Original BMW Accessories.
Installation Instructions.

Anti-Theft Alarm System Retrofit.
BMW 5 Series (F07, F10, F11)

These installation instructions only apply to cars without SA 302 (anti-theft alarm system).

Retrofit kit number
65 75 2 448 363 Anti-theft alarm system

Installation time
The installation time is **approx. 2.0 hours**. This may vary depending on the condition of the vehicle 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.

These installation instructions are intended for use by qualified specialist staff trained on BMW vehicles with the relevant expert 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, send an inquiry straight away to the technical parts support team via the Aftersales 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 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
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/wires 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.

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

List of special equipment
The following special equipment must be taken into consideration during the installation work:

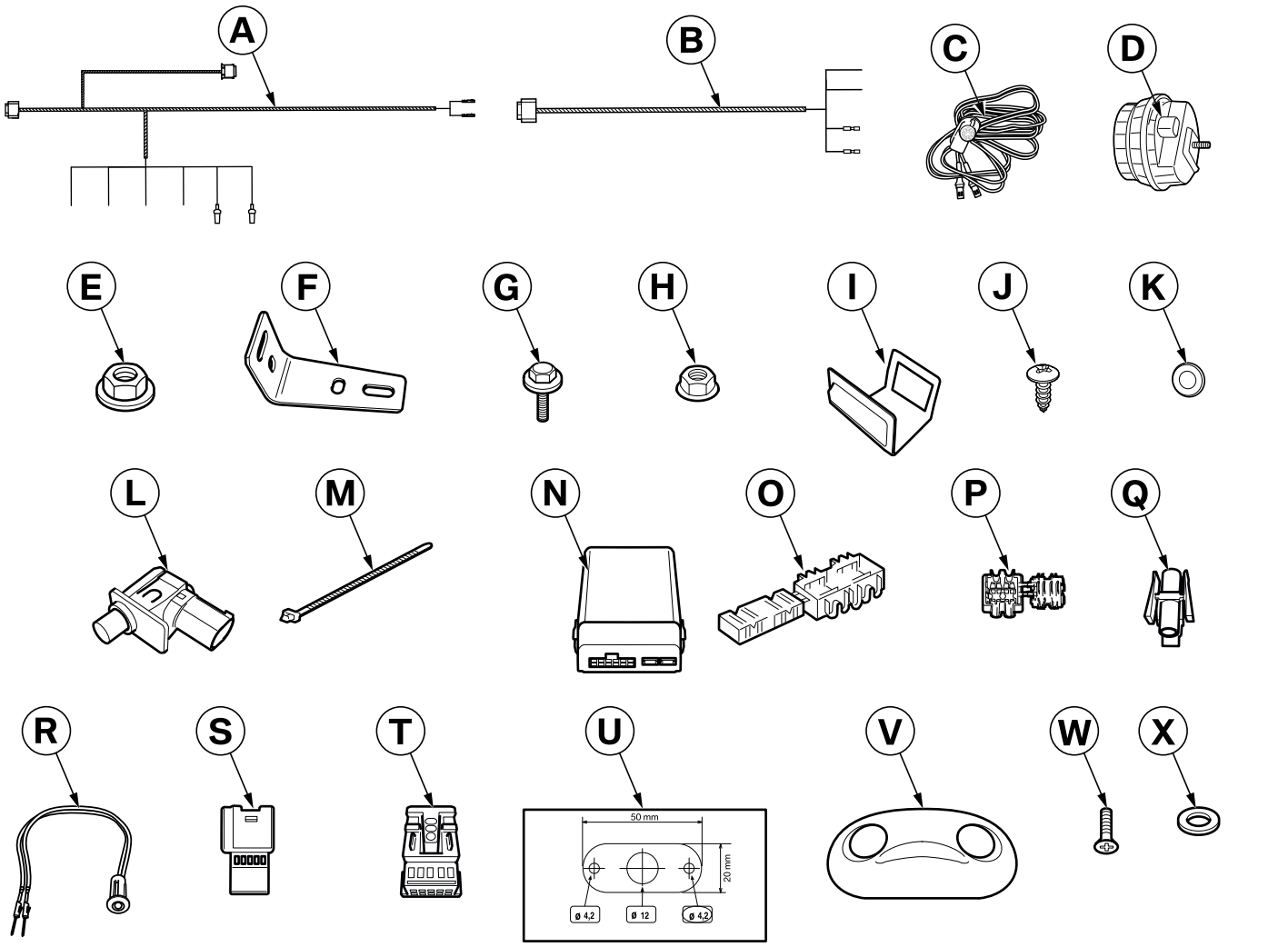
SA 302 Anti-theft alarm system
SA 1CC Auto Start/Stop function

Customer information
Print out the “Customer information” section at the end of the installation instructions and give it to the customer.

Special tools required
Details of the special tools required can be found in the relevant ISTA repair manual.

