

User Manual

Direct View LED Video Wall



Table of Contents

Important Safety Instructions	3
Product Overview	4
Quick Specs	4
Accessories	4
Dimensions & Power Consumption	4
Installation Precautions	5
Ventilation Precautions	5
Storage & Operational Specification	5
Mechanical Layout	6
In/Out Connectivity	6
Configuration Diagram	7
Cabinet Layout	7
4x4 Cabinet Layout	7
Cabinet Assembly	8
4x4 Cabinet Layout	8
Module Installation	9
4x4 Module Layout	9
7x7 Module Layout	9
4x4 Module Layout	10
LAN Cabling Setup	11
4x4 Configuration	11
7x7 Configuration	12
4x4 Configuration	13
AC Power Cabling Setup	14
4x4 Configuration	14
7x7 Configuration	15
Cleaning / Maintenance	16
Cleaning Precautions	16
Routine Maintenance	16
Maintenance Notes	16
Troubleshooting	17
Basic Troubleshooting Procedure	17

Important Safety Instructions

1. To reduce the risk of fire or electric shock, do not expose this appliance to rain or other forms of moisture.
2. Indoor Use Only
3. Display must not be exposed to liquids via dripping or splashing. Please do not place liquid –filled items such as vases near the display.
4. Use only a properly grounded plug and receptacle.
5. CAUTION – These instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any service other than that contained in the operating instructions unless you are qualified to do so.
6. Do not use a damaged or loose plug.
7. This may cause electrical shock or fire.
8. Operate the display only from a power source (i.e. voltage) indicated in the product specification.
9. Otherwise the product can be damaged, fire can occur or you may be electrocuted. If you are not sure what type of power supply you have, consult a certified electrician.
10. In the presence of thunder and lightning, never touch the power cord and signal cable because it can be very dangerous.
 - ▲ It can cause electric shock.
11. Do not connect several extension cords, electrical appliances or electrical heaters to a single outlet. Use a power strip with a grounding terminal designed for exclusive use with computer.
 - ▲ A fire can break out due to overheating.
12. Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off before plugging in the cord.
 - ▲ Failing to follow the above mentioned steps will increase the risk of electrocution.
13. Insert the power plug firmly so it cannot come loose.
 - ▲ A loose connection can cause fire.
14. When disconnecting the display from an electrical outlet, the plug must be pulled out from the socket.
 - ▲ Do not remove power cord from outlet by pulling from the cord. Pull from the plug head.
15. Hold the plug when pulling out the power cable. Do not pull the plug out by the wire. Do not bend the power cord with excessive force or put heavy objects on the power cord.
 - ▲ The power line can be damaged, which may cause electric shock or fire.
16. Do not insert metal or other conductive materials into the product openings. Additionally, do not touch the power cable right after plugging into the wall input terminal.
 - ▲ You may be electrocuted.
17. The appliance coupler is used as the disconnect device.
18. Please make sure the device is installed near the wall outlet to which it is connected and that the outlet is easily accessible.
19. Do not unplug the power cord while the product is in use.
 - ▲ Electrical shock can damage the product.
20. As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if the unit is turned off.
21. Do not remove ground prong from three-pronged plugs. If your outlet will not accept three-pronged plugs, consult an electrician for replacement.
22. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions
23. This is a Class A digital device



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Product Overview

Thank you for purchasing a GPO Display DVLC-Series Direct View LED Video Wall

This manual describes how to use the product and provides safety guidelines and best practices. Please read the manual carefully before installing or using the product. After reading this manual, please retain for future reference. If you have any questions or a problem occurs, please contact either the company you purchased this product from or an authorized service center.

The GPO Display DVLC Series is an indoor, fine-pitch COB Direct View LED video wall system designed for seamless large-format display applications. This manual provides basic installation, cabling, module handling, and safety guidance for qualified installers and service personnel.

Quick Specs

Model	Technology	Pixel Pitch	Aspect Ratio	Controller	Orientation	Service Access
DVLC125	COB	P1.25	16:9	NovaStar	Landscape only	Front serviceable

Accessories



Wall Mount Plate



Wall Mount Bracket



Internal LAN Cable



External Power Cord

Dimensions & Power Consumption

Model	Module	Cabinet	Power Consumption (Max.)		Input Voltage
	W x H (mm)	W x H x D (mm)	W/m ²	W/Cabinet	
DVLC125	150 × 168.75 mm	600 × 337.5 × 35 mm	≤270	≤160	AC 100–240V

Installation Precautions

1. Installation must be performed by qualified personnel.
2. Confirm that the wall or mounting structure can safely support the total weight of the display, mounting hardware, and accessories.
3. Verify the cabinet layout, mounting position, and final display dimensions before installation.
4. Install the cabinets on a flat, stable, and properly reinforced surface.
5. Do not install the product in areas exposed to rain, moisture, direct water contact, heavy dust, vibration, corrosive gas, or extreme temperature changes.
6. Confirm that all mounting hardware is properly secured before installing LED modules.
7. Do not force cabinets into position. Improper alignment may cause visible seams, module damage, or connector damage.
8. Keep the installation area clean and free of loose screws, tools, metal debris, and other objects that may damage the LED modules.
9. Confirm that AC power and signal cables are routed properly and are not pinched, sharply bent, or under tension.

Ventilation Precautions

1. Keep heat-generating equipment away from the display whenever possible.
2. Do not install the display in enclosed spaces without proper airflow or temperature control.
3. Maintain the operating environment within the specified temperature and humidity range.
4. If the display is installed in a recessed wall, enclosure, or custom millwork, confirm that sufficient ventilation is provided.
5. Ventilation space must not be covered or closed off at the front of the opening. If for some reason the opening needs to be covered, other means of ventilation will need to be incorporated into the design. Contact GPO Display for design review and recommendations.
6. Secure minimum clearance, as shown in the image to the right, for adequate ventilation and technical service.
7. Ventilation space in front of DVLC-Series displays must be furnished for heat dispersion. If the area in front of DVLC-series displays must be sealed, there must be consideration for the heat dispersion on the rear side of DVLC-series to compensate.

