

## Installation instructions of the MIDI-Heki roof light with operating bar, with crank or electrical version



with operating bar



with crank

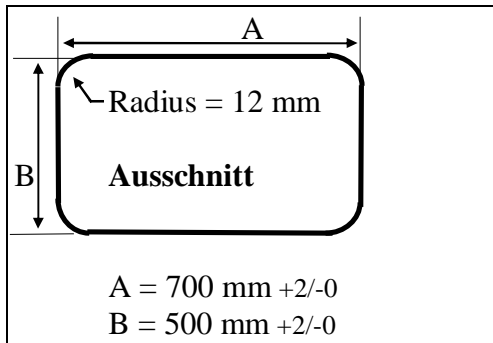


electrical version

1. Prerequisite for a correct installation of the Midi-Heki roof light is a flat inner and outer surface of the roof (*the Midi - Heki cannot be installed on a vertical surface*).
2. The area where the roof light is to be installed has to be selected in such a way, that the function of adjacent components, cables, fitted cupboards in the vehicle interior, roof railings or other reinforcing components is not impaired in any way. (*Follow the guidelines of the vehicle manufacturer*).
3. The installation is possible with the hinged side in front in the direction of travel or the hinged side left or right in the direction of travel.
4. To avoid damage to the roof wall and to the Midi-Heki, the cut-out must be sturdy (*for example reinforced with wooden frames – not included in the package*).
5. Use a butyl based permanently elastic sealant to seal the Midi-Heki and the roof wall (*available in cartridges or as a band – not included in the package*). When choosing the sealant ensure that it guarantees small shrinking volume and good durability. Ask the sealant supplier for an appropriate sealant and the processing guidelines.
6. We recommend a maximum speed of 130 km/h, otherwise, depending on the construction of the vehicle or the positioning of the roof light, wind noise or material fatigue could arise.
7. The Midi-Heki roof light is ideal for a roof thickness between 25 mm and 60 mm.
8. Check the roof thickness of your vehicle. In the package are included 11 mounting blocks and 11 screws (size 4x20 for roof thickness 30-34 mm). (*For a roof thickness of 25-29 mm and 35-60 mm the corresponding, commercially available installation set must be used.*) These 22 screws are used for fixing the mounting blocks on the interior side of the roof. 22 screws (spax screw 3.5 x 20 mm) included in the package can be used if the cut-out is reinforced by wood as mentioned above at point 4. In other cases use corresponding screws which are not included in the package.
9. Installation steps
  - 9.1 Determine the location of the cut-out**
  - 9.2 Execute the cut-out**
  - 9.3 Reinforce and check the cut-out**
  - 9.4 Install the outer frame**
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    - 9.5.1.1 Version with operating bar**
    - 9.5.1.2 Electrical version**
    - 9.5.1.3 Version with crank**
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  - 9.7 Check function lift mechanism**
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    - 9.7.2 Version with crank**
    - 9.7.3 Electrical version**



9.1.2



### **9.1 Determine the location of the cut-out**

9.1.1 Determine the location of the Midi-Heki on the vehicle taking into account the above-mentioned conditions. Mark the cut-out as shown in picture 9.1.2. The installed Midi-Heki should have a clearance of around 1-2 mm all around.

### **9.2 Execute the cut-out**



9.2.1

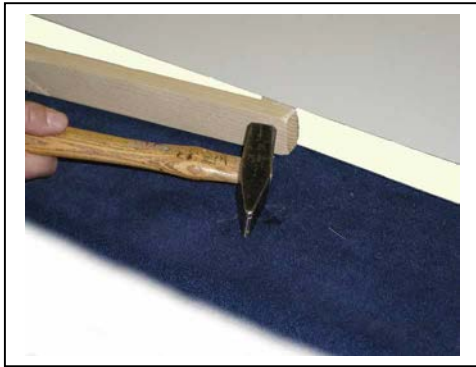
9.2.1 In order to avoid scratches on the roof surface, the perimeter should be covered with sticky tape before the cutting or mill-cutting begins. Execute the cut-out with a suitable tool (*for example jig saw or a routing machine* - Photo 9.2.1).