Table of contents

1. Parts list for retrofit kit

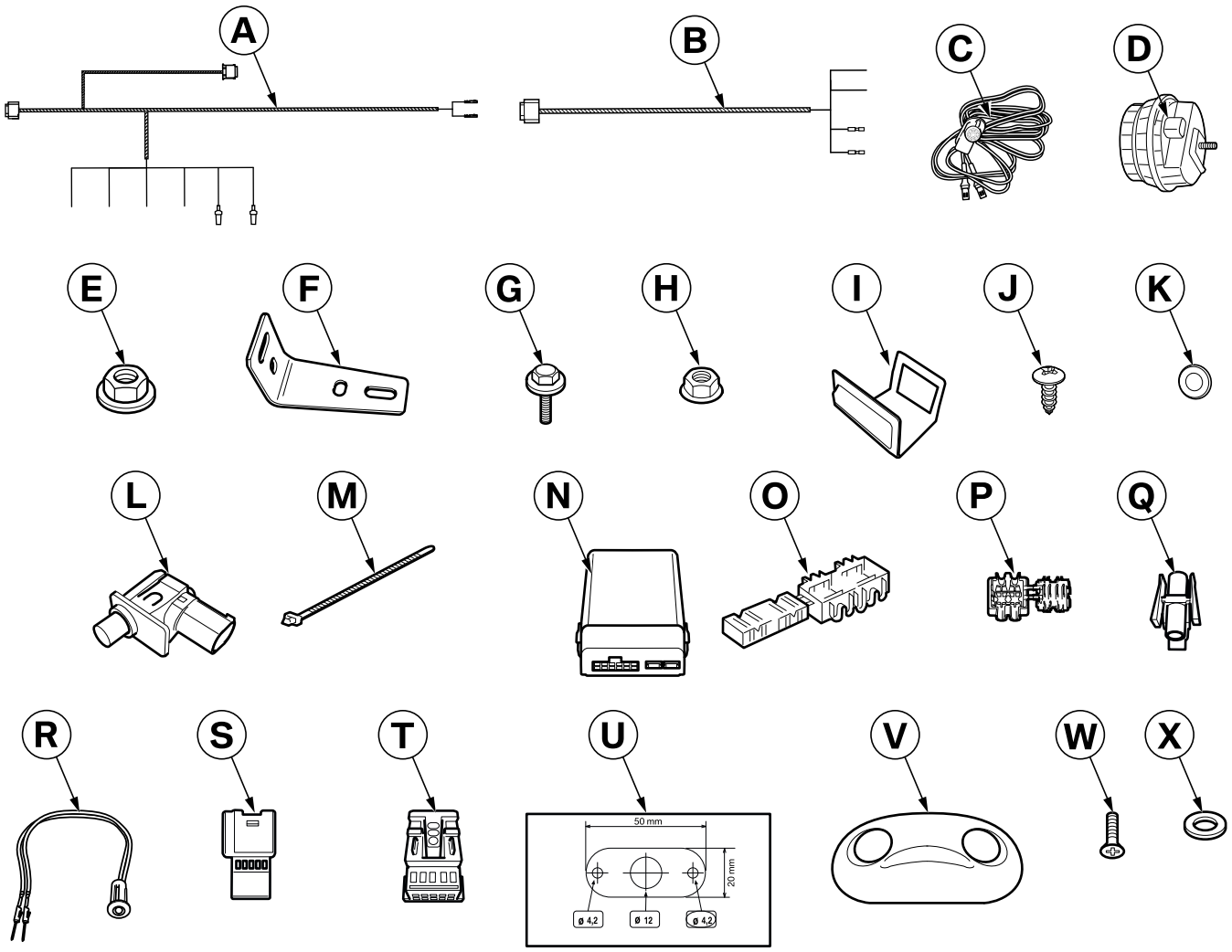


F10 0315 Z

Legend

A Retrofit wiring harness
B Adapter cable
C Ultrasonic sensors with wiring harness
D Emergency power siren
E Hexagon nut with washer M6
F Emergency power siren mount
G Hexagon screw M6 x 16
H Lock nut M6
I Bonnet contact mount
J Phillips screw M4 x 12
K Washer M4
L Bonnet contact
M Cable ties (5 x)

1. Parts list for retrofit kit



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Legend

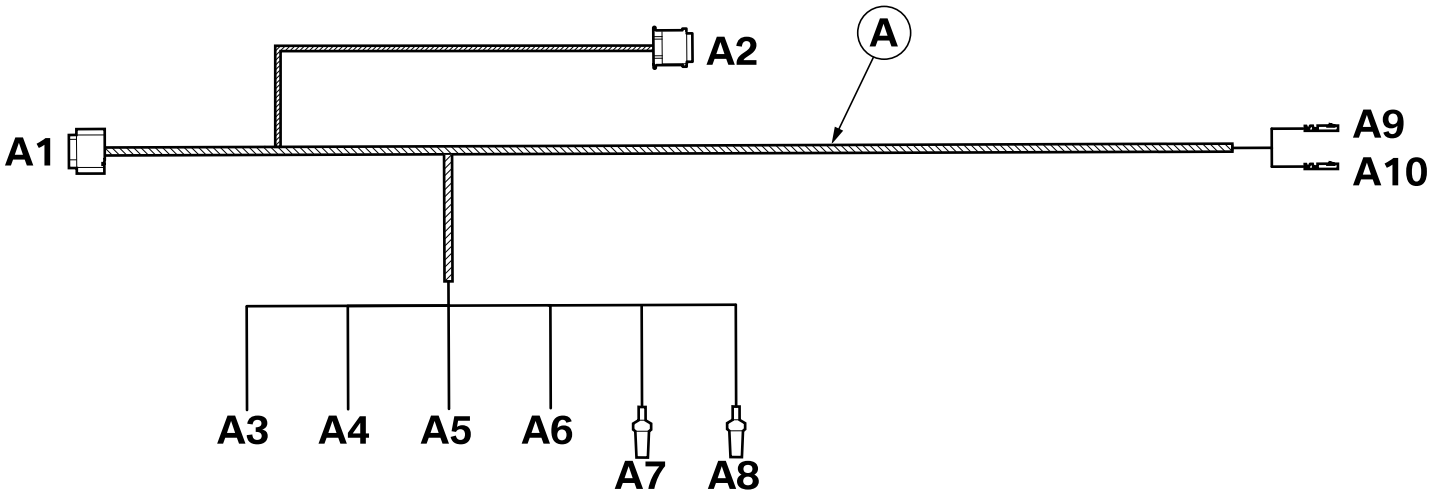
N Control unit
O 5-way miniature connector (2 x)
P 2-way miniature connector (2 x)
Q Socket casing
R LED
S SW 10-pin plug housing
T SW 10-pin socket casing
U Drilling template
V Covers for ultrasonic sensors (3 x)
W Philips screw M2 x 6 mm (3 x)
X Washer M2 (2 x)

The other parts in the retrofit kit are not required.

2. Preparatory work

	ISTA No.
Disconnect all negative battery cables	61 20 900
Release and disconnect various plug connections.	61 13 ...
Cut, strip and crimp cables	61 11 ...
Open the plug housing and remove the contacts from various connection systems	61 13 ...
Instructions for handling the documents: Repair manual, technical data, tightening torques	00 11 ...
Instructions for handling wiring harnesses and cables	61 00 ...
The following components must be removed first of all	
Pedal trim	51 45 184
Front roof pillar trim on the left	51 43 201
Trim for door pillar (top) left	51 43 148
Trim for door pillar (bottom) left	51 43 150
Front left (interior) door sill cover strip	51 47 000
Rear left (interior) door sill cover strip	51 47 030
Interior rear-view mirror	51 16 063
Roof switch cluster	61 31 043
Top rear connection	51 64 020

