

Original BMW Accessory. Installation Instructions.



Auxiliary Connector Retrofit for External Audio Sources

**BMW 3 Series (E46),
BMW 5 Series (E39) from 09/02,
BMW X5 (E53) from 10/02,
BMW X3 (E83),
BMW Z4 (E85/E86)**

These installation instructions are only valid for cars with SA 602/609/662/661+650 from 09/02

| | | |
|--------------------------|-----------------|----------------------------------|
| Retrofit kit No.: | 65 12 0 153 501 | Retrofit kit Auxiliary connector |
| | 65 12 0 153 502 | Retrofit kit Auxiliary connector |
| | 65 12 0 153 503 | Retrofit kit Auxiliary connector |

Installation time

The installation time is approx. 1,5 hours, but 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 problem occurs, after a brief troubleshooting session (approx. 0.5 hours), please contact the following:

- 1. Either your national subsidiary or your regional office, or**
- 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.

Ensure that the cables/lines are not kinked or damaged as you install them in the car. 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 pictures show LHD cars; proceed accordingly on RHD cars.

Pictograms:



Denotes instructions that draw your attention to special features.

◀ Denotes the end of the instruction or other text..

See the EBA CD or After Sales Assistance Portal for explanations of the pictograms.

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

Subject to technical modifications.

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 662** BMW Business CD radio

Special tools required

E46 installation wedge (00 9 321)

E39 radio puller (65 1 100)

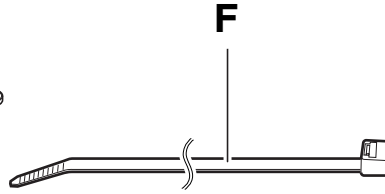
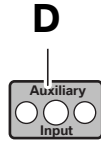
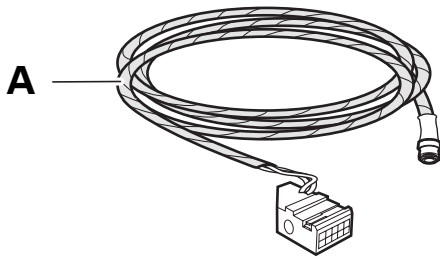
Special E46 radio tool (65 1 110) for SA 602 only

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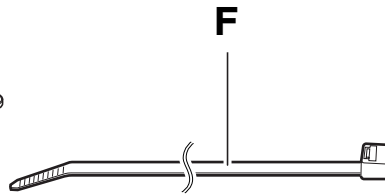
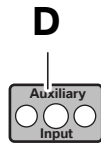
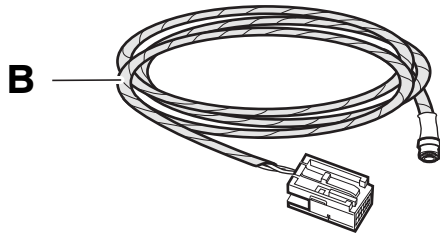
1. Parts overview

E46 with SA 661+650 only



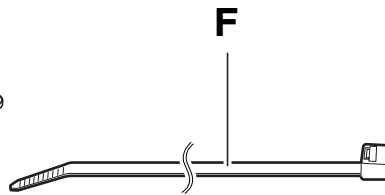
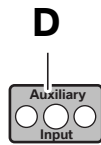
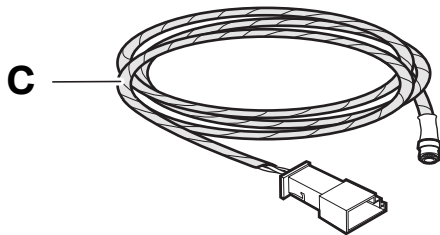
046 1115 Z

E39/E53 with SA 661+650 and E83/E85/E86 with SA 662/609 only



046 1116 Z

E39/E46/E53 with SA 602/609 only



046 1117 Z

Legend

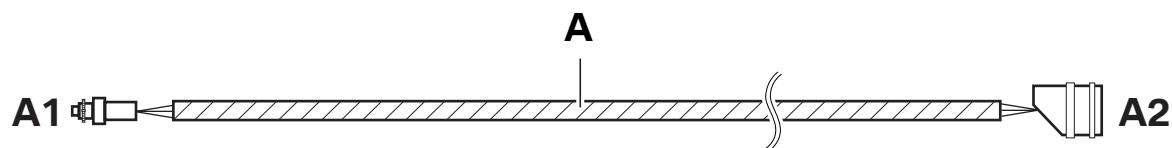
- A** E46 AUX connector wiring harness with SA 661+650
- B** E39/E53 AUX connector wiring harness with SA 661+650 and E83/E85/E86 with SA 662/609 only
- C** E46/E39/E53 AUX connector wiring harness with SA 602/609
- D** Mounting plate
- E** Philips screw (2x)
- F** Cable tie (5x)
- G** Locking bar (E46 with SA 661+650 only)

