

Original BMW Accessories. Installation Instructions.



Retrofit BMW Performance Aerodynamics Package

BMW 1 Series (E81)

BMW 1 Series Coupé (E82)

BMW 1 Series (E87)

BMW 1 Series Convertible (E88)

Retrofit kit No.:	51 11 0 442 870	BMW Performance Aerodynamics package, front, primer-coated
	51 11 0 442 871	BMW Performance Aerodynamics package, front, primer-coated
	51 11 0 442 872	BMW Performance Aerodynamics package, front, primer-coated
	51 11 0 442 873	BMW Performance Aerodynamics package, front, primer-coated
	51 12 0 442 894	BMW Performance Aerodynamics package, rear, primer-coated
	51 12 0 442 895	BMW Performance Aerodynamics package, rear, primer-coated
	51 12 0 442 896	BMW Performance Aerodynamics package, rear, primer-coated
	51 12 0 442 897	BMW Performance Aerodynamics package, rear, primer-coated
	51 74 0 442 875	BMW Performance cooling air package 135i
	51 77 0 442 891	BMW Performance Aerodynamics package, sill, primer-coated
	51 77 0 442 893	BMW Performance Aerodynamics package, sill, primer-coated

Installation time

The installation time of **approx. 2.5 hours** for the entire package may vary depending on the vehicle's condition and equipment.

The vehicle must be updated to the latest I-level status by flashing before installing the retrofit. Different programming times are necessary depending on the production age of the vehicle and the work already performed on the vehicle so that no time requirements can be specified here. The installation time does not include the time required for programming/encoding which depends on the vehicle's age and equipment.

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 specified tools (special tools) and observing current health and safety regulations.



The customer must be informed that the vehicle will no longer have fog lights after installing the aerodynamics package. ◀



The parts kit 51 74 0 442 875 must be installed on the 135i otherwise the brake and the engine may overheat. ◀

In the event of installation or functional problems, limit troubleshooting to 0.5 hours for mechanical jobs and 1.0 hours for electrical jobs.

To avoid unnecessary work and costs, send a corresponding enquiry via the Aftersales Assistance Portal (ASAP) using the technical parts support application.

Please quote the following:

- Vehicle identification number
- Part number of retrofit kit
- Exact description of the problem
- Work already carried out.

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

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

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

The installation instructions describe the procedure on the right-hand side of the vehicle only. The same procedure should be followed analogously on the left-hand side of the vehicle.



The installation procedure is based on the E82. Follow the same procedure on the E88, E81 and E87. ◀

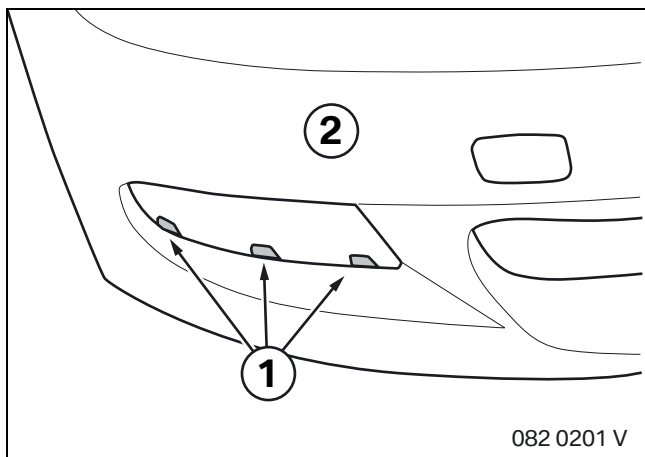
Optional add-on parts for E8x BMW Performance Aerodynamics package

Part No.:	51 19 0 413 427	E8x Carbon front splitter, left (see Section 11, Installing BMW Performance package front splitter)
	51 19 0 413 426	E8x Carbon front splitter, right (see Section 11, Installing BMW Performance package front splitter)
	51 12 0 414 220	E82, E88 Carbon Diffusor (see Section 14, Installing BMW Performance package, rear (E82 / E88) Only for vehicles with M-package)
	51 12 0 413 901	E81, E87 Carbon Diffusor (see Section 15, Installing BMW Performance package, rear (E81/E87) Only for vehicles with M-package)
	51 16 0 414 216	E8x Carbon mirror caps, right (see ISTA No. RA 51 16 040)
	51 16 0 414 217	E8x Carbon mirror caps, left (see ISTA No. RA 51 16 040)
	51 71 0 441 921	E8x Front grille, black mirror finish, left (see Section 10, Installing BMW Performance package, front)
	51 71 0 441 920	E8x Front grille, black mirror finish, right (see Section 10, Installing BMW Performance package, front)
	51 71 0 432 165	E82 Carbon rear spoiler (see Installation Instructions 01 29 0 430 370)
	51 71 0 420 644	Carbon rear spoiler for E81, E87 (see Installation Instructions 01 29 0 430 370)

Painting instructions for primer-coated version

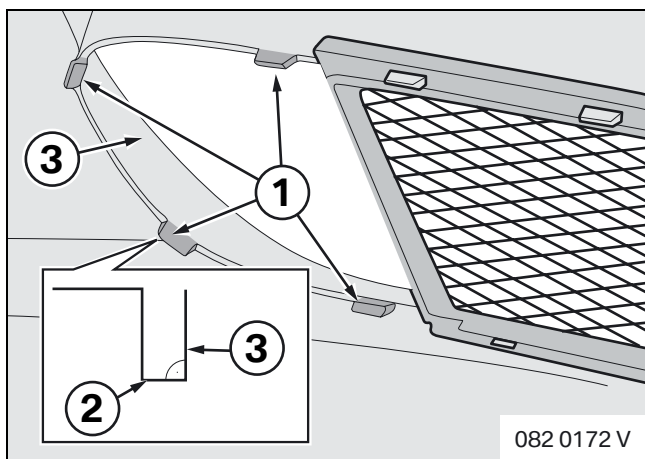
Primer-coated parts must be pretreated accordingly. The spoiler must be painted in compliance with BMW painting instructions.

Before painting, the fit accuracy of all add-on parts must be checked on the vehicle.



The lower tabs (1) of the front apron (2) are masked off. Only remove the masking after painting.

Only for 135i vehicles:



Before painting, use a suitable tool to remove tabs (1) marked in the illustration. Use sanding block **BM** to sand down cut surfaces (2) at right angles to face (3).

List of optional extras

The following optional extras must be taken into account when installing the retrofit kit:

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

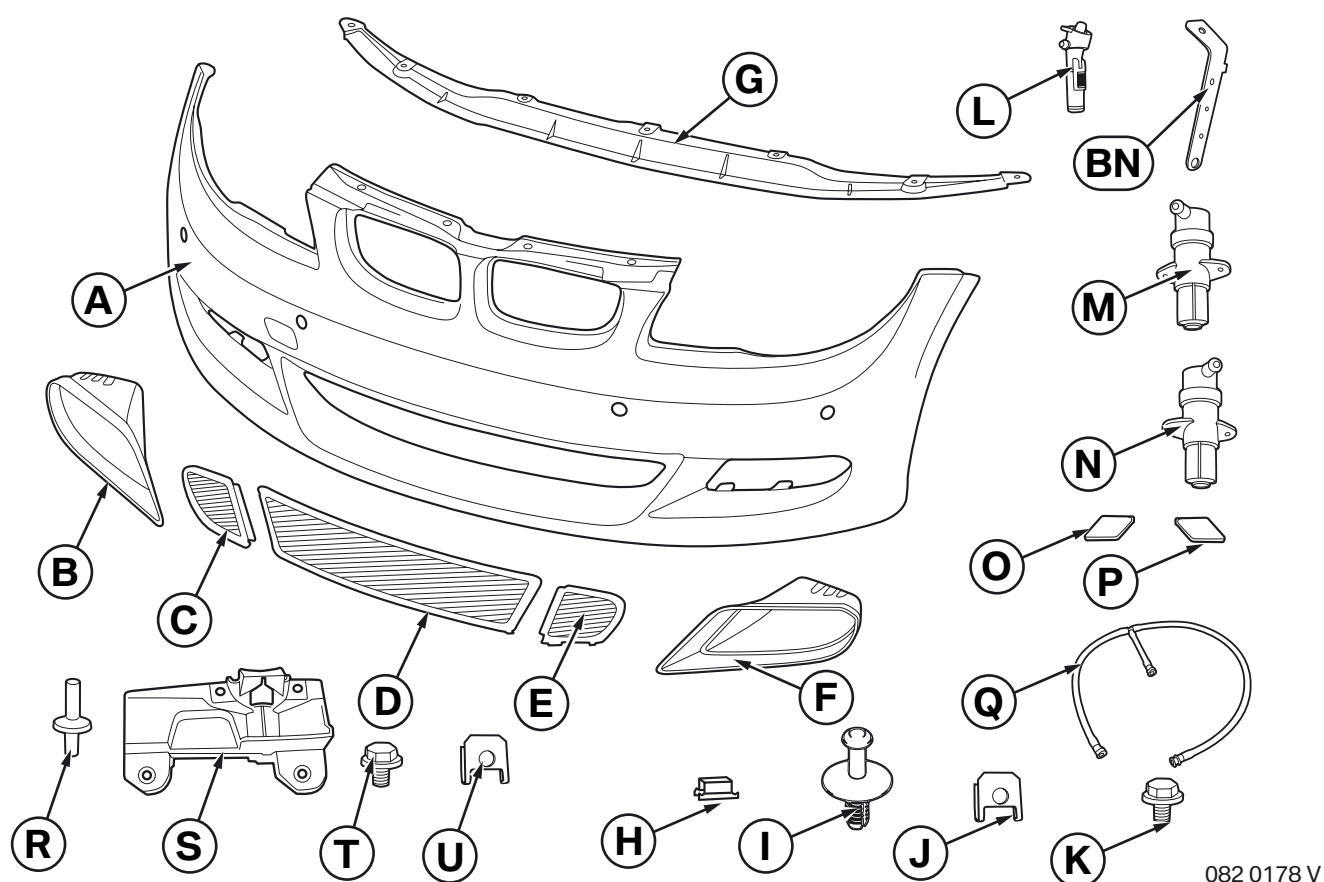
Special tools required

- 00 9 317 Mounting wedges

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1. Parts overview, front



082 0178 V

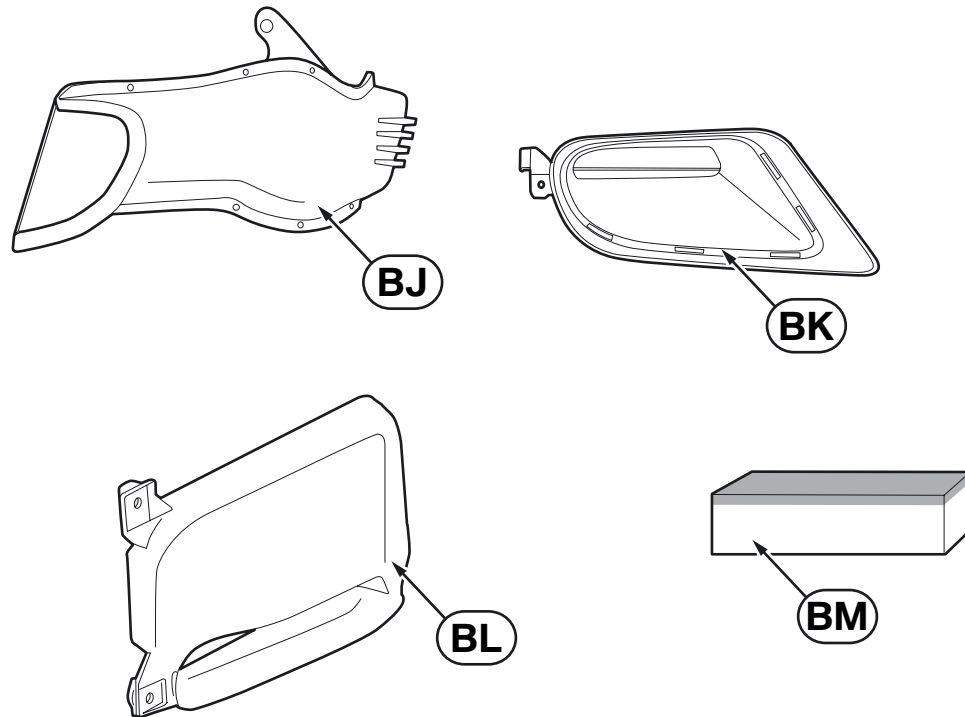
Legend

- A** Front bumper panel, primer-coated
- B** Right air intake for engine oil cooler, closed (not on 135i)
- C** Bumper grille, front right (not on 135i)
- D** Bumper grille, front centre (not on 135i)
- E** Bumper grille, front left (not on 135i)
- F** Left air intake for engine oil cooler, closed
- G** Adapter, engine compartment shield (not for E82/E88 with M-package)
- H** Clip (10x)
- I** Expander rivet (4x)
- J** Speed nut (8x)
(only E81/E87 vehicles without M-package)
- K** Self-tapping hexagon screw (10x)

