

# ROOF MAKER

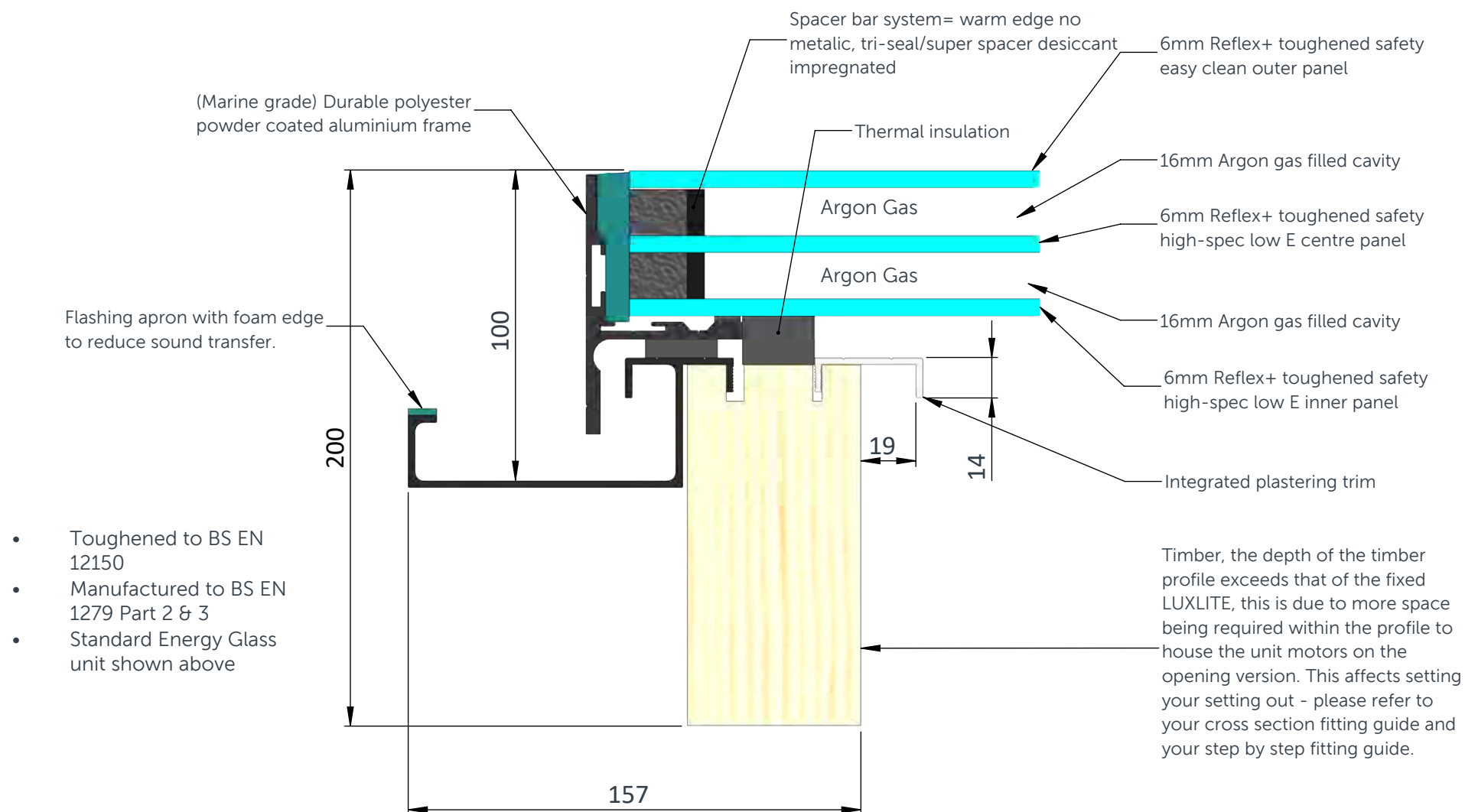
WORLD CLASS ROOFLIGHTS



## PRODUCT SPECIFICATION AND INSTALLATION GUIDE

### OPENING LUXLITE™

## OPENING LUXLITE™: STANDARD PRODUCT SPECIFICATION



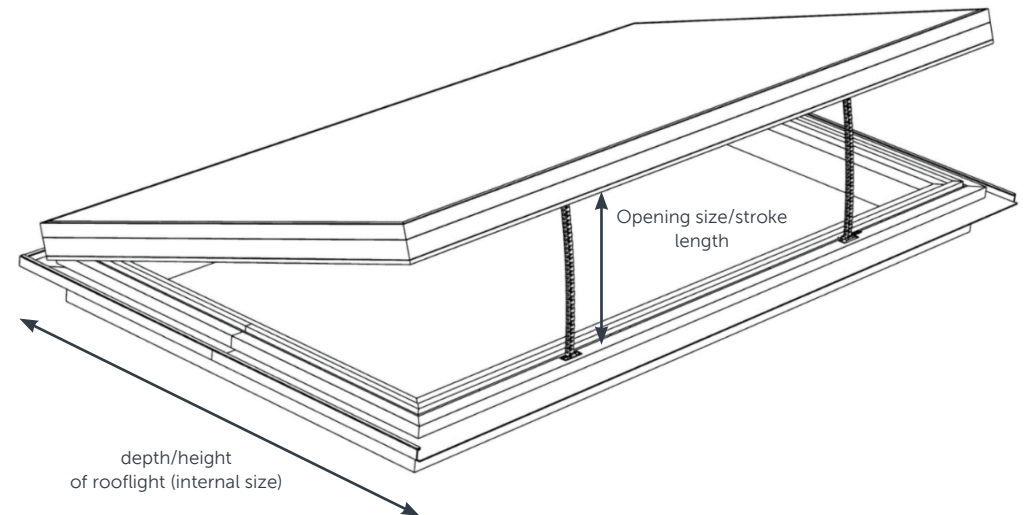
## OPENING SIZE GUIDE FOR THE HINGED OPENING LUXLITE™

The maximum opening capacity of your Hinged Opening Luxlite™ will depend on the size of the rooflight you have ordered. The potential opening size ranges from 200mm to 400mm.

The chart below illustrates the maximum achievable opening size dependent on the height (or depth) of your rooflight.

Luxlite™ rooflights will be top hung with the hinges located along the top of the rooflight, and the opening located at the bottom of the rooflight. It is the distance running from top to bottom of the rooflight which we refer to as the internal height or depth. The stroke length refers to the length of the chain and in turn, the size of the opening that will be achieved when fully open.

Internal height of rooflight (depth)	Stroke length (opening size at widest point)
700mm +	400mm
699mm - 600mm	300mm
599mm - 500mm	250mm
499mm - 400mm	200mm



## OPENING LUXLITE™: INSTALLATION INSTRUCTIONS



### ON DELIVERY OF YOUR NEW OPENING LUXLITE™, YOU WILL RECEIVE;

#### \*IF REMOTE CONTROLLED WITH A RAIN SENSOR...

- Control box (200mm x 120mm x 75mm) with 3 pin power flex
- Remote control and key fob remote
- Long Screws for fixing the rooflight to the rafters and trimmers
- Rain sensor with mounting bracket

#### \*IF ROCKER SWITCH CONTROLLED...

- Rocker switch
- Long Screws for fixing the rooflight to the rafters and trimmers

*\*All additional accessories and components will come with your rooflight delivery and be packaged in a cardboard box.*

### IN ADDITION, YOU WILL NEED;

- Silicone Adhesive Sealant (high quality; Dow Corning 791 recommended)
- Drill, bits and screws as required
- Materials to prepare a wedge (as outlined in the guide)
- Lead flashing - code 4 recommended or suitable alternative (as outlined in the guide)

### INSTALLATION GUIDE

Please make sure you read through all steps and understand all requirements before beginning assembly.

Please ensure you adhere to the correct guidelines for moving heavy objects and working at height. Be sure to use the correct lifting equipment.

**PLEASE NOTE: You must not use glass suction pads to lift the unit on to the roof, as this can compromise the glazing seal. The unit will come with timber feet attached to the four corners, which we suggest should be used to handle the unit. If the use of a crane is required, either securely place the unit on to a pallet or attach additional timber to the existing timber feet, so the crane straps can be looped around securely. Avoid putting pressure on the built in flashing apron.**

### GUIDE WEIGHTS

Size (mm)	Landscape Weight (kg)	Portrait Weight (kg)
400x400	37	37
600x600	56	56
900x700	78	78
1400x700	108	108
1000x1000	107	107
1500x1000	143	143
2000x1000	180	180
2400x1000	215	168
3000x1000	258	201
1500x1200	164	164
2000x1200	211	211
2400x1200	243	243

*PLEASE NOTE - weights stated can vary and work to a +/- 10% tolerance. We can provide weights for sizes not listed. In some cases, lightweight glazing is used dependant on rooflight size and orientation. This explains why some weights vary on the chart above, when comparing portrait and landscape rooflights of the same size.*



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## STEP ONE

### FIT TRIMMERS TO YOUR JOISTS

The internal dimensions of the aperture created by your trimmers and joists should be 130mm wider than the Luxlite™ you ordered. (e.g. for 2000x1000mm Luxlite™, the internal dimensions of your aperture should be 2130x1130mm).

