

Original BMW Accessories. Installation Instructions.



Retrofit BMW Performance Aerodynamics Package BMW 3-Series (E90/E90 LCI) BMW 3-Series Touring (E91/E91 LCI)

Retrofit kits:

Performance aerodynamics package, front
Performance aerodynamics package, sill
Performance aerodynamics package, rear
Performance aerodynamics package, diffuser
Performance cooling air package, brakes
Performance cooling air package, brakes and engine

 Please see the EPC for the part numbers of the retrofit kits. ◀

Installation time

The installation time for the entire package is **approx. 2.5 hours**. This may vary depending on the condition of the car and the equipment in it.

The flash memory of the vehicle must be updated to the latest integration level status before installing the retrofit. Different programming times are necessary for this depending on the production age of the vehicle and the work already performed on the vehicle.

The installation time stated does not include the time needed for programming/encoding.

The allocation of the total costs for the programming time must be taken into account for the calculation of the retrofitting costs (an allocation via warranty is not permitted).

Important information

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

In any event, the target group for these installation instructions is specialist personnel trained on BMW cars with the appropriate specialist knowledge.

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

 **The customer must be informed that the vehicle will no longer have front fog lights after installing the BMW Performance Aerodynamics Package.** ◀

 **The performance cooling air package retrofit kit 51 19 2 149 516 must be installed on the 335i and the 335d US otherwise the brakes and engine may overheat.** ◀

If you experience installation or function problems, limit troubleshooting to approx. 0.5 hours for mechanical or 1.0 hour for electrical work.

In order to save costs and avoid any unnecessary additional expenditure, send a query immediately to the Technical Parts Support via the Aftersales Assistance Portal (ASAP).

Specify the following information:

- chassis number,
- part number of the retrofit kit,
- a precise description of the problem,
- work steps already carried out.

Do not archive the hard copy of these installation instructions since daily updates are made via ASAP!

All pictures show LHD cars; proceed accordingly on RHD cars.

Pictograms



Denotes instructions that draw your attention to hazards.



Denotes instructions that draw your attention to special features.



Denotes the end of the instruction or other text.

Installation information

To some extent, installation is only shown on the right-hand side of the vehicle. Please proceed along the same lines for the left-hand side of the vehicle.



The installation procedure is partly shown on the E90. Proceed accordingly on the E91. ◀

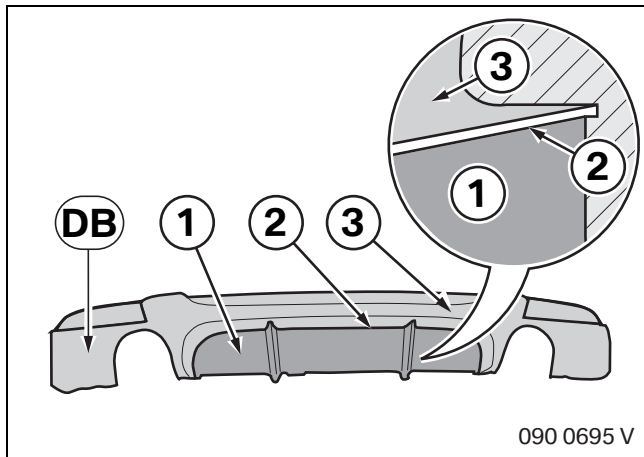
Optional add-on parts for the E9x BMW Performance Aerodynamics Package

Parts no.:	51 19 2 149 509	E9x Carbon fibre front splitter, left
	51 19 2 149 510	E9x Carbon fibre front splitter, right
	51 12 2 147 973	E9x Carbon fibre diffuser
	51 16 2 146 652	E9x Carbon fibre mirror caps, right (see installation instructions)
	51 16 2 146 651	E9x Carbon fibre mirror caps, left (see installation instructions)
	51 71 2 146 911	E9x Front grilles, black mirror finish, left
	51 71 2 146 912	E9x Front grilles, black mirror finish, right
	51 71 2 147 114	E90 Carbon fibre rear spoiler (see installation instructions)

Painting instructions (for the primed version only)

Primer-coated parts must be pre-treated accordingly. The painting must be carried out in compliance with the BMW painting instructions.

The central area of the diffuser trim **DB** must be covered completely over the edge prior to painting.



Legend:

- (1) Central area
- (2) Edge
- (3) Area to be painted

Ordering instructions

With the exception of the 335i and 335d vehicles, the activated carbon filter trim DH must be ordered separately for all vehicles for tail installation (see the EPC for part number and further details).

The filler piece DJ must be ordered separately for tail installation on the 335i and 335d vehicles (see EPC for part number and further details).

List of special equipment

The following special equipment must be taken into consideration when installing the retrofit kit:

- SA 502** Headlamp washer system
- SA 507** Park distance control, rear
- SA 508** Park distance control, front and rear

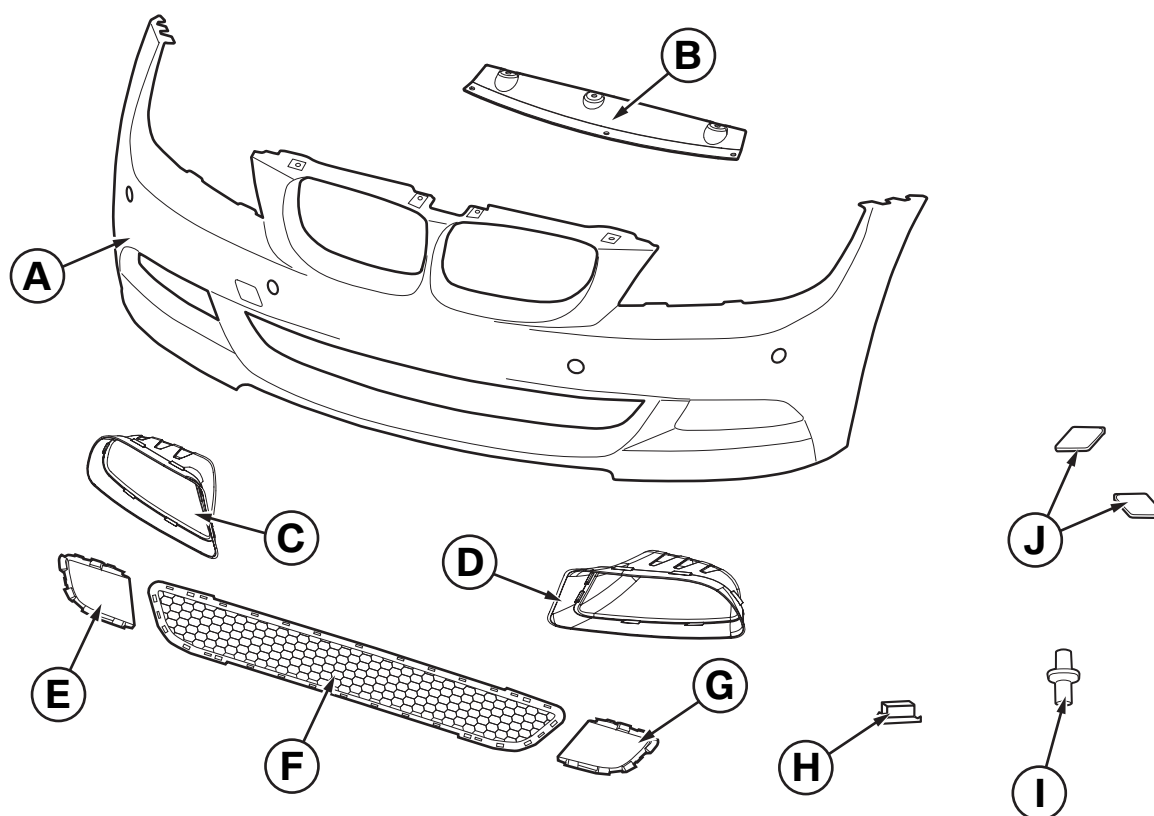
Special tools required

- 00 9 317 Mounting wedges

Table of contents

Section	Page
1. Parts overview, front	5
2. Parts overview, brakes and engine cooling air package for 335i and 335d US.	6
3. Parts overview, brakes cooling air package for 335i and 335d US	7
4. Parts overview, sill	8
5. Parts overview, rear	9
6. Parts overview, optional add-on parts - Carbon fibre front splitter	10
7. Parts overview, optional add-on parts - Carbon fibre diffuser	11
8. Preparatory work	12
9. Installation schematic	13
10. Installing front	14
11. Installing front splitter (optionally available)	18
12. Installing sill	19
13. Installing rear	21
14. Installing carbon fibre diffuser (optionally available)	23
15. Concluding work and coding	24

