

# Original BMW Parts and Accessories. Installation Instructions.



## M Performance Motorsport Foil Application Retrofit Kit.

**BMW M2 (F87)**

**BMW M2 Competition (F87 Competition)**

**BMW X3 M (F97)**

**BMW X4 M (F98)**

**BMW M3 (G80)**

**BMW M4 (G82)**

### Retrofit kit number

51 14 2 410 573	Motorsport foil application, left/right (F87)
51 14 2 456 835	Motorsport foil application, left/right (F87, F87 Competition)
51 14 2 465 611	Motorsport foil application, left/right (F97, F98)
51 14 5 A14 374	Motorsport foil application, left/right (G80)
51 14 5 A14 379	Motorsport foil application, left/right (G82)

### Installation time

The installation time is **approx. 1.5 hours**. This may vary depending on the condition of the car and its equipment package.

The installation time shown does not include any time spent on programming/coding.

The calculation of the total costs for the programming time must be factored into the calculation of retrofitting costs (must not be invoiced under the warranty).

### Important information

These installation instructions are primarily designed for use within the BMW dealership organisation and by authorised BMW service companies.

These installation instructions are intended for use by qualified specialist staff trained on BMW cars with the relevant expert knowledge.

All work must be completed using the latest BMW repair manuals, wiring diagrams, servicing manuals and work instructions, in a logical order, using the prescribed tools (special tools), and observing current health and safety regulations.

**If you experience installation or functional problems, restrict troubleshooting to approx. 0.5 hours for mechanical work and 1.0 hours for electrical work.**

To avoid unnecessary extra work and/or costs, send an inquiry to the technical parts support team.

Quote the following information:

- VIN,
- retrofit kit part number,
- a detailed description of the problem,
- any work already carried out.

Do not archive the printout of these installation instructions. The current version can be found in the EPC.

## Pictograms



Denotes instructions that draw your attention to dangers.



Denotes instructions that draw your attention to special features.



Denotes the end of the instruction or other text.

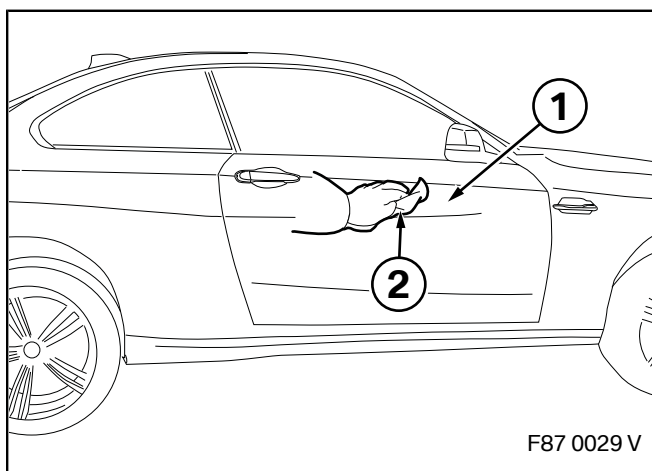
## Installation information

All illustrations show LHD (left-hand drive) cars; proceed similarly on RHD (right-hand drive) cars. Installation is shown on one side of the car only, proceed in the same way on the other side.

The ambient temperature for bonding work must not fall below or exceed 15°C or 35°C, respectively.

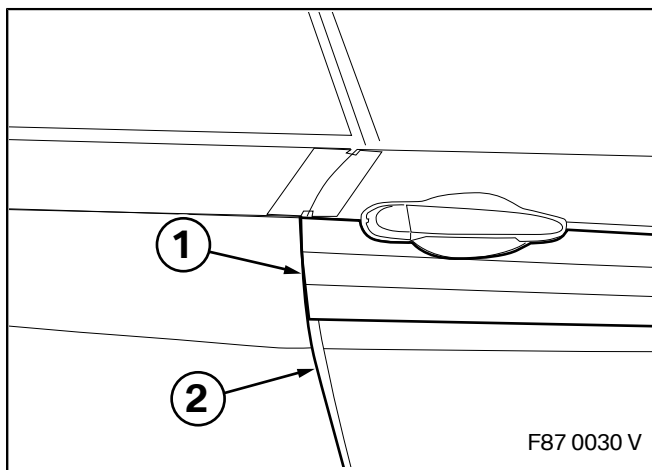
The film adjusts to the surface of the car under the influence of heat (direct sunlight, hair dryer); if required this can be used to get rid of air bubbles trapped underneath it.

The following processing instructions apply to the retrofit kit:

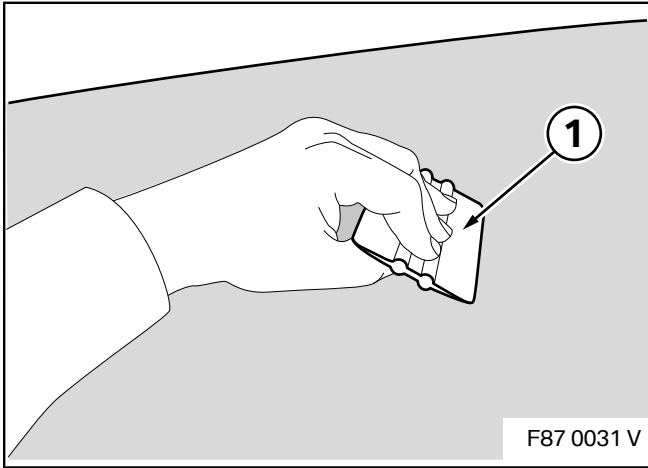


The areas being bonded must be completely dry, clean and free from wax or grease. ◀

The bonding surfaces (1) must be cleaned with a cleaning cloth (2) and suitable cleaning products.



Allow the edge (1) to butt up against the opposite edge (2) when positioning the foil. ◀



⚠ Do not apply excessive pressure to the surfaces of the car with the blade (1), otherwise you may inadvertently cause damage. ◀

After running the blade over the film, wait **approx. 10 minutes**.

Then carefully pull the application tape off the film at an angle of 180°.

Press any overlapping edges down with the blade.

### Special tools required

Blade (Part No. 51 91 0 416 502)

