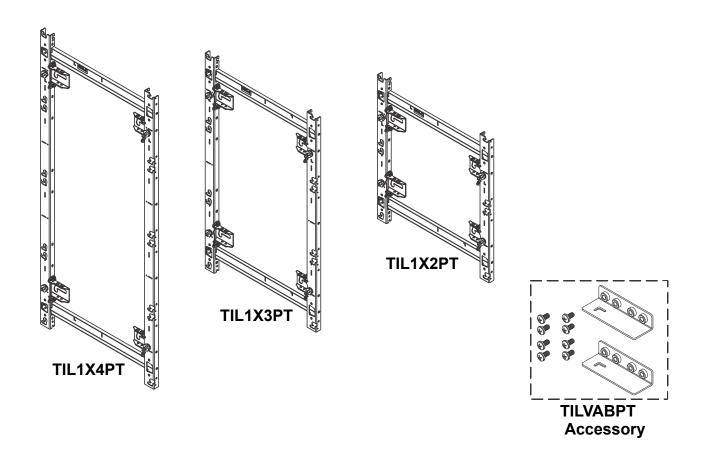
# INSTALLATION INSTRUCTIONS



# PT Series LED Wall Mounts / Accessory

#### **DISCLAIMER**

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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 TIL1X2PT / TIL1X3PT / TIL1X4PT LED wall mounts are designed for use with LED panels only. Exceeding the weight capacity (listed) can result in serious personal injury or damage to equipment!

- TIL1X2PT: 40 lbs (18.1 kg) 20 lbs (9.1 kg) per screen:
- TIL1X3PT: 60 lbs (27.2 kg) 20 lbs (9.1 kg) per screen;
- TIL1X4PT: 80 lbs (36.3 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.

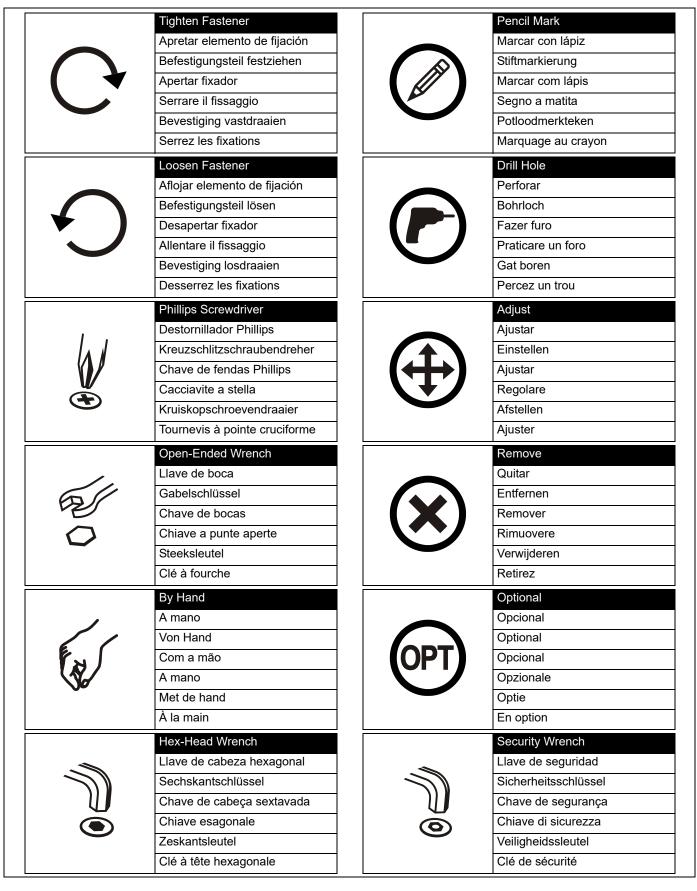
**WARNING:** Do not use this mounting system outdoors.

**IMPORTANT!:** The TIL1X2PT / TIL1X3PT / TIL1X4PT LED wall mounts are designed to be mounted to:

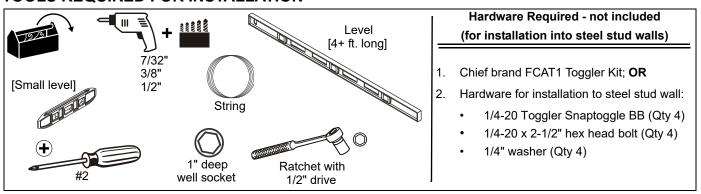
- a bare 8" concrete or 8"x8"x16" concrete block wall; or
- a 3/4" thickness plywood-backed, 2" x 4" wood studs (16" on center minimum) wall with a maximum drywall thickness of 5/8"; or
- a 3/4" thickness plywood-backed, steel stud wall covered with drywall having a maximum thickness of 5/8".

## --SAVE THESE INSTRUCTIONS--

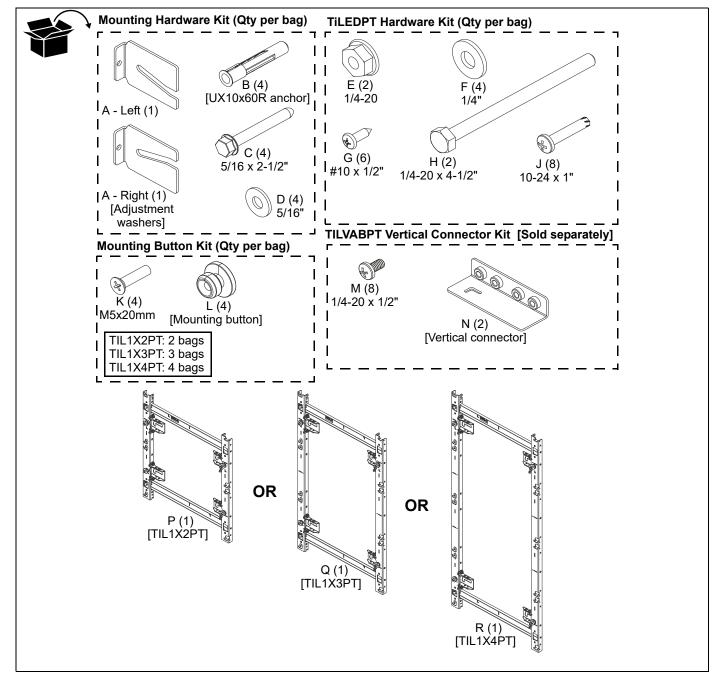
### **LEGEND**



## **TOOLS REQUIRED FOR INSTALLATION**



### **PARTS**



#### 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 the requirement to run power and signal to the video wall.

## **Preparing LED Screens**

 Attach four mounting buttons (L) per LED screen, one to each corner of LED screen, with four M5 x 20mm Phillips flat head screws (K). (See Figure 1)

