

Original BMW Accessories. Installation Instructions.



Anti-Theft Alarm System Retrofit

BMW 3 Series Saloon (E90)

BMW 3 Series Coupé (E92)

Retrofit kit no.:	65 12 0 399 635	Anti-theft alarm system retrofit kit (before 03/2010)
	65 12 2 167 738	Anti-theft alarm system retrofit kit

Installation time

The installation time for E90 cars is **approx. 5.0 hours** and the installation time for E92 cars is **8.0 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 organization and by authorized BMW service companies.

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

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

In the event of any installation or function problems, restrict the troubleshooting session to about 0.5 hours for mechanical work or 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 Aftersales Assistance Portal (ASAP).

Quote the following information:

- Chassis number
- Part number of the retrofit kit
- A precise description of the problem
- Work steps already carried out

Do not archive the hard copy of these installation instructions since daily updates are provided 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

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

Ensure that the cables and/or lines are not kinked or damaged as you install them in the car. The costs incurred as a result will not be reimbursed by BMW AG.

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

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

After the installation work, the retrofit must be programmed / coded via the – **Conversions** – path.

Ordering instructions for E90 and E92

The following parts are not supplied in the anti-theft alarm system retrofit kit and must be ordered separately (see EPC for part number and details).

- Rear-view mirror **E** with mirror base cover
- Note colour variations of ceiling light **D**
- Auxiliary cable **T** (only for cars without SA 322 after 3/09)
- Door lock **U** (only for cars without SA 322 after 3/09)

Ordering instructions for E92

The following parts are not supplied in the anti-theft alarm system retrofit kit and must be ordered separately (see EPC for part number and details).

- Roof lining **S**
- USIS bracket **R**

List of special equipment

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

SA 322 Comfort access system (in cars after 3/09)

Special tools required

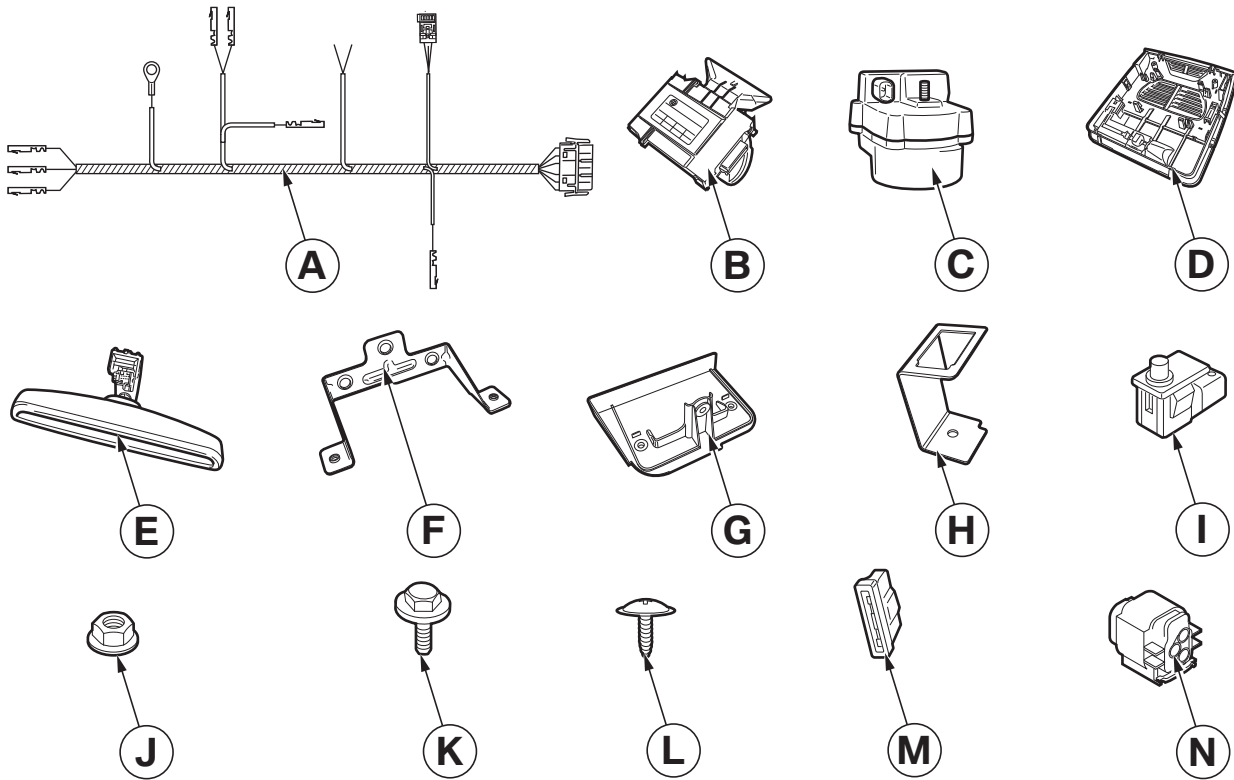
00 9 317, Trim wedge

36 1 130, T-20 Torx wrench (for removing fuse holder)

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1. Parts list

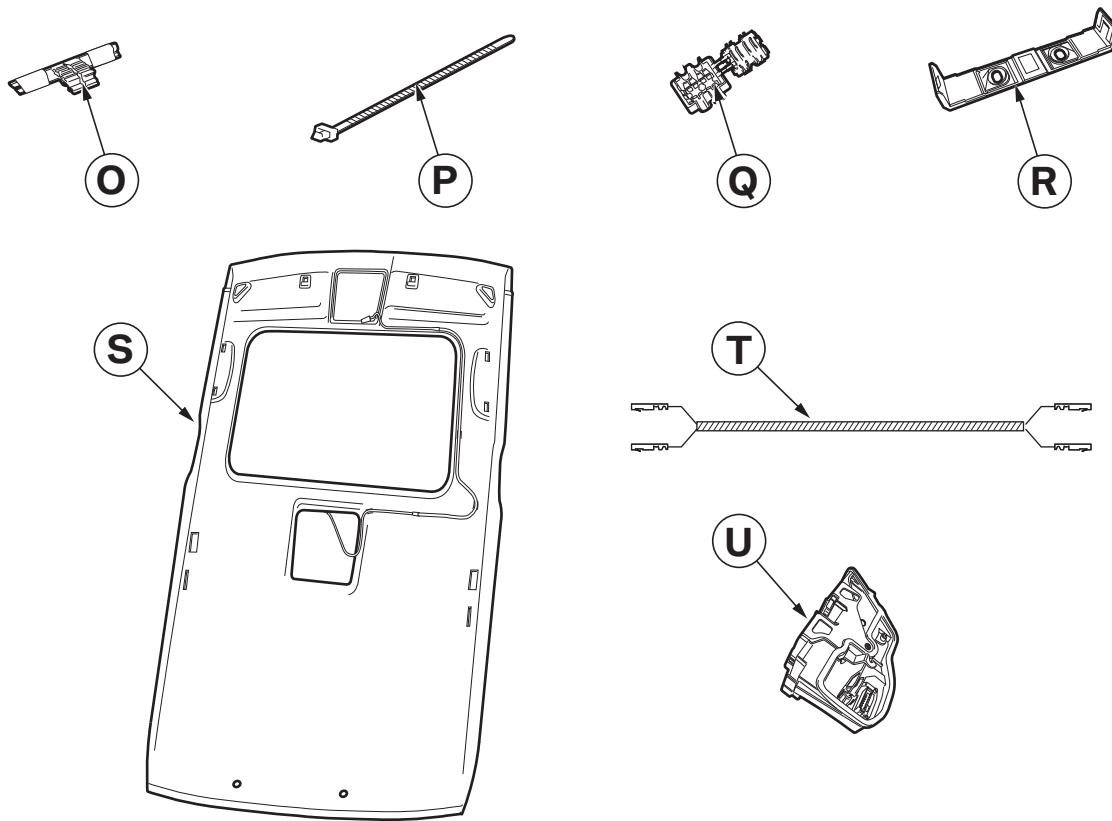


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Legend

- A Retrofit cable
- B Ultrasonic module
- C Emergency-current siren
- D Ceiling light (not supplied in the retrofit kit)
- E Rear-view mirror with mirror base cover (not supplied in the retrofit kit)
- F Holder
- G Mounting plate
- H Bonnet switch holder
- I Bonnet switch
- J Hexagonal nut M6 (4 x)
- K Hexagon screw M6 x 18 (2 x)
- L Screw
- M Fusible link 7.5 A
- N SW 3-pin socket casing (2 x)

