ROOF MAKER

WORLD CLASS ROOFLIGHTS

STEP BY STEP INSTALLATION GUIDE

TRADITIONAL ROOF LANTERN (FLAT PACKED)

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WORLD CLASS ROOFLIGHTS

Call us: 0116 269 6297
Mon-Fri 9-5pm

TRADITIONAL ROOF LANTERN - INSTALLATION GUIDE

CONTENTS

TOOLS REQUIRED

The following tools are necessary to install the Traditional Roof Lantern:

- 13mm socket and ratchet
- 13mm open ended spanner
- 17mm open ended spanners
- Power drill + HSS and masonry bits
- Long nosed pliers
- White rubber headed mallet
- Stanley knife
- Tape measure
- 45mm diameter hole cutter
- 60mm diameter hole cutter
- Sealant & gun (we recommend Dow Corning 791)
- Spirit level
- Hack saw
- Hot air gun
- Roofing square
- Cordless driver + pozi bits
- Nylon roller

1. BEFORE YOU START

The purpose of this installation guide is to assist the installation team when erecting a Traditional Roof Lantern. All Traditional Lanterns are individually designed to suit the requested size and specification. The Traditional Lantern will arrive in kit form consisting of a number of packages containing the aluminium skeleton and the PVCu cappings. Small ancillary items will arrive in a box, with a copy of the roof layout plan.

This roof has 17 packs

The delivery note shows what is in each pack

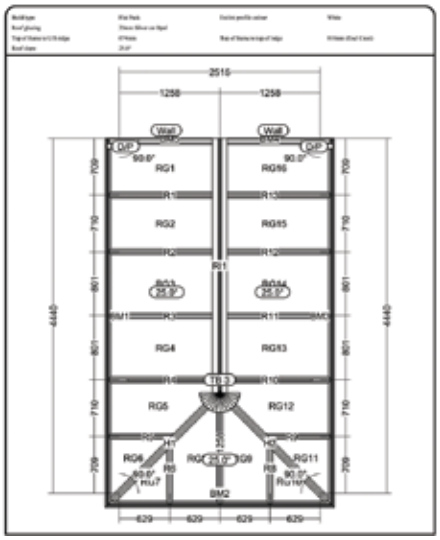
Each pack has label with descriptions

ROOF LAYOUT PLAN

The roof layout plan is essential as it depicts the size of the roof and the position of the main roof components. Thoroughly check that the roof fits the window frame layout and that all the roof components are present.

Each length of material should be numbered to correspond with its position on the roof plan.

An example of this is an eaves beam assembly numbered BM1 on the roof plan, the aluminium, gutter and cladding lengths should all be numbered BM1 to aid identification.



Roof plan example

CARE OF PRODUCTS ON SITE

Although the Traditional Lantern is robust in construction, simple measures should be taken when handling, storing and erecting the lantern.

When unwrapping the packages take care not to damage components with a knife.

Do not leave PVCu components outside in freezing conditions then immediately attempt to knock them on.

Do not leave brown components in their packaging whilst in direct sunlight at times of high temperatures.

SEALING

The Traditional Lantern requires sealing at important junctions in the roof, the use of Low Modulus, Neutral Cure sealants is vital. Self cleaning glass may have compatibility issues with certain types of sealant based sealants, refer to your glass supplier regarding the use of specific sealants.

ROOF VENTS

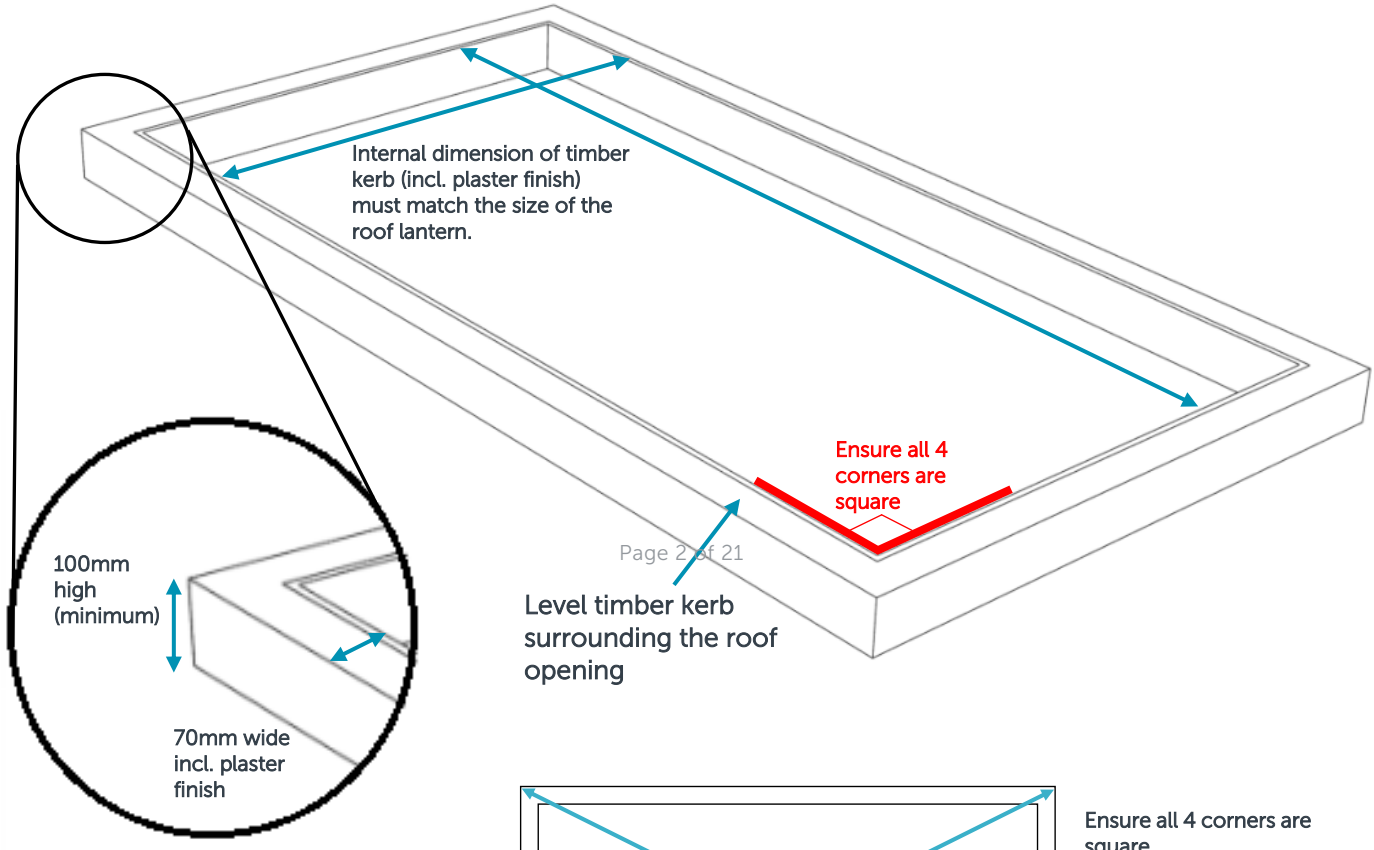
The Traditional lantern can be supplemented with an opening roof vent, refer to the installation instructions found within the roof vent packaging.

