

# Water Heater

**Thermo Top C Parking Heater**



## Installation Documentation

### Mercedes E-Class BR 211 / CLS BR 219

Petrol and diesel  
from model year 2003  
Left-hand drive vehicle  
Not for AMG or AMG optic



#### **WARNING!**

Hazard warning:

The improper installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide, leading to serious injury or death.

Specialist company training, technical documentation, specialized tools and equipment are required to install and repair Webasto heating and cooling systems.



Only use genuine Webasto parts. See the Webasto air and water heaters accessories catalogue for this purpose.

**NEVER attempt to install or repair Webasto heating or cooling systems if you have not successfully completed the company training and thereby acquired the required technical skills, or if you do not have access to the required technical documentation, tools and equipment needed to carry out correct installation and repairs.**

ALWAYS follow all Webasto installation and repair instructions and observe all warnings.

Webasto does not accept any liability for defects and damage that are attributable to installation by untrained staff.

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## Validity

Manufacturer	Model	Type	EG-BE No. / ABE
Daimler-Chrysler	E-Class	211	e1 * 2001 / 116* 0213
Daimler-Chrysler	CLS class	219	e1 * 2001 / 116* 0295

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
200 CDI	Diesel / R4	90	2148
220 CDI	Diesel / R4	110	2148
270 CDI	Diesel / R5	130	2685
280 CDI	Diesel / V6	140	2987
280 CDI 4MATIC	Diesel / V6	140	2987
320 CDI	Diesel / V6	165	2987
320 CDI 4MATIC	Diesel / V6	165	2987
400 CDI	Diesel / V8	191	3996
420 CDI	Diesel / V8	231	3996
200 NGT	Petrol / R4	120	1796
200 K	Petrol / R4	120	1796
240	Petrol / V6	130	2597
240 4MATIC	Petrol / V6	130	2597
280	Petrol / V6	170	2996
280 4MATIC	Petrol / V6	170	2996
320	Petrol / V6	165	3199
320 4MATIC	Petrol / V6	165	3199
350	Petrol / V6	200	3498
350 4MATIC	Petrol / V6	200	3498
500	Petrol / V8	225	4966
500 4MATIC	Petrol / V8	225	4966

Vehicle and engine types, equipment variants and national specifications not listed in this installation documentation have not been tested. However, installation according to this installation documentation may be possible.

## Heater/Delivery Scope

Quantity	Description	Order No.:
1	Delivery scope, TT-C Diesel W211 / W219	9014163 B
1	Delivery scope, TT-C Petrol W211 / W219	9014164 B

### Optional heater control either:

Quantity	Description	Order No.:
1	Thermo-Call TC3	See price list
1	Original DAG switch block and centre console cover	Depends on equipment variant, to be ordered via DAG

## Foreword

This installation documentation applies to Mercedes E-Class BR 211 / CLS BR 219 Petrol and diesel vehicles - for validity, see page 2 - from model year 2003 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this installation documentation.

However, the stipulations of this "installation documentation", the "operating instructions" and the "installation instructions" of the *Thermo Top E / C* must always be observed.

The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

## General Instructions

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties. Insulate loose wires and tie back. Connectors on electronic components have to audibly click into place.

Sharp edges should be fitted with rub protection. Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

After installation, the parking heater function has to be enabled using the DAG Star-Diagnosis (Coding)

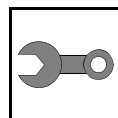
## Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit

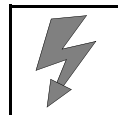
**Explanatory Notes on Document**

To provide you with a quick overview of the individual working steps, you will find an identification mark on the outside top right corner of the page in question.

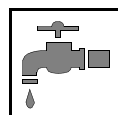
**Mechanical system**



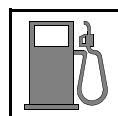
**Electrical system**



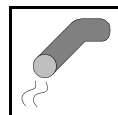
**Coolant circuit**



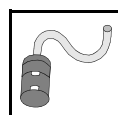
**Fuel**



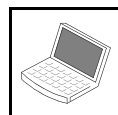
**Exhaust gas**



**Combustion air**



**Software**



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



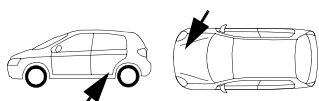
Specific risk of fire or explosion.



Reference to general installation instructions of Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.



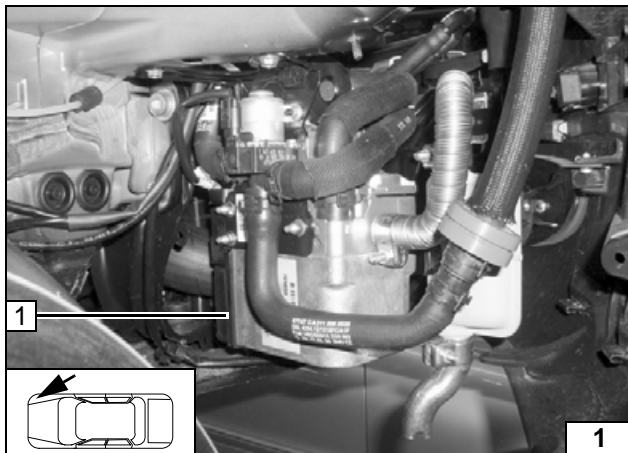
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

**All dimensions are in mm!**  
**Tightening torque of hose clamps = 2.0 + 0.5 Nm!**  
**Tightening torque of Ejet screws, Ejet studs = 10 Nm!**

## Preliminary Work

### WARNING!

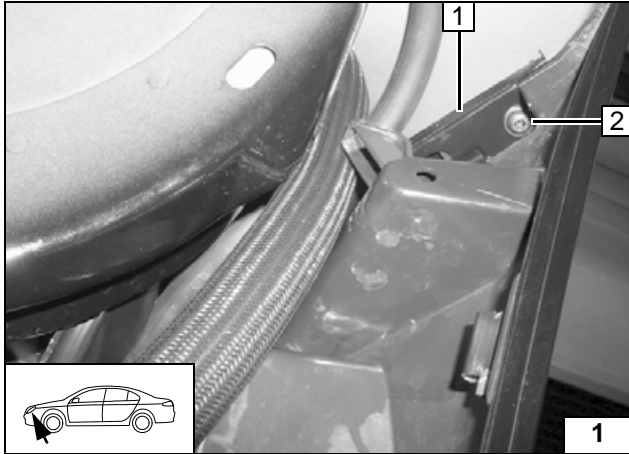
- Open the fuel tank cap, ventilate the tank.
- Close the fuel tank cap again.
- Disconnect the battery earth connection.
- Depressurise the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Remove the battery completely.
- Remove the air filter completely, together with the intake hose.
- Remove the coolant reservoir cap on the left.
- Remove the fuse and relay box.
- Detach the wheel well trim on the right and left.
- Remove the bumper.
- Remove the front right headlight.
- Remove the left-hand underride protection.
- Open the right-hand tank-fitting service lid.
- Remove the fuel-tank sending unit in accordance with the manufacturer's instructions.
- Removing the glove compartment.
- Remove the A-pillar trim of the front passenger's side footwell.



### Heater installation location

- 1 Heater

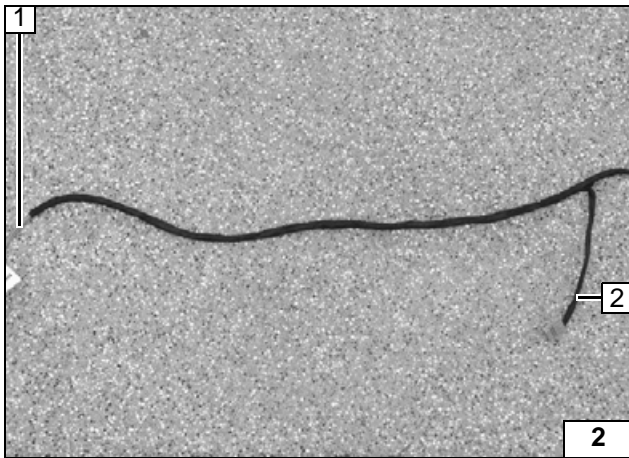
Installation  
location



Loosen bolt **2**, shift terminal block **1** to the front and remove it.



**Loosening the bumper**



### Preparing Wiring Harness

Remove the winding of the wiring harness between the binding of metering pump wiring harness **2** and non-winded part **1**.