1. Parts list




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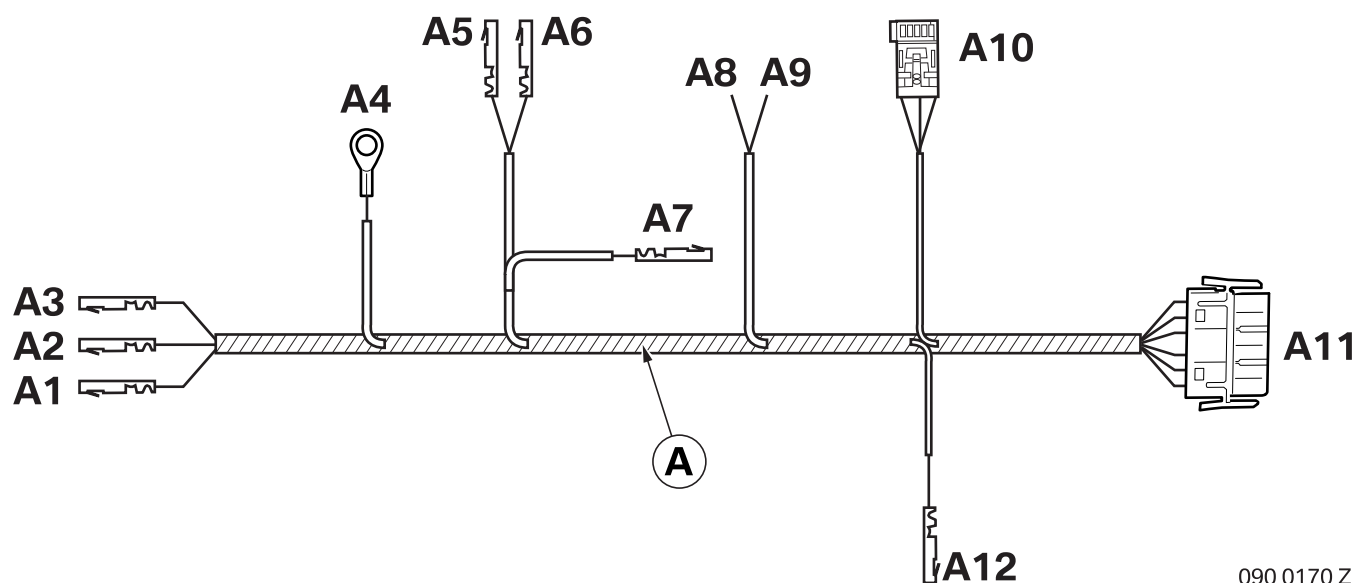
Legend

- O Cable holder
- P Cable tie L = 200 mm (25 x)
- Q Miniature connector (3 x)
- R USIS bracket (E92 cars only, not supplied with retrofit kit)
- S Roof lining (not supplied with retrofit kit)
- T Supplementary wiring harness (only cars without SA 322 from 3/09, not supplied with retrofit kit)
- U Door lock (only cars without SA 322 from 3/09, not supplied with retrofit kit)

2. Preparatory work

	ISTA No.
Conduct a brief test	---
Disconnect the negative pole of the battery	12 00 ...
First, the following components must be removed	
 Observe the safety instructions for working on cars with airbag systems. ◀	---
ABS/DSC control unit cover	---
Pedal trim	51 45 185
A-pillar trim, bottom left	51 43 070
Door sill strip from front left interior	51 47 000
Door sill strip from rear left interior	51 47 030
Glovebox, right	51 16 361
Trim for dashboard at bottom right	51 45 181
Release the interior fuse holder	61 13 050
Left backrest side section	52 26 008
Rear left wheel arch cover	51 71 041
Additionally with E90 cars	
Lower complete roof lining	---
Additionally with E92 cars	
Remove and refit/replace roof lining for cars without SHD	51 44 001
Remove and refit/replace roof lining for cars with SHD	51 44 011
Additionally in cars without SA 322 after 3/09	
Door trim, front left	51 41 000
Front left door noise insulation	51 48 060
Renew driver's door lock	51 21 090

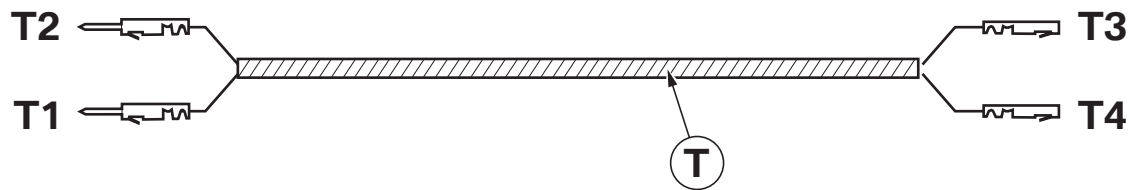
3. Retrofit cable connection diagram



090 0170 Z

Item	Designation	Signal	Cable colour/ cross-section	Connection location in the car	Abbreviation/ slot
A	Retrofit cable	---	---	---	---
A1	Socket contact	Terminal 31	BR 0.75 mm ²	With socket casing N To emergency-current siren C	X372 PIN 1
A2	Socket contact	IRS-SINE	SW/RT 0.50 mm ²	With socket casing N To emergency-current siren C	X372 PIN 2
A3	Socket contact	Terminal 30	RT/GE 0.75 mm ²	With socket casing N To emergency-current siren C	X372 PIN 3
A4	Cable eyelet M6	Terminal 31	BR 0.50 mm ²	On joint connector behind left backrest side section	X13016
A5	Socket contact	MHK	VI/GN 0.50 mm ²	With socket casing N On bonnet switch I	X161 PIN 2
A6	Socket contact	Terminal 31	BR 0.50 mm ²	With socket casing N On bonnet switch I	X161 PIN 1
A7	Socket contact	MHK	VI/GN 0.50 mm ²	On CAS control unit SW 41-pin plug	X13376 PIN 38
A8	Cable open	K-CAN HIGH	OR/GN 0.35 mm ²	With miniature connector Q To K-CAN cable to junction box	X14271 PIN 46
A9	Cable open	K-CAN LOW	GN 0.35 mm ²	With miniature connector Q To K-CAN cable to junction box	X14271 PIN 10
A10	SW 10-pin socket casing	---	---	On rear-view mirror E	X14292
A11	SW 8-pin socket casing	---	---	On ultrasonic module B	---
A12	Socket contact	Terminal 30	RT/GE 0.75 mm ²	Cars built before 03/07 only On fuse holder Cars built after 03/07 only On fuse holder	X11001 PIN 9 X11007 PIN 3

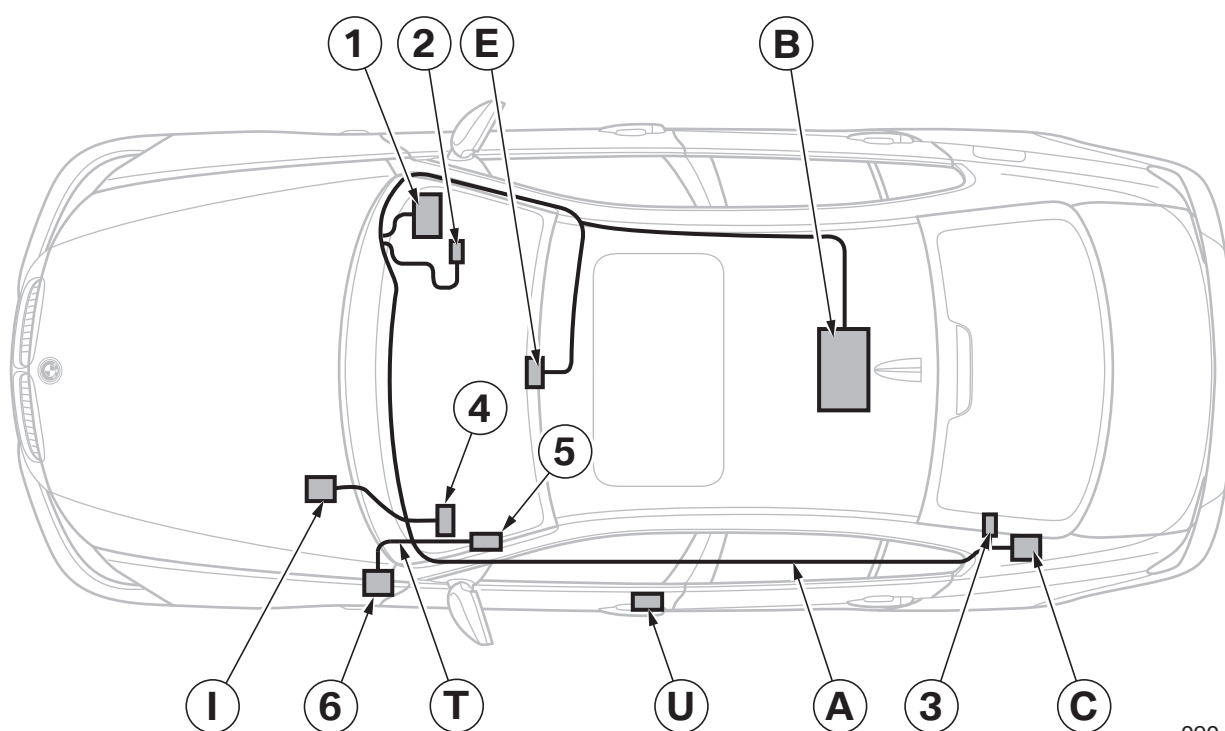
4. Connection diagram for auxiliary cable



