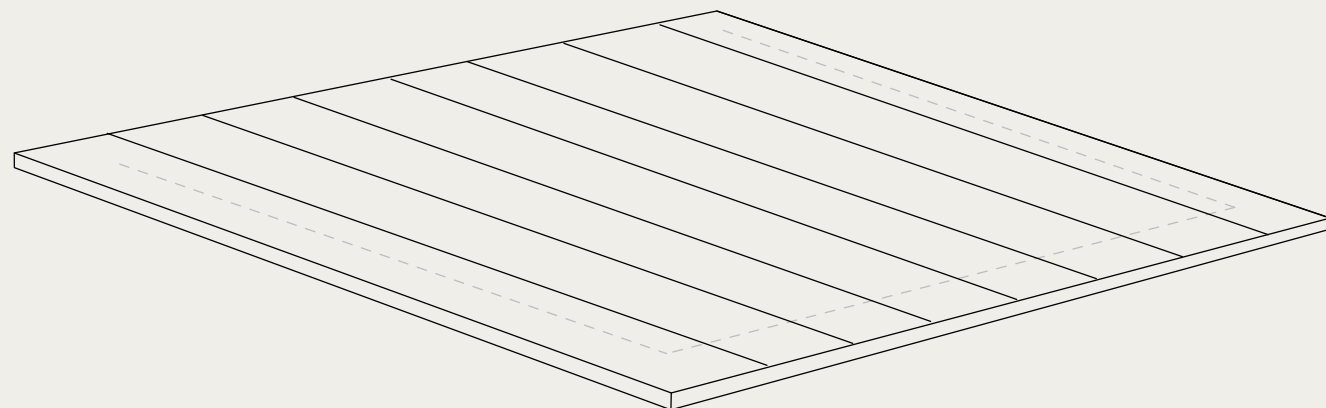


Rana Aluminum Base Shoe Glass Railing Installation Guide

Before You Start

- Review local and regional building codes regarding glass railing construction and requirements.
- Confirm that you have the correct fixings and hardware for your project to match your substrate and build to code. We recommend galvanized or stainless steel 3/8" x 4" Concrete Anchors or 3/8" x 4" lag screws for Wood Decking.
- Confirm that you have purchased the Future Glass Tool Kit for Channel Installation. Available here: <https://futureglass.us/collections/channel-systems/products/tool-kit-wedge-installation-tool-wedge-removal-tool-glass-alignment-tool-profile-extractor-rubber-hammer>
- If cutting Channel lengths, be sure to have proper eyewear and safety protection and use a drop saw with metal cutting blade to get a perfect edge.
- If you are joining two channels together, or have purchased pre-fabricated channel corners, please use included pins to join the two parts together.



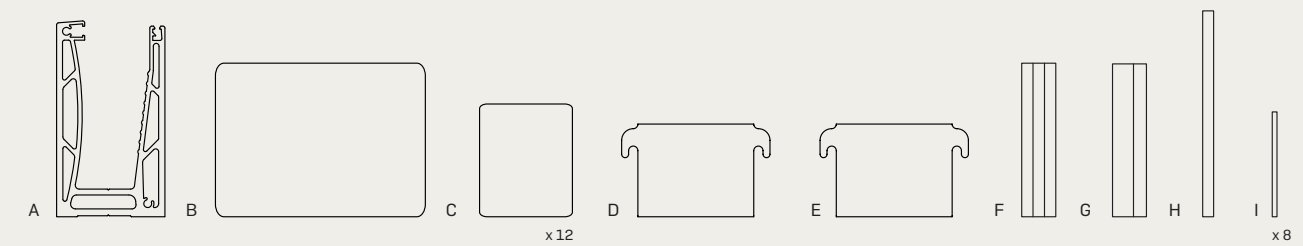
Rana Aluminium Channel Installation Guide

The Rana Channel is part of our patented innovation of the FastFit Taper Lock Channel System. While being fully adjustable from the inside, it is engineered from start to finish to provide a tilt adjustability of 1.2 inches (30mm) in both directions. The Rana Channel is a complete and finished channel system with a compact, slim design and appearance. There is no extra hassle of fascia boards or covers of any kind. Complete it with any of our available handrail systems for a clean, streamlined look that minimizes visual impact. Accommodates 1/2" (12mm), 9/16" (14mm), and 11/16" (17mm) glass thickness.

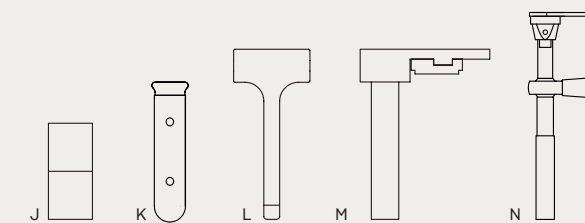
SAFETY REQUIREMENTS

Before installing, check with your local City Building Codes for railing.

INCLUDED IN EACH CHANNEL BOX



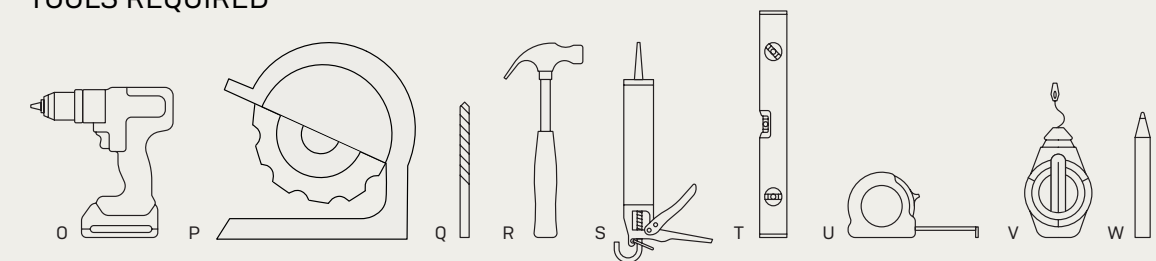
FUTURE GLASS TOOL KIT (PURCHASE REQUIRED).



Important: This Tool Kit is required to properly install the glass into your channel.



TOOLS REQUIRED



- | | | | |
|--------------------------|----------------------------------|---|----------------------------|
| A Channel | H Aluminium Strip | O Drill/ Hammer Drill | T Level |
| B Levelling Wedge | I Joining Pins (x8) | P Dropsaw | U Tape measure |
| C Spacer (x12) | J Glass Alignment Tool | Q Drill Bits | V Chalk/String Line |
| D Blue Wedges | K Profile Extraction Tool | <i>(size dependant on substrate)</i> | W Pencil/Marker |
| E Black Wedgest | L Rubber Mallet | R Tape measure | |
| F Inner Rubber | M Wedge Install Tool | S MAXISIL™ Silicone | |
| G Outer Rubber | N Wedge Removal Tool | <i>(or similar quality silicone sealant.)</i> | |

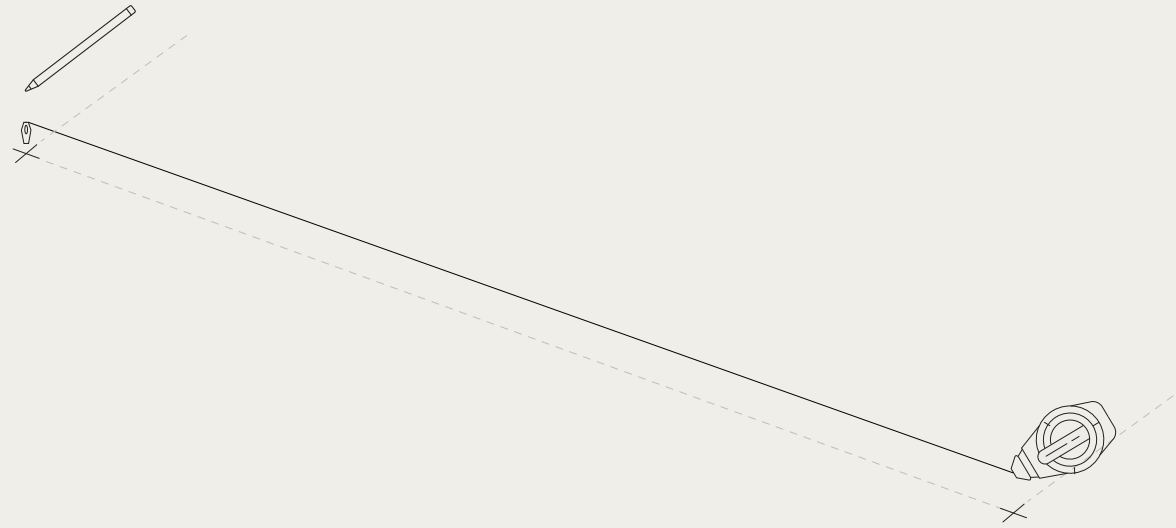
NOTE:

If you have purchased pre-fabricated channel corners, please use pins to join the two parts together.

VIDEO GUIDES

Watch a step by step video to assist your installation of the Rana Base Shoe Channel. Please access via the QR code to the right or visit: https://youtu.be/VcOs_mkl6u0

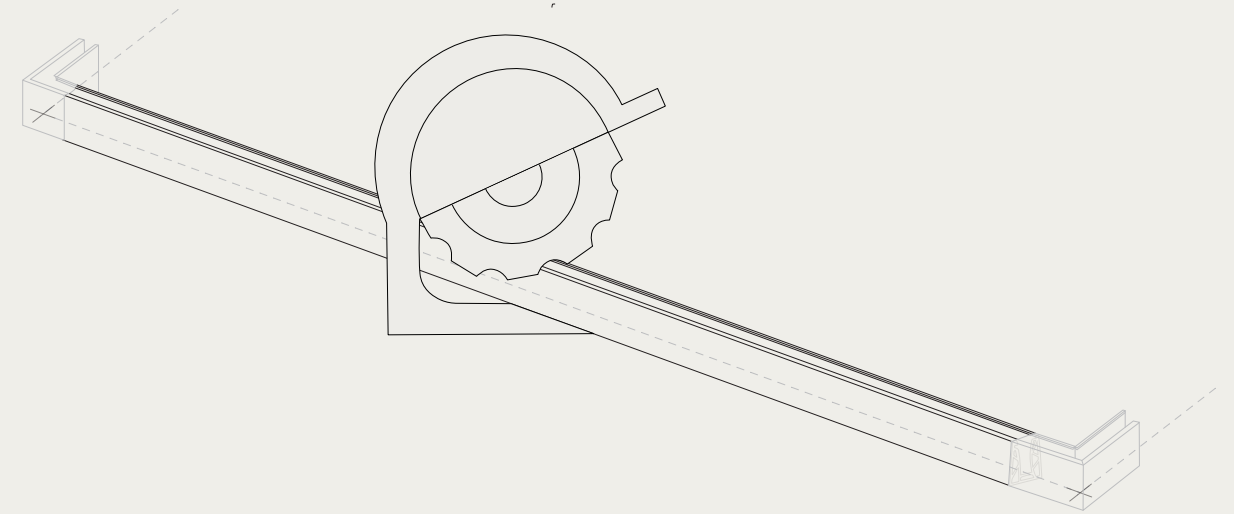




01

Mark the outline of your fence using a string line.

