



# OOSMS Bracket Installation Manual

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# Introduction

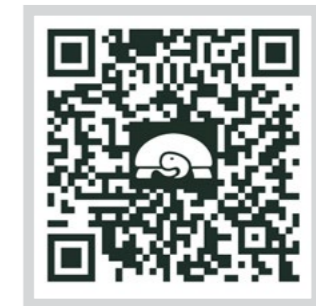
Congratulations on purchasing an Out Of Sight Mounting TV bracket. Your bracket has been designed to ensure a smooth installation. Many hours of research and development have been invested to make the installation process as smooth as possible. This manual will guide you through the proper installation process, but we strongly advise reviewing the installation videos before starting by scanning the following QR codes.

**Safety precautions:**  
Qualified professionals must undertake the installation. Please read through the manual before starting out the installation process.

Custom framing kit  
CGI video



Framing kit  
installation video



400 vesa bracket  
CGI video



400 vesa bracket  
installation video



# Safety regulations

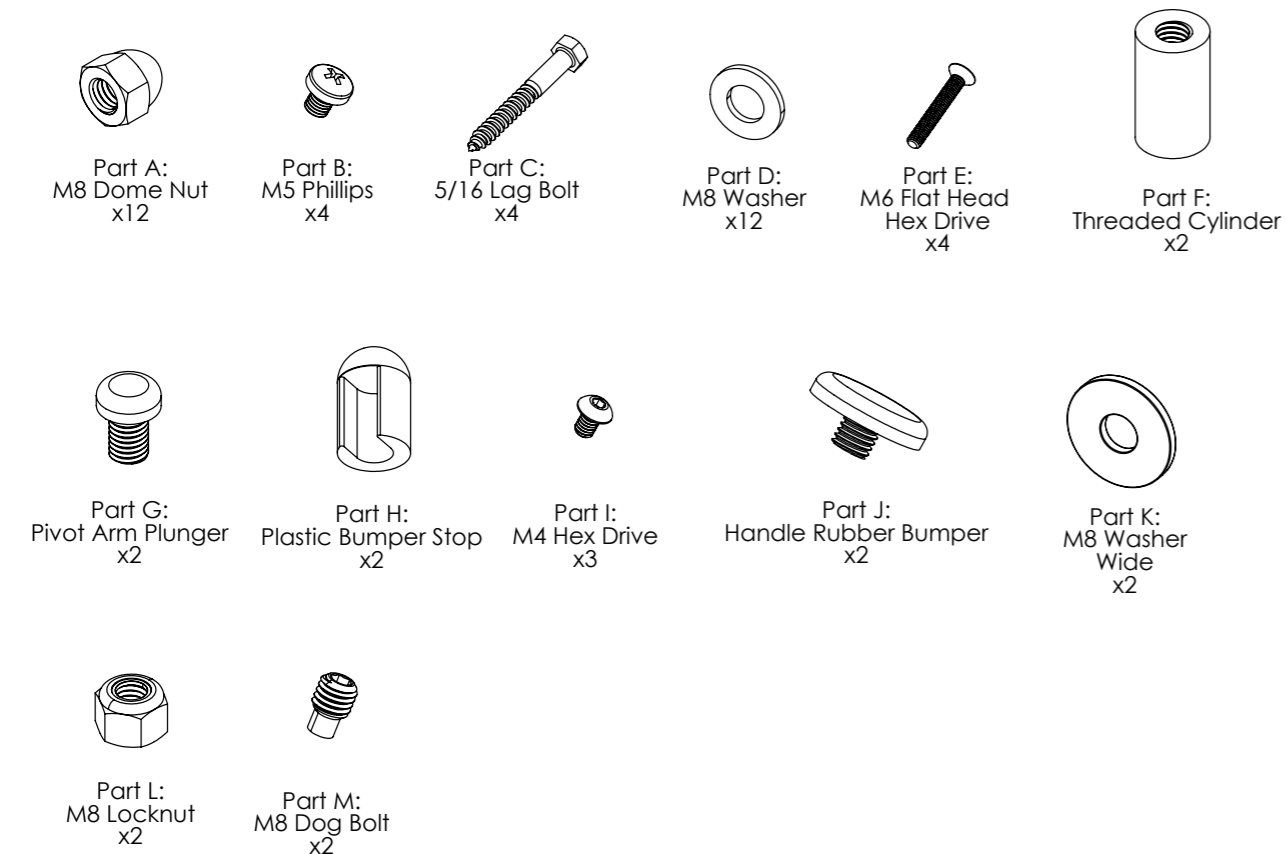
Qualified professionals must undertake the installation.

Specific steps require the cooperation of two individuals.

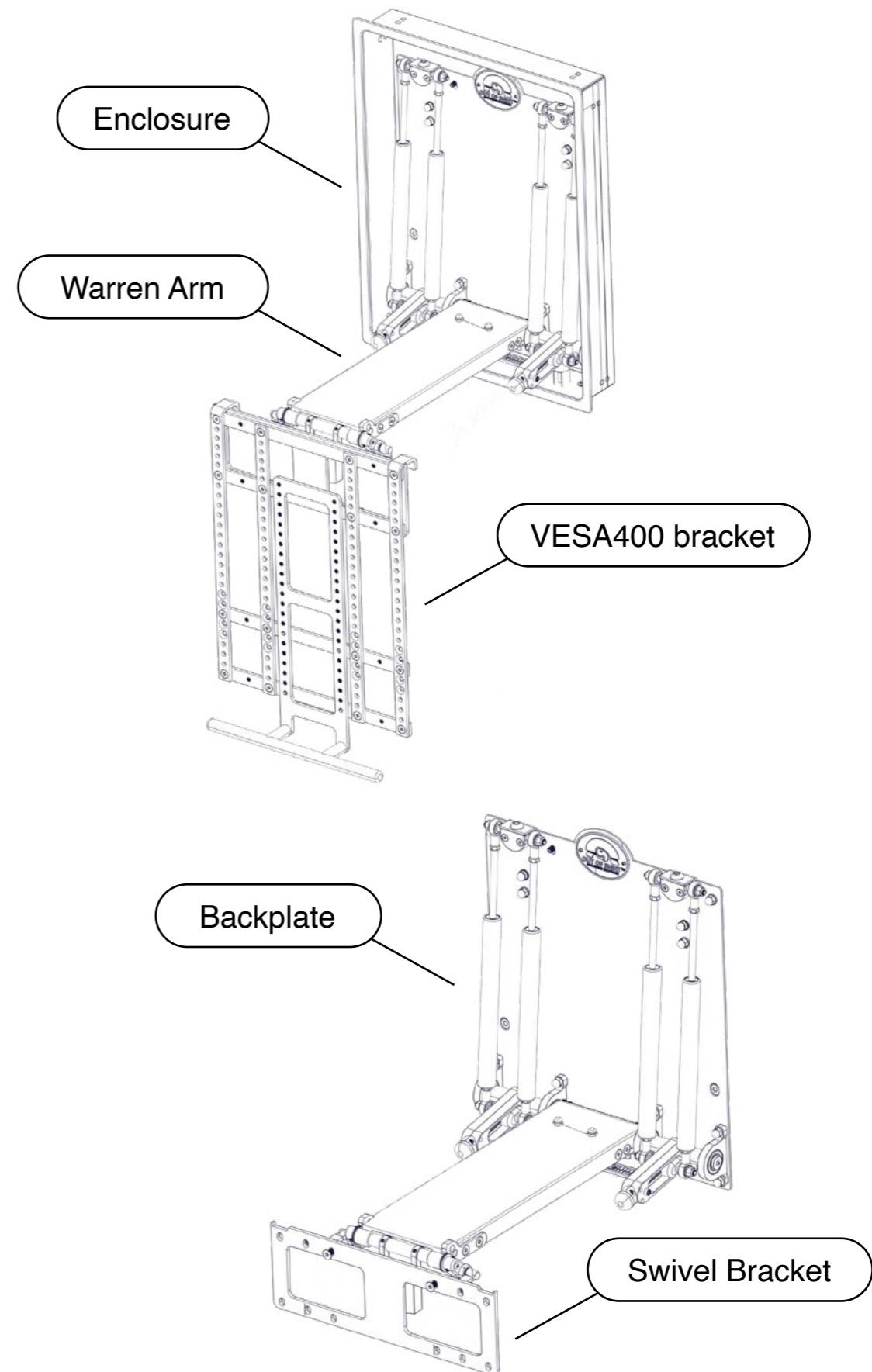
It is strongly advised that this recommendation is respected and followed to avoid damages and injuries.

Please read through the manual before starting the installation process, and keep it within reach during the whole installation process.

Avoid exposing your TV to any heat sources. Do not lower your TV in front of a burning fireplace.



# Anatomy of Device



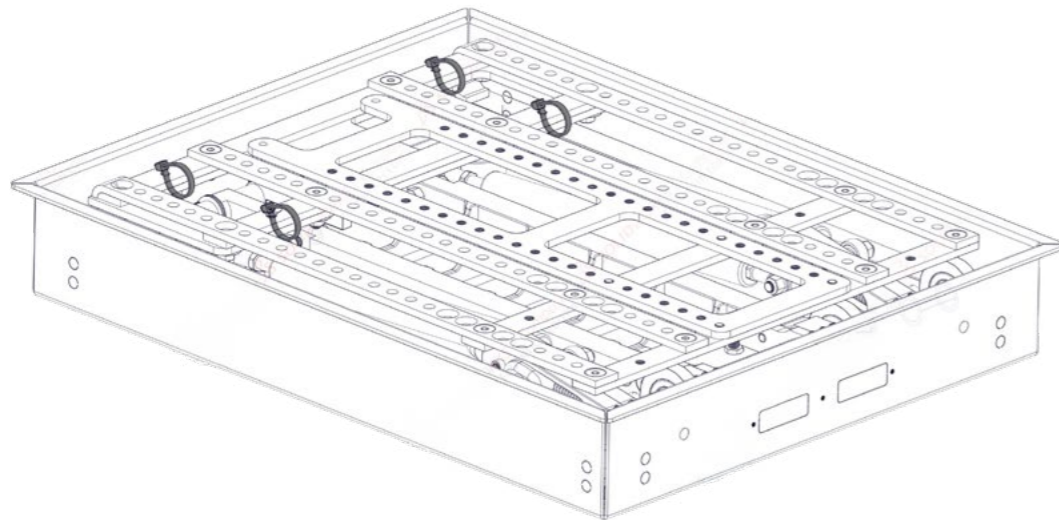
# Step 1

## Unboxing, Removal of Bracket and Backplate

The following procedures listed for step one will take you through the process of removing the parts from your metal recessed enclosure to setting up your safety device for the TV installation process.

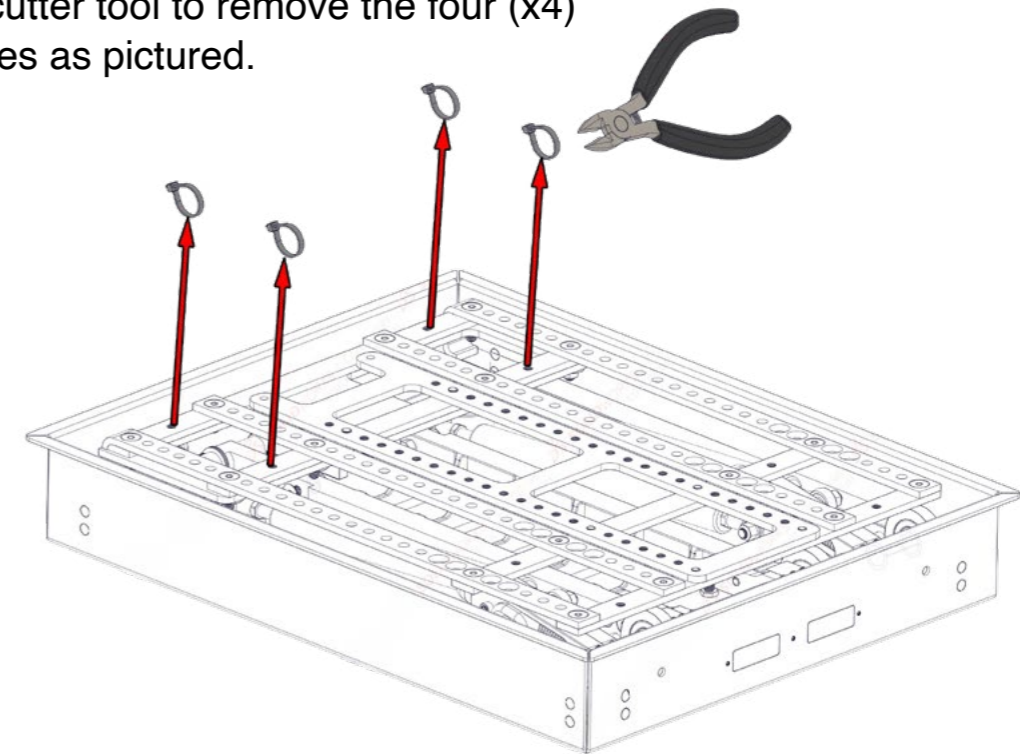
This kit may arrive in different packaging. Check our YouTube page for additional you tube instructional videos.

01



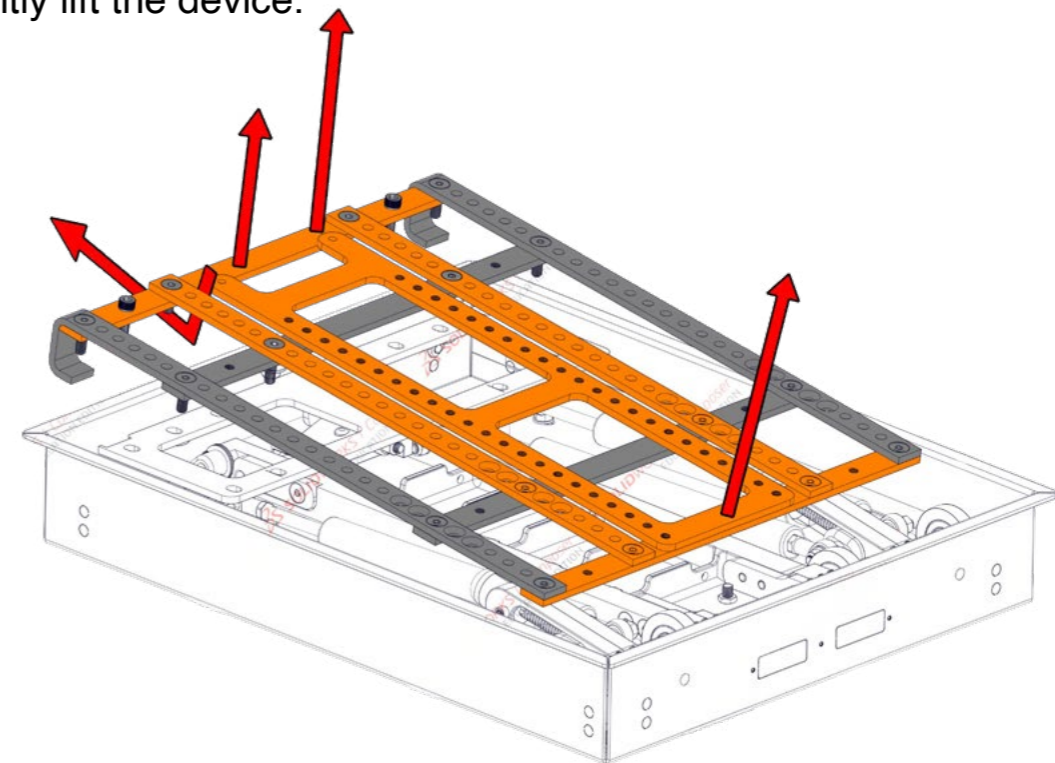
02

Use a cutter tool to remove the four (x4) cable ties as pictured.



03

1. Lift the front part of the Vesa base as indicated.
2. Slide the Vesa base towards the top part of the enclosure, until the hooks have cleared the mounting plate below.
3. Gently lift the device.



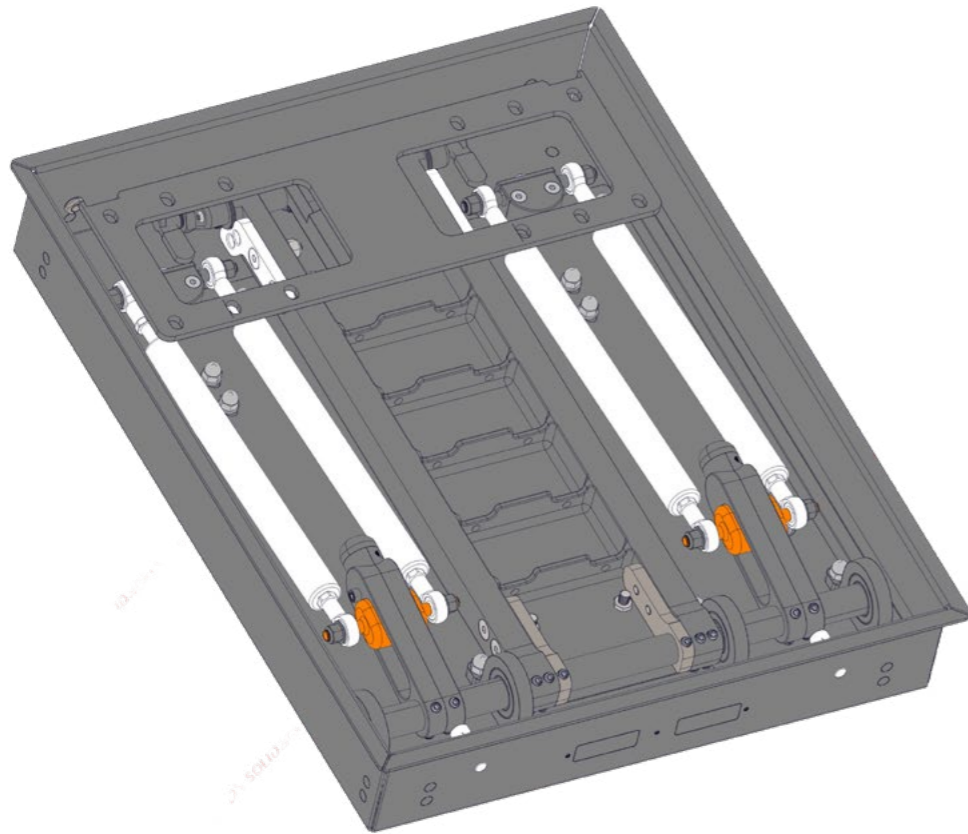
**Note** Please use both hands to complete this operation for better command.

# Step 1

## 04

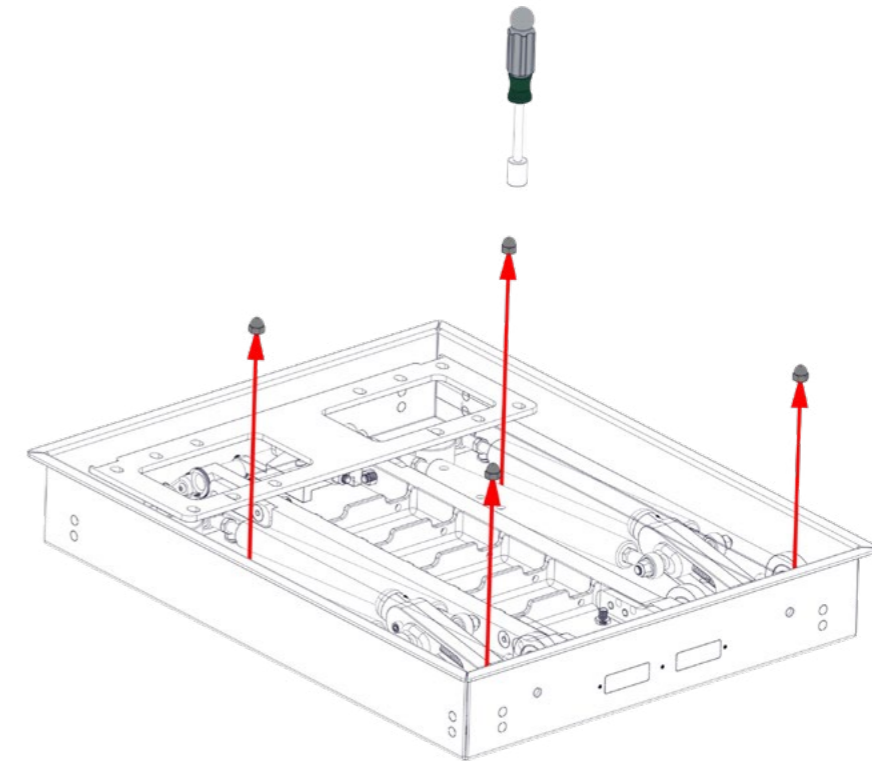
The Pivot arms should be delivered with the lower bosses set to the highest position, as depicted. Please, visually confirm this setting before progressing. In the case that the lower bosses are not set all the way up, please refer to appendix A for instructions.

Note: Please keep the foam piece between the Warren Arm and Backplate in its position to avoid any possible scratches or other damage to the paint.



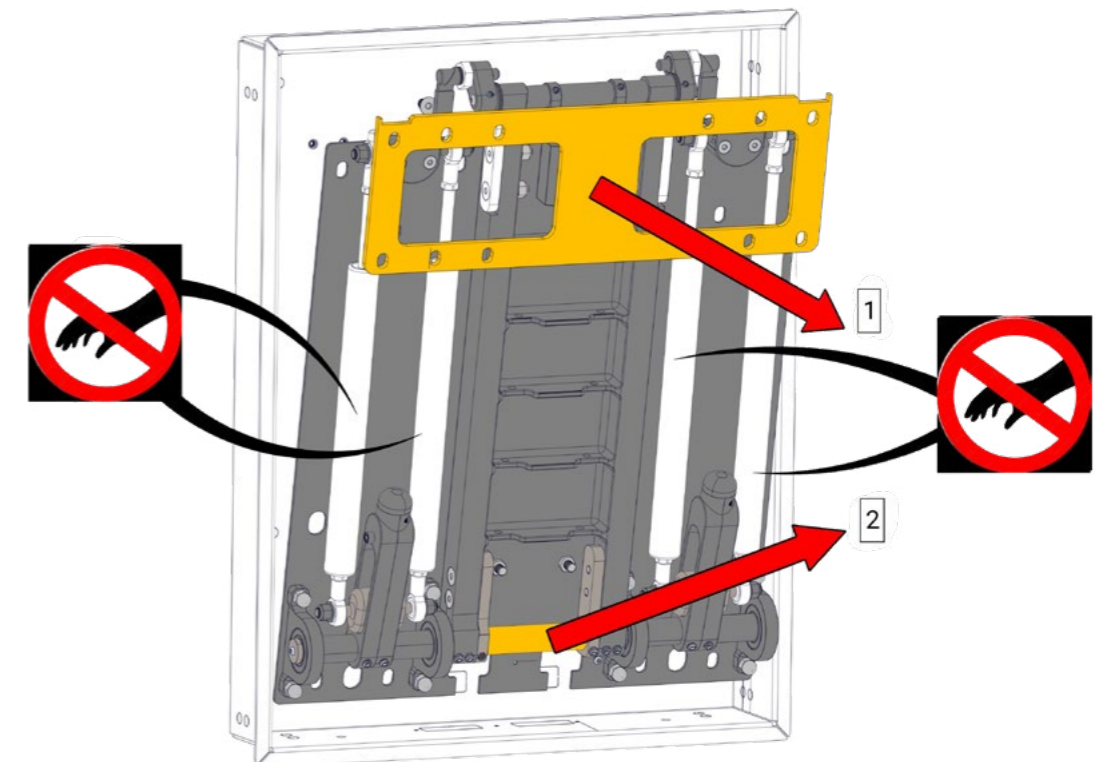
## 05

Use a 13mm socket to remove the four (x4) cap nuts (A) highlighted.



## 06

Gently lift the base plate by the top and then the bottom parts highlighted to remove it from the enclosure.

