

Water Heater Unit



Feel the drive

Thermo Top C Auxiliary Heating  00 0002

Installation Instructions

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

Gasoline and diesel

From model year 2003

For left-hand drive vehicles only

Not for AMG or AMG look



WARNING!

Hazard warning:

Incorrect installation or repair of Webasto heating systems may cause a fire or result in the emission of carbon monoxide, which can be fatal. Serious or fatal injuries can be caused as a result.

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

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 warning instructions.

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

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

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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 type	Power in kW	Engine capacity in cm ³
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	Gasoline / R4	120	1796
200 K	Gasoline / R4	120	1796
240	Gasoline / V6	130	2597
240 4MATIC	Gasoline / V6	130	2597
280	Gasoline / V6	170	2996
280 4MATIC	Gasoline / V6	170	2996
320	Gasoline / V6	165	3199
320 4MATIC	Gasoline / V6	165	3199
350	Gasoline / V6	200	3498
350 4MATIC	Gasoline / V6	200	3498
500	Gasoline / V8	225	4966
500 4MATIC	Gasoline / V8	225	4966

Vehicle and engine types, equipment variants as well as national specifications, which are not listed in these installation instructions, have not been tested. Installation according to these installation instructions may, however, be possible.

The installation location of the key switch should be confirmed with the end customer before installation.

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

Heater Unit / Scope of Delivery

Amount	Description	Order no.:
1	Scope of delivery TT-C Diesel W211 / W219	9014163 A
1	Scope of delivery TT-C Gasoline W211 / W219	9014164 A

Optional control element selection:

Amount	Description	Order no.:
1	Thermo Call TC 1.1	9001132B
1	Thermo Call TC 2	9013656A
1	Original DC switch block and middle console cover	Depending on equipment, order from DC

Foreword

These installation instructions apply in respect of vehicles Mercedes-Benz E-Class BR 211 / CLS BR 219 with Gasoline and diesel engine – re. validity, see page 2 - as 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 these installation instructions.

However, the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top C/P/E* are to be observed in any event.

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 cable harnesses to original vehicle lines and cable harnesses using cable clips.

Sharp edges should be fitted with edge protectors (split open plastic hose).

Spray unfinished body areas, such as for example bore holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329)!

After installation, release the auxiliary heater function using the DC Star diagnosis (coding).

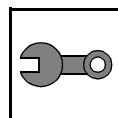
Special Tools

- Torque spanner for 2.0 - 10 Nm
- Vice-grip wrench
- Ø5mm hollow punch

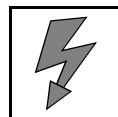
Explanatory Notes on the Document

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.

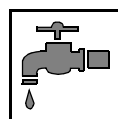
Mechanics



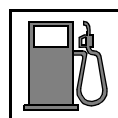
Electrics



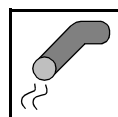
Water connection



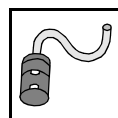
Fuel connection



Exhaust system



Combustion air



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



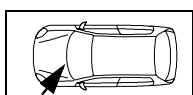
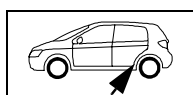
Specific risk of fire or explosion.



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



Reference to a special technical feature.



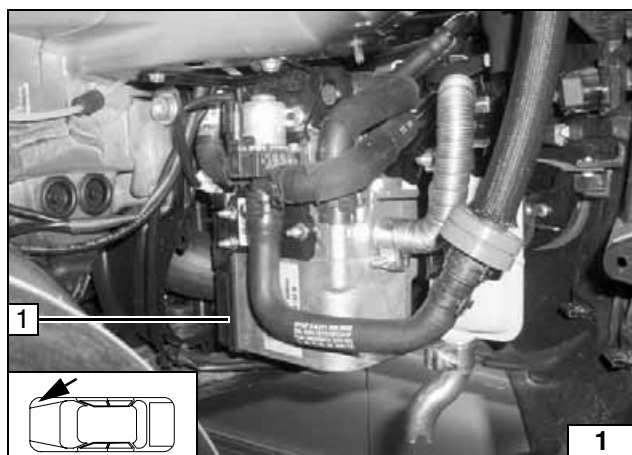
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.



Preliminary Work

WARNING!

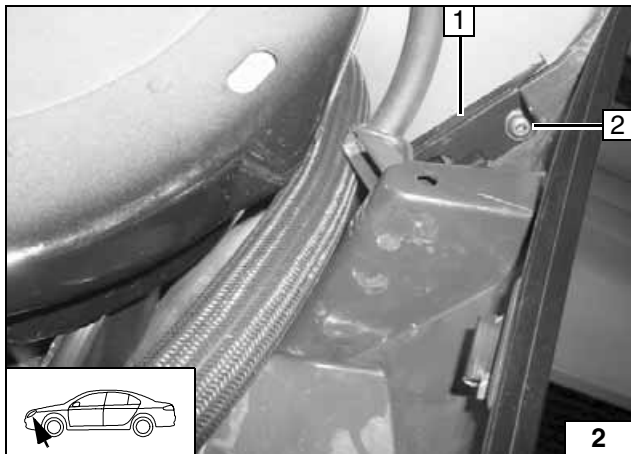
- Slide the passenger seat back.
- Take the key out of the ignition.
- Disconnect the battery.
- Remove the left dashboard fuse box cover.
- Remove the right footwell panel.
- Remove the right A-pillar panel.
- Remove right floor cover.
- Loosen the right floor plate.
- Remove the cover from middle console around the gear shift stick.
- Loosen the right B-pillar panel.
- Loosen the cable conduit cover next to the right rear seat armrest.
- Open the hood.
- Let off pressure in 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.
- Open the tank cap, ventilate the tank.
- Close the tank cap again.
- Remove the right front and rear wheels
- Remove the front part of the right wheel house panel.
- Loosen the front part of the rear right wheel house panel.
- Remove the two-piece engine enclosure under the rocker panel.
- (CLS only) loosen the front grill
- Loosen the bumper in the right wheel case.
- Remove right headlight (CLS: 2 screws on the top, 1 screw from the wheel house).
- Remove the engine design cover.
- Remove the right and left engine compartment covers.
- Remove the combination filter housing
- Remove the windshield wipers.
- Pull off the gasket that runs across the water reservoir cover.
- Remove the water reservoir cover, remove the drain hose.
- Remove the windshield wiper arm and motor.
- Remove the right cover for the suspension strut mount cable duct.



Heater Unit Installation Location

1 Heater unit

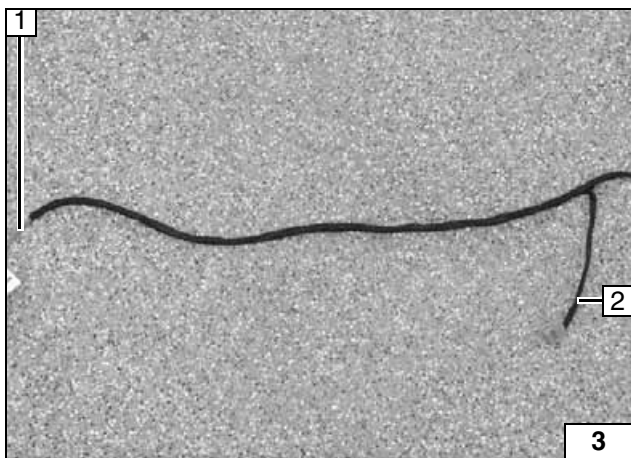
Installation
location



Loosen the screws 2, move the clamping bar 1 to the front and remove it.



Loosen the bumper



Preparing the cable harness

Remove the cable harness wrap between the connection of the metering pump plug 2 and the unwrapped section 1.



Remove the wrapping



Electrical Connections

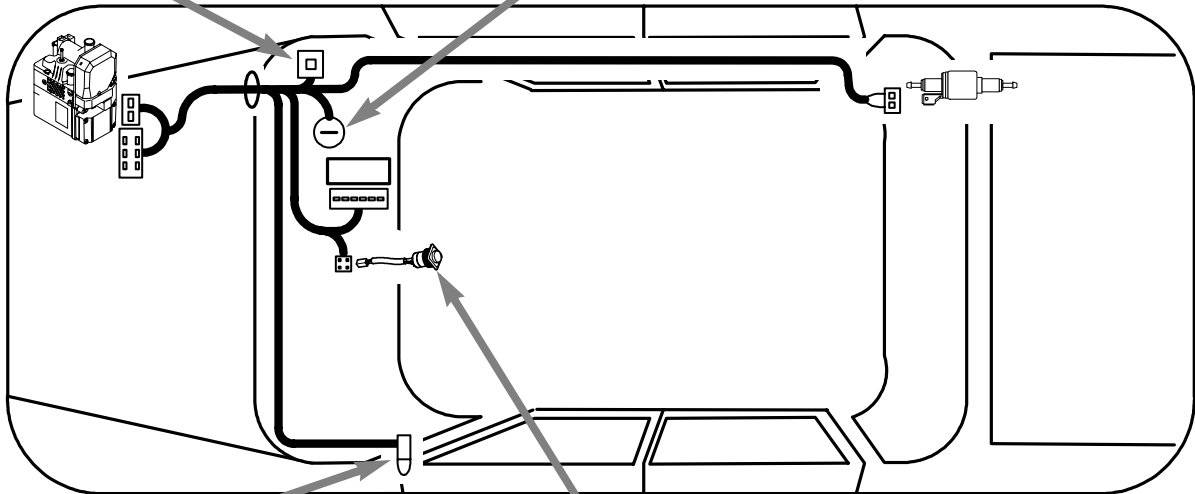
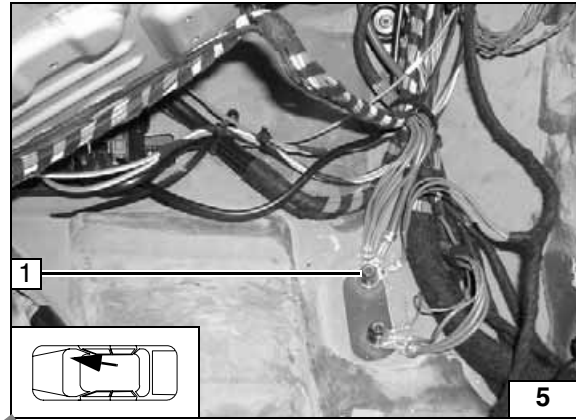
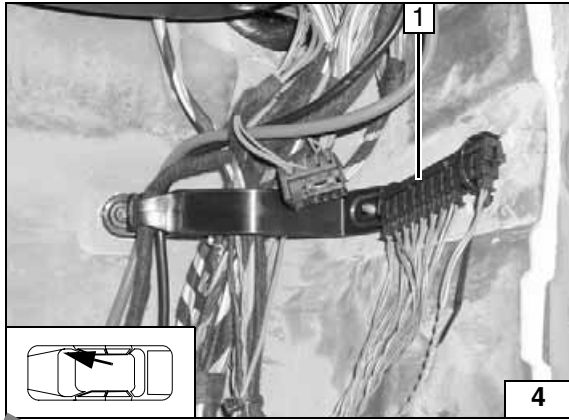