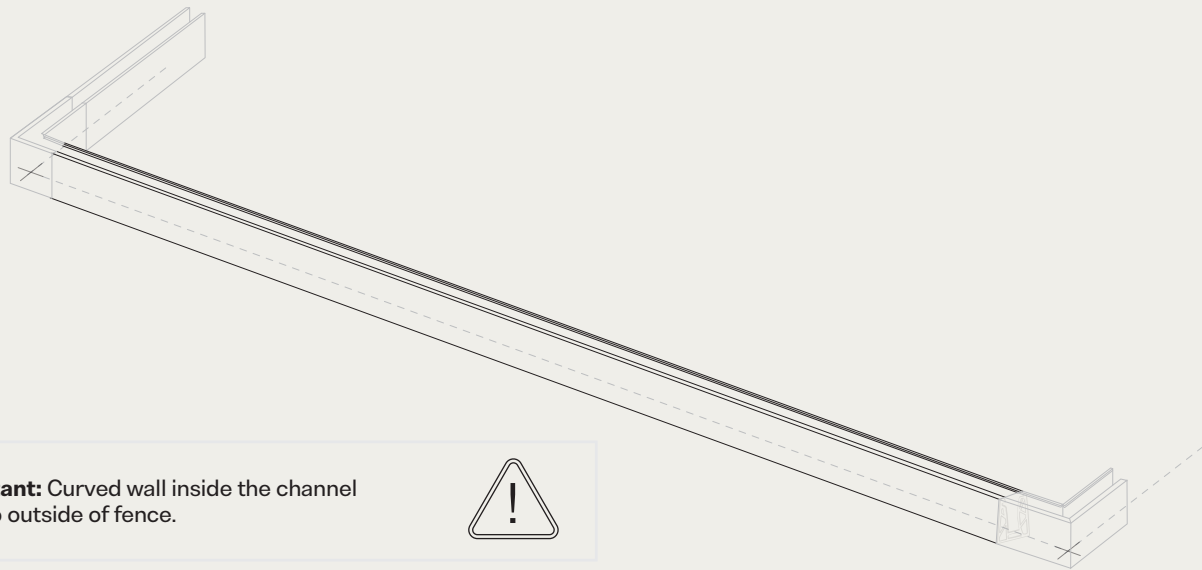
This marked line will be the center line of your channel. At this point, refer to the Engineering document to confirm that your insets and measurements are compliant with product regulations and with local and regional building codes.



03

Cut Channels to fit

If cutting channel sections, use a Drop Saw with a metal cutting blade and safety goggles to make your cut. You may need to gently sand the cut edge to remove metal shavings or dirt from the surface.



Important: Curved wall inside the channel goes to outside of fence.



02

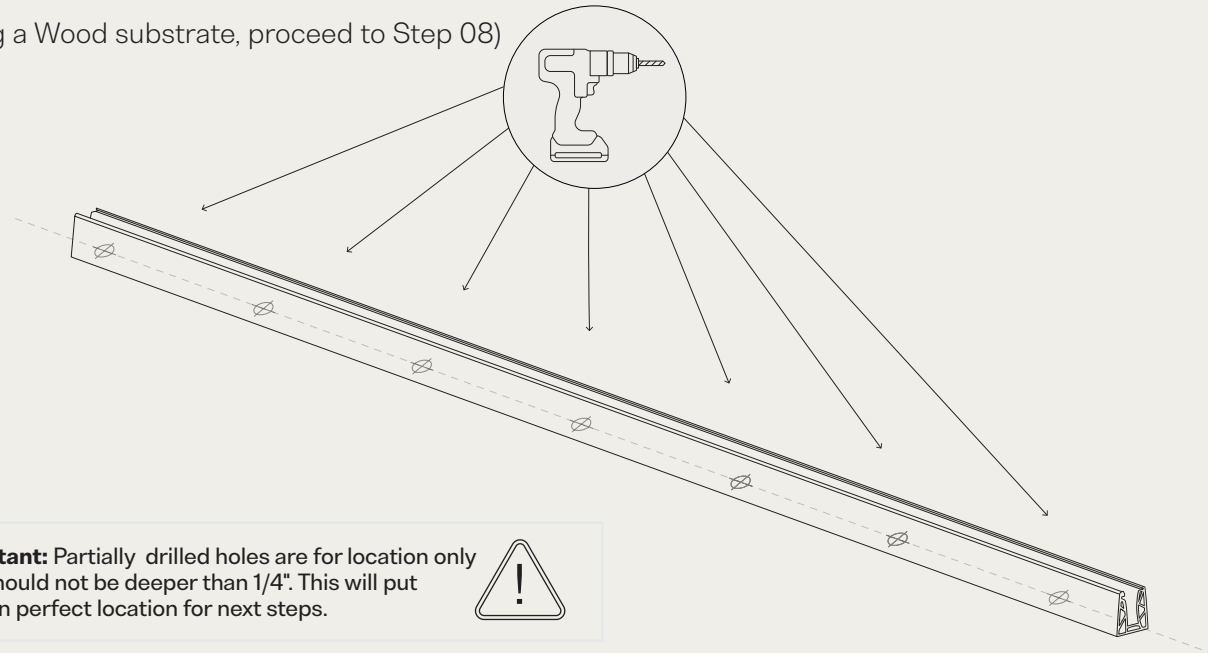
Rough out Channel position and measure to cut.

Lay out Channel Corners (if there are corners in your fence layout) making sure that the curved wall of the Channel goes to the outside of your fence.

Measure between the Corners to acquire Channel lengths. Mark any necessary cuts needed on Channel with pencil.

Concrete Substrate

(If using a Wood substrate, proceed to Step 08)



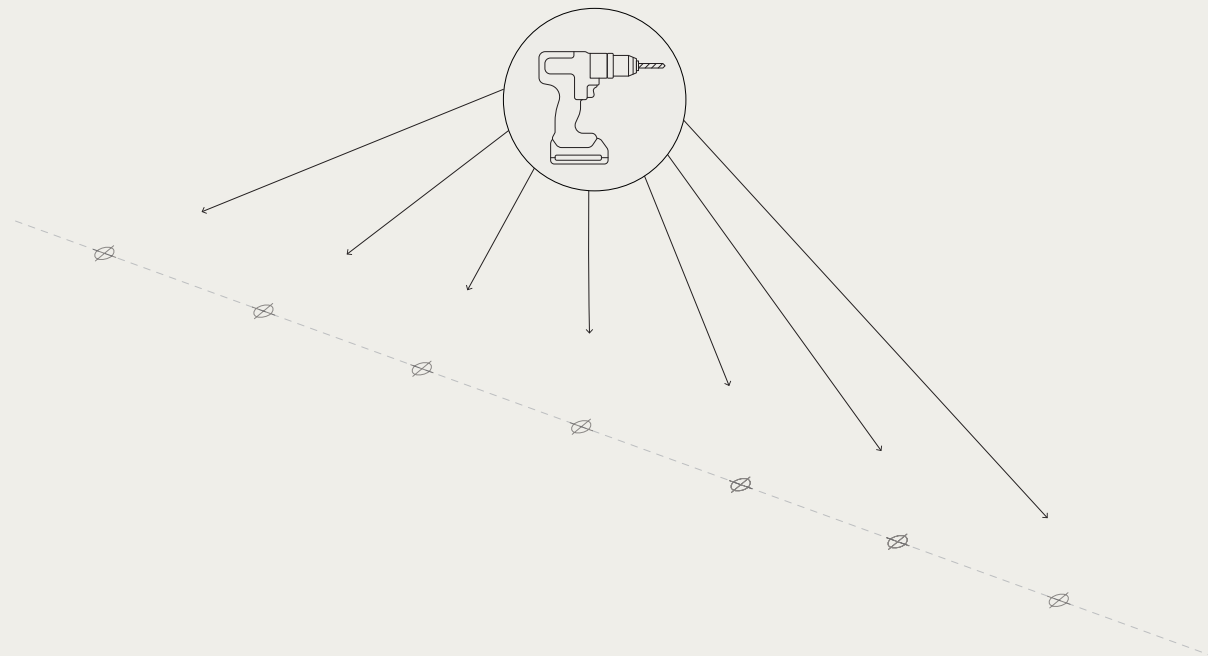
Important: Partially drilled holes are for location only and should not be deeper than 1/4". This will put holes in perfect location for next steps.



04

Partially drill holes.

Using the appropriate drill bit for your fixings and concrete substrate, drill holes 1/4" deep.

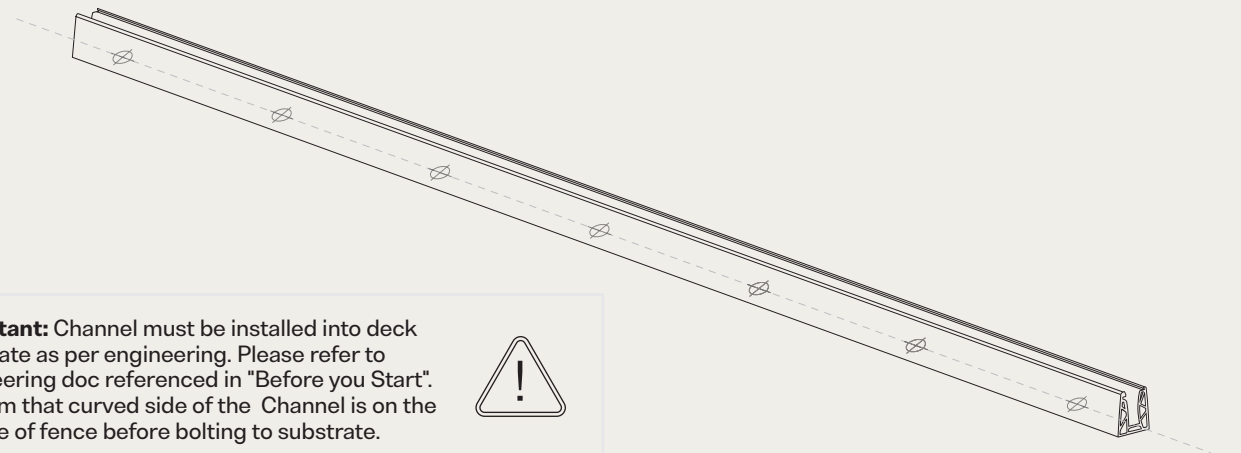


05

Complete drilling to required depth.

Once all holes are partially drilled, remove channel and complete drilling to required depth for your fixing.

We recommend TapCon 3/8" x 4" Concrete Anchors. Vacuum or blow out holes.

