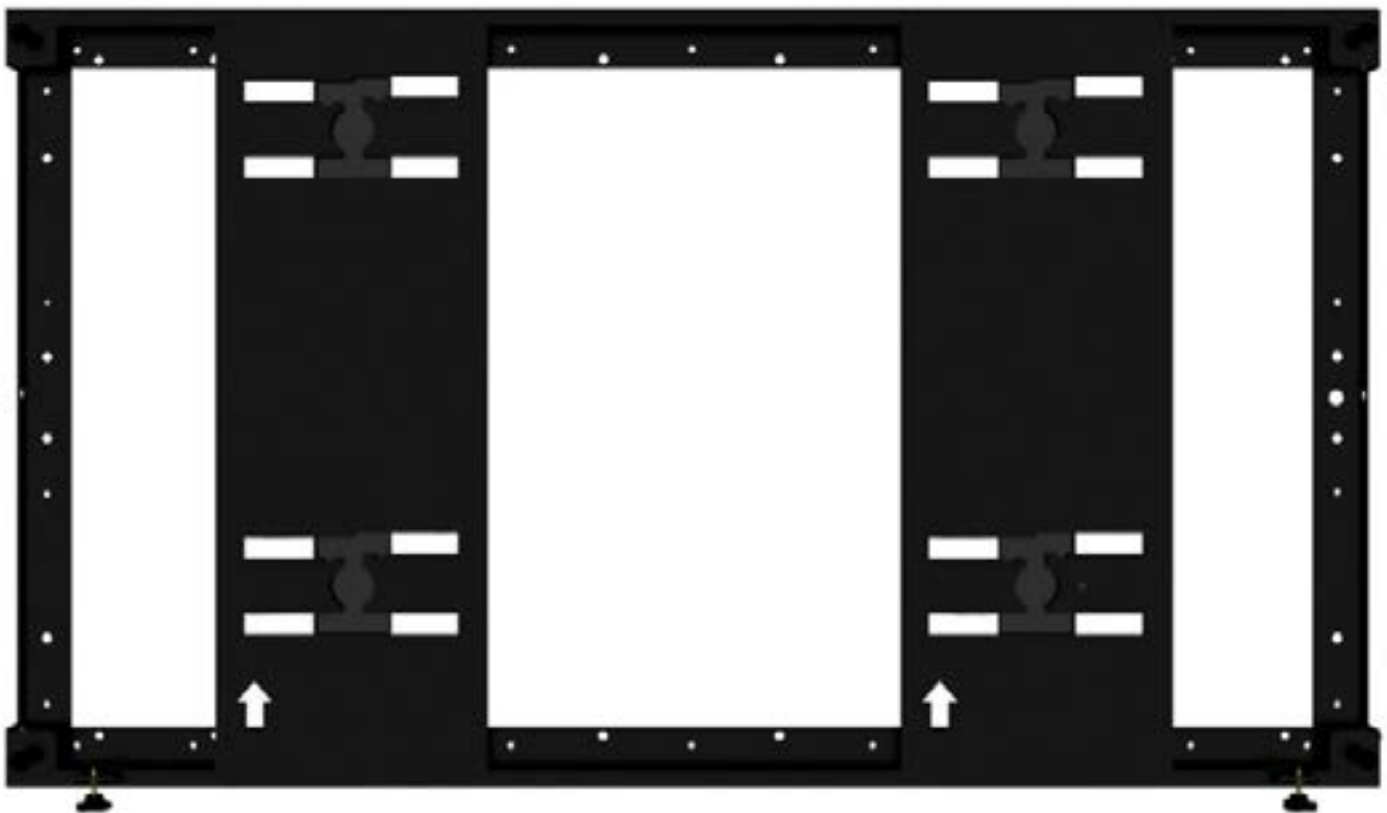


Installation Manual

H-Mount



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

Table of Contents

Warning	4
Precautions	4
Notes on handling/transporting displays	5
A minor gap between monitors is required	6
Best practices for maintaining long-term quality	7
Dimensions Required	7
Preparations	8
Structure for the Installation	8
Power Requirements	8
Heat Dissipation Requirements	8
Product Description	8
Dimensions and Weight	8
Components for Installation	9
Suggested Tools for Installation	9
Supporting Documents and Software	9
Suggested Tools for Installation	10
HLM49T Device Placement	10
HLM55T, HLM55TX, & HLM55TR Device Placement	10
Tip: Third Party Player Placement	10
Preparations: Wall Mounting	11
Reinforcement Frame Installation	11
Plywood-Backed/Flat wall surface Installation	12
Mount Installation	13
Step 1	13
Step 2	14
Step 3	15
Step 4	16
Display Mounting	17
Step 1	17
Step 2	17
Step 3	18
Step 3, cont.	19

Alignment **20**

Step 1	.....	20
Z-Axis	.....	20
Y-Axis	.....	21
X-Axis	.....	22
Step 2	.....	23
Side Covers	.....	24

Display Dismounting **25**

Example: Dismounting Set ID #9	25
--------------------------------	-------	----

Cabling Setup **26**

Precaution for Cable Connections	.....	26
Daisy Chain Connection Limit	.....	26
Connecting RS232 Cables: Daisy-Chain Connection	.....	27
Connect Video Cables –	.....	28
NEX-Series Daisy Chain	.....	28
NSV & EN-Series Daisy Chain	.....	29
Connecting ACR (Auto Condition Reporting System)	.....	30

Device Placement **31**

HLM49T	.....	31
HLM55T	.....	32

Warning

Severe personal injury and property damage can result from improper installation or assembly. Read the following warnings before beginning.

Do not use this product for any purpose not explicitly specified by GPO Display. Improper installation may cause property damage or personal injury. If you do not understand these directions, or have doubts about the safety of the installation, contact GPO Display tech support or call a qualified contractor. GPO Display is not liable for damage or injury caused by incorrect mounting, assembly, or use.

If mounting to wood wall studs, make sure that mounting screws are anchored into the center of the studs. Use of an "edge to edge" stud finder is highly recommended.

Tighten screws firmly, but do not over-tighten. Over-tightening can damage or warp the items, greatly reducing their holding power and negatively affecting display alignment.

This product is intended for indoor use only. Use of this product outdoors could lead to product failure and personal injury

For walls made of other materials, such as hollow bricks, please consult your installer and/or specialist

Precautions

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

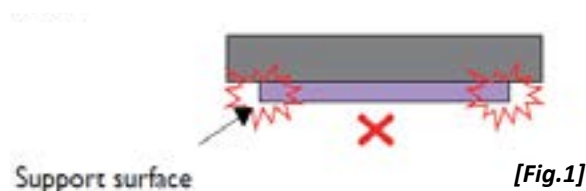
- The video wall must be installed on a flat and level surface which is strong enough to bear its weight.
- Make sure mounting brackets are tightened and secured on the wall.
- The Liquid Crystal Display (LCD) panel of the display has a very thin protective layer of coating which is susceptible to marking 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 touch the LCD panel surface directly to avoid possible scratches and back-light leakage.
- Leave a slight ($\geq 0.5\text{mm}$) gap between displays in order to protect your LCD screens from the damage through the direct transfer of weight.

Precautions, cont.

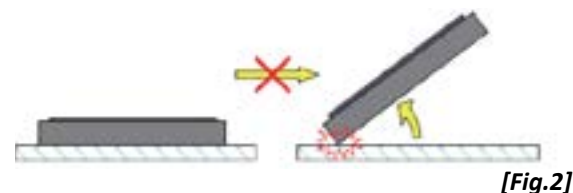
Notes on handling/transporting displays

LCD video wall monitors have limited mechanical strength. To prevent performance failure caused by line defects, front bezel bending, panel scratch/breakage, light leakage, etc., displays must be handled with care.

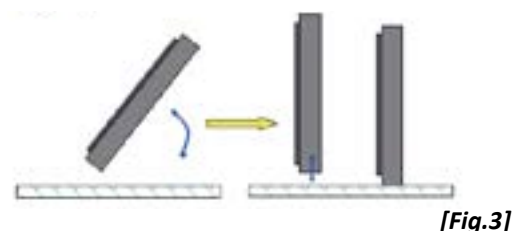
- Always have at least two (2) adults supporting the display when moving/carrying.
- Retain the original shipping box and packaging in storage for use in the future, when you may need to transport the product.
- When placing the display face (panel side) down:
 - ◊ Prepare a flat, level, horizontal surface 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 (Fig. 2)
 - ◊ Be careful not to scratch any parts of the display when placing the display upright. (Fig. 3)
 - ◊ Stand the display vertically to make sure its weight spread evenly throughout the bottom bezel. Do not rest on corners or lean forward/back. (Fig.4)



[Fig.1]



[Fig.2]



[Fig.3]

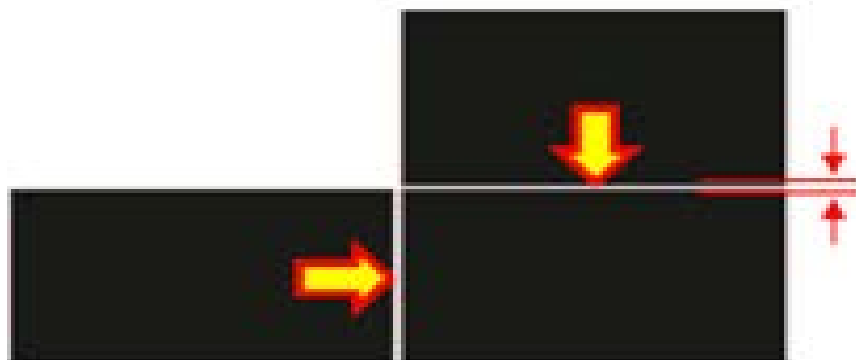


[Fig.4]

Position	Diagram/Photo	Precaution	Possible Damage
		DO NOT APPLY PRESSURE TO THESE AREAS	IC damage and CDF Lead Crack
		DO NOT APPLY PRESSURE TO THESE AREAS	IC damage and CDF Lead Crack
		DO NOT BEND/APPLY PRESSURE	Backlight leakage, deformation of bezel
		DO NOT BEND/APPLY PRESSURE	Backlight leakage, deformation of bezel

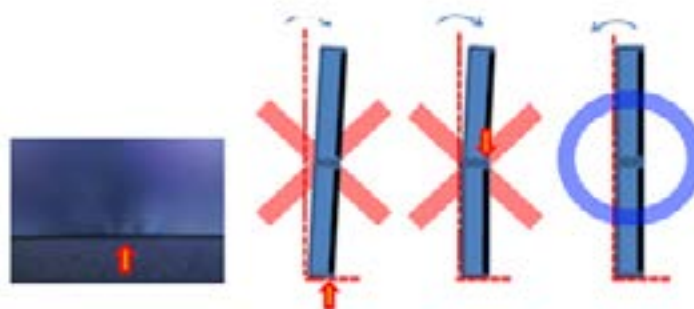
Precautions, cont.

A minor gap between monitors is required

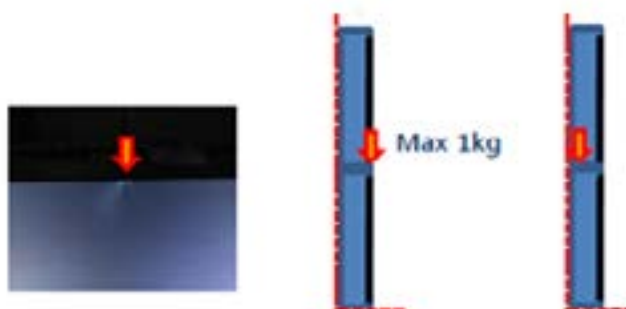


High temperatures can cause slight expansion of panels. If there is no space between panels, damage may occur as a result of pressure resulting from the expansion of adjacent panels into one another.

