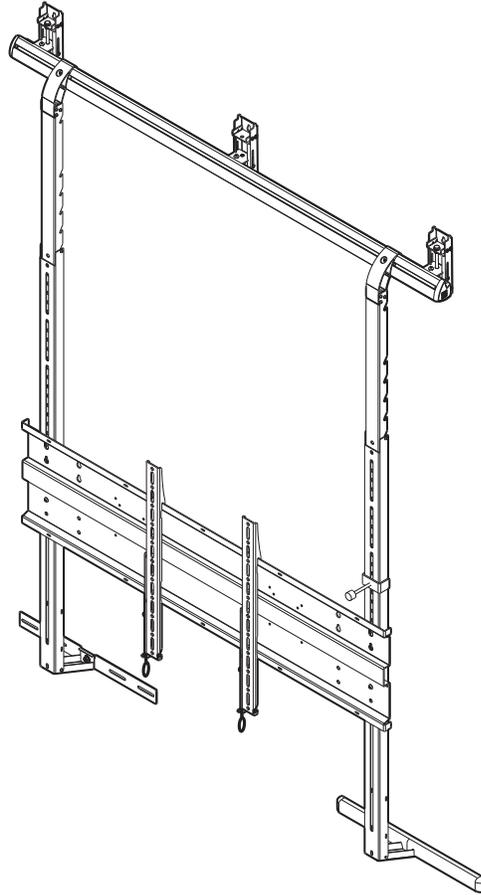


---

# INSTALLATION INSTRUCTIONS

---



---

## Interactive Flat Panel Over White Board Mount

---

## DISCLAIMER

Milestone AV Technologies and its affiliated corporations and subsidiaries (collectively "Milestone"), intend to make this manual accurate and complete. However, Milestone makes no claim that the information contained herein covers all details, conditions or variations, nor does it provide for every possible contingency in connection with the installation or use of this product. The information contained in this document is subject to change without notice or obligation of any kind. Milestone makes no representation of warranty, expressed or implied, regarding the information contained herein. Milestone assumes no responsibility for accuracy, completeness or sufficiency of the information contained in this document.

Chief® is a registered trademark of Milestone AV Technologies. All rights reserved.

## DEFINITIONS

**MOUNTING SYSTEM:** A MOUNTING SYSTEM is the primary Chief product to which an accessory and/or component is attached.

**ACCESSORY:** AN ACCESSORY is the secondary Chief product which is attached to a primary Chief product, and may have a component attached or setting on it.

**COMPONENT:** A COMPONENT is an audiovisual item designed to be attached or resting on an accessory or mounting system such as a video camera, CPU, screen, display, projector, etc.



**WARNING:** A WARNING alerts you to the possibility of serious injury or death if you do not follow the instructions.



**CAUTION:** A CAUTION alerts you to the possibility of damage or destruction of equipment if you do not follow the corresponding instructions.



## IMPORTANT SAFETY INSTRUCTIONS



**WARNING:** Failure to read, thoroughly understand, and follow all instructions can result in serious personal injury, damage to equipment, or voiding of factory warranty! It is the installer's responsibility to make sure all mounting systems are properly assembled and installed using the instructions provided.



**WARNING:** Failure to provide adequate structural strength for this mounting system can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the structure to which this mounting system is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the mounting system. The wall to which the mounting system is being attached may have a maximum drywall thickness of 5/8" (1.6cm) on wood studs only. Concrete walls may not have any drywall covering.



**WARNING:** Exceeding the weight capacity can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the combined weight of all components attached to mounting system does not exceed 310 lbs (140.6 kg).



**WARNING:** Use this mounting system only for its intended use as described in these instructions. Do not use attachments not recommended by the manufacturer.



**WARNING:** Never operate this mounting system if it is damaged. Return the mounting system to a service center for examination and repair.



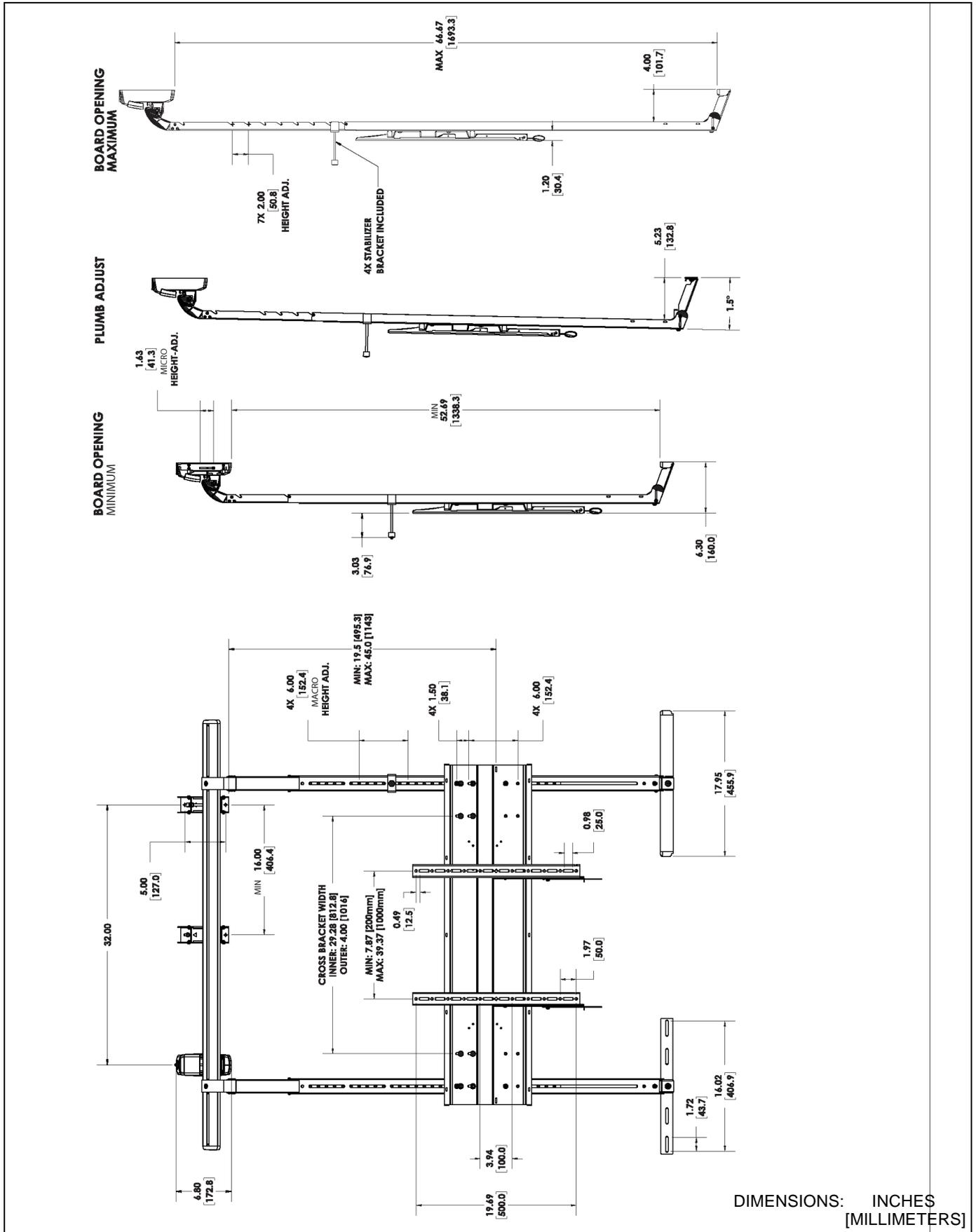
**WARNING:** Do not use this mounting system outdoors.

