

Down and Out Motor Mount Assembly & Installation Directions

Mounting the Down and Out Motor Mount correctly takes a lot of thought and a lot of planning. Please read the directions thoroughly and plan out how the mount would be installed best for your use. Each Setup will be different and these directions cannot account for every situation. Failure to do so may result in Damage, Injury, or Death. Dynamic Mounting is not responsible for any damage, injury, or death resulting from improper mounting or use of the Down and Out Motor Mount.

These instructions are only a guide and the consumer is responsible for correct and secure mounting. The person installing the mount should be a competent person with experience mounting load bearing assemblies. For any questions or concerns, please contact Dynamic Mounting at Info1@DynamicMounting.com.



CAUTION: This wall mount is intended for use only with the maximum weight of 120 lbs. Use with heavier than the maximum weights indicated may result in instability causing possible injury.

Pinching and Crushing Hazard: The wall mount actuation is very strong; do NOT run the mount when anyone is near the mount. Do NOT have any part of the body in the mount or between the TV and Wall. The Mount will keep driving until someone pushes another button on the remote to stop it.

Note: From our experience there hasn't been an overheating issue when used above a fireplace. We recommend having the TV in the top position when the fireplace is on to avoid any potential heat damage to the TV.

Specifications

- Fits most Flat and Curved Televisions 40 inches and larger to 120 lbs. Check television weight and mounting hole pattern for compatibility with your television
- **Note for smaller televisions;** the mount may be wider or taller than the television. If this is the case then the mount may be visible in the top position. See Figure 1
- Handles televisions 20 to 120 lbs
- Allowable television mounting pattern: 6.7in (170mm) to 27.2in (692mm) wide, up to 22.8in (579mm) high. Works with all VESA patterns in that range, See Figure 1
- Product Dimensions: 29.0 x 23.8 x 3.9 inches. See Figure 1
- Product Weight: 29 pounds
- Tilts 10 degrees to Vertical in top position
- Tilt can be fine-tuned Vertical +/-1 degree in out through bottom position

FAQ

- **Where do I mount over a shelf?** See the Above Shelf Mounting section on page 8.
- **The TV tilts down in the top position.** See the Setting the Tilt in the Top Position section on page 9.
- **The TV isn't level in all positions.** When attaching to the wall, level off of the Hook Plate Edge, NOT the plate that attaches to the wall, see Figure 6 on page 5.
- **The TV isn't level in the out and bottom positions.** The TV's Center of Gravity needs to be centered on the mount, if the stud spacing isn't allowing this to happen the [Extra Wall Support](#) (sold separately) extends the mounts reach and would probably help.

CAUTION: These wall mounting instructions and hardware are for mounting to wood studs only. It is up to you to verify that the material supplied will work for your setup; other materials may need to be purchased by you. For concrete, brick or other mounting materials consult an expert.

Consult your TV's owner manual before mounting your television, it contains relevant information.

Tools Needed

- 7/16" open ended wrench
- 1/2" box or ratchet wrench
- 9/16" box or ratchet wrench
- 1/4" Drill Bit
- Drill
- Tape Measure
- Stud Finder
- Level
- Phillips Screwdrivers
- A friend or 2, depending on how heavy your television is



Various Items (All in One Bag)

- 4 3/8" by 3" long lag screw with washer
- 4 Zip Ties
- 2 Adhesive Rubber Bumpers
- 4 Lag Screw Cover
- 4 Washer for Lag Screw Cover

Fasteners for Mounting the Television to the TV Hangers (All in One Bag)

- 4 M6 x 20 mm (.78") long Phillips head machine screw
- 4 M6 x 35 mm (1.38") long Phillips head machine screw
- 4 M8 x 20 mm (.78") long Phillips head machine screw
- 4 M8 x 35 mm (1.38") long Phillips head machine screw
- 4 1/4" tall plastic spacers
- 8 .1" tall plastic spacers
- 4 Steel M6 washers

Parts Included

- 1 Down and Out Motor Mount (Two Stud Version, unless Addendum Included)
- 2 TV Hangers with Washer and Screw
- 2 Paintable Plastic Covers
- 1 Remote Control
- 1 Remote Control Holder with screws and anchors
- 2 AAA Batteries

