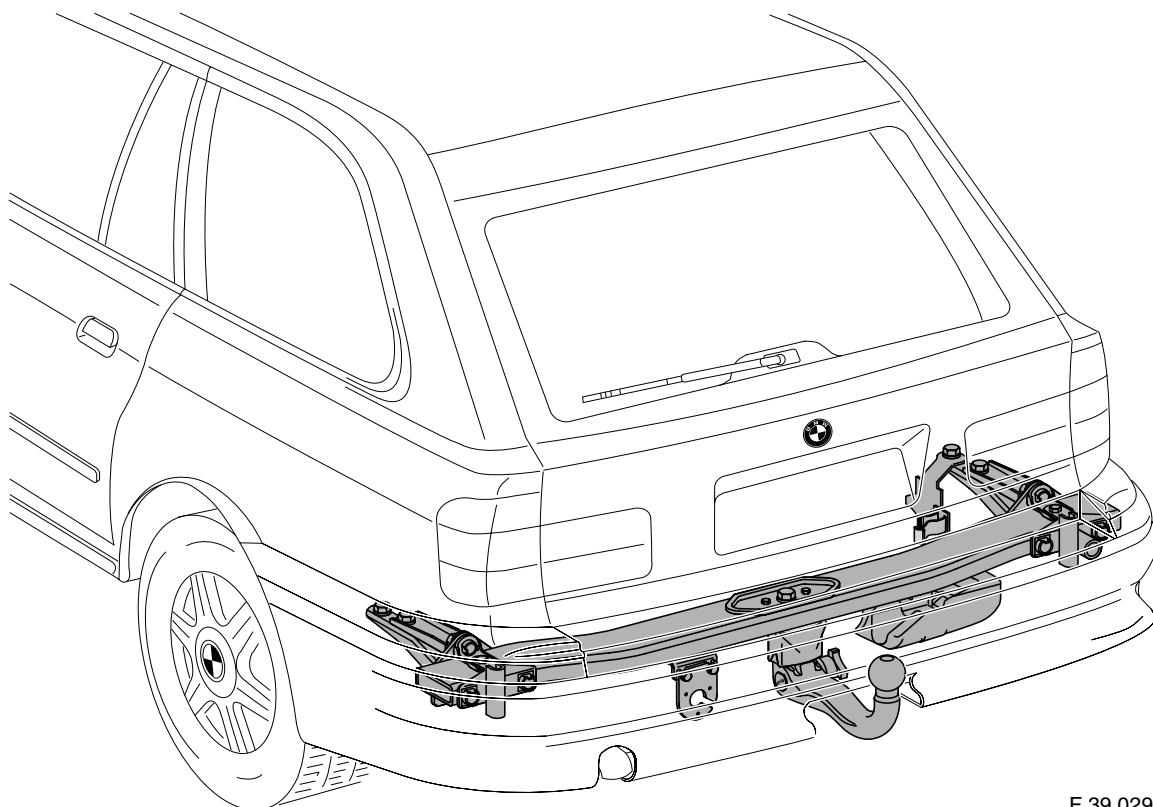




BMW Parts and Accessories Installation Instructions



F 39 0290 2W

Towing hitch – BMW electrical components **BMW 5 Series Saloon and touring (E 39, E 39/2) LHD/RHD from 9/00**

Specialist knowledge required.

Only for use in the BMW dealer organisation.

Installation time approx. 4 hours.

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

Retrofit/Installation kit No. 71 60 0 028 227

71 60 0 028 229

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Important information

Licensing regulations

If the towing hitch is installed in the Federal Republic of Germany (FRG) it must undergo an acceptance test pursuant to § 19 of the Road Traffic Act, performed by an official testing body such as TÜV or DEKRA and then also be entered in the vehicle documents. If the towing hitch is installed outside the FRG, the relevant licensing regulations of the country must be observed.

Installation information

All work is shown on a LHD car.

Remove the underseal from all the points at which the towing hitch is in contact with the body. Then clean the areas with washing benzene. Coat bare metal body parts with anti-corrosion paint.

Deburr the edges of all holes and treat them with anti-corrosion paint. Remove all drill chips.

Do not kink or damage the cables during the installation work since otherwise they may cause faults that can later only be identified and rectified by extensive additional work. The costs incurred as a result of this will not be reimbursed by BMW.

If the specified PIN's are occupied, bridges, double crimps or twin-lead terminals must be used.

Target group

The target group for these installation instructions is specialist personnel trained on BMW cars with specialist knowledge of vehicle electrical systems.

Work:

All servicing, repair and installation work on BMW cars is completed at your own risk. All work is to be carried out using current BMW

- Repair manuals
- Circuit diagrams

in a rational order using the prescribed tools (special tools) and observing current health and safety regulations.

Required tools and equipment

DIS/MoDiC	Open-ended spanner, 13 mm
1/4 inch ratchet	Drill
1/2 inch ratchet	Peeling drill, 40 mm
1/2 inch Torx socket T 30	Twist drills, 3.5 mm and 5 mm
1/2 torque wrench	Round file
Set of flat screwdrivers	Hammer
Set of Philips screwdrivers	Centrepunch
Torch	Tap measure
Angle cutter	Water-soluble pen
Stripping pliers (61 9 043)	Paintbrush
Hand pliers (61 9 041)	Anti-corrosion paint
Dies for hand pliers (61 9 042)	Washing benzene
Ring spanner, bent, 16 mm	

1. Preparations

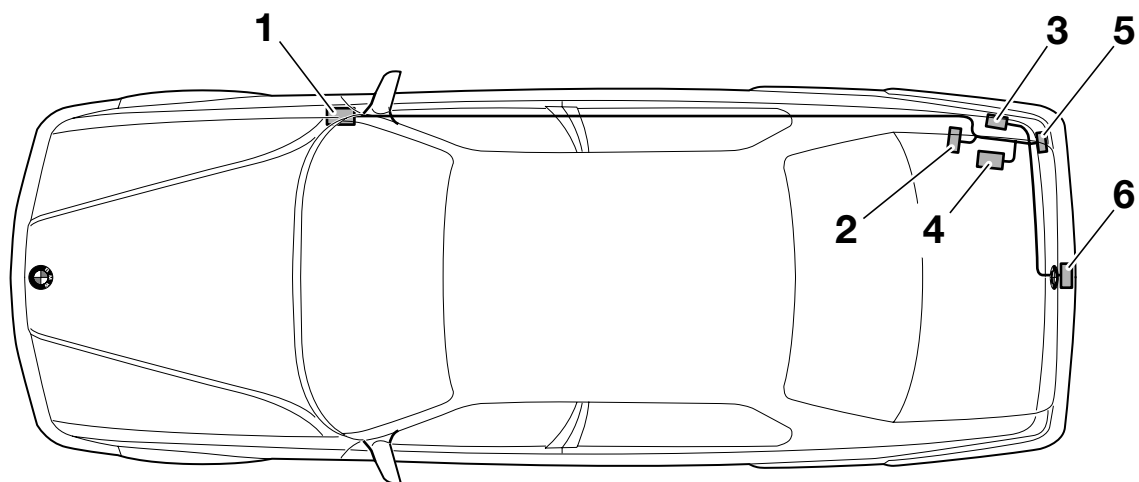
Preparations for E39 Saloon only

	TIS instruction No.
Conduct a brief test	
Disconnect the negative pole of the battery	12 00 ...
The following components must be removed first of all:	
Boot trim	51 47 101
Spare wheel	
Boot trim, right	
Rear bumper	51 12 000
Impact absorber	51 12 001
Rear seat bench	52 24 005
Remove the rear seat backrest (on cars with a fold-down rear seat backrest, only remove the right section of the rear seat backrest)	52 24 010 / 52 26 008
Door sill strips at the front and rear right	51 47 000 / 51 47 030
B pillar trim at the bottom right	51 43 150
A pillar trim in the front right footwell	
Lamp control module	

