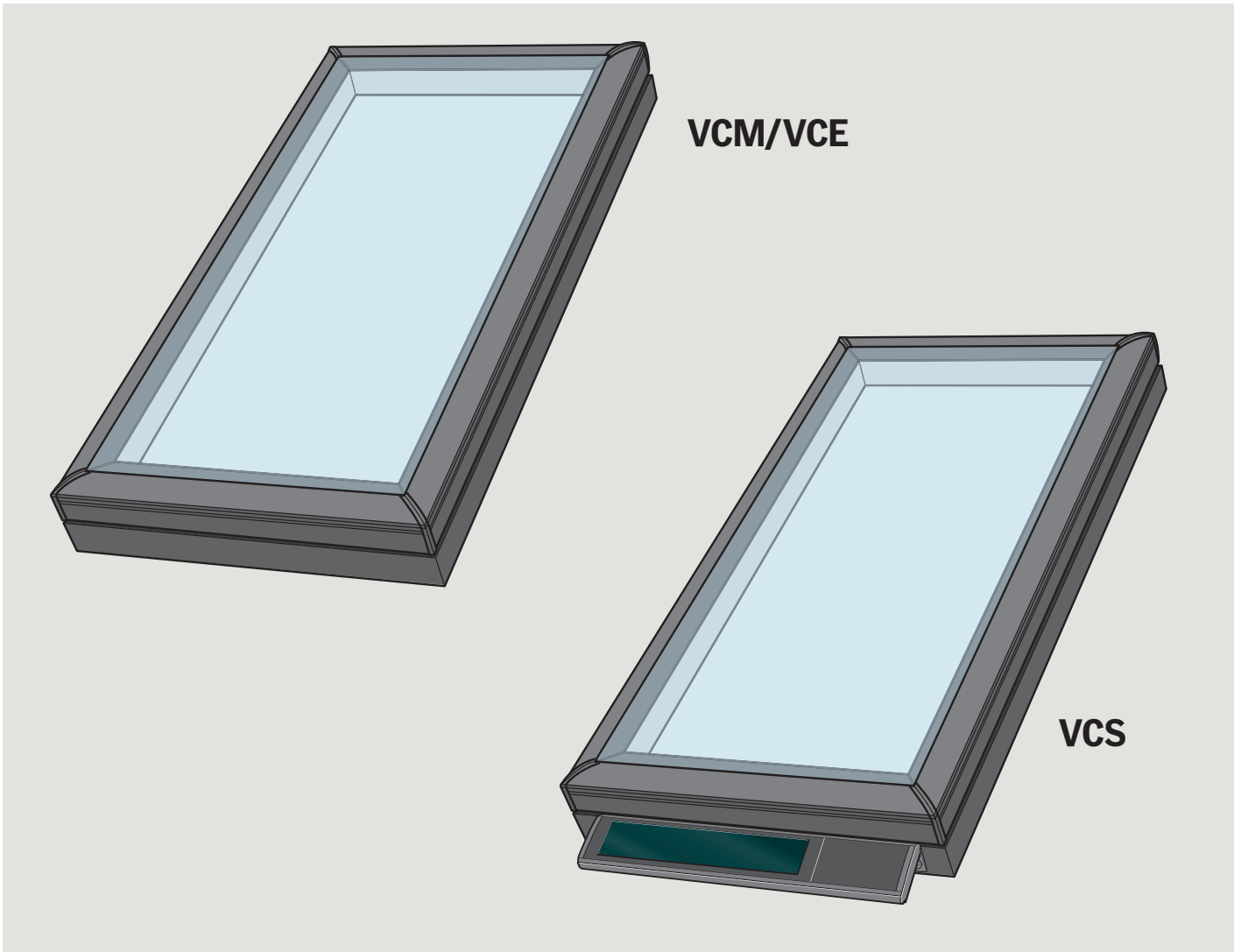


**VELUX® VCM**  
**VELUX INTEGRA® VCE**  
**VELUX INTEGRA® Solar VCS**



**Curb Mounted Skylight Installation Instructions**



# Index

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## Important installation requirements

### Roof pitch

VCM/VCE/VCS is designed for roof pitches 0°-60°.

### Special consideration for applications below roof pitch 15°:

- Any condensation that forms on the glass due to high humidity may drip.
- Standing water and dirt left on the glass may over time cause smudging and corrosion of the glass.

Neither of the two above stated occurrences are covered under the VELUX warranty.

### Flashing

Flashing ECL is designed for roof pitches 10°-60°.

Flashing ECW is designed for roof pitches 14°-60°.

### Vapour barrier

Where a vapour barrier is part of the roof construction, this barrier must be extended and connected to the skylight curb.

### Importance of proper installation

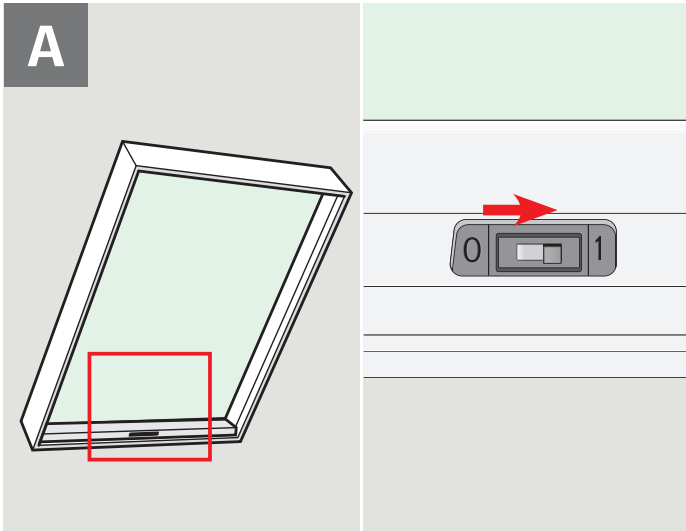
Satisfactory product performance depends on proper installation.

Seller accepts no responsibility whatsoever for failure of an installer to install VELUX® roof windows and skylights in accordance with these installation instructions. Although VELUX roof windows and skylights are designed and manufactured to the highest standards, severe climatic exposure as well as adverse indoor conditions (i.e. high humidity) may produce temperature conditions which exceed product performance standards. In these cases, special preventive measures may be necessary. Seller reserves the right to implement product changes for improvement without prior notification.

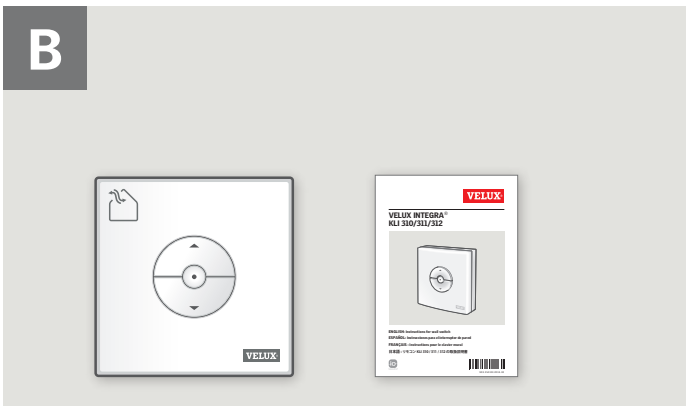
Refer to instructions for accessory type in question or contact your VELUX sales company for further information.

**Seller assumes no obligation whatsoever for failure of an architect, installer or building owner to comply with all applicable laws, ordinances, building codes and safety requirements.**

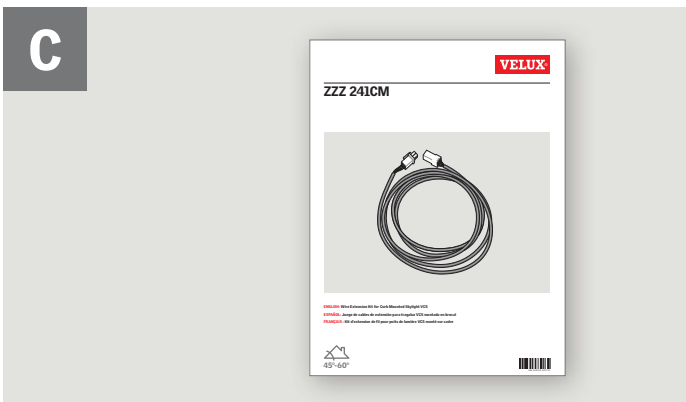
This page is for solar skylight VCS only.



Before mounting the skylight: Turn on power.



Control: See enclosed instructions for wall switch.



For steep roof pitch above 45°, use wire extension kit ZZZ 241CM to relocate the solar panel and rain sensor as shown in the enclosed instructions for ZZZ 241CM.



## VCE/VCS – Important information/Warnings

Read instructions carefully before installation and operation as incorrect installation can lead to severe injury. Keep instructions for future reference and hand them over to any new user.

### Electrical connection (VCE only)

It is customer's responsibility:

- To contact a qualified electrical installer.

### Electrical Shock Hazard (VCE only)

- Disconnect power to the junction or outlet box before servicing the skylight.
- Do not have a fuse in the neutral circuit. This could result in a fire, electrical shock or other personal injury.

### To reduce the risk of fire, personal injury and death:

- Do not install the skylight in a location or at a height where unsupervised children may be present.
- Always switch off power to the skylight operator at the service panel when connecting the skylight, when installing accessories and whenever the operator cover is removed.
- On suspicion of malfunction, switch off power and call for service.