### **9.3 Reinforce and check the cut-out**



9.3.1

9.3.1 Remove the insulating material between the roof's outer surface and the inner lining for a depth of about 25 mm all around the perimeter. (Photo 9.3.1) (*Depth depends on the reinforcing frames to be introduced in the next step – photo 9.3.2.*)



9.3.2

9.3.2 Insert reinforcing frames (e.g. wood) (Photo 9.3.2).

*Remark: This „reinforcing frame“ is needed in order to avoid permanently the insulting material being compressed and the bending of the roof wall. The “reinforcing frame” is also needed to fix the mounting blocks to the inner side of the roof.*



9.3.2.1

9.3.2.1 The supply line (12 volt) for the electrical version should come out for at least 250 mm out of the middle of the long side of the cut out. Consider the position of the installed Midi-Heki! (12 volt-power connection = hinge side)



9.3.3

9.3.3 To check the cut-out, place the outer frame on top of it to check the exact position before applying the sealant. (A clearance of 1-2 mm all around the perimeter between the cut-out and the outer frame is necessary. Photo 9.3.3). *Hint: The control is recommended, because variations of production and temperature can influence the dimensions.*



9.4.1

### **9.4 Install the outer frame**

9.4.1 Clean the roof surface where the sealant is to be applied (always follow the instruction of the sealant supplier Photo 9.4.1).

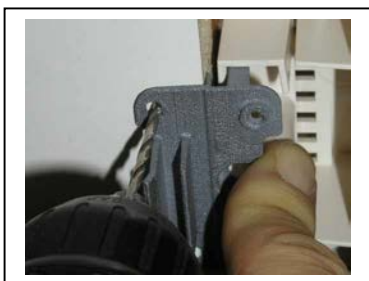
Remove the protective PE film outside of the acrylic dome.



9.4.2

9.4.2 Apply a butyl based permanently elastic sealant (available in cartridges or as a band) uniformly all around (Photo 9.4.2). Place the outer frame in the cut-out and push gently against the roof so that the sealant is distributed.  
(Always follow the instruction of the sealant supplier!)

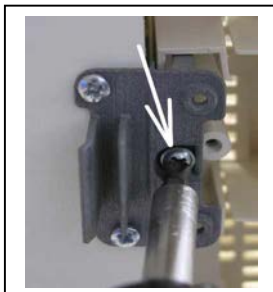
9.4.3 For the different roof thickness, the following mounting kits are needed:



9.4.4.1

Part No.	Roof thickness
1369	25-29 mm
<b>1370</b>	<b>30-34 mm (accessories trade: screws included)</b>
1371	35-60 mm

For roof thickness 35-42 mm = length of screws 20mm  
 For roof thickness 43-52 mm = length of screws 32mm  
 For roof thickness 53-60 mm = length of screws 40mm



9.4.4.2



9.4.4.3

9.4.4 Insert the mounting blocks all the way in and align them. Drill two holes (drill 2.2 mm) on the interior roof surface if the cut-out is reinforced by wood (Photo 9.4.4.1) and fasten with included screws (Photo 9.4.4.2). In other cases use corresponding screws which are not included in the package.

Attention! Do not drill through the roof! Then screw it together with the outer frame (use the bigger whole in the mounting block). (Photo 9.4.4.3)

**It is sufficient to tighten the screws gently (torque about 1.5 Nm).**

Check visually whether the sealant lies all around the roof surface and the mounting blocks are aligned in a line.

