

Original BMW Accessories. Installation Instructions.



BMW Performance Power Kit Retrofit

BMW 1 Series (E82, E88)

BMW 3 Series (E90, E91, E92, E93)

**These installation instructions are only valid for 135i, 335i and 335ix cars.
On US cars only in conjunction with SA 840 (high-speed tuning).**

Retrofit kit number

11 12 2 157 664	BMW Performance Power Kit with FSC Retrofit Kit
11 12 2 157 665	BMW Performance Power Kit with FSC Retrofit Kit
11 12 2 184 495	BMW Performance Power Kit with FSC Retrofit Kit

Installation time

The installation time is **approx. 4.0 hours**. This may vary depending on the condition of the car and the equipment in it.

The installation time specified does not include the time spent on programming / coding.

The calculation of the total costs for the programming time must be factored into the calculation of retrofitting costs (no invoicing via warranty).

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, wiring diagrams, servicing manuals and work instructions, in a rational order, using the prescribed tools (special tools) and observing current health and safety regulations.

If you experience installation or function 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, an inquiry is to be sent straight away to the technical parts support via the After Sales Assistance Portal (ASAP).

Quote the following information:

- Chassis number,
- 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 made via 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

Ensure that the cables and/or lines are not kinked or damaged as you install them in the car. Costs arising from this will not be reimbursed by BMW AG.

Additional cables/lines that you install must be secured with cable ties.

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

Ordering instructions

The following parts are not supplied with the retrofit kit and must be ordered separately, depending on the car (see EPC for part number and details):

- Radiator grille **AD**
- ARB EO# Label **AF** (US cars only)
- Air guides **AG** to **AR** and **AV**, **AW**
- Grille **AS** to **AU**
- Finisher **AX**
- Holding frame finisher left **AY**
- Butt connector **AZ**
- Cars built before 3/07 only: Fan relay auxiliary cable **BA** including insulation-piercing connector **BB**
- For RHD cars: auxiliary cable RHD **BC**
- Shrink tubing **BD**
- E82/E88 cars only: Horn extension **BE**, 2 x retaining brackets **BF**, 2 x rivet nuts M6 **BG**, 2 x hexagon nuts with washer M6 **BH** and 2 x rubber bearings M6 x 10 mm **BI**
- For E92/E93 LCI cars with M bumper and fog light: fog light holder left **BJ**

Activation code

The activation code (FSC) is available for downloading via ASAP, see the section entitled "Concluding work".

Workshop certificate

Print out the "Workshop certificate" section at the end of the installation instructions, fill it in and give it to the customer.

Parts reports (for German-speaking countries only)

Print out the "Parts reports" section at the end of the installation instructions and give it to the customer.

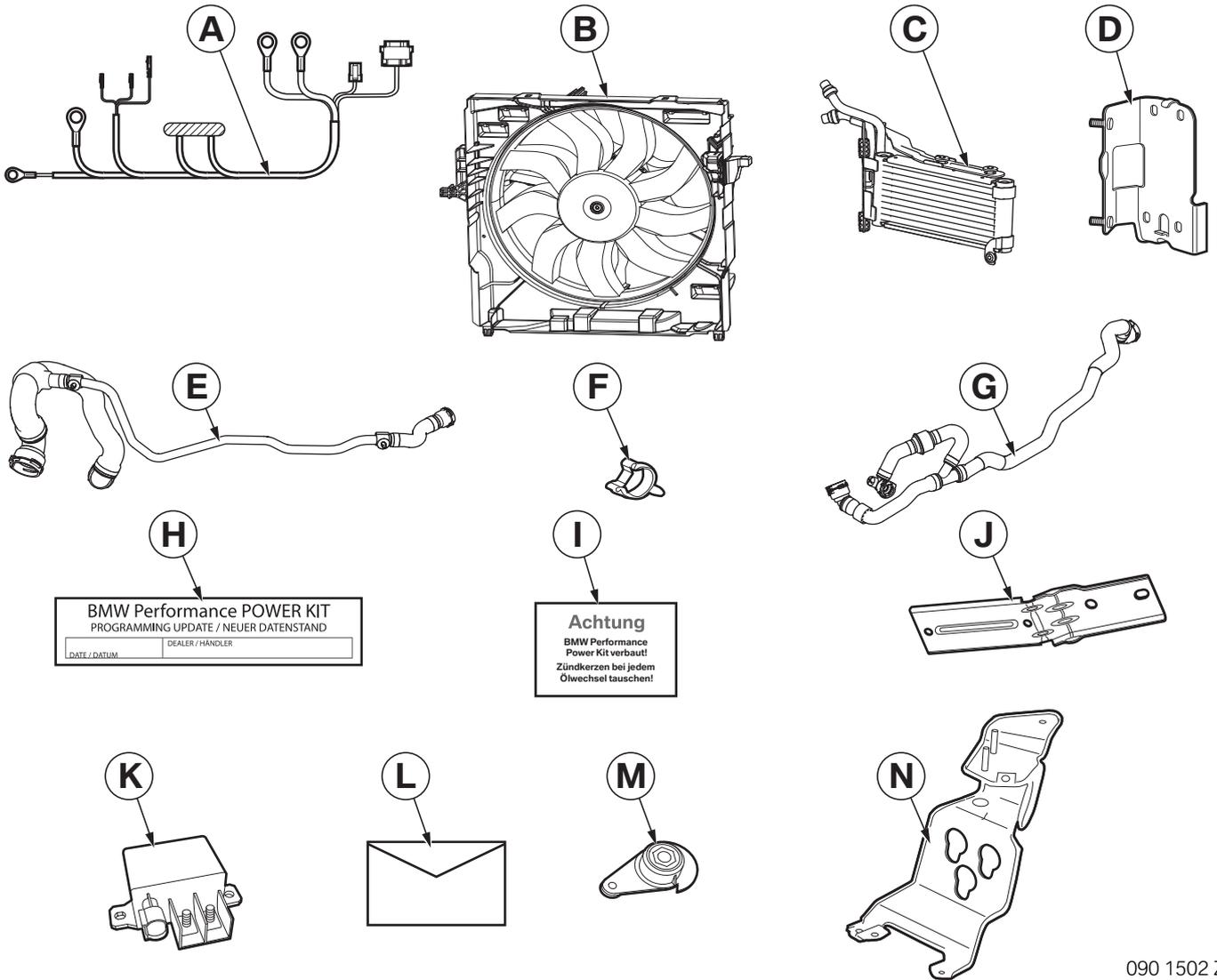
Special tools required

- 00 9 310, Trim wedge
- 00 9 340, Removal tool
- 13 3 010, Hose clip
- 12 1 172, Spark plug tool
- 12 1 220, Spark plug wrench SW 14 bihexagon
- 12 1 230, Installation tool
- 61 6 210, Wiper arm puller

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1. Parts list for retrofit kit

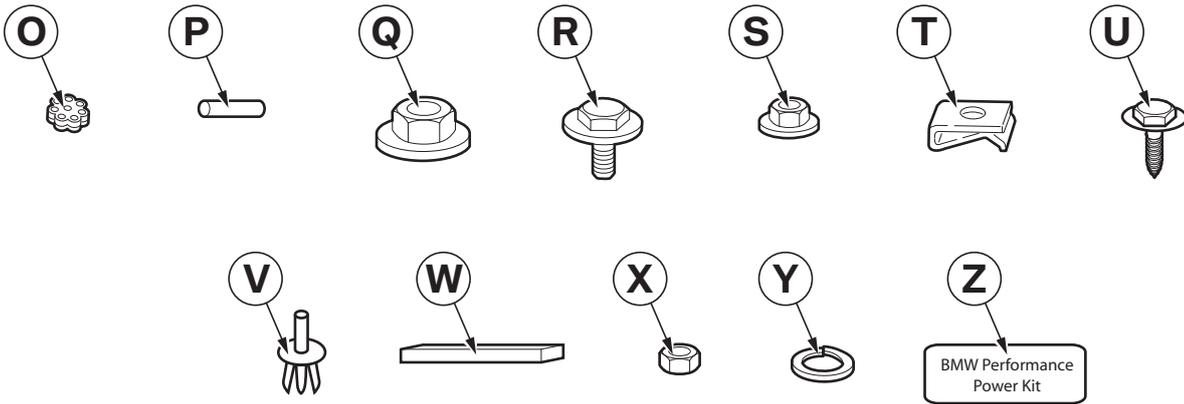


090 1502 Z

Legend

- A** Retrofit wiring harness
- B** Electric fan
- C** Additional radiator
- D** Additional radiator holder
- E** Return hose
- F** Hose holder (2x)
- G** Supply hose
- H** Engine control unit sticker
- I** Service sticker (for cars built before 3/09 only)
- J** Relay holder
- K** Fan relay
- L** Activation code certificate (in red envelope)
- M** Thread plate
- N** Servo oil tank holder

1. Parts list for retrofit kit

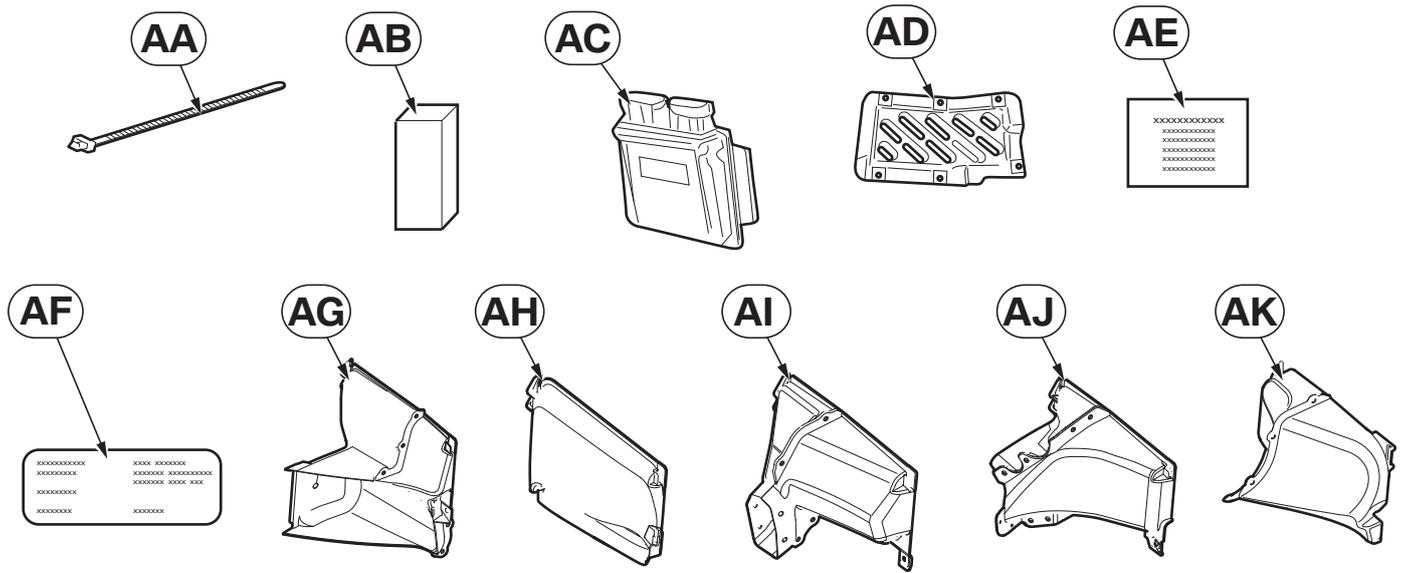


090 1532 Z

Legend

- O** Rubber bearing (3x)
- P** Shrink tubing (2x)
- Q** Hexagon nut M8 (2x)
- R** Hexagon screw with washer M6 x 20 mm (3x)
- S** Hexagon nut with collar M6 (2x)
- T** Sheet metal nut (8 x)
- U** Hexagon sheet metal screw (8 x)
- V** Expanding rivet (6x)
- W** Sealing strips
- X** Hexagon nut M6 (2x)
- Y** Spring washer A6 (2x)
- Z** BMW Performance emblem

1. Parts list for retrofit kit

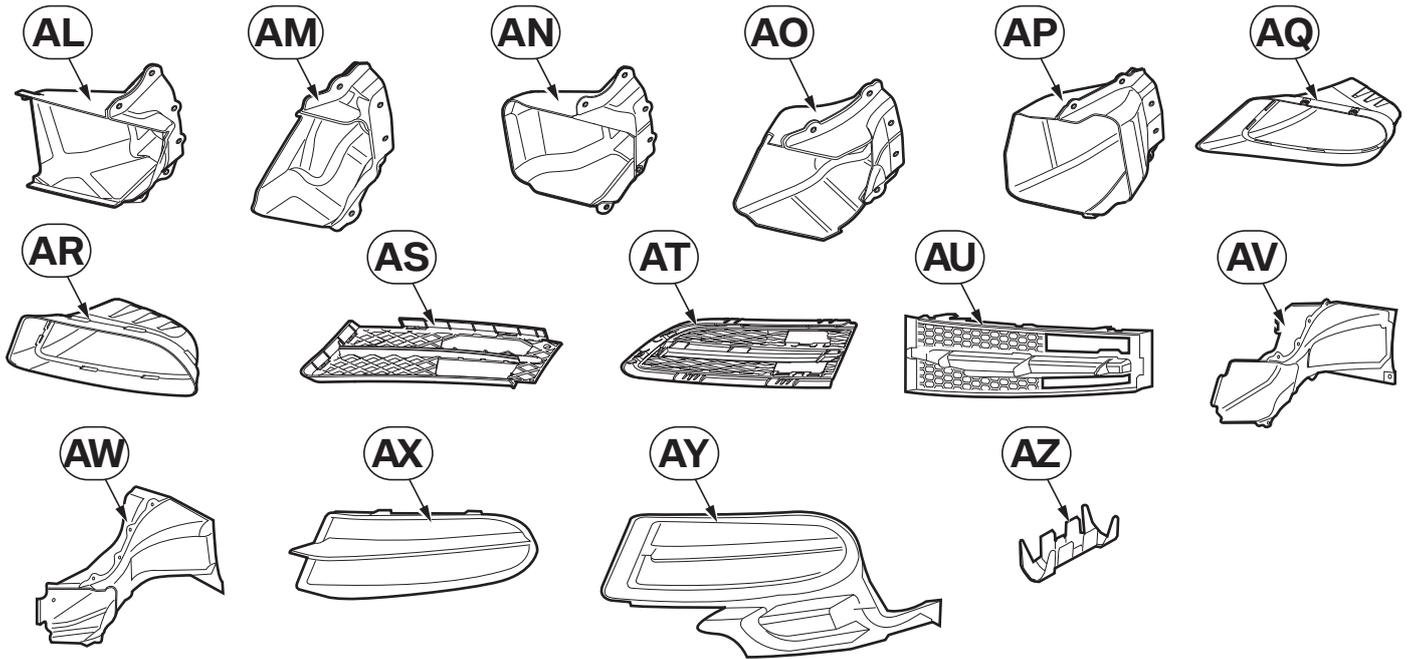


090 1533 Z

Legend

- AA** Cable tie 200 x 3.6 mm (20 x)
- AB** Spark plugs (6x, only for cars built before 3/09 or with more than 60,000 km / 45,000 miles on the clock)
- AC** Engine control unit (cars with MSD80 only)
- AD** Fan grille (not supplied with the retrofit kit)
- AE** Information label regarding aluminium screws
- AF** ARB EO# label (for US cars only, not supplied with the retrofit kit)
- AG** Rear air guide, for E82/E88 with standard or M bumper (not supplied with the retrofit kit)
- AH** Rear air guide, for E82/E88 with Performance bumper (not supplied with the retrofit kit)
- AI** Rear air guide, for all E90/E91/E92/E93 except E90/E91 LCI with M or Performance bumper (not supplied with the retrofit kit)
- AJ** Rear air guide, for E90/E91 LCI with M bumper (not supplied with the retrofit kit)
- AK** Rear air guide, for E90/E91 LCI with Performance bumper (not supplied with the retrofit kit)

