

User Manual

4K/UHD Commercial Monitors





Before operating the unit, please read this manual thoroughly, and retain it for future reference .

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Notice

1. 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.
2. **WARNING** – To reduce the risk of fire or electric shock, do not expose this appliance to rain or other forms of moisture.
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.

	<div style="background-color: black; color: white; padding: 5px; margin-bottom: 5px;">CAUTION</div> <div style="background-color: #cccccc; padding: 5px;">RISK OF ELECTRIC SHOCK DO NOT OPEN</div>	
<p>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.</p>		



This symbol is intended to alert the user to the presence of insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Clean only with dry microfiber cloth.
7. Use alcohol-free screen cleaner if dry cloth is insufficient.
8. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
9. Do not install near any heat sources such as radiators, heat registers, stoves, or other display (including amplifiers) that produce heat.
10. Do not remove ground prong from three-pronged plugs. If your outlet will not accept three-pronged plugs, consult an electrician for replacement.
11. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the display.
12. Only use attachments/accessories specified by the manufacturer.
13. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the display. When a cart is used, exercise caution when moving the cart/display combination to avoid injury from tip-over.
14. Unplug this display during lightning storms or when unused for long periods of time.
15. Refer all servicing to qualified service personnel. Servicing is required when the display has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the display, the display has been exposed to rain or moisture, does not operate normally, or has been dropped.
16. Do not expose this display to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the display.
17. To completely disconnect this display from the wall outlet, disconnect the power supply cord plug from the AC receptacle/wall socket
18. The mains plug of the power supply cord shall remain readily operable.
19. An display with CLASS I construction shall be connected to a wall socket outlet with a protective grounding connection.
20. Note: Prolonged use of headphones at a high volume may cause damage your ears.
21. Notice to users : This is a Class A digital device
22. This device is designed for commercial use and features safety certificates for electromagnetic interference (EMI). Users should be mindful of EMI issues.

Environmental Conditions for Installation

As the LCD panel is very sensitive to physical impact, installation requires considerable caution. Minimum clearance (20cm) must be secured for smooth ventilation. Installation must avoid air tight or near air tight places. Improper ventilation causes malfunction and shortens product lifetime by rapid internal temperature rise. If Product has to installed at the improper ventilation, additional ventilation openings or fans must be provided to keep the internal temperature between 0~50°C.

- For ground of Product and application devices, it should be connected as frame ground
- Please refer to the special installation instruction guide carefully if the display monitor shall install on not enough solid and/or unevenness surface wall and build into wall.
- Ensure that electrical outlet(s) are capable of supporting this product's power consumption

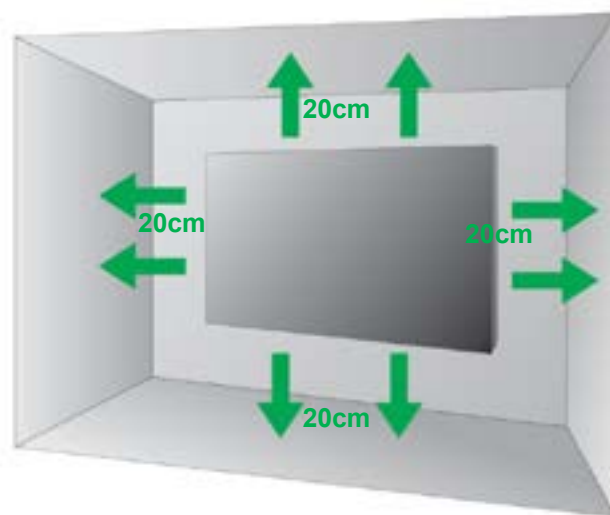
Clearance for Ventilation

When installing the product, make sure there is at least 20cm clearance on all sides for effective ventilation and do not seal the product in an enclosed space.

If the product is installed in a location with poor ventilation, the internal temperature can be raised rapidly and it can cause frequent malfunctions and rapid reduction of the product life.

