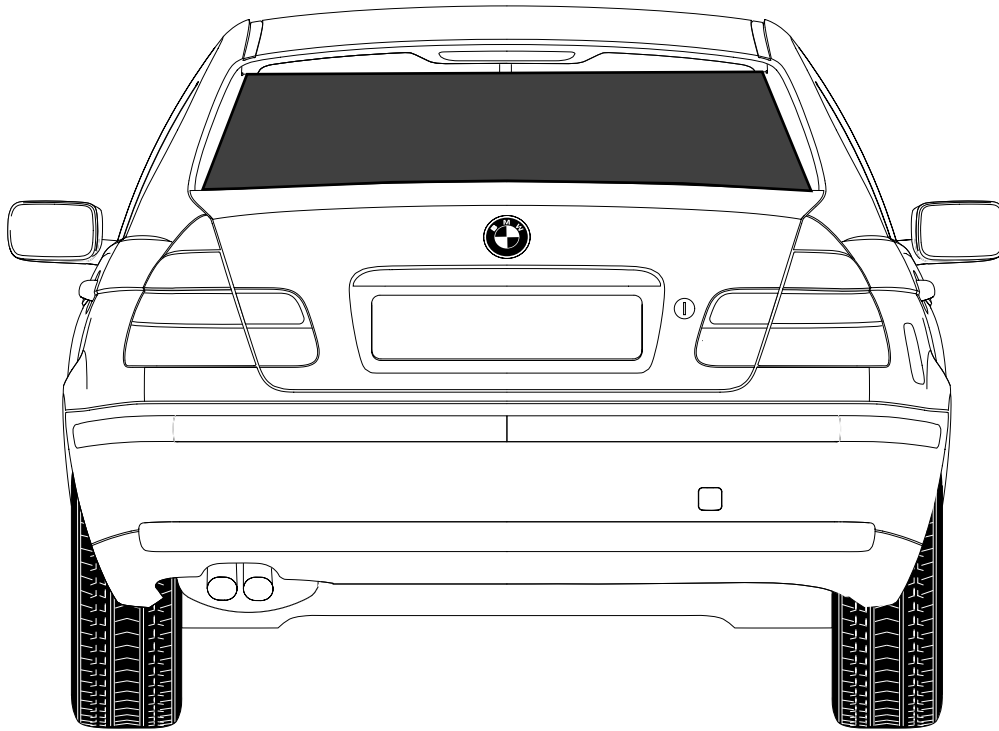




Teile und Zubehör - Einbauanleitung



F 46 0152 EVA

BMW Parts and Accessories - Installation Instruction

Sun blind, electric

BMW 3 Series Saloon (E 46/4), BMW 3 Series Coupé (E 46/2)

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1. Important information

(Only for use within the BMW dealer organisation.)

Installation time for the electric sun blind approx. 3.5 hours.

The installation time may differ depending on the condition of the car and the equipment in it.

Target group

The target group for these fitting instructions is staff who have been trained on BMW cars.

Work

All servicing, repair, installation and adjustment work on cars is conducted on your own responsibility.

All work is to be completed using the latest BMW

- Repair instructions, - Circuit diagrams,
- Service manuals, - Work instructions,
- Diagnostics manuals

in a rational sequence using the prescribed tools (special tools) and pursuant to the relevant health and safety regulations.

Installation notes

If the specified PIN slots are already in use, bridges, double crimps or parallel end stops are to be used. To prevent faults, make sure that you use the exact installation routes in the car.

Under no circumstances should you use so-called "Scotchlock connectors" since they may cause faults in the vehicle's electrical system.

The installation work is shown for a LHD model. For an RHD model, the installation is to be completed the opposite way round.



On LHD cars the wiring harness is to be installed along the right-hand side of the car. ◀



On RHD cars the wiring harness is to be installed along the left-hand side of the car. ◀



Keep to the tightening torque values for screw connections. The required tightening torque values are listed in the parts information system (TIS). ◀

Ensure that the cables are not kinked or damaged when they are installed in the car since otherwise, this too may cause faults which then require a great deal of work for their localisation. The costs incurred as a result of this will not be reimbursed by BMW.

Tools and equipment required

- Straight slot screwdriver
- Phillips screwdriver
- 8 mm wrench socket
- TX 20 Torx wrench
- TX 50 Torx wrench
- 1/2 inch reversible ratchet
- 1/4 inch reversible ratchet
- Drill and 9 mm twist bit
- Flat pliers
- Angle cutter
- Hammer
- Pneumatic saw
- Angle bracket

1.1 Parts overview

Item	Description	Quantity
a	Additional wiring harness	1
b	Electric sun blind	1
c	Insulation-piercing connector	1
d	Cable tape (l = 100 mm)	12
e	Press-studs	4
f	End trim, left	1
	End trim, right	1
g	Hexagonal self-tapping screw	3
h	Switch	1
i	Fuse link	1
j	Installation instructions	1

2. To retrofit the electric sun blind

Notes

Refer to the safety instructions in section 1.

The accessory installation work is based on the general workshop information.

2.1 Preparation

Print out the error memory.

Disconnect the battery.

Remove the speakers and speaker shells from the rear window shelf.

Remove the rear seat.

Through-load facility only

Remove the split rear backrests.

Saloon E46/4 without through-load facility only

Remove the rear backrest.

Saloon E46/4 only

Remove the door sill strips on the passenger side at the front and rear.

Remove the A pillar trim in the footwell on the passenger side.

Remove the glove box and disconnect the plug connectors.

Coupé E46/2 only

Remove the door sill strip on the passenger side.

Remove the A pillar trim in the footwell on the passenger side.

Remove the glove box and disconnect the plug connectors.

2.2 To install the sun blind

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A

Saloon E46/4 without through-load facility only

Insert an angle bracket behind the side section of the backrest (1) and press on the spring for the fastening clip (2) (see magnified section) using this angle bracket in the direction indicated by the arrow. At the same time pull the side section of the backrest (1) carefully in the direction indicated by arrow I to release the fastening clip (2) from the body recess (3).

Then pull the side section of the backrest (1) in the direction indicated by arrow II out of the fastening rail and take it out of the car.

The procedure is the same for the left-hand side of the car.

