LED PIXEL MESH P25 SMD PRO
ORDERCODE 101170
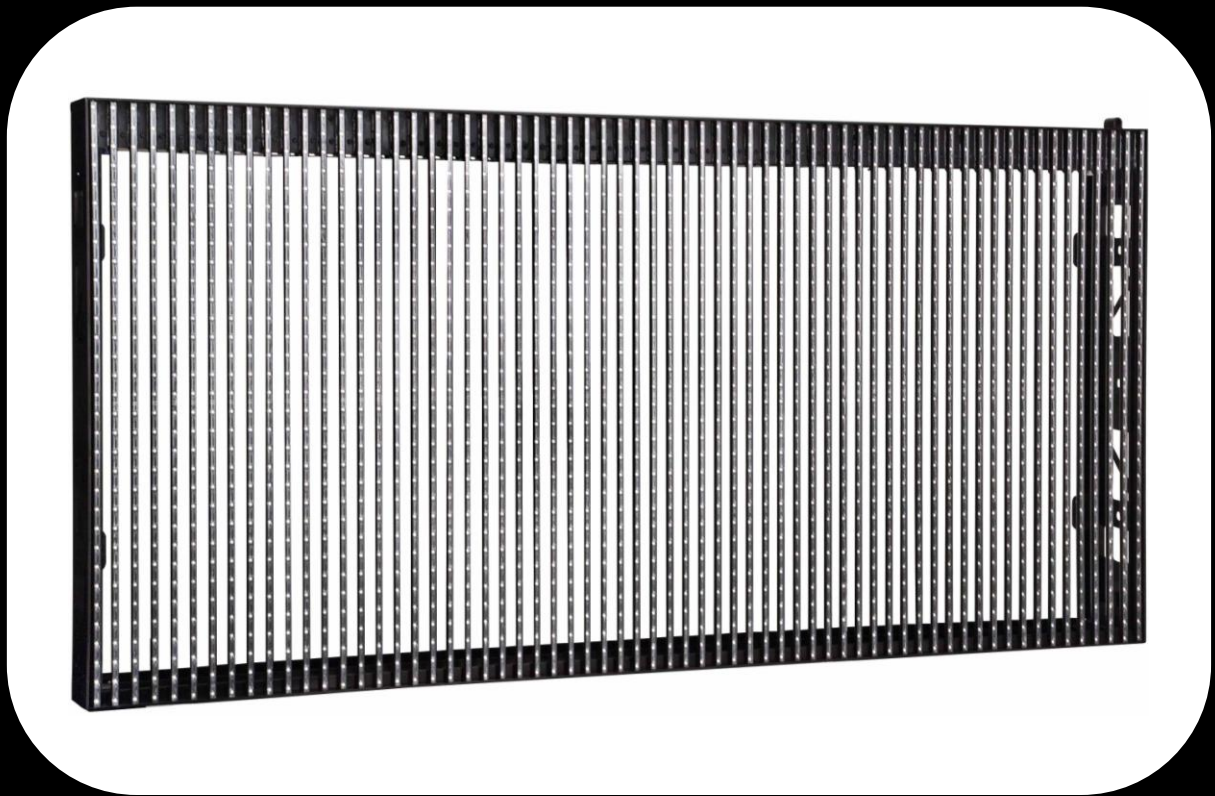
DMT
DUTCH MEDIA TOOLS

Congratulations!

You have bought a great, innovative product from DMT.
The DMT LED Pixel Mesh P25 SMD Pro brings excitement to any venue.

You can rely on DMT, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@dutchmediatools.info

You can get some of the best quality, best priced products on the market from DMT.
So next time, turn to DMT for more great lighting equipment.
Always get the best -- with DMT !

Thank you!

DMT

DMT LED Pixel Mesh P25 SMD Pro™ Product Guide

WARNING

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:
• DMT LED Pixel Mesh P25 SMD Pro
• included Powercable: 2m Powercon to Powercon
• included Datacable: 0,35m Ethercon to Ethercon.   powercon   ethercon
•User manual

LED Expected Lifespan

LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. It is estimated that a viable lifespan of 40,000 to 50,000 hours will be achieved under normal operational conditions. If improving on this lifespan expectancy is of a higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:
-    be qualified
-    follow the instructions of this manual

**CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Do not switch the device on and off in short intervals.
- Never use the device during thunderstorms, unplug the device immediately.
- Avoid flames and do not put close to flammable liquids or gases.
- Only operate the device after having familiarized with its functions.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your DMT device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your DMT dealer for service.
- The user is responsible for correct positioning and operating of the LED Pixel Mesh. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- For replacement use fuses of same type and rating only.
- WARRANTY: Till one year after date of purchase.

OPERATING DETERMINATIONS

This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

The maximum ambient temperature t_a = 45°C must never be exceeded.

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc.

You endanger your own safety and the safety of others!

Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:
- If the LED Pixel Mesh is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the LED Pixel Mesh, with the riggingmodule (101366), to the trussing system.
- The LED Pixel Mesh must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the device, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

Improper installation can cause serious damage to people and property !

Connection with the mains
Connect the device to the mains with the power-plug.
Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
⏚	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!

⚠️ Return Procedure ⚠️

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:
1) Your name
2) Your address
3) Your phone number
4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.
 It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.
Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.
Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.
Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The LED Pixel Mesh P25 SMD Pro is a fabulous LED panel from DMT.
• Rental version
• Dimensions: 1600 x 800 x 140 mm (LxWxH)
• Weight: 21 kg
• Fullcolor outdoor LED screen
• SMD led system
• Easy to mount
• Easy to service
• Power supply: AC 230V - 50 Hz (+/-15%)
• Power consumption: 700W (peak)
• Power connector: Powercon
• Pixelpitch: 25 mm
• Pixelconfiguration: 1 RGB full color SMD LED
• Pixel/screen: 32 x 64 (LxW)
• Screensize: 1600 x 800 mm
• Density(pixel/m2): 1600
• Viewing Angle: 120°
• Luminance: 3040 nits
• Best viewing distance: 20 -100 m
• Color temperature: 6500K- 9500K
• Scanning system: Static status
• Brightness Conrol: 256 grade each R/G/B
• Display color: 16.777.216 Colors
• Refresh rate: 400Hz
• Display mode: 1024 x 768, 800 x 600
• Control distance: < 100 m
• Operating temperature: -10 ~ 50°
• Operating humidity: 10% - 90% RH
• IP rating: IP65
• Flightcase separately available for 4 pieces Pixelmesh P25 SMD Pro (**101175**)
• Riggingmodule for Pixelmesh P25 smd (**101366**)
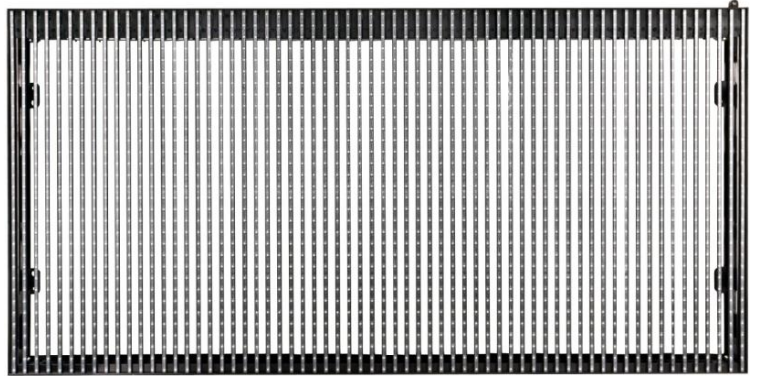
Separately available **101175**   **101366**

Control

• Software: LEDstudio 8
• PC system with PCI slot and RS232 com port
• When the PC has no RS232 port, use a USB to RS232 converter cable (NOT included)
• System: Windows XP with video card (NOT included)
• Applications: Rental installations, small or large, interior / advertising /stage
• Works with other manufacturer's software: Arkaos

RS232 to USB

arKaos
Interactive Visual Technologies

Overview
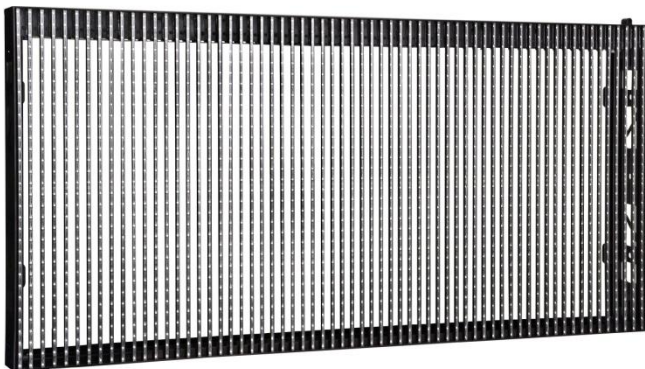
Fig. 1

LED Pixel Mesh P25 SMD Pro (101170)   **Flightcase for 4 LED Pixel Mesh P25 (101175)**

Overall Requirements
• Windows XP computer with an available PCI slot and RS232 com port
• Graphics card with 2x DVI or 1x VGA + 1x DVI

Computer System Requirements

Minimum
Operating system: Windows XP SP2 (Service Pack 2)
Processor: Pentium 200 MHz with at least one free PCI slot
Harddisk: 20 GB 5400 RPM
Memory: 256 MB
Graphic Card: Graphics Card with dual display Mode and DVI output
Note: Only tested with ATI Graphic Card

Recommended
Operating system: Windows XP SP2 (Service Pack 2)
Processor: Pentium 1 GHz or better with at least one free PCI slot
Harddisk: 40 GB 7200 RPM or more
Memory: 512 MB or higher
Graphic Card: Graphics Card with dual display Mode and DVI output

Set Up and Operation
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

The LED Pixel Mesh P25 SMD Pro can be used indoors and outdoors. The LED Pixel Mesh P25 SMD Pro can be viewed during night-time as well as day-time. Due to the clever mounting system it is easy to setup. The LED Pixel Mesh P25 SMD Pro excellent design allows you to vary the setup in many shapes and sizes.

Specifications LED Pixel Mesh P25 SMD Pro

Parameters	Value	Unit
Brightness	3040	nits
Color temperature	6500-9500	K
Horizon View Angle	120	degree
Vertical View Angle	120	degree
Weight	21	Kg
Diagonal Distance	1789	mm
Length	1600	mm
Width	800	mm
Depth	140	mm
Area of Panel	1,28	m²
Transparancy	53%	
Frame Color	black	
Material	Aluminum Alloy	
IP Rating	IP 65	
Working Environment	-10 - 40	˚C
Pixel Type	RGB three in one Full color LED	
Pixel Pitch	25	mm
Pixel Matrix	64*32	
Pixels per Panel	2048	
Pixels per Sqm	1600	Pixpixel / m²
Min View Distance	≥20-100m	m
Display Colors	256*256*256 =(16.777.216 colors)	
Grey Level	4096	Levels
Brightness Control	256	Levels
Video frame Rate	60	Hz
Display Refresh Rate	400	Hz
Working Voltage	AC230V	V
Max Input Current	3.2A	A
Max Output Rate	700	W
Lifespan	≥10000	Hours
Red Wavelength	622-627	nm
Green Wavelength	520-525	nm
Blue Wavelength	465-470	nm
Data Interconnection	Ethernet	
Max Screen Size	**16 Horizontal X 24 Vertical = 25.6m X 19.2m**	

Calculate your Minimum Viewing Distance
750X Pixel = 750x25 = 18750 mm = ± 20m

The LED Pixel Mesh P25 SMD screen is made of 2048 Pixels.
Each pixel is made up of one RGB full-color SMD LED.

Total dimensions of the LED Pixel Mesh P25 are 1600x800x140mm.
The brightness of each color proportion is R:G:B 3:6:1 in order to be best white equipoise effect.

The LED Pixel Mesh P25 SMD is fixed with a metal frame, which is stable, firm and is easy to install. However you should pay attention, when stacking them on top of eachother or hanging them on a truss system.
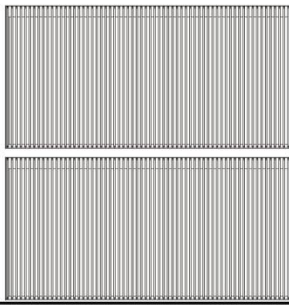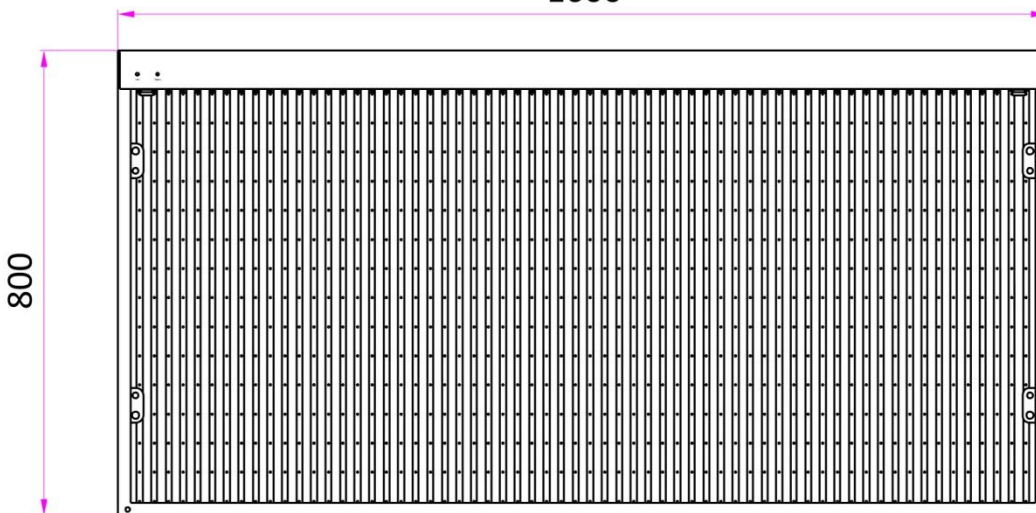

Max. 24
⚠ **Stacked on the floor** ⚠
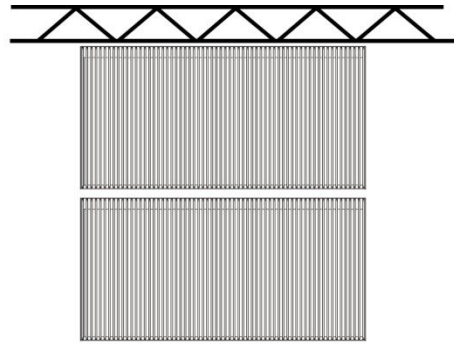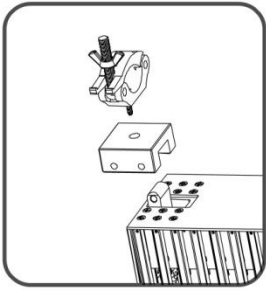
Max. 20
⚠ **Hanging from truss** ⚠

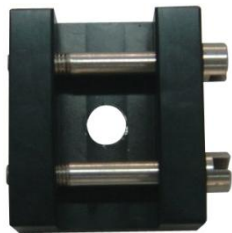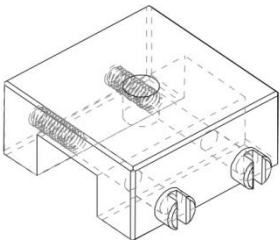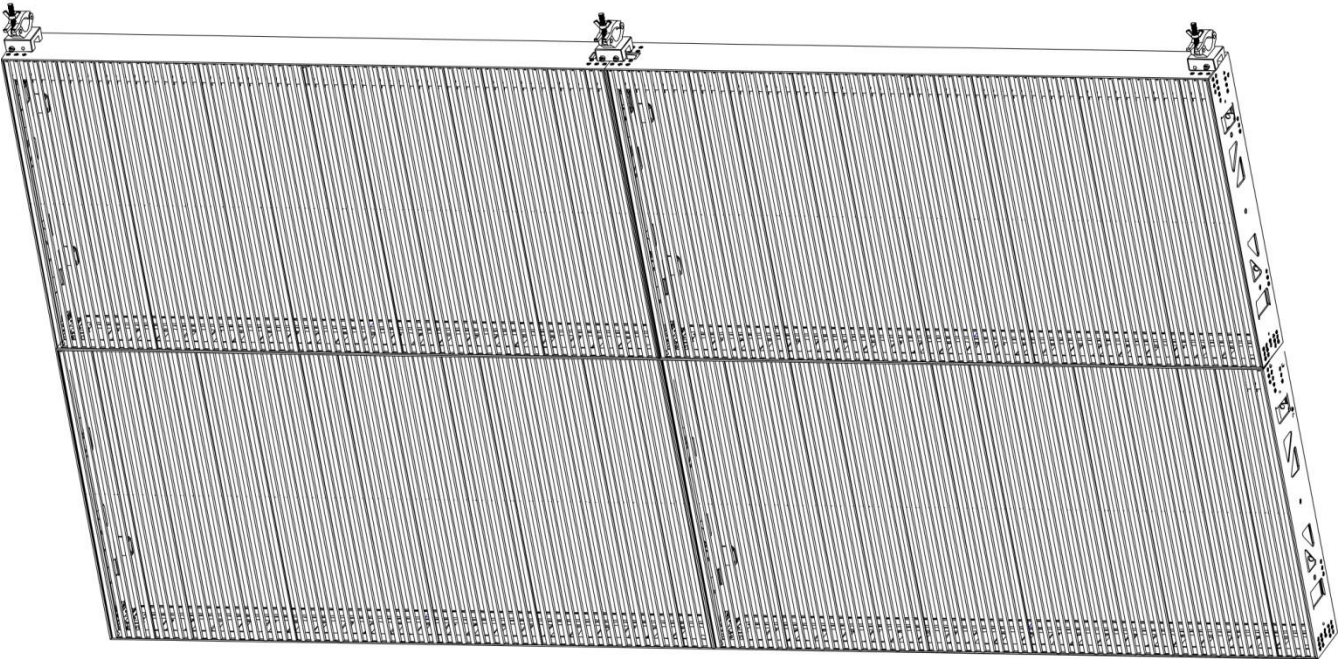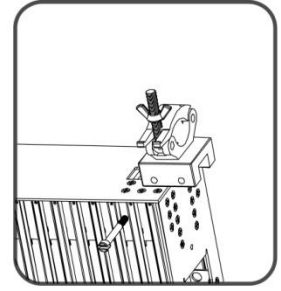**Frontside**

800
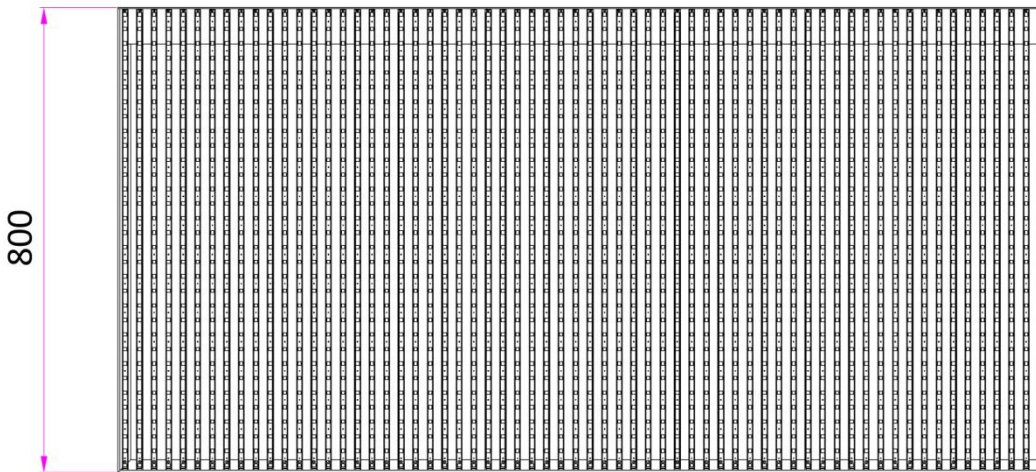
1600

800

Backside

Truss Installation

First attach the clamp to the rigging assembly
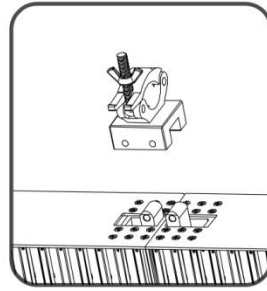

Use a bolt to fix rigging assembly and panels

Clamp not included !

Aluminum Rigging Assembly for truss mounting (**Ordercode 101366**)

Joining cabinets

If your display is designed for rental use it is prepared to be hanged or free standing on a stage.
Our cabinets are ready to be joined horizontally with 2 fast locks, which are installed on both top corners of each cabinet.
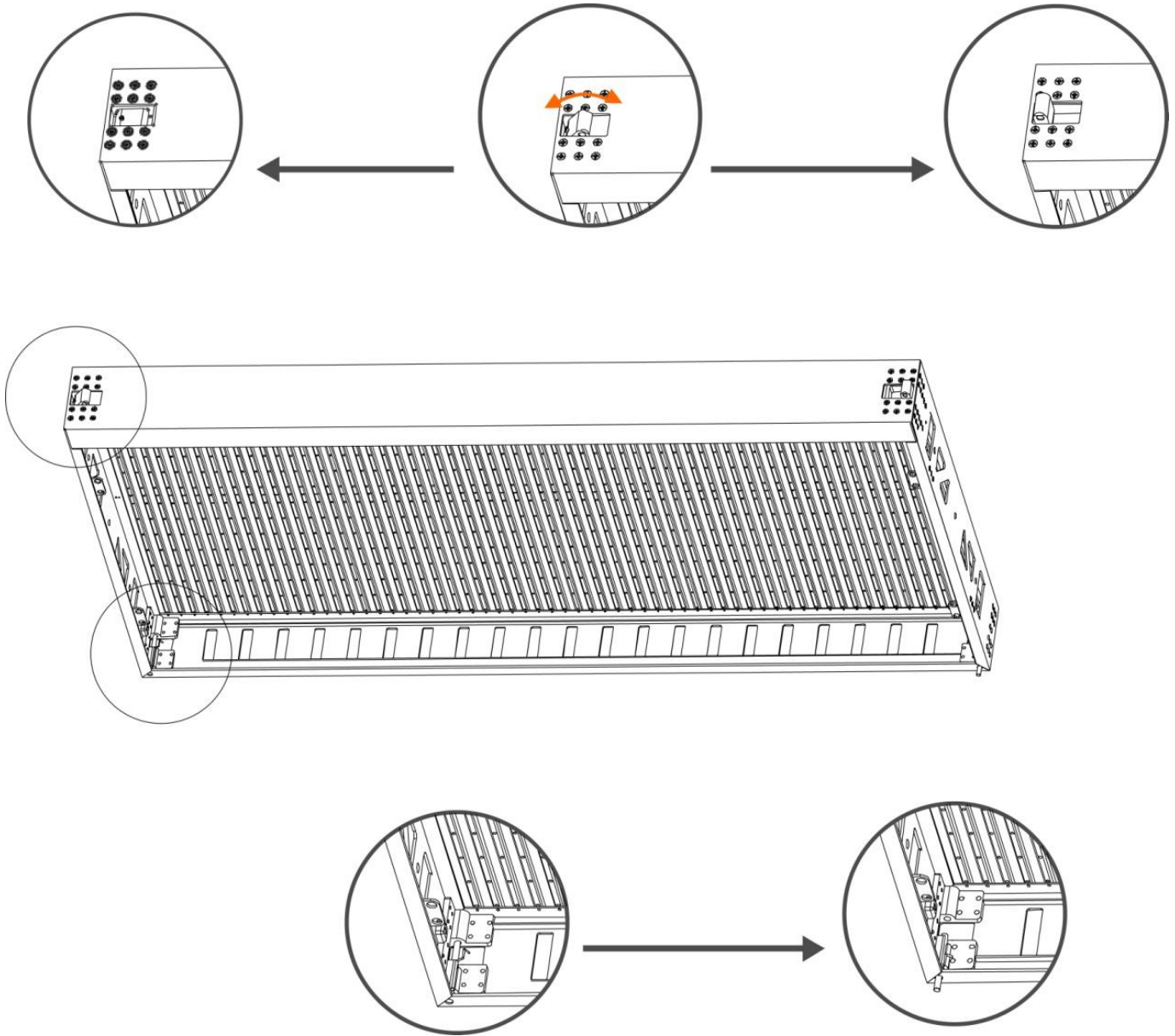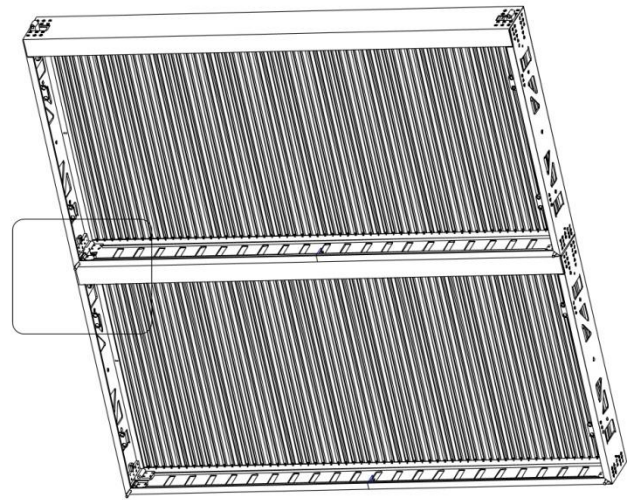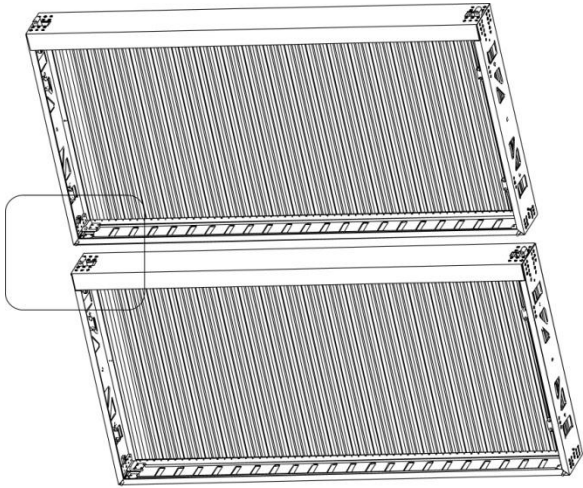

The cabinets can also be connected vertically by a load bearing connector.
On the bottom of both corners are the load bearing connectors to connect your panels vertically.
These connectors can be rotated.

