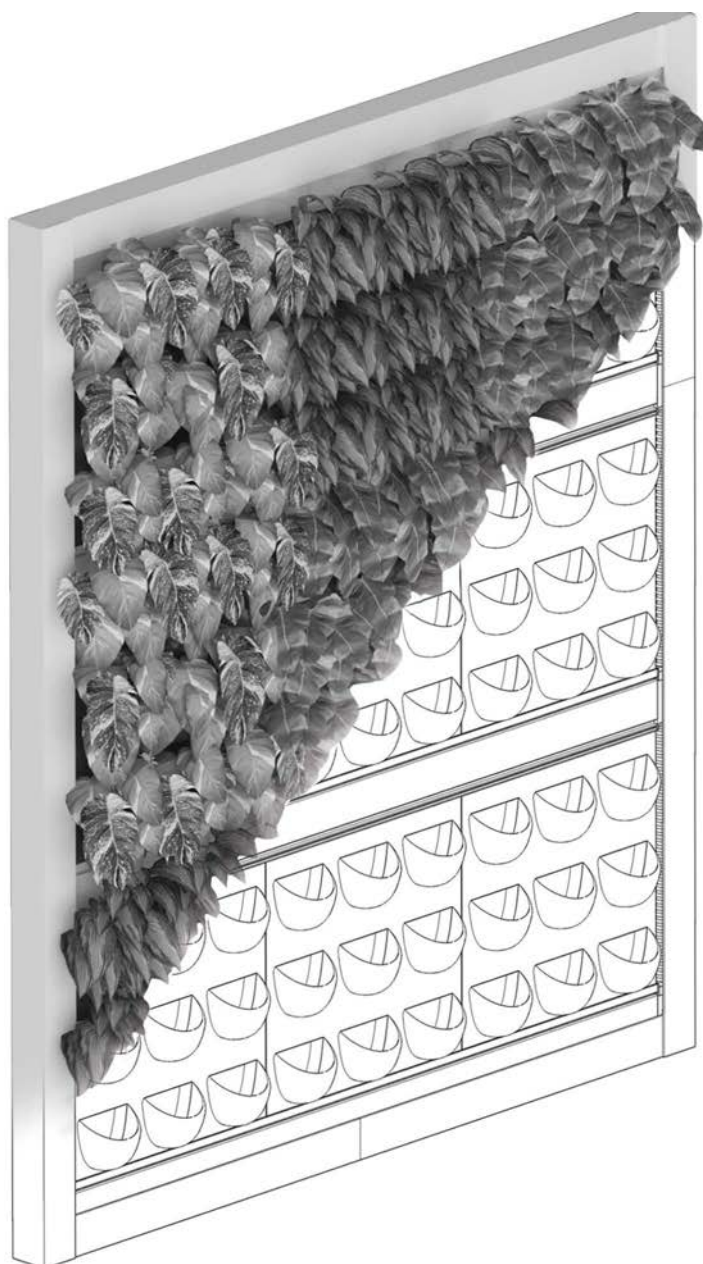


# LivePane Installation Guide



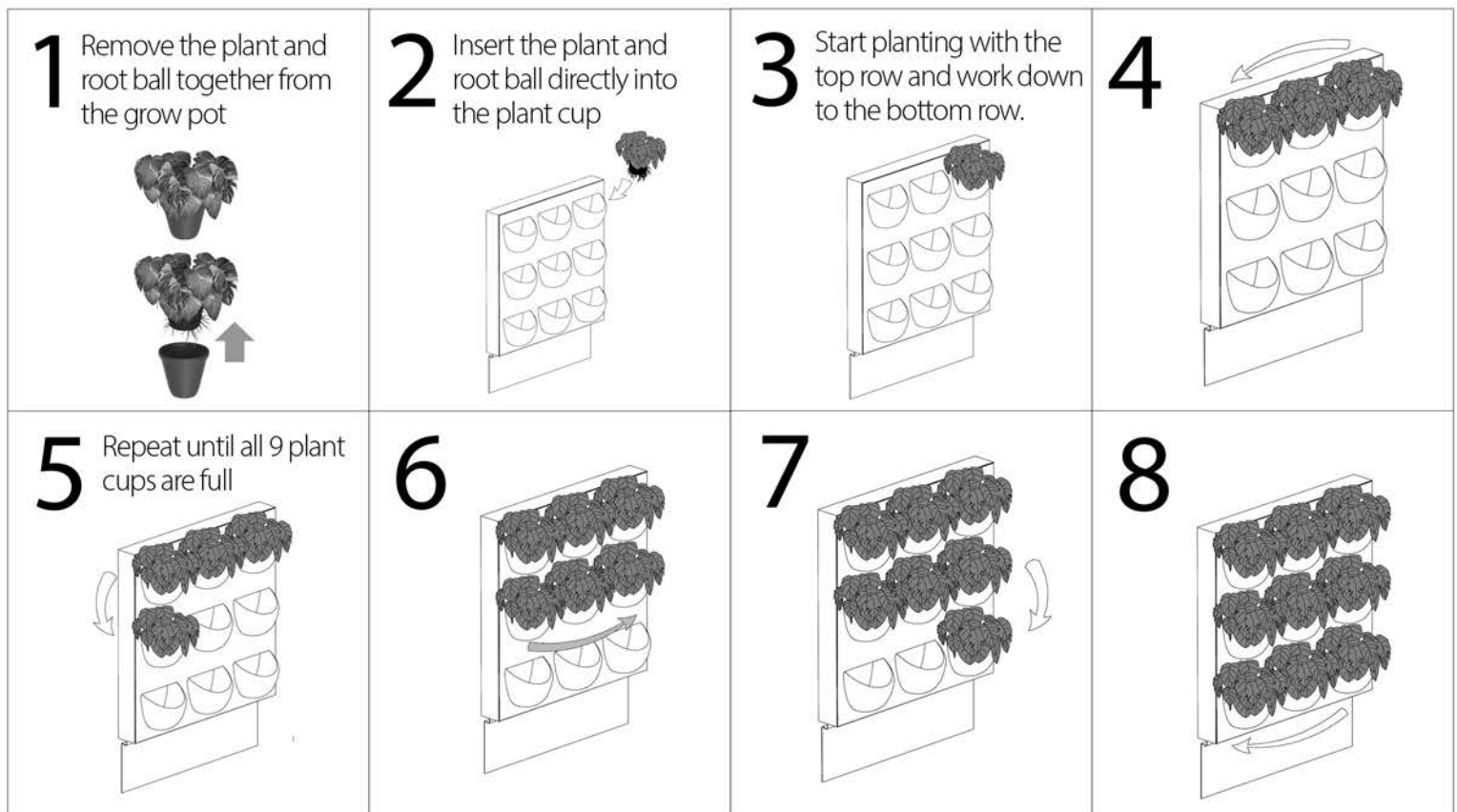
*Gardening On Walls*



Planting the Cassette:	Page 2
LivePanel Installation:	Pages 3-9
Indoor Frame Installation:	Pages 10-14
Exterior Frame Installation:	Pages 15-21
Watering:	Pages 22-24

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[www.gardeningonwalls.com](http://www.gardeningonwalls.com)

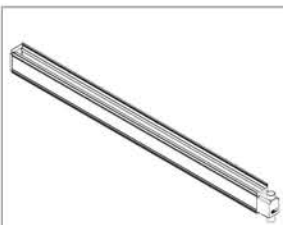
# Planting the Cassettes



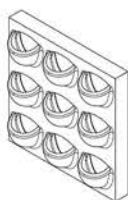
## Pro Tips

- **Start planting with the top row and work down to the bottom row** -- Do not start planting from the bottom row. If you do it this way any soil that shakes off when planting the top rows will fall on the plants in the bottom rows and get trapped in the leaves. This loose soil will fall out of the leaves over time and make a mess on the floor.
- **Get large & healthy 4" plants** -- A well placed call to your plant grower or broker can make your life a lot easier. Give them a call to ask which 4" plants have the most foliage, what's in season or which plants are most well developed before selecting a plant palette and creating a pattern.
- **The right plant in the right place** -- Consider which plants work best plants for each position in the cassette and for that cassette's position within the living wall. Plants that grow "up" are good for the top row since they'll grow up and cover the gutter above the cassette. Plants that "spill" are good for the bottom row since they'll spill over and cover the gutter below. Plants that grow "out" and get big are good for the middle row. Of course this is just a rule of thumb and sometimes the larger pattern of plants in the living wall will dictate which plants will be in the cassette.
- **No soil mess** -- Once you have the plant in the cassette, try to push the crown of the soil down so that it's in line or below the edge of the plant cup. If the soil is bulging out over the top edge of the cup it could eventually fall off and onto the floor.
- **Keep two un-planted** -- If possible, keep two cassettes un-planted. These will be useful for installing the LivePanel gutters. Bring the plants with you and plant these last two cassettes on site.

# Parts list for LivePanel Installation



Gutters



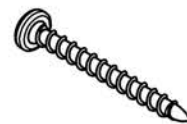
Whole Cassettes



Partial Cassettes



Cassette Clip



Screw



Anchor



Hose



Hose Clamps

# Tools needed for LivePanel installation



Measuring Tape



Level



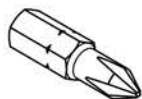
Pencil



Electric Drill



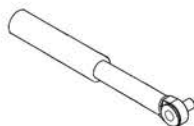
Drill bit (5/16")



Phillips bit



Flathead screwdriver



Socket wrench



7 mm socket



Vacuum



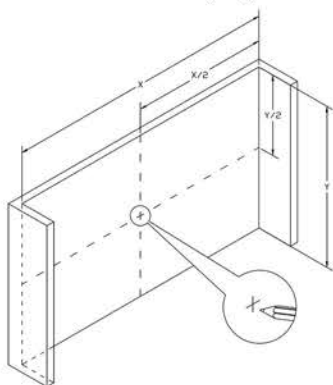
## Pro Tips

- **Long level** -- The longer the level you have, the better. We usually recommend a 4' long level. The longer the level is the more accurate you can be. The only caveat is that the level must be shorter than the gutter you're installing, so if you're installing a very short gutter then you will need a smaller level.

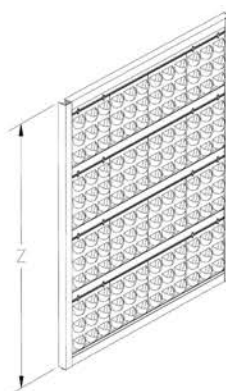
# Installation - Finding and marking your starting points

- 1**
  - **Mark the center bottom edge of your LivePanel wall** -- Assuming you want to center the LivePanel wall on the underlying wall, first measure the underlying wall's width and height to find and mark the center point. Consult your packing list or shop drawing to find the total height of your LivePanel wall. Take half the height of your LivePanel wall and measure that distance straight down from the wall's center point to mark the midpoint of the bottom edge of your LivePanel wall.
  - **Mark the center point of your gutter** - Measure only the aluminum portion of the gutter (DO NOT measure length including end caps) of the gutter to mark the center of your gutter.

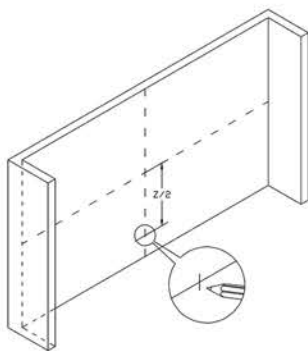
## A Find the center of underlying wall



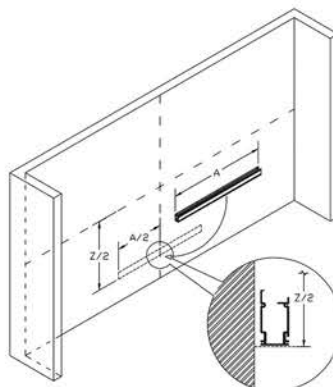
## B Calculate the height of living wall



## C Take half of total living wall height and measure it straight down from the wall's center point



## D Mark the center point of the bottom gutter



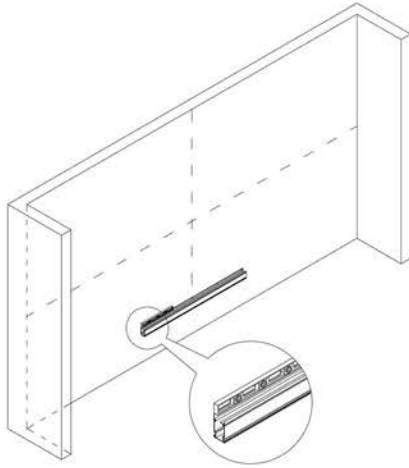
## Pro Tips

- **Be extra careful with tight locations** -- If you're installing in a recessed area or another tight location, be extra careful to measure properly and position your LivePanel wall properly
- **Height can vary slightly** -- There can be small deviations in the LivePanel wall's height from the stated height on your packing list or shop drawing. This variation is usually within +/- 1/16" per gutter. Leave yourself some room at the top of the wall in order to account for any potential variation (i.e. don't plan to go right up to the ceiling - leave yourself an inch or two of safety margin). This is especially important for walls with rows of partial height cassettes.