1. Parts overview, front



090 0656 V

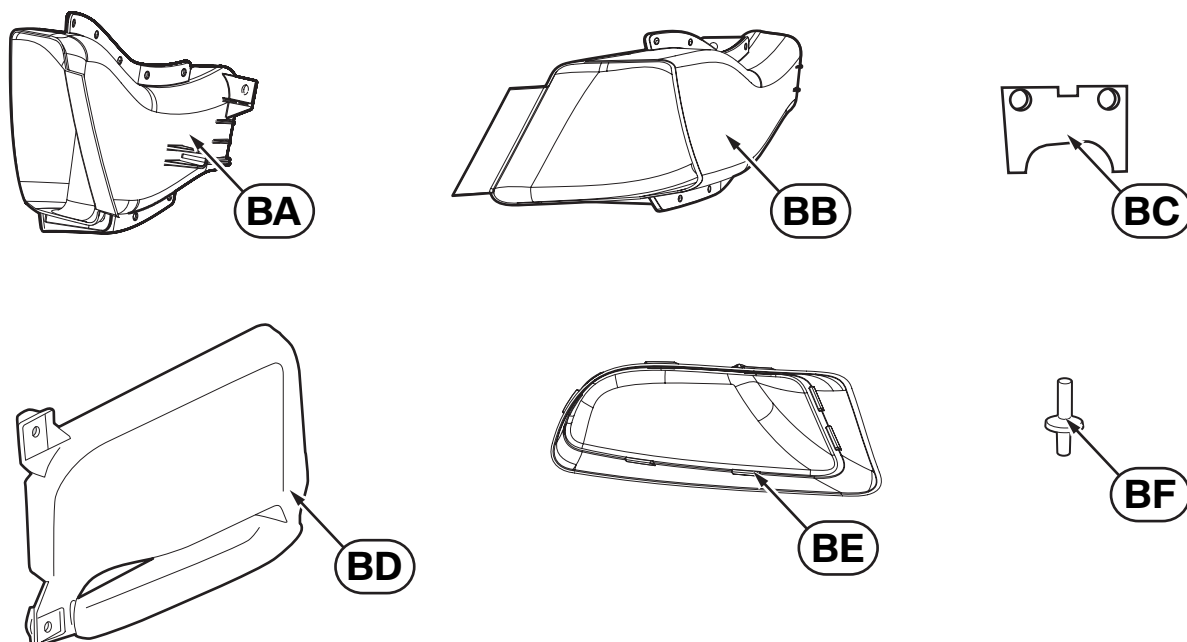
Legend

- A** Front apron (primer-coated)
- B** Adapter, engine compartment shield
- C** Right air intake for engine oil cooler, closed (open in the case of the 335i and 335d US)
- D** Air intake, left
- E** Brake air duct trim, right
- F** Front apron grille
- G** Brake air duct trim, left
- H** Clip (14 x)
- I** Expander rivet (5 x)

Only for vehicles with headlamp washer system:

- J** Cover cap for headlamp washer system, primer-coated, left/right (2 x)

2. Parts overview, brakes and engine cooling air package for 335i and 335d US

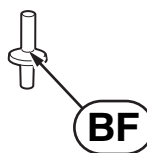
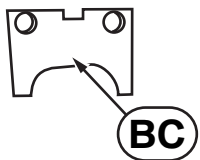
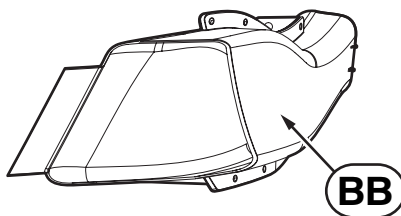
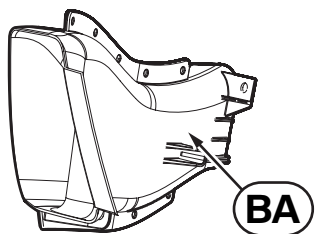


090 0657 V

Legend

- BA** Brake air intake, right
- BB** Brake air intake, left
- BC** Brake air intake trim(2 x)
- BD** Right air intake for engine oil cooler, rear open
- BE** Right air intake for engine oil cooler, front open
- BF** Blind rivet (4 x)

3. Parts overview, brakes cooling air package for 335i and 335d US



090 0696 V

Legend

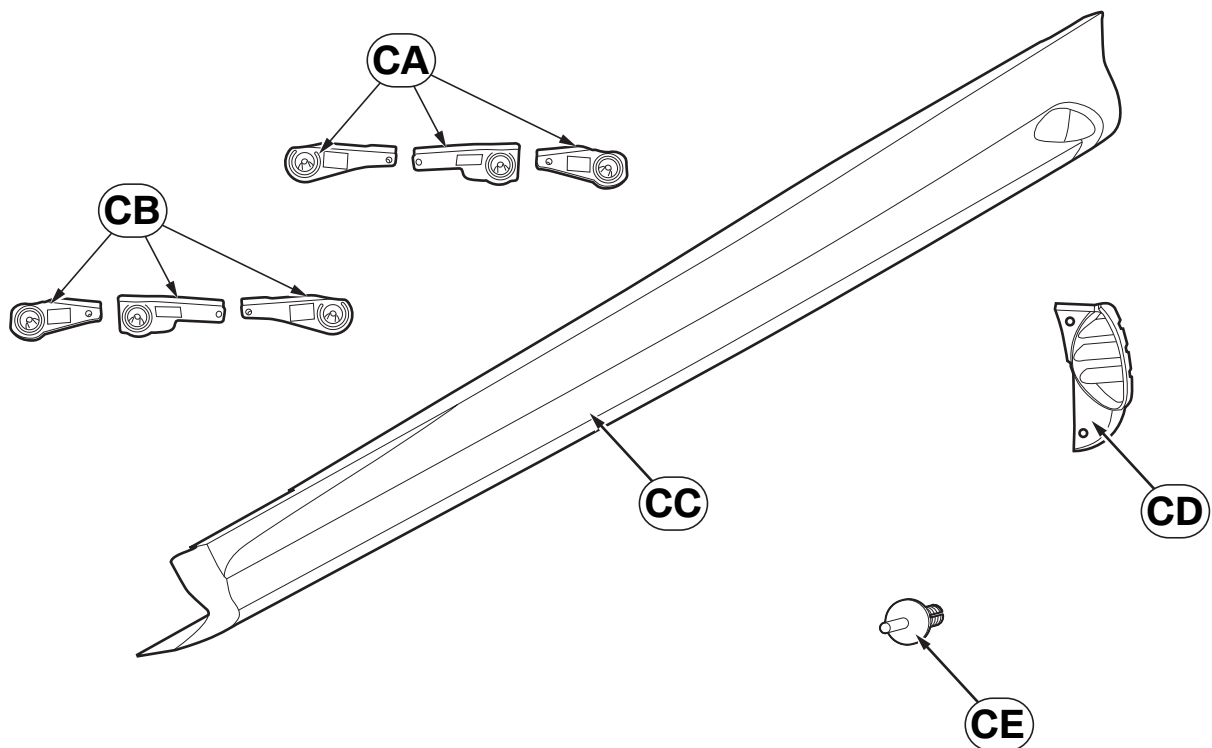
BA Brake air intake, right

BB Brake air intake, left

BC Brake air intake trim (2 x)

BF Blind rivet (4 x)

