

ROOF MAKER

WORLD CLASS ROOFLIGHTS



PRODUCT SPECIFICATION AND INSTALLATION GUIDE

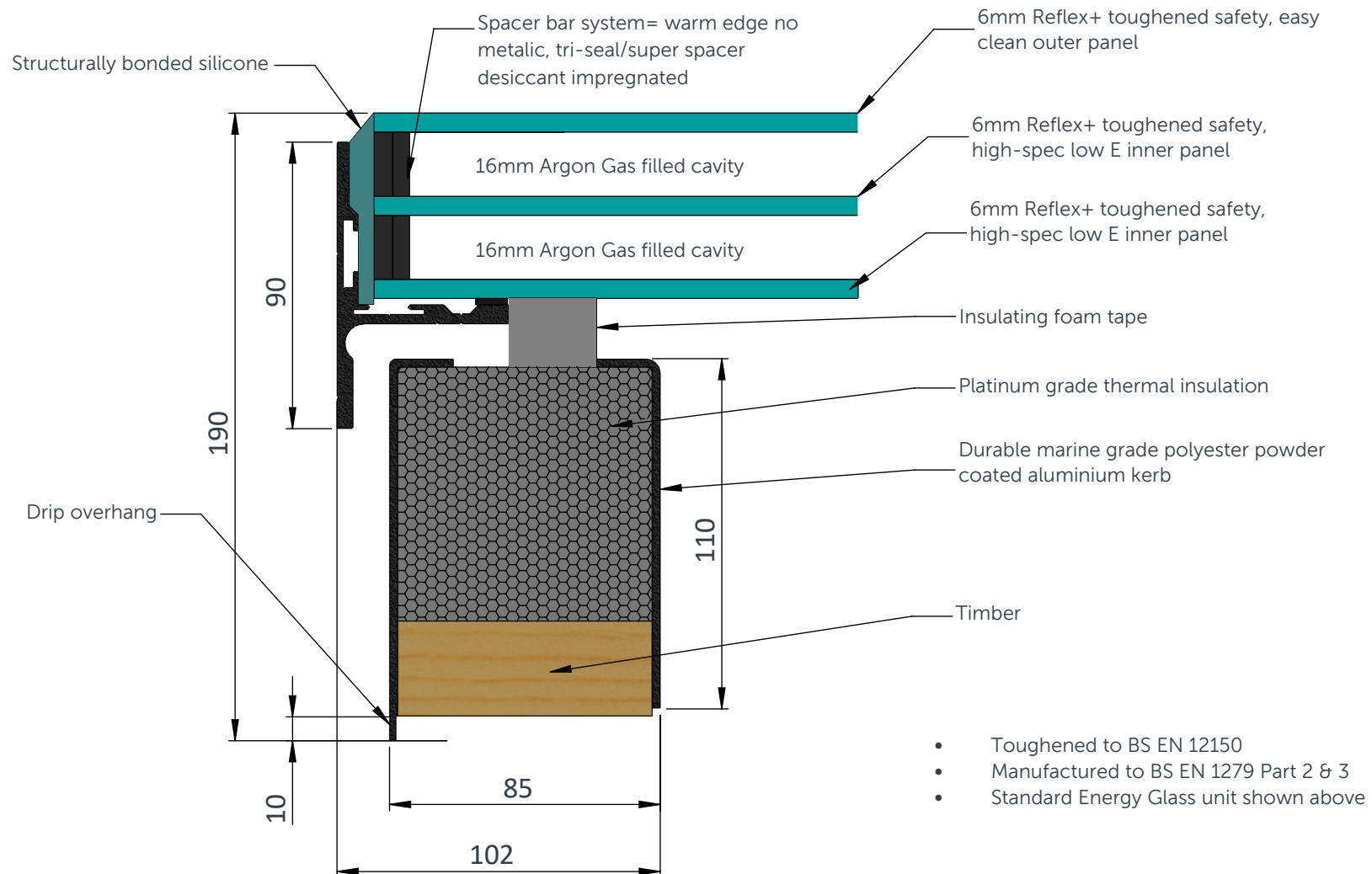
HINGED OPENING FLAT ROOFLIGHT (WITH BLACKOUT BLINDS)

HINGED OPENING FLAT ROOFLIGHT WITH BLACKOUT BLINDS: PRODUCT SPECIFICATION AND INSTALLATION GUIDE

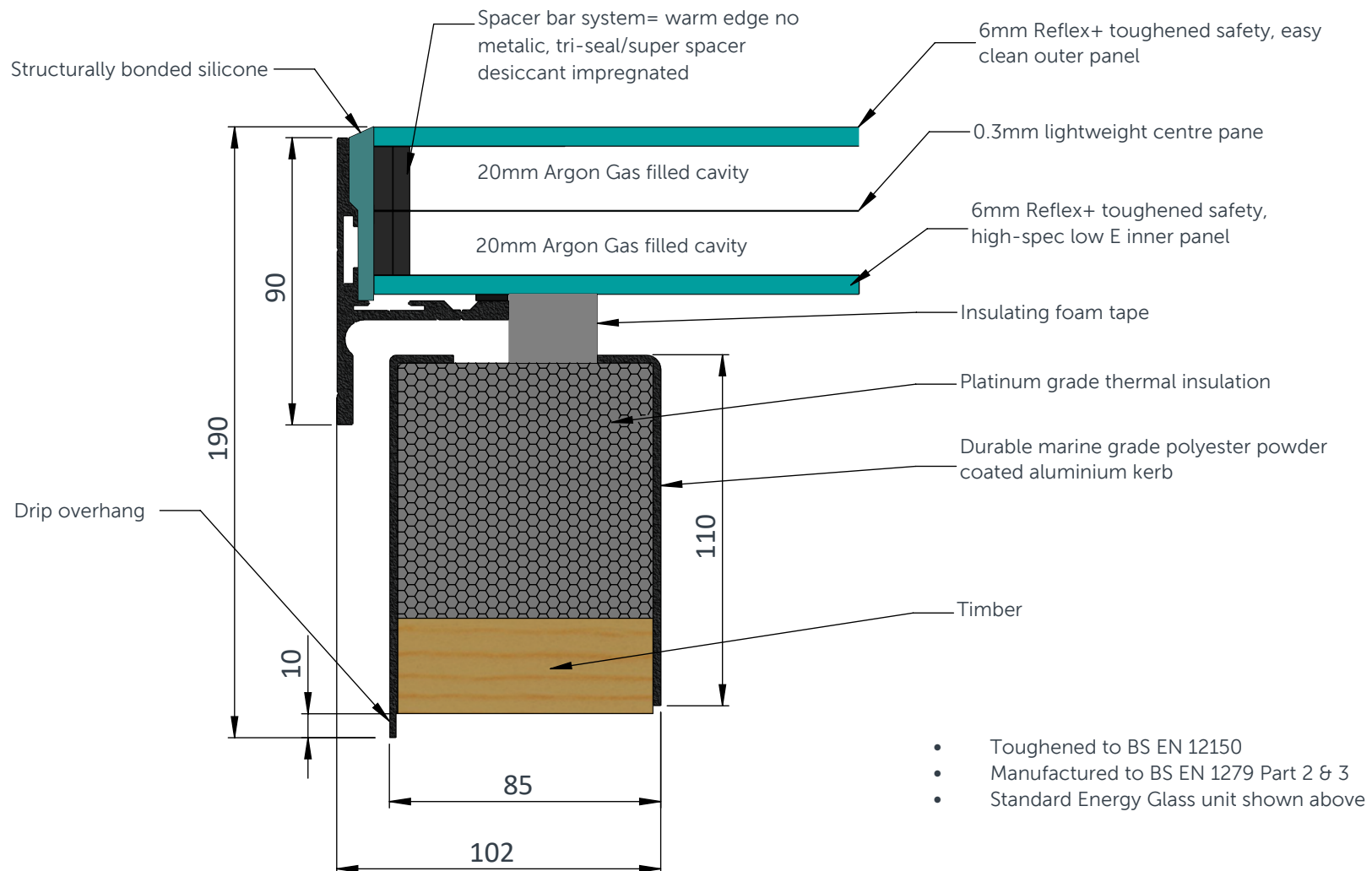
CONTENTS

- **PAGES 2-3** PRODUCT SPECIFICATION CROSS SECTION DRAWINGS
- **PAGES 4-7** STEP BY STEP INSTALLATION GUIDE
- **PAGE 8** ROOF CROSS SECTION FITTING GUIDE
- **PAGES 9-11** ROOFLIGHT WIRING GUIDE-ROCKER SWITCH OPERATION (*3, 4 and 5 core cabling*)
- **PAGE 12** CABLE LOCATION GUIDE FOR REMOTE CONTROLLED ROOFLIGHTS WITH RAIN SENSOR (*guidelines on where to store the control box and where the cables will come out of the rooflight and rain sensor, into the property*)
- **PAGES 13-17** ROOFLIGHT WIRING AND CABLE EXTENSION GUIDE-REMOTE CONTROL OPERATION WITH RAIN SENSOR
- **PAGE 18** BLACKOUT BLIND CORD CONFIGURATION GUIDE (*outlines how many support cords will be visible on your blackout blinds*)
- **PAGES 19-24** CONNECTING YOUR REMOTE-CONTROLLED BLACKOUT BLIND (*wiring guide for your blackout blinds*)

HINGED OPENING FLAT ROOFLIGHT: STANDARD PRODUCT SPECIFICATION



HINGED OPENING FLAT ROOFLIGHT: PRODUCT SPECIFICATION (LARGER ROOFLIGHTS WITH LIGHTWEIGHT GLAZING UNIT)



HINGED OPENING FLAT ROOFLIGHT: INSTALLATION GUIDE

ON DELIVERY OF YOUR NEW HINGED OPENING FLAT ROOFLIGHT, IN ADDITION YOU WILL RECIEVE;

**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 timber kerb

The Rain sensor comes pre-mounted to the rooflight as mentioned in the guide

**IF ROCKER SWITCH CONTROLLED...*

- Rocker switch
- Long Screws for fixing the rooflight to the timber kerb

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

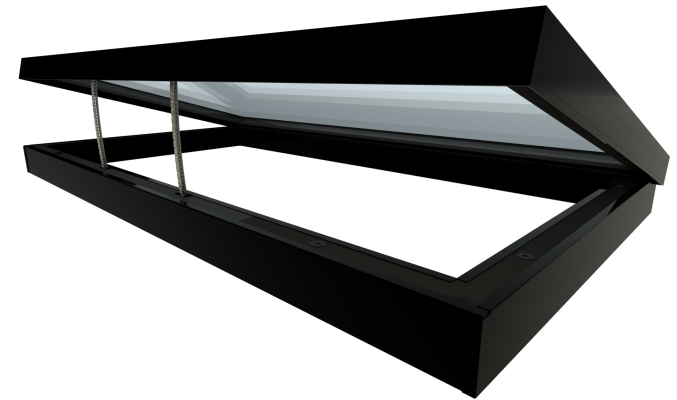
IN ADDITION TO YOUR NEW HINGED OPENING FLAT ROOFLIGHT, YOU WILL NEED;

- Silicone Adhesive Sealant (high quality; Dow Corning 791 recommended)
- Drill, bits and screws as required
- Materials to prepare a timber kerb

INSTALLATION GUIDE

Make sure to read through all steps and understand all requirements before beginning assembly. We also recommend that you study the 'cable location guide' which provides further guidance on how to run the rooflight cabling into the property as part of the installation. This is located at the end of this guide, alongside the wiring guide and a roof section diagram.

