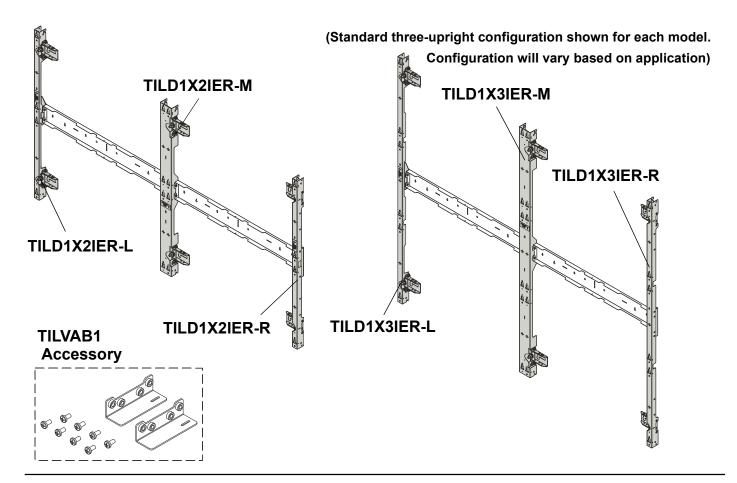
# INSTALLATION INSTRUCTIONS



Samsung IER 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.

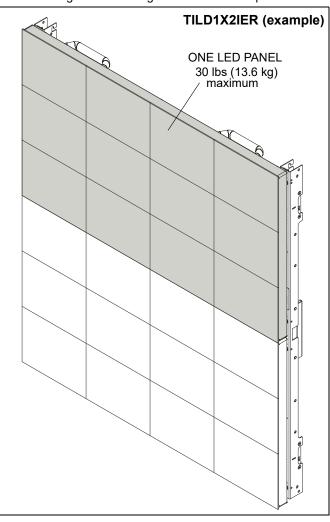


# IMPORTANT SAFETY INSTRUCTIONS

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 TILD1XIER / TILD1X3XIER 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 TILD1XIER / TILD1X3XIER LED video wall mounts that exceed 30 lbs (13.6 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.

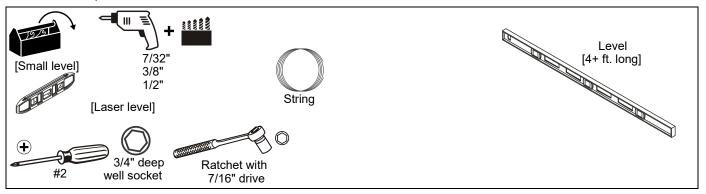
**IMPORTANT!**: The TILD1X2IER/TILD1X3IER LED wall mounts are designed to be mounted to a bare 8" concrete or 8"x8"x16" concrete block wall.

--SAVE THESE INSTRUCTIONS--

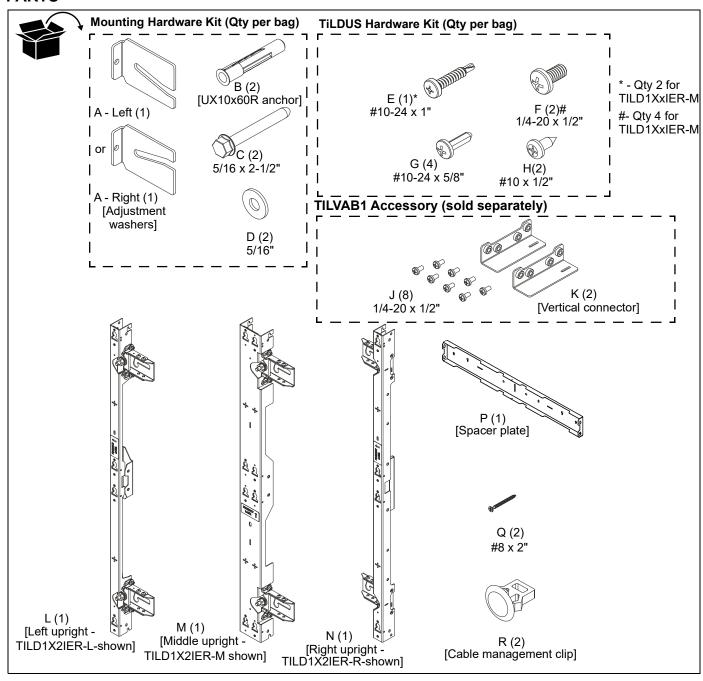
# **LEGEND**

	Tighten Fastener	Pencil Mark
	Apretar elemento de fijación	Marcar con lápiz
	Befestigungsteil festziehen	Stiftmarkierung
	Apertar fixador	Marcar com lápis
	Serrare il fissaggio	Segno a matita
	Bevestiging vastdraaien	Potloodmerkteken
	Serrez les fixations	Marquage au crayon
	Loosen Fastener	Drill Hole
	Aflojar elemento de fijación	Perforar
	Befestigungsteil lösen	Bohrloch
<b>│ ▼</b>	Desapertar fixador	Fazer furo
	Allentare il fissaggio	Praticare un foro
	Bevestiging losdraaien	Gat boren
	Desserrez les fixations	Percez un trou
	Phillips Screwdriver	Adjust
	Destornillador Phillips	Ajustar
	Kreuzschlitzschraubendreher	Einstellen
\ <b>\\\</b> \\	Chave de fendas Phillips	Ajustar
Ų <b>V</b>	Cacciavite a stella	Regolare
4	Kruiskopschroevendraaier	Afstellen
	Tournevis à pointe cruciforme	Ajuster
650	Open-Ended Wrench	Remove
	Llave de boca	Quitar
	Gabelschlüssel	Entfernen
	Chave de bocas	Remover
	Chiave a punte aperte	Rimuovere
	Steeksleutel	Verwijderen
	Clé à fourche	Retirez
	By Hand	Optional
	A mano	Opcional
	Von Hand	Optional
	Com a mão	Opcional
	A mano	Opzionale
	Met de hand	Optie
	À la main	En option
	Hex-Head Wrench	Security Wrench
	Llave de cabeza hexagonal	Llave de seguridad
	Sechskantschlüssel	Sicherheitsschlüssel
	Chave de cabeça sextavada	Chave de segurança
	Chiave esagonale	Chiave di sicurezza
	Zeskantsleutel	Veiligheidssleutel
	Clé à tête hexagonale	Clé de sécurité
		0.5 55 55 55 55

