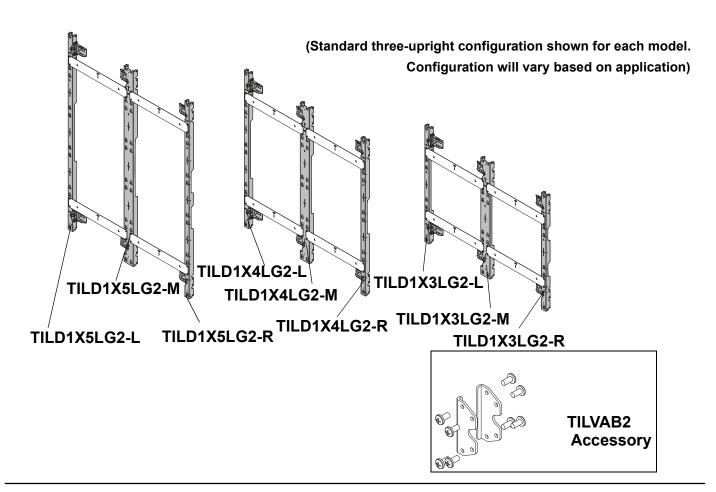
# INSTALLATION INSTRUCTIONS



**LG2 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.



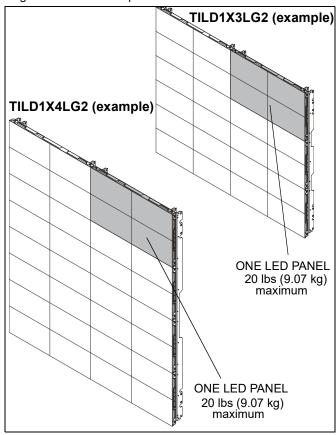
# **IMPORTANT SAFETY INSTRUCTIONS**

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 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 TILD1X3LG2 / TILD1X4LG2 /

TILD1X5LG2 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! Do NOT attach LED panels to TILD1X3LG2 / TILD1X5LG2 LED video wall mounts that exceed 20 lbs (9.07 kg) regardless of the size or design of the configuration. See figure below for examples.



**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.

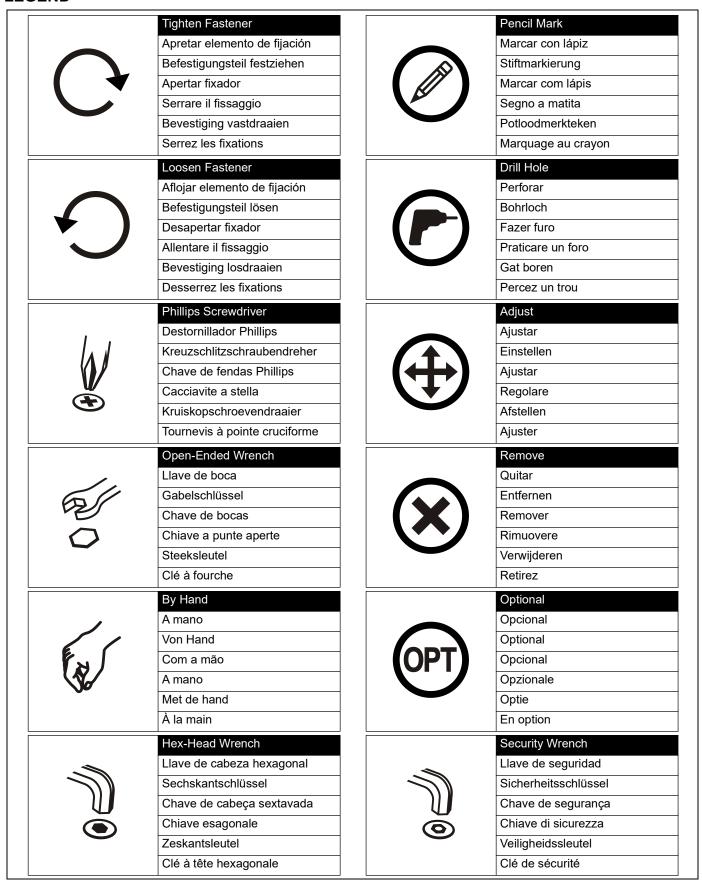
**WARNING:** Do not use this mounting system outdoors.

**IMPORTANT!**: The TILD1X3LG2 / TILD1X4LG2 / TILD1X5LG2 LED wall mounts are designed to be mounted to:

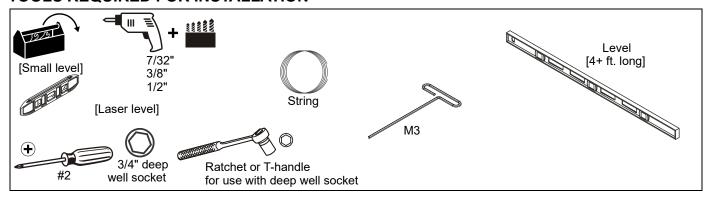
- a bare 8" concrete or 8"x8"x16" concrete block wall; or
- a 3/4" thickness plywood-backed, 2" x 4" wood studs (16" on center minimum) wall with a maximum drywall thickness of 5/8"; or
- a 3/4" thickness plywood-backed, steel stud wall covered with drywall having a maximum thickness of 5/8".

