



INSTALLATION INSTRUCTIONS

ELECTRIC DRIVE SET

FOR DOMETIC ROOF
WINDOWS HEKI 3 AND
HEKI 3PLUS
IN MOTORHOMES



DOWNLOAD
IN COLOR
rv-tech.de

TECHNICAL DATA

| | |
|------------------------------------|-----------------|
| Drive set Power supply | 0.5 kg |
| Max. current | 10.5 - 15 volts |
| consumption Fuse | 5 A |
| Duration of opening process | 7.5 A |
| | max. 30 seconds |
| Closing time | max. 25 seconds |

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Please allow approximately 1.5 to 2 hours for the complete installation of your new drive set.

IMPORTANT NOTES

Please observe the following safety instructions

We generally recommend that the drive set be installed by qualified personnel. We accept no liability for improper installation.

The product—especially its packaging—may contain small parts that could be swallowed. **Keep away from children!**

Technical details are subject to change without notice and may differ from the illustrations in these installation instructions.

Risk of injury

Each individual step in these installation instructions must be followed precisely.

Be sure to disconnect the vehicle and body batteries during wiring work!

Requirements for installation

The drive set supplied is only suitable for installation in the Heki 3 and Heki 3plus roof windows from Dometic.

Roof windows from other manufacturers cannot be retrofitted with this kit.

Validity

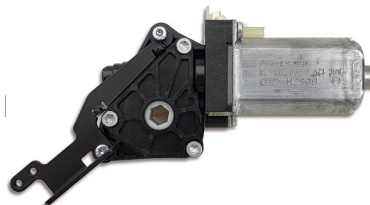
The installation instructions are valid for:

Heki 3 and Heki 3plus drive sets from RV tech Basic set including extensions

II SCOPE OF DELIVERY

The scope of delivery of your drive set includes:

1 drive motor including retaining



1 control unit including rotary ha



1 cover panel



1 cable set



Various small parts



1 INSTALLING THE DRIVE SET

You will need the following tools for installation:

- Phillips screwdriver
- Torx T20 screwdriver
- Open-end wrench SW 10
- Side cutters
- Wire strippers
- Cordless screwdriver, if necessary

To install the drive set, the inner frame of the roof window must be completely removed.

Note: No seals will be removed or damaged during this process.

Note: Some motorhomes have wooden panels with LED lighting attached to the ceiling around the skylight. These should be removed beforehand.

1. First, remove the crank handle from your skylight.

Fold out the crank and loosen the screw connection with a screwdriver. Also remove the screw next to the crank handle.



2. Remove the 9 ventilation grilles around the inner frame by hand. These are only clipped on and can be easily pulled off.

Note: Please do not bend them too much.



3. Now loosen all the screws underneath (15 in total).

Note: Leave the screws at two diagonally opposite corners tightened until the end.

Before loosening these two screws, ask another person to press the inner frame against the ceiling while you loosen the screws so that the inner frame is not damaged.

