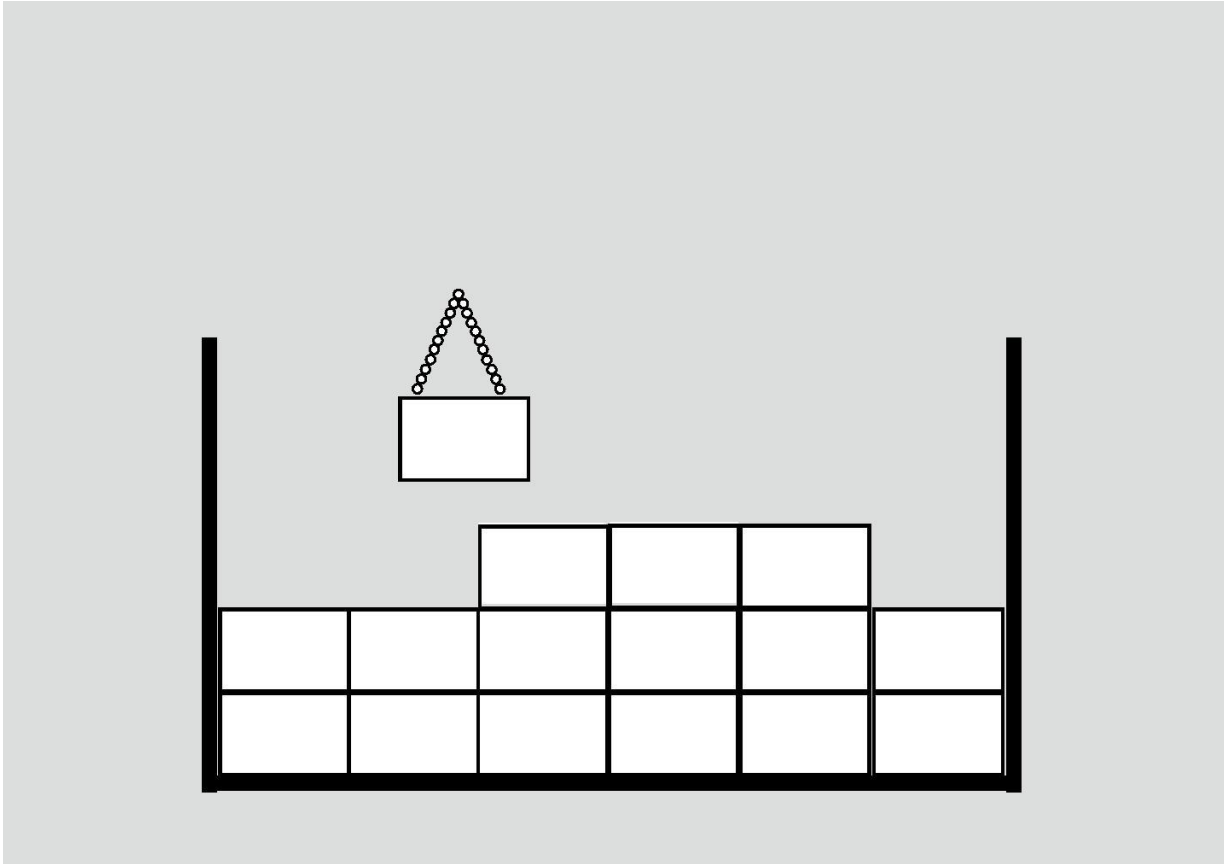## Installation Instruction
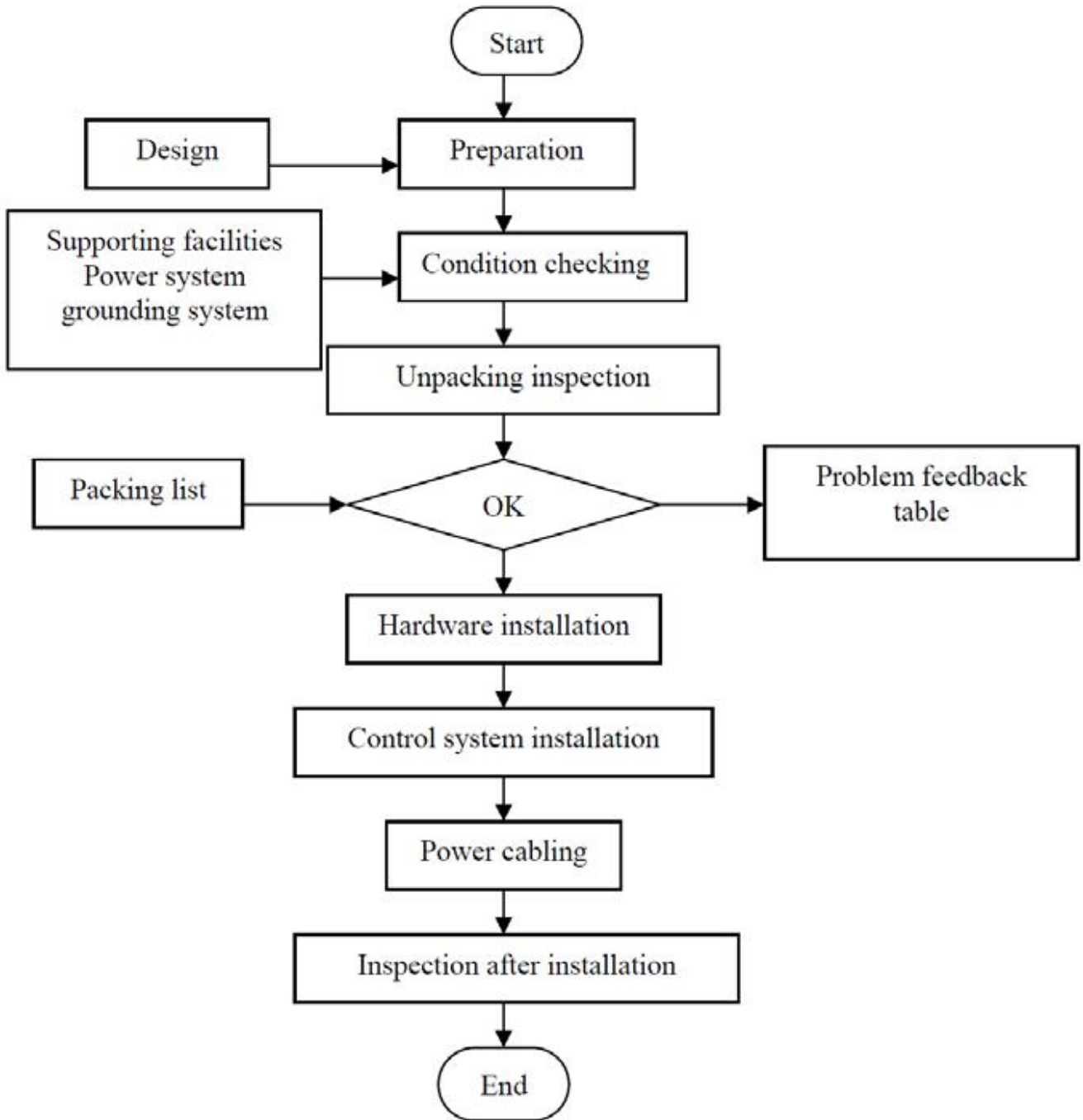

Safety Notice

1.Please read through the instruction before the installation. Carefully observe all the warnings, precautions described in the manual.

2.Keep the entire manual for future reference.

3.The screen power is supplied with a three-pin power plug, the third pin will be connected to the ground. If your plug cannot plug into the electricity outlet, please contact the electrician to replace. Do not let the safe function of the three pin plug disabled.

