# Assembly instructions elevating roof for Mercedes Vito W447 long Modell: EasyFit front opening, Art.-No. 23160\*

### Attention!

Before starting with the following tasks, please make sure that you have read the assembly instructions fully and you have all the necessary tools to hand.

Please follow the mounting instructions in the order described.

Failure to comply with these instructions or make changes to the roof, frame or closing-system will invalidate the guarantee and Reimo will not accept responsibility for any defects of future warranty claims which may develop.

#### Information for vehicle owners

Immediate execution and confirmation of the acceptance of modification in conjunction with the accompanying certificate of conformity:

Due to any changes, the approval of the vehicle shall expire, if not as per StVZO § 19 section 3 the prescribed acceptance procedure has not been executed fully and confirmed or if certain requirements are not met.

After the technical modification the vehicle should go to an officially authorized expert or a technical test centre or a test engineer of an officially recognized monitoring organisations promptly to perform to an officially authorized expert or inspector of a technical test centre or a test engineer of an officially recognized monitoring organization for the execution and confirmation of the prescribed approval.

German regulations, for other countries please check your local regulations before installation.

#### The following tools and materials will be needed:

Drilling machine, steel drills 2.5 mm, 3.0 mm - 10.0 mm, jigsaw with metal saw blade, felt pen, tape measure, cartridge pistol, adhesive tape, carpet knife, metal file, screwdriver, safety goggles, work gloves, anticorrosive paint, smoothing agent, sanding fleece or similar, silicone spray and 2 distance strips 20 cm long and 2 spacer strips 70 cm long, each at least 6 cm wide.

#### Recommended accessory:

Roof bed Standard Art.-No. 23161 Roof bed Luxus Art.-No. 23162

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#### 1 Vehicle preparation

- Completely dismantle the vehicle roof, remove seats. Cover floor and dashboard.
- For vehicles with original side paneling, all parts above the window must all be removed.
- Cover the vehicle from the top of the windows on the in- and outside, so that no metal chippings can damage the paint
- Remove the cables from the cut-out area.

#### 2 Roof cut out

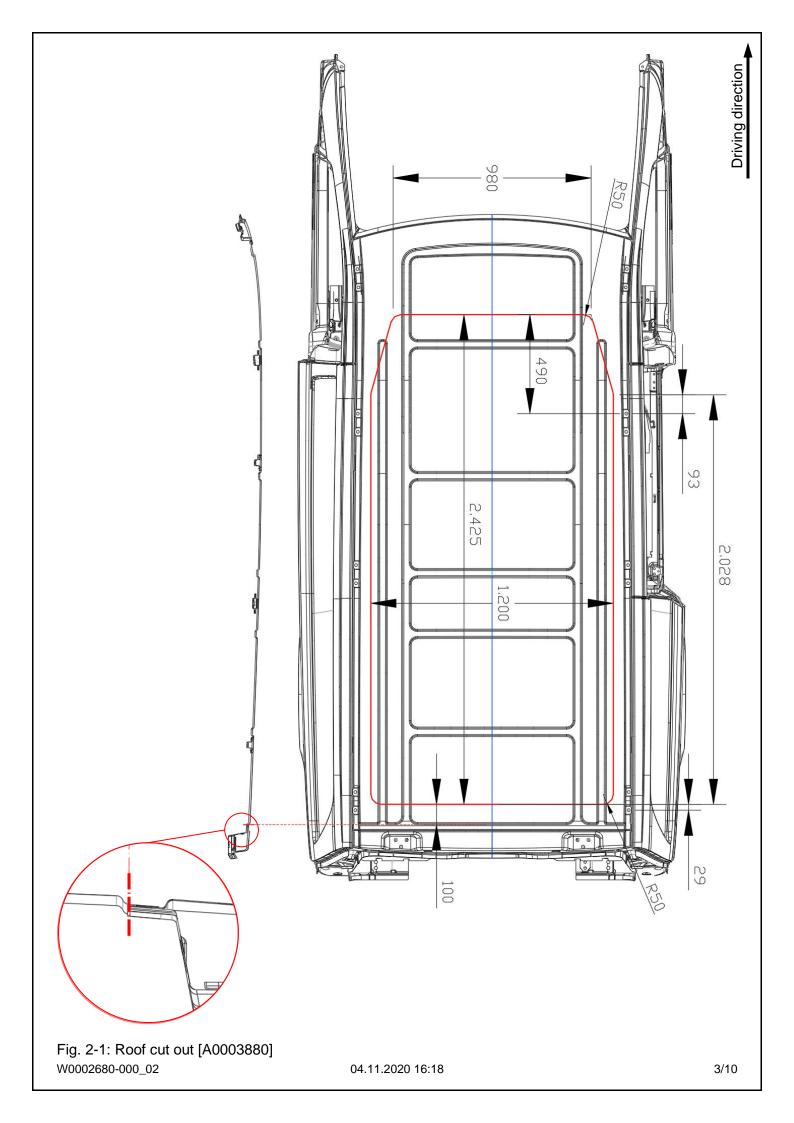
Mark and check the Dimensions on the vehicle roof as shown in Fig. 2-1