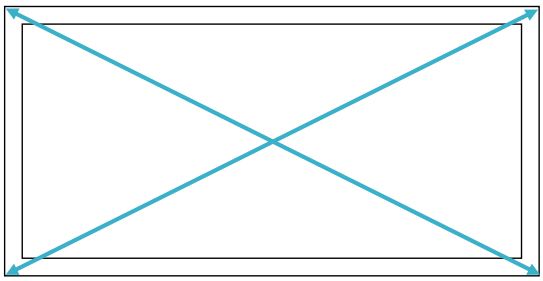
TIMBER KERB PREPARATION

Create a level timber timber kerb around the opening you have formed in the roof, measuring a minimum of 70mm in width (including the internal plaster finish), with a minimum height of 100mm from roof level (this can be increased if required).

The internal dimension of your kerb
(including plaster finish) should also match the size of the roof lantern ordered.

Check the timber kerb is perfectly square by measuring from corner to corner, before fully fixing to the roof.





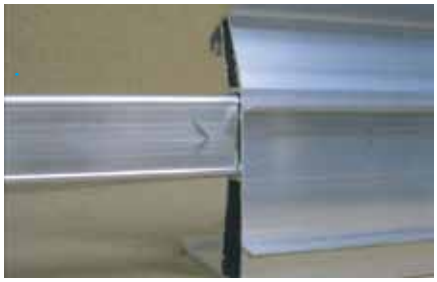
Ensure all 4 corners are square

Measure diagonally from corner to corner both ways. If both dimensions match, your timber kerb should be square.

2.1 FIXING OF THE EAVES BEAM

1. The eaves beam is designed to suit 60-70mm frames and is fitted using screw fittings. Fit the internal eaves beam face 2mm in from the inside frame line.

2.2 JOINING THE EAVES BEAM



1. Find and mark the centre of the eaves beam joiner, slide the joiner in to the eaves beam cavity up to the centre mark.

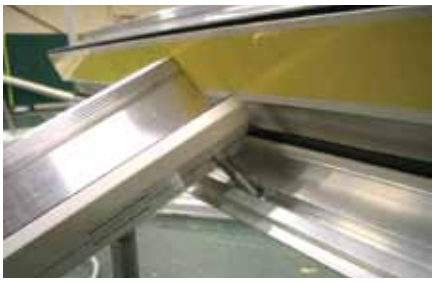
2. Fix the joiner to the eaves beam using the supplied 12mm self drilling screws.

3. Slide the next section of eaves beam over the joiner until it meets the end of the first section of eaves beam. Fix in place using the 12mm self drilling screws.

3.1 RIDGE AND RADIUS END RAFTERS

1. Before the installation of the rafters it is necessary to install the glazing support adapters. These are designed to fill in the gap left between the shaped rafter bottom cap and the polycarbonate support trim.

2. These come in two sizes, the larger for Georgian hips and the smaller for Victorian, jacks and transom rafters.



3. Determine the height and position of the ridge and support it in this position. Next locate the main ridge to eaves rafters using the roof plan as a guide to their positions. Each rafter connects into a pre-drilled hole via a single bolt to the top and bottom.

Note: If a security bolt is fitted it is important that this is checked for tightness on site. If it is found to be loose then it must be fully tightened using a 4mm Allen key.

3.1 RIDGE AND RADIUS END RAFTERS- *CONTINUED*

4. Ensure the ridge is level and in its correct position prior to securing the rafter bolt with a M8 flanged nut. These need to be securely tightened with a 13mm socket or spanner.

5. The rafters against the house wall should be secured back using suitable masonry fixings at 600mm maximum centres and a maximum of 150mm in from either end of the rafter. Ensure you drill below the soaker level.

6. Some of the rafters, which fit onto the standard multi-holed radius ends will have a pre-fitted plastic bar end cap and bolt. Make sure the shoulder of this cap fits over the rafter bottom cap before installation.

Note: If the fitting of the rafter is restricted where it fits under the canopy of the ridge or wallplate then loosen both security bolts (when fitted) slide back the aluminium rafter to release the bolt. Locate the bolt through the bottom cap and fixing hole, then slide the aluminium rafter back over the bolt into its finished position.

7. On Georgian designed roofs the access to the bottom fixing nut of the Georgian hip can be restricted by the shape of the eaves beams. To help gain access for a 13mm socket lift up the back of the hip rafter as shown in the picture above.

8. Place the internal stainless steel eaves bracket over the hip bolt then fit and tighten the washered nut. Use a 4mm drill to pilot hole through the four holes in the eaves bracket through the eaves beam.

9. Secure the bracket with four 12mm screws

Note: An internal bracket needs to be fitted to every hip rafter.

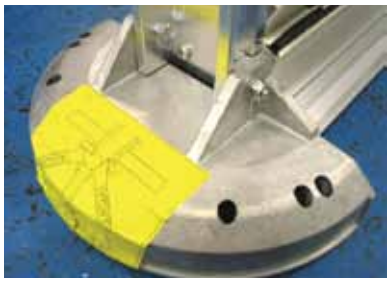
10. The non standard radius end will have been pre-drilled in the factory with one hole per rafter. This will also have a pre-fitted clip and bolt to attach the radius end bottom cap.

11. Some of the rafters will be pre-fitted with an aluminium packer. This has been designed to fit between the rafter and radius end as shown. The rafter is then fixed with a flanged nut on the underside of the radius end.

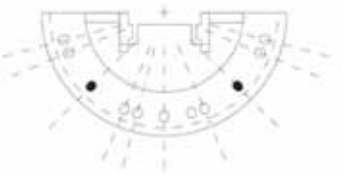
12. The purpose of this packer is to raise the height of the rafters so that all of the bottom cap glazing gaskets are at the same level.

STANDARD RADIUS END

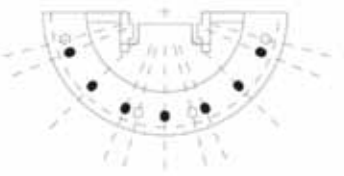
When using a standard radius end then the table to the right is used to establish the rafter positions. It is important that each rafter is positioned correctly or problems will arise with the installation of the remaining roof skeleton and glazing.



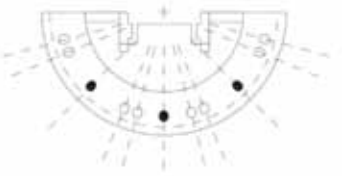
Standard 3 facet Victorian, no centre rafters