B

Coupé E46/2 only

Press in the pin (4) in the direction indicated by the arrow until the expanding rivet (5) can be taken out of the trim (6). Remove the side cover cap (7) from the trim (6) (see magnified section) and take the trim (6) out of the car. The procedure is the same for the left-hand side of the car.

C

Coupé E46/2 only

Undo the connector (8) (see magnified section). Insert an angle bracket behind the side section of the backrest (9) and press on the spring for the fastening clip (10) (see magnified section) using this angle bracket in the direction indicated by the arrow. At the same time pull the side section of the backrest (9) carefully in the direction indicated by arrow I, to release the fastening clip (10) from the body recess (11). Then pull the side section of the backrest (9) in the direction indicated by arrow II out of the fastening rail and take it out of the car.

The procedure is the same for the left-hand side of the car.

D

Undo the Torx bolts (12) on the seat belt mounting (see magnified section).

E

Raise the press-studs (13) for securing the rear window shelf using a straight slot screwdriver whilst at the same time levering them out with a pair of flat pliers.



Ensure that the cover on the rear window shelf is not damaged as you lever out the press-studs (13). Since it is not possible to avoid damaging the press-studs (13) themselves during this process, they are to be replaced with the new press-studs provided in the parts kit. ◀

Cars with a through-load facility only

Remove the trim (14) on the cross member.

F

Carefully lever the rear light (15) out of the C pillar trim (16) and then disconnect the plug connector to the rear light (15).

Take the C pillar trim (16) off the C pillar in the direction indicated by the arrow and then out of the car.

Coupé E46/2 only

On the Coupé, before removing the C pillar trim (16), undo the Torx bolt (17) (See magnified section).

The procedure is the same for the left-hand side of the car.

G

Carefully raise the rear window shelf (18) and pull the springs (19) for the headrest catch mechanism out of the headrest mountings (20) using a pair of flat pliers (see magnified section). Then pull the headrests (21) out of the headrest mountings (20) in the direction indicated by the arrow and take them out of the car.

H

Lever the trim (22) for the belt aperture out of the rear window shelf (23) and guide it with the seat belt (24) through the recess in the rear window shelf.

The procedure is the same for the left-hand side of the car.


I

Carefully raise the rear window shelf (25) whilst at the same time pulling it out in the direction indicated by the arrow and take it out of the car.

J

Saloon E46/4 only

Cut the recess (dotted line) for the sun blind precisely to the specified dimensions (see magnified section) out of the rear window shelf using a pneumatic saw. The inside edge of the embossed area (26) is used as a reference line for the specified dimensions (see magnified section).

 If you are unable to cut out the recess precisely the specified dimensions, the fit and function of the sun blind will be severely hampered. ◀

K

Coupé E46/2 only


Cut the recess for the sun blind out of the rear window shelf precisely along the inside edge of the embossed area (27) (dotted line) using a pneumatic saw.

 If the recess is not cut precisely along the inside edge of the embossed area (27) (dotted line), the fit and function of the sun blind will be severely hampered. ◀

L

Keep to the following sequence of work to fit the sun blind into the recess in the rear window shelf.

1. Fit the cut edge (28) of the rear window shelf into the guide rail (2) for the sun blind as far as it will go (see magnified section).
2. Press the guide rail (30) in the direction indicated by arrow I and at the same time press the cut edge (31) of the rear window shelf in the direction indicated by arrow II into the guide rail (30) for the sun blind.

 Fit the sun blind into the rear window shelf very carefully since a lack of care can easily result in permanent cracks or kinking points. Ensure that the sun blind is fitted into the centre of the recess so that the end trims can then be fitted easily at both sides. ◀

