

# Original MINI Accessory. Installation Instructions.



**Park Distance Control (PDC) retrofit, rear**  
**MINI Convertible (R 52)**  
**MINI ONE and COOPER (R 50)**  
**MINI COOPER S (R 53)**

**Retrofit kit No.** 66 21 0 392 378 Park Distance Control (PDC) retrofit, rear

## **Installation time**

The installation time is 2.0 hours, but this may vary depending on the equipment in the car.

## **Important information**

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

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

All work must be completed using the latest MINI 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), contact the following:**

- 1. Either your national subsidiary or your regional office**
- 2. The Support team via the Aftersales Assistance Portal (ASAP) using the optional technical parts support application.**

**Specify the chassis number and the part number of the installed retrofit kit and give a precise description of the problem.**

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

## **Pictograms**



Denotes instructions that draw your attention to special features.

◄ Denotes the end of the instruction or other text.

Subject to technical modifications.

**Print out section 11 of these installation instructions and give it to the customer.**

**Installation information**

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.

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

**Ordering instructions**

The registration plate holder **G** is not included in the retrofit kit and must be ordered separately (see EPC for part number and further details).

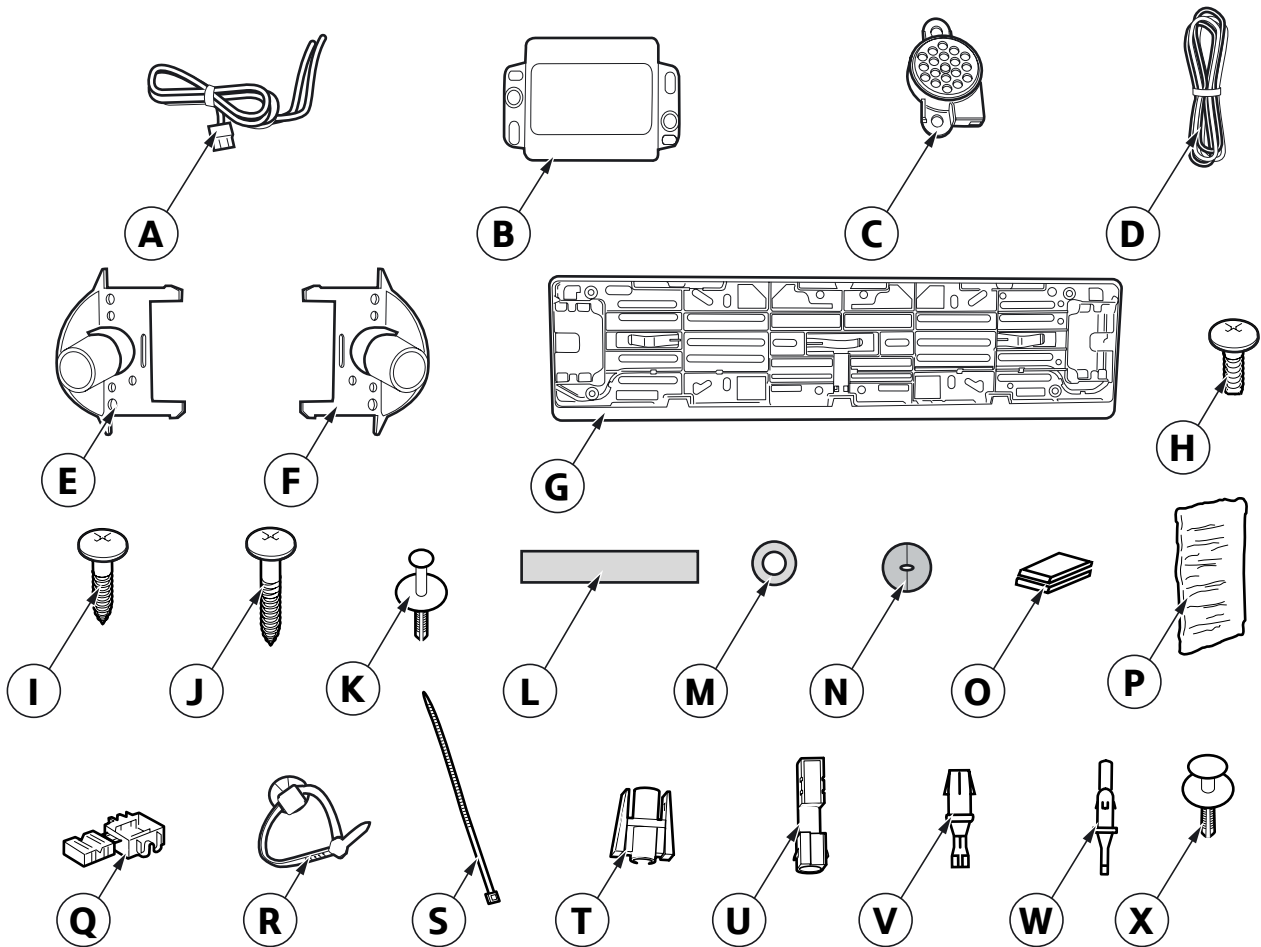
**Special tools required**

None

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## 1. Parts list



R52 0096 Z

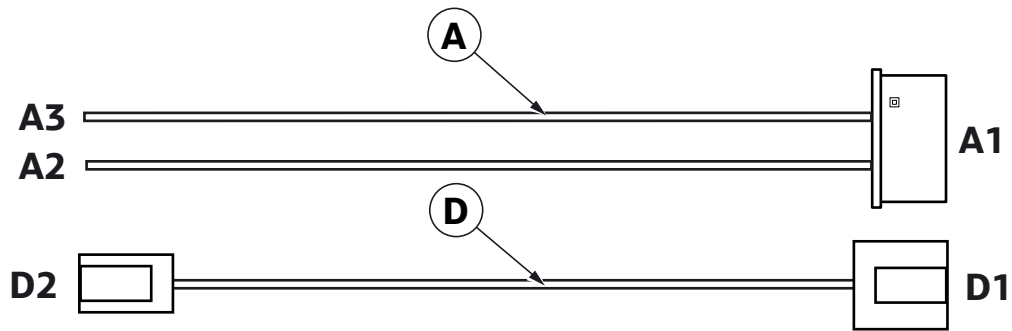
### Legend

A	Wiring harness	M	Rubber grommet (not required)
B	Control module	N	2-piece rubber grommet
C	Signal generator	O	Velcro tape (2x, for cars in model series R50/R53 only)
D	Signal generator cable	P	Protective strip (not required)
E	Sensor left (marked A)	Q	Miniature connector (4x)
F	Sensor right (marked B)	R	Wiring harness holder (not required)
G	Registration plate holder (not supplied with the retrofit kit)	S	Cable tie 200 x 3.6 mm (20x)
H	Philips screw TS 5 x 8 mm (4x, not required)	T	Socket casing (not required)
I	Philips screw 4.8 x 15 mm (4x)	U	Plug casing (not required)
J	Philips screw 4.8 x 20 mm (4x, not required)	V	Socket contact (not required)
K	Expanding rivet, 6 mm in diameter (42x, for cars in model series R50/R53 only)	W	Plug contact (not required)
L	Sealing strip (not required)	X	Expanding rivet 8 mm in diameter (2x, not required)

## 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>	
Boot floor trim	51 47 101
Right boot – wheel arch trim	51 47 161
Trim for the tailgate	51 49 000