⚠ **Max Screen Size**: 16 Horizontal X 24 Vertical = 25.6m X 19.2m ⚠
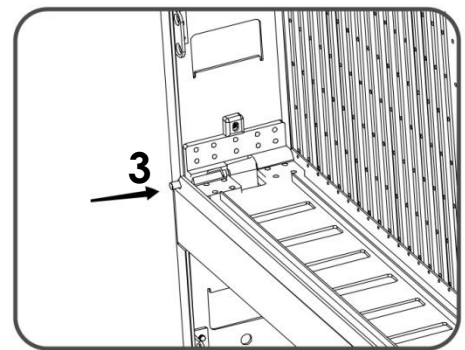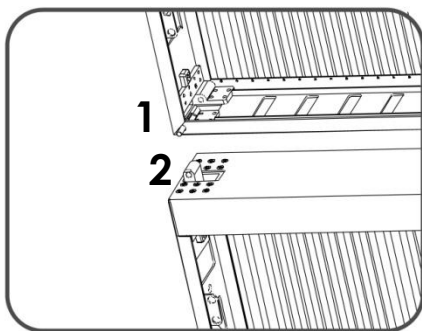
1) When you want to vertically connect 2 panels make sure that the load bearing connector of the upper panel is pushed outwards.

2) The rigging part of the lower panel should be pointing upwards

3) Place the top and bottom panels correctly on top of eachother. Then push the load bearing connector inwards to fasten them
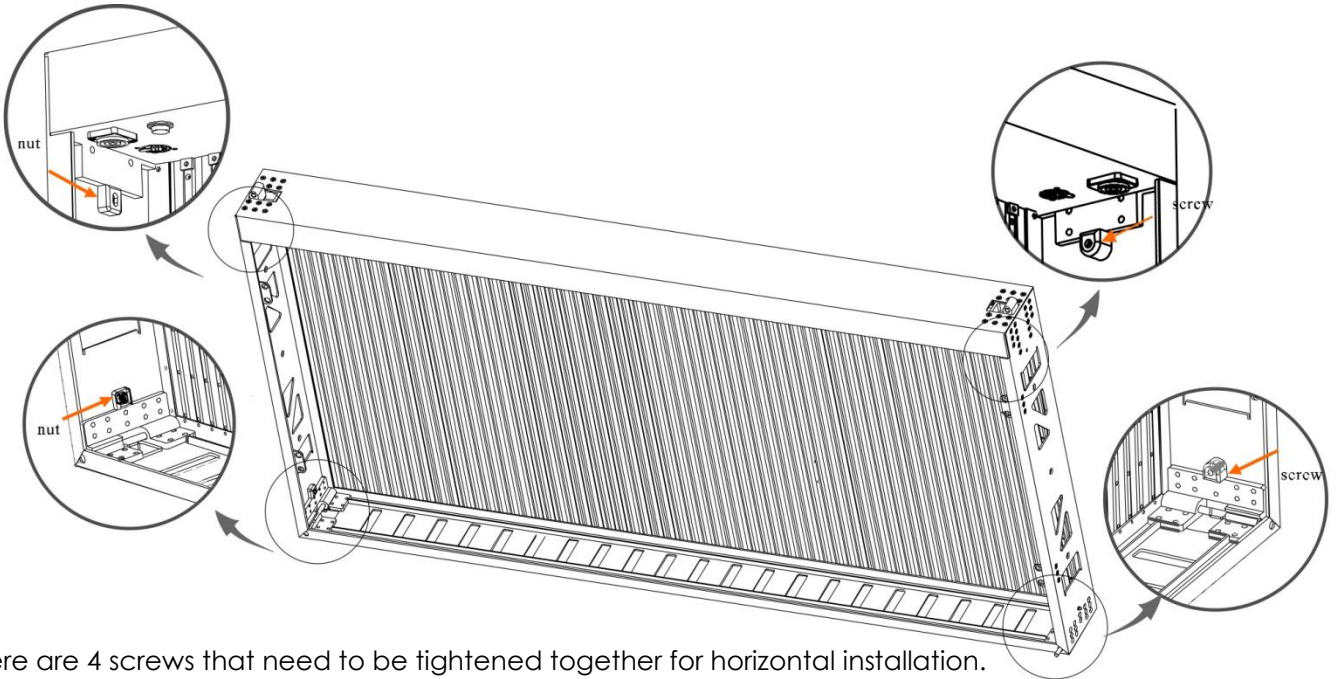
There are 4 screws that need to be tightened together for horizontal installation. Do so by using a 4mm Torx wrench.
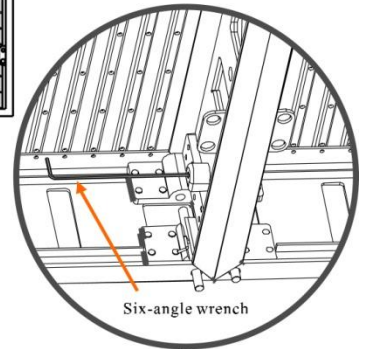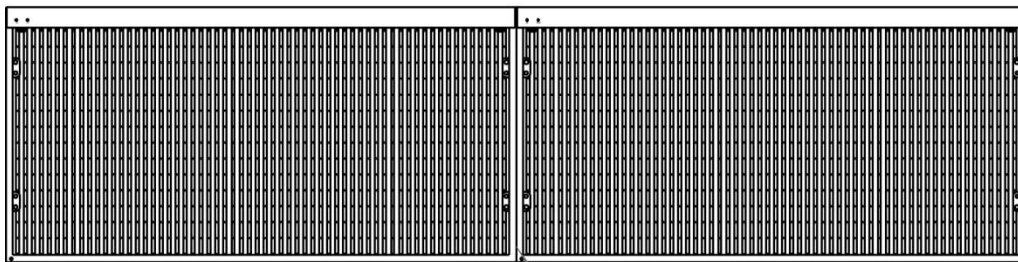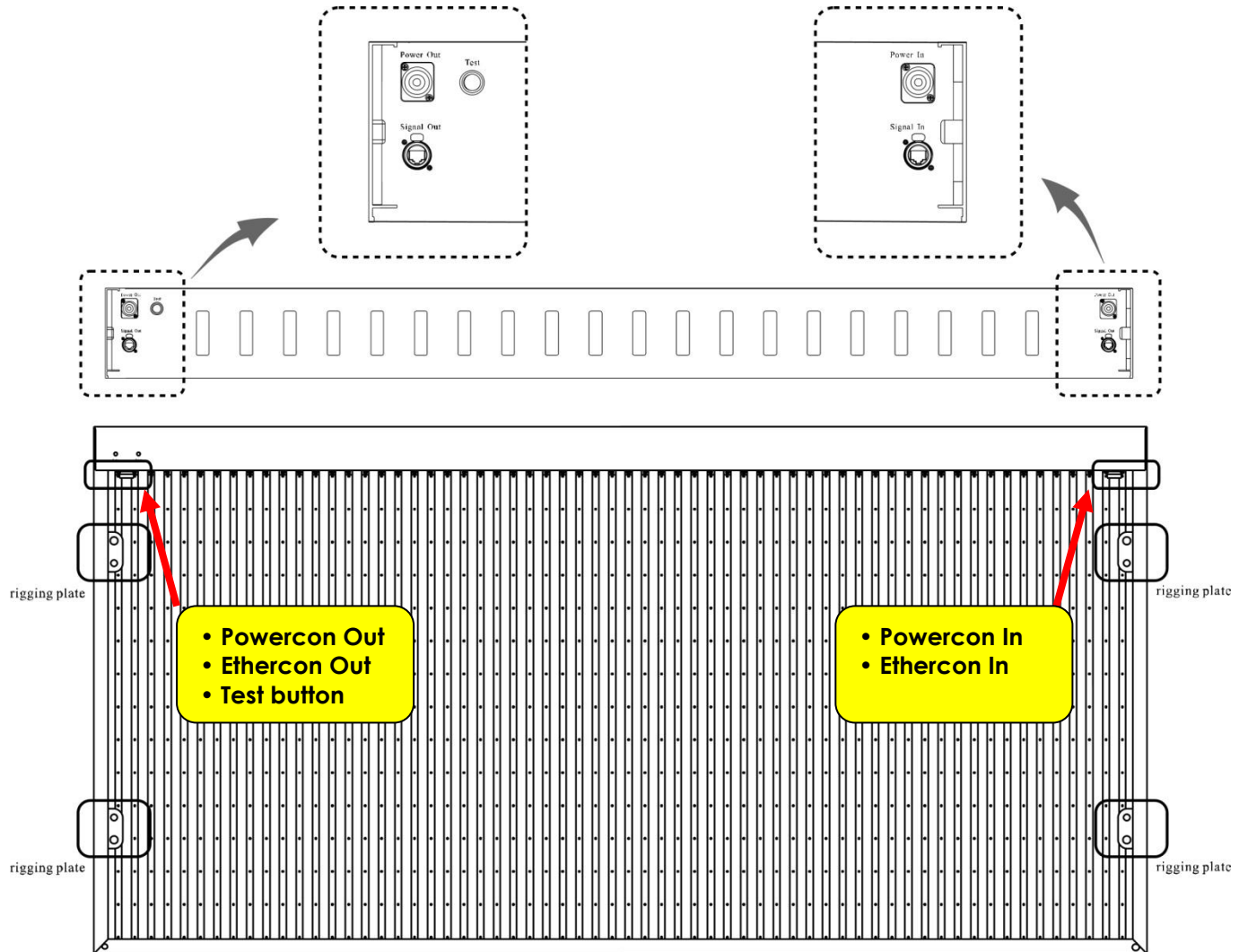
Connecting cables

Each cabinet is equipped with 4 sockets; 2 power supply sockets and 2 signal sockets.
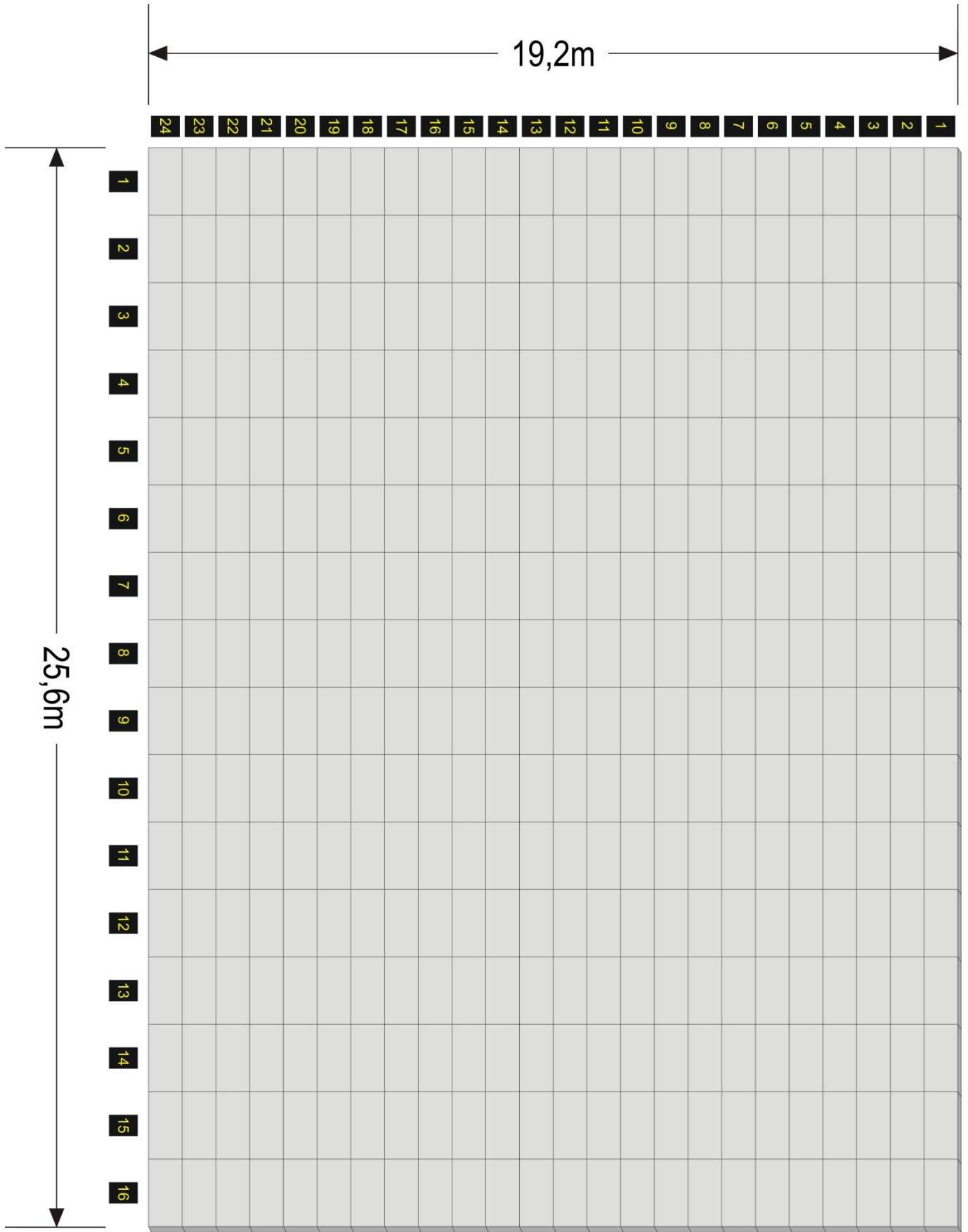On the right upper corner of each cabinet are the Power and Signal IN sockets.
On the left upper corner of each cabinet are the Power and Signal OUT sockets.
The Test button for each LED Pixel Mesh P25 SMD is also located on the left upper corner.

• Powercon Out
• Ethercon Out
• Test button

• Powercon In
• Ethercon In

rigging plate

rigging plate

rigging plate
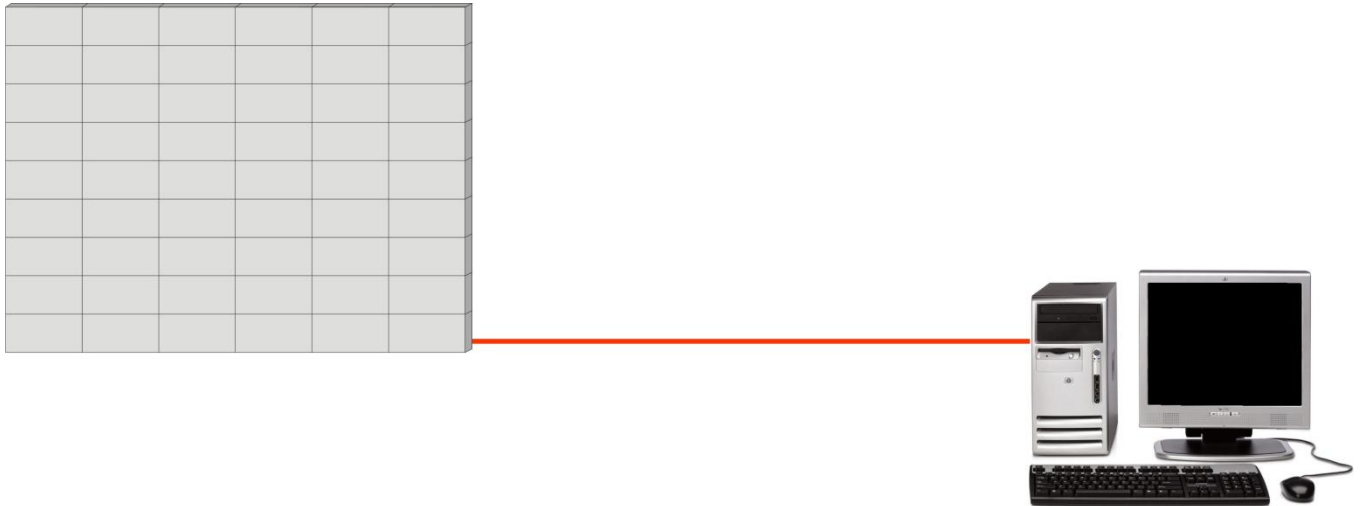
rigging plate

Maximum Setup 16 (H) x 24 (V)

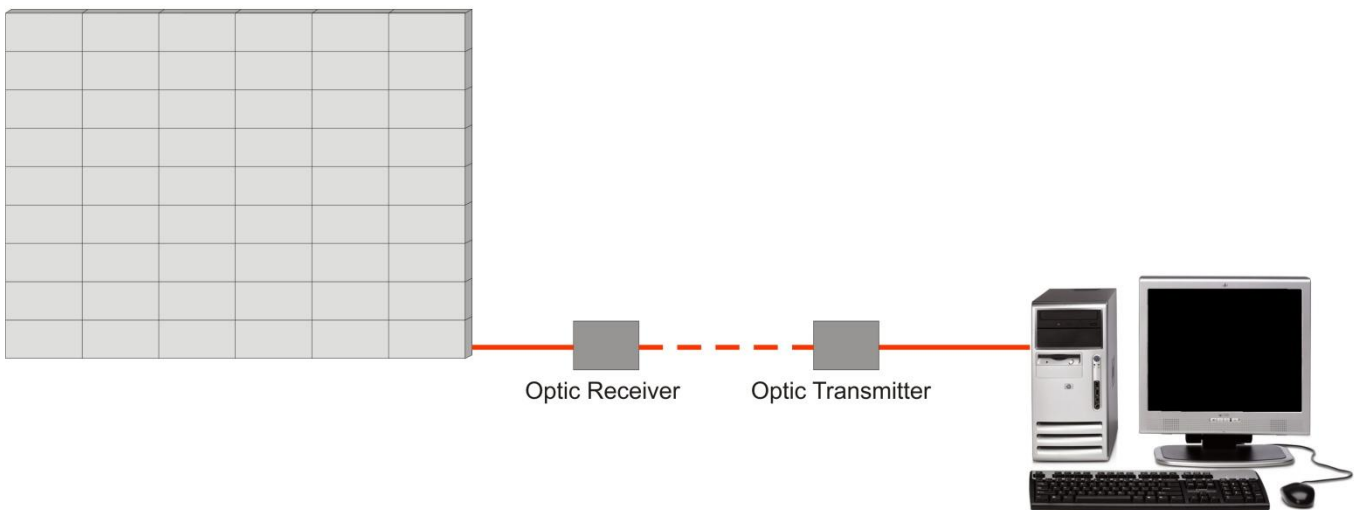## Setup Possibilities

⚠️ | Each power input can contain a max. of 4 panels. Each input can sent the data signal to 20 panels. | ⚠️

1. Directly to a PC (via Cat5 max 50m)

2. Via an Optic Tansmitter/Receiver (Distance > 50m)

Optic Receiver   Optic Transmitter

Powercon Powercable


1   **2**

Ethercon Signal cable

1) For connecting the first Pixel to a wall socket
2) For linking Pixel Mesh screens together

**3)** Ethercon Datacable with RJ45

Connecting cables, power supply

CAUTION!!!
Power supply cables have a high voltage of 240V cables. Extreme precaution should be taken when connecting them to the Pixel Mesh. Do not supply power before the whole system is set up and connected properly.
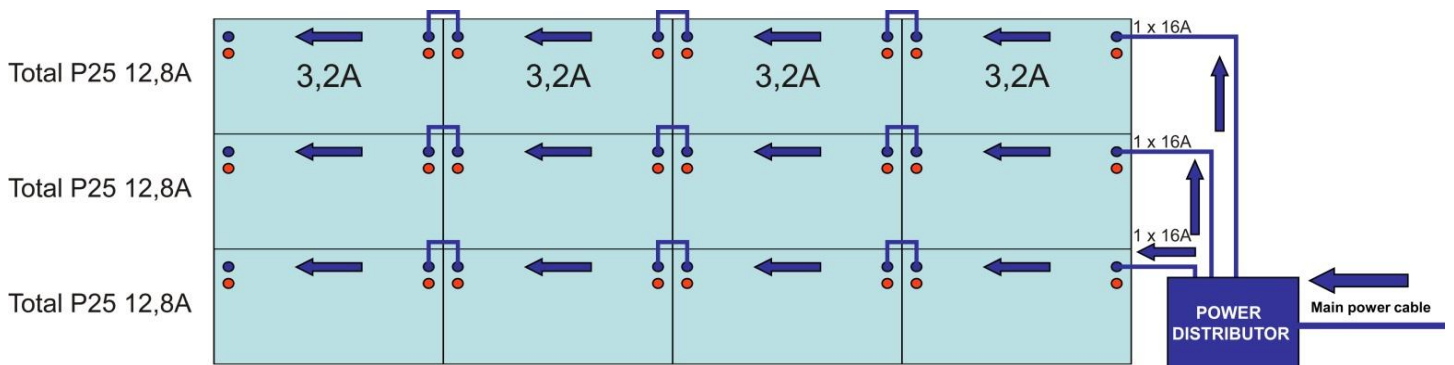
Connecting cables, signal cables
As example drawing show a way of connecting signal cables to cabinets, obviously many more cabinets can be connected in the way shown on the drawing.
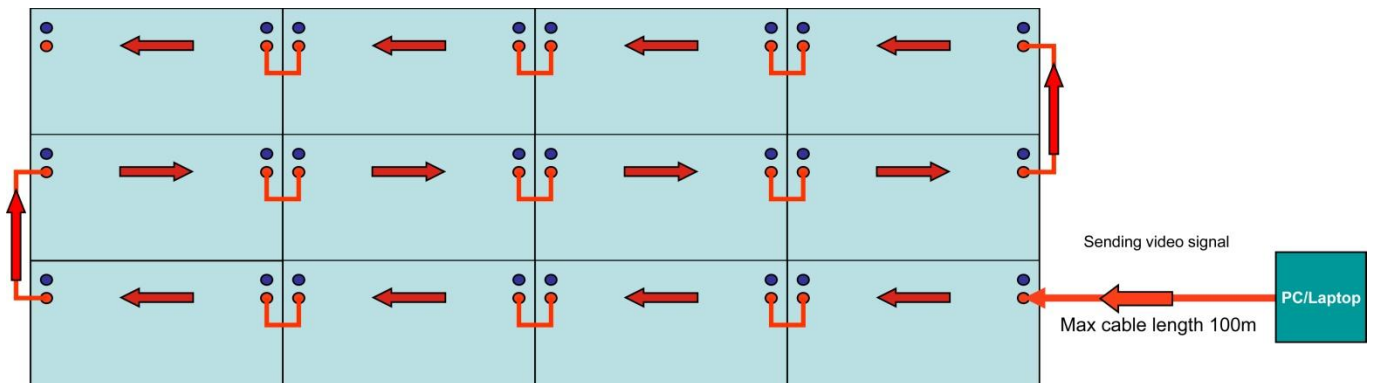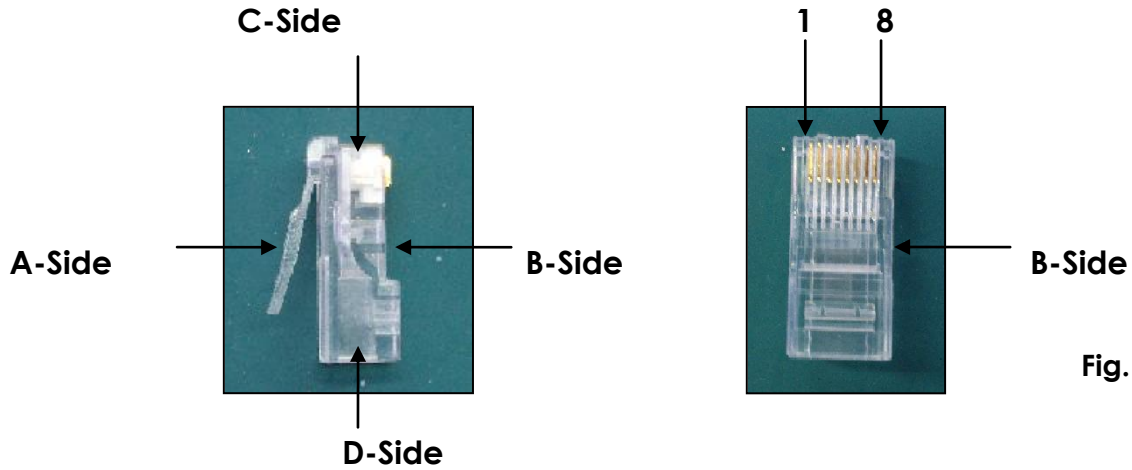
Communication Wire Facture

C-Side

1   8

A-Side   **B-Side**

B-Side

D-Side

Fig. 3

Making an additional Data cable

A Standard NET CABLE can be used to replace the NET CABLE required to transmit the information for the LED Pixel Mesh.

