
INSTALLATION INSTRUCTIONS

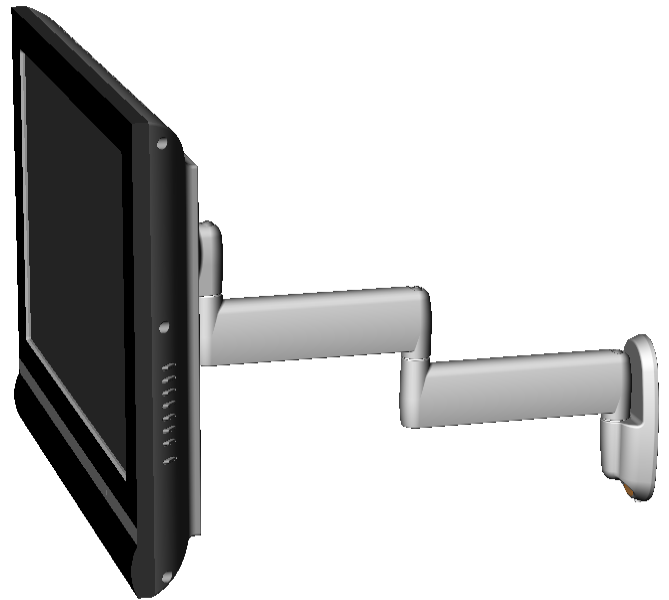
Medium Flat Panel Dual Swing Arm Wall Mount MSP-MA

The MSP-MA single swing arm wall mount is designed for mounting a medium sized flat panel display. The MSP-MA can swing out from, or fold against, the wall depending on your ergonomic need. The mount can be tilted up and down to 15° of center.

The MSP-MA is shipped with the VESA® 100mm/100mm Centris™ interface which is compatible with most medium flat panels.

To accommodate other mounting patterns in displays, the MSP-MA comes with an interface bracket that accommodates a number of other VESA mounting patterns.

By design, the MSP-MA can be configured to fit your medium flat panel display, providing that your display does not exceed the specified weight rating.



MSP-MA

BEFORE YOU BEGIN

- **⚠ CAUTION:** To prevent damage to your display and/or the MSP-MA, which could affect or void factory warranty, thoroughly study all instructions and illustrations before you begin to install the mount. Pay particular attention to the Warnings and Cautions in this document.
- Refer to the “WEIGHT SPECIFICATION” section page 5 for the maximum weight allowable for use with the MSP-MA wall mount.
- The MSP-MA wall mount is designed to be installed using wall studs or supporting framework. The structure to which the MSP-MA wall mount is anchored must be capable of supporting **five times** the total weight of the mount and all attached equipment.
- If you have any questions about this installation, contact Chief Manufacturing at 1-800-582-6480.



IMPORTANT WARNINGS and CAUTIONS!

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	Improper installation can result in serious personal injury! Make sure that the structural members can support a redundant weight factor <i>five times</i> the total weight of the equipment. If not, reinforce the structure before installing the mount.
• WARNING	Be aware of the potential for personal injury or damage to the equipment if it is not adequately mounted.
• WARNING	The installer is responsible for verifying that the display to which the MSP-MA mount is anchored will safely support the combined load of all attached components or other equipment.
• WARNING	See “WEIGHT SPECIFICATION” on page 5.
• WARNING	Watch for pinch points. Do not put your fingers between movable parts.
• WARNING	Make sure the mount and brackets are correctly oriented.
• CAUTION	Check the unit for shipping damage before you begin the installation.

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TOOLS REQUIRED FOR INSTALLATION

- Electric drill and bit set
- Hex wrench set
- Phillips screwdriver
- Level

NOTE: Other tools may be required depending on your display, MSP-MA configuration and method of installation.

INSPECT UNIT BEFORE INSTALLING

⚠ WARNING: Watch for pinch points. Do not put your fingers between movable parts.

1. Carefully inspect mount for shipping damage. If any damage is apparent, call your carrier claims agent and do not continue with installation until carrier has reviewed damage.

NOTE: Read all instructions before starting installation.
2. Lay out components to ensure you have all required parts before proceeding (see PARTS on page 7). If you are missing any listed parts, contact Customer Service at: 1-800/582-6480.

MOUNT SPECIFICATIONS

Table 1. MSP-MA Specifications

Depth from Wall	2-11/16" (68mm)
Maximum Extension	20-3/8" (51.cm)
Dimensions W x H x D	13-1/8 x 14-11/16" x 2-11/16" (308 x 373 x 68mm)
Weight Capacity	See "WEIGHT SPECIFICATION" on page 5

DIMENSIONAL DRAWINGS

The dimensional drawings for the MSP-MA are shown in Figure 1 and Figure 2.

