INSTALLATION INSTRUCTIONS

Ceiling-Mounted Menu Boards

CHIEF®
Our Mounts. **Your Vision.**

LCM5X1U

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.

⚠ **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 all components attached to mounting system does not exceed maximum weights listed in Table 1.

Table 1: Weight Capacity

MODEL	Max Weight Allowed for <u>EACH</u> Display	Max Weight Capacity of Mounting System
LCM5X1U	125 lbs (56.7 kg)	625 lbs (283.5 kg)

LCM5X1U				
125 lbs (56.7 kg)	125 lbs (56.7 kg)	125 lbs (56.7 kg)	125 lbs (56.7 kg)	125 lbs (56.7 kg)

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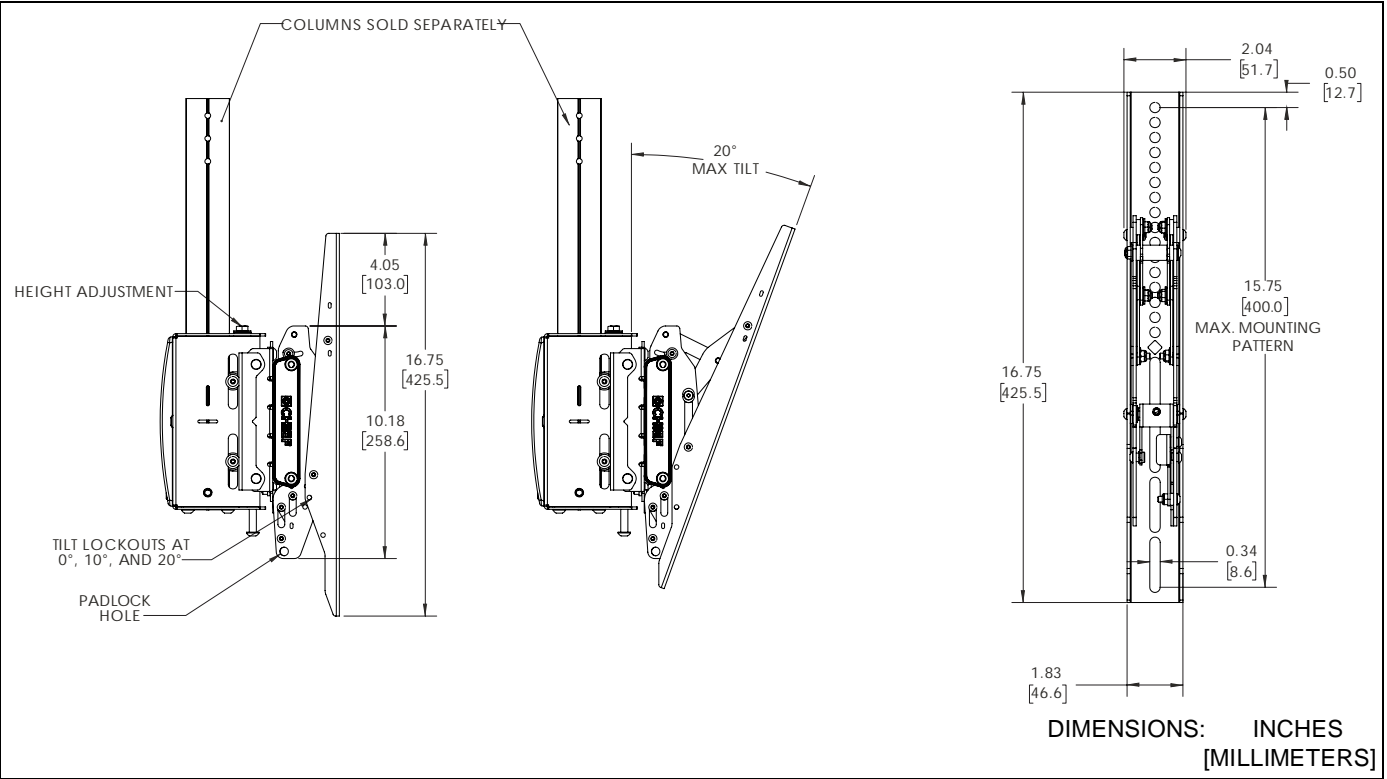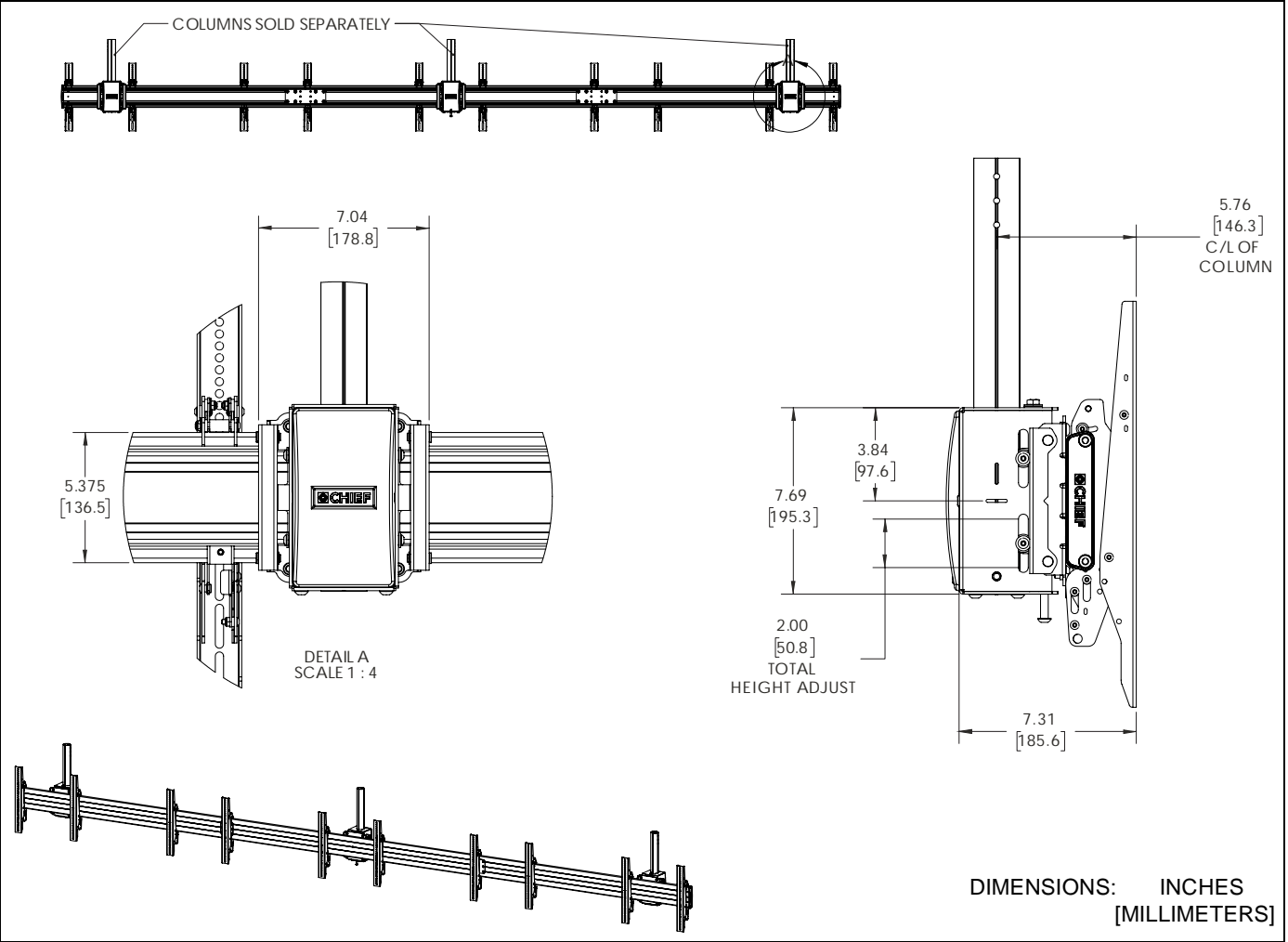
⚠ **WARNING:** Do not use this mounting system outdoors.

