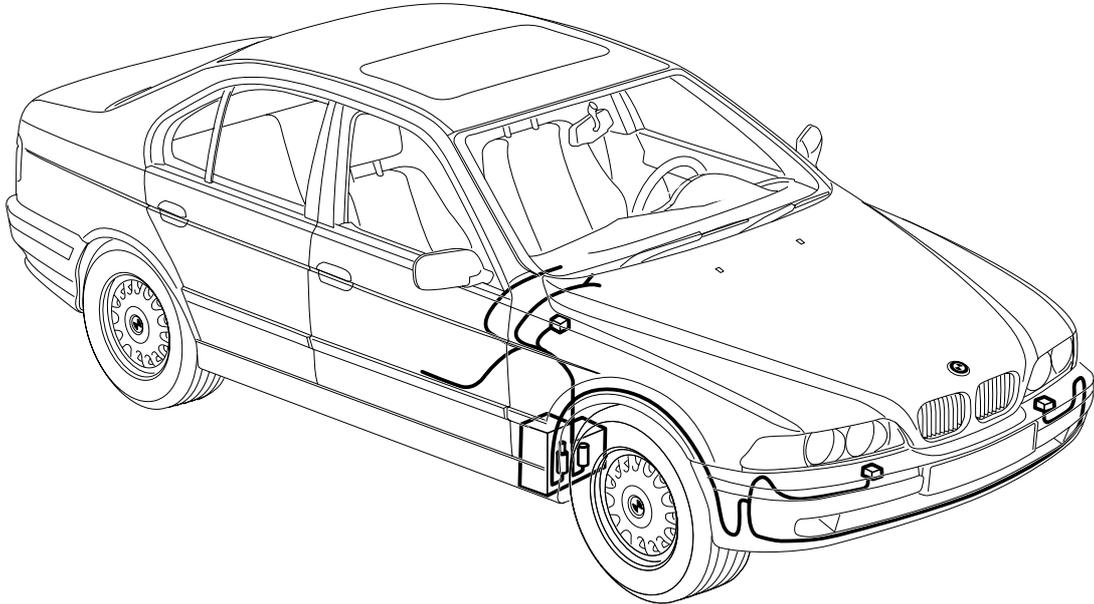




Teile und Zubehör - Einbauanleitung



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BMW Parts and Accessories - Installation Instruction
Headlight cleaning system (SRA)
for the BMW 5 Series (E 39) saloon, LHD, (E 39/2) touring, LHD

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Specialist knowledge required.

1. Important information

(Only for use within the BMW dealer organisation).

Installation time for cars without a latent heat accumulator 2.5 - 3 hours.

Installation time for cars with a latent heat accumulator 4 - 4.5 hours.

These installation times may vary depending on the condition of the car and the equipment in it.

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

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

Safety notes

Before the installation, please read the following:

These installation instructions are for left-hand drive cars only.

Ensure that cables and other lines are not kinked or damaged when they are being installed in the car and that they do not impair the freedom of movement of other components.

If the specified pins or chambers are already in use, bridges, double crimps or parallel end stops are to be used.

On cars with a latent heat accumulator, the unit must be removed and refitted as described in the current repair instructions.

Carefully remove drill chippings. Deburr drilled holes and treat them with the anti-corrosive coating prescribed by BMW.

Tools and equipment required

Philips screwdriver
Straight slot screwdriver
Sockets, sizes 8 mm and 10 mm
1/2 inch reversible ratchet
1/2 inch extension
1/2 inch socket, size 16 mm
1/4 inch reversible ratchet
1/4 inch extension
1/4 inch sockets, sizes 7 mm, 8 mm and 10 mm
Angle cutter
Step drill bit, diameter 30 mm
Set of files
Anti-corrosive paint
Torch

2. Installation

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2.1 Preparation

Print out error memory.

Disconnect battery.

Remove front right-hand wheel.

Remove the front right-hand wheel arch trim.

Remove the front bumper.

Remove the washing water tank (some of the components in this will be required later).

Remove the front right-hand seat.

Remove the trim under the glove box.

Remove the glove box.

If the car has one, remove the latent heat accumulator using the current repair instructions.

Remove the front right-hand door sill strip.