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Item	Designation	Signal	Cable colour/ cross-section	Connection location in the car	Abbreviation/ slot
T	Auxiliary cable T	---	---	Only cars without SA 322 after 3/09	---
T1	Plug contact	ERFT	WS/SW 0.50 mm ²	On SW 32-pin door isolation plug Car side	X257 PIN 11
T2	Plug contact	VRFT	SW/BL 0.50 mm ²	On SW 32-pin door isolation plug Car side	X257 PIN 10
T3	Socket contact	VRFT	SW/BL 0.50 mm ²	On footwell module SW 51-pin plug	X14261 PIN 42
T4	Socket contact	ERFT	WS/SW 0.50 mm ²	On footwell module SW 51-pin plug	X14261 PIN 46

5. Installation and cabling diagram

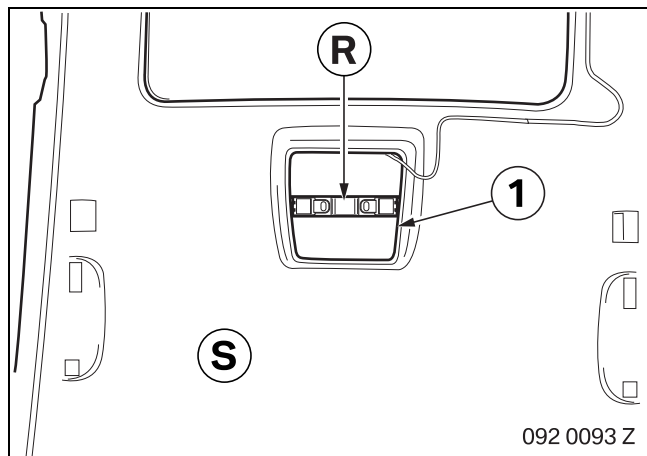


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Legend

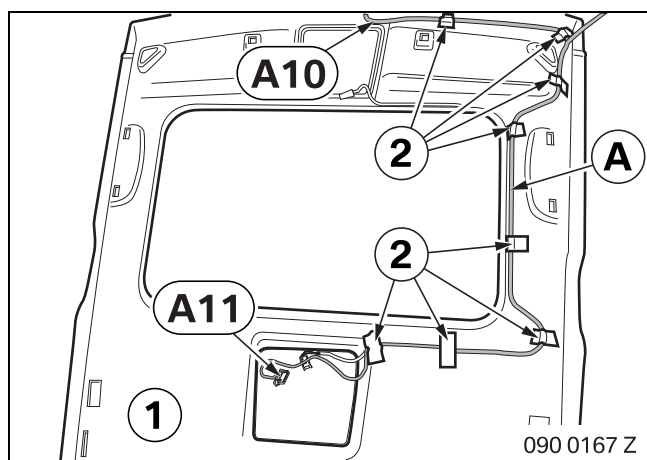
- A Retrofit cable
 - B Ultrasonic module
 - C Emergency-current siren
 - E Rear-view mirror
 - I Bonnet switch
 - T Auxiliary cable (only for cars without SA 322 after 3/09)
 - U Door lock (only for cars without SA 322 after 3/09)
-
- 1 Fuse holder, cars before 03/07 **X11001**, cars after 03/07 **X11007**
 - 2 K-CAN-HIGH/LOW pick-up
 - 3 Joint connector **X13016**
 - 4 CAS control unit, plug **X13376**
 - 5 Footwell module plug **X14261**
 - 6 Door isolation plug **X257**

6. To install the ultrasonic module



E92 cars with tilt/slide sunroof only

Clip USIS holder **R** into the lugs in the metal frame (1) of the roof lining **S**.



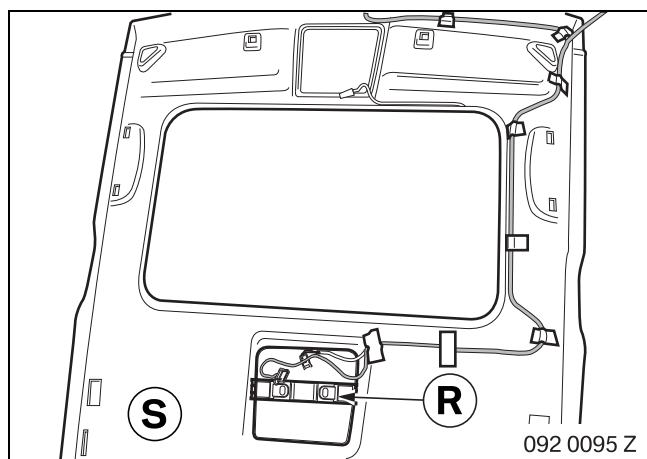
All cars

Route branch **A10** to the middle of the roof lining at the front.

Route branch **A11** to the ceiling light cut-out at the rear.

Secure retrofit cable **A** to the roof lining (1) using adhesive strips (2) or Sikaflex.

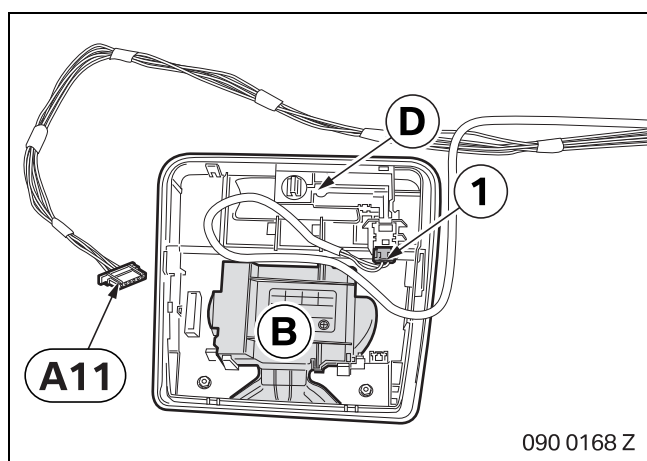
Install the roof lining (1).



E92 cars with tilt/slide sunroof only

Fit roof lining **S**.

Press USIS holder **R** in roof lining **S** onto Velcro strip in vehicle roof.



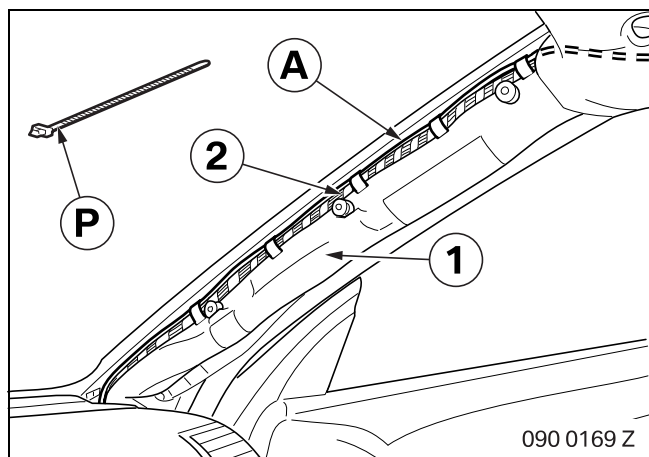
Insert ultrasonic module **B** into ceiling light **D**.

Connect the rear ceiling light plug (1) to ceiling light **D**.

Connect branch **A11** to ultrasonic module **B**.

Install ceiling light **D**.

