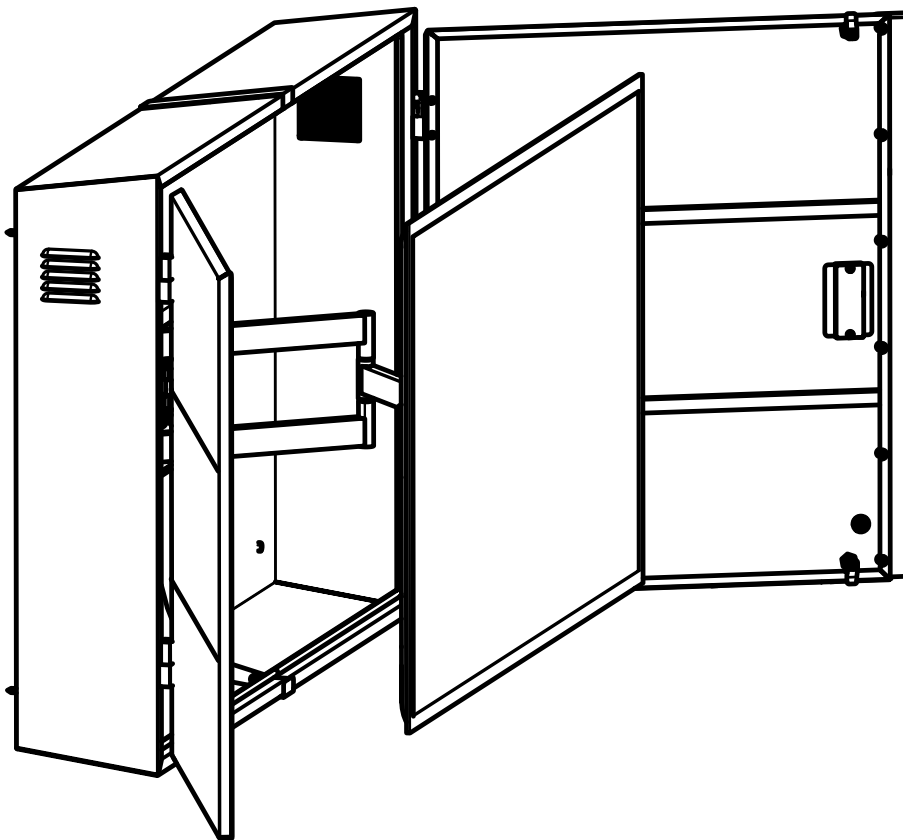**STORM SHELL**

# ASSEMBLY & INSTALLATION INSTRUCTIONS

## SS-55 PRO - 55 Inch Storm Shell TV Enclosure & Wall Mount
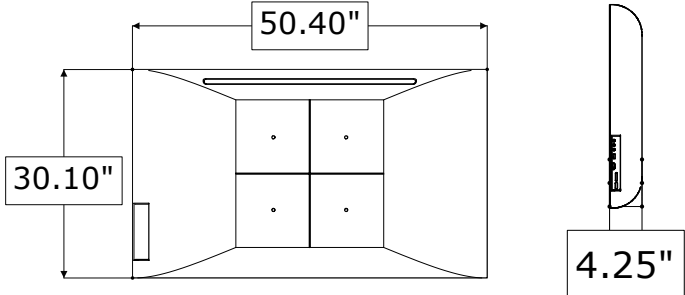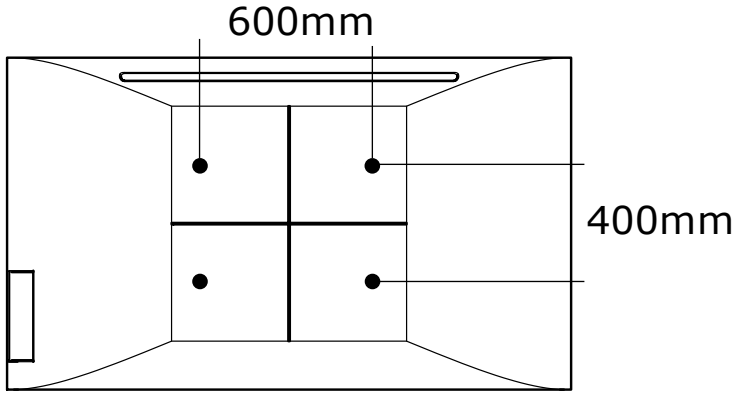v 1.0

(TV Not Included)



**If you have any questions, please contact us at cs@stormshelltv.com, or call at (435) 752-6611 Mon – Fri 9am – 5pm (MT)**

# Before getting started, let's make sure this Storm Shell will work for you!

## TV SIZE & VESA PATTERN

**Maximum TV dimensions (including frame bezel):**

**50.40 in x 30.10 in x 4.25 in**

50.40"

30.10"

4.25"

**VESA Pattern:**

**Width: 600 mm (23.62 in) max**

**Height: 400 mm (15.75 in) max**

**Will fit 100 mm, 200 mm, 300 mm, 400 mm and 600 mm VESA patterns.**
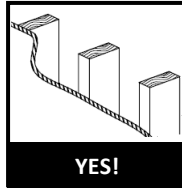
600mm

400mm

## Weight Capacity

**Maximum TV Weight (including accessories):**

⚠️ **CAUTION!**     **100 LBS MAX**

# Before getting started, let's make sure this Storm Shell will work for you!
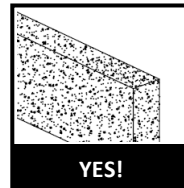
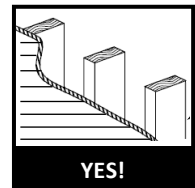## Wall Material

**Hardware is included for:**
- **Drywall over Wood Studs**
- **Solid Concrete, structural brick, or masonry (minimum 8 inch thick)**
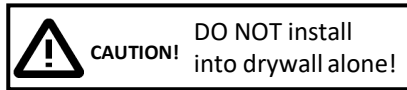- **Outdoor Siding (aluminum, vinyl, stucco, brick veneer, etc.) installed over Wood Studs.**
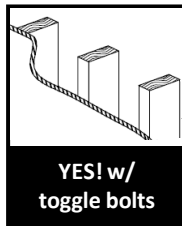
**YES!**

Drywall over wood studs?

**YES!**

Solid concrete?

**YES!**

Outdoor siding over wood studs?

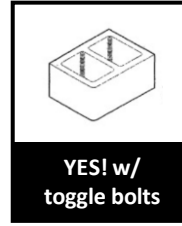⚠ **CAUTION!** DO NOT install into drywall alone!

**Not all hardware is included for:**
- **Drywall over Metal Studs**
- **C 90 Hollow Concrete Block**
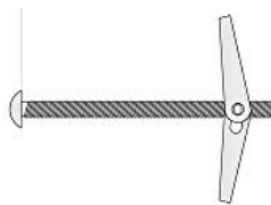- **Structural brick or masonry (less than 8 inch thick)**

**Good News! The Storm Shell can be installed on these materials using toggle bolts (not included) to secure the TV Bracket to the wall. See installation instructions for size details.**

**YES! w/ toggle bolts**

Drywall over metal studs?

**YES! w/ toggle bolts**

C90 Hollow Concrete block?
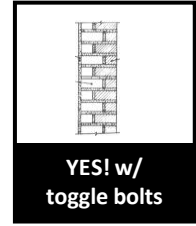
**YES! w/ toggle bolts**

Structural Brick or Masonry?

**Toggle Bolts are available at your local hardware store or online source.**
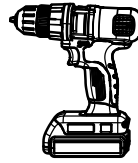
# Installation Tools (Not Included)

## All Installations
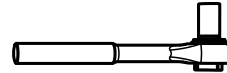
Tape Measure

Pen/Pencil

Power Drill

Phillips Screw Driver

Bubble Level

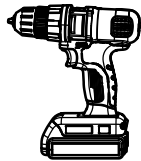Socket Wrench

## Wood Stud Installation

Stud Finder

5/32" (4mm) and 1/4" (7mm) Wood Drill Bit

## Solid Concrete, Brick, Masonry Installation

Crescent Wrench

Hammer Drill

Hammer

5/32" (4mm) and 5/16" (8mm) Masonry Drill Bit

# Safety Caution

- Prior to installation of this product, the installation instructions should be read and completely understood to prevent personal injury and property damage. Keep these installation instructions in an easily accessible location for future reference.

- This mount and hard cover contains small parts which can act as a choking hazard if swallowed.

- CAUTION: The maximum TV load capacity is 100 lbs. (45 kg). Use with products exceeding the maximum load capacity may cause serious injury.

- The wall structure must be capable of supporting at least five times the maximum load capacity as indicated. If not, the wall must be reinforced.

- Do not mount on drywall or plywood alone.

- Do not install on a structure that is prone to vibration, movement or chance of impact. Failure to do so could result in damage to the display and/or damage to the mounting surface.

- Do not install near heater, fireplace, air conditioning or any other heat producing source. Failure to do so may result in damage to the display and/or the hard cover and could increase the risk of fire.

- Make sure no water or natural gas lines are present where the mount is to be installed. Cutting or drilling into water or natural gas lines could cause personal injury or property damage.

- Proper installation procedure by yourself or a qualified service technician, as outlined in the installation instructions, must be adhered to. Failure to do so could result in serious personal injury.

- When mounting to a wall that contains wood studs, confirm the dead center of the wood stud prior to installation, it is recommended that the wood studs be a minimum of 16" apart.

- It is recommended that two people perform the installation. Injury and/or damage can result from dropping or mishandling the display or hard cover.

- If you don't understand these installation instructions, please consult an installation specialist.
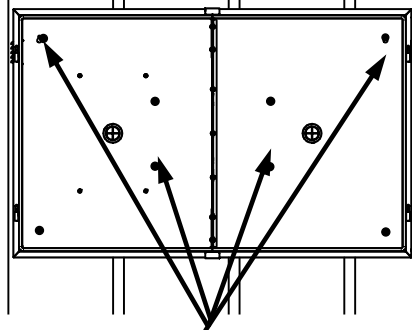
## Do you need an Adapter Mounting Plate? (Not Included)

- **Concrete wall or hollow wall (not drywall) installation? – No**
- **Wood Stud installation with stud spacing different than 16 inch? – Yes**
- **Wood Stud installation with stud spacing = 16 inch? – Maybe…**
  - **The mounting holes must be placed over studs. If the Storm Shell placement is OK, then No Adapter Mounting Plate is required.**
  - **If you desire a different placement of the Storm Shell (left or right of the studs), an Adapter Mounting Plate is required.**
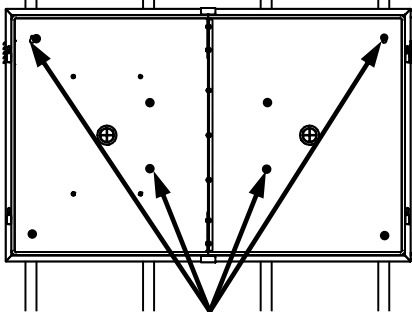
Mounting Holes Align
with Studs

Mounting Holes Do
Not Align with Studs

**No Adapter Mounting Plate required.**

**Yes - Adapter Mounting Plate is required.**

To order the Adapter Mounting Plate, please visit
www.StormshellTV.com/Accessories

# Supplied Parts & Hardware
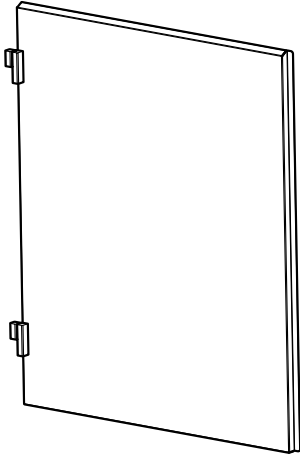
## Storm Shell PRO

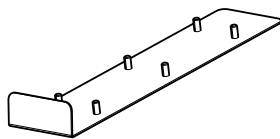**Storm Shell Front –
left part (1 PC)**
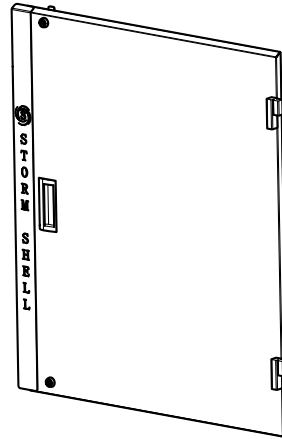
**Storm Shell Front –
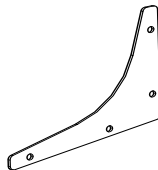right part (1 PC)**
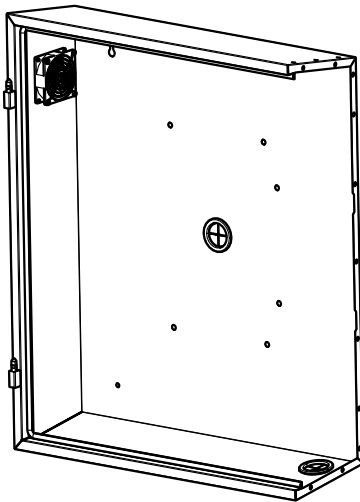
**Storm Shell Back –
left part (1 PC)**
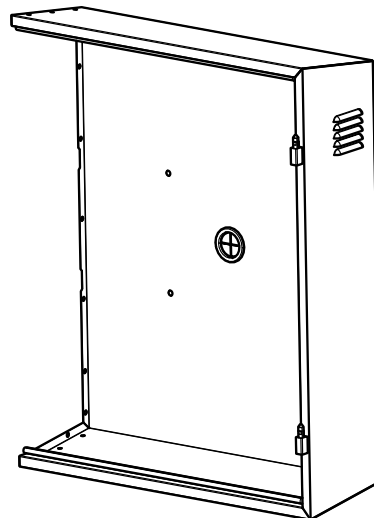
**Storm Shell Back –
right part (1 PC)**