1. Parts list for retrofit kit

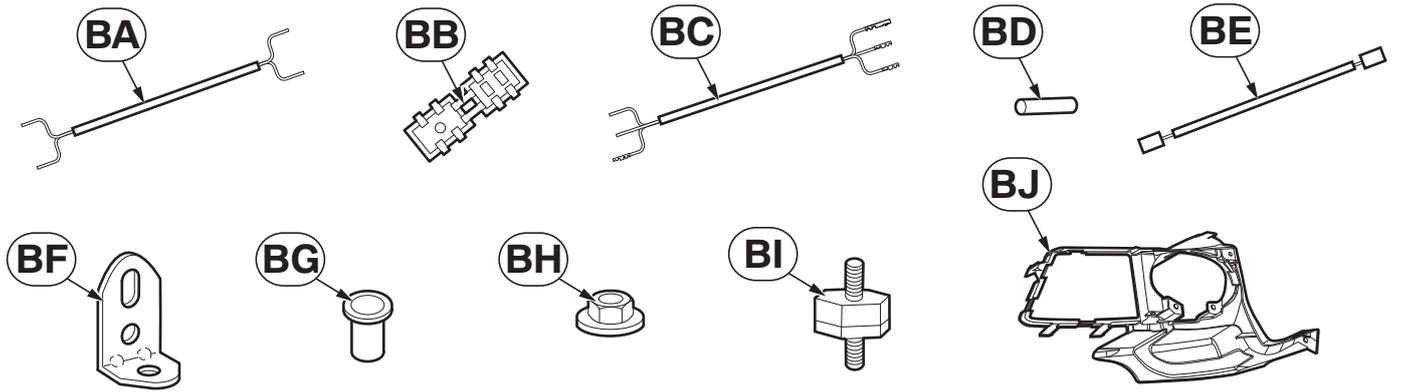


090 1534 Z

Legend

- AL** Front air guide, for E90/E91 with standard bumper (not supplied with the retrofit kit)
- AM** Front air guide, for E90/E91 LCI with standard bumper (not supplied with the retrofit kit)
- AN** Front air guide, for E90/E91 with M bumper (not supplied with the retrofit kit)
- AO** Front air guide, for E92/E93 with standard bumper (not supplied with the retrofit kit)
- AP** Front air guide, for E92/E93 with M bumper (not supplied with the retrofit kit)
- AQ** Left air guide, for E82/E88 with Performance bumper (not supplied with the retrofit kit)
- AR** Left air guide, for E90/E91 LCI with Performance bumper (not supplied with the retrofit kit)
- AS** Left grille, for E90/E91 with standard bumper (not supplied with the retrofit kit)
- AT** Left grille, for E90/E91 LCI with standard bumper (not supplied with the retrofit kit)
- AU** Left grille, for E92/E93 LCI with standard bumper (not supplied with the retrofit kit)
- AV** Left air guide, for E92/E93 LCI with M bumper (not supplied with the retrofit kit)
- AW** Left air guide, for E92/E93 LCI with standard bumper (not supplied with the retrofit kit)
- AX** Left finisher for E92/E93 LCI with M bumper without fog light (not supplied with the retrofit kit)
- AY** Left finisher holding frame for E92/E93 LCI with M bumper without fog light (not supplied with the retrofit kit)
- AZ** Butt connector (cars with N55 engines only, not supplied with the retrofit kit)

1. Parts list for retrofit kit



090 1535 Z

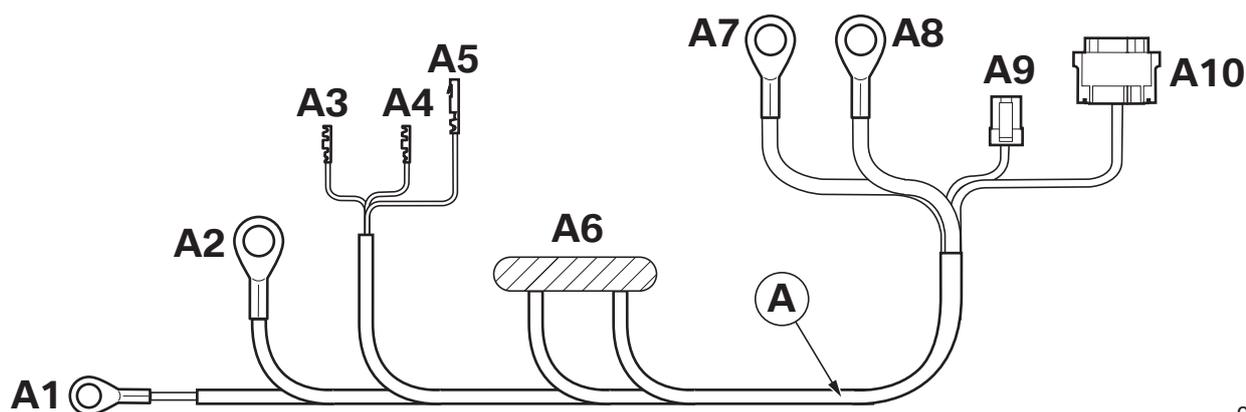
Legend

- BA** Fan relay auxiliary cable (only for cars built before 3/07, not supplied with the retrofit kit)
- BB** Insulation-piercing connector (2 x, only for cars built before 3/07, not supplied with the retrofit kit)
- BC** RHD auxiliary cable, for RHD cars (not supplied with the retrofit kit)
- BD** Shrink tubing (4x), (not supplied with the retrofit kit)
- BE** Horn extension (E82/E88 cars only, not supplied with the retrofit kit)
- BF** Retaining bracket (2x, only for E82/E88 cars, not supplied with the retrofit kit)
- BG** Rivet nut M6 (2x, only for E82/E88 cars, not supplied with the retrofit kit)
- BH** Hexagon nut with washer M6 (2x, only for E82/E88 cars, not supplied with the retrofit kit)
- BI** Rubber bearing M6 x 10 mm (2x, only for E82/E88 cars, not supplied with the retrofit kit)
- BJ** Left fog light holder
(only for E92/E93 LCI with standard bumper and fog light, not supplied with the retrofit kit)

2. Preparatory work

	ISTA No.
Conduct a brief test	---
Disconnect the negative pole of the battery	61 20 900
The following components must be removed first of all	
Front bumper trim	51 11 156
Power unit bottom guard, front	51 47 490
High-pressure jet of headlight cleaning system, left or right	61 67 083
Left headlight with support	63 12 010
Release front panel	41 33 040
Fan frame with electric fan (no longer required)	17 11 035
Wheel arch cover, front left	51 71 038
Cowl panel cover	51 13 116
Servo oil tank holder (no longer required)	---
Release E-Box cover	12 90...
Renew spark plugs (only for cars built before 3/09 or with more than 60,000 km / 45,000 miles on the clock)	12 12 011
Also for cars with MSD80	
Renew engine control unit	12 14 550
Also for cars E82/E88	
Horn mounting plate (no longer required)	---
Also for cars built before 3/07	
Side footwell trim on right A pillar	51 43 075
Glove box	51 16 366
Only E93/E93 LCI cars	
Remove the fog lights (no longer required)	---
Finisher holder on front bumper	---

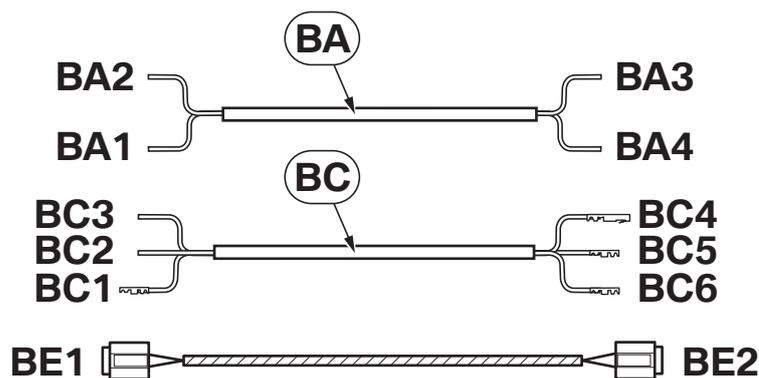
3. Connection diagram



090 1494 Z

Item	Designation	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
A	Retrofit wiring harness	---	---	---	---
A1	Eyelet, diameter 6 mm	Terminal 30	RT 12.0 mm ²	To B+ post, rear right suspension strut	X2219
A2	Eyelet, diameter 6 mm	Terminal 31L<2	BR 10.0 mm ²	To earth pin, right on suspension strut	X175
A3	Butt connector	Terminal 31	BR 0.5 mm ²	LHD cars built before 3/07 only On branch BA2 LHD cars built after 3/07 only To cable of same colour from original fan relay in E-Box RHD cars only To branch BC3	---
A4	Butt connector	Terminal 30g	RT/GN 0.5 mm ²	LHD cars built before 3/07 only To branch BA1 LHD cars built after 3/07 only To cable of same colour from original fan relay in E-Box RHD cars only To branch BC2	---
A5	Socket contact	T_ELUE	SW/BL 0.5 mm ²	LHD cars with N54 engine only To DME control unit A6020 RHD cars with N54 engine only To branch BC1 LHD cars with N55 engine only With butt connector AZ to separated SW/BL cable in the E-box of DME control unit A6000 RHD cars with N55 engine only With butt connector AZ to branch BC1	X60101 PIN 8 X60001 PIN 20 ---
A6	Fuse holder 125 A (wrapped in retrofit wiring harness)	Terminal 30	RT 12.0 mm ²	Behind right headlight	---
A7	Eyelet, diameter 6 mm	Terminal 30	RT 12.0 mm ²	To fan relay K	X17278
A8	Eyelet, diameter 6 mm	Terminal 30	RT 12.0 mm ²	To fan relay K	X17279
A9	SW 2-pin socket casing	---	---	To fan relay K	X1798
A10	SW 4-pin socket casing	---	---	To electric fan B	X18193

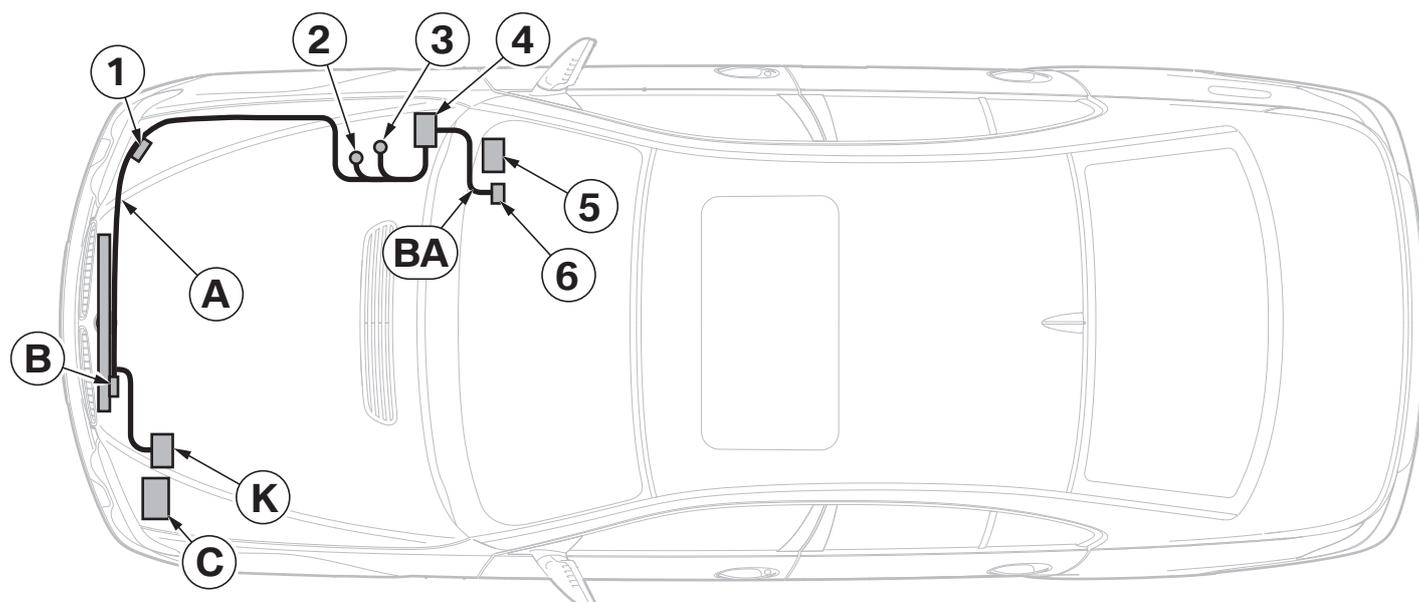
4. Auxiliary cable connection diagram



090 1505 Z

Item	Designation	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
BA	Fan relay auxiliary cable	---	---	Cars built before 3/07 only	---
BA1	Open cable end	Terminal 30g	RT/GN 0.5 mm ²	LHD cars only To branch A4 RHD cars only To branch BC5	---
BA2	Open cable end	Terminal 31	BR 0.5 mm ²	LHD cars only To branch A3 RHD cars only To branch BC6	---
BA3	Open cable end	Terminal 31	BR 0.5 mm ²	With insulation-piercing connector BB to BR cable of the glovebox light	X18336 PIN 4
BA4	Open cable end	Terminal 30g	RT/GN 0.5 mm ²	With insulation-piercing connector BB to RT/GE cable of the glovebox light	X18336 PIN 1
BC	RHD auxiliary cable	---	---	RHD cars only	---
BC1	Butt connector	T_ELUE	SW/BL 0.5 mm ²	To branch A5	---
BC2	Open cable end	Terminal 30g	RT/GN 0.5 mm ²	To branch A4	---
BC3	Open cable end	Terminal 31	BR 0.5 mm ²	To branch A3	---
BC4	Socket contact	T_ELUE	SW/BL 0.5 mm ²	Cars with N54 engine only To DME control unit A6020 Cars with N55 engine only With butt connector AZ to separated SW/BL cable in the E-box of DME control unit A6000	X60101 PIN 8 X60001 PIN 20
BC5	Butt connector	Terminal 30g	RT/GN 0.5 mm ²	RHD cars built before 3/07 only To branch BA1 RHD cars built after 3/07 only To cable of same colour from original fan relay in E-Box	---
BC6	Butt connector	Terminal 31	BR 0.5 mm ²	RHD cars built before 3/07 only On branch BA2 RHD cars built after 3/07 only To cable of same colour from original fan relay in E-Box	---
BE	Horn extension	---	---	E82/E88 cars only	---
BE1	SW 2-pin socket casing	---	---	To horn left	X3530
BE2	SW 2-pin pin housing	---	---	To original horn connector left	X3529