3. Retrofit wiring harness connection diagram



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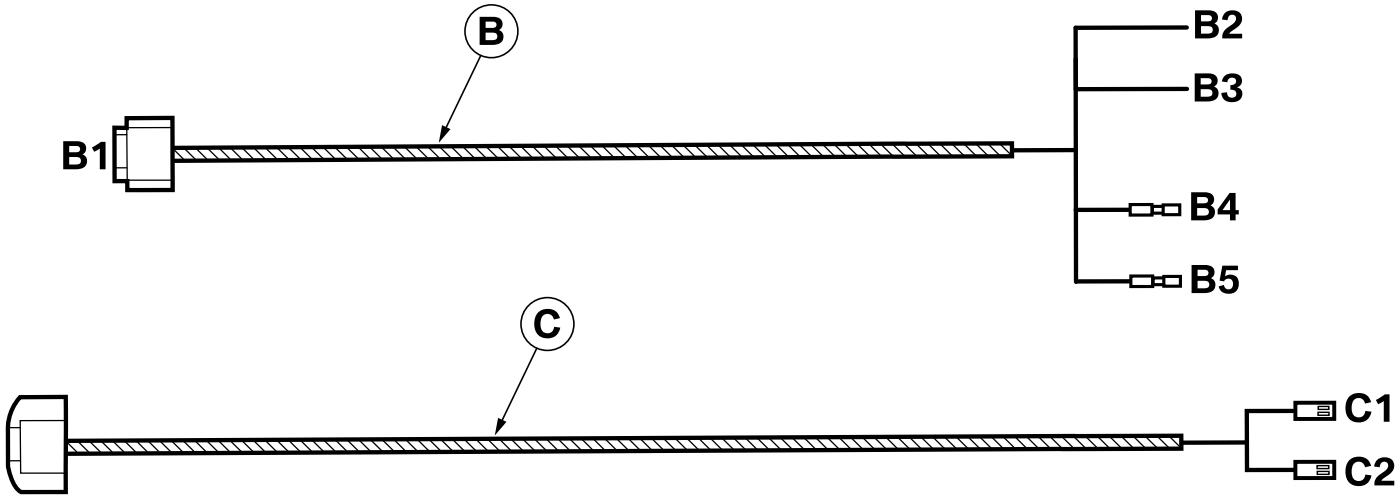
Item	Designation	Signal	Cable colour/ Cross-section	Connection location in the car	Abbreviation/ Slot
A	Retrofit wiring harness	---	---	---	---
A1	SW 6-pin socket casing	---	---	To emergency power siren **D**	H1*1B
A2	SW 3-pin socket casing	---	---	To bonnet contact **L**	---
A3	Open cable	30	GN/RT 0.35 mm²	With miniature connector **O** to cable from CAS **A16**	A16*1B PIN 34
A4	Open cable	31	BR 0.35 mm²	With miniature connector **O** to cable from CAS **A16**	A16*1B PIN 25
A5	Open cable	K_CAN2_H	GE/RT 0.35 mm²	With miniature connector **P** to cable from CAS **A16**	A16*1B PIN 35
A6	Open cable	K_CAN2_L	GE/BR 0.35 mm²	With miniature connector **P** to cable from CAS **A16**	A16*1B PIN 26
A7	Round socket contact	---	BL/SW 0.35 mm²	To branch **B4**	---
A8	Round socket contact	---	BL 0.35 mm²	To branch **B5**	---
A9	Socket contact	LED +	RT/SW 0.35 mm²	To interior rear-view mirror **A60**	A60*1B PIN 8
A10	Socket contact	LED -	BR 0.35 mm²	To interior rear-view mirror **A60**	A60*1B PIN 9

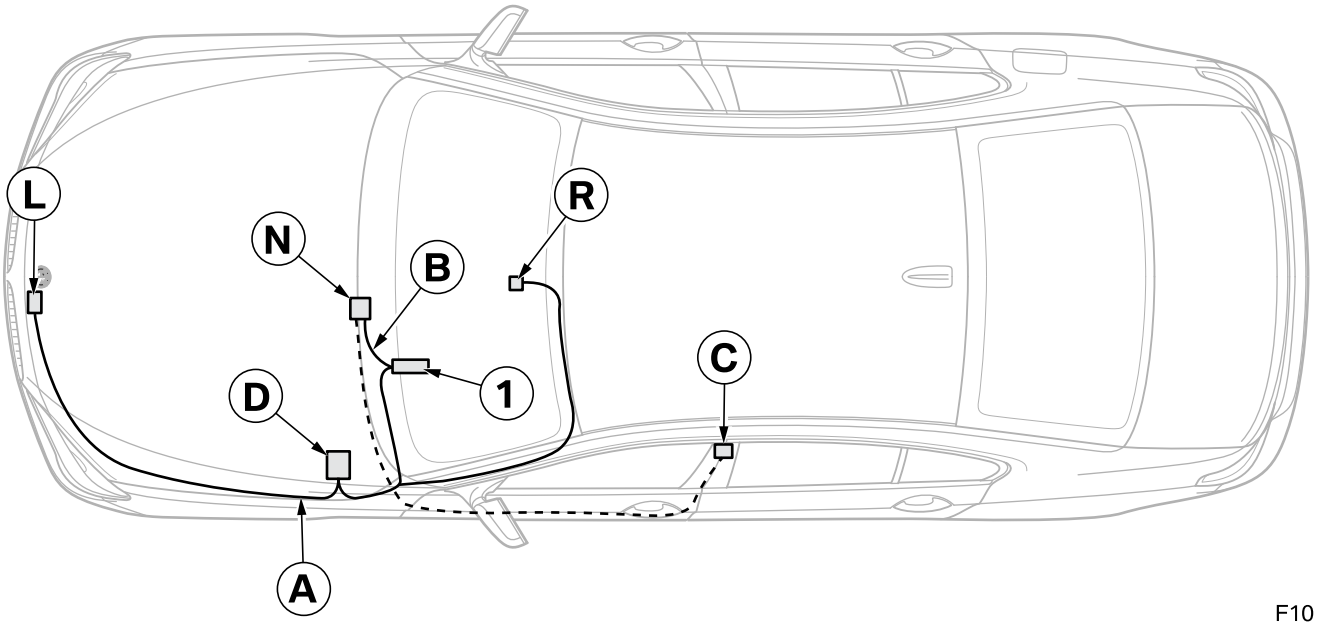
4. Adapter cable and ultrasonic sensors connection diagram



F10 0293 Z

Item	Designation	Signal	Cable colour/ Cross-section	Connection location in the car	Abbreviation/ Slot
B	Adapter cable	---	---	---	---
B1	Socket casing	---	---	To control unit **N**	---
B2	Open cable	30	RT/GN 0.35 mm²	With miniature connector **O** to cable from CAS **A16**	A16*1B PIN 34
B3	Open cable	31	BR 0.35 mm²	With miniature connector **O** to cable from CAS **A16**	A16*1B PIN 25
B4	Pin housing	---	SW/BL 0.35 mm²	To branch **A7**	---
B5	Pin housing	---	BL 0.35 mm²	To branch **A8**	---
C	Ultrasonic sensor retrofit wiring harness	---	---	---	---
C1	RT 2-pin socket casing	---	---	To control unit **N**	RX
C2	SW 2-pin socket casing	---	---	To control unit **N**	TX