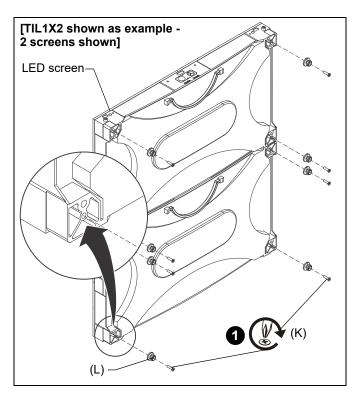


Figure 1

## **Determining Installation Site**

**IMPORTANT!**: The top of the LED screen is 7" above the center line of the mounting lags in the mounting slots. (See Figure 2)

NOTE: If desired, the mount installation may be started in the middle of the video wall, attaching mounts out from the center to the left and right ends. Installation on smaller walls may be easier if started at the left side of the video wall using the following instructions.

- Determine location for the top left corner of the LED wall. (See Figure 2)
- Make a mark 7" 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 for the location of the mounting lags in the mounting slots for the top mount(s) in the video wall. The oversize mounting slots will allow some upward adjustment as needed. (See Figure 2) and (See Figure 3)

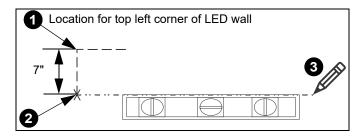


Figure 2

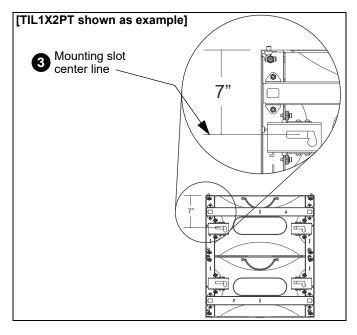


Figure 3

# (OPTIONAL) Adding Vertical Connector Kit (Sold Separately)

NOTE: If more LED screens will need to be added to the top or bottom of the screen configuration, add TILVABPT vertical connector kit to top or bottom of wall mount using the following instructions. If you are NOT adding the TILVABPT connector kit, proceed to Installing First Mount section.

**IMPORTANT!:** It is easier to install the vertical connector kit BEFORE the mounts are attached to the wall. However, it can also be installed after the mounts are attached to the wall.

- Add the vertical connector (N) to the top or bottom of the mount, and fasten with two 1/4-20 x 1/2" Phillips pan head screws (M) per vertical connector. (See Figure 4)
- Connect another wall mount to the other end of the vertical connector to lengthen the video wall.

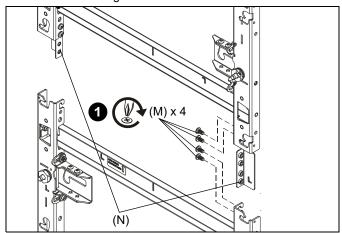


Figure 4

**NOTE:** When connecting a mount to the bottom of an **installed** mount, the lower mount may be hung by its open slot on the partially installed Phillips head screw (M) before tightening the connection. (See Figure 5)

**NOTE:** When connecting a mount above an already installed mount, the upper mount may be slid down and attached to the connector in the top of the already installed mount.

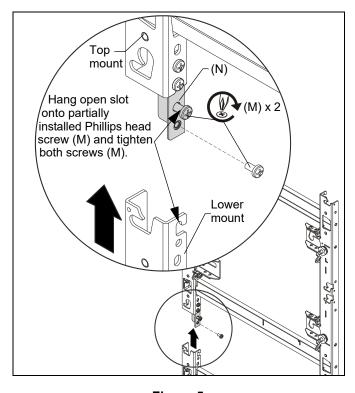


Figure 5

## **Installing First Mount**

The TIL1X2PT / TIL1X3PT /TIL1X4PT (TVF Series) LED wall mounts are designed to be mounted to:

- a bare 8" concrete wall or 8"x 8"x 16" concrete block 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  Drywall attached to plywood-backed walls /Wood studs	1/2" 7/32" x 3"	- 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) - 5/16 x 2-1/2" flanged hex head lag ( <b>C</b> ) - 5/16" washer ( <b>D</b> ) - Adjustment washer ( <b>A</b> )
Concrete or concrete block	3/8" x 3"	- 5/16 x 2-1/2" flanged hex head lag ( <b>C</b> ) - 5/16" washer ( <b>D</b> ) - Adjustment washer ( <b>A</b> ) - Fischer Anchor UX10x60R ( <b>B</b> )

- 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 6)
- Mark mounting holes in two top mounting slots along the horizontal line marked in Step 3. (See Figure 6)

**NOTE:** The mounting holes are 17.22" apart on-center. (See Figure 6)

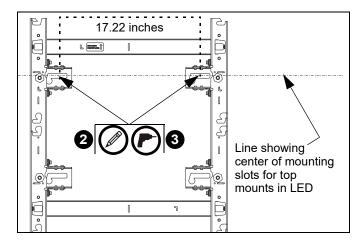


Figure 6

 Drill two pilot holes (see Table 1 for size) at each location marked in Step 2 (See Figure 6) 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.

 Partially install two lag screws into wall, but do NOT completely tighten to wall. (See Figure 7)

NOTE: (OPTIONAL) If more LED screens need to be added to the top or bottom of the screen configuration, add TILVABPT vertical connector kit (not included) to top or bottom of wall mount following instructions in the (OPTIONAL) Adding Vertical Connector Kit. If you are NOT adding the TILVABPT connector kit, proceed to Step 5.