Only for vehicles with headlight washer system (SRA): Installation only necessary on vehicles without M-package

- L** Nozzle head, left/right (2x)
- M** Housing for high pressure nozzle, left
- N** Housing for high pressure nozzle, right
- O** Cover for left headlight washer, primer-coated, left
- P** Cover for left headlight washer, primer-coated, right
- Q** Tubing for headlight washer system
- R** Blind rivet (4x)
- S** Bracket for headlight washer system, left/right (2x)
- T** Hexagon self-tapping screw (8x)
- U** Speed nut (4x)
- BN** Horn bracket (2x)

2. Parts overview, cooling air package 135i

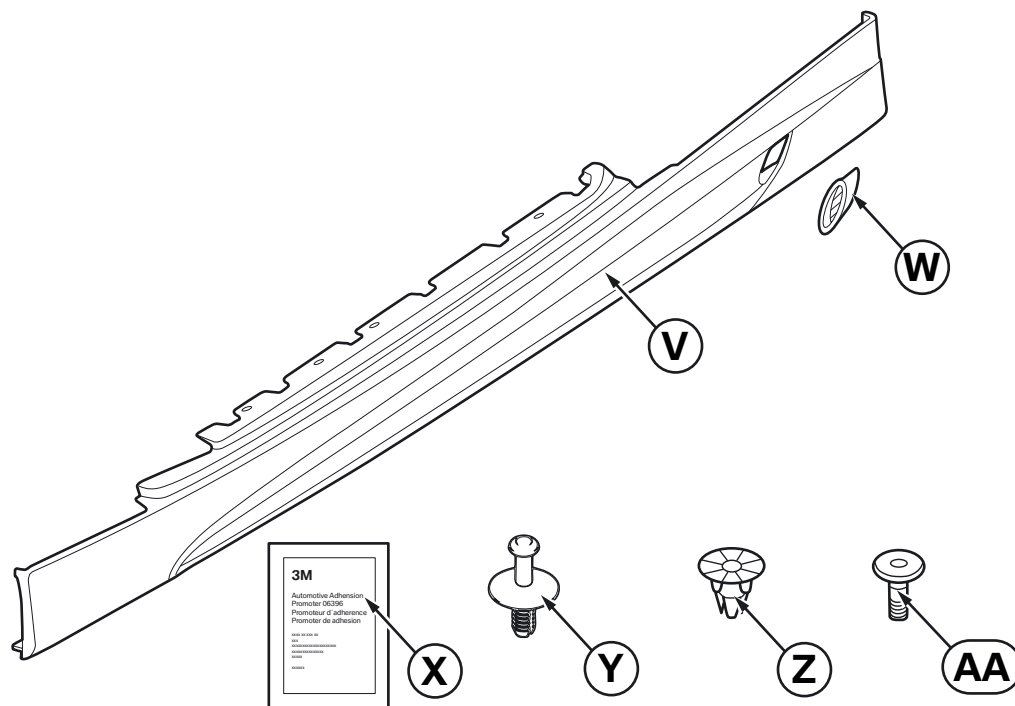


082 0164 V

Legend

- BJ** Air intake, left/right (2x)
- BK** Air intake for engine oil cooler, open
- BL** Cover for engine oil cooler
- BM** Grinding block

3. Parts overview, sill (2-door)

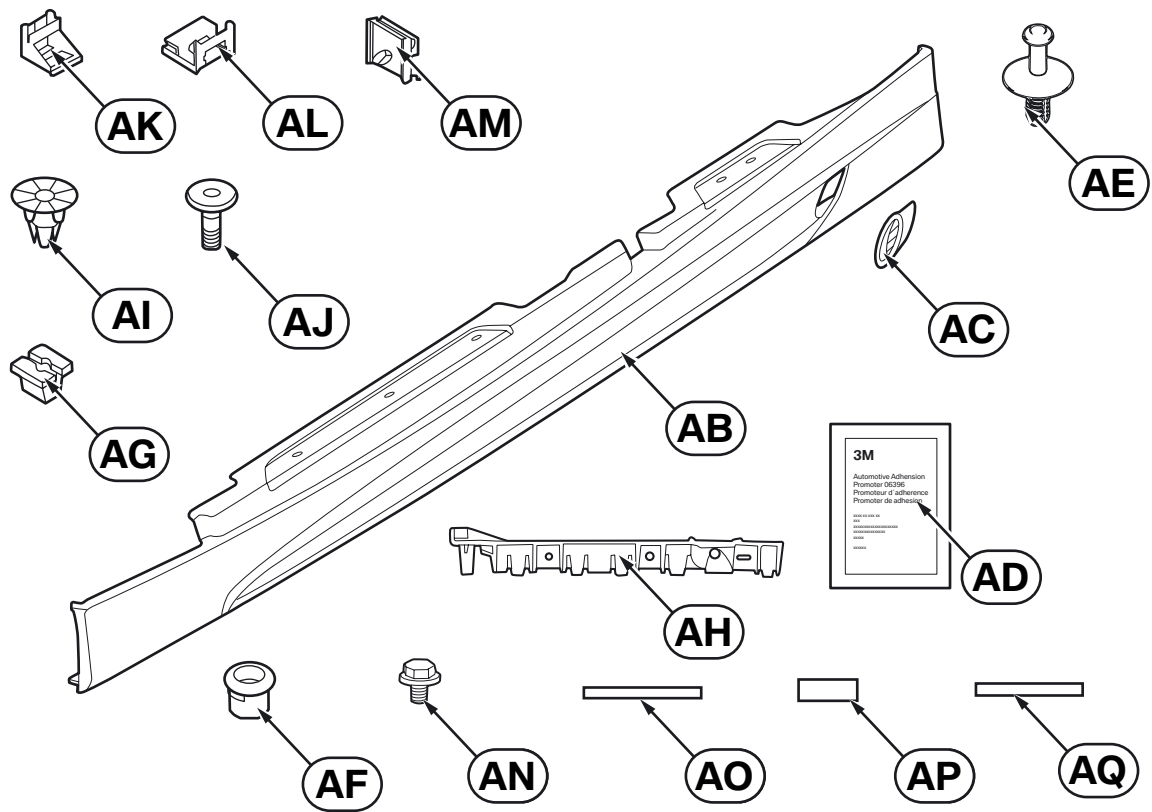


082 0119 V

Legend

- V** Complete left/right sill cover, primer-coated (2x)
- W** Trim cover for sill grille, left/right (2x)
- X** Primer pad
- Y** Expander rivet (10x)
- Z** Spacer clip (20x)
- AA** Stud (20x)

4. Parts overview, sill (4-door)



082 0120 V

Legend

AB Complete left/right sill cover, primer-coated (2x)

AC Trim cover for sill grille, left/right (2x)

AD Primer pad

AE Securing plug (10x)

AF Grommet (8x)

AG Expander nut (6x)

AH Air intake, left/right (2x)

AI Spacer clip (10x)

AJ Stud (10x)

AK Clip (4x)

AL Clip (2x)

AM Clip (2x)

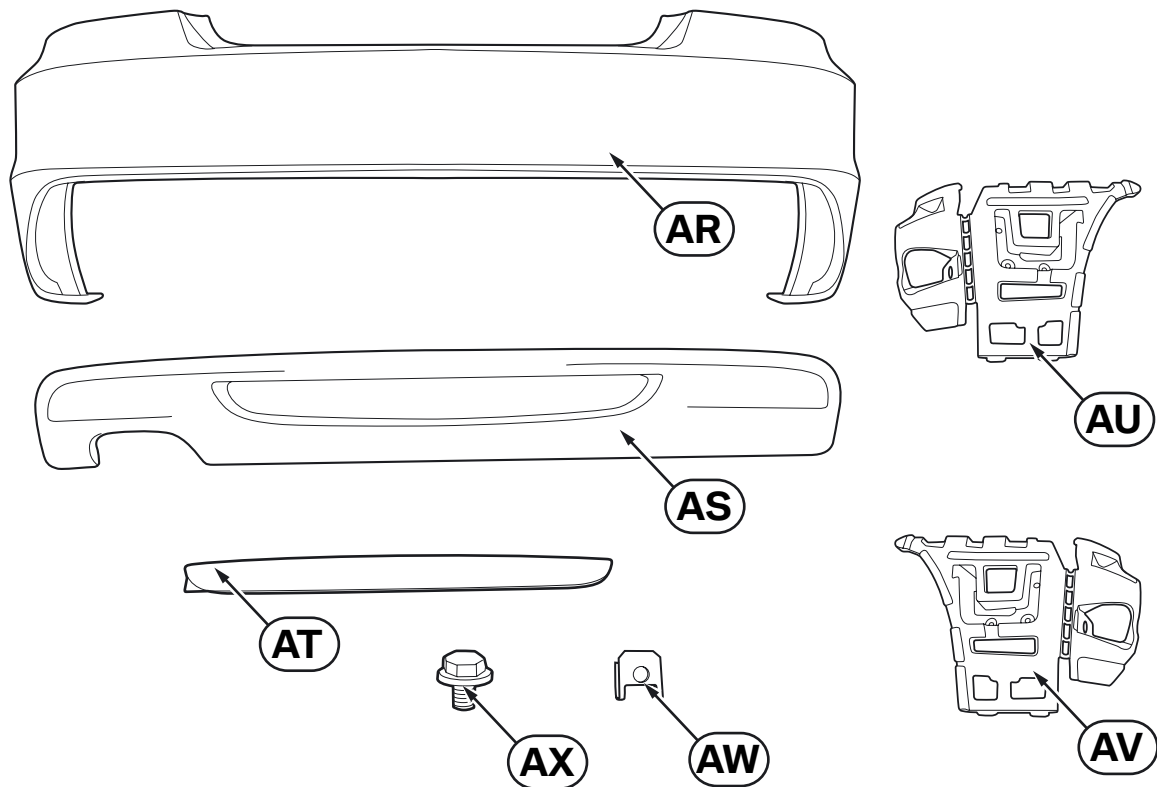
AN Hexagon head screw (6x)

AO Covering film, front (2x)

AP Covering film, centre (6x)

AQ Covering film, rear (2x)