4. Parts overview, sill

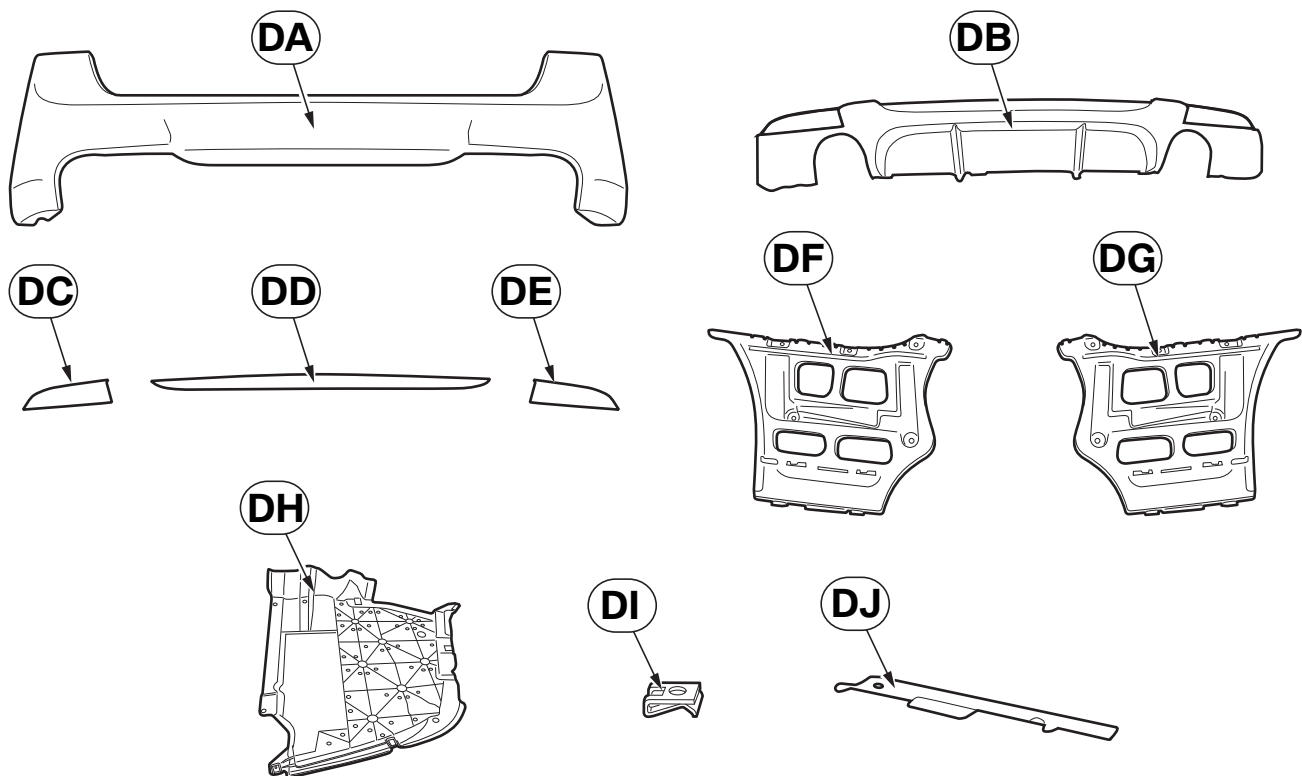


090 0658 V

Legend

- CA** Chafe guard, left (3 x)
- CB** Chafe guard, right (3 x)
- CC** Sill left/right (primed) (2 x)
- CD** Trim cover for sill grille, left/right (2 x)
- CE** Expander rivet (4 x)

5. Parts overview, rear

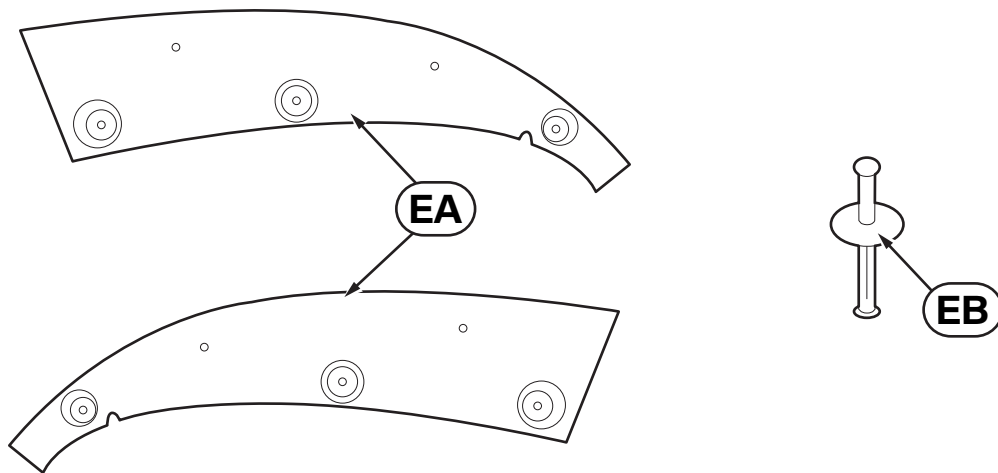


090 0659 V

Legend

- DA** Rear apron (primed)
- DB** Diffuser trim (not necessary if carbon fibre diffuser 51 12 0 414 220 installed)
- DC** Rear apron trim, left
- DD** Rear apron trim, centre
- DE** Rear apron trim, right
- DF** Guide, left
- DG** Guide, right
- DH** Cover for activated charcoal filter
(not part of the retrofit kit, see EPC)
- DI** Metal clip (2 x)
- DJ** Filler piece, left/right
(not part of the retrofit kit, see EPC for ordering)

6. Parts overview, optional add-on parts - Carbon fibre front splitter



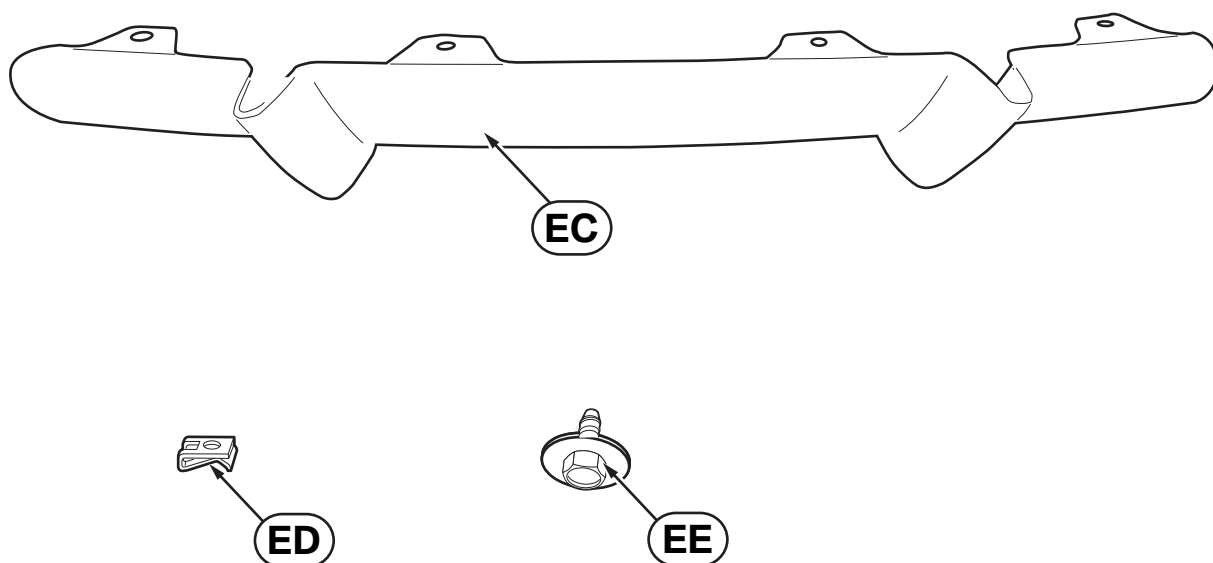
090 0660 V

Legend

EA Carbon fibre front splitter, left/right (2 x)

EB Blind rivet (10 x)

7. Parts overview, optional add-on parts - Carbon fibre diffuser



090 0697 V

Legend

EC Carbon fibre diffuser

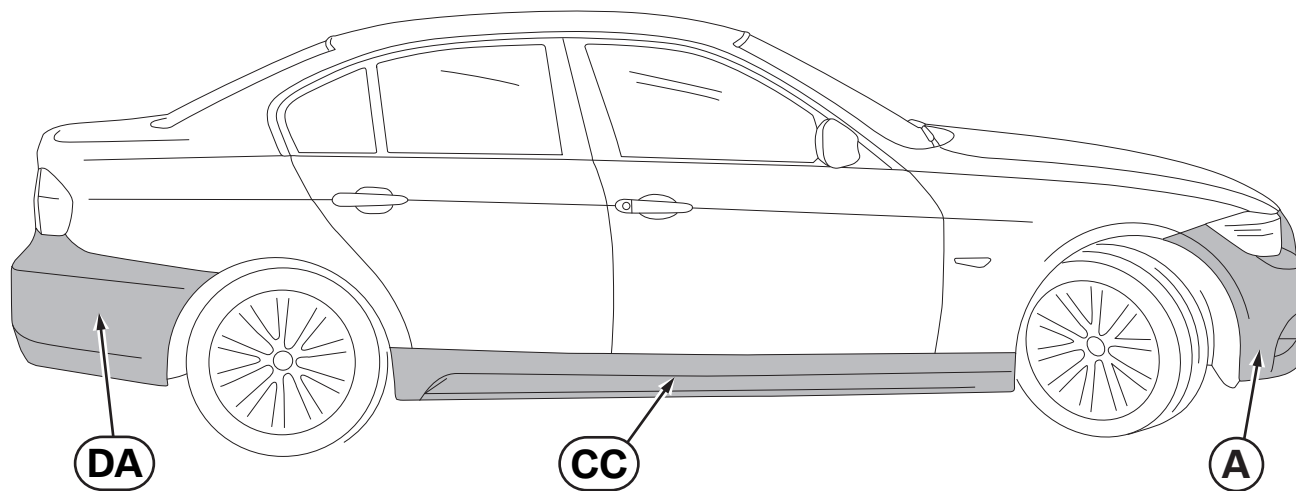
ED Metal clip (4 x)