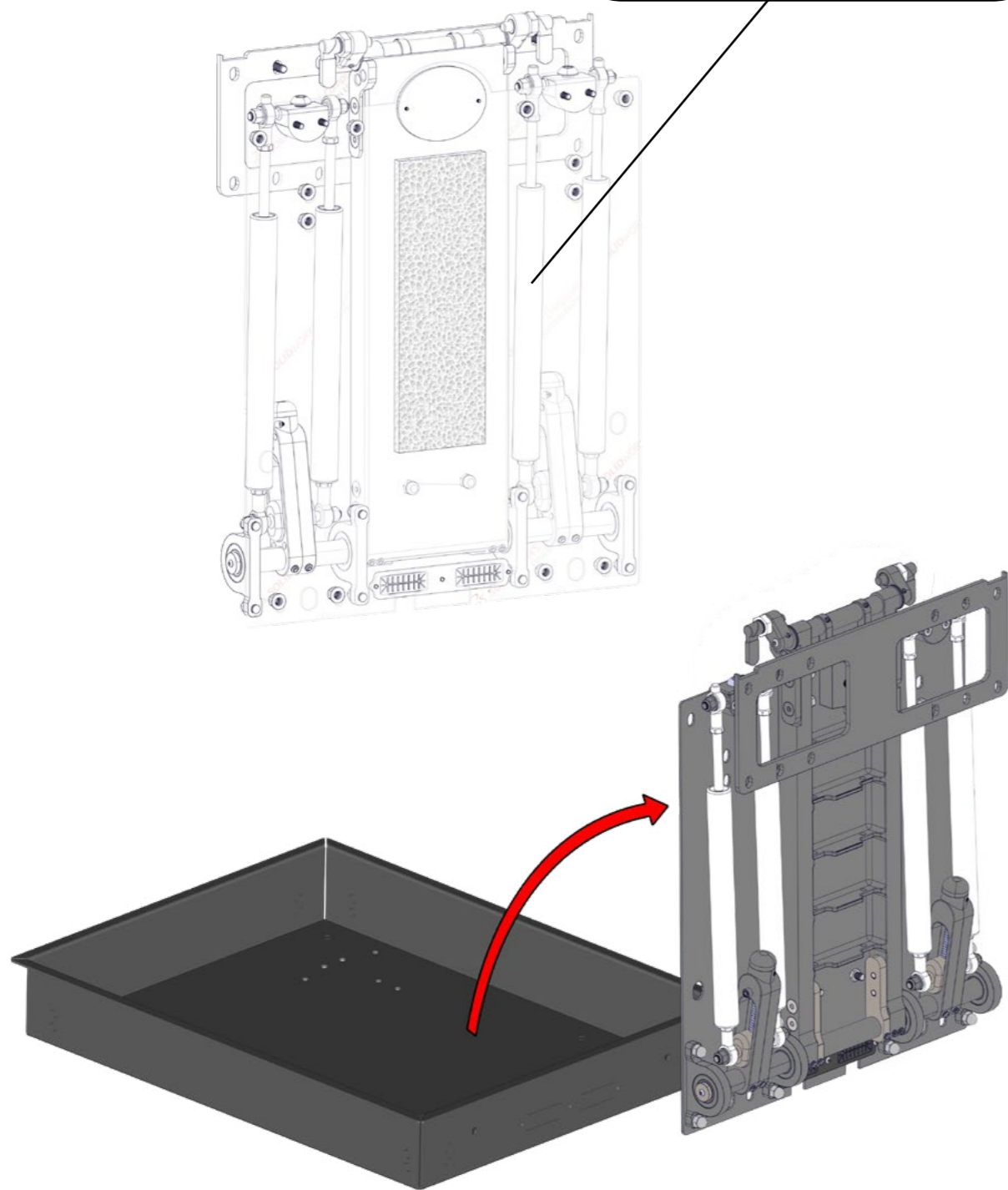


# Step 1

## 07

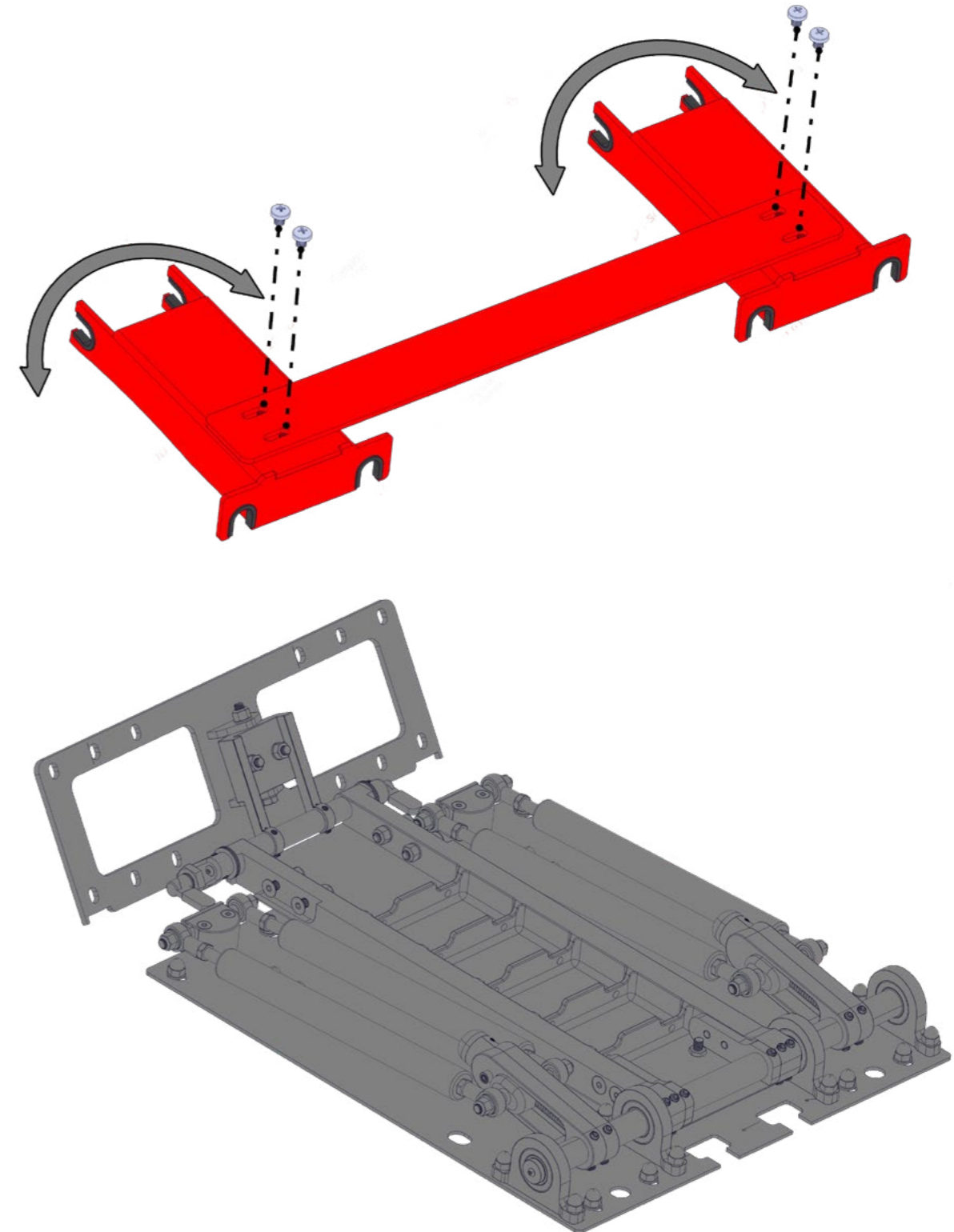
Back plate successfully removed.

Please keep the foam piece in place throughout Step 1



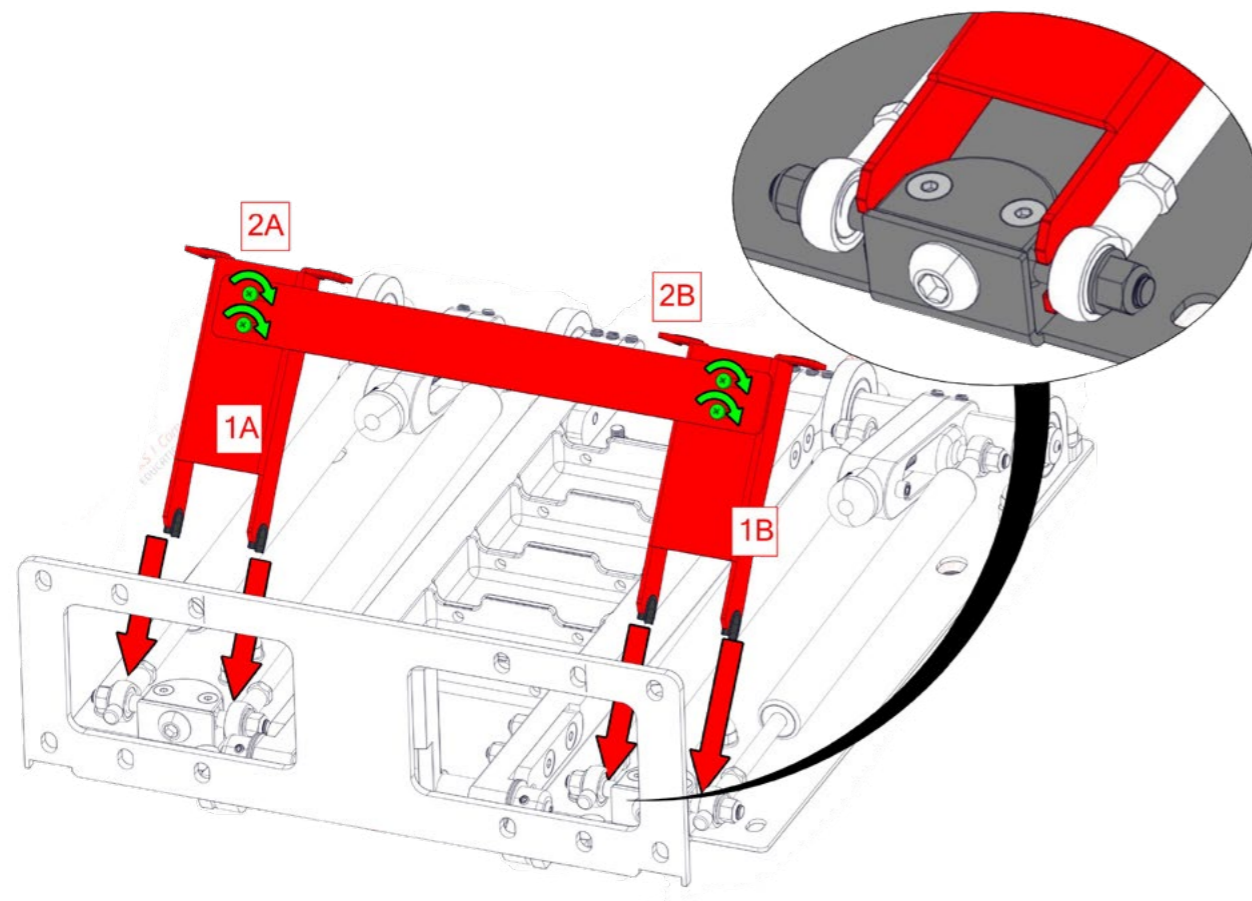
# 09 Setting up of the Safety device

Install the four (x4) Phillips screws (B), but allow some slack. Then place the device as depicted on the upper bosses, ensure they make full contact with the circular profile of the upper boss and firmly tighten the four (x4) Phillips screws (B). Finally, remove the brace and store it for later use.



# Step 1

## 09B Setting up of the Safety Device

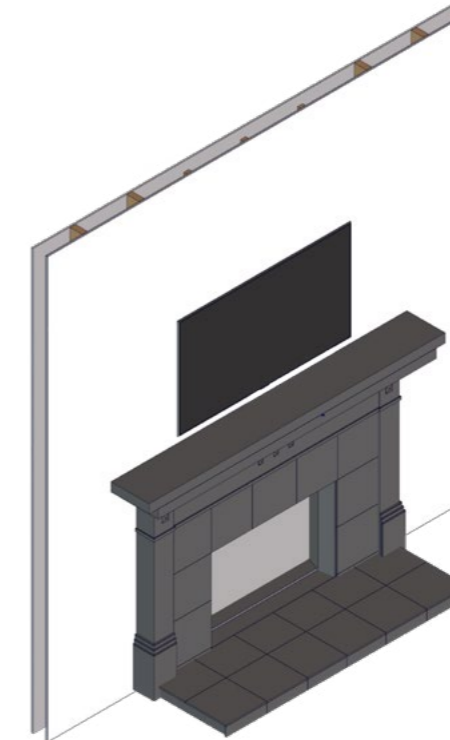


# Step 2

## 01 Wall Installation of Enclosure

Step two is a guide to assist the installer in determining the location for installing the recessed enclosure. The instructions on how to solidly frame out the space in the wall for the recessed enclosure are not included, since there are numerous ways to complete this task, subject to the installer's preference.

Out of Sight Mounting Solutions© offers a custom framing kit for recessed enclosure installations, along with analytical installation videos, available for purchase on our website.



CGI VERSION



INSTALLATION PROCESS

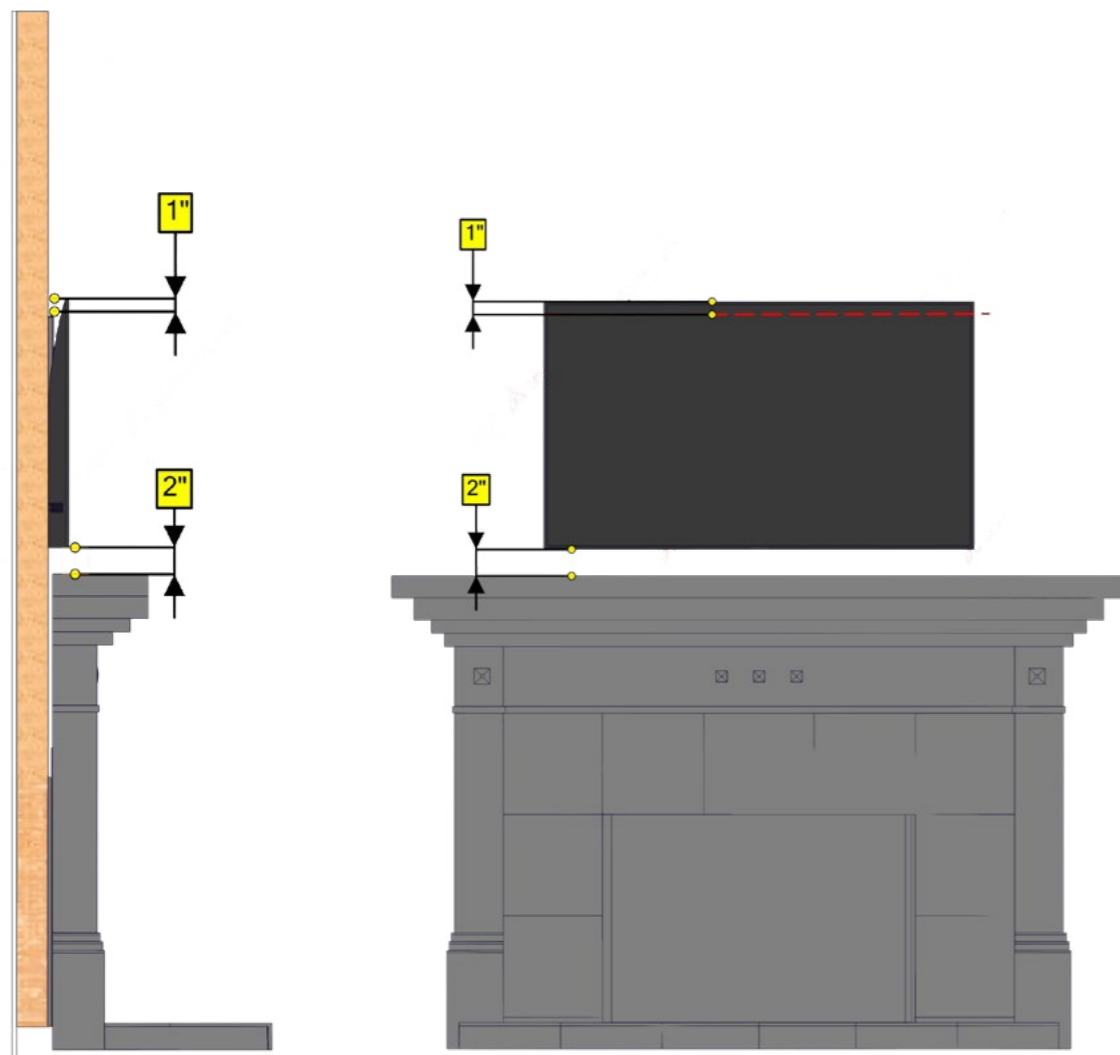
# Step 2

## 02-03

Mounting Guidelines:

The lowest point of the TV is to be mounted no lower than 2 in above the mantle. Note: If you are interested in installing a soundbar, allow for additional clearance above the mantle, considering the soundbar's size.

After placing the TV relatively to the mantle as described, make a marking on the drywall about 1" in below the top of the TV. This will be the top line for the enclosure to be cut out of the sheetrock.



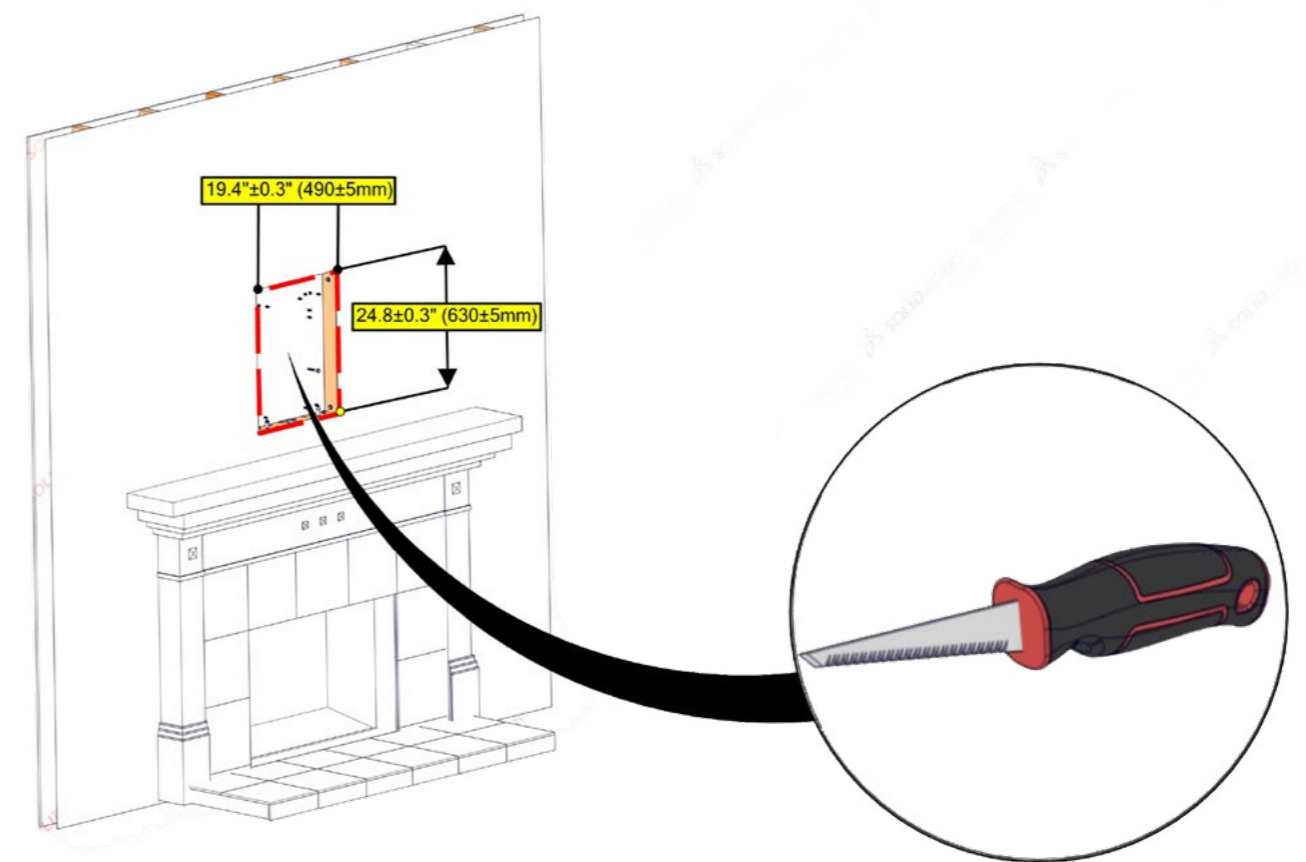
## 04

After marking the top of the enclosure, make an outline on the drywall with the following dimensions and carefully remove the highlighted area:

**Width: 19,4±0,3in / 490±5mm**

**Length: 24,8±0,3in / 630±5mm**

*Please advise Appendix C for the cut out of the enclosure.*



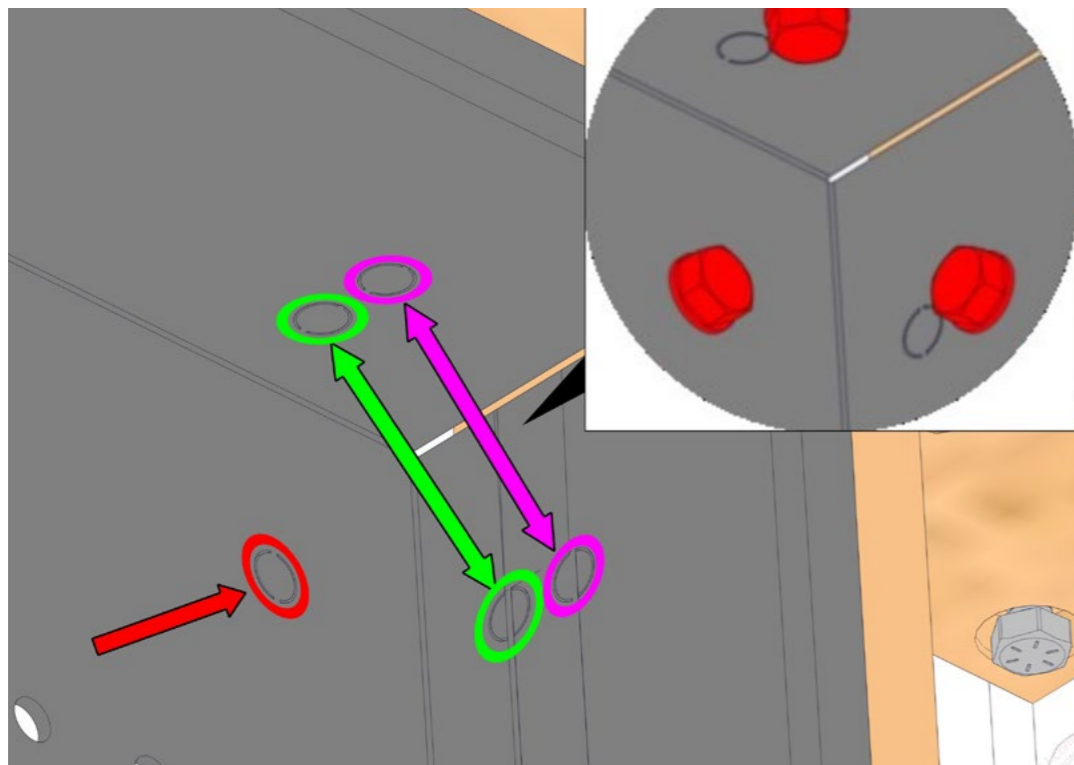
## Step 2

### 05 A

To mount the device on a 2x4 framing enclosure, select the set of knockout holes located on the sides of the enclosure (Green/Pink).