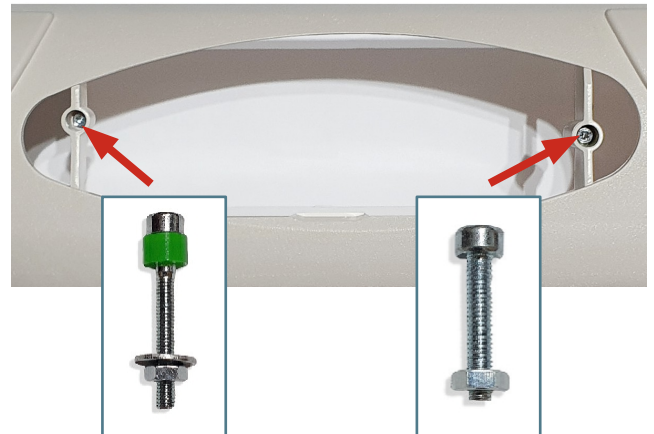


4. Remove the crank cover from the inner frame.

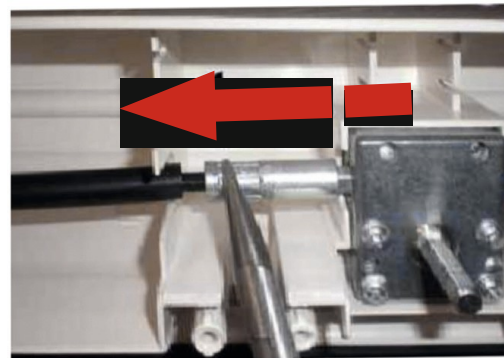
This cover is screwed to the inner frame with 2 screws.



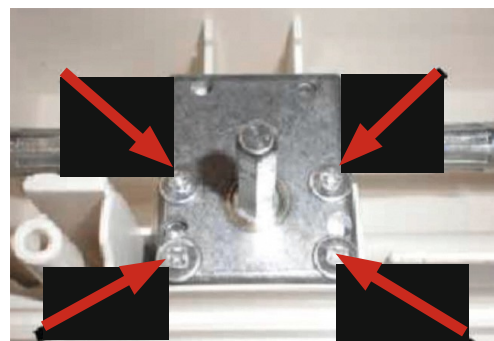
5. Now attach the following screw combinations (included in delivery) to the opening of the inner frame, which will later be used to attach the two magnets of your new cover panel. (see Chapter 6, "Final assembly," p. 19)



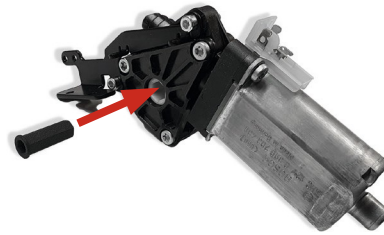
6. Remove the drive shafts from both sides of the hexagon of the crank mechanism.



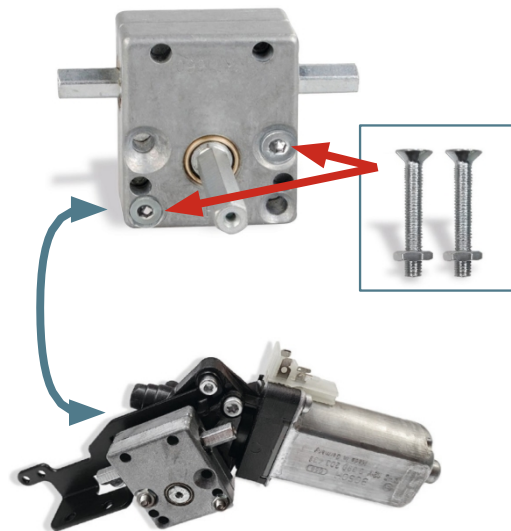
7. Loosen all 4 screws on the crank gear.



- 8.1 Insert the supplied black bushing into the motor gearbox (supplied) as shown in the picture.

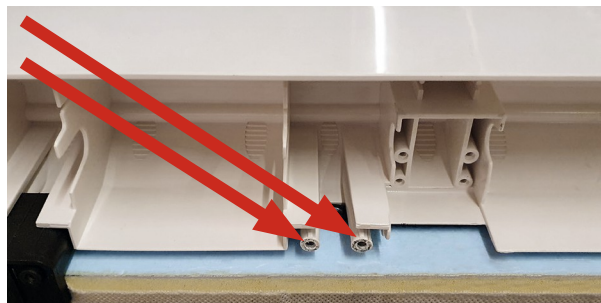


- 8.2 Insert the two screws supplied (M3 x 20) through two diagonally opposite holes in the crank gear and secure the screws with the two nuts supplied (M3).



- 8.3 Then push the crank gear into the bushing as shown in the picture. Tip: Apply a few drops of penetrating oil (e.g., WD-40) to the gear shafts.