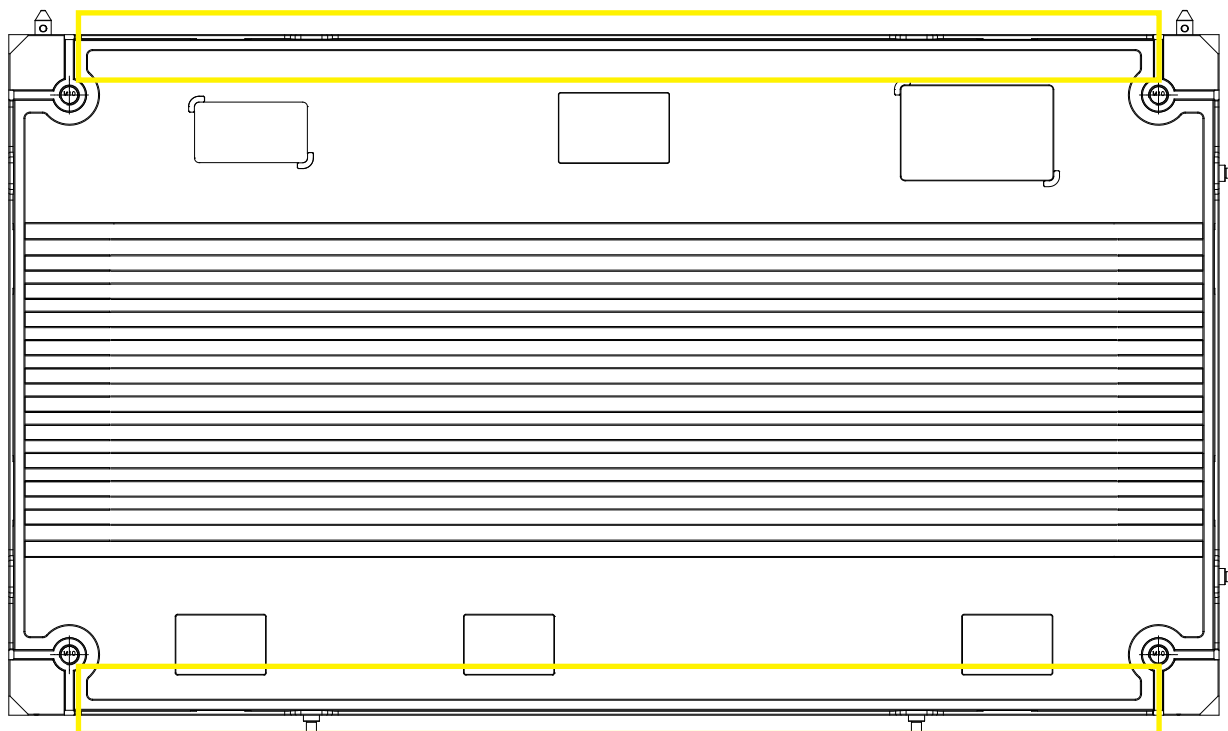


Storage & Operational Specification

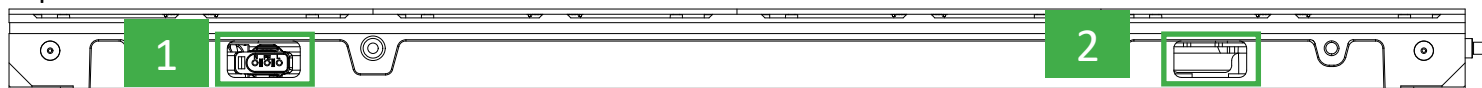
Model	Operating Temp.	Operating Humidity	Storage Temp.	Storage Humidity	Heat Generation (Max.)
DVLC125	0°C ~ 60°C	10% ~ 80% RH (non-condensing)	-10°C ~ 60°C	10% ~ 80%RH (non-condensing)	114.6 BTU/hr

