

Glass Link

TB293 Installation Instructions Multiple Modules



Warning: this product is designed for installation by professional roofing installers, who are responsible for establishing a safe method of work. All risks involved, including those involved in roof access and working around (and if necessary across) an open roof aperture must be assessed, and suitable precautions taken to minimise those risks, with a safe method of work established and documented for each project.

Instructions must be followed **carefully** and in the correct order otherwise warranty may be invalidated and/or the non-fragility of the rooflight may be affected.

Impact drivers must not be used.

Glass Link is a bespoke product. These instructions illustrate a typical installation - actual component sizes and jointing details may vary. Refer to Brett Martin Daylight Systems Technical Department for items specific to the installation being carried out.

Contents:

1. Unit Handling Rules
2. Unpacking Modules
3. Part identification and Supplied Fixings
4. Typical installation sequence
5. Appendices
 - o A - Rooflights that include opening modules
 - o B - Rooflights with 15°-35° pitch across span
 - o C - Rooflights where double underlap/overlap modules are specified
6. Wiring Diagrams - 230V / 24V
7. Parts List (supplied separately)

FOR OPENING UNITS
Cable will exit through the bottom of the frame.
Ensure upstand is prepared before installation begins.
Refer to approval drawing for cable positioning detail.
If approval drawings do not specify cable exit point, please contact BMDS.

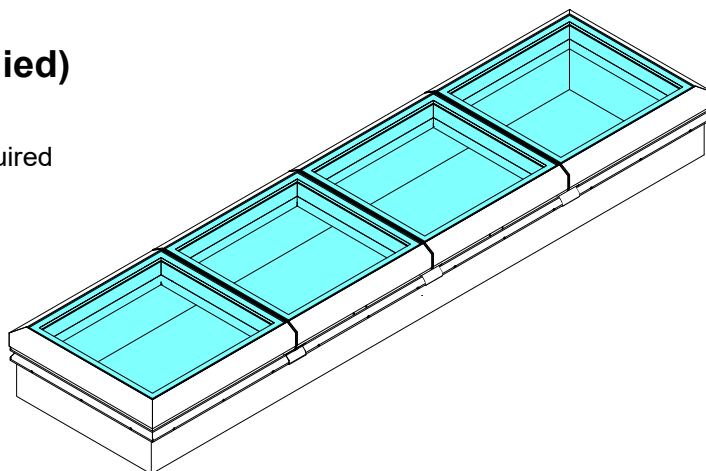
Please Note:

After installation of Glass Link, if further building works cause dirt to accumulate on the outside of the product it can be cleaned with copious quantities of lukewarm water and a soft cloth; care should be taken to avoid scratching the glazing. If dirt accumulates on the inside the same cleaning method can be used if practical; alternatively if light dust has accumulated it can be cleaned by very carefully blowing down with an air line.

For self cleaning glass, care should be taken to avoid contact with any chemicals. Contact BMDS for further advice.

Equipment Required: (not supplied)

- Tape measure
- Cordless Drill (An angled drill may be required where rooflights are in close proximity to anything else on a roof)
- Sealant gun
- 55mm long roofing packers
- Fine marker pen
- String Line
- Palette Knife
- PH2 drill bit
- 8mm Hex Nut Driver



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Brett Martin Daylight Systems operates a policy of continuous product improvement, and reserves the right to alter specifications at any time without notice. Every effort has been taken to ensure all details contained in this document are correct at the time of going to press but this document should be used only as a guide and does not in any way form part of a contract or warranty. It is the customer's responsibility to ensure that the product is suitable for the actual conditions of use, which are beyond the control of Brett Martin Daylight Systems.

PRINT IN COLOUR (2 SIDED)

Unit Handling Rules

CRANE LIFT RULES

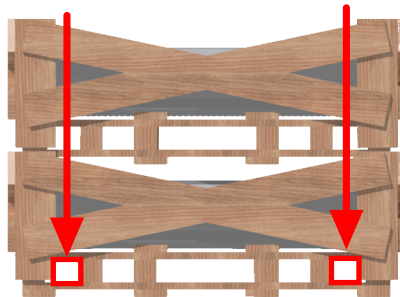
INDIVIDUAL WEIGHT
LESS THAN 120KG:
2 STACK MAXIMUM



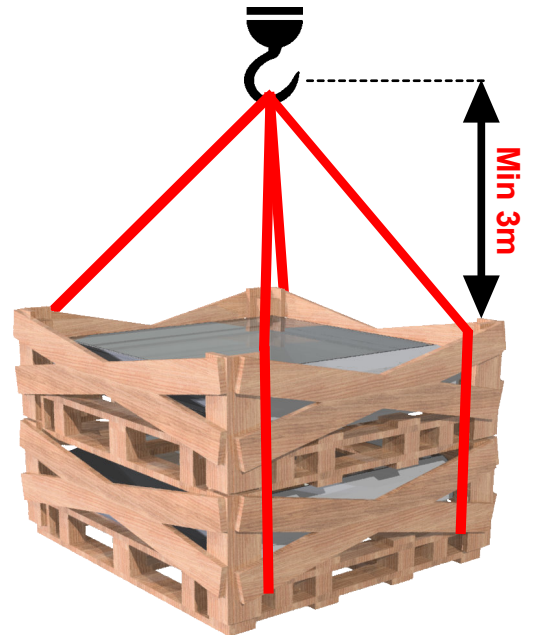
INDIVIDUAL WEIGHT
MORE THAN 120KG:
DO NOT STACK



PLEASE NOTE:
ALL CRANE
OPERATIONS MUST BE
CONDUCTED BY A
**SUITABLY TRAINED
AND QUALIFIED
PERSON**



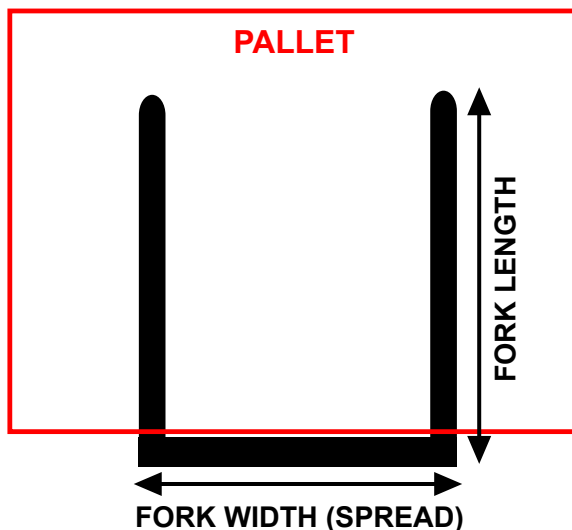
ALWAYS STRAP AT
EDGE OF PALLETS



THE LIFTING HOOK
SHOULD BE NO LESS
THAN 3M ABOVE THE LID

FORK LIFT RULES

DO NOT LIFT WITH A FORK WIDTH (SPREAD) OR
LENGTH LESS THAN THE MINIMUM SET OUT ON
APPROVAL DRAWINGS.
IF IN DOUBT PLEASE CONTACT SUPPLIER.



INDIVIDUAL WEIGHT
MORE THAN 120KG:
DO NOT STACK



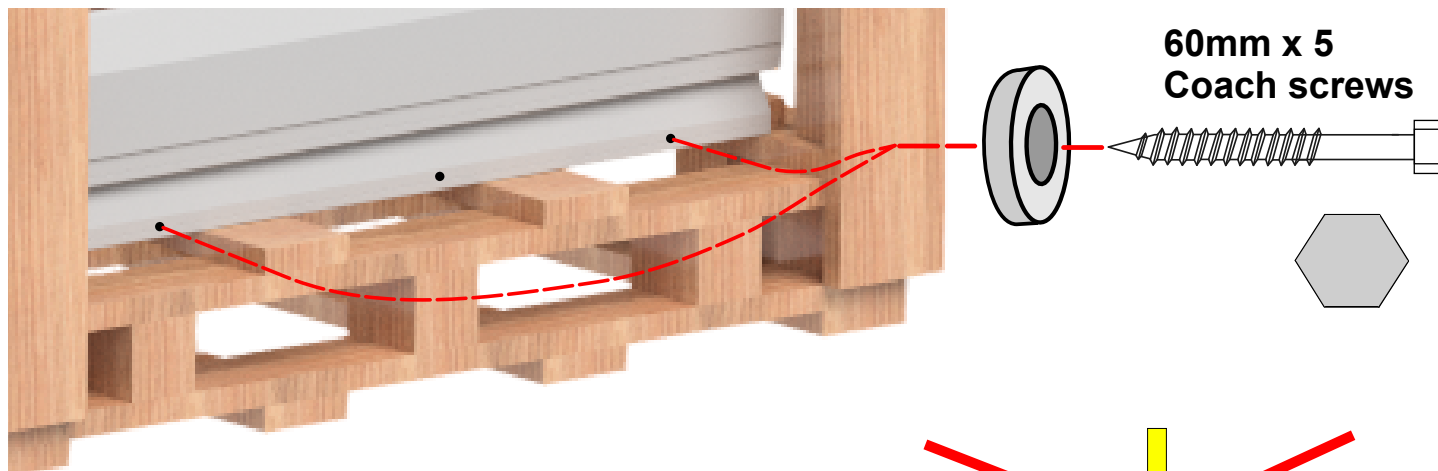
INDIVIDUAL WEIGHT
LESS THAN 120KG:
2 STACK MAXIMUM



Brett Martin Daylight Systems cannot be
held responsible for any damage
caused as a result of incorrect handling

Unpackaging Modules

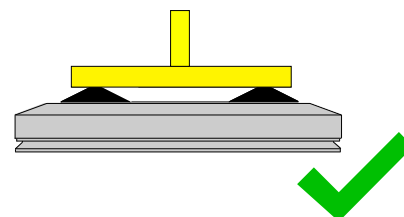
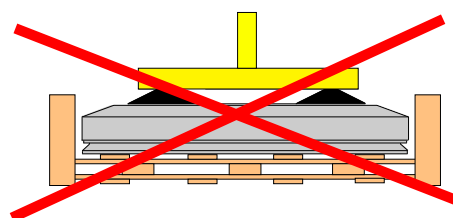
1. Using a 8mm Hex Nut Driver, unscrew and remove all the coach screws and spacer washers from the module.