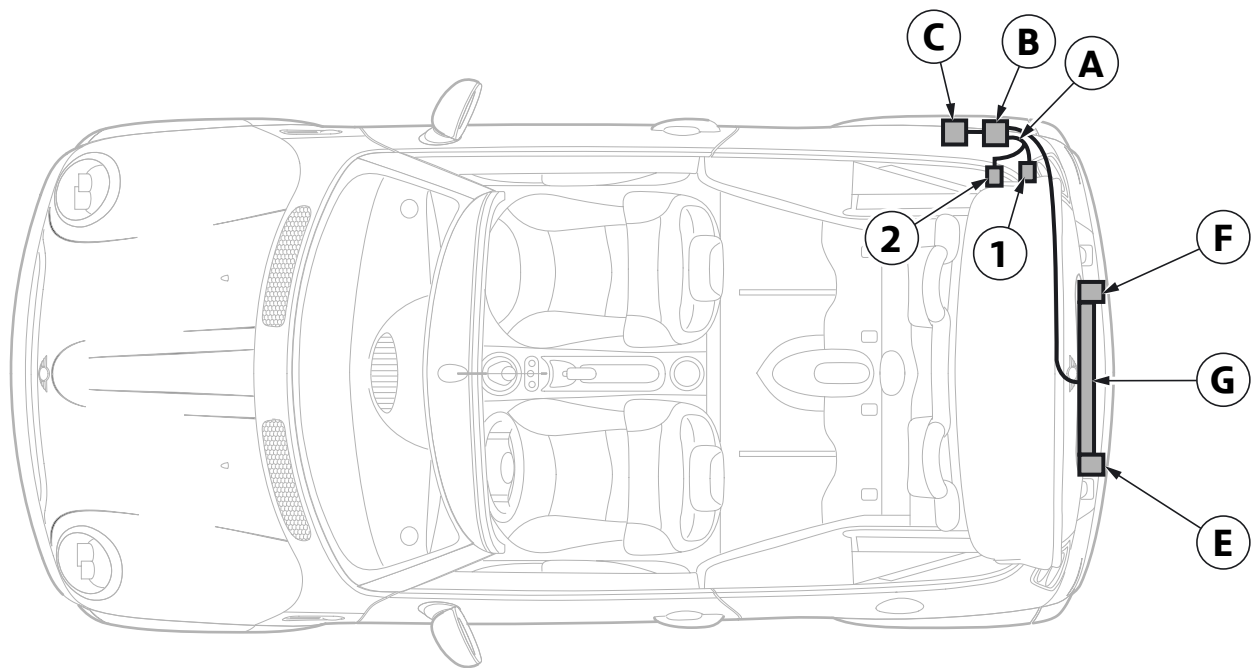
### 3. Connection diagram



R52 0103 Z

Branch /Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
A	Wiring harness	---	---		---
A1	4-pin SW socket casing	---	---	To control module <b>B</b>	---
A2	Cable open	Terminal 31	SW 0.35 mm <sup>2</sup>	Using miniature connector <b>Q</b> to BR cable from joint connector terminal 31 on the right-hand side of the boot	X494
A3	Cable open	RFS terminal	RT 0.35 mm <sup>2</sup>	Using miniature connector <b>Q</b> to the BL/GE cable on the standard wiring harness on the right-hand side of the boot	X318
D	Signal generator cable	---	---	---	---
D1	4-pin SW socket casing	---	---	To control module <b>B</b>	---
D2	2-pin SW socket casing	---	---	On signal generator <b>C</b>	---