**IMPORTANT ! :** The OB1U is designed to be mounted to a:

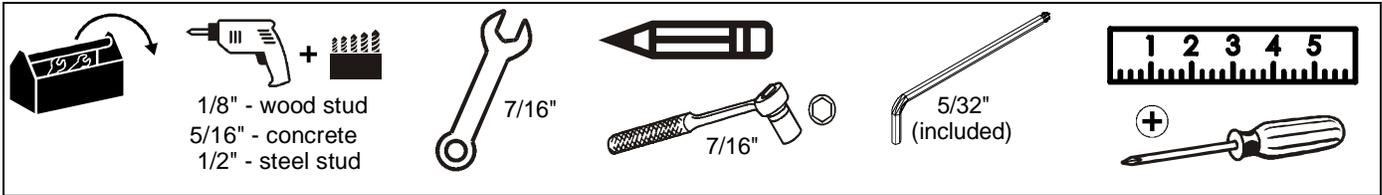
- bare 8" thick solid concrete or 8" x 8" x 16" concrete block wall; or
- 2" x 4" wood stud (16" on center) wall covered with drywall having a maximum thickness of 5/8"; or
- a 2" x 4"-25ga minimum steel studs wall with a minimum drywall thickness of 1/2" (1.3cm).

**--SAVE THESE INSTRUCTIONS--**

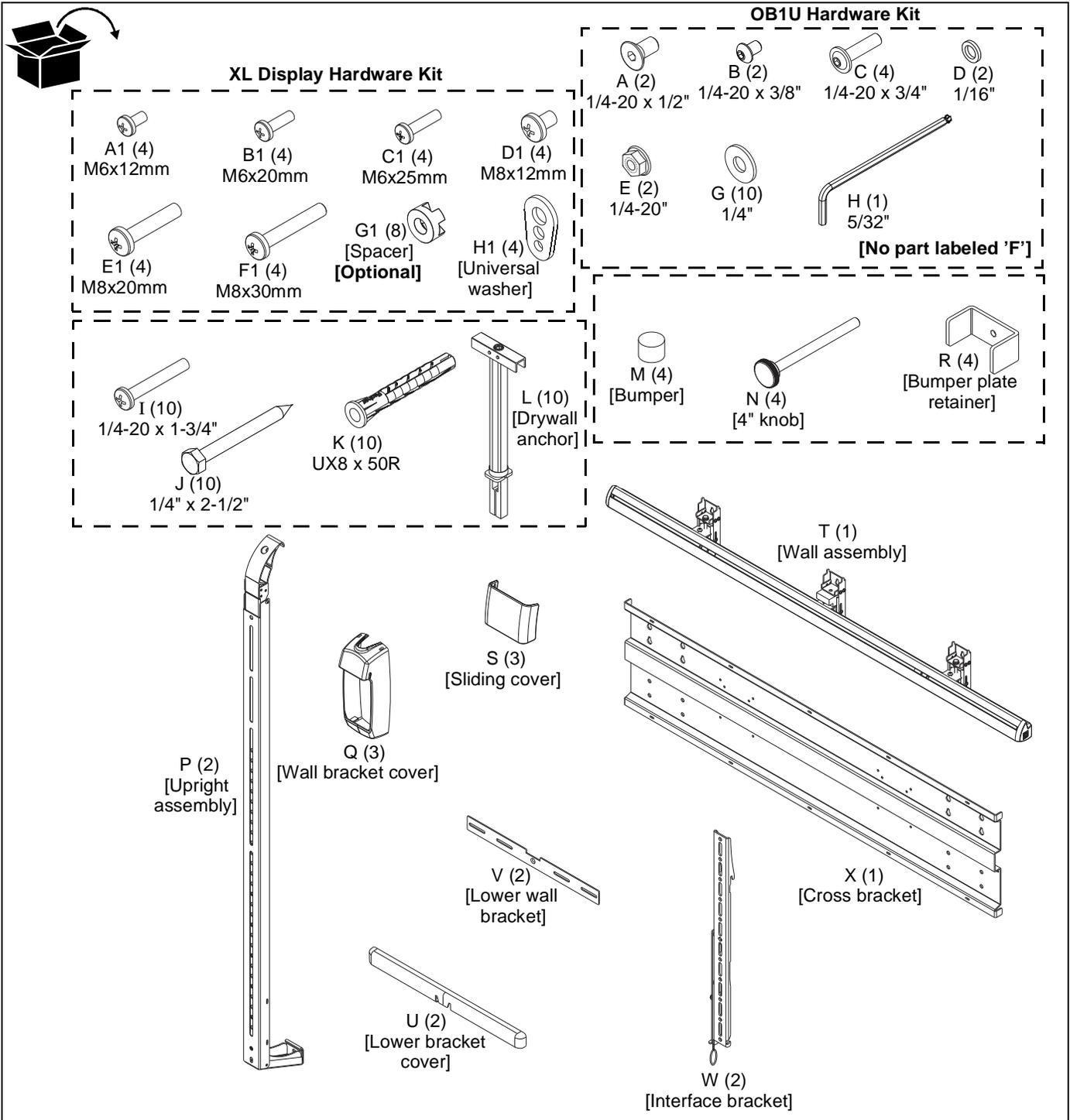
**DIMENSIONS**



**TOOLS REQUIRED FOR INSTALLATION**



**PARTS**



## ASSEMBLY AND INSTALLATION

The OB1U will allow an interactive flat panel display to be installed over an existing chalkboard/whiteboard. The OB1U has telescoping legs which allows it to be anchored above and below the existing chalkboard/whiteboard.

### Adjusting OB1U Legs

1. Tip and lift outer portion of upright assembly out of the shipping slot, and slide down to extend the length of OB1U leg. (See Figure 1)
2. Choose a slot to set the correct length of entire upright assembly, and tip outer portion upright into appropriate slot. (See Figure 1)
3. Repeat Steps 1 and 2 on the other upright assembly (P).

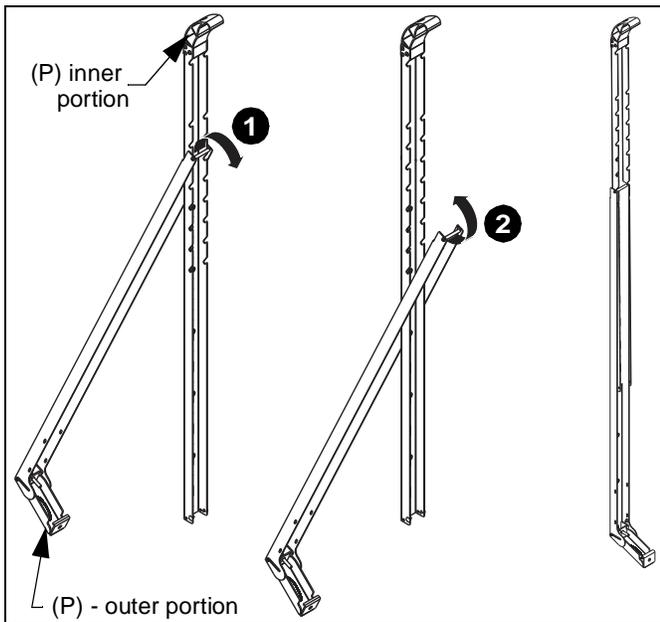


Figure 1

**NOTE:** The lower wall bracket (V) is **OPTIONAL** if the upright assemblies (P) are attached to a concrete wall

4. Attach one lower wall bracket (V) to each of the upright assemblies (P) using one 1/4-20 x 1/2" flat head cap screw (A) and one 1/4-20" hex nut (E) on each lower wall bracket. (See Figure 2)

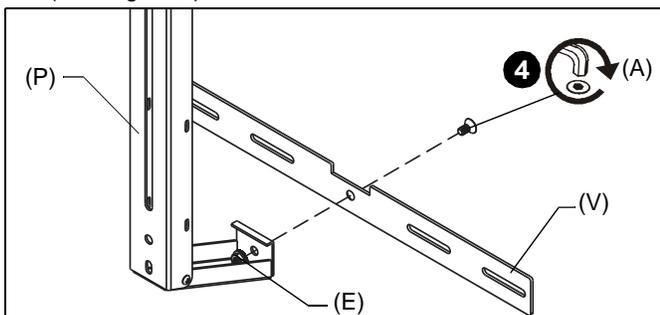


Figure 2

### Locate Mounting Site



**WARNING:** IMPROPER INSTALLATION CAN LEAD TO MOUNT FALLING CAUSING SEVERE PERSONAL INJURY OR DAMAGE TO EQUIPMENT! It is the installers responsibility to make certain the structure to which the mount is being attached is capable of supporting five times the weight of the OB1U and all attached equipment not to exceed 310 lbs (140.6 kg).