M

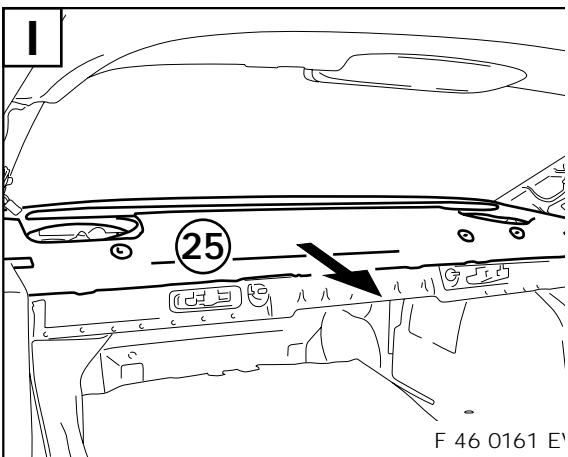
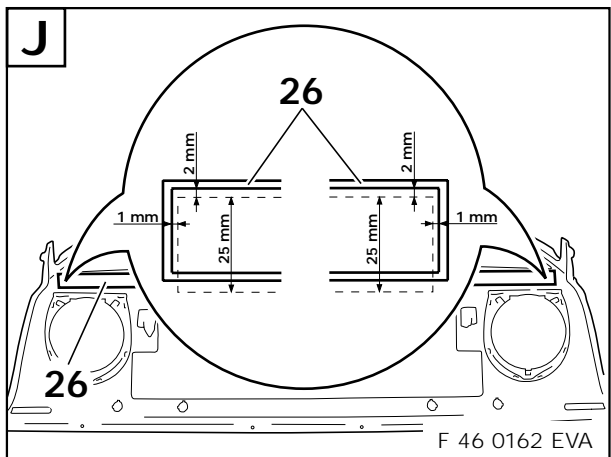
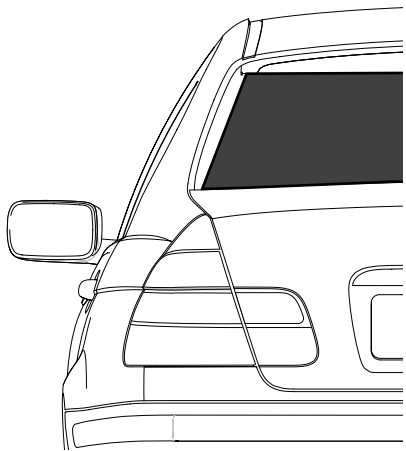
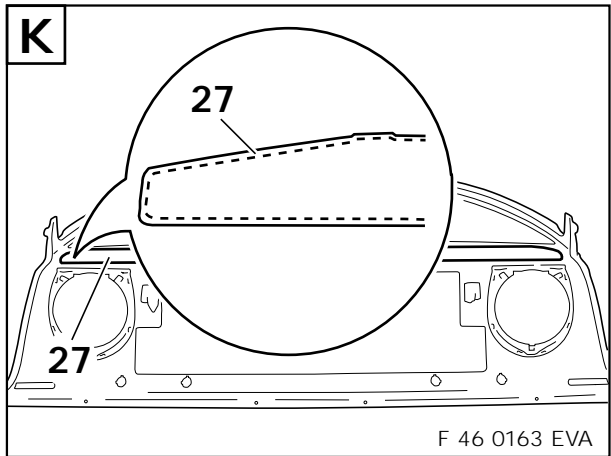
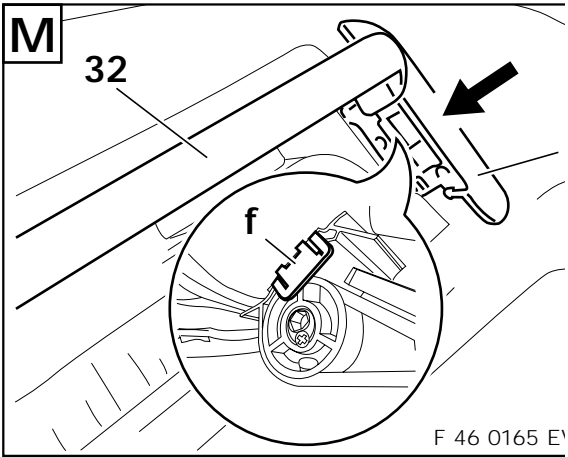
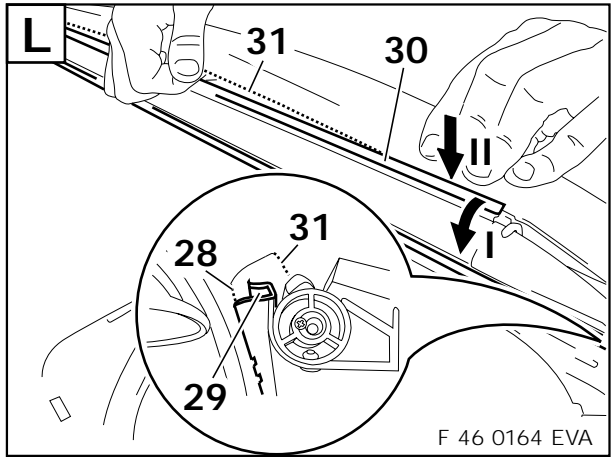
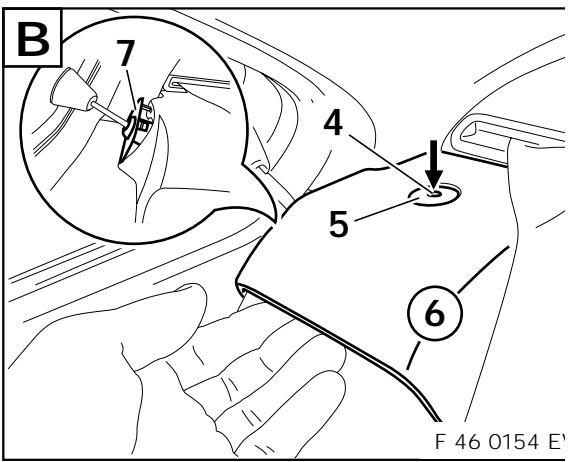
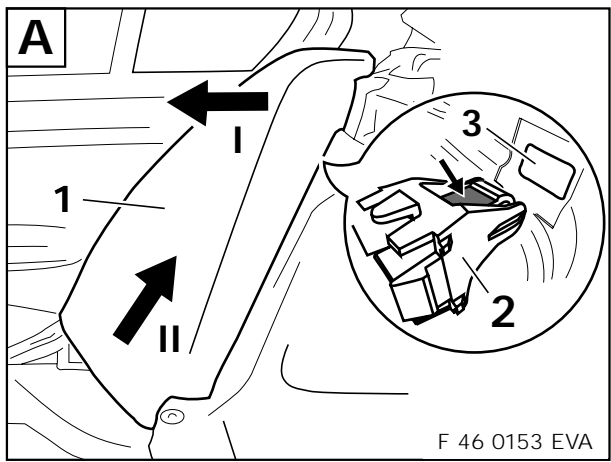
Saloon E46/4 only