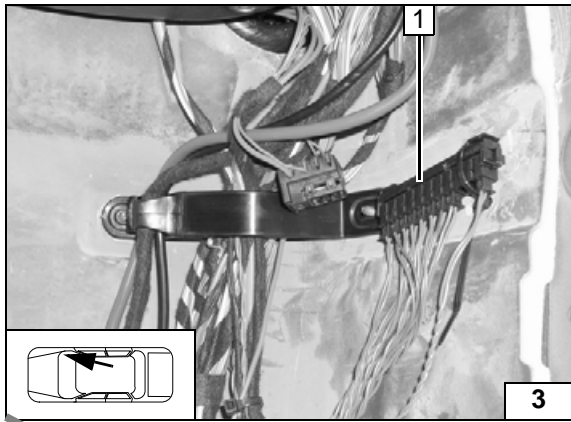
**Removing winding**



**Electrical System**

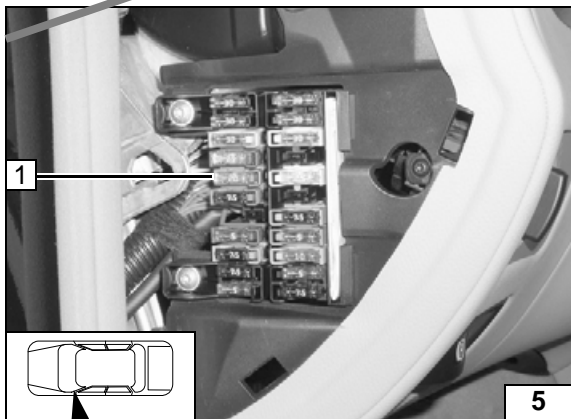
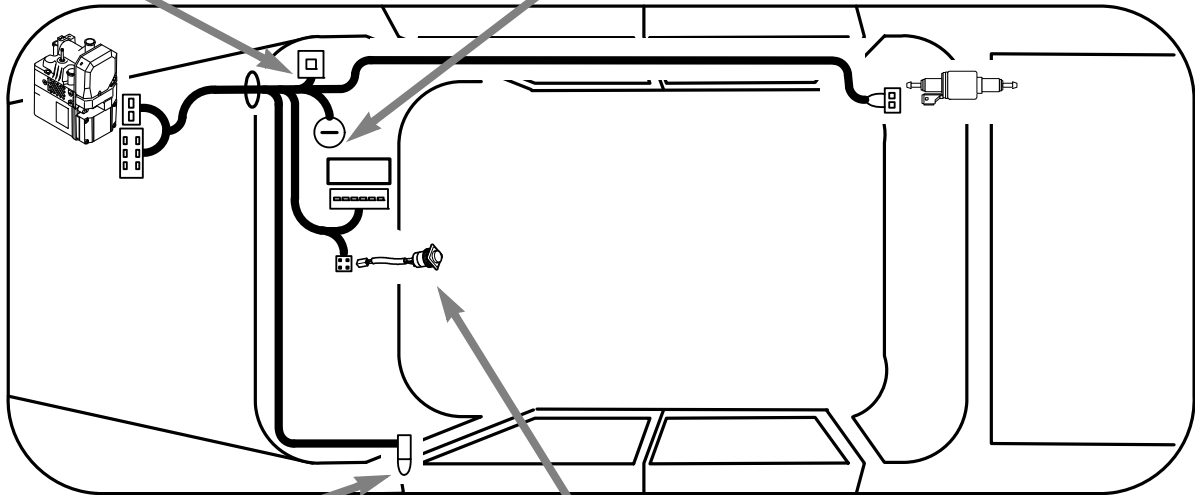
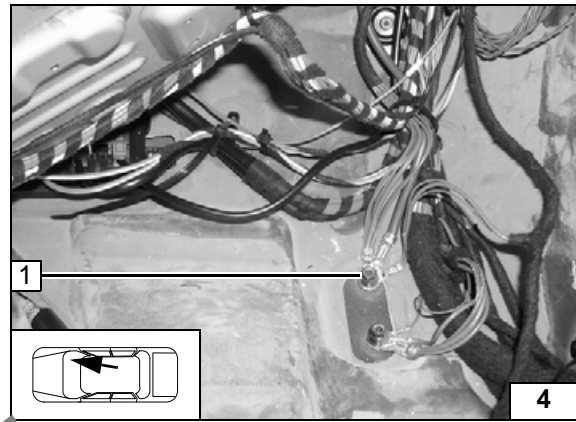
**CAN node point**

- 1 CAN plug connector



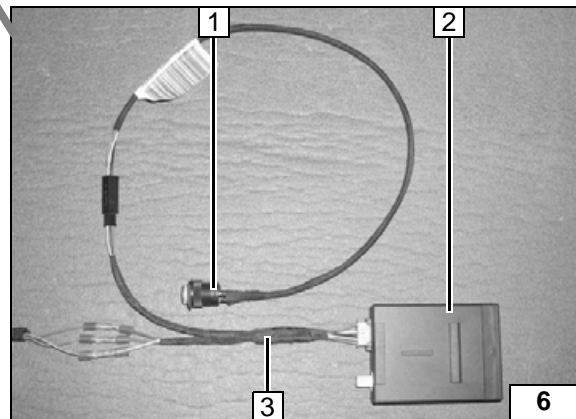
**Earth connection**

- 1 Earth point of front passenger footwell



**Instrument panel fuse box**

- 1 Heater fuse holder in free socket 25

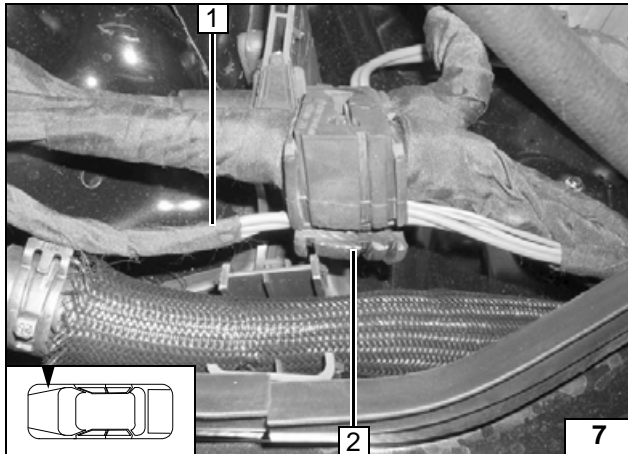


**Push button and radio remote control elements (schematically premounted)**

- 1 Push button
- 2 Telestart
- 3 Y-adaptor



Wiring harness routing diagram

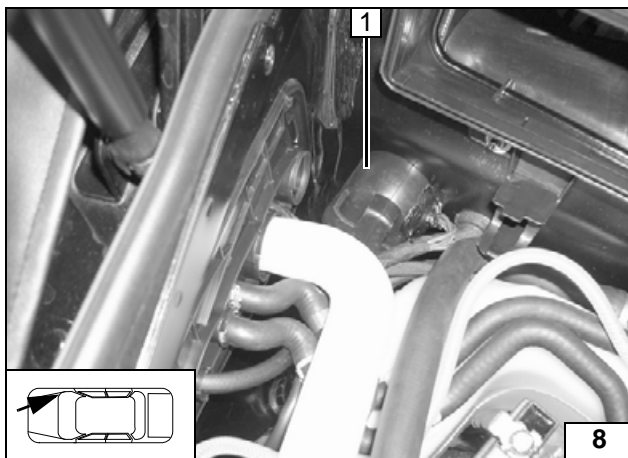


Cut into grommet 2.

1 Wiring harness

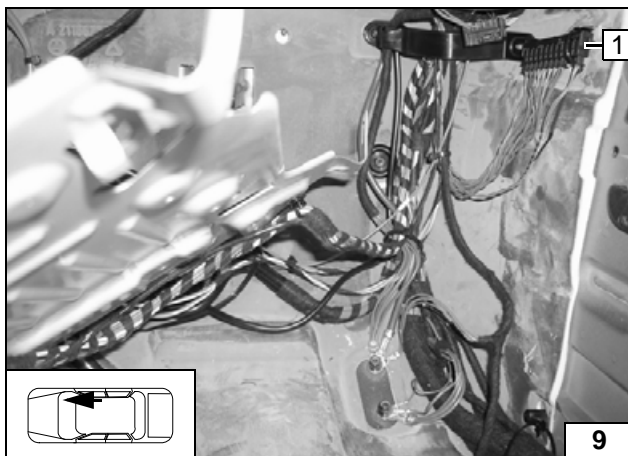


**Routing wiring harness in grommet**



Cut open protective rubber plug 1 and seal it with sealing compound.

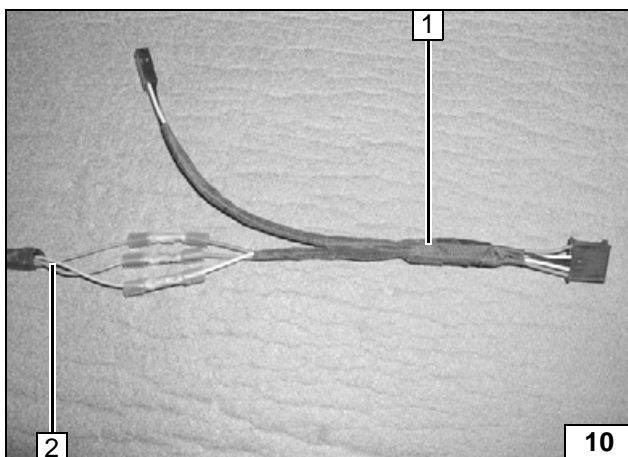
**Cable pass through of passenger compartment**



Insert two-pin connector into CAN plug connector 1. Remove six-pin connector from Telestart wiring harness.



**Preparing connections**

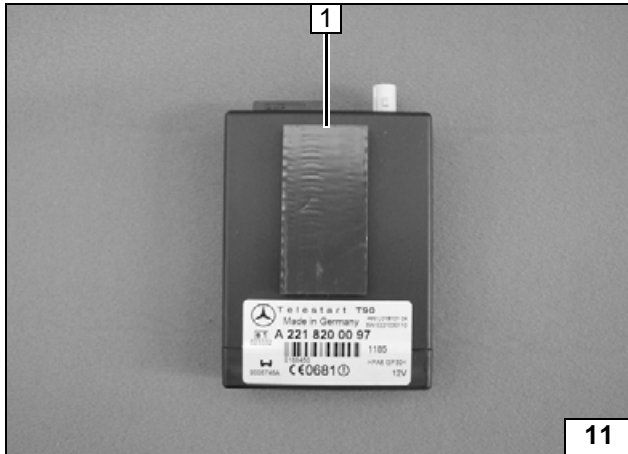


Connect red (rt) and brown (br) wires of Y-adapter 1 with Telestart wiring harness 2 using same-colour wires. Connect yellow (ge) wire of Y-adapter with grey-blue (gr/bl) wire of Telestart wiring harness.