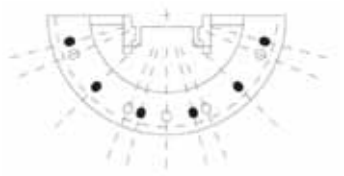
Standard Georgian, no centre rafter



Standard 3 facet Victorian, with centre rafters

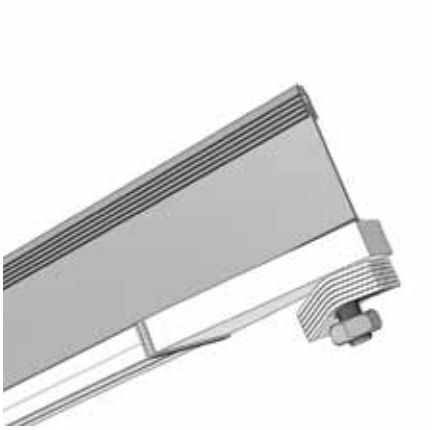


Standard Georgian, with a centre rafter

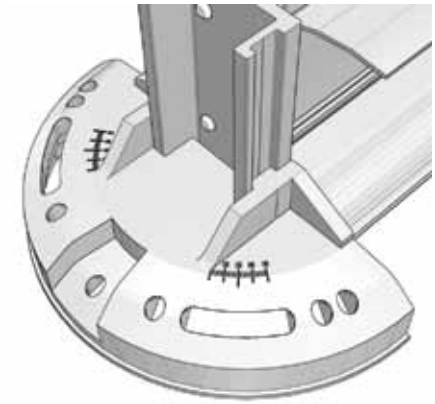


Standard 5 facet Victorian

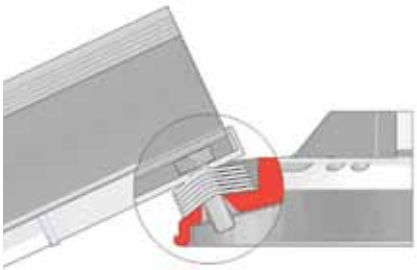
DROP NOSE RADIUS END



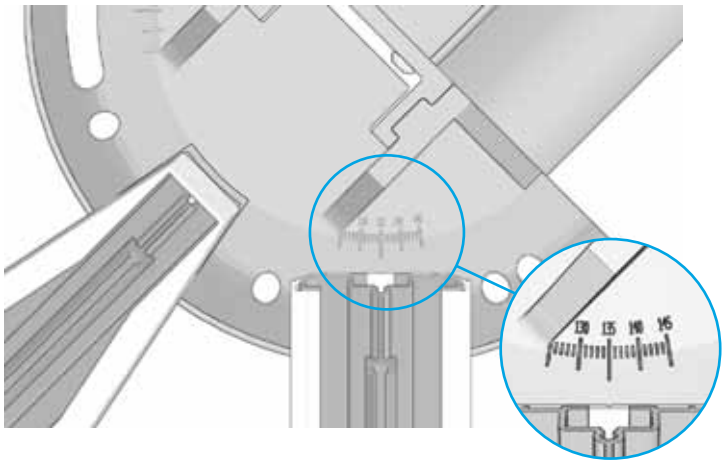
1. Central rafter section supplied with pre-fitted plastic bar, end cap and bolt. Ensure the shoulder of the end cap fits over the rafter bottom cap before installation.



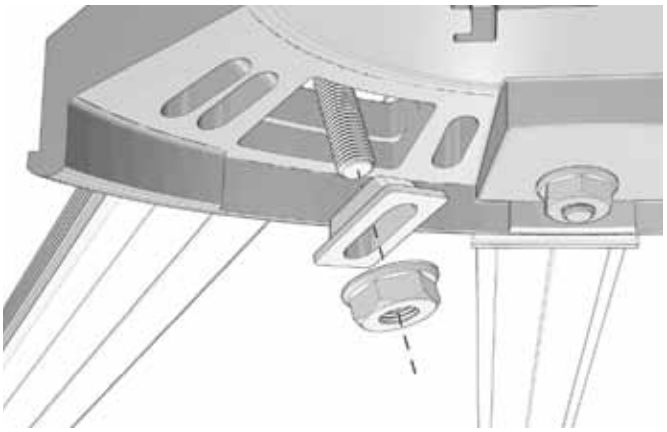
2. Radius end features a recessed drop-nose section to allow central rafter (with packers) to match the glazing level with the Georgian hips.



3. Insert rafter into radius end. Use appropriate combination of 2mm and 1mm packers to achieve the correct glazing height. Correct number of packers should be pre-fitted to the centre rafter.



4. The hip angle required will have been marked on the dial shown above. Align centre line of hip with this angle to ensure correct placement.



5. Fix Georgian hip to radius end using an insert sleeve and flanged nut on the underside as shown. Ensure the nut is fully tightened and secure.

3.2 JACK RAFTER CONNECTION

1. Jack rafters connect onto the hip via a hook fitted to the jack and a spring fitted to the hip. Raise the bottom of the jack rafter and clip the jack hook over the gasket section on the hip rafter. Once the jack is located position the jack rafter bolt into the pre-drilled hole in the eaves beam or valley wing (do not tighten the nut at this time).

2. Using pliers pull the loop of the spring over the side lug on the jack spring (do not fit the spring under the main hook).

Note: Check that the hook on the jack rafter does not clash with the hip rafter bolt channel as this could leave a gap between the jack and hip bottom caps.

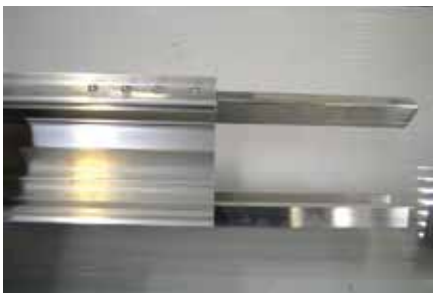
3. Pull up the jack rafter bottom cap so that the milled section fits up to the hip rafter bottom cap. If a slight gap is left this can be helped by elongating the bolt hole in the jack rafter bottom cap. Once this joint has been achieved, fit and tighten the fixing nut.

Note: These joints may re-open slightly during glazing. Use a rubber or nylon mallet to tap the jacks back into position.

4.1 JOINING RIDGES

1. Slide the aluminium joiner half way into the body of one ridge.

2. Secure the joiner with 4 self tapping screws each side of the ridge.



3. Clip in and secure the lower ridge joiner with 4 self tapping screws each side.

4. Slide the other ridge body onto the joiners and repeat the fixings procedure.

5. The view of the lower ridge joiner connected via 8 self tapping screws.

5.1 3 & 5-WAY TIE BARS

1. Place the tie-bar bracket on to the factory fitted bolts and fasten using the supplied 13mm nuts.

Note: If the bracket is a tight fit over the bolts, loosen the security bolts with a 4mm Allen key fit the bracket and re-tighten the bolts.

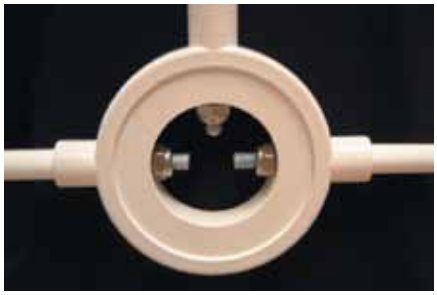
2. Clip the ridge under channel in to the bottom of the ridge so that it is in-line with the tied rafters and fix using 13mm self-drilling screws.

3. Place the ridge under cladding on to the bottom of the ridge and clip it in to position using a rubber or nylon hammer.

4. Centralise the ridge tie-bar bracket with the tied rafters making sure it runs in-line with the ridge. Drill 4 x 5mm pilot holes and fix using the 4 supplied screws within the tie-bar kit. Cover the screws heads with the push on screw covers.

5. Fasten the clevis to the bracket using a bolt and 17mm nut. On a three-way tie-bar three clevises will be required, one for each rafter and one for the ridge.

6. Determine and cut the 3 lengths of threaded rod and rod covers. Screw one end of each rod at least 20mm into each clevis. Slide on the rod covers then push the remaining ends into the central boss.



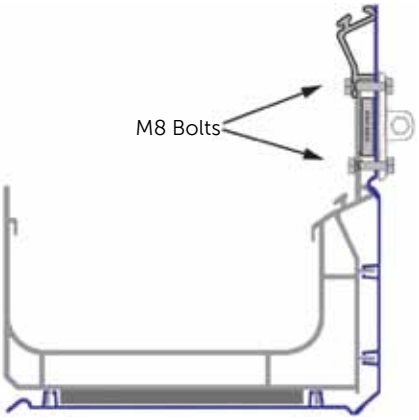
7. Tighten the three nuts in the central boss with a 17mm spanner until the window frames are plumb and the internal roof dimensions are correct. Make sure the rods are plumb and level.