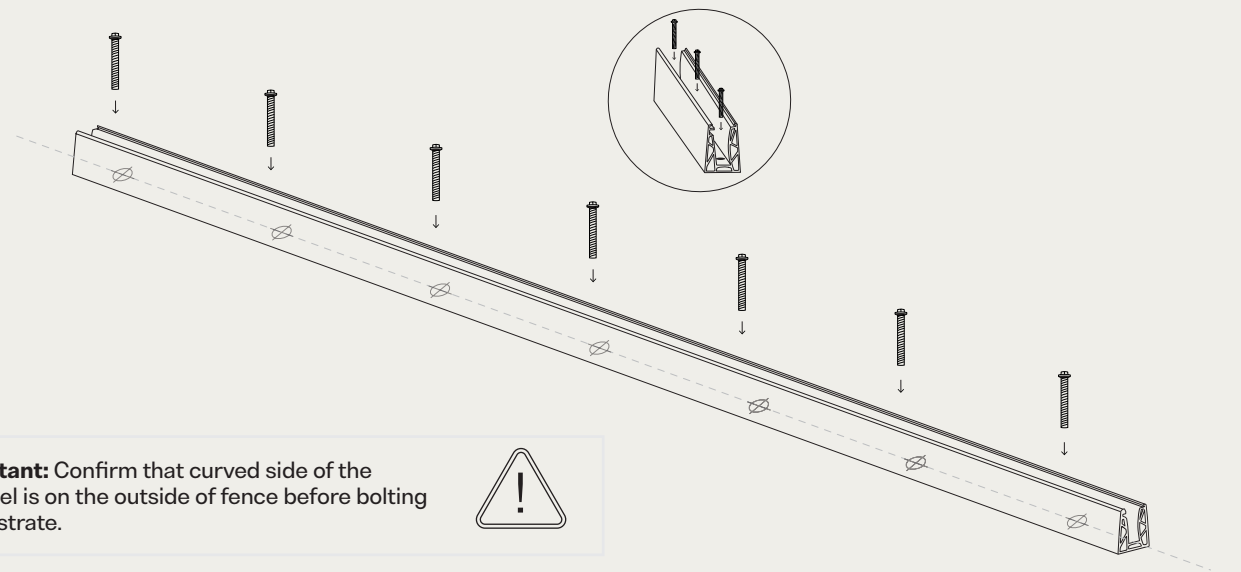


Important: Channel must be installed into deck substrate as per engineering. Please refer to engineering doc referenced in "Before you Start". Confirm that curved side of the Channel is on the outside of fence before bolting to substrate.



06

Replace channel to line up with drilled holes.



Important: Confirm that curved side of the Channel is on the outside of fence before bolting to substrate.



07

Fasten Channel into place using fixings. Go to Step 11.

Wood Substrate

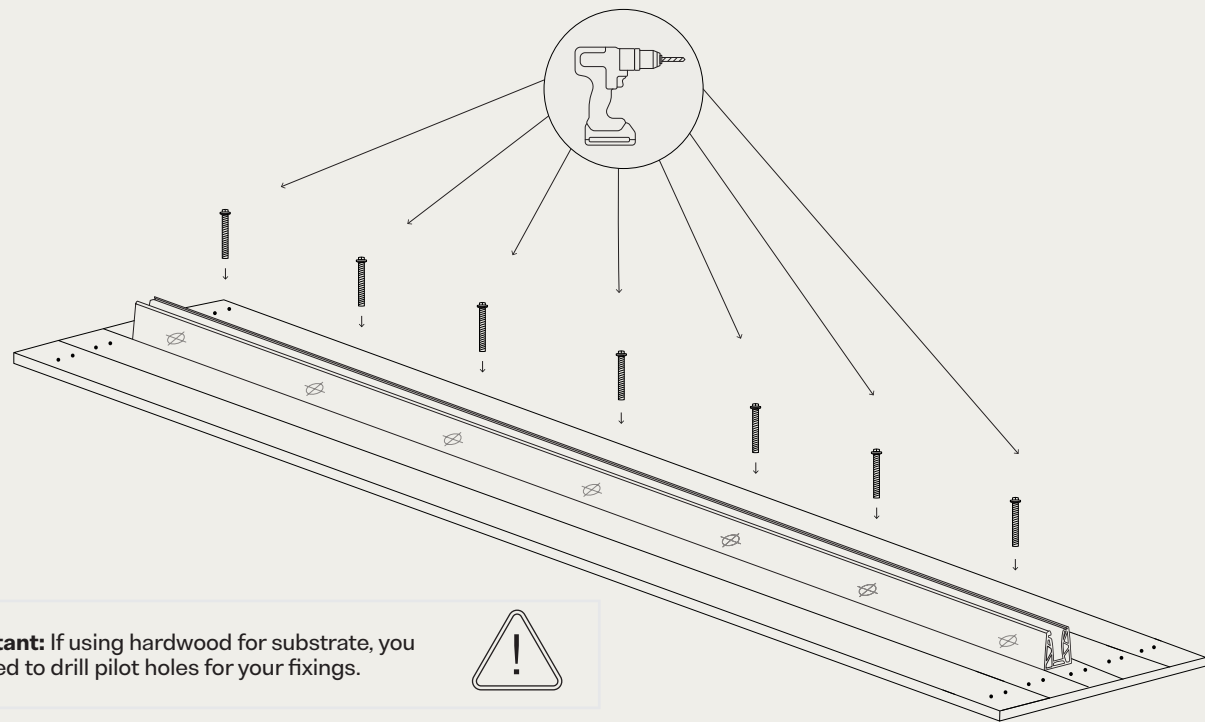


Important: Confirm that curved side of the Channel is on the outside of fence before bolting to substrate. Channel must be installed into deck substrate as per engineering. Check 'Before You Start' doc.



08

Replace channel to line up with drilled holes.



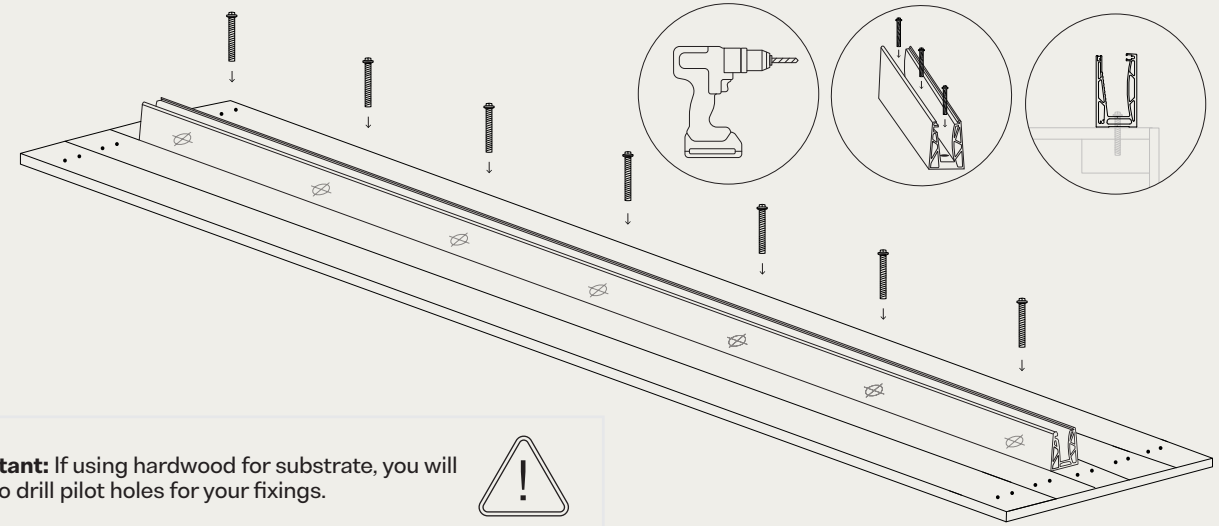
Important: If using hardwood for substrate, you will need to drill pilot holes for your fixings.



09

Pre-drill Holes.

Pre-drill holes ONLY through the top decking board to prevent splitting your decking boards.



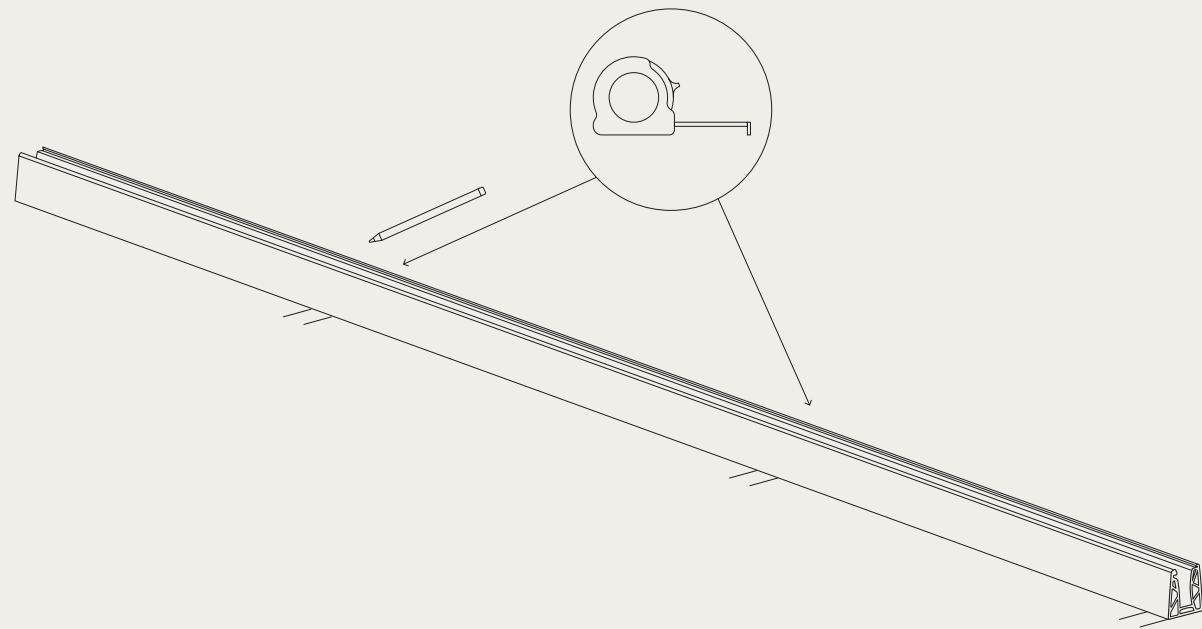
Important: If using hardwood for substrate, you will need to drill pilot holes for your fixings.



10

Screw in Fixings

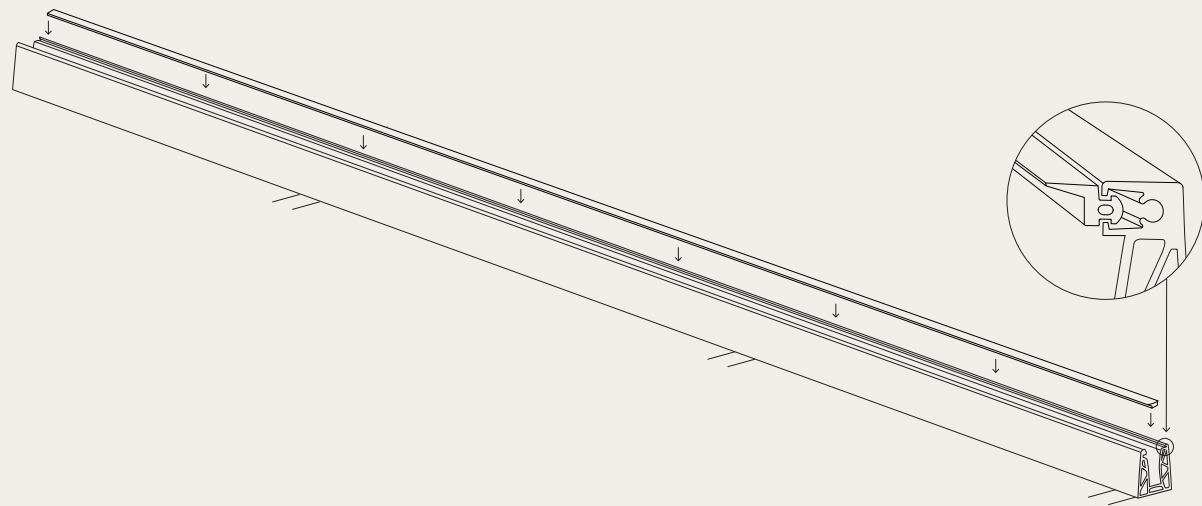
Secure channel to deck and wooden substrate under decking boards using 3/8" x 4" Lag Screws.