Please follow the following instructions in order to create extra NET CABLE.

Take a standard net cable (Cat5/ 5E /6) and connect it to the RJ-45 connector just like displayed on the picture. The wires should now be colored as following:

1- white & orange
2- orange
3- white & green
4- blue
5- white & blue
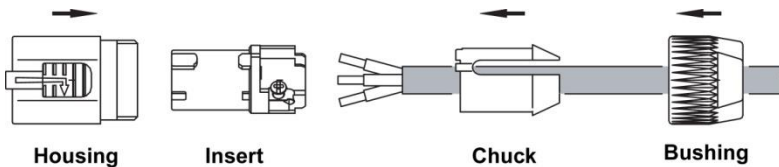6- green
7- white & brown
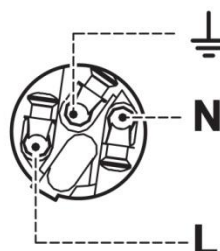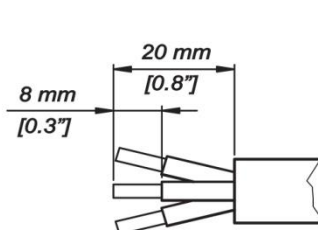8- brown
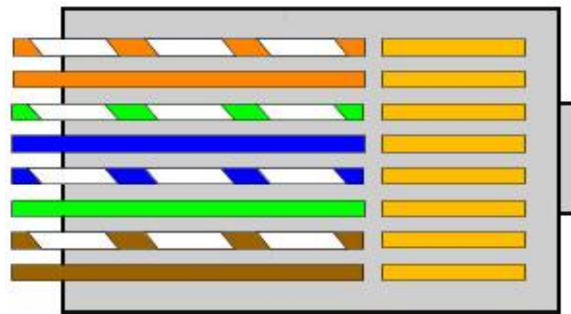
RJ-45 Connector

Insert each wire into an RJ-45 connector with the white & orange wire connected to PIN 1, the orange wire connected to the second PIN, etc.
Both ends of the NET WIRE are connected in this way.

Making additional powercon cables

Housing   **Insert**   **Chuck**   **Bushing**

90532 Neutrik Connector-input

20 mm
[0.8"]

8 mm
[0.3"]

N

L

90533 Neutrik Connector-output

Self testing of cabinets

After connecting the power supply cables to cabinets, you are able to perform a "self test" of each cabinet to assure that all LEDs are working and all cable connectors inside each cabinet are properly joined.

⚠️ When you want to use the testbutton on the Pixelmesh screen, make sure that the screen is not connected to a PC or laptop. ⚠️

The "self test" function can be activated by pressing the small button on the left top hand corner.
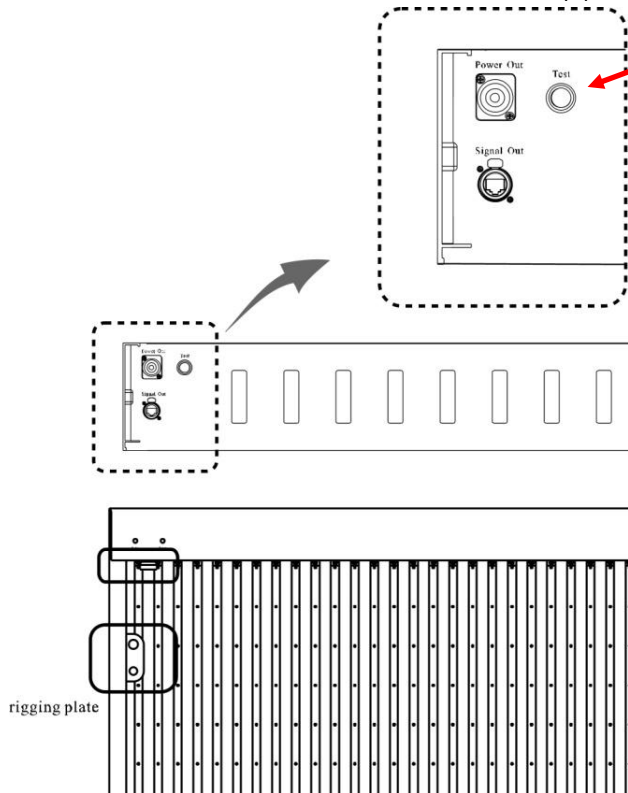
Separately available (101320): Items included with the Software Bundle
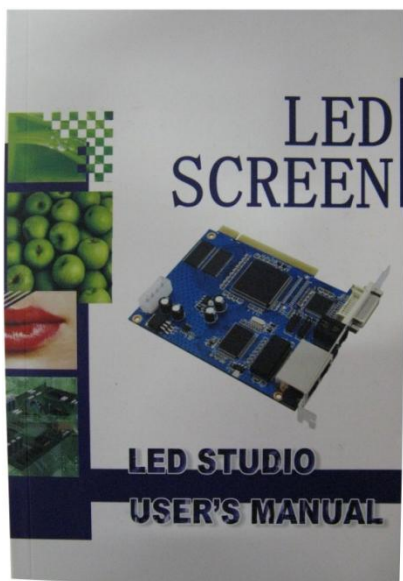
User manual

PC Sender Card

DVI cable (DVI to DVI)

RS232 to RJ-11 cable

CD with LED Studio 8

Fig. 2

Screen Control System Instruction

Sender card :
- Make sure the PC is switched off. Take anti-static precautions, otherwise the entire PC can become damaged.
- Install the sender card on the PCI slot of the PC;
- Connect the DVI Port of the transmission card and DVI Display Port by DVI Cable;
- Connect the PC host computer serial port and the transmission card RS232 serial port by serial wire.
- Start your PC.
- The green indicator light on the stage of twinkle status when the modules work normally.
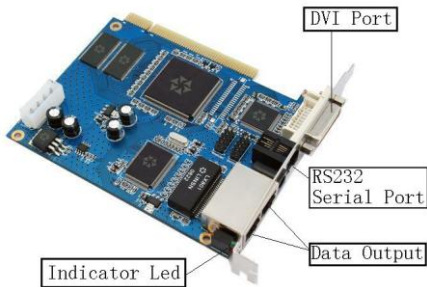

Fig. 6

PC Host Computer
- PC should contain a Graphic Card with a double output: • VGA + DVI output
  - • DVI + DVI output
- We usually recommend to use "**GEFORCE Display Card" or "ATI Display Card"**, the operation system is WINDOWS XP.

Sender card

Install the sender card in an available PCI slot in your computer. The sender card is the interface between your PC, LED Studio and the LED Pixel Mesh P25 SMD Pro. You must use the DVI cable provided to connect from the computers DVI output to the DVI port on the sender card.

DVI Port   Aux port   DC external   Data Out 2   Data Out 1
                                power input
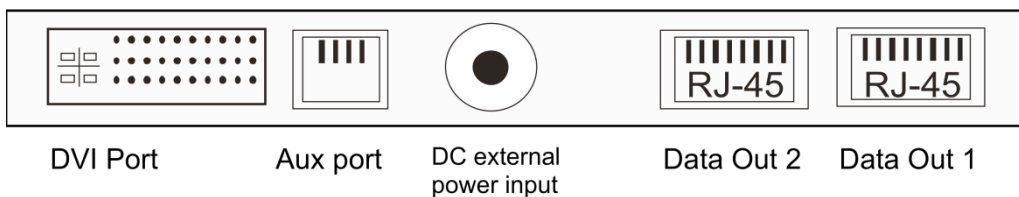
Data Out 1 & Data Out 2 connectors
The 2 network output ports transmit 128 rows or horizontal lines. Output 1 transmits rows/lines 1 throug 128. output 2 transmits rows/lines 129 through 256.

Aux Port
This is a standard 6-pin telephone connector. A cable is provided that connects from the 9-pin DIN R-232 port to the AUX port on the sender card. This port allows control of the R variable, gray scale, DV Wall matrix active area, and matrix lock and matrix range.

DC External Power Input
This input takes the 5V power supply provided. It is only used if the sender card will be operated eternally of the computer.

Sender card installation

1) Turn off your computer and disconnect from the powersource. Always take these precautions before opening the case and adding/removing components.
2) Insert the sender card into an available PCI slot in your computer.
3) Connect the DVI output from your computer's display card to the DVI input on the sender card, Using the DVI signal cable provided.
4) Connect your computer's serial RS232 (also known as COM port) connector to the 6-pin telephone connector of the sender card, using the RS232 signal cable provided.
5) Connect the RJ45 OUT 1 connector to the controller's Net IN connector with the provided net cable to display rows 1 through 128.
6) When you want to display 256 row lines, connect the OUT 2 to a second controller.
7) Make sure that all connections are correctly connected, before applying power to the entire system.
8) In order to test the system successfully, it will be necessary to address the controllers correctly.
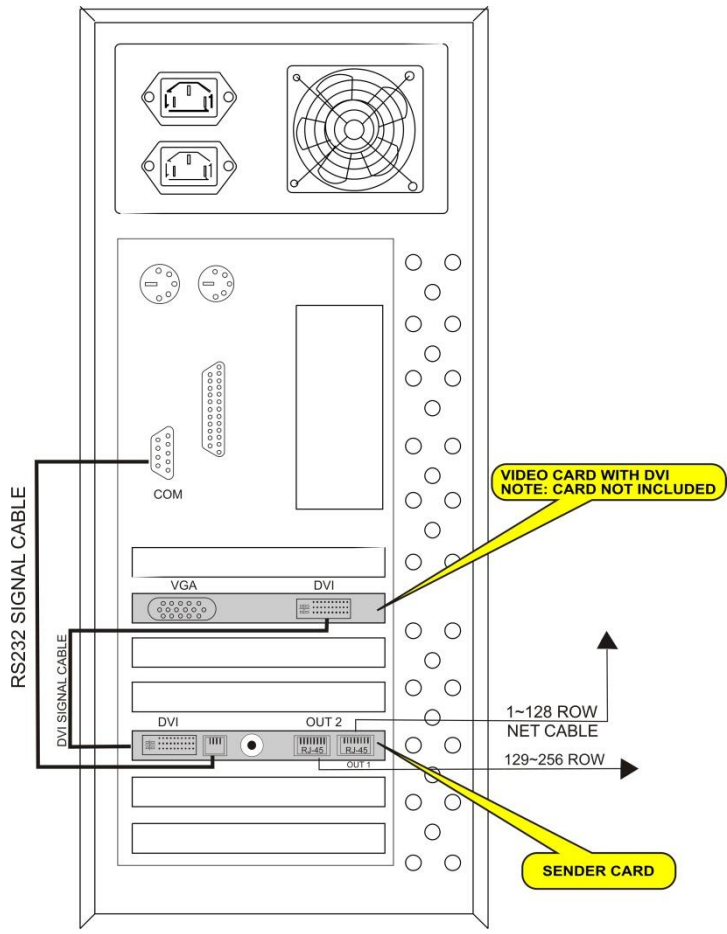**9)** Once the controllers are assigned, turn on the computer and test the system.


Fig. 13

Warning
When your PC starts up and your screen stays black after connecting the sender card, turn off your computer immediately and disconnect the DVI cable from the sender card. Reboot your PC and when Windows has loaded, reconnect the DVI cable.
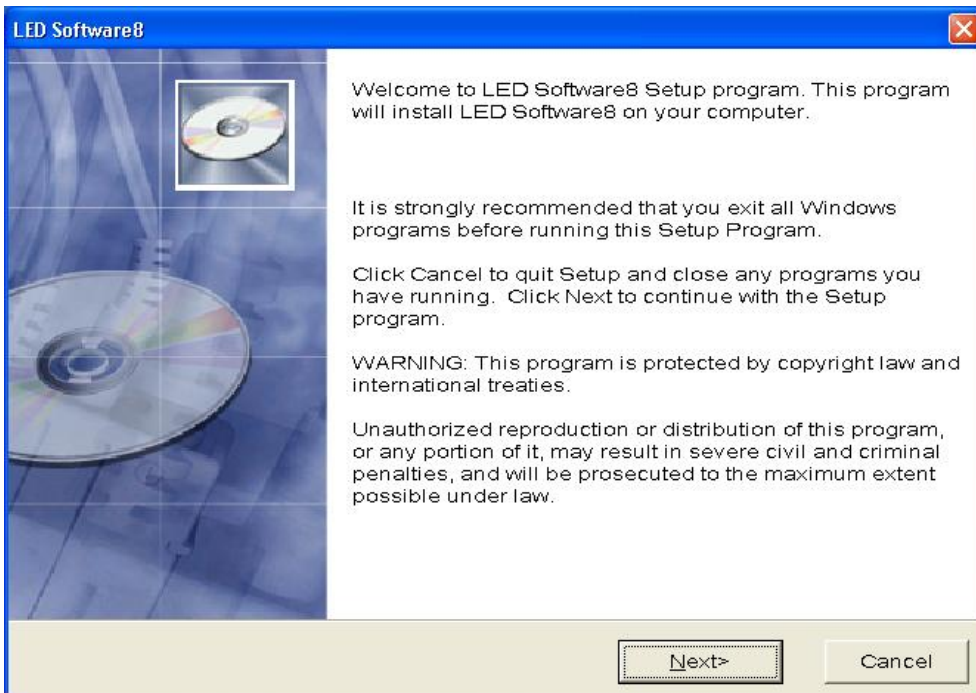
LED Studio Control System Installation

• Put the **LED Studio** CD in the PC and then enter the installation setup.
    If not, please double click the CD, choose **LED Studio Installation** to start the installation.
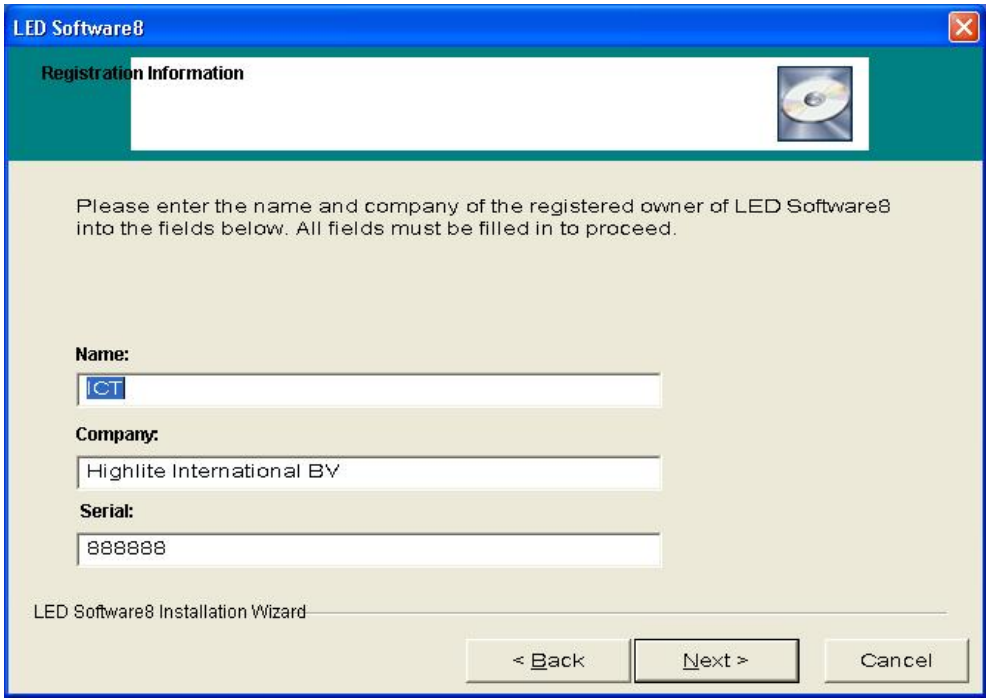   The Display shows **LED Studio** (see Figure below).

Select the English language :
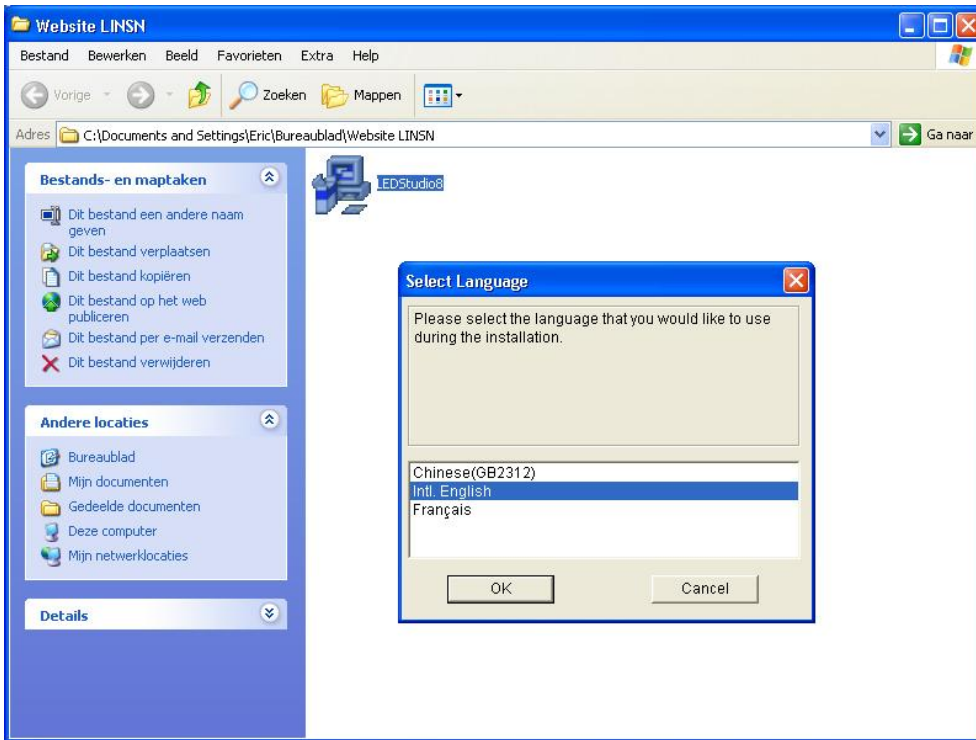
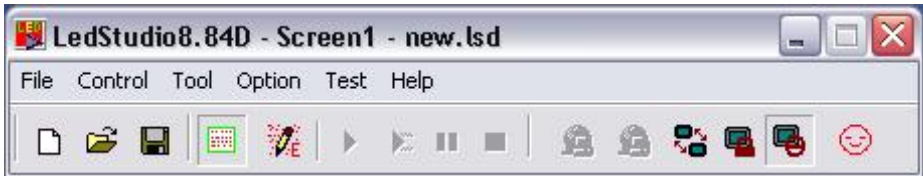Then click OK

Fill in your serial number **888888**

• The following icon will appear on the desktop after finshing the entire installation:

LED Studio

• Double click the Chart Icon to start the following screen :

• For detailed information of the " LED Studio" please refer to user's manual.
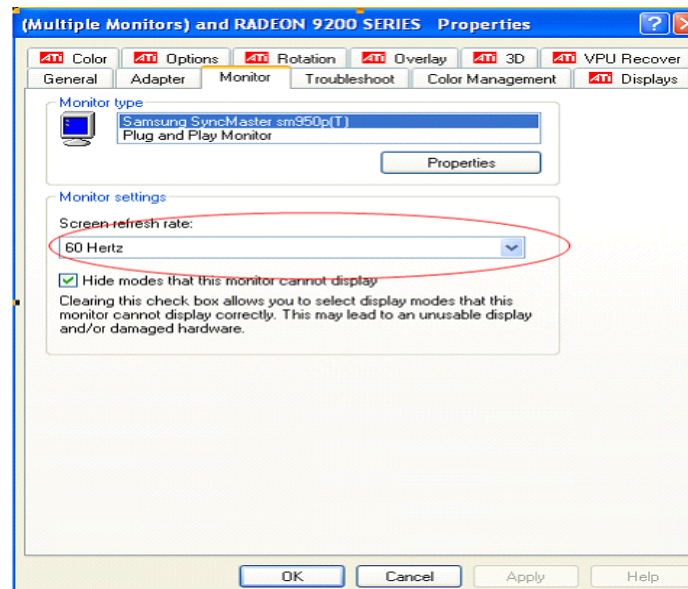
Display Card Settings