Embedded Product

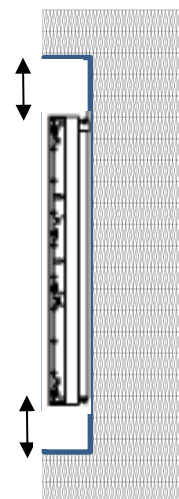
In case of no space of 20cm from each side of the SET, make sure adding cooling fans at the upper part of the set to reduce inner temperature.



Mounting on a Wall Surface

Please secure minimum clearance as shown in the picture for adequate ventilation and technical service.

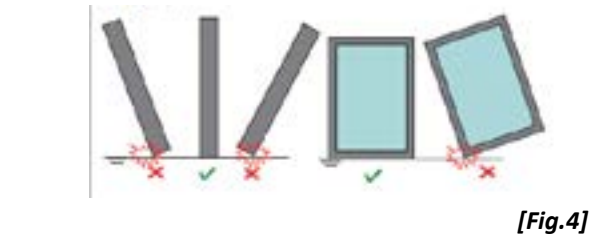
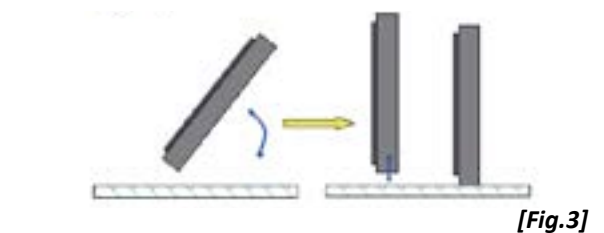
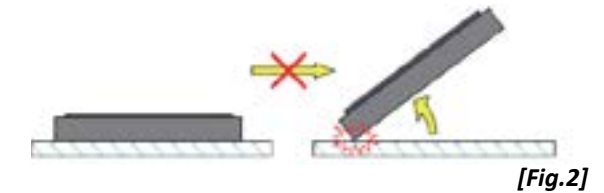
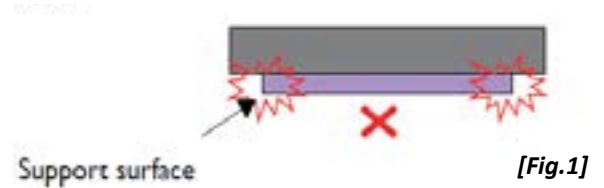
- Ventilation space in front of Product must be furnished for heat dispersion. If the front space of Product has to be sealed, there must be consideration for the heat dispersion in the rear side of Product.



Handling Precautions

To ensure safety, please read this manual carefully before installation and follow the instructions herein. Store this installation guide in a secure place for future reference.

- The video wall must be installed on a flat and level surface which is strong enough to bear its weight.
- Make sure mounting brackets are tightened and secured on the wall
- The Liquid Crystal Display (LCD) panel of the display has a very thin protective layer of coating
- Which is susceptible to marking or scratching and cracking if struck or pressured. Please cover and protect the displays if there is construction or other work being conducted at the installation site.
- Transport and handle displays by holding the handles on the back of the display. Do not exert pressure on LCD panel surface directly to avoid possible scratches and back light leakage
- *Leave a slight (>0.5mm) gap between displays in order to protect your LCD screens from the damage through the direct transfer of weight. See Checking the safe distance between displays on page 6 for details.*



Notes on handling/transporting displays

Commercial display monitors have limited mechanical strength. To prevent the display from performance failure caused by line defects, front bezel bending, glass scratch/broken, light leakage, etc., handle with care.

