# HIDDEN VISION

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# BUILT-IN FLIP-AROUND FOR 55" TV MODEL: M3BI-55-8.2.2 INSTALLATION INSTRUCTIONS

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## \*\* Refer to the document named "M3BI-55-8.2.2\_DRAWINGS FOR BUILT-IN APPLICATION"

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

- INSTALLATION OVERVIEW VIDEO: The model shown in this video is a very similar model but NOT
   IDENTICAL. Please refer the instructions below for specific details relating to your model.
   <u>https://youtu.be/GM1LVz5AKGg</u>
- List of helpful 3<sup>rd</sup> party products: Check out "<u>Accessories</u>" on our website for helpful products you may need. Also, for additional products that we do not sell, see the following document (<u>http://bit.ly/m3helpfulproducts</u> (*Note: you do NOT need to download DROPBOX. Look for the "direct download" option, normally found in the upper right corner of you screen*)

# Assembly

## Any questions? Please contact us! We'd love to help. Call us at 208-287-8882

#### WARNING (all models):

### - NEVER operate the mount if it is not fastened to the wall.

- **SPRING LOADED**: This mount is designed to operate with the weight of a TV and Picture Frame. If operated without the TV installed the mount will open and close very quickly and with great force.

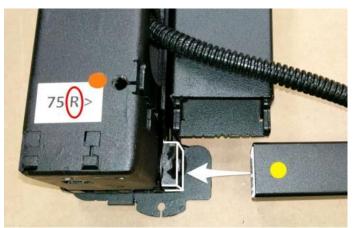
- **PINCH DANGER**: There are multiple pinch points that can cause injury. Keep hands away from moving parts when the mount is being operated. Use caution and familiarize yourself with the movement and pinch dangers.



# Assembly SEQUENCE is IMPORTANT!

Please follow the assembly sequence described below.

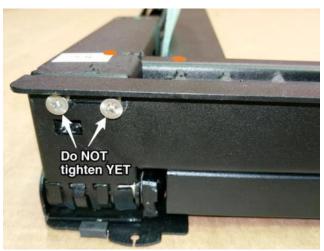
1. Slide the UNIFY BAR on to the RIGHT Arm Assembly.



2. Slide Wall Mount Bottom bar on RIGHT Arm Assembly



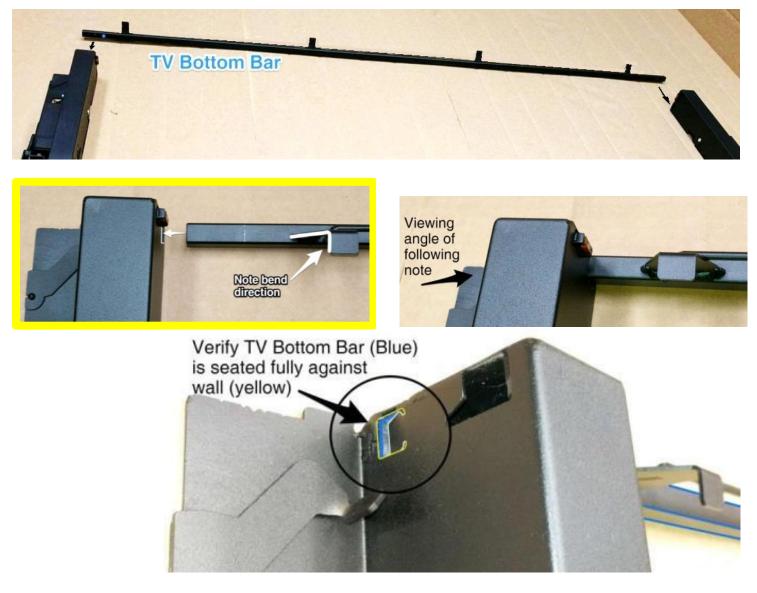
3. Install 10-24 Undercut screws on RIGHT Arm Assembly. Leave screws loose for now.



4. Repeat the previous steps with the LEFT ARM ASSEMBLY. Install the 10-24 Screws but leave them loose for now.



5. Slide TV Bottom Bar (Blue) onto Right & Left Arm assembly's. IMPORTANT CLARIFICATION!!! Look closely at the image highlighted in yellow.