# **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 <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.



**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)

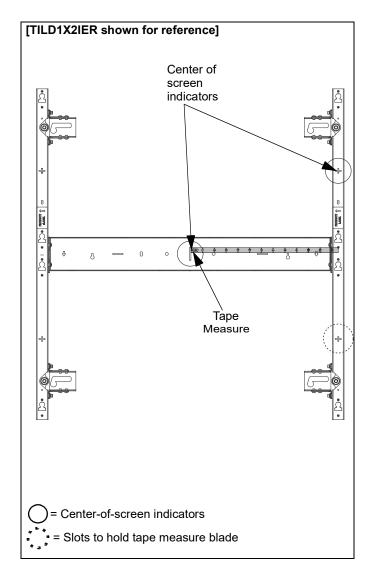


Figure 1

#### **Determining Installation Site**

**IMPORTANT!**: The top of the LED screen is 4.78" above the center line of the mounting lags in the upper mounting slots. (See Figure 6)

**IMPORTANT!**: The bottom of the LED screen is 5.69" below the center line of the mounting lags in the lowest mounting slots.

**NOTE:** Refer to dimensions drawings on pages 21-23 and in Figure 2 for further details on installation locations.

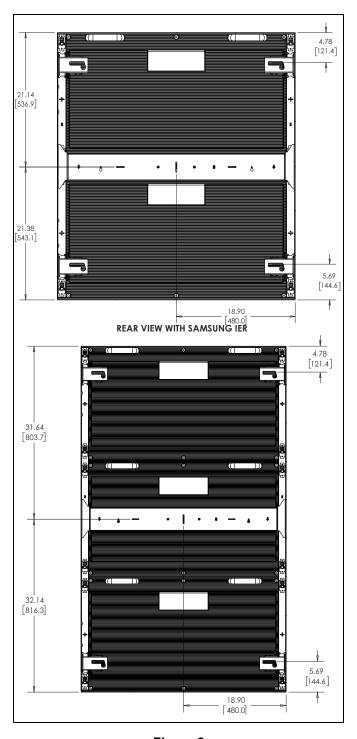


Figure 2

#### 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.

- Determine location for the bottom left corner of the LED wall. (See Figure 2)
- Make a mark at the centerline for the lowest row of video wall above the planned bottom 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. (See Figure 3)
- Hold spacer plate (P) up to wall, lining up mounting holes with line drawn in Step 2. Make sure arrows on plate are pointing "DOWN". (See Figure 3)

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

- (Optional) Install cable management clips (R) to spacer (P). (See Figure 3)
- Use two #8 x 2" Phillips drywall screws (Q) to secure spacer plate (P) to wall. Use a level to make sure spacer is level before tightening screws. (See Figure 3)

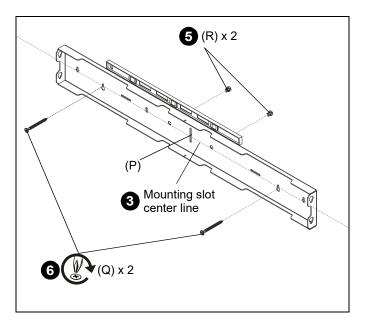


Figure 3

 Install 1/4-20 x 1/2" Phillips pan machine screws (F) into uprights (L, M or N) that will be attached to spacer plate (P). (See Figure 4)

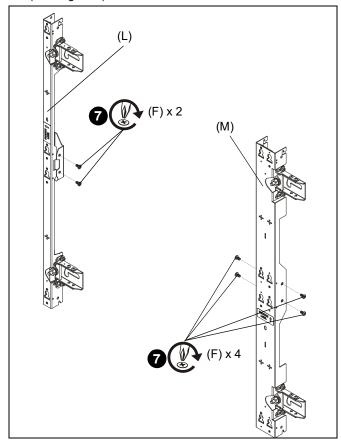


Figure 4

8. Hang left upright (L) onto side of spacer plate (P) using screws loosely installed in Step 6. (See Figure 5)

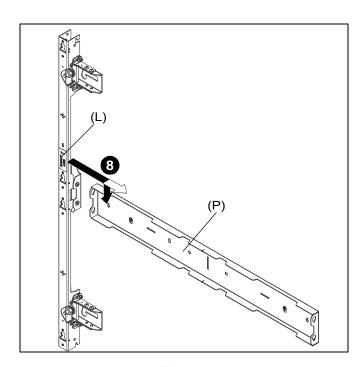


Figure 5

- 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 R) to spacer plate (P). (See Figure 6)

