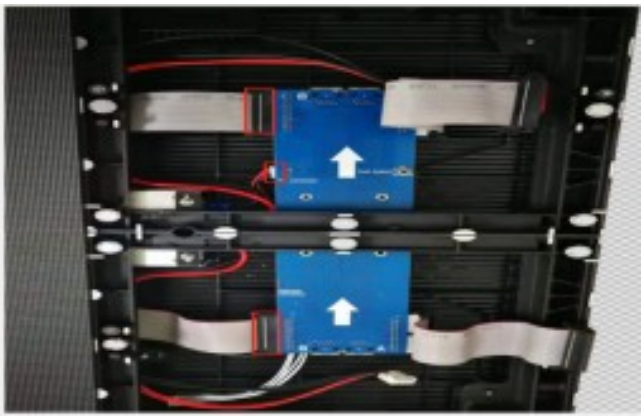


Step 2, Take the module out from the frame and remove the ribbon cable and power cables.

※ Control System Maintenance

1. Control System Front Maintenance

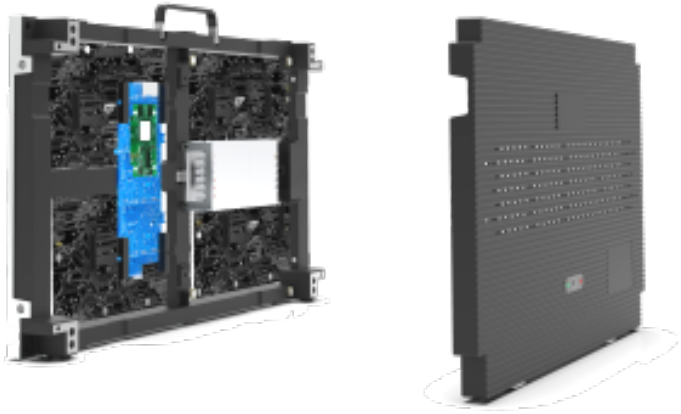
Step 1, Use the air suction tool to remove the module



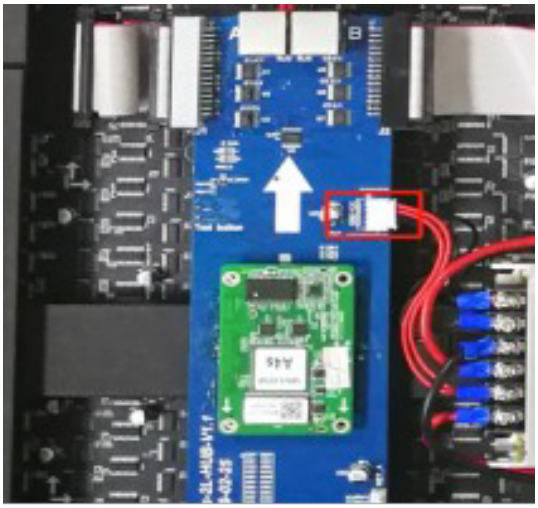
Step 2, Remove the cables and take the HUB Board out.

Step 3, Take out the HUB Board, then change the receiving card and HUB.

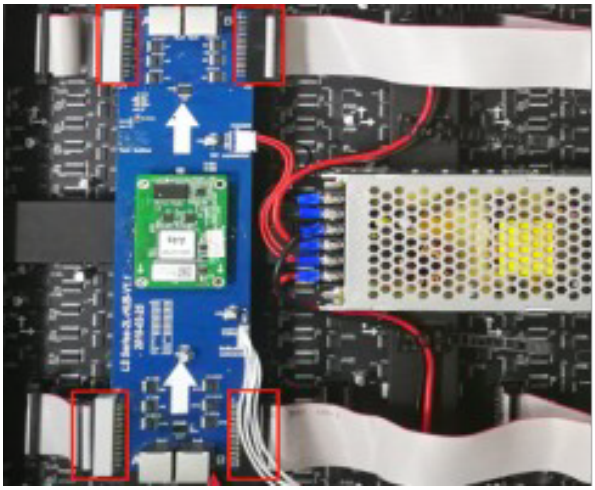
2. Control System Rear Maintenance



Step 1, Remove the back cover vertically



Step 2, remove the power cable and change the receiving card

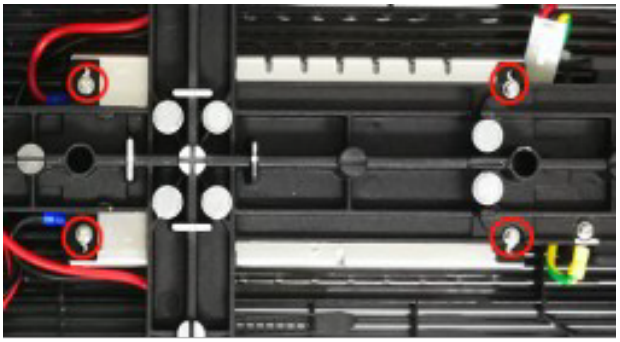


Step 3, remove the ribbon cable and take the HUB Board out vertically

※ Power Maintenance

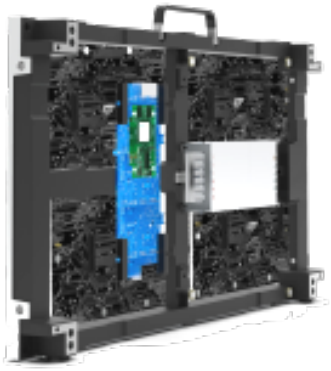
1. Power Front Maintenance

Step 1, Use the air suction tool to remove the module

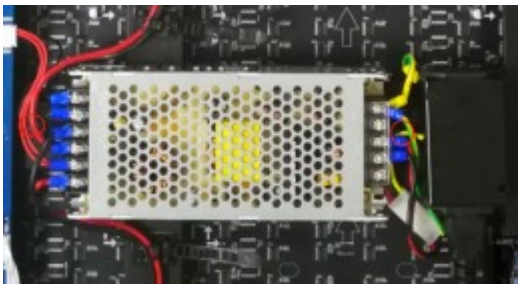


Step 2, Use a Phillips screwdriver to remove 4 screws and take the power out of the structure clearance for maintenance and replacement.

2. Power Rear Maintenance



Step 1, Remove the back cover vertically



Step 2, Remove the cables and use a Phillips screwdriver to remove the screws and remove the power for maintenance and replacement.