# CHRISTIE®

# Installing 46-55" flat panel screens on the ML10/MP10 wall mount

The ML10/MP10 is a full-service video wall mount that can accommodate the FHD462-X and FHD552-X LCD flat panels.

The ML10 mount is used for landscape orientations and the MP10 mount is used for portrait orientations. The modular mount system features an innovative pull-out and prop-open hinge mechanism that provides rear screen access, the ability to adjust the X, Y, and Z axis alignment, and wall plate spacers that set each mount into position.

ML10 – Landscape
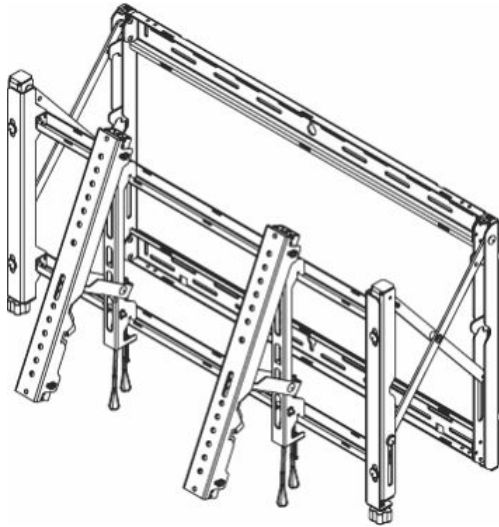
MP10 – Portrait
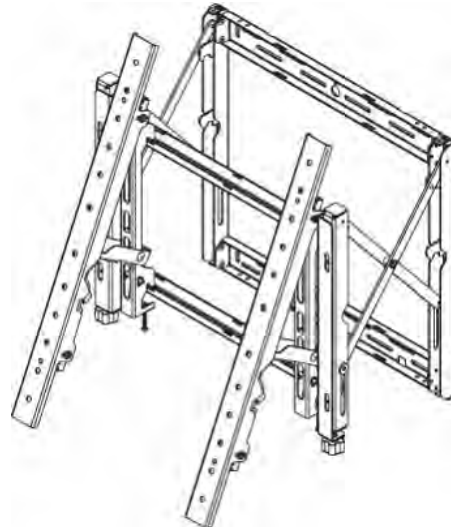
Features

Use the ML10 and MP10 wall mounts to hang and adjust the flat panels, and to access the rear of the panels.

- Modular mount for large video wall display configurations.
- Tool-less adjustments of panels for optimal gaps.
- Spring-loaded mechanisms secure displays.

- Pull-out/prop-open mechanism provides quick service access.
- Integrated cable management tie-backs make display-to-display cabling simple.
- Included security hardware prevents the mount from extending out from the wall.
- Adjustable VESA® mounting hole patterns in 100 mm (3.9") increments, starting at 200 x 200 mm (7.9" x 7.9") up to 700 x 400 mm (27.5" x 15.7") for ML10 LCD mounts. Additional patterns supported with adapter plates.
- Adjustable VESA® mounting hole patterns in 100 mm (3.9") increments, starting at 200 x 200 mm (7.9" x 7.9") up to 600 x 400 mm (23.6" x 15.7") for MP10 LCD mounts. Additional patterns supported with adapter plates.

Safety warnings and cautions

To prevent personal injury and to protect the device from damage, read and follow these safety precautions.

Warning! Failure to comply with the following could result in death or serious injury.

- The supporting structure must safely support the combined load of the product, all attached hardware, and components following all local safety standards and regulations.
- A minimum of two people or lift equipment is required to safely lift, install, or move the product.
- Always handle the screen from its sides. Do not touch the inside of the screen.
- Christie products must be installed and serviced by Christie qualified technicians.

Caution! Failure to comply with the following could result in minor or moderate injury.

- Do not over-tighten hardware.
- This product is intended for indoor use only.

Types of installations

Learn the supported surfaces for installing the wall mounts.

Wall construction	Hardware required
Wood Stud	Included
Wood Beam	Included
Solid Concrete	Not Included
Cinder Block	Not Included
Unistrut P series	Not Included
Metal Stud	Contact Qualified Professional
Brick	Contact Qualified Professional
Other	Contact Qualified Professional

Required kits

Learn the kits that are required for installing the wall mounts.

- LCD Mount 40-65" ML10 (Landscape) P/N: 135-101103-xx
- LCD Mount 40-65" MP10 (Portrait) P/N: 135-104106-xx

Optional kits

- LCD Spacer Kit 55" ML10 (135-102104-xx)
- LCD Spacer Kit 55" MP10 (135-107109-xx)

Other available resources

- *LCD Panel FHD552-X User Manual* (P/N: 020-000741-xx)
- *LCD Panel FHD462-X User Manual* (P/N: 020-000769-xx)
- *ML10/MP10 Spacer Kit for the FHD552-X Instruction Sheet* (P/N: 020-100728-xx)

Required parts

Learn the parts necessary for installing the wall mounts.
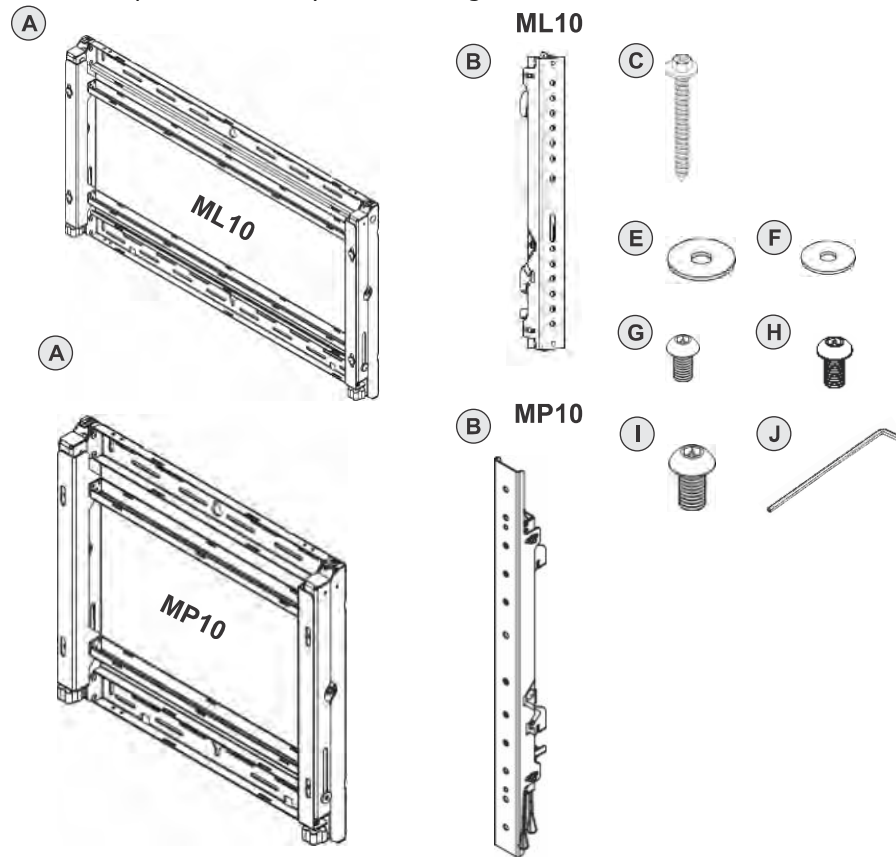
A	Pull out mount assembly (Qty. 1)	H	M6 x 12 mm socket pin screw (Qty. 4)

