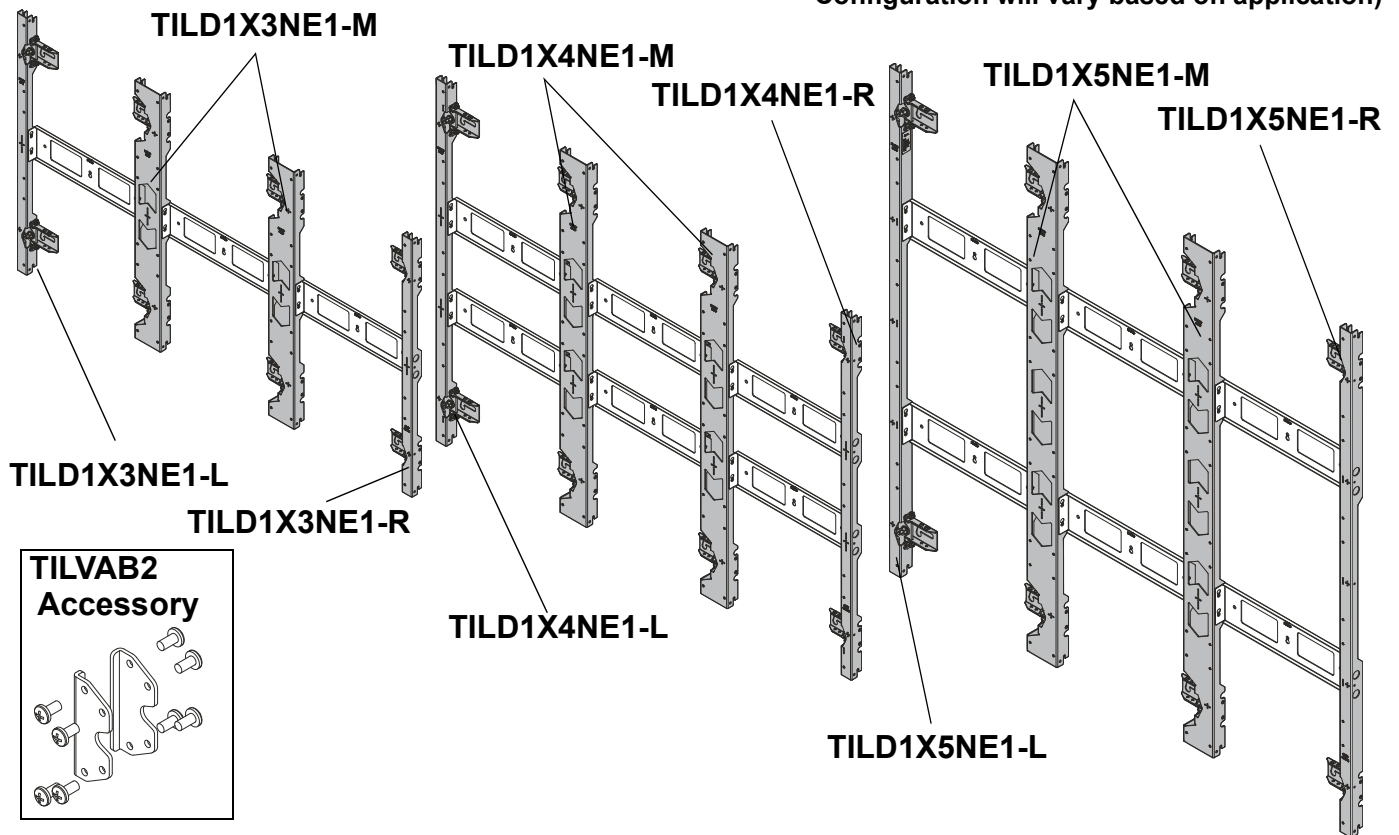


INSTALLATION INSTRUCTIONS

(Standard three-upright configuration shown for each model.
Configuration will vary based on application)



Nanolumens LED Wall Mounts / Accessory

CHIEF[®]

A brand of **legrand**

TILD1xXNE1 Series

DISCLAIMER

Legrand | AV and its affiliated corporations and subsidiaries (collectively "Legrand | AV"), intend to make this manual accurate and complete. However, Legrand | AV 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. Legrand | AV makes no representation of warranty, expressed or implied, regarding the information contained herein. Legrand | AV 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



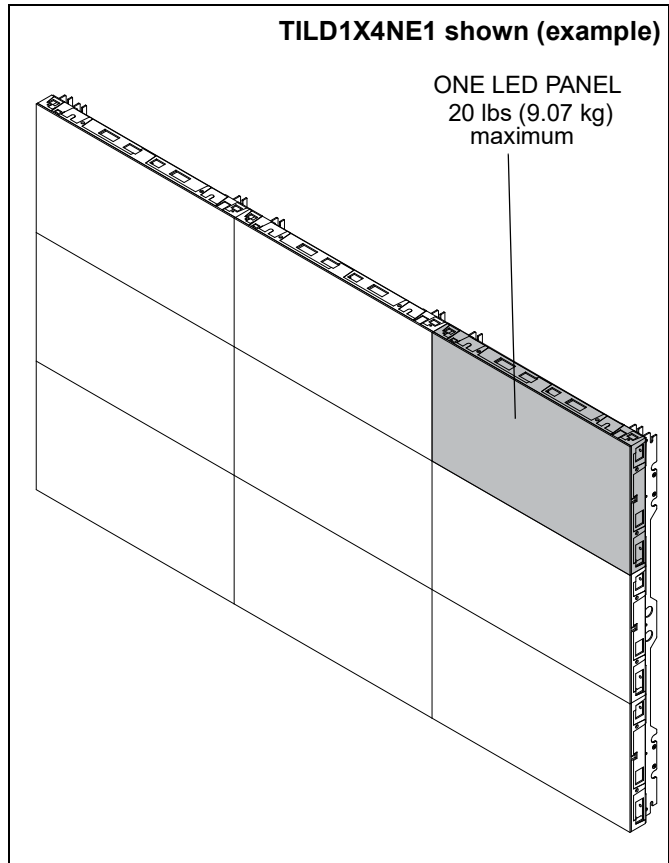
WARNING: Failure to read, thoroughly understand, and follow all instructions can result in serious personal injury, damage to equipment, or voiding of factory warranty! It is the installer's responsibility to make sure all mounting systems are properly assembled and installed using the instructions provided.



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 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 TILD1xXNE1 Series 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 TILD1xXNE1 Series 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.



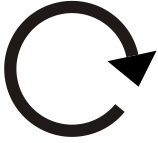

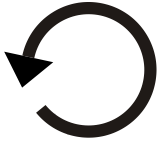









WARNING: Do not use this mounting system outdoors.

IMPORTANT ! : The TILD1xXNE1 Series LED wall mounts are designed to be mounted to:

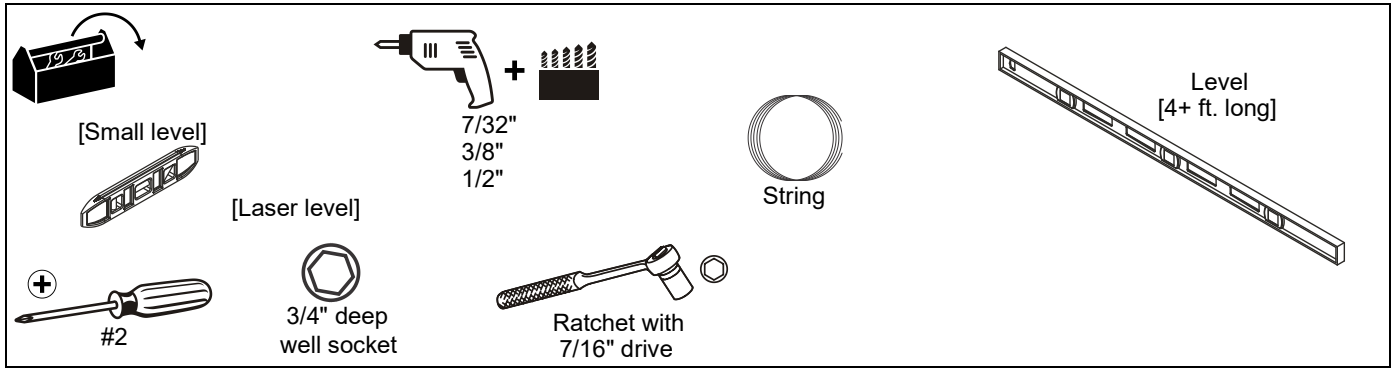
- a bare 8" concrete or 8"x8"x16" concrete block wall;
- a 3/4" thickness plywood-backed, 2" x 4" wood studs (16" on center minimum) wall with a maximum drywall thickness of 5/8"; or
- a 3/4" thickness plywood-backed, steel stud wall covered with drywall having a maximum thickness of 5/8".

