

Parts and Accessories.

Installation Instructions.



Retrofit electrochromatic interior mirror with compass / universal remote control (garage door opener)

BMW 1-Series (E81, E82, E87, E88)

BMW 3-Series (E90, E91, E92, E93)

Installation instructions only valid for vehicles with overhead control panel and without option 5AC (main-beam assistant)

Retrofit kit No.: 61 12 0 434 330 Retrofit cable for electrochromatic interior mirror

Installation time

The installation time of **approx. 0.5 hours** may vary depending on the vehicle's condition and equipment.

The vehicle must be updated to the latest integration level status by flashing before installing the retrofit. Different programming times are necessary depending on the production age of the vehicle and the work already performed on the vehicle so that no time requirements can be specified here. The installation time does not include the time required for programming/encoding which depends on the vehicle's age and equipment.

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 vehicles 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 specified tools (special tools) and observing current health and safety regulations.

In the event of installation or functional problems, limit troubleshooting to 0.5 hours for mechanical jobs and 1.0 hours for electrical jobs.

To avoid unnecessary work and costs, send a corresponding enquiry via the Aftersales Assistance Portal (ASAP) using the technical parts support application.

Please quote the following:

- Vehicle identification number
- Part number of retrofit kit
- Exact description of the problem
- Work already carried out.

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.

Installation information

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

When routing cables and/or wires, make sure that they are not kinked or damaged. Costs incurred as a result of this will not be reimbursed by BMW AG.

Additional cables and/or 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.

Ordering information

The interior mirror **B** is not an integral part of the retrofit kit and must be ordered as an additional component (please refer to EPC for corresponding information and part numbers).