--SAVE THESE INSTRUCTIONS--

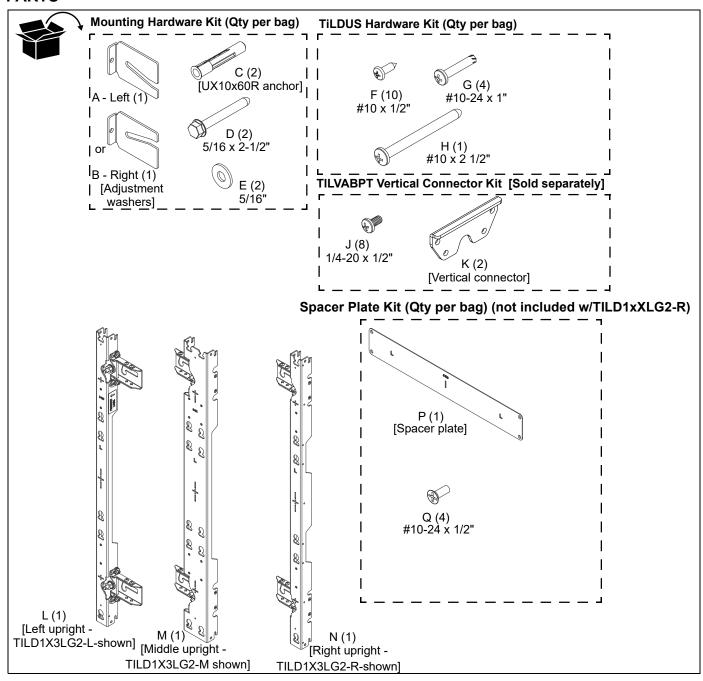
### **LEGEND**



# **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.

#### Site Assessment

Before beginning any installation the site should be assessed in several areas to help avoid any issues during the actual installation.

- Wall Structure It is recommended that a 3/4"
  furniture-grade plywood-backed wall be used in most
  LED video walls. The use of a wood stud wall is not
  appropriate since the studs won't be in the proper
  location for an LED video wall.
- Wall High/Low Points Locate any high or low points on the wall that may cause problems, and try to set up install so that these points can be avoided, if possible.
- Flatness/Plumb of Wall Learn how much depth adjustment will be needed across the LED video wall mounting area.
- Power/Cable Locate all power outlets and cable access holes that need to be cleared by the installation. Plan appropriately for those holes.
- Installing in a Recess Verify the level and squareness of the recessed area. Since these areas are rarely perfect you may need to decide what to use as a reference point.
  - The recess top or bottom may not be level so the video wall may need to be installed to align with the recess, rather than being level with the wall.
  - If the recess is not square the sides may make the recess look crooked. If possible, the recess should be fixed. If repairing the recess isn't an option it may be best to "split the difference" between the recess sides to make the video wall appear level.
- Where to Begin the Video Wall The installer should make the decision whether the video wall will be started at the top, bottom, left, right or center.
  - If a lower bottom reference is given in the specifications, it may make sense to start at the bottom of the video wall to ensure that this specification is met from the start of installation.
  - If building inside of a recess, it may be easier to start in the center of the space since the video wall will most likely need to be centered within the recess
- Vertical Connector Brackets If creating a video wall with more than a single row, you will be using the vertical connectors which are sold separately.
  - Vertical Connector Brackets [sold separately]
    If the video wall requires multiple rows, decide on
    whether the installation will start with the top or

bottom row. This determines to which end (top or bottom) the vertical connector brackets are attached.

-Q:

**Just a tip -** For larger LED walls it is helpful to check placement and alignment of the mounts by putting a few cabinets <u>without</u> the LED's 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, verifying that everything is staying aligned and level, and then continuing the mount installation.

Q

**Just a tip -** The horizontal slots located along the vertical mount pieces (and vertical slots located along the horizontal mount pieces) are the center-of-screen indicators to illustrate where the center of each LED screen will be located, and can be used to hold a tape measure tab while measuring. (See Figure 1)

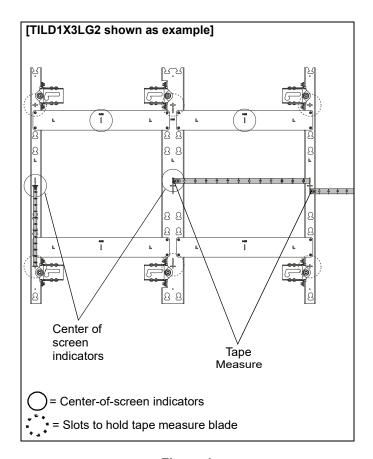


Figure 1

# **Connecting Mounting Uprights**

 Use eight 10-24 x 1/2" flathead Phillips screws (Q) to secure two spacer plates (P) to mounting uprights (L and M or M and M). (See Figure 2) or (See Figure 3)

**IMPORTANT!:** If installing from left to right, first attach left upright (L) to middle upright (M). If installing from the middle out, first attach two middle uprights (M) to each other.

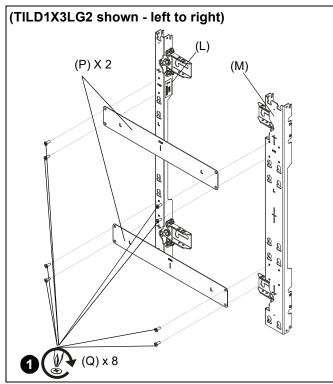


Figure 2

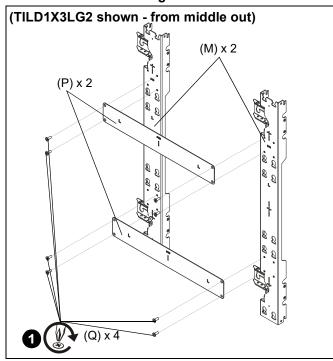


Figure 3

# **Determining Installation Site**

**IMPORTANT!**: The top of the LED screen is 4.75" above the center line of the mounting lags in the upper mounting slots. (See Figure 4)

**IMPORTANT!**: The bottom of the LED screen is 6" below the center line of the mounting lags in the lowest mounting slots.