11

Mark location of Glass Panels

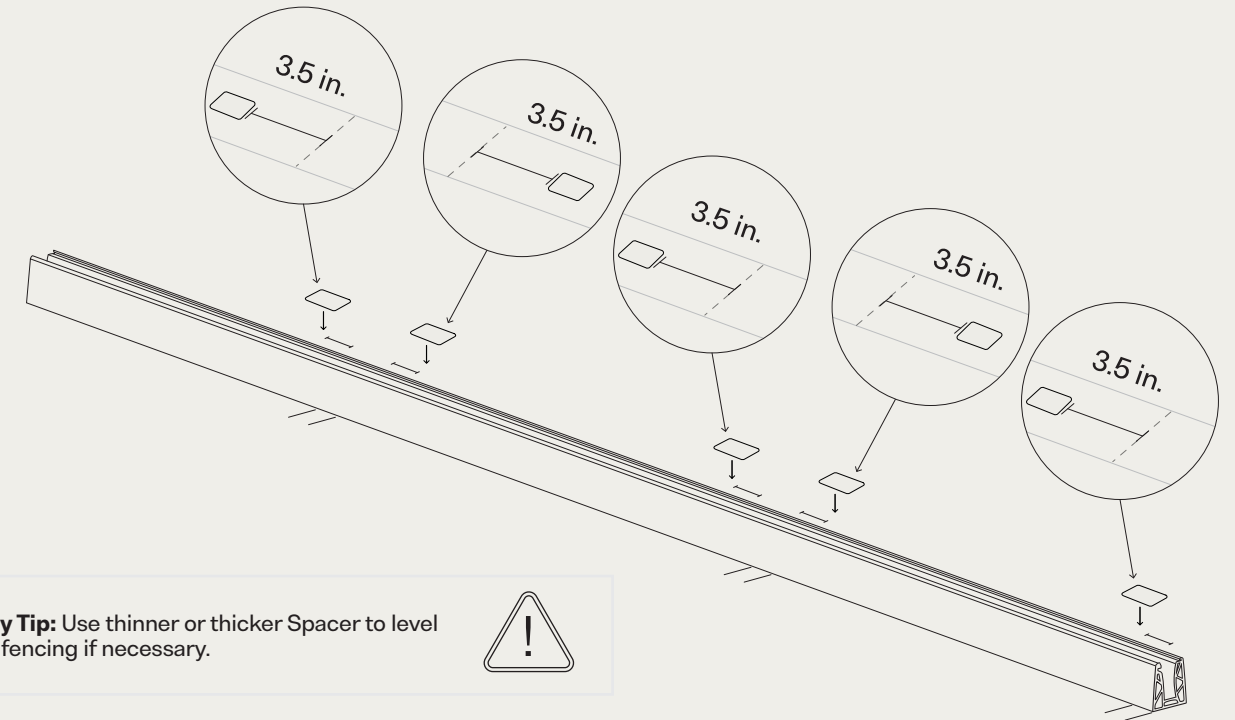
Mark location of glass with correct gap spacing between panels using pencil on deck surface.



12

Install outside rubber gasket

Insert outside rubber by sliding it into the groove in the Channel.

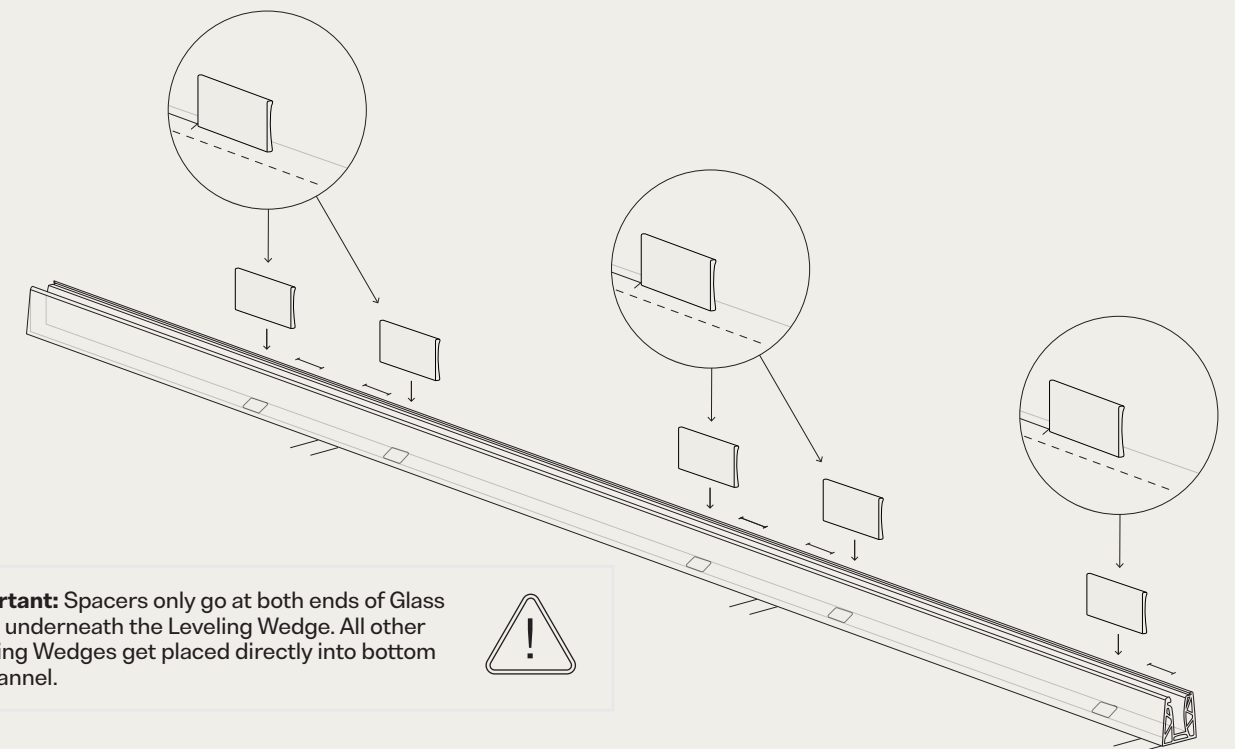


Handy Tip: Use thinner or thicker Spacer to level glass fencing if necessary.



13

Set in medium spacer 3.5" from each end of glass panel.



Important: Spacers only go at both ends of Glass Panel underneath the Leveling Wedge. All other Leveling Wedges get placed directly into bottom of Channel.

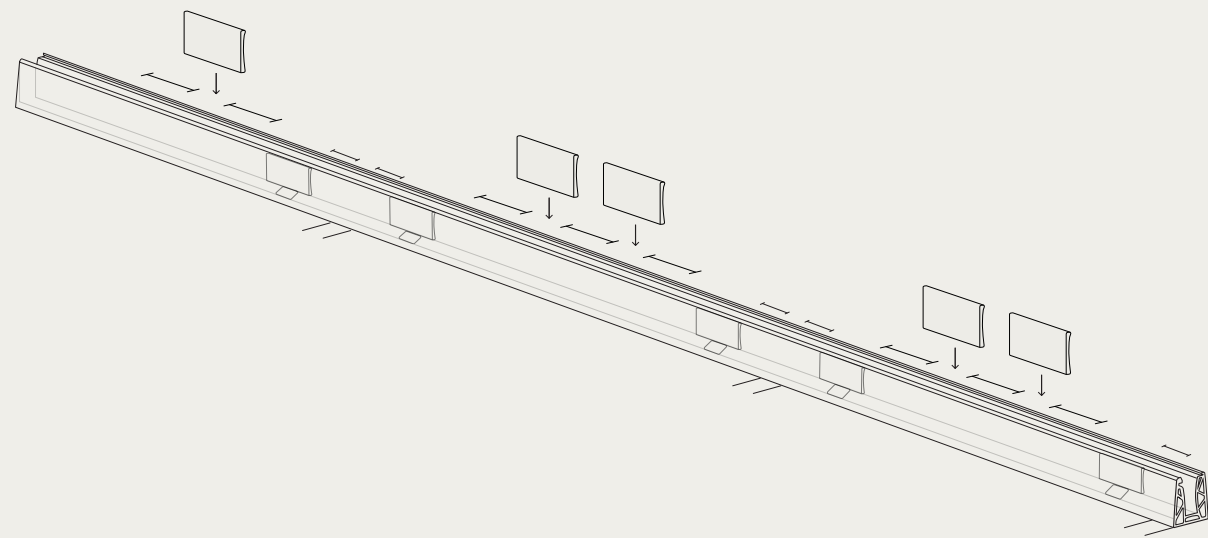


14

Set Curved Leveling Wedge.

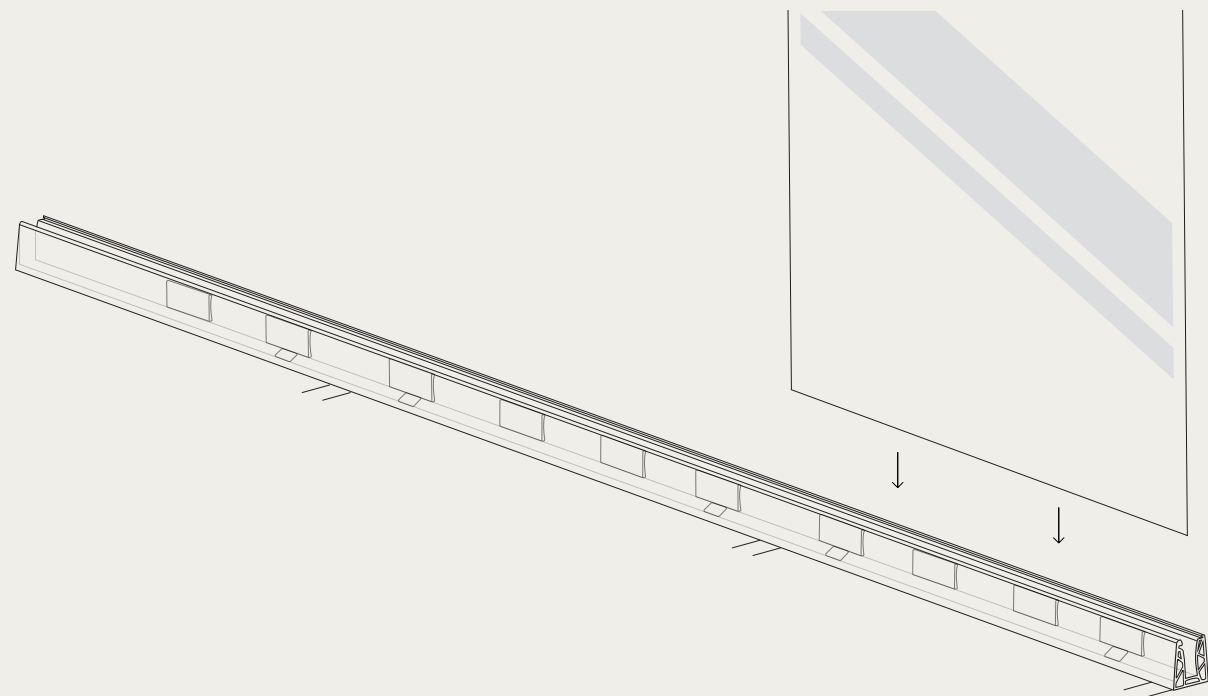
Set curved Leveling Wedge on top of spacer at each end of where the glass panel will sit. For 1/2" or 9/16" glass thickness, use the GREY Leveling Wedges.