2. Preparatory work

| | TIS No. |
|---|-----------|
| Conduct a brief test | --- |
| Disconnect the negative pole of the battery | 12 00 ... |
| The following components must be removed first of all: | |
| Glove box on the right | 51 16 360 |
| Radio receiver (cars with SA 662, SA 661+650 only) | 65 11 030 |
| Multi Information Display (E39/E53 cars with SA 661+650 only) | 65 81 010 |
| On-board monitor (cars with SA 602/609 only) | 65 52 013 |

3. Connections diagram

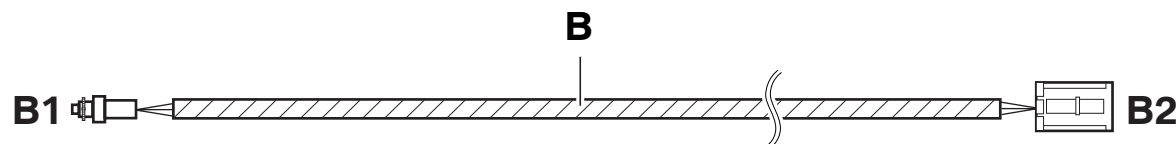
E46 with SA 661+650 only



046 1118 Z

| Item | Description | Signal | Cable colour / Cross-section | Connection location in the car | Abbreviation / Slot |
|------|------------------------------|--------|------------------------------|---------------------------------|---------------------|
| A | AUX connector wiring harness | --- | --- | E46 with SA 661+650 only | --- |
| A1 | Pawl socket 3.5 mm | --- | --- | In glove compartment | --- |
| A2 | Green 10-pin socket casing | --- | --- | On radio plug X18126 | X18805 |

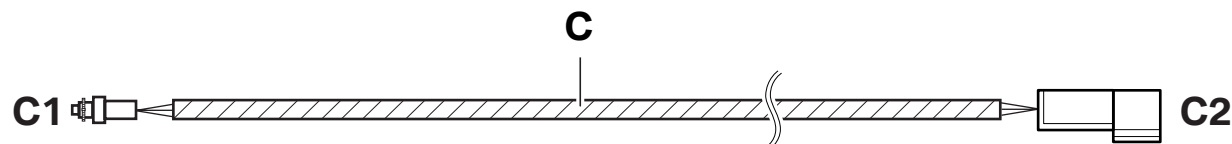
E39/E53 with SA 661+650 and E83/E85/E86 with SA 662/609 only



046 1119 Z

| Item | Description | Signal | Cable colour / Cross-section | Connection location in the car | Abbreviation / Slot |
|------|------------------------------|--------|------------------------------|---|---------------------|
| B | AUX connector wiring harness | --- | --- | --- | --- |
| B1 | Pawl socket 3.5 mm | --- | --- | In glove compartment | --- |
| B2 | Black 12-pin socket casing | --- | --- | E39/E53 with SA 661+650 only and E85/E86 with SA 662/609 only On radio plug X18126 | X13598 |
| B2 | Black 12-pin socket casing | --- | --- | E83/E86 with SA 662/609 only On radio plug X13646 | X13649 |