Mechanical Layout

In/Out Connectivity



Top



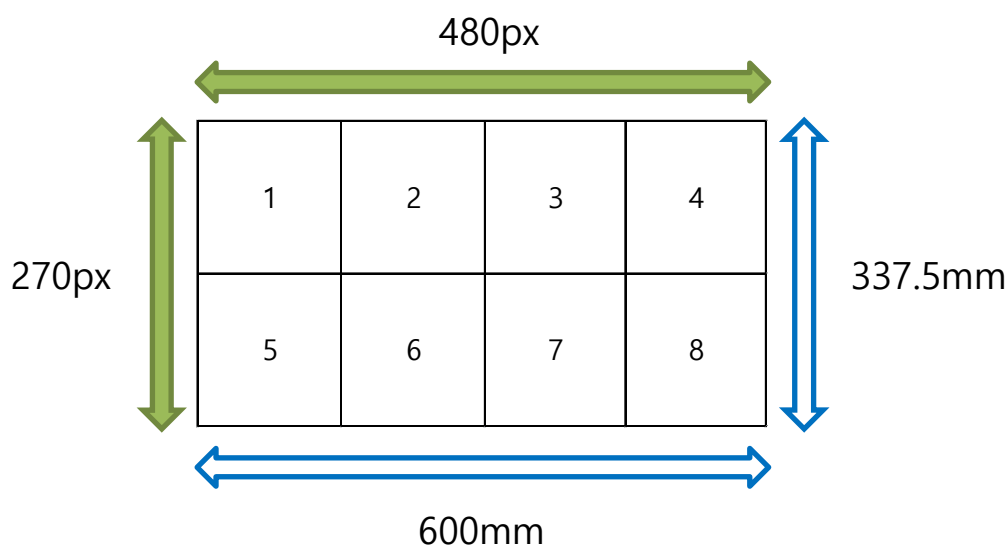
Bottom



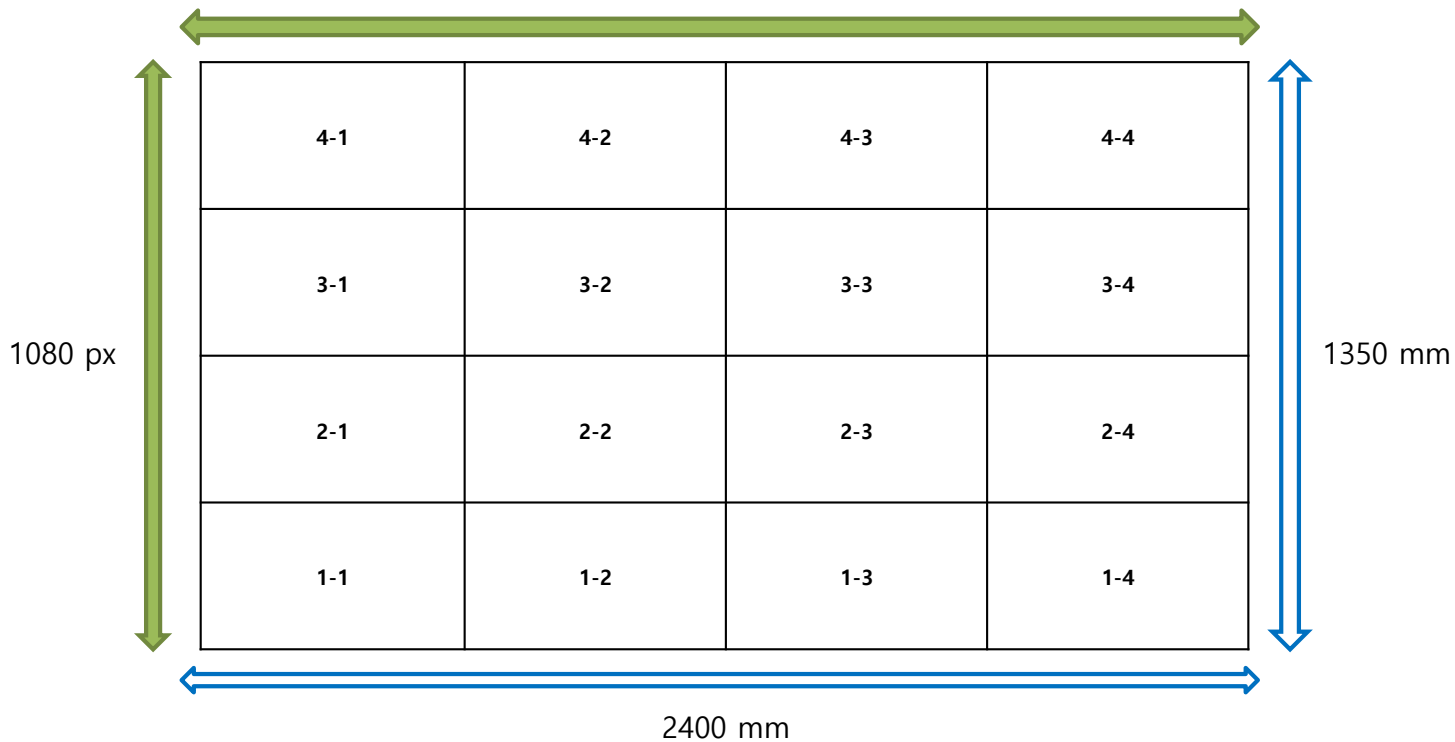
1	AC Power	Power IN or OUT, depending on power direction
2	RJ45 Port	Network IN or OUT, depending on signal direction
3	AC Power	Power IN or OUT, depending on power direction
4	RJ45 Port	Network IN or OUT, depending on signal direction

Configuration Diagram

Cabinet Layout



4x4 Cabinet Layout

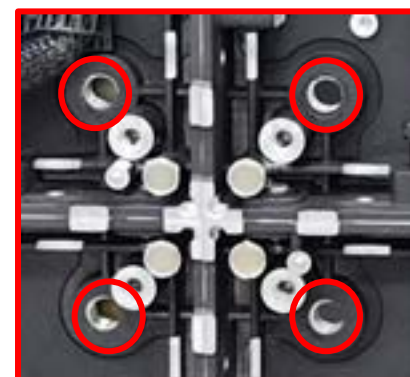
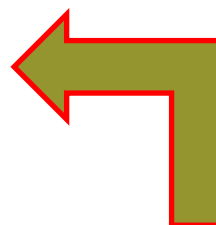
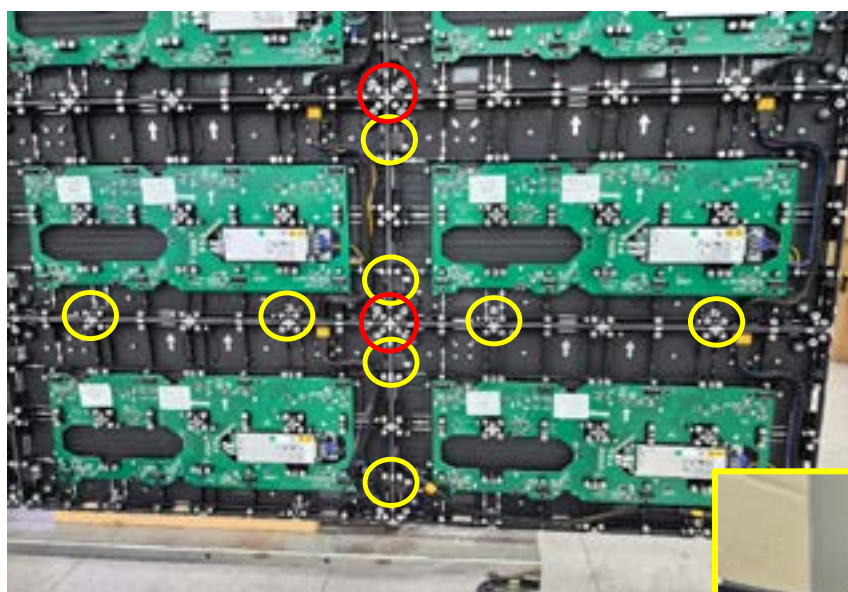


* Calibration is performed in this order; installation in the above order is recommended.

