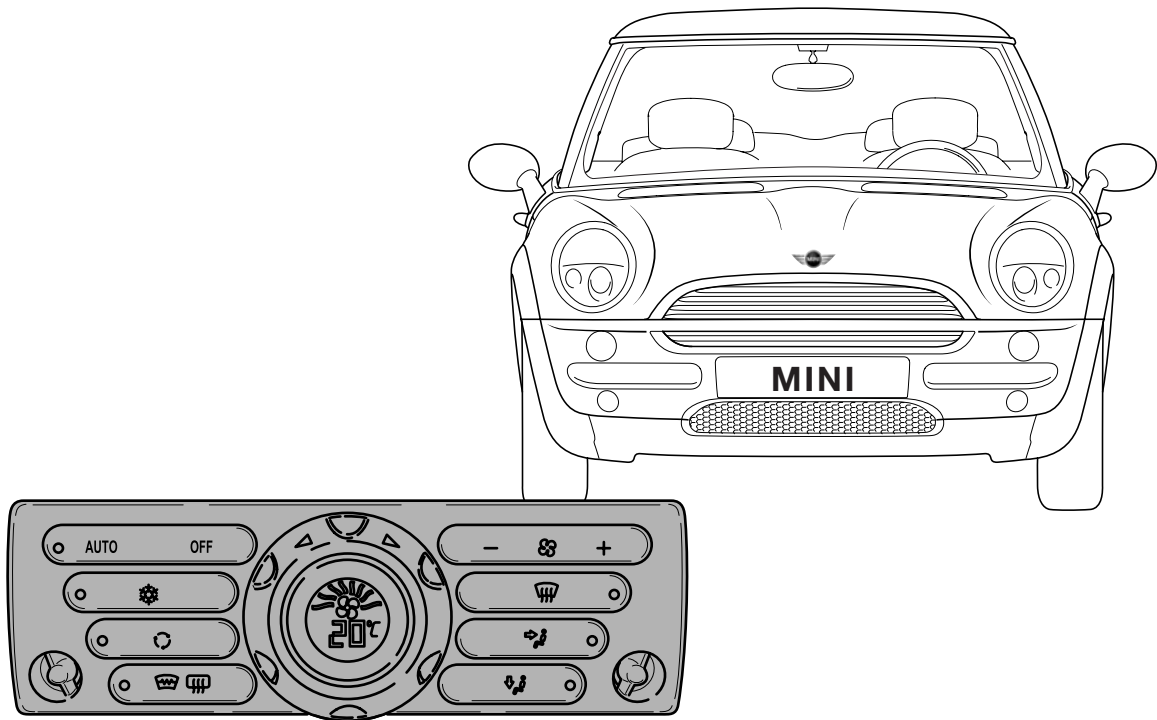




# Parts and Accessories Installation Instructions



R50 0177 Z

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## Automatic air conditioning retrofit kit MINI (R 50) LHD and RHD

The installation time is approx. 12 -13 hours, but this may vary depending on the condition of the car and the equipment in it.

Retrofit kit: 64 50 0 029 509 LL  
64 50 0 029 689 RL

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## **Important information**

### **Installation information**

All work is shown on a LHD car. On RHD cars some work must be completed the opposite way round.

Do not remove the sealing stoppers from all parts of the refrigerant system until shortly before installation since otherwise the ingress of moisture may damage the system.

Wet all seals and O rings with refrigerator oil before installing them.

The air conditioning system must be coded (see section headed Coding).

Do not kink or damage the cables during the installation work since otherwise they may cause faults that can later only be identified by extensive additional work. The costs incurred as a result of this will not be reimbursed.

If the specified PIN chambers are occupied, bridges, double crimps or twin-lead terminals must be used.

### **Target group**

These installation instructions are primarily designed for use within the MINI dealership organisation and by authorised MINI service companies. In any event the target group for these installation instructions is specialist personnel trained on MINI cars with the appropriate specialist knowledge.

#### **Work:**

All servicing, repair and installation work on MINI cars is completed at your own risk.

All work is to be carried out using current MINI

- Repair manuals
- Circuit diagrams

in a rational order using the prescribed tools (special tools) and observing current health and safety regulations.

### **Required tools and equipment**

Set of flat screwdrivers

Set of Philips screwdrivers

Set of Torx screwdrivers

1/4 inch socket set

1/4 inch Torx socket set

1/4 torque wrench

Set of open-ended/ring spanners


Set of Allen keys

Angle cutter

Combination pliers

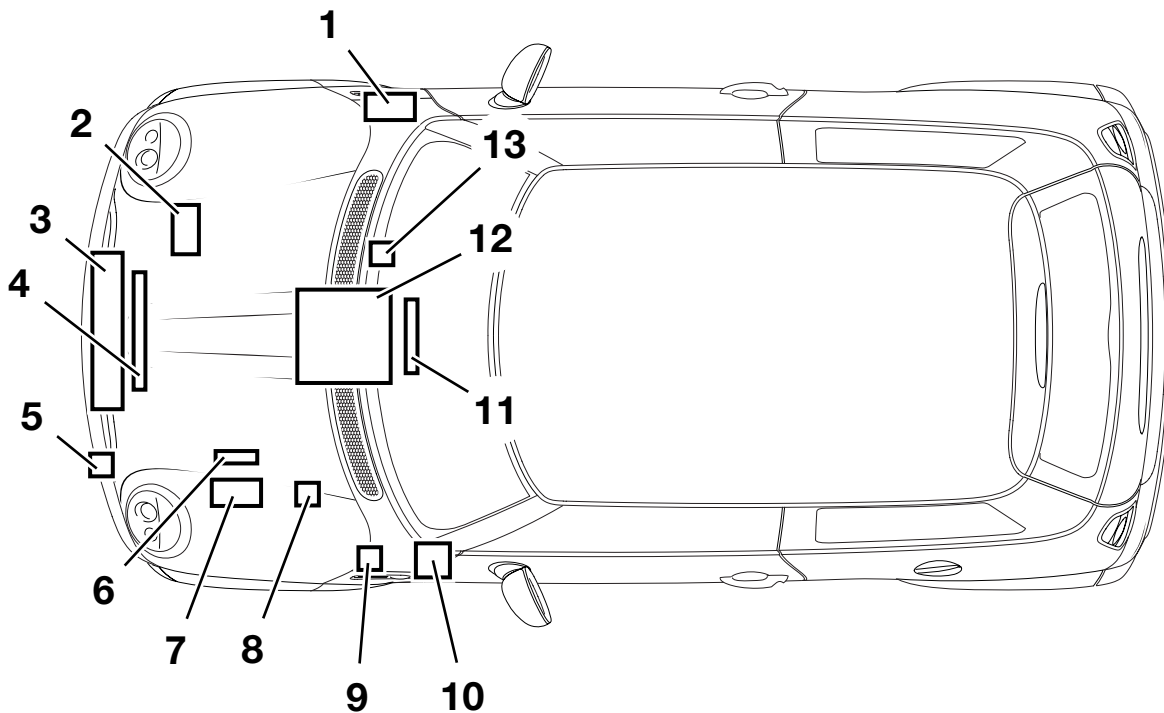
Torch

## 1. Preparations

	<b>TIS instruction No.</b>
 Refer to the safety instructions for handling components of the airbag system. ◀	32 34 ...
Disconnect the negative pole of the battery	61 21 010
Remove the battery and battery box	61 21 020
<b>The following components must be removed first of all:</b>	
Drain the cooling water	17 00 005
Front end module	41 33 040
Water cooler and engine fan	17 11 100
Coolant hose from the water pump	
Air filter housing	13 71 000
Ribbed V-belt	11 28 010
Door sill strips left and right	51 47 000
Top instrument trim	51 45 051
Radio with receiver	65 11 030
Panel of switches	61 31 059
Instrument panel	51 45 030
Heater	64 11 200

To prevent cooling water getting into the passenger compartment as you remove the heater, carefully blow out the return port with compressed air (max. 1 bar pressure).

## 2. Installation and cabling diagram

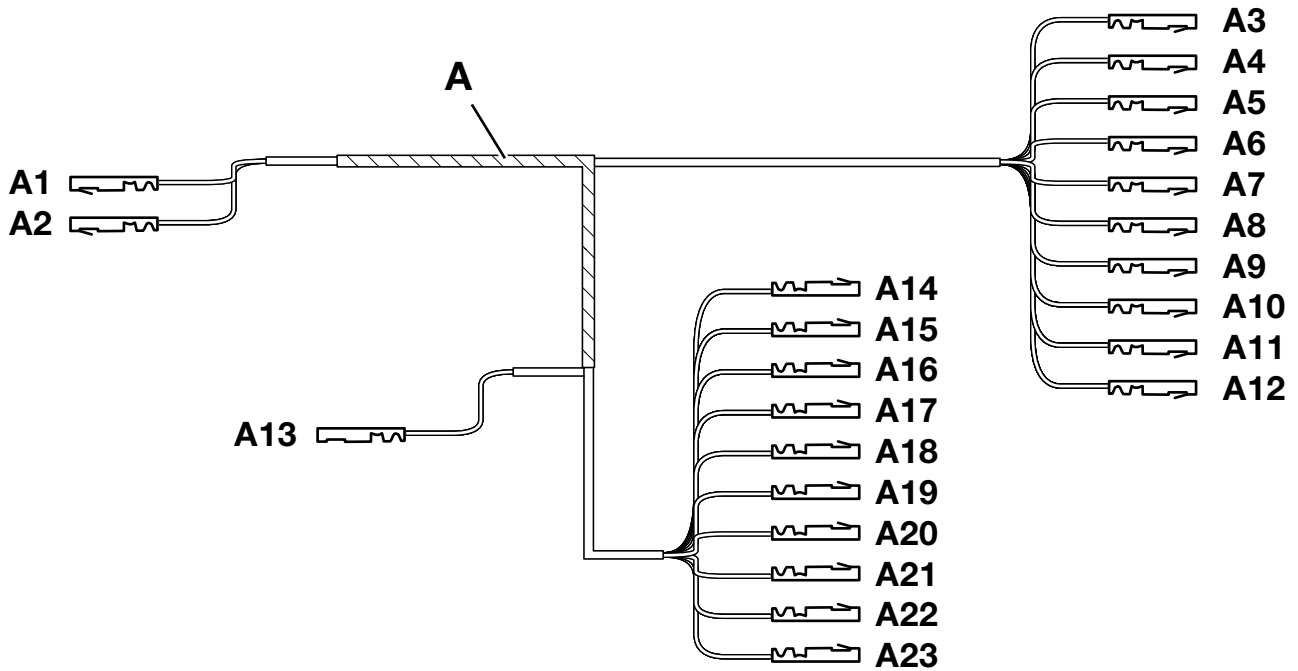


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### Legend

- 1 Base module D
- 2 Air conditioning compressor
- 3 Condenser with drier bottle
- 4 Fan
- 5 External temperature sensor (cars without on-board computer/xenon headlights)
- 6 DME control module
- 7 Fuse holder III
- 8 Pressure sensor
- 9 Black 42-pin plug X15
- 10 Fuse holder II
- 11 Tachometer instrument panel
- 12 Heater/air conditioning unit with control
- 13 White 18-pin plug X1527

