



EN

Skylux[®] iDome[™] & iWindow[™] Flex

Mounting instructions

Art.N° 49846

**SKYLUX**
Hello daylight!

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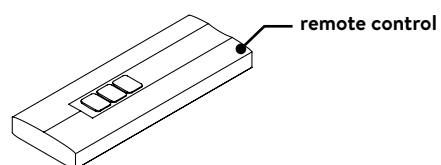
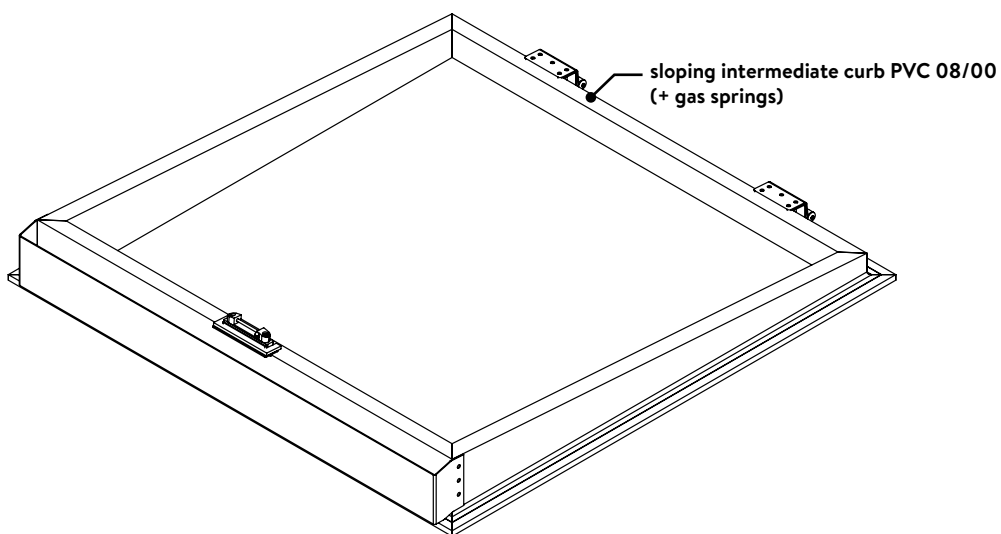
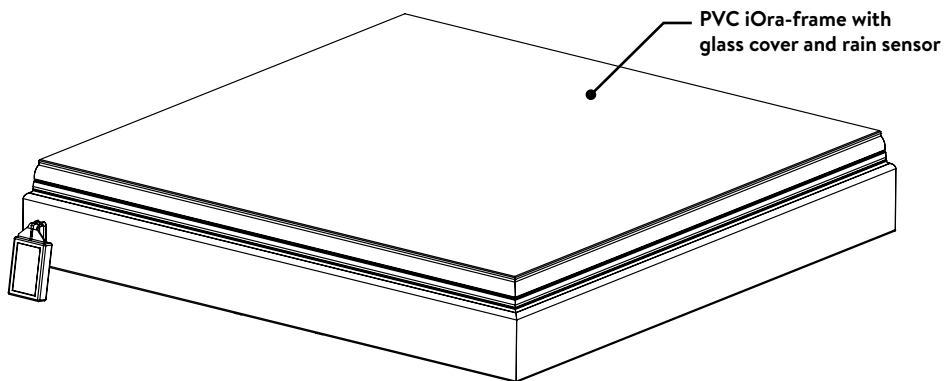
1. Scope of delivery

1x sloping intermediate curb PVC 08/00 (4°)

1x PVC iOra frame with glass cover (1x rain sensor with fastening brackets; already attached to the frame)

1x remote control + wall bracket for remote control with attachment screw

1x rubber for cable passage



1x rubber cable passage

2. General

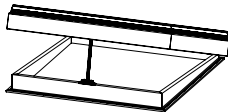
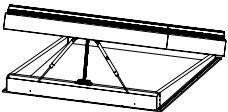
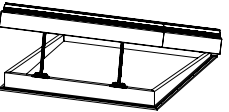
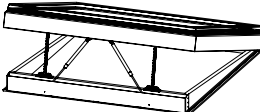
The Skylux iDome™ Flex or iWindow2/3™ Flex is the Skylux openable hybrid/flat glass skylight for applications in flat roofs with integrated 230 V chain motor in the frame, that combines an optimal light incidence with extremely high insulation values (low U-values). The openable system is composed of an insulating PVC frame, padded with EPS. Rain detection is always provided, which closes the skylight automatically in case of precipitation. A sloping intermediate curb PVC 08/00 is also supplied, which inclines the skylight with an angle of at least 4°. This openable skylight is suited for fresh air ventilation with a maximum opening of 30 cm.

The transparent section is one of the following versions:

- Glass daylight element:
The PVC frame of the Skylux iWindow2™ is provided with double layered safety glass HR++ or a Skylux iWindow3™ with triple layered safety glass HR+++ , including the sleek frame made of anodised aluminium. The glass is tempered and provided with a ceramic edge trim for a beautiful and visual integration in the roof
- Hybrid skylight:
The PVC frame of the Skylux iDome Flex is provided with non-tempered double layered safety glass and always with a single-walled Skylux plastic skylight (at choice) on top

3. Versions

The iDome™, iWindow2™ and iWindow3™ Flex are available in following versions in function of weight class and dimension:

			
Weight class 1	Weight class 2	Weight class 3	Weight class 4
Single motor	Single motor + gas springs	Double motor	Double motor + gas springs

Summary of the different versions:

Daylight opening (mm)	600 x 600	600 x 900	800 x 800	900 x 900	800 x 1300	1000 x 1000	1200 x 1200	1000 x 2000
iDome Flex	1 motor	1 motor	1 motor	1 motor + gas springs 250 N	1 motor + gas springs 250 N	1 motor + gas springs 250 N	2 motors	2 motors + gas springs 300 N
iWindow2 Flex	1 motor	1 motor	1 motor	1 motor	1 motor + gas springs 250 N	1 motor + gas springs 250 N	2 motors	2 motors + gas springs 300 N
iWindow3 Flex	1 motor	1 motor	1 motor + gas springs 250 N	1 motor + gas springs 250 N	2 motors	2 motors	2 motors + gas springs 300 N	/

4. Safety precautions

- The operating voltage is 230 V AC
- The connection can only be made by qualified installers of electric installations and in accordance with further mentioned scheme
- To avoid crushing of body parts, the zone of the openable section must always be avoided during installation

Before starting the installation or maintenance of the Skylux iWindow™ or Skylux iDome™ Flex, all necessary safety measures must be complied with. The Skylux iWindow2/3™ Flex or Skylux iDome™ Flex needs to be installed by a professional.

