HIDDEN VISION

BI7

WWW.HVTVMOUNTS.COM

FLIP AROUND FOR **BUILT-IN** APPLICATION

MODELS: **M3-BI-43-7**

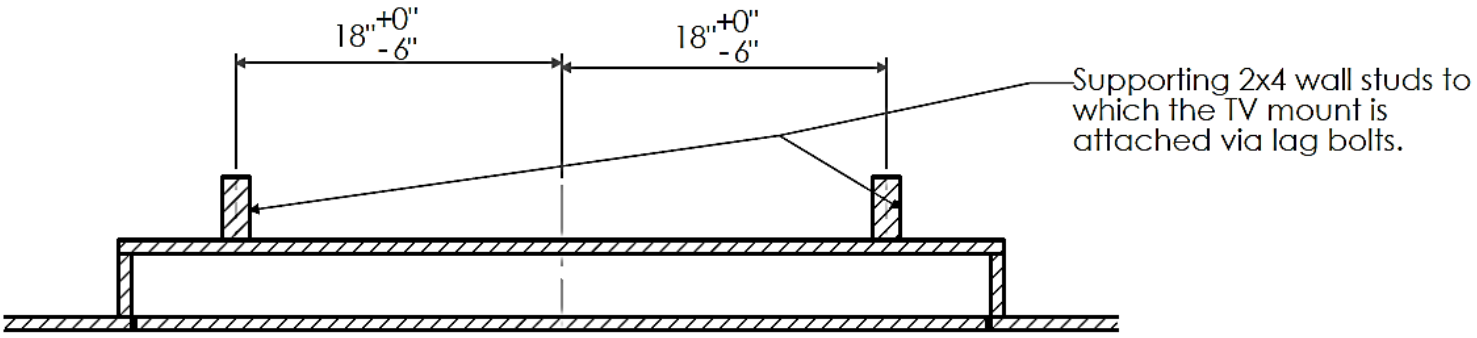
Any questions? Please contact us! We'd love to help. Call the office 208-287-8882 during business hours or call Mark's mobile anytime including evenings and weekends. 208-919-5969.

Table of contents

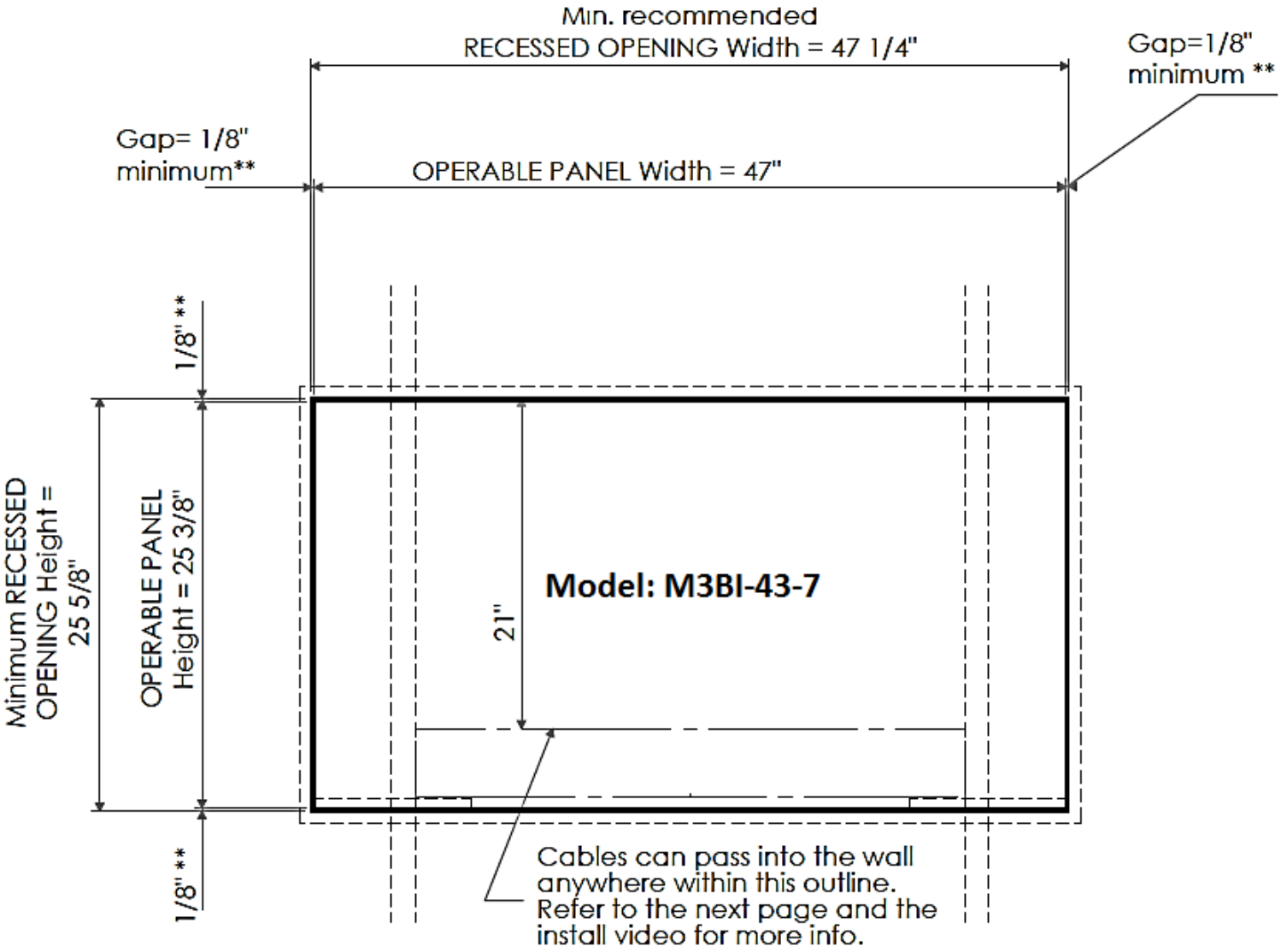
Before you start you may want to check out these helpful references.

- **Watch videos of example built-in projects**: Link to YouTube playlist: https://bit.ly/fabipl (or find us on youtube by searching "Hidden Vision - HVTVmounts" and navigate to our playlist called "Built-in Flip-Around TV Mounts")
- **INSTALLATION OVERVIEW VIDEO**: **The model shown in this video is a similar model but NOT IDENTICAL. Please refer the instructions below for specific details relating to your model.** https://youtu.be/GM1LVz5AKGg
- **List of helpful 3rd party products**: Check out "Accessories" on our website for helpful products you may need. Also, for additional products that we do not sell, see the following document (http://bit.ly/m3helpfulproducts *(Note: you do NOT need to download DROPBOX. Look for the "direct download" option, normally found in the upper right corner of you screen)*