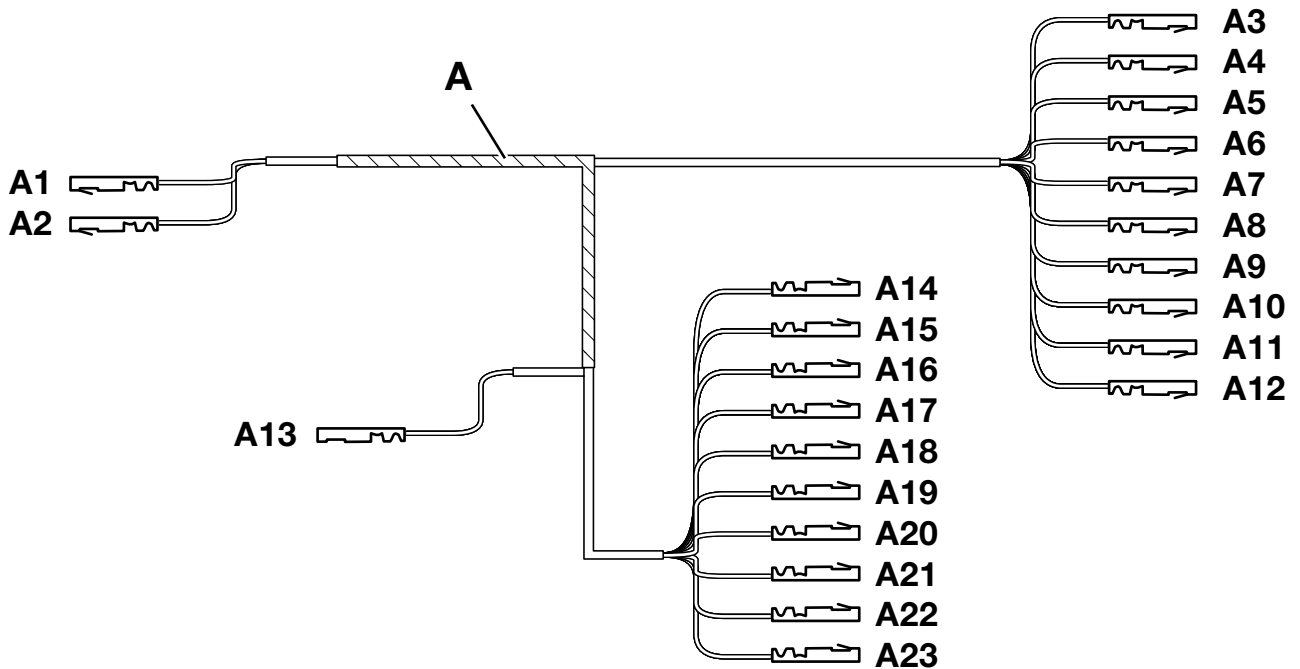
### 3. Instrument panel wiring harness connection overview



R 50 0135 Z

Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
A	Wiring harness A instrument panel	---	---	---	---
A1	Socket contact	R<29	RT/GE 0.5 mm <sup>2</sup>	To black 42-pin plug on the left A pillar at the bottom	X15 PIN 18
A2	Socket contact	BLOW_MS	GE/SW 0.5 mm <sup>2</sup>	To black 42-pin plug on the left A pillar at the bottom	X15 PIN 38
A3	Socket contact	Rec_ON	GE/GN 0.5 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 4
A4	Socket contact	HHS	BR/GE 0.5 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 8
A5	Socket contact	Rec_LED	GE/OR 0.5 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 13
A6	Socket contact	LED	BL/GE 0.5 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 16
A7	Socket contact	AC_LED	GR/BL 0.5 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 17
A8	Socket contact	A/C_Ein	GR/GN 0.5 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 23
A9	Socket contact	K-Bus II	WS/RT/GE 0.35 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 28
A10	Socket contact	BLOW_MS	GE/SW 0.5 mm <sup>2</sup>	To black 42-pin plug on the left A pillar at the bottom	X255 PIN 30
A11	Socket contact	EVAPT+	SW/RT 0.5 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 33
A12	Socket contact	EVAPT-	BR/BL 0.5 mm <sup>2</sup>	To blue 54-pin plug on base module D	X255 PIN 35

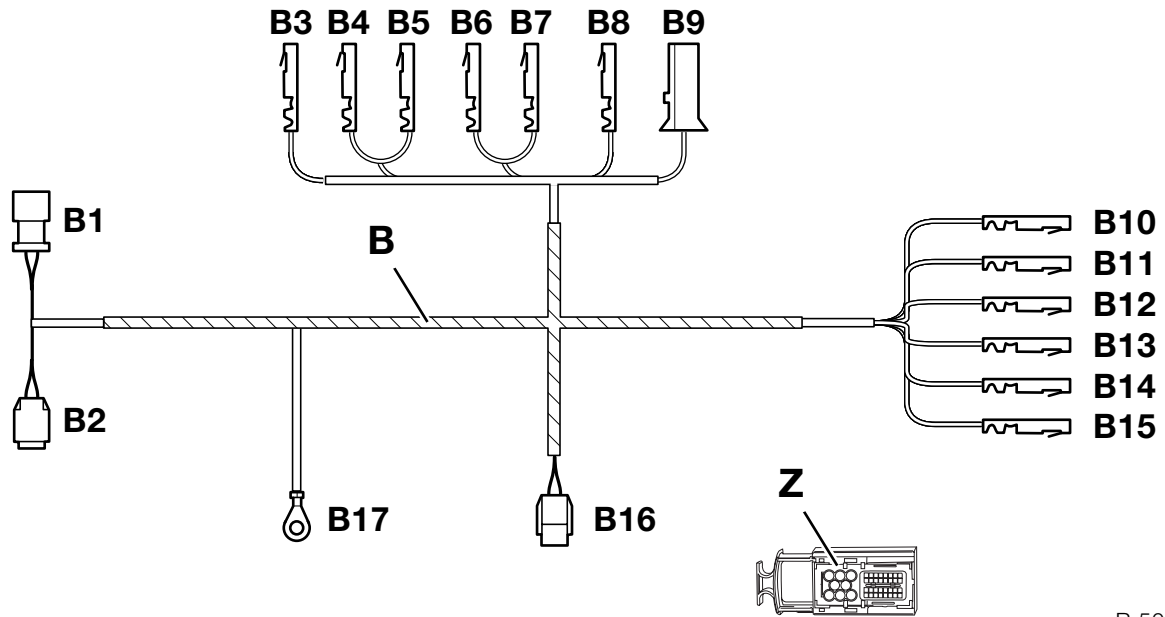
### 3. Instrument panel wiring harness connection overview



R 50 0135 Z

Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
A13	Socket contact	K-Bus II	WS/RT/GE 0.35 mm <sup>2</sup>	To black 12-pin plug on tachometer instrument panel	X11175 PIN 5
A14	Socket contact	Rec_LED	GE/OR 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 1
A15	Socket contact	Rec_ON	GE/GN 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 2
A16	Socket contact	EVAPT+	SW/RT 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 4
A17	Socket contact	LED	BL/GE 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 7
A18	Socket contact	HHS	BR/GE 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 8
A19	Socket contact	A/C_Ein	GR/GN 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 10
A20	Socket contact	AC_LED	GR/BL 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 11
A21	Socket contact	K bus	WS/RT/GE 0.35 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 15
A22	Socket contact	R<29	RT/GE 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 16
A23	Socket contact	EVAPT-	BR/BL 0.5 mm <sup>2</sup>	To white 18-pin plug at top right of heater/air conditioning unit	X1527 PIN 17

## 4. Engine compartment wiring harness connection overview

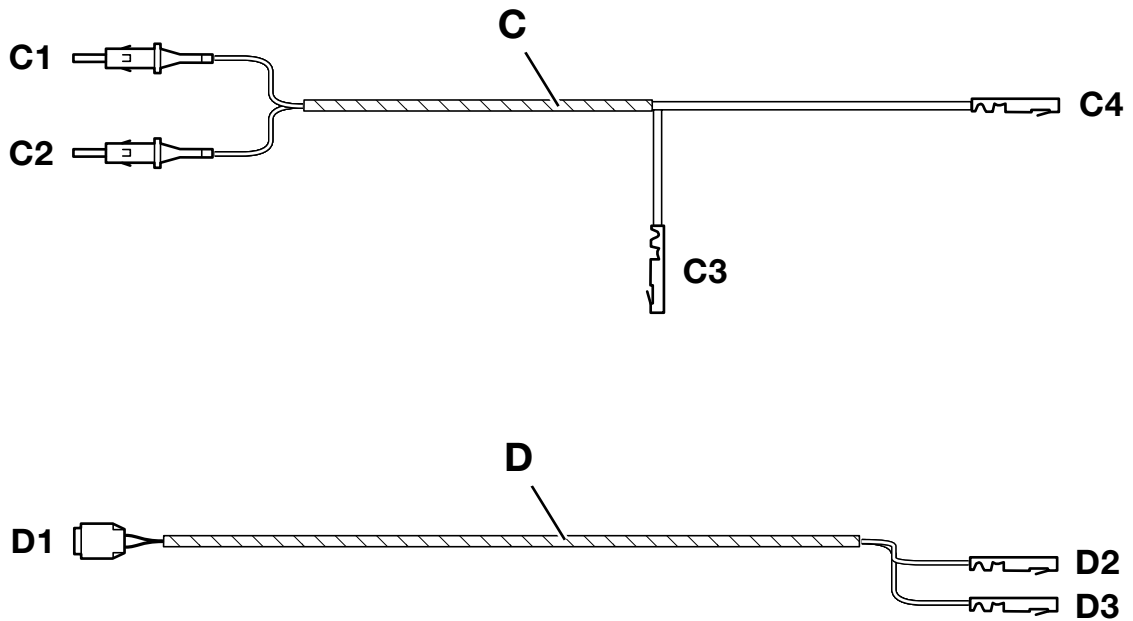


R 50 0136 Z

Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
B	Wiring harness <b>B</b> engine compartment	---	---	---	---
B1	SW 4-pin socket casing	---	---	On auxiliary fan	X53
B2	SW 2-pin socket casing	---	---	On auxiliary fan	X5301
B3	Socket contact	15<5	GN/RT 0.5 mm <sup>2</sup>	To blue 10-pin plug on fuse holder III	X4009 PIN 2
B4	Socket contact	DME_FAN	BR/GE 0.75 mm <sup>2</sup>	To black 10-pin plug on fuse holder III	X4010 PIN 2
B5	Socket contact	30_15_R	BR/SW/GE 0.5 mm <sup>2</sup>	To black 10-pin plug on fuse holder III	X4010 PIN 7
B6	Socket contact	15<5	GN/SW 0.5 mm <sup>2</sup>	To white 12-pin plug on fuse holder III	X4013 PIN 11
B7	Socket contact	15<5	GN/SW 0.5 mm <sup>2</sup>	To white 12-pin plug on fuse holder III	X4013 PIN 12
B8	Socket contact	15<8	RT/BL 2.5 mm <sup>2</sup>	To white 4-pin plug on fuse holder III	X4014 PIN 1
B9	BL 3-pin socket casing	---	---	To fuse holder III	X4015
B10	Socket contact	FAN_1	BR/GE 0.75 mm <sup>2</sup>	To DME control module	X60004 PIN 88
B11	Socket contact	DSA	SW/GR 0.35 mm <sup>2</sup>	To DME control module	X60004 PIN 90
B12	Socket contact	EGR	SW/GN 0.35 mm <sup>2</sup>	To DME control module	X60004 PIN 91
B13	Socket contact	KO_E	BR/SW/GE 0.5 mm <sup>2</sup>	To DME control module	X60004 PIN 94
B14	Socket contact	FAN_2	BR/GN 0.5 mm <sup>2</sup>	To DME control module	X60004 PIN 95
B15	Socket contact	KBE	BR/SW 0.5 mm <sup>2</sup>	To DME control module	X60004 / PIN 100
B16	SW 3-pin socket casing	---	---	To pressure sensor	X12600
B17	Cable eyelet	Terminal 31	BR4.0 mm <sup>2</sup>	To the joint connector under the left bonnet catch	X175
Z	SW 40-pin socket casing	---	---	To DME control module	X60004