--SAVE THESE INSTRUCTIONS--

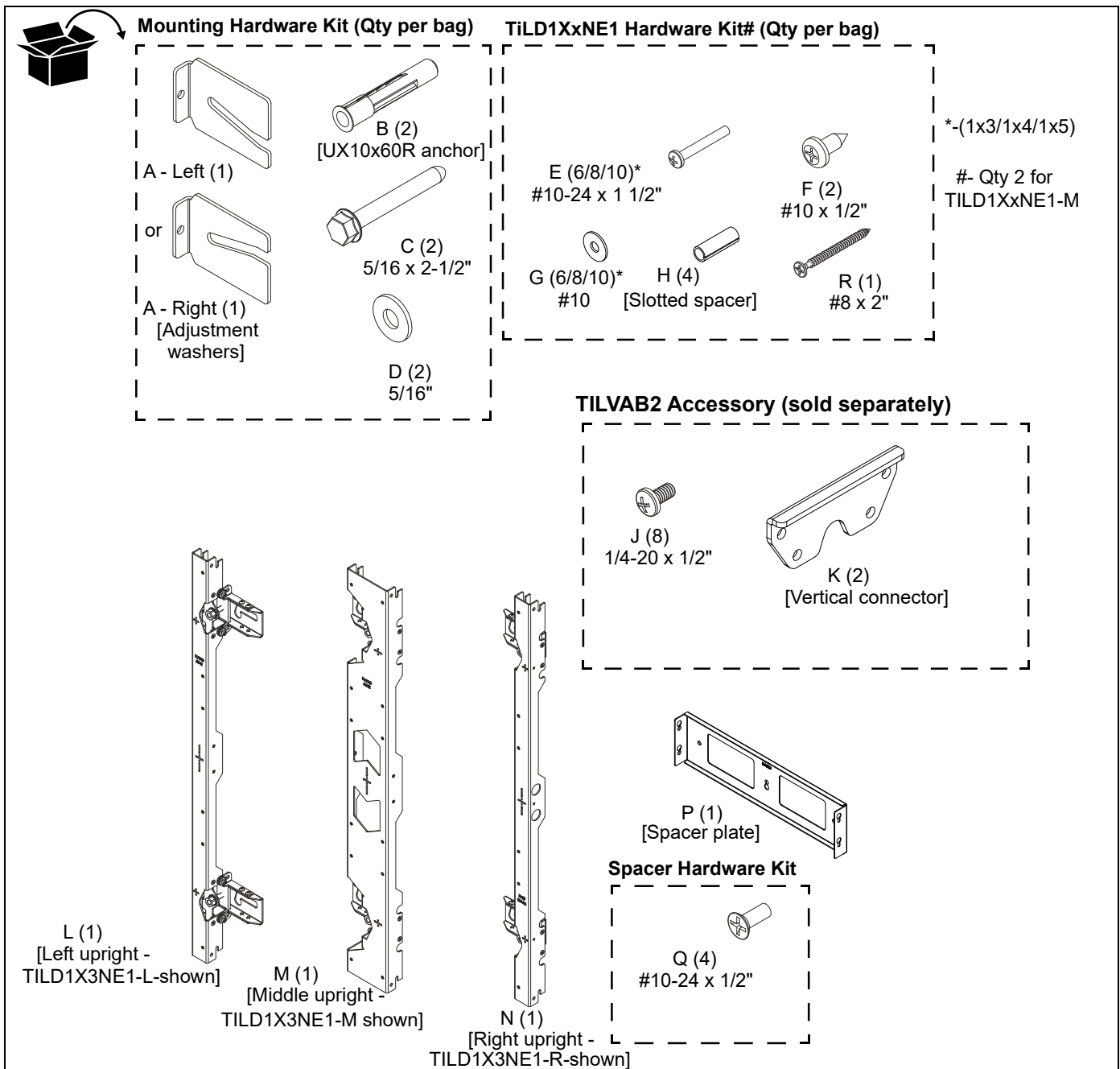
LEGEND

	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



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.



Just a tip - For larger LED walls it is helpful to check placement and alignment of the mounts by putting a few cabinets without the LED's in place in the bottom 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.



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

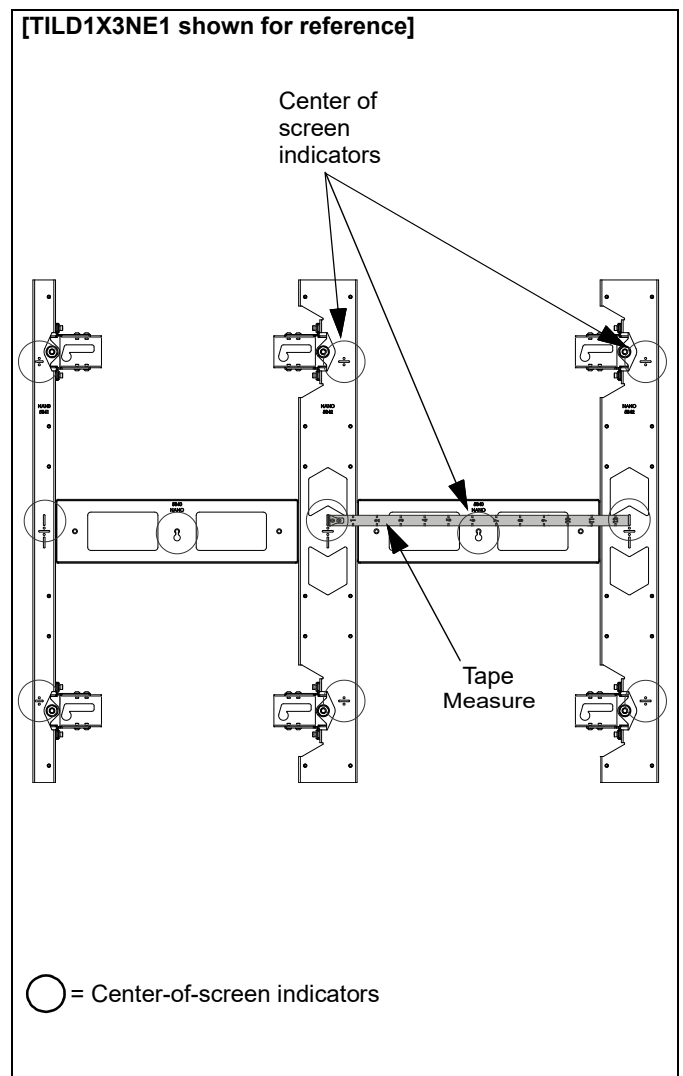


Figure 1

Determining Installation Site

IMPORTANT ! : The top of the LED screen is 5.5" above the center line of the mounting lags in the upper mounting slots. (See Figure 2)

IMPORTANT ! : The bottom of the LED screen is 6.25" below the center line of the mounting lags in the lowest mounting slots.

NOTE: Refer to dimensions drawings on pages 18-20 and in Figure 2 for further details on installation locations.

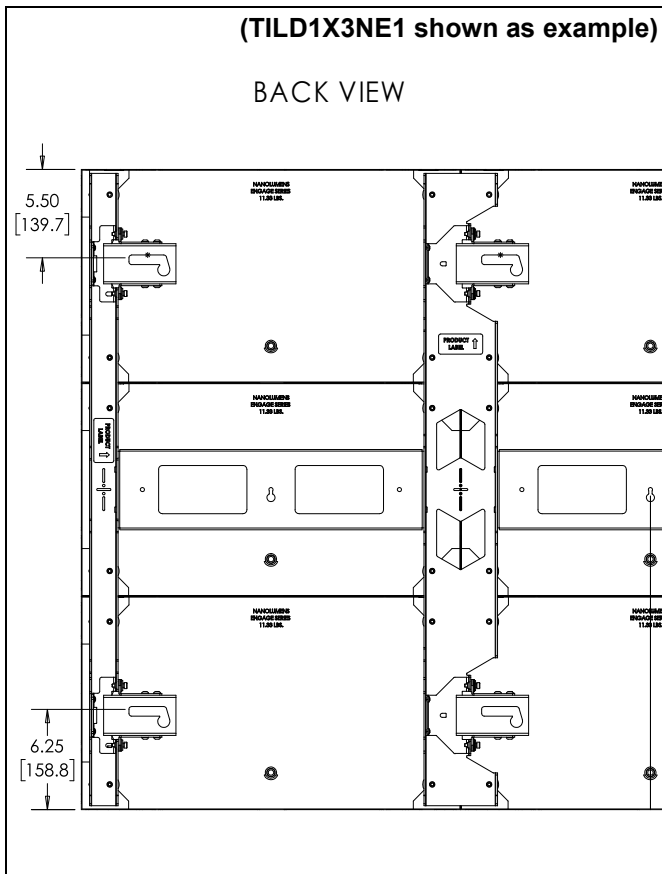


Figure 2

Installation to Wall

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.

IMPORTANT ! : Installation of video wall should begin with installation of the lowest row of mounts first.

1. Determine location for the **bottom left** corner of the LED wall. (See Figure 2)
2. Make a mark at the centerline for the horizontal spacer bracket based on the mount height. Refer to drawings on pages 18-20 for the distance from the spacer to the bottom of the display. (See Figure 2)
3. Using a level, mark a horizontal line across width of LED wall from the mark made in Step 2. (See Figure 3)

4. Hold spacer plate (P) up to wall, lining up keyhole slot with line drawn in Step 2. (See Figure 3)

NOTE: This line will indicate the center line for the location of the spacers used to mount the video wall uprights.

5. Use #8 x 2" Phillips drywall screw (R) to secure spacer plate (P) to wall. Use a level to make sure spacer is level before tightening screw. (See Figure 3)

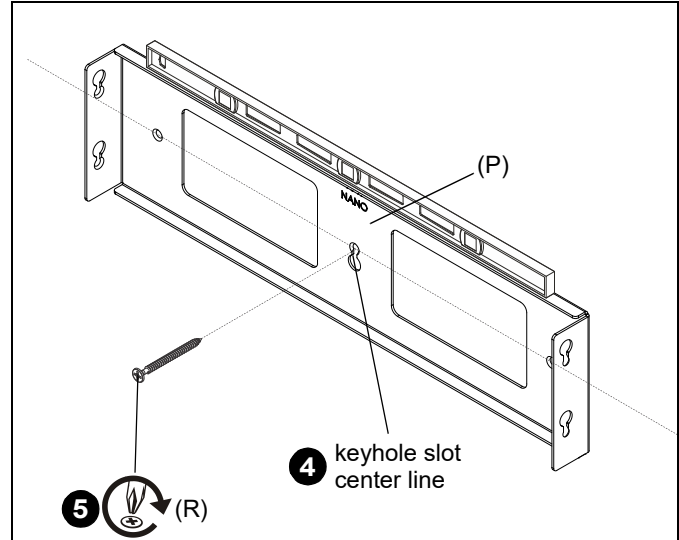


Figure 3

6. Loosely install #10-24 x 1/2" Phillips undercut machine screws (Q) into uprights (L, M or N) that will be attached to spacer plate (P). (See Figure 4)

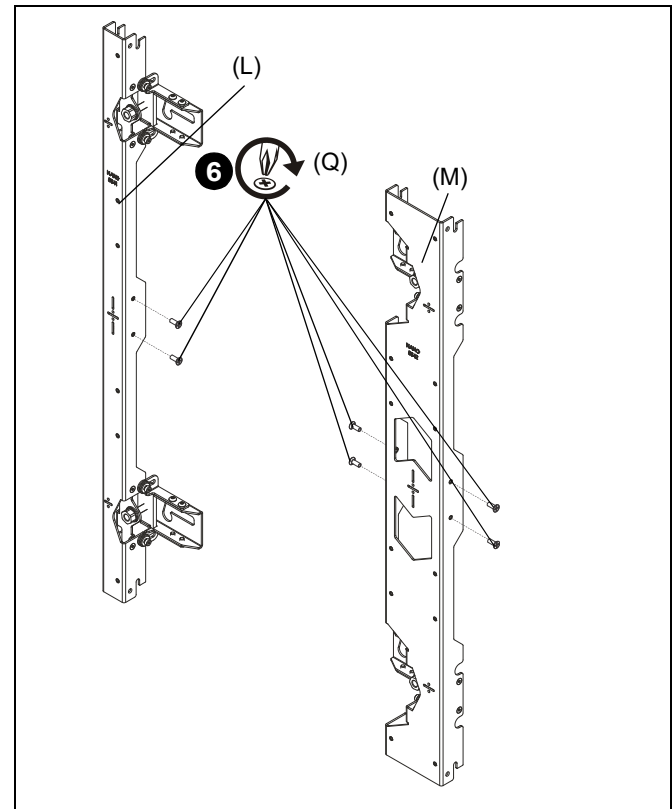


Figure 4

7. Hang left upright (L) onto side of spacer plate (P) using screws loosely installed in Step 6.
8. Tighten Phillips undercut machine screws (Q) to secure left upright (L) to spacer plate (P). (See Figure 5)

