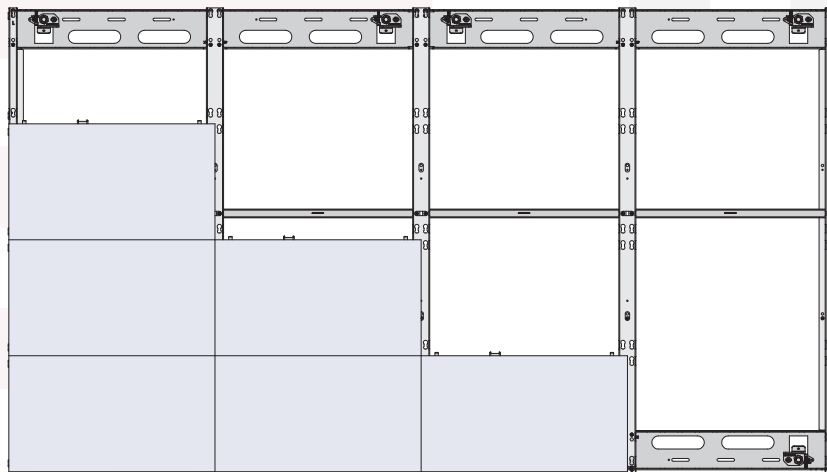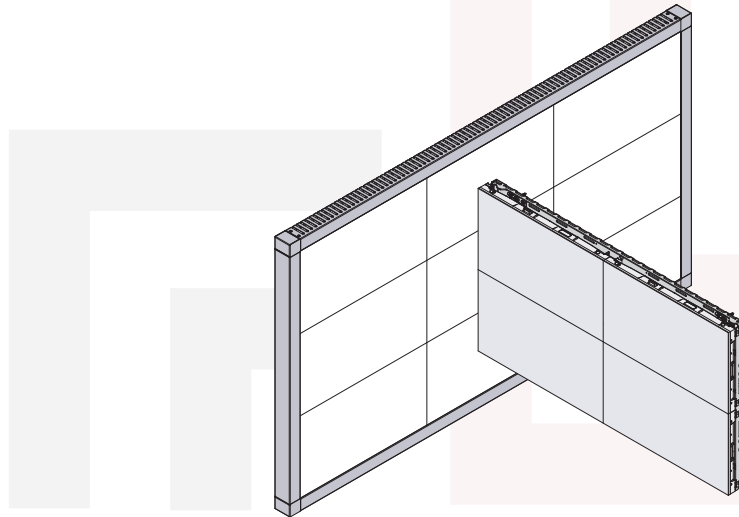# CONVERGENT

SERIES: LG-LSA
## INSTALLATION GUIDE

Convergent Series Video Wall Mount
For LG LSA LED Cabinets

CAUTION STATEMENTS

1. READ ALL STEPS WITHIN THIS MANUAL BEFORE INSTALLING THE MOUNT. **LG LSA LED SERIES INSTALLATION GUIDE** MUST BE READ IN CONJUNCTION FOR SUCCESSFUL INSTALLATION. ANY QUESTIONS? CALL PREMIER MOUNTS.
2. INSTALLATION MUST MEETS THE REQUIREMENTS APPROVED BY THE STRUCTURAL ENGINEER.
3. FRAME MUST BE PLUMBED, SQUARED, LEVELED, X, Y, AND Z ALIGNED PRIOR TO INSTALLATION OF ANY DISPLAYS.
4. ALL LED CABINETS MUST BE **POWER ON TESTED** PRIOR TO ANY INSTALLATION.
5. PREMIER MOUNTS RECOMMENDS THE HANDLING LED CABINETS BY AN INDUSTRY QUALIFIED PROFESSIONAL.
6. PREMIER MOUNTS IS NOT RESPONSIBLE FOR DEFECTS, MISUSE, OR IMPROPER HANDLING OF THE LED CABINETS.

Tools for Installation:

LASER

00.0°

Anti-Static Gloves

Spool of colored strings
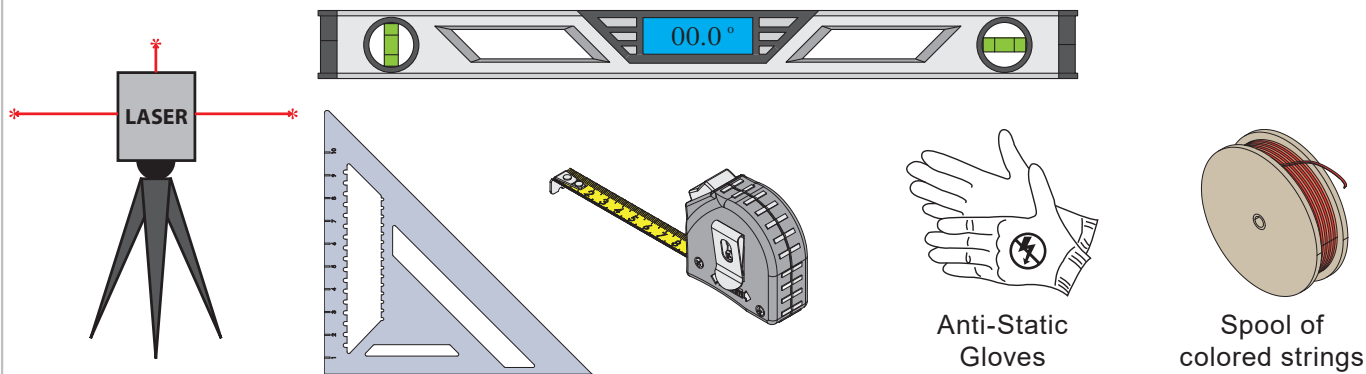
WALL REQUIREMENTS:

Solid or continuous plywood backing with a **min of 3/4" thickness**, sound and secured to handle the total combined weight of the mount and LED cabinets.

MAX FLATNESS ADJUSTMENT

±1/2" or 1" max adjustment range for flatness of wall, over the entire wall surface