9. Remove the dark mounting block on the outer frame, which was originally located directly next to the crank. These two holes in the outer frame are now used to screw in the drive set.



10. Screw the drive set onto them using the two screws provided.



11. Reattach the two drive shafts to the crankcase.

If the shafts cannot be inserted because the hexagon socket of the gearbox does not match the position of the drive shafts, **first connect the drive set to the vehicle electrical system** (see following page). This problem can then be easily remedied (see section 4.3, p. 11).



Note: Please check the drive shafts regularly and treat them with a little penetrating oil if necessary. The software cannot detect if a drive shaft is broken, which could lead to damage to the roof window.

2

CONNECTING THE DRIVE SET TO THE ON-BOARD POWER SUPPLY

Note: Please disconnect the body battery from the vehicle electrical system before carrying out this work!

First, connect the drive set to the vehicle electrical system using the cable harness supplied.

There are **two ways** to do this:

Option 1:

Some motorhomes have wooden panels with LED lighting around the roof window attached to the ceiling (e.g., Carthago).

This means that there is already a cable duct in the ceiling that you can use.

Tip: You can use the cable already in the cable duct as a pull-in aid for the power supply cable of the skylight as follows:

Loosen the existing cable at one end of the cable duct and extend it with a string. Now pull the cable out at the other end until the string attached behind it appears. Attach the new power supply cable for the skylight to the string. Then pull both cables back through the cable duct using the string.

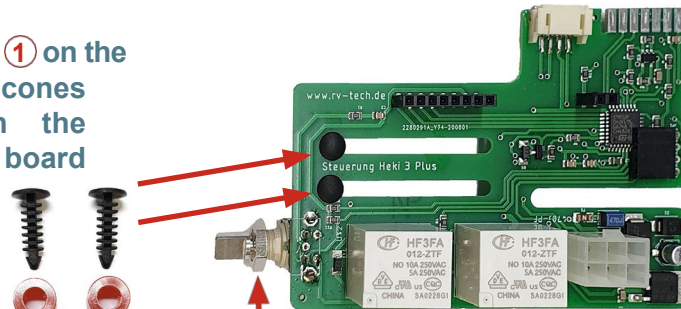
Option 2:

You will need to create your own cable feed-through, similar to when retrofitting a roof air conditioning system in the roof.

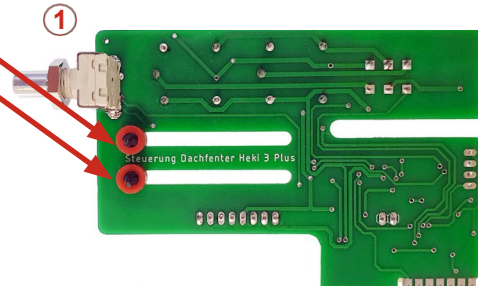
The two cables of the cable harness are only connected to ground (black cable) and 12 volts (red cable). Additional fusing is not necessary, as there is already a fuse in the cable harness.

3 INSTALLING THE CONTROL UNIT

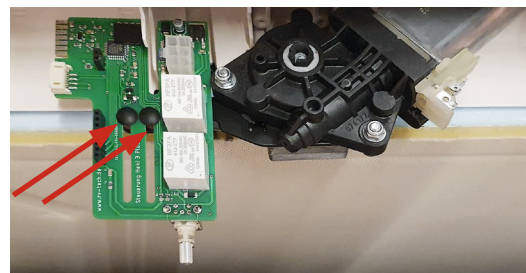
1. Remove the small nut ^① on the encoder . Insert the two pine cones (included in delivery) through the elongated holes in the control board (included in delivery).



