Manual

REMItop vario

Multifunctional Roof Window
for Campers and Caravans

Important information!
Read this information carefully before installing.
The user information is valid only for the standard version.
Please note the additional information if you are using additional options in the inside frame (lighting, ventilation).

Inhalt:

A. A. Product information

1.	Manufacturer:	REMIS GmbH Mathias-Brüggen-Str. 67-69 50829 Cologne
2.	Name and type:	REMItop vario - multifunctional roof window
3.	Series, date made:	See sticker on inside frame
4.	Test mark:	E1 43 R-001736 (PMMA XT)
5.	Applications:	Caravans (trailers) and campers (mobile in accordance with the Road Traffic Licensing Regulations) with a roof thickness of 25-55mm
6.	Installation:	See B. (Installation information)
7.	Function description:	See C. (Information on use)
8.	Dimensions and space	See Fig. I requirement:
9.	Roof cut-out:	See Fig. II
10.	Weight:	900 x 600 approx. 12.5 kg 700 x 500 approx. 10.0 kg 400 x 400 approx. 6.5 kg
11.	Ventilation cross-section:	900 x 600 approx. 15,600mm² 700 x 500 approx. 11,520mm² 400 x 400 approx. 7,362mm²
12.	Performance data:	See E. (Additional options inside frame)
13.	Electricity supply:	See Fig. II
14.	Design versions:	REMItop vario 400 x 400/light/ventilation REMItop vario 700 x 500/light REMItop vario 900 x 600/light

B. Angaben zur Montage

We recommend that you have the roof window installed by a specialised workshop. We do not assume any liability or guarantee for defective installation.

1. Conditions
   - This roof window may only be installed in caravans and campers. A precondition for approval for campers in accordance with the Road Traffic Licensing Regulations is the presence of the test number on the acrylic hood (standard since production date 2006).
   - Where applicable, obtain the necessary information from the vehicle manufacturer and/or the TÜV. It may be necessary to have the window recorded in the vehicle registration papers or approved by the TÜV.
   - The roof window may only be installed with the hinge side in the direction of travel, whereby the hood opens in the opposite direction, or turned by 90° to the direction of travel, whereby the hood opens to a long side.
   - The installation may only be carried out in roofs that are between 25mm to max. 55mm thick. Use the corresponding fastener clamps for this.
   - The sealing cord between the roof surface and the outside frame is not included in the delivery and has to be obtained from the trade. It must be 8mm thick, permanently elastic and suitable for outside use. In the butt area use an additional piece of sealing cord to overlap the open butt joint on both sides by about 50mm. We recommend a butyl dealing cord, available from specialists.
   - Before the installation it is essential to check the position on the roof where the window is to be fitted. The following must be noted:
     - The information from the manufacturer of the caravan / camper with regard to the retrofitting of roof windows. Please contact the manufacturer directly.
     - Install only in level roofs (inside and outside) without any inclination.
     - The necessary roof cut-out must not impair or damage any bearing struts, electricity cables, supply pipes, etc. Is there enough space to open the roof window at the place you have chosen (railing, cross-bars)?
     - Is there sufficient space in the inside for the inside frame (no collision with units, flaps, doors)?
     - If you use one or more additional options (lighting / ventilation) take account of the position of the electric cables. Note the outlet of the cables into the roof cut-out (see Fig. II).
   - Before installing, make sure that the weather side of the roof, in particular the seal area of the outside frame, is free of dirt, moisture and other deposits.
   - The cut edge left by the roof cut-out must be firm enough, because the fastener clamps for the outside frame transmit high local forces when tightened. Foamed heat insulation must be braced with suitable construction material (e.g. profile sections, solid wood).

2. Before starting the installation check that all parts have been delivered:
   - Roof window with outside frame
   - Inside frame with fly screen and blind
   - Accessories
   - Clamps:

I	900x600:	8 side clamps (S), 4 head clamps (K)
II	700x500:	6 side clamps (S), 4 head clamps (K)
III	400x400:	4 side clamps (S), 2 head clamps (K)

   - Fastener screws for clamps Ø5x55mm

I	900x900:	12 screws
II	700x500:	10 screws
III	400x400:	6 screws

3. Preparation
   - Disconnect the battery and the external power supply
   - Fix the position of the roof window on the vehicle, taking No. 1 (conditions) into account.