Please ensure that there is a $\geq 0.5\text{mm}$ gap between the displays. This can easily be checked by sliding a standard business card between the gap (if there is no resistance, the gap is sufficient).



Do not tilt displays in a manner that would result in pressure on the panel edges. If back-light leakage (as shown below) is evident, this is a sign of excessive pressure and adjustment to the alignment of the array must take place.



If more than 1kg of weight is applied to the top bezel of a panel (as illustrated to the right), back-light leakage will result. This is a sign that the panel alignment/angle must be adjusted or other countermeasures must be applied.

Precautions, cont.

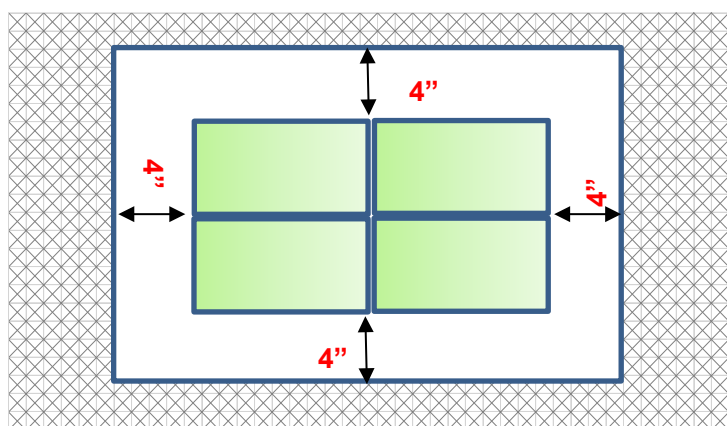
Best practices for maintaining long-term quality

- Keep temperature within 32°F ~ 104°F (Mandatory)
- Follow Ventilation requirements
- Keep panel usage under 20 hours per day in order to extend the stability and performance of the panel to longer than what is shown on the product specification table.
- Avoid displaying static images for prolonged periods of time.
- Avoid content with significant brightness differences.

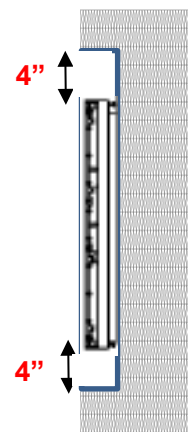
Dimensions Required

Dimensions in fig. 5 are minimum required for proper ventilation and movement of displays within H-Mount structure.

- Clearance Spec: 4" (Left/Right), 4" (Top), 4" (Bottom)



[Fig. 5]



** Note: 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.*

Preparations

Structure for the Installation

The structural design and construction for the display installation is the customer's or its installer's responsibility. GPO Display does not take any responsibility on design or construction of installations. The minimum requirements for space, strength of the structure, electronic, heat dissipation and environmental condition is described in this manual. If any further information or support is needed from GPO Display, please contact us in advance to ensure ample time for support. We will be glad to help with any recommendations or information.

Call 510-659-9855 x1 or e-mail support@gpodisplay.com.

Power Requirements

Please refer to the specifications for power consumption of displays to be installed. Do not plug more than two units into a given receptacle (example: all displays in 2x2 should not be plugged into quad receptacle. Using more than 70% of current on the AC circuit is strongly discouraged. Clean AC power is required for "noiseless" screen images. Avoid damages inflicted by power glitches or surges- either a power conditioner or surge protector is recommended. Contact your electric power specialist for consultation.

Heat Dissipation Requirements

The range of LCD operational conditions are:
 Temperature: 32°F ~104°F Humidity : 20 ~ 80%

- Consult with the display user manual for BTU ratings.

Product Description

Verify wall mount model name and check dimensions and weight below.

Dimensions and Weight

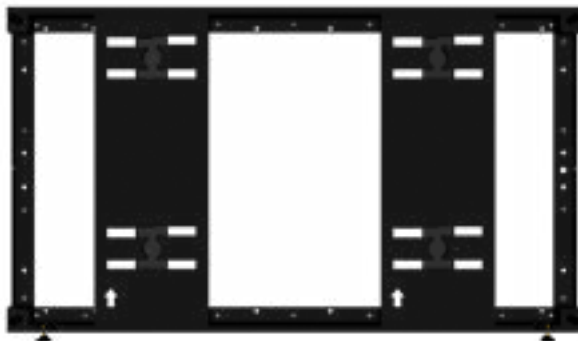
Model	Dimension (W x H x D)	Weight
ZLM46T	40.24 x 22.7 x 2.13 in	25lbs
HLM46TE	40.16 x 22.63 x 2.13 in	25lbs
HLM49T	42.42 x 23.93 x 2.13 in	30lbs
HLM49TE	42.35 x 23.86 x 2.13 in	30lbs
HLM55T	47.76 x 26.93 x 2.13 in	37lbs
HLM55TE	47.7 x 26.86 x 2.13 in	37lbs
HLM55TX	47.7 x 26.86 x 2.13 in	37lbs
HLM55TR	47.66 x 26.84 x 2.17 in	37lbs

* Note: Models highlighted in red are no longer in production as of 2023.

Preparations, cont.

Components for Installation

Open all packages and take stock of the contents. Make sure all materials are present and there is no visible damage.



Wall Mount



Side Cover (Trim)



USER MANUAL



BOLT (M8*20L)



M8 NUT



SCREW (FH M 4*8L)
(for Side Covers)



SCREW (BH T 4*20L)



Y-Knob



Z-Bolt

Suggested Tools for Installation

- Laptop with USB to RS232 adapter
- Drill w/ metal, wood, and mortar bits
- Phillips head screwdriver
- Tape Measure
- Level
- Socket Set
- Wrench set
- Shims (metal or wooden for alignment adjustment when a wall is uneven)
- Cable ties for final cable dressing
- Screen cleaner and lint-free cloth for final cleanup

* This is a bare minimum list – review statement of work to determine all tools needed.

Supporting Documents and Software

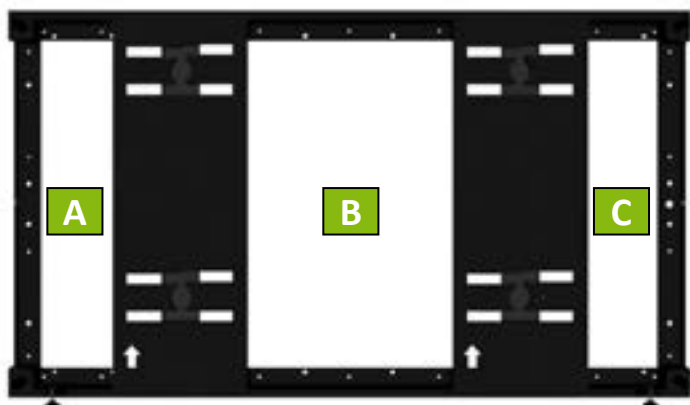
- Display Manual
- Serial Command Protocol and video wall control program (varies by video wall series)
- ACR Manual (if applicable)
- Wall Mount Drawing

Preparations, cont.

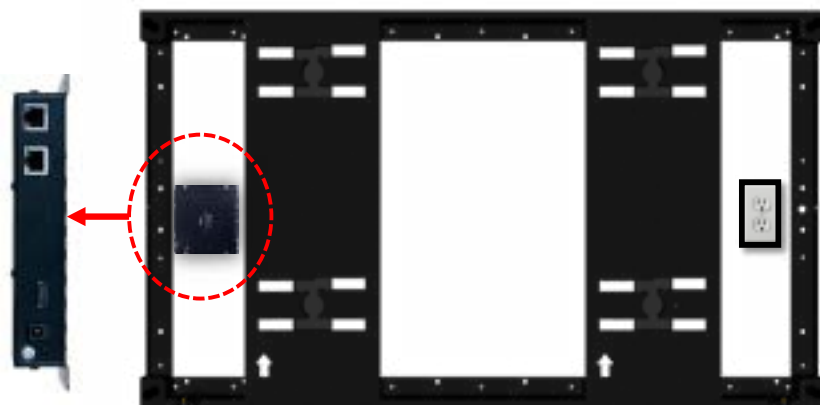
Suggested Tools for Installation

See fig. 6 for recommended position of recessed power outlets (B is the ideal location for power outlets for 46-49" models). Outlets which are level with the surrounding wall surface may lead to obstruction of the side-to-side movement of displays within the mount structure. Position A is the ideal position for any third-party devices (receivers, decoders, media players, etc.). There is ~2" depth to work with on both sides (positions A & C).

- Recommend recessed power outlet positions: B : 46" & 49", A or C : 55"
- Recommend Receiver / Decoder / Media Players Positions: A or C .



[Fig. 6]



Devices (Receiver/decoder, Distribution Amplifier, etc.)

[Fig. 7]

HLM49T Device Placement

A & C zone: 3.5 x 15 x 2.2" (Depth) for Third party placement.

In fig.6 the area outlined in red (6" x 15") is available if the device is under 1.8" in depth

B zone: 10 x 15 x 2.2" (Depth) for Power Outlet

HLM55T, HLM55TX, & HLM55TR Device Placement

A & C zone: 5 x 15 x 2.2" (Depth) for Third party placement.

In fig.6 the area outlined in red (8" x 15") is available if the device is under 1.8" in depth

B zone: 10 x 15 x 2.2" (Depth) for Power Outlet

Tip: Third Party Player Placement

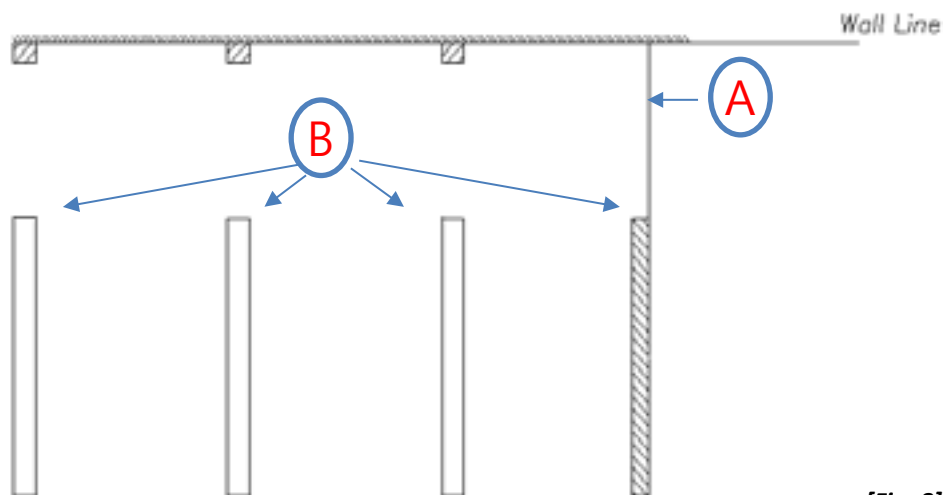
Device inputs/output terminals should be positioned facing to the left, as shown in fig. 7.