Cabinet Assembly

4x4 Cabinet Layout

4-1	4-2	4-3	4-4
3-1	3-2	3-3	3-4
2-1	2-2	2-3	2-4
1-1	1-2	1-3	1-4



1. Arrange the LED cabinets according to the cabinet layout diagram.
2. Align each cabinet using the center alignment point as the reference.
 secure the points using sheet-metal screws and washers.
 secure the points using a wrench or M6 hex L-key.

*  Verify cabinet alignment and flatness before installing LED modules.

*  (Sheet-metal screws, washers, wrench, or hex L-key required)

Warning: Do not force cabinets into position. Improper cabinet alignment may cause visible seams, module damage, or connector damage.

Module Installation, cont.

4x4 Module Layout

1. Wear gloves during installation to prevent fingerprints.
2. When attaching an LED module, hold it with both hands and align it with the data connector before securing it.
3. Start with the top cabinet and install one cabinet at a time.
 - * If work must be performed between modules, take care not to damage the modules on either side.
 - * If the input signal is connected during installation, normal module operation can be verified while working.
 - * Do not press directly on the LED surface. Hold the module from the edges whenever possible.

LED MODULE



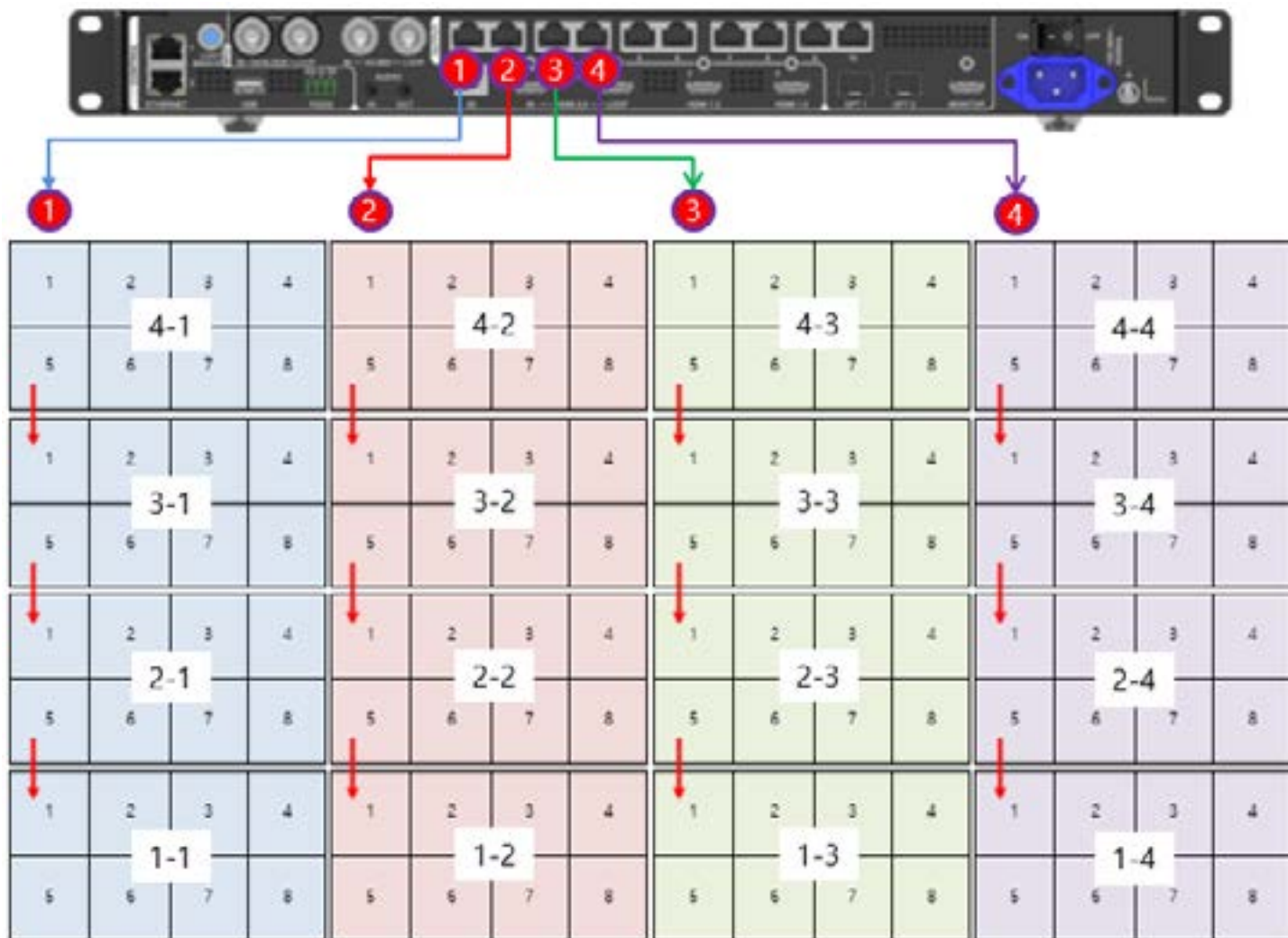
4-1-1	4-1-2	4-1-3	4-1-4	4-2-1	4-2-2	4-2-3	4-2-4	4-3-1	4-3-2	4-3-3	4-3-4	4-4-1	4-4-2	4-4-3	4-4-4
4-1-5	4-1-6	4-1-7	4-1-8	4-2-5	4-2-6	4-2-7	4-2-8	4-3-5	4-3-6	4-3-7	4-3-8	4-4-5	4-4-6	4-4-7	4-4-8
3-1-1	3-1-2	3-1-3	3-1-4	3-2-1	3-2-2	3-2-3	3-2-4	3-3-1	3-3-2	3-3-3	3-3-4	3-4-1	3-4-2	3-4-3	3-4-4
3-1-5	3-1-6	3-1-7	3-1-8	3-2-5	3-2-6	3-2-7	3-2-8	3-3-5	3-3-6	3-3-7	3-3-8	3-4-5	3-4-6	3-4-7	3-4-8
2-1-1	2-1-2	2-1-3	2-1-4	2-2-1	2-2-2	2-2-3	2-2-4	2-3-1	2-3-2	2-3-3	2-3-4	2-4-1	2-4-2	2-4-3	2-4-4
2-1-5	2-1-6	2-1-7	2-1-8	2-2-5	2-2-6	2-2-7	2-2-8	2-3-5	2-3-6	2-3-7	2-3-8	2-4-5	2-4-6	2-4-7	2-4-8
1-1-1	1-1-2	1-1-3	1-1-4	1-2-1	1-2-2	1-2-3	1-2-4	1-3-1	1-3-2	1-3-3	1-3-4	1-4-1	1-4-2	1-4-3	1-4-4
1-1-5	1-1-6	1-1-7	1-1-8	1-2-5	1-2-6	1-2-7	1-2-8	1-3-5	1-3-6	1-3-7	1-3-8	1-4-5	1-4-6	1-4-7	1-4-8