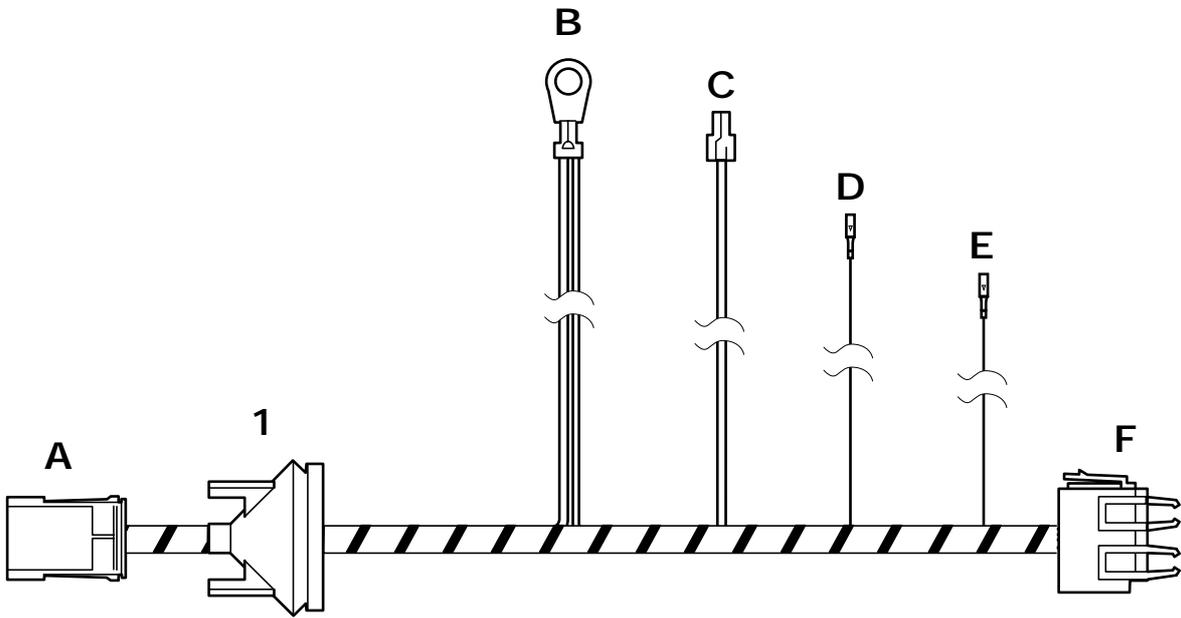
Remove the bottom right-hand A pillar trim.

2.2 Overview of SRA wiring harness

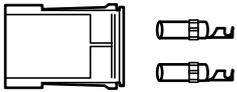
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Connection diagram

Item	Description	Cable colour	Connection location in the car	Abbreviation/Slot
A	Grey 2-pin socket casing	-	Washing water pump M7 SRA (from 09/97)	X1011
B	Cable eyelet, 6 mm/Terminal 31	brown	Ground post below the front passenger seat	X492
C	Blade terminal contact/Terminal 30A2	red/grey	Fuse holder I, A46, near the glove box	X10015/4
D	Blade terminal contact/Terminal DSIR	black/yellow	Base module A1 behind the glove box	X332/10
E	Blade terminal contact/Terminal SRA	blue/black	Base module A1 behind the glove box	X253/17
F	Black 9-pin relay socket	-	Relay holder behind the glove box	-
1	Rubber grommet	-	Cable passage in front passenger footwell	-
2	Grey 2-pin socket casing/ pin contacts	-	Washing water pump up to 09/97	X1011



2



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2.3 To install the SRA wiring harness

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A

Pull back the carpet (1) in the footwell at the front right-hand side and remove the cover (2).

B

Cars up to 08/98 only

Mark the hole position (1) at a distance of 25 mm (dimension a) from the existing rubber grommet in the centre and on the same level, centrepunch it and make the hole with a diameter of 30 mm using a step drill.

Deburr the hole, carefully remove the drill chippings and treat the bare areas with the anti-corrosive coating prescribed by BMW.

C

Cars after 08/98 only

Mark the hole position (1) in the centre of the recess, centrepunch it and make the hole with a diameter of 30 mm using a step drill.

Deburr the hole, carefully remove the drill chippings and treat the bare areas with the anti-corrosive coating prescribed by BMW.

D

Overview of connection points

Branch A leads from the interior through the drilled hole in the front passenger footwell to the installation site of the washing water tank.

Branch B goes to the ground post X492 below the front passenger seat.

Branch C goes to the fuse holder X10015 behind the glove box.

Branches D and E lead to the base module A1 behind the glove box.

Branch F goes to the relay holder behind the glove box.

E

Lay branch A, grey 2-pin socket casing, from the interior of the car into the wheel arch and seal the hole with the rubber grommet (1).



Different washing water pumps for the SRA are supplied with the kits.