Preparations: Wall Mounting

Reinforcement Frame Installation (if applicable)

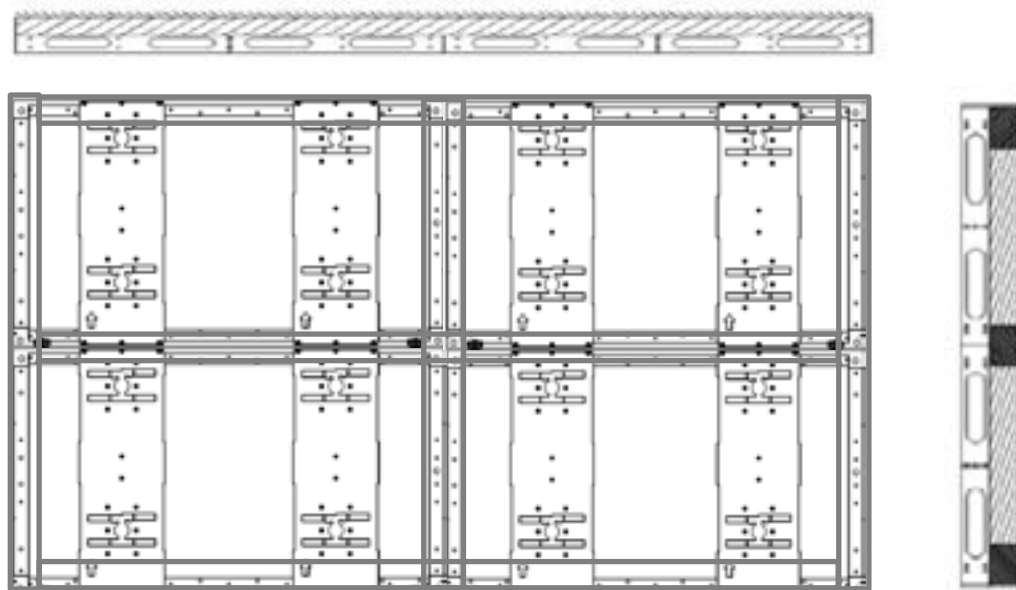
A: Wall

B: Secure wooden 2x4 or 2x6, or metal framing (4 X 1 T) to the wall as shown in fig. 8.



[Fig. 8]

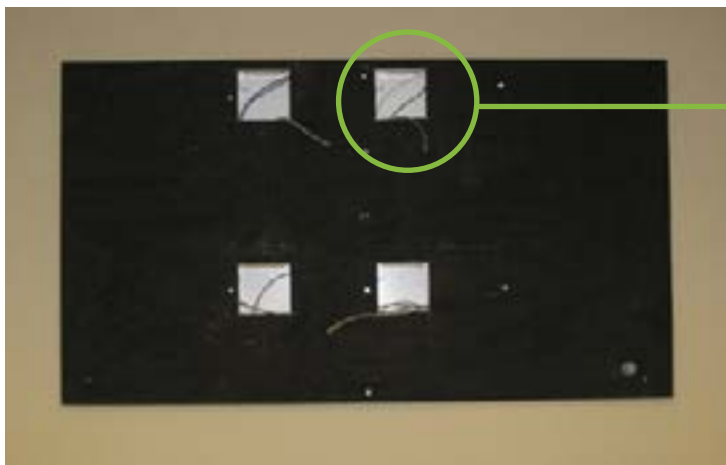
1. Construct the reinforcement frame to match specifications set forth by GPO Display.
2. Continue constructing the reinforcement frame, adding cross bar supports where necessary.
3. Affix wall mounts to reinforcement frame as shown in the image to the right. Be sure to bolt the mounts to one another using the M8 bolts provided by GPO Display. Be sure to use uniform torque when doing so.



Preparations: Wall Mounting, cont.

Plywood-Backed/Flat wall surface Installation (if applicable)

1. Affix 3/4" plywood to the wall. Power outlets must be recessed. Outlets which are level with the surrounding wall surface may lead to obstruction of the side-to-side movement of the screens within the mount structure.



When plywood backing is used, ensure that there are holes of sufficient size to run all necessary cabling.

2. Affix H-mounts in the manner shown in fig. 9, following the steps set forth in previous pages of this manual.
3. Assemble the mounts (affix to one another using interconnecting M8 bolts) and ensure that they are level, as instructed previously in this manual.



[Fig. 9]

Mount Installation

To install GPO Display's displays in video wall configuration, please read the installation directions carefully before installation is performed. These monitors can be installed for single display "standalone" operation, in a single row, or in multiple rows.

The highest Display Sequence number is 99. Contact GPO Display for arrays comprised of more than 99 displays.

A 3x3 array will be used as an example on [p. 14](#).

Contact GPO Display if you are unsure about how to apply these instructions and concepts to other video wall array configurations.

Step 1

Preparations

- Verify that installation location is ready (power, network, wall reinforced, adequate ventilation, coax cable if being installed).
- Verify all necessary tools are ready to use.
- Open all packages and lay everything out. Make sure all materials are present and there is no visible damage.

** Note: RS232 Cables must be daisy-chained for ease of service/firmware updating*

Mount Installation, cont.

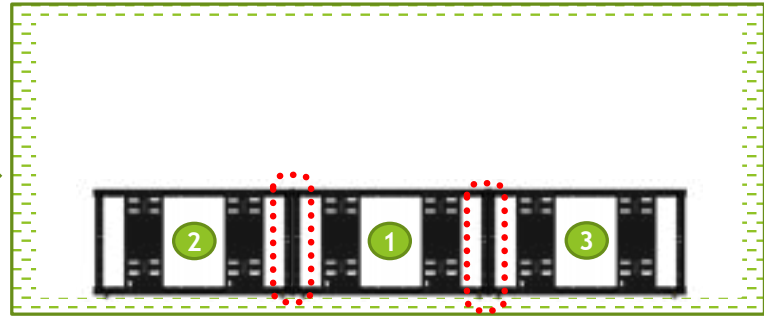
Step 2 Install Wall Mounts (3x3 example)



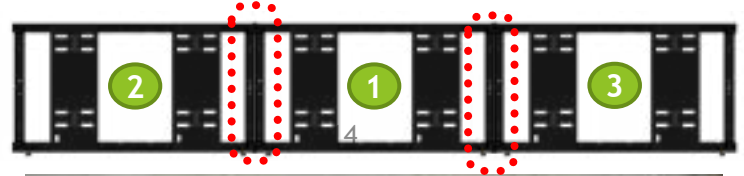
1. Affix first H-Mount to Wall or Wall Reinforcement frame with lag screws (M4*20L). Measure carefully to ensure that the bracket is located at the bottom/center of the array outline and that the mount is level.

Tips for 2x2 or 3x3 video wall arrays

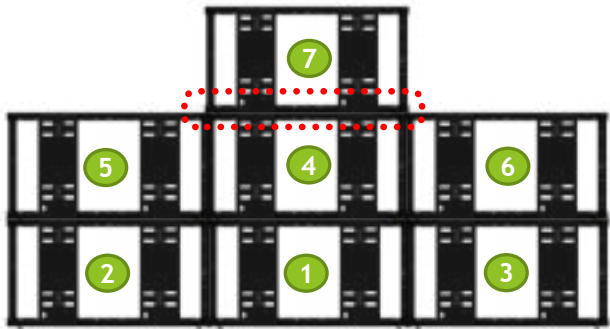
- If your array is a 2x2 array (or 2x1, or 1x2), you may pre-assemble mounts. For example, this means that you may use the M8 interconnecting bolts to construct a 2x2 frame prior to hanging the mounts on the wall using The lag screws. This will help save time for these smaller arrays. The mounts shown in fig. 10 are an older model but the concept still applies to the current version of H-Mounts.
 - In a 3x3, you may assemble rows on the ground then attach to wall. See example of third (top) and final row in fig. 11.
- *Note: Floor surface must be level/even when connecting mounts.*
- Must connect mounts using M8 Bolts and nuts at all interconnection positions.
(Long side: 14 positions, Short Side: 5 Positions)



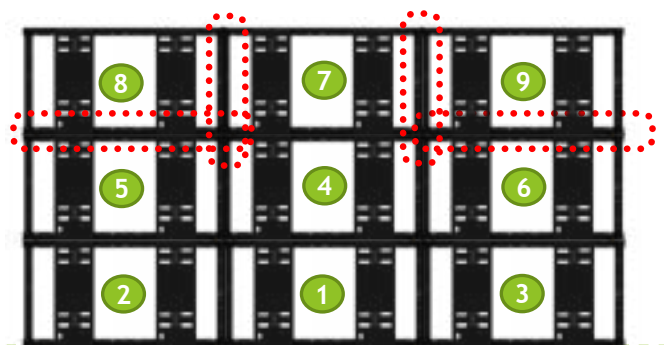
2. Use M8 interconnecting bolts & corresponding nuts to connect the second mount and third mount to the first mount. Next, affix second mount to Wall or Wall Reinforcement frame with lag screws (M4*20L). Ensure that these mounts are level.



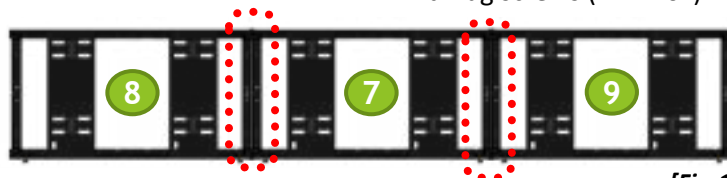
[Fig.10]



3. Use M8 interconnecting bolts & corresponding nuts to connect the seventh mount to the fourth mount. Next, affix 5th~6th mount to Wall or Wall Reinforcement frame with lag screws (M4*20L). Check level again.



4. Use M8 interconnecting bolts & corresponding nuts to connect the eighth and ninth mount to adjacent mounts. Next, affix this 8th~9th mount to Wall or Wall Reinforcement frame with lag screws (M4*20L). Check level again.



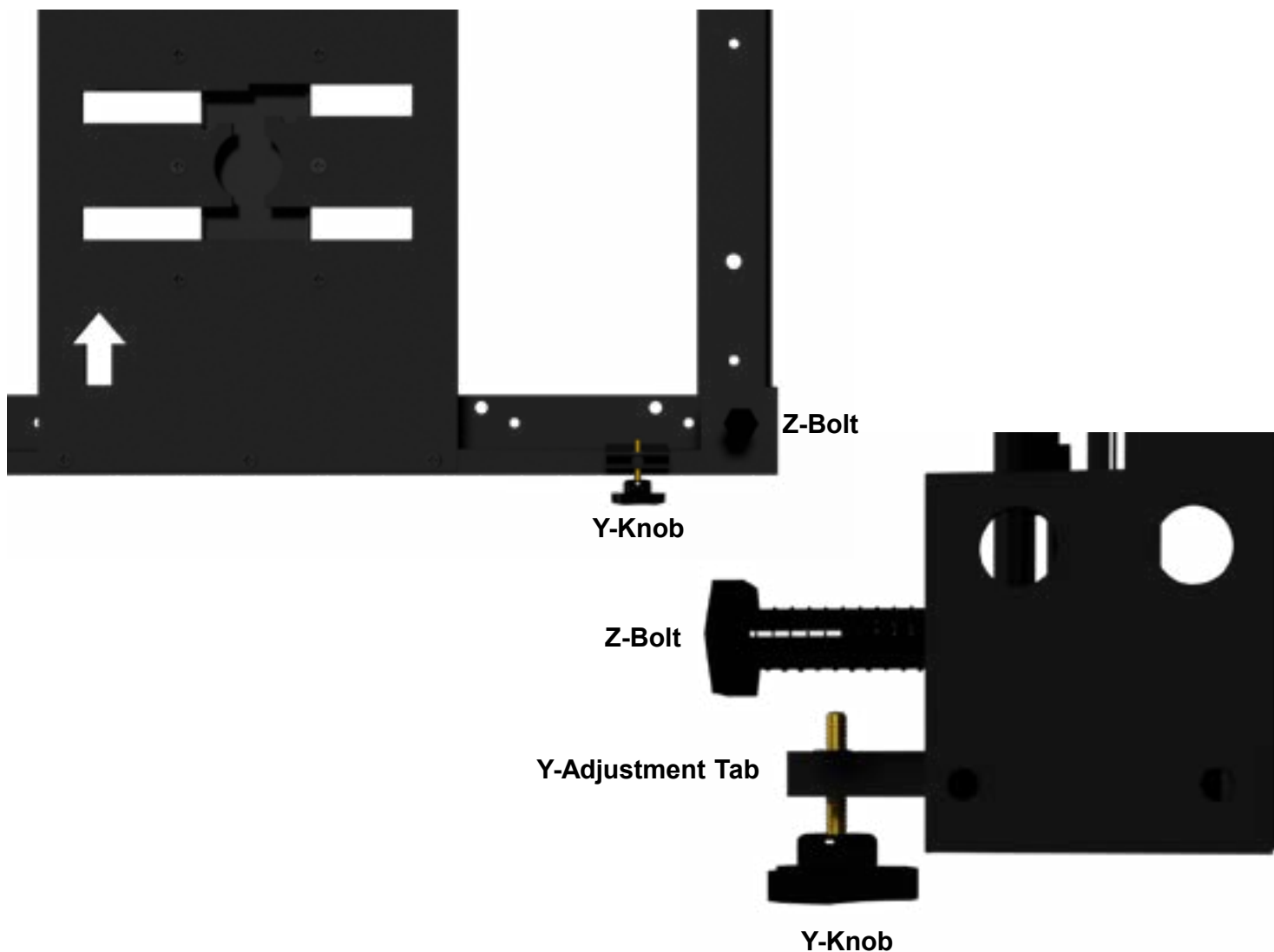
[Fig.11]

Mount Installation, cont.