B	Adapter Bracket (Qty. 2)	I	M8 x 16 mm socket pin screw (Qty. 4)
C	#14 x 2.5" hex head wood screw (Qty. 5)	J	4mm Allen wrench (Qty. 1)
E	Fender washer (Qty. 4)	-	Mesh sleeve (not shown) (Qty. 1)
F	Nylon shoulder washer (Qty. 4)	-	Cable tie (not shown) (Qty. 2)
G	M5 x 10 mm socket pin type-F screw (Qty. 2)		

Required tools

Ensure the appropriate tools are available during the installation.

- Stud finder (edge-to-edge stud finder is recommended)
- Phillips® screwdriver
- Socket wrench
- Pencil
- Drill
- 3/8" socket
- 5/16" (8 mm) bit for concrete and cinder block walls
- 5/32" (4 mm) bit for wood stud walls
- Level

Installing the wall mount

Learn how to install the wall mounts onto different surfaces.

The maximum load capacity of the wall mount is 125 lbs (57 kg). Illustrations are graphical representations only and are provided to enhance the understanding of the written material.

When installing the wall mounts, ensure there is proper spacing between the mounts to accommodate the panels. Always start with the bottom left display in the array.
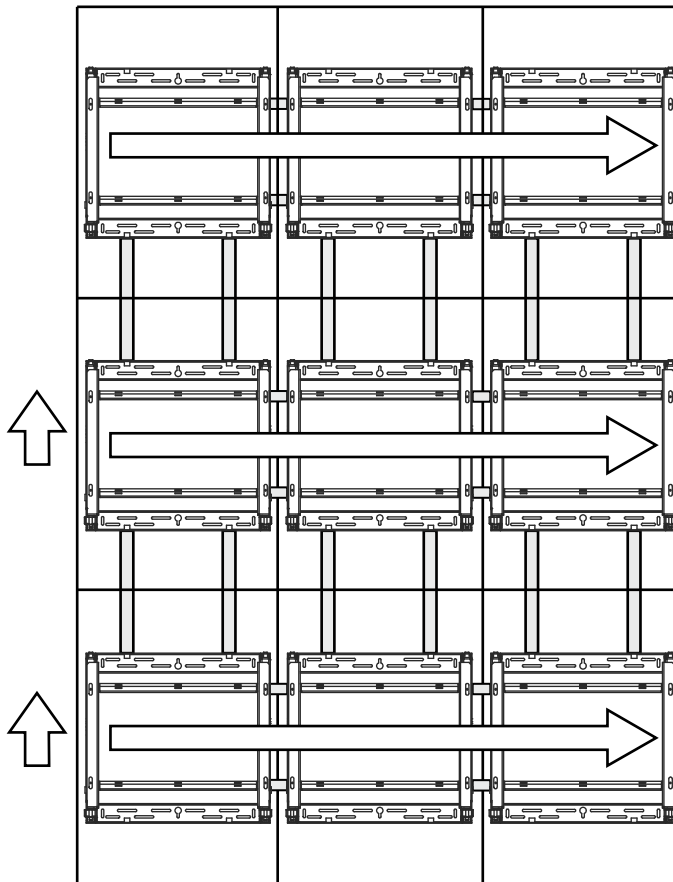
1. Measure the width and height of the display panel.
2. Locate the center of the bottom left display.
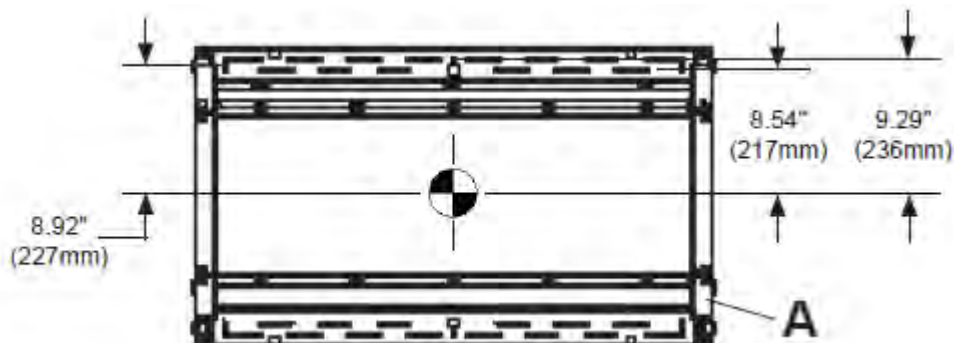
3. To identify where the mount for the display to the right of the first display should be installed, measure the width of the display panel from the center of the first display to the center of the second display (X).
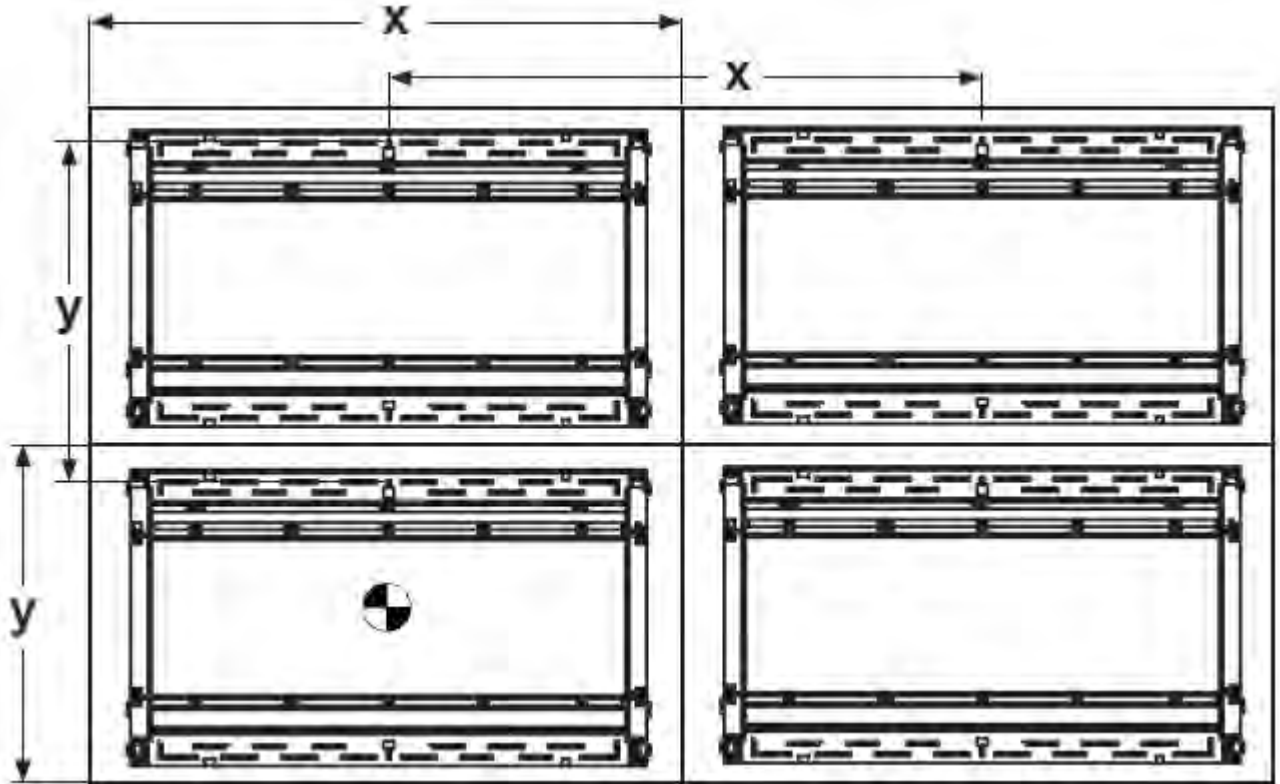
4. Install all panels in the bottom row.