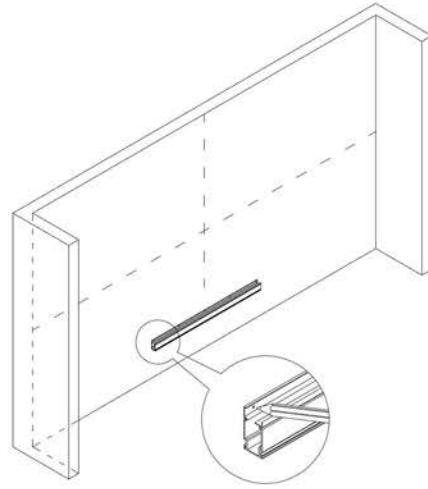
# Installation - Installing the bottom gutter

## 2

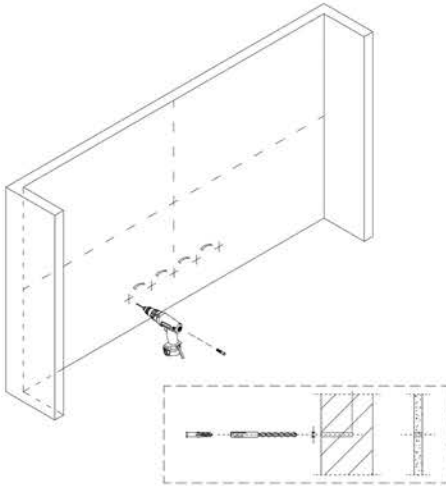
**A** Place the bottom gutter so it levels horizontally



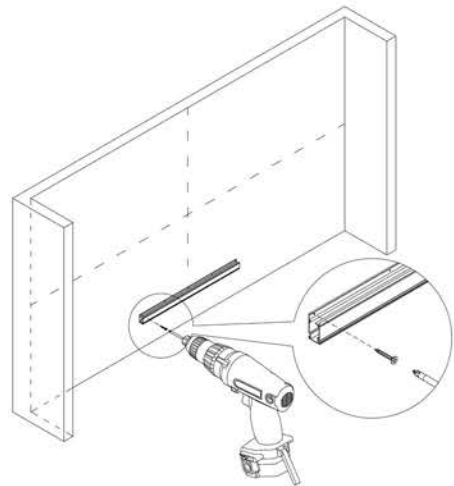
**B** Mark the drill point



**C** Drill the required holes and insert anchors



**D** Screw the bottom gutter into place



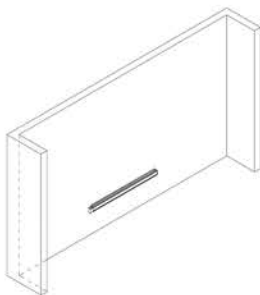
## Pro Tips

- **Keep it level** -- Keep the level on the gutter while you're securing it onto the wall. There is some leeway with the screws and anchors so it's important to keep everything level. Start with the middle screw since the gutter can pivot on this screw to find the level position. Continue fastening the remaining screws while making sure to keep the gutter level.
- **Most important step** -- The first gutter is the most important one. This gutter **MUST** be level since each the successive gutter builds on this one. Your job will be very difficult if this first gutter is out of level.

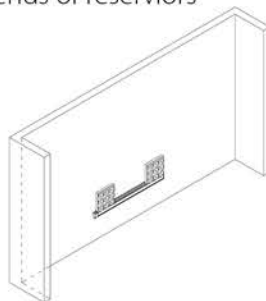
# Installation - Using cassettes to install the next gutter

## 3

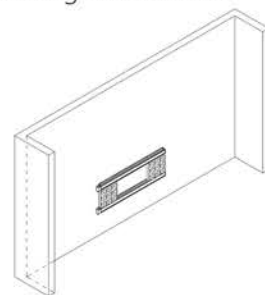
**A** Install bottom reservoir



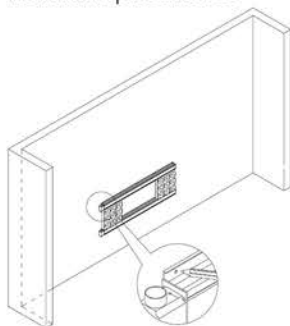
**B** Place empty cassettes on both ends of reservoir



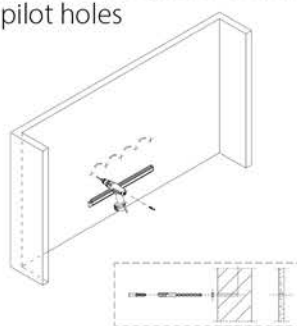
**C** Place gutter so that it is resting on cassettes



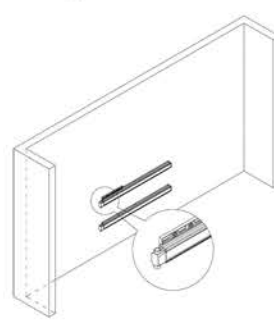
**D** Mark the pilot holes



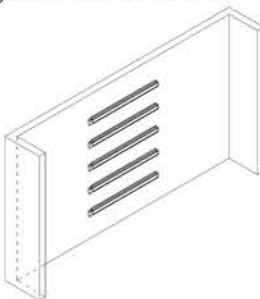
**E** Remove the gutter and drill pilot holes



**F** Install gutter and check level



**G** Continue process until all gutters are installed



## Pro Tips

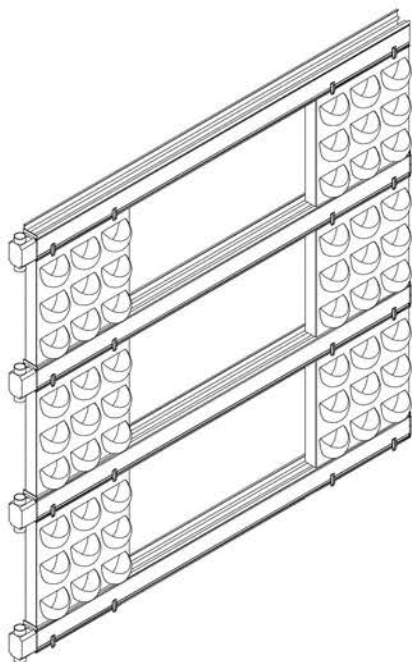
- **Dust & debris** -- When drilling each successive gutter, use something to cover up the gutter below so that the dust and debris doesn't fall into that gutter. You can use an empty cassette, a piece of cardboard or anything else that does the job.
- **Partial height cassettes** -- If you have a row of partial height cassettes, make sure to leave some extra spacing. The whole cassettes have a small ridge on the top that creates the extra space needed to easily get them in/out between rows of gutters. The tops of the partial cassettes are cut flat, so you need to leave some extra spacing in order to allow room to get them in/out of the wall. In addition, the partial cassettes can vary slightly in size, so you want to leave enough room to accommodate any potentially larger cassettes. You want to leave about 1/8" of extra space so you can use something like a Bic Pen on top of the partial cassettes to give yourself the proper spacing.



# Installation - Attaching and clamping the flexible hoses

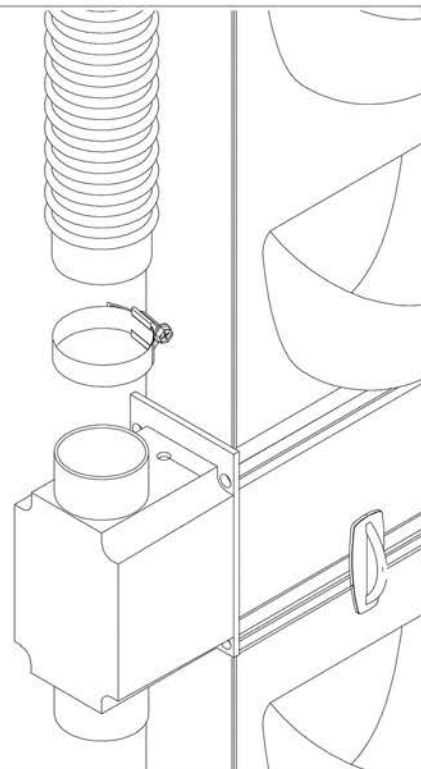
- 4**
- Attach flexible hoses between gutters and tighten hose clamps using flathead screwdriver or 1/4" socket. Start with the bottom of each hose. Make sure hose clamps are in the proper position
  - Hose clamp screws should be positioned on the inside so that the screw is in between the hose and the cassette