**NOTE:** Refer to dimensions drawings on pages 16-19 for further details on installation locations

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 4)
- Make a mark 4.75" below the planned top left corner of the LED wall. (See Figure 4)
- 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 4) and (See Figure 5)

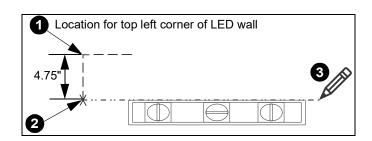


Figure 4

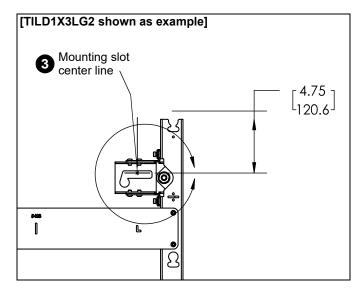


Figure 5

# (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 (K) to the top or bottom of the mount, and fasten with four 1/4-20 x 1/2" Phillips pan head screws (J) per vertical connector (K). (See Figure 6)
- Partially install two 1/4-20 x 1/2" Phillips pan head screws (J) into top or bottom screw holes on connectors (K). (See Figure 6)
- Connect another wall mount to the other end of the vertical connector (K) by placing open slot over partially installed screws (J). (See Figure 6) and (See Figure 7)
- Install two 1/4-20 x 1/2" Phillips pan head machine screws (J) into inside holes on connectors (K). (See Figure 7)
- 5. Tighten screws partially installed in Step 2 to secure mount to connectors (K). (See Figure 7)

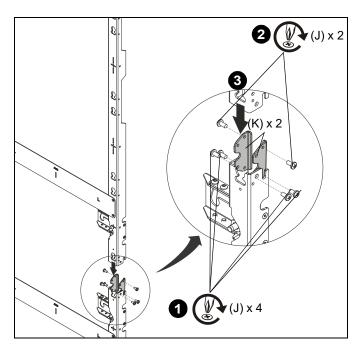


Figure 6

**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 (J) before tightening the connection. (See Figure 7)

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.

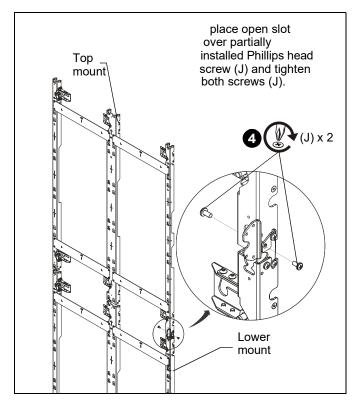


Figure 7

#### **Installing First Mount**

The TILD1X3LG2 / TILD1X4LG2 /TILD1X5LG2 LED wall mounts are designed to be mounted to a bare 8" concrete wall or 8"x 8"x 16" concrete block wall

**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 ( <b>D</b> ) - 5/16" washer ( <b>E</b> ) - Adjustment washer ( <b>A, B</b> )
Concrete or concrete block	3/8" x 3"	- 5/16 x 2-1/2" flanged hex head lag ( <b>D</b> ) - 5/16" washer ( <b>E</b> ) - Adjustment washer ( <b>A, B</b> ) - Fischer Anchor UX10x60R ( <b>C</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 8)
- Mark mounting holes in two top mounting slots along the horizontal line marked in Step 3. (See Figure 8)

NOTE: The mounting holes are 16.87" apart on-center for left (L) and center (M) or 16.01" for left (L) and right (N). The hole on the left will be 3.8" from the left edge of panels. (See Figure 8)

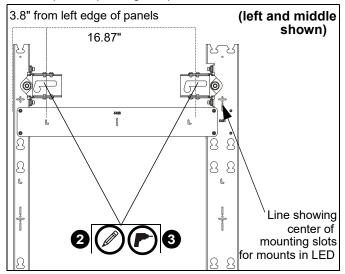


Figure 8

 Drill two pilot holes (see Table 1 for size) at each location marked in Step 2 (See Figure 8) and follow fastener information 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 9)

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.

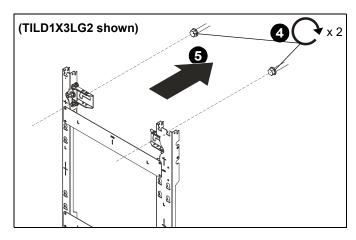


Figure 9

- 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 9)
- 6. Place a level across front of the mount at bottom of teardrop slots. (See Figure 10)
- 7. Check the level of the mount at the bottom of the teardrop slots. (See Figure 10)

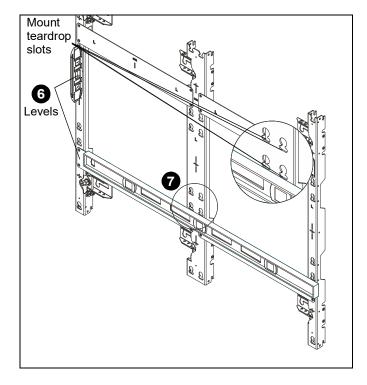


Figure 10

 Slide the left (A-Left) and right (B-Right) adjustment washers into place behind the partially installed lag screws. (See Figure 11)

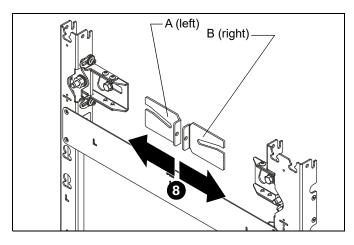
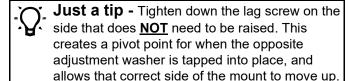