8. Use the supplied double sided tape to fit the central boss covers to both sides.

9. Cover all of the exposed nut and bolt heads with the supplied push on cover caps.

Note: To establish the length of the rod covers, assemble the tie bar with just the threaded rods then measure for the covers. The tie bar will then require re-assembly.

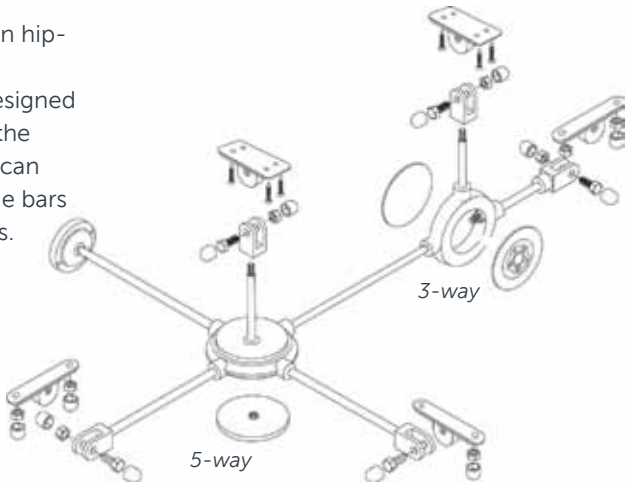
5.1 3 & 5-WAY TIE BARS - *CONTINUED*



On certain roofs designs that contain raised leg box gutters the tie-bar bracket requires fixing to the raised leg section. Make sure the void between the cladding and aluminium plate is packed out. Fix using 2 x **M8-30** fixing bolts.

5-way tie bars

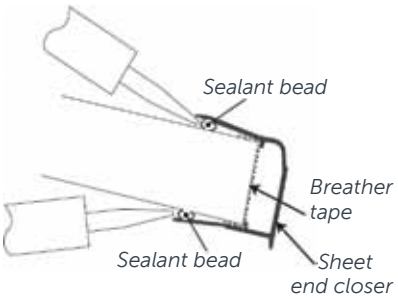
These are generally supplied on hip-back
P shape designs as part of a designed tie bar system. Depending on the layout of the roof, this system can incorporate other 3 or 5 way tie bars as the drawing (right) illustrates.



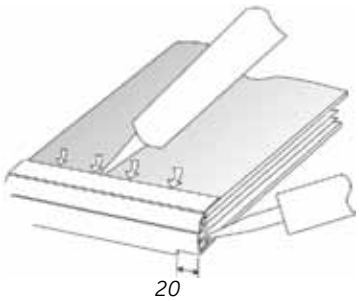
6.1 FITTING THE ROOF SHEETS

Careful consideration must be given to the sequence of glazing a conservatory roof. Please consider the following points:

- Sequence the glazing so access is available for sealing the critical ridge areas
- With glass roofs, sequence the glazing so loadings are progressively balanced across the ridge
- Allow access to box gutters for fixing of rafter end caps.



1. Cut the sheet closer to the bottom width of the panel and remove the drip 20mm in from each end. Slide the closer onto the end of the panel. Push the sealant nozzle under the lip of the closer and run a continuous line to form a seal onto the roof sheet.



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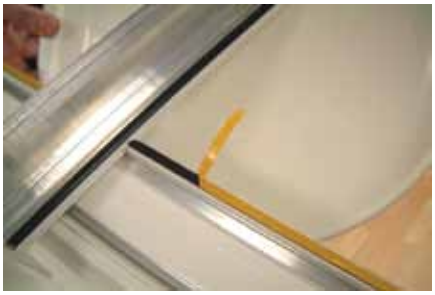
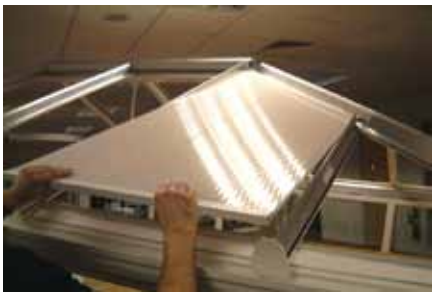
2. Seal the bottom lip of the closer to the sheet and then seal up the open ends. Clean away any excess sealant.

Note: Ensure the closer is sealed to the panel and not the breather tape!



3. Peel back a start on the support trim security tape so it can be pulled off from the inside when the panel is in position.



4. Offer the roof panels into position so they are central between the rafters. See the notes above for positioning panels.

5. With the panel in its final position, remove the film from the security tape on the support trim and press the panel down. If the roof is 10° pitch or lower then run a sealant line between the underside of the roof sheet and the support trim.

6. With a roof panel in each side of the rafter, knock the rafter top cap down onto the rafter using a rubber headed mallet. Use a piece of timber when knocking on the foiled aluminium top caps to avoid denting the caps.

7. Jack rafter top caps are supplied over size and will require cutting down on site. Foiled aluminium top caps are supplied with the gasket over-length.

8. Seal the rafter top cap to ridge rain excluder joint.

9. Seal the jack to hip rafter top cap joint.

Note: It is vital that the aluminium top caps are not damaged during installation as this can cause them to spread and will result in a loss of glazing compression (see fig. 6 above).

6.2 GLASS ROOFS

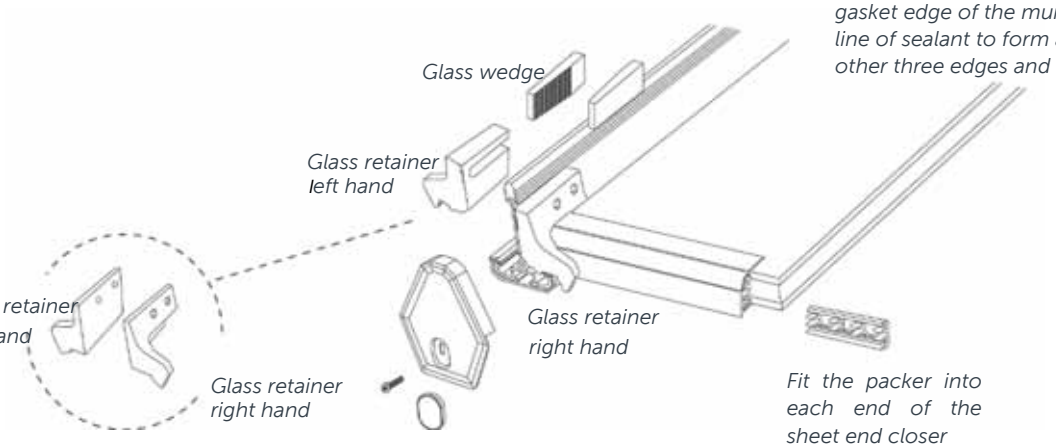
1. Secure each glass retainer with the 2 screws provided. Transom rafter glass retainers should finish flush with the end of the rafter as shown.

Note: use packer within sheet closer.

2. Please note that the hip rafter glass retainer when pushed up to the roof glass will be fixed shy of the rafter end.

3. Wedge packers should be used to pack the glass between the rafters, 2 packers per corner are supplied.

Force the nozzle of the sealant gun under the gasket edge of the muntin and run a continuous line of sealant to form a gasket. Repeat this for the other three edges and remove any excess sealant.



Secure each glass retainer with 2 No. self drilling screws

Glass roofs are supplied with glass kits as shown above. Position the glass and push the glass retainer up to the sheet closer and screw it into position using the screws provided. Wedge the glass against the retainer using the wedges when provided.

6.3 FIXING THE MUNTING BAR

Larger roofs may come supplied with muntin strip to join units together. Assemble the two units and the muntin strip dry within the roof.

