

Original BMW Parts and Accessories. Installation Instructions.



Aerodynamic Components Retrofit Kit.

BMW 2 Series (F22)

BMW M2 (F87)

BMW M2 Competition (F87 Competition)

Retrofit kit number

51 19 2 409 319 Carbon throughflow rear spoiler, coloured (F22, F87, F87 Competition)

51 19 2 449 476 Carbon front attachment (F87 Competition)


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

 For the **F22, F87** and **F87 Competition**, the carbon throughflow rear spoiler may only be installed on the car with the black matt front attachment (**F22**)/carbon front attachment (**F87, F87 Competition**) (see EPC for details and part numbers).

For the **F87 Competition**, the carbon front attachment may only be installed with the carbon rear spoiler for the carbon throughflow rear spoiler (see EPC for details and part numbers). ◀

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 hour for electrical work.

To avoid unnecessary extra work and/or costs, send an inquiry straight away to the technical parts support team via the Aftersales Assistance Portal (ASAP).

Quote the following information:

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

Do not archive the hard copy of these installation instructions, since daily updates are supplied in ASAP.

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 contact/bonding surfaces on the components being installed must be absolutely dry, clean, and free of wax, silicone and grease. These surfaces must be treated with suitable BMW cleaner or BMW primer (see EPC for details), as set out in the appropriate product application instructions
- If you use adhesive tape, it must be applied using a contact pressure of between 10 N/cm² and 50 N/cm²
- Take care not to damage the parts when opening the packaging
- Check that all the parts fit accurately on the car before fitting them
- All the components and their bonding surfaces must be at room temperature for installation. The ideal relative humidity is 50%. Different values will change the specified times
- After completing the gluing and installation work, the car must remain stationary at room temperature for at least **12 hours**
- If adhesives are used, the car may be driven after **24hours**, and may be taken through a car wash after **48 hours**. The car must not be driven above a speed of $v_{\max} < 100$ km/h for 24-48 hours
- The installed parts may become loose and fly off the car if you fail to wait for the full reaction time of the primer/adhesive. **Danger of accidents!**
- Some of the installation steps are shown only on one side of the car. Proceed in the same way on the other side of the car
- All pictures show LHD (left-hand drive) cars; proceed accordingly on RHD (right-hand drive) cars

Ordering instructions

The materials such as liquid adhesive, cleaner and activators are assigned to the relevant products in the EPC (see EPC for information and part numbers). If the EPC does not explicitly specify the materials, always use cleaner, adhesive and activator from the BMW product range.

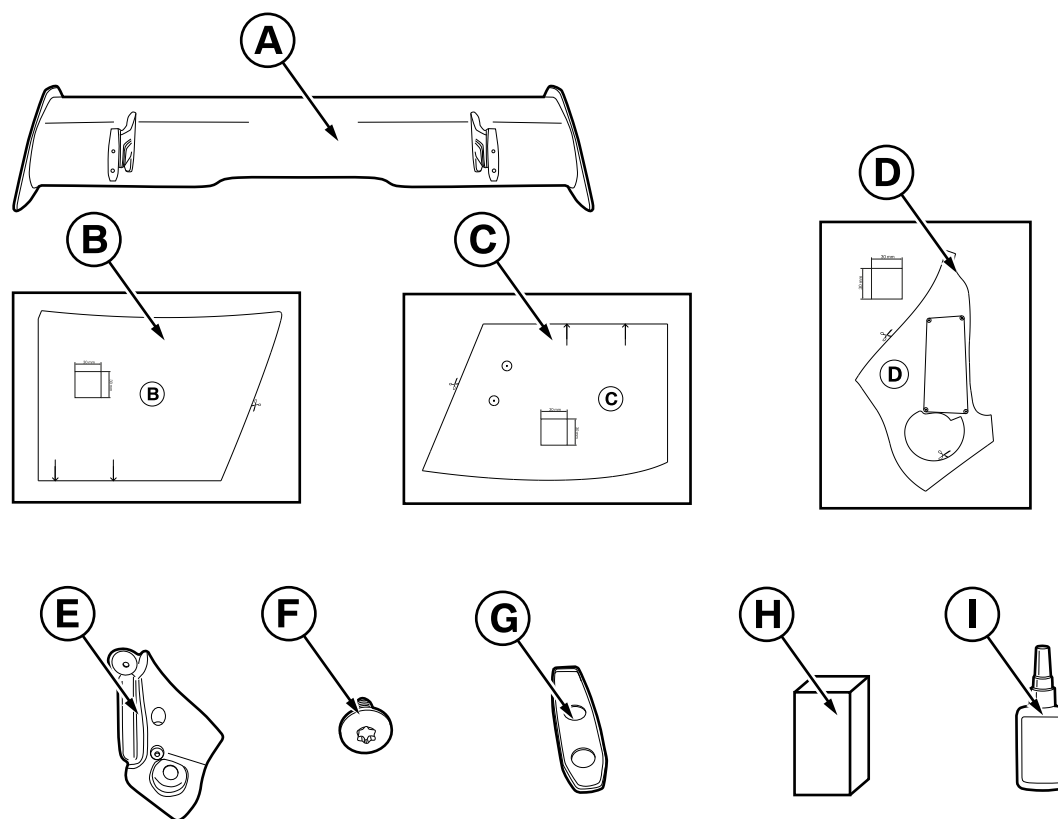
Special tools required

None

Table of contents

Section	Page
1. Carbon throughflow rear spoiler parts list (F22, F87 and F87 Competition)	4
2. Carbon front attachment parts list (F87 Competition only)	5
3. Adapter set for carbon boot lid parts list	6
4. Preparatory work	7
5. Install the carbon throughflow rear spoiler (F22, F87 and F87 Competition)	8
6. Install the carbon front attachment (F87 Competition only)	14
7. Concluding work and coding	16
8. Template_B	17
9. Template_C	18
10. Template_D	19