4.Make sure the power supply socket and cable resist all the related current. Don't overload the power socket and cable which can result in fire or electric shock.

5.Shut off the power for check, servicing, and disassembly.

6.Professional technician for all the servicing.

7.Keep the inside of LED display body dry and make sure the cooling system running well.

8.A normal inside temperature and carefully maintenance will last the LED display lifetime.

Specification：

Item Name	P4	P5	P6	P8	P10
Pixel pitch	4mm	5mm	6mm	8mm	10mm
LED Encapsulation	SMD2727	SMD2727	SMD3535	SMD3535	SMD3535
Pixel Density	62500dots/sqm	40000dots/sqm	27777dots/sqm	15625dots/sqm	10000dots/sqm
Module Size	256 x 128mm	160 x 160mm	192 x 192mm	256 x 128mm	320 x 160mm
Cabinet size	1024 x 1024mm	960 x 960mm	960 x 960mm	76x768mm	960 x 960mm
Pixel Configuration	1R1G1B(3 in1)				
Driving Method	1/8 scan	1/8 scan	1/8 scan	1/4 scan	1/2 scan
Refresh Frequency	≥1920Hz				
Driving IC	MBI 5124.				
Grey Scale	>14BIT(According to system and IC equipped)				
White Balance Brightness	6000nits	5000nits	5000nits	6000nits	6500nits
Color Temperature	8000K ± 500(adjustable)				
Viewing Angle	Horizontal Angle 120° Vertical Angle 120°				
Optimal Viewing Distance	>4m	>5m	>6m	>8m	>10m
Working Voltage	DC5V				
Max Power Consumption	830W/m2(White Balance)				
Avg Power Consumption	430W/m2(Normal Working)				
Lifetime	50000 Hours				
Operating Temperature	-30℃ ~50℃				
Weight	40kg/sqm				

Installation Procedure

```
                              ┌─────────┐
                              │  Start  │
                              └─────────┘
                                   │
                                   ▼
  ┌──────────┐              ┌──────────────┐
  │  Design  │─────────────▶│ Preparation  │
  └──────────┘              └──────────────┘
                                   │
                                   ▼
  ┌─────────────────────┐   ┌────────────────────┐
  │ Supporting facilities│   │ Condition checking │
  │ Power system         │──▶│                    │
  │ grounding system     │   └────────────────────┘
  └─────────────────────┘           │
                                     ▼
                            ┌────────────────────┐
                            │ Unpacking inspection│
                            └────────────────────┘
                                     │
                                     ▼
  ┌──────────────┐            ◇ OK ◇         ┌──────────────────┐
  │ Packing list │───────────▶        ──────▶│ Problem feedback │
  └──────────────┘                            │ table            │
                                     │        └──────────────────┘
                                     ▼
                            ┌────────────────────┐
                            │ Hardware installation│
                            └────────────────────┘
                                     │
                                     ▼
                            ┌──────────────────────────┐
                            │ Control system installation│
                            └──────────────────────────┘
                                     │
                                     ▼
                            ┌────────────────┐
                            │ Power cabling  │
                            └────────────────┘
                                     │
                                     ▼
                            ┌──────────────────────────────┐
                            │ Inspection after installation │
                            └──────────────────────────────┘
                                     │
                                     ▼
                              ┌─────────┐
                              │   End   │
                              └─────────┘
```

Tools

1. Slot type screwdriver&Philips type screwdriver.

2. Spanner.

3. Hexagonal Bar&Hexagonal head screwdriver.

4. Scissors.

5. Pincers&Wire cutters.

6. Hammer.

7. Electrical Drill.

8. Electric welding.

9. Multimeter.

Please prepare below tools before installation.

5mm
6mm

14mmX15mm
16mmX17mm
21mmX23mm
22mmX24mm

3mm
4mm
5mm
6mm
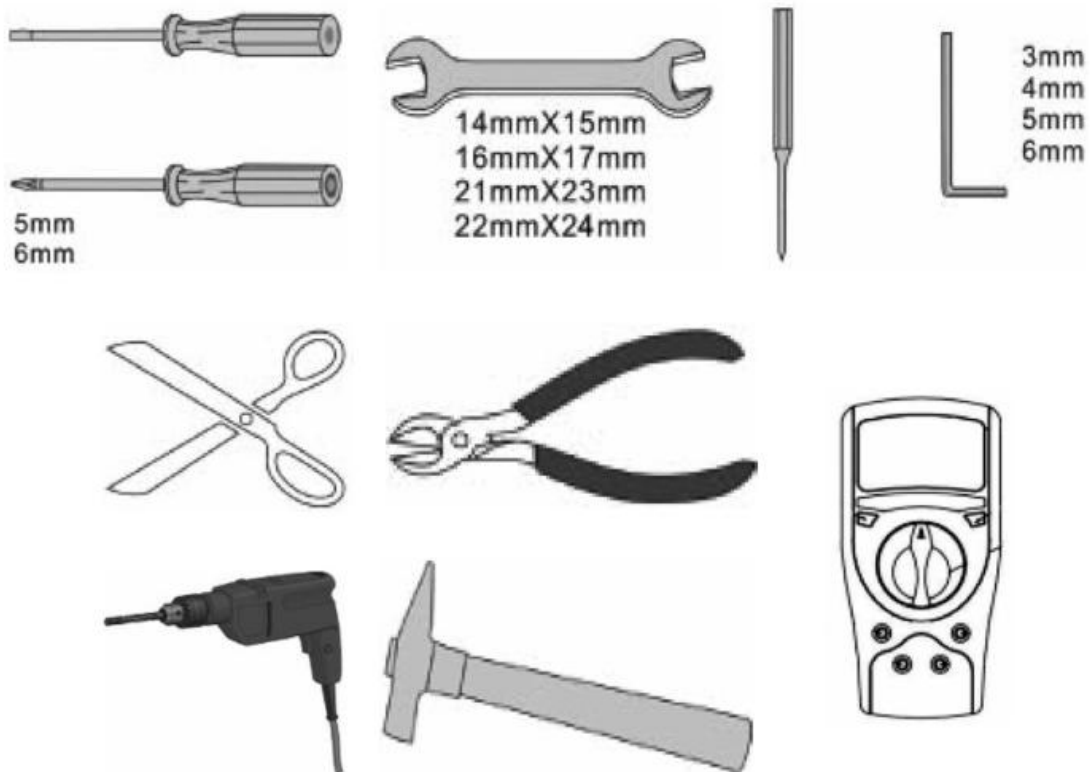
Basic Requirements&Preparation

1. Build the structure frame.

2. 220V/110V power supply for LED display and control PC.

3. Industry Air Switch for the power supply of LED display.

4. Tools for installation.

5. Life Machine or Crane if necessary.

6. Spare pars&Shim to adjust horizon.

7. Ladder or Scaffold, safety belt and helmet.
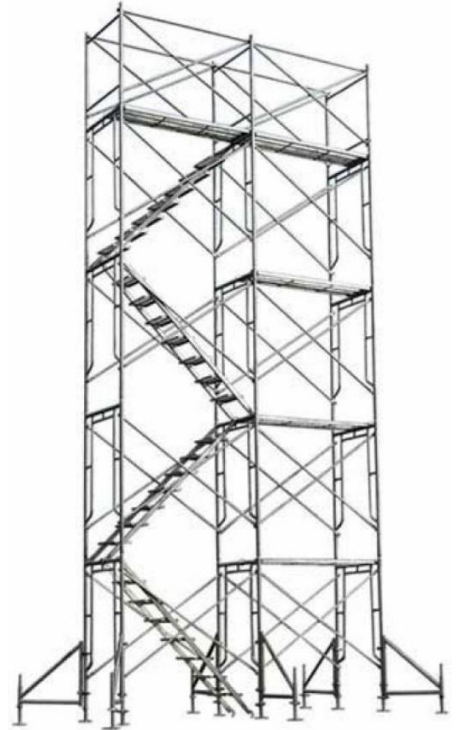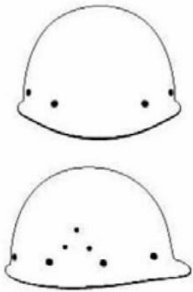
Caution

To prevent the occurrence of accident and injury, read and follow the local safety precautions.