Attention: Wear safety goggles and work gloves. When cutting out, pay attention to the cables in the corners.

- Place the jigsaw on each corner and set a 10 mm hole as a radius. Avoid sharp corners.
- Saw the sheet metal roof along the marked line. The easiest way is to start with the corners, saw to the middle and then along. If a corner is cut out, support the sawn sheet metal with wooden strips.
- Lift the completely sawn metal roof off the vehicle by two people.
- Deburr cut edges with a file and treat with anticorrosion agent.
- Completely remove the bitumen insulation material underneath the vehicle panel / cab and thoroughly clean the surface.



Tip: The easiest way is to heat the insulation with a hair dryer and remove with a spatula.



#### 3 Installation of the GFRP frame

- Drill the four holes (see Fig. 3-1**Fehler! Verweisquelle konnte nicht gefunden werden.**, 1) fort the rivet nuts, deburr them and treat with rust inhibitor
- Fix the rivet nuts (2) in the prepared holes

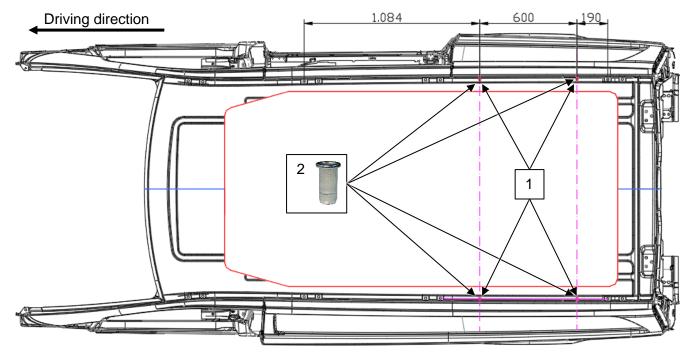


Fig. 3-1: Position of the rivet nuts [A003880]

- Prepare the vehicle roof (see Fig. 3-2) and the EasyFit frame in the gluing area (1):
  - 1. Thoroughly clean
  - 2. Grid

- 3. Thoroughly clean again
- 4. Apply primer and allow to air out

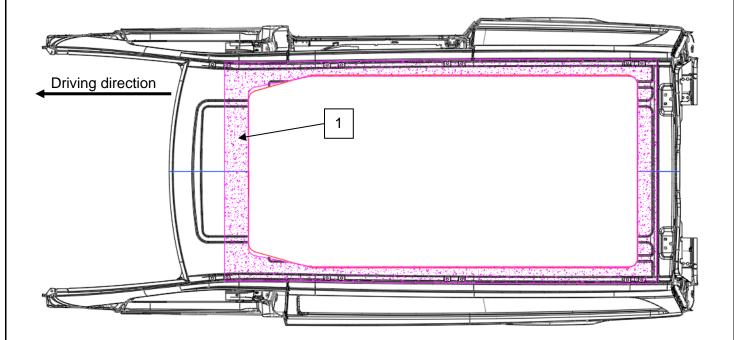


Fig. 3-2: Gluing area [A0003880]

- Apply Sikaflex on the vehicle roof and on the EasyFit frame.
- Carefully place the roof and screw it to the six bolting points (see Fig. 3-3). For this, set up the roof with the spacer strips slightly.