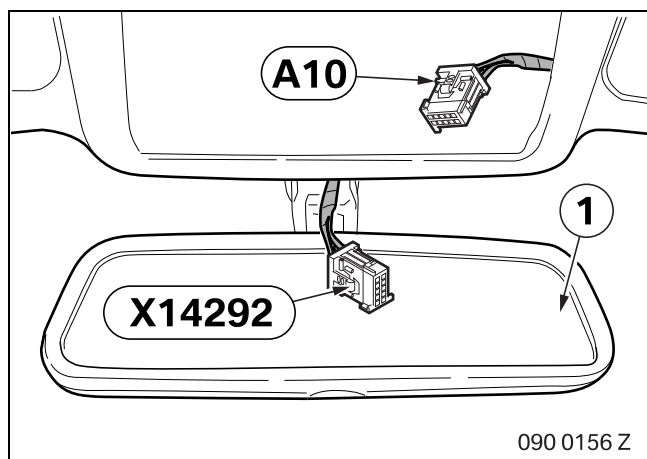
6. To install the ultrasonic module



! So as not to adversely affect the function of the airbag (1), secure retrofit cable **A** to the standard wiring harness (2) with cable ties **P**. ◀

Route retrofit cable **A** along the A pillar to behind the dashboard.

7. To install and connect the rear-view mirror



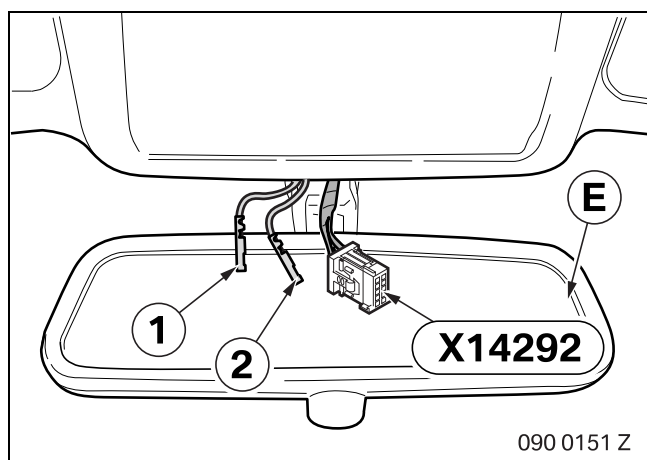
Cars with plug X14292 only

Disconnect plug **X14292** (SW 10-pin) from the rear-view mirror (1).

Remove the rear-view mirror (1) (no longer required).

On branch **A10**, disconnect the RT/GE cable from PIN 8 and the GR/SW cable from PIN 9 and route them to plug **X14292**.

Tie back and insulate branch **A10**.



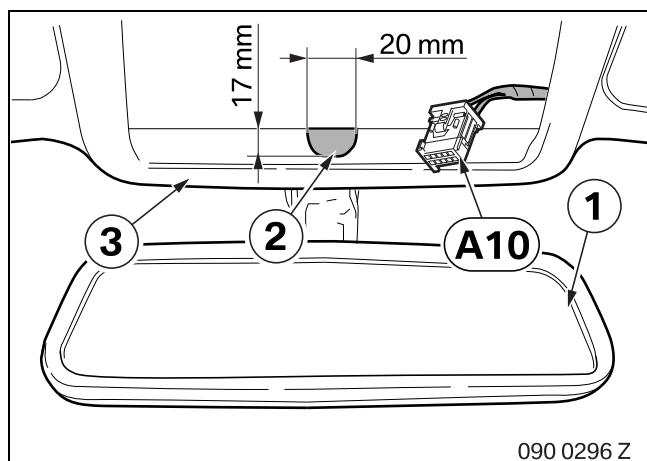
Connect the RT/GE cable (1) into PIN 8 and the GR/SW cable (2) into PIN 9 of plug **X14292**.



Tie back and insulate the RT/GE cable (1) if PIN 8 is already occupied. ◀

Install rear-view mirror **E**.

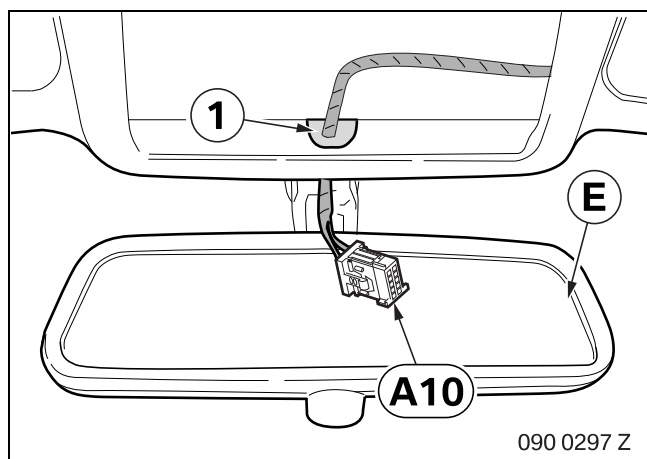
Connect plug **X14292** to rear-view mirror **E**.



Cars without plug X14292 only

Remove the rear-view mirror (1) (no longer required).

Cut out the marked area (2) of the roof lining (3) using the dimensions shown.



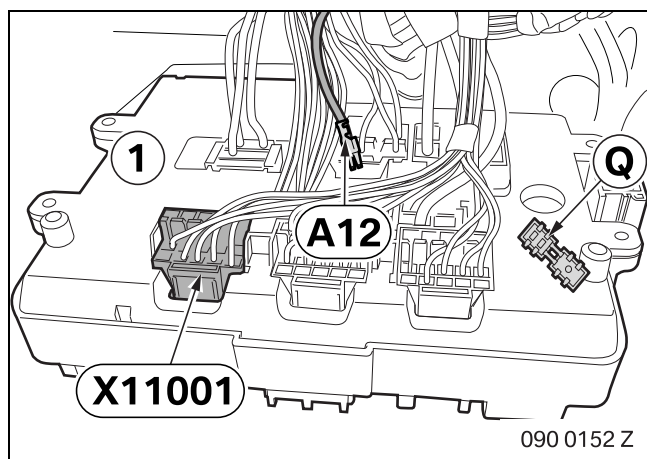
Install rear-view mirror **E**.

Route branch **A10** to rear-view mirror **E**.

Insert the rubber grommet (1) into the roof lining.

Connect branch **A10** to rear-view mirror **E**.

8. To install and connect the retrofit cable



Cars built before 03/07 only

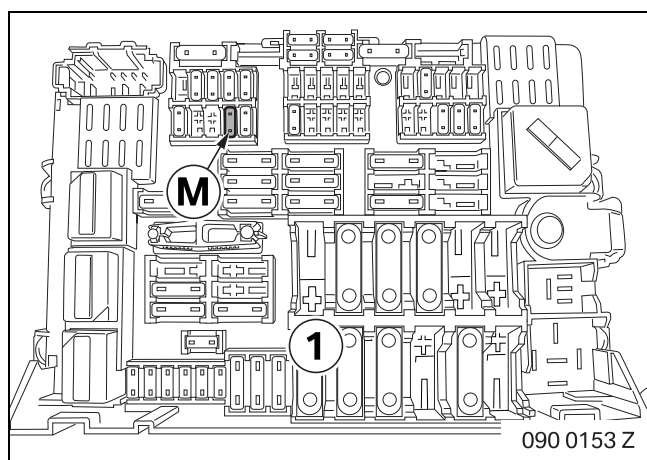
Route retrofit cable **A** along the standard wiring harness behind the glovebox.

Route branch **A12**, RT/GE cable, to the fuse holder (1).

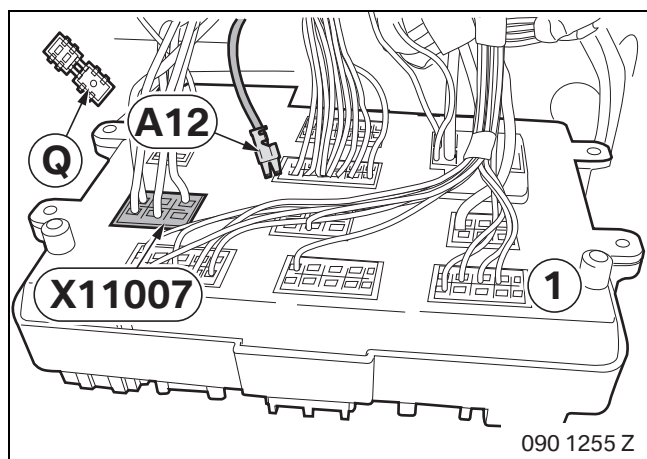
Connect branch **A12** to plug **X11001**, PIN 9.



If PIN 9 is already occupied, connect branch **A12** to the cable connected to it, RT/GE cable, using miniature connector **Q**. ◀



Insert fusible link **M** into slot F19 in the fuse holder (1).

