

NEXUS 21

TECHNOLOGY IN MOTION

Apex Motorized Wall Mount Installation Manual

(Pre-Installation Manual Included with Box 1)

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Safety Information

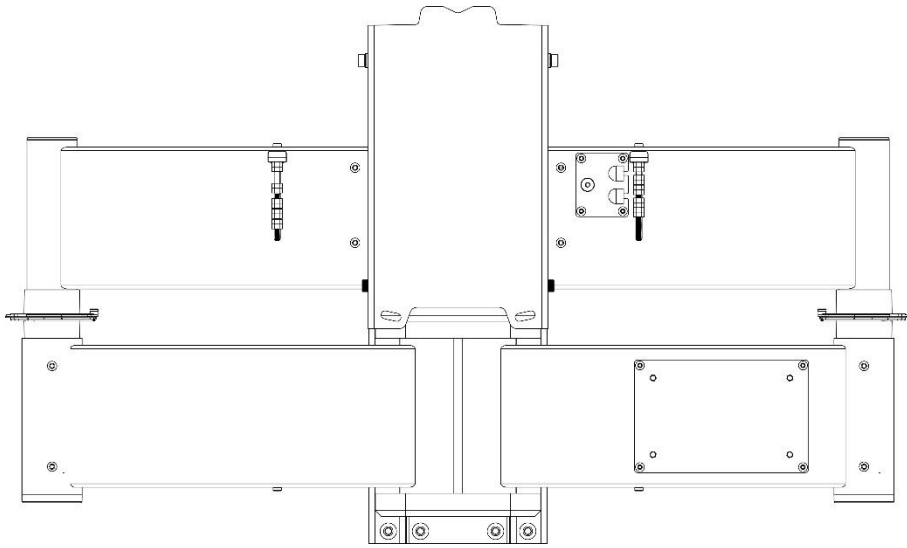
WARNINGS:

1. Do not use this product for any application other than those specified by Nexus 21.
2. Follow all technical specifications and instructions during the installation.
3. Only use accessories specified by the manufacturer.
4. Read all technical instructions fully before installation and use.
5. Failure to provide adequate structural strengthening, prior to installation can result in serious personal injury or damage to the equipment.
6. It is the installer's responsibility to ensure the structure to which the Wall Box is affixed can support four times the weight of the system. Consult a licensed general contractor for structural questions and/or electrician for electrical questions.
7. Keep all documentation.
8. Heed all warnings.
9. Refer all service questions to Nexus 21 if the system does not operate normally.

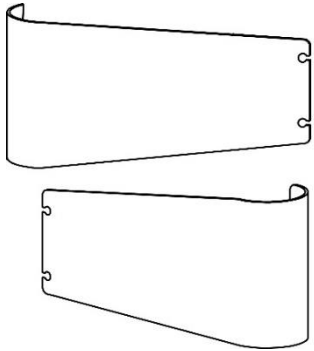
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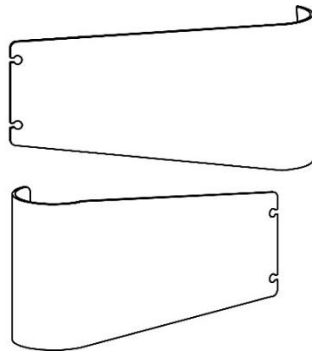
Parts List:



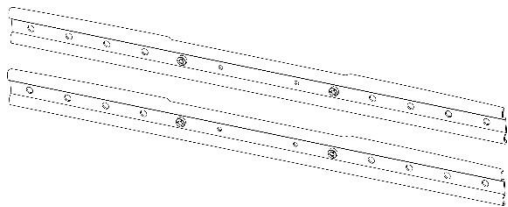
(1) Arm Assembly



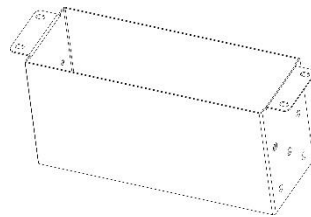
(2) Left Cable Covers



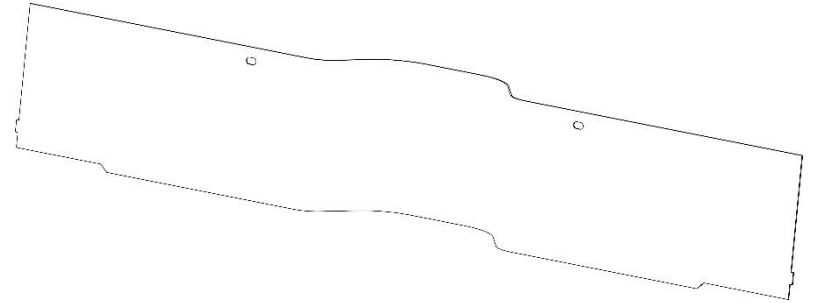
(2) Right Cable Covers



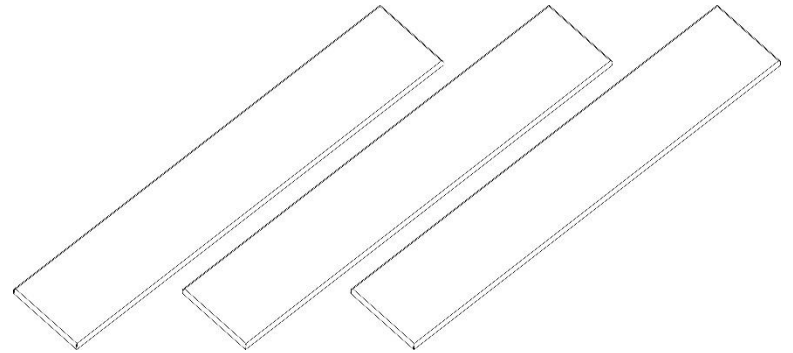
(2) TV Mount Rails



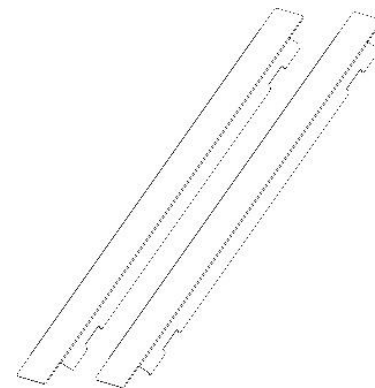
(1) Watt Box Housing



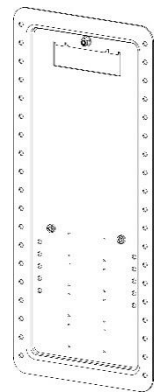
(1) Component Cover



(3) Magnetic Trim Covers



(2) Interior Cable Covers



(1) TV Mount Plate

Parts List Continued:

Box 2 Hardware

- (16) – FHCS 4 x 12mm (Flat Head Cap Screw)
- (6) – BHMS 8 x 20mm (Button Head Machine Screw)
- (3) – Alley Keys (2.5mm, 3mm, 5mm)
- (2) – AAA Batteries (For RF Remote)
- (6) – Plastic Cable Ties

Box 3 Hardware

- (1) – SHCS 6 x 12mm (Socket Head Cap Screw)
- (1) – M6 Nyloc Nut
- (6) – PHCS 6 x 10mm (Phillips Head Cap Screw)
- (2) – PHCS 6 x 12mm (Phillips Head Cap Screw)
- (4) – Washer Head Drilling Screw #8 x 3/4"

Large Assorted Hardware Pack

- (4) – Multi-Mount Washers
- (4) – M8 x 1/2" Spacers
- (4) – M8 x 1" Spacers
- (4) – M8 x 12mm Phillips Screws
- (4) – M8 x 20mm Phillips Screws
- (4) – M8 x 25mm Phillips Screws
- (4) – M8 x 40mm Phillips Screws
- (4) – M6 x 12mm Phillips Screws
- (4) – M6 x 25mm Phillips Screws
- (4) – M6 x 40mm Phillips Screws

Other Items:

- (2) – Velcro Hook Sheets (Leftover from Box 1)
- (1) – 24" Velcro Loop Strip (Leftover from Box 1)
- (1) – RF Remote
- (1) – IR Cable
- (1) – Power Cable

Support Info

Mon – Thu: 7 AM to 4 PM

Fri: 7 AM to 3 PM

Sat & Sun: Closed

Ph: 480 - 306 - 5462

Email: support@nexus21.com

Office Info

16121 N 78th St

Scottsdale, AZ 85260

Ph: 480 - 951 - 6885

Website: www.nexus21.com

Email: info@nexus21.com

Before you Begin:

Important: Apex features an instantaneous drive release allowing manual operation at any time, so a user will never damage the motors by pushing or pulling the TV.

Maximum Extension: 24.1" [61.2 cm]

Maximum Screen Size: 80"

Maximum Weight Capacity: 100 lbs [45.4 kg]

Maximum Swivel: Up to 55°, depending on TV Width

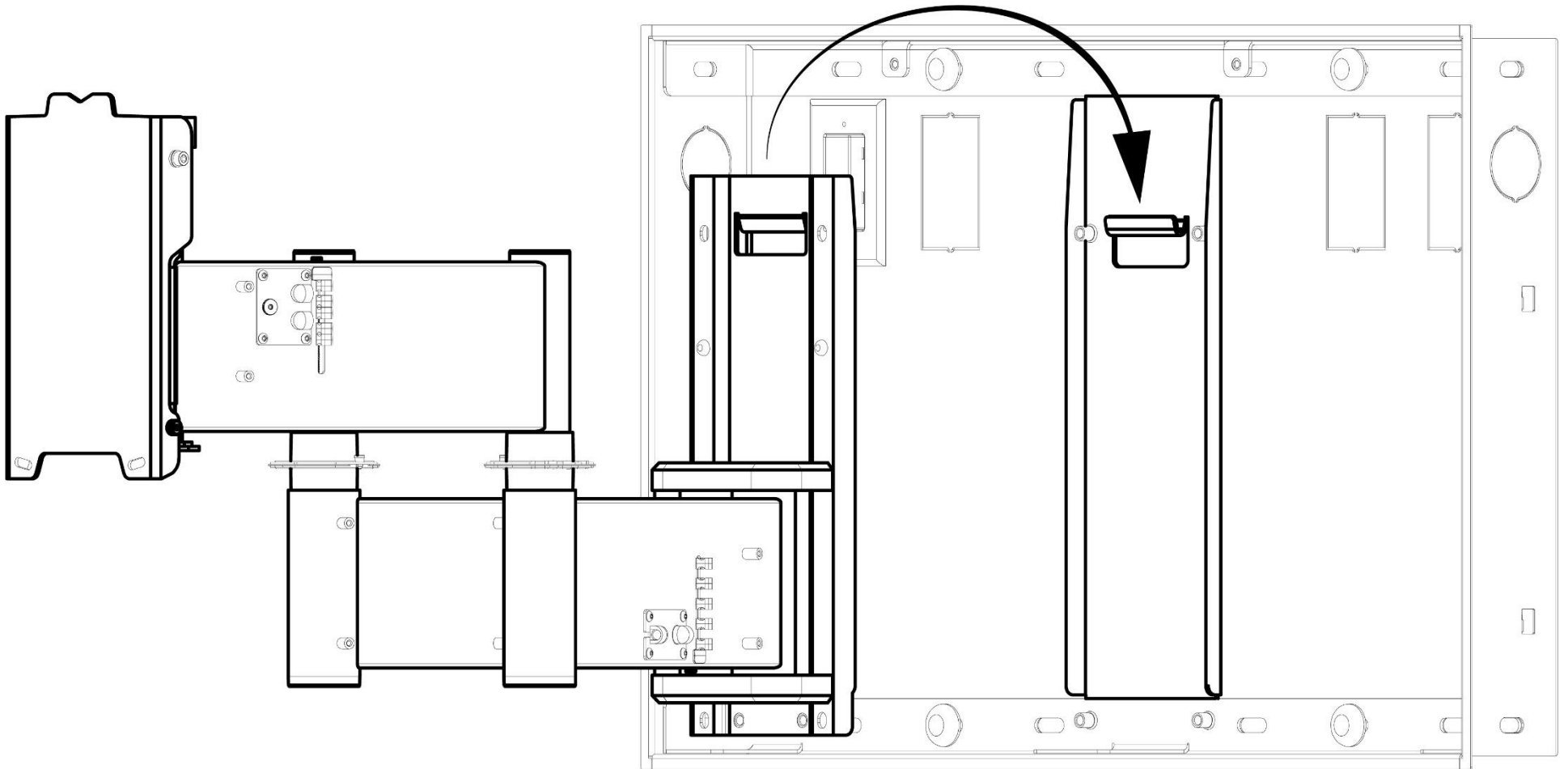
Arm Assembly & TV Installation

These instructions assume the *Wall Box* has already been installed. If you have not installed the *Wall Box* yet refer to the instruction manual labeled “Pre-Installation Manual” which can be found in Box 1.

Installing the Arm Assembly

1a. Manually extend the *Arm Assembly* then hang it on the *Mounting Hook* inside of the *Wall Box*.