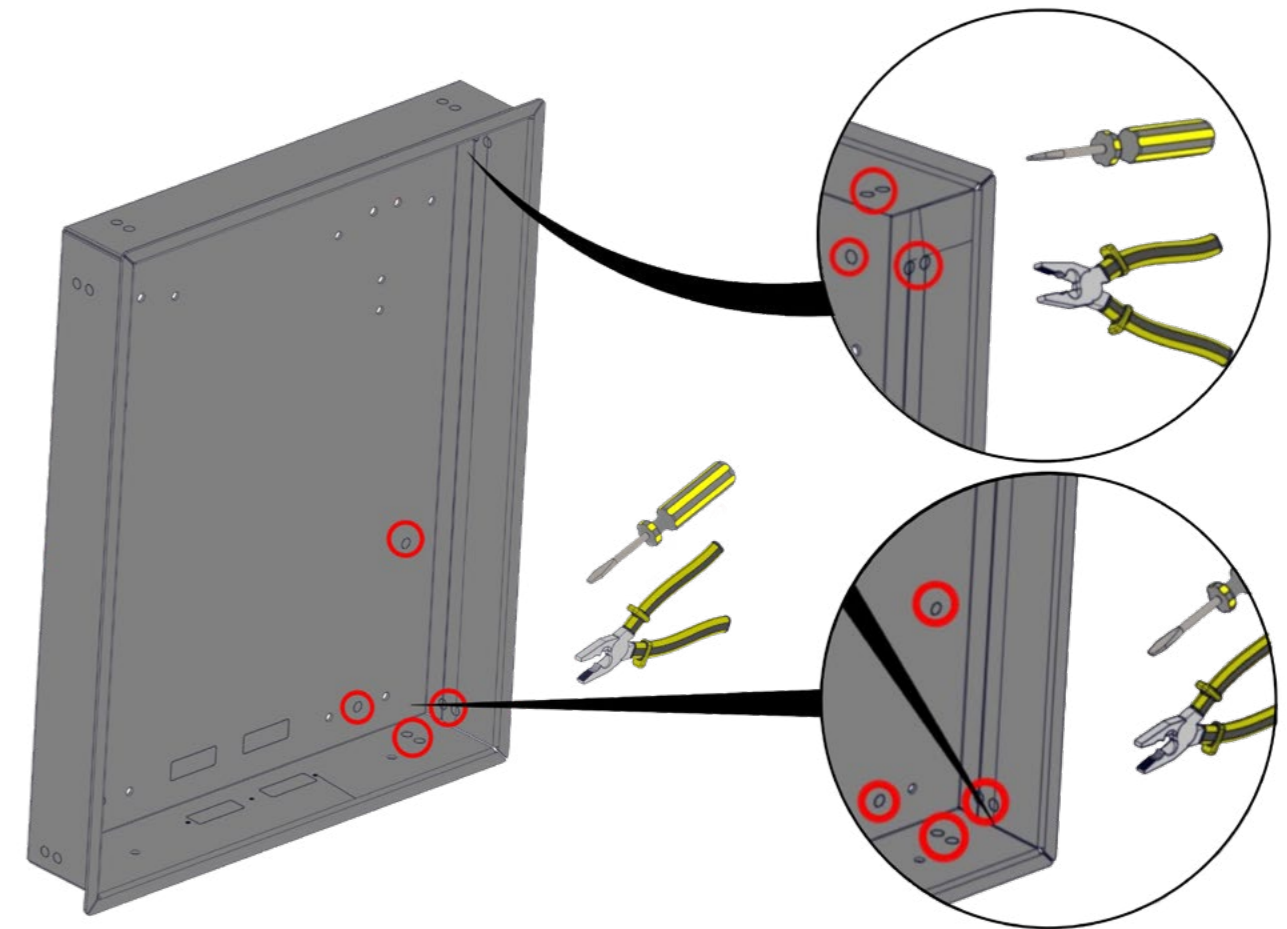
The depth of the Sheetrock will determine which set of holes to use. The goal is to have the wood lag screws placed as centrally as possible to the 2x4 stud. A minimum of four (x4) wood lag bolts (C) are sufficient, but please ensure that they are placed either on the sides (left and right) of the wood pieces or on the top and bottom sides. Do not install the screws in a non-symmetric manner.

To mount the enclosure on concrete, use the holes located on the 6 specified locations on the flat surface of the enclosure (Red). Anchoring screws not included.



### 05 B

Prior to mounting the enclosure in the drywall opening, use a combination of a screwdriver and pliers to remove the concentric knockout holes.

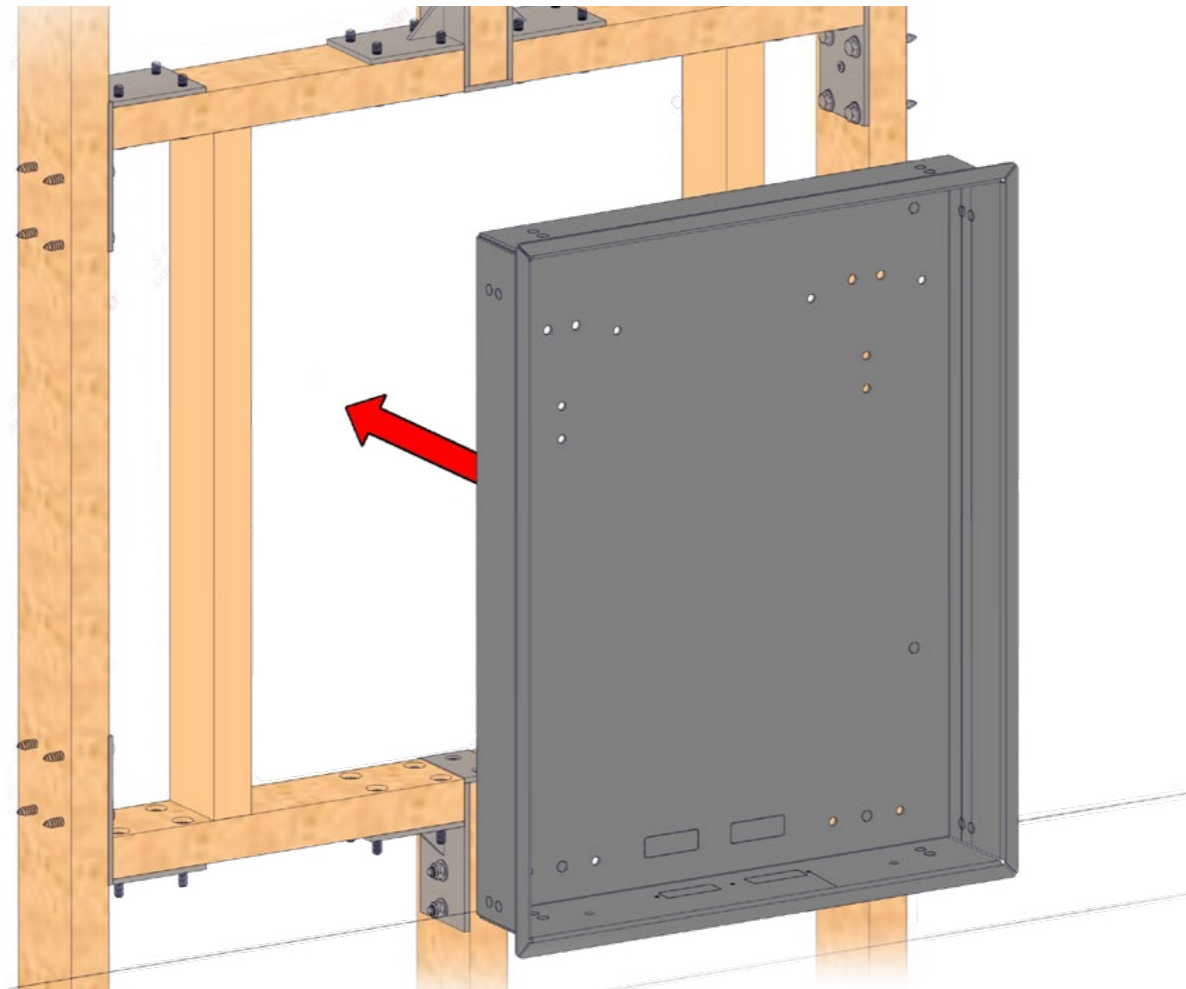


## Step 2

### 06 Placement of enclosure in preparation for marking of bolt placement

Place the enclosure in the drywall opening and make any adjustments needed to the opening.

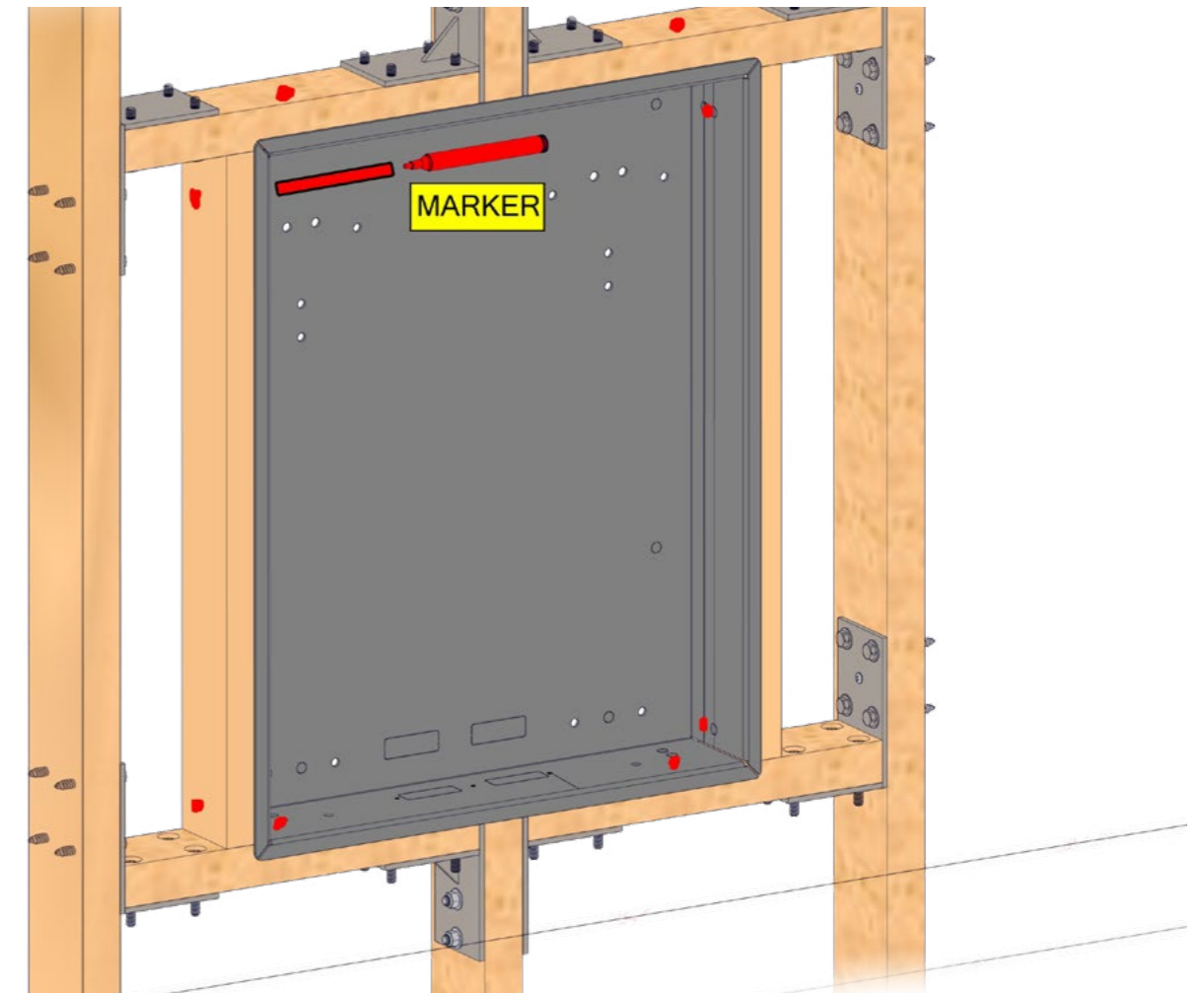
These markings are meant to be made with the sheet rock installed as that will determine the true depth that the enclosure will recess into the wall.



### 07 Wooden enclosure – Mark of bolt placement

There are two options for mounting the enclosure on a 2x4 framing enclosure. Choose the set of knockout holes that suits your accessibility needs.

After marking the positions of the bolts, use a 3/16 in drill bit as a pilot for the lag bolts.



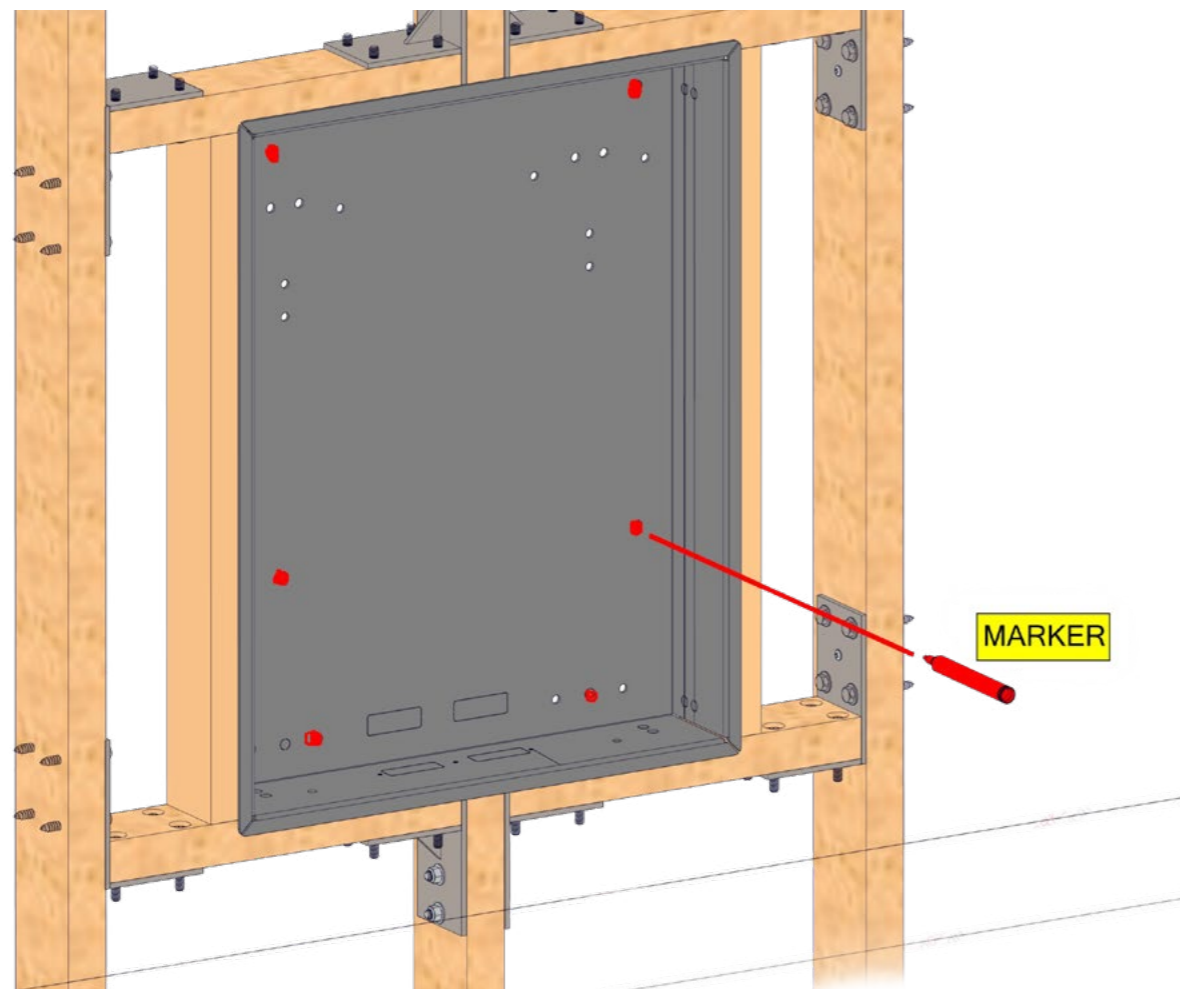
## Step 2

### 08 Wooden enclosure – Mark of bolt placement

Mounting the enclosure on a hard wooden surface, such as a thick plywood surface, use the 6 holes indicated on the face of the enclosure.

After marking the positions of the bolts, use a 3/16in drill bit as a pilot for the wood lag bolts.

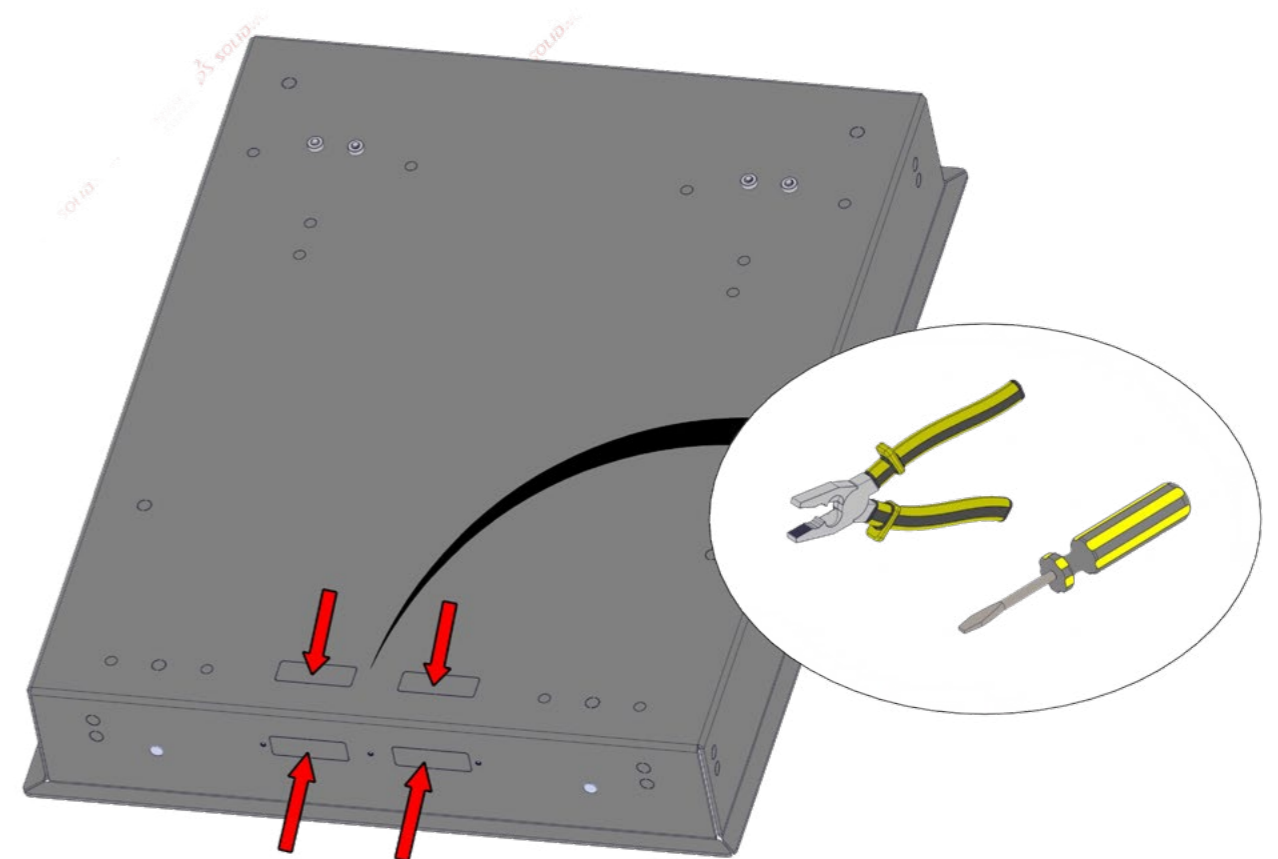
When installing on concrete, follow best practices.



### 09 Routing of cables and removal of cable knockouts

Before securing the enclosure (tightening of lag bolts), ensure that any cables will pass through the device properly, through the 4 indicated slots.

Use a combination of a screwdriver and pliers to remove the proper knockout panels.



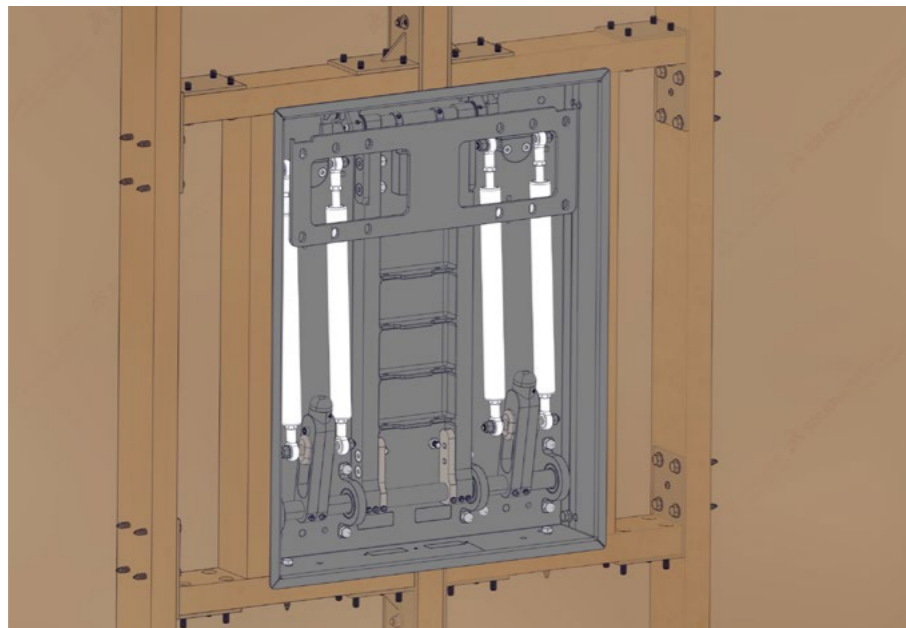
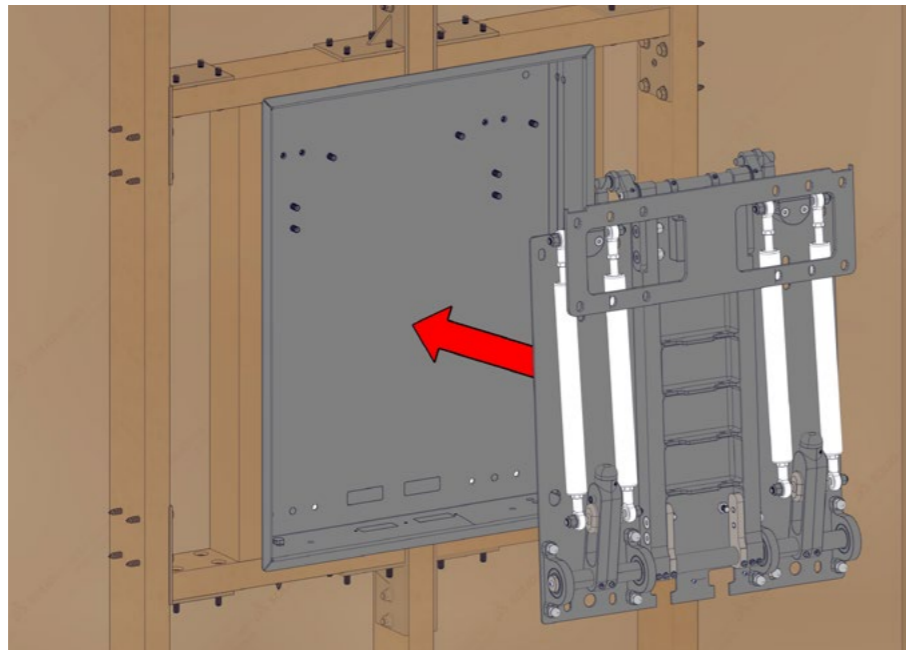
# Step 3

## Installation of backplate

In the preceding steps, the process of installing the backplate and the necessary steps to securing it to the recessed enclosure are presented.

### 01-02

Carefully align the oval openings on the backplate with the protruding threaded shafts, slide the backplate over, and allow it to rest on them.