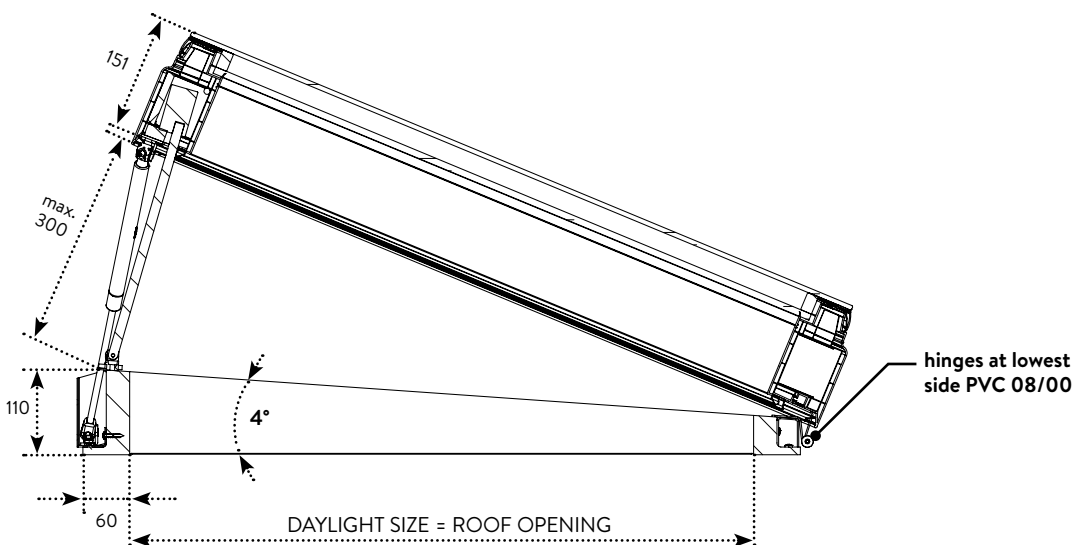
Declaration of performance DoP via www.skylux.be.

5. Provisions

- The product is mounted on a flat (0°) or slightly sloping (max 21°) roof
- Current and operating voltage of 230 V AC is necessary during the installation
- Provide suitable lifting gear or sufficient manpower (at least two persons) to install the heavy glass product

6. Prepare the roof opening

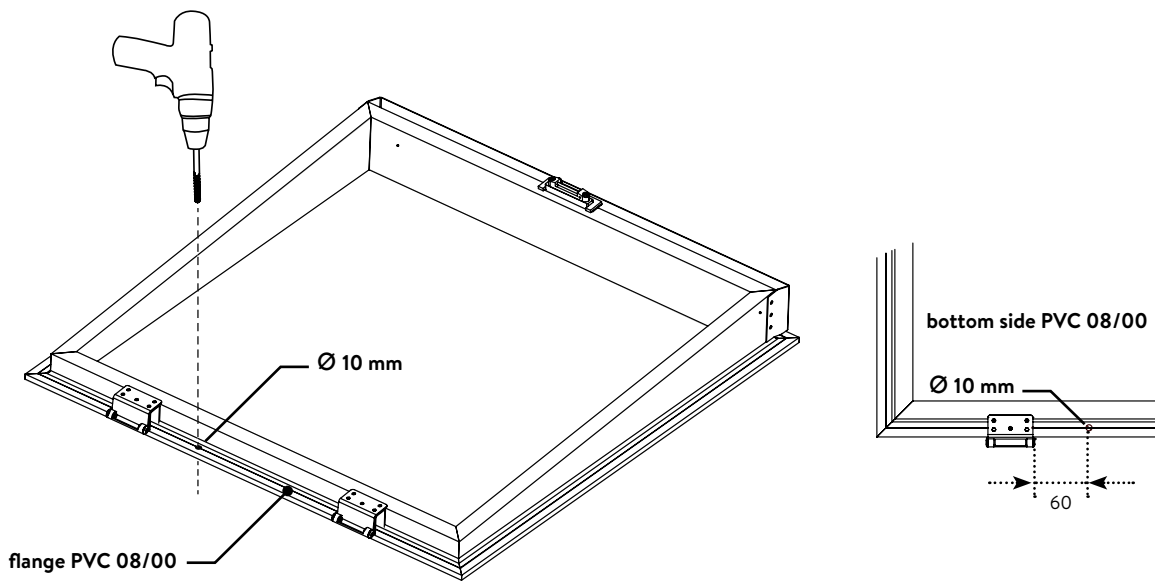
The size of the finished roof opening is equal to the daylight opening of the daylight element. Here, you must consider that the hinges are always on the lowest side of the daylight element.



Making a cable passage or using the supplied cable passage:

Making a cable passage:

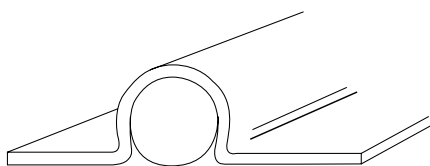
The cable comes out of the PVC frame on the hinge side of the setup. Provide a cable passage on this spot of the roof so that 230 V can easily be connected. Also **drill** a hole through the **flange** of the sloping intermediate curb PVC 08/00 to push the cable to the inside. Standard 2- and 3-wire cabling must be provided. The cable with two wires is used to feed the setup and the cable with three wires is used for power switching with an impulse switch.