IMPORTANT ! : The LCM5X1U ceiling mounted menu boards are intended to be used with the UL Listed CPA Extension Column series and UL Listed CPA Ceiling Plates (not included): CPA330, CPA365, CPA395.
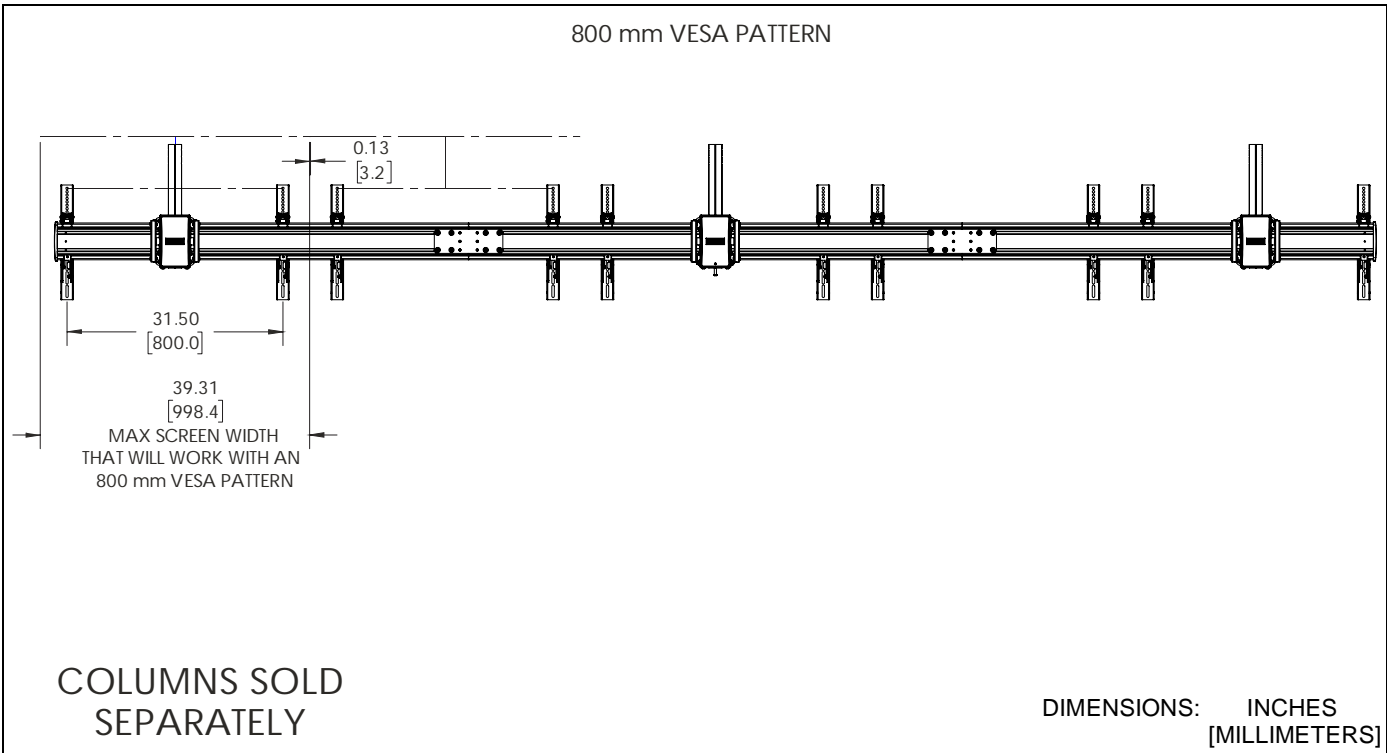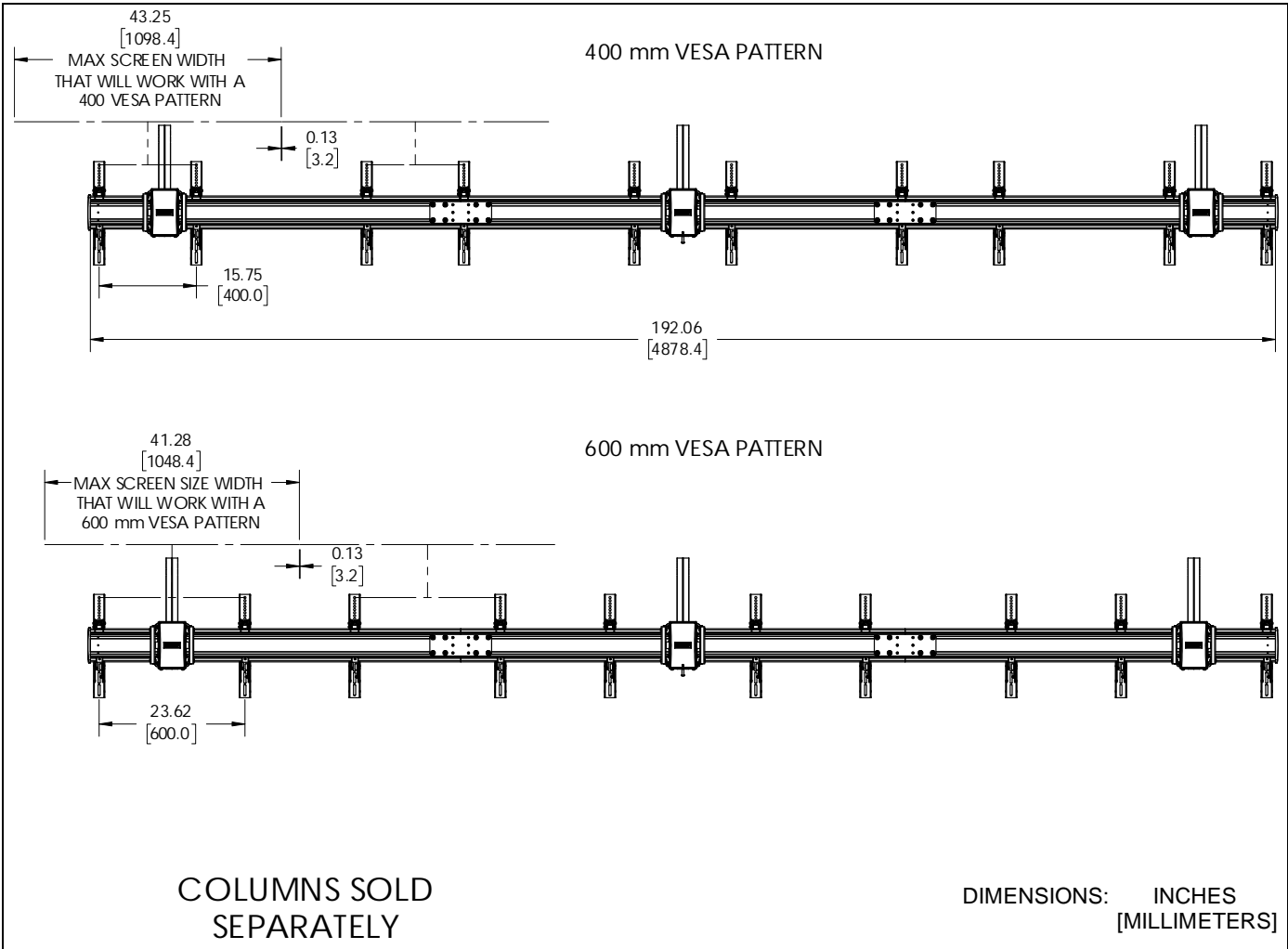
The following UL Listed Chief ceiling plates WITHOUT swaged collars (not included) may also be used: CMA330, CMA345, CMA395.
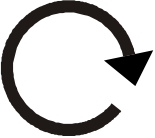
--SAVE THESE INSTRUCTIONS--