When using a Glass Lifter ensure to unscrew module from pallet before lifting, if lifting with pallet is required, a crane/forklift must be used

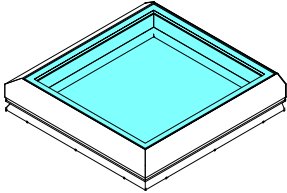
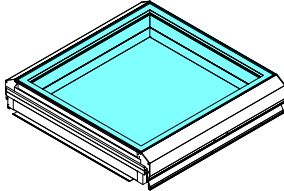
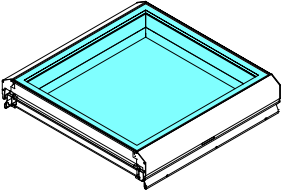
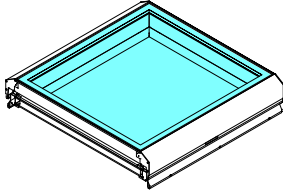
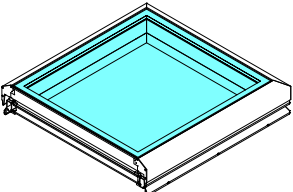
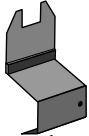
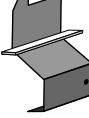


Brett Martin Daylight Systems cannot be held responsible for any damage caused as a result of incorrect handling.

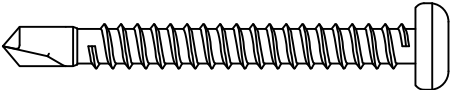
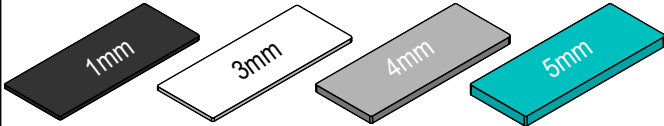


Part Identification

Please refer to corresponding parts list, supplied separately, which details quantities of parts specific to the installation being carried out

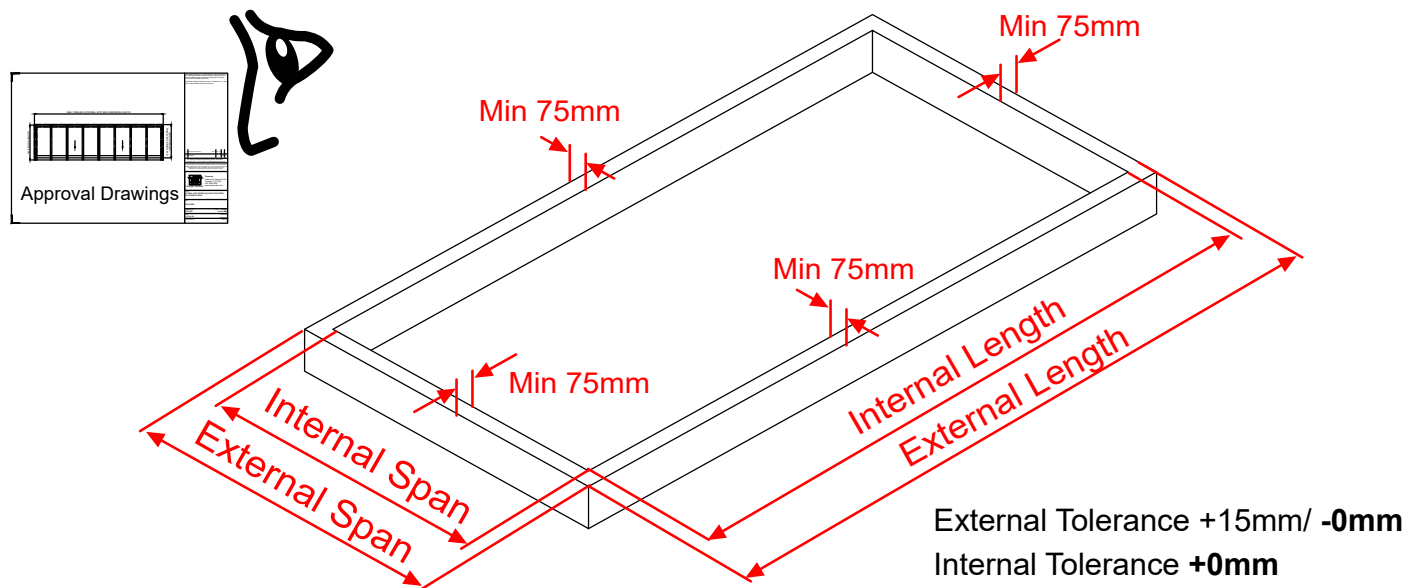
Additional Parts (if required)	
 (A) Start Module	 (B ₁) Double Underlap Module
 (B) Continuation Module	 (B ₂) Double Overlap Module
 (C) End Module	 (X) DF flashing (Type A)
	 (Y) DF flashing (Type B)

Supplied Fixing Accessories

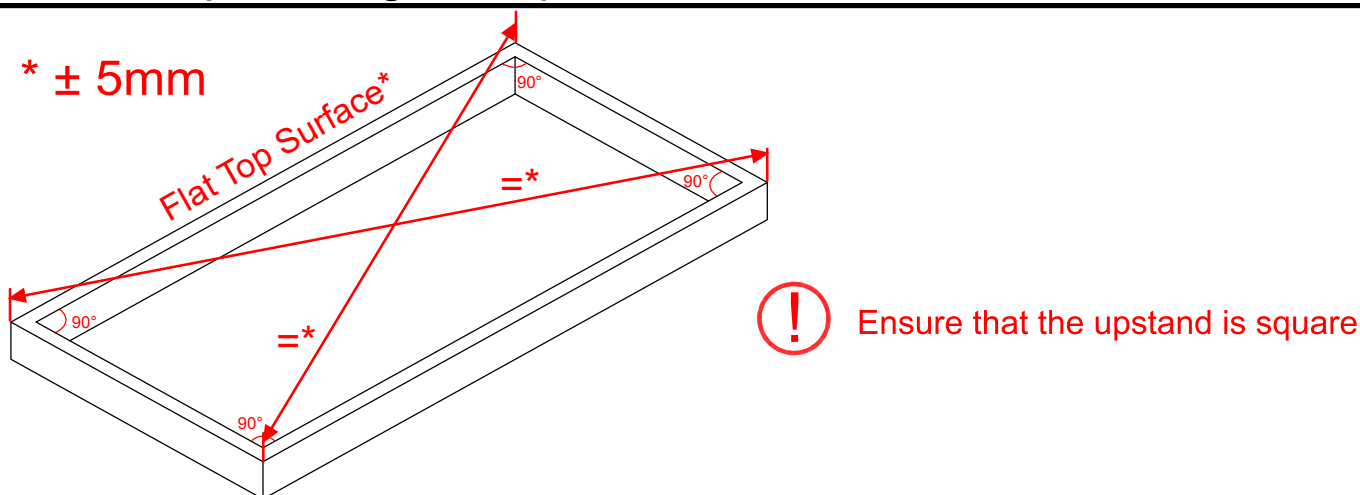
Item	Description	Locations
 	T27 Self drill Security Torx screw 50mm	Upstand
 	Aluminum Spacer 12mm x 5mm	
 	Sealing Washer	
	40 x 120mm Plastic Packers Assorted sizes (for side fixing application only)	
 	PH2 Flashing Screw	Flashings
	Silfix U9 Clear Sealant	

1 Check all parts collate with Installers Parts List
(supplied separately)

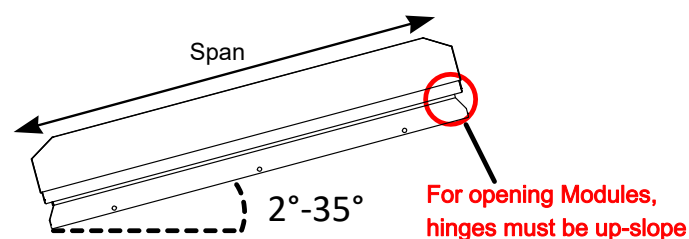
2 Check internal and external upstand dimensions with reference to BMDS approval Drawings



