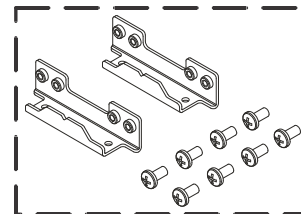
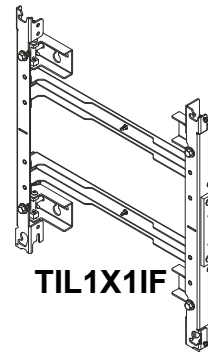
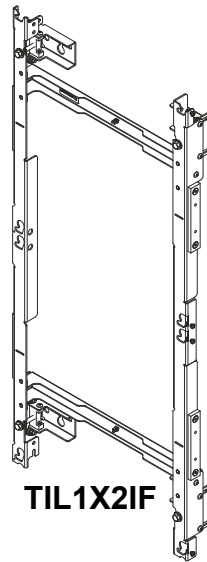
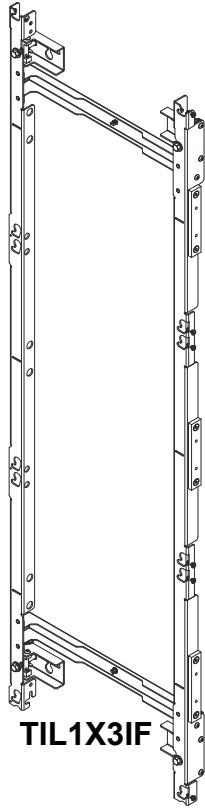

INSTALLATION INSTRUCTIONS



IFH Series LED Wall Mounts / Accessory

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.

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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 / accessory is being attached may have a maximum drywall thickness of 5/8" (1.6cm). Do not install drywall anchors into the seam between drywall pieces.



WARNING: The TIL1X1IF / TIL1X2IF / TIL1X3IF LED wall mounts are designed for use with the Samsung IFH Series LED only. Exceeding the weight capacity (listed) can result in serious personal injury or damage to equipment!

- TIL1X1IF: 20 lbs (9.1 kg);
- TIL1X2IF: 40 lbs (18.1 kg) - 20 lbs (9.1 kg) per screen;
- TIL1X3IF: 60 lbs (27.2 kg) - 20 lbs (9.1 kg) per screen.



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.



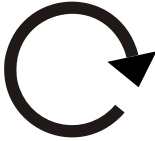

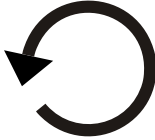


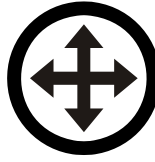






WARNING: Do not use this mounting system outdoors.

IMPORTANT ! : The TIL1X1IF / TIL1X2IF /TIL1X3IF (IFH Series) LED wall mounts are designed to be mounted to:

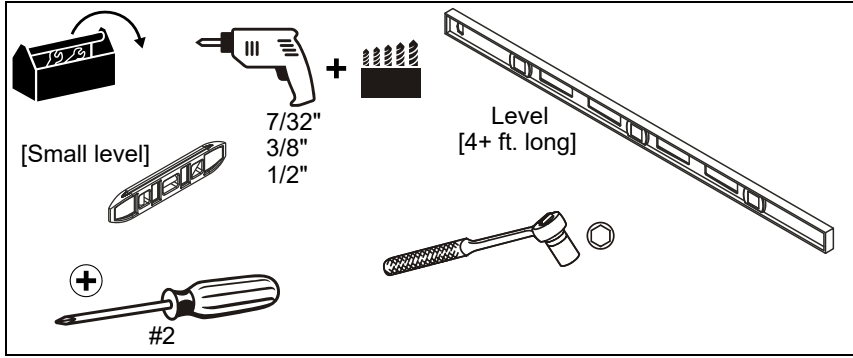
- a bare 8" concrete wall; or
- a 3/4" thickness plywood-backed, 2" x 4" wood studs (16" on center minimum) wall with a maximum drywall thickness of 5/8"; or
- a 3/4" thickness plywood-backed, steel stud wall covered with drywall having a maximum thickness of 5/8".

--SAVE THESE INSTRUCTIONS--

LEGEND

	Tighten Fastener Apretar elemento de fijación Befestigungsteil festziehen Apertar fixador Serrare il fissaggio Bevestiging vastdraaien Serrez les fixations		Pencil Mark Marcar con lápiz Stiftmarkierung Marcar com lápis Segno a matita Potloodmerkteken Marquage au crayon
	Loosen Fastener Aflojar elemento de fijación Befestigungsteil lösen Desapertar fixador Allentare il fissaggio Bevestiging losdraaien Desserrez les fixations		Drill Hole Perforar Bohrloch Fazer furo Praticare un foro Gat boren Percez un trou
	Phillips Screwdriver Destornillador Phillips Kreuzschlitzschraubendreher Chave de fendas Phillips Cacciavite a stella Kruiskopschroevendraaier Tournevis à pointe cruciforme		Adjust Ajustar Einstellen Ajustar Regolare Afstellen Ajuster
	Open-Ended Wrench Llave de boca Gabelschlüssel Chave de bocas Chiave a punte aperte Steeksleutel Clé à fourche		Remove Quitar Entfernen Remover Rimuovere Verwijderen Retirez
	By Hand A mano Von Hand Com a mão A mano Met de hand À la main		Optional Opcional Optional Opcional Opzionale Optie En option
	Hex-Head Wrench Llave de cabeza hexagonal Sechskantschlüssel Chave de cabeça sextavada Chiave esagonale Zeskantsleutel Clé à tête hexagonale		Security Wrench Llave de seguridad Sicherheitsschlüssel Chave de segurança Chiave di sicurezza Veiligheidssleutel Clé de sécurité

TOOLS REQUIRED FOR INSTALLATION



**Hardware Required - not included
(for installation into steel stud walls)**

1. Chief brand FCAT1 Toggler Kit; **OR**
2. Hardware for installation to steel stud wall:
 - 1/4-20 Toggler Snaptoggle BB (Qty 4)
 - 1/4-20 x 2-1/2" hex head bolt (Qty 4)
 - 1/4" washer (Qty 4)

PARTS

Mounting Button Kit (Qty per bag)	LED Mounting Kit (Qty per bag)	Mounting Hardware Kit (Qty per bag)	TILVABIF Vertical Connector Kit (Qty per bag)
<p>A (4) [Mounting button]</p> <p>B (4) M6 x 20mm</p> <p>TIL1X1IF: 1 bag TIL1X2IF: 2 bags TIL1X3IF: 3 bags</p>	<p>C (2) 10-24 x 5/8"</p> <p>D (2) 1/4-20 x 1/2"</p> <p>E (1) 8-32 x 1/2"</p> <p>TIL1X1IF: 1 bag TIL1X2IF: 2 bags TIL1X3IF: 3 bags</p>	<p>F (4) 5/16 x 2-1/2"</p> <p>G (4) UX10x60R</p> <p>H (2) [Installation washer]</p> <p>J (4) 5/16"</p>	<p>K (2) [Vertical connector]</p> <p>L (8) 1/4-20 x 1/2"</p>

M (1)
[TIL1X1IF]

N (1)
[TIL1X2IF]

OR

P (1)
[TIL1X3IF]

INSTALLATION

Preinstallation

IMPORTANT ! : Reference the LED screen installation manual for specific instructions regarding care, handling, cabling and installation of the LED screens.



CAUTION: Handle the LED screens with care, being careful to not impact or drop the LED screen.



CAUTION: There is a magnetic surface on the front of the LED screen. To prevent damage ensure that no metallic object is pulled onto the LED screen.

NOTE: When planning the installation, remember that cabling of the LED screens should be completed during the installation process.

Preparing LED Screen

NOTE: If mounting buttons are already installed to your LED screen, proceed to **Determining Installation Site** section.

1. Attach four mounting buttons (A), one to each corner of LED screen, with four M6 x 20mm Phillips pan head screws (B). (See Figure 1)

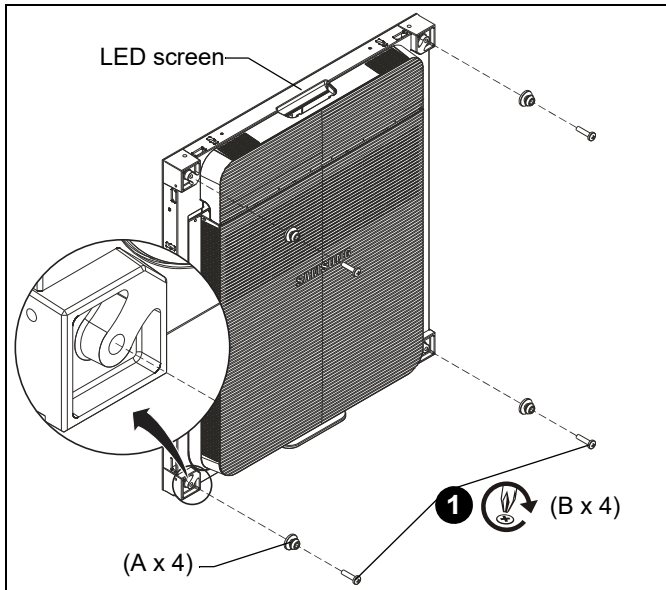


Figure 1

Determining Installation Site

IMPORTANT ! : The top of the LED screen is 3-1/2" above the center line of the mounting slots. (See Figure 2)

1. Determine location for the **top left** corner of the LED wall. (See Figure 2)
2. Make a mark 3-1/2" below the planned top left corner of the LED wall. (See Figure 2)
3. Using a level, mark a horizontal line across width of LED wall from the mark made in Step 2.