CAN junction

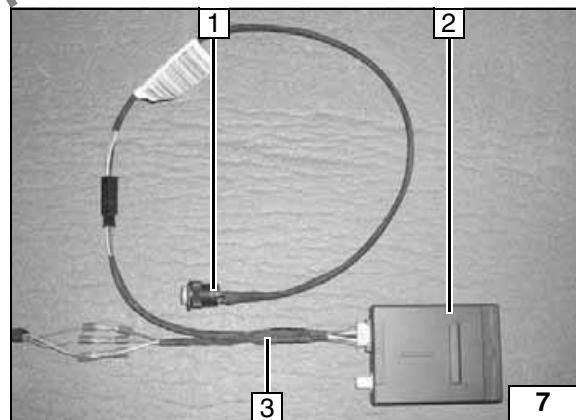
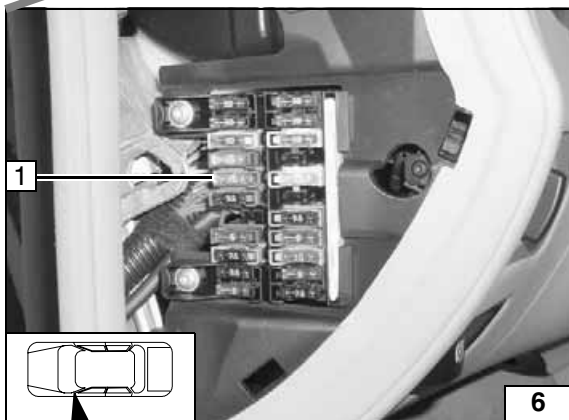
Ground connection

1 CAN terminal strip

1 Grounding point in passenger foot area



Cable harness installation diagram

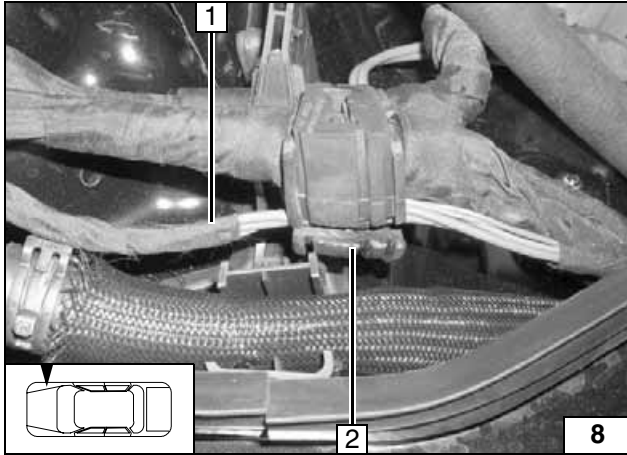


Dashboard fuse box

Tip switch and remote control elements (schematically pre-assembled)

1 Heater unit fuse holder in free slot 25

- 1 Tip switch
- 2 Remote start
- 3 Y-adaptor

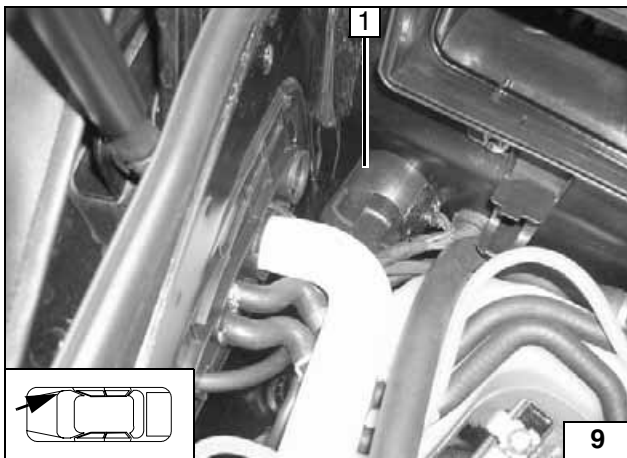


Cut in the grommet 2

1 Cable harness

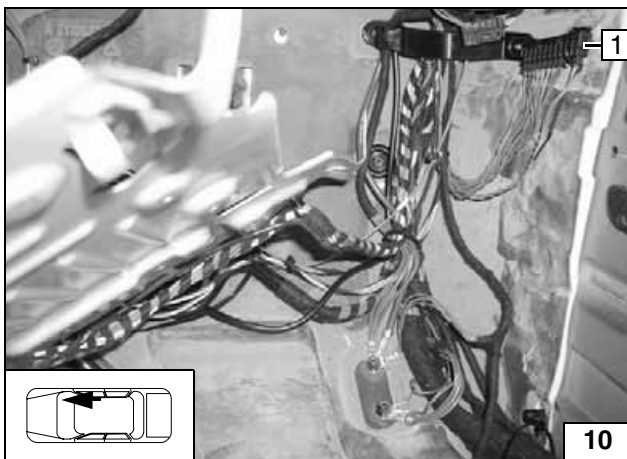


Installing the cable harness in the grommet



Cut open the protective rubber sleeve 1 with and seal with sealant.

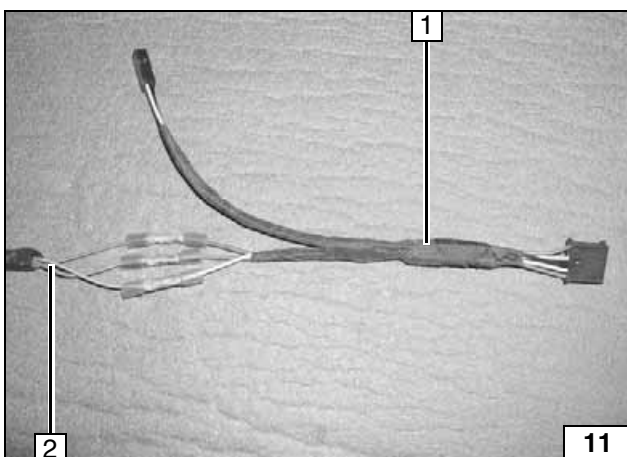
Cable duct in passenger compartment



Insert two-pin plug in the CAN connector 1
Pull the six pin connector from the remote start cable harness



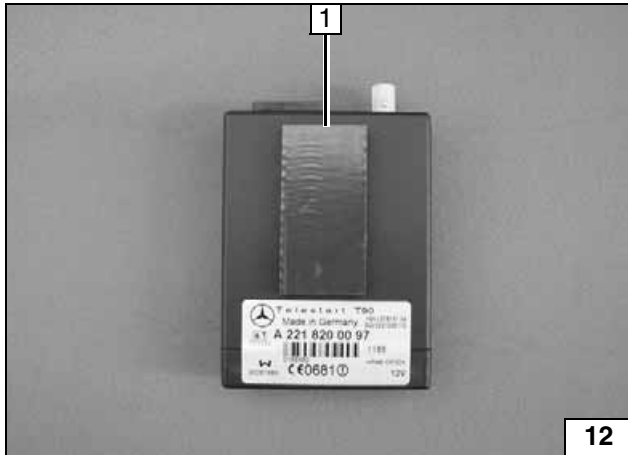
Prepare connections



Connect the red and brown wires from the Y adapter 1 to the wires of the same color in the telestart cable harness 2. Connect the yellow wire from the Y adapter to the grey-grey wires in the telestart cable harness.