Please take precaution when moving heavy objects and working at height. Be sure to use the correct equipment. Guide weights based on size, are shown on the chart to the right.



GUIDE WEIGHTS	
Size (mm)	Weight (kg)
500x400	33
700x700	57
1000x1000	93
1500x1000	127
2000x1000	161
2500x1000*	152
3000x1000*	178
1500x1200	146
2000x1200*	143
2500x1200*	173
1500x1500*	173

**rooflights in this size are constructed using lightweight triple glazed units*

STEP ONE

PREPARE A TIMBER KERB FOR YOUR ROOFLIGHT

Prepare a 70mm width timber kerb for your rooflight. This should be a minimum of 30mm in height from the finished roof level (at the lowest side). The internal dimensions of your kerb should match the internal dimensions of the rooflight/size ordered.

SETTING THE DIRECTION OF THE FALL

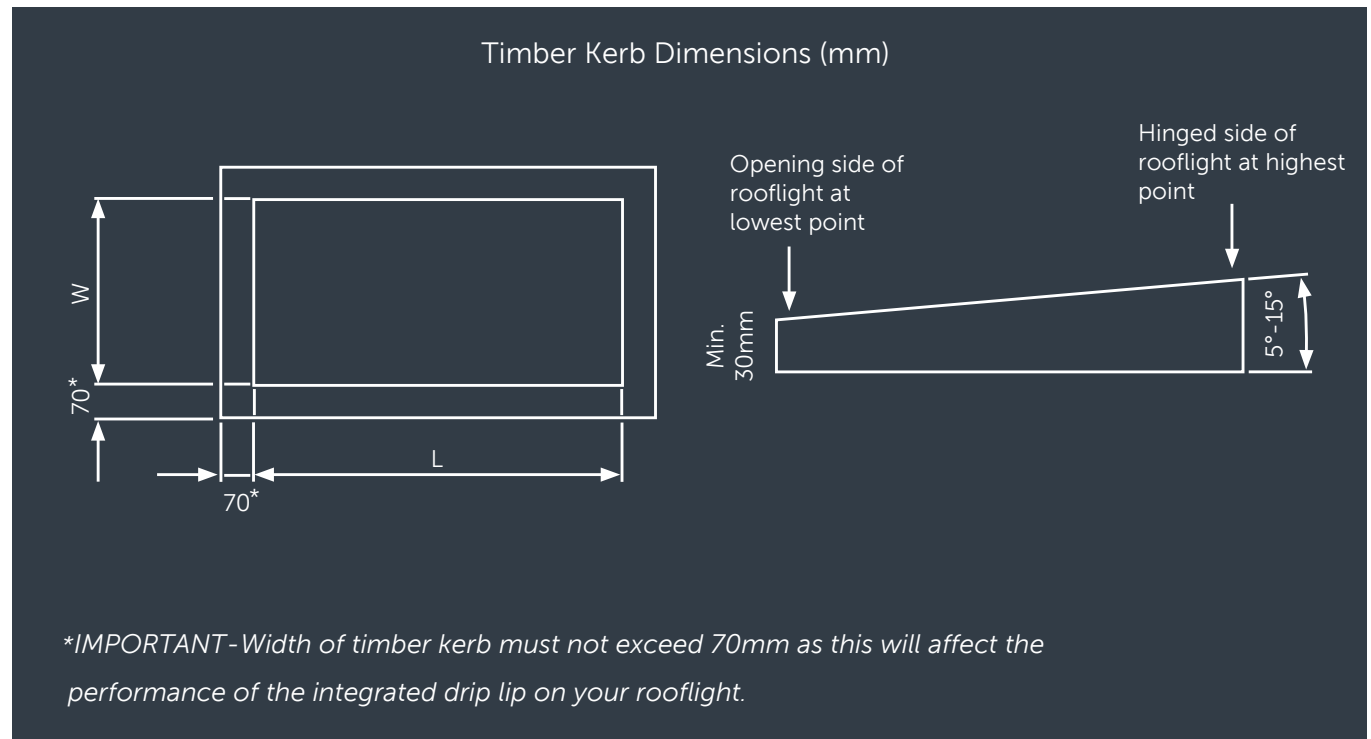
The rooflight always opens across the 'width' of the rooflight, so the hinges and motors will always be located on the longer sides of the rooflight, which are the sides that should be set 'level.'



Your hinged opening rooflight needs to be pitched between 5°-15° for rain to run off. If your roof does not have this pitch, build the angle into your kerb.

IMPORTANT - You will also need to ensure that the hinged side of your rooflight is located at the highest side of the timber Kerb, with the opening side being located at the lowest side of the timber kerb. For remote controlled rooflights, the rain sensor will be located on the opening side.

It is also important that the hinged side of the rooflight and the side that opens (rain sensor side) are set 'level,' with the sides that are pitched between 5°-15° running between these 2 sides.



ROOF MAKER

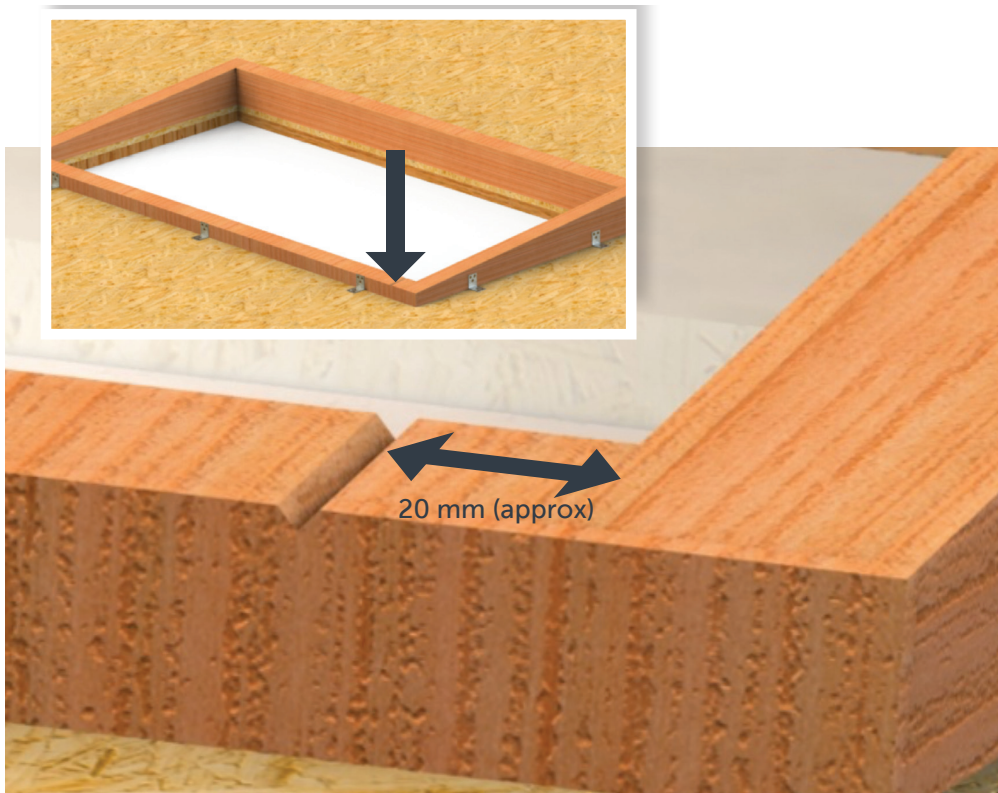
WORLD CLASS ROOFLIGHTS

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

STEP TWO

RAIN SENSOR (FOR REMOTE CONTROLLED/RAIN SENSOR ROOFLIGHTS ONLY)

It is advised that a small groove/notch (5mm max depth) is cut into your kerb in line with where the rain sensor will be positioned. This will allow you to run the wire through for your rain sensor. *The rain sensor is always located at the right hand side as the below diagram shows.*

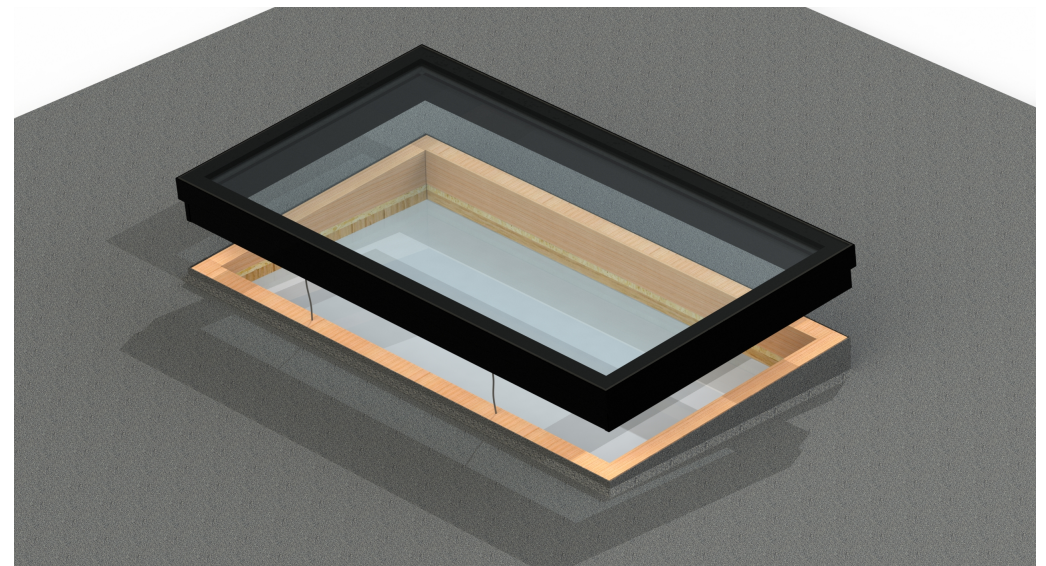


STEP THREE

CREATE HOLES/GROOVES IN THE TIMBER KERB TO RUN THE ROOFLIGHT CABLING INTO THE PROPERTY

Trial fit your rooflight and mark a suitable location to drill a hole/s or create notches for the rooflight's actuator cables - *Please refer to the cable location guide located on page 12 of this document, if you have opted for the remote controlled/rain sensor option. This gives advice as to where the control box can be located within the property.*

You do not need to refer to this guide if you have a rocker switch controlled rooflight. For switch controlled rooflights, you will just be extending the actuator cable/s to your chosen location of the rocker switch in the room below.