#### 4. Installation and cabling diagram (cars in model series R52 only)

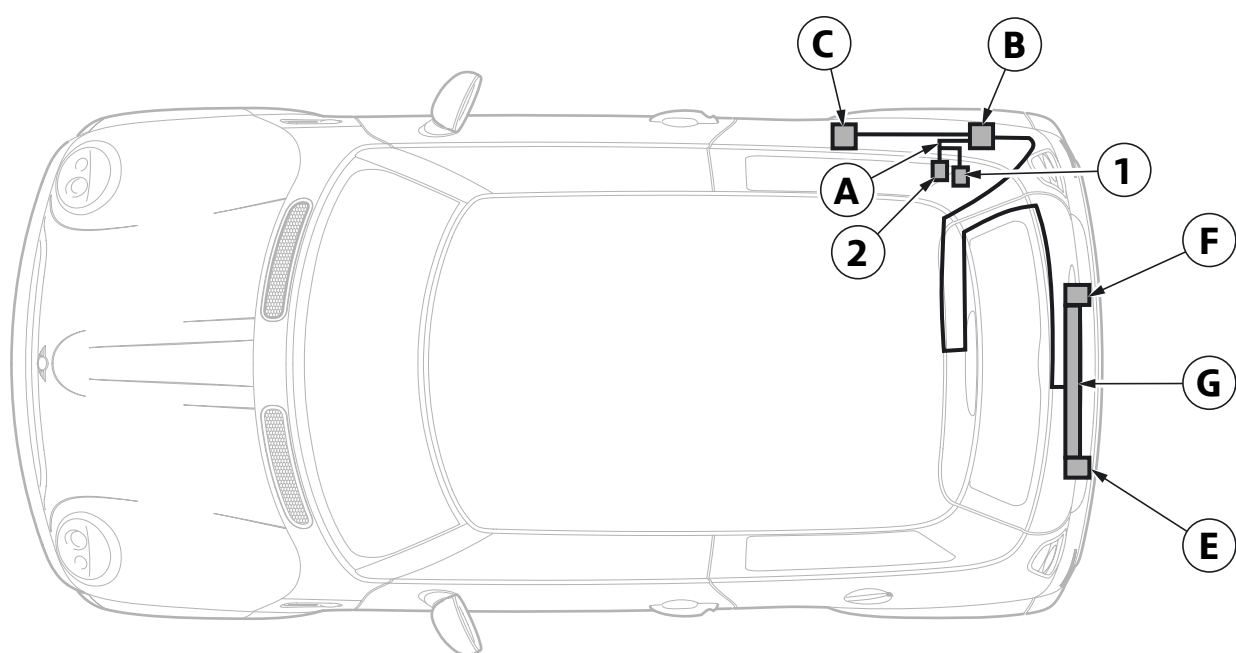


R52 0101 Z

#### Legend

- A Wiring harness
  - B Control module
  - C Signal generator
  - E Sensor left
  - F Sensor right
  - G Registration plate holder
- 
- 1 RFS terminal tap on the standard wiring harness
  - 2 Terminal 31 tap on joint connector **X494**

## 5. Installation and cabling diagram (cars in model series R50 and R53 only)

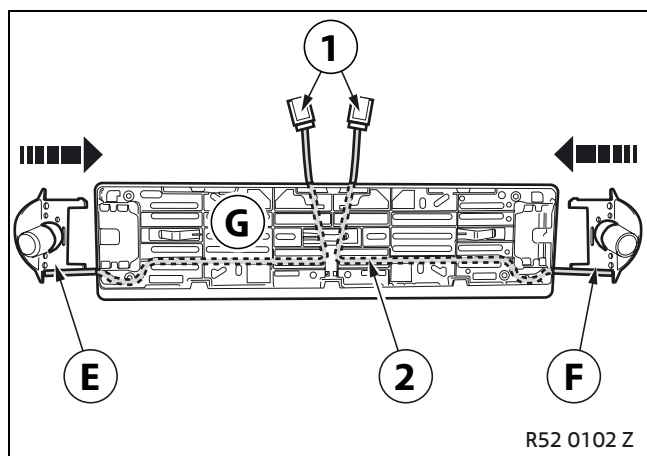


R50 1220 Z

### Legend

- A Wiring harness
  - B Control module
  - C Signal generator
  - E Sensor left
  - F Sensor right
  - G Registration plate holder
- 
- 1 RFS terminal tap on the standard wiring harness
  - 2 Terminal 31 tap on joint connector **X494**