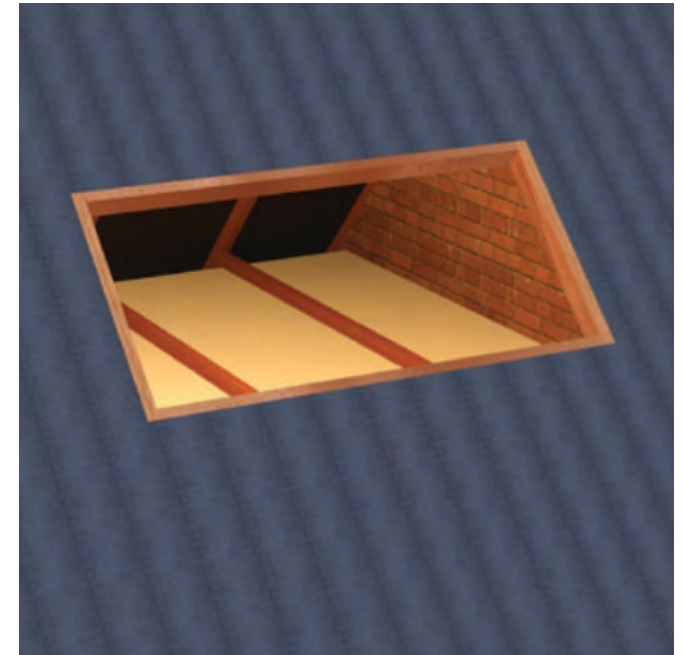
Fit trimmers across the joists adjacent to the aperture, and a beam across the trimmers, as shown. These additional structural members will support the tile battens around the rooflight.



## STEP TWO

### FIT UNDERFELT TO YOUR ROOF

Fit underfelt to your roof. This should extend to the rim of the aperture where your Luxlite™ will be installed. Seal the underfelt to the timber around the aperture.



# ROOF MAKER

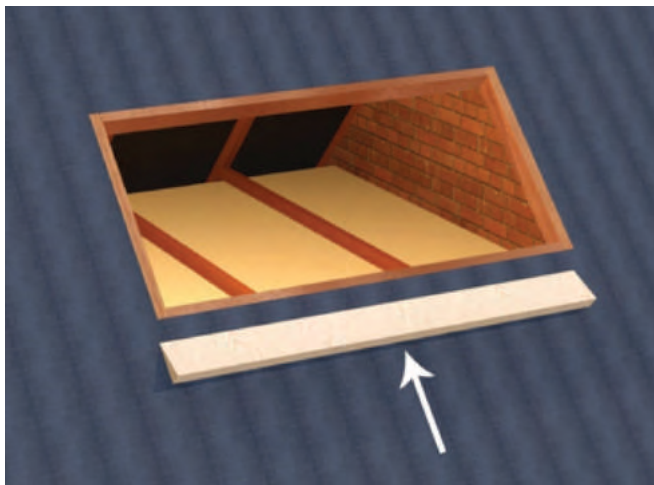
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## STEP THREE

### PREPARE AND FIT A TIMBER WEDGE BELOW THE APERTURE

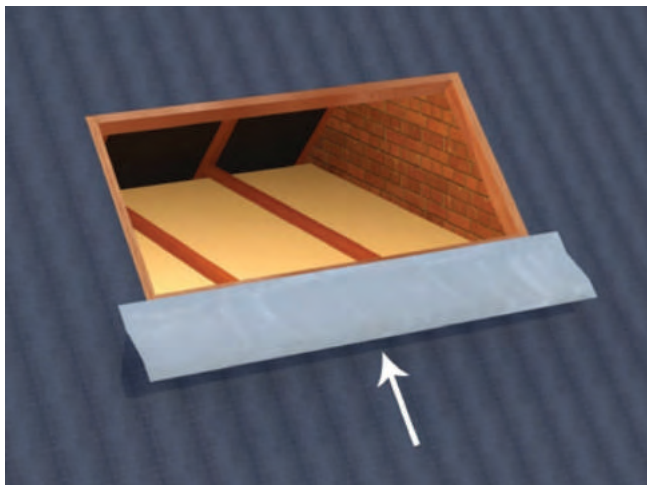
The bottom of the wedge should meet level with the tiles that will be installed later. This can be determined by trial fitting the Luxlite™ assembly. The wedge should be at least as wide as the Luxlite™ apron. The position and angle of the wedge is dependent on the roof type set out.



## STEP FOUR

### COVER THE WEDGE WITH FLASHING

Cover the wedge installed in the previous step with flashing (flashing and wedge not provided). The flashing width should be at least 100mm (either side) greater than the Luxlite™ apron. It is also important that the highlighted edge of the flashing (left) is tucked underneath the Luxlite™ apron.

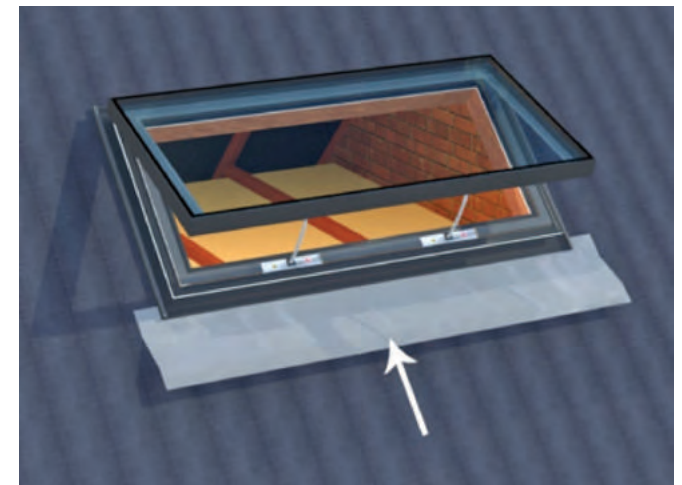


## STEP FIVE

### BRING YOUR LUXLITE™ INTO POSITION

Bring your Luxlite™ into position and align it so that it is centred on your aperture.

Seal the interface between the Luxlite™ and the aperture with silicone.



# ROOF MAKER

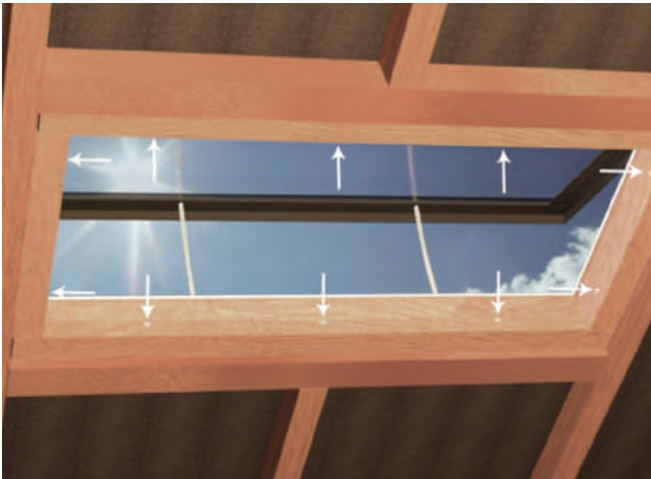
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## STEP SIX

### FIX YOUR LUXLITE™ TO THE ROOF

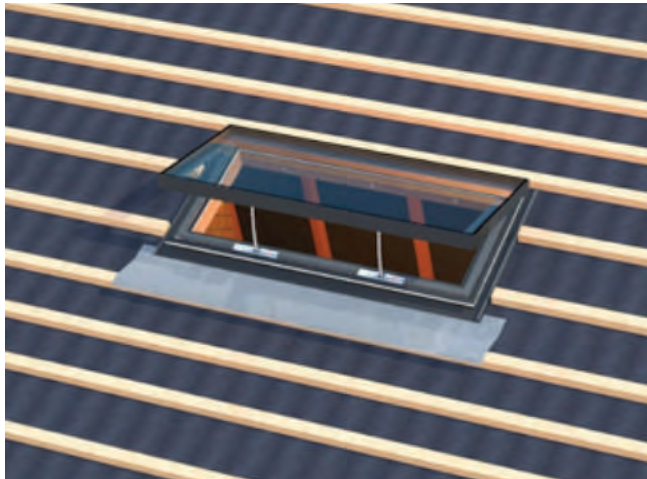
Fix your Luxlite™ to your roof with the long screws provided. You should have enough screws to fix the rooflight at approx. 500mm centres around the internal perimeter.