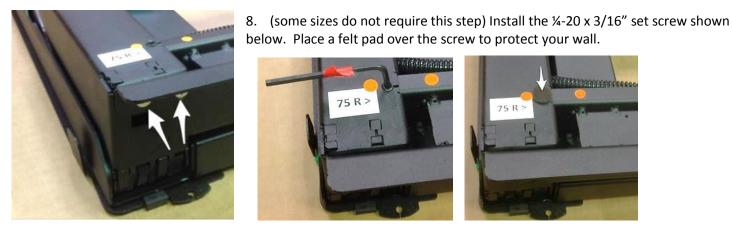


6. Install Wall Mount Top Bar (Green). Tip: Once you have the holes close to aligned place the supplied Allen wrench in the hole and tilt it sideways to align the hole. Start all 4 screws then tighten screws. Careful not to overtighten.





7. Tighten the four 10-24 screws connecting the Wall Mount Bottom bar (orange).



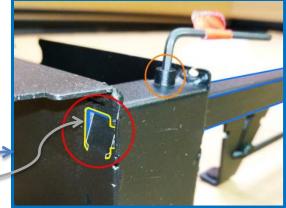
NOTE: The following is new for V. 8.2 and is different than shown in the installation video

9. Measure from center and mark where your studs will align. Slide the Wall Mounting Brackets onto the mount and align w/ your stud locations.









- 10. Flip the mount over. Verify the TV Bottom Bar (Blue) is seated against the inside wall (yellow) then tighten down the set screw (orange). Do this for both the Left & Right side.
- 11. Install the adjustable TV Top Bar (Red)



12. Measure diagonally from both directions and verify the mount is square. Adjust if needed.



# Wall Mounting

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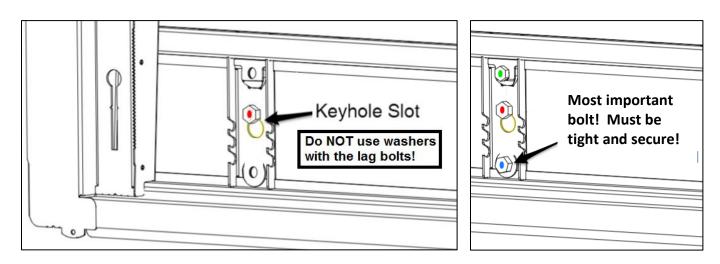
NOTE: This mount is meant to be fastened to 2 x 4 wood studs. Installation to metal stud walls or concrete walls require special fasteners and or additional support (not supplied). In some cases additional studs may be required for adequate support. The integrity and adequacy of the structure to which 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.

## NOTE: This process is different than V. 8.1, which is the version shown in the installation video.

- 1. Find **EXACT CENTER** of your wall stud (NOTE: It is very important that your lag bolts are installed in the CENTER of 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. Slide the wall mounting brackets so to align with the lag bolts installed in the wall. There is a notch cut in the mount to easily measure from center.



- 3. Level the mount and tighten down the "red" lag bolt.
- 4. Predrill holes for the top and bottom lag bolts with 1/4" drill bit
- 5. Install the bottom lag bolt (Blue) without a washer. **The bottom lag bolt is the most important bolt**. It carries the most load. Make sure they are tight and secure.
- 6. Install the top lag bolt. This lag bolt will clamp the green bar and lock it in place. Do NOT over tighten the top bolt. Doing so will make it difficult to install the cover plate.



# **Cable Routing**

## Any questions? Please contact us! We'd love to help. Call us at 208-287-8882

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. Look carefully at the following instructions and call us with any questions.

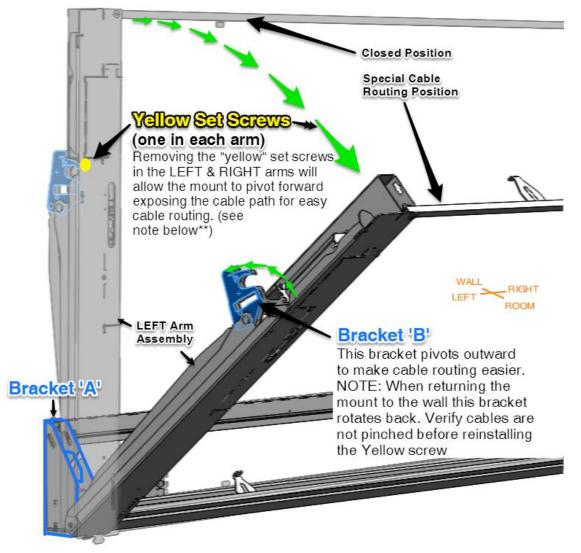
# - NEVER operate the mount if it is not fastened to the wall.