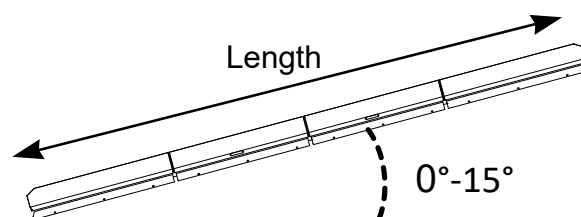
3 Compare diagonal upstand measurements



4 Check the pitch of the rooflight length and span
(Refer to Appendix B if span pitch is between 15° and 35°)



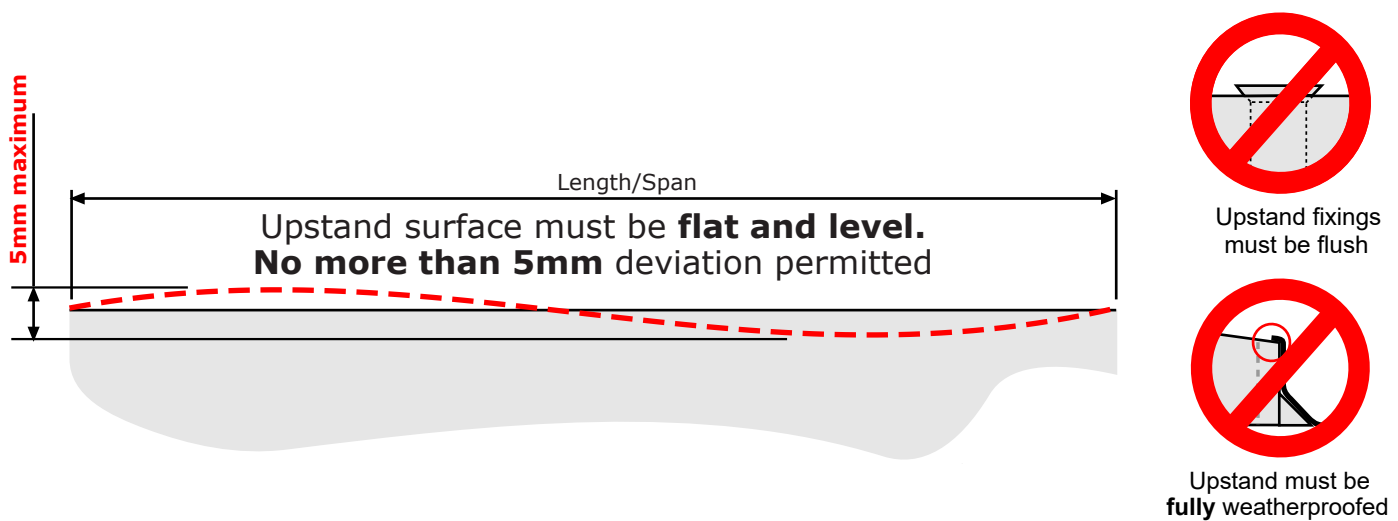
Longitudinal Pitch



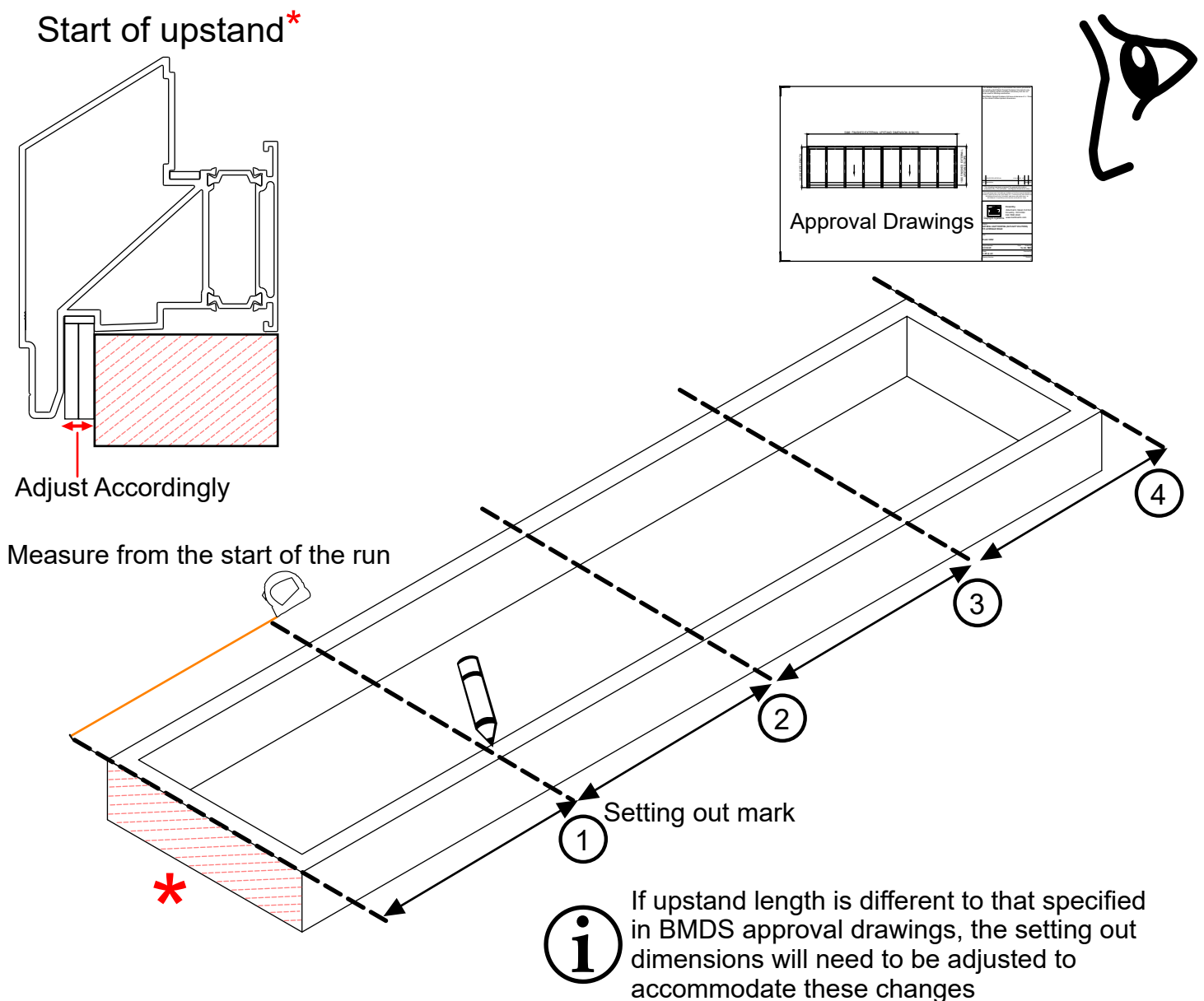
NB - Some larger sizes will require a minimum pitch of up to 5°.

Refer to approval drawings for glass and minimum pitch specification

5 Check the flatness of the upstand

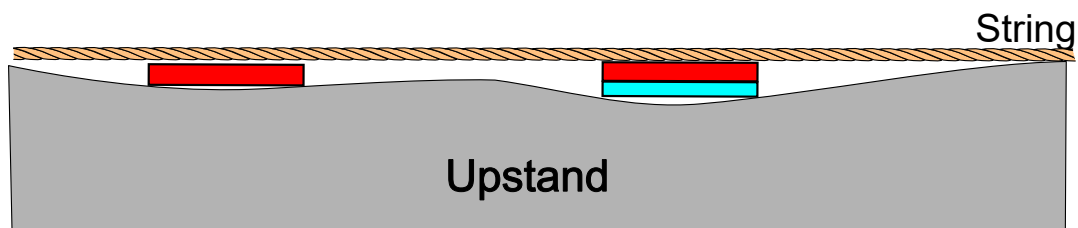
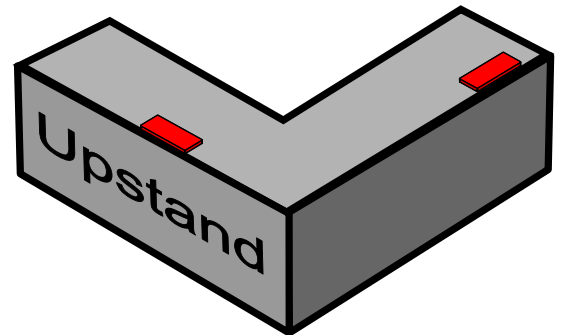