Step 3

Install adjustment bolts/knobs

- Insert Z-Bolts into each mount (there are insertion positions at the front of each of the four corners). Make sure they are fully inserted.
- Insert Y-Knobs into each mount (there are two insertion positions located at the bottom left/right of the mount).
- Turn Y-Knob clockwise until ~1mm of the bolt is visible stop the Y-Adjustment plate. The image shown to the bottom/right shows the Y-Knob inserted further than needed during initial installation. Make sure that the end of the bolt does not protrude more than 1mm above the Y-Adjustment plate prior to installation of the displays. Further adjustments can take place once displays are installed.

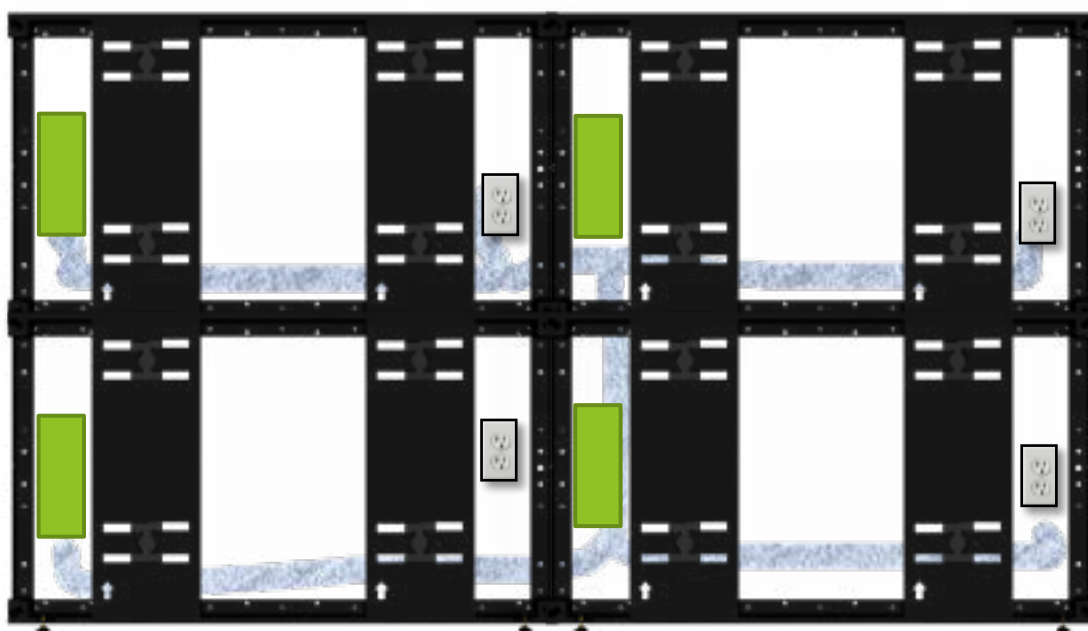


Mount Installation, cont.

Step 4

Organize Cables and Devices

1. Organize cables using cable tie and cable tie mount => Cable tie must not be fastened so tight as to prevent future movement/pulling of cables.
2. Recommended cable paths shown in fig. 12.
=> Position all cables before display is mounted
=> Locate the cable tie mounts in the center of the mount structure (rather than the bottom or top)
3. Locate/mount all devices before display is mounted.



[Fig. 12]

Example shown above is 55"

Display Mounting

Step 1

Preparation of Display

1. Carefully unpack the display, using only the handles at the rear of the panel to lift it out of the cardboard box.

** Caution: When carrying the panel within the bag, be sure that you are grasping the display and not the bag only as the bag may tear, resulting in damage to the panel.*



2. Lay the back of the Set down on a table (LCD panel facing upward).



3. Power the display on and check for a “no signal” message. Assign the display’s Set ID using the remote controller provided in the accessories box and make a note of this Set ID number. Power the display off (See OSD interface of NEX display in fig. 13).

For more detailed information on this process, consult the display user manual.

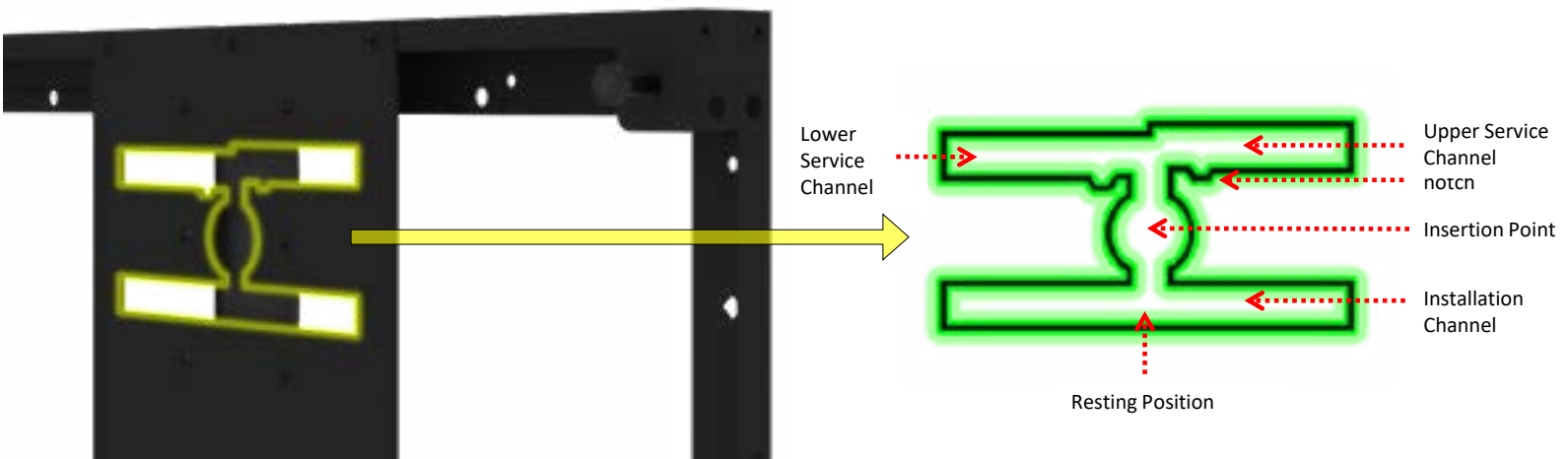
** Note: Set ID’s are often assigned based on proposed configurations prior to shipment. Set ID’s are always marked on the display box. In cases where Set ID’s must be changed, refer to the above.*



[Fig. 13]

Before mounting the displays. Please review the H-Mount’s channel structure:

H-Mount Area	Descriptions
Upper Service Channel	Used to create separation between rows of displays during servicing & dismounting.
Lower Service Channel	Used to create separation between rows of displays during servicing & dismounting.
Notch	This is a safety mechanism used to alert technicians when the display is nearing a drop into the installation channel (either from the upper or lower service channels)
Opening	Opening where display's mounting pegs are inserted or removed during mounting/dismounting.
Installation channel	Displays slide side-to-side in this channel during installation & alignments.
Resting Position	Final installed position of display

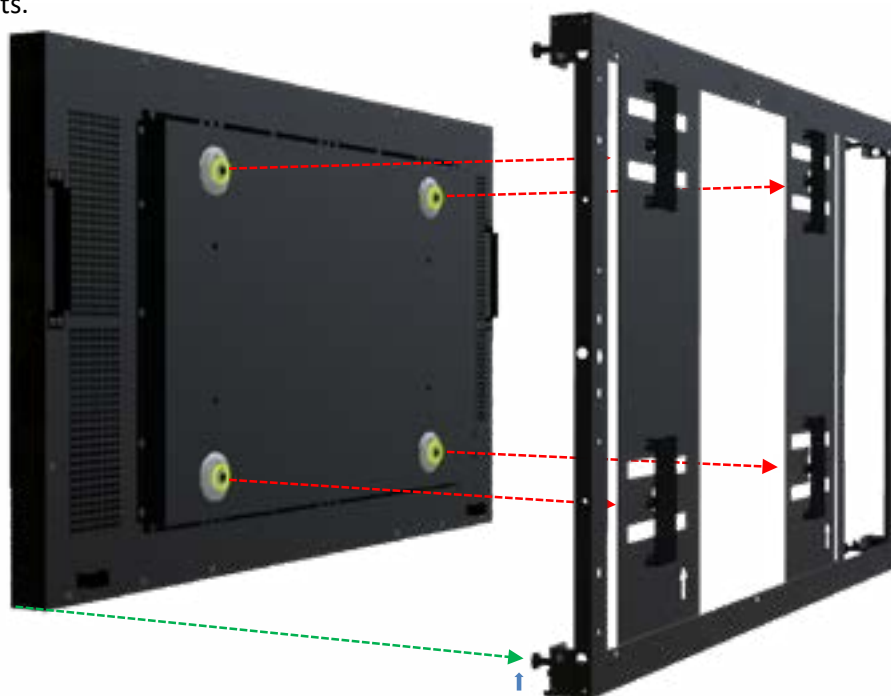


Display Mounting, cont.

Step 3

Display Mounting (3x3 example)

Each display features four mounting pegs located on its rear side. Each of these pegs has a round, **button-shaped knob** which fits into the openings in the H-Mounts. When hanging a display in an H-Mount, ensure that the **display is parallel to the H-Mount** (not angled). This will help ensure that all four pegs are inserted simultaneously into each of the four mount openings/insertion points.



Each display and its corresponding H-Mount has the same width & height. When installing displays, note that the service opening is positioned so that the display outline will sit ~1.5" higher than the mount outline when the pegs are aligned with the service opening. Horizontal guide notches on the bottom corners of the H-Mount frame help to guide the display position during the mounting process, showing whether the pegs are aligned with the openings/insertion points. The bottom bezel of the display should align with the horizontal notches during mounting.

**Note: Prior to installing displays, ensure cabling is properly positioned, as shown on [p. 16](#).*



Display Mounting, cont.



