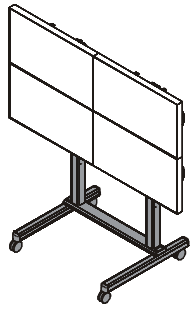
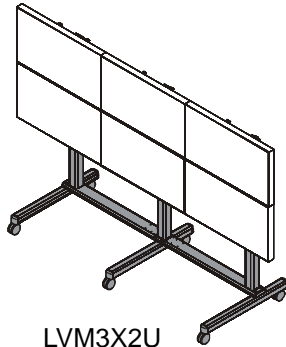


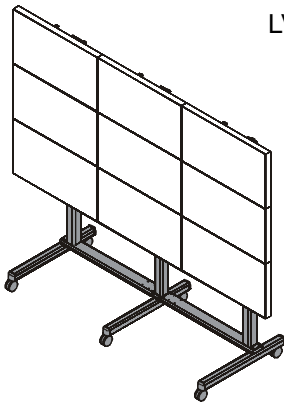
INSTALLATION INSTRUCTIONS



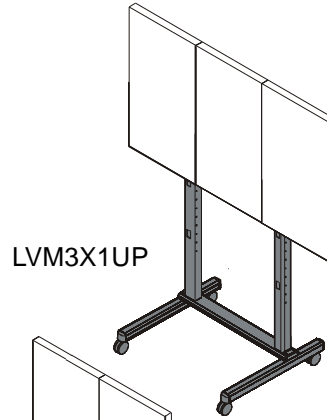
LVM2X2U



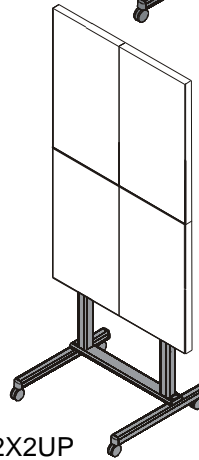
LVM3X2U



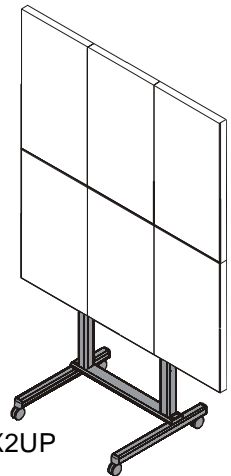
LVM3X3U



LVM3X1UP



LVM2X2UP



LVM3X2UP

Video Wall Carts

DISCLAIMER

Milestone AV Technologies and its affiliated corporations and subsidiaries (collectively "Milestone"), intend to make this manual accurate and complete. However, Milestone makes no claim that the information contained herein covers all details, conditions or variations, nor does it provide for every possible contingency in connection with the installation or use of this product. The information contained in this document is subject to change without notice or obligation of any kind. Milestone makes no representation of warranty, expressed or implied, regarding the information contained herein. Milestone assumes no responsibility for accuracy, completeness or sufficiency of the information contained in this document.

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! IMPORTANT SAFETY INSTRUCTIONS

! 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.

! 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 components are properly assembled and installed using the instructions provided.

! WARNING: Failure to provide adequate structural strength for this component can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the structure to which this component is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the component.

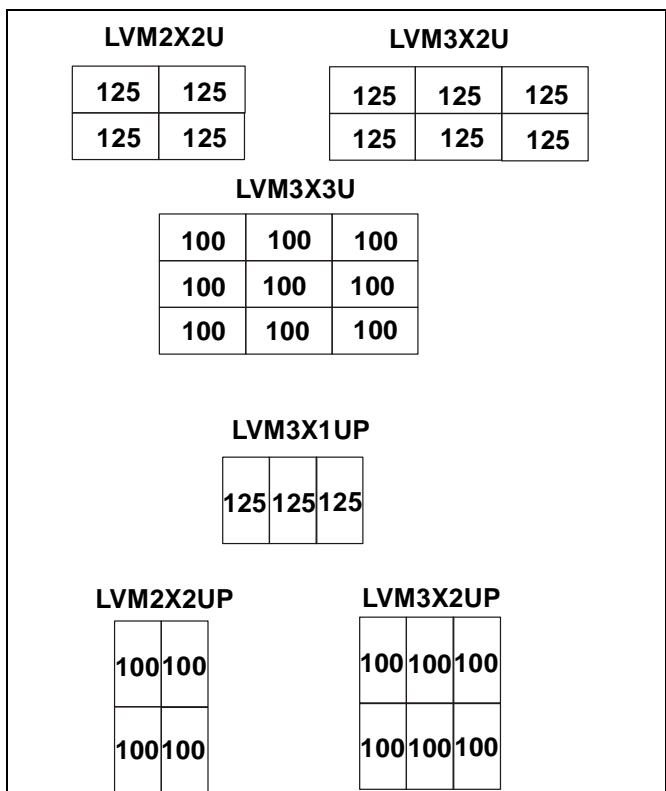
! WARNING: Do NOT stack multiple accessories on the same display cart! Do NOT connect accessories to carts that are already three display high. Display carts may NOT be stacked higher than three displays high!

! 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: Exceeding the weight capacity can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the combined weight of each display and attached accessories mounted to the LVM mount does not exceed the limit listed below. If FCA2X1U, FCA3X1U or FCA3X1UP accessories are added to either the LVM2X2U, the LVM3X2U or the LVM3X1UP, the weight limit for each display becomes 100 lbs (45.4 kg) rather than 125 lbs (56.7 kg).

MODEL	Max Weight Allowed for EACH Display	Max Weight Capacity of Mounting System
LVM2X2U	125 lbs (56.7 kg)	500 lbs (226.8 kg)
LVM3X2U	125 lbs (56.7 kg)	750 lbs (340.2 kg)
LVM3X3U	100 lbs (45.4 kg)	900 lbs (408.2 kg)
LVM3X1UP	125 lbs (56.7 kg)	375 lbs (170.1 kg)
LVM2X2UP	100 lbs (45.4 kg)	400 lbs (181.4 kg)
LVM3X2UP	100 lbs (45.4 kg)	600 lbs (272.2 kg)





WARNING: Do not use this product outdoors.



WARNING: RISK OF SERIOUS INJURY OR DEATH!
Placing a remote control or toy on the cart may encourage a child to climb onto the cart causing the cart to tip over onto the child. DO NOT place remote controls or toys on the cart!



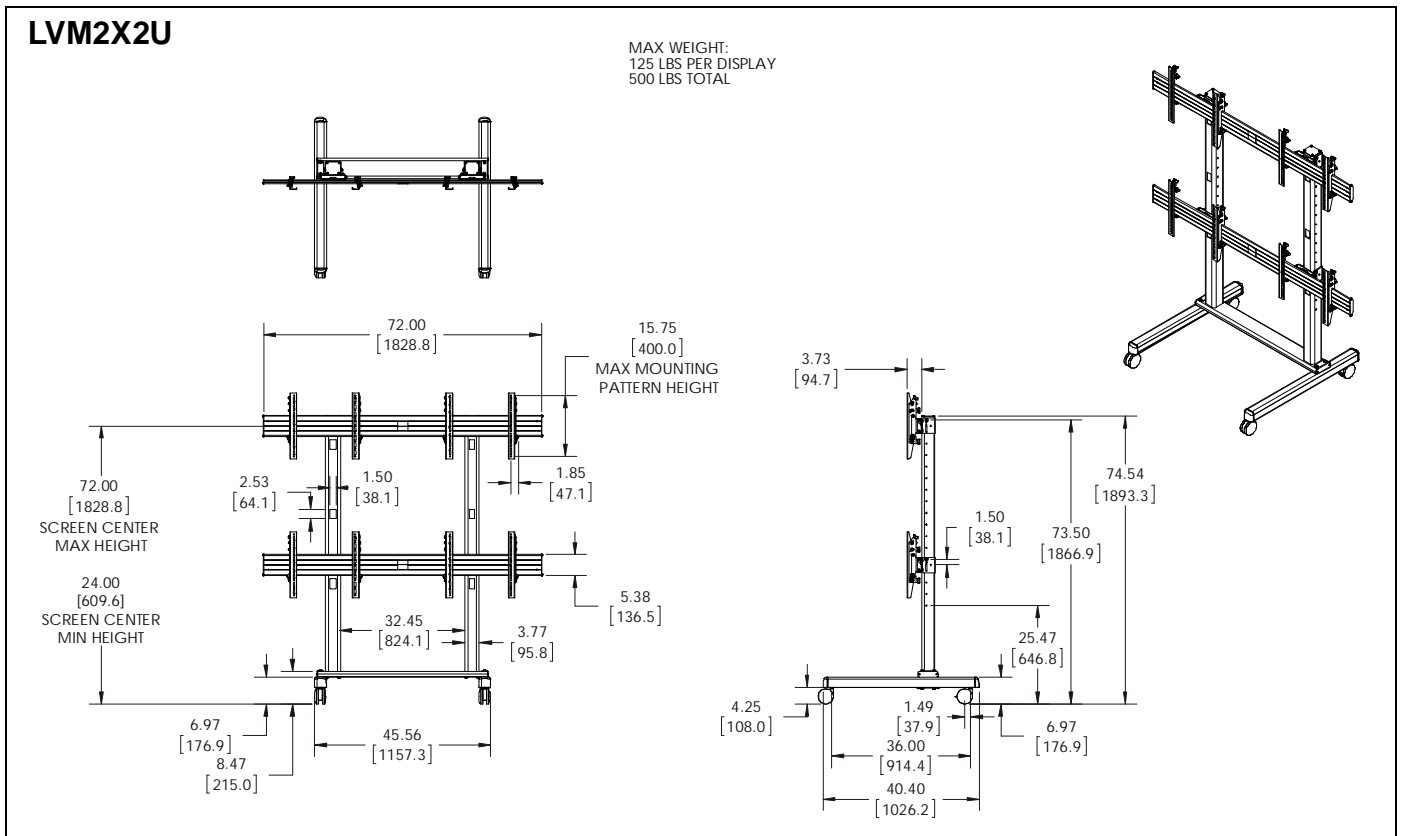
WARNING: RISK OF SERIOUS INJURY OR DEATH!
Relocating audio and/or video equipment to the cart may result in the cart collapsing or overturning onto a child. DO NOT relocate audio and/or video equipment to the cart!

NOTE: The UL listed LVM Series video walls may be used with the UL Listed accessories FCAX20, FCAX14, FCAX08. LVM3X2U may be used with UL listed FCA3X1U and LVM2X2U may be used with UL listed FCA2X1U. LVM3X1UP may be used with UL listed FCA3X1UP.