**Connecting Y-adapter**

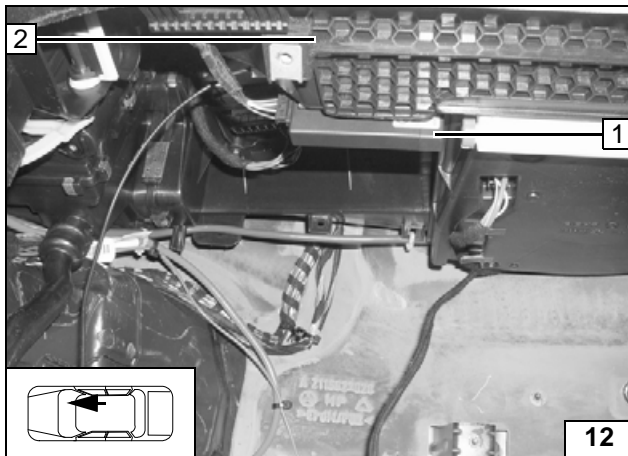




**Telestart**

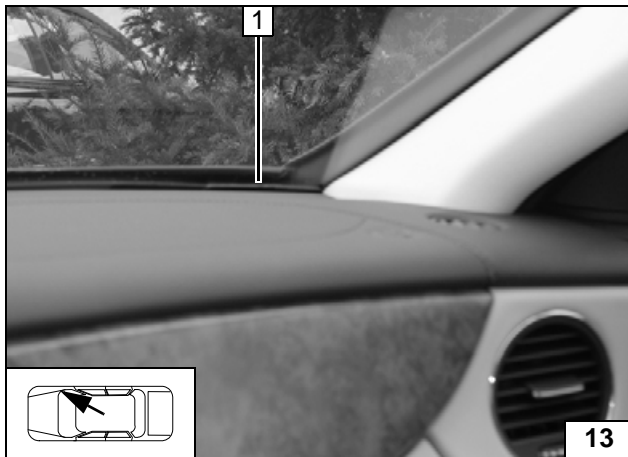
- 1 Velcro strip

Gluing on  
Velcro  
strips



- 1 Telestart
- 2 Housing of glove compartment

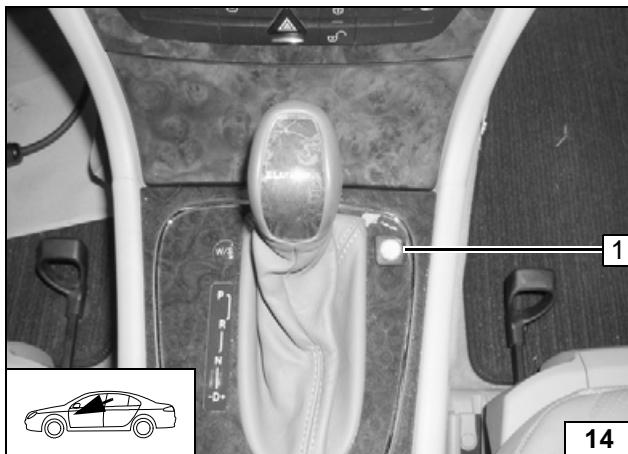
Installing  
Telestart



- 1 Antenna



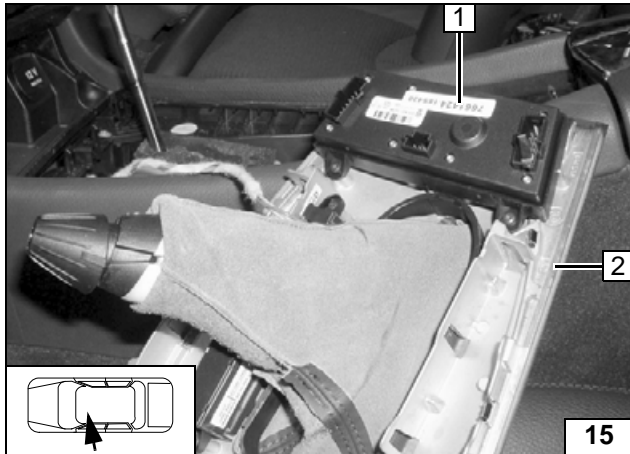
Installing  
antenna



**Push button**

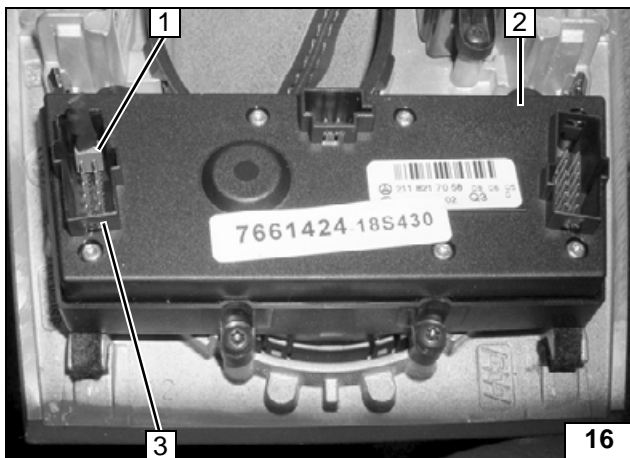
- 1 Push button

Installing  
the push  
button  
(proposal)



- 1 Lower control panel
- 2 Cover of centre console

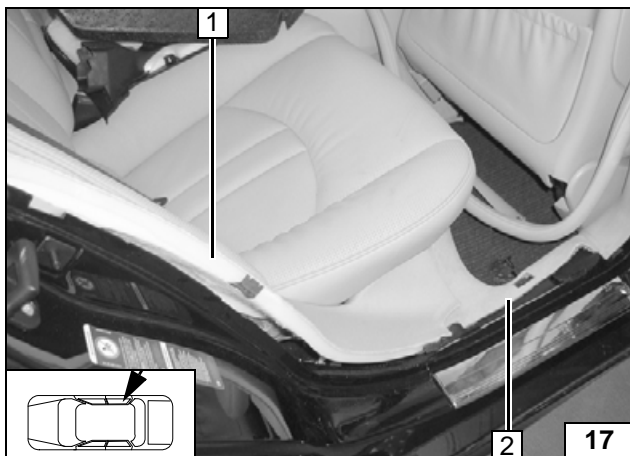
Uncover-  
ing lower  
control  
panel



Connection on the lower control panel, socket 3.  
Attach connector to PIN 1 and 7.

- 1 Connector of resistor
- 2 Lower control panel
- 3 Socket 3

Installing  
resistor

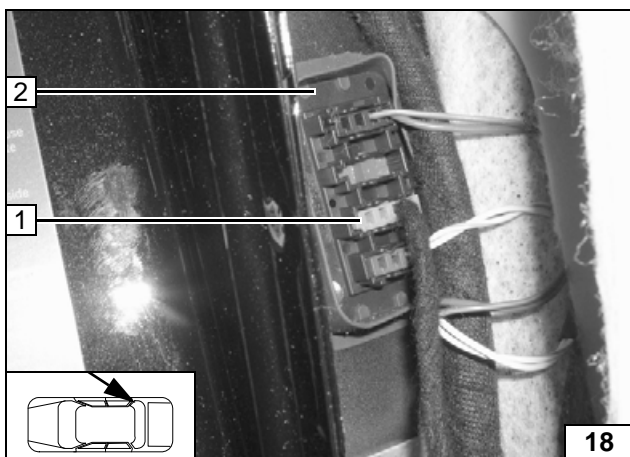


### Metering Pump Wiring Harness

Route metering pump wiring harness to the  
plug connector next to the backrest through  
the cable duct.

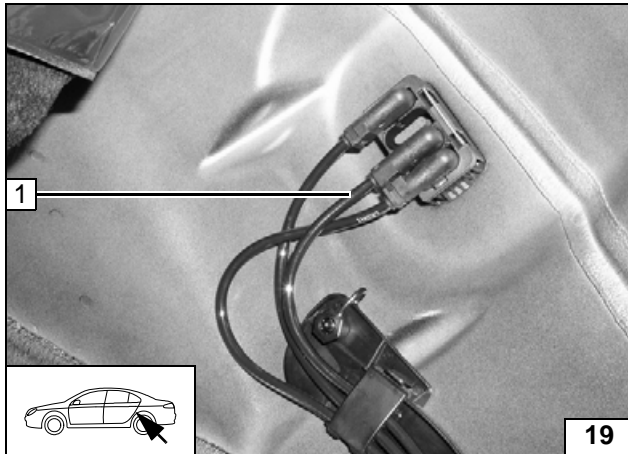
- 1 Cover of plug connector
- 2 Cable duct in door sill

Routing  
wiring har-  
ness of me-  
tering  
pump



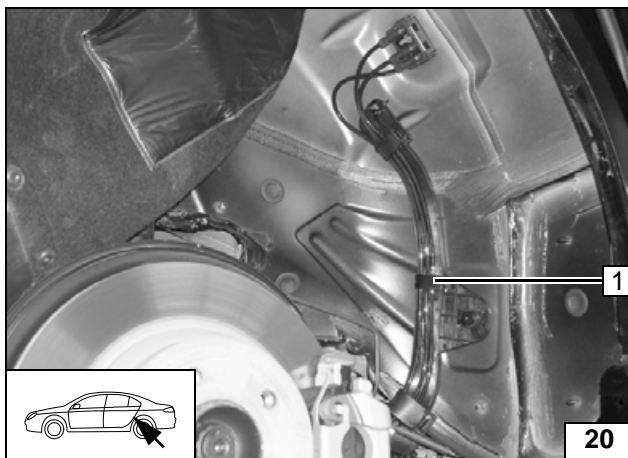
- 1 Metering pump connector
- 2 Plug connector