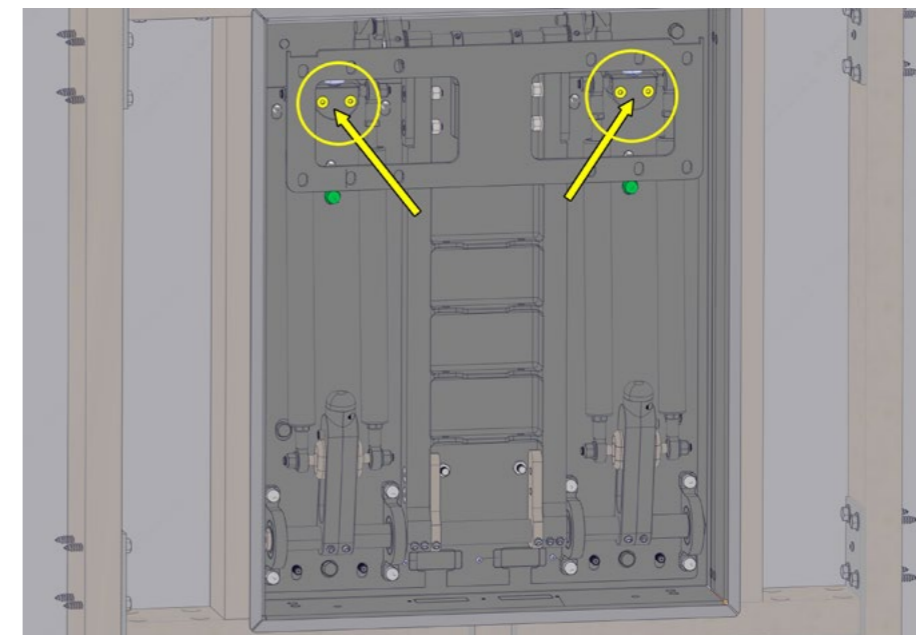
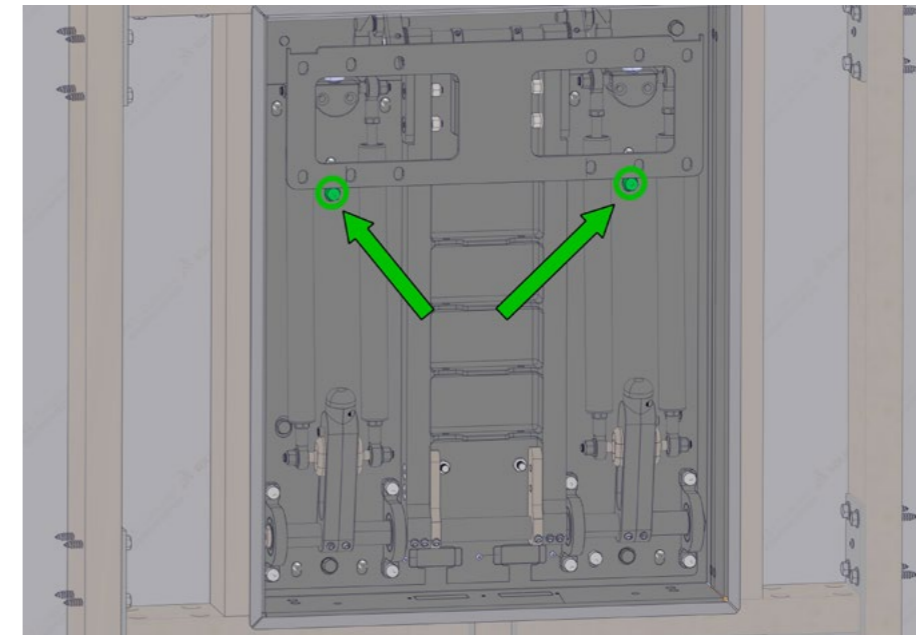


## 03 Installation of nuts and then screws

First, install the two highlighted dome nuts (A) and washers (D) (Green), and afterwards the four (x4) highlighted bolts on the upper bosses (E) (Yellow).

Leave the Green dome nuts slightly loose, so that the four Yellow screws can be properly aligned, possibly with slight up and down movements of the backplate.

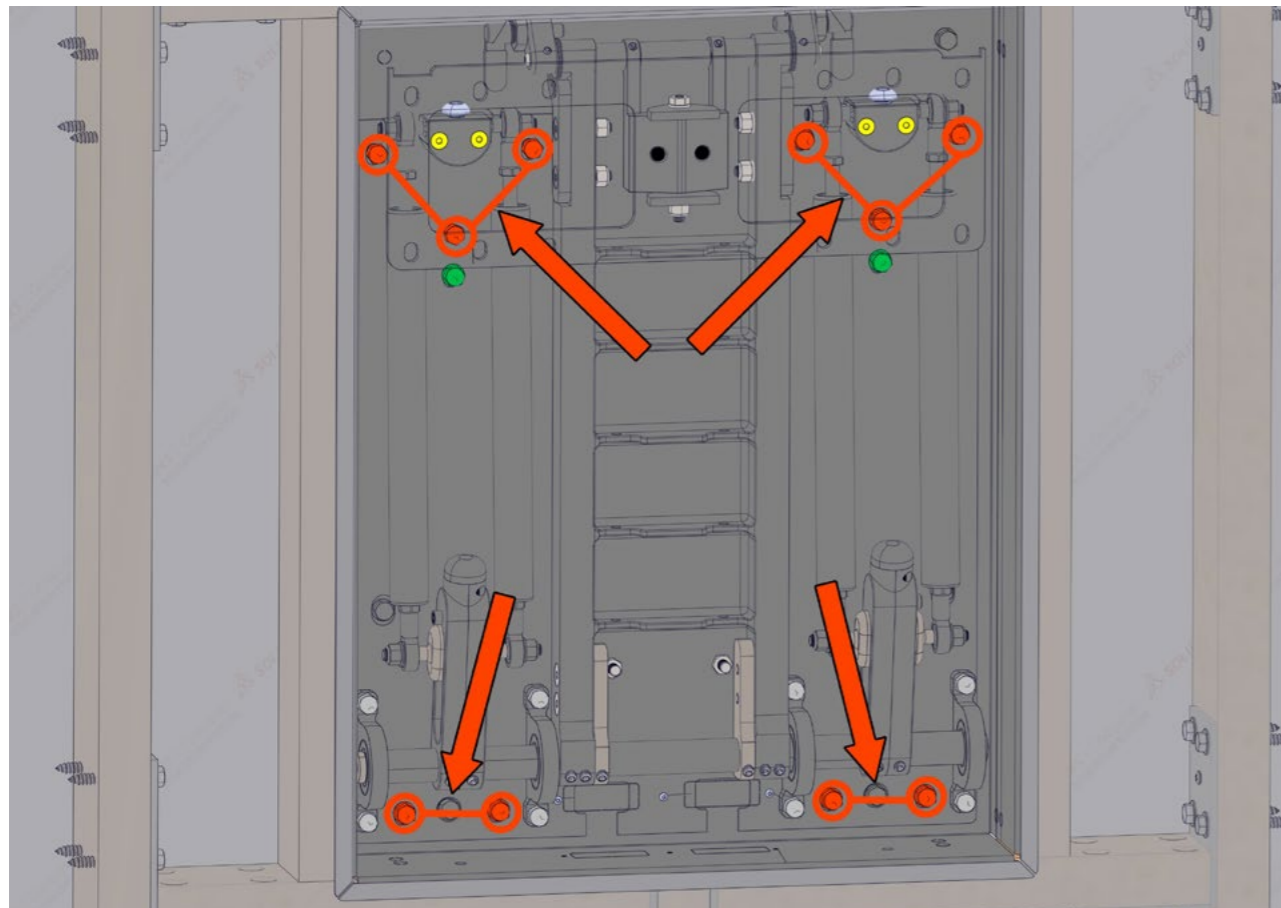
Afterwards, properly tighten the Green nuts.



## Step 3

### 04

Finally, install the ten highlighted dome nuts (A) and washers (D) (Red).



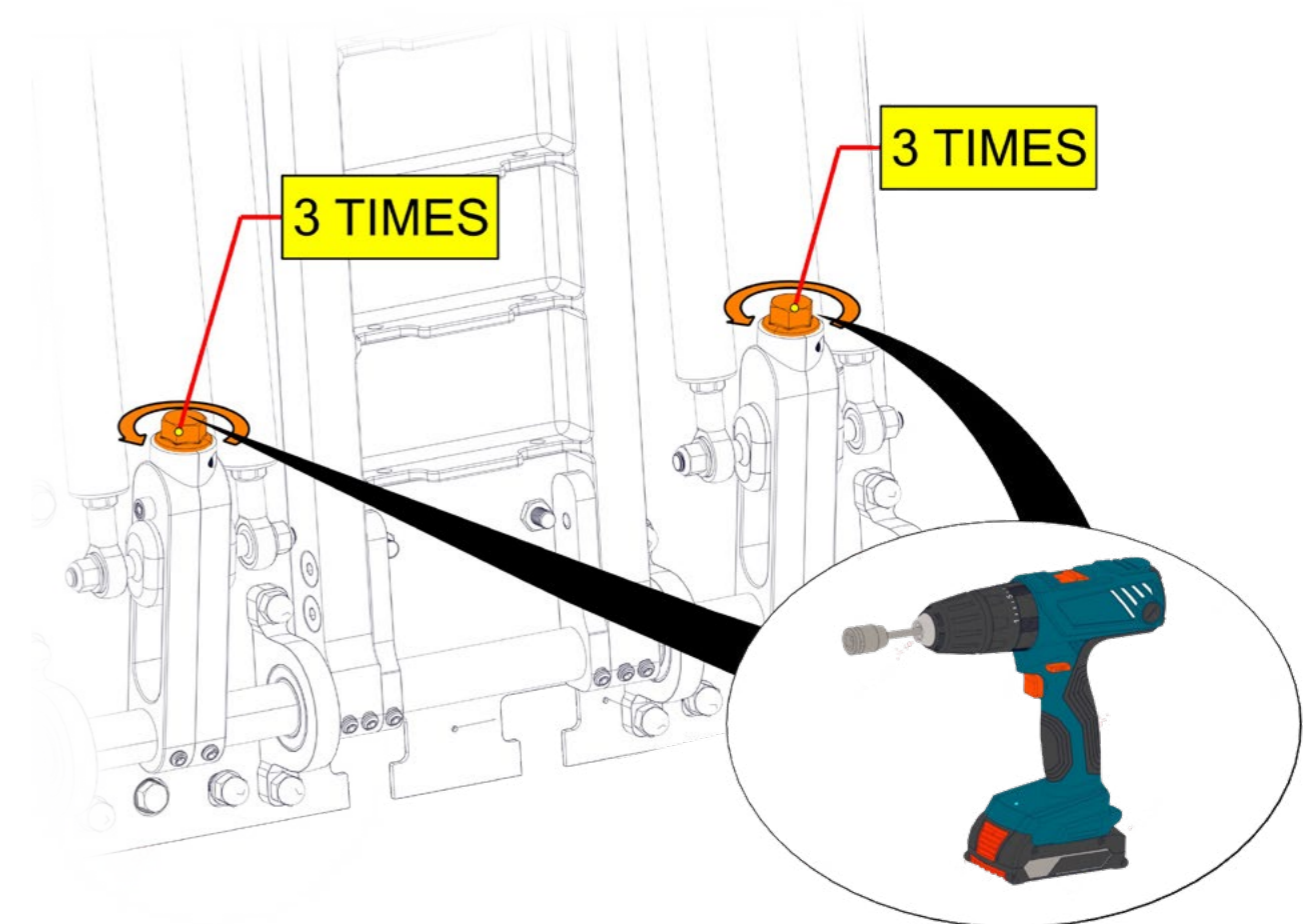
## Step 4

### Adjustment of lower boss

The following procedures outline the steps to adjust the lower boss to its lowest position. The purpose of lowering the lower boss to its lowest position is to minimize the leverage created, which in turn requires the least amount of manual hand force application to lower or retract the warren arm's position.

### 01

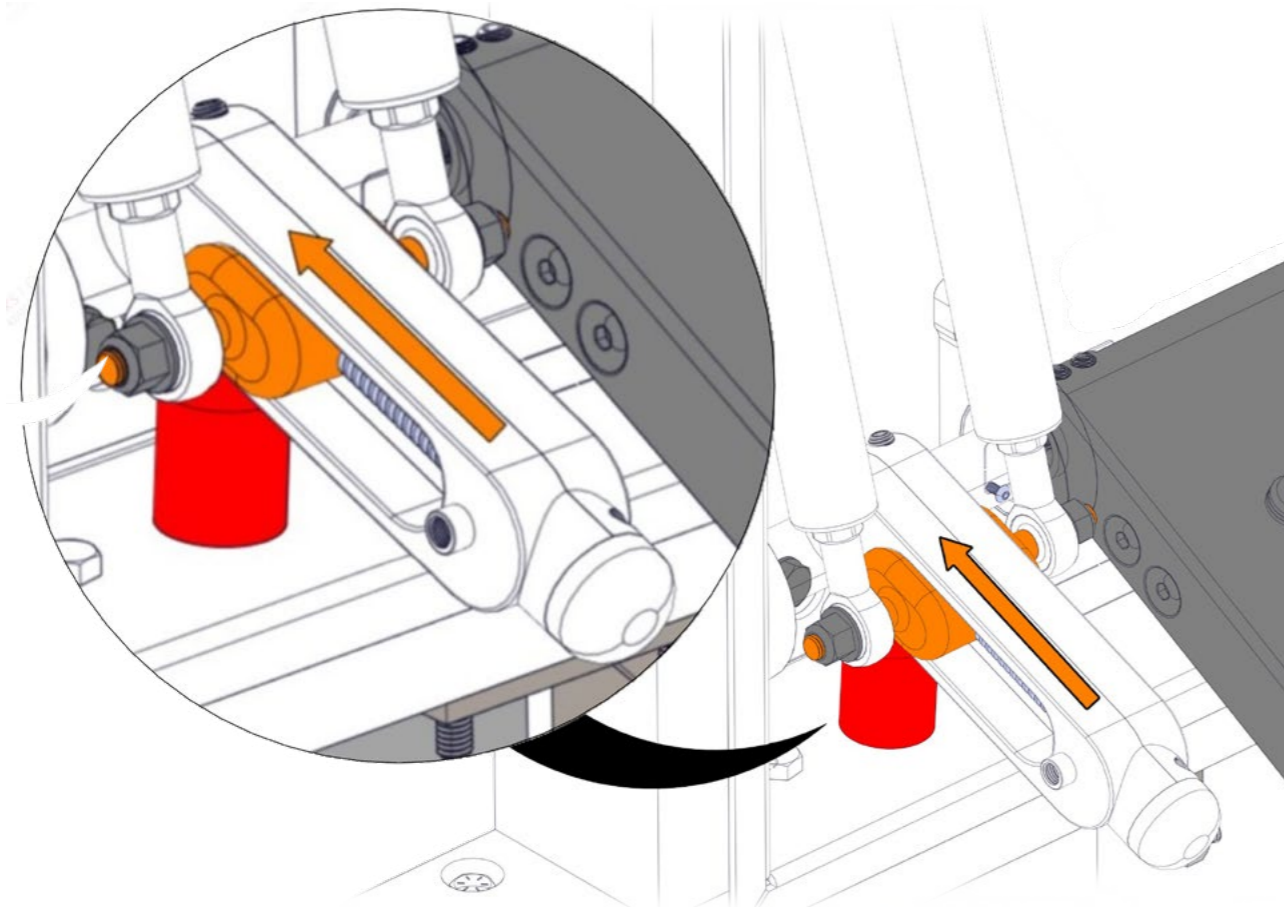
First, remove the plastic cap and rotate the hexagonal head counter-clockwise (direction 2b, Appendix A) in 3 complete turns at a time. Every 3 complete turns, move to the opposite boss until both bosses reach the lowest point.



## Step 4

### 02

End of step 4 showing the lower boss in the lowest position



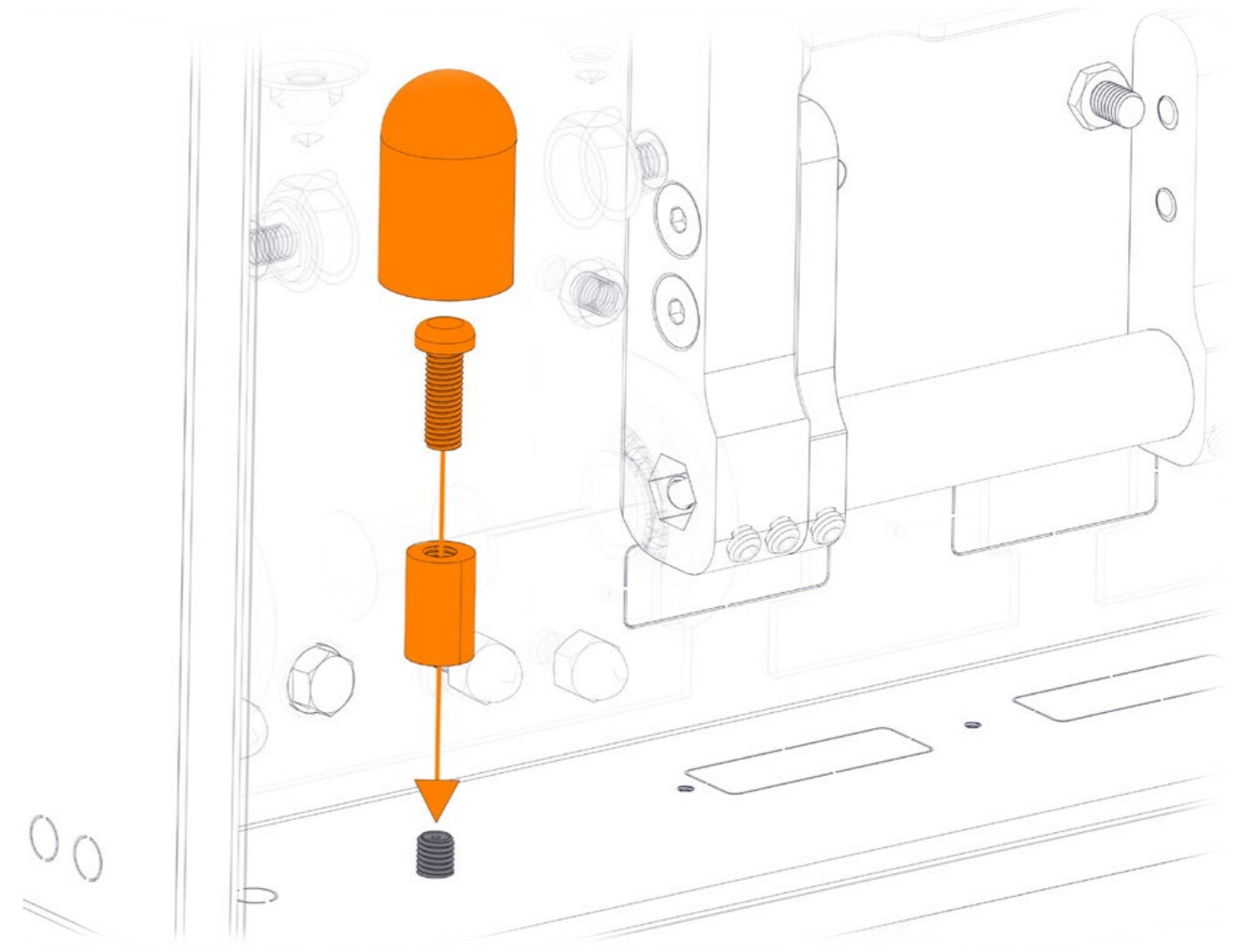
## Step 5

### Installation of rubber bumpers and safety brace

In this step, the details relevant to installing the safety brace are provided.

#### 01 Install of lower rubber bumpers

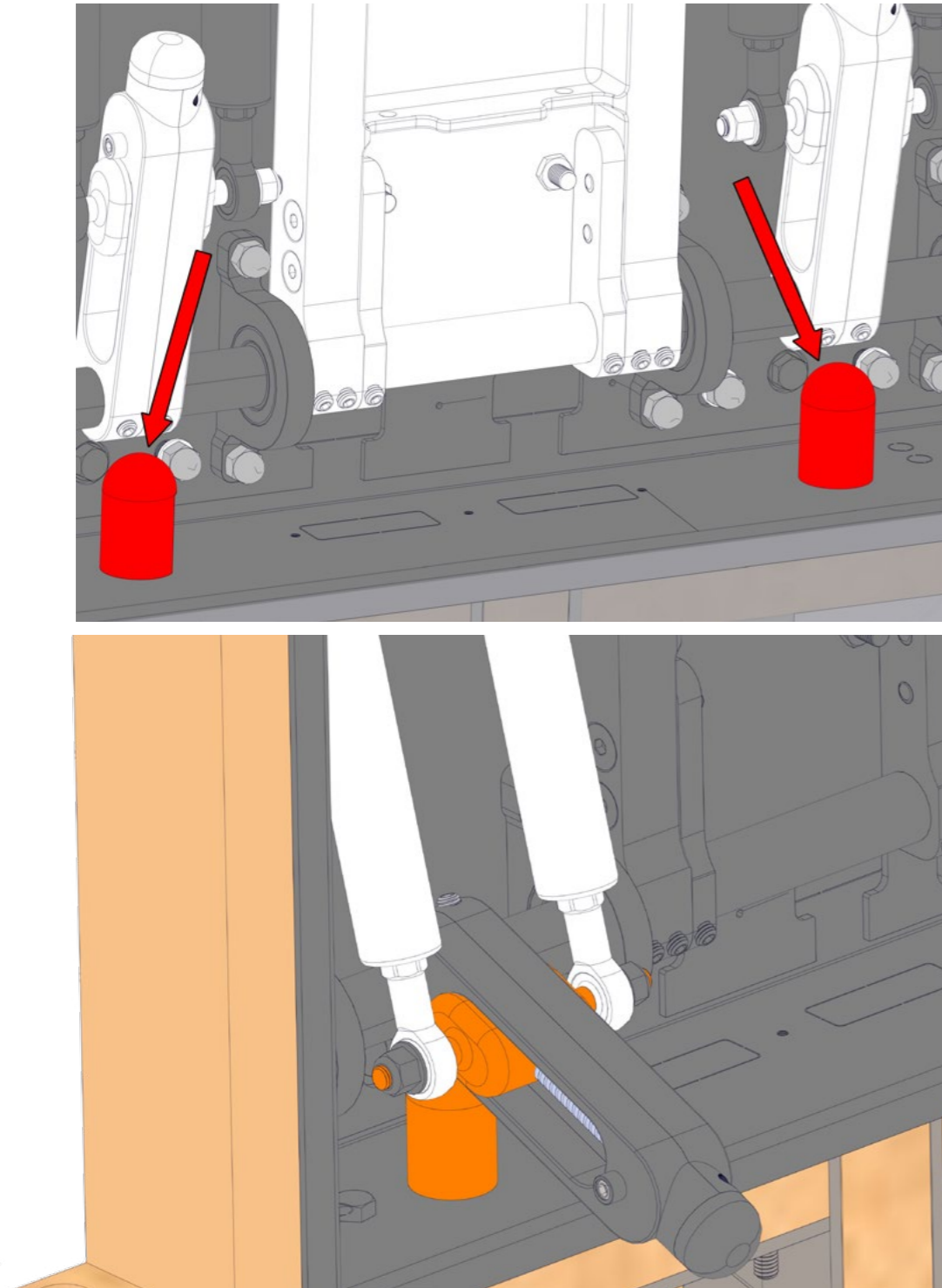
Install the lower bumper assembly on the threads located at the bottom of the enclosure. Ensure that both the threaded cylinder (F) and the threaded rubber bumper (G) are tightened all the way.



# Step 5

## 02 Placement of plastic pieces

Ensure that the opening on the plastic add-ons (H) is facing the enclosure. This is a critical detail for the stability of the plastic add-ons when a load will be applied to them.



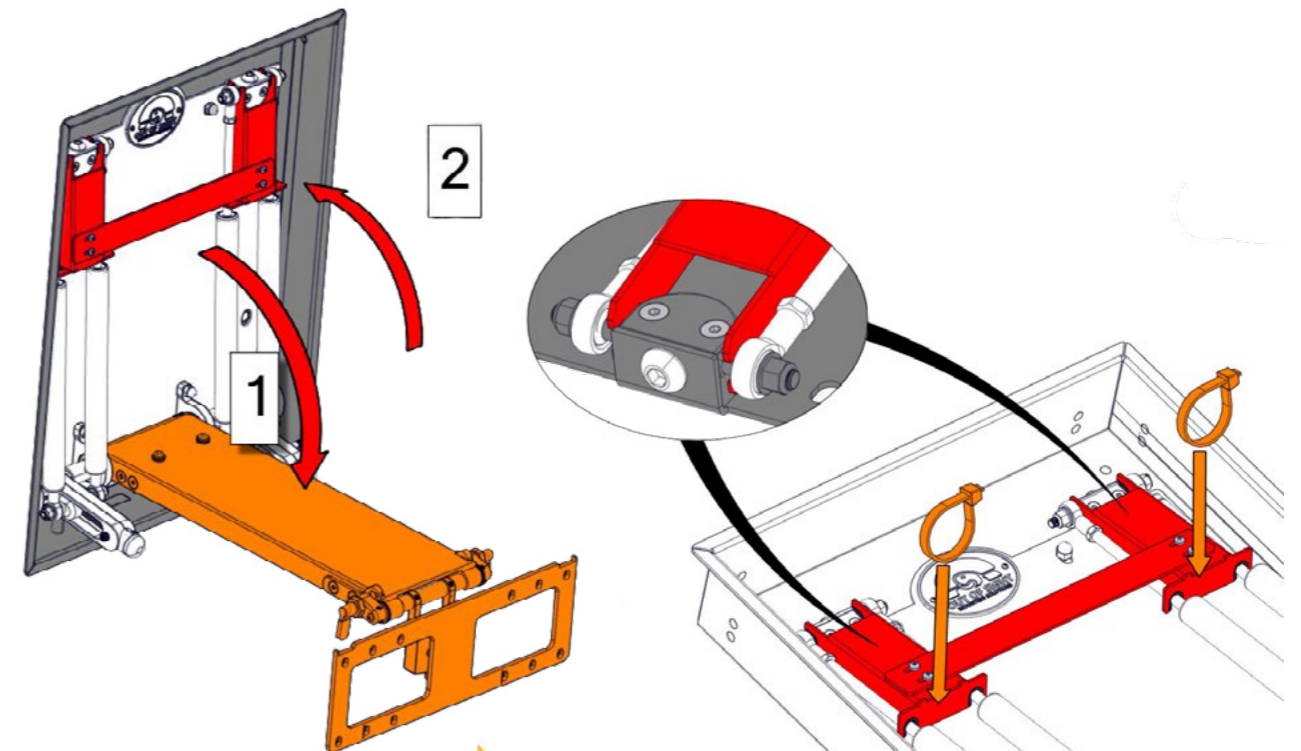
## 03 Installation of safety brace

Before starting this part of the installation, ensure that the safety brace is within reach and easily accessible with one hand.