2. Then place the orange spacer rings (included in delivery) over the pine cones on the back of the board.

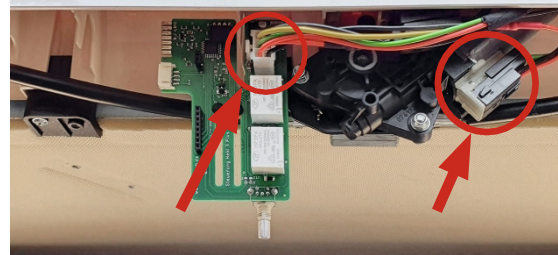


3. Now push the ends of these two pine cones through the two holes in the retaining plate of the drive set.



4 CONNECTING THE DRIVE SET

1. First, remove the 7.5 amp fuse from the wiring harness *(included in delivery)*.
2. Plug the **black connector** of the cable harness into the motor of the drive set and the **white connector** into the control board. Both connectors will snap into place.
3. You can use the slots in the outer frame to secure the power cable.

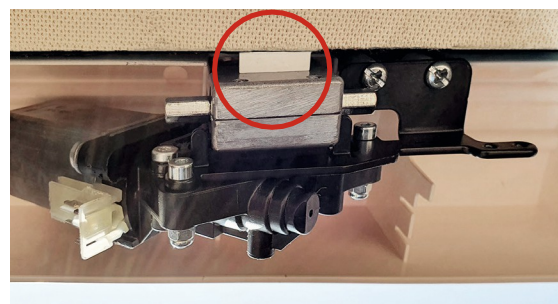


If you have not yet attached the two drive shafts to the crank mechanism, run the motor briefly by first reconnecting your auxiliary battery to the vehicle electrical system.

Then insert the fuse from the wiring harness that you removed earlier into the fuse holder for a moment and remove it again so that the motor turns just a little.

Now try to attach the drive shafts again. If the position is still not correct, repeat this process.

4. Once both drive shafts are attached, slide the gray wedge supplied between the gearbox and the roof to prevent the motor from moving when activated.
This step is optional and can only be performed if there is sufficient space between the gearbox and the roof.



5. Reinsert the 7.5 amp fuse into the wiring harness.
6. The skylight will now close if it was previously open and will automatically detect the closed position.
As soon as you can no longer hear the drive motor, the teach-in process is complete.

5 INSTALLING OPTIONS

Note: You can skip this chapter if you have not purchased the following options.

5.1 RAIN SENSOR OPTION

Note: First remove the 7.5 amp fuse from the wiring harness.

If you are retrofitting the option: Please remove the rotary knob, the nut underneath, all 9 ventilation grilles, and the entire inner frame of the roof window with all 15 screws (see sections 1.1–1.3, p. 6).

Connect the rain sensor to the designated connector (see Fig. 1 on the next page) on the control board and attach it with body adhesive (e.g., OttoColl P83) – behind the roof window when viewed in the direction of travel – directly to the outer skin of your motorhome.

The yellow LED on the sensor lights up continuously when the roof window is open. As soon as rain hits the sensor, the green LED also lights up and closes the roof window.

Please clean the roof and underside of the sensor thoroughly before sticking it on!

The control board automatically detects the sensor and closes the skylight independently when it starts to rain.

Please refer to the following two images for cable routing:

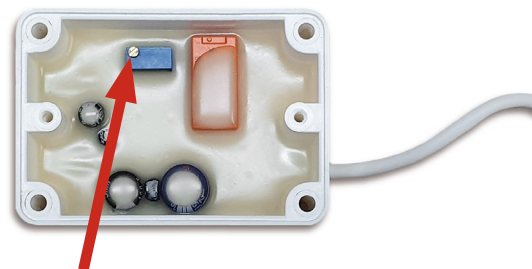


The sensitivity of the rain sensor can be adjusted continuously.

The default setting of the sensor is already set so that you do not normally need to optimize it.

If you still want to adjust the sensitivity of the sensor, please remove the cover on the underside of the rain sensor, which is secured with two screws.

You can now use the small screw to adjust the sensitivity of your rain sensor:



Turning it counterclockwise increases the sensitivity of the rain sensor.