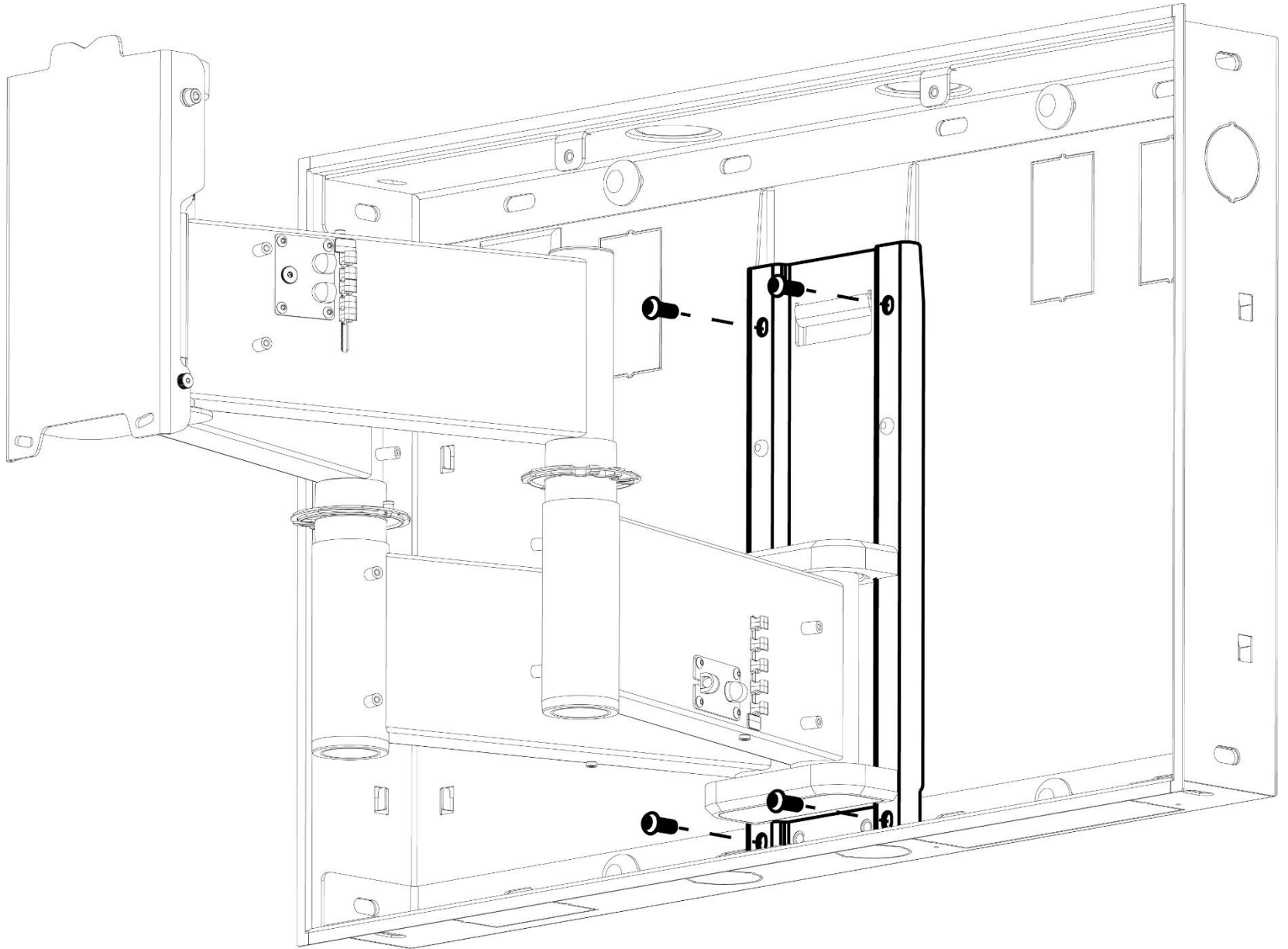
Note: The *Mounting Hook* is designed to hold the complete weight of the *Arm Assembly* without support as you continue the installation.



Installing the Arm Assembly Continued

2. Install (4) 8 x 20mm BHMS (Button Head Machine Screws) in the locations shown in the picture below, but do not tighten them.

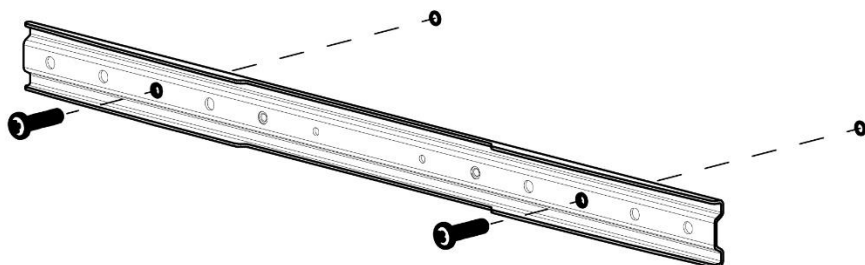
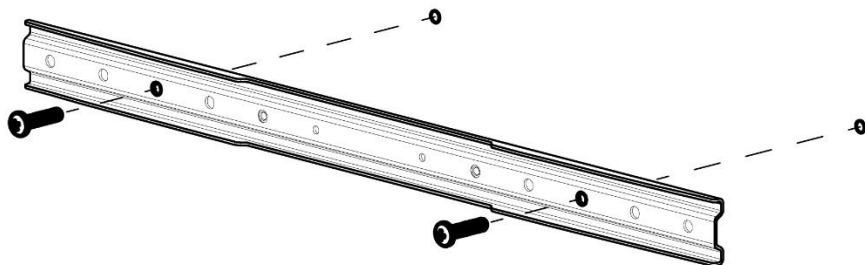
Note: These screws will be fully fastened in a later step.



Attaching the TV Mount Rails

3. Fasten the *TV Mount Rails* to your TV using the appropriate hardware. The Apex accommodates VESA patterns up to 600 x 400.

Note: An assortment of TV Hardware is provided in the bag labeled *Large Assorted TV Hardware Pack*.

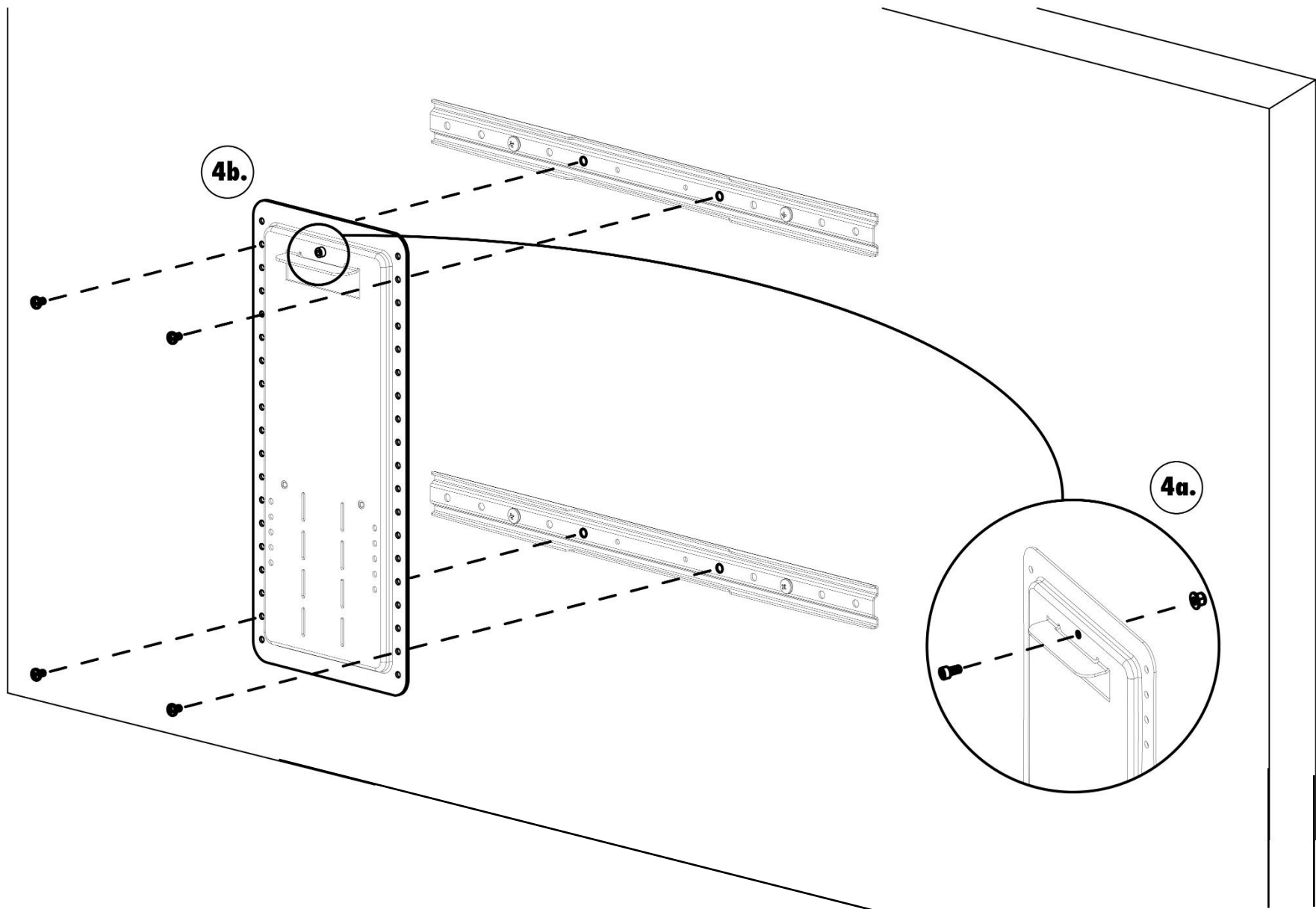


Attaching the TV Mount Plate

4a. Fasten the *SHCS 6 x 12mm (Socket Head Cap Screw)* and *M6 Nyloc-Nut* to the *TV Mount Plate*, as shown in the image to the right.

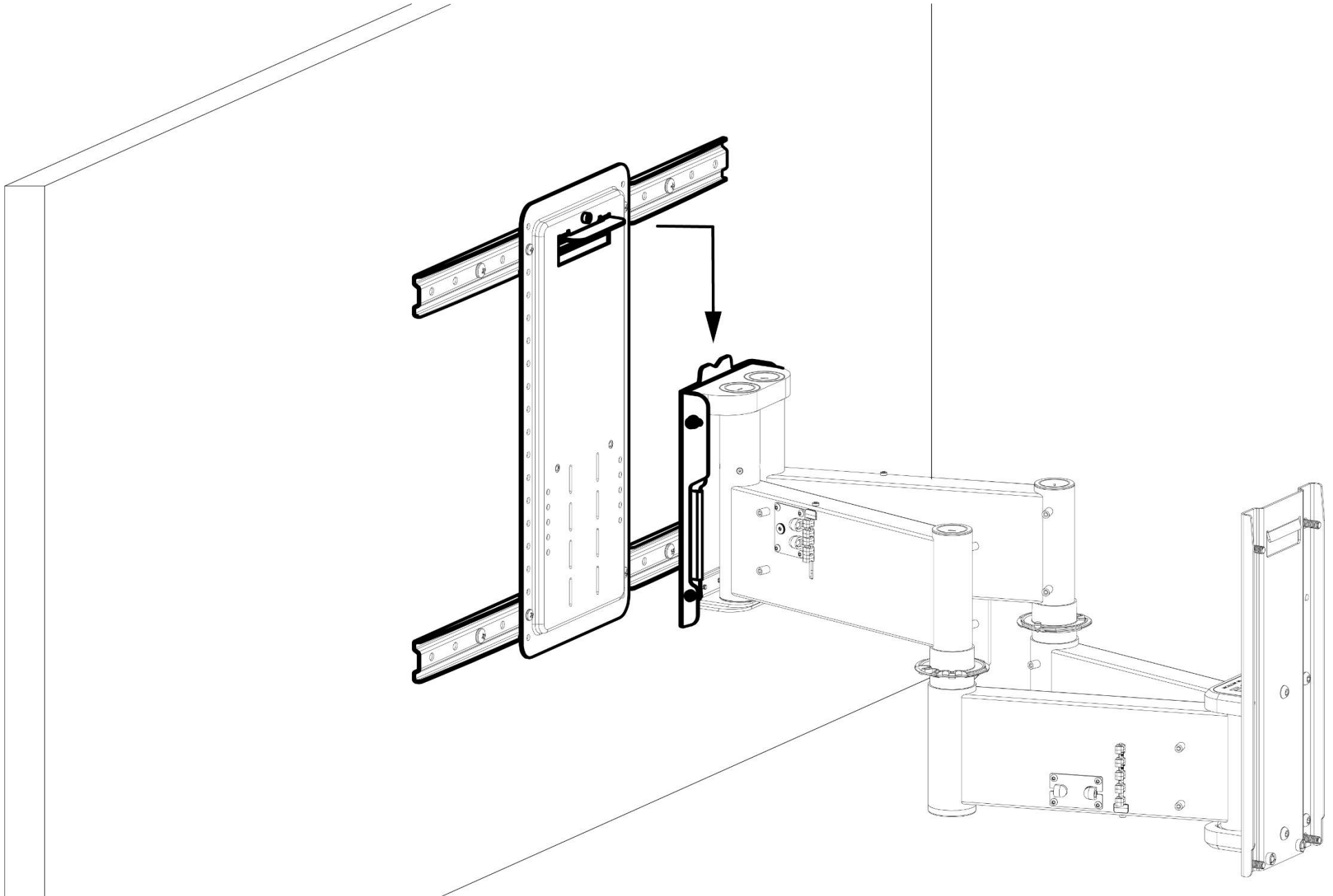
4b. Fasten the *TV Mount Plate* to the *TV Mount Rails* using (4) *PHCS 6 x 10mm (Phillips Head Cap Screw)*.

Note: The TV Mount Plate accommodates VESA pattern heights up to 400mm. Smaller VESA Patterns allow the top of the TV to be adjusted higher or lower relative to the Wall Box.