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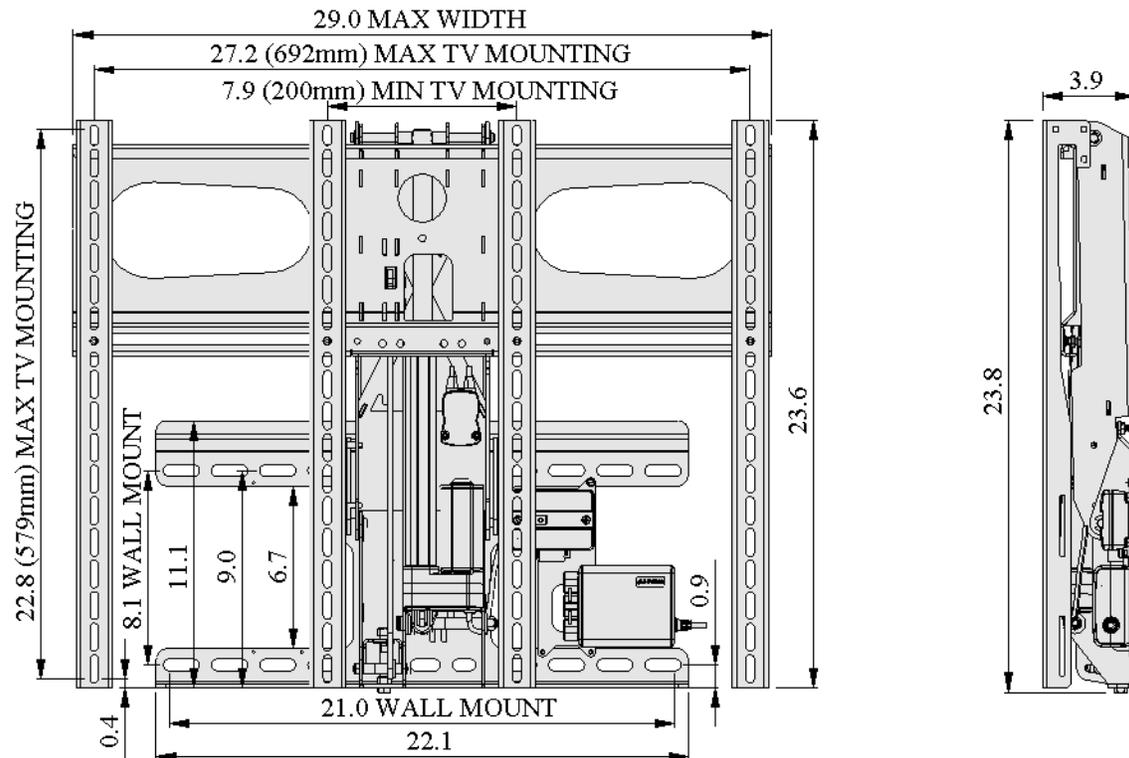


Figure 1, Mount Overall Size, Television Mounting Hole Pattern Range, Wall Mounting Hole Pattern Range
 Note: Mount Only Comes with 2 television Mounting Arms, Not the 4 Shown

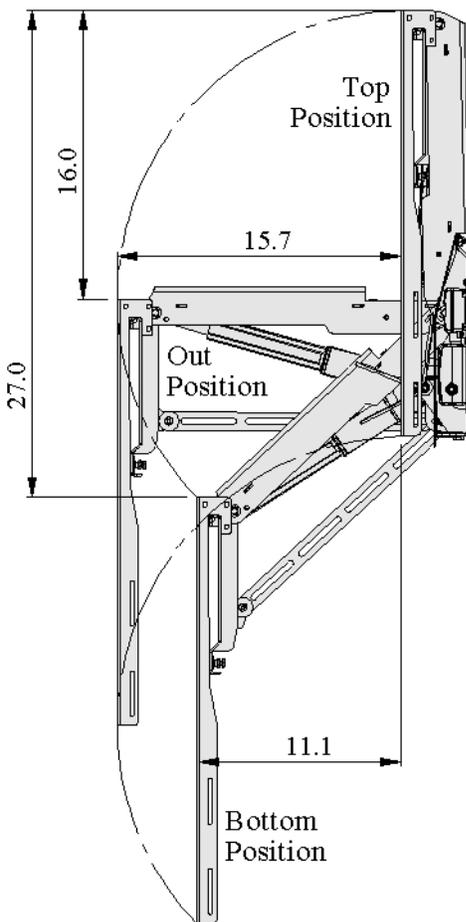


Figure 2, Vertical in Top Position

Vertical tolerance in Out and Bottom Positions is +/-1 degree.