For washing water pumps up to 09/97, replace the grey 2-pin socket casing with blade terminal contacts with the grey 2-pin socket casing with pin contacts (see sections 2.4 and 2.5). ◀

F

Pull back the rear section of the carpet below the front passenger seat.

Lay branch B, cable colour brown, along the sill wiring harness towards the rear. Unscrew the hexagonal nut (1).

Fit the cable eyelet from branch B to the securing bolt on the ground post X492 (2) and secure it with the hexagonal nut (1).

G

Lay branch F, black 9-pin relay socket, to the relay holder behind the glove box and connect it to the relay holder (not visible). Then connect the SRA relay to this relay socket.

Lay branch C, cable colour red/grey, to the fuse holder X10015 (1) near the glove box and secure it in slot 4 (fuse No. 2). Insert a 30 A fuse into slot 2.

H

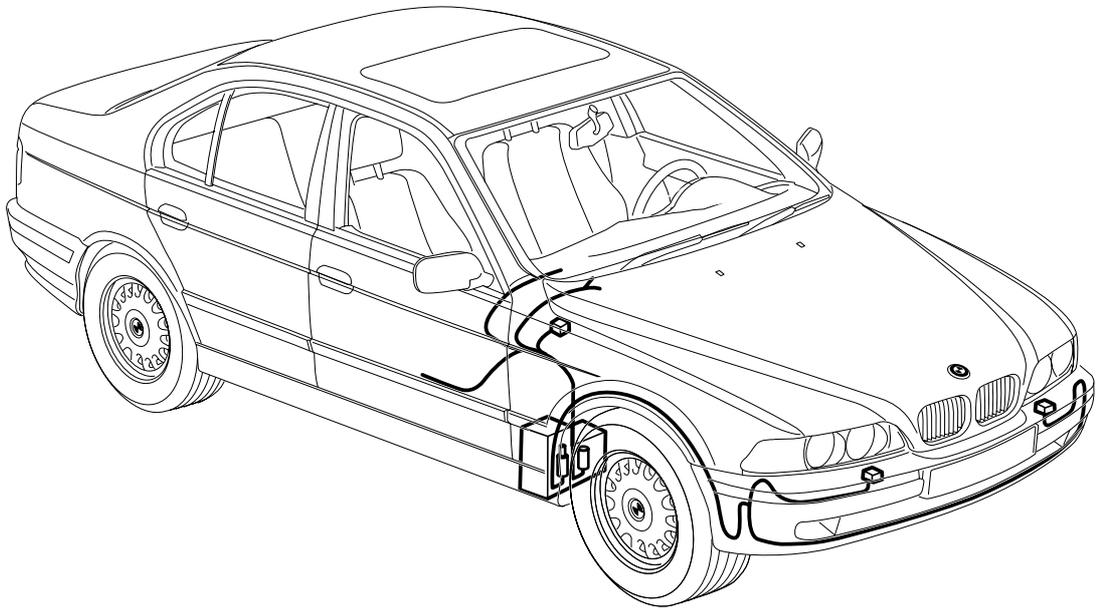
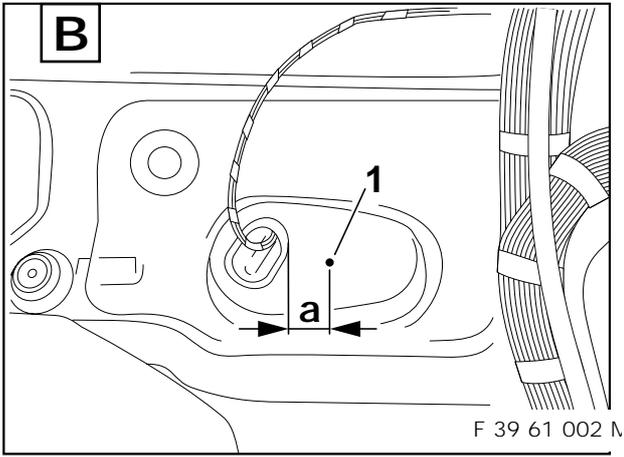
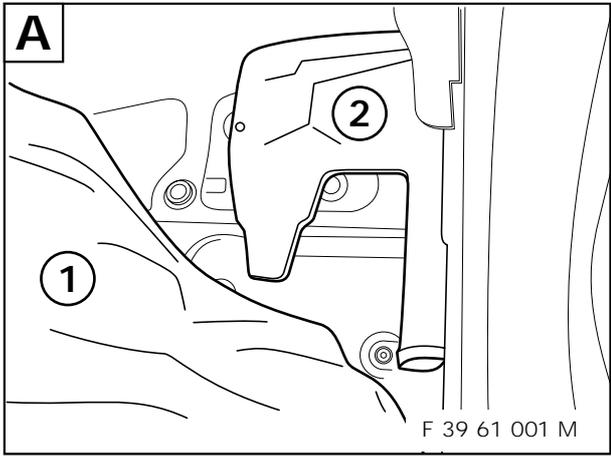
Lay branches D and E, cable colour black/yellow and blue/black, to the base module A1 (1) behind the glove box.