1. Carbon throughflow rear spoiler parts list (F22, F87 and F87 Competition)

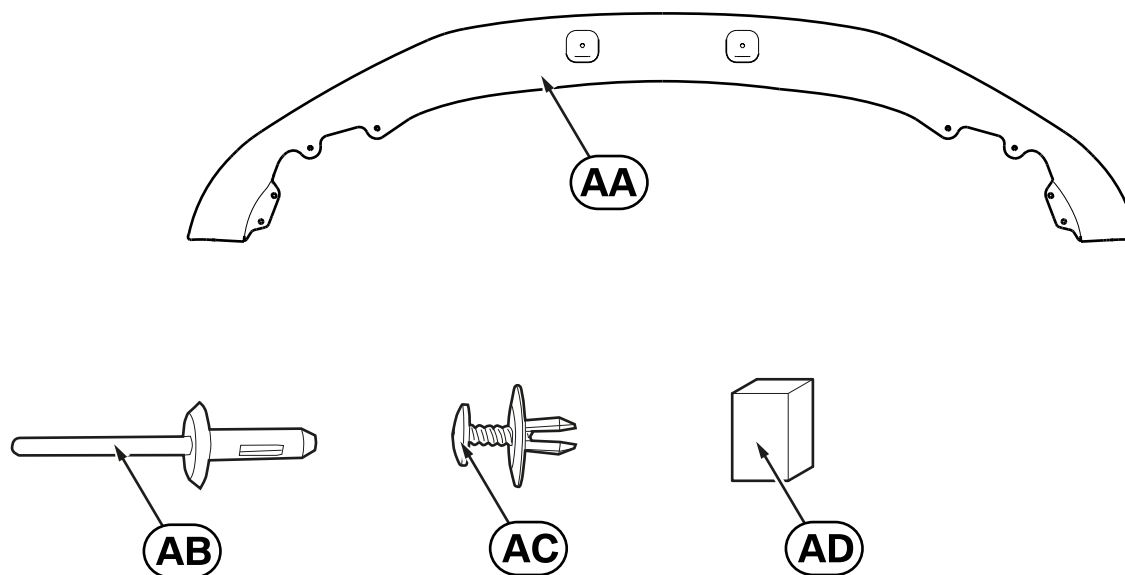


F87 0113 V

Legend

- A** Throughflow carbon rear spoiler
- B** Template for boot lid, part 1
(attached to these installation instructions, the template must be printed without scaling)
- C** Template for boot lid, part 2
(attached to these installation instructions, the template must be printed without scaling)
- D** Template for boot lid reinforcement panel
(attached to these installation instructions, the template must be printed without scaling)
- E** Boot lid reinforcement panel, left/right (2 x)
- F** Torx screw M6x14 (4 x)
- G** Rear spoiler support, left/right (2 x)
- H** Liquid adhesive **(not included in parts kit, see EPC for details and part number)**
- I** Screw locking liquid **(not included in parts kit, see EPC for details and part number)**

2. Carbon front attachment parts list (F87 Competition only)

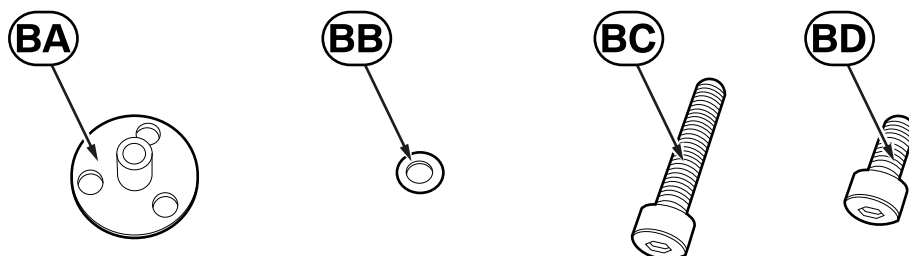


F87 0128 V

Legend

- AA** Carbon front attachment
- AB** Rivet (2) **(not included in parts kit, see EPC for details and part number)**
- AC** Expanding rivet (2) **(not included in parts kit, see EPC for details and part number)**
- AD** Liquid adhesive **(not included in parts kit, see EPC for details and part number)**

3. Adapter set for carbon boot lid parts list



F87 0169 V

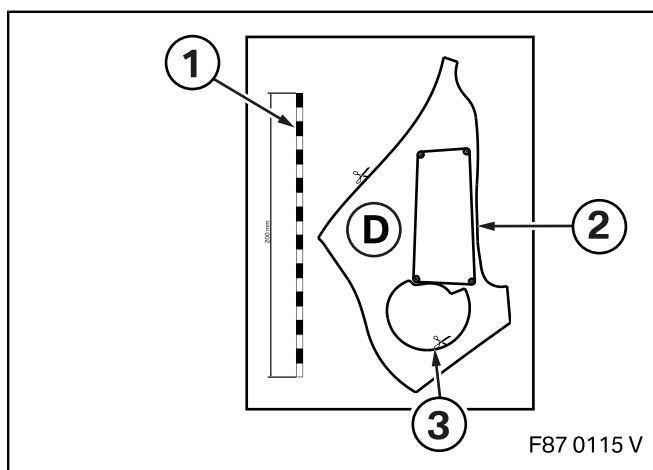
Legend

- BA** Bolting plate (4 x) **(included in parts kit No. 41 62 2 466 359)**
- BB** Washer (12 x) **(included in parts kit No. 41 62 2 466 359)**
- BC** Long screw (4 x) **(supplied in parts kit No. 41 62 2 466 359)**
- BD** Short screw (12 x) **(supplied in parts kit No. 41 62 2 466 359)**

4. Preparatory work

The following components must be removed first of all (for installing the rear spoiler only)	ISTA/AIR No.
Interior trim on the boot lid	---
Remove the backing foil and adhesive tape from the feet of the carbon throughflow rear spoiler A using suitable tools	

5. Install the carbon throughflow rear spoiler (F22, F87 and F87 Competition)



For cars with a standard boot lid

▶ The template for the boot lid reinforcement plate **D** is attached to these installation instructions.