STEP 1: Layout

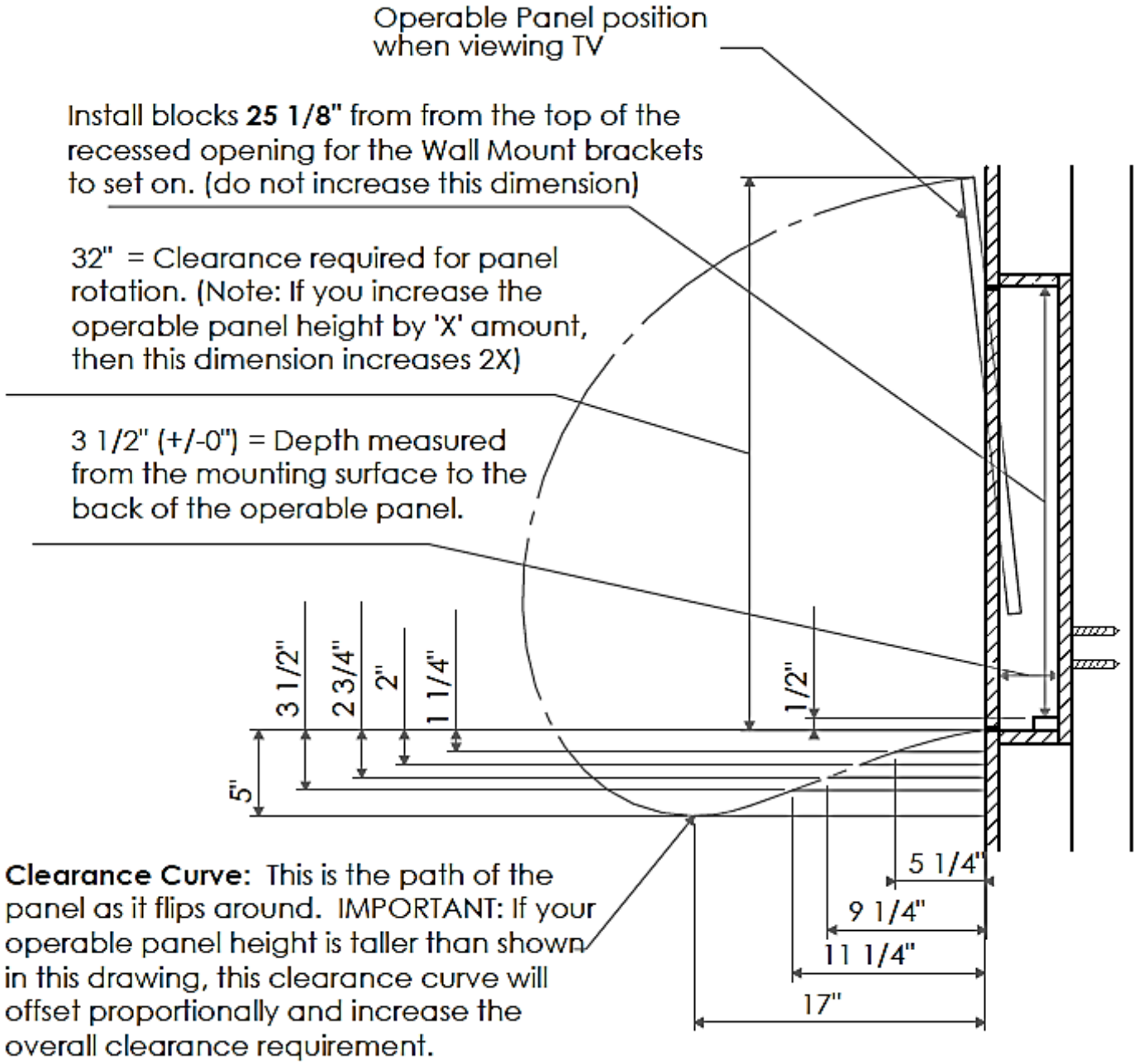


Top Cross-section View



**Minimum Gap: As the operable panel flips around it will exit and re-enter the recessed opening. Therefore, the recessed opening must be larger than the operable panel. We recommend a minimum 1/8” gap on the sides.

Front View



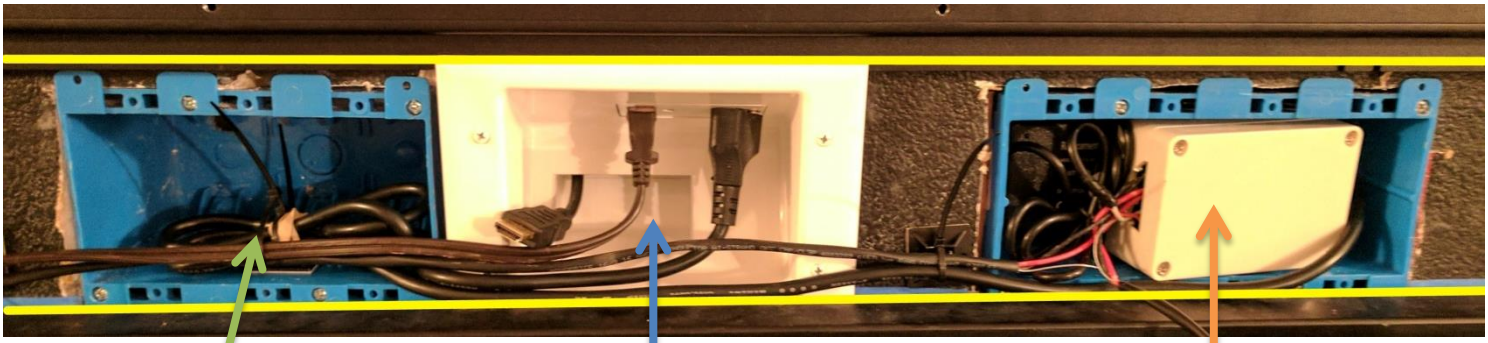
Side Cross-section View

Cable Access / Power Requirements

Numerous products and combinations can be used, however, there are specific details that must be observed.

1) Within the Yellow outlined area nothing can protrude more than 1/2" from the wall/mounting surface.
2) Within the area BELOW the yellow outlined area no objects should protrude more than 3/16".
3) Within the area ABOVE the yellow outline no objects should protrude from the wall if avoidable. If not avoidable you can (in some cases) get away with up to 1/8". Please contact us with questions.

Below are a couple options we've found to work well. Electrical should be performed by a licensed electrician. It is your responsibility to verify all electrical components and installation methods meet your local building, safety and fire codes.



Recommended for ALL models

You'll likely need somewhere to stuff extra cable. Installing a **3-GANG "OLD WORK" box** (shown here) is an easy way to accommodate this.

MOTORIZED models:

Motorized models have a power supply and controller box that must be housed in the wall or close by*. These boxes fit nicely in a **4-GANG "OLD WORK"** electrical box as shown here.

*You can relocate the power supply & controller box to a nearby cabinet or closet if you want. HOWEVER, you must use the appropriate gauge wire to avoid 'Voltage Drop' (reduced power to the motors.)

(2 wires per motor = 4 wires total) Up to 20' extension = 14AWG X 4
Up to 35' extension = 12AWG x 4 Up to 50' extension = 10 AWG x 4

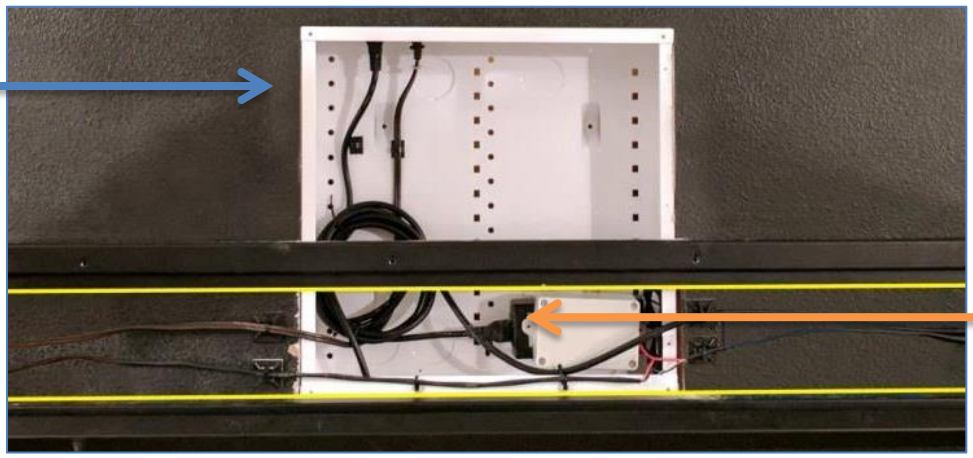
ALL MODELS require a RECESSED Outlet of some kind because the cover plate sits 1/2" from the wall.