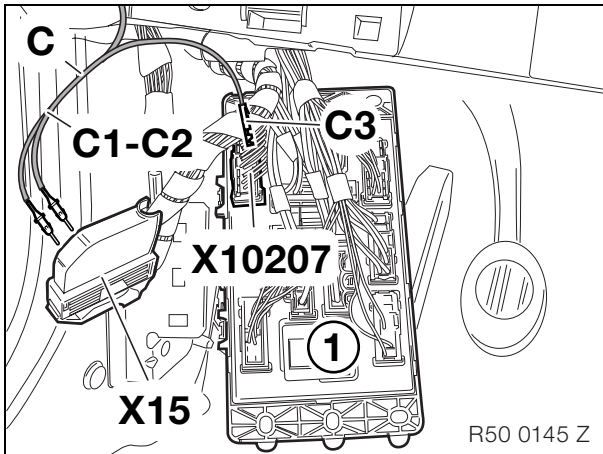
## 5. Power supply and external temperature sensor wiring harness connection overview



R 50 0137 Z

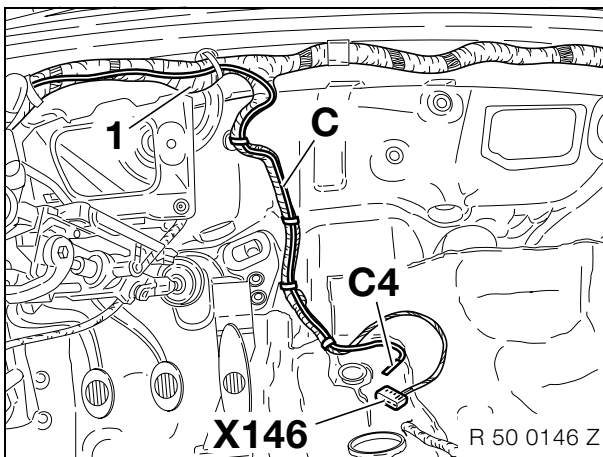
Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
C	Wiring harness C power supply	---	---	---	---
C1	Plug contact	R<29	RT/GE 0.5 mm <sup>2</sup>	To black 42-pin plug on the left A pillar at the bottom	X15 PIN 18
C2	Plug contact	BLOW_MS	GE/SW 0.5 mm <sup>2</sup>	To black 42-pin plug on the left A pillar at the bottom	X15 PIN 38
C3	Socket contact	R<29	RT/GE 0.5 mm <sup>2</sup>	To violet 12-pin plug on fuse holder II	X10207 PIN 4
C4	Socket contact	BLOW_MS	GE/SW 0.5 mm <sup>2</sup>	To black 4-pin plug at top right of heater/air conditioning unit	X146 PIN 3
D	Wiring harness D external temperature sensor	---	---	Only required for cars without on-board computer / xenon headlights	---
D1	SW 2-pin socket casing	---	---	To external temperature sensor	X770
D2	Socket contact	T(-)	BL/BR 0.5 mm <sup>2</sup>	To black 26-pin plug on the tachometer instrument panel	X11177 PIN 11
D3	Socket contact	T(+)	BL/RT 0.5 mm <sup>2</sup>	To black 26-pin plug on the tachometer instrument panel	X11177 PIN 24

## 6. To install and connect the power supply wiring harness



Connect wiring harness **C** to the fuse holder II (1) as follows:

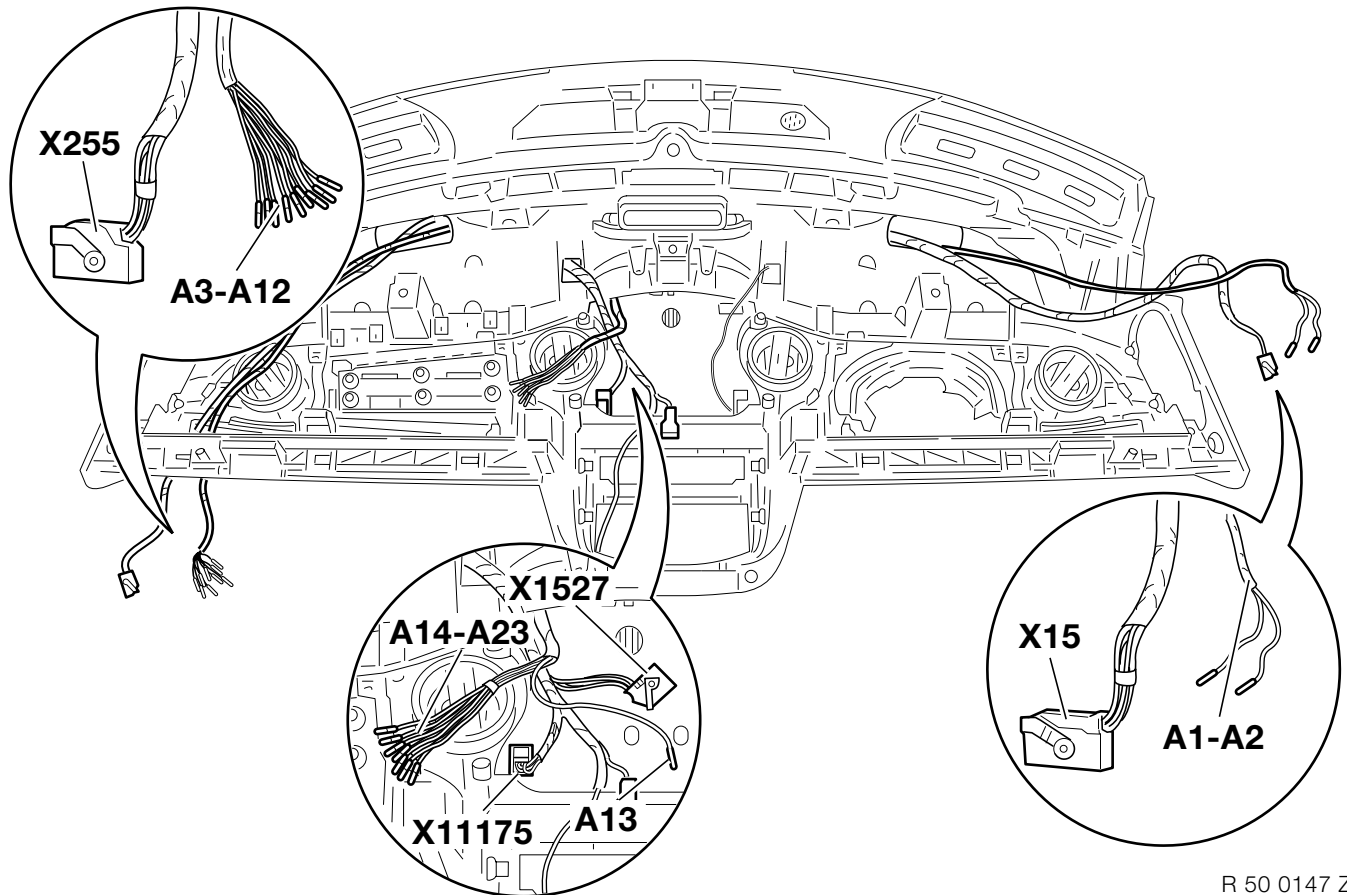
- Connect branch **C1**, RT/GE cable, to **PIN 18** in plug **X15** .
- Connect branch **C2**, GE/SW cable, to **PIN 38** in plug **X15** .
- Connect branch **C3**, RT/GE cable, to **PIN 4** in plug **X10207** .



Connect branch **C4** along the standard wiring harness (1) to plug **X146** and secure it with cable ties.

Connect branch **C4**, GE/SW cable, to **PIN 3** in plug **X146** .

## 7. To install and connect the instrument panel wiring harness

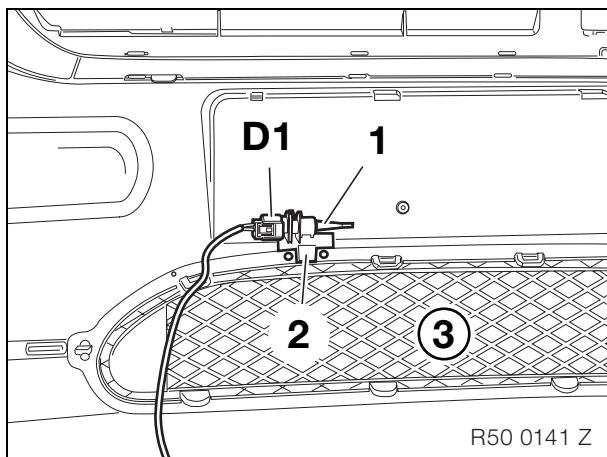


R 50 0147 Z

Install wiring harness **A** into the instrument panel as shown. Attach it with cable ties and connect as follows:

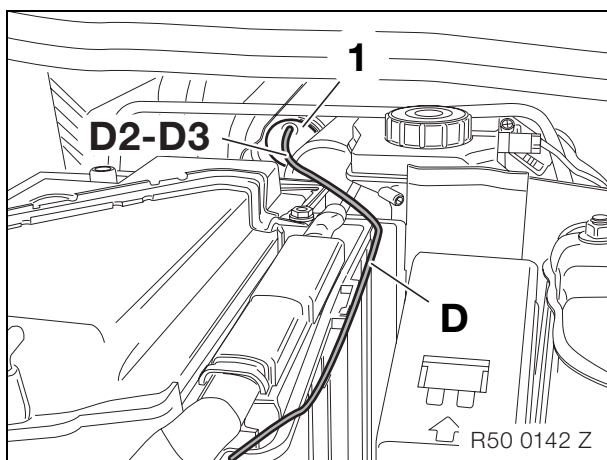
- Branch **A1**, RT/GE cable, to **PIN 18** in plug **X15**
- Branch **A2**, GE/SW cable, to **PIN 38** in plug **X15**
  
- Branch **A3**, GE/GN cable, to **PIN 4** in plug **X255**
- Branch **A4**, BR/GE cable, to **PIN 8** in plug **X255**
- Branch **A5** GE/OR cable, to **PIN 13** in plug **X255**
- Branch **A6** BL/GE cable, to **PIN 16** in plug **X255**
- Branch **A7** BL/GR cable, to **PIN 17** in plug **X255**
- Branch **A8** GR/GN cable, to **PIN 23** in plug **X255**
- Branch **A9** WS/RT/GE cable, to **PIN 28** in plug **X255**
- Branch **A10** GE/SW cable, to **PIN 30** in plug **X255**
- Branch **A11** SW/RT cable, to **PIN 33** in plug **X255**
- Branch **A12** BR/BL cable, to **PIN 35** in plug **X255**
  