NOTE: This line will indicate the center line of the mounting slots for the top mount(s) in the video wall. (See Figure 2) and (See Figure 3)

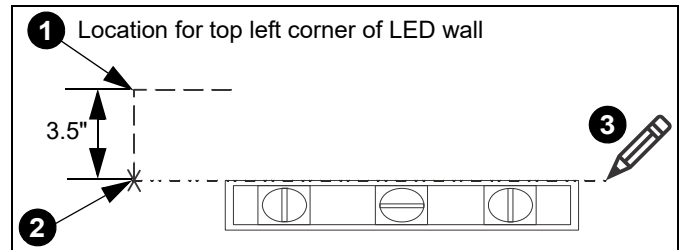


Figure 2

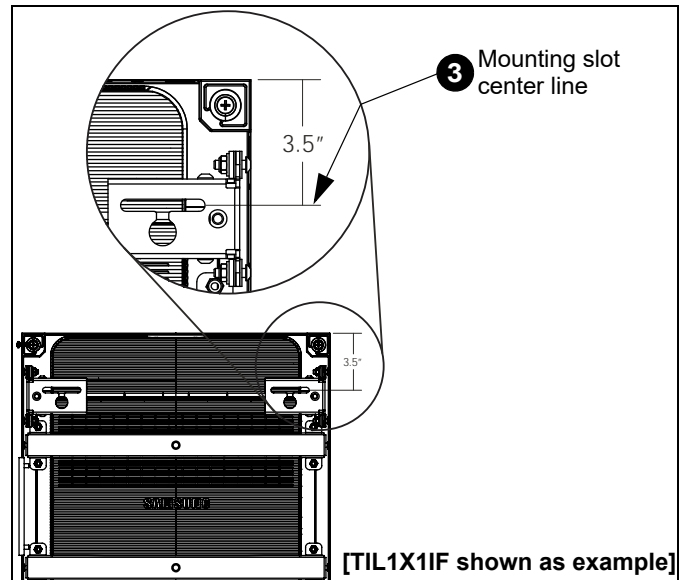


Figure 3

Installing First Mount

The TIL1X1IF / TIL1X2IF /TIL1X3IF (IFH Series) LED wall mounts are designed to be mounted to:

- a bare 8" concrete wall; or
- a 3/4" thickness plywood-backed, 2" x 4" wood studs (16" on center minimum) wall with a maximum drywall thickness of 5/8"; or
- a 3/4" thickness plywood-backed, steel stud wall covered with drywall having a maximum thickness of 5/8".

Table 1: Fastener Information

WALL TYPE	PILOT HOLE	FASTENERS (see PARTS drawing)
Drywall attached to plywood-backed walls /Steel studs	1/2"	- 1/4-20 x 2-1/2" hex head lag (not included) - 1/4" washer (not included) - 1/4-20 Toggler Snaptoggle BB (not included)
Drywall attached to plywood-backed walls /Wood studs	7/32" x 3"	- 5/16 x 2-1/2" flanged hex head lag (F) - 5/16" washer (J) - Installation washer (H)
Concrete	3/8" x 3"	- 5/16 x 2-1/2" flanged hex head lag (F) - 5/16" washer (J) - Installation washer (H) - Fischer Anchor UX10x60R (G)

1. Hold furthest left, top wall mount against wall ensuring that mounting slot is lined up with center line marked on the wall in **Determining Installation Site** section. Double-check with a level. (See Figure 4)
2. Mark mounting holes in two top mounting slots along the horizontal line marked in Step 3. (See Figure 4)

NOTE: The mounting holes are 14" apart. (See Figure 4)

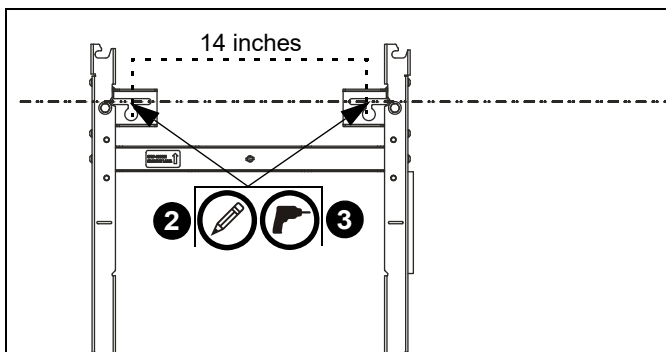


Figure 4

3. Drill two pilot holes (see Table 1 for size) at each location marked in Step 2 (See Figure 4) and follow fastener information (appropriate for wall type) located in Table 1.

IMPORTANT ! : Refer to **Fastener Installation Methods** (located in **Appendix** at end of Installation Instructions) for details on installing product into various wall types.

4. Partially install two fasteners into wall, but do NOT completely tighten to wall. (See Figure 5)

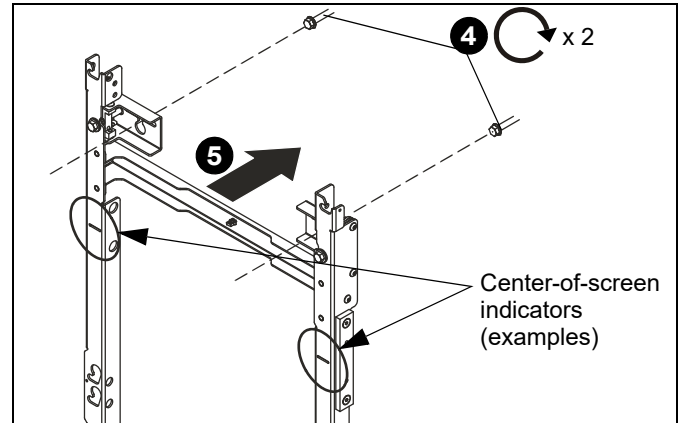


Figure 5

5. Hang wall mount, aligning upper teardrop slots over fasteners, and adjust side-to-side for proper location. (See Figure 5)

NOTE: The horizontal slots located along the vertical mount pieces are the center-of-screen indicators to illustrate where the center of each LED screen will be located. (See Figure 5)

6. Lay levels across flat of the mounting holes and center-of-screen indicators, and vertically along side of mount to ensure wall mount is square and level. (See Figure 6)
7. Slide installation washers (H) behind head of fasteners and tighten mount in place. (See Figure 6)

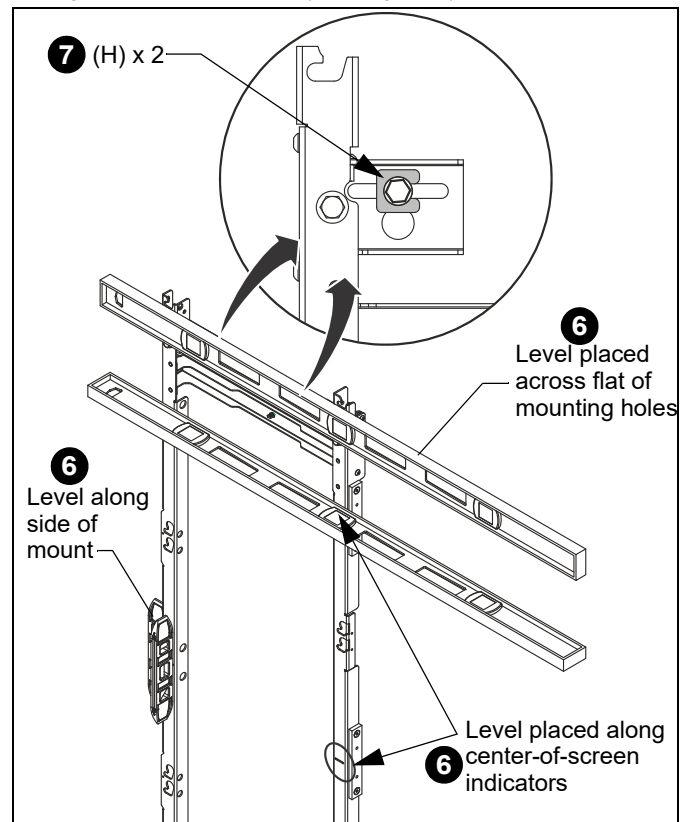


Figure 6

8. Drill lower pilot holes (see Table 1 for size) at attachment locations and follow fastener information (appropriate for wall type) located in Table 1. (See Figure 7)
9. Install two fasteners through lower part of mount and tighten. (See Figure 7)