5. Installation and cabling diagram for LHD cars

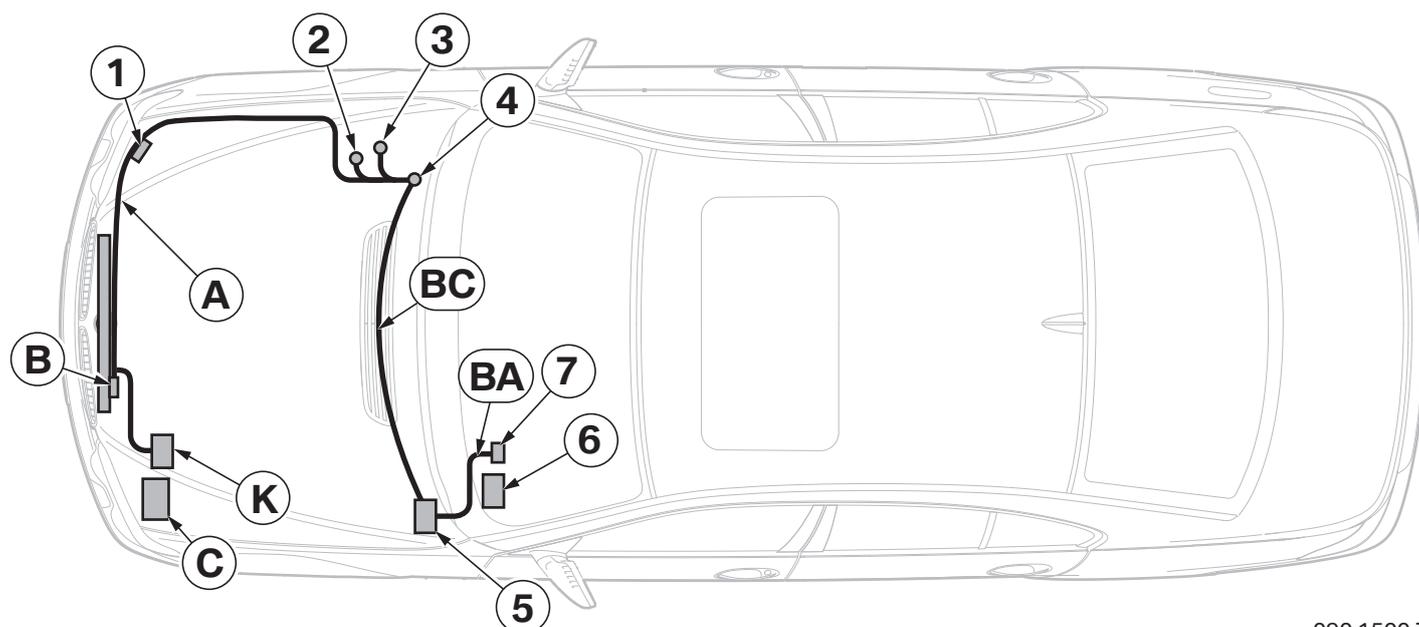


090 1487 Z

- A** Retrofit wiring harness
- B** Electric fan, plug **X18193**
- C** Additional radiator
- K** Fan relay, plugs **X17278**, **X17279** and **X1798**
- BA** Fan relay auxiliary cable (only for cars built before 3/07)

- 1** Fuse holder **A6**
- 2** Strut tower earth support point **X175**
- 3** B+ post **X2219**
- 4** E-Box (DME control unit **A6020** and original fan relay)
- 5** Fuse holder front, fuse **F92**
- 6** Glovebox light **E42a** (only cars built before 3/07)

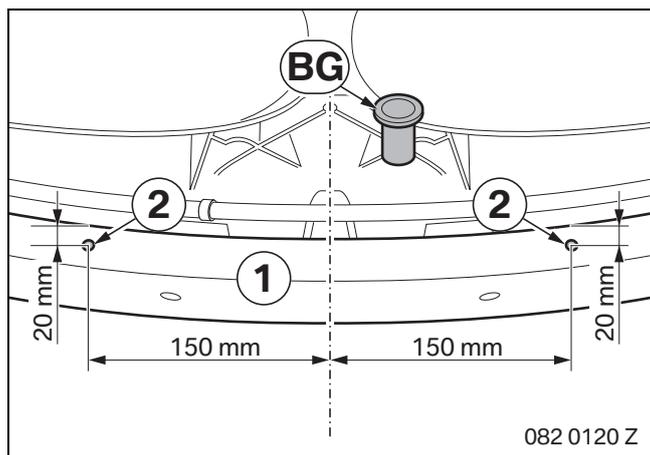
6. Installation and cabling diagram for RHD cars



090 1500 Z

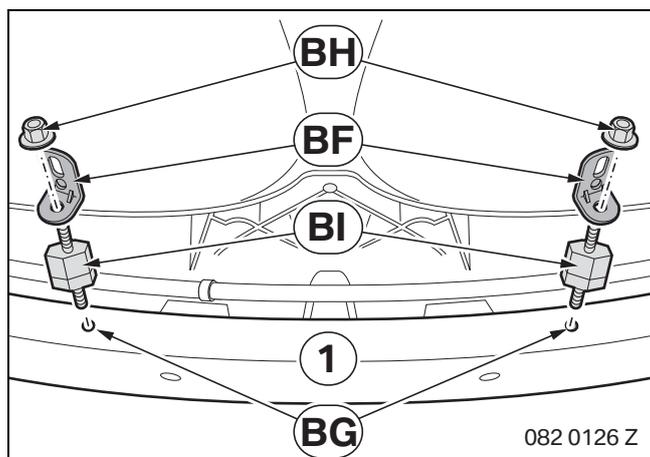
- A** Retrofit wiring harness
 - B** Electric fan, plug **X18193**
 - C** Additional radiator
 - K** Fan relay, plugs **X17278**, **X17279** and **X1798**
 - BA** Fan relay auxiliary cable (only for cars built before 3/07)
 - BC** RHD auxiliary cable
-
- 1** Fuse holder **A6**
 - 2** Strut tower earth support point **X175**
 - 3** B+ post **X2219**
 - 4** Retrofit wiring harness connector **A** and RHD auxiliary cable **BC**
 - 5** E-Box (DME control unit **A6020** and original fan relay)
 - 6** Fuse holder front, fuse **F92**
 - 7** Glovebox light **E42a** (only cars built before 3/07)

7. Converting the horn (E82/E88 cars only)



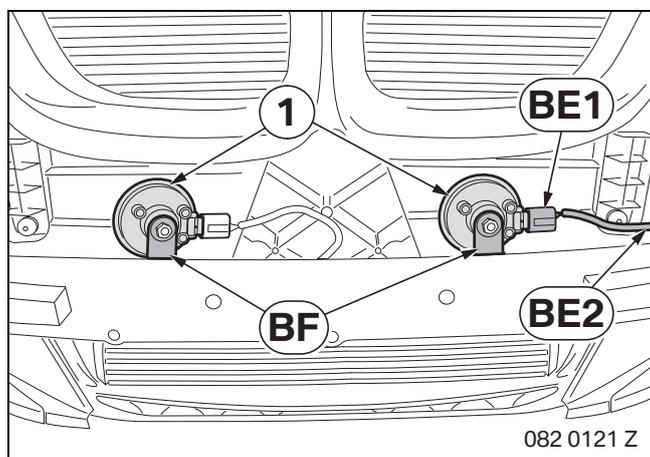
Make drill holes (2), diameter 9.1 mm, from above on the bumper support (1) as per the dimensions shown.

Rivet rivet nuts **BG** into bumper support (1).



▶ When screwing on rubber bearing **BI**, a suitable screw securing tool must be used. ◀

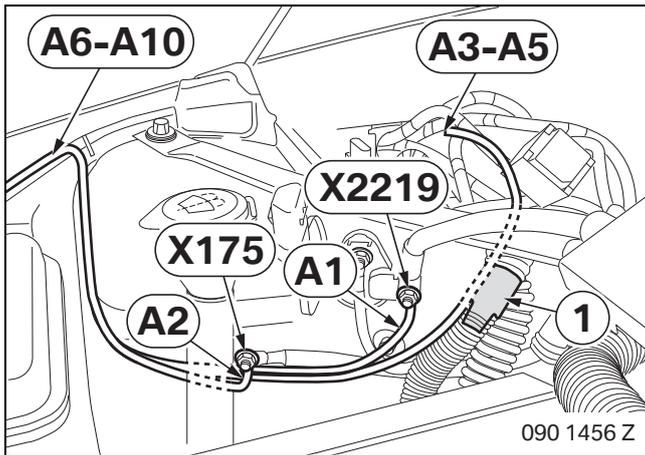
Screw rubber bearing **BI** into rivet nuts **BG**. Screw retaining bracket **BF** using hexagon screws **BH** to bumper support (1).



Screw horns (1) using original nuts and washers to retaining bracket **BF**.

Route branch **BE1** to the left horn and branch **BE2** to the left original horn connector and connect.

8. Installing the retrofit wiring harness on LHD cars

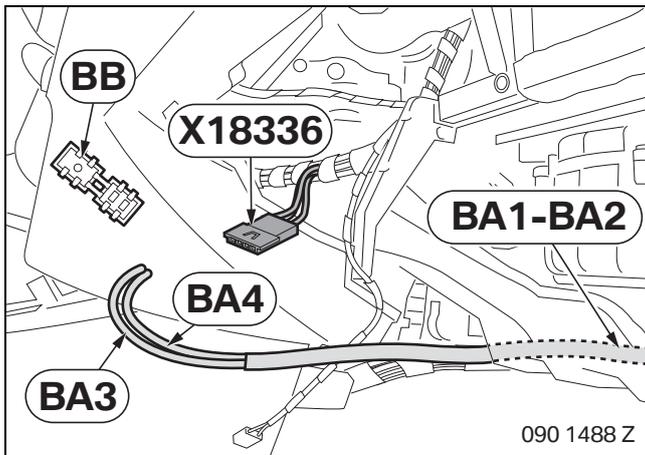


Screw branch **A1** on B+ support point **X2219** from the top or bottom.

Screw branch **A2** onto earth pins **X175**.

Route branches **A6 – A10** to the right-hand rear side panel.

Route branches **A3 – A5** through the rubber grommet (1) into the E-box.

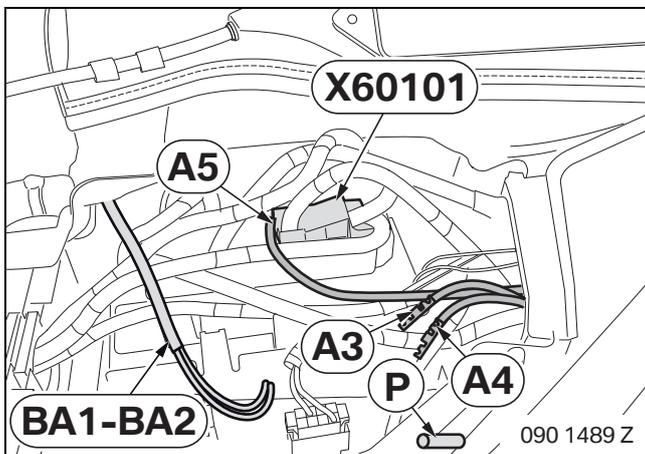


Cars built before 3/07 only

Connect branch **BA3** and **BA4** using insulation-piercing connector **BB** as follows to the cables of plug **X18336**, SW 4-pin, of the glovebox light:

- Branch **BA3**, BR cable, to PIN 4 (BR cable)
- Branch **BA4**, RT/GN cable, to cable in PIN 1 (RT/GE cable)

Route branches **BA1** and **BA2** into the E-Box.



Push shrink tubing **P** over branches **A3**, BR cable, and **A4**, RT/GN cable.

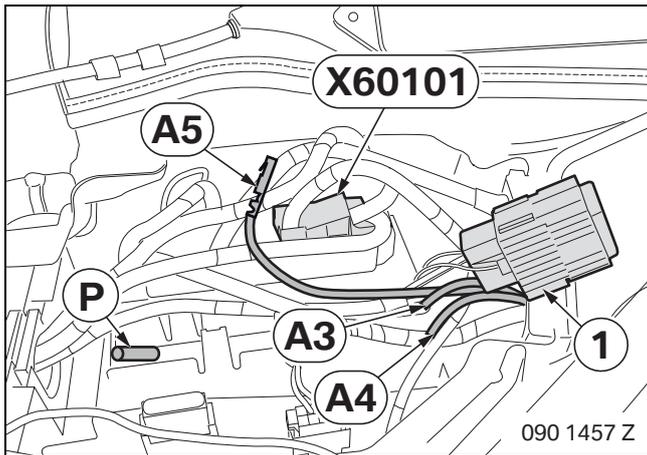
Crimp branches **BA1** and **BA2** to the same colours of branches **A3** and **A4**.