1. Lay the aluminium extrusion between glazing bars.

2. Apply a narrow band of low modulus sealant along both sides of the aluminium glazing connector. Run finger along glazing connector to remove excess sealant.

3. Lay first glazing panel onto glazing connector.

4. Lay second glazing onto glazing connector.

5. Without using excess force, gently bend the sides of the PVCu connector cap towards you.

6. Apply a narrow bead of sealant along both sides of the PVCu connector cap.

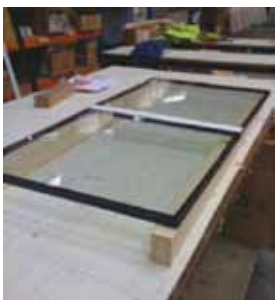
7. Run finger along PVCu connector cap remove excess sealant.

8. Put PVCu connector cap in place above the aluminium glazing connector.

9. Press firmly until PVCu connector cap engages into the channels of the aluminium glazing connector.

Note: For wider spans it may help with engagement of the PVCu connector cap if a second person supports the aluminium glazing connector from underneath.

10. Still pressing down firmly, move your hand and thumb along the remainder.



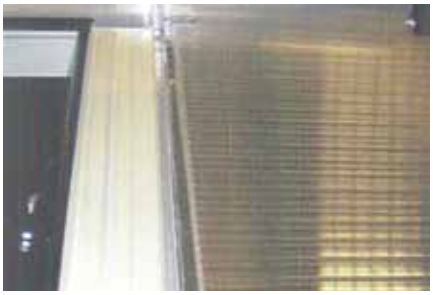
11. WIth a cloth wipe off excess sealant, fixing complete.

12. It is recommended that a short bead of sealant is applied over the connector gap gaskets at the points where the glazing bar capping seals make contact with them.

6.4 FIXING THE ROOF VENT

Place roof vent PVCu frame onto the glazing bars, above the lower glazing panel. Make sure it is centrally located between the glazing bars.

1. Apply a thin bead of sealant to the lower glazing support bar.



2. Run finger along connector to evenly spread sealant, place glazing onto support pressing down to ensure seal, remove excess sealant.

3. Apply additional beads of sealant along the edges of the glazing panel and the PVCu frame.

4. Locate the PVCu glazing connector cap and, working from one end to the other, press down firmly to engage the snap lock.

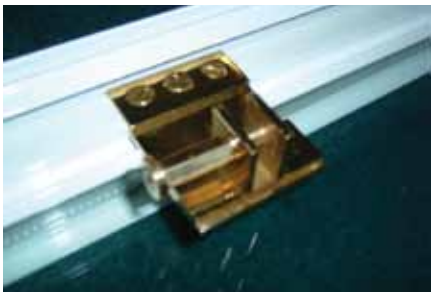
Repeat steps 1 and 4 on the upper glazing panel junction.

5. It is recommended that a short bead of sealant is applied over the connector gap gaskets at the points where the glazing bar capping seals make contact with them.

6. Wipe any excess sealant off after the glazing bar capping has been fitted.

7. The sash must be held at about 95° to the plane of the roof to engage onto the hinge. Hook the outer channel on the underside of the frame, onto the aluminium hinge as shown and rotate the sash to the closed position to engage the hinge.

6.5 ROOF VENT SITE ASSEMBLY



1. With the aluminium sash frame laid on a flat surface with the underside uppermost, undo all the visible screws and remove the aluminium glazing beads and the quick release coupling.

2. Place the glass panel inside the frame and re-fix the aluminium glazing beads making sure that the ends of the foam tape release liner are accessible. The glazing beads must be relocated to the same sides as they were originally fitted.

After making sure the glass panel is central to the frame, remove the release liners from each glazing bead. While slightly raising one end of the assembly, push the glass panel onto the adhesive backed foam tape from underneath.

3. Once the panel has been stuck to all four glazing beads turn the assembly over and insert the wedge gasket between the glass and the top surface of the aluminium frame.

Start and finish the gasket in the centre of the top edge of the sash. Each corner should be nicked at the back and fitted first with the gasket relaxed between the corners so that the gasket can be completed without the gasket being stretched.

Call us: 0116 269 6297
Mon-Fri 9-5pm

7.1 FITTING THE FOAM BUNG

1. Fully glaze and cap all of the rafters, which fall onto the radius end.

2. Using a hacksaw blade cut down the width and height of the bridged section of foam bung, so that it fits snugly between the rafter top caps, and finishes level with the top of the ridge.

3. Remove the bung and sealant seal around the ridge profile making sure the sealant runs down to the glazing level on both sides.

4. Insert the cut down section of bung making sure it is pushed firmly in to the sealant seal.

5. Test fit the half round foam bung making sure the chamfer runs downwards.

6. If the bung is to large for the aperture, cut two v-notches in to the bung using a hacksaw blade.

7. Adjust the size of the v-notches depending on the size of the aperture.

8. Push the bung in to the aperture so it finishes just above the rafter top caps.

9. Sealant seal the joint between the two foam bungs including the joints between the two v-notches.

10. Finally run a continuous seal around the foam bung so it is sealed to the glazing and rafter top caps.

Call us: 0116 269 6297
Mon-Fri 9-5pm

8.1 RIDGE TOP CAP

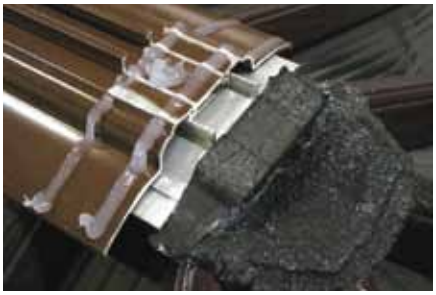
1. Centralise the two clips on the ridge top cap with the two barbs on the main ridge.

2. Starting at one end knock the top cap in to position using a rubber mallet.

3. The top cap is in it's correct position when the wings of the top cap touch the wings of the main ridge.

8.2 RADIUS END TOP CAP

1. The radius or gable end of the ridge top cap will have been notched during manufacture. Cut off the cresting barbs so that they finish level with the notch depth. File this area flat.



2. Run two beads of silicon over the ridge top cap.

Note: The foam bung will need to be fitted prior to the fastening of the radius end top cap.

3. Fit the radius end top cap and fasten using the push fit rivets through 5mm drilled holes.

Certain roofs will be supplied with blank radius end top caps that require the skirt notching around the rafters.

A non-skirted version is available as an extra if required.

Certain roofs will have the radius end top cap pre-notched:

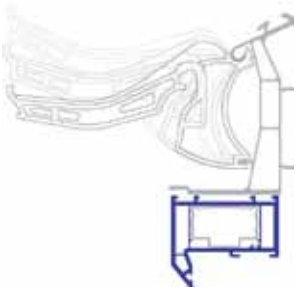
Supplied when no centre rafter and roof pitch is 25° on all sides.

Supplied when there is a centre rafter and roof pitch is 25° on all sides.

4. Slide the cresting over the radius end top cap into the cresting channel. The length of the last cresting may require shortening to fit behind the finial point.

5. Finally insert the finial by turning it in to the screw port in the radius end top cap.

9.1 GUTTERING



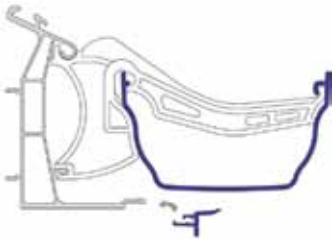
1. Position the top of the gutter bracket in to the eaves beam monkey tail. Rotate the bracket downwards until the bottom of the bracket clips in to the eaves beam clip. A nylon or rubber mallet can be used to locate the clips if required.