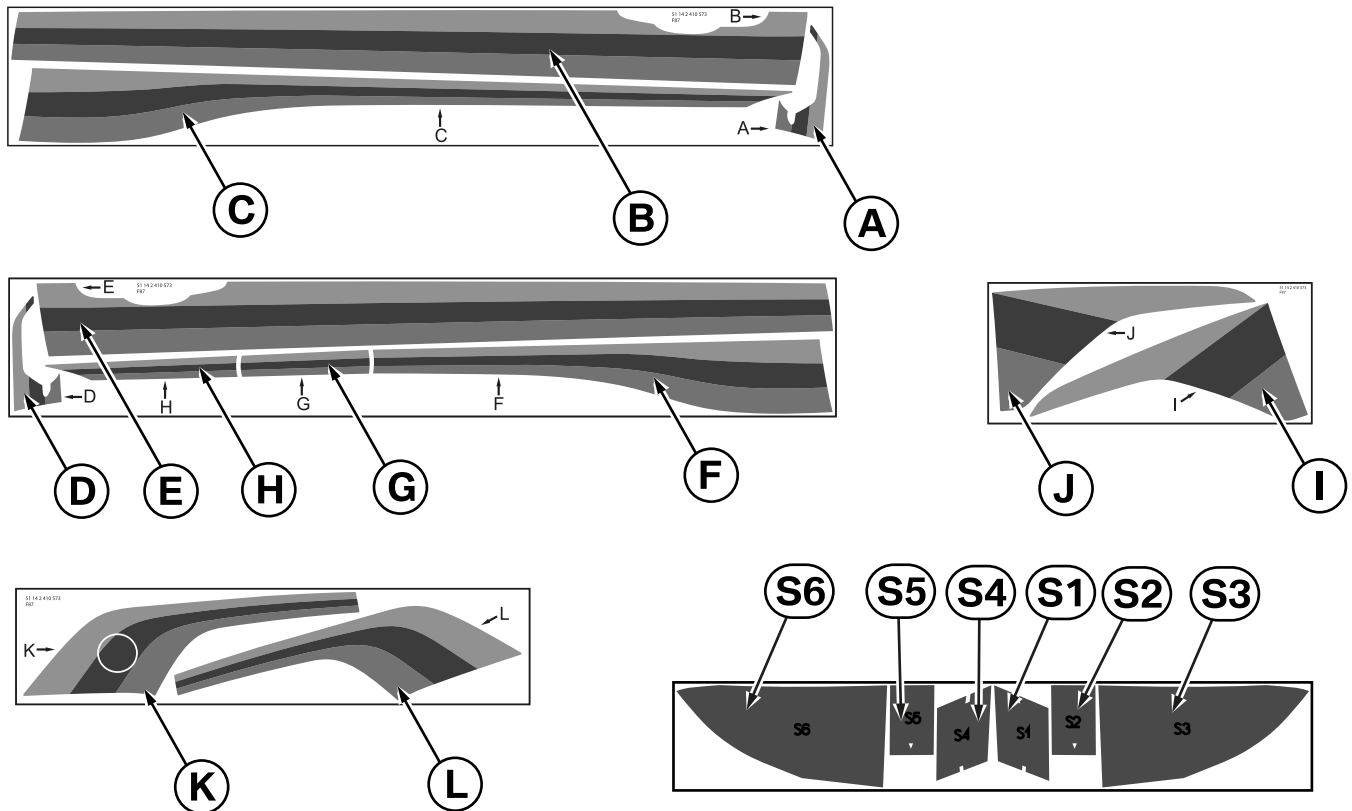
### Advice to be given to the customer

- The car may be driven after **approx. 6 hours** and may be taken through a car wash after **approx. 72 hours**.
- The following restrictions apply to the use of precious steam cleaners:
  - Maintain minimum distance between cleaning nozzle and bodywork: 1 m
  - Maximum temperature: 60 °C
  - The cleaning jet should not be angled at more than 30° from perpendicular to the bodywork
- The foil should be cleaned on a regular basis (every 8–10 weeks).
- Particularly aggressive contaminants such as tree resin, dead insects or bird droppings, should be washed off as soon as possible with warm soapy water.
- Matt films must not be polished to a shine. In addition, the use of hot wax is to be avoided.

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# 1. M Performance motorsport foil application retrofit kit parts list (F87)

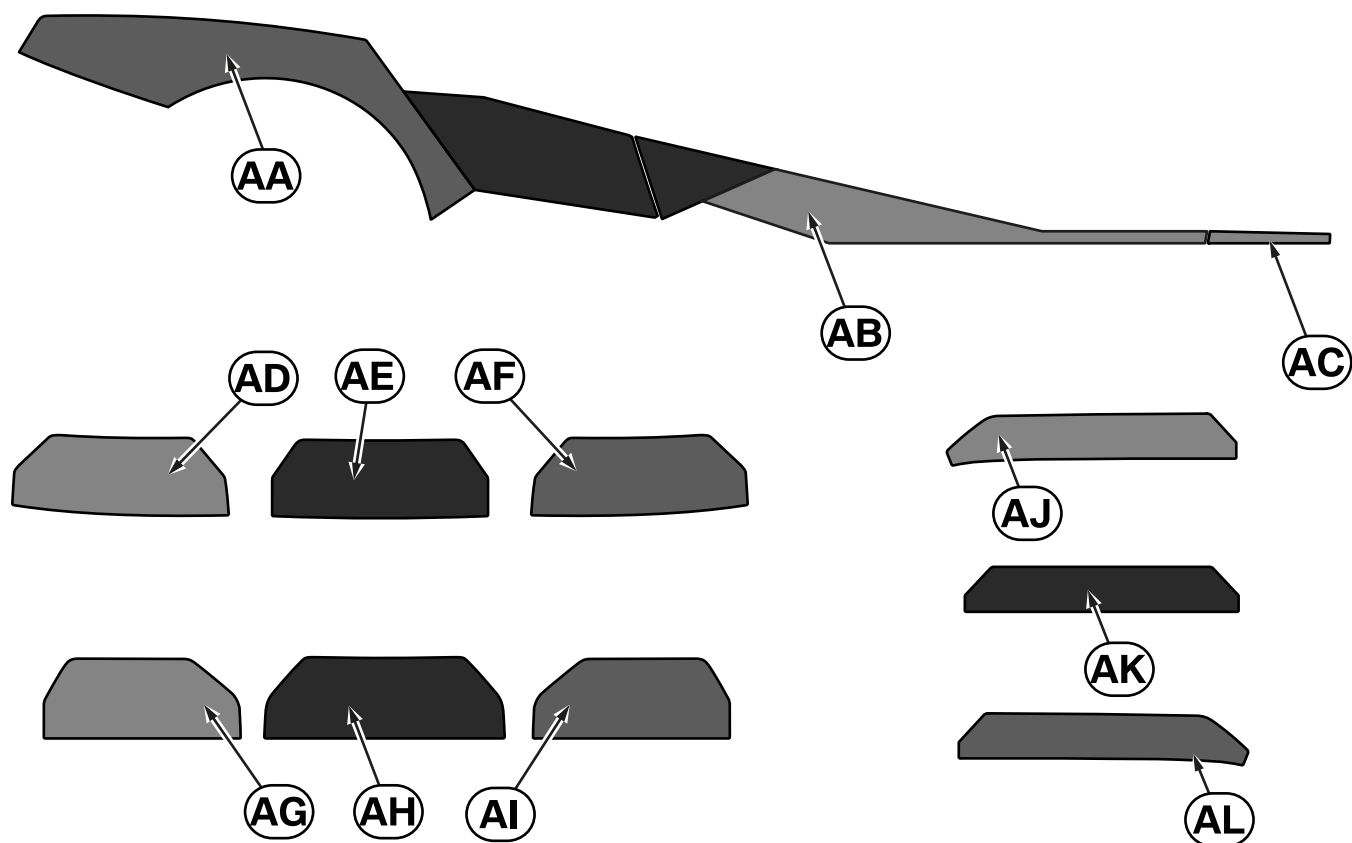


F87 0021 V

## Legend

- A** Motorsport foil application side, left air breather
- B** Motorsport foil application side, left door
- C** Motorsport foil application side, left wing
- D** Motorsport foil application side, right air breather
- E** Motorsport foil application side, right door
- F** Motorsport foil application side, right front wing
- G** Motorsport foil application side, right fuel filler cap
- H** Motorsport foil application side, rear right wing
- I** Motorsport foil application, front left
- J** Motorsport foil application, front right
- K** Motorsport foil application, rear right
- L** Motorsport foil application, rear left
- S1/ S4** Door template, left/right
- S2/ S5** Centre template, left/right
- S3/ S6** Rear template, left/right