**WARNING:** ELECTRICAL SHOCK, EXPLOSION AND FIRE HAZARD! CUTTING OR DRILLING INTO ELECTRICAL CORDS, CABLES OR GAS PLUMBING CAN CAUSE DEATH OR SERIOUS PERSONAL INJURY! ALWAYS make certain area behind mounting surface is free of electrical wires, cables, gas, water, waste, or any other plumbing before drilling or installing fasteners.

### Adjusting Wall Brackets for Installation

**NOTE:** The two outside wall brackets on the wall assembly may be adjusted to suit installation needs, but each must be spaced a **minimum** of 16" from the center wall bracket, **AND** the two outside wall brackets may be a **maximum** of 48" apart (outside bracket to outside bracket).

**NOTE:** The center wall bracket must remain in the center of the wall assembly (T).

1. Slide outside wall brackets along wall assembly (T), as required, for the wall substrate. (See Figure 3)
2. Tighten button head cap screw on each wall bracket to secure wall brackets to wall assembly. (See Figure 3)

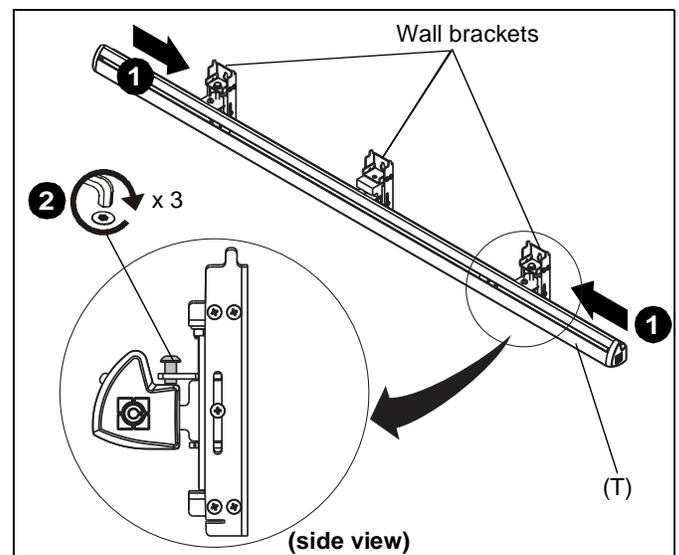


Figure 3

**NOTE:** Proceed to the **Installing to a Wood Stud Wall** section, or the **Installing to a Concrete or Concrete Block Wall** section, or the **Installing to a Steel Stud Wall** section, as appropriate.

### Installing to a Wood Stud Wall

1. Determine the center of the chalkboard/whiteboard.
2. Locate the closest 2" x 4" wood stud to the left and right of the selected location.

**NOTE:** The mounting holes for the two outside OB1U wall brackets on the wall assembly (T) may be located a **maximum** of 48" apart.

**NOTE:** The center wall bracket must remain in the center of the wall assembly (T) **AND** a **minimum** of 16" from both outside wall brackets.

**NOTE:** Leave a **minimum** of 1" between the bottom of the wall assembly brackets and the top of the existing chalkboard/whiteboard. This will allow enough space to install the wall bracket covers (Q) at a later time.

3. Using the wall assembly (T), mark the wall on each stud above existing chalkboard/whiteboard through mounting holes in each bracket. (See Figure 4)
4. Drill one 1/8" pilot hole at each mark. (See Figure 4)
5. Use six 1/4" x 2-1/2" lag bolts (J) and six 1/4" flat washers (G) to attach wall assembly (T) to wall. (See Figure 4)
6. Proceed to **Assembling Cross Brackets/Lower Brackets** section.

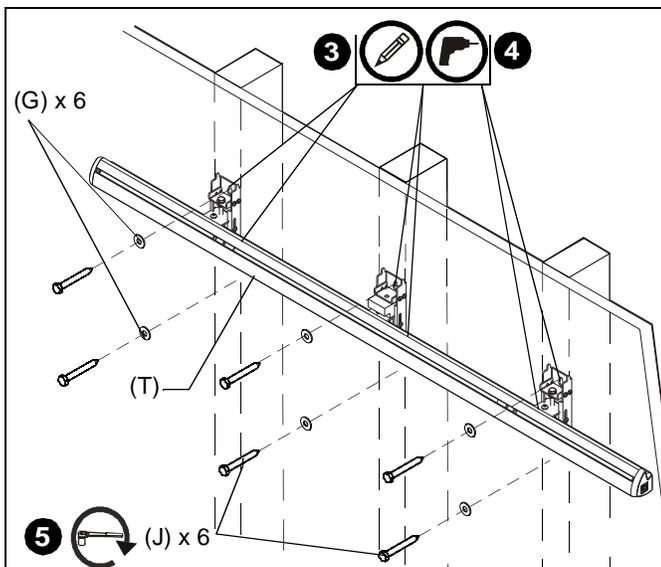


Figure 4

### Installing to a Concrete or Concrete Block Wall

**NOTE:** The OB1U may be attached to an 8" concrete wall or an 8" x 8" x 16" concrete block wall. Do NOT install into mortar between blocks.

1. Determine the center of the chalkboard/whiteboard.

**NOTE:** The mounting holes for the two outside OB1U wall brackets on the wall assembly (T) must be located a **minimum** of 32" apart.

**NOTE:** The center wall bracket must remain in the center of the wall assembly (T) **AND** a **minimum** of 16" from both outside wall brackets.

**NOTE:** Leave a **minimum** of 1" between the bottom of the wall assembly brackets and the top of the existing chalkboard/whiteboard. This will allow enough space to install the wall bracket covers (Q) at a later time.

2. Using the wall assembly (T), mark the wall above existing chalkboard/whiteboard through mounting holes in each bracket. (See Figure 5)
3. Drill one 5/16" x 2-3/4" pilot hole at each marking. (See Figure 5)

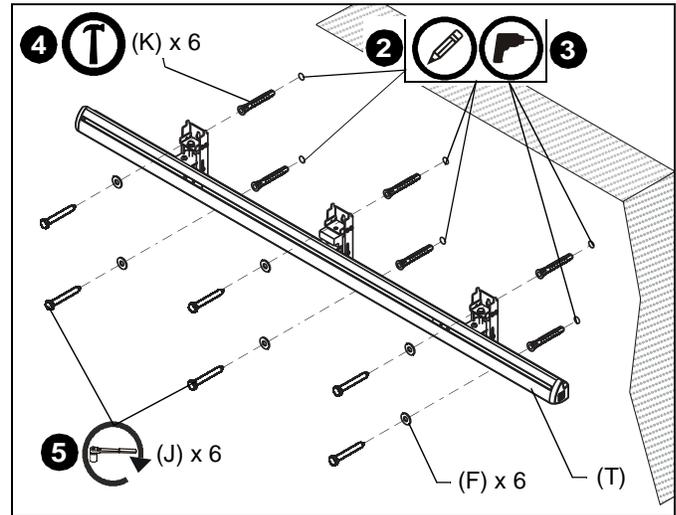


Figure 5

4. Install an anchor (K) into each pilot hole using a hammer. (See Figure 5)
5. Use six 1/4" x 2-1/2" lag bolts (J) and six 1/4" flat washers (G) to attach wall assembly (T) to anchors in wall. (See Figure 5)

### Installing to a Steel Stud Wall

**IMPORTANT ! :** See **Steel Stud Site Selection** (See Figure 6) before proceeding with Steel Studs installation to ensure installation site meets requirements! The drywall must have a minimum thickness of 1/2" and maximum thickness of 5/8"!

1. Determine the center of the chalkboard/whiteboard.
2. Locate the closest steel stud to the left and right of the selected location.

**NOTE:** The mounting holes for the two outside OB1U wall brackets on the wall assembly (T) may be located a **maximum** of 48" apart to accommodate three 24" steel studs, and a **minimum** of 32" apart to accommodate three 16" steel studs.

**NOTE:** The center wall bracket must remain in the center of the wall assembly (T) **AND** a **minimum** of 16" from both outside wall brackets.

**NOTE:** Leave a **minimum** of 1" between the bottom of the wall assembly brackets and the top of the existing chalkboard/whiteboard. This will allow enough space to install the wall bracket covers (Q) at a later time.