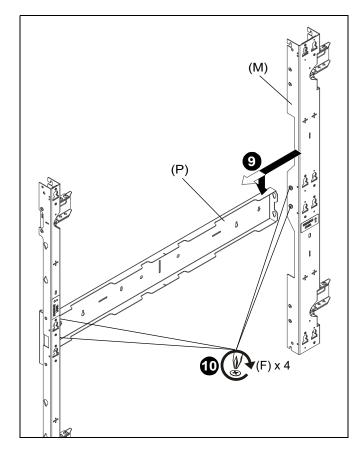


Figure 6

# **Adding Vertical Connector Kit**

NOTE: If more LED screens will need to be added to the top of the screen configuration, add TILVAB1 vertical connector kit to top of wall mount using the following instructions. If you are NOT adding the TILVAB1 connector kit, proceed to Installing First Mount section

**IMPORTANT!:** Install the vertical connector kit BEFORE the mounts are attached to the wall.

- Slide the vertical connector (K) down from the top of the mount, and attach with two 1/4-20 x 1/2" Phillips pan head screws (J) per vertical connector. (See Figure 7)
- Loosely install one 1/4-20 x 1/2" Phillips pan head screw (J) in the lower screw hole at the top of each vertical connector (K). (See Figure 7)

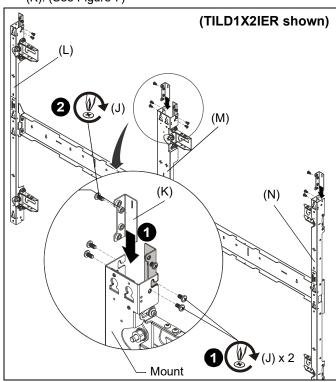


Figure 7

NOTE: Row of mounts above first row will not be installed to vertical connectors (K) until the Connecting Mounts Above First Row Section.

# **Installing First Mount to Wall**

The TILD1X2IER/TILD1X3IER 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)
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)

- 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) or (See Figure 9)
- 2. Mark mounting holes near top or mounting slots along the horizontal line. (See Figure 8) or (See Figure 9)

**NOTE:** The mounting holes are 31.56" apart on-center for left and right together or 37.78" for left and middle together. (See Figure 8) or (See Figure 9)

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

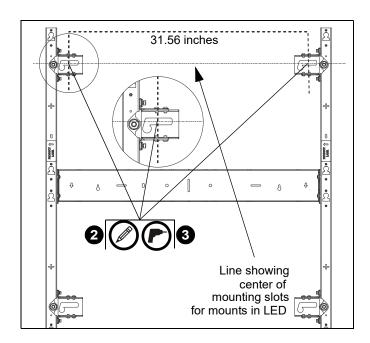


Figure 8

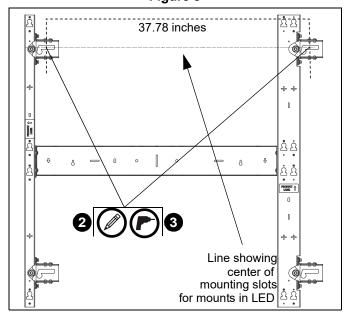


Figure 9

 Drill two pilot holes (see Table 1 for size) at each location marked in Step 2 (See Figure 8) or (See Figure 9) 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.

4. Install two lag screws (C) into wall, but do NOT completely tighten to wall. (See Figure 10)

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.

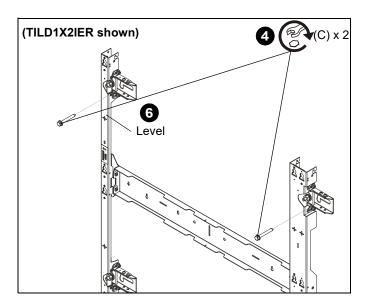


Figure 10

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

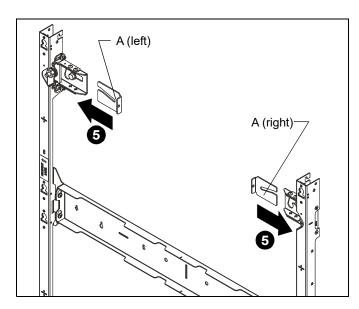


Figure 11

- 6. Place a level across front of the mount at bottom of teardrop slots. (See Figure 12)
- 7. Check the level of the mount at the bottom of the teardrop slots. (See Figure 12)

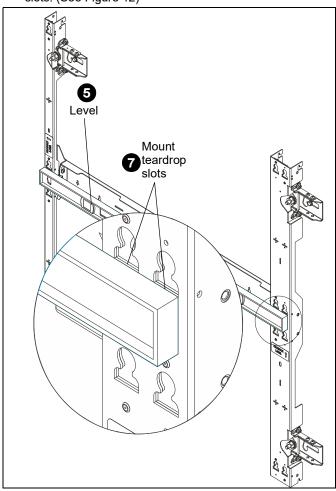


Figure 12

- 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 13)
- 9. Loosely install 5/16 x 2-1/2" lag screws (C) through the 5/16" fender washers (D) to secure to wall. (See Figure 13)

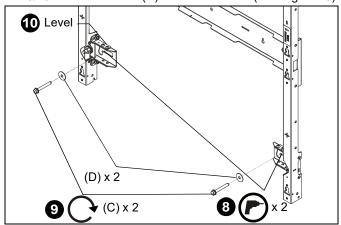


Figure 13

- Check the level of the mount horizontally at the bottom of the teardrop slots and vertically on the side of the uprights. (See Figure 14)
- 11. 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 14)

Just a tip - Tighten down the lag screw on the side that does <u>NOT</u> 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.