Option 1: Power Bridge Two-Pro-12 (found on the **Accessories** page of our website. www.HVTVmounts.com)

Option 2: (shown above) DataComm 45-0071-WH or 45-0024-WH. You can order this item from Amazon by searching the part numbers above. Caution: You can find items that look similar to this at your local hardware store. However, they are likely larger than the example shown above (5" x 7") and may not fit well.

Option 3: **Need to pick something up today?** You can find the following at your local hardware store. "Duplex RECESSED Outlet," "1-Gang Old Work box," and "Recessed Wall Plate for low voltage cables."

Option 4: (shown below) You can use an in-wall, flush mount, junction box similar to the one shown below. **Caution: Potential interference with picture frame!** As the mount flips around and approaches the TV viewing position, the picture frame will pass closely to the wall/mounting plane. Any Make sure nothing protrudes from the wall ABOVE the YELLOW outlined area. Contact us for more info.

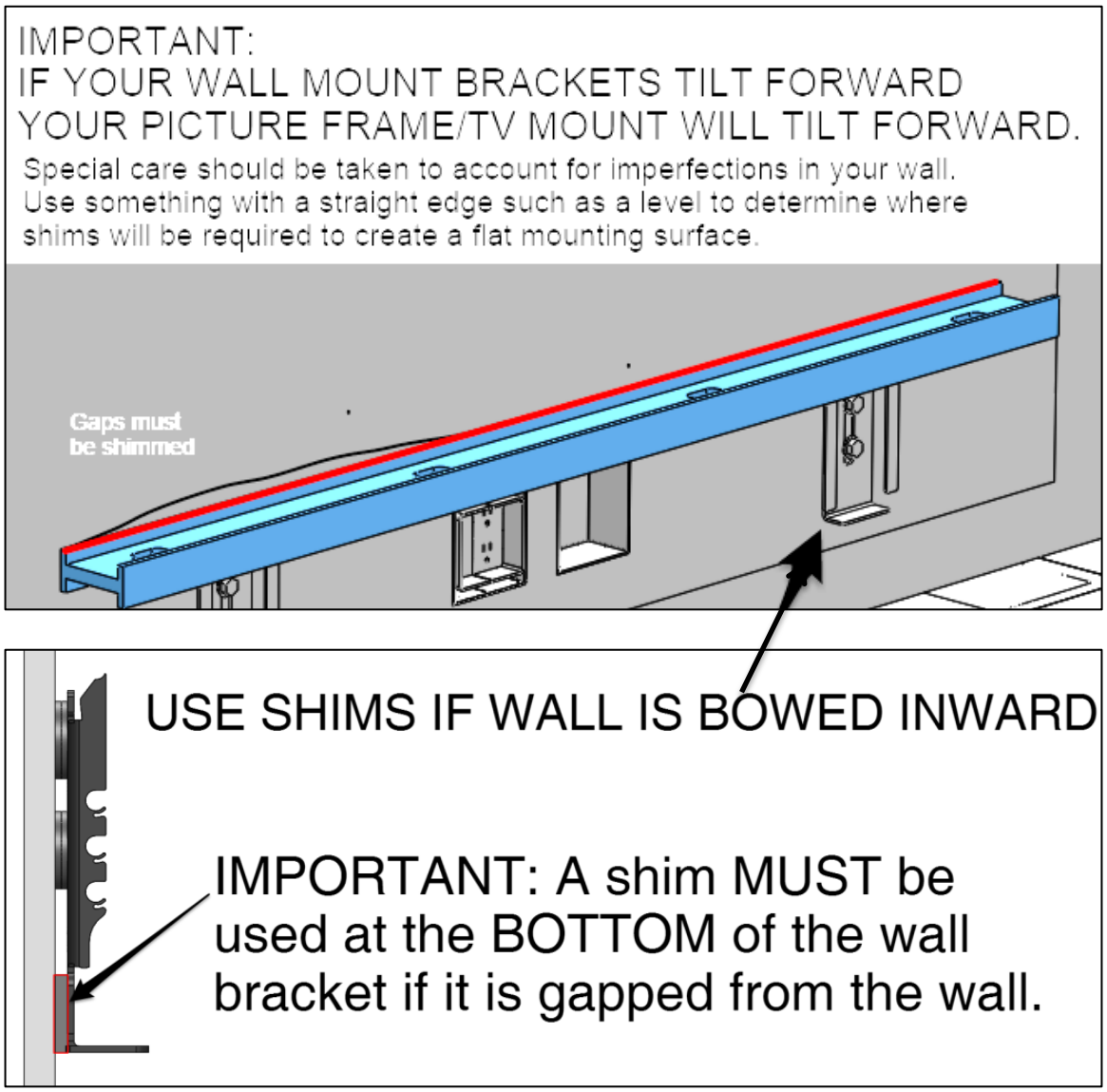


Install Wall Mounting Brackets

Any questions? Please contact us! We'd love to help. Call the office 208-287-8882 or Mark's mobile 208-919-5969

NOTE: This mount is meant for installation on wood framed walls with 2" x 4" minimum wood studs and 7/16" minimum drywall thickness. Installation to metal stud walls or concrete walls require special fasteners and or additional support (not supplied). In some cases additional studs may be required for adequate support. The integrity and adequacy of the structure to which this product is attached and the means by which this product is fastened to the supporting structure is the installer's responsibility. Consult a professional. Mark Joseph Design / Hidden Vision is not liable for failure, damage, or injury caused due to inadequate support or improper installation.

1. Find **EXACT CENTER** of your wall stud (NOTE: It is very important that your lag bolts are installed CENTERED on the wood stud. Use the supplied trim nail or drill bit to poke through your drywall to find the left and right edges of your stud. This way you can be sure to find the exact center of your stud. Don't rely on a stud finder alone.)
2. Refer to the supplied "Drawings for recessed application" for layout information.
3. Predrill a 1/4" hole for each lag bolt.
4. Slide the mount left/right to center and up/down to level then tighten down the lag bolts.

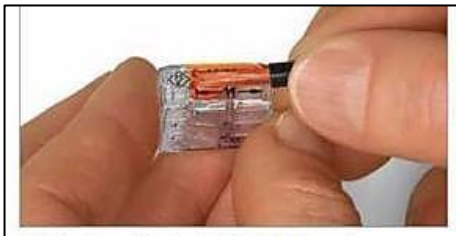


Motor Setup (skip to next step for manual models)

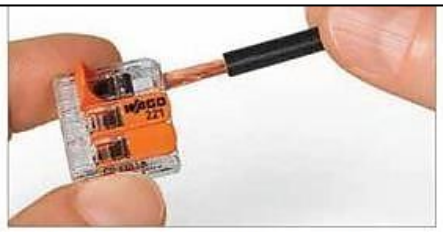
IMPORTANT OPERATION NOTES FOR MOTORIZED MODELS

- Do not operate if the if the mount is not securely fastened to the wall.
- **THE FUSES WILL BLOW** if you operate the mount without the TV installed unless you assist the motors. **THIS IS SUPPOSED TO HAPPEN**. DO NOT INSTALL HIGHER AMP FUSES. This happens because the springs, which are meant to counter the TVs weight, will apply increasing resistance against the motors as the mount moves further from the wall.)
- **See the cable routing section for instruction on assisting the motors when operating the mount without the TV installed.**
- **DO NOT ATTEMPT TO OPERATE A MOTORIZED MOUNT MANUALLY**. The motors cannot be overpowered manually.
- **BLOWN FUSES**? See the next page.

