

Installation Manual

Ridgeglaze

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### Introduction

Thank you for purchasing a Glazing Vision Ridgeglaze. 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 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.

	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. Glazing Vision strongly recommends that specialist, mechanical lifting equipment is employed.
	<ul> <li>Consider:</li> <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>
	<ul> <li>Anticipated hazards may include:</li> <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>
$\bigcirc$	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.



#### 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**

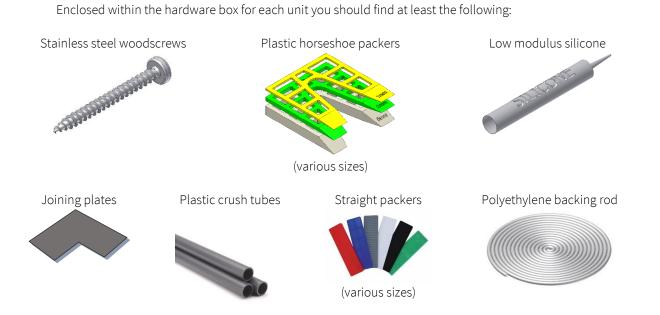


These products can be very heavy. Due consideration should be given to getting the product onto the roof safely and extreme care taken during installation.

### Points to Note Prior to Commencing Installation

Standard Installation Hardware

- 1. The Ridgeglaze should arrive on site in undamaged packaging, which includes a wooden build frame, 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.



- 3. The curb must already be in place for the product. The dimensioning of the product will have taken into consideration the external dimensions of the curb including all weathering. More information about curb 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 on all sides. 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 curb 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.



20" to 40" distance between the curb and the platform

Minimum 32" distance between the curb and the end of the platform

Figure 1 – Required external access arrangement diagram

- 5. Before starting installation, Glazing Vision advises that the physical curb dimensions are cross-checked with those given for the order, to ensure the product will fit. The curb will need to be within ± 3/8" of the ordered size. The top surface of the curb should be flat without undulations greater than ± 1/16". Also check the diagonals to ensure that the curb has been constructed square. The curb must be weathered as per the sales drawings. If using any metallic waterproofing material, this cannot be applied across the top surface of the curb as this 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 Ridgeglaze can be obtained by downloading them from Glazing Vision's website (<u>www.glassskylights.com/resources/technical-downloads</u>) or by contacting Glazing Vision.

### Curb Top Trim Installation (If Specified)

Begin by cutting the curb top trim to the lengths required for all sides of the curb. The corner joints can either be mitered (45°) or straight cut with notches (see image below). If the material requires bending to suit the pitch of the curb, this can be achieved by screwing the section to the curb as below and gently tapping the horizontal part using a clean rubber mallet.



Figure 2 – Curb top trim placement

The curb top trim should be cut to size along its length to leave a dimension of 2-3/8" between the edge of the trim and outside of the curb. This dimension ensures that the visible internal curb top is covered and that there is no contact between the curb top trim and the exterior product framework. The curb top trim is supplied with 5 grooves along the underside. These grooves can be used to help guide a saw or similar when trimming the cover to size. **Failure to follow this step exactly may result in a thermal bridge.** 

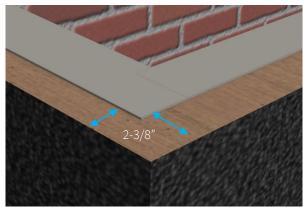


Figure 3 – Curb top trim measurements

After all curb top trim lengths have been cut to size and adjusted to fit, they can be fixed into place with the supplied fixings. Drill holes at approximately 20" centers using the groove to aid with positioning of the drill bit. The curb top trim has been designed to accept standard 1/2" drywall to ensure a flush finish. Refer to the sales drawings for more information.

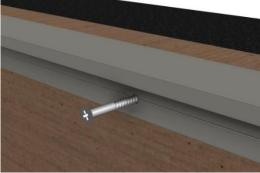


Figure 4 – Curb top trim fixings

### Installation Procedure



Prior to commencing installation, **photographs of the fully weathered curb 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.

Gently pry all of the curb fixing clip on covers off the framework drip legs.

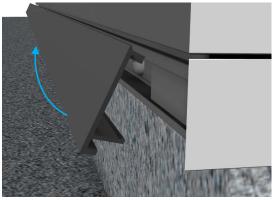


Figure 5 - Clip on cover

### Step 2

Apply two large lines of silicone (supplied in the installation kit) to the top of the curb. The two lines of silicone need to be approximately 3/4" and 1-5/8" in from the outside face of the curb.