Turning it clockwise makes your rain sensor less sensitive.

Turn only a few turns and then test the sensitivity. If you set the sensor too sensitively, the green LED will light up continuously.

How the rain sensor works:

When it starts to rain, the skylight closes automatically.

Even when it is raining, you can open the skylight to an angle of approx. 20 degrees for ventilation.

5.2 REMOTE CONTROL OPTION

Note: First remove the 7.5 amp fuse from the wiring harness.

If you are retrofitting the option: Please remove the rotary knob, the nut underneath, all 9 ventilation grilles, and the entire inner frame of the roof window with all 15 screws (see sections 1.1–1.3, p. 6).

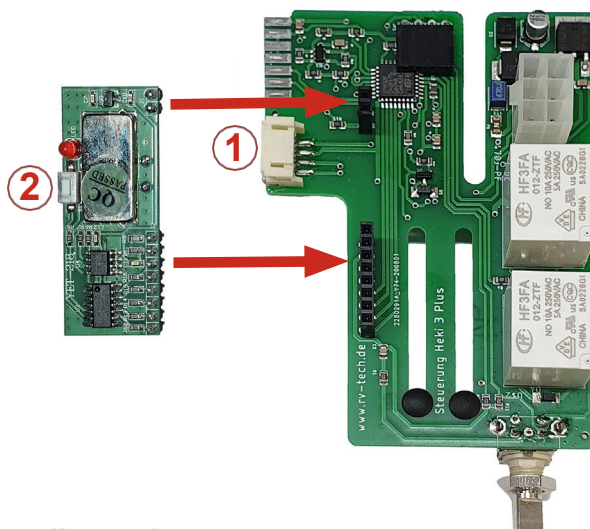
Plug the radio receiver of the remote control set into the designated connector on the control board of the **①** roof window.

Now press the learn button **②** on the radio receiver.

A red LED on the circuit board will light up. Then press any button on the handheld transmitter. The LED will now go out and the handheld transmitter will be successfully programmed.

If you want to program another handheld transmitter, repeat the process.

You can delete all handheld transmitters by pressing the **②** on the radio receiver learning button for 10 seconds.



The functions of the handheld transmitter are as follows:



BUTTON 1: OPEN the skylight

The window will continue to move until the **OPEN** or **CLOSE** button is pressed or the skylight is fully open.

BUTTON 2: CLOSE the skylight

The window moves until the **OPEN** or **CLOSE** button is pressed or the roof window is completely closed.

BUTTON 3: FAVORITE position

Pressing the button briefly moves the roof window to the last programmed favorite position.

To program a new favorite position, move the skylight to a new position using the **OPEN** or **CLOSE** button and then press **BUTTON 3** for about two seconds. Your new favorite position is now saved.

BUTTON 4: VENTILATE

Pressing the **VENTILATE** button once opens the roof window completely and closes it automatically after 15 minutes.

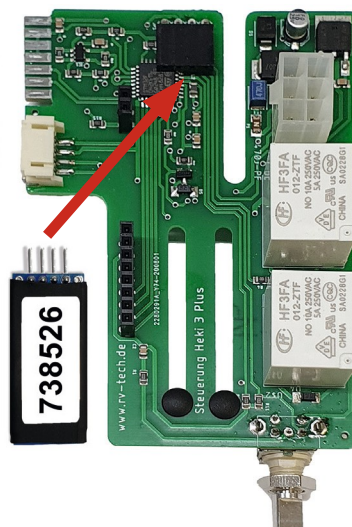
Pressing this button repeatedly extends the ventilation time to 30, 45, or 60 minutes.

5.3 OPTIONAL CONTROL VIA APP

Note: First remove the 7.5 amp fuse from the wiring harness.

If you are retrofitting the option: Remove the rotary knob, the nut underneath, all 9 ventilation grilles, and the entire inner frame of the roof window with all 15 screws (see sections 1.1–1.3, p. 6).