 When the mount is leveled, tighten the lag screws (C). (See Figure 14)

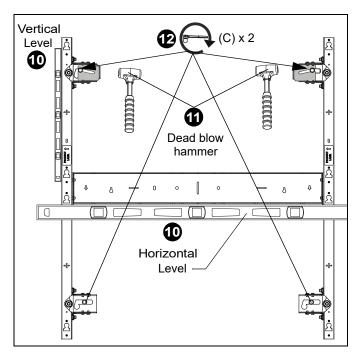


Figure 14

#### **Adding Additional Uprights**

- Partially install two 1/4-20 x 1/2" Phillips pan machine screws (F) into middle two holes on middle upright (M). (See Figure 15)
- Hang spacer plate (P) onto partially installed screws (F) and lift up until screws are properly seated in keyholes. (See Figure 15)

**IMPORTANT!**: Make sure arrows are pointing "DOWN" on spacer plates for the first row of displays. Arrows should be pointing "UP" for all additional rows to be mounted above the first row.

Tighten screws (F) to secure spacer plate (P) to upright (M).

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

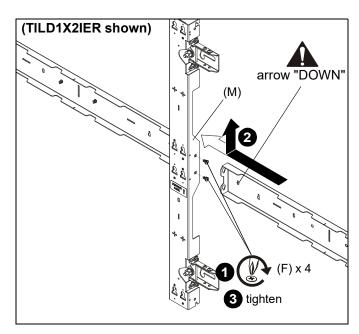


Figure 15

- Partially install two 1/4-20 x 12" Phillips pan machine screws (F) into middle two holes on middle upright (M) or right upright (N). (See Figure 16)
- Insert two partially installed screws (F) into holes on opposite side of spacer plate (P). (See Figure 16)
- Lift upright until screwed are properly seated in keyhole mounting holes. (See Figure 16)
- Tighten two screws to secure spacer plate to mounting upright (M) or (N). (See Figure 16)

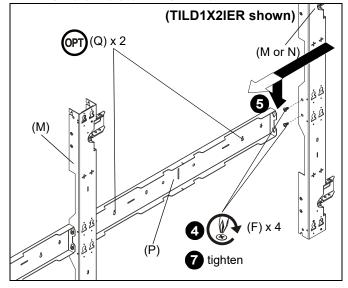


Figure 16

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

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

 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 37.78" apart on-center for center (M) and center (M) or 31.57" apart for center (M) and right (N) uprights. (See Figure 17)

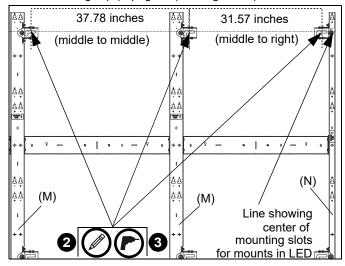


Figure 17

NOTE: Drill two pilot holes (see Table 1 for size) at each location marked in Step 3 (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.
- 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 <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. Use a magnetic level on front face of outside uprights to make sure they are plumb. Use 3/4" hex nuts to adjust as needed. (See Figure 18)
- 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 18)
- Run a string between the self-tapping screws installed in Step 13 to assist with alignment across long sections of mounts. (See Figure 18)
- 15. Turn 3/4" hex nuts on each middle upright to adjust depth to match the string line as needed. (See Figure 18)

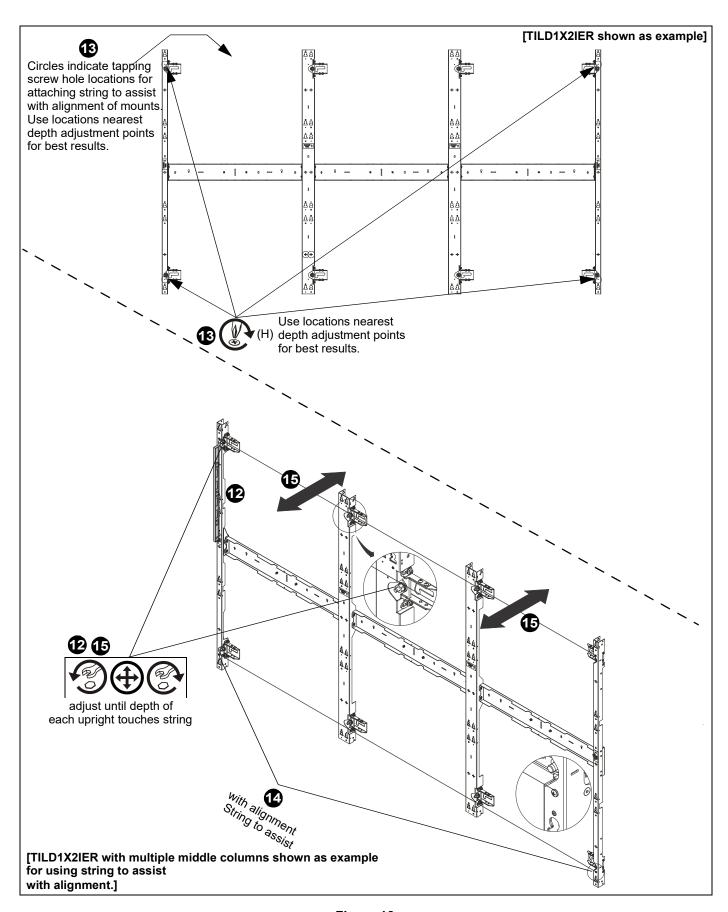


Figure 18

#### **Connecting Mounts Above First Row**

 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 19)