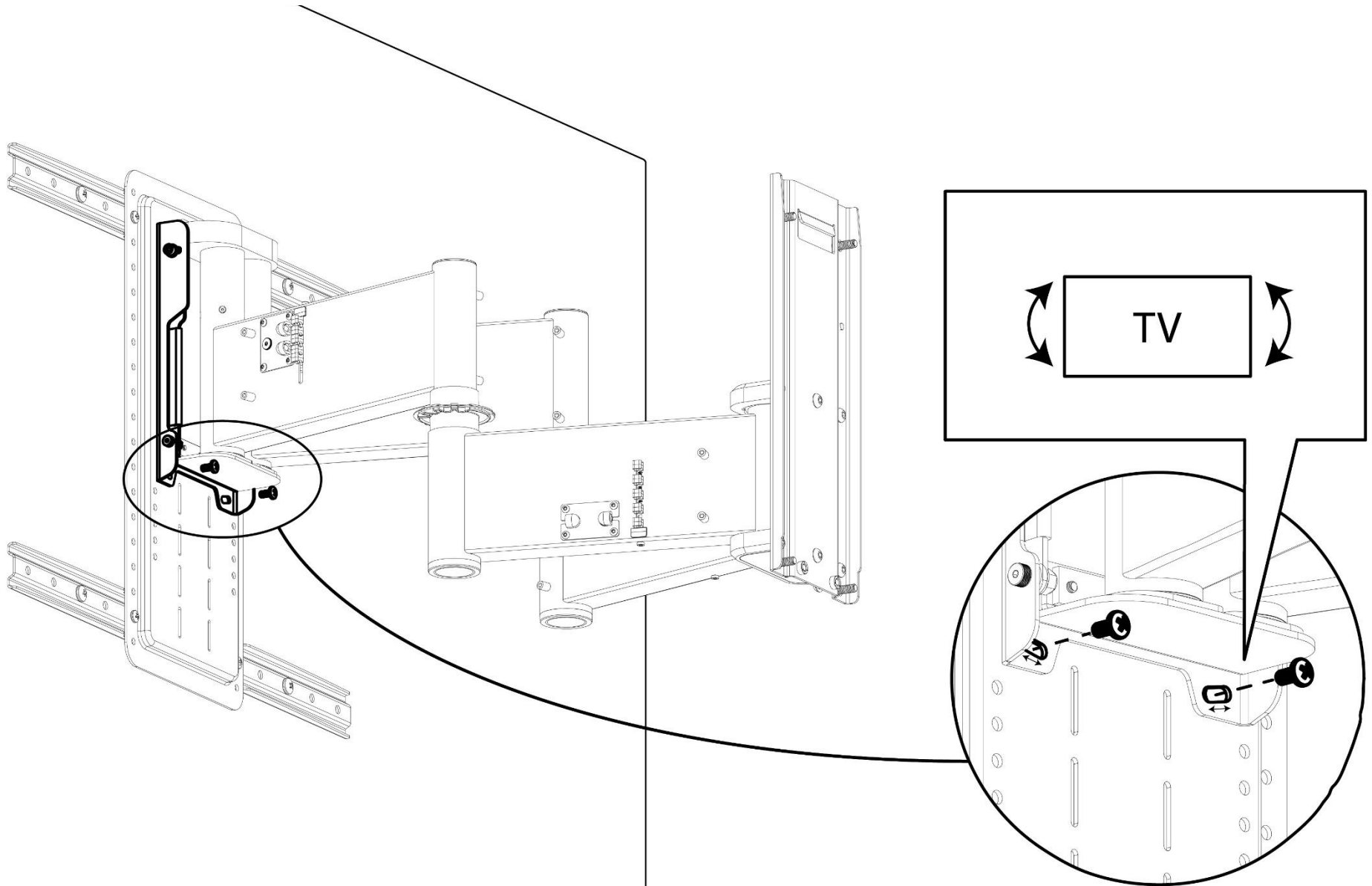
Hanging the TV

5. Hang your TV on the *Arm Assembly* by aligning the slot on the *TV Mount Plate* with the hook on the *Arm Assembly*.



Securing the TV Mount & Leveling your TV

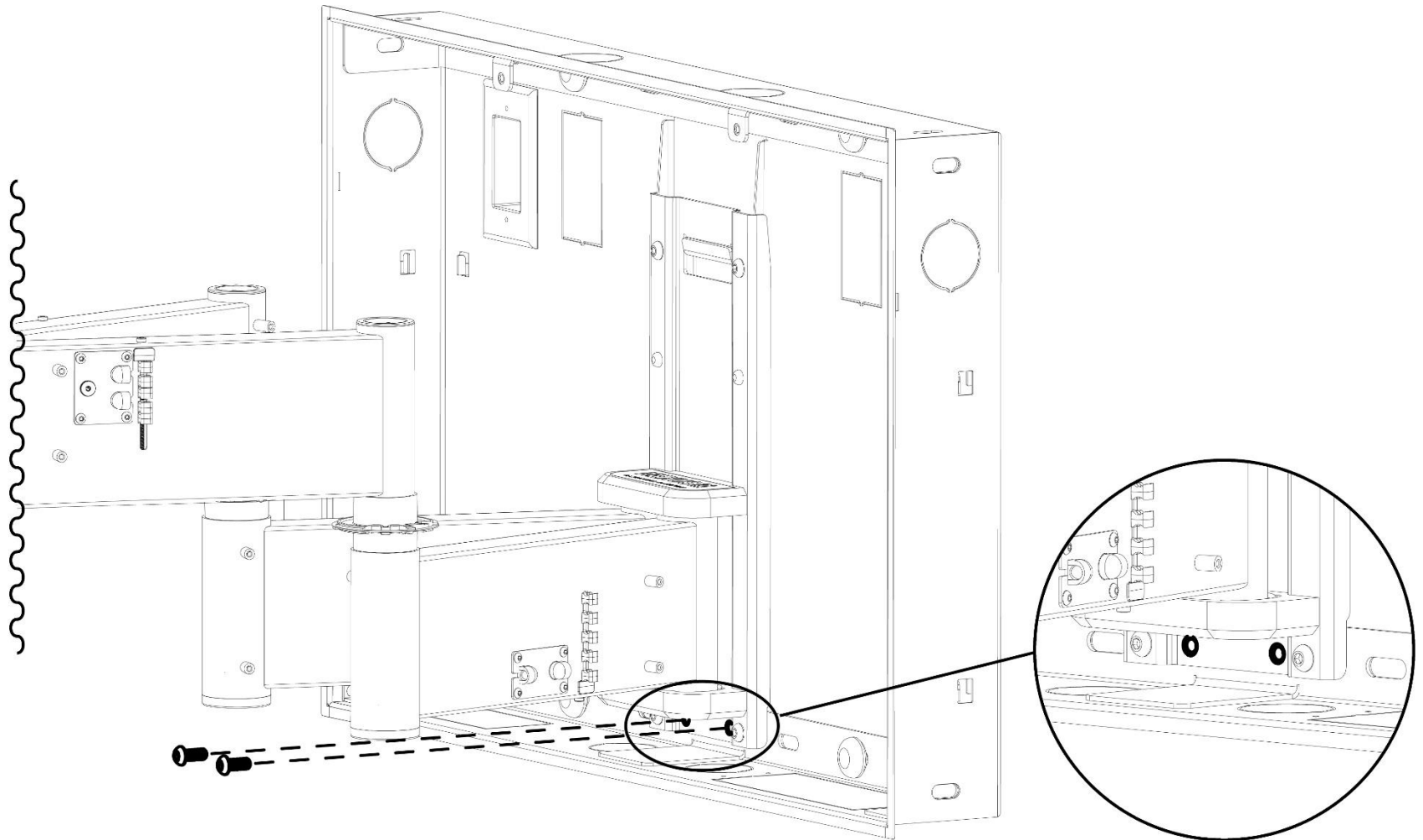
6. Install (2) 6 x 12mm PHCS (Phillips Head Cap Screws) below the end of the Arm Assembly, level your TV, then fasten them to secure it.



Installing the Adjustment Screws

7. Install (2) 8 x 20mm BHMS (Button Head Machine Screws) at the bottom of the Arm Assembly but, do not tighten them.

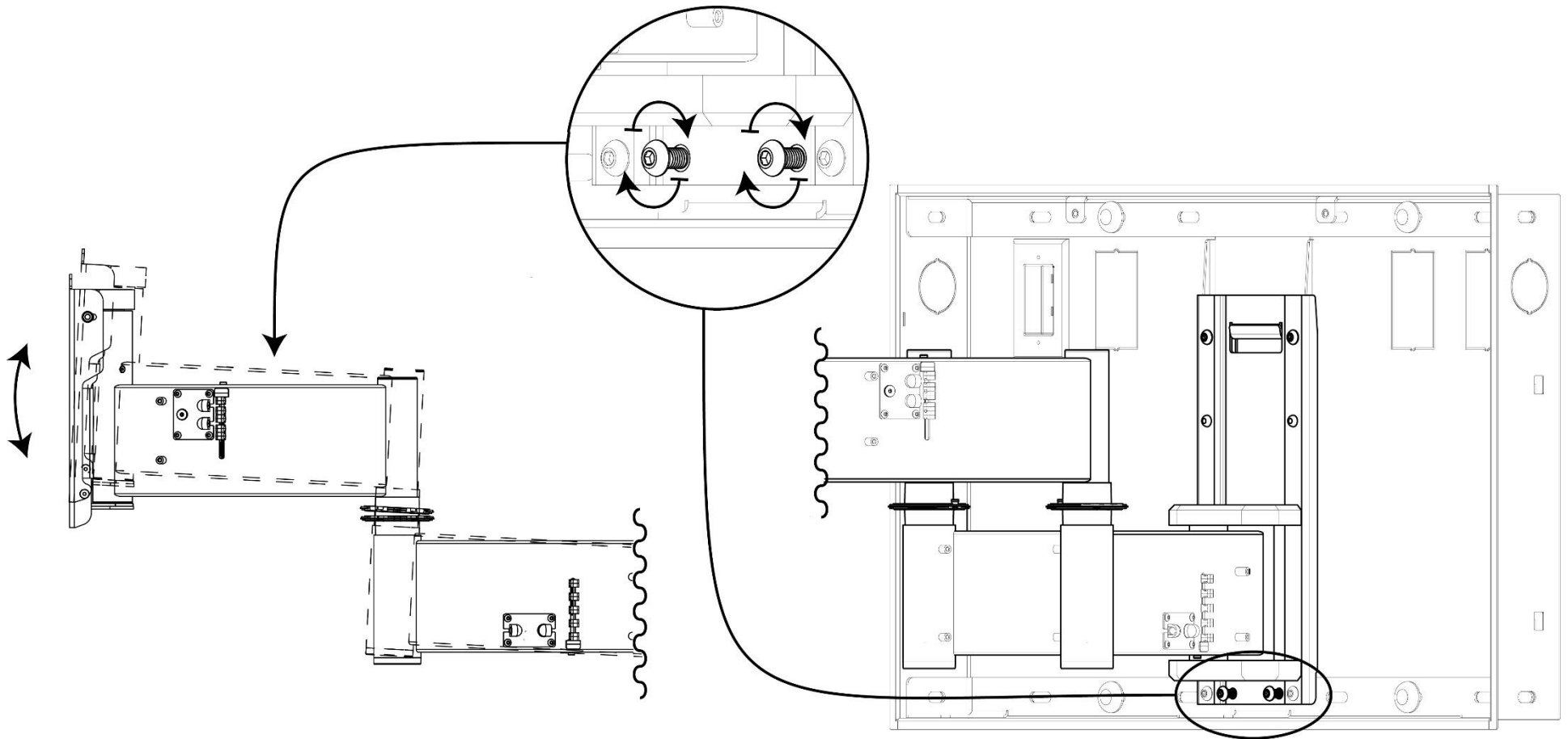
Note: These screws adjust the level of the Arm Assembly and are further explained in the next step.



