

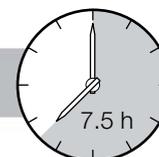
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HR	Pravo promjena u svezi konstrukcije, opreme, boje kao i zabune ovdžavamo. Podaci i ilustracije su neobavezne.	HR	Upute o ugradnji / Ugradnja samo od strane trgovca
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VR	保留设计、配置、颜色以及错误的修改权。给出的资料 and 插图均没有法律约束力。	VR	安装说明书 / 仅供销售商安装用
VR	保留設計、配置、顏色以及錯誤的修改權。給出的資料和插圖均沒有法律約束力。	VR	安裝說明書 / 僅供銷售商安裝用



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New vehicle-specific installation kit + heater

Hydronic D5W S in the Opel Insignia (0G-A)

from 2013 model

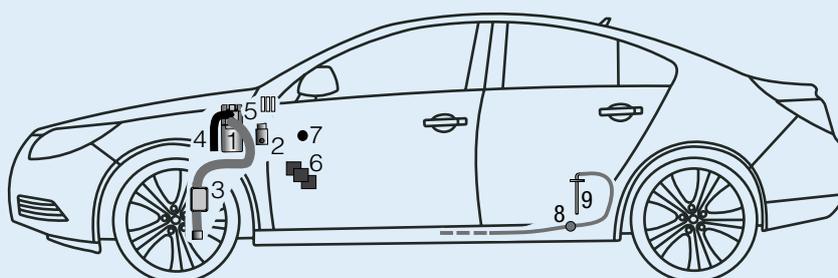
2.0 l cubic capacity / 4 cylinder in-line engine CDTI / 143 kW - 195 HP

- with automatic air conditioning
- with fog lamps
- with manual gearbox or automatic gearbox
- with front-wheel drive or 4 x 4 all-wheel drive

This installation recommendation is valid for the vehicle described above and is exempt from any liability claims whatsoever.

Depending on the version or modification status of the vehicle, differences can result between the vehicle and this installation recommendation.

The installer must check this before installation and, if necessary, take into account the differences compared to this installation recommendation.



- | | | | |
|---|------------------------------------|---|---|
| 1 | Hydronic D5W S | 6 | Relay, stationary part R ⁺ and control box SVM |
| 2 | Water pump | 7 | Button |
| 3 | Exhaust pipe with exhaust silencer | 8 | Metering pump |
| 4 | Combustion air tube | 9 | Fuel tank extractor |
| 5 | Fuse holder | | |

Installation location

The Hydronic D5W S is installed with a holder in the engine compartment, positioned vertically on the right at the engine partition.

The exhaust connection points to the left and the control box to the right.

Parts needed for installation:

- (1) Vehicle-specific installation kit
- (2) Heater D5W S

Please note!

Deliver the vehicle with an empty tank.

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Contents

	Page		Page
1	Introduction	4	5
2	Installation - Heater	6	6
3	Exhaust and combustion air system	11	7
4	Water circuit	13	8
			5
			6
			7
			8
			15
			20
			26
			30



1 Introduction



Important!

Safety instructions for installation and repair!

Improper installation or repair of Eberspächer heaters can cause a fire or result in poisonous exhaust fumes entering the vehicle interior.

This can pose a serious risk to life and limb.

The heater may only be installed according to the specifications in the technical documents and repaired using original spare parts by authorised and trained persons.

Installation and repairs by unauthorised and untrained persons, repairs using non-original spare parts and without the technical documents required for installation and repair are dangerous and therefore are not permitted.

Please note!

Installation according to this installation recommendation may only be carried out in conjunction with the respective unit type-related technical description, installation instructions, operating instructions and maintenance instructions.

This document must be carefully read through before / during installation and followed throughout.

Particular attention is to be paid to the safety instructions and the general information.

The relevant rules of sound engineering practice and any information provided by the vehicle manufacturer are to be heeded during the installation.