## STEP SEVEN

### FIT BATTENS TO THE ROOF

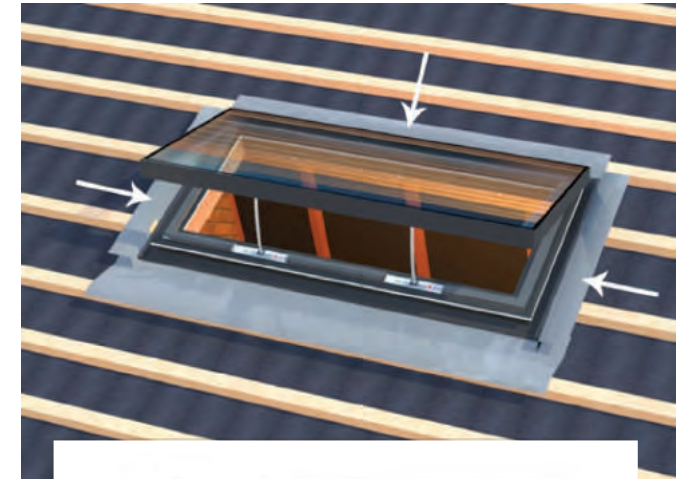
Tile battens can now be fitted to your roof. The battens should be flush with the edge of the Luxlite™ aluminium apron.



## STEP EIGHT

### FIT FLASHING TO COVER THE BATTENS

Seal the flashing beneath the lip of the apron and drape over battens. Tiles will sit over this flashing.





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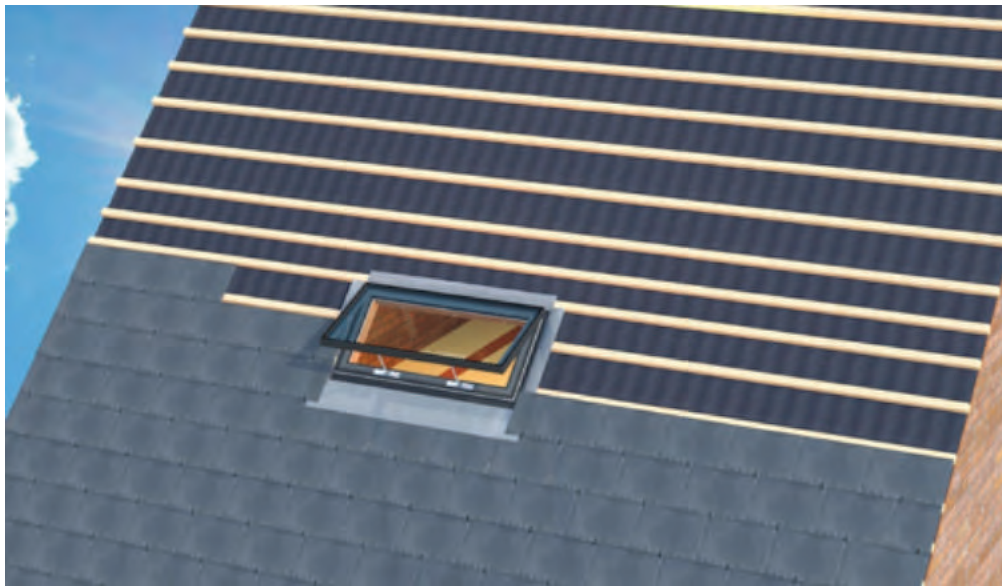
Call us: 0116 269 6297  
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## STEP NINE

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### FIT TILES TO THE ROOF

You are now free to fit tiles to your roof. The Luxlite™ has been designed so that your roof tiles can overlap the apron, leaving little aluminium exposed for a minimalistic aesthetic.



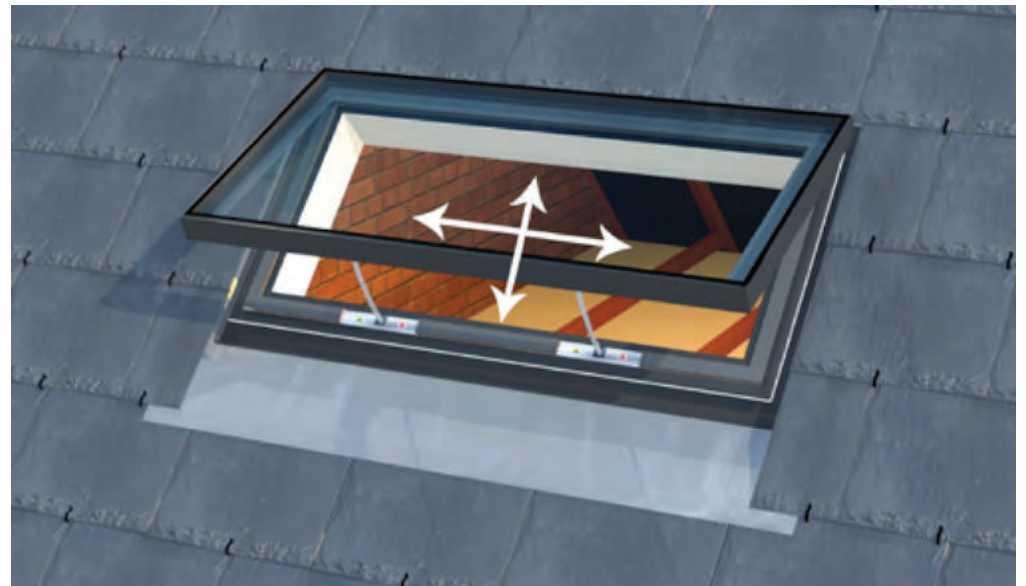
## STEP TEN

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### PLASTERBOARD TO FINISH ASSEMBLY

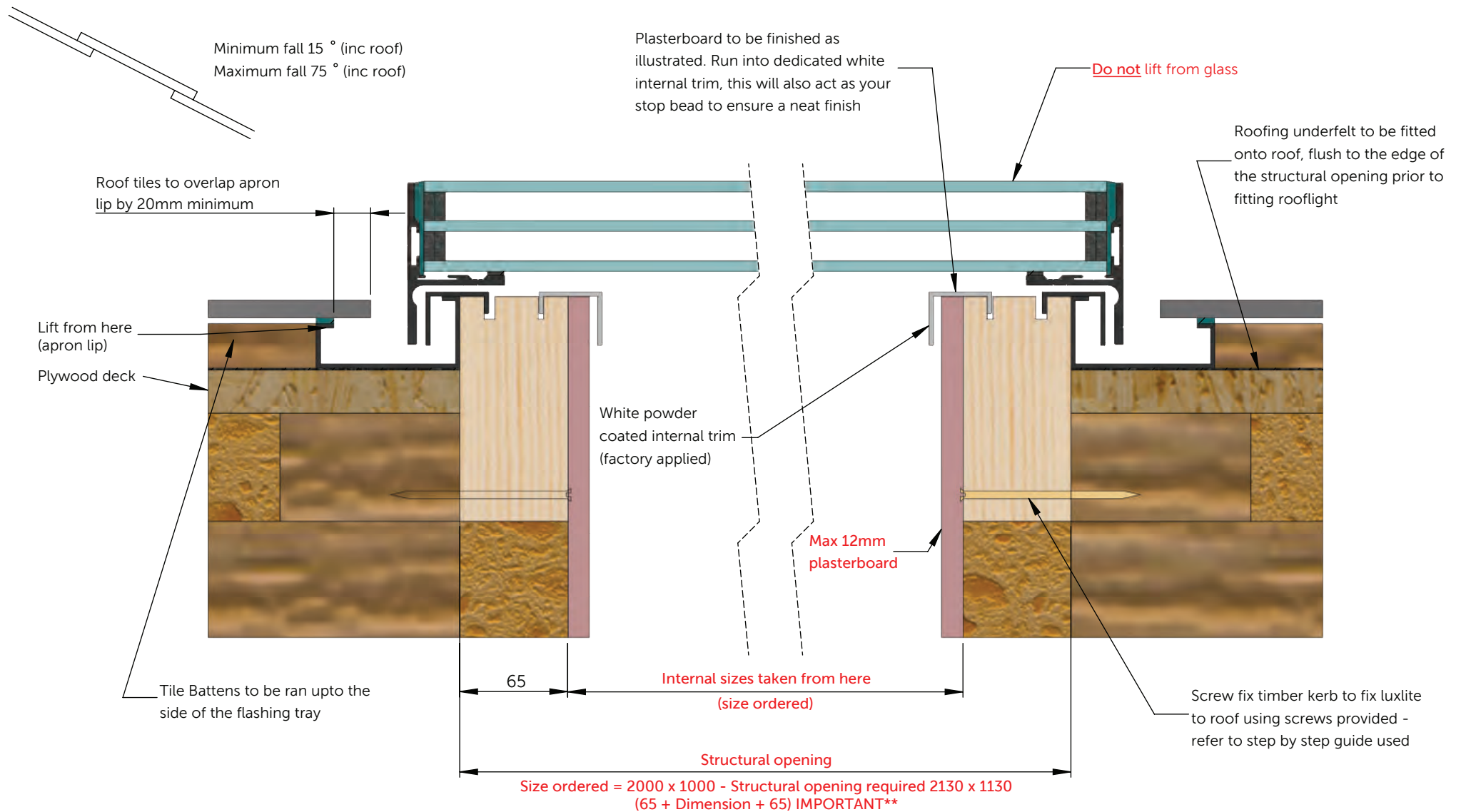
Apply plasterboard to the internal faces of your aperture. The plasterboard is to be applied up to the internal trim of the Luxlite™ (for plastering finish guidelines, please follow the roof section fitting guide on page 8).