Adjusting the Level of the Arms

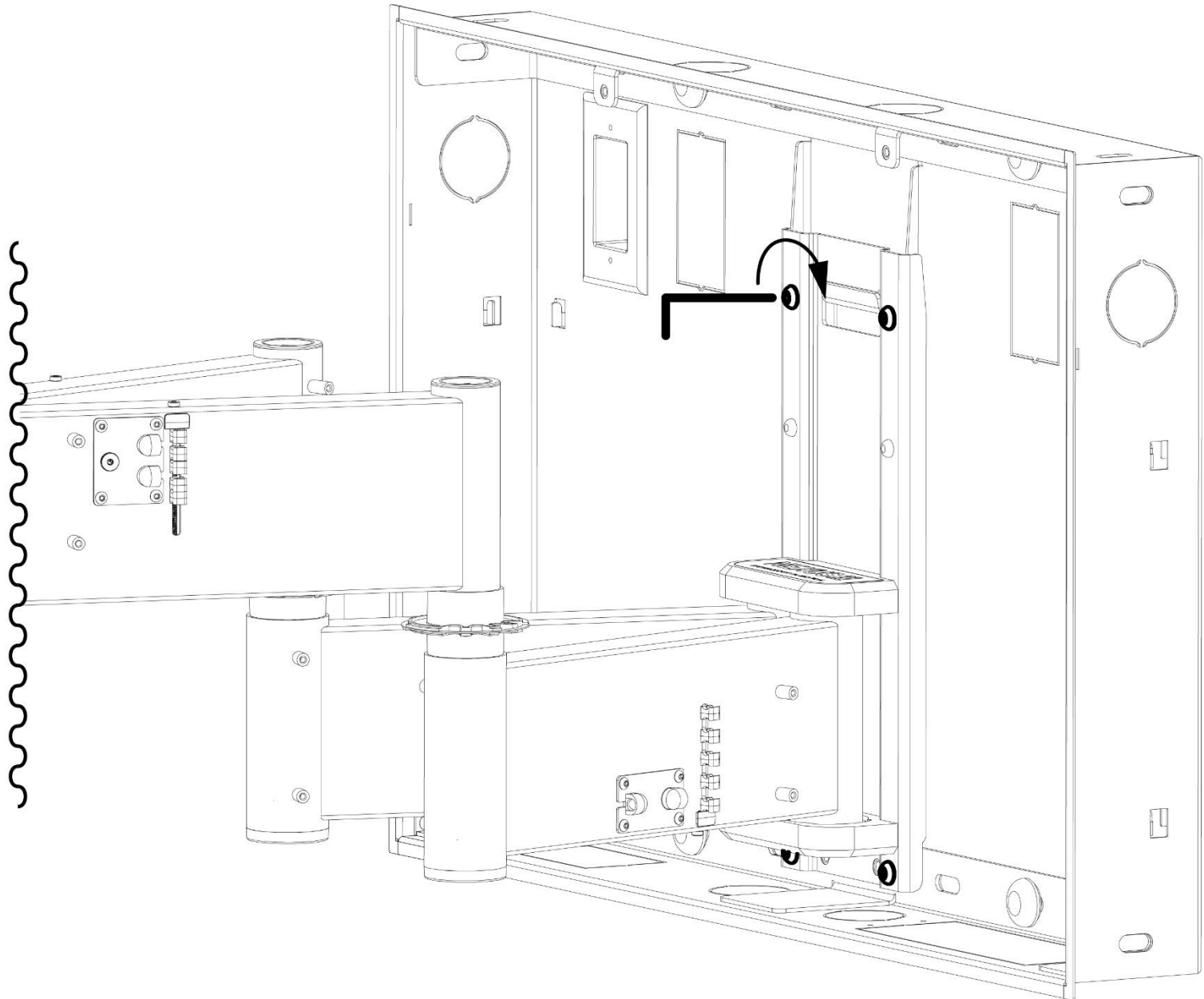
8. Turn the adjustment screws equally to level the Arm Assembly. Tightening them raises the *Arm Assembly* while loosening them lowers it.

Note: Adjusting the Arms up too far may cause the "Anti-Collision" to engage. If this happens, the Arms will not extend. To fix this problem loosen both adjustment screws incrementally, test, and repeat until Anti-Collision no longer engages and the unit extends.



Fastening the Arm Assembly

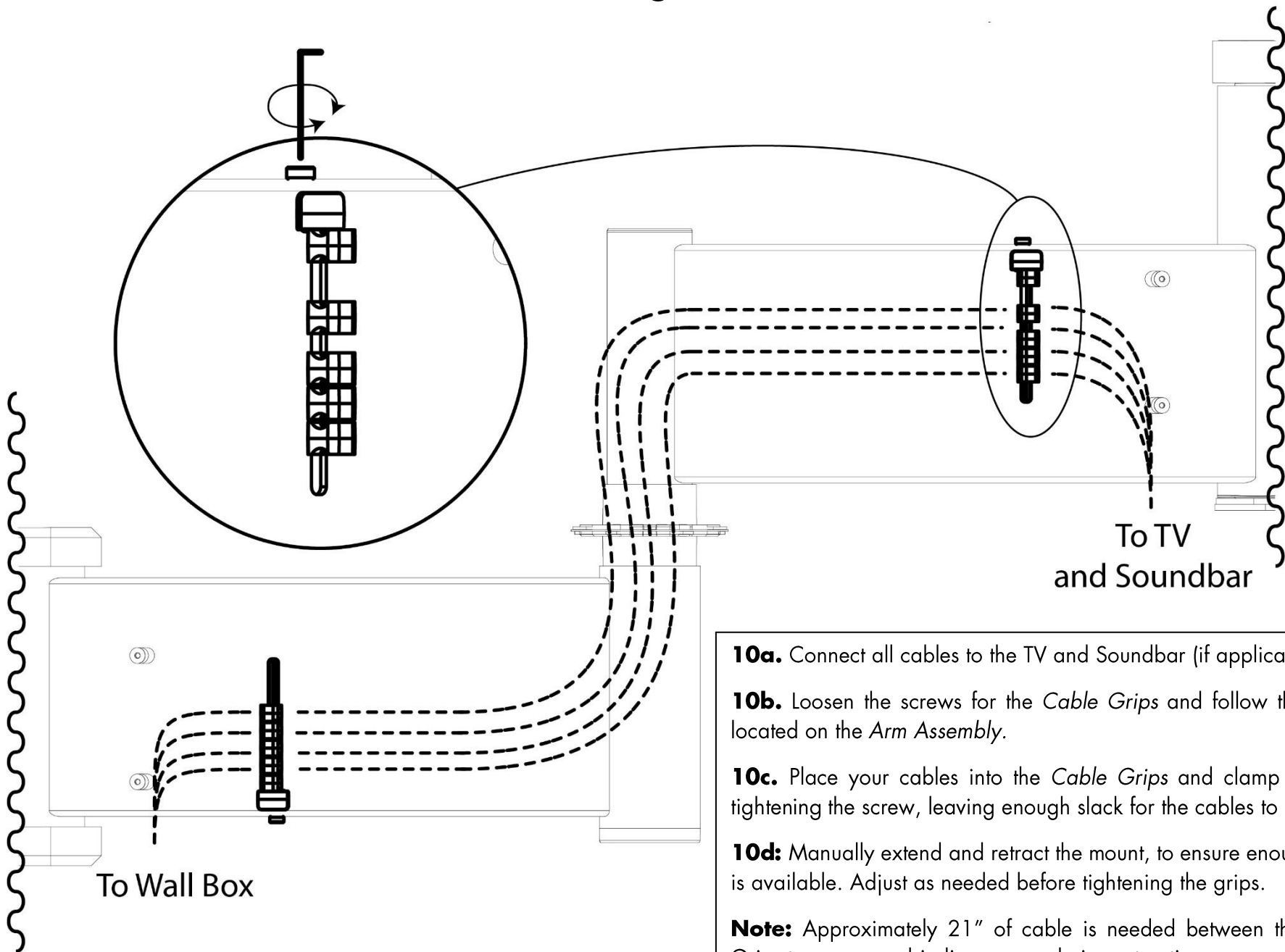
9. Fasten the (4) 8 x 20mm BHMS (Button Head Machine Screws) to secure the Arm Assembly to the Wall Box.



Cobra Cable Management System

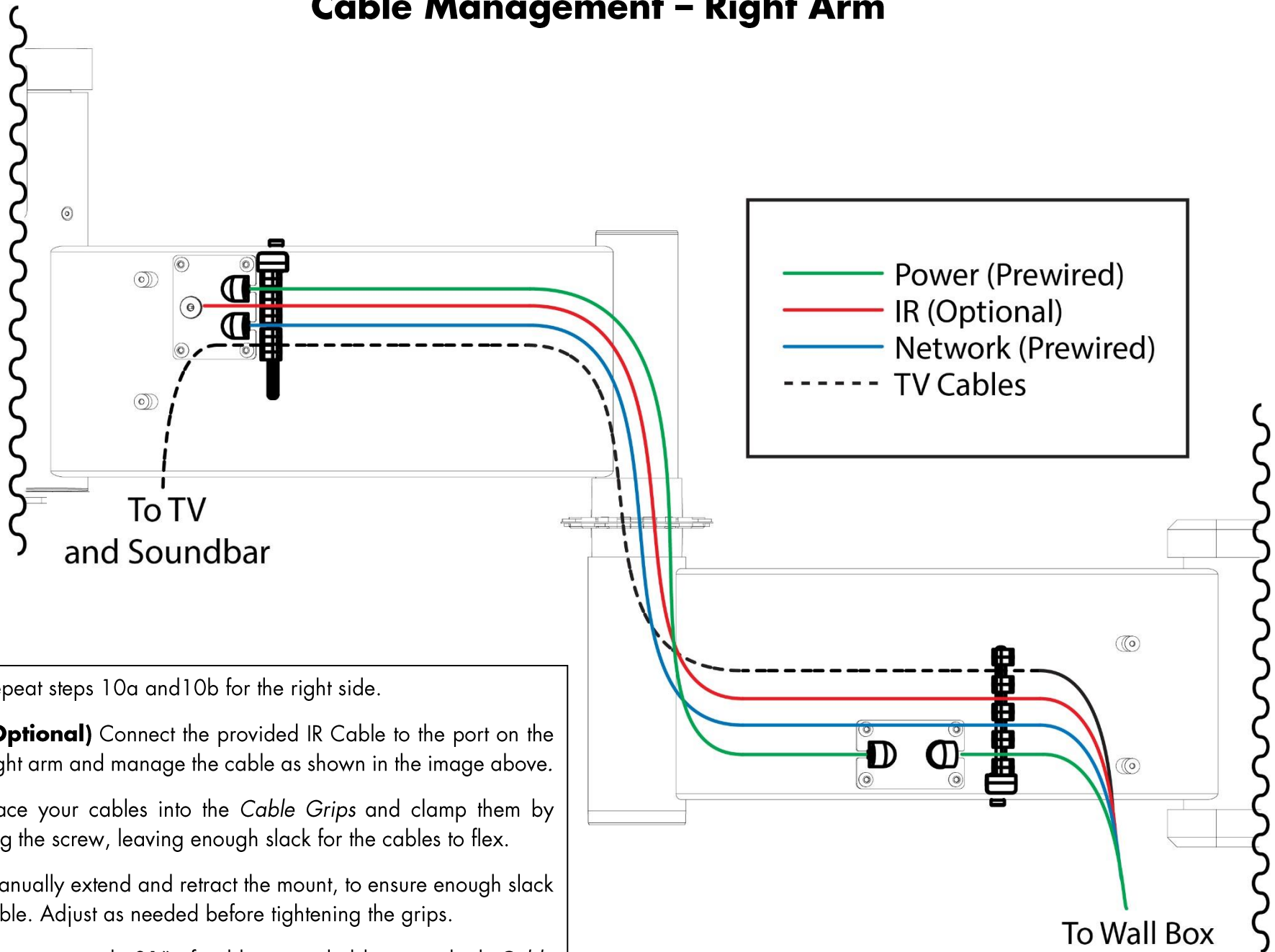
The Apex motorized mount features an advanced system for routing and protecting your cables. The system can hold up to 5 cables of any size, (6 Cables if not using IR) providing a dedicated path along the arms of the mount, with clamps to secure them, while also allowing enough movement to accommodate the extension and retraction of the arms. If used correctly, the cable management system will keep all cables organized with minimal twisting and torsion.

Cable Management - Left Arm



- 10a.** Connect all cables to the TV and Soundbar (if applicable).
 - 10b.** Loosen the screws for the *Cable Grips* and follow the labels located on the *Arm Assembly*.
 - 10c.** Place your cables into the *Cable Grips* and clamp them by tightening the screw, leaving enough slack for the cables to flex.
 - 10d:** Manually extend and retract the mount, to ensure enough slack is available. Adjust as needed before tightening the grips.
- Note:** Approximately 21" of cable is needed between the *Cable Grips* to ensure no binding occurs during retraction.

Cable Management – Right Arm



11a. Repeat steps 10a and 10b for the right side.