OR

Setup cable passage can be used:

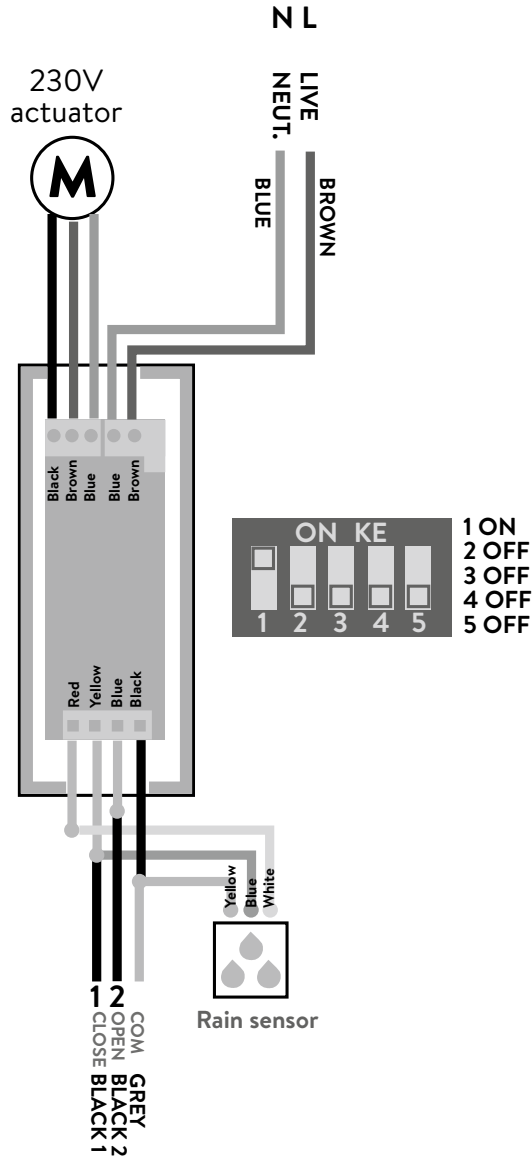
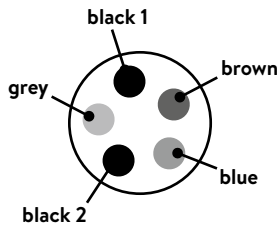
If the installation of the cable towards the inside of the new or existing curb is difficult, then the cable can also be laid on the outside of the roof structure by using the **supplied rubber cable passage**.



Wiring diagram for connection of single or double motor:

The electric connection of a single motor is as follows:

- Blue = NEUT. (230 V)
 - Brown = LIVE (230 V)
 - Black 1 = CLOSE
 - Black 2 = OPEN
 - Grey = COM
-) Impulse switch



The **blue (1)** and **brown wire (2)** are to be connected to the mains voltage (230 V).

The black wires, both 1 and 2, together with the grey wire must be connected to an **impulse switch**. Here, the grey wire is the common wire “COM” and the two black wires are “OPEN” and “CLOSE”. The black wire next to the brown conductor is “CLOSE”. The black wire next to the blue conductor is “OPEN”.

The DIP switches are already set as follows:

1. ON
2. OFF
3. OFF
4. OFF
5. OFF

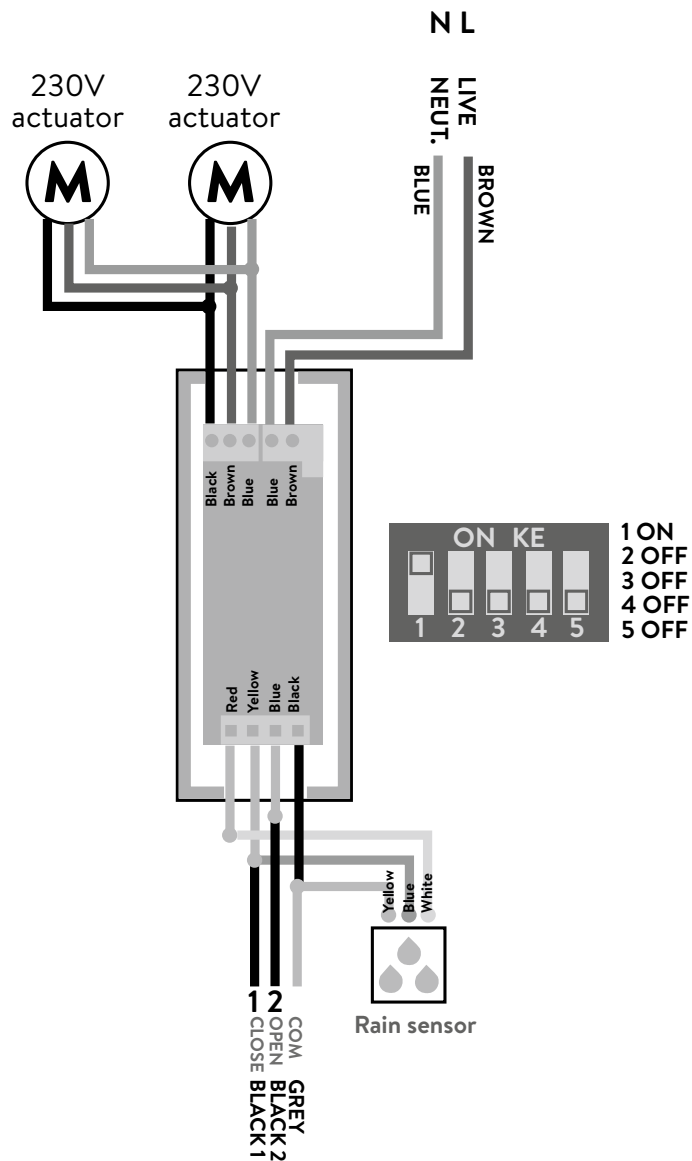
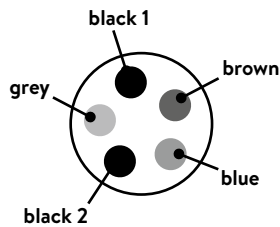
The electric connection of a double motor is as follows:

- Blue = NEUT. (230 V)
- Brown = LIVE (230 V)

- Black 1 = CLOSE
 - Black 2 = OPEN
 - Grey = COM
- Impulse switch

The DIP switches are already set as follows:

1. ON
2. OFF
3. OFF
4. OFF
5. OFF



Connection of the double motors is equal to the setup with a single motor.