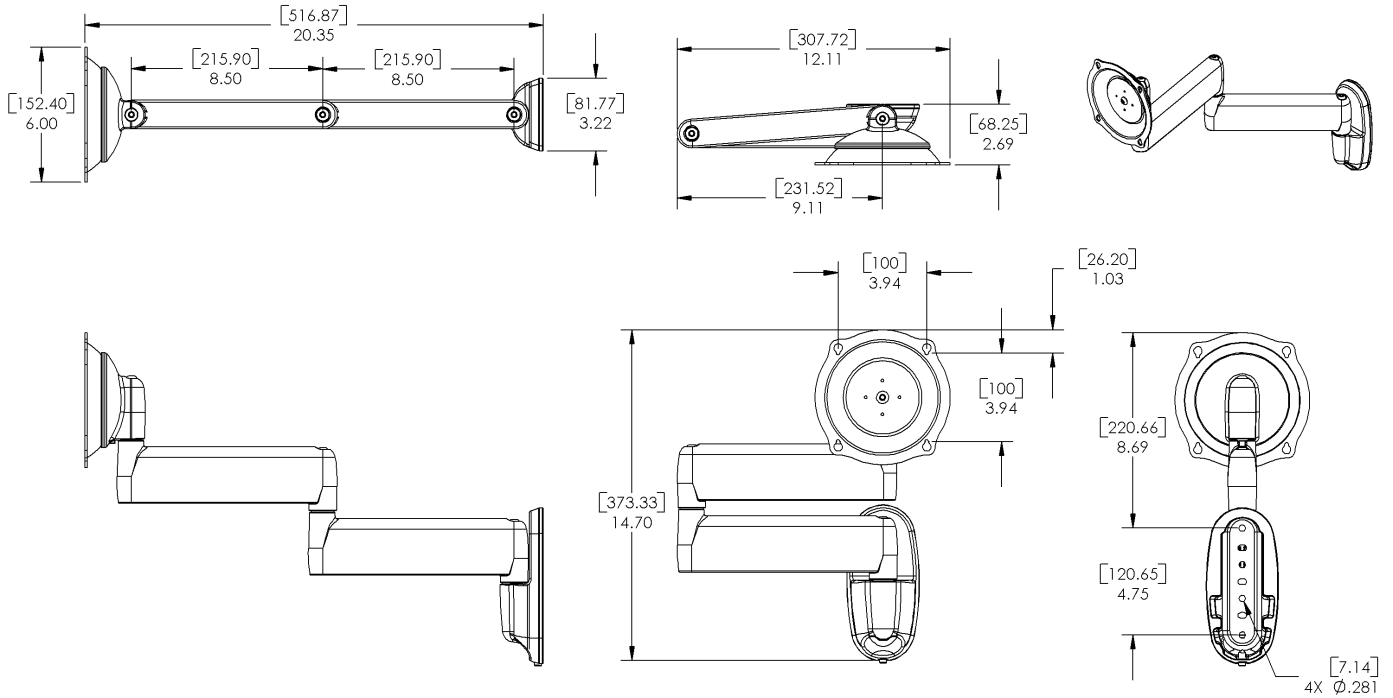


Figure 1. Dual Swing Arm – Dimensional Drawing

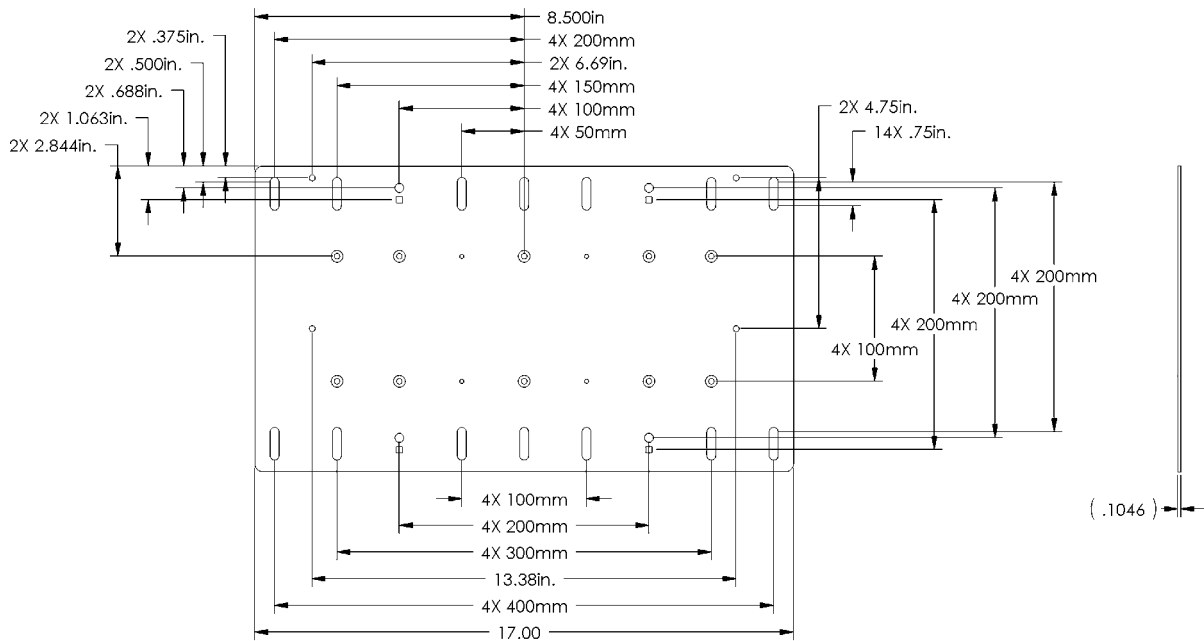


Figure 2. Interface Bracket – Dimensional Drawing

WEIGHT SPECIFICATION

The weight rating for the MSP-MA is 75 lbs (34.01kg).

WARNING:

The weight of the medium flat panel display must not exceed the maximum support weight of the mount.

INTRODUCTION

There are three main steps in the MSP-MA installation process. These steps are:

- Selecting an appropriate mounting configuration.
- Connect display cables
- Making required adjustments

Before starting the installation process, determine the correct mounting-hole configuration for your display by reviewing the information located within Table 2.