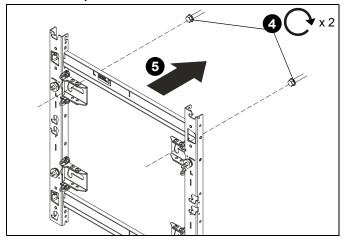


Figure 7

- Hang wall mount, aligning upper mounting slots over fasteners, and adjust side-to-side for proper location, but do NOT completely tighten to wall. (See Figure 7)
- Place a level across front of the mount at bottom of teardrop slots. (See Figure 8)
- Check the level of the mount at the teardrop slots. (See Figure 8)

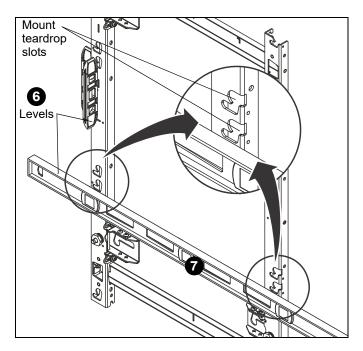


Figure 8

 Slide the left (A-Left) and right (A-Right) adjustment washers into place behind the partially installed lag screws. (See Figure 9)

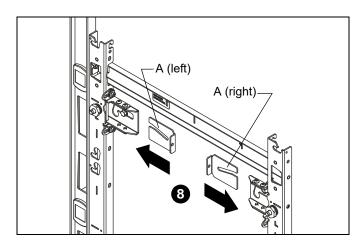
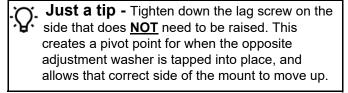


Figure 9

- Check the level of the mount at the bottom of the teardrop slots. (See Figure 10)
- If the mount is not level, slide or use a dead blow hammer to lightly tap the spacer into place. This will lift the mount up as the lag screw rides in the washer's angled slot. (See Figure 10)



11. When the mount is leveled, tighten the lag screws (C). (See Figure 10)

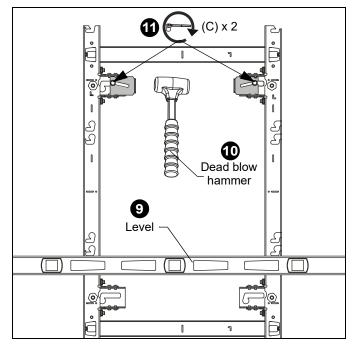


Figure 10

- Drill pilot holes in centerline of lower slots (see Table 1 for size) and follow fastener information (appropriate for wall type) located in Table 1. (See Figure 11)
- Double check the level of the mount along the side of the mount. (See Figure 11)
- Fully tighten the 5/16 x 2-1/2" lag screws (C) through the 5/16" fender washers (D). (See Figure 11)

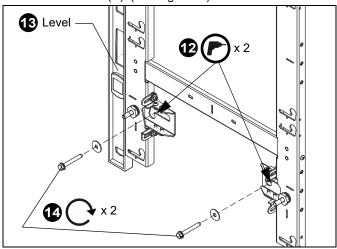


Figure 11

15. Using a level on the front of the mount in various places, use a 1" socket and T-handle driver to adjust the leveling feet on the mount until the mount is plumb. (See Figure 12)



**CAUTION:** Over-torquing may cause damage. Do NOT use a drill to make the depth adjustment.

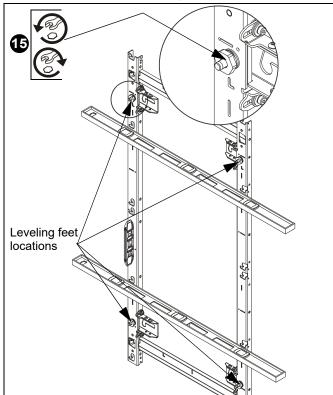


Figure 12

## **Adding Additional Mounts**

- Hold additional 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 6)
- 2. Mark mounting holes in two top mounting slots along the horizontal line. (See Figure 6)
- The mounting holes are 17.22" apart on-center. (See Figure 6)
- 4. Drill two pilot holes (same size as those drilled for first mount) at each marked location and use same fasteners used on the first mount.
- Partially install two fasteners into wall, but do NOT completely tighten to wall.
- Hang wall mount, aligning upper mounting slots over fasteners, and adjust side-to-side for proper location.
- Install two 1/4-20 x 4-1/2" hex head bolts (H) and two 1/4" steel washers (F) into the right or left side of the second mount at **both top and bottom**, and through into the left or right side of the first mount. (See Figure 13)

**NOTE:** The second mount may be attached to either the left or right side of the first already installed mount.

- Loosely fasten second mount to first mount using two 1/4" steel washers (F) and two 1/4-20" flanged hex nuts (E). (See Figure 13)
- 9. Slide adjustment washers (A) behind head of upper fasteners in mount. (See Figure 13)
- Tighten both fasteners between mounts (at top and bottom where the second mount is connected to the first mount). (See Figure 13)

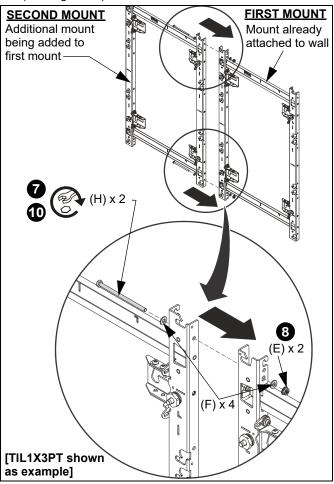


Figure 13

 Lay levels across flat of the mounting holes and center-ofscreen indicators, and vertically along side of mount to ensure wall mount is square and level.

**NOTE:** Lift up slightly on the far side of the second mount to help level the mount.

- 12. Hold the adjustment washers in place by hand and tighten the fasteners at the top of the mount.
- Drill lower pilot holes at attachment locations and use same fasteners used at top of mount.
- 14. Install two fasteners through lower part of mount and tighten.

**IMPORTANT!**: For larger LED walls it is helpful to check placement and alignment of the mounts by putting a few LED housings in place in the <u>bottom</u> row of the installed mounts (referencing the LED screen installation manual for specific instructions) during the mount installation, checking alignment before removing the housings, and then continuing the installation.

**IMPORTANT!**: Continually recheck the alignment and overall flatness of the wall mounts during the installation process.

- Continue the installation process until all wall mounts are attached.
- Install one #10 x 1/2" Phillips tapping screw (G) into left upper LED mounting button hole for <u>each</u> LED screen space. Install the tapping screws <u>ONLY</u> on the furthest left column of mounts. (See Figure 14)

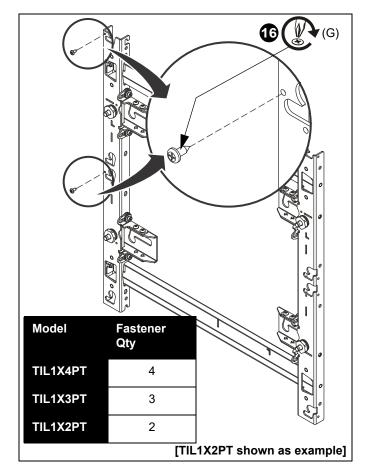


Figure 14

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

 Using a drill driver makes installation of the tapping screws (C) easier.