- At least two (2) adults are required to move & carry displays. More may be required for sizes 75" and larger.
- Retain the original shipping box and packaging in storage for use in the future, when you may need to transport the product.
- When placing the display face (panel side) down:
 - Prepare a flat, level, horizontal surface that is larger than the display and spread a thick protective sheet/foam on it. (Fig. 1)
 - Lay the display down gently and horizontally.
- When you want to place the display in an upright position:
 - Lift the display up horizontally by holding the two (2) handles at the top/rear with one hand per person and supporting the bottom bezel with the remaining hand.
 - * **Do not allow the display to rest/put weight on bezel edges and corners**
 - Be careful not to scratch any parts of the display when placing the display upright. (Fig. 3)
 - Stand the display vertically to make sure the its weight spread evenly throughout the bottom bezel.
 - * **Do not rest on corners or lean forward/back.** (Fig.4)

Storage & Packing

To ensure optimal performance and longevity of your display, it is important to follow the proper storage and packing procedures.

Packing

- Before packing the display, make sure it is turned off and unplugged from the power source.
- Use the original box and packing materials (foam, anti-static bag, edge protectors) that came with the display.
- Place the display inside the foam or anti-static bag.
- Insert the display into the bottom foam inside the bottom box, making sure it fits securely.
- Place the top foam(s) over the display and the top box over it. The box should have a label that indicates which side is the front of the display and the upright position of the box.
- Seal the box with poly straps. Use two straps for the edges of the box. Ideally, you want the straps to be in the same area where the foams are placed inside the box. Use the edge protectors for both the top and bottom of the box. It should be tight enough to prevent the straps from sliding off, but not too tight to cause pressure or deformation.



[Fig.5] Single display strapped onto a pallet.

Palletizing

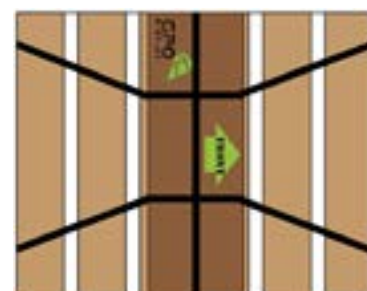
- Use a standard wooden pallet that can support the weight and size of the displays. The pallet should be in good condition and free of nails, splinters, or cracks. The original pallet that the display was shipped with will be the best option.
- Arrange the displays on the pallet in a single layer. If you have more than one display, have the front of the displays facing inward towards the middle of the pallet. This will reduce the risk of damage to the screen during transportation. (Fig. 6)
- Use three straps to secure the displays to the pallet: Two straps going across (same as the boxes) and one down the middle of the display. The straps should be tight enough to prevent the displays from moving, but not too tight to cause pressure or deformation. (Fig. 7)



[Fig.6] Multiple Displays facing inward on a pallet.

Storage

- Store the displays in a cool, dry, and well-ventilated area. Avoid direct sunlight, heat sources, and moisture. (Fig. 8)
- Do not stack the displays on top of each other or place heavy objects on them. This may cause damage to the screen or the internal components.
- If you need to store the displays for a long time, check them periodically for any signs of deterioration or malfunction.
- If you need to transport the displays, use a pallet to avoid any potential damage. Follow the palletizing instructions.