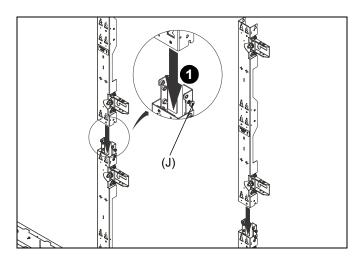


Figure 19

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

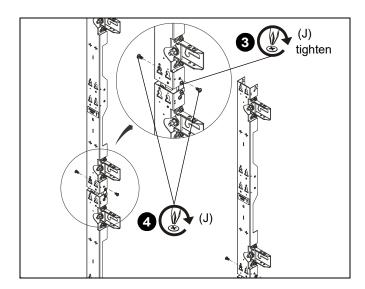


Figure 20

- Partially install two 1/4-20 x 12" Phillips pan machine screws (F) into middle two holes on middle upright (M). (See Figure 20)
- Hang spacer plate (P) onto partially installed screws (F). (See Figure 21)

**IMPORTANT!**: Arrows are pointing "DOWN" on spacer plates for the FIRST ROW of displays. Arrows should be pointing "UP" for ALL ADDITIONAL ROWS to be mounted above the first row.

Tighten screws (F) to secure spacer plate (P) to upright (M).

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

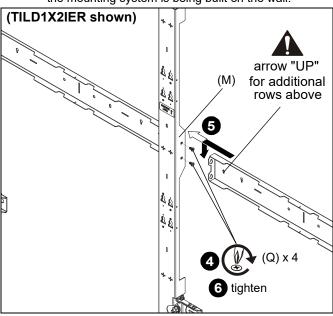


Figure 21

- Partially install two 1/4-20 x 12" Phillips pan machine screws (F) into middle two holes on middle upright (M) or right upright (N). (See Figure 22)
- 8. Insert two partially installed screws (F) into holes on opposite side of spacer plate (P). (See Figure 22)
- Lift upright until screwed are properly seated in keyhole mounting holes. (See Figure 22)
- Tighten two screws to secure spacer plate to mounting upright (M) or (N). (See Figure 22)

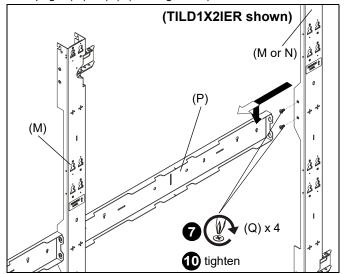


Figure 22

11. 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.

#### **Adjustments**

#### **Depth Adjust**

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

 Turn 3/4" hex nuts near feet of mounting system to adjust depth as needed. (See Figure 23)

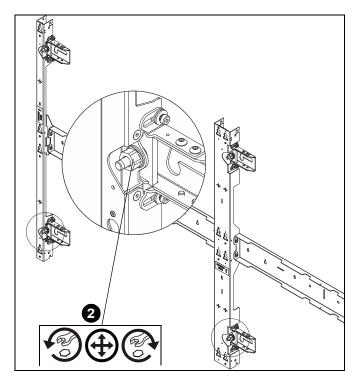


Figure 23

# **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.

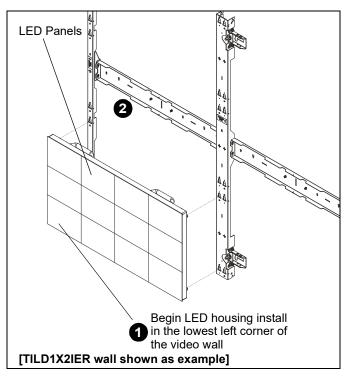


Figure 24

- 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 24)
- Move LED housing forward until all four mounting buttons are through mounting holes in wall mount.
- 3. 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 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.
- 7. 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.

#### **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 25)
- 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 25)

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

Repeat for remaining pilot holes.

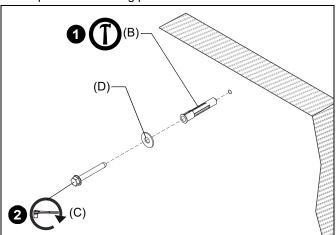


Figure 25

# **Lateral Shift Locking Screws (Optional)**

**NOTE:** To lock lateral shift position, #10-24 x 5/8" Phillips tapping screws (G) may be used to secure displays in position.

**NOTE:** There is a hole to use for locking above each mounting button location.

 After all displays and mounted and leveled, install #10-24 x 5/8" Phillips tapping screws (G). (See Figure 26)

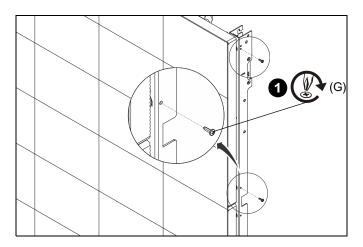


Figure 26

# **Security Screws (Optional)**

**NOTE:** For increased security, #10-24 x 1" Phillips screws (E) may be used to secure displays to uprights (L, M or N).

