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Transforming light and space

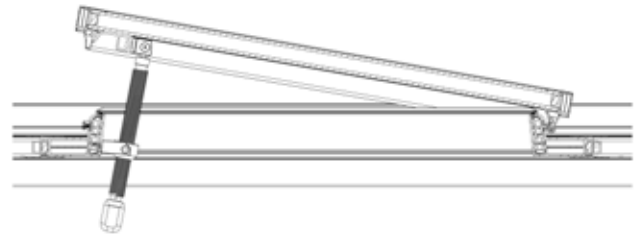
V5 | March 2021

# ROOF VENT INSTALLATION GUIDE

# ROOF VENT INSTALLATION GUIDE

## CONTENTS

<b>section 1</b>	Components list	2
<b>section 2</b>	Roof vent sash	3
<b>section 3</b>	Vent main frame into roof	3-4
<b>section 4</b>	Fitment of mechanical winder	5
	Fitment of electric motor (if selected)	5
<b>section 5</b>	Installation of vent controller	6
	Optional automatic vent controller	6
<b>section 6</b>	Switch and controller wiring	7
<b>section 7</b>	Wiring diagram for SLCCU002	8
<b>section 8</b>	Wiring diagram for SLCCU003	9
<b>section 9</b>	Installation of rain sensor	10
<b>section 10</b>	Adjustment and testing	10
<b>section 11</b>	Use of controller	10









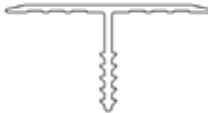
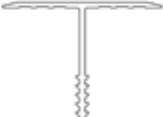







## TECHNICAL SUPPORT

Tel: 01200 452918 Email: [techsupport@ultraframe.co.uk](mailto:techsupport@ultraframe.co.uk)

**Please read in conjunction with the installation guide provided with the roof itself.**

## COMPONENT LIST - (DEPENDANT ON ANCILLARIES CHOSEN)

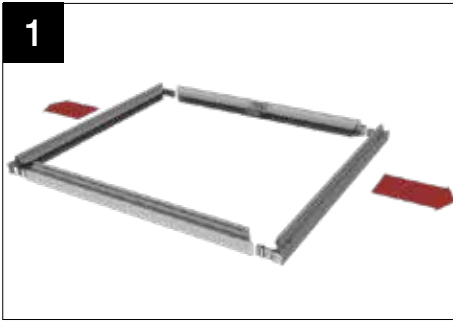
## SECTION 1

			
SLIMLINE 25MM ROOF VENT	SPINDLE - SLVSP001	ROOF VENT POLE BRPA001	SLVTS002-6 - VENT SCREW
			
TAPE	PMB/2 INTERNAL (STANDARD)	AMB-/25 EXTERNAL (STANDARD)	AMB-/32 EXTERNAL (35MM GLAZING)
			
AVS001 ROCKER SWITCH*	SLCCU003 RADIO CONTROL UNIT*	SLRCU003RC REMOTE CONTROL*	SLCCU002 THERMOSTAT & DIGITAL RAIN SENSOR*
			
MOTOR* White Q8750 Black QBL8750	AVTD002 THERMOSTAT & ANALOG RAIN SENSOR*	Q8170 H SECTION USED WITH ALUMINIUM INTERNAL CLADDING	

\*separate installation guide supplied in box.

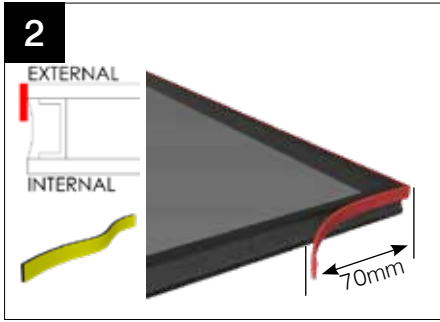
# ROOF VENT SASH

# SECTION 2

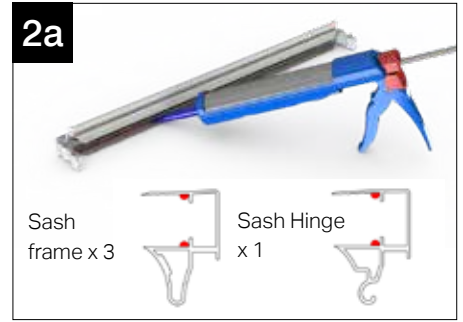


Unwrap the sash and pull two side sections out as shown above.