Your Opening Luxlite™ is now fully installed.





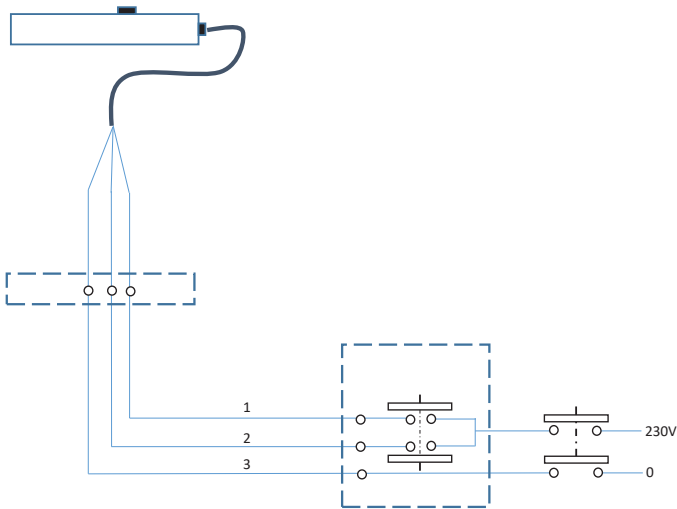
## ROOF SECTION FITTING GUIDE



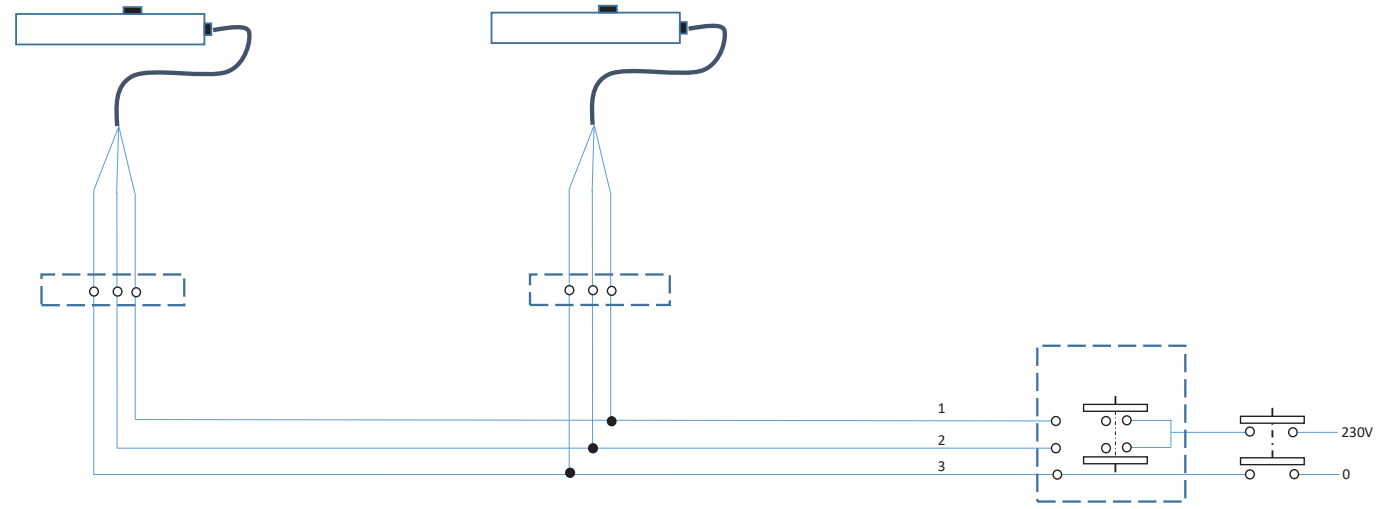
## ROCKER SWITCH WIRING DIAGRAMS (3 CORE)

NOTE: THE TYPE OF MOTOR YOU RECEIVE IS JUSTIFIED BY THE SIZE OF THE ROOFLIGHT ORDERED.

3 core - single motor



3 core - multiple motors



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

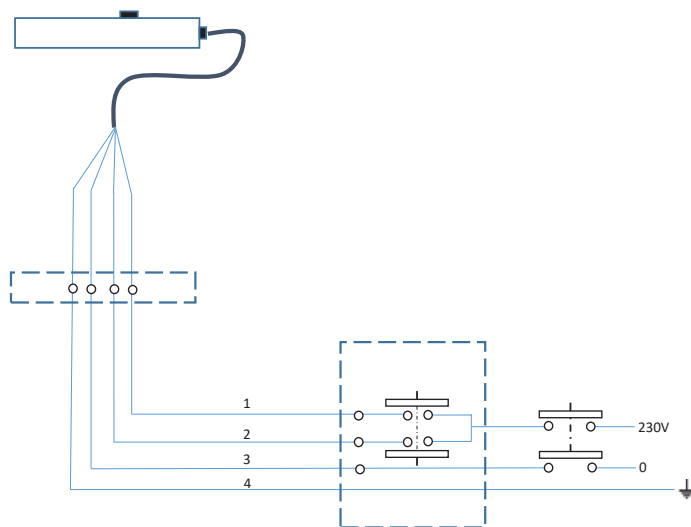
*Please note - We provide a white plastic rocker switch when you have opted for a rocker switch controlled rooflight. If you would like to replace this for something that matches the remaining switches you have in the property, please ensure that it is a '2 way and off' retractive switch, that springs back to the central (off) position.*

*Refers to both single and multiple motors.*

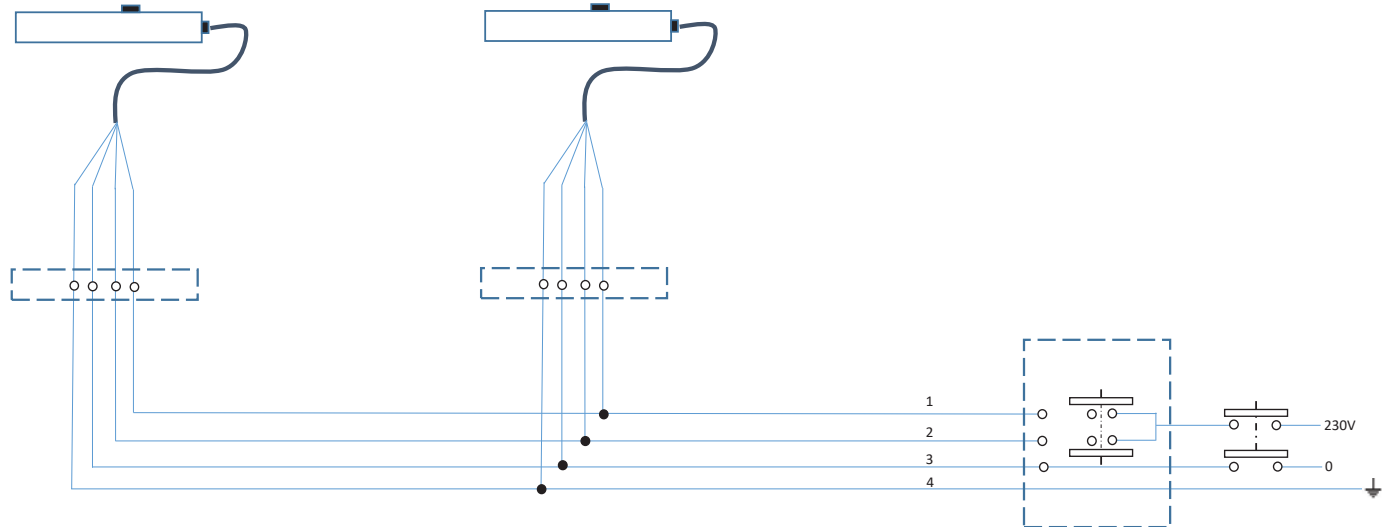
## ROCKER SWITCH WIRING DIAGRAMS (4 CORE)

NOTE: THE TYPE OF MOTOR YOU RECEIVE IS JUSTIFIED BY THE SIZE OF THE ROOFLIGHT ORDERED.

