



# FORESTER SF

Subaru



## Installation Instructions



## Forester SF Emuwing Installation Instructions

Due to the intrusion of the hinge this product is not suitable for vehicles with passengers in the seats adjacent to the Emuwing. The Emuwing is designed as an addition to a storage system and should be removed if the seats adjacent to the Emuwing are ever reinstated.

### Parts List



**Emuwing Frame**  
- One per side



**Emuwing Panel**  
- One per side



**Polyurethane Glue & nozzle**  
- One (1) per kit



**Support brackets**  
- Two (2) per side



**Hinge and Faceplate**  
- Two (2) per side



**Adhesive Weatherstrip**  
- One (1) length per side



**Pinchweld (if applicable)**  
- One (1) length per side



**Gas Struts**  
- Two (2) per side



**3M Primer**  
- One (1) per side



**M5 CSK bolts**- Eight (8) per side



**Panhead bolts**  
- Four (4) per side



**M4 Hex bolts, Washer & Nyloc nut**  
- Eight (8) per side



**Handle**  
Two (2) per side



**Keys & Keyring**  
- One (1) keyring with two (2) keys  
for each Emuwing



**Chalk Pen**  
One (1) per kit



**Latch Plates**  
Two (2) per side

#### Tools required:

- 4mm Allen Key
- Medium size Phillips's head screwdriver
- Eight to Twelve Clamps per side
- Spanners 7mm
- Sockets 7mm, 10mm and 14mm
- Caulking/Glue gun

#### Other things that you will need:

- Wax and Grease remover
- Clean rags or kitchen paper
- Masking tape
- Trim pry



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**The following instructions detail the installation of your new EmuWing kit; allow a total of two to three hours fitting time for each panel excluding curing time. Read the instructions thoroughly before starting.**

**We have installations on our YouTube channel which may be worth looking at before beginning.**



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**As this is a DIY kit. Please ensure you read the instructions carefully before beginning installation as once installed, no claims can be made due to incorrect installation.**

### **1: Remove the existing rear window and mark the interior trim for cutting.**

#### - Remove interior trim, glass and rubber.

Before starting, ensure your vehicle is parked on a level surface and the engine is turned off.

Cargo barriers. If present and obstructing access, try to move them aside to clear the workspace. If moving them isn't sufficient, remove them entirely.

Now, remove the Interior Trim surrounding the rear quarter window.

Identify the plastic cover on the outside of the car at the front of the window.

Remove the plastic trim carefully using a pry tool if necessary. There are plastic clips holding the vent in place, handle these with care as they may be brittle.

Due to the window being firmly glued in place, we recommend contacting a professional glazier for removal.

If you choose to remove the window yourself; Obtain a windscreen removal tool to assist with the process. Be aware of plastic clips embedded in the glue, which can be challenging to cut through. Thoroughly wash off any dirt from the area where the window was located.

Carefully scrape off as much of the residual glue from the seam as possible. Ensure that the surface is clean enough for the Emuwing frame to mount closely to the car body. While all old glue does not need to be completely removed, eliminate any excess to ensure a snug fit.

#### - Marking interior trim for cutting.

With the glass removed, temporarily reinstall the interior trim to its original position. Note that it will overhang the outside of the car where the window was previously located.

Check for any excess material of the interior trim overhanging the body, mark the areas where excess material is present. At this point grab the Emuwing frame and place it against the trim, mark the corresponding positions of the support brackets at the top, and the latch plates at the bottom, additional material will need to be removed at the points.

Carefully remove the interior trim from the car again.

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### 2: Installing the frame.

#### - Positioning the frame.

Prior to gluing the frame into position, ensure a thorough understanding of its correct positioning. While there is some allowance for adjustment during later stages of installation, getting the initial frame positioning right is crucial for a seamless installation and a polished finish.

Without applying glue, position the frame centrally in the opening, ensuring an even gap all the way around.