MOUNTING HOLE PATTERNS

Table 2 provides a cross-reference list of the mounting patterns used when the Centris bracket and interface bracket are used together.

The interface bracket is adaptable to a multitude of mounting hole-patterns that are supplied on medium flat panel displays, as shown Table 2.

Table 2. Mounting Hole Patterns

Centris Bracket and Interface Bracket
Compatible with the following VESA Patterns: <ul style="list-style-type: none"> • 100 x 100mm • 200 x 100mm • 200 x 200mm (M6 and M4 screws) • 300 x 100mm • 300 x 200mm • 400 x 200mm • 13.375" x 4.75"

COMPONENTS

Figure 3 shows the parts and parts bags for the MSP-MA.

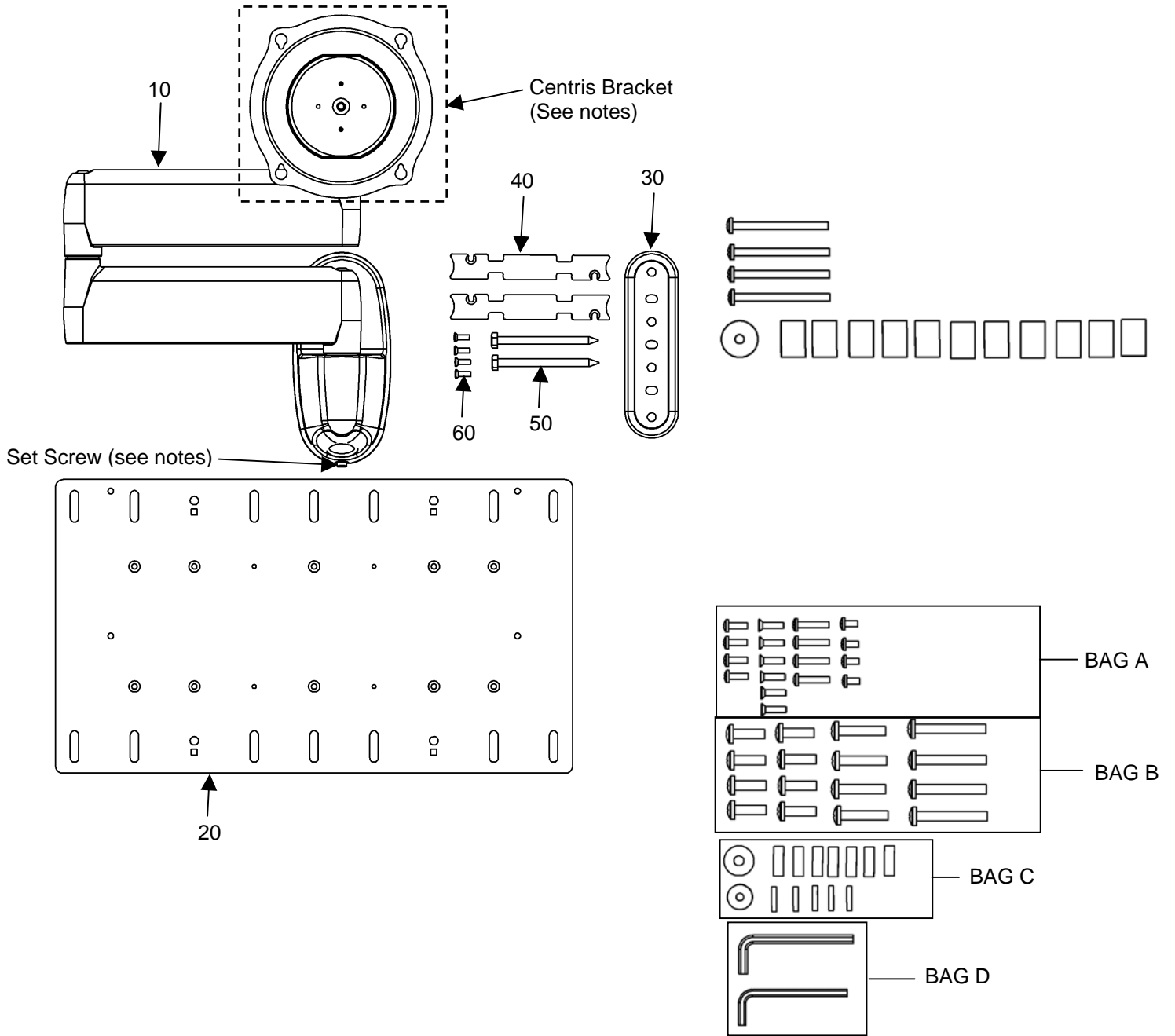


Figure 3. MSP-MA Components

PARTS

Table 3 provides the part list that is used to install the individual part and parts bags for the MSP-MA parts.