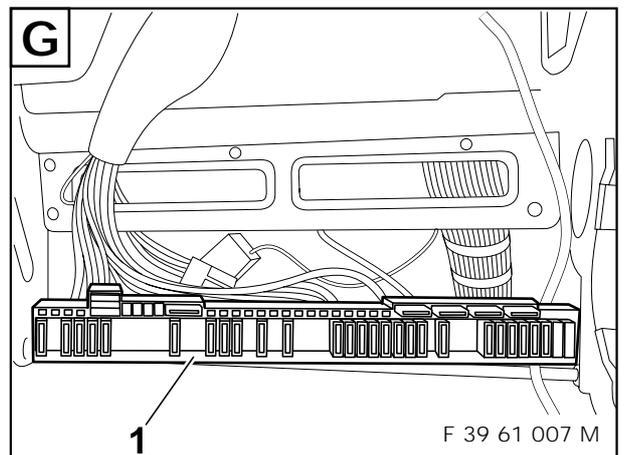
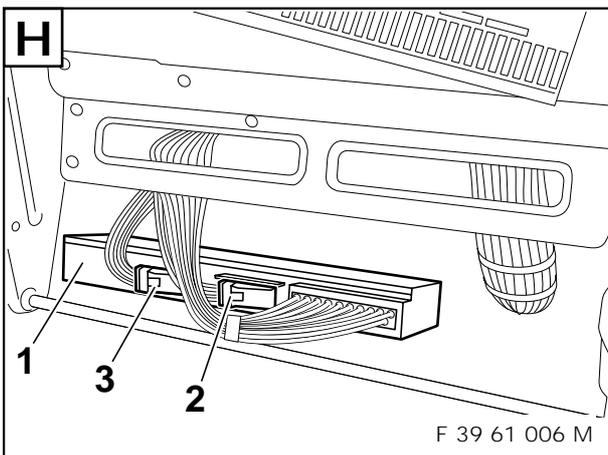
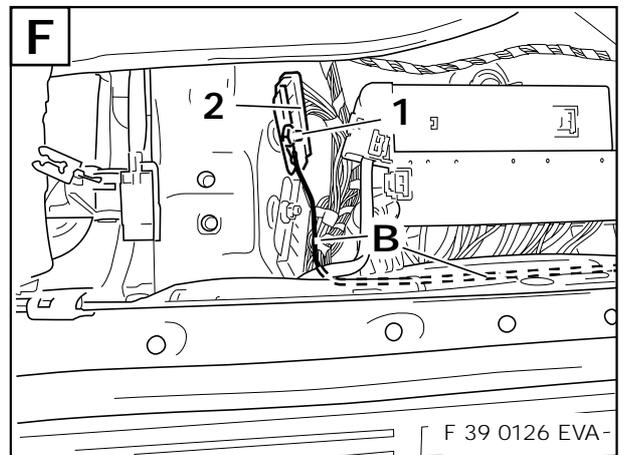
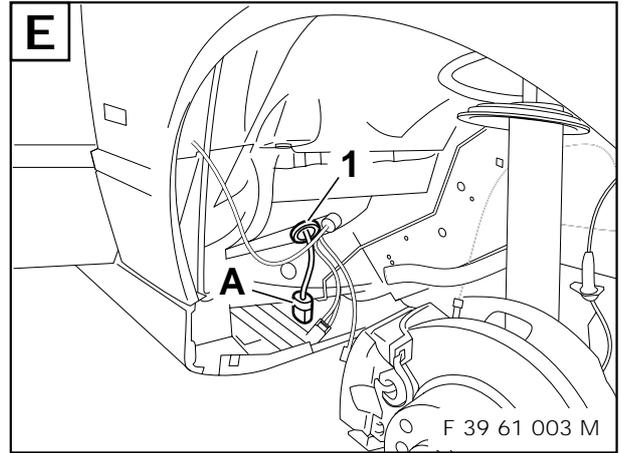
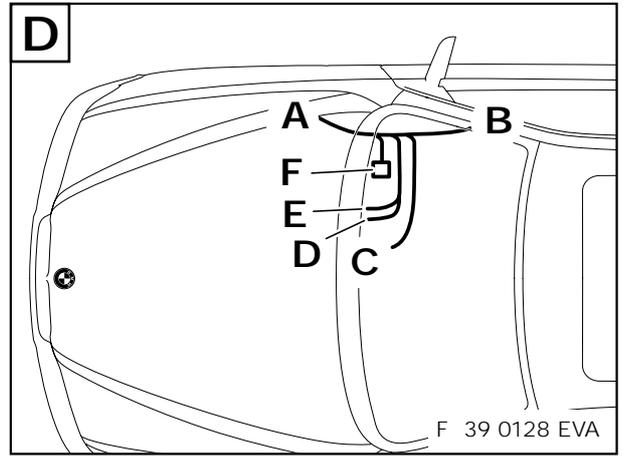
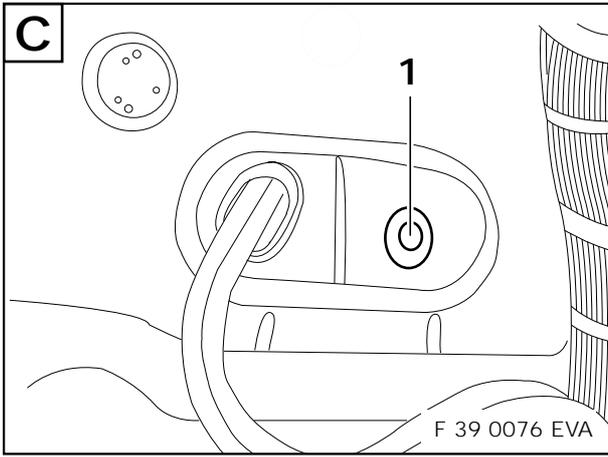
Connect branch D, cable colour black/yellow, to the white 26-pin socket casing X332 (2) on slot No. 10.