ATI Display Card Settings

Note: The pictures below may vary, when using a different ATI card or a different Windows version.
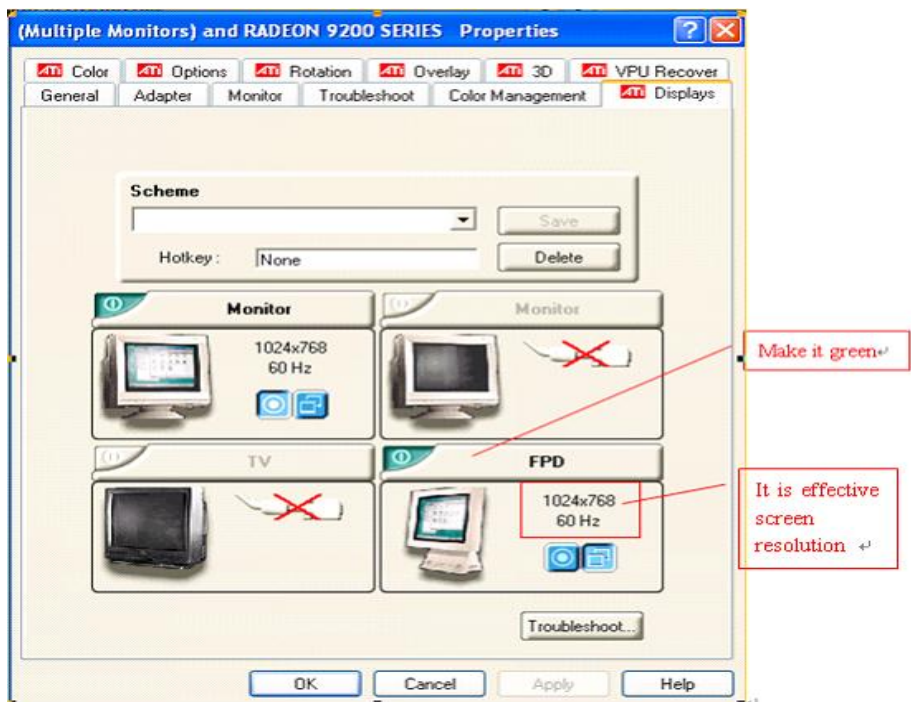
1) Press the right MOUSE button, when standing on a blank desktop.
  Go to Properties, and set the screen resolution to 1024 x 768 pixels :
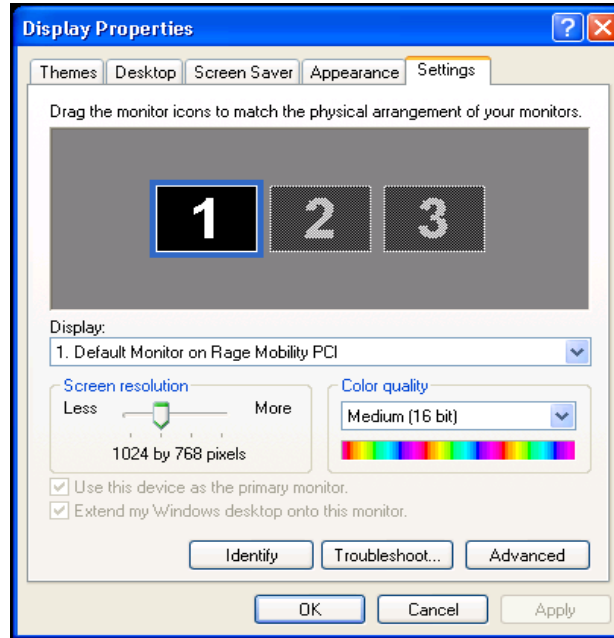
2) Press **Advanced** to set the refresh rate of the monitor to 60HZ :

3) Press the Display options and choose FPD, button will turn green:

4) Press **cover** options and choose **copy mode options** in the new popup screen to setup **all the same**:

GEFORCE Display Card Settings

1) Press the right MOUSE button, when standing on a blank desktop.
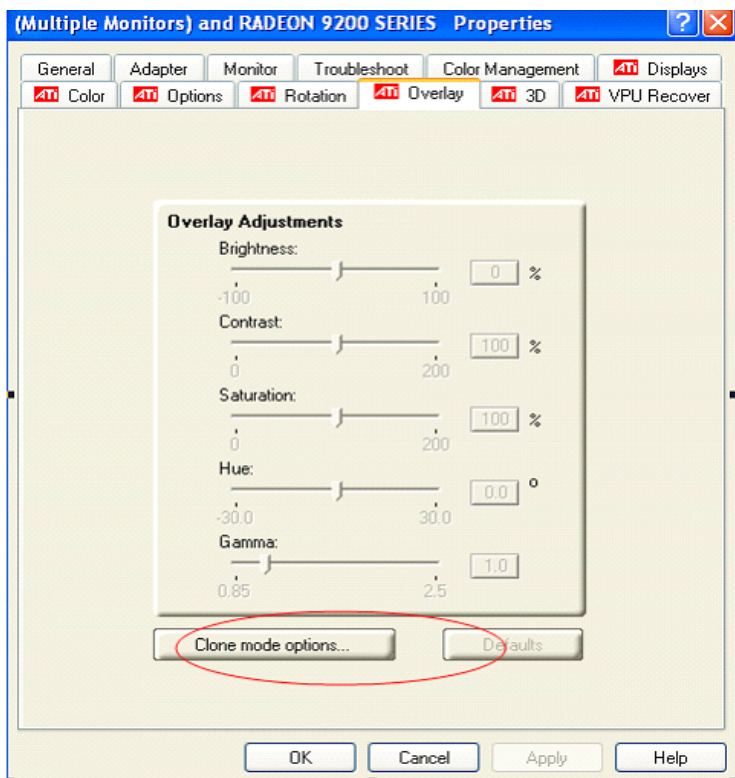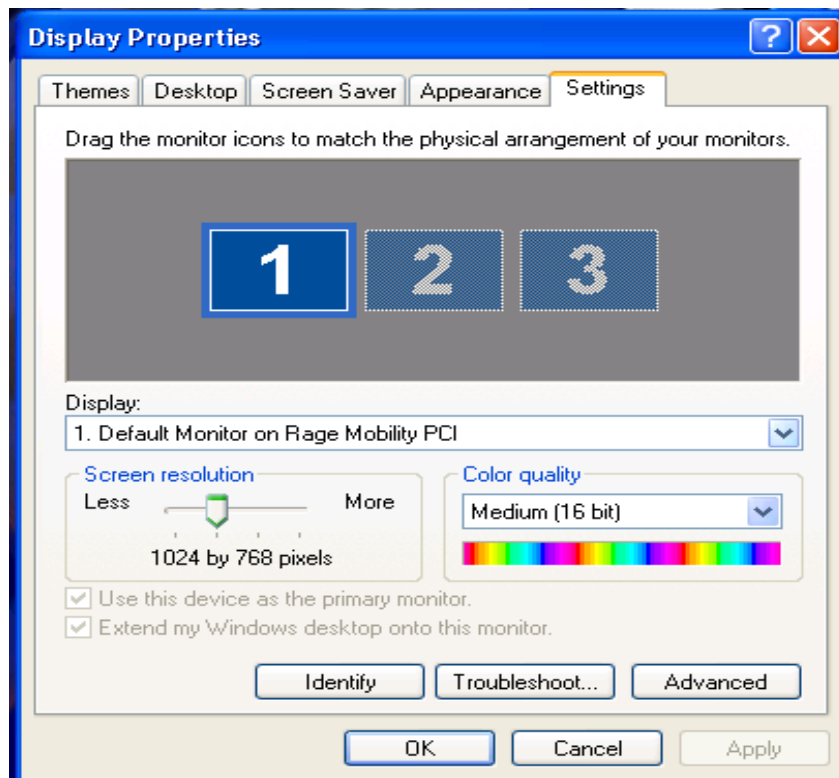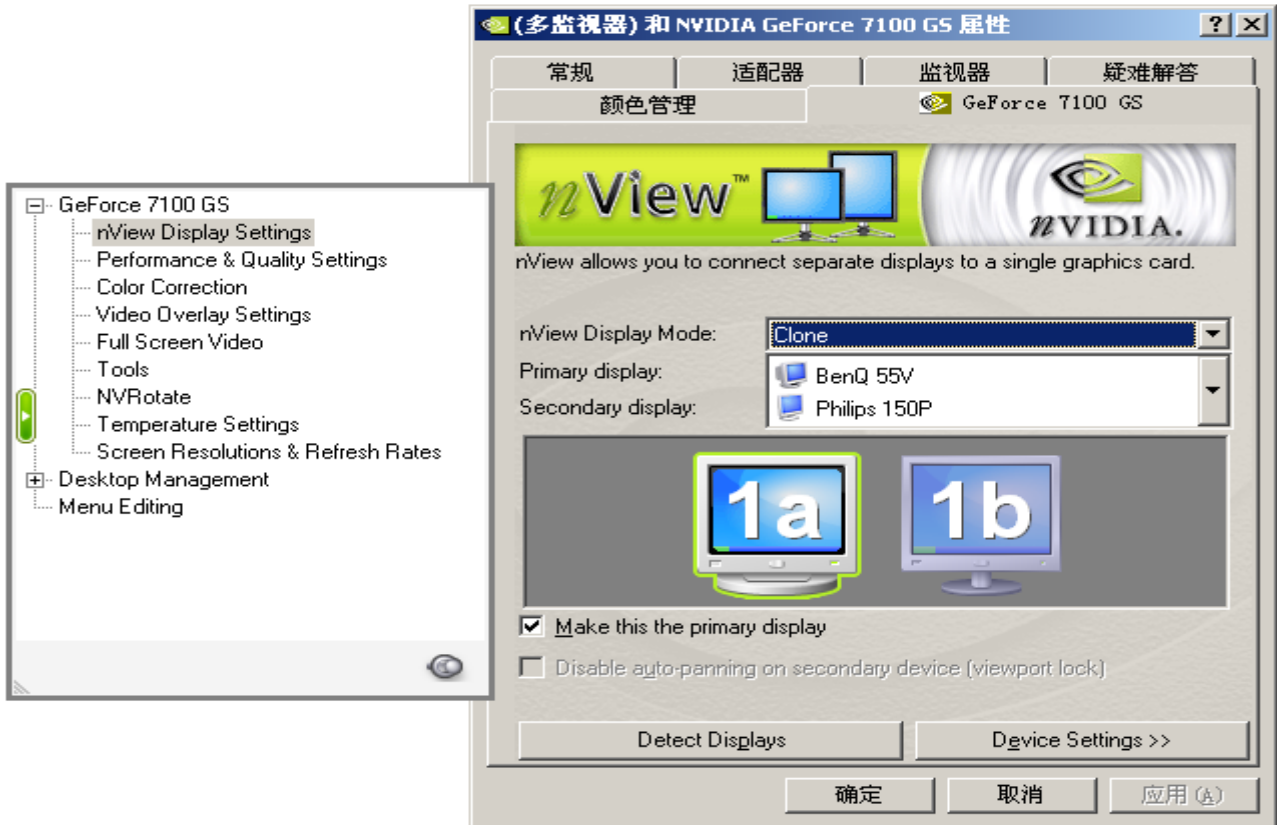   Go to Properties, and set the screen resolution to 1024 x 768 pixels :

2) Press **Advanced** to set the refresh rate of the monitor to 60HZ :
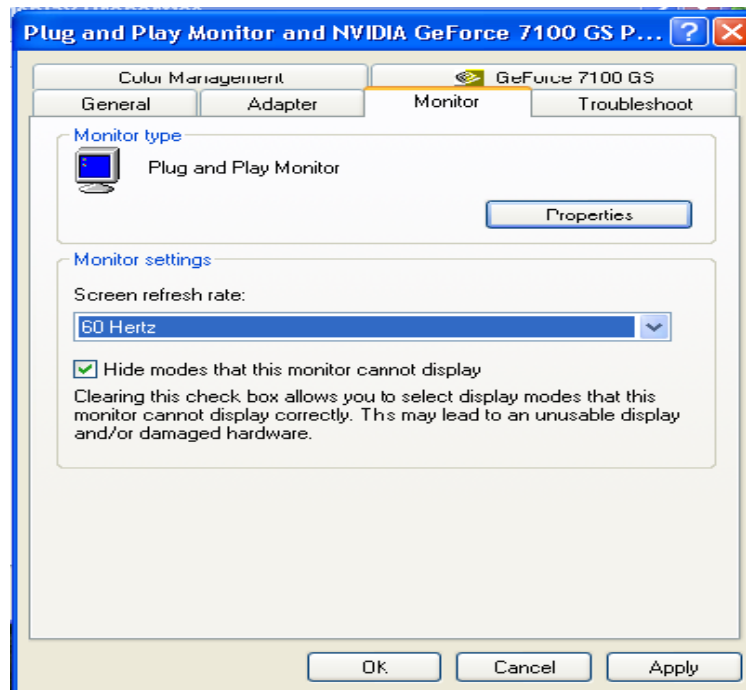
3) Press the GeForce 7100 GS options, setting the nView. Choose the nView Display Settings menu, and press **Clone** :

Choose **Application** and then **Confirm**. Now exit your Properties setup.

Installation of sending card

Graphical Videocard
(NOT included !)   Sendercard

Together with your PC interface + Software (**101320**) you received a Sender card (part of controller), a DVI connecting cable which connects the DVI output from your graphic card and DVI input in sender card. Also included is a Com to RJ-45 cable.
Please insert your sender card in an empty slot on the mainboard of your desktop computer (minimum requirements P4 processor and 500 MB RAM memory, operating system Windows XP + **PCI slot**)
Sender card from our controller can be recognized by computer only, after you will install LED STUDIO 8 software to your computer.
After installation of the sender card, you can connected it with the supplied DVI cable and RJ-45 cable. There are 2 interfaces on sthe sender card for data Ethernet cable, you can use one of them to plug in data cable to send signal to LED display.

Graphic card and sending card connected together with supplied DVI cable
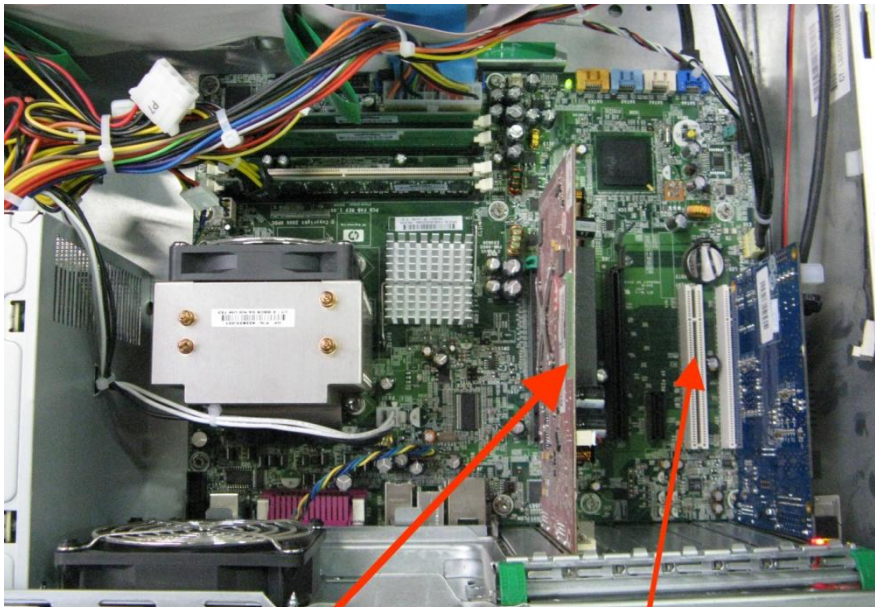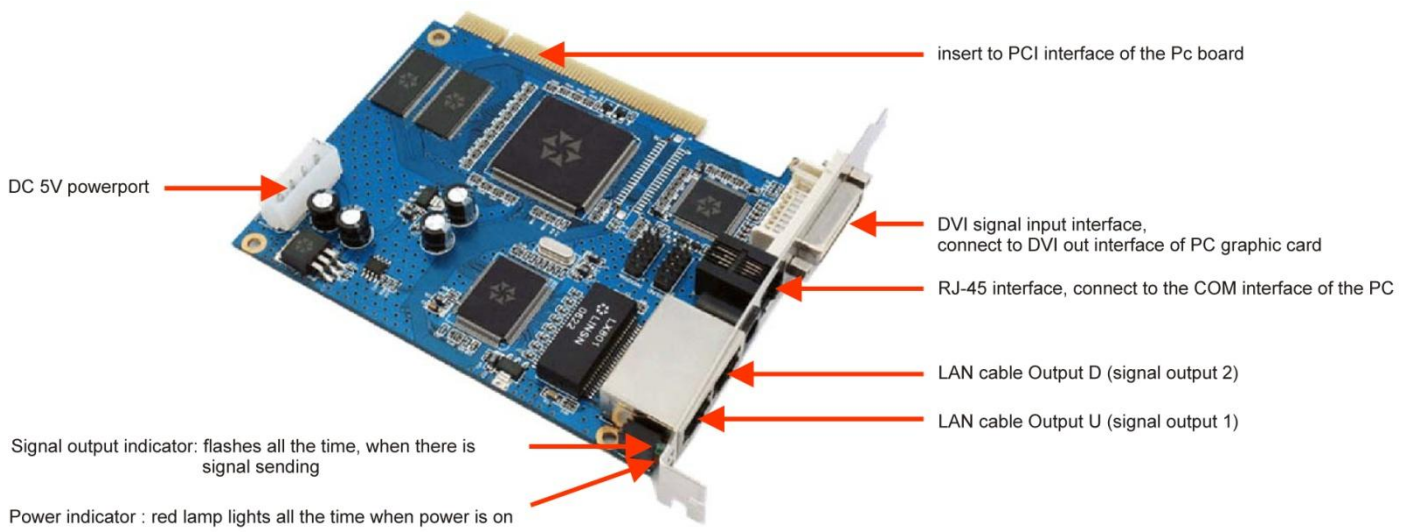

DVI cable

Signal cable for connecting
The computer to the Sender
PCI Card

Graphic card and sender card must be
connected together with supplied DVI cable

Graphic Card   Plug the sender card into the PCI slot
                                on the main board

insert to PCI interface of the Pc board

DC 5V powerport

DVI signal input interface,
connect to DVI out interface of PC graphic card

RJ-45 interface, connect to the COM interface of the PC

LAN cable Output D (signal output 2)

LAN cable Output U (signal output 1)

Signal output indicator: flashes all the time, when there is
signal sending

Power indicator : red lamp lights all the time when power is on

Connect the COM cable to the COM interface of the PC and RJ45 interface of the sender card

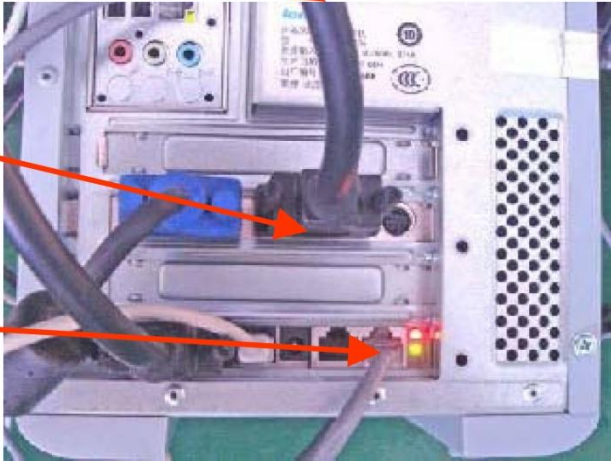COM cable is used to control the brightness levels and screen size.
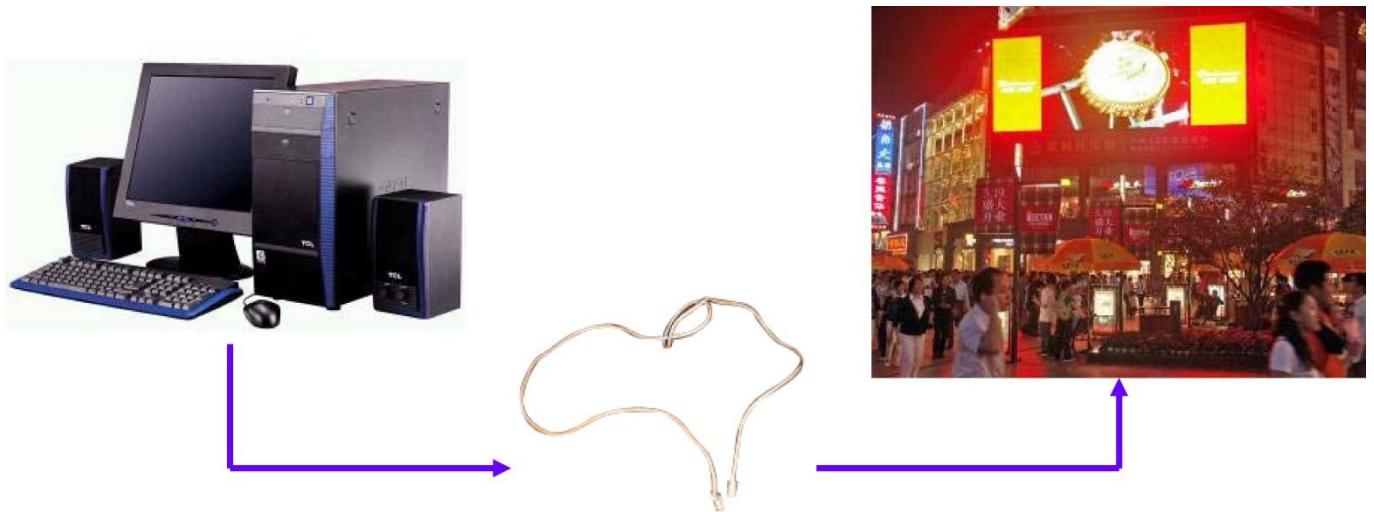
DVI cable



graphic (video) card

sender card

Make sure the graphic card and sender card are firmly connected, the green and red lamp of the sender card will light up when the two cards work well.

Extend signal cable

The longest distance of network cable connecting the sender- and receiver-card without relay, must be less than 100 meter. If it is more than 100 meter, you should use an optic cable.

Changing a standard signal to an optic signal
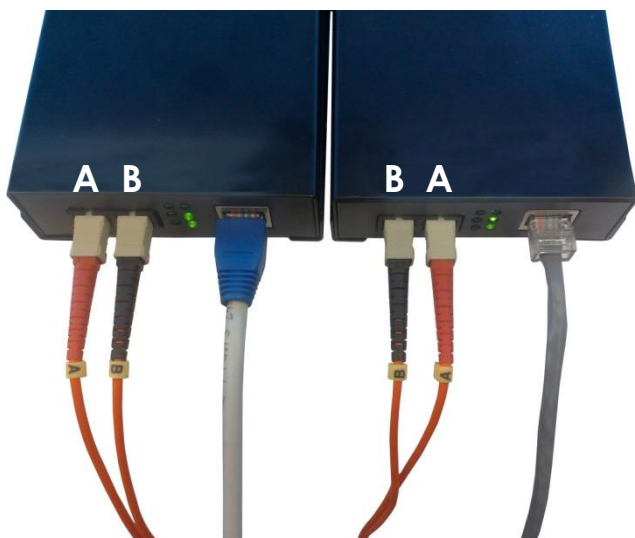
Additional Accessories

SPUNI001-Single Optic Transmitter+Receiver max 20 Km
SPUNI002-Double Optic Transmitter+Receiver max 500 m

SPUNI003-Single Optic cable p/m
**SPUNI004**-Double Optic cable p/m

Receiver Card Configuration

Configure the Receiver Card after you have finished the LED Studio setup by installing main control card, receiver card, screen and connecting signal wire and power supply wire.

