Installing flat panels on the ML20 wall mount

The ML20 is a full-service video wall mount that can accommodate the FHD493-XE and FHD553-XE flat panels in landscape orientation.

The modular mount system features a pull-out mechanism that provides rear screen access, and the ability to adjust the X, Y, and Z axis alignment.

Features

Use the ML20 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.
- Adjustments of panels for optimal gaps.
- Spring-loaded mechanisms secure displays.
- Pull-out/prop-open mechanism provides quick service access.

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 appropriately rated lift equipment is required to safely lift, install, or move the product.
- Always handle the screen from its sides.
- 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.
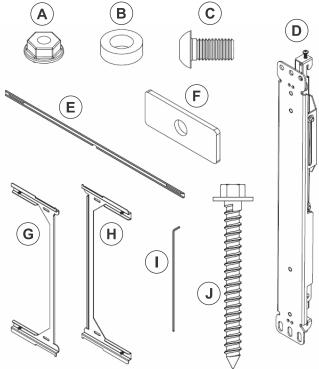- Do not exceed the maximum load capacity of the product.

Types of installations

Learn the supported surfaces for installing the wall mounts.

Wall construction	Hardware required
Plywood	Included
Solid Concrete	Not Included
Cinder Block	Not Included

Required parts

Learn the parts necessary for installing the wall mounts.

A	Nut (Qty. 4)	F	Washer (Qty. 4)
B	Spacer (Qty. 8)	G	Right vertical
C	M8 x 15 mm socket pin screw (Qty. 8)	H	Left vertical
D	Adapter bracket (Qty. 2)	I	4mm Allen wrench (Qty. 1)
E	Cross bar (Qty. 2)	J	#14 x 2.5" wood screw (Qty. 5)

Required tools

Ensure the appropriate tools are available during the installation.

- 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

Related documentation

Additional information on the LCD panels is available in the following documents.

- *FHD553-XE and FHD553-XE-H User Manual (P/N: 020-001183-XX)*
- *FHD553-XE-R and FHD553-XE-HR User Manual (P/N: 020-001198-XX)*

Assembling the wall mount

Combine the vertical supports and the cross bars to create the wall mount.

1. Align the top cross bar with the right and left vertical support.
2. Secure each end of the cross bar and vertical supports with a washer and nut.
3. Before tightening the washer and nut, adjust the width of the wall mount to the size of the LCD panel.

   For the FHD493-XE panel, the wall mount must be fully collapsed. For the FHD553-XE panel, the wall mount must be fully expanded.
4. Tighten the washer and nuts.
5. Repeat steps 1 to 4 for the bottom cross bar.
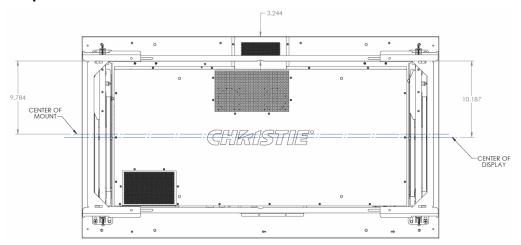
Installing the wall mount

Learn how to install the wall mounts onto different surfaces.

The maximum load capacity of the wall mount is 75 lbs (34 kg).

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.
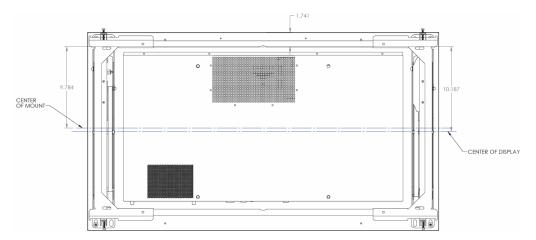
1. Measure the width and height of the display panel.
2. Locate the center of the bottom left display.
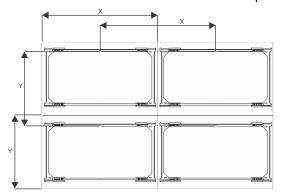
   55" panel

   49" panel

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 notch of the wall mount of the first display to the center notch of the second display (X).

   A laser level is recommended for this step.

4. Install all wall mounts 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 plywood

Learn how to install the wall mounts onto plywood.

Hardware provided is for attaching the mount through standard thickness drywall into plywood. 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. Place the wall mount assembly on the wall to use as a template, and mark the center notch.

2. Drill a 5/32" (4 mm) diameter hole 2.5" (64 mm) deep and install a #14 x 2.5" wood screw, leaving a 6mm (1.4") gap from the plywood.

3. Hang the wall mount on the center screw.

4. Level the wall mount and mark the center of the four mounting holes.

5. Drill four 5/32" (4 mm) diameter holes 2.5" (64 mm) deep.

6. Tighten the four #14 x 2.5" wood screws 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

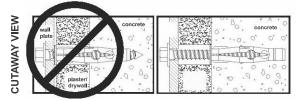Learn how to install the wall mounts onto solid concrete or cinder block walls.