Insulate the connections with shrink tubing **P**.

Disconnect SW/BL cable from PIN 8 of plug **X60101** (GR 26-pin) on the DME control unit, insulate it and tie it back.

Connect branch **A5**, SW/BL cable, to PIN 8 of plug **X60101**.

8. Installing the retrofit wiring harness on LHD cars



Cars built after 3/07 only

Push shrink tubing **P** over branches **A3**, BR cable, and **A4**, RT/GN cable.

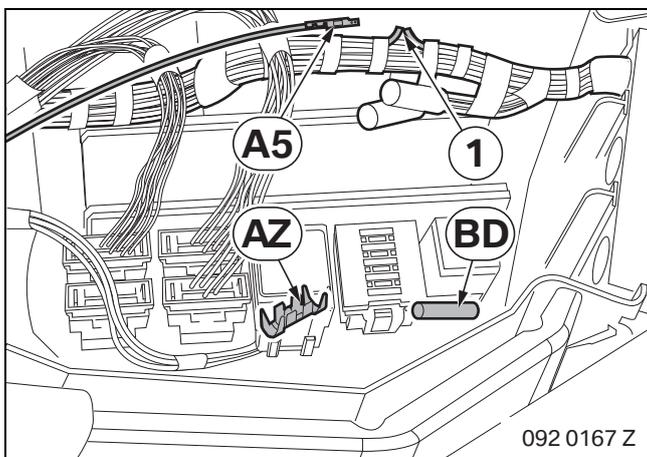
Disconnect BR and RT/GN cables from fan relay (1) and crimp onto the same-coloured branches **A3** and **A4**.

Insulate the connections with shrink tubing **P**.

Cars with N54 engine only

Disconnect SW/BL cable from PIN 8 of plug **X60101** (GR 26-pin) on the DME control unit, insulate it and tie it back.

Connect branch **A5**, SW/BL cable, to PIN 8 of plug **X60101**.



Cars with N55 engine only

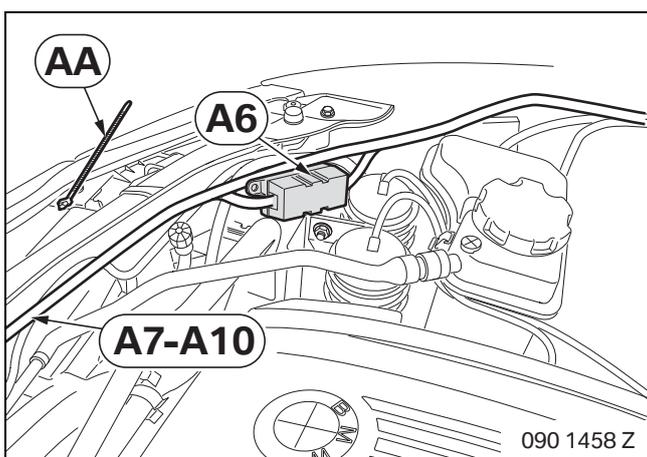
▶ The SW/BL cable (0.5 mm²) required is located in the E-box. With identically-coloured cables, a continuity test must be carried out before the cables are crimped between PIN 20 of plug **X60001** on the DME control unit and the separated cable (1). ◀

Disconnect the socket contact from branch **A5**.

Separate cable (1), SW/BL (0.5 mm²) between PIN 20 of plug **X60001** on DME control unit and PIN 4 of plug **X1797** on the electric fan in the E-box.

Slide shrink tubing **BD** over branch **A5**. Connect branch **A5** using butt connector **AZ** to the separated SW/BL cable (0.5 mm²) of PIN 20 on plug **X60001** of the DME control unit.

Insulate the separated SW/BL cable (0.5 mm²) from PIN 4 of plug **X1797** on the electric fan and tie it back.

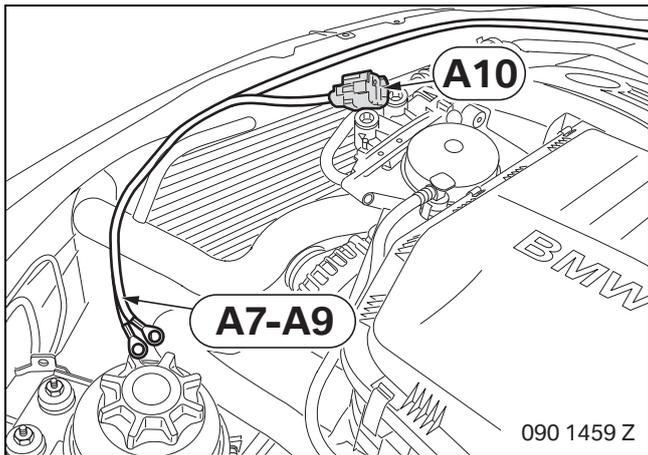


All LHD cars

Secure fuse holder **A6** onto the standard wiring harness using cable ties **AA** behind the right headlight.

Route branches **A7** – **A10** along the standard wiring harness to the left-hand side of the car.

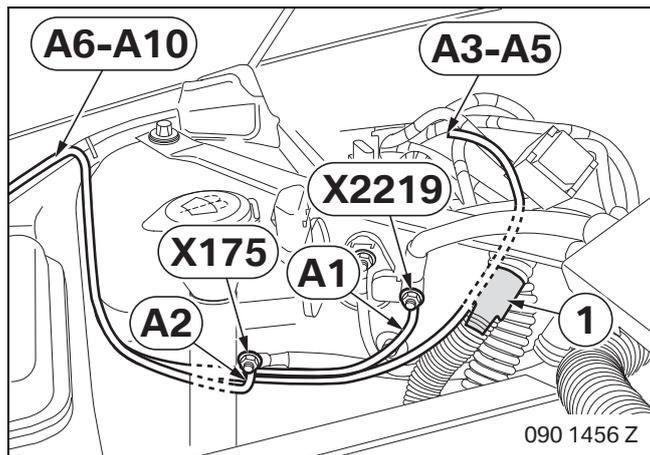
8. Installing the retrofit wiring harness on LHD cars



Route branches **A7 – A10** along the front panel.

Tie back the original plug of the electric fan in the area of the right headlight.

9. Installing the retrofit wiring harness on RHD cars

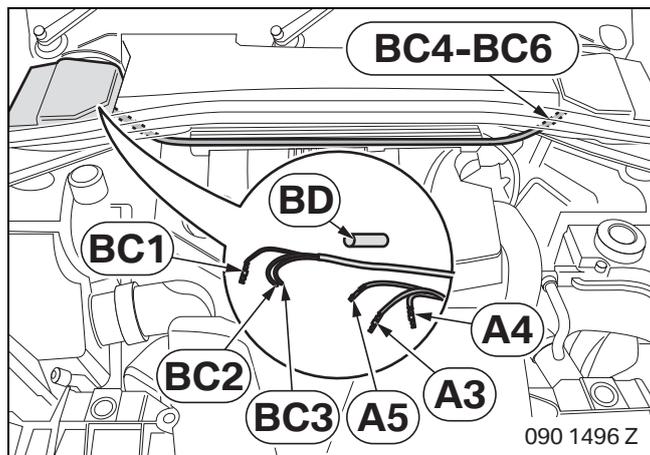


Screw branch **A1** on B+ support point **X2219** from the top or bottom.

Screw branch **A2** onto earth pins **X175**.

Route branches **A6 – A10** to the right-hand rear side panel.

Route branches **A3 – A5** through the rubber grommet (1) into the hydraulic unit.



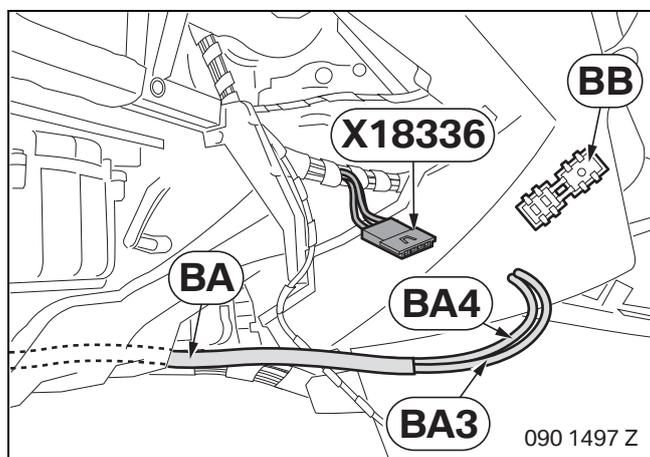
Disconnect the contact from branch **A5**.

Push shrink tubing **BD** over branches **A3–A5**.

Crimp branches **BC1–BC3** to the same colours on branches **A3–A5**.

Insulate the connections with shrink tubing **BD**.

Route branches **BC4–BC6** on the left-hand side into the E-Box.

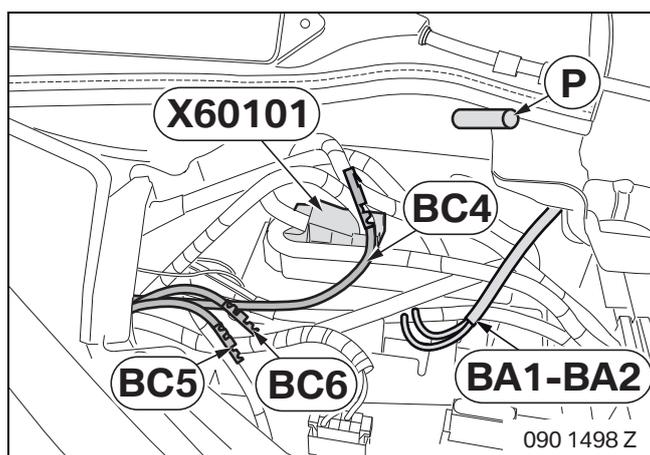


Cars built before 3/07 only

Connect branch **BA3** and **BA4** using insulation-piercing connector **BB** as follows to the cables of plug **X18336**, SW 4-pin, of the glovebox light:

- Branch **BA3**, BR cable, to PIN 4 (BR cable)
- Branch **BA4**, RT/GN cable, to cable in PIN 1 (RT/GE cable)

Route branches **BA1** and **BA2** into the E-Box.



Push shrink tubing **P** over branches **BC5**, RT/GN cable, and **BC6**, BR cable.

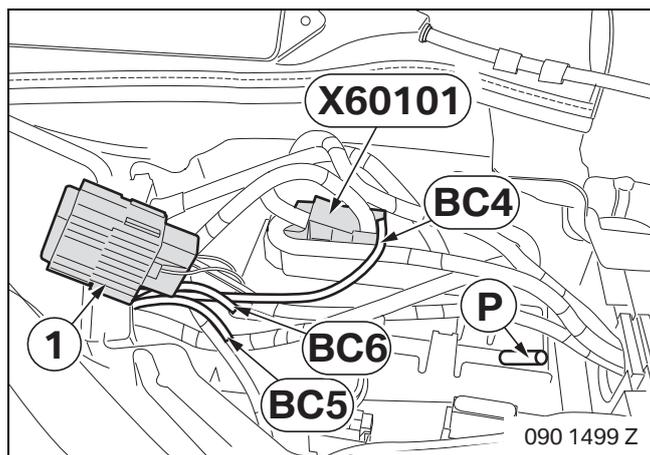
Crimp branches **BA1** and **BA2** to the same colours of branches **BC5** and **BC6**.

Insulate the connections with shrink tubing **P**.

Disconnect SW/BL cable from PIN 8 of plug **X60101** (GR 26-pin) on the DME control unit, insulate it and tie it back.

Connect branch **A5**, SW/BL cable, to PIN 8 of plug **X60101**.

9. Installing the retrofit wiring harness on RHD cars



Cars built after 3/07 only

Push shrink tubing **P** over branches **BC5**, RT/GN cable, and **BC6**, BR cable.

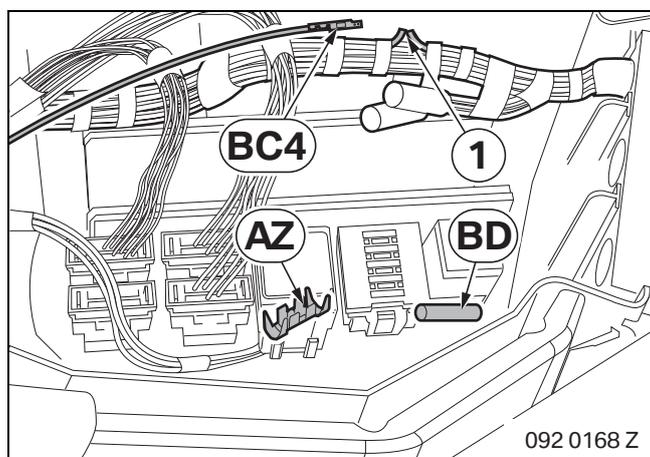
Disconnect BR and RT/GN cables from fan relay (1) and crimp onto the same-coloured branches **BC5** and **BC6**.

Insulate the connections with shrink tubing **P**.

Cars with N54 engine only

Disconnect SW/BL cable from PIN 8 of plug **X60101** (GR 26-pin) on the DME control unit, insulate it and tie it back.

Connect branch **BC4**, SW/BL cable, to PIN 8 of plug **X60101**.



Cars with N55 engine only

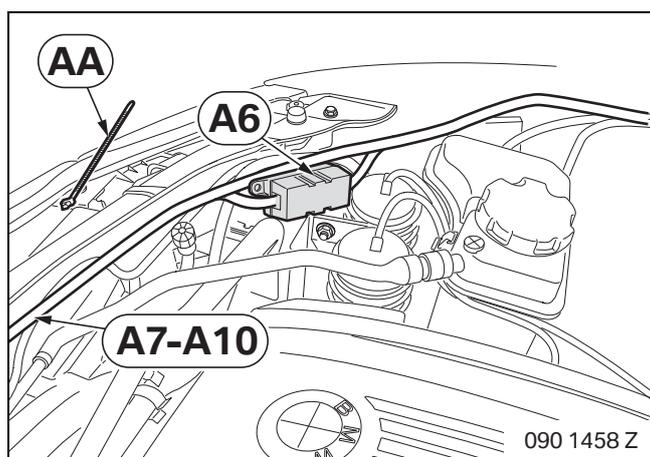
▶ The SW/BL cable (0.5 mm²) required is located in the E-box. With identically-coloured cables, a continuity test must be carried out before the cables are crimped between PIN 20 of plug **X60001** on the DME control unit and the separated cable (1). ◀

Disconnect the socket contact from branch **A5**.