Preparations for E39/2 touring only

	TIS instruction No.
Conduct a brief test	
Disconnect the negative pole of the battery	12 00 ...
The following components must be removed first of all:	
Load floor in the boot	51 47 102
Cover for boot floor	
Spare wheel	
Oddments box for on-board tools and jack	
Remove the plastic supports for the boot floor cover on the side members at both sides	
Boot trim, right	51 47 151
Cover for radio and CD changer on the left	
Rear bumper	51 12 000
Impact absorber	51 12 001
Right section of the rear seat backrest	52 26 008
Door sill strips at the front and rear right	51 47 000 / 51 47 030
B pillar trim at the bottom right	51 43 150
A pillar trim in the front right footwell	
Lamp control module	

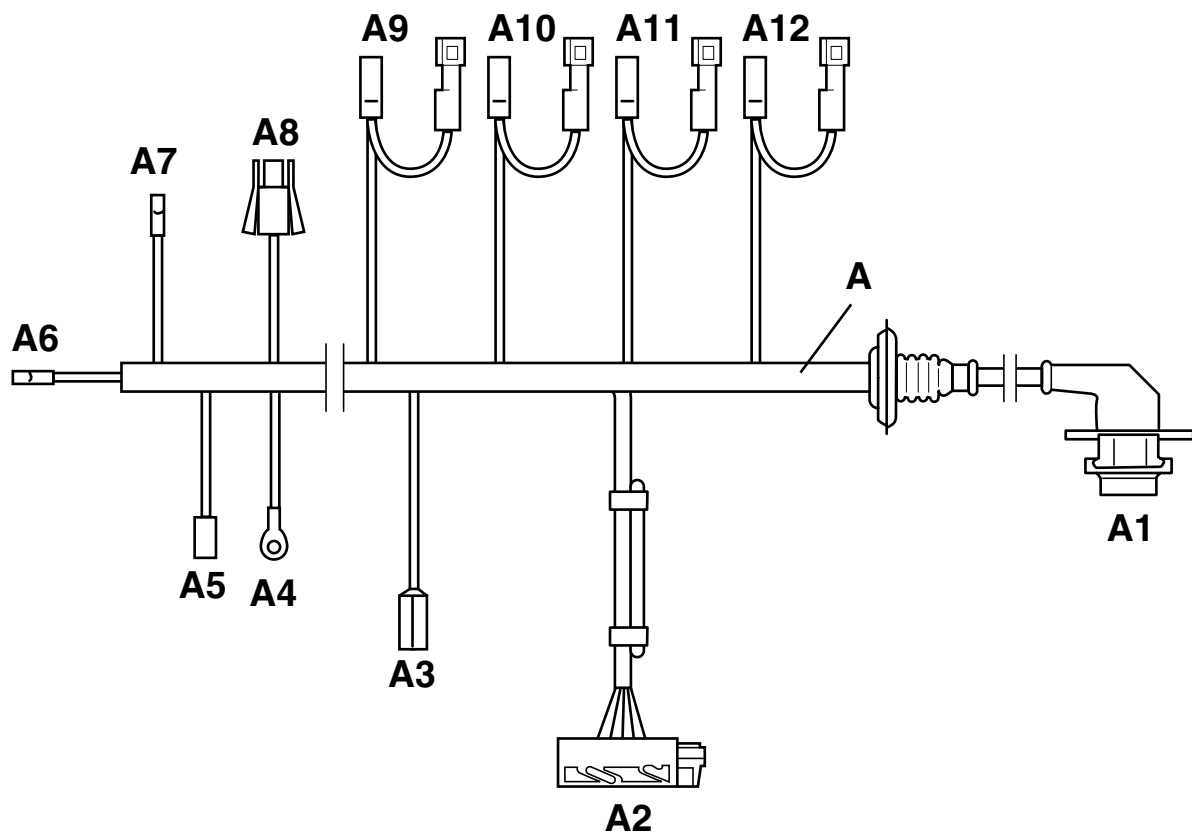
2. Installation and cabling diagram



F 39 0300 2W

- 1 Lamp control module (LCM)
- 2 Fuse holder
- 3 Fuse holder IV
- 4 Towing module
- 5 Earth post X498
- 6 Trailer socket

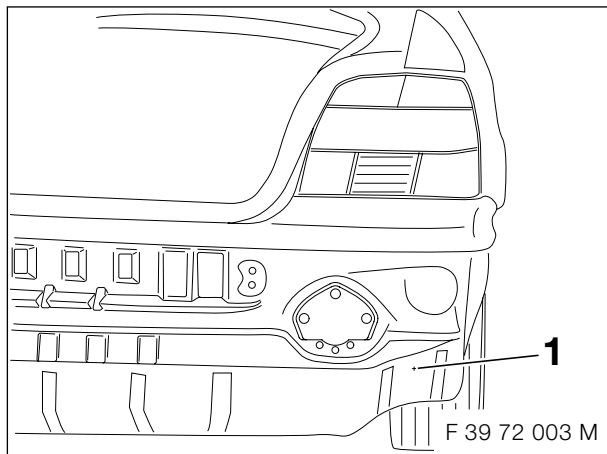
3. Towing hitch wiring harness connection diagram



F 39 0292 2W

Item	Description	Signal	Cable colour / Cross-section	Connection location in the car	Abbreviation / Slot
A	Towing hitch wiring harness	---	---	---	---
A1	13-pin trailer socket	---	---	---	X10604
A2	15-pin black plug	---	---	To towing module in the boot	X10673
A3	Blade terminal contact	Terminal 31	BR 2.5 mm ²	To joint connector in the boot on the right	X498
A4	Cable lug 6 mm	Terminal 30	RT 4.0 mm ²	To B+ post in the boot at the rear left	X19517 Fuse slot F103 (50A)
A5	Blade terminal contact	Terminal 30	RT/BL 2.5 mm ²	To fuse holder IV in the boot on the right	X10018 PIN 8 Fuse slot F59 (20A)
A6	Blade terminal contact	Terminal 58 HR	GR/WS 0.5 mm ²	To 54-pin black plug on the LCM in the right A pillar	X10117 PIN 17
A7	Blade terminal contact	AHM-LM	BL/BR/GE 0.35 mm ²	To 54-pin black plug on the LCM in the right A pillar	X10117 PIN 35
A8	Socket contact	Terminal 58 HR	GR/WS 0.5 mm ²	Connect to the disconnected GR/WS cable from plug X10117 PIN 17	X6501
A9	Twin-lead terminal	Terminal 58 HL	GR/VI 0.5 mm ²	To 15-pin black plug on the LCM in the right A pillar	X12 PIN 2
A10	Twin-lead terminal	Terminal 49 HL	BL/GR 0.75 mm ²	To 15-pin black plug on the LCM in the right A pillar	X12 PIN 8
A11	Twin-lead terminal	Terminal 54 R	SW/BL 0.75 mm ²	To 15-pin white plug on the LCM in the right A pillar	X38 PIN 14
A12	Twin-lead terminal	Terminal 49 HR	BL/BRI 0.75 mm ²	To 15-pin white plug on the LCM in the right A pillar	X38 PIN 12