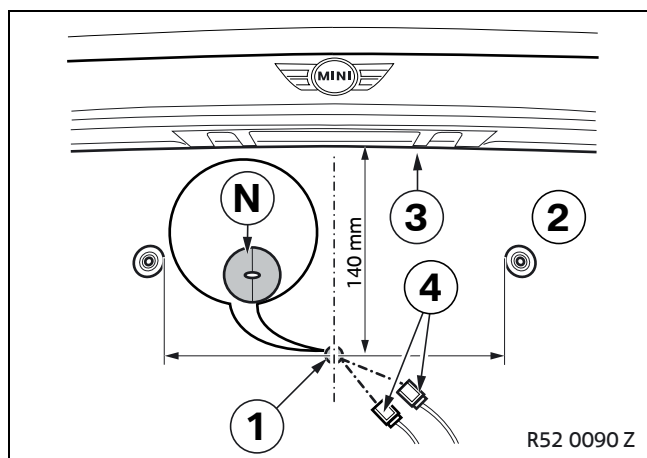
## 6. To install the sensors and registration plate holder



▶ Use the installation position shown to avoid inaccurate measurements: Insert sensors **E** and **F** angled downwards. ◀

Insert left sensor **E** and right sensor **F** into the registration plate holder **G**.

Route the sensor cable (1) in the rear groove (2).



Mark the hole (1) on the boot lid (2) as follows:

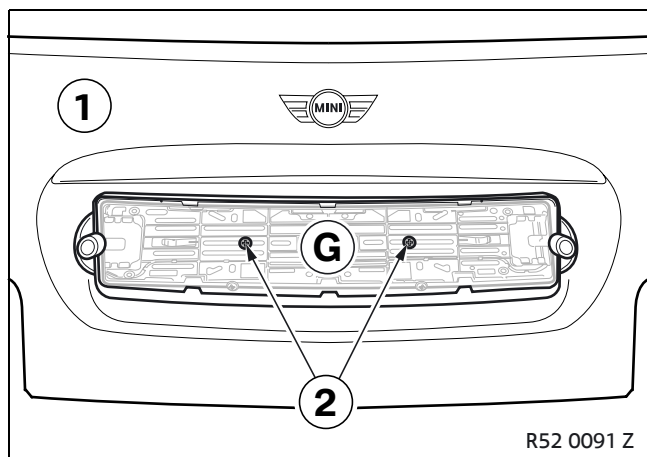
- Centre
- Approx. 140 mm from the edge (3)

▶ As you drill through the boot lid, ensure that you do not damage the Bowden cable retractor on the inside of the boot lid, release it and raise it if necessary. ◀

Drill through the boot lid (2) at the marked position (1) using a 12 mm step drill bit.

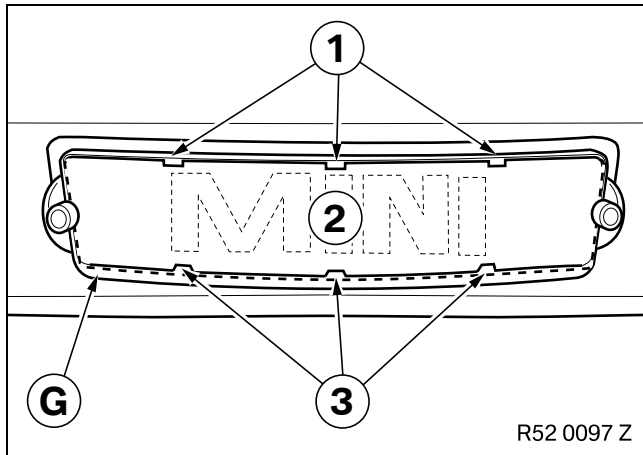
Complete the anti-corrosion treatment process.

Route the sensor cable (4) through the 2-piece rubber grommet **N** and insert the 2-piece rubber grommet **N** into the boot lid (2).



Secure the registration plate holder **G** to the boot lid (1) using the registration plate screws (2).

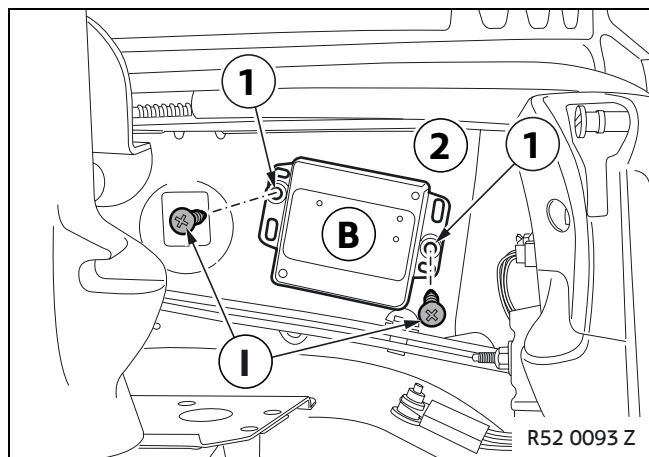
6. To install the sensors and registration plate holder



Insert the registration plate (2) into registration plate holder **G** as follows:

- Insert the registration plate (2) behind the bottom lug (3).
- Clip the registration plate (2) in behind the upper lugs (1).