- Install the remaining #10 x 1/2" self-tapping screws (G) on the mount, as necessary, to assist in centering the LED housings. (See Figure 15)
- Run a string between the self-tapping screws installed in Step 18 to assist with alignment across long sections of mounts. (See Figure 15)

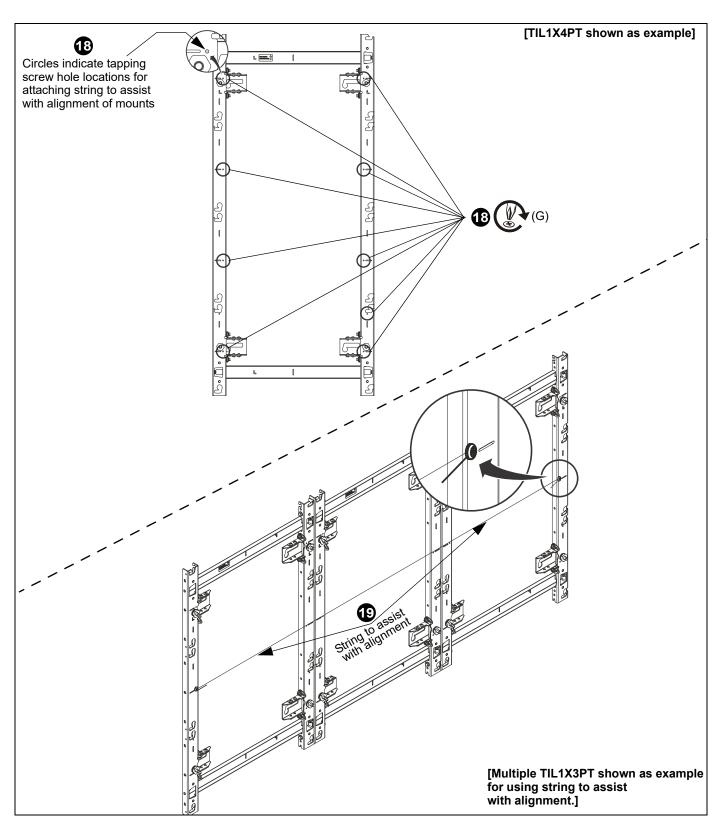


Figure 15

# **Installing Housings and LED Screens**

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

**NOTE:** Begin the installation of the housings in the lower left corner of the video wall.

**NOTE:** One complete column of housings should be installed before proceeding to the next column.

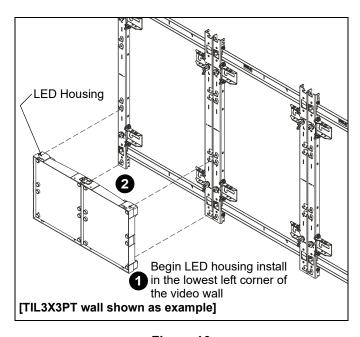


Figure 16

- Install the first LED housing in the lowest left-hand corner of the video wall by aligning mounting buttons on the housing with the mounting holes on the wall mount.
- 2. Move LED housing forward until all four mounting buttons are through mounting holes in wall mount.
- Continue with the next housing (directly above installed housing).

**NOTE:** Be sure to check the level and plumb of the housings often during the housing installation.

- AFTER the entire first column of housings 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.
- After the second column of housings is installed, push to the left until the first and second columns of housings are touching.
- 6. Repeat until all housings are installed.

**NOTE:** The tapping screws assist in centering the housings on the mounts.

- OPTIONAL: Remove tapping screws if housings need to be moved further left or right of center.
- OPTIONAL: Install two 10-24 x 1" Phillips head cap screws (J) per housing on far right and far left column of mounts if housings need to be moved further left or right of center. (See Figure 17)

**NOTE:** The screws (J) are installed from the right side of the furthest right wall mount and the left side of the furthest left wall mount and can be used to push the housings to the left or right to slightly level or align the housings by adjusting the amount of push at the bottom or top of the housing. The screws (J) can also be used to prevent removal of the LED screens.

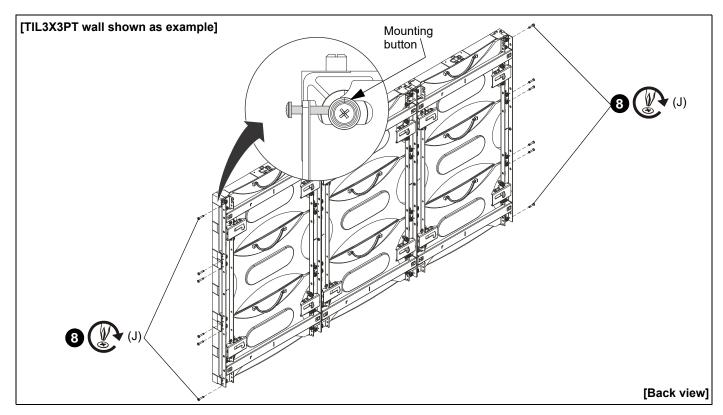


Figure 17

- 9. Using levels, check the level and plumb of the housings installed on the mounts and adjust as necessary following information in the **Adjustments** section.
- Connect housings following instructions included with LED screens.
- 11. Install LED screens following instructions included with screens.

### **Adjustments**

#### **Depth Adjust**

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

 Using a level on the front of the housings in various places, loosen or tighten the leveling feet adjust bolt (using a 1" socket and T-handle driver) to assist in leveling the LED housings across the various wall mounts until plumb. (See Figure 18)

**IMPORTANT!**: It is best to make adjustments in small increments to prevent any binding or torquing of the mounts. Be sure to adjust the depth evenly for both sides of the mounts.