6 Referring to the BMDS approval drawings, accurately mark the setting out positions of modules on the upstand



7 Create a flat upstand

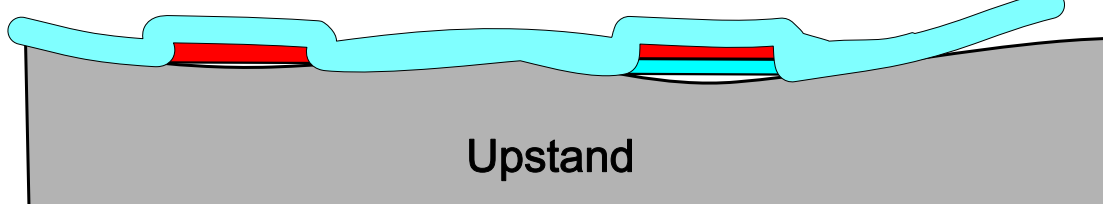
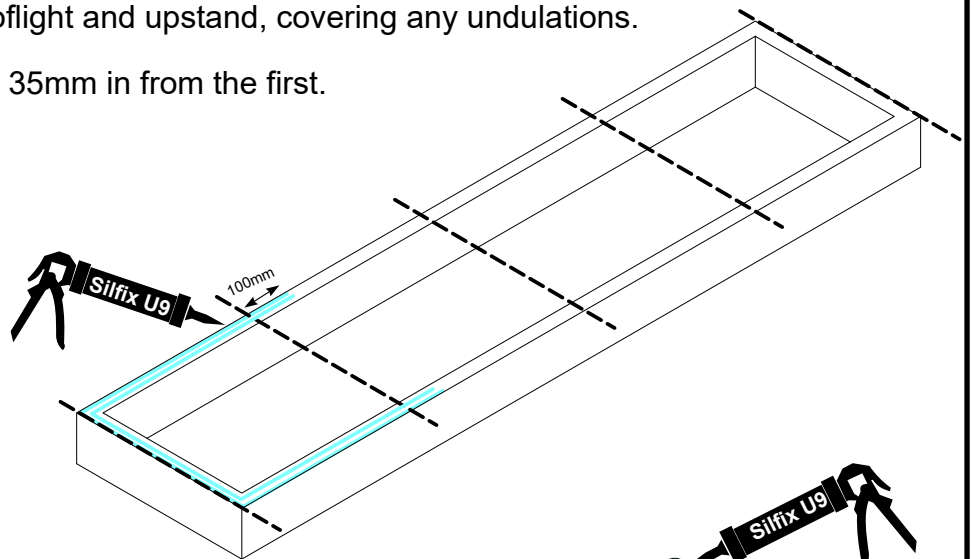
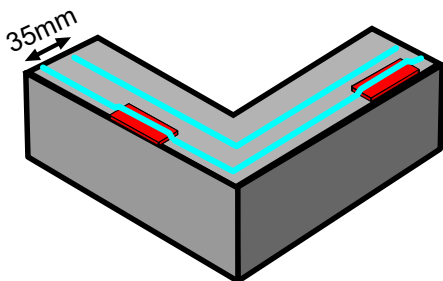
1. Run a tight string over the high points of the upstand
2. Mark any areas which are deeper than 2mm
3. Use separate glazing packers (not supplied) to fill the low areas to the string's height



Ensure packers are positioned securely so that the modules will be well supported and flush with one another once installed

8 Apply sealant to the upstand

1. Apply a 10mm bead of sealant on the outside edge of the top surface of the upstand, offering full contact between rooflight and upstand, covering any undulations.
2. Apply a second bead of sealant 35mm in from the first.



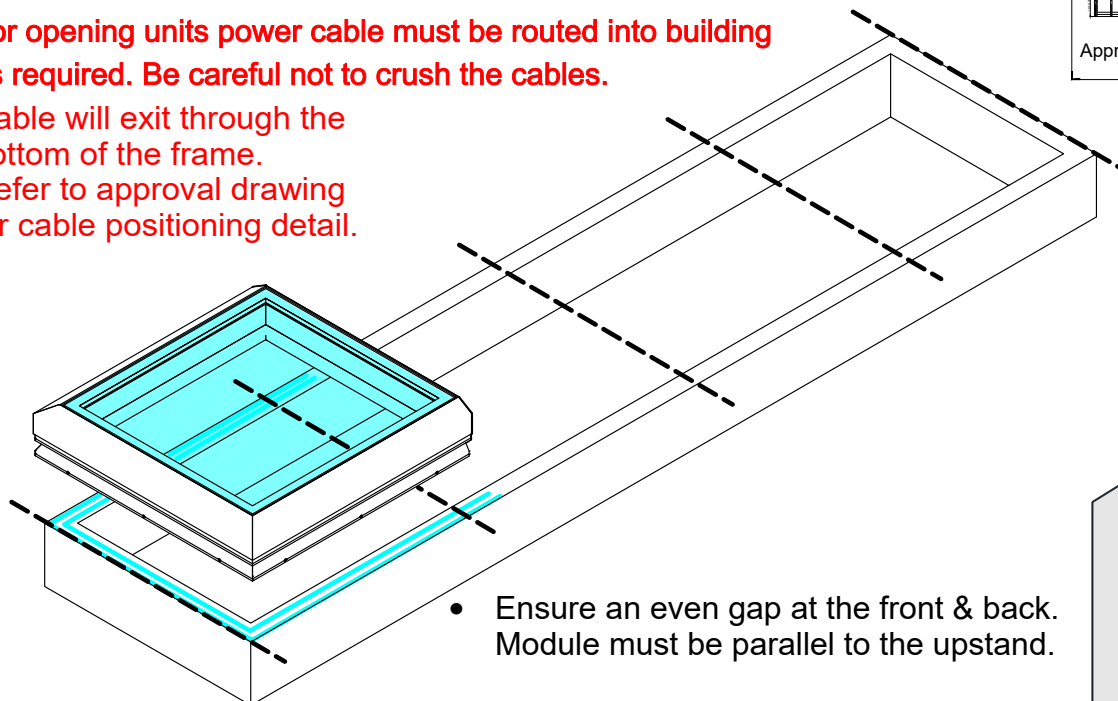
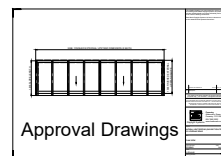
Ensure enough sealant is applied to fill all undulations. Sealant must be applied on top of the packers.

9 Place the start module onto the upstand

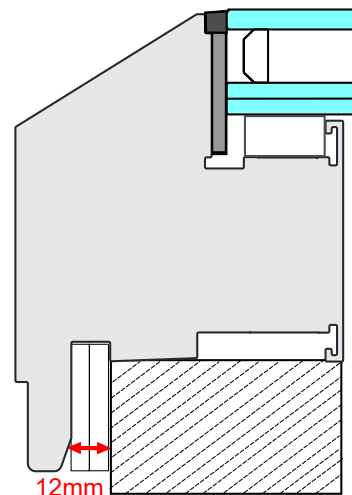
! Take care when placing modules to avoid injury

For opening units power cable must be routed into building as required. Be careful not to crush the cables.

Cable will exit through the bottom of the frame. Refer to approval drawing for cable positioning detail.



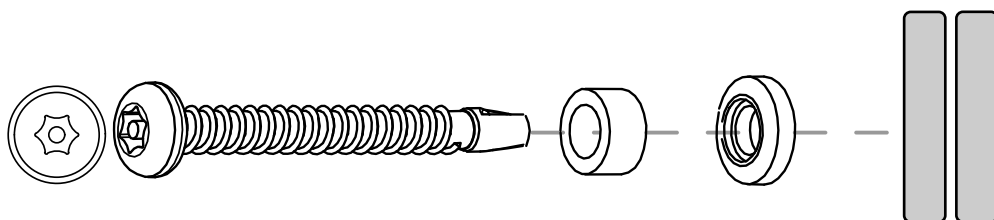
- Ensure an even gap at the front & back. Module must be parallel to the upstand.
- Nominal 12mm spacing between frame and upstand. (adjust as necessary to accommodate any variation in upstand dimensions)



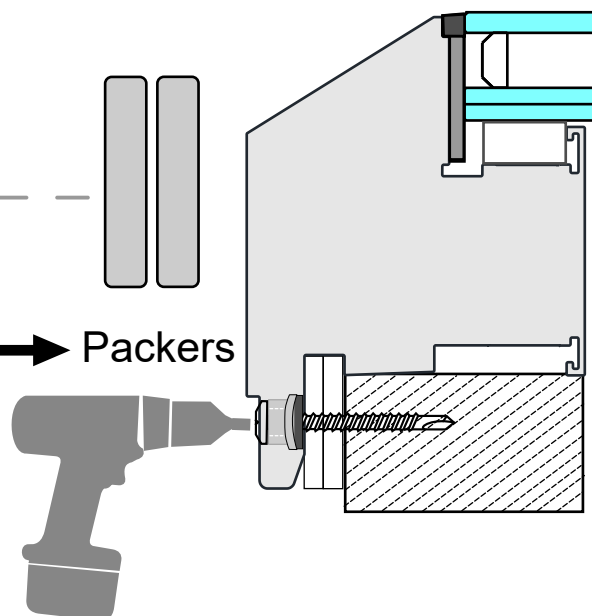
10 Fix the module to the upstand

- Insert all fixings through supplied packers
- Screw heads should finish flush with external profile

! DO NOT OVERTIGHTEN FIXINGS



Screw → Spacer → Washer → Packers



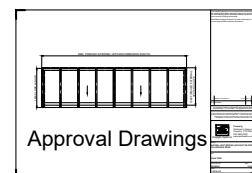
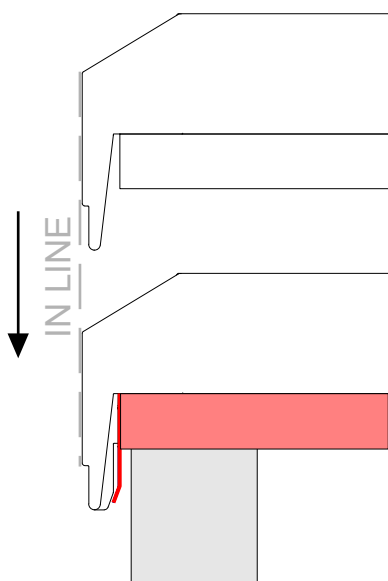
i Required packers will depend on upstand dimension tolerance.

