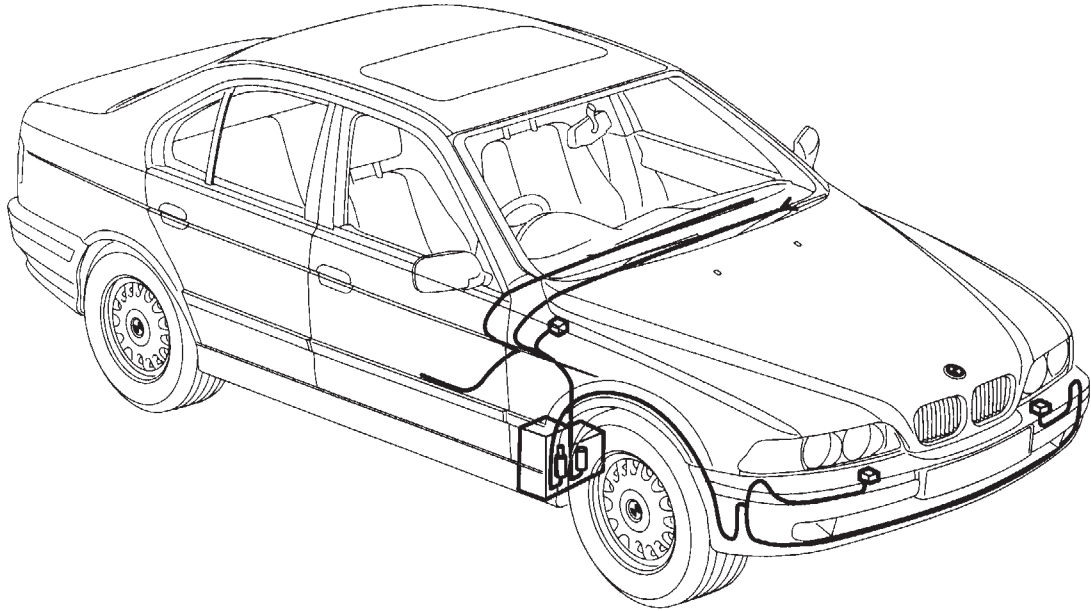




Zubehör - Einbauanleitung



F 39 61 020 M

Installation Instructions

High Pressure headlight Washer System (SHW)
BMW 5 Series E39, Right-Hand Drive

High Pressure headlight Washer System (SHW) BMW 5 Series E39, Right-Hand Drive

(Intended for use in BMW dealer organisation only).
Installation time approx. 2 - 3 hours which can vary depending on the condition and equipment of the vehicle.

Knowledge of the electrical system is required.

Note

Remove all metal chips, deburr edges of drilled holes and coat with anticorrosion paint.

Take particular care to ensure that cables and wires are not kinked or damaged when installing in the vehicle.

Required tools and other equipment

Screwdriver for recessed cross-head screws

Socket wrench WAF 8 mm, 10 mm

Screwdriver for slotted head screws

1/2 inch socket WAF 16 mm

1/4 inch reversible ratchet

1/4 inch socket WAF 7 mm, 8 mm, 10 mm

Side cutter

Inspection lamp

1/2 inch reversible ratchet

1/2 inch extension piece

1/4 inch extension piece

Step drill \varnothing 12 mm

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1. Vehicle Preparation - Removal

Print out fault memory.

Disconnect battery.

Remove front right wheel.

Remove front bumper.

Remove front right wheelhouse trim panel.

Remove washer fluid reservoir (no longer required).

Remove front right seat.

Remove glovebox.

Remove trim panel under glovebox.

Remove front right sill strip.

Remove bottom right A-pillar trim panel.

Remove accelerator pedal.

Remove trim panel under steering column.

Remove radio.

Remove both side trim panels on centre console.

2. Diagram of Auxiliary Wiring Harness

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Connections

Item	Version/description	Wire colour	Connection location in vehicle	Designation/ plug-in slot
1	Rubber grommet	-	Cable leadthrough in bulkhead	-
A	Black 2-pin socket housing	-	Washer fluid pump M7 from HP headlight washer	X1011
A1	Socket contact with single core seal	black/brown	2-pin black socket housing A	X1011/1
A2	Socket contact with single core seal	brown	2-pin black socket housing A	X1011/2
B	Cable eye 6 mm / terminal 31	brown	Ground terminal VI under driver's seat	X219
C	Flat plug-in sleeve / terminal 30A2	red/grey	Fuse holder A46 at glovebox	X10015/4
D	Socket contact / terminal DSIR	black/yellow	General module A1 behind glovebox	X332/10
E	Socket contact / terminal SRA	blue/black	General module A1 behind glovebox	X253/17
F	Black 9-pin relay socket	-	Relay holder on right A-pillar	X61

3. Installing Auxiliary Wiring Harness

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Fold back carpet in front right footwell and remove cover (1).

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Mark drilling point (1), centre punch and drill out with \varnothing 12 mm step drill, deburr and treat with standard BMW rust protection measures.