    Install all rows starting with the far left display.

5. To identify where the mount for the second row of displays should be installed, measure the height of the display panel from the top of the bottom left display to the top of the first display in the second row (Y).

## Installing the mount to wall studs, plywood, drywall over wall studs

Learn how to install the wall mounts onto wall studs, plywood, or drywall.

Hardware provided is for attaching the mount through standard thickness drywall or plaster into wood studs. Installers are responsible for providing the hardware for other types of mounting situations.

When installing the wall mounts on a wood stud wall covered with plywood, verify that the wood studs are a minimum of 2" x 4" nominal size and plywood is a minimum 1/2" (13 mm) thickness. Plywood may be covered by drywall up to 5/8" thick.

1. Use an "edge-to-edge" stud finder to locate the edges of the stud.

2. Based on their edges, draw a vertical line down the stud center.

3. Place the pull out mount assembly on the wall to use as a template, and verify the pull out mount is level on the center line of the stud.

4. Mark the center of the four mounting holes.

In the landscape orientation, make sure there is a minimum 16" (406.4 mm) horizontal distance between the #14 x 2.5" screws.

Landscape orientation	Portrait orientation
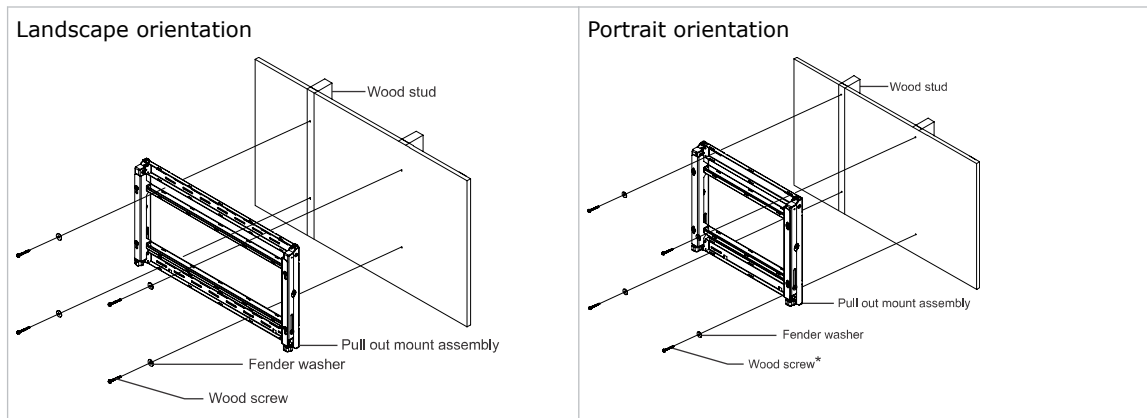
5. Drill four 5/32" (4 mm) diameter holes 2-1/2" (65 mm) deep.

6. Tighten the four #14 x 2.5" wood screws and fender washers so that the wall plate is firmly attached, but do not over-tighten.

   Never tighten in excess of 80 in-lbs (9Nm).

Installing the mount to solid concrete or cinder block

Learn how to install the wall mounts onto solid concrete or cinder block walls.

⚠️ **Warning!** Failure to comply with the following could result in death or serious injury.

- Concrete must be a minimum of 2000 psi density. Lighter density concrete may not hold the concrete anchor.

- The supporting structure must safely support the combined load of the product, all attached hardware, and components following all local safety standards and regulations.

When installing wall mounts onto cinder blocks, verify that you have a minimum of 1-3/8" (35 mm) of actual concrete thickness in the hole to be used for the concrete anchors. Cinder block must meet ASTM C-90 specifications and a minimum nominal width of 8".

1. Place the pull out mount assembly on the wall to use as a template, and verify the pull out mount is level.

2. Mark the center of the four mounting holes.

   In the landscape orientation, make sure there is a minimum 16" (406.4 mm) horizontal distance between the #14 x2.5" screws.

| Landscape orientation	Portrait orientation
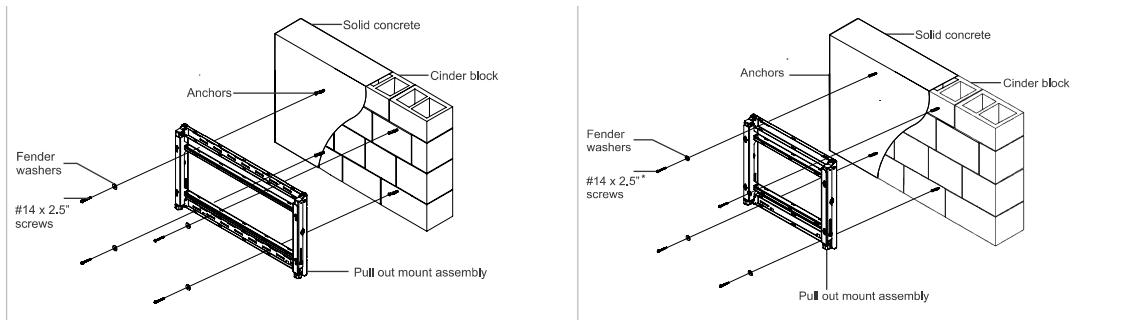
3. Use a standard electric drill on slow setting to drill four 5/16" (8 mm) diameter holes to a minimum depth of 2.5" (64 mm).