 After all displays and mounted and leveled, install #10-24 x 1" Phillips screws (E) until the screw contacts mounting buttons of LED displays. (See Figure 27)

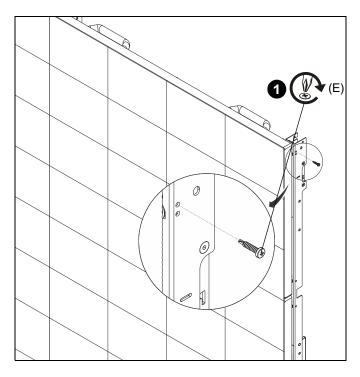
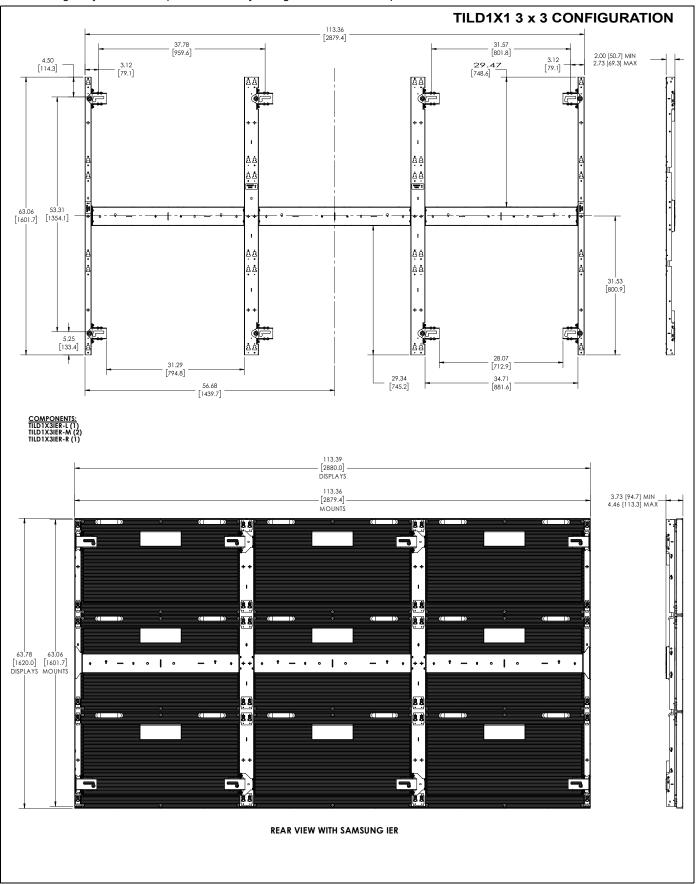
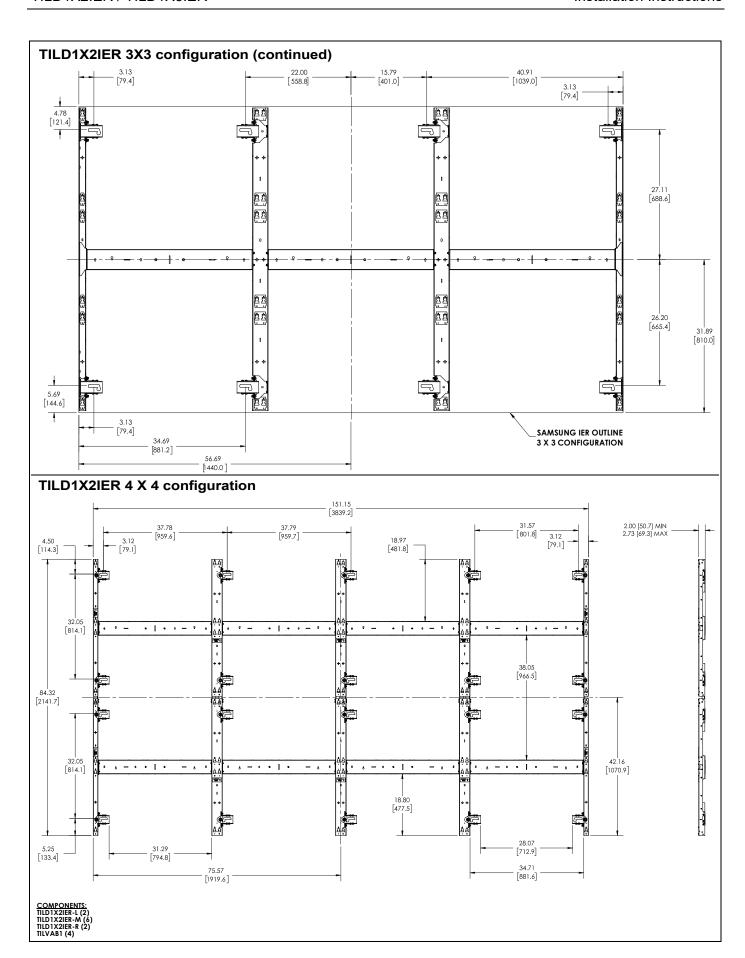