Figure 11

- Check the level of the mount at the bottom of the teardrop slots. (See Figure 12)
- 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 12)



11. When the mount is leveled, tighten the lag screws (D). (See Figure 12)

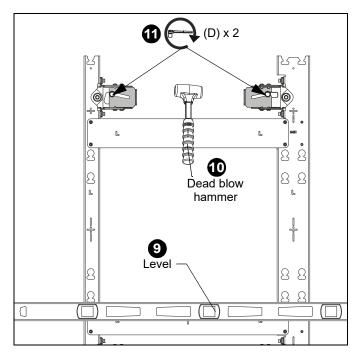


Figure 12

- 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 13)
- 13. Double check the level of the mount along the side of the mount. (See Figure 13)
- Fully tighten the 5/16 x 2-1/2" lag screws (D) through the 5/16" fender washers (E). (See Figure 13)

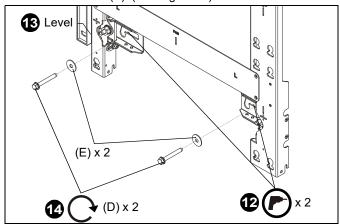


Figure 13

# Adding Additional Uprights

 Use four 10-24 x 1/2" flathead Phillips screws (Q) to secure two spacer plates (P) to mounting uprights (M or N). (See Figure 14)

**NOTE:** Add uprights (M or N) one by one from left to right as the mounting system is being built on the wall.

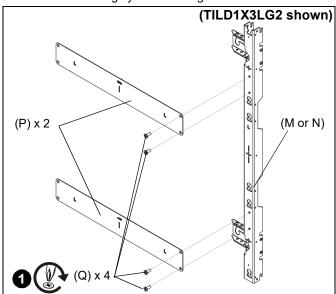


Figure 14

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.

 Mark mounting hole in top mounting slot along the horizontal line marked in Step 3 of Installing First Mount Section. (See Figure 15)

NOTE: The mounting holes are 23.62" apart on-center for center (M) and center (M) or 22.76" for center (M) and right (N) uprights. (See Figure 15)

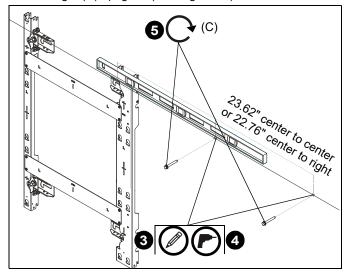


Figure 15

- Drill pilot hole (see Table 1 for size) at each location marked in Step 3 (See Figure 15)
- Loosely install lag screws (D) into drilled holes following fastener information located in Table 1. (See Figure 15)
- Hang upright (M or N) with spacer (P) onto lag screw (C). (See Figure 16)
- Use four 10-24 x 1/2" flathead Phillips screws (Q) to secure two spacer plates (P) to mounting uprights (M). (See Figure 16)

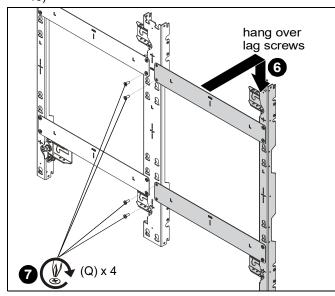


Figure 16

- 8. Hold the adjustment washers in place by hand and tighten the fasteners at the top of the mount. (See Figure 11) and (See Figure 12)
- Drill lower pilot holes at attachment locations and use same fasteners used at top of mount. (See Figure 13)

10. 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 #10-24 x 1" 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 17)

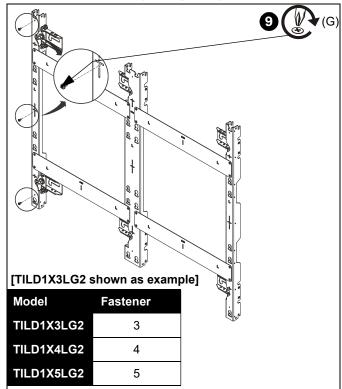


Figure 17

**IMPORTANT!**: The tapping screws keep the LED screens from moving left and right after the panels are installed, and are <u>ONLY</u> installed on the furthest left column of mounts.

- 13. Using a drill driver makes installation of the tapping screws (G) easier.
- Install the remaining #10-24 x 1" self-tapping screws (G) on the mount, as necessary, to assist in centering the LED housings. (See Figure 18)
- Run a string between the self-tapping screws installed in Step 12 to assist with alignment across long sections of mounts. (See Figure 18)
- Adjust upright depth as needed following Steps in the Depth adjustment section.