Make sure all those who use LED display read the manual and follow

● Turn off the LED display immediately in case of malfunction.

● Safety belt and helmet will be necessary in the whole process of installation.

● Strong structure frame built for the consideration of extremely wind weather.

● Ladder and scaffold must be strong enough for workers standing on it.

● Observe proper electrician steps when handling the power supply.

● Any assembly-disassembly should be accomplished by professional engineers.

● Keep away from Children.

Cabinet Sketch

1. LED module.

2. ABS plastic module base.

3. Iron&Aluminum cabinet.

4. Receiving card and Hub card.

5. Power cable.

6. Date cable.

7. Power supply.

8. Back door.
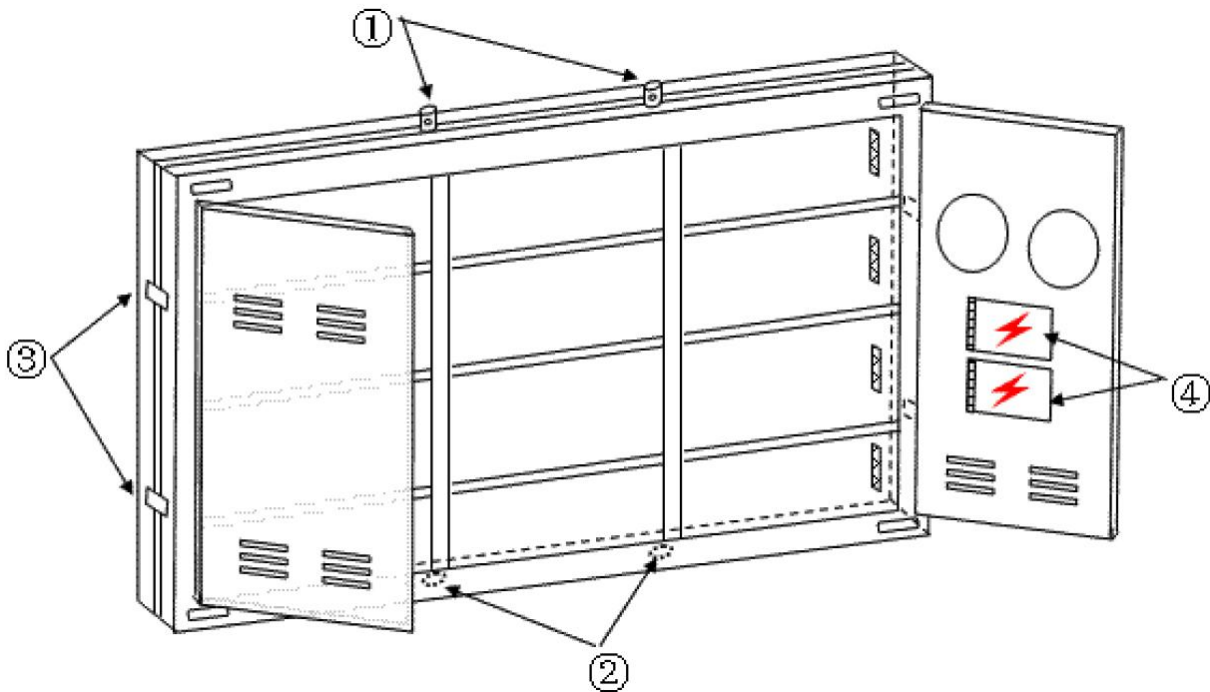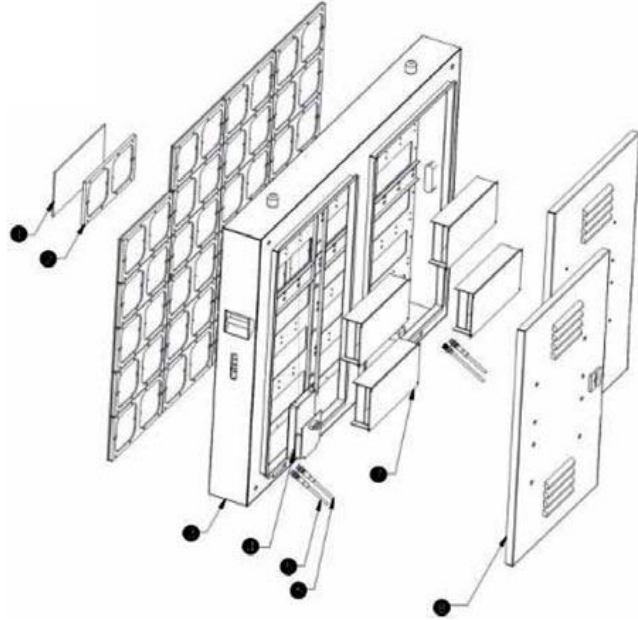
①Place Pegs (for the fastness).

②Place Holes (for the fastness).

③Through Holes (for the cable).