5. Parts overview, rear (E82/E88)

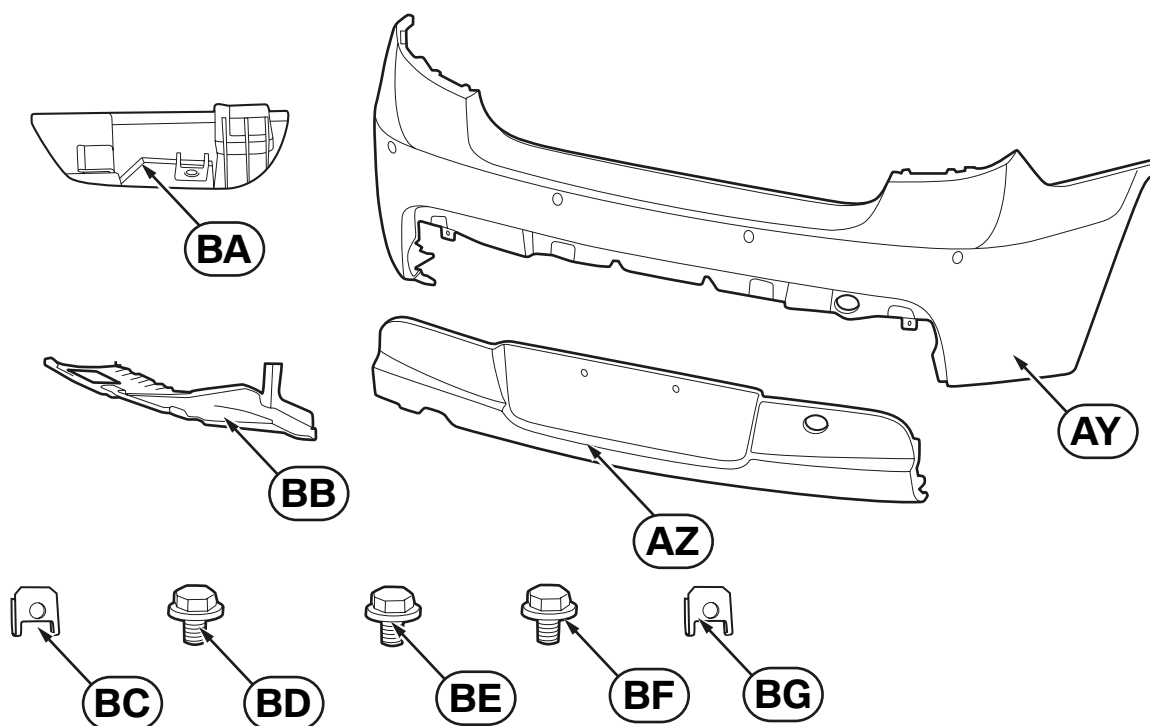


082 0189 V

Legend

- AR** Rear bumper panel, primer-coated
- AS** Bumper panel, bottom rear
(not necessary if Carbon Diffusor 51 12 0 414 220 is installed)
- AT** Bumper trim cover, rear
(not necessary if Carbon Diffusor 51 12 0 414 220 is installed)
- AU** Guide, left
- AV** Guide, right
- AW** Speed nut (2x)
- AX** Hexagon head screw with washer (2x)

6. Parts overview, rear (E81/E87)

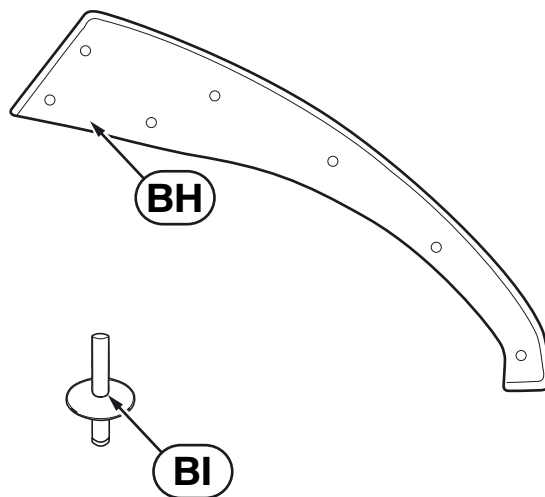


087 0451 V

Legend

- AY** Rear bumper panel, top, primer-coated
- AY** Bumper panel, bottom rear
(not necessary if Carbon Diffusor 51 12 0 413 901
is installed)
- BA** Wheel arch extension, rear left
- BB** Underbody panelling AKF
- BC** Speed nut
- BD** Hexagon self-tapping screw with washer
- BE** Hexagon head screw with washer (3x)
- BF** Hexagon self-tapping screw (4x)
- BG** Speed nut (6x)

7. Parts overview, optional add-on parts



082 0190 V

Legend

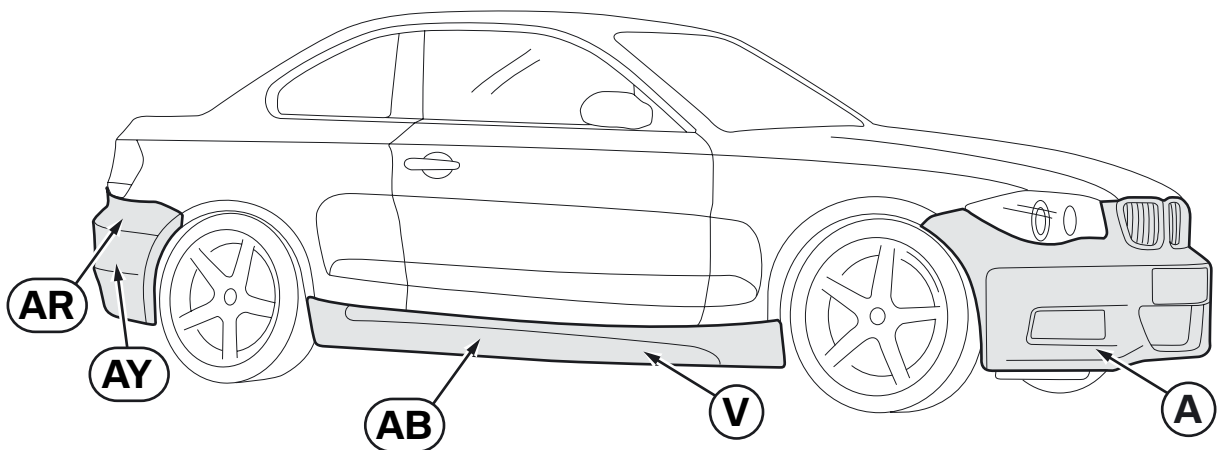
BH Front splitter, left/right (2x)

BI Blind rivet (14x)

8. Preparatory work

	ISTA No.
Perform quick test	---
Disconnect negative terminal of battery	12 00 ...
Remove the following components	
Licence plate (without pad)	51 11 ...
Pad for licence plate	51 11 158
Front apron	51 11 156
Front grilles, centre left and right	51 13 001
Centre air intake if necessary	---
Side sill, left and right	51 71 447
Socket housing for left and right tail light	63 21 055
Tail light, left and right	63 21 180
Rear apron (only vehicles without M-package)	51 12 156
Bracket for rear apron, left and right (only vehicles without M-package)	51 12 801
Only vehicles with SA 520	
Fog lights, left and right	63 17 050
Only vehicles with SA 507 or SA 508	
Ultrasonic transducer, front	66 20 520
Ultrasonic transducer, rear	66 20 540
Only vehicles with SA 502	
Cover for headlight washer system, left and right if necessary	51 11 ...
Water jets for headlight washer system, left and right if necessary	61 67 045
Only vehicles with SA 502 (without M-package)	
Remove existing headlight washer system	61 67 045
Only for 135i vehicles	
Remove cover for engine oil cooler and brake air ducts	---

9. Installation schematic

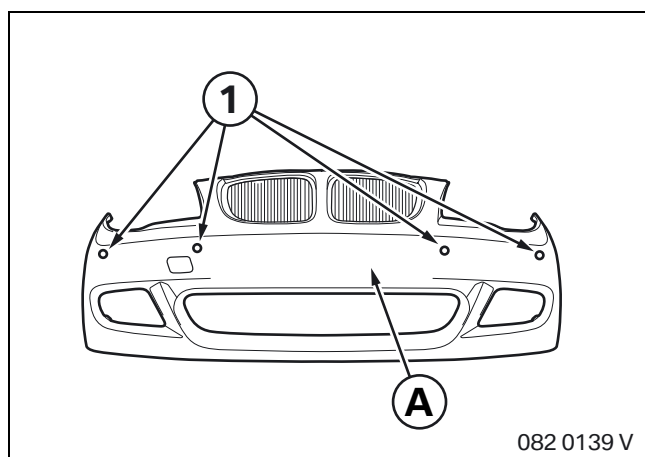


082 0123 V


Legend

- A** Front bumper panel
- AR** Rear bumper panel E82/E88
- AY** Rear bumper panel E81/E87
- V** Sill cover, left/right, 2-door
- AB** Sill cover, left/right, 4-door

10. Installing BMW Performance package, front

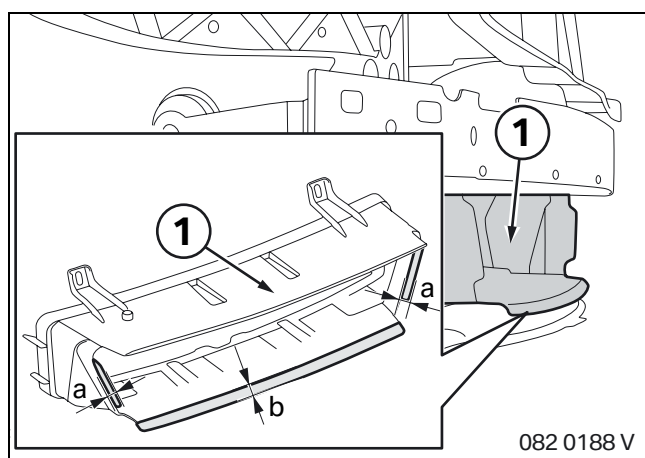


Only vehicles with fog lights:


 Insulate connector for fog lights and tie back. ◀

Only vehicles with SA 508:

Remove PDC sensors (1) from the old front apron and install in new front apron **A** in accordance with ISTA No. 66 20 540.




Only 4-cylinder engine vehicles:

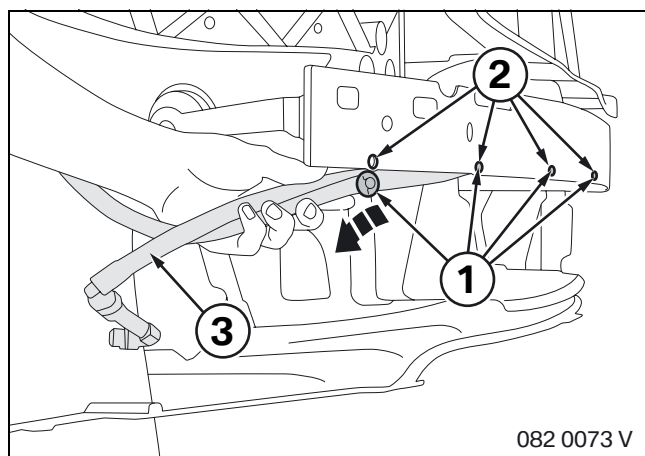
 If necessary, also remove centre air intake (1) for trimming. ◀

Mark off dimensions **a** and **b**, trim and debur centre air intake (1).

a = 10 mm

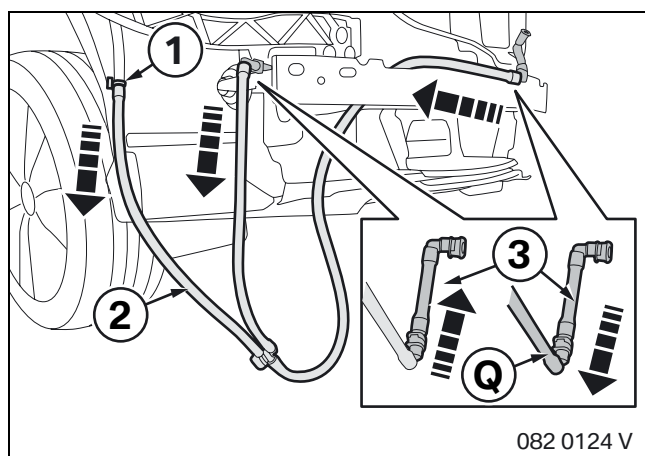
b = 20 mm

 For the purpose of clarity, the vehicle is not shown in the magnified view. ◀



Only vehicles with SA 502: (not for vehicles with M-package)

Remove the four clips (1) from holes (2) by pulling towards the rear and remove from tubing (3).