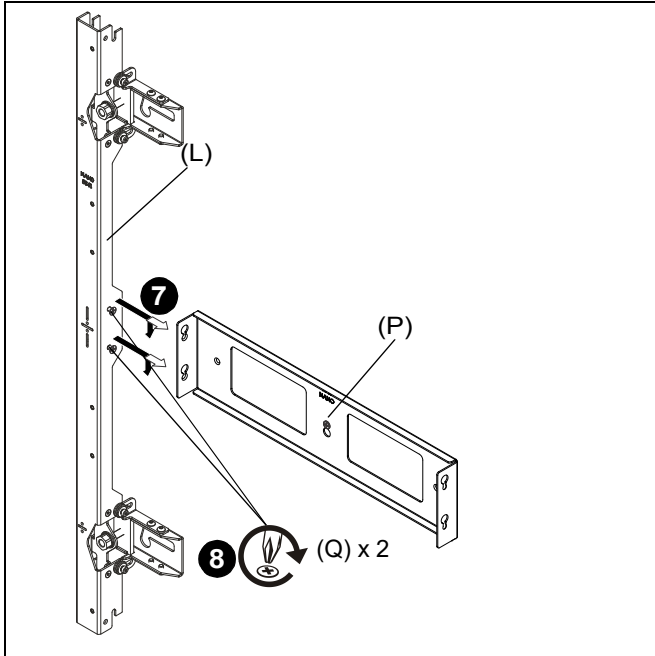


Figure 5

9. Hang middle upright (M) or right upright (N) onto side of spacer plate (P) using screws loosely installed in Step 6. (See Figure 6)
10. Tighten screws holding uprights (L, M or N) to spacer plate (P). (See Figure 6)

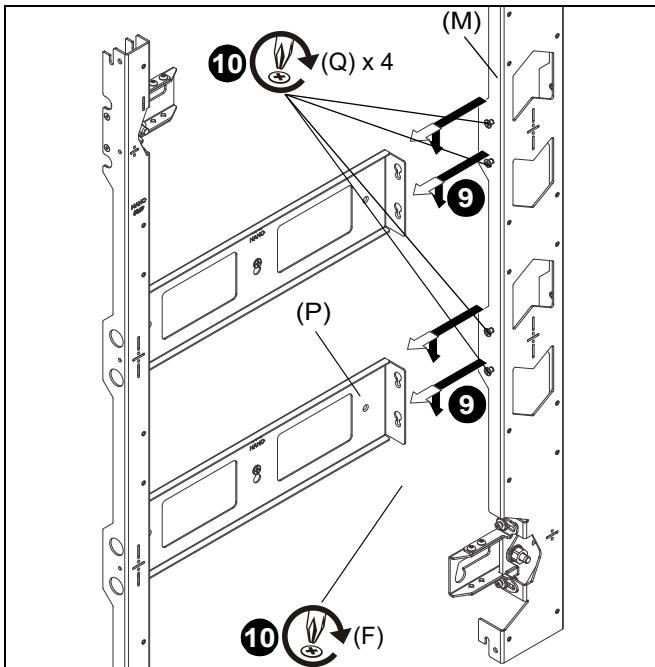


Figure 6

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 TILVAB2 vertical connector kit to top or bottom of wall mount using the following instructions. If you are NOT adding the TILVAB2 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.

1. 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 7)
2. 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 7)

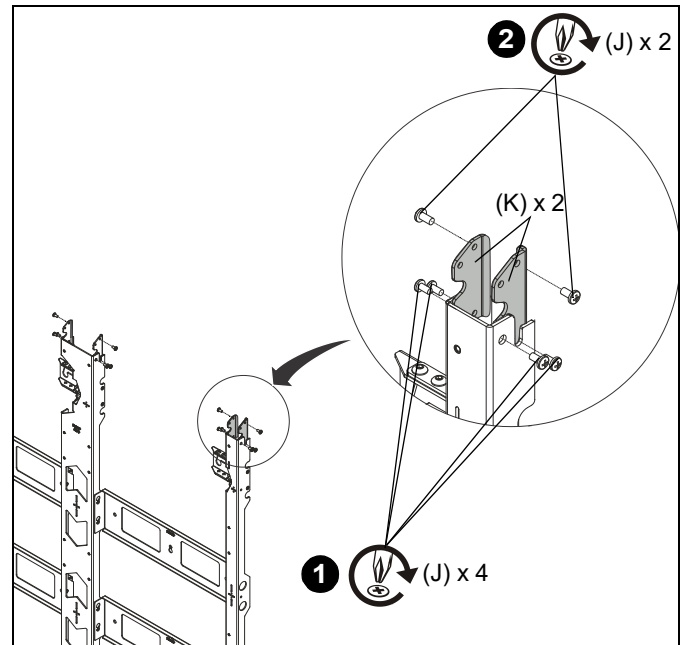


Figure 7

Installing First Mount to Wall

The TILD1X3NE1 / TILD1X4NE1 / TILD1X5NE1 LED wall mounts are designed to be mounted to the following wall types:

Table 1: Fastener Information

WALL TYPE	PILOT HOLE	FASTENERS (see PARTS drawing)
Drywall attached to plywood-backed walls / Wood studs	7/32" x 3"	- 5/16 x 2-1/2" flanged hex head lag (C) - 5/16" washer (D) - Adjustment washer (A)
Concrete or concrete block	3/8" x 3"	- 5/16 x 2-1/2" flanged hex head lag (C) - 5/16" washer (D) - Adjustment washer (A) - Fischer Anchor UX10x60R (B)

1. Hold furthest left 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)
2. Mark mounting holes near top or mounting slots along the horizontal line. (See Figure 8)
3. The mounting holes are 17.01" apart on-center for left and middle and 23.62" for middle and middle and 21.96" for middle and right. (See Figure 8)

NOTE: Mark and drill pilot holes near top of mounting slots for maximum height adjustment.

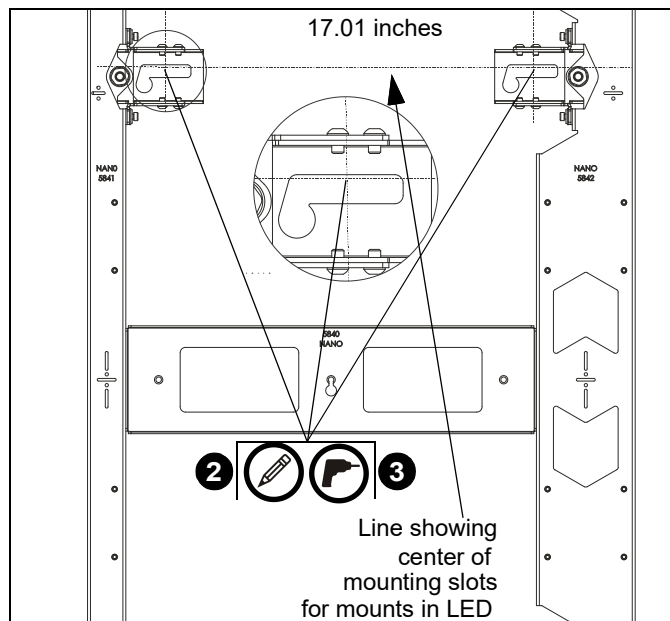


Figure 8

4. 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.

5. Install two lag screws (C) 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**.

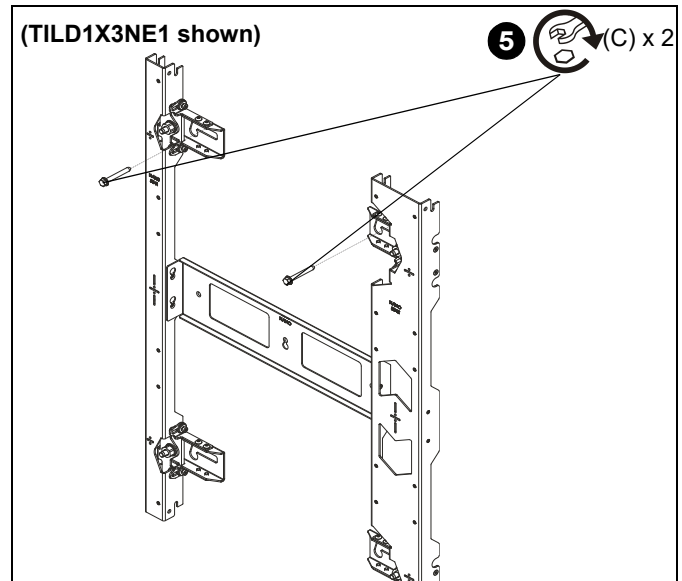


Figure 9

6. Slide the left (A-Left) and right (A-Right) adjustment washers into place behind and partially install lag screws. (See Figure 10)

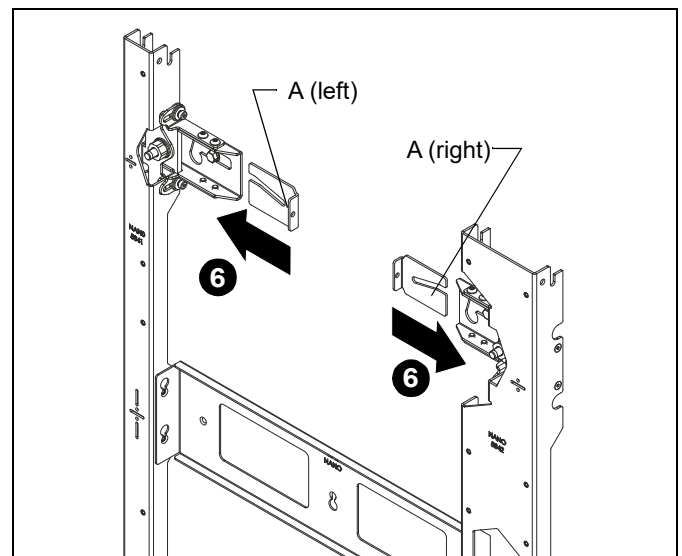


Figure 10

7. Place a level across front of the mount at bottom of leveling slots. (See Figure 11)
8. Check the level of the mount at the bottom of the leveling slots. (See Figure 11)