### 4 core - single motor



### 4 core - multiple motors



Colour	Number	Signal
Brown	1	Opens
Black	2	Closes
Blue	3	Common
Yellow/Green	4	Ground

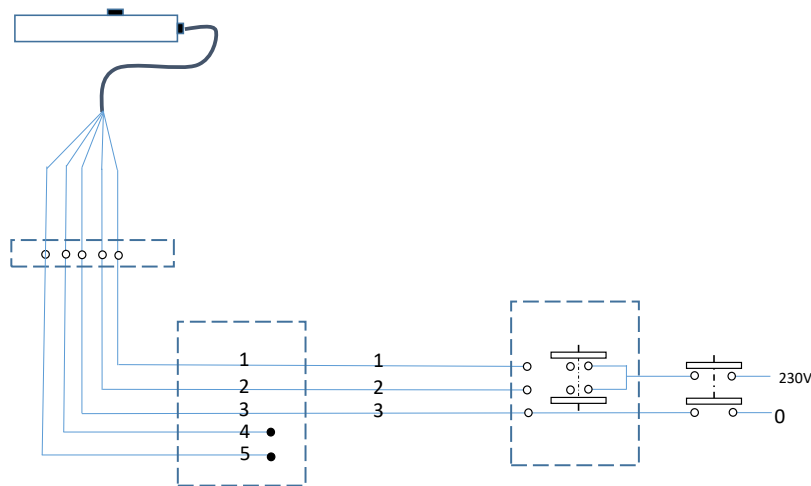
*Please note - We provide a white plastic rocker switch when you have opted for a rocker switch controlled rooflight. If you would like to replace this for something that matches the remaining switches you have in the property, please ensure that it is a '2 way and off' retractive switch, that springs back to the central (off) position.*

*Refers to both single and multiple motors.*

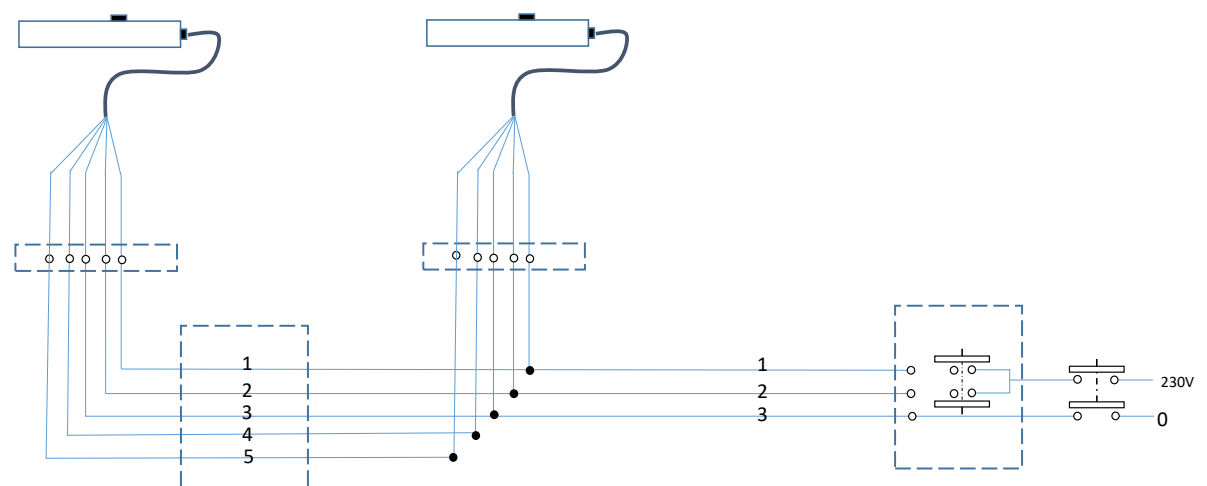
## ROCKER SWITCH WIRING DIAGRAMS (5 CORE)

NOTE: THE TYPE OF MOTOR YOU RECEIVE IS JUSTIFIED BY THE SIZE OF THE ROOFLIGHT ORDERED.

5 core - single motor



5 core - multiple motors



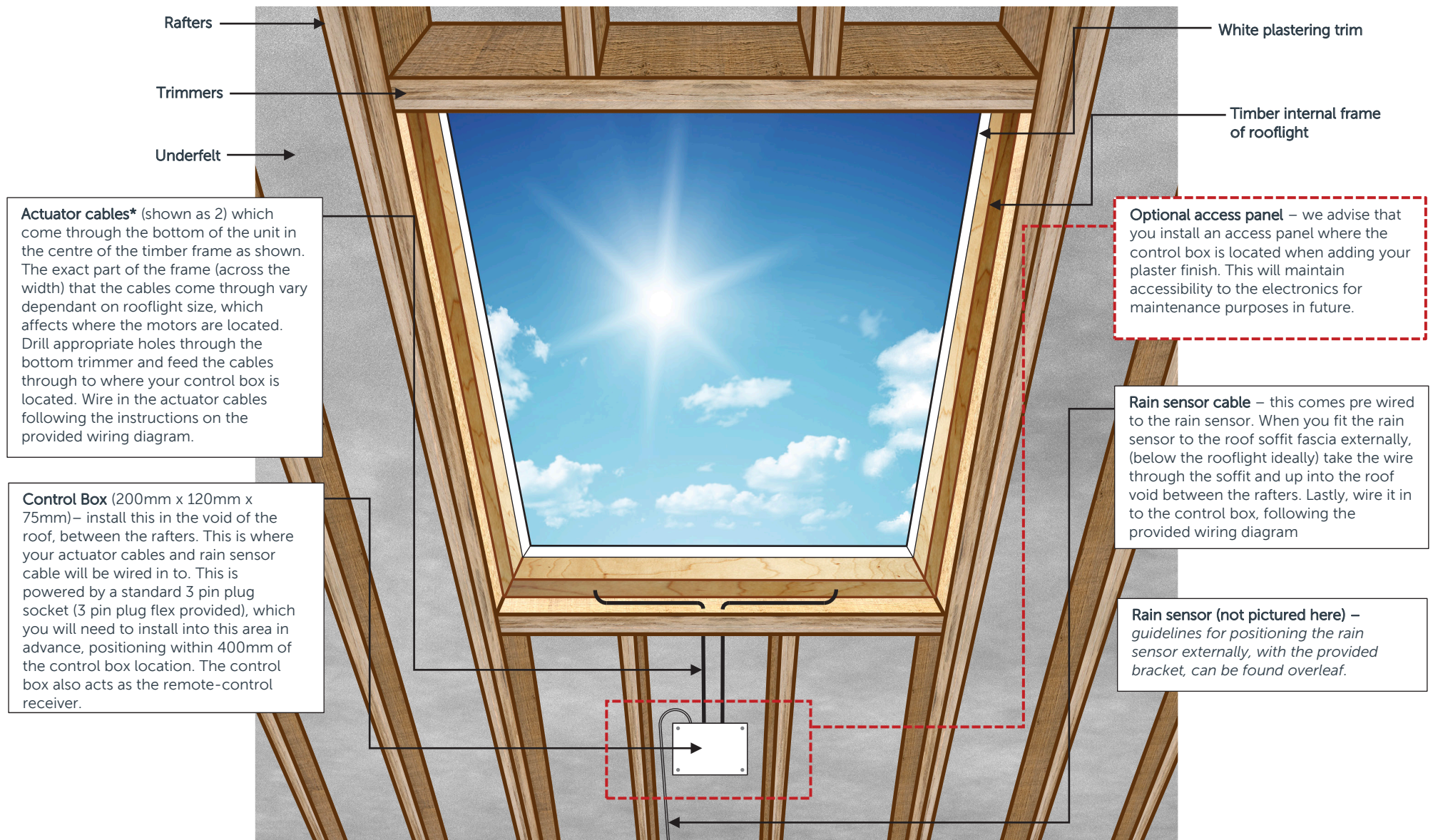
Colour	Number	Signal
Brown	1	Opens
Black	2	Closes
Blue	3	Common
Red	4	Sync
White	5	Sync