NOTE: The LVM Series carts have no user serviceable parts.

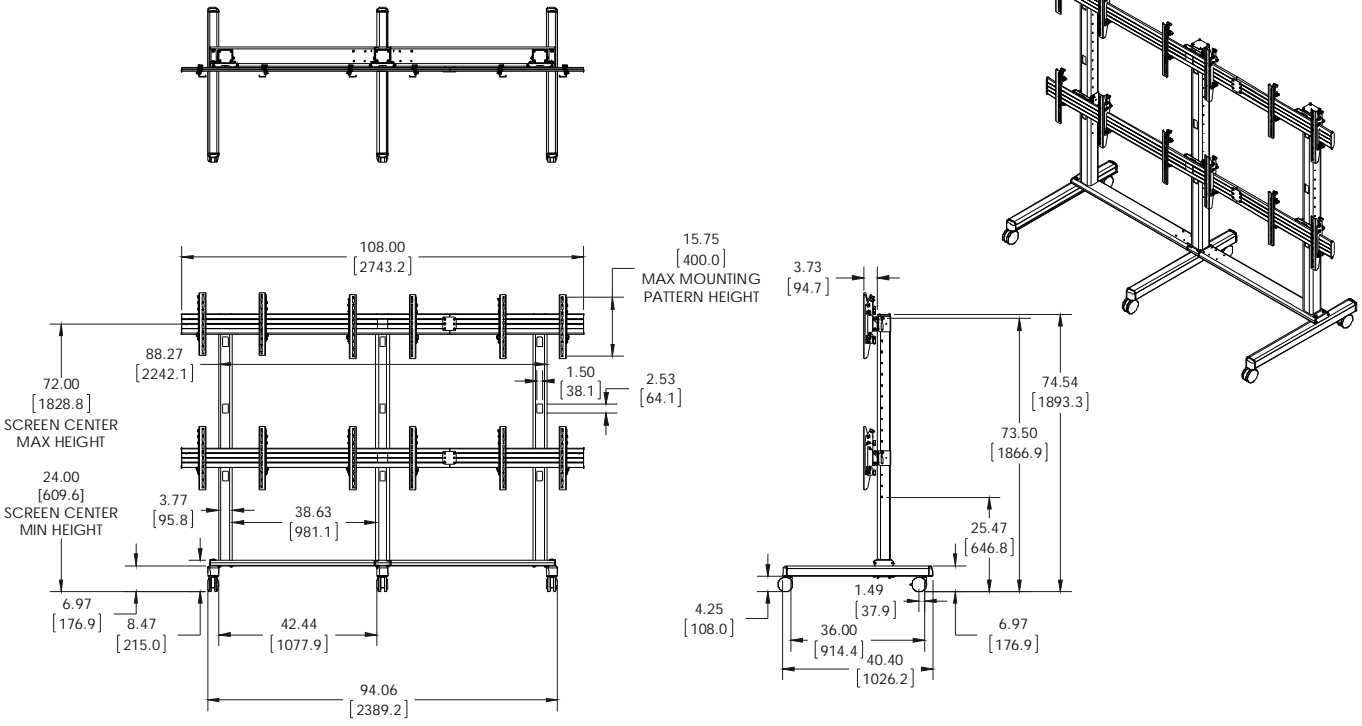
--SAVE THESE INSTRUCTIONS--

DIMENSIONS



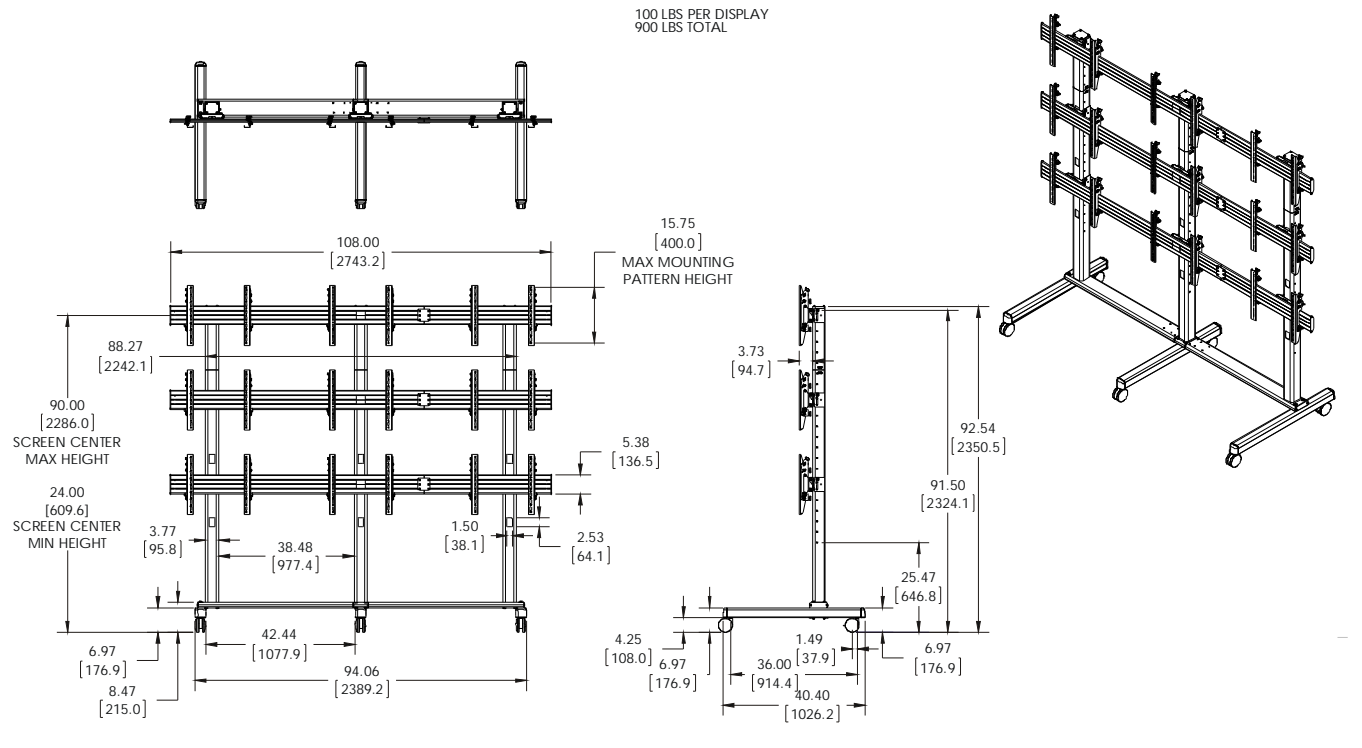
LVM3X2U

MAX WEIGHT:
125 LBS PER DISPLAY
750 LBS TOTAL



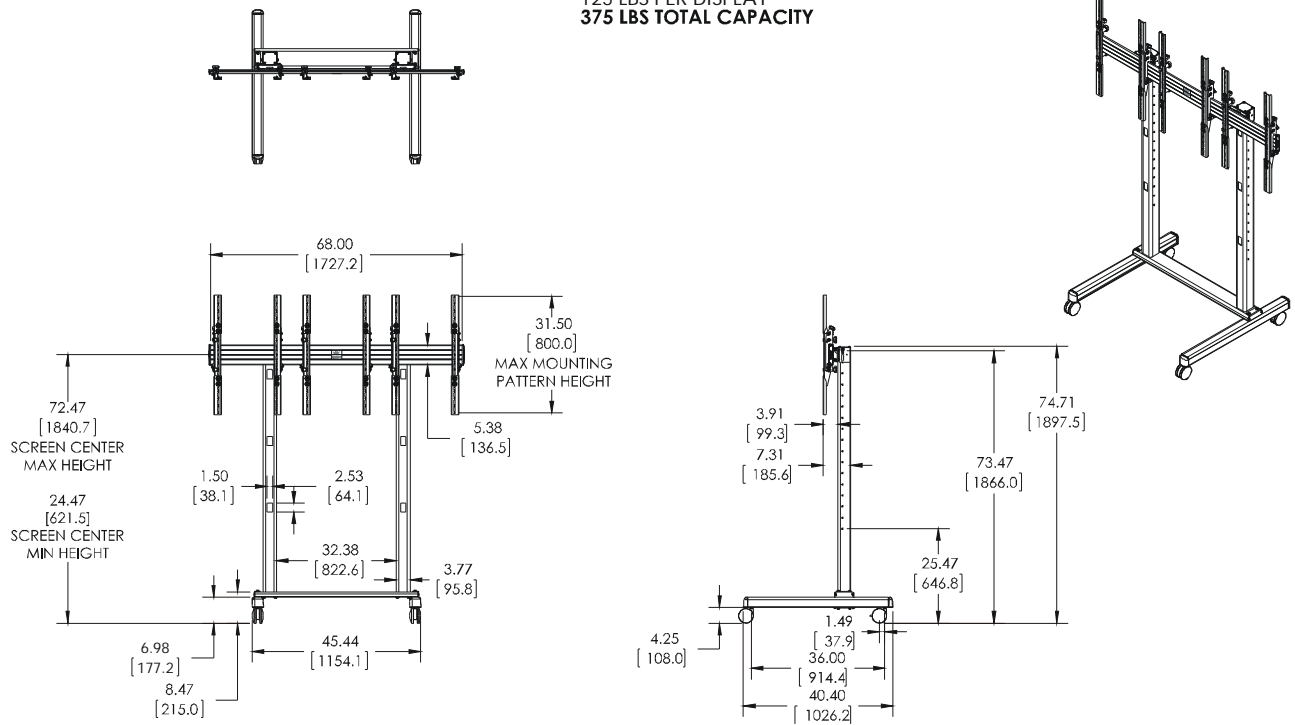
LVM3X3U

100 LBS PER DISPLAY
900 LBS TOTAL



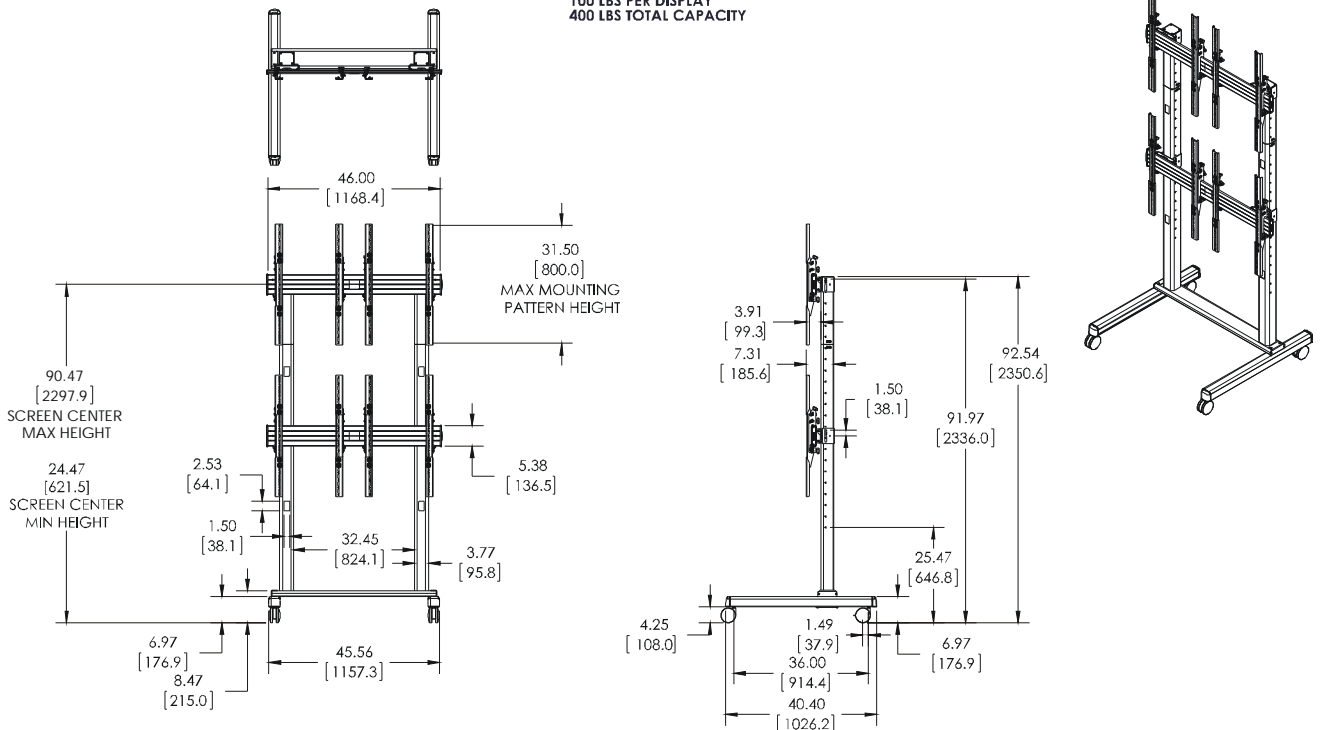
LVM3X1UP

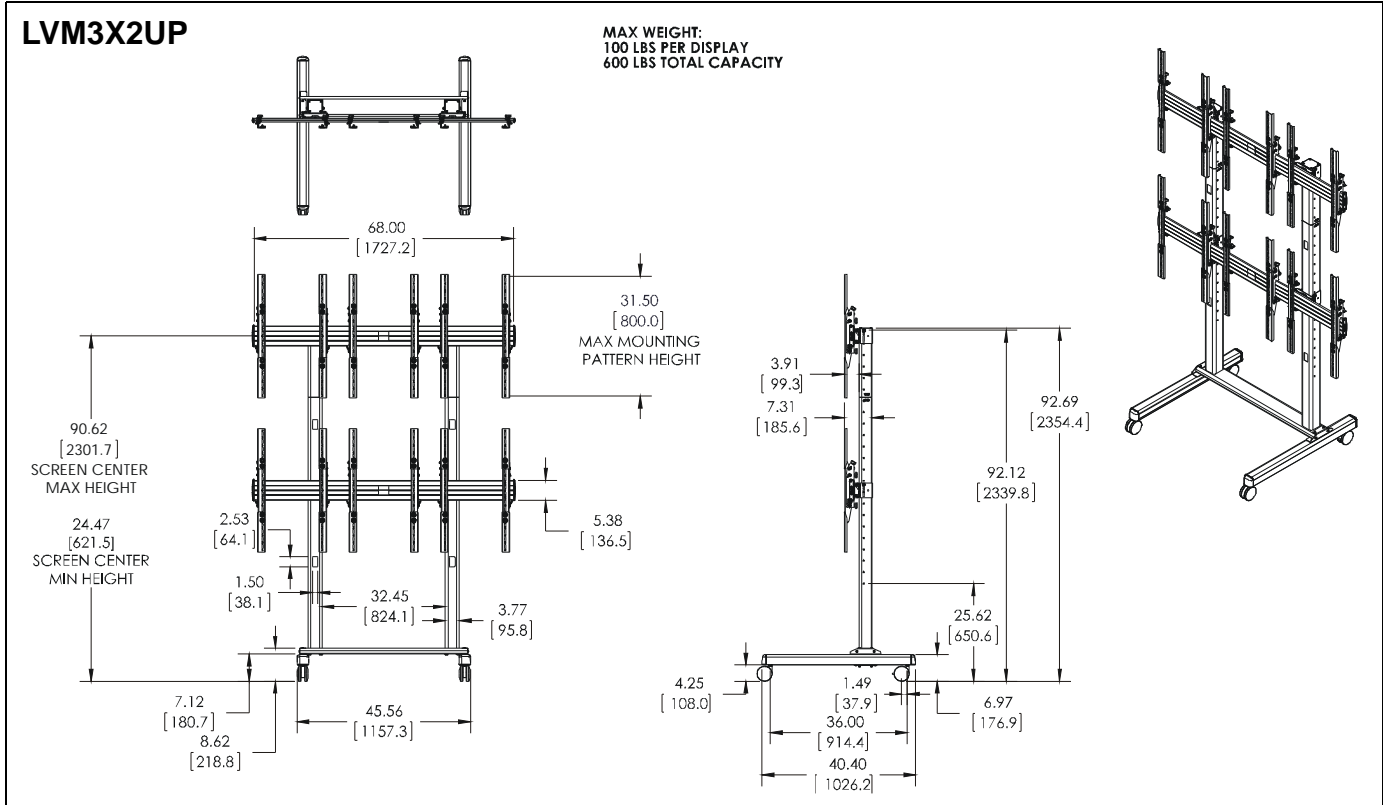
MAX WEIGHT:
125 LBS PER DISPLAY
375 LBS TOTAL CAPACITY



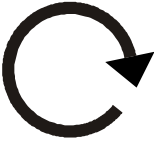

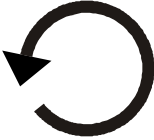









LVM2X2UP

MAX WEIGHT:
100 LBS PER DISPLAY
400 LBS TOTAL CAPACITY

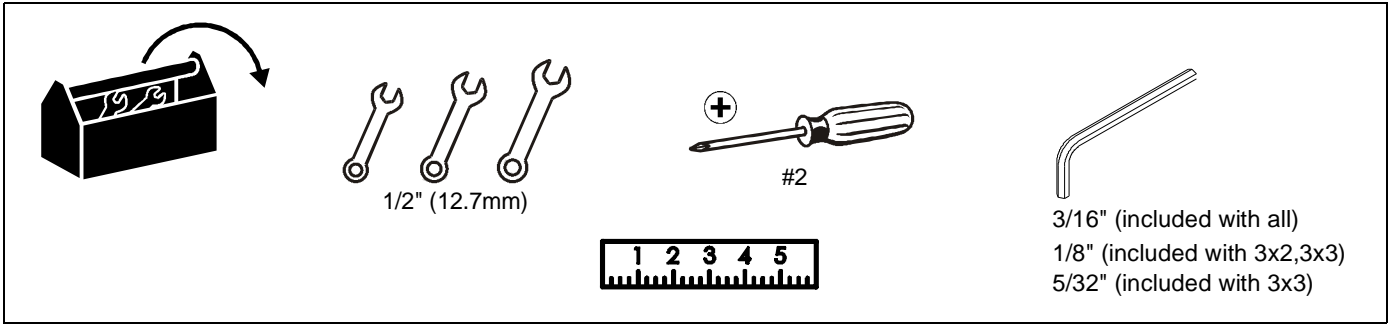




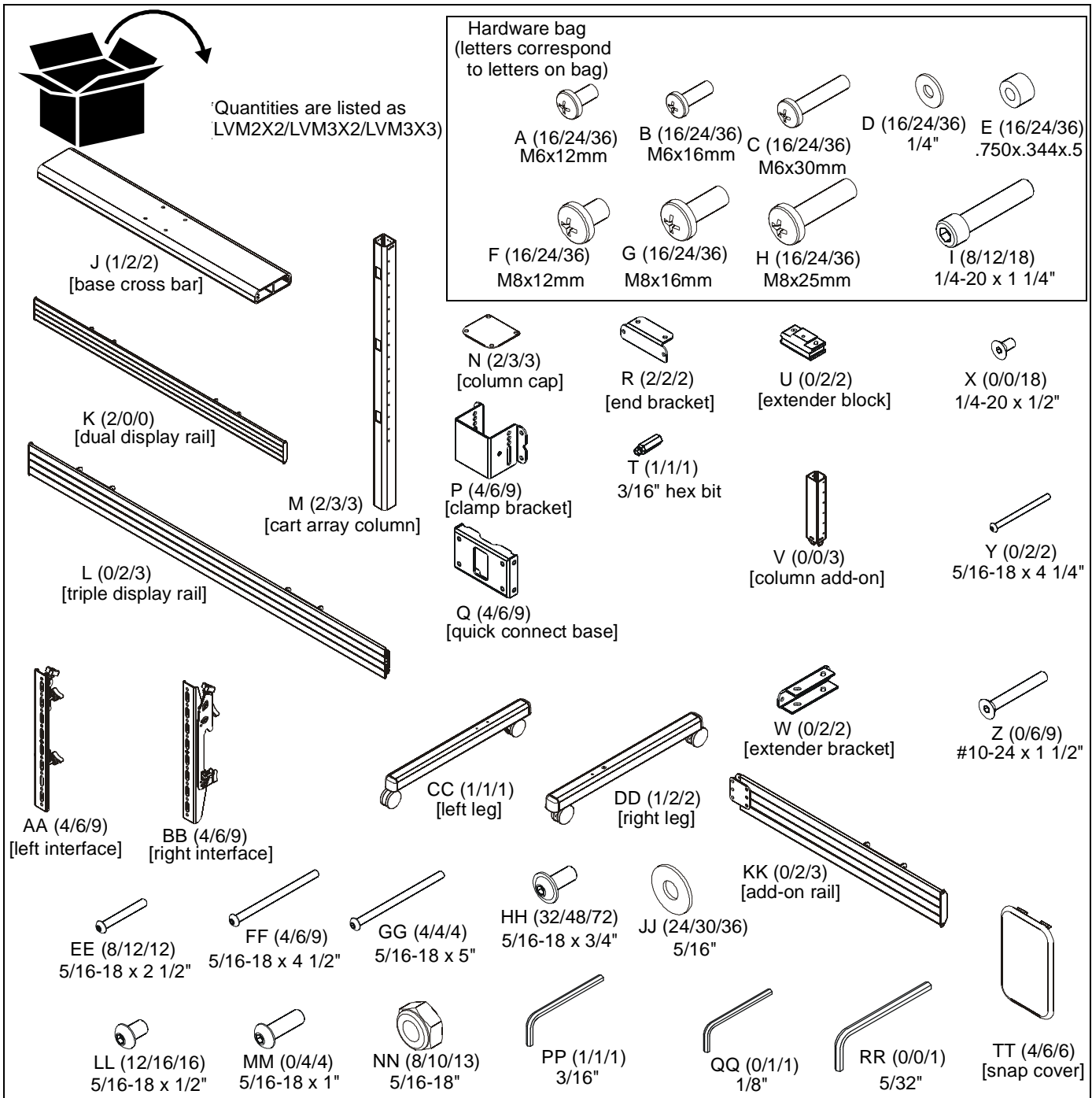
LEGEND

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


TOOLS REQUIRED FOR INSTALLATION



PARTS - Non-portrait Models - LVM2X2U/LVM3X2U/LVM3X3U (Portrait Models on next page)









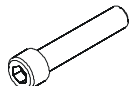


Parts - Portrait Models - LVM3X1UP/LVM2X2UP/LVM3X2UP



*Quantities are listed as (LVM3X1UP/LVM2X2UP/LVM3X2UP)

Hardware bag (letters correspond to letters on bag)

				
A (12/16/24) M6x12mm	B (12/16/24) M6x16mm	C (12/16/24) M6x30mm	D (12/16/24) 1/4"	E (12/16/24) .750x.344x.5
				
F (12/16/24) M8x12mm	G (12/16/24) M8x16mm	H (12/16/24) M8x25mm	I (6/8/12) 1/4-20 x 1 1/4"	

J (1/1/1)
[base cross bar]

K (1/2/2)
[portrait display rail]

L (0/0/0)