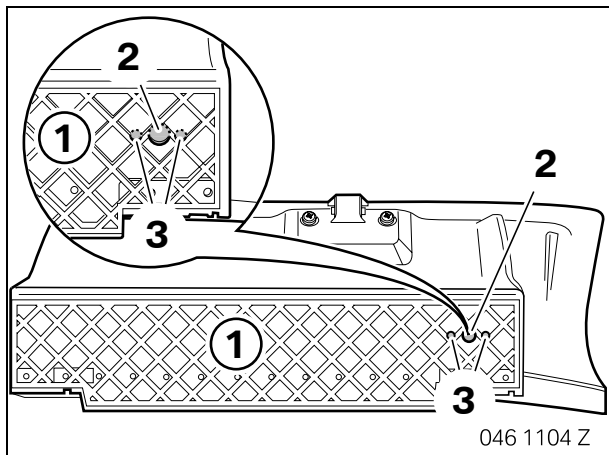
E39/E46/E53 with SA 602/609 only



046 1120 Z

| Item | Description | Signal | Cable colour / Cross-section | Connection location in the car | Abbreviation / Slot |
|------|------------------------------|--------|------------------------------|---|---------------------|
| C | AUX connector wiring harness | --- | --- | E39/E46/E53 with SA 602/609 only | --- |
| C1 | Pawl socket 3.5 mm | --- | --- | In glove compartment | --- |
| C2 | Black 3-pin plug casing | --- | --- | On plug X14118 | X14118 |

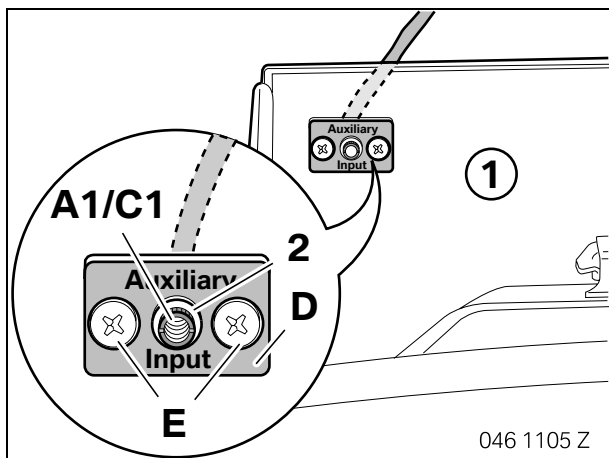
4. To install and connect the AUX connector wiring harness in E46 cars



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

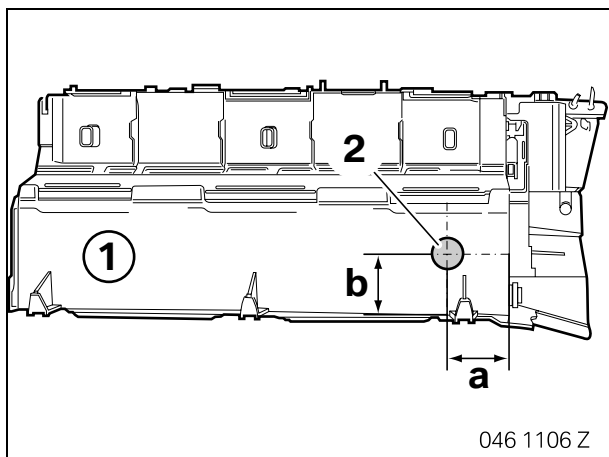
Drill a hole (2) in the rear of the glove compartment (1) with an 8 mm twist drill bit.

Drill the holes (3) using a 3 mm twist drill bit.



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

Secure mounting plate **D** to the glove compartment (1) using Philips screws **E**.

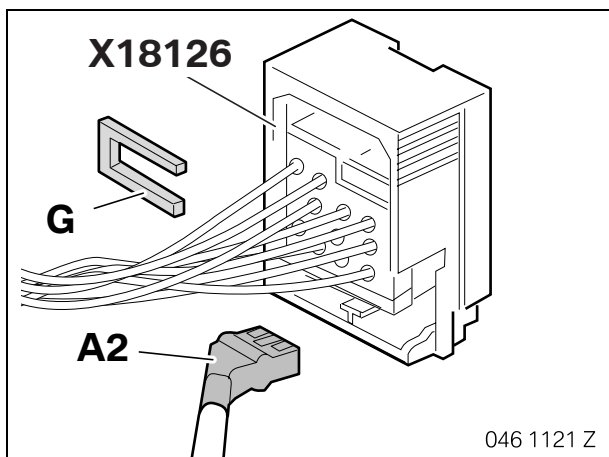


Drill a hole (2) in the trim (1) with a 3 mm twist drill bit through which you can thread the AUX connector wiring harness.