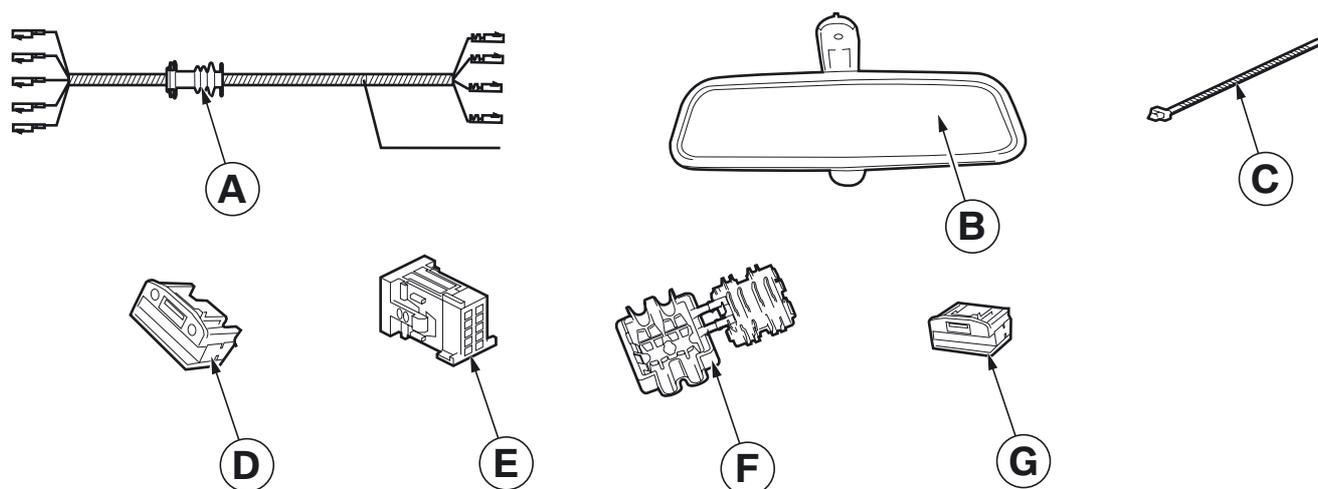
Special tools required

None

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1. Parts overview



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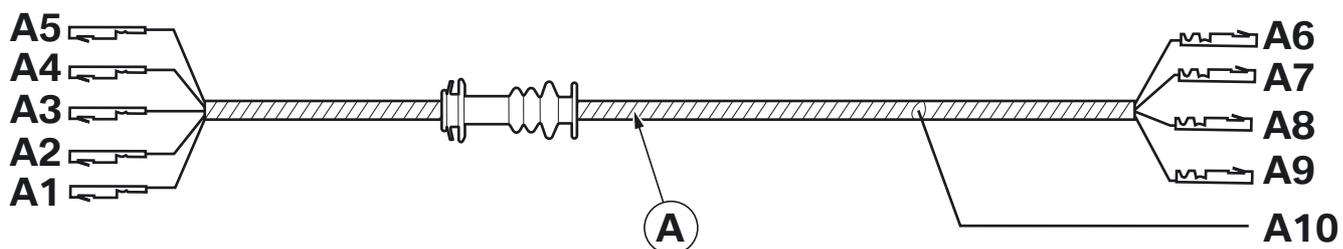
Legend

- A** Retrofit cable
- B** Interior rear-view mirror (not included in the retrofit kit)
- C** Cable tie 200 x 3 mm (2x)
- D** Socket housing 20-pin SW (only for E81, E82, E87, E90, E91 and E92)
- E** Socket housing 10-pin SW
- F** Miniature connector
- G** Socket housing 14-pin beige (only for E88 and E93)

2. Preparatory work

	TIS No.
Perform quick test	---
Disconnect negative terminal of battery	12 00 ...
Remove the following components	
Overhead control panel	61 31 043
Interior rear-view mirror (no longer required)	51 16 060

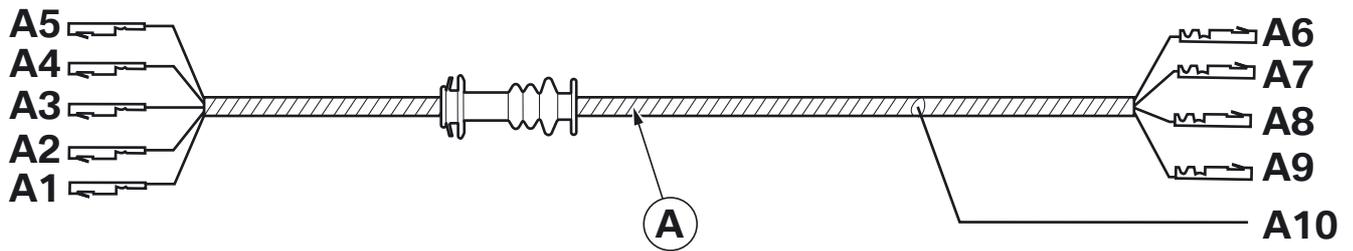
3. Connections diagram (only for E81, E82, E87, E90, E91 and E92 vehicles)



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Item	Description	Signal	Cable colours/ cross section	Plug-in location in vehicle	Designation/ plug-in location
A	Retrofit cable	---	---	---	---
A1	Socket contact	S_RFL	GR/VI 0.35 mm ²	At interior mirror B	X14292 PIN 1
A2	Socket contact	Kl. 15	GN/WS 0.35 mm ²	At interior mirror B	X14292 PIN 3
A3	Socket contact	RTN_EC	SW/BR 0.35 mm ²	At interior mirror B	X14292 PIN 4
A4	Socket contact	I_EC	BR/WS 0.35 mm ²	At interior mirror B	X14292 PIN 5
A5	Socket contact	Kl. 31	BR 0.35 mm ²	At interior mirror B	X14292 PIN 10
A6	Socket contact	I_EC	BR/WS 0.35 mm ²	At overhead control panel 20-pin SW socket housing	X14288 PIN 16
A7	Socket contact	RTN_EC	SW/BR 0.35 mm ²	At overhead control panel 20-pin SW socket housing	X14288 PIN 15
A8	Socket contact	S_RFL	GR/VI 0.35 mm ²	At overhead control panel 20-pin SW socket housing	X14288 PIN 14
A9	Socket contact	Kl. 15	GN/WS 0.35 mm ²	At overhead control panel 20-pin SW socket housing	X14288 PIN 20
A10	Open wire	Kl. 31	BR 0.35 mm ²	At overhead control panel, with miniature connector F at vehicle wiring harness	X14287 PIN 1