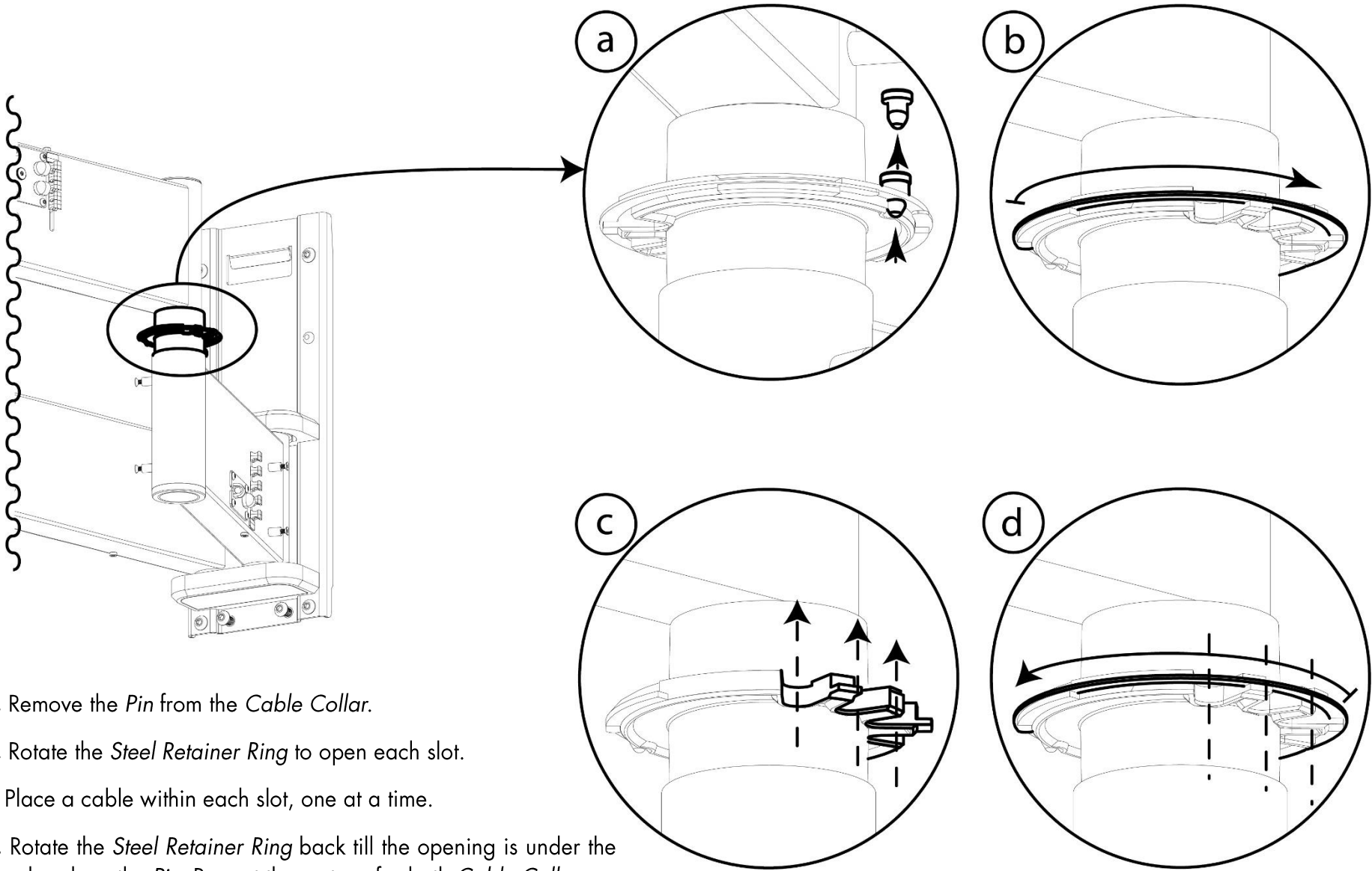
11b. (Optional) Connect the provided IR Cable to the port on the upper right arm and manage the cable as shown in the image above.

11c. Place your cables into the *Cable Grips* and clamp them by tightening the screw, leaving enough slack for the cables to flex.

11d: Manually extend and retract the mount, to ensure enough slack is available. Adjust as needed before tightening the grips.

Note: Approximately 21" of cable is needed between both *Cable Grips*. Tighten the *Cable Grips* when finished.

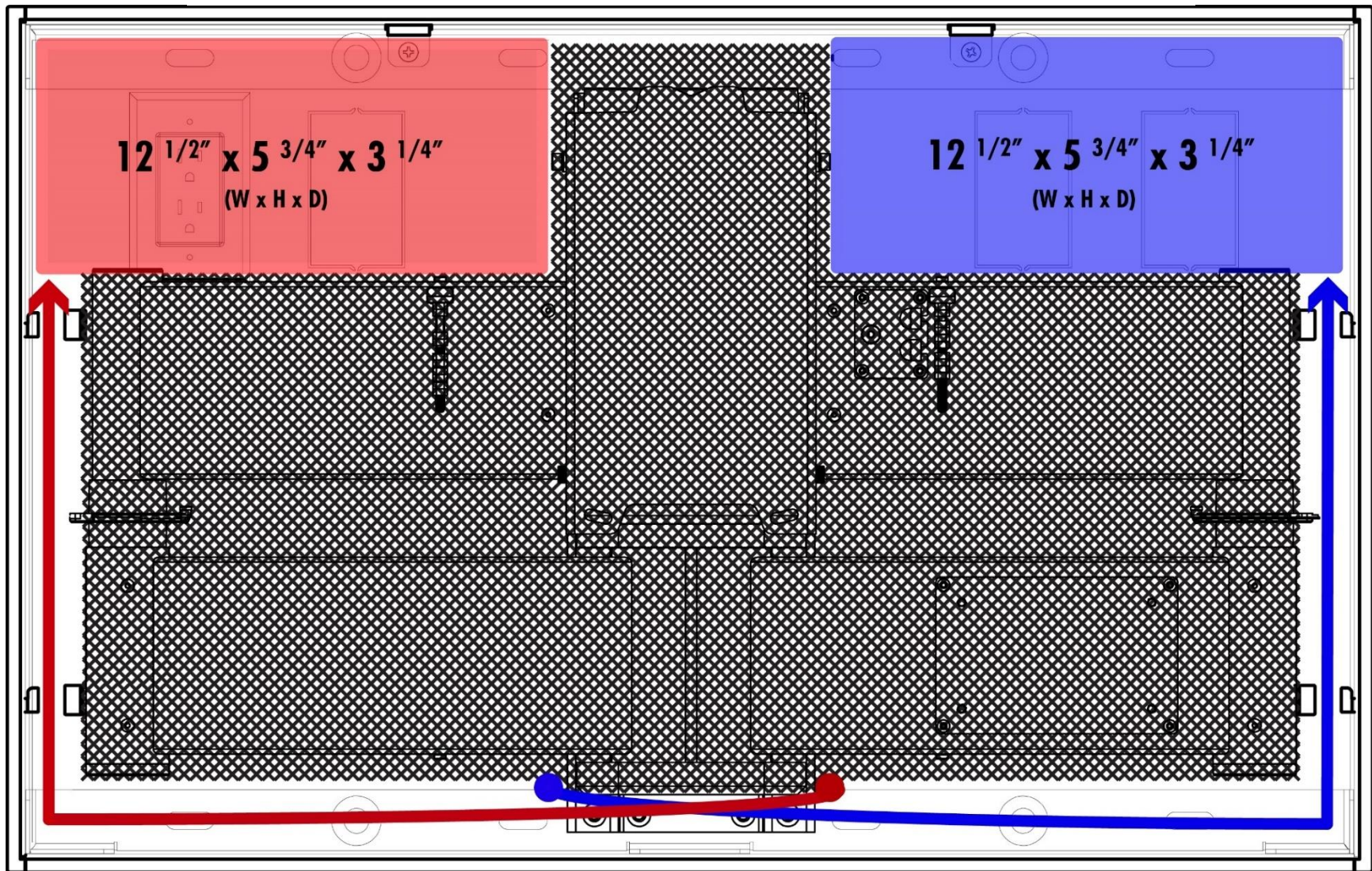
Cable Management – Collar



- 12a.** Remove the *Pin* from the *Cable Collar*.
- 12b.** Rotate the *Steel Retainer Ring* to open each slot.
- 12c.** Place a cable within each slot, one at a time.
- 12d.** Rotate the *Steel Retainer Ring* back till the opening is under the hole and replace the *Pin*. Repeat these steps for both *Cable Collars*.

Test: Manually extend and retract the mount, to ensure enough slack is available. Adjust the *Cable Grips* again for more slack if needed.

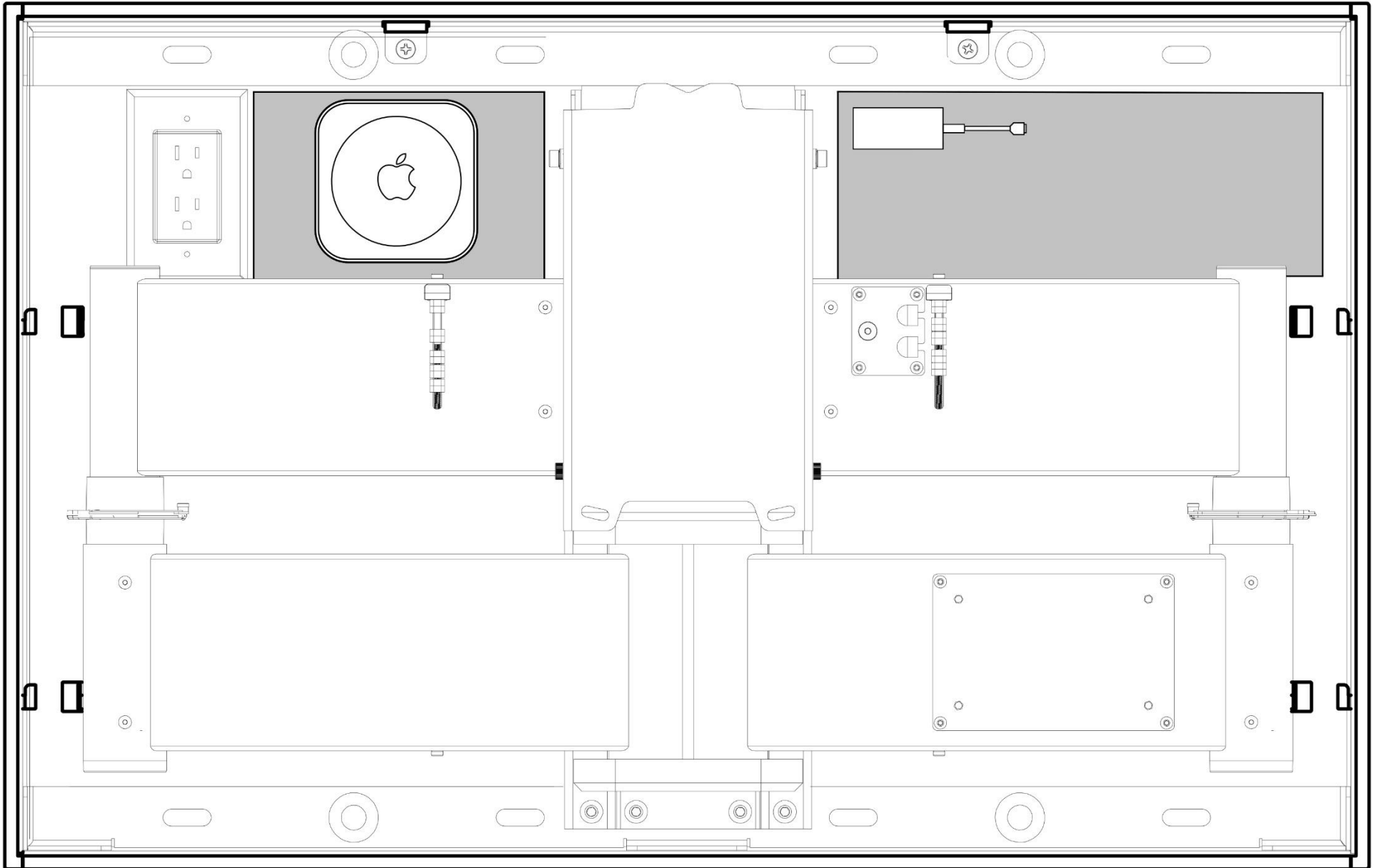
Cable Management – Wall Box



13a. Run the cables along the paths red and blue paths and manage them in the dedicated spaces shown in the image above. To reduce cable torsion during retraction, run your cables, from the Left Arm, to the **right** and your cables, from the Right Arm, to the **left**.

Note: Apply the (2) Velcro Hook Sheets to the areas in the **red** and **blue** zones to provide a surface for managing your cables and devices. This is further demonstrated on the next page.

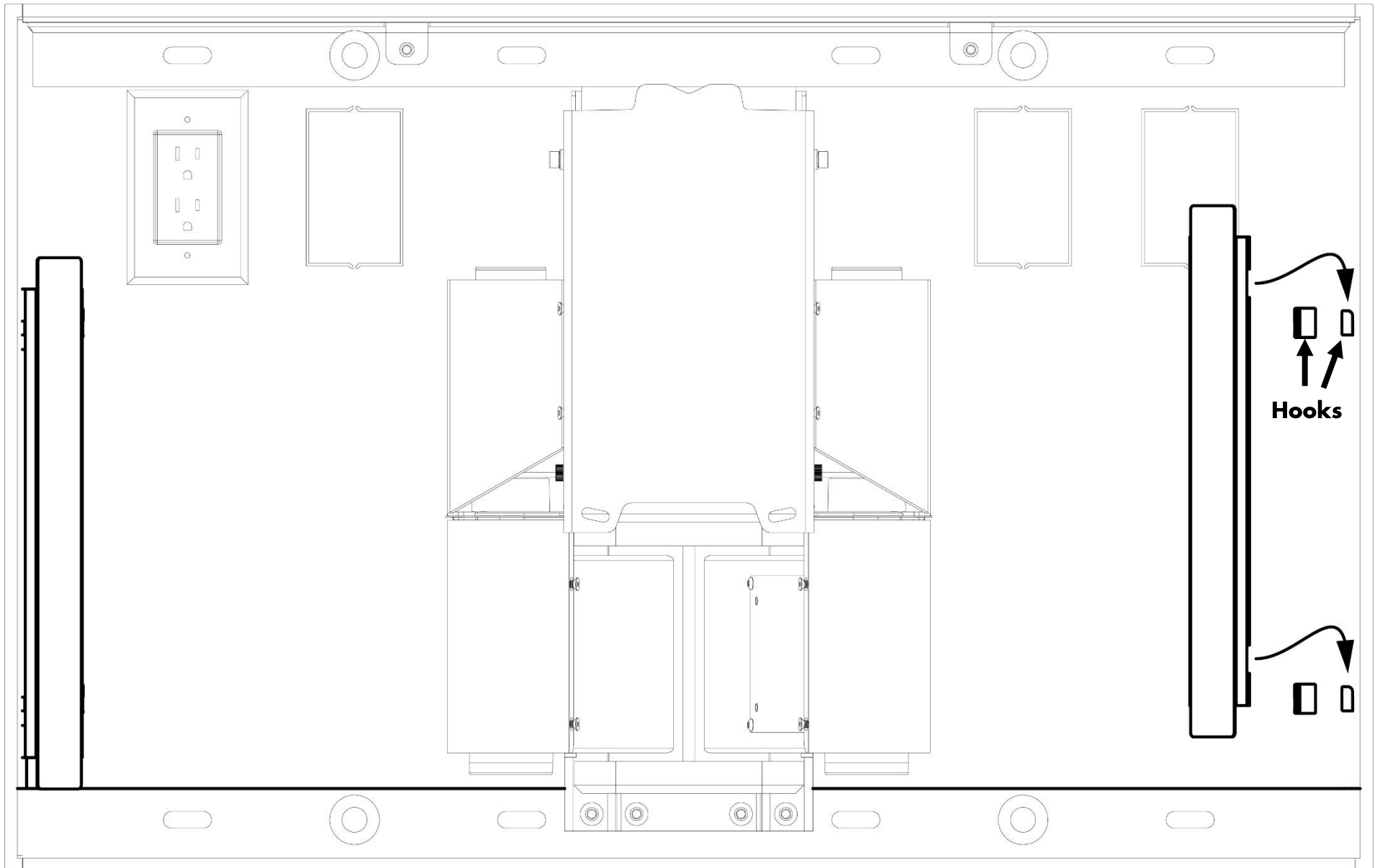
Cable Management - Wall Box (Example)