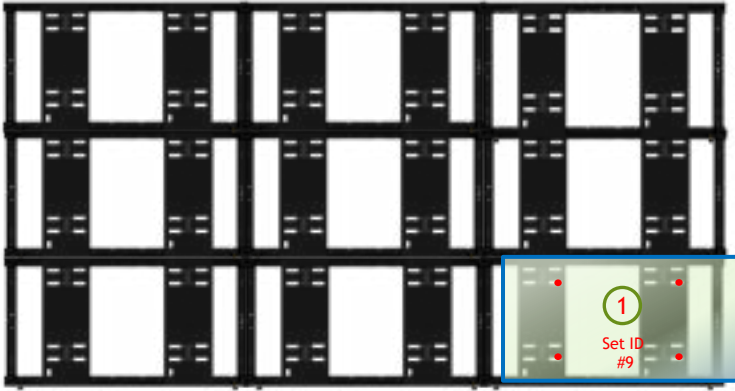
Step 3, cont.

Display Mounting (3x3 example)

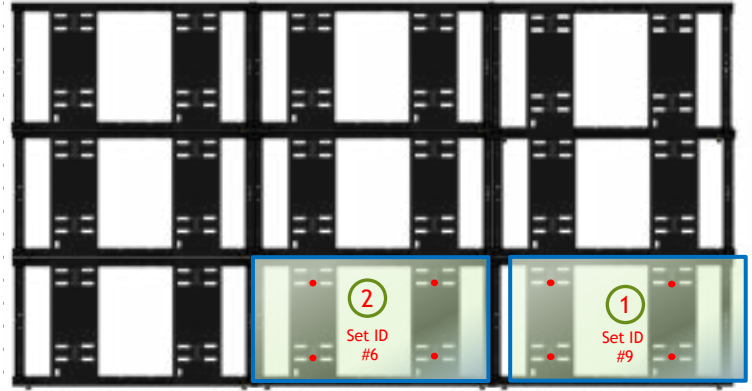
Please note that the numbers used in this mounting diagram DO NOT correspond with SET IDs. they are meant to represent mounting order.

Mount & display order: Right to Left.

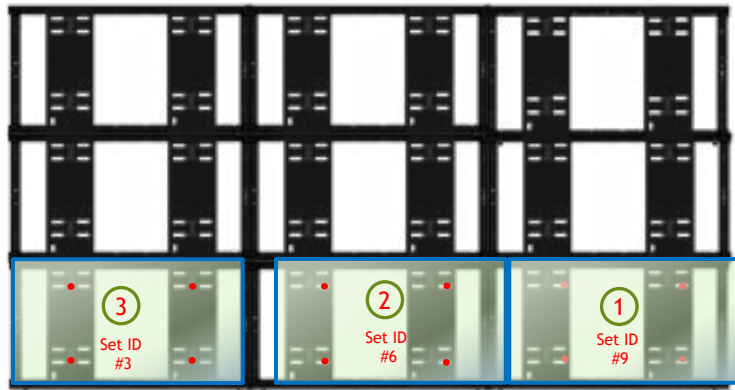
Alignment adjustment order: Top to bottom



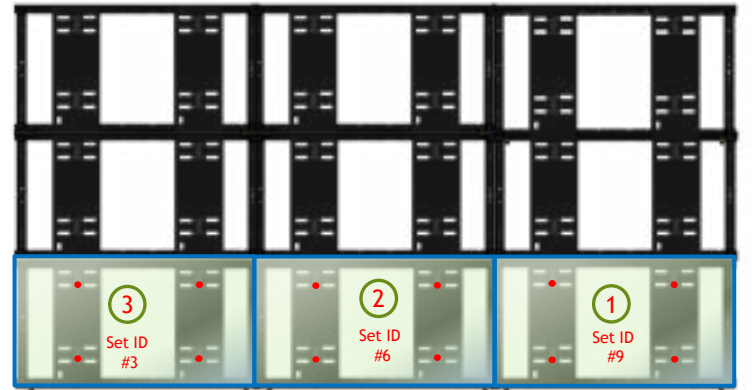
1. Hold the first display near the mount and connect cables. Begin mounting displays as described on [p. 18](#) with the bottom/right display, (as shown above) and slide the display to the right. Check the display for signal and then power off with remote controller.



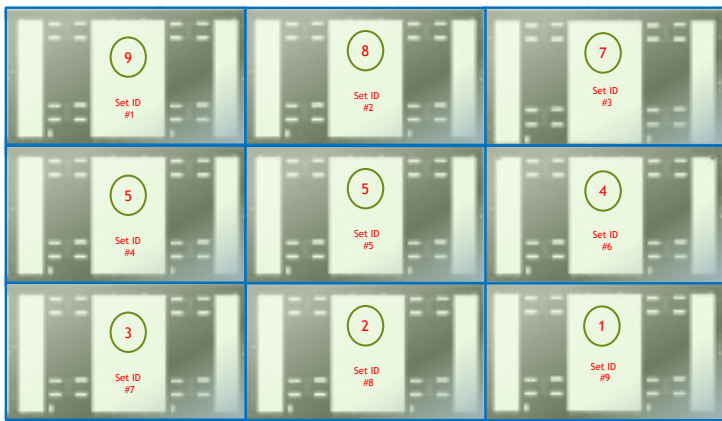
2. Hold the next display near position 2 mount (above) and connect cables. Insert the pegs in the insertion point, then slowly & carefully ease the display down until it comes to in the installation channel. Check display for signal and power off.



3. Slide the second display to the right. Hold the next display near position 3 mount (above) and connect cables. Check for signal and power off.



4. Return the first and second display to the center/resting position. Follow the same mounting steps as 1-3 for the middle (4-6) and top rows (7-9).



5. When repeating the same steps for each row make sure that the displays are eased down into the installation channel evenly- if one side is dropped too quickly, damage to the previously-installed display may occur. Refer to [p. 6](#) for more information on recommended gap between displays. When shifting the displays to the right, do so gently and use caution to prevent pressure to the displays below.

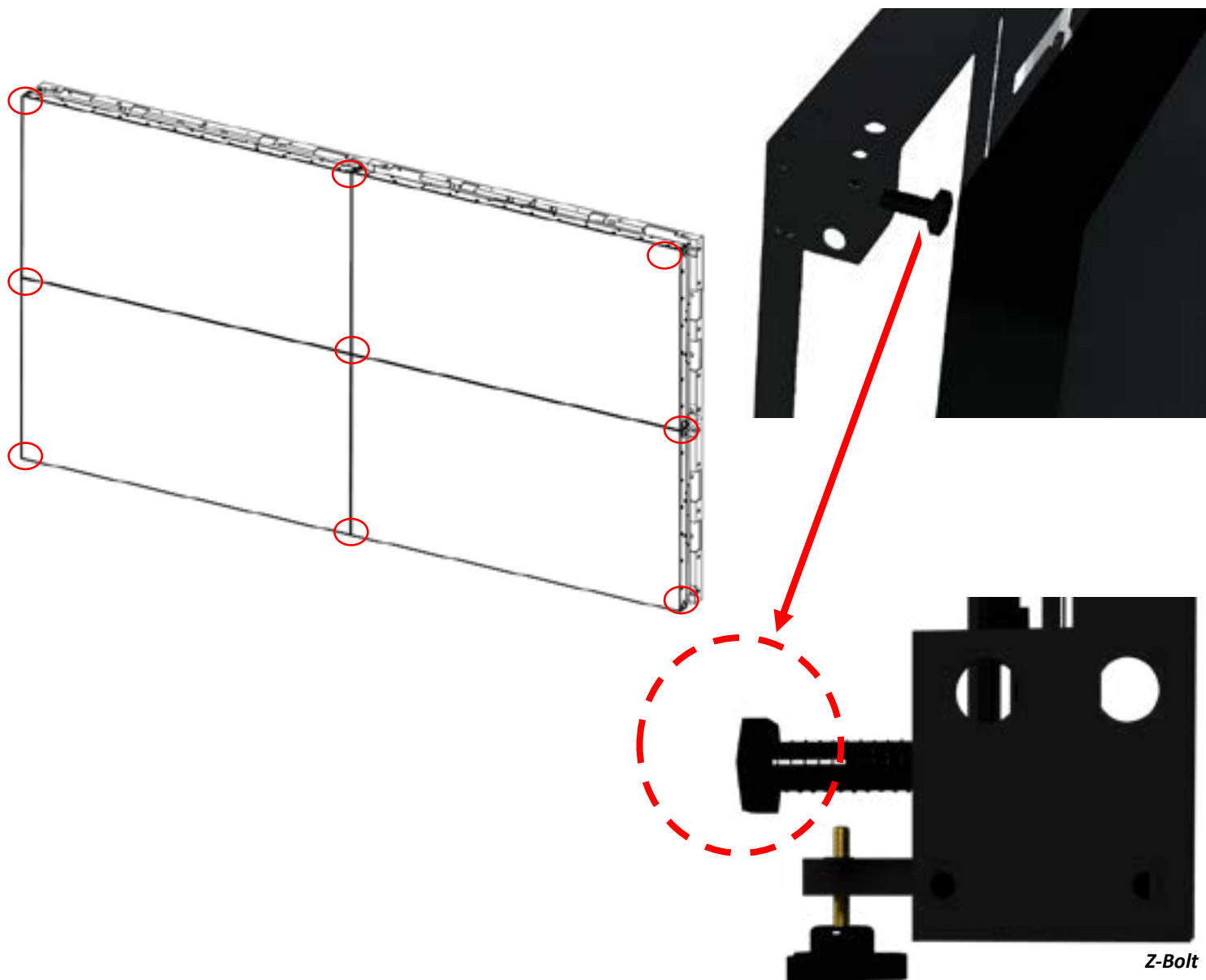
Alignment

Step 1

Introducing alignment mechanisms

Z-Axis

Z-axis alignment can be adjusted by turning “Z-Bolts” at the rear of each corner of the display counter-clockwise. This will push a given corner of a display outward from the wall, moving the corner of the display forward slightly.



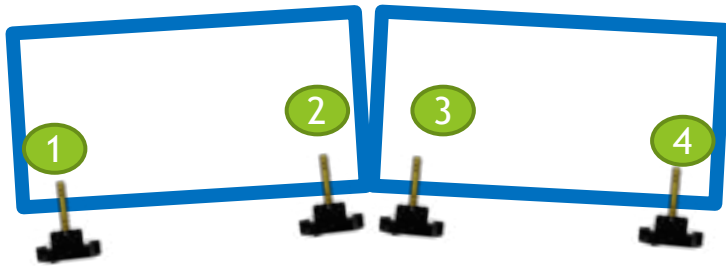
- * Tips:
- Z-Axis alignment can be made easier by gently pulling on the corner of a display. Be sure to touch only the metal base plate on the rear of the display and avoid exerting excessive pressure/over-adjusting.
 - Displays naturally tilt downward, meaning the top protrudes slightly more than the bottom. In order to make Z-Axis adjustments, push very gently with an open, gloved palm on the top of the display and then engage the bottom Z-Bolts by turning counter-clockwise.

Alignment, cont.

Y-Axis

Y-Axis alignment can be adjusted by turning the “Y-Knob” at the bottom of the mount structure. A clockwise turn will raise the bolt attached to the knob, which will raise one side of the display. Conduct these adjustments in minor increments and exercise caution when returning neighboring displays to their final, installed position. Y-axis adjustments may lead to displays “sitting” on top of displays below, causing excessive pressure on bezels.