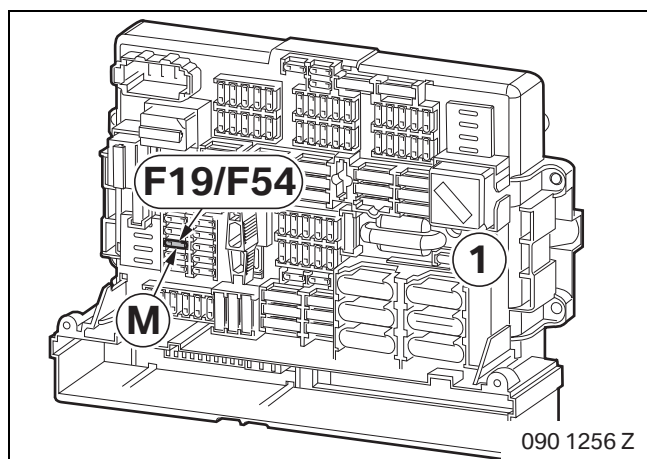


Cars built after 03/07 only



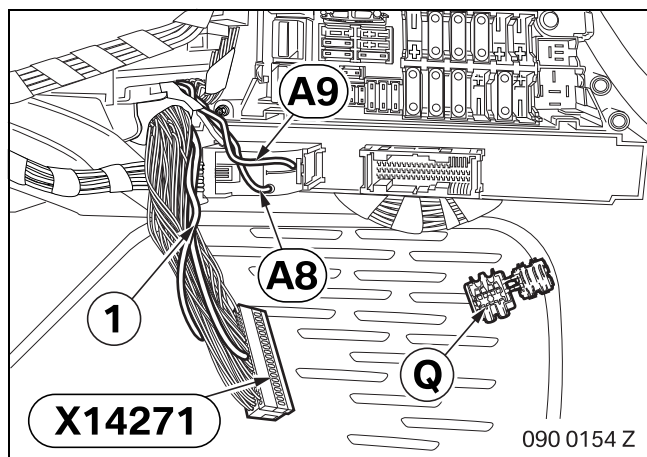
If PIN 3 is occupied, cut the socket contact off branch **A12** and connect it with miniature connector **Q**.

Connect branch **A12**, RT/GE cable, to PIN 3 of plug **X11007** (RT 10-pin) on the fuse holder (1).



Insert fusible link **M** in slot F19 of the fuse holder (1) in cars from 03/07 to 09/07 and in slot F54 of the fuse holder (1) in cars after 09/07.

8. To install and connect the retrofit cable

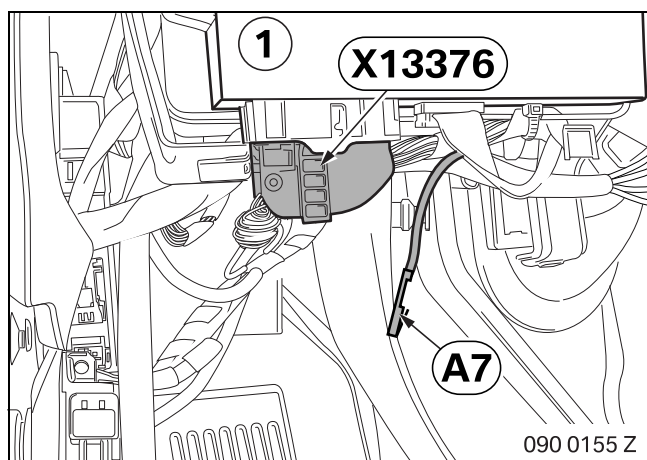


All cars

Route branch **A8**, OR/GN cable, and branch **A9**, GN cable, to plug **X14271** (BL 54-pin).

Connect branches **A8** and **A9** as follows to the K-CAN cables (1) from plug **X14271** (BL 54-pin) using miniature connectors **Q**:

- Branch **A8**, OR/GN cable, to the same coloured cable to PIN 46
- Branch **A9**, GN cable, to the same coloured cable to PIN 10

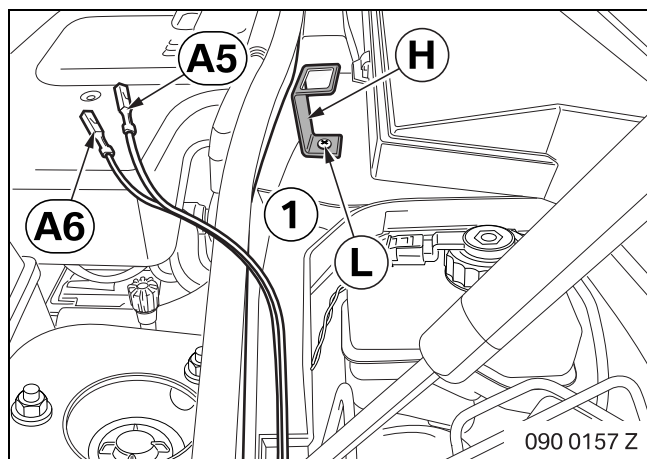


Route retrofit cable **A** along the standard wiring harness to the driver's footwell.

Disconnect and open plug **X13376** (SW 41-pin) from the CAS control unit (1).

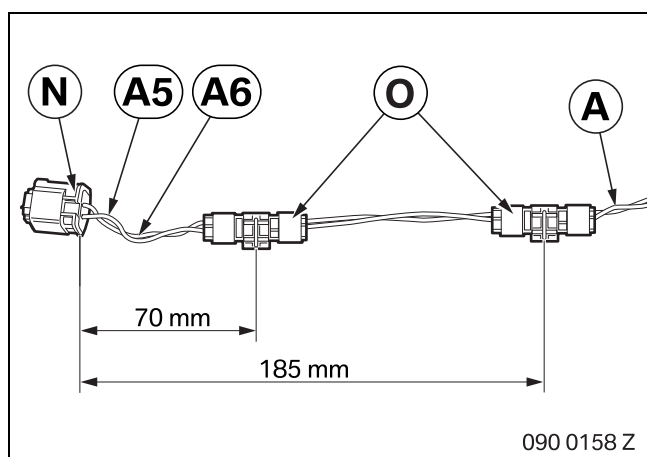
Connect branch **A7**, VI/GN cable, to PIN 38 of plug **X13376**.

Secure and connect plug **X13376**.



Secure bonnet switch holder **H** to the microfilter casing (1) using screw **L**.

Route branch **A5**, VI/GN cable, and branch **A6**, BR cable, into the engine compartment to the microfilter casing (1).

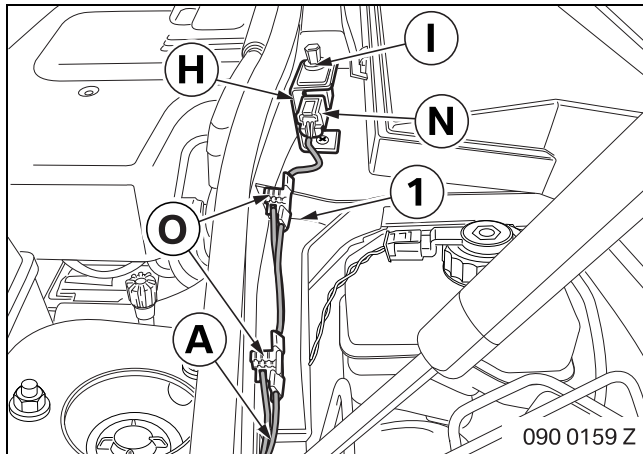


Connect branches **A5** and **A6** to socket casing **N** as follows:

- Branch **A5**, VI/GN cable, to PIN 2
- Branch **A6**, BR cable, to PIN 1

Secure cable holder **O** to retrofit cable **A** with insulating tape using the dimensions shown.

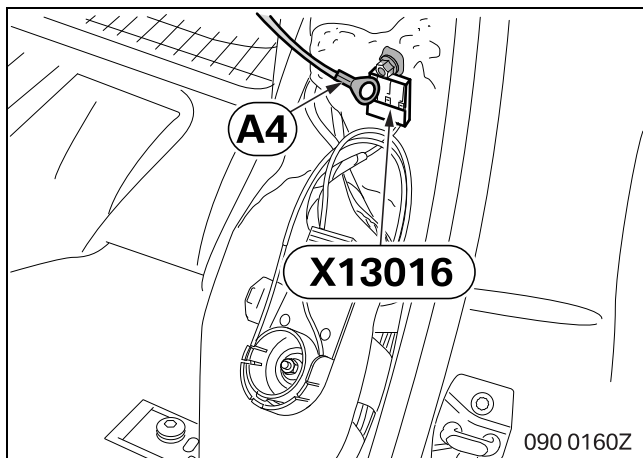
8. To install and connect the retrofit cable



Insert bonnet switch **I** into bonnet switch holder **H**.