For 11/16" glass thickness, use the BLACK Leveling Wedges. Curved side of Leveling Wedge should touch the curved inner wall of channel.



15

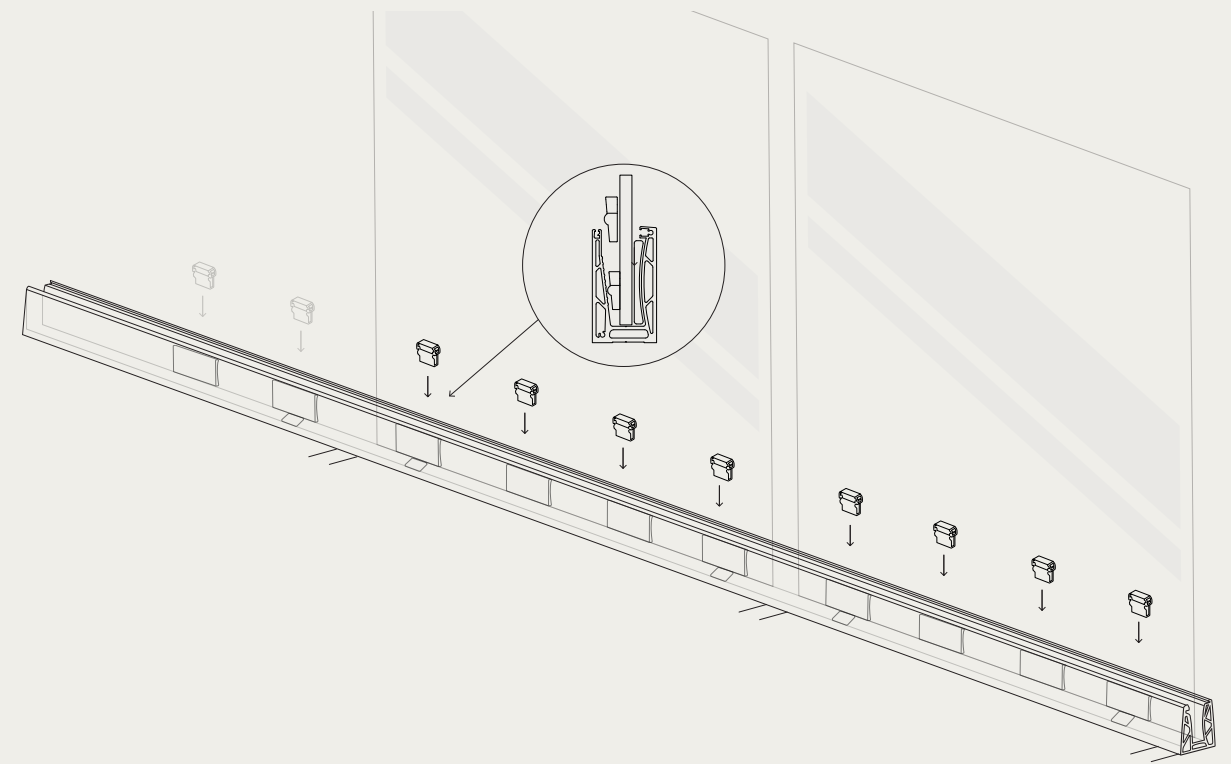
Set remaining leveling wedges every 10".



16

Set in glass panels per marks on deck surface.

Leveling Wedges need to be on the outside of the glass, touching the curved wall of the Channel.

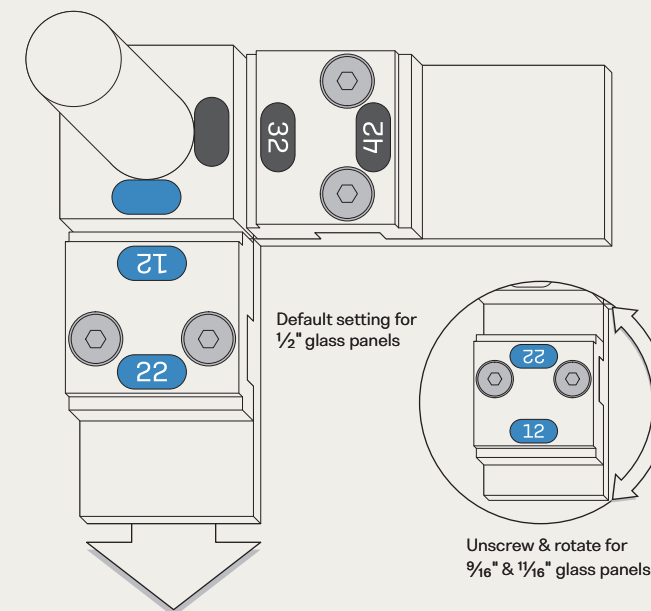


17

Set Blue Fixing Wedges.

Set the Blue Fixing Wedges first- at one end of each Leveling Wedge. Fixing wedges go into the channel

with the flat side facing the glass panel and the side with the bump facing the channel wall.

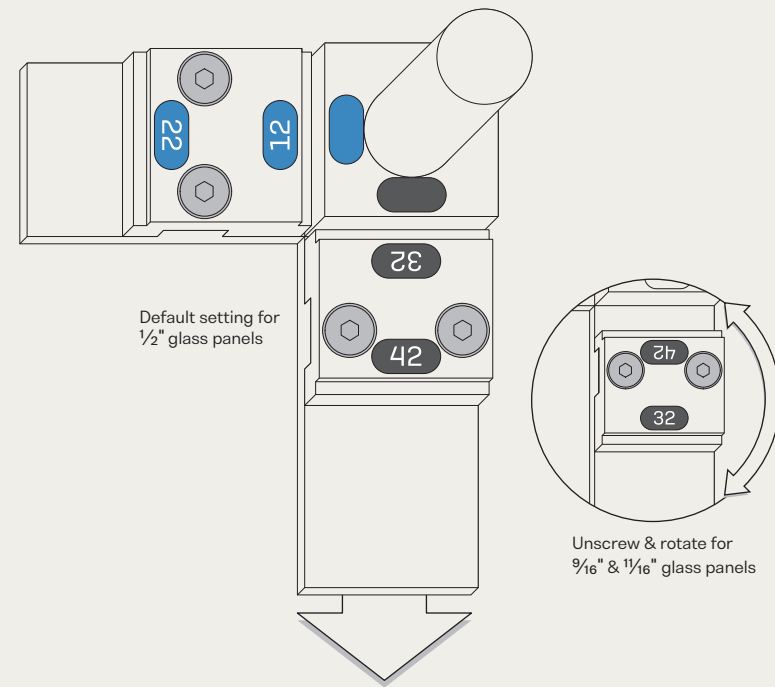


18

Adjust Wedge Installation tool to suit your glass.

The Wedge Installation Tool is used for setting the Fixing Wedges to the correct depth. For the Blue Fixing Wedges, use the side of the tool with the blue dots. The tool should be adjusted for your glass thickness.

For 1/2" glass, remove the 2 allen bolts and set the "22" side facing out towards the end of the tool as shown above. For 9/16" or 11/16" glass use the tool with the "12" side out.

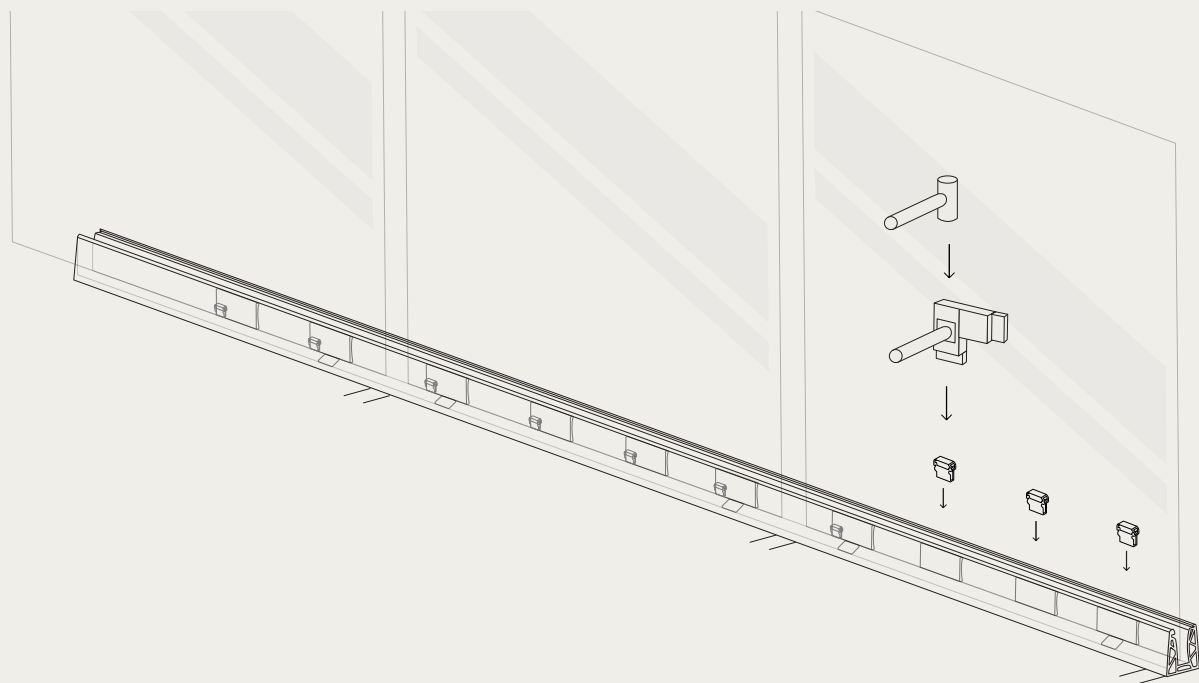


19

Adjust Wedge Installation tool to suit your glass (continued).