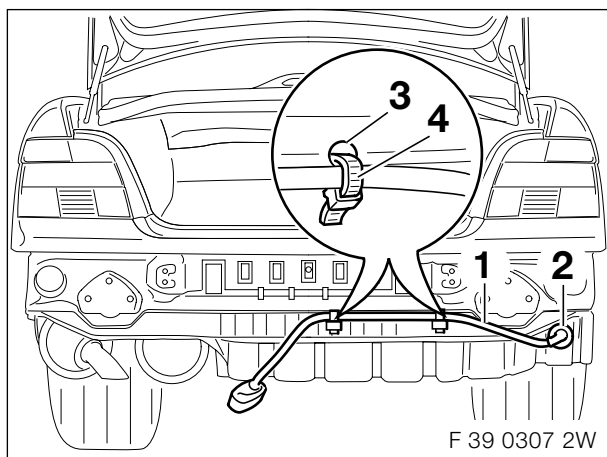
4. To install and connect the towing hitch wiring harness



E39 Saloon only

Drill the closing panel at the centrepunched point (1) below the right tail light to a diameter of 40 mm.

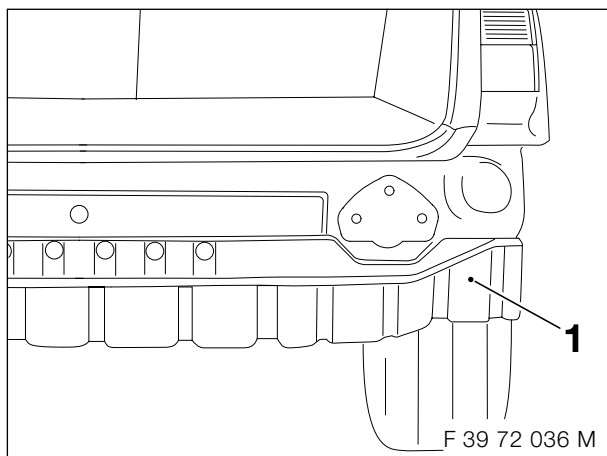
▣ Deburr the hole and complete the required anti-corrosion measures. ◀



Lay the towing hitch wiring harness (1) as shown to the right-hand side of the car through the passage in the boot.

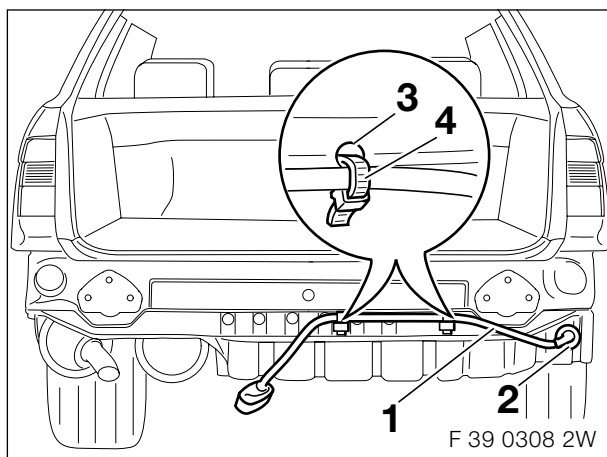
Push in the rubber grommet (2).

Drill two 5 mm holes (3) on the strut for the rear closing panel. Secure the wiring harness (1) with cable ties (4).



E39/2 touring only

Drill the closing panel at the centrepunched point (1) below the right tail light to a diameter of 40 mm.

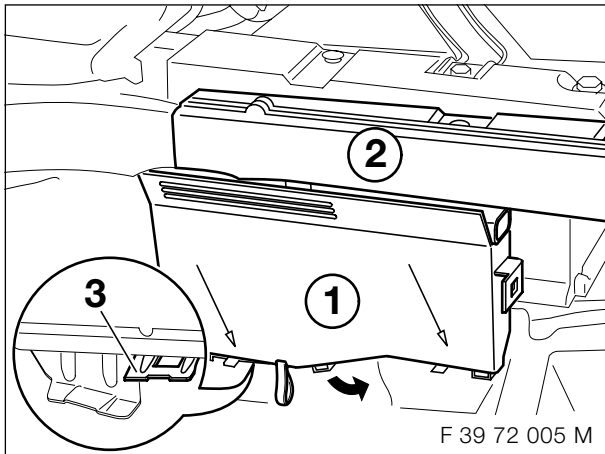


Lay the towing hitch wiring harness (1) as shown to the right-hand side of the car through the passage in the boot.

Push in the rubber grommet (2).

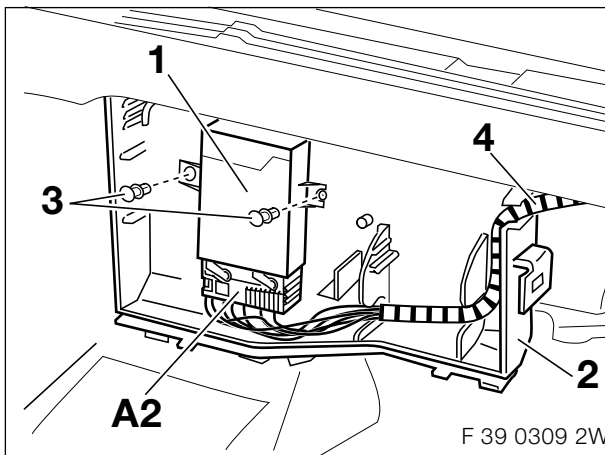
Drill two 5 mm holes (3) on the strut for the rear closing panel. Secure the wiring harness (1) with cable ties (4).