**Top/Bottom
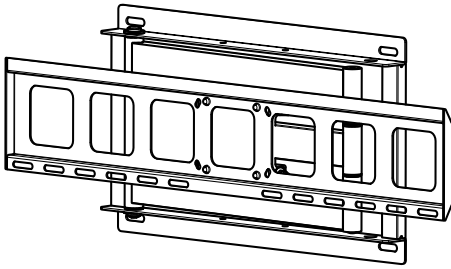Connecting Bar (2 PC)**

**Angle Brackets (2 PC)**

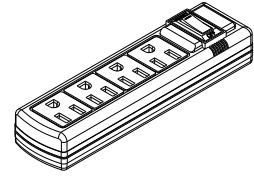**Rubber Plugs (4 PC)**

# Supplied Parts & Hardware

## Storm Shell PRO
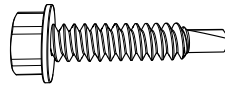
TV Bracket (1 PC)

Vertical Bracket (2 PC)

Power Strip

## Pack #1- Storm Shell Assembly Hardware

M6x16mm
**A5** (11 PC)

M6 Flange Nut
**B5** (11 PC)

ST 6x30mm
**E5** (4 PC)
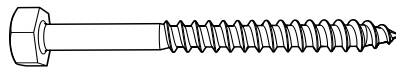
D6 Washer
**F5** (2 PC)

ST 8x60mm
**G5** (4 PC)

D8 Washer
**H5** (4 PC)
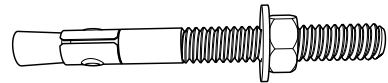
Concrete
Sleeve Anchor
**I5** (4 PC)

M4 Flange Nut
**K5** (12 PC)

ST 8x90mm
**J5** (4 PC)

⚠️ **CAUTION!**

**CHOKING
HAZARD**

# Supplied Parts & Hardware - continued

**Pack #2- Mounting Bracket Hardware**
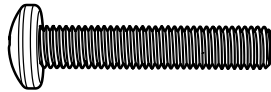
M4x12mm
**V1** (4 PC)

M4x30mm
**V2** (4 PC)
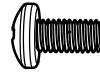
M6x12mm
**V3** (8 PC)

M6x30mm
**V4** (4 PC)
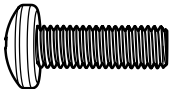
M8x25mm
**V5** (4 PC)

M8x45mm
**V6** (4 PC)

D4 Washer
**V7** (4 PC)

D6 Washer
**V8** (4 PC)

5mm Spacer
**V9** (4 PC)

10mm Spacer
**V10** (4 PC)

**CAUTION!**

**CHOKING HAZARD**

# Assembly & Installation Video

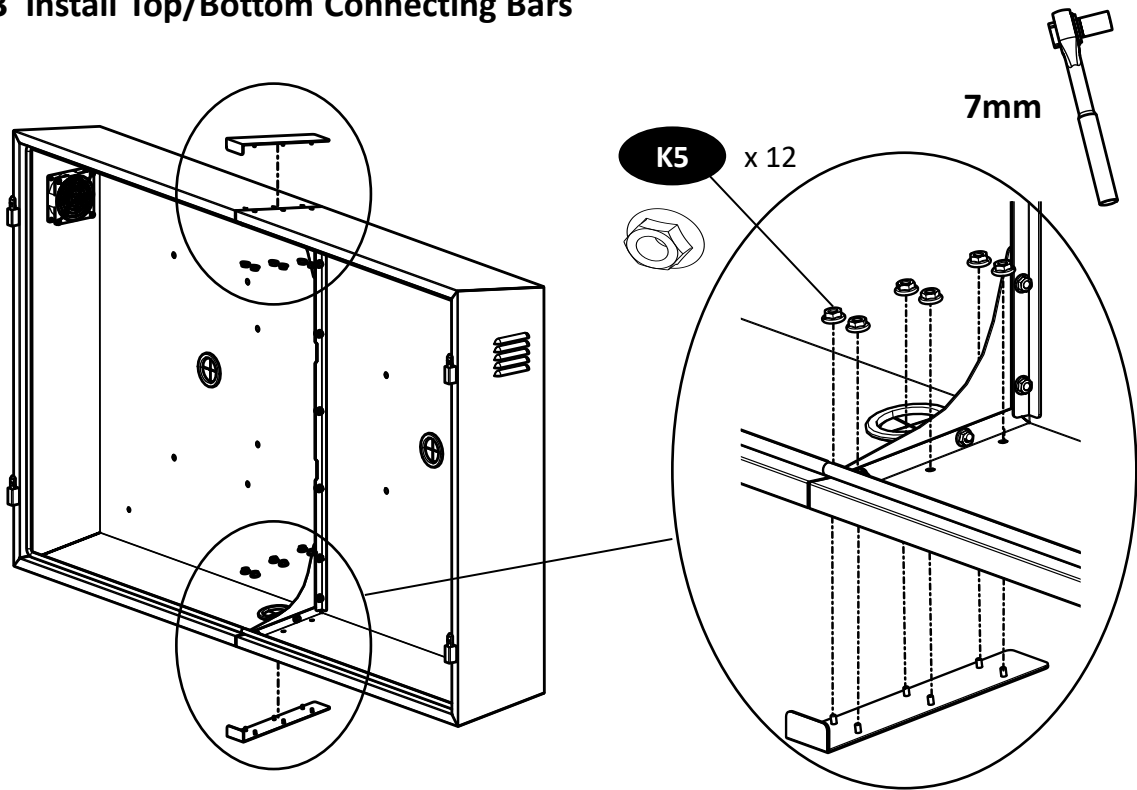**Scan the QR Code for video link**

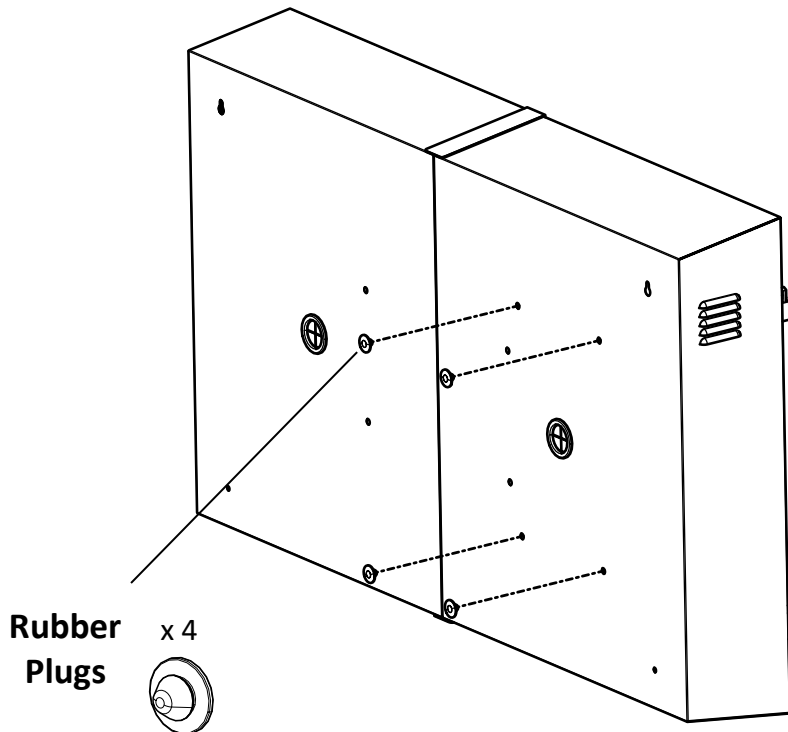# Step 1 – Prepare the Storm Shell Back

## 1-1  Assemble Storm Shell Back

**A5**   x 3

**B5**   x 3

10mm

## 1-2  Assemble Storm Shell Back

Angle Bracket

**B5**   x 8

**A5**   x 8

10mm
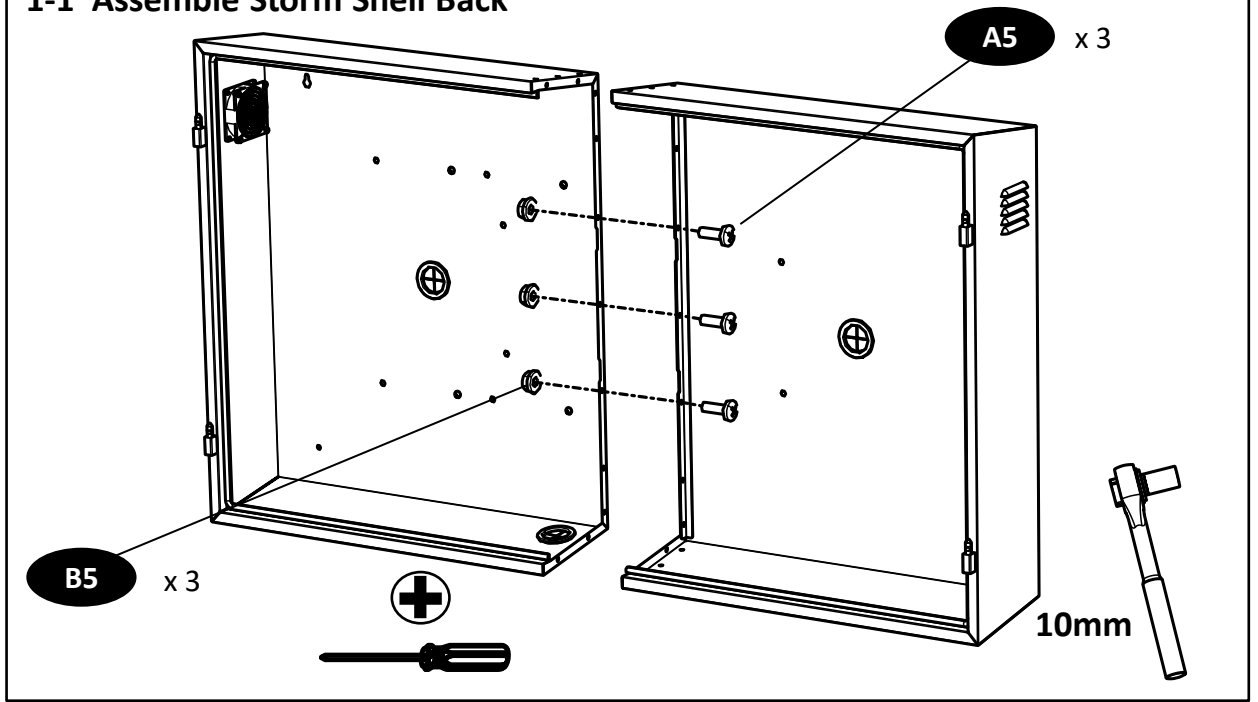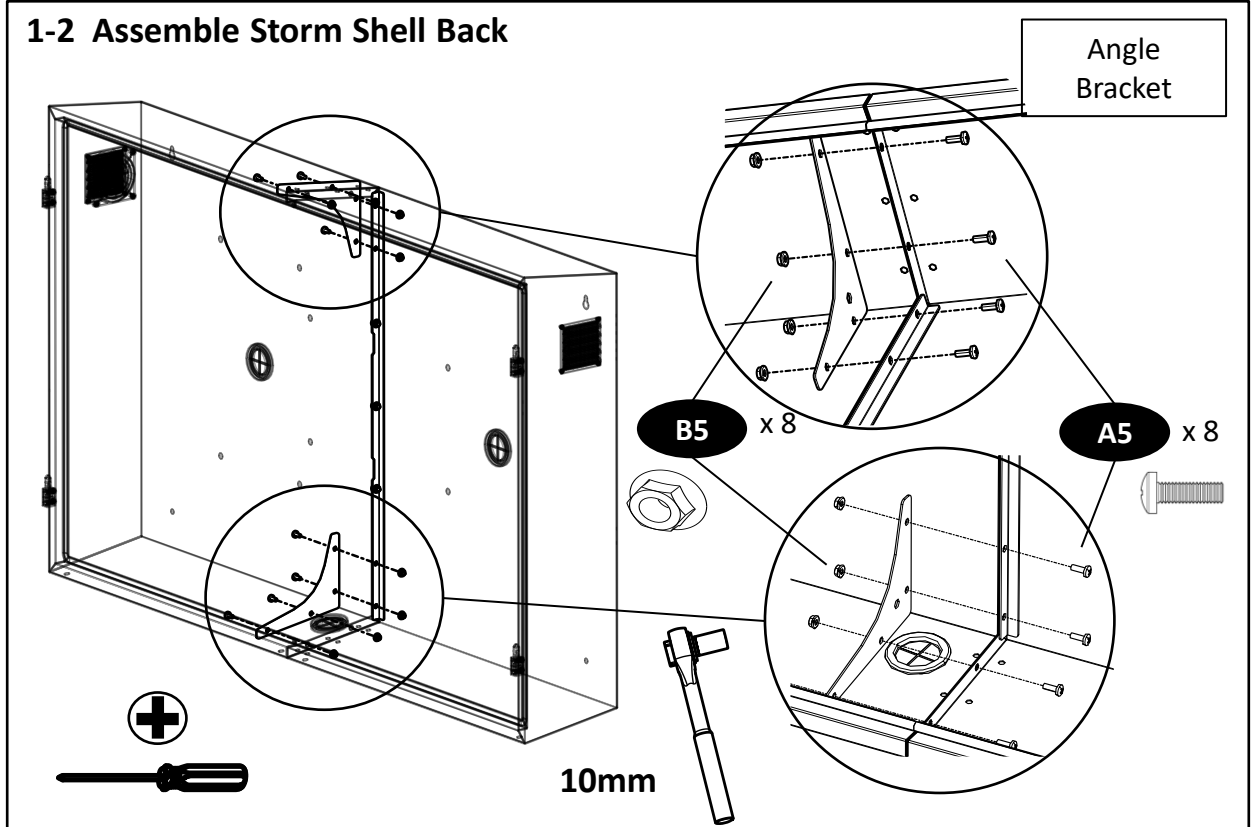
## 1-3  Install Top/Bottom Connecting Bars