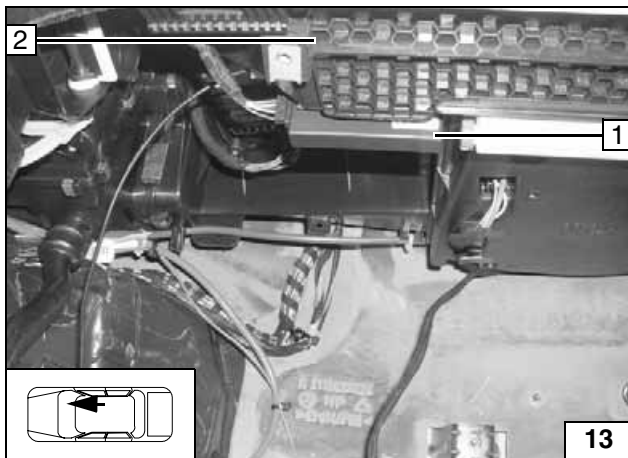
Connect Y-adapter



Remote start

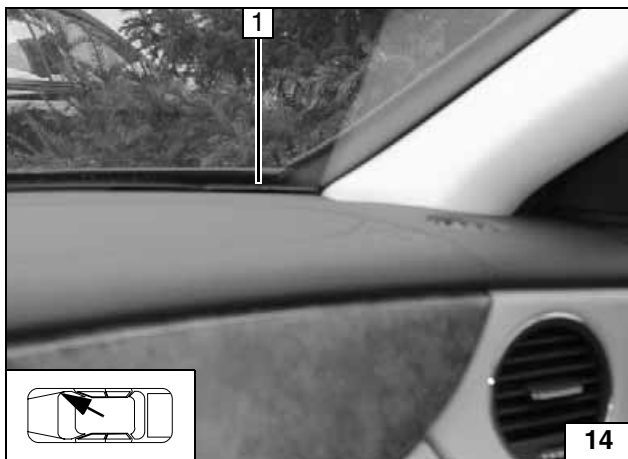
- 1 Velcro strips

**Attach
Velcro
strips**



- 1 Remote start
- 2 Glove compartment housing

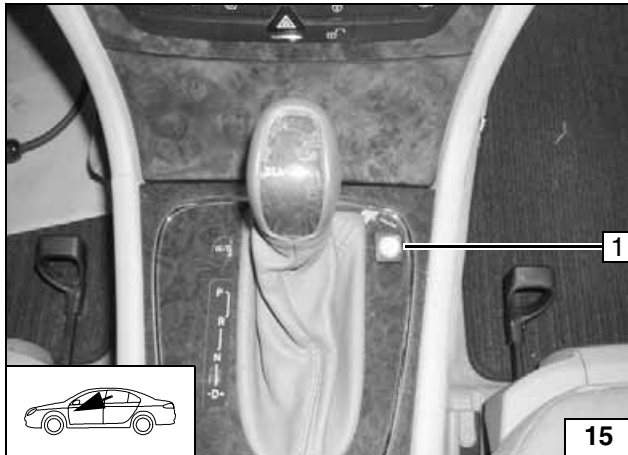
**Assem-
bling the
remote
start**



- 1 Antenna



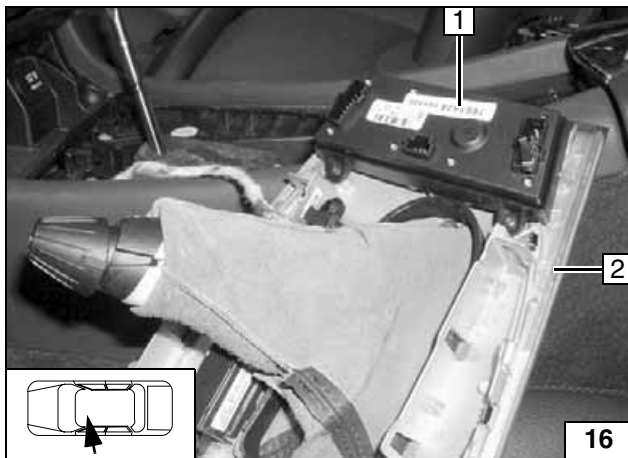
**Assem-
bling the
antenna**



Tip switch

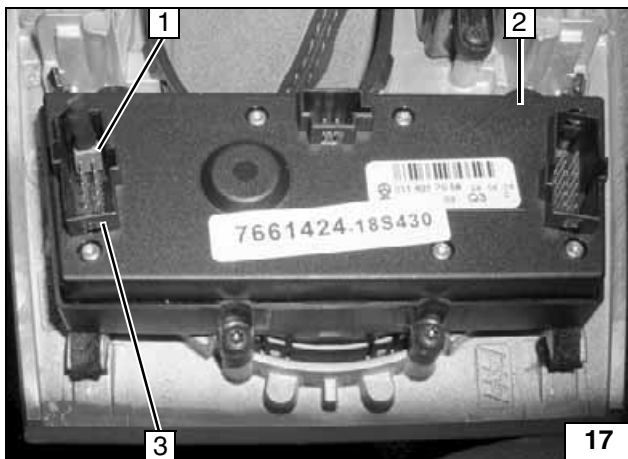
1 Tip switch

Assembling the tip switch (suggestion)



1 Lower operating panel
2 Center console cover

Open up lower operating panel

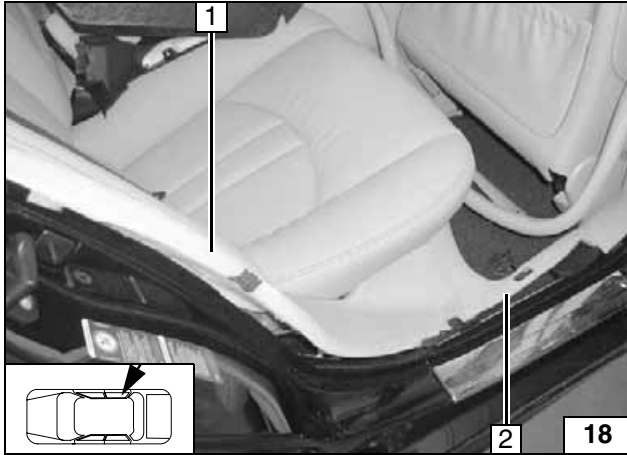


Connection to jack 3 on lower operating panel. Plug onto PIN1 and 7.

1 Connector resistance
2 Lower operating panel
3 Jack 3



Installing the resistance



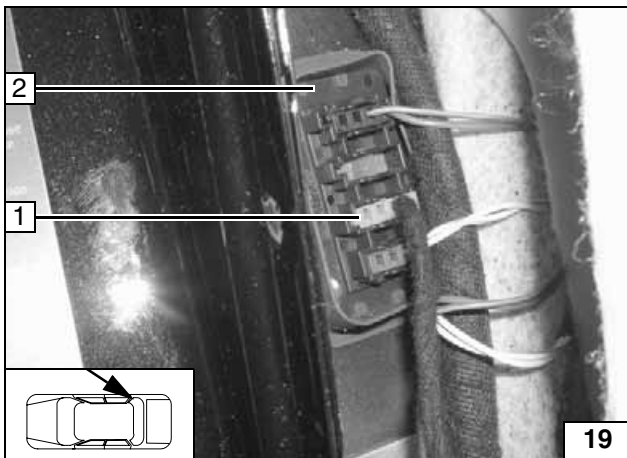
Metering pump cable harness

Run the metering pump cable harness through the cable duct to the connector strip next to the arm rest.

- 1 Connector strip cover
- 2 Rocker panel cable conduit

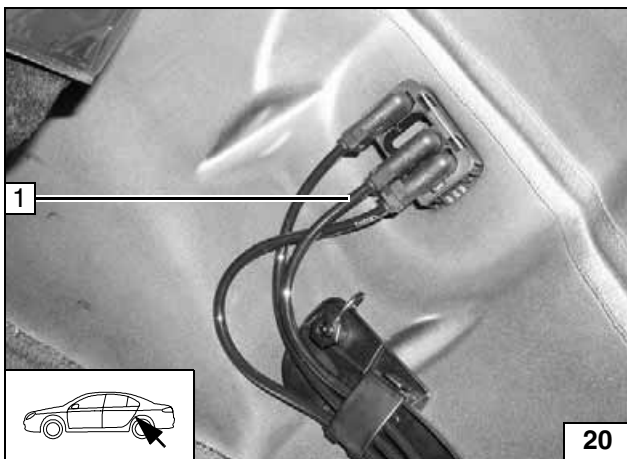


Running the metering pump cable harness



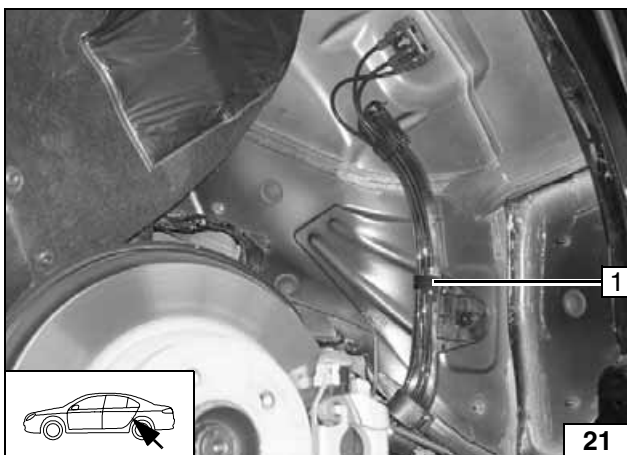
- 1 Metering pump connector
- 2 Terminal strip

Passenger compartment terminal strip



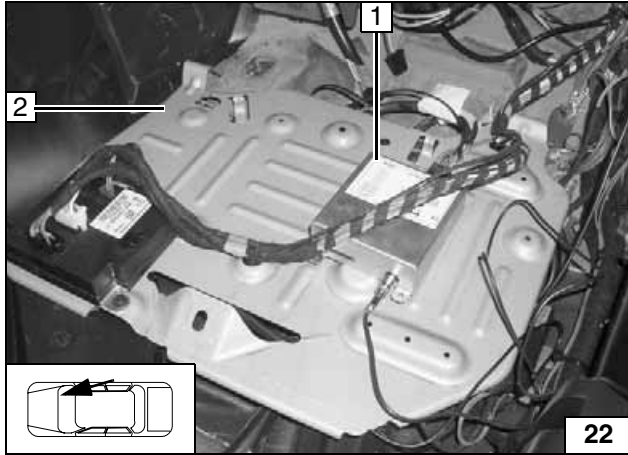
- 1 Metering pump cable harness (short)