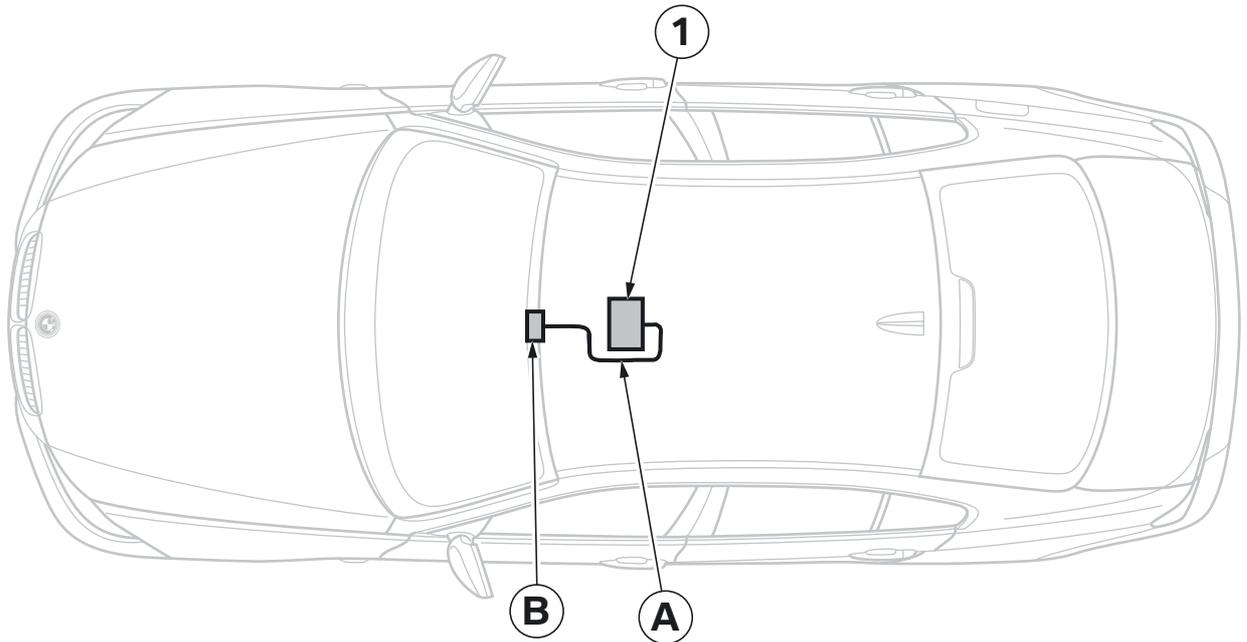
4. Connections diagram (only for E88, E93 vehicles)



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Item	Description	Signal	Cable colours/ cross section	Plug-in location in vehicle	Designation/ plug-in location
A	Retrofit cable	---	---	---	---
A1	Socket contact	S_RFL	GR/VI 0.35 mm ²	At interior mirror B	X14292 PIN 1
A2	Socket contact	Kl. 15	GN/WS 0.35 mm ²	At interior mirror B	X14292 PIN 3
A3	Socket contact	RTN_EC	SW/BR 0.35 mm ²	At interior mirror B	X14292 PIN 4
A4	Socket contact	I_EC	BR/WS 0.35 mm ²	At interior mirror B	X14292 PIN 5
A5	Socket contact	Kl. 31	BR 0.35 mm ²	At interior mirror B	X14292 PIN 10
A6	Socket contact	I_EC	BR/WS 0.35 mm ²	At overhead control panel Beige 14-pin socket housing	X14287 PIN 4
A7	Socket contact	RTN_EC	SW/BR 0.35 mm ²	At overhead control panel Beige 14-pin socket housing	X14287 PIN 3
A8	Socket contact	S_RFL	GR/VI 0.35 mm ²	At overhead control panel Beige 14-pin socket housing	X14287 PIN 5
A9	Socket contact	Kl. 15	GN/WS 0.35 mm ²	At overhead control panel Beige 14-pin socket housing	X14287 PIN 1
A10	Open wire	Kl. 31	BR 0.35 mm ²	At overhead control panel, with miniature connector F at vehicle wiring harness	X14286 PIN 12