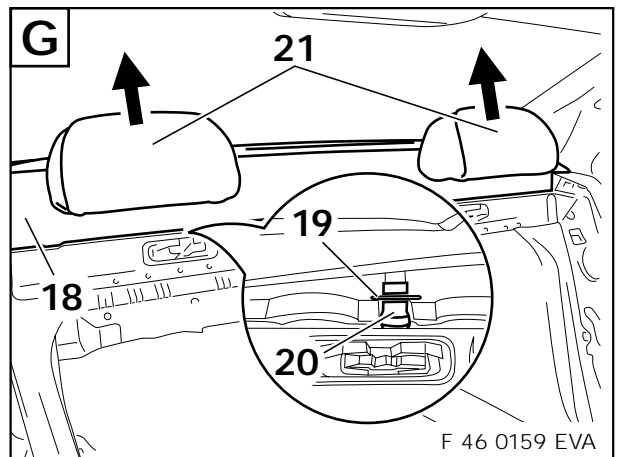
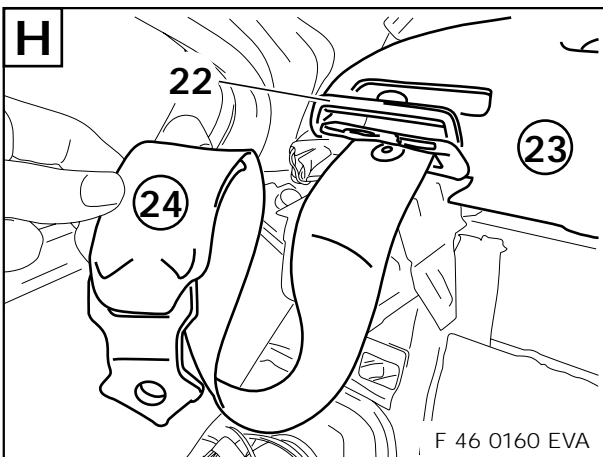
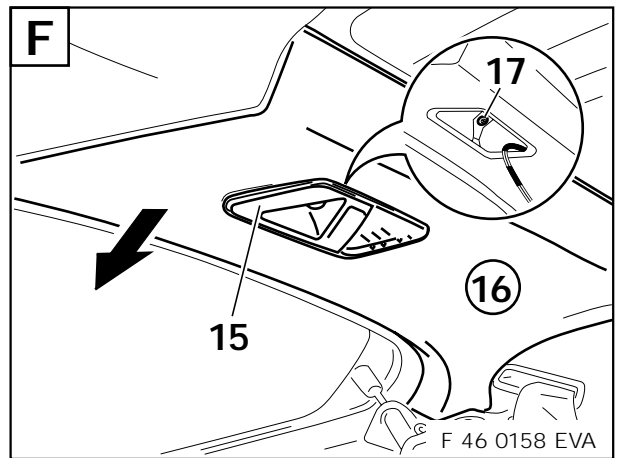
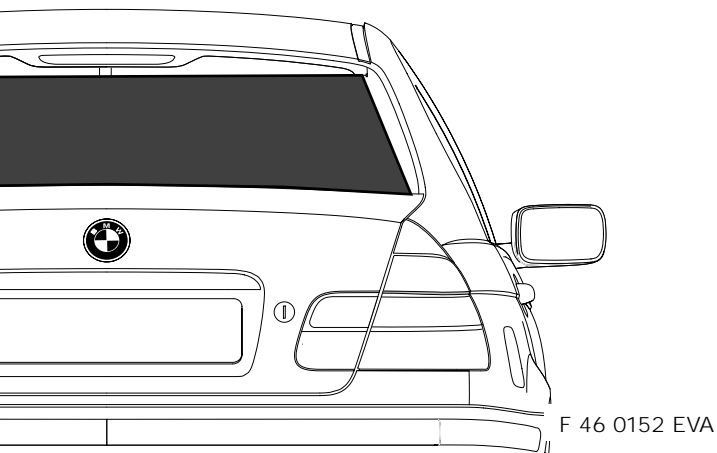
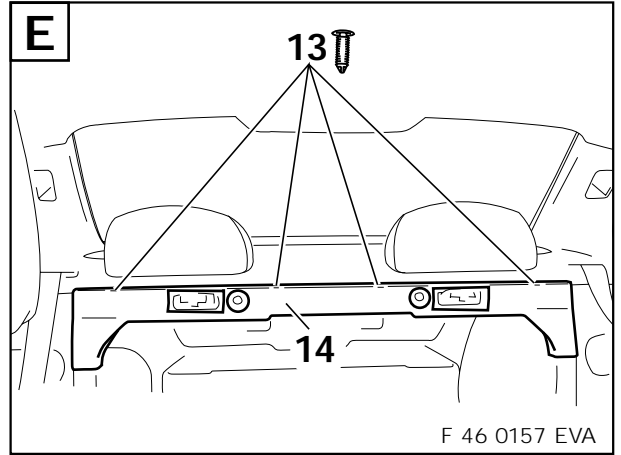
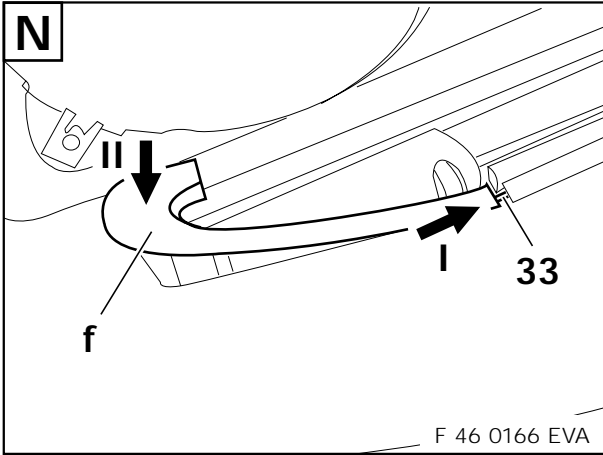
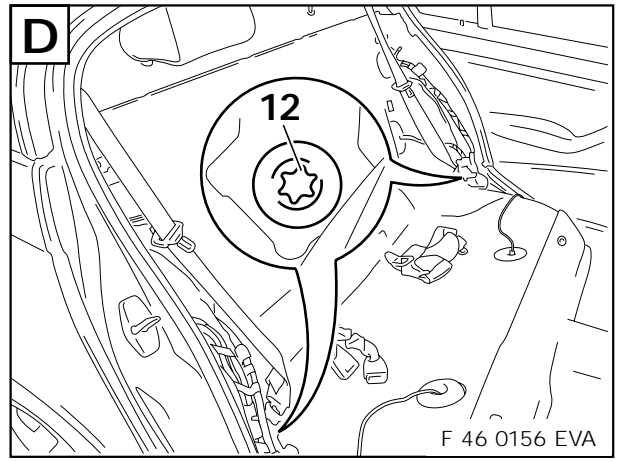
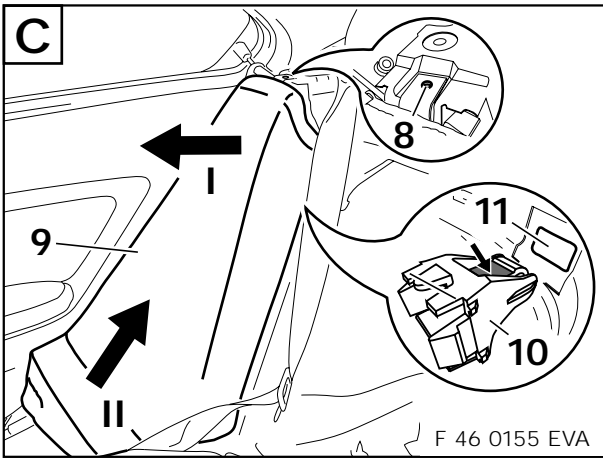
Push the cover (32) upwards whilst at the same time pressing the end trim (f) carefully into the recess in the direction indicated by the arrow. Then ensure that the end trim (f) has engaged in the bottom edge of the recess (see magnified section).

N

Coupé E46/2 only

Push the journal (33) on the end trim (f) between the cut edge of the rear window shelf and the casing for the sun blind in the direction indicated by arrow I. Then clip the end trim (f) into the recess in the direction indicated by arrow II.