5. Installation and cabling diagram



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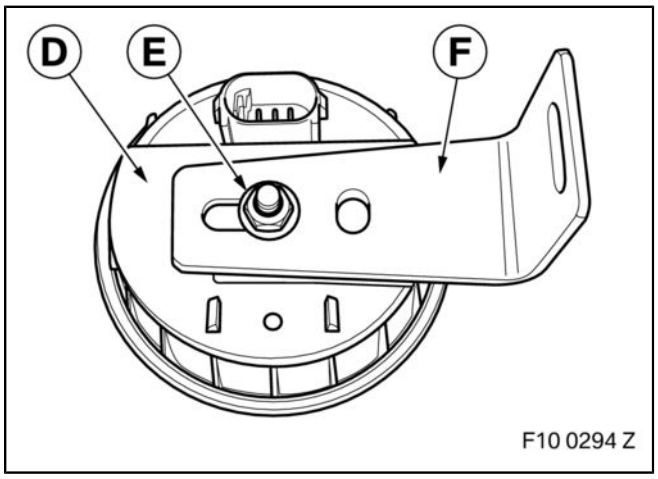
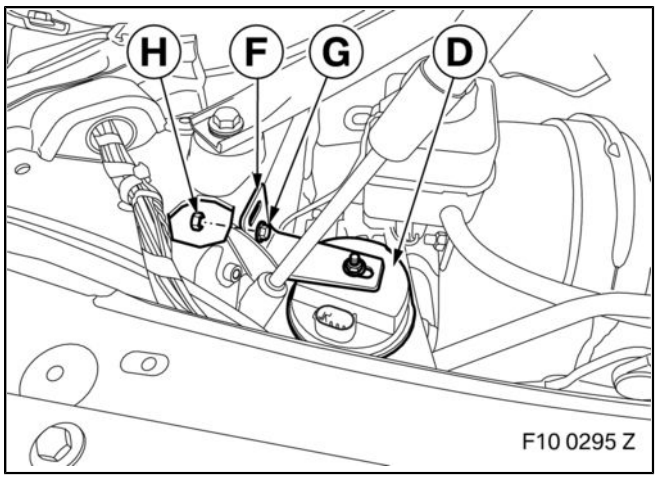
A Retrofit wiring harness
B Adapter cable
C Ultrasonic sensors
D Emergency power siren
L Bonnet contact
N Control unit
R LED

1 CAS control unit **A16**

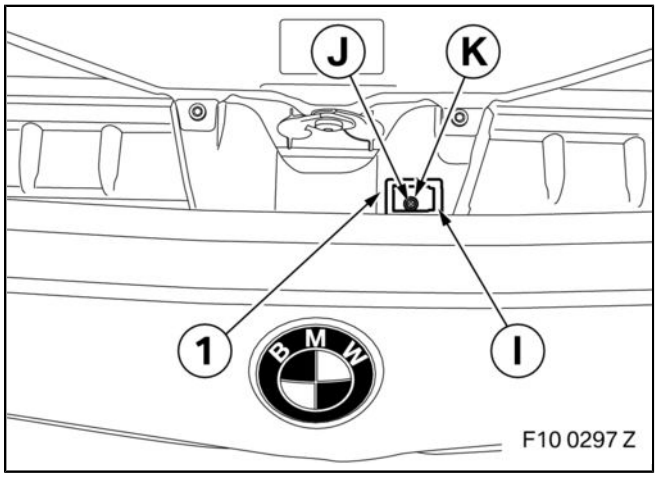
6. Install emergency power siren and route retrofit wiring harness



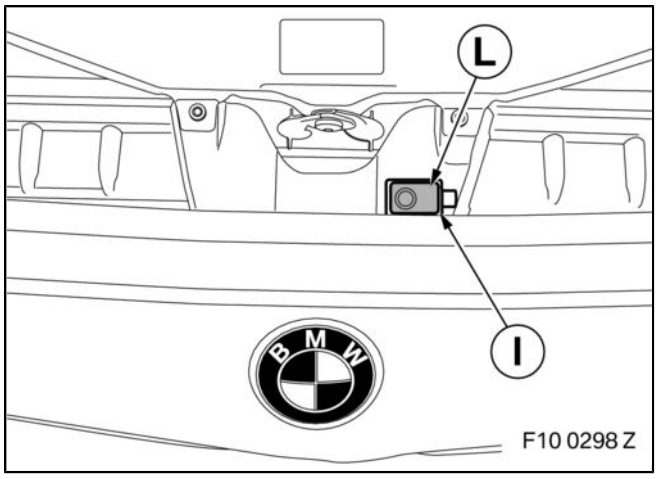
Secure emergency power siren **D** using hexagon nut **E** to emergency power siren holder **F**.



Secure emergency power siren **D** with emergency power siren holder **F** near the brake booster using the existing borehole and a hex head screw **G** and lock nut **H**.

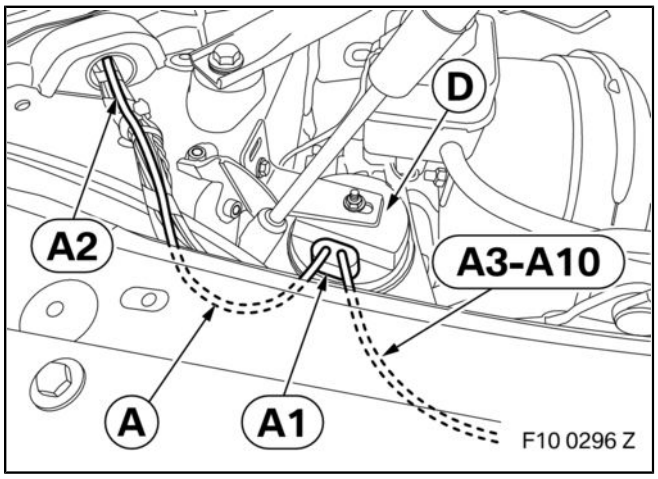


Cars without SA 1CC only
Secure the bonnet contact holder **I** using a Philips screw **J** and washer **K** as shown to the cooling air duct **1**.



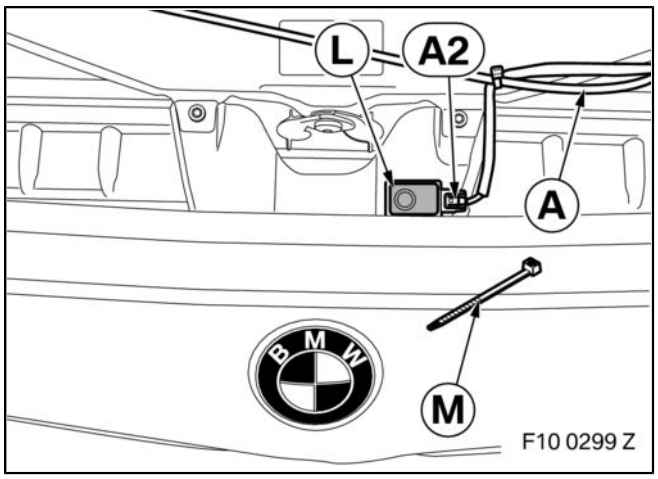
Install bonnet contact **L** in bonnet contact holder **I**.