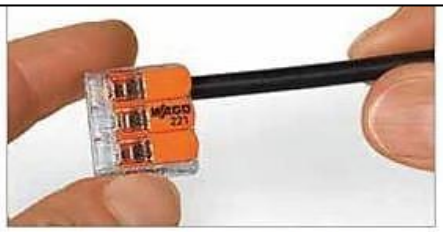
1. Wondering where to locate the electronics? Want to extend the motor wires? What power is required? Refer to the Cable & Power requirements within the Layout section of these instructions for answers to these questions.
2. There are 2 motors (one in each arm). Each motor has a pair of wires exiting the base of the arm. Connect the motor wires to the two pairs of wires coming from the controller. Match **RED**/**BROWN** and **BLACK** / **BLUE**. It does not matter which pair goes to which motor.



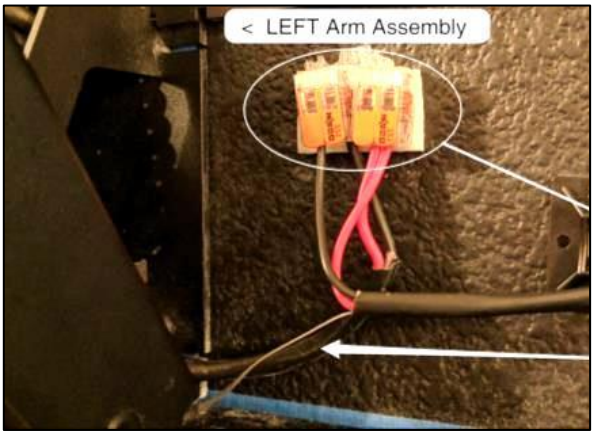
Strip the wire to **7/16" (11mm)** (refer to strip length guide printed on the side of the connector)

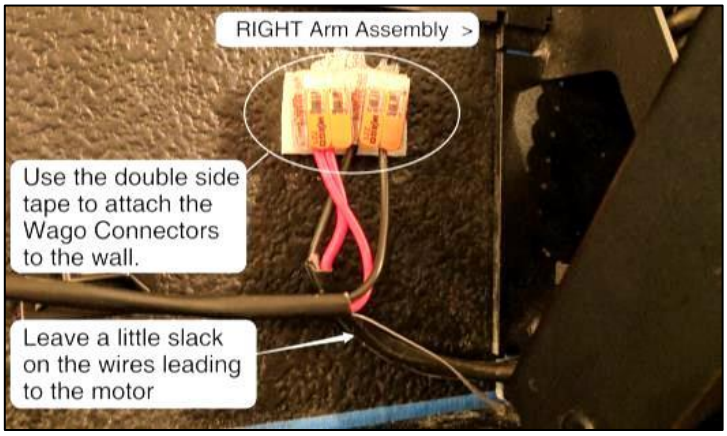


Lift lever to open clamping unit; insert stripped wire.



Lower the lever to close the clamping unit. Flip the housing over to visually verify that the exposed wire is contacting the metal clamp.





Controller type: **WiFi Smart Controller w/ Contact Closure**

3. If you're using our RF wireless remote controller, proceed on this page. If you are using our Smart Controller with Contact Closure and adhesive backed keypad you must refer to the instructions that were included in the motorized parts box (also found here: http://bit.ly/m3-smart-control)

Controller type: **RF Wireless Remote and Receiver**

4. Plug the power supply into 110 VAC - 220 VAC outlet.
5. The motors are now ready. Once your TV is installed you can operate the motors and flip the mount.
6. Wireless remote buttons: UP = TV Viewing position, DOWN = TV Hidden.

BLOWN FUSES? Read this.

- There are two motors (one in each arm assembly). Each motor has a dedicated fuse located near the motor to which it's attached. The specific location varies depending on your model.
- NEVER install fuses with an amp rating higher than the ones supplied. We've included extra fuses for your convenience.

Troubleshooting Blown Fuses:

The motor **FUSES are meant to blow if** the motors encounter unexpected resistance which may be caused by one of the following conditions.

- **If operated without sufficient weight**
  - WHY: The arms are spring loaded to counter balance the weight of the TV and Picture Frame. Without this weight the motors will fight against the springs causing increased resistance which results in blown fuses.
  - IDENTIFY: 1) Both the LEFT & RIGHT fuses have blown **AND** 2) The left & right arms have progressed equally.
  - SOLUTION: Install the TV **OR** install 1" to 1-1/2" thick plywood substitute for the TV. This is often preferable for cabinet makers and contractors working on built-in projects. Replace the fuses following the steps below.
- **If one of the two motors is not receiving power or is wired incorrectly**
  - WHY: If one of the two motors is not receiving power or wired incorrectly, the running motor will experience increased resistance and the fuse connected to the running motor will blow.
  - IDENTIFY: 1) One arm will have traveled further than the other **AND** 2) the fuse on the leading arm will be blown, but the fuse on the trailing arm will NOT be blown. Tip: Hold the fuse up to a light source and look closely for any break along the thin wire within the fuse.
  - SOLUTION: Inspect your wire connections to verify good connectivity and wire colors are correctly matched. Look for cut, damaged, or pinched wire. Replace the fuses following the steps below.
- **If interference is encountered**
  - WHY: Interference will result in increased resistance on the motors and this will blow the fuses.
  - IDENTIFY: 1) If scenario 1 is NOT true **AND** 2) Both motor fuses are blown.
  - SOLUTION: Identify and resolve the interference. If the interference is not obvious, here's a list of possible culprits. Tip: A call to our tech support can make quick work of this task.
    - Identify the side that encountered interference. It will be the side that has traveled a lesser distance.
    - Are your cables exactly as described in the cable routing instructions? Any deviance can cause interference.
    - Did anything fall into the base of the arm? Objects like discarded cable ties can cause interference with moving parts at the base of the arm. Tip: Compressed air can be helpful to remove debris that can't be reached.

Important steps for replacing blown fuses:

1) **Remove BOTH motor fuses**. Identify and trash any blown fuses. (do not reinstall fuses yet)
2) **Set the controller to reverse the direction** of travel so that when you insert the fuses in the following steps the mount will move opposite the direction it was traveling when the fuses blew.
3) **Align arms** by briefly contacting the fuse of the leading arm until the leading arm is aligned with the trailing arm.
4) **Test each arm individually by briefly contacting the fuse to verify both motors are traveling in the same direction**. If a motor is running the wrong direction, then check that you have not connected the motor wires in reverse polarity. If there is no movement verify the fuse is good, look for cut or damaged wire, and inspect wire connections.
5) **Turn OFF power to the controller & install the new fuses in BOTH motors**. (Tip: It's sometimes easiest to just switch off the breaker to the outlet that powers your TV and controller.)
6) **Turn ON power**. Both arms should travel together in the direction you set before powering off the controller. If the motors move in the opposite direction than expected, you may not have changed your "Power on state" setting to "Resume previous state." Refer to the WiFi controller instructions for details on changing this setting.
7) **Cycle the mount a couple times to verify smooth operation**. If the fuses blow again please take advantage of our exceptional Tech Support! I'm sure we can help. Call 208-287-8882 x2