④Power supply

Cabinet to Structure Assembly

1. Open packaging.

2. Check before assembly.

3. Install the first cabinet to the structure.

4. Adjust horizon with shim.

5. Install the first line and level up horizon.

6. Adjust gap between cabinets.

7. Fasten screw.

8. Assemble the rest lines of cabinets on the top of first line
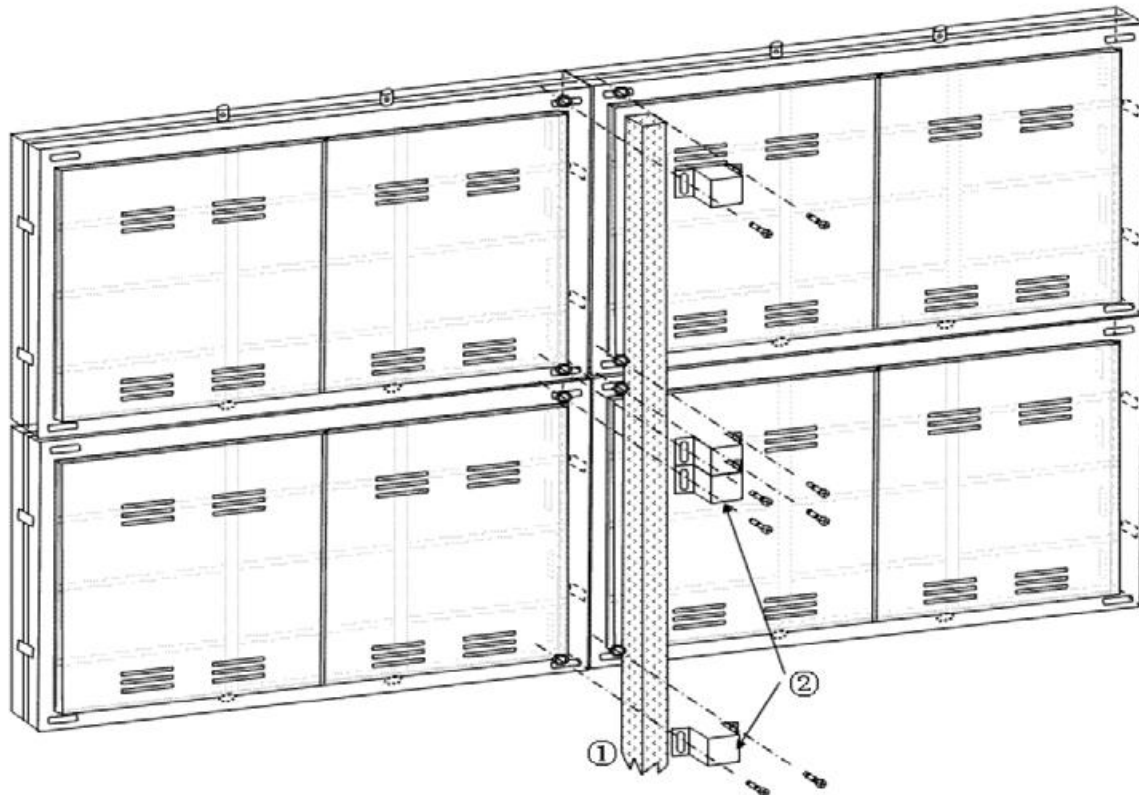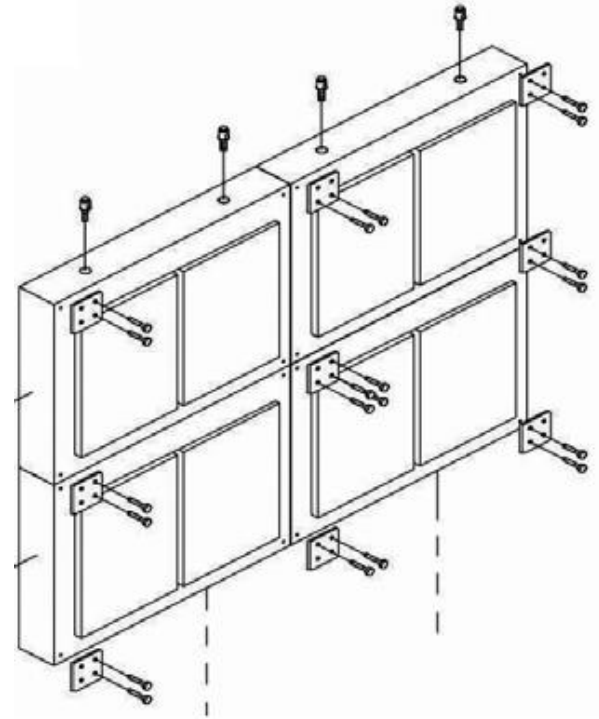
Assembly Order
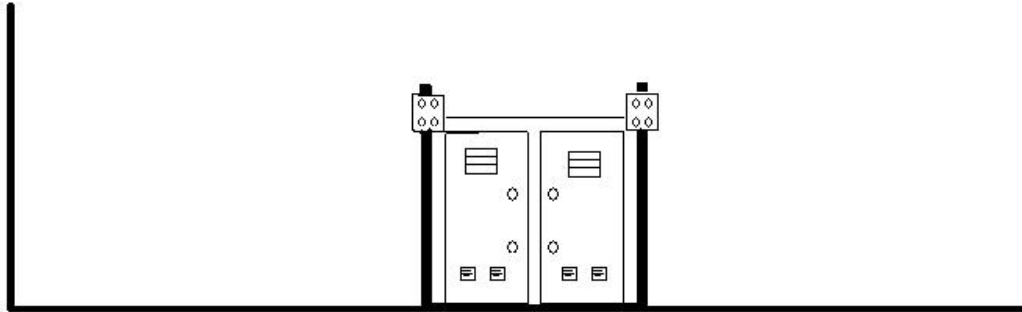
1. Install the first cabinet, remember to start from any one in the middle, not from the left first or the right first
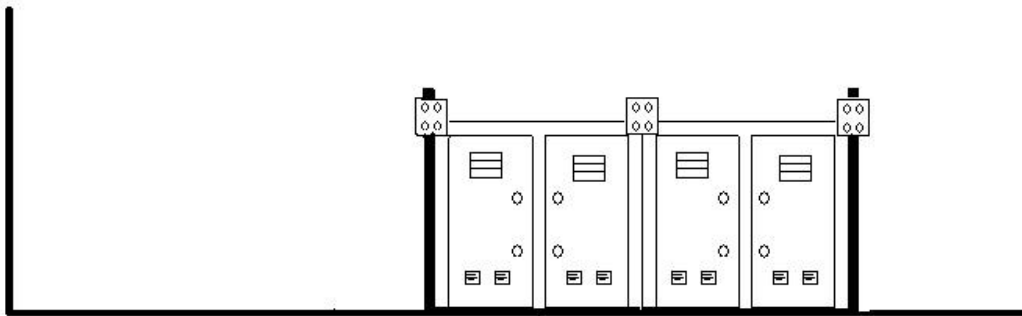
2. Assemble the second cabinet
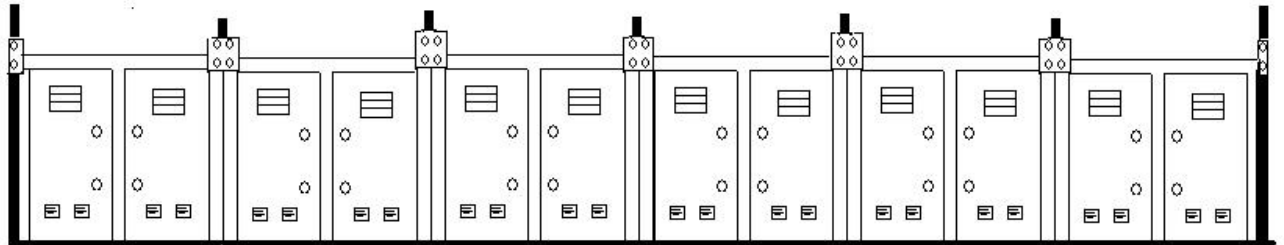
3. Install the first layer cabinet to the frame structure
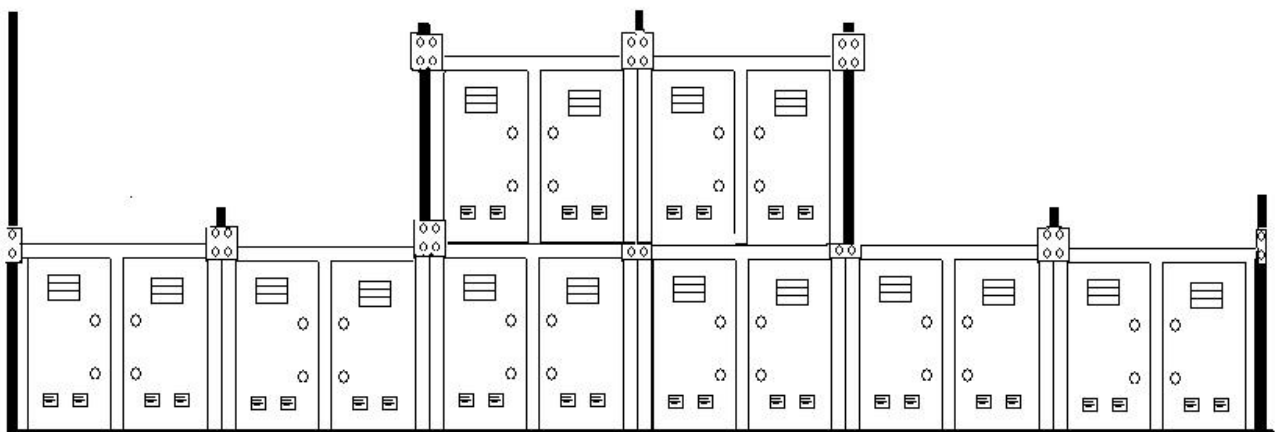
4. Install the second layer cabinet and rest cabinets on top of the first layer cabinets
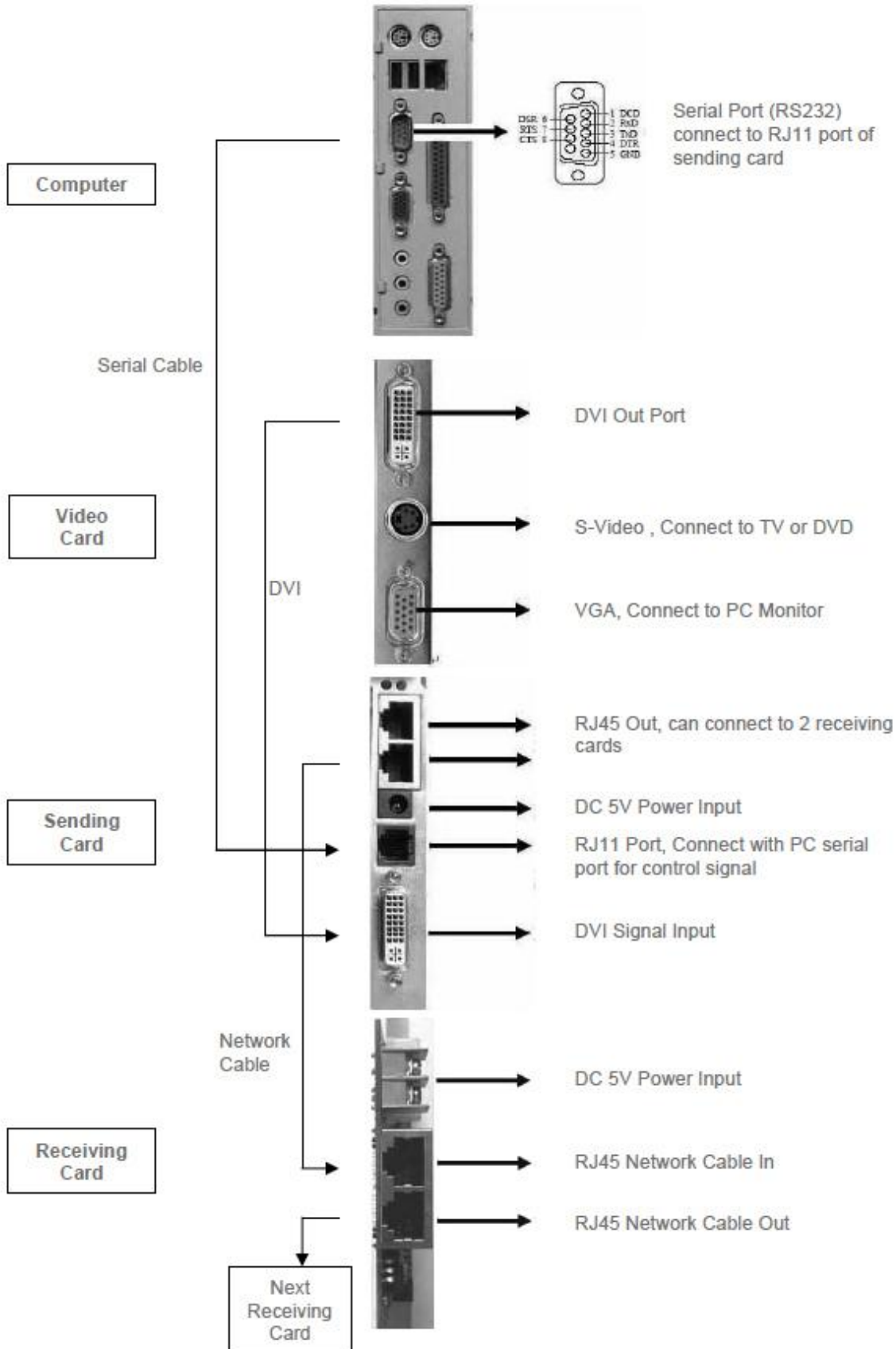
Control Cards Connection