Single motor versions as well as double motor versions have the same cable outputs. For example, the blue and brown wires are always connected to the mains voltage and the other 3 cables are used for an **impulse switch**. The system operates with the supplied remote control but can also be connected to an impulse switch or house automation system. Use the black wires to open and close the system and the grey wire the central “COM” wire.

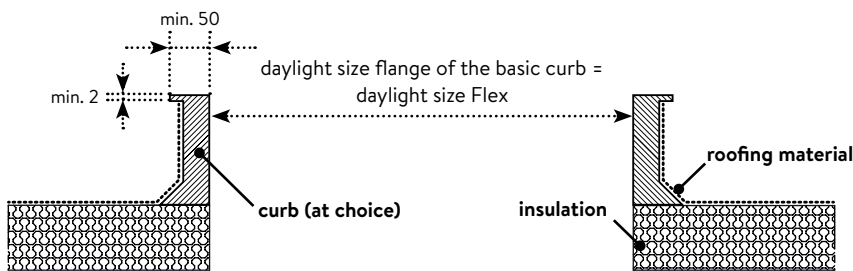
Warning: connect only to an **impulse** switch
(DO NOT use a switch with continuous electric current!)

The best way to provide these connections easily is to provide a small space below the curb or to **drill** in the roof construction to put the cable through. If these preparations are made, the sloping intermediate curb PVC 08/00 can easily be installed.

7. Requirements base curb (not included in the Flex product)

The new (not included in the Flex product) or already existing curb must comply with following conditions:

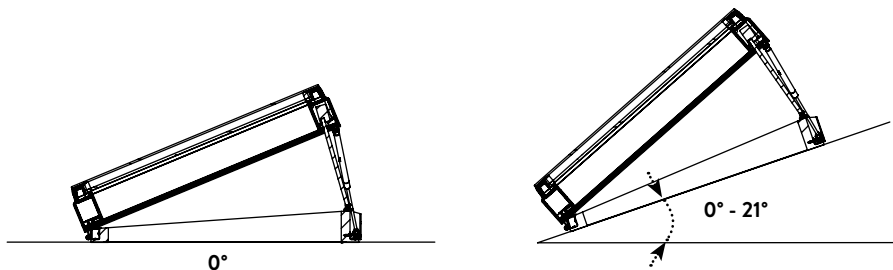
- The upper surface of the existing curb is situated at least 15 cm above the roof insulation.
- The curb has a flange at the top of which the inside is equal to the daylight opening. The width of the top flange is at least around 50 mm.
- The thickness of the top flange is at least 2 mm and strong enough; over the entire width of 50 mm.
- The roof covering is pulled up to the top flange of the upper curb.



8. Inclination of the intermediate curb PVC 08/00

The Skylux iWindow2™ Flex and Skylux iWindow3™ Flex are installed with an **inclination angle of 0° to 21°**. To avoid dirt on the glass, water stagnation or an incorrect attachment of the motor bracket, it is always advised to use the supplied sloping (4°) curb PVC 08/00 with pre-mounted bracket. The **hinges are always on the lowest side of the roof.**

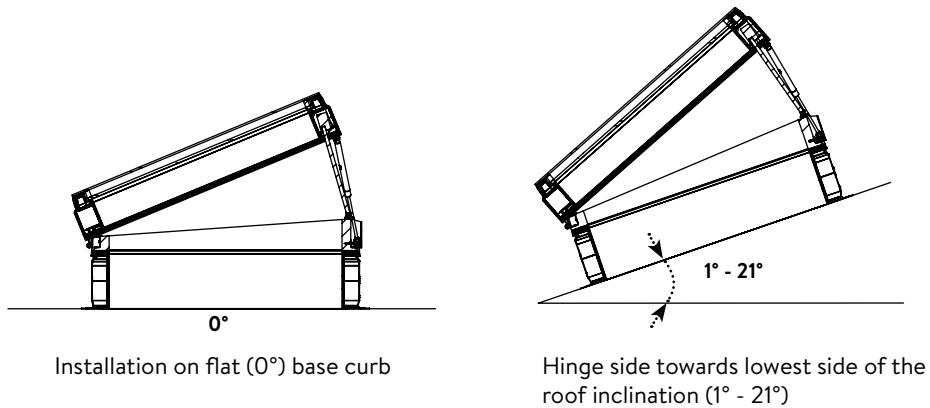
The iDome Flex is also always installed with a sloping intermediate curb PVC 08/00 and can be placed on a roof inclination of 0° to 21°.



9. Mounting the Flex

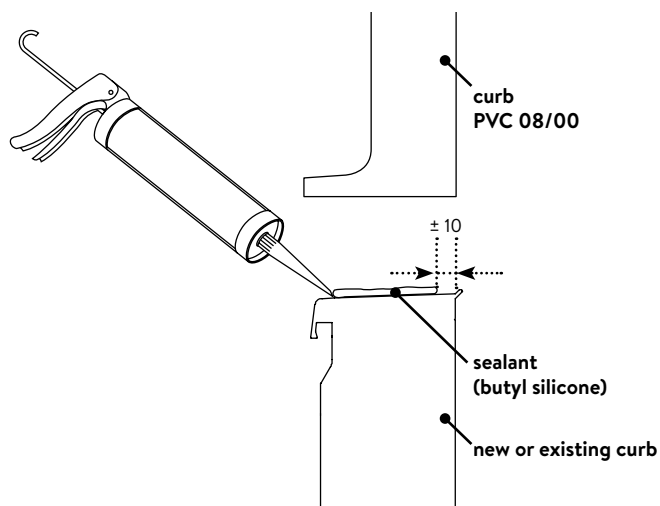
Installation sloping intermediate curb PVC 08/00

The first step of the assembly is the placement and attachment of the sloping intermediate curb PVC 08/00. As mentioned before in chapter "Inclination of the curb PVC 08/00", **the hinge side must be at the lowest side of the roof** if the curb is placed on a sloping roof (max. 21°).

