

# GLAZINGVISION

Installation Manual

Eaves



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## Introduction

Thank you for purchasing a Glazing Vision Eaves. In order to ensure that it gives you many years of service it is important that before commencing any work you read these instructions fully and ensure that they are strictly followed for a successful and trouble free installation.

We recommend that the installation should be undertaken by Glazing Vision Engineers or Approved Installers (installers that have attended a Glazing Vision Installation training course for this product and carry 'Approved Installer' status). This will ensure a reliable product and enable the property owner to benefit from the full 10 year warranty on the product. It should be noted that an installation by non-approved installers will result in a reduced warranty period of just 2 years.

By following the correct installation procedure, a reliable and high performing end result is guaranteed. The critical operations that can lead to problems if not done correctly are the lifting, preparation of the curb and supporting structure, and ensuring the correct line and level when mounting. Taking the time to carry out these operations correctly will ensure that the product does not twist or distort making sure that the installed product has no undue stresses in the frame or glass.





Care should be taken when working on the product, avoiding accidental damage and ensuring product reliability.

Should you have any queries beyond this manual please do not hesitate to contact Glazing Vision.



## Safety Information

Installation of your skylight may involve working at heights, working at an unusual angle, being in unfamiliar locations or all of these. **Before** work is commenced, stop and consider the best way to carry out the task and what hazards you might encounter.

	<p>These products can be very heavy. Extreme care must be taken during handling and installation. Full consideration should be given to how you will safely transport your skylight product from the delivery vehicle to the installation location. <b>Glazing Vision strongly recommends that specialist, mechanical lifting equipment is employed.</b></p>
	<p>Consider:</p> <ul style="list-style-type: none"> <li>• The weight(s) of the product purchased.</li> <li>• How you will safely transport your skylight product from the delivery vehicle to the installation location.</li> <li>• All lifting methods and equipment required for safe installation to eliminate manual handling.</li> <li>• How you will safely access the area to carry out installation.</li> <li>• Any openings, voids or unprotected edges that might pose a significant risk whilst working at height.</li> <li>• Use of scaffolding with all appropriate edging, rails and inspection certification.</li> <li>• If specialist access or equipment is required e.g. a fall arrest system.</li> <li>• What personal protective safety equipment (PPE) is required for working at height – e.g. harness.</li> <li>• Methods for safe working, for example, to avoid falling from height, reducing manual handling and so as not to drop equipment.</li> <li>• How you will transport tools and other equipment to the installation area.</li> <li>• The number of persons required to assist with safe installation.</li> <li>• The competence, capability and experience of the installation team to safely carry out the task.</li> <li>• Impact of weather on safe installation, especially driving rain and high winds.</li> </ul> <p><b>If in doubt, please contact Glazing Vision for assistance.</b></p>
	<p>Anticipated hazards may include:</p> <ul style="list-style-type: none"> <li>• Falls from height</li> <li>• Working with specialist lifting equipment or third-party lifting</li> <li>• Manual handling injury</li> <li>• Equipment falling from height</li> <li>• Slips, trips and falls</li> <li>• Fragile roof areas.</li> <li>• Finger or clothing entrapment under unit, in mechanical or moving parts</li> <li>• Impact of weather conditions</li> <li>• Competence of personnel</li> </ul>
	<p>Do not attempt to repair, move or dismantle the product unless suitably competent and qualified to do so, with the appropriate safety measures in place. Any repairs and/or movement of the product may invalidate the warranty. Please seek advice from Glazing Vision.</p>



## Warning

The following warnings are here to prevent personal injury and damage to the product. Please follow them explicitly.

### General:

- The product must be properly installed and commissioned in accordance with this manual before it is used.
- Glazing Vision strongly recommends that any work is carried out by suitably qualified individuals (e.g. Glazing Vision Engineers or Approved Installers, or an experienced service engineer).
- Glazing Vision strongly recommends that specialist, mechanical lifting equipment is employed.
- Use the product only for its intended purpose.
- Regular cleaning and maintenance must be carried out according to guidelines.
- A safe working platform must be provided for any installation/maintenance work carried out. This includes suitable edge protection.
- Glazing Vision cannot be held responsible for damage incurred during the lifting and transportation of the product to the installation location (please refer to terms and conditions of sale).

