

## 2 Safety and installation instructions

**Please observe the prescribed safety instructions and stipulations from the vehicle manufacturer and service workshops.**

The manufacturer accepts no liability for damage in the following cases:

- Damage to the product resulting from mechanical influences and incorrect connection voltage
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in the operating manual



### **WARNING! Beware of injury**

Do **not** exceed the maximum allowable driving speed of 130 km/h, because this can damage the roof light. Parts that come loose may injure people in the vicinity.



### **NOTE**

If you do not have sufficient technical knowledge for installing the components in vehicles, you should have a specialist install the roof window in your vehicle.

Please note the following:

- If faults or disturbances occur, consult a specialist workshop immediately.
- Risk of breakage! Do not tread on the glass dome.
- Before starting your journey, check that the roof window is locked properly.
- Before starting your journey, check the roof window for damage (such as tension cracks in the acrylic glass).
- Do **not** open the roof window while driving.
- Do **not** open the window in strong wind or rain.
- Close the roof window if it rains or snows.
- Do **not** leave the vehicle with the roof window open.
- Keep the roof window free of snow and ice.
- The electrical connections should only be performed by an electrician.
- Replace the defective lights using ones of the same type and which have the same technical data (12 V, 8 W).

### 3 Scope of delivery

No. in fig. <b>1</b>	Quantity	Designation
1	1	Outer frame with glass dome
2	1	Inner frame
3	16	Fastening screw $\varnothing$ 4.0 x 25 mm
	16	Fastening screw $\varnothing$ 2.5 x 12 mm
4	16	Mounting bracket (for roof thickness 25 – 32 mm)
5	6	Ventilation grille
6	4	Lamp covers
7	1	Drive sprocket adapter



#### NOTE

For roof thicknesses from 33 mm you will require an additional installation kit (chapter "Installing the Heki 3 Plus" on page 7).

### 4 Optional extras

Designation	Ref. no.
Spoiler, 800 mm	9104100236
Spoiler, 1100 mm	9104100237

### 5 Intended use

The Heki 3 Plus roof light (ref. no. 9104100292) is suitable for installing in motor-homes or caravans.

The two lamps cannot be dimmed.

The maximum permissible speed is 130 km/h, as noise or damage could occur depending on the vehicle design or installation position. In case of excessive noise, a spoiler (**accessory**) can be used.

## 6 Instructions before installation

- Before installation, check the roof thickness of your vehicle. Consult the vehicle manufacturer if you have any questions.
- Make sure that the power supply line and a switch are available for the Heki 3 Plus (12 V, 2 x 8 W) lighting in the vehicle.
- Make sure that the power supply line is suitably arranged and protected.
- When choosing the installation location, observe the following:
  - Adjoining components (roof rack or attachment and reinforcing parts), cables and cabinets in the vehicle interior must not get damaged when sawing the hole.
  - Sufficient space needs to be available for installing the inner and outer frames.
  - Only fit the roof light on flat and parallel interior and exterior roof areas with a maximum inclination of 15° to the horizontal.
  - You may use an existing roof hole provided the roof light fits into it.
  - You can fit the roof light sideways (hinge-side at front in direction of travel) or lengthways (hinge-side on left or right in direction of travel).

### 6.1 Pressing out the hole

See fig. **2**

### 6.2 Using the reinforcing rails

Supplementary to fig. **3**

- Before installation, check whether the roof hole needs reinforcing.
- Remove the foam according to the width of your reinforcing rail (not in scope of delivery) **(A)**.
- Fit the reinforcing rails **(B)**.

## 7 Installing the Heki 3 Plus



### **WARNING! Beware of injury**

Disconnect the vehicle power supply before you begin and make sure it cannot be restarted.



### **NOTICE!**

Make sure that you do not damage any cables during installation.

### **See fig. 4**

If you would like to connect the lighting:

- Lay the power supply line in the middle on the long side, where the crank should go.

### **Supplementary to fig. 5**

The scope of delivery includes a mounting set, which is suitable for a roof thickness of 25 – 32 mm. For roof thicknesses of 33 – 60 mm, you need to have a suitable mounting set (see table).

- Measure your roof thickness *W*.
- Choose a suitable mounting set:

Roof thickness	Mounting bracket colour	Screws	Ref. no.
25 – 32 mm	Grey	Ø 4 x 25 mm	Included in the scope of delivery
33 – 39 mm	Black	Ø 4 x 32 mm	9104100245
39 – 46 mm	Yellow	Ø 4 x 40 mm	9104100246
46 – 53 mm	Blue	Ø 4 x 46 mm	9104100247
53 – 60 mm	Red	Ø 4 x 52 mm	9104100248

### **See fig. 6**

- Check that the roof light has sufficient space around it (approx. 1 to 2 mm) in the roof opening.

### **See fig. 7**

- Clean the roof opening in the mounting area.

**See fig. 8****NOTICE!**

Observe the instructions of the sealant manufacturer.

- Seal the mounting frame with a flexible non-hardening sealing compound (e.g. SikaLastomer-710).