EE Self-taping screw (4 x)

8. Preparatory work

	ISTA No.
Conduct a brief test	---
Disconnect negative terminal of battery	12 00 ...
The following components must be dismantled in advance	
Number plate (without pad)	51 11 ...
Pad for number plate	51 11 158
Bumper trim, front	51 11 156
Ornamental front grille, centre, left and right	51 13 001
Lining on the side member, left and right	51 71 447
Tail light, left and right	63 21 180
Rear bumper trim (only vehicles without M package)	51 12 156
Bracket for rear bumper, left and right (only vehicles without M package)	51 12 801
Only for vehicles with SA 520	
Front fog lights, left and right	63 17 060
Only for vehicles with SA 507 or SA 508	
Ultrasonic transducer, front	66 20 520
Ultrasonic transducer, rear	66 20 540
Only for vehicles with SA 502	
Cover for headlamp washer system, left and right	51 11 ...
Only for 335i and 335d US vehicles	
Engine oil cooler air intake and brake air ducts	---

9. Installation schematic

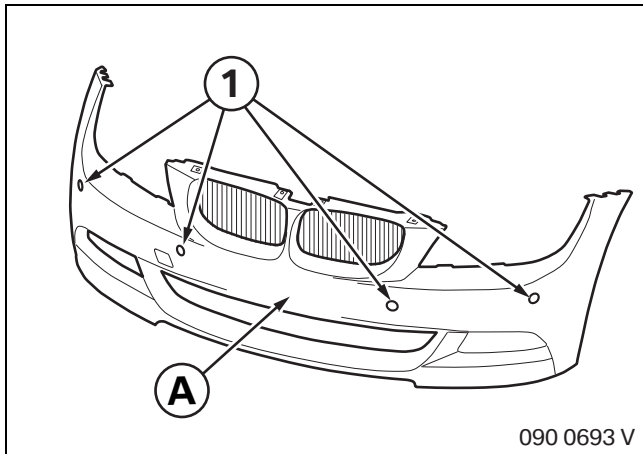


090 0661 V

Legend

- A** Front apron
- DA** Rear apron
- CC** Sill, left/right

10.Installing front

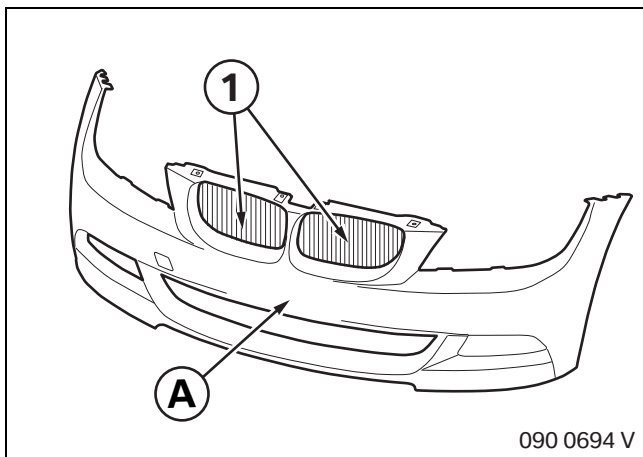


for vehicles with front fog lights:

▶ Insulate connector for front fog lights and tie back. ◀

For vehicles with SA 508:

Install the PDC sensors (1) from the old front apron in the new front apron **A** in accordance with ISTA no. 66 20 540.



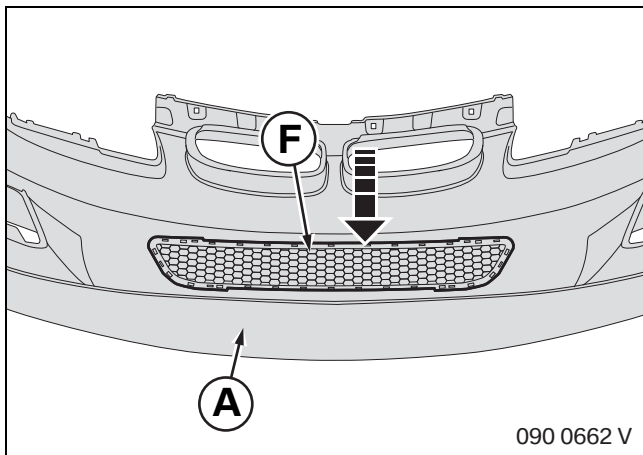
For vehicles from 09/08 onwards:

▶ If necessary, install black mirror finish front grilles (part numbers 51 71 2 146 911 and 51 71 2 146 912). ◀

Fit the left and right front grilles (1) in the new front apron **A** in accordance with ISTA no. 51 13 001.

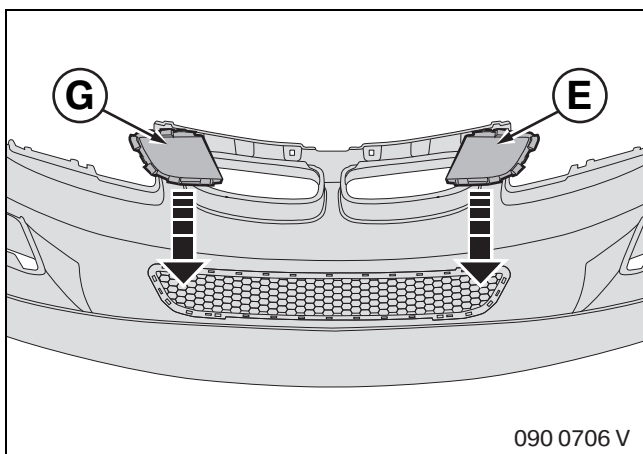
For vehicles up to 09/08:

▶ Install the black mirror finish front grilles (part numbers 51 71 2 151 895 and 51 71 2 151 896 and 2 trims (part number 51 71 2 151 897 and 51 71 2 151 898). ◀



For all vehicles:

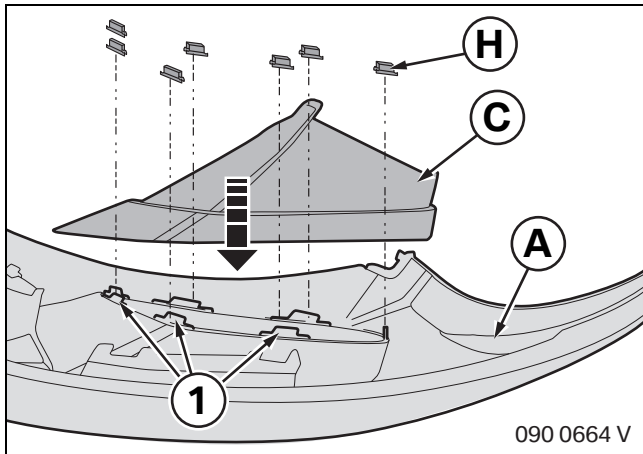
Install the front apron grille **F** in the front apron **A**.



For vehicles without cooling air package for brakes:

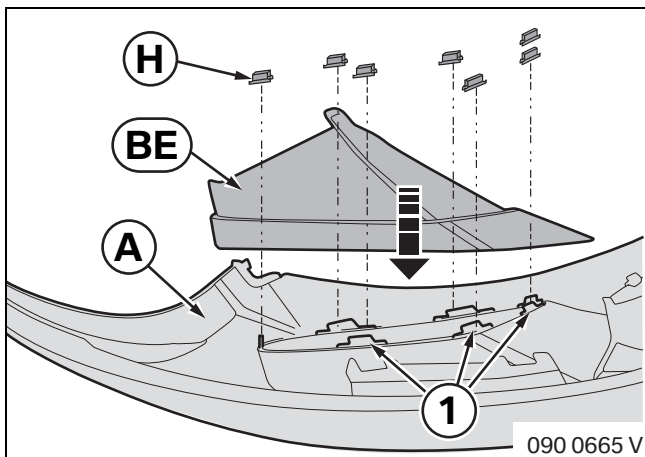
▶ Install brake air duct trims **G** and **E**. ◀

10.Installing front



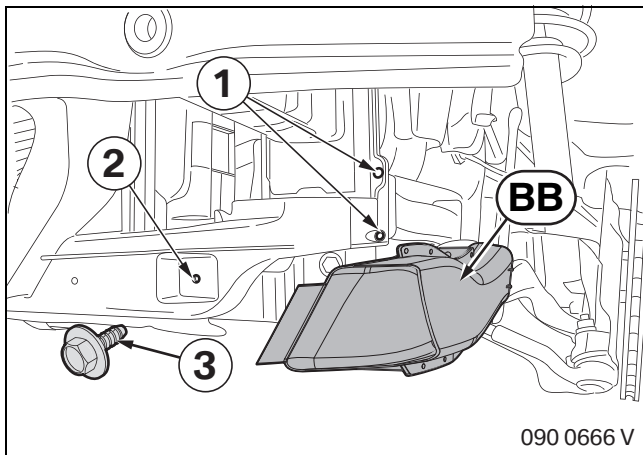
For all vehicles except 335i and 335d US:

Pass the right hand closed air intake for the engine oil cooler **C** from behind to the opening in the front apron **A** and secure to the tabs (1) with the clips **H**.