5. Installation and cabling diagram

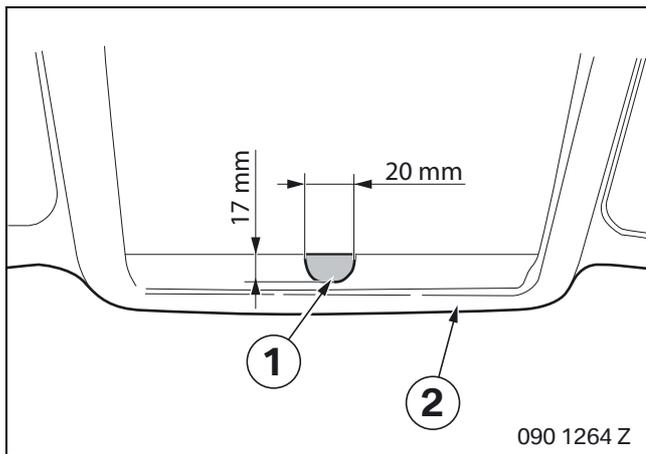


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Legend

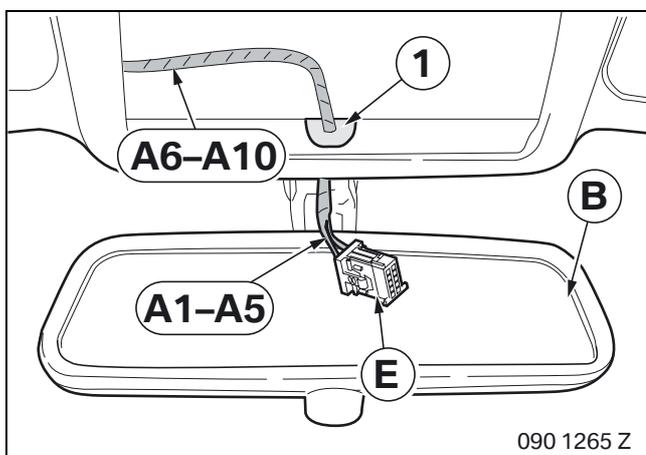
- A** Retrofit cable
- B** Interior rear-view mirror
- 1** Overhead control panel

6. Routing and connecting retrofit cable



Only vehicles without connector X14292

Cut out marked area (1) from the headlining (2) in accordance with the dimensions given.



Install interior rear-view mirror **B**.

Route branches **A1-A5** to interior rear-view mirror **B**.

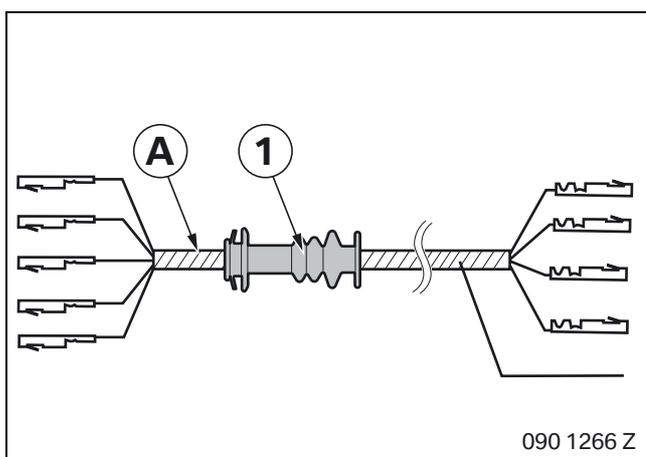
Insert rubber grommet (1) in headlining.

Plug in branches **A1-A5** at socket housing **E** as follows:

- Branch **A1**, GR/VI wire, at PIN 1
- Branch **A2**, GN/WS wire, at PIN 3
- Branch **A3**, SW/BR wire, at PIN 4
- Branch **A4**, BR/WS wire, at PIN 5
- Branch **A5**, BR wire, at PIN 10

Route branches **A6-A10** to the overhead control panel.

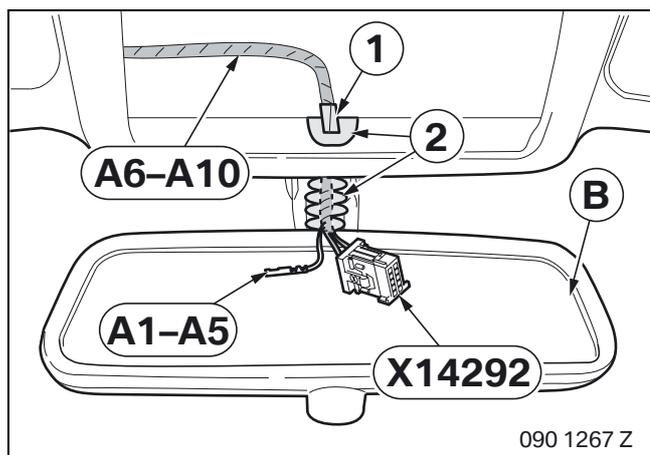
Connect socket housing **E** to interior mirror **B**.