Table 3. MSP-MA Parts List

Item	Bag	Description	Qty	Notes
10	—	MSP-MA MOUNT (with Centris Bracket)	1	See page 6 for graphic.
20	—	Interface Bracket	1	
30	—	Wall Bracket	1	Use with 50
40	—	Cover Plates (Cable Management Bracket)	2	Use with 10 and 60
50	—	Lag Screws, 3/8" x 3"	2	Use with 30
60	—	Phillips Pan Head Machine Screw, 8-32 x 3/8"	4	Use with 40
70	A	Phillips Head Cap Screw, M4 X 12mm	4	No spacers needed for 100mm x 100mm flush mounted Centris bracket.
80		Phillips Flat Head Machine Screw, M4 X 16mm	6	For 200mm x 100mm and 300mm x 100mm
90		Phillips Head Cap Screw, M4 X 20mm	4	For 100mm x 100mm recess mounted Centris bracket. Use with 140.
100		Phillips Head Cap Screw, M4 X 8mm	4	Used to mount display with Interface Bracket to Centris bracket
110	B	Phillips Head Cap Screw, M6 X 20mm	8	For 300mm x 200mm and 400mm x 200mm
120		Phillips Head Cap Screw, M6 X 30mm	4	
130		Phillips Head Cap Screw, M6 X 45mm	4	
140	C	Nylon Spacer, .75 x .25 x .25	8	Use 4 of the 8 spacers for 100mm x 100mm recess mounted Centris bracket.
150		Nylon Spacer, .625 x .194 x .125	6	
160	D	Hex Key, 5/32"	1	For Set Screw
170		Hex Key, 3/16"	1	For Tension Adjust.
180	—	Nylon Spacer, .750 x .187 x .50	12	Panasonic Displays
190	—	Phillips Head Cap Screw, M4 X 50mm	4	Panasonic Displays

SECURE WALL BRACKET

⚠ WARNING: It is the responsibility of the installer to verify that the surface to which the mount is anchored will safely support the combined load of all attached components and equipment.

Install wall bracket as follows:

1. Determine exact mounting location prior to installation, considering unit's swing arm and extension radius.
2. Using wall bracket (30) as a template, mark two pilot holes. (See Figure 4).
3. Drill two 1/4" pilot holes a minimum depth of 2" into wood stud.

NOTE: Make sure wall bracket is level before installing lag bolts. Do not over-tighten the lag bolts. If the lag bolts are over-tightened, you may damage the drywall and wall bracket, which would result in an unsafe installation.

4. Using a 9/16" socket wrench, install two lag bolts (50) to wall until tight. Do not over-tighten the lag bolts.

IMPORTANT: Overtightening lag bolts may cause bracket to compress into soft wall surface, resulting in difficult mount installation or improper engaging of set screw in step 2 below. If this occurs, remove bracket, install 3/8" steel washers as required between bracket and wall surface, and reinstall bracket.

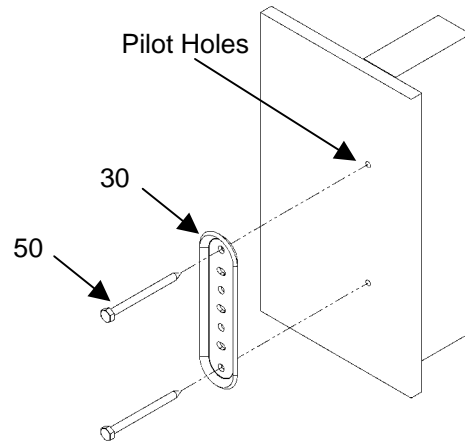


Figure 4. Secure Wall Bracket to Wall

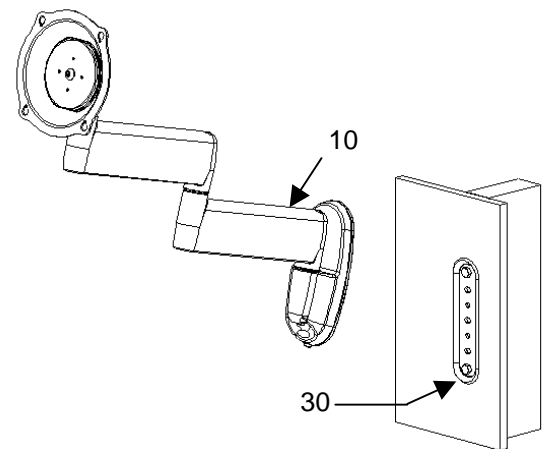


Figure 5. Attach Mount to Wall Bracket

ATTACH MOUNT TO WALL BRACKET

NOTE: If display requires VESA 100mm X 100mm recessed mounting, you will need to install display onto mount before attaching mount to wall bracket. Proceed to the "Recess Mount Centris Bracket to Display" procedure on page 9.

To attach mount to wall bracket:

1. Align top of mount (10) with top of wall bracket (30). Push bottom of mount against bottom of wall bracket until mount fits snugly in place (see Figure 5).
2. Using 5/32" hex wrench (160), secure mount to wall bracket by tightening set screw (see Figure 6). Ensure set screw engages *back* side of bracket to properly secure mount.

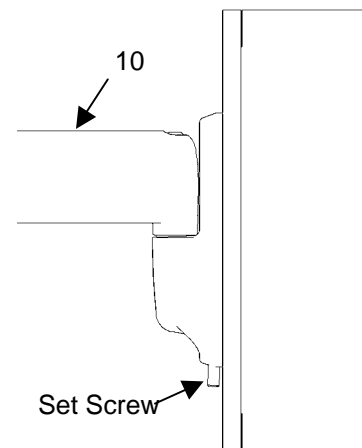


Figure 6. Tighten Set Screw

INSTALLATION

(100mm x 100mm)

Flush Mount Centris Bracket to Display

To flush mount Centris Bracket:

1. Start two M4 x 12mm screws (70, Bag A) into top mounting holes on display (see Figure 7).
2. Align mounting holes on Centris Bracket with screws installed on display. Hang display on Centris Bracket.
3. Install two remaining M4 x 12mm screws (70, Bag A) into bottom mounting holes on display.
4. Tighten four screws.
5. Proceed to the "CABLE MANAGEMENT" procedure on page 15.