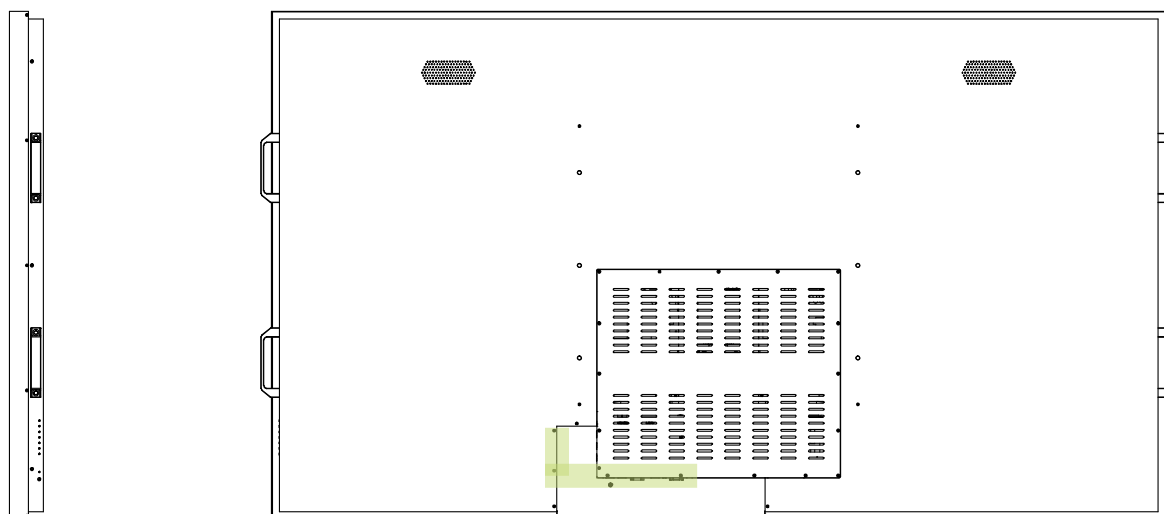


[Fig.7] Top View of strapping on a single display.

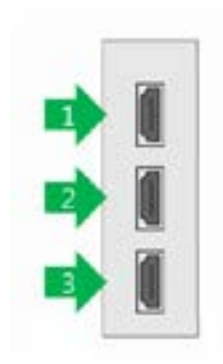
Parameter	Value		Unit
	Min.	Max.	
Operating Temperature	0	50	°C
Operating Ambient Humidity	20	90	%RH
Storage Temperature	-20	60	°C
Storage Humidity	5	90	%RH

[Fig.8] Storage & Operating Parameters of the Display

Mechanical Layout



For larger sizes, side handles are removed after installation.

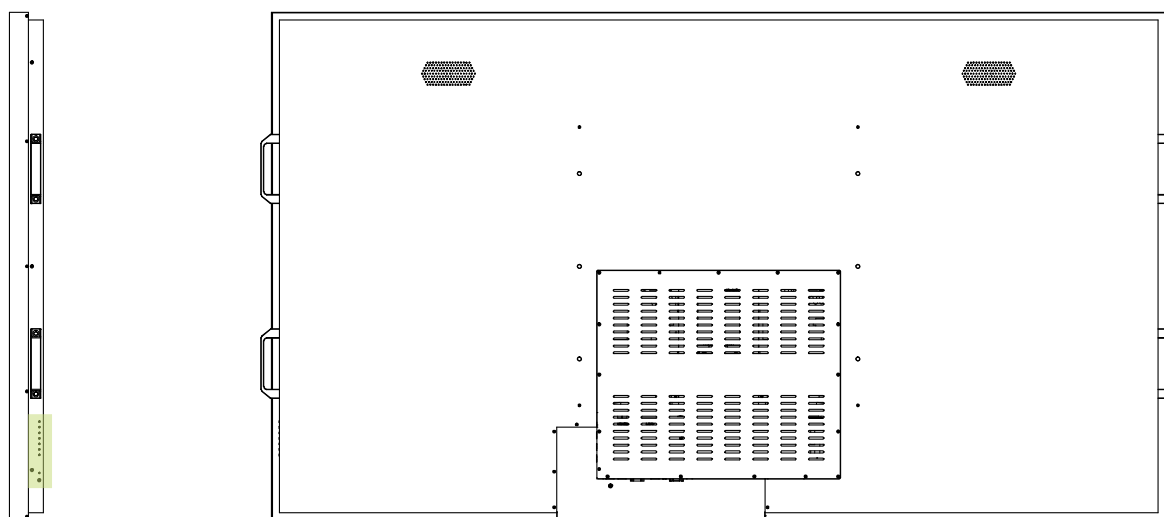


Note: Input/Output configuration shown here applies to sizes 40" and larger.