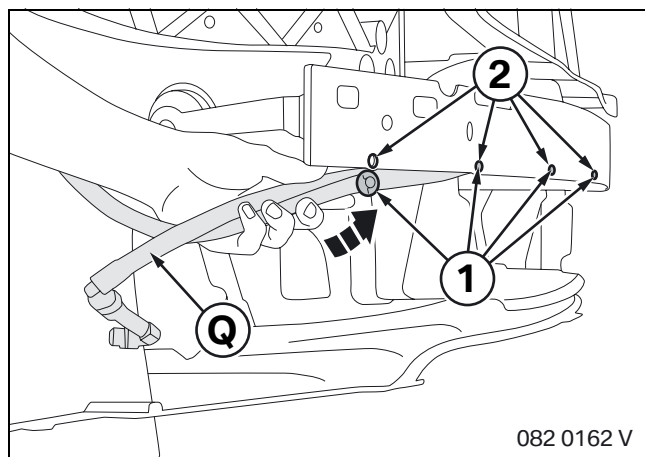


Only E82 vehicles:

Release clip (1) on tubing of headlight washer system (2) and pull off tubing (2) in direction indicated by arrow.

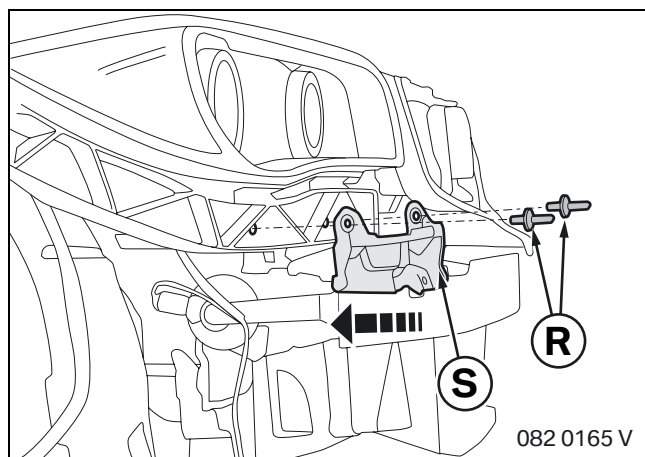
Remove both end pieces (3) of the old tubing (2) and fit on to new tubing on headlight washer system **Q**.

10. Installing BMW Performance package, front

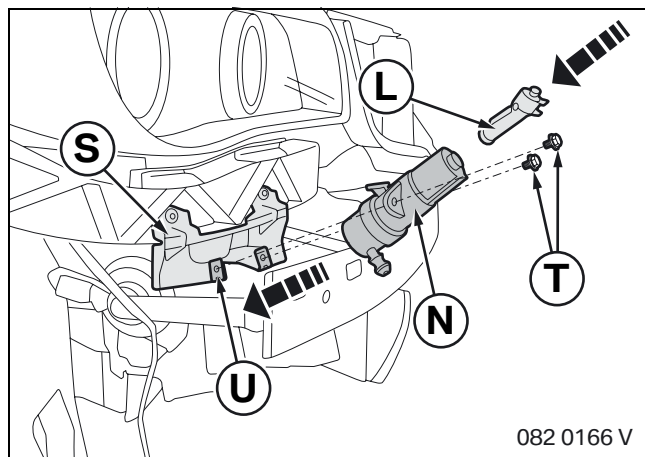


For all vehicles with SA 502:

Secure tubing **Q** with the existing clips (1) to crash bar (2).



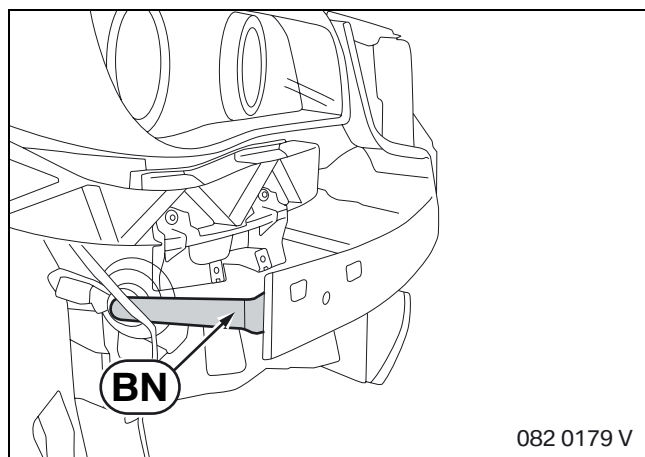
Secure right bracket for headlight washer system **S** with blind rivets **R**.



Fit speed nuts **U** on bracket for right headlight washer system **S**.

Secure housing for right high pressure nozzle **N** with screws **T** and speed nuts **U**.

Fit right nozzle head **L** in housing for right high pressure nozzle **N**.

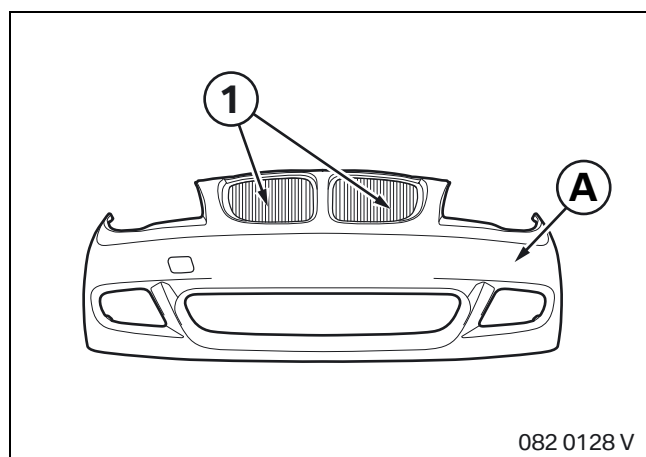


Only vehicles with SA 502 and without M-package:

▶ The bracket for the high-range horn and the bracket for the low-range horn must be replaced. ◀

Remove old horn bracket as per ISTA No. 61 33 040. Screw down horn on new bracket **BN** and install as per ISTA No. 61 33 040.

10. Installing BMW Performance package, front



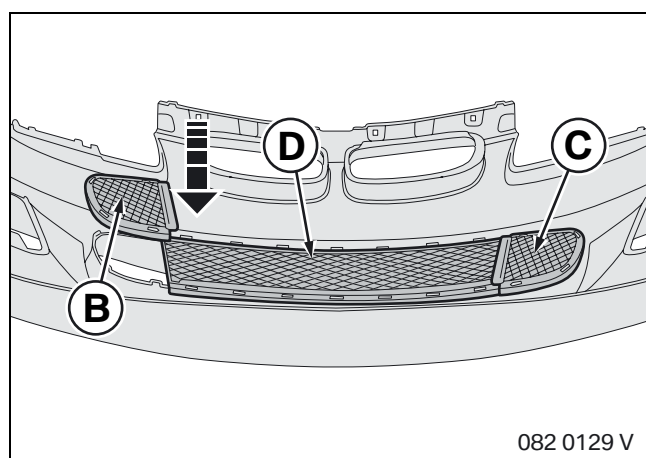
For E82 vehicles after 03/07:

- ▶ If necessary, install black mirror-finish front grilles (part number 51 71 0 441 920 and 51 71 0 441 921). ◀

Remove centre left and right front grilles (1) from the old front apron as described in ISTA No. 51 13 001 and fit in the new front apron **A**.

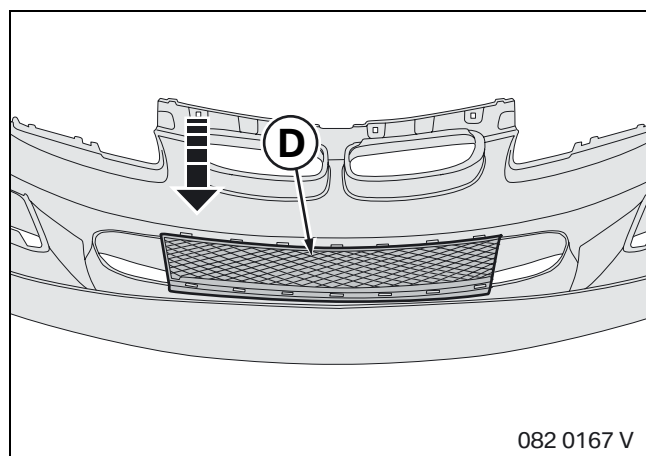
For E82 vehicles before 03/07:

- ▶ Always install black mirror-finish front grilles (part number 51 71 0 441 920 and 51 71 0 441 921). ◀



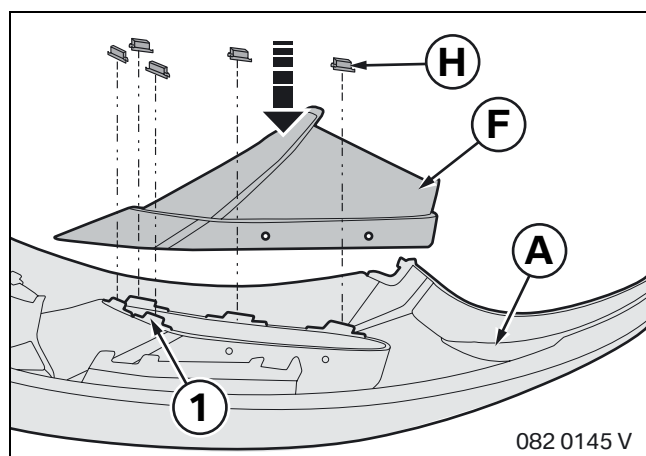
For all vehicles except 135i:

- ▶ First install centre grille **D** followed by the left grille **B** and right grille **C**. ◀



Only for 135i vehicles:

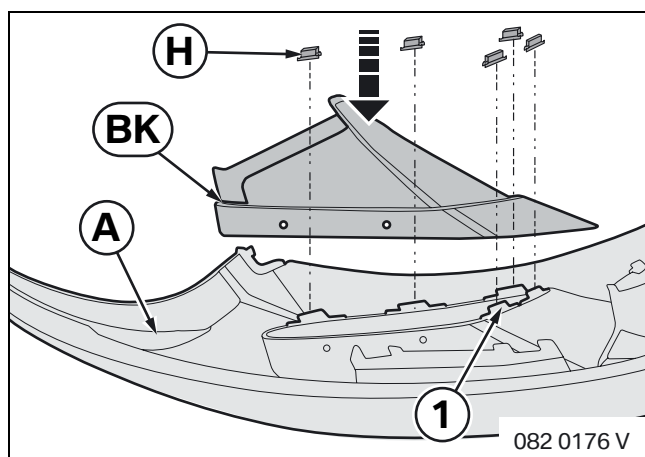
- ▶ Only install centre grille **D**. ◀



For all vehicles except 135i:

Fit closed air intake for engine oil cooler on left **F** and right **B** from behind on to respective opening in front apron **A** and secure to tabs (1) with clips **H**.

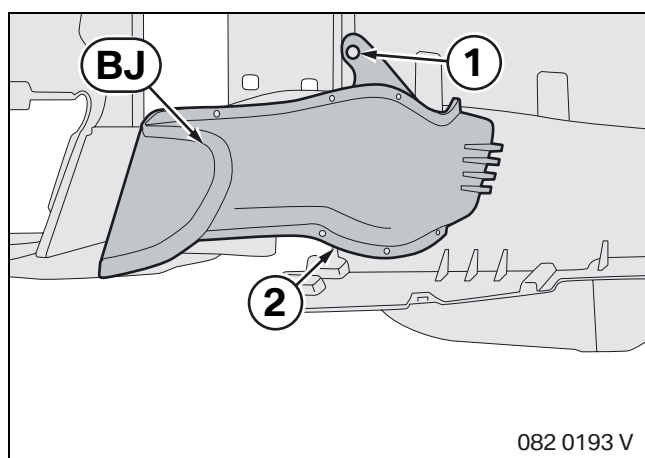
10. Installing BMW Performance package, front




Only for 135i vehicles:

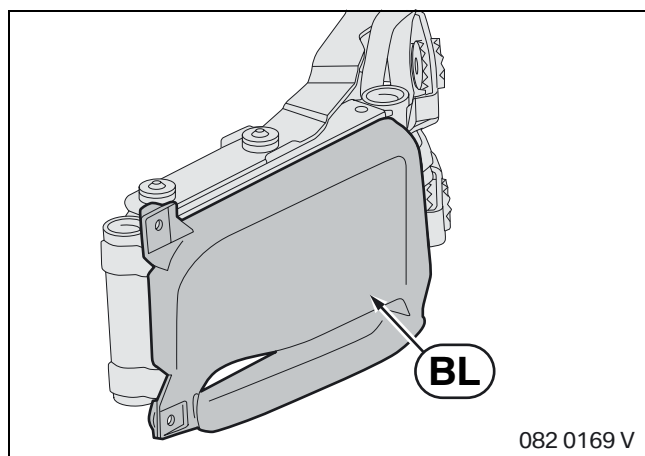
Fit open air intake for engine oil cooler at front **BK** from behind on to right-hand opening in front apron **A** and secure to tabs (1) with clips **H**.