Control System Connection Diagram
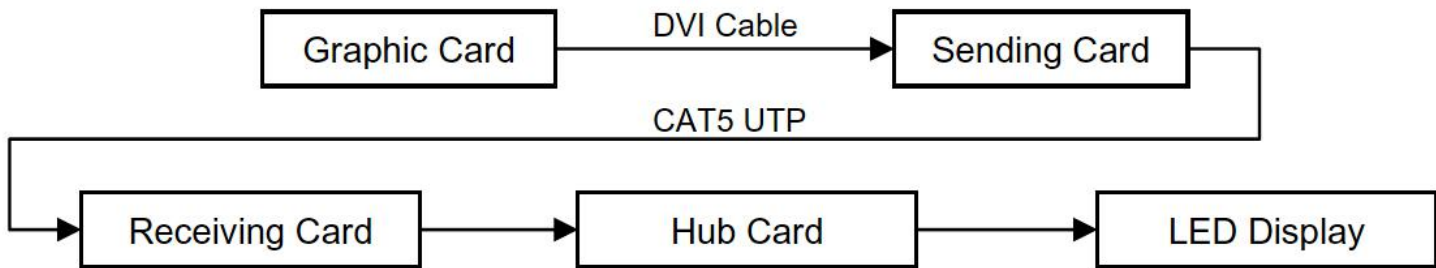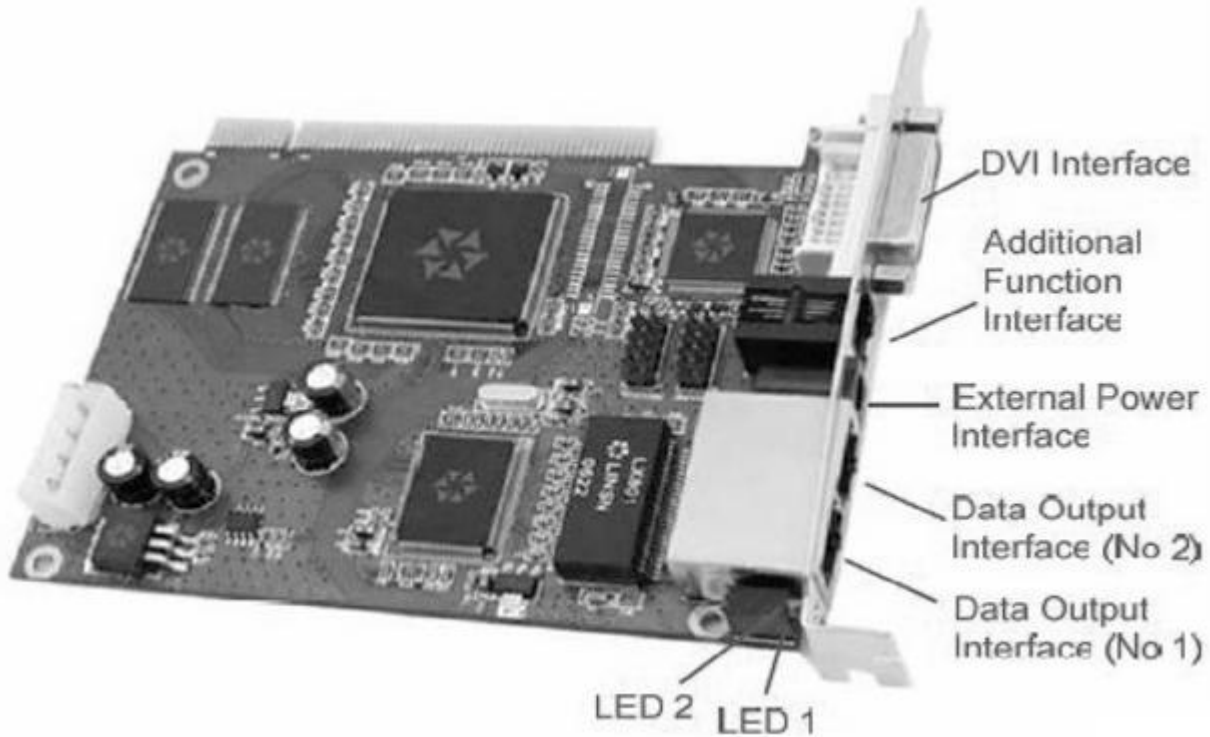