PREMIER MOUNTS

VIDEO WALL DIMENSIONS AND MOUNTING LOCATIONS
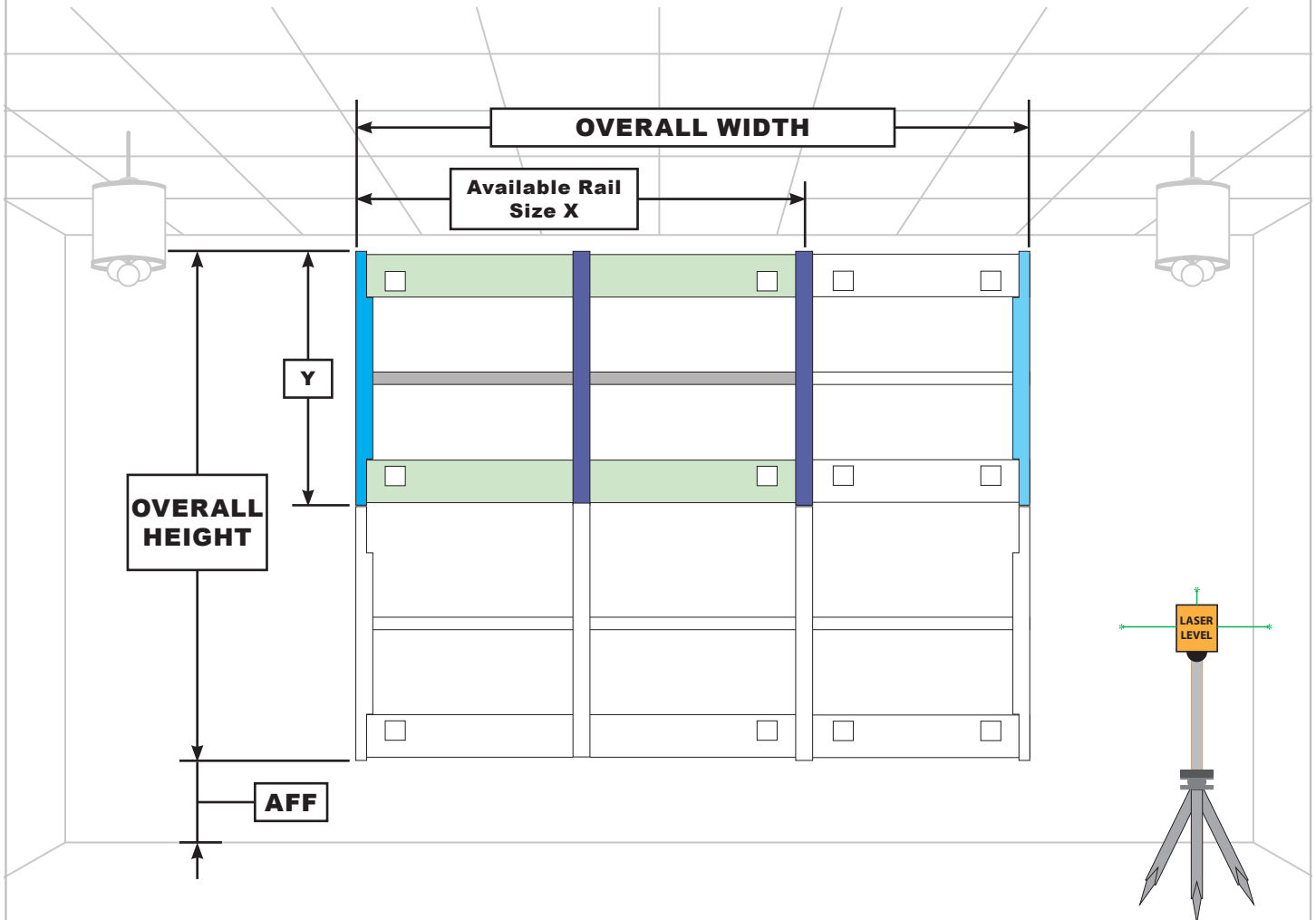
	Available Size	Imperial (Inches)	Metric (Milimeters)
X	**1 Wide**	23.6	599
	2 Wide	47.22	1199
	3 Wide	70.85	1799
Y	**1 High**	13.27	337
	2 High	26.55	674
	3 High	39.84	1012
	4 High	53.13	1349

The overall dimensions of any video wall array can be calculated by using the table within this page.

The desired array size is a **combination** of available sizes. Add the available sizes together to find the overall width or height of a given array.
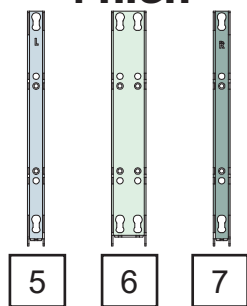
For modular configuration, any combination of the rails does not affect the overall dimension of the mount.

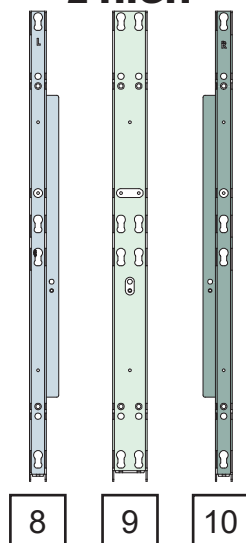Example: an 2X4 is 47.22" x 53.13", and
4X8 is 94.44" x 106.26"

PREMIER MOUNTS

CONVERGENT - LG LSA

Installation Guide

ITEM #.	PART NO.	DESCRIPTION
1	4000-107-076-LX	Horizontal Support Bar
2	4000-107-001-LX	Horizontal Rail 1H
3	4000-107-002-LX	Horizontal Rail 2H
4	4000-107-003-LX	Horizontal Rail 3H
5	4000-107-011-LX	Left Vertical Rail 1V
6	4000-107-012-LX	Center Vertical Rail 1V
7	4000-107-013-LX	Right Vertical Rail 1V

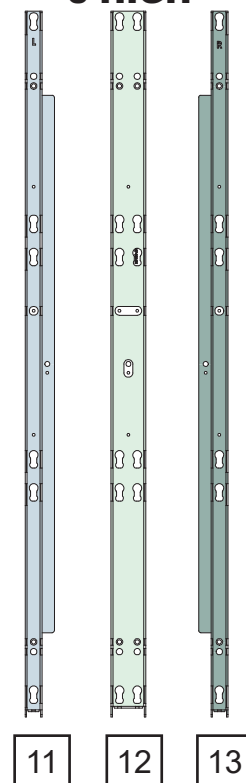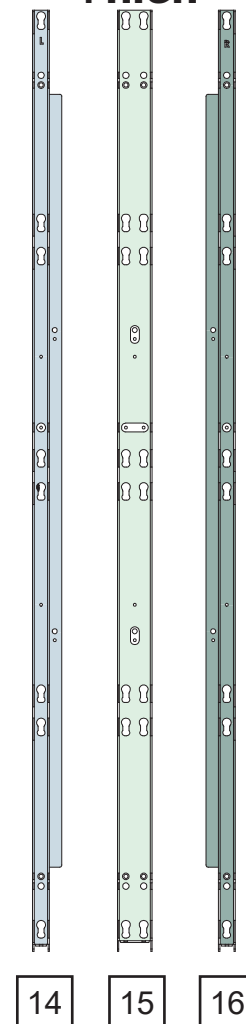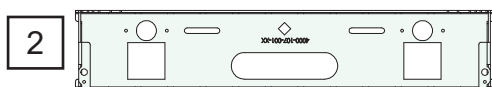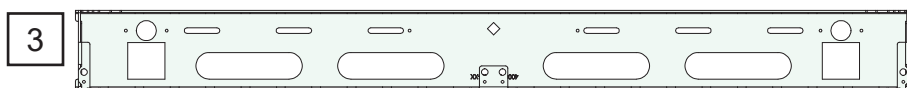| ITEM #.	PART NO.	DESCRIPTION
8	4000-107-021-LX	Left Vertical Rail 2V
9	4000-107-022-LX	Center Vertical Rail 2V
10	4000-107-023-LX	Right Vertical Rail 2V
11	4000-107-031-LX	Left Vertical Rail 3V
12	4000-107-032-LX	Center Vertical Rail 3V
13	4000-107-033-LX	Right Vertical Rail 3V
14	4000-107-041-LX	Left Vertical Rail 4V
15	4000-107-042-LX	Center Vertical Rail 4V
16	4000-107-043-LX	Right Vertical Rail 4V