**A**



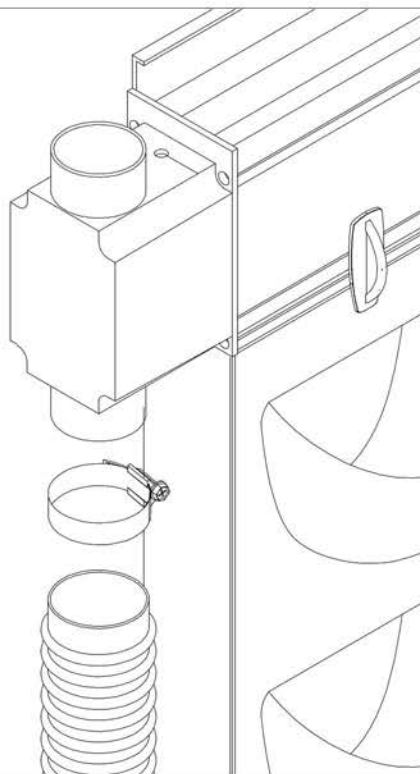
**B**

Install bottom  
of hose first



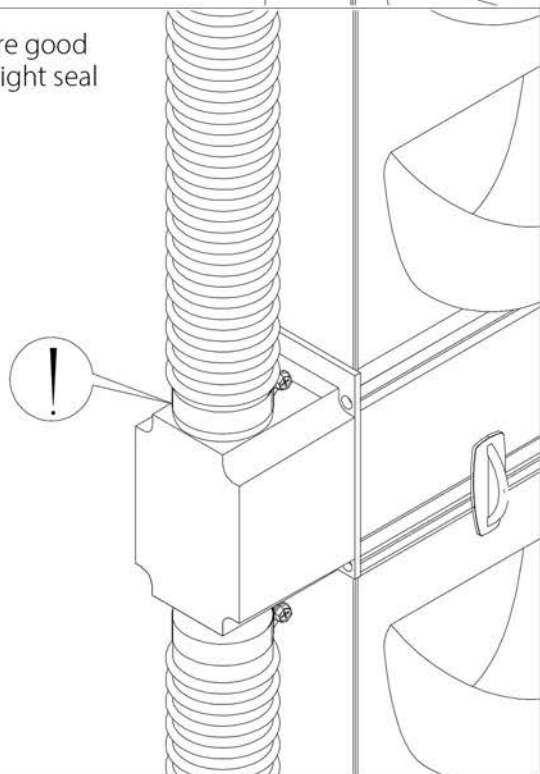
**C**

Install top  
of hose

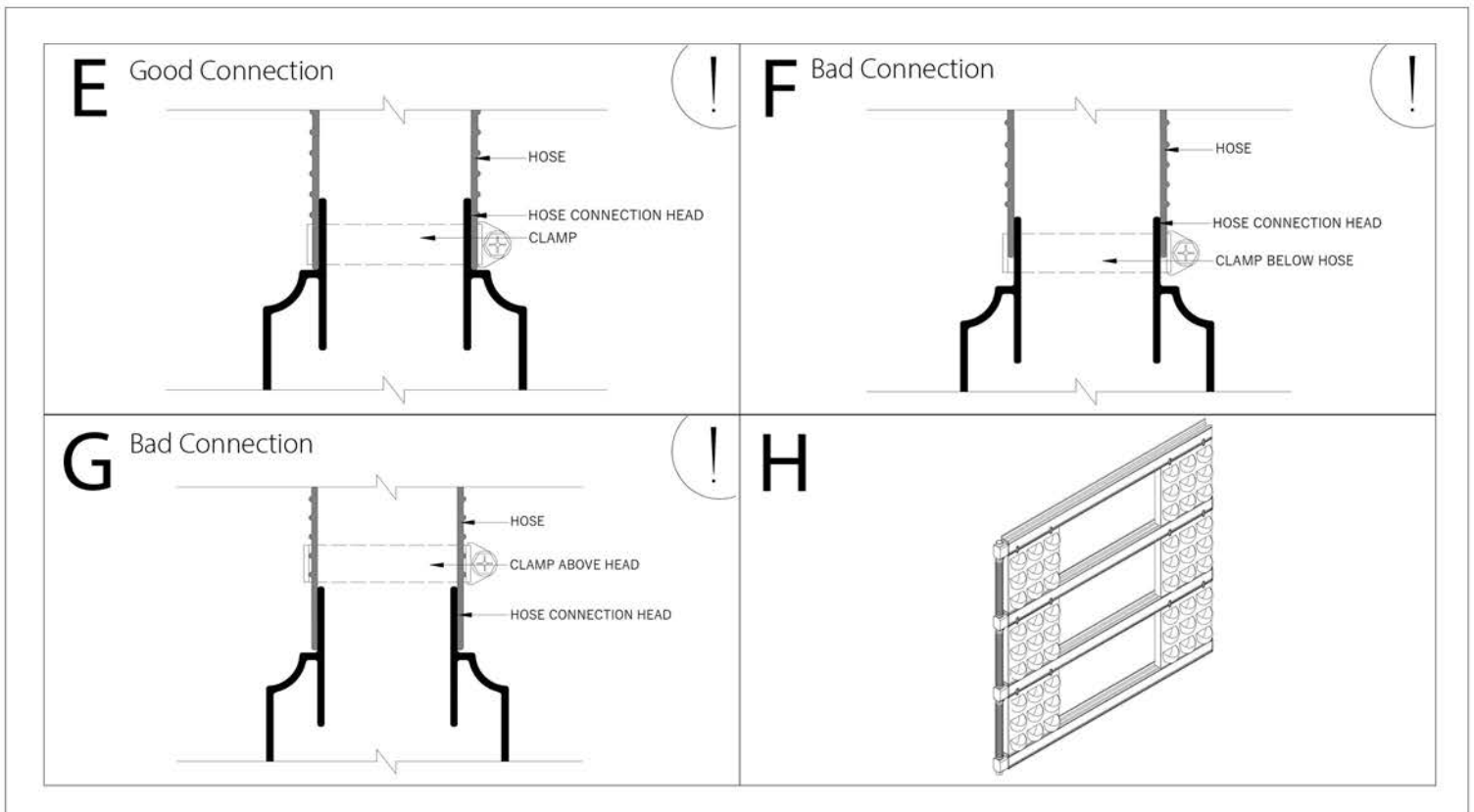


**D**

Ensure good  
and tight seal



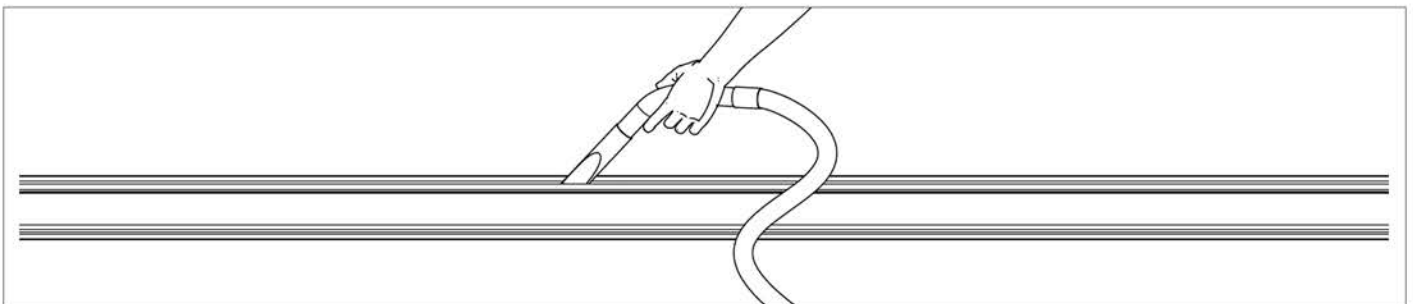
# Installation - Checking for proper clamp position



## Pro Tips

- **Leak prevention** -- Give extra attention to the bottom of each hose. The water flows down the hose and the seal on the bottom must be tight in order to prevent leaks. Make sure the bottom of the hose is fully on first before worrying about the top. Make sure the hose clamp is very tight.
- **Getting the hoses on the end caps** -- Wet the inside edges of the hoses so that they slip on to the hose end caps easier. Twist the hoses while pushing them onto the hose end cap to ensure they get all the way on.

## 5 • Vacuum out any remaining debris from the gutters

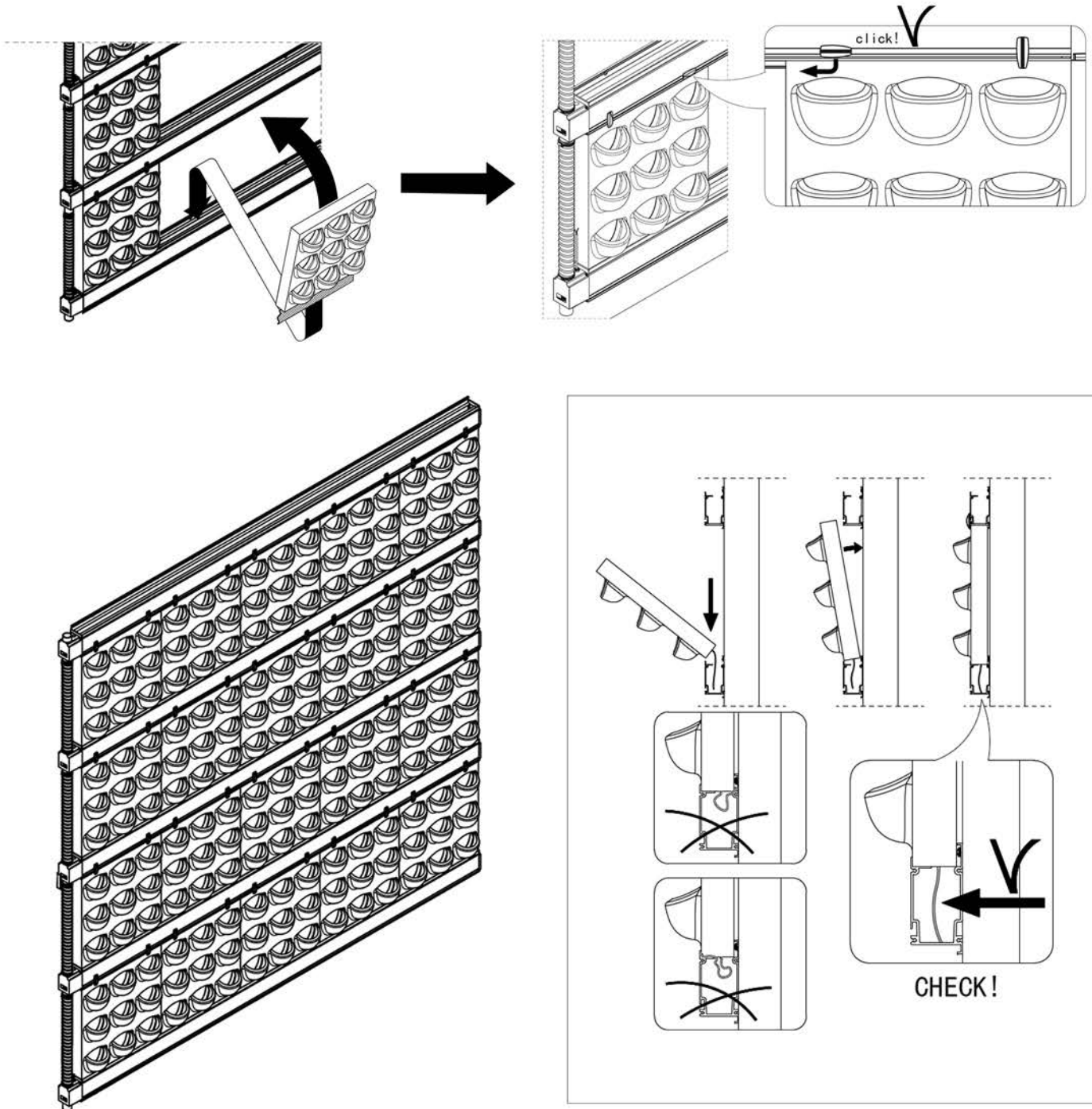




# Installation - Inserting and securing the plant cassettes

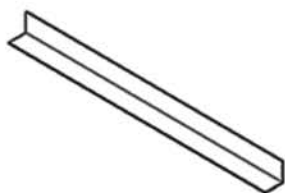
6

- Insert remaining plant cassettes and secure into place using cassette clips. Insert the clips into the channel on the gutter with the tip facing to the right and then turn clockwise to lock into place.
- Indoor installation will have one clip per cassette but outdoor installation will have two clips per cassette.
- Make sure that wick is properly in the gutter

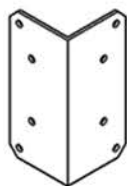


\*Installation shown without plants in cassettes. Cassettes can be pre-planted or planted on site

## Parts list needed for indoor frame installation



4' lengths



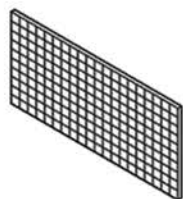
L-shaped brackets



Screws



Anchors



Mated 3M Strips

## Tools needed for indoor frame installation



Measuring Tape



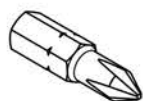
Pencil



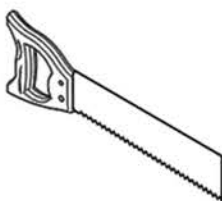
Electric Drill



Drill bit (5/16")



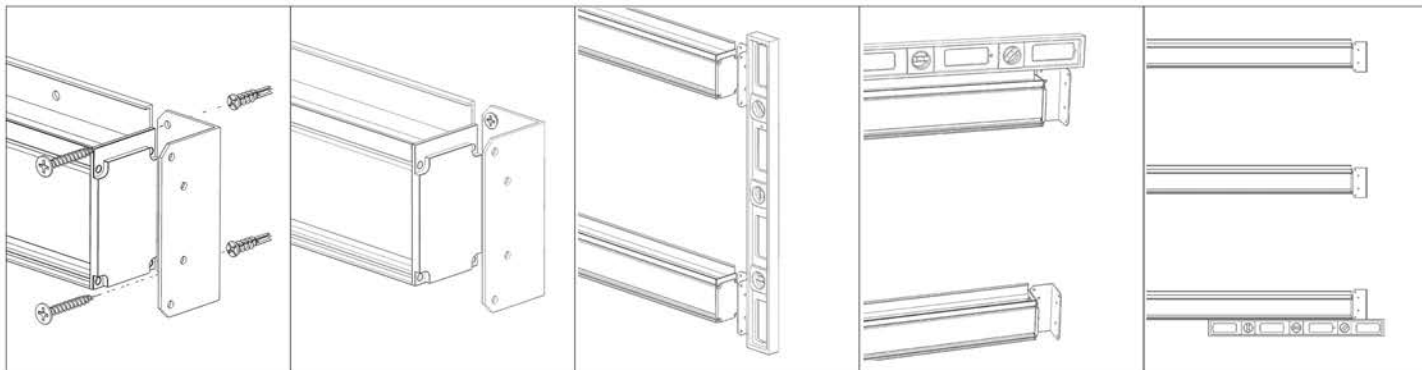
Phillips bit



Saw Kit (provided)