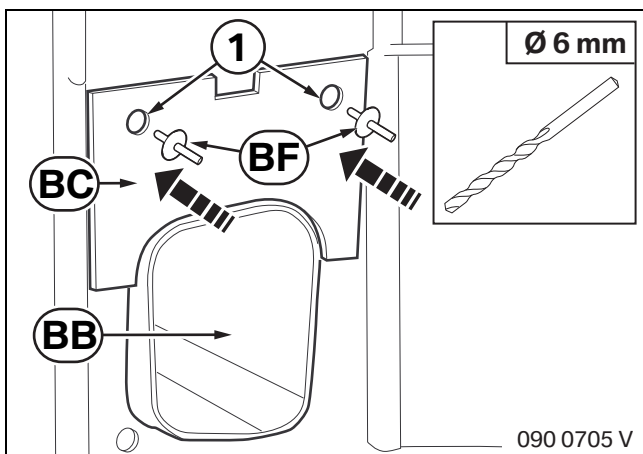


For 335i and 335d US vehicles:

Pass the front right hand open air intake for the engine oil cooler **BE** from behind to the opening in the front apron **A** and secure to the tabs (1) with the clips **H**.



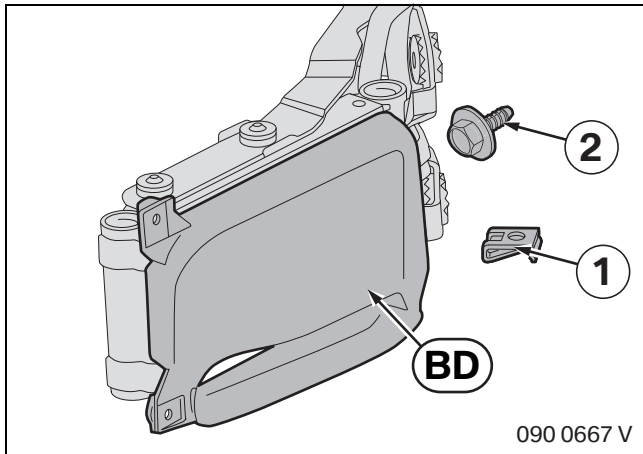
Fit left brake air intake **BB** in the retainers (1) and (2) and secure to the retainer (2) with the existing hexagon self-tapping screw (3).



For 335i and 335d US vehicles before 09/08:

Use the brake air intake trim **BC** in case of a free space above the brake air intakes **BA** and **BB**. Apply the brake air intake trim **BC**, use suitable means to transfer the boreholes (1) to the wheel arch and use a 6 mm drill to drill the boreholes. Afterwards secure the brake air intake trim **BC** with the blind rivets **BF**.

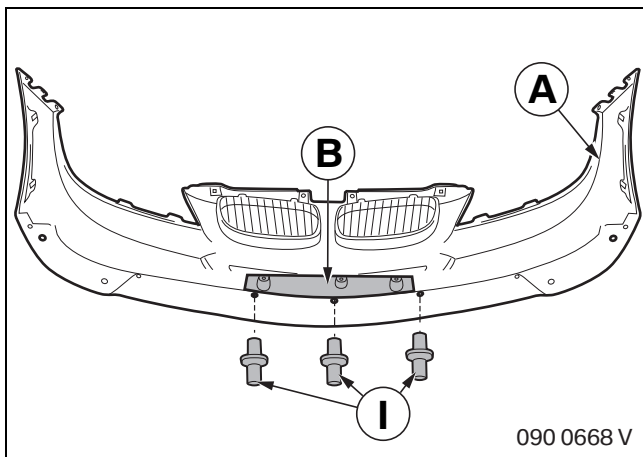
10.Installing front



For all 335i and 335d US vehicles:

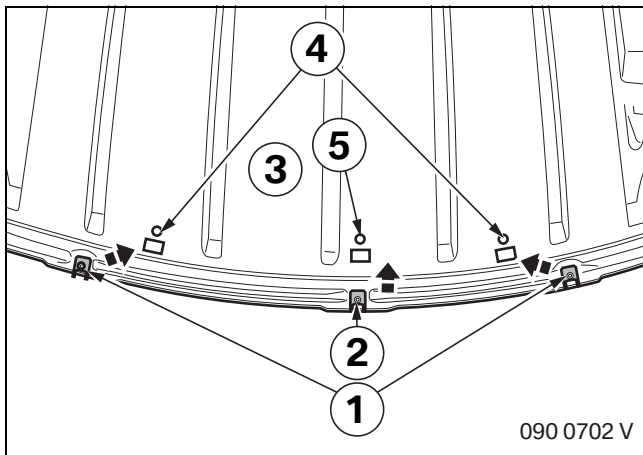
Remove the speed nuts (1) from the dismantled engine oil cooler air intake.

Secure right air intake for engine oil cooler, rear open, **BD** with the removed speed nuts (1) and the existing hexagon self-tapping screws (2).



For all vehicles:

Secure the adapter for the engine compartment shield **B** to the front apron **A** with expander rivets **I**.



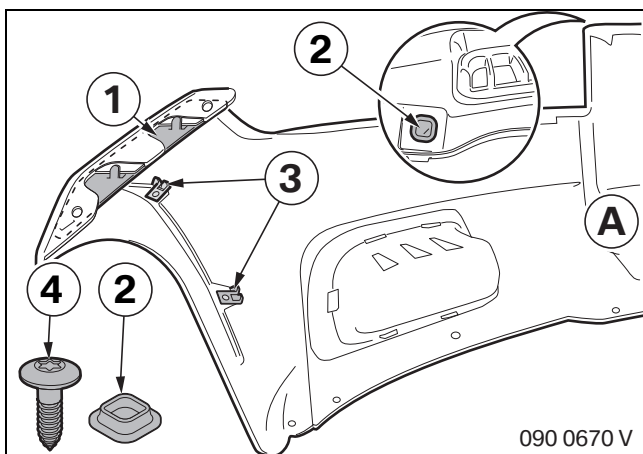
For vehicles from 09/08 onwards:

Remove the existing speed nuts (1) and (2) on the engine compartment shield (3) and insert in the recesses (4) and (5).

For vehicles before 09/08:

Remove the speed nut (2) on the engine compartment shield (3) and insert in the recess (5).

☐ In this case, the connection points (4) do not coincide. They have to be drilled and riveted after installation of the front apron. ◀



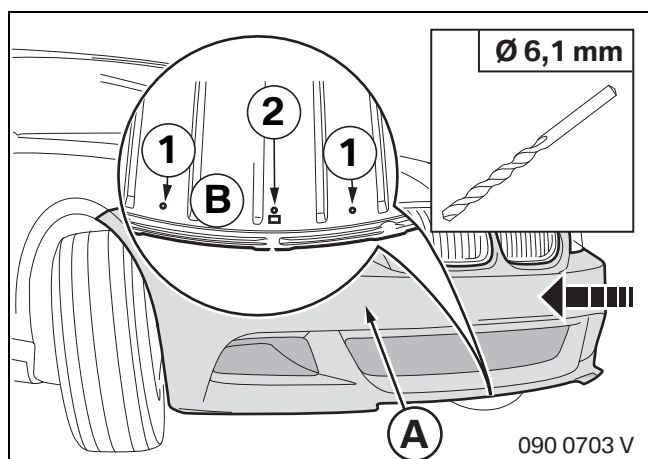
For all vehicles:

Take over the existing parts from the front apron as follows:

- Insert (1)
- Spacer sleeves (2)
- Metal clip (3)

Use the existing Torx screws (4) to secure the front apron **A**.