4. To install and connect the towing hitch wiring harness

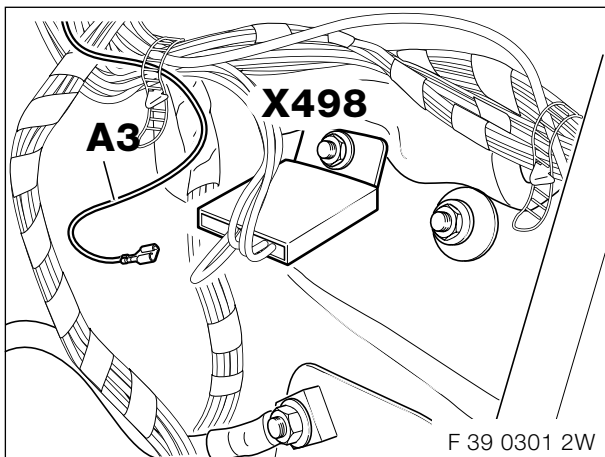


All models

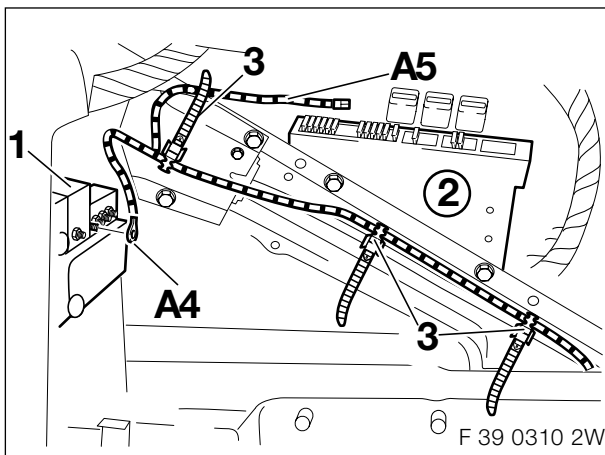
Place the control module box (1) as shown on the right-hand side of the boot against the side member (2) from below and press it in the direction indicated by the arrow until the detent on the control module box (1) engages in the holder (3) on the battery carrier. Open the cover on the control module box (1).



Lay branch **A2** to the control module box (2) under the right side member. Connect branch **A2** to towing module (1). Secure the towing module (1) in the control module box (2) using the enclosed expanding rivets (3). Lay the wiring harness (4) as shown and then close the cover of the control module box (2).



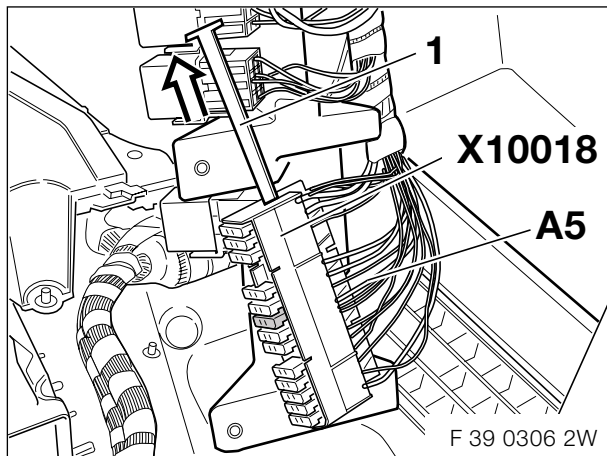
Connect branch **A3** to joint connector **X498** under the right tail light.



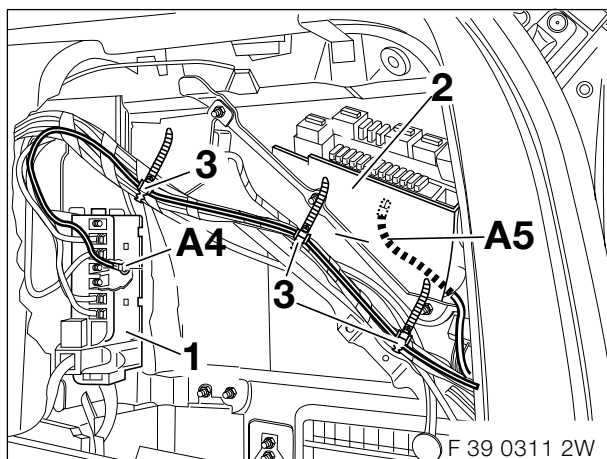
E39 Saloon only

lay branch **A4** to the B+ post **X19517** (1) and connect it to fuse slot F103. Lay branch **A5** to the fuse holder IV (2). Secure the towing hitch with cable ties (3).

4. To install and connect the towing hitch wiring harness

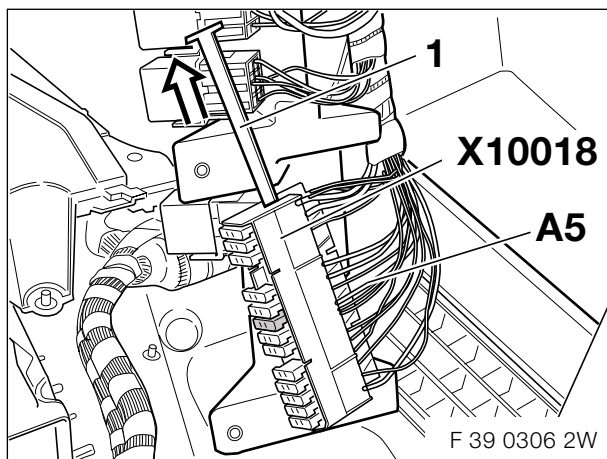


Take out fuse holder **X10018** and push out the interlock (1).
Connect branch **A5** to fuse holder **X10018** PIN 8.
Insert a 20 A fuse into fuse slot F59.
Lay branches **A6** to **A12** along the standard wiring harness on the right-hand side towards the front to the LCM.

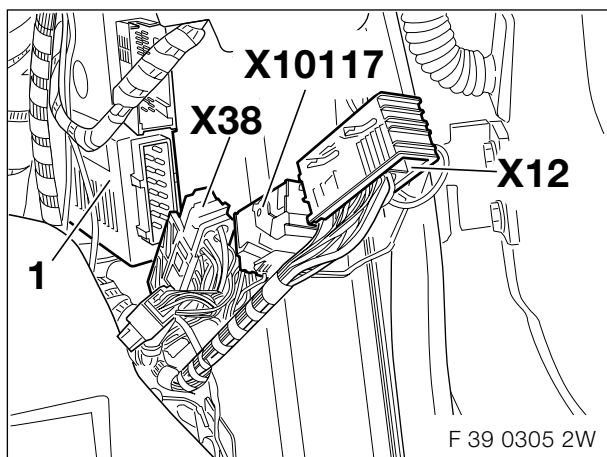


E39/2 touring only

lay branch **A4** to the B+ post **X19517** (1) and connect it to fuse slot F103.
Lay branch **A5** to the fuse holder IV (2).
Secure the towing hitch with cable ties (3).



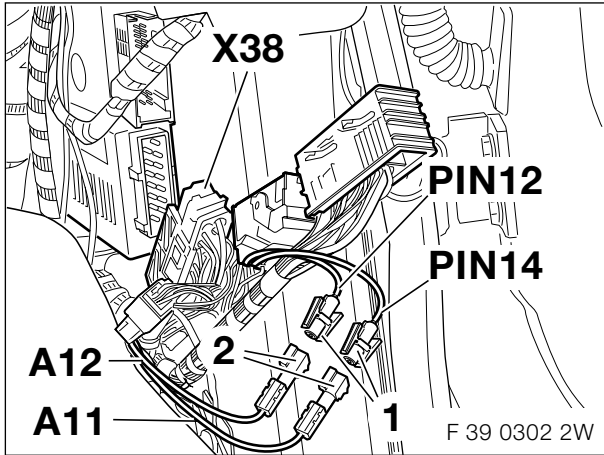
Take out fuse holder **X10018** and push out the interlock (1).
Connect branch **A5** to fuse holder **X10018** PIN 8.
Insert a 20 A fuse into fuse slot F59.
Lay branches **A6** to **A12** along the standard wiring harness on the right-hand side towards the front to the LCM.