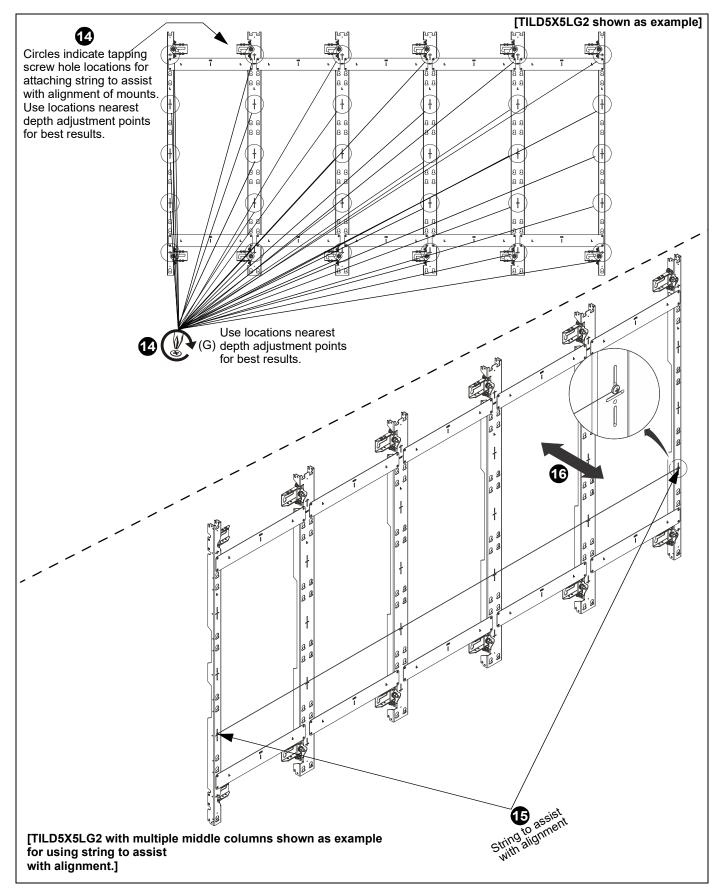


Figure 18

# **Adjustments**

#### **Depth Adjust (Macroadjust)**

- 1. Remove LED housings from mounting system.
- 2. Turn 3/4" hex nuts near feet of mounting system to adjust depth as needed. (See Figure 19)
- 3. Replace LED housings onto mounting system.

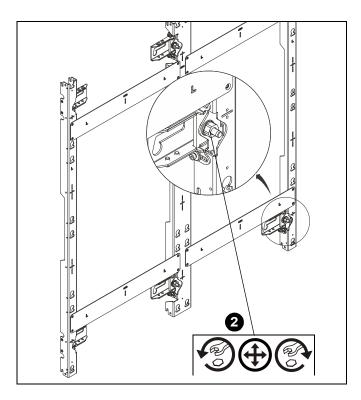


Figure 19

#### **Depth Adjust (Microadjust)**

The depth of each wall mount section is controlled by the screw in the mounting button, accessible only after removing LED display from LED housing.

- Remove LED module from LED housing.
- Adjust depth adjustment screw until LED housing is adjusted to desired depth using an M3 hex key (not included). (See Figure 20)
- Replace LED module into LED housing.

**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.

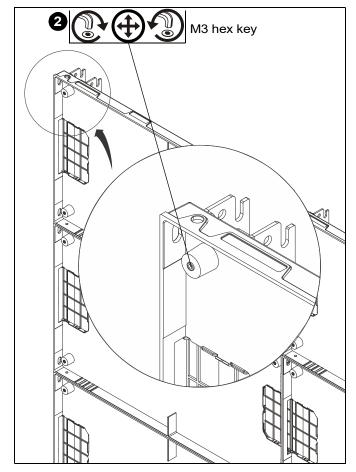


Figure 20

#### **Installing Housings and LED Screens**

WARNING: The TILD1X3LG2 / TILD1X4LG2 / TILD1X5LG2 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! Do NOT attach LED panels to TILD1X3LG2 / TILD1X5LG2 LED video wall mounts that exceed 20 lbs (9.07 kg) regardless of the size or design of the configuration.

**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.

**NOTE:** Panels may be moved in either direction for better access as the panels are being installed.

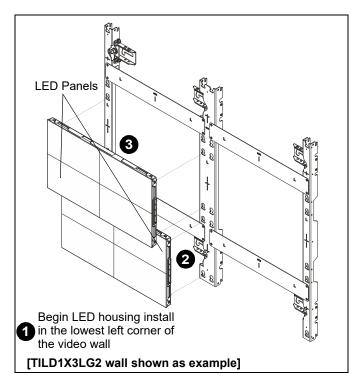


Figure 21

- 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. (See Figure 21)
- 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 <u>entire</u> first column of housings are installed, slide the column to the left side 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.
- 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.
- Install LED screens following instructions included with screens

#### **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**

**IMPORTANT!**: The TILD1X3LG2 / TILD1X4LG2 / TILD1X5LG2 LED wall mounts are designed to be mounted to a 3/4" thickness plywood-backed, 2" x 4" wood studs (16" on center minimum) wall with a maximum drywall thickness of 5/8".

- Use one 5/16" x 2-1/2" hex flange head lag bolt (D) and one 5/16" washer (E) through product and into pilot hole. (See Figure 22)
- 2. Repeat for remaining pilot holes.

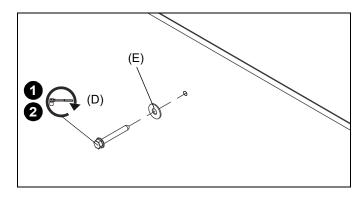


Figure 22

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

**IMPORTANT!**: The TILD1X3LG2 / TILD1X4LG2 / TILD1X5LG2 LED wall mounts are designed to be mounted to a bare 8" concrete or 8"x8"x16" concrete block wall.

- Install one UX10X60R anchor (C) into each pilot hole using a hammer, making sure that the anchor is flush with the wall. (See Figure 23)
- Use one 5/16" x 2-1/2" hex flange head lag bolt (D) and one 5/16" washer (E) through product into each anchor in wall. (See Figure 23)

**NOTE:** 5/16" washers (E) may not be necessary if using adjustment washers (A and B) to install to wall.

3. Repeat for remaining pilot holes

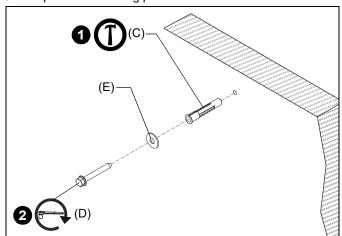


Figure 23

#### Steel Stud

IMPORTANT!: The TILD1X3LG2 / TILD1X4LG2 /

TILD1X5LG2 LED wall mounts are designed to be mounted to a 3/4" thickness plywood-backed, steel stud wall covered with drywall having a maximum thickness of 5/8".

