GLAZING VISION

GV Standard Sliding Over Fixed

Operation and Maintenance Manual

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

Contents

Introduction

Thank you for purchasing a Glazing Vision Standard Sliding Over Fixed (*Figure 1*). We hope that it gives you many years of service. The Sliding Over Fixed frame opens under control to provide approx. 50% clear opening for ventilation. It can be linked to optional interfaces such as remote control, rain sensor, building management systems (BMS) and an access keypad.

Figure 1 – Sliding Over Fixed

Controls and Operation

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

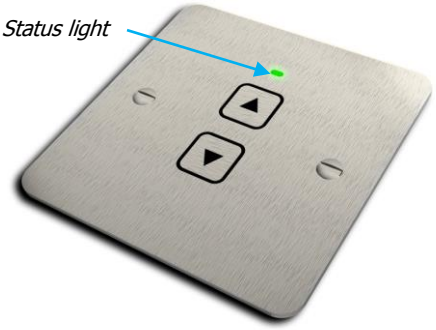

Figure 2 – Wall mounted control switch

1. **'One touch' operation** – Press and release the control switch in either the up or down (open/closed) direction as required. The rooflight will open or close fully. Press the control again to stop the rooflight partially open or closed.

2. **'Press and 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 working normally. If the status light displays another colour please refer to the troubleshooting section.

Operation:
The Sliding Over Fixed controller is powered by a 240V mains power supply that charges two 12V lead acid batteries. Power for the drive motor and controls is taken from the batteries. This feature enables the rooflight to be operated in the event of mains power supply failure. It is recommended that in the event of mains power supply failure, the rooflight is closed as quickly as possible and given a full 24 hour charge once power resumes. Note: The control board has a built-in voltage check which will prevent it opening if voltage drops critically low.

Remote Control (Optional):
The remote control (*Figure 3*) offers the same control function as the switch allowing the rooflight to be opened and closed from a short distance away. The remote control is powered by one long life A23 12V battery. The battery cover plate is found on the rear of the remote.

Figure 3 – Remote control

Building Management (Optional):
The Sliding Over Fixed can be connected to building management systems to open and close the rooflight.

Thermostat (Optional)
The thermostat offers control of the rooflight to suit the temperature within the building. The thermostat is linked to the rooflight via a switch so that it can be turned on/off independently for security reasons.

Proximity Detection (Optional):
This option comprises a photoelectric sensor and reflector positioned along the inner face of the sealing edge (refer to *Figure 10 for position of sealing edge*). The sensor emits a beam which is returned by the reflector during normal operation. If this beam is obstructed, the rooflight will stop and then back off to release the obstruction. Until the path of the beam is cleared the rooflight will not operate. This offers protection against trapping fingers or limbs at the sealing edge. Note: proximity sensor does not offer protection against the other edges of the rooflight and only protects along the inside face. Care must always be taken around motorised equipment.

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

Glazing Vision highly recommends that for safety reasons a balustrade is installed (by others) around the Sliding Over Fixed if it is to be used for access.

Internal Rain Sensor Isolator Switch (Optional):
The internal rain sensor isolator switch (*Figure 5*) is wired directly to the rain sensor cable and allows the sensor to be switched on/off during access to a roof.
Turning off the switch deactivates the signal from the rain sensor and prevents the rooflight from closing in the event of rain. This avoids the scenario where you could be shut outside by the rain sensor when it rains. Ensure the switch is turned back on for normal use

Figure 5 – Internal rain sensor isolator switch

External Rain Sensor Isolator Switch (Optional):
The external rain sensor isolator switch (*Figure 6*) offers the same functionality as the internal isolator switch but for use externally and with the addition of security via a key operated switch.

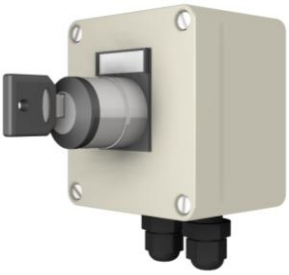

Figure 6 – External rain sensor isolator switch

Timed Secure Open Button (Optional):

The timed secured open button *(Figure 7)* allows the rooflight to be opened following closure by the rain sensor. The button is active during a defined period after the rain sensor has been triggered and when pressed will open the rooflight. The duration of the active period is configurable up to a maximum of 30 minutes and is set during rooflight installation. The rooflight cannot be closed using this button.