### Safety

- The skylight is to be installed more than 2.5 m above the floor.
- The skylight can be used by persons (aged 8 years and above) with sufficient experience and knowledge if they have been given instruction concerning safe use and understand the hazards involved. Cleaning and user maintenance must not be done by unsupervised children.
- Children must not play with the skylight and its electrical products. The remote control should be kept out of reach of children. Do not allow children near an open skylight.
- Before operating, ensure that the skylight with electrical products can be operated without risk of damage to property or injury to people or animals.
- For personal safety, never have head, hand, arm or any other body part out of or through the opening of the skylight without first having switched off power.
- If repair or adjustment work is needed, disconnect power and ensure that it cannot be reconnected unintentionally.
- It is recommended to place a remote control in the room where the skylight and its electrical products have been installed.
- Make sure that the insect screen is installed before putting the skylight into use.
- Remote control:  
FCC ID: XSG831641 and IC ID: 8642A-831641  
Certificate of Radio Equipment in Japan: No. 10215191/AA/00  
Window operator (solar skylight operator):  
FCC ID: XSG832876 and IC ID: 8642B-832876  
Window operator (electric skylight operator):  
FCC ID: XSG863765 and IC ID: 8642A-863765  
This device complies with part 15 of the FCC and RSS-210 of the IC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
- This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to

correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
  - Increase the separation between the device and receiver.
  - Connect the device to an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.
- FCC Radiation Exposure Statement: This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.
  - The term "IC:" before the device certification number signifies that the Industry Canada technical specifications were met.

### Function

- If the VCE rain sensor gets wet or the VCS acoustical rain sensor detects rain, the skylight automatically closes.
- Disabling the rain sensor while the skylight is open creates a risk of water to the interior of the building.
- Disabling the rain sensor while the skylight is open implies a risk of rain water entering the building.
- If the rain sensor is activated, the skylight will close within approximately 30 seconds. If the skylight is activated with the remote control or another activation control, it will take up to one minute until the skylight is completely closed. Therefore, in case of sudden rain, water may enter the room before the skylight is closed.
- In case of snow and/or ice, the operation of the skylight may be blocked resulting in damage to the skylight.

### Product

- This product has been designed for use with genuine VELUX products. Connection to or use with other products may cause damage, malfunction or injury.
- Electrical products must be disposed of in conformity with all local codes, ordinances, rules and regulations for electronic waste and not with household waste.
- Used remote control batteries have to be disposed of in conformity with the relevant environmental regulations and ordinances.
- Expected battery lifetime of the remote control: Approx 1 year.
- The packaging can be disposed of with usual household waste.
- Radio frequency band: 2.4 GHz.
- Radio frequency range: 110 yards (100 m) free field. Depending on building construction, the indoor range is approx 30 ft (10 m). However, constructions with reinforced concrete, metal ceilings and plaster walls with steel members may reduce the range.

### Maintenance and service

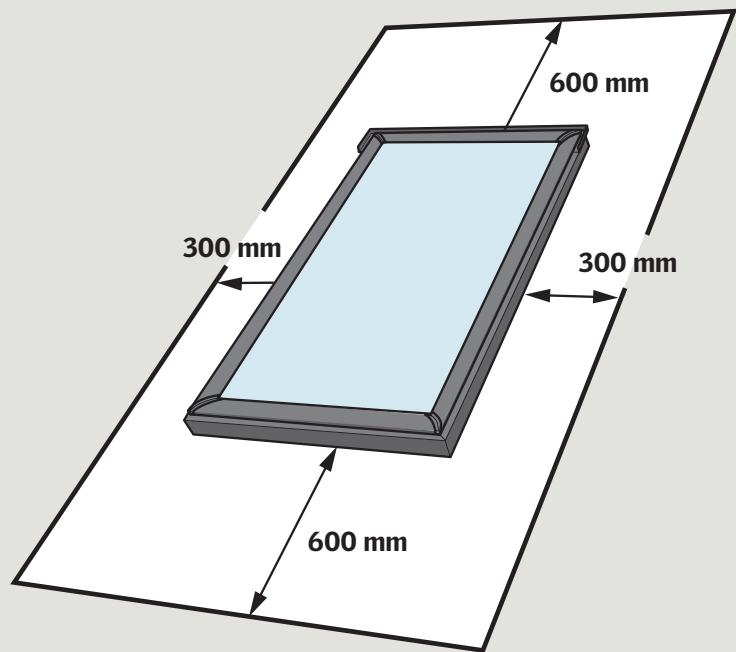
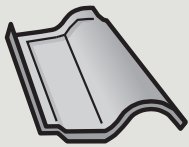
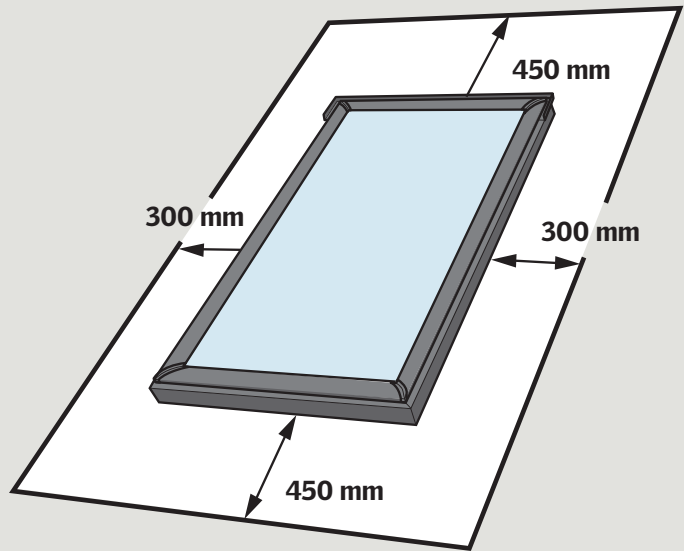
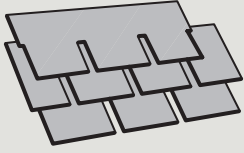
- Disconnect power before carrying out any maintenance, repair, adjustment or service work to the skylight or products connected to it (including battery backup KLB 100, if installed) and ensure that it cannot be reconnected unintentionally.
- Maintenance and installation must be carried out in consideration of Health and Safety at work requirements.
- There are no serviceable parts inside the skylight operator.
- Spare parts are available through your VELUX sales company. Please provide information from the data plate.
- If you have any technical questions, please contact your VELUX sales company, see telephone list or [www.velux.com](http://www.velux.com).



io-homecontrol® provides advanced and secure radio technology that is easy to install. io-homecontrol® labelled products communicate with each other, improving comfort, security and energy savings.

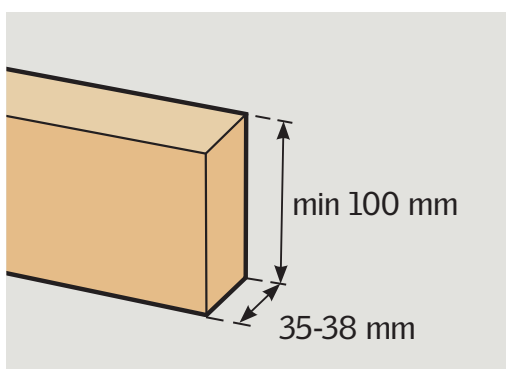
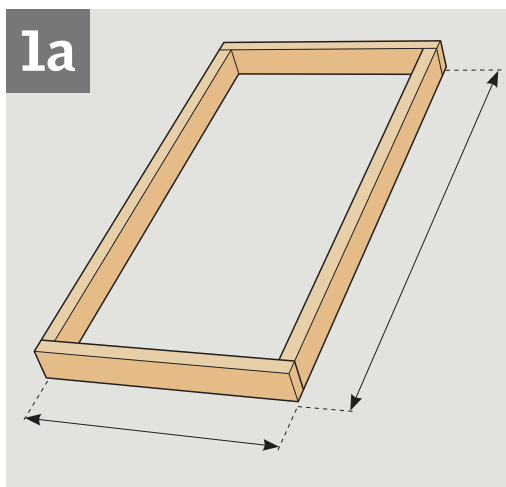
[www.io-homecontrol.com](http://www.io-homecontrol.com)

## Clearance around installations



Maintain illustrated clearances between skylight frame and critical areas such as valleys, ridges, slope changes and roof-to-wall-intersections.

## Outside curb dimensions - Standard set up



Skylight size	Outside curb dimensions	Maximum flashing dimensions
2222	645 mm x 645 mm	665 mm x 665 mm
2234	645 mm x 950 mm	665 mm x 970 mm
2246	645 mm x 1255 mm	665 mm x 1275 mm
3030	850 mm x 850 mm	870 mm x 870 mm
3046	850 mm x 1255 mm	870 mm x 1275 mm
4646	1255 mm x 1255 mm	1275 mm x 1275 mm

Build curb according to measurements in the chart. Use lumber with an actual thickness of (35-38 mm) and a minimum height of 100 mm. Curb height and attachment should comply with building codes and regulations and be secure enough to transfer the skylight loads to the framing members.

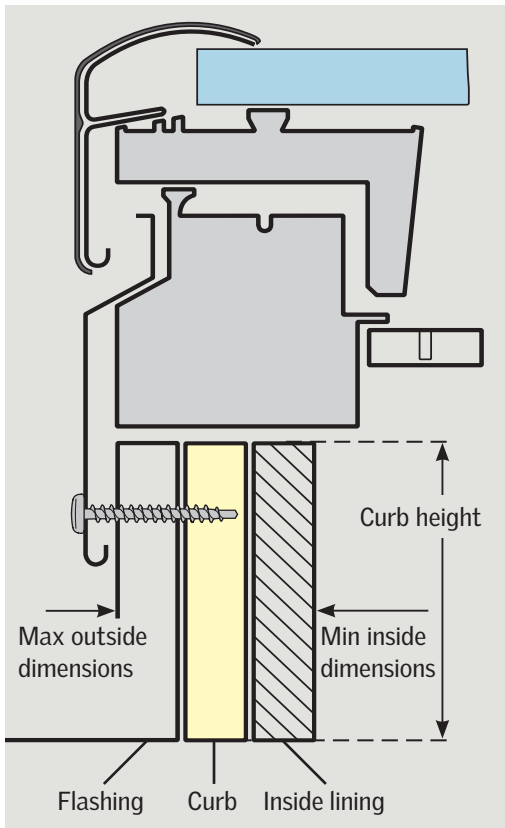
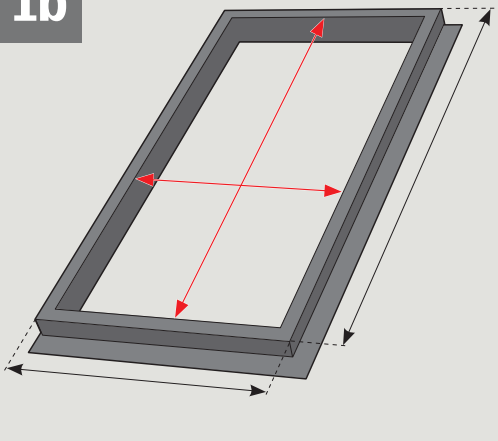
**Note:** Skylight VCM/VCE/VCS cannot be rotated.