**7mm**

**K5** x 12

## 1-4  Insert Rubber Plugs

**Rubber Plugs**  x 4

# Step 2 – Attach Storm Shell Back to Wall

⚠️ **CAUTION!**   **Two people required for installation**

**Determine the wall material and wall supports.  Wall supports are typically wood or metal studs, concrete, structural brick or masonry.  Wall material (cladding) is typically drywall, siding (vinyl or aluminum), stucco, brick veneer.**

⚠️ **CAUTION!**   **The Storm Shell TV Wall Mount must be secured into concrete, structural brick or masonry, wood or metal studs.  Do not mount directly into drywall or plywood.**

- **For wood stud installation, follow STEP 2A**
- **For solid concrete installation, follow STEP 2B**
- **For hollow wall installation (metal studs, concrete block), follow STEP 2C**

# Step 2A – Wood Stud Installation

**2A-1  Locate and Mark Wood Studs**
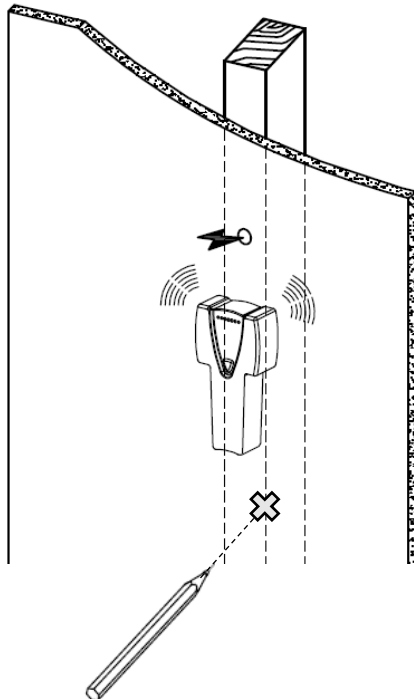


⚠️ **NOTE!**   **If the wall material is outdoor siding (vinyl or aluminum), stucco, or brick veneer; the wood studs may be difficult to locate with a stud finder due to several layers of construction cladding.  You may need to locate the wood stud from the inside wall and use measurements to locate the wood stud on the outdoor wall.**
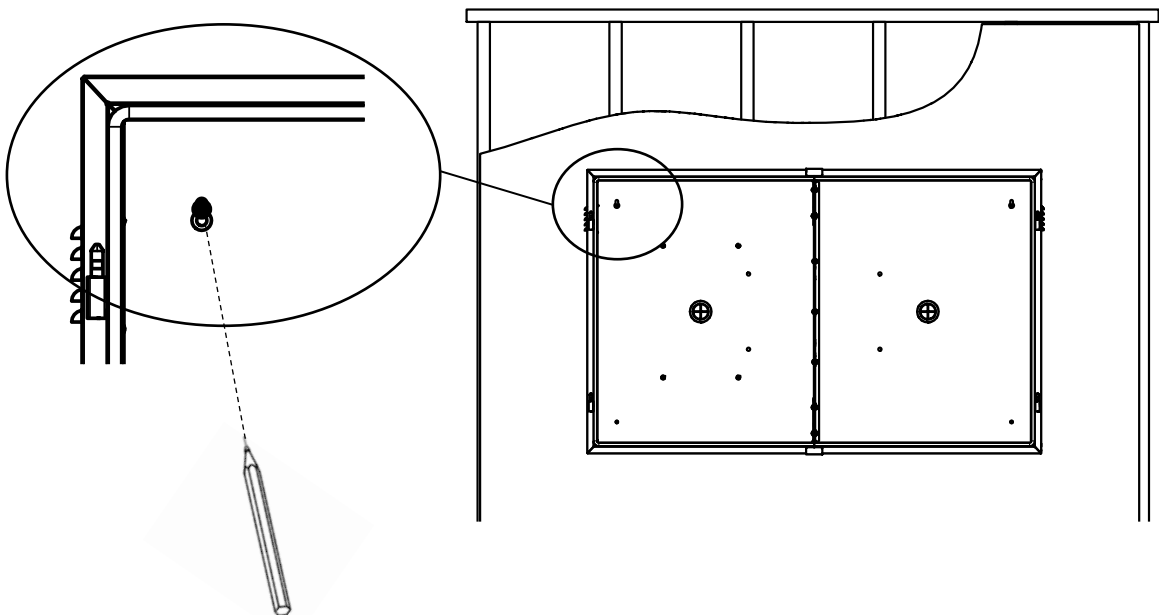
**2A-2  Locate and mark four studs (16" center) to mount the Storm Shell Back**
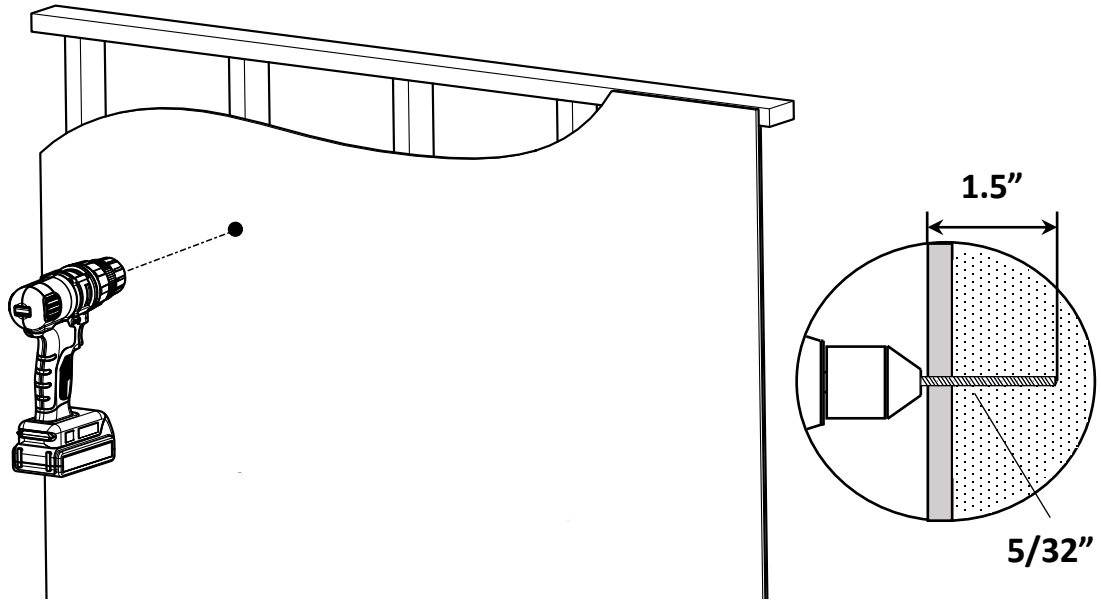
Mark four
stud locations
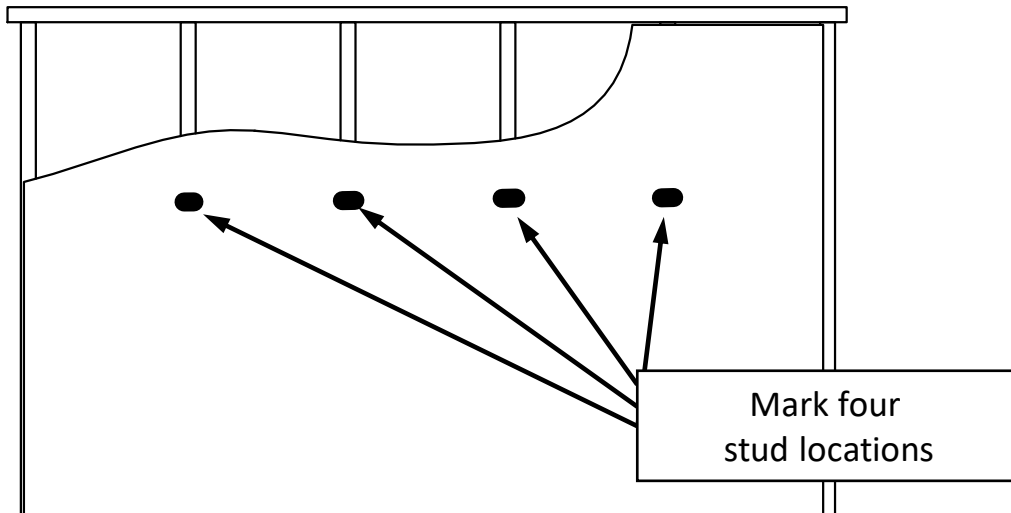
⚠ **Note!** **If you desire a different mounting position than shown (left-to-right), an Adapter Mounting Plate is required (not included).  See www.StormShellTV.com/accessories**
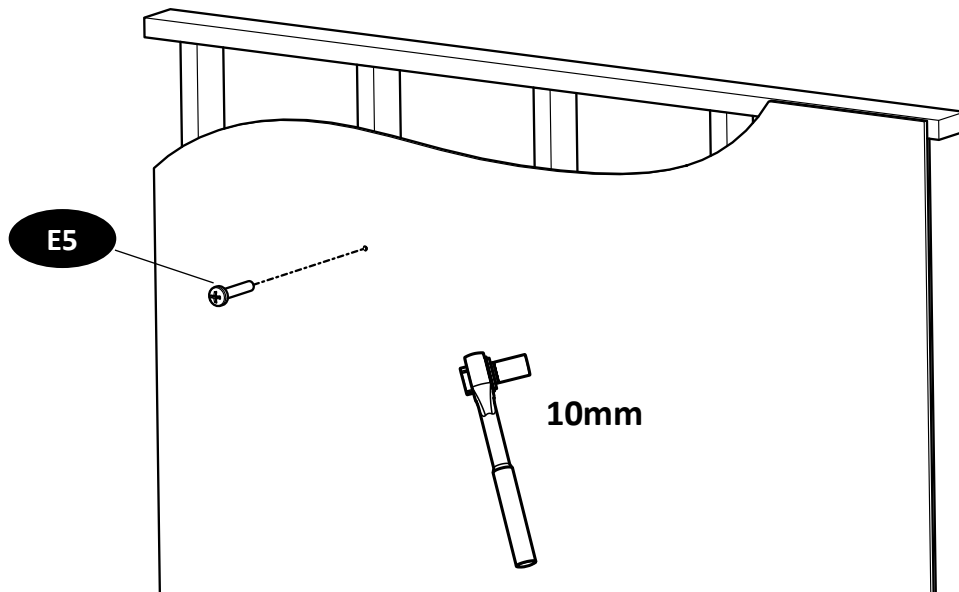
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**2A-3  Mount Storm Shell Back**

- **Place Storm Shell Back at desired installation location**
- **Mark in top left "key-hole" (ensure the mark is over a stud)**
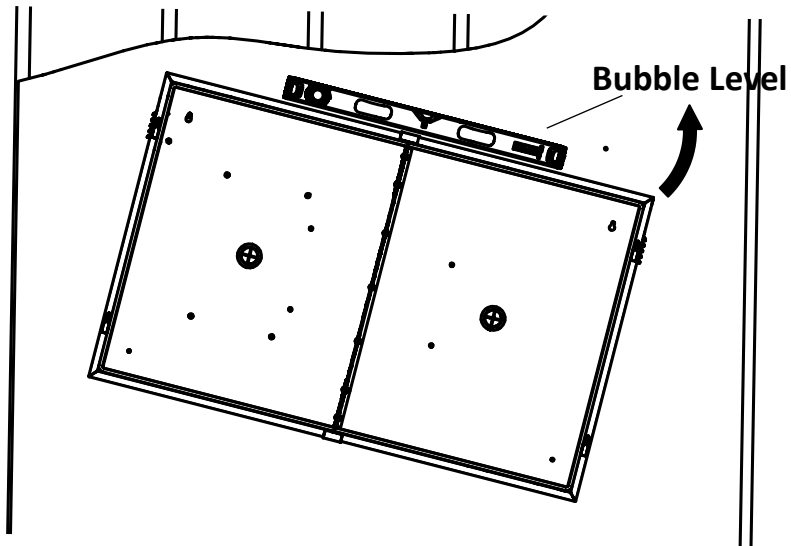
## 2A-4  Mount Storm Shell Back

1.5"

5/32"

- **Remove Storm Shell Back and drill on top left mark with 5/32"
  wood drill bit 1.5" deep.**

## 2A-5  Mount Storm Shell Back

E5

10mm

- **Install E5 in top left location (leave small gap between screw head
  and wall) – use 10mm socket**