Dimension **a** 40 mm

Dimension **b** 45 mm

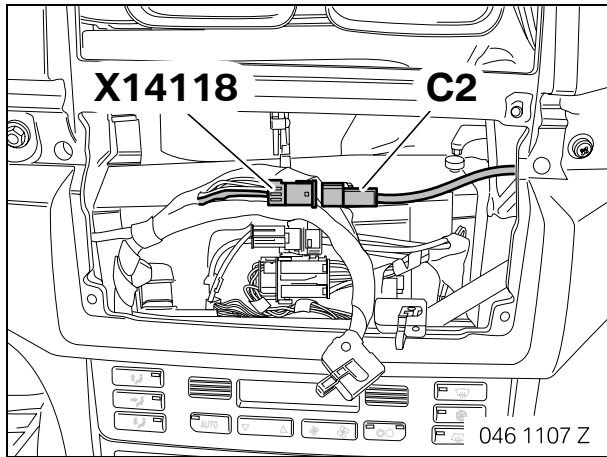
Enlarge the hole (2) to a diameter of 20 mm.



Cars with SA 661+650 only

Connect branch **A2** to plug **X18126** and secure it with the locking bar **G**.

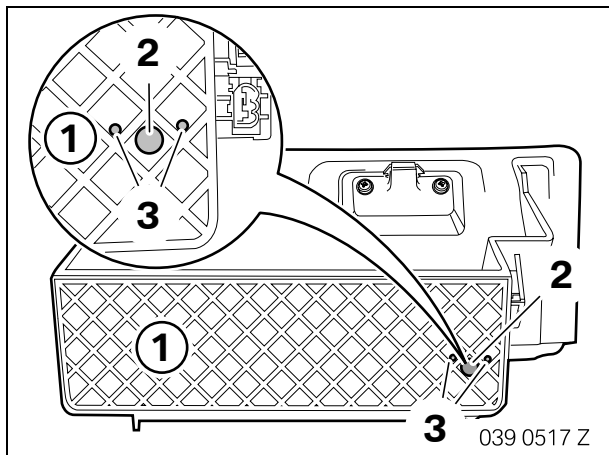
4. To install and connect the AUX connector wiring harness in E46 cars



Cars with SA 602/609 only

Connect branch **C2** to tied back plug **X14118**.

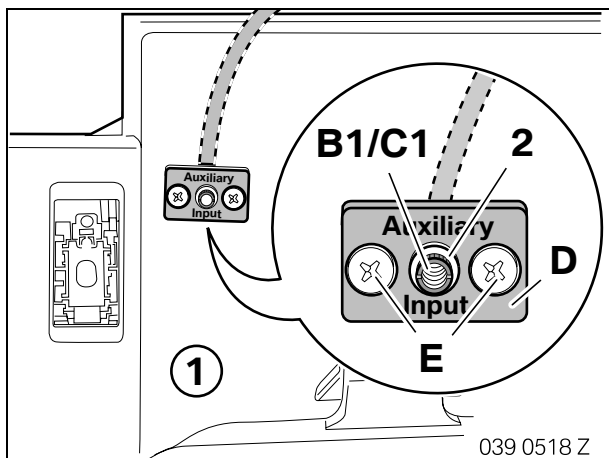
5. To install and connect the AUX connector wiring harness in E39 cars



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

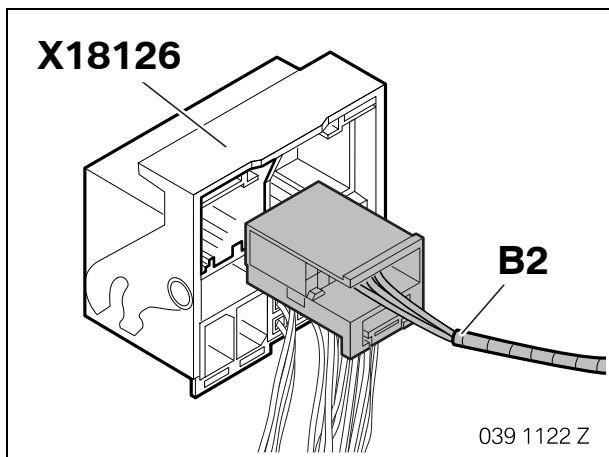
Drill a hole (2) in the rear of the glove compartment (1) with an 8 mm twist drill bit.

Drill the holes (3) using a 3 mm twist drill bit.