### Steel Stud Site Selection



If back side of wall is unfinished, drywall must be installed to a minimum of one stud left and right of the stud(s) being used to install the mount. Drywall must be secured to studs with screws a maximum of 12" (305mm) apart down center of stud.

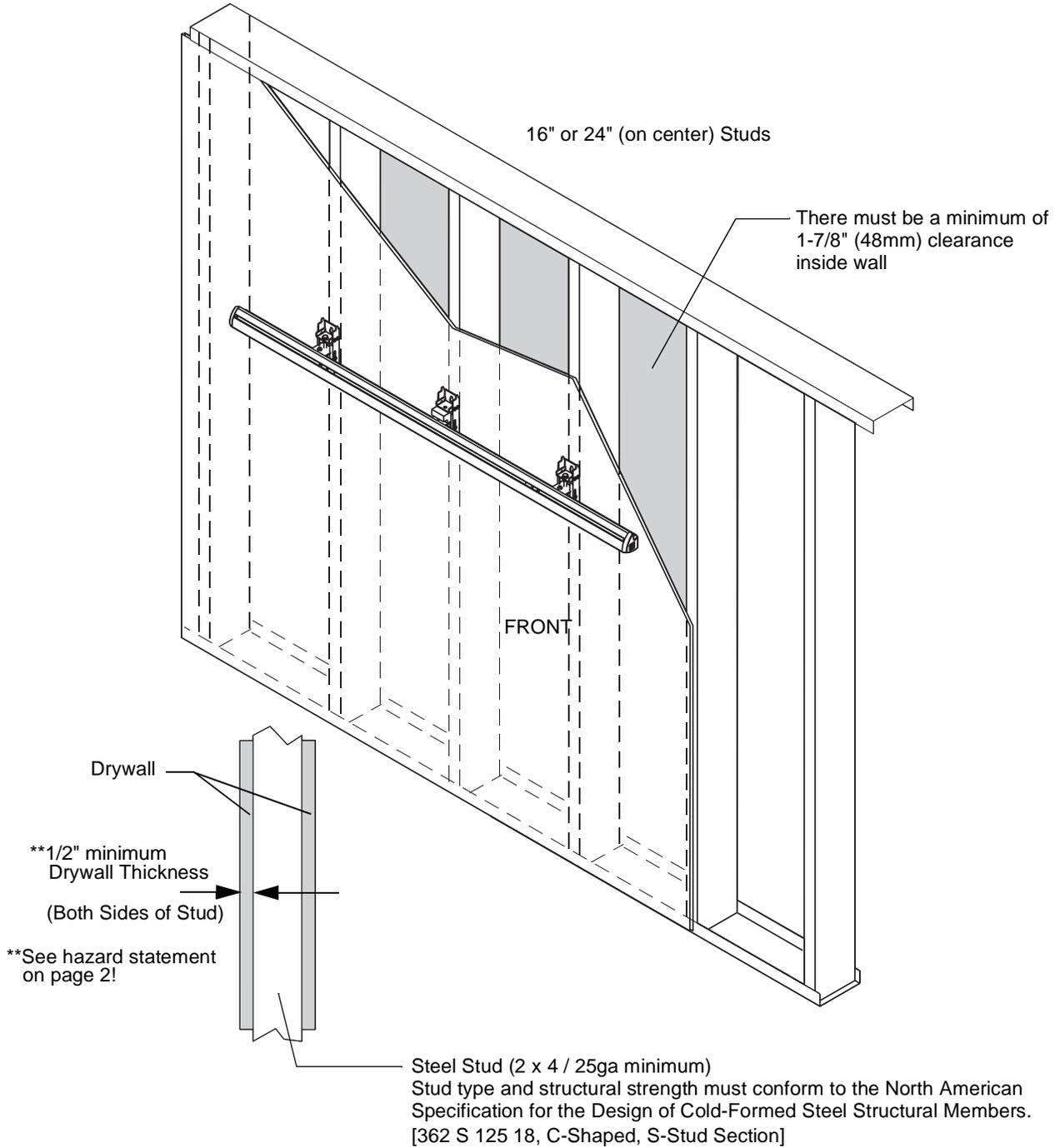
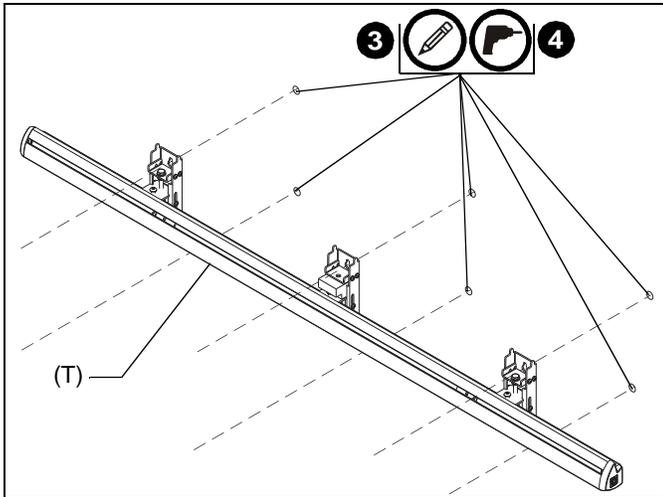
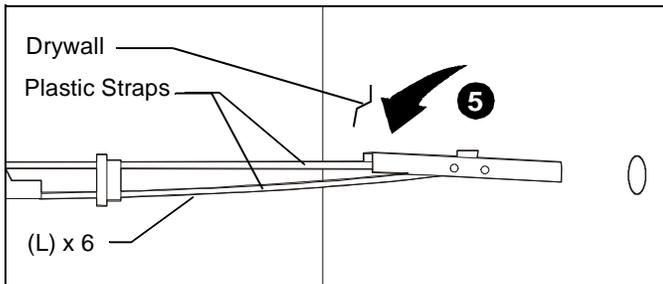


Figure 6



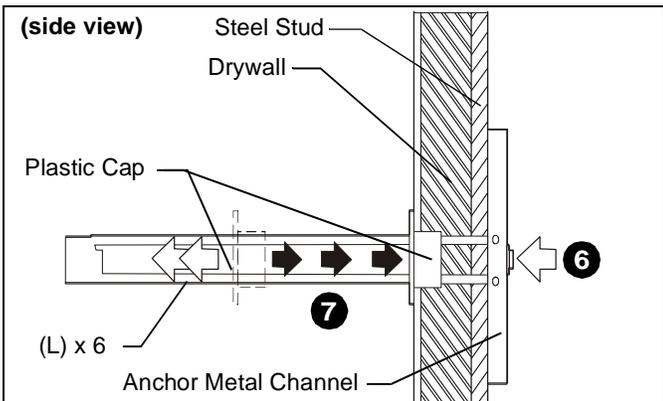
**Figure 7**

3. Using the wall assembly (T), mark the wall on each stud above existing chalkboard/whiteboard through mounting holes in each bracket. (See Figure 7)
4. Drill one 1/2" hole at each marked location in wall.
5. Hold metal channel on anchor (L) flat alongside plastic straps and slide channel through hole. (See Figure 8)



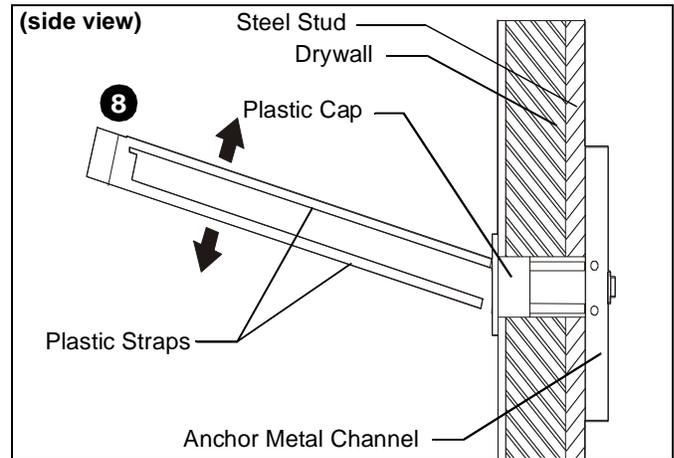
**Figure 8**

6. Holding plastic straps on anchor (L), pull anchor away from wall until channel rests flush behind wall making sure anchor channel is positioned vertically on stud. (See Figure 9)
7. Slide plastic cap on anchor (L) towards wall until flange of cap is flush with wall. (See Figure 9)



**Figure 9**

8. Snap off plastic straps on anchor at wall by pushing side to side, snapping off straps level with flange of plastic cap. (See Figure 10)
9. Repeat Steps 5 through 8 for each mounting hole.