DIMENSIONS

COLUMNS SOLD SEPARATELY

7.04
[178.8]

5.76
[146.3]
C/L OF
COLUMN

5.375
[136.5]

3.84
[97.6]

7.69
[195.3]

2.00
[50.8]
TOTAL
HEIGHT ADJUST

7.31
[185.6]

DETAIL A
SCALE 1 : 4

DIMENSIONS: INCHES
                [MILLIMETERS]

COLUMNS SOLD SEPARATELY

2.04
[51.7]

0.50
[12.7]

20°
MAX TILT

HEIGHT ADJUSTMENT

4.05
[103.0]

15.75
[400.0]
MAX. MOUNTING
PATTERN

16.75
[425.5]

16.75
[425.5]

10.18
[258.6]

TILT LOCKOUTS AT
0°, 10°, AND 20°

0.34
[8.6]

PADLOCK
HOLE

1.83
[46.6]

DIMENSIONS: INCHES
                [MILLIMETERS]

3

DIMENSIONS - cont'd.

400 mm VESA PATTERN

43.25
[1098.4]
MAX SCREEN WIDTH
THAT WILL WORK WITH A
400 VESA PATTERN

0.13
[3.2]

15.75
[400.0]

192.06
[4878.4]

600 mm VESA PATTERN

41.28
[1048.4]
MAX SCREEN SIZE WIDTH
THAT WILL WORK WITH A
600 mm VESA PATTERN

0.13
[3.2]

23.62
[600.0]

COLUMNS SOLD
SEPARATELY

DIMENSIONS: INCHES
[MILLIMETERS]

800 mm VESA PATTERN

0.13
[3.2]

31.50
[800.0]

39.31
[998.4]
MAX SCREEN WIDTH
THAT WILL WORK WITH AN
800 mm VESA PATTERN

COLUMNS SOLD
SEPARATELY

DIMENSIONS: INCHES
[MILLIMETERS]

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

#2
#3

1/2"

1/2"

3/32"
1/8"
5/32"   (included)
3/16"
M5

PARTS

**[Interface Bracket Hardware Kit]
(5 bags total - quantities listed per bag)**

A (8)
M4x16mm

B (6)
M4x20mm

C (6)
M4x25mm

D (6)
M5x16mm

E (6)
M5x20mm

F (6)
M5x25mm

G (6)
M6x16mm

H (6)
M6x25mm

I (6)
M8x20mm

J (6)
M8x30mm

K (4)
M8x50mm

L (8)
.750x.323x.250

M (8)
.750x.344x.500

N (8)
[Universal washer]

P (1)
M5
[In bag labeled "N"]

**MENU BOARD
INTERFACE KIT**

Q (10)
[Interface bracket]

R (5)
1/8"

S (10)
10-24 x 2-1/4"

T (10)
10-24 x 5/8"

U (10)
10-24

END CAP KIT

W (4)
1/4-20 x 1/2"

V (2)
[End cap]

GG (2)
[Mounting rail, 60"]

HH (1)
[Mounting rail, 72"]

MENU BOARD CONNECTOR KIT

X (2)
[Connector bracket]

Y (2)
[Connector plate]

AA (16)
5/16"

Z (16)
5/16 x 5/8"

BB (12)
10-24 x 1-1/2"

CC (16)
[Friction washer]

DD (2)
1/8"

EE (2)
3/16"

FF (4)
[Tie bar]

JJ (1)
[**FMSCA -** Floating Ceiling Head]

° Parts
° Fasteners
° Installation Instructions

KK (2)
[**FMSCM -** Ceiling Head]

° Parts
° Fasteners
° Installation Instructions

INSTALLATION

NOTE: The following procedure assumes that 3 UL Listed CPA or CMA ceiling plates (not included) and 3 extension columns (not included) have been properly installed following instructions provided with ceiling plates and extension columns.

- The two outside ceiling plates and columns should be installed approximately spaced at center of outside screens. (See **Dimensions** drawings.)

IMPORTANT ! : The weight of the system should be evenly distributed across three ceiling plates.

IMPORTANT ! : Use the FMSCM height-adjust ceiling heads (KK) on the outside ends of the mounting rail assembly, and the FMSCA floating ceiling head (JJ) at the center of the mounting rail assembly.

Attaching Ceiling Heads to Extension Columns

NOTE ➤ **Reference Ceiling Head Installation Manual:**

Attach the two FMSCM ceiling heads (KK) to the outside extension columns, and the FMSCA (JJ) to the center extension column using fasteners included with ceiling heads, and following ceiling head attachment instructions included with the ceiling heads.