Wheel house terminal strip



- 1 Cable guide fastening lug

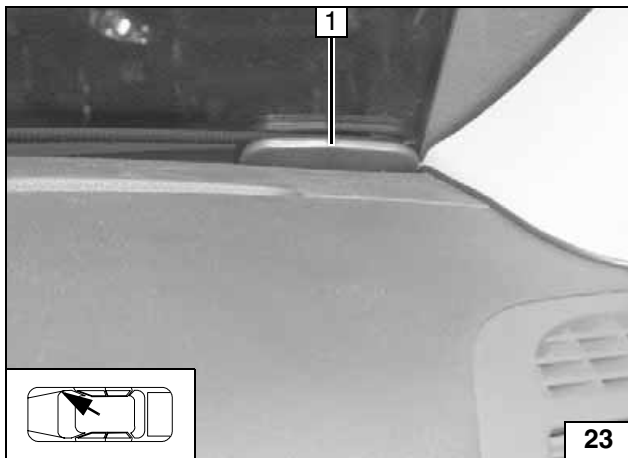
Cable placement in the wheel case



Thermo Call Option

- 1 Thermo Call
- 2 Footplate rear side

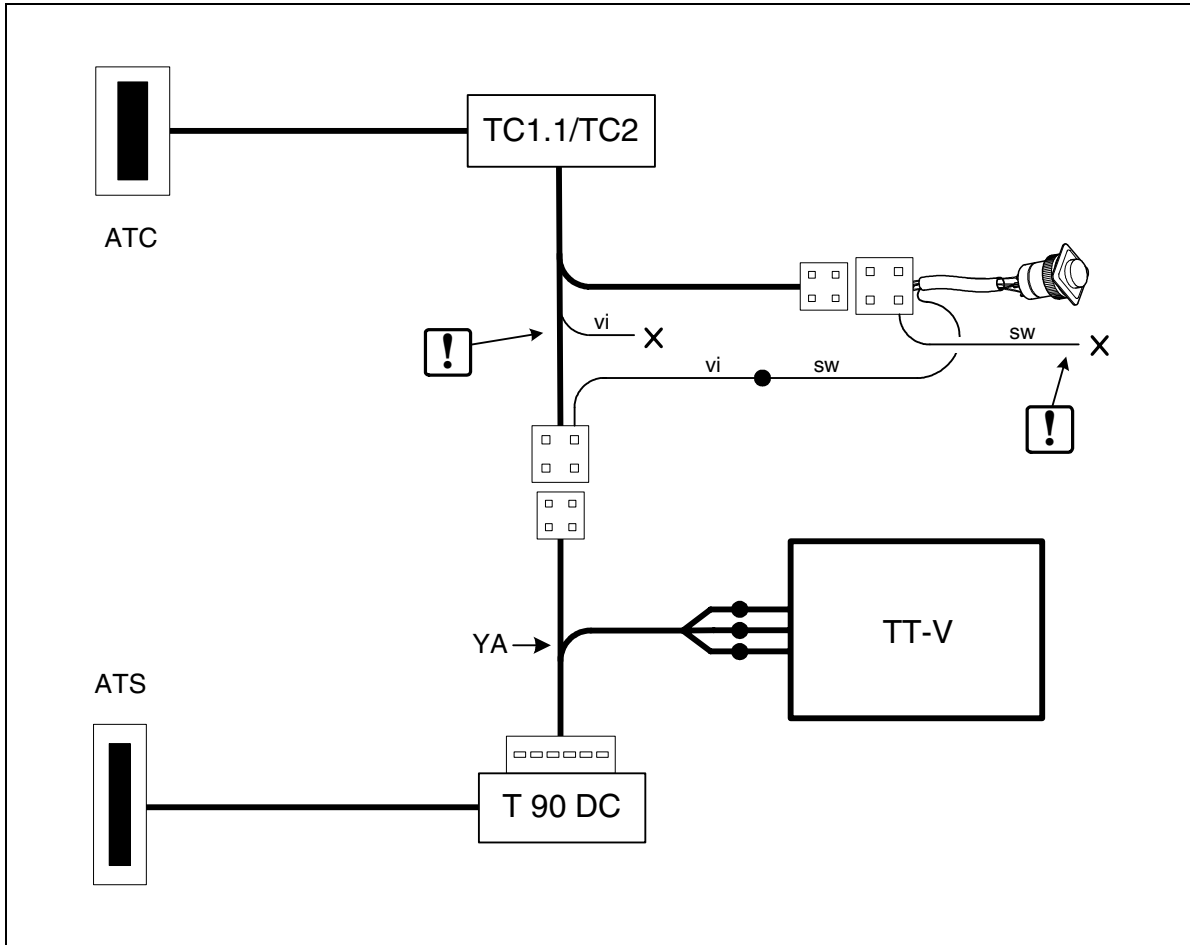
Assembling the Thermo Call



- 1 Thermo Call antenna



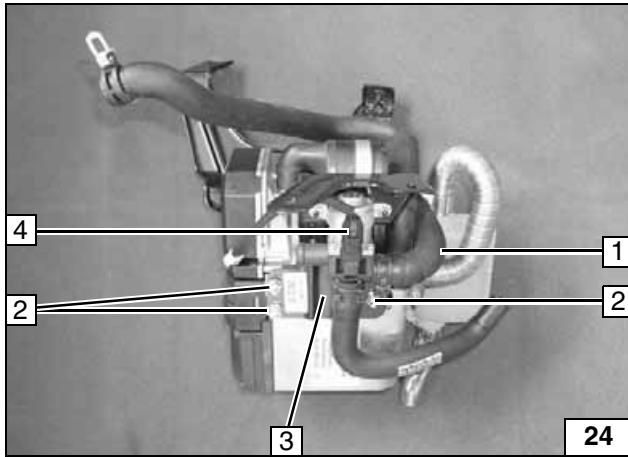
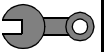
Assembling the antenna



Thermo Call circuit diagram

Webasto components		Colors and symbols	
TT-V	Heater unit	sw	black
YA	Y adapter 9014604A	vi	purple
T90 DC	Remote start T90 DC configuration		Insulate wire ends and tie back
TC 1.1	Thermo Call 1.1	X	Splitting point
TC 2	Thermo Call 2		
ATC	Thermo Call antenna		
ATS	Remote start antenna		
	Butt connector		

Legend

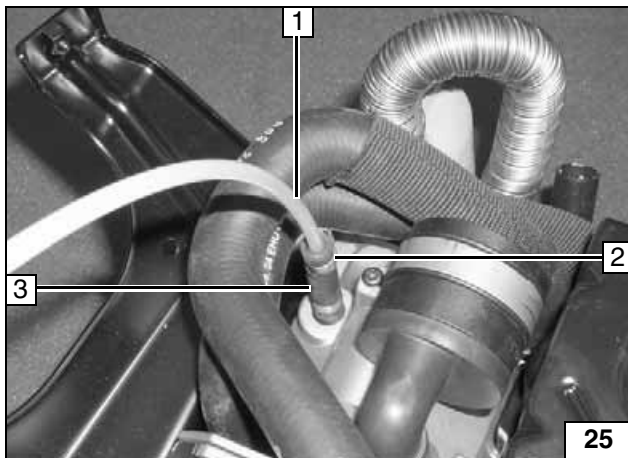


Preparing the Heater Unit

Place the solenoid **3** on the stay bolts and fasten with flanged nuts **2** [3x]. Fasten the water hose **1** to the solenoid **3**. Attach **4** connector

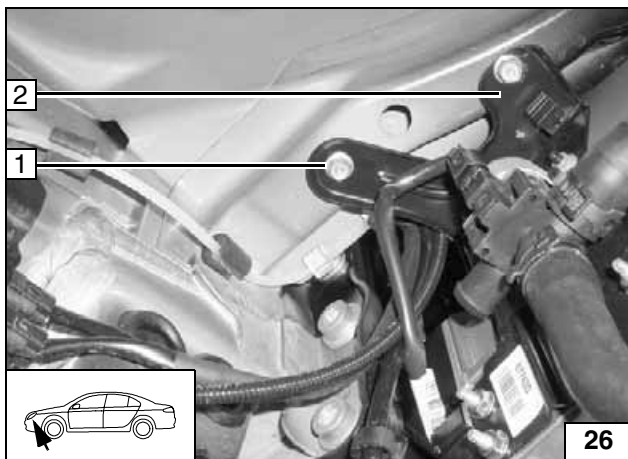


Mount the solenoid valve



- 1 Fuel line
- 2 Universal clip Ø 10 mm [2x]
- 3 Sleeve

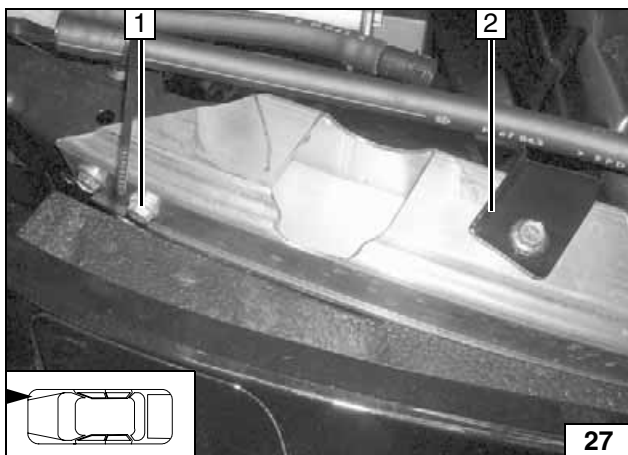
Fuel Connecting the wire



Installing the Heater Unit

- 1 M6x12 collar screws [2x]
- 2 Solenoid valve bracket

Loosely pre-assemble the bolts on the cross rail

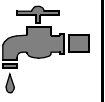


Tighten all fastening bolts.