Control Card Connection Diagram (1)

Control Card Connection Diagram ②

Computer

Serial Port (RS232) connect to RJ11 port of sending card

DSR 6
RTS 7
CTS 8
1 DCD
2 RxD
3 TxD
4 DTR
5 GND

Serial Cable

Video Card

DVI Out Port

S-Video , Connect to TV or DVD

DVI

VGA, Connect to PC Monitor

Sending Card

RJ45 Out, can connect to 2 receiving cards

DC 5V Power Input

RJ11 Port, Connect with PC serial port for control signal

DVI Signal Input

Network Cable

DC 5V Power Input

Receiving Card

RJ45 Network Cable In

RJ45 Network Cable Out

Next Receiving Card

Installation of Sending Card

Sending card:

(Detail about sending card please refer to the sending card related manual)
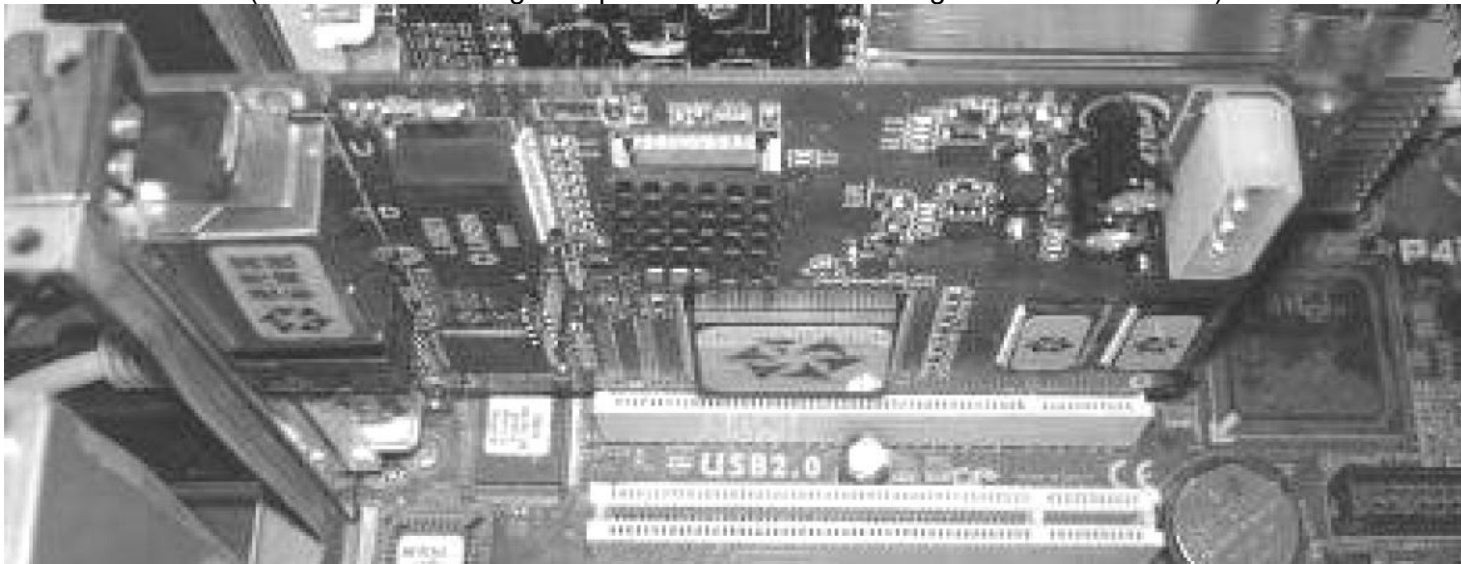
The sending card is installed in an unused PCI socket of control computer.Additional function interface is connected to serial port, and one of the Data-output interfaces is connected to Receiving Card by UTP.
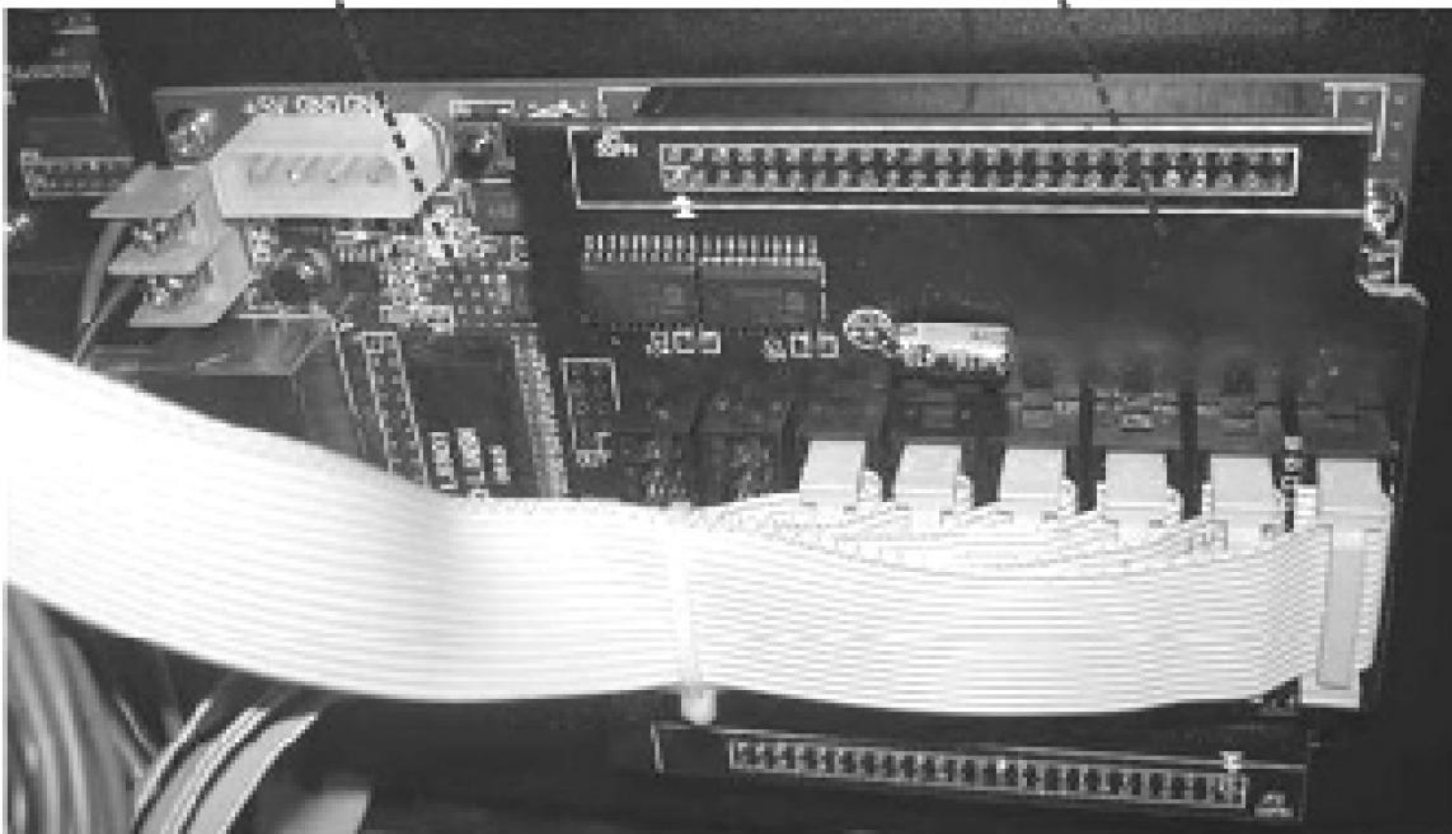
Control Software

Standard control software is Led Studio, please refer to the manual for the installation and Operation.