Connecting Mounting Rails

1. Insert two tie bars (FF) into the slots on one end of the 72" mounting rail (HH). (See Figure 1)
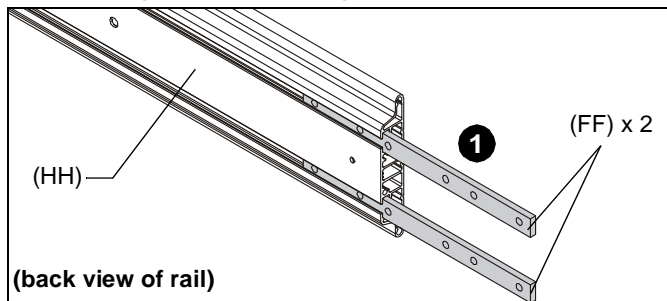

Figure 1

2. Secure connector bracket (X) to front of mounting rail (HH) using three 10-24 x 1-1/2" flat head cap screws (BB) fastened through one side of connector bracket, mounting rail, tie bars (FF) and into connector plate (Y). (See Figure 2)
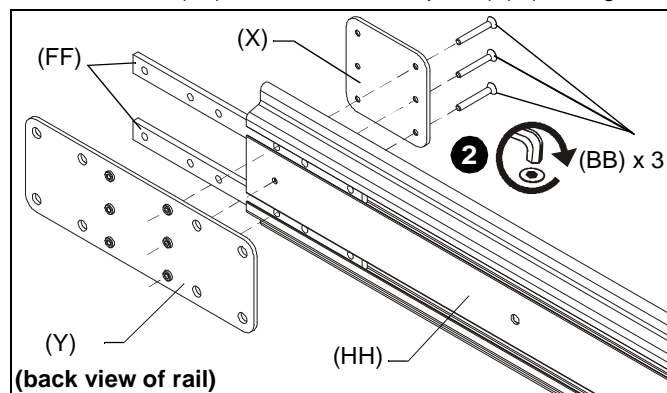

Figure 2

3. Additionally fasten connector plate (Y) using four 5/16 x 5/8" button head cap screws (Z), four 5/16" split washers (AA), and four friction washers (CC). (See Figure 3)

4. Slide one 60" section of mounting rail (GG) over tie bars (FF) and bring it flush to first section of mounting rail. (See Figure 3)
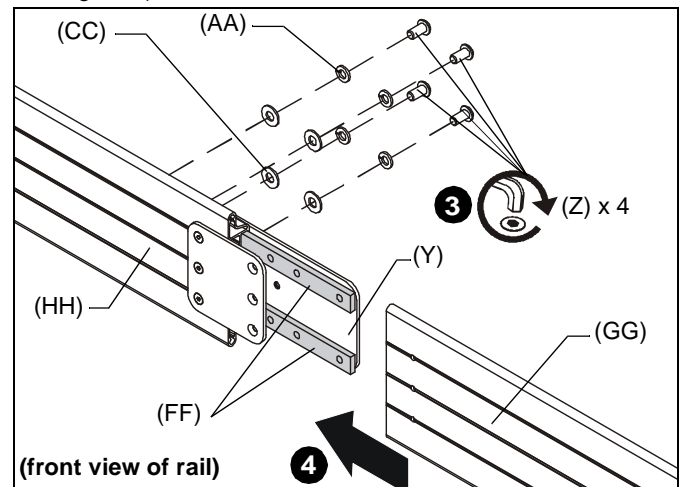

Figure 3

5. Secure connector bracket (X) to front of 60" section of mounting rail (GG) using three 10-24 x 1-1/2" flat head cap screws (BB) fastened through one side of connector bracket, mounting rail, tie bars (FF) and into connector plate (Y). (See Figure 4)

6. Additionally fasten connector plate (C) using four 5/16 x 5/8" button head cap screws (D), four 5/16" split washers (B), andfour friction washers (F). (See Figure 4)
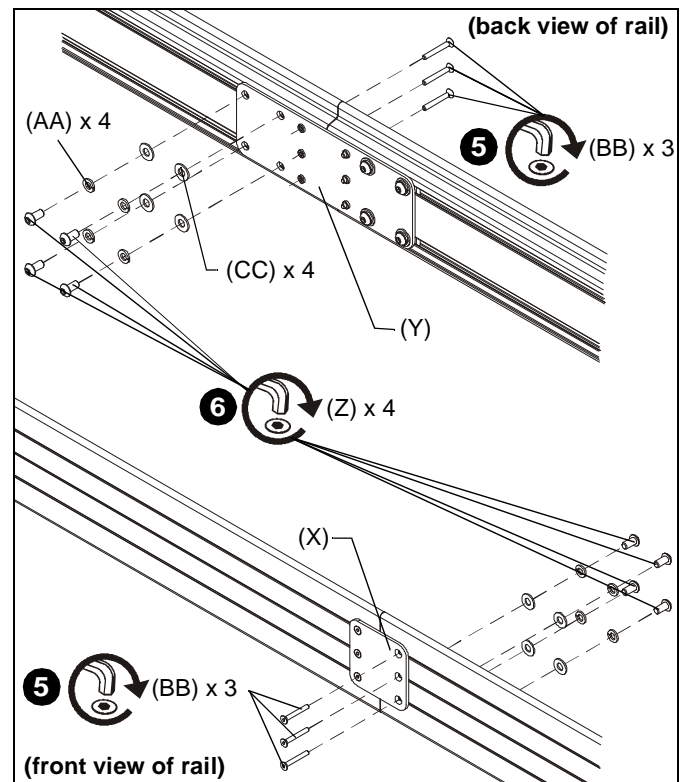