Generally speaking, users do not need to configure the receiver card because the supplier has already set it before deliving the goods. The Configuration mode for the Receiver Card is, as follows:

1) Press **Software Setup** on the menu
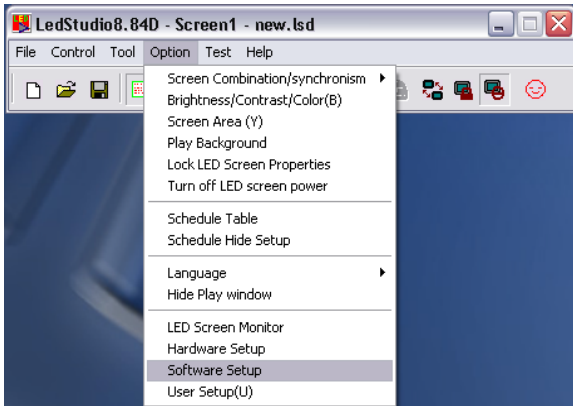
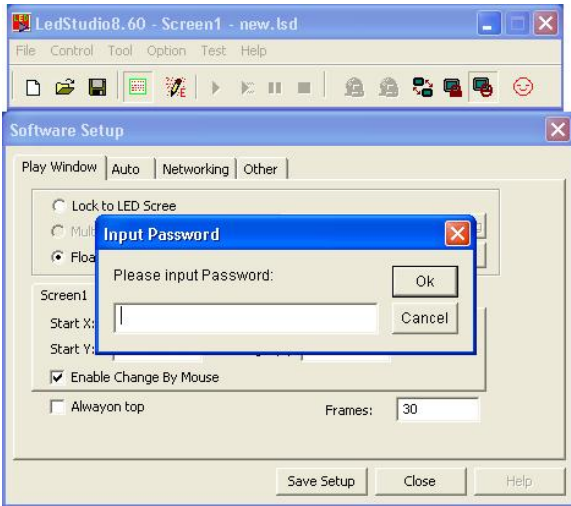**2)** Enter the screen of software setup.
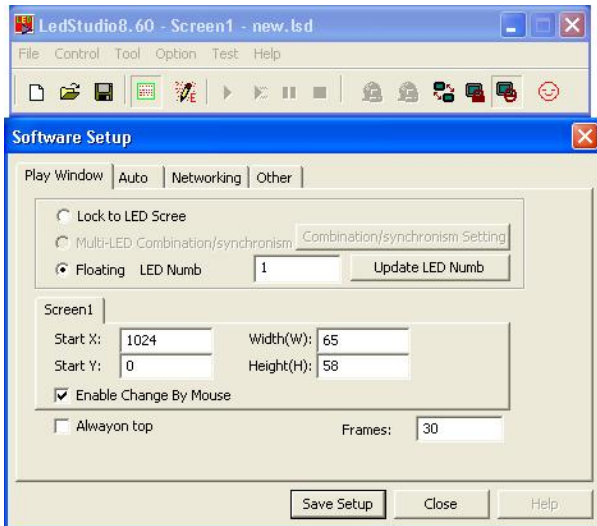
3)

When the **Software Setup** window appears on the screen, just type **linsn** on your computer keyboard. **Note**: no dialog box will appear on the screen to type it in.
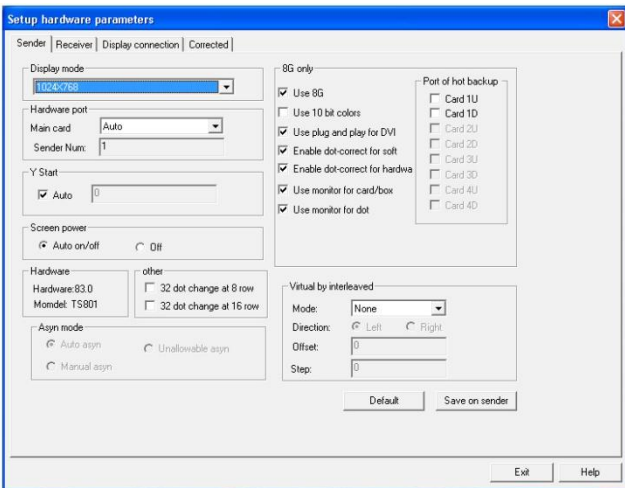
After this another new window will open, requesting for a password. Now type the password: **168**

33

After this a popup appears on the screen, requesting a password.
You should enter the password in the popup. The password is"168".
Then press OK.

If you have entered the correct password, the following hardware-setup appears on the screen:

**Sender Setup**
The Sender Setup is very simple, you do not need to do any work, if your display operation remains below 1024×768 mode; Make sure the display resolution on your desktop is also 1024 x 768.
Otherwise you should choose the display mode and then press "Save to the Sender" and all will be ok.
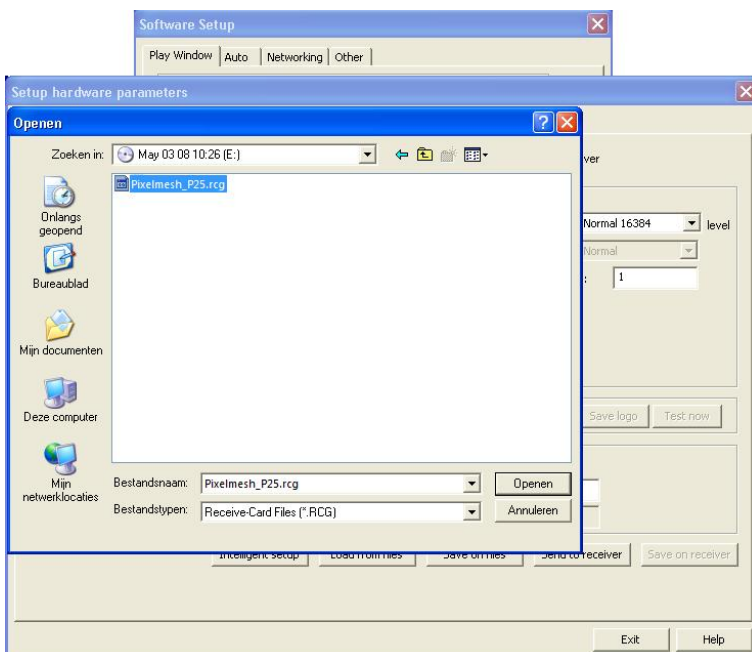
34

Receiver Setup

The setup has already been perfected, so users do not need to do any work on the Receiver Setup.
The configuration file is included with the LED Pixelscreen: **Receiver.RCG**
Users can refer to the following steps if they want to alter the configuration :

Press "Load from files" on the Receiver Tab.
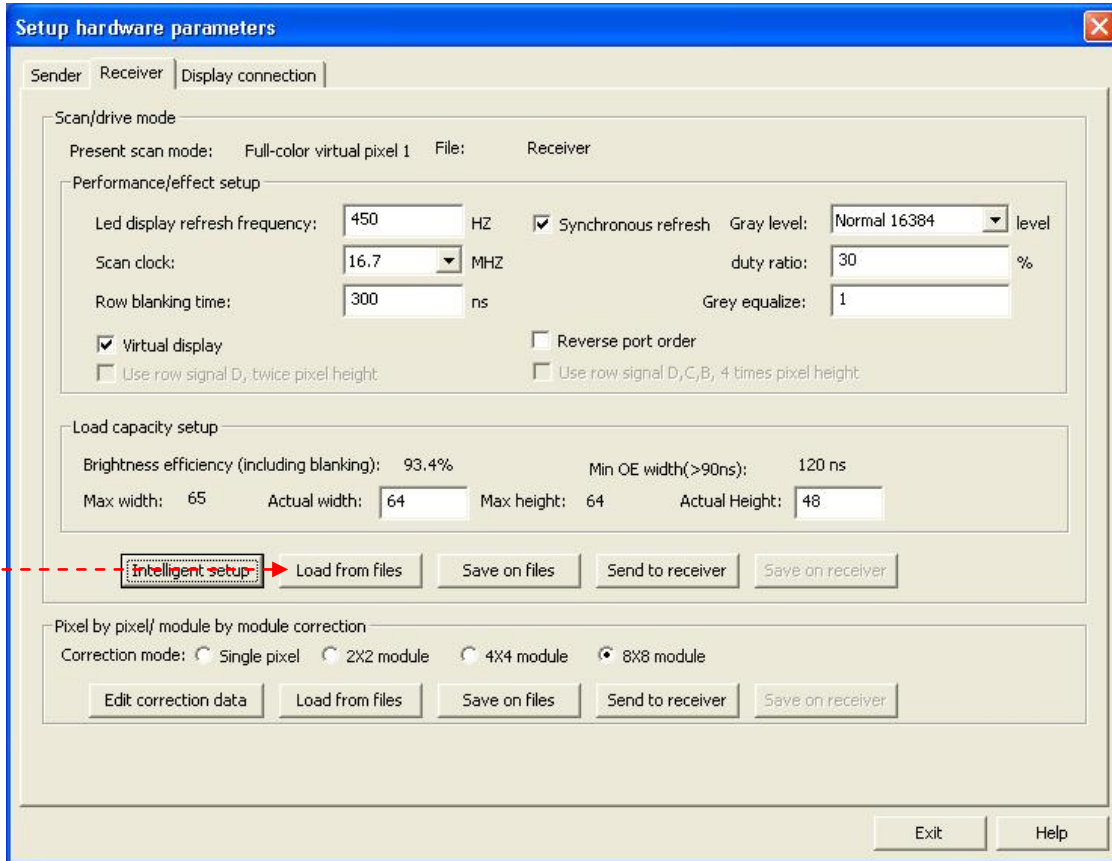
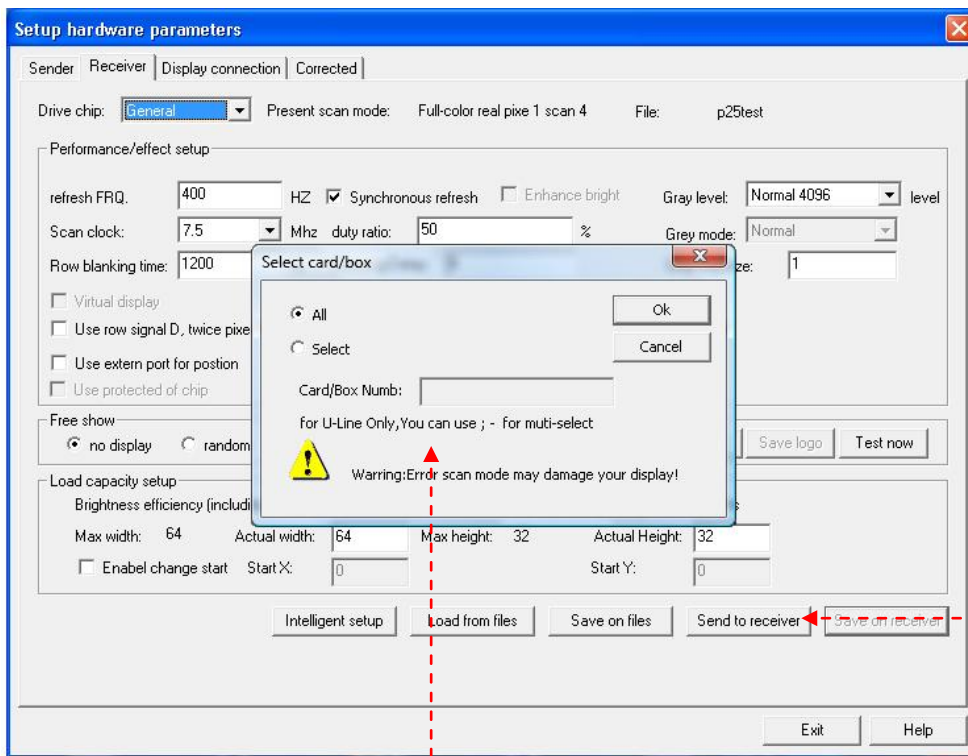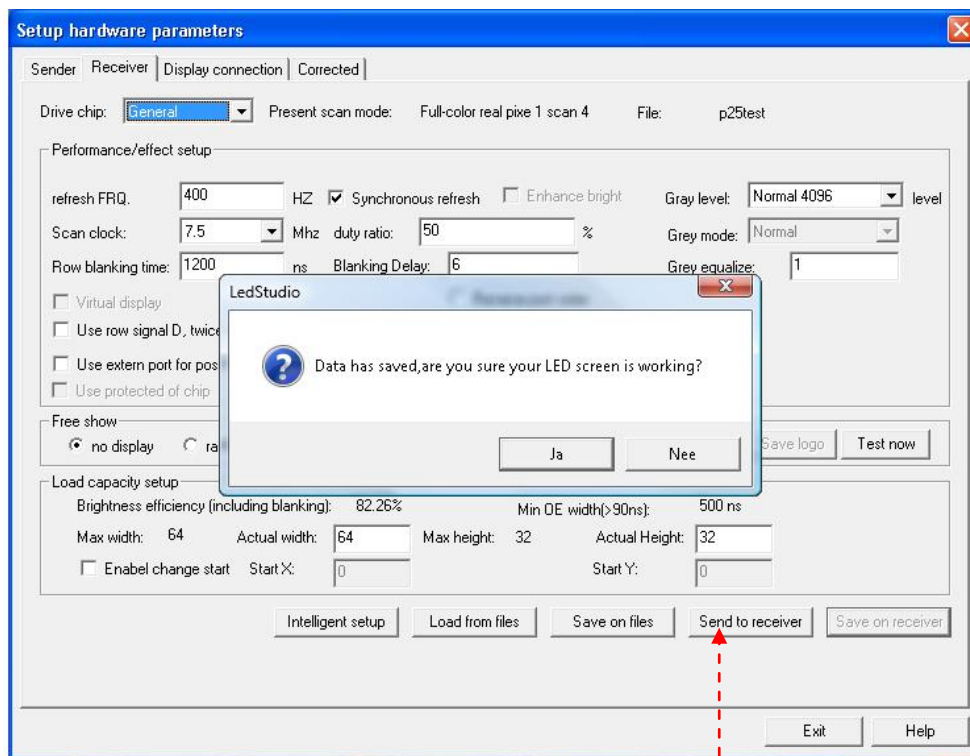Choose the **Pixelmesh_P25.rcg**

35

Then press "send to receiver"

The display will show:

Press OK and the data will be uploaded to the receiver.

When this procedure is finished, the display will show:

Press OK and now **"save on receiver"** will light up.
Press **save on receiver** and you're ready to go.

The Configuration of Receiver is done after the setup has been completed.

Addressing cabinets

Cabinets are addressed from computer, by use of LED STUDIO 8 software.
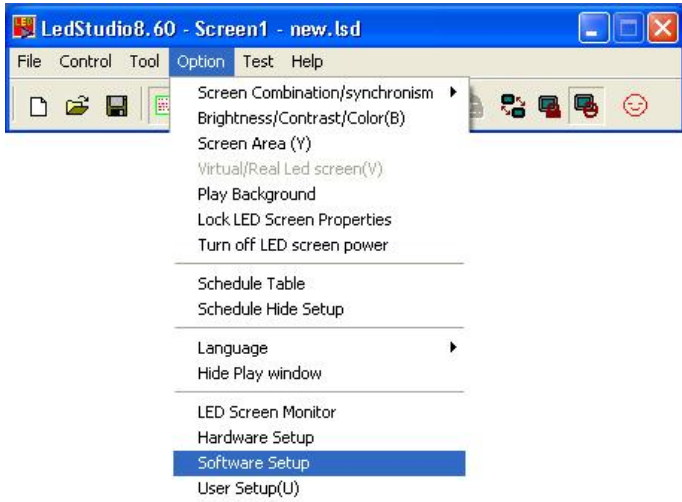
After opening the main widow of LED STUDIO 8, please go to **Option** and click on it with the left mouse button. A new window will appear, choose **Software Setup** and click the left mouse button.

When the **Software Setup** window appears on the screen, just type **linsn** on your computer keyboard. **Note**: no dialog box will appear on the screen to type it in.
After this another new window will open, requesting for a password. Now type the password: **168**
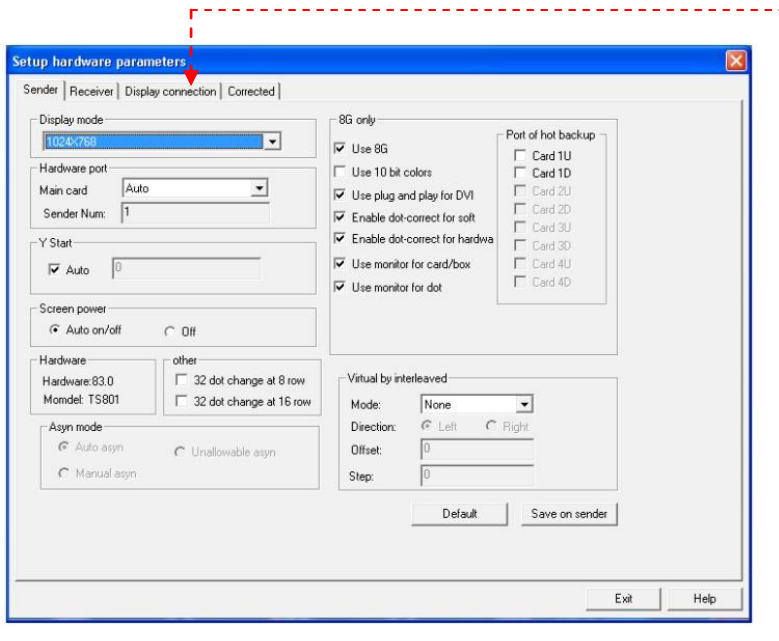
On the new window go to the **Display connection** tab, and click on it with left mouse button.

The display will show:
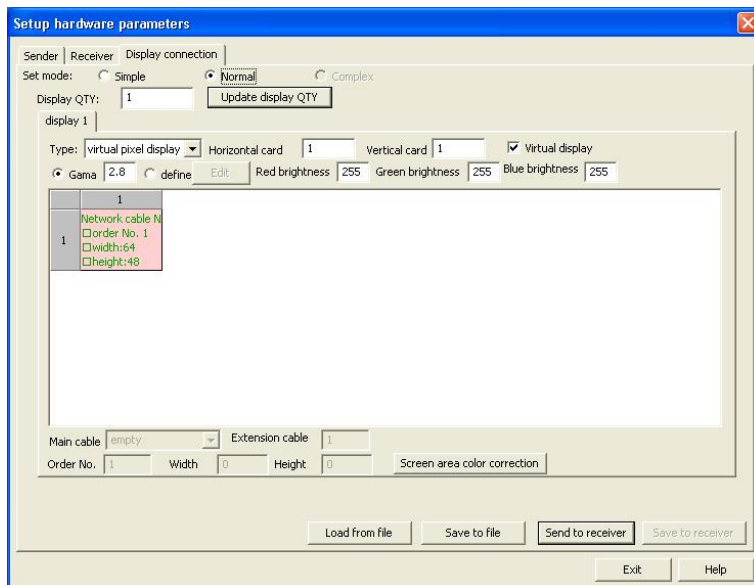
This new window will show the addressing system functions.

Now we have to instruct the software how many cabinets (receiving cards) we want to control.
We can do this by entering the number of cabinets (receiving cards) in our display panel.
First input horizontal card = 0; vertical card 0
To reset the settings on your display, enter the number of panels in your setup.

As an example we have chosen 4 x 3 cabinets. Please enter the desired number of cabinets you are using in your setup). After setting up the number of cabinets, the display will show:

PC Net Cable In
First Panel

We have to inform receiving card installed in our "first cabinet", to which Ethernet slot 'U" or "D" signal cable is connected. (Signal cable from our computer to LED display panel).
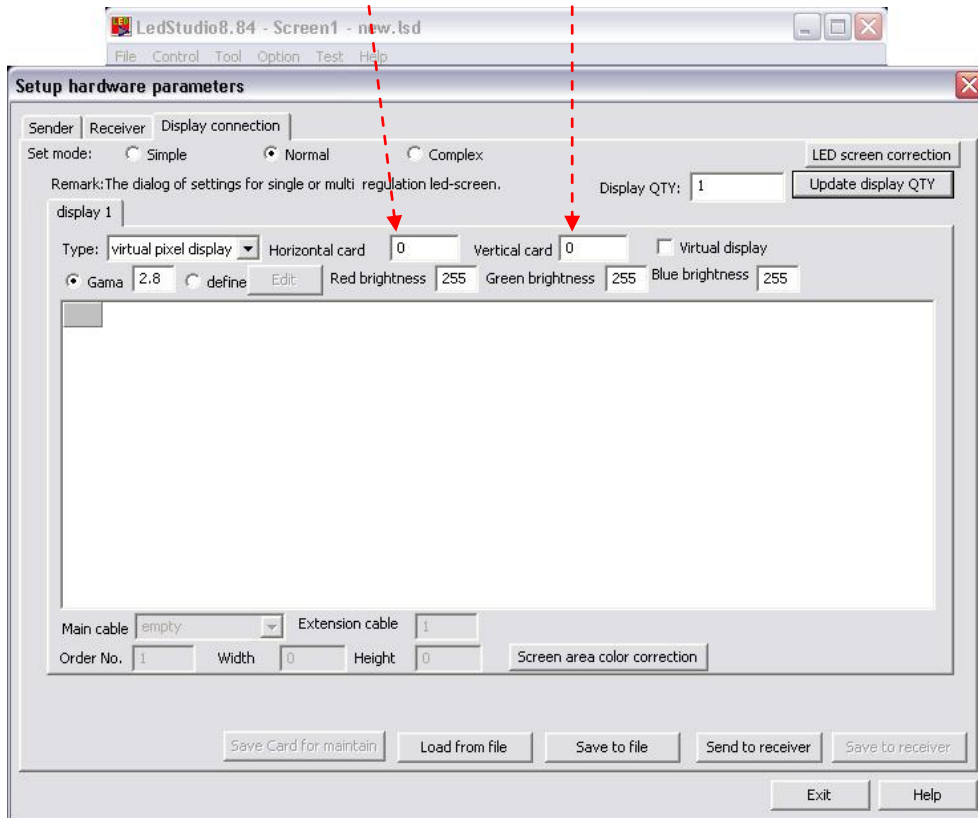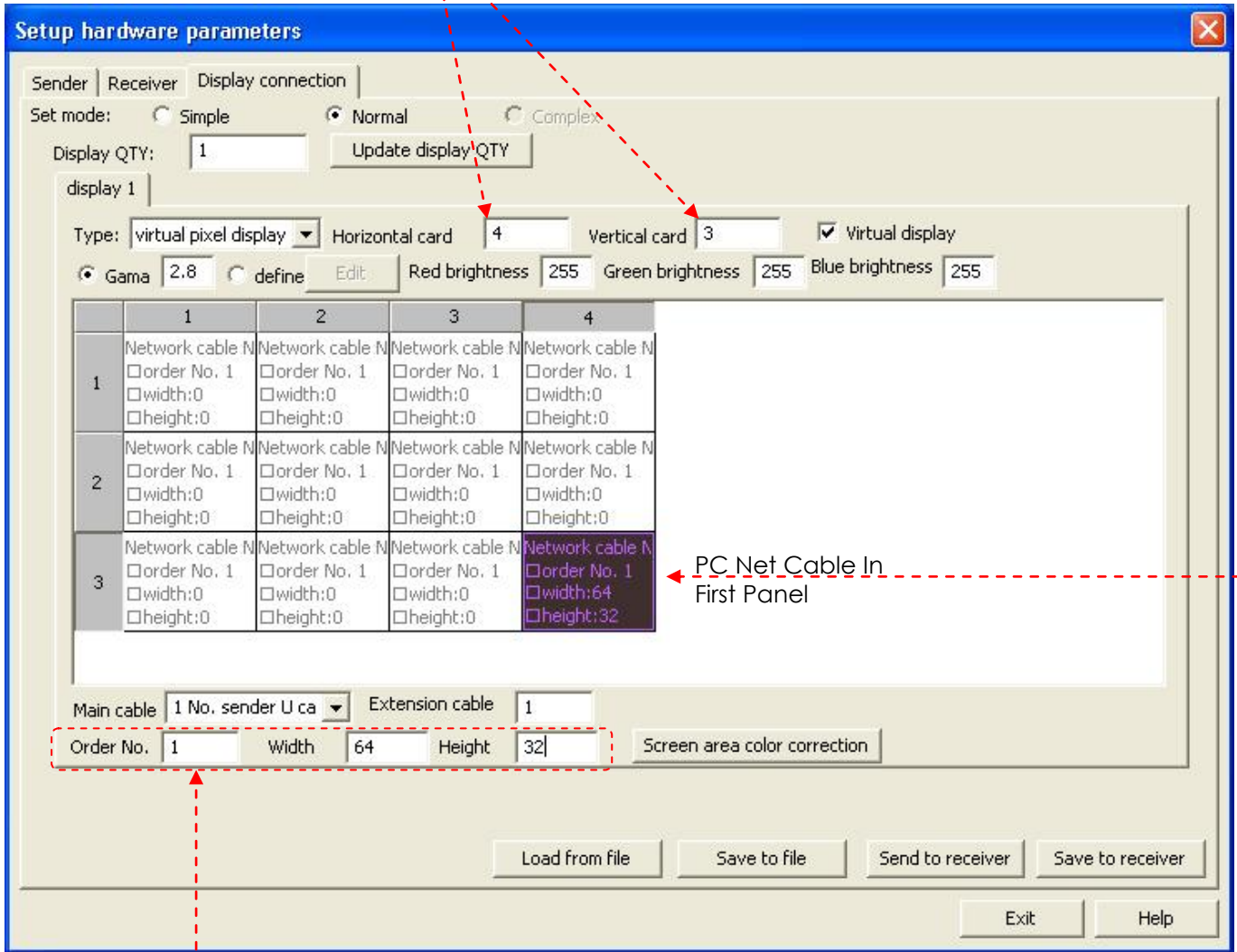The **First cabinet** is the cabinet to which the data cable from computer is connected.