Only vehicles with connector X14292

Carefully separate rubber grommet (1) from retrofit cable **A**.

6. Routing and connecting retrofit cable



Plug branches **A1-A5** into connector **X14292** as follows:

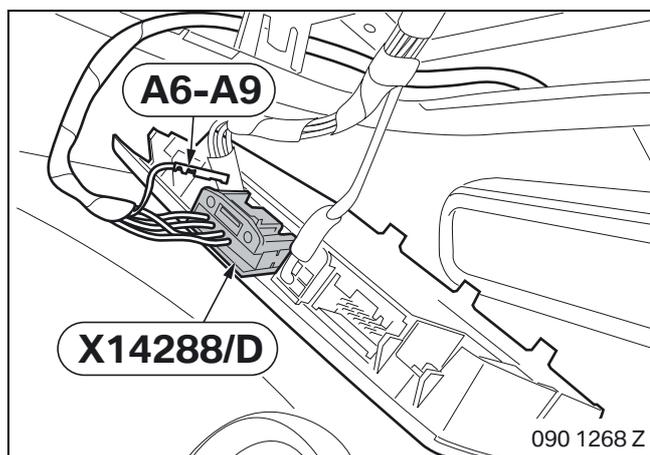
- Branch **A1**, GR/VI wire, at PIN 1
- Branch **A2**, GN/WS wire, at PIN 3
- Branch **A3**, SW/BR wire, at PIN 4
- Branch **A4**, BR/WS wire, at PIN 5
- Branch **A5**, BR wire, at PIN 10

Remove adhesive tape (1) from rubber grommet (2).

Route branches **A6-A10** through the rubber grommet (2) to the overhead control panel.

Reattach adhesive tape (1) to rubber grommet (2).

Install interior mirror **B** and connect connector **X14292**.

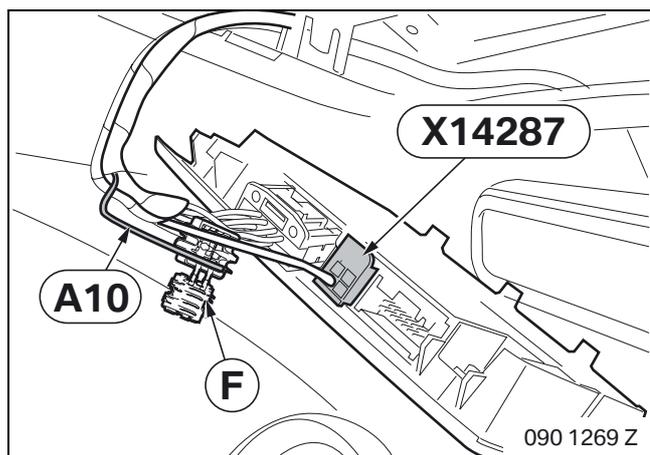


Only vehicles E81, E82, E87, E90, E91 and E92

▶ If connector **X14288** is not fitted, use socket housing **D**. ◀

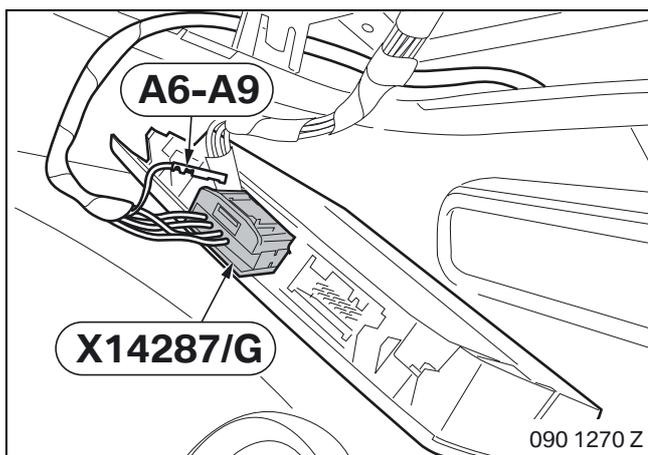
Plug in branches **A6-A10** into connector **X14288** or socket housing **D** (20-pin SW) as follows:

- Branch **A6**, BR/WS wire, at PIN 16
- Branch **A7**, SW/BR wire, at PIN 15
- Branch **A8**, GR/VI wire, at PIN 14
- Branch **A9**, GN/WS wire, at PIN 20



Connect branch **A10** with miniature connector **F** to wiring harness, cable colour BR, with connector **X14287** (4-pin SW) pin 1.