## 2A-6 Mount Storm Shell Back

**Bubble Level**

- Hang top left key-hole on the installed E5 screw
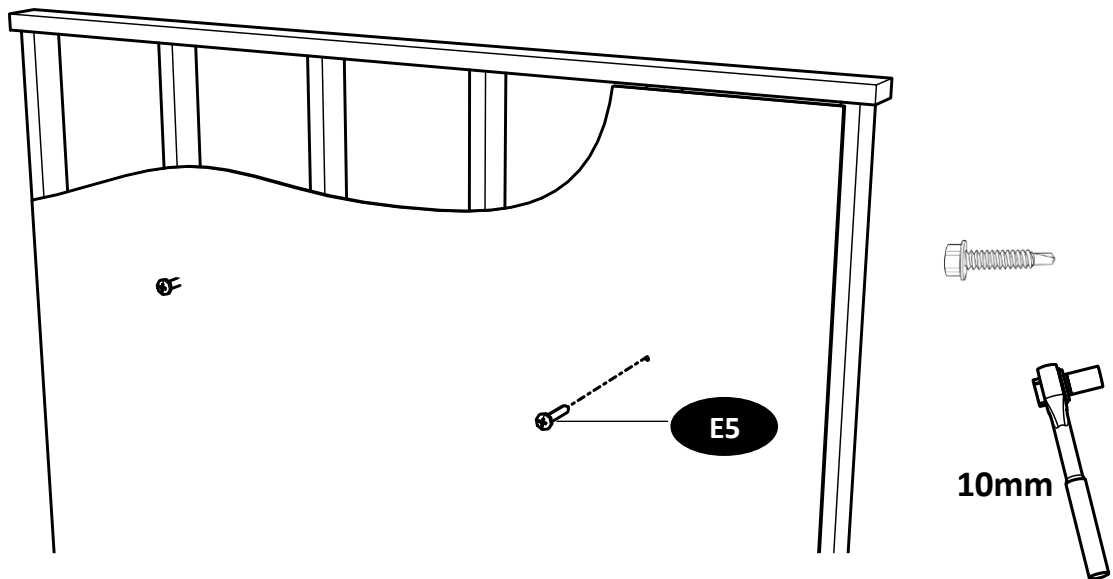- Place bubble level on Storm Shell Back, swing so the enclosure is level

## 2A-7  Mount Storm Shell Back

**Bubble Level**
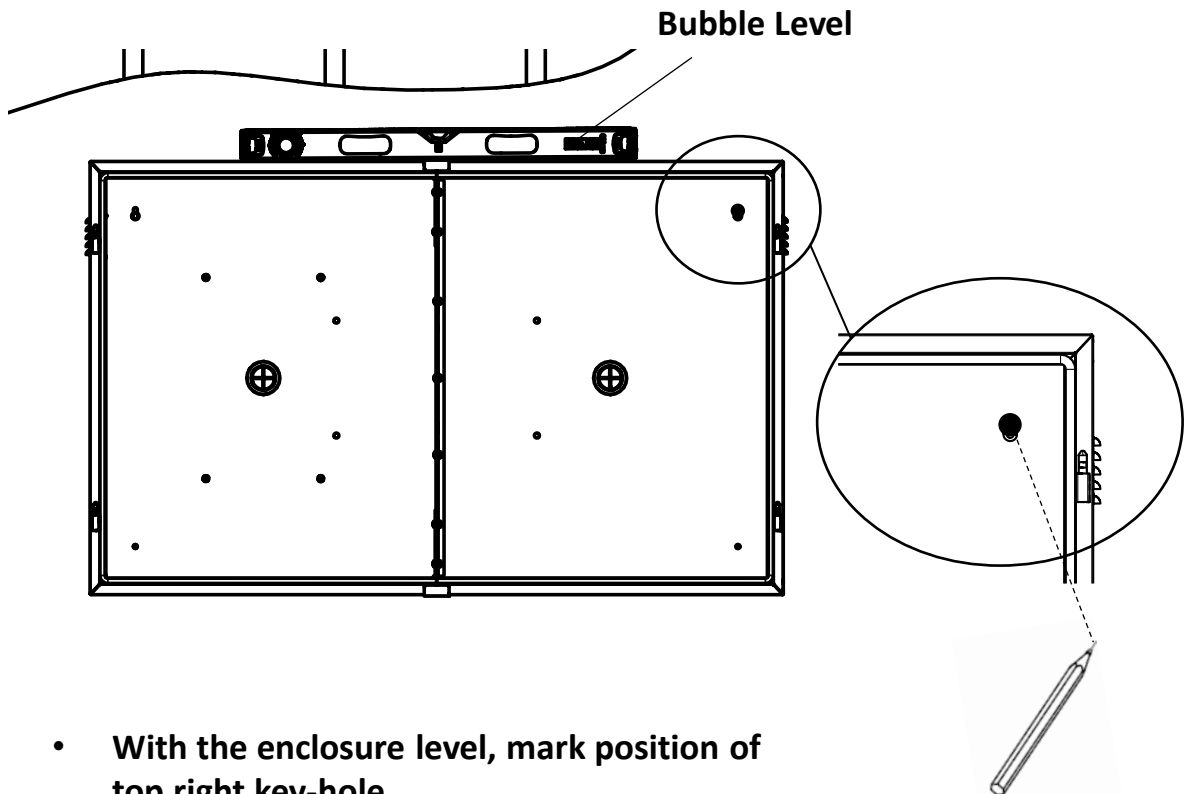
- With the enclosure level, mark position of top right key-hole

## 2A-8  Mount Storm Shell Back

1.5"

5/32"
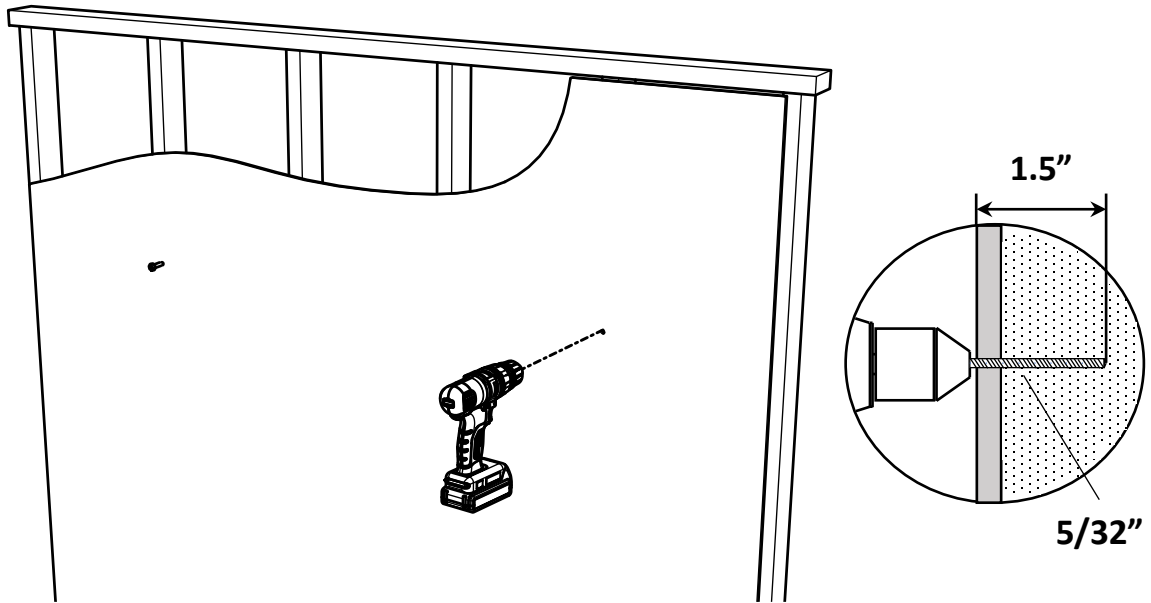
- **Remove Storm Shell Back and drill on top right mark with 5/32" wood drill bit 1.5" deep.**

## 2A-9  Mount Storm Shell Back

E5

10mm

- **Install E5 in top right location (leave small gap between screw head and wall) – use 10mm socket**

**2A-10 Mount Storm Shell Back**
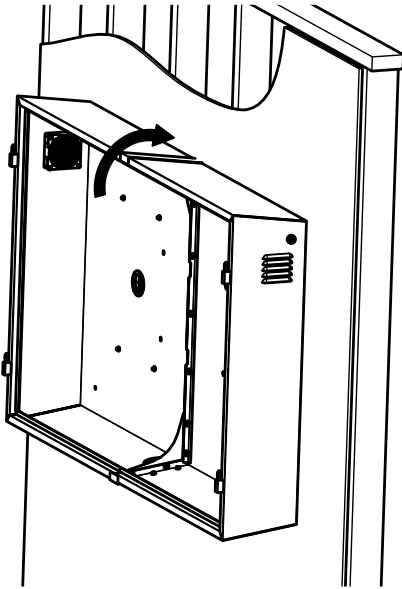
- **Hang Storm Shell Back on the two E5 screws previously mounted into the wall.**

**2A-11 Mount Storm Shell Back**

**2.5" for G5 bolt, 4" for J5 bolt**

**1/4"**

**1.5"**

**5/32"**
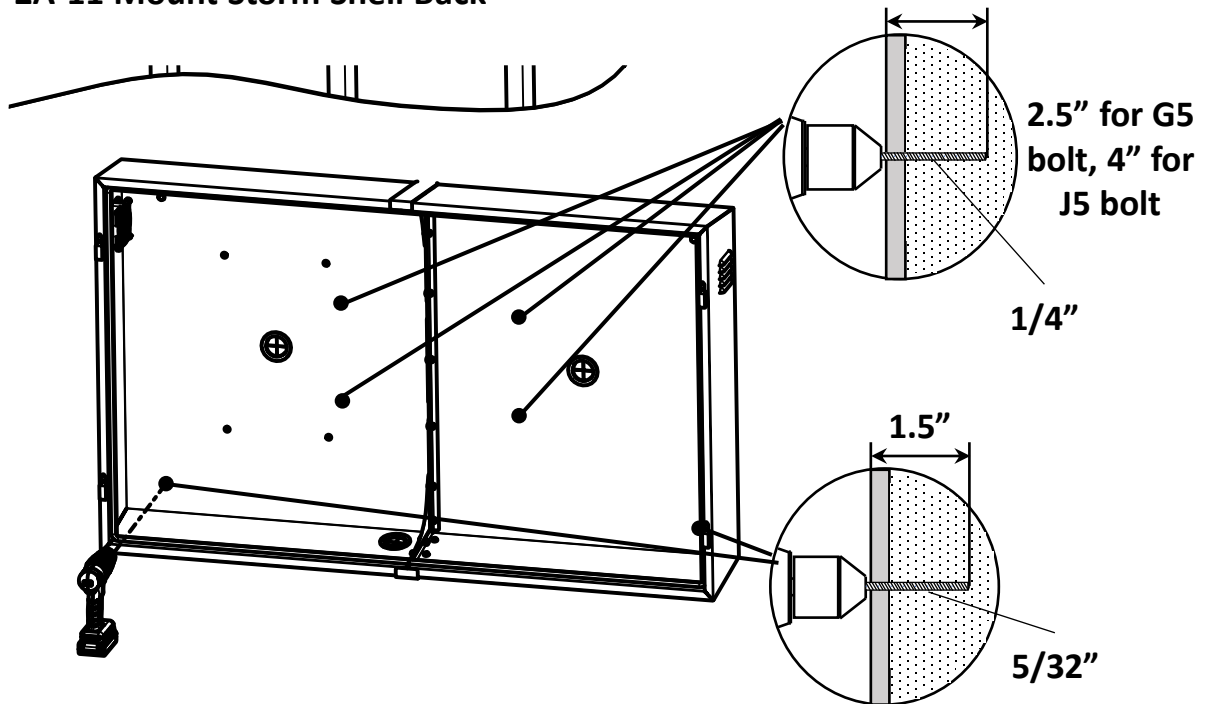
- **Drill through two lower holes with 5/32" wood drill bit, 1.5" deep.**
- **Drill through four TV Bracket holes with 1/4" wood drill bit. If installation is over drywall, drill 2.5" deep. If installation is over outdoor siding, drill 4" deep.**
- **Ensure all drill holes are on studs.**