ROOF MAKER

WORLD CLASS ROOFLIGHTS

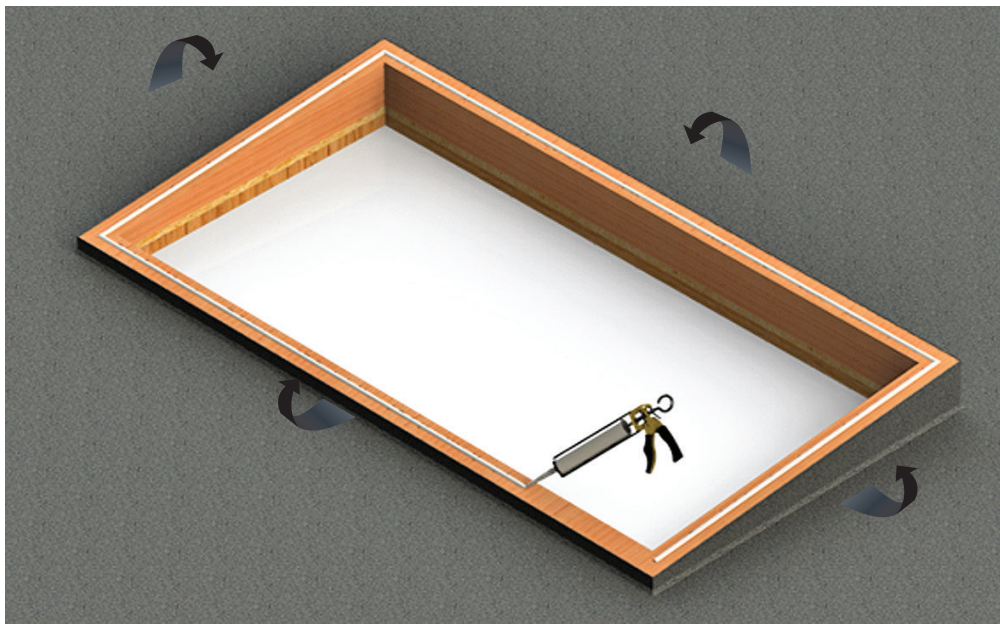
Call us: 0116 269 6297
Mon-Fri 9-5pm

STEP FOUR

APPLY SILICONE AROUND THE TOP FACE OF THE TIMBER KERB

Apply the flashing/roof membrane to the sides of the kerb (Leaving the top face as exposed timber) and apply a thick bead of silicone around the top face, closer to the outside edge of the kerb.

You can now place the rooflight onto the kerb and connect it to the power supply, ready to open the rooflight and fix it with the provided long screws. The wiring guides for both rocker switch and remote controlled variations, can be found at the end of this document.



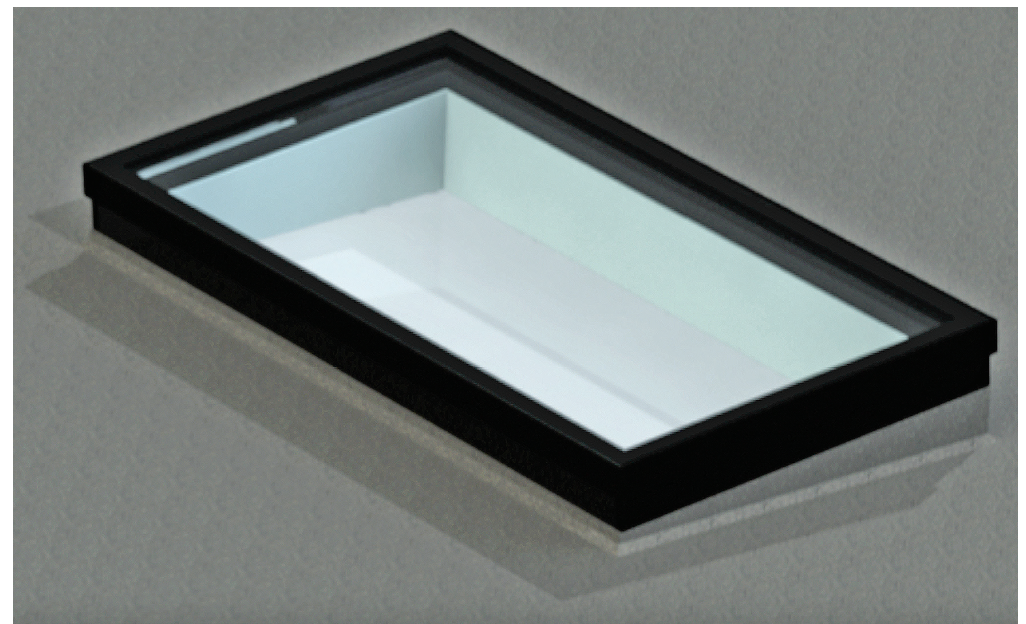
STEP FIVE

SCREW FIX THE ROOFLIGHT TO THE TIMBER KERB

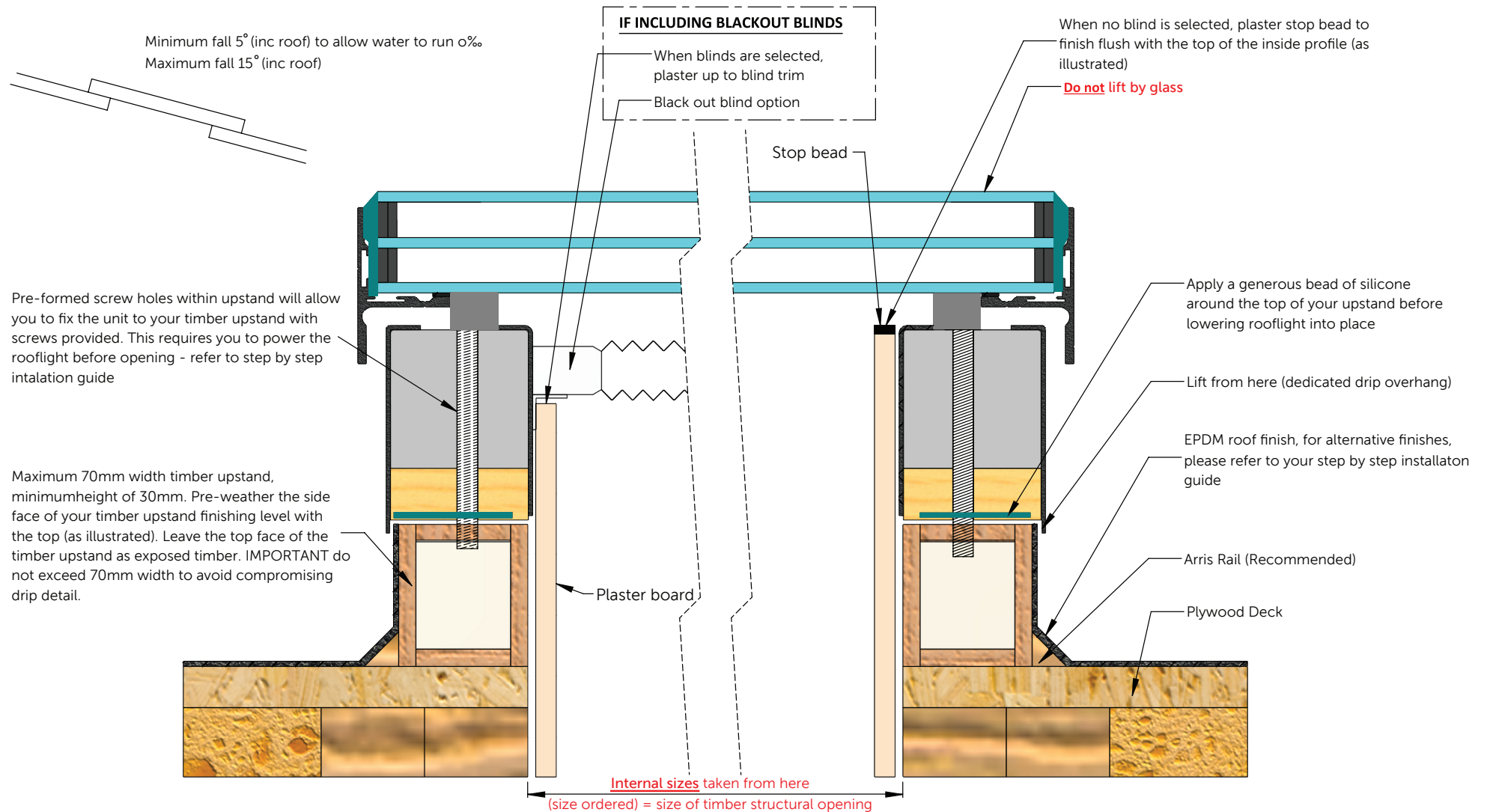
Open the rooflight via the remote control/rocker switch and secure it to your kerb through the preformed holes in the top of the rooflight's base frame with the long screws*. For plastering finish guidelines, please follow the roof section fitting guide, on page 8 of this document.