Separate cable (1), SW/BL (0.5 mm²) between PIN 20 of plug **X60001** on DME control unit and PIN 4 of plug **X1797** on the electric fan in the E-box.

Slide shrink tubing **BD** over branch **BC4**. Connect branch **BC4** using butt connector **AZ** to the separated SW/BL cable (0.5 mm²) of PIN 20 on plug **X60001** of the DME control unit.

Insulate the separated SW/BL cable (0.5 mm²) from PIN 4 of plug **X1797** on the electric fan and tie it back.

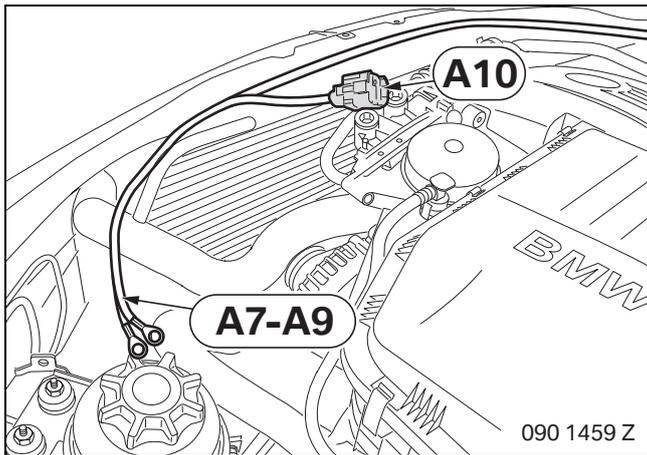


All RHD cars

Secure fuse holder **A6** onto the standard wiring harness using cable ties **AA** behind the right headlight.

Route branches **A7** – **A10** along the standard wiring harness to the left-hand side of the car.

9. Installing the retrofit wiring harness on RHD cars

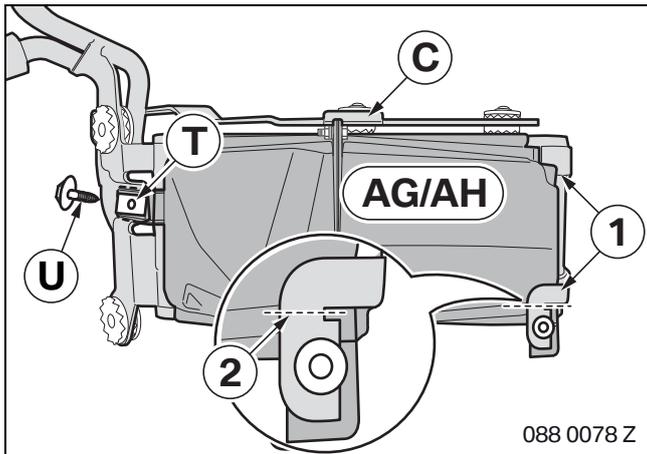


Route branches **A7 – A10** along the front panel.

Tie back the original plug of the electric fan in the area of the right headlight.

10. Installing the additional radiator and air guides

- ▶ The installation of air guides is shown by way of example on the E93 with M bumper. Proceed similarly with all other cars and variants. ◀



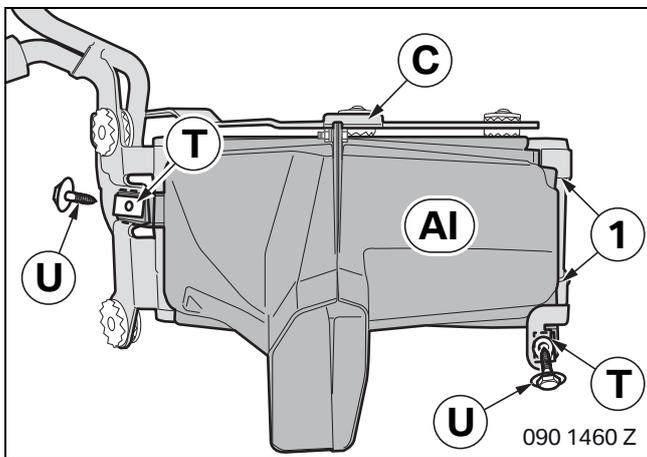
E82/E88 cars only

Disconnect lower screw-on lug (2) on additional radiator **C** at the edge.

Insert sheet metal nut **T** in rear air guide **AG/AH**.

- ▶ Make sure that rear air guide **AG/AH** is inserted in the guides (1) of additional radiator **C**. ◀

Put rear air guide **AG/AH** onto additional radiator **C** and screw on with hexagon self-tapping screw **U**.

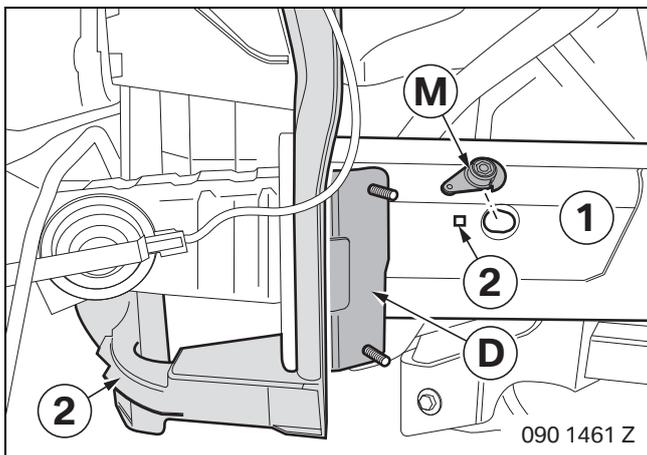


E90/E91/E92/E93 cars only

Insert sheet metal nuts **T** in rear air guide **AI**.

- ▶ Make sure that rear air guide **AI** is inserted in the guides (1) of additional radiator **C**. ◀

Put rear air guide **AI** onto additional radiator **C** and screw on with hexagon self-tapping screws **U**.

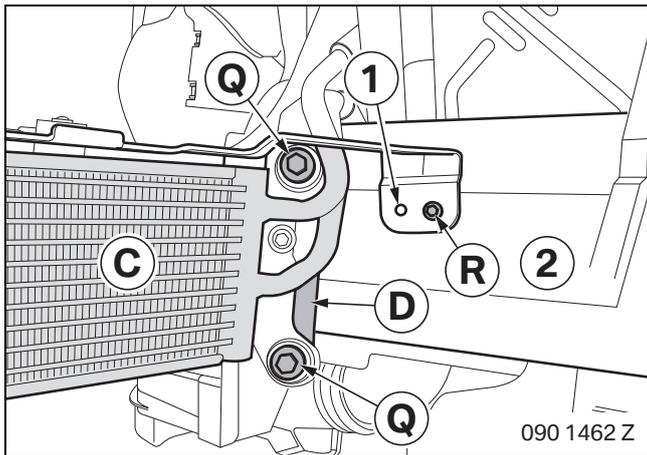


All cars

Swap the mounting plate between the side member (1) and front panel (2) for additional radiator holder **D**.

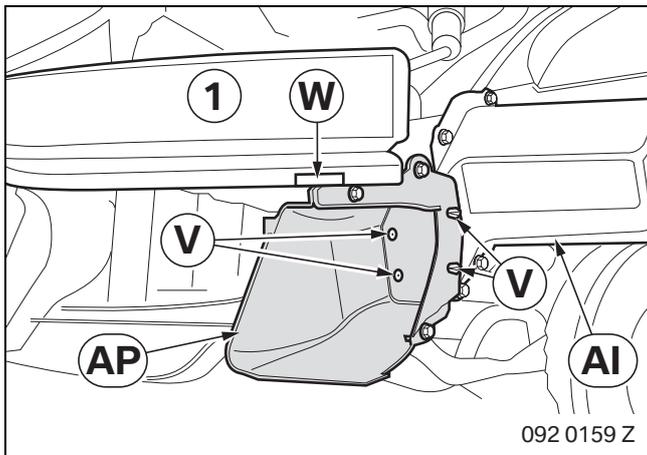
Insert thread plate **M** into side member (1), rotate it around 90° and engage it in the centring drill hole (2).

10. Installing the additional radiator and air guides



Place additional radiator **C** on holder **D** and insert centering pin (1) in side member (2).

Screw additional radiator **C** onto holder **D** using hexagon nuts **Q** and onto the side member (2) using hexagon screw **R**.

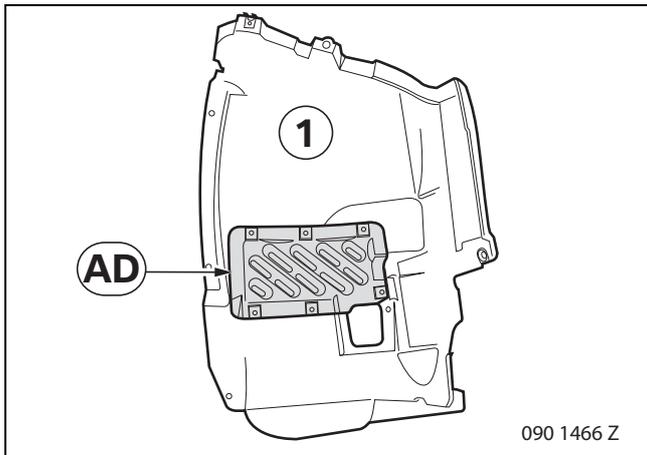


Place front air guide **AP** on rear air guide **AI** and secure from the inside using expanding rivets **V**.

Place sealing strip **W** on bumper trim support (1).

11. Modifying the wheel arch cover

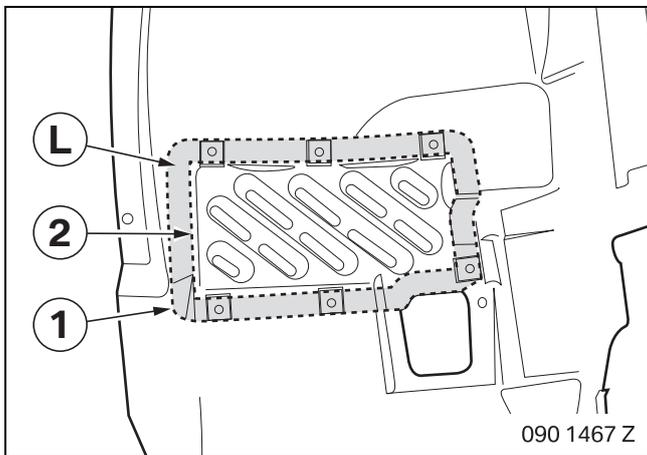
 The installation of radiator grille **AD** is shown as an example.
On E92/E93 LCI cars with M bumper and fog light, the geometric shape differs from the illustrations shown.
Installation must be carried out in a similar fashion. ◀



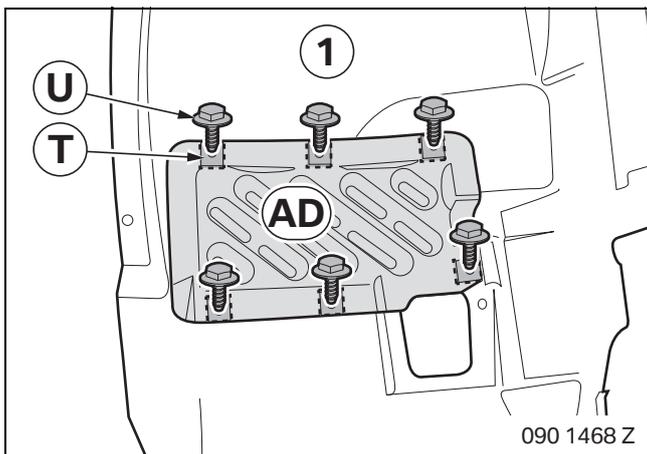
Place radiator grille **AD** from outside onto the wheel arch cover (1).

Transfer the contours and holes of radiator grille **AD**.

Make drill holes of diameter 5 mm.



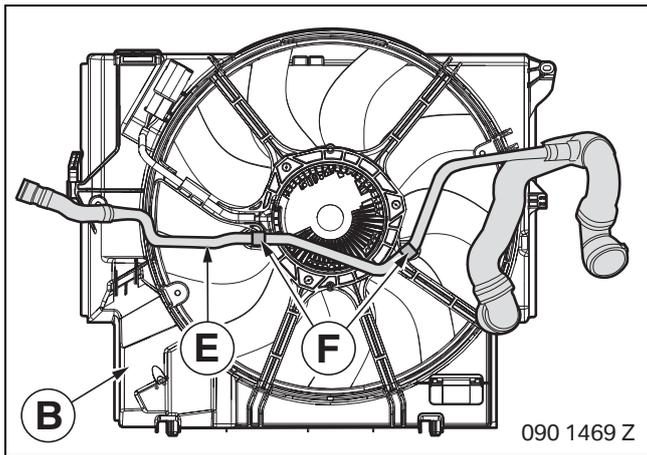
Mark the cut-out (1) 20 mm inside contour (2) of radiator grille **L** and cut out.



Push sheet metal nuts **T** onto the wheel arch cover (1).

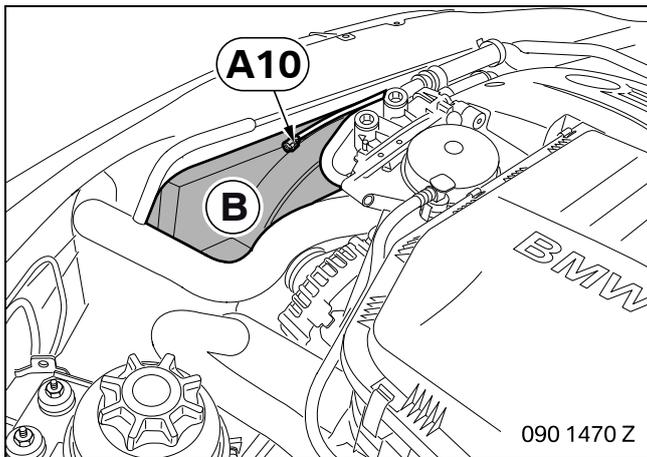
Screw on radiator grille **AD** using hexagon sheet metal screws **U**.