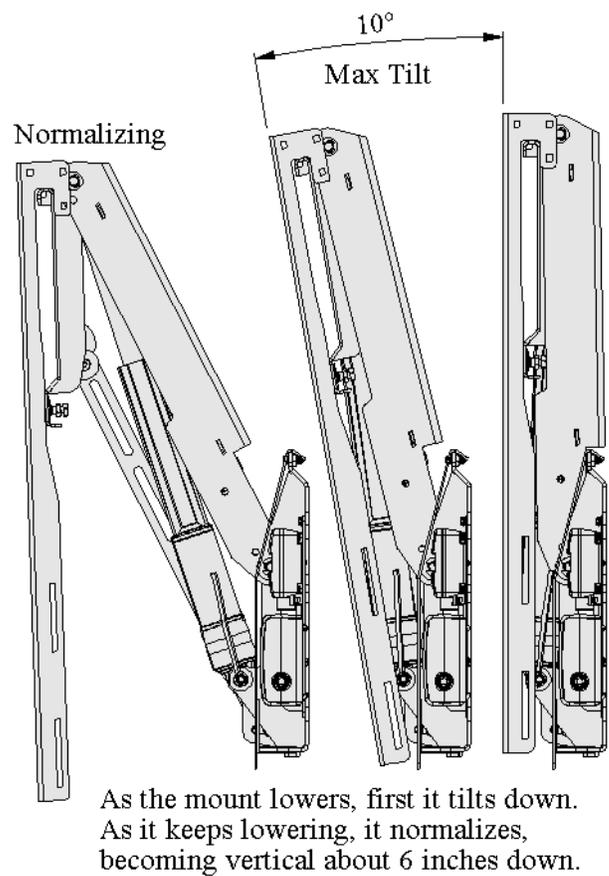


Figure 3, Max Tilt and Motion at the Top

Determining Where to Put Mount

1. Extra thought and planning is needed when mounting over a shelf; see the Above Shelf Mounting section on page 8 for more details and relevant dimensions. Find the needed distances [H] and [C] for your shelf depth [D].
2. To find out how the mount relates to the television you should do a test fitting on the ground.
3. If attaching a speaker lay that out also with the speaker bracket.
4. Figure 4 shows the important things to look for and measure.
5. The bottom of the TV Hanger, and the bottom of the mount, is the same height.
6. If mounting over a shelf, make sure the [H] and [C] minimum distances are satisfied.

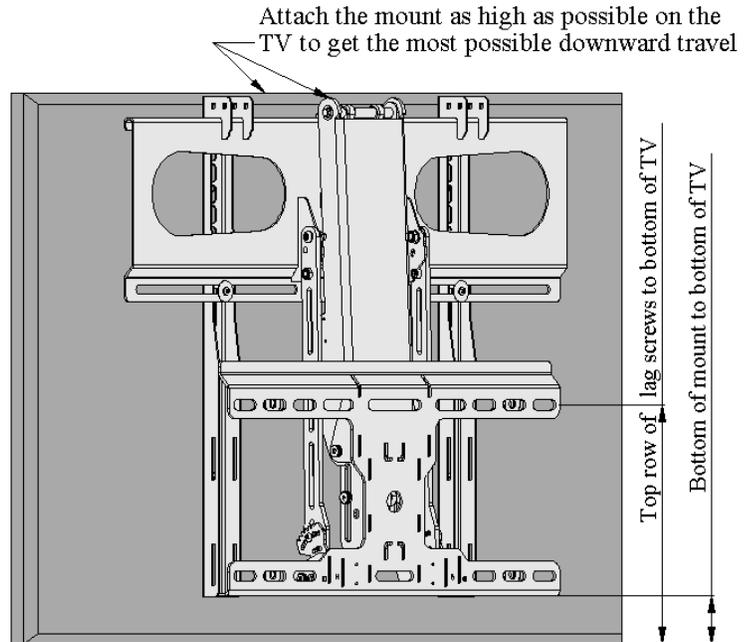


Figure 4, Mount Test Fitting

Attaching TV Hangers to Television

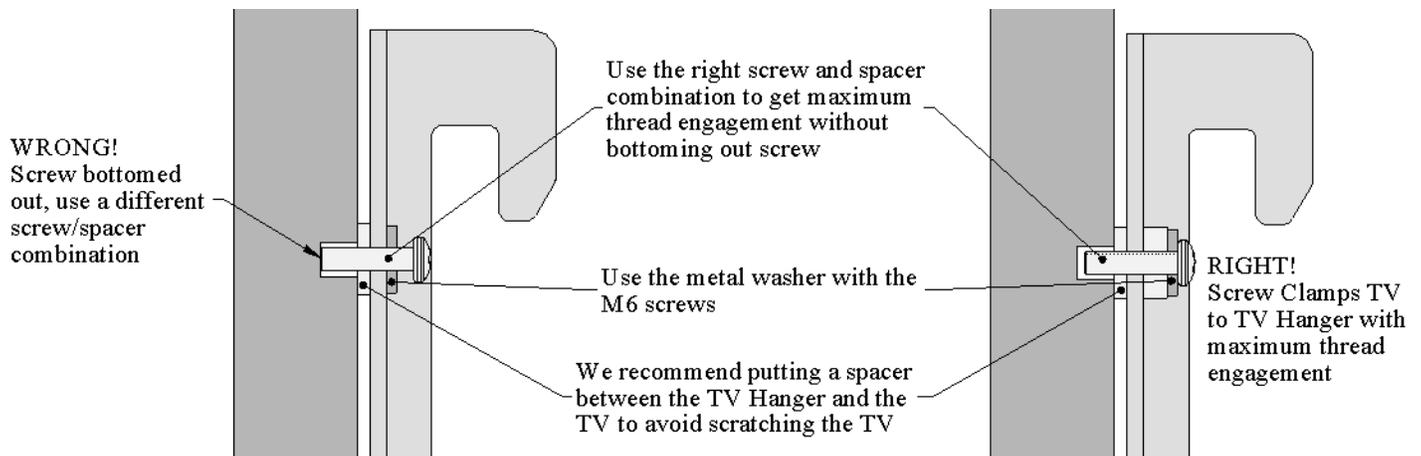


Figure 5, Attaching TV Hangers to TV

Conditions for Mounting to Wall

1. The TV must be centered on the mount to avoid leaning.
2. The mount is designed to attach to standard 2 x 4 or larger wall studs. If the wall isn't sturdy enough then more support will need to be added, consult an expert.
3. The mount must be securely fastened to a structure that can support 4 times the total weight of the television and mount. Dynamic Mounting assumes no responsibility for damage from an improperly installed mount.
4. The mounting holes need to be in the center of the studs, use a stud finder as needed.
5. 2 lag screws are needed in the top slots of the mount and 2 in the bottom slots.
6. 2 lag screws need to be on each side of the center of the mount and the center of gravity of the television.
7. You can double check these conditions are meant by;
 - o Using the mount as a template, or
 - o The cardboard box the mount ships in has an outline of the bracket that attaches to the wall, cut out to use.