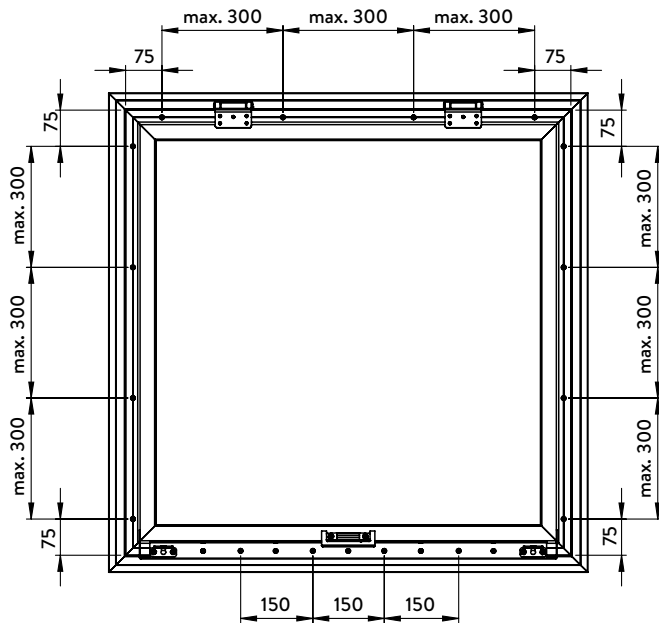
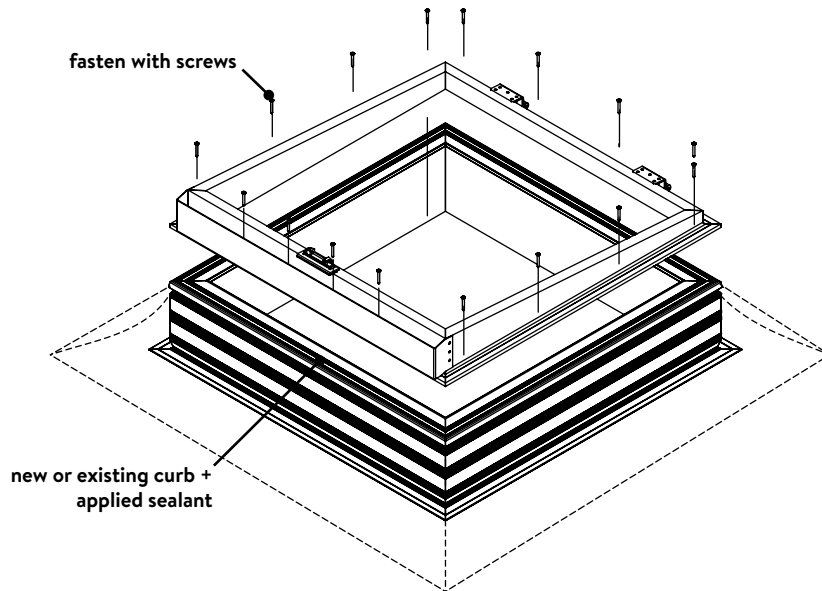


⚠ Apply extra sealant (make the whole construction damp proof and airtight) between the PVC 08/00 curb and the chosen or existing flat roof curb.

Butyl silicone can be used as sealant for example. Apply the sealant (at least 10 mm wide) all around at ± 10 mm from the daylight opening, on the upper flange of the existing or new curb.

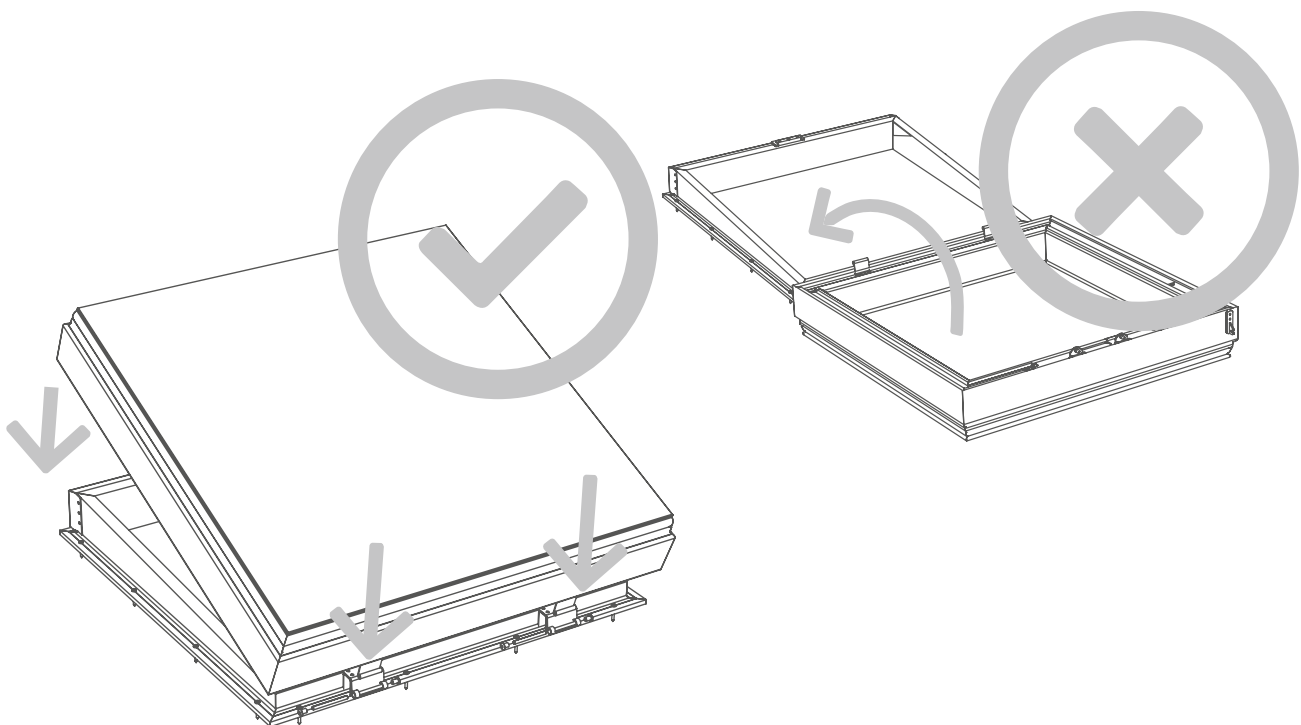
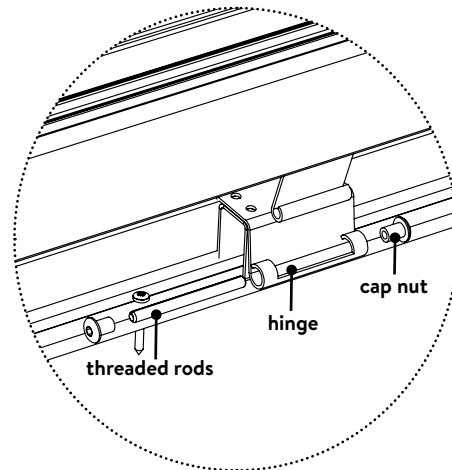
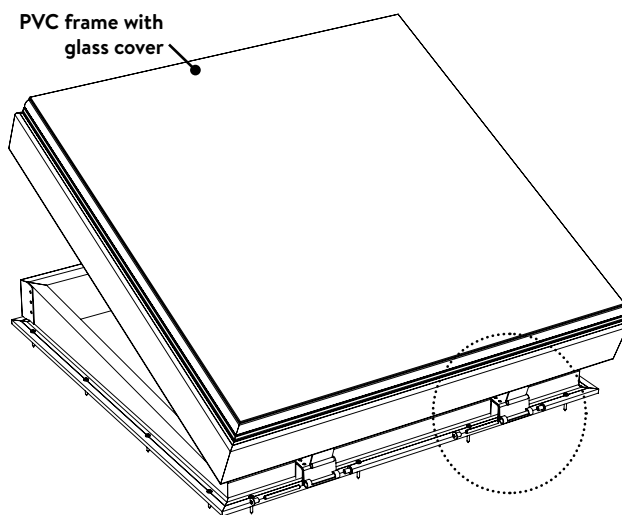