- 1 M6x12 collar screws [2x]
- 2 Heater unit bracket



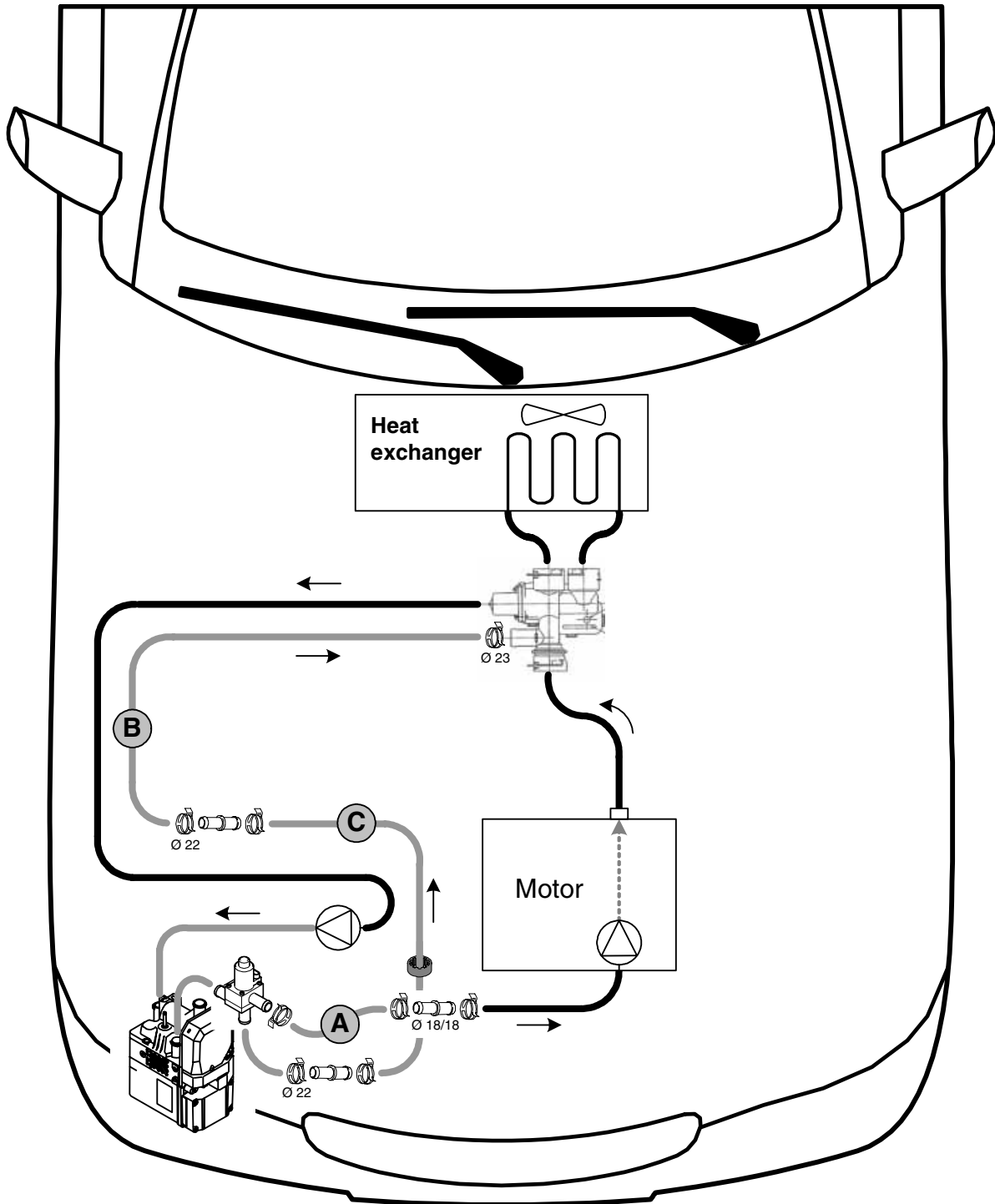
Bumper bolts



Water connection for all vehicles

WARNING!

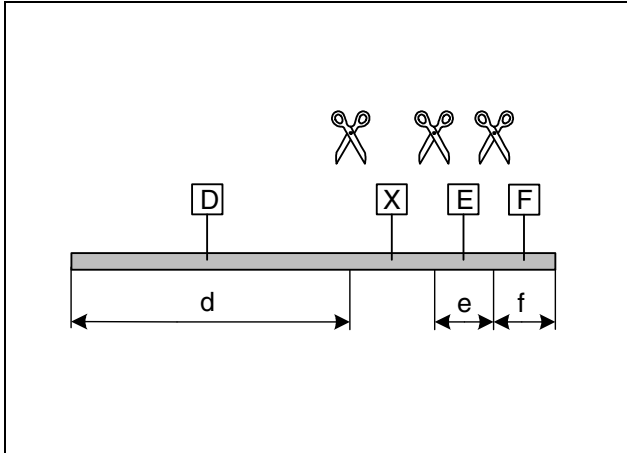
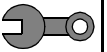
Any cold water running off should be collected using an appropriate container!
Route hoses so that they are kink-free. Unless specified otherwise, always fasten using cable clips.
Position spring band clamps so that no other hose can be damaged!
The connection is based on the following diagram:



Water installation diagram

All undesignted spring band clamps = Ø 25mm. All undesignted connecting pipes = Ø 15x18.
A = molded hose 63113A **B** = 9005299A

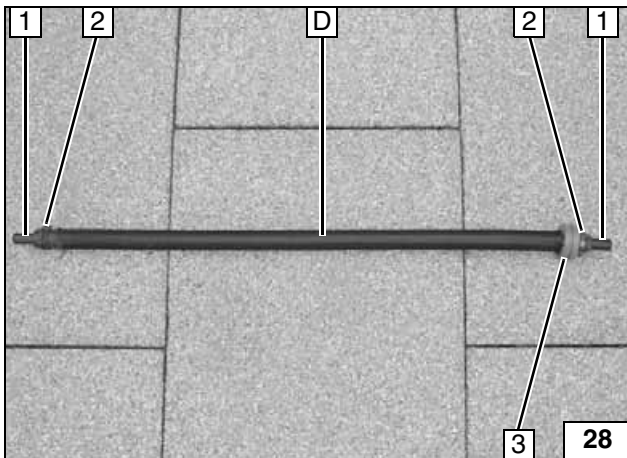




d = 1120mm
e = 100mm
f = 100mm

Dispose of section **X**

Cutting braided protective hoses to length



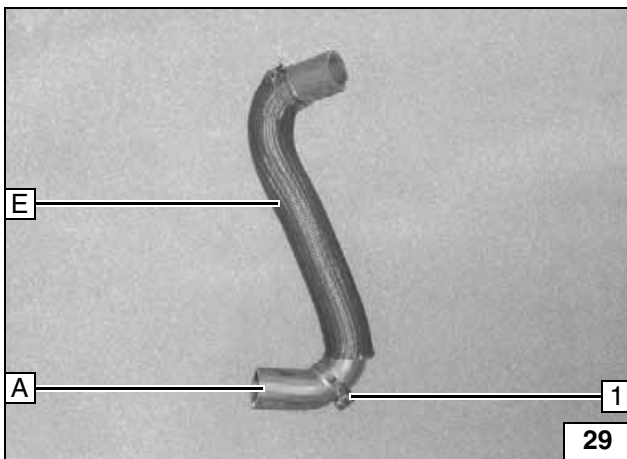
Slide the braided protective hose **D** onto hose **C**

l = 800 mm

- 1 Connecting pipe 15x18 [2x]
- 2 Hose clamps Ø25 mm [2x]
- 3 Rubber profile, red



Preparing the water hose

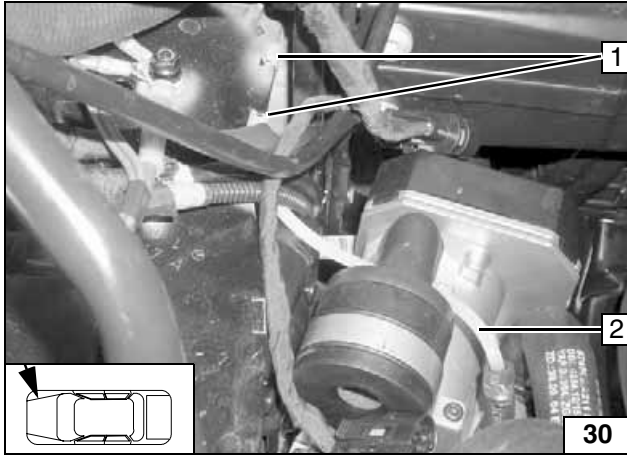


Slide the braided protective hose **E** onto hose **A**.

- 1 27mm hose clamps [2x]



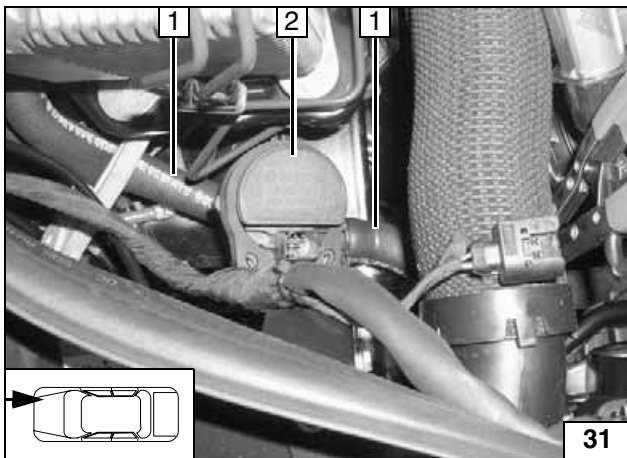
Preparing the water hose



Fasten the fuel line 2 to the cross rail with clips 1.