*Please note - We provide a white plastic rocker switch when you have opted for a rocker switch controlled rooflight. If you would like to replace this for something that matches the remaining switches you have in the property, please ensure that it is a '2 way and off' retractive switch, that springs back to the central (off) position.*

*Refers to both single and multiple motors.*

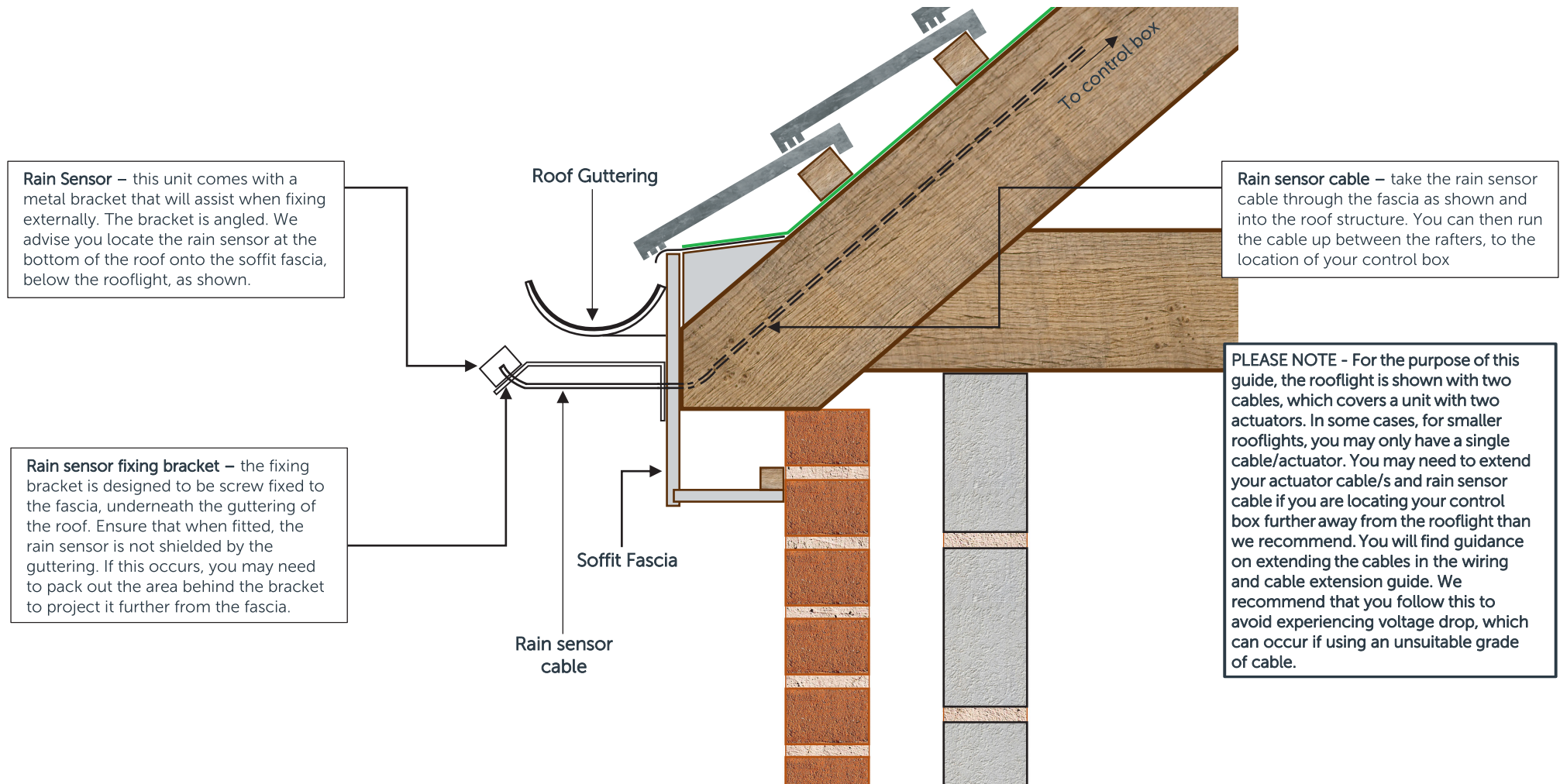


## REMOTE CONTROLLED HINGED OPENING LUXLITE™ – CABLE LOCATION GUIDELINES (not to scale)



## REMOTE CONTROLLED HINGED OPENING LUXLITE™ – CABLE LOCATION GUIDELINES (not to scale)

The below diagram shows a roof section of the roof Soffit Fascia, which is the location that you should position the rain sensor for your Luxlite™



## REMOTE CONTROLLED ROOFLIGHTS: WIRING AND CABLE EXTENSION GUIDE

### Wiring Guide - Control Box

The diagram below shows the PCB located inside the control box. The dimensions of the control box are 200mm x 120mm x 75mm and we advise this to be consealed but kept accessible, as explained in the seperate cable location guide. The diagram below explains how to connect the power supply, the rooflight actuator/s, rain sensor and also covers the wiring for an optional rocker switch, should this be required. There are various different types of actuator cabling, which will vary dependant on the type and size of the rooflight. These options can be found overleaf along with guidelines on how to wire them in to the motor output pairs.

#### Control Input/Outputs Key

GND: Ground (-ve)

12V: +12V DC regulated supply

##### 1: Safety Switch Signal Input

Connect to any ground, GND, to stop/switch off the output

##### 2: Thermostat Signal Input

Connect to any ground, GND, to switch output to 'down'

##### 3: Rain Sensor Signal Input

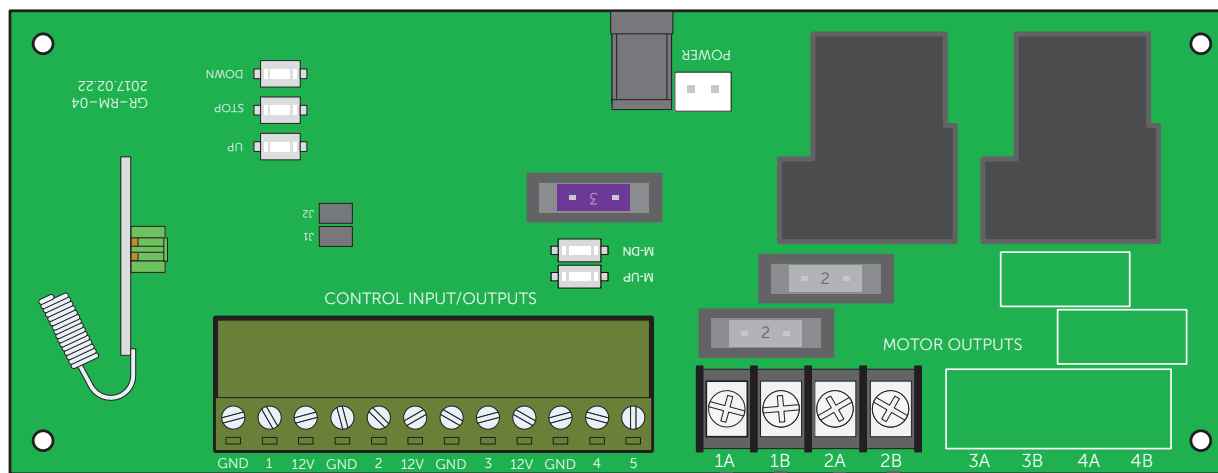
Connect to any ground, GND, to switch output to 'down'

##### 4: Control up

Connect via switch any ground, GND, to switch output to 'UP'

##### 5: Control down

Connect via switch any ground, GND, to switch output to 'DOWN'



#### Kemo Rain Sensor

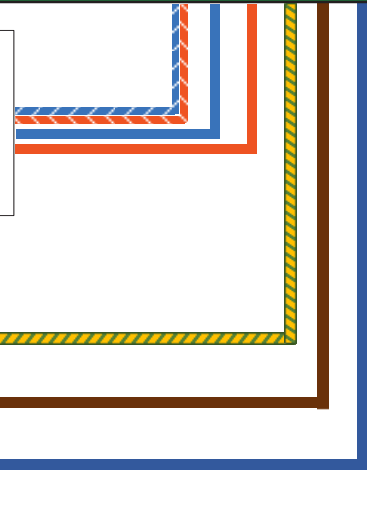
Connect:

Orange to any "12V"

Blue to "3"

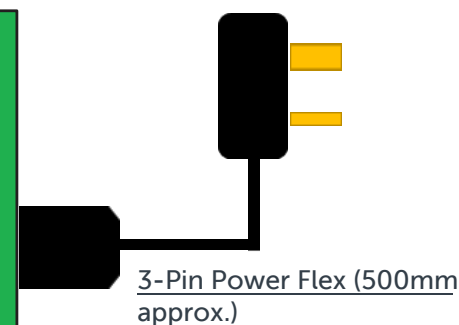
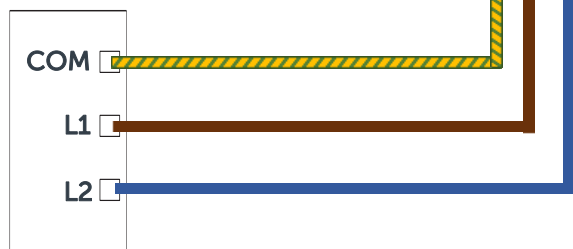
Orange/white to any "GND"

Blue/white also to any "GND"



### Optional Rocker Switch Integration

Adding a rocker switch uses zero voltage switching and requires a '2 way and off' retractive switch, that springs back to the central (off) position when not engaged (can be provided as an additional extra). Connect L1 on the switch into number 4 (control up) and L2 into 5 (control down). Lastly, connect common on the switch to ground (GND) as the diagram to the right shows. A 1.5mm 'twin and earth' cable is sufficient for this.



Use the provided 3-pin power flex cable to plug the control box in to the mains power supply. Please use the provided plug and do not remove to wire directly to the mains supply. We advise that you run the plug socket off a fused spur.

#### Motor Output Pairs to Actuator(s)

If only using one actuator then either of the output pairs 1A and 1B or 2A and 2B can be used. Each numbered output is individually fused and is capable of supplying up to 2.1A continuous at 24VDC. The polarity at each output inverts when swapping between 'up' and 'down'. Outputs 3 and 4 are not used (cables here shown as grey – please see overleaf, which shows various types of cabling and where cables need to be wired into the output pairs, which is dependent on the type/size of rooflight being installed).

#### WARNING


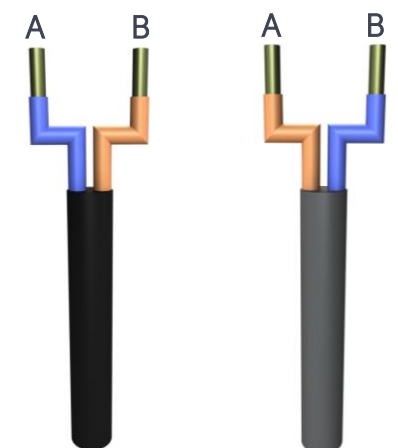
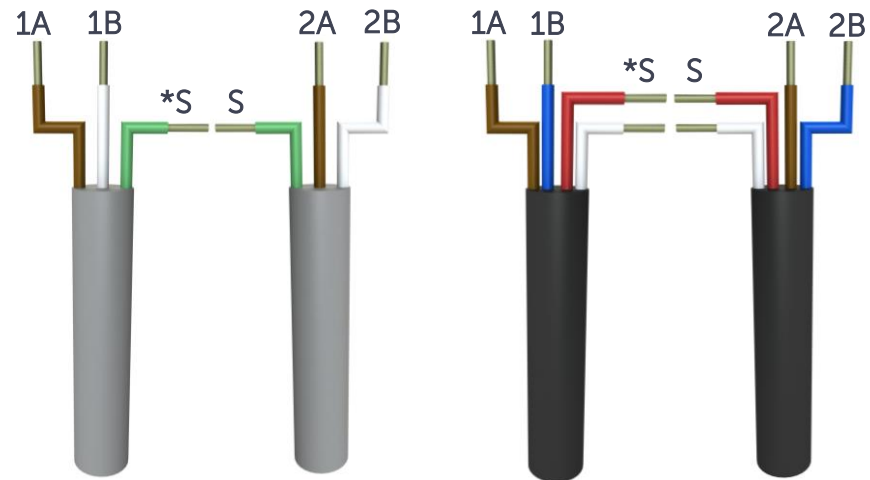
Ensure the combined load at the three "12V" output terminals does not exceed 0.8A. A single Kemo rain sensor should consume less than 0.2A, so if using a rain sensor there should be a further 0.6A available at 12VDC (~7W) to also operate thermostats, safety sensor switches and similar devices. DO NOT connect any 12V directly to any GND, or any of 1, 2, 3, 4, 5 to any 12V



# REMOTE CONTROLLED ROOFLIGHTS: WIRING AND CABLE EXTENSION GUIDE

## Wiring Guide - Actuator Cable Types

The table below shows the different types of actuator cabling provided when you have a remote controlled rooflight with a rain sensor. The cable type will vary dependant on the type and size of rooflight motor that is fitted. The table below has been broken down by rooflight type and provides advice on where to wire in to the motor output pairs inside the control box. If you need to extend either the actuator cables or rain sensor cable, we have instructions on how this can be done overleaf. We advise you follow these instructions to avoid experiencing voltage drop. You will need to extend the cables if you want to locate the control box further away from the rooflight than we advise in the cable location guide.

Slide Opening Rooflights & Lanterns	Hinged Opening Flat Rooflight & Hinged Opening Luxlite™ (cabling type varies dependant on required motor/s)	
	<p><u>2 core cable/s</u></p>  <p>If cabling is black      If cabling is grey</p>	<p><u>3 &amp; 4 Core cable/s</u></p>  <p>* "S" Synchronisation wires to be connected to each other inside the control box</p>
Slide opening flat rooflights and lanterns will always have 2 actuator cables. Wire in to the output pairs, as per the above diagram	The 2 core cable options will vary between black and grey cabling. Ensure that you wire into the control box as per the relevant diagram above, as it is important that the polarity is correct. Some rooflights will have a single cable and some will have 2 cables. For single motor rooflights with a single cable, you can use either the 1a/1b or 2a/2b output pairs. For units with 2 motors/cables, you will use both output pairs	
The 3 and 4 core options of cable will feature 1 or 2 synchronisation cables. These must be connected inside the control box and wired in to the output pairs as per the above diagrams, when there are 2 motors and 2 cables.		
In scenarios that there is a single motor & cable, the synchronisation cables will be redundant and you can use either the 1a/1b or 2a/2b output pairs.		



## REMOTE CONTROLLED ROOFLIGHTS: WIRING AND CABLE EXTENSION GUIDE

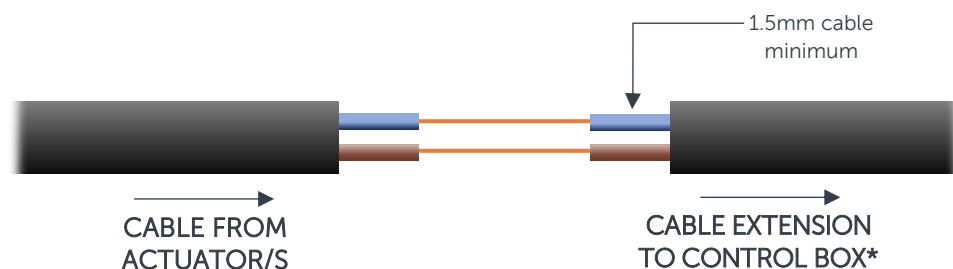
### Cable Extension Guide

This guide explains how to extend the cabling for opening rooflights, which feature remote controlled operation and rain sensors. In some scenarios, dependant on where your rooflight is located and where you wish to place the control box, extending the cables might be a requirement. Your electrician must ensure that a suitable cable is used to avoid voltage drop occurring. This guide covers the **Slide Opening Rooflight and Lantern** and the remote-controlled versions of the **Hinged Opening Flat Rooflight** and **Hinged Opening Luxlite™**.

Here you will find guidance for extending cables up to a length of 15 metres. If you do need to extend further than 15 metres, please contact our technical department for advice.

The cable extension requirements for the rain sensor cable are outlined below and remain the same for all rooflights covered in this guide.