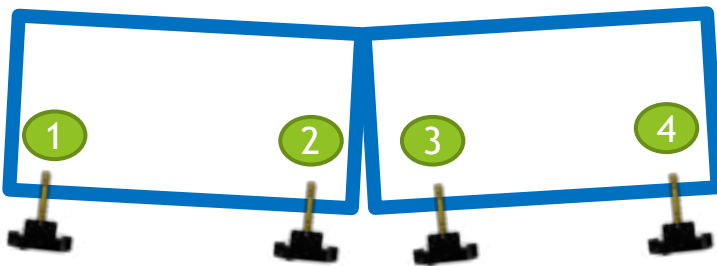
Case #1



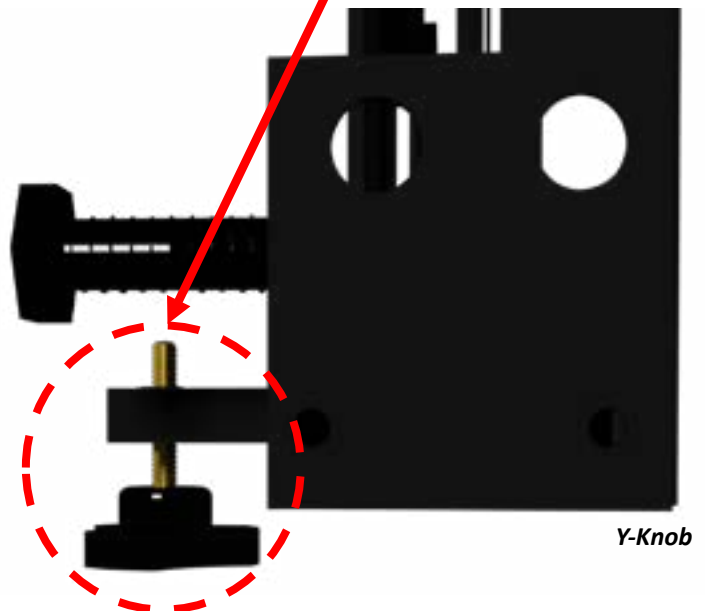
Turn the outer Y-knobs (1 and 4) clockwise to move the displays upward as needed to achieve Y-Axis alignment.



Case #2



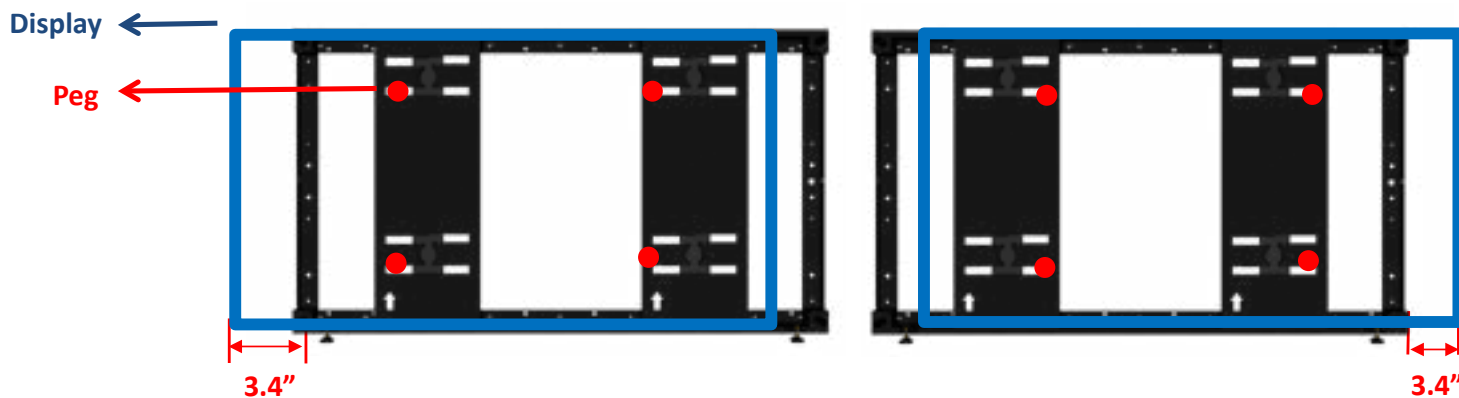
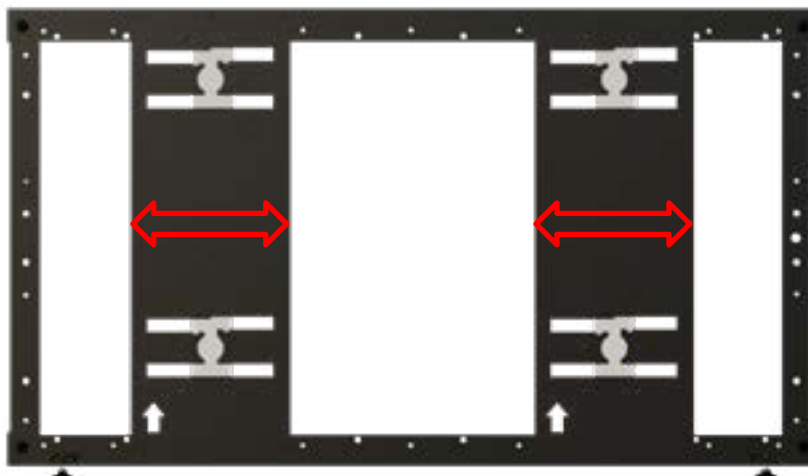
Turn the inner Y-knobs (2 and 3) clockwise to move the displays upward as needed to achieve Y-Axis alignment.



Alignment, cont.

X-Axis

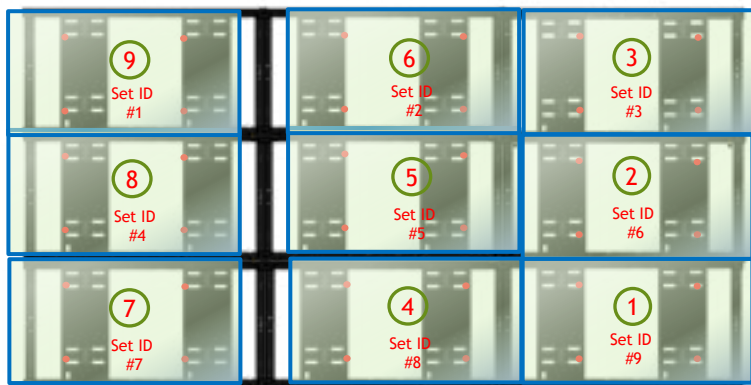
X-axis alignment must be carefully accounted for during the installation process. To ensure proper alignment on the X-axis, ensure that all mounts are in line with one another prior to hanging displays. The application of side covers will lock displays in line with the mounts on the X-axis, preventing any drift.



Alignment, cont.

Step 2

Conducting Alignment



Step 1. Move left column of displays to the left.



Step 2. Move center column of displays to centered position (resting position).

Look over the wall for alignment issues from various angles.

Alignment Adjustment Example

Step 1. Set #1 (marked "1" in representations below): Use Z-Bolt and adjust balance if needed.

Step 2. #1 : Using Y-Knob, raise both sides of display 1~2mm up if there is no gap between bottom of #1 and #4.

Step 3. Slide #2 toward #1, checking Z-axis alignment. If alignment is poor, adjust left Z-Bolts of #1 and right of Z-Bolts of #2 as needed.

**Tip: Move #2 back to the left and compare its Z-bolts with the back-end of #1. The heads of #2's Z-bolts should align with the back of display #1. Slide #2 back toward #1 (to the right) in its resting position. You may need to pull out on #2 slightly as you move it over to the right.*

Step 4. After making this adjustment, adjust #2's Y- knobs to match level with #1 (see [p. 21](#) for more details on Y-Knob adjustments).

Step 5. Follow the same steps on #3 with the directions reversed.

Step 6. Move on to the next row of displays, substituting #4 for #1, #5 for #2, #6 for #3, and so on for following row.

**Conducting Z-Axis adjustments prior to Y-Axis adjustments is recommended per display.*

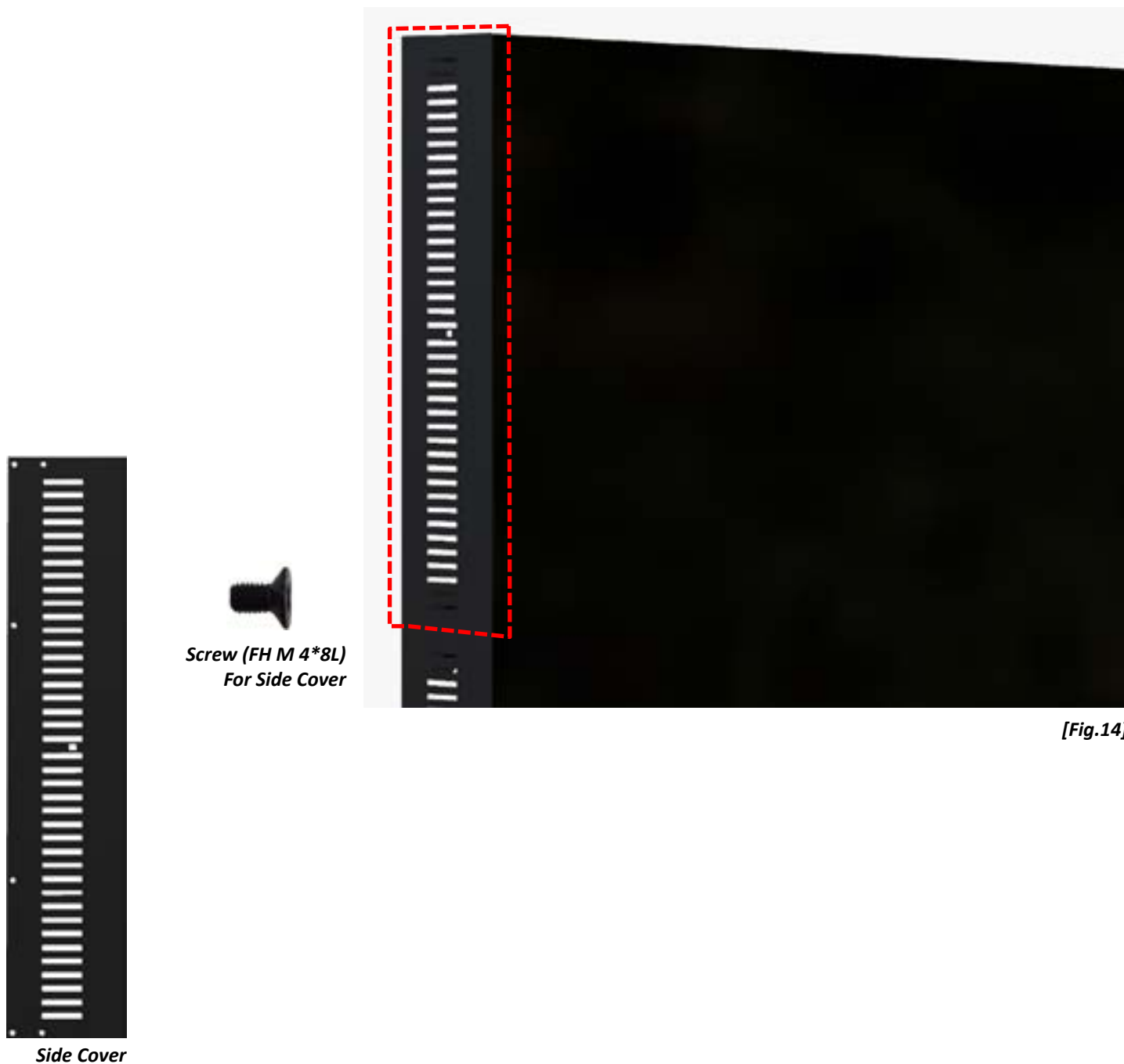


Alignment, cont.

Side Covers

Affix side covers (shown outlined in red on fig. 14) by screwing into mounts. Use the FH M 4*8L screws provided.

Attach side cover by inserting screws into the outer sides of H-Mounts on the perimeter of the array.