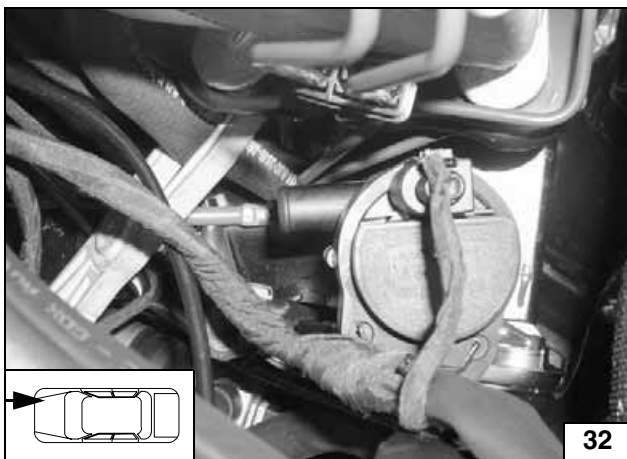
Fasten the fuel line



Cut off the water hoses 1 on the circulation pump 2 with clamping pliers and remove.



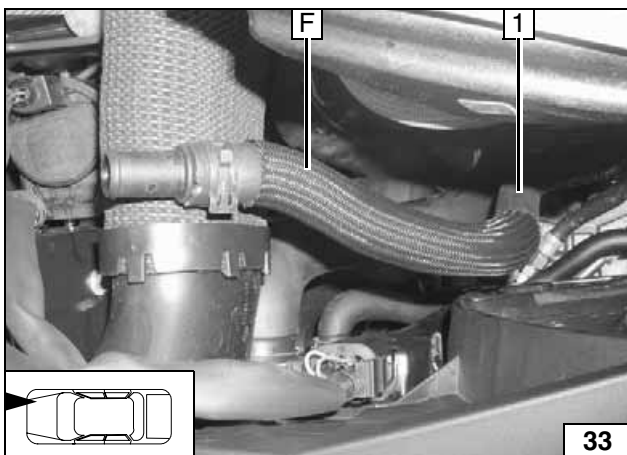
Disassemble the hoses



Rotate the circulation pump by about 180°. Check the position of the components; adjust if necessary. Check that they have free clearance.



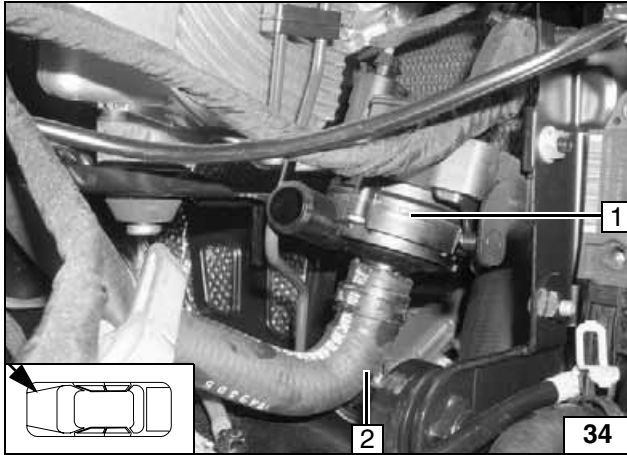
Turn the water pump



Slide braided protective hoses F on the hose to the engine 1.



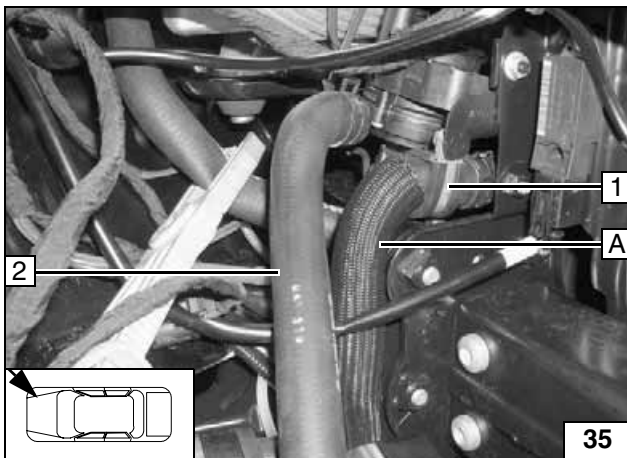
Assembling braided protective hoses



Connect the water hose 2 back on the circulation pump 1.



Assembling the water hoses

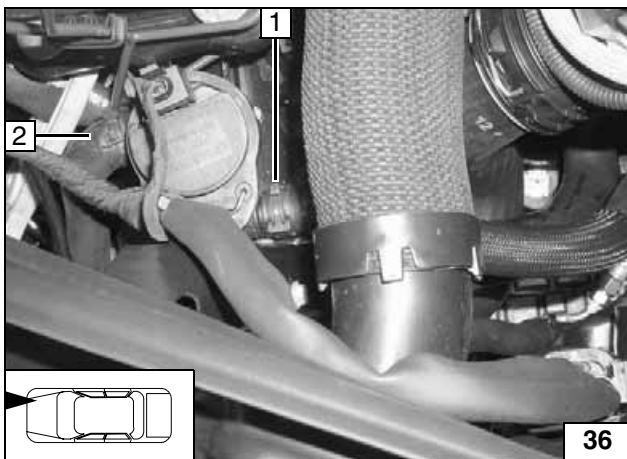


Place molded hose A on the solenoid valve and connect to the engine with the hose.



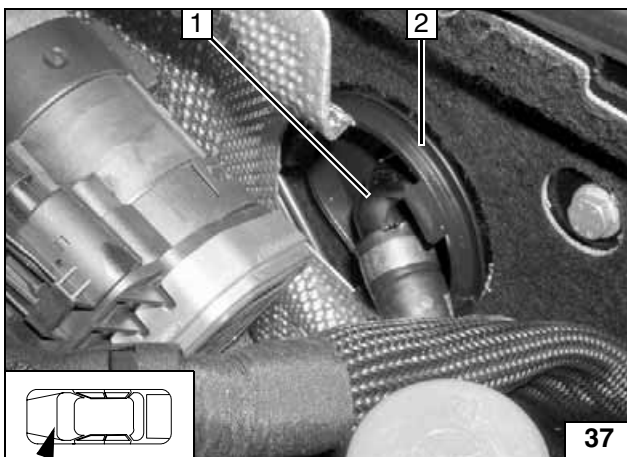
Assembling the water hoses

- 1 Rubberised tube clamp Ø25, nut M6
- 2 Hose for header unit water inlet



- 1 Hose to the engine
- 2 Hose for header unit water inlet

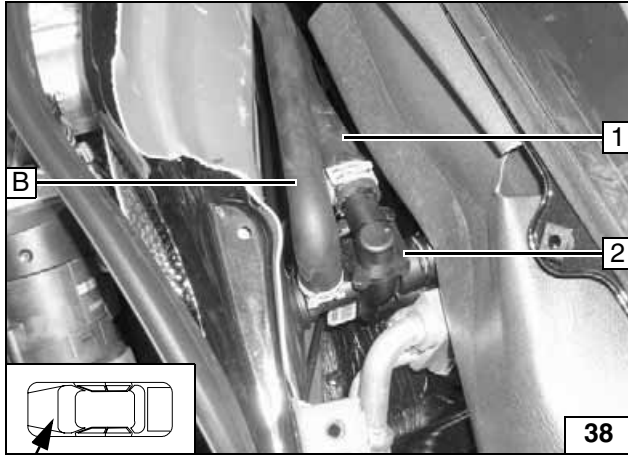
Assemble the water hoses



Loosen the hose coupling 1, connectors, and hoses. Remove the grommet 2.



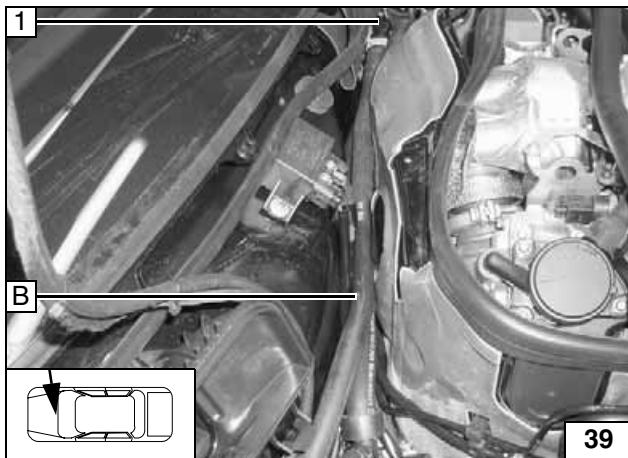
Remove switch valve in engine separating panel



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

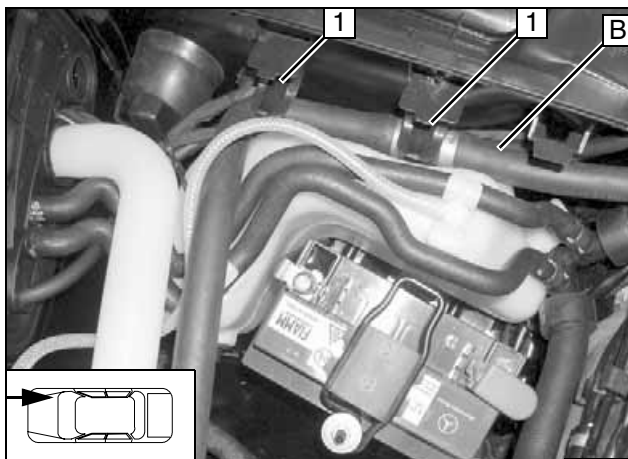


Mount new switch valve



- 1 Switch valve

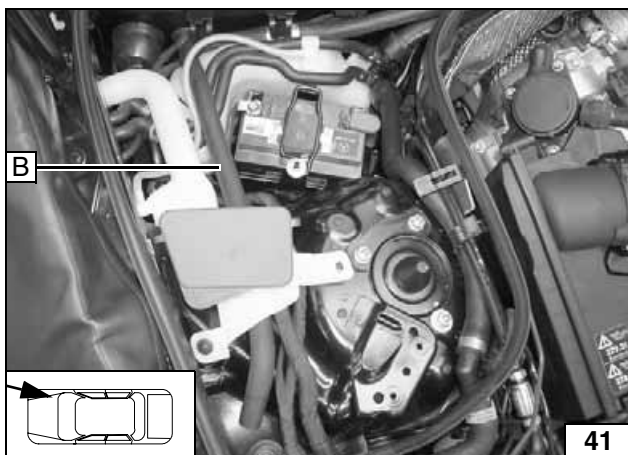
Placement in the engine compartment



Run hose **B** along the guide **1** from the cooling water reservoir cover drain hose.