12. Installing water hoses

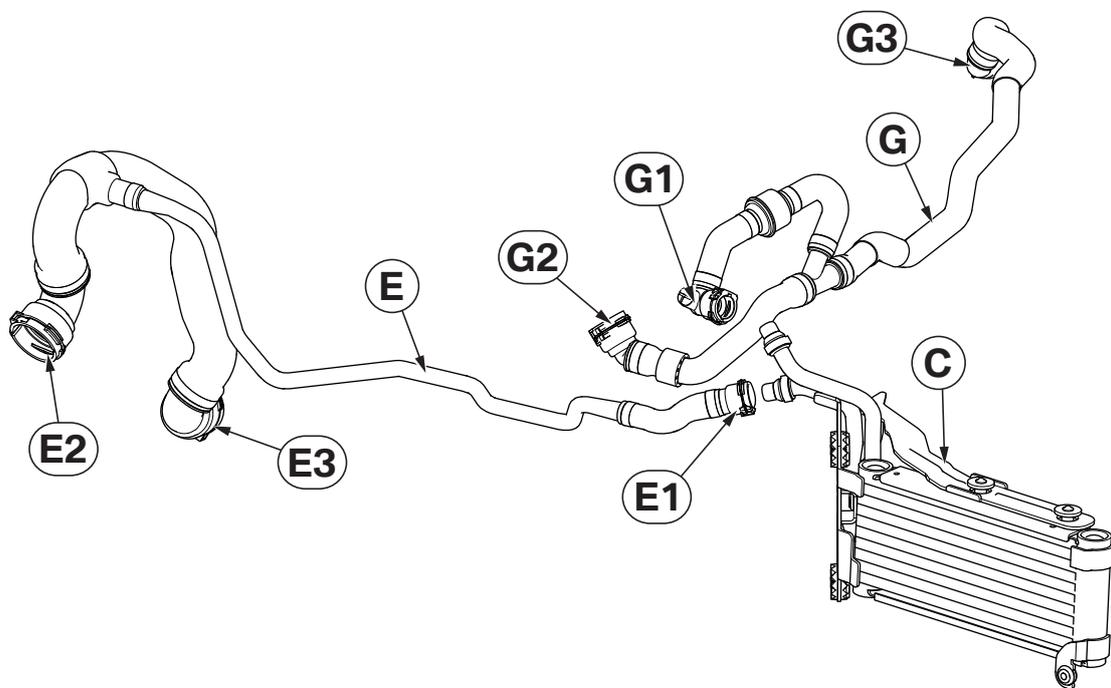


▶ If there is no hose holder already mounted on return hose **E**, use hose holder **F**. ◀

Clip return hose **E** into electric fan **B** as shown.



Install electric fan **B** (see ISTA 17 11 035) and connect branch **A10**.

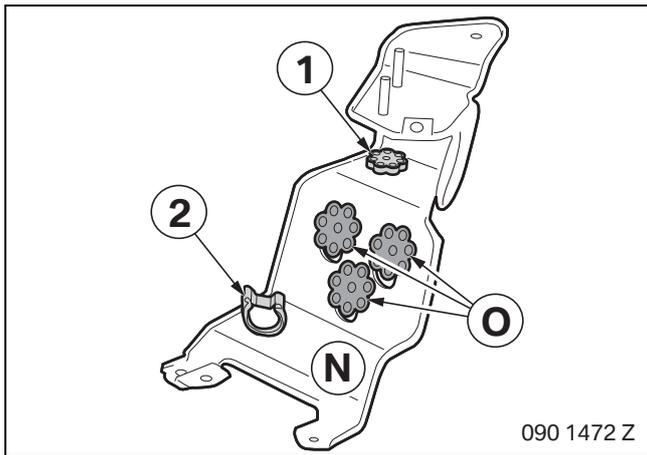


090 1471 Z

Incorporate return hose **E** and supply hose **G** into the cooling circuit as follows:

- **E1** and **G1** to additional radiator **C**
- **E2** and **G2** to engine radiator
- **E3** to engine block
- **G3** to heating heat exchanger on the bulkhead

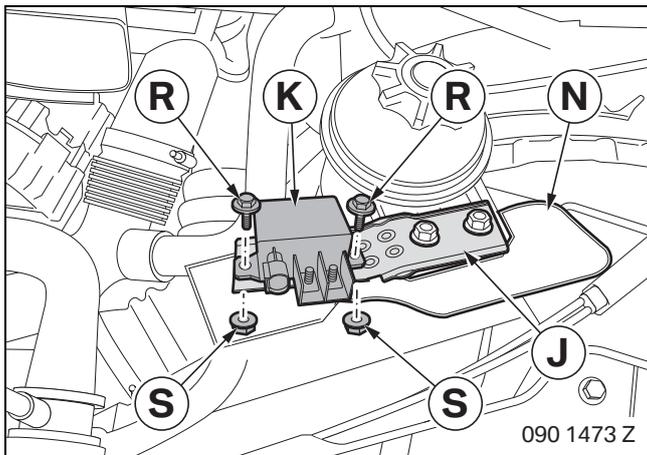
13. Installing the fan relay



Transfer existing rubber bearing (1) and hose holder (2) of the removed servo oil tank holder to servo oil tank holder **N**.

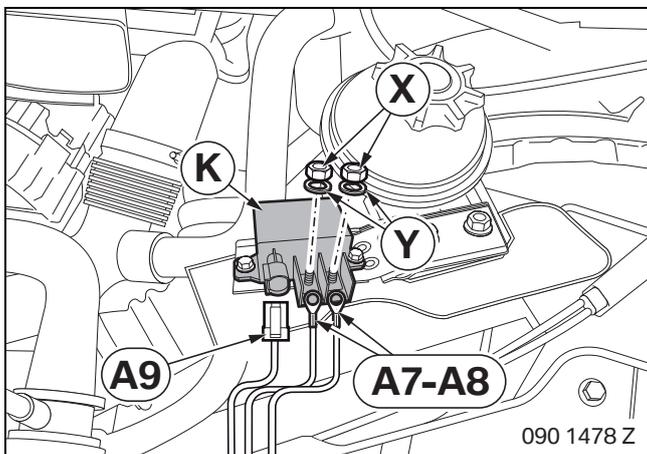
Insert rubber bearing **O** in servo oil tank holder **N**.

Install servo oil tank holder **N** using the original nuts and original screw.



Using the original nuts, screw fan relay holder **J** onto servo oil tank holder **N**.

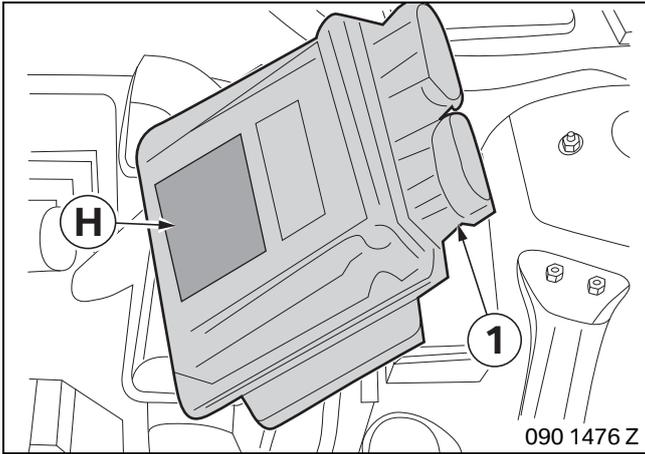
Use hexagon screws **R** and hexagon nuts with collar **S** to secure fan relay **K** to fan relay holder **J**.



Connect branches **A7-A8** using hexagon nuts **X** and spring circlips **Y** to fan relay **K**.

Connect branch **A9** to fan relay **K**.

14. Affixing the stickers



Cars with N54 engine only

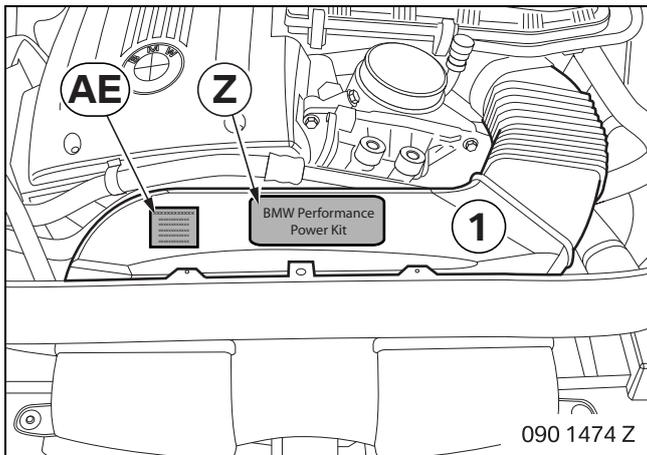
- ▶ Clean the surface to be glued. ◀

Release engine control unit (1) without disconnecting the plug (see ISTA 12 14 550).

Enter the dealership and date on the engine control unit sticker **H**.

Stick engine control unit sticker **H** onto the engine control unit (1).

Install the engine control unit (1).



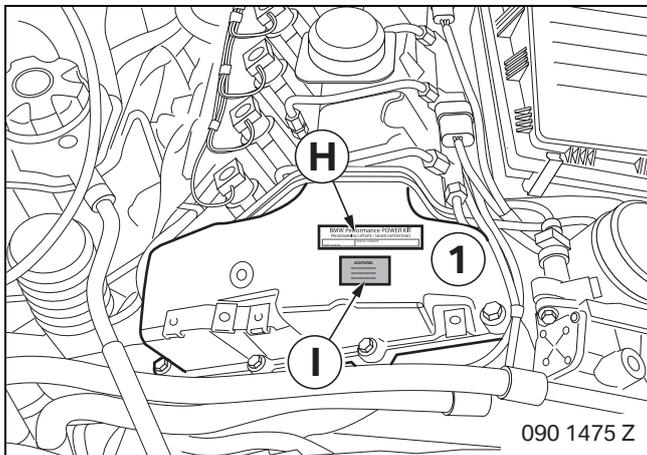
All cars

- ▶ Clean all the surfaces to be glued. ◀

Remove the existing information label regarding aluminum screws from the air guide (1) (it is no longer needed).

Stick emblem **Z** in the middle of the air guide (1).

Stick the new information label regarding aluminium screws **AE** on left next to emblem **Z**.



Cars built before 3/09 only

- ▶ Clean the surface to be glued. ◀

Stick service sticker **I** on cylinder head cover (1).

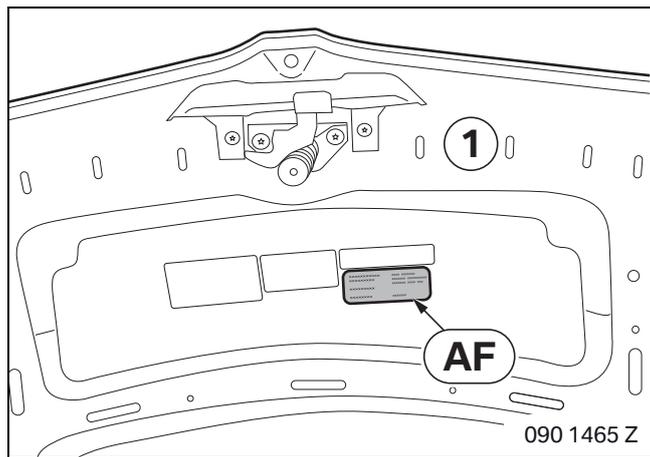
Cars with N55 engine only

- ▶ Clean the surface to be glued. ◀

Enter the dealership and date on the engine control unit sticker **H**.

Stick engine control unit sticker **H** onto the cylinder head cover.

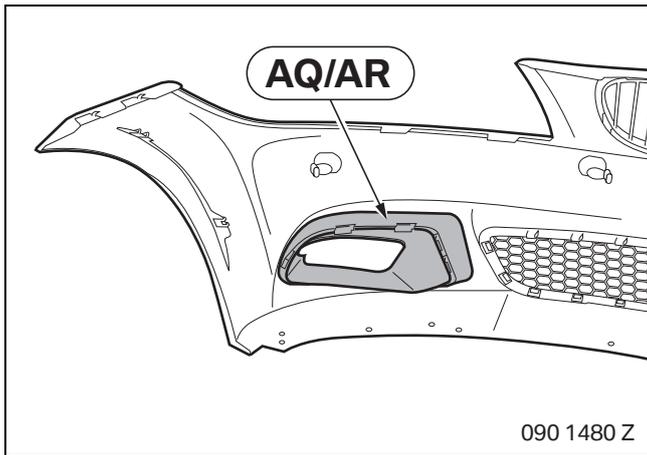
14. Affixing the stickers



For US cars only

Stick ARB EO# label **AF** onto the hood (1) as shown.

15. Modifying the front bumper trim

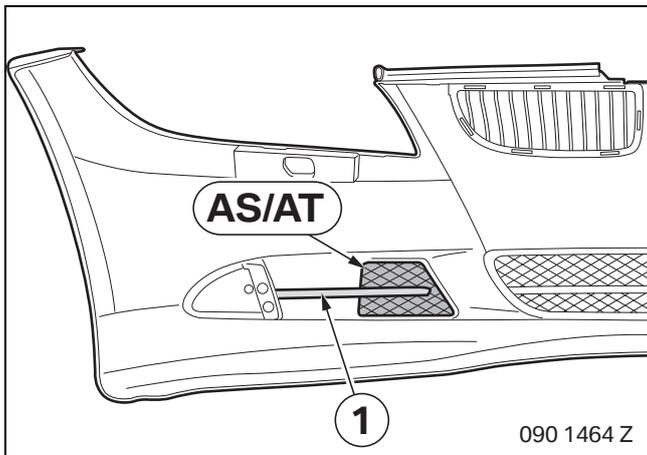


E82/E88 and E90/E91 LCI cars with Performance bumper only

Swap original left air guide for left air guide **AQ/AR**.

E82/E88 cars with standard or M bumper only

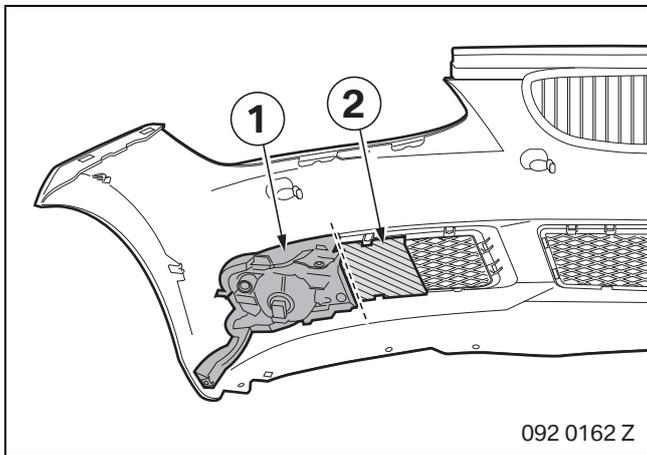
No modification necessary.