The skylight operator has to be installed at the bottom of the skylight curb.

Please contact your VELUX sales company for further information.

## Curb build dimensions - Advanced set up allows flexibility in materials used

1b



Skylight size	Max outside dimensions - flashing	Min inside dimensions - finished/lined inside curb
<b>2222</b>	665 mm x 665 mm	540 mm x 540 mm
<b>2234</b>	665 mm x 970 mm	540 mm x 845 mm
<b>2246</b>	665 mm x 1275 mm	540 mm x 1150 mm
<b>3030</b>	870 mm x 870 mm	745 mm x 745 mm
<b>3046</b>	870 mm x 1275 mm	745 mm x 1150 mm
<b>4646</b>	1275 mm x 1275 mm	1150 mm x 1150 mm

Build curb according to measurements in the chart. Curb height and attachment should comply with building codes and regulations and be secure enough to transfer the skylight loads to the framing members.

**Note:** Skylight VCM/VCE/VCS cannot be rotated.

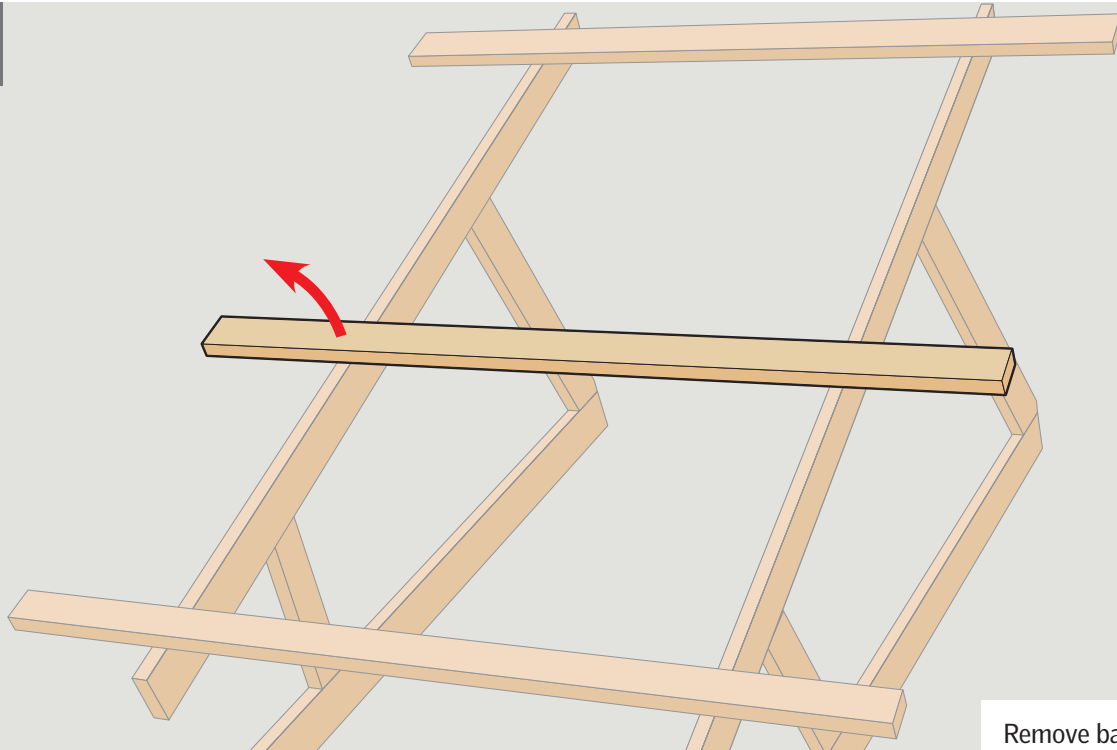
The skylight operator has to be installed at the bottom of the skylight curb.

Please contact your VELUX sales company for further information.

## Roof framing

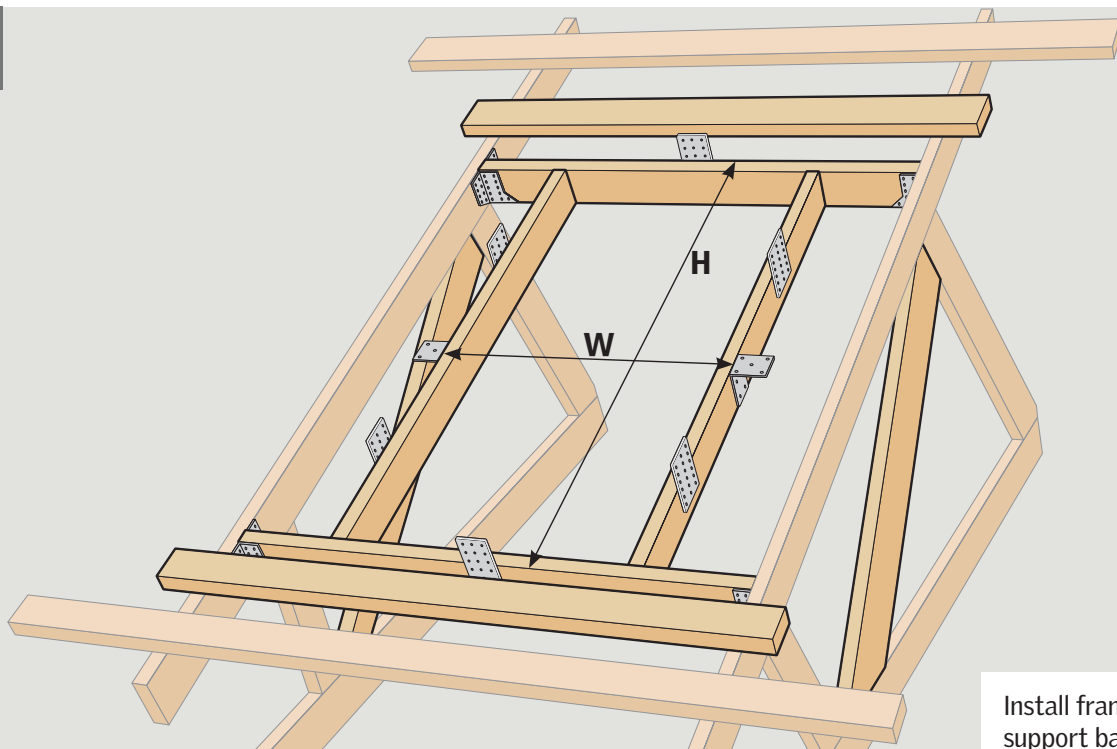
For cyclonic or high wind area requirements, contact your VELUX sales company or visit the national VELUX websites for more and detailed information.

2



Remove batten.

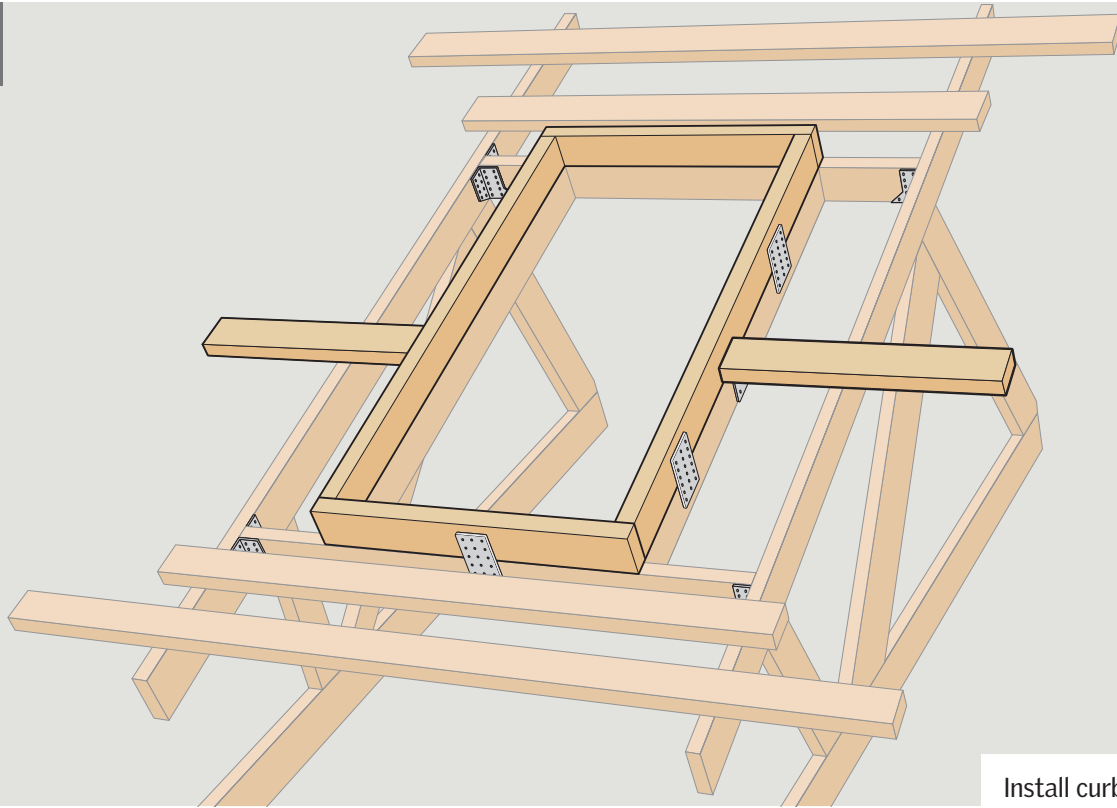
3



Install framing members and support battens.