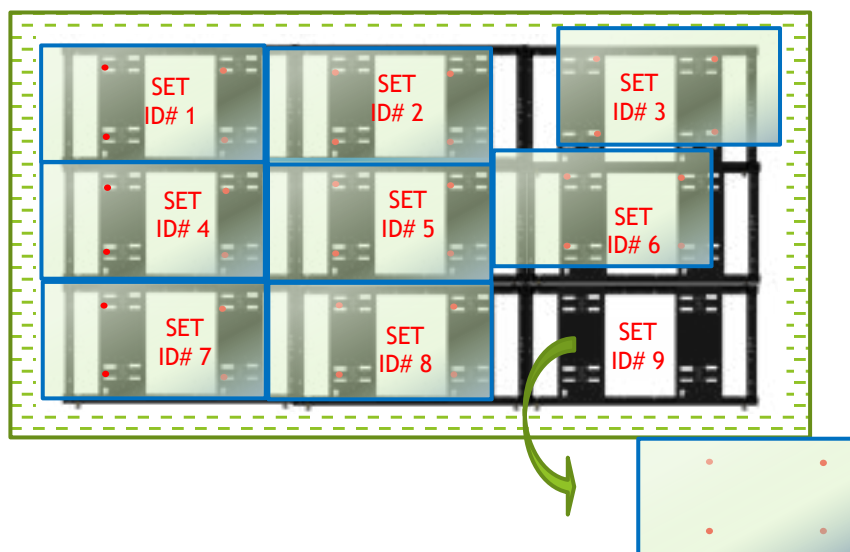


[Fig.14]

Display Dismounting

Example: Dismounting Set ID #9

Remove side covers prior to attempting dismounting of displays. Ensure that Y-Knobs and Z-Bolts are retracted for ease of movement.



Step 1. Release Y-knobs of #'s 7, 8, and 9 by turning counter-clockwise.

Step 2. Shift #'s 7 and 8 to the left and right as needed to gain access to Set #4 and 5's Y-knobs and release Y-knobs of #'s 4 and 5

Step 3. Follow the same steps on Set #'s 1 and 2.

Step 4. Move Set #3 into the Upper Service Channel.

Step 5. Move Set #6 into the Lower Service Channel.

Step 6. Remove cabling from Set #9.

Step 7. Carefully lift #9 up ~1.4" so that the pegs align with the opening (bottom of Set #9 will align with corner guidelines on mount).

Step 8. Gently pull #9 outward.

Step 9. From here, dismounting the remaining displays becomes easier. You may now dismount Sets 6 or 8.

Cabling Setup

Precaution for Cable Connections

- Digital noise may appear due to poor quality DVI cabling. If the video signal needs be delivered from a distance, electric noise must be accounted for. If the distance is great or there is a serious noise issue, an optical fiber extender system is recommend over CAT-5/6 extension.
- Daisy-chaining can be initiated from any unit. There is no terminator at the end of the unit. It is strongly recommended that installers/customers record the chaining diagram as it is crucial for diagnosis of issues, should they arise.
- Some installation sites have a high level of Electric Noise which may appear on screen, especially with DVI.
- DVI, HDMI and DisplayPort are HDCP-compliant.
- Signal-looping specifications video signals should be boosted by using a distribution amplifier when more than four (4) units are connected via DVI (NSV & EN-series) or nine (9) units are connected via HDMI (EK-series) -> See tables below

Daisy Chain Connection Limit

NEX Series

Input Resolution	Daisy Chain	Remarks
3840 x 2160 @ 60Hz	Supports up to 10 units	Requires DP Speed of 5.4G
3840 x 2160 @ 60Hz	Supports up to 25 units	
1920 x 1080 @ 60Hz	Supports up to 25 units	

NSV & EN-Series

Input	Max Timing	Daisy Chain
DVI	1920 x 1080	4 units
VGA	1920 x 1080	4 units
RS232	N/A	20 units

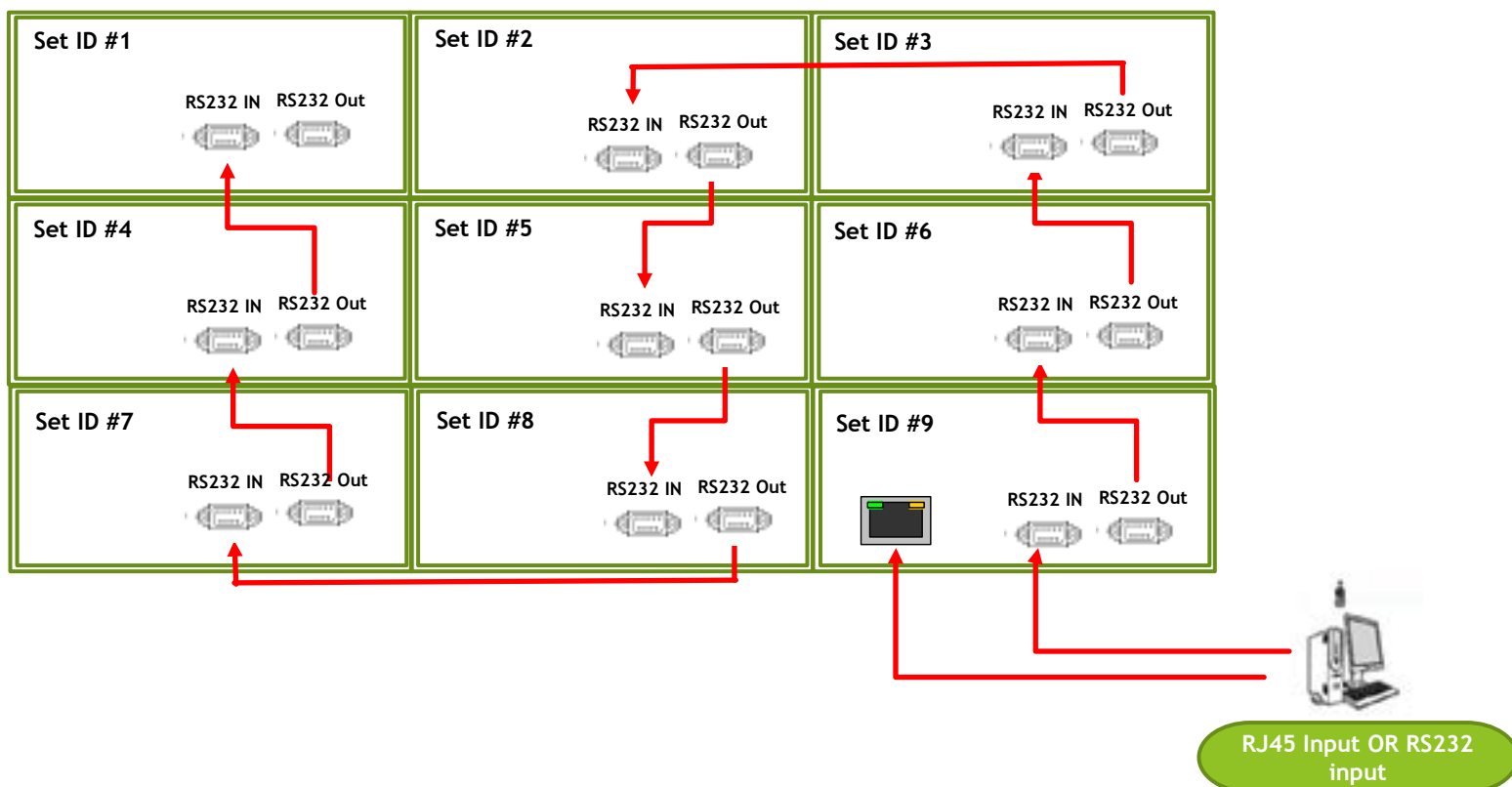
EK Series

Input Resolution	Daisy Chain	Remarks
3840 x 2160 @ 60Hz	Supports up to 9 units	Use only HDMI 2.0 cables
3840 x 2160 @ 60Hz	Supports up to 16 units	
RS232	Supports up to 25 units	

Image quality cannot be guaranteed when daisy chain connection limit is exceeded.

Cabling Setup, cont.

Connecting RS232 Cables: Daisy-Chain Connection



Step 1. After mounting each display, insert any cables used for Power, video inputs or outputs into the set.

Step 2. Prior to mounting the next display, insert cables (including RS232) from the outputs of the first display into the inputs of the second display.

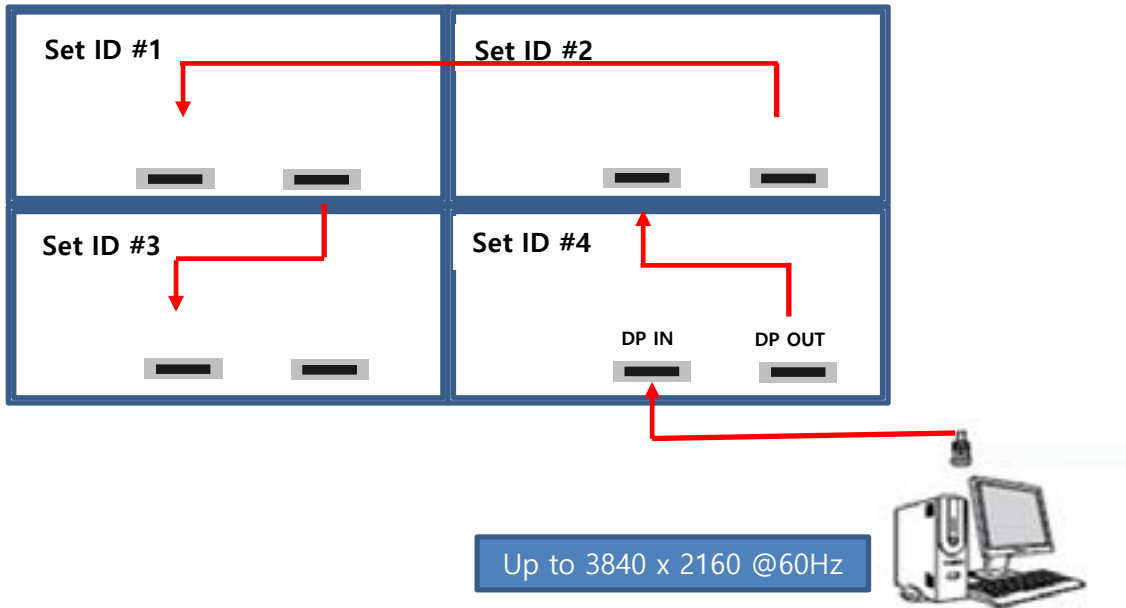
Step 3. Repeat above steps for next display, if necessary.

Note: The RS232 daisy chain limitation is listed as 30 displays.

Daisy-chaining can be initiated from any unit but it is strongly recommended that you start with a display on the bottom row for ease of access. There is no terminator at the end of the unit. It is always recommended to record/make note of the chaining diagram as it is crucial to determining issues with communication.

Cabling Setup, cont.

Connect Video Cables – NEX-Series Daisy Chain



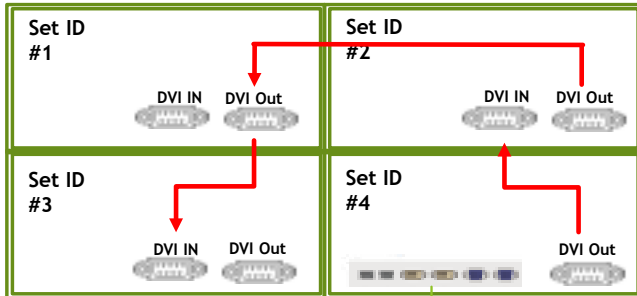
1. Immediately prior to mounting display, insert any cables used for power, inputs or outputs into the set.
2. Prior to insertion of the next set into neighboring mount, insert cables from the outputs of the first set into the inputs of the second set.
3. Insert any cables which are to be connected to the third set into the outputs of the second set. Connect these cables into the inputs of the third set.
4. Repeat steps 1-3 for fourth set, if necessary.