[triple display rail]

AA (3/4/6)
[left interface]

BB (3/4/6)
[right interface]

EE (8/8/8)
5/16-18 x 2 1/2"

FF (2/4/4)
5/16-18 x 4 1/2"

LL (12/12/12)
5/16-18 x 1/2"

M (2/2/2)
[cart array column]

N (2/2/2)
[column cap]

P (2/4/4)
[clamp bracket]

Q (2/4/4)
[quick connect base]

CC (1/1/1)
[left leg]

DD (1/1/1)
[right leg]

GG (4/4/4)
5/16-18 x 5"

HH (16/32/32)
5/16-18 x 3/4"

PP (1/1/1)
3/16"

R (0/2/0) or R2 (2/0/2)
[end bracket] [end reinforcement bracket]

T (1/1/1)
3/16" hex bit

V (0/2/2)
[column add-on]

W (0/0/0)
[extender bracket]

KK (0/0/0)
[add-on rail]

QQ (0/0/0)
1/8"

RR (0/1/1)
5/32"

TT (4/4/4)
[snap cover]

U (0/0/0)
[extender block]

X (0/12/12)
1/4-20 x 1/2"

Y (0/0/0)
5/16-18 x 4 1/4"

Z (0/0/0)
#10-24 x 1 1/2"

J (1/1/1)
[base cross bar]

K (1/2/2)
[portrait display rail]

L (0/0/0)
[triple display rail]

AA (3/4/6)
[left interface]

BB (3/4/6)
[right interface]

EE (8/8/8)
5/16-18 x 2 1/2"

FF (2/4/4)
5/16-18 x 4 1/2"

LL (12/12/12)
5/16-18 x 1/2"

N (2/2/2)
[column cap]

P (2/4/4)
[clamp bracket]

Q (2/4/4)
[quick connect base]

CC (1/1/1)
[left leg]

DD (1/1/1)
[right leg]

GG (4/4/4)
5/16-18 x 5"

HH (16/32/32)
5/16-18 x 3/4"

PP (1/1/1)
3/16"

Assembly And Installation

Cart Assembly

LVM2X2U/LVM3X1UP/LVM2X2UP/LVM3X2UP

1. Lay two cart array columns (M) down on a flat surface.
2. Use eight 5/16-18 x 2 1/2" button head cap screws (EE) and eight 5/16" washers (JJ) to connect cross bar (J) to columns (M). (See Figure 1)

