Auxiliary connector retrofit for external audio sources
BMW 3 Series (E46), 5 Series (E39) and X5 (E53)

These installation instructions are only valid for cars with SA 602/609/661+650/663 from 09/02

Important information

The retrofit kit is for use within the BMW dealership organisation only.
Subject to technical modifications.

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 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.

Installation information

Ensure that the cables/lines are not kinked or damaged as you install them in the car.
The installed cables are to be secured with cable ties.

Installation time

Approx. 1.5 hours, but this may vary depending on the condition of the car and the equipment in it.

Pictograms

denotes instructions that draw your attention to special features.

denotes the end of the instruction or caution text.

List of special equipment

The following special equipment must be taken into consideration when installing the retrofit kit.
The various sections contain corresponding information.

SA 602 On-board monitor
SA 609 Navigation system
SA 661+650 BMW Business radio with CD drive
SA 663 BMW Professional radio

Retrofit kit No.

65 12 0 153 501
65 12 0 153 502
65 12 0 153 503
Special tools required

E46 installation wedge (00 9 321)
E39 radio puller (65 1 100)
Special E46 radio tool (65 1 110) for SA 602 only
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## 1. Preparations

### Conduct a brief test

Disconnect the negative pole of the battery

<table>
<thead>
<tr>
<th>Component</th>
<th>TIS instruction No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glove compartment on the right</td>
<td>51 16 360</td>
</tr>
<tr>
<td>Radio receiver (cars with SA 661+650/663 only)</td>
<td>65 11 030</td>
</tr>
<tr>
<td>Multi Information Display (E39/E53 cars with SA 661+650/663 only)</td>
<td>65 81 010</td>
</tr>
<tr>
<td>On-board monitor (cars with SA 602/609 only)</td>
<td>65 52 013</td>
</tr>
</tbody>
</table>
2. Parts list

E46 with SA 661+650/663 only

E39/E53 with SA 661+650/663 only

E39/E46/E53 with SA 602/609 only

Legend

A E46 AUX wiring harness with SA 661+650/663
B E39/E53 AUX wiring harness with SA 661+650/663
C E46/E39/E53 AUX wiring harness with SA 602/609
D Mounting plate
E Philips screw (2x)
F Cable tie (5x)
G Locking bar (E46 with SA 661+650/663 only)
2. Connection diagram

### E46 with SA 661+650/663 only

![Diagram A]

<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>AUX connector wiring harness</td>
<td>---</td>
<td>---</td>
<td>E46 with SA 661+650/663 only</td>
<td>---</td>
</tr>
<tr>
<td>A1</td>
<td>Pawl socket 3.5 mm</td>
<td>---</td>
<td>---</td>
<td>In glove compartment</td>
<td>---</td>
</tr>
<tr>
<td>A2</td>
<td>10-pin GR socket casing</td>
<td>---</td>
<td>---</td>
<td>To radio plug X18126</td>
<td>X18805</td>
</tr>
</tbody>
</table>

### E39/E53 with SA 661+650/663 only

![Diagram B]

<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>B</td>
<td>AUX connector wiring harness</td>
<td>---</td>
<td>---</td>
<td>E39/E53 with SA 661+650/663 only</td>
<td>---</td>
</tr>
<tr>
<td>B1</td>
<td>Pawl socket 3.5 mm</td>
<td>---</td>
<td>---</td>
<td>In glove compartment</td>
<td>---</td>
</tr>
<tr>
<td>B2</td>
<td>SW 12-pin socket casing</td>
<td>---</td>
<td>---</td>
<td>To radio plug X18126</td>
<td>X13598</td>
</tr>
</tbody>
</table>

### E39/E46/E53 with SA 602/609 only

![Diagram C]

<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>C</td>
<td>AUX connector wiring harness</td>
<td>---</td>
<td>---</td>
<td>E39/E46/E53 with SA 602/609 only</td>
<td>---</td>
</tr>
<tr>
<td>C1</td>
<td>Pawl socket 3.5 mm</td>
<td>---</td>
<td>---</td>
<td>In glove compartment</td>
<td>---</td>
</tr>
<tr>
<td>C2</td>
<td>SW 3-pin plug casing</td>
<td>---</td>
<td>---</td>
<td>To plug X14118</td>
<td>X14118</td>
</tr>
</tbody>
</table>
3. To install and connect the AUX connector wiring harness in E46 cars

![Diagram of installation](0461104_z.png)

All holes must be drilled precisely as shown in the illustration.

Drill a hole (2) in the rear of the glove compartment (1) with an 8 mm twist drill bit.
Drill the holes (3) using a 3 mm twist drill bit.

Insert branch A1/C1 in the glove compartment (1) and secure it to the mounting plate D with a knurled nut (2).
Secure the mounting plate D to the glove compartment (1) using Philips screws E.

Drill a hole (2) in the trim (1) with a 3 mm twist drill bit through which you can thread the AUX connector wiring harness.
Dimension a 40 mm
Dimension b 45 mm
Enlarge the hole (2) to a diameter of 20 mm.

Cars with SA 661+650/663 only
Connect branch A2 to plug X18126 and secure it with the locking bar G.
3. To install and connect the AUX connector wiring harness in E46 cars

Cars with SA 602/609 only
Connect branch C2 to tied back plug X14118.
4. **To install and connect the AUX connector wiring harness in E39 cars**

All holes must be drilled precisely as shown in the illustration.

Drill a hole (2) in the rear of the glove compartment (1) with an 8 mm twist drill bit.
Drill the holes (3) using a 3 mm twist drill bit.

Insert branch B1/C1 in the glove compartment (1) and secure it to the mounting plate D with a knurled nut (2).
Secure the mounting plate D to the glove compartment (1) using Philips screws E.

**Cars with SA 661+650/663 only**
Connect branch B2 to plug X18126.

If the plug X13321 is already in the car, the cables from branch B2 must be disconnected and connected to the same pins in the plug in the car X13321.

**Cars with SA 602/609 only**
Connect branch C2 to tied back plug X14118.
5. To install and connect the AUX connector wiring harness in E53 cars

All holes must be drilled precisely as shown in the illustration.

Drill a hole (2) in the trim (1) through the rear of the glove compartment with an 8 mm twist drill bit.
Open the glove compartment and enlarge the hole (2) to a diameter of 20 mm.

Insert branch B1/C1 in the glove compartment (1) and secure it to the mounting plate D with a knurled nut (2).
Mark the mounting holes and drill them with a 3 mm twist drill bit.
Secure the mounting plate D to the glove compartment (1) using Philips screws E.

Cars with SA 661+650/663 only
Connect branch C2 to plug X18126.

If the plug X13321 is already in the car, the two cables from branch C2 must be disconnected and connected to the same pins in the plug in the car X13321.

Cars with SA 602/609 only
Connect branch C2 to tied back plug X14118.
6. **Concluding work and coding**

- Connect battery
- Conduct a brief test with DIS/GT1
- Conduct a function test
- Re-assemble the car

This retrofit system does not require coding.
7. Circuit diagram

E46 with SA 661+650/663 only

E39/E53 with SA 661+650/663 only

E39/E46/E53 with SA 602/609 only

Legend

A1 Pawl plug 3.5 mm
X18805 10-pin GR socket casing
B1 Pawl plug 3.5 mm
X13598 SW 12-pin socket casing
C1 Pawl plug 3.5 mm
X14118 SW 3-pin plug casing

Cable colours

BL blue
BR brown
GE yellow
GR grey
SW black
WS white