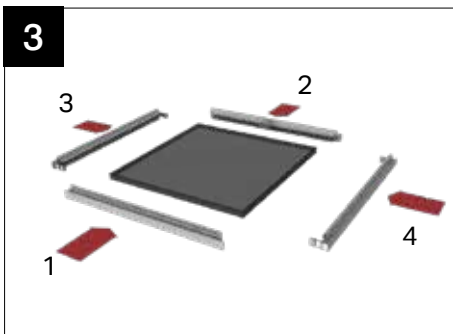
Remove any protective handling tape around the perimeter of the unit prior to installation.



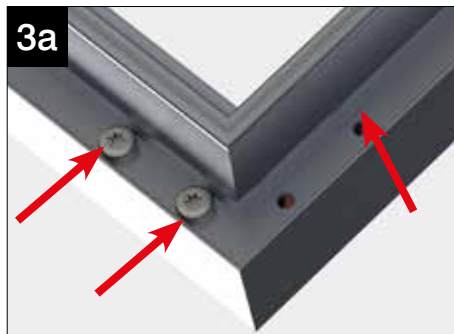
Apply length of foam tape directly to the lower edge of the outer pane of the glass unit as shown. Start by applying the tape 70mm up the side of the glass unit and continuing to wrap around the lower edge of the glass unit, finishing 70mm up the opposite side.



For pitches below 10° it is recommended that the glass is sealed in by running a bead of silicone along the length of each sash section as shown above. For pitches above 10° it is advisable to do the same.



Once tape has been applied, assemble the sash in the sequence shown above and ensure the tape is directed against section 2.



If the pre-drilled holes appear out of alignment as shown above in red simply slacken off the factory fitted screws.



The two sections can then be readjusted so they are in line and square. Then the non factory fitted screws can be fixed down.



Finally re-fasten the factory fitted screws.

NOTE: If the roof vent is being fitted at 10° or under, run a continuous bead of appropriate silicone around the full perimeter of the glass unit.

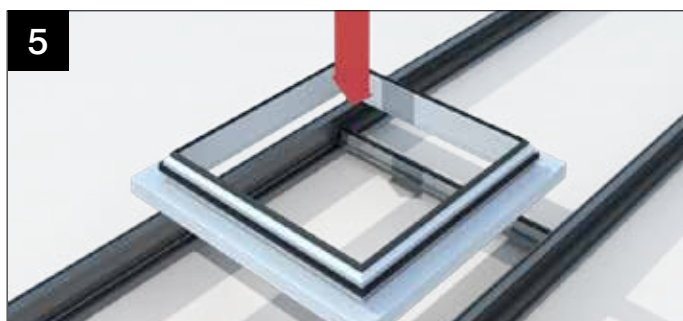


On the hinge side of the sash fill the hole shown above at either end with a blob of silicone.

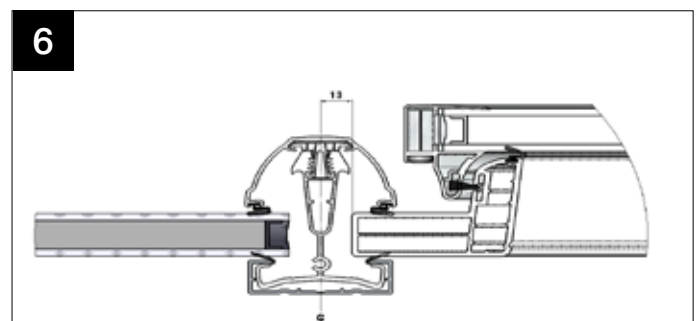
**\*NOTE\*** The roof vent has been successfully tested by the BBA at 25° up to 1200Pa without sealant.

# VENT MAIN FRAME INTO ROOF

# SECTION 3



Peel back any protective film prior to fitting. Fit upper glazed unit and internal muntin bar. Carefully lower the vent frame into position onto the internal upper muntin bar.



Ensure the vent is central between the transoms. As shown above there should be a 13mm gap between the bar centre and the frame. Use glazing packers if necessary.

