

# Parts and Accessories. Installation Instructions.



## Retrofit alarm system BMW 3 Series Saloon (E90)

Retrofit kit No.        65 12 0 399 635

### Installation time

The installation time is 5.0 hours, but this may vary depending on the condition of the car and the equipment in it.

### Important information

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

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

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

**To avoid unnecessary extra work and/or costs, if any installation or function problems occur, after a brief troubleshooting session (approx. 0.5 hours), an inquiry is to be sent straight away to the technical parts support via the Aftersales Assistance Portal (ASAP), quoting the chassis number, the part number of the retrofit kit and a precise description of the problem.**

Do not archive the hard copy of these installation instructions since daily updates are made by ASAP. See ASAP for details of the pictograms.

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.

Subject to technical modifications.

### **Installation information**

All the figures show LHD cars, proceed in exactly the same way on RHD cars.

Ensure that the cables/lines are not kinked or damaged as you install them in the car. The costs incurred as a result of this 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.

Before you install the retrofit system, test the control module status with the CIP (coding, customising, programming) test program. If the test detects incorrect statuses in one or more control modules, these must be updated first using the "Load software" function.

After the installation work the retrofit must be coded using SSS (software service station) via the **CIP** path.

### **Ordering instructions**

The interior rear-view mirror with the mirror foot cover **E** and the ceiling light **H** must be ordered separately. Check colour versions for the ceiling light **H** (see EPC for part numbers and details).