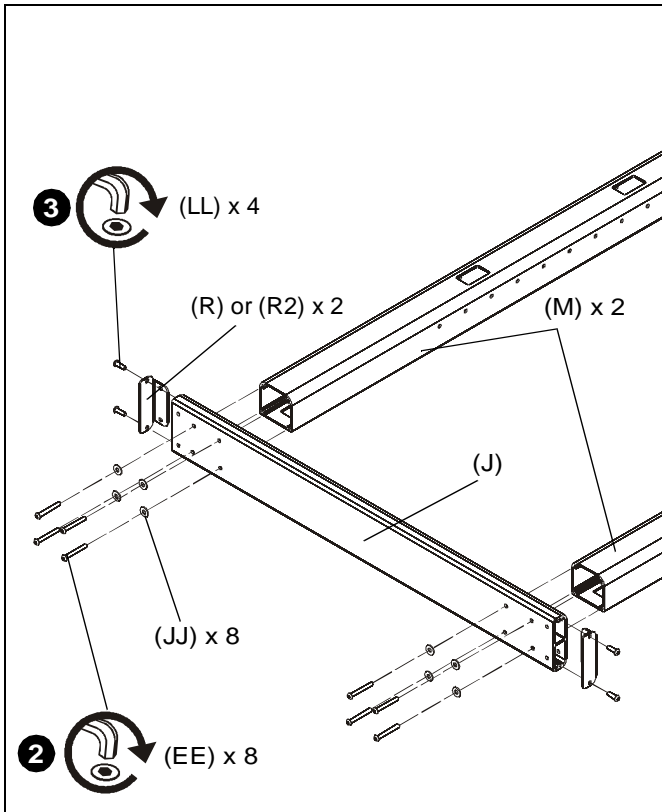


Figure 1

3. Use four 5/16-18 x 1/2" button head cap screws (LL) to attach two end brackets (R) or (R2) to cross bar (J). (See Figure 1)

NOTE: Custom end brackets (R2) are used for LVM3X1UP and LVM3X2UP models only for additional support.

4. Use four 5/16-18 x 5" button head cap screws (GG), four 5/16" washers (JJ) (not for LVM3X1UP and LVM3X2UP models) and four 5/16-18" lock nuts (NN) to secure right and left legs (CC and DD) to cross bar (J). (See Figure 2)

NOTE: To ensure right and left legs (CC and DD) are assembled on the appropriate side, make sure the smooth side of the legs are to the outside when assembling to cross bar (J).

5. Stand cart up on its wheels.
6. Proceed to Install Rails Section.

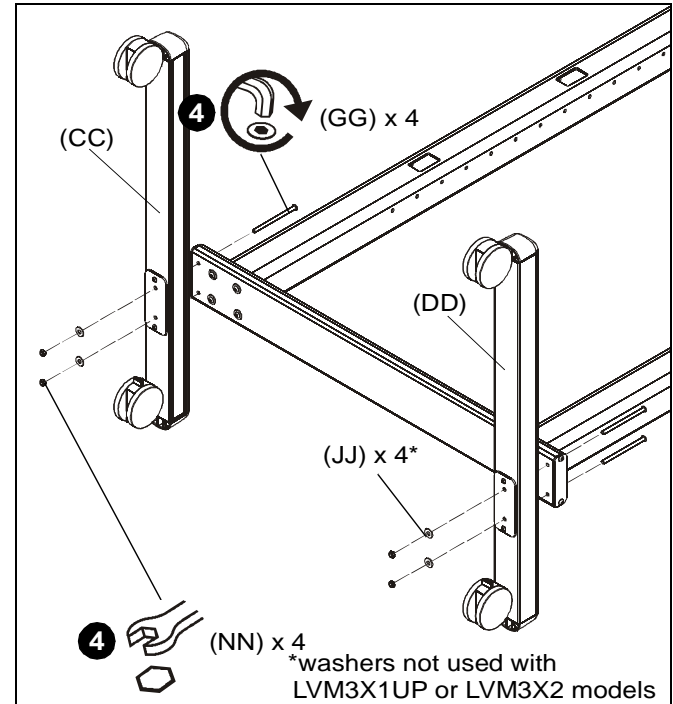


Figure 2

LVM3X2U/LVM3X3U

1. Lay two cart array columns (M) down on a flat surface.
2. Use eight 5/16-18 x 2 1/2" button head cap screws (EE) and eight 5/16" washers (JJ) to connect two cross bars (J) to columns (M). (See Figure 3)
3. Use four 5/16-18 x 1/2" button head cap screws (LL) to attach two end brackets (R) to cross bars (J). (See Figure 3)

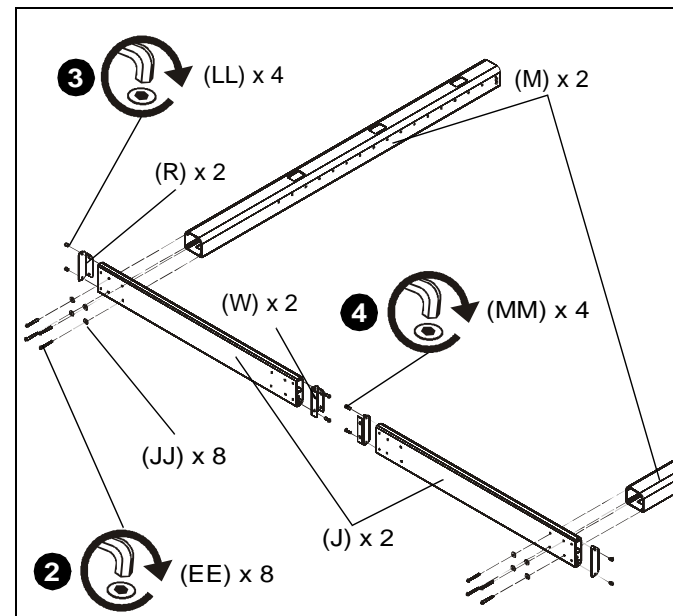


Figure 3

4. Use four 5/16-18 x 1" button head cap screws (MM) to attach two extender brackets (W) to the other ends of cross bars (J). (See Figure 3)