## 2A-12  Mount Storm Shell Back

**10mm**

**F5**

**E5**

x2

**F5**
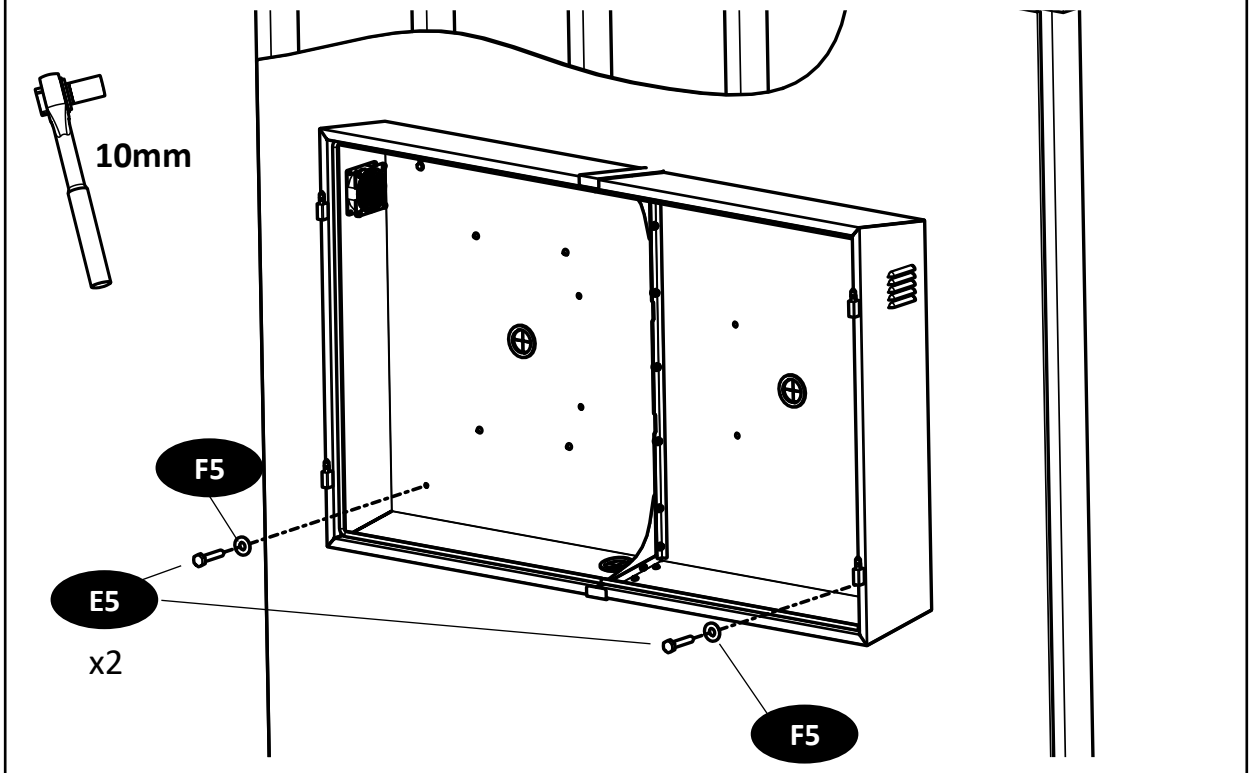
## 2A-13  Separate Vertical Brackets from TV Bracket
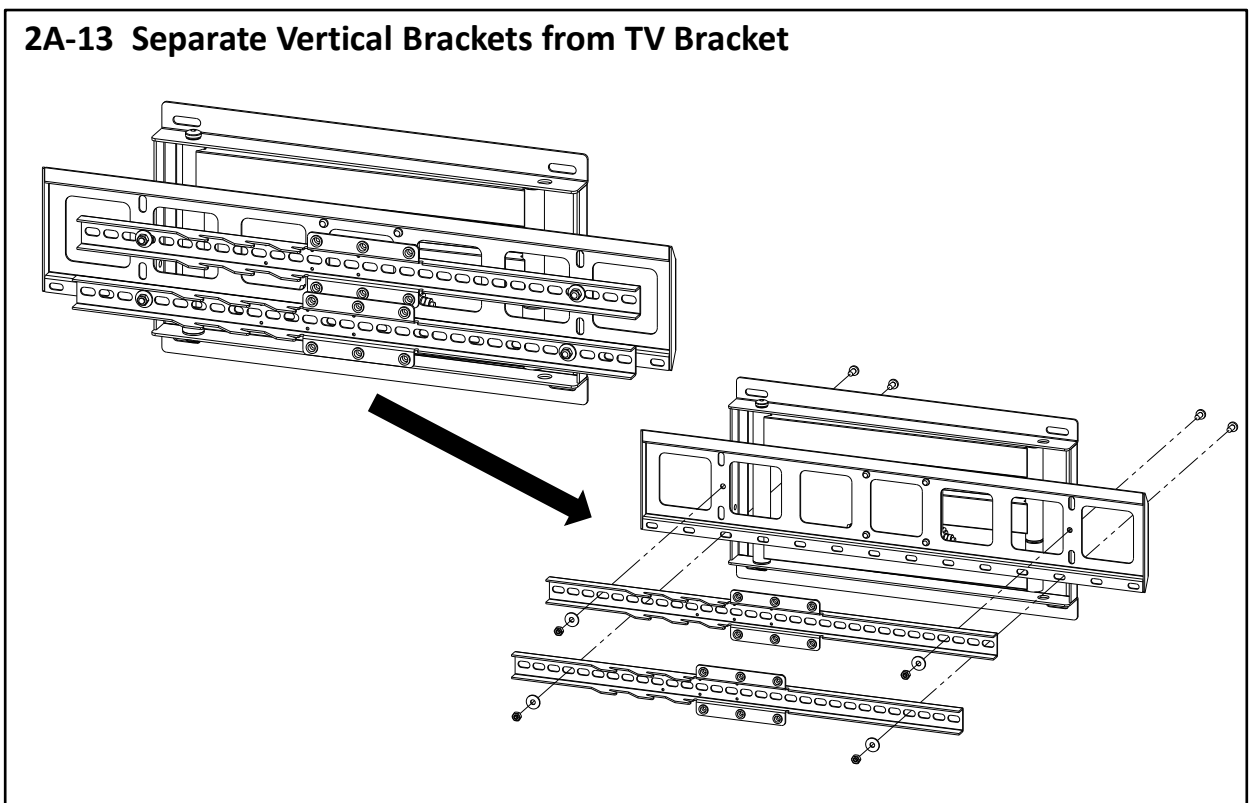
**2A-14  Mount Storm Shell Back**

G5 x 4

**or**

J5 x 4    H5 x 4

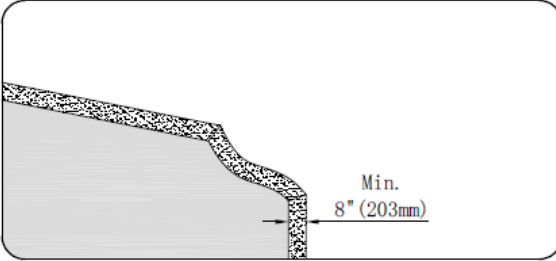**13mm**
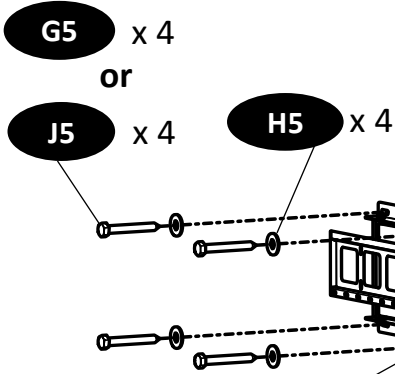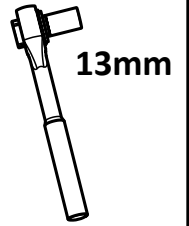
**TV Bracket**

⚠ **Note!**

**G5 or J5 Lag Bolts must penetrate wood studs at least 1.5 inches deep. If wall material (siding, stucco, brick veneer) is too think to allow this, longer lag bolts will be required.  8mm, 1/4", or 5/16" diameter lag bolts are adequate.**
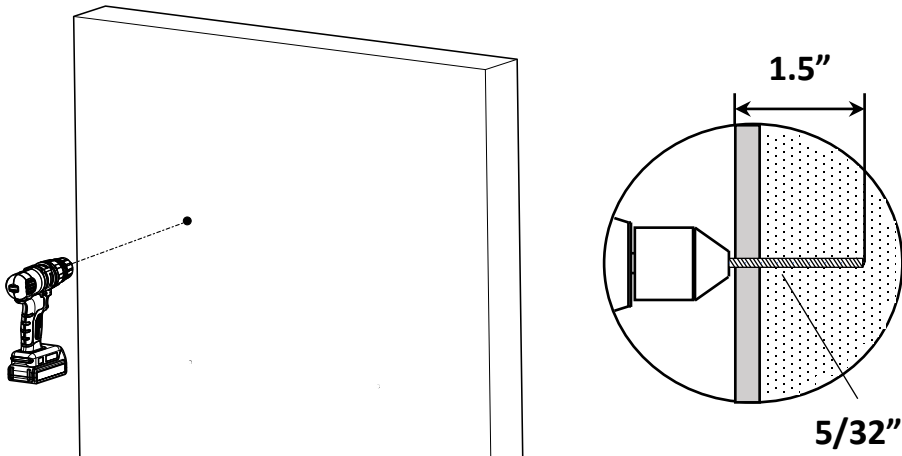
**2A-15**
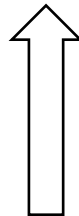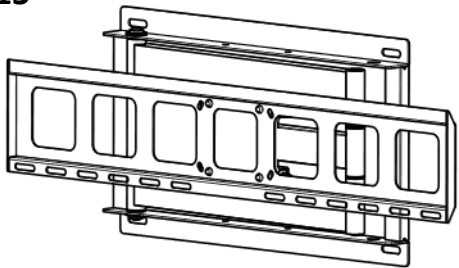
**TV Bracket – This way up**

# Step 2B – Concrete Wall Installation

Min.
8" (203mm)

⚠️

**CAUTION!**

**Be Aware of Electrical Conduit, Gas, or Water Pipes!**

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**2B-1**

1.5"

5/32"

- **Repeat Steps 2A-3 and 2A-4 except use a hammer drill in concrete. Use 5/32" concrete drill bit 1.5" deep.**

---

**2B-2**

- **Repeat Step 2A-5, 2A-6, 2A-7**
- **Repeat Steps 2A-8 except use a hammer drill in concrete. Use 5/32" concrete drill bit 1.5" deep.**
- **Repeat Step 2A-9**

## 2B-3 Mount Storm Shell Back

- **Hang Storm Shell Back on the two E5 screws previously mounted into the wall.**

## 2B-4 Mount Storm Shell Back

**2.5" for G5 bolt, 4" for J5 bolt**

**1/4"**

**1.5"**

**5/32"**
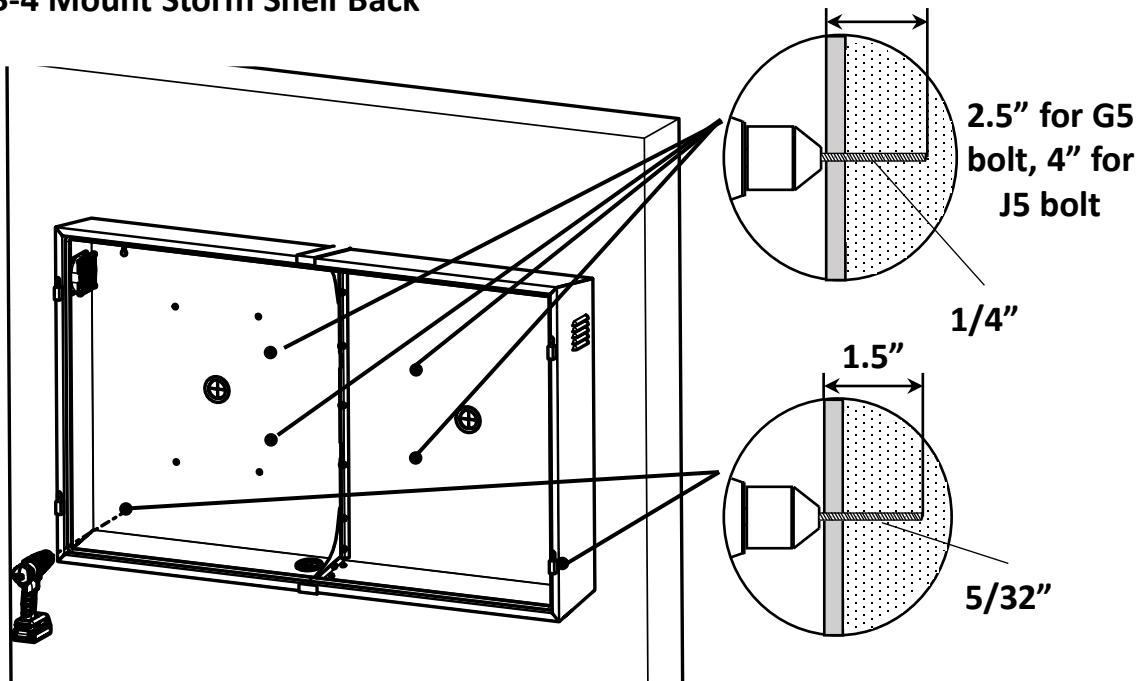
- **Drill on three perimeter marks with 5/32" concrete drill bit, 1.5 inches deep.**
- **Drill on four TV Bracket marks with 5/16" concrete drill bit, 3.0 inches deep.**
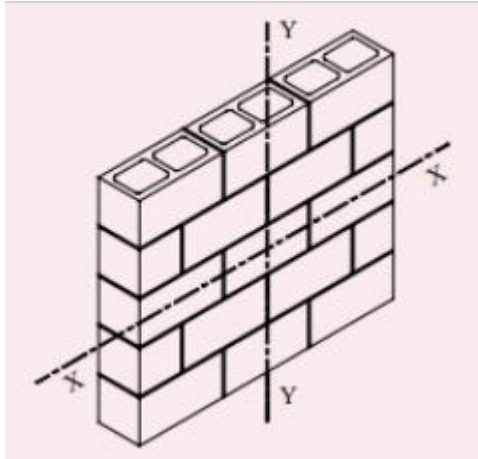
**2B-5**