1 HIGH
5   6   7

2 HIGH
8   9   10

3 HIGH
11   12   13

4 HIGH
14   15   16

AVAILABLE SIZES

1 — (Horizontal Support Bar)

2 — **1 WIDE**

3 — **2 WIDE**

4 — **3 WIDE**

PREMIER MOUNTS
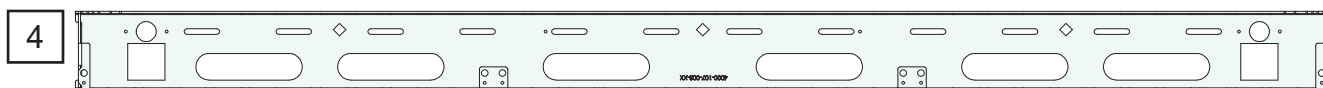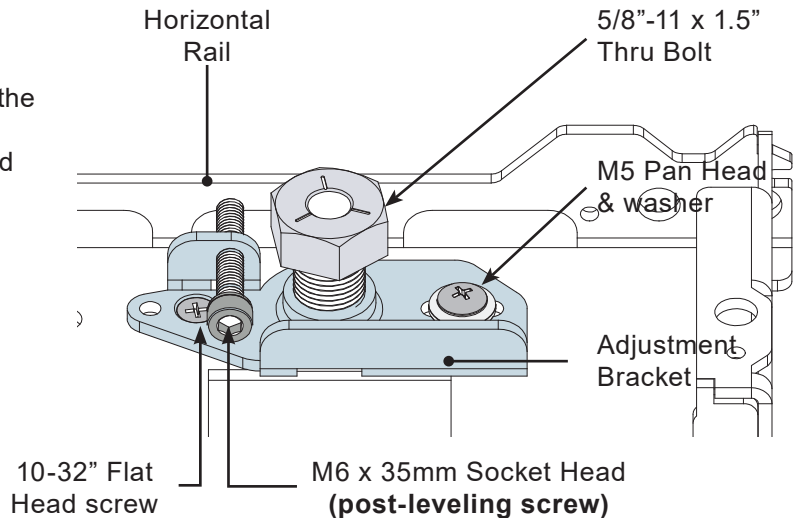
PRE-INSTALLATION

STANDARD MOUNTING PROCEDURE

1. Attach the Adjustment Bracket to every mounting location (Horizontal Rail) prior to the installation of the mount, as shown.
2. Loosely fasten the M6 x 35mm Socket Head to the bracket. The tip of the screw should **NOT** touch the surface of the horizontal bracket to allow adjustments at post installation.

Horizontal Rail

5/8"-11 x 1.5" Thru Bolt

M5 Pan Head & washer

Adjustment Bracket

10-32" Flat Head screw

M6 x 35mm Socket Head **(post-leveling screw)**

SPECIAL MOUNTING PROCEDURE

1. If any pre-drilled hole or off-center hole were created before or during installation, remove/loosen the screws shown in figure 1 to expose the mounting point.
2. Re-position the bracket to the respective hole and anchor using the 5/16" Hex Lag screw (shown in sequential step). The socket head screw must be twist in to stabilize the Horizontal Rail if the flat head screw is not used.

   Note:
   Use the Thru Bolt bushing when using a drill to create a pilot hole for concrete applications.

   Reinforce the mounting location by using a self-tapping screw as an alternative for the flat head screw after anchoring the bracket (optional).
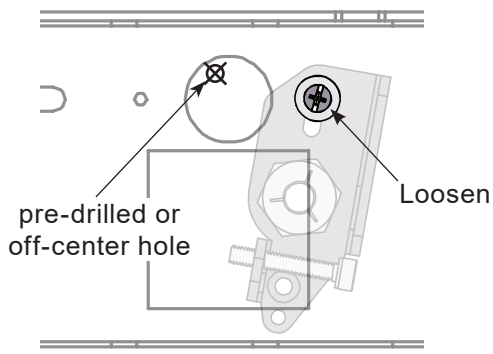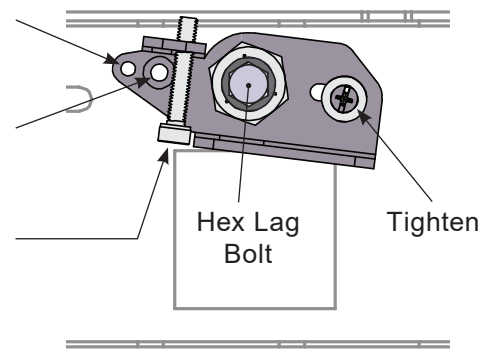
Figure 1	**Figure 2**

0.19" diameter for #8 or M5 self tapping screw **(optional).**

Secure using the flat head screw if possible.

Twist in to stabilize the horizontal rail

pre-drilled or off-center hole

Loosen

Hex Lag Bolt

Tighten

PREMIER MOUNTS

ASSEMBLE THE FRAME

1

Horizontal support bar are mounted at the middle of the vertical brackets (except 1 high).