6. Install emergency power siren and route retrofit wiring harness



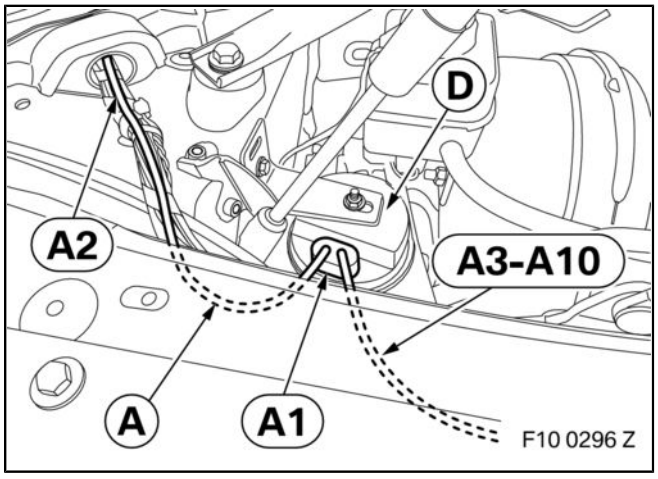
Connect branch **A1** on retrofit wiring harness **A** to emergency power siren **D**.

Route branch **A2** to the location of bonnet contact **L**.



Connect branch **A2** on retrofit wiring harness **A** to bonnet contact **L**.

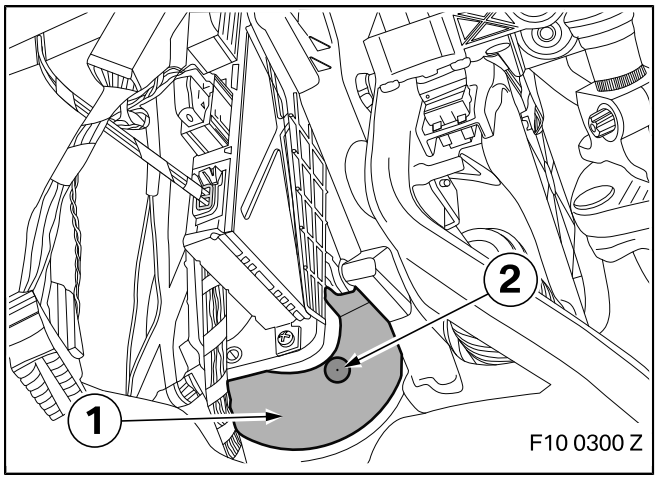
Secure retrofit wiring harness **A** to the standard wiring harness using cable ties **M**.



Cars with SA 1CC only

Connect branch **A1** on retrofit wiring harness **A** to emergency power siren **D**.

Tie back branch **A2** (it is not required)



For all cars

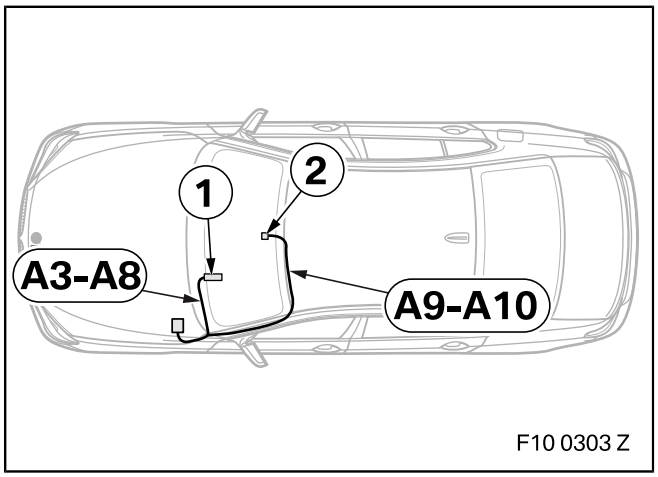
⚠ Ensure that, when you drill, you do not damage any cables in the car. ◀

Place the driver's side footwell mat to one side.

Using a 6 mm diameter drill bit, drill a hole (2) through at the cable grommet (1).

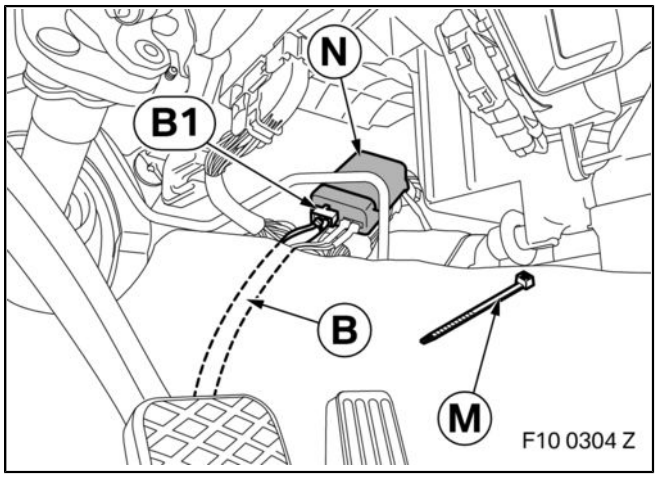
Route branches **A3-A10** through the rubber grommet into the interior of the car.

6. Install emergency power siren and route retrofit wiring harness



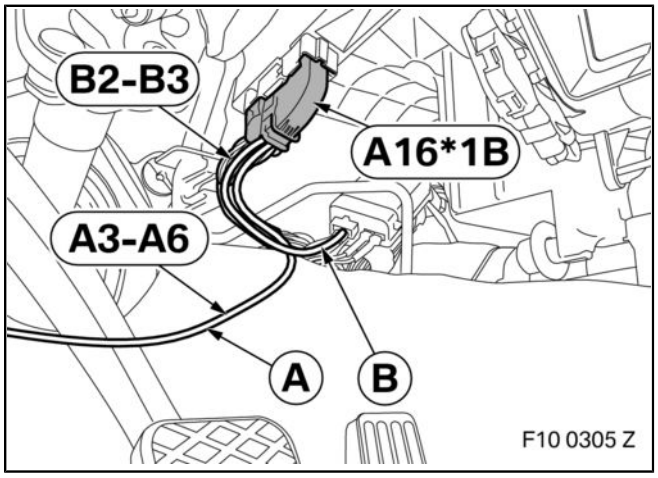
Route branches **A3-A6** to the location of the CAS **A16** (1).

Route branches **A9–A10** to the location of the interior rear-view mirror **A60** (2).