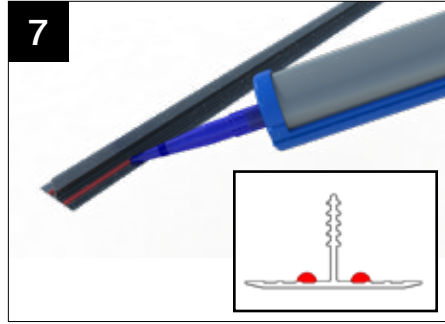
# VENT MAIN FRAME INTO ROOF

# SECTION 3

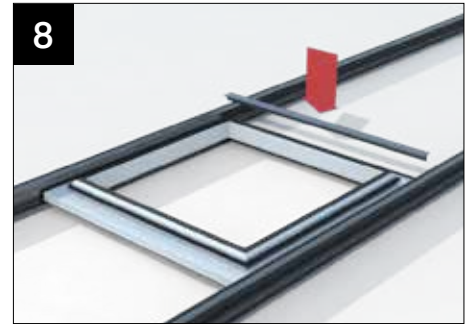
IF ALUMINIUM INTERNAL CLADDINGS HAVE BEEN SPECIFIED REFER TO DETAIL 13 FOR MUNTIN FITTING



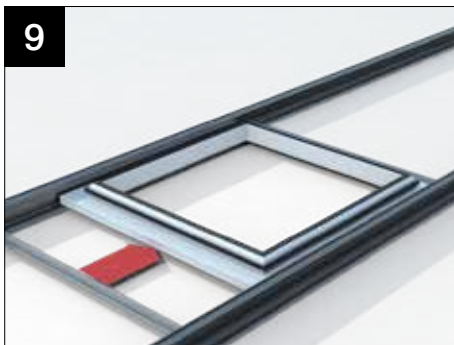
6a If existing glazing is 32/35mm a packer will have been pre-fitted to the frame.



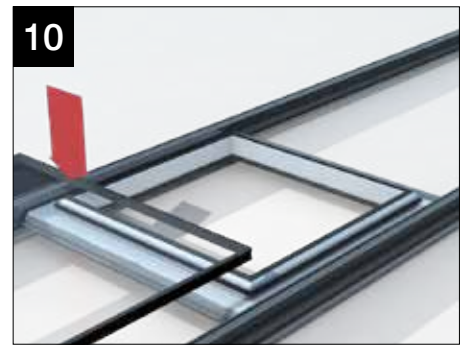
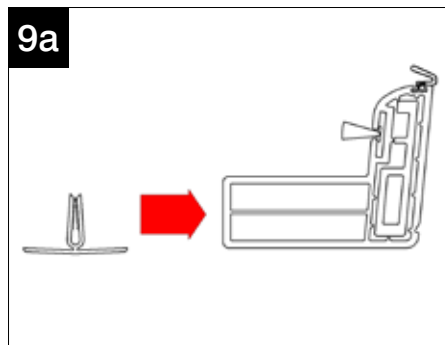
7 Run a bead of appropriate sealant ensuring a continuous run along the external upper muntin bar. Please see section view for bead positioning.



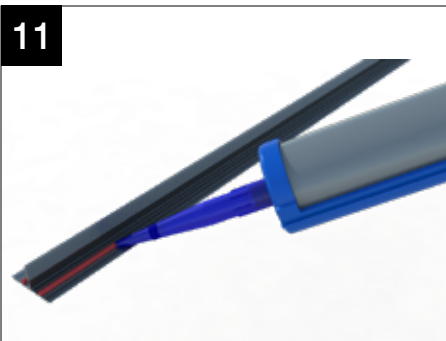
8 Locate the external upper muntin bar with the internal muntin bar, knock into place. The lower muntin may need to be supported from underneath whilst secure into final position.