10.Installing front

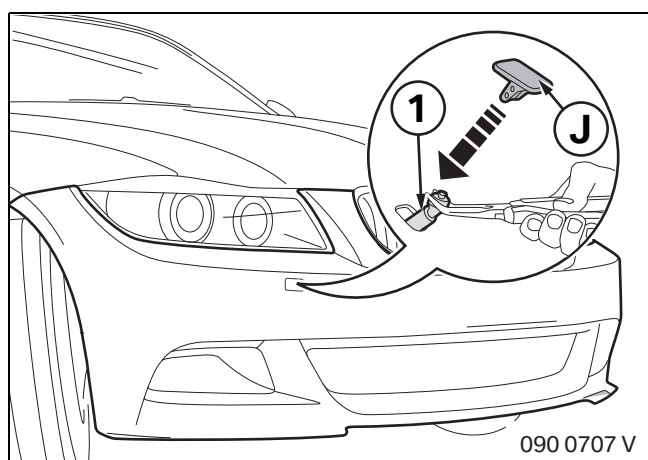


For vehicles from 09/08 onwards:

Mount front apron **A** as per ISTA No. 51 11 156.

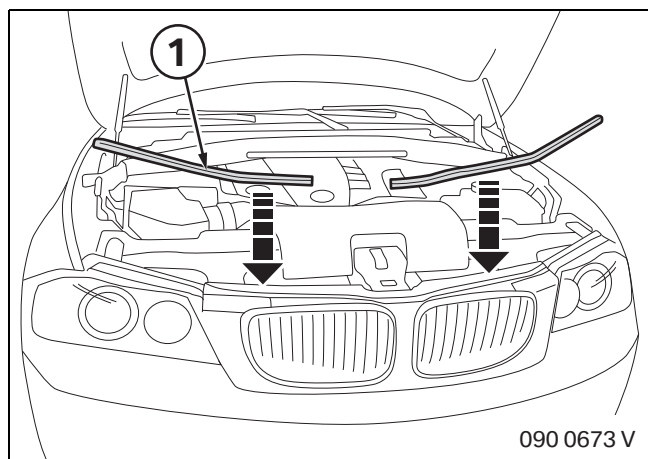
For vehicles before 09/08:

▶ Mount front apron **A** as per ISTA No. 51 11 156. The outer connection points (1) of the adapter **B** for the engine compartment shield cannot be secured by screws. To do this, fix the centre connection point (2) with a screw and drill the outer connection points (1) from below using a (6.1 mm) drill. Subsequently, rivet the adapter for the engine compartment shield **B** to the front apron **A** using the expander rivets **I**. ◀



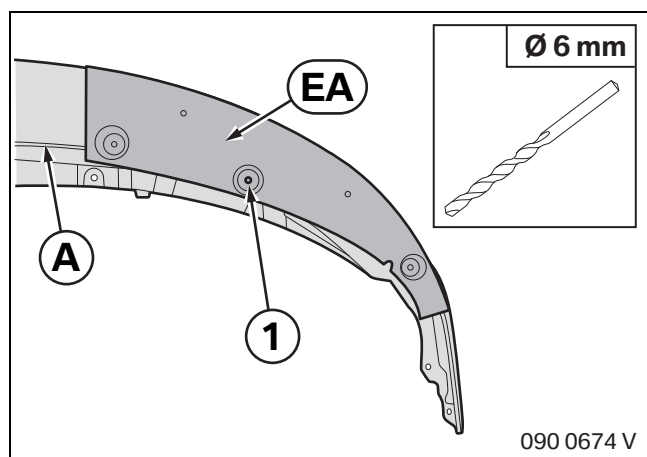
For vehicles with SA 502:

Fit cover caps for the headlamp washer system **J** on to the nozzle heads (1) as per ISTA No. 51 11

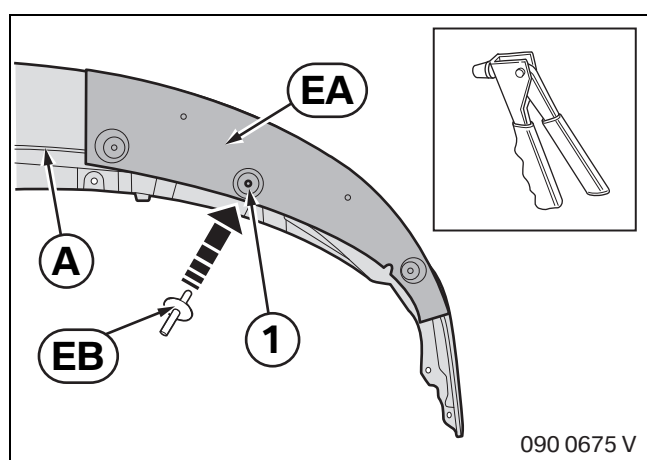


Fit bonnet seal (1) as per ISTA No. 86 21

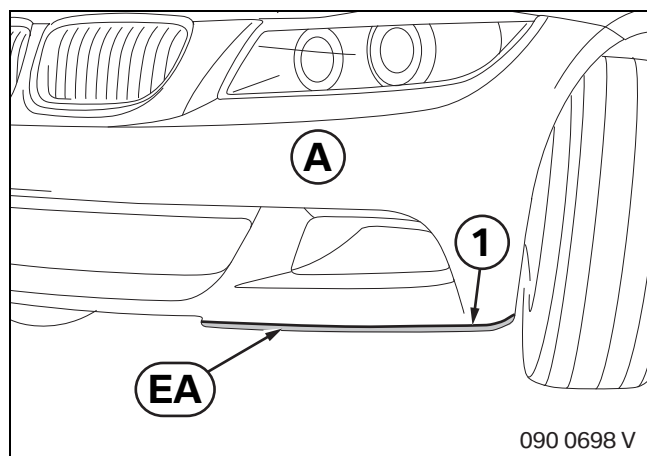
11. Installing front splitter (optionally available)



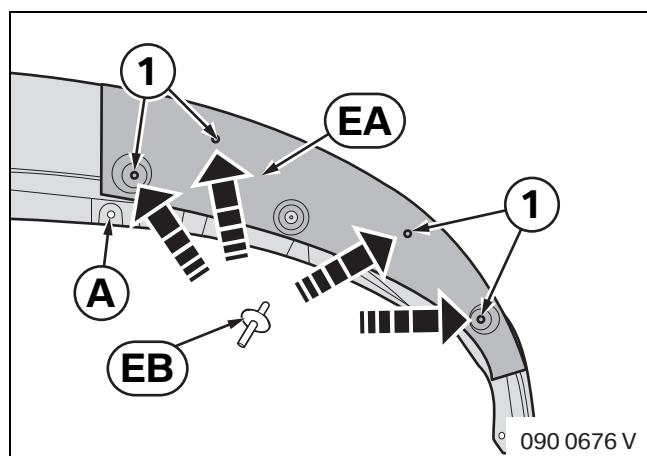
Place the left/right carbon fibre front splitter **EA** at the bottom of front apron **A** as illustrated. Rebore existing holes (1) with drill (6 mm).



Secure the left/right carbon fibre front splitter **EA** in the hole (1) to the front apron **A** with blind rivet **EB**.

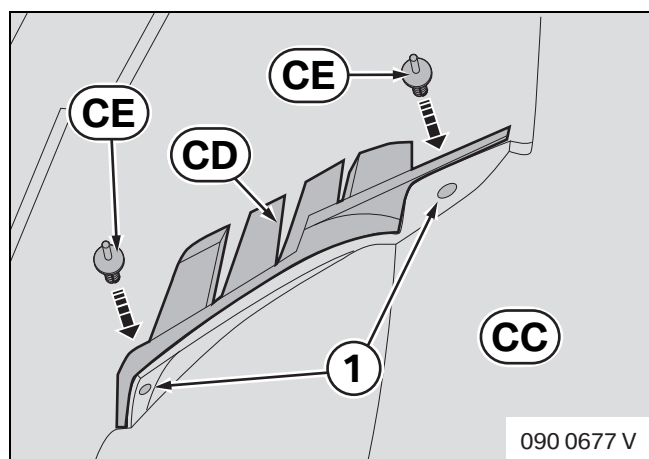


Pay attention to the gap path in the visible area (1) between the front apron **A** and the left/right carbon fibre front splitter **EA**.

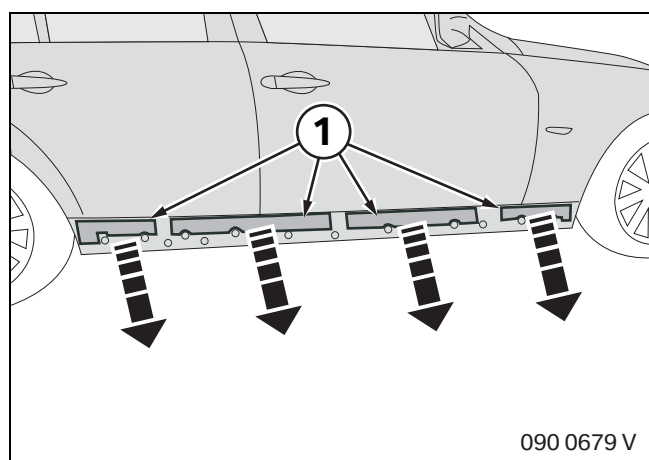


Also drill through the remaining fastening points (1) with drill (6 mm) and secure the left/right carbon fibre front splitter **EA** to front apron **A** with blind rivets **EB**.