1	HDMI 1 Input	HDMI Input – up to 3840x2160 @60Hz
2	HDMI 2 Input	HDMI Input – up to 3840x2160 @60Hz
3	HDMI 3 Input	HDMI Input – up to 3840x2160 @60Hz
4	DP 1 Input	Display Port Input – up to 3840x2160 @60Hz
5	DP 2 Input	Display Port Input – up to 3840x2160 @60Hz
6	RS232 Input	Serial Control Input
7	DP Output	DP output for daisy-chain of video input
8	USB	Service Only
9	RS232 Output	Serial Control output for daisy-chain
10	AC Power Inlet & AC S/W	

Mechanical Layout, cont.



LED Indicator Statuses

Status	Color	Operation
Power Off	Red	On
Normal	Blue	On
Not Connected (No Signal)	Blue	Blinking
DPMS	Red	Blinking

OSD Key Button Functions



Key Name	Operation
IR Sensor (1)	Aim the remote control towards this spot on the LCD Display.
LED (2)	LCD Power Status
Power (a)	Turns the LCD Display On/ Off.
Menu (b)	Displays the main On-Screen menu
Source (c)	Select Input Source
Left/Right (d)	Moves from one menu item to another horizontally or adjusts selected menu values. Adjusts the audio volume.
Up/Down (e)	Moves from one menu item to another vertically or adjusts selected menu values.

Remote Control Key



1. SOURCE : Selects Input Source
2. POWER : Turns the LCD Display On and Off
3. UP : Controls the UP cursor in the menu
4. LEFT : Controls the LEFT cursor in the menu
5. RIGHT : Controls the RIGHT cursor in the menu
6. ENTER : Controls the ENTER cursor in the menu
7. DOWN : Controls the DOWN cursor in the menu
8. MENU : Displays the main On-Screen menu
9. EXIT : Exit the On-Screen menu

Note: This remote key applies to sizes 40" and larger.

Menu Overview

Most menus consist of three levels to set up the options, but some require greater depth for the variety of settings. If you press the **MENU** button, up to the third level of the menu system will appear on the monitor screen. The fourth level can be displayed by pressing the **OK** button

◇ To show and remove the Menu:

Press the **MENU** button on the Remote Control to display the menu. A second press of the **MENU** button or a press of the **EXIT** button will take you back to monitor viewing.

◇ To go to the next level:

Press **OK** (or Right arrow button) on the Remote Control.

◇ To go back to the previous level:

Press **MENU** (or Left arrow button) on the Remote Control.

◇ To go to the next menu:

Press **Down arrow** button on the Remote Control.

◇ To go to the previous menu:

Press **Up arrow** button on the Remote Control

Luminance > Brightness

1. Press the [MENU] button.
2. Press the [Enter] button to move to the "Luminance" menu.
3. Press the [Enter] button to move to "Brightness", and then press the [Enter] button.
4. Press the ←/→ button to adjust the value and press the [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.



Luminance > Contrast

1. Press the [MENU] button.
2. Press the [Enter] button to move to the "Luminance" menu.
3. Press the ↑/↓ button to move to "Contrast" and press the [Enter] button.
4. Press the ←/→ button to adjust the value and press the [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.



Menu Overview, cont.

Luminance > Dim Control



1. Press the [MENU] button.
2. Press the [Enter] button to move to "Dim Control" and press the [Enter] button.
3. Dim Control Setting: On - Off
 - a. Press ↑ / ↓ button to go to "Auto Dimming".
 - b. Press ← / → button to adjust to desired setting value and press [Enter] button.
 - On: automatically adjusts the Dim level according to the measured value of the optional LUX sensor.
 - Off: AUTO Dimming operation Off
4. Monitor displays the current dimming value
 "Dimming": Display the current dimming value of the monitor (can be adjusted when Auto Dimming Off)
5. Maximum ambient brightness setting
 - a. Press ↑ / ↓ button to move to "Max Ambient"
 - b. Press ← / → button to adjust to desired setting value and press [Enter] button.
6. Minimum ambient brightness setting
 - a. Press ↑ / ↓ button to move to "Min Ambient".
 - b. Press ← / → button to adjust to desired setting value and press [Enter] button.
7. LUX sensor measurement display
 "Current LUX": Displays the measured brightness of the LUX sensor (if used).
8. Press the [EXIT] button to exit the OSD menu.
 - Ex) Auto Dimming Setting: On Setting
 - Max Ambient : 400 settings
 - Min Ambient : 100
 - Current LUX 100 or less : Minimum Brightness,
 - Current LUX 400 or higher: Maximum Brightness
 - Current Lux 300 : Display brightness proportional to the ratio between 100 and 400

Menu Overview, cont.