- Branch **A13** WS/RT/GE cable, to **PIN 5** in plug **X11175**
  
- Branch **A14** GE/OR cable, to **PIN 1** in plug **X1527**
- Branch **A15** GE/GN cable, to **PIN 2** in plug **X1527**
- Branch **A16** SW/RT cable, to **PIN 4** in plug **X1527**
- Branch **A17** BL/GE cable, to **PIN 7** in plug **X1527**
- Branch **A18** BR/GE cable, to **PIN 8** in plug **X1527**
- Branch **A19** GR/GN cable, to **PIN 10** in plug **X1527**
- Branch **A20** BL/GR cable, to **PIN 11** in plug **X1527**
- Branch **A21** WS/RT/GE cable, to **PIN 15** in plug **X1527**
- Branch **A22** RT/GE cable, to **PIN 16** in plug **X1527**
- Branch **A23** BR/BL cable, to **PIN 17** in plug **X1527**

## 8. To install and connect the external temperature sensor wiring harness (cars without on-board computer / xenon headlights only)



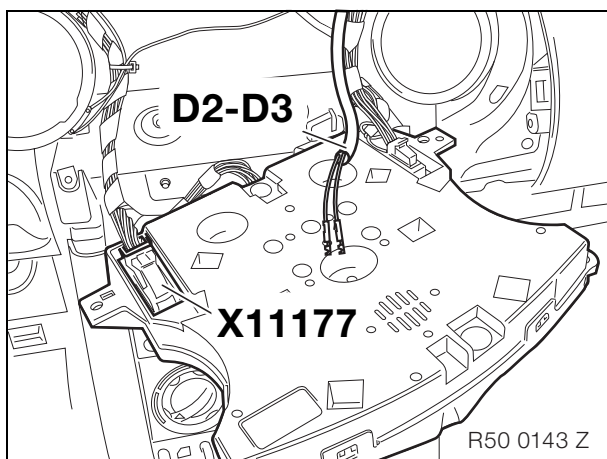
Insert the external temperature sensor (1) into the holder (2) and clip it into the front bumper trim (3) as shown.

Connect branch **D1**, SW 2-pin plug, to the external temperature sensor (1).



Lay wiring harness D along the standard wiring harness to the rubber grommet (1) and secure it with cable ties.

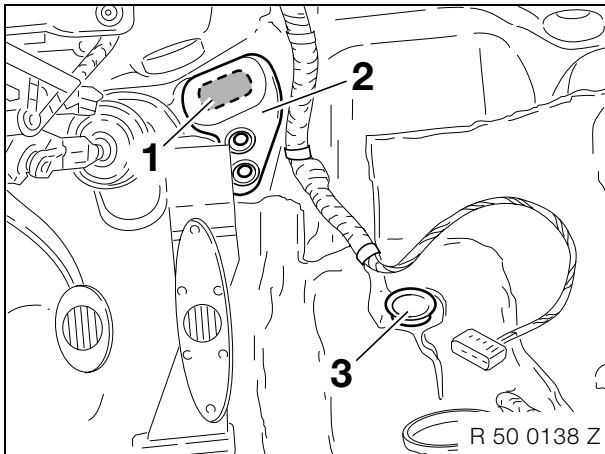
Lay branches **D2** and **D3** through the rubber grommet (1) to the tachometer instrument panel.



Connect branch **D2**, BL/BR cable, to PIN 11 on the SW 24-pin plug X11177.

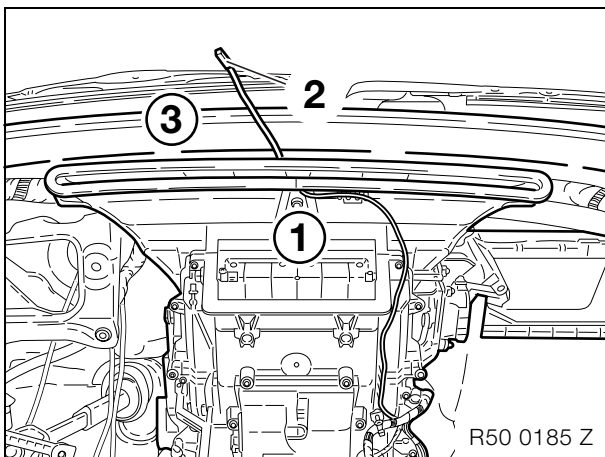
Connect branch **D3**, BL/RT cable, to PIN 24 on the SW 24-pin plug X11177.

## 9. To install and connect the air conditioning/heater



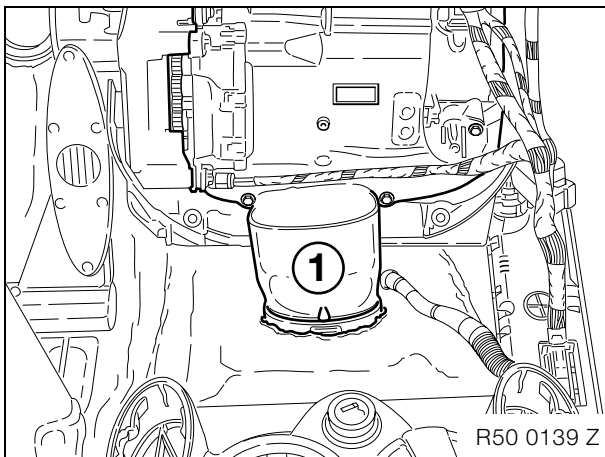
Cut the marked area (1) out of the passage grommet (2).

- ▶ Apply a light coat of oil to the openings in the passage grommet (2) and the condensation drain grommet (3) in order to facilitate mounting of the heater/air conditioning unit. ◀

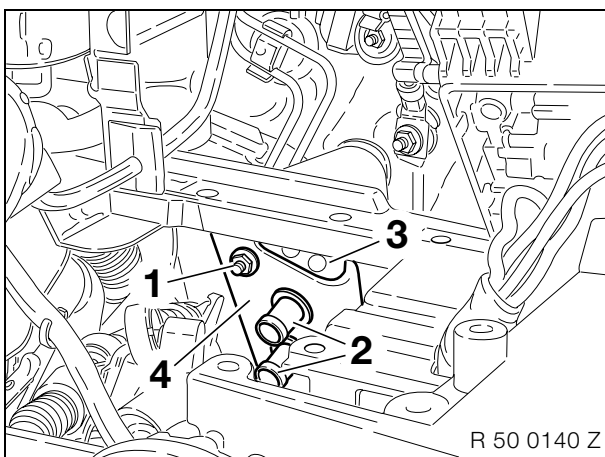


Carefully insert the enclosed heater/air conditioning unit (1).

- ▶ Make sure the black 2-pin plug (2) for the solar sensor is pulled through between the heater/air conditioning unit (1) and the front panel (3). ◀



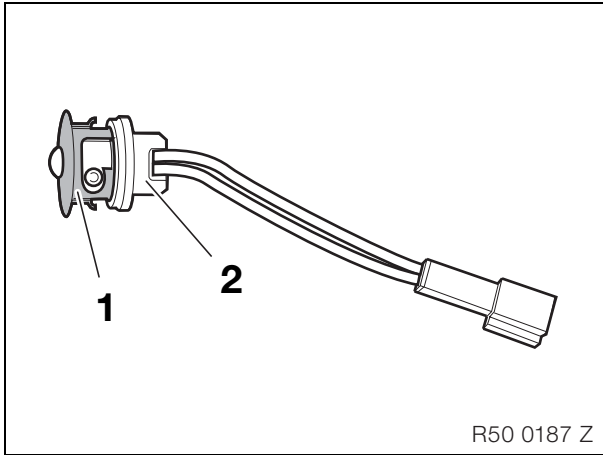
- ▶ Check the ventilation duct (1) and the condensation drain grommet (1) are correctly seated. ◀



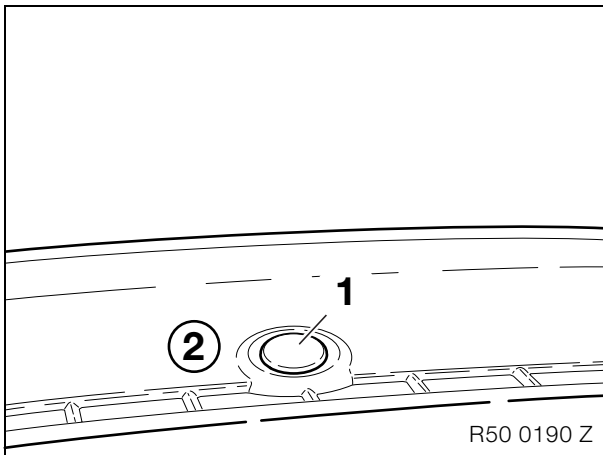
Secure the heater/air conditioning unit with the hexagonal nut (1) which was previously removed.

- ▶ Check the cooling water pipes (2) and the air conditioning line connection (3) are correctly seated in the passage grommet (4). ◀

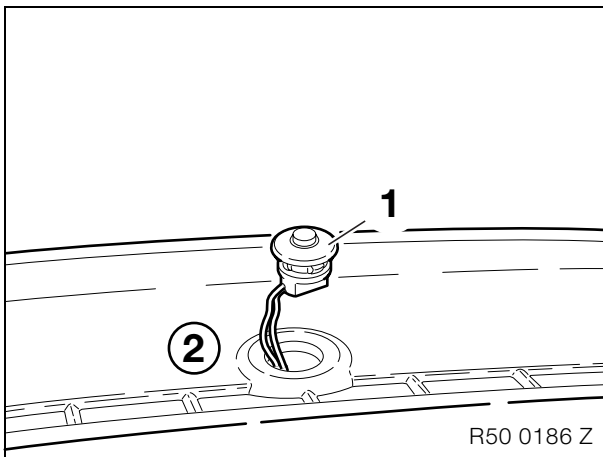
9. To install and connect the air conditioning/heater



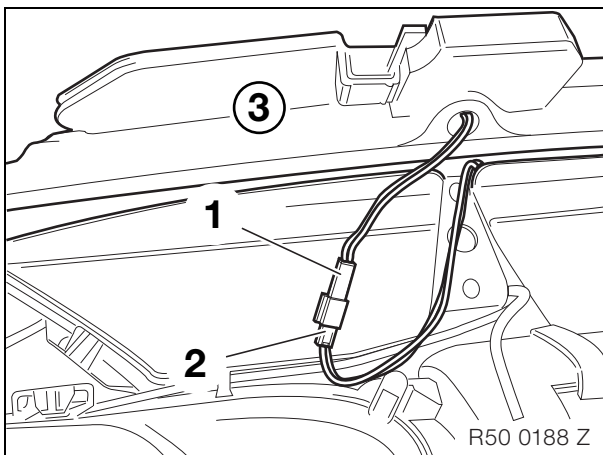
Assemble the enclosed holder (1) and solar sensor (2) as shown.



Unclip the cover (1) from the instrument panel (2).