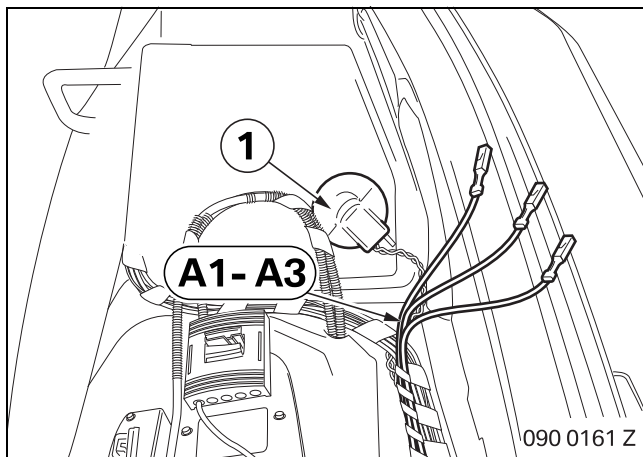
Connect socket casing **N** to bonnet switch **I**.

Secure retrofit cable **A** to the microfilter casing (1) using cable holder **O**.

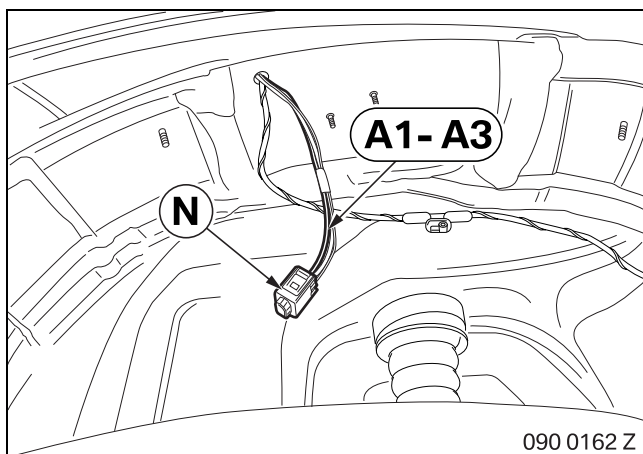


Route retrofit cable **A** along the left door sill behind the left seat backrest side section.

Screw branch **A4**, BR cable, onto earth post **X13016**.



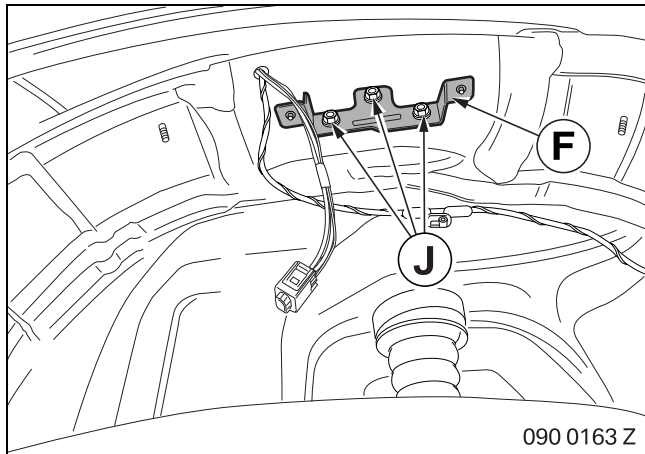
Route branch **A1**, BR cable, branch **A2**, SW/RT cable and branch **A3**, RT/GE cable, through the rubber grommet (1) into the rear left wheel arch.



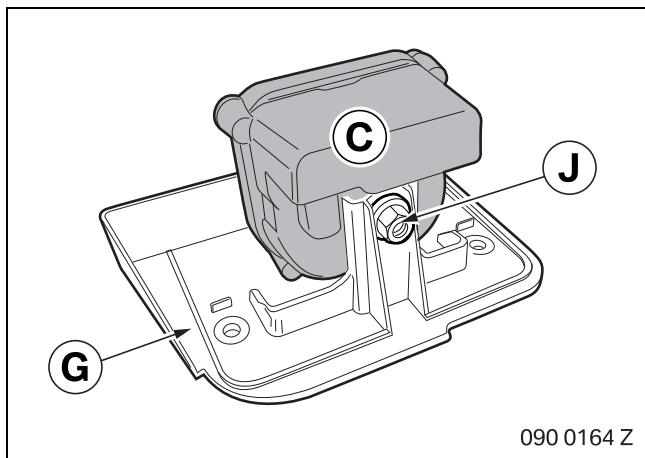
Connect branches **A1 – A3** to socket casing **N** as follows:

- Branch **A1**, BR cable, to PIN 1
- Branch **A2**, SW/RT cable, to PIN 2
- Branch **A3**, RT/GE cable, to PIN 3

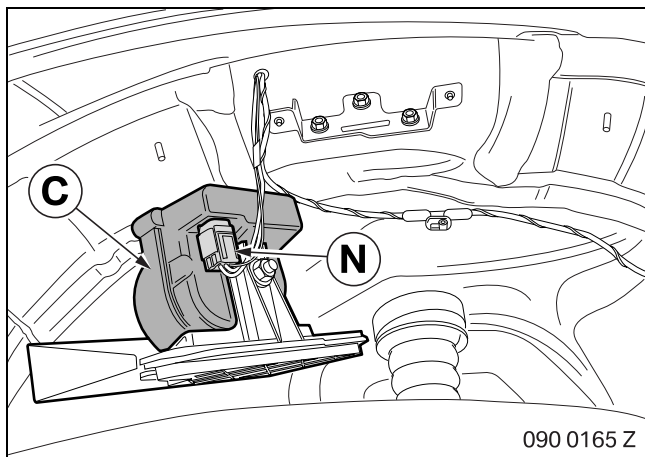
8. To install and connect the retrofit cable



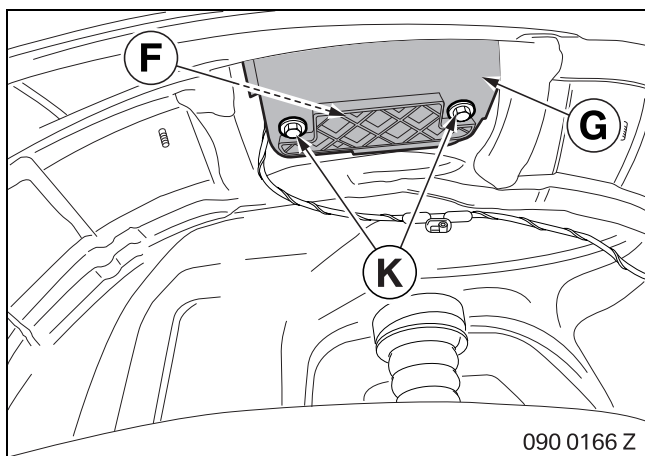
Use hexagonal nuts **J** to screw holder **F** onto the wheel arch at the rear left.



Use hexagonal nut **J** to screw emergency-current siren **C** onto mounting plate **G**.

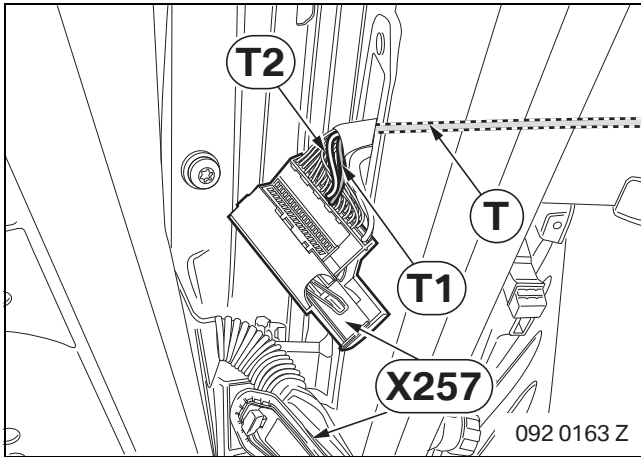


Connect socket casing **N** to emergency-current siren **C**.



Use hexagonal screws **K** to screw mounting plate **G** onto holder **F**.