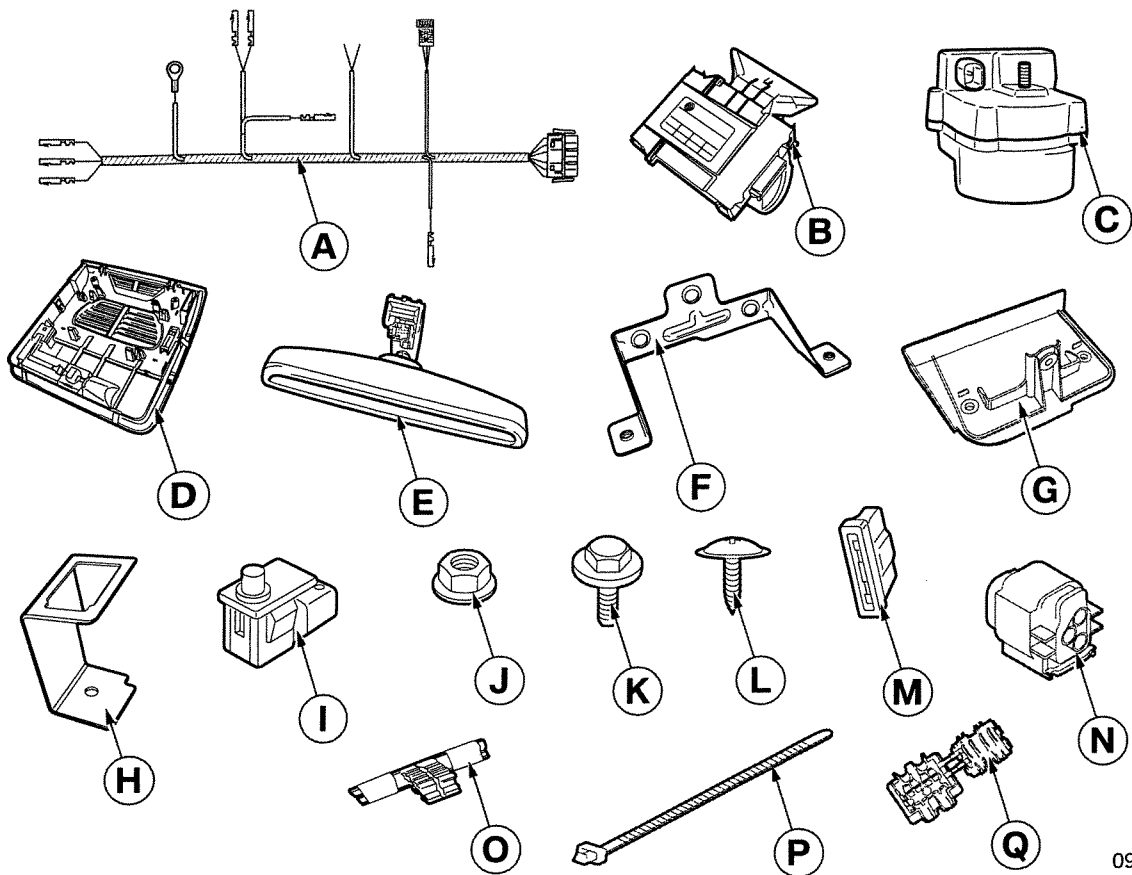
### **Special tools required**

00 9 317 Trim wedge

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## 1. Parts list




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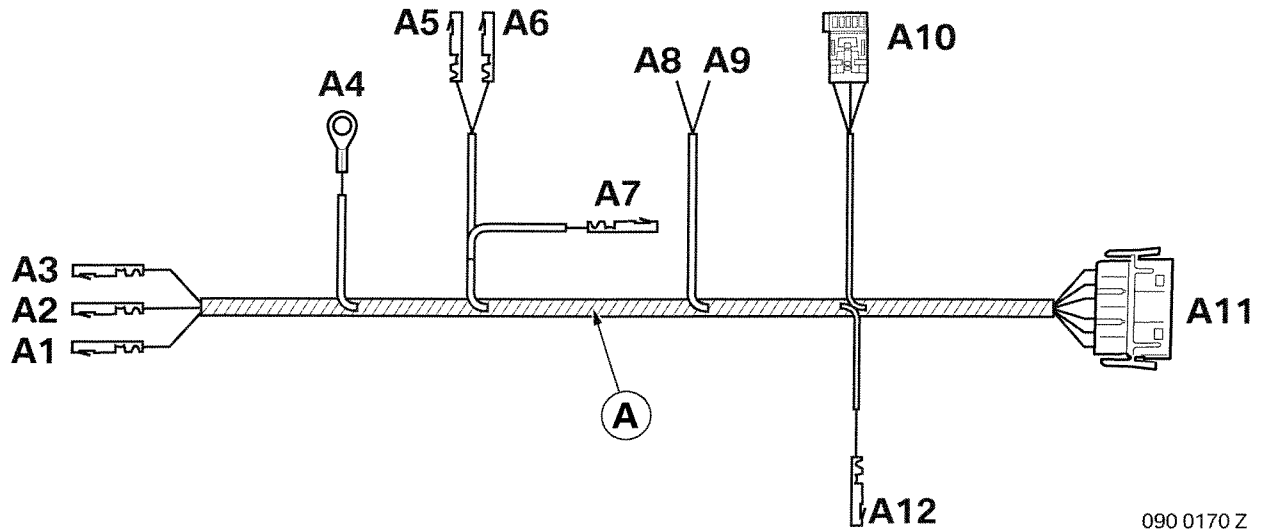
### Legend

- A Retrofit cable
- B Ultrasonic module
- C Emergency-current siren
- D Ceiling light (not supplied with the retrofit kit)
- E Interior rear-view mirror with mirror foot cover (not supplied with the retrofit kit)
- F Holder
- G Mounting plate
- H Bonnet switch holder
- I Bonnet switch
- J Hexagonal nut M6 (4x)
- K Hexagonal screw M6 x 18 (2x)
- L Screw
- M Fusible link 7,5 A
- N 3-pin SW socket casing (2x)
- O Cable holder
- P Cable tie L = 200 mm (25x)
- Q Miniature connector (2x)

## 2. Preparations

	TIS No.
Conduct a brief test	---
Disconnect the negative pole of the battery	12 00 ...
<b>The following components must be removed first of all</b>	
 Observe the safety instructions for working on cars with airbag systems. ◀	---
ABS/DSC control module cover	---
Pedal trim	51 45 185
A pillar trim at the bottom left	51 43 070
Door sill strip from the front left interior	51 47 000
Door sill strip from the rear left interior	51 47 030
Glove box on the right	51 16 361
Trim for instrument panel at the bottom right	51 45 181
Release the fuse holder	---
Left backrest side section	52 26 008
Rear left wheel arch cover	51 71 041
Lower complete headlining	---

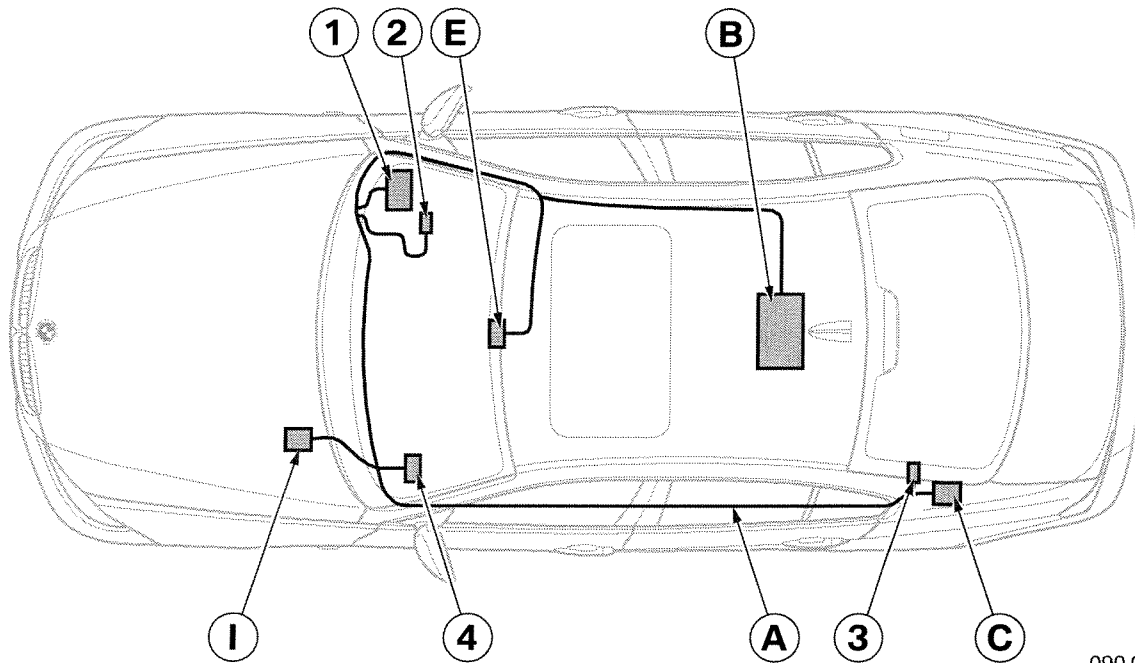
### 3. Retrofit cable connection diagram