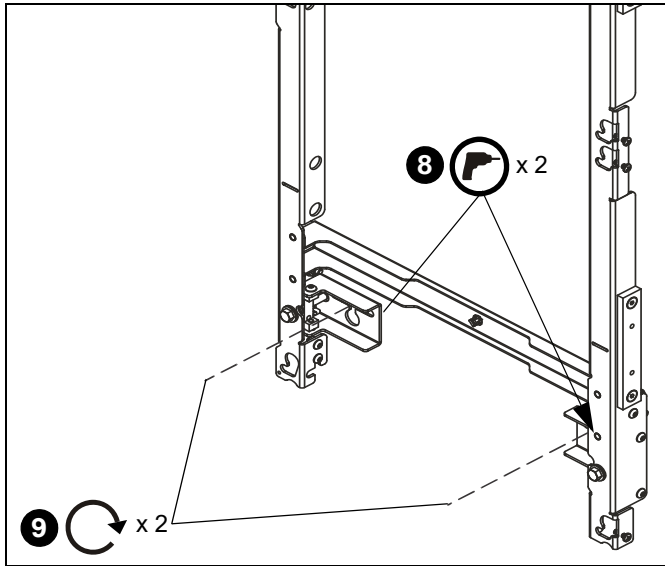


Figure 7

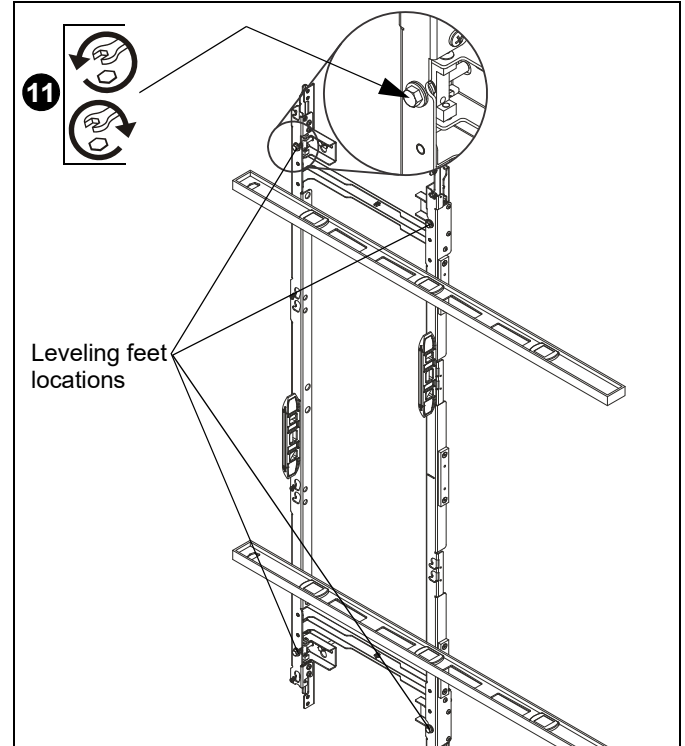


Figure 9

10. **(OPTIONAL)** If more LED screens need to be added to the screen configuration, add TILVABIF vertical connector kit to top or bottom of wall mount. If you are **NOT** adding the TILVABIF connector kit, proceed to **Step 11**.
 - Add the vertical connector (K) to the top or bottom of the mount, and fasten with two 1/4-20 x 1/2" Phillips head screws (L) per vertical connector. (See Figure 8)
 - Connect another wall mount to the other end of the vertical connector to lengthen the video wall.

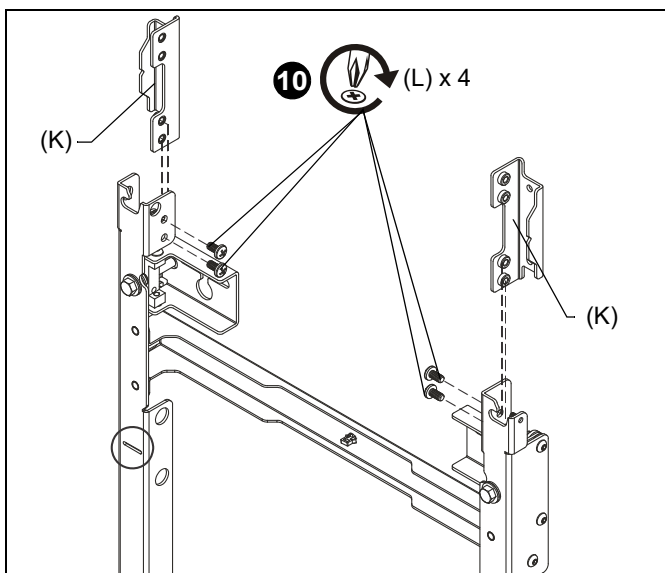


Figure 8

11. Using a level on the front of the mount in various places, adjust the leveling feet on the mount until the mount is plumb. (See Figure 9)

12. Install one 8-32 x 1/2" Phillips tapping screw (E) into left side of mount immediately below lower left mounting button hole for each LED screen space. (See Figure 10)

IMPORTANT ! : The tapping screws keep the LED screens centered on the mount, and are ONLY installed on the furthest left column of mounts.

NOTE: Using a drill driver makes installation of the tapping screws (E) easier.

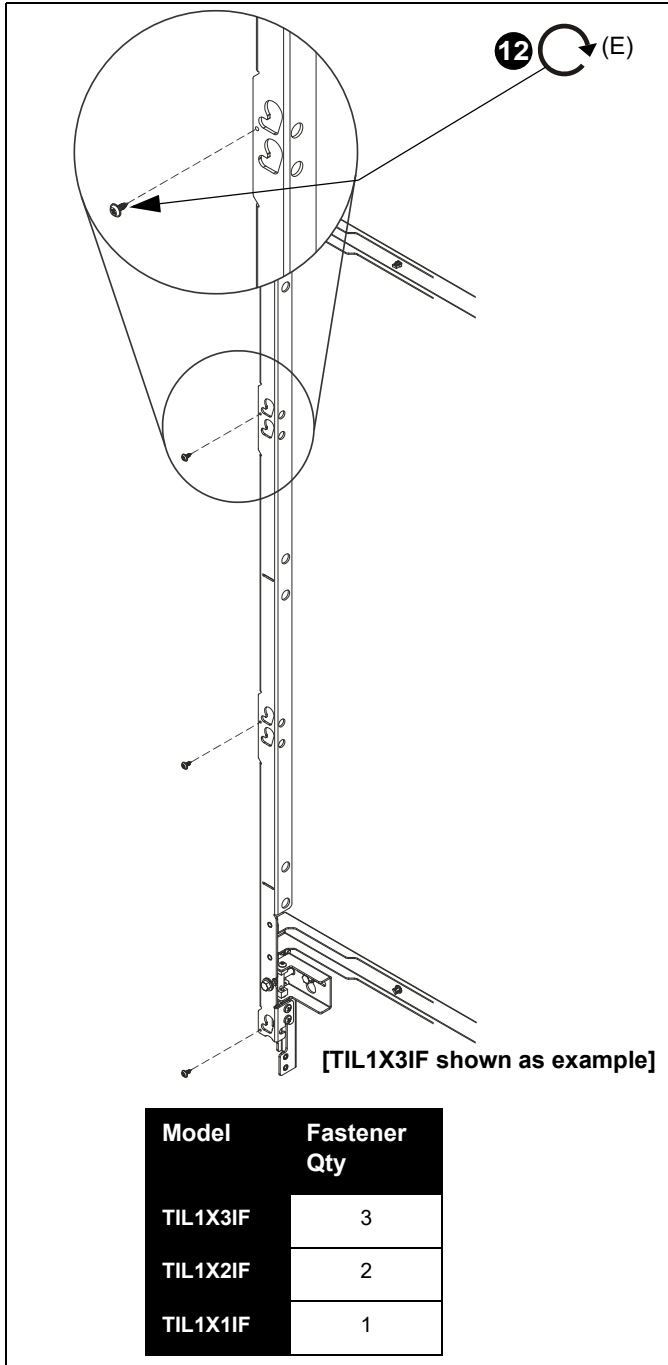


Figure 10

Adding Additional Mounts

1. Partially install two 1/4-20 x 1/2" Phillips head screws (D) into each side block on the right side of mount. (See Figure 11)

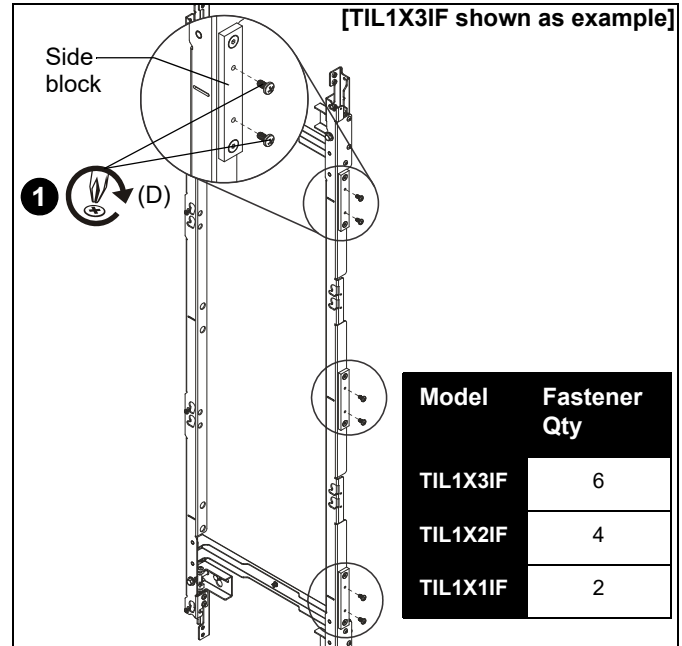


Figure 11

2. Hang the second mount (using teardrop slots on the left side) onto the fasteners installed into the mount already attached to the wall, and snug up the fasteners. (See Figure 12)

