Parts and Accessories
Installation Instructions

Park Distance Control (PDC) Rear Retrofit
BMW Z4 (E85)

The installation time is approx. 4 hours, but this may vary depending on the condition of the car and the equipment in it.

Important information

Only for use in the BMW dealer organisation.
Ensure that the cables/lines are not kinked or damaged as you install them in the car.
If the specified PIN numbers are occupied, bridges, double crimps or twin-lead terminals must be used.
Use cable ties when routing cables. Tie back any excess lengths.

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.

Target group

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 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.

Retrofit kit No. 66 20 0 301 292

See EPC for other retrofit kit part numbers.

Special tools required

00 9 317 Trim wedge
00 9 323 Cleaning wedge
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1. Preparations

<table>
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<tr>
<th>Conduct a brief test</th>
<th>TIS instruction No.</th>
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<tr>
<td>Disconnect the negative pole of the battery</td>
<td>12 00 ...</td>
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The following components must be removed first of all:

| Pedal trim                                               | 51 45 185           |
| Side footwell trim on the left A pillar                  | 51 43 070           |
| Glove box with casing, right                            | 51 16 367           |
| Side footwell trim on the right A pillar                 | 51 43 075           |
| Side trim bottom part at rear right                      | 51 43 010           |
| Side trim top part at rear right                         | 51 43 010           |
| Right boot – wheel arch trim                             | 51 47 161           |
| Rear bumper trim                                         | 51 12 156           |
2. Parts kit

Legend

A  PDC wiring harness (1x)  
B  Converter wiring harness (1x)  
C  Holder for ultrasonic converter (4x)  
D  Ultrasonic converter (4x) (not included in kit)  
E  Cable tie with holder (8x)  
F  PDC control unit (1x)  
G  Holder (1x)  
H  Plastic nut (3x)  
I  Gong (1x)  
J  Cable tie (20x)
### 3. Connection overview

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Signal</th>
<th>Cable colour/ Cross-section</th>
<th>Connection location in the car</th>
<th>Abbreviation/Slot</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>PDC wiring harness</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>A1</td>
<td>Black 12-pin socket casing</td>
<td>---</td>
<td>---</td>
<td>To PDC control unit A81</td>
<td>X300</td>
</tr>
<tr>
<td>A2</td>
<td>Cable lug A6</td>
<td>TL 31E</td>
<td>BRSW / 0.5 mm²</td>
<td>To earth bolt A pillar right</td>
<td>X1106</td>
</tr>
<tr>
<td>A3</td>
<td>Joint connector contact</td>
<td>K-BUS</td>
<td>WSRTGE / 0.35 mm²</td>
<td>To joint connector behind the glove compartment</td>
<td>X10116</td>
</tr>
<tr>
<td>A4</td>
<td>Socket contact</td>
<td>TL 15</td>
<td>GNBL / 0.5 mm²</td>
<td>To black 32-pin socket casing on power distributor A41</td>
<td>X11007 PIN13</td>
</tr>
<tr>
<td>A5</td>
<td>Black 1-pin socket casing</td>
<td>---</td>
<td>BLGR / 0.35 mm²</td>
<td>To gong H10</td>
<td>X363</td>
</tr>
<tr>
<td>A6</td>
<td>White 3-pin socket casing</td>
<td>---</td>
<td>BR / RTGNGE / 0.5 mm²</td>
<td>To gong H10</td>
<td>X522</td>
</tr>
<tr>
<td>A7</td>
<td>Cable lug A6</td>
<td>TL 31L</td>
<td>BR / 0.5 mm²</td>
<td>To earth bolt A pillar left</td>
<td>X9633</td>
</tr>
<tr>
<td>A8</td>
<td>Socket contact</td>
<td>VA2</td>
<td>RTGNGE / 0.5 mm²</td>
<td>To black 26-pin socket casing on base module A1</td>
<td>X254 PIN22</td>
</tr>
</tbody>
</table>
4. **Installation and cabling diagram**

![Diagram](image)

**Legend**

1. Ultrasonic converter in rear bumper trim
2. PDC control unit
3. Earth bolt on A pillar right
4. Power distributor
5. Joint connector behind the glove compartment
6. Base module
7. Gong
8. Earth bolt on A pillar left
5. To install the retrofit

When fitting the ultrasonic converter holders and the ultrasonic converters D, make sure that the ultrasonic converters D are aligned with their connection sockets pointing towards the middle of the bumper trim (1).

Mark the midpoint within the marks (1) and centrepunch it. Drill holes (2) (Ø27 mm).

Use a suitable tool to create anti-rotation locks (3), at the same time observing the prescribed alignment of the ultrasonic converters (see Fig. 085 0023 V).

Insert the ultrasonic converter holders C into the holes.

The detents (1) must engage. If necessary, chamfer the holes from the inside of the bumper.

Insert the ultrasonic converters D.

The detent hooks on the ultrasonic converters D must engage.
5. To install the retrofit

Push cable ties and holders E onto the plastic projections (1).

Then fit the converter wiring harness into the bumper trim and connect it to the ultrasonic converters (not illustrated).

Insert the grommet (1) for the converter wiring harness B into the body recess.

Route the converter wiring harness B into the boot.

Use plastic nuts H to fit the PDC control unit F onto the holder G.

Connect the plug (1) of the converter wiring harness and branch A1 of the PDC wiring harness into the same coloured plug casing on the PDC control unit F.

Thread the holder G into lug (2) and fasten it with a plastic nut H.

Route the PDC wiring harness along the right door sill to the front in the area below the A pillar on the right.
5. To install the retrofit

Connect branch **A2** to the earth bolt **X1106** (1).

Plug branch **A3** into the free slot in the joint connector **X10116** (1) with colour WSRTGE.

Connect branch **A4** to PIN 13 of plug **X11007** (1) on the power distributor.

- In cars not fitted with a gong **I**, cut out the recess (1) along the embossed mark on the inside of the pedal trim (2).

Clip the gong **I** into the recess (1) in the pedal trim (2).
5. To install the retrofit

Attach the cable connectors and cables with cable ties. Select the installation route of the cable so that it cannot be damaged by moving parts.

Route branch A5 into the driver’s footwell.
Plug branch A5, 1-pole socket casing, into slot T4 X363.
Plug branch A6, 3-pole socket casing, into slot T3 X522.
In cars with a gong fitted, branch A6 is not required and can be tied back.

**Cars without a gong only**
Connect branch A7 to the earth bolt X9633 (1).
Route branch A8 into the passenger’s footwell.

**Cars without a gong only**
Connect branch A8 to PIN 22 of plug X254 (1) on the base module (2).
6. **Concluding work and coding**

The parking distance control (PDC) retrofit requires coding.

- Connect the battery, connect a charger
- Program/code the parking distance control (PDC) retrofit with DISPlus or GT-1 using the CIP application and follow the instructions in the program
- Conduct a function test
- Re-assemble the car
7. Circuit diagram
7. Circuit diagram

Legend

A1 Base module
A41 Power distributor
A81 PDC control unit

H10 Gong

X254 Black 26-pin socket casing on the base module C
X300 Black 12-pin socket casing on the PDC control unit
X363 Black 1-pin socket casing on the gong
X522 White 3-pin socket casing on the gong
X1106 Earth bolt on A pillar right
X9633 Earth bolt on A pillar left
X10116 17-pin joint connector K-BUS behind the glove compartment
X11007 Black 32-pin socket casing on the power distributor

Cable colours

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