Fit closed air intake for engine oil cooler on left **F** from behind on to left opening in front apron **A** and secure to tabs (1) with clips **H**.



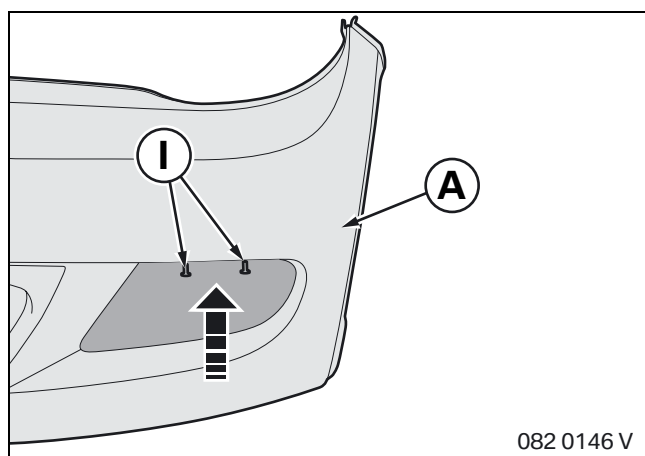
Secure left air intake **BJ** with the existing mounting elements (1) and (2).

 The contour of left air intake **BJ** must end flush with the opening in front apron **A**. After mounting front apron **A**, check the gap between left air intake **BJ** and front apron **A** and adjust if necessary. For this purpose, release mounting element (2), adjust left air intake **BJ** in the correct position and retighten mounting element (2). ◀



Remove speed nuts from the removed engine oil cooler cover.

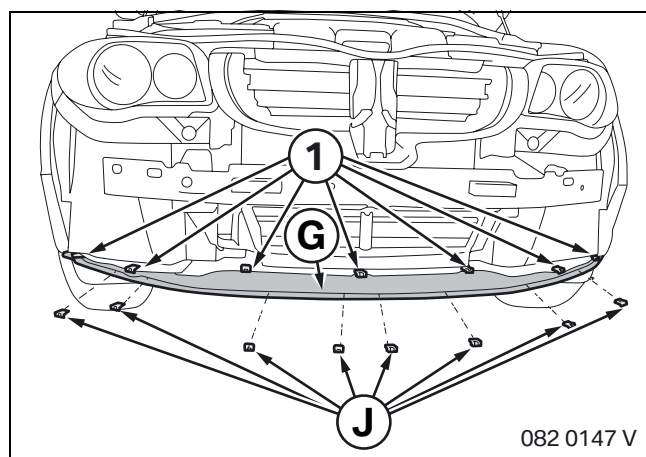
Use the removed speed nuts and the existing screws to secure the cover for engine oil cooler **BL**.



For all vehicles:

Fit expander rivet **I** from the front into the holes and lock.

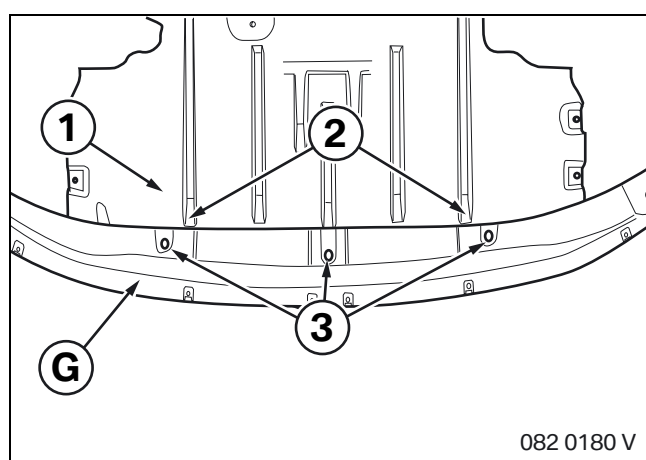
10. Installing BMW Performance package, front



Only E81/E87 vehicles without M-package:

Secure engine shield adapter **G** with existing speed nuts (1).

Fit speed nuts **J** from the front on to the adapter.

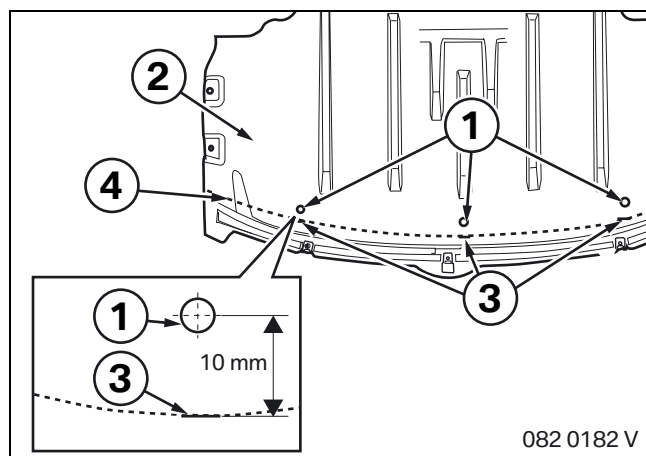


Only E82/E88 vehicles without M-package:

▶ Remove engine compartment shield (1). ◀

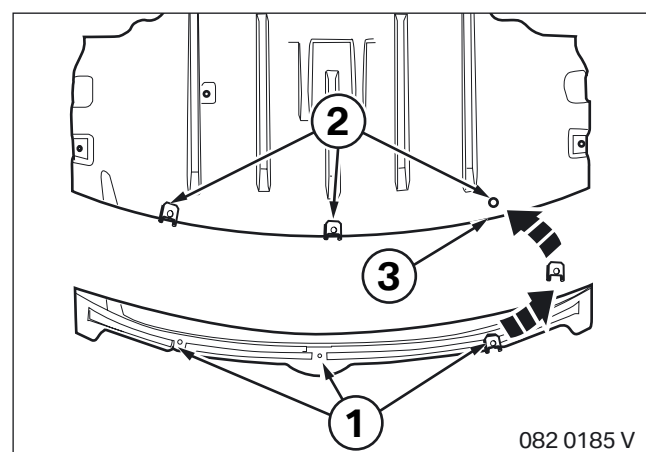
Place adapter for engine compartment shield **G** flush and centred at the ends of the outer flanges (2). Transfer holes (3) to engine compartment shield (1) and drill 8 mm Ø holes in the engine compartment shield (1).

▶ The adapter for engine compartment shield **G** is not installed in E82/E88 vehicles with M-package. ◀



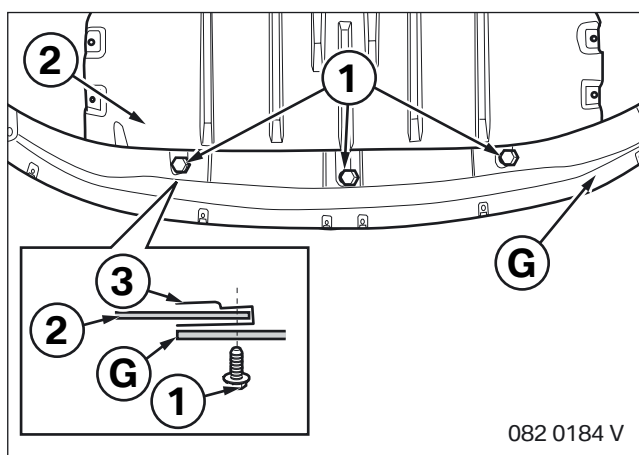
Measure from the centre of holes (1) to 10 mm from the front edge of engine compartment shield (2) and transfer marks (3).

Join marks (3) and use suitable tools to trim and debur engine compartment shield (2) along line (4).

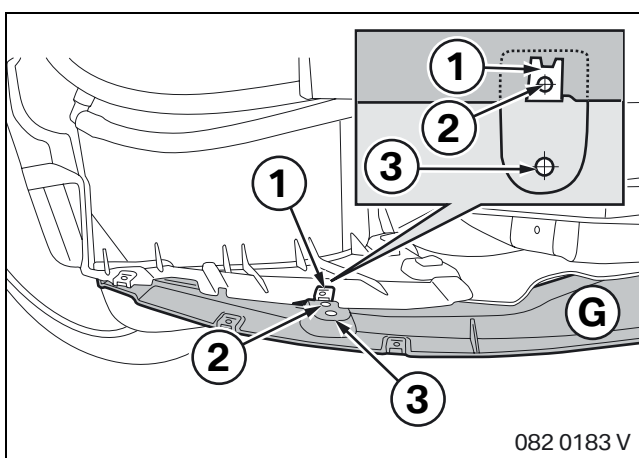


Fit existing speed nuts (1) in positions (2) on trimmed edge of engine compartment shield (3).

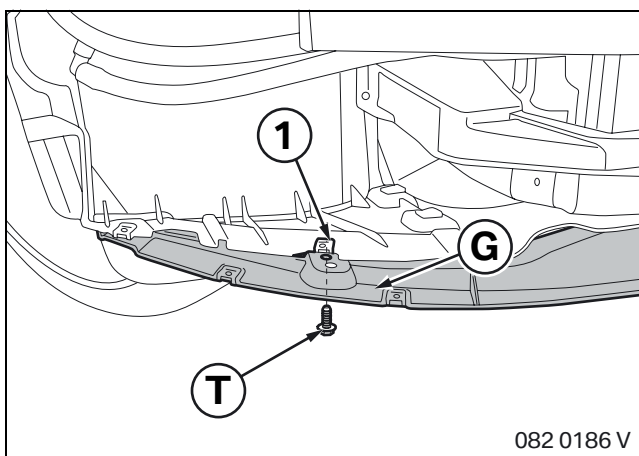
10. Installing BMW Performance package, front



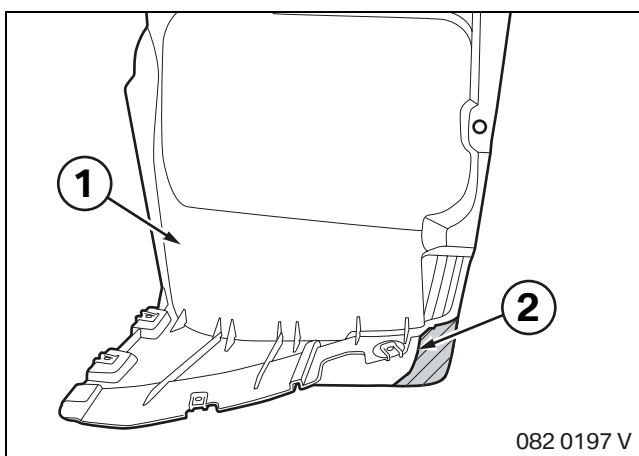
Secure adapter for engine compartment shield **G** with existing screws (1) in speed nuts (3) on engine shield (2).



Remove speed nut (1). Drill 8 mm Ø hole (2) on the left and right side in adapter for engine compartment shield **G** next to existing hole (3) so that the new hole (2) is aligned with the hole below it.



Install speed nut (1). Secure adapter for engine compartment shield **G** on left and right with screw **T** in speed nut (1).