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Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
A	Retrofit cable	---	---	---	---
A1	Socket contact	Terminal 31	BR 0.50 mm <sup>2</sup>	With socket casing <b>N</b> to emergency-current siren <b>C</b>	X372 PIN 1
A2	Socket contact	IRS-SINE	SW/RT 0.50 mm <sup>2</sup>	With socket casing <b>N</b> to emergency-current siren <b>C</b>	X372 PIN 2
A3	Socket contact	Terminal 30	RT/GE 0.50 mm <sup>2</sup>	With socket casing <b>N</b> to emergency-current siren <b>C</b>	X372 PIN 3
A4	Cable eyelet M6	Terminal 31	BR 0.50 mm <sup>2</sup>	To joint connector behind the left backrest side section	X13016
A5	Socket contact	MHK	VI/GN 0.50 mm <sup>2</sup>	With socket casing <b>N</b> to bonnet switch <b>I</b>	X161 PIN 2
A6	Socket contact	Terminal 31	BR 0.50 mm <sup>2</sup>	With socket casing <b>N</b> to bonnet switch <b>I</b>	X161 PIN 1
A7	Socket contact	MHK	VI/GN 0.50 mm <sup>2</sup>	To CAS control module SW 41-pin plug	X13376 PIN 38
A8	Cable open	K-CAN HIGH	OR/GN 0.35 mm <sup>2</sup>	With miniature connector <b>Q</b> to K-CAN cable to the junction box	X14271 PIN 46
A9	Cable open	K-CAN LOW	GN 0.35 mm <sup>2</sup>	With miniature connector <b>Q</b> to K-CAN cable to the junction box	X14271 PIN 10
A10	10-pin socket casing, SW	---	---	To the interior mirror <b>E</b>	X14292
A11	8-pin socket casing, SW	---	---	To ultrasonic module <b>B</b>	---
A12	Socket contact	Terminal 30	RT/GE 0.50 mm <sup>2</sup>	To fuse holder SW 15-pin plug	X11001 PIN 9

#### 4. Installation and cabling diagram

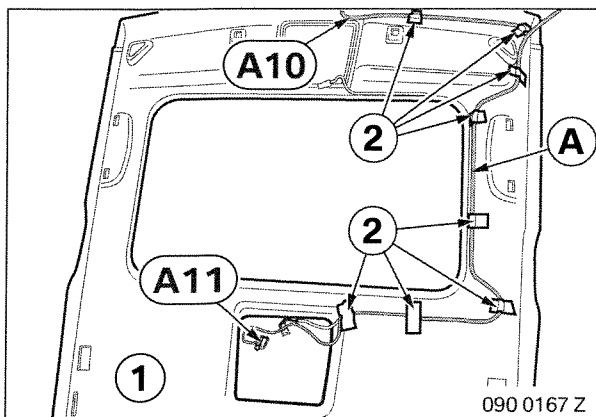


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#### Legend

- A Retrofit cable
  - B Ultrasonic module
  - C Emergency-current siren
  - E Interior mirror
  - I Bonnet switch
- 
- 1 Fuse holder, plug **X11001**
  - 2 K-CAN-HIGH/LOW tap
  - 3 Joint connector **X13016**
  - 4 CAS control module, plug **X13376**

## 5. To install the ultrasonic module

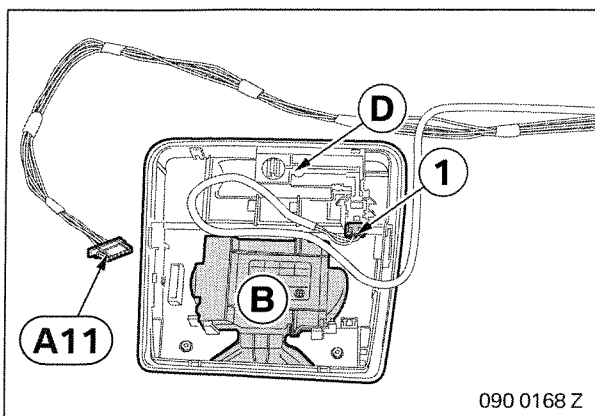


Route branch **A10**, GR/SW cable, to the centre of the headlining at the front.

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

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

Install the headlining (1).

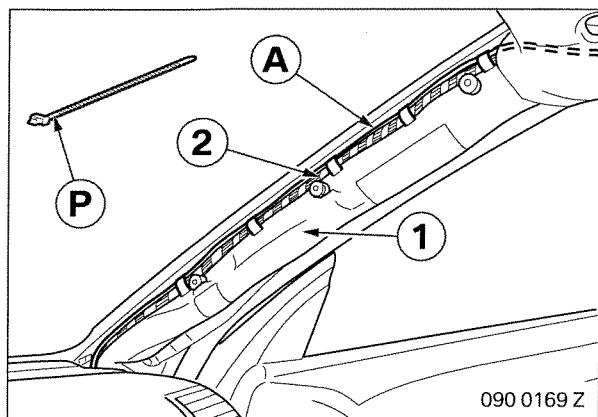


Insert the ultrasonic module **B** into the ceiling light **D**.