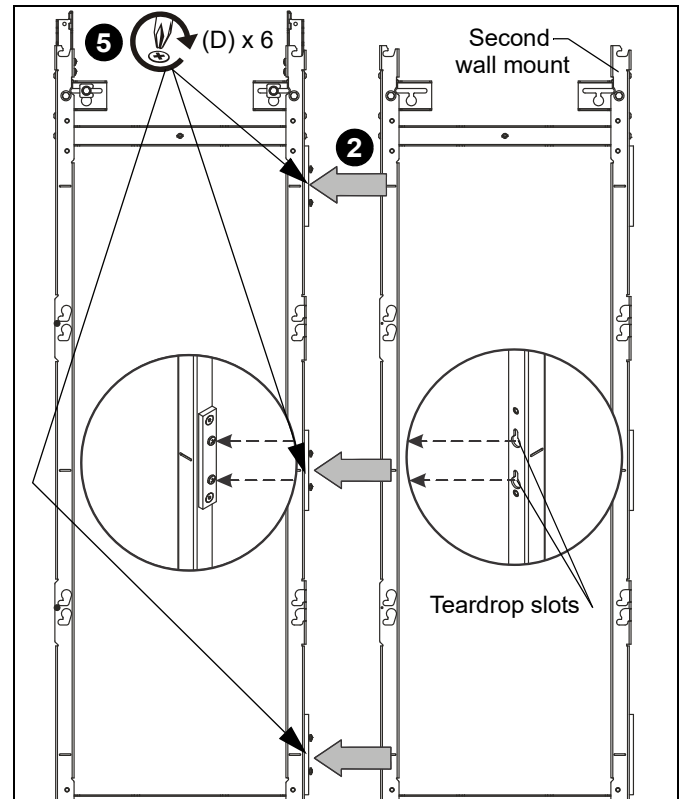


Figure 12

3. Use a level to align the second mount with the first mount. (See Figure 13)
4. Use a level across the front of the two mounts, and adjust the leveling feet on the second mount so that it matches the plumb of the first mount. (See Figure 13)

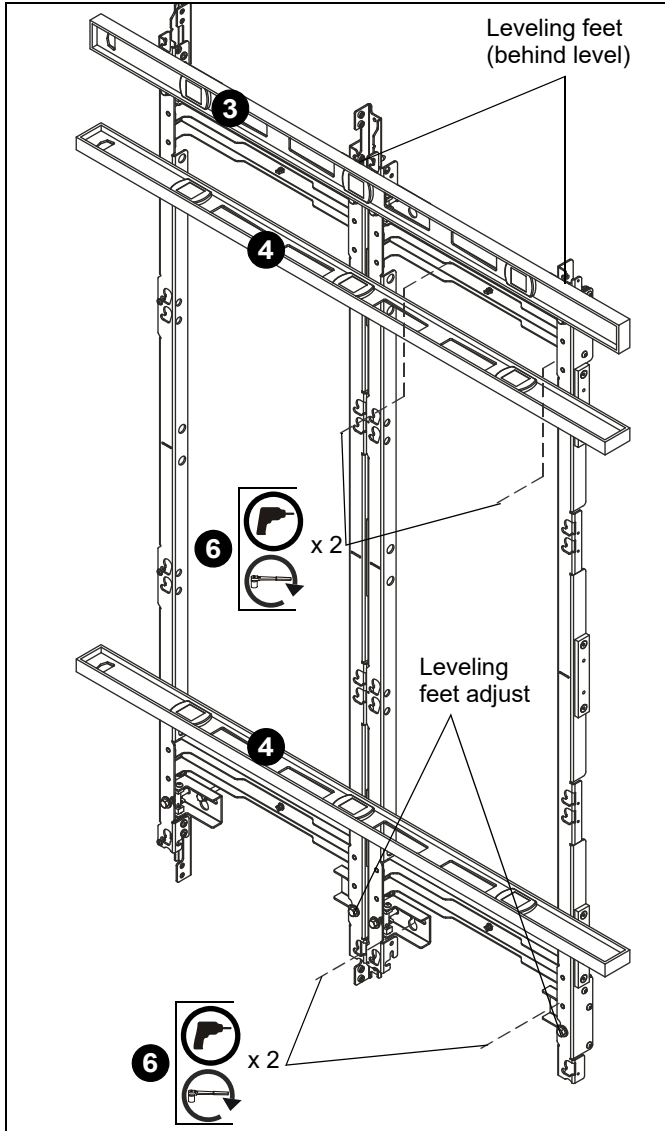


Figure 13

5. Tighten all fasteners (where the second mount is hung on the first mount) to fasten two mounts together. (See Figure 12)
6. Drill pilot holes in the mounting slots and fasten the second wall mount to the wall following the same steps as used for the first wall mount. (See Figure 13)
7. Recheck the alignment and overall flatness of the wall mounts during the installation process.
8. Continue the installation process until all wall mounts are attached.
9. **OPTIONAL:** You may loosely install one 10-24 x 5/8" Phillips head screw (C) into right side of mount at each mounting button hole for each LED screen space. (See Figure 14) These fasteners may be helpful if it's necessary to make slight horizontal adjustments of LED screens.

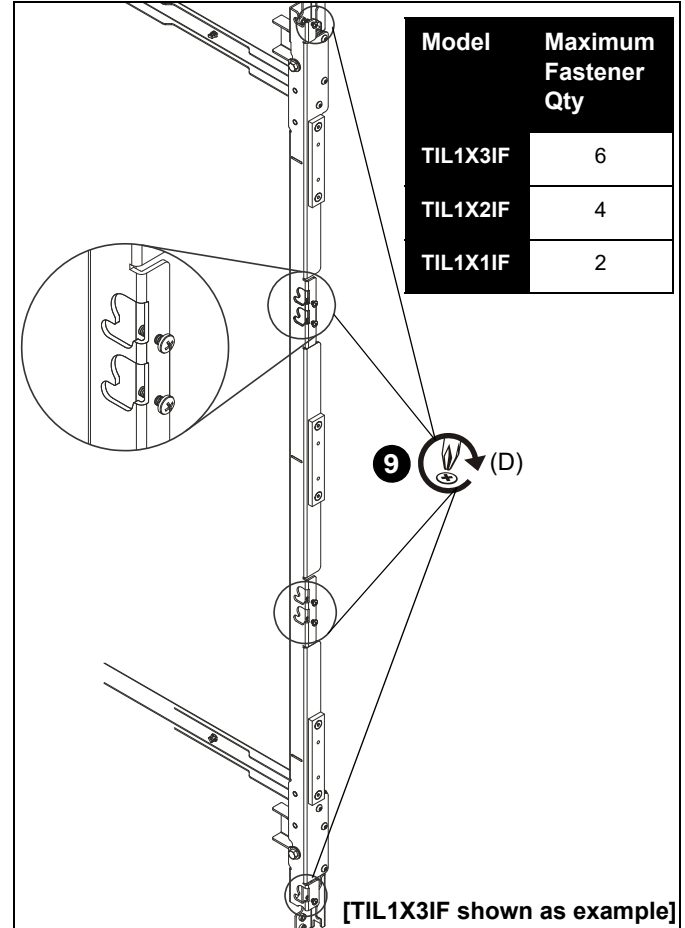


Figure 14

Installing LED Screens

IMPORTANT ! : Reference the LED screen installation manual for specific instructions regarding care, handling, cabling and installation of the LED screens.

NOTE: Begin the installation of LED screens in the lower left corner of the video wall.

NOTE: One complete column of LED screens should be installed before proceeding to the next column.

NOTE: When planning the installation, remember that cabling of the LED screens should be completed during the installation process.

NOTE: Both the power and signal cables may be placed down both sides of the mount, or behind the mount (depending on depth from wall).

1. Install the first LED screen in the lowest left-hand corner of the video wall by aligning mounting buttons on the LED screen with the mounting holes on the wall mount.
2. Move LED screen forward until all four mounting buttons are through mounting holes in wall mount.
3. Lower display until contacting the bottom of mounting holes. (See Figure 15)
4. Continue with the next LED screen (directly above installed screen).

NOTE: Be sure to check the level and plumb of the screens occasionally during the LED screen installation.

5. Make sure the alignment pins in the top and bottom of the screens align with each other.
6. **AFTER** the **entire** first column of LED screens are installed, slide the column to the left side so that the mounting buttons are against the tapping screws, and to allow clearance for installation of the second column.
7. After the second column is installed, push to the left until the first and second columns of LED screens are touching.
8. Repeat until all LED screens are installed.

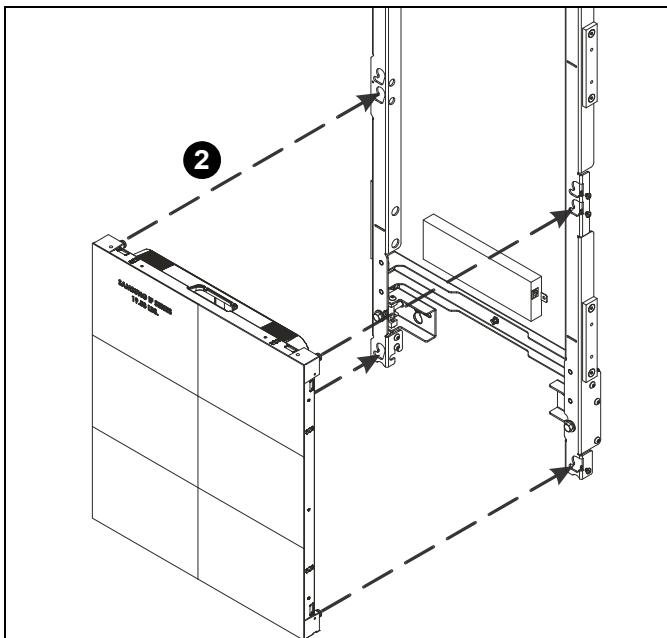


Figure 15

Adjustments

Depth Adjust

The depth of each wall mount section is controlled by the leveling feet.