Insert the small Bluetooth receiver into the 4-pin plug connector on the control board in the sunroof as shown in the illustration.



Tip: Please make a note of the PIN (see back of the Bluetooth receiver) and keep it in a safe place. If you change your cell phone, you can easily access the PIN when it is requested again.

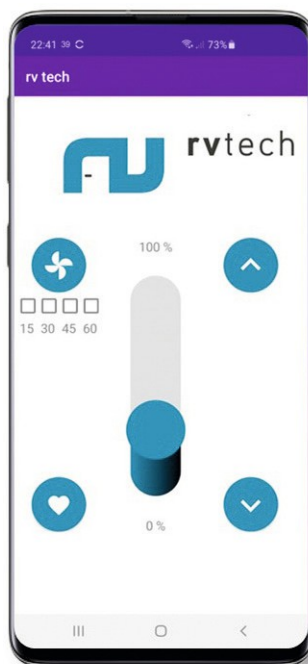
INSTALLATION FOR APPLE AND ANDROID MOBILE PHONES:

Download the RV tech app from the Apple Store or Google Play Store and install it.

Start the app and add the *Heki3* Bluetooth receiver from your drive set. The PIN for entering the password can be found on the back of the small receiver.

Note: Do not connect the Bluetooth receiver in your phone's Bluetooth menu, but directly in your RV tech app.

You can then choose from the following functions:



 **OPEN** the roof window 

CLOSE the roof window

 **MOVE TO A SPECIFIC POSITION** using the slider

 **FAVORITE POSITION**
The roof window moves to your last programmed favorite position.

To program a new favorite position, move the skylight to a new position and then press the **HEART BUTTON** for about 2 seconds. Your new favorite position is now saved.



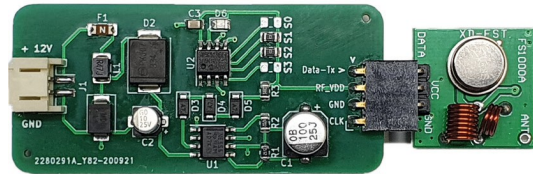
VENTILATION

Pressing the **VENTILATION BUTTON** once opens the skylight completely and closes it automatically after 15 minutes.

Pressing the **VENTILATION BUTTON** several times extends the ventilation time by 15 minutes each time, up to a maximum of one hour.

5.4 OPTION: AUTOMATIC CLOSING WHEN THE VEHICLE STARTS

To do this, this circuit board is mounted invisibly on the back of your cigarette lighter.



Note: Switch off the vehicle's ignition so that the cigarette lighter is not connected to the power supply.

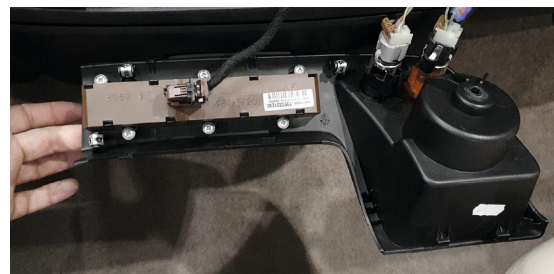
Remove the cup from the cup holder above the cigarette lighter.



Remove the rubberized base underneath from the cup holder on the dashboard.



Loosen the screw (Torx T20) at the bottom of the cup holder.



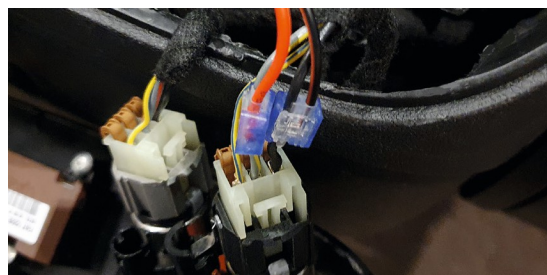
Remove the lower part of the cockpit.