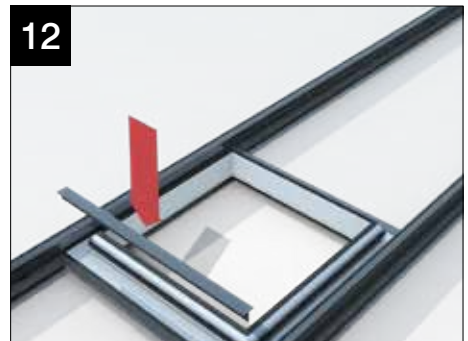
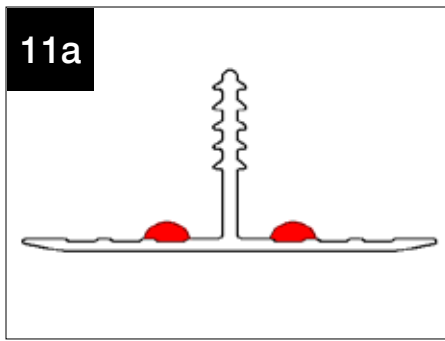
9 Slide the internal lower muntin bar into place under the vent frame. See cross section 9a for further detail.



10 Remove any handling tape around the perimeter of the unit. Take care lowering the glazed unit into position on the internal lower muntin bar.

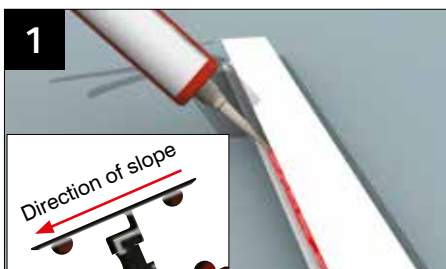


11 Run a bead of appropriate sealant ensuring a continuous run along the external lower muntin bar. Please see cross section for bead positioning.

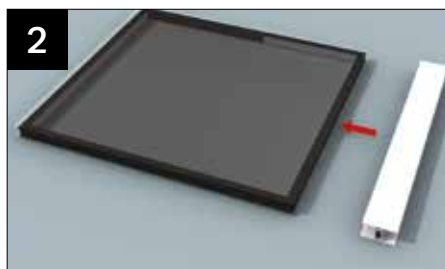


12 Locate the external lower muntin bar with the internal lower muntin bar, knock into place. The lower muntin may need supporting from underneath whilst secured into final position.

## MUNTIN (GLASS JOINTER) FOR ALUMINIUM INTERNAL CLADDINGS

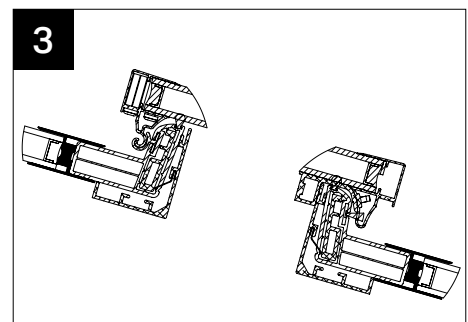


1 Prepare the glass jointer using the appropriate sealant in the four positions shown.



**IMPORTANT NOTE - APPLIES TO STEPS 7-12. 'H' SECTION GLASS JOINTER TO BE POSITIONED AS INSET ILLUSTRATION ON INSET 1.**

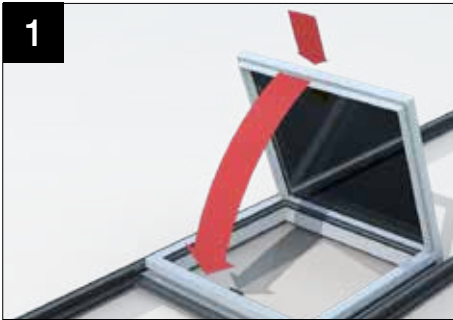
2 Slide the glass jointer onto the upper glass unit. Fit assembled unit into the roof.



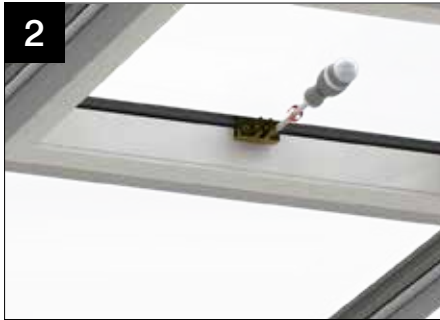
3

## FITMENT OF MECHANICAL WINDER

## SECTION 4



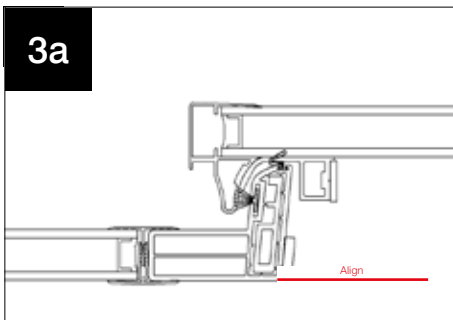
When the sealant on the mainframe has cured, re-fit the outer sash by holding vertically and re-engage on to the hinge, before lowering into position.