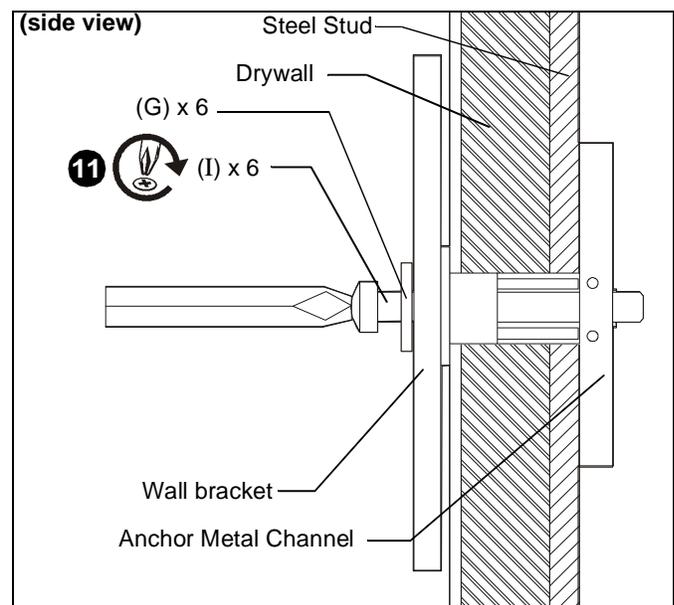


**Figure 10**

10. Place wall brackets of wall assembly (T) over installed anchors and align mounting holes in wall brackets with holes in anchors. (See Figure 11)
11. Insert 1/4-20 x 1-3/4" Phillips pan head screws (I) through 1/4" washer (G), corresponding mounting hole on wall bracket and into anchor (L) and tighten until flush against wall bracket. DO NOT over tighten! (See Figure 11)
12. Repeat Steps 10 through 11 for remaining mounting holes.



**WARNING:** IMPROPER INSTALLATION CAN LEAD TO MOUNTING SYSTEM FALLING CAUSING SERIOUS PERSONAL INJURY OR DAMAGE TO COMPONENTS! Over tightening of mounting hardware can damage the steel studs. DO NOT over tighten mounting hardware!



**Figure 11**

### Assembling Cross Brackets

1. Hang both upright assemblies (P) on the wall assembly (T) and laterally shift upright assemblies as needed to use the inner or outer cross bracket hole set. (See Figure 12)

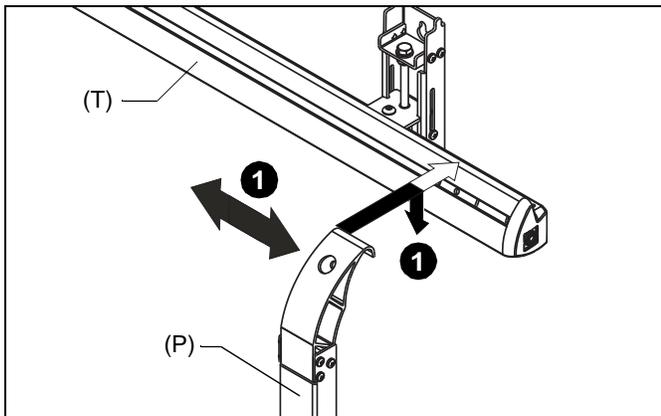


Figure 12

2. Insert one 1/4-20 x 3/4" button head flange screw (C) into pre-installed (PEM) nuts at the desired height in both upright assemblies (P). (See Figure 13)
3. Hang cross bracket (X) through upper or lower set of tear-drop mounting slots onto 1/4-20 screws (C) inserted in Step 2.
4. Complete attaching the cross bracket (X) by inserting two 1/4-20 x 3/4" button head flange screws (C) through lower mounting holes in cross bracket. (See Figure 13)
5. The mounting system may be laterally shifted by moving the upright assemblies (P) laterally along the wall assembly (T) to the desired location.
6. Tighten the button head cap screws on the wall brackets to fasten the wall assembly in place. (See Figure 12)

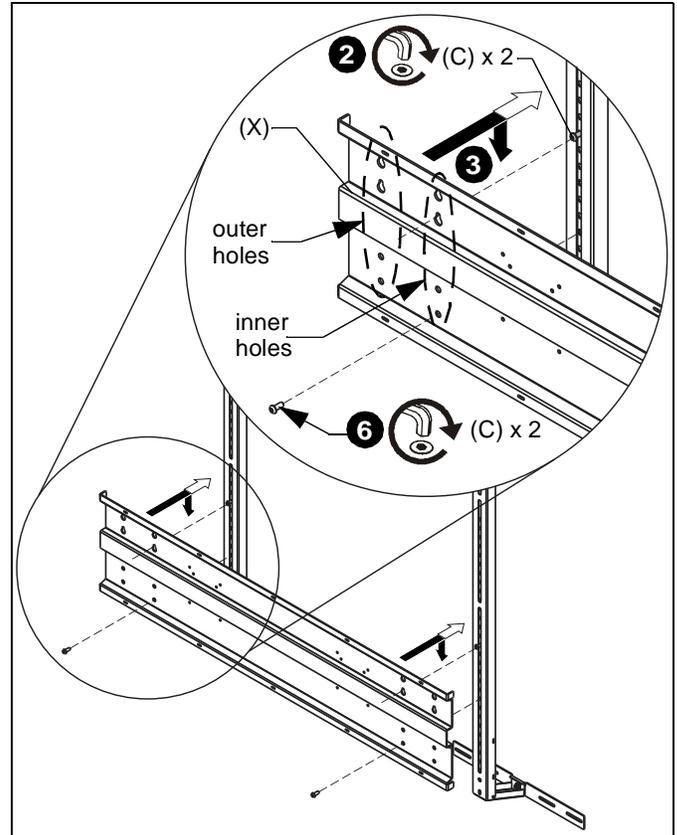


Figure 13

7. Move the slide nut behind the upright (P). (See Figure 14)
8. Fasten upright in place using one 1/4-20 x 3/8" button head cap screw (B) and one 1/16" nylon spacer (D) [from OB1U Hardware kit] into slide nut. (See Figure 14)
9. Repeat for other side of wall assembly.

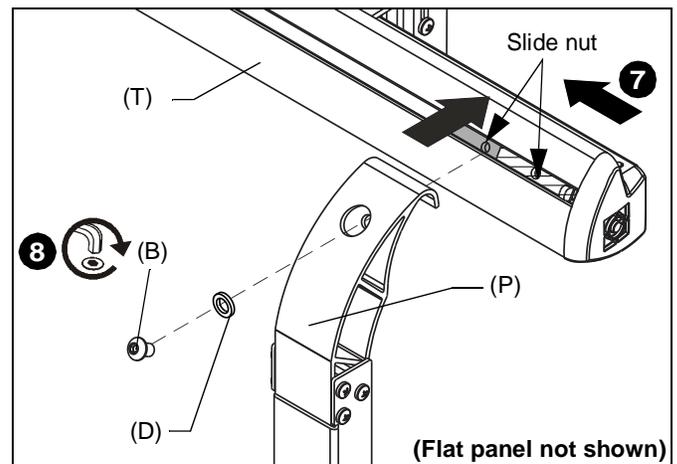


Figure 14

### Attaching Uprights to Display



**WARNING:** IMPROPER INSTALLATION CAN LEAD TO DISPLAY FALLING CAUSING SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT! Using screws of improper size may damage your display. Properly sized screws will easily and completely thread into display mounting holes. If spacers are required, be sure to use longer screws of the same diameter.

1. Select correct screws, spacers (optional) and universal washers (if required) from the XL Display Hardware kit (A1-H1).