- Place two extender blocks (U) in position between two extender brackets (W). Be sure to line up holes on blocks and brackets. (See Figure 4)

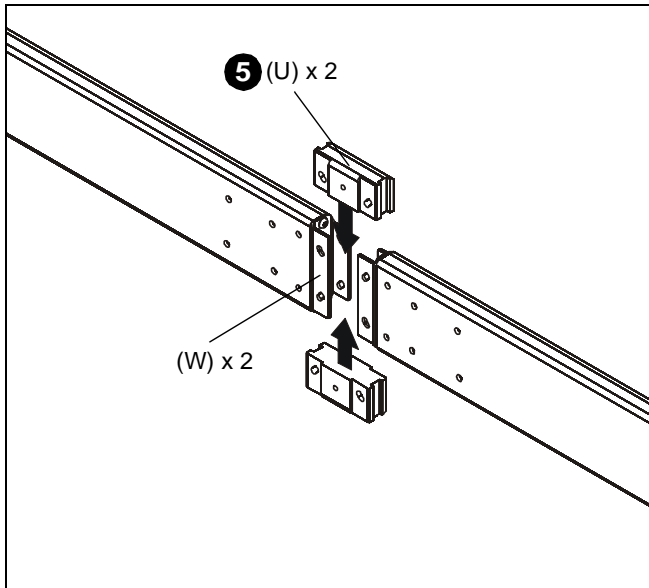


Figure 4

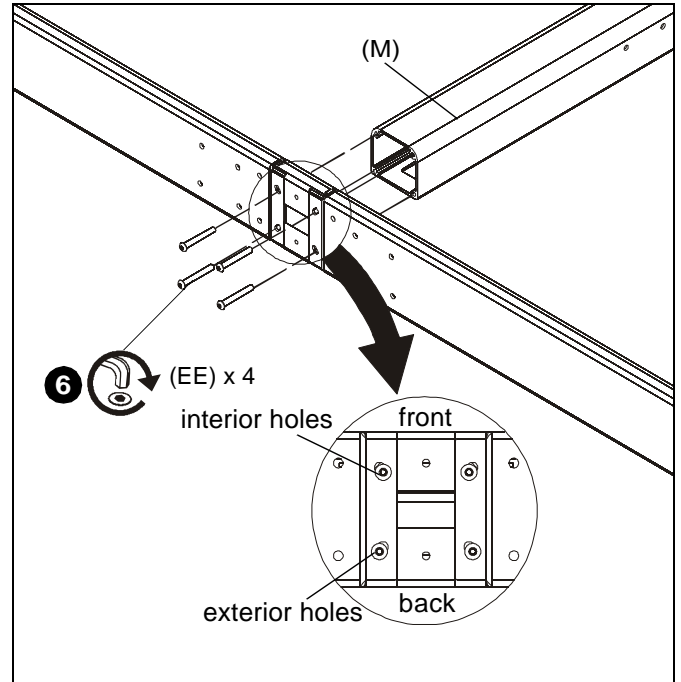


Figure 5

- While holding extender blocks in position, install four 5/16-18 x 2 1/2" button head cap screws (EE) through extender brackets (W), extender blocks (U) and into remaining cart array column (M). (See Figure 5)

IMPORTANT ! : Be sure to use interior holes when connecting to the front of the column and exterior holes when connecting to back of column. (See Inset on Figure 5)

- Use four 5/16-18 x 5" button head cap screws (GG), four 5/16" washers (JJ) and four 5/16-18" lock nuts (NN) to secure left and right legs (CC and DD) to cross bar (J). (See Figure 6)
- Use two 5/16-18 x 4 1/2" button head cap screws (Y) and two 5/16" washers (JJ) to secure second right leg (DD) to extender blocks (U). (See Figure 6)
- Stand cart up on its wheels.

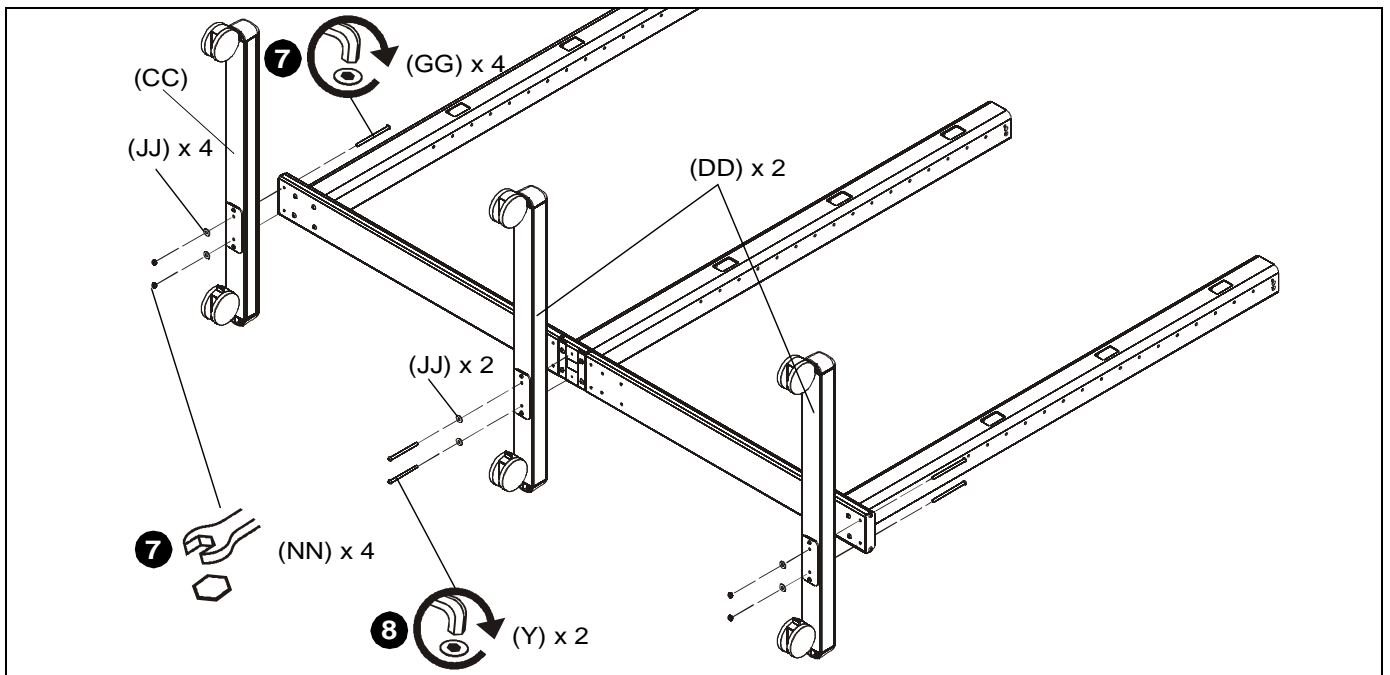


Figure 6

Column Add-On Installation (LVM3X3U/ LVM2X2UP/LVM3X2UP only)

1. Insert one column add-on (V) to each column (M) making sure holes are lined up on each side. (See Figure 7)
2. Use 5/32" hex key (RR) and six 1/4-20 x 1/2" flat head cap screws (X) to secure each column add-on (V) to each column (M). (See Figure 7)

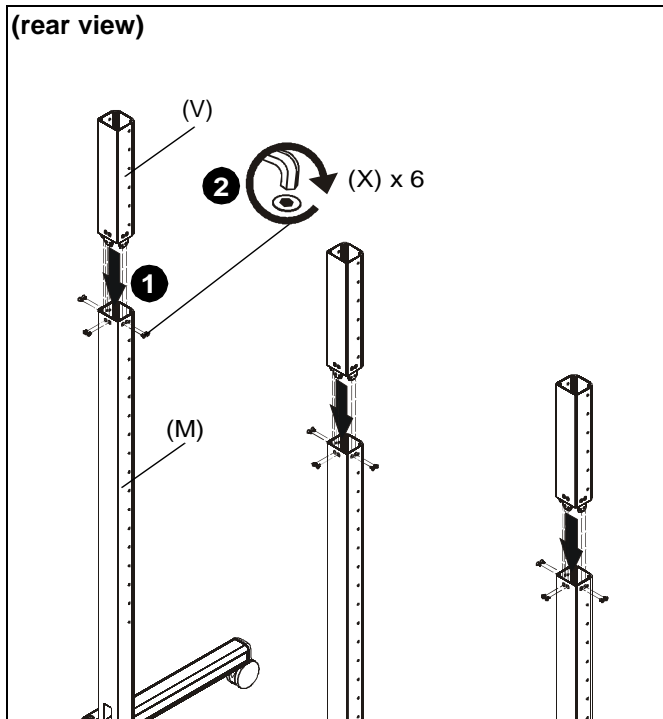


Figure 7

Rails Installation

1. Using display dimensions, determine where the center of the top displays will be on the cart.
- IMPORTANT !** : Install all column add-ons (V), if applicable, prior to installing rails to columns.
2. Place clamp brackets (P) on columns in the position of where the center of the top displays will be on the cart with the diamond on the brackets being placed at the exact center location. (See Figure 8)

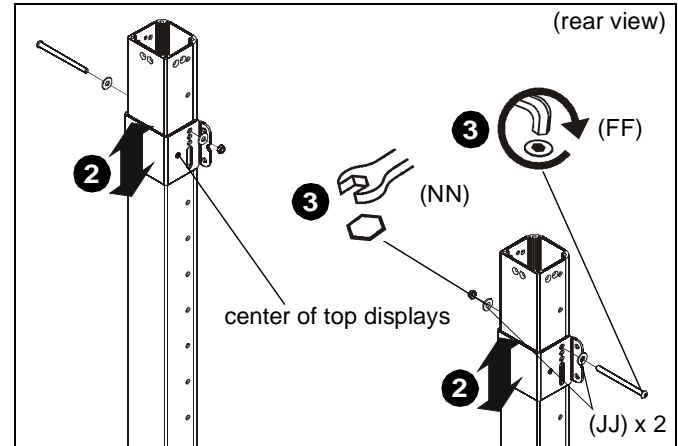


Figure 8

3. Use 5/16-18 x 4 1/2" button head cap screw (FF), two 5/16" washers (JJ) and 5/16-18" lock nut (NN) to secure each clamp bracket (P) to column. (See Figure 8)

NOTE: Clamp brackets (P) may be flipped in order to use long slots for installation if necessary. (See Figure 9)

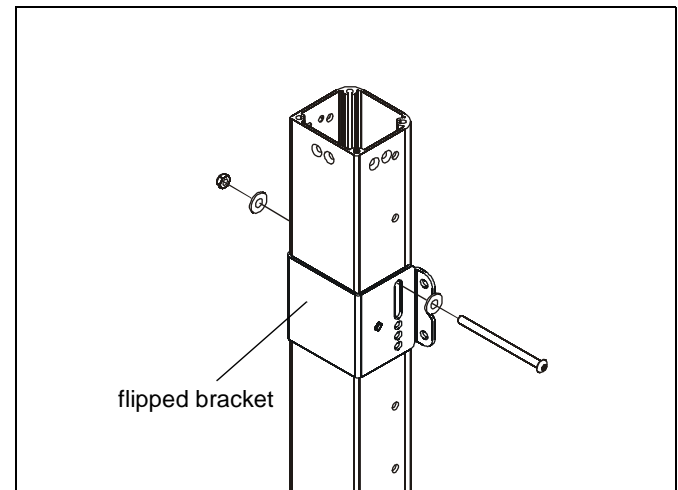


Figure 9

NOTE: If installing LVM3X1UP, proceed ahead to Step 6.