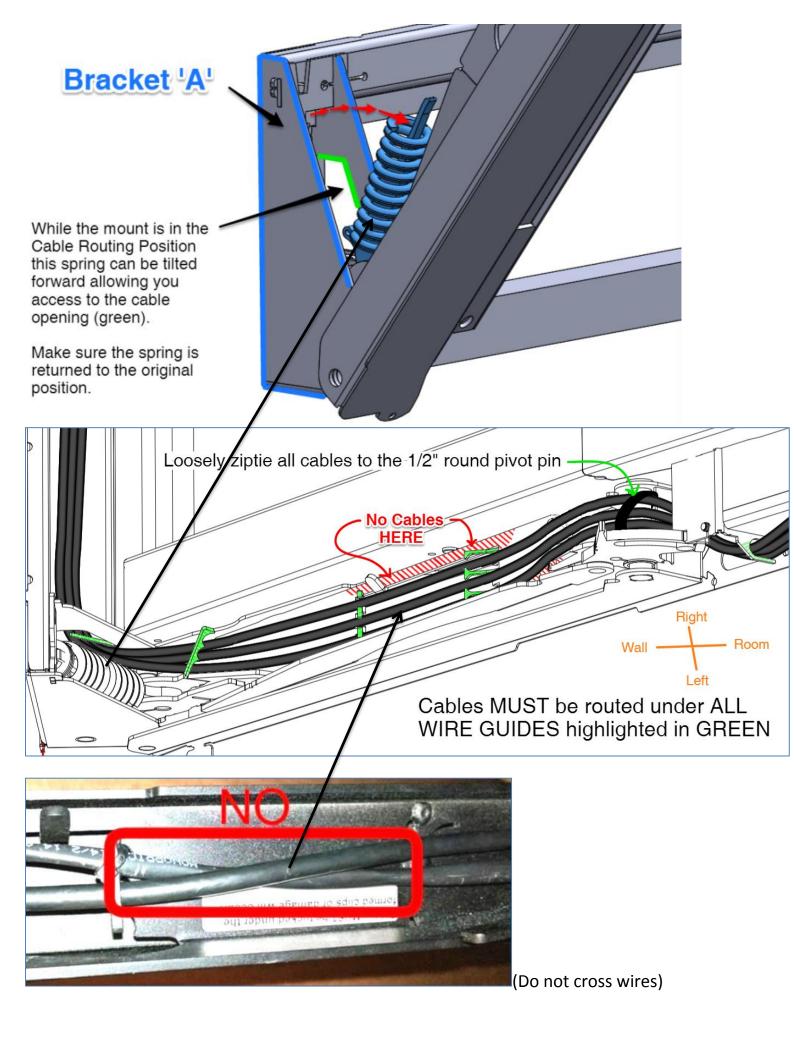
- **SPRING LOADED**: This mount is designed to operate with the weight of a TV and Picture Frame. If operated without the TV installed the mount will open and close very quickly and with great force.