Lift the entire cover at the bottom edge and tilt it slightly upward. This will release the hooks at the top edge.

Connect the circuit board to the cigarette lighter cables. Use the clamp connectors supplied for this purpose:

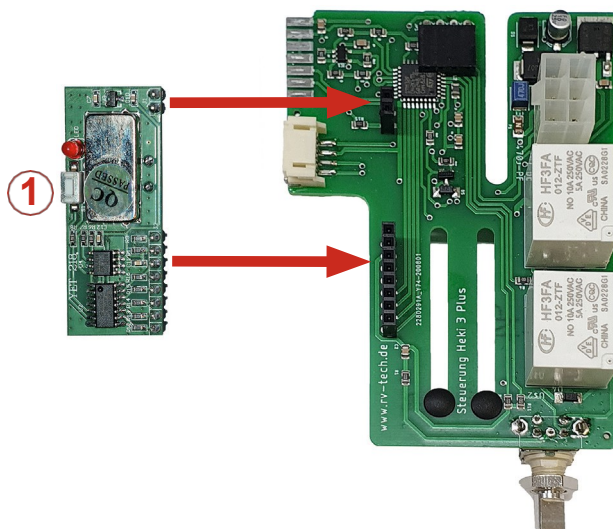
Connect the black cable to the black outer cable on the cigarette lighter plug using the blue cable connector.

Connect the red cable to the middle cable on the cigarette lighter plug. Then connect the white plug of the cable to the circuit board.



Plug the radio receiver into the designated connectors on the control circuit board, if it is not already there.

If you have already installed the remote control option, your radio receiver is already in place.



Press the learn button **①** on the radio receiver. A red LED on the circuit board lights up.

Now you must switch on your vehicle's ignition within 5 seconds so that your cigarette lighter and thus also the circuit board receive power.

This will program the circuit board to the radio receiver. The LED will go out and the circuit board will be successfully programmed.

Turn off the ignition and open your sunroof. As soon as you turn the ignition back on, your sunroof will close automatically.

Now carefully stow the circuit board under the cover and reassemble everything in reverse order.

NOTE: All options can be retrofitted at any time.

6 FINAL ASSEMBLY

Reattach the inner frame of the roof window to the outer frame using the existing screws.

Put the nine ventilation grilles back in their positions.

Then press the two magnets supplied into the openings provided in the new cover panel (see section 1.5, p. 7).

Tip: If necessary, put a drop of superglue in the openings.



Place the new cover (included in delivery) over the encoder of the control board.

Pull the circuit board out far enough so that you can screw the small nut on the encoder (wrench size 10 mm) back on using the magnets once the cover is correctly positioned.



Finally, use a 10 mm wrench to attach the new knob (included) at a distance of approx. 1 mm from the bezel so that you can also use the encoder's button function.

Then place the cover on the rotary knob.



NOTE: Any wooden panels with LED lighting that were removed beforehand can now be reinstalled.

7 FUNCTION TEST

Turn the knob clockwise to open the skylight.

Turn the knob counterclockwise to close the roof window. Please also note the symbol on the cover panel.

The noticeable detent when turning the knob slowly allows you to open or close the roof window in small increments.

Turning the knob quickly over one or more detents opens or closes the roof window completely.

Pressing the knob stops the roof window in its current position.

The control system has **collision and pinch protection** that automatically stops the skylight if a collision is detected during opening (e.g., with branches) or if objects are detected between the skylight and the frame during closing.

8 TROUBLESHOOTING

If your skylight drive no longer closes completely, disconnect the drive from the power supply for a few seconds.

If you use the main switch of your motorhome to do this, please note that other devices may also be reset.

RV tech hopes you enjoy your new convenience feature and continues to have relaxing vacations with your motorhome!

*If you have any problems installing the system, please contact
RV tech directly by email or phone.*

YOUR NOTES

YOUR NOTES

RESPONSIBLE FOR THE CONTENT



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