Important: The TV needs to be centered on the mount to avoid leaning

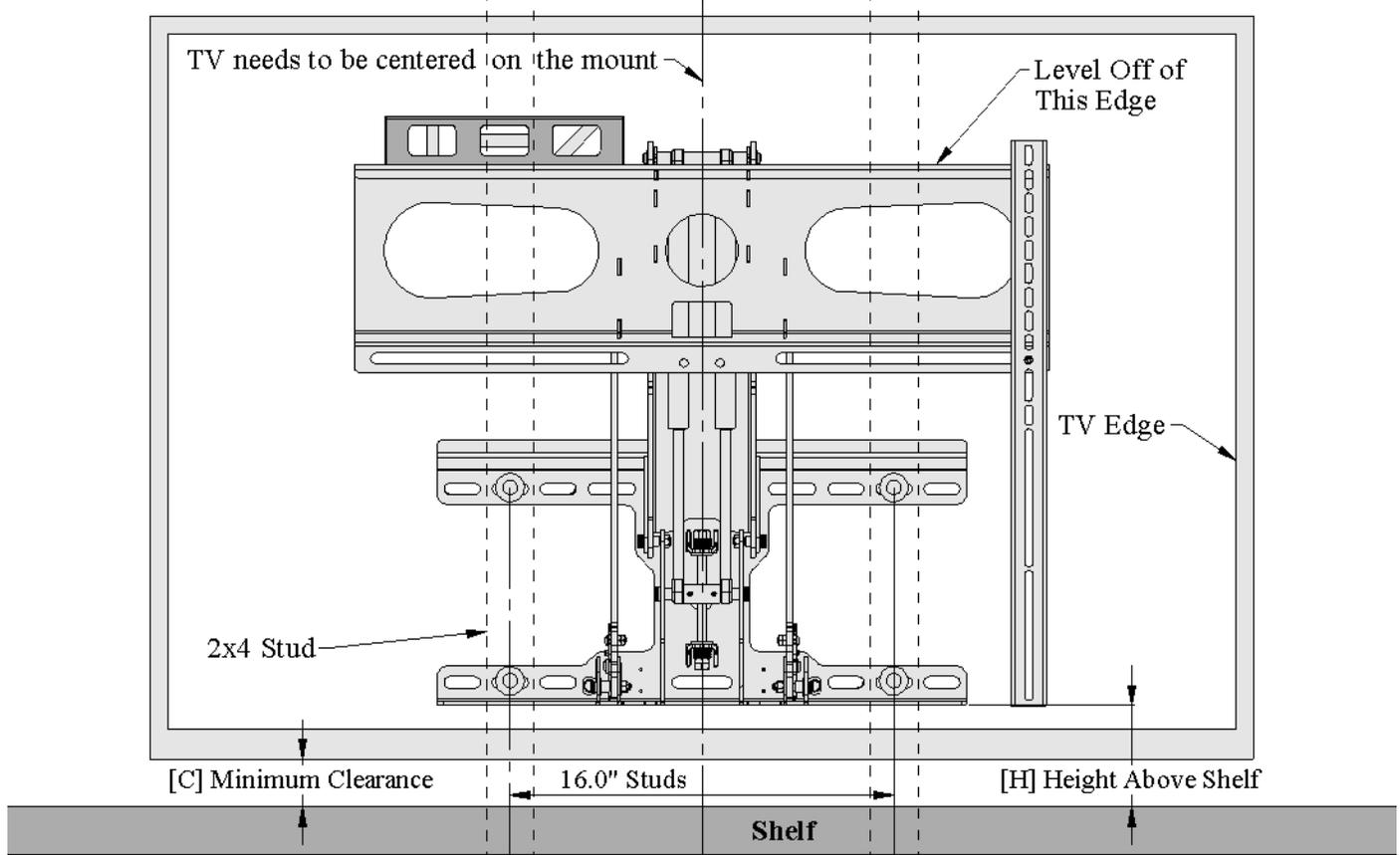


Figure 6, Positioning Mount on the Wall

Mounting To Wall

1. The television should be centered on the mount, if not the television will sag to one side. The heavier the TV and the more off center, the more unlevel the TV will be through its range of motion. If your stud placement doesn't allow for the TV to be centered, the **Extra Wall Support** (sold separately) will give more side to side adjustment.
2. Mark the locations of the mounting holes by;
 - o Using the mount as a template, or
 - o The cardboard box the mount ships in has an outline of the bracket that attaches to the wall, cut out to use.
3. Once you know your location, pre-drill 1 of the top row of mounting holes 2.5in deep using the 1/4in drill bit.
4. Get someone to help hold the mount to the wall.
5. Figure 7 shows the correct order to put on the lag screw.
6. Use a 9/16" wrench to install the lag screw; do not tighten all of the way down yet.
7. Level the mount as shown in Figure 6.
8. Mark and drill the other 3 holes 2.5" deep.
9. Install the lag screws and tighten until the mount is firmly pressed against the wall. Do NOT over tighten.