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

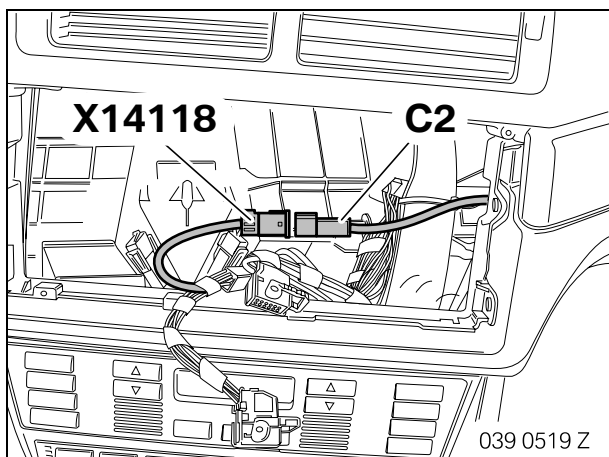
Secure mounting plate **D** to the glove compartment (1) using Philips screws **E**.



Cars with SA 661+650 only

Connect branch **B2** to plug **X18126**.

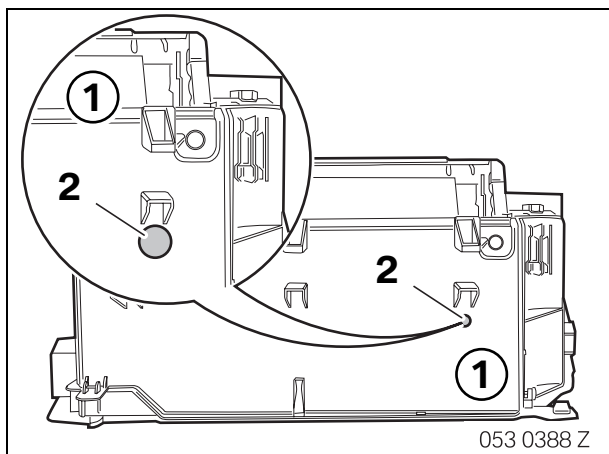
▶ If plug **X13321** is already in the car, the cables from branch **B2** must be disconnected and connected to the same pins in the plug in the car **X13321**. ◀



Cars with SA 602/609 only

Connect branch **C2** to tied back plug **X14118**.

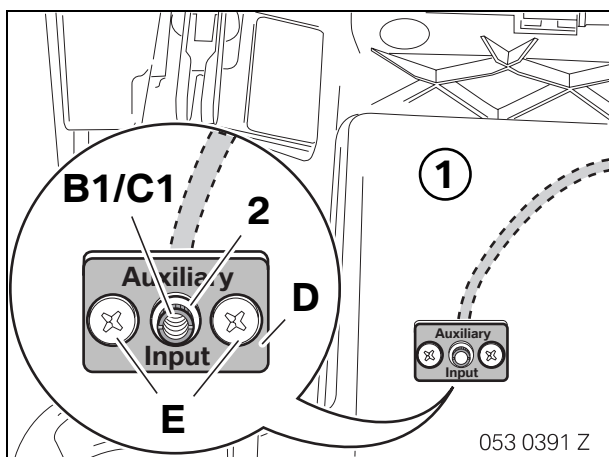
6. To install and connect the AUX connector wiring harness in E53 cars



☐ 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.

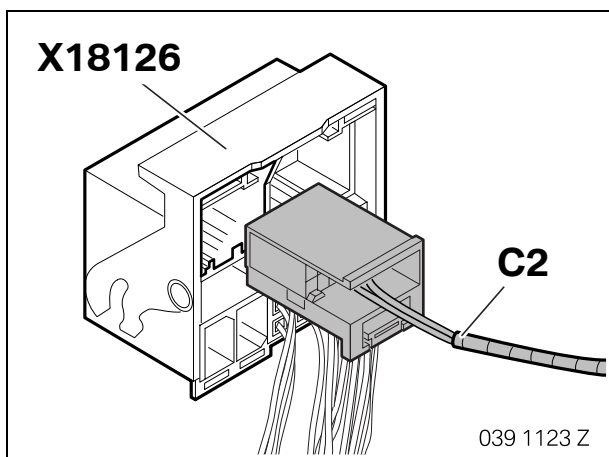
Open the glove compartment and enlarge the hole (2) to a diameter of 20 mm.



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

Mark the mounting holes and drill them with a 3 mm twist drill bit.