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

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

Install the ceiling light **D**.

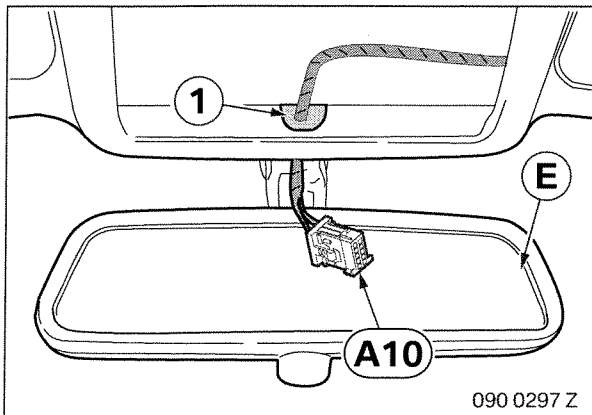
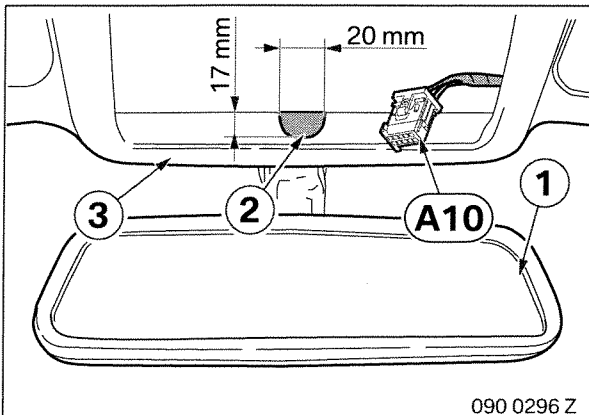
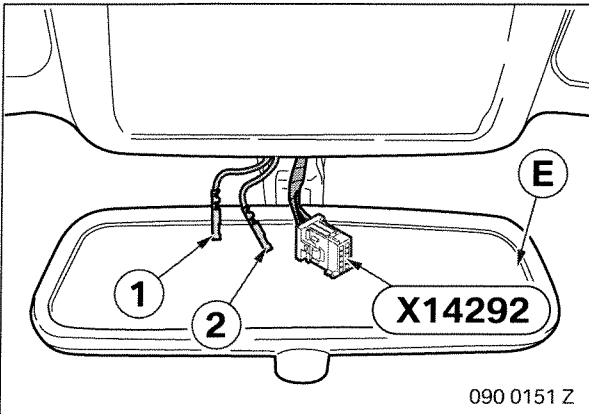
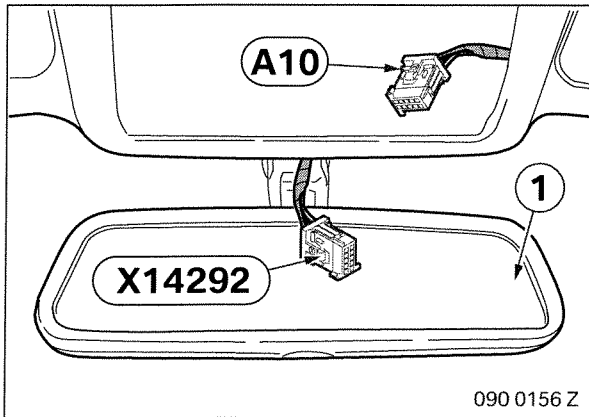


**!** So as not to adversely affect the function of the airbag (1), secure the retrofit cable **A** to the standard wiring harness (2) with cable ties **P**. ◀

Route the retrofit cable **A** along the A pillar to behind the instrument panel.



## 6. To install and connect the interior rear-view mirror



### Cars with plug X14292 only


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

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

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

Insulate branch **A10** and tie it back.

Connect the RT/GE cable (1) to PIN 8 and the GR/SW cable (2) to PIN 10 of plug **X14292**.

 If PIN 8 is already occupied, insulate the RT/GE cable (1) and tie it back. ◀

Install the interior rear-view mirror **E**.

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

### Cars without plug X14292 only

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

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

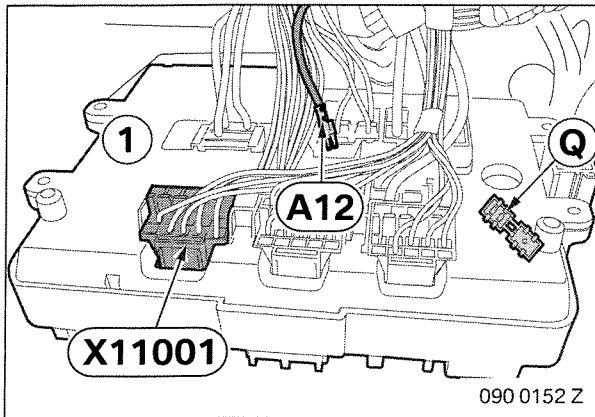
Install the interior rear-view mirror **E**.