Connect branch E, cable colour blue/black, to the black 26-pin socket casing X253 (3) on slot No. 17.



If you are also retrofitting the xenon light to the car, then install the xenon light wiring harness. ◀





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2.4 To install the washing water tank (E 39 saloon only)

A



As you install the various components, use the new seals (3) and (9) and the new pump screens (8). ◀

Remove the following parts from the washing water tank originally in the car and fit them into the new washing water tank (1):

Install the bleed port (2) using a new seal.

Install the windscreen washing pump (5) using a new pump screen (8).

Install the washing water level switch (7) using a new seal (3).



If there is a level indicator in the washing water tank originally fitted in the car, it is no longer needed. ◀

In addition insert the following parts in the new washing water tank (1):

Install the washing pump for the headlight cleaning system (4) with a new seal (9).

Seal the hole for the rear screen washing pump with the sealing stopper (6) and the pump screen (8).

B

Install the modified washing water tank (1) and secure it with plastic nuts (2).

Connect branch A, grey 2-pin socket casing, and the hose for the headlight cleaning system (3) to the SRA pump (4).



Different washing water pumps for the SRA are supplied with the kits.

For washing water pumps up to 09/97, replace the grey 2-pin socket casing with blade terminal contacts with the grey 2-pin socket casing with pin contacts. Nip off the grey 2-pin socket casing with blade terminal contacts, strip the wires, fit the pin contacts supplied and then connect the 2-pin socket casing with pin contacts as follows (different to the grey 2-pin socket casing with blade terminal contacts):

PIN 1: black/brown

PIN 2: brown ◀

Connect the black 2-pin socket casing (5) and the hose for the windscreen cleaning system (6) to the washing water pump (7).

Connect the black 2-pin socket casing (8) to the level sensor.

Connect the filling hose (9) to the washing water tank (1).

2.5 To install the washing water tank (E 39/2 touring only)

C



As you install the various components, use the new seals (3) and (9) and the new pump screens (8). ◀

Remove the following parts from the washing water tank originally in the car and fit them into the new washing water tank (1):

Install the bleed port (2) using a new seal (3).

Install the windscreen washing pump (5) using a new pump screen (8).

Install the rear screen washing pump (6) using a new pump screen (8).

Install the washing water level switch (7) using a new seal (3).



If there was a level indicator in the washing water tank originally fitted in the car, it is no longer needed. ◀

In addition install the washing pump for the headlight cleaning system (4) in the new washing water tank (1) using a new seal (9).