Luminance > Main SR (Sharpness)

1. Press the [MENU] button.
2. Press the [Enter] button to move to the "Luminance" menu.
3. Press the ↑ / ↓ button to move to "Main SR" and press the [Enter] button.
4. Press the ↑ / ↓ buttons to select the desired setting, then press the [Enter] button.



Color

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the "Color" menu.
3. Press the [Enter] button to move to "Color Temperature", and then press the [Enter] button.
4. Press the ↑ / ↓ button to select the desired screen mode and then press the [Enter] button.
5000K, 6500K, 7500K, 8200K, 9300K, 11500K, sRGB, User Define
 - a. When "User Define" mode is selected, Red, Green, Blue can be adjusted to the desired setting value.
 - b Press ← / → button to adjust to the desired setting value and press [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.



Menu Overview, cont.

OSD Settings

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “OSD Settings” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to the desired menu and press the [Enter] button.
4. Press the ← / → button to adjust the value and press the [Enter] button.
 - Horizontal: Adjust the position of the OSD menu screen to the left and right.
 - Vertical: Adjusts the position of the OSD menu screen up and down.
 - Transparency: OSD menu screen transparency adjustment.
 - OSD Time Out: OSD menu screen hold time.
5. Press the [EXIT] button to exit the OSD menu



Setup > Language

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Setup” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “Language” and press the [Enter] button.
4. Press the ↑ / ↓ button to select the desired language.
5. Press the [EXIT] button to exit the OSD menu.



Menu Overview, cont.

Setup > Mute

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Setup” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “Mute” and press the [Enter] button.
4. Press the ↑ / ↓ buttons to select the desired setting, then press the [Enter] button.
Off, On
5. Press the [EXIT] button to exit the OSD menu.



Setup > Input

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Setup” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “Input” and press the [Enter] button.
4. Press the ↑ / ↓ button to select the desired input signal and press the [Enter] button.
HDMI 1, HDMI 2, HDMI 3, DP 1, DP 2
5. Press the [EXIT] button to exit the OSD menu



Setup > Display Size

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Setup” menu and press the [Enter] button
3. Press the ↑ / ↓ button to move to “Display Size” and press the [Enter] button.
4. Press the ↑ / ↓ button to select the desired screen size and then press the [Enter] button.
Smart Screen, Smart Fit, 4: 3, Smart 4: 3, 1: 1, Smart View
5. Press the [EXIT] button to exit the OSD menu.



Menu Overview, cont.

Setup > Reset *(restores settings to factory default)*

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Setup” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “Reset” and press the [Enter] button.
4. Press the ↑ / ↓ buttons to select the desired setting, then press the [Enter] button. No, Yes
5. Press the [EXIT] button to exit the OSD menu



Setup > DP Speed

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Setup” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “DP Speed” and press the [Enter] button.
4. Press the ↑ / ↓ buttons to select the desired setting, then press the [Enter] button. 2.7G, 5.4G
5. Press the [EXIT] button to exit the OSD menu.
Note: Set to 5.4G when 4k/60Hz signal is daisy-chained, 2.7G when other signals are used.