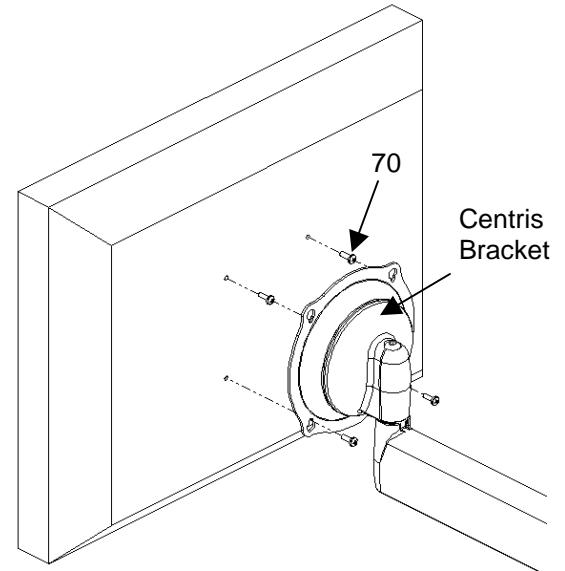


Figure 7. Flush Mount Centris Bracket to Display

Recess Mount Centris Bracket to Display

To recess mount Centris Bracket:

1. Lay display down on a flat surface.

CAUTION: Make sure surface is clean and free of dirt and debris before laying display down.

2. Select four screws M4 x 20mm screws (90) from Bag A and four spacers (140) from Bag C.
3. Place four spacers (140) over mounting holes on back of display (see Figure 8).
4. Align mounting holes on Centris bracket with spacers installed on display.
5. Install four screws M4 x 20mm screws (90) to attach Centris bracket to display (see Figure 8).
6. Tighten screws.
7. Perform the "ATTACH MOUNT TO WALL BRACKET" procedure on page 8 for mount installation.
8. Proceed to the "CABLE MANAGEMENT" procedure on page 15.

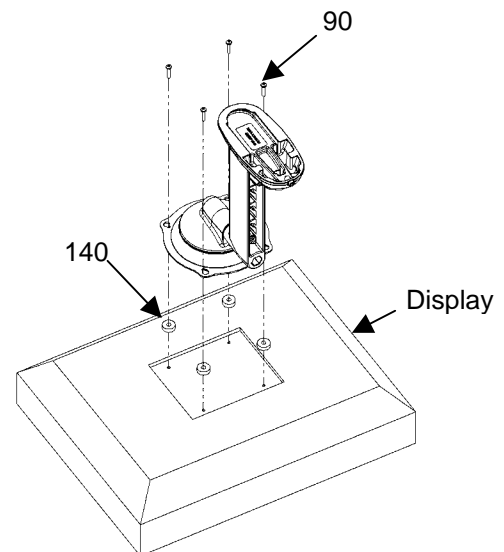


Figure 8. Recess Mount Centris Bracket to Display

INSTALLATION

The following sections describe how to install the interface bracket (20) for a specific hole-pattern on your display.

Guideline to Install Interface Bracket

This procedure provides a general guideline to follow when installing the interface bracket after selecting the mounting-hole pattern procedure that matches your display. For example: To install the interface bracket using the 200mm x 100mm mounting-hole pattern, use the procedure on page 11.

WARNING

You must use proper attaching hardware to install the interface bracket. Failure to use proper attaching hardware may result in equipment damage or serious personal injury.

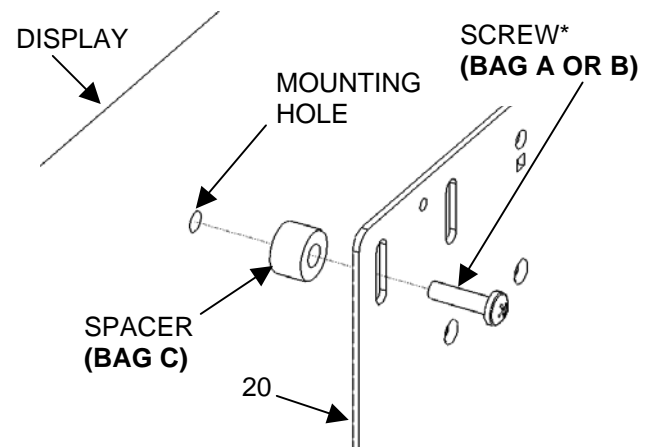
1. Lay the interface bracket (20) over the mounting holes on the back of the display, making sure to center the interface bracket as much as possible.

NOTE: A typical example of where to place the spacers between the display and interface bracket is shown in Figure 9.

2. In general, to install the interface bracket, do the following:
 - a. Select the appropriate mounting-hole pattern, **as described in the following sections**, to attach the interface bracket (20) to back of display.
 - b. Select the appropriate screws from Bag A or B and spacers from Bag C to mount the interface bracket to the back of the display.
 - c. Tighten each screw. To prevent equipment damage, do not over-tighten the screws.

CAUTION

The screw and spacer length must not exceed the depth of the mounting-hole. Using improper hardware may result in equipment damage or serious personal injury.



* See parts list on page 7 for Panasonic hardware identification.

Figure 9. Attaching Interface Bracket to Display

200mm x 100mm Pattern

For the 200mm x 100mm hole pattern, do the following:

1. Select six flat head M4 screws (80) from Bag A and six spacers (150) from Bag C.
2. Attach the interface bracket (20) using the hole-pattern on the back of your display as shown in Figure 10.
3. Tighten each screw. To prevent equipment damage, do not over-tighten the screws.