Figure 4

7. Repeat Steps 1-6 for opposite end of 72" mounting rail (HH) and remaining 60" mounting rail (GG).

7

Adding End Caps to Mounting Rail

1. Add one end cap (V) to one end of mounting rail assembly, and fasten in place using two 1/4-20 x 1/2" Phillips self-tapping screws (W). (See Figure 5)
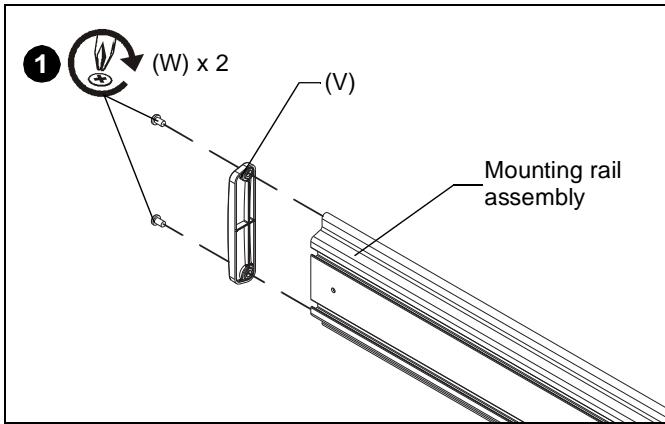

Figure 5

NOTE━▶ **Reference Ceiling Head Installation Manual:**

2. Attach mounting rail assembly to ceiling heads following instructions included with ceiling heads.

3. Fasten remaining end cap (V) to end of mounting rail assembly following Step 1. (See Figure 5)

Attaching Interface Brackets to Displays

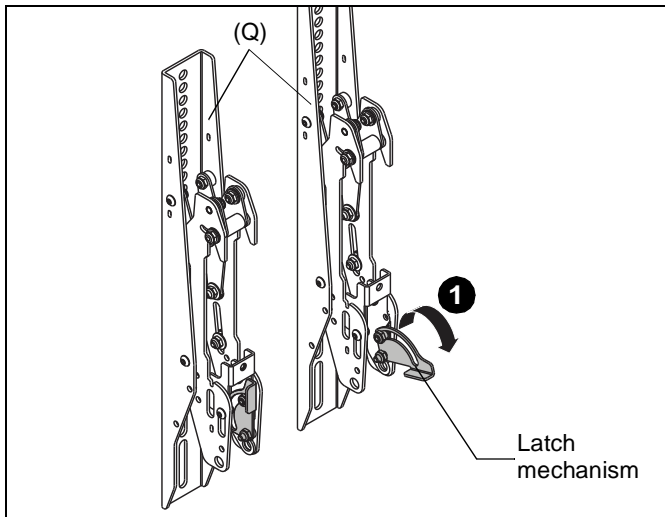1. Lower the latch mechanism on each interface bracket (Q). (See Figure 6)

Figure 6

2. Align the center of the interface bracket (Q) with vertical center of screen. (See Figure 7)

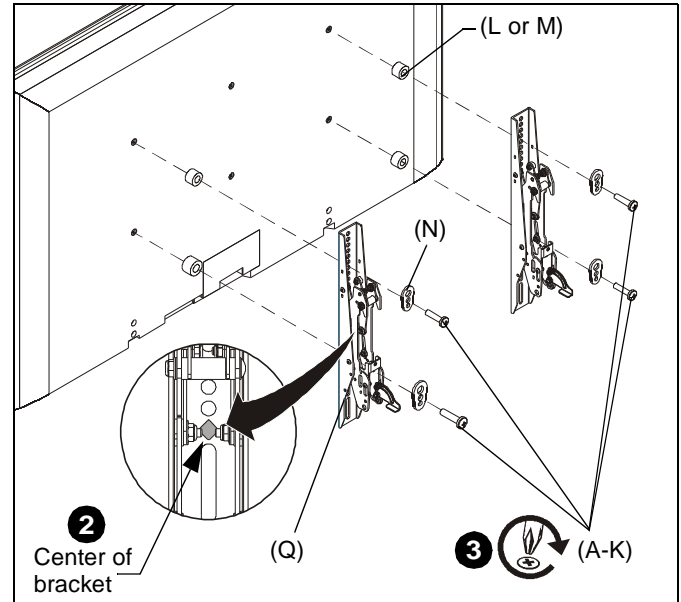**NOTE:** The diamond-shape hole in the bracket corresponds to the center of the mount.

Figure 7

⚠ **WARNING:** IMPROPER INSTALLATION CAN LEAD TO DISPLAY FALLING CAUSING SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT! Using screws of improper size may damage your display. Properly sized screws will easily and completely thread into display mounting holes. If spacers are required, be sure to use longer screws of the same diameter.

3. Select correct screws, spacers (if necessary) and universal washers from the hardware bag (A-N) and attach brackets (Q) to back of screens. (See Figure 7)

Attaching Displays to Mounting Rail

⚠ **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 all components located within the mounting system of the LCM5X1U model does not exceed maximum weights listed in table below.

MODEL	Max Weight Allowed for __EACH__ Display	Max Weight Capacity of Mounting System
LCM5X1U	125 lbs (56.7 kg)	625 lbs (283.5 kg)

⚠ **CAUTION:** BEFORE adding displays to the mounting rail, ensure end caps are in place at **BOTH** ends of mounting rail!

⚠ **WARNING:** IMPROPER DISPLAY INSTALLATION CAN RESULT IN SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT! Do NOT mount all of the displays on one end of mounting rail:

- The center display (**1**) MUST be installed first and centered on the center column. (See Figure 8)
- Mount displays **2** and **3** an equal distance from center display (**1**).
- Mount displays **4** and **5** at the ends of the mounting rail approximately centered on outside columns.