The next step is to inform the receiver card how many pixels are in one cabinet.
For the Pixel Mesh P25 screens, this is 64X32 pixels tell the software which is the first screen and then click on the grey block.

Now jump with the arrow keys to the next panel and follow the order in which the screen is wired.

Setup hardware parameters

Sender | Receiver | Display connection

Set mode: ○ Simple ● Normal ○ Complex

Display QTY: [1] [Update display QTY]

display 1

Type: [virtual pixel display ▼] Horizontal card [4] Vertical card [3] ☑ Virtual display

● Gama [2.8] ○ define [Edit] Red brightness [255] Green brightness [255] Blue brightness [255]

|	1	2	3	4
1	Network cable N ☐order No. 12 ☐width:64 ☐height:32	Network cable N ☐order No. 11 ☐width:64 ☐height:32	Network cable N ☐order No. 10 ☐width:64 ☐height:32	Network cable N ☐order No. 9 ☐width:64 ☐height:32
2	Network cable N ☐order No. 5 ☐width:64 ☐height:32	Network cable N ☐order No. 6 ☐width:64 ☐height:32	Network cable N ☐order No. 7 ☐width:64 ☐height:32	Network cable N ☐order No. 8 ☐width:64 ☐height:32
3	Network cable N ☐order No. 4 ☐width:64 ☐height:32	Network cable N ☐order No. 3 ☐width:64 ☐height:32	Network cable N ☐order No. 2 ☐width:64 ☐height:32	Network cable N ☐order No. 1 ☐width:64 ☐height:32

Main cable [1 No. sender U ca ▼] Extension cable [1]

Order No. [12] Width [64] Height [32] [Screen area color correction]

[Load from file] [Save to file] [Send to receiver] [Save to receiver]
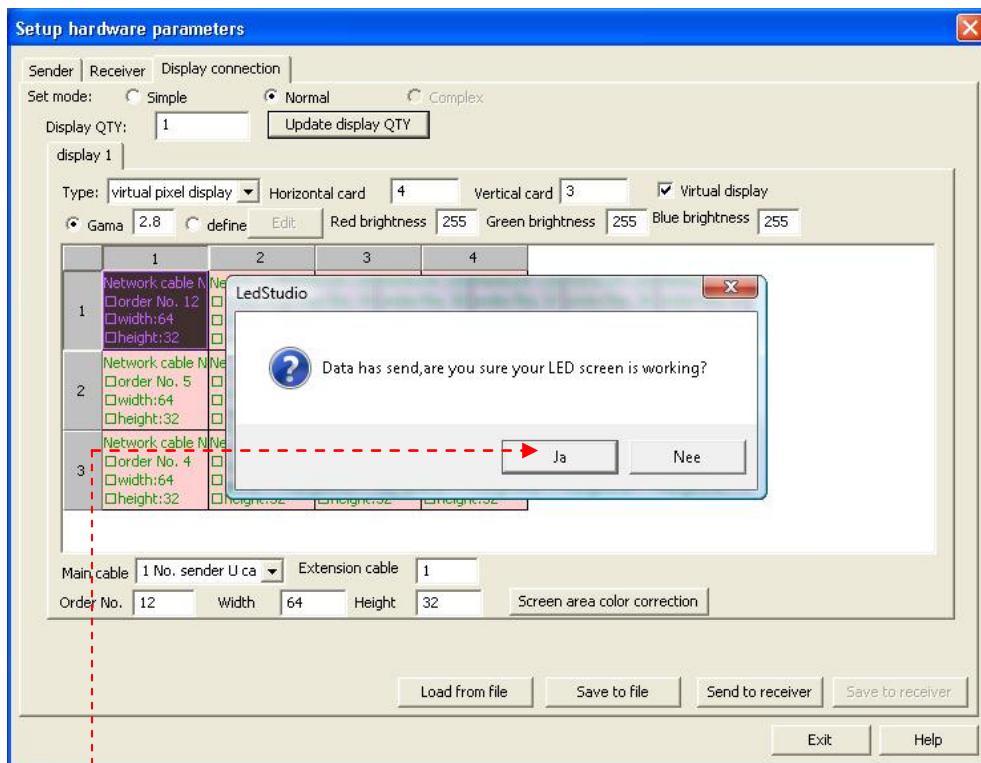
[Exit] [Help]
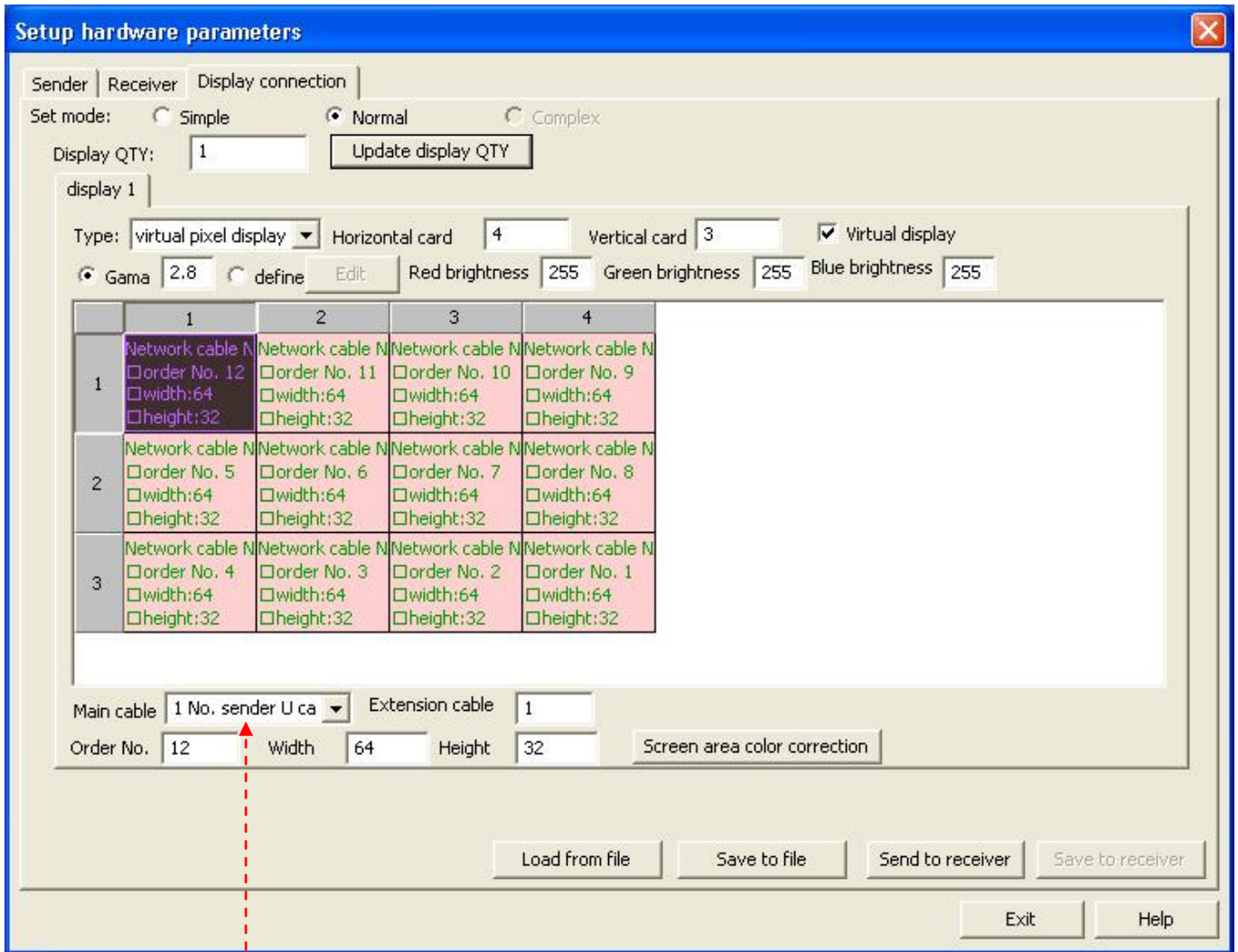
Please be sure to select the proper main cable (**1 No. sender U cable**).

Then press "send to receiver"
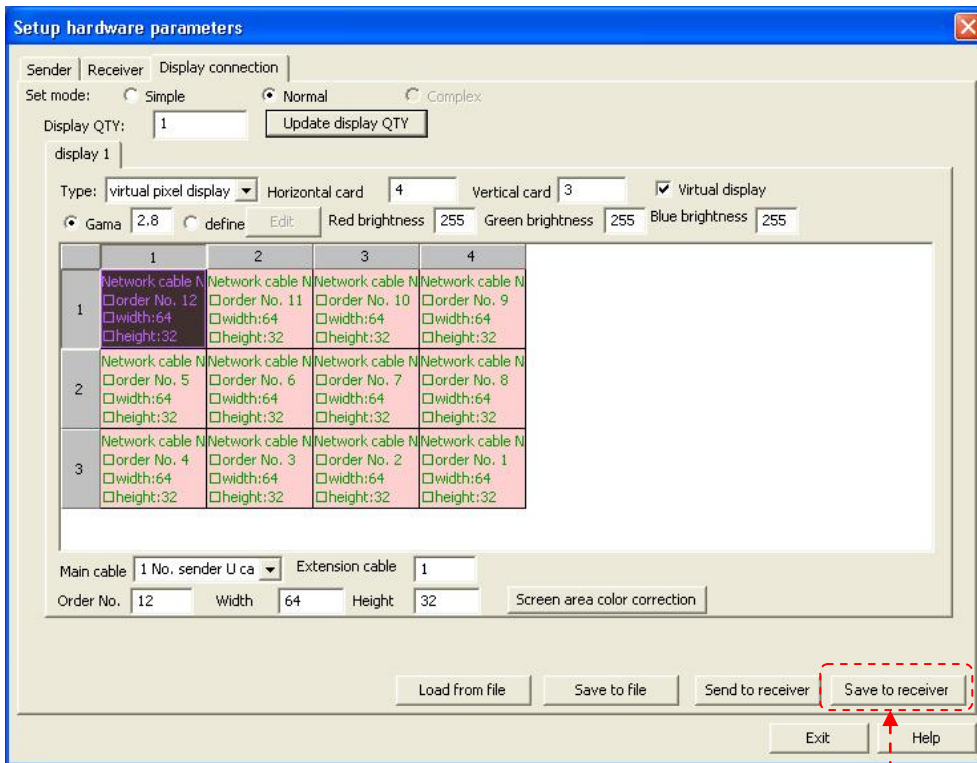
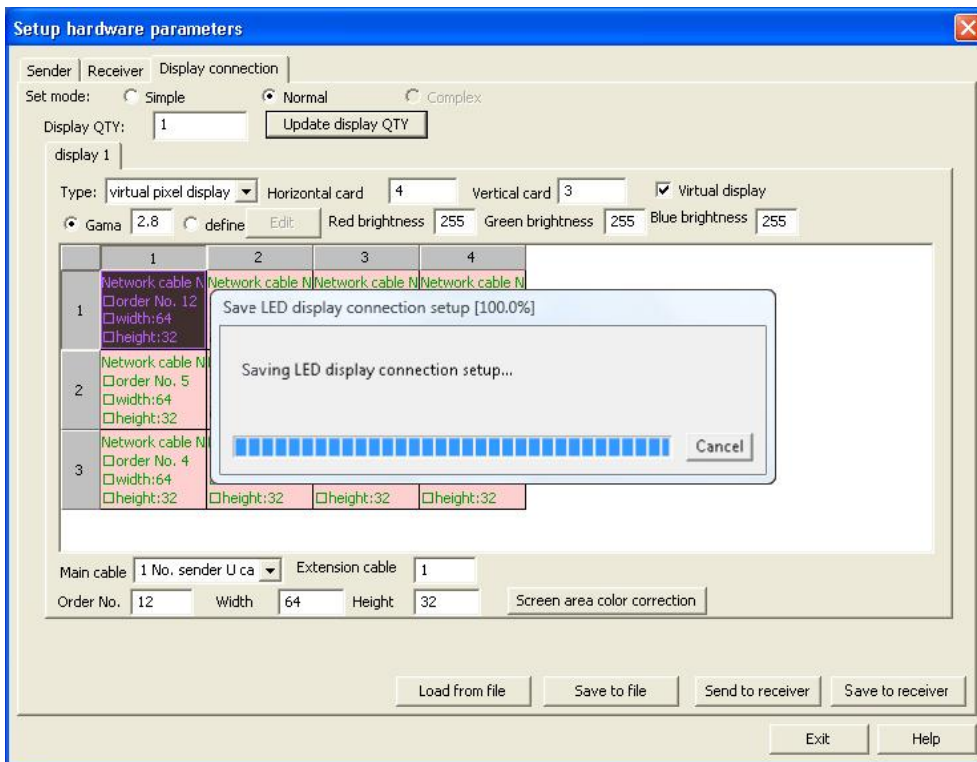The display will show:
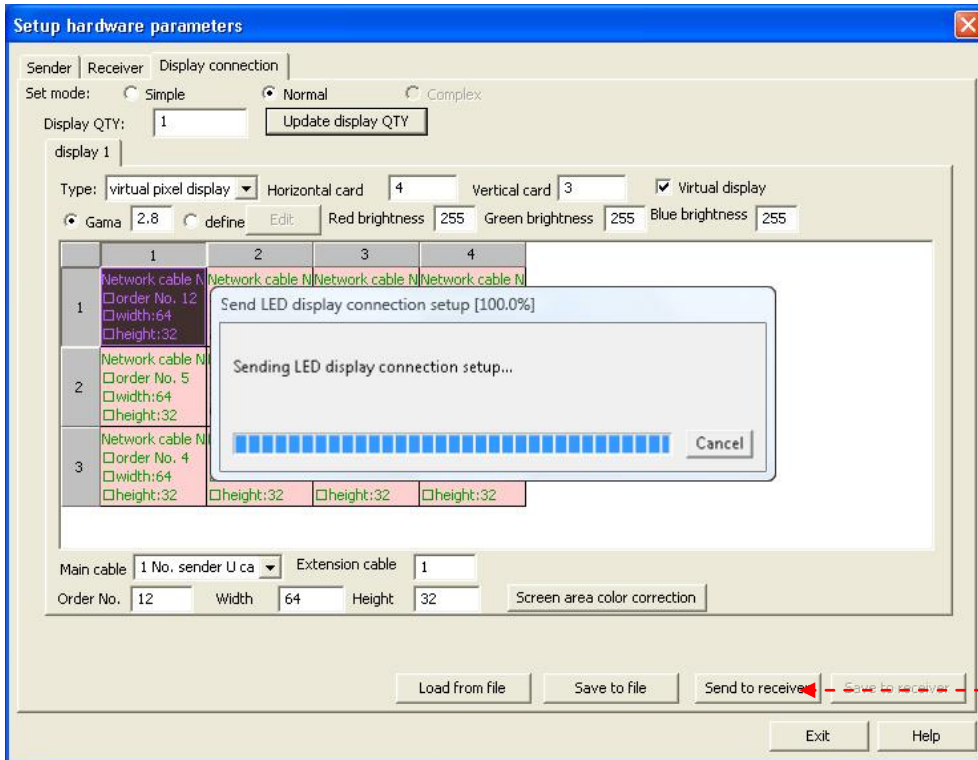
And the data will be uploaded to the receiver.

Press OK, when this procedure is finished.

The display will show:

Now **"save on receiver"** will be lit.
Press **save on receiver**. --

And the data will be saved to the receiver.

After that, the display will show:
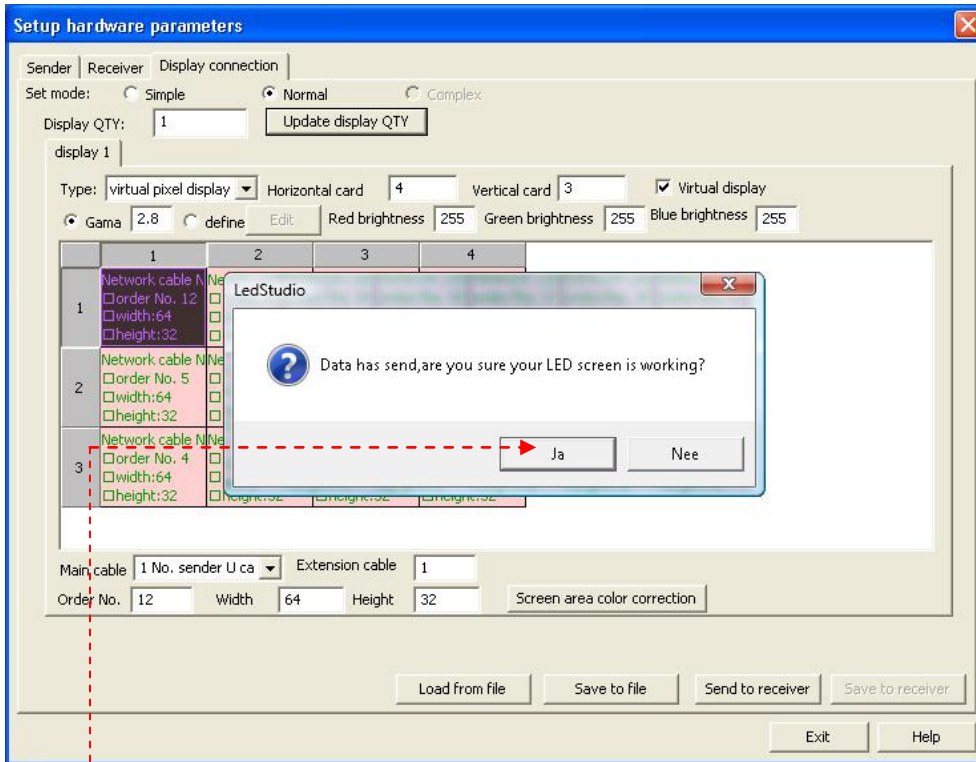
Press OK. This procedure is finished and you're ready to go.
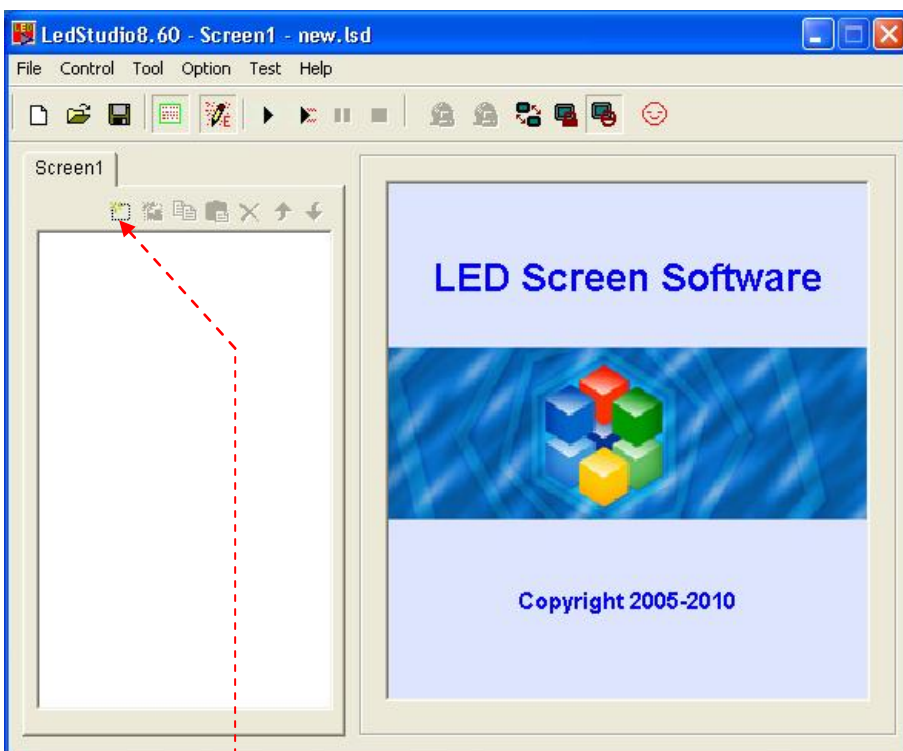
Working with LED Studio