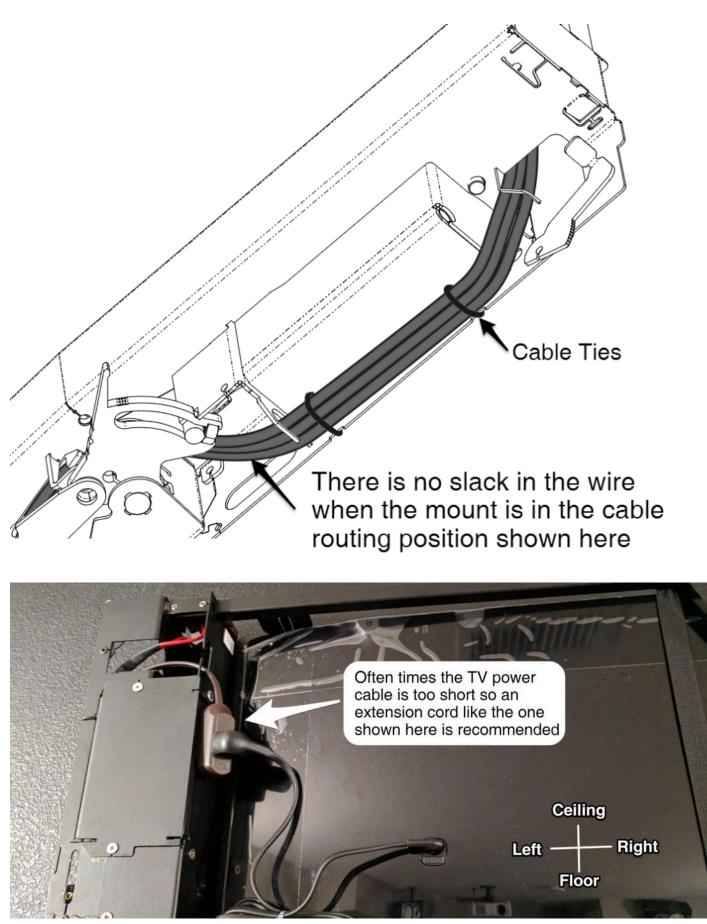
- **PINCH DANGER**: There are multiple pinch points that can cause injury. Keep hands away from moving parts when the mount is being operated. Use caution and familiarize yourself with the movement and pinch dangers.

- 1. Hold the mount firmly against the wall (pushing near the top) and remove the "Yellow" set screw from BOTH the Left and Right arms. Note: Do not reinstall the yellow screws before reading the next section of the instructions.
- 2. With the Yellow screws removed the mount is free to pivot forward about 45 degrees. This gives you access to the cable paths inside the arms. (see illustrations below)
- 3. Route cables EXACTLY AS DESCRIBED below. You can install 3 cables per side.

IMPORTANT NOTE: Be careful not to allow any objects, such as discarded cable tie parts, to fall down inside the arm. This can cause interference when the mount returns to the closed position.





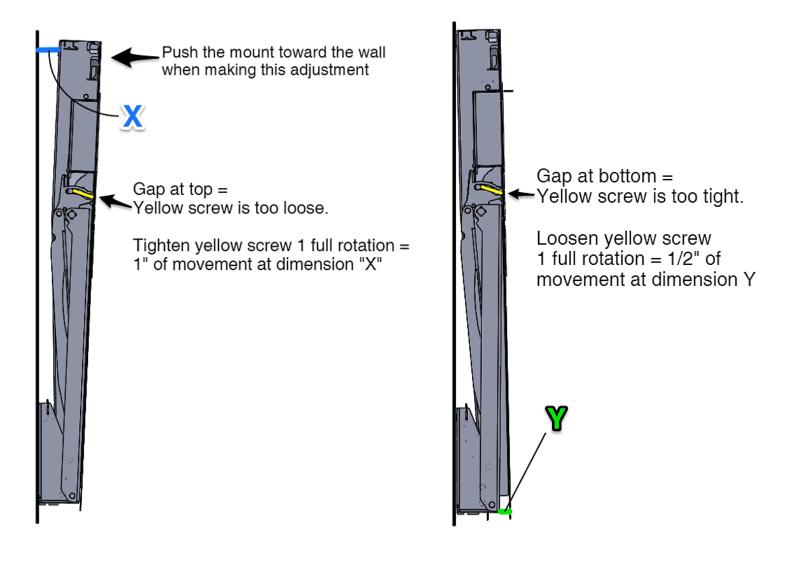


Showing the closed position, upper left corner, with the TV installed

# Re-installing the Yellow screws & ANGLE ADJUSTMENT IN "TV HIDDEN" POSITION

Note: The YELLOW screw adjustment does NOT have an impact on the TV VIEWING angle.