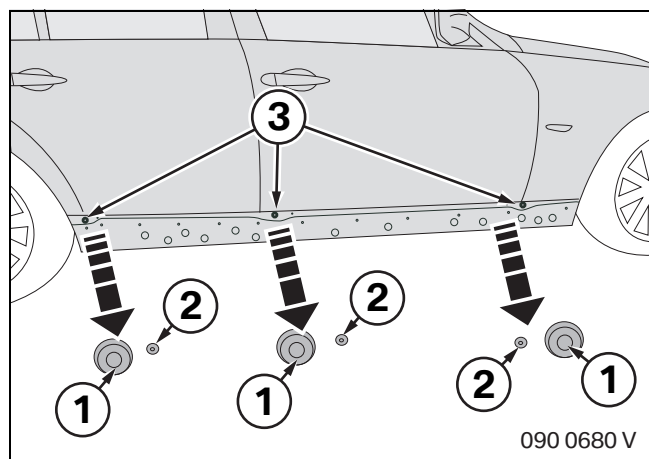
12. Installing sill



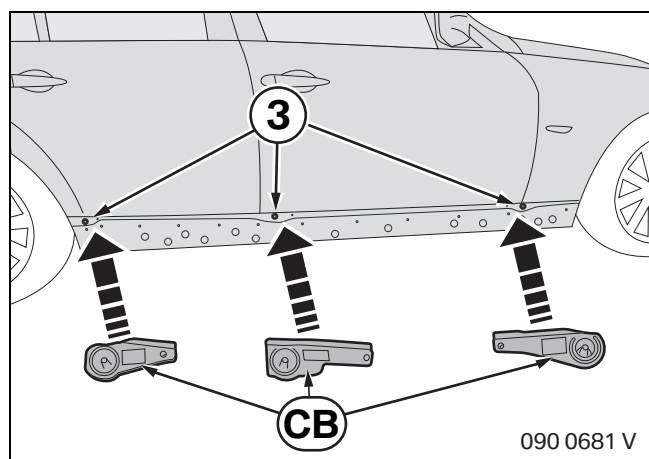
Insert the trim cover for the left/right sill **CD** from the inside into the left/right sill **CC** and secure to the boreholes (1) with expander rivets **CE**.



Remove existing plastic guides (1).

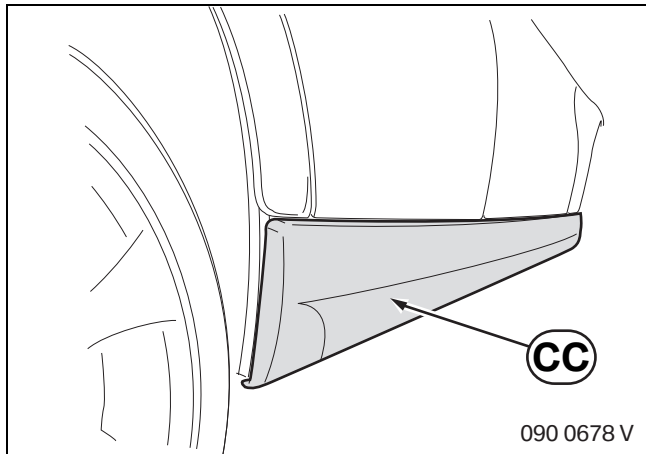


Remove grommets (1) and green plastic plugs (2) at the points (3).



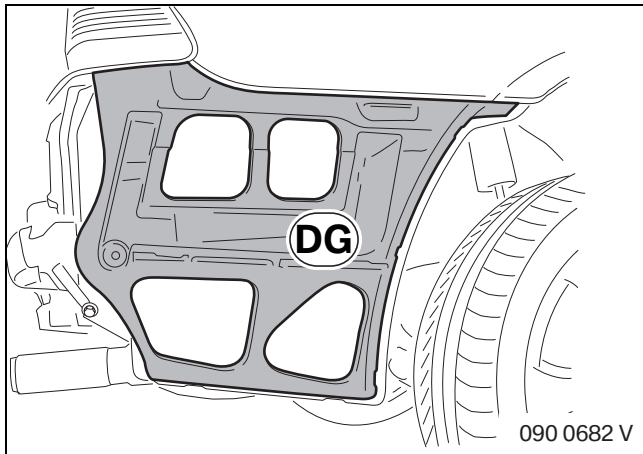
Insert chafe guard **CB** at fastening points (3).

12.Installing sill

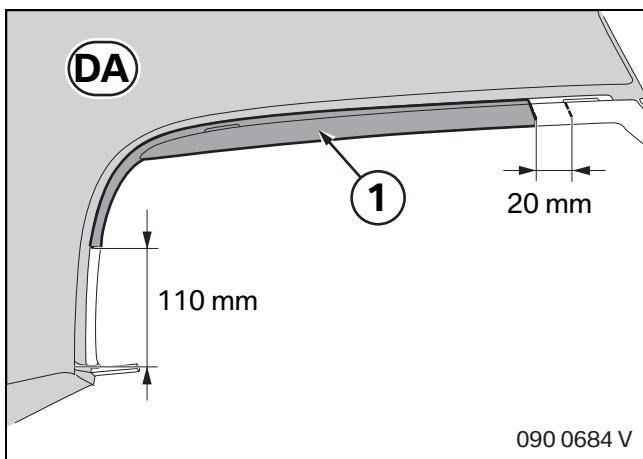


Mount the left/right sill **CC** in accordance with ISTA no. 51 71 447.

13. Installing rear



Secure guide **DG** to the sidewall with existing screws.



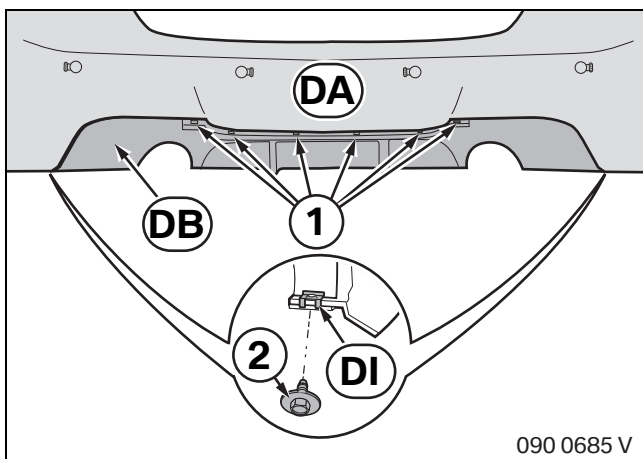
For vehicles with M package:

Do not damage painted surfaces in the visible area on the rear apron **DA**. ◀

Carefully remove the marked area (1) on left side of rear apron **DA** with a suitable tool.

Deburr the cutting edge and abrade the surface. Also touch up the cutting edge if necessary with a touch-up stick. ◀

Now proceed as illustrated in chapter 14 on "Installing carbon fibre diffuser" for the installation of the carbon fibre diffuser **EC**. Continue subsequently from this point. ◀

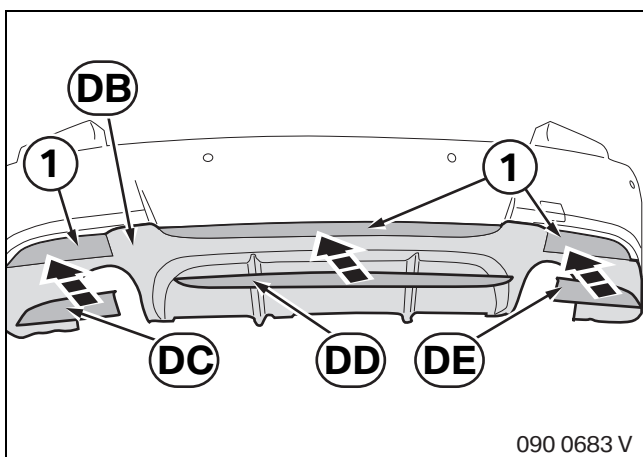


For all vehicles:

Attach metal clips **DI** to rear apron **DA**.

Clip the diffuser trim **DB** on to points (1) in rear apron **DA**.