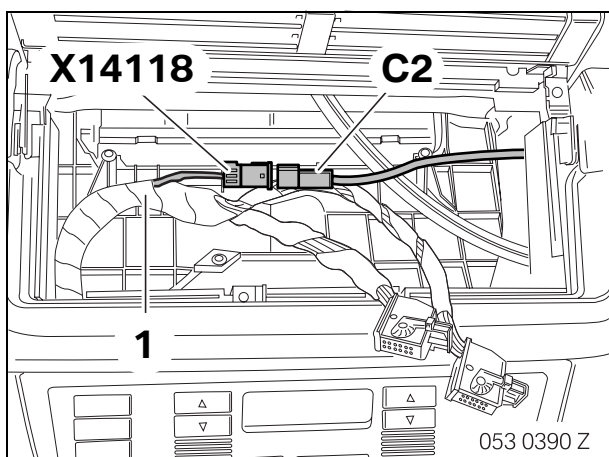
Secure mounting plate **D** to the glove compartment (1) using Philips screws **E**.



Cars with SA 661+650 only

Connect branch **C2** to plug **X18126**.

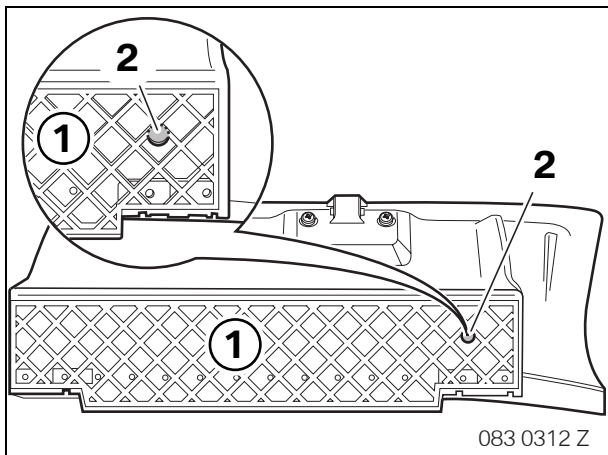
☐ If plug **X13321** is already in the car, the cables from branch **C2** must be disconnected and connected to the same pins in the plug in the car **X13321**. ◀



Cars with SA 602/609 only

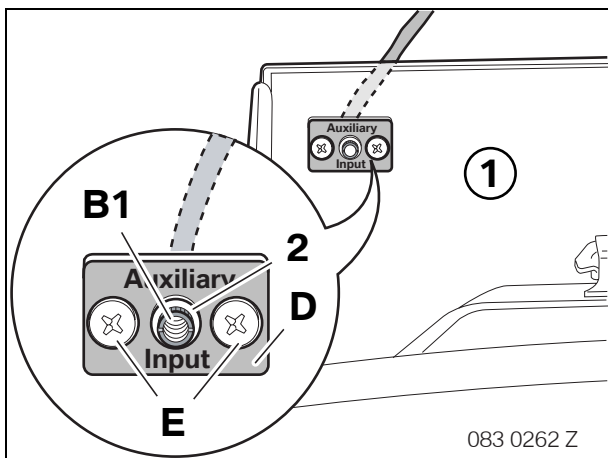
Connect branch **C2** to tied back plug **X14118**.

7. To install and connect the AUX connector wiring harness in E83 cars



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

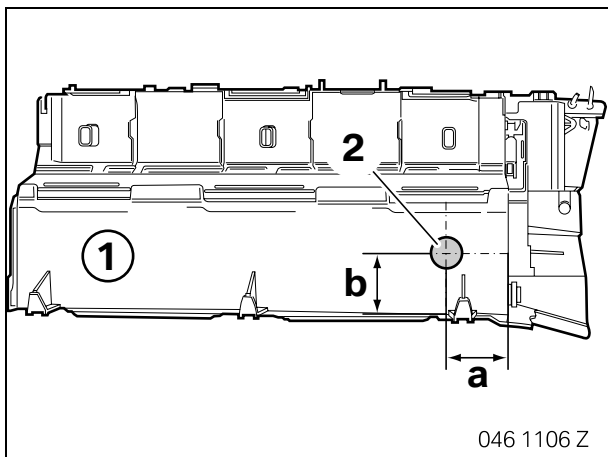
Drill a hole (2) in the rear of the glove compartment (1) with an 8 mm twist drill bit.



Insert branch **B1** in the glove compartment (1) and secure it to mounting plate **D** with a knurled nut (2).

Mark the mounting holes and drill them with a 3 mm twist drill bit.

Secure mounting plate **D** to the glove compartment (1) using Philips screws **E**.