9. To route and connect auxiliary cable T (only for cars without SA 322 after 3/09)

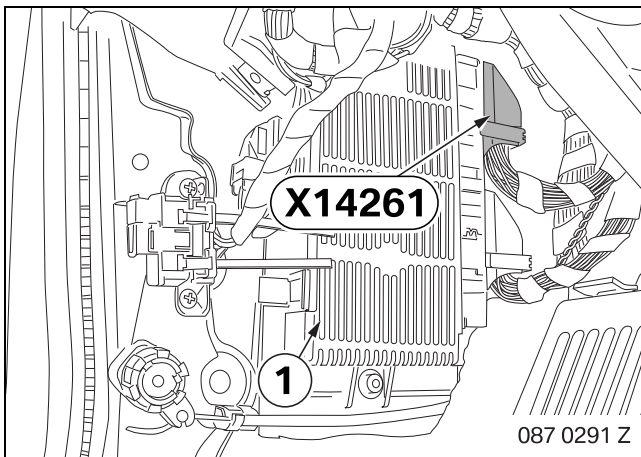


Connect branches **T1** and **T2** to door isolation plug **X257** as follows:

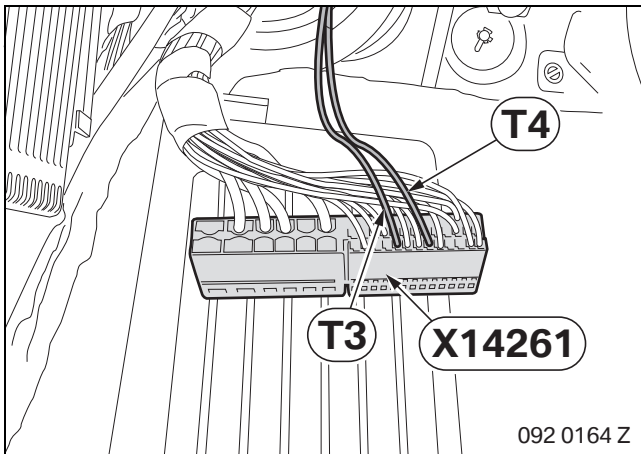
- Branch **T1**, WS/SW cable, to PIN 11
- Branch **T2**, SW/BL cable, to PIN 10

Route retrofit cable **T** to the inside of the A pillar on the left.

Secure and install door isolation plug **X257**.



Disconnect and open plug **X14261** (SW 51-pin) from the footwell module (1).



Connect branches **T3** and **T4** as follows to plug **X14261**:

- Branch **T3**, SW/BL cable, to PIN 42
- Branch **T4**, WS/SW cable, to PIN 46

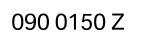
Secure and connect plug **X14261**.

10. Concluding work and coding

The retrofit system requires coding.

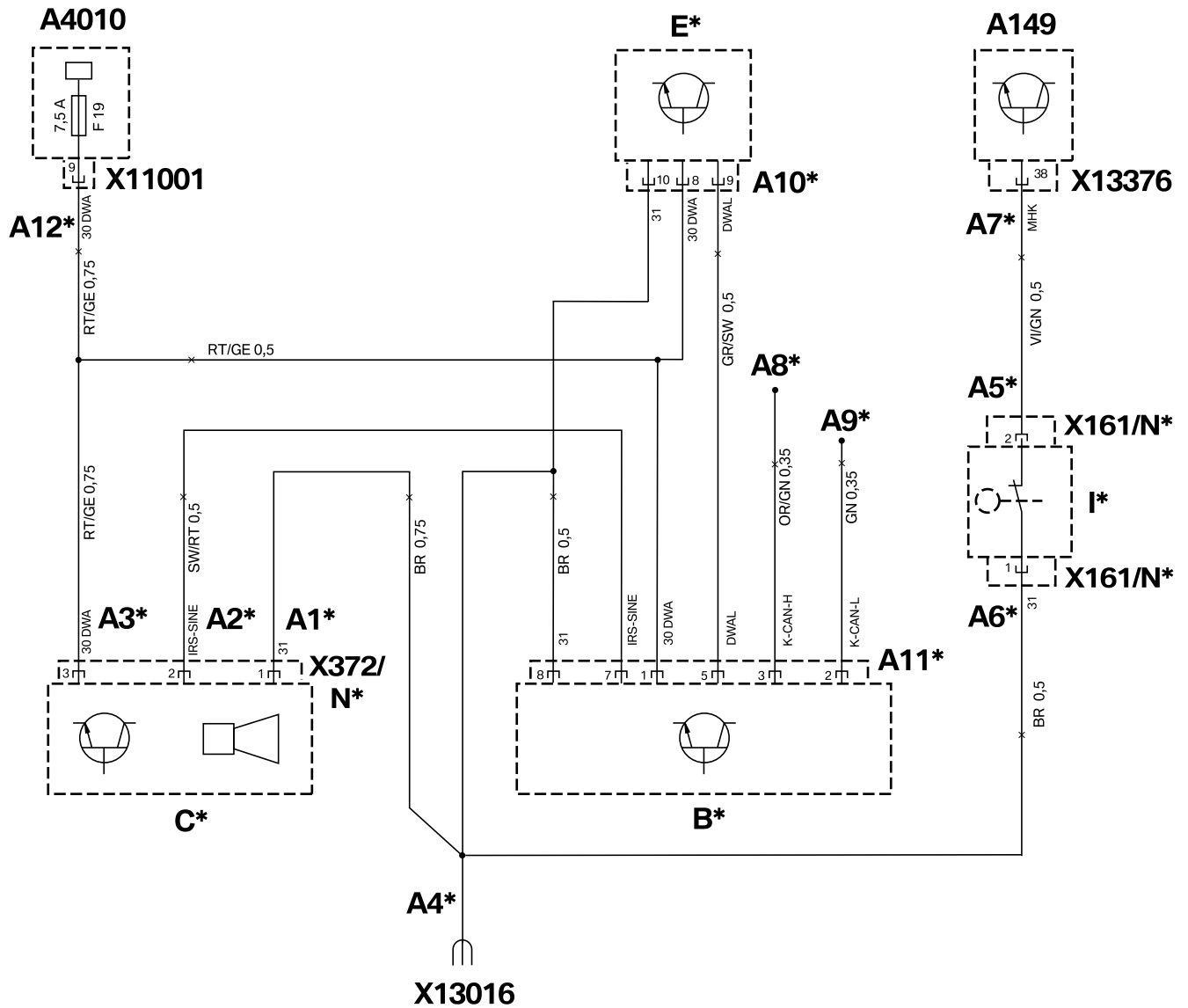
- Connect the battery
- Program/encode the retrofit with ISSS (Integrated Software Service Station) via the – **Conversions** – path
- Conduct a brief test
- Conduct a function test
- Re-assemble the car

Cars built before 03/07 with plug X14292 on rear-view mirror only



11. Anti-theft alarm system circuit diagram

Cars built before 03/07 without plug X14292 on rear-view mirror only



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11. Anti-theft alarm system circuit diagram

Legend

A8*	Open cable, K-CAN-High pick-up on plug X14271 , BL 54-pin
A9*	Open cable, K-CAN-Low pick-up on plug X14271 , BL 54-pin
A11*	SW 8-pin plug, to ultrasonic module B*
A149	CAS control unit
A4010	Fuse holder
E*	Rear-view mirror
B*	Ultrasonic module
C*	Emergency-current siren
I*	Bonnet switch
N*	SW 3-pin socket casing
X161	SW 3-pin plug, on bonnet switch I* (A5*–A6*)
X372	SW 3-pin plug, to emergency-current siren C* (A1*–A3*)
X11001	SW 15-pin plug, on fuse holder A4010 (A12*)
X13016	Joint connector, terminal 31 pick-up (A4*)
X13376	SW 41-pin plug, on CAS control unit A149 (A7*)
X14292	SW 10-pin plug, on rear-view mirror E* (A10*)