4. Measure one screen height down from center point on installed clamp brackets to determine mounting location of lower clamp brackets. (See Figure 10)
5. Use 5/16-18 x 4 1/2" button head cap screw (FF), two 5/16" washers (JJ) and 5/16-18" lock nut (NN) to install clamp brackets for lower displays with center diamond one screen height below center diamond of upper installed brackets. (See Figure 10)

NOTE: If some clearance is desired in between displays, install lower brackets slightly more than one screen height below upper brackets.

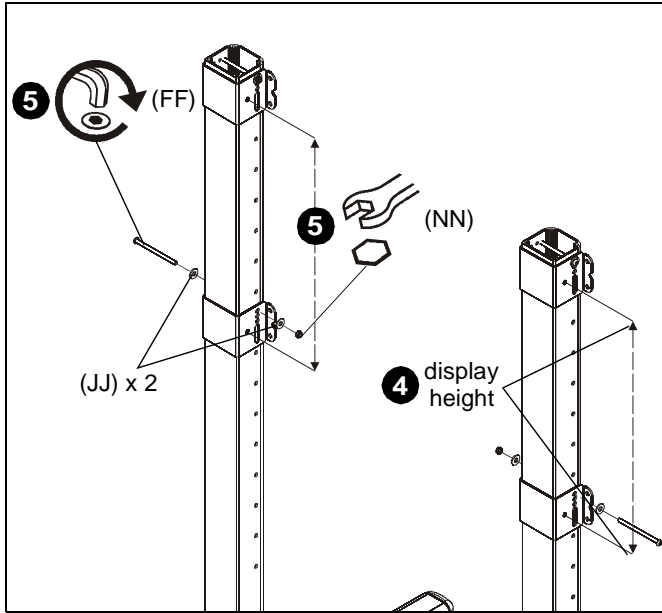


Figure 10

6. Use four 5/16-18 x 3/4" button head flange screws (HH) to secure each attached clamp bracket (P) to a quick connect base (Q). (See Figure 11)

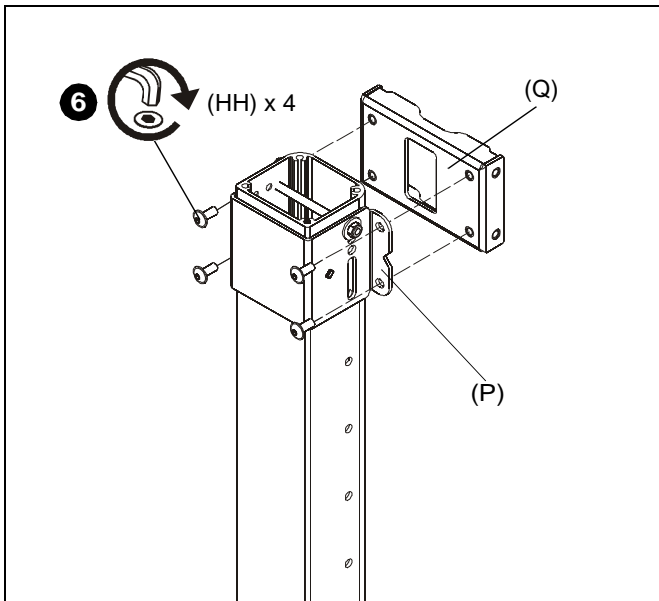


Figure 11

NOTE: If rails must be installed over cable management holes on column, cables must be routed prior to installing rails onto quick connect bases. See Cable Management section for details.

7. Install two 5/16-18 x 3/4" button head flange screws (HH) into the top holes on each quick connect base (Q). (See Figure 12)

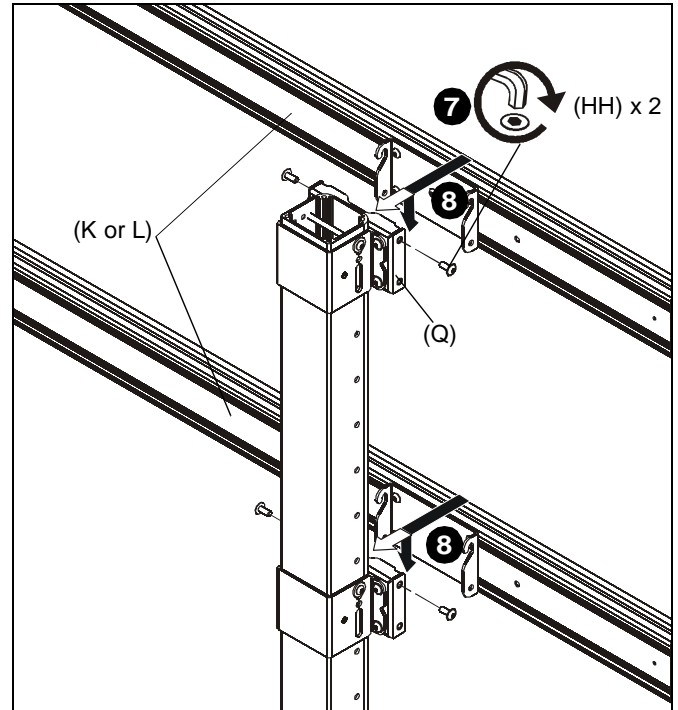


Figure 12

8. Hang rails (K or L) into screws installed in previous step to quick connect bases (Q). (See Figure 12)

IMPORTANT ! : If installing the triple display rail (L), install rail to left and center columns so that add-on rail can be installed to right column. See Add-On Rail Installation section for details.

9. Install two 5/16-18 x 3/4" button head flange screws (HH) into the lower holes on each quick connect base (Q) to secure rails to quick connect bases. (See Figure 13)

10. Tighten all 5/16-18 x 3/4" button head flange screws (HH).

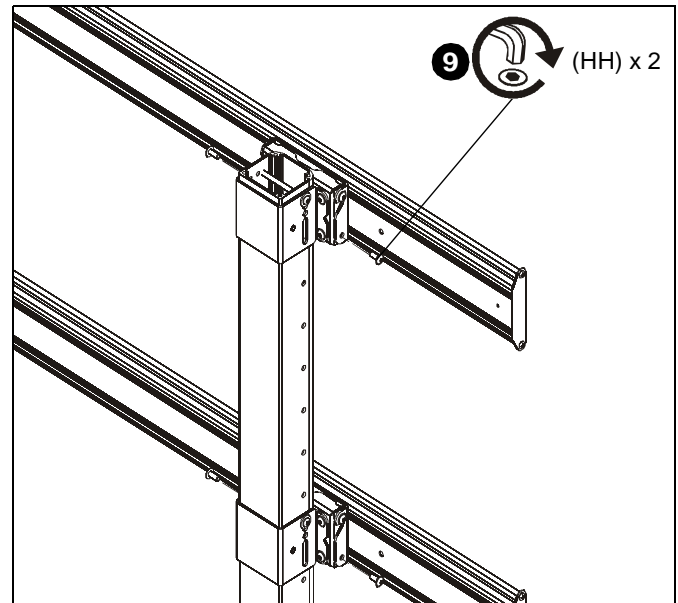


Figure 13

Add-On Rail Installation (LVM3X2U/LVM3X3U only)

1. Install add-on rail (KK) to right column following instructions in Rails Installation section.
2. Use three #10-24 x 1 1/2" flat head cap screws (Z) to attach each add-on rail (KK) to display rail (L). (See Figure 14)

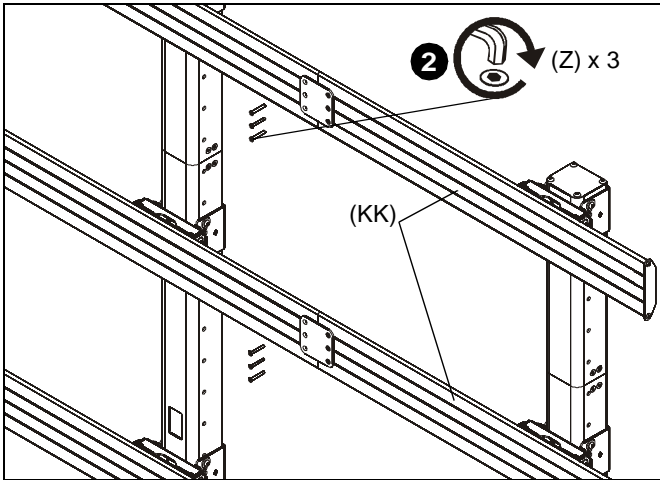


Figure 14

Display Installation

1. Place display face down on a soft, non-abrasive surface.

NOTE: For best access, route display cables through columns prior to display installation. See Cable Management section for details.



CAUTION: Using screws of improper diameter may damage your display! Proper screws will easily thread into display mounting holes.

2. Select screw *diameter* by examining hardware (A-C and F-H) (6mm or 8mm) and comparing with mounting holes on display. (See Figure 15)
3. Select spacers:
 - If mounting holes are not recessed and interface brackets (AA and BB) can lay flat against display, then no spacers are required.
 - If mounting holes are recessed, or if protrusions prevent brackets (AA and BB) from laying flat, then spacers (E) must be used.