Place a clamp on each corner of the frame at this point. The frame will easily mould to the car. Now move the frame up and forward, the front edge of the frame should sit against the raised seam between the second-row door and the window opening, the top edge of the frame should sit as high as possible whilst still leaving room to get the bolts through at the top of the frame. As a helpful tip, consider applying masking tape around the frame. This step will facilitate easier cleanup of excess glue later in the process and easy repositioning of the frame.

#### - Gluing the frame into place.

Carefully remove the frame and meticulously clean the surfaces to be glued, ensuring no residual material is left on either surface. Utilizing gloves is advised to prevent the contamination of surfaces with grease or oils from hands.

Apply an even and consistent bead of Sikaflex around the inside edge of the window seam, on the car. Aim for approximately a 5mm width, slightly increasing to 6/7mm around the corners. Note: Your kit provides sufficient glue for a practice run before applying it to the window seam. Ensure there are no gaps in the bead, and it maintains consistency around the window.

Position your clamps within easy reach before placing the frame.

Place the frame into position and initially secure clamps onto each corner. Subsequently, secure clamps along the top and bottom edges.

Closely inspect for any visible light between the frame and the car. Use additional clamps if necessary and consider using a torch for a more detailed examination.

While the glue is still wet and the frame is clamped, clean up any excess glue around the frame. To do this, use an old rag to guide the excess glue onto the masking tape.

Once all excess glue has been directed onto the masking tape, carefully remove the tape. Ensure the glue remains on the tape and does not spread onto yourself or the car.

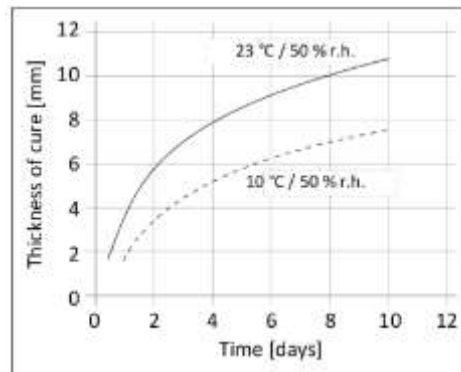
For final cleanup, use wax and grease remover on the wet glue. Do not let the glue dry, as this may make it challenging to remove without causing damage to the paintwork.

After applying the glue and securing the frame in place, allow it to dry undisturbed for a minimum of 24 hours. With the addition of our latch plates, work can progress albeit carefully should you not have this time to wait, still allow three to four hours for the glue to cure a little.

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**Do Not proceed with fitting any hardware to the frame until the glue has set and the frame is securely in place (at least 24 hours). With our latch plate addition, work can continue but the glue should still be left for three to four hours to begin curing.**



### - Cutting interior trims.

In preparation for reinstallation and whilst the glue is drying, carefully cut the interior trim using the marks you made earlier. Refer to our YouTube channel for a helpful guide if you have any uncertainties about these cuts.

Make precise cuts along the marked lines, removing between 2mm to 5mm of material. Pay special attention to the sections where the support brackets, and where the latch plates attach to the frame approximately an additional 5mm of material needs to be removed in these areas.



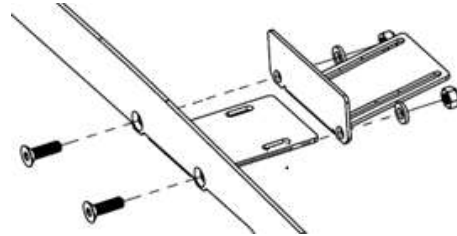
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### 3: Attaching the door panel.

#### - Place and tighten the support brackets.

Assemble the support brackets on top of the frame, using the M5 bolts. Securely clamp the frame to the body with these bolts. When tightening, avoid over-tightening; instead, ensure to tighten them firmly to approximately 5 Newton-meters (5NM). Ensure even tightening of the two bolts to align the slots in the brackets and firmly press the bracket against the body.