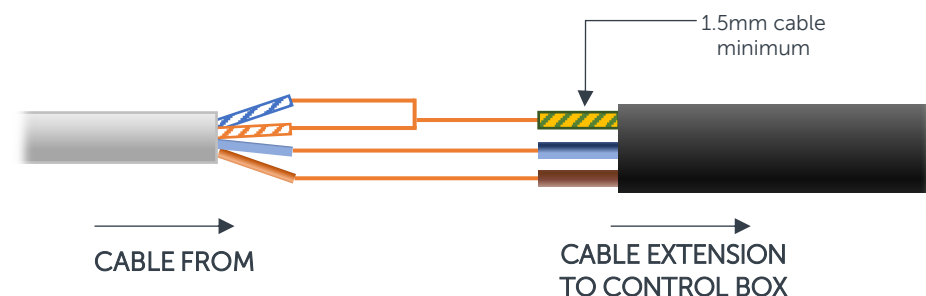
### 2 CORE ACTUATOR CABLE/S



For your extension cable, you will require a 2-core cable (minimum) with core cabling of a minimum 1.5mm diameter to avoid voltage drop, up to 10 metres. **If extending between 10-15 metres, use a minimum 2.5mm core cable.**

*\*If your rooflight has 2 actuator cables that need to be extended, please ensure they are extended to exactly the same length to avoid the motors operating at different speeds.*

### RAIN SENSOR CABLE



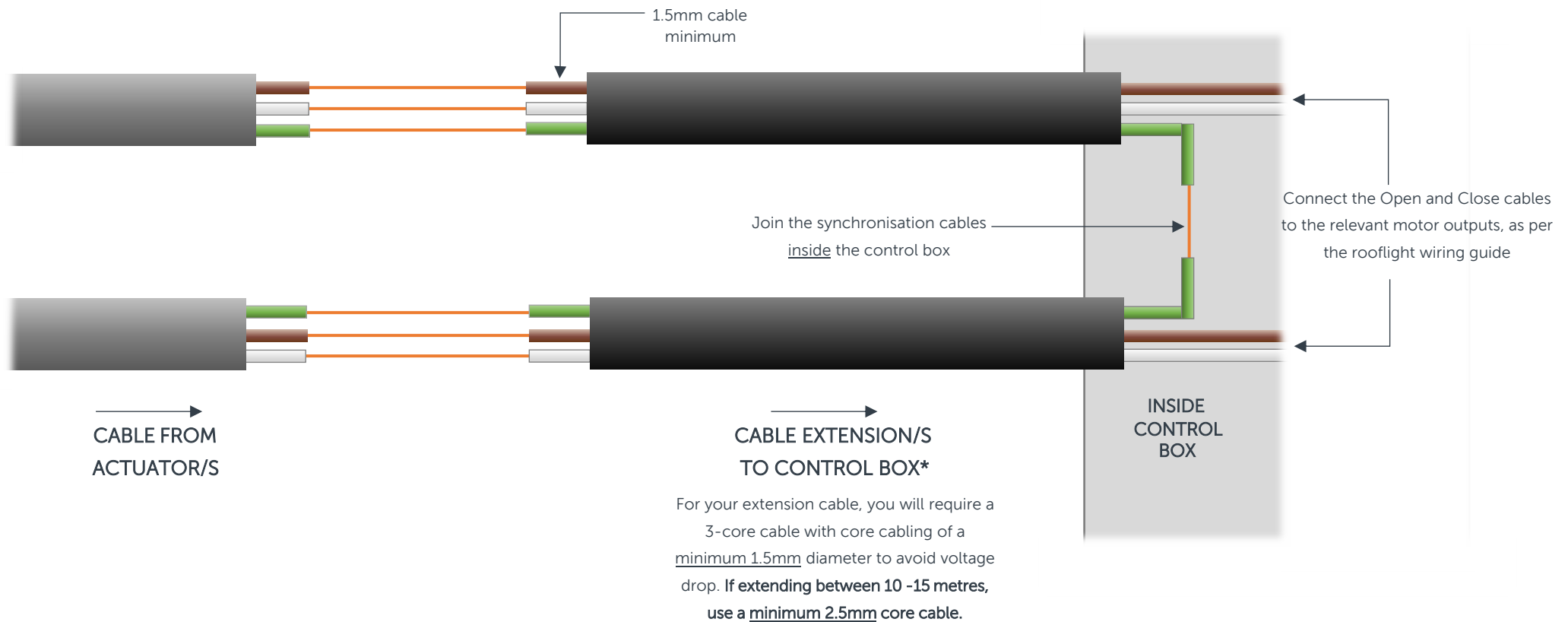
Rain sensor cable will be a 4-core cable;  
12-volt input (orange)  
Signal (blue)  
2 ground cables (white/orange) (white/blue)

For your extension cable, you will require a 3-core cable with core cabling of a minimum 1.5mm diameter to avoid voltage drop, up to 10 metres. **If extending between 10 -15 metres, use a minimum 2.5mm core cable.**

## REMOTE CONTROLLED ROOFLIGHTS: WIRING AND CABLE EXTENSION GUIDE

### 3 CORE ACTUATOR CABLE/S

This is shown below as 2 cables to illustrate how the synchronisation cables are joined together inside the control box, when the rooflight has 2 actuators. Should you have a rooflight with just a single '3 core' cable from the actuator, the synchronisation (green) cable will be redundant

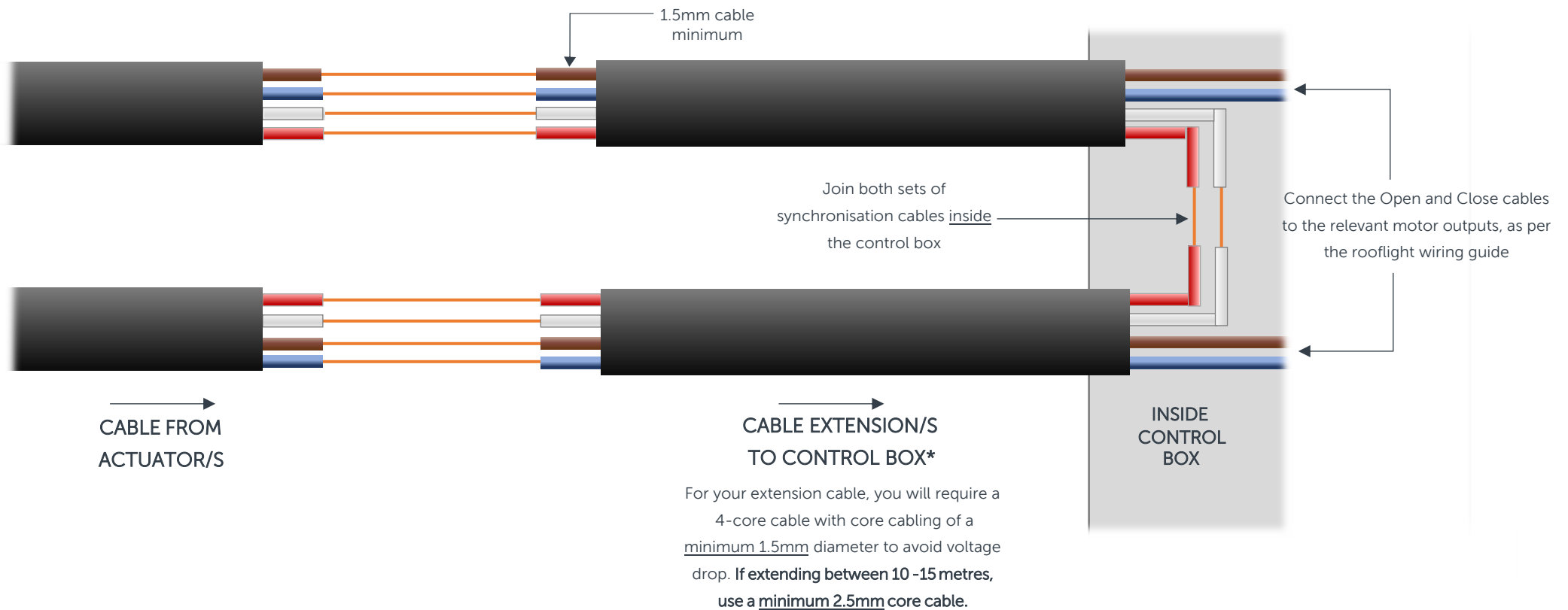


*\*If your rooflight has 2 actuator cables that need to be extended, please ensure they are extended to exactly the same length to avoid the motors operating at different speeds.*

## REMOTE CONTROLLED ROOFLIGHTS: WIRING AND CABLE EXTENSION GUIDE

### 4 CORE ACTUATOR CABLE/S

This is shown below as 2 cables to illustrate how both pairs of synchronisation cables are joined together inside the control box (when the rooflight has 2 actuators). Should you have a rooflight with just a single '4 core' cable from the actuator, the synchronisation (red and white) cables will be redundant.



*\*If your rooflight has 2 actuator cables that need to be extended, please ensure they are extended to exactly the same length to avoid the motors operating at different speeds.*