D
Install the modified washing water tank (1) and secure it with plastic nuts (2).
Connect branch A, grey 2-pin socket casing, and the hose for the headlight cleaning system (3) to the SRA pump (4).



Different washing water pumps for the SRA are supplied with the kits.

For washing water pumps up to 09/97, replace the grey 2-pin socket casing with blade terminal contacts with the grey 2-pin socket casing with pin contacts. Nip off the grey 2-pin socket casing with blade terminal contacts, strip the wires, fit the pin contacts supplied and then connect the 2-pin socket casing with pin contacts as follows (different to the grey 2-pin socket casing with blade terminal contacts):

PIN 1: black/brown

PIN 2: brown ◀

Connect the black 2-pin socket casing (5) and the hose for the windscreen cleaning system (6) to the washing water pump (7).

Connect the black 2-pin socket casing (8) and the hose for the rear screen cleaning system (9) to the washing water pump (10).

Connect the black 2-pin socket casing (11) to the level sensor.

Connect the filling hose (12) to the washing water tank (1).

2.6 To install the SRA hose line in the wheel arch

E
Lay the hose line for the headlight cleaning system (1) to the wheel arch and secure it with retaining clips (2).

2.7 To modify the bumper trim and install the SRA hose line in the bumper

F
Carefully cut the embossed areas (1) out of the bumper trim (2).



It may be necessary to take the bumper trim (2) off the support (3) to cut out the embossed areas (1).

Depending on the design of the spray jets, the recesses (1) may have to be enlarged by further cutting out (4). ◀

G
 The headlight cleaning jets (5) and (6) are different. Refer to the codes on the cut-outs. ◀

Press in the headlight cleaning jets (5) and (6) until they engage in position.

Connect the SRA hose line (1) to the headlight cleaning jets (5) and (6), lay it in the bumper and secure it with hose clips (2) and hexagonal self-tapping screws (3).

Run the SRA hose line (1) behind the retaining lugs (4) (it may be necessary to unclip the plastic grate to do this).

2.8 To assemble the car

Assemble the car by replacing all the parts you removed, but in reverse order.
In addition connect the two SRA hose lines

2.9 Coding

This retrofit system is coding-relevant.

The coding is required to ensure that the retrofit system is fully functional and to rule out the possibility of malfunctions and faults when it works in conjunction with other electrical systems in the car.

In addition the retrofit system is saved in the central code of the IKE (integrated combination electronics)/instrument combination.

The coding work is to be completed using the DIS/ModIC and is performed automatically in the "Retrofit" path using the latest coding program.

The procedure is user-guided. Refer to the text instructions as you go through the various stages.

Print out the error memory and conduct a function test.

2.10 To check the function and adjustment of the headlight cleaning jets

Fill the washing water tank with an appropriate cleaning fluid as described in the instructions issued by the car manufacturer.