ATTACH BRACKET TO BACK OF DISPLAY USING M4 SCREWS (BAG A) AND THESE HOLES

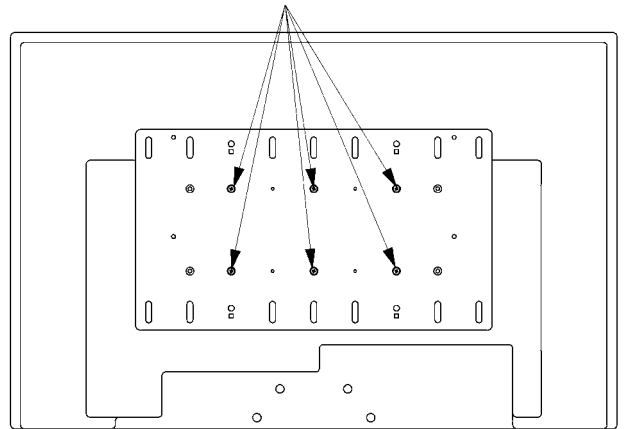


Figure 10. Display with 200mm x 100mm Hole Pattern

300mm x 100mm Pattern

For the 300mm x 100mm hole pattern, do the following:

1. Select four flat head M4 screws (80) from Bag A and four spacers (150) from Bag C.
2. Attach the interface bracket (20) using the hole-pattern on the back of your display as shown in Figure 11.
3. Tighten each screw. To prevent equipment damage, do not over-tighten the screws.

ATTACH BRACKET TO BACK OF DISPLAY USING M4 SCREWS (BAG A) AND THESE HOLES

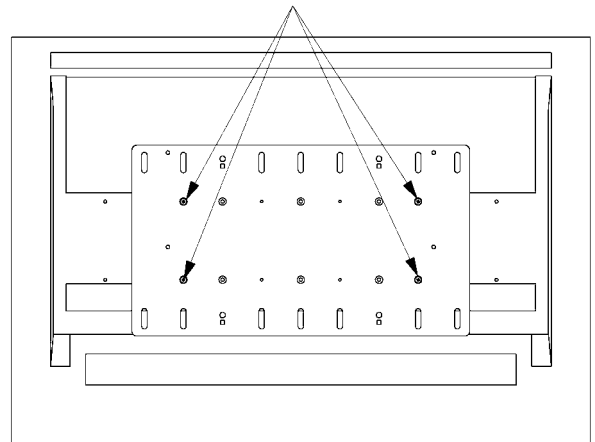


Figure 11. Display with 300mm x 100mm Hole Pattern

300mm x 200mm Pattern

For the 300mm x 200mm hole pattern, do the following:

1. Select eight Phillips head M6 screws (110) from Bag B and eight spacers (140) from Bag C.
2. Attach the interface bracket (20) using the hole-pattern on the back of your display as shown in Figure 12.
3. Tighten each screw. To prevent equipment damage, do not over-tighten the screws.

ATTACH BRACKET TO BACK OF DISPLAY
USING M6 SCREWS (BAG B) AND THESE HOLES

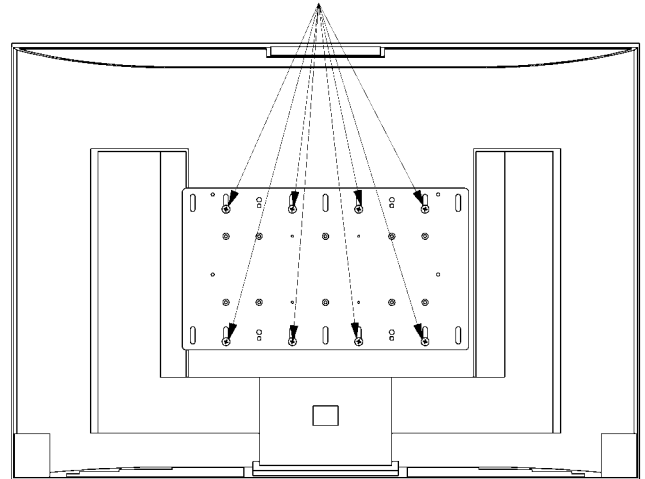


Figure 12. Display with 300mm x 200mm Hole Pattern

400mm x 200mm Pattern

For the 400mm x 200mm hole pattern, do the following:

1. Select six Phillips head M6 screws (110) from Bag B and six spacers (140) from Bag C.
2. Attach the interface bracket (20) using the hole-pattern on the back of your display as shown in Figure 13.
3. Tighten each screw. To prevent equipment damage, do not over-tighten the screws.

ATTACH BRACKET TO BACK OF DISPLAY
USING M6 SCREWS (BAG B) AND THESE HOLES

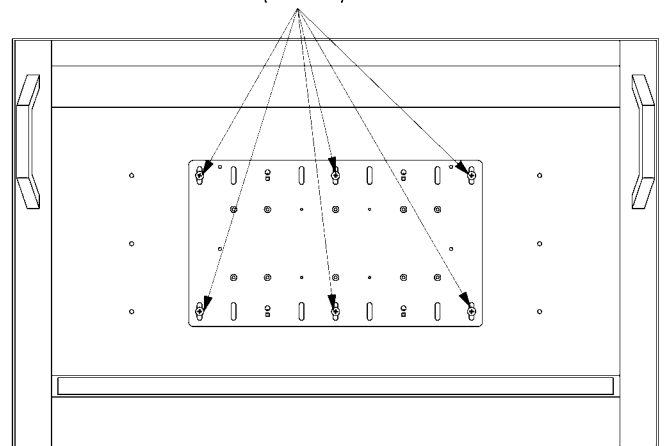


Figure 13. Display with 400mm x 200mm Hole Pattern

200mm x 200mm Pattern

For the 200mm x 200mm hole pattern, do the following:

1. Select the applicable screws as follows:
 - a. If using square hole on interface bracket (20), select four Phillips head M4 screws from Bag A.
 - OR
 - b. If using round hole on interface bracket (20), select four Phillips head M6 screws from Bag B.
 - c. Select spacers (140) or (150) from Bag C.
2. Attach the interface bracket (20) using the hole-pattern on the back of your display as shown in Figure 14 and Figure 15.
3. Tighten each screw. To prevent equipment damage, do not over-tighten the screws.