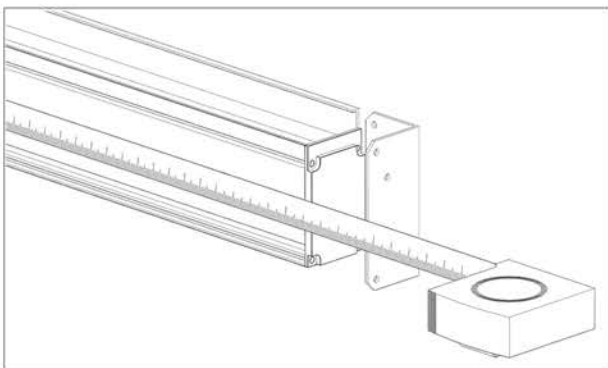
# Indoor Frame Installation

## Step 1: One bracket installed per gutter



- Only on Flat End Cap Side
- Top of bracket aligned with top of top gutter
- Bottom of bracket aligned with bottom of bottom gutter
- Center align brackets on middle gutters
- Brackets aligned properly with each other

## Step 2: Measure & Cut Horizontal Frame Pieces



- Measure width from outside of hose end cap until bracket
- Top & Bottom width should be equal but make sure to measure to check for slight variation

Total width:

Subtract 1.5":  **A**

Divide by 48:

Round up to nearest whole number:  **B** = Number of Horizontal Pieces Needed

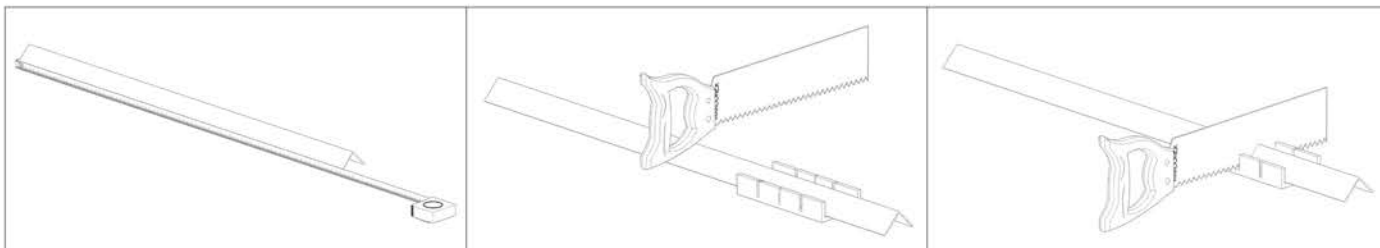
Length of each Horizontal Piece =  **A** ÷  **B** =



### Pro Tips

- **Symmetrical seams** – This step is a guide to give you symmetrical seams on the frame. This is just a guide and you can use your own judgement on where/how to make the seams. Instead of cutting each piece you can use whole 4' lengths and then just have a smaller piece in the middle. There are an endless number of options here, but the goal is to make things look good and keep the seams symmetrical or equally distributed. Try to avoid having very small pieces where you'll have two seams very close to each other.
- **Support each frame piece** – each frame piece needs at least two pieces of 3M.

## Step 3: Cut Horizontal Pieces

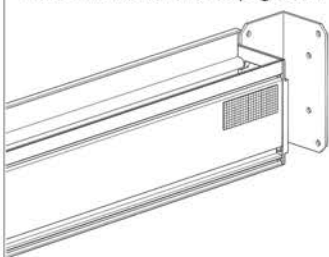


- Measure carefully
- Use miter box saw kit provided

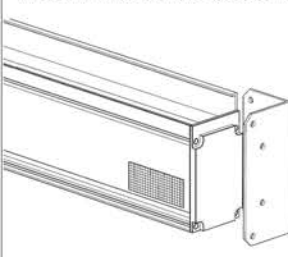
# Indoor Frame Installation

## Step 4: Install Horizontal 3M

Placement for the top gutter



Placement for the bottom gutter



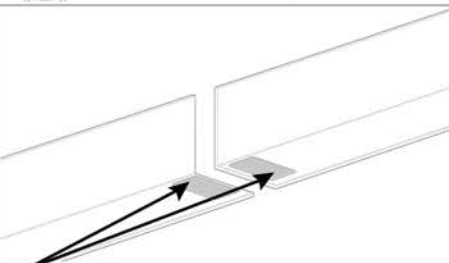
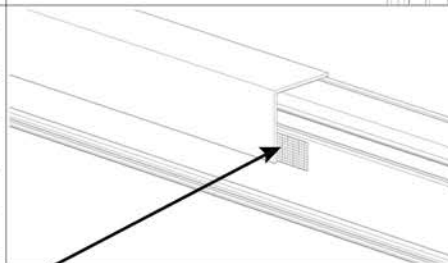
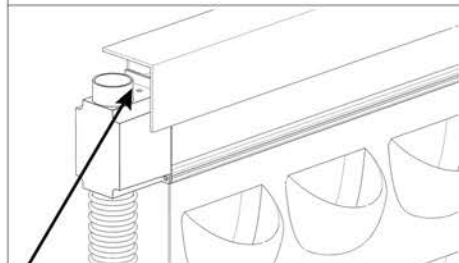
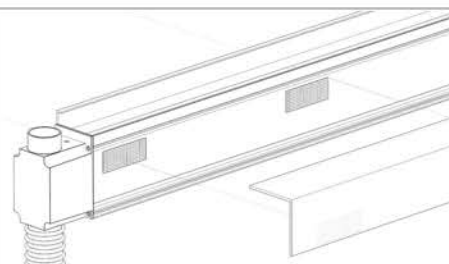
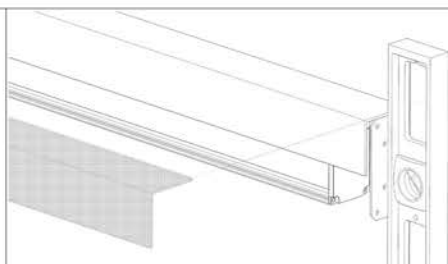
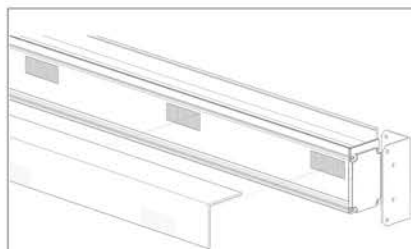
- Peel off one side of the tape covering the 3M adhesive
- Install on top gutter with edge of 3M just below the channel

- Install on bottom gutter with edge of 3M just above the channel
- Leave pieces of 3M mated to each other

- Start with one on each corner and then one between each cassette

## Step 5: Install Top & Bottom Frame

- Peel off the tape covering the 3M adhesive
- Start at the wall bracket side and make sure the outer edge of horizontal frame piece is level with outer edge of bracket. Top edge of the frame rests over top (bottom) edge of the gutter.
- Finished side (not a side you cut) should face out
- Press frame firmly on to 3M adhesive. When locked into place correctly, 3M strip will make a loud SNAP sound. If you do not hear a SNAP, you MUST pull off the frame pieces and redo the process
- Apply the other horizontal pieces next to the piece you just installed



- There should be a gap left above the hose end cap to access water system (for manually watered walls) on top & bottom

- You can add an extra piece of 3M underneath the seam between two gutter pieces to help make them flush.

- Place on piece of 3M on the gutter between the seam and then put one piece on the underside of each gutter

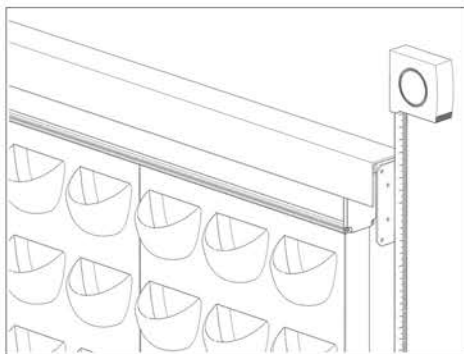


## Pro Tips

- Although the 3M strips already come mated, they are usually not in their LOCKED position. To LOCK, place additional pressure on the two strips until they SNAP together
- If secured properly, Frame pieces should NEVER be loose. If frame pieces are loose, be sure to remove them and reapply them to the 3M strips until you hear a loud SNAP. Check security of each piece by tugging on them to ensure they do not move

# Indoor Frame Installation

## Step 6: Measure & Cut Vertical Frame Pieces



- Measure height from bottom edge of bottom frame to top edge of top frame
- Left & Right should be equal but make sure to measure to check for slight variation

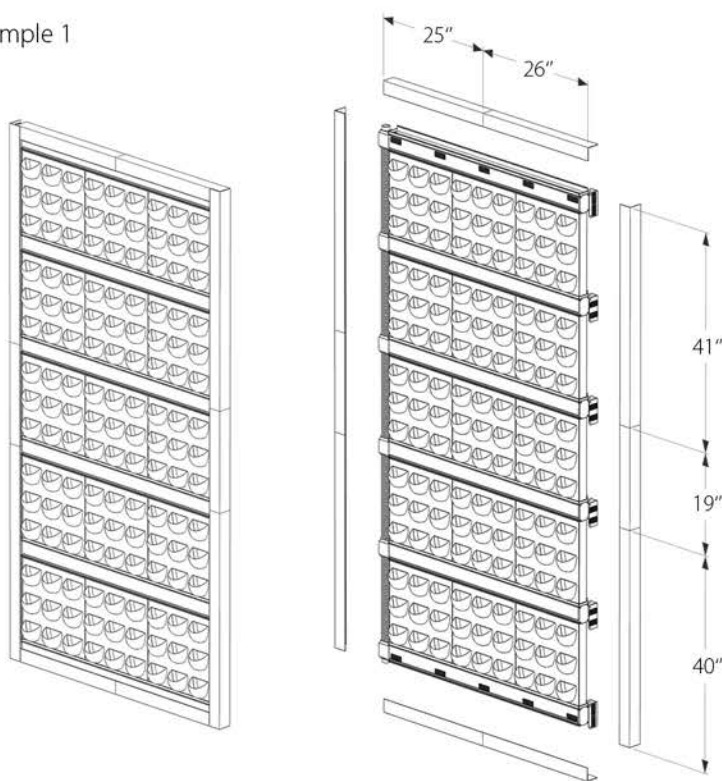
Total height:  **C**

Divide by 48:

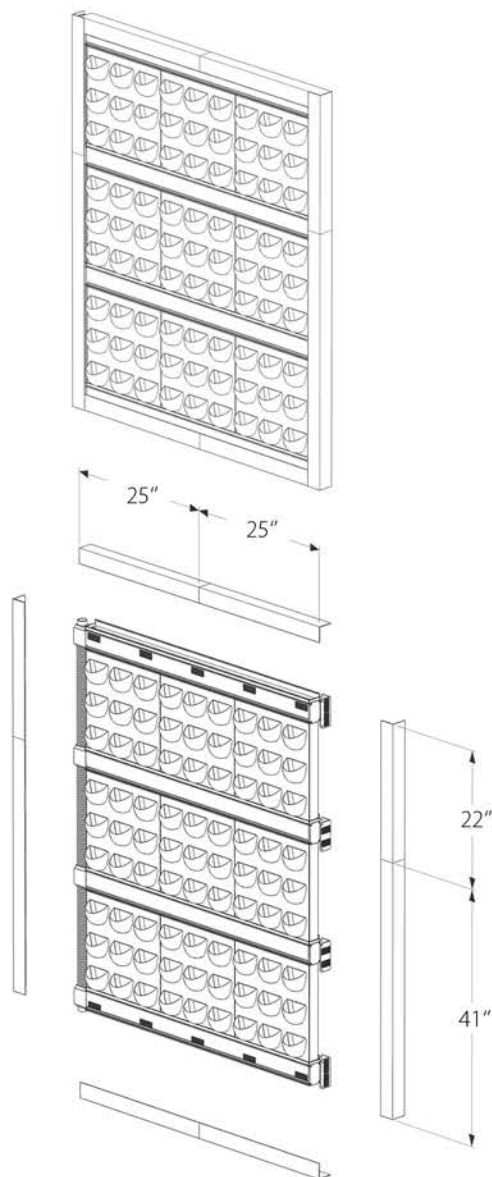
Round up to nearest whole number:  **D** = Number of Horizontal Pieces Needed