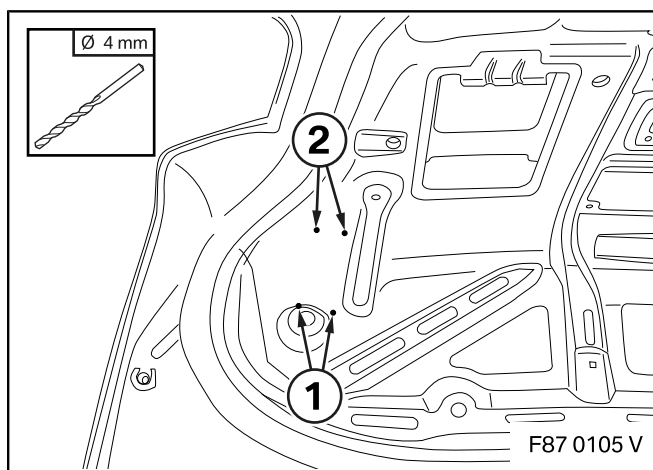
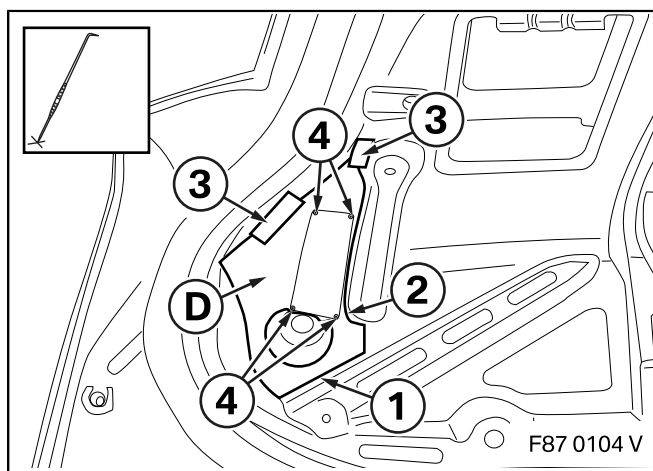
The page must be printed without scaling. The scaling must be checked on the basis of the check dimension (1). ◀

Cut out the template for the boot lid reinforcement plate **D** along the external contour (2) and internal control (3).

▶ Use the template for the boot lid reinforcement plate **D** on the left-hand side of the car with the printed surface facing upwards. ◀

Place the template for the boot lid reinforcement plate **D** along the edge (1) and the contour (2) and secure it with adhesive tape (3). Transfer the marks (4) onto the boot lid using a suitable tool.

▶ Remove the template for the boot lid reinforcement plate **D** and use it on the opposite side of the car with the printed surface facing downwards. ◀

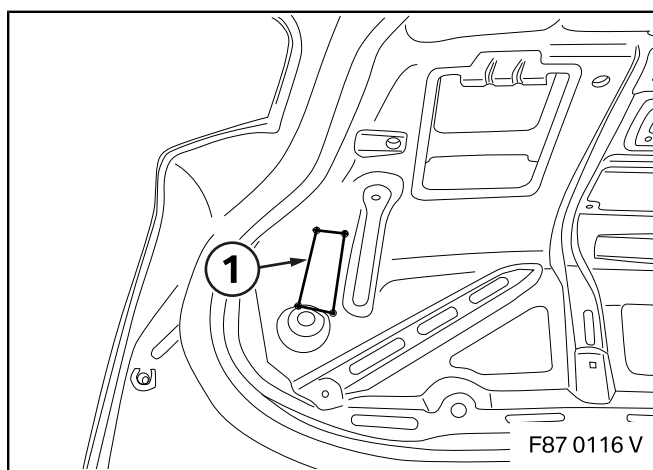


▶ **Only drill through the internal shell of the boot lid.**

The difference for the boreholes (1) between the internal shell and external shell is very small. ◀

Drill the four marks (1) and (2) with a **4 mm** bit.

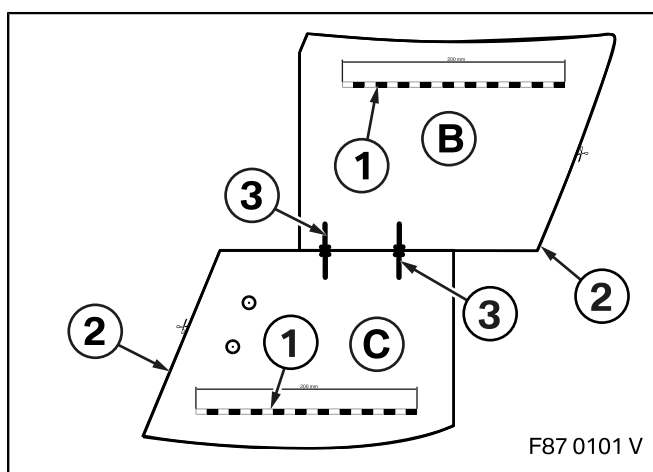
5. Install the carbon throughflow rear spoiler (F22, F87 and F87 Competition)



▶ **Only drill through the internal skin of the boat late, wear ear protection. ◀**

Saw straight lines (1) between the boreholes using suitable tools and an oscillating saw.