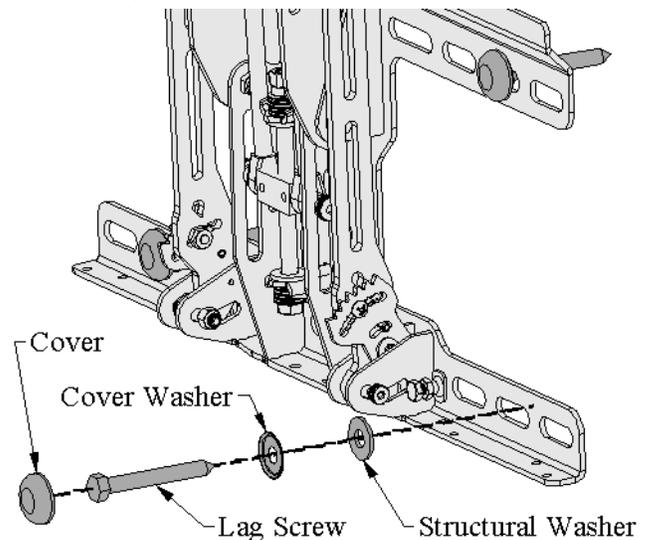


Figure 7, Lag Bolt and Washer Order



Pinching and Crushing Hazard: The wall mount actuation is very strong, do NOT run the mount when anyone is near the mount. Do NOT have any part of the body in the mount or between the TV and Wall. The Mount will keep driving until someone pushes another button on the remote to stop it. When working on the mount unplug the power.

Remote Control

The remote requires 2 AAA batteries, to replace use a small screwdriver to slide the cover tab over and then pull out.

The Remote comes with a holder that can be mounted, screws are supplied.

Remote Control Buttons

- **↑** – Move the mount up to the topmost set position
 - Mount cannot be driven higher then set limit
 - Comes set for max top position
 - Hold to drive to position
- **↓** – Move the mount down to the bottom most set position
 - Mount cannot be driven lower then set limit
 - Comes set for lowest bottom position
 - Hold to drive to position
- **1** – Move the mount to the set 1 position
 - Mount will drive to this position from either direction
 - Does not come set out of the box
 - Hold to drive to position
- **2** – Move the mount to the set 2 position
 - Mount will drive to this position from either direction
 - Does not come set out of the box
 - Hold to drive to position
- **Run** – Automatically move to the position selected
 - Press **Run** then any position button within 3 seconds and the mount will move there automatically
 - Press any button to stop movement
- **Set** - Set and Clear Positions
 - Hold **Set** then any position button together for 3 seconds to set the current position for that button, remote will flash twice to indicate the position is set
 - Hold **Set** then any position button together for 6 seconds to delete the current position for the button, remote will flash three times to indicate the position is cleared

Note: Press each button firmly; a quick tap probably will not work. You do not have to point the remote at the mount to get it to work.



AutoMove is Dangerous: The Mount will keep driving until someone pushes another button on the remote to stop it or it reaches the position. Keep an eye on the mount until it stops moving. The wall mount actuation is very strong. Do NOT run the mount when anyone is near the mount. Do NOT have any part of the body in the mount or between the TV and Wall.

Automatically Move to Position

The mount can be automatically moved to any set position without having to hold the button. To do this, press **Run** and then the Position Button (**↑**, **↓**, **1**, **2**). To stop movement, simply push any button on the remote.

Preventing Mount from Hitting Shelf

If the mount would hit the shelf or some other object in the top or bottom position. You can easily reduce the top (↑) and bottom most (↓) position so that the mount cannot move past that point. Follow the directions in the Remote Control Buttons section on page 6.

Attaching the Television to the Mount

After the above steps are finished you are ready to put the television on the mount.

1. Drive Mount up and down, ensuring everything is working as expected.
2. Drive mount to the lowest position, if the mount would hit the shelf, set lower position so that it won't.
3. Unplug the power to avoid any accidental movement.
4. We recommend having someone help putting the TV on the mount.
5. Hook the TV Hangers (with the TV attached to them) over the Hook Plate as shown in Figure 8.
6. Before positioning the television side to side or pulling the mount down, insert the 2 #10 x 7/8 inch long machine screws with washer through the Hook Plate and into the TV Hangers, finger-tighten to ensure the TV will not fall off.
7. Adjust the television so that it is centered on the mount.
8. Tighten the screws down with a screwdriver.
9. Plug the power in and move around.

