

FRG

Flat Glass Rooflight

Installation Instruction



Glass Rooflight

These instructions should be used for:

Handling & Storage:	See 01
Maintenance:	See 02
Constructing & Waterproofing Timber Upstand Curb:	See 03
Installing Proprietary PVC Subframe:	See 04
Installing & Waterproofing Proprietary Curb:	See 05
Installing Manual Opening Mechanism:	See 06
Installing Electric Actuators:	See 07
Installing Rooflight:	See 08

Please read carefully prior to installation. Contact your supplier if in any doubt.

01: Handling & Storage

While all products are suitably packaged to avoid damage, care should be exercised when handling. Always ensure that the appropriate number of people are used to move the goods as larger rooflights are heavy. This should be in accordance with the manual handling regulations and two or more people may be required.

Rooflights and curbs should be stored on a flat, dry surface and protected from rain and direct sunlight until they are installed. Glass rooflights should be stored horizontally and heavy items should not be placed on top of the rooflights as this can lead to damage or distortion. Storage on the roof should be avoided if there is a risk of them being blown off.

Opening mechanisms and electric motors must be stored in a secure and dry environment before installation.

Any protective film must be removed from the rooflight immediately after installation. All packaging must be discarded in accordance with local regulations.

During installation all working must be carried out in accordance with applicable standards and regulations for working at heights and on construction sites. The manufacturer does not accept any responsibility for injuries on-site.

02: Maintenance

Whilst the rooflights are supplied with toughened and laminated safety glass and are therefore deemed 'non-fragile', they must not be trafficked under any circumstances.

Check the security of fixings, opening frames, ventilation items and hinges once a year. Avoid contact with silicon, wood preservative, adhesives and sealing tapes unless supplied by the manufacturer. The drainage outlets on the glass rooflight should be checked for any blockages twice a year.

Remove tar stains with turpentine and rinse with plenty of water. Clean with mild soapy water (no abrasives) and always rinse with plenty of water. In normal weather and site conditions, only occasional cleaning is required. No other maintenance should be necessary.

03: Constructing & Waterproofing a Timber Upstand

Keylite recommend installing the Flat Glass Rooflights on a 5° incline as this will allow any surface water to run off the glass effectively to ensure the unit remains watertight. Where the roof pitch is below that, an additional up stand at 5° is required.

Construct the upstand using 50mm timber to finish a minimum of 150mm above finished roof surface. The upstand must be flat-topped, straight level and square to avoid distortion of the rooflight.

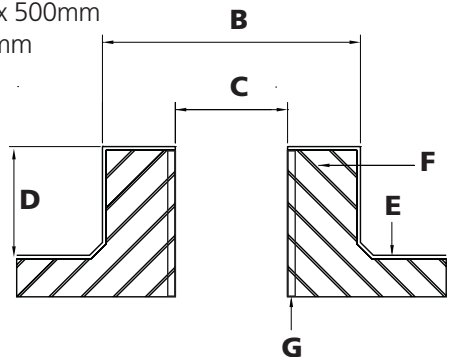
Apply the waterproofing in accordance with the manufacturers recommendations to the side and top of the upstand. To create a flat top with a thicker (felt) material a butt joint should be used to the top of the upstand.

e.g Size ref S5

	Overall subframe size	630 x 630mm
B	Overall upstand size (external)	620 x 620mm
C	Internal upstand size (inc. lining)	500 x 500mm
D	Minimum height	150mm
E	Waterproofing	
F	Builders kerb	
G	Plasterboard lining	

This will provide for a maximum water proofing thickness of 10mm all round.

Note: For asphalt in excess of 13mm thick, contact your supplier.



When installing an opening rooflight the internal dimensions are critical and should not be constructed smaller than the daylight dimensions stipulated on the rooflight. This is to prevent interference with the opening mechanisms on the reveal of the rooflight.

If installing a fixed rooflight, the internal dimensions are not so critical. The width of the upstand must not be too large to avoid high temperatures being created under the surface of the glass resulting in thermal cracking. The risk can be reduced by placing a light-coloured material on the visible top surface of the upstand. The manufacturer does not accept any responsibility for thermal cracking if the curb is deemed too wide.