**See fig. 9**

- Check the direction of travel when installing.  
You can fit the roof light sideways (hinge-side at front in direction of travel) or lengthways (hinge-side on left or right in direction of travel).
- Place the outer frame in the middle of the roof opening.

**NOTE**

Pay attention to the power supply lines.

- Press the outer frame in the roof slightly so that the packing compound spreads out.

**See fig. 10**

- Place the 16 mounting supports on the inside of the vehicle all the way into the recess of the outer frame.
- Attach the 16 mounting supports using the fastening screws  $\varnothing 4$ .  
To do this use the large holes in the mounting supports.
- Tighten the screws 10 minutes after installation.

**See fig. 11**

You need to remove the lamps to be able to tighten the inner frame.

- Take the lamps out of the holders carefully and let them hang by the cables (A).

**See fig. 12**

The lamps are fitted at the factory and installed on the short side of the inner frame. If you do **not** want to connect the lamps, dismantle them. If you want to install the lamps on the long side, you need to dismantle them and replace them on the long side.

## Dismantling the lamps

- Remove the connection cable (**B**).
- Remove the holders on the short side (**C**).

## Preparing the lamps for installing on the long side

- Insert the holders in the openings provided on the long side (**D**).
- Lay and attach the wiring harness on the back again.
- Connect the cables (**E**).

### See fig. 13

- Insert the appropriate adapter part for the roof thickness (**1**) for the hand crank on the drive sprocket:

Wall thickness	Adapter part colour
25 – 32 mm	Grey
33 – 39 mm	Black
39 – 46 mm	Yellow
46 – 53 mm	Blue
53 – 60 mm	Red

- Put the hand crank (**2**) to the closed position.

### See fig. 14



#### NOTICE!

- Hold the hand crank in the closed position when placing the inner frame on the outer frame, otherwise the position of the hand crank will be misaligned with the hexagon part.
- Make sure that the power supply line from the vehicle is inserted in the inner frame openings and does **not** get stuck.

- Place the inner frame on the outer frame and fasten it with the fastening screws  $\varnothing 2.5 \times 12$  mm in the 16 mounting supports.  
To do this, use the small holes in the mounting supports.  
Only fasten the screws slightly by hand.
- Check that the roller blinds can move freely.  
If they do not, then loosen the screws slightly.

**See fig. 15 (cross side installation)/fig. 12 (long side installation)**

- Insert the lamps into the holders (F).

**See fig. 16**

**NOTE**

If the vehicle switch is designed for this, both lamps can be switched on and off separately.

If you want to connect the lamps:

- Connect the cable from both lamps to the **1** and **2** terminals.  
If you operate both lamps on one connection, you have to connect the two terminals in parallel with bridges.
- Tighten all 12 V connections.
- Make sure the lamps are fitted securely.

**See fig. 17**

When you have connected the lamps:

- Clip on the ventilation grille (**1**).  
It needs to click in.
- Clip the lamp covers (**2**) on the lamps.  
They need to click in.
- Remove the protective film from both sides of the acrylic glass.

**NOTE**

If the protective film is exposed to sunlight for too long, it cannot be taken off without leaving a residue.

- After installing, check the roof light works properly.
- If necessary, enter the new vehicle height and weight in the vehicle documents.

## 8 Using Heki 3 Plus

### 8.1 Opening and closing the glass pane (fig. 18)

**NOTE**

Observe the arrow directions on the hand crank.

- **To open:** turn the hand crank according to the direction of the arrow on the crank.  
Turn the hand crank until you feel its resistance. The opening angle of the roof light is approx. 70°.
- **To close:** turn the hand crank according to the direction of the arrow on the crank.  
Turn the hand crank two or three times more once the glass is in position, in order to lock the roof light completely.
- Check whether the roof light is locked properly: Try to push up the pane of glass with your hand (without using force).

### 8.2 Opening and closing the roller blinds (fig. 19)

**NOTICE! Risk of damage due to a build-up of heat between the roller blind and the window.**

In strong sunlight, only close the blackout roller blind two thirds of the way.

**NOTE**

You can adjust the blackout roller blind and the flyscreen separately.

- Hold the recessed handle of the roller blind and pull it into the required position.



## 9 Troubleshooting

Fault	Possible cause	Suggested remedy
The roof light does not close completely.	Dirt between the glass and frame	Clean the window. Remove any leaves and twigs between the glass and frame.
The flyscreen or black-out roller blind cannot be moved.	Dirt on the side guides	Clean the side guides.
The lighting does not work.	The vehicle's power supply to the roof light is interrupted.	Check the power supply from the vehicle to the roof light.
	One or both lamps are faulty.	Replace the lamps (12 V, 8 W).

If you are unable to rectify the fault, get in touch with a specialist workshop.

## 10 Maintaining and cleaning the Heki 3 Plus



### **NOTICE! Damage hazard**

Do not use any sharp or hard objects for cleaning since they may damage the acrylic glass.

Only use cleaning agents that are approved by the manufacturer. Acrylic glass polish (ref. no. 9600000128), special polishing cloth (ref. no. 9600000130) and acrylic glass cleaning agent (ref. no. 9600000129).

- Clean the roller blind with mild soap and plenty of water.
- Put talcum powder on the rubber seal.