*(When required, tighten the mounting blocks uniformly after about 10-30 minutes)*



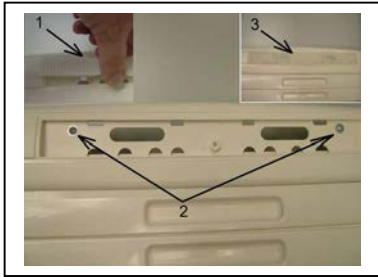
9.5.1a

### 9.5 Install the Midi-Heki inner frame

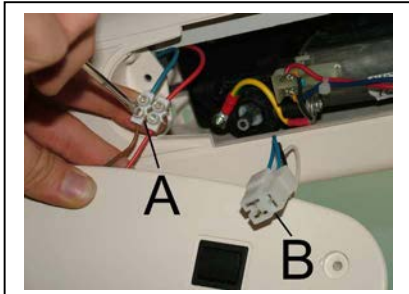
9.5.1 Place the inner frame in the slot of the mounting blocks and push in position.

The inner frame can be additionally tightened on the short sides (picture 9.5.1b) with suitable screws (not included) as follows.

1. Remove the ventilation grids from the short side
2. Drill a pilot hole and screw
3. Put on the ventilation grids back



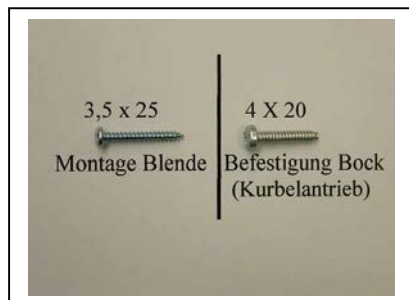
9.5.1b



9.5.1.2.1



9.5.1.2.2



9.5.1.2.



9.5.1.3.1

### 9.5.1.1 with operating bar

The installation of the Midi-Heki with operating bar has finished.

Check function (see 9.6 and 9.7).

### 9.5.1.2 electrical version

#### 9.5.1.2.1

A = Connect the cover with the power supply (12V) of the vehicle. Attention!!! +/- Do not confuse the polarity.

B = Connect plug connection of the cover to the supply line of the electrical motor.

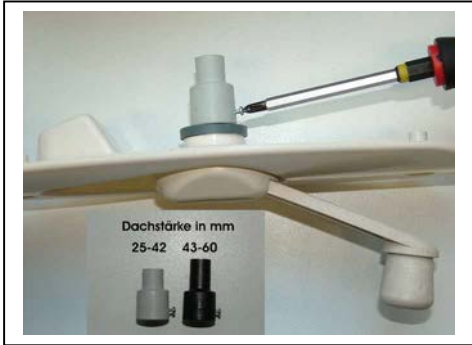
#### 9.5.1.2.2

Fix the cover with the 2 included screws (3,5x25mm – see picture 9.5.1.2).  
Check function (see 9.6 and 9.7) and put on the 2 cover caps.

### 9.5.1.3 with crank

9.5.1.3.1 Screw the inner frame to the mounting blocks with the 2 included screws (4x20 – see picture 9.5.1.2).

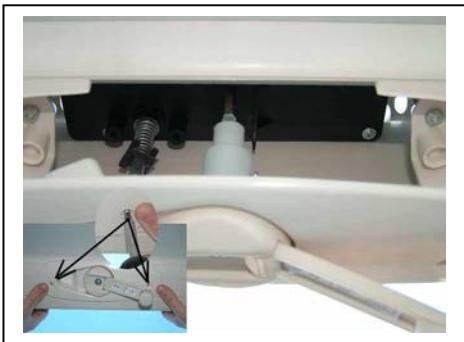




9.5.1.3.2

9.5.1.3.2 Use the **adapter** or the **balance shaft** for mounting the cover (see 9.5.1.3.3).

9.5.1.3.2.1 Install the corresponding adapter on the crankshaft according to the wall thickness (wall thickness 25-42 grey or wall thickness 43-60 black).



9.5.1.3.2.2 Put on the cover of the inner frame with opened crank while the installed adapter has to be placed into the six point socket..