Installing the Interior Cable Covers

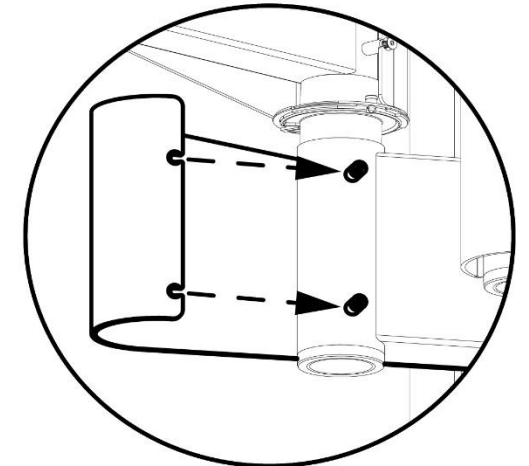
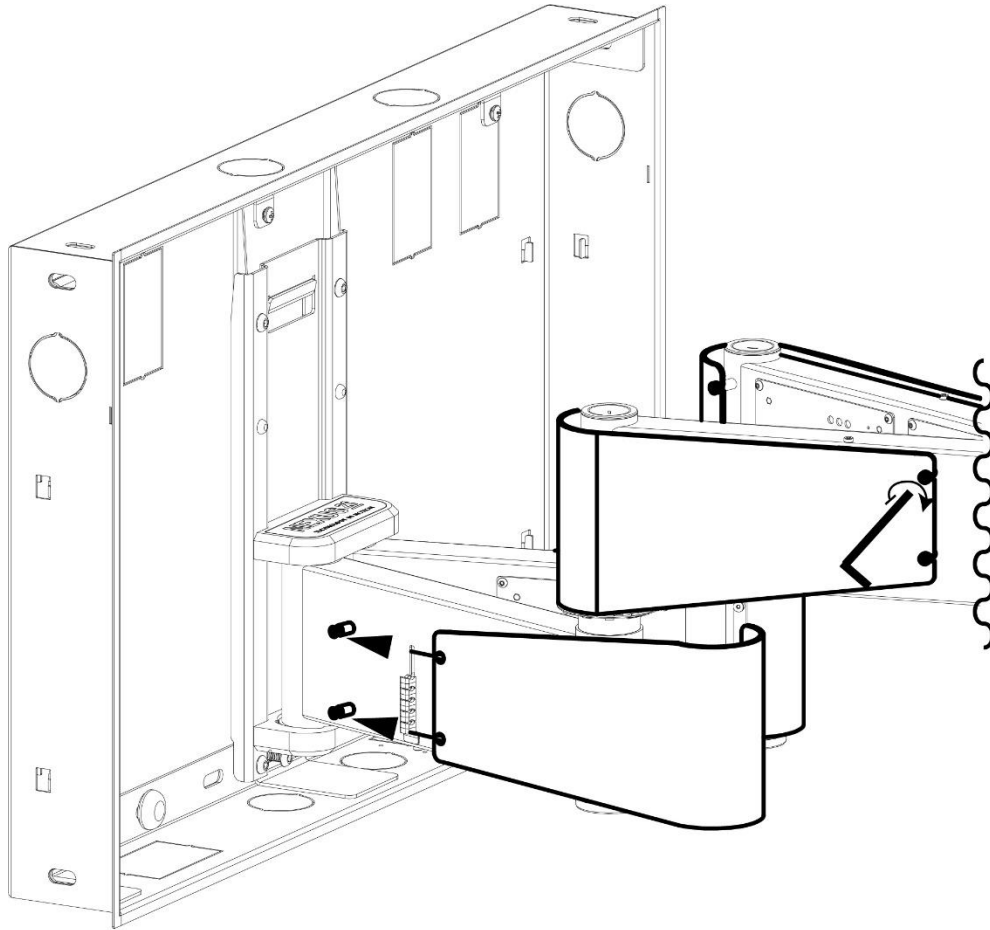
14a. Collect your cables and manage them between the hooks shown in the image below.

14b. Align the slots of the *Interior Cable Covers* with the hooks and slide them downwards to lock them in place and conceal your cables.

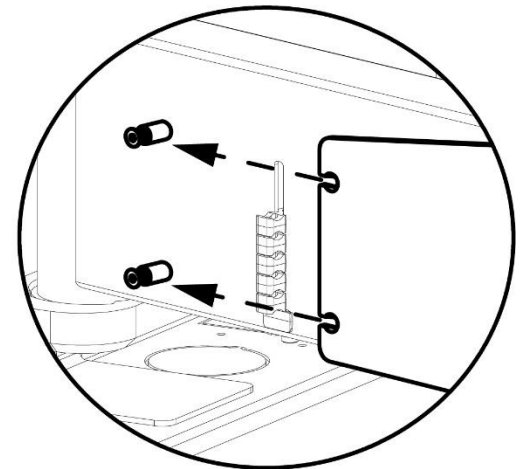


Attaching the Cable Covers

- 15a.** Loosen the (16) FHMS 4 x 12mm (Flat Head Machine Screw) on the front and back of the Upper & Lower Arms, but do not remove them.
- 15b.** Slide each Cable Cover onto the arms, by aligning the slot with the Flat Head Screws on the front and back of each arm.
- 15c.** Tighten the FHMS 4 x 12mm (Flat Head Machine Screws) to secure the Cable Covers in place.



Back

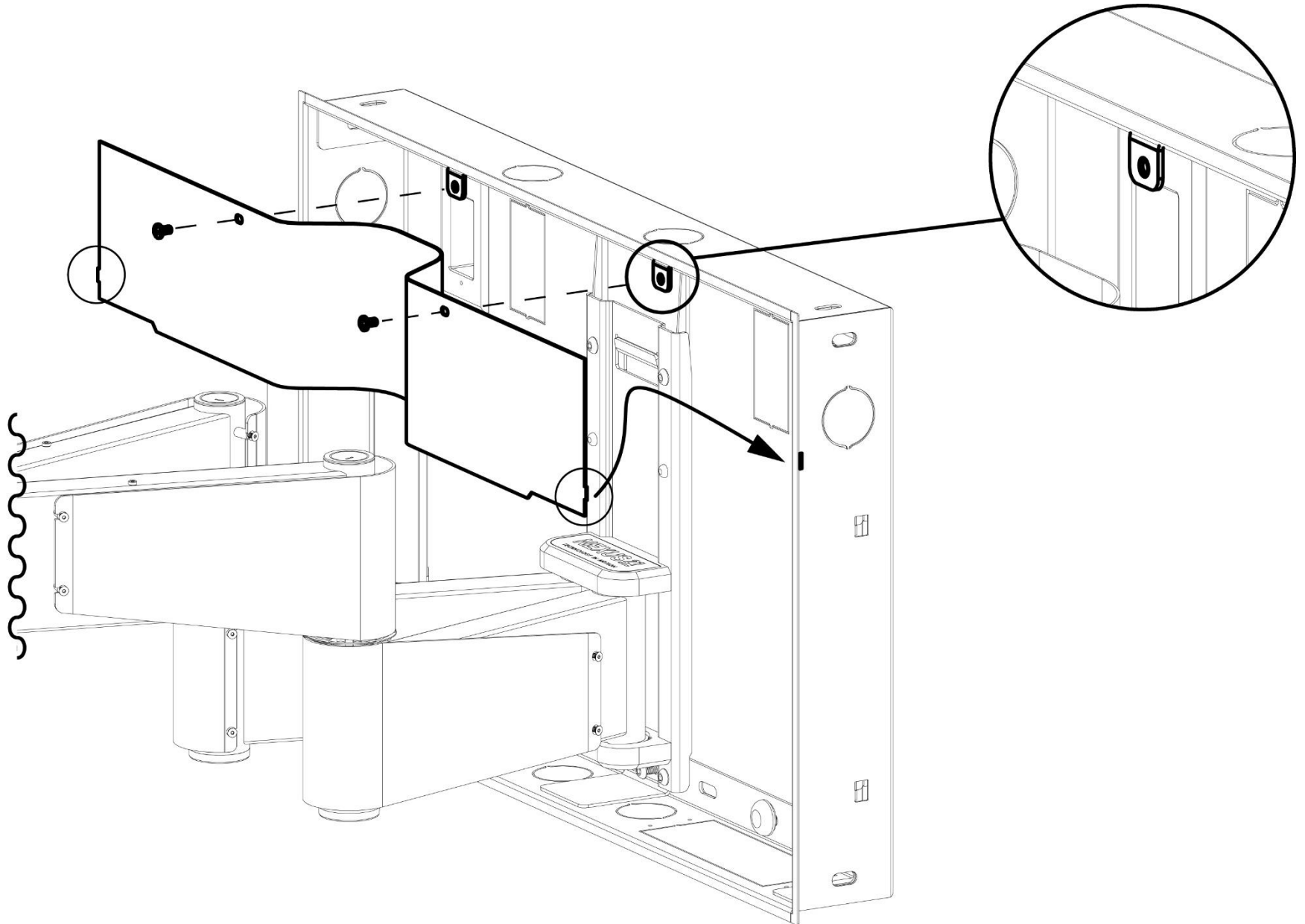


Front

Attaching the Component Cover




16a. Place the notches on the sides of the *Component Cover* into the slots locate on the left and right side of the *Wall Box*.

16b. Fasten the *Top Cover* to the *Wall Box* using (2) PHCS 6 x 10mm (*Phillips Head Cap Screw*).













System Setup

Pairing your RF Remote with Apex

1. Ensure power is disconnected from Apex
2. Press and hold the  button for 5 seconds
3. While continuing to hold the  button, reconnect power to Apex
4. Release the  button once an audible tone is heard.

Note: If the mount starts moving, press the  button to stop it

Setting Apex's Boundaries

1. Physically push your TV to the fully retracted position and maintain pressure against the TV
2. Press the following button sequence:  →  →  ; The system will respond with an audible tone
3. Physically pull and rotate your TV to its leftmost position, leaving a 1" gap between the wall and your TV.
4. Press the following button sequence:  →  →  ; The system will respond with an audible tone
5. Physically pull and rotate your TV to its Right position, leaving a 1" gap between the wall and your TV.
6. Press the following button sequence:  →  →  ; The system will respond with an audible tone
7. Press  to automatically return your TV to the Home position

Note: Apex will continue to run, briefly, after reaching the Home position to remove any slack in the motors.

Saving your Presets

1. Move your TV to a desired viewing position manually or by using the arrow buttons

Note: Apex features an instantaneous drive release allowing manual movement at anytime, so a user will never damage the motors by pushing or pulling the TV

2. Press  then  or  or  to save the position to Apex's memory

Note: To overwrite or set another Preset, simply repeat these steps



Integration Information

Apex has drivers for most Control Systems. A list of supported drivers can be found at www.chowmainsoft.com under the Driver Modules tab.

All Nexus 21 drivers support both IR and IP integrations. Documentation is included with each driver that provides detailed information about commands, installation, and setup procedure.

Locating the MAC Address:

1. Open a Network Analyzer and scan the network.
2. Locate the NIC Vendor "Raspberry Pi" for Apex's MAC Address

Note: If your Network Analyzer is not up to date, it may be listed as unidentified. Update your Network Analyzer to locate the MAC Address.

Support Information:

Contact Chowmain with any issues regarding integration or driver questions, if you are unsure of whether or not the issue relates to integration or the driver, contact Nexus 21 Product Support for assistance.

Nexus 21 Product Support

Phone: 480-306-5462

Email: support@nexus21.com

Hours:

7:00 AM to 4:00 PM MST Mon. - Thu.

7:00 AM to 4:00 PM Fri.

Closed Sat. & Sun.