Horizontal Rail

(2) or (4) 10-32" x 1/4" Flat head per bracket

Left Vertical

Center Vertical

Right Vertical
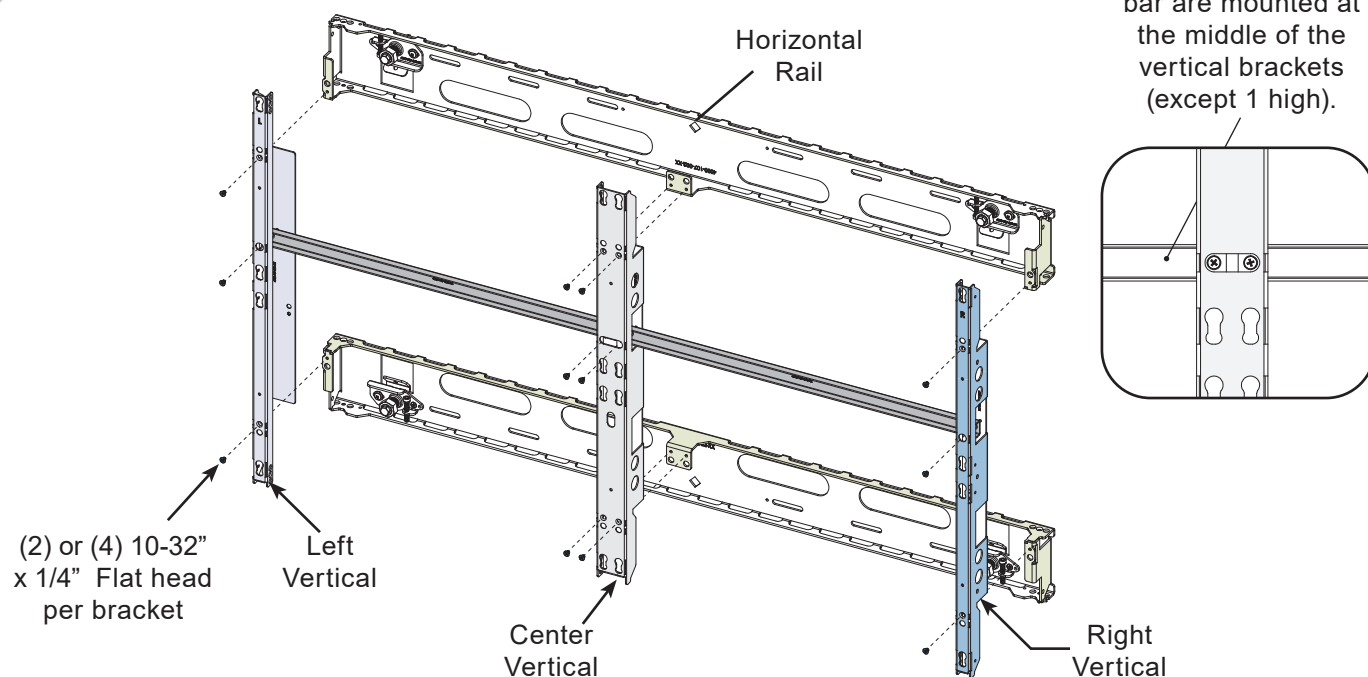
Shown as a single unit configuration (bracket size and array size are the same). **If** the array size is greater than the bracket size, mutiple rail brackets are used to extend to the desired array size (see page 8-9 for detail).
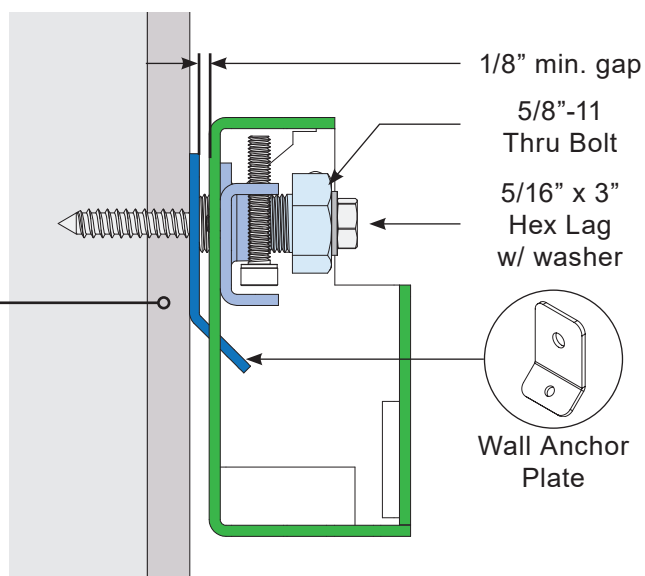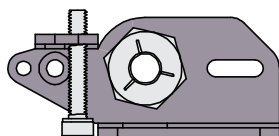
MOUNTING SURFACE INFORMATION

2

1/8" min. gap

5/8"-11 Thru Bolt

5/16" x 3" Hex Lag w/ washer

⚠️ **WALL REQUIREMENT:**

A solid or continuous plywood backing wall with min. of 3/4" thickness.

Wall Anchor Plate

PREMIER MOUNTS

3

1. Install a few support screws to hold the mount roughly near the desired location.
2. Place a level on top of the mount and readjust the support screws if necessary.
3. Secure the first mounting location by sliding a Wall Anchor Plate behind the mount and fasten using 5/16" x 3" Hex Lag and 5/16" Washer.
4. Maintain a 1/8" minimum gap from the anchor plate and rail bracket when anchoring.
5. Install the remaining upper mounting locations while keeping the mount leveled.

00.0 °

LASER / LEVEL

Bolted
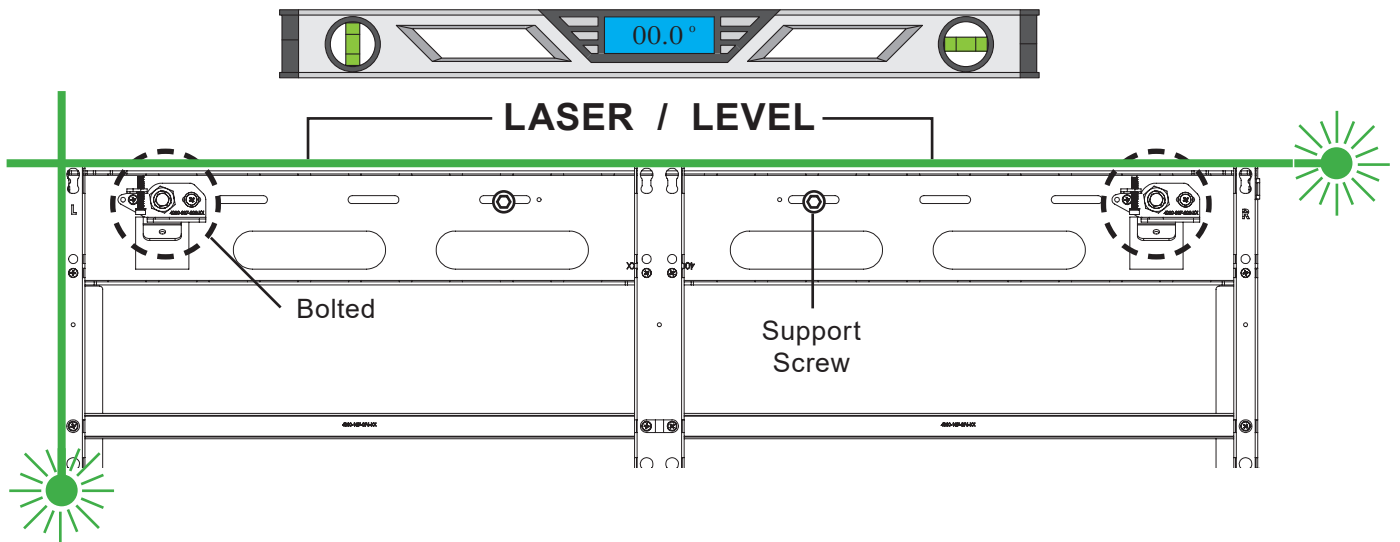
Support
Screw

4

Install a few support screws (commercially available hardware) to **temporary** hold the lower portion of the mount. Do not bolt the frame at circled mounting point location. Adjust or nudge the frame left or right until the mount is squared.