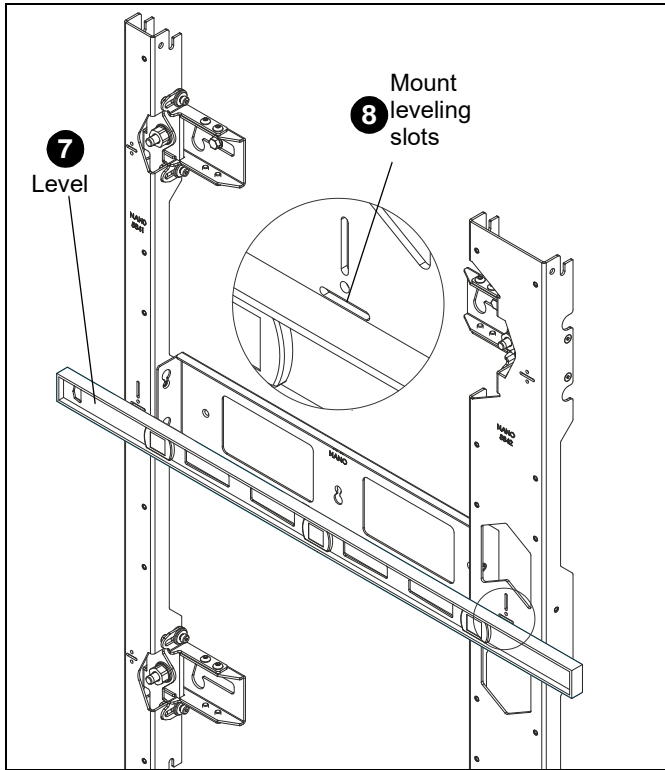


Figure 11

9. Drill pilot holes near top of centerline of lower slots for maximum height adjustment (see Table 1 for size) and follow fastener information (appropriate for wall type) located in Table 1. (See Figure 12)
10. Loosely install 5/16 x 2-1/2" lag screws (C) through the 5/16" fender washers (D) to secure to wall. (See Figure 12)

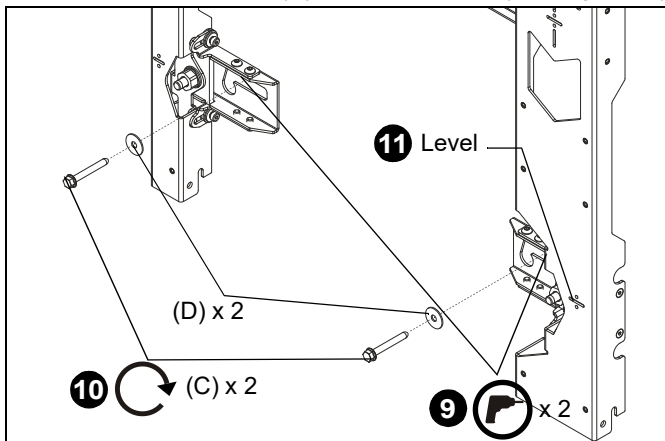


Figure 12

11. Check the level of the mount horizontally at the bottom of the leveling slots and vertically on the side of the uprights. (See Figure 12) and (See Figure 13)
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 13)

Just a tip - Tighten down the lag screw on the side that does **NOT** need to be raised. This creates a pivot point for when the opposite adjustment washer is tapped into place, and allows that correct side of the mount to move up.

13. Tighten the bottom lag screws (C) to allow for leveling adjustment if needed later. (See Figure 13)

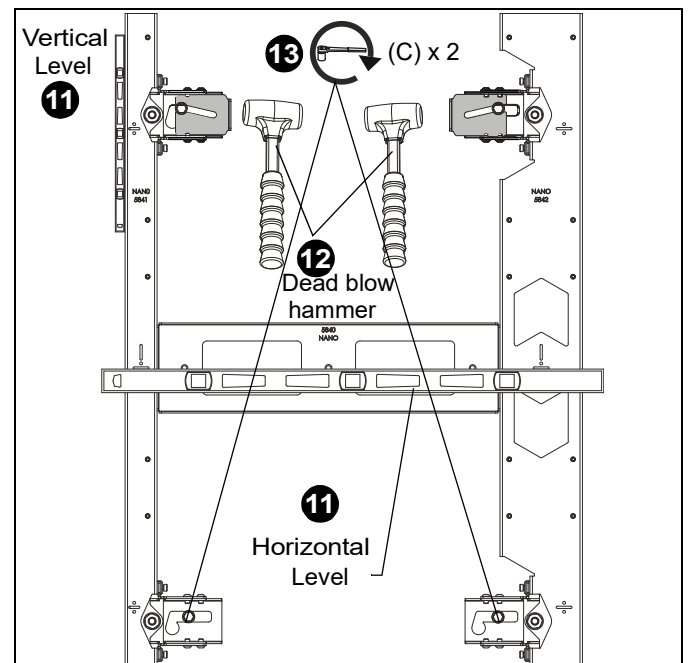


Figure 13

14. Remove #8 x 2" Phillips drywall screw (R) from wall after mount has been leveled. (See Figure 14)

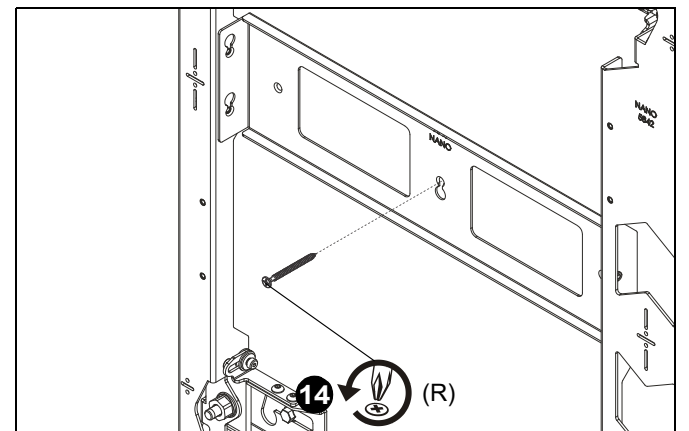


Figure 14

Adding Additional Uprights

1. Hang spacer plate (P) onto lower screws installed in previous section on middle upright (M). (See Figure 15)
2. Tighten both screws (Q) to secure spacer plate (P) to middle upright (M). (See Figure 15)

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

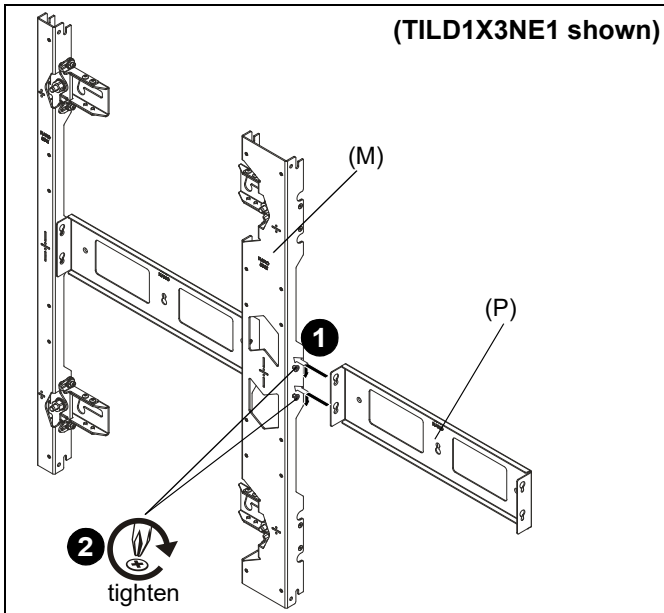


Figure 15

3. Partially install two #10-24 x 1/2" Phillips flathead screws (Q) into middle two holes on middle upright (M) or right upright (N). (See Figure 16)
4. Insert two partially installed screws (Q) into holes on opposite side of spacer plate (P). (See Figure 16)
5. Lower upright until screws are properly seated in keyhole mounting holes. (See Figure 16)
6. Tighten two screws to secure spacer plate to mounting upright (M) or (N). (See Figure 16)

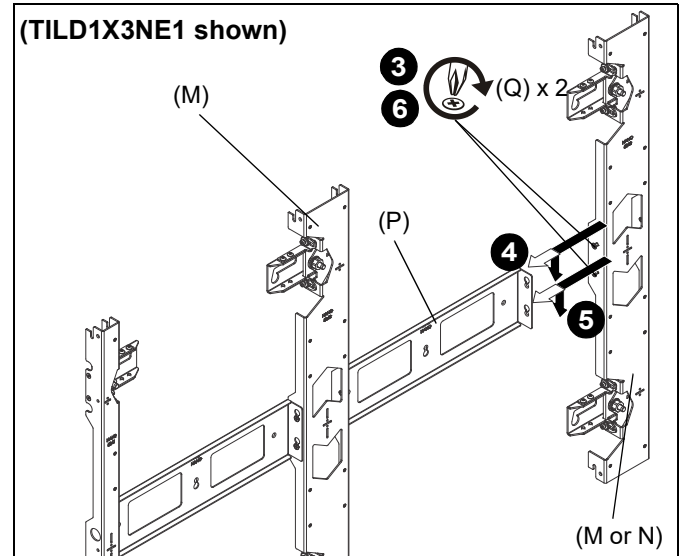


Figure 16

NOTE: (Optional) Drywall screws (R) may be used to keep the spacer (P) level as the upright is being attached.

7. Mark mounting hole in top mounting slot along the horizontal line marked in Step 3 of **Installing First Mount** Section. (See Figure 17)

NOTE: The mounting holes are 23.62" apart on-center for middle (M) and middle (M) or 21.96" apart on-center for middle (M) and right (N) uprights. (See Figure 17)

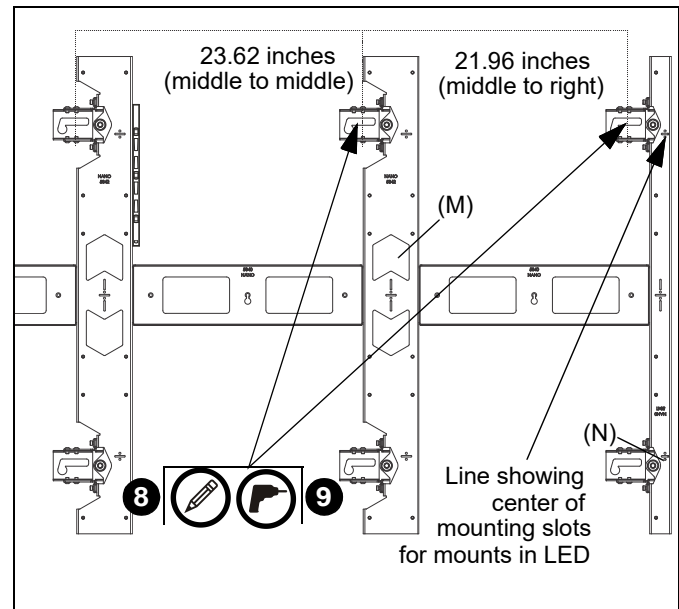


Figure 17

8. Drill two pilot holes (see Table 1 for size) at each location marked in Step 8 (See Figure 17) and follow fastener information (appropriate for wall type) located in Table 1.