For the installation of the Safety brace, hold the warren arm at its tip and apply force only in its central part. Lower the Warren arm until the piston extension allows for the safety brace to be installed.

Note: The Warren arm will tend to retract to its closed position throughout this step. Keep applying consistent force until this Step is completed. If you need to return the Warren arm to its closed position before securing the safety brace, do so in a controlled manner.

**Note: Do not allow the Warren arm to spring back unassisted, under the tension of the pistons, to its closed position.**



## Step 5

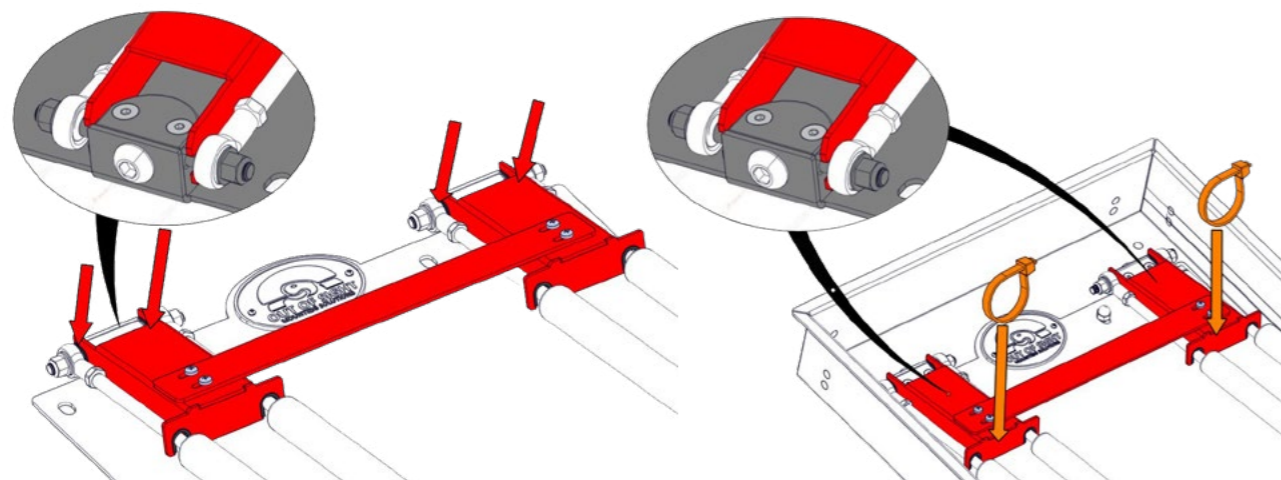
### 04 Installation of safety brace

With the Warren arm pushed down, grab the safety brace with your free hand.

First, align the safety brace plastic U-shaped guards to the circular surfaces of the upper piston support blocks. Then, lower the bottom part of the brace so that the plastic U-shaped guards meet the piston rods. If the alignment is correct, the safety brace should click in place. Do not use excessive force to install the brace.

Once the brace is installed correctly, slowly release the hand pressure applied to the Warren arm, allowing the piston bodies to rise and seat themselves on the bottom surface of the safety brace, thereby holding the Warren arm in place.

Secure the safety brace in the locations highlighted using two (x2) tie wraps.

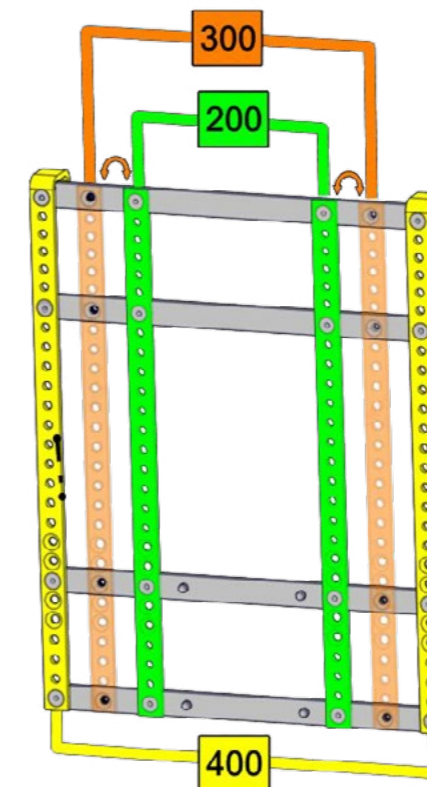


## Step 6

### Installation of VESA bracket to TV

All Out of Sight Mounting brackets are compatible with TVs that feature VESA patterns ranging from 200x200 up to 600x600 (600 VESA patterns require a separately purchased adapter. Please check your TV for compatibility).

The following steps outline the process for attaching the VESA bracket and handle support to the TV.



The VESA 400 has vertical connecting elements (Orange highlighted) that allow the installation of VESA 200, VESA 300, and VESA 400 mounting patterns.

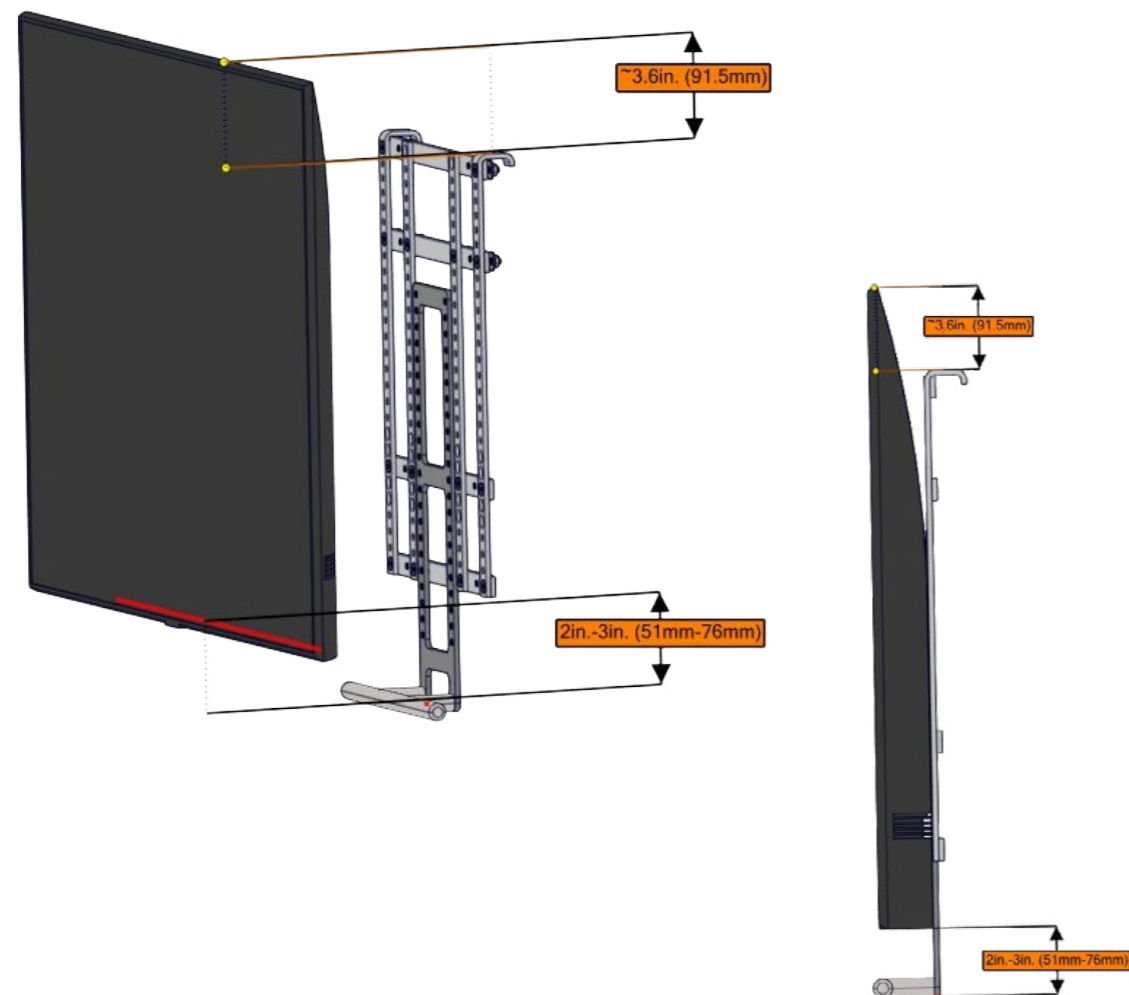
In the case of a TV equipped with a VESA 300 mounting pattern, the highlighted elements can be removed from the VESA 200 location and reinstalled in the VESA 300 location using the same fasteners.

# Step 6

## 01 Showing proper placement of TV on 400VESA

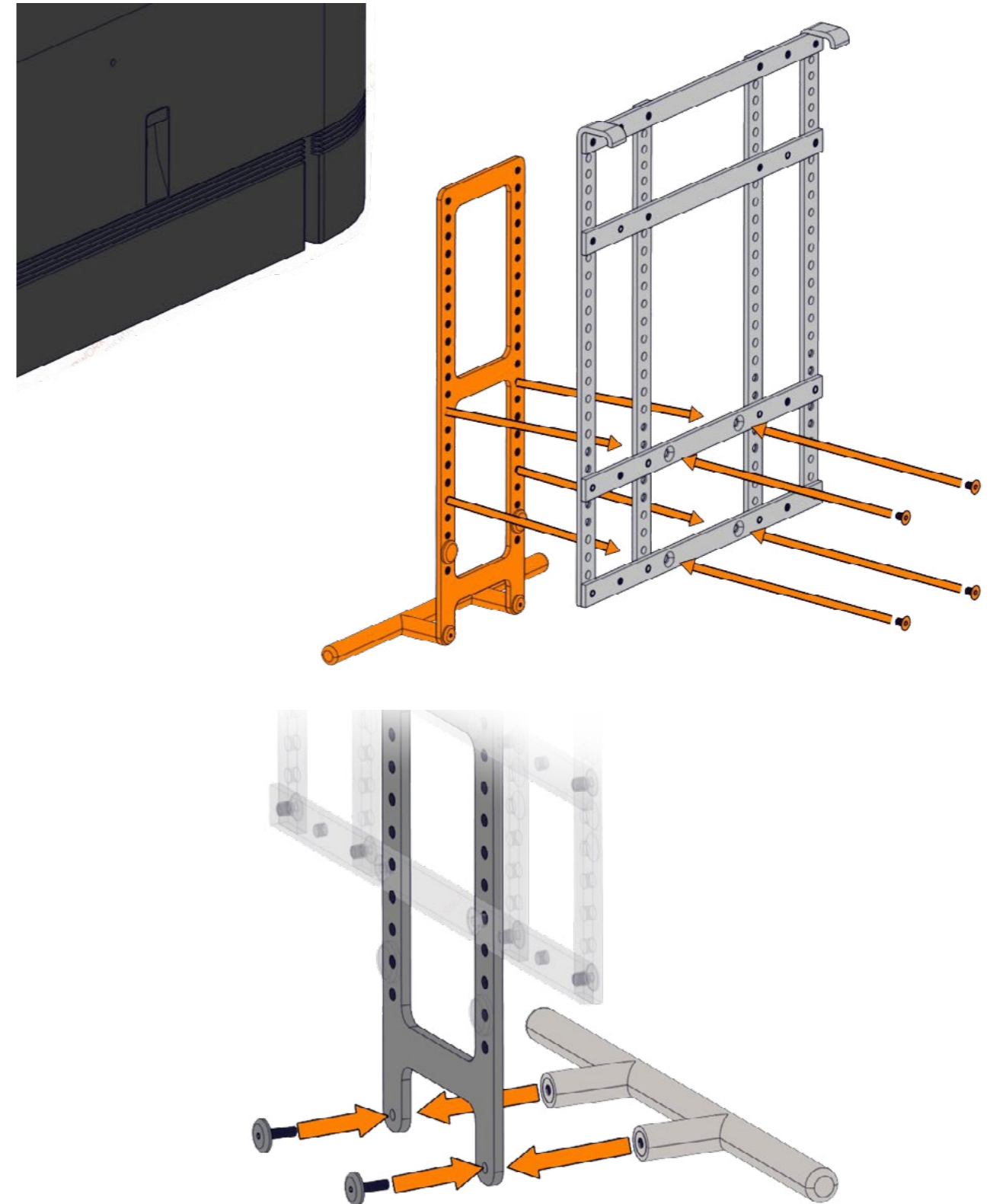
The vertical elements of the VESA400 bracket provide multiple vertical mounting point options. To properly mount the TV, ensure that the top of the TV is approximately 3.6 inches (91.5 mm) above the top of the VESA 400 hooks.

The proper position of the handle is 2-3 inches below the bottom of the TV. This distance can be adjusted based on user preference, after the initial setup.



## 02 Installation of handle bracket

The proper position of the handle is 2-3 inches below the bottom of the TV. Use a 3mm Allen key to secure the two plastic handle bumpers (J) and the handle to the handle bracket.



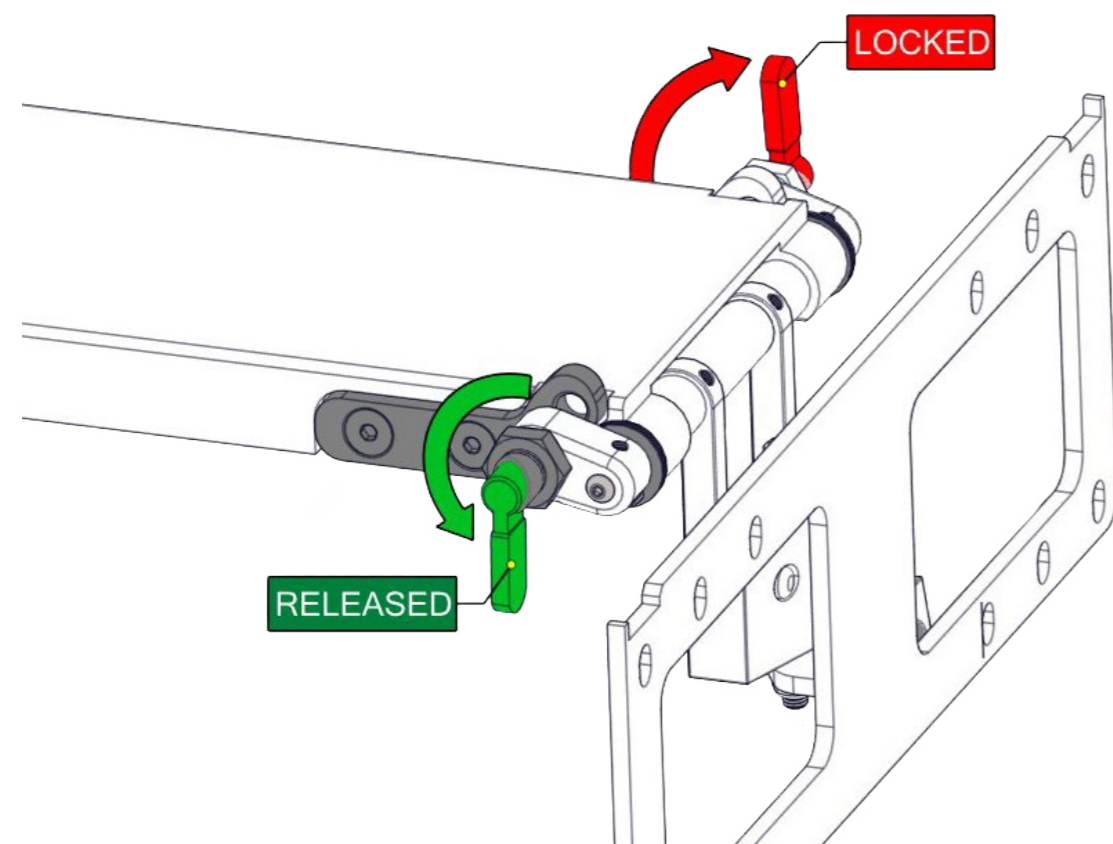
# Step 6

## 03 Locking of plungers before the TV installation

Important note:

Plungers are locked in the lever-up position (RED) and released in the lever-down position (GREEN).

At this step, lock both plungers at the first indexing position so that the angle between the Warren arm and the swivel bracket is 90deg.



Please advise Appendix B

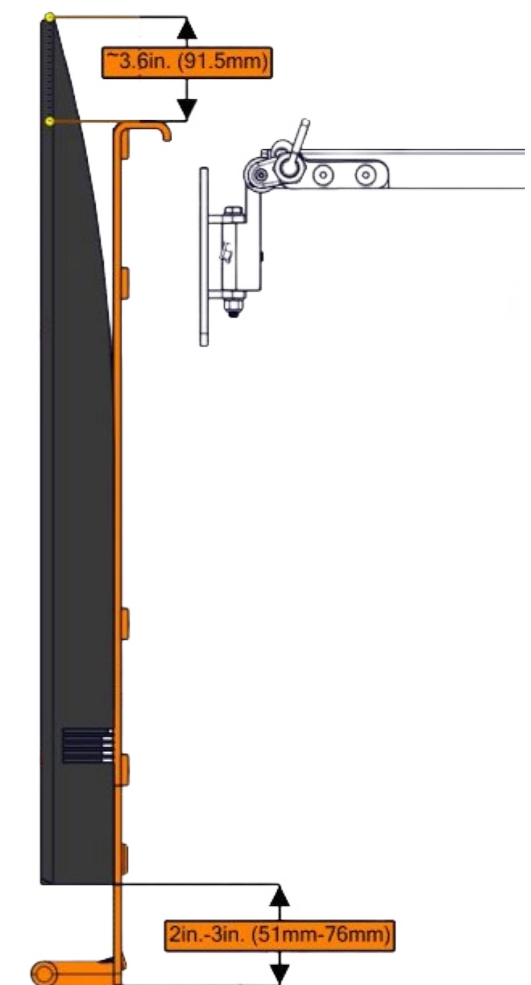
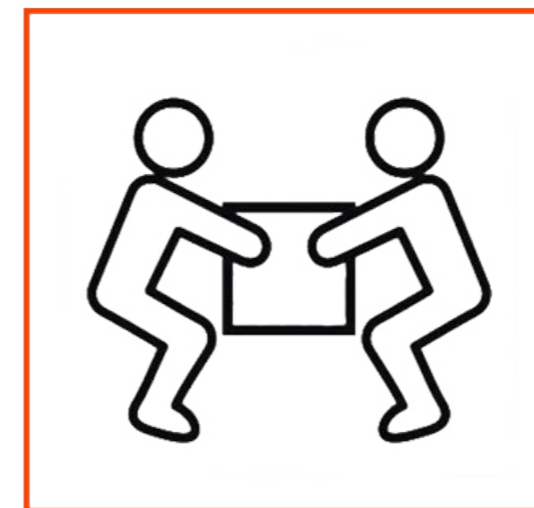
# Step 7

## Installation of VESA bracket to the Warren arm

In this step, the process of installing the TV on the upper VESA bracket is outlined. This step requires the cooperation of two individuals for safe installation.

### 01 Showing 2 people lifting the TV and 400 VESA

This step requires 2 individuals to lift the TV and VESA assembly and properly place the TV on the swivel bracket.



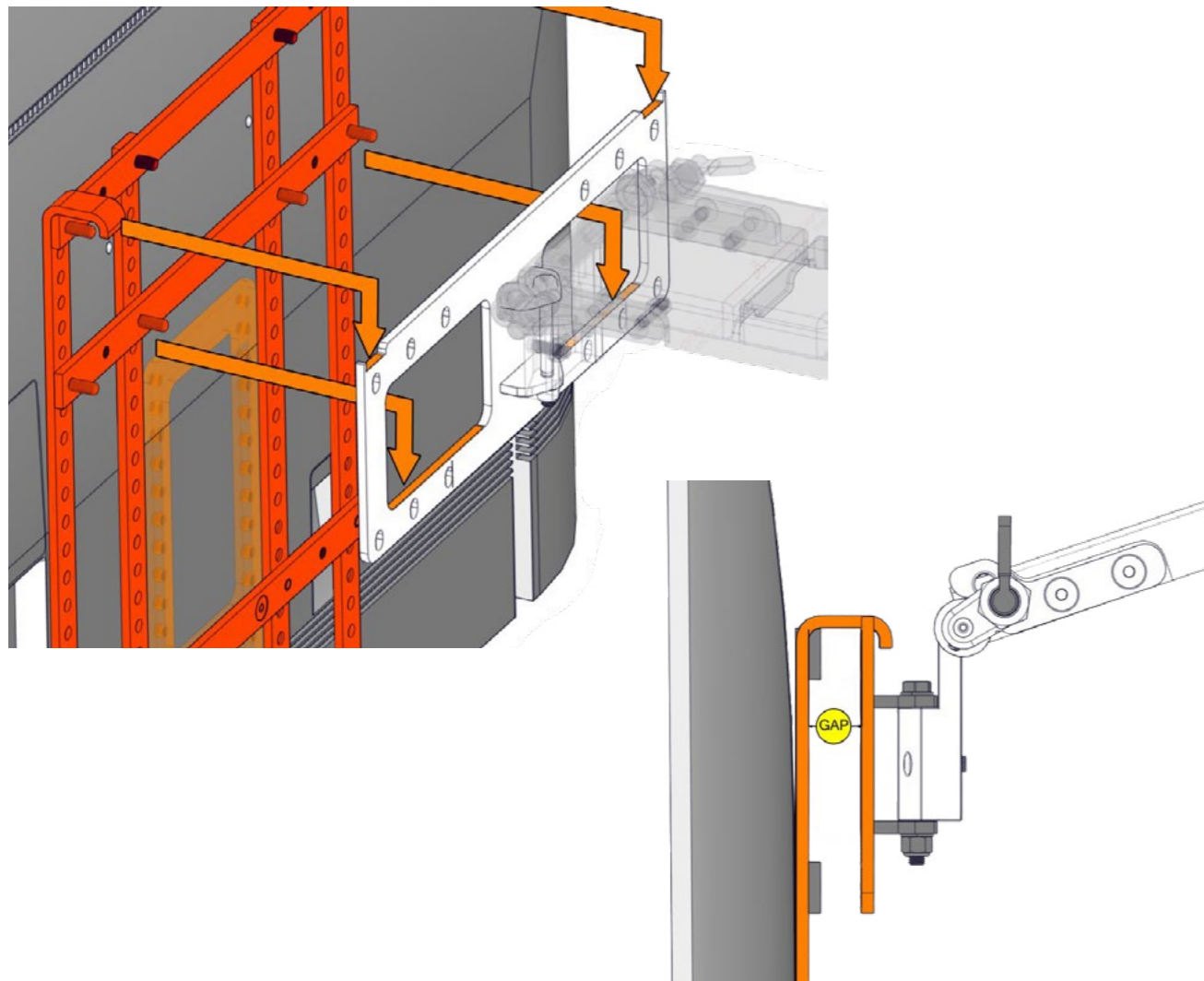
# Step 7

## 02 Alignment of hooks with swivel bracket

The two hooks located at the top of the VESA 400 bracket are designed to facilitate the installation of the TV and ensure its proper alignment. A small gap is allowed upon placement to aid the installation process further.