LAN Cabling Setup

4x4 Configuration

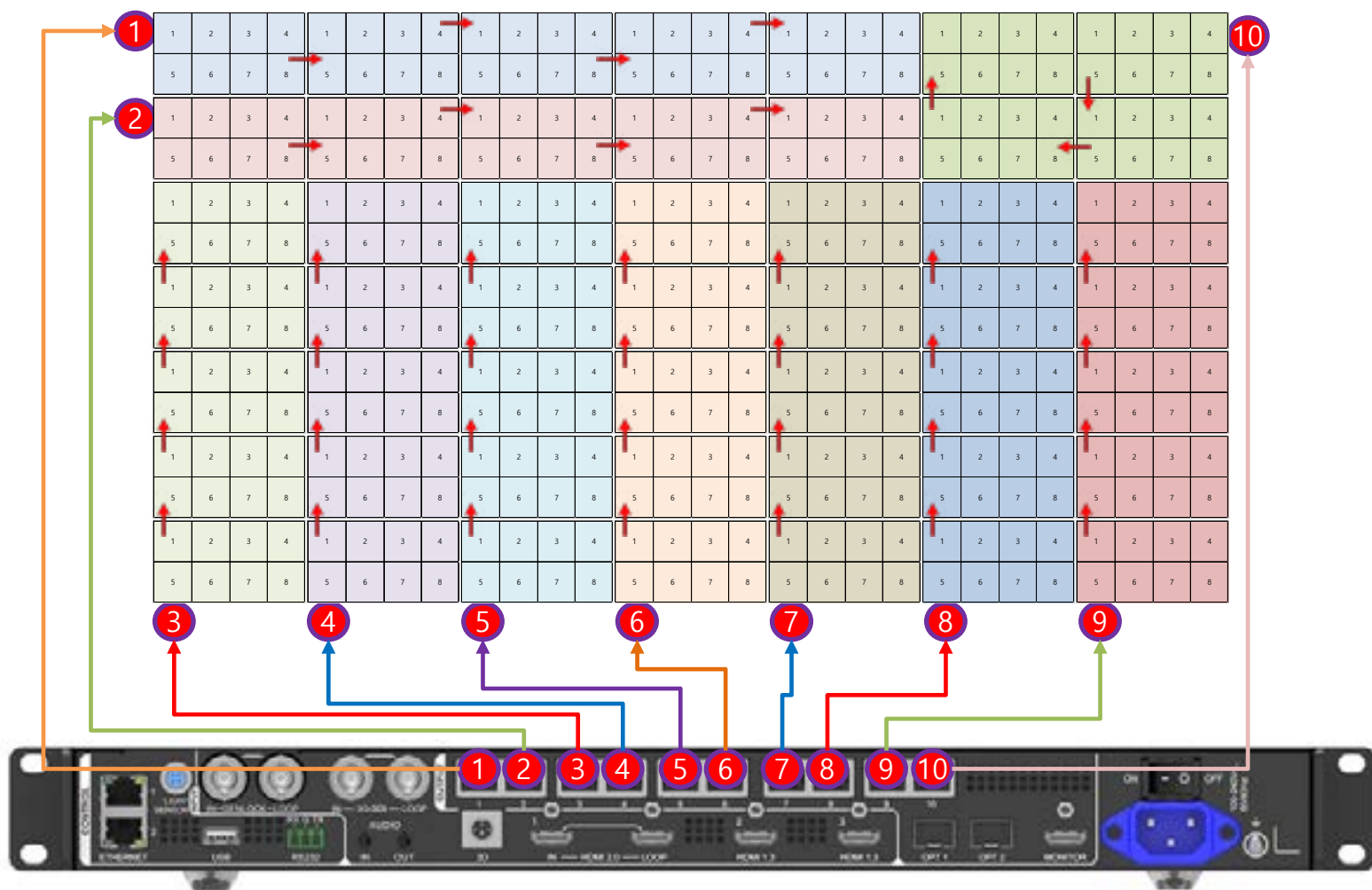
PC -> HDMI -> NOVASTAR Controller > Direct View LED Video Wall



LAN Cabling Setup, cont.