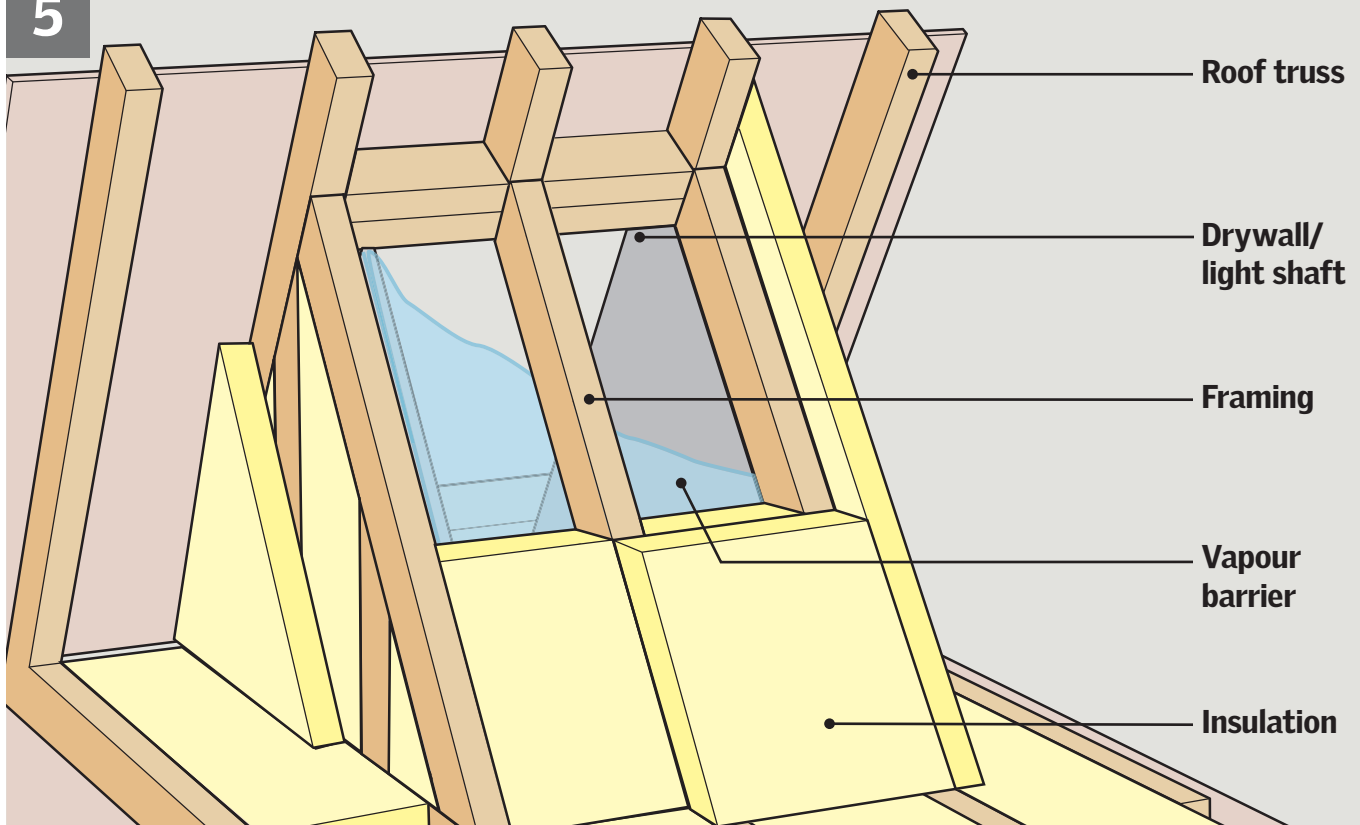
4



Install curb and roof batten.

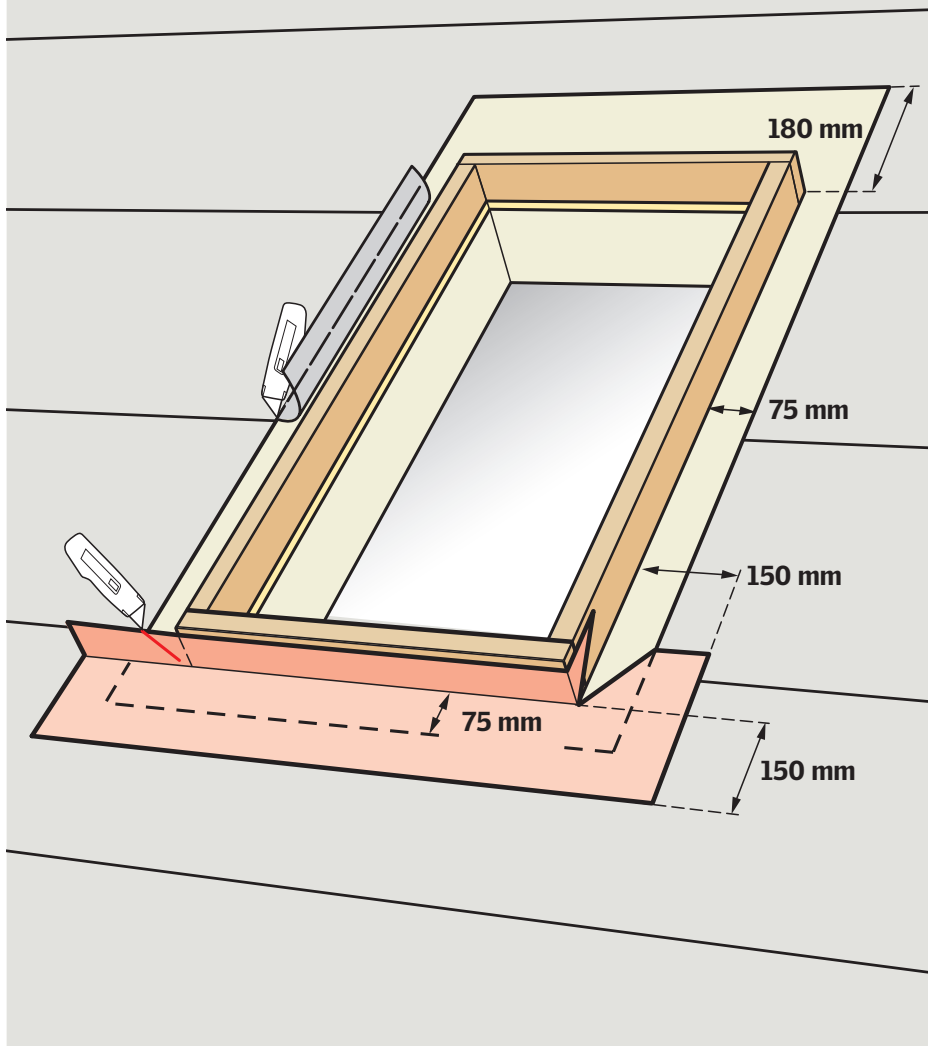
## Light shaft application

5



## Installing underlayment

6



Skylight curbs should be completely wrapped in self-adhesive membrane to ensure waterproofing. To achieve this waterproofing, consider using VELUX roofing underlayment ZOZ 216 (225 mm wide).

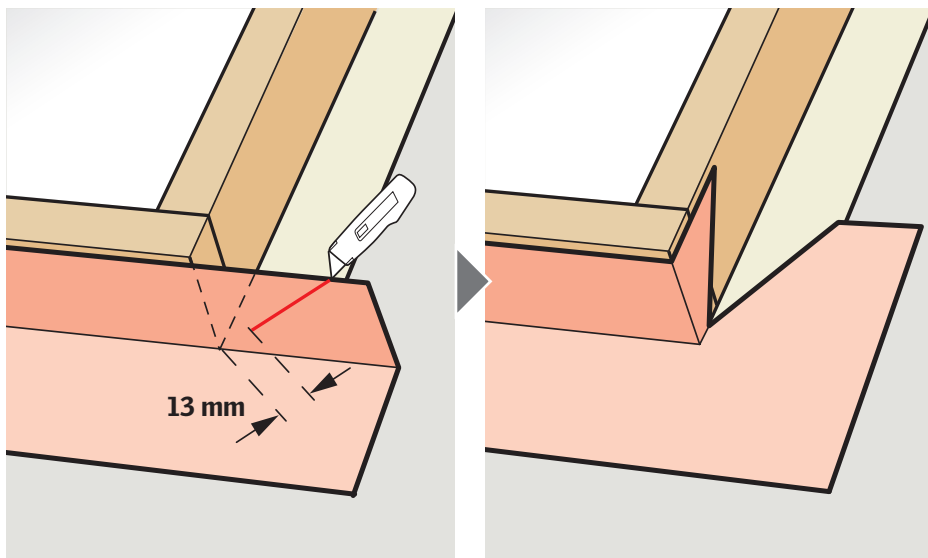
ZOZ 216 must be applied before installing the flashing.

First cut back felt (75 mm) at bottom and sides of skylight, and (180 mm) at top of skylight.

**Note:** In case of roof pitches below 15° and if snow accumulation on the roof is likely, waterproofing is achieved by installing a continuous self-adhesive waterproof membrane beneath the roofing material and flashing material.

Waterproof membrane around the skylight curb must be properly integrated with waterproof membrane on roof decking.

Skylight curbs with heights over (90 mm) may require additional ZOZ 216 material for proper installation.