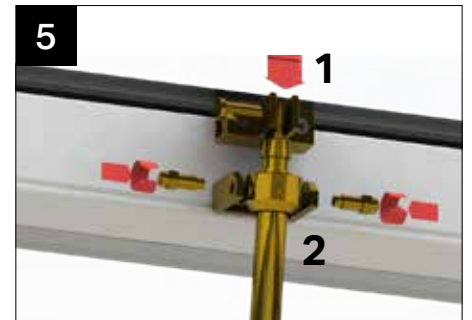
Using the screws provided attach the spindle bracket to the sash bracket (already attached to vent sash) taking care not to damage the glazed unit.



Align the winder bracket with bottom of vent frame (see section detail 15a for further information). Centrally align the winder bracket with the sash bracket. Once in position securely fit bracket in place using screws provided.



Attach the winder head to the sash bracket, using the plunger pin. Hold the winder at the relevant angle. Turn the winder body clockwise until it locks with the sash bracket.



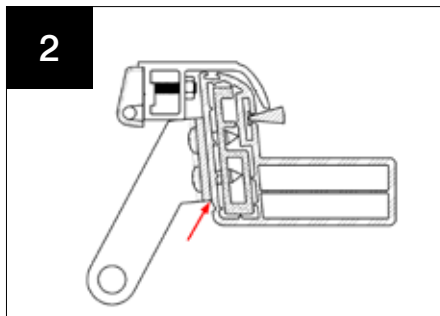
Apply downward force to the sash bracket (see 1). Turn the connection collar until the holes on the collar are approximately 3mm above the holes in the winder bracket (see 2). Holding the connection collar in place, turn the winder body anti-clockwise to loosen the sash bracket. This will enable you to fit the holding bolts without affecting the winder set-up.

## FITMENT OF ELECTRIC MOTOR (IF SELECTED)

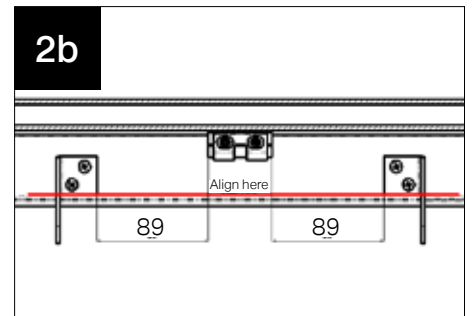
## SECTION 4



Using the nuts and bolts provided attach the motor bracket to the sash bracket taking care not to damage the glazed unit.



Align motor brackets vertically using the extrusions details as shown.



Mark out as shown 89mm from edge of sash bracket to edge of motor bracket. Then mark the holes using the motor bracket as a template. Use a 2.5mm drill bit to pilot drill through the frame.



Secure the brackets to the frame using screws provided.



Fit provided securing bolts into the motor body through the location holes in the brackets.



Finished mounted motor in situ.

**Note:** For further details, refer to motor instruction guide which can be located in the motor box.

# INSTALLATION OF VENT CONTROLLER

## SECTION 5

### THIS UNIT MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN TO THE 17th EDITION BS7671 REQUIREMENTS FOR ELECTRICAL INSTALLATIONS

1. Remove the front panel by loosening the retaining screws.
2. Screw the back box to the surface of a masonry wall in the conservatory, at the usual height of a wall switch.
3. Choose appropriate knock out for cable entry and smooth edges to prevent damage to cable insulation.
4. In any situation where the mains cable is not plastered into the wall, the cable must be adequately secured as close as possible to the control box to prevent undue stress on the cable.
5. Connect the cables in accordance with the wiring diagram, bringing sheath as close as possible to the terminal blocks, to prevent contact of the inner insulation with other parts of the p.c.b. Note that a junction box will be required in the ridge, to bring all the actuator cables together. Run a single four-core cable from here to the control box. Note that a fused isolator must be installed, providing a contact separation of at least 3mm in all poles.
6. Replace the front panel.