11 Fit the next module to the upstand

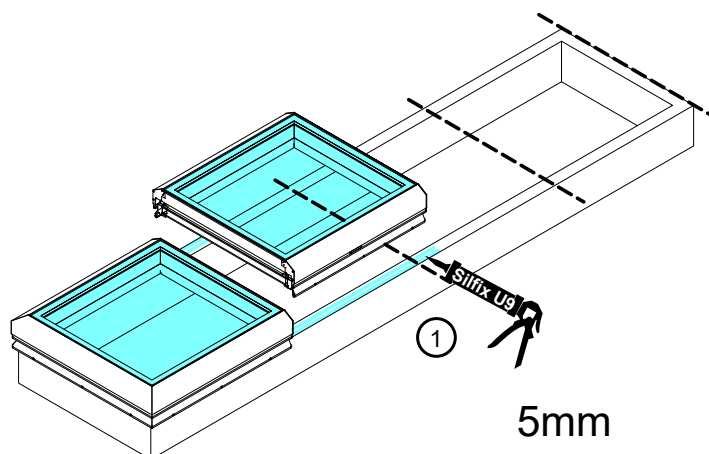
Ensure modules are located flush to avoid damage to gutter and drip edge (highlighted red)



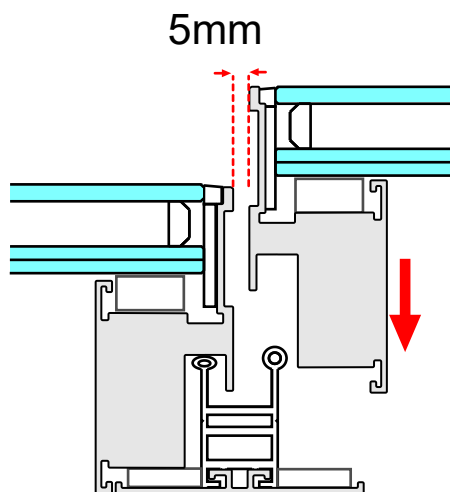
For opening units power cable must be routed into building as required. Be careful not to crush the cables.



Refer to setting out drawings for cable exit.

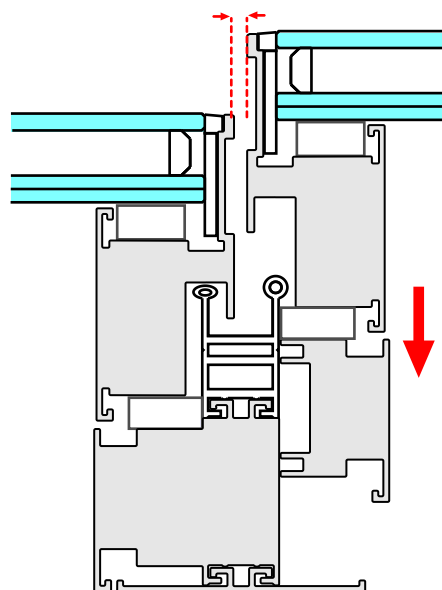


②



Fixed units

OR



Opening units

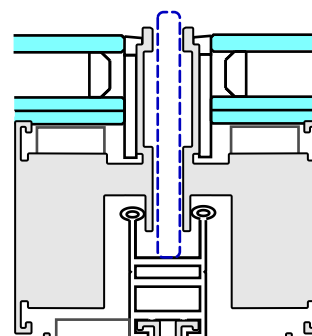
5mm



1. Extend sealant along upstand for next module
2. Position next module by vertically lowering adjacent to the previous module

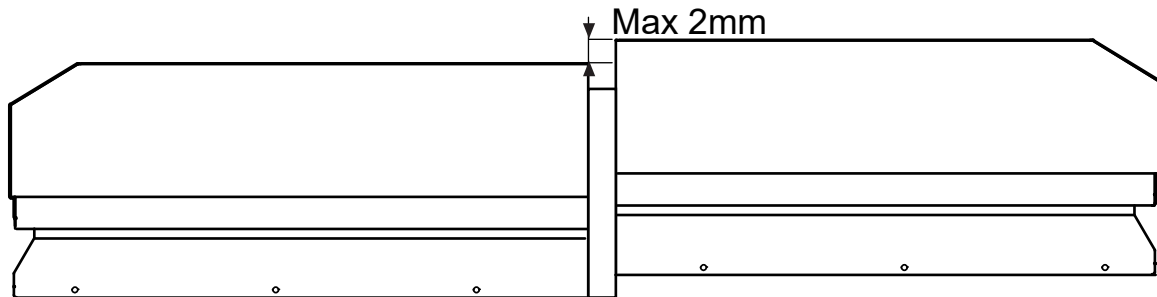
- a. Drip edge of module being lowered should drop into gutter of the previous module
- b. Use 5mm packers to set a gap at the joint between two modules on the surface

②b

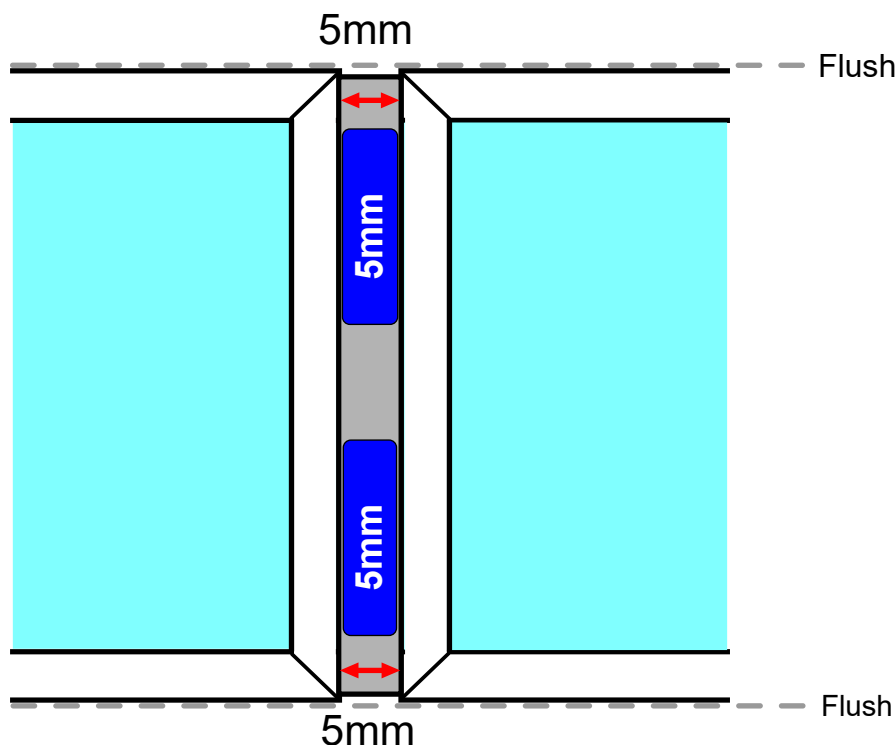


12 Check the positioning of adjacent modules

1. Check the perimeter frames of the modules are aligned flush, and parallel to the upstand, and the glass surfaces are flush (Maximum deviation 2mm)



2. Modules must be aligned with a consistent 5mm gap between them



3. Once units have been fixed to the upstand, remove packers from the gutter

13 Repeat steps 10 to 12 until the end of the rooflight

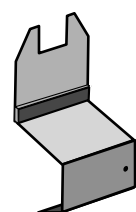
(Refer to appendix C if double overlap/underlap modules are included)

APPENDICES

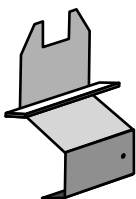
FOR ROOFLIGHTS THAT INCLUDE OPENING MODULES

A1 Dry fit the flashings to ensure correct alignment

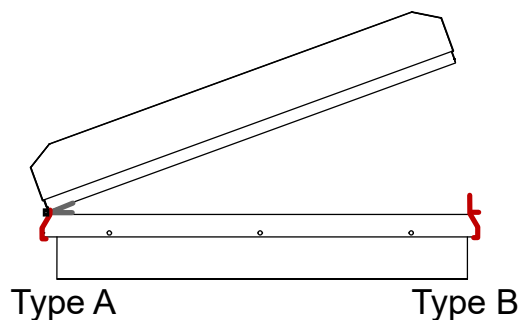
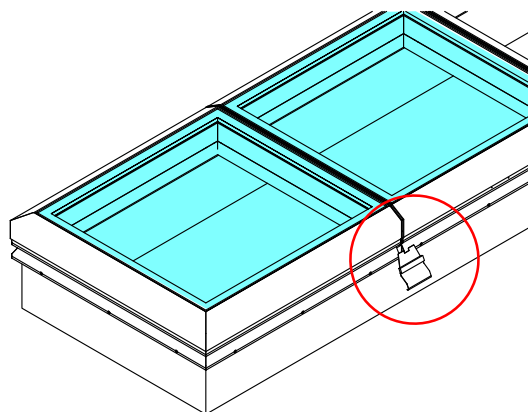
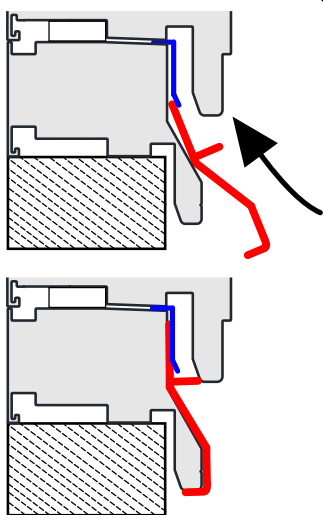
- The flashing is designed to sit behind the factory fitted drip edge (blue) it will click into position once located.
- Do not attempt to force the flashing, if there is resistance ensure the flashing is behind the drip edge.
- Take care not to bend or damage the flashings
- For type A, compress expanding foam tape first