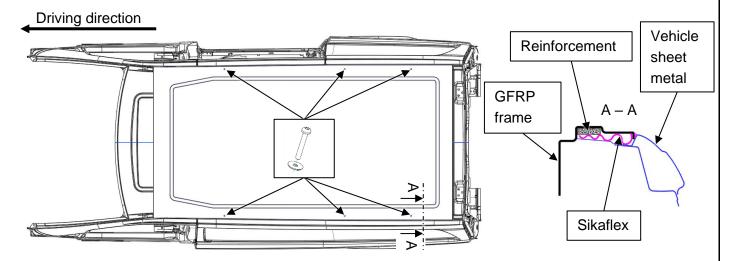


Fig. 3-3: Verschraubung des EasyFit-Rahmens [A0003880]

- Fix the subframe to the pre-drilled points with two Teks screws in the front.
- Screw the lower frame from the inside to the wooden blocks of the frame in the rear area.
- From the inside, apply Sikaflex between the vehicle body and the GFRP frame.
- Glue the front cross bar with Sikaflex into the vehicle from below and fix it overnight with screw clamps.
- Lift the roof onto the vehicle and fix hinges.
- Attach the gas springs: The gas springs are supplied with a wire loop pretensioned, to mount the
  wooden strips must be removed and the roof a little closed. When hooking in, make sure that the
  piston rod (covered by the protective tube) points downwards! The gas spring is first hooked on
  top of the roof shell by applying light pressure to the cooling head and then to the EasyFit frame.
- After installing the roof, the hinges must be secured against slipping with a locking screw (see Fig. 3-4)!

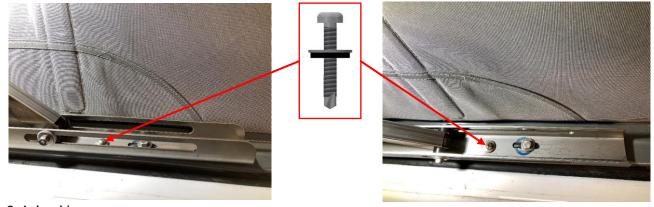


Fig. 3-4: Locking screw

Allow the glue to dry overnight.

#### 4 Installation of the canvas

- Gently pull the roof out of the overstretched area (press the back of the roof down by hand) and close it half for two to three times.
- Before tensioning the canvas, fix the roof with straps about 3 cm before the maximum opening. The canvas will be nice and tight.
- Close all zippers bevor installation.
- Align the corner seams with the corners and secure the front and rear canvas strip with a screw in the middle.
- Pull the canvas around under the canvas strip.
- Gently tighten the corners with the support of the second hand's back.
- Tension the canvas completely from the front to the rear (see Fig. 4-1, 1).
- Seal the transition from the vehicle to the canvas with silicone (2). If necessary, mask the body with adhesive tape beforehand. In the area of the hinges you need an extension. This works best with a piece of hose and another grommet.
- Allow silicone to dry.
- Check for leaks!
- Cut off the remaining material of the canvas on the inside and seal the cutting edge with silicone (2).

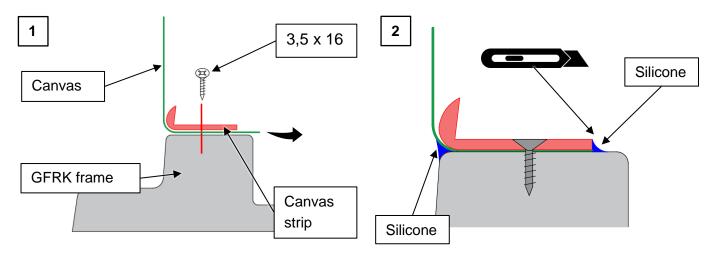
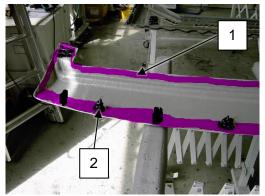


Fig. 4-1: Installation of the canvas [A0004135]

## 5 Installation of the front spoiler

- Place the front spoiler on the vehicle and check the fit. If necessary, rework the spoiler with a file, a milling cutter or an angle grinder until it rests evenly all around.
- Remove the front spoiler from the vehicle and lay it upside down on the ground.
- Now use an angle grinder (with rubber plate and sandpaper) to sand the inside of the spoiler up to approx. 50 mm above the edge (wear protective goggles and dust mask).
- Roughen the outer adhesive area with a sanding fleece.
- On the vehicle: Also rough the varnish in the gluing area approx. 60 mm wide with the sanding fleece. Any existing rust spots must be carefully removed and repainted to prevent later major damage. Rust leads to detachment of the adhesive, which is infiltrated over time by the rusty spots.
- Thoroughly clean the front spoiler and the vehicle in the gluing area.
- Apply primer in the gluing area of the front spoiler (see Fig. 5-1, 1) as well as the vehicle
- Apply generous blobs of Sikaflex (2) to the front spoiler above the windscreen.