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 24)

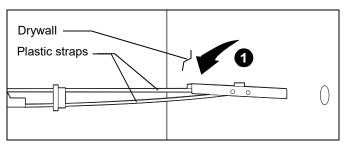


Figure 24

- 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 25)
- Slide plastic cap on anchor towards wall until flange of cap is flush with wall. (See Figure 25)

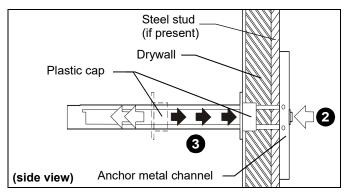


Figure 25

 Snap off plastic straps on anchor at wall by pushing side to side, snapping off straps level with flange of plastic cap. (See Figure 26)

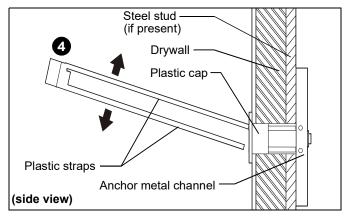


Figure 26

- 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 27)

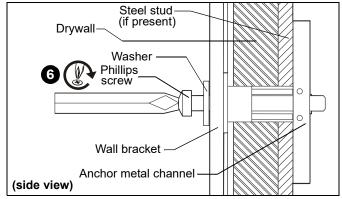


Figure 27

# Site Requirements for Wood or Steel Stud Installation

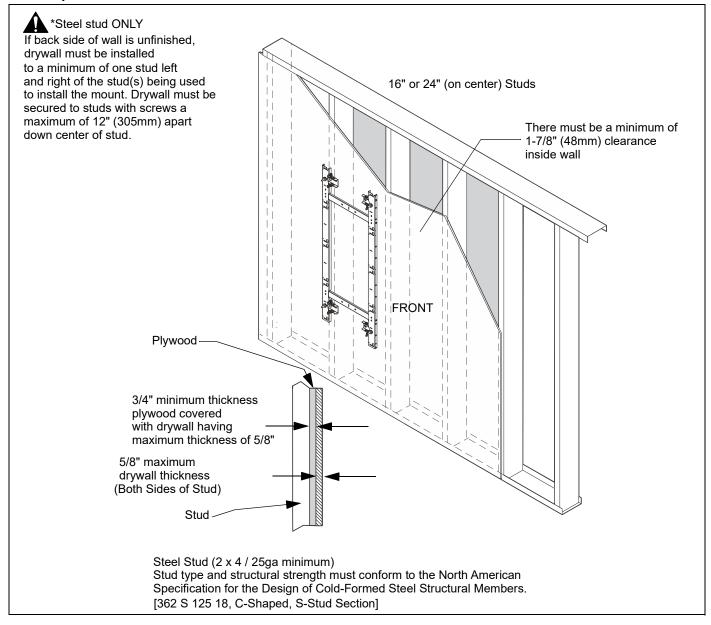


Figure 28

# **Security Screws (Optional)**

**NOTE:** For increased security, #10 x 2 1/2" Phillips screws (H) may be used to secure displays to outer uprights (L or N).

 After all displays and mounted and leveled, install #10 x 2 1/2" Phillips screws (H) until the screw contacts mounting buttons of LED displays. (See Figure 29)