**\*\* If there are to be multiple pieces of vertical frame (i.e. if a wall is taller than 48"), rather than splitting the vertical distance into two equal parts, it is recommended to split into unequal parts so that the seams fall on top of end caps or wall brackets. Secure with 3M just like seams on horizontal pieces are secured**

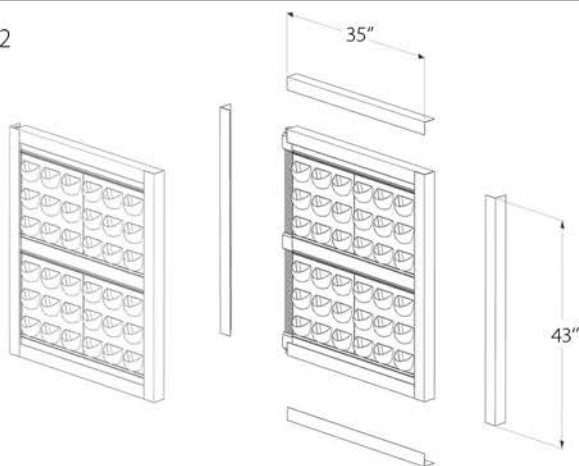
Example 1



Example 3

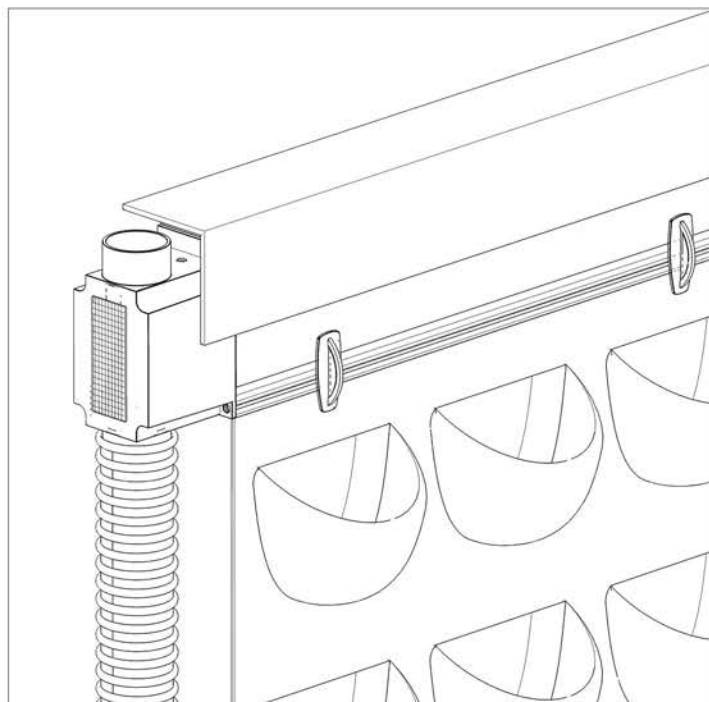
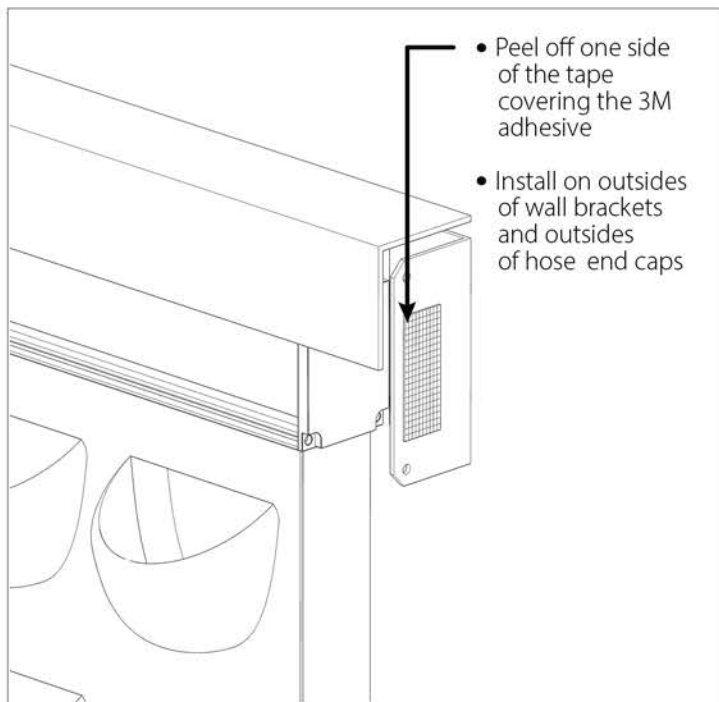


Example 2

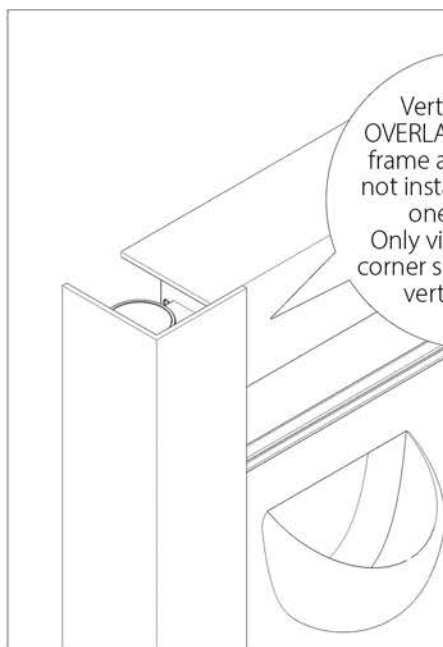
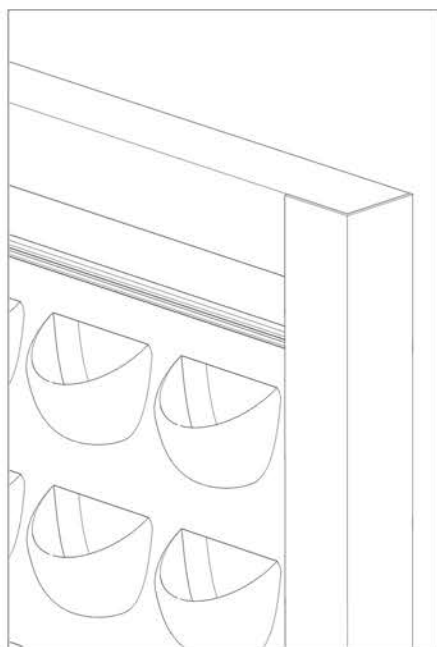


# Indoor Frame Installation

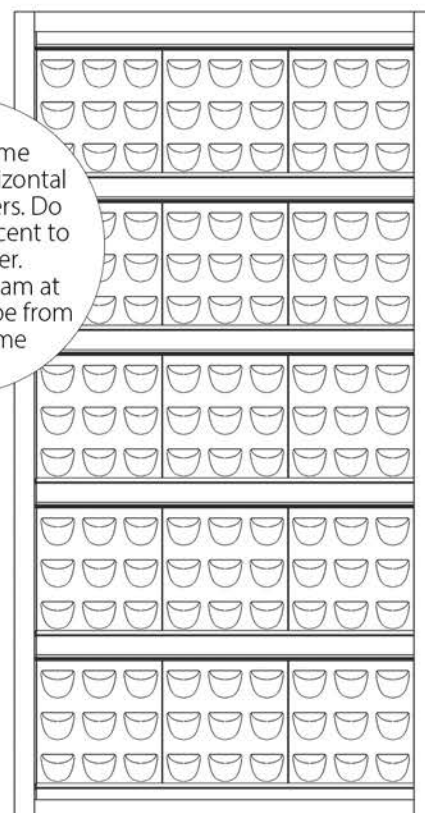
## Step 7: Install Vertical 3M



## Step 8: Install Vertical Framing

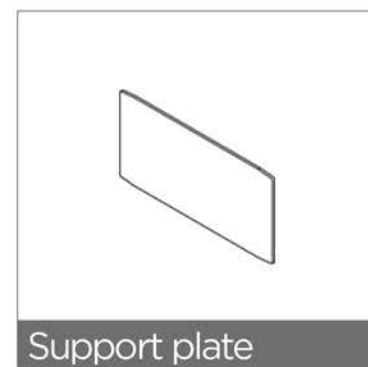
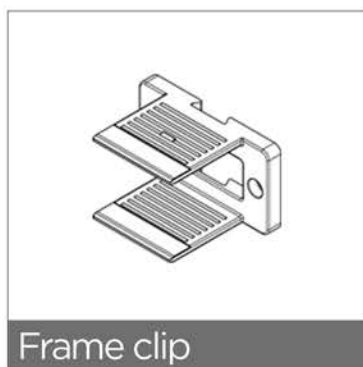
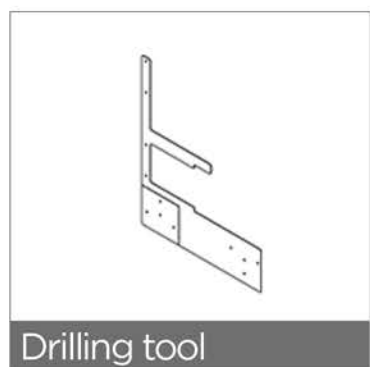
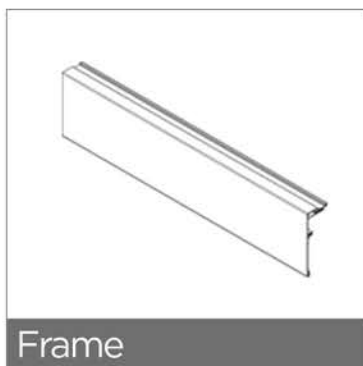
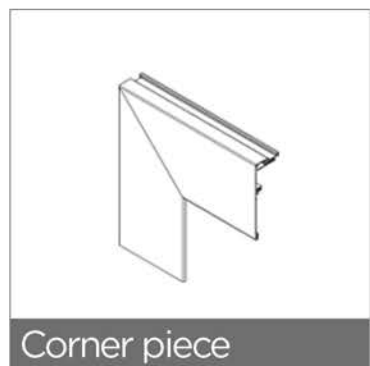


Vertical Frame  
OVERLAPS horizontal  
frame at corners. Do  
not install adjacent to  
one another.  
Only visible seam at  
corner should be from  
vertical frame

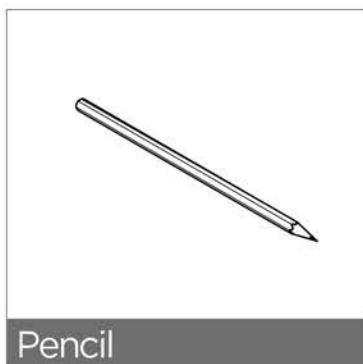


- Peel off one side of the tape covering the 3M adhesive
- Install vertical frame parts overlapping the horizontal frame parts
- If there is a gap in the corner, you can pull the frame pieces off and readjust the spacing – it usually takes some adjustment to get all the seams looking perfect

## Parts list needed for exterior frame installation



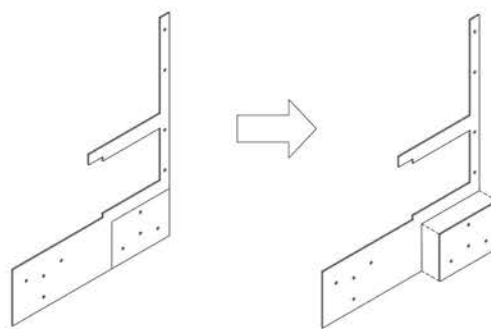
## Tools needed for exterior frame installation