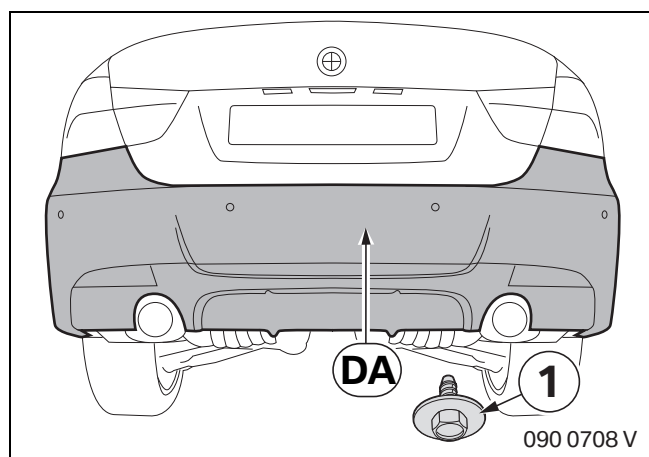
Secure on both sides with the existing hexagon self-tapping screws (2).



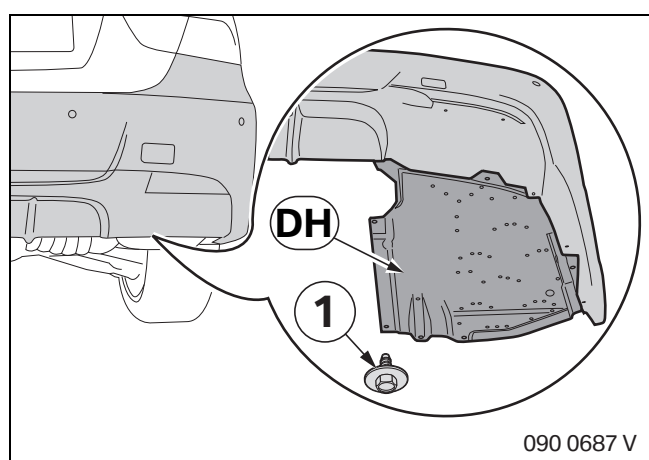
Clean and degrease adhesion surface areas (1). ◀

Pull adhesive protective foil off the trims **DC**, **DD** and **DE** and fit and press on the trims in the recesses of the diffuser trim **DB**.

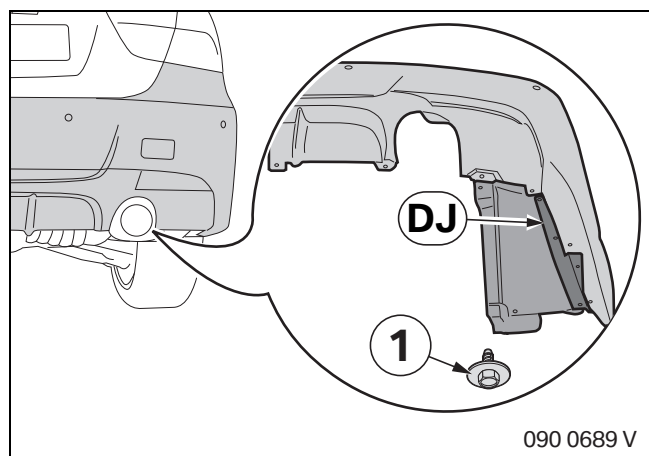
13.Installing rear



Mount the rear apron **DA** as per ISTA No. 51 12 156. Secure at the bottom and side with the existing hexagon self-taping screws (1).

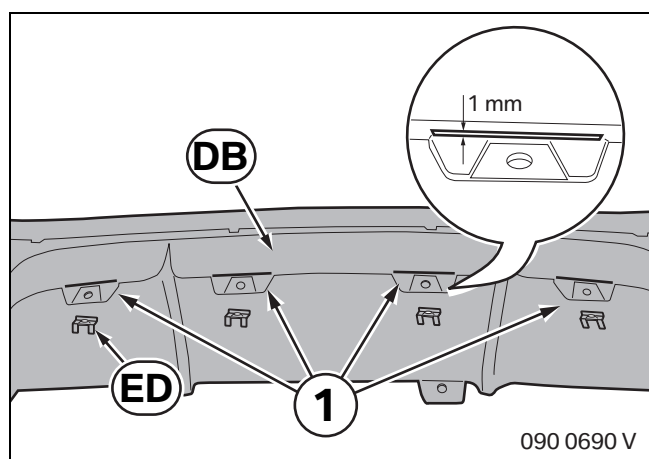


For all vehicles except 335i and 335d:
Secure cover for activated charcoal filter **DH** with the existing hexagon self-taping screws (1).



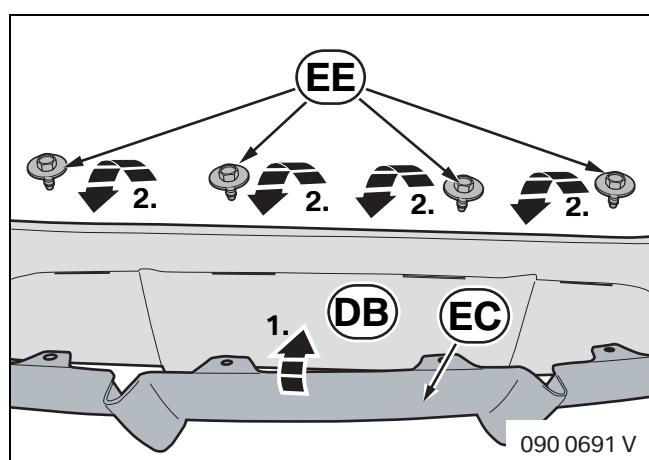
For 335i and 335d vehicles:
Secure filler piece **DJ** with the existing hexagon self-taping screws (1).

14. Installing carbon fibre diffuser (optionally available)

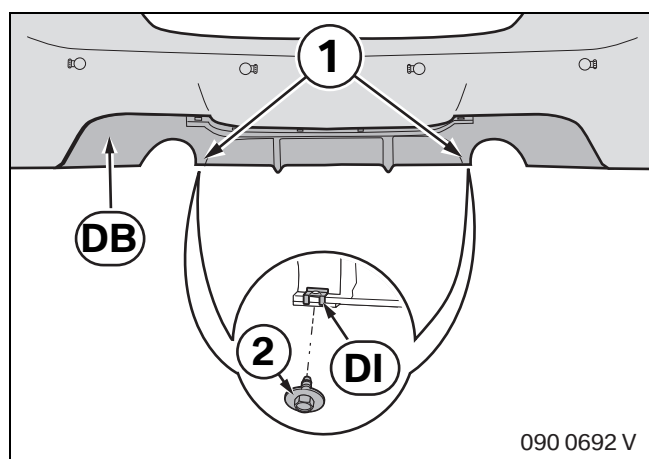


Cut a slot 1 mm wide along the tabs (1) on the inside of the diffuser trim **DB**.

Attach metal clips **ED** to the tabs (1).



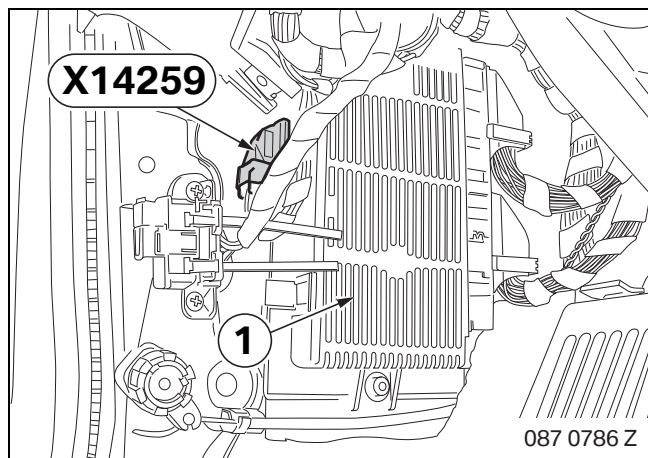
Fit the carbon fibre diffuser **EC** on the diffuser trim **DB** and secure with self-tapping screws **EE**.



Fit the metal clips **DI** on the diffuser trim **DB**. Secure at the points (1) on both sides with the existing hexagon self-tapping screws (2).

15. Concluding work and coding

Retrofitting requires encoding only for vehicles with SA520 (front fog lights):



Unplug connector **X14259** from footwell module (1) and release.

Unplug GE/WS (yellow/white) wire from PIN 15, insulate and tie back.

Plug in connector **X14259** at footwell module (1).

The encoding **NSW** (deactivate front fog lights) must be additionally carried out for vehicles with front fog lights.

For all vehicles:

- Connect the battery
- Conduct a brief test
- Conduct a function test
- Mount number plate in accordance with ISTA No. 51 11 ...