Plug con-  
nector of  
passenger  
compart-  
ment



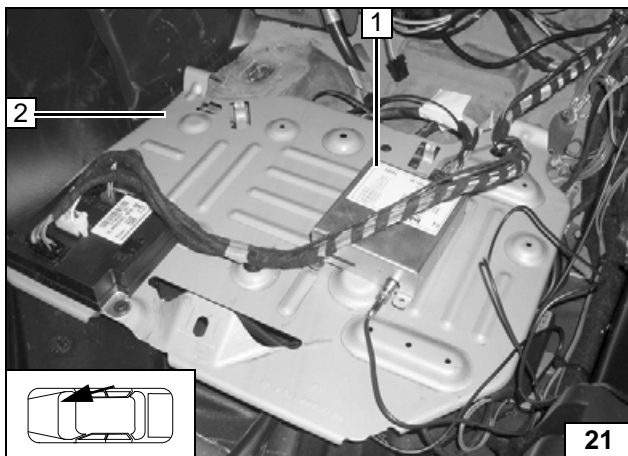
1 Metering pump wiring harness (short)

Wheel well  
plug con-  
nector



1 Mounting tab of cable duct

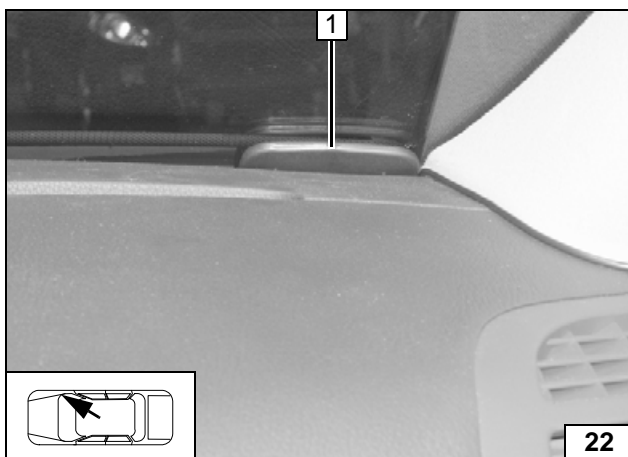
Cable rout-  
ing inside  
the wheel  
well



**Remote Option (Thermo Call)**

- 1 Thermo Call receiver
- 2 Rear side of the foot plate

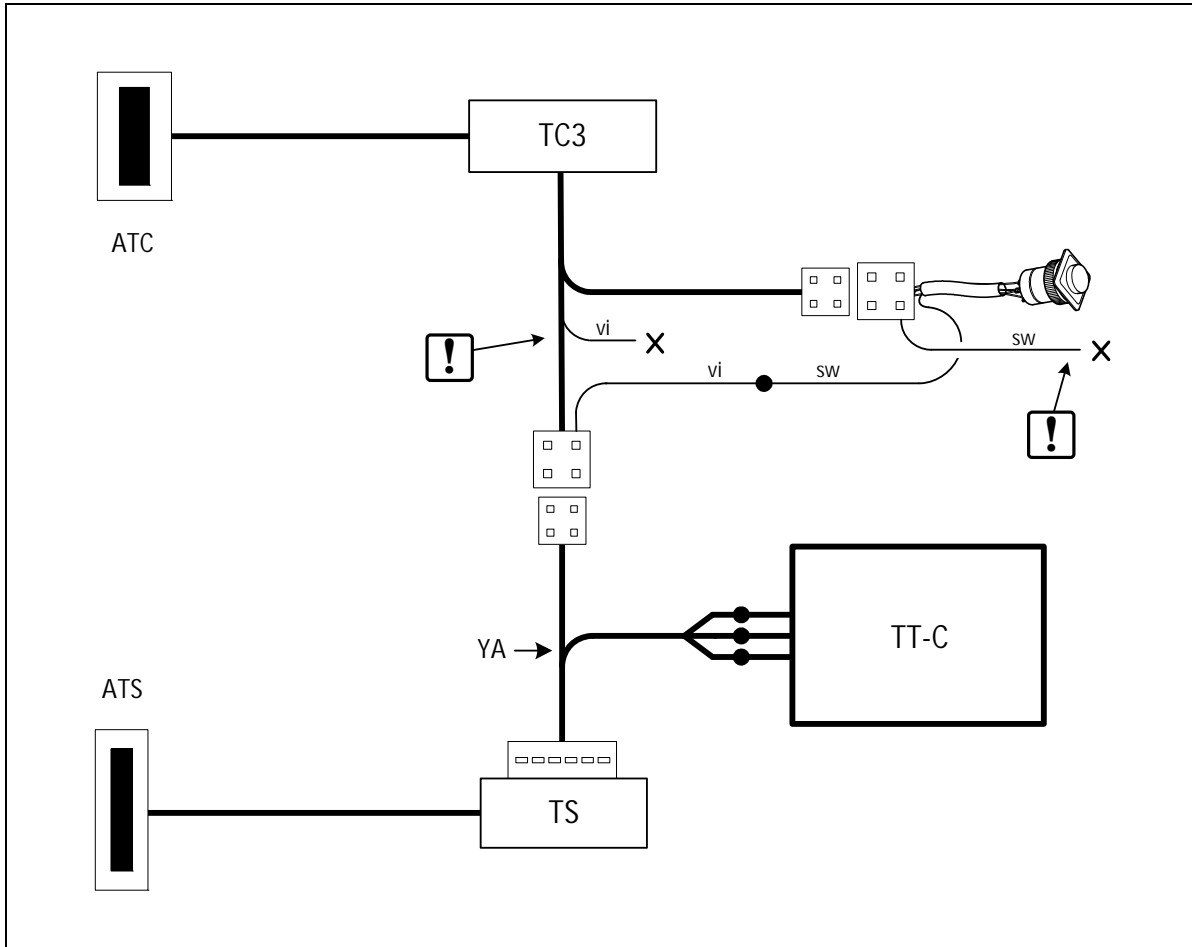
Installing  
Thermo  
Call



1 Thermo Call antenna



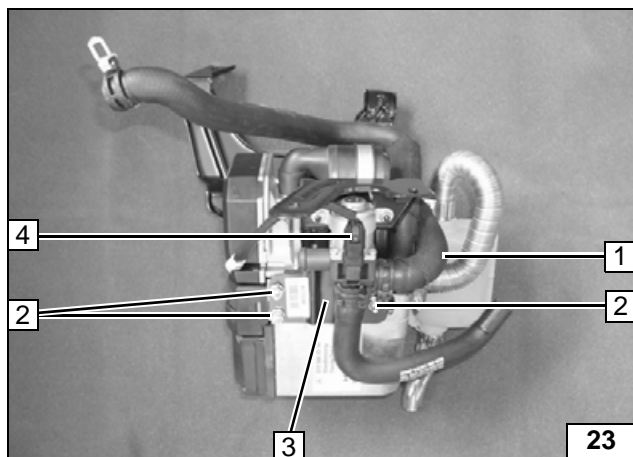
Installing  
antenna



Wiring diagram for Thermo-Call

Webasto components		Colours and symbols	
TT-C	Heater	sw	black
YA	Y-adapter 9014604A	vi	violet
TS	Telestart receiver DAG configuration		Insulate wire ends and tie back
TC3	Thermo Call	X	Cutting point
ATC	Thermo-Call antenna		
ATS	Telestart antenna		
●	Connector		

Legend

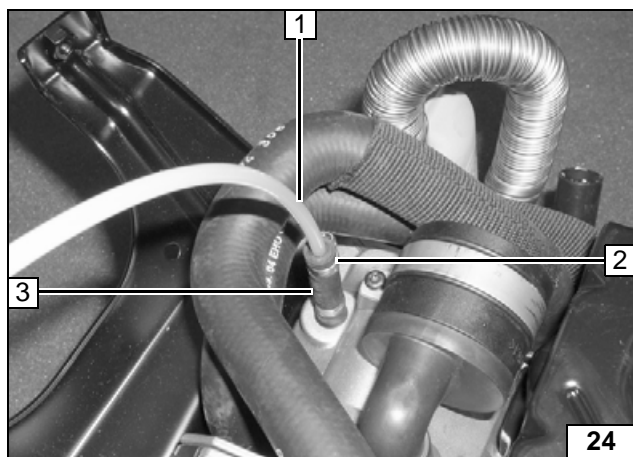


### Preparing Heater

Attach solenoid valve **3** to stud bolt and fasten it with flanged nut **2** [3x]. Fasten water hose **1** to solenoid valve **3**. Attach connector **4**.