### Pre-Installation:

- Glazing Vision products are heavy, fragile and of awkward shape and size. There may be uneven weight distribution due to the materials used and their design.
- The weight(s) of each individual product (or product section) will be clearly marked on the product and will be communicated to clients before dispatch of goods.
- Never install any product showing signs of damage. If in doubt consult Glazing Vision for advice.
- Please dispose of the packaging material for this product in a considerate manner. Cardboard and wood items are widely recycled.

### During Use:

- Do not place anything on, walk or sit on the unit.

For more information or assistance please contact Glazing Vision.

## Pre-Installation Preparation



These products can be very heavy. Due consideration should be given to getting the product onto the roof safely and extreme care taken during installation.

### Points to Note Prior to Commencing Installation

1. The Eaves should arrive on site in undamaged packaging, which includes a wooden build frame/blocks, cardboard, polyfoam glass protection and low tack tape. Please inspect for damage to packaging and/or product and advise Glazing Vision of any damage or shortfall within 48 hours from signing the receipt of your delivery.
2. Enclosed within the box containing this manual will be the required number of fixing woodscrews and a number of plastic packers, as well as some silicone and other required materials and any additional optional items selected at the time of order.

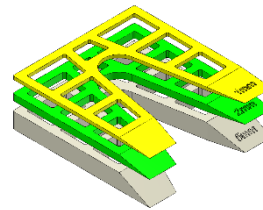
### Standard Installation Hardware

Enclosed within the hardware box for each unit you should find at least the following:

Stainless steel woodscrews



Plastic horseshoe packers

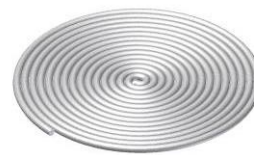


(various sizes)

Low modulus silicone



Polyethylene backing rod



3. The curb and supporting structure must already be in place for the product. The dimensioning of the product will have taken into consideration the dimensions of the curb and supporting structure including all weathering. More information about curb and supporting structure construction can be found in Glazing Vision's sales drawings. **Please note that a minimum distance of 6" clearance between the curb and any surrounding structures must be left at the front of the product. Sufficient room for installation and maintenance must also be allowed for.**
4. It is important to ensure that the area of installation is suitably prepared. The area surrounding the supporting structure should be clear to provide safe access during the installation works. It will be necessary to work on the inside and outside and therefore suitable provisions should be made for safe handling of the product, including all relevant personal protective equipment (PPE) and safety systems for working at heights.
5. Before starting installation, Glazing Vision advises that the physical curb and supporting structure dimensions are cross-checked with those given for the order, to ensure the product will fit. The curb and supporting structure will need to be within  $\pm 3/8"$  of the ordered size. The top surface of the curb and the faces of the supporting structure should be flat without undulations greater than  $\pm 1/16"$ . Also check the diagonals to ensure that the curb and supporting structure has been constructed square. The curb and supporting structure must be weathered as per the sales drawings. **If using any metallic waterproofing material, take care not to apply it in such a way that will cause a thermal bridge which can lead to internal condensation and invalidate the product warranty.**

6. These products can be very heavy. Glazing Vision strongly recommends that a structural engineer is consulted when designing the structure(s) that will support the product and the surrounding structure. **Nothing in this manual or on Glazing Vision's sales drawings constitutes a structural proposal.**
7. Glazing Vision strongly recommends that a 'dry run' (without any silicone) is completed before committing to the final installation.

### Sales Drawings

Sales drawings for the Eaves can be obtained by downloading them from Glazing Vision's website ([www.glazingvision.com/technical-downloads](http://www.glazingvision.com/technical-downloads)) or by contacting Glazing Vision.

## Installation Procedure

A suitable lead (or similar) flashing will be required over the wall abutment following installation. This will need to be done by a builder. To reduce the possibility of damage to the glass it is recommended that any chasing of brickwork for flashings is completed prior to product installation. It is also recommended that temporary battens are secured to the wall to support the weight of the product during installation. The battens should be installed on both sides of the opening in line with the top of the vertical framework (note the pitch of the product). The battens can be removed when installation is complete.