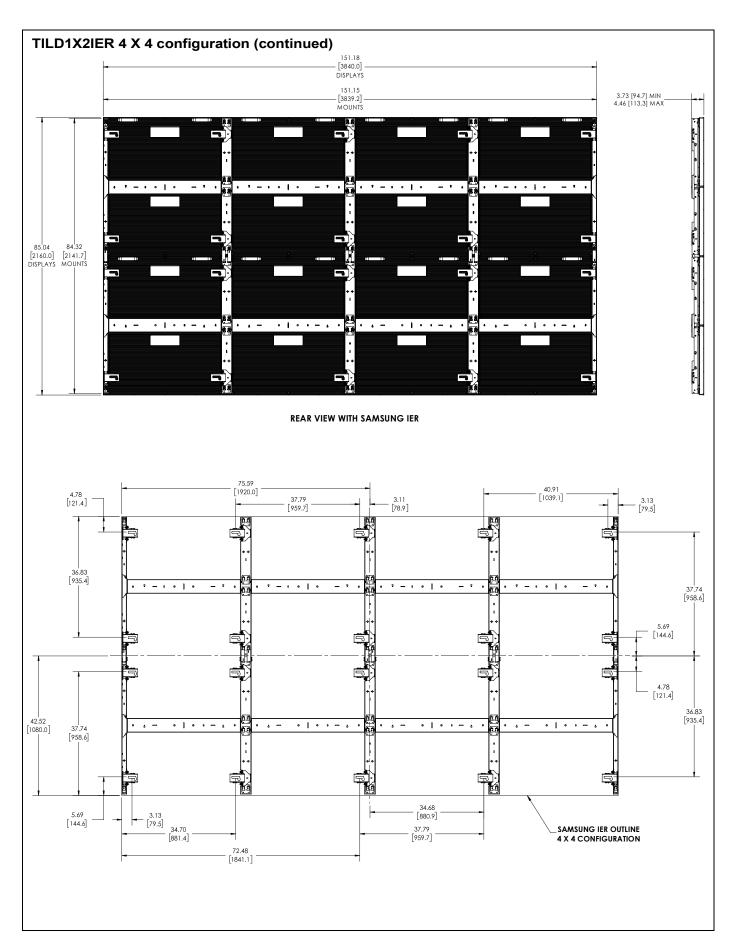
Figure 27

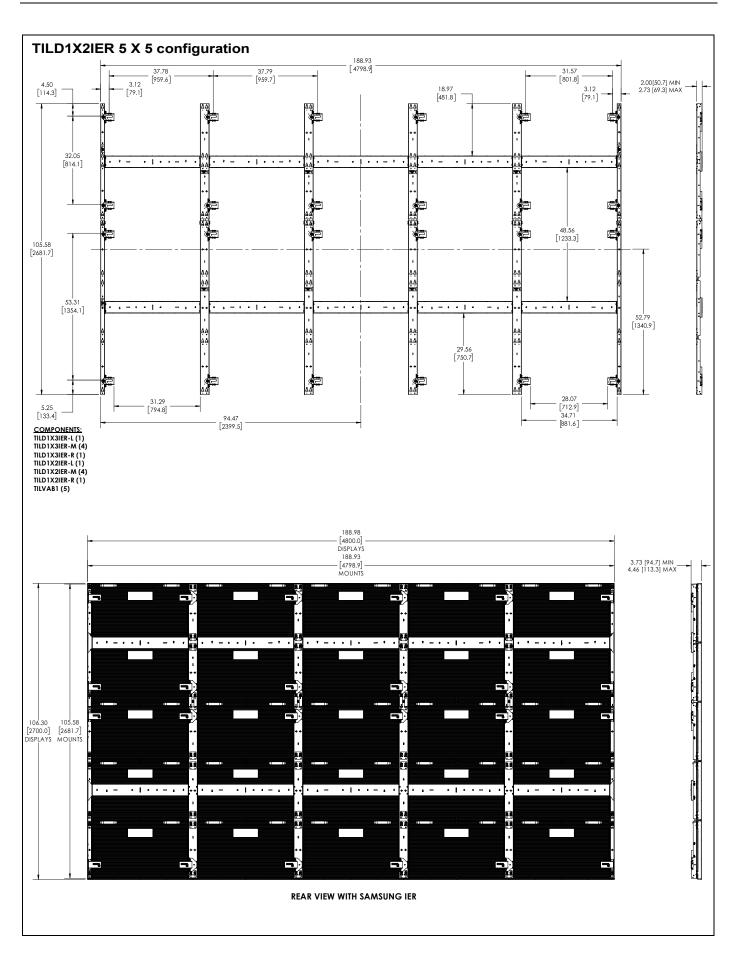
# **Configuration Examples**

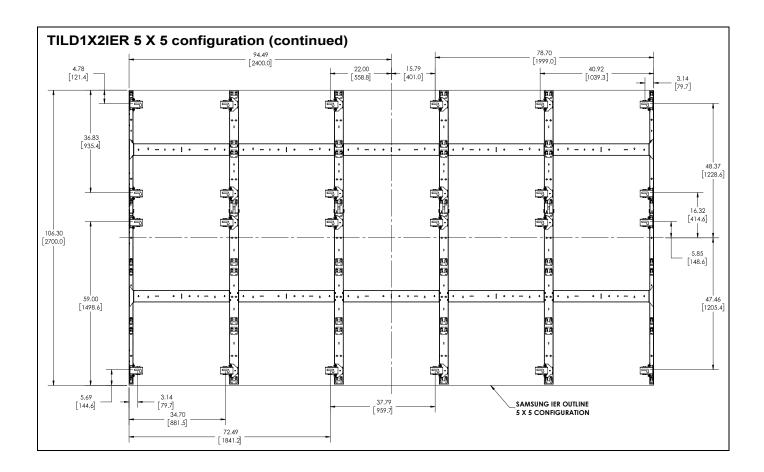
The following are just two examples of the many configurations which are possible with the US Series wall mounts.