- Position the spoiler on the vehicle and fix it with adhesive tape (3). This must not be forcibly clamped in order to avoid cracks.
- Immediately remove the overflowing Sikaflex on the outside.
- Let the adhesive bond harden overnight.



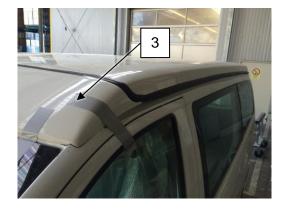


Fig. 5-1: Installation of the front spoiler

# 6 Grouting the EasyFit frame ant the front spoiler

- The later sealing seams (width approx. 6 mm) of the exterior area will be masked on the EasyFit frame, the front spoiler and the vehicle with adhesive tape.
- Seal seams with black Sikaflex 221.
- Smooth the seams with a joint smoother or a finger in combination with Sika Leveling Agent N or soapy water.
- Remove the adhesive tape immediately after completing the adhesive seams.
- The seams should look like those in Fig. 6-1.
- Let the adhesive bond harden overnight.









Fig. 6-1: Grouting the EasyFit frame and the front spoiler

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#### 7 Installation of the lock

- Attach the belt according to Fig. 7-1 and tighten it: The buckle (1) must rest on the bracket (2)!
- Attach the supplied information label to a clearly visible part of the dashboard.

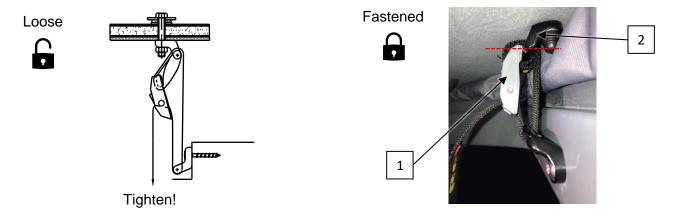


Fig. 7-1: Webbing guide of the lock

<u>Attention:</u> Make sure before every ride, that the straps are fastened properly, and the roof is evenly closed!

The straps should be checked for damage at regular intervals (at least before any major holidays).

Damaged or torn straps must be replaced immediately.

For your own safety, we recommend that you replace the straps every 5 to 6 years.

#### 8 Installation of the roof bed

- Mount the damper holders (the ball head outwards) on the bed.
- Screw the damper holders to the frame at a distance of 92,5 cm from the rear inner edge (see Fig. 8-1).
- Stick the self-adhesive loop tape to the frame in the support area of the roof bed. It prevents a rattling of the bed while driving.
- Insert the bed into the vehicle and push it back flush.
- Screw the rear of the bed to the EasyFit-frame.
- Hang the damper with the cylinder side to the roof bed → the piston rod (covered by the protective tube) points downwards.
- Place the mattress.

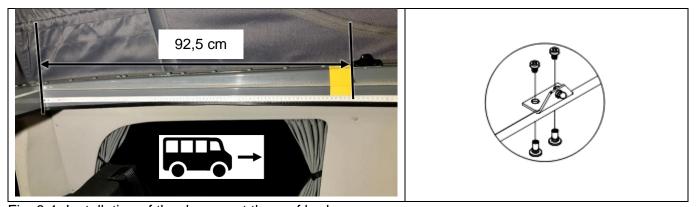


Fig. 8-1: Installation of the damper at the roof bed

Dear customer,

These assembly instructions are the product of experience, technical expertise and over 30 years of experience with our customers.

Please continue to help keeping this guide up to date for you, the customer.

For criticism or suggestions, we are available around the clock under the fax no. +49 6150 8662395.

Yours sincerely

**REIMO-Team** 

Reimo Reisemobil-Center GmbH Boschring 10 – 63329 Egelsbach – Germany



# Installation confirmation for submission at the modification approval

I hereby confirm that I have installed the following Reimo elevating roof according to the installation guide- line of the company Reimo Reisemobil-Center GmbH.
Roof type: Easy Fit, front high
Product number: 23160* (laminated, cab area inside)
Production digit:
Vehicle type: Mercedes Vito W447 long  Vehicle identification number:
by
Name:
First name:
Street:
City:
Date: Signature:

\* = Versions

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