1. Loosen or tighten the leveling feet adjust bolt to assist in leveling the LED screens across the various wall mounts. (See Figure 16)

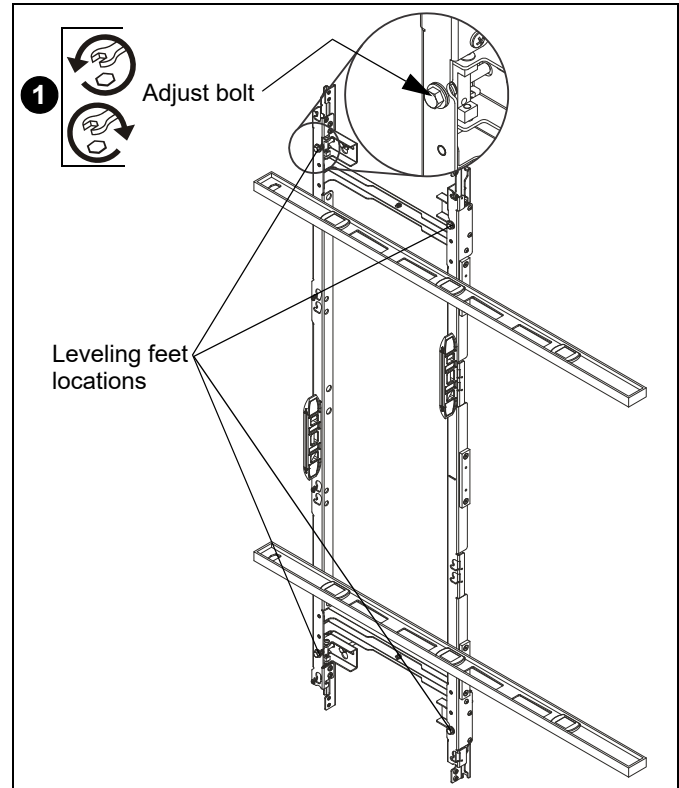
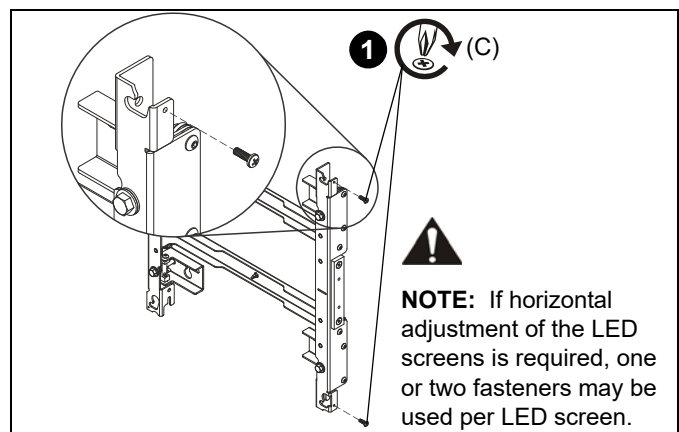


Figure 16

Horizontal LED Screen Adjust

1. You may loosely install one 10-24 x 5/8" Phillips head screw (C) into right side of each mount at mounting button hole(s). Loosening or tightening the fasteners makes slight horizontal adjustments of LED screens. (See Figure 17)



NOTE: If horizontal adjustment of the LED screens is required, one or two fasteners may be used per LED screen.

Figure 17

Fastener Installation Methods

IMPORTANT ! : See Table 1 for appropriate hardware and pilot hole sizes for various wall types.

IMPORTANT ! : The expanse of the LED wall will most likely mean that attachment of the wall mounts will not all be in studs. The attachment method will most likely vary throughout the installation, and more than one of the various methods outlined here will most likely be used.

Wood Stud

1. Use one 5/16" x 2-1/2" hex flange head lag bolt (F) and one 5/16" washer (J) through product and into pilot hole. (See Figure 18)
2. Repeat for remaining pilot holes.

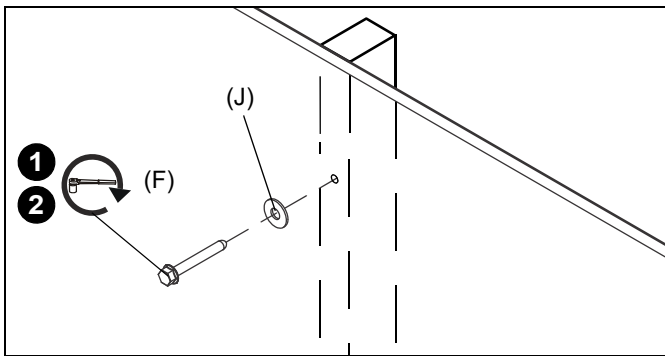


Figure 18

Concrete

1. Install one UX10X60R anchor (G) into each pilot hole using a hammer, making sure that the anchor is flush with the wall. (See Figure 19)
2. Use one 5/16" x 2-1/2" hex flange head lag bolt (F) and one 5/16" washer (J) through product into each anchor in wall. (See Figure 19)
3. Repeat for remaining pilot holes.

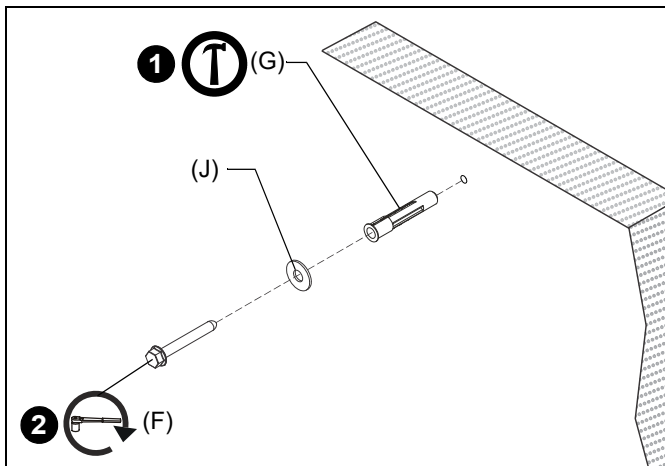


Figure 19

Steel Stud

IMPORTANT ! : See **Site Requirements for Steel Stud Installation** section before proceeding with Steel Studs installation to ensure installation site meets requirements! The drywall must have a minimum thickness of 1/2"!

1. Hold metal channel on anchor flat alongside plastic straps and slide channel through hole. (See Figure 20)

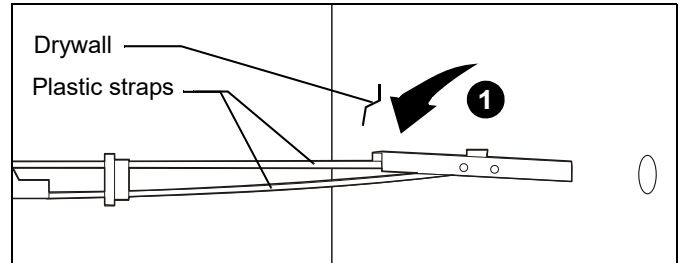


Figure 20

2. Holding plastic straps on anchor, pull anchor away from wall until channel rests flush behind wall making sure anchor channel is positioned vertically on drywall, or steel stud (if present). (See Figure 21)
3. Slide plastic cap on anchor towards wall until flange of cap is flush with wall. (See Figure 21)

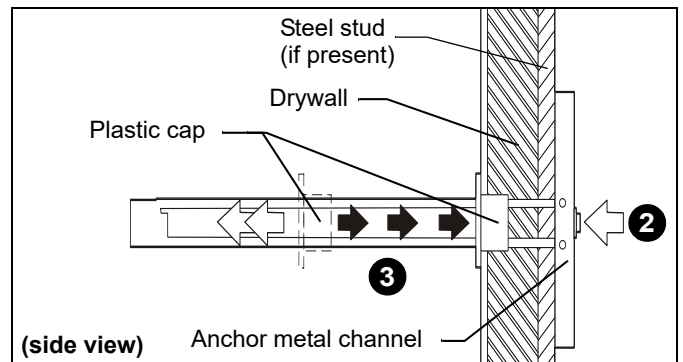


Figure 21

4. Snap off plastic straps on anchor at wall by pushing side to side, snapping off straps level with flange of plastic cap. (See Figure 22)

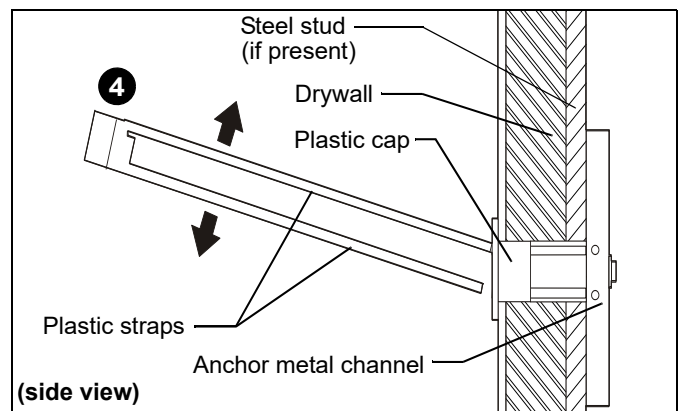


Figure 22

5. Line up anchor with attachment point.
6. Insert 1/4-20 x 1-3/4" Phillips pan head screw through 1/4" washer, corresponding mounting hole in wall bracket and into anchor, and tighten until flush against wall bracket. DO NOT over tighten! (See Figure 23)

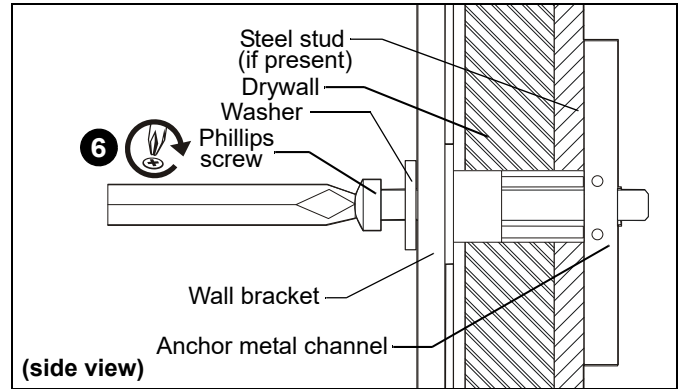


Figure 23

Site Requirements for Steel Stud Installation



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.