Dimension a = 17 mm

Dimension b = 20 mm

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Install auxiliary wiring harness as follows:

Branch **A** from interior through drilled hole in bulkhead to place of installation (1) of washer fluid reservoir.

Seal off leadthrough with rubber grommet.

Branch **B** to ground terminal point VI X219 (5) under driver's seat.

Branch **C** to fuse holder X10015 (4) behind glovebox.

Branches **D** and **E** to general module A1 (3) behind glovebox.

Branch **F** to relay holder (2) on right A-pillar.

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Route branches **A1** and **A2**, black/brown and brown wires, from vehicle interior into wheelhouse and press in rubber grommet (1) from auxiliary wiring harness.

Note

If necessary, seal rubber grommet (1) with silicone.

Connect branch **A1**, black/brown wire, at plug-in slot No. 1 of black 2-pin socket housing **A**.

Connect branch **A2**, brown wire, at plug-in slot No. 2 of black 2-pin socket housing **A**.

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Fold back carpet (1) further in front right footwell.

Connect branch **B**, brown wire, to ground terminal point VI X219 (2).

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Connect SHW relay K6 (1) in branch **F**, black 9-pin relay socket, route to relay holder (2) on right A-pillar and secure.

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Route branches **C**, **D** and **E**, red/grey, black/yellow and blue/black wires, to left-hand side of vehicle behind glovebox.

Route branch **C**, red/grey wire, to fuse holder X10015 (1) and connect at plug-in slot No. 4.

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Route branches **D** and **E**, black/yellow and blue/black wires, to general module A1 (1).

Connect branch **D**, black/yellow wire, to white 26-pin socket housing X332 (3) at plug-in slot No. 10.

Connect branch **E**, blue/black wire, to black 26-pin socket housing X253 (2) at plug-in slot No. 17.

4. Installing Washer Fluid Reservoir

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Note

It may be necessary to change over the level indicator from the old fluid reservoir.

Install the supplied washer fluid reservoir (1) and secure with plastic nuts (3).

Connect branch **A**, black 2-pin socket housing, and hose (9) from high pressure headlight washer system to HP headlight washer pump (8).

Connect black 2-pin socket housing (2) and hose (7) from headlight washer system to washer fluid pump (6).

Connect black 2-pin socket housing (5) to level switch. Connect hose to level indicator (10).

Connect filler hose (4) to washer fluid reservoir (1).

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Fit hose line (1) for high pressure headlight washer system and secure with retaining clips (2).

5. Converting Bumper Trim Panel

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Note

If necessary, the bumper trim panel must be removed from the carrier (3) in order to cut out the apertures (1).

Carefully cut out the pre-punched areas (1) from the bumper trim panel (2).

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Note

The headlight washer nozzles (5 and 6) differ - Observe coding of apertures.

Press in headlight washer nozzles (5 and 6) until they lock into position.

Connect HP headlight washer hose line (1) to headlight washer nozzles (5 and 6), secure with hose clips (2), hexagon self-tapping screws (3) and retainers (4).

Connect battery.

Assemble vehicle in reverse order of disassembly.

Print out fault memory.

Carry out function check.

6. Encoding

This system requires encoding.

To ensure the retrofit system:

- Is operable to its full extent.
- Does not cause malfunctions and interference in association with other electrical vehicle systems, these systems and, if necessary, other vehicle control units must be encoded.

It is additionally stored in the central encoding key of the IKE/instrument cluster. This encoding procedure is carried out automatically with the current encoding program in the "retrofit" path. The procedure is user-prompted, the relevant text information must be observed while implementing the individual steps. This retrofit encoding is available for this product as of Version C 8.0.

Procedure:

- Connect DIS/MoDiC to vehicle
- Ignition "ON"
- Selection **"Encoding ZCS"**
- Confirm date entry with **"Y"** (for MoDiC only)
- Series: **"E39"**
- Path: **"2 Retrofit"**
- System: **"10 High pressure headlight washer system"**
- Start automatic encoding (confirm with **"Y"**)
- Ignition "OFF", wait at least 10 seconds and switch ignition "ON" again.
- Have encoding label printed out and adhere next to the existing encoding label on the right-hand side of luggage compartment on sheet metal bracket for battery.

Print out fault memory.

Carry out function test.

7. Function

Fill washer fluid reservoir with appropriate cleaning fluid in accordance with vehicle manufacturer's instructions.

The operating principle of the high pressure headlight washer system is described in the Owner's Handbook. The "intensive wash" function has been intentionally omitted in the retrofit solution for cost reasons (installation costs).

8. Schematic

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A1	General module
A46	Fuse holder I
F2	Fuse No. 2
K6	SHW/SIR module
M7	HP headlight washer (SHW) pump
X61	Relay socket of SRA/SHW module
X219	Ground terminal point VI
X253	26-pin black socket housing
X332	6-pin black socket housing
X1011	2-pin black socket housing
X10015	Fuse holder I