E90/E91 and E90/E91 LCI cars with standard bumper only

Swap original left grille for left grille **AS/AT**.

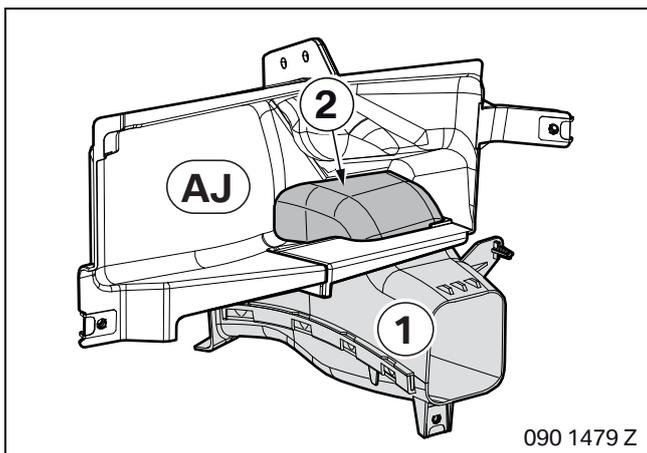
Install the rod finisher (1) from the original grille.



E90/E91 cars with M bumper and E92/E93 cars with standard bumper only

Remove fog light holder (1) and disconnect marked area (2).

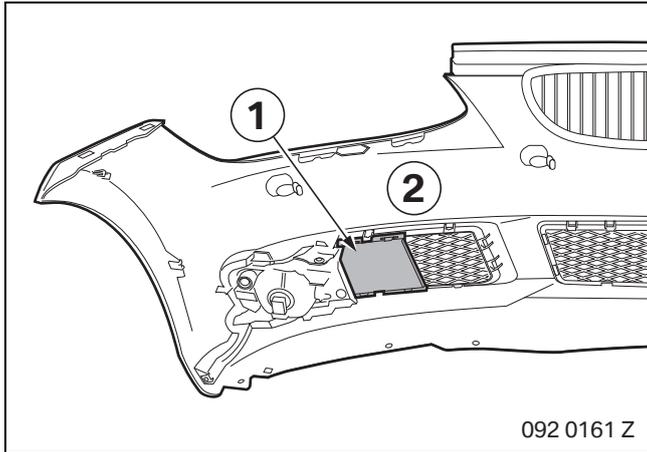
Install fog light holder (1).



E90/E91 LCI cars with M bumper only

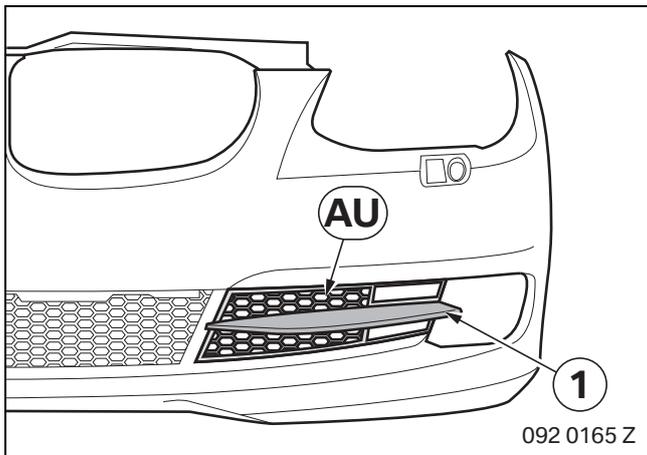
Place left brake air duct (1) against air guide **AJ** as shown, transfer inner contour (2) and cut out.

15. Modifying the front bumper trim



E92/E93 cars with M bumper only

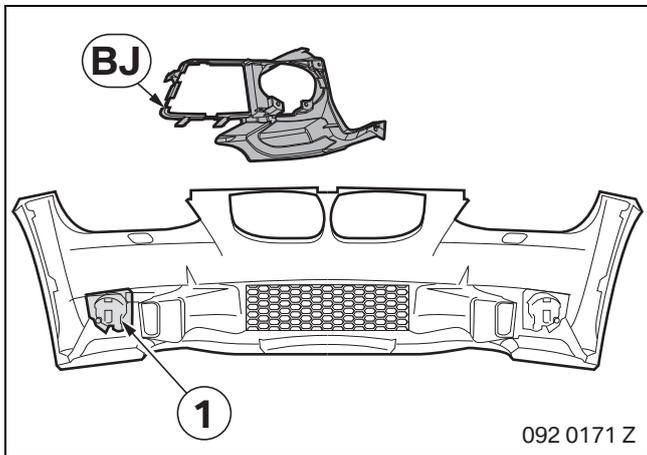
Unclip left finisher (1) behind grille from bumper (2) (it is no longer needed).



E92/E93 LCI cars with standard bumper only

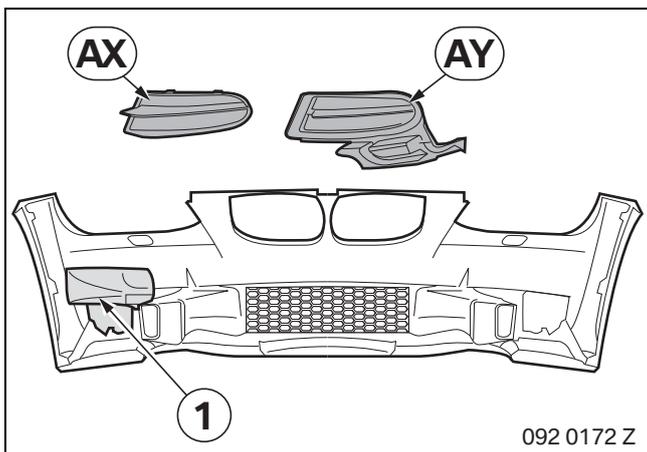
Swap original left grille for left grille **AU**.

Install the rod finisher (1) from the original grille.



E92/E93 LCI cars with M bumper and fog light only

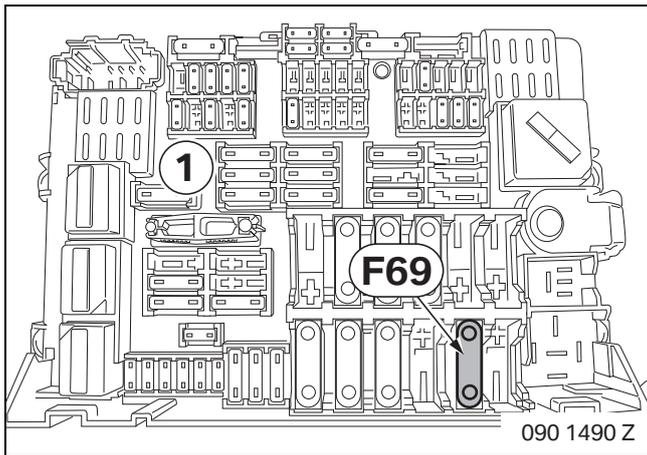
Remove left fog light holder (1) (no longer required) and replace with fog light holder **BJ**.



E92/E93 LCI cars with M bumper without fog lights only

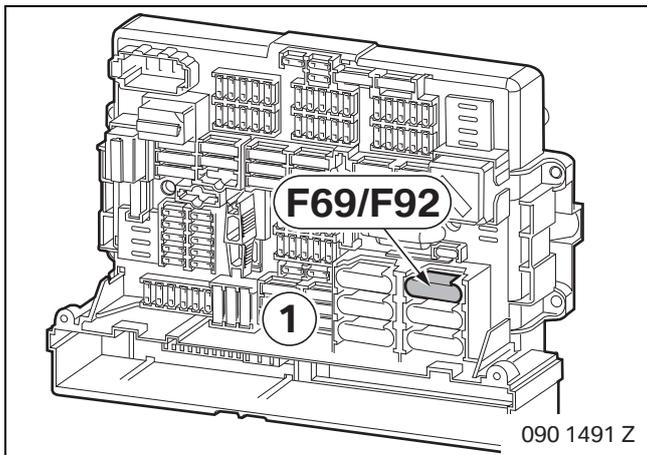
Remove left finisher holder (1) (no longer required) and replace with finishers **AX** and finisher holder **AY**.

16. Concluding work and coding



Cars built before 3/07 only

Remove fuse **F69** from front fuse holder (1) (it is no longer needed).

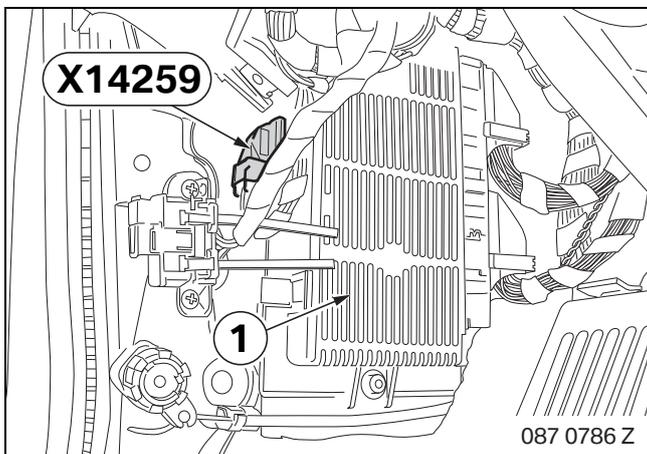


Cars built between 3/07 and 9/07 only

Remove fuse **F69** from front fuse holder (1) (it is no longer needed).

Cars built after 9/07 only

Remove fuse **F92** from front fuse holder (1) (it is no longer needed).



E92/E93 LCI cars with M bumper and fog light only

Disconnect plug **X14259** from the footwell module (1) and open it.

Disconnect the yellow/white cable from pin 15, insulate it and tie it back.

16. Concluding work and coding

The retrofit system requires coding.

- Connect the battery.
- Fill and bleed the coolant system as directed and check the coolant system for leaks (see ISTA 17 00 005).

Requesting the release code

- Remove the release code certificate **L** from the red envelope.
- Log into the ASAP portal.
- On the "Service/Technology" page, open the "Sweeping Technologies" menu and menu item "Request Tuning Kit FSC".
- In the "Chassis number" field, enter the last seven digits of the chassis number.
- In the "SN" field, enter the serial number and in the "Key" field enter the alphanumeric combination from the activation code certificate.

 Be aware that your entries are case-sensitive.
If you enter the data incorrectly 10 times, the certificate will be blocked. ◀

- Then click the "Request" button. Once the activation code has been generated, you will automatically be forwarded to the "Download activation codes" area.
- Store the activation code on a suitable medium and keep it handy for the programming process.

Programming/coding

 The retrofit must be carried out with ISSS (use the latest software version!) ◀

- Connect the car with the ISSS using ICOM. Vehicle identification begins automatically.
- Confirm the control unit replacement with "No".
- After identification, switch to the "Vehicle" menu and then select the tab "Conversions".
- Select the conversion performed and click "Determine action plan" below.
- Select "Accept action plan".
- Then follow the instructions.
- After programming, carry out a vehicle test and observe the instructions in the follow-on work list.

 If the action "Disable DME/DDE" action should appear in the concluding report, always change the terminals.
After changing the terminals, continue with the standard diagnostic process (continue with the car test) and delete any error memory entries. You must ensure that no error memory entries are still present. ◀

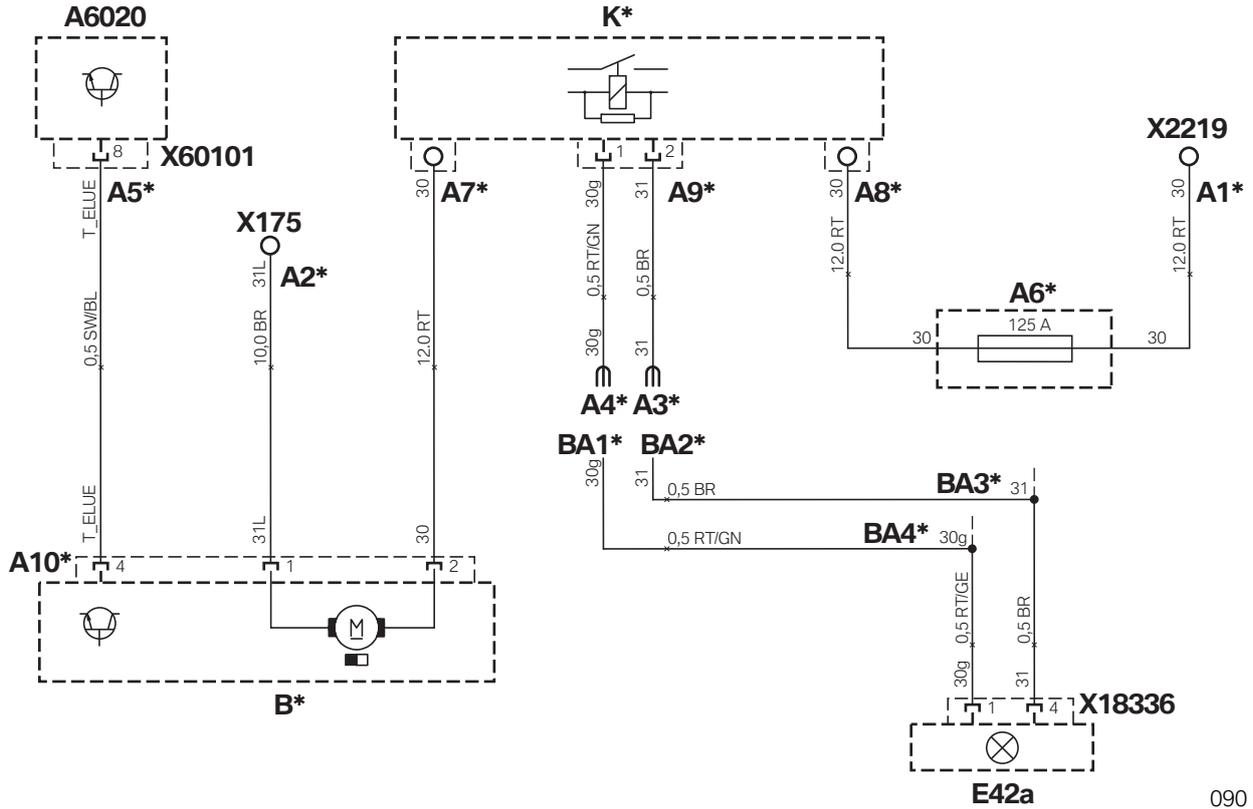
- On E92/E93 LCI cars with M bumper and fog light, the NSW function must also be disabled via ISSS.
- Re-assemble the car.