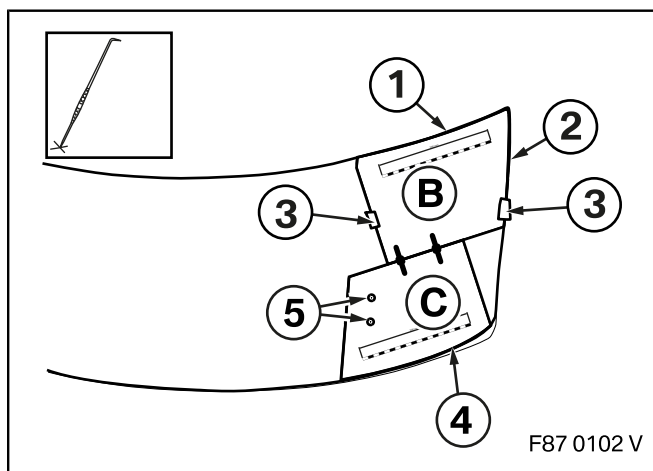
Then deburr the edges (1).



▶ The templates for the boot lid **B** and **C** are attached to these installation instructions.

The two pages must be printed without scaling. The scaling must be checked on the basis of the check dimension (1). ◀

Cut out the templates for the boot lid **B** and **C** along the external edge (2) and glue them together flush at the arrows (3).



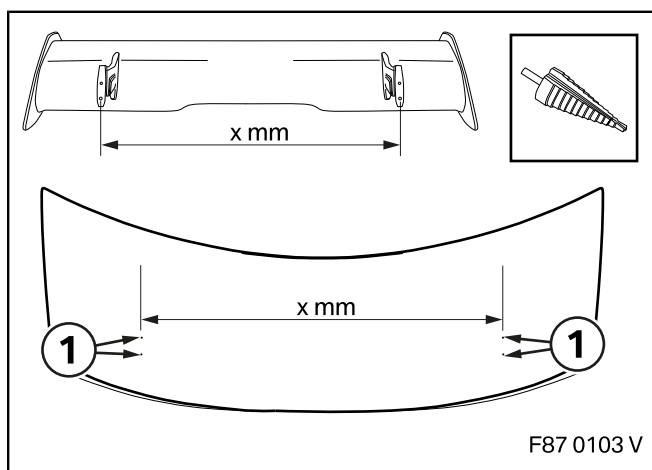
▶ Use the templates for the boot lid **B** and **C** on the right-hand side of the car with the printed surface facing upwards. ◀

Place the template for the boot lid **B** flush on the start of the radius of the edge (1) and (2) on the boot lid, secure it with adhesive tape (3) if necessary. The contour (4) is for guidance only and must not be used, it has the contour of the boot lid and ends at around the start of the radius of the boot lid.

Transfer the two marks (5) onto the boot lid using a suitable tool.

▶ Remove the templates for the boot lid **B** and **C** and use it on the opposite side of the car with the printed surface facing downwards. ◀

5. Install the carbon throughflow rear spoiler (F22, F87 and F87 Competition)



Before drilling, compare the dimension x between the two feet of the carbon throughflow rear spoiler **A** with the dimension between the marks (1) on the boot lid.

Drill the holes (1) at high speed with a sharp drill bit. Place the drill perpendicular to the surface of the boot lid. ◀

First predrill the boreholes (1) a **2 mm** bit and then enlarge it gradually to **10 mm**.

Then enlarge the boreholes (1) with a step drill to a diameter of **14 mm**.

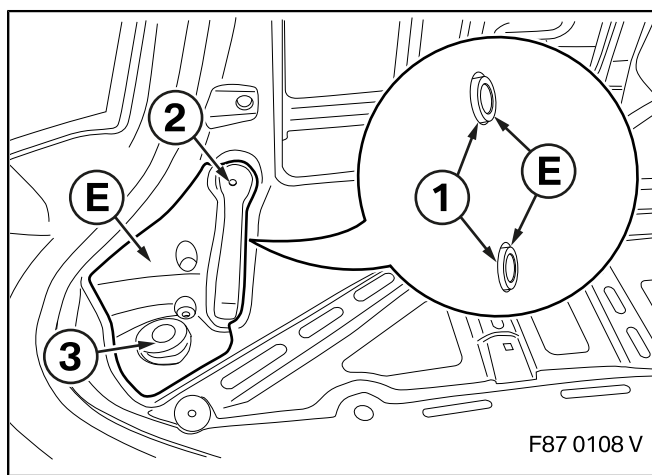
Then deburr the boreholes (1).

Insert the boot lid reinforcement plate **E** from the inside and check its position.

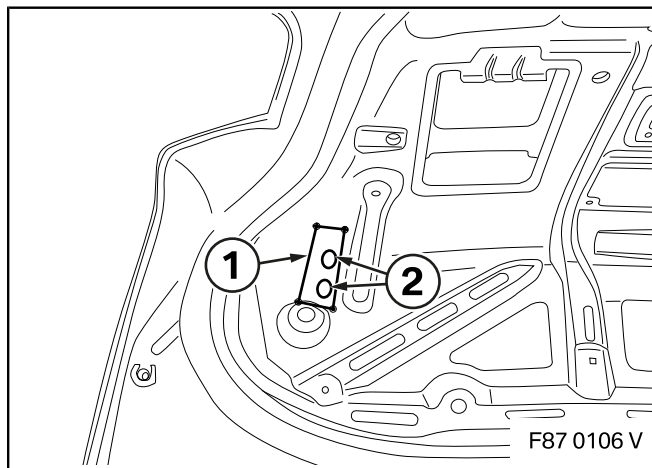
Ensure on the outside that the drilling guides in the reinforcement plate **E** have a slight overhang to the external shell (1).

On the inside, the two boreholes (2) and (3) must be lined up with the boreholes beneath them.