- **Repeat Step 2A-14.**

**I5** x 4
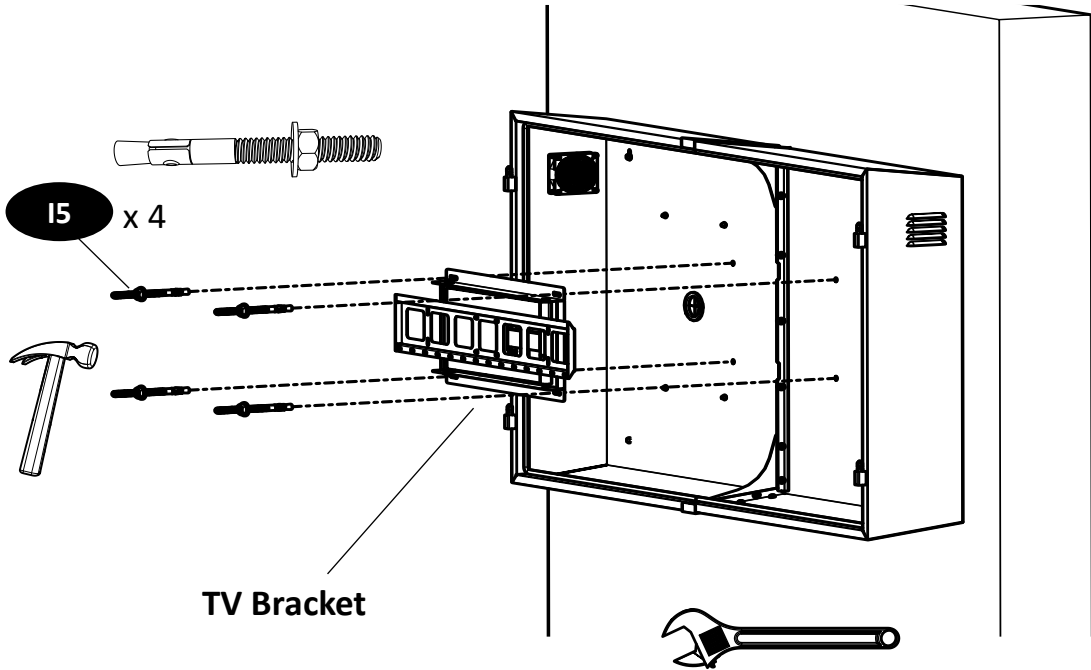
**TV Bracket**

- **Install TV Bracket with I5 bolts.  Tap-in I5 with hammer, then tighten nuts with crescent wrench**

Threads facing towards body
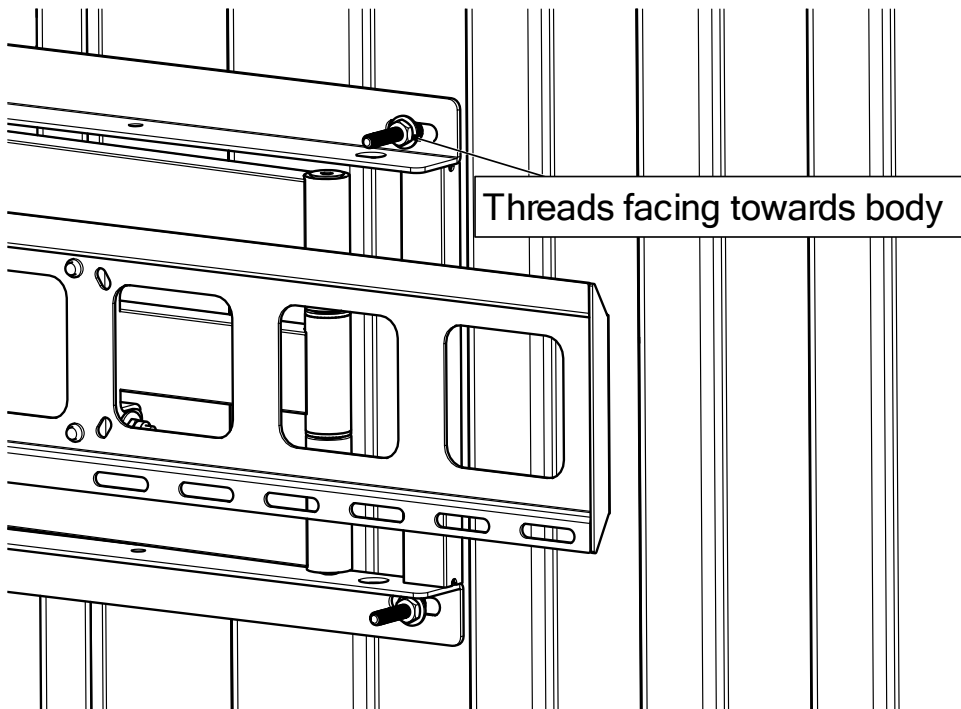
# Step 2C – Hollow Wall Installation

## 2C-1  C90 (Cinder Block) Wall, or Masonry Wall Less Than 8" Thick
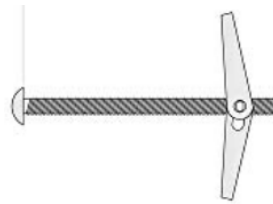
**Toggle Bolt**

**Strap Toggle Bolt**

- **If the C90 wall is filled with concrete, follow Step 2B**
- **If the C90 wall is hollow, follow Step 2B except use Toggle Bolts (1/4" or 5/16") in place of I5 to attach the TV Bracket.  Use four Toggle Bolts to attach the TV Bracket.**
- **Toggle Bolts or Strap Toggles are available at hardware stores or online.**

## 2C-2  Metal Stud Installation
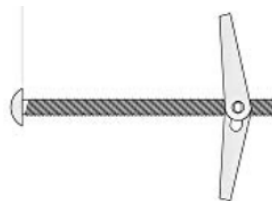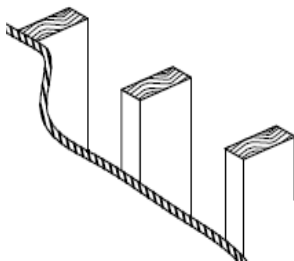
**Toggle Bolt**

**Strap Toggle Bolt**

- **Follow Step 2A except use Toggle Bolts (1/4" or 5/16") in place of G5 to attach the TV Bracket.  Use four Toggle Bolts to attach the TV Bracket.**
- **Toggle Bolts or Strap Toggles are available at hardware stores or online.**

# Step 3 – Test Storm Shell

## 3-1  Before hanging TV, conduct a "wall integrity test"
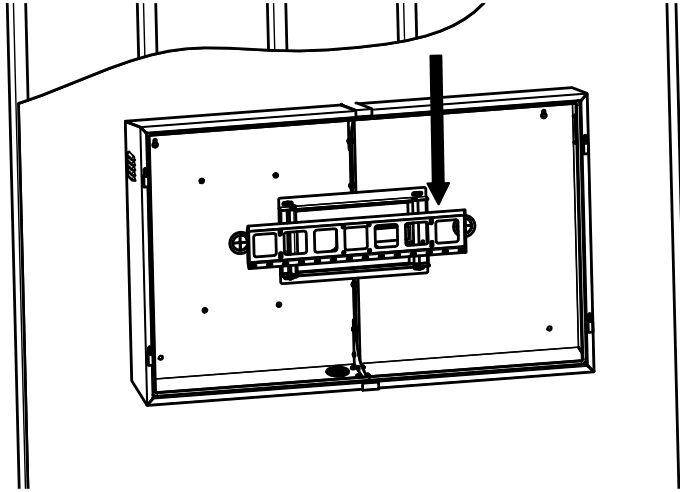


After mounting bracket is assembled, test bracket by putting downward
pressure on bracket (equivalent to TV weight) to ensure proper installation

## 3-2  Install Storm Shell Doors – check fit
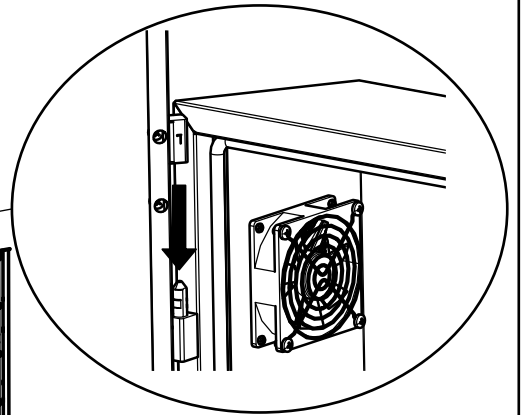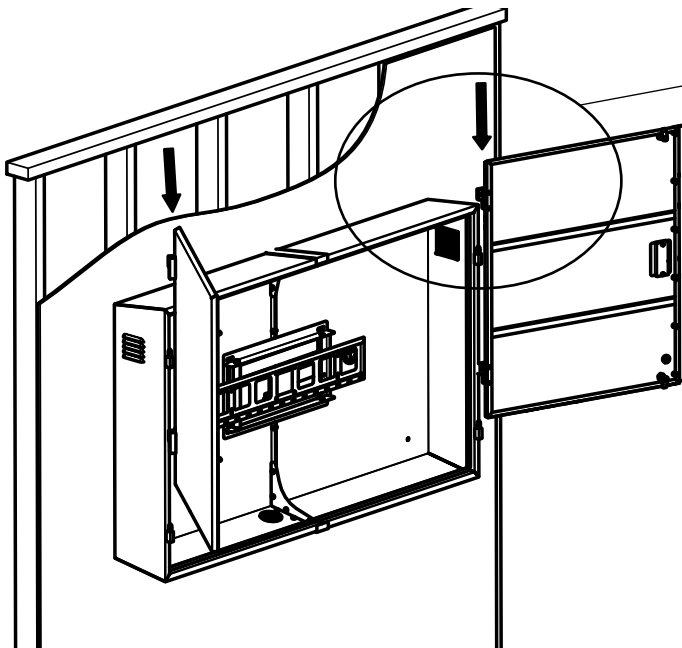
# Step 4 – Attach TV to Mounting Bracket
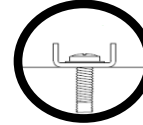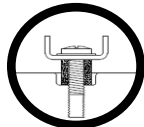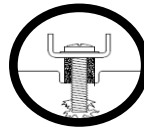
## 4-1  Select TV Screws
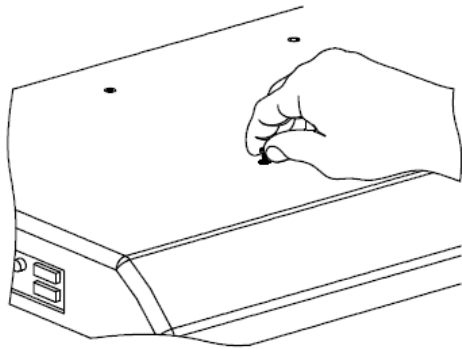
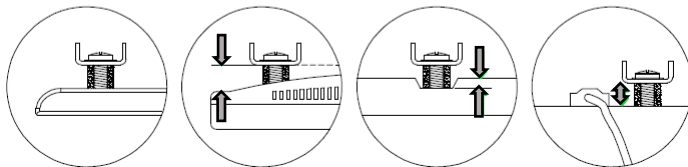| VI - V2 | V3 - V4 | V5 - V6 |
|---------|---------|---------|
| M4 | M6 | M8 |

No!

Yes!

No! too short

No! too long
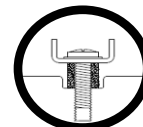
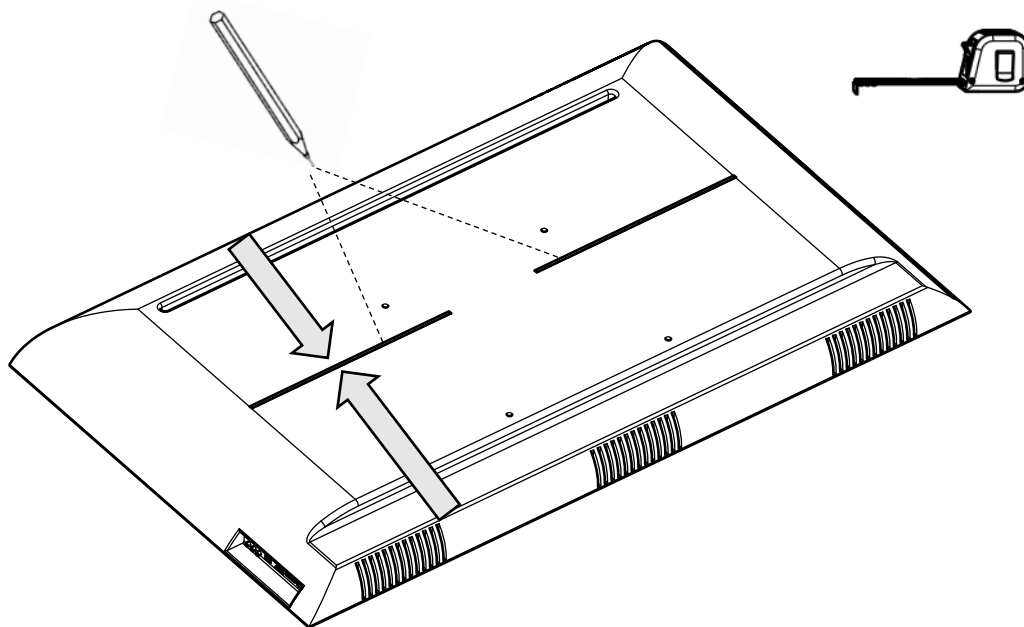Yes! (with **spacer**)

## 4-2  Determine if Spacers are Needed

Bracket    Short Screw    Washer

TV back

**No Spacer Needed**

Long Screw    Washer

Bracket    Spacer

TV back
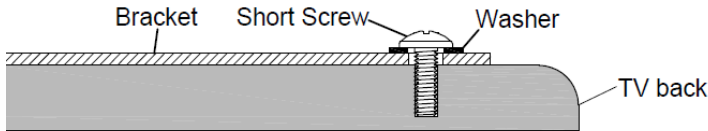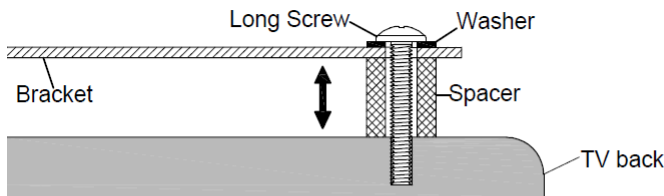
**Yes, Spacer Needed**