⚠️ **Installation is not finished within this step. The frame must be fully squared and leveled prior to final mounting location. See step 9-10 for additional detail.**

**Do Not Anchor Prior to
Final Mounting Location**

Support Screws (temporary)

PREMIER
MOUNTS
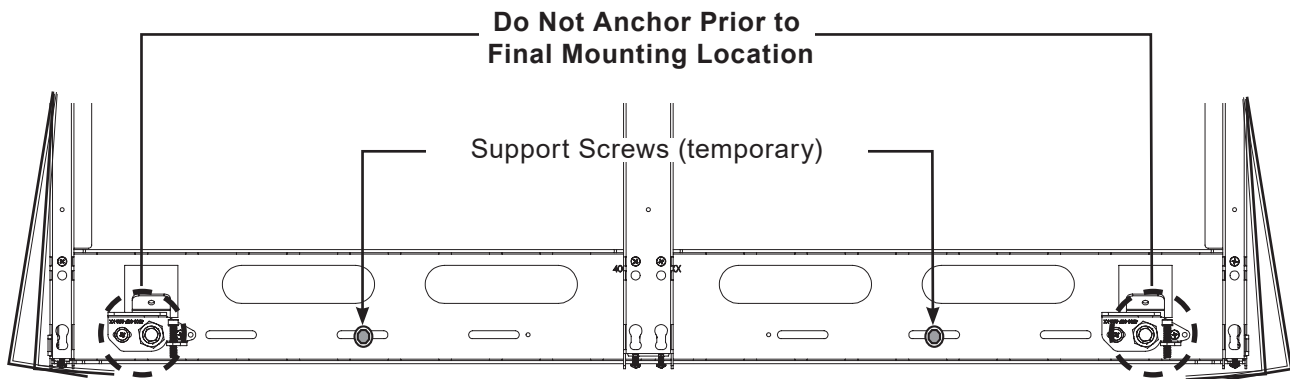
Multiple Unit Configuration

5

Extend Horizontally

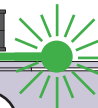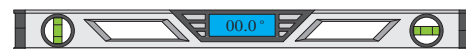To extend the width of the unit, follow the steps below.

1. Hang and position the second Horizontal Rail side by side.
2. Place a support screw while maintaining a leveled horizontal rail to temporary hold in place.
3. Connect each Horizontal rail brackets together using (2) Attachment Plate and (4) 10-32" x 1/4" Flat Head Screw as shown below.
4. Center Vertical Rail Brackets are installed at the inner mounting location, while the Left and Right Vertical are always mounted at far most side of the mount.
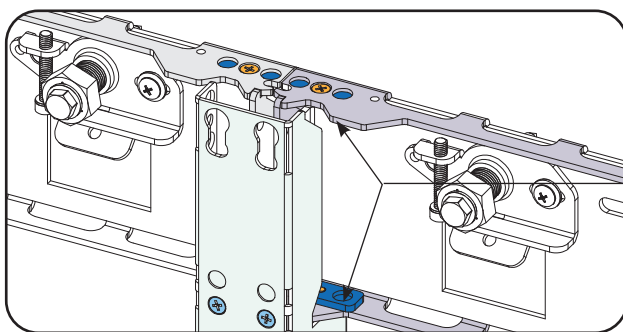
Attachment Plate w/
10-32" FH screws

LASER / LEVEL

00.0°
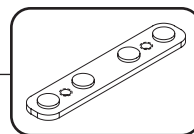
Horizontal Rail
(1st unit)

Center
Vertical Rail
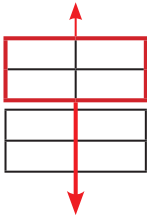
Horizontal Rail
(2nd unit)

Support
Screw

10-32 x 1/2" screws
at the bottom of the
mount (see page 14).
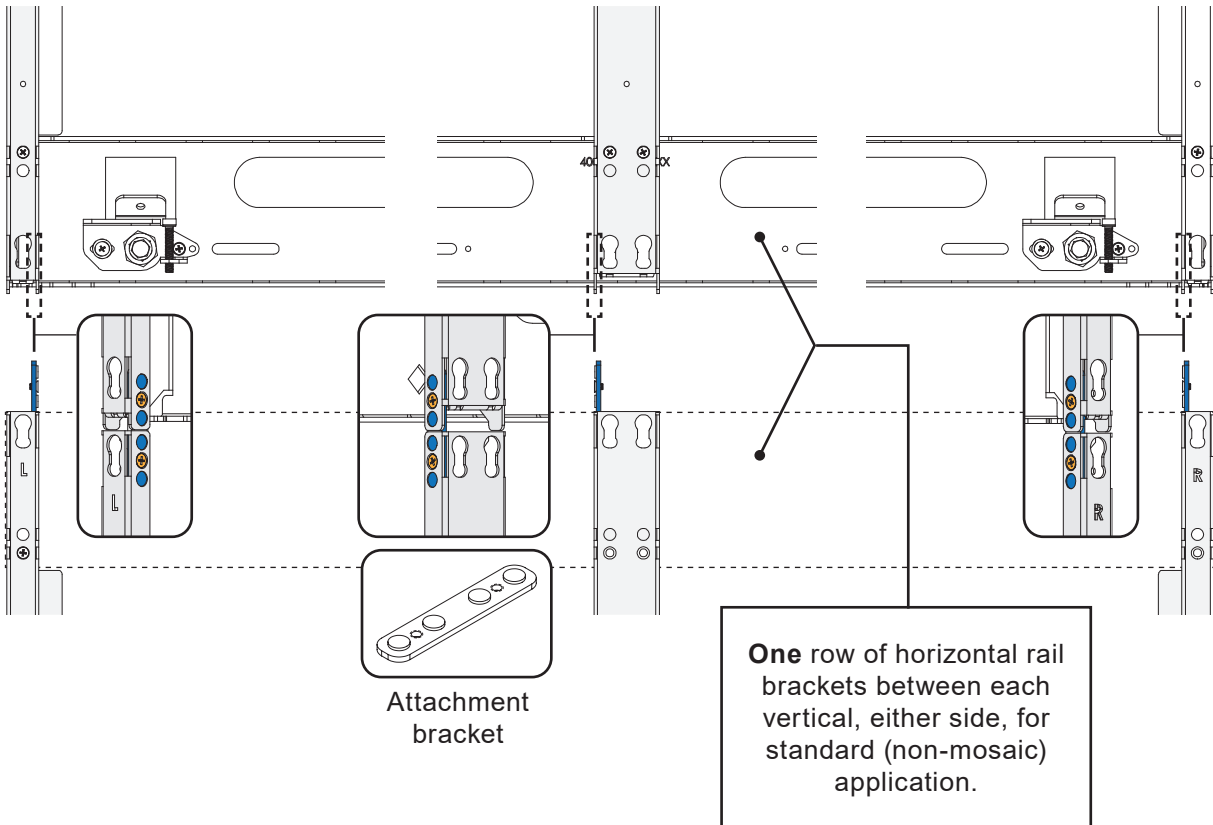
PREMIER
MOUNTS

Multiple Unit Configuration

6

Extend Vertically

To extend the height of the unit, follow the steps below.