Connection of Receiving Card

**A. Connection between Receiving Card and Hub Card.**

One cabinet has a Receiving Card integrated with a Hub Card. Use two 2x25PIN connectors to connect the two cards

B. Connection between Hub Card and Module.

Refer to above diagram, Hub Card which connected to the Receiving Card has 6 16PIN flat cables respectively and which will connect to the first module in each row in each cabinet. Other modules will be connected to each other by short 16PIN flat cables.
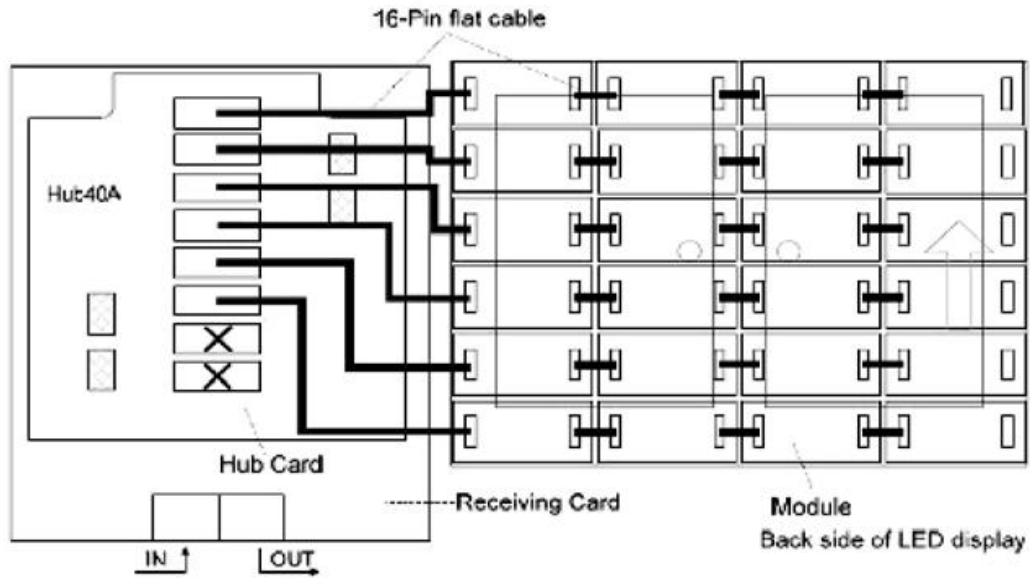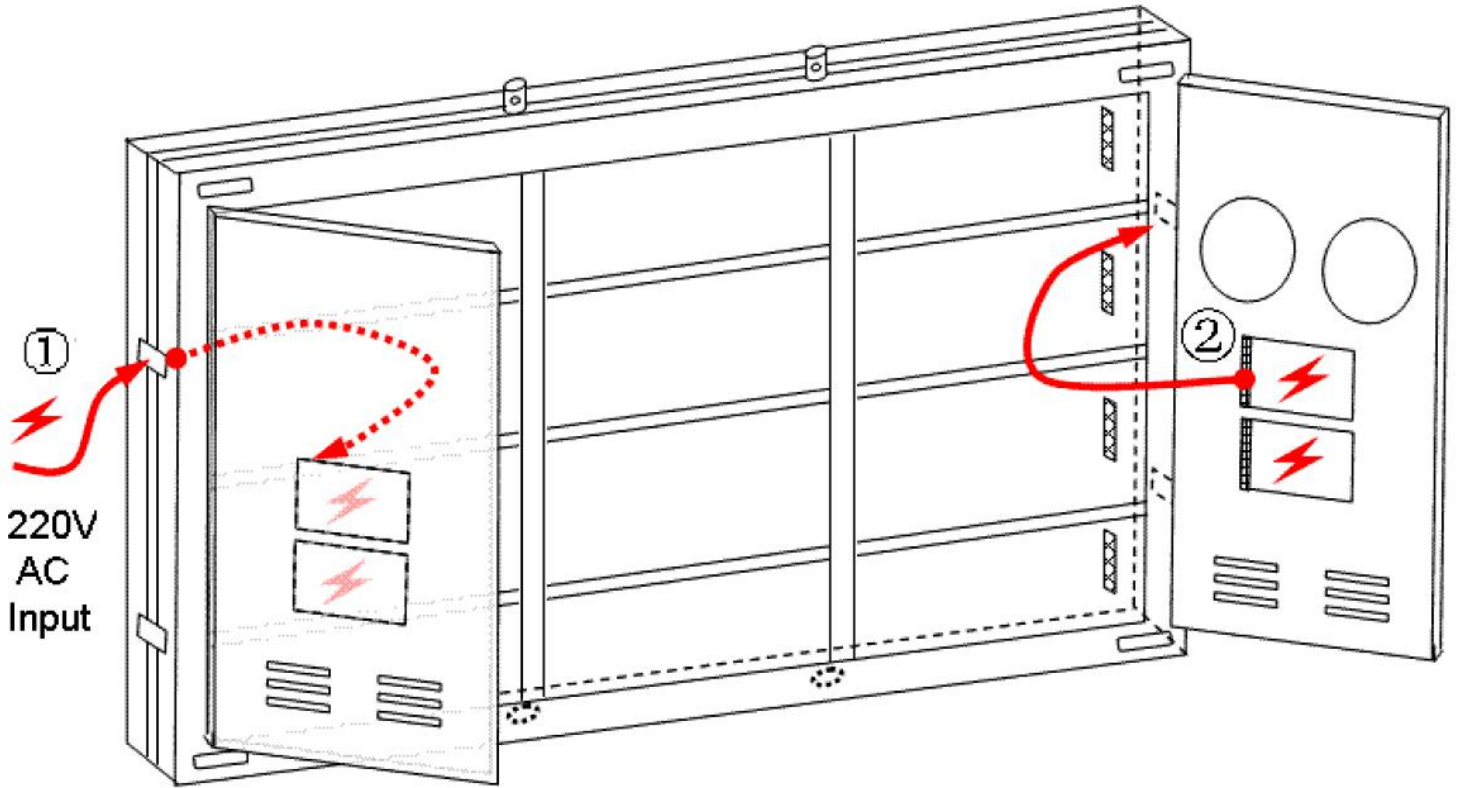
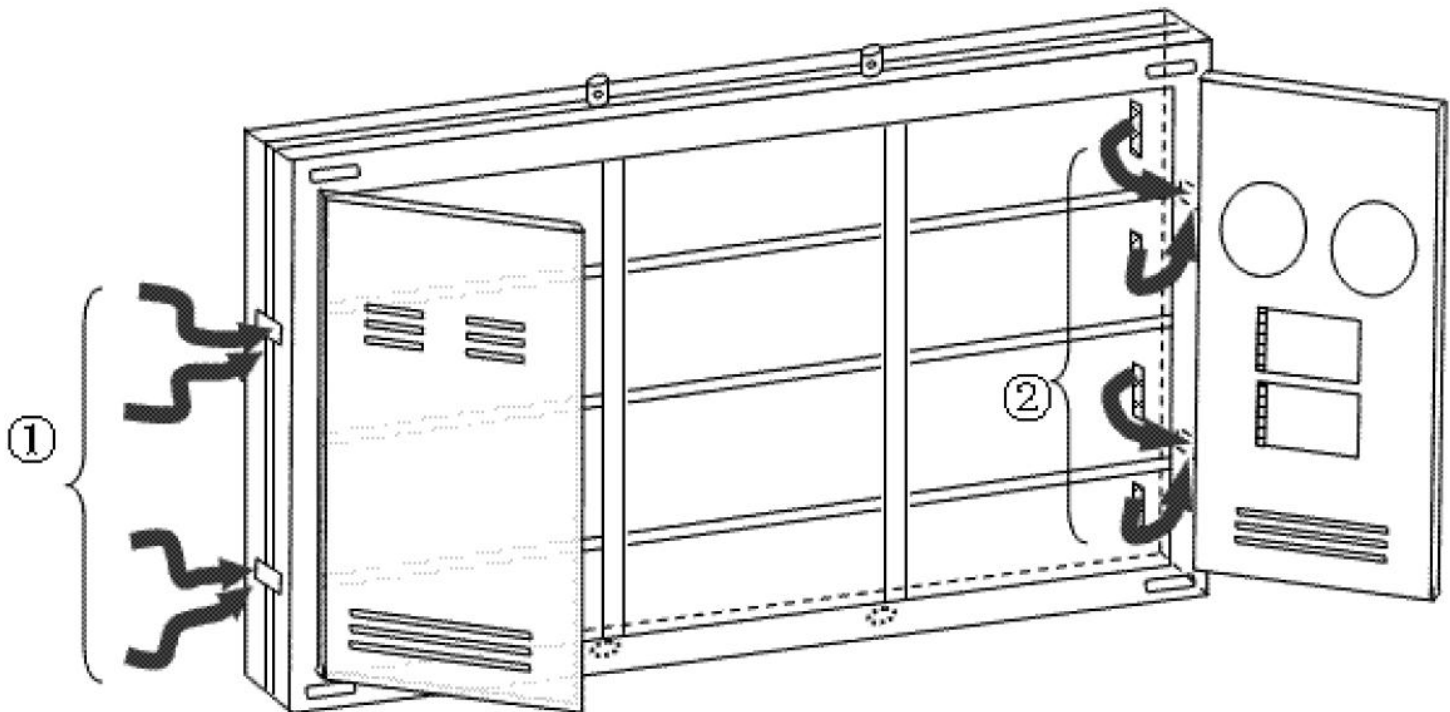# Connection for Standard Cabinet