⚠️ **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.

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.

    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 so that the wall plate is firmly attached, but do not over-tighten.

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

Attaching the adapter brackets to the display

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

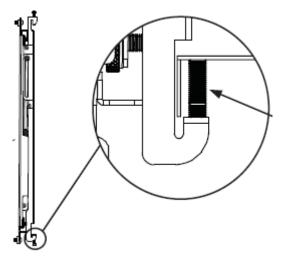Attach the adapter brackets to the back of the panel using eight M8 x 15 mm socket pin screws.

For 55" panels, insert the spacer between the adapter brackets and the panel before attaching the brackets with the M8 socket pin screws.

For 49" panels, the spacers can be used but the installed panel will be more than 4" from the wall.

Attaching the panel to the wall mount

Install the panel with the brackets onto the wall mount.

1. Hang the adapter brackets onto the wall mount and slide into position.
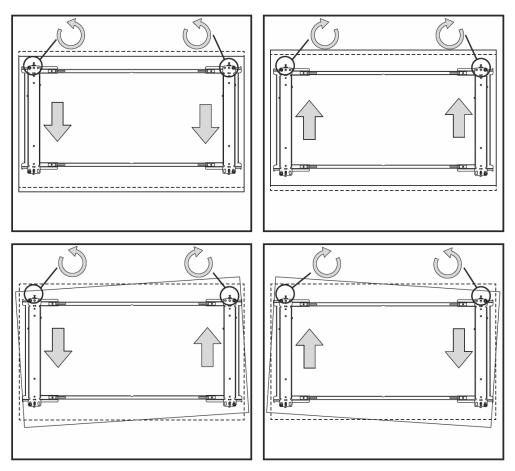2. Loosely fasten the panel in place using the security screw.

3. To lock the panel in place, use a Phillips screwdriver to tighten the security screws.

Adjusting the panel up and down

Use the height adjustment screw to move the panel up and down.

1. Loosen the security screws.
2. Turn the height adjustment screw clockwise to raise a side.
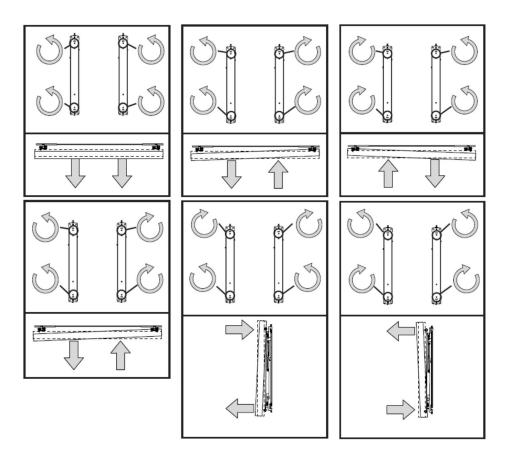3. Turn the height adjustment screw counter-clockwise to lower a side.

4. Tighten the security screws.

Adjusting the distance between the panel and the wall mount

Use the adjustment wheel to move the panel further from or closer to the wall.

1. Turn the adjustment wheel clockwise to move the corner out from the wall mount.
2. Turn the adjustment wheel counter-clockwise to move the corner towards the wall mount.

Moving the panel left and right

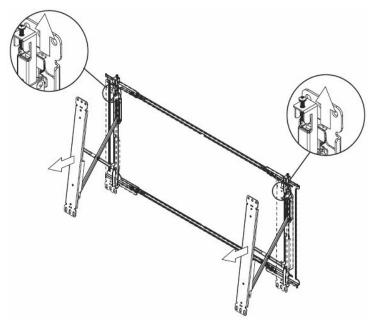Slide the panel to the left or right to align it with the panel to the side.

1. Using a Phillips screwdriver, loosen the security screws holding the panel adapter brackets onto the wall mount.
2. Slide the panel to the left or right as necessary.
3. Tighten the security screws.

Extending the adapter brackets

To access the rear of the panel, pull the panel away from the wall mount.

1. To pull the LCD panel away from the wall mount, lift the locking tabs.

   To access the locking tabs for a mount, it may be necessary to extend the adapter brackets of the LCD panels above it.

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

2. Pull the panel away from the wall mount.

Closing the adapter brackets

Take caution when closing the adapter brackets to ensure the LCD panel is not damaged.

Pushing evenly on each side of the panel, guide the panel back into place until the locking tabs engage.

Technical support

Technical support for Christie products is available at:

- North and South America: +1-800-221-8025 or Support.Americas@christiedigital.com
- Europe, Middle East, and Africa: +44 (0) 1189 778111 or Support.EMEA@christiedigital.com
- Asia Pacific: +65 6877-8737 or Support.APAC@christiedigital.com