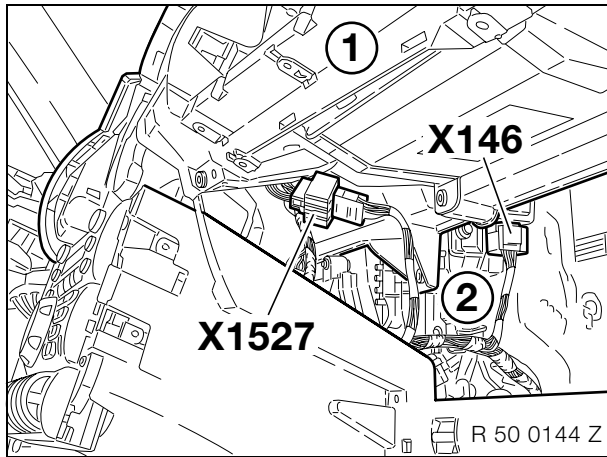
Clip the solar sensor (1) into the instrument panel (2).



Connect the 2-pin plug from the solar sensor (1) to the 2-pin plug (2) from the heater/air conditioning unit.

Re-install the instrument panel (3).

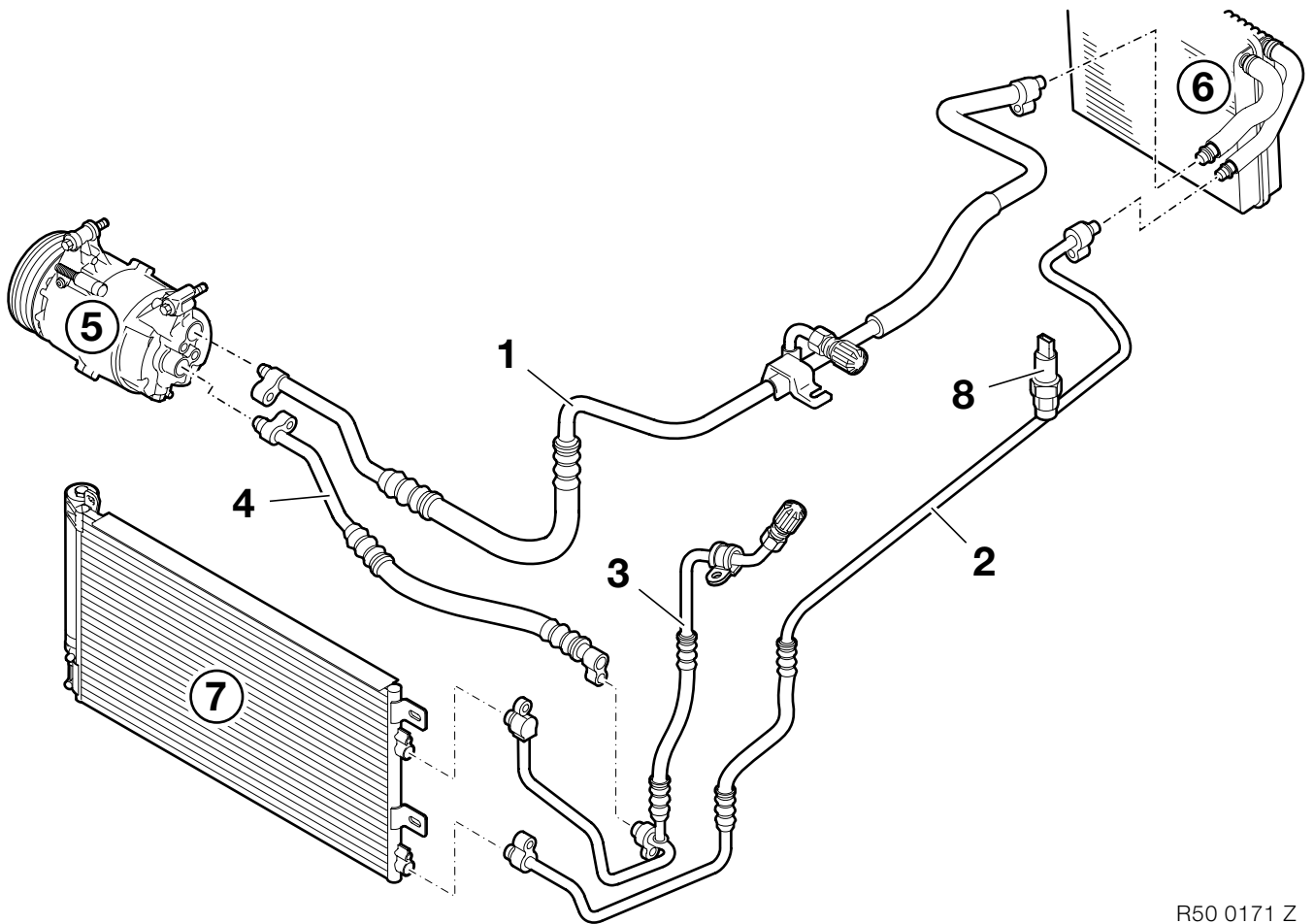
9. To install and connect the air conditioning/heater



Plug the black 4-pin plug **X146** into the heater/air conditioning unit (2).

Connect the white 18-pin plug **X1527** to the white 18-pin plug from the heater/air conditioning unit (2).

## 10. Overview of air conditioning lines



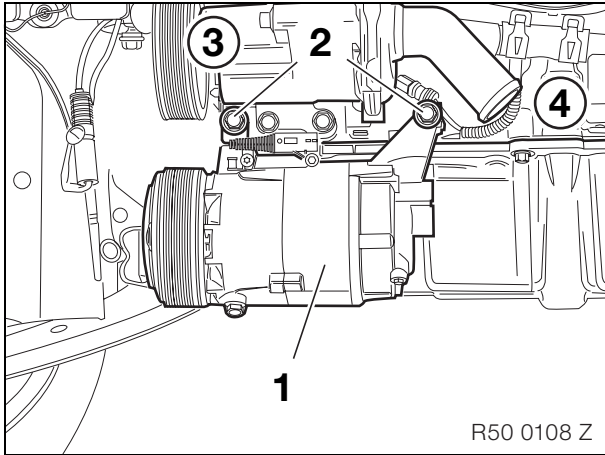
R50 0171 Z

### Legend

- 1 Intake line
- 2 Evaporator outfeed line
- 3 Condenser outfeed line
- 4 Compressor outfeed line
- 5 Air conditioning compressor
- 6 Evaporator of the heater/air conditioning unit
- 7 Condenser
- 8 Pressure sensor



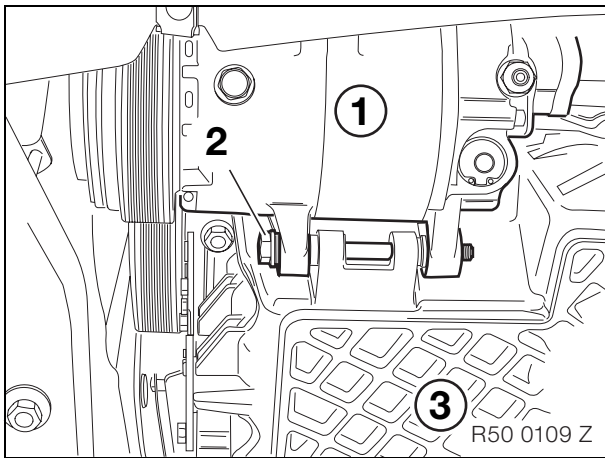
## 11. To install and connect the air conditioning compressor and lines



Screw the air conditioning compressor (1) to the engine block (4) beneath the water pump (3) using the hexagonal screws M8 x 50 mm (2).



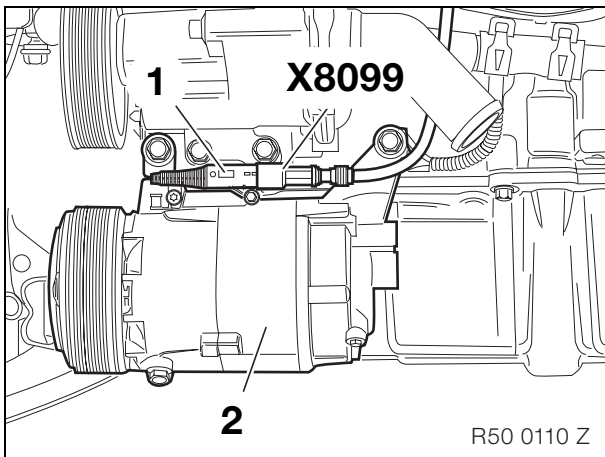
Tightening torque for the hexagonal screws 25 Nm. ◀



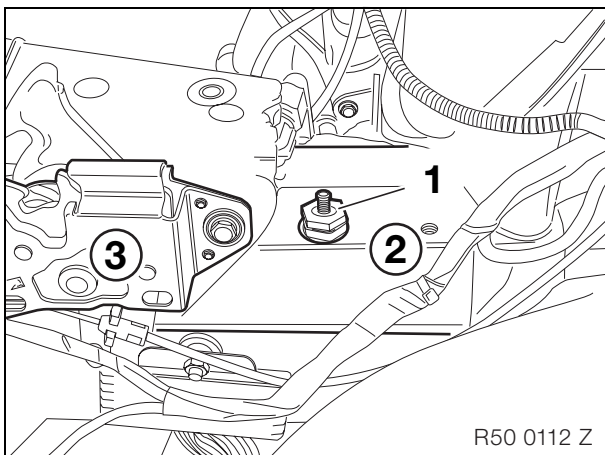
Screw the air conditioning compressor (1) to the oil sump (3) using the hexagonal screw M8 x 95 mm (2).



Tightening torque for the hexagonal screws 25 Nm. ◀

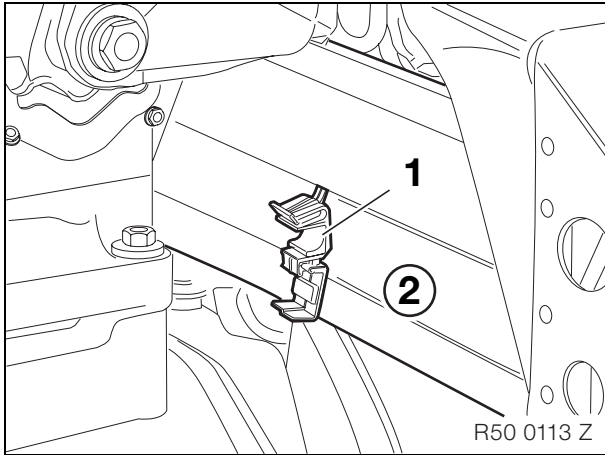


Unfasten the tied back black 1-pin plug **X8099** from the engine wiring harness and insert into connection (1) of the air conditioning compressor (2).

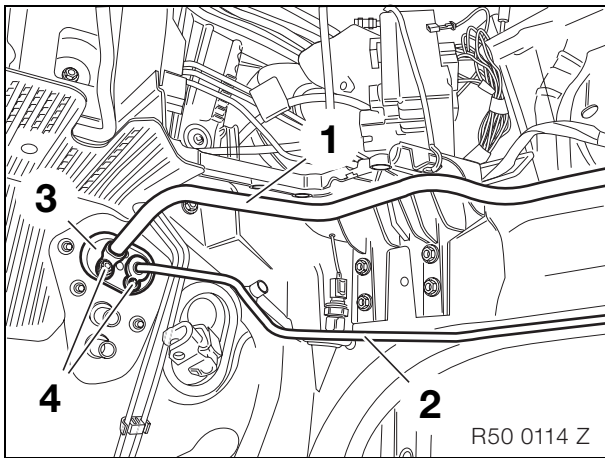


Screw the rubber buffer (1) into the left side member (2) next to the bonnet catch (3) as shown.