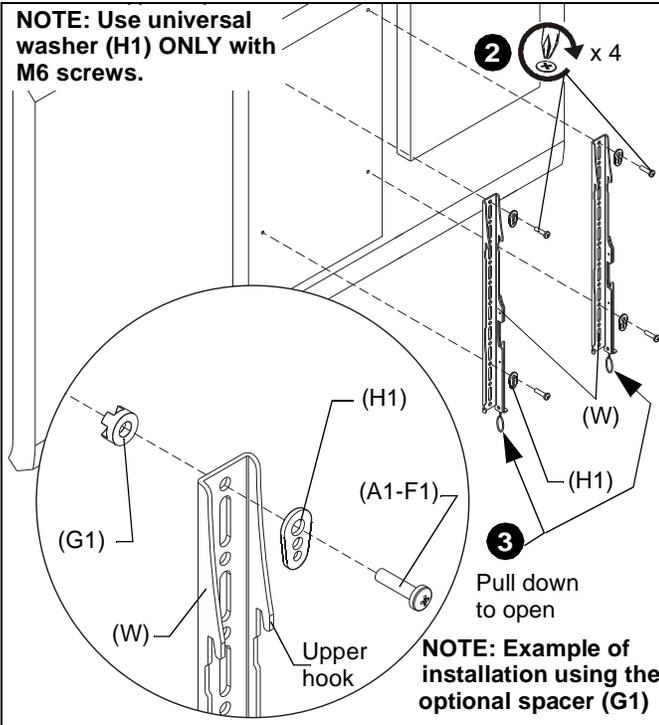


Figure 15

**IMPORTANT ! :** The M8 screws do NOT require a washer. Use the universal washer (H1) ONLY with M6 screws.

2. Attach interface brackets (W) to flat panel using selected hardware. (See Figure 15)

**NOTE:** Ensure that upper hooks on interface brackets (W) are towards *top* of flat panel.

**NOTE:** Center of interface brackets should be as close as possible to the center of the flat panel back after being installed. The center of interface bracket is indicated by the diamond-shaped hole. (See Figure 16)

3. Pull down on interface bracket handles to open for attaching to OB1U. (See Figure 15)

4. Hang flat panel with attached interface brackets onto the cross bracket (X), ensuring that one interface bracket is on each side of the cross bracket center line (CL). (See Figure 16)

**NOTE:** Two slots on cross bracket indicate center line of cross bracket. (See Figure 16)

**IMPORTANT ! :** Laterally shift flat panel along cross bracket as desired, but NEVER place both interface brackets (W) to one side of the cross bracket (X) center line! (See Figure 16)

5. Push up on interface bracket handles to lock display into position against cross bracket.

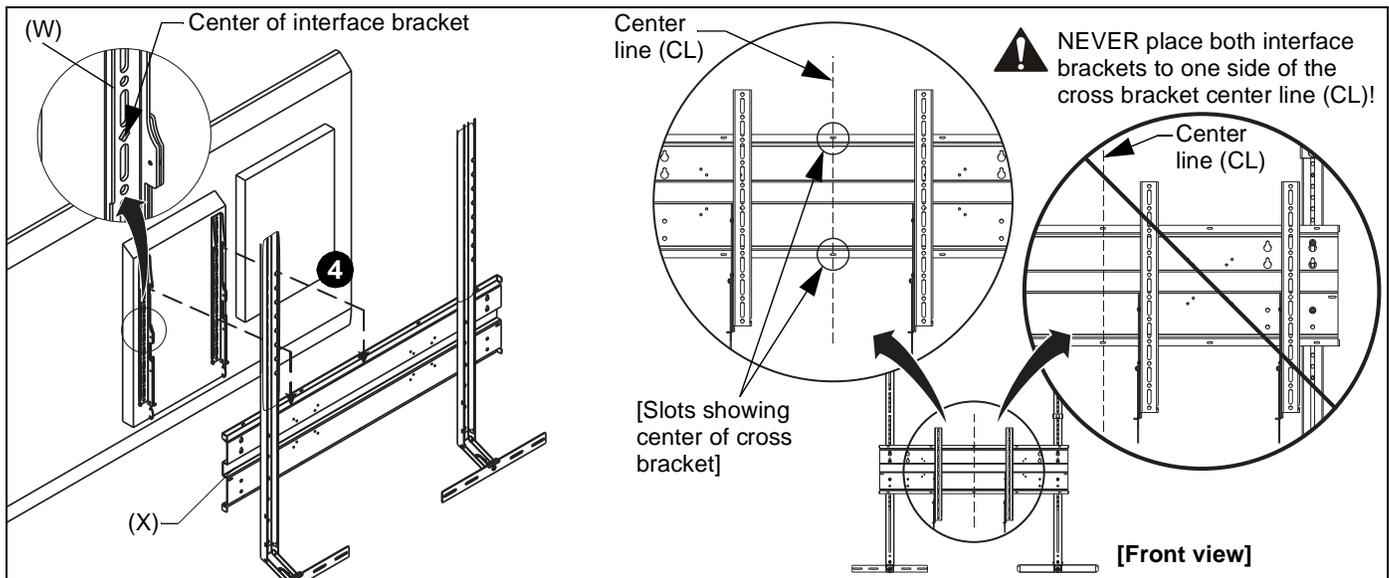


Figure 16

**Adjustment and Leveling of Micro Height Adjust**

**IMPORTANT !** : Be sure to remove the foam block contained in the middle wall bracket **BEFORE** adjusting or leveling the wall assembly. (See Figure 17)

1. The wall assembly (T) can be adjusted or leveled by turning the hex head bolt in the wall brackets. (See Figure 17)
  - Turn **clockwise** to raise wall assembly
  - Turn **counterclockwise** to lower wall assembly.

**IMPORTANT !** : Height-adjust each side equally and in small increments to prevent the wall assembly from binding at the center wall bracket.

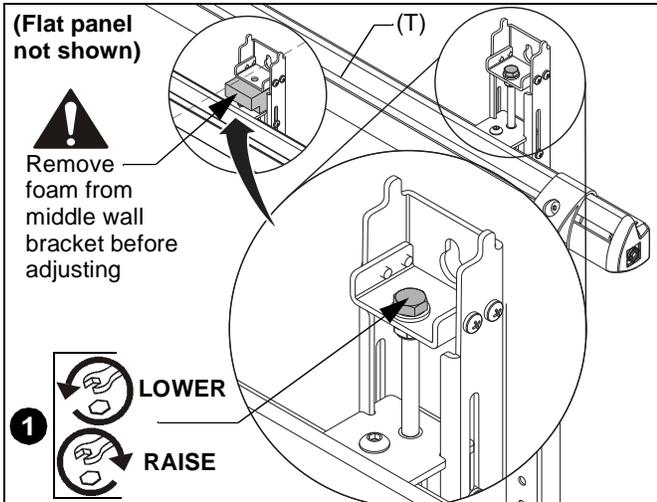


Figure 17

**Installing Wall Bracket Covers**

1. Open the lower flaps of the wall bracket cover (Q) outward. (See Figure 18)
2. Slide the cover downward, hooking the top of the wall bracket covers (Q) onto the tabs on top of wall assembly brackets. (See Figure 18)
3. Slide the lower flaps of the wall bracket cover (Q) under the bottom of the wall assembly brackets (T).