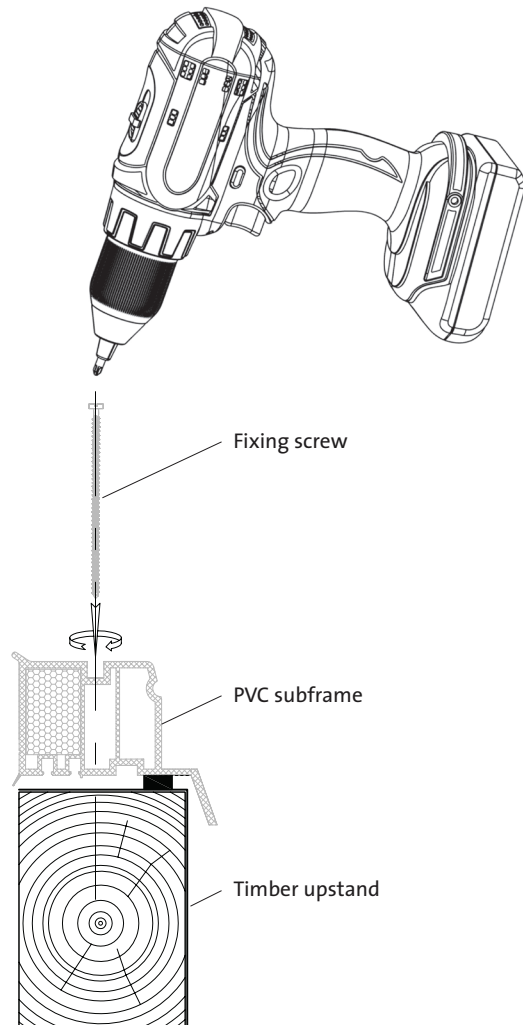
04: Installing a Proprietary PVC Subframe

Before fitting the PVC subframe, check that the top of the upstand is flat and level as mentioned in section: 03. The PVC subframe should be fixed securely to the upstand by means of a 75mm screws at max 300mm centres and to all four sides. The screw needs to be positioned into the groove around the perimeter. Ensure that the screw sits to the bottom of the groove to allow the glass rooflight to be located correctly.

Use of a pilot hole may be beneficial, especially if installed by hand.

If the unit has been supplied as an opening version, the opening frame can first be removed by unclipping from the hinges at 90° to make installation simpler. Reinstall the opening frame (if relevant), by holding the hinges at 90° and locating together.

NOTE: Any unevenness in the upstand surface or base may result in the rooflight glass section not fitting into the locating slot and becoming cracked or damaged.



05: Installing & Waterproofing a Proprietary PVC Upstand

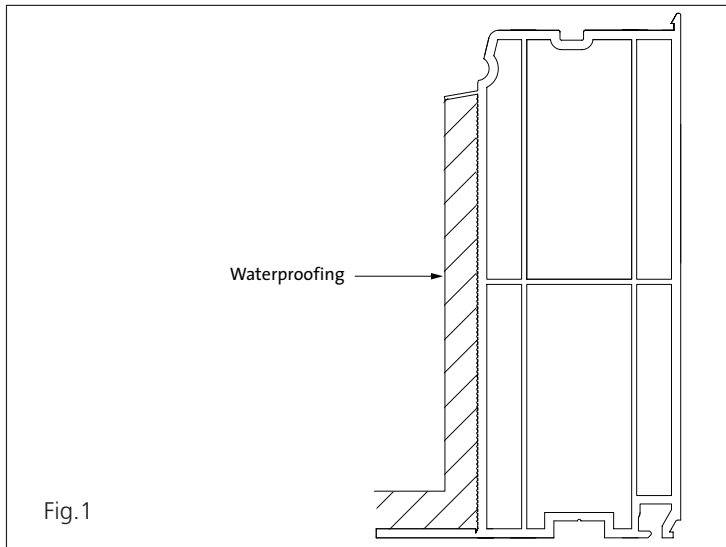
Installing

Drill and securely fix curb to roof aperture through the bottom flange, 100mm from each corner and at maximum 300mm centres. Use very large headed fixings (not supplied), type and size as dictated by site conditions. Upstand curbs should be fixed to a structural component (i.e. not fixed through insulation).

The 150mm high curb should not be fitted below roof insulation. If fitted with insulation in excess of the above recommendation, a timber ground, 100mm wide x required thickness should be provided around the roof aperture.

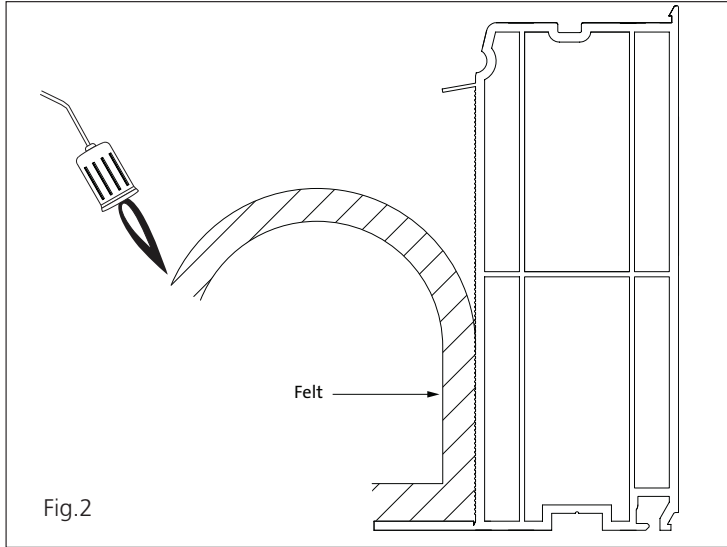
Waterproofing

Apply the waterproofing (in accordance with Manufacturers Recommendations) up to the underside of the top flange. (See Fig.1)



Bitumen Felt and Torch-On Systems:

The Em-Curb should be primed and normal application techniques followed. For Torch-On the torch should be directed at the waterproofing and not directly at the Em-Curb (See Fig. 2)



Single Ply Systems:

This may be solvent or heat welded and mechanically fixed to the Em-Curb, dependant on the type of membrane. Refer to Supplier for further information.