For installing the Black Fixing Wedges, use the side of the tool with the black dots. The tool should be adjusted for your glass thickness. For 1/2" glass, remove the

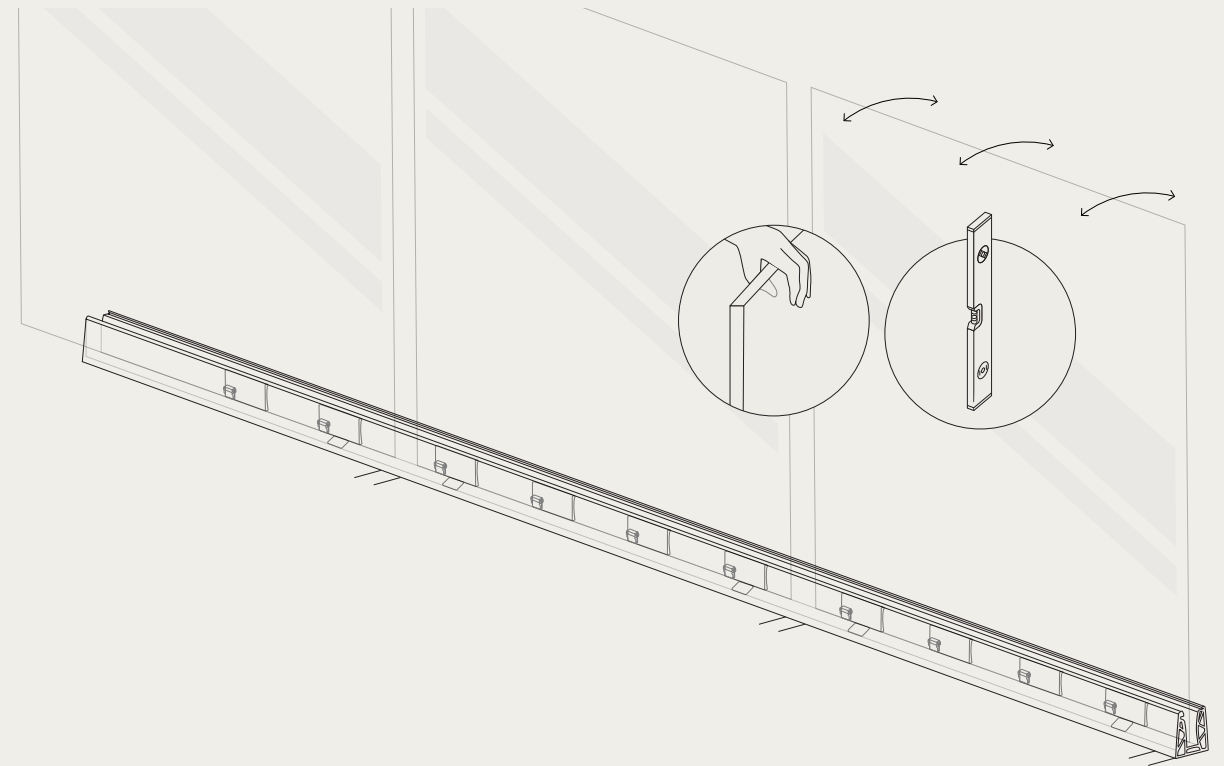
2 allen bolts and set the "42" side facing out towards the end of the tool as shown above. For 9/16" or 11/16" glass use the tool with the "32" side out.



20

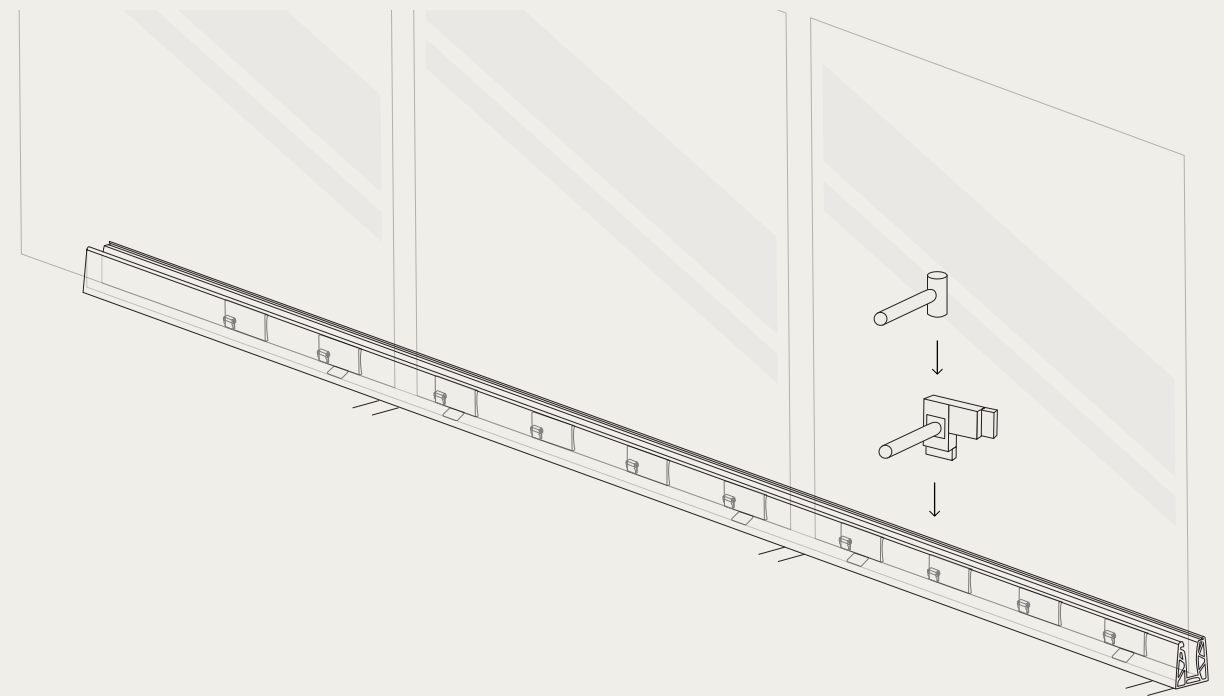
Tap in Blue Fixing Wedges.

After setting the Wedge Installation Tool for your glass panels (Step 18 above), tap in the Blue Fixing Wedges.



21

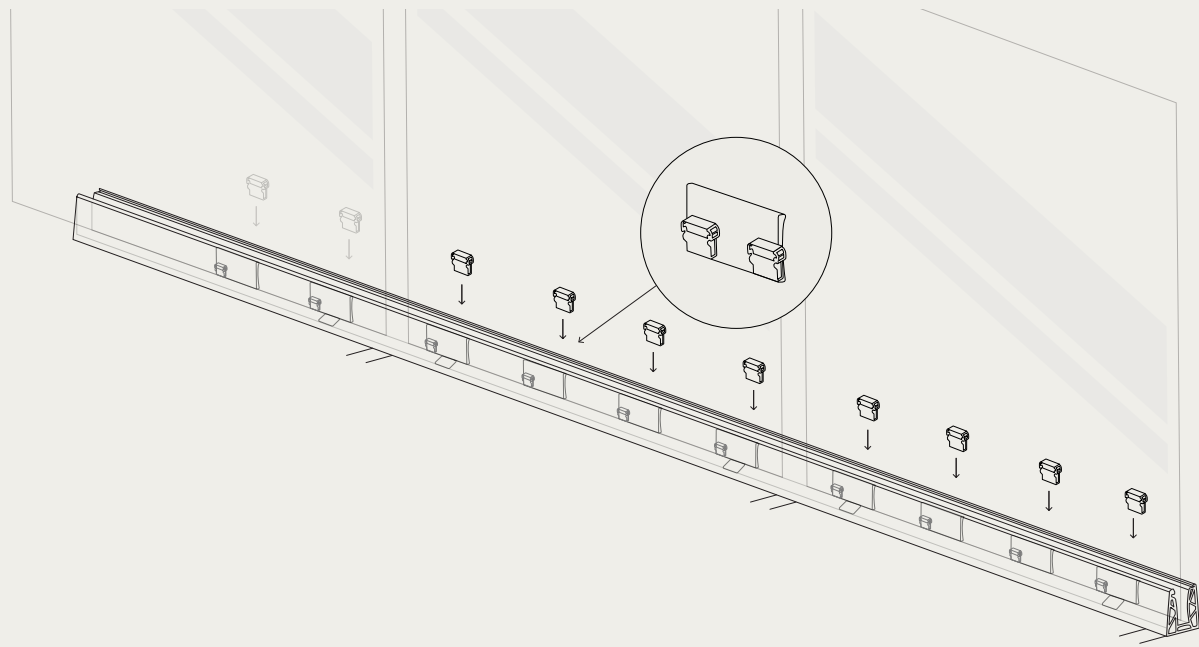
To level glass panel, maneuver back and forth until in level position.



22

Once level, tap in again to lock in place.

Important: Set the Black and Blue Fixing Wedges at each end of the Leveling Wedge at least 1 inch apart. This is to allow space for the Extractor Tool in case you ever need to remove them.

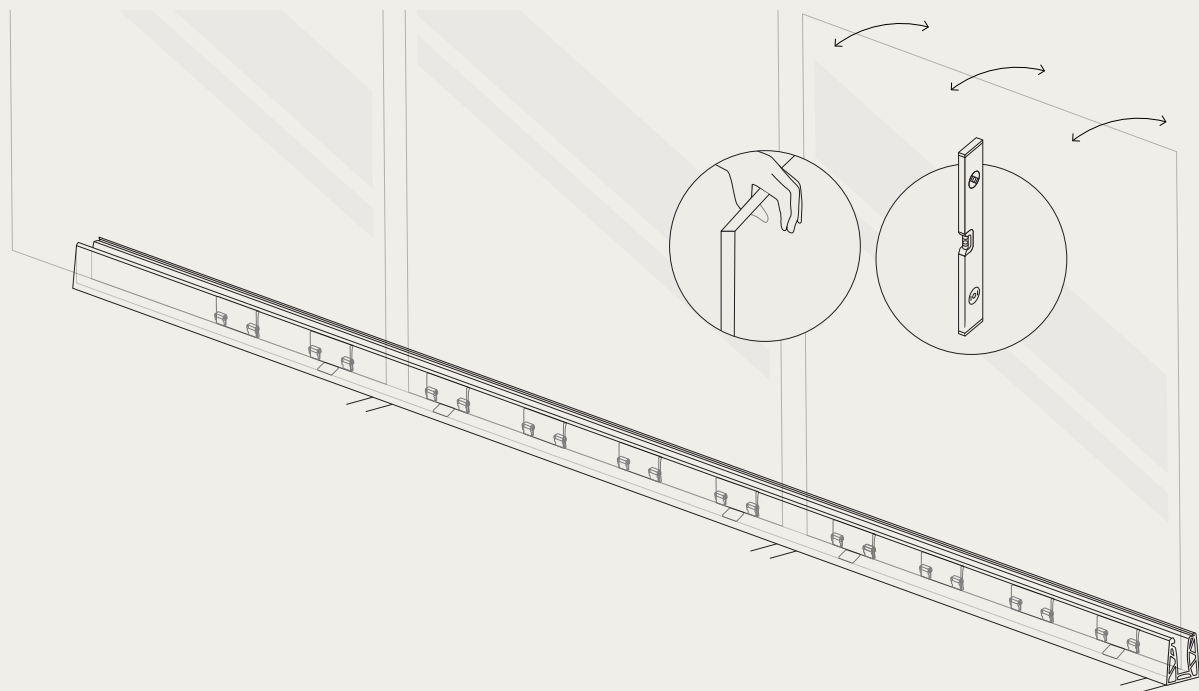


23

Set Black Fixing Wedges.