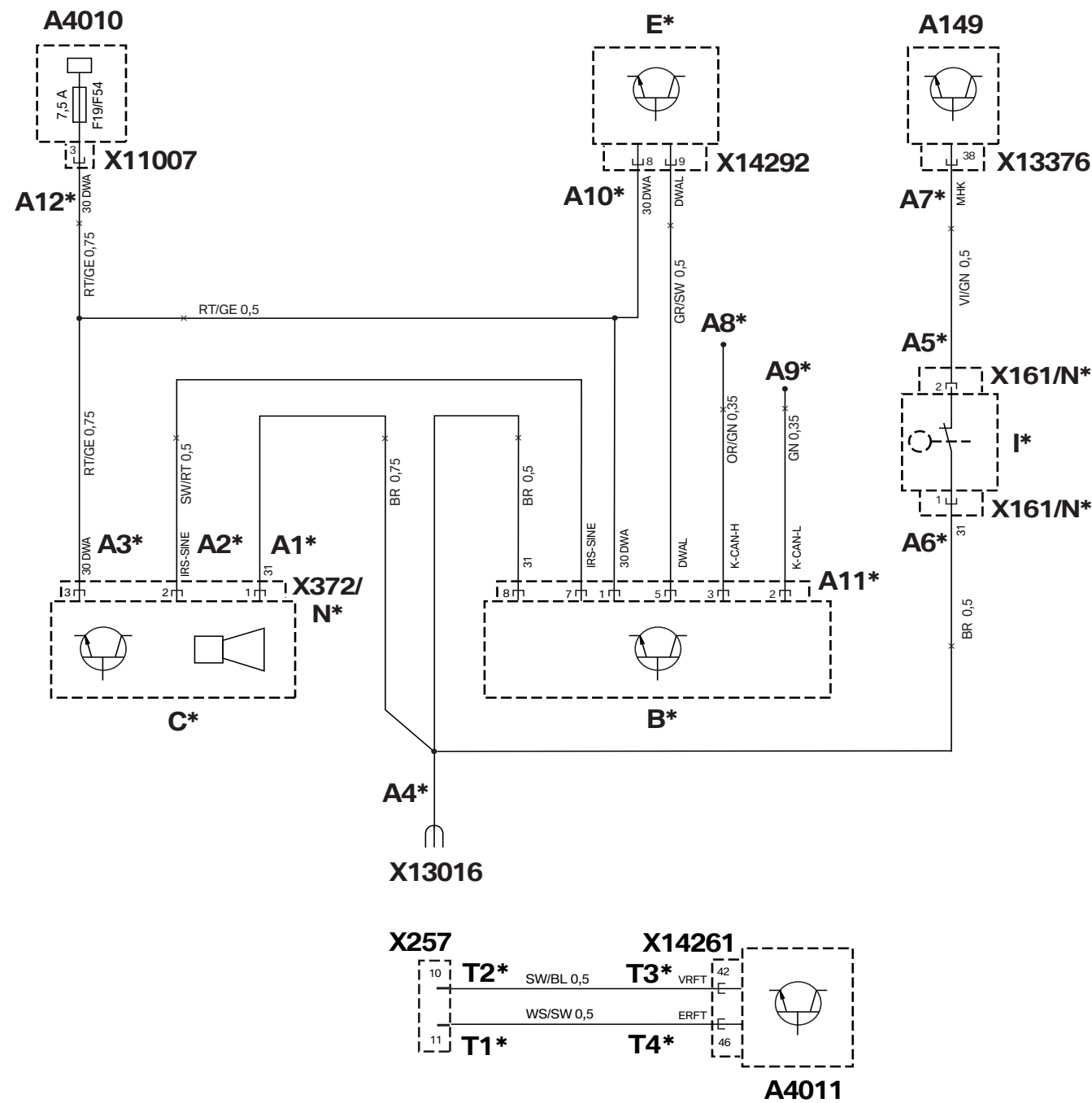
All the designations marked with an asterisk (*) apply only to these installation instructions or this system circuit diagram.

Cable colours

BL	Blue
BR	Brown
GE	Yellow
GN	Green
GR	Grey
OR	Orange
RT	Red
SW	Black
VI	Violet

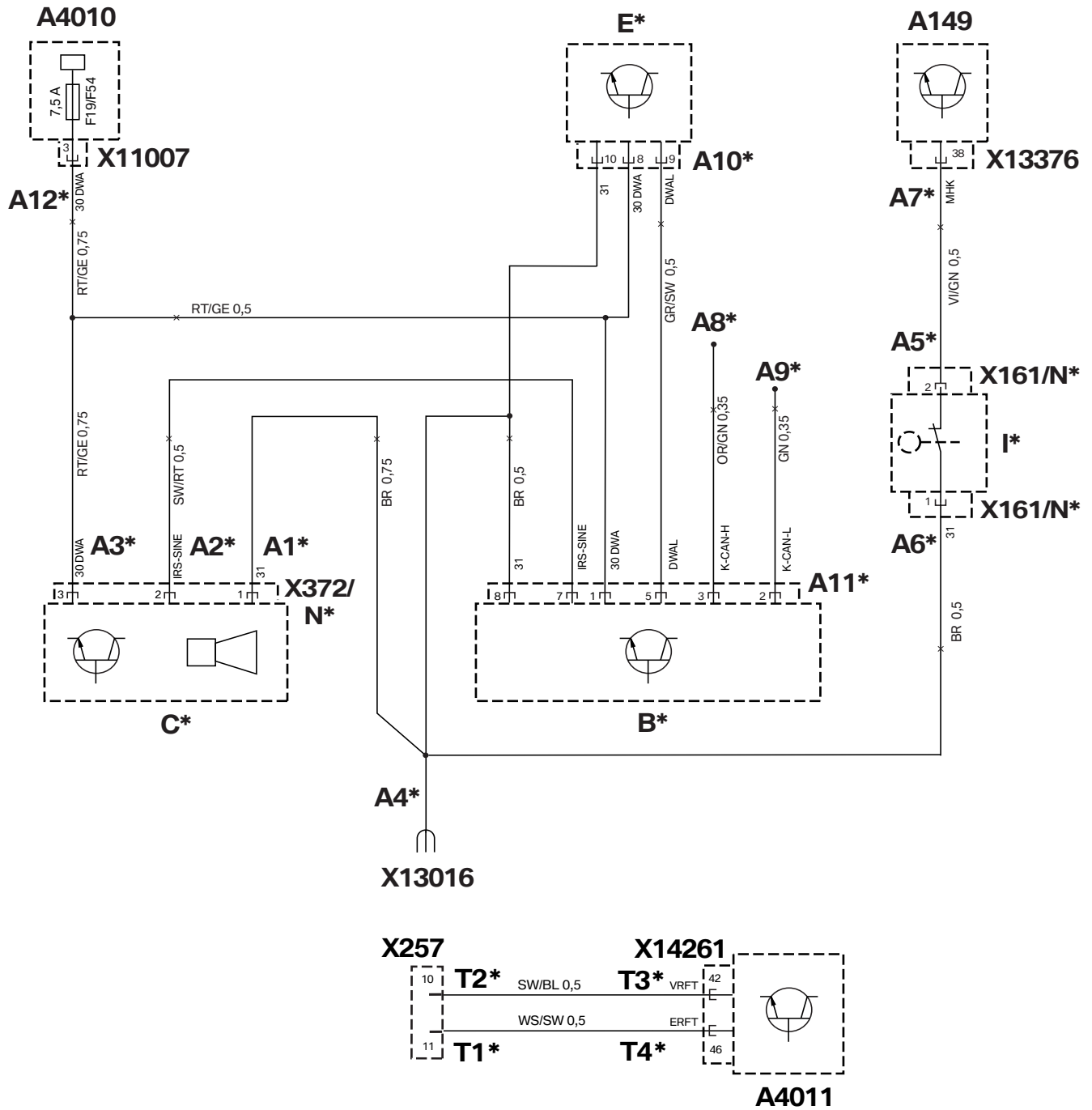
11. Anti-theft alarm system circuit diagram

Cars built after 03/07 with plug X14292 on rear-view mirror only



090 1477 Z

Cars built after 03/07 without plug X14292 on rear-view mirror only



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11. Anti-theft alarm system circuit diagram

Legend

A8*	Open cable, K-CAN-High pick-up on plug X14271 , BL 54-pin
A9*	Open cable, K-CAN-Low pick-up on plug X14271 , BL 54-pin
A11*	SW 8-pin plug, to ultrasonic module B*
A149	CAS control unit
A4010	Fuse holder
A4011	Footwell module
B*	Ultrasonic module
C*	Emergency-current siren
E*	Rear-view mirror
I*	Bonnet switch
N*	SW 3-pin socket casing
X161	SW 3-pin plug, on bonnet switch I* (A5*–A6*)
X257	Door isolation plug, SW 32-pin (T1*–T2*)
X372	SW 3-pin plug, to emergency-current siren C* (A1*–A3*)
X11007	RT 10-pin plug, on fuse holder A4010 (A12*)
X13016	Joint connector, terminal 31 pick-up (A4*)
X13376	SW 41-pin plug, on CAS control unit A149 (A7*)
X14261	SW 51-pin plug, on footwell module A4011 (T3*–T4*)
X14292	SW 10-pin plug, on rear-view mirror E* (A10*)

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

Cable colours

BL	Blue
BR	Brown
GE	Yellow
GN	Green
GR	Grey
OR	Orange
RT	Red
SW	Black
VI	Violet
WS	White