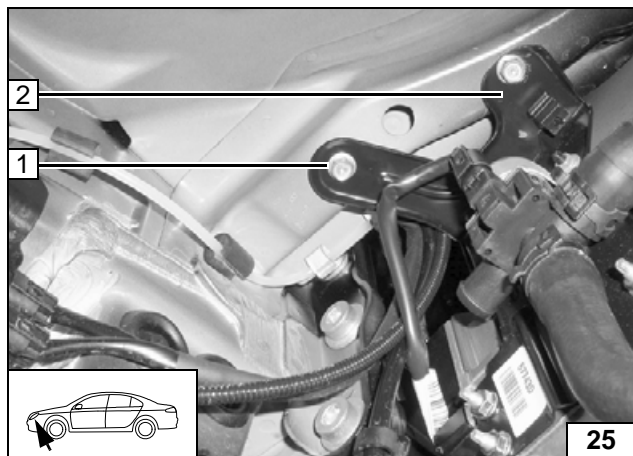
**Installing solenoid valve**



- 1 Fuel line
- 2 10 mm dia. Caillau clamp [2x]
- 3 Hose section



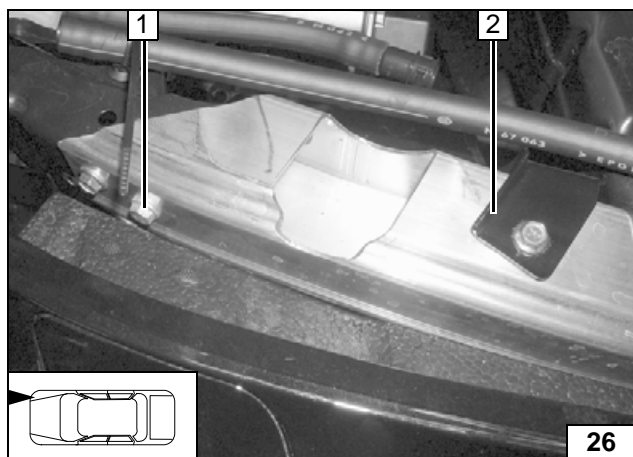
**Connecting fuel line**



### Installing Heater

- 1 M6x12 collar screw [2x]
- 2 Bracket of solenoid valve

**Premounting bolts of cross member loosely**



Tighten all fastening screws.

- 1 M6x12 collar screw [2x]
- 2 Bracket of heater



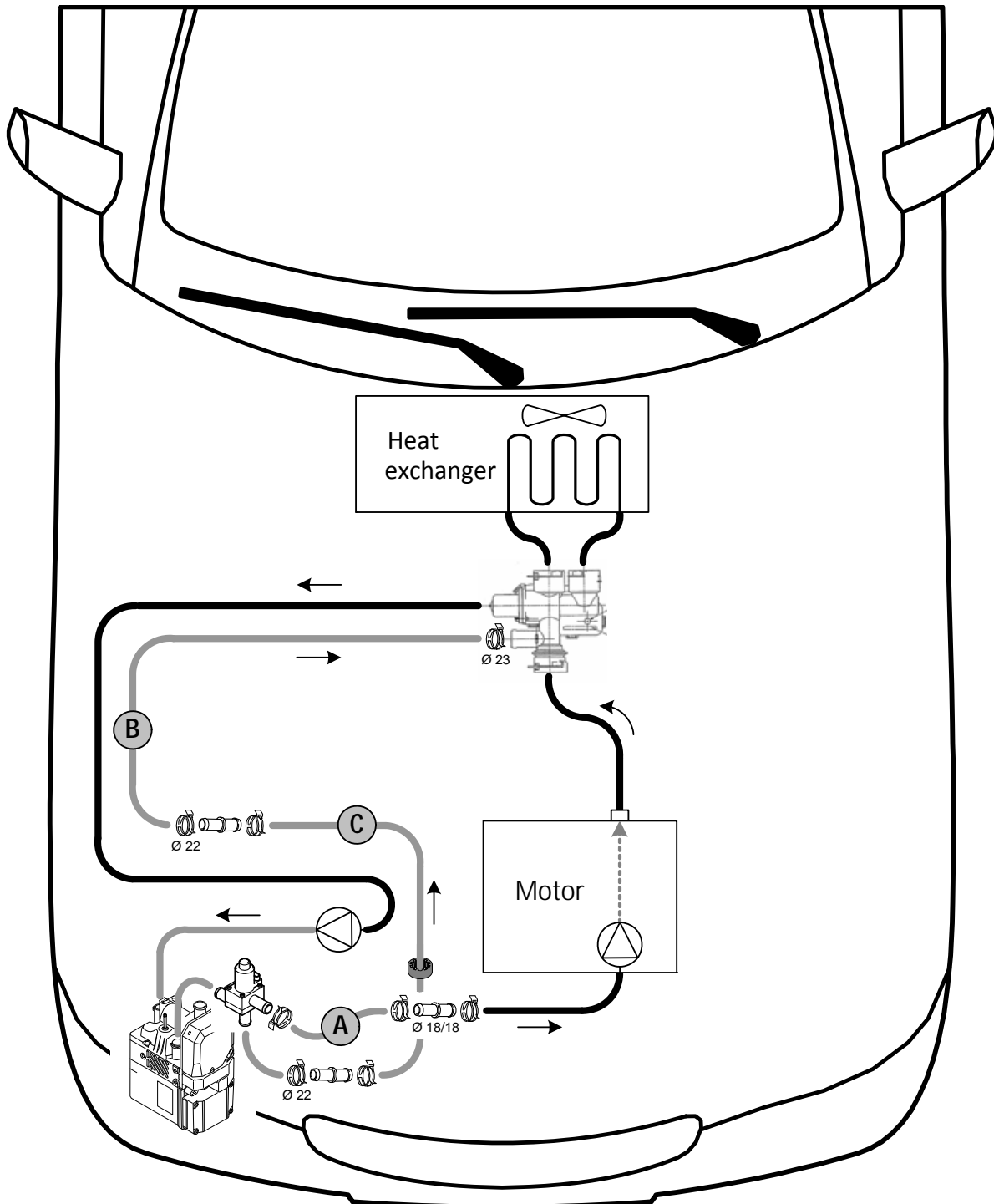
**Screws of bumper**



## Coolant Connection for All Vehicles

### WARNING!

Any coolant running off should be collected using an appropriate container!  
 Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties.  
 Position spring clips so that no other hose can be damaged!  
 The connection should be based on the following diagram:

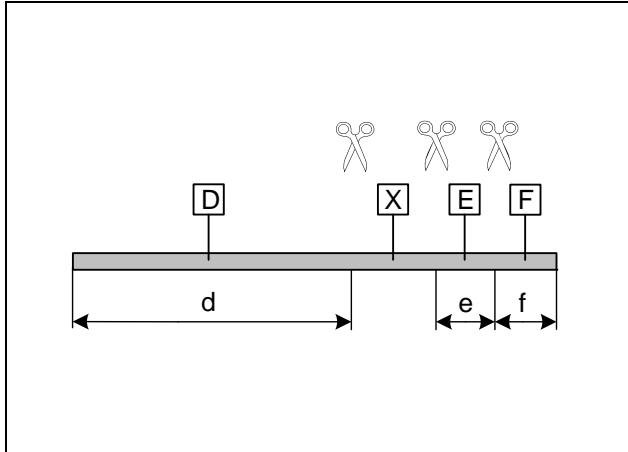
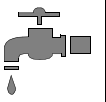


Coolant routing diagram

All spring clips without a specific designation = 25mm dia. All connecting pipes without a specific designation = dia. 15x18 mm.

**A** = Moulded hose 63113A. **B** = 9005299A

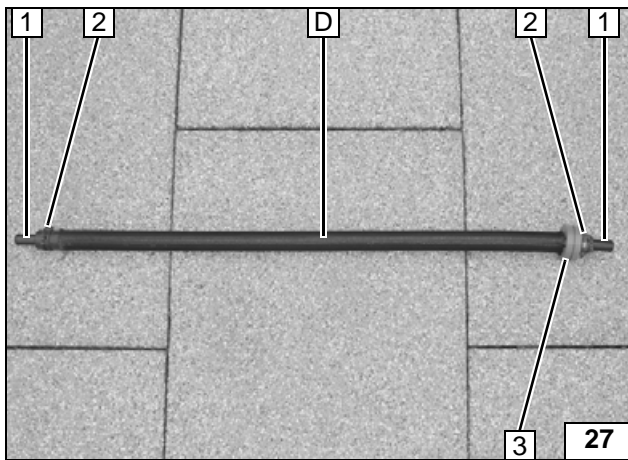




Discard section X.

- d = 1,120mm
- e = 100mm
- f = 100mm

**Cutting braided protection hoses to length**

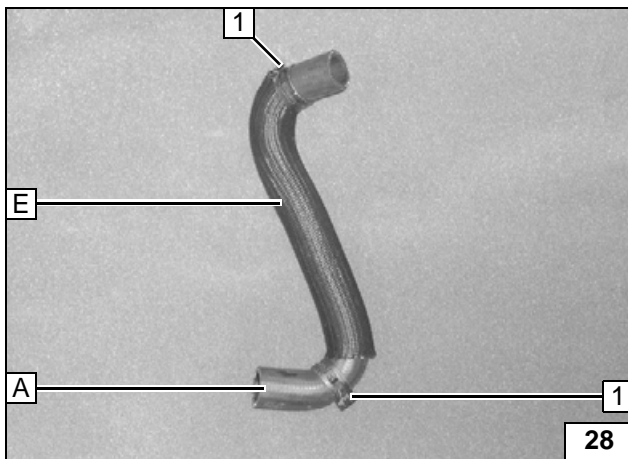


Push braided protection hose D onto hose C l = 800mm.

- 1 15x18 connecting pipe [2x]
- 2 25mm dia. hose clamp [2x]
- 3 Red (rt) rubber profile



**Preparing coolant hose**

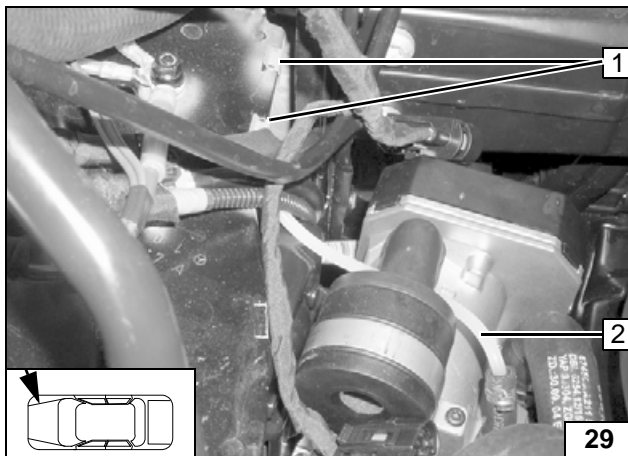


Push braided protection hose E onto hose A.