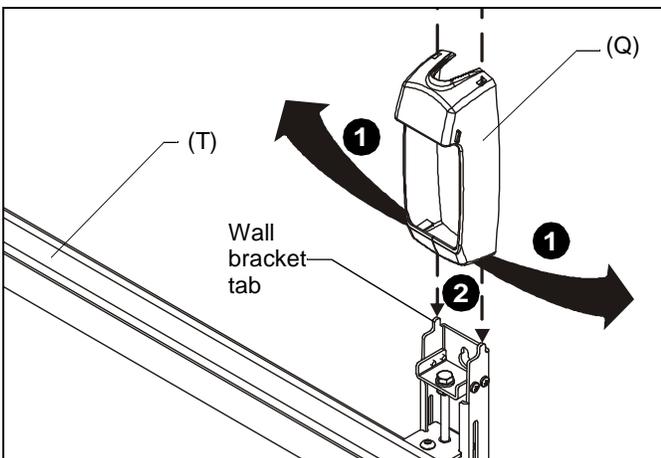


Figure 18

4. Slide the sliding cover (S) down over the wall bracket cover (Q) on three wall assembly brackets. (See Figure 19)

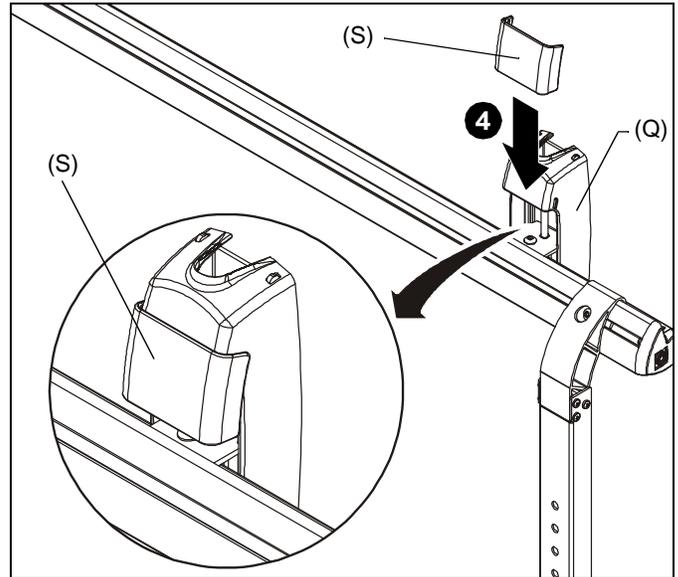


Figure 19

**Completing Attachment to Wall**

**IMPORTANT !** : See **Adjustment and Leveling of Micro Height Adjust** and **Adjustment of Lower Leg Plumb** sections to make any necessary adjustments **BEFORE** completing attachment to wall.

**NOTE:** The lower part of the OB1U must be attached to the wall using the correct hardware for the wall type. It may be attached to a wood or steel stud wall, or to a concrete or concrete block wall. Proceed to appropriate section for instruction.

**NOTE:** If installing to a wood or steel stud wall, drywall anchors (L) are required if the lower wall brackets do not align with the studs.

**Wood or Steel Stud Wall (if lower wall brackets are aligned with studs)**

**NOTE:** Due to upright assembly spacing along the wall assembly the installer may only be able to attach to a stud through one slot in the lower wall bracket. Use a drywall anchor to attach the opposing lower wall bracket as described in following section.

1. Mark the wall over stud through the lower wall bracket (V) attached to each upright assembly (P). (See Figure 20)
2. Drill one 1/8" pilot hole (wood studs) or 1/2" pilot hole (steel studs) at each mark. (See Figure 20)
3. Use two 1/4" x 2-1/2" lag bolts (J) and two 1/4" flat washer (G) to attach each lower wall bracket (V) to wall. (See Figure 20)

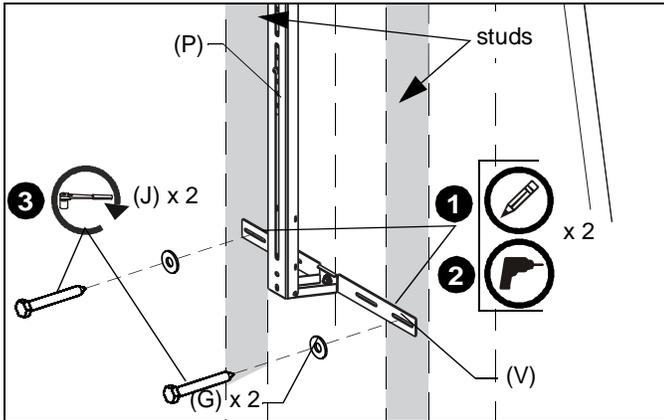


Figure 20

**Wood or Steel Stud Wall (if lower wall brackets are NOT aligned with studs)**

1. Mark the wall through the lower wall bracket (V) on each upright assembly. (See Figure 21)
2. Rotate the lower wall bracket to allow drilling of the pilot hole.
3. Drill a 1/2" pilot hole at each marked location. (See Figure 21)

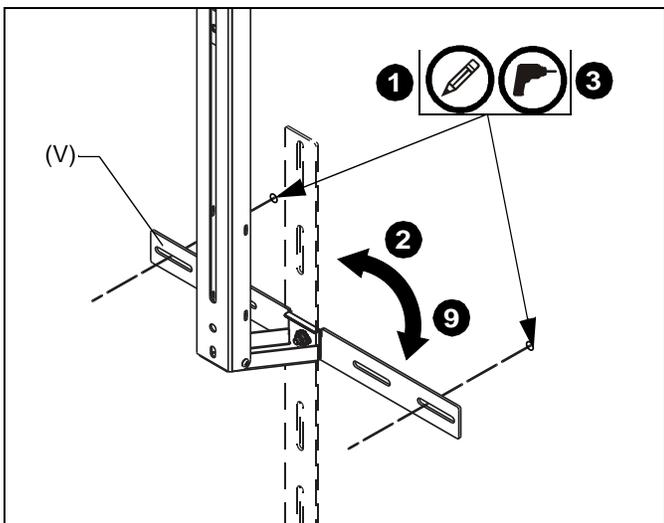


Figure 21

4. Hold metal channel on drywall anchor (L) flat alongside plastic straps and slide channel through hole. (See Figure 22)

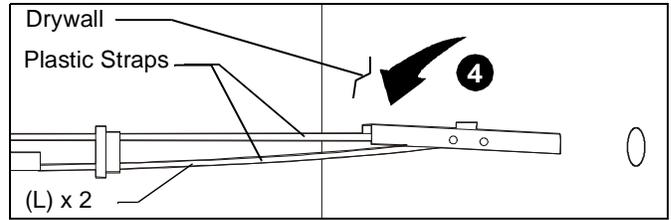


Figure 22

5. Holding plastic straps on drywall anchor (L), pull anchor away from wall until channel rests flush behind wall. (See Figure 23)
6. Slide plastic cap on anchor (L) towards wall until flange of cap is flush with wall. (See Figure 23)

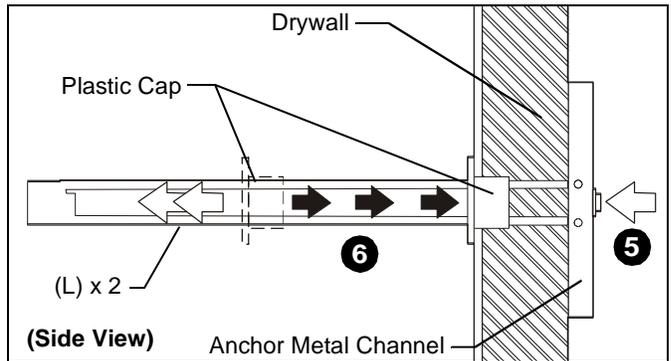


Figure 23

7. Snap off plastic straps on anchor at wall by pushing side to side, snapping off straps level with flange of plastic cap. (See Figure 24)
8. Repeat Steps 5 through 7 for remaining mounting holes.