9. Hold the adjustment washers in place by hand and tighten the fasteners at the top of the mount.
10. Drill lower pilot holes at attachment locations and use same fasteners used at top of mount.
11. Install two fasteners and fender washers (D) 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 bottom 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.

12. Continue the installation process until all wall mounts are attached. Use a magnetic level on front face of outside uprights to make sure they are plumb. Use a 3/4" or 19mm socket wrench to adjust hex nuts as needed. (See Figure 22)

Connecting Mounts Above First Row

1. Lower additional uprights (L, M or N) onto installed uprights, placing grooves at bottom of uprights over partially installed screws (J) on connector kit. (See Figure 18)

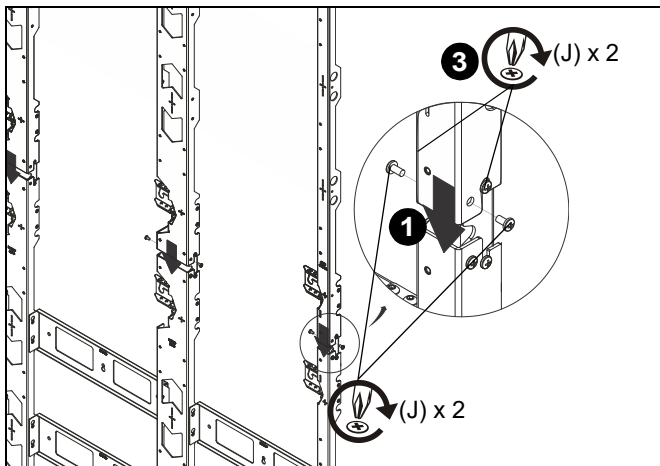


Figure 18



WARNING: Be sure to hold upright (L, M or N) up against wall until screw is installed in Step 2!

2. Install remaining 1/4-20 x 1/2" Phillips pan machine screws (J) into hole above partially installed screws. (See Figure 19)
3. Tighten partially installed screw (J) to secure additional upright to existing upright. (See Figure 19)

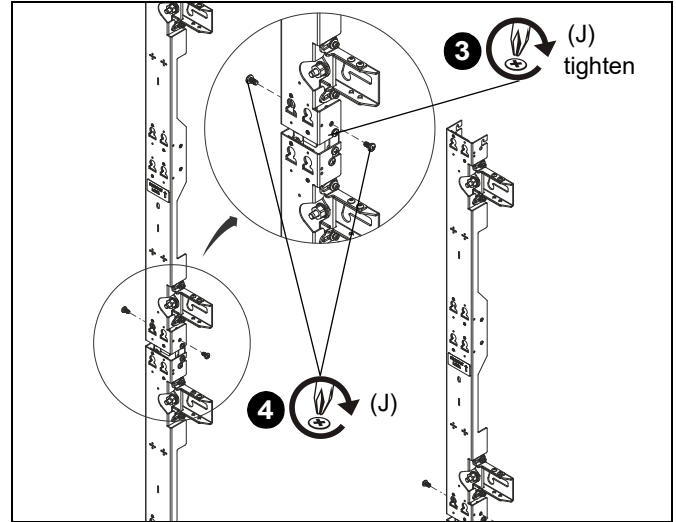


Figure 19

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

NOTE: Spacer plates may be attached prior to installing uprights depending on installer preference.

- Position spacer plate (P) between uprights (L, M or N) middle upright (M) between mounting holes. (See Figure 20)
- Use four 1/4-20 x 1/2" Phillips flathead screws (Q) to secure uprights (L, M or N) to each other. (See Figure 20)

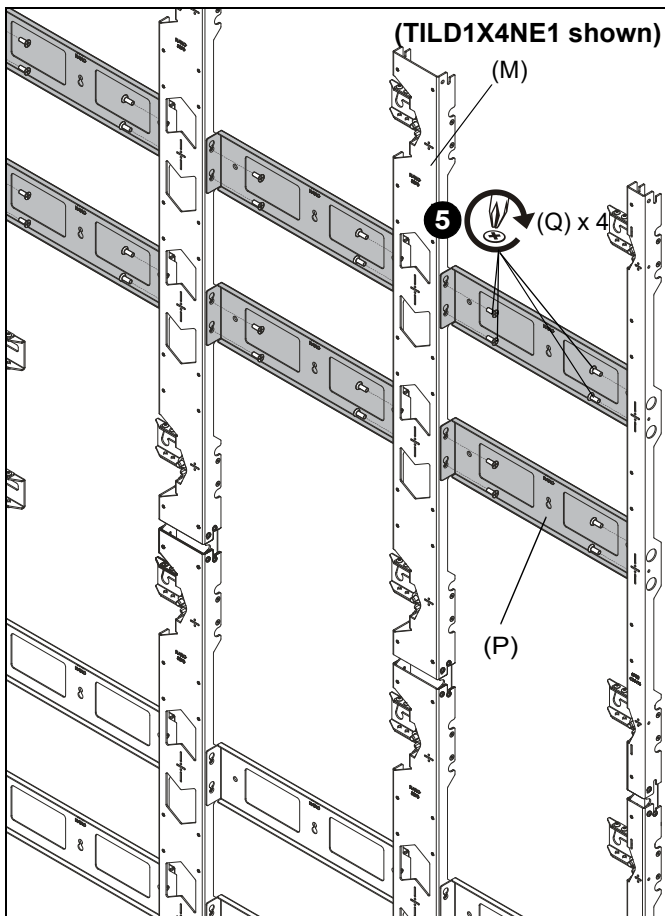


Figure 20

NOTE: Drywall screws (R) do NOT need to be used when installing upper rows they only need to be used when installing the bottom row. (See Figure 20)

- Repeat Steps 4-5 for each spacer plate on the row.
- Mark mounting hole in top mounting slot along the horizontal line marked in Step 3 of **Installing First Mount** Section. (See Figure 17)

NOTE: The mounting holes are 23.62" apart on-center for center (M) and center (M) or 21.96" apart for center (M) and right (N) uprights. (See Figure 21)

IMPORTANT ! : Use a vertical level to make sure uprights are level before drilling holes.

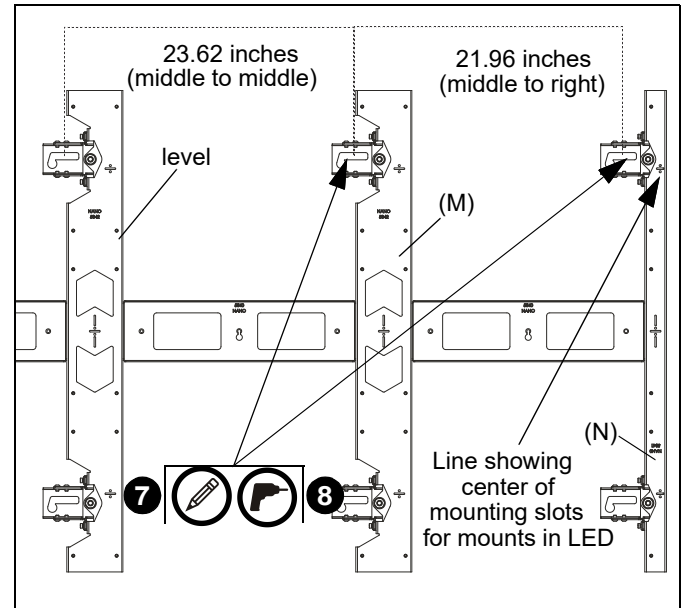


Figure 21

- Drill two pilot holes (see Table 1 for size) at each location marked in Step 7 (See Figure 17) and follow fastener information (appropriate for wall type) located in Table 1.
- 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.
- Install two fasteners and fender washers (D) through lower part of mount and tighten.
- Continue installing uprights across and level as shown in initial uprights installation section.
- Repeat steps found in **Installing First Mount to Wall Section** to install all additional rows to wall.

IMPORTANT ! : Installation of adjustment washers (A) is unnecessary when adding additional rows above first row. Only install lag screws (C) and fender washers (D) into top mounting holes.

Depth Adjust using String Line

- Install #10 x 1/2" self-tapping screws (H) on the mount in the far left and far right uprights to assist in plumb leveling. (See Figure 22)
- Run a string between the self-tapping screws installed in **Step 13** to assist with alignment across long sections of mounts. (See Figure 22)
- Turn hex nuts in either direction on far left and far right uprights to assist in plumb leveling. (See Figure 22)
- Turn hex nuts in either direction on each middle upright to adjust depth to match the string line as needed. (See Figure 22)