Positionate the crank in such a way that a slight tension is noticed when closing the crank.

Screw the cover with the 2 included screws (3,5x25mm – see picture 9.5.1.2) and put on the 2 cover caps.

Check function (see 9.6 and 9.7).



9.5.1.3.2.2

9.5.1.3.3 Installation of the cover with **balance shaft**

9.5.1.3.3.1 Put on the cover on the inner frame (if necessary open the crank). When closing the crank a slight tension has to result. (see picture 9.5.1.3.2.2)



9.1.3.3.1

9.5.1.3.3.2 If necessary open the crank, loose the screw, take off the crank and put on again in a new position (picture 9.5.1.3.2.2). Screw the crank again. The correct locking of the dome is ensured by the slight tension.

Check function (see 9.6 and 9.7).



9.5.1.3.3.2



9.6.1

## **9.6 Function of the darkening system and flynet**

9.6.1 Check if the blind and fly net function properly by moving both end rods (picture 9.6.1).

9.6.2 Remove the protective foil of the acrylic dome

9.6.3 Follow the warning comments on the sticker of the inner frame. If necessary replace the sticker with the right language.

## **9.7 Check function of the glazing dome**

9.7.1 Check function according to the operating instruction.

## **10 Safety instructions**

Utilise only the delivered parts.

Make sure that the wires are not damaged during the installation.

The manufacturer accepts no liability for injuries or damage caused by an inappropriate use of the Midi-Heki.

Follow the operating instructions and warning tips.

- **No liability is assumed for incorrect installation!**
- **The Midi-Heki roof light is not to be installed in a vertical surface!**
- **Registration in vehicle log's book should be carried out when the vehicle's height and/or total weight is changed.**
  
- **Repairs should be carried out only by trained personnel.**
- **Inform an approved dealer in case of defects and malfunctions.**
- **Before starting off, check the roof light for damage in the dome (tension cracks) and the drive mechanism which could arise owing to, for example, branches and other natural causes.**
- **Do not step on the dome.**
- **Before setting off close the Heki completely (Check the correct locking by pushing the dome).**
- **Do not leave the vehicle with the roof light open (danger of burglary).**
- **Do not open in strong wind, rain or snowfall.**
- **Before opening, remove snow, ice, dirt etc. from the dome.**
- **Malfunctions are to be repaired by an approved dealer at once.**
- **Do not use caustic detergents (danger of tension cracks in the dome).**
- **Before setting off close the dome and open the blinds.**
- **Function of the ventilation (optional) is only ensured if the gap between the roof and glazing dome is free of snow and dirt.**
- **The protective foil is not weatherproof and has to be removed after installation.**



### 11. Problems/possible causes thereof

The table below is intended to give the customer instructions to identify and eventually solve small problems in case of emergency. In case of bigger problems, an authorised expert is to be consulted.

Midi-HEKI electrical version – problem analysis		
Problem description	Possible cause	Solution
No electrical function (electrical motor does not work)	1) Power supply from vehicle interrupted  2) Fuse is blown  3) Switcher defective  4) Electrical motor defective	1) Check fuses of the vehicle (see instructions of the vehicle) and if necessary replace.  2) Remove the cover from the inner frame, check fuses and if necessary replace  3) Consult an authorised expert  4) Consult an authorised expert
Roof is not closing completely	1) Possible dirt between glazing dome and frame  2) Mainspring is untied from the hook, hook is touching the holding fixture	1) Clean the dome  2) Check the mainspring and hook (picture)
Darkening system / flynet cannot be moved	1) Dirt inside the guide tracks	1) Clean the guide tracks

**Emergency crank set for electrical version :**

The emergency crank set consists of 2 screw driver which are used for removing cover caps and covers.

- Leverage the cover caps carefully by the small screw driver
- Remove the screws with the phillips screw driver
- Insert the emergency crank (2), push the electrical motor unlock (1) and close the dome by using the emergency crank.