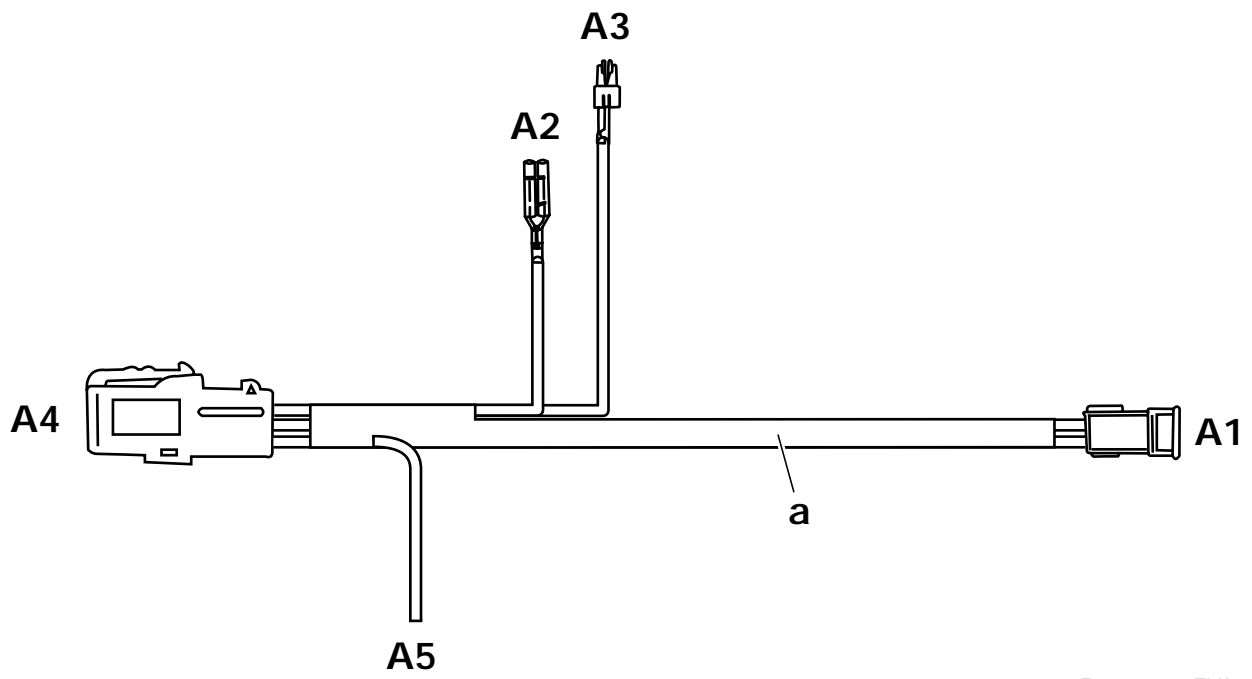




2.3 Connection diagram for additional wiring harness

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Item	Design / Description	Cable colour	Connection location in the car	Abbreviation / Slot
a	Additional wiring harness	----	----	----
A1	3-pin Bordeaux-coloured socket casing	----	To the 3-pin plug casing for the sun blind on the right-hand side of the rear window shelf	X1281
A2	Joint connector contact	brown	To the joint connector in the joint connector box on the fuse holder above the glove box	X219
A3	Blade terminal contact	violet/blue	To fuse holder II A47, fuse slot F12 above the glove box	X10016/24
A4	6-pin green socket casing		To the switch for the sun blind in the switch strip on the instrument panel holder	X947
A5	Cable	grey/red	Parallel connection with an insulation-piercing connector to the grey/red cable on plug X324 for the switch for the electric window on the passenger side	X001



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2.4 To install the additional wiring harness

Fold out folded page 2-53

A

Install the additional wiring harness (a) along the standard wiring harness as follows:

Connect branch **A1** to 3-pin plug casing X1281 on the sun blind.

Connect branch **A2** to joint connector X219 in the joint connector box on fuse holder X10016 above the glove box.

Connect branch **A3** to fuse holder X10016 above the glove box.

Connect branch **A4** to switch X947 in the instrument panel holder.

Connect branch **A5** to switch X324 for the electric window on the passenger side.

B

RHD only

Lay branch **A1** into the C pillar area on the right-hand side of the car. Then lay the additional wiring harness (a) from the right-hand side of the car to the left-hand side of the car. As you do so insert the additional wiring harness (a) into the cable holders (1).

C

When laying the additional wiring harness (a) near the C pillar, guide the additional wiring harness (a) over the seat belt casing (2). Then secure the additional wiring harness (a) to the standard wiring harness using cable ties (d). This ensures that the additional wiring harness (a) does not impede the function of the seat belt.

LHD only

Then lay the additional wiring harness (a) on the right-hand side of the car along the door sill strips to the front towards the glove box.

RHD only

Then lay the additional wiring harness (a) on the left-hand side of the car along the door sill strips to the front towards the glove box.

D

Push the rear window shelf (3) with fitted sun blind in the direction indicated by the arrow into the grille (4) on the rear screen.



Ensure that as you push it into the grille (4), the rear window shelf (3) does not bend, so as to avoid permanent cracks or kink points in it. ◀

E

Secure the sun blind to the body plate below the rear window shelf in the boot using the screws (g).

F

Connect the 3-pin Bordeaux-coloured socket casing **A1** on the additional wiring harness (a) to 3-pin plug casing (5) X1281 on the sun blind.

G

Connect the joint connector contact **A2** on the additional wiring harness (a), cable colour brown, to joint connector X219 of the same colour in the joint connector box (6) on the fuse holder (7).

H

Connect the blade terminal contact **A3** on the additional wiring harness (a), cable colour violet/blue, to fuse holder II A47 (8) X10016, slot **24**. Then fit the 7.5 A fuse link (i) to fuse slot 12.

I

Manual transmission only

Lever the leather boot (9) out of the trim (11). Take the foam cover (10) out of the gearshift lever chamber. Undo the screws (12). Take the trim (11) out of the centre console and disconnect the plug connectors.

J

Automatic transmission only

Lever the leather boot (13) out of the selector lever trim (14). Lever the selector lever trim (14) out of the trim (15) and disconnect the plug connectors. Undo the screws (16). Then take the trim (15) out of the centre console and disconnect the plug connectors.