Your Hinged Opening Flat Rooflight is now fully installed.

***Wiring guides for both remote controlled and rocker switch controlled rooflights can be found on pages 9-17.**



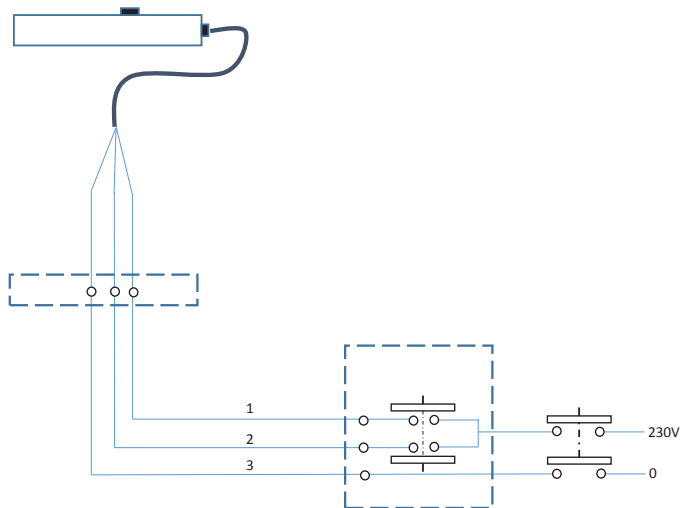
ROOF SECTION FITTING GUIDE



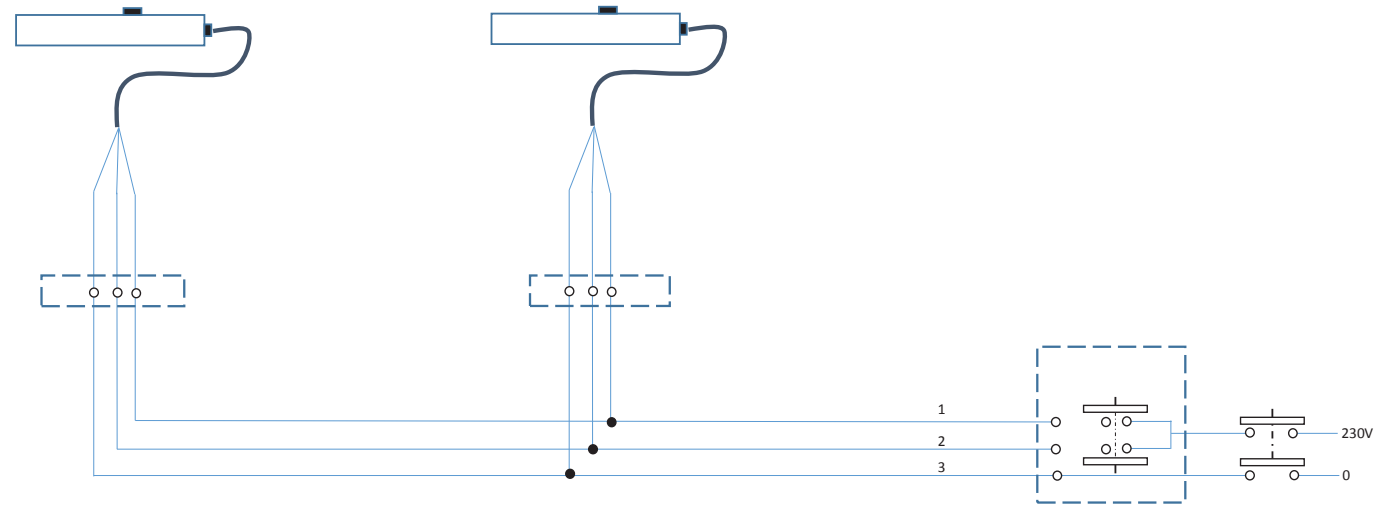
ROCKER SWITCH WIRING DIAGRAMS (3 CORE)

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

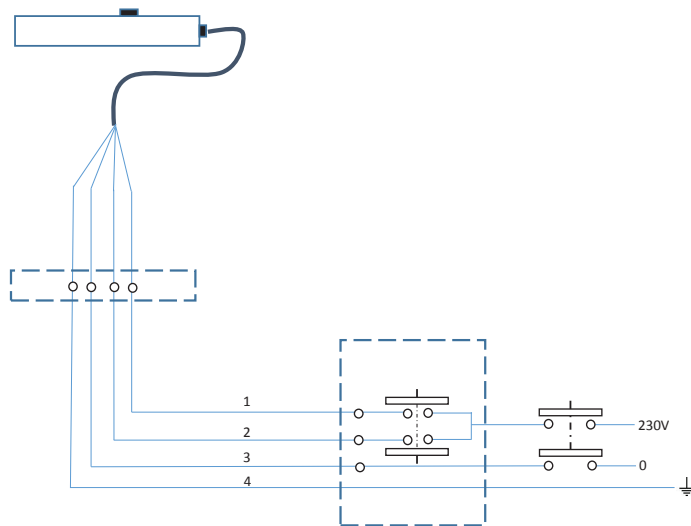
Refers to both single and multiple motors.

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.

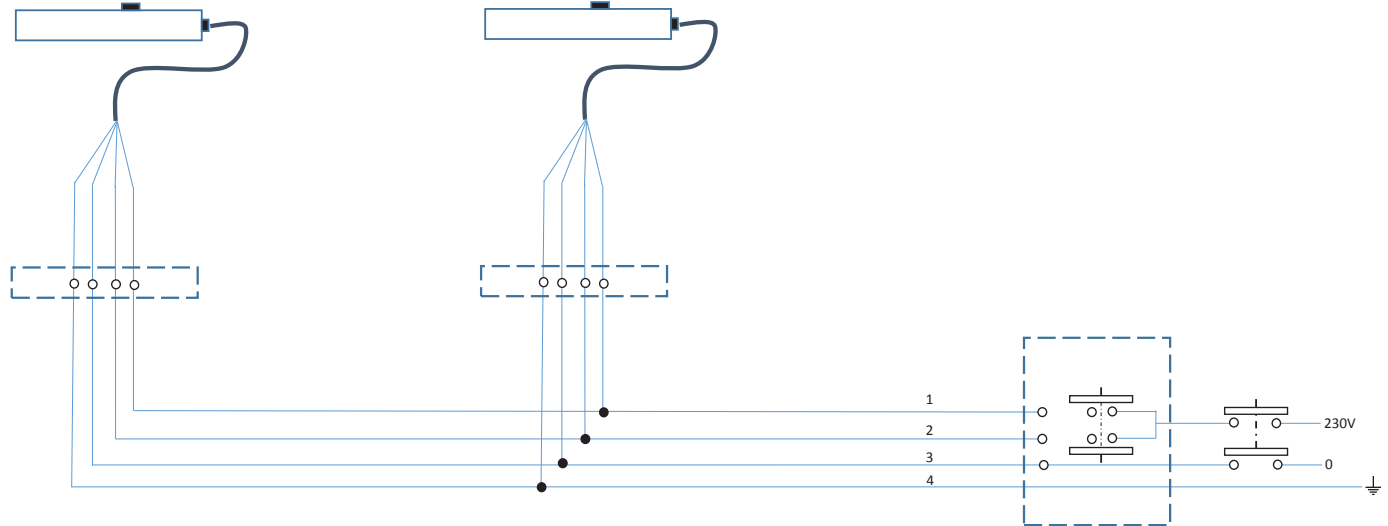
ROCKER SWITCH WIRING DIAGRAMS (4 CORE)

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

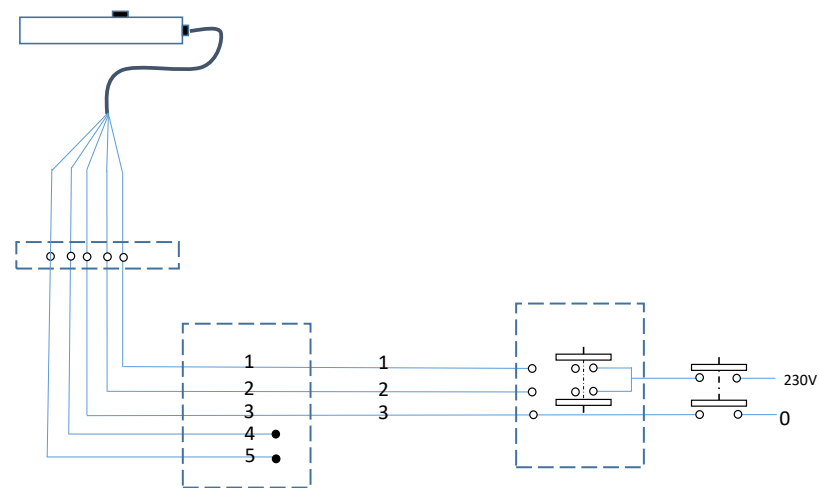
Please note - We provide a white plastic rocker switch when you have opted for a rocker switch controlled rooflight. If you would like to replace this for something that matches the remaining switches you have in the property, please ensure that it is a '2 way and off' retractive switch, that springs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

Refers to both single and multiple motors.