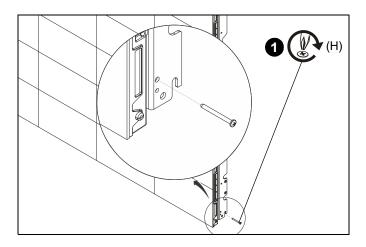
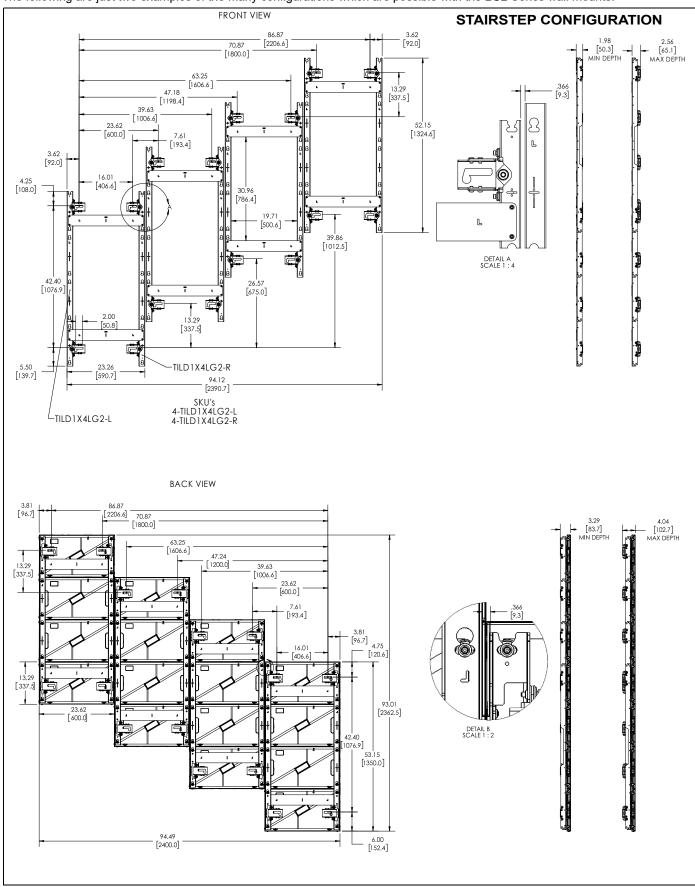
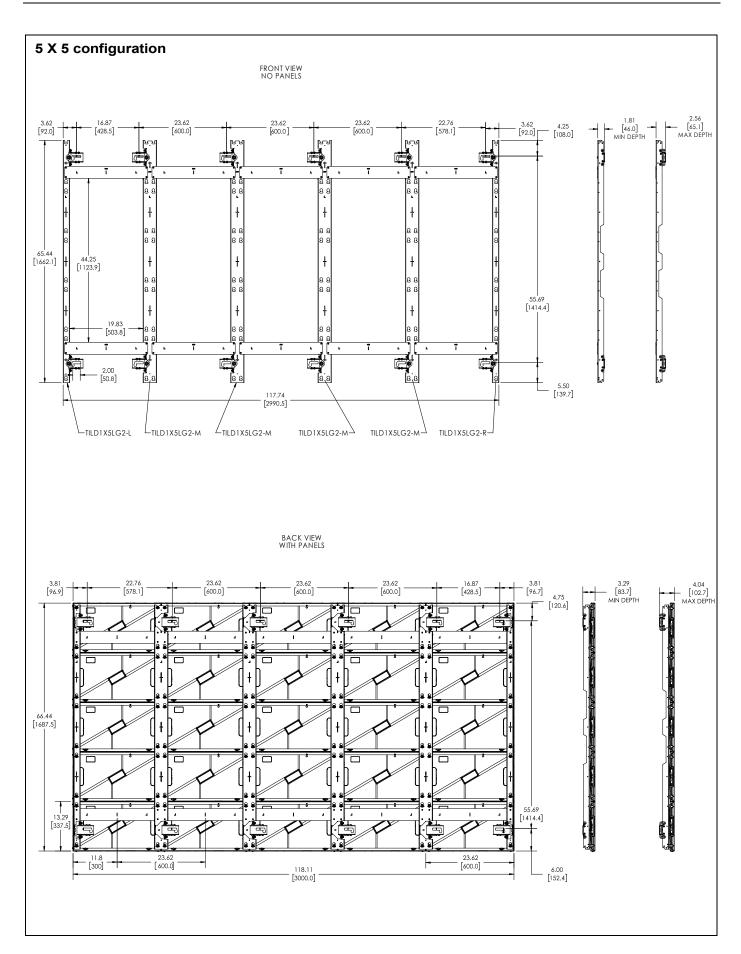


Figure 29

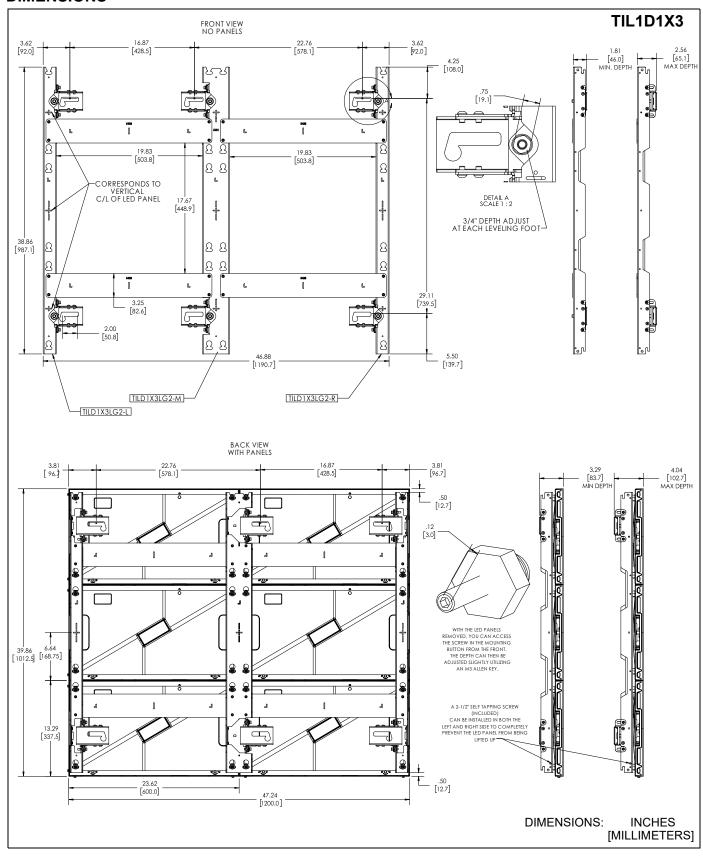
# **Configuration Examples**

The following are just two examples of the many configurations which are possible with the LG2 Series wall mounts.