All models

Disconnect and release plugs **X38**, **X10117** and **X12** from the LCM (1).

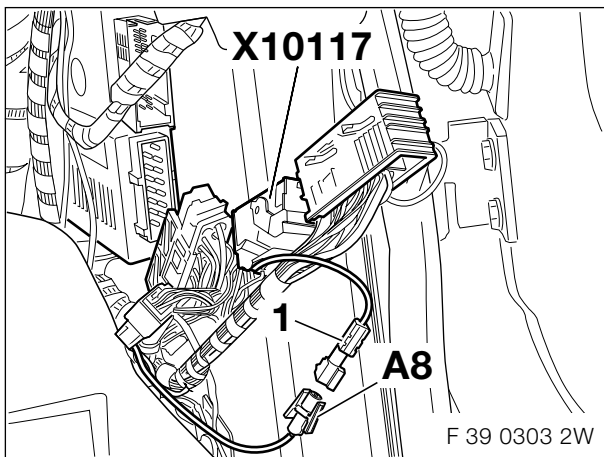
4. To install and connect the towing hitch wiring harness



Connections to the white 15-pin plug X38

Disconnect the black/blue cable on PIN 14 and the blue/brown cable on PIN 12 and fit the enclosed socket contact casings (1) to them.

Connect branch **A11** black/blue cable to PIN 14 and branch **A12** blue/brown cable to PIN 12. Connect the plug contact casings (2) of branches **A11** and **A12** to the socket contact casings (1) of the same colour.

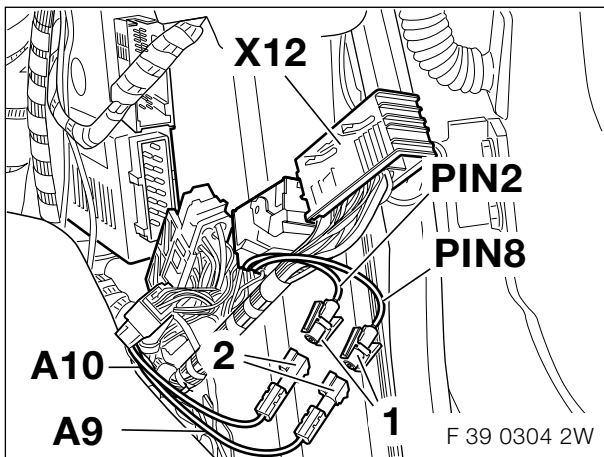


Connections to the black 54-pin plug X10117

Connect branch **A7** blue/brown/yellow cable to PIN 35.

Disconnect the grey/white cable on PIN 17, remove the blade terminal contact and fit the enclosed plug contact and plug contact casing (1). Connect branch **A6** grey/white cable to the cleared PIN 17.

Connect branch **A8** grey/white cable to the plug contact casing (1).



Connections to the black 15-pin plug X12

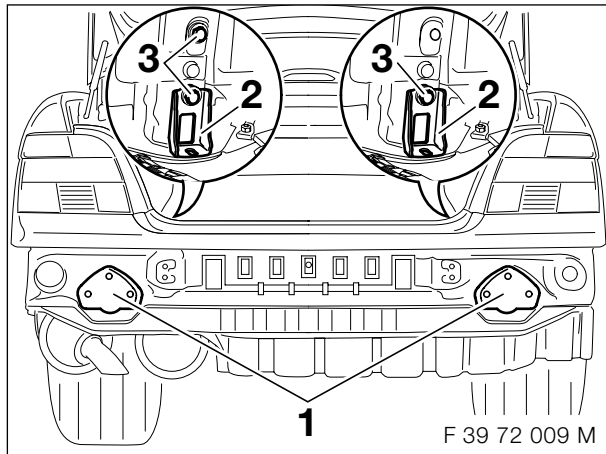
Disconnect the grey/violet cable on PIN 2 and the blue/grey cable on PIN 8 and fit the enclosed socket contact casings (1) to them.

Connect branch **A9** grey/violet cable to PIN 2 and branch **A10** blue/grey cable to PIN 8.

Connect the plug contact casings (2) of branches **A9** and **A10** to the socket contact casings (1) of the same colour.

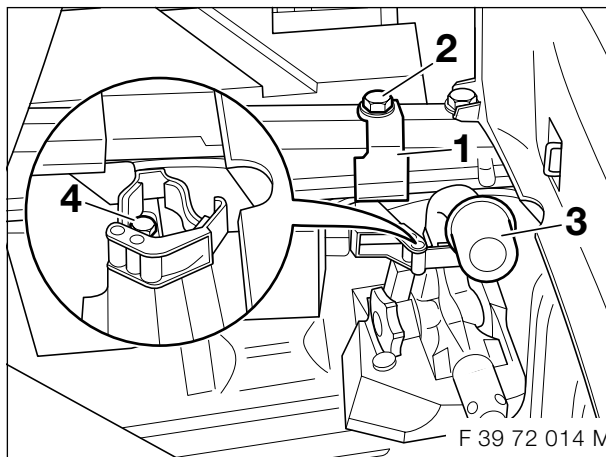
After completing this work, reconnect plugs **X12**, **X38** and **X10117** and refit the LCM.

5. To install the towing hitch



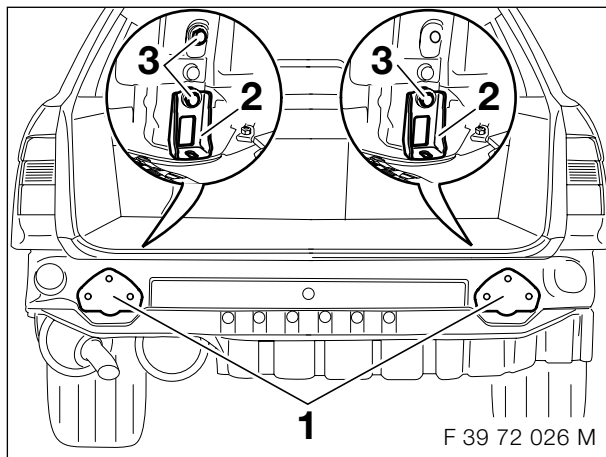
E39 Saloon only

Push the holder (1) into the left and right side members and secure it loosely with the reinforcement brackets (2), hexagonal screws (3) and washers.