## 7. To install the control module and signal generator

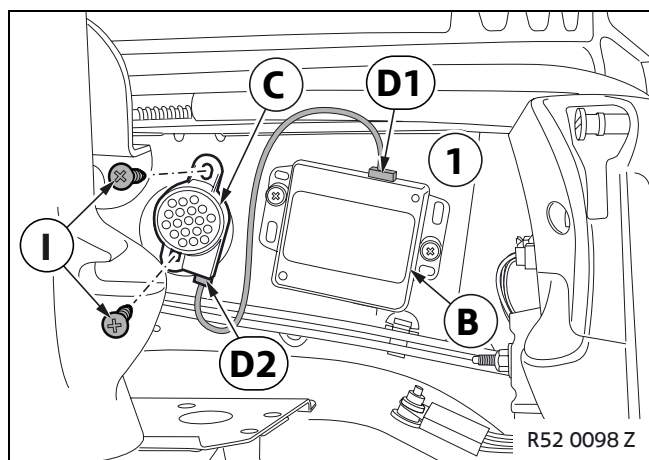


### Cars in model series R52 only

Place the control module **B** on right-hand side of the boot (2) and mark the positions for the holes (1).

Drill the hole with a 3.7 mm twist drill bit and treat the area with anti-corrosive coating.

Secure the control module **B** to the right-hand side of the boot (2) using Philips screws **I**.



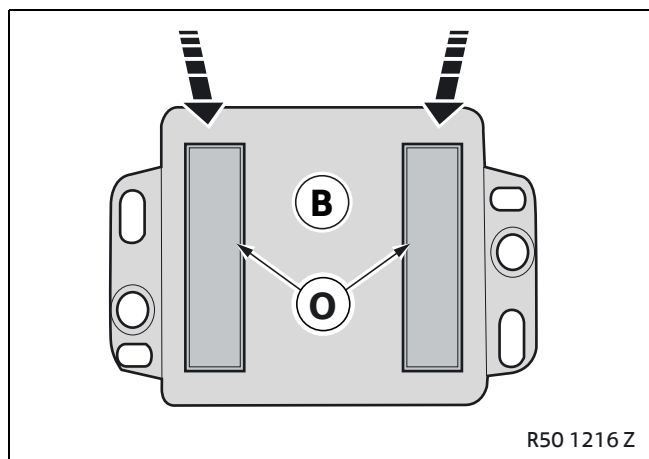
Place the signal generator **C** on right-hand side of the boot (2) and mark the positions for the holes.

Drill the hole with a 3.7 mm twist drill bit and treat the area with anti-corrosive coating.

Secure the signal generator **C** to the right-hand side of the boot (1) using Philips screws **I**.

Connect branch **D2** (2-pin SW) to signal generator **C**.

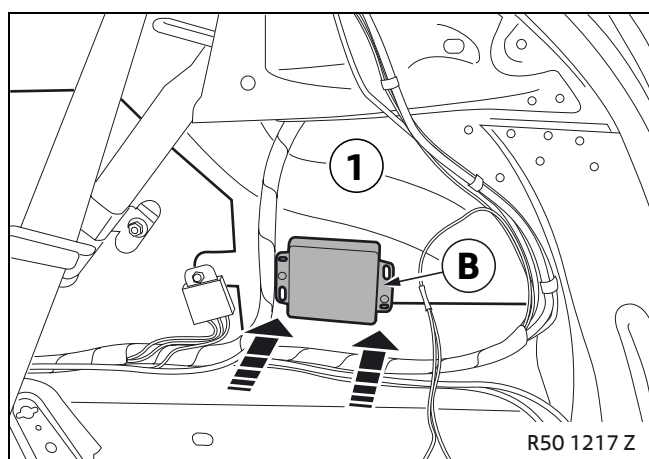
Connect branch **D1** (4-pin SW) to control module **B**.



### Cars in model series R50 and R53 only

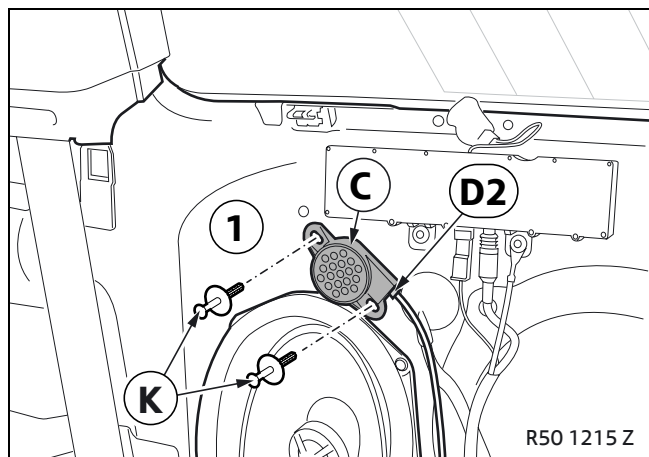
Clean and degrease the gluing surfaces.