Screw the curb PVC 08/00 with matching screws on the base curb throughout the indication line of the flange (**timber screw 5,2 x 60 or steel screw 4,8 x 60 or ...**). Start at 7,5 cm from the ends. The centre distance to the other screws must not exceed 30 cm.



Installation PVC frame with glass cover

Remove the threaded rods and cap nuts from the lower hinges.
Position the PVC frame and put both hinge parts together.

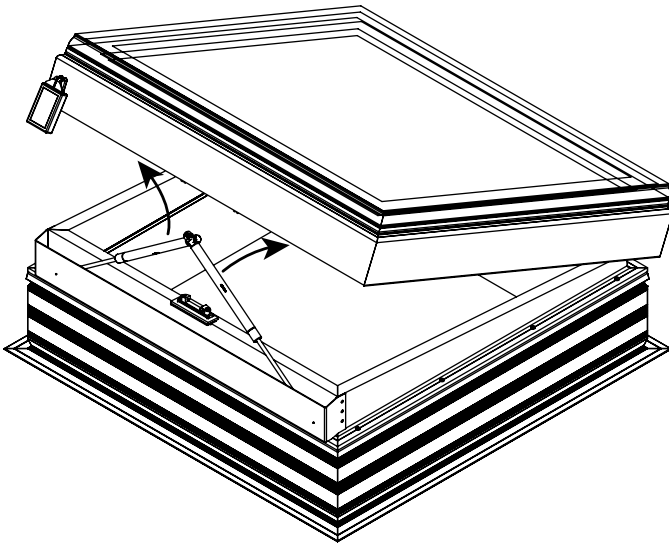


! **DO NOT:** insert the frame with glass when the hinges are **turned over**
CORRECT WAY: place the frame with glass on top and insert into the hinges

The hinge brackets are then **permanently** secured with the **supplied threaded rod and two cap nuts**. These can be made burglar-proof by adding a drop of Loctite to the cap nuts. This glue application may also help to prevent incorrect opening of the skylight after installation.

Version with gas springs:

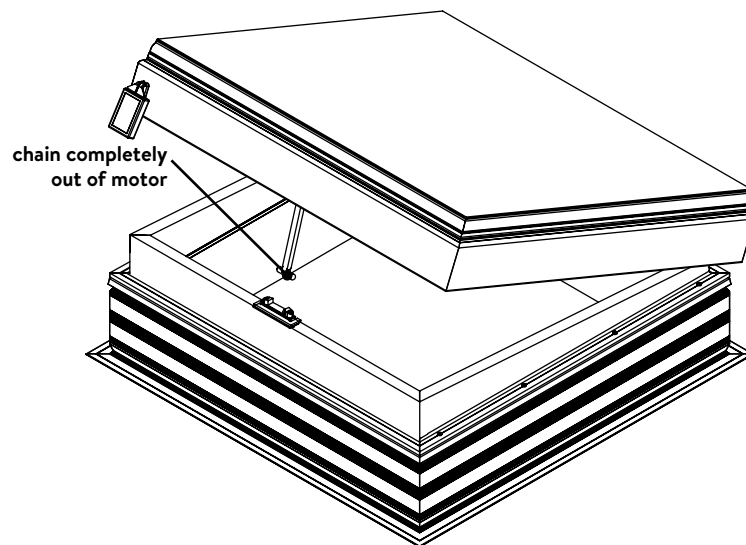
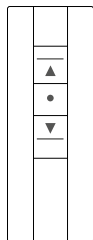
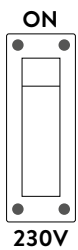
Next, raise the frame on the opposite side (= motor side) and attach the gas springs (pre-mounted on the sloping intermediate curb) to the brackets; below the PVC frame with motor.



Version without gas springs:

Lift and open the frame with glass cover on the motor side approximately ± 30 cm. Safely place temporary spacer elements (e.g. wooden blocks) between the frame and the sloping intermediate curb as assistance during the installation.