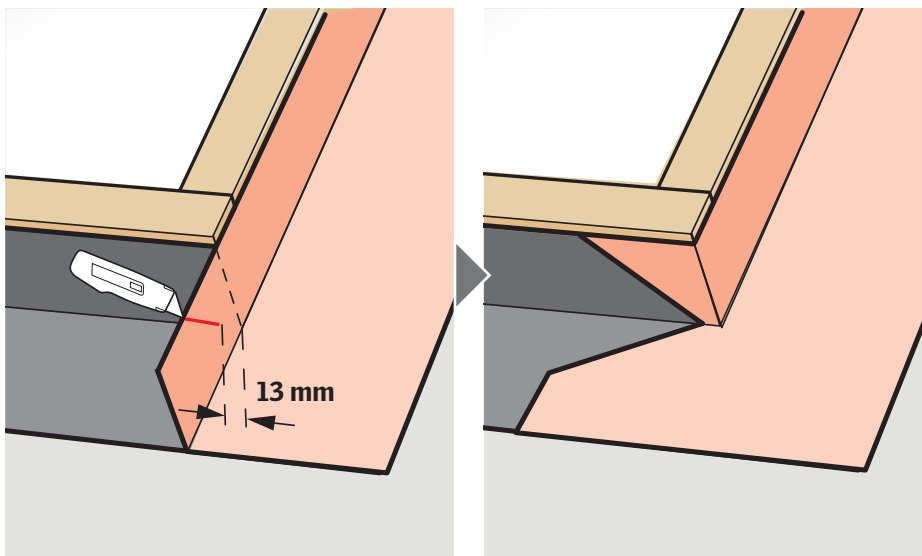
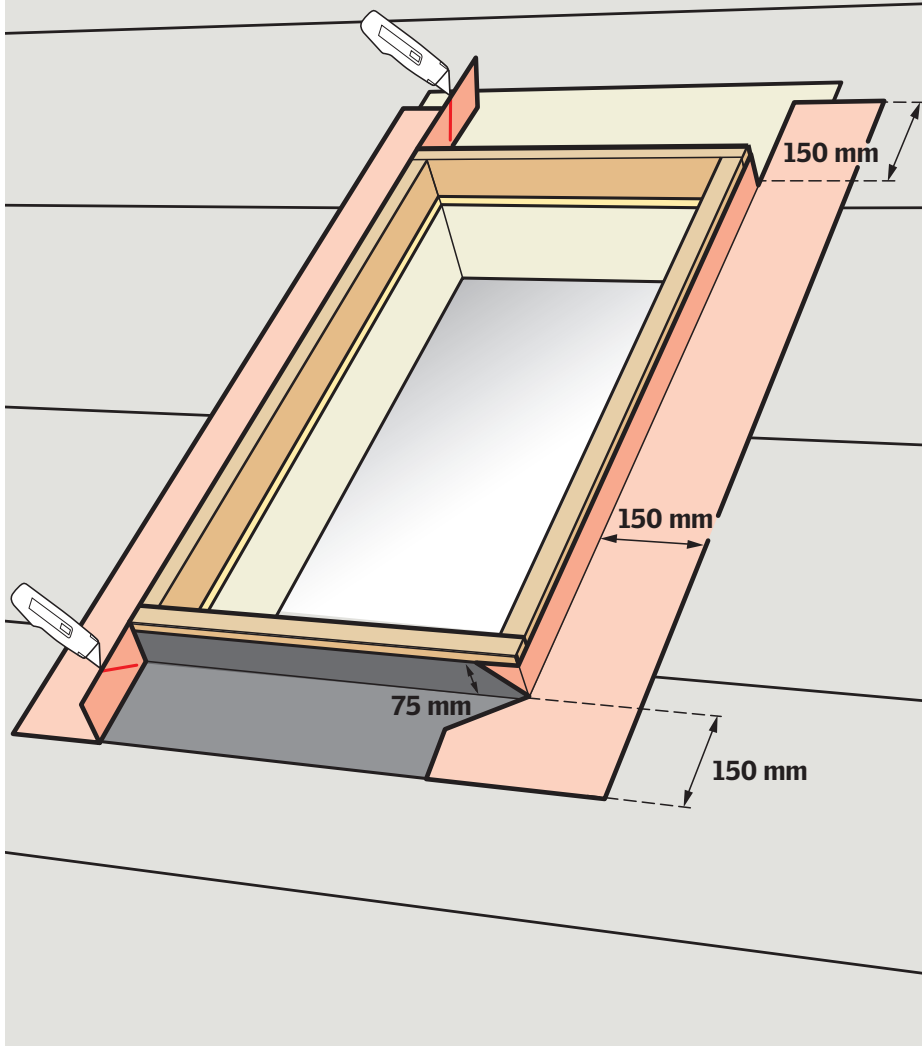


## Installing underlayment

7

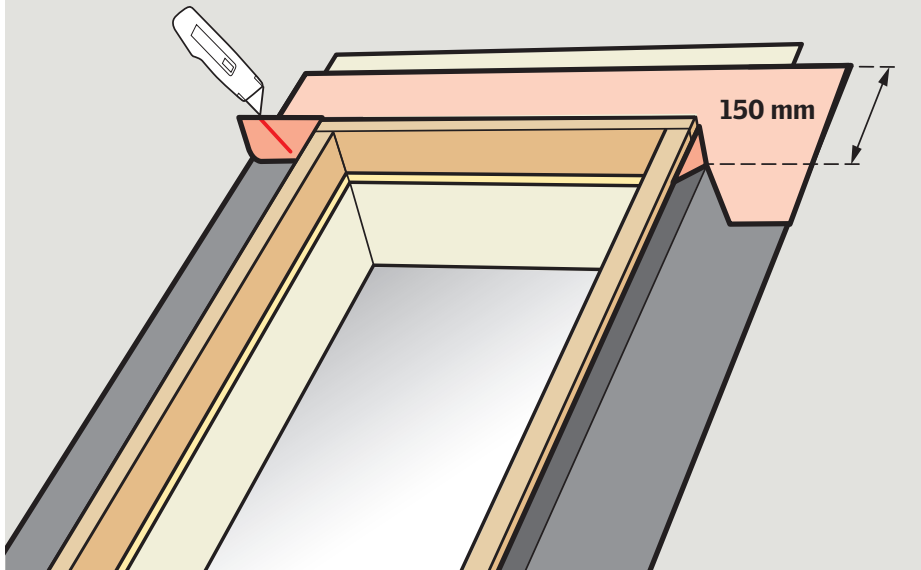
Consider wrapping the curb with VELUX roofing underlayment ZOZ 216 and create water-shedding laps over felt at bottom and sides of skylight **6**, **7**.

**Note:** Observe the measurements stated in **6** and **7**.

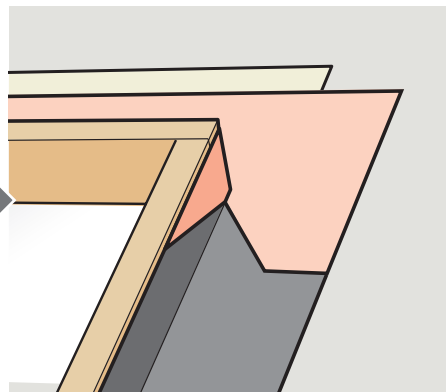
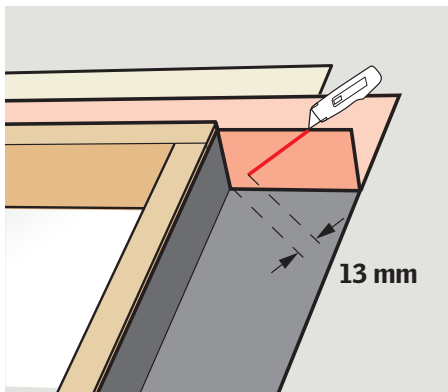


## Installing underlayment

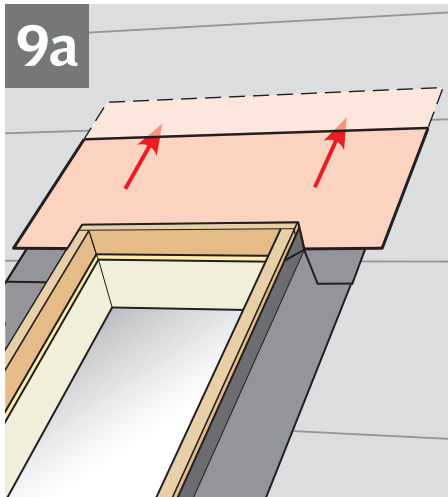
8



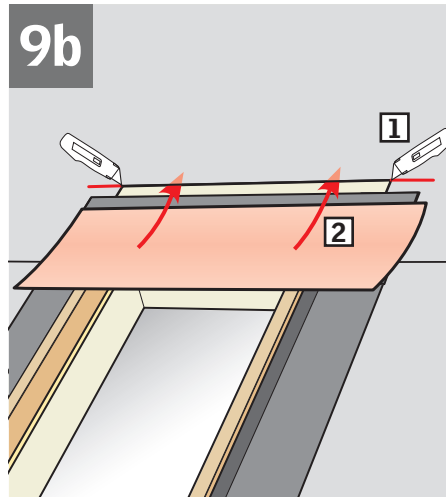
Consider wrapping the curb at top frame of skylight with VELUX roofing underlayment ZOZ 216 and create proper water-shedding lap.



9a



9b

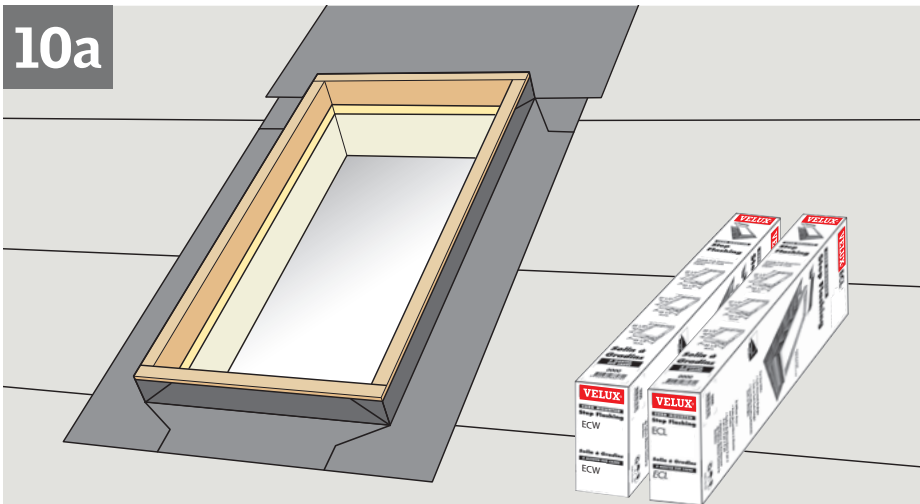


To allow for proper drainage, interweave felt with additional standard roofing underlayment as shown in 9a for new construction applications.