7x7 Configuration

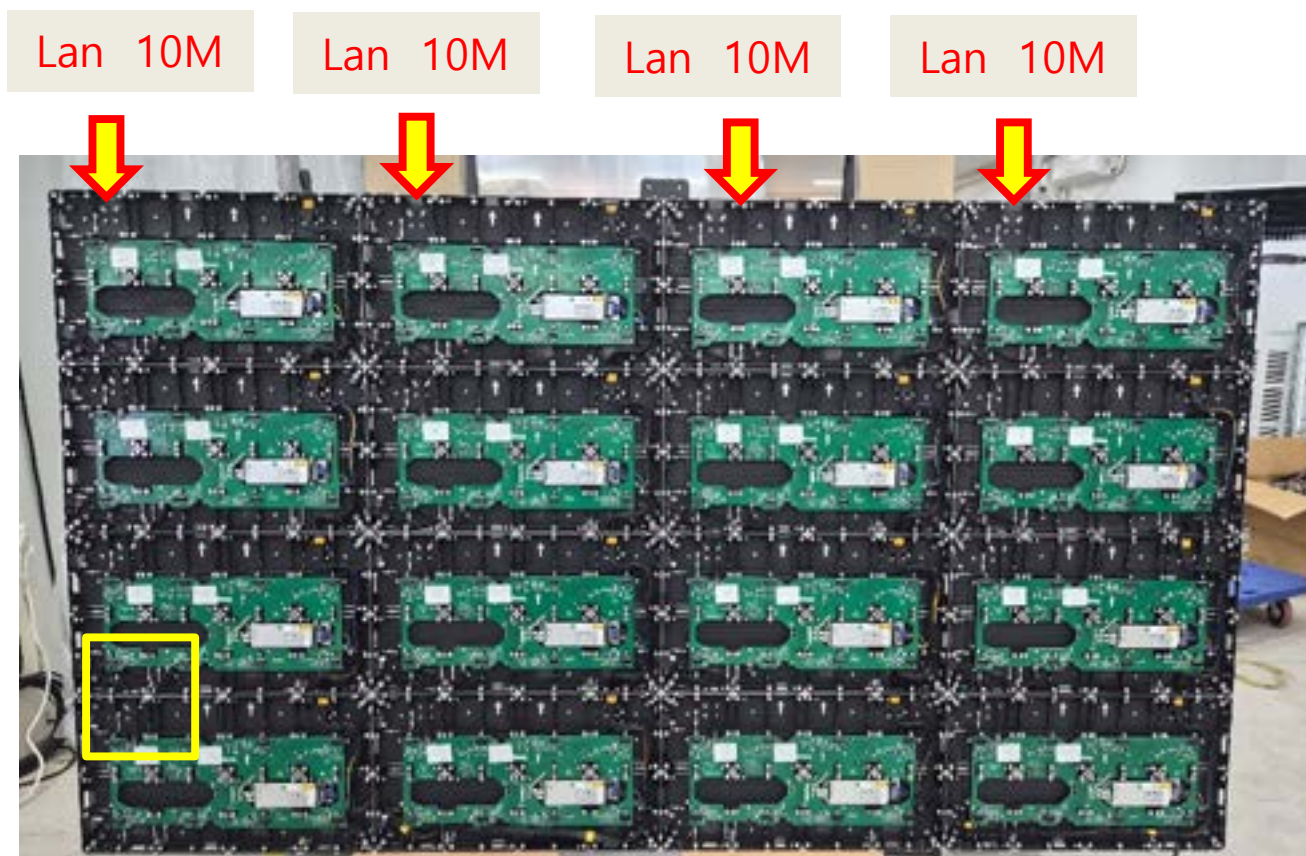
PC -> HDMI (3360 x 1890 60Hz: 16:9 ratio, HDMI1 port only) -> NOVASTAR Controller -> Direct View LED Video Wall



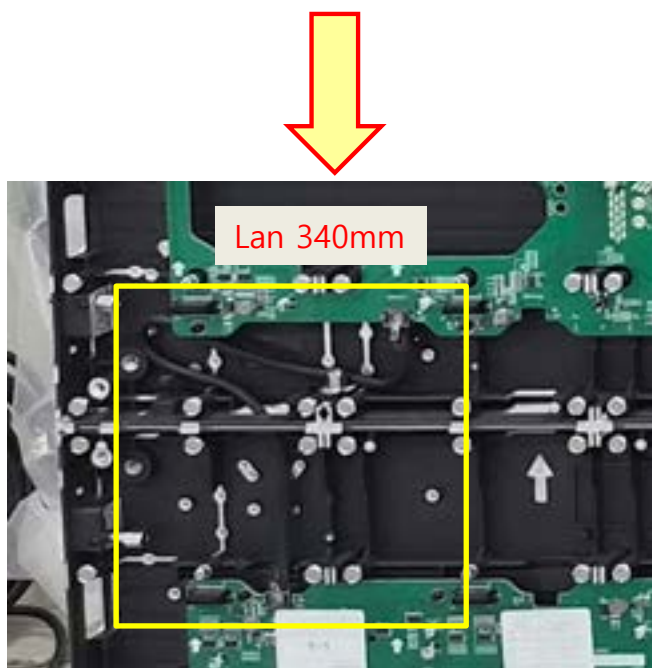
* This resolution is supported only by HDMI 2.0. Since HDMI1 is the HDMI 2.0 port, please use HDMI1 only.

LAN Cabling Setup, cont.