- Supports HDMI 4K x 2K input – HDMI, DP
- Supports the daisy chain mode of 4K2K resolution.
- Recommended HDMI Cable Types
 - High-Speed HDMI®/TM Cable
 - High-Speed HDMI®/TM Cable with Ethernet
- Some installation sites have a high level of Electric Noise which may appear on screen, especially with HDMI.
- Digital noise may appear due to poor quality HDMI cabling. If the video signal needs be delivered from a distance, electric noise must be accounted for. If the signal cable between the product and your PC is too long, make sure to use the Booster or optical cable.
- HDMI and DisplayPort are HDCP-compliant.
HDCP 2.2 Compliant HDMI 2.0 Compliant Display Port v1.2a Compliant

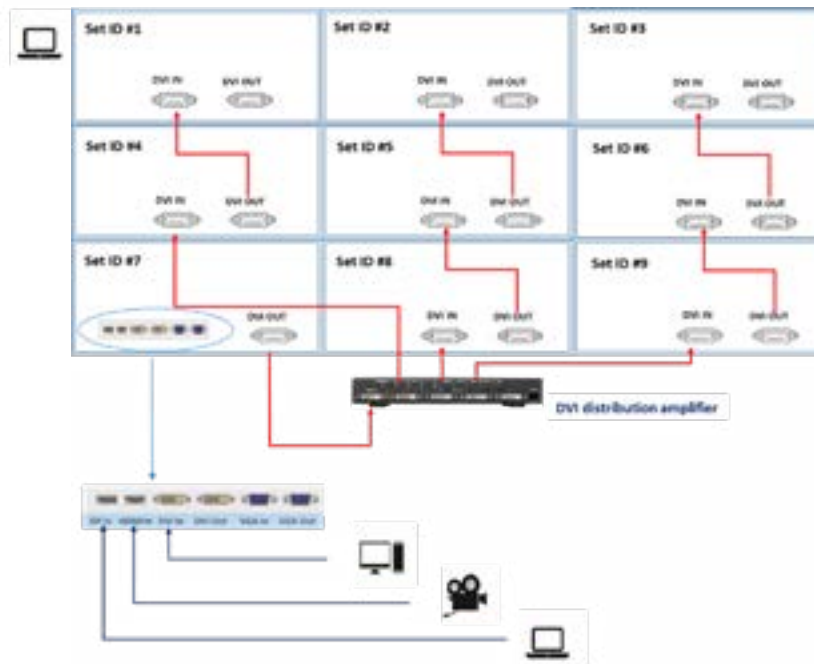
Cabling Setup, cont.

Connect Video Cables – NSV & EN-Series Daisy Chain

Daisy-Chain Connection for Video Walls (smaller walls- 4 units or less)



Daisy Chain Connection using DVI Signal Distributor (more than 4 units)



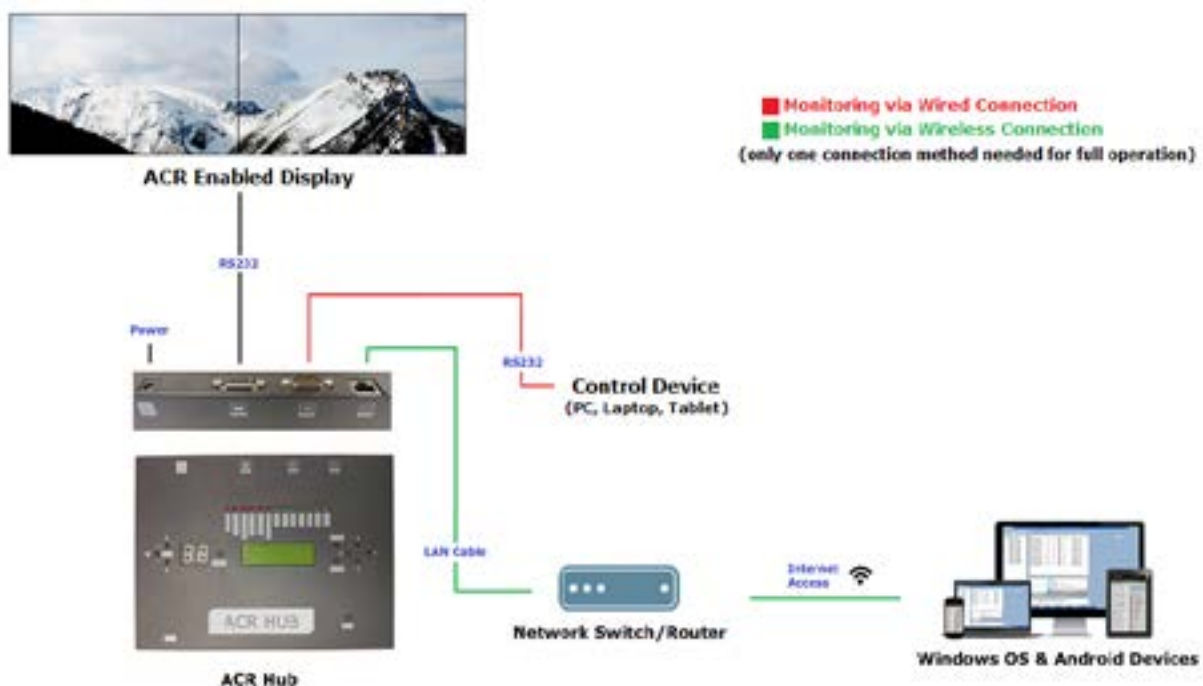
- When installing larger video walls, a DVI D/A may be required to prevent data loss. (D/A: Distribution Amplifier).
- Insert RS232C cable into bottom left display, bypassing the Signal Distributor (as in the case of smaller video walls).
- Insert DVI cable into a conveniently-located display (typically bottom left or right).
- Connect aforementioned display to signal distributor using the DVI output.
- Use Signal Distributor outputs to connect to displays in each vertical column as shown on right.
- When using D/A, connect individual displays via DVI daisy-chain in order from bottom to top using DVI cables as shown top/right.

Cabling Setup, cont.

Connecting ACR (Auto Condition Reporting System)

NSV & EN-series (NSV for ACR Lite only)

- Install ACR Hub in an accessible location. This will ensure easy access if the IR receiver must be accessed or if connectors must be checked. This also ensures easy use of buttons on the ACR Hub for SET ID selection and ON/OFF scheduling.
- Connect RS232 cable between ACR Hub and video wall monitor. The ACR Hub will pass through serial commands sent to the displays from a device residing upstream in the RS232 path.
- The ACR Hub serves as an IR extender for the remote controller.
ex: Users can power the video wall monitor ON/OFF → Must change Set ID # on ACR Hub to "00" to address all sets.
- Select Set ID "00" on the ACR Hub to address all displays in the RS232 daisy-chain via remote controller.
- Users can toggle display Power On/Off via remote control by pointing the remote controller at the IR receiver at the front of the ACR Hub. The ACR Hub will then send a command for Power On or Power Off to all monitors.
- All other remote control functions are conducted in the same manner as Power On/Off.
- For more information, consult the ACR user manual.



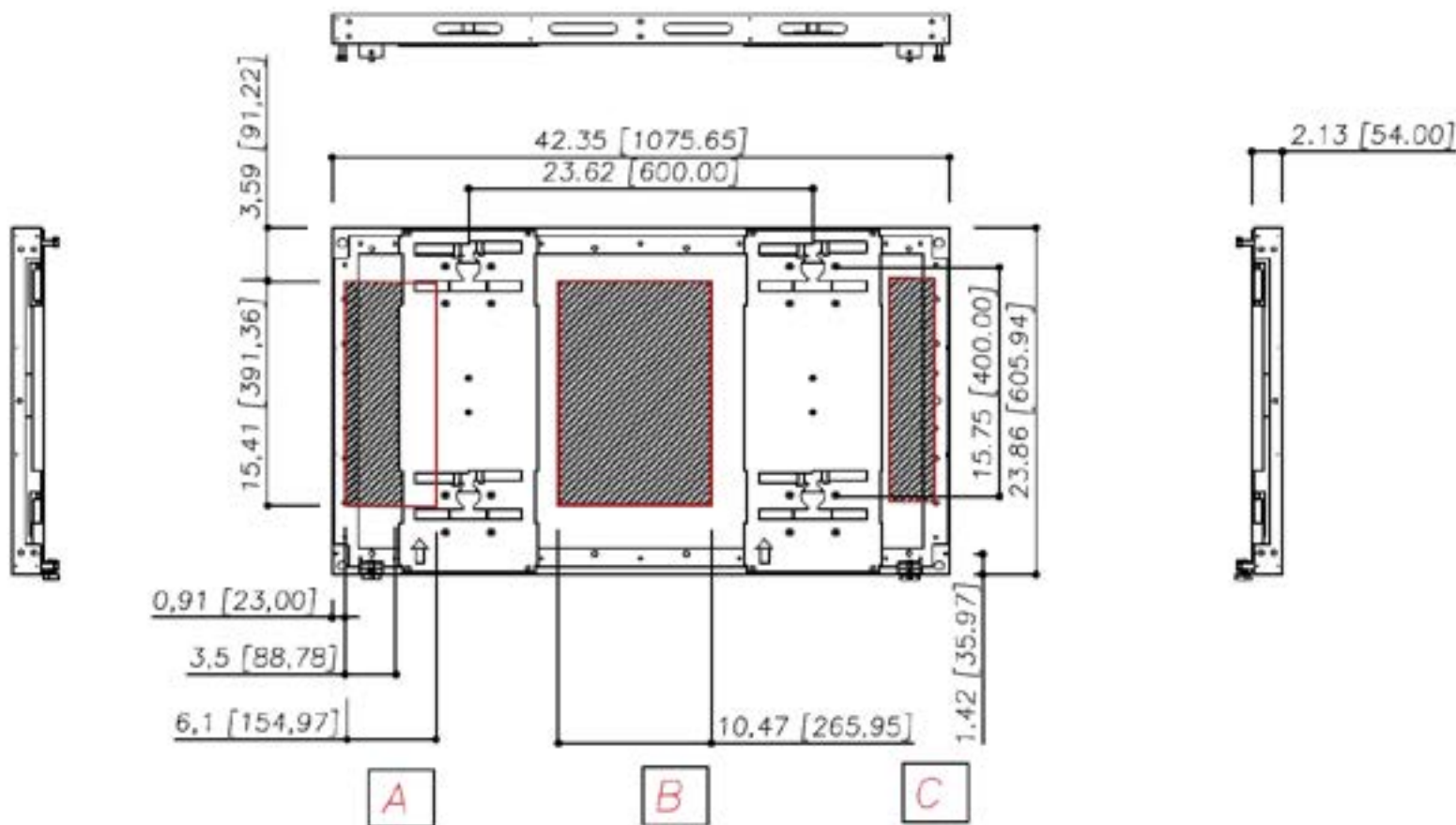
Install ACR Hub in accessible location.

Device Placement

HLM49T

A & C zone: 3.5 x 15 x 2.2" (Depth) for Third-party device and power outlet placement. The area outlined in red (8" x 15") is available if the device is under 1.8" in depth.

B zone: 10 x 15 x 2.2" (Depth): Power and devices are not recommended as this area requires display dismounting for access.



Device Placement, cont.

HLM55T

A & C zone: 5 x 15 x 2.2" (Depth) for Third-party device and power outlet placement. The area outlined in red (8" x 15") is available if the device is under 1.8" in depth.

B zone: 10 x 15 x 2.2" (Depth): Power and devices are not recommended as this area requires display dismounting for access.