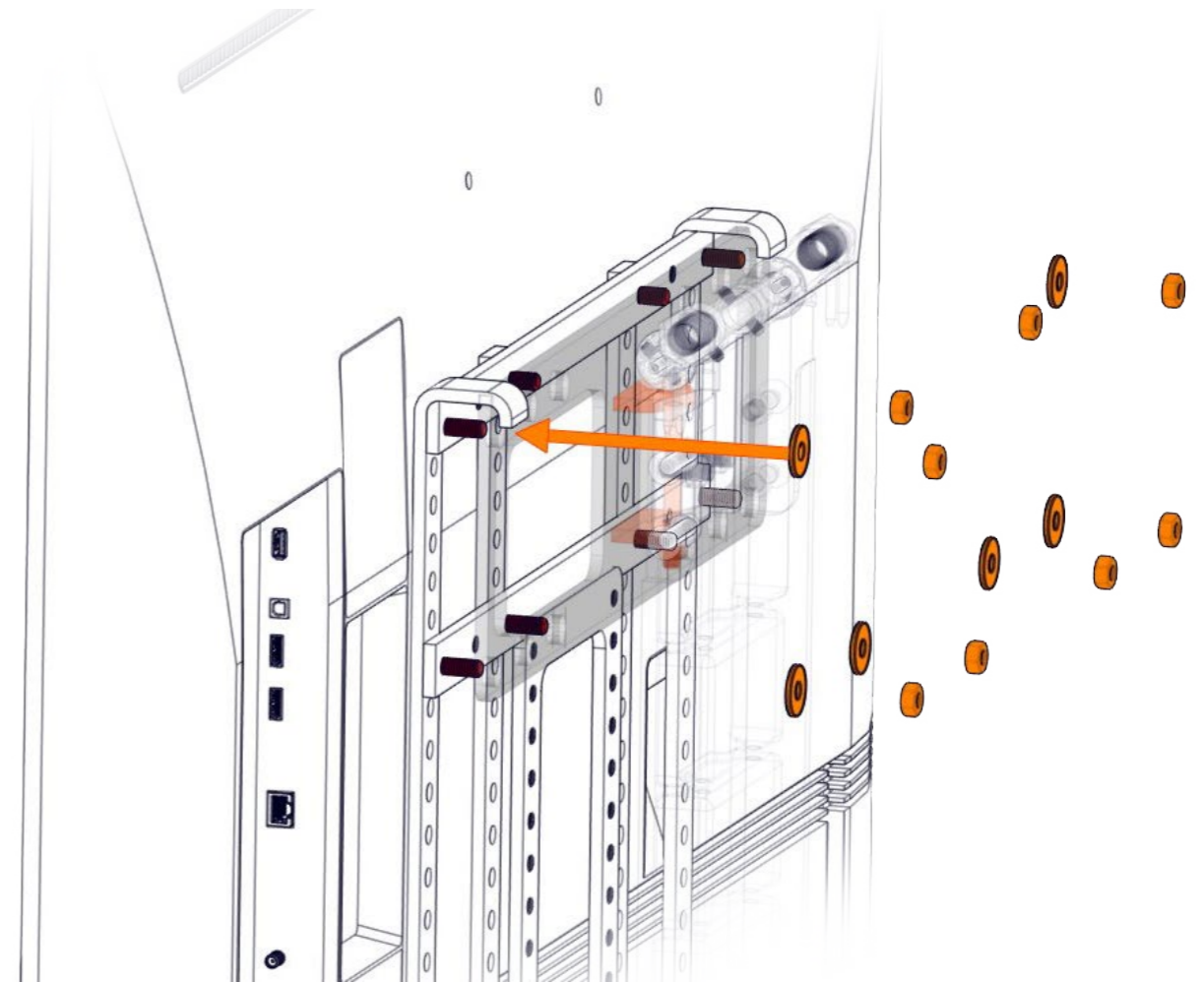
Once the two hooks are correctly lined up, the TV must be pushed towards the wall so that the threads pass through the swivel bracket holes. Install two nuts and washers on each side of the swivel bracket, then tighten the two pieces together.

Note: Once the TV and VESA400 assembly is correctly placed on the swivel bracket, the warren arm might lower due to the added load.



## 03 Showing gap and installation of washers and nuts

Add washers (K) and nuts (L) to the remaining threads and complete this part of the installation.



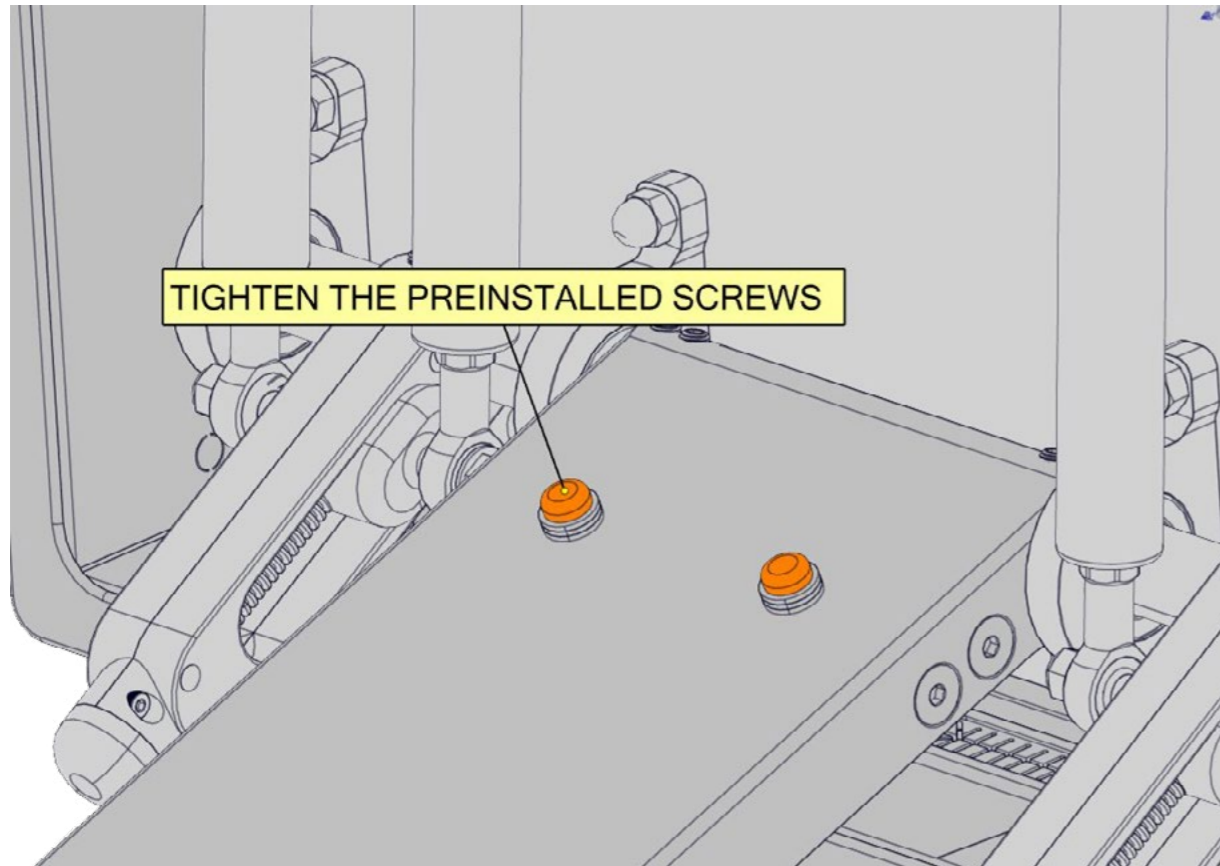
# Step 8

## Removal of Safety Brace

In this step, the safety brace removal process will be outlined.

### 01

Ensure that the rubber bumpers located on the Warren arm are properly tightened.



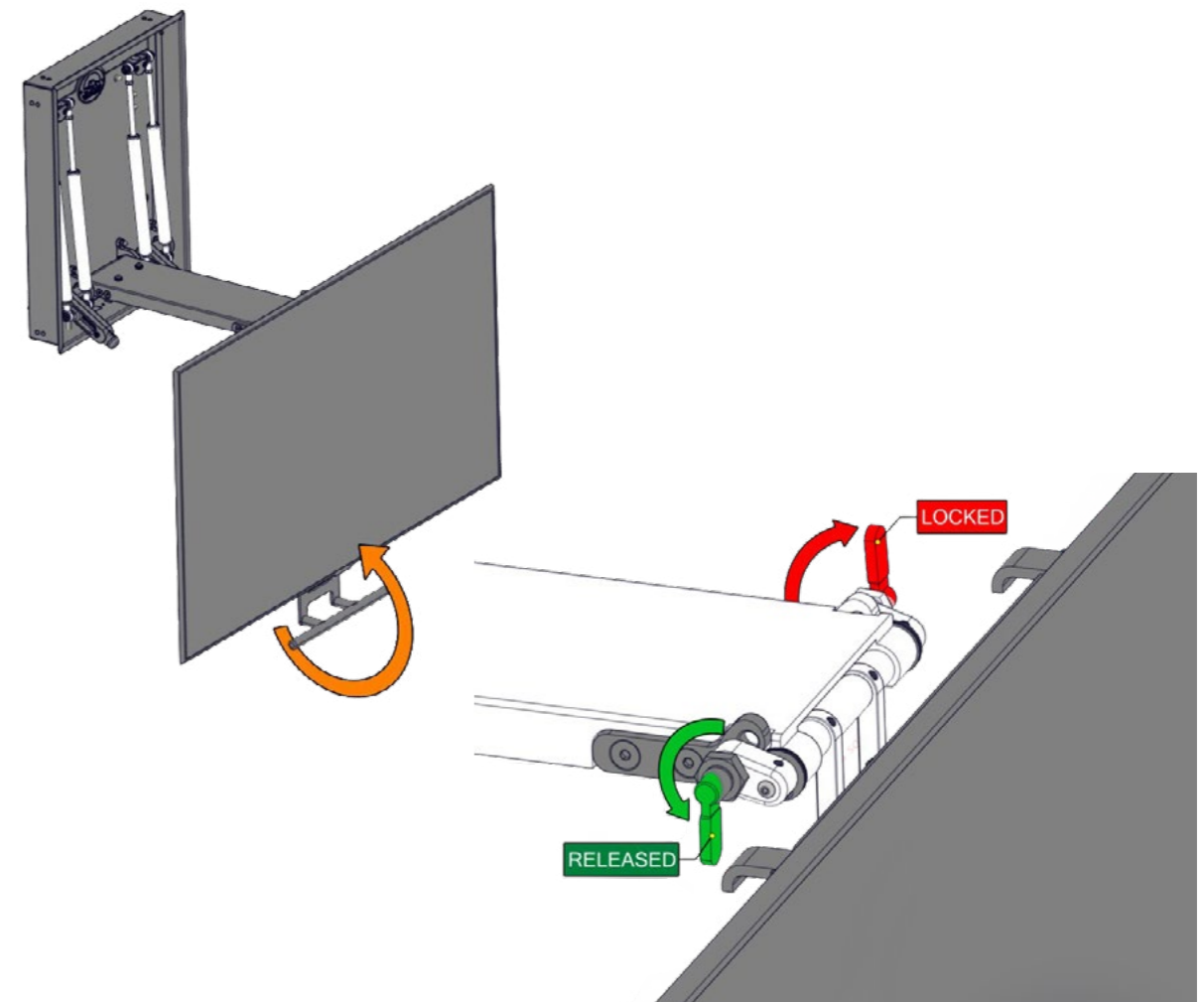
### 02

Next, release the indexing plungers so that the TV can be released from its locked-in 90-degree position.

To complete this task, pull the TV handle slightly back. This rotation will remove the load from the plungers. With your other hand, rotate the plunger lever towards the down position to release it. The same process in reverse can be used to lock the plunger.

#### Note:

By releasing the indexing plungers, the TV will naturally tilt slightly rearward, allowing for an alternative viewing angle. This is a matter of user preference.



Please advise Appendix B

## Step 8

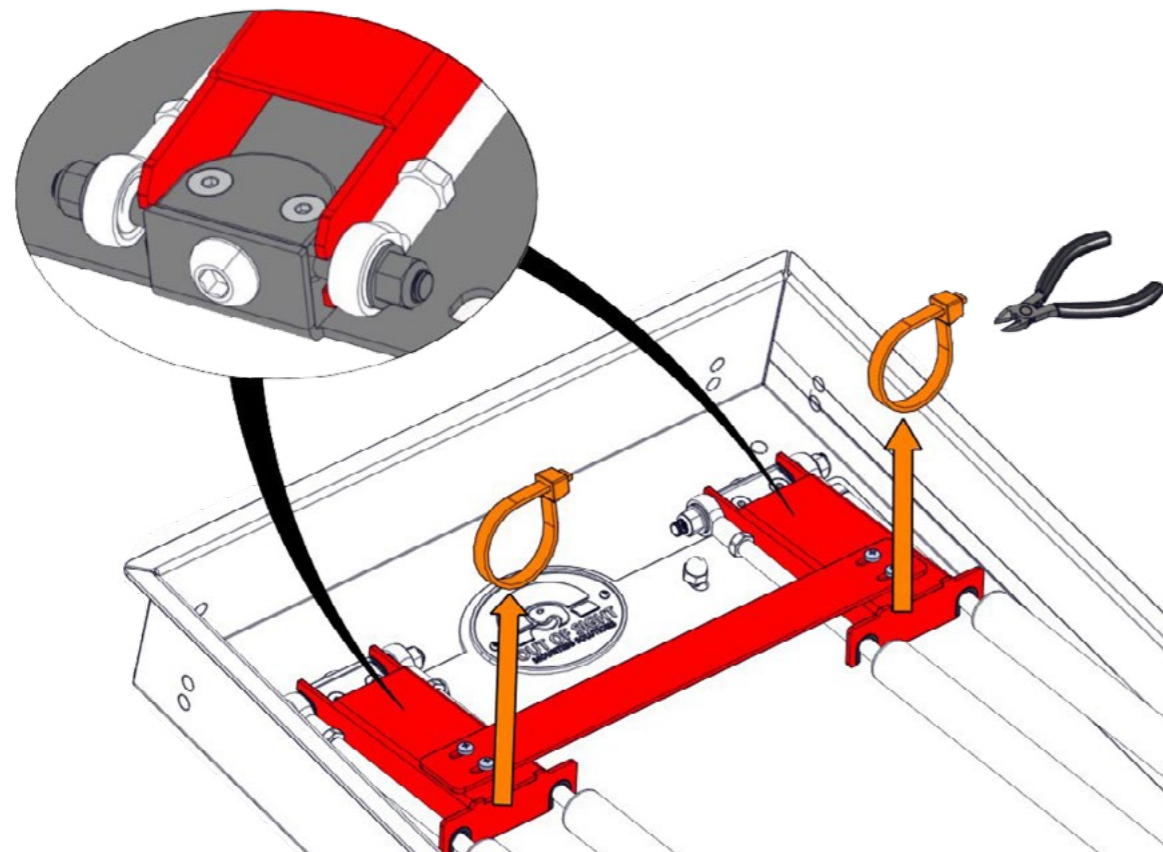
### 03 Removal of safety brace

With the TV resting on the plastic add-ons (H) on its own weight, cut the zip ties holding the safety brace to the pistons.

If the TV is not resting on the plastic add-ons, apply slight pressure to lower it manually and then, cut the zip ties.

Grab the cross piece and rotate the bottom outward. Once the piston bodies are cleared, slide out the part still in touch with the upper boss out.

Finally, remove the plastic add-ons (H)



## Step 9

### Adjustment of the TV Weight Feel

In this step, the details required for the fine-tuning of the lifting and lowering feel of the TV will be outlined.

The patented pivoting motion makes this operation extremely smooth but there is no definite correct adjustment. This fine-tuning process is governed by the user's subjective preferences. As a general guideline, the proper setting will always require a slight amount of hand force to lift the TV and guide it back to its stowed position, flush on the wall.

It is highly advised for the end user to experiment with varying adjustments and record his preferences.

One important note is that the installer must avoid over-adjusting the lower boss position, as that can cause the TV to lift and retract into the enclosure on its own.

*Please advise Appendix B for the positioning of the indexing plunger*

# Step 9

## 01 Fine adjustment of the TV weight. Explanation will be provided.

With the lower boss is in its current (lowest) position, the retraction force is minimal.

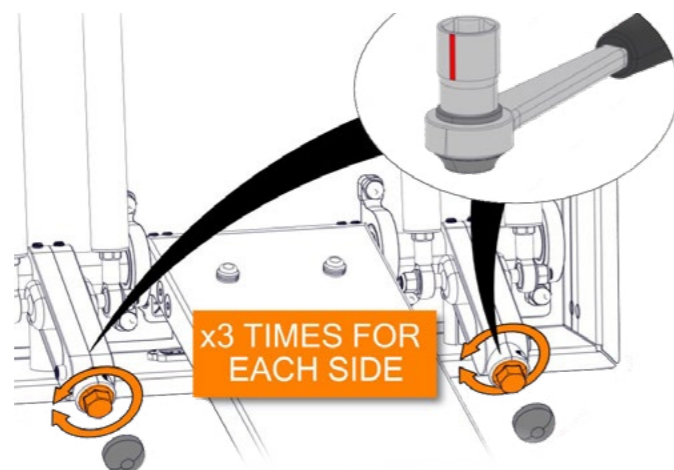
Before adjusting the retraction force applied to the warren arm, mark a socket to count the number of turns per side. Having a balanced setting on both lower pivots (symmetrical lower boss positions) is critical for the proper function of the device.

To increase the retraction force on the TV, rotate clockwise the hexagonal heads on the pivot arms symmetrically, at a maximum of 3 turns per side at a time. Every rotation will increase the retraction force, making the TV feel lighter to raise by hand.

As a rule of thumb, the TV must feel light to raise and lower but not weightless.

If the TV feels heavy, difficult to raise, or automatically lowers all the way to the rubber bumper stops, add more clockwise rotations on the pivot arm hexagonal heads to increase the retraction force.

If the TV automatically closes after been pulled down, apply counter-clockwise rotations on the pivot arm hexagonal heads to reduce the retraction force.

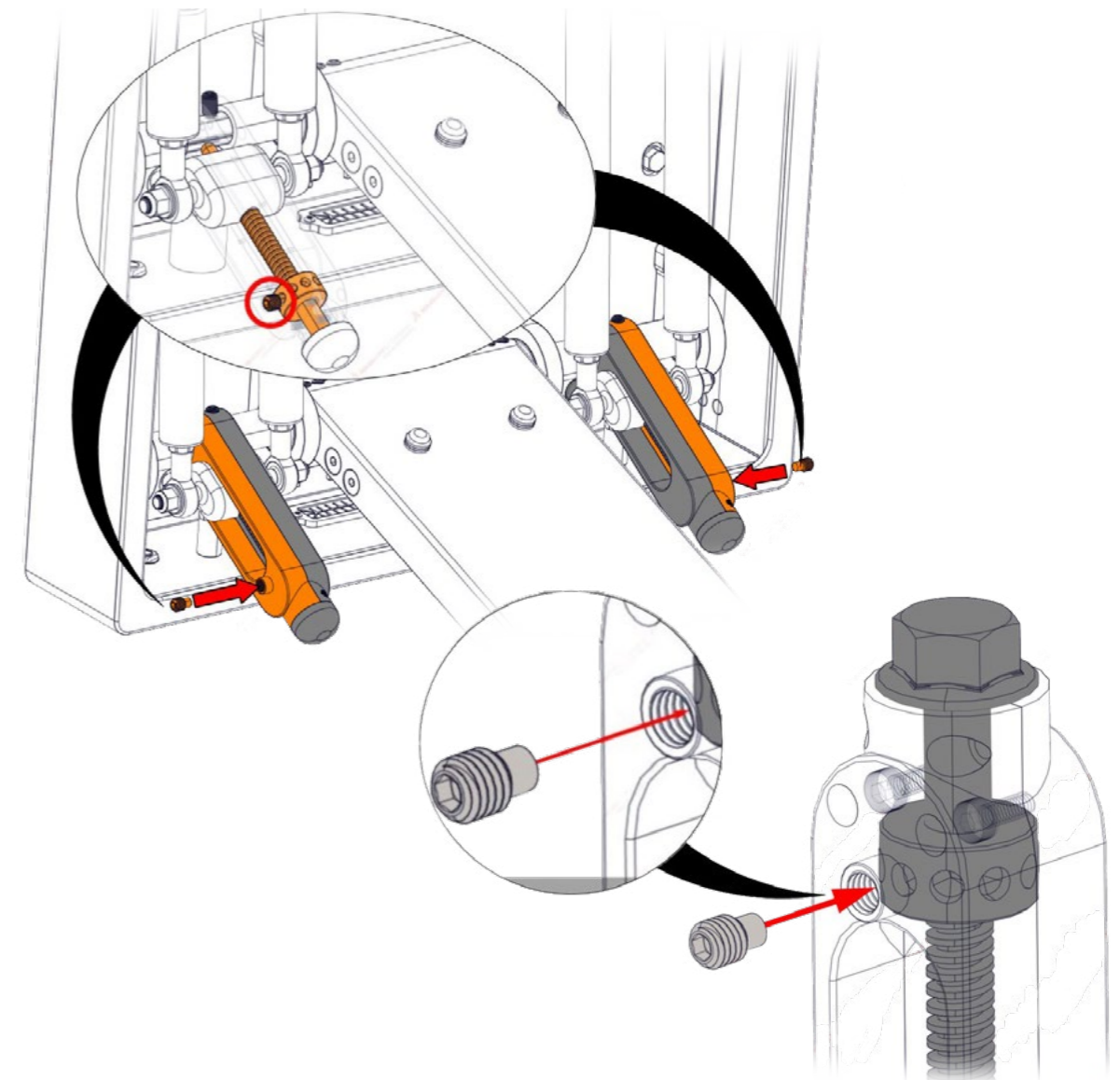


## 02 Once fine adjustment is completed, the set screw is installed

After the proper setting is achieved, install the dog bolts (M) highlighted. The bolts will ensure that the setting remains stable and does not change due to external factors.

Upon correct installation, the dog bolt must be fully recessed in the predrilled slots, as seen in the image below. If the dog bolt can not be fully recessed, adjust the placement of the carousel by applying a slight rotation on the hexagonal heads.

A visual inspection of the alignment of the carousel can be made by looking into the dog bolt holes

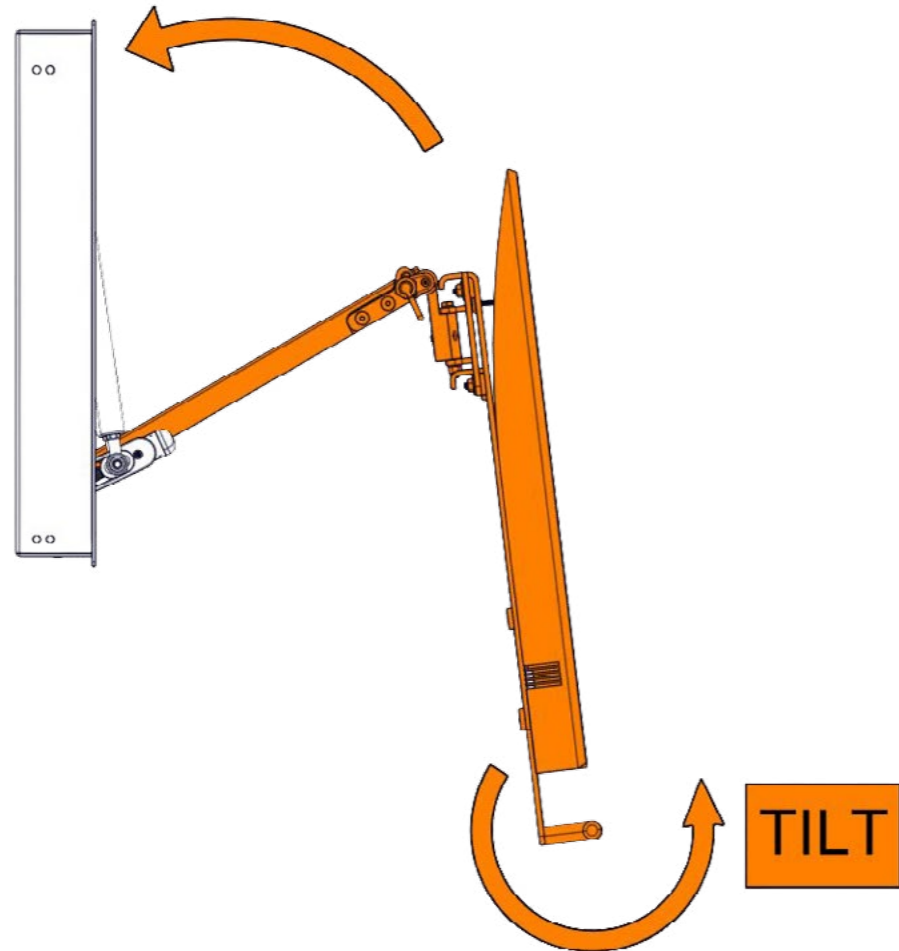


## Step 9

### 03

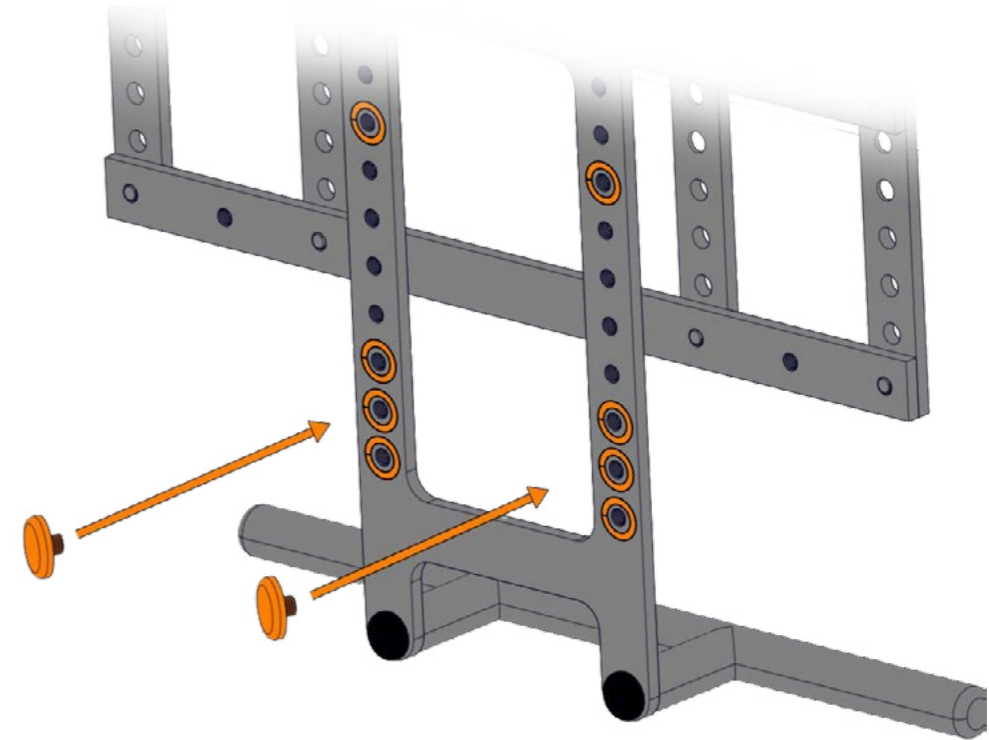
When returning the TV back to its stowed position, gently lift the TV upwards by the handle towards the enclosure. The TV will have a natural, slight tilt towards the user.