11. To install and connect the air conditioning compressor and lines

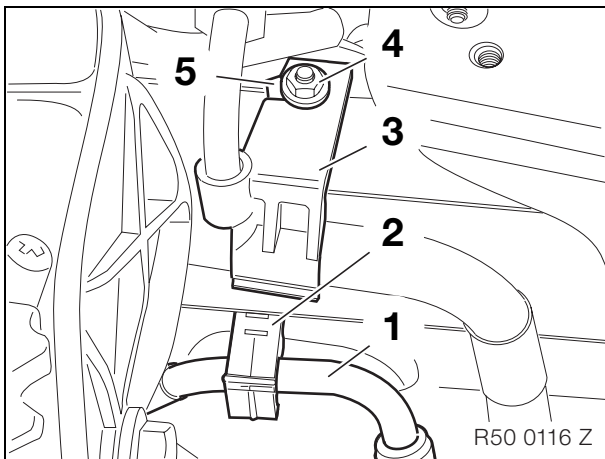


Clip the holder (1) for the evaporator outfeed line into the inside of the left side member (2).



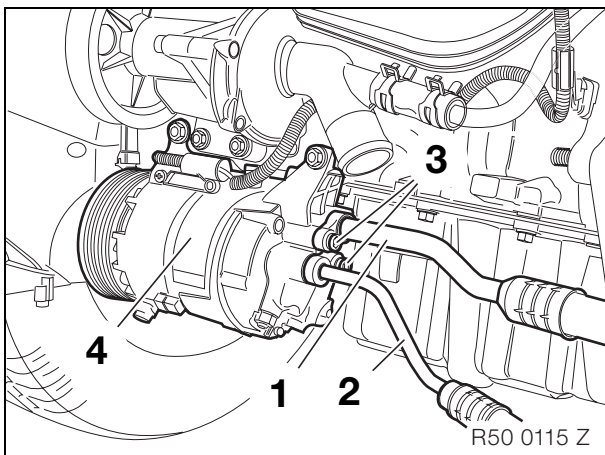
Screw the evaporator intake line (1) and outfeed line (2) onto the connection of the heater/air conditioning unit (3) using the enclosed hexagonal screws M6 x 20 mm (4).

 Tightening torque for the hexagonal screws 7.5 Nm. ◀



Clip the evaporator outfeed line (1) into the holder (2).

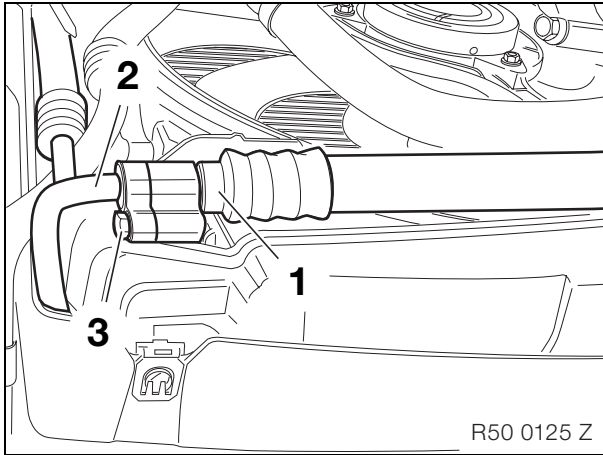
Screw the holder of the intake line (3) to the rubber buffer (5) using the enclosed hexagonal nut M6 (4).



Screw the compressor intake line (1) and outfeed line (2) to the air conditioning compressor (4) using the enclosed Allen bolts M8 x 25 (mm 3).

 Tightening torque for the Allen bolts 20 Nm. ◀

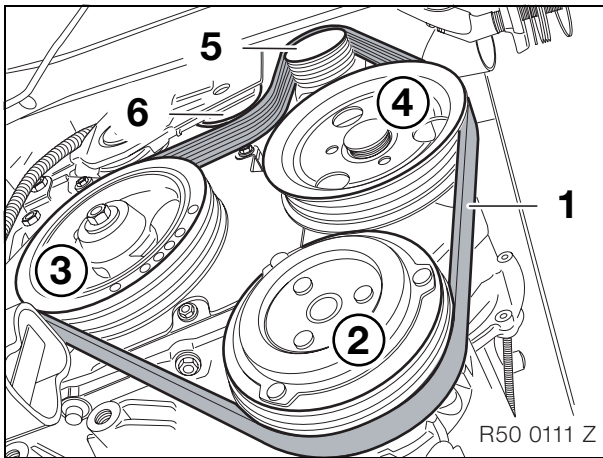
## 11. To install and connect the air conditioning compressor and lines



Screw together the compressor outfeed line (1) and condenser outfeed line (2) using the enclosed hexagonal screw M6 x 20 mm (3).



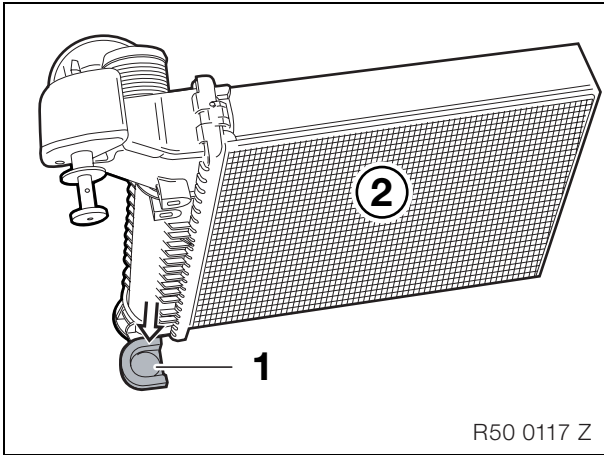
Tightening torque for the hexagonal screws  
7.5 Nm. ◀



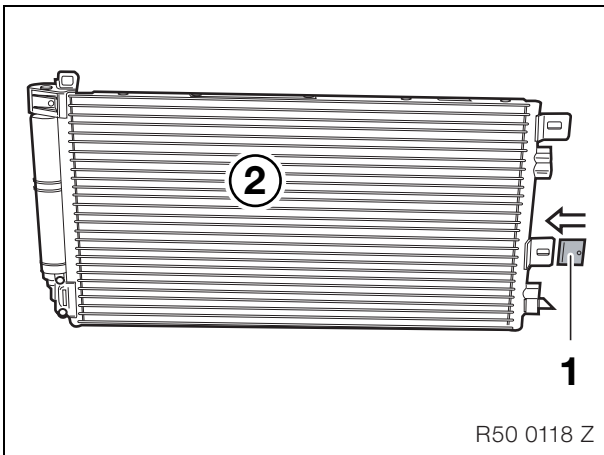
Fit the enclosed ribbed V-belts as shown  
(see TIS RA 11 28 010).

- 1 Ribbed V-belt
- 2 Air conditioning compressor
- 3 Crankshaft belt sheave
- 4 Water pump
- 5 Generator
- 6 Tensioning pulley

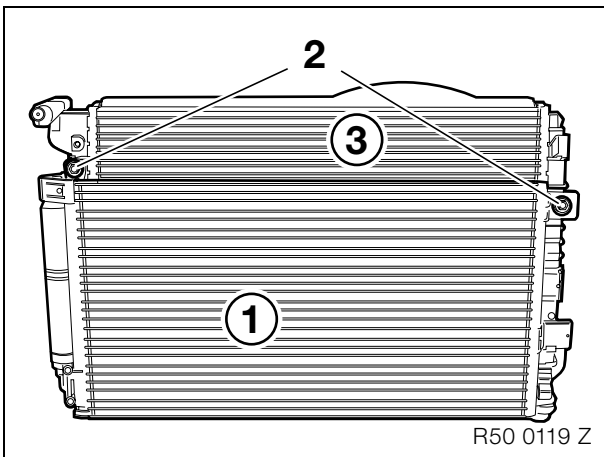
## 12. To install the water cooler, condenser and fan




Place the rubber guide (1) onto the enclosed water cooler (2) as shown.

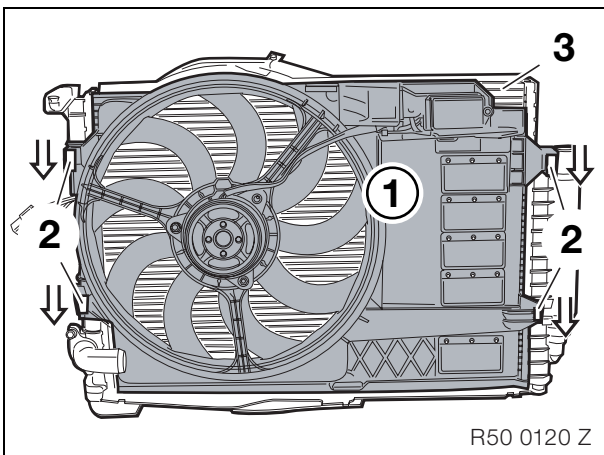


Place the rubber tab (1) onto the enclosed condenser (2) as shown.



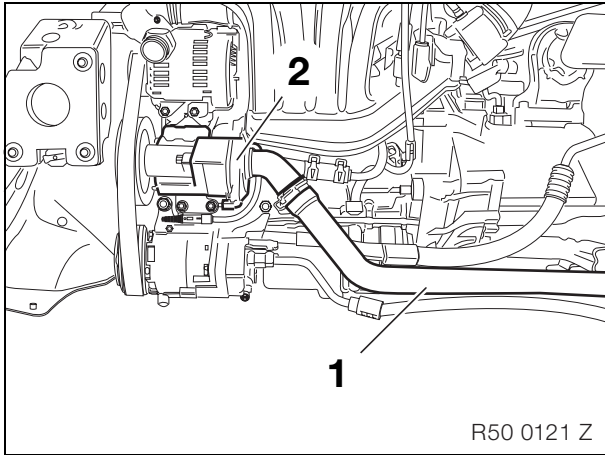
Screw the condenser (1) onto the water cooler (3) using the enclosed hexagonal screws M6 x 12 mm (2).

 Tightening torque for the hexagonal screws 6 Nm. ◀

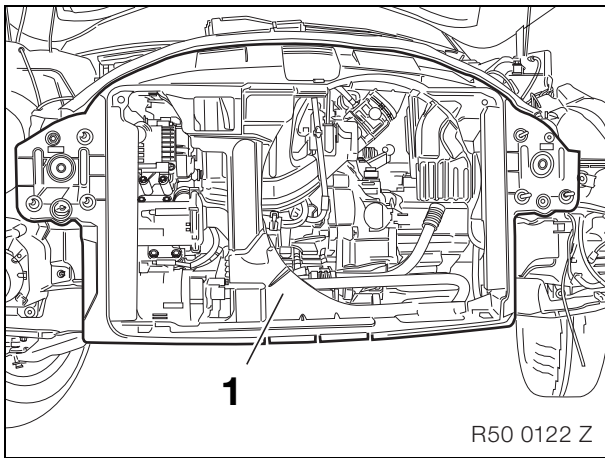


Push the enclosed fan (1) into the mountings (2) of the water cooler (3) until it clips in.