## 2. M Performance motorsport foil application retrofit kit parts list (F87, F87 Competition)

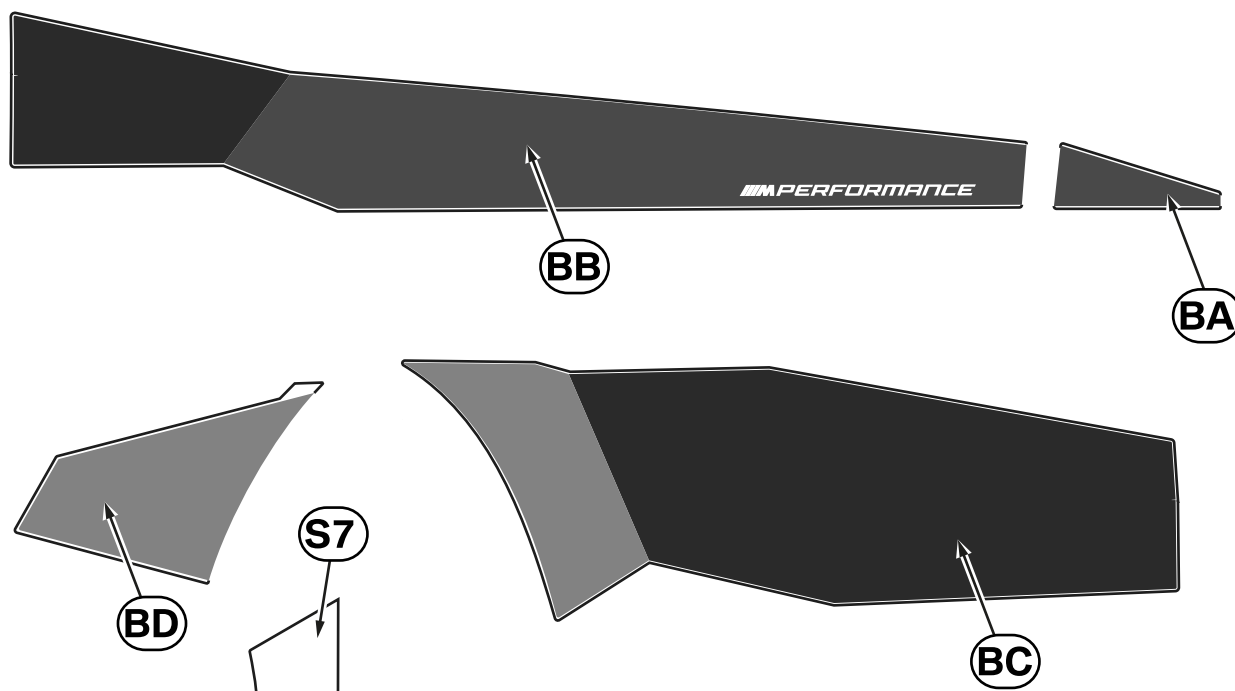


F87 0080 V

### Legend

- AA** Motorsport foil application, rear side, left/right
- AB** Motorsport foil application, side door, left/right
- AC** Motorsport foil application, front side, left/right
- AD** Motorsport foil application, front right **(for F87 only)**
- AE** Motorsport foil application, front centre **(for F87 only)**
- AF** Motorsport foil application, front left **(for F87 only)**
- AG** Motorsport foil application, front right **(for F87 Competition only)**
- AH** Motorsport foil application, front centre **(for F87 Competition only)**
- AI** Motorsport foil application, front left **(for F87 Competition only)**
- AJ** Motorsport foil application, rear left
- AK** Motorsport foil application, rear centre
- AL** Motorsport foil application, rear right

### 3. M Performance motorsport foil application retrofit kit parts list (F97, F98)

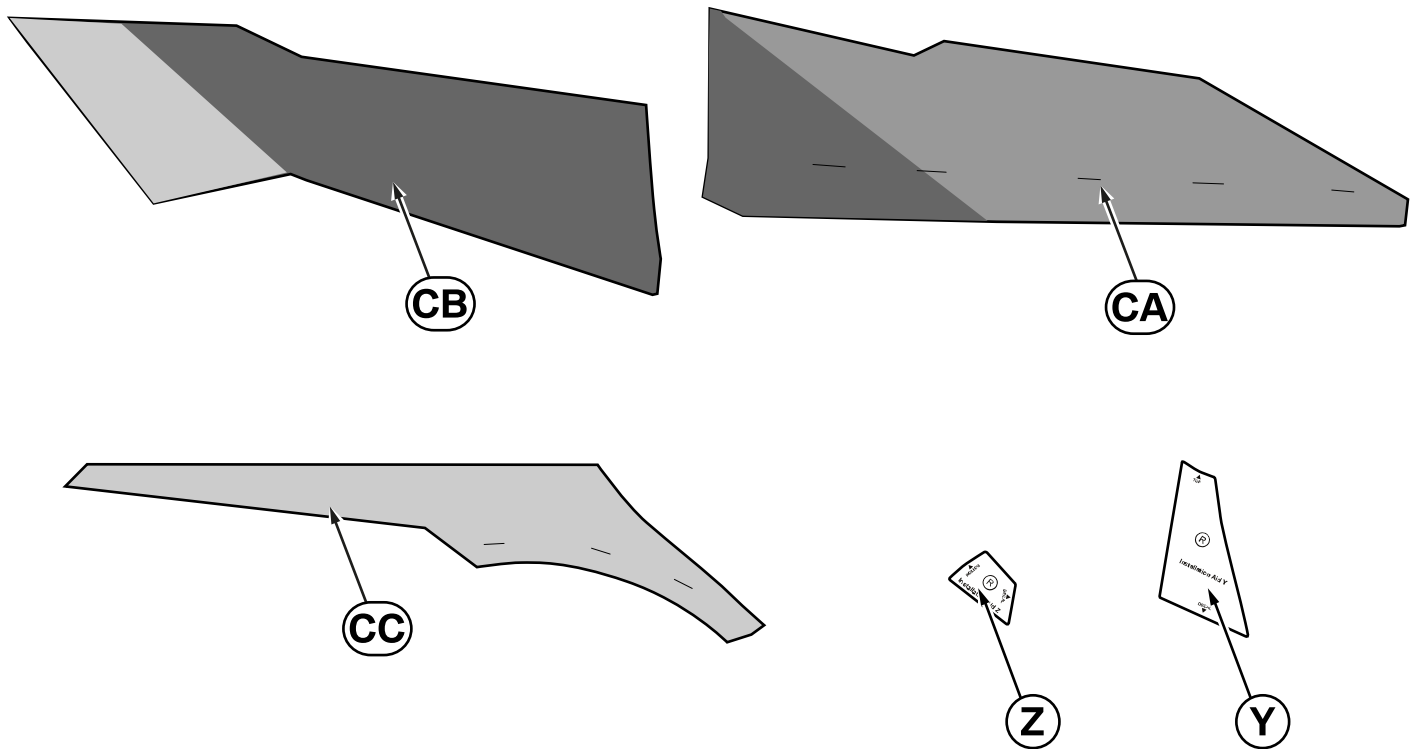


F97 0004 V

#### Legend

- BA** Motorsport foil application, front side, left/right
- BB** Motorsport foil application, front door, left/right
- BC** Motorsport foil application, rear door, left/right
- BD** Motorsport foil application, rear side, left/right
- S7** Template for motorsport foil application, rear door, left/right