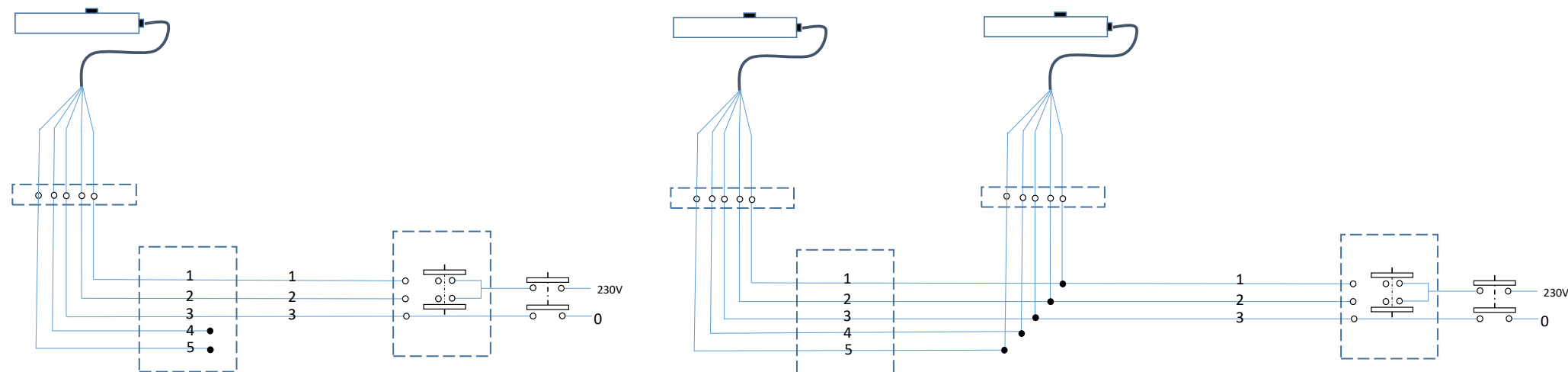
ROCKER SWITCH WIRING DIAGRAMS (5 CORE)

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

5 CORE - SINGLE MOTOR



5 CORE - MULTIPLE MOTORS



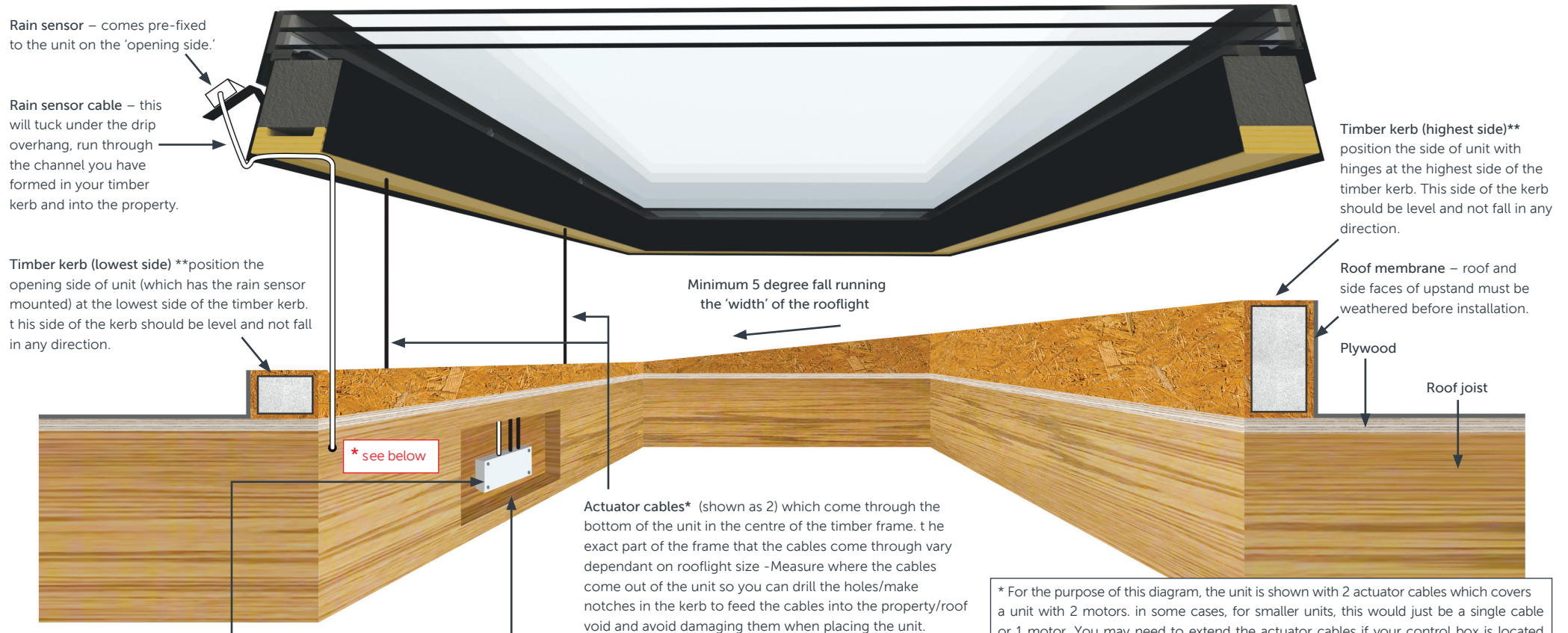
Colour	Number	Signal
Brown	1	Opens
Black	2	Closes
Blue	3	Common
Red	4	Sync
White	5	Sync

Refers to both single and multiple motors.

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.

HINGED OPENING FLAT ROOFLIGHT - CABLE LOCATION GUIDELINES (not to scale)

(REMOTE CONTROLLED ROOFLIGHTS WITH RAIN SENSOR)



Control Box (200mm x 120mm x 75mm) – install this in the void of the roof, between the joists. This is where your actuator cables and rain sensor cable will be wired in to when you have fed them through into the property. This is powered by a standard 3 pin plug socket, which you will need to install into this area in advance, positioning within 400mm of the control box location. The control box also acts as the remote receiver.

Optional access panel – we advise that you install an access panel where the control box is located when adding your plaster finish to the timber reveals. This will maintain accessibility to the electronics for maintenance purposes in future.

*** if you are running cables down the face of the timber reveal (as pictured here) and into the ceiling void, you will need to notch a channel to run the cable into, so the plasterboard will fit flush to the face of the timber (as per our finishing guidelines). This will also apply if running the actuator cables down face of the timber reveal. Please ensure you do not put fixings through the cabling when adding your plasterboard.**

* For the purpose of this diagram, the unit is shown with 2 actuator cables which covers a unit with 2 motors. In some cases, for smaller units, this would just be a single cable or 1 motor. You may need to extend the actuator cables if your control box is located elsewhere. If you have 2 cables, ensure they are extended to exactly the same length. Ensure this is carried out by a qualified electrician. Cable thickness required will vary dependant on the length being added – this is covered in the wiring and cable extension guide.

**the timber kerb in this diagram is shown as being angled to give the required minimum 5 degree fall. In cases that the roof has a sufficient pitch and doesn't require an angled kerb, ensure that the opening part of the unit is still positioned at the lower part of the fall.

IMPORTANT ensure that the timber kerb doesn't exceed the recommended 70mm width.

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

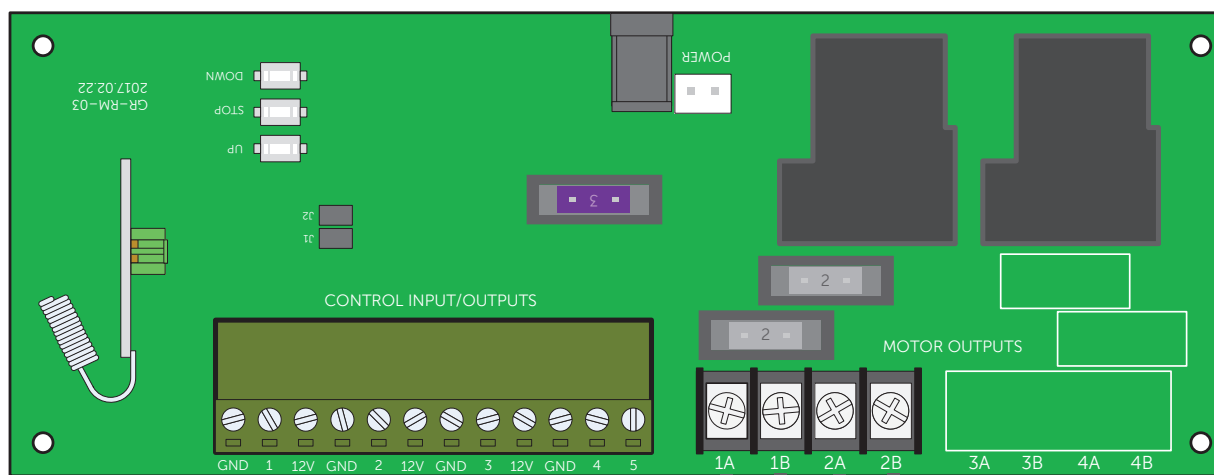
Connect to any ground, GND, to switch output to 'down'

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

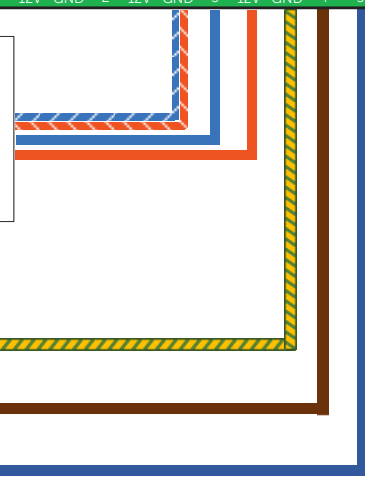
Connect:

Orange to any "12V"

Blue to "3"

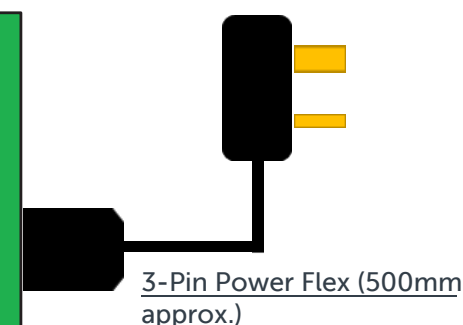
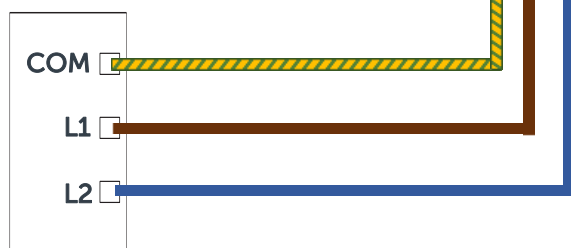
Orange/white to any "GND"

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).