Figure 7 – Timed secure open button

External Keypad (Optional):

The keypad option (*Figure 8*) 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 8 – External keypad

External Key Switch (Optional):

The key switch option (*Figure 9*) 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.

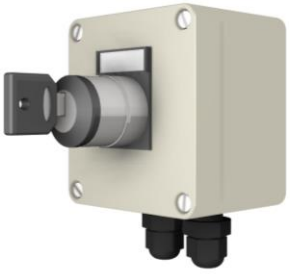

Figure 9 – External key switch

Manual Override

Before manually opening or closing the rooflight, follow the checks within the troubleshooting section of this manual.

The Sliding Over Fixed is equipped with a one way clutch in the drive mechanism (patent applied for) and a manual override. The clutch mechanism allows the unit to be pulled closed in an emergency but for security reasons cannot be opened without operating the internal manual override.

The internal manual override is located near one end of the centre beam (*Figure 10*) and is accessed through a hole in the framework covered by a blanking plug.

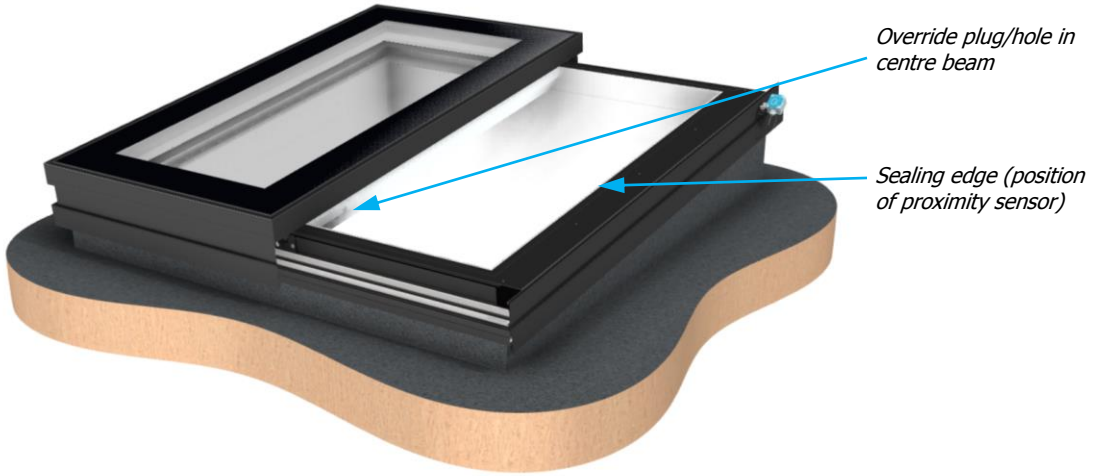

Figure 10 – Manual override location

To manually open the unit in an emergency, remove the cover cap from the internal framework to expose a spring plunger. Insert a flat head screw driver (ideally 10mm width) through the hole in the framework and position between the solenoid and the cap positioned on the end. Twisting the screw driver will move the cap and disengage the solenoid locking pin from the clutch mechanism. While the clutch is disengaged, the unit can be pushed open.

Standard Glass Specification and Breakage Instructions

Glass Specification
The Sliding Over Fixed is available with double glazing or triple glazing as standard and various options at time of order.

Standard double glazing comprises a 6mm HST toughened outer pane, a 18mm warm edge spacer argon filled black silicone sealed cavity and a 6mm HST soft coat Low E toughened inner pane.

Standard triple glazing comprises a 6mm HST toughened outer pane, a 16mm warm edge spacer argon filled black silicone sealed cavity, a 6mm HST soft coat Low E toughened centre pane, 16mm warm edge spacer argon filled black silicone sealed cavity and , a 6mm HST soft coat Low E toughened inner pane.

If specific data is required for the glazing installed within your rooflight, please contact Glazing Vision for a glass data sheet.

Breakage Instructions
In the unlikely event the glazed unit should 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 in 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.

General Maintenance & Safety

To keep the Sliding Over Fixed 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 Sliding Over Fixed 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 unit before closing the unit (although there is an overcurrent feature built into the circuit board to detect an obstruction, damage/injury may be caused).
- It is recommended that a general inspection is carried out on the unit wherever possible at least once every 6 months.
- Glazing Vision, if required, can offer a service / maintenance contract. Please contact our project office for further details.
- Do not remove the plastic cover plate protecting the printed circuit board (PCB), as this may allow the PCB to become damaged.
- Keep the frame clear of general dirt and debris particularly around the opening mechanism.
- Do not allow unauthorised persons (e.g. Children) to operate the rooflight as this may lead to injury or damage to the product.