- 1 27mm dia. hose clamp [2x]



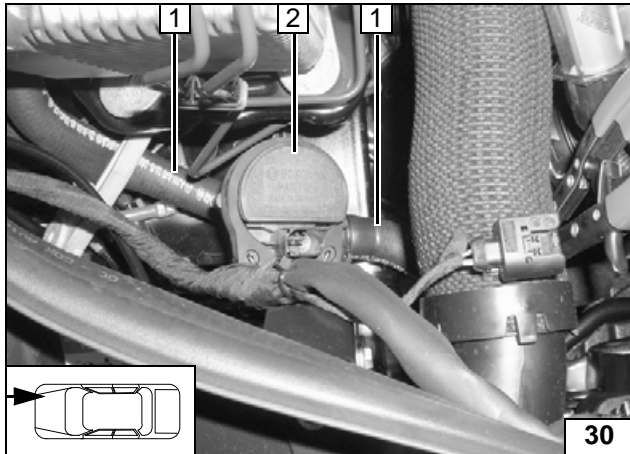
**Preparing coolant hose**



Fasten fuel line 2 to the cross member using fastening clips 1 [2x].



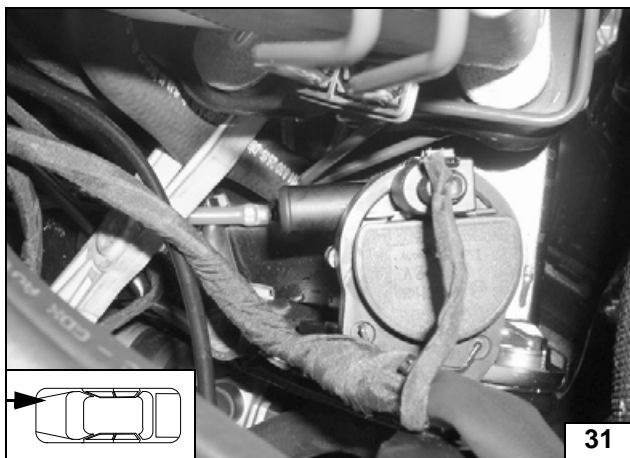
**Fastening fuel line**



Pinch off water hoses 1 on circulating pump 2 and detach.

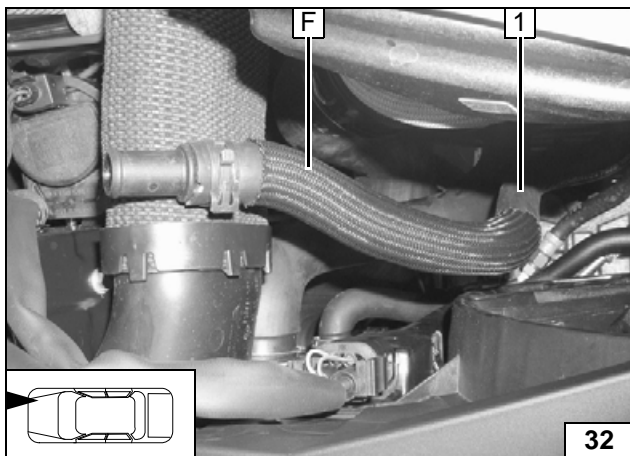


Removing hoses



Turn circulating pump by approx. 180°. Check the position of the components; correct if necessary. Check that they have freedom of movement.

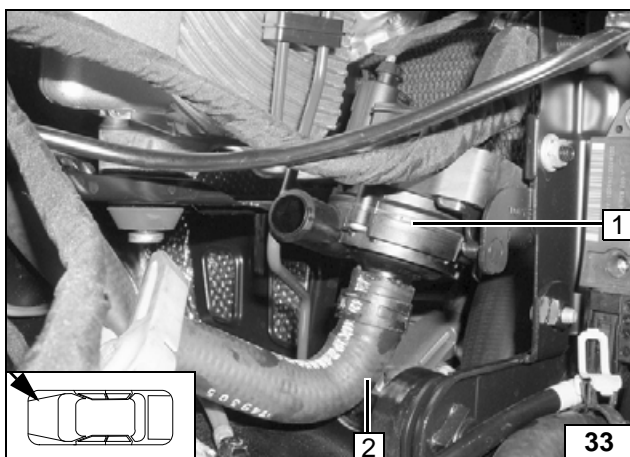
Turning the water pump



Push braided protection hose F onto hose leading to engine 1.



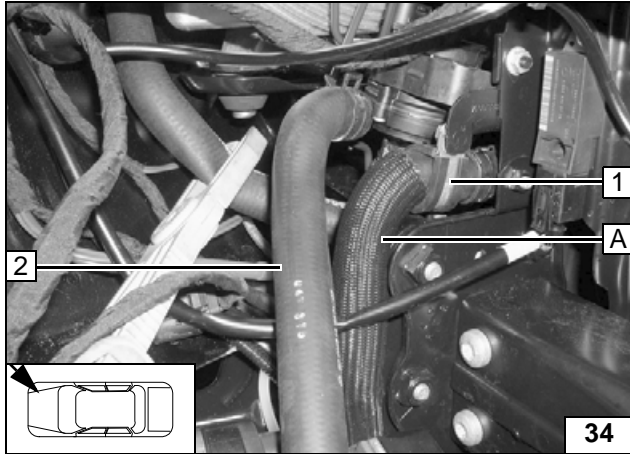
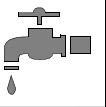
Installing braided protection hose



Connect water hose 2 to circulating pump 1 again.

Mounting water hoses



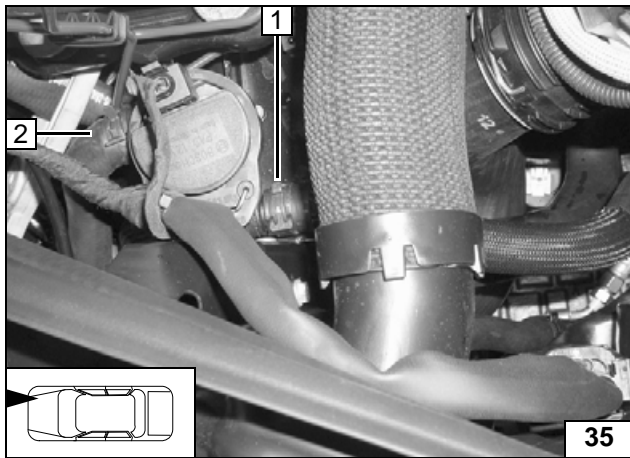


Fasten moulded hose **A** to solenoid valve and connect it to engine using hose.

- 1 25mm dia. rubber-coated p-clamp, M6 nut
- 2 Hose of heater water inlet

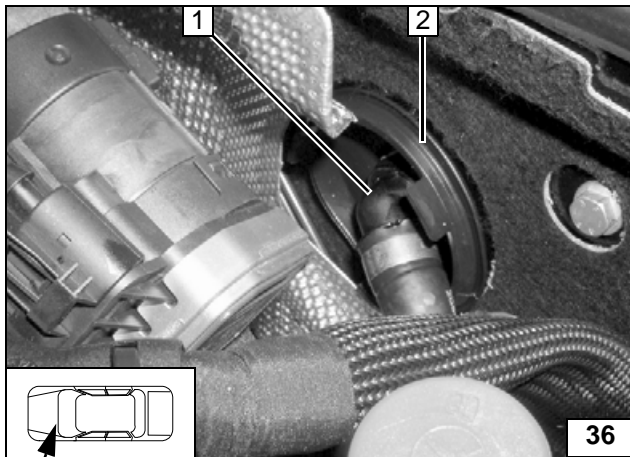


**Mounting water hoses**



- 1 Hose leading to the engine
- 2 Hose of heater water inlet

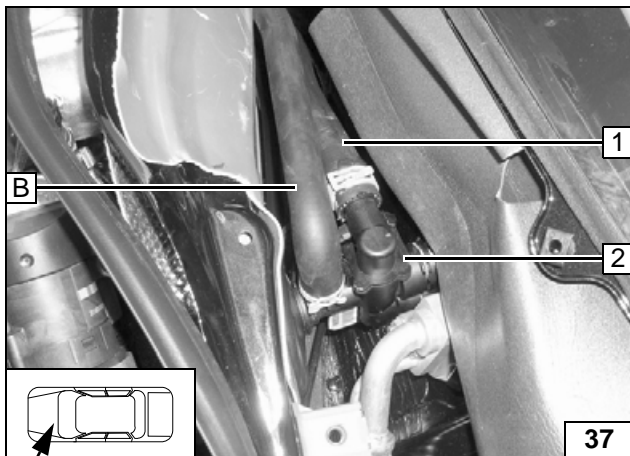
**Mounting water hoses**



Loosen hose coupling **1**, connector and hoses, remove grommet **2**.