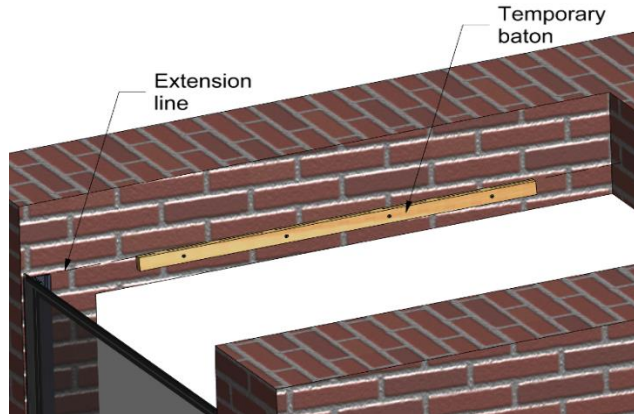


Figure 1 – Temporary wooden support battens in place



The following installation steps detail the process for installing the vertical section first. If circumstances mean that you would prefer to install the vertical section first (eg. to help with positioning/alignment), then before installing the vertical section you can do a dry fit of the horizontal section.

### Dry Fitting the Horizontal Section

Remove the necessary packaging from the horizontal section including polyfoam glass protection and low tack tape. Fit the chosen lifting equipment to the section and check that it is secure. Carefully lift and place the horizontal section onto the temporary support battens and use a block of wood on either side to lift the front edge of this section up by at least 4" (this reduces the risk of damaging the glass when installing the vertical section). Ensure that the section is positioned centrally within the supporting structure (there is a nominal 3/8" gap between the product and the wall on all sides). Secure the section in place so that it cannot slide/fall and cause injury or damage the product. The vertical section can then be installed as per the following steps. Once the vertical is installed, the blocks of wood can be removed, and the horizontal section can be carefully lowered into position and secured in place as described below. When doing this, **take care to avoid clashing the two sections (use some plastic packers as protective spacers), as this may cause damage to the glass (which may require a replacement section to be made).**



Prior to commencing installation, **photographs of the fully weathered curb and supporting structure and surrounding area** must be taken and retained for future reference.

### Step 1

Remove all packaging from the product including polyfoam glass protection and low tack tape.



When removing the packaging, try to keep it intact as much as possible, so that after installation it can be re-used to protect the product until project completion and final handover.

### Step 2

Fit the chosen lifting equipment to the product sections and check that it is secure.

One section at a time, carefully lift the product to the installation site (roof) using strops underneath the wooden build frame/blocks. This is to ensure that the build frame/blocks do not separate from the product during the lift.



### Step 3

A dry fit is needed first, so that the fixing holes can be drilled into the wall.

Place plastic packers at the bottom of the aperture where the vertical section is to sit, spaced at the frame hole centers, creating a nominal 3/8" gap.

The vertical section should be lifted off the wooden build frame/blocks (remove the fixings first) and then gently lowered into position for a dry fit (install without adhesives). Ensure that the section is installed with the correct offset from the wall. Mark the position of the fixing holes through the pre-drilled holes in the product's framework.

Remove the section and drill  $\varnothing 5/16"$  x 2-3/8" holes into the supporting structure. Insert the wall plugs.

### Step 4

The section can now be installed. First, apply a generous amount of silicone (supplied in the installation kit) to the vertical walls and to the entire top surface of the curb where the section will sit.

Next, place plastic packers at the bottom of the aperture where the vertical section is to sit, spaced at the frame hole centers, creating a nominal 3/8" gap.

### Step 5

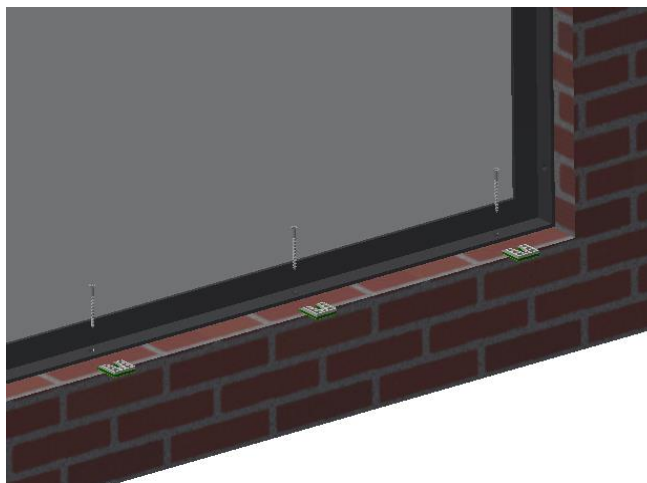
Lower the vertical section onto the packers on the curb. Ensure that the section is installed with the correct offset from the front face of the wall.