   To avoid breaking out the back of the hole when entering a void or cavity, do not use a hammer drill. On cinder block walls, mount in a solid part of the block, generally 1" (25 mm) minimum from the side of the block. Do not drill into mortar joints.

4. Insert anchors into the holes flush with the wall.

   Never attach concrete expansion anchors to concrete covered with plaster, drywall, or other finishing material. If mounting to concrete surfaces covered with a finishing surface is unavoidable, the finishing surface must be counter bored, as shown in the image below.
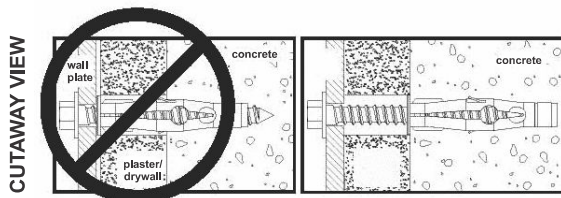
5. Place the pull out mount assembly over the anchors and secure it with four #14 x 2.5" screws, and fender washers.

   Make sure concrete anchors do not pull away from the concrete when tightening screws. If the wall is covered with plaster, drywall, or other finishing material thicker than 5/8" (16 mm), custom fasteners must be supplied by the installer.

6. Tighten the four #14 x 2.5" wood screws and fender washers so that the wall plate is firmly attached, but do not over-tighten.

   Never tighten in excess of 80 in-lbs (9Nm).

Installing the mount to a Unistrut P series metal frame

Learn how to install a wall mount onto the Unistrut metal frame channel.

When installing Peerless wall mounts to Unistrut "P" Series metal framing channels, the channels must be installed and supported per the Unistrut design specifications. Use only compatible Unistrut hardware. Never exceed maximum load capacity of Unistrut channel or supporting surface.

1. Insert the 1/4-20 Unistrut channel nut with spring on the Unistrut metal frame channel.

2. Level and install the Unistrut P series metal frame channel to the wall according to the instructions included with the Unistrut frame.

3. Attach the wall mount to the Unistrut metal frame channel with the 1/4-20 hex head screws.

Installing the mount to the F100 frame

Learn how to install the wall mounts onto the F100 frame.

1. Make sure all components within the video wall are level, starting with the P100 Pedestal. If the floor surface is not level adjust the feet on the pedestal.

   For information on installing the P100 pedestal and the F100 frame, see *P100 Pedestal and F100 Frame for FHD552-X Installation Manual* (020-101714-xx).

2. Install the F100 Frame onto the pedestal.

   If the F100 Frame is used as stand alone unit it must be leveled before securing the wall mount.

3. Before installing the wall mount use a standard level to check alignment on the horizontal and vertical edge of the frame.

4. Position the wall mount within the center of the frame, aligning it with the mounting holes.

5. Tighten the wall mount to the F100 Frame using the four M6 screws.
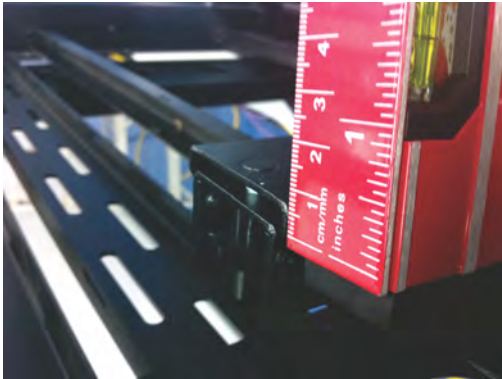
   Never tighten in excess of 80 in- lbs (9Nm).

Front View
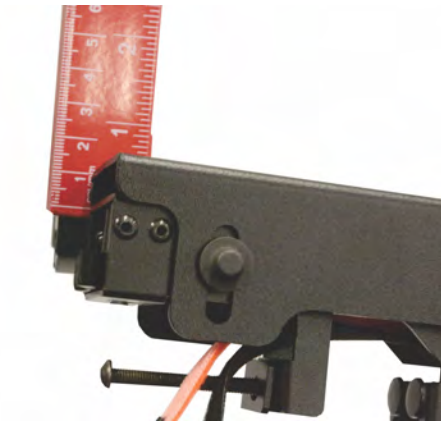

F100 frame

Wall mount

M6 screw (1 of 4)
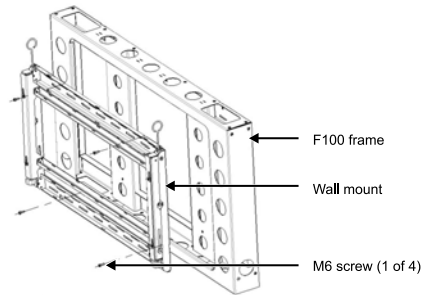
Back View
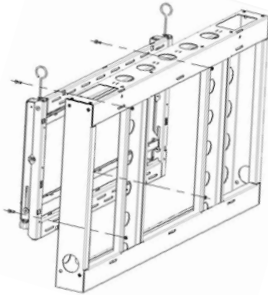
6. For good screen planarity within a video wall adjust the top knob of the adapter bracket to achieve a 9 mm (0.35") gap.


7. Adjust the bottom knob of the adapter bracket to achieve a 14 mm (0.55") gap. If further adjustment is required, leave a 1 mm (0.04") minimum clearance to allow the bracket to be easily released.

8. Mount the adapter bracket and use a level to ensure it is flush.

9. Turn the knobs located on the bottom of the mount to adjust the position until it is vertically centered.

Vertical mount

Knob
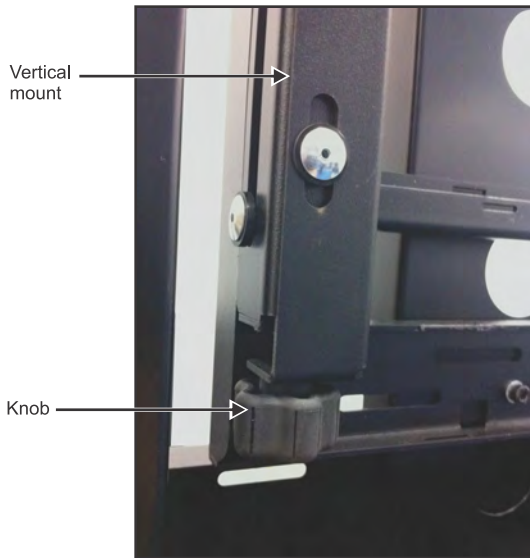
10. Check that the mount is level. If necessary fine adjust the vertical position.