Affix the Velcro strips **O** to the control module **B**.



Affix the control module **B** to the side part of the body (1) using Velcro strips **O**.

## 7. To install the control module and signal generator



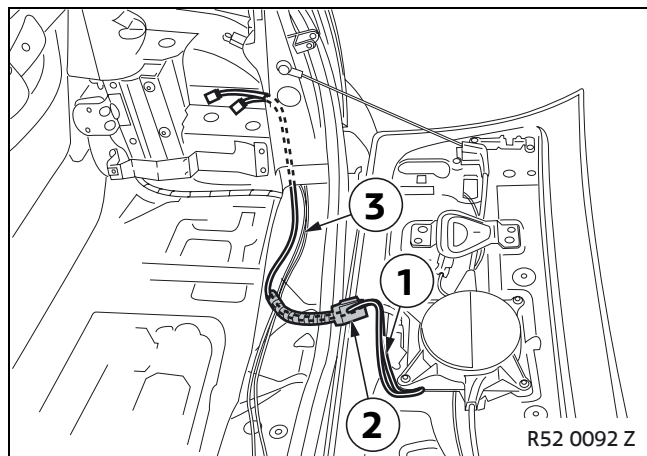
Place the signal generator **C** on right body side section (1) and mark the positions for the holes.

Drill the hole with a 6.0 mm twist drill bit and treat the area with anti-corrosive coating.

Use expanding rivets **K** to secure signal generator **C** to the right body side section (1).

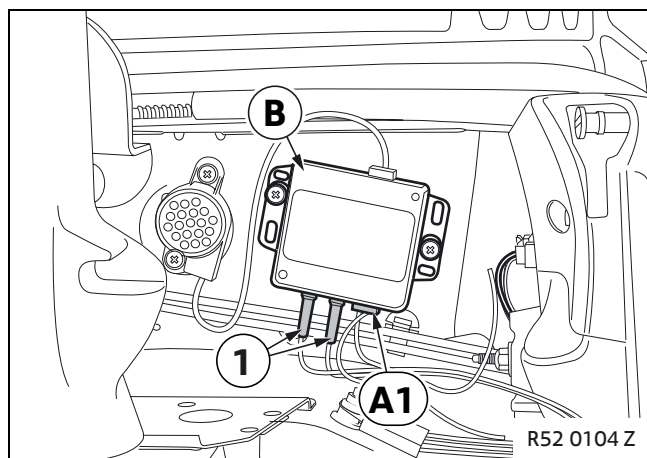
Connect branch **D2** (2-pin SW) to signal generator **C**.

## 8. To install and connect the wiring harness

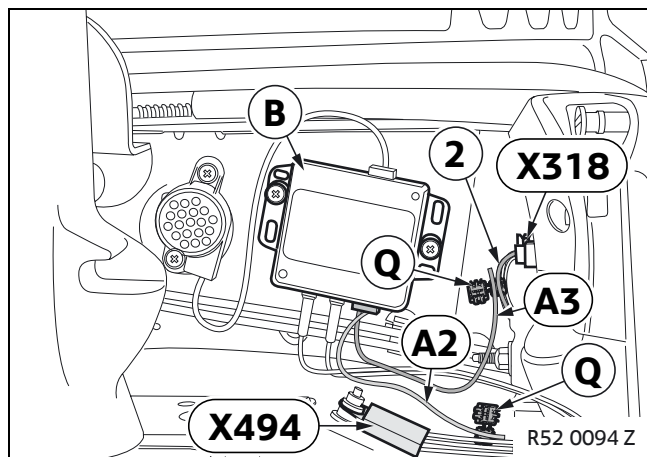


### Cars in model series R52 only

Route the sensor cable (1) along the standard wiring harness through the grommet and along the Bowden cables (3) into the right-hand side of the boot.



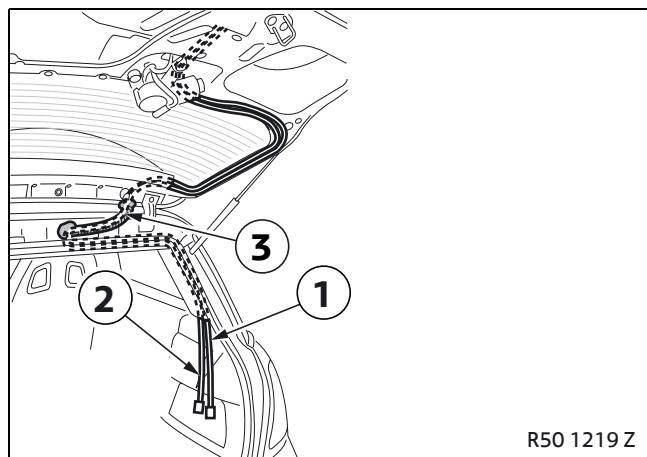
Connect the sensor cable (1) and branch **A1** (4-pin SW) to control module **B**.