Secure control unit **N** to original wiring harness using cable ties **M**.

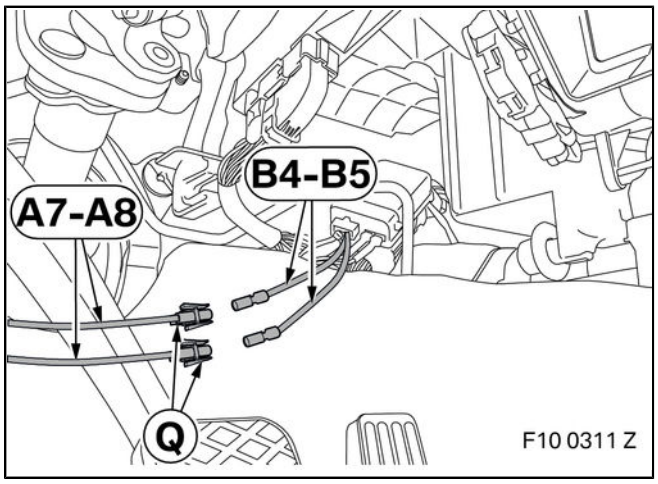
Connect branch **B1** on adapter cable **B** to control unit **N**.



Connect branches **A3-A6** on retrofit wiring harness **A** and branches **B2-B3** on adapter cable **B** as follows to the cables from plug **A16*1B**.

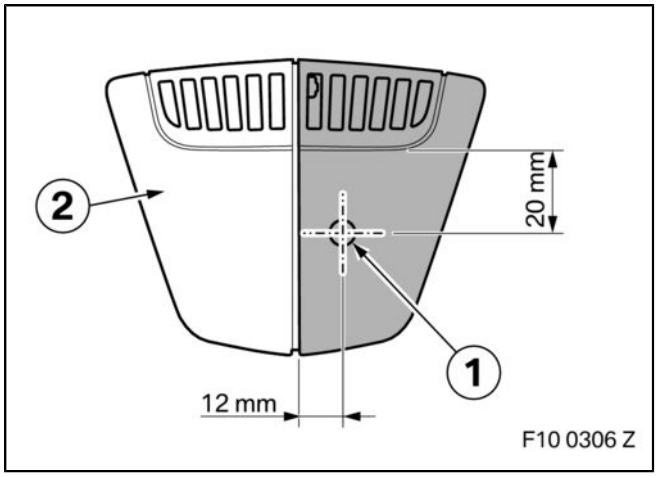
- Branch **A3**, GN/RT cable, and branch **B2**, RT/GN cable, to RT/BR cable from PIN 34 using 5-way miniature connector **O**
- Branch **A4**, BR cable, and branch **B3**, BR cable, to the same coloured cable from PIN 25 using 5-way miniature connector **O**
- Branch **A5**, GE/RT cable, to the same coloured cable from PIN 35 using 2-way miniature connector **P**
- Branch **A6**, GE/BR cable, to the same coloured cable from PIN 26 using 2-way miniature connector **P**

6. Install emergency power siren and route retrofit wiring harness

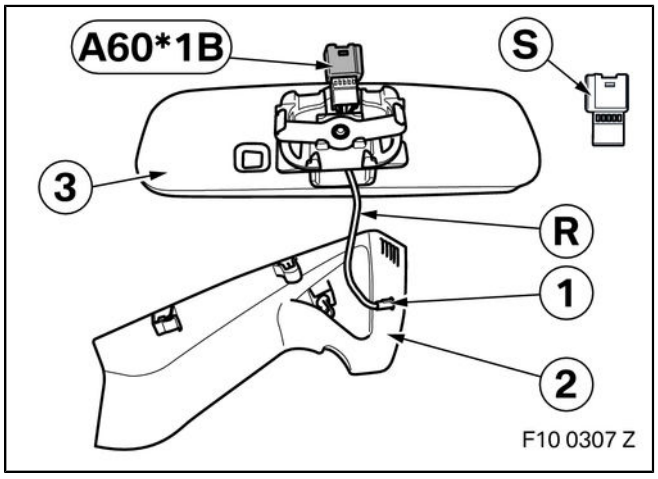


Connect branches **A7-A8** using plug housing **Q** as follows to branches **B4-B5**:

- Branch **A7**, BL/SW cable, to branch **B4**, SW/BL cable
- Branch **A8**, BL cable, to branch **B5**, BL cable



Mark the drilling point (1) on the left half of the caps (2) using the dimensions shown and drill it with a 6 mm bit.



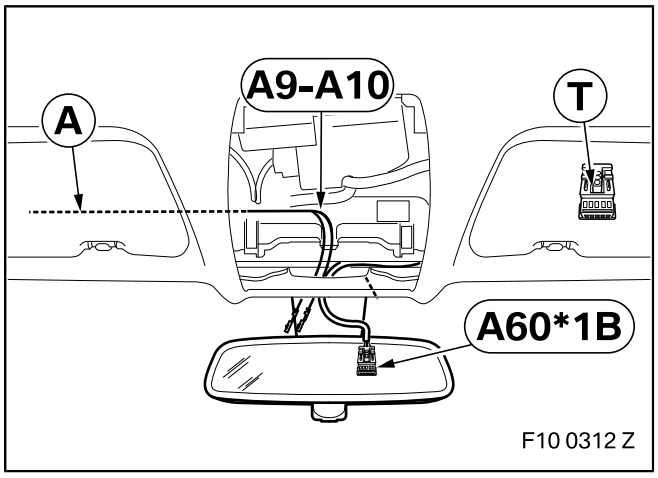
If plug **A60*1B** is not present, use plug housing **S**.

Clip LED **R** into the borehole (1) on the cap (2).

Connect the cables for LED **R** as follows to plug **A60*1B**:

- SW/RT cable to PIN 8
- SW cable to PIN 9

Install the interior rear-view mirror (3).

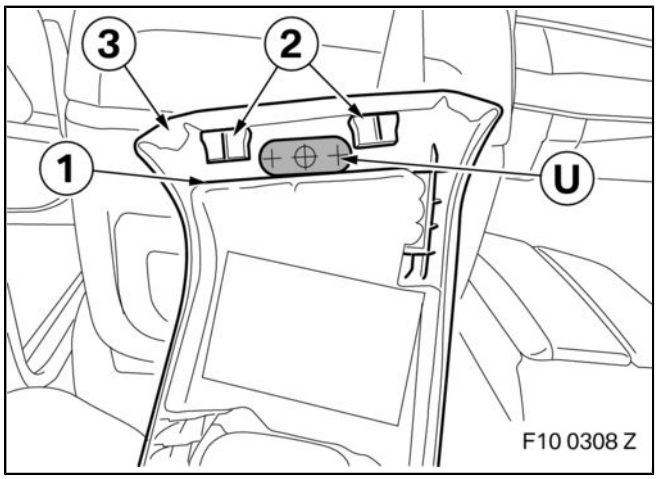


If plug **A60*1B** is not present, use socket housing **T**.