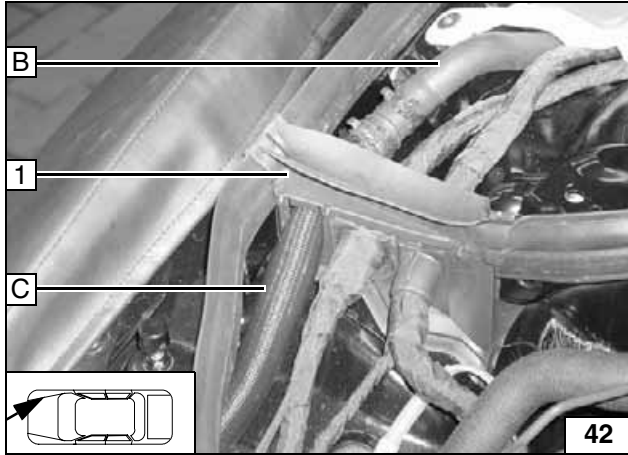


Laying the water hose



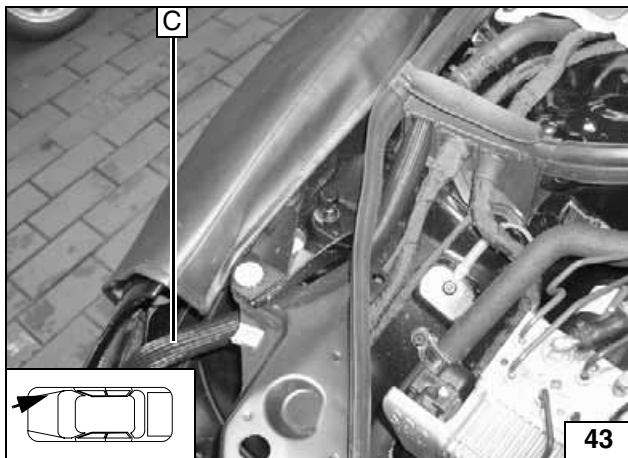
Laying the water hose



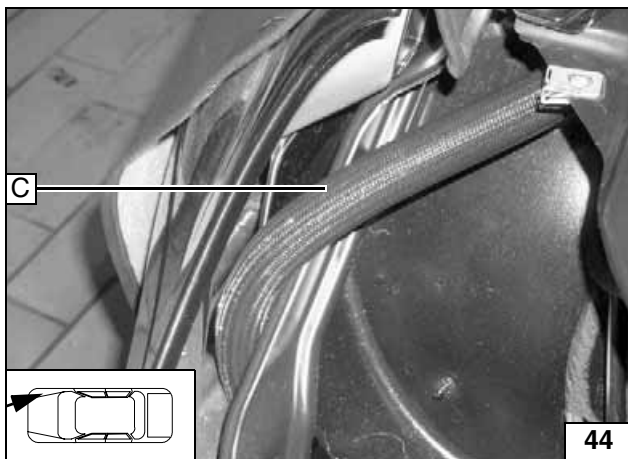


1 Conduit cover

Insert the water hose in the guide. installation



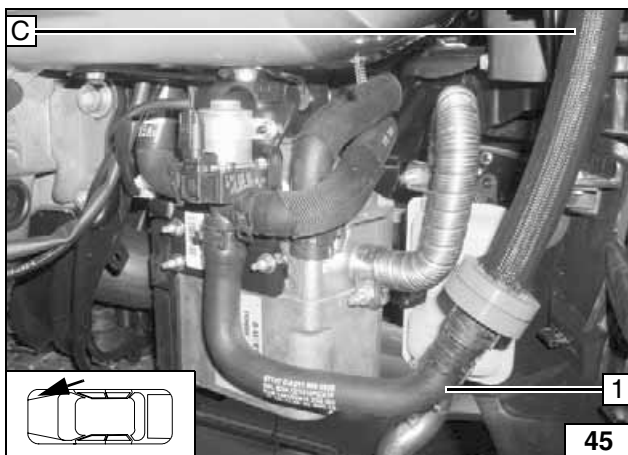
Reroute water hose



(The illustration shows CLS, always check Access to the headlights.)



Laying the water hose



1 Pre-assembled solenoid hose

Connect hose to solenoid



Fuel Connection

CAUTION!

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

Catch any fuel running off with an appropriate container.

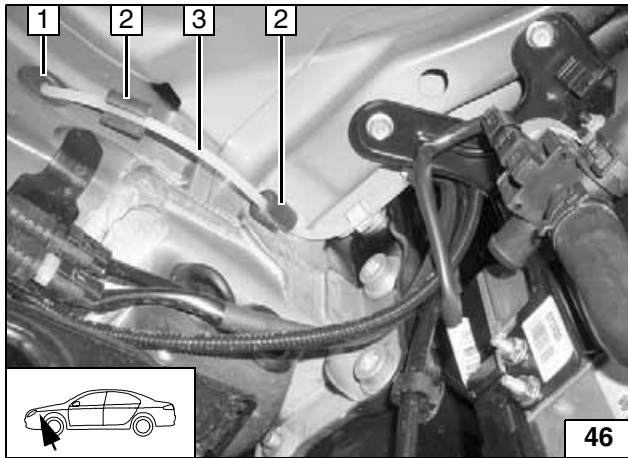
Install the fuel line so that they are protected from impact by rocks!

Unless specified otherwise, always fasten using cable clips.

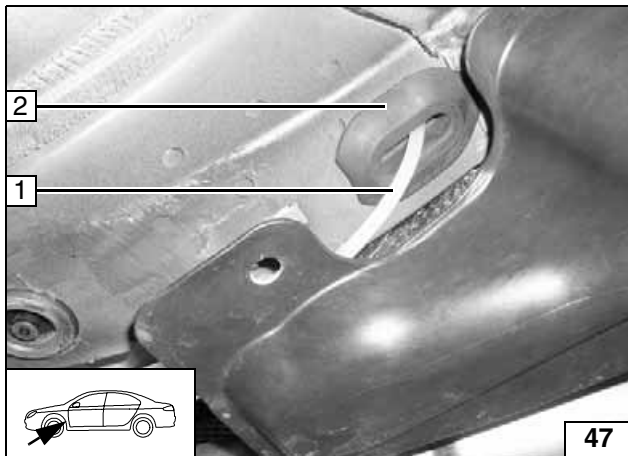
Fit the fuel line and cable harness with edge protectors around sharp edges.

WARNING!

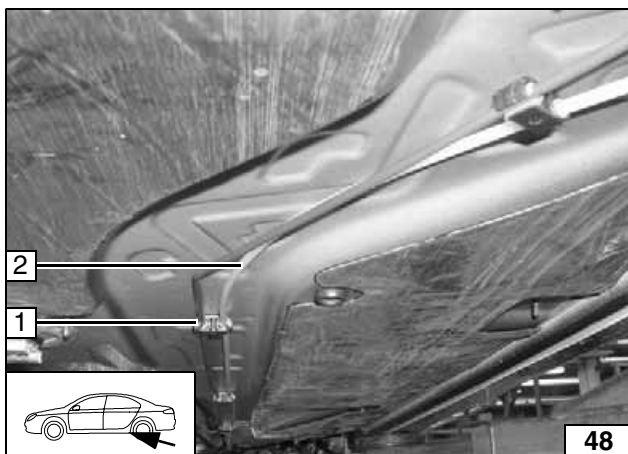
The cable harness to the metering pump should be installed based on the cable harness installation diagram.



Punch a Ø 5mm hole in the protective rubber sleeve **protective rubber sleeve**. Introduce the fuel line **3** to the cross rail. Slide a rubber buffer **2** [2x] on the fuel line.



Punch a Ø 5mm hole in the protective rubber sleeve **2**. Pull the fuel line **1** from the frame side rail.



1 Double line clips [4x]
2 Fuel line

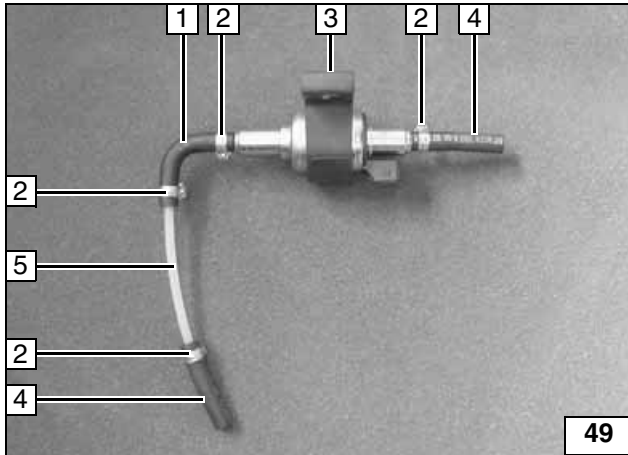


Install the fuel line in the frame side rail.