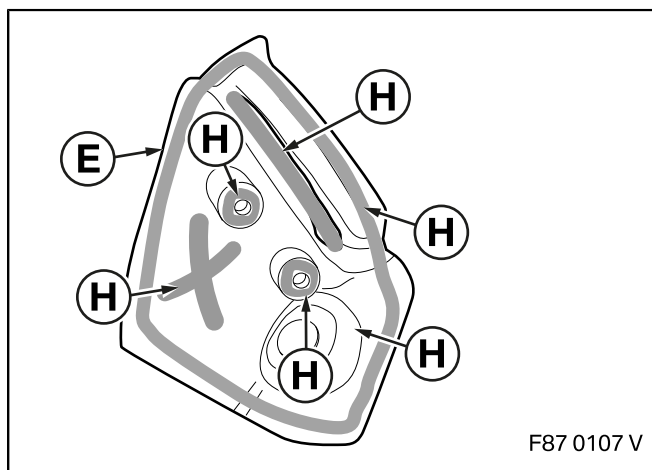
Remove the boot lid reinforcement plate **E**.



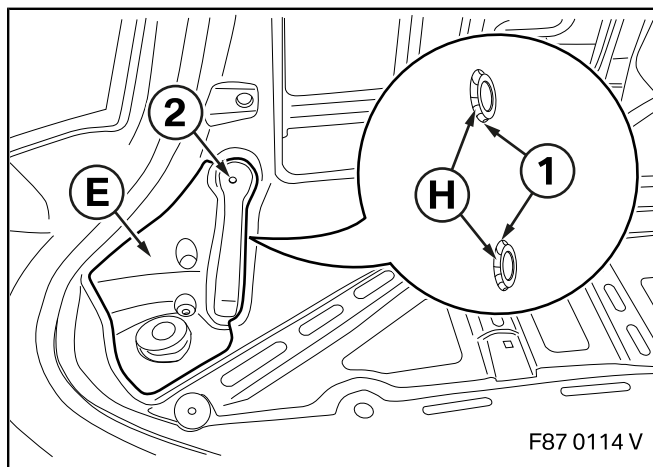
Treat the edges (1) and boreholes (2) with standard BMW anti-corrosion coatings. Follow the instructions for use.



Apply a bead of liquid adhesive **H** to the inside of the boot lid reinforcement plate **E** as shown.



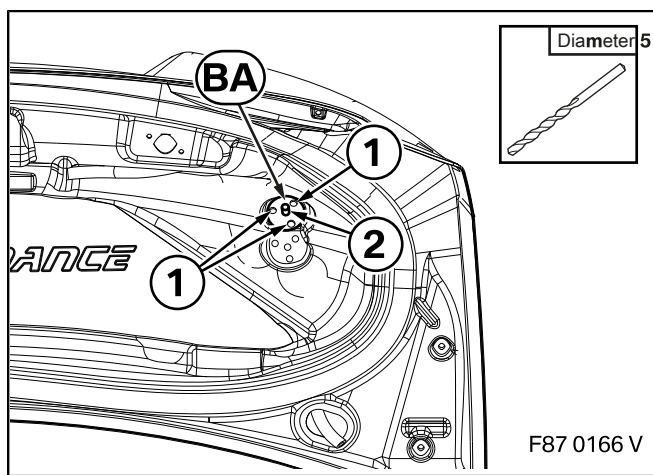
5. Install the carbon throughflow rear spoiler (F22, F87 and F87 Competition)



Insert the boot lid reinforcement plate **E** from the inside, check its position and press it into place.

Spread the liquid adhesive **H** evenly on the outside in the boreholes (1).

Clean the borehole (2) using a suitable tool.



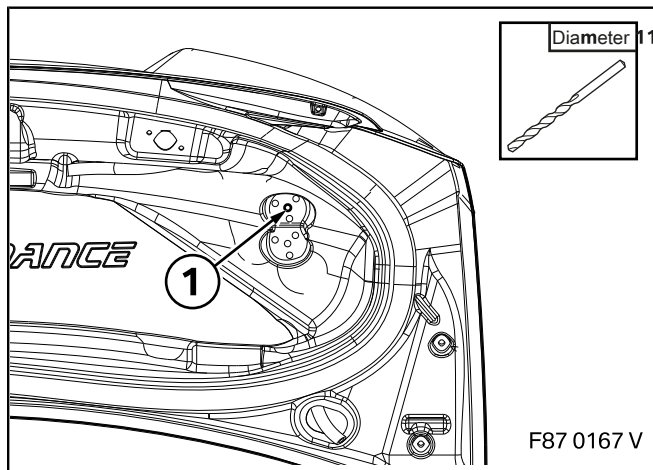
For cars with a carbon boot lid

Place the bolting plate **BA** flat on the recesses so that the small guide (2) is visible. Tighten the short screws **BD** to fascinate in the boreholes (2).

Drill completely through the small guide (2) with a **5 mm** drill bit from the inside.

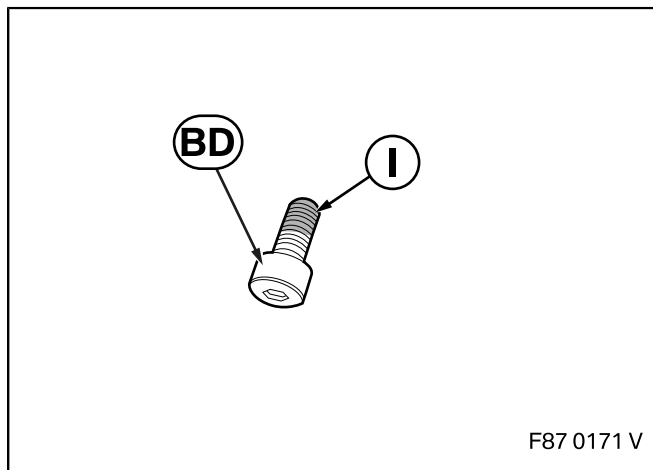
Unscrew and remove the bolting plate **BA**.

This step applies to all four recesses.