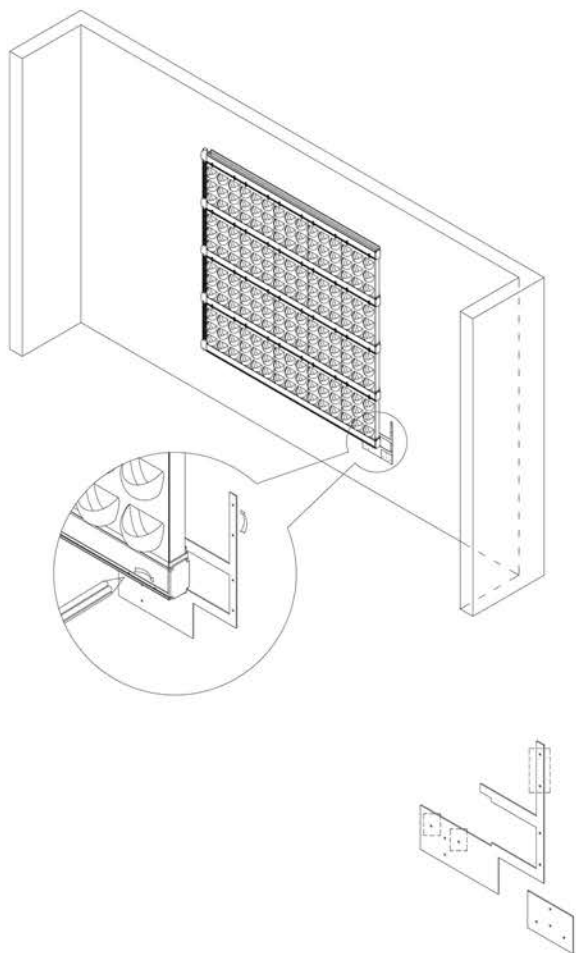


# Exterior Frame Installation

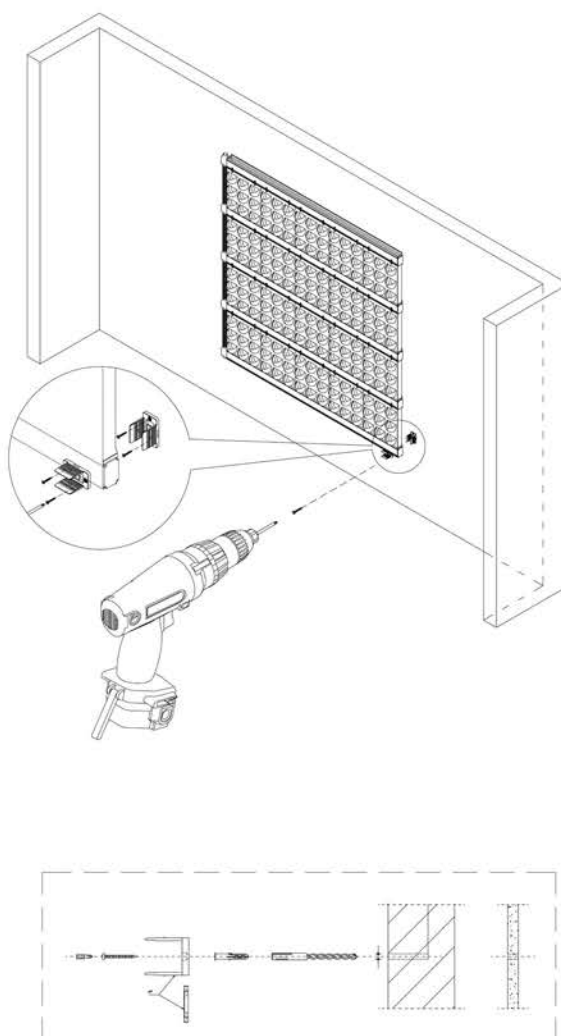
- 1** Split the drilling tool; remove the small square from larger L shaped drilling tool



- 2** Mark drill location at the bottom corners for the 4 frame clips using L shaped drilling tool pointing upwards. Use the 2 horizontally oriented holes below the gutter and the higher vertically oriented holes on the sides.

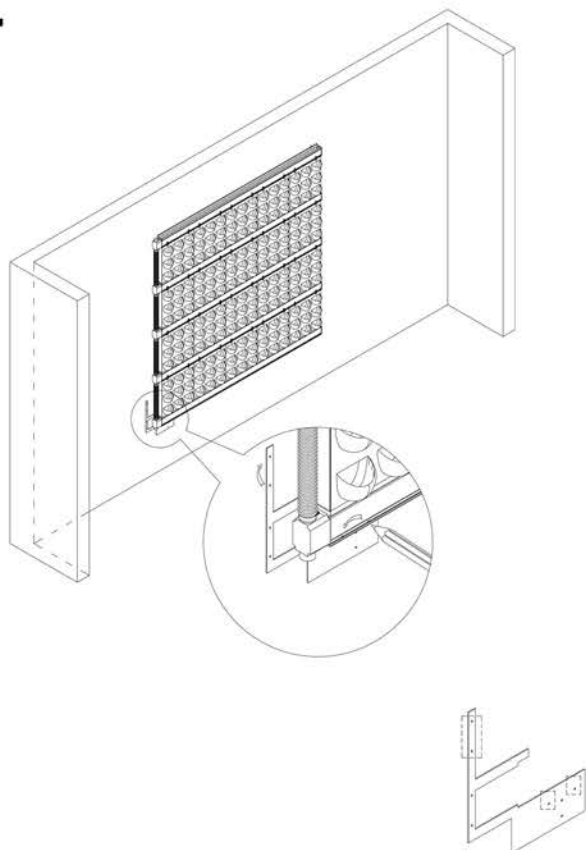


- 3** Install the frame clips

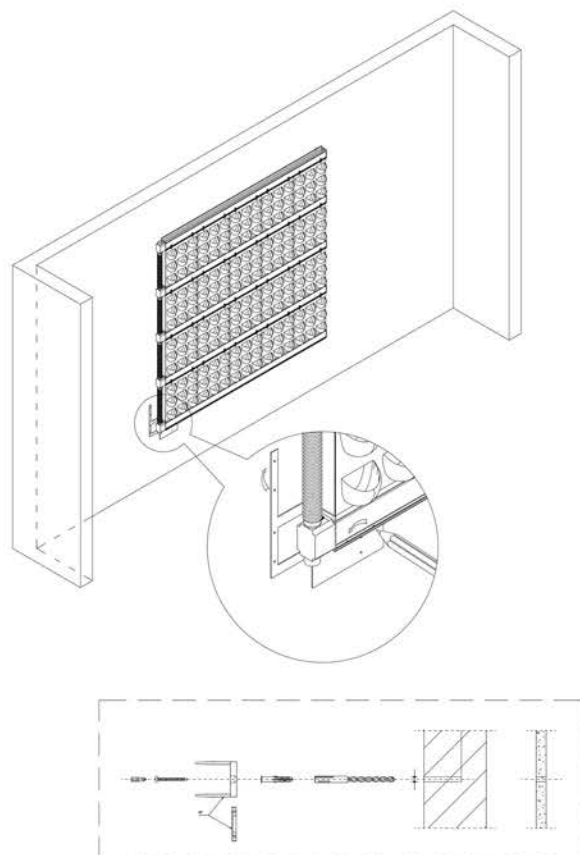


# Exterior Frame Installation

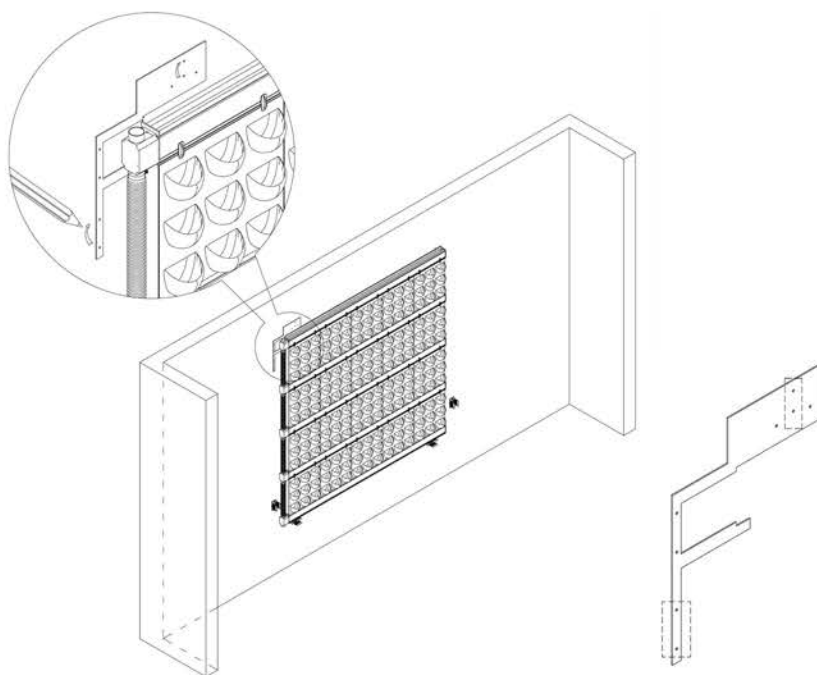
4



5

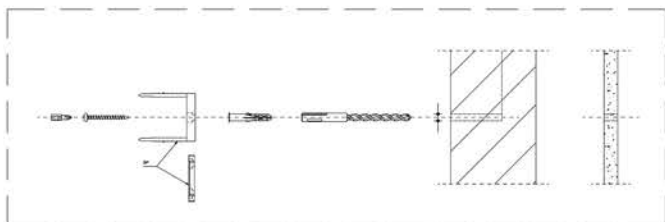
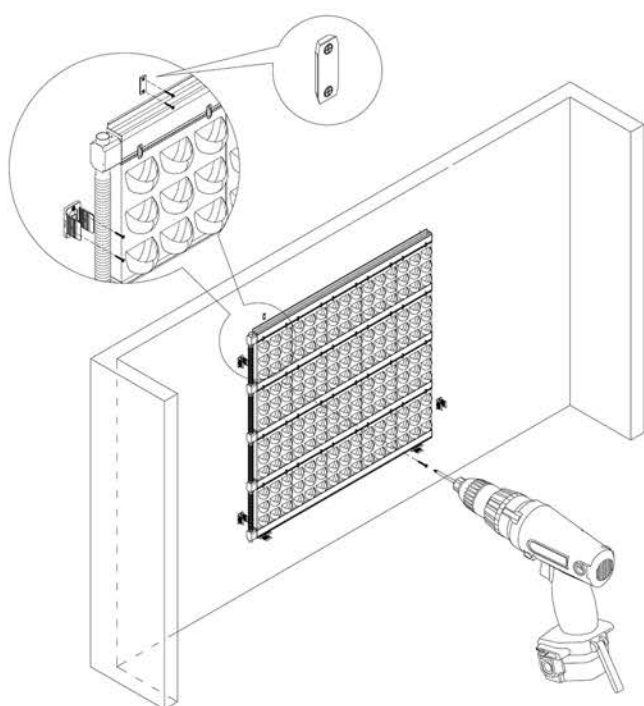


6 Mark drill locations for 2 frame clips along the side of the wall and 2 sherpa plates above the wall. Use the 2 vertically oriented holes at the top of the wall above the gutter to mark the sherpa plates and the holes along the side to mark the frame clips.