4. Roof cut-out

Make the roof cut-out as shown in Fig. II. To check, place the roof window in the roof cut-out without the sealing cord. There must be a clearance of 2mm between the roof cut-out and the outside frame. If not, rework the roof cut-out.

5. Electrical connections

Lay the electricity supply cable from the roof cut-out (see Fig. II) to the power supply (only if additional options are used). When connecting to other consumers, make sure that the supply cable is suitable fused and the supply cable is sufficiently dimensioned (see No. 2). A specialist workshop should be consulted on this.

6. Attaching the seal

Place the seal into the groove provided and let the ends overlap by at least 20mm.

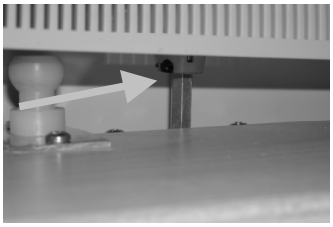
7. Inserting the roof window

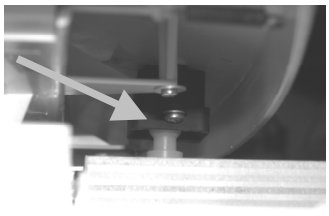
- Position the roof window from the outside over the roof cut-out, place it carefully into the cut-out so that there is an even gap all the way round between the roof cut-out and the outside frame (do not place the window on one side of the cut edge!).
- From the inside, fasten the window in place with the enclosed fastener clamps and screws. The position of the clamps is determined by the factory settings for the drill holes and holder and must not be changed, because it will then not be possible to fit the inside frame. First screw the clamps with the 3.5 x 16mm screws into the roof of the vehicle, and then screw the clamps with the outside frame.
- Where possible, tighten the Ø5 screws evenly crosswise in several passes until the sealing cord has been pressed sufficiently flat. The maximum torque is 1.2 - 1.5 Nm and must be not be exceeded.
- Tighten the screws after a setting period of about 1 hour. Remove any sealing compound that has expanded outside around the plastic frame. Select the clamp type as shown below in accordance with the roof thickness:

Roof thickness range	Clamp type	Screw Ø5 mm
25 - 35mm	C1	55mm
35 - 45mm	C2	
45 - 55mm	C3	

8. Fitting the inside frame

- Position the inside frame underneath the roof window with the crank holder in the crankshaft.
- If you are using the additional options, now connect the electrical connections for the inside frame to the supply cable at the roof cut-out. Insulate the connections and secure them against loosening, because there is a danger of short-circuiting.
- Now press the inside frame with the black spherical head holders into the spherical heads of the clamps.
- If using the additional options, please note that the head pieces have to be fixed in place with the screws in the accessories.





9. Information for the first use

- Connect the battery again and, where applicable, reconnect the external power supply.
- To check the function, open and close the roof window as described below in **B**. The hood should open and close easily.
- If using the additional options, check their function.
- Remove the protective foil from the acrylic glass hood.

C. Information on use

1. Safety instructions

- **Environmental influences**
- **Do not open the roof window in heavy wind / rain / hail, etc. and with outside temperatures below -20°C!**
- **Before opening. remove snow, ice or heavy dirt. When opening the roof window under trees, in garages or similar, make sure there is sufficient headroom (see Fig. 1).**
- **Do not stand on the roof window.**
- **Close and lock the roof window before driving.**
  Open the fly screen blind and plisse material (initial position).

2. Operating the hood:

a. Opening the hood
Before opening the hood make sure that the opening area above the hood is free. The hood can be opened by up to 60°.
Slide the crank ejector in the direction of the arrow. The crank is ejected. Open the crank into the use position. Turn to the right to open the hood to the position you want.
If there are any obstructions the crank's overload safety device engages; you will hear a light "grating" noise in the crank.
Close the hood during rain or heavy wind.

b. Closing the hood
Turn the crank in an anticlockwise direction until the hood is closed. Now fold the crank and press it into the crank pocket. If there are any obstructions the crank's overload safety device engages; you will hear a light "grating" noise in the crank. If you hear this, turn the crank by an additional full turn until you can press it into the crank pocket.

3. Operating the inside frame:

a. Blackout blind:
Pull the strip handle of the blind into the position you want or until the catch snaps into the strip handle of the fly screen.

b. Opening / Closing the fly screen:
With the strip handle slide the fly screen against the strip handle of the blind until the catch snaps into the strip handles. To open, press the catch lightly down and guide the fly screen back. (Attention! Do not let the fly screen slide back automatically - this can cause damage.)