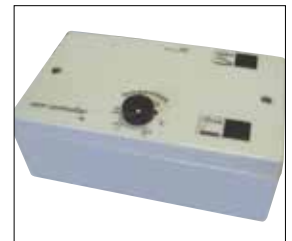
**THIS UNIT TO BE INSTALLED USING BASEC OR HAR APPROVED CABLE, AND MUST BE SUITABLY EARTHED**  
**NOTE: CABLE NOT SUPPLIED BY ULTRAFRAME**

# OPTIONAL AUTOMATIC VENT CONTROLLER

## SECTION 5

**NOTE: CABLE NOT SUPPLIED BY ULTRAFRAME**

The Automatic Vent Controller is an integrated electronic thermostat and controller with rain sensor, for automatic and manual operation of motorised roof vents. The vents open automatically at high temperatures and close again when the temperature drops or rain is detected. Up to 6 Ultraframe actuators can be controlled by type Q8750.



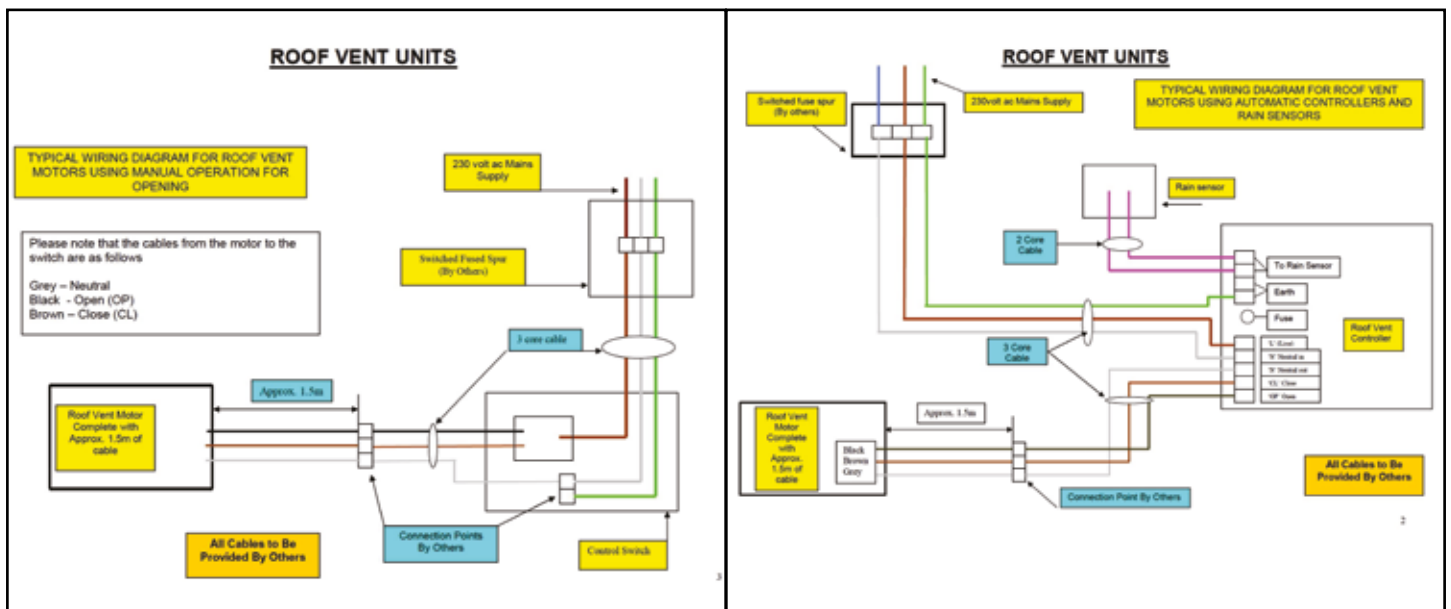
### TECHNICAL SPECIFICATION

- Mains Supply:** 230V 5A 50Hz
- Output current to actuators:** 5.2A max at 20% duty cycle
- Opening impulse:** Variable, 3 to 9 sec approx.
- Closing impulse:** 11 sec approx
- Differential temp of thermostat:** 2°C
- Mounting angle of rain sensor:** 15° to 45°
- Cable for rain sensor:** 0.5mm<sup>2</sup> 2 core round flexible cable. Ø5 to 7mm