2. Position the brackets at a maximum of 600mm centres and a maximum of 150mm in from each end of the eaves beam.

3. Position the main gutter so that the monkey tail clip faces outwards. Push the back of the main gutter up in to the gutter bracket clip. Continue this procedure until the back of the main gutter is installed in to all of the gutter brackets.

4. Pull up and clip the front of the gutter bracket in to the main gutter monkey tail.

5. Next fit the gutter corner unions, this is made easier by lifting up the front of main gutter.



6. The gap between the bottom of the gutter and the top of the frames is cloaked off with an under gutter trim.

7. The gutter under trim is sent oversize. Measure and cut the trim so that it fits between the gutter unions, stop ends or both.

8. An injection moulded trim will be supplied to fit under the angled gutter unions. These have been designed for 90° and 135° gutter unions.

9.1 GUTTERING- *CONTINUED*

9. These are installed by pushing them up in to place under the gutter union.

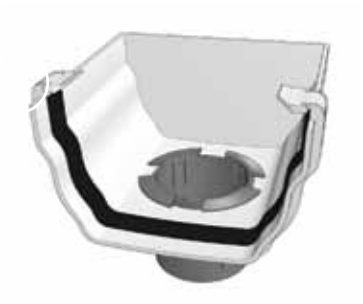
10. When a running outlet or stop end are used a straight under gutter trim will be supplied. This will require marking and cutting to length.

Note: Ensure all gutter union gaskets are fully inserted into the fitting prior o fitting the gutter. Use a sealant lubricant on the gaskets to ensure correct fitting and ease of installation

9.2 GUTTER SPIGOT

Gutter spigot

1. Using a 60mm diameter hole saw cut a hole through the stop end, using the drill indent in the stop end as the central location point.



2. Push fit until it clips in to position.

10.1 INTERNAL EAVES CLADDING

1. Eaves Beam: Seal all of the internal corner joints.

2. Place an internal eaves clad joint on to the end of an internal eaves clad. Position the clad over the eaves beam so that it's clips line up with the eaves cladding barbs. Knock the cladding on using a rubber mallet.

3. Slide the next section of eaves clad in to the eaves clad joint and knock the eaves clad in to position as before. Carry on with this procedure until all of the eaves clads are fitted.

10.2 INTERNAL RIDGE CLADDING

1. Ridges: Prior to fitting check the length of the ridge under clad by measuring the distance of the ridge up to the radius end bottom cap, which can be fitted first. Place the ridge under cladding on to the bottom of the ridge and clip it in to position using a rubber or nylon hammer.

2. The radius end bottom cap is either fitted by clipping it on to the radius end or using a nut and bolt. This will depend on the type of radius end used. When the large radius bottom cap is supplied it is fixed with a nut and bolt.

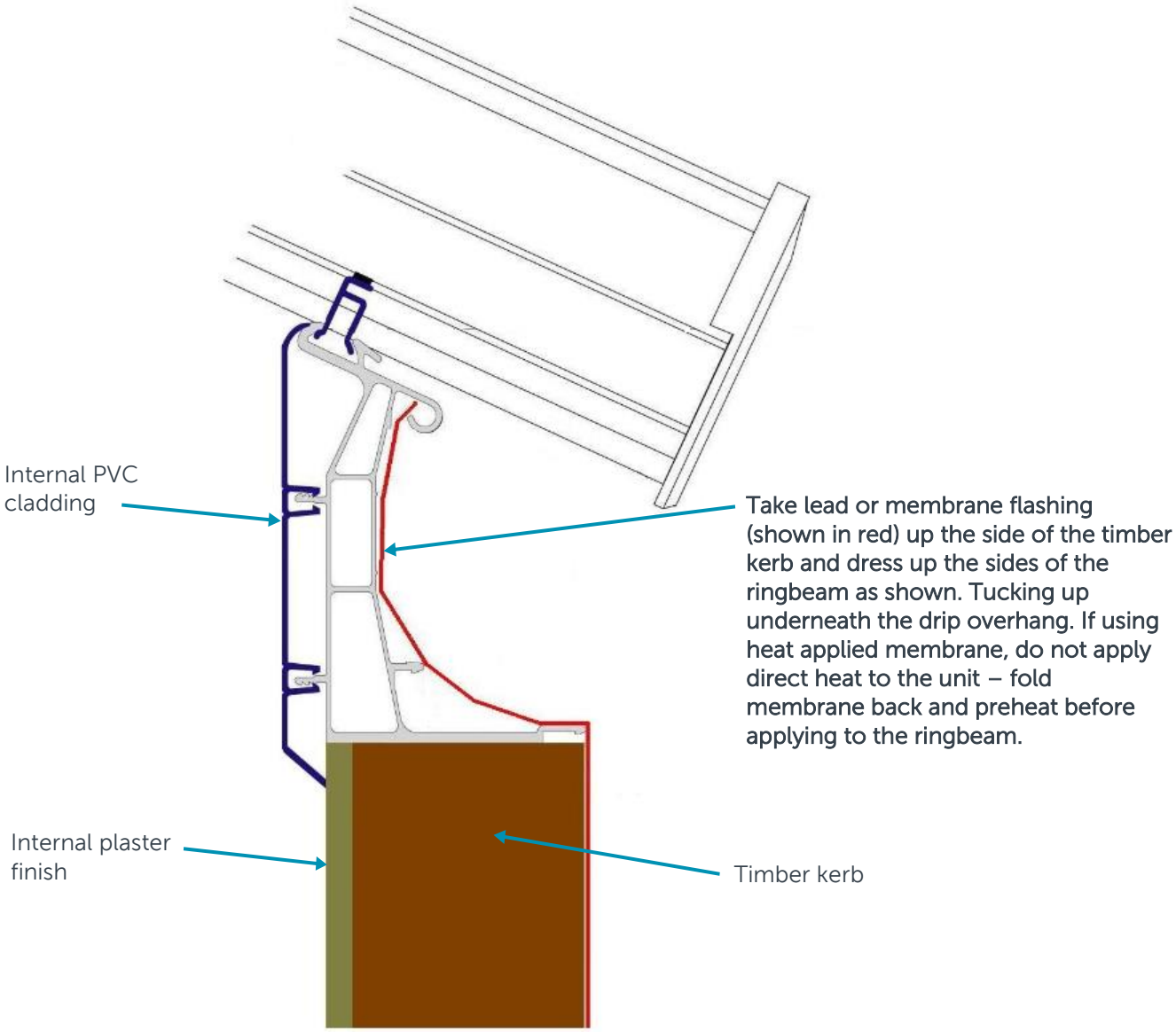
3. The quarter radius end bottom cap is fitted with a nut and bolt. Fit this prior to fitting the ridge under clads.

4. Typical detail showing the intersection of multiple ridges. These under clads will be cut to suit during manufacture.

11.1 FLASHING THE RINGBEAM

This section drawing illustrates how the flashing material dresses up the side of your timber kerb and forms around the outside of the lantern's ringbeam.