#### 4. M Performance motorsport foil application retrofit kit parts list (G80)

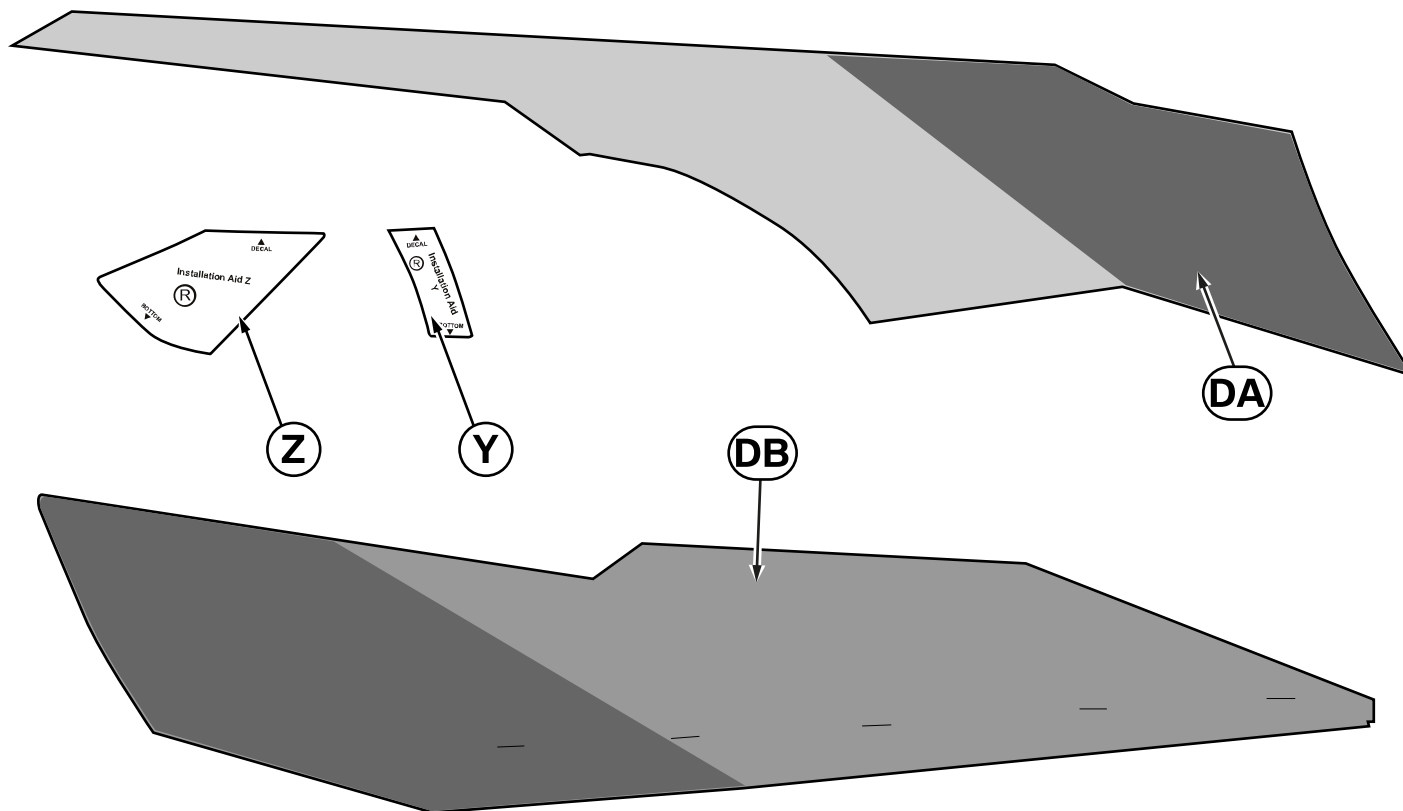


G80 0001 V

#### Legend

- CA** Front door motorsport foil application, left/right
- CB** Rear door motorsport foil application, left/right
- CC** Rear side motorsport foil application, left/right
- Y** Template for rear side motorsport foil application, left/right
- Z** Template for rear side motorsport foil application, left/right

## 5. M Performance motorsport foil application retrofit kit parts list (G82)



G82 0001 V

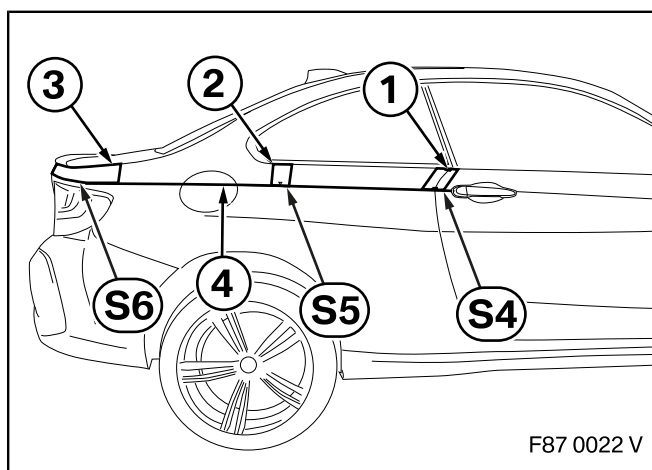
### Legend

- DA** Rear side motorsport foil application, left/right
- DB** Side door motorsport foil application, left/right
- Y** Template for rear side motorsport foil application, left/right
- Z** Template for rear side motorsport foil application, left/right

6. Preparatory work

The following components must be removed first of all	ISTA/AIR No.
None	---

## 7. M Performance motorsport foil application (F87) installation



### Side fitting

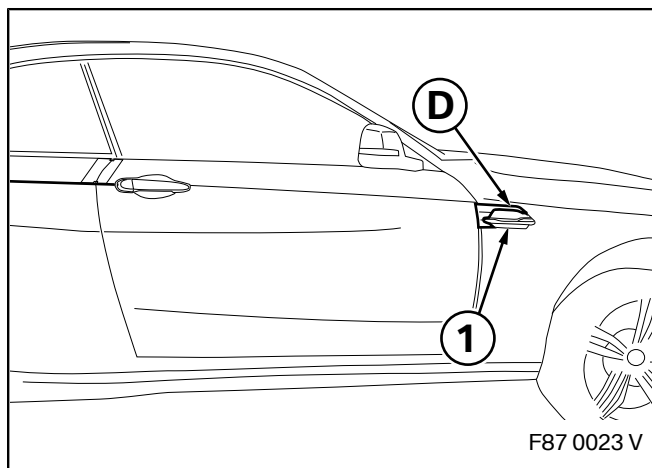
Align template **S4** with the groove (1) on the middle door contour of the car and press it into place.

Align template **S5** at the end of the straight edge (2) of the window frame and press it into place, with the triangle pointing downwards.

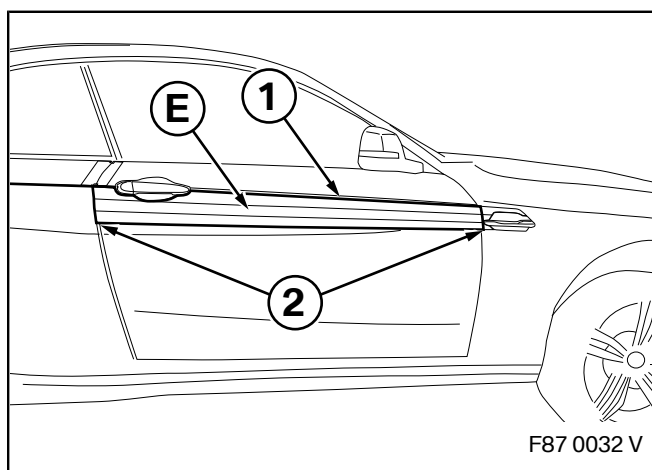
Align template **S6** with the contour (3) of the luggage compartment lid and the rear light and press it into place.

Then align and press down a suitable strip of adhesive tape (4) with its lower edge over the lower edges of **S4**, **S5** and **S6**, creating a straight line, and press it into place.

▶ Repeat the process on the left side of the car using templates **S1**, **S2** and **S3**. ◀

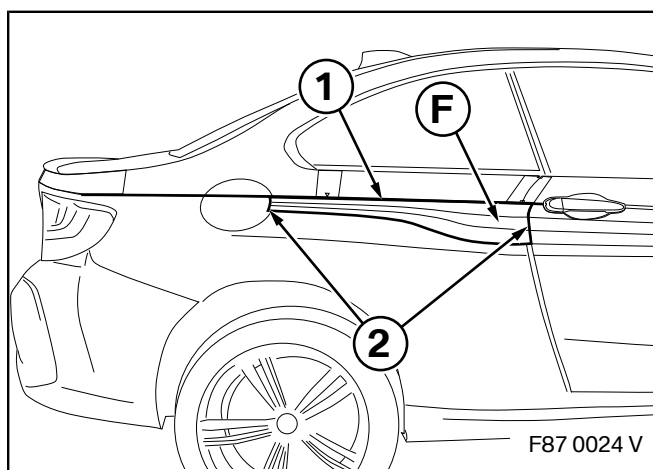


Align the right air breather motorsport foil application **D** along the contour (1) of the air breather, press it down and smooth with blade.



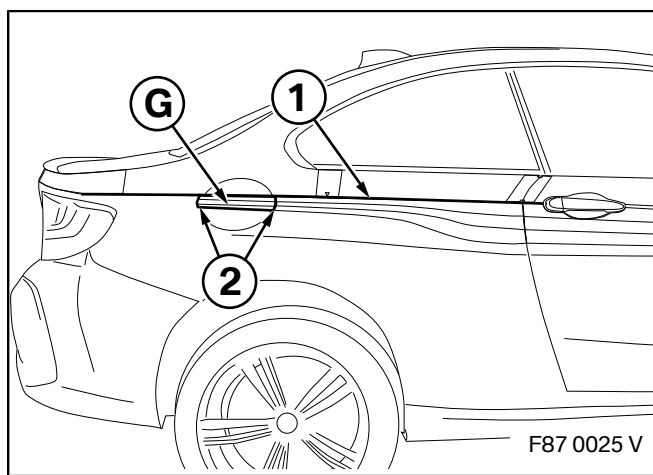
Align the right door motorsport foil application **E** along the lower edge of the adhesive strip (1) and centre it between the two door edges (2), press it into place and smooth with the blade.