6. Routing and connecting retrofit cable

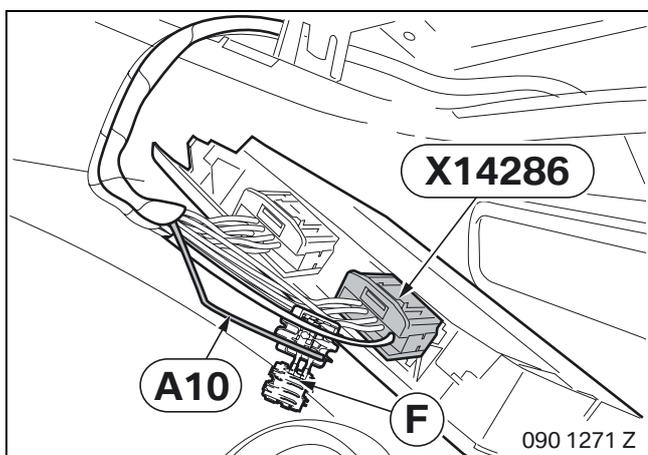


Only vehicles E88, E93

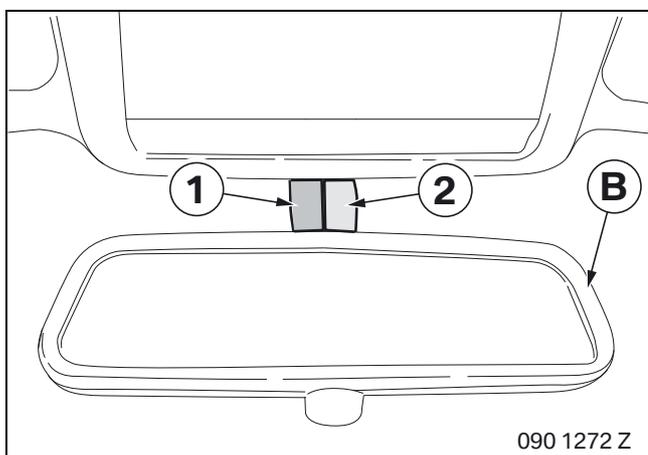
▶ If connector **X14287** is not fitted, use socket housing **G**. ◀

Plug in branches **A6–A10** into connector **X14287** or socket housing **G** (14-pin beige) as follows:

- Branch **A6**, BR/WS wire, at PIN 4
- Branch **A7**, SW/BR wire, at PIN 3
- Branch **A8**, GR/VI wire, at PIN 5
- Branch **A9**, GN/WS wire, at PIN 1



Connect branch **A10** with miniature connector **F** to wiring harness, cable colour BR, with connector **X14286** (14-pin SW) pin 12.



All vehicles

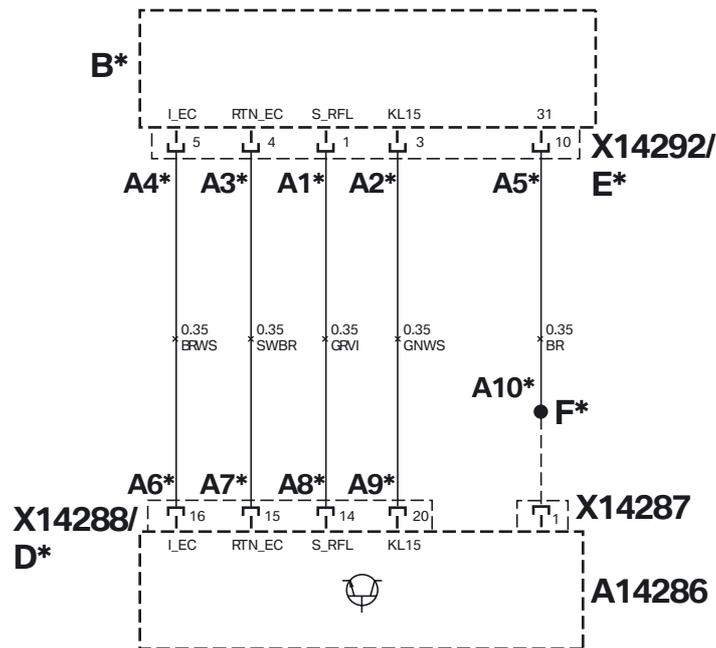
Fit covers for mirror base (1) and (2) to the interior mirror **B**.