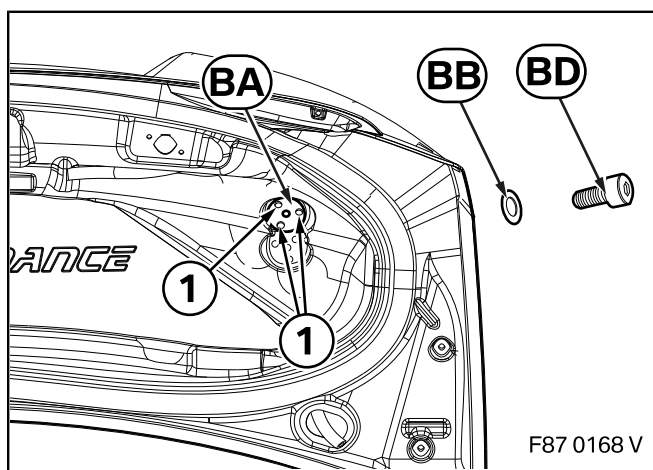
Enlarge the central borehole (1) in steps up to a diameter of **11 mm**.

This step applies to all four recesses.



Wet the tips of the four screws **BD** with liquid screw lock **I**.


5. Install the carbon throughflow rear spoiler (F22, F87 and F87 Competition)



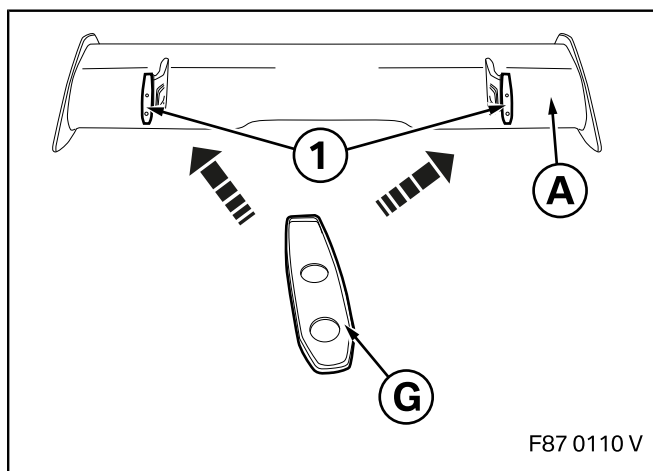
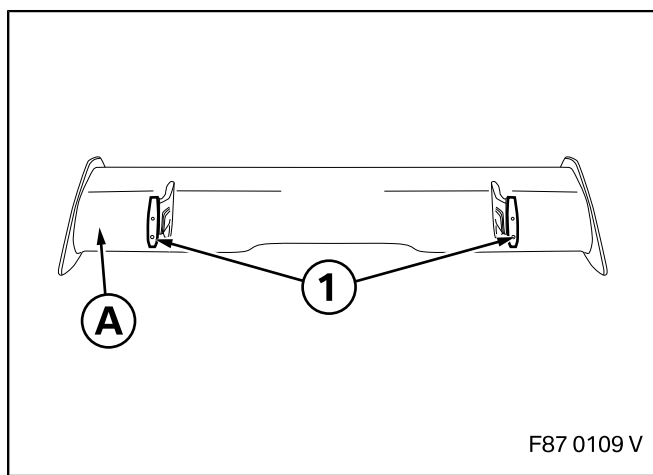
Place the bolting plate **BA** with the small guide at the front on the recess and tighten the short screws **BD** together with the washer **BB** in the boreholes (1) with a torque of **6 Nm**.

This step applies to all four recesses.

For all cars

 The bonding surfaces must be completely dry, clean, and free from wax or grease. ◀

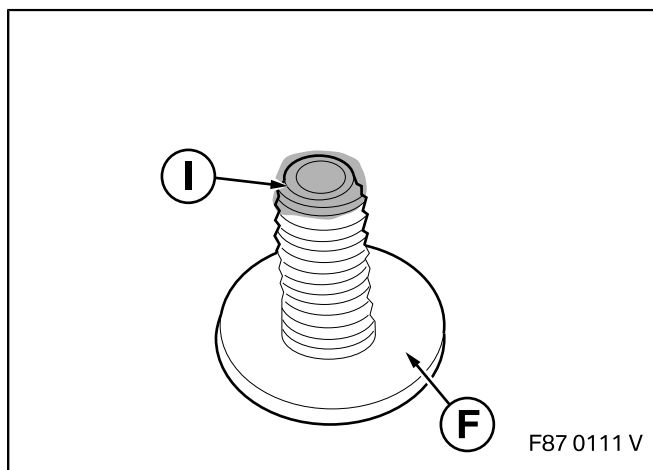
Remove the backing foil and adhesive tape from the feet (1) of the carbon throughflow rear spoiler **A** using suitable tools.



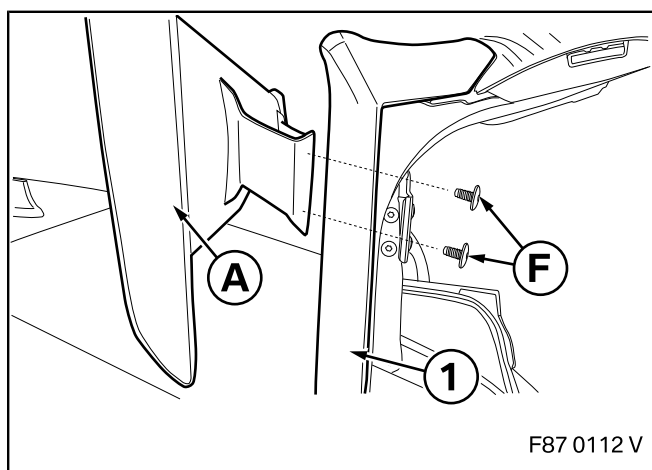
Place the rear spoiler support **G** to match the feet on the left and right (1) of the carbon throughflow rear spoiler **A**.