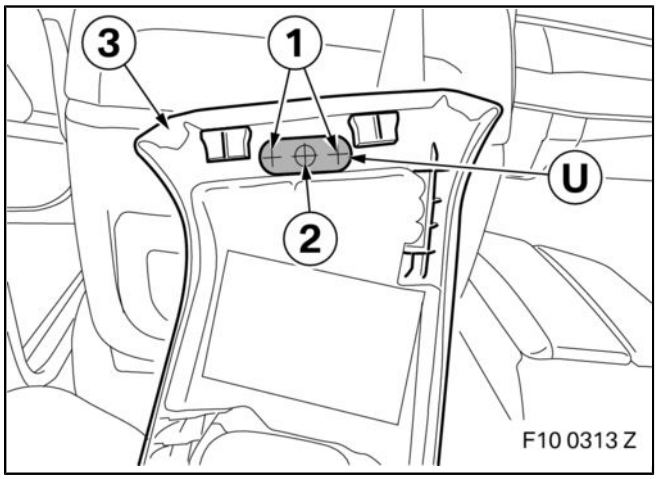
Connect branches **A9-A10** as follows to plug **A60*1B**:

- Branch **A9**, RT/SW cable, to PIN 8
- Branch **A10**, BR cable, to PIN 9

6. Install emergency power siren and route retrofit wiring harness

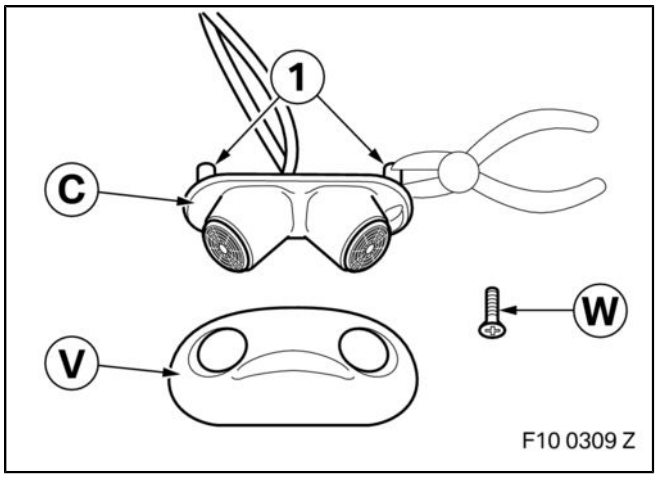


Affix drilling template **U** to the top door pillar trim (3) flush with the edge (1) and in the centre between holders (2).



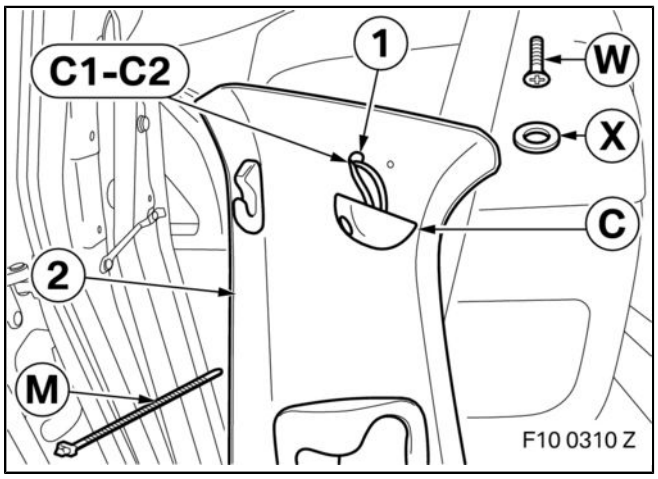
Drill through drilling template **U** as follows on the top door pillar trim (3):

- Drill the holes (1) using a 4.2 mm drill bit.
- Drill the hole (2) using a 12 mm drill bit.



Cut-off the pins (1) on ultrasonic sensors **C**.

Screw the cap **V** of the appropriate colour using a Philips screw **W** to ultrasonic sensors **C**.



Ensure that there are no cables on the seat belt. ◀

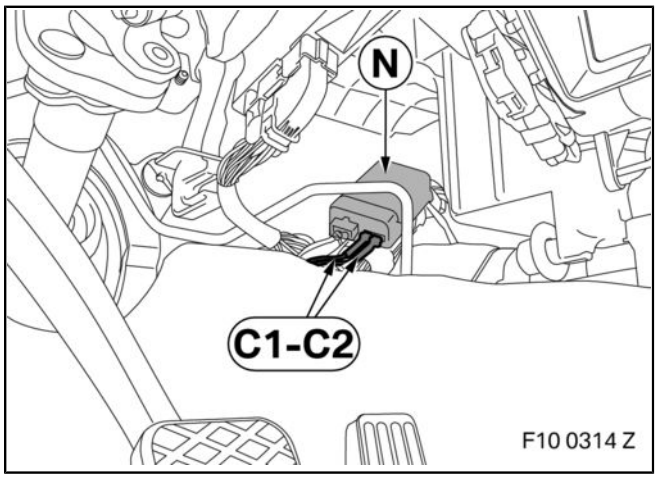
Route branches **C1-C2** from ultrasonic sensors **C** through the borehole (1).

Secure ultrasonic sensors **C** with Phillips screws **W** and washers **X** to the top door pillar trim (2).

Route branches **C1-C2** to the location of control unit **N**.

Secure branches **C1-C2** to the standard wiring harness using cable ties **M**.

6. Install emergency power siren and route retrofit wiring harness



Connect branches **C1-C2** as follows to control unit **N**:

– Branch **C1**, RT 2-pin socket housing, to RX connector

– Branch **C2**, SW 2-pin socket housing, to TX connector

7. Concluding work and function test

The retrofit system does not require programming/coding.

– Connect the battery
– Connect the battery charger to the car
– Carry out a vehicle test using the ISTA system and note or work through any entered error memory
– Conduct a function test
– Re-assemble the car
– Give the customer the customer information.