CABLE INSTALLATION

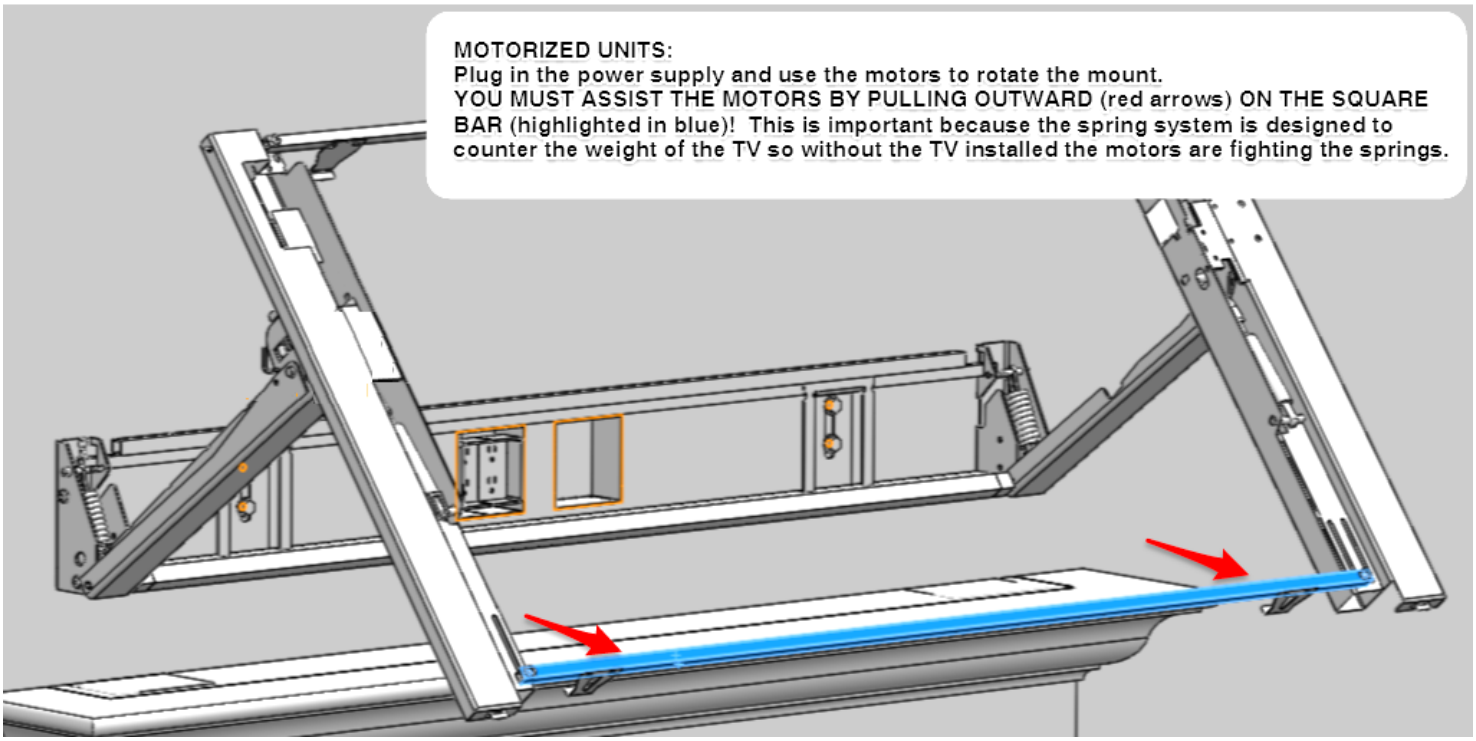
Any questions? Please contact us! We'd love to help. Call the office 208-287-8882 or Mark's mobile 208-919-5969.

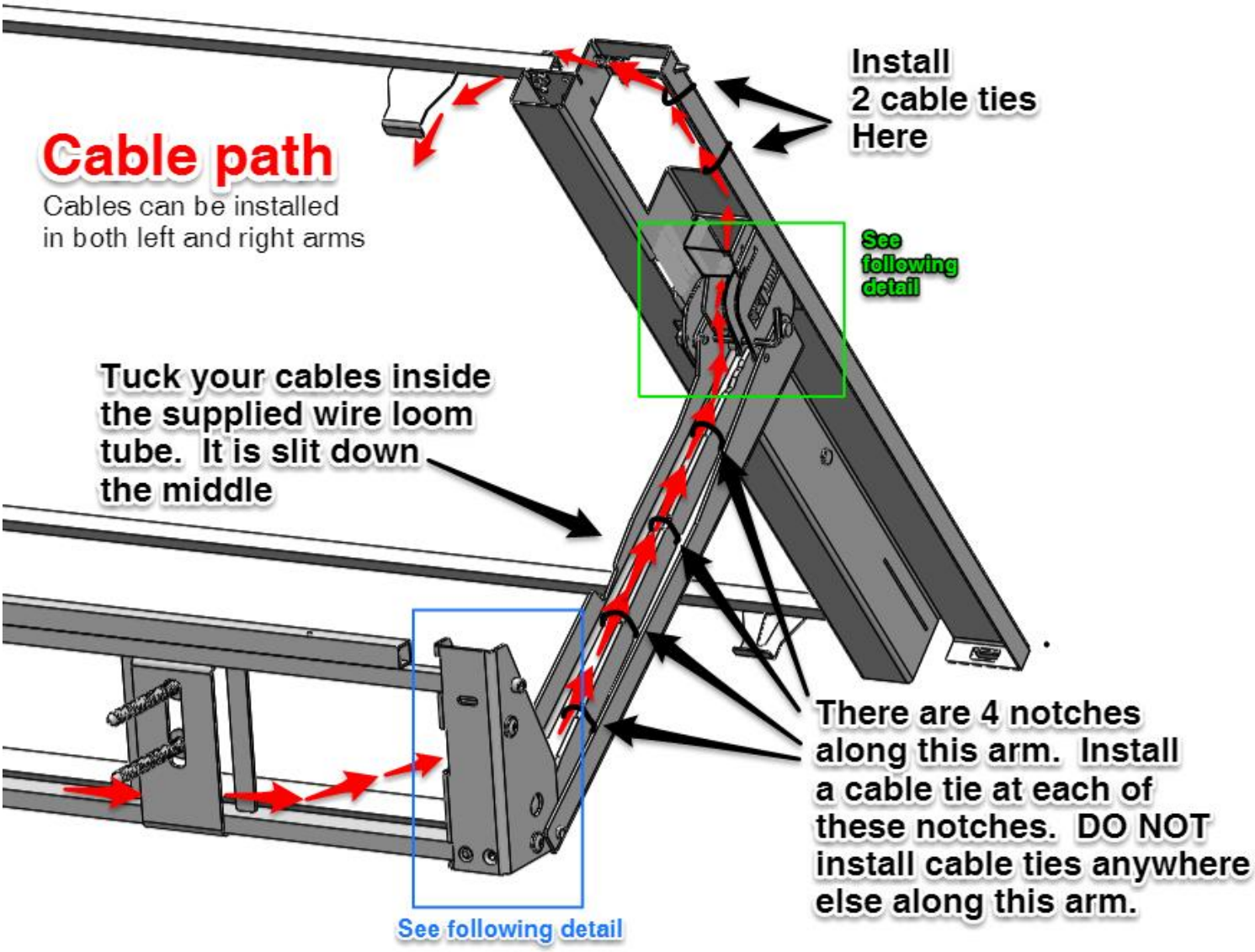
IMPORTANT: Cable routing is the most commonly underestimated and overlooked step. There is ONE CORRECT WAY TO ROUT CABLES! DO NOT GUESS. Routing cables incorrectly will result in interference which will prevent full opening and/or closing which can result in damage to the cables and/or the TV mount (especially if motorized). Look carefully at the following instructions and READ EVERY WORD. Call us with any questions.