Asphalt:

The Em-Curb should be primed and expanded metal lathe (EML) metal should be affixed using 10mm maximum length staples. The first coat of asphalt should be applied cooler than usual (approx 180°). This layer should be as thin as practically possible. Due to the insulating properties of the upstand the heat cannot dissipate quickly and it is necessary to allow the first coat to cool completely before applying successive coats which can be at normal temperatures and thicknesses.

NOTE: On any type of waterproofing, always ensure it is taken up to the lip with a permanent bond around the perimeter.

06: Installing Manual Opening Mechanisms

If the unit is to be opened manually the unit will be supplied with the upper and lower spindle brackets pre-mounted to the opening frame and PVC upstand.

Take the spindle bracket from the packaging and ensure the top brass threaded section is fully in. Clip onto the top spindle bracket by pulling on the quick release pin.

Wind the chrome nut down the chrome threaded section until it engages with the two quick release pins on the lower bracket. Ensure some downward force is applied to the opening frame so that the seals make firm contact.



07: Installing Electric Actuators

If the unit is to be opened electrically the unit will be supplied with the upper and lower motor brackets pre-mounted to the opening frame and PVC upstand.

The opening frame will be held closed with a temporary transit plate as image below.



The transit plate should be kept in place until mains supply (to a junction box) and the actuator is ready to be connected to the electrical supply.

Note: The actuator need to be operated to allow the connection pins to be inserted.

Remove the R clip on the upper pin as shown ensuring that the pin and two R clips are retained for future use.



Remove the two pivot screws from the lower part of the transit plate and retain for future use.

Position the actuator into the lower bracket and insert the two pivot screws into the threaded end of the actuator and tighten. **Note: Do not overtighten.**



Connect the actuator in accordance with the wiring diagram supplied to allow the chain to be operated. **Note: Connection must be by a qualified electrician.**

Operate the actuator for a few seconds so that the chain extends for a short distance.



Rooflight can now be closed.



Connect the end of the chain to the bracket by raising the rooflight to the correct height and inserting the pin. Ensure that the R clips are also in place.



08: Installing Glass Rooflight

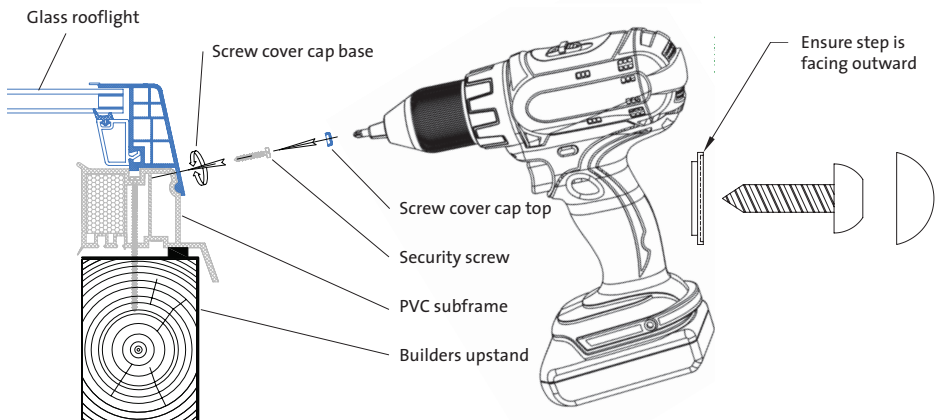
Position the glass rooflight so that the drainage slots on the frame are at the lowest part of the pitch to facilitate the water drainage. Centre the glass rooflight on the PVC profile and check and make sure that it sits tightly over its entire perimeter. The glass rooflight has an oval lock around the internal perimeter which clicks into an oval groove. Click the rooflight gradually onto the PVC profile (corner-by-corner until it is completely clicked in along the rooflights entire perimeter).

By pulling on the window and visual check, make sure the rooflight sits firmly in the PVC profile's lock. Using the provided security screws and drive bit, secure the window from the side and fasten it to the PVC profile with screws inserted through the rooflight frame.

Thread the screws into the screw cover cap base and place the screws into the provided marking groove in the side of the rooflight frame (if you place the screws outside of the grove there is a possibility that the glazing would be damaged or the rooflight not fastened correctly).

Space the screws around the full perimeter at max 300mm spacing from each other and 80-100mm in from each corner and tighten them carefully. Cover the screw heads with the provided white caps.

Clip the white drainage slot cover caps on to the drainage slots and remove any protective film from the rooflight and PVC upstand.





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