- Working voltage of rain sensor:** 1V to 6V wet - 7.5V to 10V dry (a.c.)
- Equivalent resistance of rain sensor:** Less than 80k ohms wet. Greater than 300k ohms dry
- Finish:** White only
- Dimensions of controller:** 148 x 88 x 52 excluding thermostat setting knob
- Dimensions of rain sensor:** 75 x 51 x 28 excluding cable gland
- Weight of combined units in packing carton:** 450g

# SWITCH AND CONTROLLER WIRING

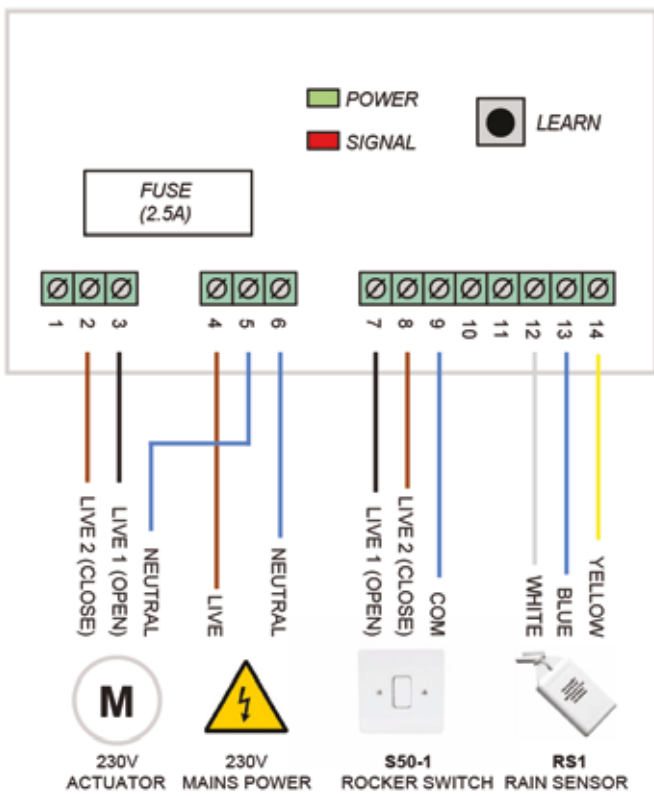
## SECTION 6



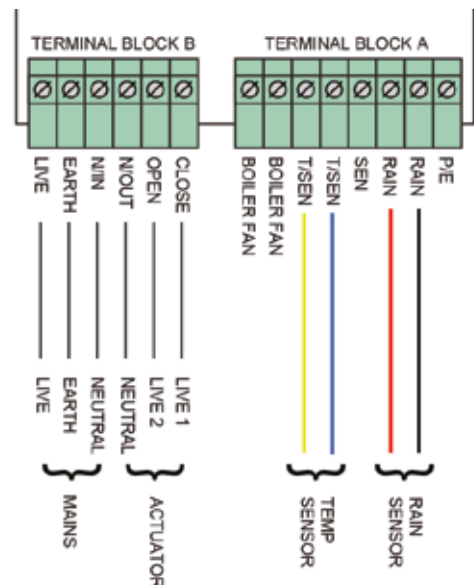


This compact window control unit is a great way to automatically achieve natural ventilation and ensure a more comfortable environment in stuffy rooms or stifling conservatories. With the digital display, it's quick and easy to program the system to automatically open and close windows or roof vents to achieve a specific room temperature, as well as ensure windows are shut and watertight whenever it rains.

- Control unit for 230V AC Window actuators (max output 8 Amp)
- Automatically opens windows if room gets too hot and closes them according to temperature or when it rains.
- Rain sensor and temperature sensor included
- Digital display for simple programming of the desired room temperature
- High protection class IP 4X rated
- Open and close buttons on front of control panel for direct control



SLCCU003 Remote control unit



**PLEASE NOTE:**

The installation of all electrical items must be undertaken by a qualified professional. Mains power must be supplied via a 5-Amp fused spur. Do not use cable thicker than 1.5mm and multi-strand if possible for flexibility. This controller will fit into any standard two-gang surface or flush 35mm back box.