- 1. Push the mount back up against the wall. You will feel slight resistance from the springs as you approach the wall. If the resistance is significant check the following:
  - a. Verify your cables are not pinched under or behind "Bracket B". Cables should be routed through the opening **ABOVE the yellow screw, NOT BELOW**.
  - b. Verify the coil spring at the base of each arm and the spacer washers on top of the spring (if there is one) are set back to the correct position.
- Reinstall the yellow screws on BOTH sides BEFORE TIGHTENING either side fully. As you tighten the yellow screws
   ALTERNATE between the left & right arms so they are adjusted evenly. Do not use a power tool to tighten the yellow screw.
- The yellow screw adjusts the angle of the mount in relation to the wall in the closed position. Too loose = Gap at the top (X). Too tight = Gap at the bottom (Y). Refer to the following illustrations.



Any questions? Please contact us! We'd love to help. Call us at 208-287-8882

# IMPORTANT OPERATION NOTES FOR MOTORIZED MODELS

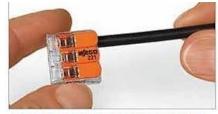
- DO NOT OPERATE MOTORS WITHOUT THE TV INSTALLED... with this exception: to test that both motors are properly
  hooked up before the TV is installed you may operate the motors to move the mount out 8" from the wall, NO MORE,
  then reverse direction back to the wall. This is because the springs, which are meant to counter the TVs weight, will apply
  greater and greater force against the motors as the mount moves further from the wall.)
- 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. 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: <u>http://bit.ly/m3-smart-control</u>)
- 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 with BROWN and BLACK with BLUE. It does not matter which pair goes to which motor.



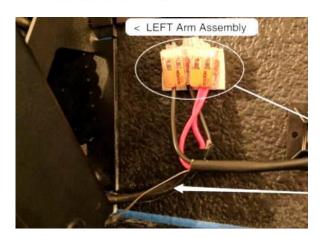
Strip the wire to **7/16'' (11mm)** (refer to strip length guide printed on the side of the connector)

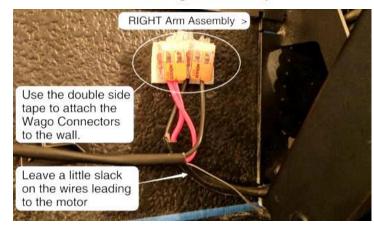


Lift lever to open clamping unit; insert stripped wire.



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

4. 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: <u>http://bit.ly/m3-smart-control</u>)

# Controller type: RF Wireless Remote and Receiver

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

(Instructions for programing additional RF remotes: <u>https://goo.gl/F7rsdp</u> (the web address is case sensitive))

# **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.

## o If operated without sufficient weight

- <u>WHY</u>: 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.
- <u>IDENTIFY</u>: 1) Both the LEFT & RIGHT fuses have blown **AND** 2) The left & right arms have progressed equally.
- <u>SOLUTION</u>: 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.
- o If one of the two motors is not receiving power or is wired incorrectly
  - <u>WHY</u>: 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.
  - <u>IDENTIFY</u>: 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.
  - <u>SOLUTION</u>: 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.
- o <u>If interference is encountered</u>
  - <u>WHY</u>: 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 <u>leading arm</u> 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

# **TV Installation**

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Verify there are no objects protruding from the wall or the cover plate that could damage the TV screen.