Flashing Type A
on hinge side



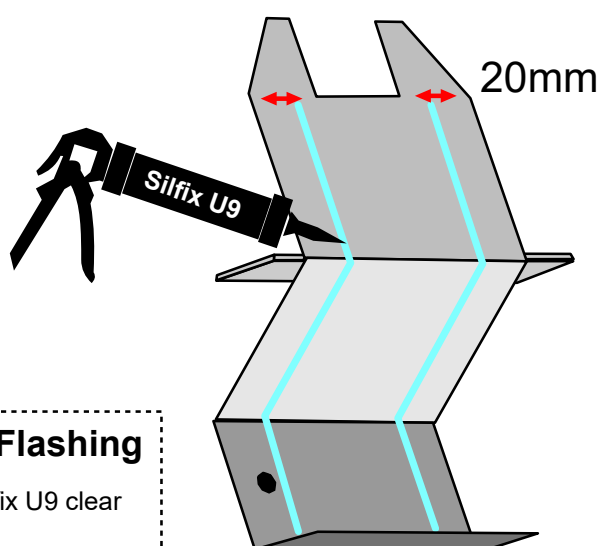
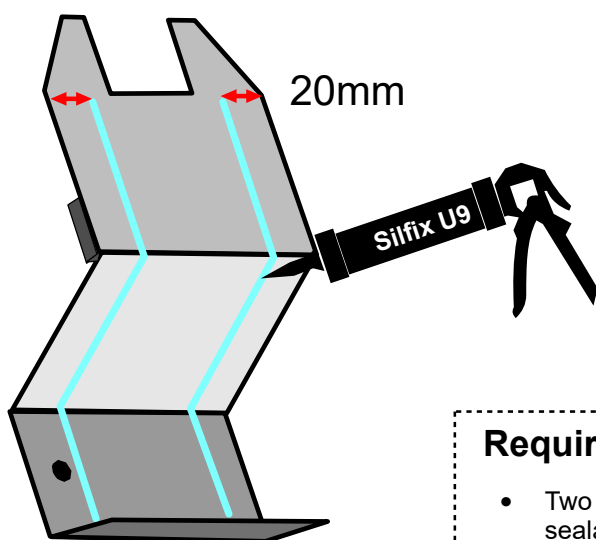
Flashing Type B
on opening side



A2 Remove & prepare the flashings

Type A
(Hinge Side)

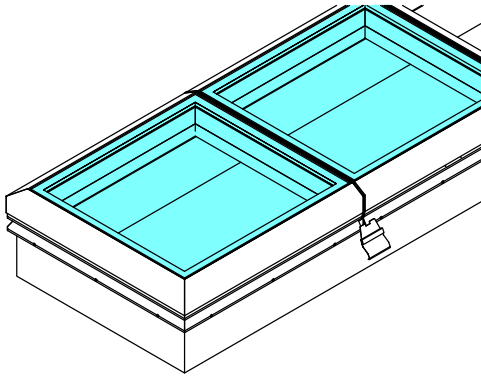
Type B
(Opening Side)



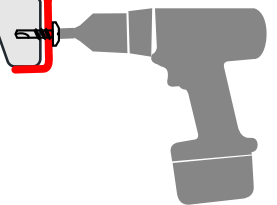
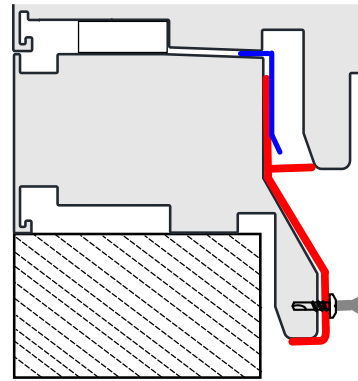
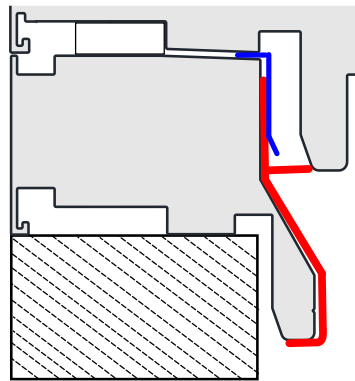
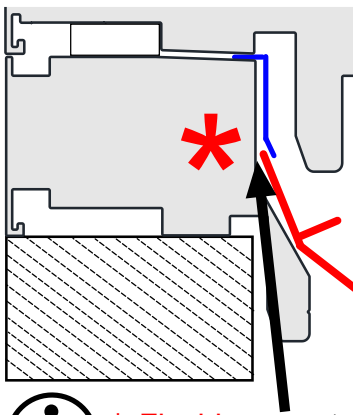
Required for each Flashing

- Two 5mm beads of Silfix U9 clear sealant

A3 Final fit the flashing

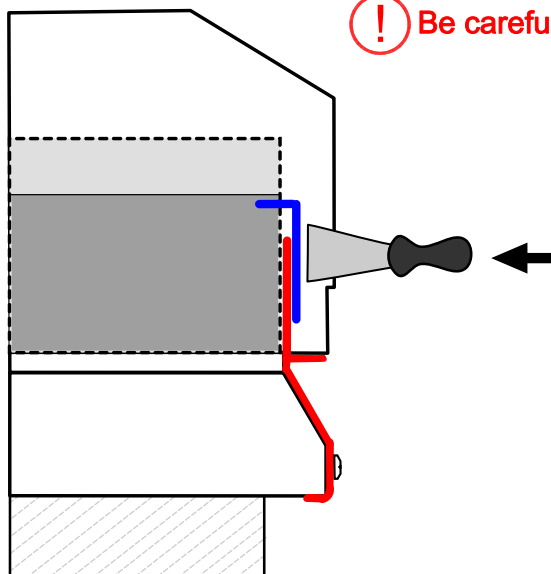


- For type A, compress expanding foam tape before fitting
- Ensure sealant forms a continuous seal
- Use Self-Drill **Flashing Screw** to secure Flashing in place
- Wipe away any excess sealant with a damp cloth