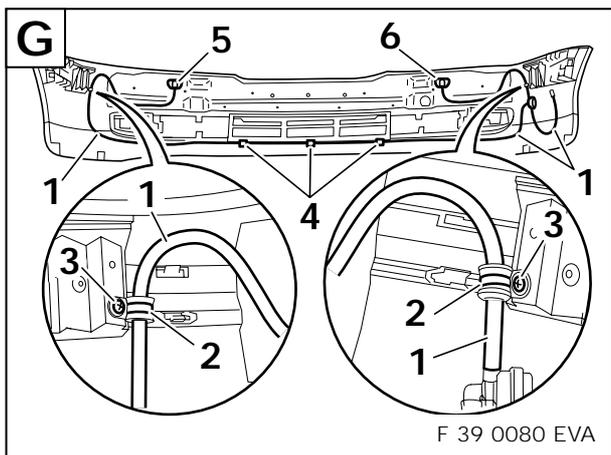
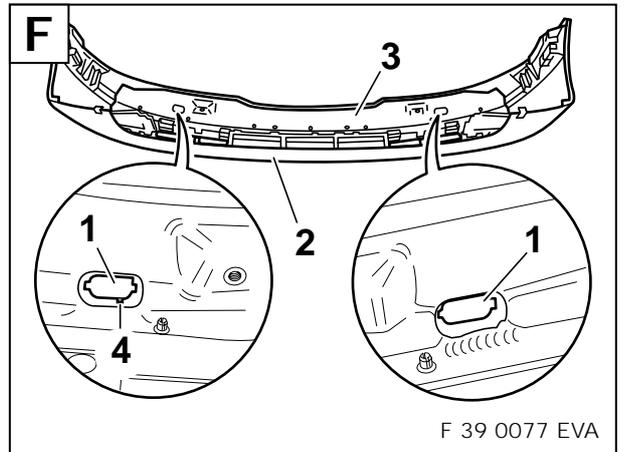
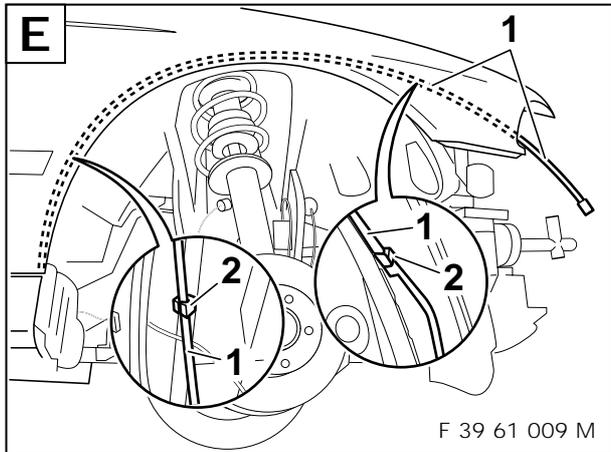
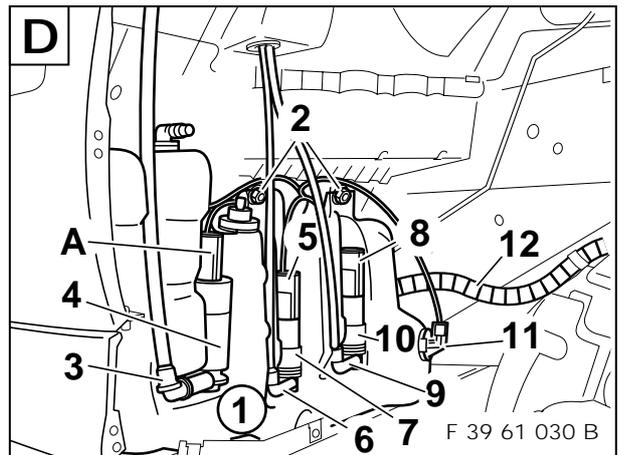
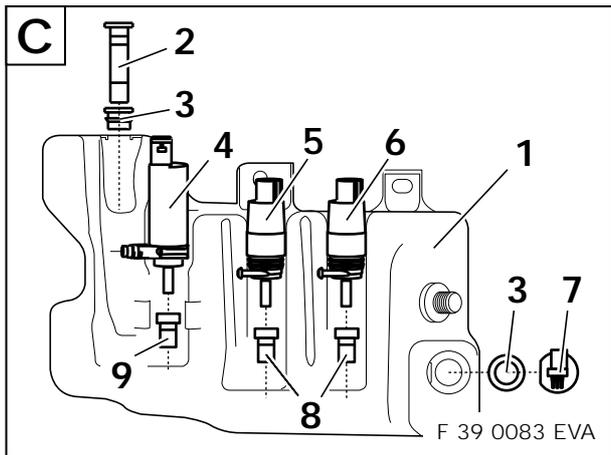
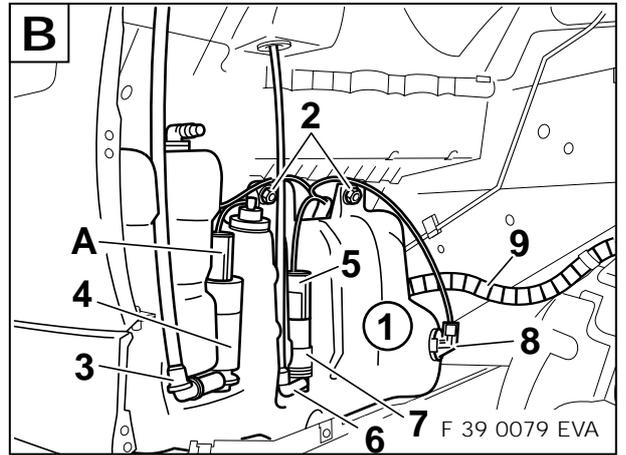
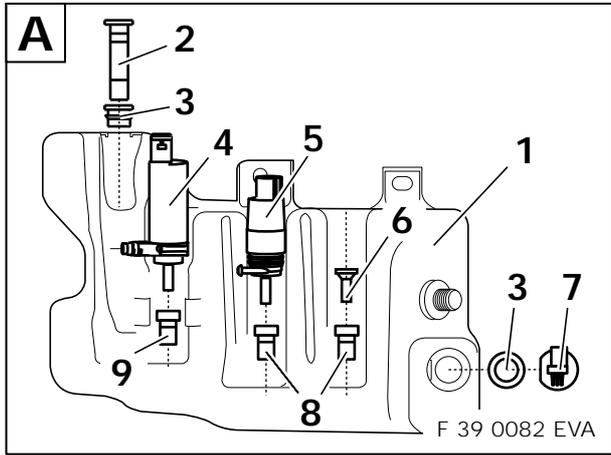


The headlight cleaning system will only work when the dipped headlights are switched on. ◀

The headlight cleaning system is activated together with the windscreen cleaning system but only works every fifth time that the switch is pressed.