For cars with a standard boot lid

Wet the tips of the four Torx screws **F** with screw locking liquid **I**.



5. Install the carbon throughflow rear spoiler (F22, F87 and F87 Competition)

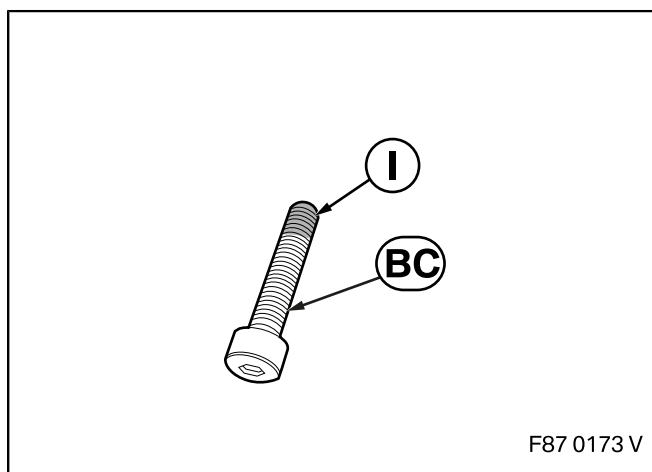


- Remove any excess liquid adhesive **H** immediately.

A second person is required for this step. ◀

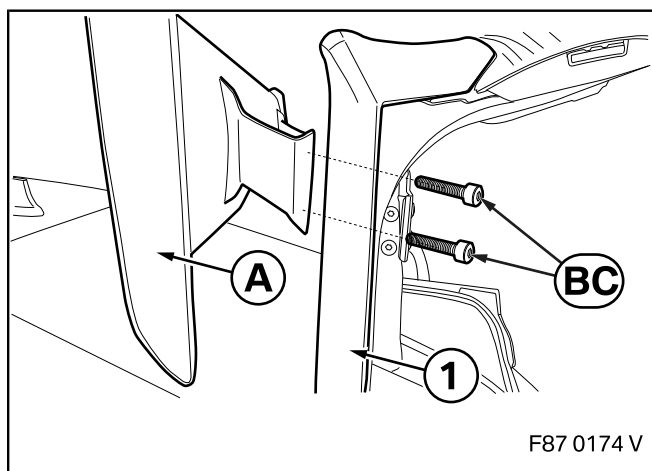
Place the carbon throughflow rear spoiler **A** onto the boot lid (1). Insert the Torx screws **F** from the inside and tighten them with a torque of **6 Nm**.

- Close the boot lid (1) and allow the adhesive to cure as described on page 2 of the installation instructions. ◀



For cars with a carbon boot lid

Wet the tips of the four long screws **BC** with liquid screw lock **I**.

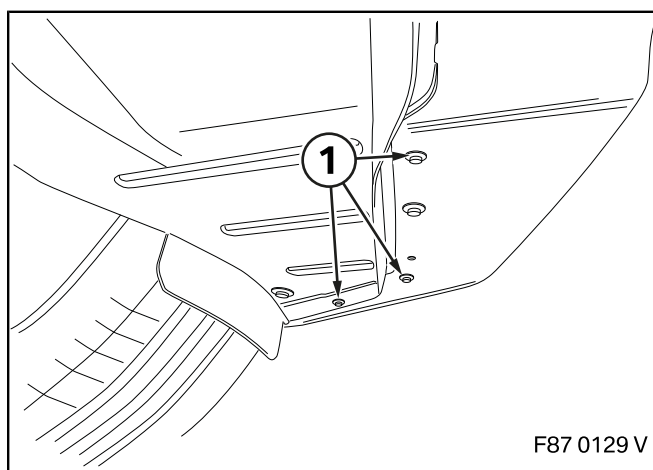


- A second person is required for this step. ◀

Place the carbon throughflow rear spoiler **A** onto the boot lid (1). Insert the long screws **BC** from the inside and tighten them with a torque of **6 Nm**.

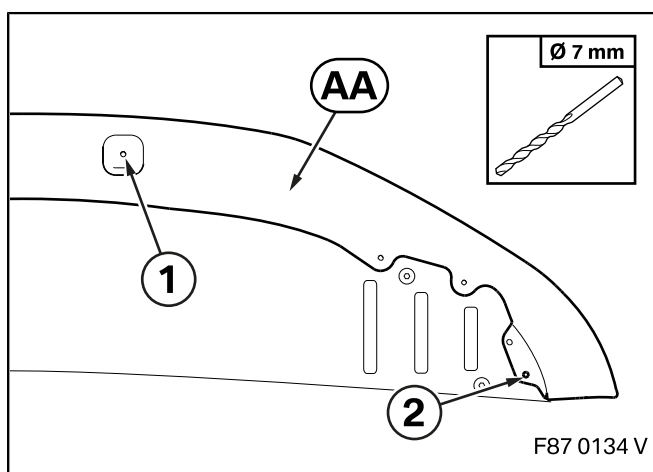
- Close the boot lid (1) and allow the adhesive to cure as described on page 2 of the installation instructions. ◀

6. Install the carbon front attachment (F87 Competition only)



▶ The screws (1) will be reused. ◀

Remove the three screws (1) and keep them safe.

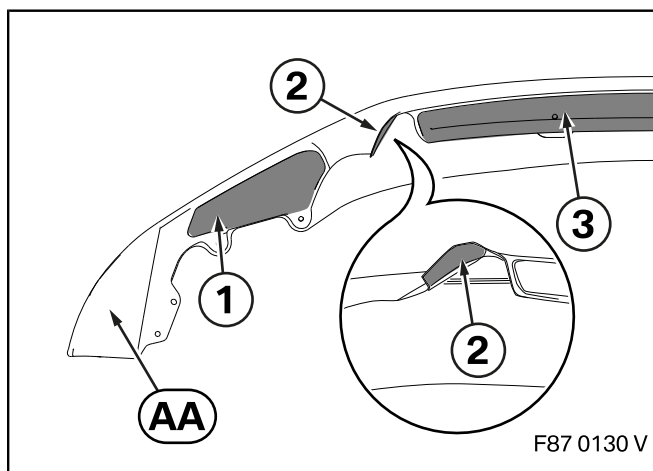


▶ A second person is required for this step. ◀

Place the carbon front attachment **AA** on the car and align it. Secure it with the side screws (see Figure F87 0129 V). Support the carbon front attachment **AA** in the centre mark the boreholes (1) and (2) on the car using suitable tools.