**CAUTION:** Over-torquing may cause damage. Do NOT use a drill to make the depth adjustment.

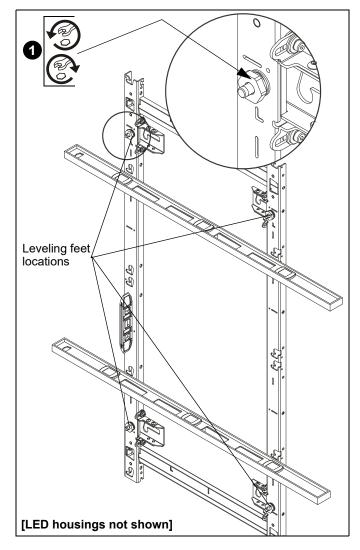


Figure 18

 If a significant adjustment is required in order to level the mounts, the fasteners installed in the Adding Additional Mounts section may be removed to allow adjustment to one mount without affecting the other mounts.

#### **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**

- Use one 5/16" x 2-1/2" hex flange head lag bolt (C) and one 5/16" washer (D) through product and into pilot hole. (See Figure 19) and (See Figure 25)
- 2. Repeat for remaining pilot holes.

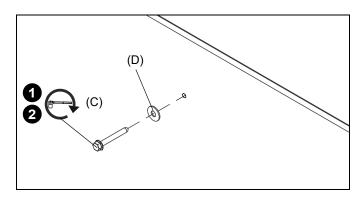


Figure 19

#### **Concrete or Concrete Block**

- Install one UX10X60R anchor (B) into each pilot hole using a hammer, making sure that the anchor is flush with the wall. (See Figure 20)
- Use one 5/16" x 2-1/2" hex flange head lag bolt (C) and one 5/16" washer (D) through product into each anchor in wall. (See Figure 20)
- Repeat for remaining pilot holes.

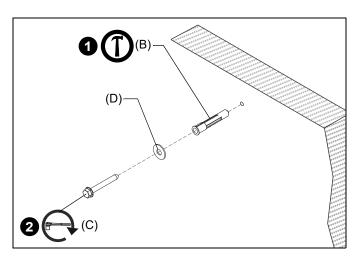


Figure 20

#### 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 21)

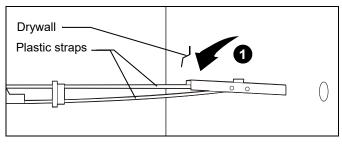


Figure 21

- 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 22)
- Slide plastic cap on anchor towards wall until flange of cap is flush with wall. (See Figure 22)

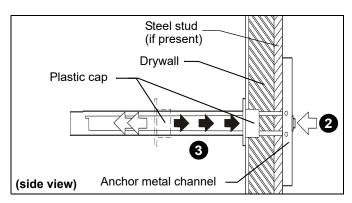


Figure 22

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 23)

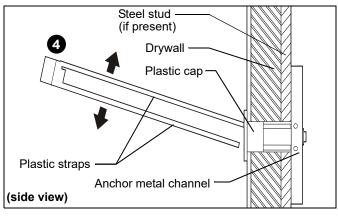


Figure 23

- 5. Line up anchor with attachment point.
- 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 24)

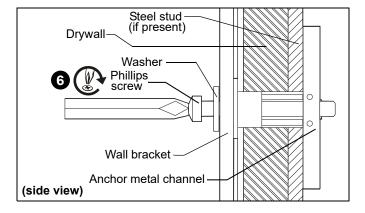


Figure 24

# Site Requirements for Wood or Steel Stud Installation

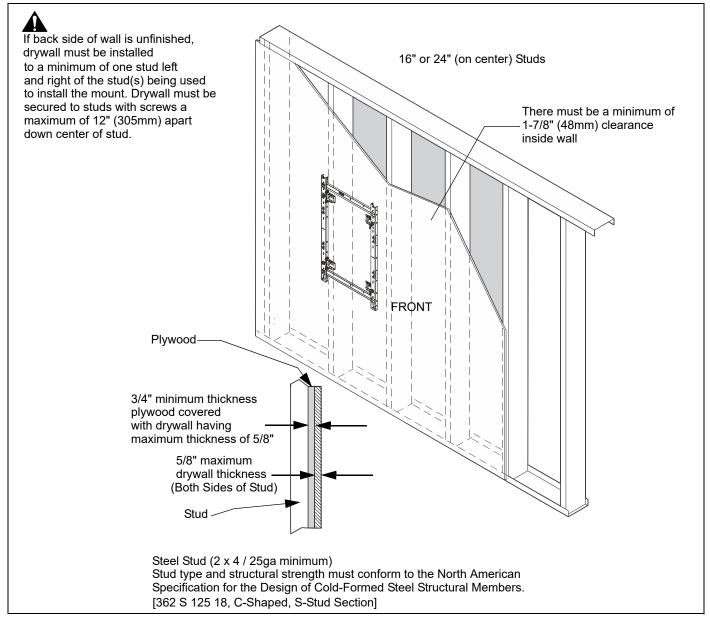
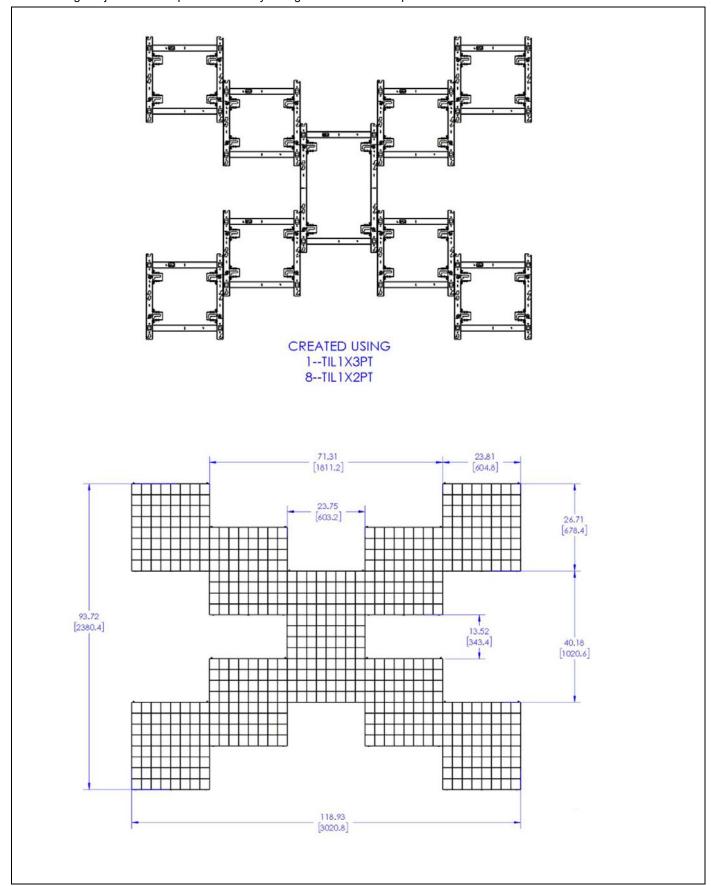
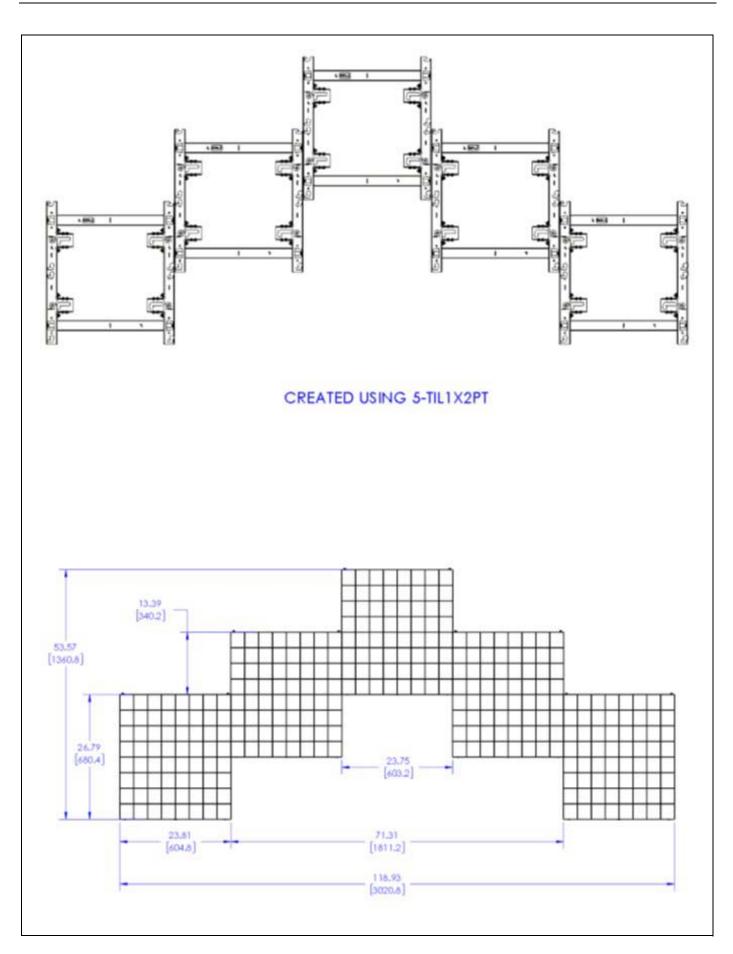