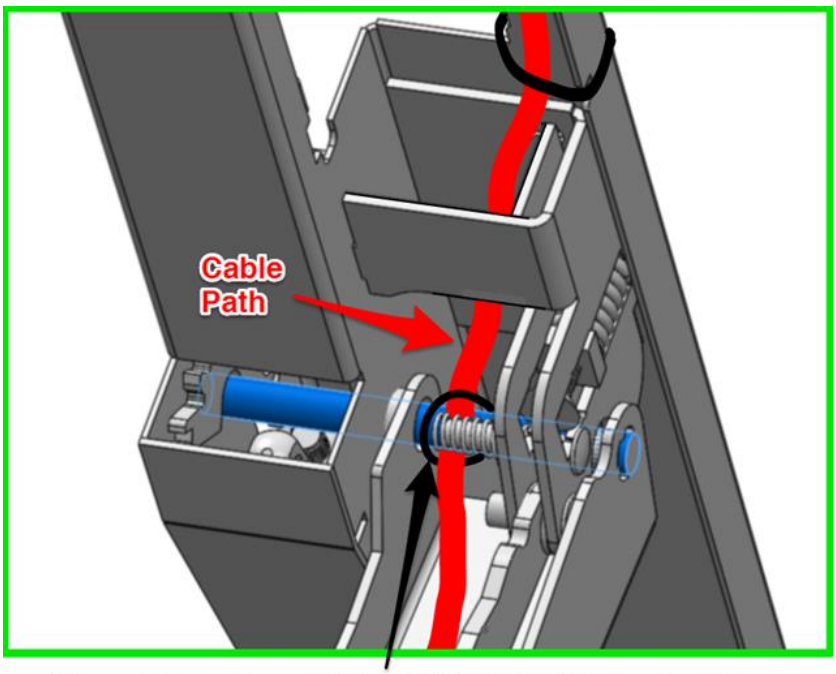
Rotate the mount to the position shown here

MOTORIZED:
- DO NOT operate manually
- When the TV is not installed you must assist the motors or the motors can be damaged and/or the fuses will blow. (described below)

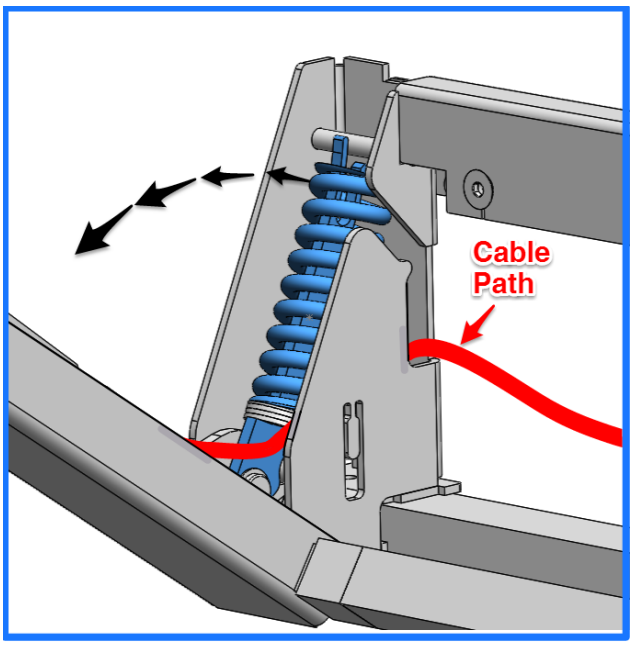
NON-MOTORIZED: Pull outward on the square tube (highlighted in blue). Use the position stop pin (described in the following detail) to hold the mount in the position shown here. BE CAREFUL! Spring loaded! Without the TV to counter the springs the mount will move very quickly and with force if it is not controlled. You can be seriously injured if not careful.







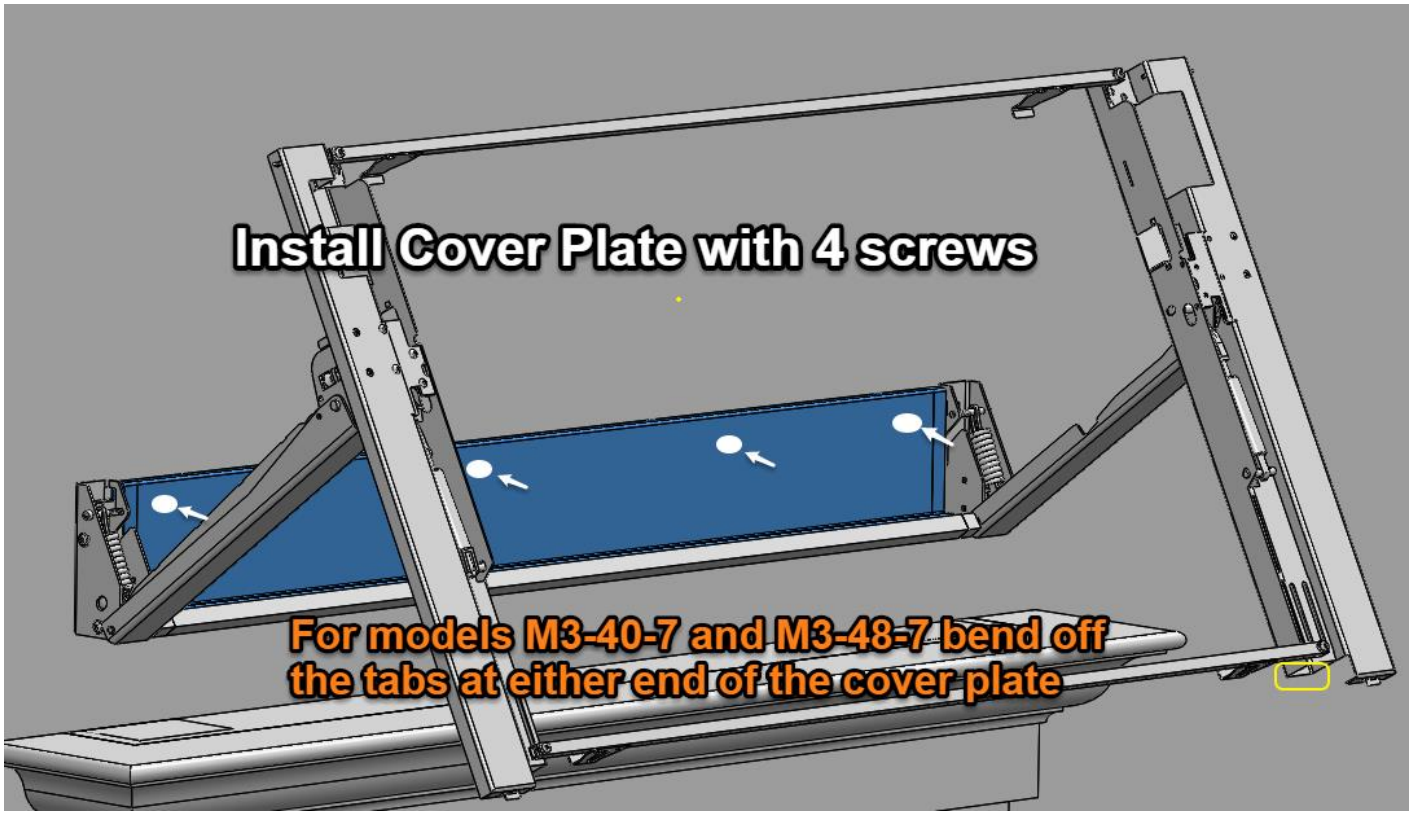
All cables should be LOOSELY zip tied to the the 1/2" pivot pin (shown in BLUE here)



If needed this spring can be pulled forward to install cables more easily. MAKE SURE the spring is BACK IN POSITION before operating the mount.

INSTALL COVER PLATE

1. Install the cover plate using the four 1/4-20 x 3/4" flat head socket cap screws.
2. Operate the mount back to the CLOSED position (the factory position) for the next step. (Note: for non-motorized models:



INSTALL TV

Any questions? Please contact us! We'd love to help. Call the office 208-287-8882 or Mark's mobile 208-919-5969.