Chowmain Driver Support

Phone: 720-504-9021

Chat: www.chowmainsoft.com/support

Hours:

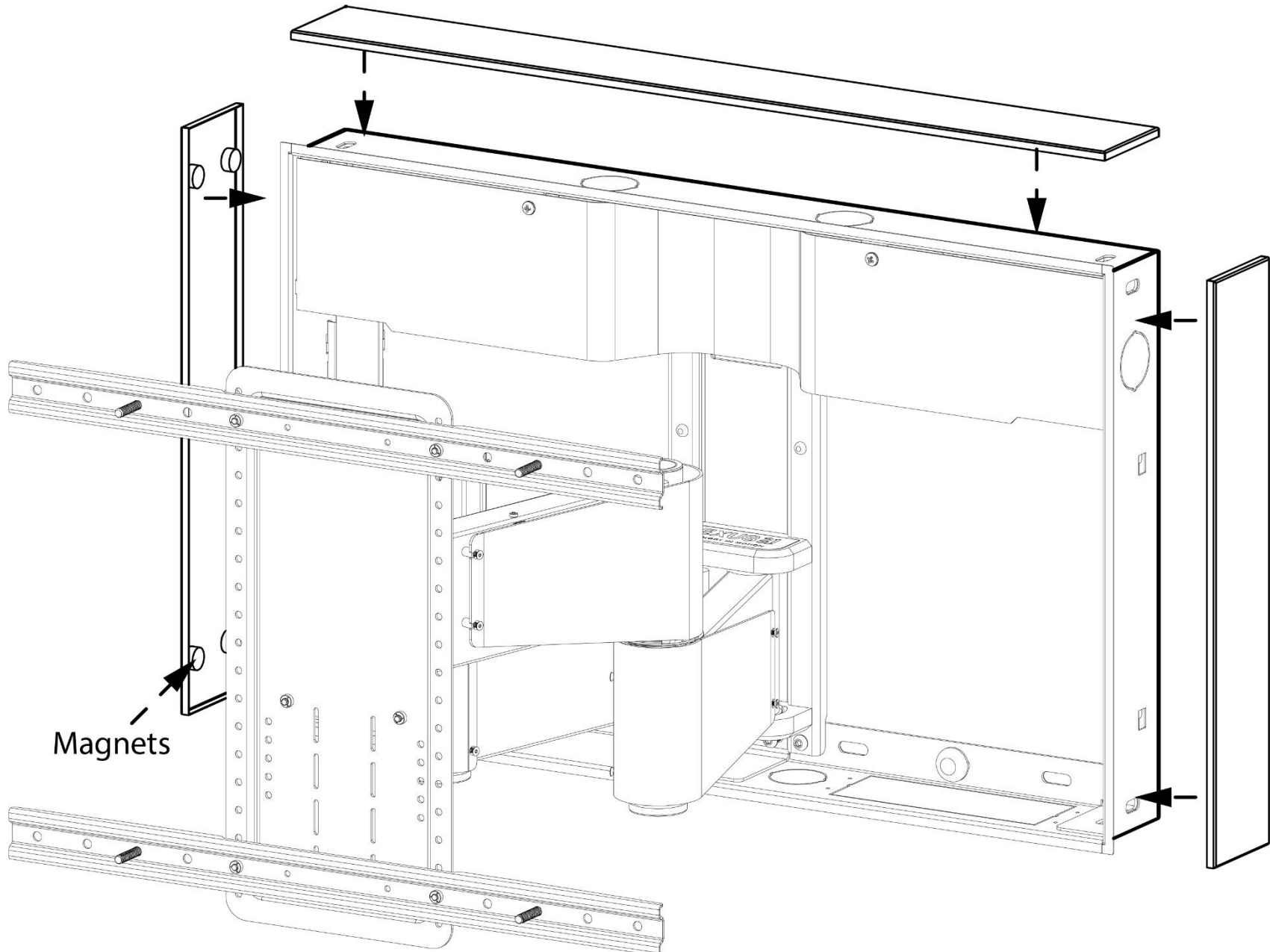
8:30 AM to 4:30 PM MST Mon. - Fri.

Closed Sat. & Sun.

Adjustments and Fine Tuning

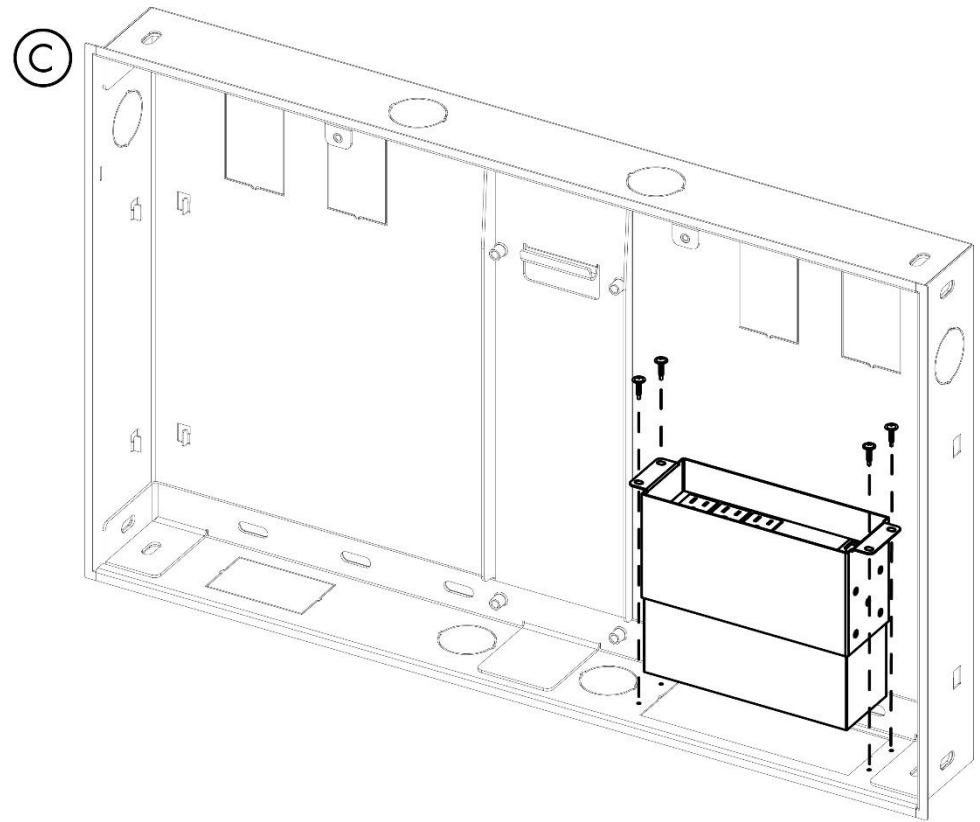
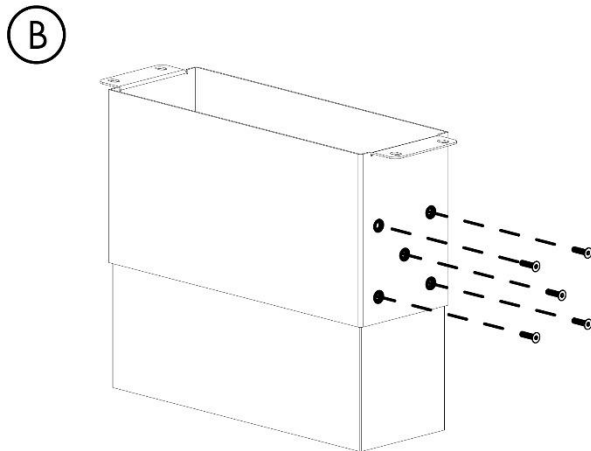
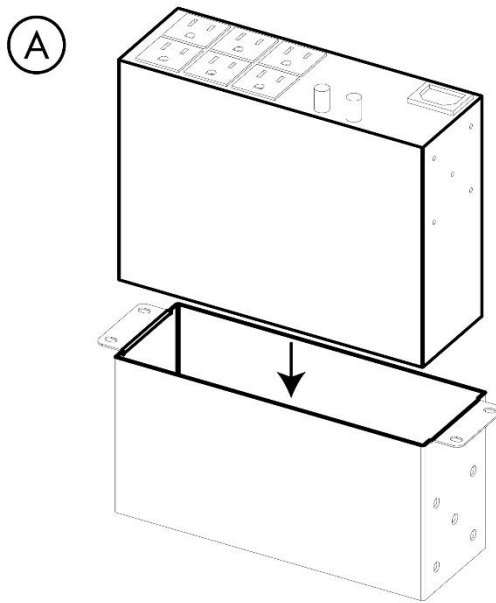
Attaching the Magnetic Trim Covers (For On-Wall Installs Only)

Attach the *Magnetic Trim Covers* to the Left, Right, & Top/Bottom of the *Wall Box*.



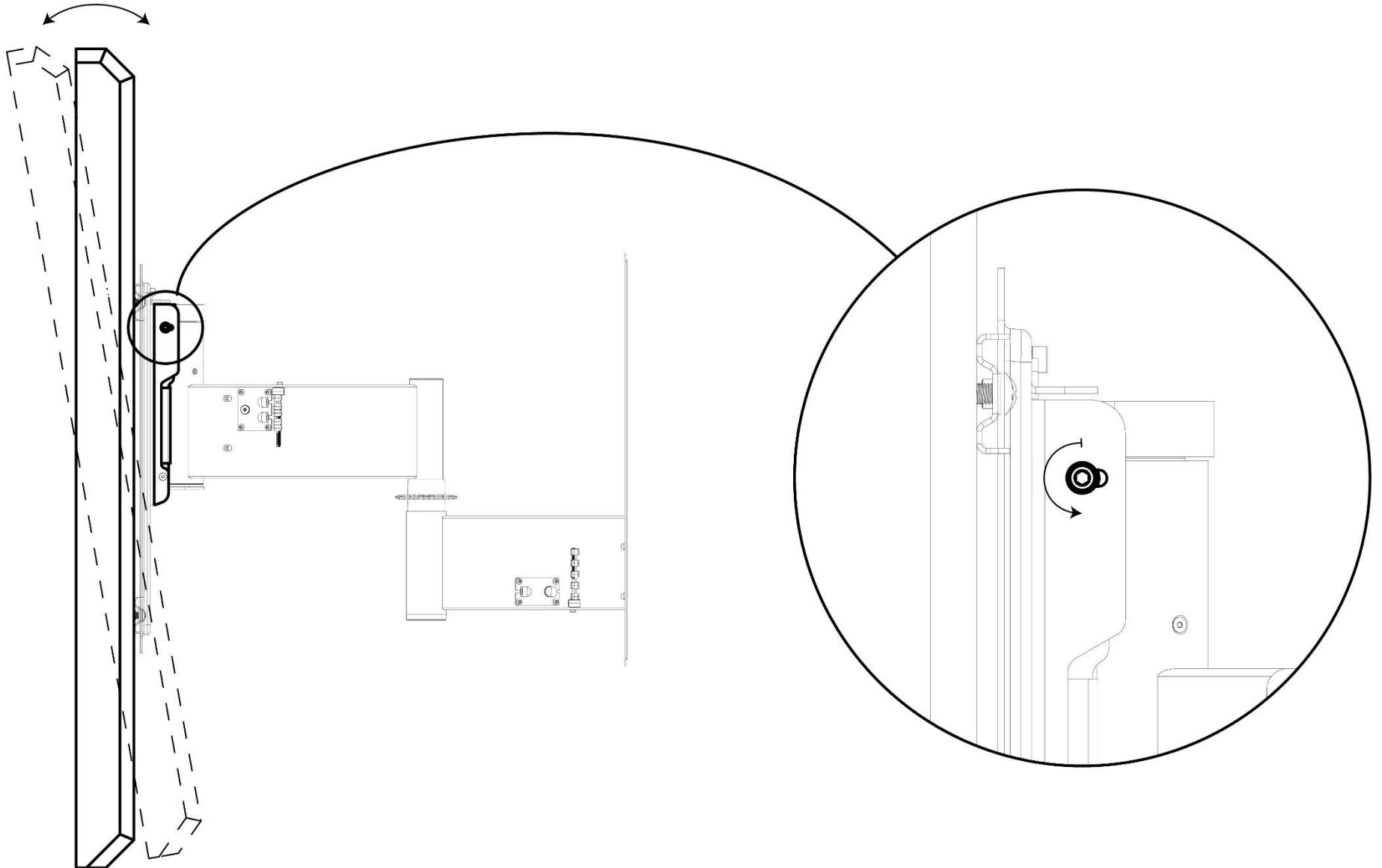
Installing your Watt Box – Optional (For In-Wall Installs Only)

- A.** Slide your Snap AV Watt Box (WB-300VB-IP-5) into the *Watt Box Housing*.
 - B.** Fasten the Snap AV Watt Box to the housing using (10) M3 x 0.5 Flat Head Screws (Not Provided).
 - C.** Remove the Watt Box Knockout from the *Wall Box* and fasten the housing to the *Wall Box* using the (4) *Washer Head Drilling #8 x 0.75" Screws*.
- Note:** Ensure the thickness of your wall is less than 5/8" otherwise the *Watt Box Housing* will not slide into place.