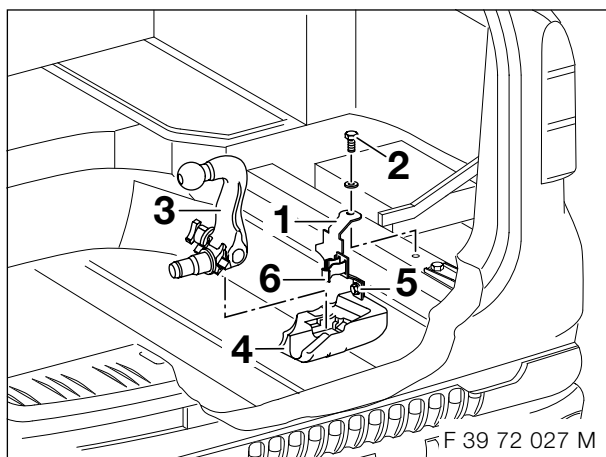
Insert the holder (1) for the ball head (3) in the boot on the right as shown and secure it loosely to the side member with hexagonal screws and washers (2).

Insert the ball head (3) into the holder (1), align the holder (1) and secure it with a hexagonal screw (4).



E39/2 touring only

Push the holder (1) into the left and right side members and secure it loosely with the reinforcement brackets (2), hexagonal screws (3) and washers.

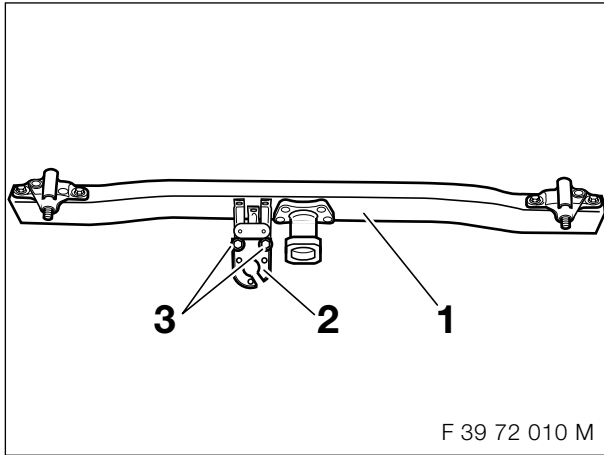


Insert the holder (1) for the ball head (3) in the boot on the right as shown and secure it loosely to the side member with hexagonal screws and washers (2).

Align the bottom section of the holder (4) and secure it with a hexagonal screw (5).

Insert the ball head (3) into the bottom section of the holder (4) and secure it with retaining tape (6).

5. To install the towing hitch

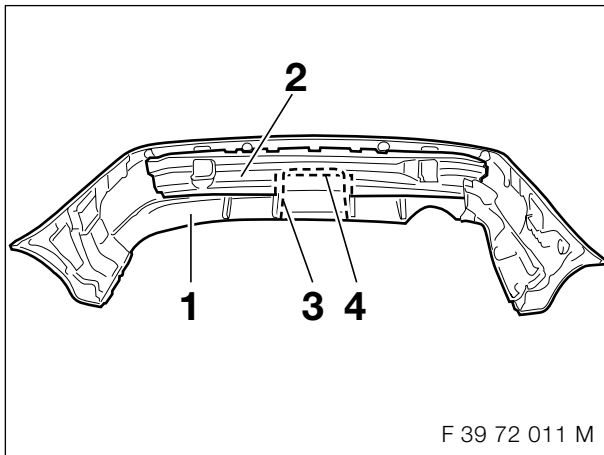


All models

Secure the holder (2) for the socket to the base holder (1) of the towing hitch with hexagonal screws (3).

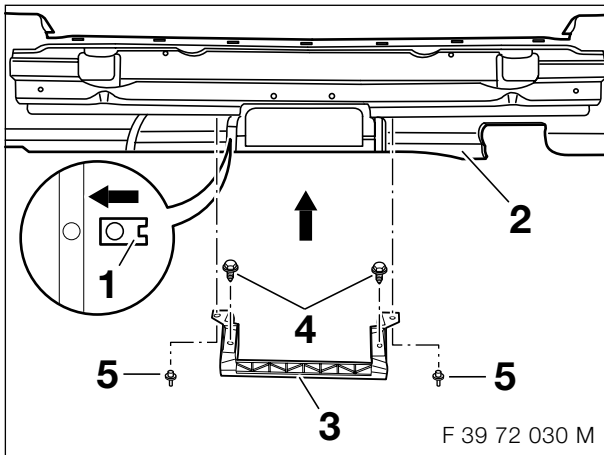


Tightening torque for the hexagonal screws 10 mm. ◀



All models apart from E39 touring with M aerodynamics package

Remove the bumper trim (1) from the bumper support (2).
Cut out the bumper trim (1) from the bumper support (2) at the marked points (3, 4).
Assemble the bumper again.

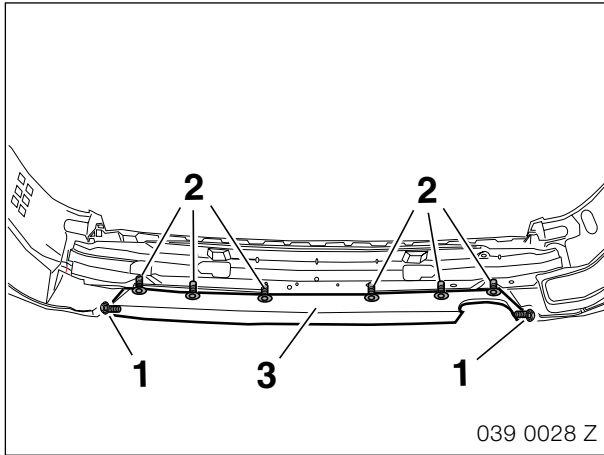


Place speed nuts (1) on the bracing for the bumper trim (2).
Secure the bumper reinforcement (3) to the bumper trim (2) using hexagonal screws (4) and plastic rivets (5).

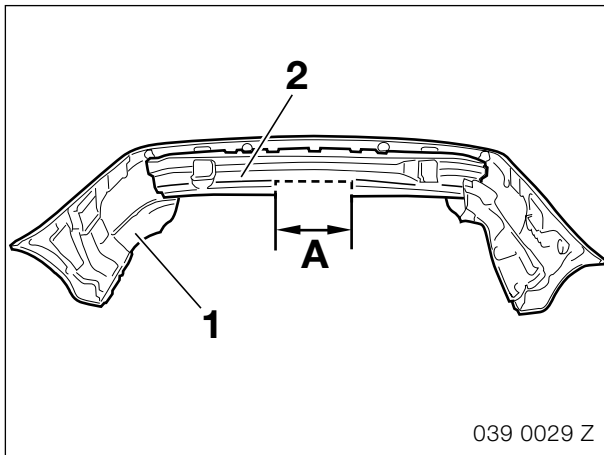
5. To install the towing hitch

E39 touring with M aerodynamics package only

Remove the hexagonal screws (1) and expanding rivets (2) and remove the bottom bumper trim (3).