For retrofit applications, interweave felt with additional standard roofing underlayment as shown in 9b.

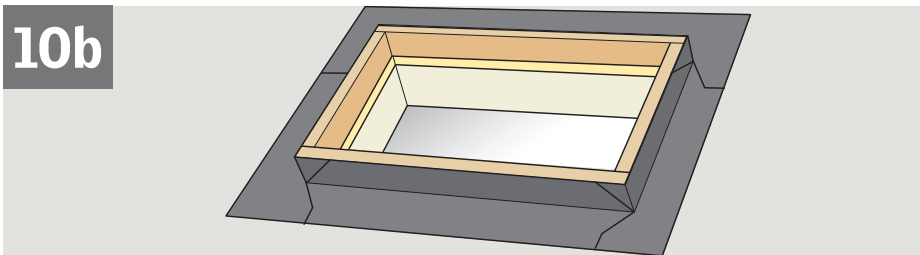
## Installing flashing

10a



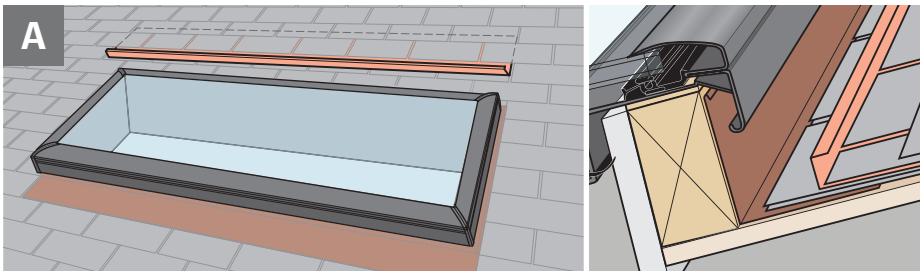
For thin roofing materials, use flashing ECL. ECL is designed for roof pitches 10°-60°.  
For profiled roofing materials, use flashing ECW. ECW is designed for roof pitches 14°-60°.

10b

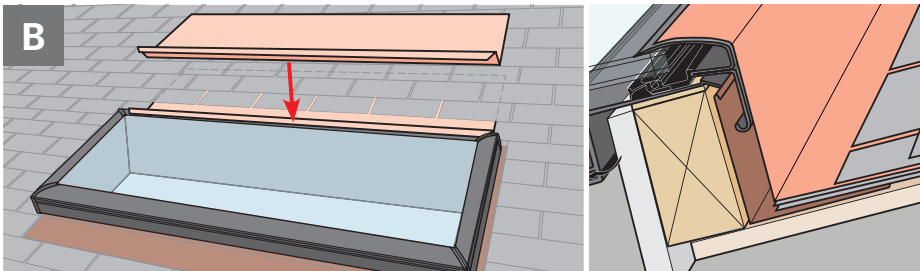


If custom-made flashing is used, consider options **A**, **B** or **C**.

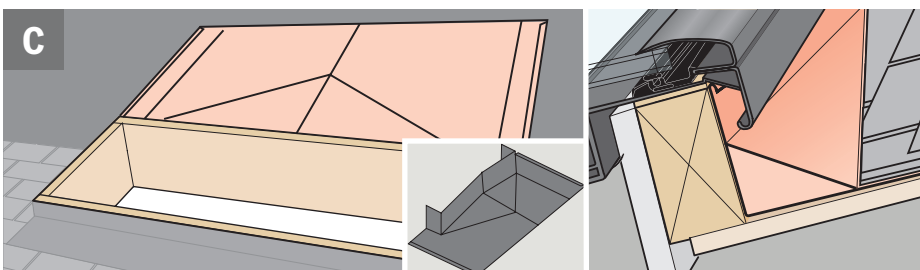
A



B

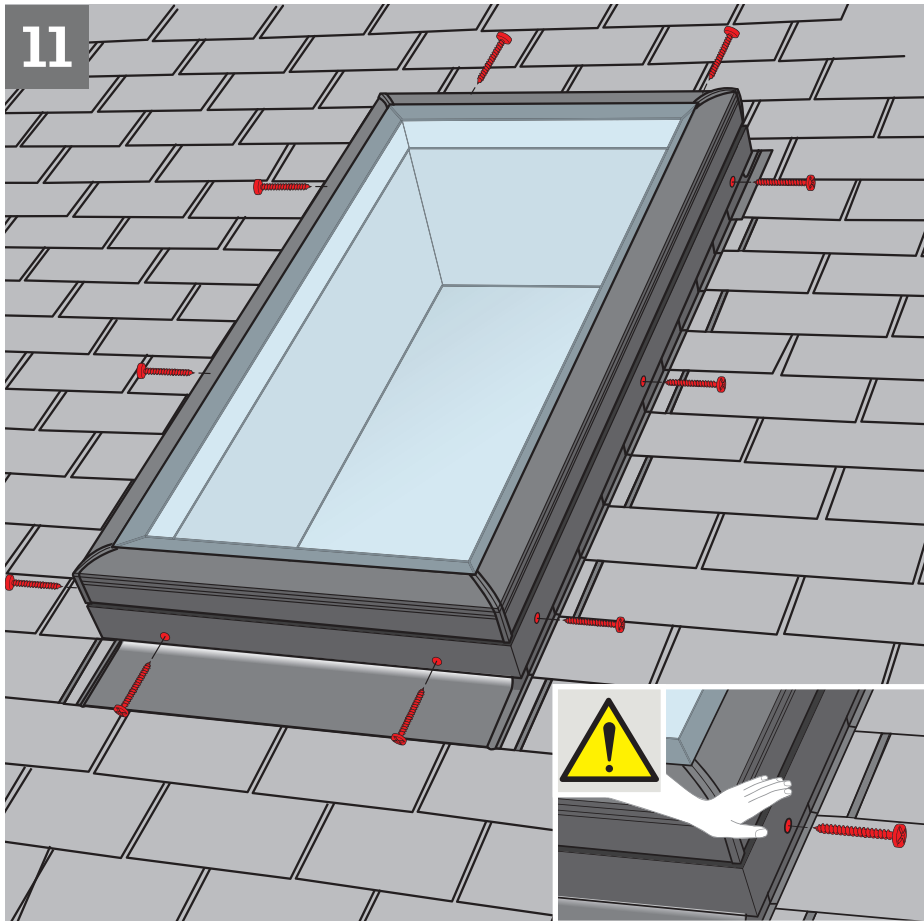


C



## Mounting skylight

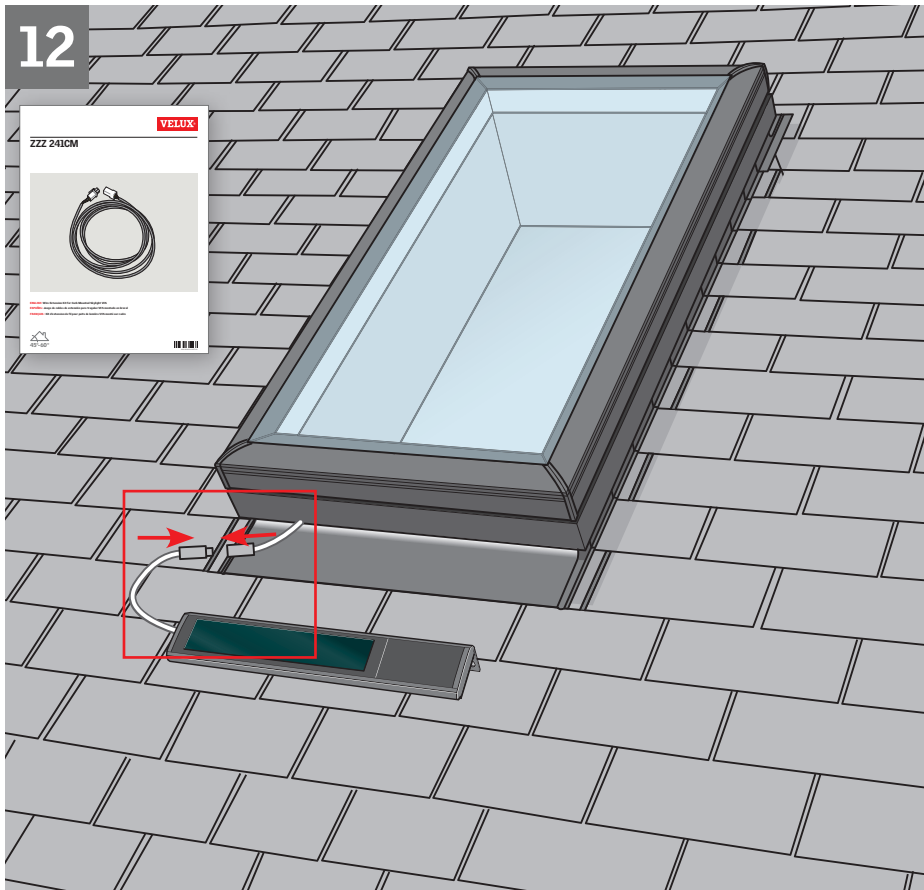
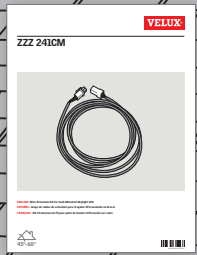
11



Center the skylight on top of the curb and secure with 45 mm pan head stainless steel screws provided. Screws will penetrate the curb by at least 19 mm.