11. Adjust the vertical position of the panel to leave a minimum 1 mm (0.04") gap between panels so the weight of the panels do not rest on the panels underneath.

Always adjust the X position of the panels individually, rather than pushing an entire row left to right. For example, if you are constructing a 3x3 video wall push the panels individually from the right and left sides, towards the center of the wall.

⚠ Leave a small gap between panels
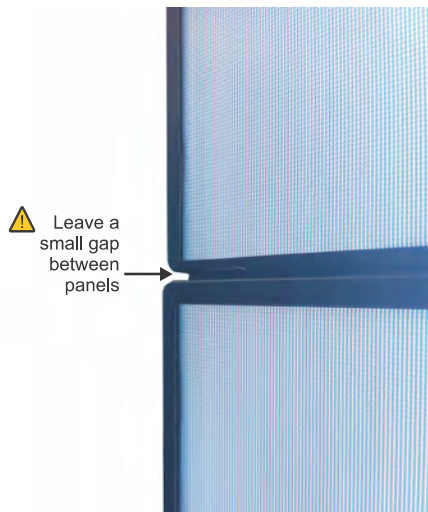
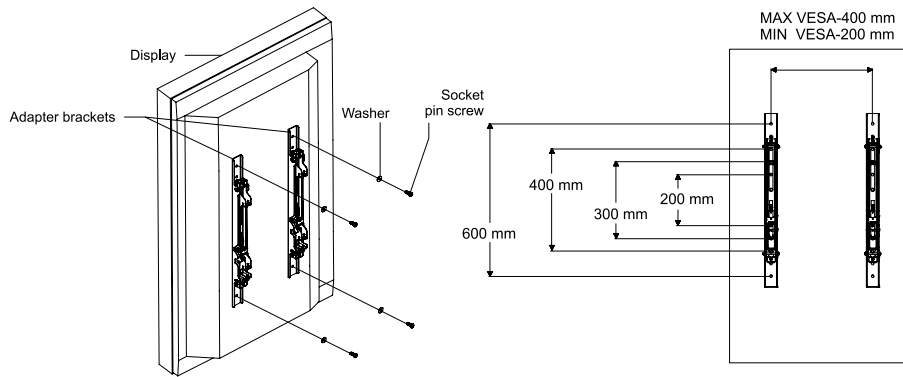# Attaching the adapter brackets to the display

The panel must have the adapter brackets installed before it can be attached to the wall bracket.

Attach the adapter brackets to the back of the panel using four M6 x 12 mm socket pin screws with a nylon shoulder washer, or four M8 x 15 mm socket pin screws, as shown below.
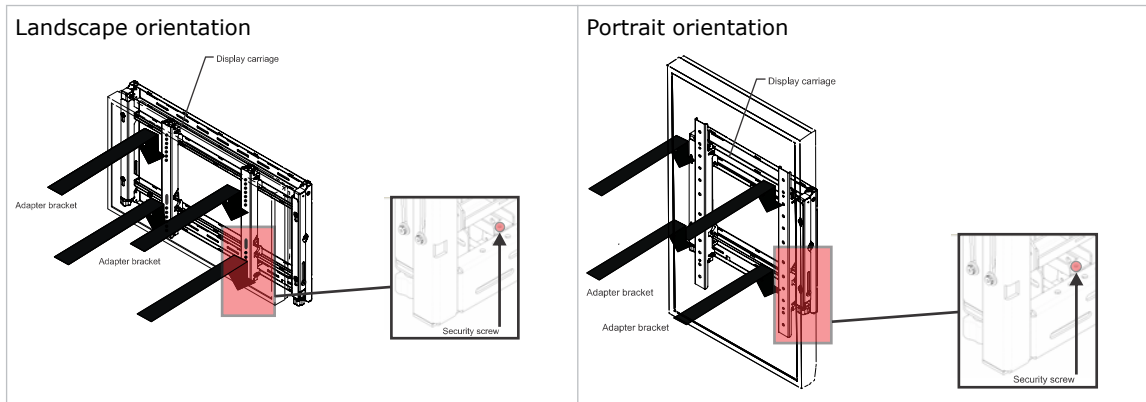
Landscape orientation

Display — Washer — Socket pin screw

MAX VESA-700 mm
MIN VESA-200 mm

Adapter brackets 400 mm 300 mm 200 mm PLP
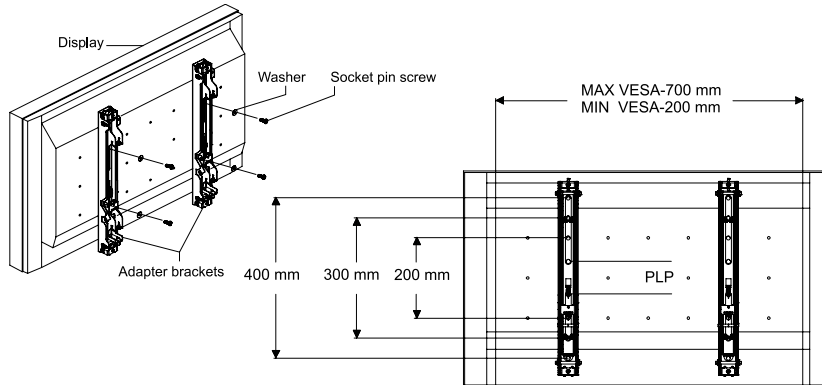
Portrait orientation

Attaching the panel to the wall mount

Install the panel with the brackets onto the wall mount.

1. Slide the adapter brackets into position.
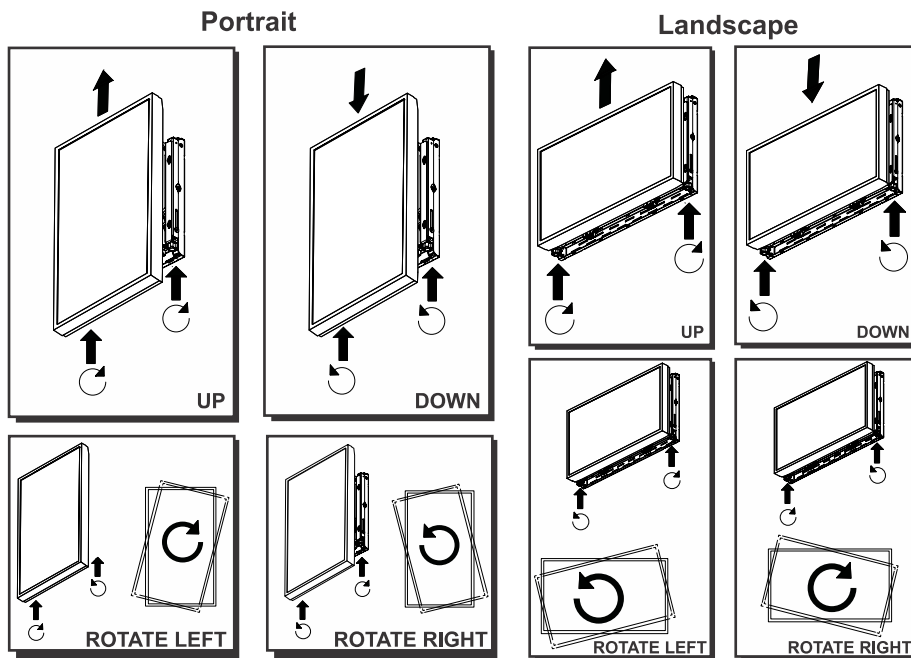2. Loosely fasten the panel in place using the security screw.