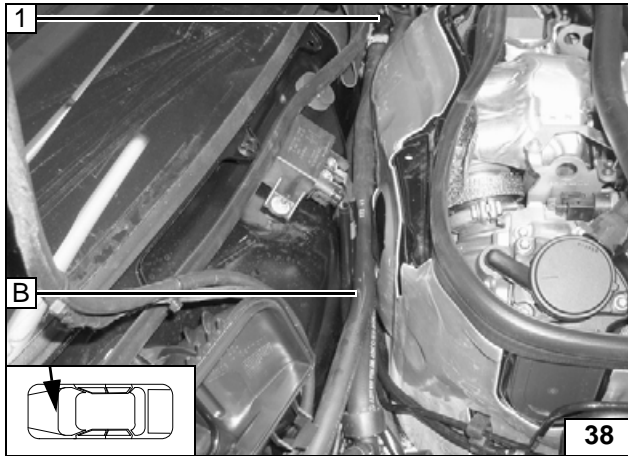
**Removing switching valve in the engine compartment partition wall**



- 1 Original vehicle coolant hose
- 2 Switching valve (5 connections)

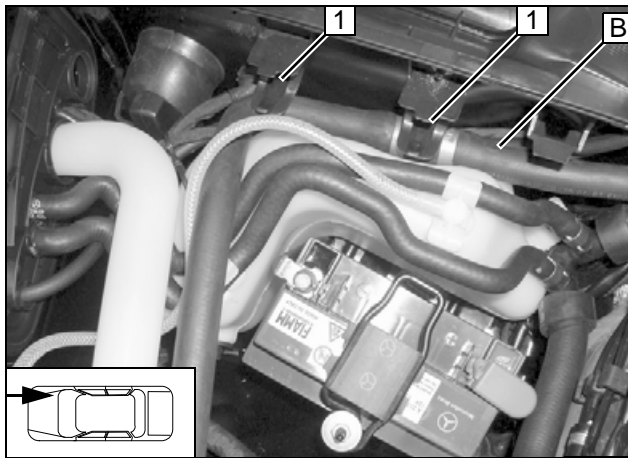


**Installing new switching valve**



1 Switching valve

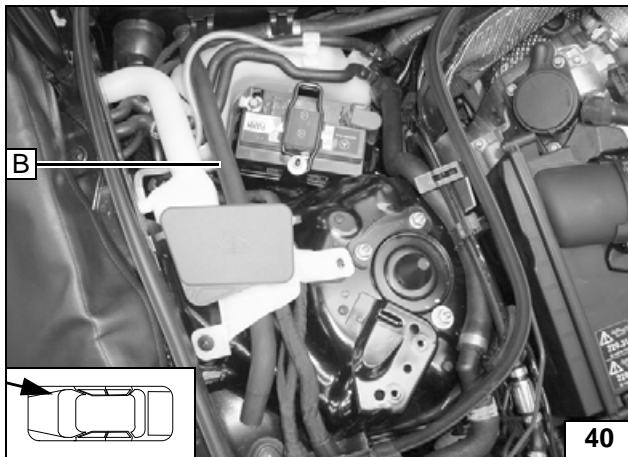
Routing in engine compartment



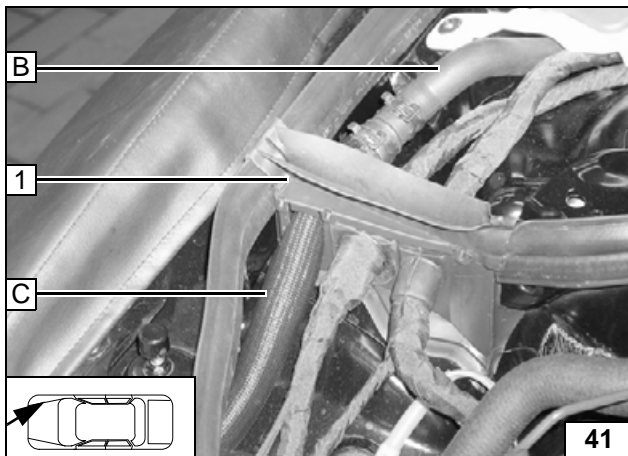
Route hose **B** below guide **1** of coolant reservoir drainage hose.



Routing water hose

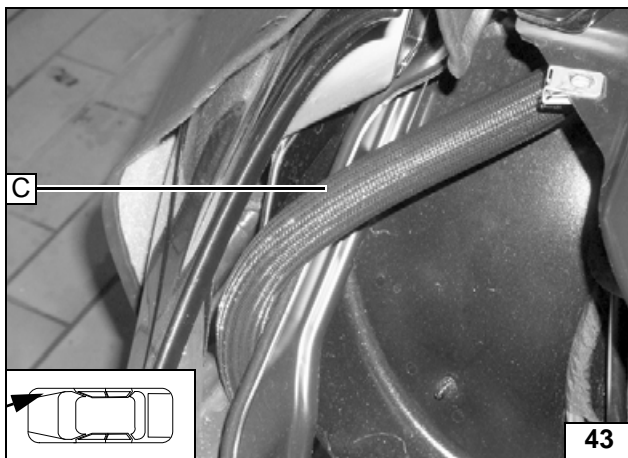
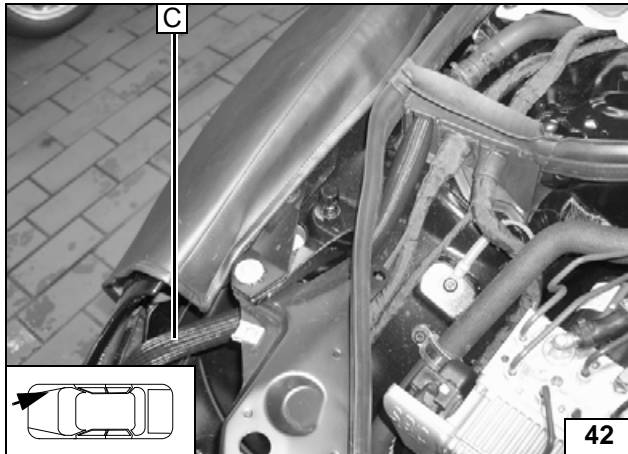


Routing water hose

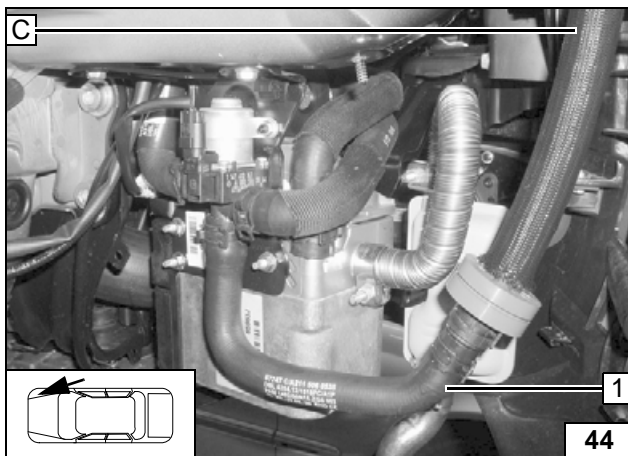


1 Cover of pass through

Routing water hose inside the guide



(Image shows CLS, ensure free movement towards the headlight, in any case)



1 Premounted hose of solenoid valve

Routing water hose

Routing water hose

Connect-  
ing hose to  
solenoid  
valve



**Fuel Connection**

**CAUTION!**

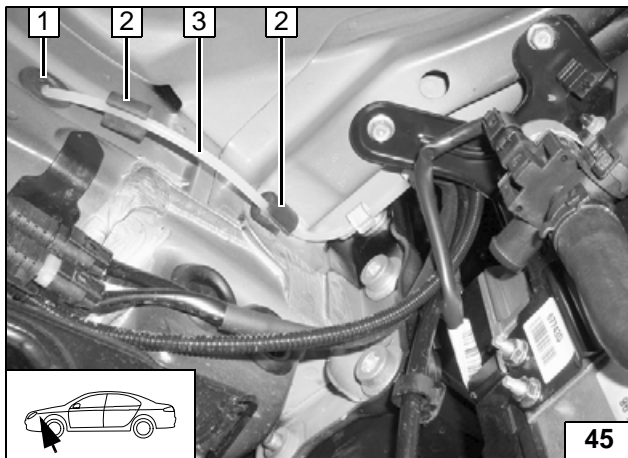
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off in an appropriate container.

Route fuel line and metering pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties. Mount the fuel line and wiring harness with rub protection on sharp edges.

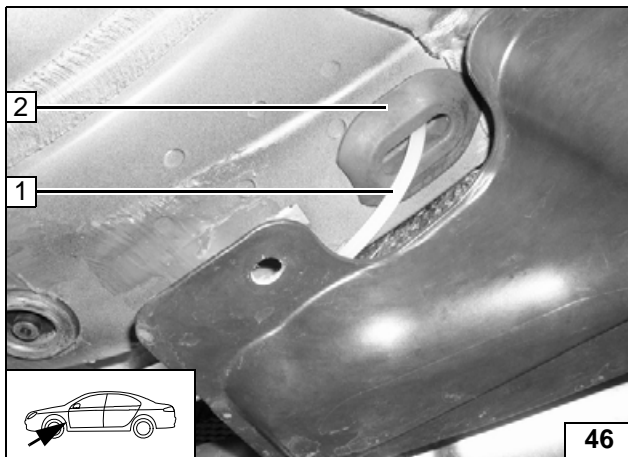
**WARNING!**

The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



Stamp 5mm dia. hole into protective rubber plug **1**. Move fuel line **3** into frame side member. Slide rubber buffer **2** [2x] onto fuel line.