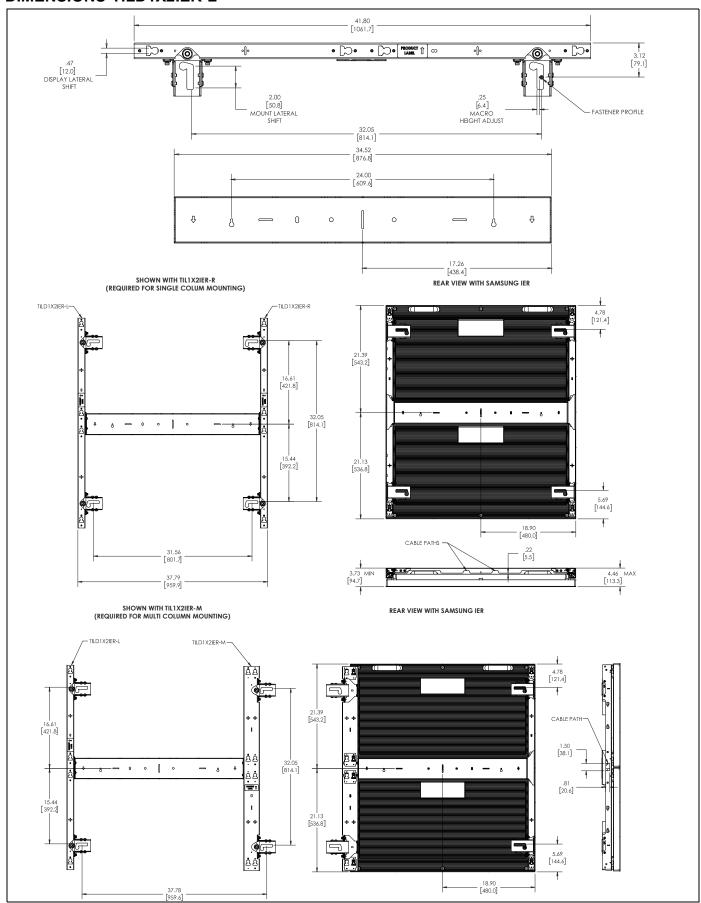




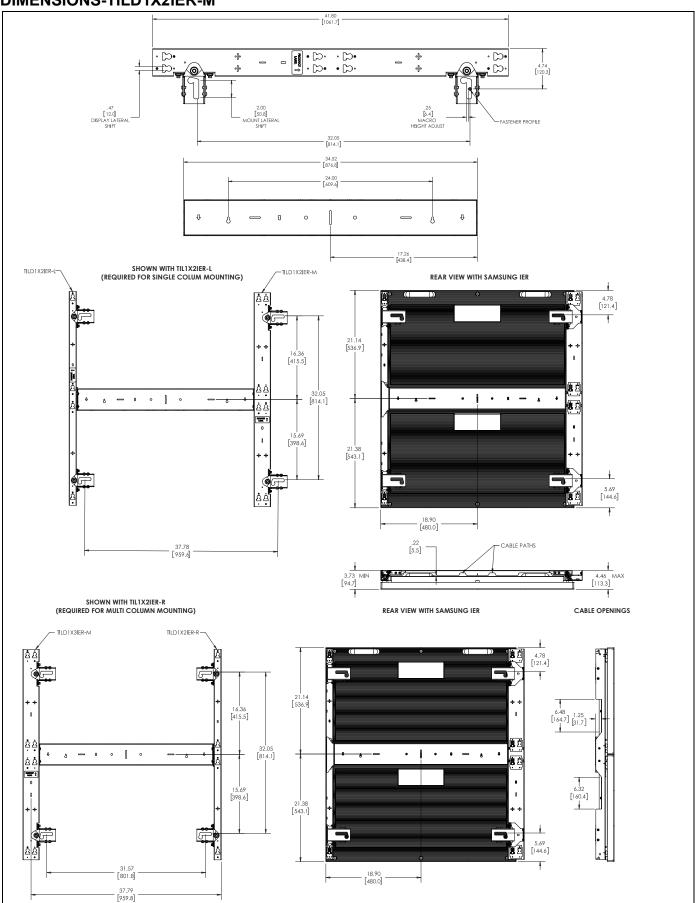




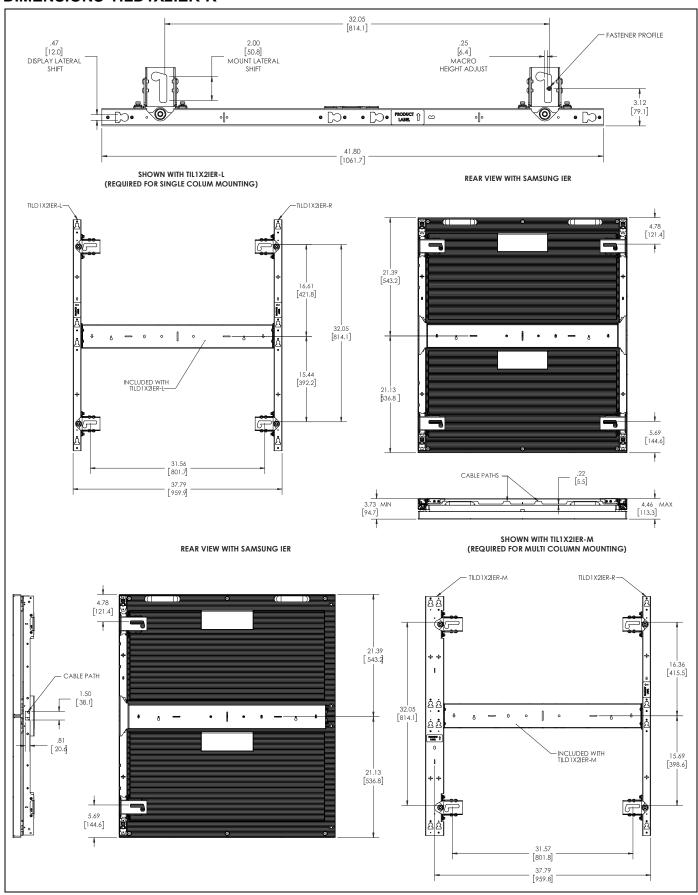
# **DIMENSIONS-TILD1X2IER-L**



# **DIMENSIONS-TILD1X2IER-M**



# **DIMENSIONS-TILD1X2IER-R**





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