CAUTION: Using screws of improper length may damage your display! Proper screws will have adequate thread engagement without contacting bottom of display mounting holes.

4. Select screw *length*: (See Figure 15)
 - Using your hand, insert **SHORTEST** length screw of selected diameter (A or F) through 1/4" washer (D), bracket (AA or BB), selected spacer (E, if required), into display mounting hole. Do **NOT** thread screw into hole at this time.
 - Proper screw length requires base of screw head to protrude above flat washer a *distance equal to or greater than the screw diameter*. If screw length is inadequate, select longer screw. Select *shortest* screw which will protrude the required distance.
5. Use selected screws (A-C or F-H), washers (D) and spacers (E), if necessary, to connect interface brackets (AA and BB) to back of display. Make sure diamond on interface brackets is even with center of display. (See Figure 15)

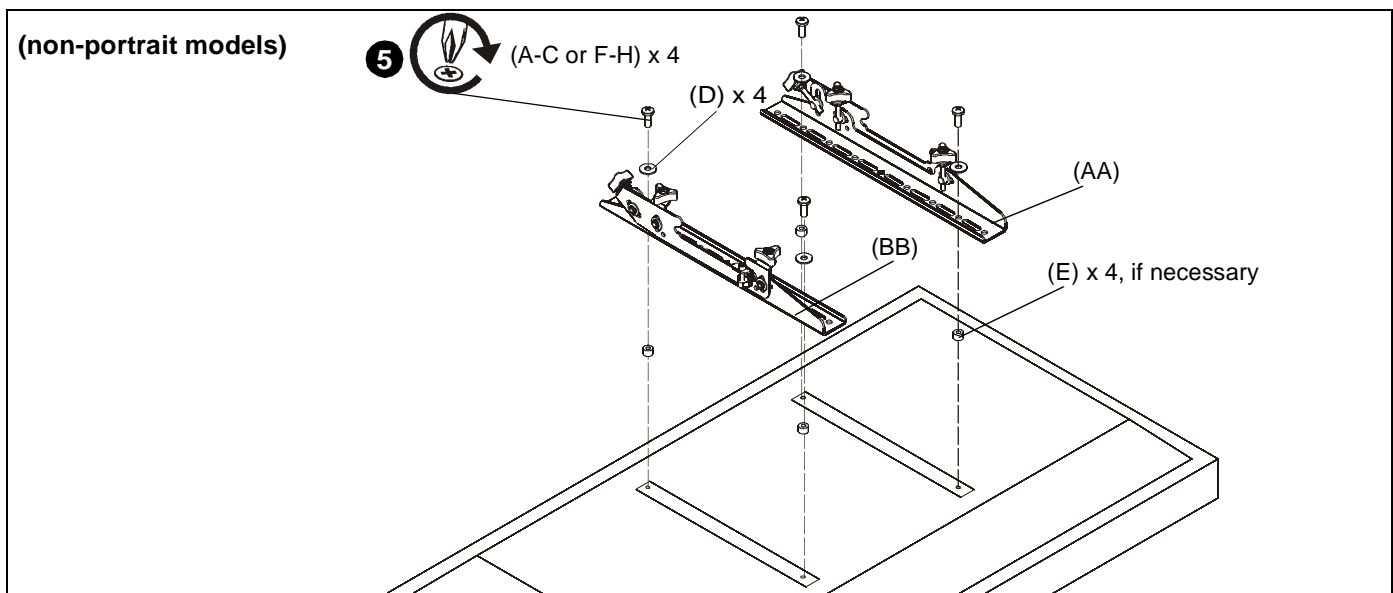


Figure 15

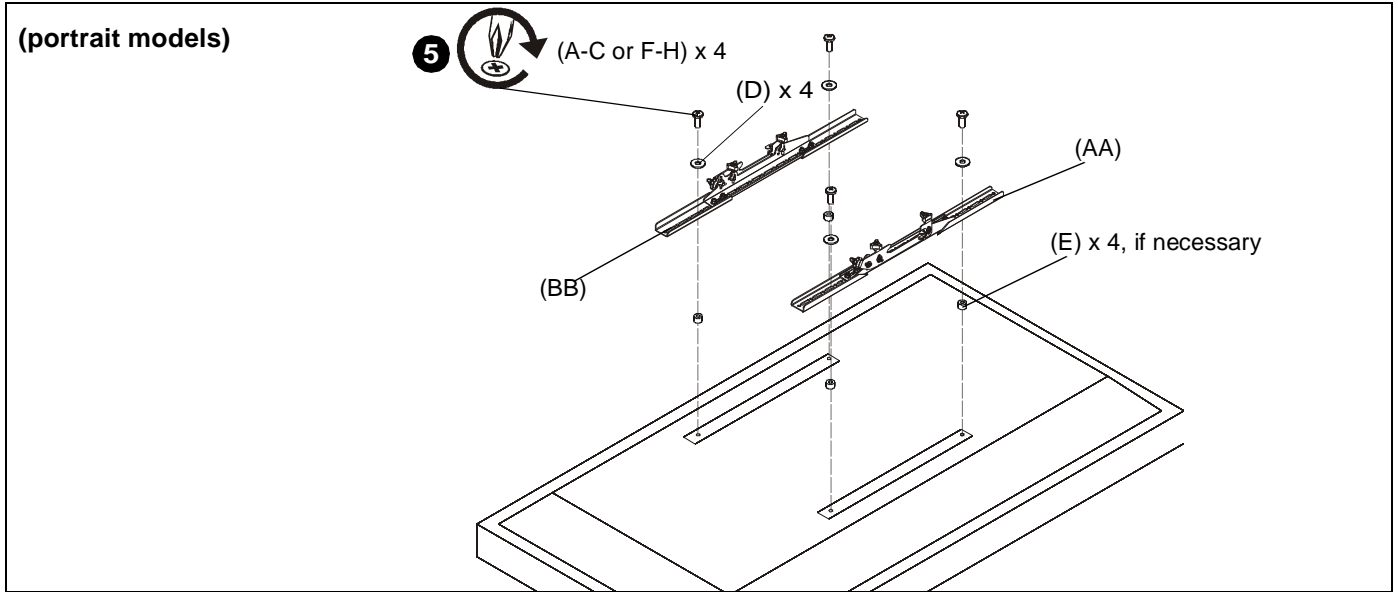


Figure 16



WARNING: Exceeding the weight capacity can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the combined weight of each display and attached accessories mounted to the LVM mount does not exceed 125 lbs (56.7 kg) per display or 500 lbs (226.8 kg) total for the LVM2X2, 125 lbs (56.7 kg) per display or 750 lbs (340.2 kg) total for the LVM3X2 or 100 lbs (45.4 kg) per display or 900 lbs (408.2 kg) total for the LVM3X3. If FCA add-on accessories are added to either the LVM2X2 or to the LVM3X2, the weight limit for all displays becomes 100 lbs (45.4 kg) rather than 125 lbs (56.7 kg).

- Starting from the bottom and working up, hang interface brackets (AA and BB) to display rails (K or L and KK). (See Figure 17)



WARNING: Improper display installation to the cart can result in serious personal injury or damage to equipment! Install displays from the bottom to the top to decrease the risk of tipping the mount during installation. Do not mount all of the displays on one side prior to installing the displays evenly in each row. On the LVM3X3, mount the center displays in each row prior to installing the outside displays. See Figure 17 for an ideal mounting order for the LVM3X3. See Figure 18 for unacceptable and risky installation mounting orders.

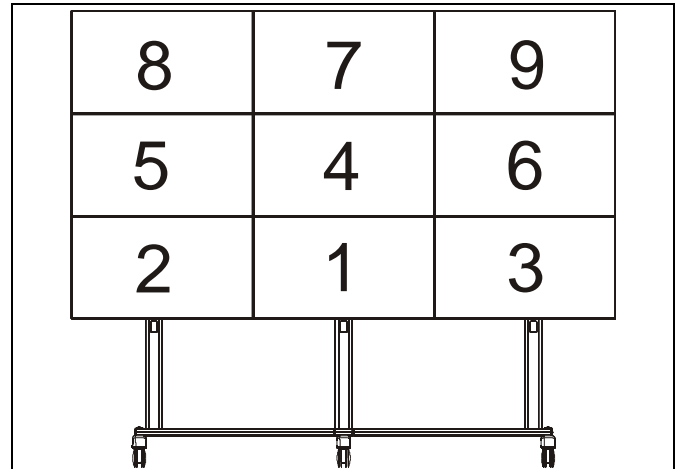


Figure 17

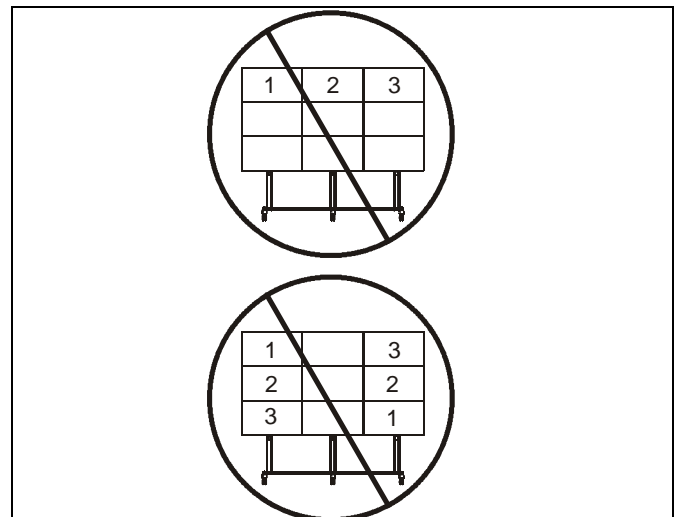


Figure 18

- Use 1/4-20 x 1 1/4" socket head cap screws (I) to secure interface brackets (AA and BB) to rails for each display. Screws must engage through both holes to be fully secured. (See Figure 19)

NOTE: Display positions may need to be adjusted after height and/or plumb adjustments in order to maintain desired alignment.