4x4 Configuration



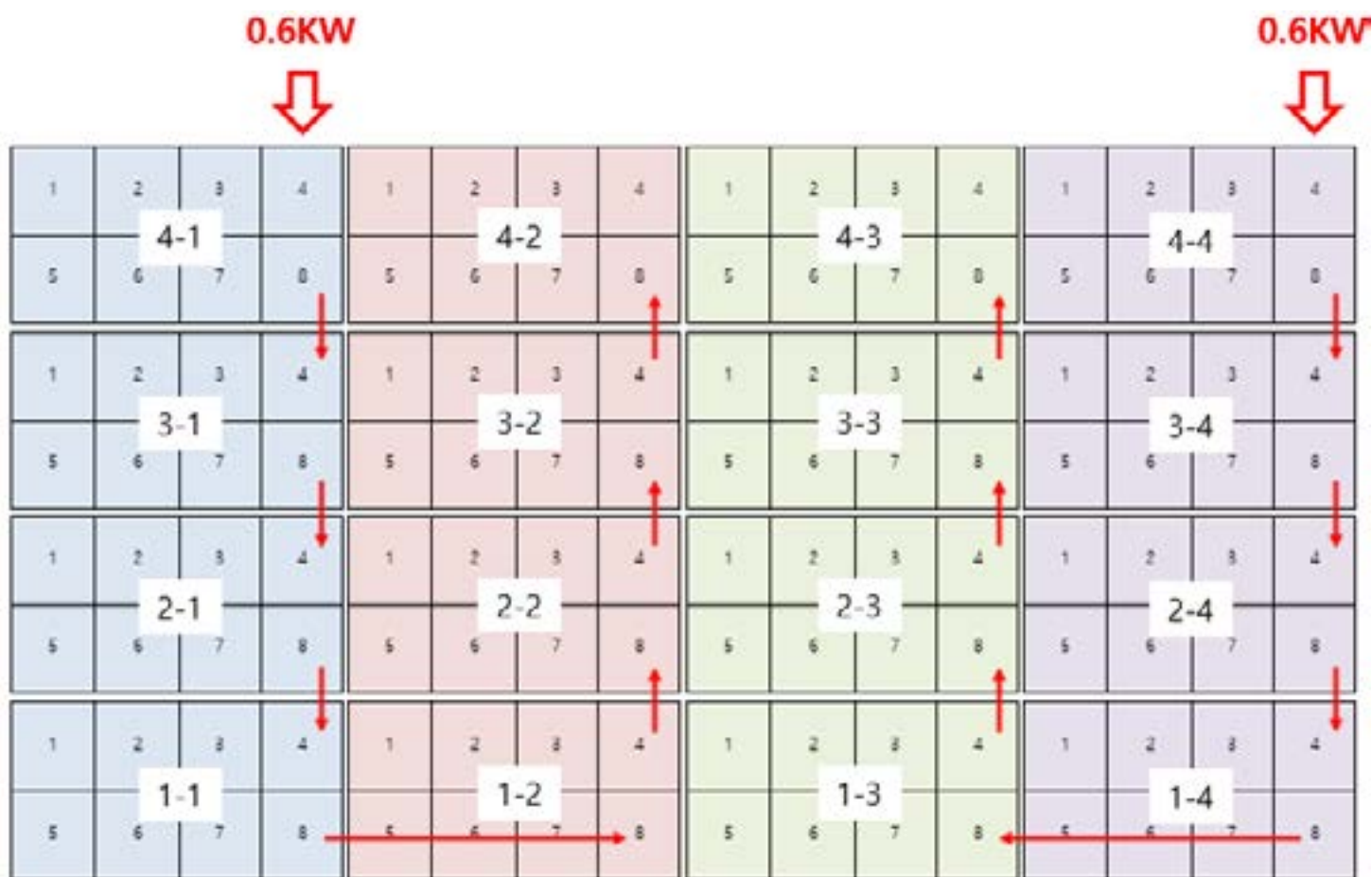
* External LAN Cable (connection between VX1000 Pro and cabinet), Qty. 4: To be prepared locally



* When connecting LAN cables, do not apply excessive force to avoid damage.