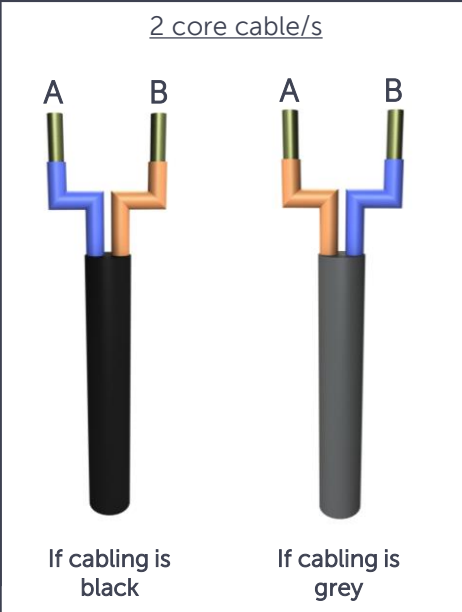
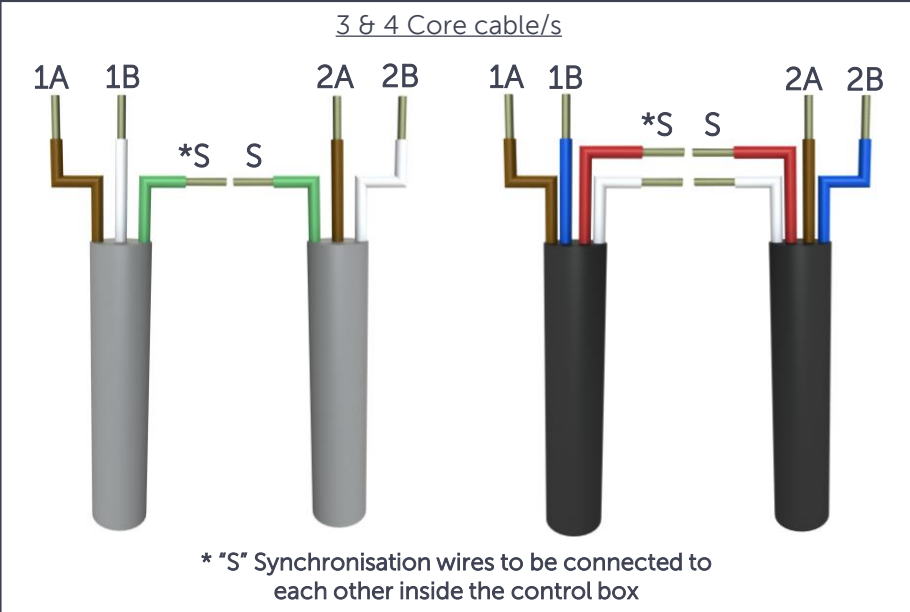
WARNING

Ensure the combined load at the three "12V" output terminals does not exceed 1A. A single Kemo rain sensor should consume less than 0.2A, so if using a rain sensor there should be a further 0.8A available at 12VDC (~9W) 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 & 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

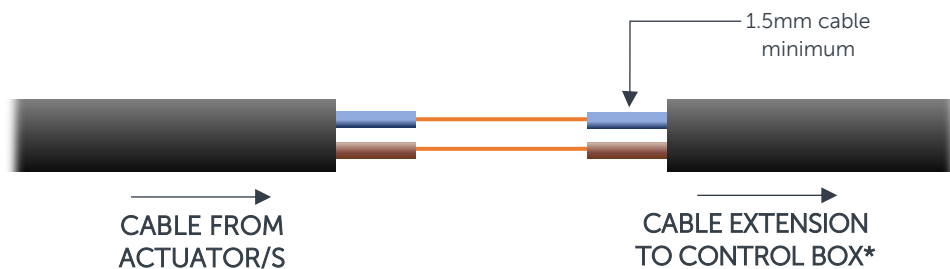
Cable Extension Guide

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.

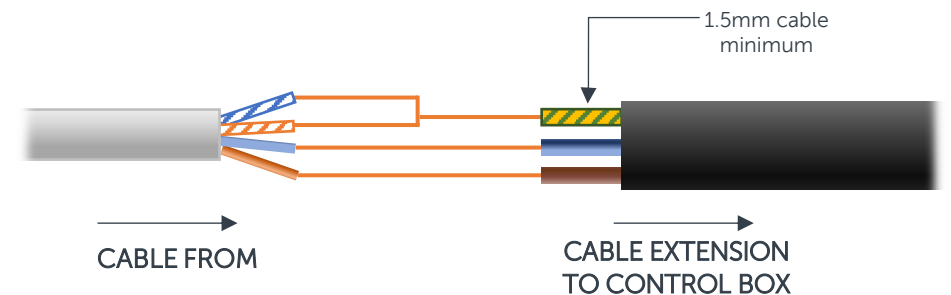
2 CORE ACTUATOR CABLE/S



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



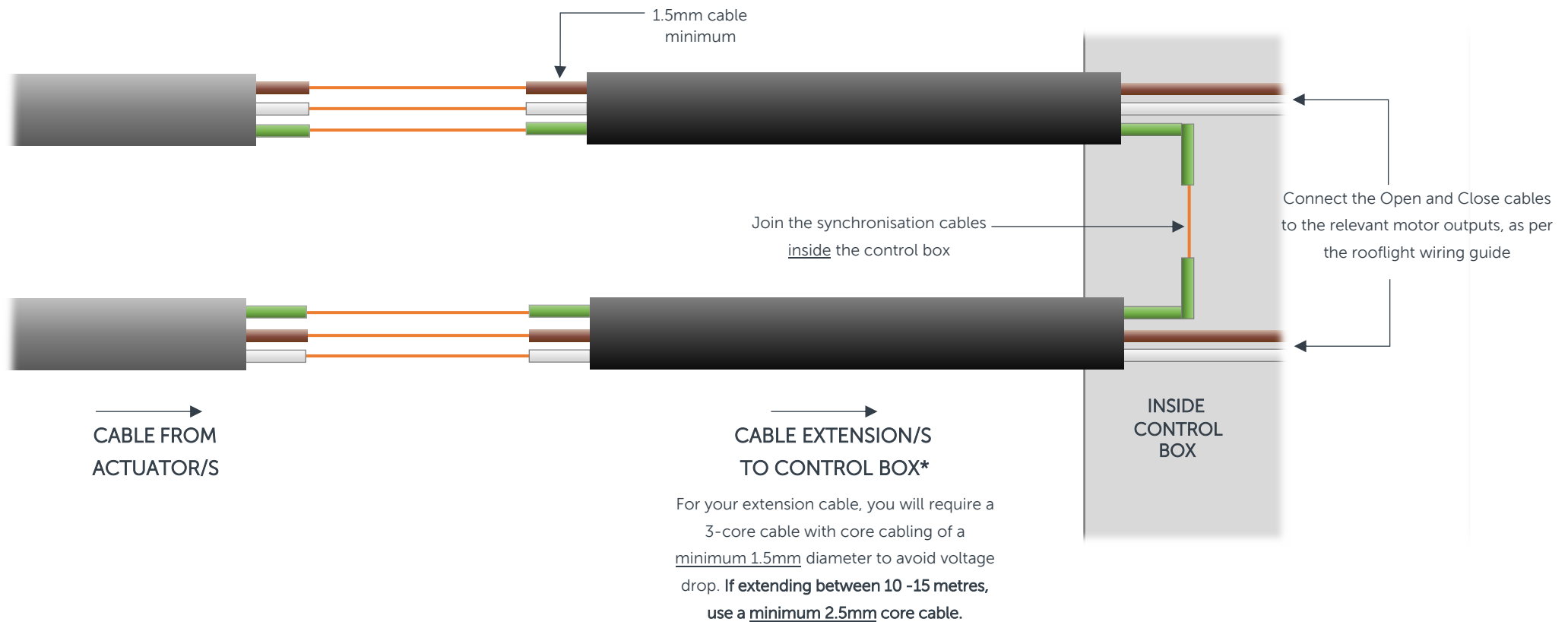
Rain sensor cable will be a 4-core cable;
12-volt input (orange)
Signal (blue)
2 ground cables (white/orange) (white/blue)

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

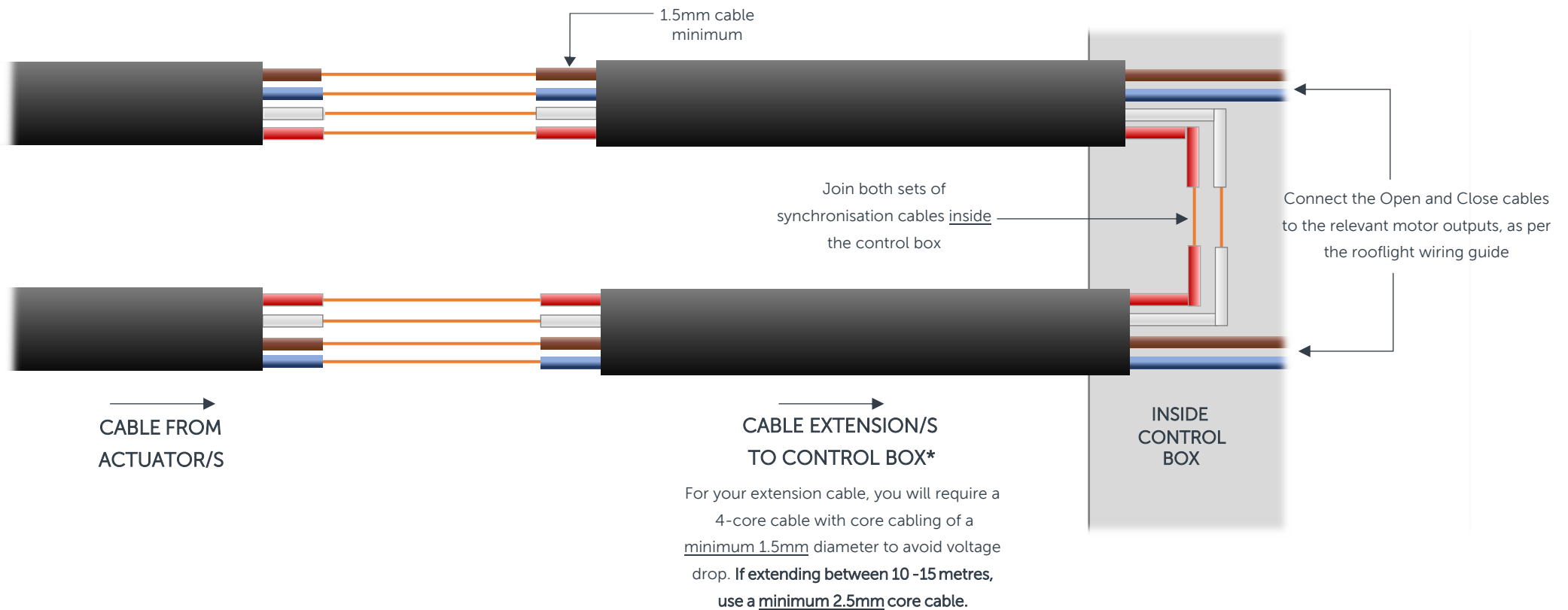


**If your rooflight has 2 actuator cables that need to be extended, please ensure they are extended to exactly the same length to avoid the motors operating at different speeds.*