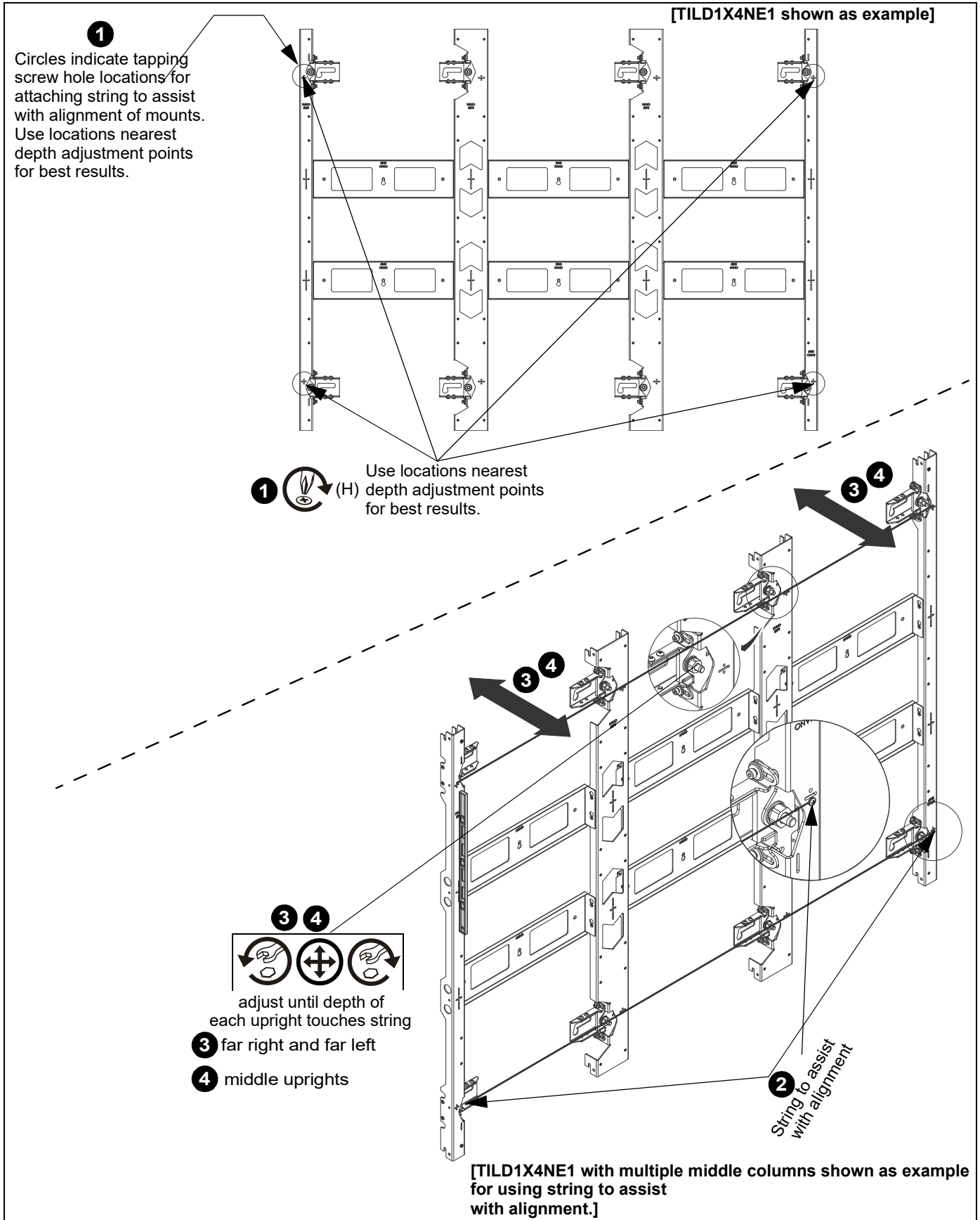


Figure 22

Adjustments

Depth Adjust (Macro-adjust)

IMPORTANT ! : Depth should be adjusted prior to installing housings and LED Screens or they will need to be removed prior to adjusting depth.

1. Turn hex nuts in either direction to adjust depth as needed. (See Figure 23)

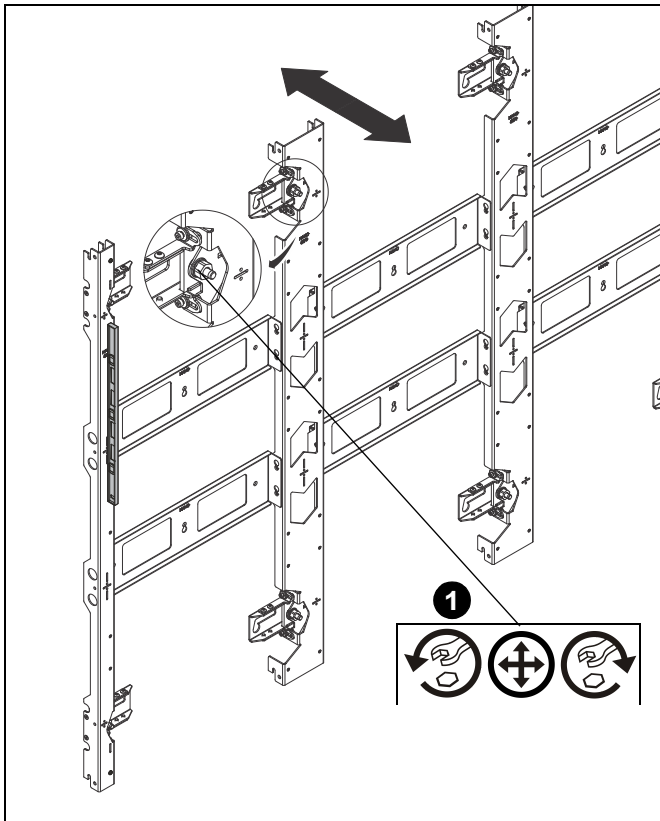


Figure 23

Depth Adjust (Micro-adjust)

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.

1. Remove LED display from LED housing.
2. Carefully adjust until LED housing is adjusted to desired depth by slowly turning threaded buttons. See manufacturer's instructions for further details. (See Figure 23)
3. Replace LED display into LED housing.

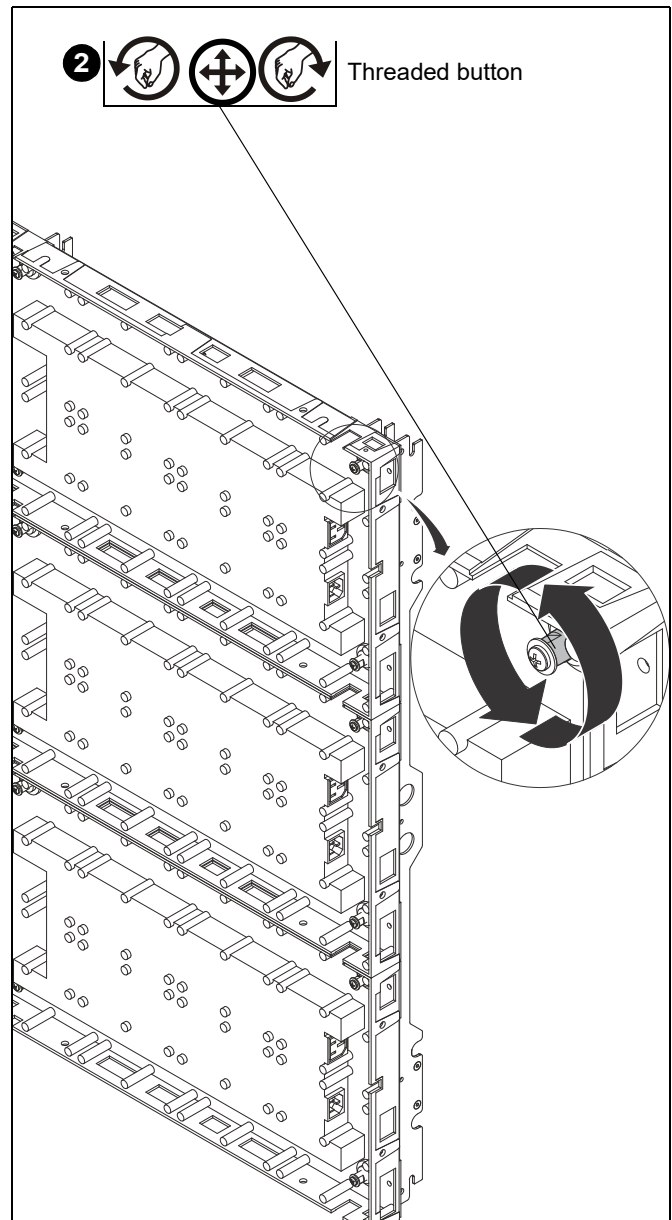


Figure 24

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: One complete row of housings should be installed and leveled before proceeding to the next row.

1. Use four #10-24 x 1 1/2" Phillips pan machine screws (E) and four #10 washers (G) to secure each panel to video wall. On bottom row ONLY, also use four slotted spacers (H). (See Figure 25)

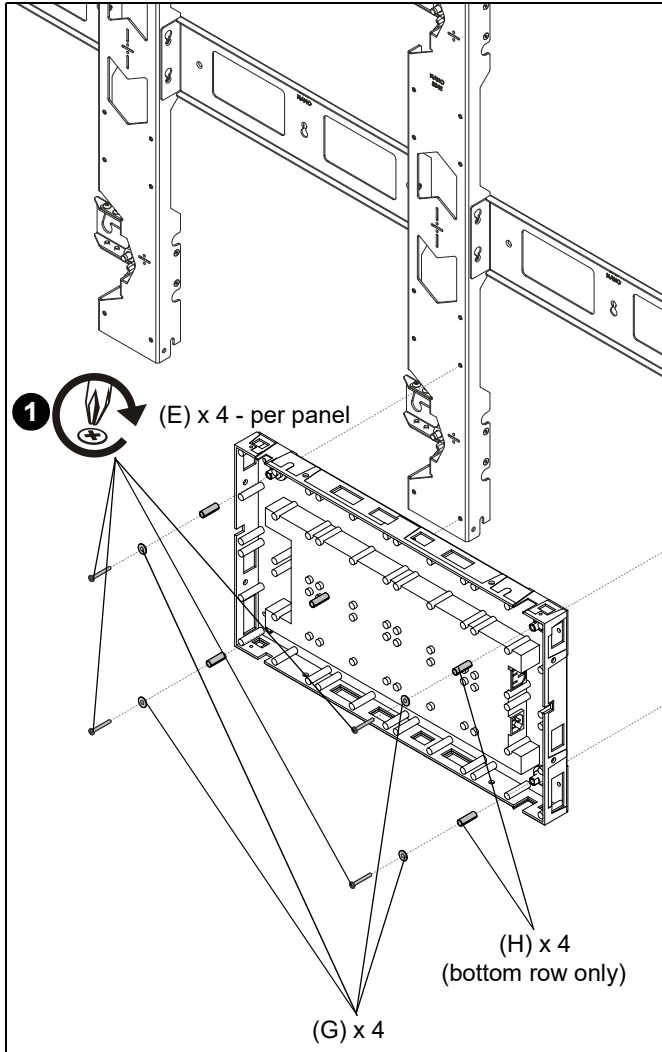


Figure 25

2. Continue with the next housing completing each row and leveling all housings.
3. Repeat until all housings are installed.
4. Using levels, check the level and plumb of the housings installed on the mounts and adjust as necessary following information in the **Adjustments** section.
5. Connect housings to each other following instructions included with LED screens.
6. 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/Plywood-backed Wood Studs

1. 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 26)
2. Repeat for remaining pilot holes.