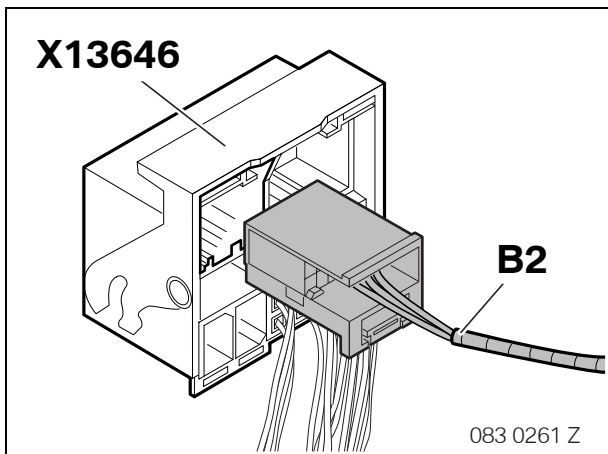


Drill a hole (2) in the trim (1) with a 3 mm twist drill bit through which you can thread the AUX connector wiring harness.


Dimension **a**: 40 mm

Dimension **b**: 45 mm

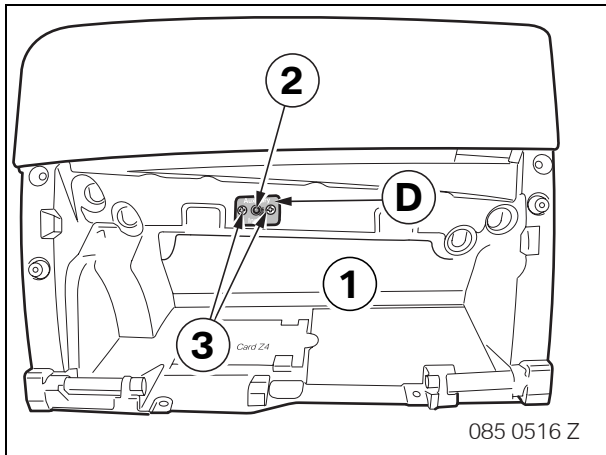
Enlarge the hole (2) to a diameter of 20 mm.



Connect branch **B2** to plug **X13646**.

 If plug **X13649** 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 **X13649**. ◀

8. To install and connect the AUX connector wiring harness in E85/E86 cars

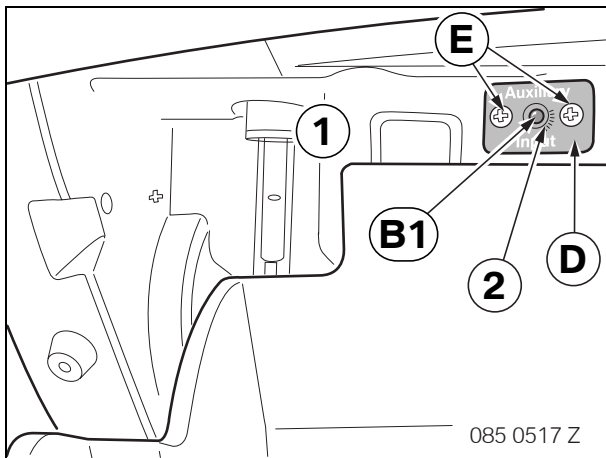


▶ All holes must be drilled precisely as shown in the illustration. ◀

Put on mounting plate **D** in the glove compartment (1) and transfer the hole pattern.

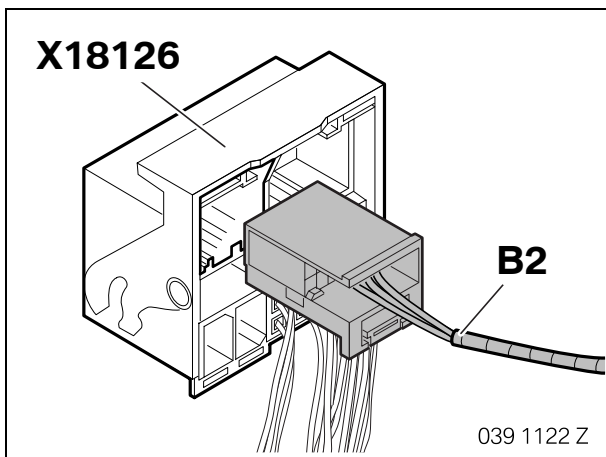
Drill a hole (2) in the glove compartment (1) with an 8 mm twist drill bit.

Drill the holes (3) using a 3 mm twist drill bit.



Insert branch **B1** in the glove compartment (1) and secure it to mounting plate **D** with a knurled nut (2).