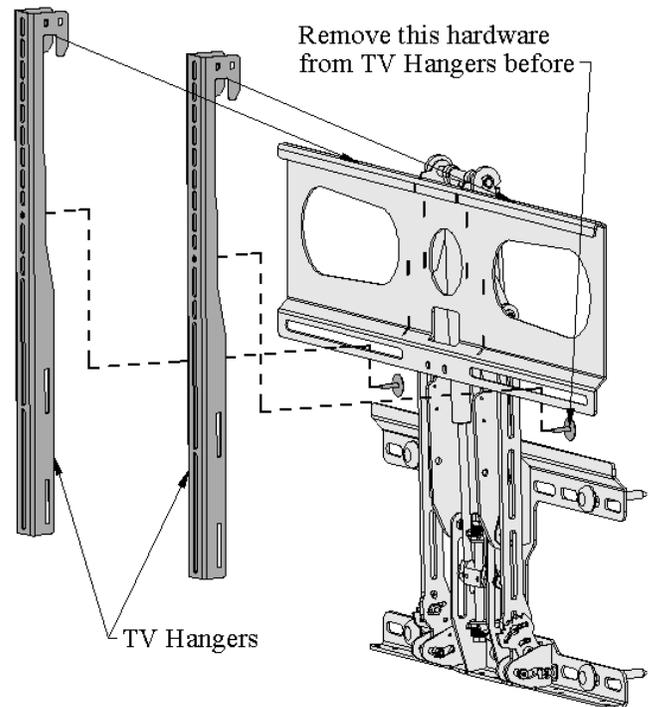


Figure 8, Attaching the Television

Paintable Plastic Covers

The Paintable Plastic Covers can be painted to match your wall or left as is to help the mount blend in. They simply hook over the mounting plate as shown in Figure 9. Outlets can be installed under the covers and then the wires ran under them. You may need low profile wires or an indented outlet to get it to fit though.

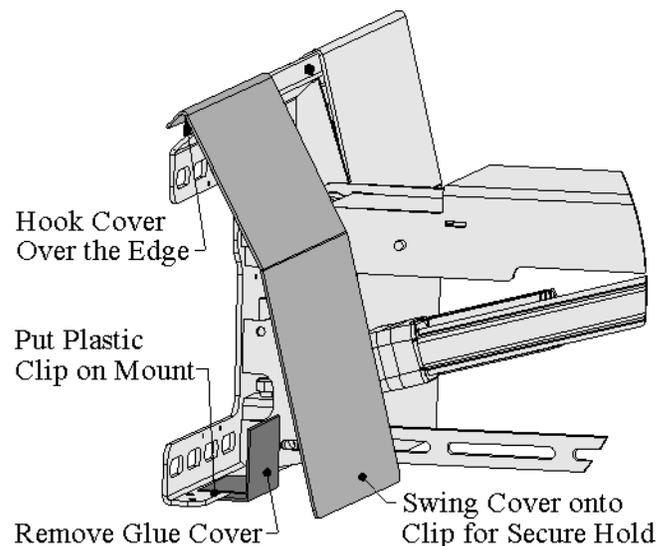


Figure 9 Put Plastic Cover On

Above Shelf Mounting

To get the lowest possible bottom position when mounting above a shelf, it is very important that you put extra thought into the mounting process. The Mount can clear shelves up to 16" deep.

The TV Clearance Table shows the minimum clearance [C] needed between the shelf top and the bottom of the TV (or the bottom of an attached speaker, whichever is lower) for the mount to swing around the shelf. To find the clearance needed, find the shelf depth [D], in this example 8", and go down the column and find the corresponding minimum clearance height [C], which is 2.5". Figure 6 shows where to measure [C] and [H].

Figure 10 and the Mount Travel Table shows you how much downward travel you will get with different shelf depths and heights above the shelf. For example, to find the downward travel [T] when you have an 8" shelf depth [D] and you attach the bottom of the mount 6" above the shelf [H]. First find the corresponding [D] and look down the column and find the closest [H], which in this case is 5.75". Now go left along the row and find the corresponding Travel [T]. In this case you will get a downward travel of approximately 26".

Tips to get the Lowest Possible Bottom Position

- Get the top of the mount and the top of the TV to be as close as possible.
- Typically you'll get the lowest bottom position by being near the minimum clearance shown in the TV Clearance Table.
- Getting the most travel possible out of the mount, doesn't mean you'll get the lowest possible bottom position.
 - For example, for a 12" shelf, to go from 26" of travel, to 27" of travel, you have to raise the mount up 2". So your new bottom position is actually 1" higher.
- If the mount would hit the shelf, simply change the bottom most (↓) position so it won't. See the Remote Control Buttons section on page 6

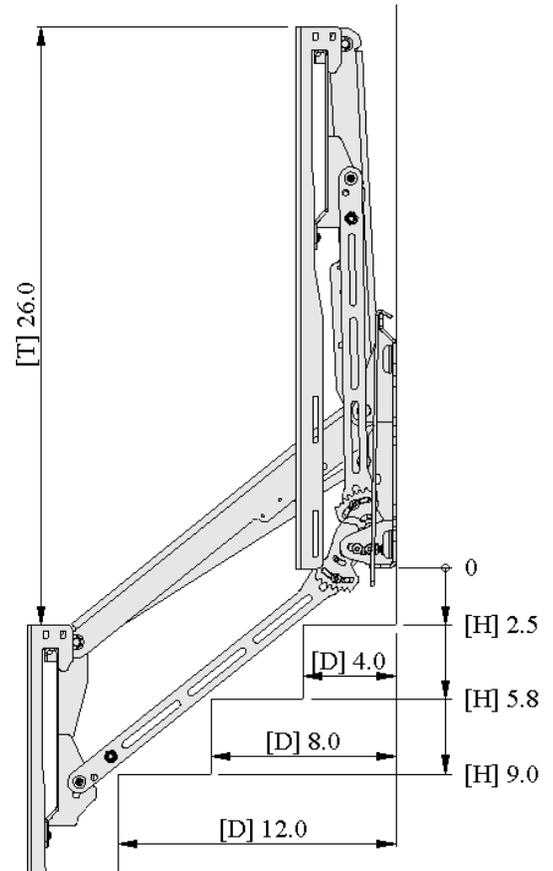


Figure 10, Shelf Clearance Drawing

TV CLEARANCE TABLE (OR SPEAKER/SOUNBAR CLEARANCE, WHICHEVER IS LOWER)