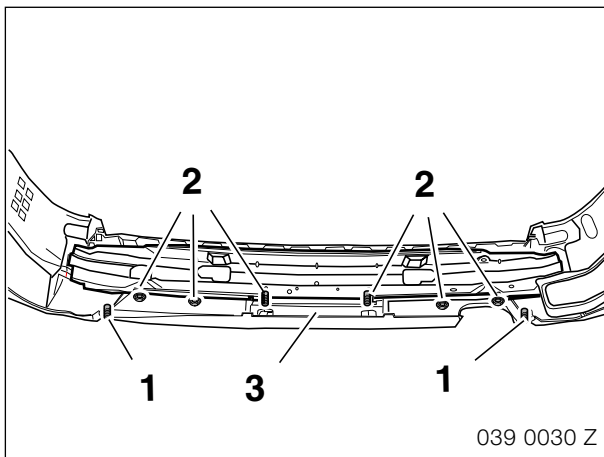
Remove the bumper trim (1) from the bumper support (2).
Cut out the support (2) as shown.



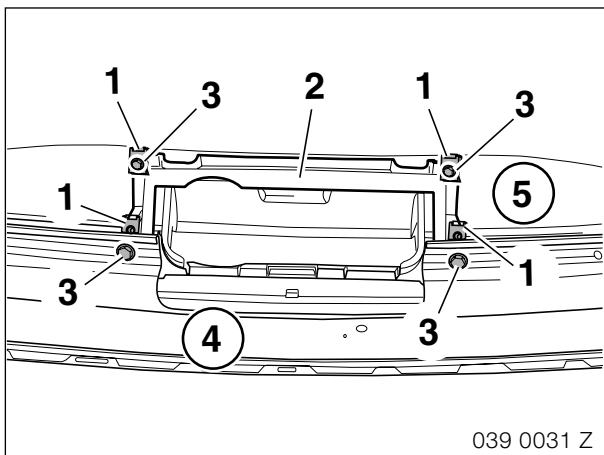
Dimension A: 300 mm

Assemble the bumper again.

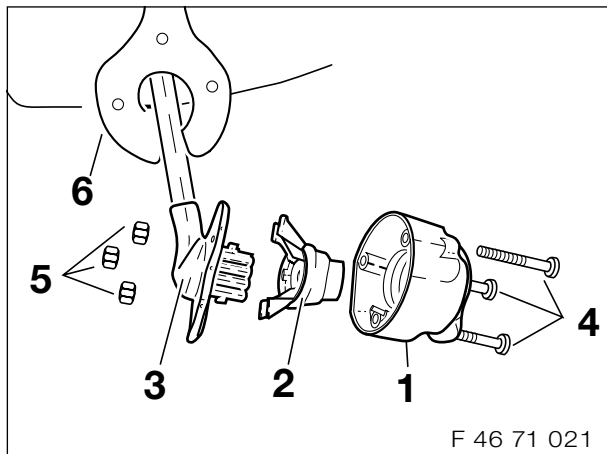
Install the supplied bottom bumper trim (1) using hexagonal self-tapping screws (2) and expanding rivets (3).



Place speed nuts (1) on the holder (2).
Secure the holder (2) to the holder (4) and the bottom bumper trim (5) with hexagonal screws (3).

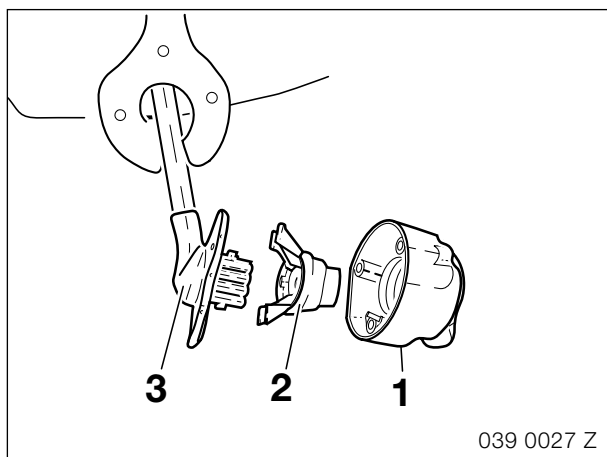


6. To install the trailer socket



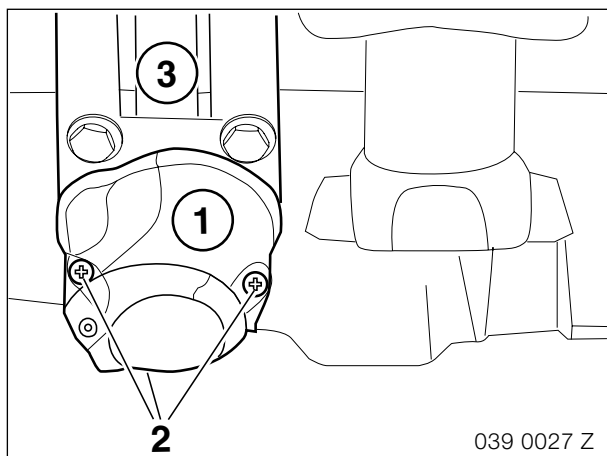
All models apart from E39 touring with M aerodynamics package

Connect the trailer socket (1) and intermediate section (2) to branch **A1** (3).
Secure the trailer socket (1) to the towing hitch using Philips screws (4) and hexagonal nuts (5).



E39 touring with M aerodynamics package only

Connect the trailer socket (1) and intermediate section (2) to branch **A1** (3).

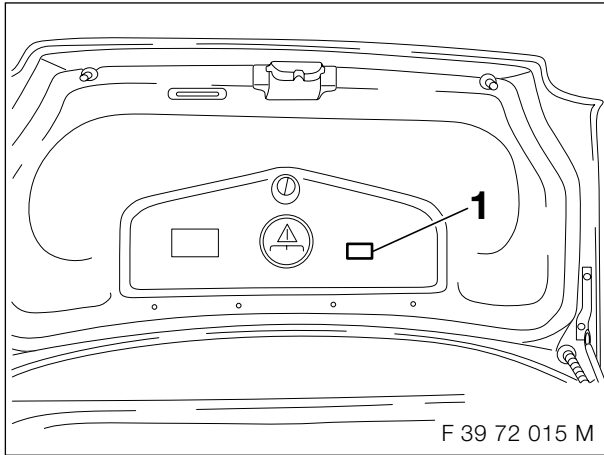


Secure the trailer socket (1) to the towing hitch as shown using Philips screws (2) and hexagonal nuts.



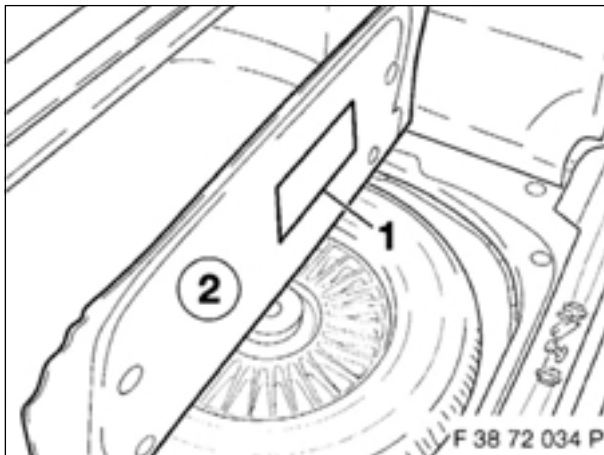
It must be possible to open the cover on the trailer socket to the bottom left. ◀

7. To affix the nose weight and information label

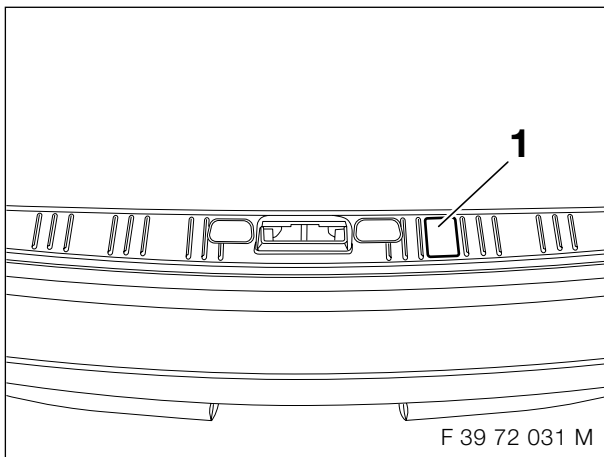


E39 Saloon only

Affix the nose weight label max. 75 kg to position 1.