K

Lever the oddments box (17) (with/without cover) out of the instrument panel holder. Lever out the switch cover (18).

L

Undo the screws (19) and pull the holder (20) off the instrument panel in the direction indicated by the arrow. Disconnect the plugs on the holder (20).

M

Secure the additional wiring harness (a) near the fuse holder to the standard wiring harness using cable ties (d). Then insert branches **A4-A5** on the additional wiring harness (a) between the instrument panel trim (21) and the ventilation shaft (22) in the direction indicated by the arrow and lay them towards the gearshift lever chamber.

N

Lay branches **A4-A5** on the additional wiring harness (a) to the left past the support tube (23) towards the gearshift lever chamber to prevent knocking noises being caused by the additional wiring harness (a) against the instrument panel trim.

Insert branch **A5** on the additional wiring harness (a), cable colour grey/red, together with the grey/red cable on plug X324 (24) in slot 6 in the insulation-piercing connector (c) and make a parallel connection by pressing the insulation-piercing connector (c) together. Then cut the excess cable on the insulation-piercing connector (c) on branch **A5** using an angle cutter.



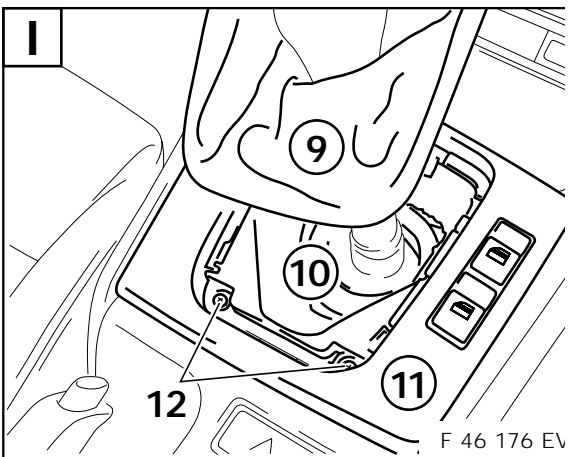
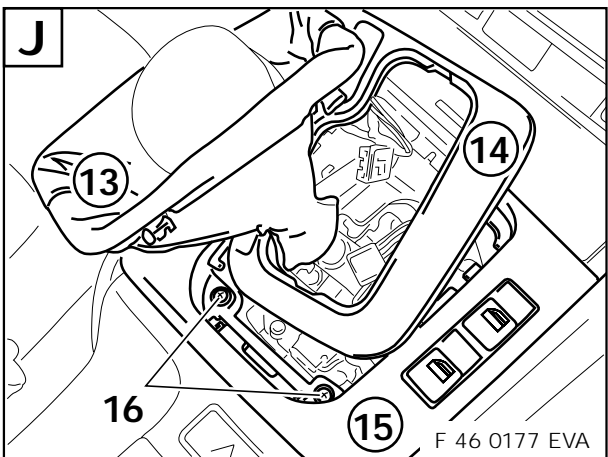
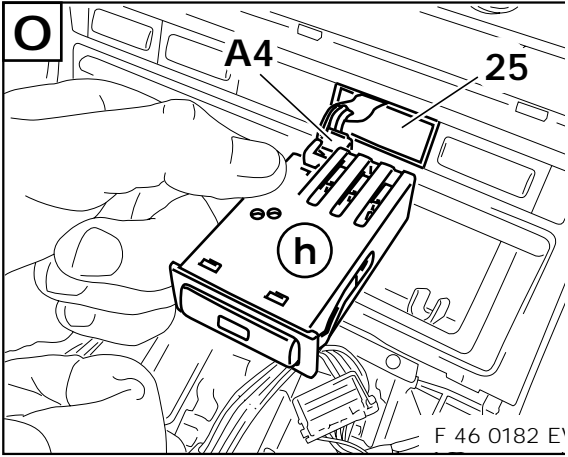
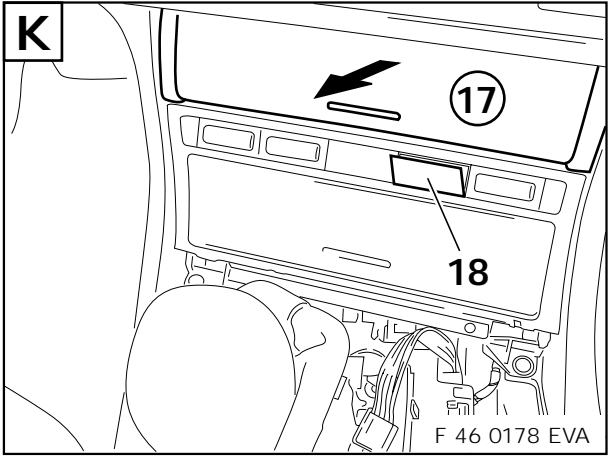
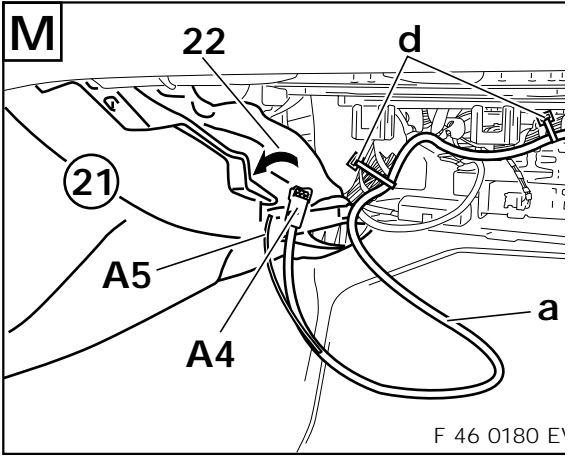
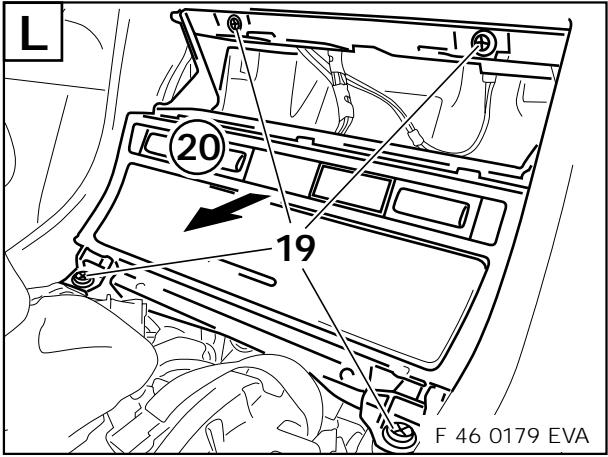
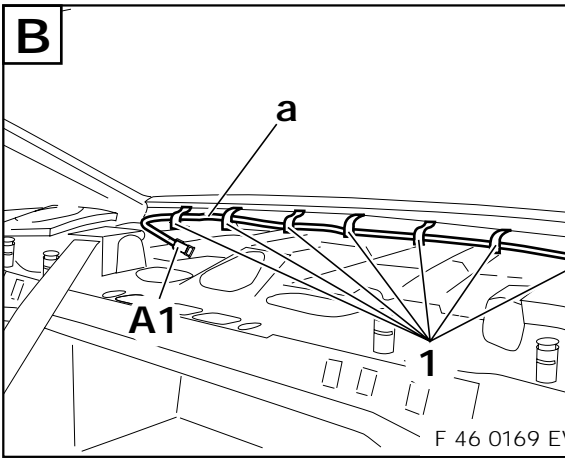
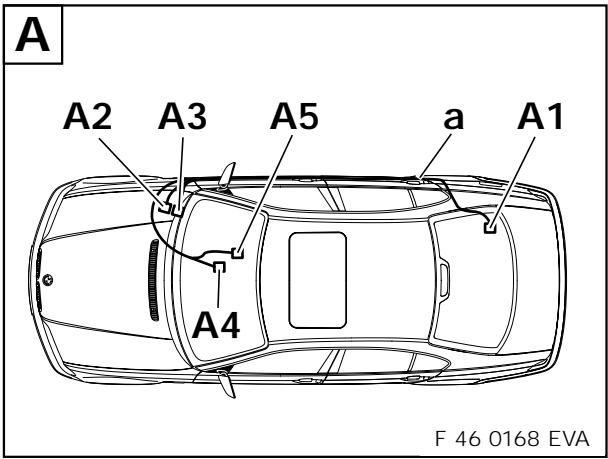
Wrap the insulation-piercing connector (c) with fabric adhesive tape to prevent possible short circuits. ◀