After setting the Wedge Installation Tool for your glass panels (Step 19 above), tap in the Black Fixing Wedges at the opposite end of leveling wedge from the Blue

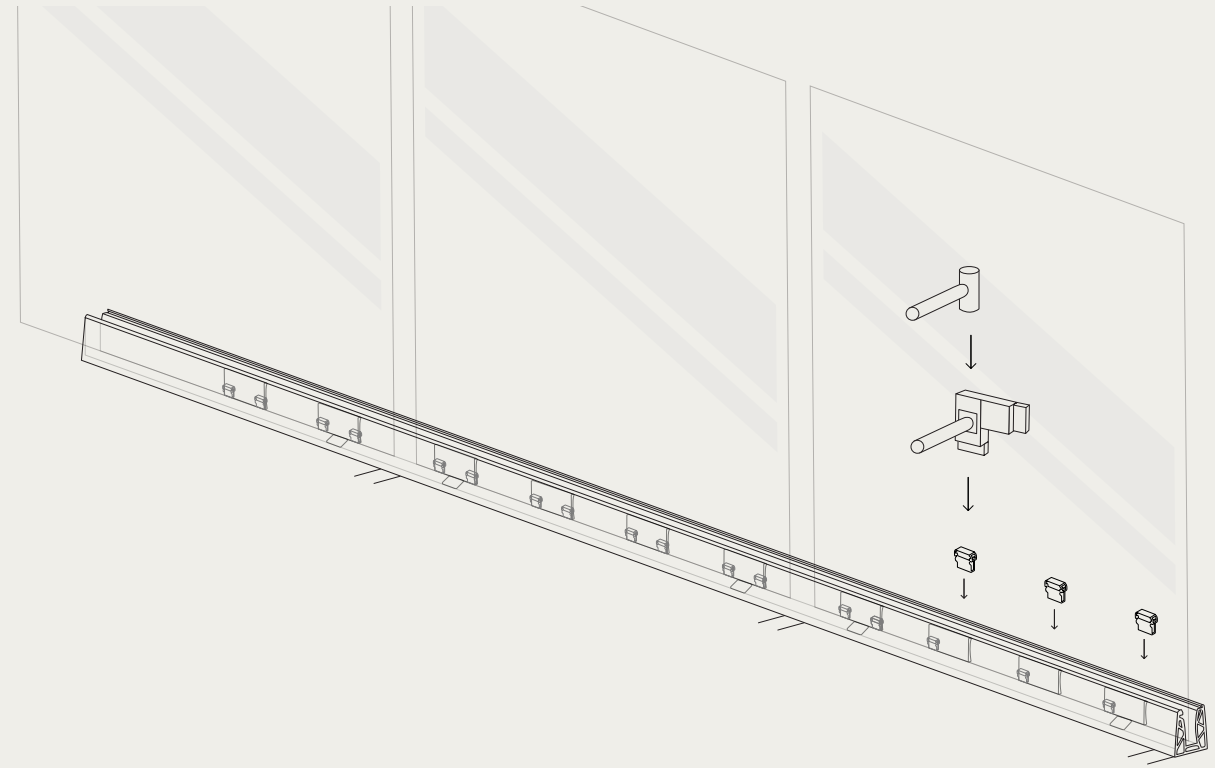
Fixing Wedges. Leave 1" of space between the Black and Blue Fixing Wedges.



24

Level again, maneuvering panel back and forth.

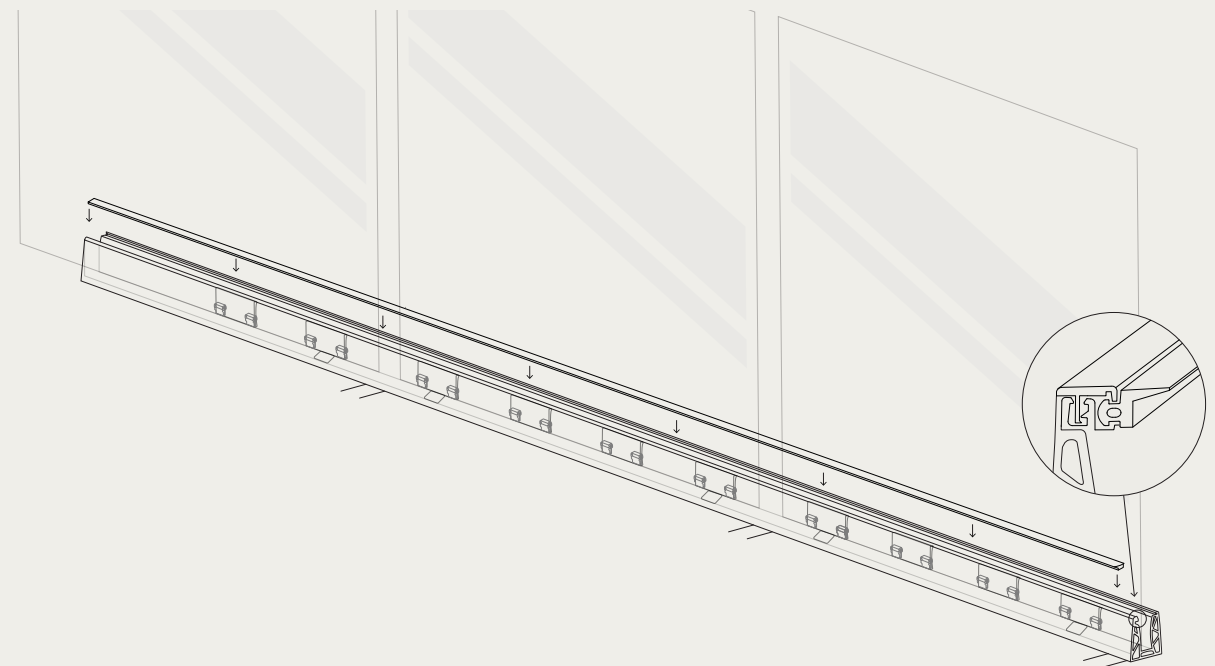
Once first panel is installed, repeat Steps 12 to 22 for the remainder of your Glass Panels.



25

Set Black Wedges.

Check Level before installing Black Wedges to lock panel in place. Tap in with Black side of Future Glass inset tool.

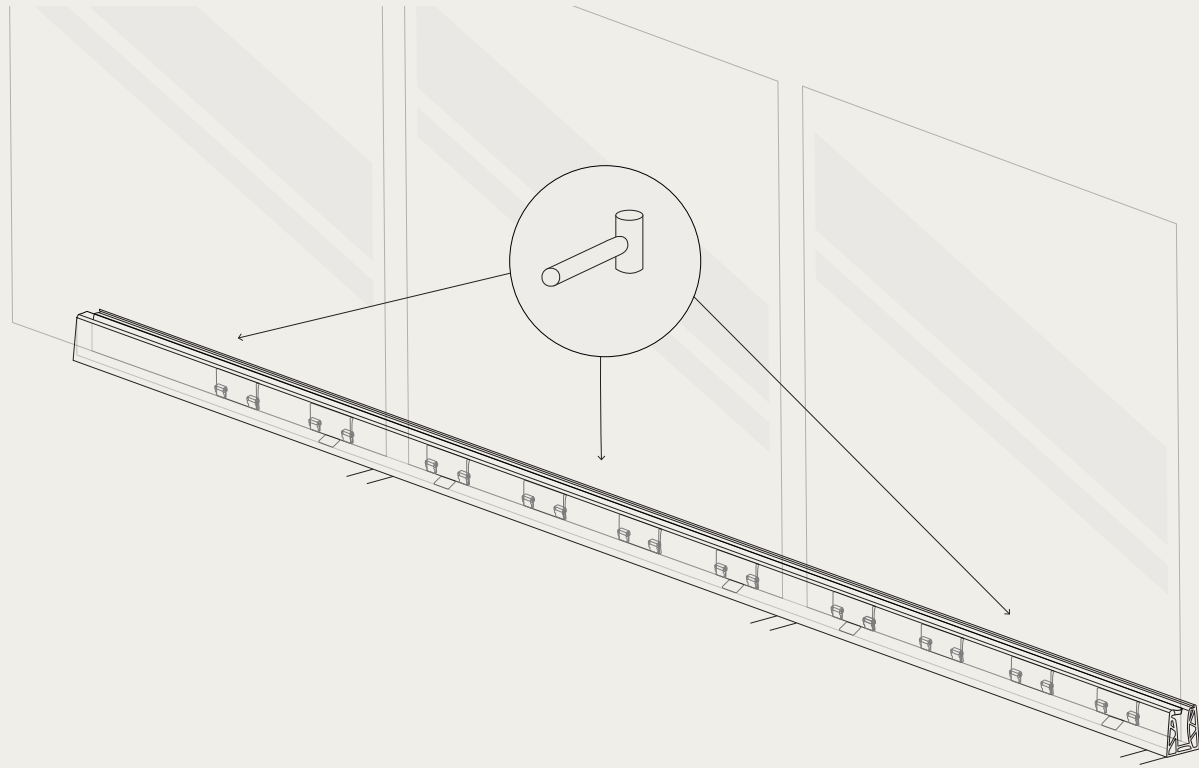


26

Install Rubber Gasket in Aluminum Strip

Once all glass is installed, slide black rubber into Aluminum strip. If you've cut any of your channels to

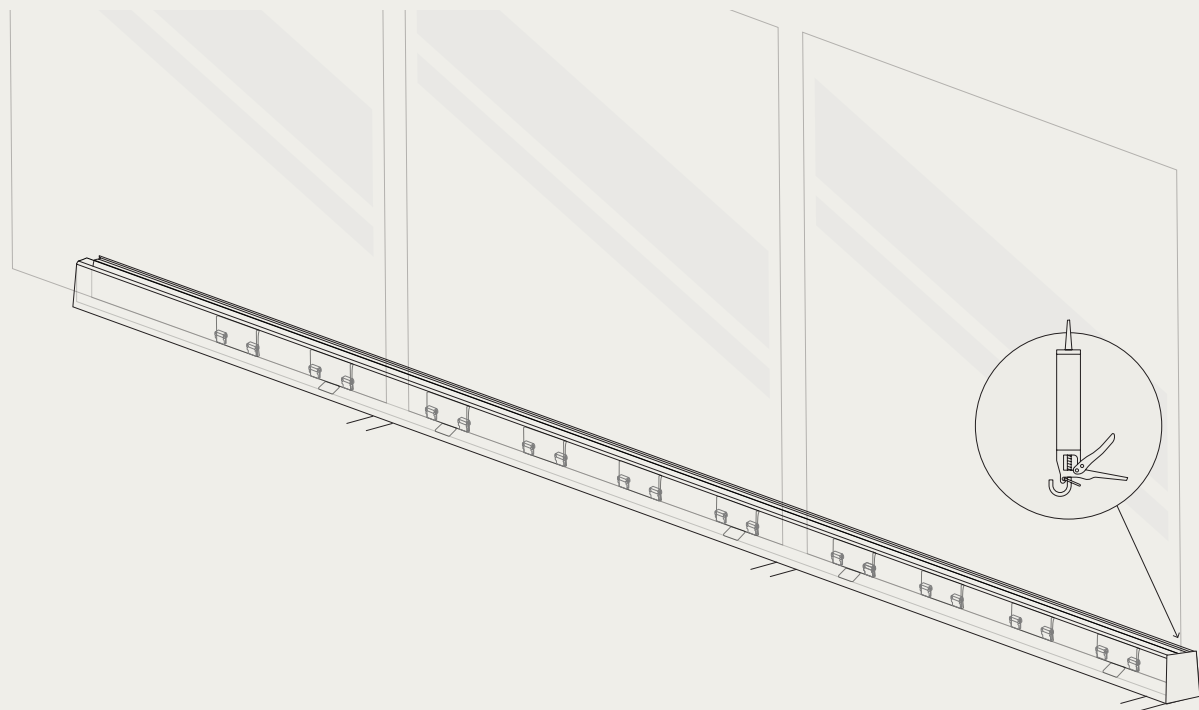
length, you will need to measure and repeat these cuts on the Aluminum Strip and Rubber Gasket.