⚠ **IMPORTANT!** The MAXIMUM distance between the center of end columns and end of mounting rail is 32".
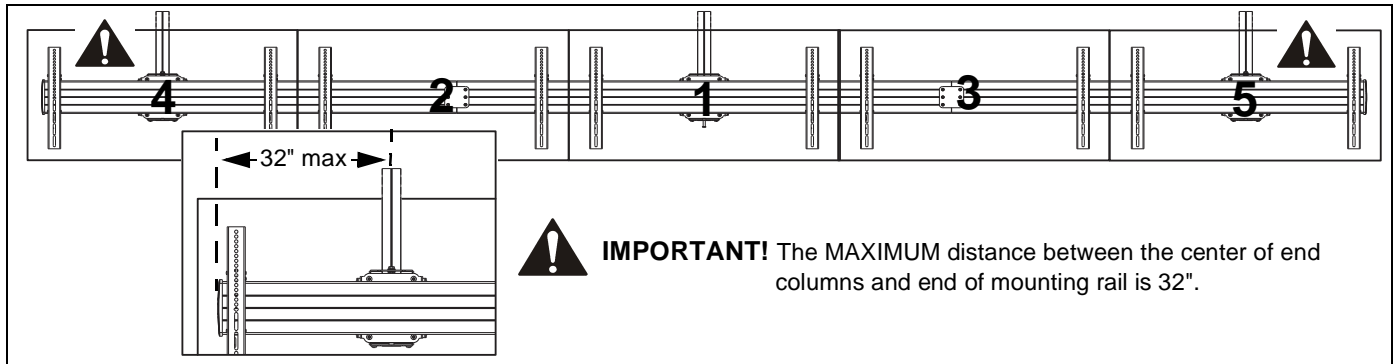
Figure 8

IMPORTANT ! : The interface bracket tilt may be adjusted either before or after adding displays to mounting rail. See **Adjustments** section.

1. Ensure that the latch mechanisms on interface brackets (Q) are already lowered. (See Figure 9)

2. While supporting both sides of display, lower display onto center of ceiling mount, hooking top of interface brackets onto front of ceiling mount. (See Figure 9)

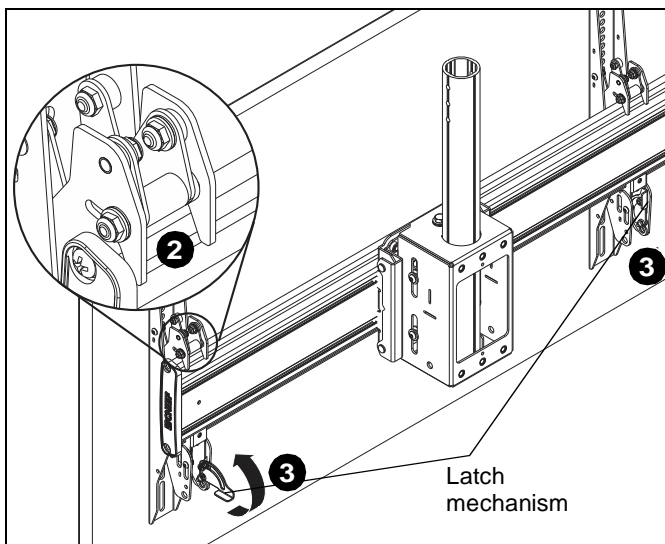3. Raise the latch mechanism on both interface brackets to lock bracket in place. (See Figure 9)

Figure 9

4. Fasten bracket against mounting rail using one 10-24 x 5/8" button head cap screw (T). (See Figure 10)
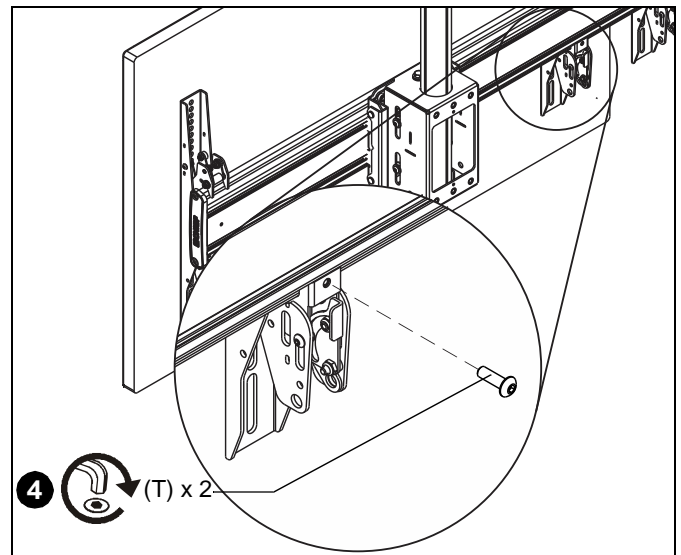
5. Repeat for other interface bracket.

Figure 10

6. While supporting both sides of second display, lower second display onto one side of first display, hooking top of interface brackets onto front of mounting rail. (See Figure 9)

7. Repeat Steps 3 through 5 for second display.

8. While supporting both sides of third display, lower third display onto opposite side of first display, hooking top of interface brackets onto front of mounting rail. (See Figure 9)

9. Repeat Steps 3 through 5 for third display.

10. Repeat Steps 3 through 5 for remaining displays, adding displays following correct order shown. (See Figure 8)

Adjustments

⚠
CAUTION: Watch for pinch points! Do not place fingers between moveable parts.