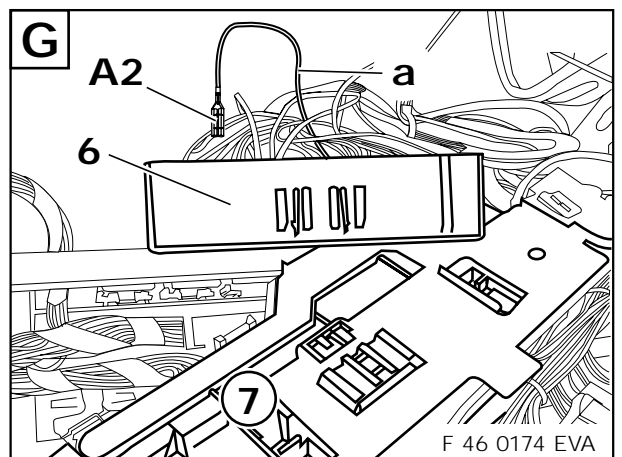
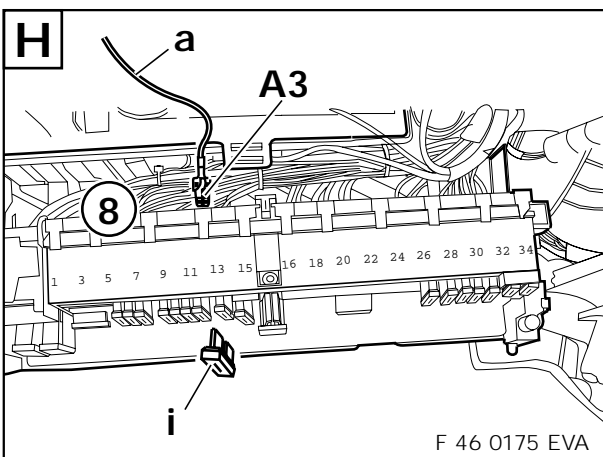
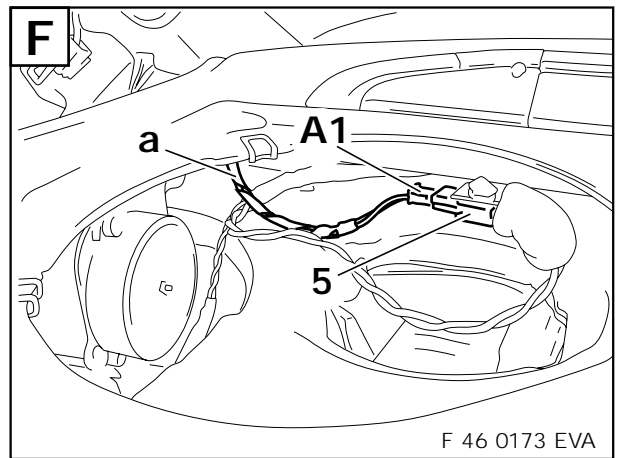
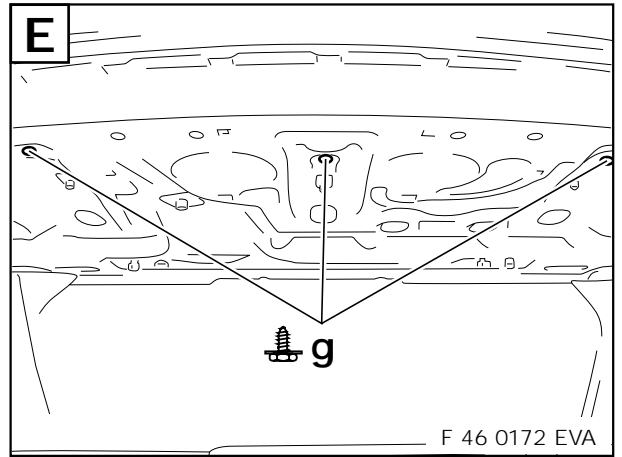
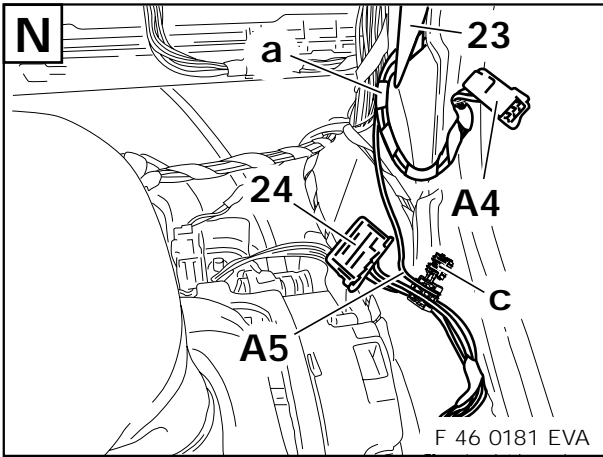
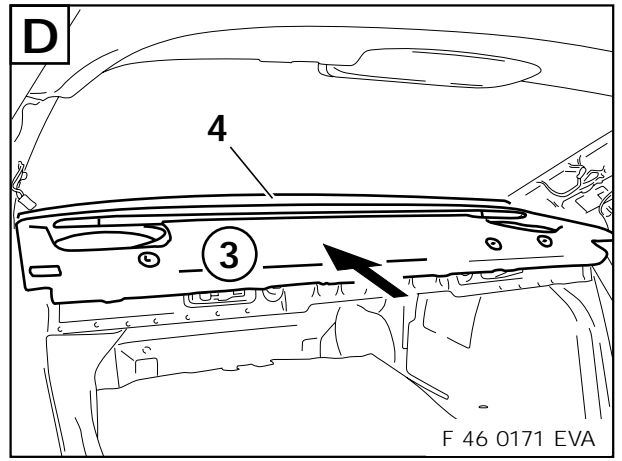
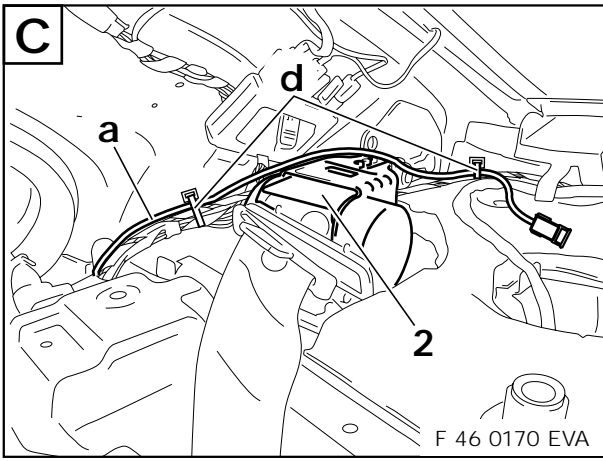
O