3. Adjust the panel until it is ±2"/50.8 mm from the center.
4. To lock the panel in place, use a 4mm Allen wrench to tighten the security screws.

Adjusting the pull out mount assembly

Align the pull out mount.

Use the knob to make fine-tuned adjustments to the pull out mount alignment.

- Turn the knob clockwise to raise a side.
- Turn the knob counter-clockwise to lower a side.

Portrait   **Landscape**

UP   DOWN   UP   DOWN

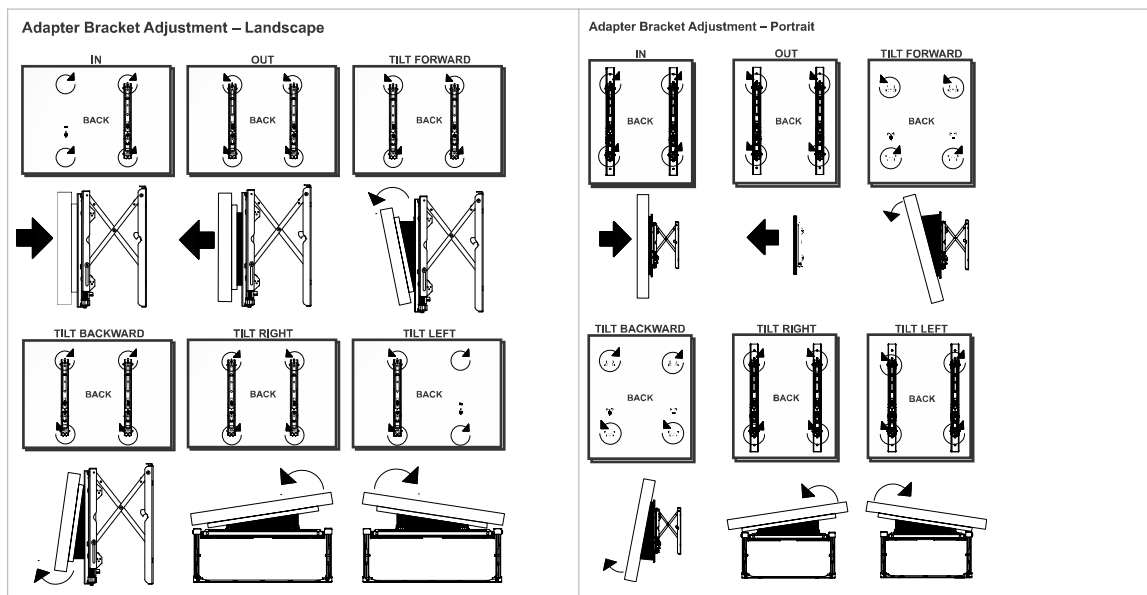ROTATE LEFT   ROTATE RIGHT   ROTATE LEFT   ROTATE RIGHT

Adjusting the adapter bracket

Align the panel adapter brackets.

Use the knob to make fine-tuned adjustments to the panel alignment.

- Turn the knob clockwise to raise a side.
- Turn the knob counter-clockwise to lower a side.

Adapter Bracket Adjustment – Landscape

IN   OUT   TILT FORWARD

TILT BACKWARD   TILT RIGHT   TILT LEFT

Adapter Bracket Adjustment – Portrait

IN   OUT   TILT FORWARD

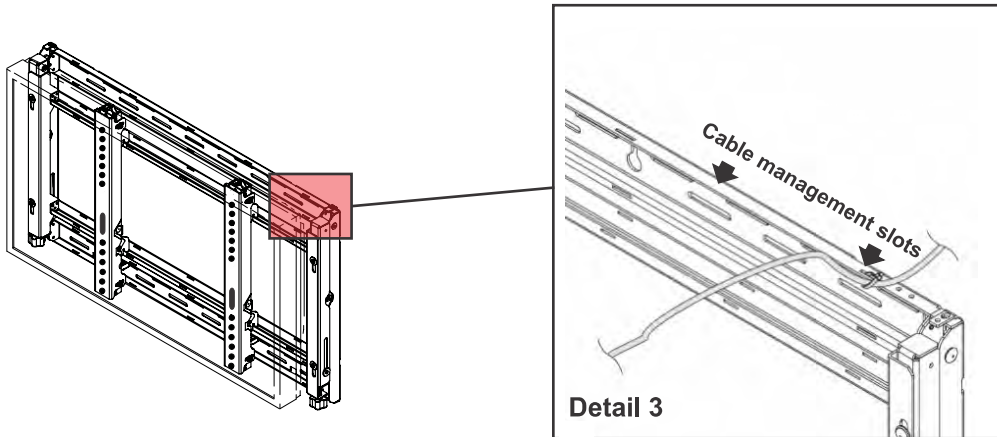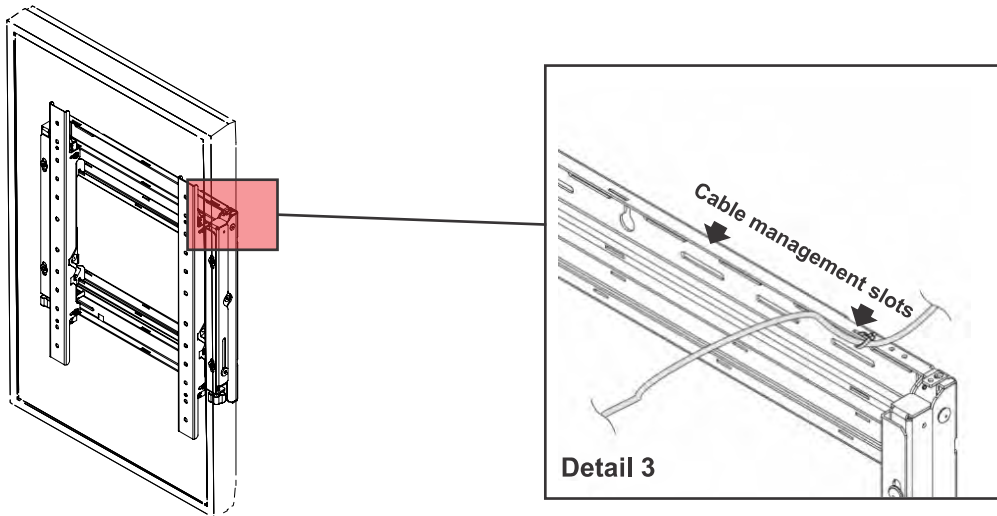TILT BACKWARD   TILT RIGHT   TILT LEFT

Securing the display cables

Display cables can be routed through the top or bottom of the pull out mount assembly.