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

Insert the rubber grommet (1) into the headlining.

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

## 7. To install and connect the retrofit cable




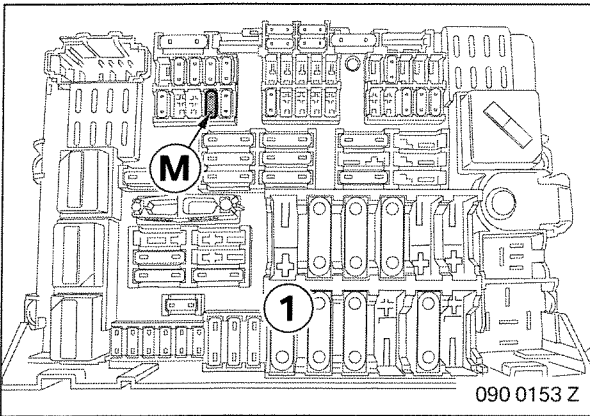
### All cars

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

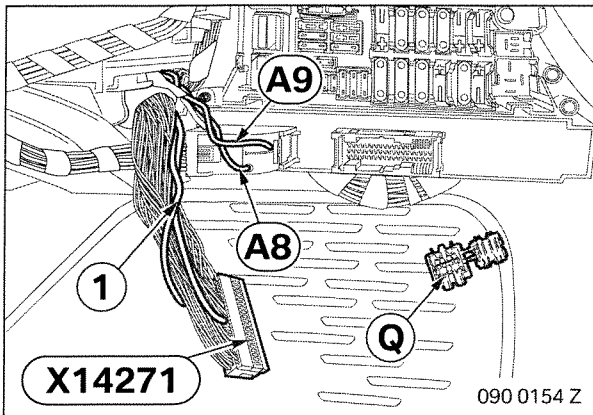
Route branch **A12**, RT/GE cable, to the fuse holder (1).

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 a miniature connector **Q**. ◀



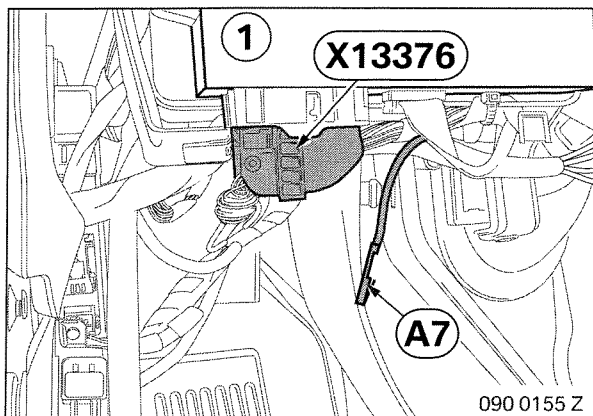
Insert fusible link **M** into slot F 19 in the fuse holder (1).



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

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



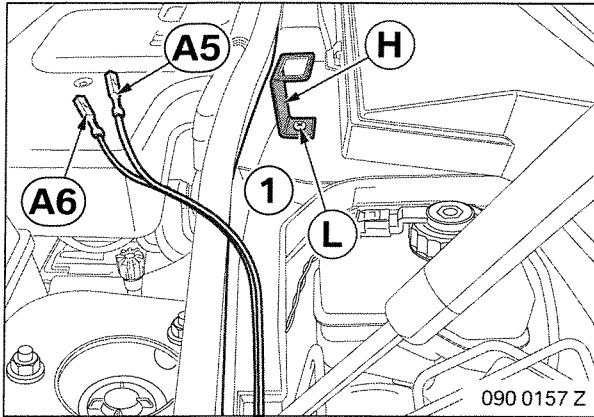
Route retrofit cable **A** along the standard wiring harness to the driver's footwell.

Disconnect and open plug **X10318** (41-pin SW) from the CAS control module (1).

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

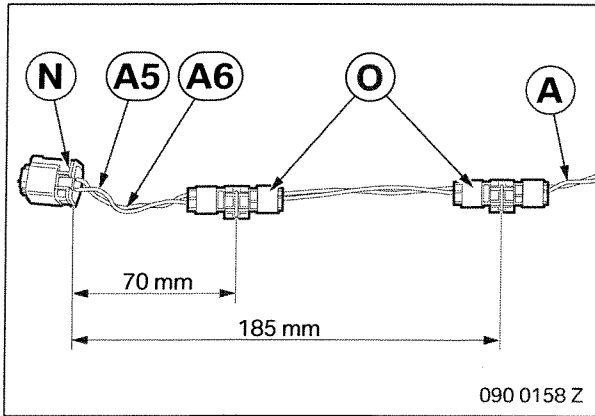
Secure and connect plug **X13376**.