#### - Attach the Latch plates

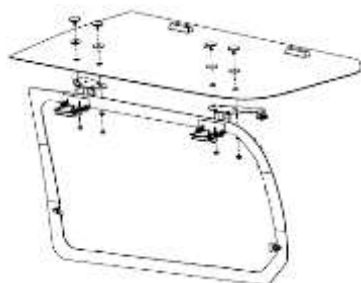
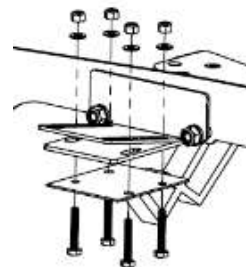
Now we can attach the latch plates to the bottom edge of the frame.

Use the latch plates to clamp the frame to the pinch weld, placing the latch plate from the inside and attach using two M5 bolts.

Ensure to tighten them firmly to approximately 5 Newton-meters (5NM).

#### - Attach the hinges.

Attach the Hinges to the frame using the supplied 4mm nuts, bolts and washers so the face plate protrudes around 10mm from the frame. The exact depth will be adjusted later.



#### - Placing the door panel.

When the hinges are in the closed position, position the door panel centrally. Use a spacer at the bottom of the door panel to elevate it slightly, ensuring proper alignment. It's recommended to close the rear passenger doors to aid in alignment.

Partially close the handles to engage the cam latches over the frame, securing the door panel in place temporarily. This provides stability while fixing it into its final position.

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### - Securing the door panel.

From the outside, insert the Pan Head bolts with rubber washers. On the inside, place a washer first, followed by a nut. Once all four pan heads are in place and secure, check that the door does not foul the car when opening and closing. If there is any fouling, adjust the door accordingly before attaching the gas struts.

Once all four pan head bolts are in place, tighten each up to approximately 6NM, taking care not to strip the thread of the Aluminium pan head bolt. Align each of the pan head bolts visually from the outside, they should follow a straight line across the door panel.

Before loosening any nuts for any further adjustments, **detach the gas struts first** to prevent the hinges from twisting.

### Attach the gas struts.

After adjusting the door panel as much as possible, open the door and attach the struts with the wider end positioned at the top. Carefully close the panel, observing any potential contact with the car. Once closed, take note of any necessary adjustments required to align the door panel with the car.

The depth of the door can be fine-tuned later during the attachment of the seal. At this stage, focus on the position of the panel in relation to the car. If the panel extends more than 10mm out from the frame, consider adjusting it inward to at least 10mm.

## **4: Adjusting the door panel depth and fitting the weather-strip.**

### - Adjustments – left/right and up and down.

The door panel's vertical and horizontal positioning can be adjusted by loosening the pan heads that attach the door to the hinge. Before removing the struts and loosening the pan heads, take note of the required adjustments. Mark the current position of the hinge plate on the inside of the door. Once satisfied with the adjusted position of the door panel and the gas struts are reinstalled, proceed to attach the weather seal to the interior.

### - Applying the weather-strip.

Close the door panel and meticulously mark inside the door panel around the inner edge of the frame. Take note of the distance between the marked line and the edge of your frame.



### - Primer

Before attaching the weather strip, use the provided 3M primer along the areas where the strip will be applied. Apply the primer using long strokes precisely where the weather strip will be placed.



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Once the door has been marked and primed, attach the weather seal to the door, following the outside of the marked lines. Ensure the seal aligns with the frame correctly to prevent moisture and dust from entering the back of the vehicle.

Handle the weather strip with care, especially around corners; avoid stretching it. Allow it to gently conform to the panel. Stretching may lead to potential shrinkage with heating, causing the strip to peel from the panel.

### - Adjustments – Depth.

After setting the weather seal in place, close the door panel and check the depth to ensure it aligns with the car, effectively compressing the rubber seal. If adjustments are needed, follow these steps: Loosen the hinges from the top supports (the gas struts do not need to be removed).

Apply even pressure to the outside of the door where the hinge meets the door until you observe the rubber compressing onto the frame.

Re-tighten the bolts.

**If additional help is required, please feel free to give us a call on +613 8592 1926 between the hours of 10am and 4pm AEST – Monday to Friday.**

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