



## GV Standard Skydoor

Operation and Maintenance Manual

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*"Technical experts in the design, manufacture and supply of precision engineered, architectural rooflights for residential and commercial buildings."*

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## Introduction

Thank you for purchasing a Glazing Vision Skydoor (*Figure 1*). The Skydoor is an electrically opening vent which is suitable for access. It can be integrated into Glazing Vision's Flushglaze glazing system. Should you have any queries beyond this manual please do not hesitate to contact Glazing Vision.



*Figure 1 – Electric Skydoor*

## Controls and Operation

### Control Switch:

The standard operation of the unit is via the supplied wall switch (*Figure 2*) and can be operated using two different methods as explained below:



*Figure 2 – Wall mounted control switch*

1. **'One touch' operation** – Press and release the control switch once in either the up or down direction; the rooflight will open or close fully. Partially open positions can be achieved by pressing the control switch again during the open or close cycle.
2. **Conventional 'hold' operation** – Press and hold the control switch until the rooflight has reached the desired position, releasing the switch stops the rooflight in that position. Note: the rooflight will stop when it becomes either fully open or closed.

### Status Light:

The status light will illuminate green if the rooflight is functioning normally. If the status light displays another colour please refer to the troubleshooting section.

### Remote Control (Optional):

The remote control unit (*Figure 3*) functions in the same way as the control switch but allows you to open and close your rooflight from a short range. The remote control is powered by two AA batteries.

To replace the batteries, remove the small hex screws found on the rear of the remote to allow access inside (*please note there is a free end wire antenna coiled within the remote*).



*Figure 3 – Remote control*

### Building Management (Optional):

The Skydoor can be connected to building management systems. Please contact Glazing Vision Ltd for further details if required.

**Rain Sensor Operation (Optional):**

The rain sensor (*Figure 4*) automatically closes the rooflight when it rains. If moisture is detected on the rain sensor when rooflight is opened, a special built in heater activates for 60 seconds to evaporate standing water. If after 60 seconds water is still detected, the rooflight will close. This feature enables the rooflight to differentiate between rain and standing water / morning dew.



*Figure 4 - Rain sensor*

**External Key Switch (Optional):**

The key switch option (*Figure 5*) offers the same function as the keypad but via a key operated switch. In addition the key switch does offer 'press and hold' operation. To open the rooflight - turn the key in a clockwise direction. To close the rooflight - turn the key in an anti-clockwise direction.



*Figure 5 - External key switch*

**External Keypad (Optional):**

The keypad option (*Figure 6*) offers secure access into the rooflight via a numerical pass code. To open the rooflight - enter the four digit code (Glazing Vision supplies an initial code with the rooflight and instructions for changing it as required). To close the rooflight - press the bell symbol in the bottom left hand corner of the keypad. Unlike the standard internal wall switch, the keypad does not offer 'press and hold' operation.

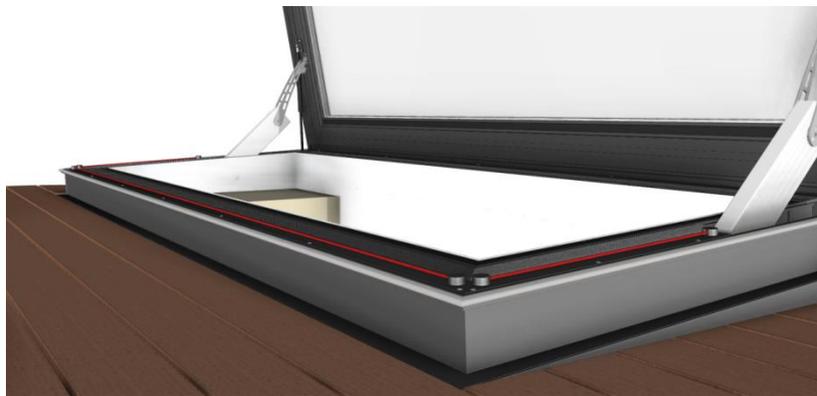


*Figure 6 - External keypad*

## Product Safety

The Skydoor has infra-red safety beam sensors included as standard. These are mounted in the tread plates around 3 sides of the Skydoor (*Figure 7*). If these safety beams are interrupted by any object the unit will stop immediately to prevent damage to the framework, mechanisms or object.

NOTE: these sensors **do not** offer protection in the immediate area surrounding the mechanisms. To avoid serious injury or damage to the product, objects or human limbs should not be placed near to the mechanisms. A warning sticker is located on both sides of the mechanism (*Figure 8*). Do not allow unauthorised persons (e.g. Children) to operate the rooflight.