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.*

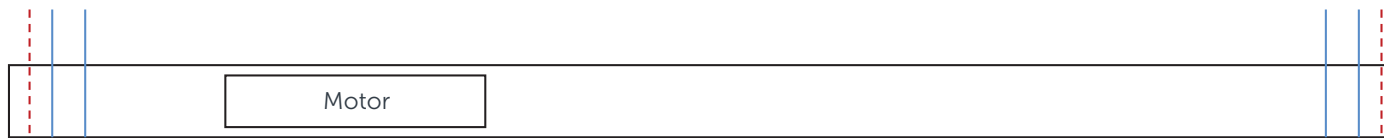
BLACKOUT BLIND CORD CONFIGURATION GUIDE

REFERENCE: PROPOSED CORD & NYLON CONFIGURATION PER ROOF BLIND

KEY:

- Spooling cord – this cord travels through the central section of the fabric. Cords are paired together as an 'extend & return' system. Cord pairs are spaced 20mm apart. Spooling cords are visible when the blind fabric is compressed closed.
- Support nylon – this semi-transparent nylon cord is fitted to provide fabric support. Nylon cords are visible when the blind fabric is compressed closed.

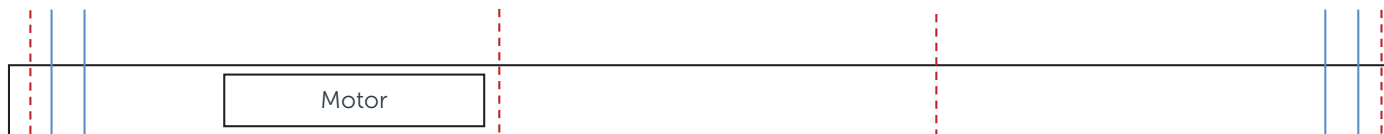
Motor position is defined as looking at the underside of the headrail where the motor and cord spooling componentry are exposed.



THIS SET UP APPLIES TO ALL ROOF BLINDS 500MM TO 699MM WIDE



THIS SET UP APPLIES TO ALL ROOF BLINDS 700MM TO 1100MM WIDE



THIS SET UP APPLIES TO ALL ROOF BLINDS >1100MM TO 1400MM WIDE



THIS SET UP APPLIES TO ALL ROOF BLINDS >1400MM TO 2000MM WIDE

CONNECTING YOUR REMOTE-CONTROLLED BLACKOUT BLIND



INTRODUCTION

Thank you for purchasing a blackout blind with your new rooflight. This guide will explain how to install your remote-controlled blackout blind.

WHAT COMES WITH MY BLACKOUT BLIND?

- Blind and motor housing (factory fitted to your rooflight)
- White perimeter blind trim (factory fitted to your rooflight)
- 1 x 2400mm extension cable (factory fitted to your rooflight)
- 1 x boxed, Somfy remote-control. This will be given to you when your rooflight is delivered.
- 1 x boxed, Somfy 3 pin power adapter with 3000mm cable. This will be given to you when your rooflight is delivered.



STEP ONE

PREPARATION IS REQUIRED IN THE CEILING VOID OF THE ROOM BELOW YOUR ROOFLIGHT IN ORDER TO PROVIDE A POWER SOURCE TO YOUR BLIND. THIS GUIDE COVERS EACH STEP REQUIRED TO COMPLETE THE SET-UP.

The blackout blind is factory fitted to your rooflight and will be in place when you take delivery of your unit. On the inside of your rooflight, you will see a white surround trim, fitted to the internal perimeter of the built-in upstand/frame. When the blind is fully retracted the blind motor housing will be clearly visible at one end. You will also see guide cables extending from one side to the other. These run the length of the rooflight, with the number and arrangement varying dependent on the size of the blind.

When positioning your rooflight, be careful not to catch these cables or pull them with any force..

ILLUSTRATION SHOWING THE UNDERSIDE OF A LUXLITE® ROOFLIGHT WITH A BLIND

Motor housing

Located at the end where your blind folds back.

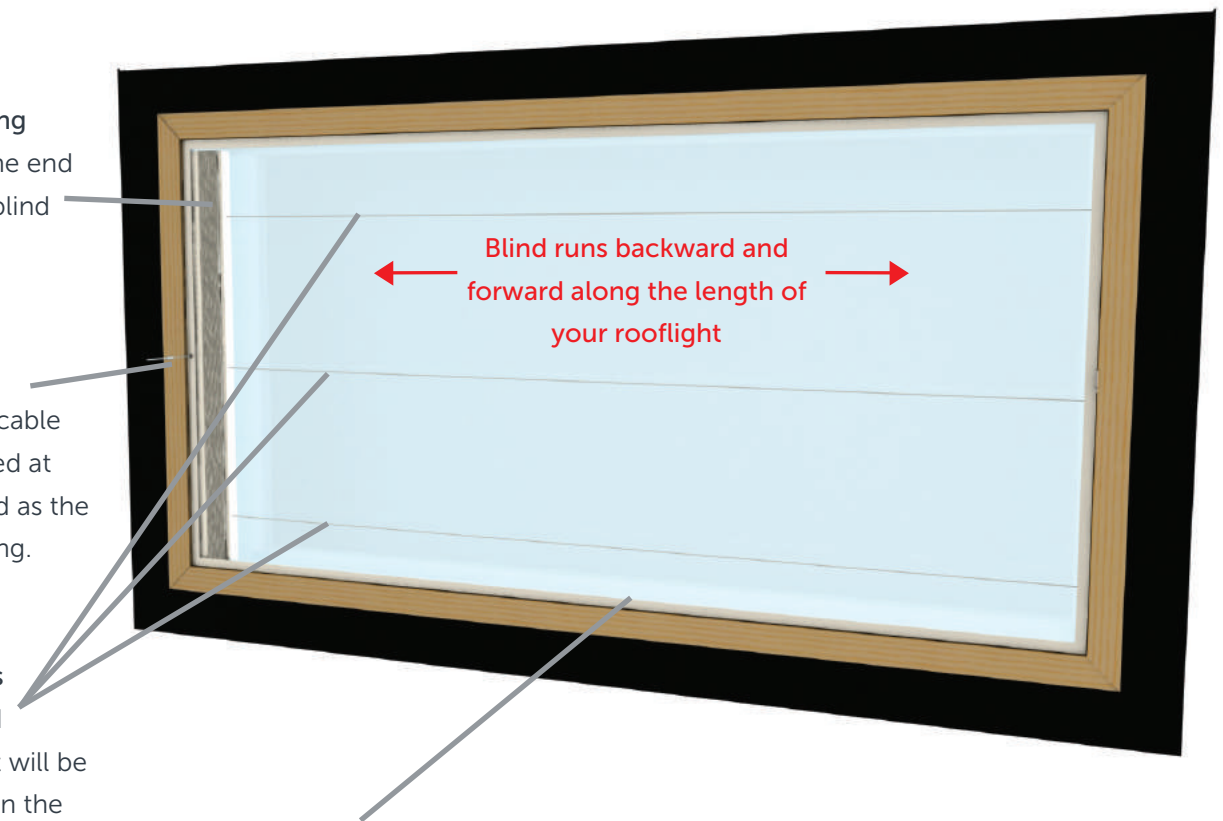
Power cable

The electric cable will be located at the same end as the motor housing.

Guide cables

Quantity and arrangement will be dependent on the size of your unit.

White perimeter blind trim.



STEP TWO

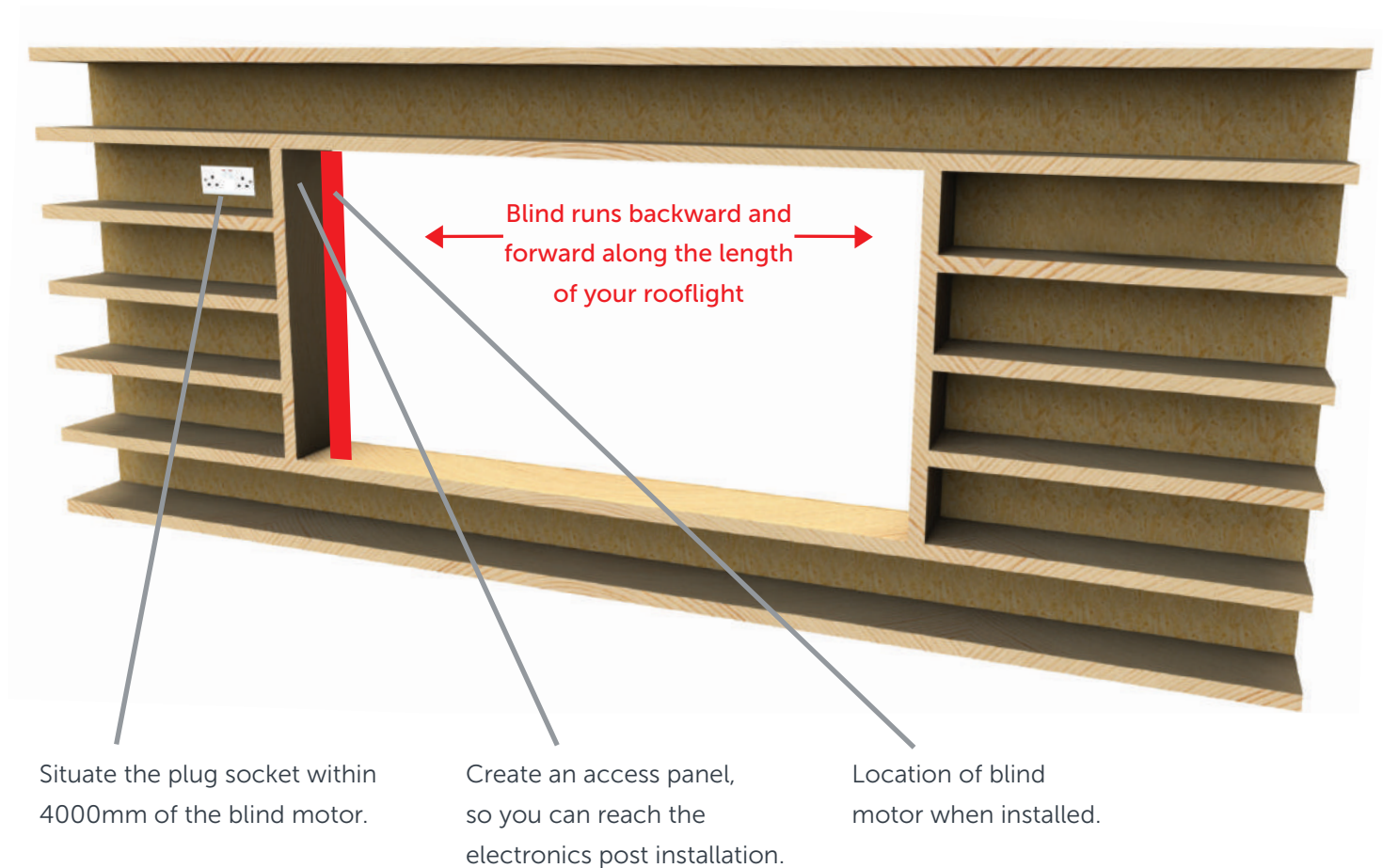
TO POWER THE BLINDS.