Route branch **A2**, SW cable, to joint connector **X494**, BR cable, and connect it with a miniature connector **Q**.

Connect branch **A3**, RT cable, to the standard wiring harness (1) leading to the right tail light **X318** as follows:

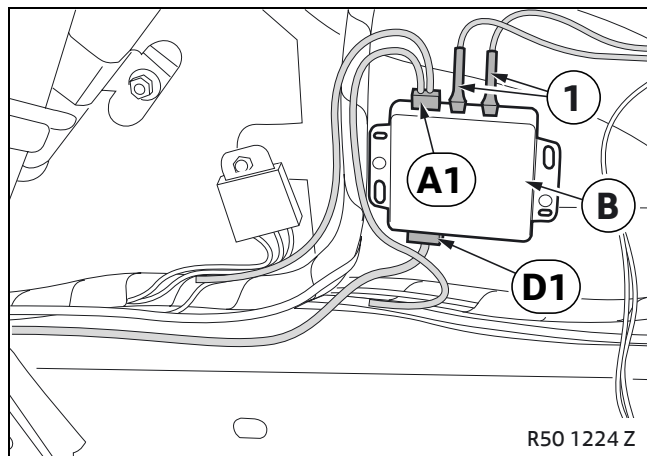
- Select the BL/GE cable
- Check that the terminal RFS reversing signal is active
- Connect branch **A3** using a miniature connector **Q**



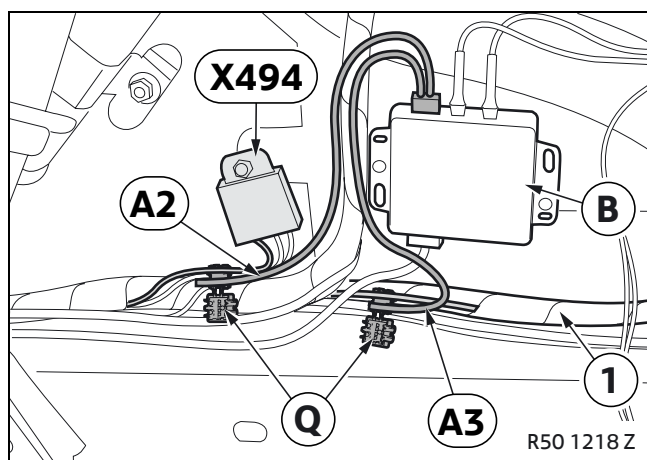
### Cars in model series R50 and R53 only

Route sensor cables (1) and (2) along the standard wiring harness through the grommet (3) and into the right-hand side of the boot.

## 8. To install and connect the wiring harness



Connect the sensor cable (1), branch **A1** (4-pin SW) and branch **D1** (4-pin SW) to the control module **B**.



Route branch **A2**, SW cable, to joint connector **X494**, BR cable, and connect it with a miniature connector **Q**.

Connect branch **A3**, RT cable, to the standard wiring harness (1) leading to the right tail light as follows:

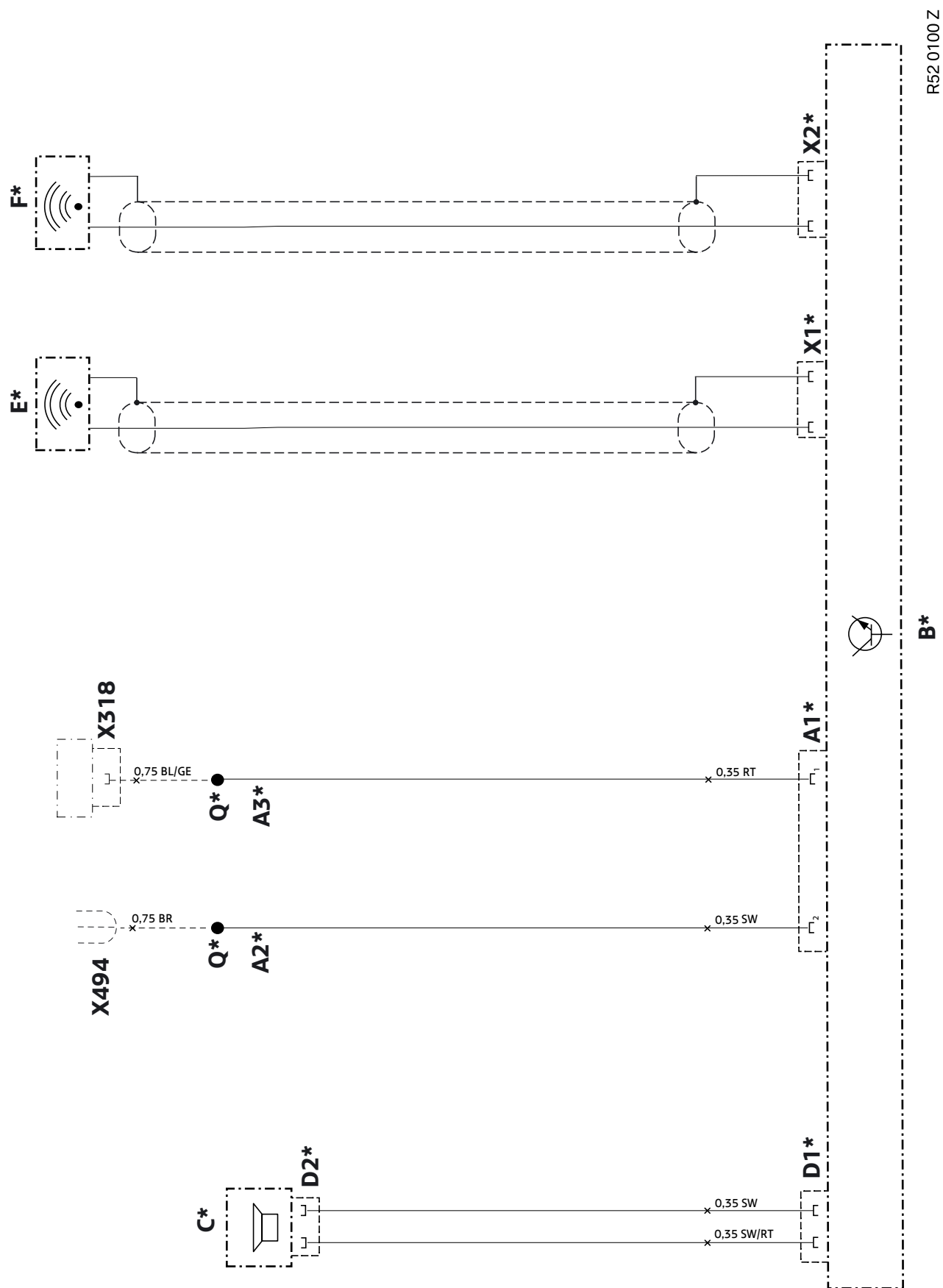
- Select the BL/GE cable
- Check that the terminal RFS reversing signal is active
- Connect branch **A3** using a miniature connector **Q**

## **9. Concluding work and coding**

This retrofit system does not require coding.

- Connect the battery
- Conduct a brief test
- Perform a function test of the PDC
- Re-assemble the car

10. Circuit diagram



## 10. Circuit diagram

### Legend

<b>A1*</b>	4-pin SW plug on control module <b>B*</b>
<b>A2*</b>	Terminal 31 tap with miniature connector <b>Q</b> to joint connector <b>X494</b>
<b>A3*</b>	Terminal RFS tap with miniature connector <b>Q*</b> to the SW/BL cable on the standard wiring harness
<b>B*</b>	Control module
<b>C*</b>	Signal generator
<b>D1*</b>	4-pin SW plug on control module <b>B*</b>
<b>D2*</b>	2-pin SW plug on signal generator <b>C*</b>
<b>E*</b>	Sensor left
<b>F*</b>	Sensor right
<b>Q</b>	Miniature connector
<b>X1*</b>	2-pin SW plug on control module <b>B*</b>
<b>X2*</b>	2-pin SW plug on control module <b>B*</b>
<b>X318</b>	6-pin SW plug to the right tail light <b>A2*</b>
<b>X494</b>	Terminal 31 joint connector ( <b>A2*</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
RT	Red
SW	Black

## 11. Customer information for using the rear Park Distance Control (PDC)

**Print out this customer information and give it to the customer.**

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.

### How it works

The PDC is a system which assists you when parking and manoeuvring.

Using ultrasonic sensors the PDC identifies obstacles in front of your car and notifies you by acoustic signals.

If the PDC identifies an obstacle, you will hear acoustic signals.

The closer the car gets to the obstacle, the faster the acoustic signals become.

A permanent signal sounds when the distance to the obstacle reaches 30 cm.

### Operation

The PDC will be switched on automatically as soon as you engage reverse gear when the ignition is switched on.

The PDC will be switched off automatically as soon as you switch off the ignition or take the gear lever out of reverse gear.



The driver is exclusively responsible for judging obstacles and must therefore maintain a careful and attentive driving style so that he does not cause and damage or injuries. ◀



As with all ultrasonic distance measurement systems, incorrect signals may occur or some obstacles may not register properly.

Depending on the specific car, blind spots may be created in front of the bumper and at its side ends in which obstacles cannot register correctly or complete.

The limit of what can physically be measured may be reached with some very low (lower than 10 cm), narrow (narrower than 6 cm) or pointed obstacles. In certain circumstances the system may not register such obstacles.

To ensure that the PDC functions correctly, you should drive slowly when parking and manoeuvring and clean any snow, ice or dirt off the ultrasonic sensors.

Strong wind, snowfall or rain may cause the system to send incorrect signals. ◀