*Figure 7 – Infra-red safety beam sensors*



*Figure 8 – Mechanism warning stickers*

## Cleaning the Skydoor

Due to the Skydoor's unique bonding method and slight pitch built into the kerb, there should be no water ponding on the glass when installed correctly. Any standard glass cleaning product can be used to clean the glass unit. However, take care not to use abrasive materials or cleaners as this may affect the unit and its finish. The framework of the unit can be cleaned using warm soapy water with a soft lint free cloth.

It is important to avoid water entering the internal channel of the rooflight framework, therefore, we highly recommend carrying out any cleaning of the rooflight whilst in the closed position.

## Troubleshooting

The Skydoor control board monitors the operation of the vent. If a fault is detected, the board will disable the vent to prevent possible damage. Fault and standard conditions are indicated by the status light on the control switch (*Figure 2*). The following table shows the various status light displays and their meanings:

Status light shown	Meaning
Continuous Green	Displayed whilst rooflight is in motion with no faults present. If rooflight is one-touch opened or closed LED will remain lit until motion stops.
Intermittent Green	Flashes whilst rooflight closes due to rain sensor. Flashing will stop when motion stops.
Continuous Blue	Indicates an IO fault, i.e. a mechanism timing fault. LED remains lit and control switch is disabled until control board is reset.
Intermittent Blue	Indicates an overcurrent or undercurrent condition. Flashes and control switch is disabled until control board is reset.

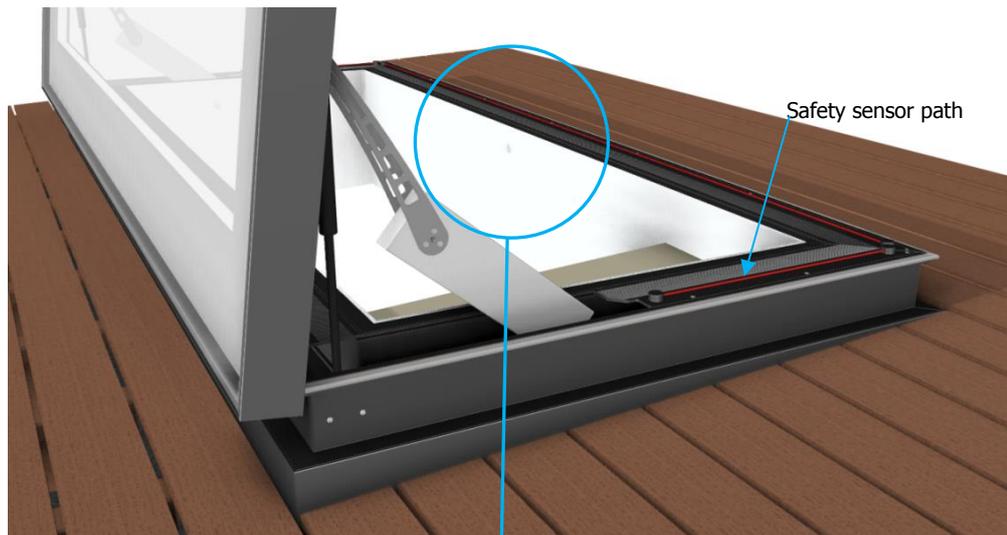
If a fault occurs please refer to the table below. Some faults with the unit may be easily corrected without the need for a site engineer, however if you are unsure, please contact Glazing Vision Ltd. Many faults can be cleared by resetting the board. To reset the system switch off mains power briefly then switch the power back on again. The majority of faults should be cleared using this method, however, in the event the fault persists, please contact Glazing Vision Ltd.

Problem	Possible Cause	Action
Overcurrent Fault (Blue light flashing)	Is there a mechanical obstruction preventing the lid from moving?	If possible, look at the mechanisms and remove any obvious obstructions.
	Is the lid frozen to the base?	Attempt to open the vent once ice has melted.
	Has the vent been left inactive for a long period (a month or longer)?	An overcurrent fault is likely after a long period of inactivity. Reset vent and try again.
Input/Output Fault (Blue light continuous)	There is a problem with one of the mechanisms.	Disable vent by switching off the power. Contact Glazing Vision for further assistance.
Skydoor closes for no apparent reason.	This should only occur if a rain sensor is fitted and indicates that the sensor head is dirty or still wet.	Open Skydoor and isolate power supply, then clean the rain sensor head.