AC Power Cabling Setup

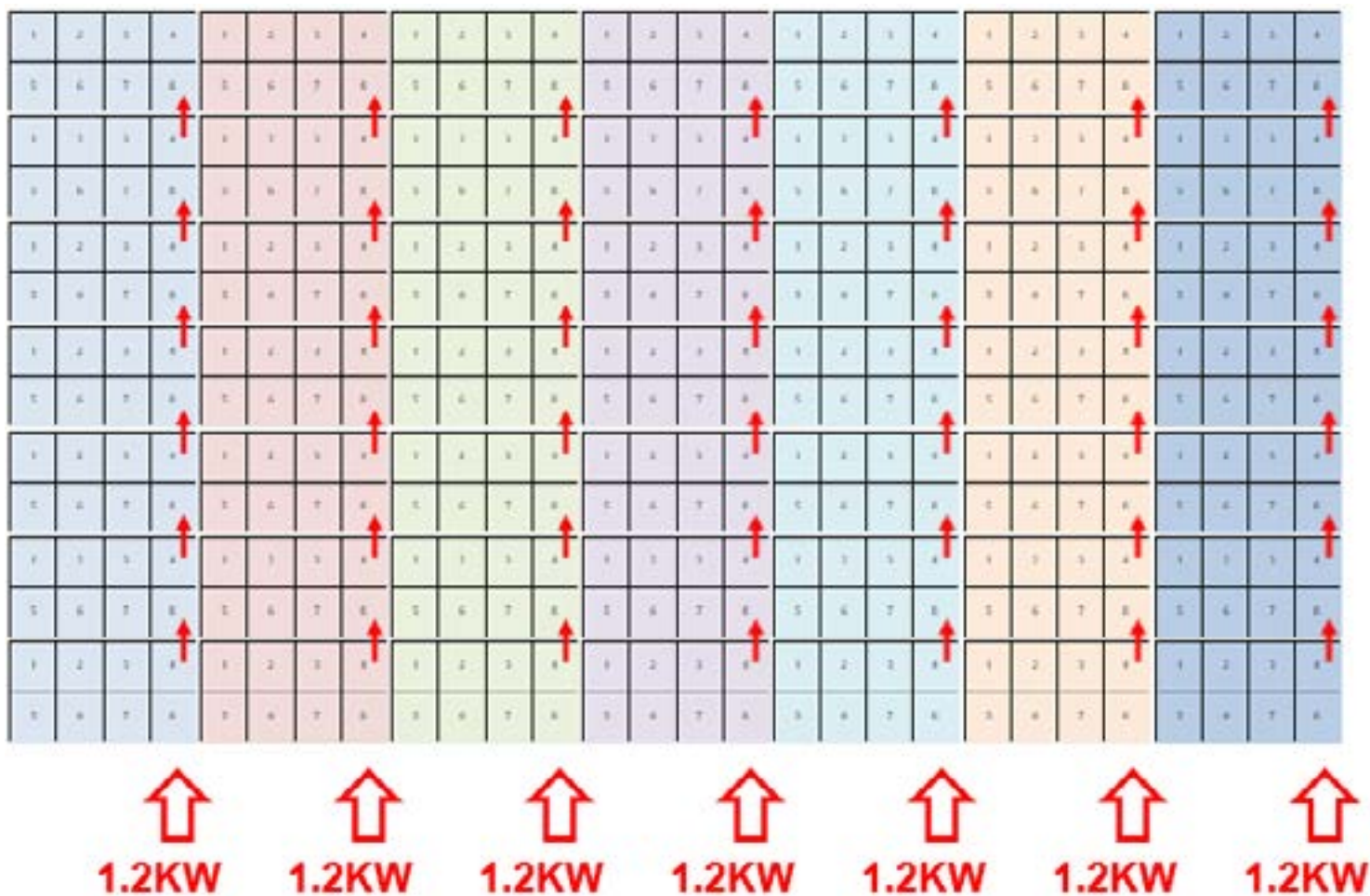
4x4 Configuration



- 0.6 kW AC Power Cable, Qty. 2
- Single-phase 220V 5A circuit breaker required, Qty. 1
- Single-phase 120V 10A circuit breaker required, Qty. 1

AC Power Cabling Setup, cont.

7x7 Configuration



- 1.2 kW AC Power Cable, Qty. 7
- Single-phase 220V 40A circuit breaker required, Qty. 1
- Single-phase 120V 40A circuit breaker required, Qty. 2

Cleaning / Maintenance

Cleaning Precautions

1. Turn off the display and disconnect AC power before cleaning.
2. Allow the display to cool before performing cleaning or maintenance.
3. Use a clean, dry microfiber cloth to gently remove dust from the surface.
4. Do not press directly on the LED surface.
5. Do not spray liquid directly onto the display.
6. Do not use alcohol, ammonia, solvents, abrasive cleaners, or chemical cleaning agents unless approved by GPO Display.
7. Do not use compressed air at close range, as excessive pressure may damage the LED surface or internal components.
8. Keep tools, screws, and hard objects away from the LED modules.

Routine Maintenance

1. Check that all LED modules are seated properly.
2. Inspect the display surface for dust, fingerprints, impact damage, or abnormal marks.
3. Check LAN cables and AC power cables for loose connections, damage, or excessive tension.
4. Confirm that cabinet ventilation areas are not blocked.
5. Confirm that the installation environment remains within the specified operating temperature and humidity range.
6. Store spare modules and service parts in clean, dry, anti-static packaging.

Maintenance Notes

- Maintenance should be performed only by qualified personnel.
- Disconnect power before removing or replacing modules.
- If abnormal heat, odor, flickering, missing image, or physical damage is observed, stop using the display and contact GPO Display or an authorized service technician.

Troubleshooting

Issue	Possible Cause	Recommended Action
No image on entire display	No input signal, controller issue, incorrect input, or power issue	Check source device, HDMI connection, controller power, AC power, and input selection
One cabinet is not displaying	LAN cable disconnected, incorrect signal routing, or controller port mapping issue	Check RJ45 connection, Network IN/OUT routing, and controller port mapping
One LED module is not displaying	Module not fully seated, connector misalignment, or module issue	Remove and reinstall the module carefully. Confirm the module connector is aligned and fully seated
Flickering image	Signal instability, HDMI issue, LAN cable issue, or controller setting issue	Check HDMI cable, controller input resolution, LAN cables, and refresh rate settings
Abnormal color or color mismatch	Calibration data issue, replaced incorrect module, or incorrect controller setting	Check that modules and cabinets are installed in their correct configuration as when factory calibrated and labeled.
Display powers off unexpectedly	Power connection issue, overloaded circuit, or abnormal power condition	Check AC power connections, circuit loading, and power feed configuration
No power to cabinet	AC cable disconnected, circuit breaker tripped, or power feed issue	Check AC input, power feed, breaker, and cabinet power connection
Visible seams or uneven cabinet alignment	Cabinet mounting or alignment issue	Check cabinet alignment, mounting points, and flatness before continuing operation
Module surface damage	Impact, pressure, improper handling, or contact with tools	Stop installation or operation and contact GPO Display for support

Basic Troubleshooting Procedure

1. Confirm AC power is connected and the circuit breaker is on.
2. Confirm the controller is powered on.
3. Confirm the source device is outputting the correct resolution.
4. Confirm the HDMI cable is connected to the correct controller input.
5. Confirm all LAN cables are connected according to the cabling diagram.
6. Confirm all LED modules are fully seated.
7. Display a test pattern to verify cabinet mapping and module operation.
8. Document the issue with photos or video before contacting support.