Secure mounting plate **D** to the glove compartment (1) using Philips screws **E**.



Connect branch **B2** to plug **X18126**.

▶ If 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**. ◀

9. Concluding work and coding

 This retrofit system does not require coding. ◀

- Connect battery
- Conduct a brief test with DIS/GT1
- Conduct a function test:
- Connect the external audio source to the pawl socket in the glove compartment
- Press the "MODE" key several times until "AUX" appears on the display
- Start playing the external audio source

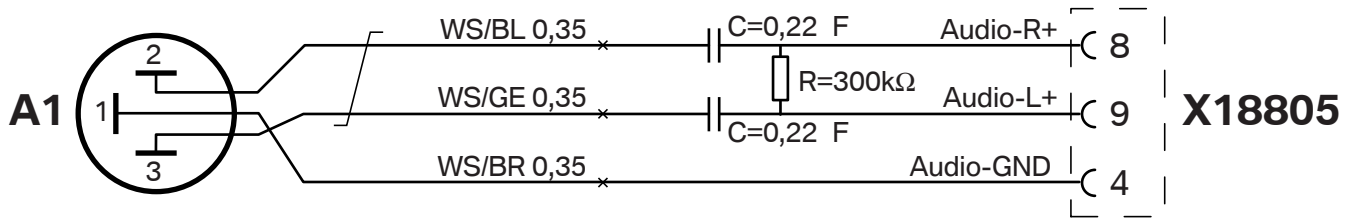
 The volume and tone can be controlled using the radio.

The audio signals from the external audio source are interrupted whenever there is a traffic announcement. ◀

-Re-assemble the car

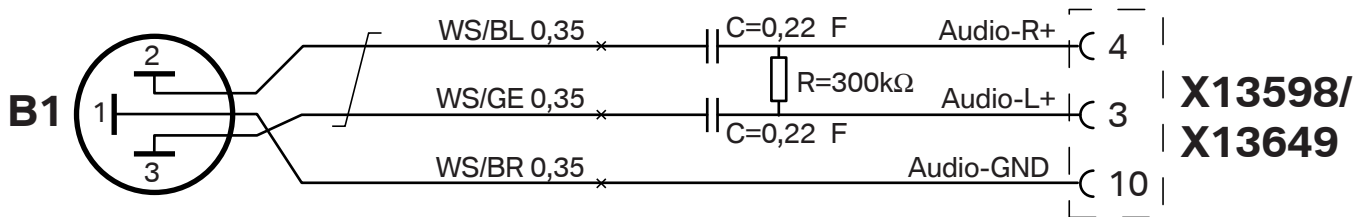
10. Circuit diagram

E46 with SA 661+650 only



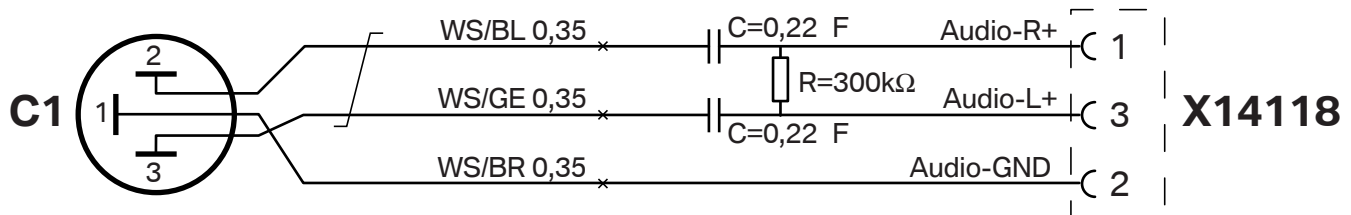
046 1124 Z

E39/E53 with SA 661+650 and E83/E85/E86 with SA 662/609 only



046 1125 Z

E39/E46/E53 with SA 602/609 only



046 1126 Z

Legend

| | |
|--------|----------------------------|
| A1 | Pawl plug 3.5 mm |
| X18805 | Green 10-pin socket casing |
| B1 | Pawl plug 3.5 mm |
| X13598 | Black 12-pin socket casing |
| X13649 | Black 12-pin socket casing |
| C1 | Pawl plug 3.5 mm |
| X14118 | Black 3-pin plug casing |

Cable colours

| | |
|----|--------|
| BL | Blue |
| BR | Brown |
| GE | Yellow |
| GR | Grey |
| SW | Black |
| WS | White |