[D] SHELF DEPTHS (IN) (BOLD NUMBERS)																	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0	1	1.25	1.5	1.75	1.75	2	2.25	2.5	2.75	3	3.25	3.75	4.25	5	5.75	6.75	-
[C] MINIMUM CLEARANCE NEEDED BETWEEN SHELF TOP AND TV BOTTOM IN TOP POSITION (IN)																	

27 (IN) IS THE MAXIMUM POSSIBLE DOWNWARD TRAVEL

ALL MEASUREMENTS ARE APPROXIMATE, 16 INCHES IS THE MAXIMUM SHELF DEPTH THE MOUNT WILL WORK WITH

- MEANS IT IS POSSIBLE, BUT YOU WILL NOT GET ANYMORE DOWNWARD TRAVEL

MOUNT TRAVEL TABLE (DOWNWARD TRAVEL OF MOUNT VS. HEIGHT AND SHELF DEPTH)

		[D] SHELF DEPTHS (IN)																
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[T] DOWNWARD TRAVEL OF MOUNT (IN)	27	0	0	1	2	3	3.75	4.75	5.75	6.5	7.5	8.5	10	11	-	-	-	-
	26	0	0	0.75	1.5	2.25	3.25	4	4.75	5.75	6.5	7.25	8	9	11	11.75	-	-
	24	0	0	0.5	1	1.75	2.25	2.75	3.5	4	4.75	5.25	5.75	6.5	7	7.5	9.5	10
	22	0	0	0.25	0.75	1.25	1.5	2	2.5	2.75	3.25	3.75	4	4.5	5	5.25	5.75	7.5
		[H] HEIGHT MOUNT IS ABOVE SHELF (IN) (UNBOLDED NUMBERS)																



Unplug Power Before Adjusting: The wall mount actuation is very strong, do NOT run the mount when anyone is near the mount. Do NOT have any part of the body in the mount or between the TV and Wall. The Mount will keep driving until someone pushes another button on the remote to stop it. When working on the mount unplug the power.

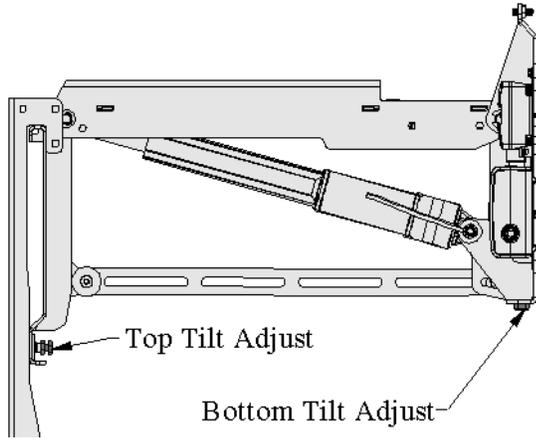


Figure 11, Tilt Adjust

Setting the Tilt in the Bottom and Out Positions

In the bottom and out positions the mounts tilt can be set Vertical +1/-2 degree. To adjust;

1. Have TV on the mount
2. Drive mount to Out Position for easiest access
3. Unplug the power to avoid mount movement
4. Adjust the bolt shown in Figure 12

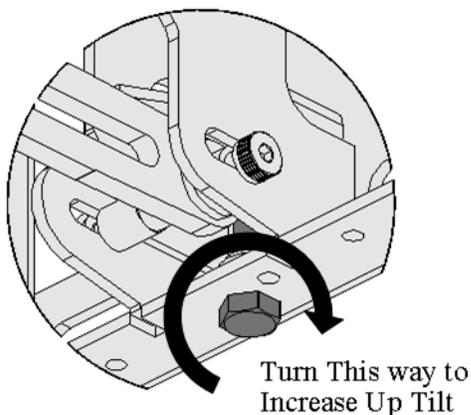


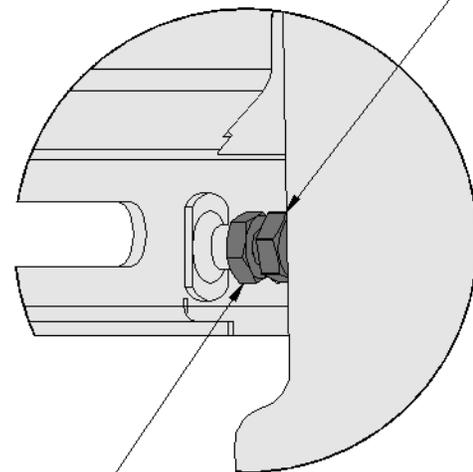
Figure 12, Bottom Tilt Adjust

Setting the Tilt in the Top Position

In the top position the tilt will probably have to be adjusted to be vertical;