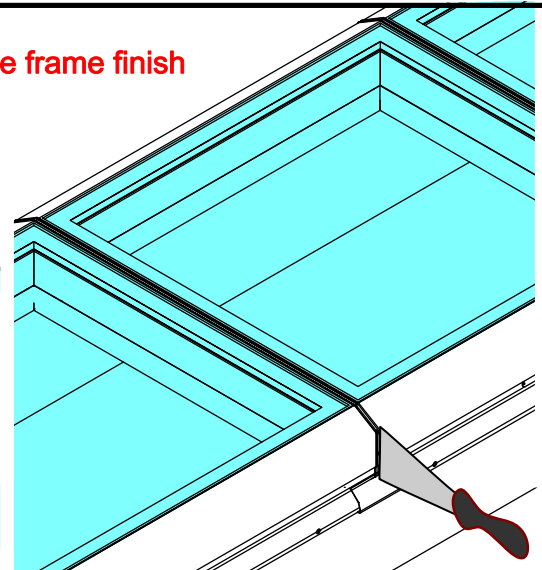


* **Flashing** must be inserted
behind the **drip edge**

A4 Push the gutter **drip edge** against the **flashing** using a palette knife



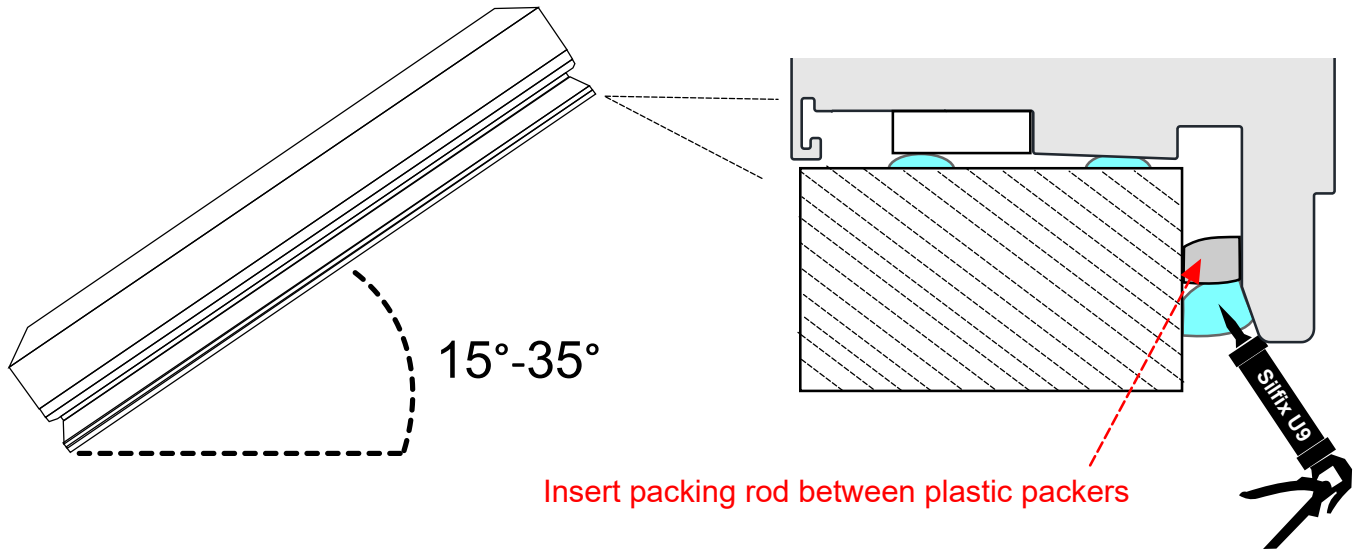
⚠ Be careful not to damage frame finish



A5 Repeat steps A1 to A4 for all flashings

FOR ROOFLIGHTS WITH 15°-35° PITCH ACROSS SPAN

B Insert packing rod and apply a bead of sealant at the ridge

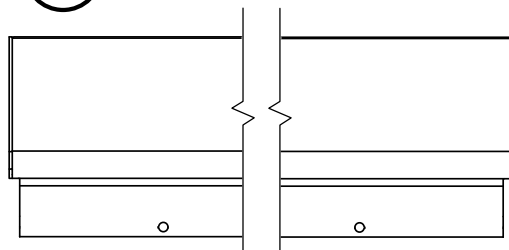


WHERE DOUBLE OVER/UNDERLAP MODULES ARE SPECIFIED

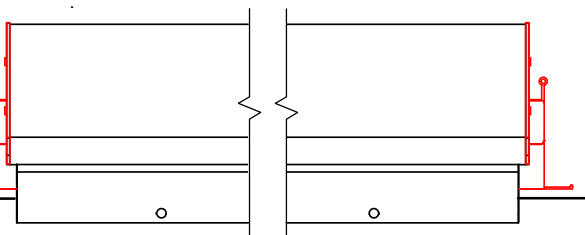
C Place and fix double overlap/underlap modules

Accurately set out and position the double underlap module before the double overlap module. Refer to BMDS drawings for placing dimensions.

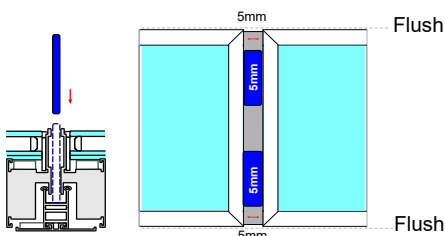
(B2) Double Overlap Module



(B1) Double Underlap Module



Placing Dimension



Once both modules are placed, confirm 5mm spacing with packers and fix to upstand.

Repeat steps 10 to 12 until the end of the rooflight

Chain Drive Unit *Wiring Diagram for M&E Installer*
please refer to BMDs approval drawings for Actuator type.

TF44 Controller
If the TF44 option has been supplied, refer to the separate wiring instructions supplied with it.



Please note that all wiring and commissioning must be undertaken by a *suitably trained and qualified person*.

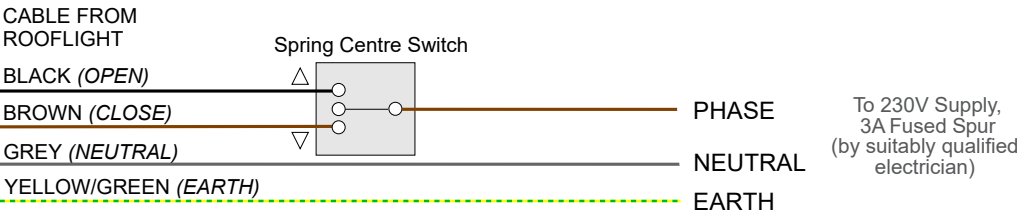
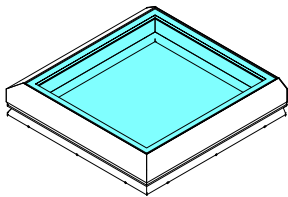
Additional care must be taken when pairing the rain sensor to avoid any risk of electric shock. The installer must ensure that all wiring runs, cable thickness and earthing etc. meet current regulations.

230V (AC) actuators must not be operated by supplying continuous power. They must only be operated using a momentary control switch (as supplied) or by using a suitable controller with a timed pulse for the opening period required (approx 60 to 120 seconds for full operation). Feeding continuous power to a 230V actuator will damage the unit over time and void any warranty. Electrical equipment, including actuators, has a 12 month limited warranty from delivery of the unit.

Electrical equipment, accessories and packaging should be recycled for environmental protection. Do not dispose of electrical equipment in household waste!

TYPE 1 - 230V

Wall Switch

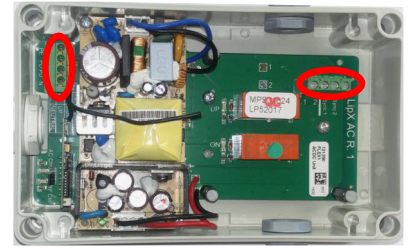


TYPE 2 - 24V

24V transformers are to be located and mounted separately from the rooflight by an electrical contractor.

DO NOT CONNECT 230V SUPPLY DIRECTLY TO ROOFLIGHT

FLEX1 ACDC TRANSFORMER (SUPPLIED)

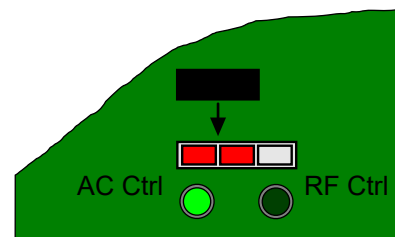


Cable entry via glands (not supplied)

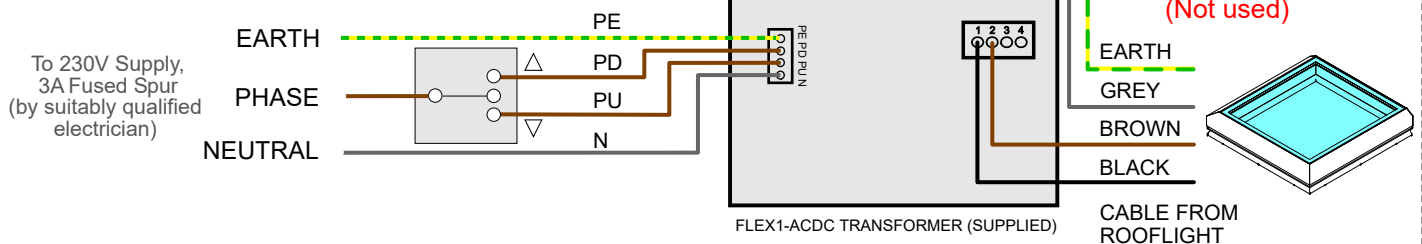
24V - Wall Switch & Wall Switch With Rain Sensor

Transformer Settings (Wall Switch)

Before supplying power to the transformer, ensure the centre and left hand pins below the RF module terminal are connected using the black plastic connector supplied.