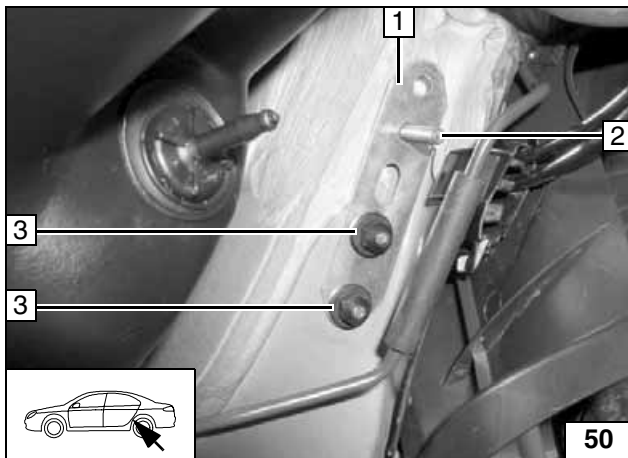
Run the fuel line out of the frame side rail.

Replace clips, fasten down fuel line



- 1 Fuel line hose 90°
- 2 Universal clip Ø10mm [4x]
- 3 Metering pump bracket
- 4 Hose section [2x]
- 5 Fuel line 1=130 mm

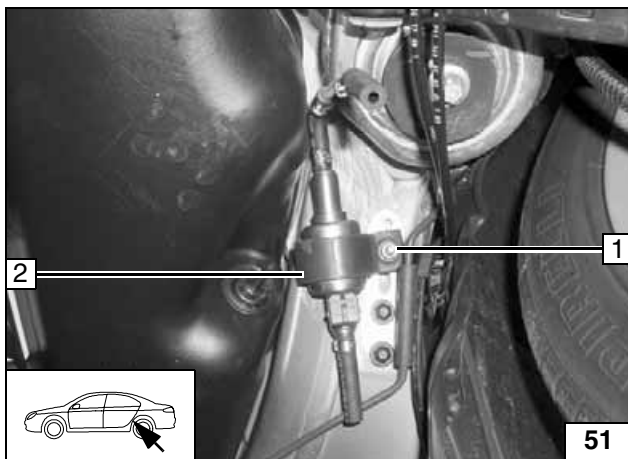
**Pre-
assembling the
metering
pump**



- 1 Fastening strap with holes
- 2 M6x25 bolt
- 3 Plastic nuts [2x]

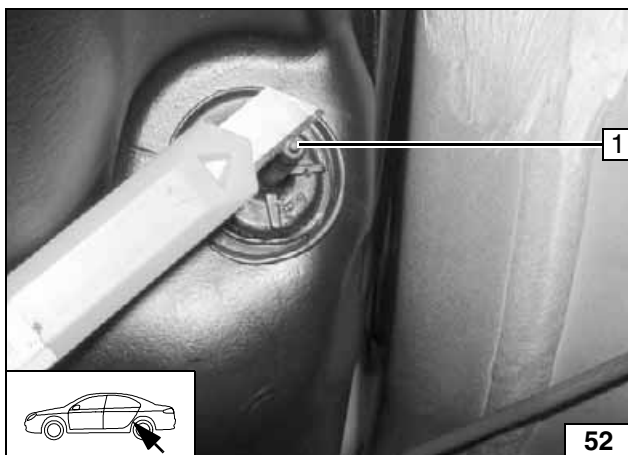


**Assem-
bling the
fastening
strap**



- 1 Flanged nut M6
- 2 Metering pump bracket

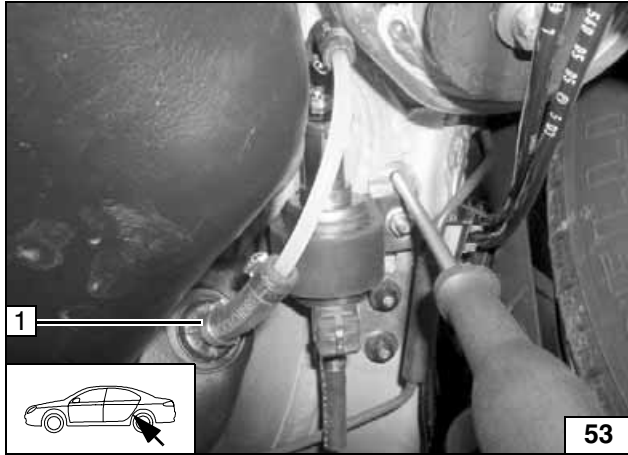
**Assem-
bling the
metering
pump**



- 1 Tank fuel supports



**Cut off tank
fuel
supports**

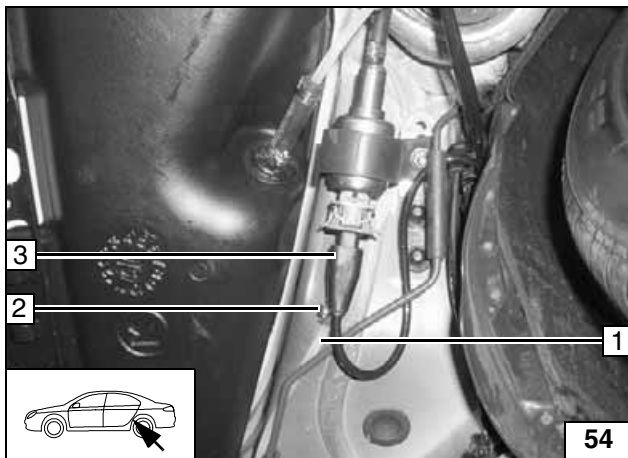


Bend down the fastening strap with a screw driver to access the surrounding components. Check the position of the components; adjust if necessary.

1 Universal clip Ø10mm



Connecting the metering pump, suction side

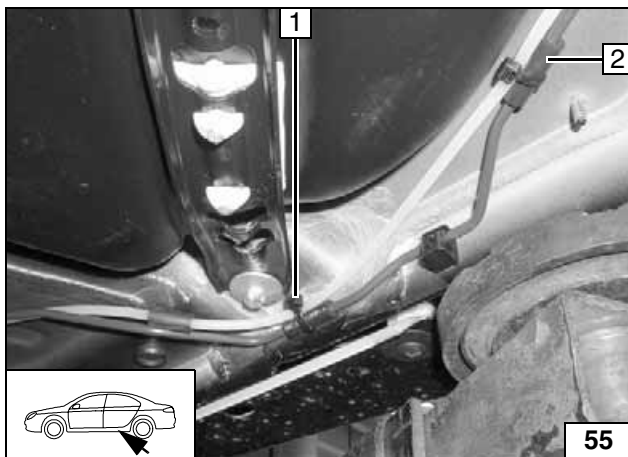


Cut down the fuel line 1 to the metering pump and connect this to the pressure side. Attach the metering pump connector 3.

2 Universal clip Ø10mm



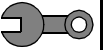
Connect the pressure side of the metering pump



Fasten the fuel line near the existing hose sections 2 with cable ties 1.



Fasten the fuel line



Final Work



Train the "remote start" control sender.

- Connect the battery.
- Pull the fuse from the left side of the dashboard and put it back after about 5 seconds.
- Within 7 seconds, press the "off" button (right) on the hand-held transmitter for about 1 second.

Reset the remote start parameter to the button function.

- Pull the fuse from the left side of the dashboard and put it back after about 5 seconds.
- Within 7 seconds, press the "off" button (right) on the hand-held transmitter for about 1 second.
- When this is pressed again (switch on), the button must remain lit; if not, repeat the procedure.

Change the remote start parameter to the clock function.

The remote start parameters are only to be reset to the clock function when the Thermo Call telephone remote control is added as a modification.

The Remote Start control is configured to the clock function by default when delivered.

- Pull the fuse from the left side of the dashboard and put it back after about 5 seconds.
- Press and hold the button within the next 7 seconds.

WARNING!

Reassemble disassembled components in reverse order.

Check that all hose lines, hose, spring band clamps and universal clips, and all electrical connections are securely fastened.

Secure all loose cables using cable clips.

Check and adjust any disassembled or loose headlights after installation.

Spray heating unit components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Start engine, bleed coolant circuit according to the vehicle manufacturer's specifications, top up with coolant.
- Warning! Only use manufacturer-approved coolant.
- Check the coolant system for leaks according to the manufacturer's instructions.
- Attach the "Switch off auxiliary heating before re-fuelling" sticker in the tank flap or the left side of the B-pillar.
- After assembly, follow the manufacturer's instructions for star diagnosis to activate the auxiliary heater.
- Open the vehicle error memory and delete any errors for the heater and air conditioning system.
- Check that the auxiliary heating operates properly, see operating instructions / installation instructions.

Webasto

Feel the drive

Webasto AG
Postfach 80 - 82132 Stockdorf - Hotline 0 18 05 / 93 22 78
Hotfax (0395) 55 92-353 - <http://www.webasto.de>

Operating instructions for the end customer

Please remove page and add to the vehicle operating instructions.

The auxiliary heating can be activated with the following controls:

- The original vehicle display in the dashboard (clock)
- The lit Webasto switch,
- The remote control (Telestart)
- Remote control "Thermo-Call" on the phone

(optionally) with the original DC switch in the middle console cover.

Note:

If the auxiliary heater was switched on with the Webasto button, the "telestart" remote control, or with the "thermo-call" telephone remote, then the Webasto button will light (switch on check). If the heating was switched on with the timer function (clock) in the vehicle display, then the button **will not** light up. If the heating was switched on with the timer function (clock) in the vehicle display or the "telestart" remote control, then this must be pressed **twice** to turn it off with the Webasto button.

If the heating was switched on with the vehicle display (clock) and is to be switched off with the "Thermo-Call" telephone remote, then press the "1" key on the phone **twice** so you first hear a power on and then a power off signal. Follow the voices in the menu.

Rule of thumb for operating the auxiliary heating: driving time = heating time.