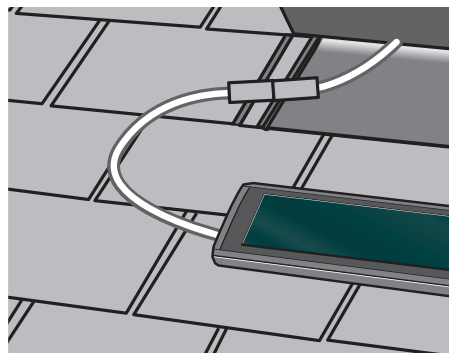
⚠ Apply downward pressure to the top of the skylight frame while securing the screws.

12

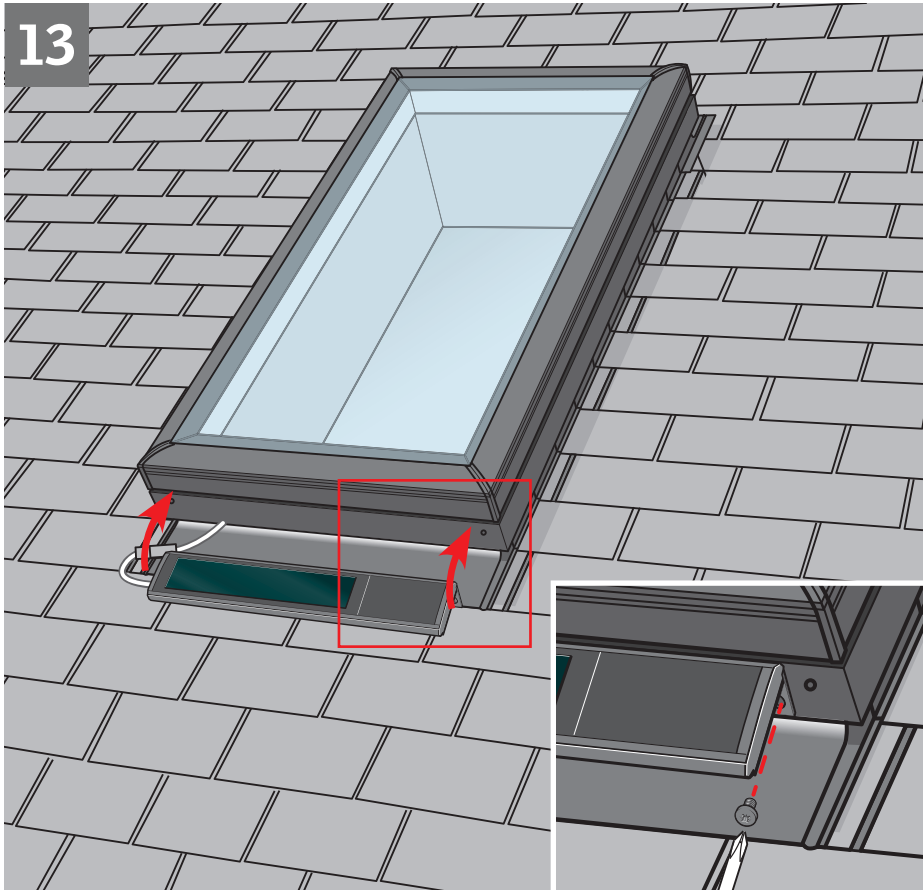


If not done previously, connect wire as shown.

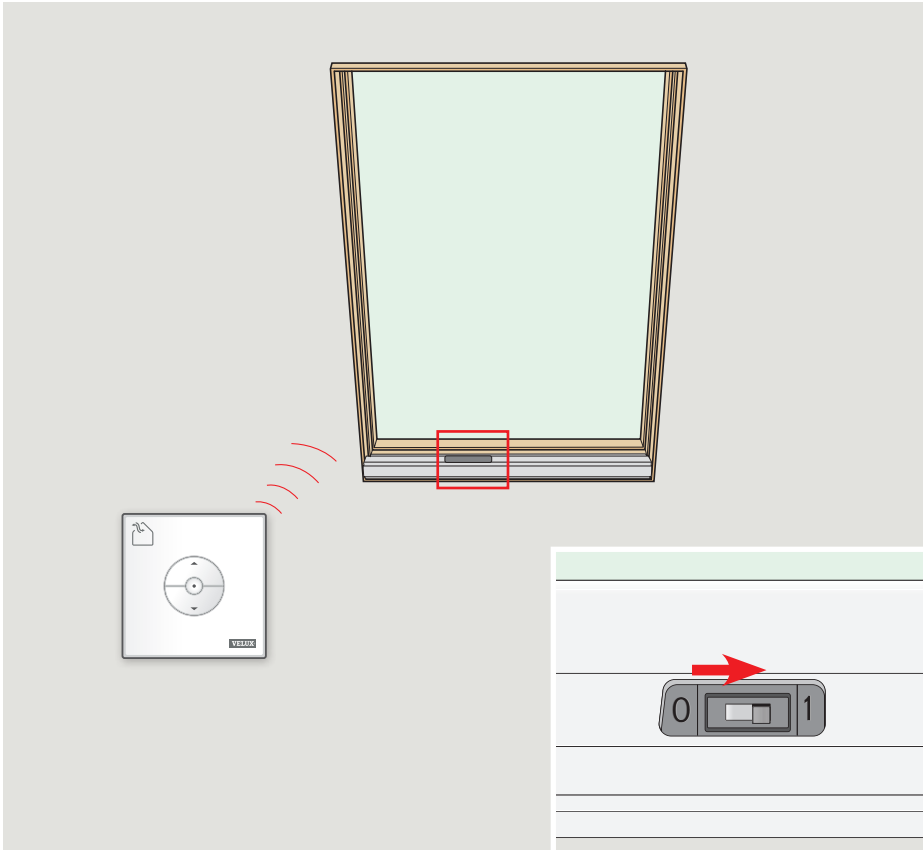
For steep roof pitch above 45°, use wire extension kit ZZZ 241CM to relocate the solar panel and rain sensor as shown in the enclosed instructions for ZZZ 241CM.



13

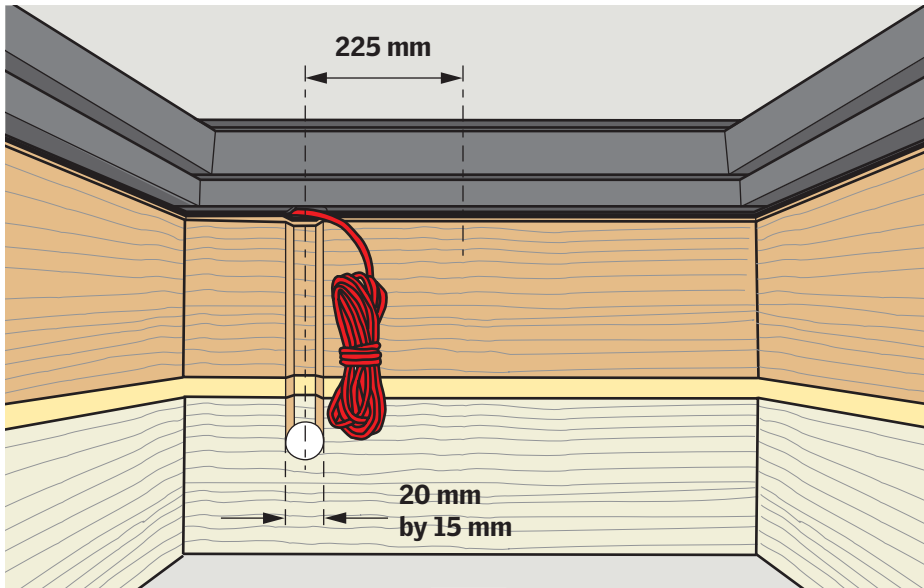


Install solar panel as shown and secure with screws.



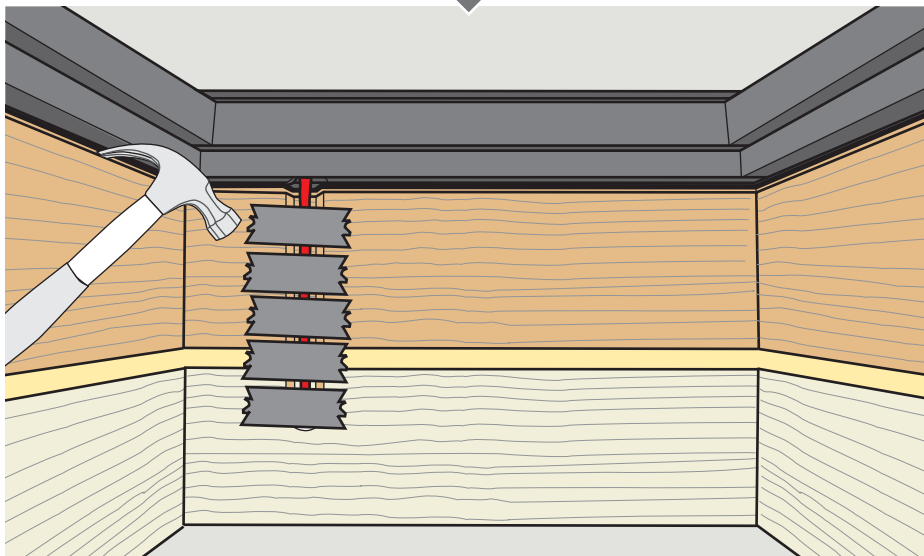
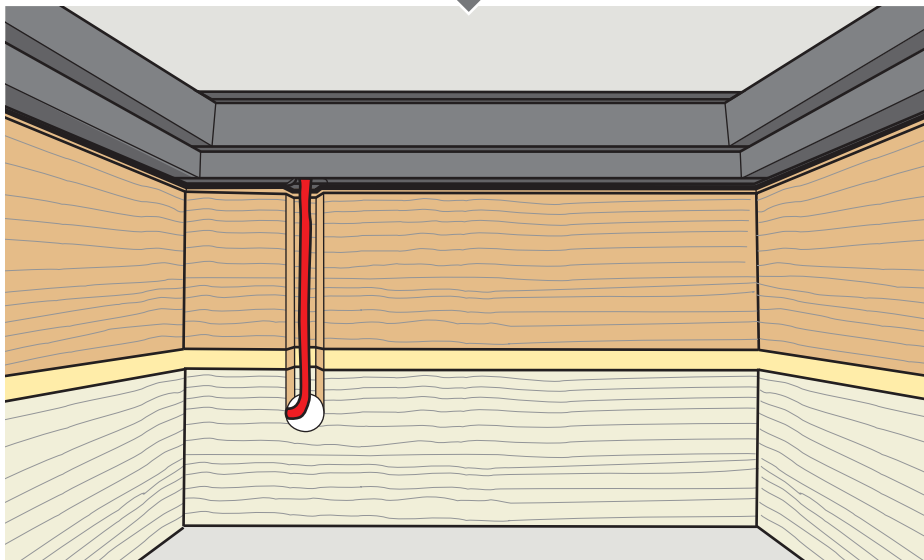
If not done already, turn on power and refer to instructions for the wall switch for registration and operation of skylight.