With the framework in contact with the curb top and the majority of the weight still supported by the crane/lifting equipment, adjust the position of the section on the curb so that the internal framework is equally spaced and aligned with the internal finishes. Take care when positioning the section during final installation, as **once the weight of the unit has been placed onto the sealants it adheres to the curb making repositioning difficult.**

### Step 6

Secure the section to the supporting structure using the woodscrews and packers provided in the hardware kit. The packers must fill the entire gap between the supporting structure and section for each woodscrew. Care should be taken when tightening the fixings to ensure the frame does not distort.

Once satisfied that everything is correctly positioned, carefully release the weight of the section. Remove the crane and lifting equipment.



*Figure 2 – Installing the vertical section*

### Step 7

If not already done so, install the temporary support battens for the horizontal section.

## Step 8

A dry fit is needed first, so that the fixing holes can be drilled into the wall.

The horizontal section should be lifted off the wooden build frame/blocks (remove the fixings first) and then gently lowered into position for a dry fit (install without adhesives). Ensure that the section is installed with the correct offset from the wall.

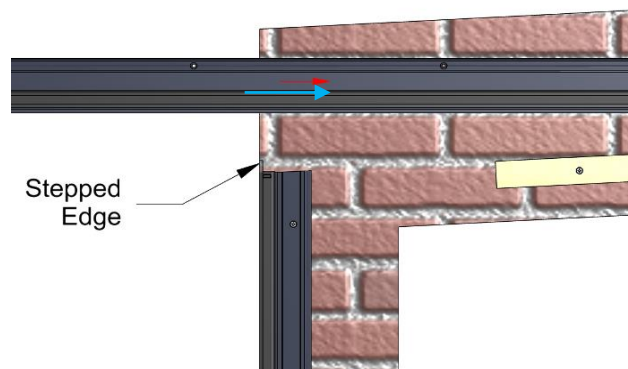
When aligning the horizontal section, the end face should sit in line and flush with the vertical section. If there is a gap, check that the temporary support battens are at the correct angle and adjust if required. Extra plastic packers can be used if required.

Mark the position of the fixing holes through the pre-drilled holes in the product's framework.

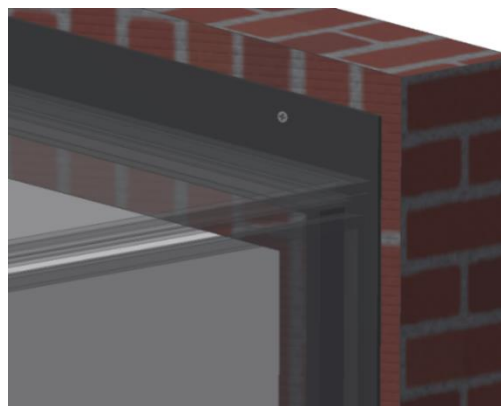
Remove the section and drill  $\varnothing 5/16"$  x 2-3/8" holes into the supporting structure. Insert the wall plugs.

## Step 9

The section can now be installed. Lift the horizontal section over the vertical section and put it into place. Keep the unit as far away from the stepped edge of the vertical section as possible. **Any impacts or loads applied to the stepped edge of the glazing will likely shatter the glass pane and may require a replacement section to be made.** With the framework in contact with the temporary support battens and the majority of the weight still supported by the crane/lifting equipment, adjust the position of the section so that the horizontal and vertical sections align. Check also that the product is level across the rear wall. Take care when positioning the product during final installation, as **once the weight of the unit has been placed onto the sealants it adheres to the curb making repositioning difficult.**



*Figure 3 - Sliding the horizontal section into position*

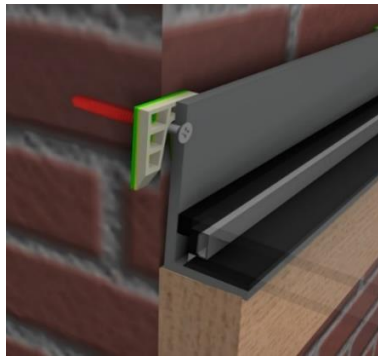


*Figure 4 - Aligning the sections*

## Step 10

Secure the section to the supporting structure using the woodscrews and packers provided in the hardware kit. The packers must fill the entire gap between the supporting structure and product for each woodscrew. Care should be taken when tightening the fixings to ensure the frame does not distort.