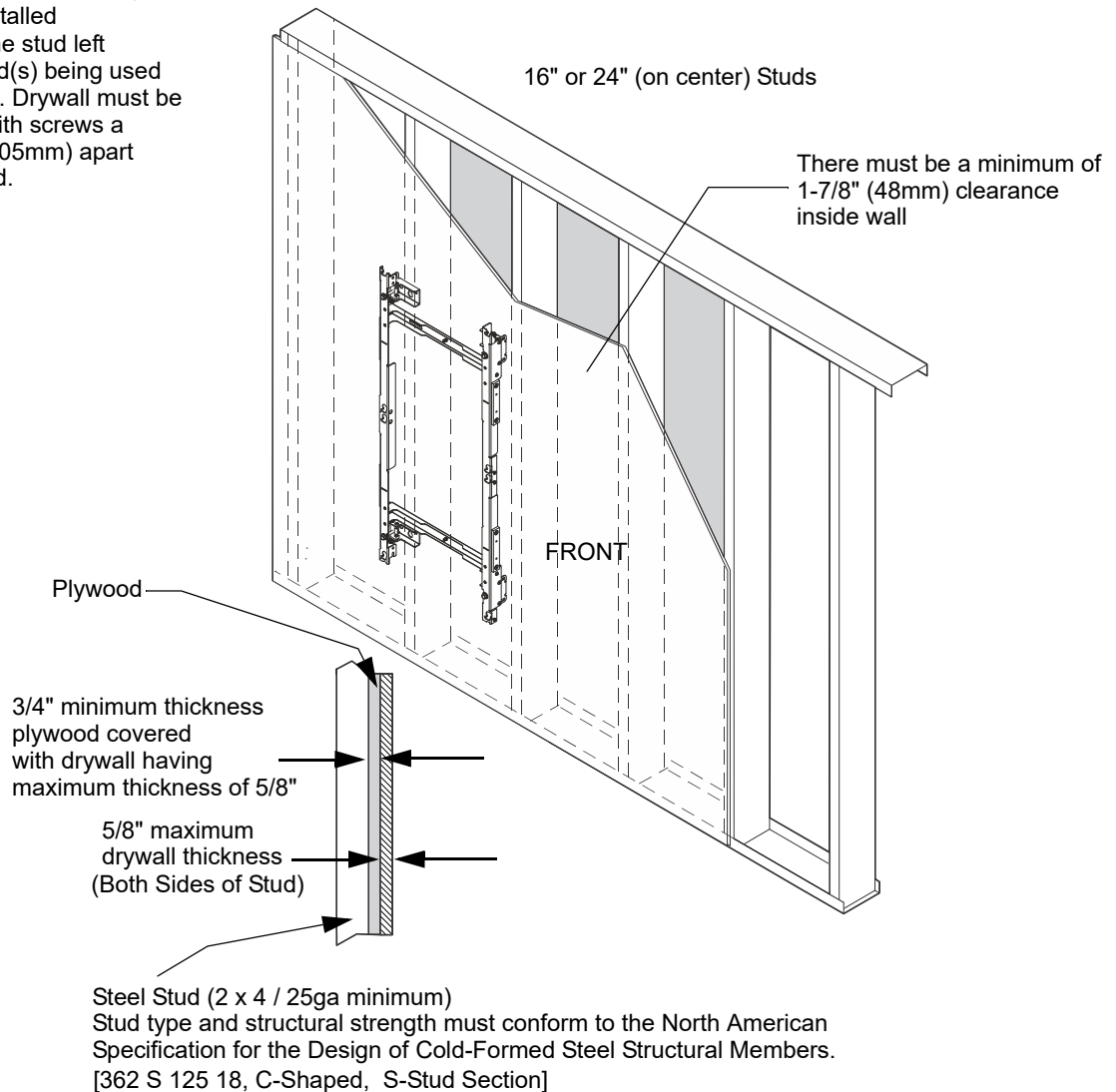
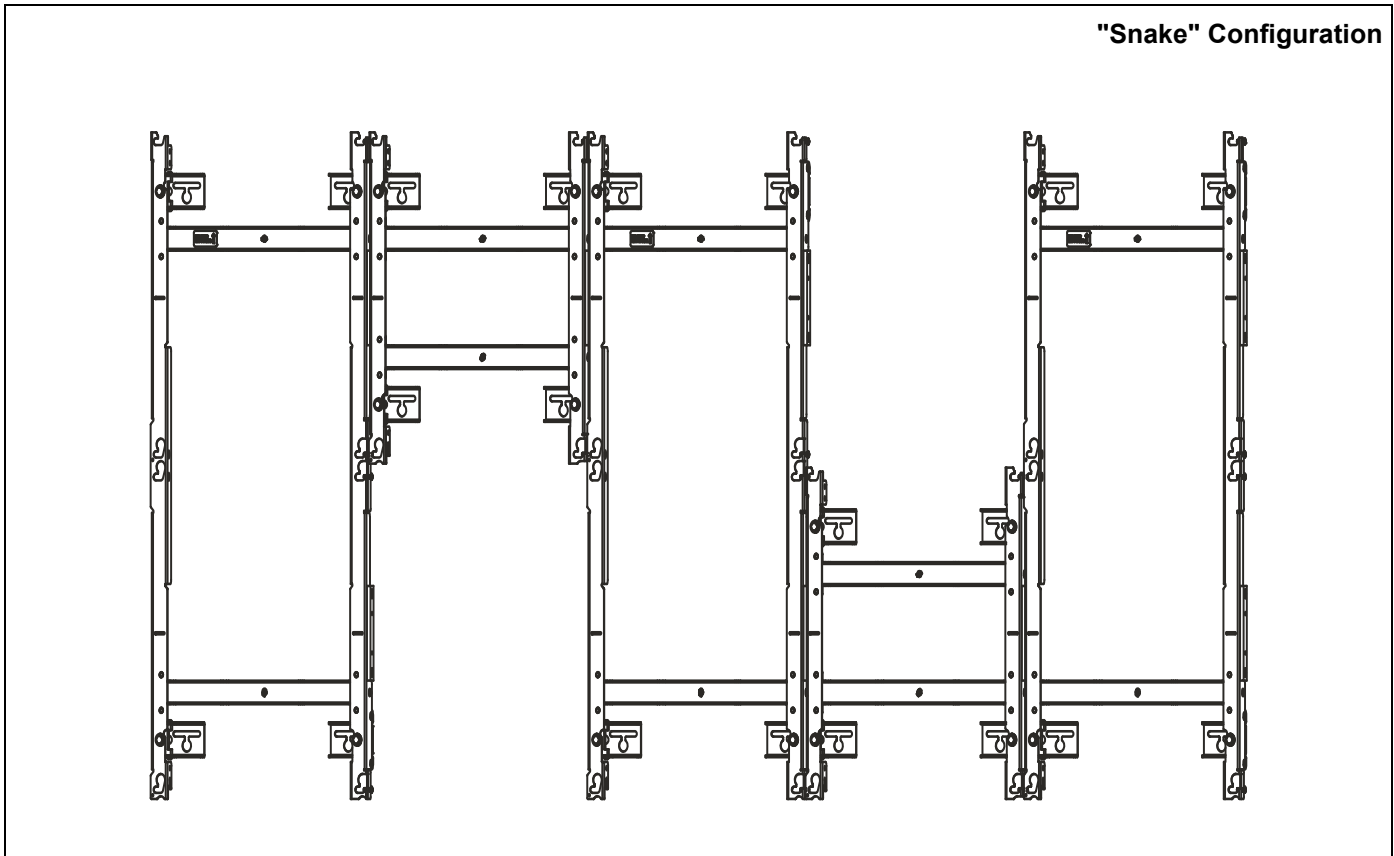
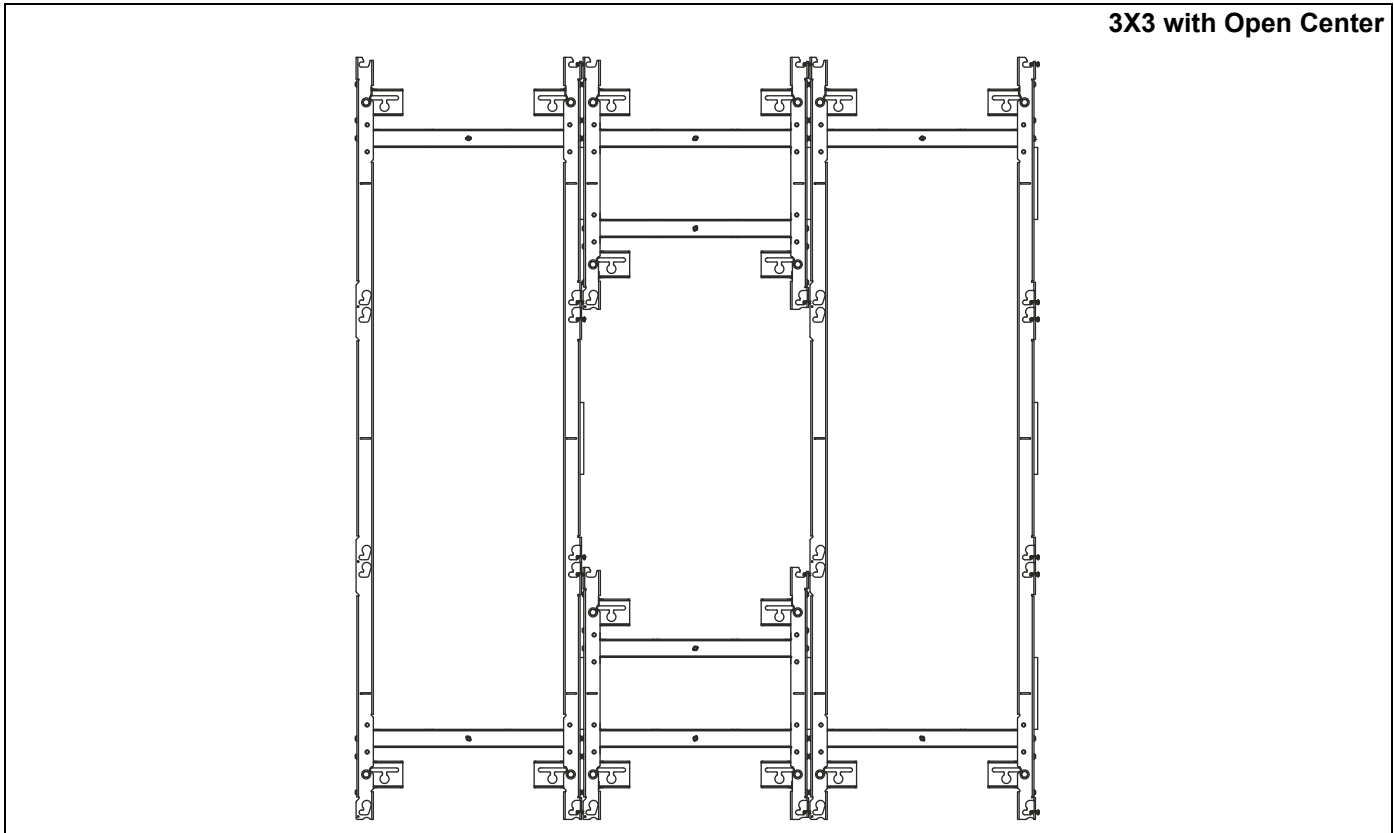