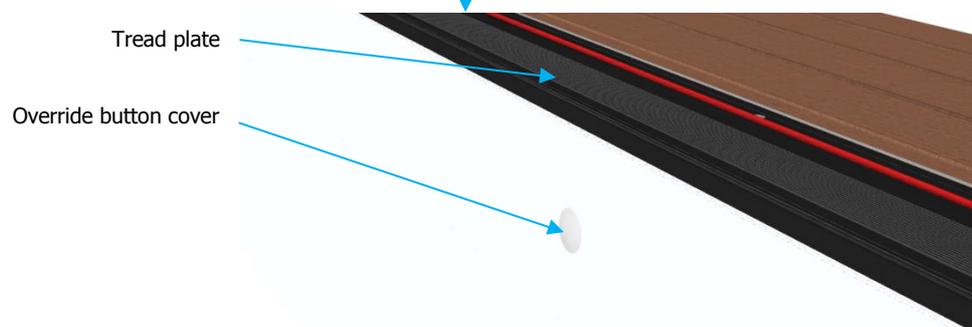
## Mechanical Override – Open Position

In the unlikely event that the Skydoor is open and will not close, follow this sequence:

1. Check that mains power is being supplied to the Skydoor.
2. Check that the tread plates, mechanisms and the paths of the safety sensors are clear of any obstructions around the unit.
3. Check the wall switch to see if any of the status light conditions mentioned previously are applicable. If so, follow the suggested action for that condition and try again. If not, continue with steps below.
4. Gently remove the cover cap at the opening end of the unit (being careful not to damage the internal finishes) to reveal an override push button (*Figures 9 & 10*).



*Figure 9 – Safety beam sensor override position*



*Figure 10 – Safety beam sensor override*

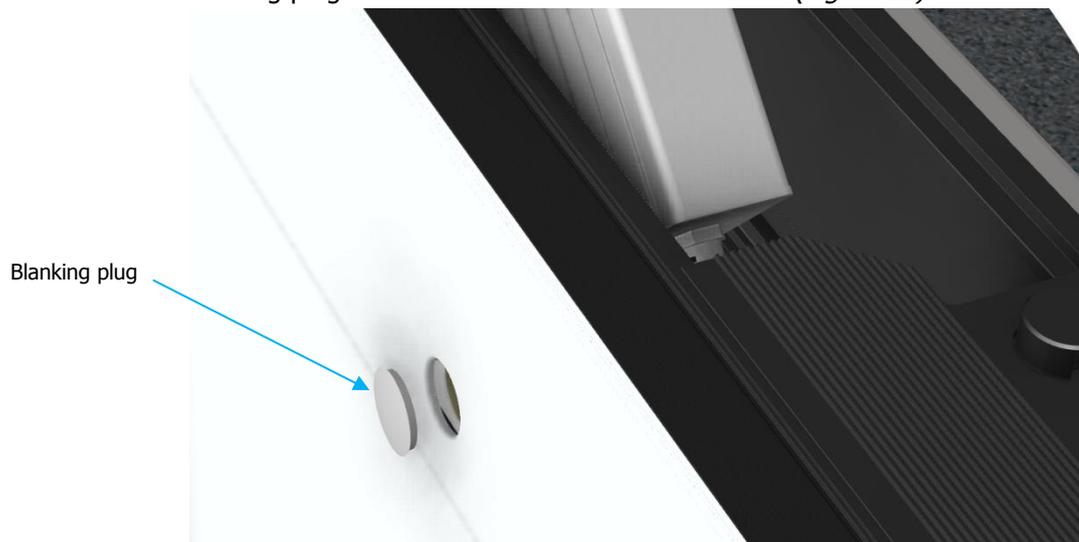
5. Push and hold the button, try closing the unit with the wall switch (or remote control if purchased).
  - a. If unit operates; carefully close the unit whilst ensuring you can move down the stairs inside the building safely. Contact Glazing Vision to resolve the issue.
  - b. If the unit still does not operate; it suggests there is either a mechanical failure or power cut. See step 6 onwards

6. In the event of a power cut/mechanical failure the Skydoor can be closed by disengaging the mechanisms from the lid and base. Two people may be required to close the Skydoor lid. First remove the 2 fixings between the mechanism bracket and the lid using a 5mm Allen key (*Figure 11*).



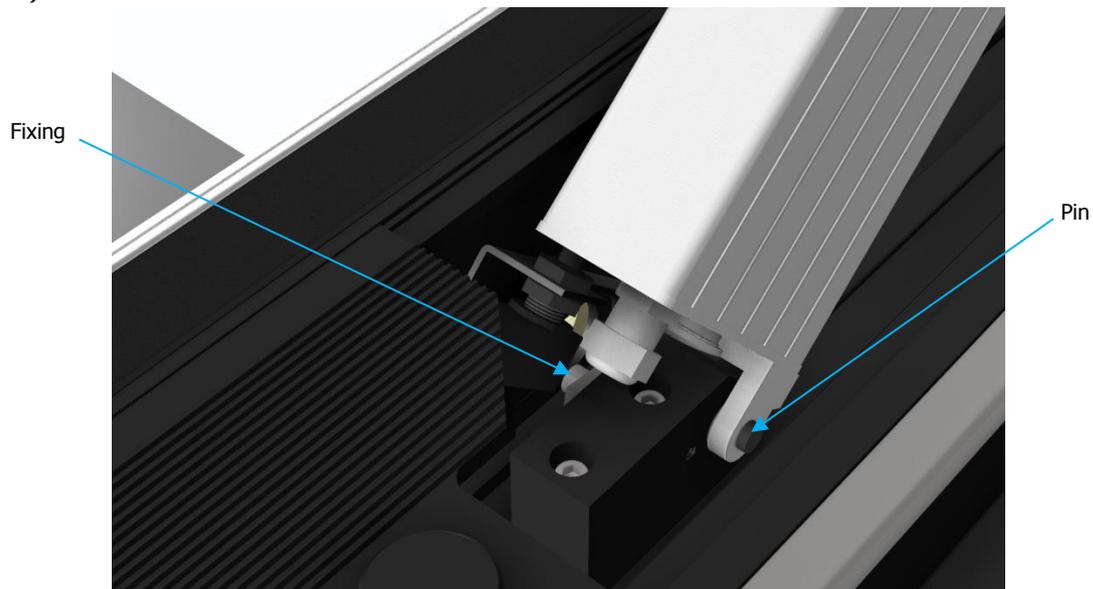
*Figure 11 – Mechanism override fixings*