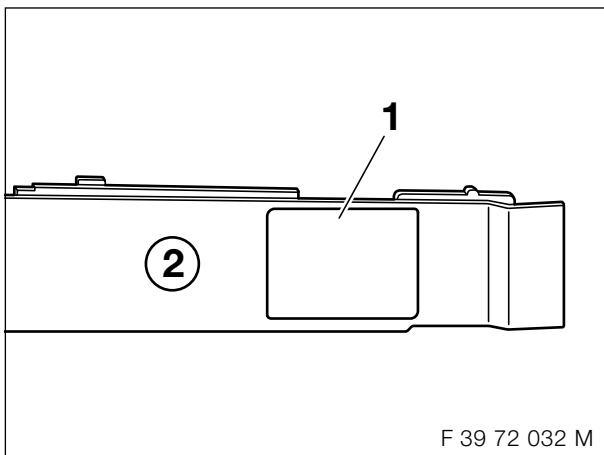


Affix the operating instruction label (1) to the underside of the boot floor (2).



E39 touring only

Affix the nose weight label max. 90 kg to position 1 on the cover strip.



Affix the operating instruction label (1) to the removed right plastic support (2) for the boot cover.

8. Function test

Fit the ball head as set out in the enclosed instructions for use and ensure that the head moves easily and is secure.

Check the light signals on the trailer socket.

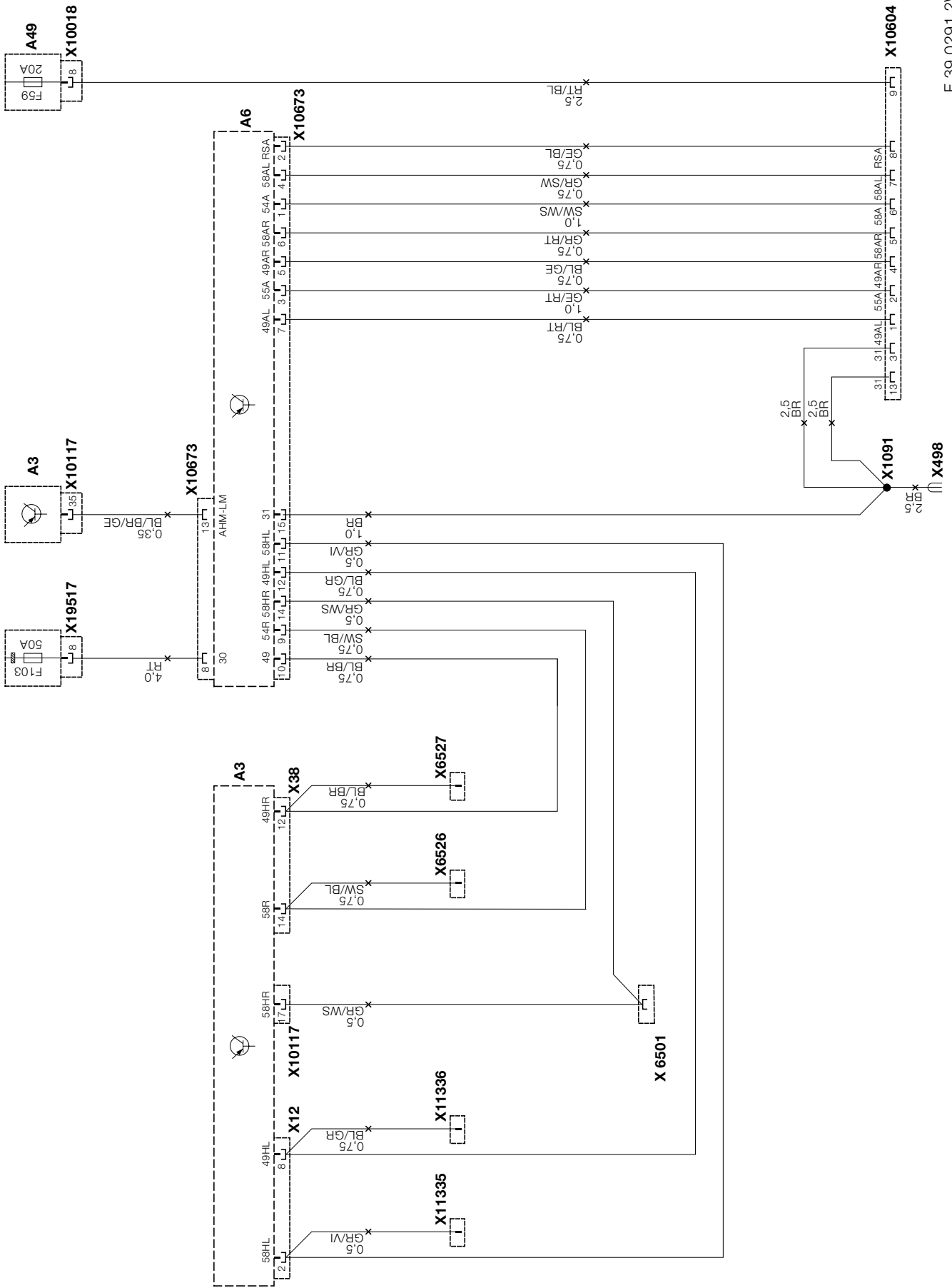


Assemble the car again following the instructions to dismantle it in reverse order. ◀

9. Coding

This system does not require coding.

10. Towing hitch E39 / E39/2 circuit diagram



F 39 0291 2W

10. Towing hitch E39 / E39/2 circuit diagram

Legend

A3	Lamp control module
A6	Towing module
A49	Fuse holder IV
X12	15-pin black plug
X38	16-pin white plug
X498	Joint connector terminal 31
X1091	Terminal 31 connector
X6501	1-pin black plug
X6526	1-pin black plug
X6527	1-pin black plug
X10018	Fuse holder IV A49
X10117	54-pin black plug
X10604	13-pin black plug
X10673	15-pin black plug
X11335	1-pin black plug
X11336	1-pin black plug
X19517	Cable lug M6 terminal 30

Cable colours

RT	red
SW	black
GE	yellow
BL	blue
GN	green
BR	brown
GR	grey
WS	white
VI	violet