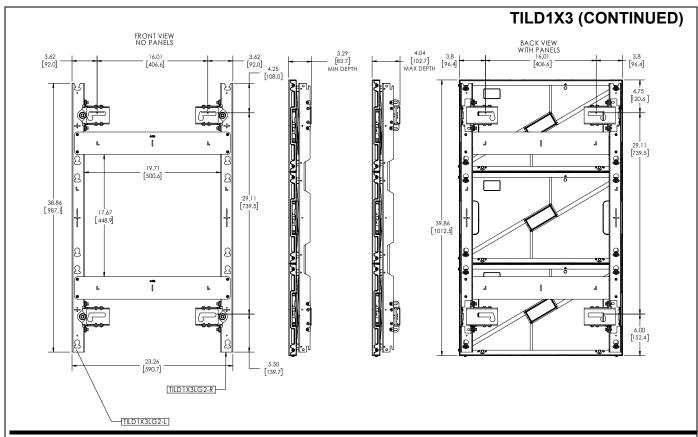


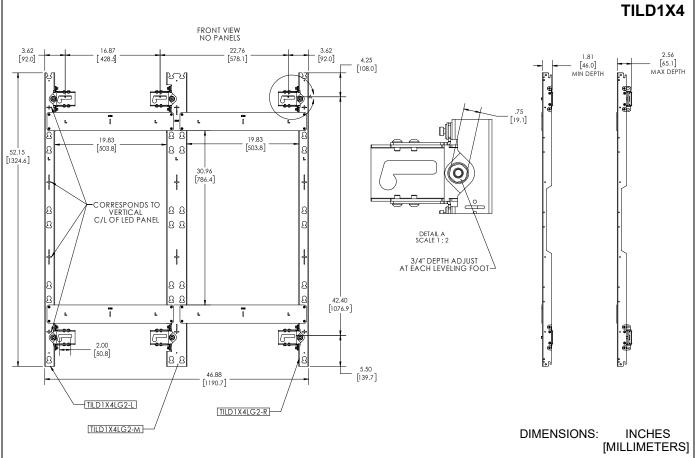


# **DIMENSIONS**

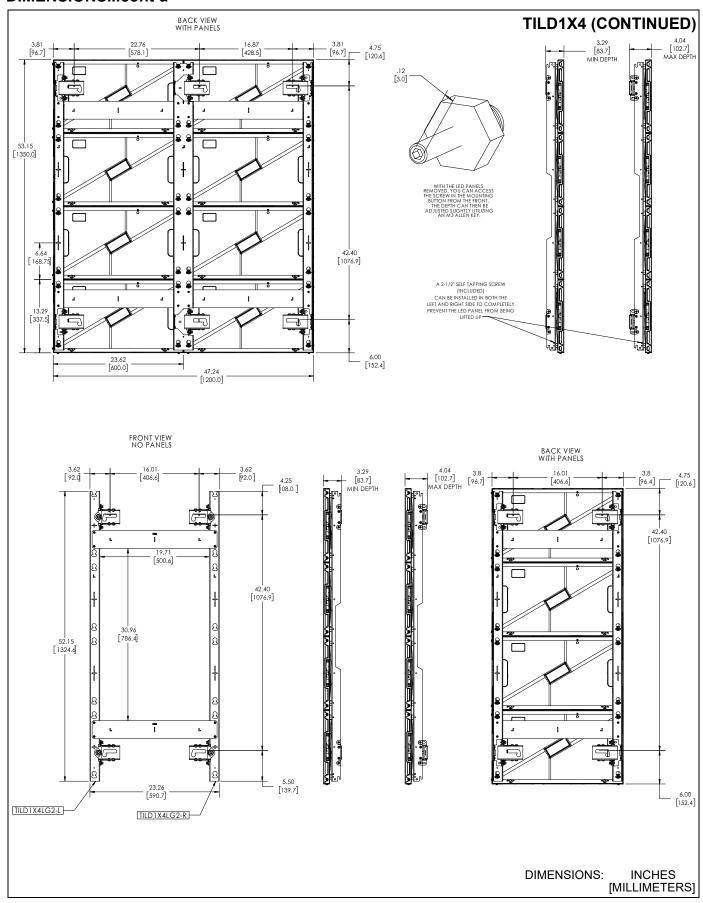


# **DIMENSIONS...cont'd**

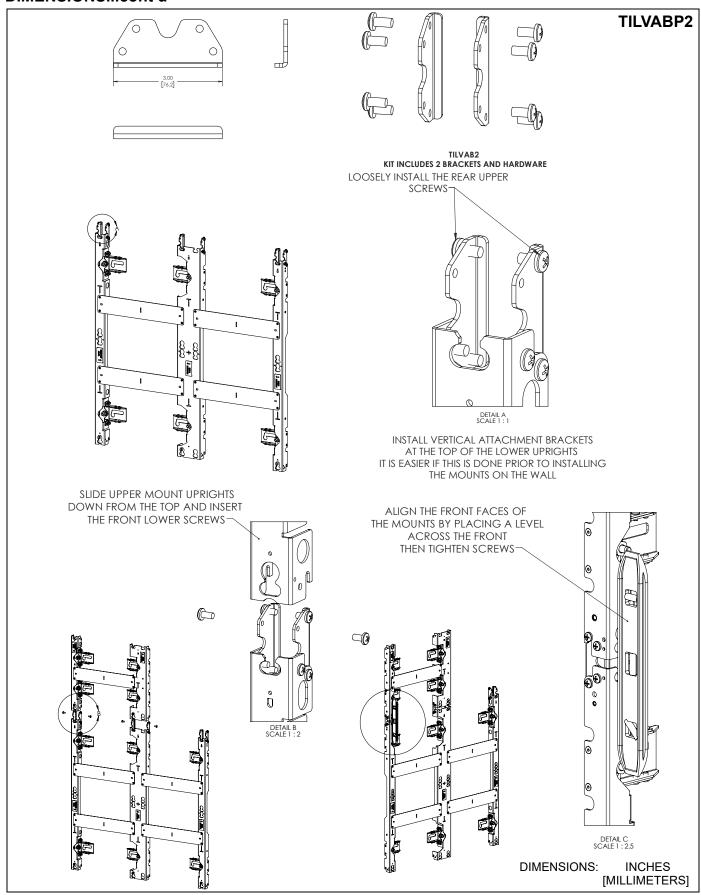




# **DIMENSIONS...cont'd**



# **DIMENSIONS...cont'd**





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**Europe** 

**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

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