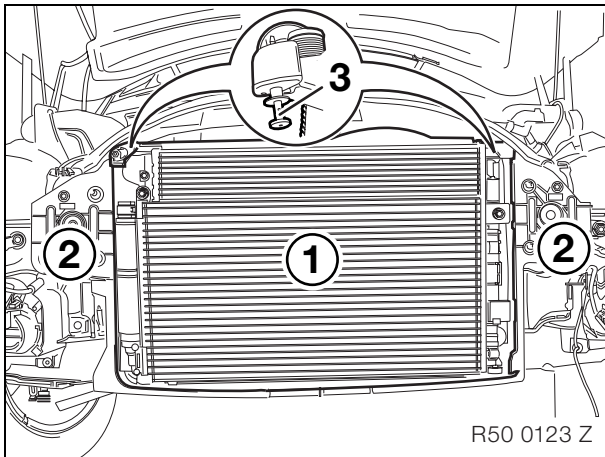
## 12. To install the water cooler, condenser and fan



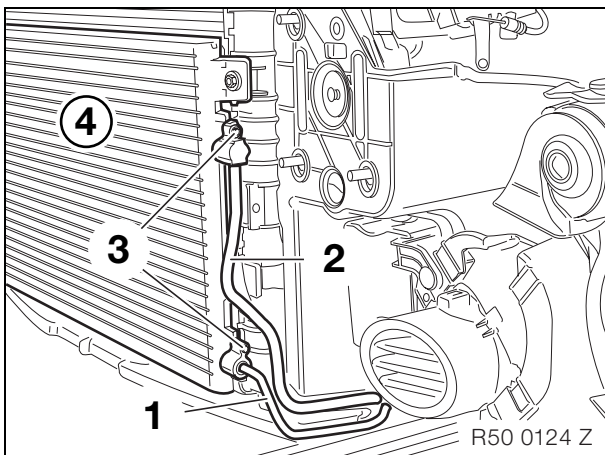
Connect the enclosed coolant hose (1) to the water pump (2).




Re-install the front end module (1).



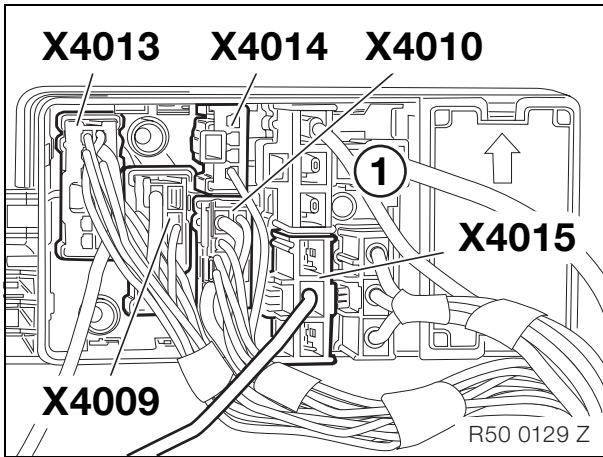
Insert the complete package comprising the condenser, water cooler and fan (1) into the front end module (2) and secure using the pre-installed expanding rivets (3).



Screw the evaporator outfeed line (1) and condenser outfeed line (2) onto the condenser (4) using the enclosed hexagonal screw M6 x 20 mm (3).

 Tightening torque for the hexagonal screws  
7.5 Nm. ◀

### 13. To install and connect the engine compartment wiring harness

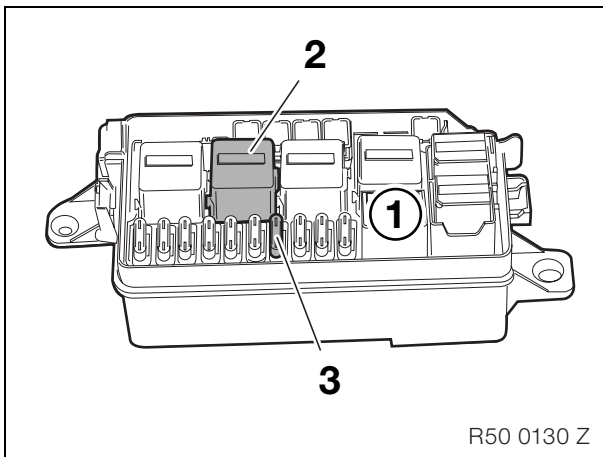


Connect wiring harness **B** to the fuse holder III (1) as follows:

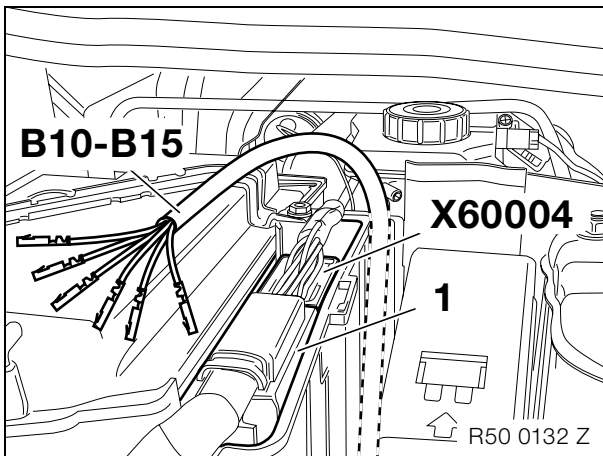
- Connect branch **B3**, GN/RT cable, to **PIN 2** of plug **X4009**
- Connect branch **B4**, BR/GE cable, to **PIN 2** of plug **X4010**
- Connect branch **B5**, BR/SW/GE cable, to **PIN 7** of plug **X4010**
- Connect branch **B6**, GN/SW cable, to **PIN 11** of plug **X4013**
- Connect branch **B7**, GN/SW cable, to **PIN 12** of plug **X4013**
- Connect branch **B8**, RT/BL cable, to **PIN 1** of plug **X4014**
- Connect branch **B9**, blue 3-pin plug **X4015**, to the fuse holder III (1) as shown

RE-install the fuse holder III (1).

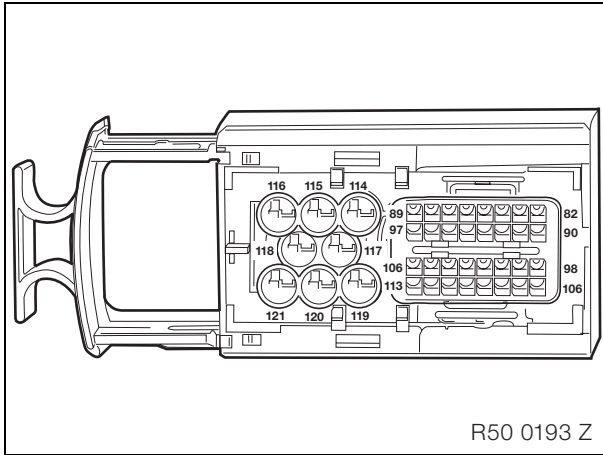
Connect the enclosed relay (2) to slot **R2** and the 30 A fuse (3) to slot **F7** of the fuse holder III (1).



Lay branches **B10-B15** to plug **X60004** of the DME control module (1).



### 13. To install and connect the engine compartment wiring harness



Make sure that you connect all disconnected lines back into the same slots in the plug **Z**. ◀

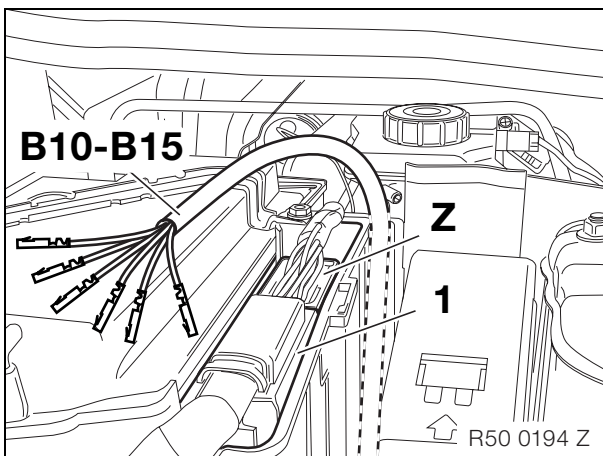
Disconnect all lines from plug **X60004** and connect them to the enclosed plug **Z**.



The following table describes the pin assignment when the car is fully equipped. ◀

Slot	Cable colour / Cross-section
PIN 82	GE, 0.50 mm <sup>2</sup>
PIN 83	GR/SW, 0.50 mm <sup>2</sup>
PIN 84	Not occupied
PIN 85	SW/RT or BL/BR, 0.50 mm <sup>2</sup>
PIN 86	BR/GN, 0.50 mm <sup>2</sup>
PIN 87	BR, 0.50 mm <sup>2</sup>
PIN 88	BR/GE, 0.75 mm <sup>2</sup>
PIN 89	Not occupied
PIN 90	SW/GR, 0.35 mm <sup>2</sup>
PIN 91	SW/GN, 0.35 mm <sup>2</sup>
PIN 92	Not occupied
PIN 93	SW/GN, 0.50 mm <sup>2</sup>
PIN 94	BR/SW/GE, 0.50 mm <sup>2</sup>
PIN 95	BR/GN, 0.50 mm <sup>2</sup>
PIN 96	BR/OR, 0.75 mm <sup>2</sup>
PIN 97	BR/RT, 0.50 mm <sup>2</sup>
PIN 98	BL/RT, 0.35 mm <sup>2</sup>
PIN 99	BR/GR, 0.50 mm <sup>2</sup>
PIN 100	BR/SW, 0.50 mm <sup>2</sup>
PIN 101	GE/BR, 0.50 mm <sup>2</sup>

Slot	Cable colour / Cross-section
PIN 102	Not occupied
PIN 103	Not occupied
PIN 104	Not occupied
PIN 105	SW/VI, 0.75 mm <sup>2</sup>
PIN 106	SW/VI, 0.50 mm <sup>2</sup>
PIN 107	GR/GE, 0.50 mm <sup>2</sup>
PIN 108	WS, 0.50 mm <sup>2</sup>
PIN 109	BL/GE mm <sup>2</sup>
PIN 110	GE/SW, 0.50 mm <sup>2</sup>
PIN 111	GE/BR, 0.50 mm <sup>2</sup>
PIN 112	BL/GN, 0.50 mm <sup>2</sup>
PIN 113	WS/RT, 0.50 mm <sup>2</sup>
PIN 114	BR, 1.50 mm <sup>2</sup>
PIN 115	BR, 1.50 mm <sup>2</sup>
PIN 116	Not occupied
PIN 117	VI/WS, 0.75 mm <sup>2</sup>
PIN 118	GN/BL, 0.75 mm <sup>2</sup>
PIN 119	Not occupied
PIN 120	GN/RT, 2.50 mm <sup>2</sup>
PIN 121	RT/WS, 1.50 mm <sup>2</sup>

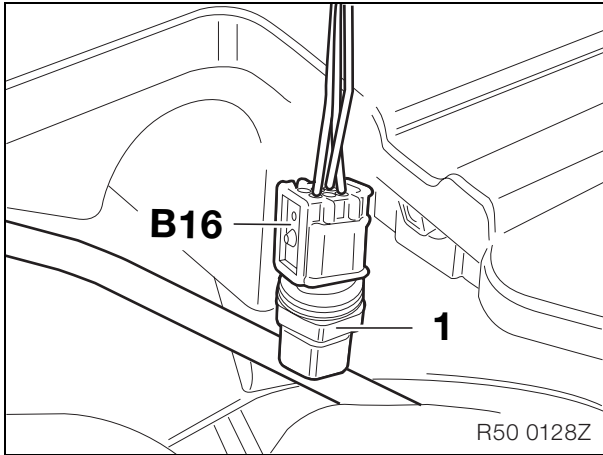


Connect branches **B10-B15** as follows to plug **Z**:

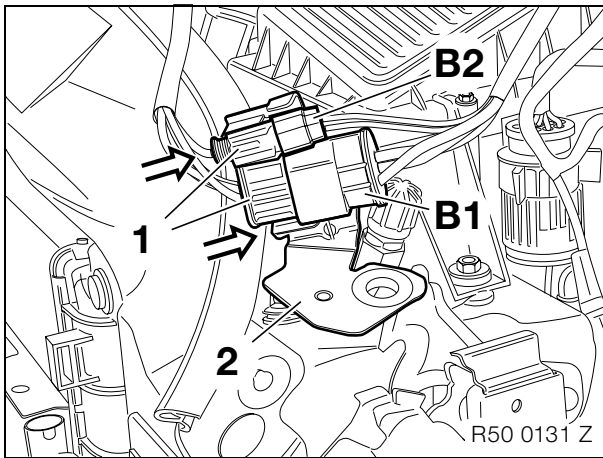
- Connect branch **B10**, BR/GE cable, to **PIN 88** of plug **Z**
- Connect branch **B11**, SW/GR cable, to **PIN 90** of plug **Z**
- Connect branch **B12**, SW/GN cable, to **PIN 91** of plug **Z**
- Connect branch **B13**, BR/SW/GE cable, to **PIN 94** of plug **Z**
- Connect branch **B14**, BR/GN cable, to **PIN 95** of plug **Z**
- Connect branch **B15**, BR/SW cable, to **PIN 100** of plug **Z**

Connect plug **Z** to the DME control module (1).

13. To install and connect the engine compartment wiring harness

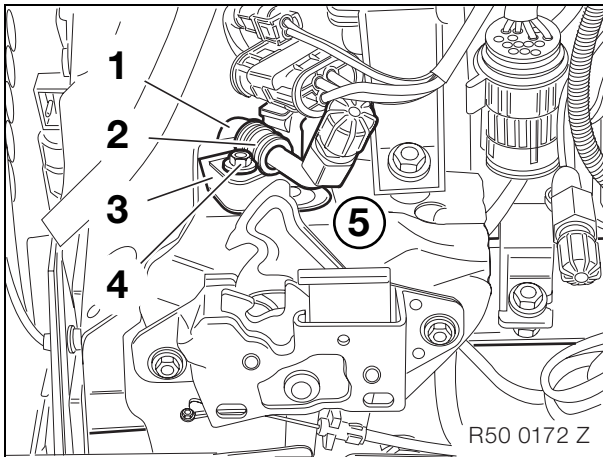


Lay branch **B16**, SW 3-pin plug **X12600**, to the pressure sensor (1) and connect it.

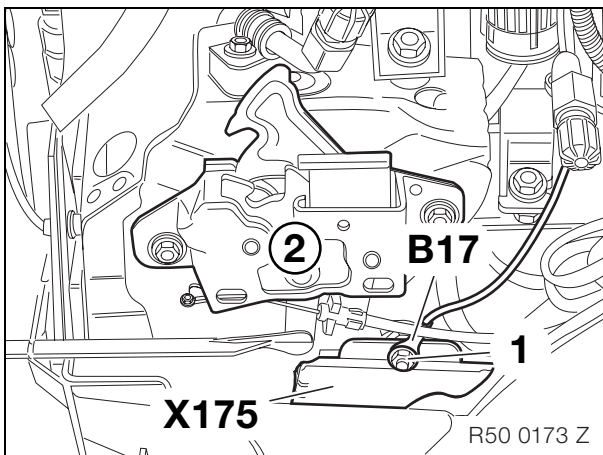


Connect branch **B1**, SW 4-pin plug **X53**, and branch **B2**, black 2-pin plug **X5301**, to the plugs (1) of the fan.

Connect plugs **X53** and **X5301** to the plug connector holder (2) as shown.



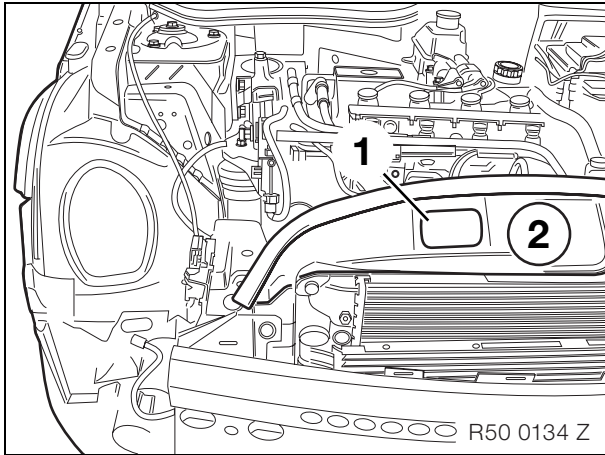
Screw the evaporator outfeed line (1) with the enclosed hose clip (2) and plug connector holder (3) onto the left side member (5) using hexagonal screw M6 x 20 mm (4) as shown.



Screw branch **B17**, BR cable, onto the joint connector **X175** below the left bonnet catch (2) using the existing hexagonal nut (1).



#### 14. To affix the information label



Stick the enclosed information label (1) onto the front wall (2) as shown.

## 15. Concluding work

- Assemble the car again following the instructions to dismantle it in reverse order.
- Connect the battery
- Fill and bleed the cooling system as directed, check for leaks  
see TIS RA 17 00 039
- Complete the coding work (see section entitled "Coding")
- Evacuate the air conditioning system and fill it  
(ensure that you put in the correct fill quantity of  $415 \pm 15$  g),  
see TIS RA 64 50 009
- Check the air conditioning system for leaks,  
see TIS RA 64 50 ...
- Conduct a function test
- Check the headlight adjustment and correct if necessary

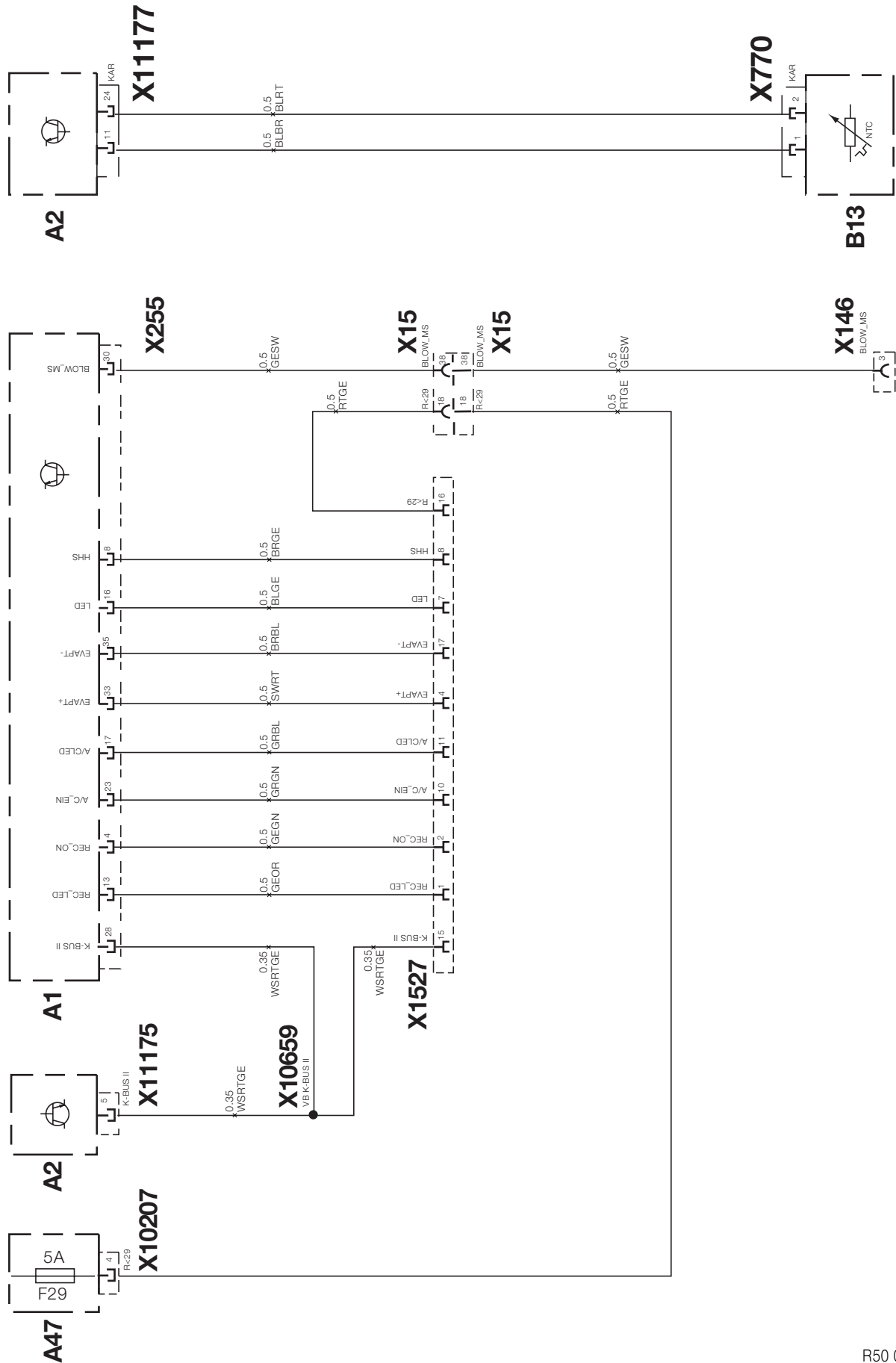
## 16. Coding

Retrofitting the automatic air conditioning requires coding and must be coded using the “Retrofit IHKA” path using the MoDiC/DIS.

The coding work must be completed using CD version **27.0** (or higher).

After the coding procedure disconnect the car’s battery for at least 10 seconds, then reconnect it and conduct a function test.

# 17. Automatic air conditioning circuit diagram



R50 0174 Z



## 17. Automatic air conditioning circuit diagram

### Legend

A1	Base module
A2	Tachometer instrument panel
A47	Fuse holder II
A48	Fuse holder III
A144	ACC control module
A6000	DME control module
B8	Low/high pressure Pressostat
B13	External temperature sensor
X15	SW 42-pin plug
X53	Auxiliary fan
X146	Heater/air conditioning unit
X175	Earth II
X255	Base module D
X770	External temperature sensor
X1527	WS 18-pin plug on heater/air conditioning unit
X4009	BL fuse holder
X4010	SW fuse holder
X4013	WS fuse holder
X4014	WS fuse holder
X4015	BL fuse holder
X5301	Auxiliary fan
X10207	Fuse holder
X10659	K bus III connector
X11175	Tachometer instrument panel
X11177	Tachometer instrument panel
X12600	Pressure sensor
X60004	DME control module

### Cable colours

BR	brown
GE	yellow
WS	white
RT	red
BL	blue
VI	violet
OR	orange
SW	black
GN	green
GR	grey