## 7. M Performance motorsport foil application (F87) installation

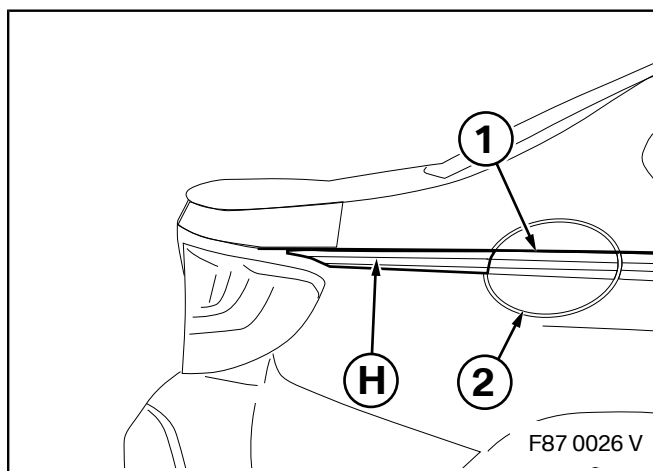


Align the front right wing motorsport foil application **F** on the lower edge of the adhesive strip (1) and centre it between the two outer edges (2), press it into place and smooth with the blade.

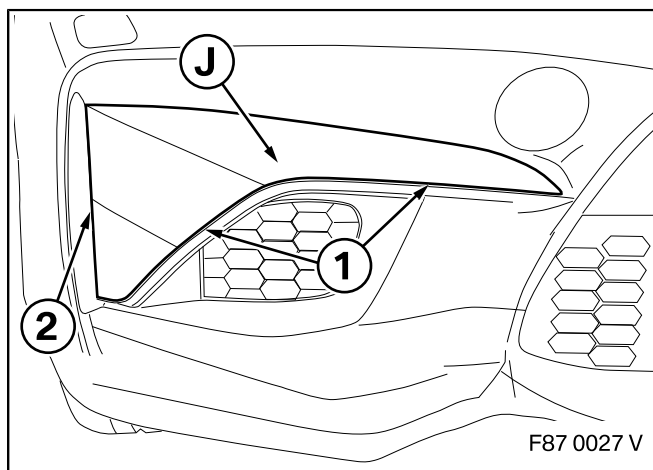
▶ Affix the left wing motorsport foil application **C** on the left side of the car using the same method. ◀



Align the right fuel filler cap motorsport foil application **G** on the lower edge of the adhesive strip (1) and centre it between the two outer edges (2), press it into place and smooth with the blade.



Align the rear right wing motorsport foil application **H** on the lower edge of the adhesive strip (1), keeping the correct distance from the fuel filler cap edge (2), then press it into place and smooth with the blade.

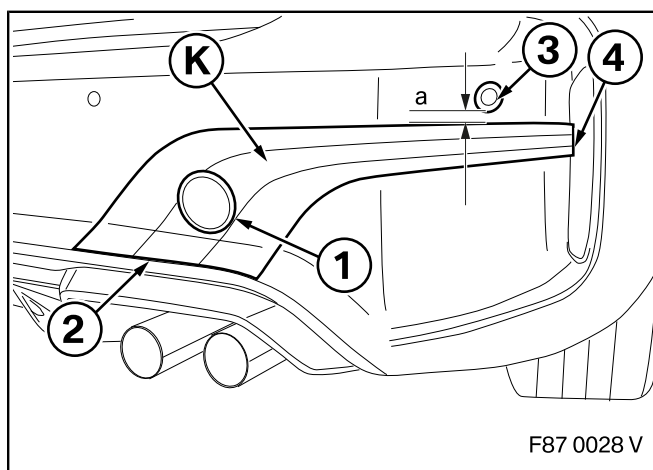


### Front fitting

▶ The radiator grille does not need to be removed. ◀

Align the front right motorsport foil application **J** along the visible edge (1) of the front apron and the contour (2) of the ornamental grille, press it into place and smooth with the blade.

## 7. M Performance motorsport foil application (F87) installation



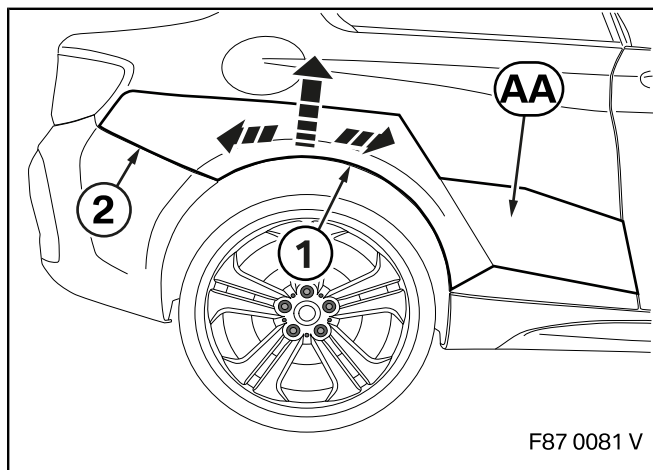
### Rear fitting

▶ When applying the rear foil application, start on the right side of the car, as the towing eye cover (1) can be used for guidance. Copy this procedure on the left side without the towing eye, making sure that left and right sides are symmetrical. ◀

Align the rear right motorsport foil application **K** around the towing eye cover (1), while at the same time adjusting the contour (2) and ensuring that the distance between the top edge of the foil and the bottom edge of the PDC (3) **a = 7 mm**. Then press it into place and smooth with the blade. Then wrap and press the foil around the edge (4) and smooth with blade.

Centre the foil for the towing eye cover (1), press it down and smooth it out.

## 8. M Performance motorsport foil application (F87, F87 Competition) installation



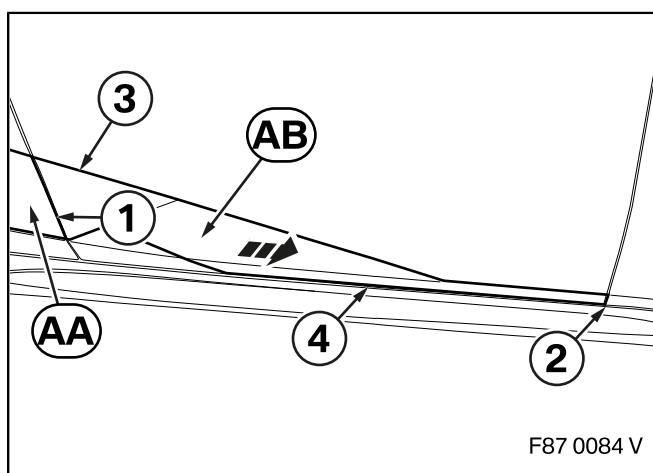
### Side fitting

Remove the existing stone strike protection foil from the car. Align the rear side motorsport foil application **AA** along the contour (1) of the wheel arch and the refractory edge (2).

Remove the backing paper from the rear side motorsport foil application **AA**. Press rear side motorsport strip **AA** into position from the edge of the wheel-house (1) upwards using alternate movements to the left and right and smooth it with the blade.

☐ If necessary carefully heat the rear side motorsport strip **AA** with a hair dryer or hot air fan. ◀

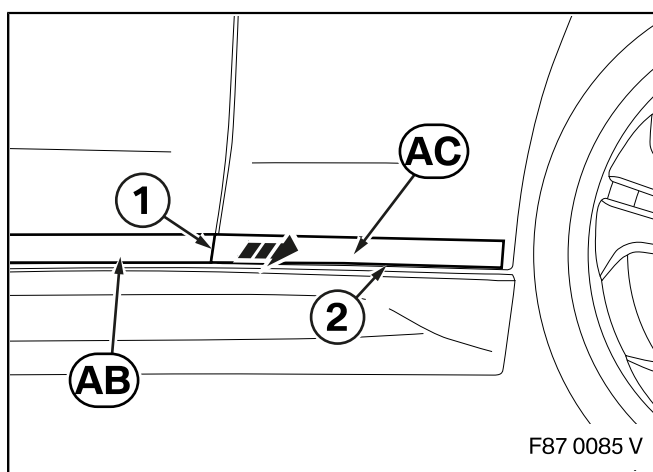
Remove all the application tape (1) from the rear side motorsport strip **AA**.