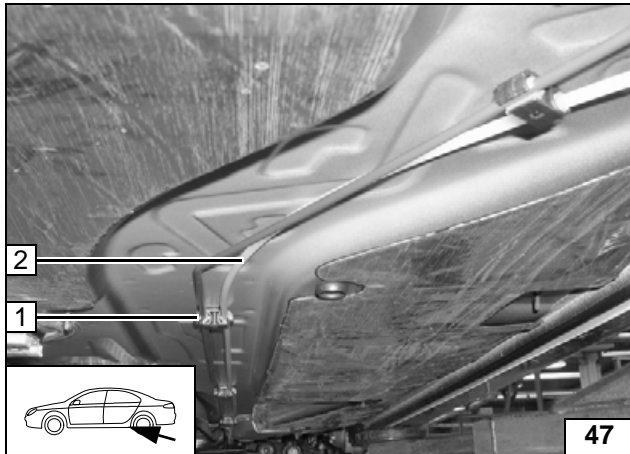
**Routing fuel line inside the frame side member**



Stamp 5mm dia. hole into protective rubber plug **2**. Move fuel line **1** out of frame side member.

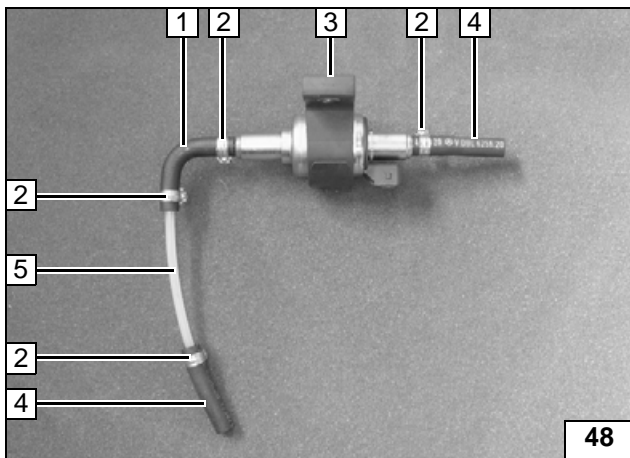


**Routing fuel line out of the frame side member**



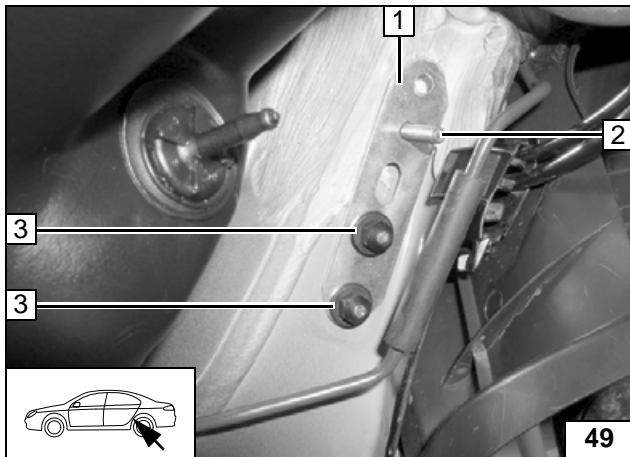
- 1 Twofold guide clips [4x]
- 2 Fuel line

Exchanging clips and fastening the fuel line



- 1 90° fuel hose
- 2 10mm dia. Caillau clamp [4x]
- 3 Bracket of metering pump
- 4 Hose section [2x]
- 5 Fuel line l=130mm

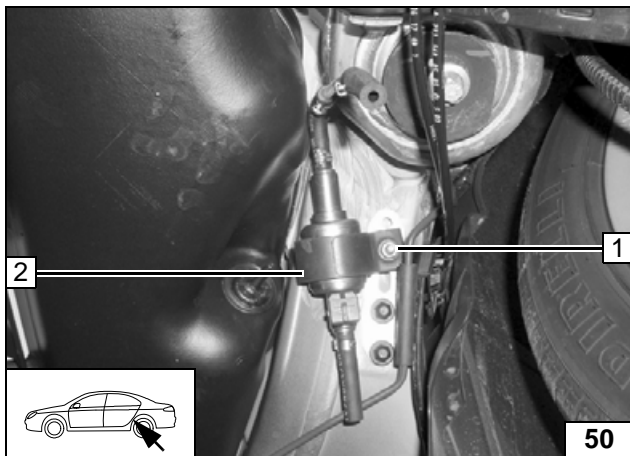
Preinstalling metering pump



- 1 Perforated bracket
- 2 M6x25 bolt
- 3 Plastic nut [2x]

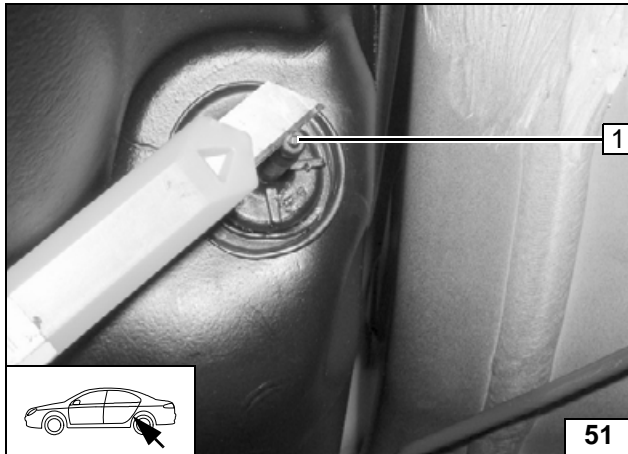


Mounting perforated bracket



- 1 M6 flanged nut
- 2 Metering pump bracket

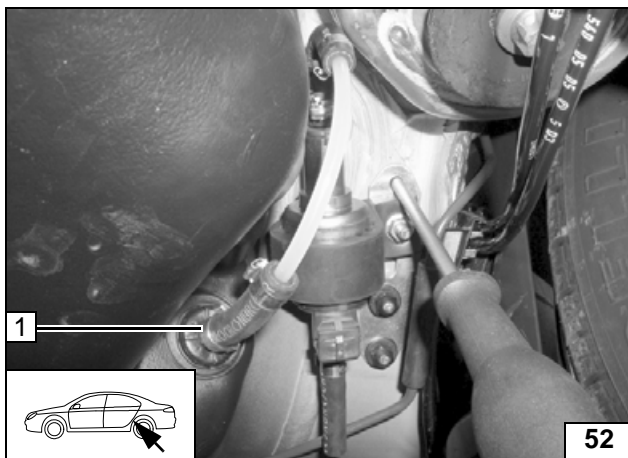
Mounting metering pump



1 Fuel tank connection piece



**Cutting off the fuel tank connection piece**

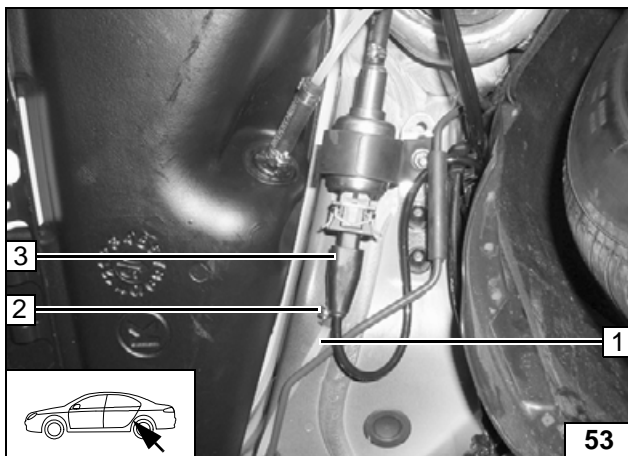


Bend perforated bracket downwards using a screwdriver to achieve freedom of movement for the neighbouring components. Check the position of the components; correct if necessary.

1 10 mm dia. Caillau clamp



**Connecting intake side of metering pump**

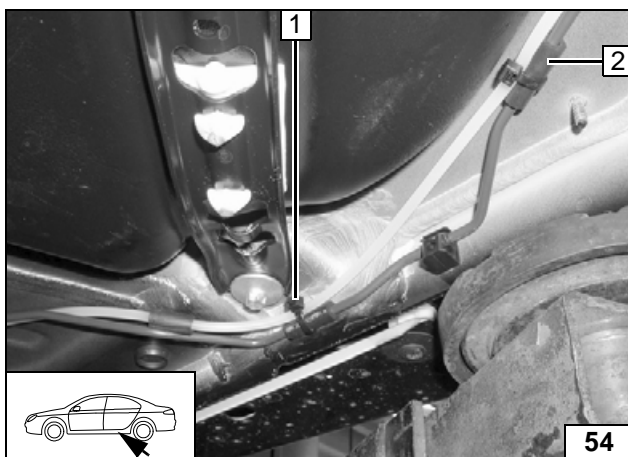


Cut fuel line 1 on metering pump to length and connect to pressure side. Attach metering pump connector 3.

2 10 mm dia. Caillau clamp



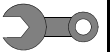
**Connecting pressure side of metering pump**



Fasten fuel line in the area of the available hose pieces 2 using cable ties 1.



**Fastening fuel line**



## Final Work



### Teaching transmitter of radio remote control "Telestart"

- Connect the battery.
- Pull the fuse of the fuse holder on the left-hand side of the instrument panel and reinstall after approx. 5 seconds.
- Press the "Off" button of the hand-held transmitter (on right) 1x for approx. one second within the next 7 seconds.

### **WARNING!**

Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back all loose wires.

Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

Check the removed or disconnected headlight after the reinstallation and adjust if necessary.

- Start the engine, bleed the coolant circuit according to the vehicle manufacturer's instructions and top up coolant.
- Check the coolant circuit for leaks according to the manufacturer's specifications.
- Mount caution label "Switch off parking heater before refueling" in area of filler neck.
- Following installation, the additional heating function must be activated with the star diagnosis according to the manufacturer's specifications.
- Read out the vehicle fault memory and delete the stored faults of the heating/air conditioning system if necessary.
- Check the proper operation of the parking heater, see the operating instructions/installation instructions.

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