1. Use the cable ties and cable management slots on the pull out mount assembly to secure the display cables.

    Landscape orientation

Portrait orientation

2. Bundle the cables with the mesh sleeve and cable ties.

Opening and closing the pull out mount assembly

Unlock the mount to pull the panel out from the wall.

1. Release the locking tab to open the pull out mount assembly.
2. Push or pull up on the locking tab.

To avoid damaging the LCD panel always release both locking tabs at the same time and move the panel forwards evenly.
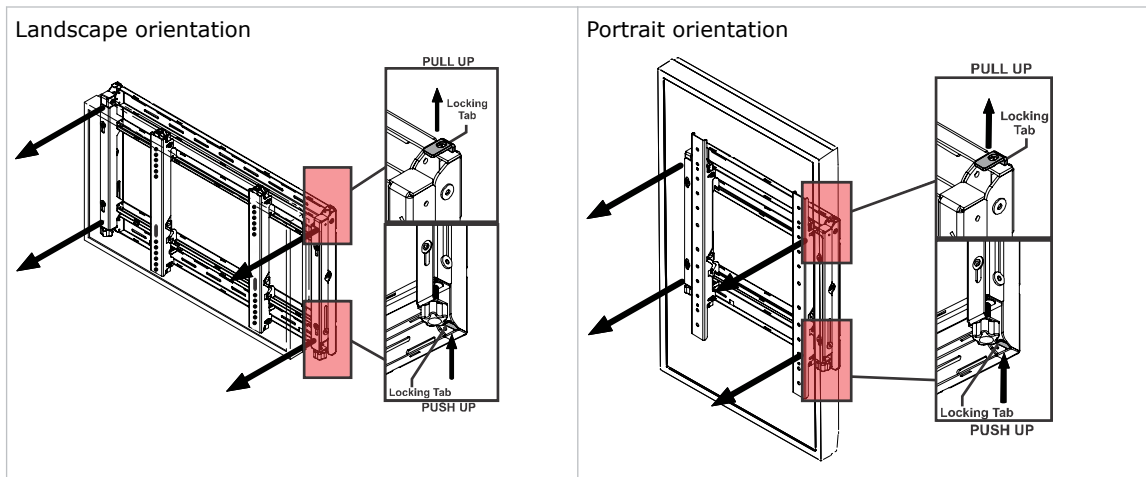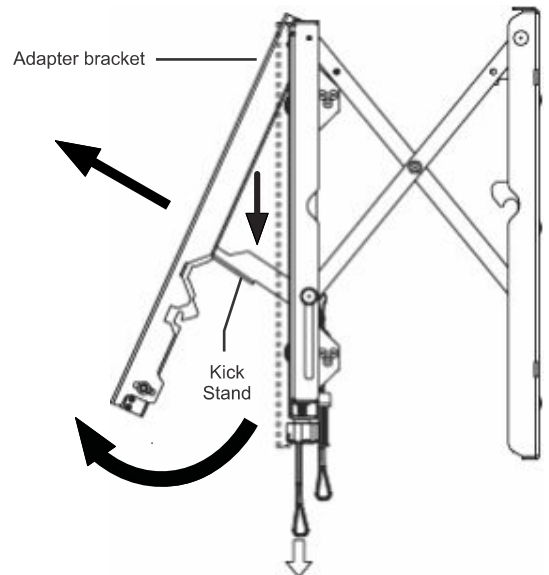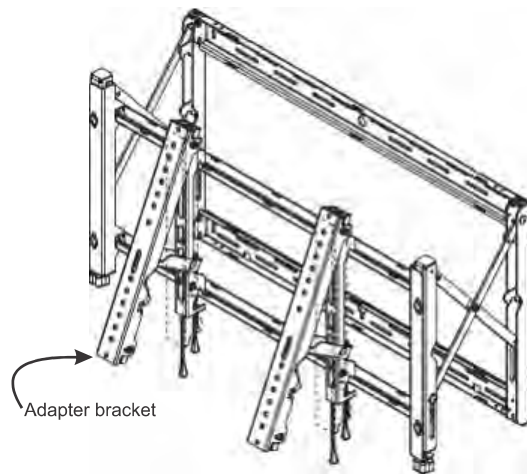

Opening the adapter brackets

Lift the bottom of the panel up and away from the pull out mount.

To open the adapter brackets, pull down on the long back release cords while pulling the bottom of the display away from the wall.

Two people are required when opening the adapter brackets, one to release the left-side release cord and the other the right-side release cord. After the back release cords are pulled, the kick stand engages to hold the panel open.