Align the side door motorsport foil application **AB** along the opposite edges (1) and (2) and ensure that there is a straight line (3) from the rear side motorsport foil application **AA** to the side door motorsport foil application **AB**. At the bottom, the side door motorsport foil application **AB** must end at the refractory edge (4). Press on the side door motorsport foil application **AB** and smooth it with the blade.

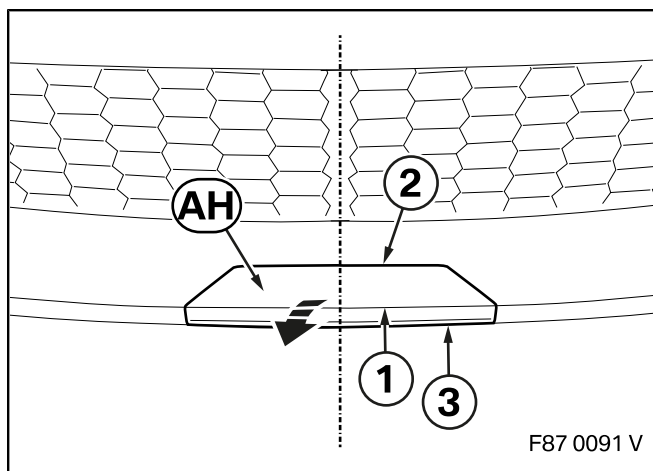
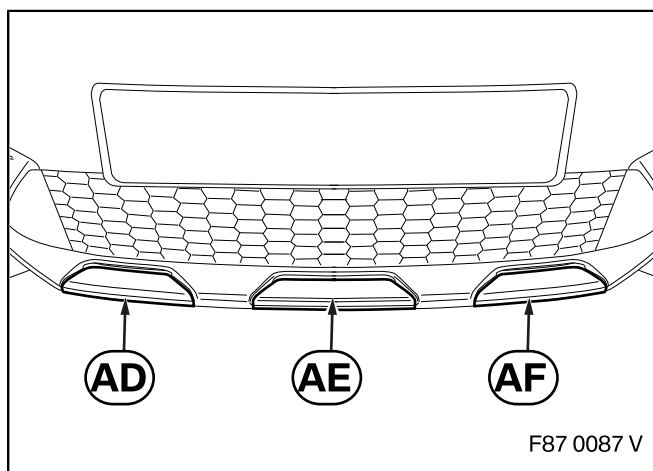
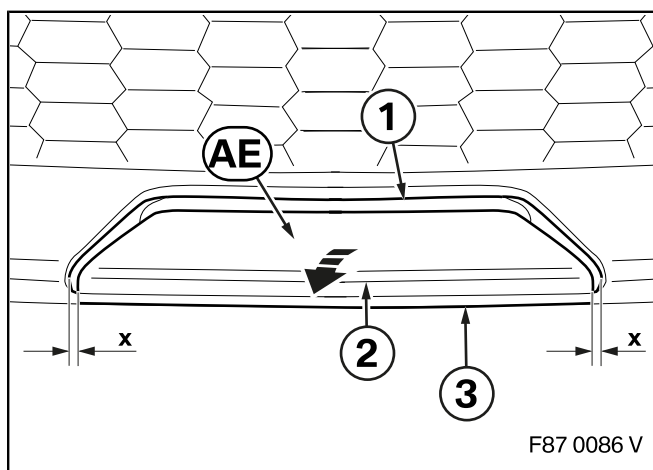
Open the door and smooth the overhanging side door motorsport foil application **AB** around the edge with the blade.

☐ Do not seal the discharge holes for the cavity preservative with the foil. Cut the foil if necessary. ◀



Align the side front motorsport foil application **AC** along the opposite edge (1) of the side door motorsport foil application **AB**. At the bottom, the side front motorsport foil application **AC** must end at the refractory edge (2). Press on the side front motorsport foil application **AC** and smooth it with the blade.

## 8. M Performance motorsport foil application (F87, F87 Competition) installation



### Front fitting F87 Competition

▶ If you are fitting the foil together with the front attachment, please adhere to the fitting sequence (first the foil, then the front attachment). ◀

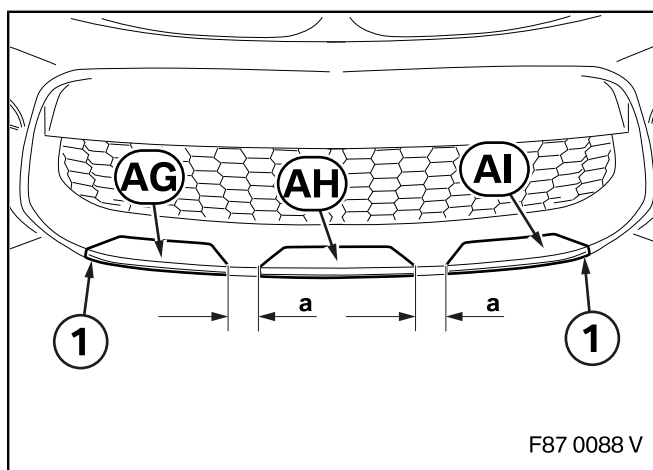
Align the front centre motorsport foil application **AE** along the rear contour (1) and press it into place forwards up to the edge (2). Ensure that the distance **x** is identical on the left and right, correct it if necessary. Smooth the front centre motorsport foil application **AE** forwards up to the edge (2) with the blade. Then press the front centre motorsport foil application **AE** from the edge (2) downwards towards the edge (3) and smooth it with the blade.

Fit the front right motorsport foil application **AD** in the recess on the right-hand side of the car and the front left motorsport foil application **AF** in the recess on the left-hand side of the car.

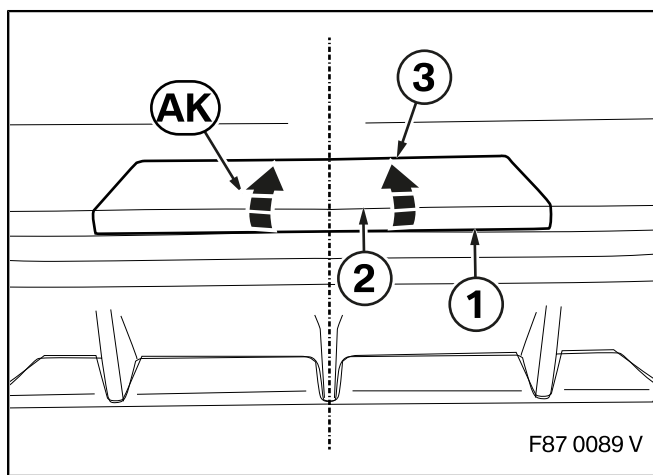
### Front fitting F87

Align the edge (1) of the front centre motorsport foil application **AH** centrally using the kidney grilles, press it into place and smooth it backwards towards the edge (2) with the blade. Then press the front centre motorsport foil application **AH** from the edge (1) downwards towards the edge (3) and smooth it with the blade.

## 8. M Performance motorsport foil application (F87, F87 Competition) installation



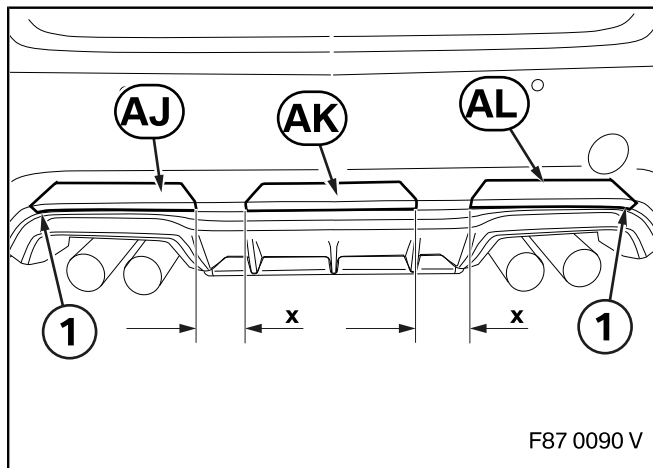
Then fit the front right motorsport foil application **AG** and the front left motorsport foil application **AI** following the contour (1) at the same **distance a = 40 mm**.