Height Adjustment and Leveling

NOTE ➤ **Reference Ceiling Head Installation Manual:**

1. Proceed with height adjustment and leveling of the mounting rail following installation instructions included with the FMSCA (JJ) and FMSCM (KK).

2. Install the back cover to each ceiling head following installation instructions included with the FMSCA (JJ) and FMSCM (KK).

Tilt

The interface brackets allow -5° to 20° tilt, and can be locked at 0°, 10° and 20° tilt.

3. If necessary, loosen buttonhead tilt friction bolt (located on side of interface bracket). (See Figure 11)

4. Adjust tilt as required. (See Figure 11)

5. The tilt may be locked at 0°, 10° and 20° using one 10-24 x 2-1/4" Phillips head screw (S) and one 10-24 lock nut (U) per interface bracket. (See Figure 11)
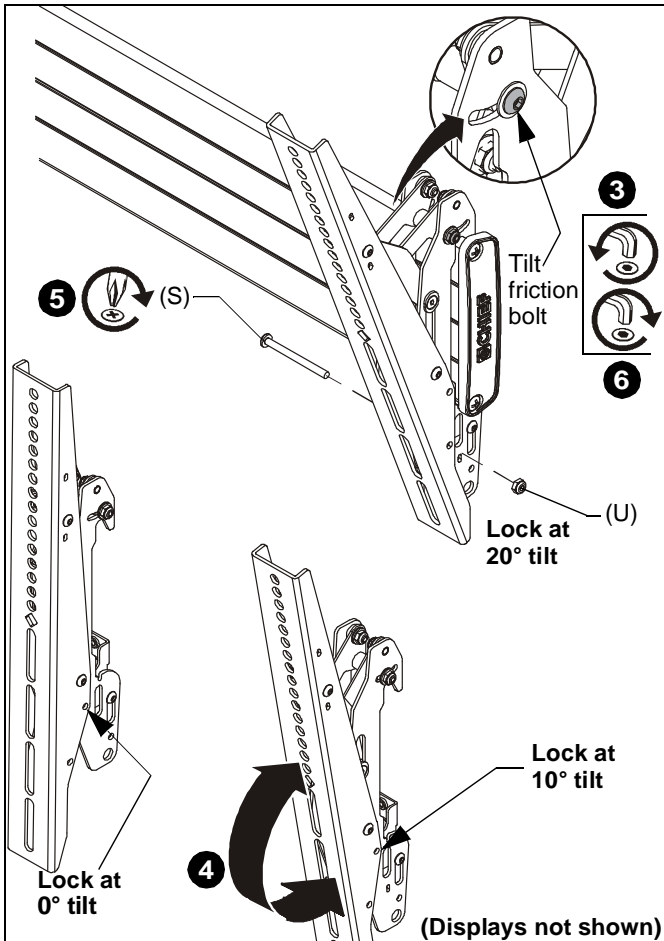
6. Tighten tilt friction bolt as necessary.

OPTIONAL: Security

1. **OPTIONAL**: Add padlock (not included) to each interface bracket to lock display to mounting rail. (See Figure 12)
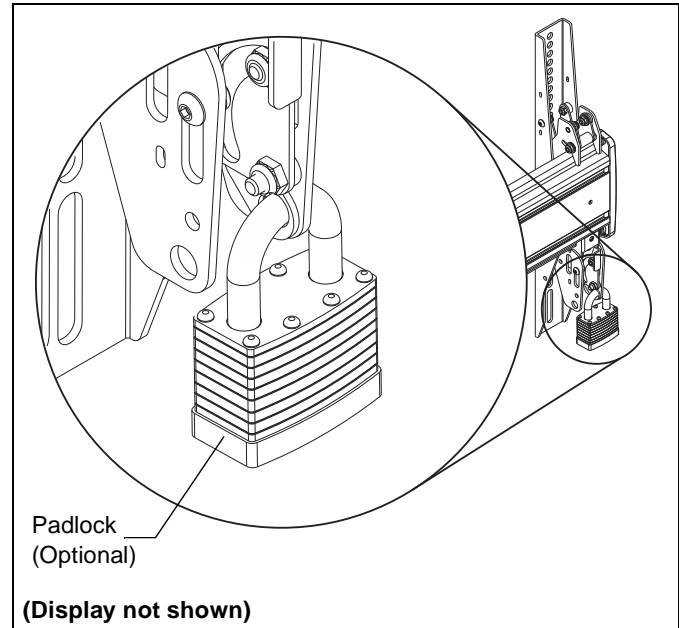
Padlock (Optional)

(Display not shown)

Figure 12

Figure 11

USA/International	**A**	6436 City West Parkway, Eden Prairie, MN 55344
	P	800.582.6480 / 952.225.6000
	F	877.894.6918 / 952.894.6918
Europe	**A**	Franklinstraat 14, 6003 DK Weert, Netherlands
	P	+31 (0) 495 580 852
	F	+31 (0) 495 580 845
Asia Pacific	**A**	Office No. 918 on 9/F, Shatin Galleria
		18-24 Shan Mei Street
		Fotan, Shatin, Hong Kong
	P	852 2145 4099
	F	852 2145 4477

30% POST-CONSUMER CONTENT