1. Use multiple Attachment Plate and fasten using (2) 10-32" x 1/4" Flat Head Screw per rail bracket.
2. When attaching the another section vertically, only one row of horizontals are required, on either side.
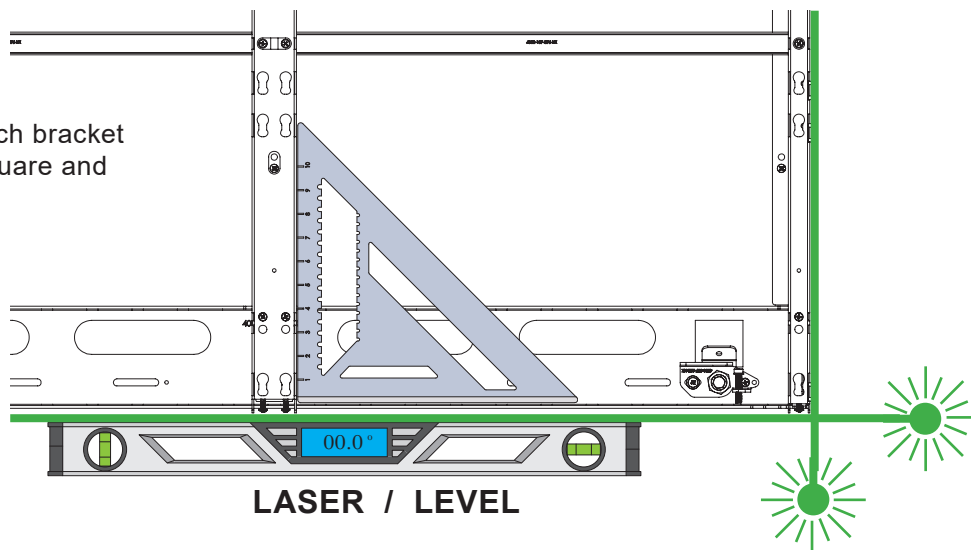
Attachment bracket

One row of horizontal rail brackets between each vertical, either side, for standard (non-mosaic) application.

PREMIER MOUNTS

7

SQUARE AND LEVEL

Inspect each bracket using a Square and Level tool.
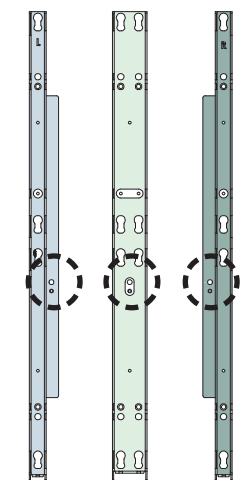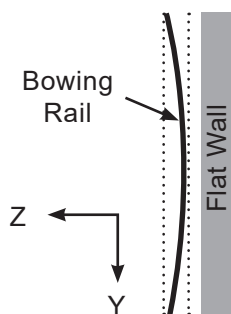
00.0°

LASER / LEVEL

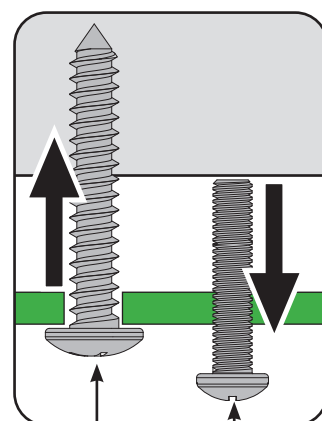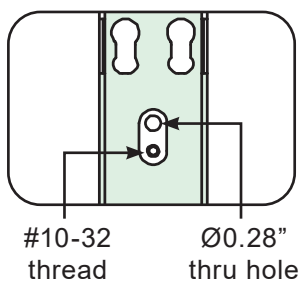**8**

FINETUNE THE RAIL FOR FLATNESS

1. Install wherever possible.
2. Use drywall or wood screws to pull the brackets towards the wall.
3. Use supplied #10-32 x 1-1/2" Pan screw to push the brackets against the wall.
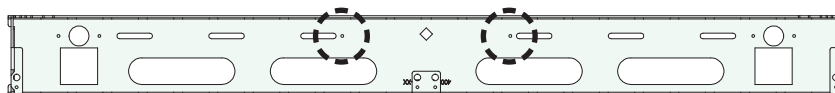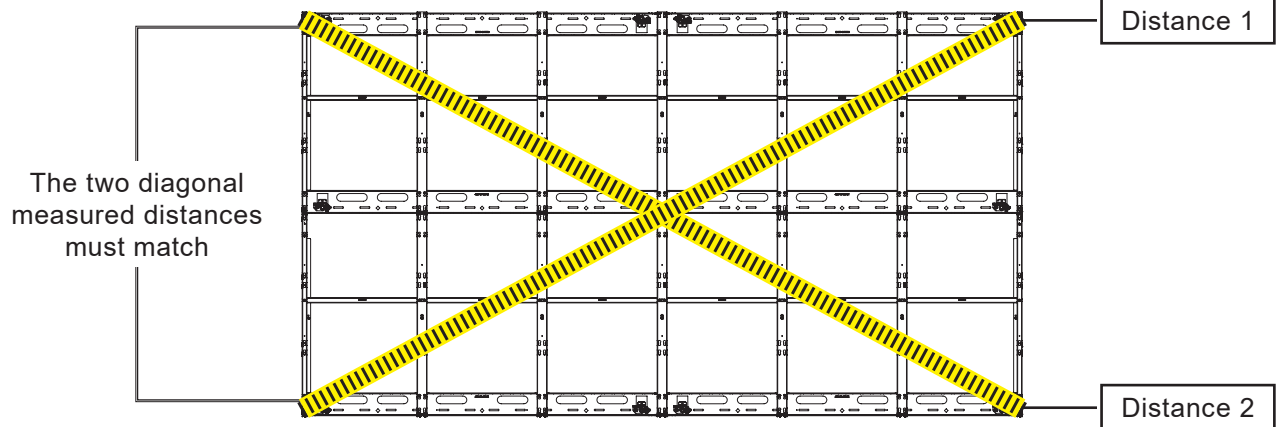
Finetuning holes for reference

Bowing Rail

Flat Wall

Z

Y

#10-32 thread

Ø0.28" thru hole

Towards the wall

Against the wall

Shown using 2 High Vertical Rail

PREMIER MOUNTS

9

VERY IMPORTANT!
VERIFYING THE DIAGONAL MEASUREMENTS FOR SQUARENESS

Distance 1

The two diagonal measured distances must match

Distance 2

1. Measure the distance from corner to corner with a measuring tape.
2. Measure diagonally opposite and verify the diagonal measurements.
3. Proceed only if the two measurements are equivalent.