Step 1: Connection of AC power cable
Below drawing shows how to connect the AC power cable between cabinets and inside the cabinets:

220V
AC
Input
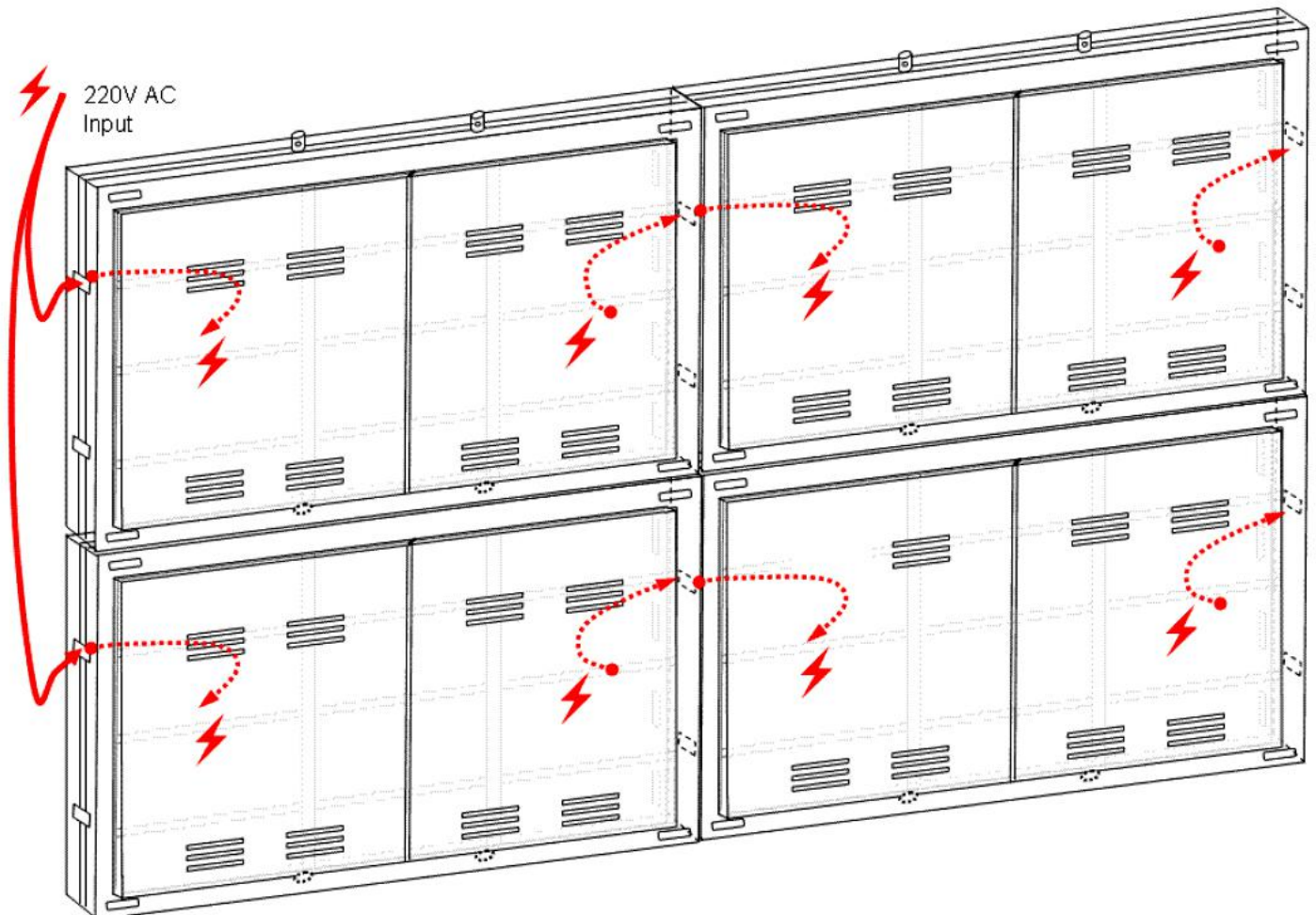
Step 2: Connection of Data cable

Below drawing shows how to connect the data cable between cabinets and inside the cabinets:

1. Signal cable interconnection between cabinets is shown as in the diagram: (①means the signal cables from left side cabinets which come inside from left holes,and will be connected to the related connector jack of first left line modules, pleasepay attention to the linear order. ② means the signal cables from its own cabinet which

will go through right hole to be connected to the related connector jack of first left line modules of the next cabinet, please pay attention to the linear order.)

2. Connect the network cable (or optical fiber) to the top receiving card located on the first left line cabinet, going through the hole on one side of the cabinet.

3. Cascade connect network cable (or optical fiber) to the receiving cards located on the first left line cabinets.

4. Connect the receiving card to related partial modules inside first left line cabinet.