7. To install and connect the retrofit cable



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

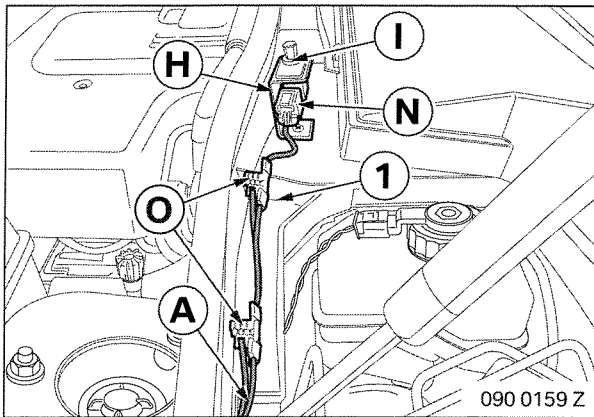
Route branch **A5**, VI/GN cable, and branch **A6**, BR cable, into the engine compartment to the microfilter casing (1).



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

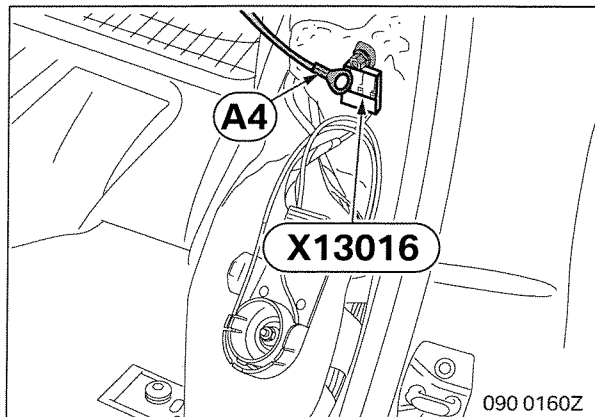
Secure the cable holder **O** to the retrofit cable **A** using adhesive tape using the dimensions shown.



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

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

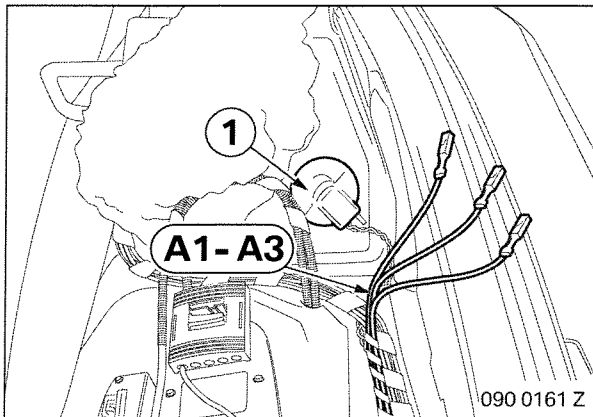
Secure retrofit cable **A** to the microfilter casing (1) using a cable holder **O**.



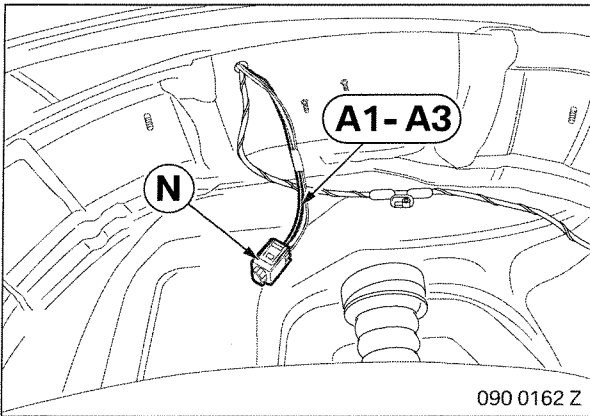
Route retrofit cable **A** along the left door sill behind the left seat backrest side section.

Secure branch **A4**, BR cable, to earth post **X13016**.

7. To install and connect the retrofit cable

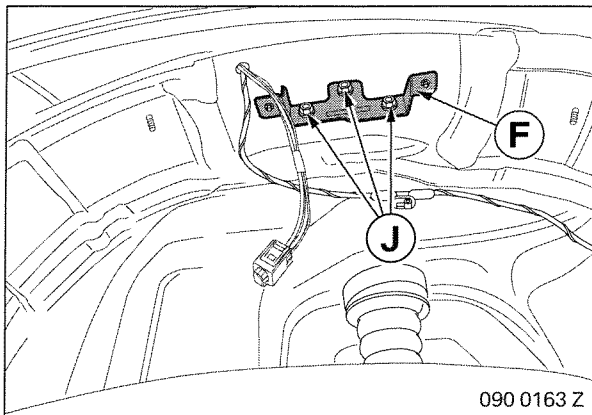


Route branch **A1**, BR cable, branch **A2**, SW/RT cable, and branch **A3**, RT/GE cable, through the rubber grommet (1) into the rear left wheel arch.