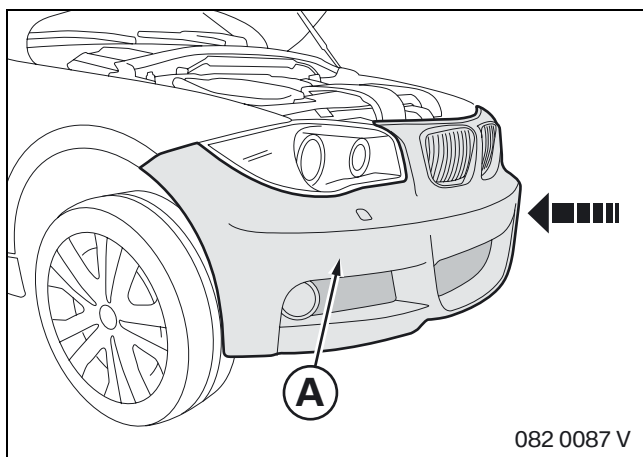


▶ If necessary, also remove wheel arch (1) for trimming. ◀

Use suitable tools to trim and debur wheel arch (1) along line (2).

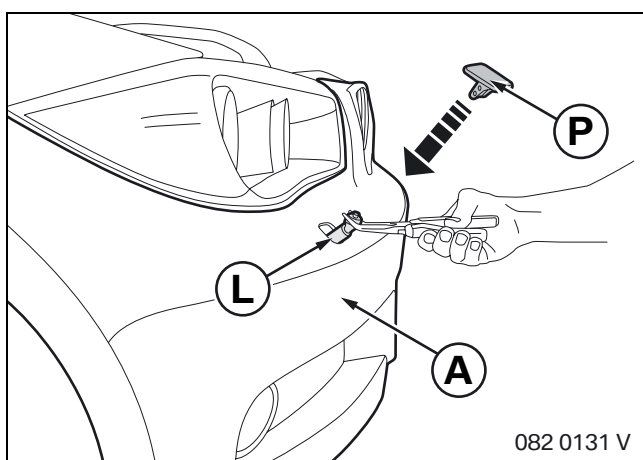
▶ For the purpose of clarity, the wheel arch (1) is shown without the vehicle. ◀

10. Installing BMW Performance package, front



For all vehicles:

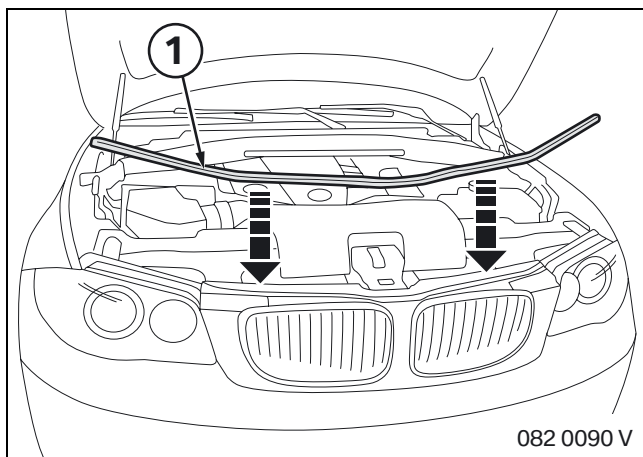
Mount front apron **A** on to the vehicle as per ISTA No. 51 13




Only vehicles with SA 502:

Fit right cap **P** on to right nozzle head **L** as per ISTA No. 51 11

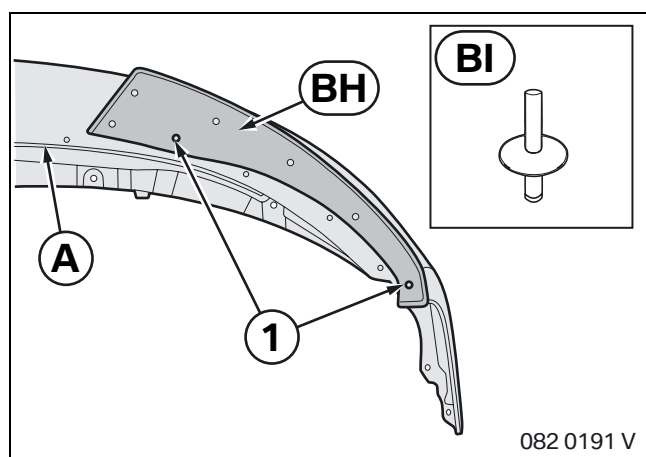
If the right nozzle head **L** is not preassembled, then fit right cap **P** on to right nozzle head **L** and insert together into the housing for the right high pressure nozzle **N**.



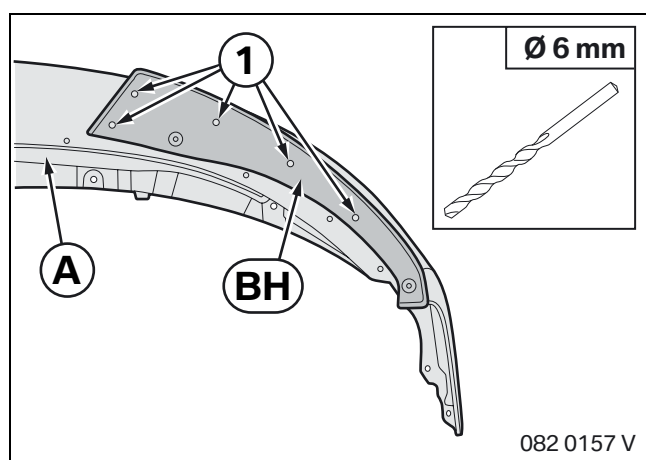
Fit bonnet seal (1) as per ISTA No. 86 21

 The position of the air intake **BJ** can be adjusted via its screw connection (see page 17, Fig. 082 0193 V). ◀

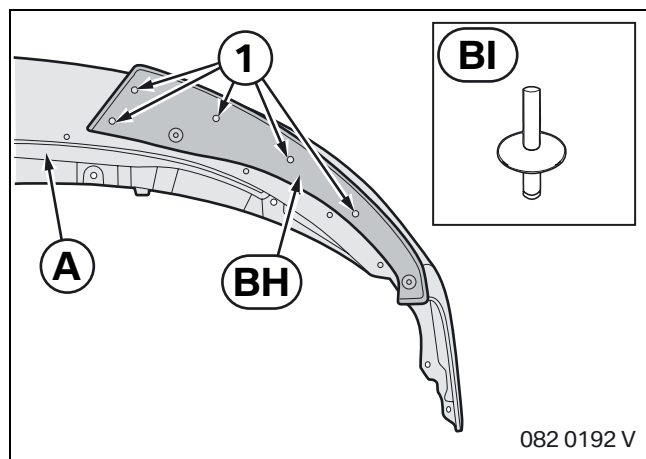
11. Installing BMW Performance package, front splitter (optionally available)



Place front splitter **BH** on bottom of front apron **A** as illustrated. Use the existing holes (1) and secure the front splitter **BH** with two blind rivets **BI**.

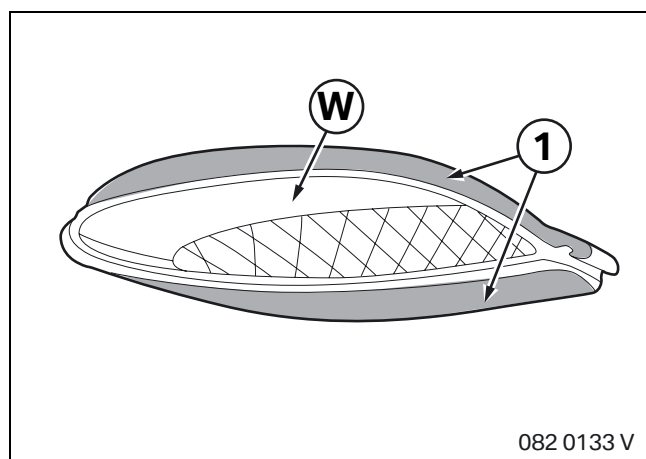


Drill 6 mm Ø holes in front apron **A** through openings (1) in front splitter **BH**.

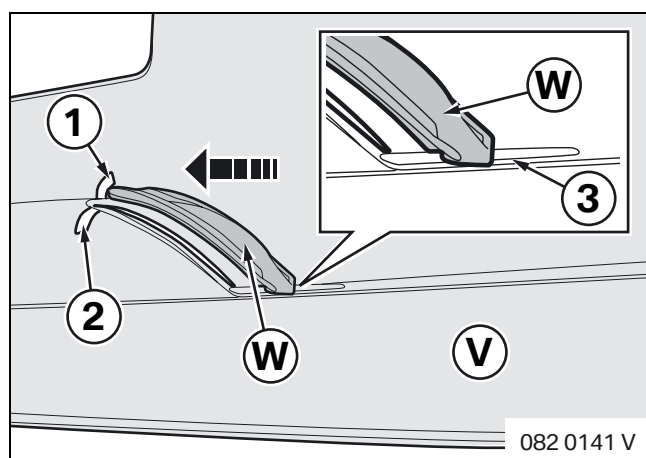


Now fit blind rivets **BI** in holes (1) and secure.

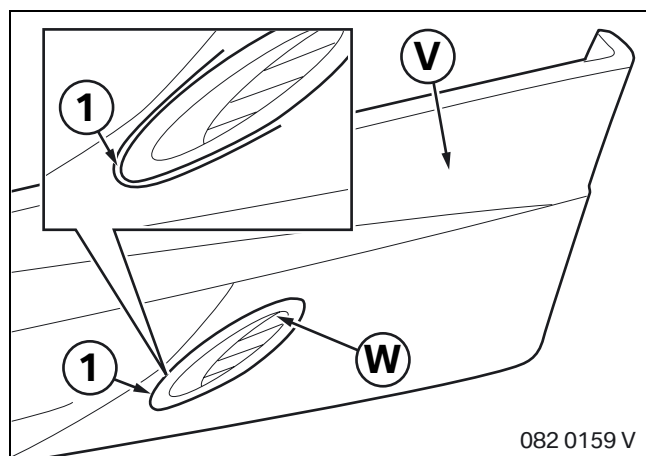
12. Installing BMW Performance package, sill (2-door)



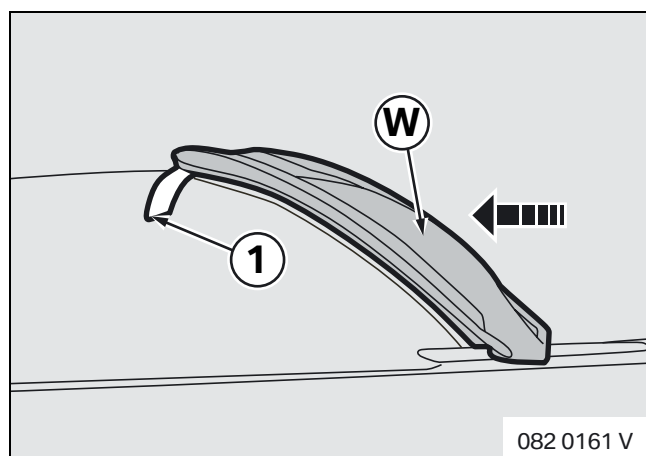
Prime contour (1) of grille **W** with the supplied primer pad **X**.



Fold back corners (1) and (2) of adhesive strip cover on sill **V**. Fit grille **W** in sill **V** over groove (3) and push forward. Remove cover from adhesive strip (1).

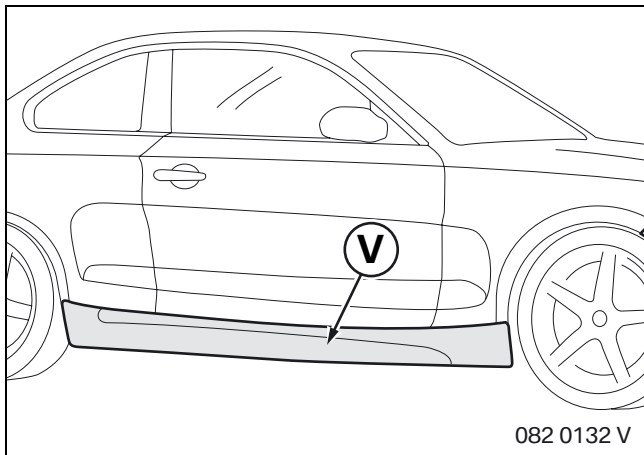


Check the gap spacing (1) to the grille **W** from the front of sill **V** and adjust if necessary.