7. Concluding work and coding

The retrofit system requires encoding.

- Reconnect vehicle battery
- Programming/encoding retrofit via path - **CIP**
- When retrofitting a compass interior mirror or an interior mirror with universal remote control (garage door opener), this should be calibrated and adjusted as described in the vehicle Owner's Handbook
- Perform quick test
- Perform function test
- Reassemble vehicle in reverse order of removal

8. Circuit diagram (only for E81, E82, E87, E90, E91 and E92 vehicles)



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Legend

A14286 Overhead control panel

B* Interior rear-view mirror

D* Socket housing, 20-pin SW, at overhead control panel (**A6*–A9***)

E* Socket housing, 10-pin SW, at interior mirror (**A1*–A5***)

F* Miniature connector

X14287 Socket housing, 4-pin SW, at overhead control panel (**A10***)

X14288 Socket housing, 20-pin SW, at overhead control panel (**A6*–A9***)

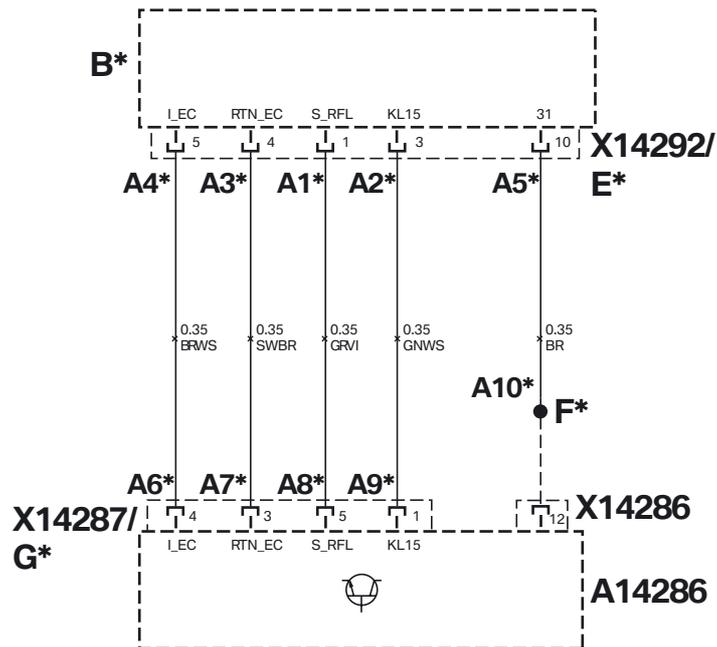
X14292 Socket housing, 10-pin SW, at interior mirror (**A1*–A5***)

All designations marked * only apply to these installation instructions or this circuit diagram.

Cable colours

BR	Brown
GN	Green
GR	Grey
SW	Black
VI	Violet
WS	White

9. Circuit diagram (only for E88, E93 vehicles)



090 1274 Z

Legend

- A14286** Overhead control panel
- B*** Interior rear-view mirror
- E*** Socket housing, 10-pin SW, at interior mirror (**A1*–A5***)
- F*** Miniature connector
- G*** Socket housing, 14-pin beige, at overhead control panel (**A6*–A9***)
- X14286** Socket housing, 14-pin SW, at overhead control panel (**A10***)
- X14287** Socket housing, 14-pin beige, at overhead control panel (**A6*–A9***)
- X14292** Socket housing, 10-pin SW, at interior mirror (**A1*–A5***)

All designations marked * only apply to these installation instructions or this circuit diagram.

Cable colours

BR	Brown
GN	Green
GR	Grey
SW	Black
VI	Violet
WS	White