D. Information for maintenance

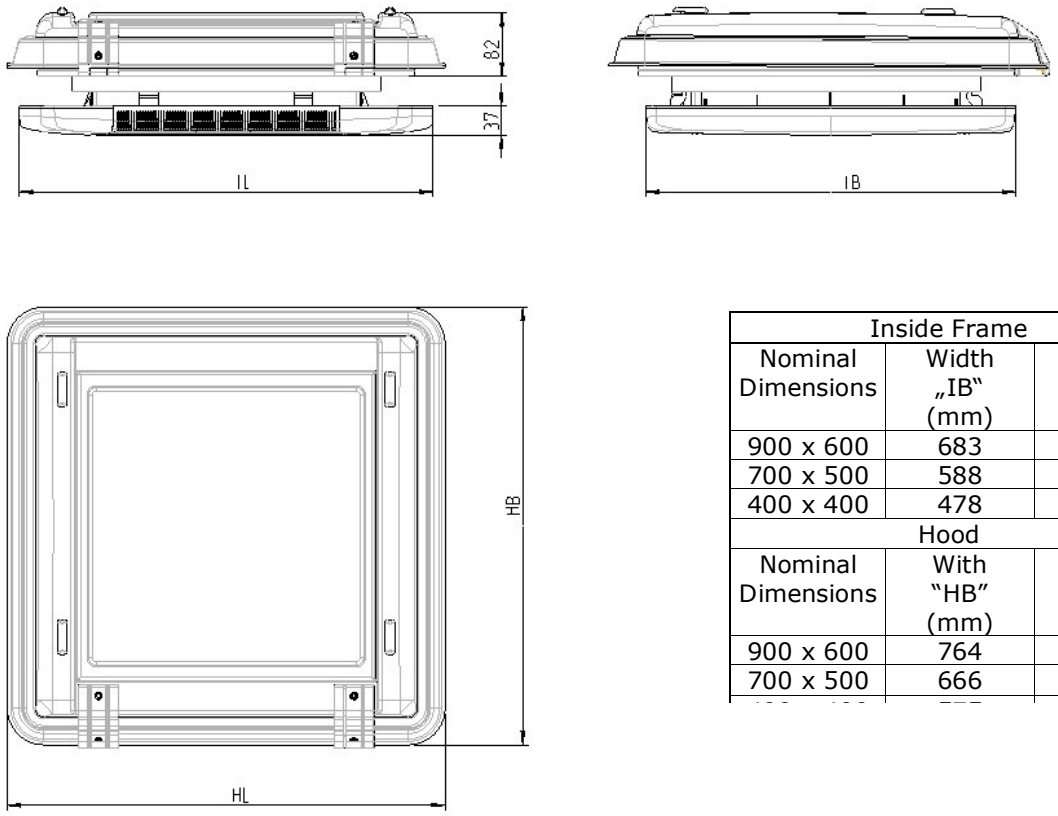
1. Care:
   - Do not use aggressive cleaners (solvents / abrasive cleaners).
   - Clean the acrylic glass and frame parts with a soft cloth and a mild soap solution, or use a special cleaner (no guarantee). Make sure that no water comes into contact with the electrical and mechanics components.
   - When washing the vehicle, make sure that the water jets are not directed directly at the roof window. There is a gap around the edge between the hood and the frame (forced ventilation) through which water could penetrate into the inside of the vehicle.
   - Clean the insect net and the plisse material with a soft brush or a damp cloth.

2. Maintenance/repairs
   - The winding system is constructed to be maintenance-free.
   - For repairs in case of damage please contact a specialised workshop.

3. Keeping the assembly instructions:
   - If possible keep the user information with the operating instructions and documents in the vehicle in case they are needed.