Connect the 6-pin green socket casing **A4** to switch X947 (h). Then push the switch (h) into the recess (25) in the support.

Conduct a function test.

Assemble the car by replacing all the parts you removed, but in reverse order.





3. Circuit diagram

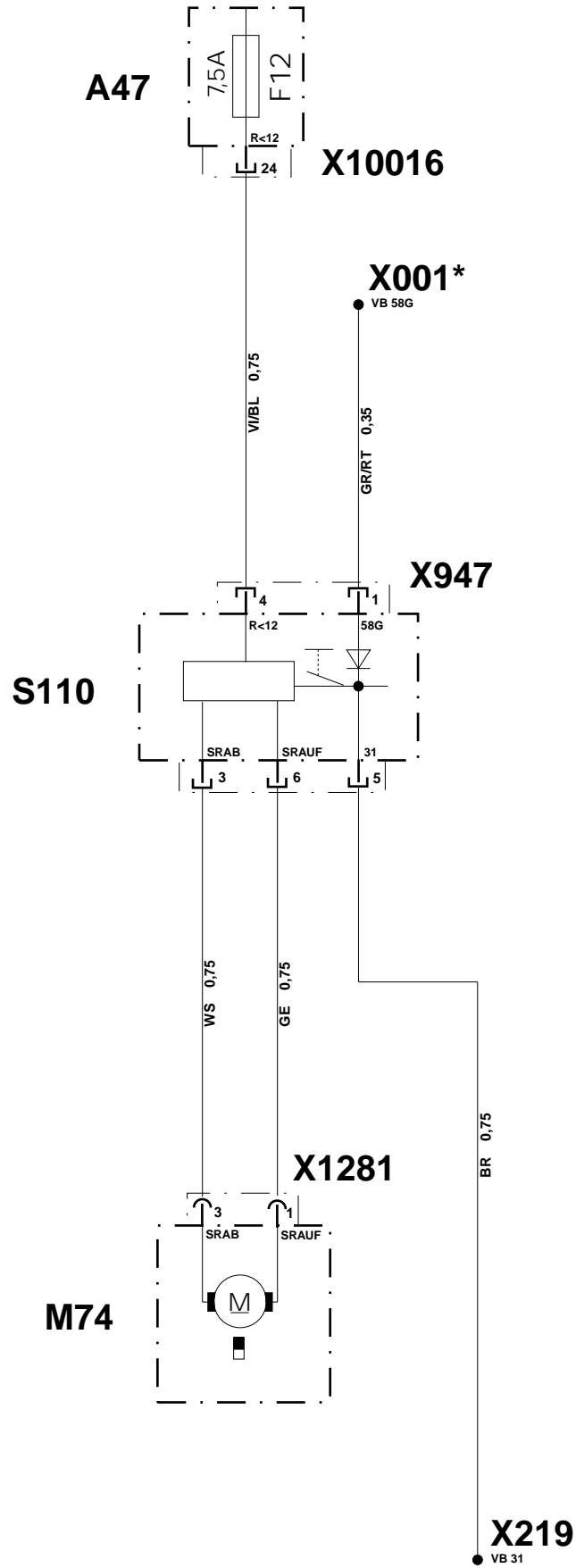
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A47	Fuse holder II
M74	Sun blind motor
S110	Sun blind switch
X219	Terminal 31 connector
X947	6-pin, green socket casing
X001*	Cable with an insulation-piercing connector to X324/6
X1281	3-pin, Bordeaux-coloured socket casing
X10016	Fuse holder II A47

The designations marked "*" only refer to this circuit diagram. All other designations refer to BMW dealer organisation circuit diagrams.

Cable colours

bl = blue
br = brown
ge = yellow
gr = grey
rt = red
vi = violet
ws = white



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