Technical specification

Voltage	230V AC
Output Current	8A
Protection Class	IP 4X
Dimensions	146 x 86 x 28mm
Inputs	Rain Sensor, Temperature Probe

# INSTALLATION OF RAIN SENSOR

## SECTION 9

1. Pass the cable through the cable gland, strip the cable ends and crimp on the terminals supplied.

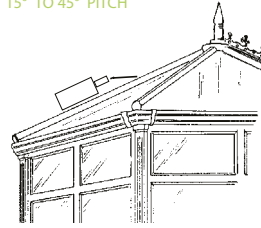
2. Push the terminals on to the blades. Do not over tighten the nuts and screws, or the conductive pattern may be damaged by indentation.

**NOTE: Round 3A mains cable must be used to ensure that the cable gland grips the cable and forms a waterproof seal. (This cable carries only 9V a.c. however).**

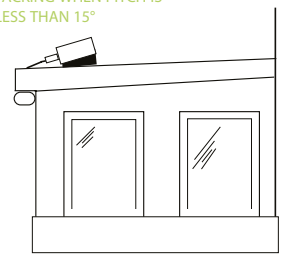
3. Fit the bottom cover without sealing the joint

4. Attach the unit with the self-adhesive pad provided to a convenient exposed part of the roof, with the black sensing pattern uppermost. The cable can point towards the ridge, gutter, or to either side. The unit must slope at a gradient of at least 15° to enable excess water to run off. Packing may be required on a lean-to roof to ensure this. Avoid shelter from overhanging eaves, especially if the conservatory is on the sheltered side of a taller building (house etc). In the UK the prevailing wind and most rainfall comes from the South-West. This is therefore the preferred side of the roof for the rain sensor, but check local conditions, especially on the East Coast or on Mainland Europe.

15° TO 45° PITCH



PACKING WHEN PITCH IS LESS THAN 15°



Rain Sensor Mounting Position

# ADJUSTMENT AND TESTING

## SECTION 10

### OPENING ADJUSTMENT

Within the opening distance selected at the actuator, the opening distance when opening automatically can be adjusted in the range 100-300mm by turning the control as required. See drawing of controller on page 5. **This is not a "customer control"**. It should be pre-set by the installing electrician if the customer requests it. **Note that the opening distance is reduced by turning clockwise.**

### TESTING

1. When the installation is complete, insert the supply fuse and switch the isolator on. Note that the vents are likely to open or close on power-up.

2. First check for correct operation of the vents by use of the tactile open/close switches.

**IT IS VITAL THAT WHEN THE VENTS ARE CLOSED FULLY, THEY ARE NOT TOO TIGHTLY CLOSED.**

3. In warmer weather, automatic operation can be checked by turning the thermostat up and down. Note that the vent should **OPEN** when turned to a low temperature and **CLOSE** when turned to a high temperature.

In cold weather i.e: below 10°C in the conservatory, the thermostat element can be warmed up by using a hair dryer on a **LOW** heat setting. This should cause the vents to open. Turn the thermostat up to check that they close.

4. To test the rain sensor, the vents must first be opened and clean water sprayed onto the rain sensor. The vents should close within a few seconds.

**NOTE: a wet rain sensor will prevent automatic opening. If testing in actual rain, the surface of the sensor can be dried with clean kitchen tissue. Take care that the sensing surface is not scratched. It must also be kept free of grease and sealing compound.**

# USE OF CONTROLLER

## SECTION 11

### THERMOSTAT ADJUSTMENT

The adjustment range of the thermostat is 10° to 30°C. Set the control knob to the temperature at which you want automatic operation of the vents. The vents will open whenever the temperature rises above your setting and re-close when it falls below this setting.

### RAIN SENSOR

A rain sensor mounted on the roof will prevent automatic opening of the vents, and will cause them to re-close if it rains when they are already open.

### MANUAL CONTROL

The tactile switches can be operated at any time to temporarily override the automatic actions of the controller. With these switches you can set the vents to any desired position. Press the "open" switch to open vent and press the "close" switch to close vent. Note that automatic operation will resume, commensurate with climatic conditions and the thermostat setting.

### NOTE

1. Following a period of rain, the rain sensor will take some time to dry. Whilst still wet, it will hold the vents closed, and immediately re-close them if opened by the tactile switch.

2. If you wish to leave the vents in any fixed position, first use the open/close tactile switch, then switch off the electric supply at the isolator.

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