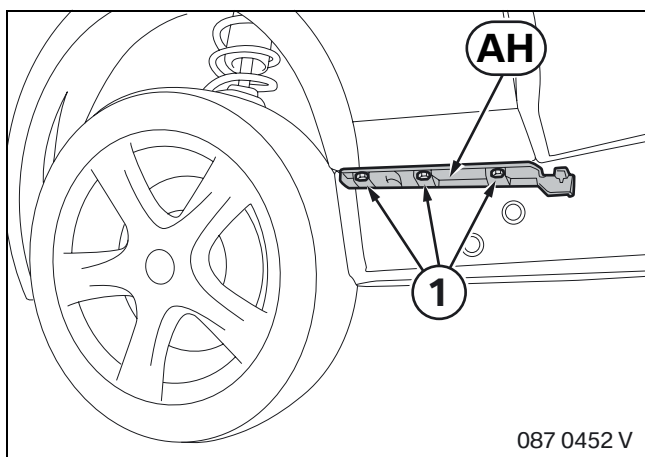
Remove adhesive strip (1) on back of sill **V** and press on grille **W**.

12. Installing BMW Performance package, sill (2-door)

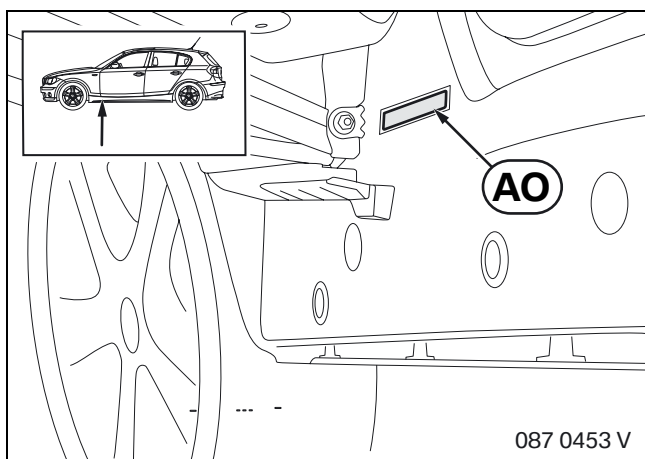


Install left/right side sill **V** as per ISTA No. 51 71 447.

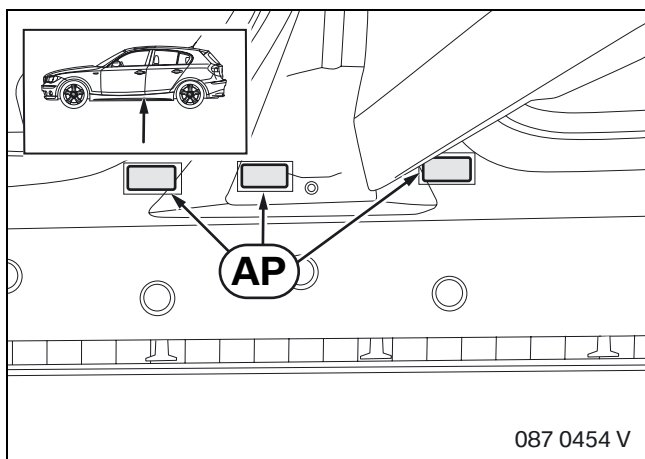
13. Installing BMW Performance package, sill (4-door) Only for E87 vehicles after 03/07



Replace existing retaining strip by retaining strip **AH** and secure with existing screws (1).

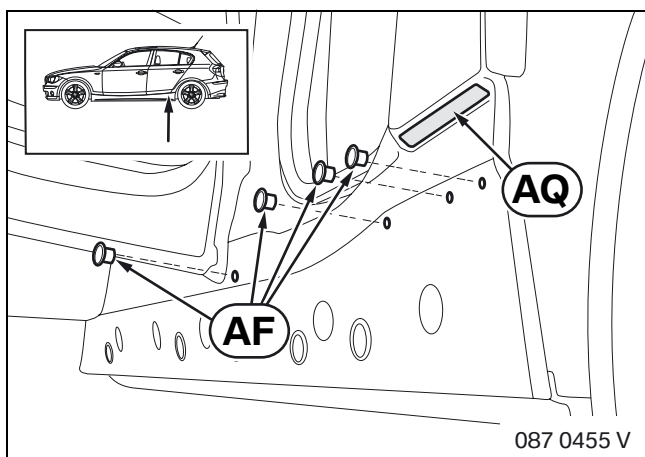


Adhere front cover film **AO** in illustrated position on side frame.

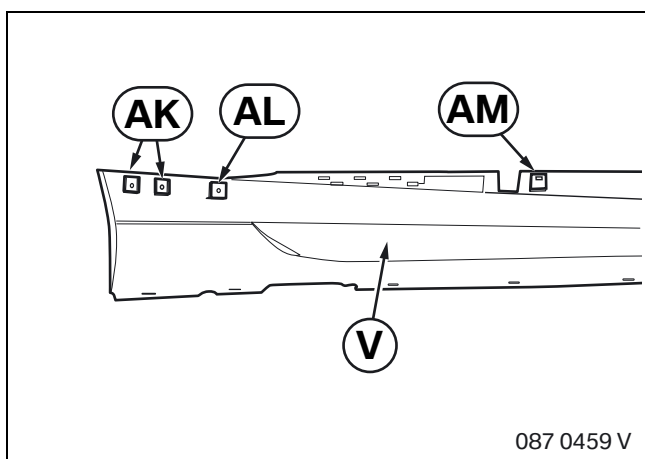


Adhere middle cover film **AP** in illustrated position on side frame.

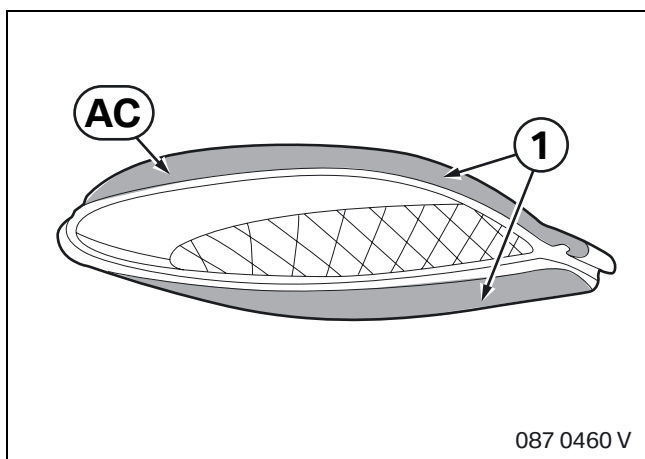
13. Installing BMW Performance package, sill (4-door) Only for E87 vehicles after 03/07



Adhere rear cover film **AQ** in illustrated position on side frame. Fit grommets **AF** in the holes in the side frame.

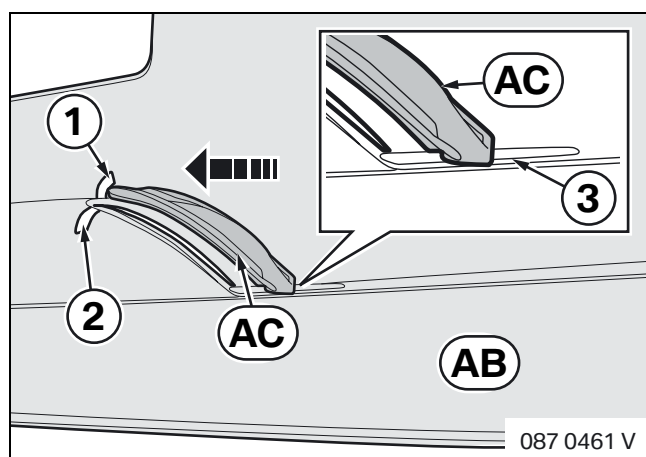


Fit clips **AK**, **AL**, **AM** on to back of sill **V**.

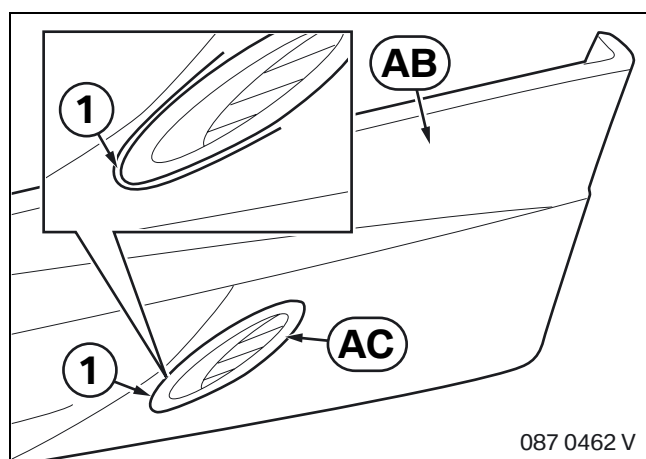


Prime contour (1) of grille **AC** with the supplied primer pad **AD**.

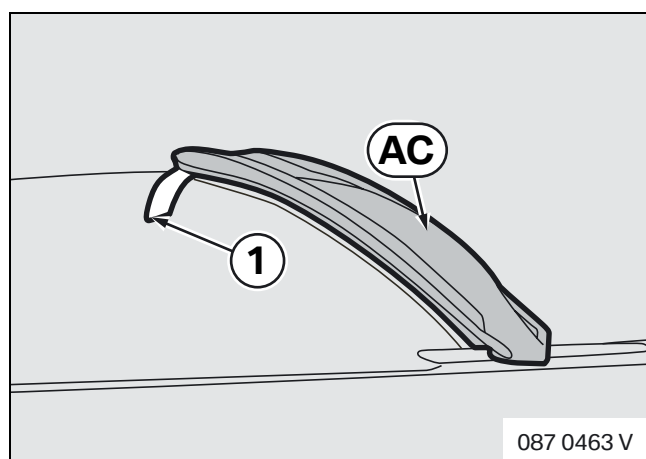
13. Installing BMW Performance package, sill (4-door) Only for E87 vehicles after 03/07



Fold back corners (1) and (2) of adhesive strip cover on sill **AB**. Fit grille **AC** in sill **AB** over groove (3) and push forward. Remove cover from adhesive strip (1).



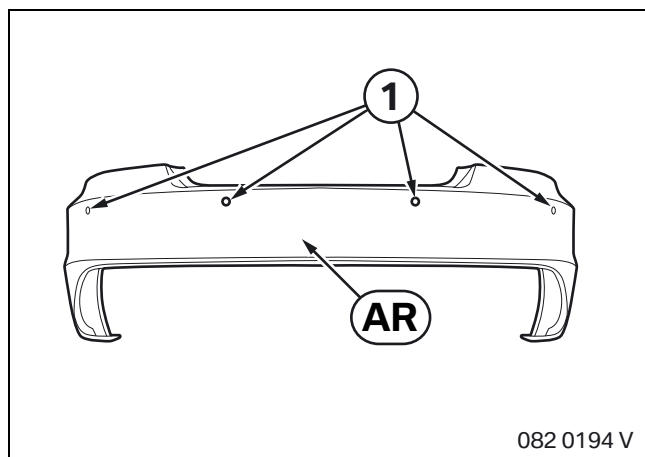
Check the gap spacing (1) to the grille **AC** from the front of sill **AB** and adjust if necessary.



Remove adhesive strip (1) on back of sill **AB** and press on grille **W**.