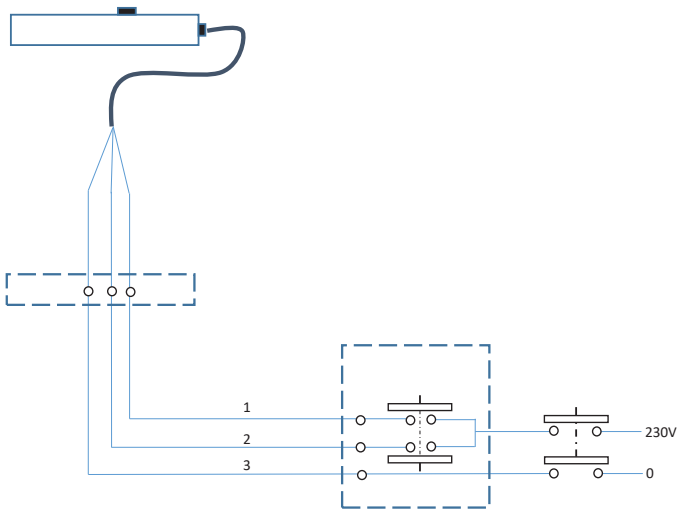
Once the unit has been flashed on all 4 sides, the installation of your Traditional roof lantern is complete.



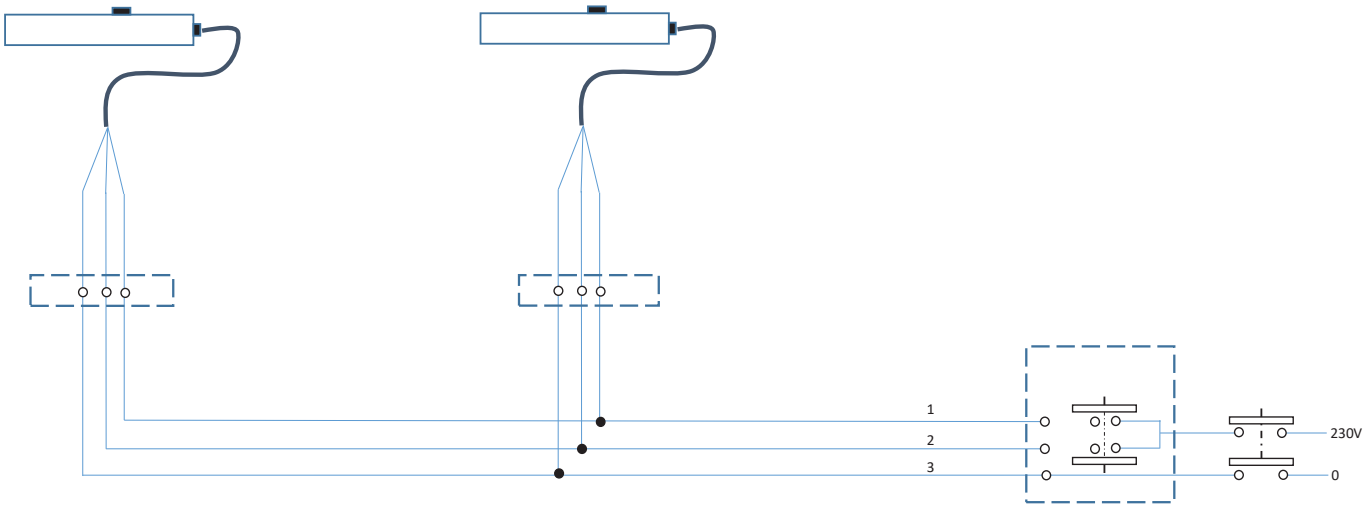
ROCKER SWITCH CONTROLLED OPENING VENT – WIRING DIAGRAM (3 CORE CABLE)

The diagram below illustrates how you need to wire in your opening vent to your switch, giving examples for both a single vent or when 2 vents have been included.

3 CORE - SINGLE MOTOR



3 CORE - MULTIPLE MOTORS



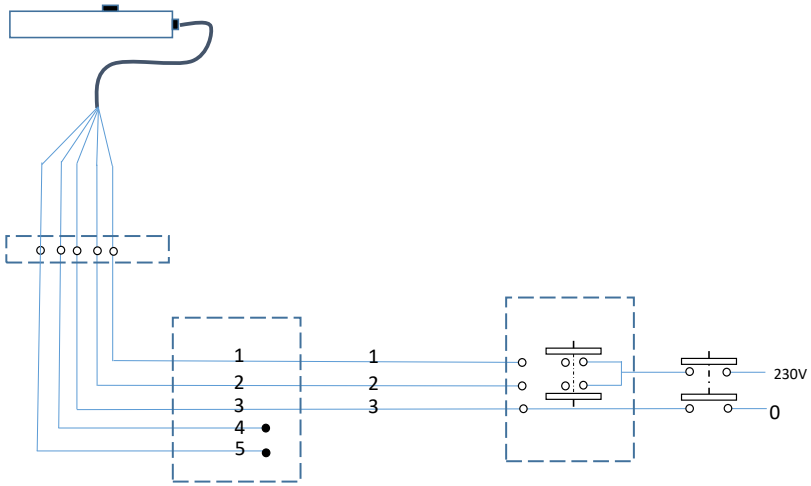
Colour	Number	Signal
Brown	1	Opens
Black	2	Closes
Blue/Grey	3	Common

Refers to both single and multiple motors.

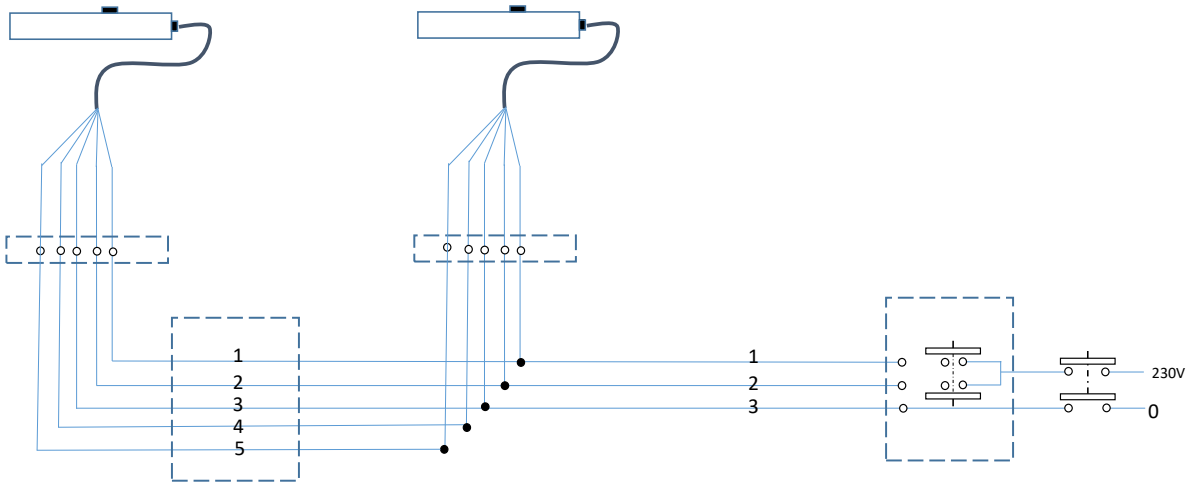
ROCKER SWITCH CONTROLLED OPENING VENT – WIRING DIAGRAM (5 CORE CABLE)

The diagram below illustrates how you need to wire in your opening vent to your switch, giving examples for both a single vent or when 2 vents have been included.

5 CORE - SINGLE MOTOR



5 CORE - MULTIPLE MOTORS



Colour	Number	Signal
Brown	1	Opens
Black	2	Closes
Blue	3	Common
Red	4	Sync
White	5	Sync

Refers to both single and multiple motors.

THERMOSTATIC AND RAIN CONTROLLER / OPENING VENT

The below diagrams show the wiring in process for when you have chosen a climate-controlled operation with rain sensor.