### Rear fitting

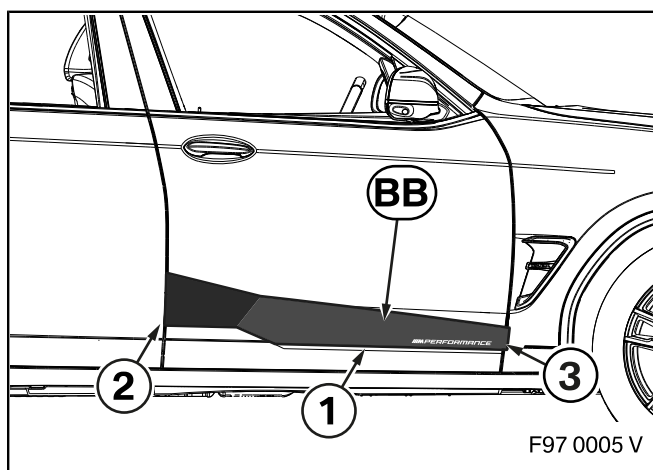
▶ The figure shows an MPP carbon diffuser. Its geometry differs from the standard diffuser. ◀

Align the edge (1) of the rear centre motorsport foil application **AK** flush with the lower refractory edge (1) of the rear apron and at the same time centrally to the rear apron, press it into place and smooth it upwards towards the edge (2) with the blade. Then press the rear centre motorsport foil application **AK** from the edge (2) upwards towards the edge (3) and smooth it with the blade.

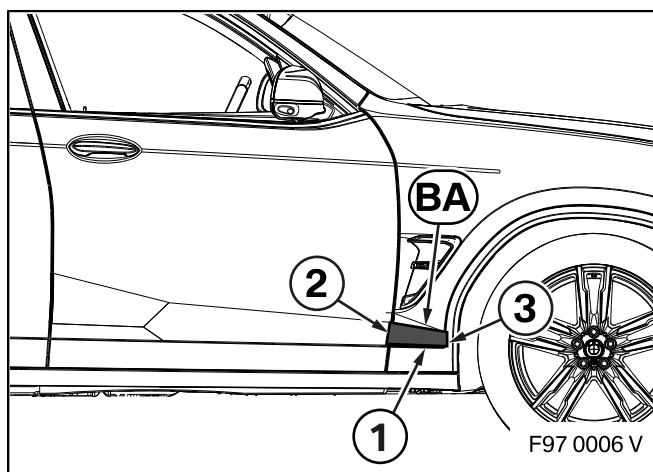


Then fit the rear left motorsport foil application **AJ** and the rear right motorsport foil application **AL** following the contour (1) at the same **distance** from **AK**.

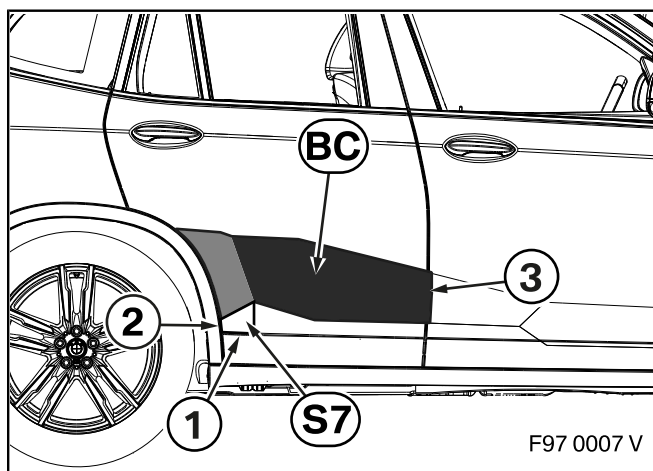
## 9. M Performance motorsport foil application (F97, F98) installation



Align the tape of the front door motorsport foil application **BB** along the top of the door cladding (1), at the left and right with the opposite edges (2) and (3), press it into place and smooth with the blade.



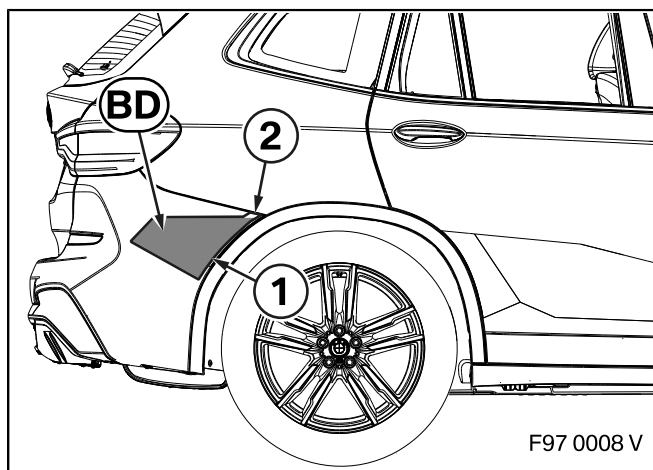
Align the tape of the front door motorsport foil application **BA** along the bottom contour (1) and along the opposite edges (2) and (3), press it into place and smooth with the blade.



Align template **S7** along the edges (1) and (2) and press it into place.

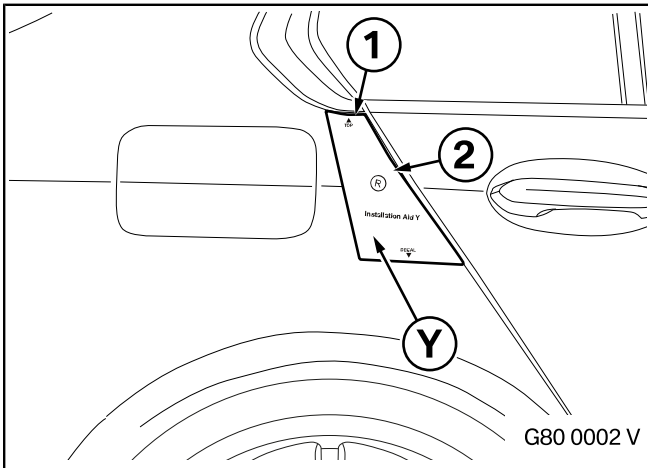
Align the tape of the rear door motorsport foil application **BC** along the template **S7** and along the opposite edges (2) and (3), press it into place and smooth with the blade.


Then remove the template **S7**.



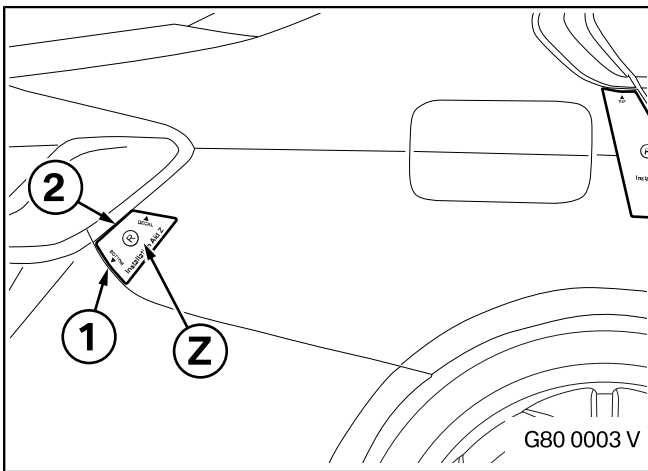
Align the rear motorsport foil application **BD** along the wheel arch (1) using the auxiliary edge (2), press it into place and smooth with the blade.

## 10. M Performance motorsport foil application (G80) installation

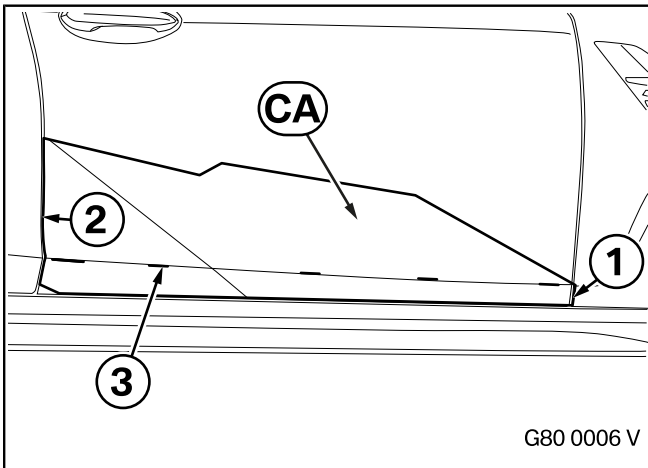


 Remove the stone chip protection on the wheel arch using suitable tools. ◀

First align the template **Y** with the visible edge (1) and (2) of the rear door and press it into place.