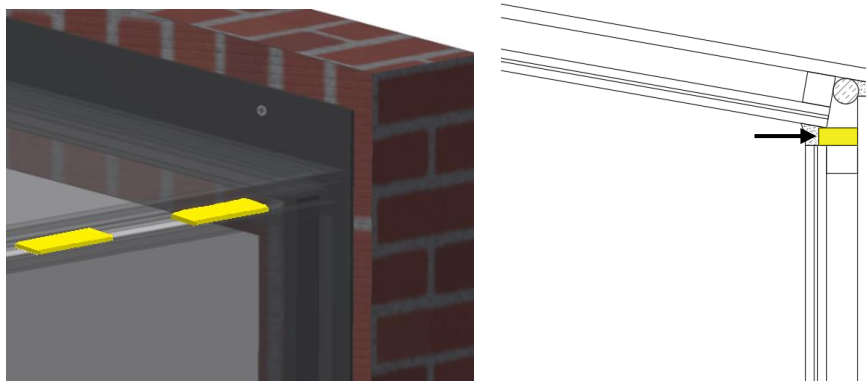
Once satisfied that everything is correctly positioned, carefully release the weight of the product. Remove the crane and lifting equipment. The temporary support battens can be removed.



*Figure 5 – Wall abutment fixed in place*

**Step 11**

Once both sections have been securely screwed to the supporting structure, use the supplied plastic packers to pack the glass to glass joint out from the inside so that there is a nominal 5/16” gap between the glazing units and no visible deflection. Next cut sufficient length(s) of polyethylene backing rod to fit the gap between the sections of glass. Press the backing rod into the gap and position it 3/8” below the outer surface of the glass. After pressing the backing rod in, wait a minimum of 15 minutes to allow any compressed air to escape from the backing rod (otherwise the air can cause bubbles in wet silicone).



*Figure 6 – Plastic packers used to support glass at joint*

**Step 12**

Apply enough black silicone to overfill the gap and tool off this excess silicone (a suggested method is to use the open end of a used silicone tube with some soapy water) to finish the joint. When tooling off the excess silicone from outside, make sure you do not create a cavity where water can pond and potentially affect the seal quality in the future.

Repeat this process for the inside of the glass.

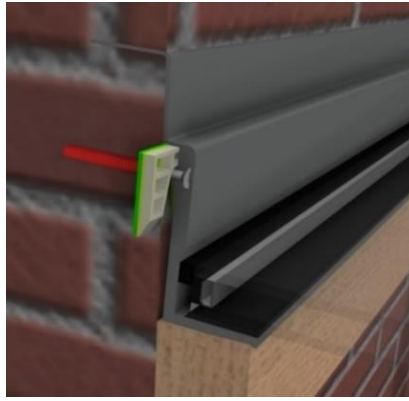
The edges of the frames should sit flush and should not require any finishing. If for whatever reason they do require external finishing, the appropriate color of silicone to match the framework can be run along the joint.

**Step 13**

To finish the wall abutments, run a bead of silicone along the edge of the framework, both inside and outside. Additional silicone can be applied between the product and the wall if needed.

**Step 14**

A suitable lead (or similar) flashing should now be installed over wall abutment. This needs to be done by a builder.



*Figure 7 – Lead flashing applied over the wall abutment*



Once installation has been completed take **photographs of the finished installation**. These must be retained for future reference.

## Interior Finishing

Glazing Vision does not specify the finishes permitted except for the following stipulations:

- The finish must be built up to the internal dimension of the product – see Glazing Vision’s sales drawings.
- No interior metal component (for example edging strips for plastering) may touch any part of the product framework.
- Any airspaces between the aluminum frame of the product and the internal finishes must be filled with insulating material.
- Nothing should be fixed directly to the product.



Contravention of any of these stipulations may severely undermine the thermal efficiency of the product.