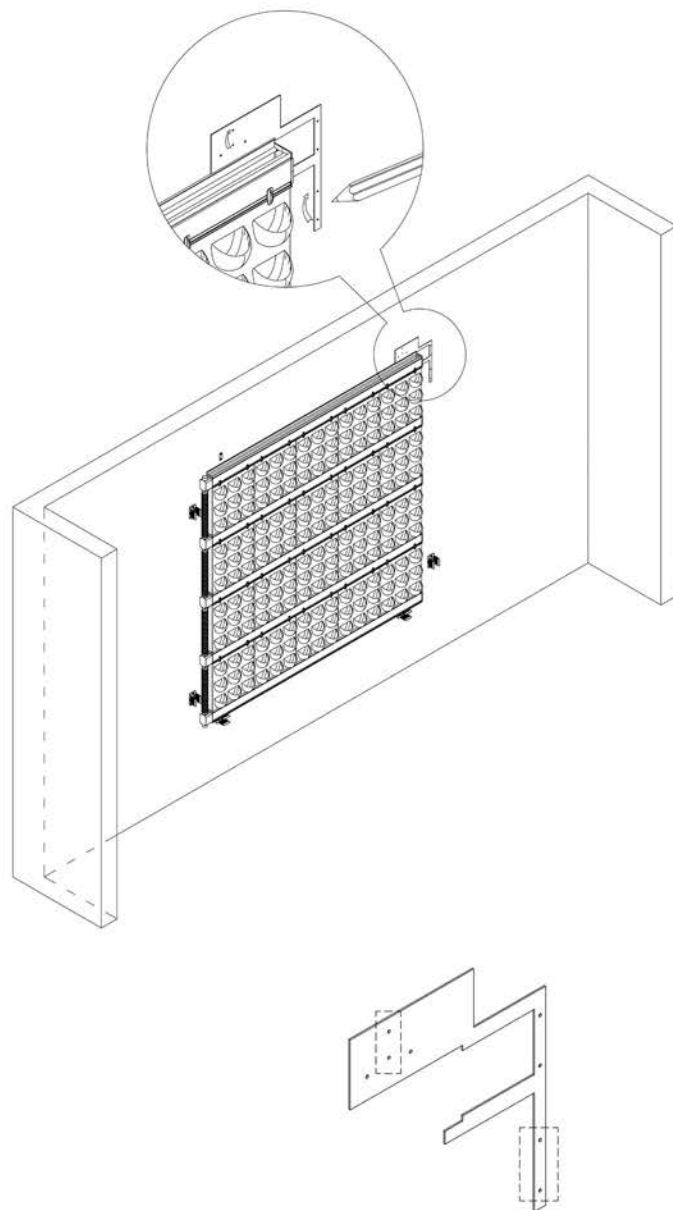


# Exterior Frame Installation

**7** Install the frame clips and the sherpa plates.  
Need to install anchors first then screws

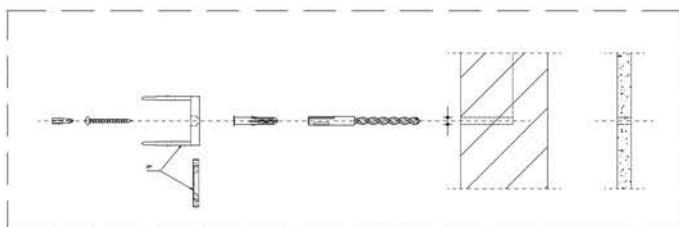
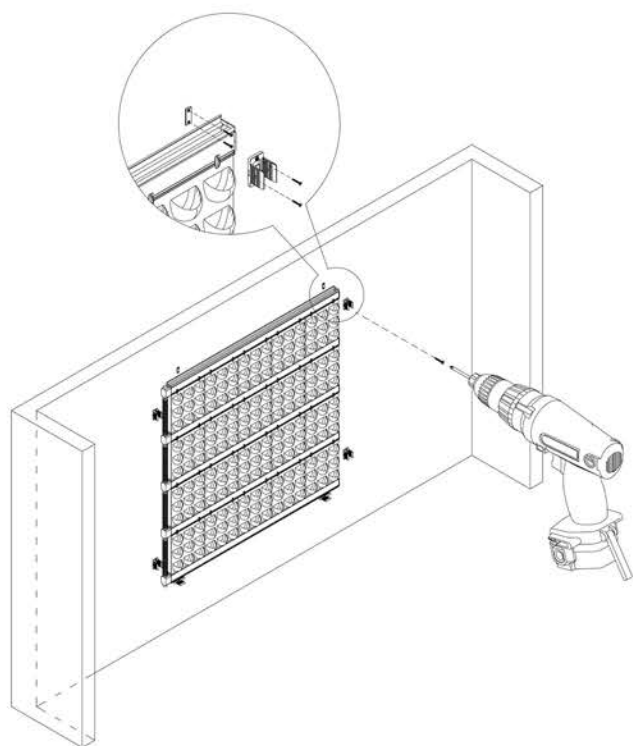


**8**

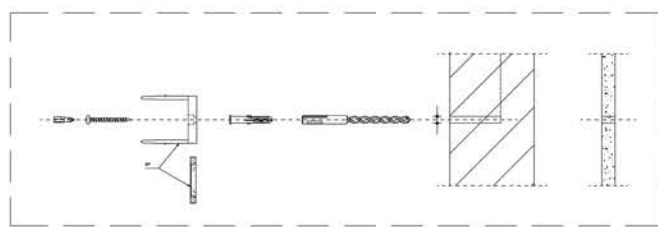
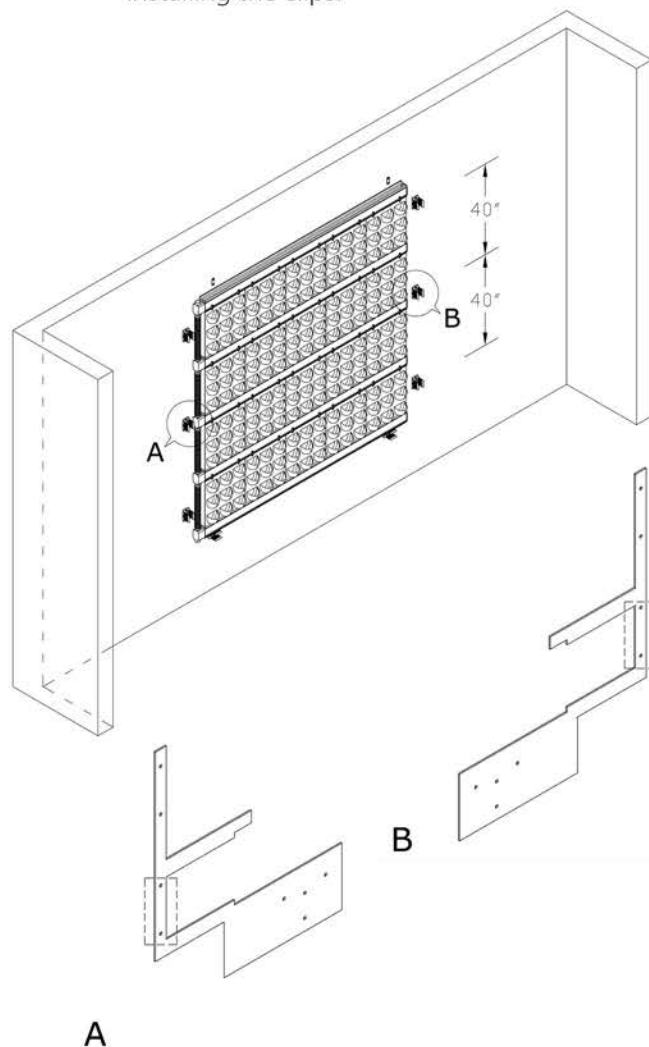


# Exterior Frame Installation

9

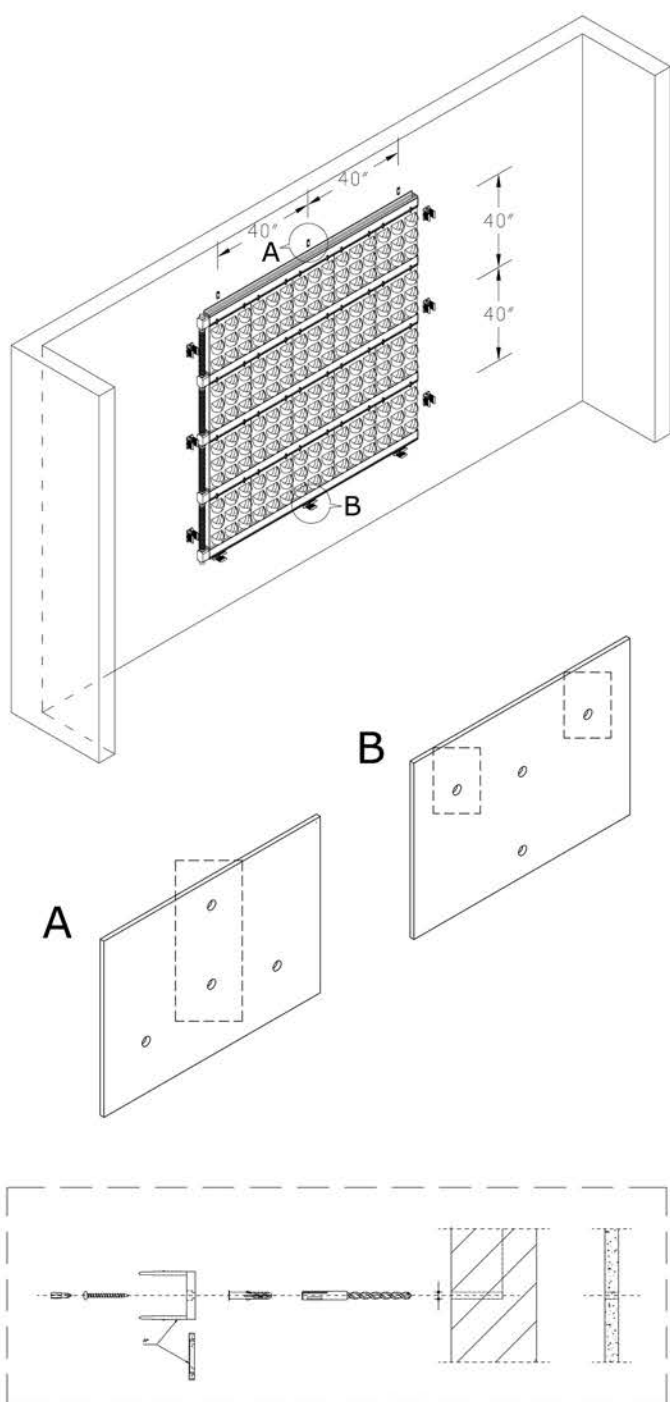


10 Use the L shaped drilling tool and install additional frame clips on both sides of the wall at 40" intervals between each clips. Use the tool at the nearest gutter to where you will be installing the clips.

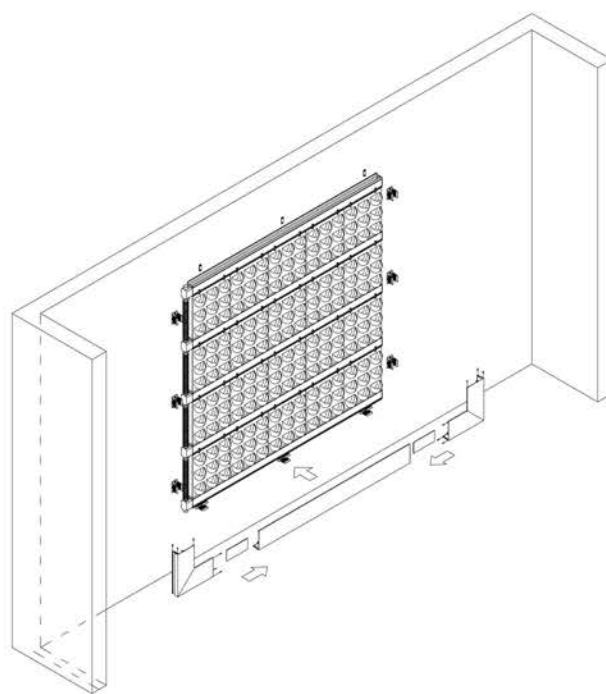
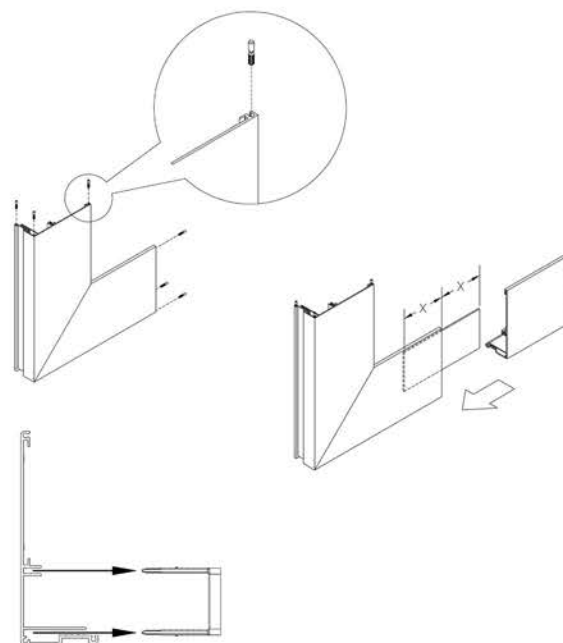


# Exterior Frame Installation

- 11** Using the square shaped dripping plate only, install additional frame clips underneath the bottom gutter at 40" interval between each clips, and install additional sherpa plates above the top gutter at 40" intervals between each sherpa plates.