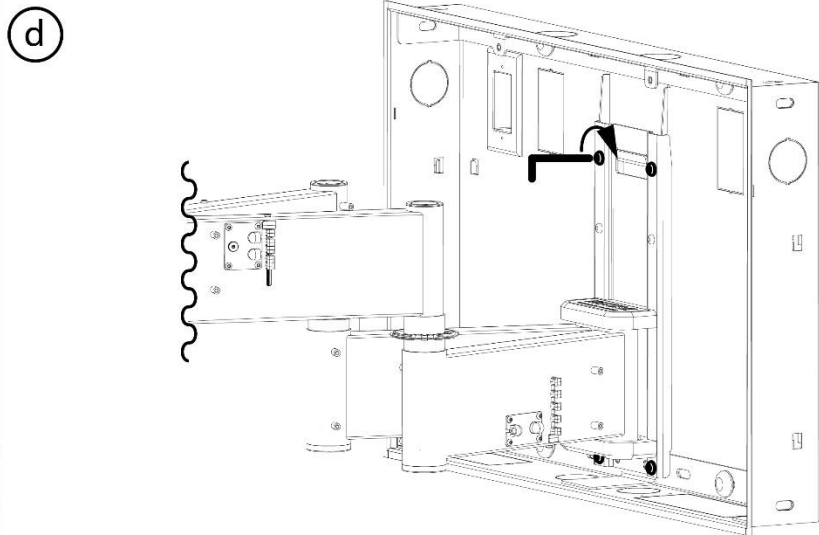
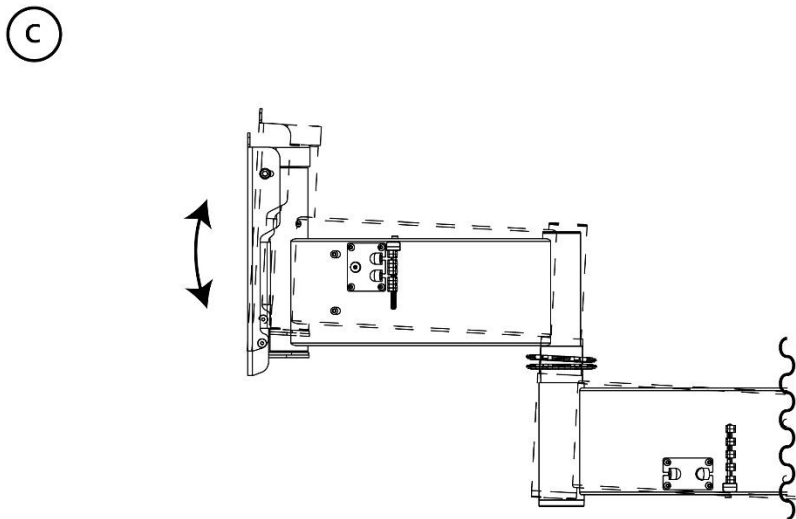
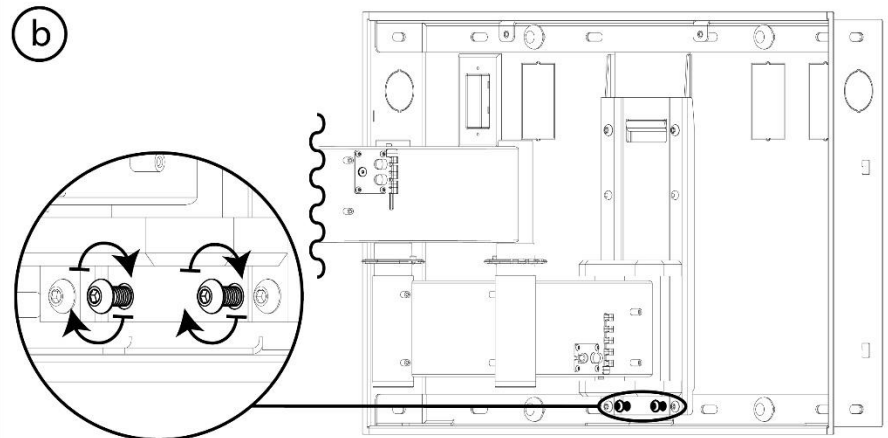
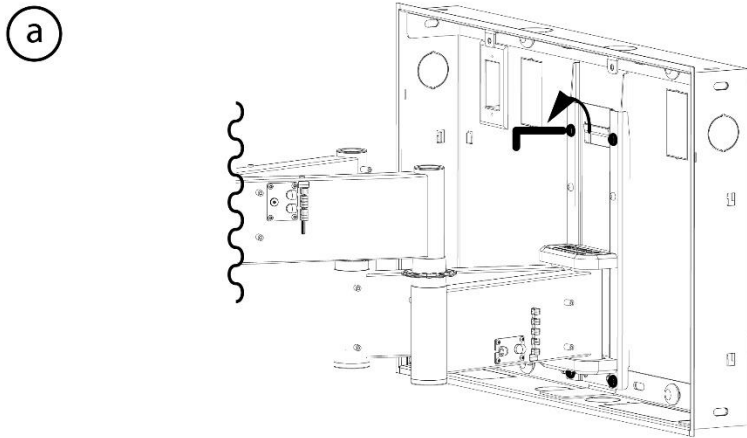
Adjusting the TV Tilt

- A.** Loosen the screws on the left and right side of the *Arm Assembly*.
 - B.** Push or pull the TV to adjust the angle, then tighten the screws to lock the position in place.
- Note:** This will also adjust the angle of the TV when retracted.



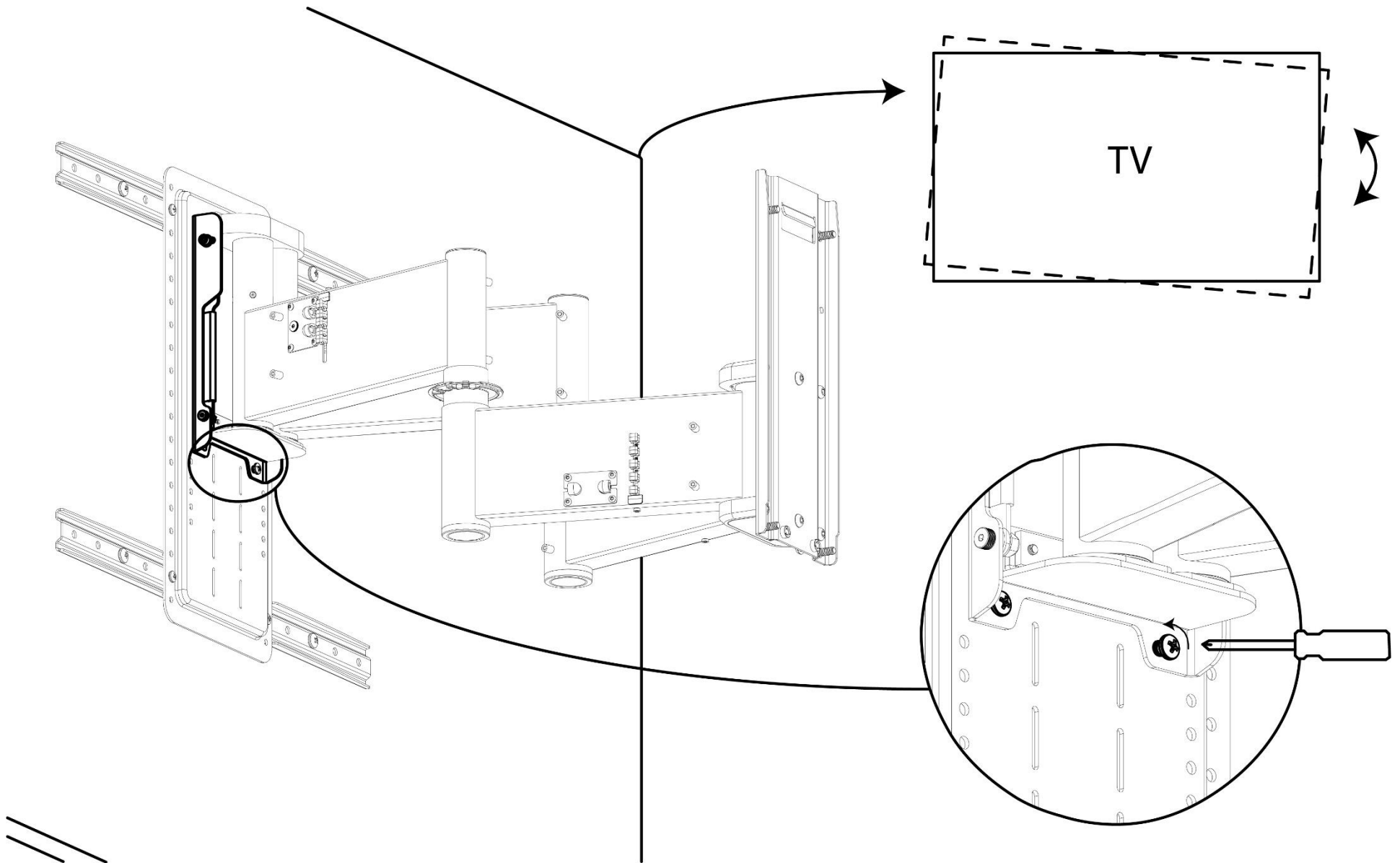
Adjusting the Level of the Arm Assembly

- A.** Slightly loosen the Screws attaching the Arm Assembly to the Wall Box.
- B.** Loosen the Adjustment Screws to lower the Arm Assembly, or tighten them to raise it. Ensure you adjust both screws equally.
- C.** Level the arms as best as possible. Adjusting the Arms up too far may cause the "Anti-Collision" to engage. If this happens, the Arms will not extend. To fix this problem loosen both adjustment screws incrementally, and repeat, until Anti-Collision no longer engages and the unit extends.
- D.** Fully fasten the Screws from step A to lock the arm position in place.



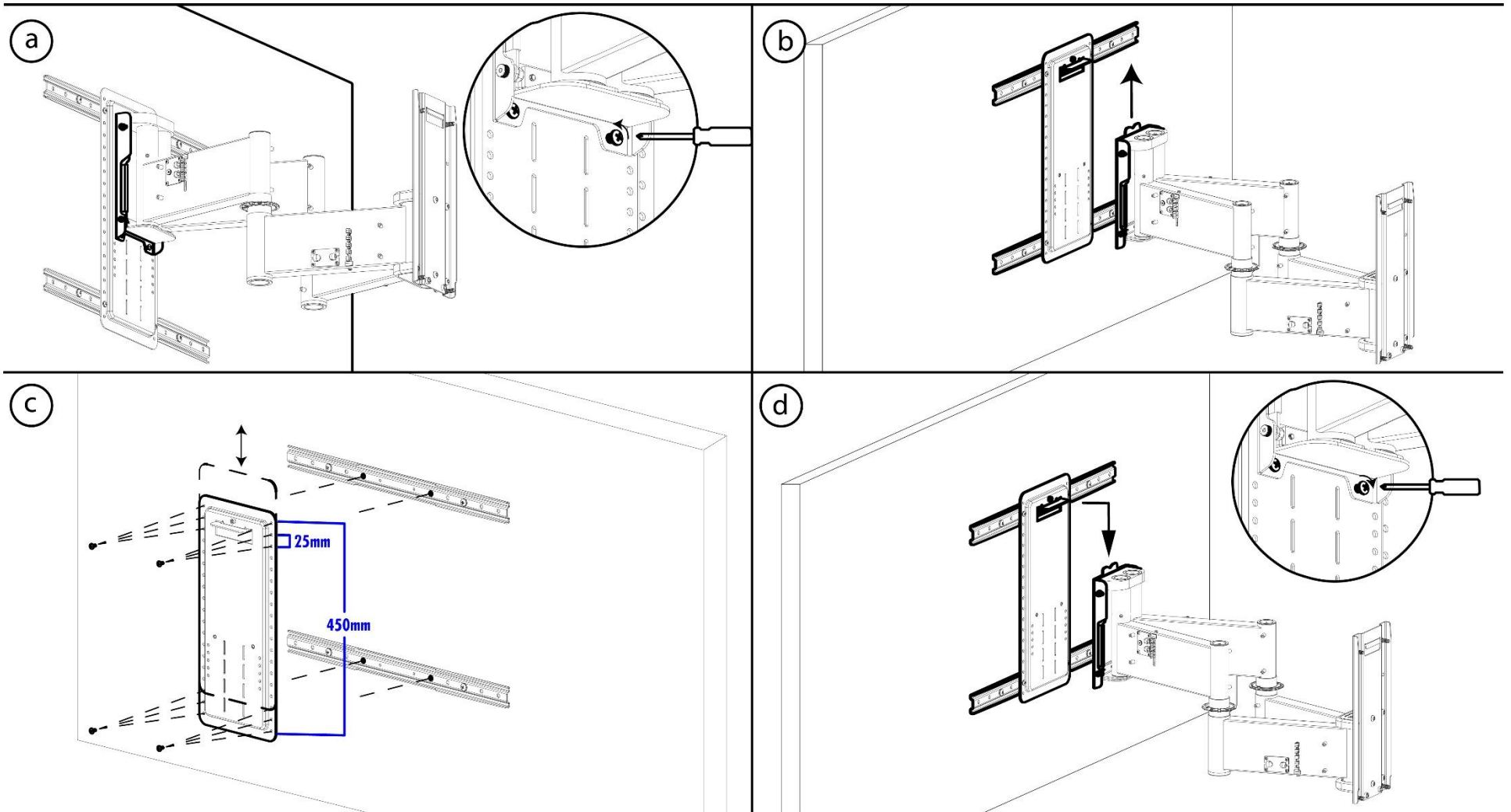
Leveling your TV

- A.** With Apex in the extended position, loosen the (2) Phillips Screws on the TV Mount right below the Arm Assembly, but do not remove them.
- B.** Level your TV, then re-tighten the screws to lock its position in place.



Adjusting the TV Position (Vertical)

- A.** Remove the (2) Phillips Screws on the TV Mount right below the Arm Assembly.
- B.** Remove your TV and TV Mount from the Arm Assembly then remove the (4) Phillips Screws connecting the TV Mount Plate to the TV Mount Rails.
- C.** Reposition the TV Mount Plate higher or lower on the TV Mount Rails, then re-fasten the (4) Phillips Screws.
- D.** Re-hang your TV and TV Mount on the Arm Assembly then fasten the (2) Phillips Screws that you removed from step A after leveling the TV.



www.nexus21.com

1-888-981-9919