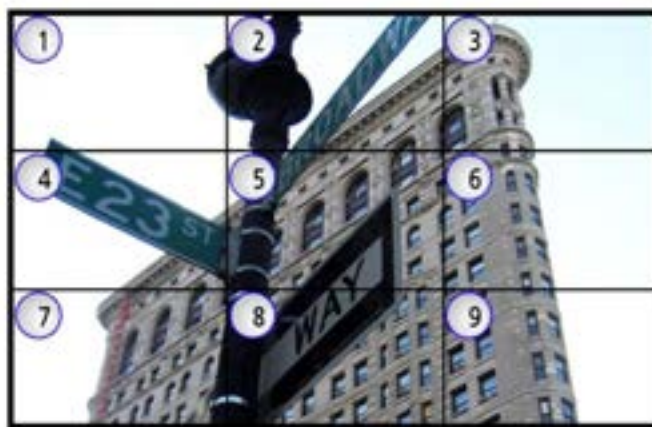
Setup > Audio Src.

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Setup” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “Audio Src” and press the [Enter] button.
4. Press the ↑ / ↓ buttons to select the desired setting, then press the [Enter] button.
HDMI 1, HDMI 2, HDMI 3, DP 1, DP 2
5. Press the [EXIT] button to exit the OSD menu.



Menu Overview, cont.

Multi-Vision > Display Sequence



1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Video Wall” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “Display Sequence” and press the [Enter] button.
4. Press the ← / → button to adjust the value and press the [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.
 - Display Sequence: Display setting of multi vision (1 ~ 100)

Multi-Vision > H Set Count

This value adjusts the number of sets horizontally in a video wall array.

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Video Wall” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “H Set Count”, and then press the [Enter] button.
4. Press the ← / → button to adjust the value and press the [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.
 - H Set Count (Horizontal Set Count): Set horizontal size of multi vision (1 ~ 10)



Ex: H Set Count 3

Menu Overview, cont.

Multi-Vision > V Set Count

This value adjusts the number of sets vertically in a video wall array.

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Video Wall” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “V Set Count”, and then press the [Enter] button.
4. Press the ← / → button to adjust the value and press the [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.
 - V Set Count (Vertical Set Count): Vertical size setting of Multi Vision (1 ~ 10)



Ex: V Set Count 3

Multi-Vision > H Edge Adjust

Adjusts horizontal bezel gap compensation.

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Video Wall” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “H Edge Adjust”, and then press the [Enter] button.
4. Press the ← / → button to adjust the value and press the [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.
 - H Edge Adj (Horizontal Edge Adjust): Horizontal Gap setting of multi-vision (0 ~ 70)



Menu Overview, cont.

Multi-Vision > V Edge Adjust

Adjusts vertical bezel gap compensation.

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Video Wall” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “V Edge Adjust”, and then press the [Enter] button.
4. Press the ← / → button to adjust the value and press the [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.
 - V Edge Adj (Vertical Edge Adjust): Multi Vision vertical Gap setting (0 ~ 70)



Miscellaneous > Set ID

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the “Miscellaneous” menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to “Set ID”, and then press the [Enter] button.
4. Press the ← / → button to adjust the value and press the [Enter] button.
5. Press the [EXIT] button to exit the OSD menu.
 - Set ID: Set control ID of the product (1 ~ 100)



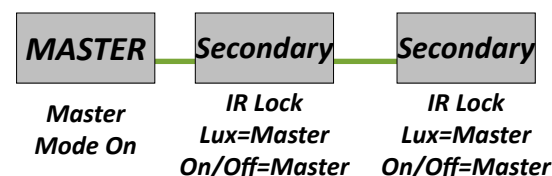
Menu Overview, cont.

Miscellaneous > Master Mode

Allows for control of multiple displays via IR remote controller.

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the "Miscellaneous" menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to "Master Mode" and press the [Enter] button.
4. Press the ← / → button to adjust the value and press the [Enter] button.
 - a. On: The rear monitor except the master set is used for remote control lock. Automatically adjusts the brightness of the rear monitor according to the Dimming value of Master Set.
Master Set Power On / Off, rear monitor Power On / Off
 - b. Off: Disable Master Mode. Monitor can be individually controlled
5. Press the [EXIT] button to exit the OSD menu.

*Note: The Master Set must be set as the starting point monitor of RS232C Daisy Chain.