LED Studio

1. Open LED studio by clicking on the icon.
The display shows:

2. Click here to open a new file.

3. Click on **new page of program** Button.

4. Choose a universal program (Loopplay) or normal program (play in order one by one).
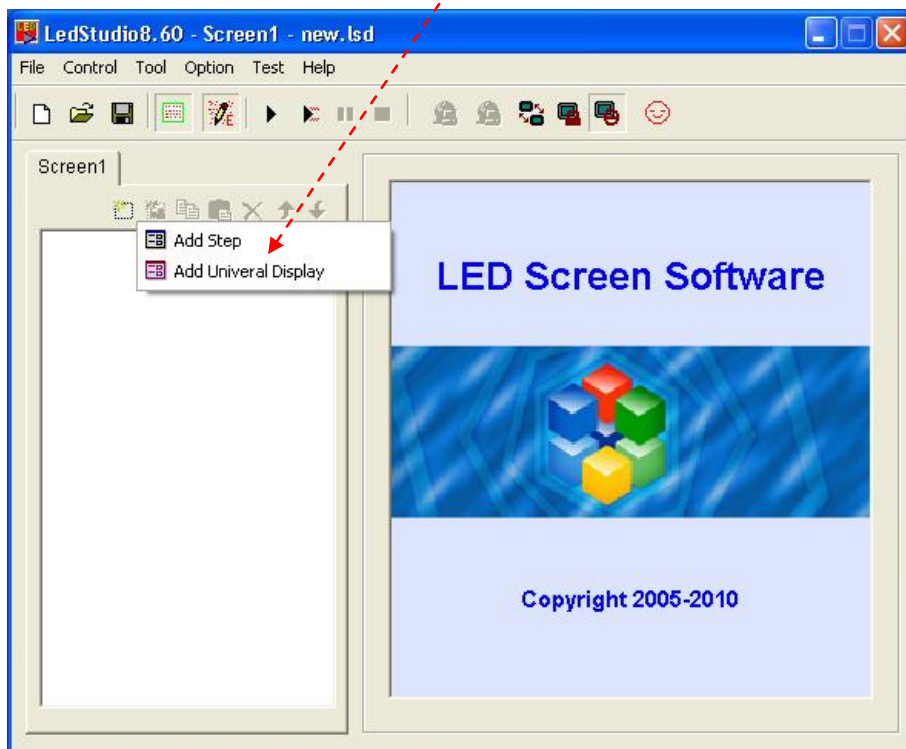
5. Click **New Window**.
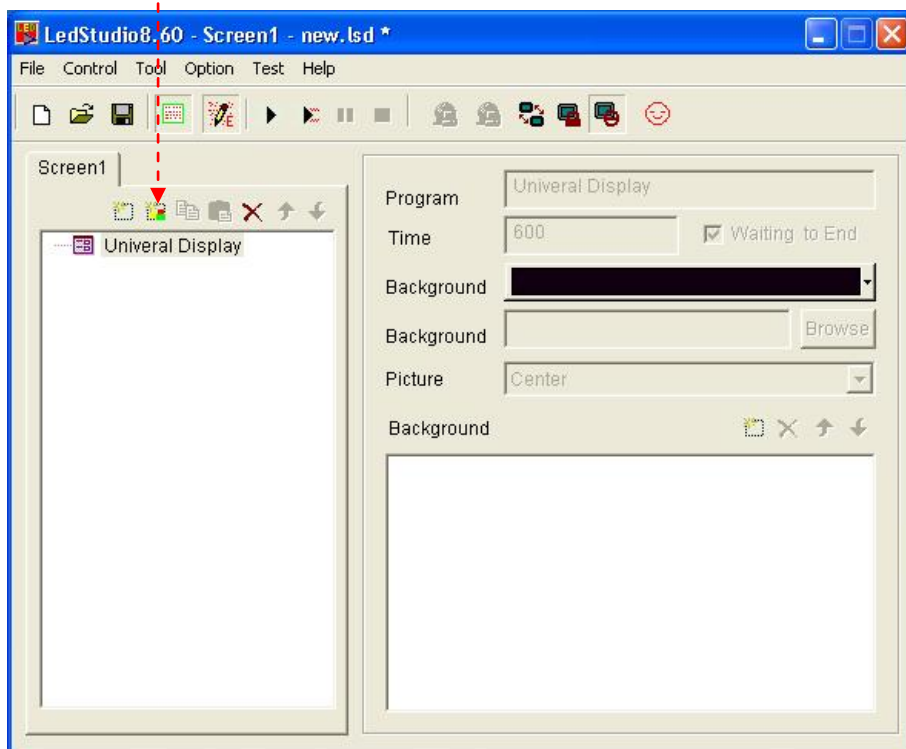
6. Each program window can play different words, pictures, tables, cartoons, and videos, etc. In total, there are twelve kinds of program windows available.
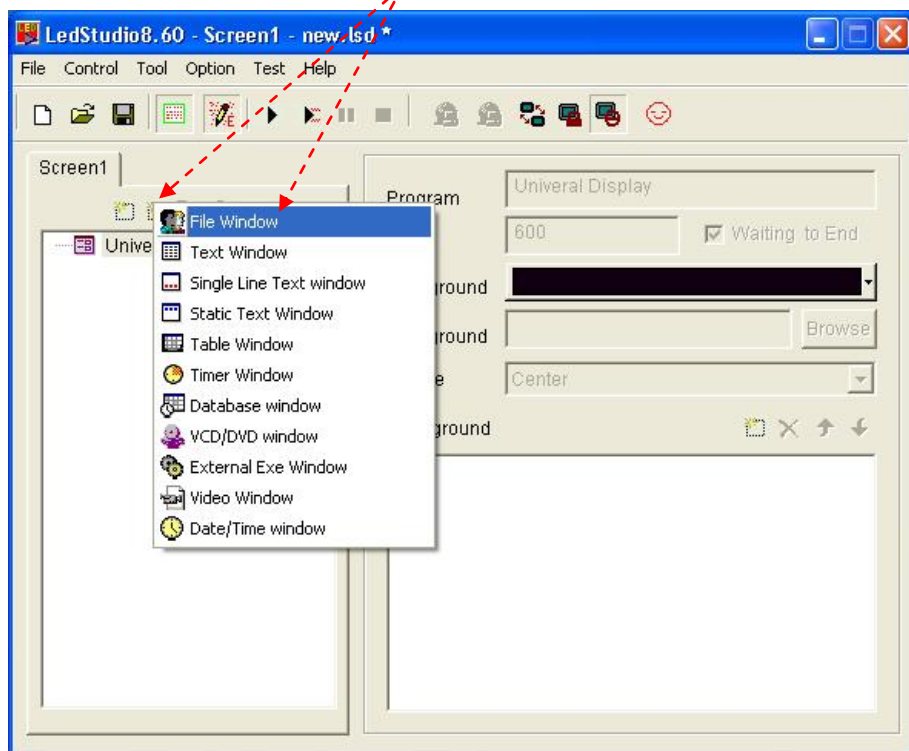
7. Blue screen = File Play Window
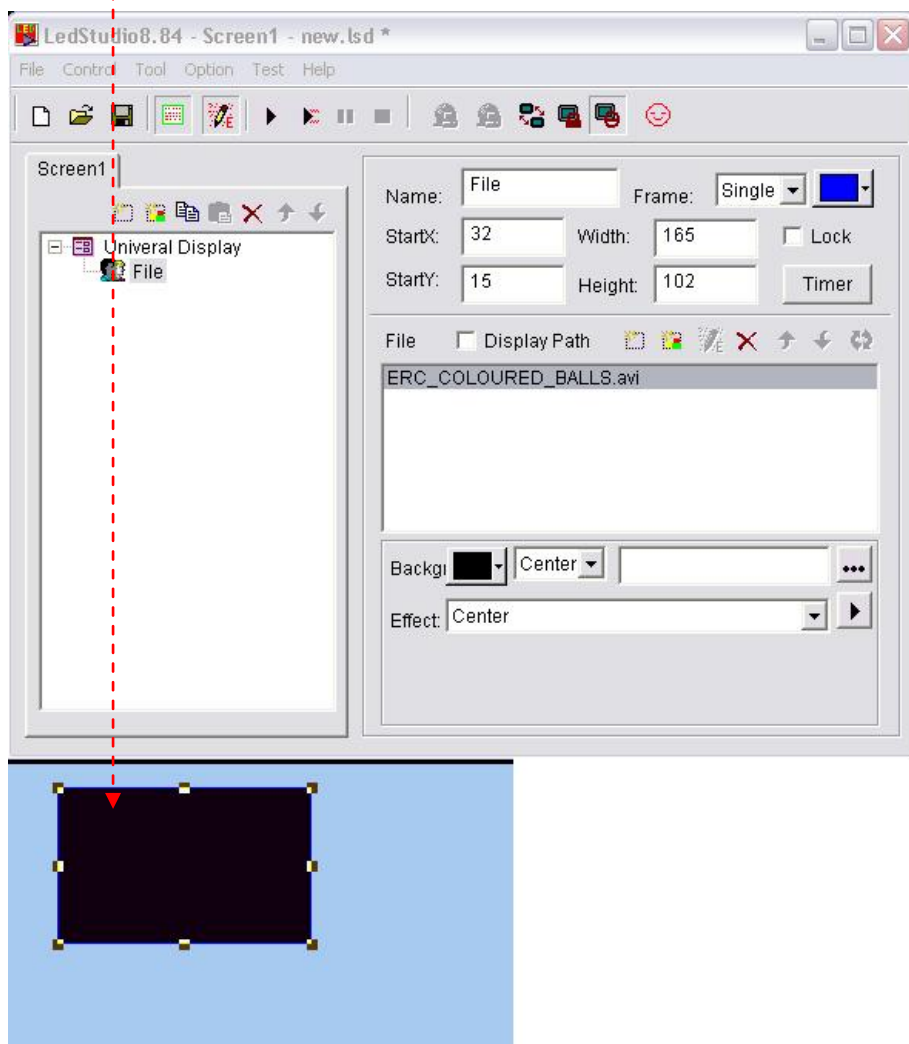
8. Click **file**.
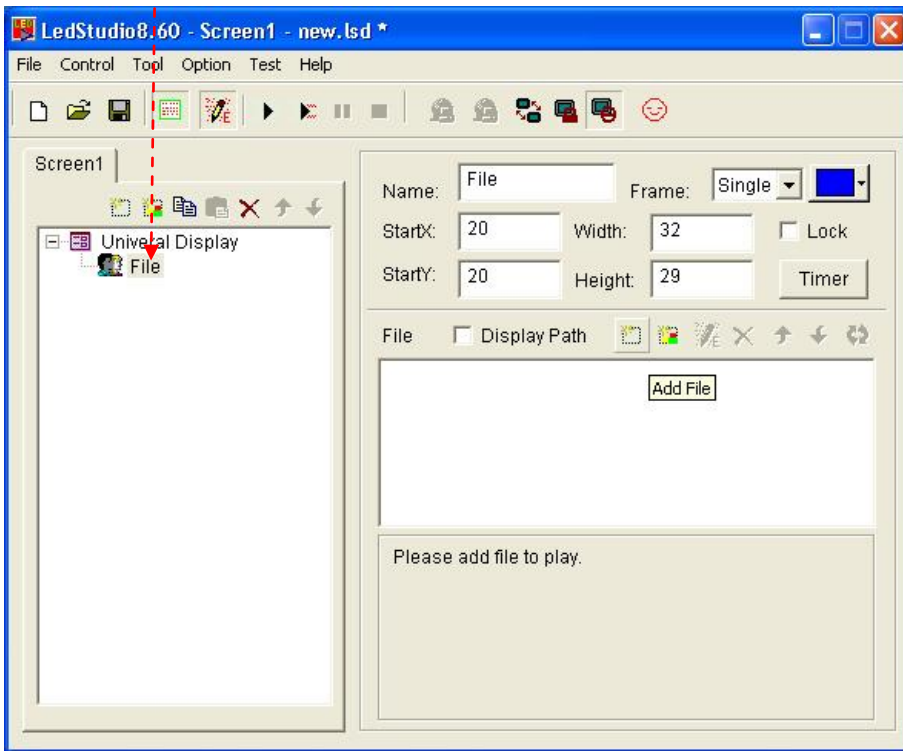
9. Click **Add File**.
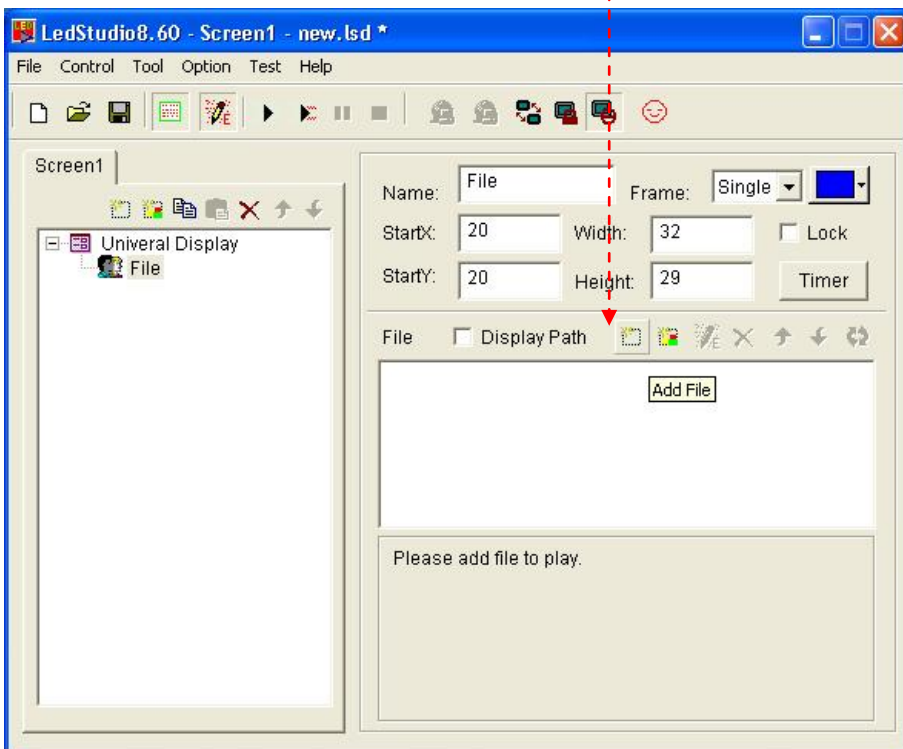
10. Choose a file.
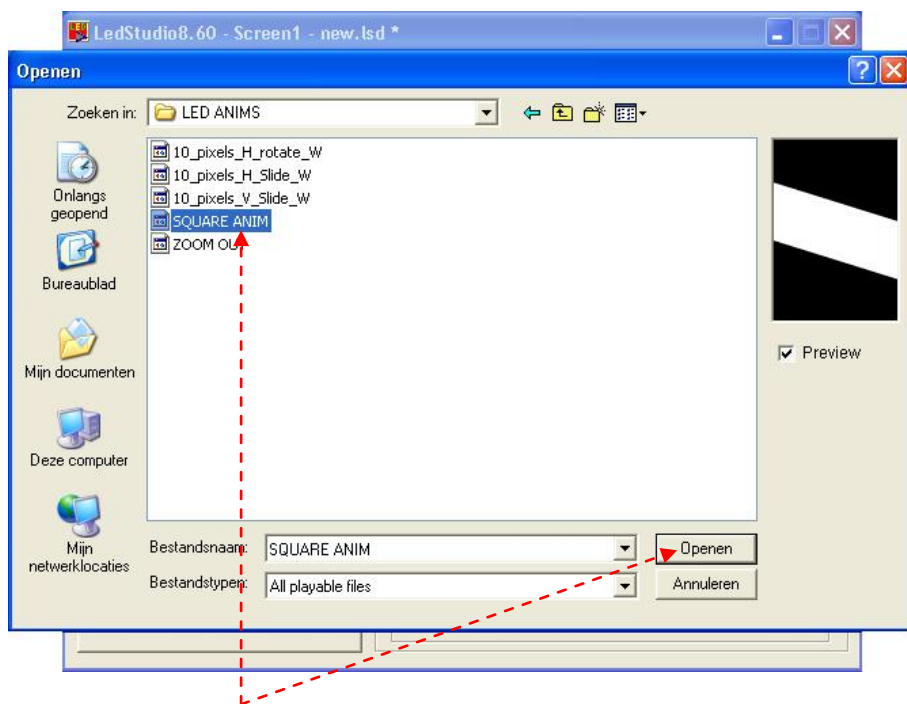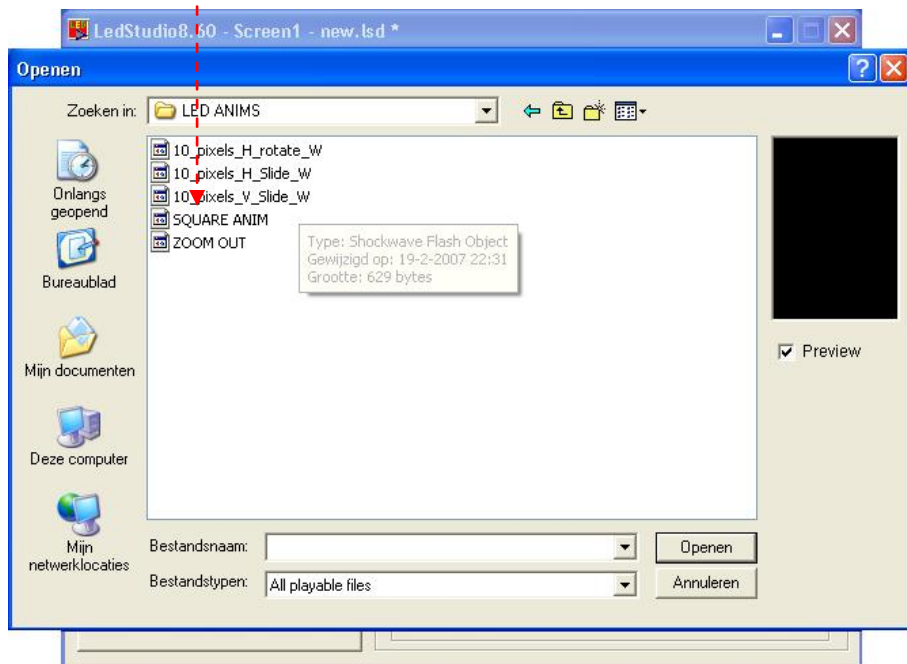
11. Click the file you want and press open.
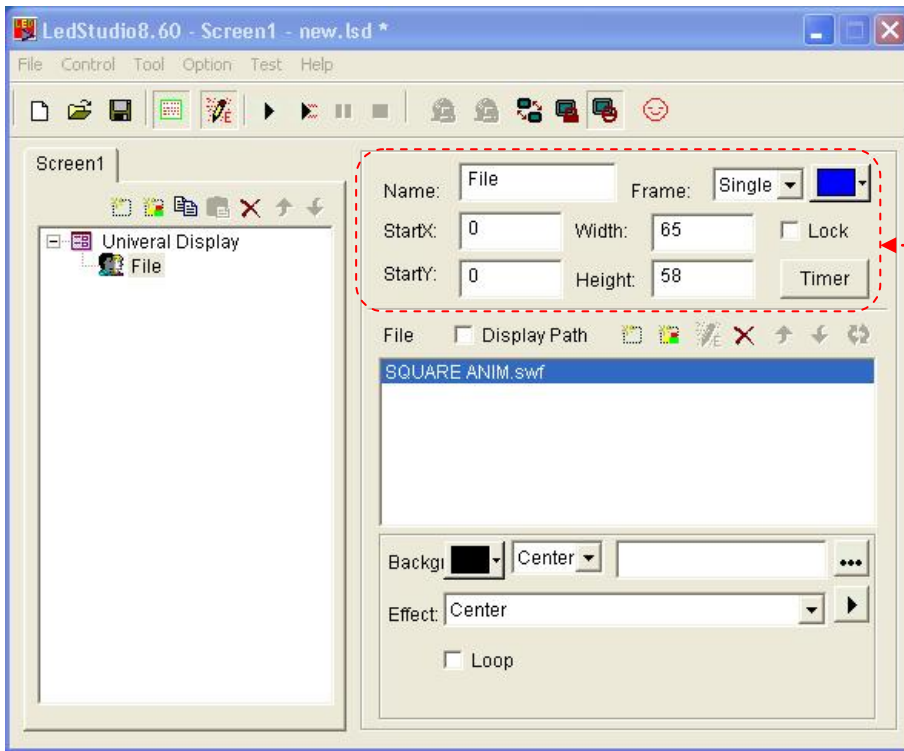
12. You now can set up your desired settings in the display area. You can control the width, height, etc.

13. After this you are able to choose more playable files until you are satisfied with the setup.
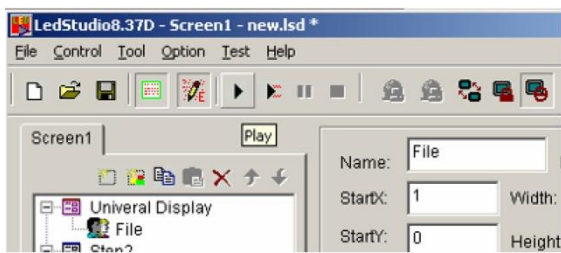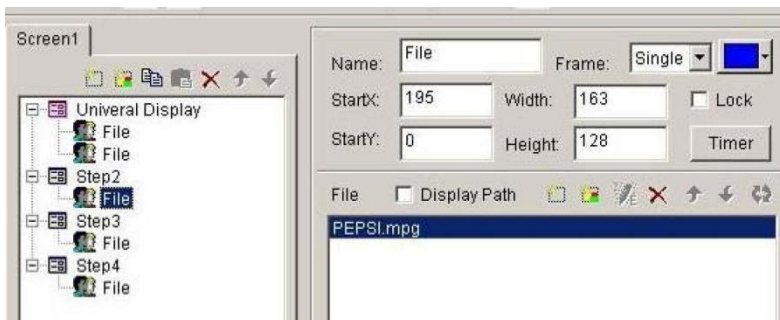
Setting the Clock in LED Studio

LED Studio

1. Open LED studio by clicking on the icon.
The display shows:

**2.** Click here to open a new file.
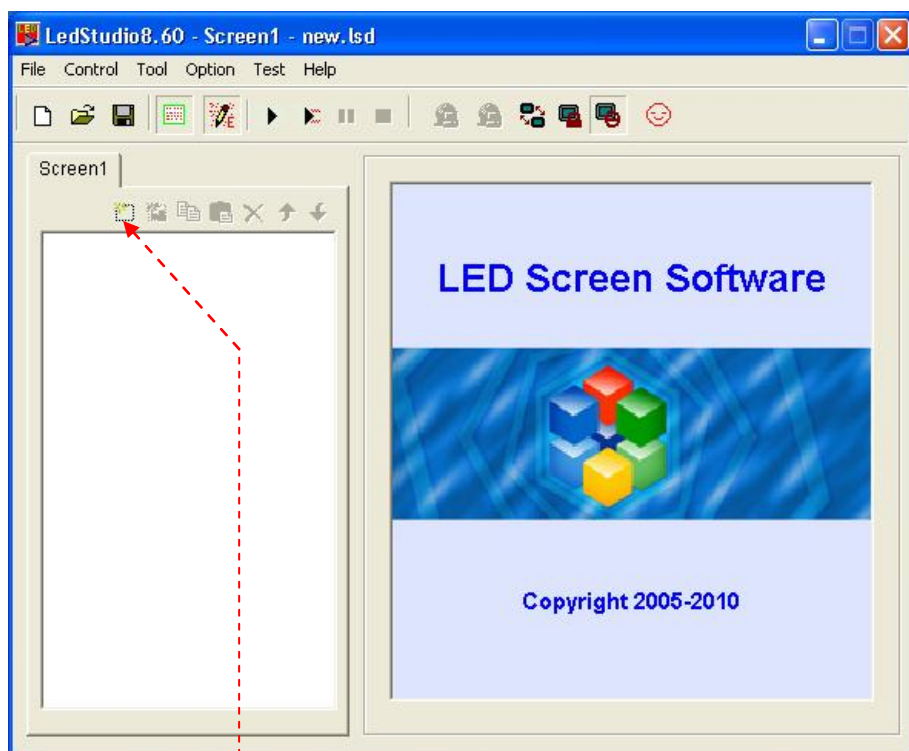
3. Click on **new page of program** Button.