ATTACH BRACKET TO BACK OF DISPLAY USING M4 SCREWS (BAG A) AND SQUARE HOLES, OR M6 SCREWS (BAG B) AND ROUND HOLES

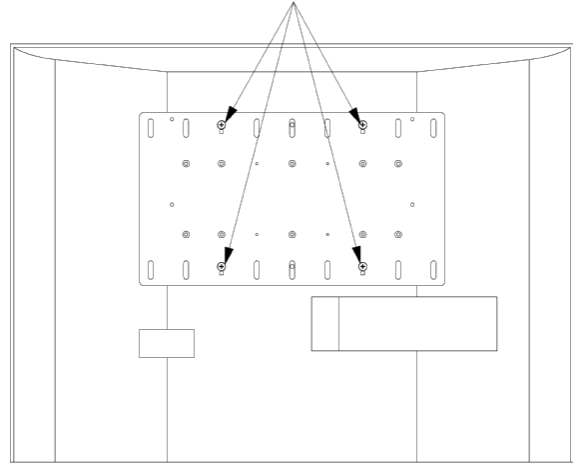


Figure 14. Display with 200mm x 200mm Hole Pattern

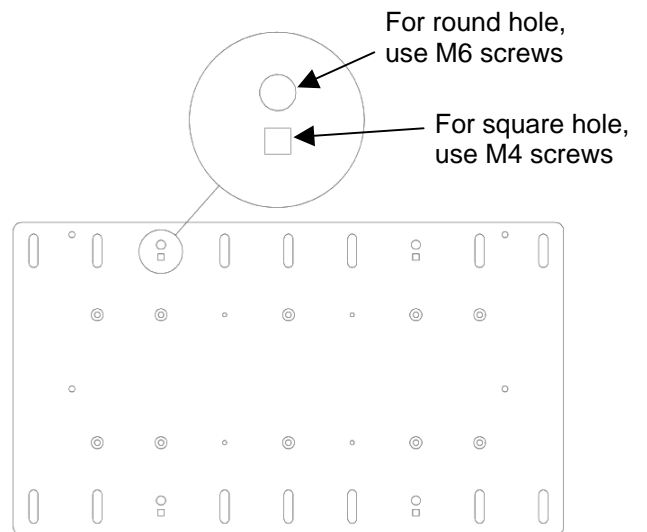


Figure 15. Select Round Hole or Square Hole As Needed

13.375" x 4.75" Pattern (Panasonic Displays)

For the 13.375" x 4.75" hole pattern, do the following:

1. Select four Phillips head M4 x 50mm screws (190) and 12 spacers (180).
2. Stack three spacers (160) on top of each of the four mounting holes.
3. Place the interface bracket (20) on top of the spacers (180) previously stacked (see Step 2).
4. Attach the interface bracket (20) using the hole-pattern on the back of your display as shown in Figure 16.
5. Tighten each screw. To prevent equipment damage, do not over-tighten the screws.

ATTACH BRACKET TO BACK OF DISPLAY USING M4 SCREWS (BAG D) AND THESE HOLES

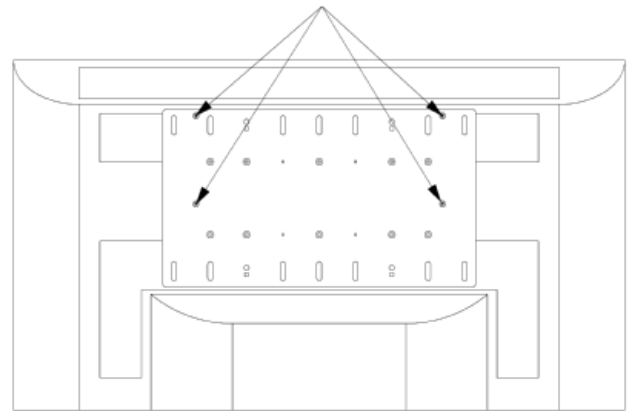


Figure 16. Display with 13.375" x 4.75" Hole Pattern

Attach Display to Mount (Centris Bracket)

After attaching the interface bracket onto the display, the next step is to attach the display to the mount (Centris bracket).

To attach the display to the Centris bracket, do the following:

1. Select four Phillips head M4 x 8mm screws (100) from Bag A.
2. Start two M4 x 8mm screws (100, Bag A) into top mounting holes on display (see Figure 17).
3. Align mounting holes on Centris bracket with screws installed on display. Hang display on Centris bracket.
4. Install two remaining M4 x 8mm screws (100) from Bag A into the bottom mounting holes on the display.
5. Tighten four screws.
6. Proceed to the "CABLE MANAGEMENT" procedure on page 15.