The same technique is used to lower the TV in reverse. Hold the handle and gently pull outward and downward.



## 04 Rubber bumpers for contact with enclosure

To avoid the metal-on-metal sound of the Vesa 400 bracket contacting the enclosure upon the closing of the device, install the rubber bumpers on the handle bracket that correspond to the point of contact with the enclosure, at the fully closed position.



## Step 10

### Wire Routing

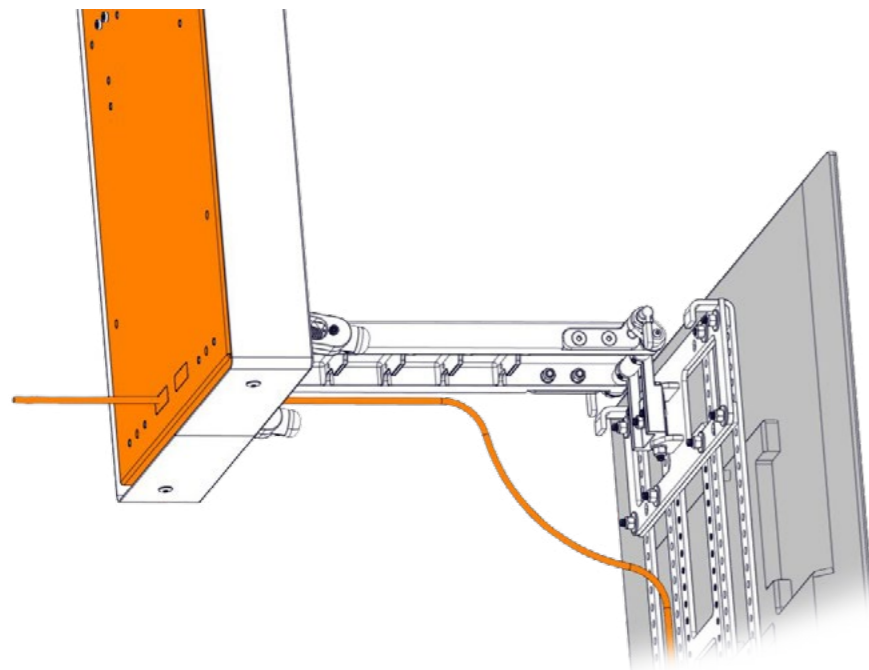
In this step, the correct method for routing the cables at the back of the TV and attaching them to the Warren arm will be outlined.

# Step 10

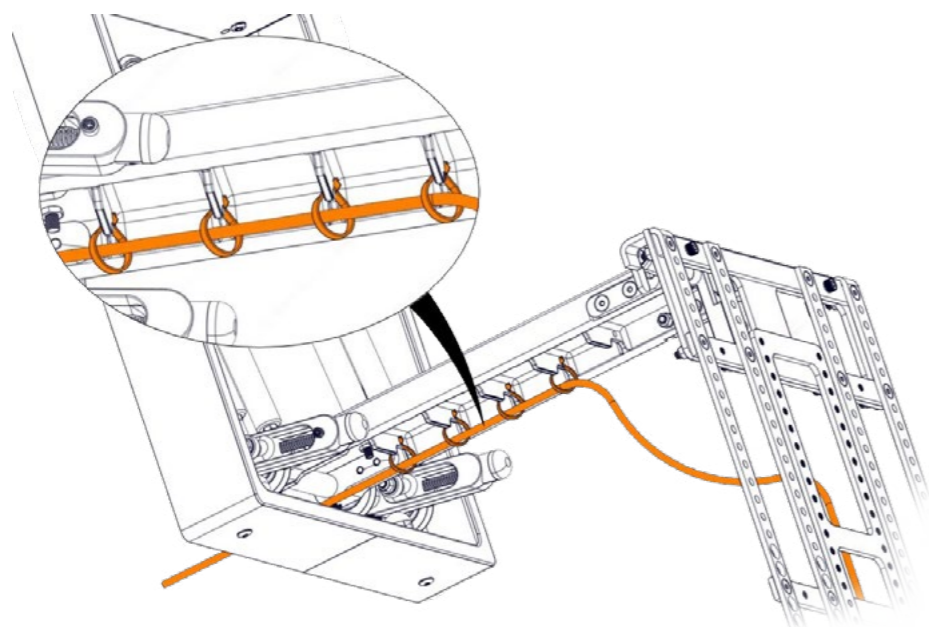
## 01 Complete wire routing towards TV

First of all, ensure that there is sufficient slack in the cables to prevent damage to the TV's ports from tension.

As a general guideline, pull the cable up to the ports of the TV, with the TV in the 90deg position and afterwards attach the cable to the Warren arm starting from the point closest to the swivel bracket.



### 01A



# Step 11

## Removal of VESA Bracket and TV

In this section, the proper method to safely remove the TV and VESA 400 assembly from the swivel arm will be outlined.

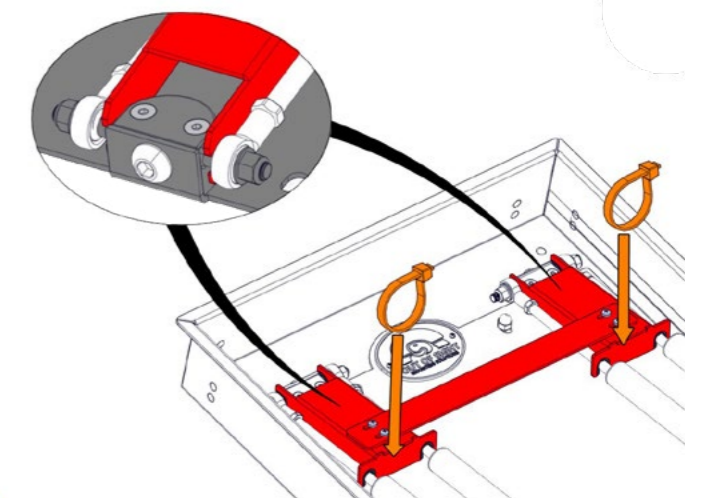
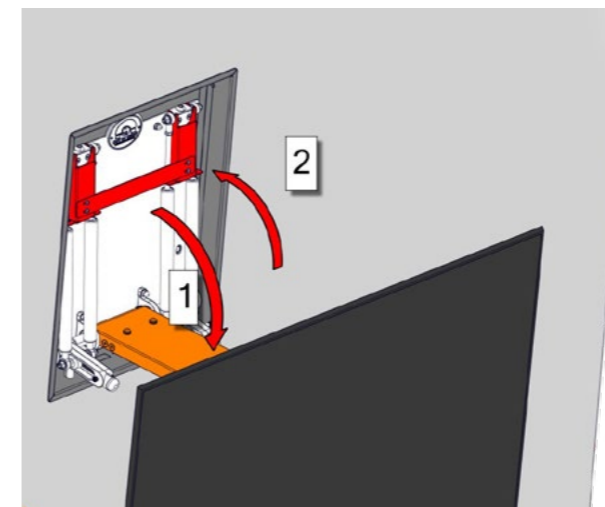
To install a new TV on the VESA 400 assembly and eventually to the swivel bracket, refer back to Steps 6 and 7.

### 01

Before starting this part of the installation, ensure that the safety brace is within reach and easily accessible with one hand.

Lower the TV to approximately the 90-degree position until the piston extension allows for the safety brace to be installed.

Next, install the safety brace following the same process outlined in Step 5.

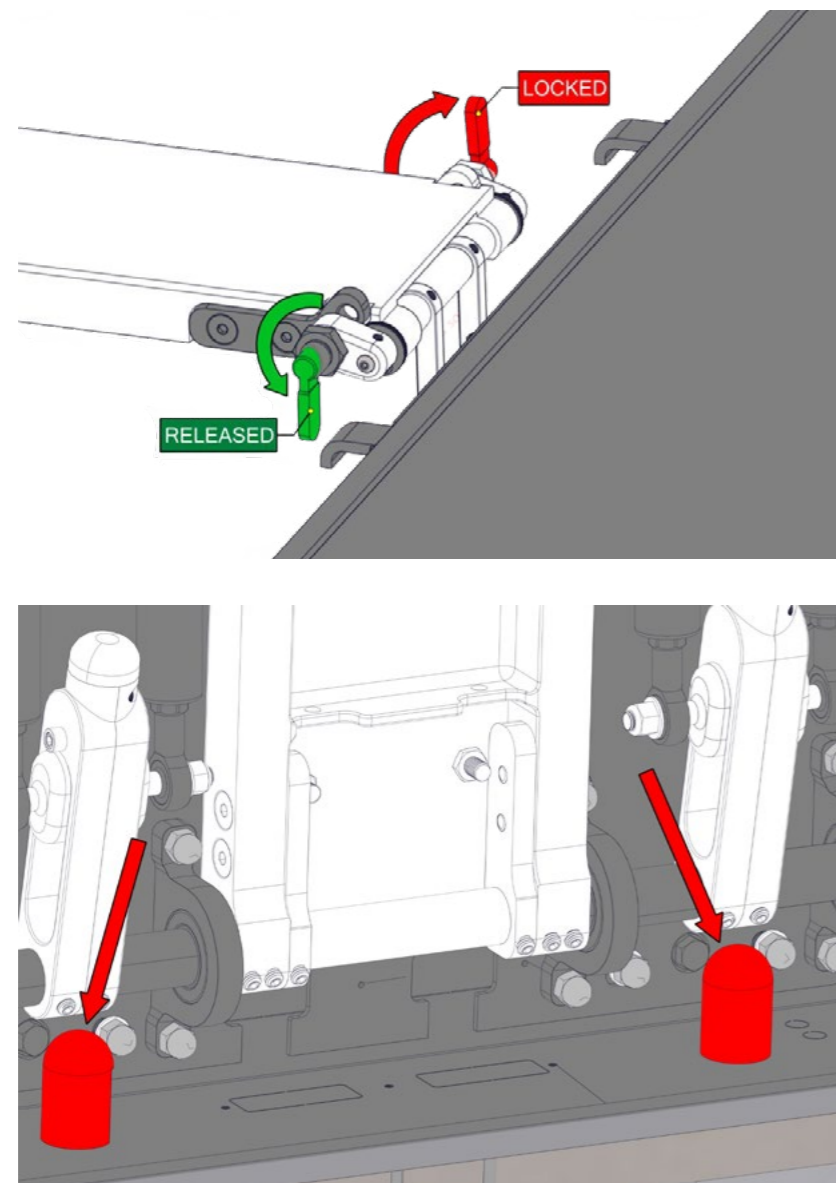


# Step 11

## 02

At this step, lock both plungers at the first indexing position so that the angle between the Warren arm and the swivel bracket is 90deg.

Next, install the 90deg plastic add-ons. Ensure that the opening on the plastic add-ons (H) is facing the enclosure. This is a critical detail for the stability of the plastic add-ons when a load is applied to them.

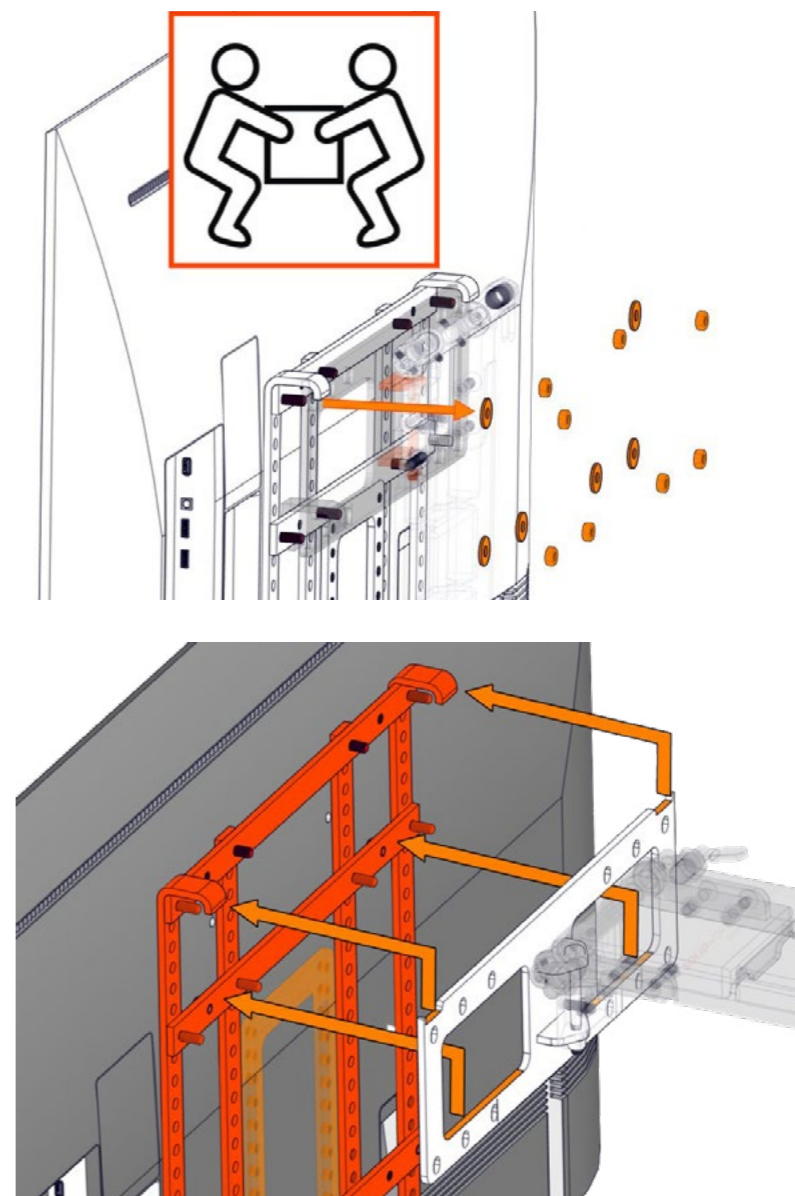


## 03

This step requires 2 individuals to lift the TV and VESA assembly and properly remove them from the swivel bracket.

Initially, remove all the washers (K) and nuts (L) to release the VESA400 from the swivel bracket. Afterwards, lift the weight of the TV and carefully retract it until the hooks of the VESA400 are clear of the swivel bracket

**Note:** Once the users have taken the weight of the TV and the VESA400 assembly, the warren arm will rise due to the removed load, until the piston bodies rest in contact with the safety brace.



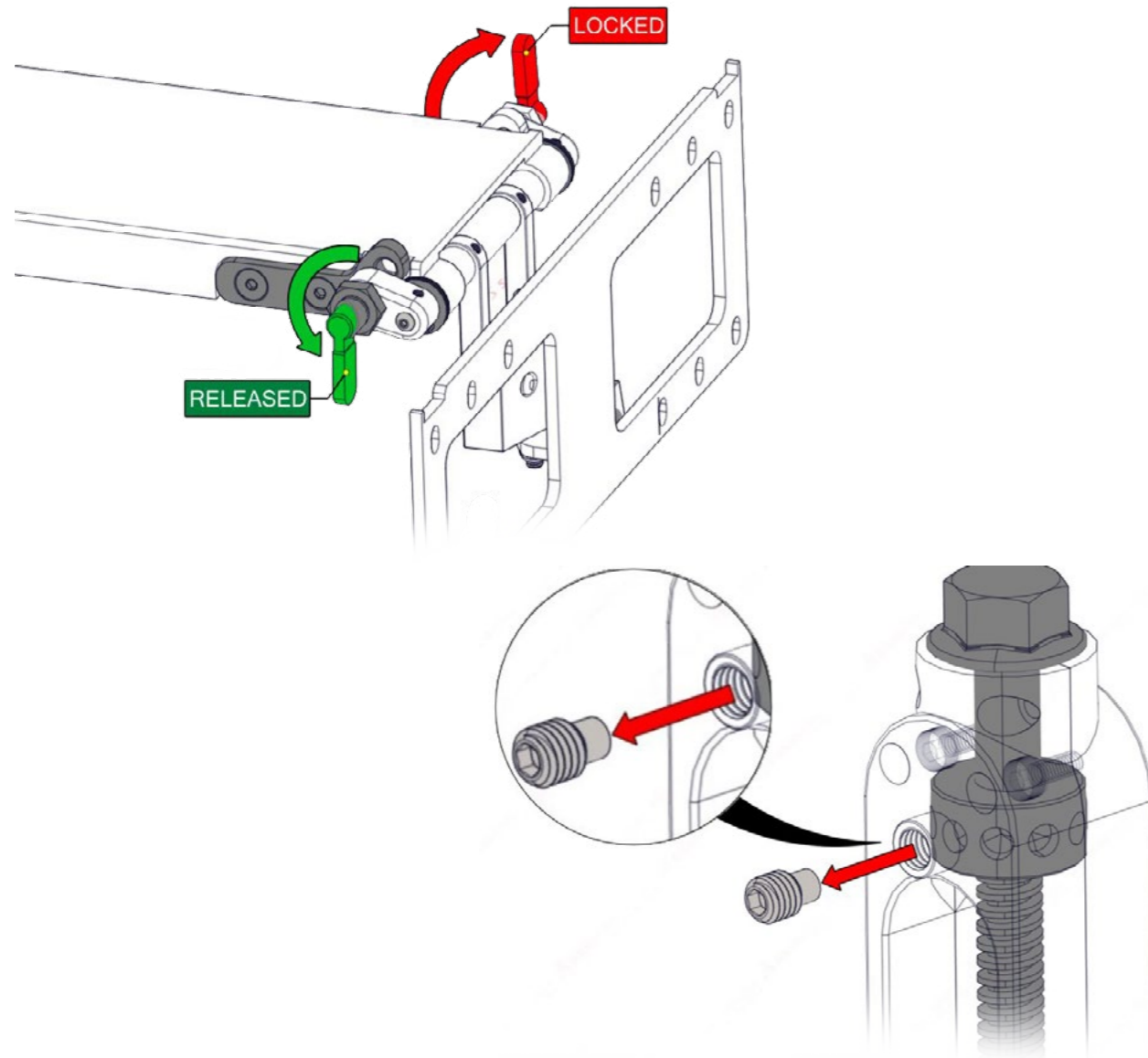
# Step 12

## Removal of Backplate from Enclosure

### Removing the backplate assembly from the metal enclosure.

There may be a time when the owner would like to remove the backplate from the metal enclosure which is recessed into the wall (maybe a future remodeling project). Follow these next steps for that project.

Release the indexing plungers and remove the dog bolt (M) from the lower boss.

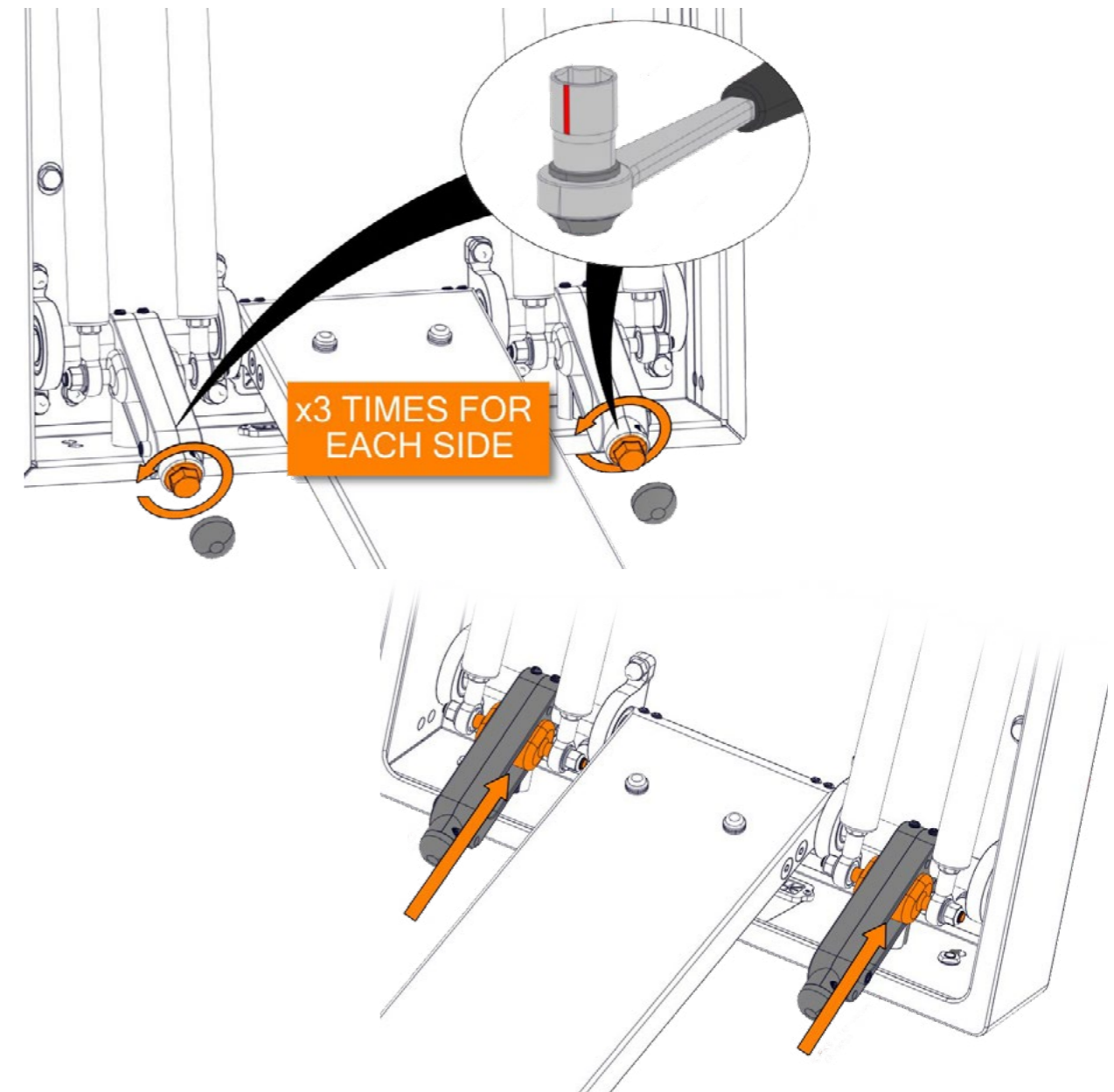


# 01

To allow the warren arm to be easily and controllably raised to its stowed position, the lower boss will need to be adjusted to the lowest position.

First, remove the plastic cap (1) and rotate the hexagonal head counter-clockwise (direction 2b, Appendix A) in 3 complete turns at a time. Every 3 complete turns, move to the opposite boss until both bosses reach the lowest point.