A standard 3 pin plug needs to be located in your ceiling void area, within 4000mm of the blind motor.

We recommend creating an access panel so you can easily reach the installed electronics at a later date if required.

We advise that you do not plaster the ceiling in the room below until the rooflight is fitted and the blinds have been wired in. This will provide a clear area to work, allowing you to make last minute adjustments and avoid the blind cables being stretched unnecessarily if you need to achieve more slack.

The blind will move forwards and backwards as the arrows indicate.



STEP THREE

YOU ARE NOW READY TO INSTALL YOUR ROOFLIGHT.

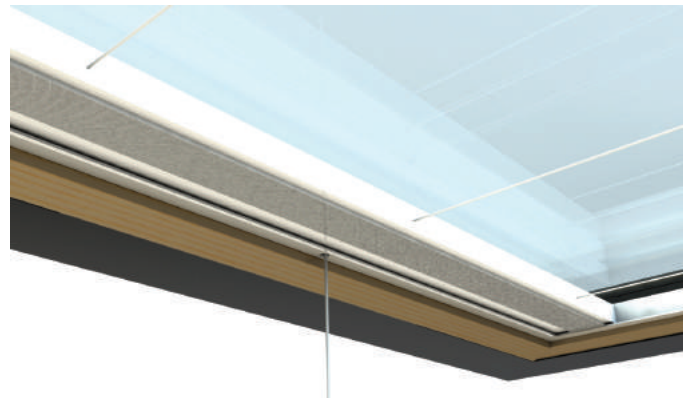
Once your rooflight has been installed, you will be ready to connect your blinds to your power source. You will see the coiled electrical cabling below your blind motor housing. The cable feeds through a pre-drilled hole in the white perimeter blind trim, up to the blind motor. This is the 2400mm extension cable. Unwind the cable, ensuring you do not allow the connection in the wiring to be pulled out of the hole.

Run the cable straight down the reveal.

WARNING: You must visibly mark where you have run the wire, to avoid damaging the cable with screws or nails when you fix the plasterboard.

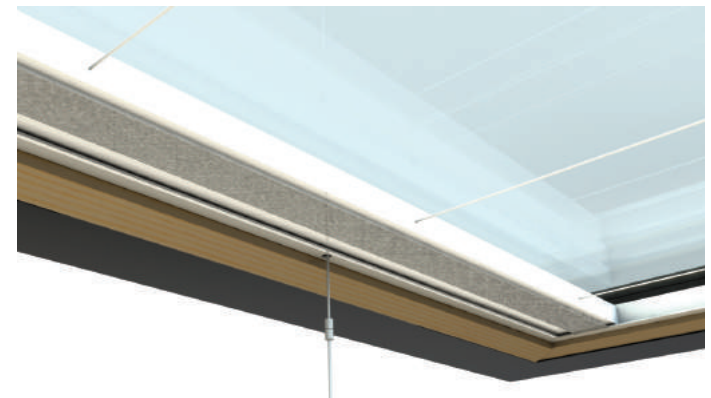
Once you have run the cable up to the joist/rafter, drill a hole through the joist/rafter so you can run the cable into the ceiling void, where you have positioned your 3 pin plug.

THE WIRE CONNECTION MUST STAY ABOVE THE PERIMETER TRIM AS YOU MAY NEED TO LOCATE IT AT A LATER DATE.



CORRECT

Cable coming through trim,
no connection visible.



INCORRECT

Cable coming through trim
with connection visible.

STEP FOUR

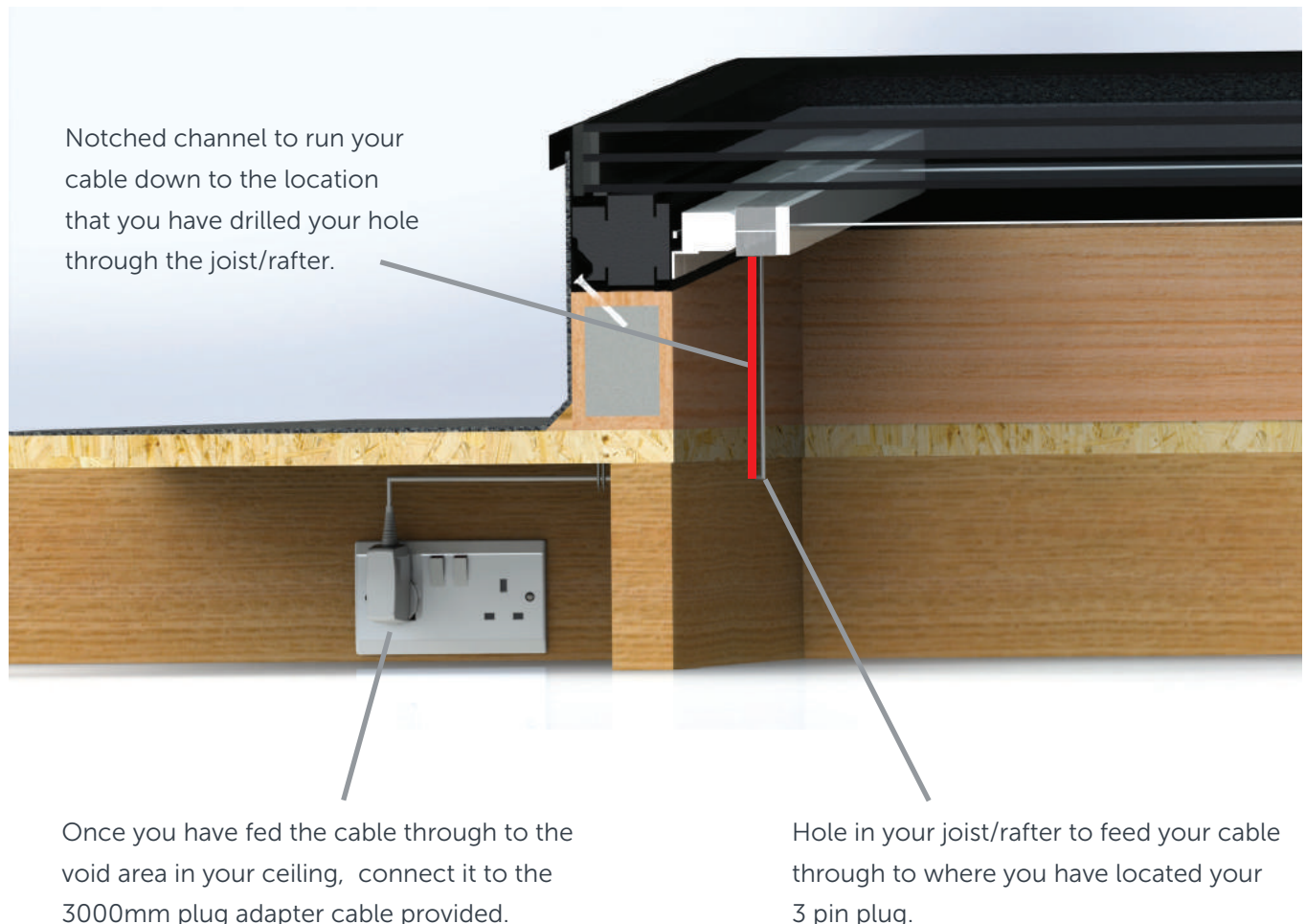
CHANNEL INTO YOUR TIMBER.

You now need to notch a channel into your timber reveal, which will run the length from the hole you have just drilled to the hole where the cable comes through, in the white perimeter blind trim. Running the wire in this channel will ensure your plasterboard can fit flush to the timber. Please ensure the power source is located within 4000mm of where your blind motor will be positioned.

When you have run the cable from your blind into the ceiling void area, through the drilled hole, take the 3000mm power adapter cable provided and connect the 2 cables together. This is a small male/female 'push and click' connection.

Next, plug in the adapter to your 3 pin plug socket that you have located in the ceiling void. Your remote-controlled blackout blind is now connected.

The Somfy remote-control provided with your blind has been synchronised in the factory, so will work as soon as the blind is connected.



STEP FIVE

PLASTERING. PLEASE ENSURE YOUR BLIND IS FULLY OPERATIONAL BEFORE PLASTERING.

Plaster the ceiling in the room below and the reveals that lead up to the rooflight. The white perimeter blind trim gives you a perfect surface to plasterboard and wet plaster into.

We advise that you cover the retracted blind and motor housing with low adhesive masking tape or equivalent, to prevent you soiling the blinds when applying your wet plaster.

At this stage, you can incorporate an access panel into your ceiling or reveal leading up to the rooflight as mentioned previously.

**YOUR BLIND INSTALLATION IS NOW COMPLETE.
WE HOPE YOU ENJOY YOUR NEW ROOFLIGHT
WITH BLACKOUT BLINDS**



When you have plastered your reveals leading up to the rooflight, you have the option of installing an access panel in this area.