Cleaning the Sliding Over Fixed

Due to the Sliding Over Fixed'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 do not 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.

COSHH and Safe Disposal

Materials used in the construction of the Sliding Over Fixed are recyclable. When disposing of the Sliding Over Fixed, recycle as much as possible. Do not burn any plastic materials. The following materials are used throughout the Sliding Over Fixed:

Framework

- Anodised aluminium tracks
- Aluminium corner brackets
- Stainless steel fixings
- Stainless steel
- Low modulus silicone
- PVC foam tape
- Acrylic adhesive (corner joints)
- Polyester powder coated finish
- Aluminium extrusion
- PVC coated foam seal
- Plastic cable trunking
- Polyamide thermal break strips
- Polyethylene backing rod
- Toughened glass panes
- Composite spacer bar
- Closed cell insulation
- Silicone rubber seals
- EPDM rubber seals
- PTFE sliding seal

Mechanisms and control

- Stainless steel fixings
- Stainless steel drive shaft
- Stainless steel solenoid bolt
- Stainless steel coupling
- Aluminium limit switches and magnet
- Mild steel tapping plates
- Polymer bearings
- Delrin pinions
- Printed circuit board (PCB)
- SPST rocker switch
- Copper wiring
- Electric motor
- HIPS electronics enclosure
- Standard insulated spade terminals
- 626Z Bearing
- Lead acid battery

Troubleshooting

The Sliding Over Fixed control board monitors the operation of the rooflight. If a fault is detected, the board will stop the rooflight to prevent possible damage. Fault and standard conditions are indicated by the status light on the control switch (*Figure 2*).

The table below shows the various status lights displayed and their meanings. Although the rooflight will still operate following detection of a fault please observe the status displayed and attempt to resolve the issue with the suggested action.

Avoid operating the rooflight if the fault persists. In this case, contact Glazing Vision for further assistance.

Status light shown:	**Meaning:**
Continuous Green	Lit whilst rooflight is in motion under the control of the operate switch or remote control with no faults present. If rooflight is one-touch opened or closed LED will remain lit until motion stops.
Intermittent Green	Flashes whilst rooflight is in motion but not under control of the operate switch or remote control. Flashing will stop when motion stops (i.e. whilst controlled by rain sensor or B.M.S).
Continuous Red	Lit whilst rooflight is closing and battery is at 'low level' (regardless of whether mains is present or not). Control system will ignore requests to open from sealed state.
Intermittent Red	Lit whilst rooflight is in motion and no mains is present. To tell you there is a power failure and the batteries are not being charged.
Continuous Blue	Indicates a seal timeout, opening timeout or closing timeout condition. LED remains lit if mains is present, until control switch is pressed.
Intermittent Blue	Indicates an over-current or undercurrent condition. Flashes if mains is present, until control switch is pressed.
Continuous Yellow	Indicates that a safety device is active preventing rooflight operation.

If a fault occurs please refer to the table on the next page. 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.

Status Light Shown	Possible Cause	Action
Continuous Green (No Fault)	-	No action required
Intermittent Green (No Fault)	-	No action required
Continuous Red (Low Battery)	Batteries are at low level, possibly coming to the end of their service life.	Check that the mains electrical supply is switched on and connected to the rooflight. Leave rooflight for 24 hours, then check status again. If fault persists, contact Glazing Vision.
Intermittent Red (Mains supply absent)	No mains electricity is getting to the rooflight.	Reconnect mains electrical supply to rooflight.
Continuous Blue (Sealing Fault)	Is there a mechanical obstruction preventing the sliding frame from moving?	If possible, look at the mechanisms and remove any obvious obstructions.
	Is the sliding frame frozen to the base?	Attempt to open the rooflight once ice has melted.
	Has the rooflight been left inactive for a long period (a month or longer)?	A sealing fault is likely after a long period of inactivity. If fault persists contact Glazing Vision.
Intermittent Blue (Over-current)	Is there a mechanical obstruction preventing the sliding frame from moving?	Remove any obstruction preventing movement and try again. If fault persists contact Glazing Vision.
Sliding Over Fixed opens or closes for no apparent reason.	This should only occur if a rain sensor or building management system is fitted.	When either of these devices activates your rooflight the status LED will flash green. This is not a fault condition.

Terms of 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/.