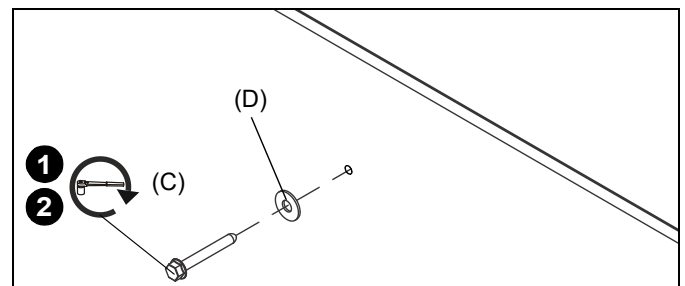


Figure 26

Concrete or Concrete Block

1. Install one UX10X60R anchor (B) into each pilot hole using a hammer, making sure that the anchor is flush with the wall. (See Figure)
2. 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)

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

3. Repeat for remaining pilot holes.

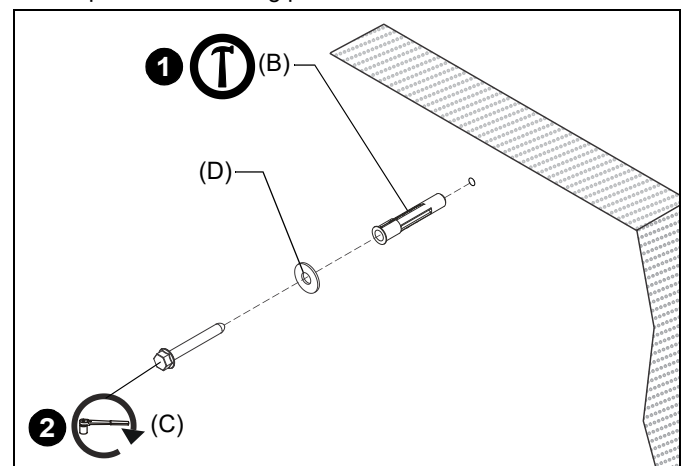


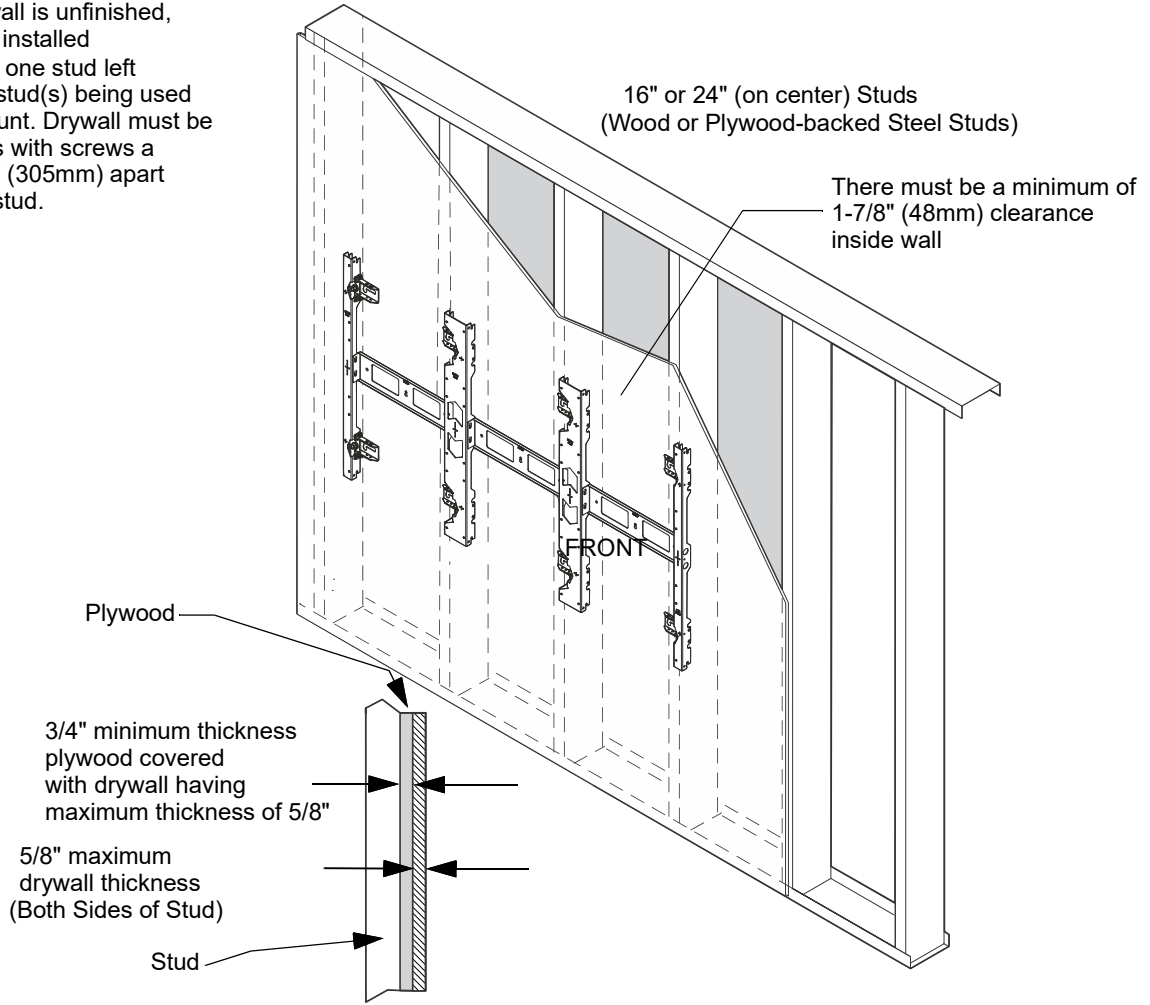
Figure 27

Site Requirements for Wood or Plywood-backed Steel Stud



***Steel stud ONLY**

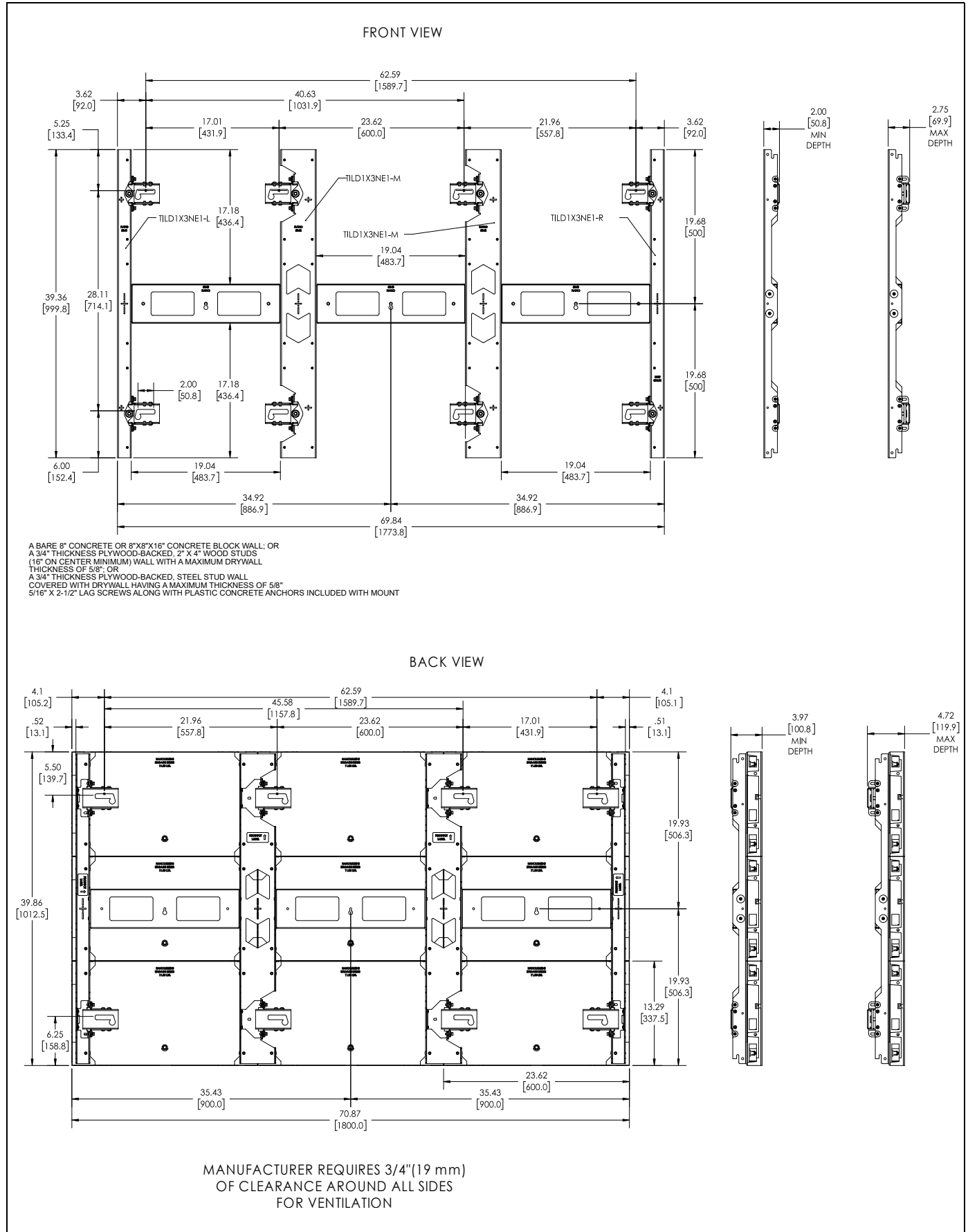
If back side of wall is unfinished, drywall must be installed to a minimum of one stud left and right of the stud(s) being used to install the mount. Drywall must be secured to studs with screws a maximum of 12" (305mm) apart down center of stud.