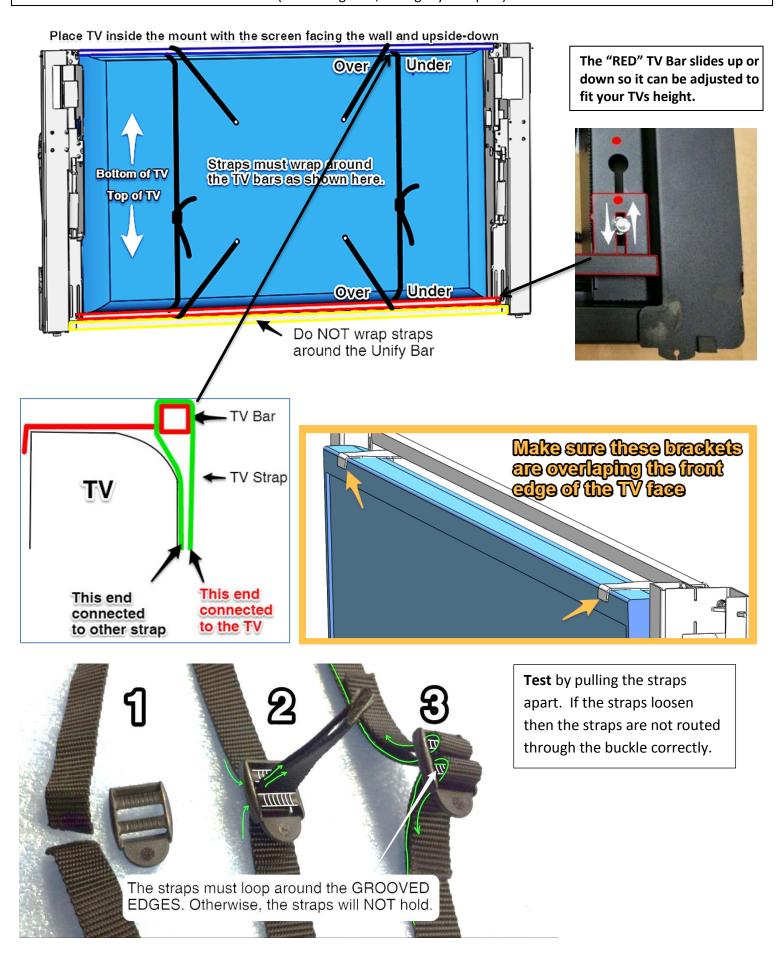


Choose a TV based on the following specifications.

Maximum TEL		Dimens	<b>Note Regarding TV Depth:</b> In general 2.5" is the Maximum TV Depth. However, it			
TV Mount Model # Screen Size		Width	th Height	Depth	varies depending on the shape of your TV. Please refer	
M3BI-55-8.2	up to 55	49.0	28.6	See Note	the images below for reference and give us a call with any questions.	



The TV bars are meant to hold your TV with minimal "Clamping" pressure. Tighten the TV straps just enough to pull the TV bar up against the TV. Excessively tightening the TV straps or the adjustable TV bar can damage your TV. (Think snug hold, not tightly clamped.)



# **PERFORMANCE ADJUSTMENTS**

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The Damper Springs apply a force to resist movement towards the wall. This adjustment is used to slow/damper the motion as the TV mount approaches the wall in both the TV Hidden position and TV Viewing position. Use this adjustment to make the mount come to a smooth stop.

<u>WHEN to evaluate if more or less spacers are needed</u>: Evaluate with everything installed, including the TV, Picture Frame, and Mirror (if applicable). If you intend to install canvas and it is not yet installed it is ok to proceed with this evaluation. The weight of the canvas will have minimal effect.

**HOW** to add or remove spacers from the Coil Damper Springs: In your parts bag you will find gold/bronze colored washers, some 1/16" thick and some 1/32" thick for fine tuning. These are used to adjust the Damper Spring Force.

To add or remove spacers you'll need to operate the mount to a **part way open position** (where the arms are 90 degrees to the TV (Shown below)). Note: If you are using Contact Closure controller you will need to cut power to stop the mount in this position.

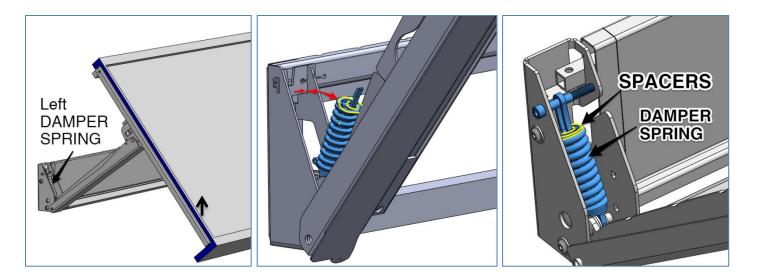
With the mount stopped in a partway open position, pull forward at the top of the spring, add or remove washers, then pivot the spring back towards the wall until it comes to rest.

**WHY** add or remove spacers from the Coil Damper Springs: Adding or removing spacers from the coil spring at the base of each arm can help the following.

## **MOTORIZED MODELS**

SYMPTOM: When the mount flips to the TV Viewing position, the TV mount approaches the wall too quickly and recoils/bounces back and forth after reaching the full open position.

REMEDY: Add spacers to the coil spring. Start by adding one additional thick spacer (1/16" thick) to both springs. Test. If this is too much, switch the 1/16" washers out for the 1/32" thick washers. and adjust from there.



For further adjustments / troubleshooting we encourage you to contact tech support. It will be time well spent.