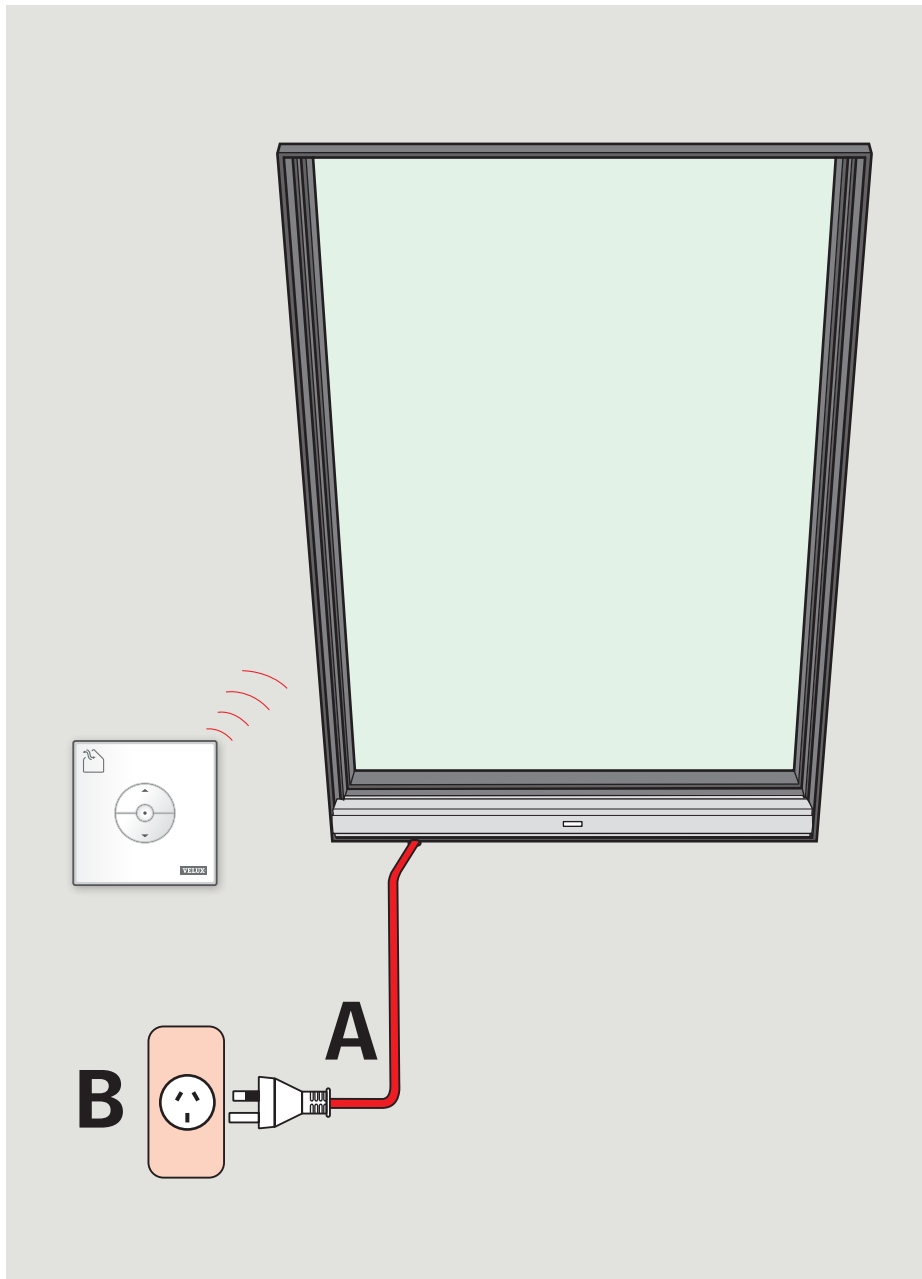




Prepare the framing for electrical wire (applies to VCE only).

All wiring must be done with factory attached power cable. Wiring of power cable must be done in accordance with local codes and ordinances.





A junction box or an outlet box (not provided with skylight) is required for permanent connection of the 2 m skylight power cable.

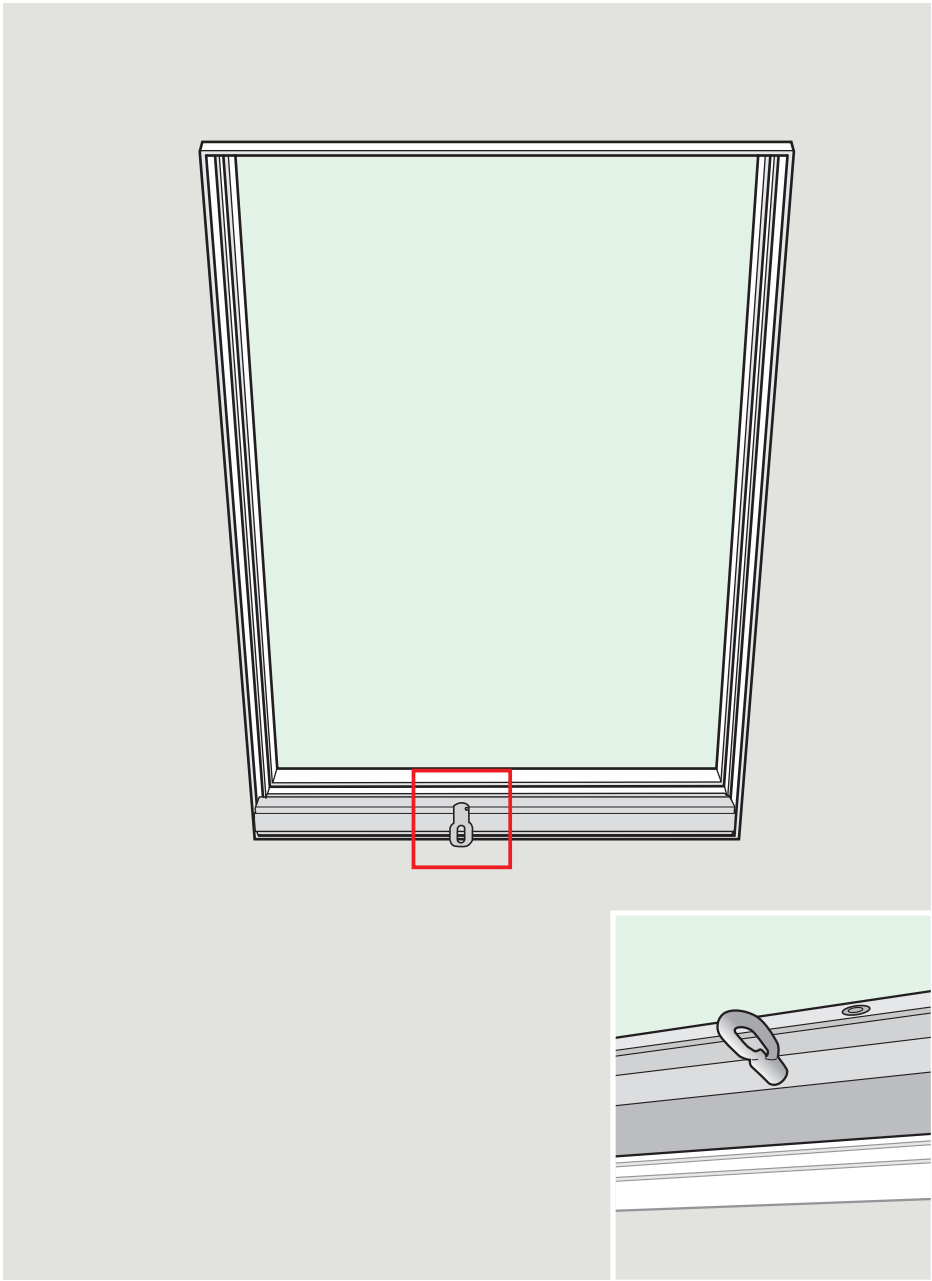
**AU/NZ:** A single phase 240 V, 50 Hz, 40 W branch circuit (continuous electrical feed) is required.

The branch circuit must be protected by a 15 A circuit breaker or time delay fuse. The junction or outlet box in which the skylight power cable is terminated must be accessible for inspection after installation is complete. A listed junction or outlet box and listed wire nuts must be used for the connection to the branch circuit.

Refer to instructions for the wall switch for registration and operation of skylight.

**A** Cable (supplied with skylight): 2 m with plug.

**B** Junction or outlet box (not provided with skylight).





**Home owner information**

**Please complete and give to home owner.**

Date: .....

Product number (stamped on product exterior): .....

Quantity: .....

Flashing: .....

Accessories installed:

Model .....

Size .....

Variant code .....

Roofing material: .....

Installation contractor: .....

Dealer purchased from: .....

**AU:** VELUX Australia Pty. Ltd  
1300 859 856

**NZ:** VELUX New Zealand Ltd.  
0800 650 445

[www.velux.com](http://www.velux.com)