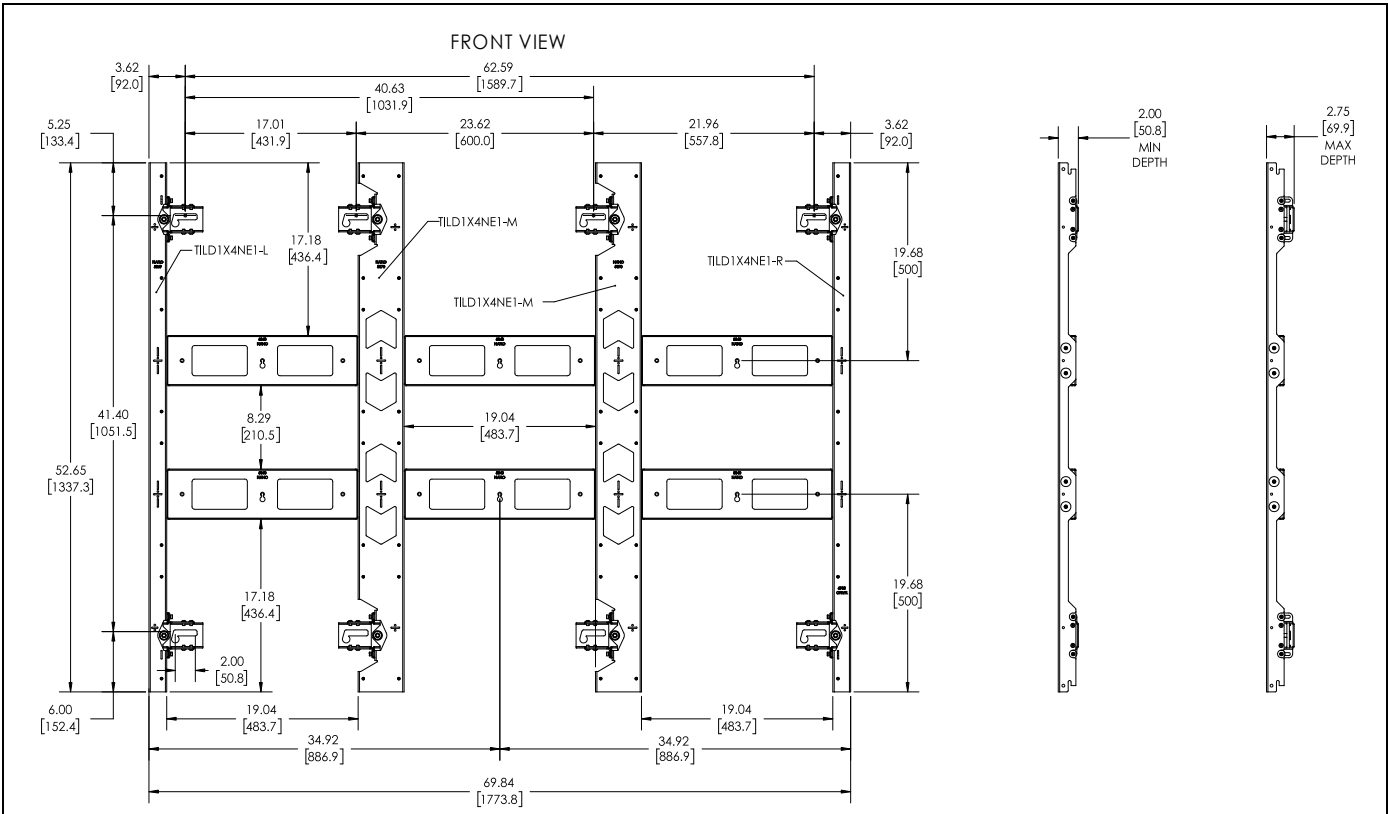
Steel Stud (2 x 4 / 25ga minimum)
 Stud type and structural strength must conform to the North American Specification for the Design of Cold-Formed Steel Structural Members. [362 S 125 18, C-Shaped, S-Stud Section]

Figure 28

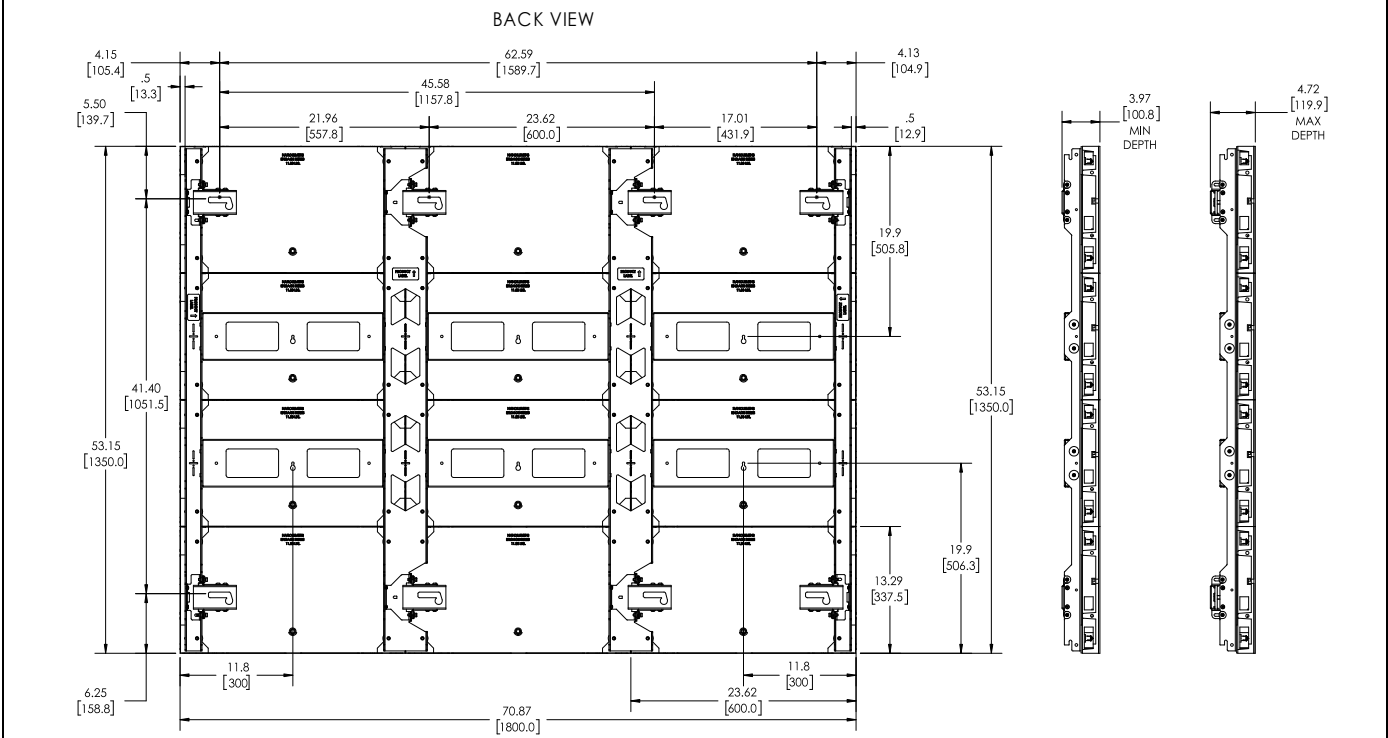
DIMENSIONS-TILD1X3NE1



DIMENSIONS-TILD1X4NE1

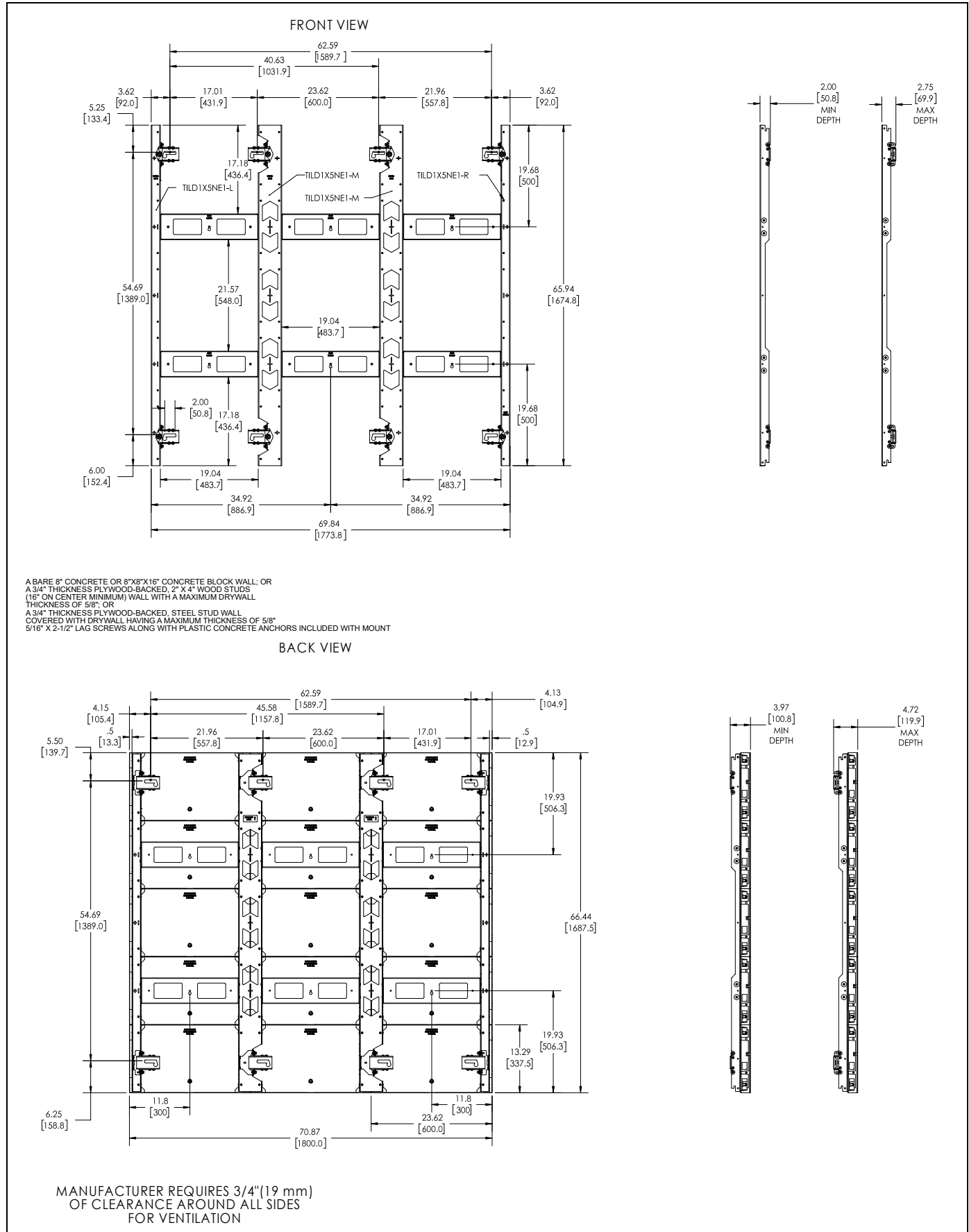


A BARE 8" CONCRETE OR 8"x8"x16" CONCRETE BLOCK WALL; OR
 A 3/4" THICKNESS PLYWOOD-BACKED, 2" X 4" WOOD STUDS
 (16" ON CENTER MINIMUM) WALL WITH A MAXIMUM DRYWALL
 THICKNESS OF 5/8"; OR
 A 3/4" THICKNESS PLYWOOD-BACKED, STEEL STUD WALL
 COVERED WITH DRYWALL HAVING A MAXIMUM THICKNESS OF 5/8"
 5/16" X 2-1/2" LAG SCREWS ALONG WITH PLASTIC CONCRETE ANCHORS INCLUDED WITH MOUNT



MANUFACTURER REQUIRES 3/4" (19 mm)
 OF CLEARANCE AROUND ALL SIDES
 FOR VENTILATION

DIMENSIONS-TILD1X5NE1



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