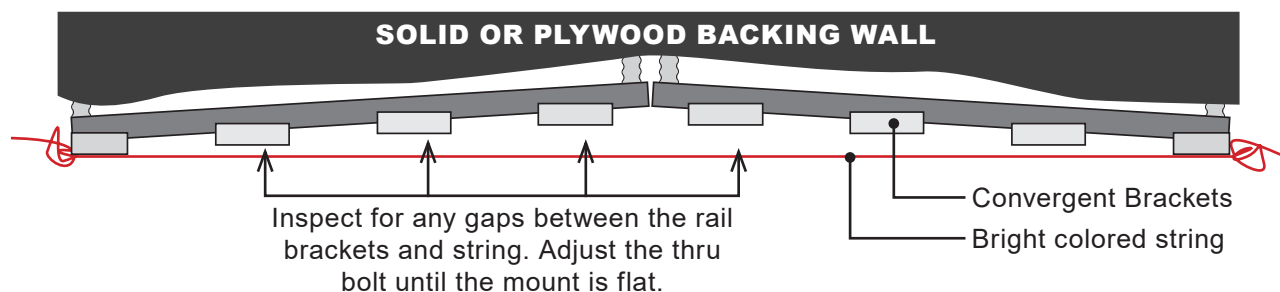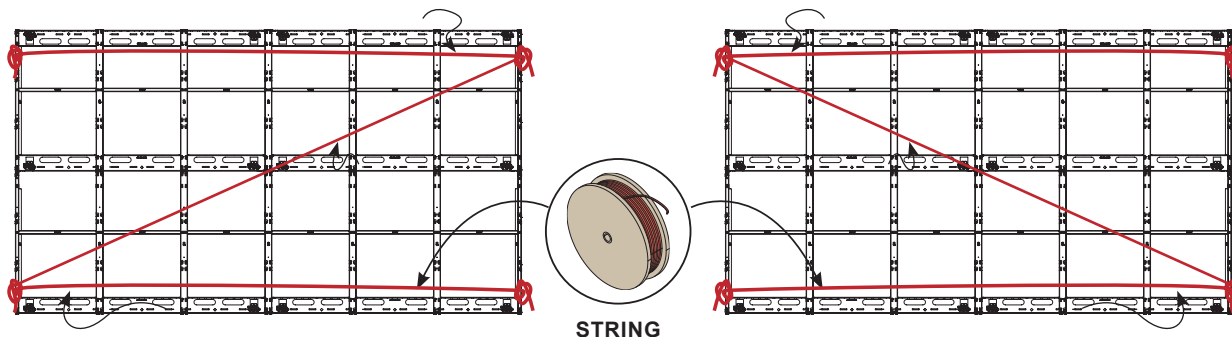**10**

BOLT THE LOWER MOUNTING POINT

Secure the lower mounting location by sliding a Wall Anchor Plate behind the mount and bolt using 5/16" x 3" Hex Lag with 5/16" Washer.
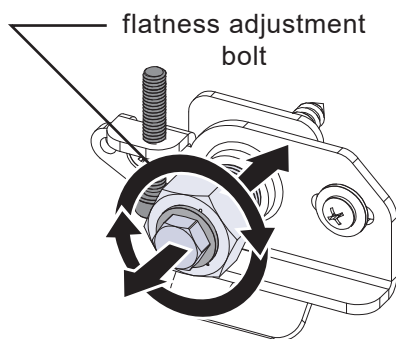

INSTALL THE LOWER MOUNTING LOCATIONS

REMINDER

PREMIER MOUNTS
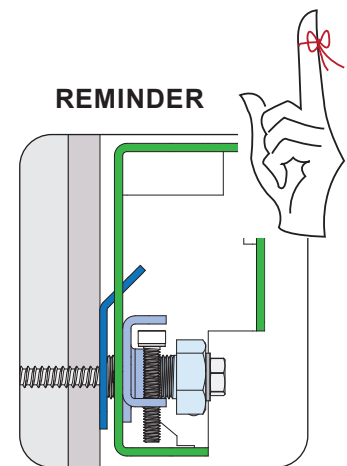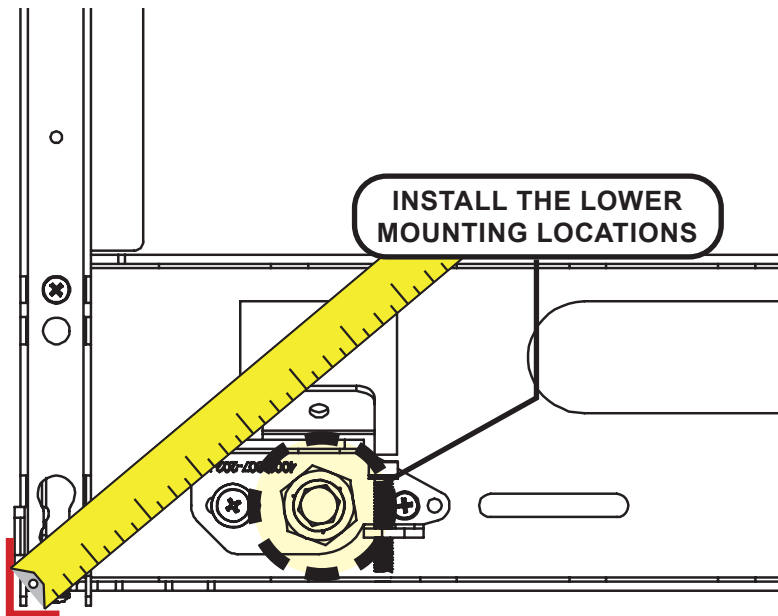
VERIFYING THE MOUNT FOR FLATNESS

11

1. Tie a string from one end to the other end of the entire array.
2. Tie horizontally and crisscross, especially for large video wall array.
3. Inspect for any gaps between the brackets and the string.
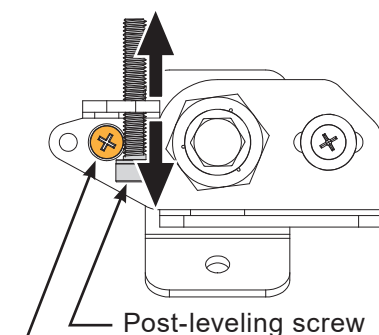4. Adjust any neccessary mounting location.

STRING

SOLID OR PLYWOOD BACKING WALL

Inspect for any gaps between the rail brackets and string. Adjust the thru bolt until the mount is flat.

Convergent Brackets

Bright colored string

FLATNESS ADJUSTMENT

flatness adjustment bolt

±1/2" or 1" max adjustment range for **flatness**.

POST-LEVEL ADJUSTMENT

Post-leveling screw

Remove the flat head screw before post-leveling can be adjusted.

PREMIER MOUNTS

POST-LEVEL ADJUSTMENT

12

LASER / LEVEL


Up / Down

Adjust the level by loosen or tighten the screw located on either the top **OR** bottom corner location of the mount.
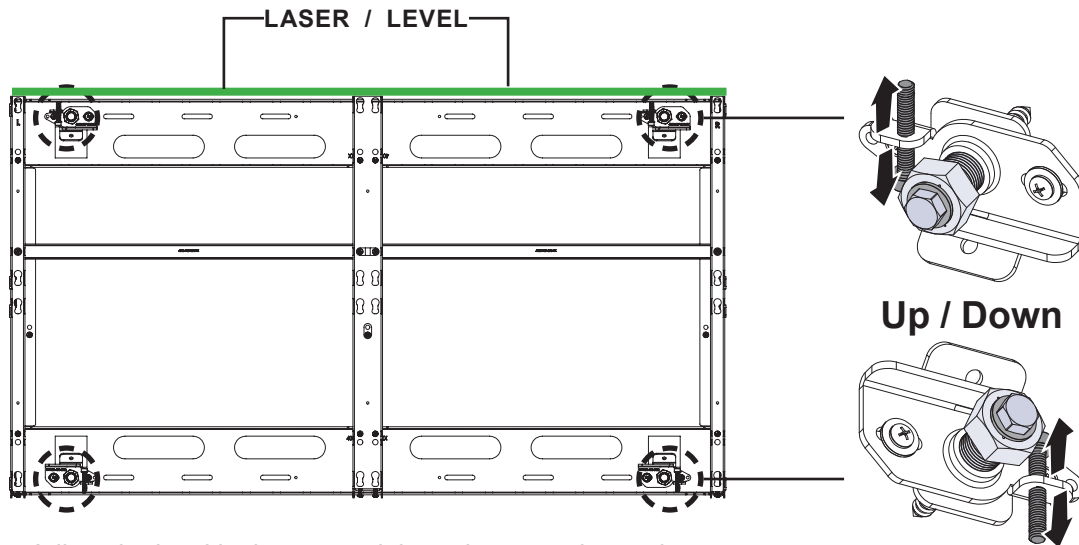
**Remove** flat head screw before adjusting