Function test
Function test 1:

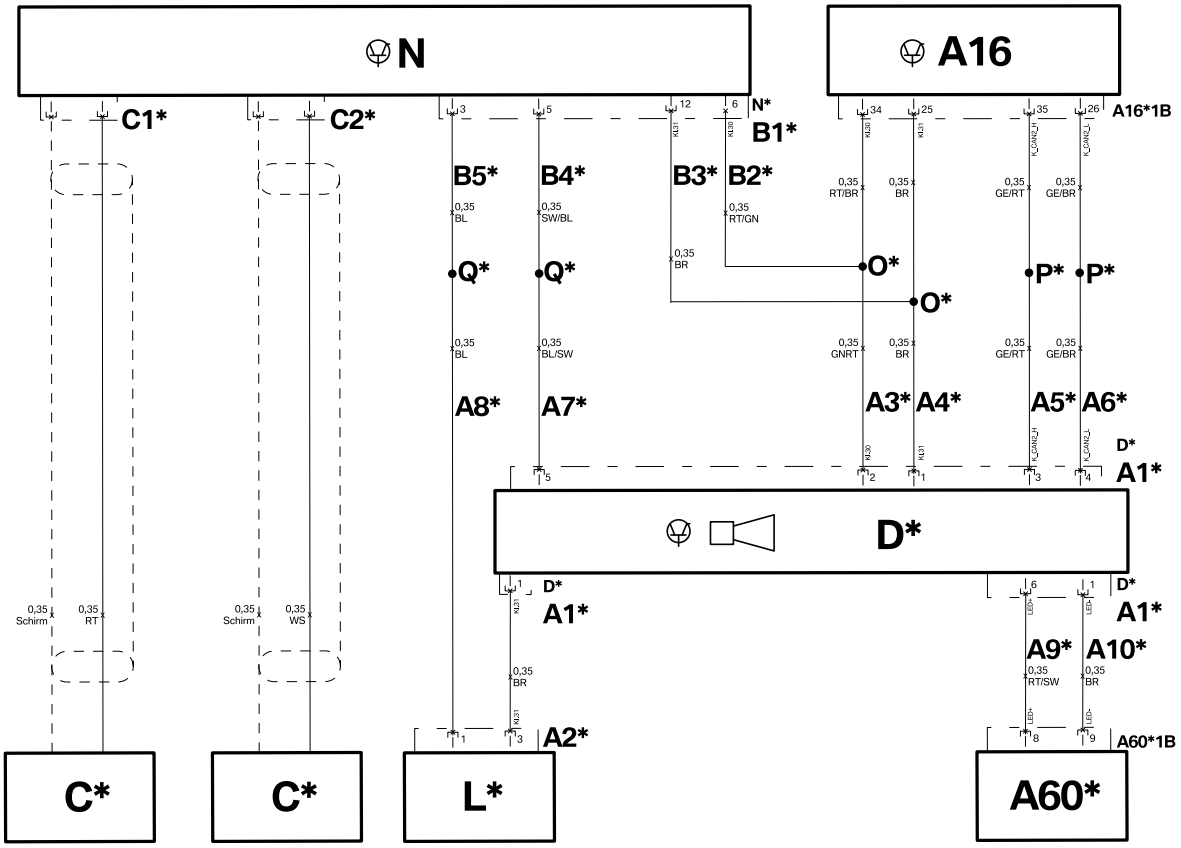
1 Open the bonnet.
2 Lock the car.
3 Disconnect the emergency power siren plug after around 1 minute.
4 The alarm will be triggered.

Function test 2:

The bonnet must be closed.
This function test must be carried out by two people. ◀

1 One person must be inside the car.
2 The second person locks the car from the outside.
3 After around 1 minute the person sitting inside the car must move.
4 The alarm will be triggered.

8. Wiring diagram



Legend

A1* SW 6-pin socket housing, to emergency power siren **D***
A2* SW 3-pin socket housing, to bonnet contact **L***
A3* Cable open, GN/RT cable, using 5-way miniature connector **O*** to the cable from plug **A16*1B**
A4* Cable open, BR cable, using 5-way miniature connector **O*** to the cable from plug **A16*1B**
A5* Cable open, GE/RT cable, using 2-way miniature connector **P*** to the cable from plug **A16*1B**
A6* Cable open, GE/BR cable, using 2-way miniature connector **P*** to the cable from plug **A16*1B**
A7* Socket contact, BL/SW cable, with socket housing **Q** to branch **B4**
A8* Socket contact, BL cable, with socket housing **Q** to branch **B5**
A9* Socket contact, RT/SW cable, to socket housing **A60*1B**
A10* Socket contact, BR cable, to socket housing **A60*1B**

B1* SW 12-pin socket housing, to ultrasonic sensors control unit **N***
B2* Cable open, RT/GN cable, using 5-way miniature connector **O*** to the cable from plug **A16*1B**
B3* Cable open, BR cable, using 5-way miniature connector **O*** to the cable from plug **A16*1B**
B4* Plug housing, SW/BL cable, to branch **A7**
B5* Plug housing, BL cable, to branch **A8**

C1* RT 2-pin socket housing, to ultrasonic sensors control unit **N***
C2* SW 2-pin socket housing, to ultrasonic sensors control unit **N***

C* Ultrasonic sensors
D* Emergency power siren
L* Bonnet contact
N* Ultrasonic sensors control unit
O* 5-way miniature connector
P* 2-way miniature connector
Q* Socket housing

8. Wiring diagram

A16 CAS control unit
A60 Interior rear-view mirror
A16*1B SW 41-pin socket housing
A60*1B SW 10-pin socket housing

All of the designations marked with * apply only to these installation instructions or this wiring diagram.

Cable colours

BL	Blue	GR	Grey	RT	Red
BO	Bordeaux (Burgundy)	L-GN	Light green	SW	Black
BR	Brown	NT	Natural	TR	Transparent
GE	Yellow	OR	Orange	VI	Violet
GN	Green	RO	Pink	WS	White

9. Customer information

F10 0316 Z

General information

The sensor installed in the door pillar must not be covered. Do not arm the anti-theft alarm system with the interior motion sensor if there are people, animals or moving objects in the car (see "Arm the anti-theft alarm system without interior motion sensor"). ◀

The anti-theft alarm system has been developed to prevent the theft of interior car components. Protection against the theft of loose items (if a window is open, for example) cannot be guaranteed in full. ◀

The life of the integral battery in the emergency power siren is a maximum of 10 years.

When the system has been armed, the alarm will be triggered in the following situations:
– If a door, the boot lid or bonnet is open without using the proper key or remote control
– If movement is detected in the car by the interior motion sensor
– If the car's battery or emergency power siren is disconnected
– If the car is raised

Arm the anti-theft alarm system:
– By pressing the locking key (1) on the remote control once

Arm the anti-theft alarm system without interior motion sensor:
– By pressing the locking key (1) on the remote control twice

To re-arm the interior motion sensor, the anti-theft alarm system must be disarmed and then armed again by pressing the locking key (1) on the remote control once. ◀

Disarm the anti-theft alarm system:
– By unlocking the car using the unlocking key (2) on the remote control

After the anti-theft alarm system has been tripped, the hazard lights system must be disarmed manually using the hazard lights button in the interior. ◀