Workshop certificate

Print out the "Workshop certificate" section at the end of the installation instructions, fill it in and give it to the customer.

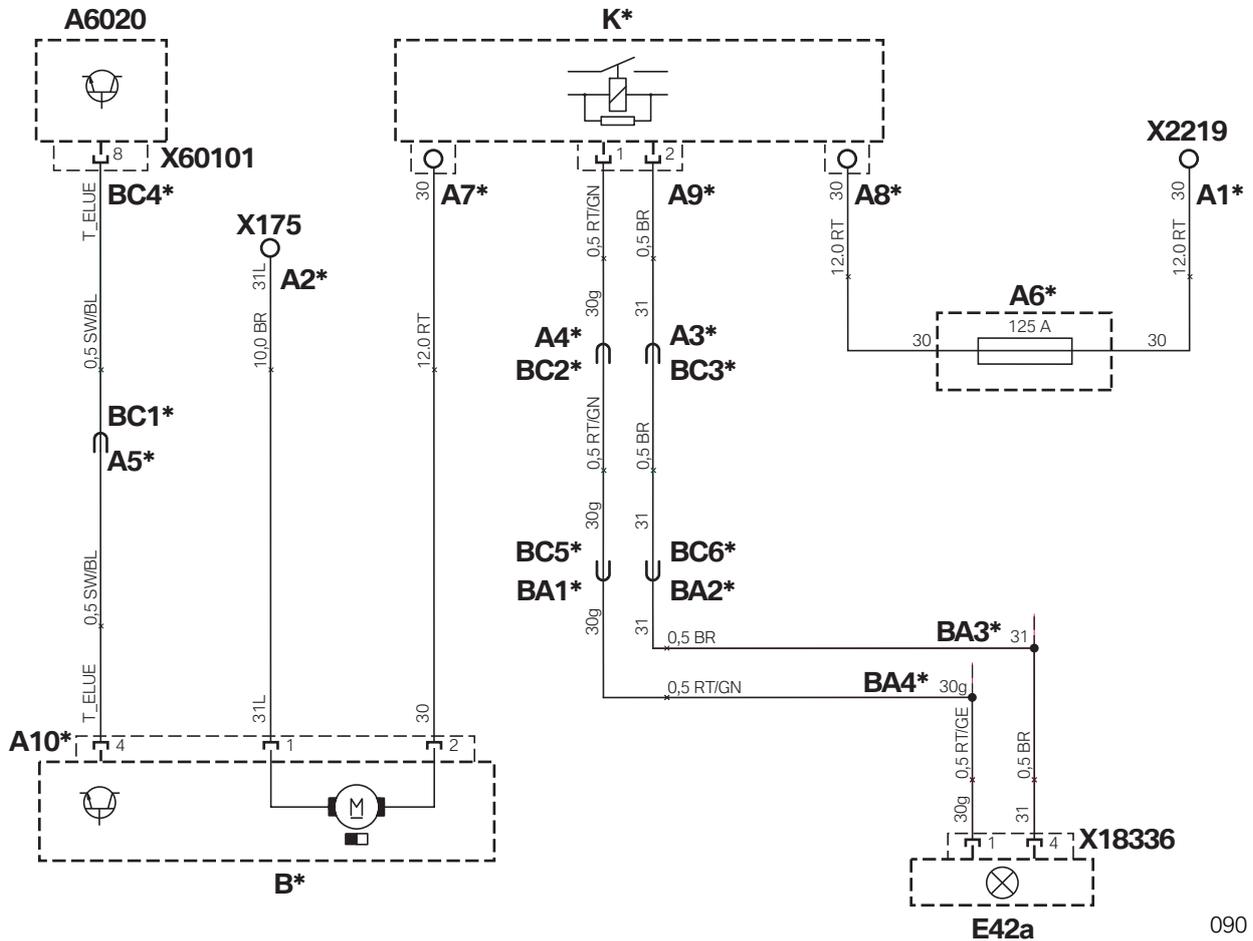
17. Wiring diagram

LHD cars with N54 engine only



090 1492 Z

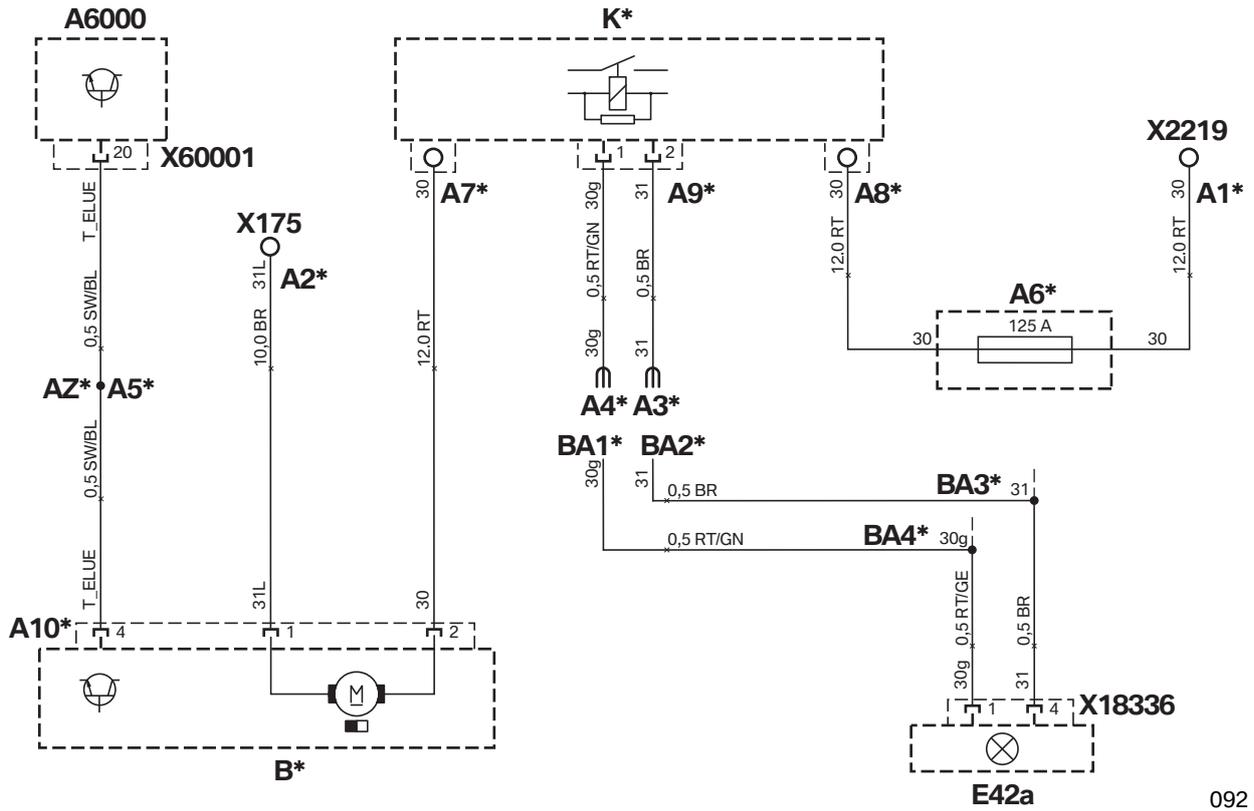
RHD cars with N54 engine only



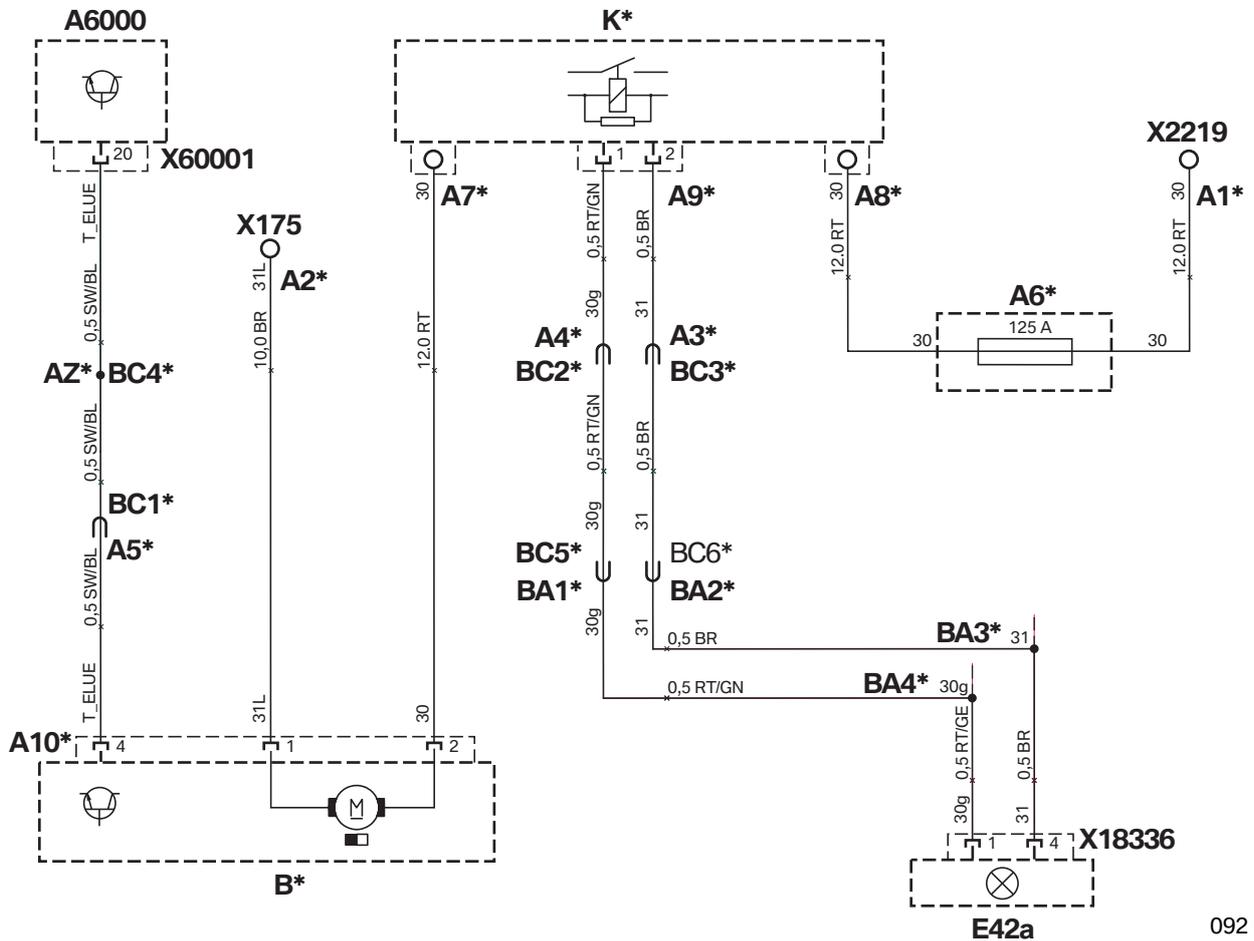
090 1501 Z

17. Wiring diagram

LHD cars with N55 engine only



RHD cars with N55 engine only



17. Wiring diagram

Legend

- A1*** Eyelet, on B+ post **X2219**
- A2*** Ring eyelet, on earth pin **X175**
- A3*** Butt connector on the cable of the original fan relay (only cars built after 3/07) or on branch **BA2*** (only cars built before 3/07) or on branch **BC3*** (only RHD cars)
- A4*** Butt connector on the cable of the original fan relay (only cars built after 3/07) or on branch **BA1*** (only cars built before 3/07) or on branch **BC2*** (only RHD cars)
- A5*** **Cars with N54 engine only**
Socket contact on DME control unit A6020, plug X60101, GR 26-pin or on branch **BC1*** (RHD cars only)
- Cars with N55 engine only**
Socket contact, on separated SW/BL cable (0.5 mm²) from PIN 20 of plug **X60001** from the DME control unit or on branch **BC1*** (RHD cars only)
- A6*** Fuse holder 125 A
- A7*** Eyelet, on fan relay **K***
- A8*** Eyelet, on fan relay **K***
- A9*** SW 2-pin socket casing, on fan relay **K***
- A10*** SW 4-pin socket casing, on electric fan **B***
-
- BA3*** Cable with insulation-piercing connector on glovebox light **E42a**, plug **X18336**, SW 4-pin (only cars built before 3/07)
- BA4*** Cable with insulation-piercing connector on glovebox light **E42a**, plug **X18336**, SW 4-pin (only cars built before 3/07)
-
- BC4*** Socket contact on DME control unit **A6020**, plug **X60101**, GR 26-pin (RHD cars only)
- BC5*** Butt connector on the cable of the original fan relay or on branch **BA1*** (RHD cars only)
- BC6*** Butt connector on the cable of the original fan relay or on branch **BA2*** (RHD cars only)

All the designations marked with an asterisk (*) apply only to these installation instructions or this wiring diagram.

Cable colours

BL	Blue	GN	Green	RT	Red
BR	Brown	GR	Grey	SW	Black

Workshop certificate

BMW Performance Power Kit

This is to confirm that the BMW Performance Power Kit
11 12 2,157,664 or
11 12 2,157,665 or
11 12 2 184 495
has been completely installed on the car identified below.

Specifically, the following components have been modified and/or retrofitted:

1. Additional radiator with holder
2. Air guides on additional radiator
3. Cooling water supply hose
4. Cooling water return hose
5. Electric fan
6. Fan relay with holder
7. Electric fan wiring harness with 125 A fuse
8. Spark plugs (only for cars built before 3/09 or with more than 60,000 km / 45,000 miles on the clock)

Car type: BMW 135i (E82/E88)
BMW 335i (E90/E91/E92/E93)

Vehicle identification no.:

Vehicle owner
Name and address:
.....
.....
.....
.....

.....
Place, date

.....
Signature of person responsible

Dealership (company name / stamp)