27

Install Aluminum Strip.

Snap in aluminum strip and gently tap in with mallet to finish.



28

Install End Caps.

Apply Silicone to inside wall of the End Cap and make sure that you use enough so that it touches the glass

inside the channel. Wipe away any excess silicone.



Care & Maintenance

EnduroShield makes cleaning easier and less frequent; however it is recommended that you continue to clean the surfaces regularly.

Maintaining the Treated Surface

For best results simply drying the glass with a squeegee or towel after each use will help keep the glass clean and reduce mineral spots forming. The glass needs to be cleaned every few weeks using a damp microfiber cloth and a mild detergent to break down soaps, oils, and conditioners on the glass. General glass cleaners are also suitable, however most of these are finishing agents rather than cleaners, and are an added expense that is not required.

Hard Water Maintenance

In hard water areas, or areas where water drops dry and leave a noticeable dust mark, a build of minerals may occur on the protective treatment. While these may not be removed as easily with the mild detergent, mild acids will often remove the marks quickly. As needed white vinegar should be used to wipe down the glass. Keep in mind the vinegar may be diluted with water, however dilution reduces the effectiveness.

Spray vinegar onto the glass and allow to soak for several minutes. This should dissolve any mineral deposits that have built up on the glass surface. A damp microfiber cloth should then be used to wipe over the surface. For extreme hard water areas we recommended using undiluted vinegar every week or so as a cleaning option to reduce this build up on the surface, rather than allowing the build up to continue over a long period of time.

Caution: Prohibited Products *Note these may damage the treatment and void any warranty

- Avoid the use of any abrasives or polishes including water spot removers, toothpaste, polishes, rough, or gritty substances
- Avoid the use of acids or alkalis that you would not want in contact with your skin for an extended period of time
- Avoid products such as Comet, Ajax, Jiff or Cerium Oxide which polish back the actual substrate
- Avoid the use of any harsh or chemical cleaners, with correct maintenance these are never required

Exclusive Limited Warranty Terms & Conditions.

This limited warranty ("Warranty") is effective as of AUGUST 22, 2024

PLEASE READ THE WARRANTY TERMS AND CONDITIONS BEFORE PURCHASING AND BEFORE INSTALLING OR RESELLING YOUR FUTURE GLASS PRODUCT. BY PURCHASE, INSTALLING, AND OR RESELLING THE FUTURE GLASS PRODUCT, YOU ARE CONSENTING TO BE BOUND BY

Future Glass ("Seller") provides this limited warranty to the business or individual ("Buyer") who purchases a Future Glass product ("Product") directly from Seller for the purpose of re-selling the Product to an end user and/or installing the Product on behalf an end user ("Customer"). Seller warrants to Buyer that for a period of five (5) years from the date of shipment of the Product to Buyer or the date of Buyer receiving the Product at Seller's facility ("Warranty Period"), that the glass and hardware components that are integral to such Products (excluding seals) will materially conform to Seller's published specifications and will be free from material defects in material and workmanship. With respect to any part finished in oil rubbed bronze or matte black, the Warranty Period for such finish shall be one (1) year.

The warranty provided above shall be voided if the Product (i) has been subjected to abuse, misuse, neglect, negligence, accident, improper testing, improper installation, improper cleaning (such as use of abrasive cleaners), improper storage, improper handling, abnormal physical stress, abnormal environmental conditions, or use or installation contrary to any instructions or guidelines issued by Seller; (ii) has been altered, repaired, or reconstructed by anyone other than Seller; (iii) was installed by anyone other than a fully insured and licensed professional; (iv) is installed or used outside of the US or Canada; or (v) has been used with any third-party hardware or product that has not been previously approved in writing by Seller. This Warranty shall not apply to normal wear and tear.

Buyer may pass this Warranty through to its own Customers. However, the Warranty shall extend only to the original Customer who owned the property at the time of installation and will not apply to any subsequent owners of the property. Neither Buyer, nor any other person is permitted to make any affirmation, representation, or warranty other than those contained in this Warranty. Any affirmation, representation, or warranty other than those contained in this Warranty shall not be enforceable against Seller or any other person. Seller reserves the right to modify this Warranty at any time, it being understood that such modifications will not alter the terms and conditions applicable at the time of sale of the products in question.

Claims Process and Remedies:

All Warranty claims are subject to review and confirmation by Seller, and Seller reserves the right to inspect the installation to confirm the validity of the warranty claim. To submit a warranty claim, Buyer must:

1. Contact Seller's customer service department within 30 days of discovering the defect. Contact information: Phone: (760) 203-6255 Email: info@futureglass.us
2. Provide the following required documentation: (a) proof of purchase; (b) detailed description of the defect, including photographs; (c) item part number.
3. A customer service representative will review the claim and may request additional information or schedule an inspection of the Product and/or installation. Buyer must cooperate fully with any requests for information or inspection.

Seller shall have no obligation to honor any Warranty claim that does not comply with the above claims process. If a Warranty claim is approved, Seller shall, in its sole discretion, either: (i) repair or replace such Product (or the defective part), in which case Seller shall cover shipping of the repair parts or replacement product; or (ii) refund the price paid by Buyer to Seller for such Product. Replacement parts and products will be covered by the Warranty for the remainder of the Warranty Period of the original Product. Seller may require that the Product be returned to Seller, at Seller's expense. Except for any repairs made by Seller or its representatives as set forth above, Seller shall not pay for labor related to the Warranty claim, such as removal of the defective Product or installation of a replacement product. Seller's warranty obligation shall be discharged upon tender of parts, replacement or repair of the Product. Buyer's refusal to accept the tender terminates all warranty obligations and **VOIDS THE WARRANTY.**

THE REMEDIES SET FORTH ABOVE SHALL BE BUYER'S SOLE AND EXCLUSIVE REMEDY AND SELLER'S ENTIRE LIABILITY FOR ANY BREACH OF THE WARRANTY

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WARRANTY SERVICE

**Contact Technical Support:
Monday – Friday 8am – 5pm – PST**

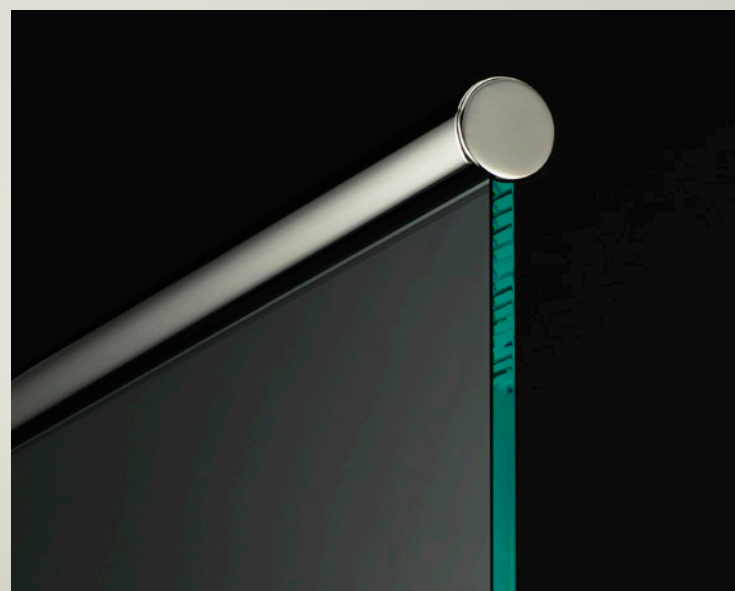
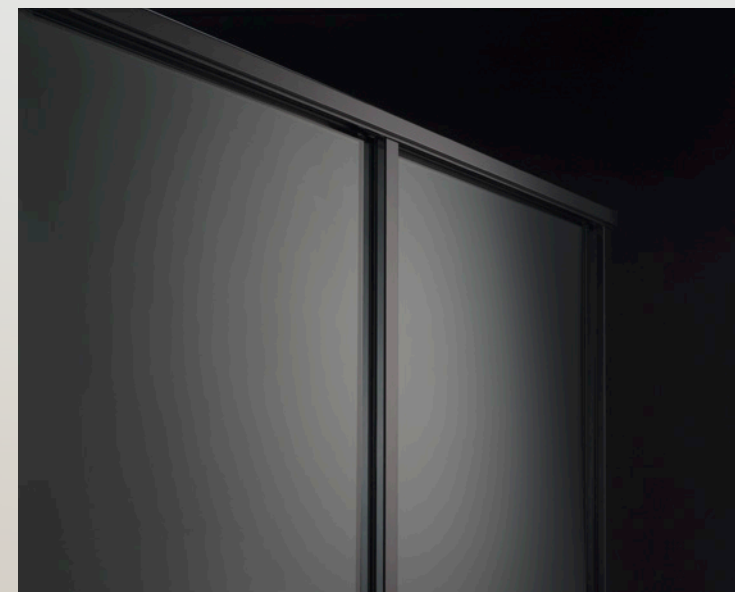
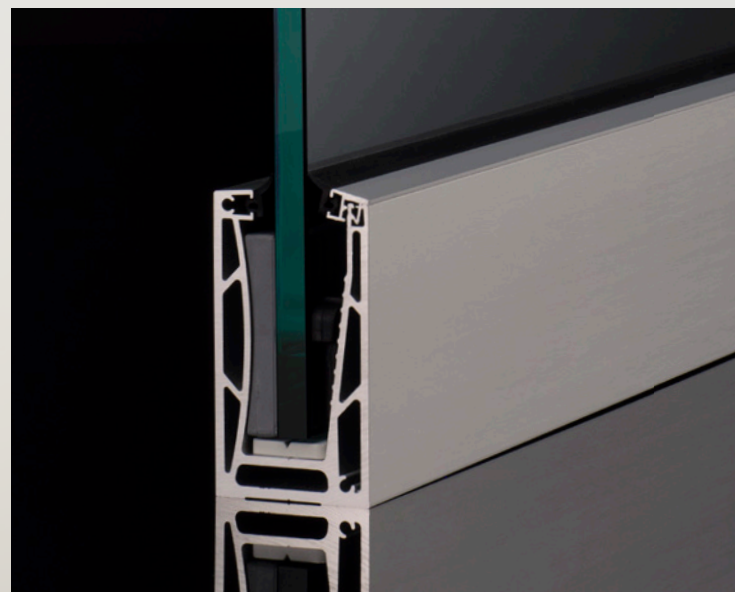
Technical Support: (760) 203-6255

Email: info@futureglass.us

Introducing Glass Railing

Explore our complete line of spigots, channels, posts, glass panels, railings and accessories. Design and manifest your new glass railing with our Online Glass Railing Designer. Get everything you need, delivered at once to get your project up and running.

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