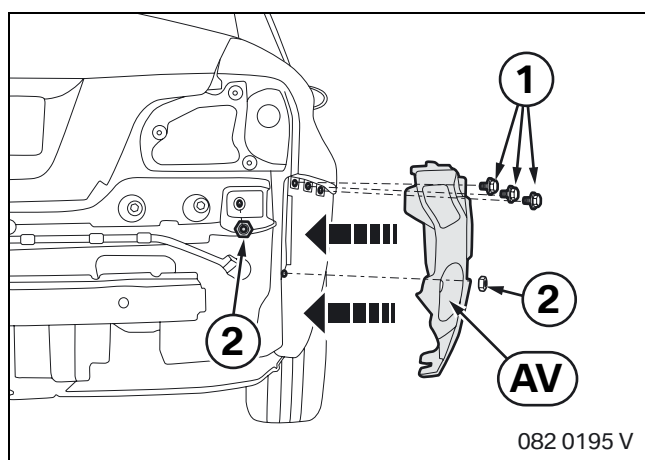
Install left/right side sill **AB** as per ISTA No. 51 71 447.

14. Installing BMW Performance package, rear (E82/E88) Only vehicles with M-package



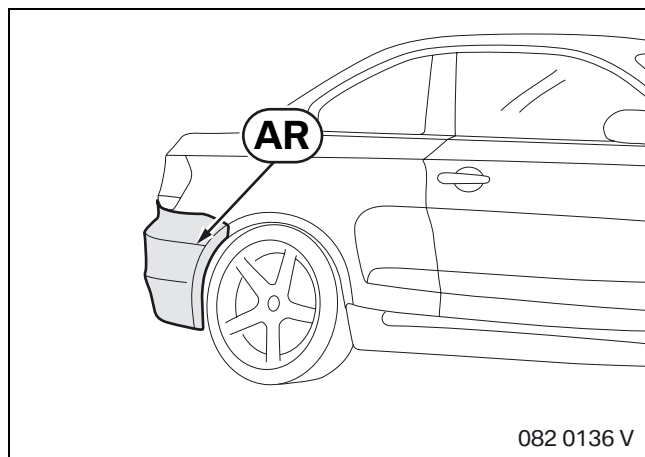
Only vehicles with SA 507 or SA 508:

Remove PDC sensors (1) from the old rear bumper panel and install in new rear bumper panel **AR** in accordance with ISTA No. 66 20 540.



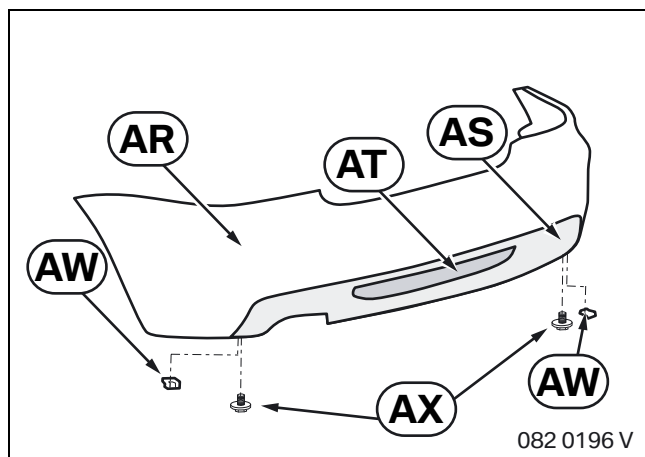
For all vehicles:

Replace the existing guide on the right with the right guide **AV** and secure with the existing screws (1) and nuts (2) as per ISTA No. 51 12 801.




For all vehicles:

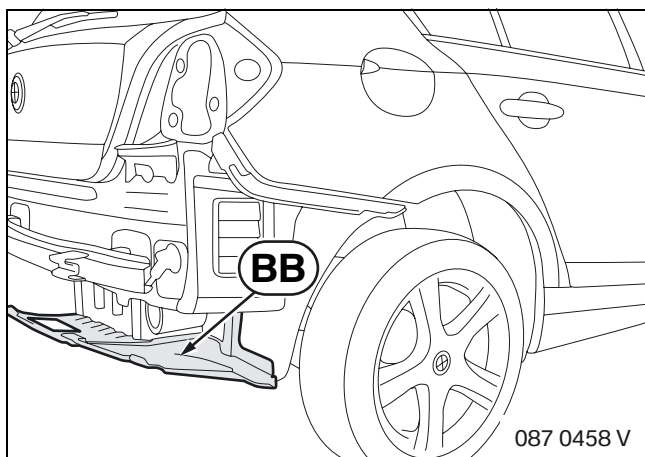
Mount the rear bumper panel **AR** as per ISTA No. 51 12 156.



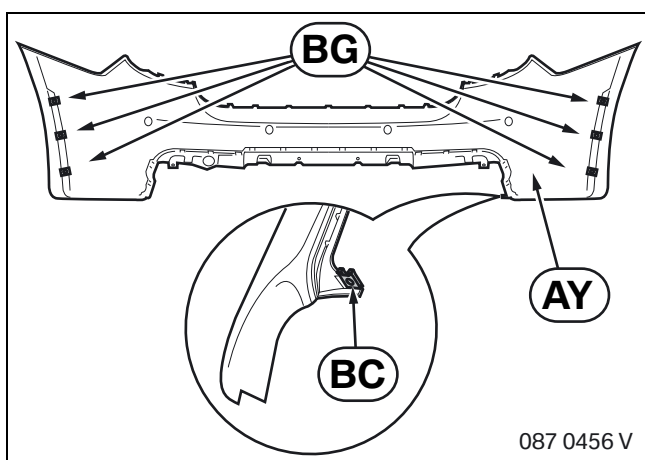
Fit speed nuts **AW**. Clip bottom rear bumper panel **AS** on to rear bumper panel **AR** as per ISTA No. 51 12 162 and secure with screws **AX**. Clip on rear bumper trim **AT**.

 The bottom rear bumper panel **AS** and rear bumper trim **AT** are not required if the carbon diffuser (part number 51 12 0 414 220) is installed. ◀

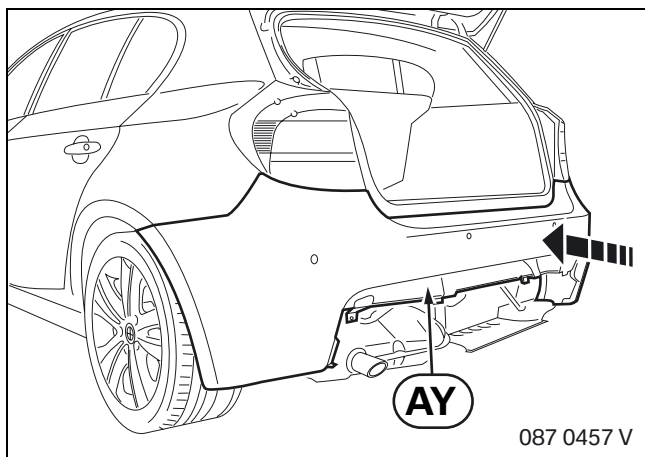
15. Installing BMW Performance package, rear (E81/E87) Only vehicles with M-package



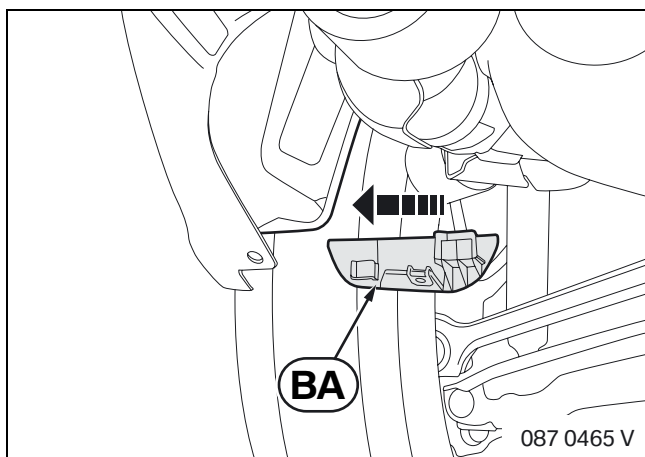
Secure underbody panelling **BB** with existing screws (1) as per ISTA No. 51 47 490.



Fit speed nuts **BG** and speed nut **BC** on to bumper panel **AY**.

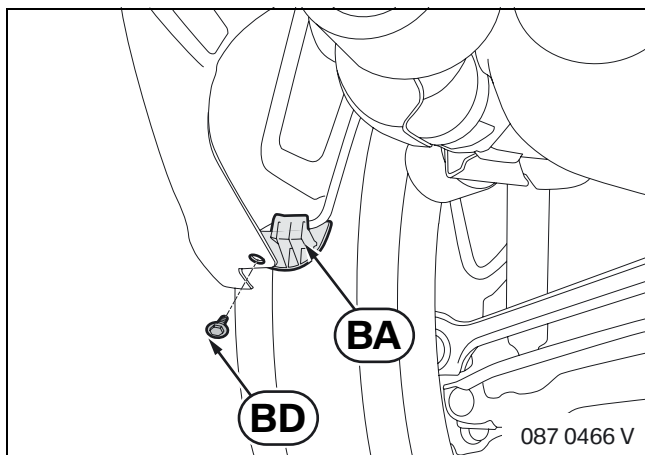


Attach bumper trim **AY** to the vehicle and fit as described in ISTA No. 51 12 156.

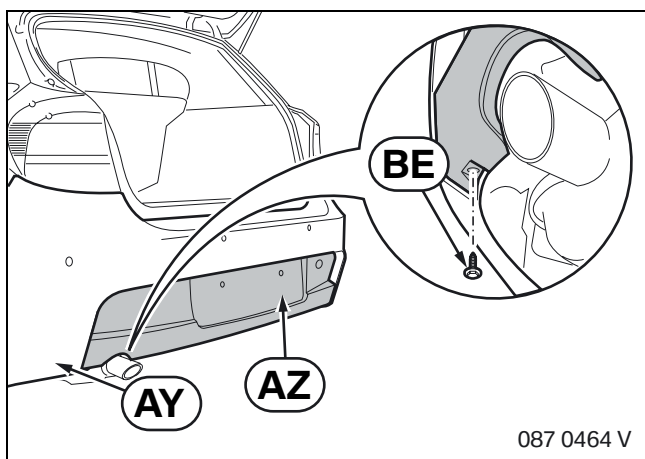


Fit rear left wheel arch extension **BA** from the inside in the wheel arch.

15. Installing BMW Performance package, rear (E81/E87) Only vehicles with M-package



Secure rear left wheel arch extension **BA** with hexagon self-tapping screw **BD**.



Clip rear bottom bumper panel **AZ** into bumper panel **AY** and secure with hexagon self-tapping screws **BE**.

Secure bumper trim **AZ** as described in ISTA 5112 148.

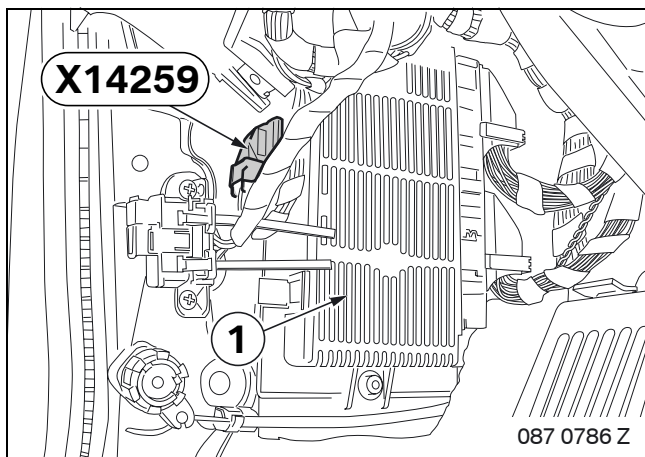
☐ The bottom rear bumper panel **AZ** is not required if the carbon diffuser (Part number 51 12 0 413 901) is installed. ◀

16. Finishing off and coding

The retrofit system requires encoding.

- Reconnect vehicle battery
- Perform quick test
- Encode/program retrofit with software service station (SSS) via the path - **CIP** -
- Perform function test
- Mount licence plate in accordance with ISTA No. 51 11 ...

Only vehicles with fog lights:



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

Unplug GE/WS wire from PIN 15, insulate and tie back.

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

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