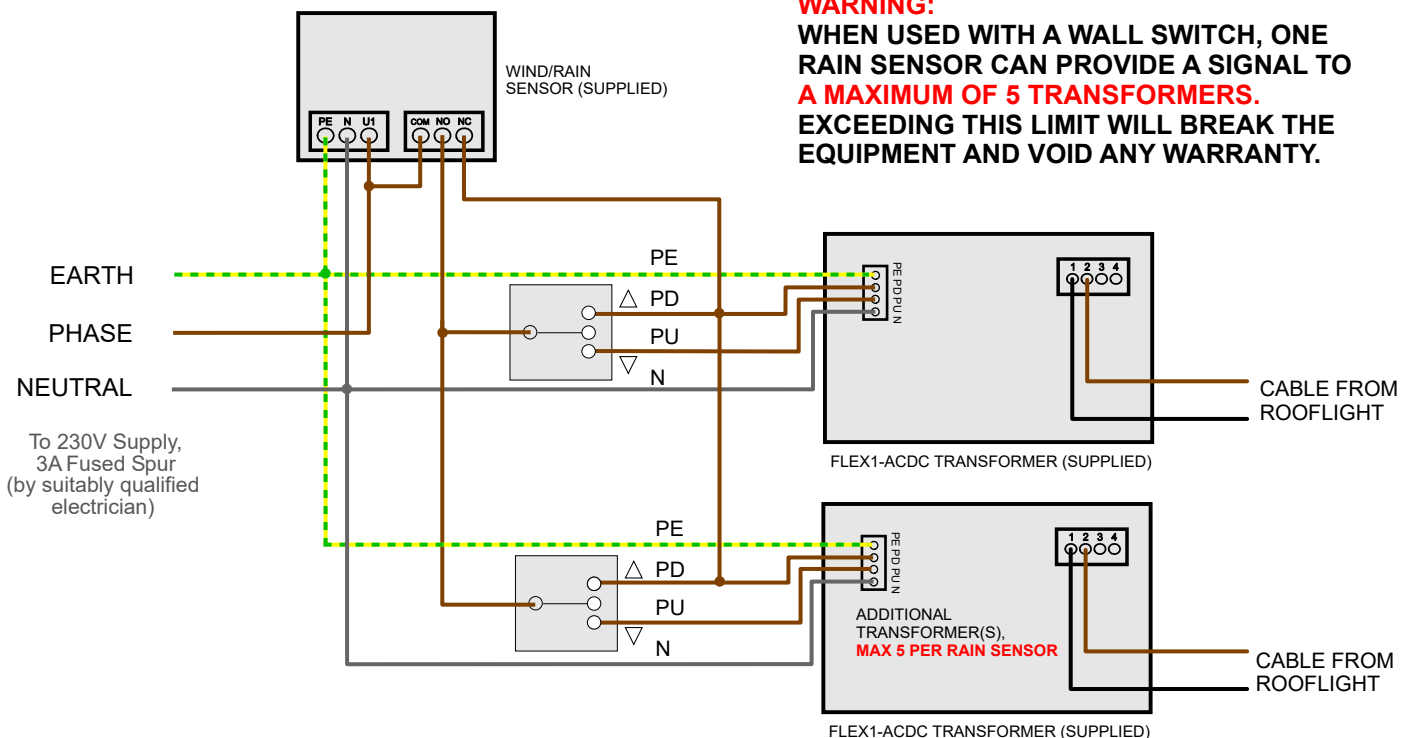


Wall Switch



Wall Switch & Rain Sensor

WARNING:
WHEN USED WITH A WALL SWITCH, ONE RAIN SENSOR CAN PROVIDE A SIGNAL TO **A MAXIMUM OF 5 TRANSFORMERS.** EXCEEDING THIS LIMIT WILL BREAK THE EQUIPMENT AND VOID ANY WARRANTY.

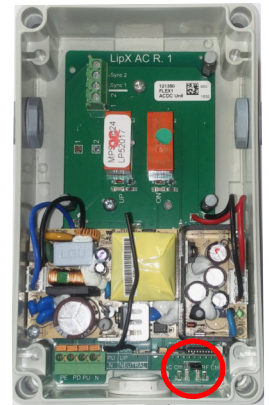
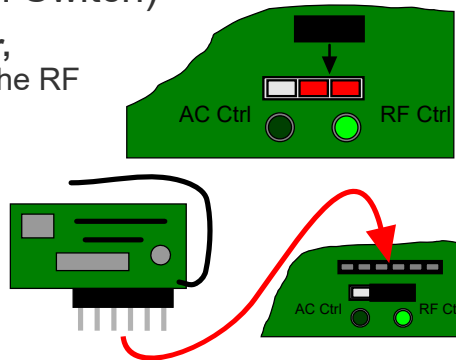


24V - Remote & Remote With Rain Sensor - Wiring and Mounting

Transformer Settings (Without Wall Switch)

Before supplying power to the transformer, ensure the centre and right hand pins below the RF module are connected using the black plastic connector supplied.

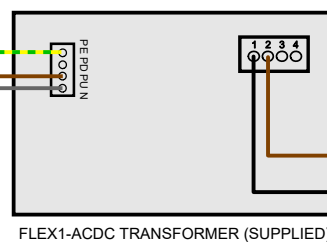
Insert the RF receiver (supplied with the remote) into the terminal labeled RF Module.



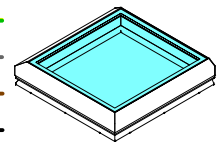
Transformer Wiring (Without Wall Switch)

To 230V Supply,
3A Fused Spur
(by suitably qualified
electrician)

EARTH PE
PHASE PU
NEUTRAL N



xx ← Safely Terminate
Black & Earth Wire
(Not used)



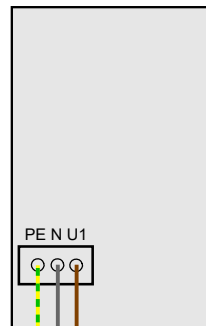
PLEASE SEE BELOW FOR
RAIN SENSOR INSTALLATION

Rain Sensor Wiring (Without Wall Switch)

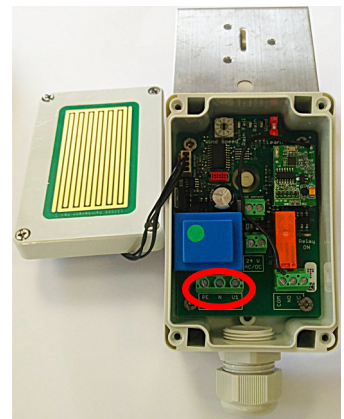
**ROOFLIGHT & RAIN SENSOR TO BE WIRED TO
SEPARATE 230V POWER SUPPLY!**

To 230V Supply,
3A Fused Spur
**SUITABLE FOR
OUTDOOR USE**
(by suitably
qualified electrician)

EARTH PE
NEUTRAL N
PHASE U1

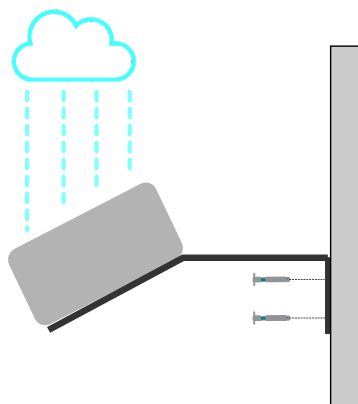


AR-24/250 RAIN SENSOR (SUPPLIED)



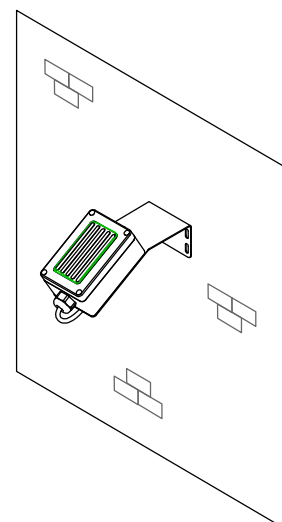
Rain Sensor Mounting

Rain Sensor mounted on a vertical exterior surface of the building, up to 400m from transformer(s) (with no obstacles around, however any construction around the sensor will influence the distance)



**Sensor must be exposed to rain,
so must not be mounted under
an overhanging structure**

Use screws (not supplied) that
are compatible with the wall
substrate.



24V - Remote & Rain Sensor - Pairing

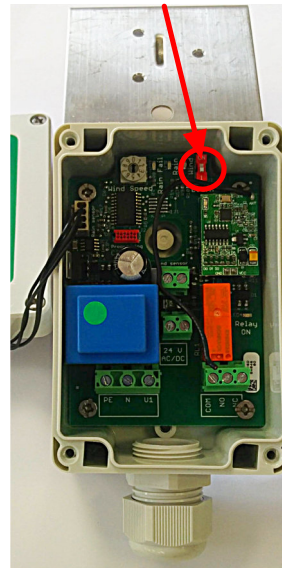
Rain Sensor Pairing (Without Wall Switch)

WHEN USED WITH A REMOTE, ONE RAIN SENSOR CAN BE PAIRED TO A MAXIMUM OF 20 TRANSFORMERS.

ALL PAIRED TRANSFORMERS MUST BE WITHIN RANGE, SEE RAIN SENSOR MOUNTING FOR MORE INFORMATION.

1. When connected to mains, set the "Learn TX" DIP switch (located in the rain sensor) to ON.
2. Press and hold the program button (located in the transformer) until the red LED next to the button lights up. When the red LED lights up, release the program button.
It is important to release the button as soon as the LED lights up as holding it down for too long will clear the memory, if this happens please see below for pairing remote.
3. Set the "Learn TX" DIP to "OFF" afterwards, and then test the rain sensor.

LEARN TX DIP SWITCH
(AR-24/250 RAIN SENSOR)



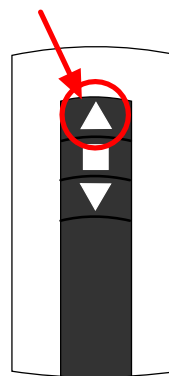
PROGRAM BUTTON
(FLEX1-ACDC TRANSFORMER)

Remote Pairing

Remotes come pre-paired to a receiver that should be mounted in the desired transformer.
If you want to pair a remote to multiple receivers, follow the instructions below.

1. Press and hold the program button (located in the transformer) until the red LED next to the button lights up. When the red LED lights up, release the program button.
2. Press UP on the remote, the LED will illuminate and turn off after one blink. The remote is now paired.

UP button



PROGRAM BUTTON
(FLEX1-ACDC TRANSFORMER)

Clearing Receiver Memory

You can clear ALL the paired devices from a receiver, to do this follow the steps below and then re-pair the desired equipment.

1. Press and hold the program button (located in the transformer) until the red LED next to the button lights up. Continue to hold the program button until the LED goes off.
2. The memory has now been deleted for ALL paired devices.