Landscape orientation

Portrait orientation

Adapter bracket

Adapter bracket
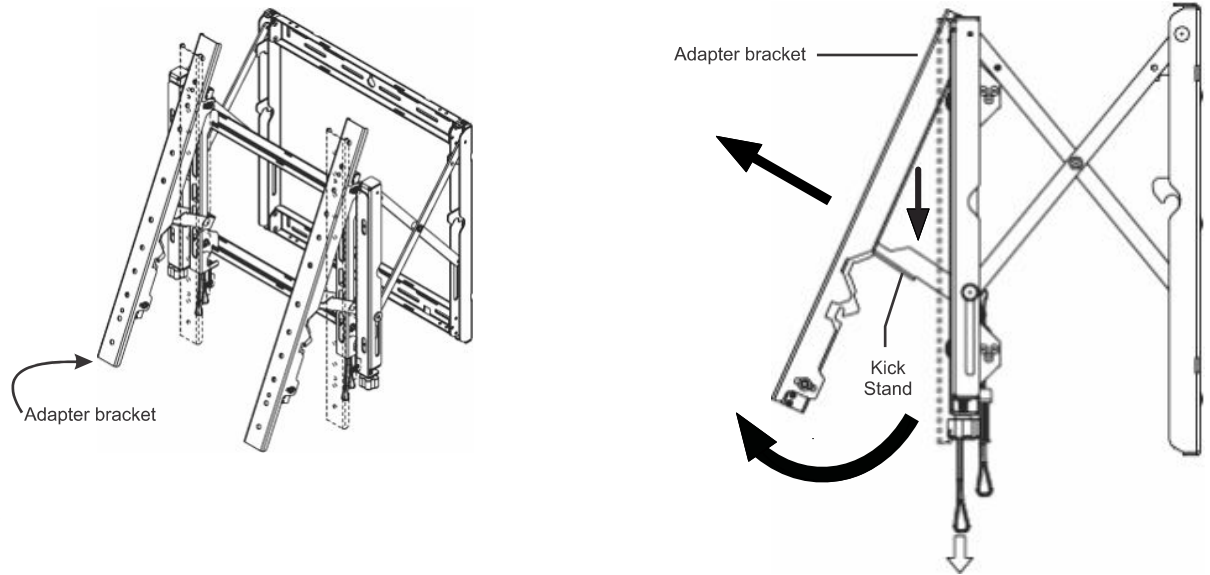
Kick
Stand

Closing the adapter brackets

Take caution when closing the adapter brackets to ensure the LCD panel is not damaged.
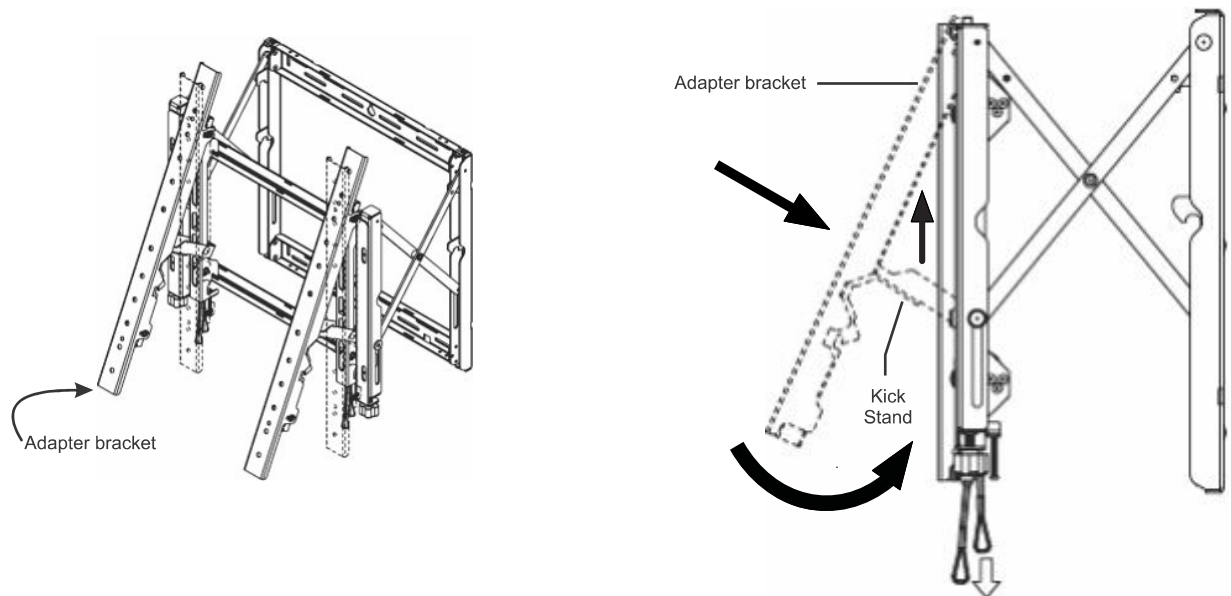
1. Pull down on the short front release cords.

    Once the short cords are pulled, the kick stand will disengage. You may need to slightly pull the display away from the wall to release the kick stand.

    Landscape orientation

Adapter bracket

Adapter bracket

Kick
Stand

Portrait orientation

Adapter bracket

Adapter bracket

Kick
Stand
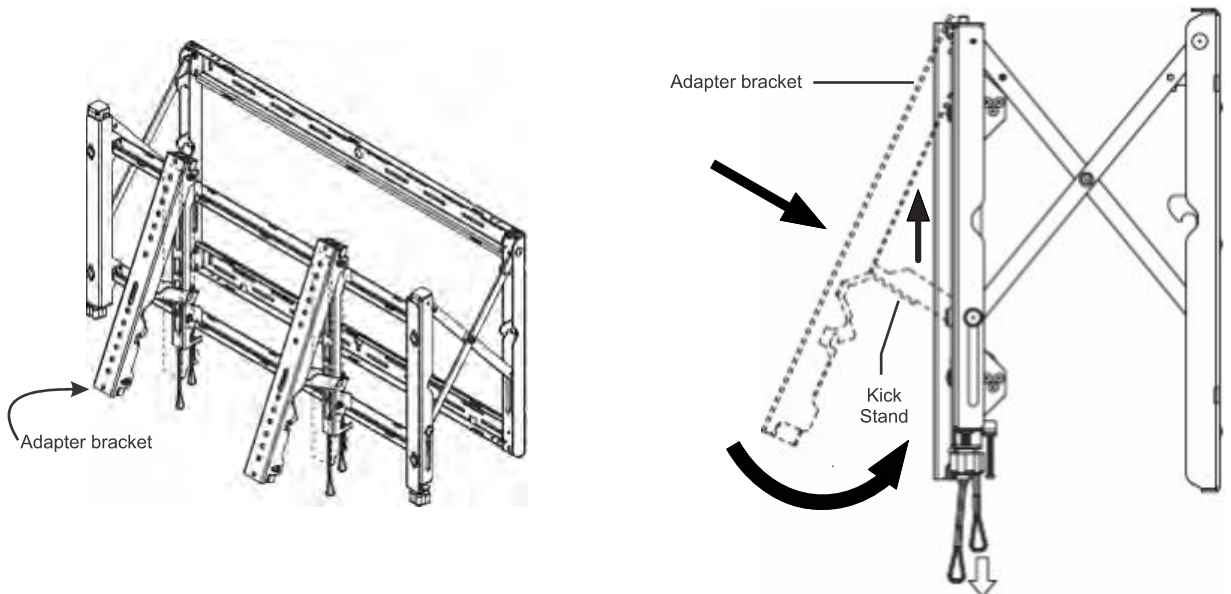
2.   Gently guide it back into place as you close the brackets.

Securing the pull out mount assembly (Optional)

Prevent the locking tabs from releasing.

Insert and tighten two M5 x 10 mm socket pin type-F screws into the locking tab.

Landscape orientation

Portrait orientation

type-F
screw

Locking tab

type-F
screw

Locking tab