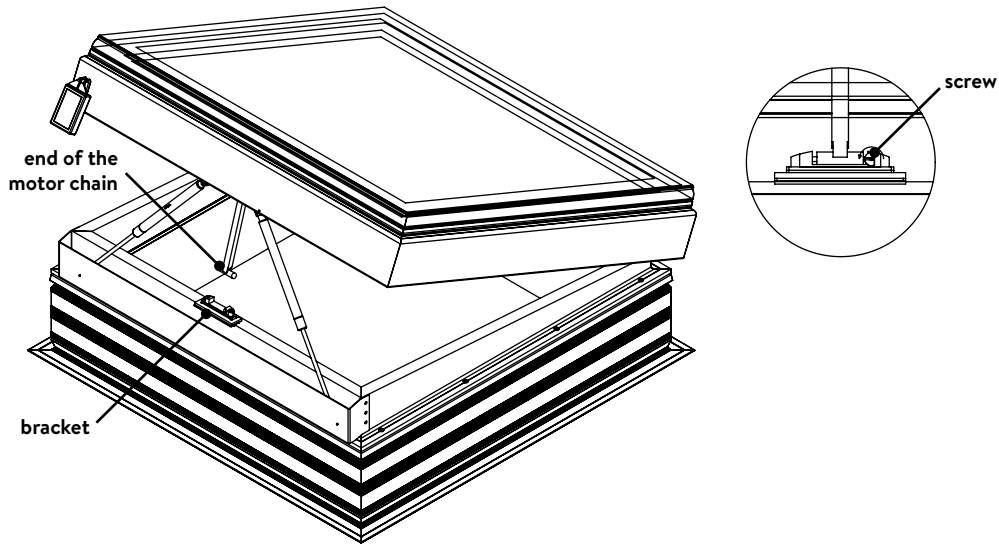
Plug in the system on **230 V** and operate with the button or remote controle. Let the chain come out of the motor **completely**.



Remove the temporary blue **foam protection** on the bracket for the motor chain.

After this, the **end of the motor chain** is positioned **in the bracket** on the sloping intermediate curb PVC 08/00 (do this twice in case of a version with two motors).

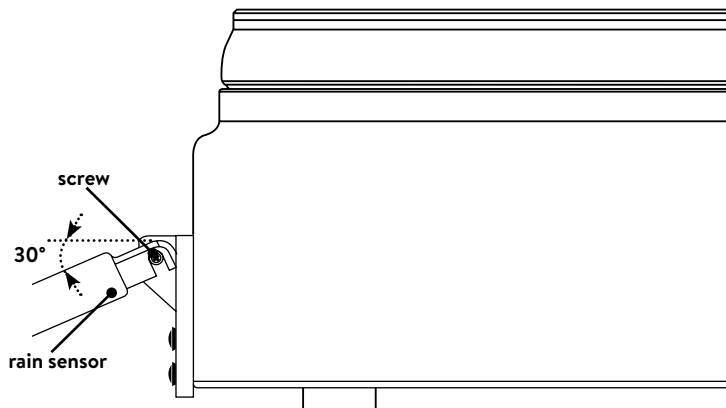
The gas springs must be pushed in slightly in order to attach the end of the chain to the bracket. Therefore, put some extra weight on the frame on the gas spring side.



Refold the motor bracket and **screw** the bracket until it is closed. The end of the chain motor is now completely fixed (do this twice in case of a version with two motors).

Installation rain sensor

Loosen the temporary attachment of the rain sensor on the PVC frame and install the rain sensor on the provided mounting bracket; on the corner of the openable frame. Use the provided screw and position the **rain sensor** at **30° in relation to the horizontal surface**.



Version Skylux iWindow2/3 Flex glass skylight

Remove all protective foil and stickers with tips (maintenance tips and tips for the installer). When finished, the product is ready to use.

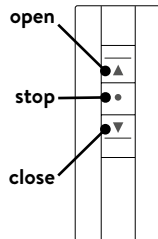
Version Skylux iDome Flex hybrid skylight

The hybrid skylight must always immediately be provided with a single- or double-walled Skylux plastic dome at choice. There cannot be any damp or dirt between the glass cover and the plastic dome. Remove all protective foil and stickers with tips (maintenance tips and tips for the installer) and mount the dome according to the Skylux mounting instructions of the dome. When finished, the product is ready to use. In case of a hybrid skylight Skylux iDome, it is always required to install a dome on the glass frame.

10. Operation

Remote (RF): the supplied remote control is automatically linked to the drive of the Flex.

Operation:

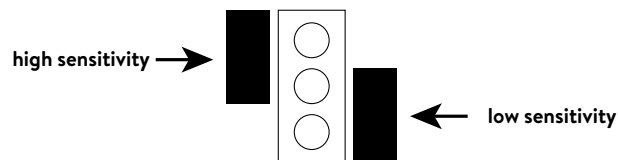


Rain detection: the rain detection is **automatic** and monitored by a **capacitive sensor**.

When the skylight closes because of rain (after ± 40 seconds continuous rain), you can overrule it for 5 seconds if you open the skylight by pushing the 'open' button 2 times on the remote control; or 2 times 'open' with the impulse switch.

Setup rain detection:

The rain sensor is set on high sensitivity as standard. This can be altered to a lower sensitivity by unscrewing the back of the rain sensor and changing the following settings:

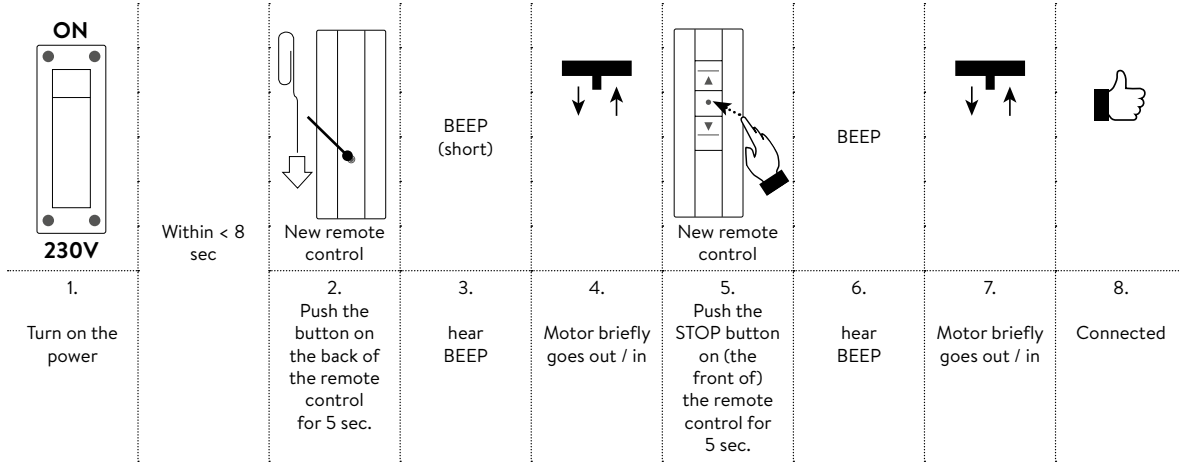


Impulse switch (not supplied):

The Flex can also be operated with an **impulse** switch: see wiring diagram for motor connection (page 7).