4. Choose a universal program (Loopplay) or normal program (play in order one by one).
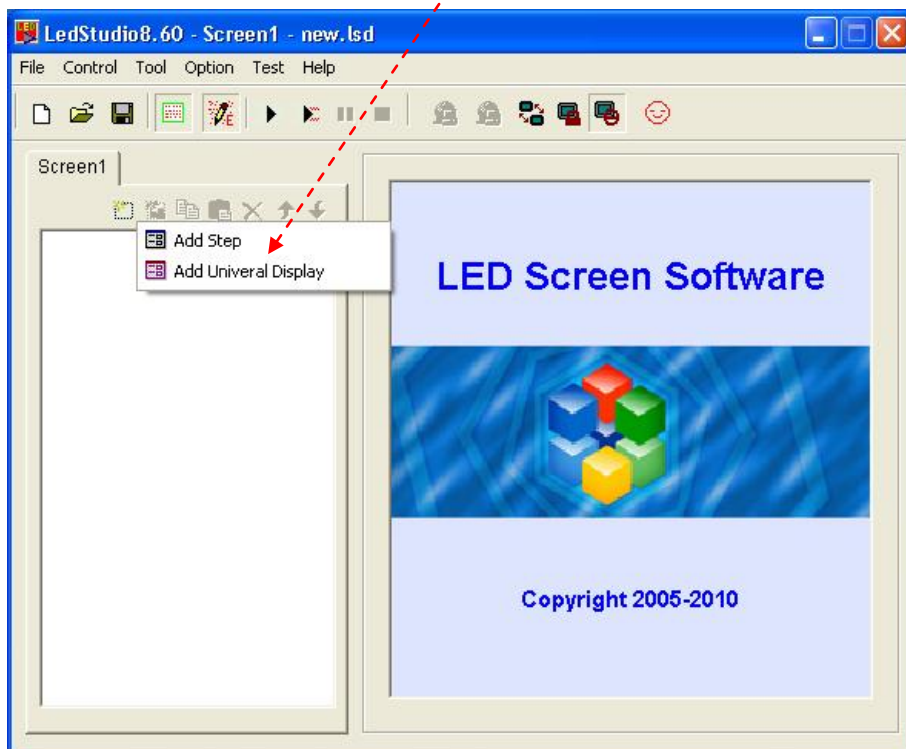

5. Click **New Window**.
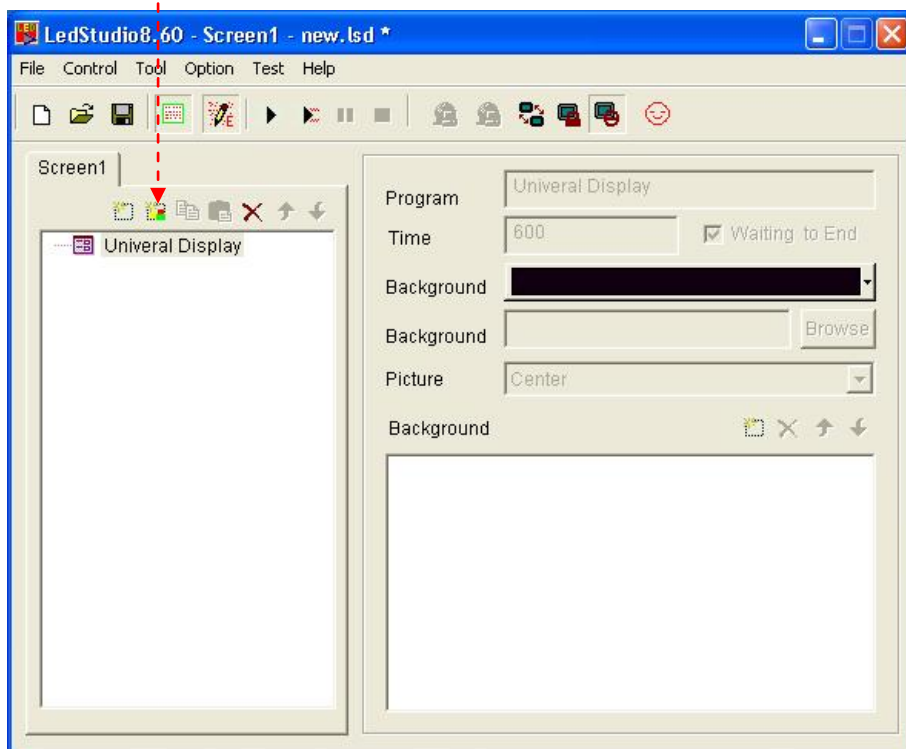
6. Click the **Date/Time Window**
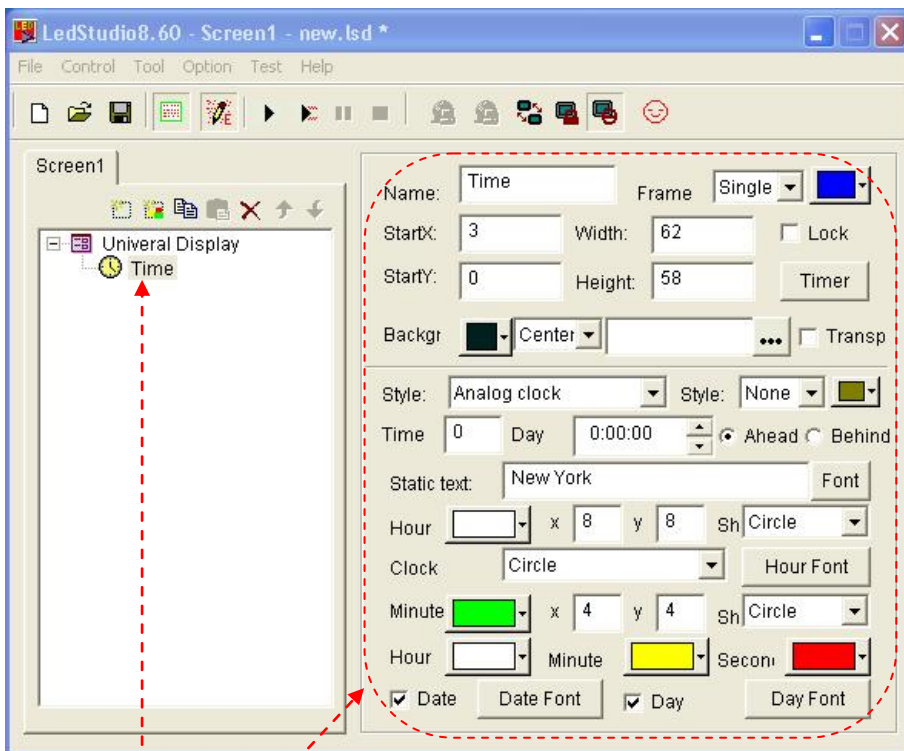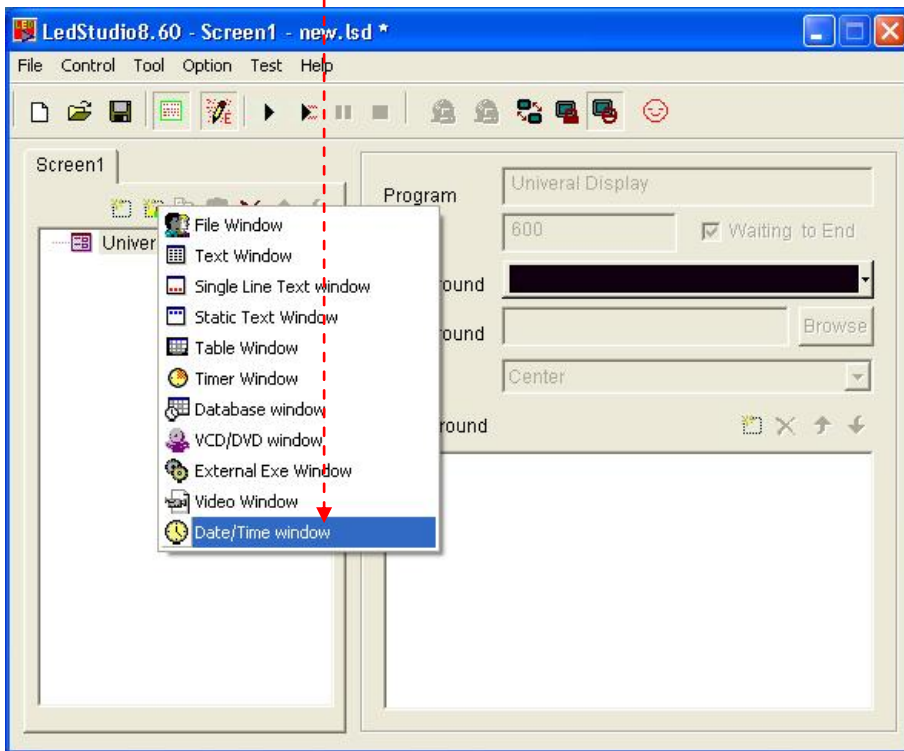
7. If you want to set a clock in the display, open a clock file in the Universal Display and set the specifications of the clock. The clock will be displayed all the time.

Additional Accessories

Spare Part Number	Description
101366	Rigging Assembly
90507	Powercon Male to Powercon Female 0,5m / 1,5 mm2
90508	Powercon Male to Powercon Female 3m / 1,5 mm2
EFK305NB	NE8MC Ethercon RJ45 carrier Nickel
EFK305BB	NE8MCB Ethercon RJ45 carrier Black
90532	Neutrik Connector-input
90533	Neutrik Connector-output
101175	Flightcase separately available for 4x Pixelmesh P25

Maintenance

The operator has to make sure that safety-relating and machine-technical installations are to be inspected by an expert after every four years in the course of an acceptance test.
The operator has to make sure that safety-relating and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:
1. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
4. The electric power supply cables must not show any damages or material fatigue.

The DMT LED Pixel Mesh P25 SMD Pro requires almost no maintenance. However, you should keep the unit clean for a better product life and performance. Buildup of dust, dirt, smoke particles, fog fluid residues, etc. degrades the panel's light output.

Cleaning schedules for lighting fixtures vary greatly depending on the operating environment. It is therefore impossible to specify precise cleaning intervals for the Pixel Mesh. In extreme cases panels may require cleaning after surprisingly few hours of operation. Environmental factors that may result in a need for frequent cleaning include:
- Use of smoke or fog machines.
- High airflow rates (near air conditioning vents, for example).
- Presence of cigarette smoke.
- Airborne dust (from stage effects, building structures and fittings or the natural environment at outdoor events, for example).

If one or more of these factors is present, inspect panels within their first 25 hours of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation. If in doubt, consult your Martin dealer about a suitable maintenance schedule.

Do not use alcohol , abrasive, caustic or solvent-based products for cleaning, as they can damage plastic or painted surfaces.

To clean the panel:
1) Disconnect the panel from power and allow it to cool for at least 10 minutes.
2) Vacuum or gently blow away dust and loose particles from the fan blades and grilles in the base of the panel with compressed air.
3) Wipe the outside of the LED tubes with a soft, lint-free cloth dampened with a solution of water and detergent or auto shampoo. Apply gentle pressure only.

Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

Troubleshooting for LED luminescent module

I.   Failure: All LEDs blink.
        Cause: Contact failure.
        Solution: Fix the loose places or re-plug.
II.   Failure: LED appears dark.
        Cause   : Switching power is inconsistent with LED's rated voltage.
        Solution: Make sure switching power is conforming to rated voltage of LED.
III.   Failure: LED lamps on a certain circuit are not lit.
        Cause: **1.** Connection direction may be wrong;
                2. Cable of output power may be wrongfully connected;
                3. Power cables may be reversely plugged or connected.
        Solution:**1.** Remove it and connect it properly;
                2. Make sure the red cable is connected to the anode, and black cable to cathode;
                3. Find out the reversely connected cables, then connect them correctly.
IV.   Failure: All LED lamps are not lit.
        Cause: **1.** No power output from switching power;
                2. Output cables may be wrongly connected.
        Solution:**1.** Connect the power to the input port of switching power;

Troubleshooting for System

Step 1: Check if the video (graphic) card is set properly, please refer to the user manual of the graphic card.

Step 2: Check the basic connections of the system, example DVI cable, signal cable sockets, the connection between the master card and PCI slot of computer, the connection of serial port lines, etc.

Step 3: Check the computer and LED power system for compliance. When the power supply for the LED screen is insufficient and display color is close to white (indicating too much power consumption), images may flash. Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Step 4: Check if the green LED of sender card flashes regularly. If the LED flashes go to Step 6; if not, please reboot the system. Before starting up the PC, please check if the green LED of sender card flashes regularly, if so go to Step2. If not, check if the DVI cable is properly connected. If the problem is not solved, there is something wrong with the sender card, video card or DVI cable. Replace the probable cause and then repeat Step 3.

Step 5: Repeat the software setup for the graphic card or reinstall it, until the green LED of the sender card flashes, otherwise, repeat Step 3.

Step 6: Check if the green LED (data LED) of the receiver card flashes synchronously with the green LED of the sender card. If not check if the red LED (for power) is on, and continue with Step 7, if the RED LED is not lit, check if the yellow LED (for power protection) is lit, check if the power supply is connected properly or if there is no power output. If the LED lights up, just check if the supply voltage is 5V. If the problem still exists, there is a receiver card failure. Just replace the receiver card and repeat Step 6.
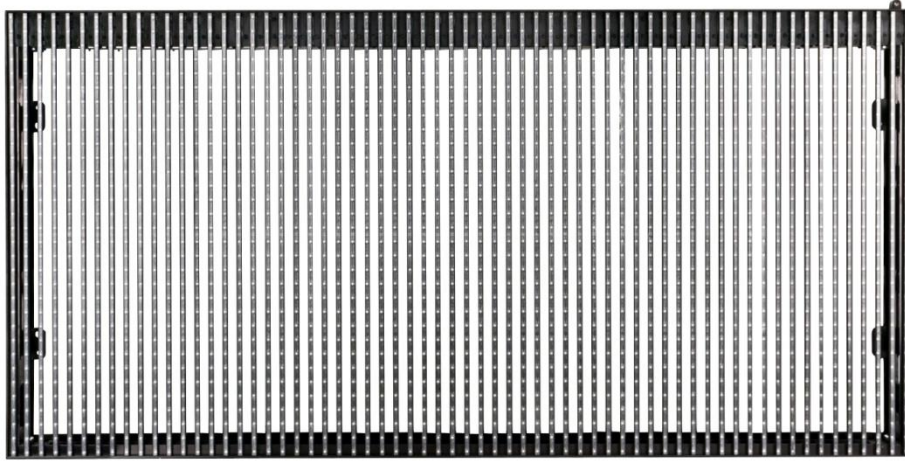
Step 7: Check if the signal cable is properly connected or maybe it's too long (maximum length of signal cable without relay must be less than 100 meters). Please read page 32 (**Extend signal cable**) again. If the problem still exists, there is a receiver card failure. Just replace the receiver card and repeat Step 6.

Caution: When all screens are connected, some may have no images or spotted images. This is caused by a bad connection of the receivercard or the network cable. The receiver card may not be powered. Disconnect and reconnect the signal cable (or replace it). Second option is to check the power on the receiver card (pay attention to the directions upon power-on), then the problem will be solved.

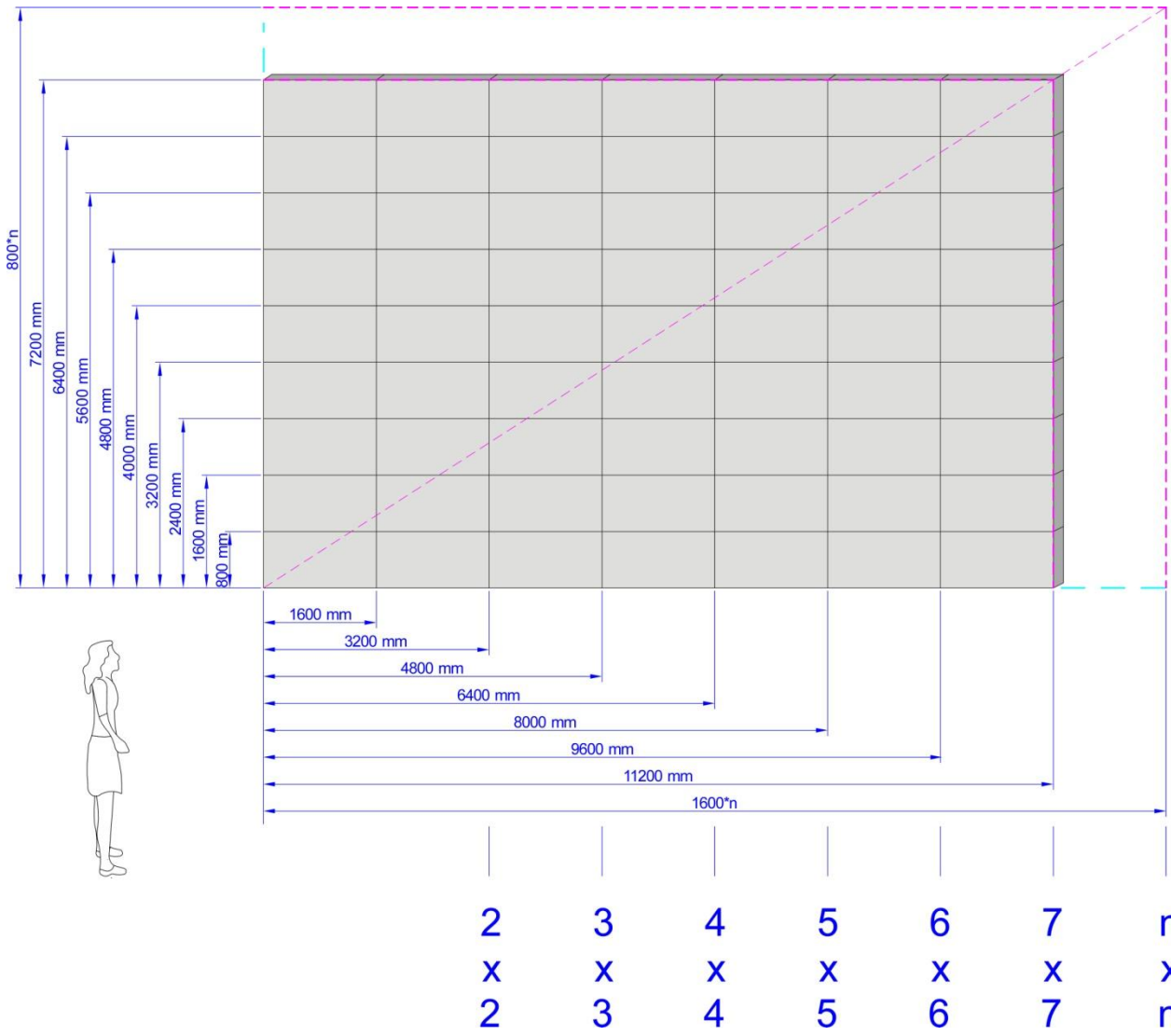**Dimensions Flightcase for 4 pieces Pixelmesh P25 SMD Pro (101175)**

1645 mm

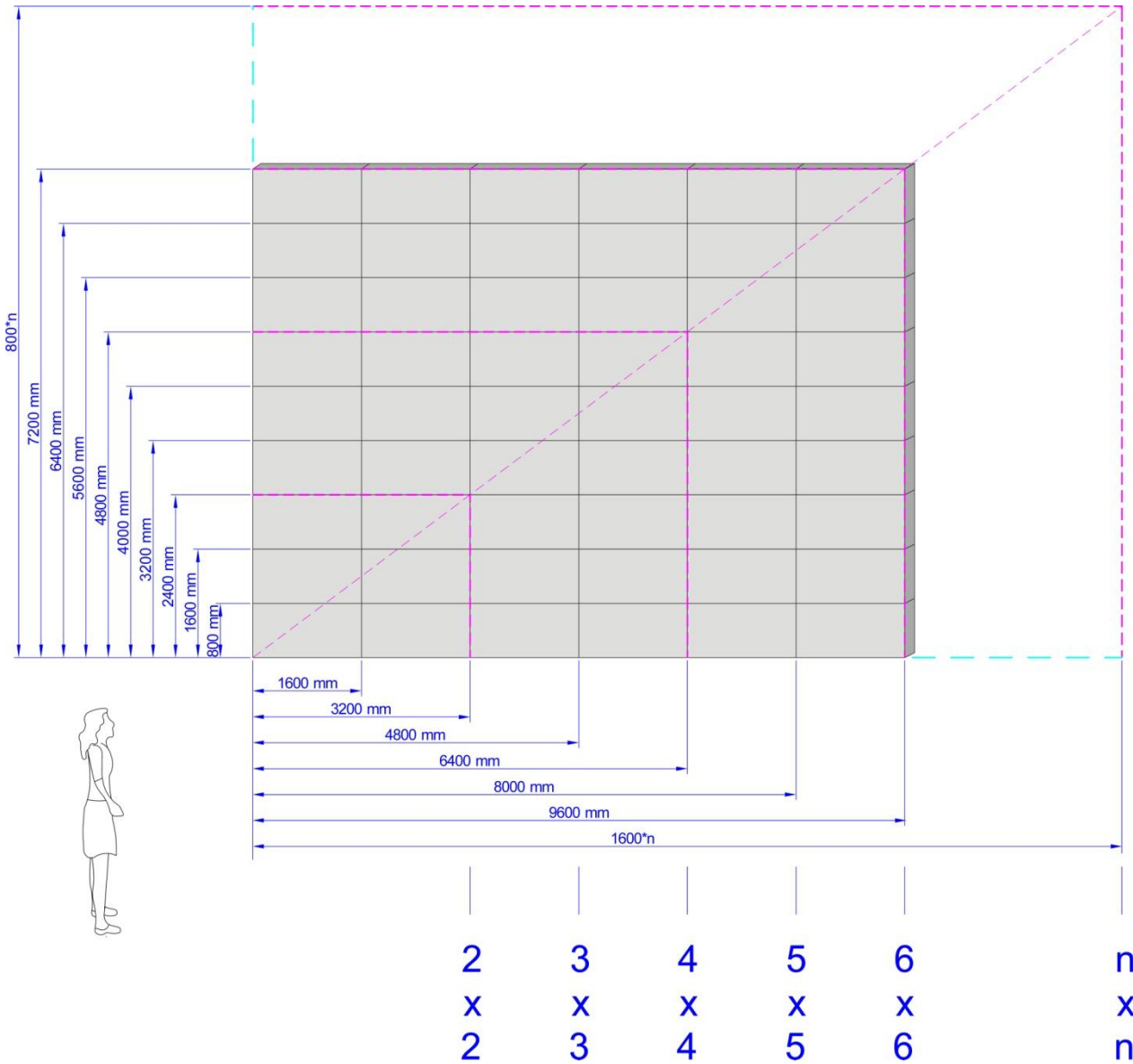1645 mm

900 mm
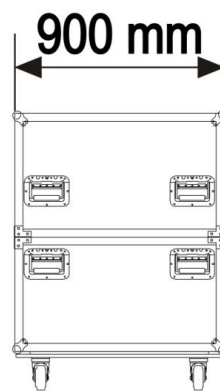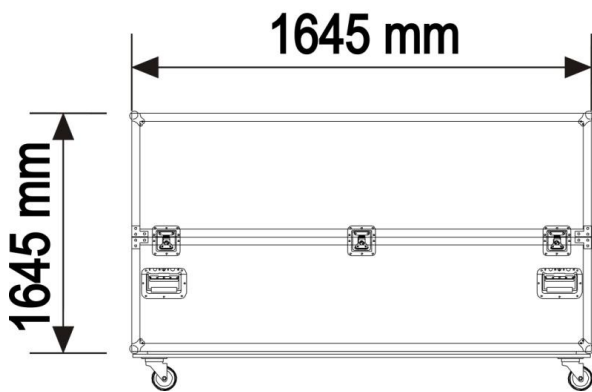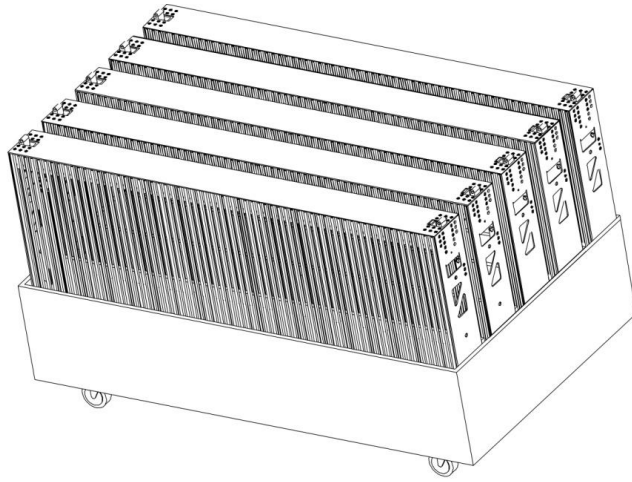
Specifications

Parameters	Value	Unit
Brightness	3040	nits
Color temperature	6500-9500	K
Horizon View Angle	120	degree
Vertical View Angle	120	degree
Weight	21	Kg
Diagonal Distance	1789	mm
Length	1600	mm
Width	800	mm
Depth	140	mm
Area of Panel	1,28	m²
Transparancy	53%	
Frame Color	black	
Material	Aluminum Alloy	
IP Rating	IP 65	
Working Environment	-10 - 40	˚C
Pixel Type	RGB three in one Full color LED	
Pixel Pitch	25	mm
Pixel Matrix	64*32	
Pixels per Panel	2048	
Pixels per Sqm	1600	Pixpixel / m²
Min View Distance	≥20-100m	m
Display Colors	256*256*256 =(16.777.216 colors)	
Grey Level	4096	Levels
Brightness Control	256	Levels
Video frame Rate	60	Hz
Display Refresh Rate	400	Hz
Working Voltage	AC230V	V
Max Input Current	3.2A	A
Max Output Rate	700	W
Lifespan	≥10000	Hours
Red Wavelength	622-627	nm
Green Wavelength	520-525	nm
Blue Wavelength	465-470	nm
Data Interconnection	Ethernet	
Max Screen Size	**16 Horizontal X 24 Vertical = 25.6m X 19.2m**	

16 : 9

Vertical dimensions (top to bottom):
800*n
7200 mm
6400 mm
5600 mm
4800 mm
4000 mm
3200 mm
2400 mm
1600 mm
800 mm

Horizontal dimensions (left to right):
1600 mm
3200 mm
4800 mm
6400 mm
8000 mm
9600 mm
11200 mm
1600*n

2 x 2   3 x 3   4 x 4   5 x 5   6 x 6   7 x 7   n x n

4 : 3

Design and product specifications are subject to change without prior notice.

CE

DMT

DUTCH MEDIA TOOLS