ADVANCED OPERATIONS GUIDE

The default settings of our 100 series controller are suited to most user applications. However, if you need to make advanced alterations such as; Thermostat, Actuator and Lock Calibration, then please use the following guide.

To enter 'advanced' setup set your unit to "**AUTO**" mode then press and hold the **AUTO/MAN** plus **SET +/-** buttons simultaneously for 5 seconds.

Your screen should now read..

```
ADV
SETUP
```

After a moment the screen will change to display

```
To Advance
Press SET +/-
```

Using **SET+/-** is how you scroll through the available options and saves each stage of any alteration.

Now press "**SET +/-**". The screen will read..

```
To + a value
Press Open
```

The Open button is used to increase any value.

Press "**SET +/-**" again. The screen will read..

```
To - a value
Press Close
```

The Close button is used to decrease any value.

Press "**SET +/-**" again. The display will read..

```
Proceed to
ADV Setup
```

Now you can proceed to the advanced setup options.

Press "**SET +/-**" again. The display will read..

```
Room Temp
is now XXc
```

'XX' being the current temperature in your room.

By using **Open(+)** and **Close(-)** you can calibrate the display temperature.

Press "**SET +/-**" again. The display will read

```
Full open
Cycle 013sec
```

013sec is the amount of time for the motor to operate and fully open - in most cases this default setting is adequate. You can of course, alter this setting for your actuator by pressing the **Open(+)** and **Close(-)** buttons.

Press "**SET +/-**" again. The display will read..

```
Opening
Temp =22c
```

This relates to the temperature that the room must reach before the actuator will operate.

You can alter this setting by pressing the **Open(+)** and **Close(-)** buttons.

Press "**SET +/-**" again. The display will read..

```
Closing
Temp =18c
```

This relates to the temperature that the room must fall to before the actuator will operate.

You can alter this setting by pressing the **Open(+)** and **Close(-)** buttons.

Press "**SET +/-**" again. The display will read..

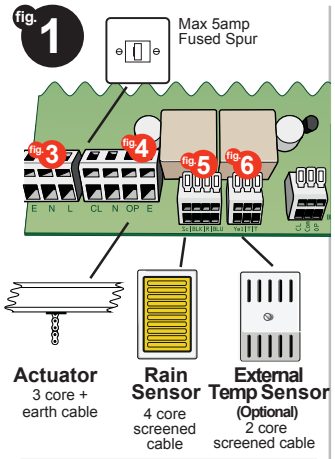
```
AUTO LOCK
MODE OFF
```

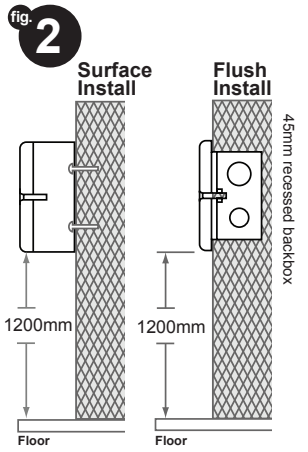
Using autolock is a security feature that prevents the unit from being used without entering a passcode first. You can turn this on or off by pressing the **Open(+)** and **Close(-)** buttons.

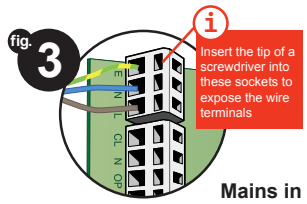
Press "**SET +/-**" again will take you back to **AUTO MODE**

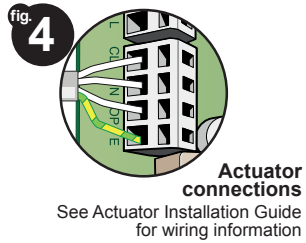
The unlock sequence is:
Button 2 [AUTO/MAN]
Button 1 [OPEN]
Button 3 [SET +/-]
Button 4 [CLOSE]

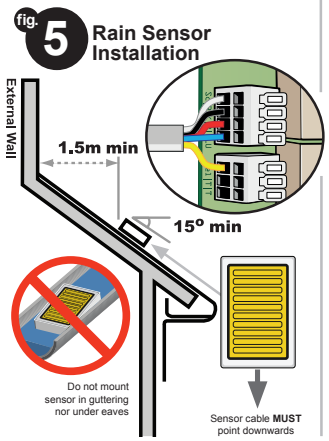
Continued on next page...

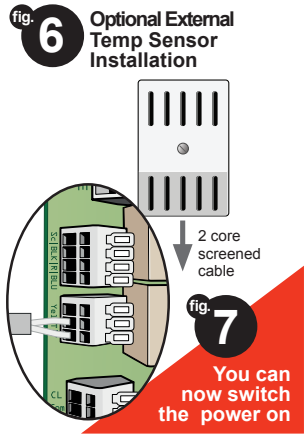






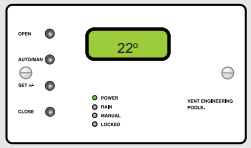




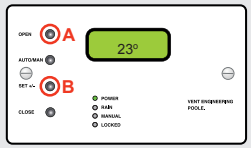


Additional user settings

Preset Opening Temperature



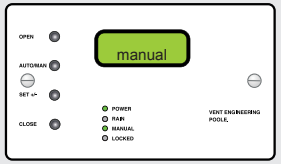
To adjust opening temperature



In Auto mode, hold 'A' & repeat press 'B'

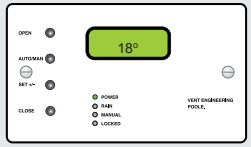
To manually open and close

Press and hold **AUTO/MAN** for 2 seconds until MANUAL light comes on then use the **OPEN** or **CLOSE** buttons to adjust the window position.

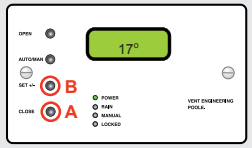


Press and hold **AUTO/MAN** for 2 seconds to return to automatic mode.

Preset Closing Temperature



To adjust closing temperature



In Auto mode, hold 'A' & repeat press 'B'

We advise a difference of at least 2° between the opening and closing temperature.

FREQUENTLY ASKED QUESTIONS

Q. Where is the temperature sensor?

A. The Ventec 100 Series comes with an internal temperature sensor.

Q. Where do I mount my temperature sensor?

A. If you have opted for the external temperature sensor, the location is entirely at your discretion. We would recommend a position that gives a good average reading of the desired location, ideally at least 1300mm from the floor. *You can choose to position the thermostat a maximum of 30m away from the control panel.*

Q. Only the set+/- button on my panel does anything?

A. This means your panel has been locked. To unlock your unit see the instructions on the back page.

Q. Can I change the default lock/unlock code?

A. No. The code has been preset to avoid the need for a complete system reset should the new code be forgotten.

Q. My rain sensor seems to have become less responsive?

A. Check the unit has not slipped or fallen into an undesired position and try cleaning the metallic head with a soft damp cloth. We recommend the rain sensor is cleaned on a quarterly basis.

Q. It has recently stopped raining but my windows have not opened again?

A. In Auto mode the 100 series controller has a built in time delay of 5 minutes between the rain sensor drying and the unit becoming fully operational. This will be indicated by the presence of the Rain LED on the front panel. For the unit to operate the current temperature will need to be higher than your desired opening temperature. In manual mode you should have full control of the unit.

Q. My display shows 0.0 - Is this correct?

A. This indicates a problem with the thermostat wiring. Check the wiring and that all connections have been correctly made.

Q. How many actuators will the 100 series operate?

A. The 100 series has a 5 amp capacity.