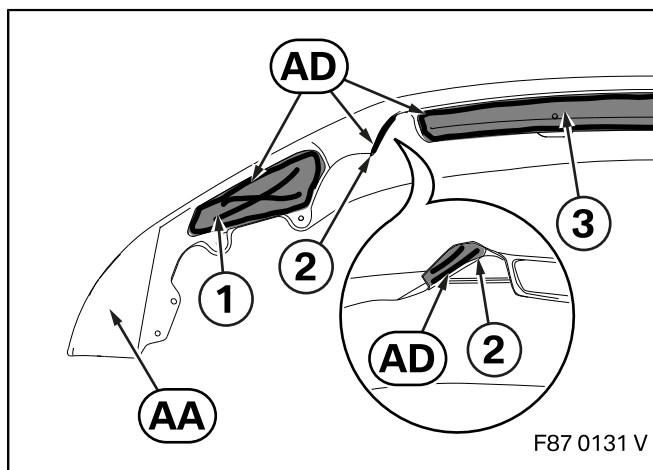
▶ Proceed with extreme caution with borehole (1) so as not to damage the parts beneath it. ◀

Remove the carbon front attachment **AA** and drill the boreholes (1) and (2) on the car with a **diameter of 7 mm**.



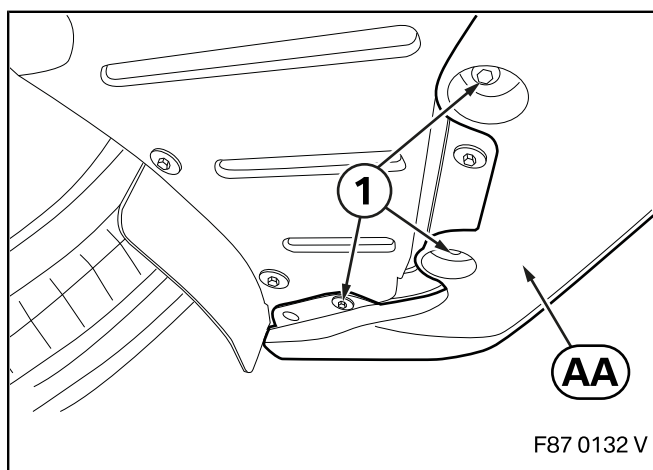
Abrade the carbon front attachment **AA** in areas (1), (2) and (3) using suitable tools and clean it.

▶ Wait for the specified drying time. ◀



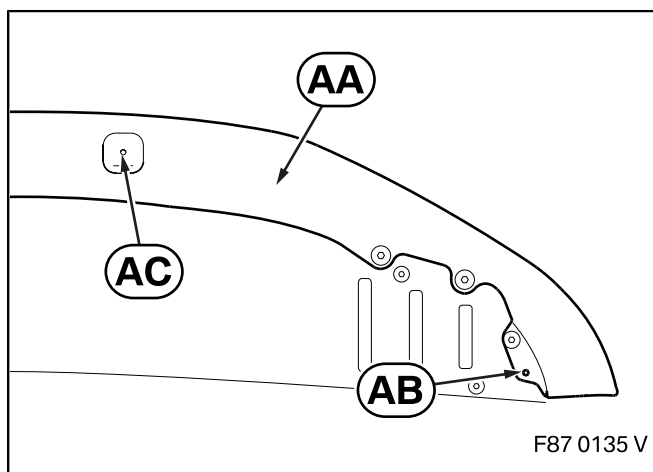
Apply a bead of liquid adhesive **AD** to the abraded areas (1), (2) and (3) on the carbon front attachment **AA** as shown.

6. Install the carbon front attachment (F87 Competition only)

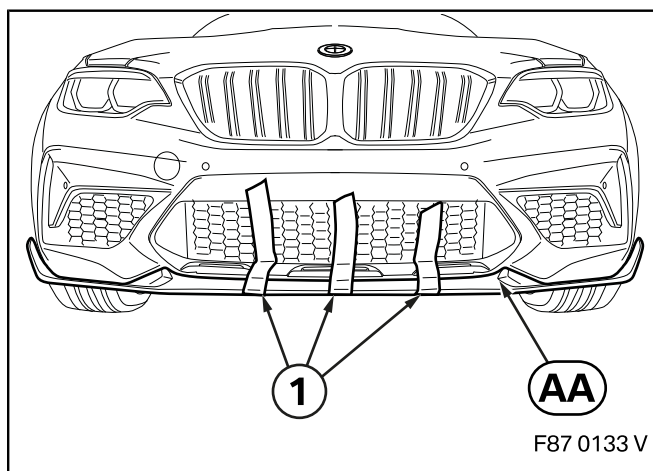


Remove any excess liquid adhesive immediately. ◀

Position the carbon front attachment **AA** and secure it using the existing screws (1).



Secure the rivet **AB** at the side of the carbon front attachment **AA**. Use expanding rivet **AC** on the inside.



Remove any excess liquid adhesive immediately.

Refer to the installation instructions on page 2. ◀

Press the carbon front attachment **AA** onto the car using suitable adhesive tape (1) in several places.

7. Concluding work and coding

The retrofit system does not require programming/coding.

- Conduct a function test
- Re-assemble the car