Figure 25

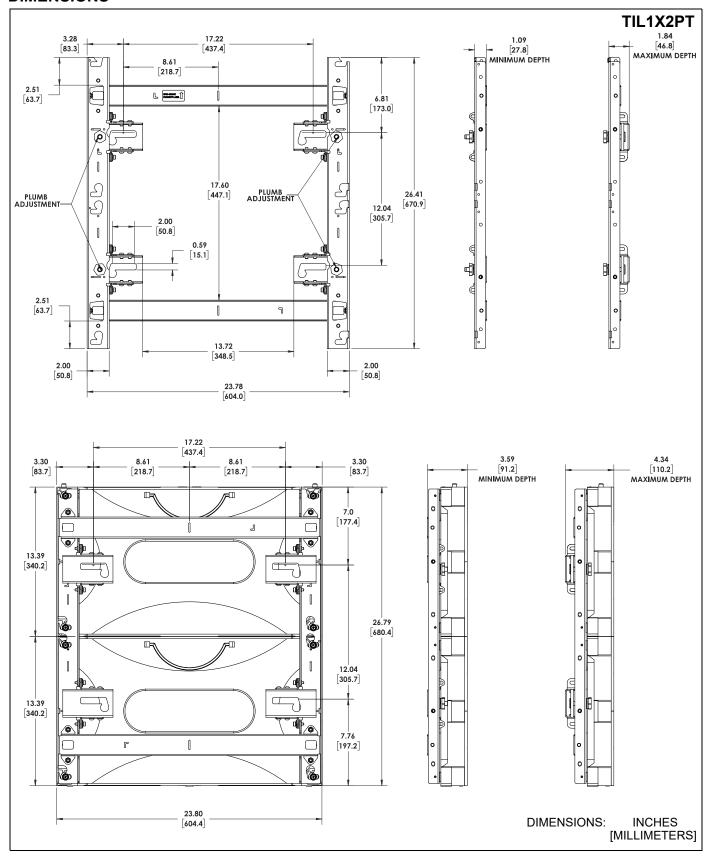
# **Configuration Examples**

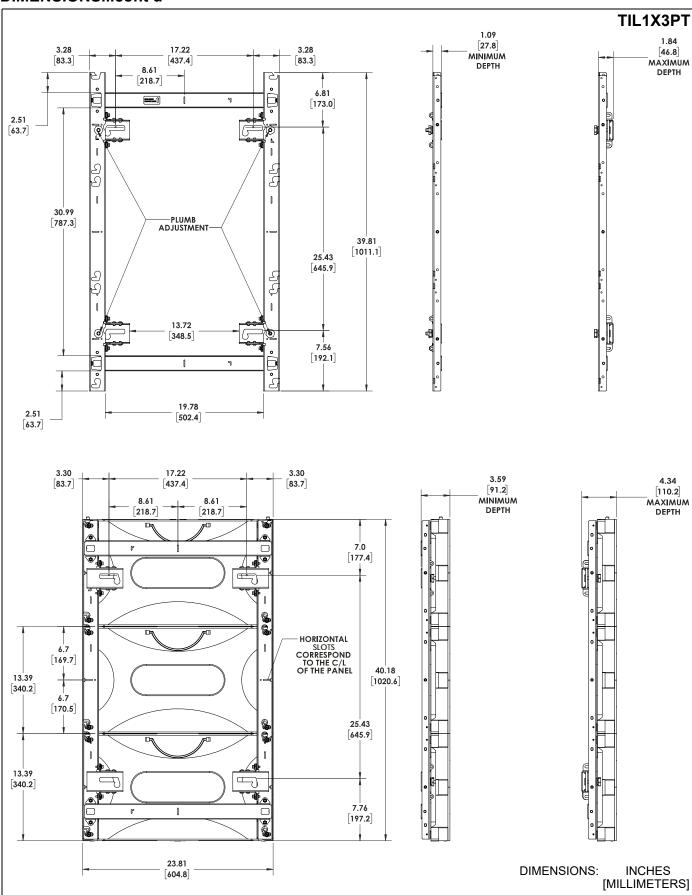
The following are just two examples of the many configurations which are possible with the PT Series wall mounts.