Miscellaneous > Time Setting

1. Press the [MENU] button.
2. Press the ↑ / ↓ button to move to the "Miscellaneous" menu and press the [Enter] button.
3. Press the ↑ / ↓ button to move to "Time Settings" and press the [Enter] button.
4. Current Time Setting: "Current Time" "Hour - Minute - Second"
 - a. Press the ↑ / ↓ button to move to "00: 00: 00" in "Current Time" and press the [Enter] button.
 - b. Press the ↑ / ↓ button to adjust the value and press the [Enter] button.
5. On Time Setting: "On Time" "Hour - Minute - Second"
 - a. Press the ↑ / ↓ button to move to "One Time" and press the ← / → button to adjust to the desired setting value. On, Off
 - b. Press the ↑ / ↓ button to move to "00: 00: 00" and press the ← / → button to adjust to the desired setting value.
6. Off time setting: "Off Time" "hour - minute - second"
 - a. Press the ↑ / ↓ button to move to "Off Time" and press the ← / → button to adjust to the desired setting value. On, Off
 - b. Press the ↑ / ↓ button to move to "00: 00: 00" and press the ← / → button to adjust to the desired setting value.
7. Press the [EXIT] button to exit the OSD menu.



Input / Output Port Descriptions (40" & Larger)

Items		Specifications
Supported Signal Connection	HDMI 1	H Frequency Range : 20 ~ 82kHz
		V Frequency Range : 55 ~ 75kHz
		Maximum resolution : 3840x2160@60Hz
		Maximum pixel rate : 594 MHz
	HDMI 2	H Frequency Range : 20 ~ 82kHz
		V Frequency Range : 55 ~ 75kHz
		Maximum resolution : 3840x2160@60Hz
		Maximum pixel rate : 594 MHz
	HDMI 3	H Frequency Range : 20 ~ 82kHz
		V Frequency Range : 55 ~ 75kHz
		Maximum resolution : 3840x2160@60Hz
		Maximum pixel rate : 594 MHz
	DP1 1.2a	H Frequency Range : 20 ~ 82kHz
		V Frequency Range : 55 ~ 75kHz
		Maximum resolution : 3840x2160@60Hz
		Maximum pixel rate : 594 MHz
	DP2 1.2a	H Frequency Range : 20 ~ 82kHz
		V Frequency Range : 55 ~ 75kHz
		Maximum resolution : 3840x2160@60Hz
		Maximum pixel rate : 594 MHz
	DP Out 1.2a	H Frequency Range : 20 ~ 82kHz
		V Frequency Range : 55 ~ 75kHz
		Maximum resolution : 3840x2160@60Hz
		Maximum pixel rate : 594 MHz
Input Connection	HDMI	3
	DP	2
	Comport (RS232C)	1 / 9 Pin Female Type
Output Connection	DP	1
	Comport (RS232C)	1/ 9 Pin Male Type

Supported Signal Resolution

Resolution	H Frequency (Khz)	Pixel Clock (Mhz)
640x480 @60Hz	31.5	25.1
640x480 @75Hz	37.5	31.5
800x600 @56Hz	35.1	36.0
800x600 @60Hz	37.9	40.0
800x600 @75Hz	46.9	49.5
1024x768 @60Hz	48.4	65.0
1024x768 @70Hz	56.5	75.0
1024x768 @75Hz	60.0	78.75
1152x864 @75Hz	67.5	108.0
1280x960 @60Hz	60	108.0
1280x1024 @60Hz	64.0	108.0
1280x1024 @75Hz	80.0	135.0
1360x768 @60Hz	47.7	86.5
1440x900 @60Hz	55.5	88.75
1680x1050 @60Hz	64.7	119.0
1600x1200 @60Hz	75.0	162.0
1920x1080 @60Hz	67.5	148.5
1920x1200 @60Hz	74.0	154.0
2560x1600 @60Hz	98.7	268.5
3840x2160 @30Hz	65.9	338.75
3840x2160 @60Hz	133.3	533.25