## 4-3  Measure & Mark Vertical Center of TV



## 4-4  Determine Placement of Vertical Brackets

**Hooks toward top
and facing out**
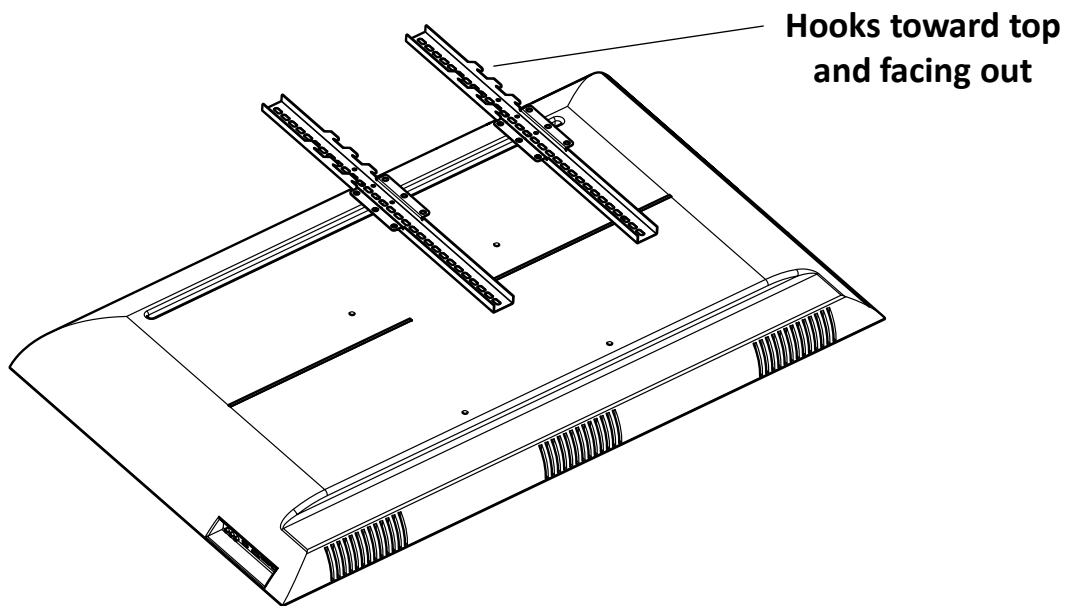


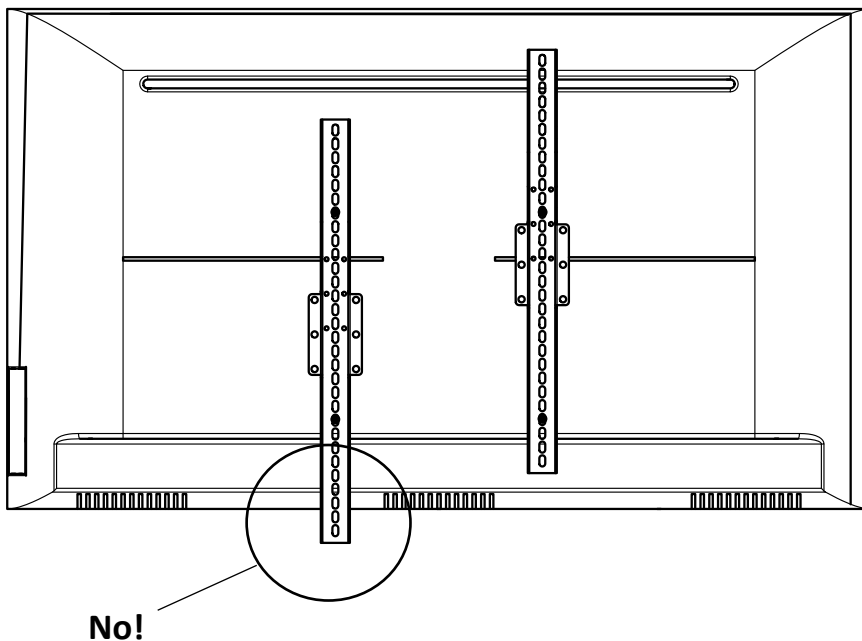**Place Vertical Brackets over VESA holes**

## 4-5  Determine Placement of Vertical Brackets

**Bracket Centering Marks**
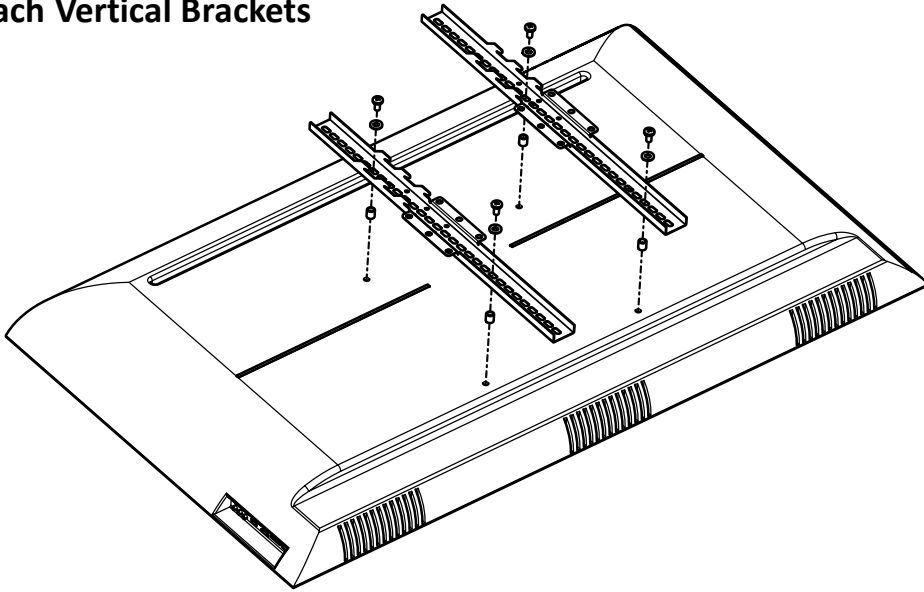
**VESA Holes**

**Vertical Center Mark**
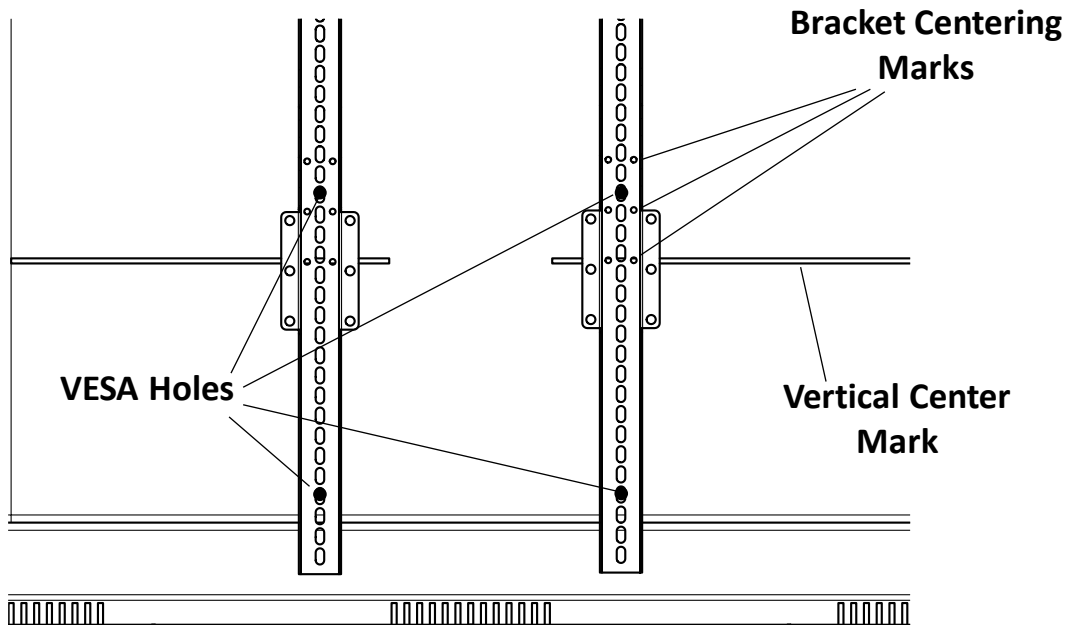
- **Place one of the "Bracket Centering Marks" over the Vertical Center Mark**
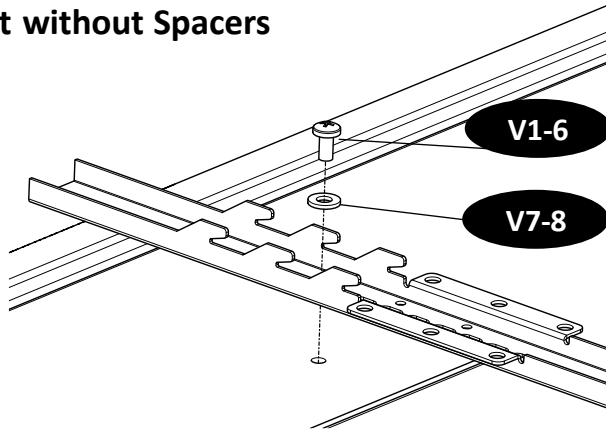- **Find a position where the bracket covers the VESA holes, but does not overhang the TV**
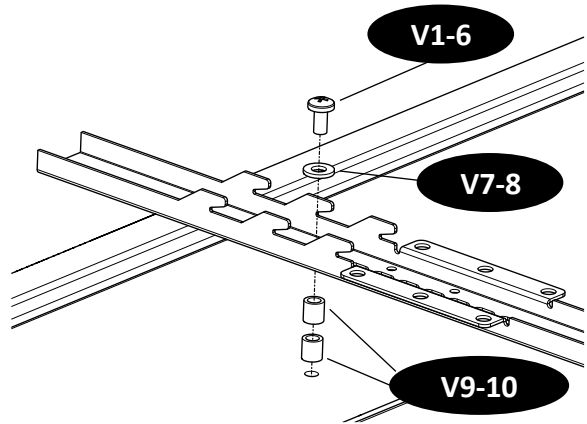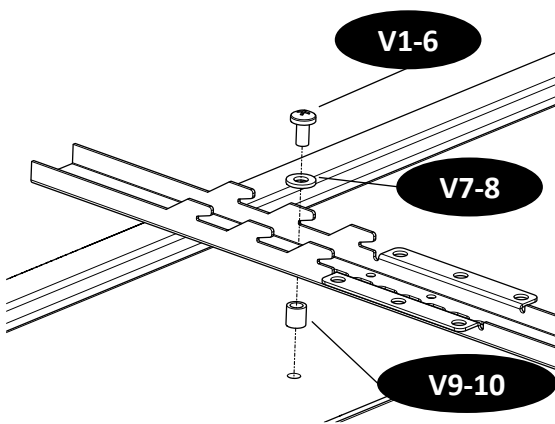
## 4-6  Determine Placement of Vertical Brackets