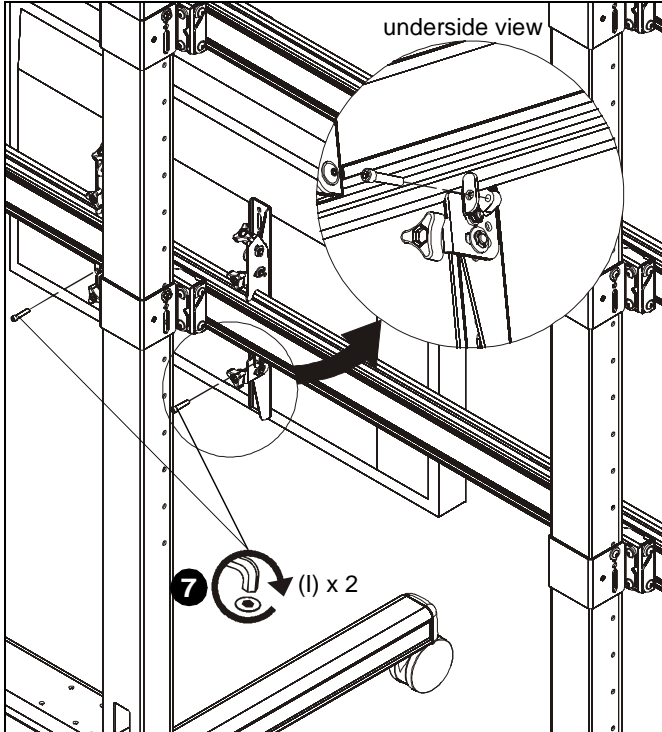


Figure 19

Column Cap Installation

NOTE: If the top holes on columns will be used for cable management, do NOT install column caps to columns as illustrated below. See Cable Management section for details.

- Use four 5/16-18 x 1/2" button head cap screws (LL) to install each column cap (N) to each column. (See Figure 20)

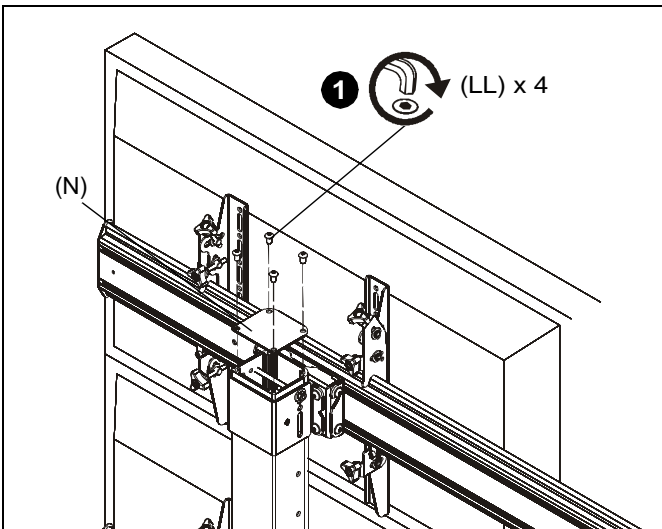


Figure 20

Adjustments

Height Adjustment

- Use upper knob on back of interface brackets (AA and BB) to adjust the height of each display. (See Figure 21)

NOTE: Adjust both brackets in order to maintain a level mount.

Plumb Adjustment

- Use middle and lower knobs on back of interface brackets (AA and BB) to make plumb adjustments to each display (See Figure 21)

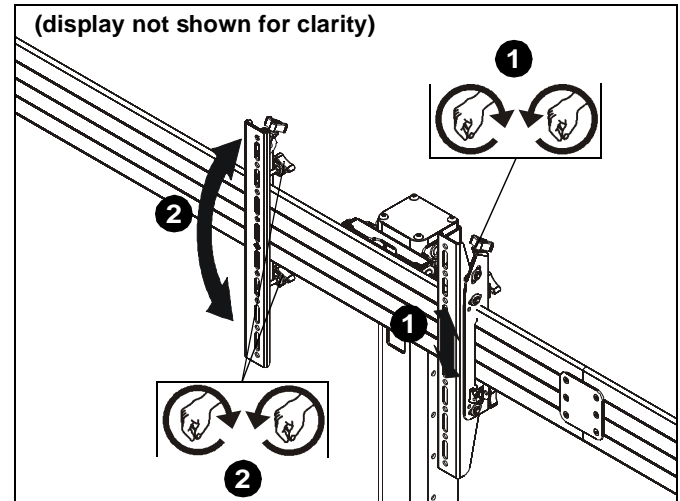


Figure 21

Cable Management

- Route cables from displays through nearest holes on front of columns and out through back cable management hole. (See Figure 22)

NOTE: For best access, route display cables through columns prior to display installation. See Cable Management section for details.

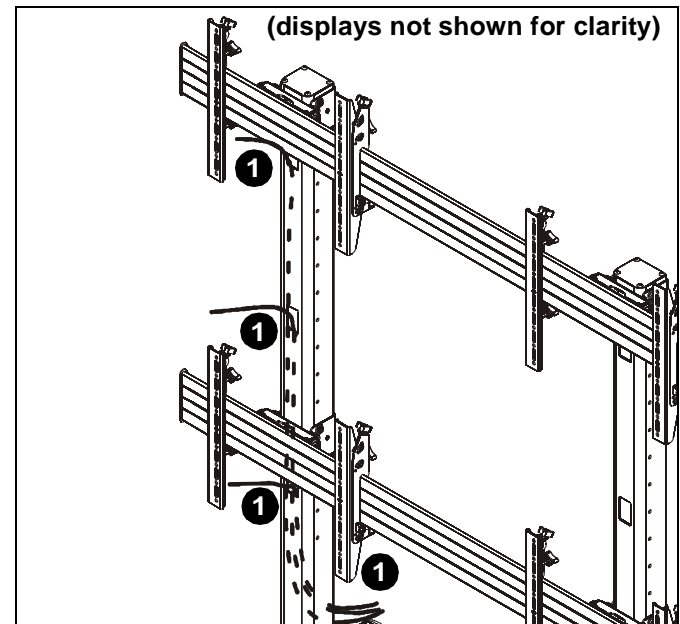


Figure 22

Additional Cable Management Options

2. Cables may be routed through tops of columns and out through the back cable management hole. (See Figure 23)

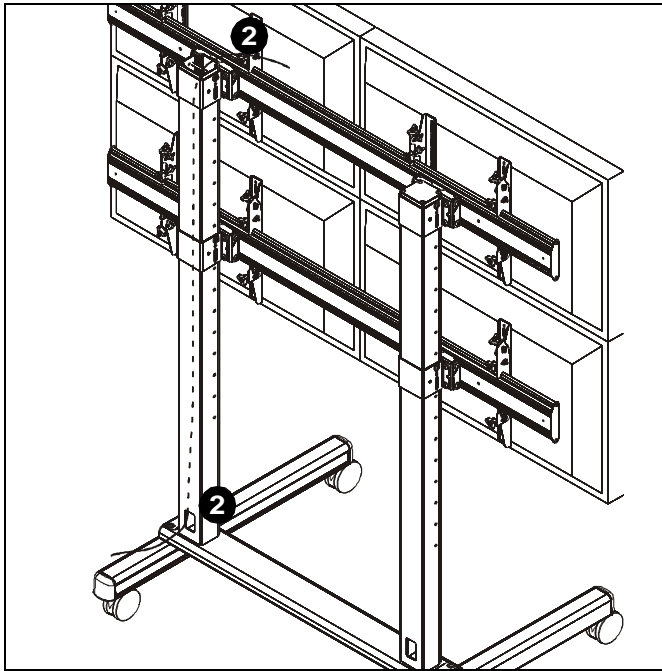


Figure 23

3. If rails needed to be installed on top of cable management holes, cables may be routed through quick connect bases (Q) prior to the rails being installed. (See Figure 24)
4. Install rails according to Rails Installation section making sure cable is routed through cable opening on quick connect base (Q). (See Figure 24)

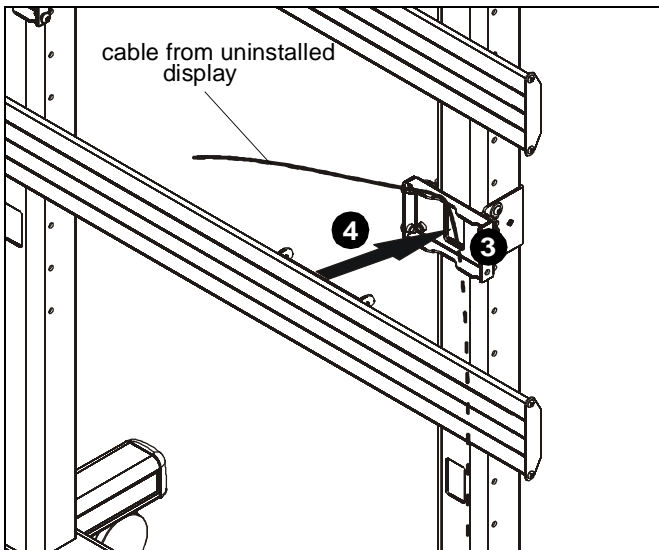


Figure 24

5. For any cable management holes that are not used, snap covers (TT) may be used to cover holes as desired. (See Figure 25)

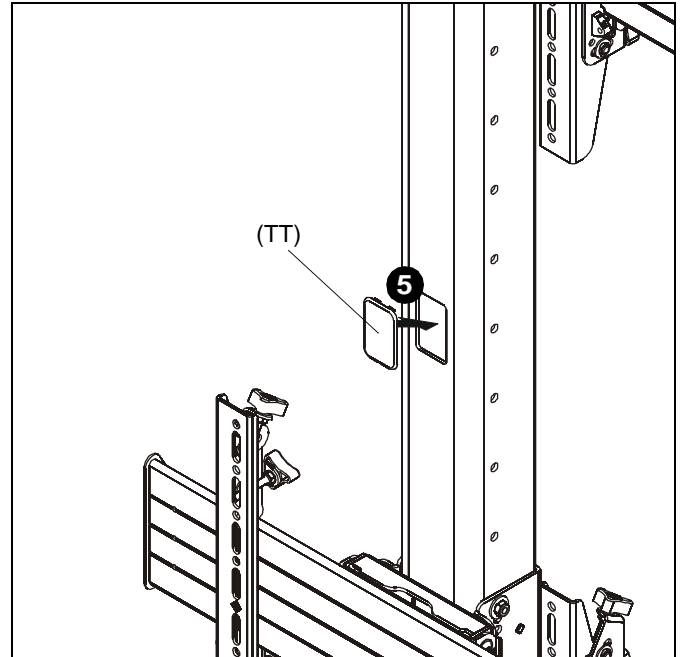


Figure 25



Our Mounts. **Your Vision.**

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