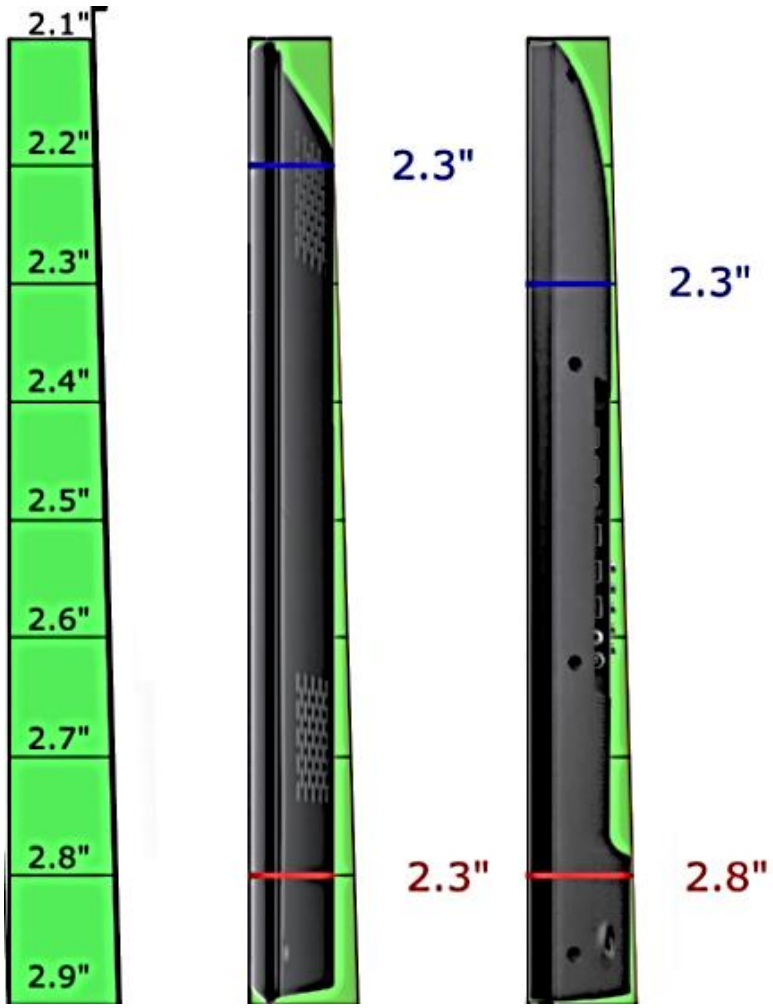
Maximum TELEVISION Dimensions & Weight

TV Mount Model #	Screen Size	Width ** (Max.)	Height (Max.)	Depth * (Max.)	Weight (Max.)
M3-43-7	up to 43	38.3**	23.0	*	30
M3-50-7	up to 50	44.5**	26.0	*	35

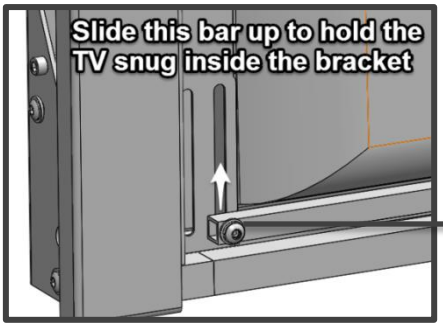
* Note Regarding TV Depth: The Maximum TV Depth varies depending on the shape of your TV. Refer to the following illustration.

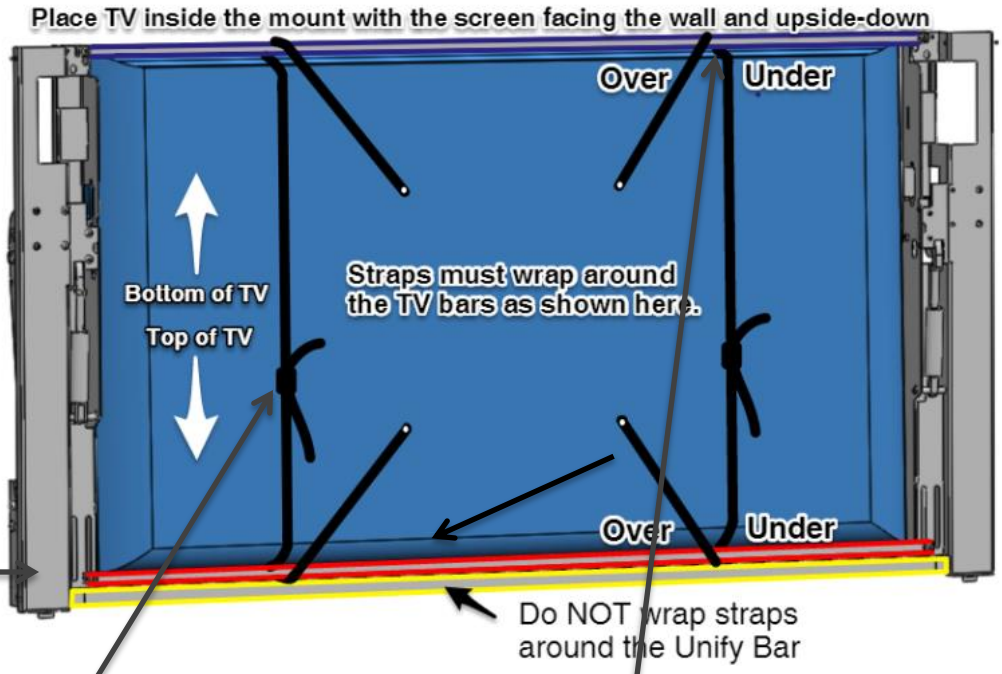
** TV WIDTH NOTE: If your TV is close to the maximum width listed above you may need to install the TV when the mount is in the Open Position (TV viewing position). Contact us for more info.

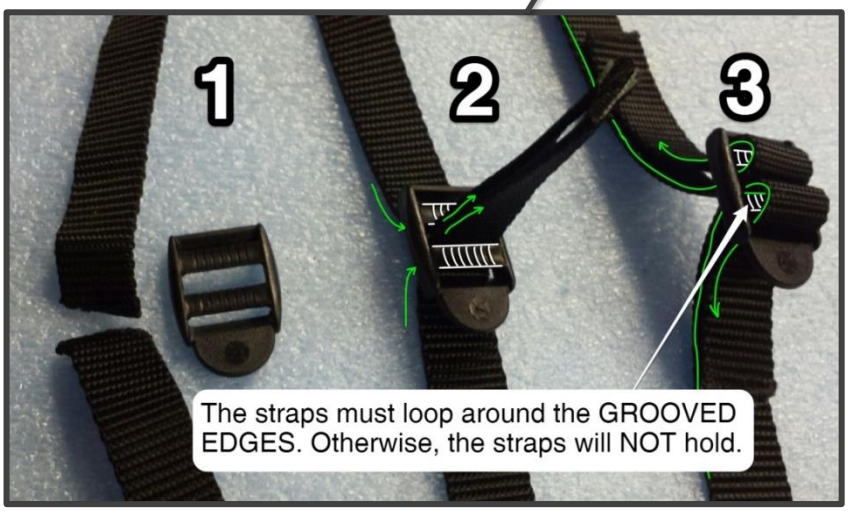
The following illustration shows how the shape of your TV affects the maximum TV depth. The TV profile on the left is an example of a TV listed at 2.3" deep however is not tapered. Whereas, the TV on the right is listed at 2.8" deep but is thickest near the bottom of the TV.