To activate the headlight cleaning system immediately again, switch the ignition off and then on again.

The point of impact of the fluid from the headlight cleaning jets must be around the centre of the dipped or full beam headlights. Adjust this if necessary using the current repair instructions.



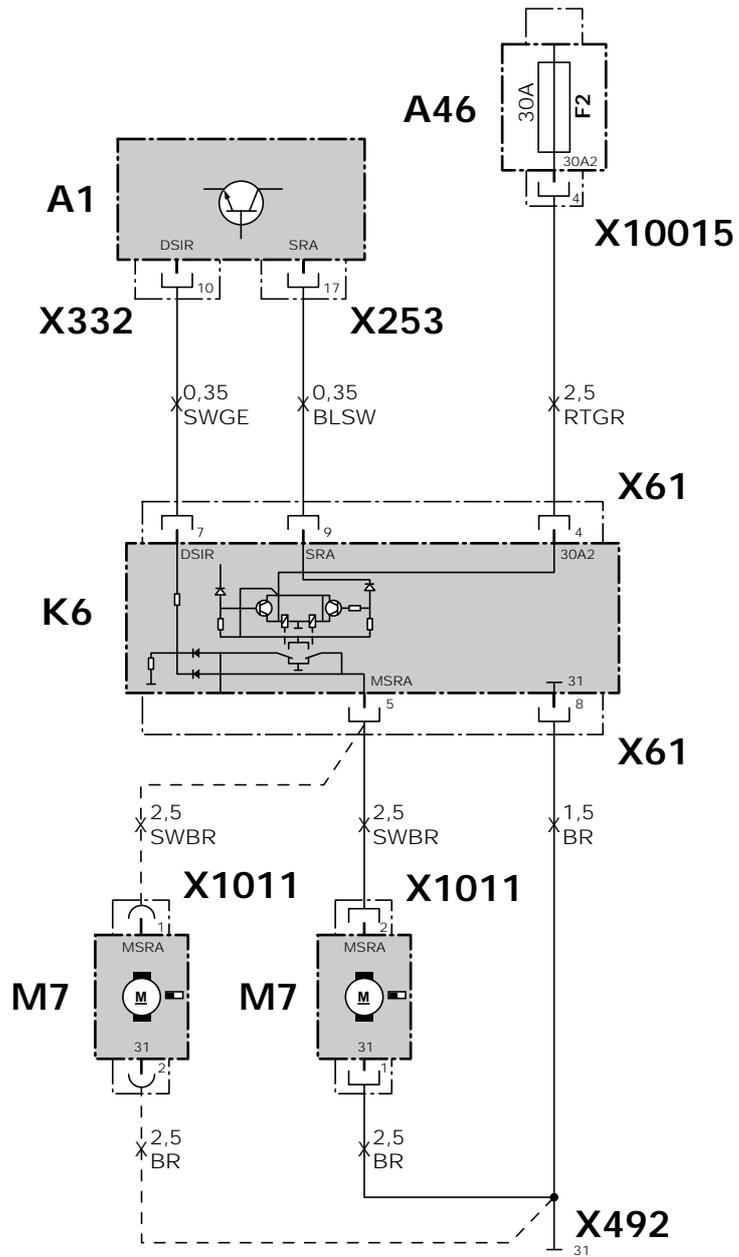
3. Circuit diagram

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A1	Base module
A46	Fuse holder I
F2	Fuse
K6	SRA/SIR (intensive headlight cleaning system) module
M7	SRA pump
X61	Relay socket for SRA/SIR module
X492	Ground post
X253	26-pin black socket casing
X332	26-pin white socket casing
X1011	2-pin grey socket casing with blade terminal contacts (pumps after 09/97)
X1011	2-pin grey socket casing with pin contacts (pumps up to 09/97)
X10015	Fuse holder I



The branch indicated by the broken line for the SRA pump M7 applies for washing pumps up to 09/97. ◀



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