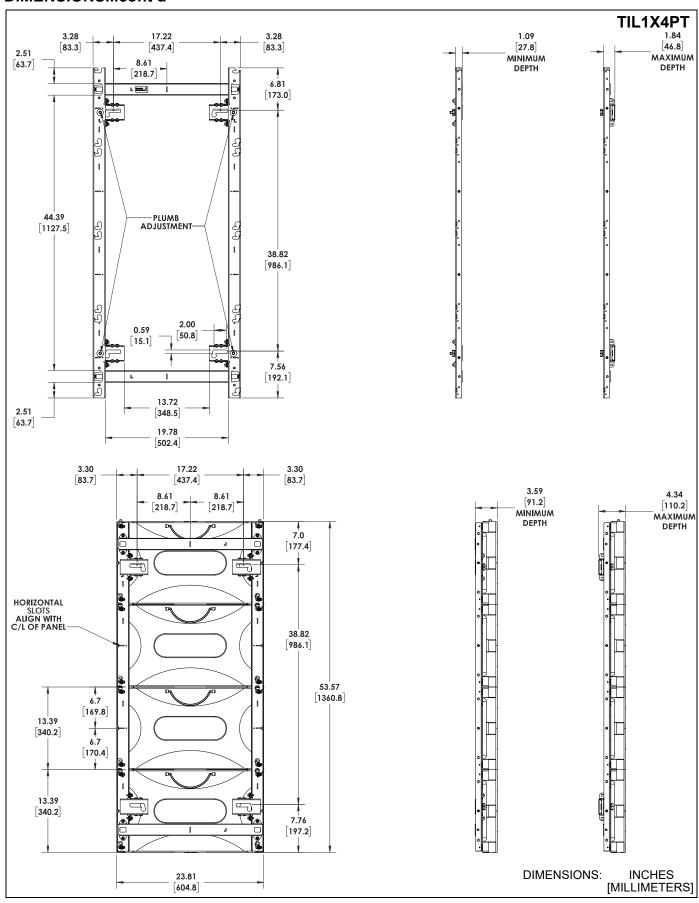


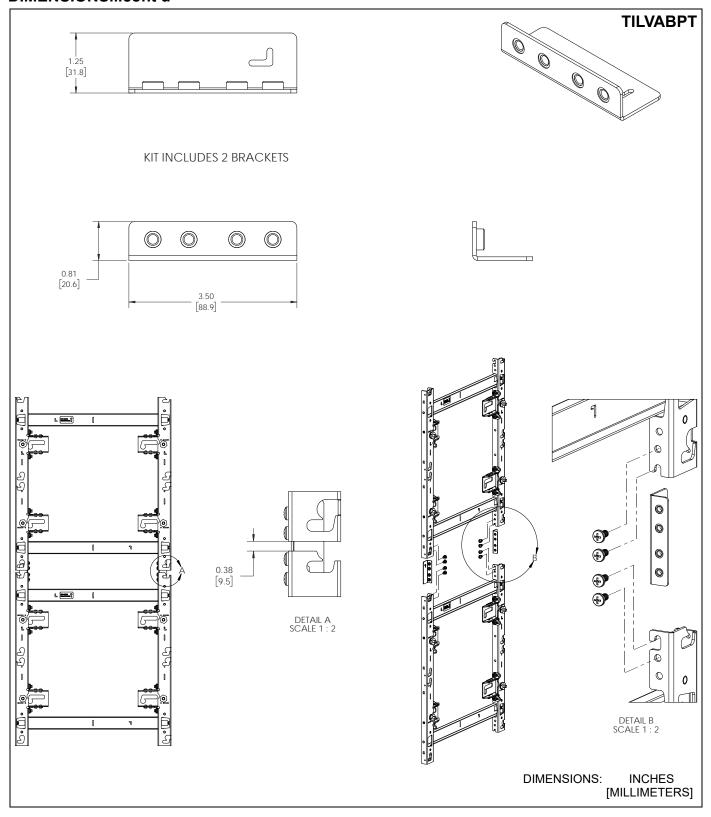


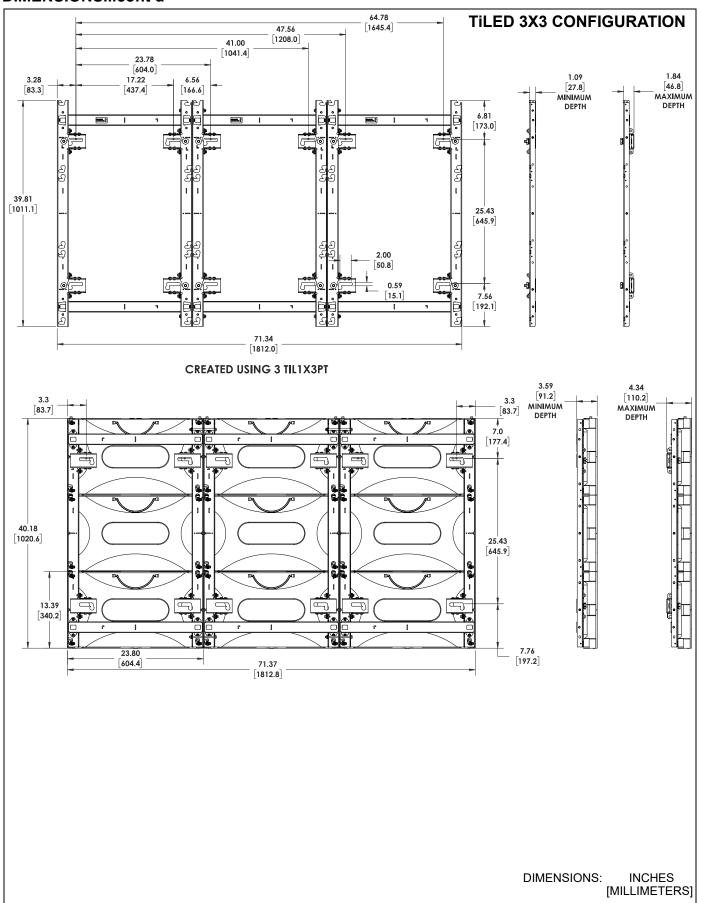
## **DIMENSIONS**

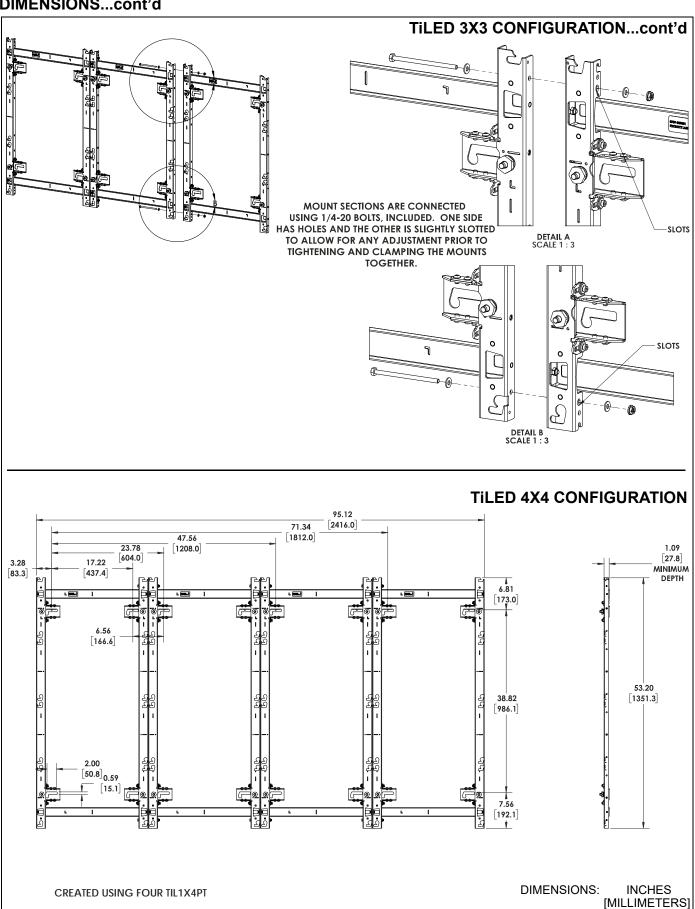