A manual ratchet or cordless drill with an 18mm socket will be required. When using cordless drills, opt for low speeds and respect the three-turn rule per side.

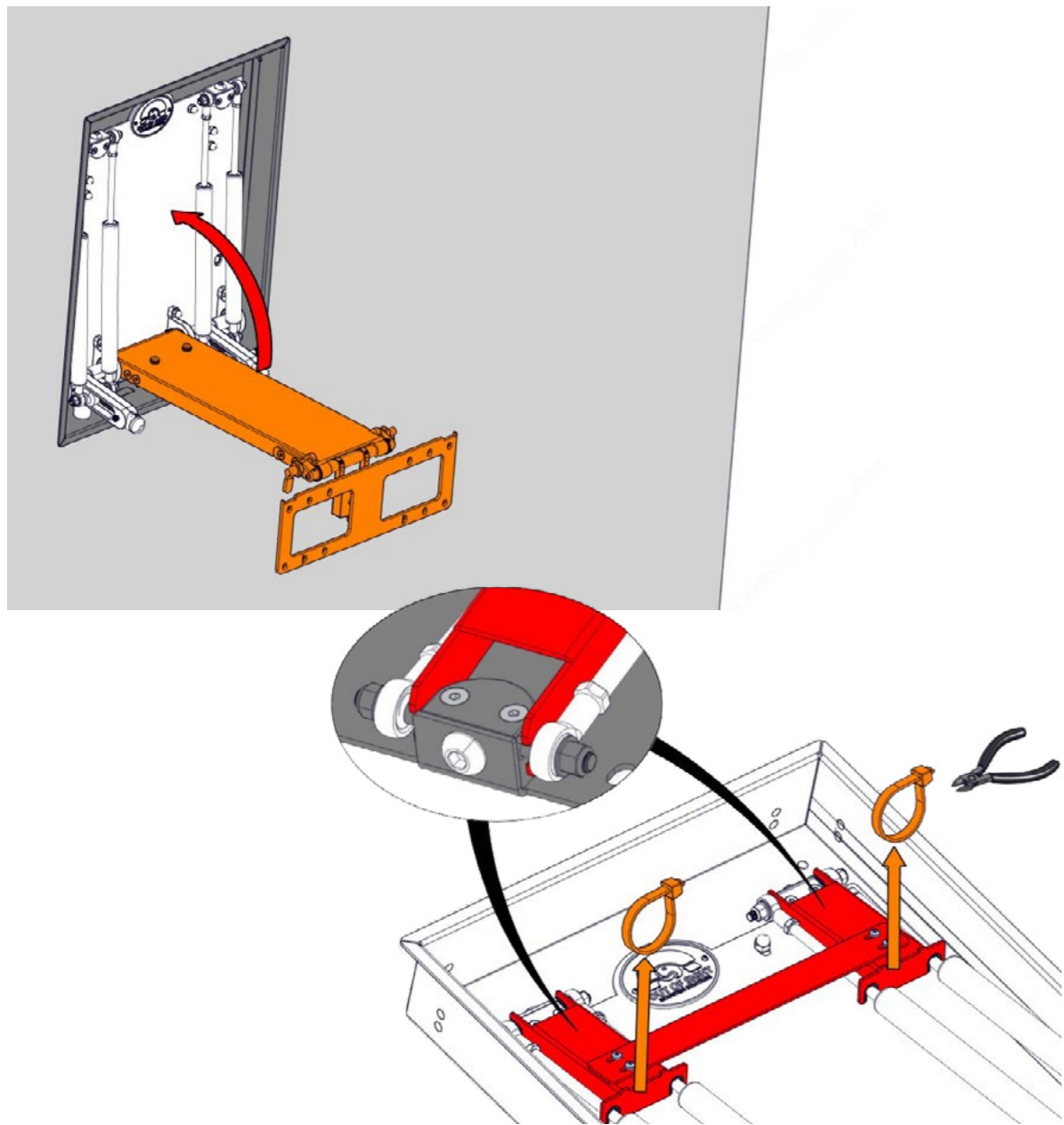


# Step 12

## 02

Apply force vertically on the top of the warren arm with one hand and remove the safety brace with your other hand. Apply a controlled force to the Warren arm to ensure a gentle retraction.

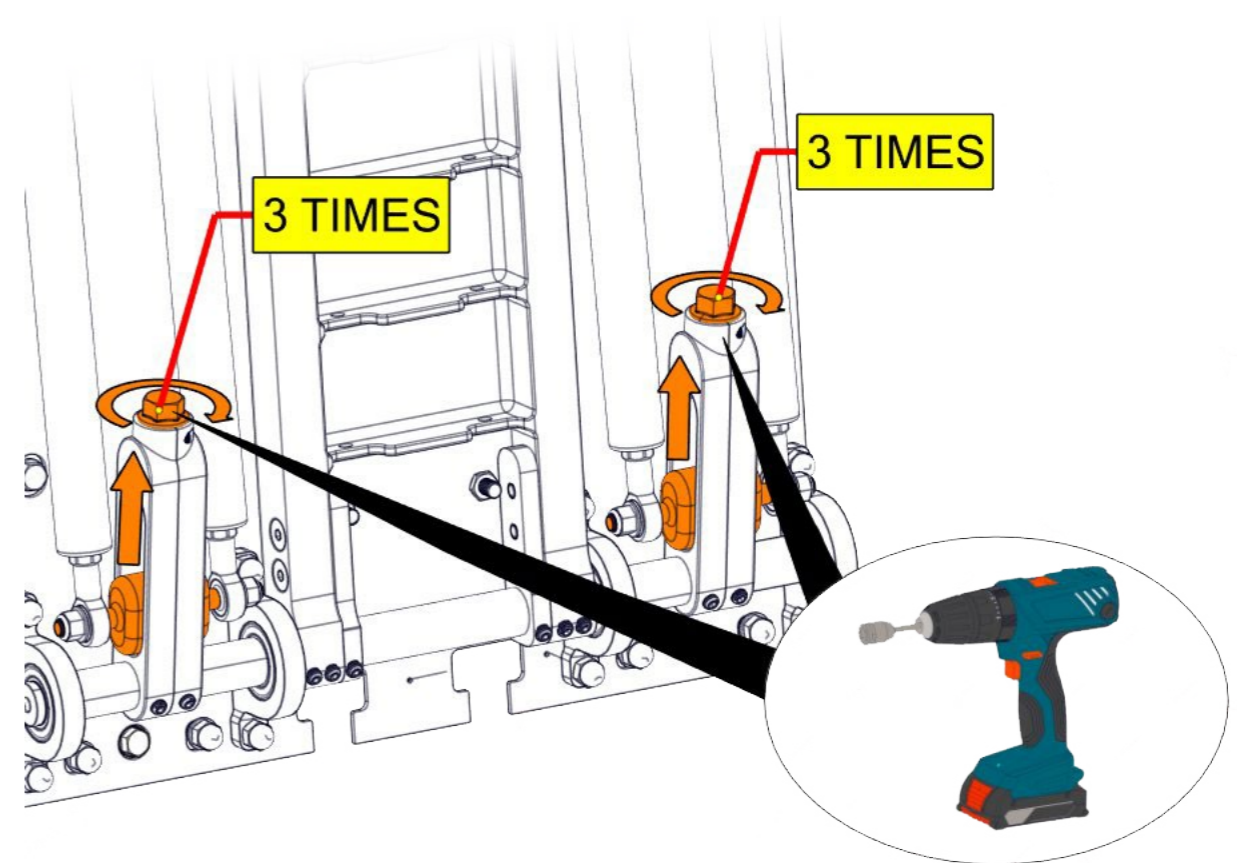
**Note:** Do not allow the Warren arm to retract back unassisted, under the tension of the pistons, to its closed position.



## 03

Next, to release the tension of the springs on the pivot arm, rotate the hexagonal head clockwise (direction 2a, Appendix A) in 3 complete turns at a time. Every 3 complete turns, move to the opposite boss until both bosses reach their highest point.

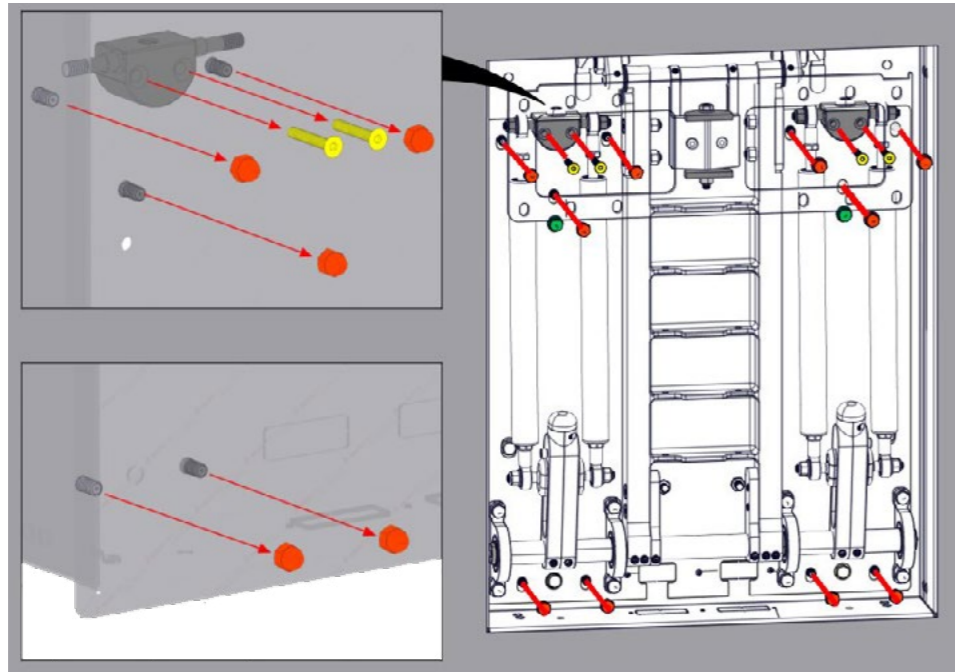
A manual ratchet or cordless drill with an 18mm socket will be required. When using cordless drills, opt for low speeds and respect the three-turn rule per side.



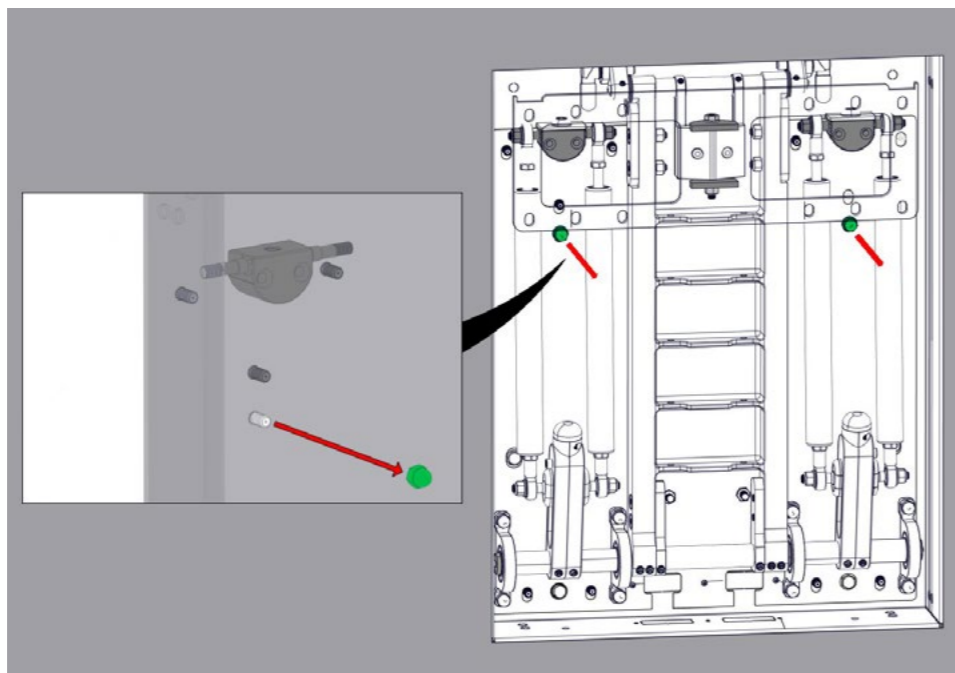
# Step 12

## 04

First, remove the ten highlighted dome nuts (A) and washers (D) (Red), followed by the four highlighted bolts on the upper bosses (E) (Yellow). Finally, remove the last two dome nuts (A) and washers (D) (Green). Please hold the backplate on the enclosure after removing the final two dome nuts.



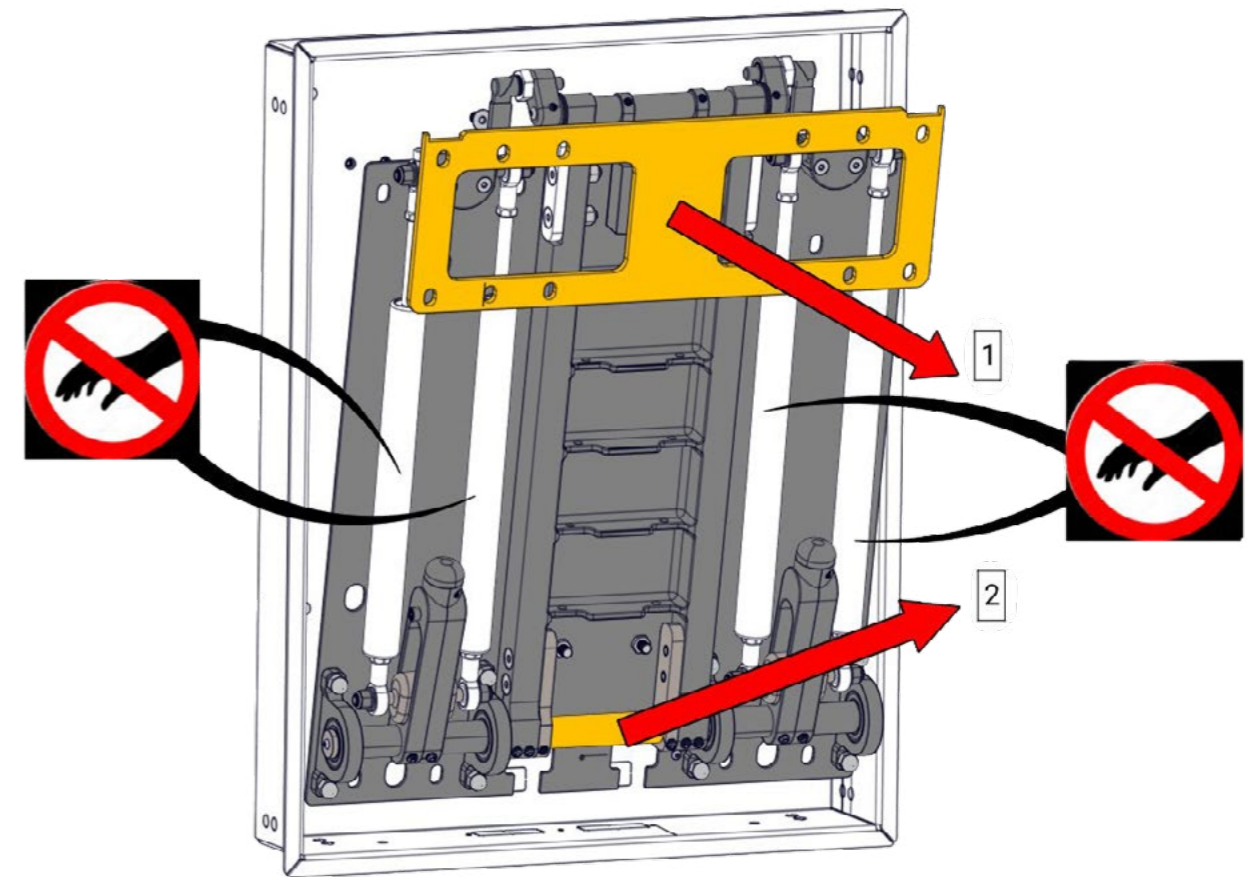
## 05



## 06

Gently lift the base plate by the top and then the bottom parts highlighted to remove it from the enclosure.

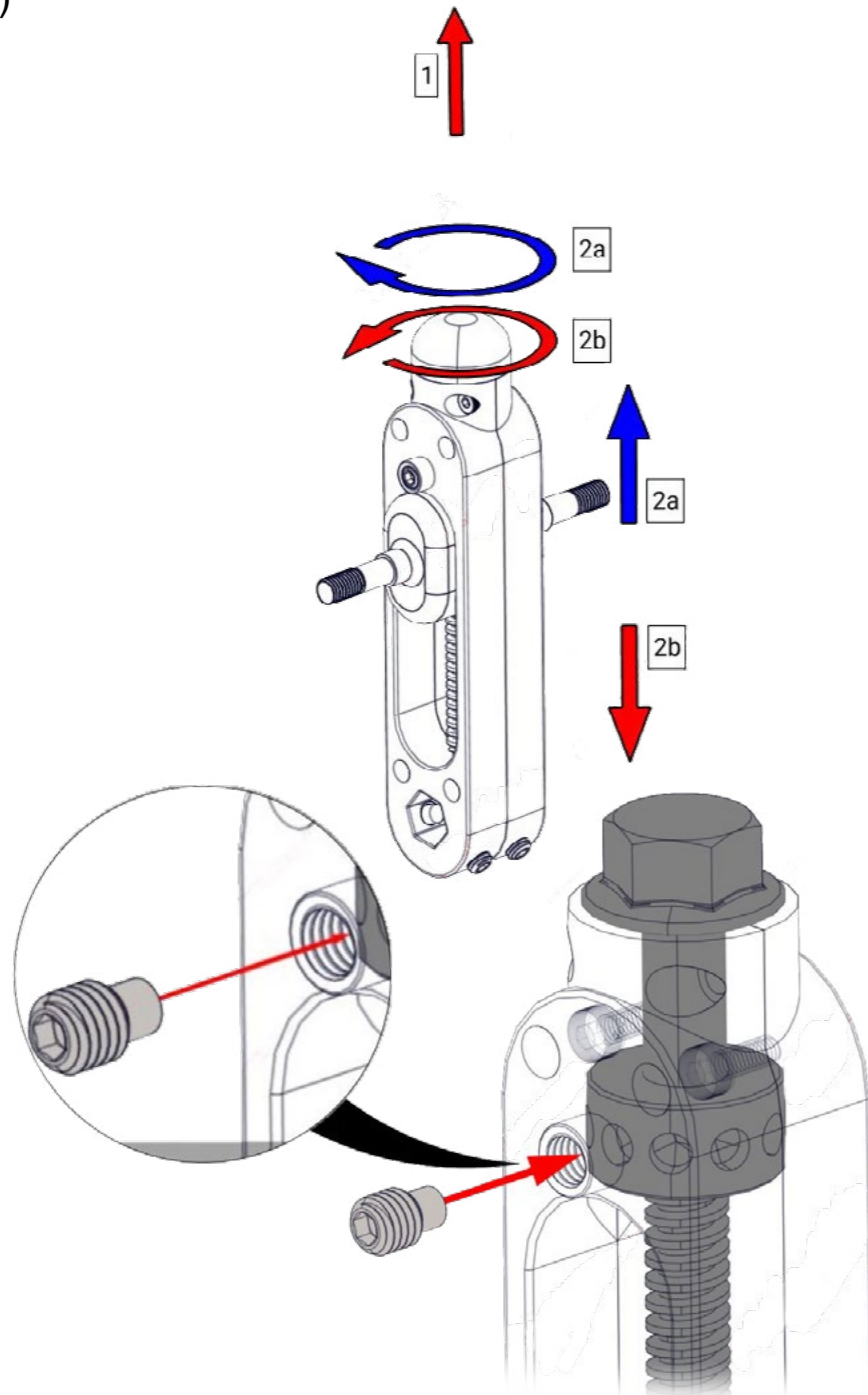
Finally, remove the fasteners from the metal enclosure and pull it out of the recessed framing.



# Appendix A

## Adjustment of Lower Boss in Detail

Note: To adjust the lower boss placement on the pivot arm, please remove the plastic cover cap (1). Then, by rotating the Hexagonal head in the clockwise direction, the lower boss will be raised, supporting heavier TV sets (2a). By rotating the Hexagonal head in the counter-clockwise direction, the lower boss will be lowered, supporting lighter TV sets (2b)



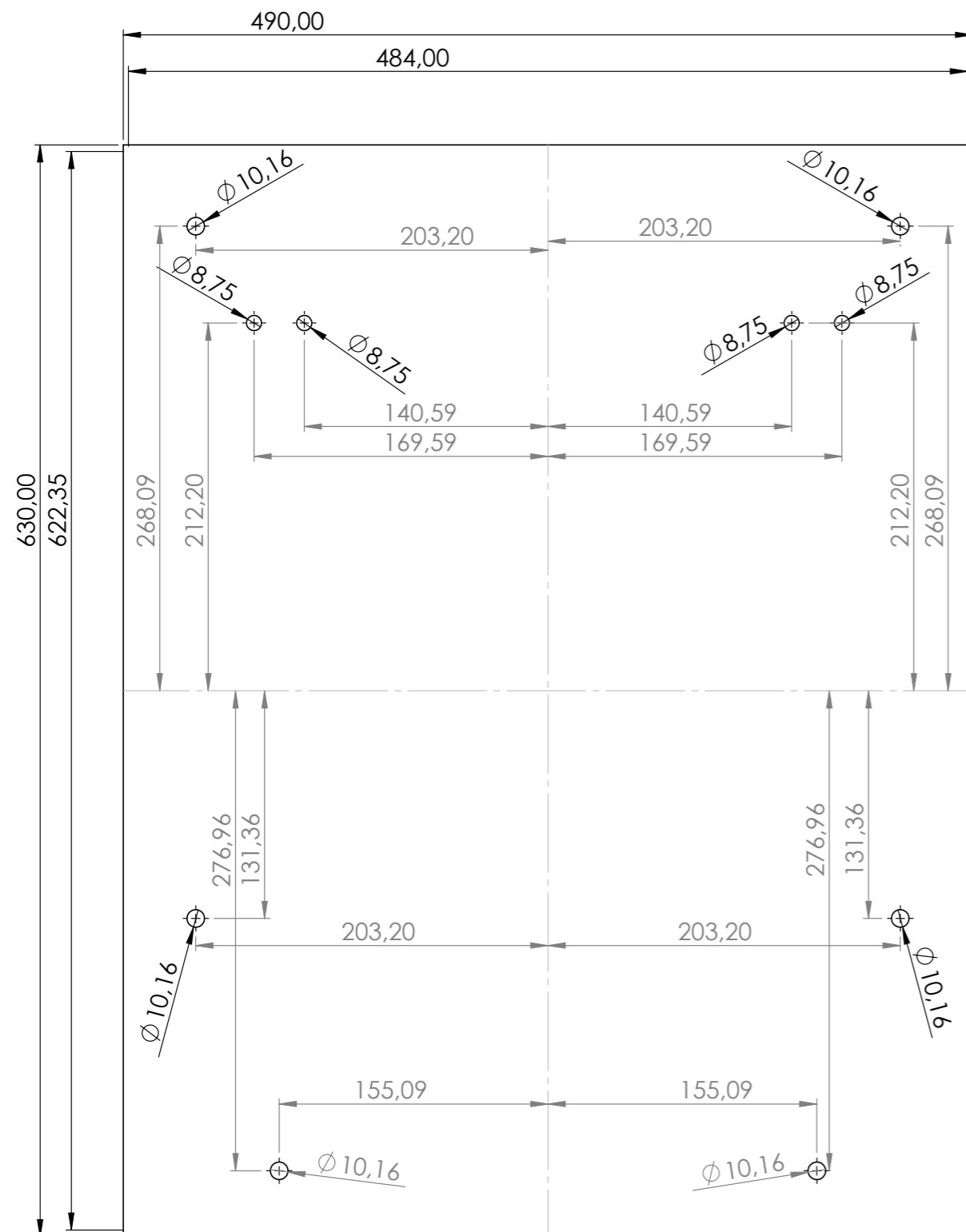
# Appendix B

## Indexing Plunger Engagement Specifics

Note: Anytime the TV is being lowered or raised from its stowed position, always have the indexing plunger levers in their released position. This allows the TV to pivot freely while being lowered and raised. Once you have the TV lowered to your viewing height preference, make sure to engage the indexing plungers into their locked position. The TV angle can be locked out in a perpendicular position while the warren arm is brought down to its apx 90 degree and 118 degree angle (its lowest position).

# Appendix C

## Adjustment of Lower Boss in Detail



# Congratulations!