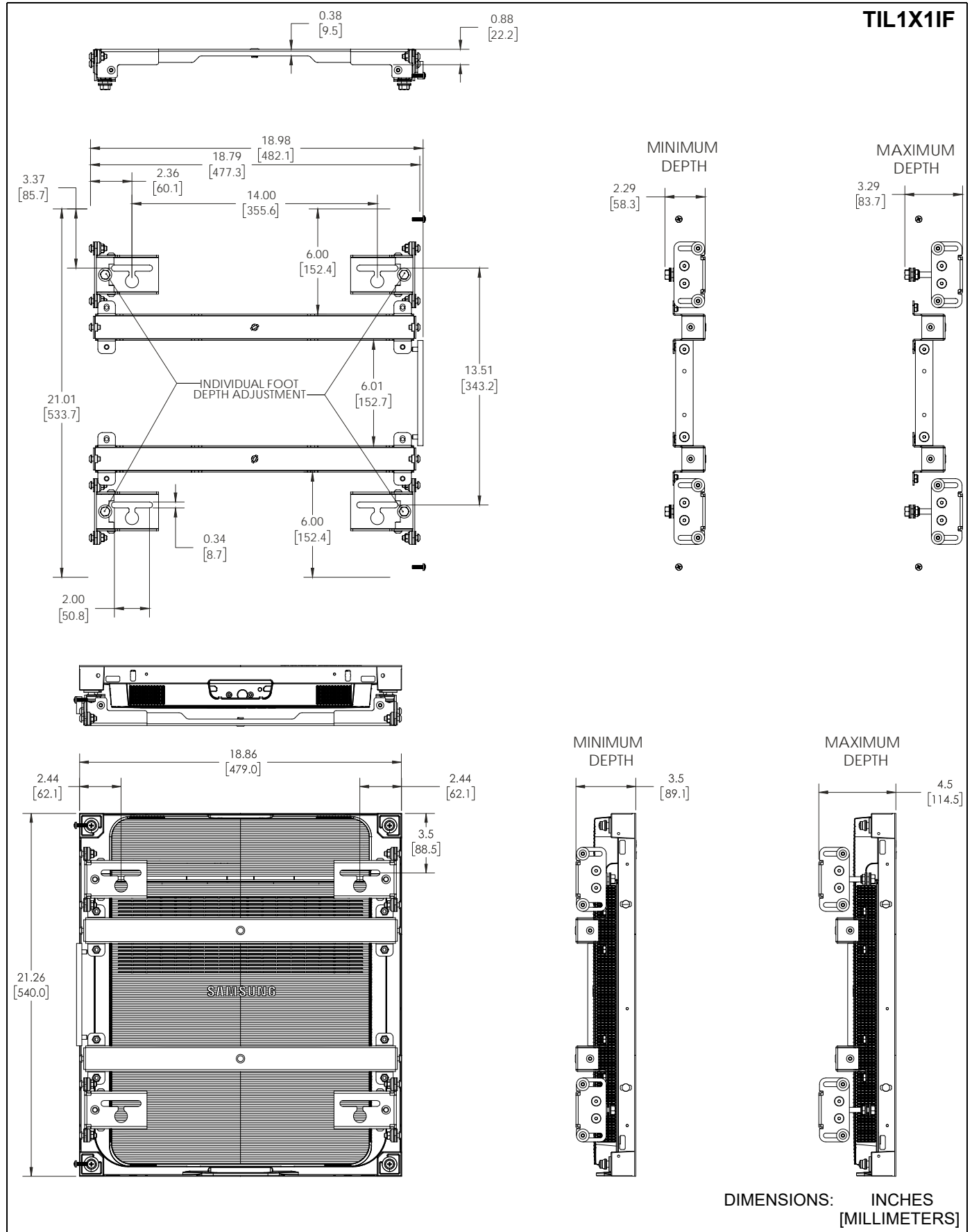
Figure 24

Configuration Examples

The following are just two examples of the many configurations which are possible with the IFH Series wall mounts.

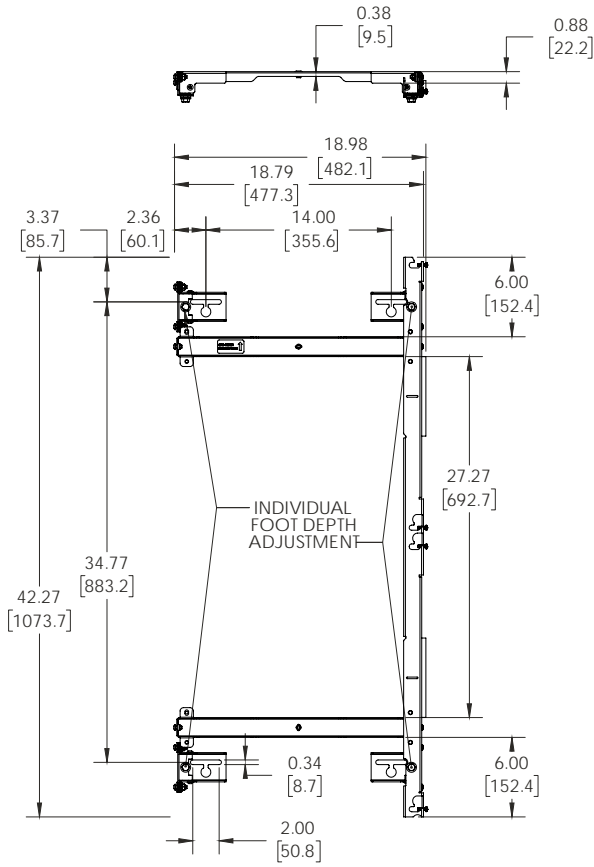


DIMENSIONS

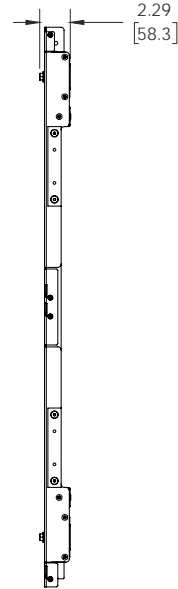


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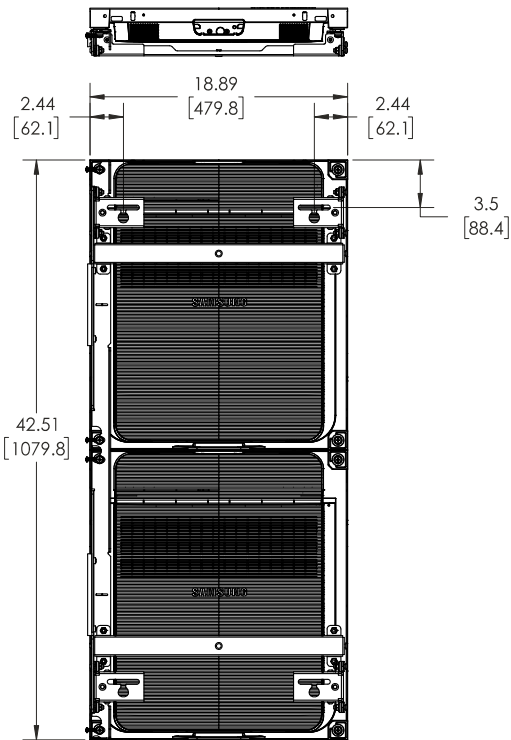
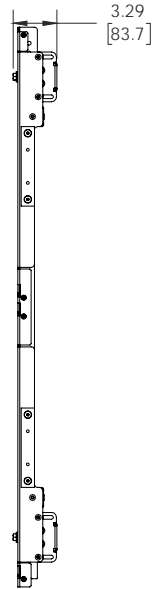
TIL1X2IF