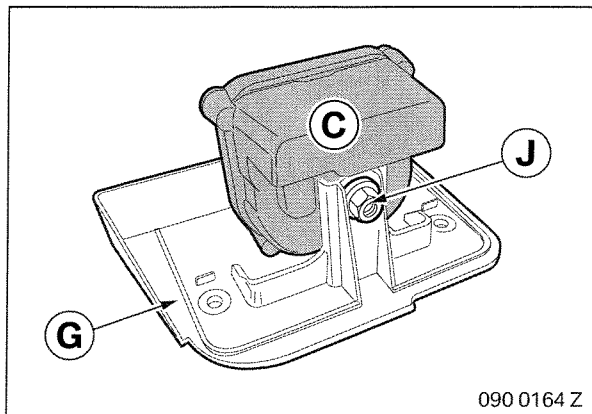


Connect branches **A1 – A3** to socket casing **N** as follows:

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

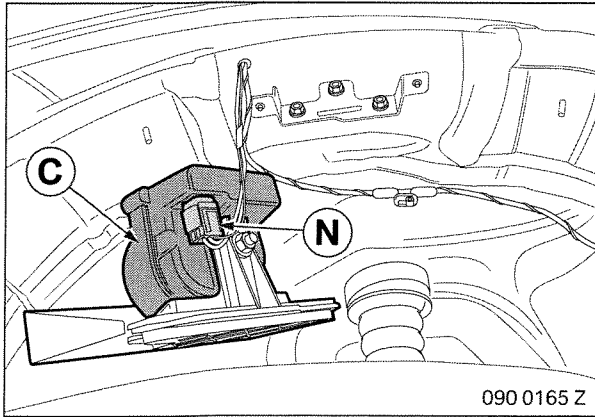


Use the hexagonal nuts **J** to secure the holder **F** to the wheel arch at the rear left.

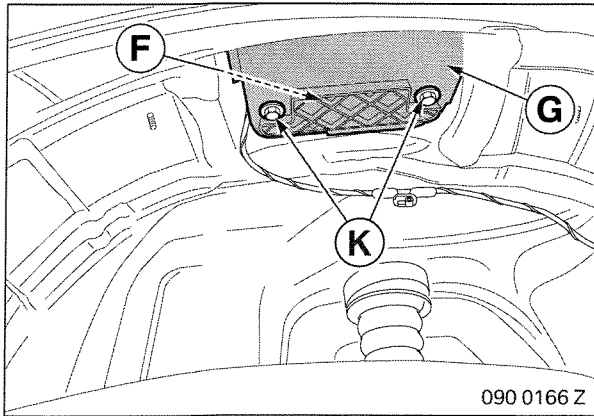


Use a hexagonal nut **J** to secure the emergency-current siren **C** to the mounting plate **G**.

7. To install and connect the retrofit cable



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



Use the hexagonal screws **K** to secure the mounting plate **G** to the holder **F**.