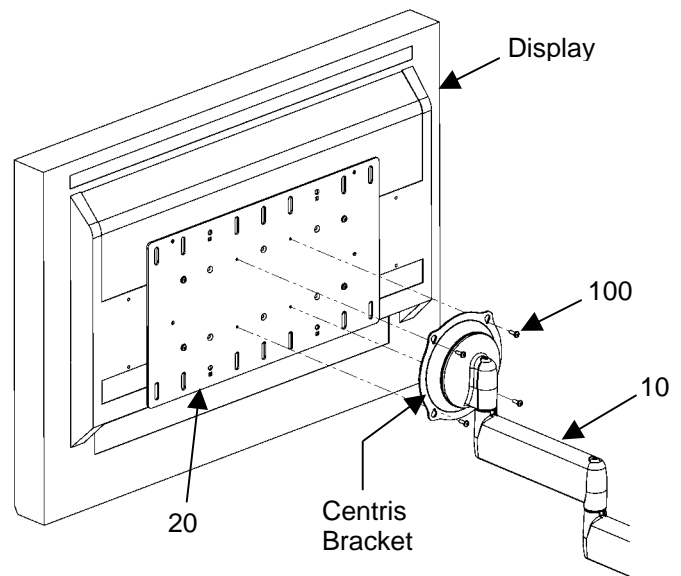


Figure 17. Attach Display to Mount

CABLE MANAGEMENT

⚠ WARNING: Make sure your cables do not run through any pinch points. Do not put your fingers between movable parts.

To route and manage cable(s):

1. Connect and secure power/audio/video cables, making sure to leave sufficient slack to allow for movement of display.
2. Route power/audio/video cables under/in each arm, allowing sufficient slack in cables for extension and avoiding pinch points.
3. Secure cables using cover plates (40) and four screws (60). (See Figure 18).

NOTE: If cables are too large to fit inside arms, use zip ties (not supplied) to attach cables to bottom of cover plates (40).

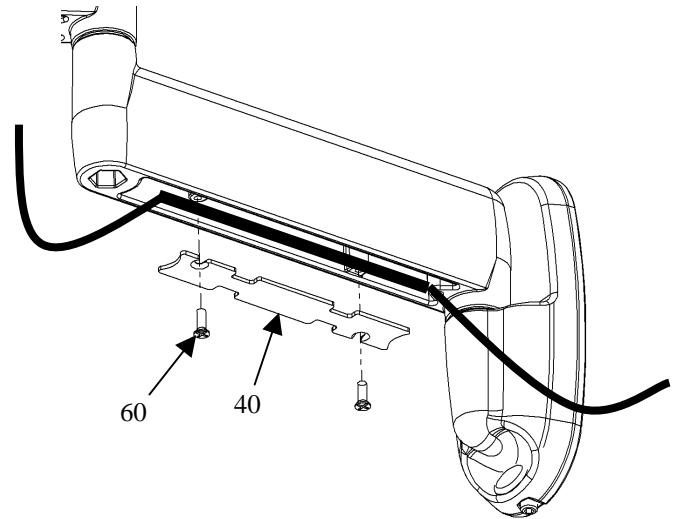


Figure 18. Cable Management

ADJUST LATERAL TENSION

To adjust lateral tension:

1. Move arms laterally to check for desired tension.
2. Using a 3/16" hex wrench (170) slightly tighten or loosen lateral tension adjustment bolts (see Figure 19).
3. Repeat Steps 1 and 2 until desired tension is obtained.

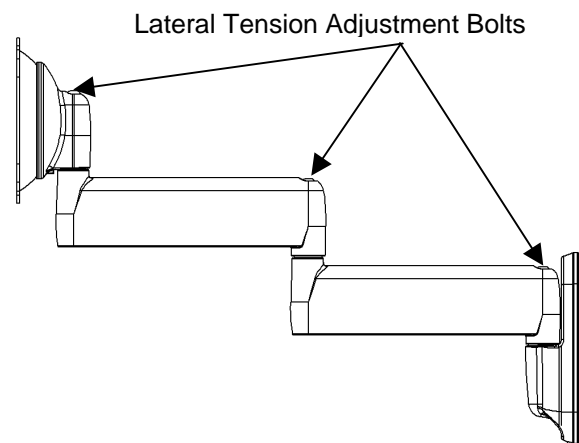


Figure 19. Adjust Lateral Tension

ADJUST PITCH TENSION

To adjust pitch tension:

1. Tilt display to check for desired tension.
2. If pitch tension in Centris bracket requires adjustment, perform the following steps:
 - a. Remove Display from Centris bracket.
 - b. Using a 3/16" hex wrench (170), slightly tighten or loosen pitch adjustment bolt to adjust Centris bracket as needed (see Figure 20).
 - c. Reinstall display.
3. Repeat Steps 1 and 2 until desired tension is obtained.

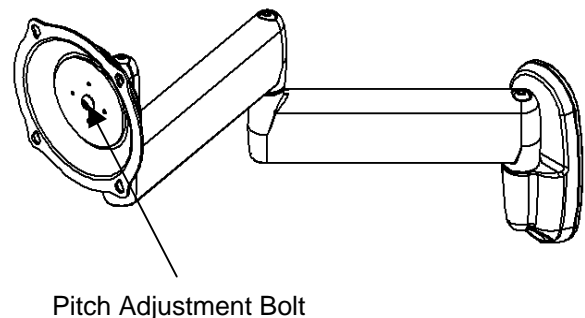


Figure 20. Adjust Pitch Tension