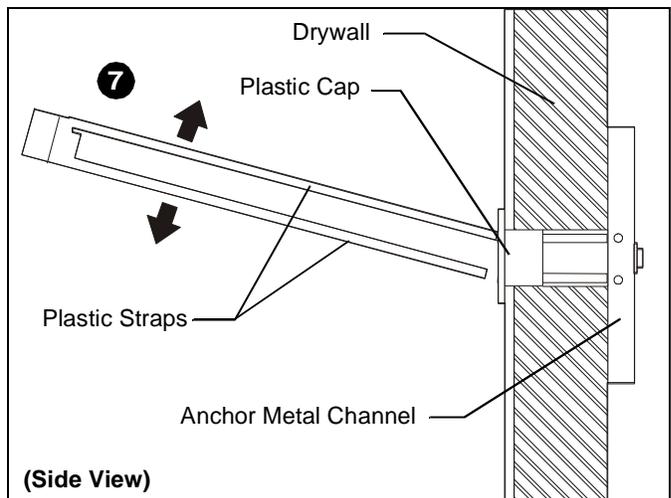


Figure 24

9. Rotate the lower wall bracket back into place. (See Figure 21)

- Use two 1/4-20 x 1-3/4" Phillips pan machine screws (I) and two 1/4" flat washers (G) to attach each lower wall bracket (V) to anchors in wall. (See Figure 25)

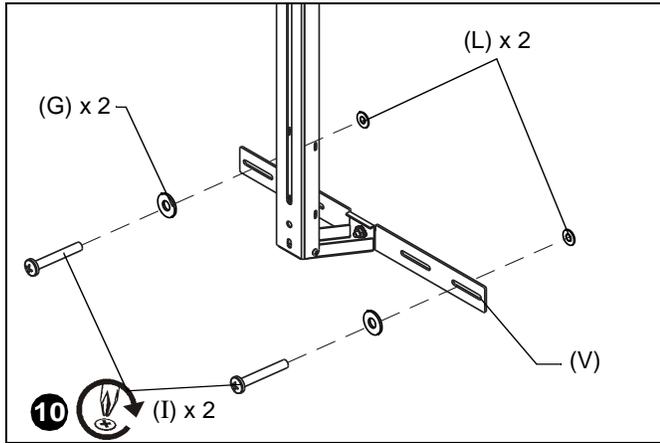


Figure 25

**Concrete or Concrete Block Wall**

- Mark the wall through the lower wall bracket (V) on each upright assembly (P). (See Figure 26)

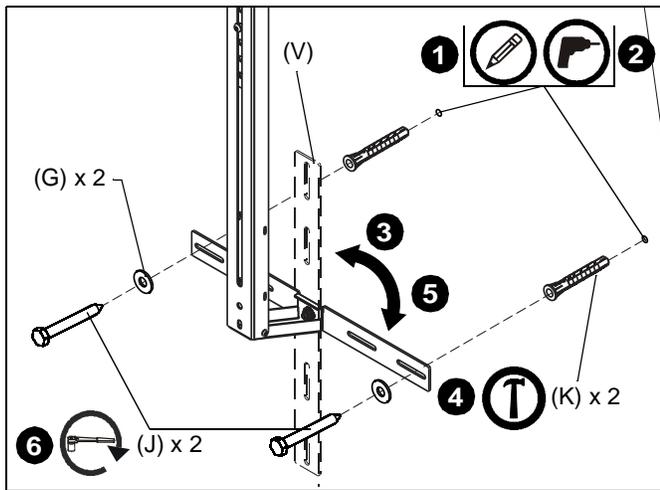


Figure 26

- Drill one 5/16" x 2-3/4" pilot hole at each marking. (See Figure 26)
- Loosen and rotate the lower wall bracket to allow installation of the UX8 x 50R anchors (K). (See Figure 26)
- Install one anchor (K) into each pilot hole using a hammer. (See Figure 26)
- Rotate the lower wall bracket back into place.
- Use two 1/4" x 2-1/2" lag bolts (J) and two 1/4" flat washers (F) to attach each lower wall bracket (V) to anchors in wall. (See Figure 26)

**Adding Stabilizing Hardware**

- Attach two bumper plate retainers (R), two 4" knobs (N), and two bumpers (M) through each leg assembly, one just below top of flat panel and one just above bottom of flat panel. (See Figure 27)

- Adjust 4" knobs so that flat panel is supported evenly by each of the four bumpers. (See Figure 27)

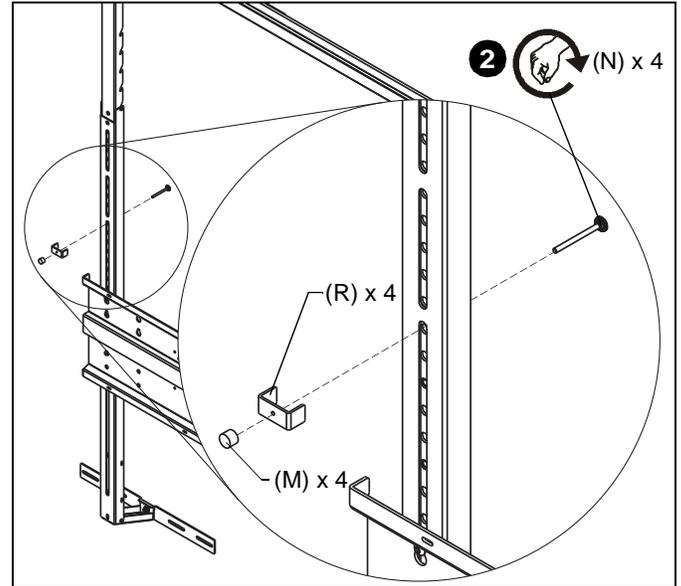


Figure 27

**Adding Lower Bracket Cover**

- Lower the lower bracket cover (U) over the lower wall bracket (V), centering front tab over upright assembly (P). (See Figure 28)
- Repeat with other upright assembly.

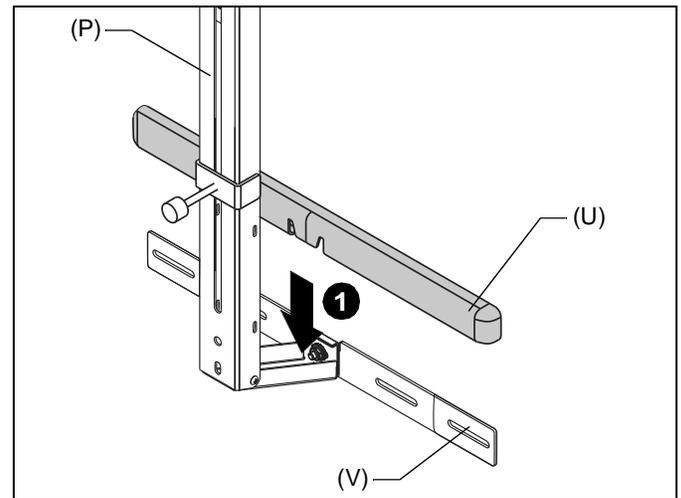


Figure 28

### Adjustment of Lower Leg Plumb

1. Turn the buttonhead screw at bottom of leg (if necessary) to adjust the plumb on lower leg so that it sets firmly against the wall. (See Figure 29)

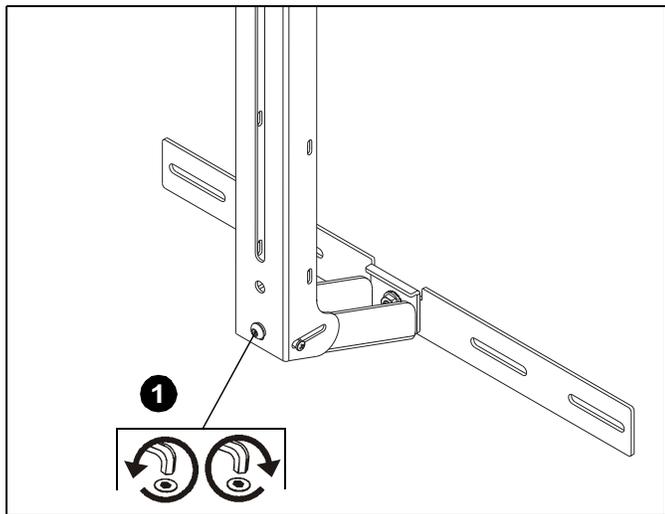


Figure 29





Our Mounts. **Your Vision.**

Chief, a products division of  
Milestone AV Technologies

8800-003010 Rev00  
©2017 Milestone AV Technologies  
[www.milestone.com](http://www.milestone.com)  
12/17

<b>USA/International</b>	<b>A</b> 6436 City West Parkway, Eden Prairie, MN 55344 <b>P</b> 800.582.6480 / 952.225.6000 <b>F</b> 877.894.6918 / 952.894.6918
<b>Europe</b>	<b>A</b> Franklinstraat 14, 6003 DK Weert, Netherlands <b>P</b> +31 (0) 495 580 852 <b>F</b> +31 (0) 495 580 845
<b>Asia Pacific</b>	<b>A</b> Office No. 918 on 9/F, Shatin Galleria 18-24 Shan Mei Street Fotan, Shatin, Hong Kong <b>P</b> 852 2145 4099 <b>F</b> 852 2145 4477