1. Have TV on the mount
2. Drive mount all of the way to the Top Position (hold **↑** until mount stops)
3. Take note of the tilt
4. Drive mount to Out Position for easiest access
5. Unplug the power to avoid mount movement
6. Adjust the screws shown in Figure 13, one on each side
7. Drive mount to the Top Position
8. Repeat As needed
9. Tighten Lock Nut when Tilt is good

Top Tilt Adjustment Bolt
Adjust the bolt in and out to change the tilt in the top position



Top Tilt Lock Nut
Tighten this nut against mount to keep bolt in place

Figure 13, Top Tilt Adjust

Wire Management

Wires can be routed through the wire routing holes and/or zip tied with the included zip ties as shown in Figure 15. Ensure enough slack remains so the wires can move freely. Check that nothing is getting pinched or rubbing excessively after running wires.

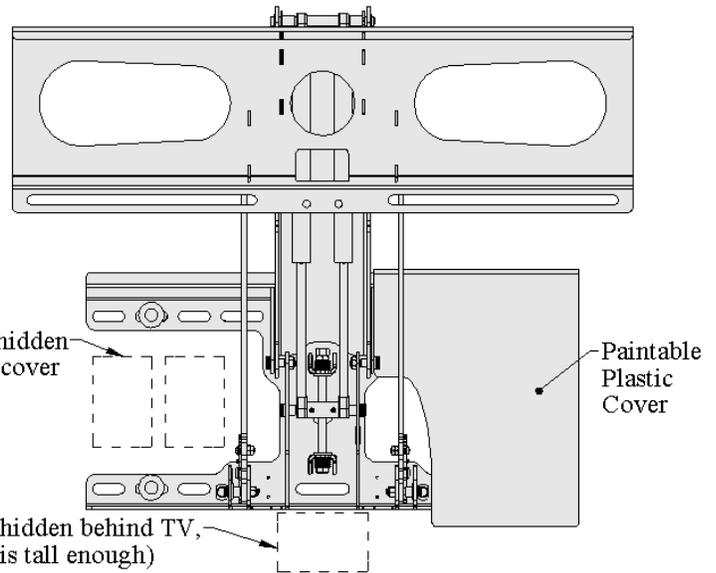
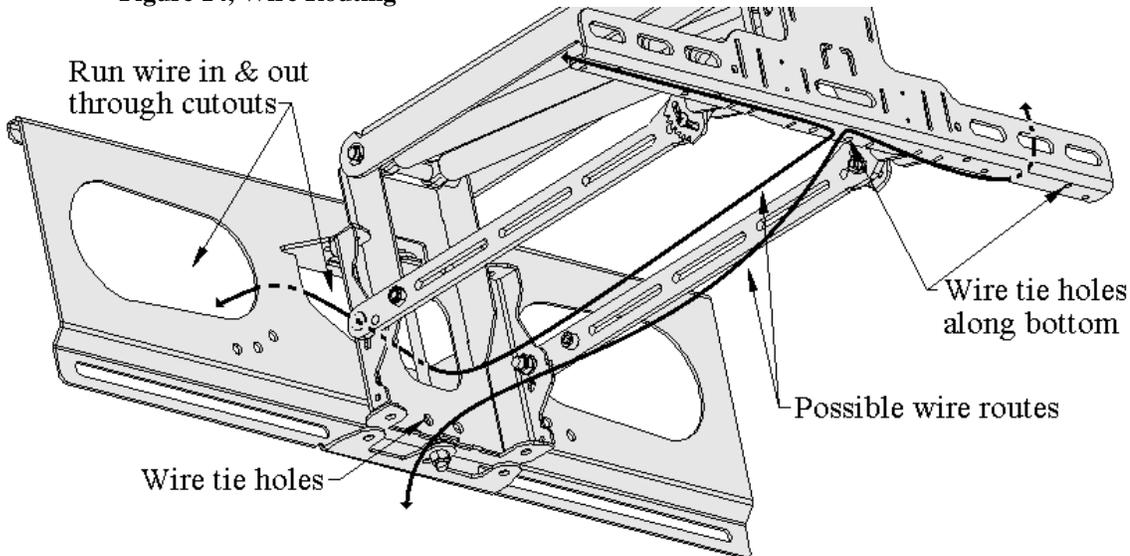


Figure 15, Ideal Outlet Placement and Plastic Cover

Figure 14, Wire Routing



Maintenance

To ensure the mount will work great for as long as possible follow these simple procedures;

1. Lubricate all joints every 3 months. May need more, especially if outside.
2. Visually check all bolts every 3 months to ensure nothing looks like it is coming loose.

Warranty

Dynamic Mounting guarantees the Down and Out Motor Mount to be free of defects for the product's warranty period of 5 years.

The warranty period begins on the original date of shipping. The limited warranty is intended only for the original purchaser. The warranty will be void if the mount is modified in anyway or not installed correctly, Including overloading, abuse, or use for any purpose other than specified in these directions. This mount is for indoor use only and the warranty will be voided if the mount is used outdoors.

Dynamic Mounting is not liable for any damage or injury caused from the use of or the inability to use our mount. To the maximum extent permitted by applicable law, Dynamic Mounting disclaims any responsibility for incidental or consequential damages.

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