13

NOTES: If using the additional slots for mounting points, make sure that the floating frame is fully level to the wall vertically and horizontally. Must use shims (commercially available) on every slots being used to fill the void between the wall and the frame. Avoid over tightening the screws as this would make the floating frame uneven.

Additional Slots

FILL VOIDS WITH SHIMS

PREMIER MOUNTS

14
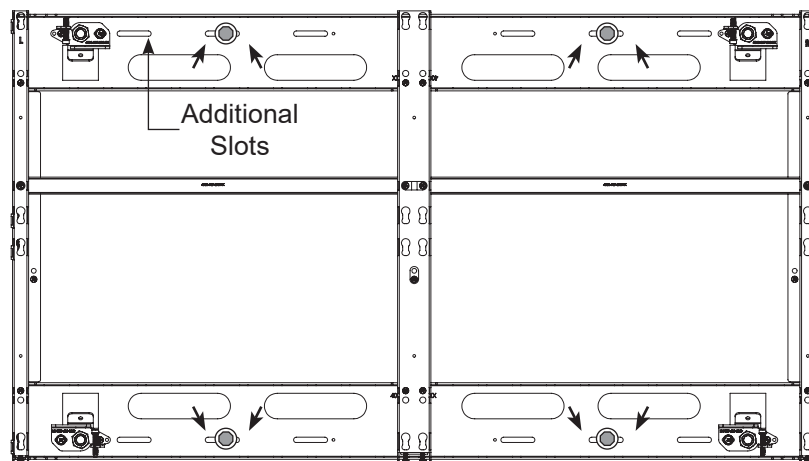
LG LSA LED DISPLAY INSTALLATION MANUAL must be read in conjunction with the recommended steps below. LED Cabinets to be handled by industry qualified professional. Improper installation may cause damage to the LEDs.

1. Mount the LED Cabinets via keyhole mounting starting from bottom row, left to right, then the remaining upper rows.
2. Proceed after all cabinets are fully seated.
3. Use a 10-32" x 1/2" Pan Head (located at the bottom of the verticals) to push the cabinets closer together and install the Locking Clip on the left and right side of the entire video wall array to lock the cabinets firmly in place.
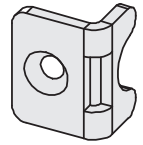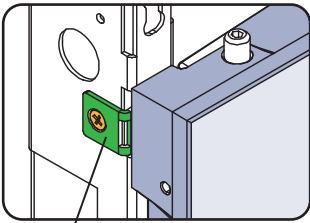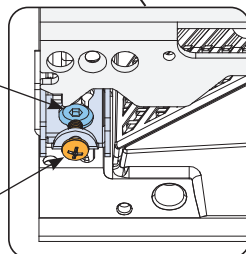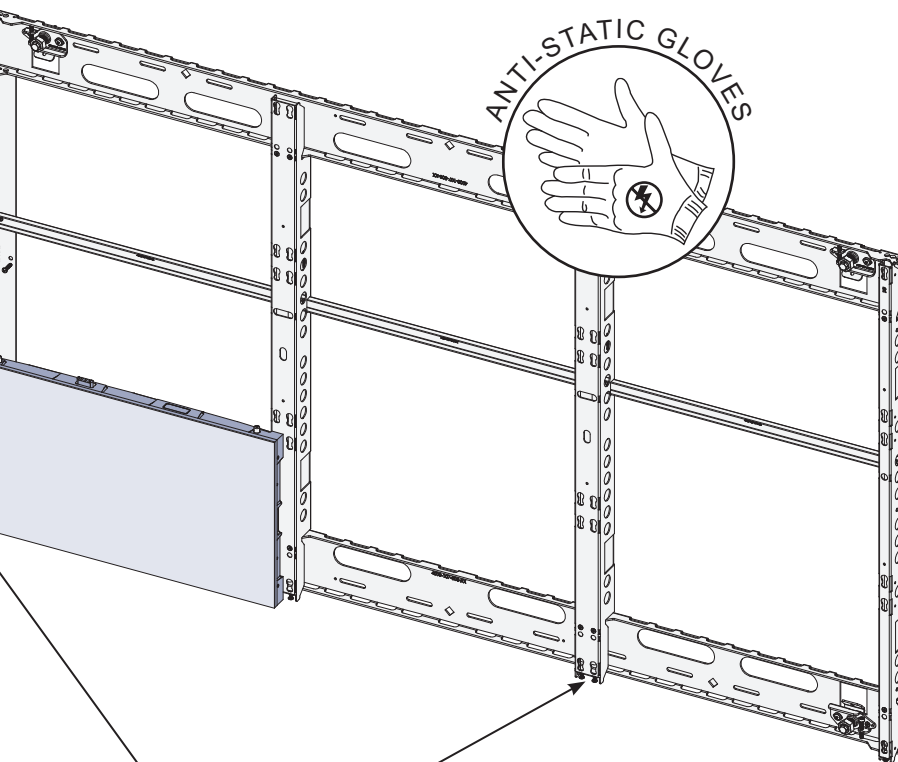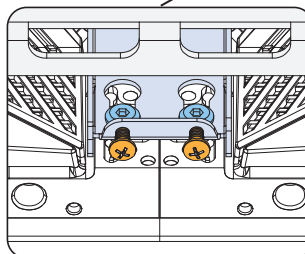
Locking Clip

Rear View
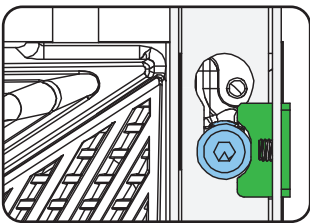
Side View

Use the Locking Clip w/ 10-32" x 1/4" FH screw to lock the cabinets firmly in place along the left and right side brackets.

ANTI-STATIC GLOVES

Keyhole button (by others)
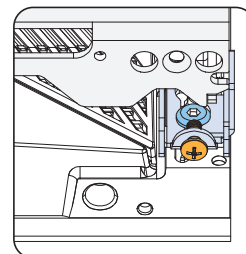
Use 10-32" x 1/2" Pan Head screws to push cabinets closer together.

Left   Middle   Right

Single unit configuration, 3 Wide by 3 High Video Wall, shown for clarity.

PREMIER MOUNTS