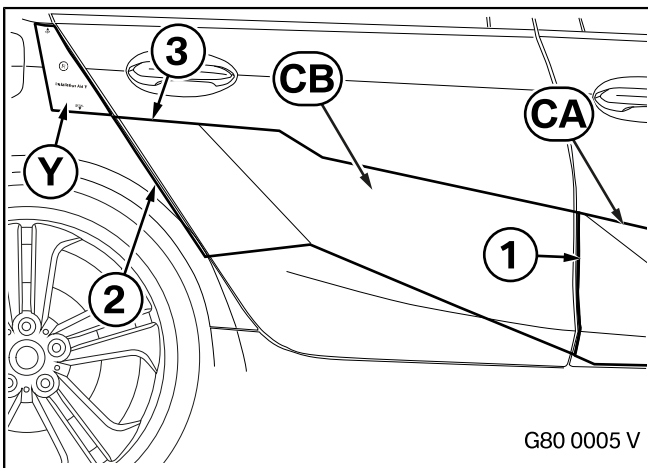


Then align the template **Z** along the refractory edge (1) and the refractory edge (2) in front of the rear light and press it into place.



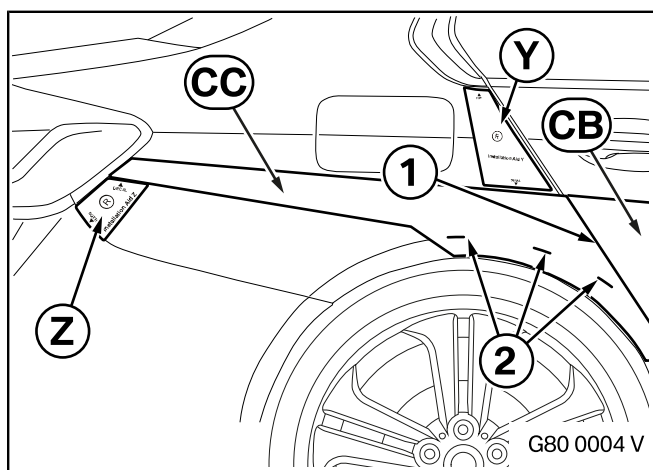
First align the contours (1) and (2) using the opposite edges of the door. Then align the auxiliary lines (3) on the side front door motorsport foil application **CA** so that they are flush with the refractory edge of the door.

Run the blade over the side front door foil application **CA** starting from the auxiliary lines (3) to the left and right and upwards and downwards.



The edge (1) of the rear side door motorsport foil application **CB** ends at the opposite edge of the door. It is aligned using the front side door motorsport foil application **CA**. The rear side door motorsport foil application **CB** on the opposite side also ends at the opposite edge (2) of the door. At this point, the top edge (3) can be aligned using the bottom edge of template **Y**. When the rear side door motorsport foil application **CB** has been aligned on all edges, run the blade over it starting from the edge (1) and moving towards the edge (2).

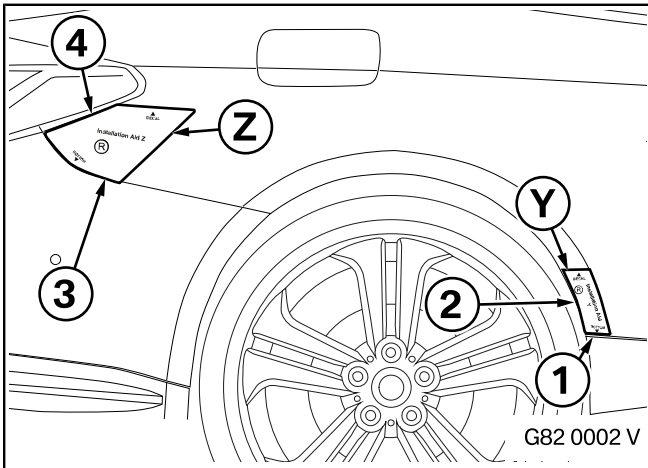
## 10. M Performance motorsport foil application (G80) installation



The edge (1) of the rear side motorsport foil application **CC** ends at the opposite edge of the rear. It is aligned using the rear side door motorsport foil application **CB**. Align the rear side motorsport foil application **CC** using template **Y**. As you do so, ensure that the auxiliary lines (2) are aligned with the car's refractory edge, then run the rear side motorsport foil application **CC** to the rear light and run the blade over it. Check that its bottom edge is aligned with the top edge of template **Z**.

Finally, remove templates **Z** and **Y** and run the blade over the foil applications again if necessary.

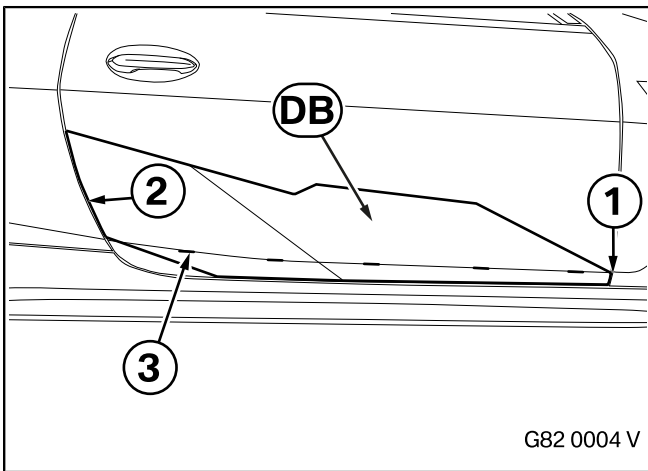
## 11. M Performance motorsport foil application (G82) installation



Remove the stone chip protection on the wheel arch using suitable tools. ◀

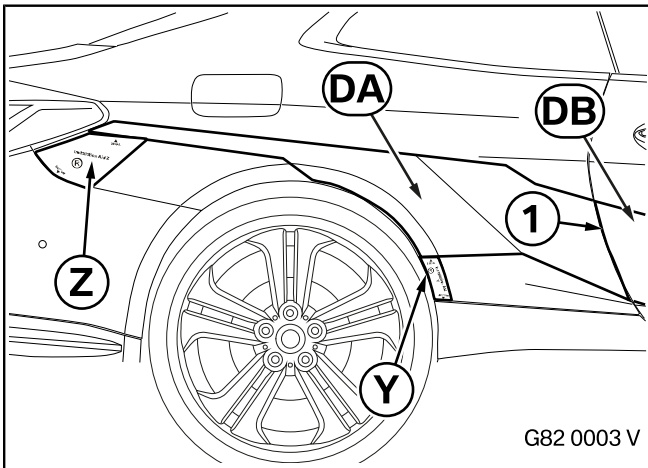
First align the template **Y** using the edges (1) and (2) on the rear trim and press it into place.

Then align the template **Z** along the refractory edge (3) and the refractory edge (4) in front of the rear light and press it into place.



Align the contours (1) and (2) using the opposite edges of the door, aligning the auxiliary lines (3) using the side door motorsport foil application **DB** flush with the door refractory edge.

Run the blade over the side door foil application **DB** starting from the auxiliary lines (3) to the left and right and upwards and downwards.



The edge (1) of the rear side motorsport foil application **DA** ends at the opposite edge of the rear. It is aligned using the side door motorsport foil application **DB**. Align the rear side motorsport foil application **DA** using template **Y**. Run the rear side motorsport foil application **DA** to the rear light and run the blade over it. Check that its bottom edge is aligned with the top edge of template **Z**.

Finally, remove templates **Z** and **Y** and run the blade over the foil applications again if necessary.

## 12. Concluding work and coding

The retrofit system does not require programming/coding.

- **Motorsport foil application for F87 only:** Remove the templates **S1** to **S6** and the adhesive tape.