**No!**

## 4-7  Attach Vertical Brackets

## 4-8a  Attachment without Spacers

**V1-6**

**V7-8**

## 4-8b  Attachment with Spacers

**V1-6**

**V1-6**

**V7-8**

**V7-8**

**V9-10**

**V9-10**

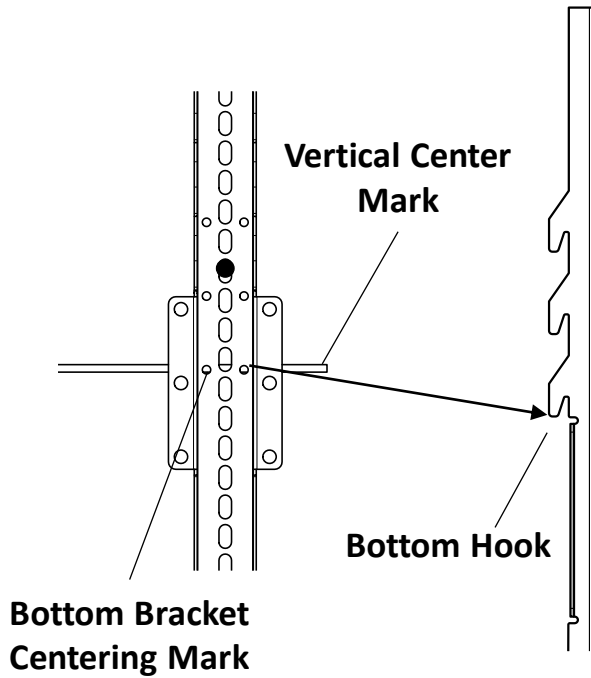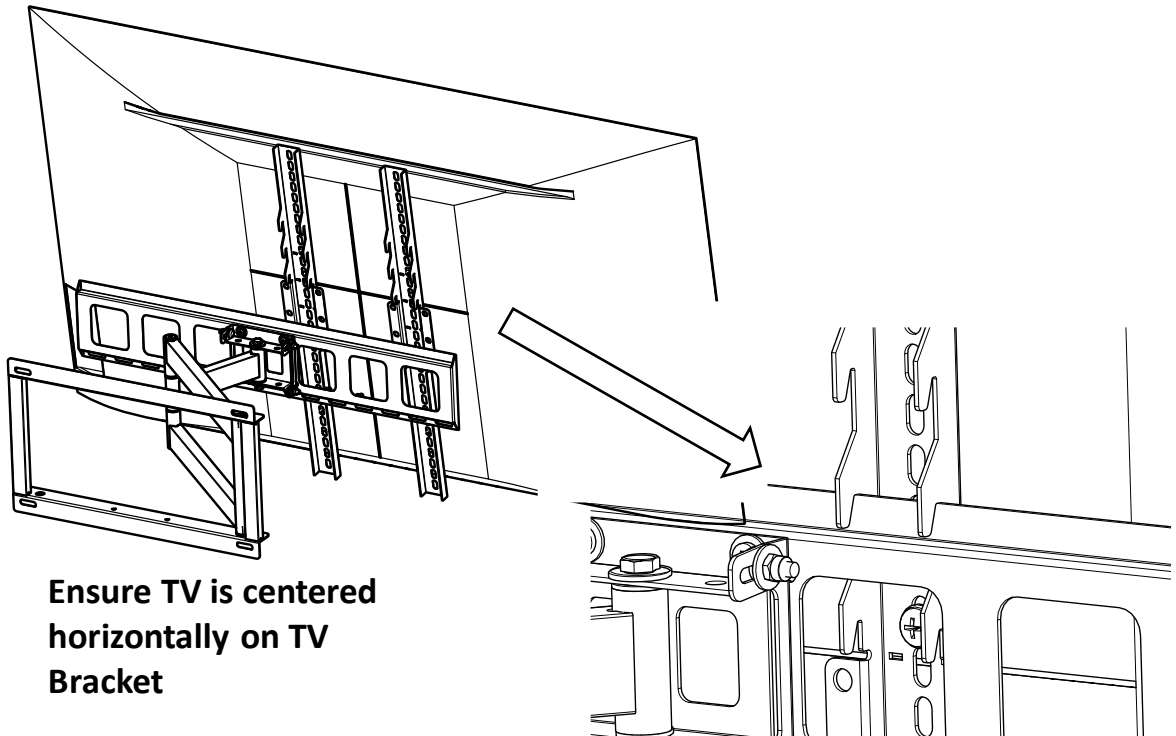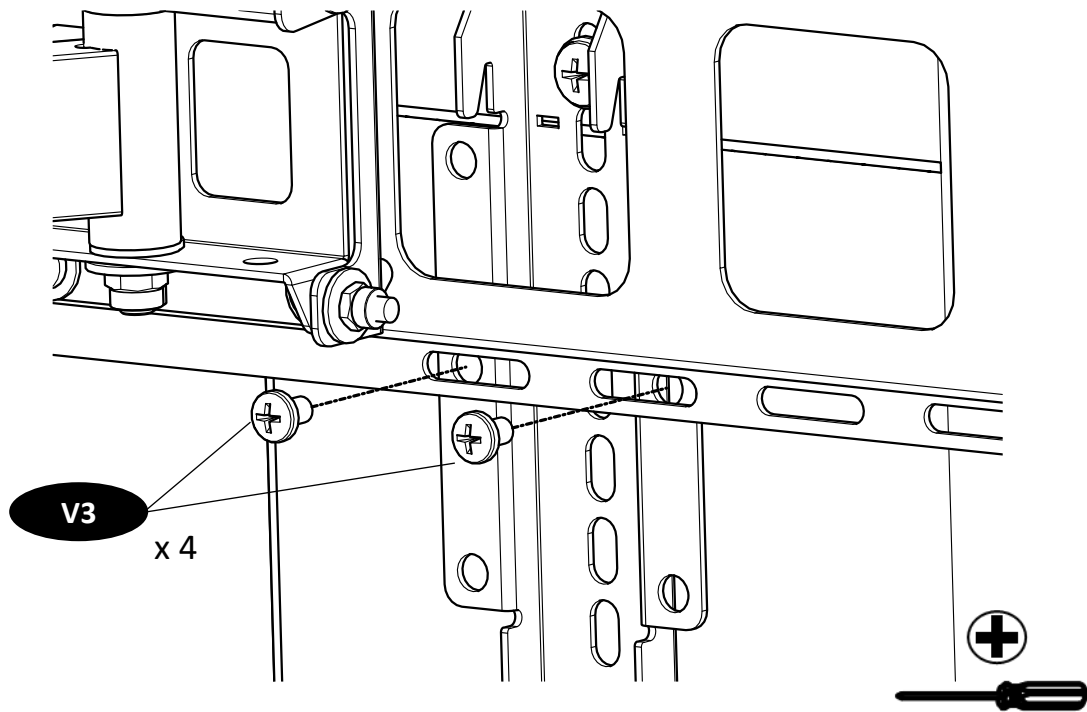## 4-9  Determine Which Hook Position to Use

- Determine which "Bracket Centering Mark" covers the Vertical Center Mark

- Use the top hook for the top centering mark, middle hook for the middle centering mark, etc.
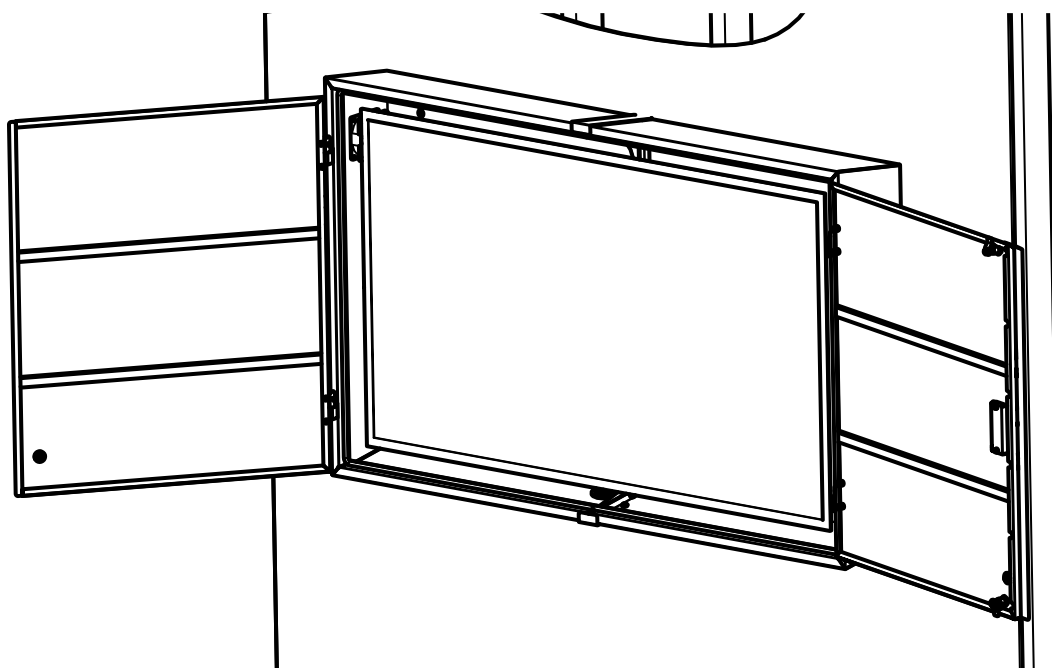
**Vertical Center Mark**

**Bottom Hook**

**Bottom Bracket Centering Mark**

## 4-10  Hang and Secure TV to Wall Plate

Ensure TV is centered horizontally on TV Bracket
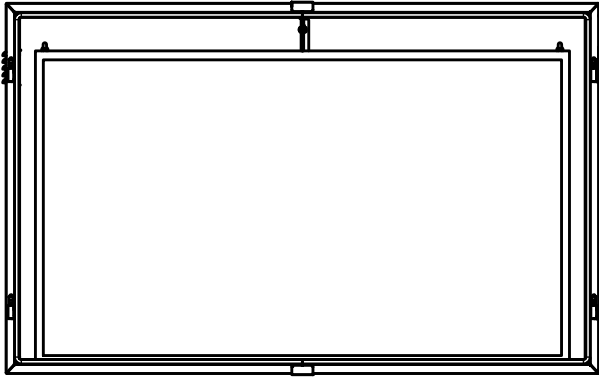
## 4-11  Attach Securing Screws
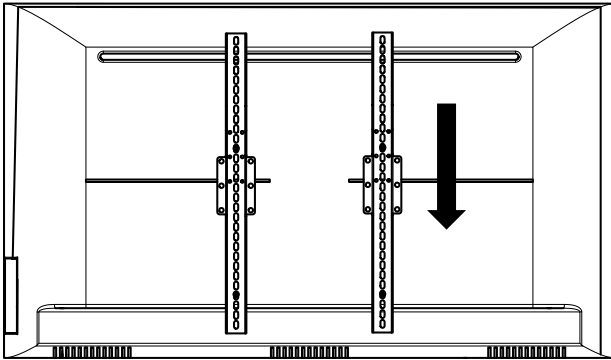
**V3**  x 4

## 4-12  Check TV Fit in Storm Shell

## 4-13 Adjust Vertical Bracket Position if Necessary
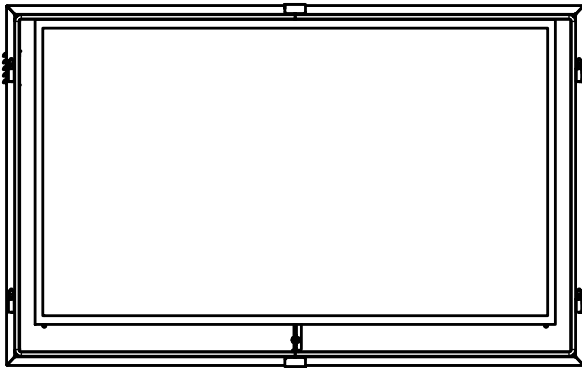


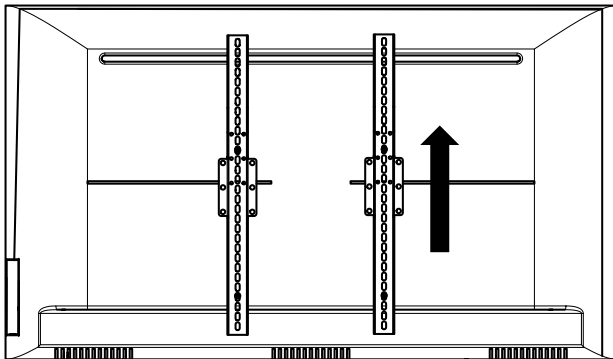- **If TV sits <u>low</u> in Storm Shell enclosure;**

- **Adjust vertical TV brackets <u>down</u> and re-hang.**
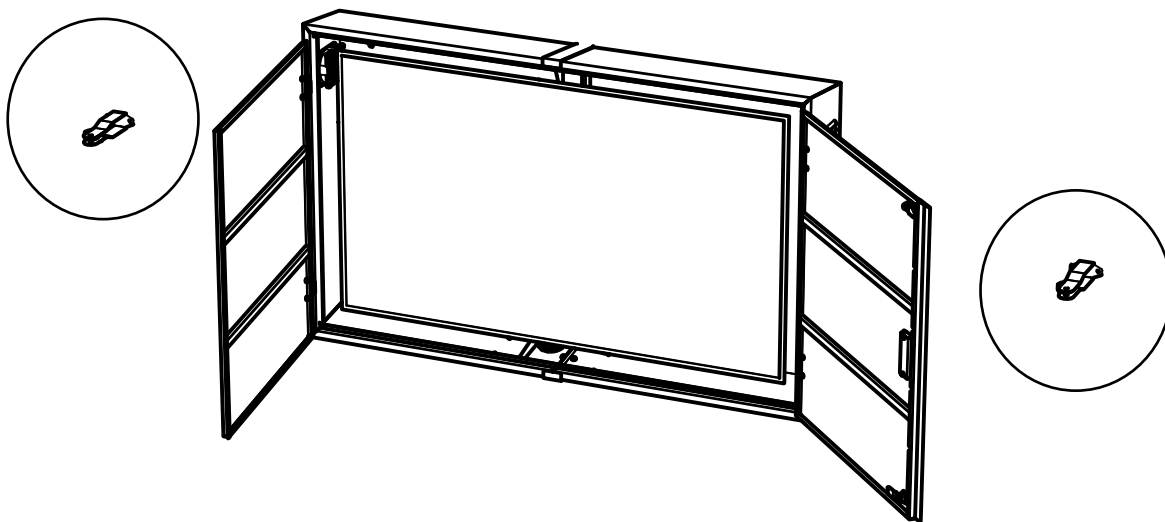
## 4-14 Adjust Vertical Bracket Position if Necessary
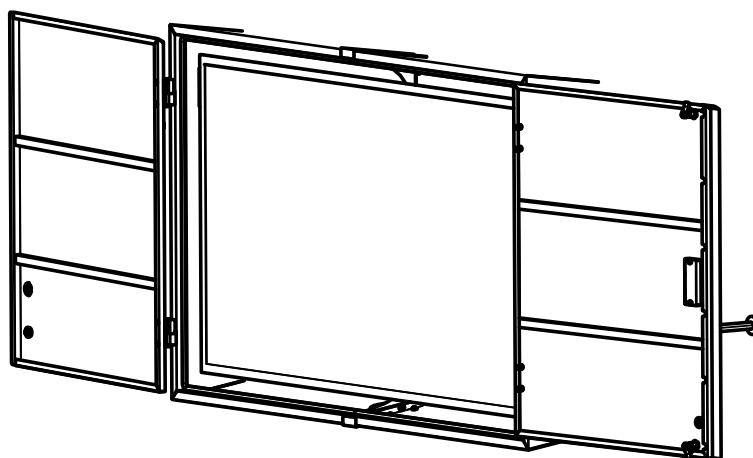


- **If TV sits <u>high</u> in Storm Shell enclosure;**

- **Adjust vertical TV brackets <u>up</u> and re-hang**

**4-15  Fasten Door Stay to Wall**



**4-16  Check Door Stay Magnet on Doors**



Door stay will hold door open while TV is in use