Figure 6 – Silicone placement

#### Step 3

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

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

#### Step 4

When on the roof the first product section should be lifted off the wooden build frame/blocks (remove the fixings first) and then gently lowered onto the curb.

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. The section should line up with the curb centerline. 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.

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

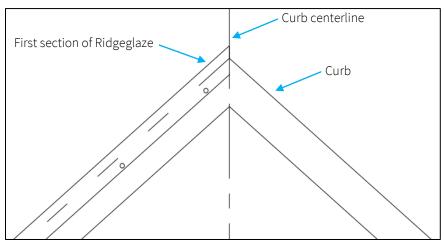


Figure 7 – Centerline alignment



Figure 8 – Installing the first half of the unit

### Step 5

Drill  $\emptyset 1/8$ " pilot holes into the curb through the pre-drilled holes in the section's framework (concealed by the clip-on cover). Secure the product to the curb using the woodscrews and packers provided in the hardware kit. The packers must fill the entire gap between the curb and product for each woodscrew. Care should be taken when tightening the fixings to ensure the frame does not distort. Fit the clip on covers back onto the unit.



If installing into an alternative material to wood, it may be necessary to source suitable wall plugs and/or fixings to use instead of those provided.

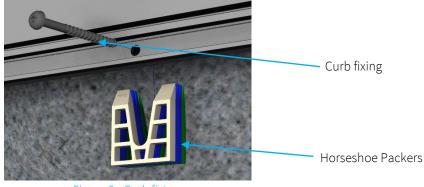


Figure 9 - Curb fixings

#### Step 6

Place the joining plates into the section that has not yet been installed. Ensure that the centerlines of these plates line up with the curb centerline at the apex.

#### Step 7

Install the second section as per step 4. If required (only for products with pitches between 2-1/8": 12" (10°) and 9-5/8": 12" (39°)), insert the crush tube (supplied - it can be held in place with silicone if needed).

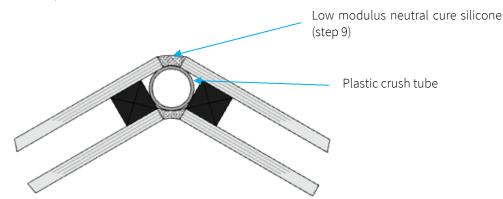
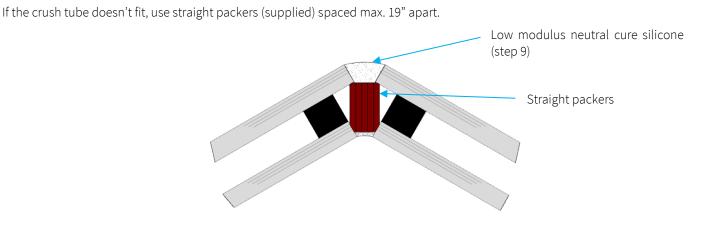


Figure 10 – Apex joint with crush tube (for pitches between 2-1/8": 12" (10°) and 9-5/8": 12" (39°))



*Figure 11 – Apex joint with packers (for pitches between 2-1/8": 12" (10°) and 9-5/8": 12" (39°))* 

Place the second section onto the curb and lower it down to meet the first section. When you get close to the joining plates, make sure they are engaged on both sides, and continue to lower the section until both sections meet at the apex. Take care to ensure that the glazing units do not make contact, as this may damage the glass. No large gaps should be present and ensure that the internal framework is equally spaced and aligned with the internal finishes.

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Secure the product in place as per step 5.



Figure 12 – The second section is lowered to meet the first section at the apex

#### Step 8

Once the unit has been securely screwed to the curb, cut sufficient length(s) of polyethylene backing rod to fit the gap between the sections of glass (there should be approximately a 5/16" gap between the glazing units). Press the backing rod into the gap and position 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).

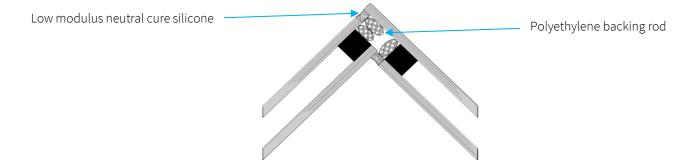


Figure 13 – Apex joint (for pitches between 10-1/8": 12" (40°) and 14-1/4": 12" (50°))

### Step 9

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.



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 drywall) 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.