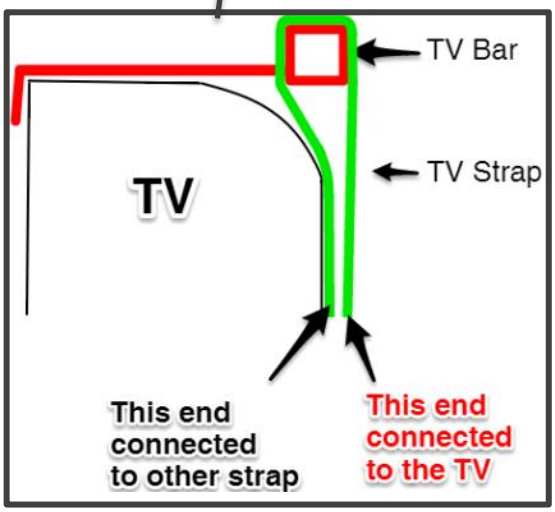


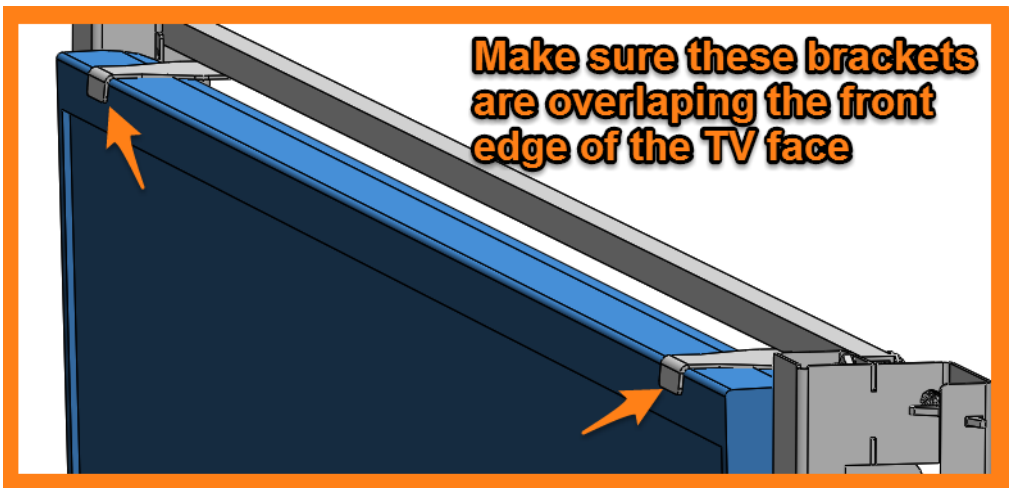
The "RED" TV Bar slides up or down so it can be adjusted to fit your TVs height.



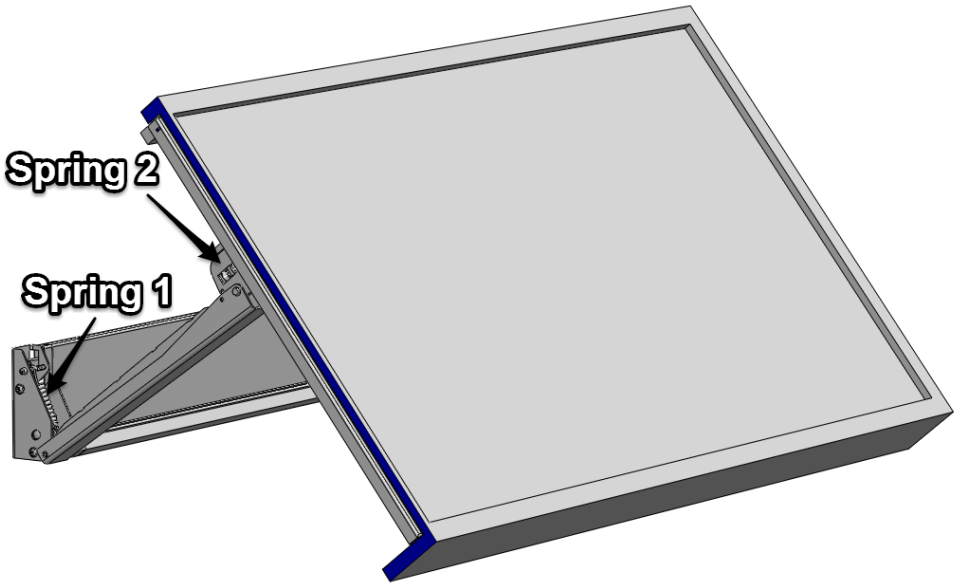








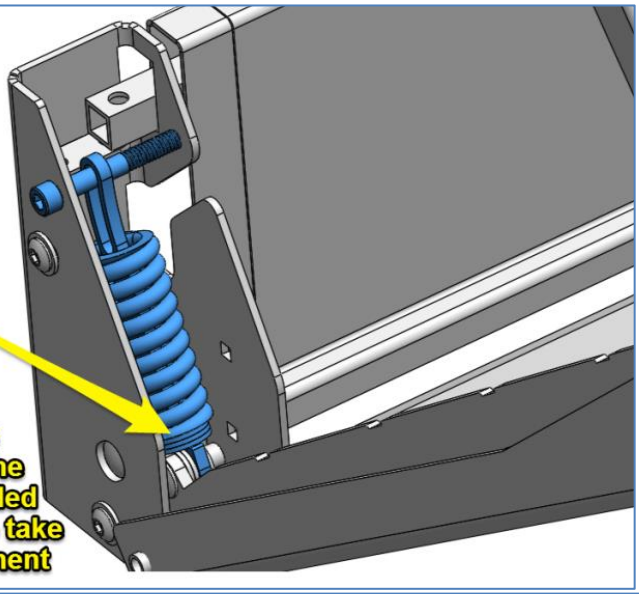
PERFORMANCE ADJUSTMENTS

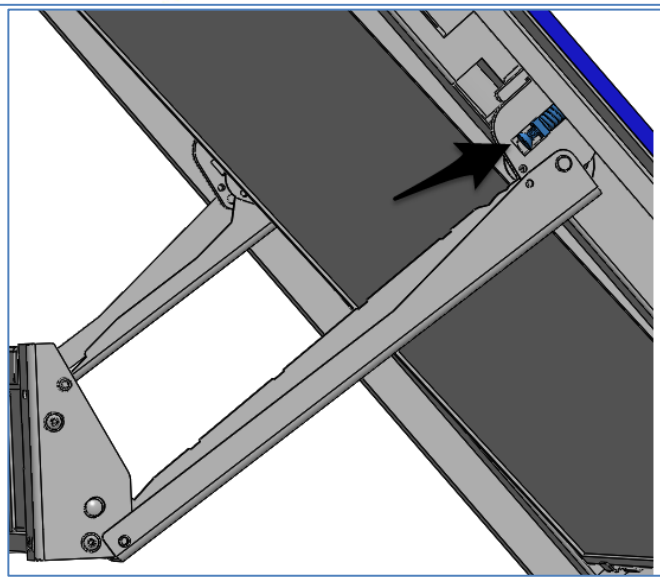


SPRING 1, at the base of each arm, controls the speed at which the Picture Frame approaches the wall when closing to the hidden position

SPACER WASHERS
+ Add washers to make the Picture Frame close slower to the wall
- Remove washers if the Picture Frame doesn't close all the way to the wall by itself

Note: You are supplied with two spacer washers in your parts bag that are half the thickness of the washers preinstalled. Believe it or not 1/32" added or removed will make a noticeable difference so take this into consideration as you make this adjustment





SPRING 2, located in ONE ARM ONLY, slows the mount as it approaches the TV Viewing Position. It can also be used to adjust the viewing angle of the TV.

Rotating the screw counter clockwise increases the damper and can also increase the downward tilt of the TV.