Then remove the blanking plug from the inside of the base extrusion (*Figure 12*).



*Figure 12 – Blanking plug*

After removing the plug use a 5mm Allen key to remove the fixing shown (*Figure 13*). Hold the actuator in one hand and slide the pin out, this will release the actuator from the base (*Figure 13*).



*Figure 13 – Mechanism override fixings*

7. Please note that the gas struts have been designed to balance the weight of the lid around the closed position and hold it upright in the open position. The lid will therefore need some force to start closing, but will become easier to handle as it reaches its closed position. Two people may be required to close the lid to overcome the initial resistance from the gas struts.
8. Contact Glazing Vision to resolve the issue.

### **Mechanical Override – Closed Position**

In the unlikely event that the Skydoor is closed and will not open, follow this sequence:

1. Check that mains power is being supplied to the Skydoor.
2. Check the wall switch to see if any of the status light conditions mentioned previously are applicable. If so, follow the suggested action for that condition and try again. If not, contact Glazing Vision to arrange a Site Engineer visit.

## **General Maintenance & Safety**

To keep the Skydoor in good working order there are a few basic points that should be observed:

- Do not place anything on the lid or cause obstruction to the lid of the Skydoor when opening the unit as this may cause damage to the unit's mechanisms.
- Do not walk on the unit
- Make sure fingers and other obstructions are clear of the vent and its mechanisms during any operation, severe damage/injury may be caused.
- Do not touch the motors after operating the unit, as they may become hot.
- It is recommended that a general inspection is carried out on the unit wherever possible at least once every 6 months.
- Glazing Vision can offer a service / maintenance contract. Please contact our office for further details.
- Do not remove the aluminium tread plate protecting the Printed Circuit Board, as this may allow the PCB to become damaged.
- Keep the frame clear of general dirt and debris particularly around the opening mechanism.

## Standard Glass Specification and Breakage Instructions

### Glass Specification

The standard glass used within the Skydoor comprises a 6mm heat soaked clear toughened outer pane, a 20mm warm edge spacer argon filled black silicone sealed cavity and a 6mm heat soaked soft coat low E toughened inner pane. However various options are available at time of order. If specific data is required for the glazing please contact Glazing Vision for a glass data sheet for the specification installed within your rooflight.

### Breakage Instructions

Should the double glazed unit break for any reason, due to the unique method of bonding the glass unit into the frame, a new lid would need to be supplied. Glass breakage is not covered under the product warranty unless the breakage is a direct result of Glazing Vision Limited or its product failing. In the event of the glass being damaged please contact Glazing Vision for assistance.

## COSHH and Safe Disposal

There are no hazardous materials used in the construction of the Skydoor. Wherever possible when disposing of the Skydoor recycle as much as possible. Do not burn any plastic materials. The following materials are used throughout the Skydoor:

### Framework

- Aluminium extrusion
- Aluminium corner brackets
- Stainless steel fixings
- Low modulus silicone
- PVC foam tape
- Acrylic adhesive (corner joints)
- Polyester powder coated finish
- Silicone rubber gaskets
- Polyamide thermal break strips
- Polyethylene backing rod
- Toughened glass panes
- Aluminium spacer bar
- Closed cell PIR insulation
- Plastic blanking cap

### Mechanisms and control

- Stainless steel fixings
- Stainless steel brackets
- Standard insulated spade terminals
- Stainless steel push switch (access)
- HIPS electronics enclosure
- Folding arm actuators (refer to documentation)
- Printed circuit board
- SPST rocker switch
- Copper wiring
- Limit switch
- Gas struts

## **Product Warranty**

A warranty document will be provided with the rooflight. If this is misplaced it can be found at [www.glazingvision.co.uk/resources/warranties/](http://www.glazingvision.co.uk/resources/warranties/).