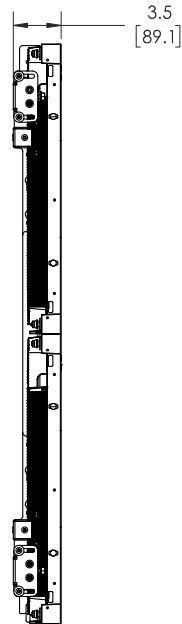
MINIMUM DEPTH



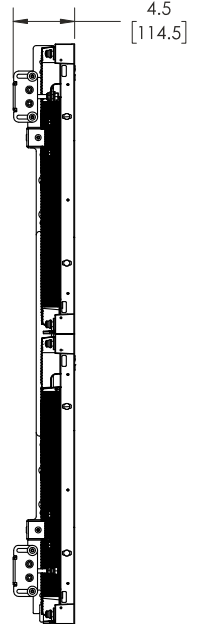
MAXIMUM DEPTH



MINIMUM DEPTH

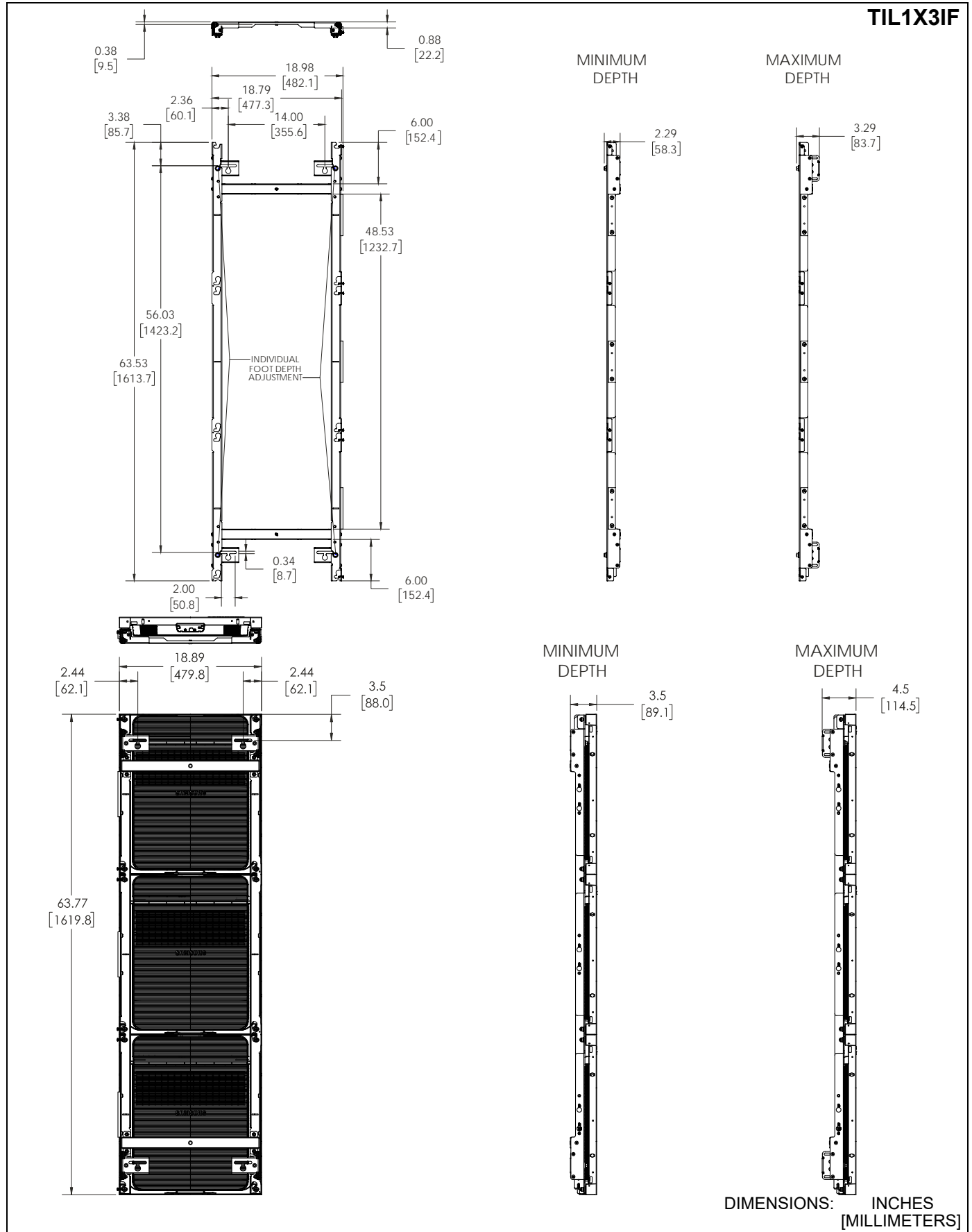


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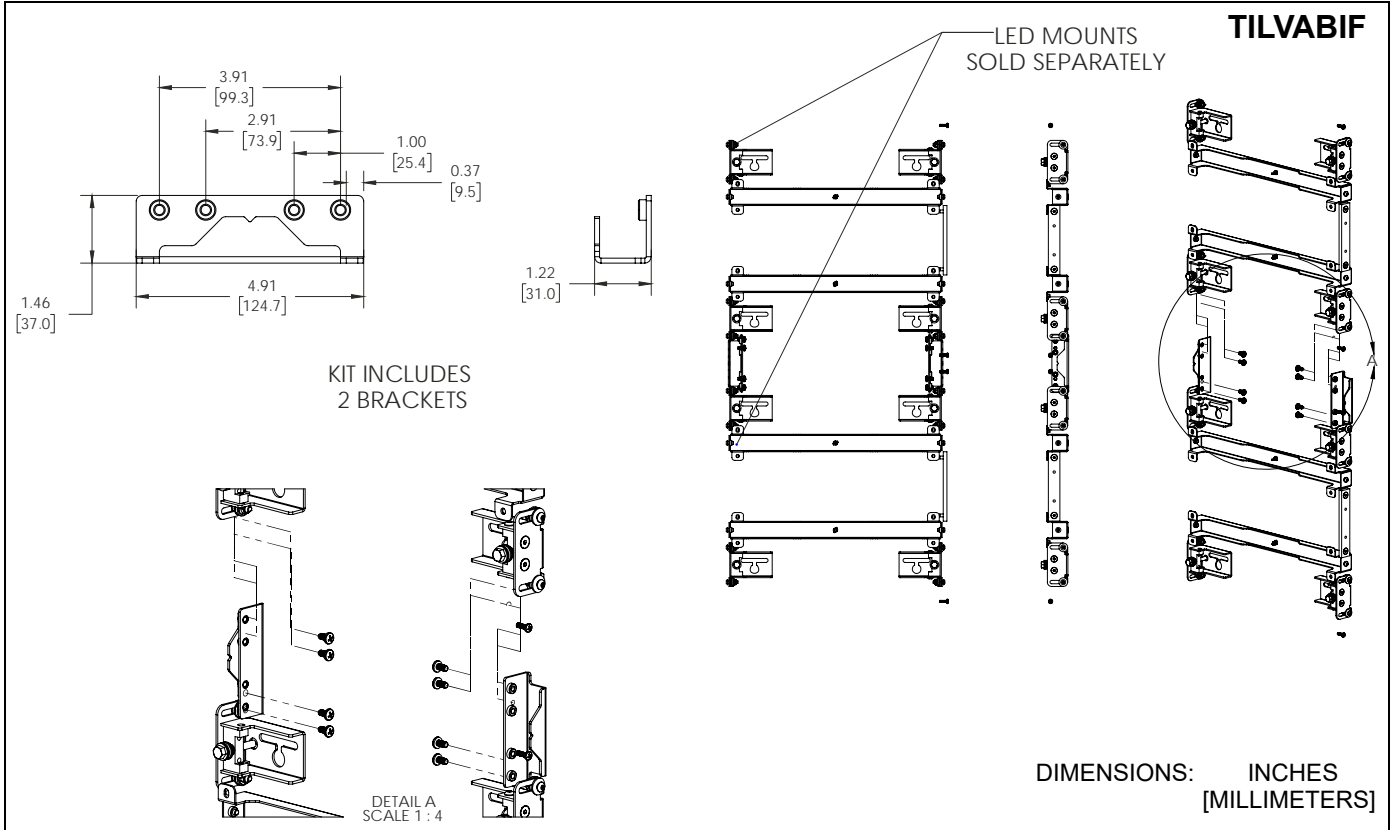


DIMENSIONS: INCHES
[MILLIMETERS]

DIMENSIONS...cont'd



DIMENSIONS...cont'd





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