11. Reconnect the remote control

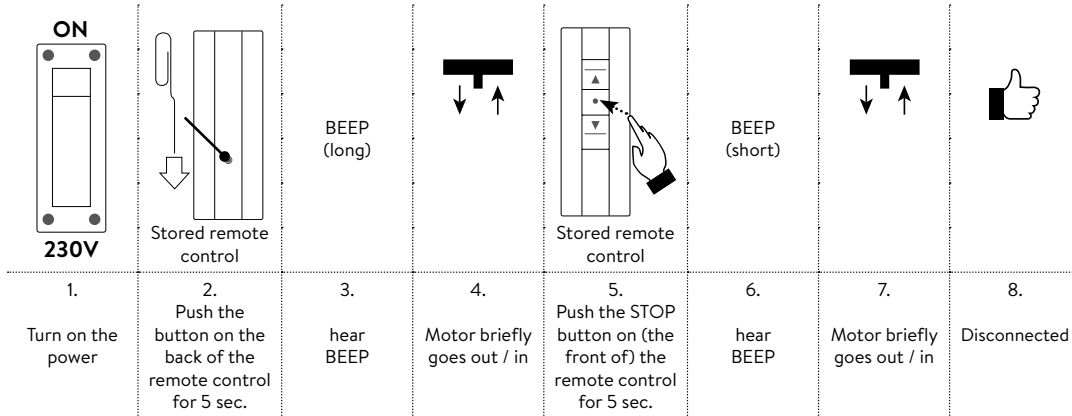
If the remote control is lost or broken, you can connect a new remote control with following steps:
Power off



Remark: this is possible without removing or opening the drive, which is built in the PVC frame behind the white PVC plate.

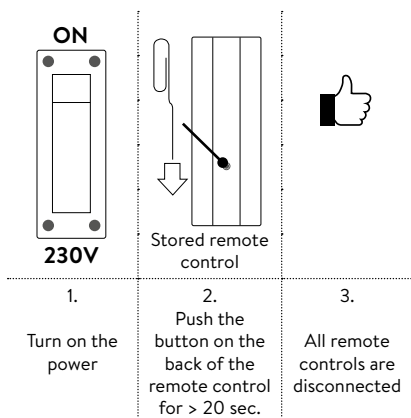
12. Disconnect the remote control(s)

• Disconnecting one remote control from the drive with motor:



• Disconnecting all remote controls:

Disconnecting all radio controlled remote controls from one drive goes as follows:



(Remark:

If the button on the back of the remote control is pushed in longer than 12 seconds, the drive motor will generate three cycles of the following steps: short BEEP and motor briefly goes out/in. After this, the motor will work in opposite direction. Normally, this functionality is not needed.)

13. Occasional roof access

If occasional access from the inside of the skylight to the roof is necessary, then this is only possible with following versions (due to safety reasons):

Skylux iDome Flex: daylight opening 600 x 600 mm

Skylux iWindow2 Flex: daylight opening 600 x 600 mm

First: make sure that there are no obstacles or protruding parts on the roof around the hinge side of the skylight that can obstruct the opening of the skylight and/or damage the skylight itself.

Open the skylight. Now support the PVC frame with glass cover symmetrically (and dome) and then unscrew the bracket on the motor chain. This support is best carried out with sturdy material, e.g. wooden or metal battens (watch out for damage).

Loosen the screw on the bracket of the motor chain and open the bracket. Push the end of the chain out of the bracket. The motor chain is now loose.

Now the skylight can be opened manually (also possible with small suction cups). This way, the skylight can completely open with the hinges. An occasional (± 3 x per year) roof access is possible with this method.

WARNING: The Flex is not suited for frequent roof access!

14. Warnings

- **Do not screw or drill in the iOra PVC frame on the motor side or on the short side where the drive is built in!** (Drilling or screwing may damage the built-in motor(s) and corresponding cables!)



- We advise not to install the optional inner sunblind on solar energy in the daylight opening of the iOra PVC frame. Do not screw on the motor side or on the side where the drive is built in. Install the optional inner sunblind on solar energy in the existing or new curb.

15. Maintenance tips

- Annual lubrication of the chain
- Annual check-up of the attachments and silicone seams
- Do not clean or touch the skylights with products that are not suitable for acrylic fibre or polycarbonate like: silicone, wood protection, glues, unsuitable sealing tape, chemical fumes, ...
- Remove tar stains only with turpentine and rinse thoroughly with water. Clean with water and non-aggressive soap (no abrasive material), always rinse abundantly
- Clean the PVC curb with PVC cleaner

16. Technical information

Version	Voltage	Pushing force	Pulling force	Course	Velocity
Single motor	230 V AC (25W)	300 N	300 N	Max. 300 mm	12,5 mm/s
Double motor	230 V AC	600 N	600 N	Max. 300 mm	12,5 mm/s

- Voltage: 230 V AC $\pm 10\%$ / 50 H
- Leakage current: < 2mA / 240 V AC
- Open / close velocity: ± 25 s
- Life cycle: > 10.000 activations
- Work cycle: 10% max 2 min / 18 min
- Temperature range: (-10°C to + 60°C)
- Rain sensor: 12 V DC



EN 1873:2014+A1:2016

The Skylux iDome Flex hybrid skylight complies with the norm EN 1873:2014+A1:2016; and the Skylux iWindow2/3 Flex glass skylight complies with the skylight norm EN 1873:2014+A1:2016, as there is no harmonised norm for glass skylights.

ONLY USE ORIGINAL PARTS DELIVERED BY SKYLUX. EVERY GUARANTEE IS CANCELLED IF NON-ORIGINAL PARTS ARE USED.

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