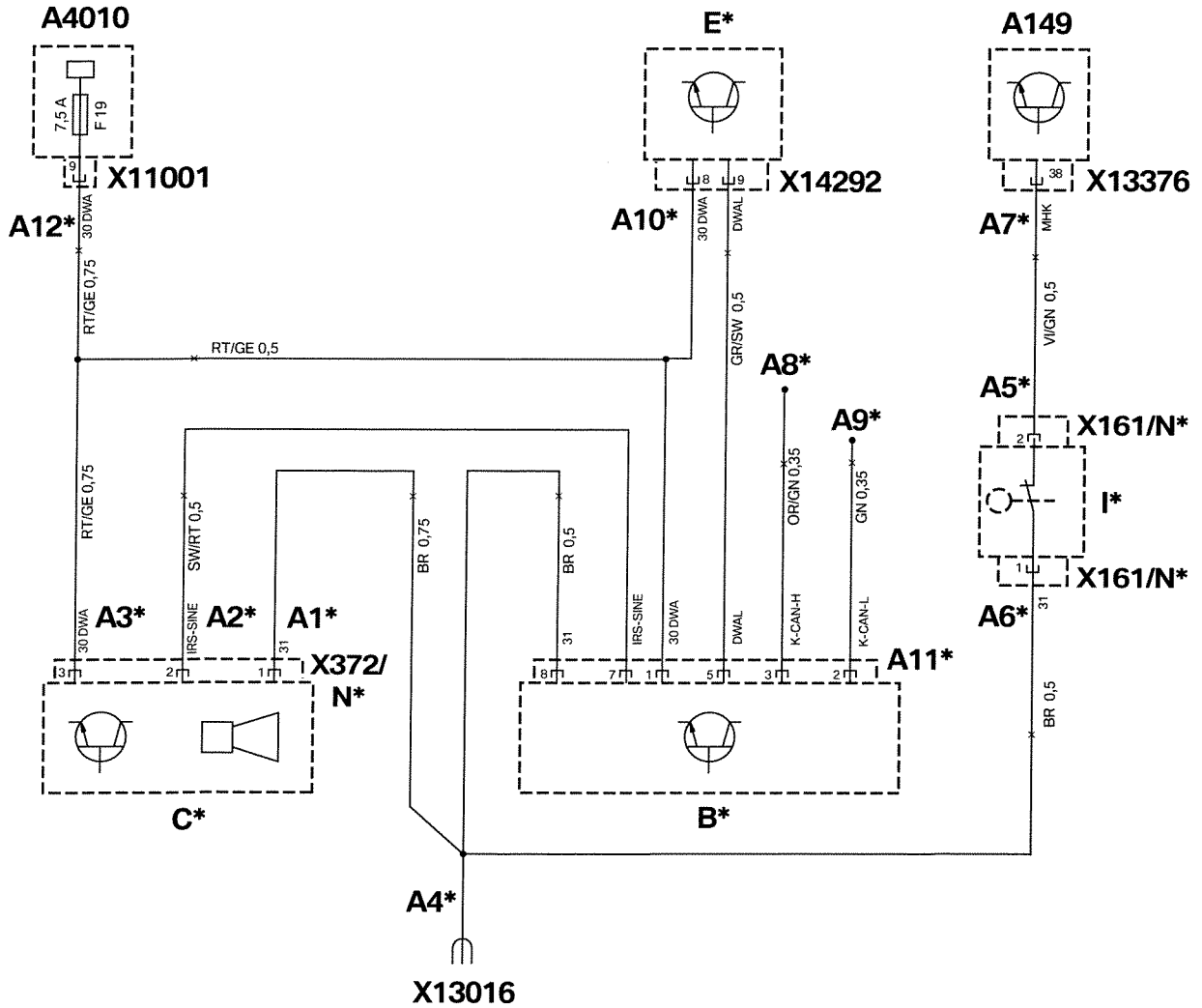
## **8. Concluding work and coding**

This retrofit system requires coding.

- Connect the battery
- Encode the retrofit with SSS (software service station) via the **CIP** path
- Conduct a brief test
- Conduct a function test
- Re-assemble the car

## 9. Alarm system circuit diagram

Cars with plug X14292 on interior rear-view mirror only

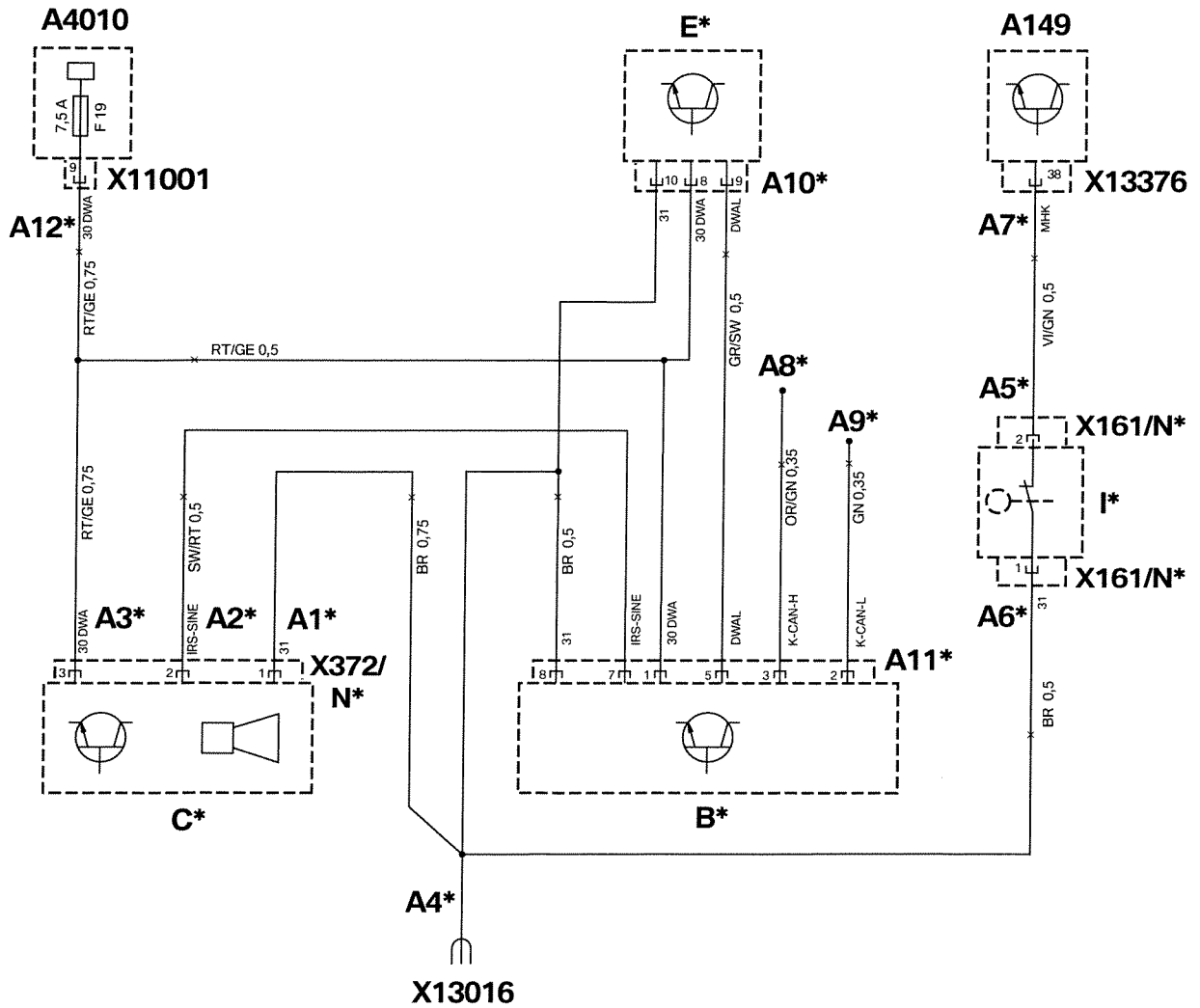


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9. Alarm system circuit diagram

Cars without plug X14292 on interior rear-view mirror only



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## 9. Alarm system circuit diagram

### Legend

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

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

### Cable colours

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