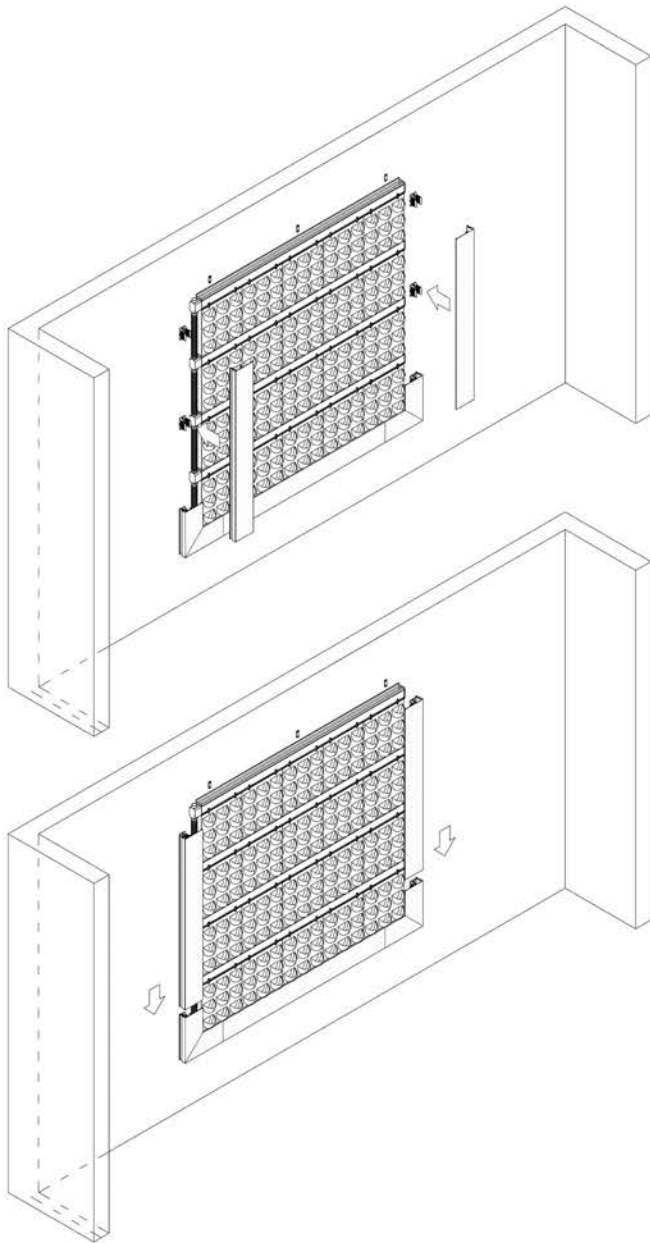


**12**

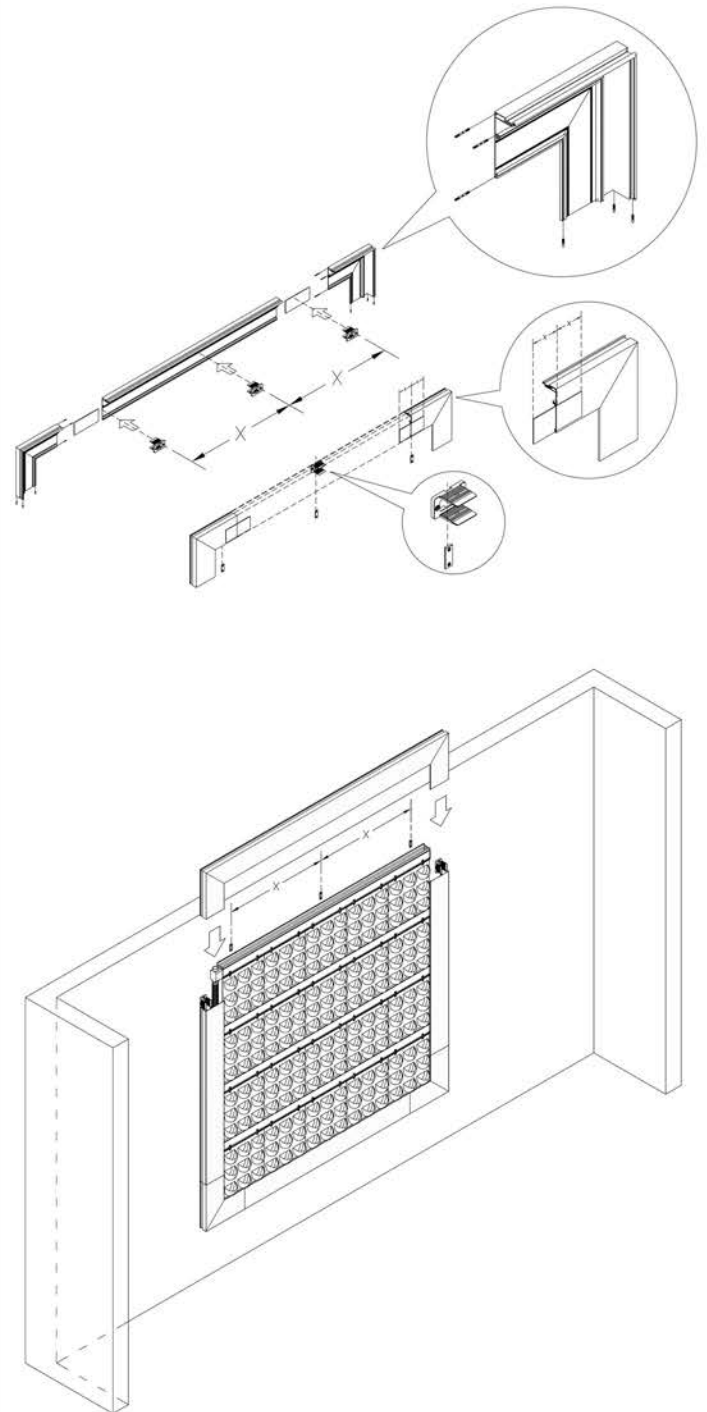


# Exterior Frame Installation

13

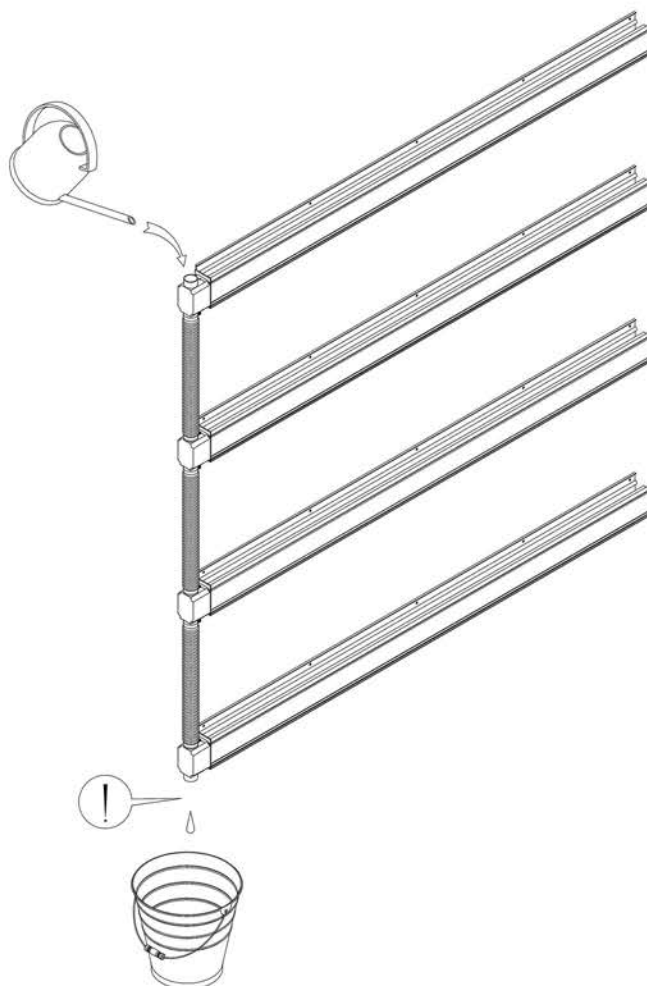


14



# Watering

- 1 • Manual watering** -- Fill water from top hose Endcap. Water will gradually fill each gutter and travel to the next gutter via the connecting hose. Stop filling from the top once water starts to drip at the bottom



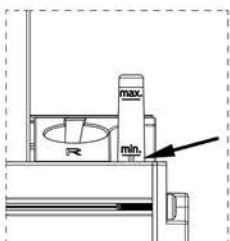
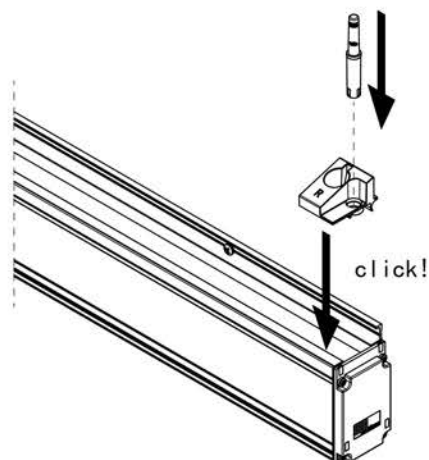
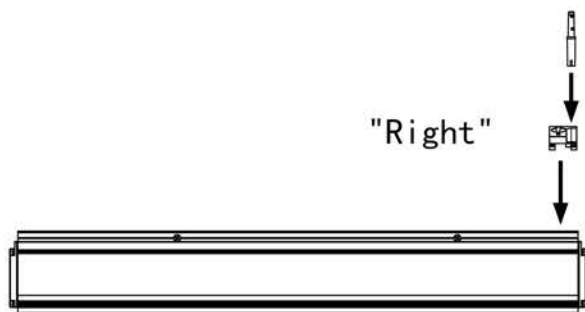
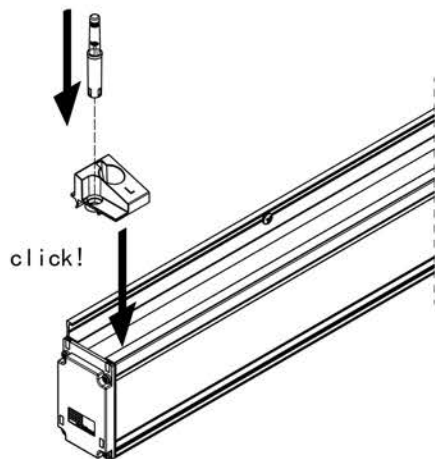
## Pro Tips

- **Add water after cassettes** -- You should add water after the cassettes are in place.
- **Water slowly** -- Add water slowly. Adding water faster than the end caps and hoses can process it will overflow the system.
- **Optional** -- start from the second gutter -- You can elect to start from the second gutter instead of at the top gutter since there aren't any plants using the water from the top gutter. There is no need having water in the top gutter.
- **Use a funnel** -- using a funnel is much easier than trying to go directly into the small opening on the hose end cap.
- If Hose Clamps aren't tight enough around the bottoms of the connecting hoses, you might see water start to drip down the wall. This is most often the cause for water dripping down the wall. If water drips, check to see which clamp might need adjusting/tightening.
- Do not confuse water dripping down the wall with water dripping into the bucket. Keep adding water to the wall until water starts to drip into the bucket from the bottom Endcap.

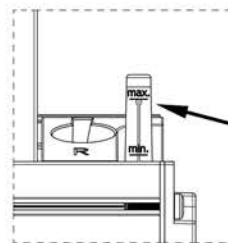


# Watering

## 2 • Filler Blocks



! = Fill



! = STOP