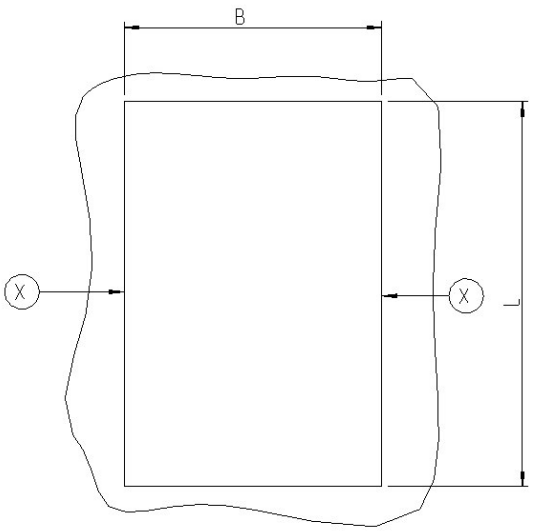
4. Buying spare parts:
   - Spare parts are available from your dealer.

Fig. I:



Inside Frame		
Nominal Dimensions	Width „IB“ (mm)	Lenth “IL” (mm)
900 x 600	683	1078
700 x 500	588	876
400 x 400	478	534
Hood		
Nominal Dimensions	With “HB” (mm)	Length “HL” (mm)
900 x 600	764	1064
700 x 500	666	866

Fig. II:



Nominal Dimensions	Width “B” +2/-0 (mm)	Length “L” +2/-0 (mm)
900 x 600	600	900
700 x 500	500	700
400 x 400	400	400

If one or more additional portions are used the power can be supplied at the points marked "X". The cable ends require a 6.3mm tab connector and must be protected from tugging.

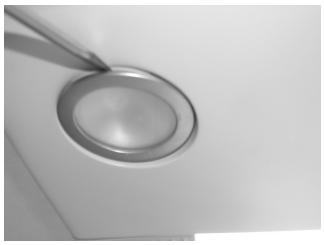
E. Additional options inside frame

1. General
   - The inside frame of the roof window can be fitted optionally with halogen spotlights for better lighting in the vehicle or with radial fans in the head pieces to improve ventilation. Power must be provided at the place marked in Fig. II to be able to use these options.
   - The cables to the connection in the roof cut-out must be dimensioned, laid and fused professionally. The valid regulations, such as, e.g., DIN EN 1648 Part 1 or 2 must be observed.
   - The supply cable for the electricity must be fused with a 5 amp fuse and dimensioned sufficiently (at least 1.5mm²).
   - The cable ends must have insulated contacts (6.3mm tab receptacles).
   - The connections must be secured against detaching.
   - Technical data (the information refers in each case to one head piece)
   - Lighting (applies to all sizes)

2. Lighting option

Output (W)	Voltage (V)	Current (A)
2 x 10 W	10.2 - 13.8 V	1.66 A

- Depending on the version, the inside frame can be fitted with 2 halogen spotlights per head piece, max. 4 x 10 W projectors.
- To switch the lights on, press the rocker switch installed at the side of the head pieces. The lights in each head piece can be switched on and off separately.
- When changing a halogen bulb wait until the bulb and the lamp have cooled down. **These parts can cause burns because they can become very hot when in use.**
- Use a small screwdriver to lift the spotlight out of the holder, making sure that you do not damage the head piece.
- Turn the lamp's silver ring anticlockwise and lift it out of the base.
- Remove the defective halogen bulb and replace it with a new one.
- Make sure that the maximum output of 10 W is not exceeded.
- Do not touch the new bulb with bare hands as this reduces the service life.
- Replace in the reverse order.



3. Ventilation option

Size	No. of fans	Pressure	Air flow	Voltage (V)	Current (A)
900 x 600	3	k.A	k.A.	10,2 – 13,8 V	2,25
700 x 500	2	k.A	k.A.	10,2 – 13,8 V	1,5
400 x 400	2	k.A.	k.A.	10,2 – 13,8 V	1,5

- Depending on the version, the inside frame can be fitted with ventilators for ventilating the living space. The ventilators are installed in the head piece and suck the air in through the ventilating slit and blow it out into the open through the frame forced ventilation. The ventilators can be used when the roof hood is closed.
- To switch the ventilators on, press the rocker switch installed at the side of the head pieces. The ventilators in each head piece can be switched on and off separately. The switches are 2-step switches so that the ventilators can be operated at full power or half speed.
- To clean the filter fleece, remove the ventilator grid from the head piece. To do this, unscrew the fastener screws with a small crosstip screwdriver. Use a vacuum cleaner to clean the fleece, or clean it with warm water. Do not replace until the fleece has dried completely.
- The ventilators require little maintenance. However, check at regular intervals for foreign bodies. To do this, remove the ventilator grid as shown above and check that the ventilator's suction ducts are clean