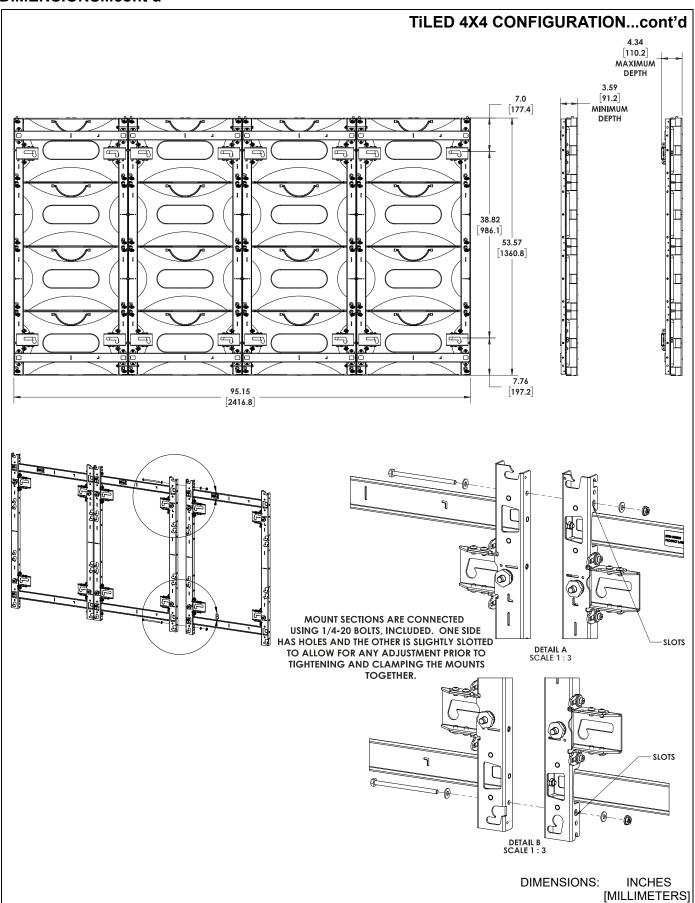


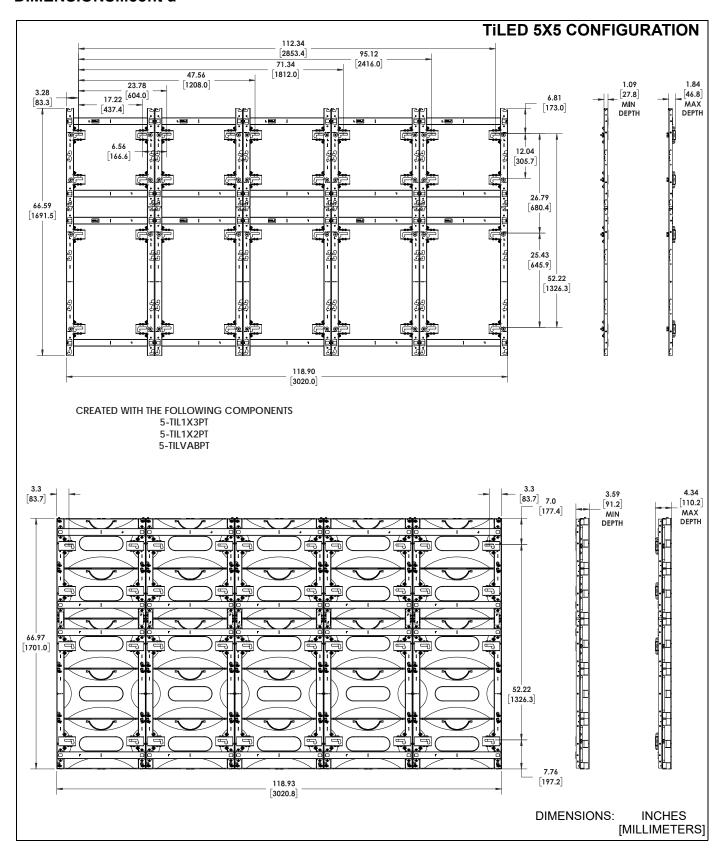














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