Eberspächer does not accept any liability for defects and damage due to installation by unauthorised and untrained persons.

Accident prevention

General accident prevention regulations / health and safety regulations and the corresponding workshop, company and operating safety instructions are to be observed.

Installation recommendation validity

The installation recommendation is valid for the vehicle with the engine and gearbox options listed in the following.

Engine and gearbox options		
Cubic capacity	kW / HP	Gearbox
2.0 l (CDTI)	143 / 195	6S
2.0 l (CDTI)	143 / 195	Aut.

6S = 6-gear manual gearbox

Aut. = 6 speed automatic gearbox

Please note!

The installation recommendation is not valid for right-hand drive vehicles.

Vehicle types, engine types and feature options not listed in this installation recommendation have not been tested.

Installation according to this installation recommendation can still be possible.



1 Introduction

Parts required for installation

Quantity/Designation

Order No.

(1) Vehicle-specific installation kit

1 Vehicle-specific installation kit *

GM No.

13423951

(2) Heater:

1 Hydronic D5W S

GM No.

13423949

Special tools required

- Torque wrench (5...50 Nm)
- Anti-corrosion agent
- Tool for undoing the tank fitting (KM J-45722)
- Step drill
- Crimping tool

Tightening torques

If no tightening torques are specified, tighten the screw connections (hexagon screw and hexagon nut) according to the following table.

Screwed connections	Tightening torques
M6	10 Nm
M8	20 Nm
M10	45 Nm

Other tightening torques:

- Wiper arms on linkage 35 Nm
- Tank straps 20 Nm
- Exhaust system 18 Nm

Preparation on the vehicle

- Disconnect the battery
- Remove the shelf on the left
- Remove bottom instrument panel panelling
- Remove glove compartment
- Remove bottom right-hand instrument panel panelling
- Dismantle wiper pan with cover
- Dismantle air filter box with air intake pipe
- Dismantle the top engine panelling
- Dismantle the front right-hand wheel
- Remove right-hand, front wheelhouse panel
- Dismantle the bottom engine panelling
- Dismantle exhaust pipe
- Dismantle the cardan shaft at the rear (AWD)
- Remove the tank
- Depressurise the cooling system
- Drain coolant

Please note!

Comply with the manufacturers' guidelines/instructions during dismantling.



2 Installation - Heater

Prepare the installation position

(see photos 1 to 3)

If there is no M6 stud bolt on the right at the engine partition, drill a 9 mm Ø hole according to the dimensions shown and insert an M6 blind rivet nut.

Please note!

Deburr all finished holes and treat with anti-corrosion agent.

Drill a 6.5 mm Ø hole at the rear air filter box holder, using with the dimensions shown.

Remove the vehicle's right-hand Torx screw from the wiper tray fastening.

Insert an M6 nut as spacer between the wiper tray cover and the wiper tray, as shown.

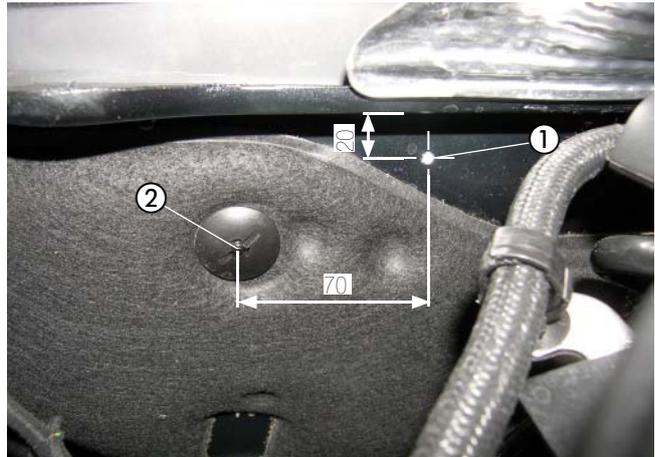


Photo 1

- ① Drill a 9 mm Ø hole
- ② Existing M6 stud bolt

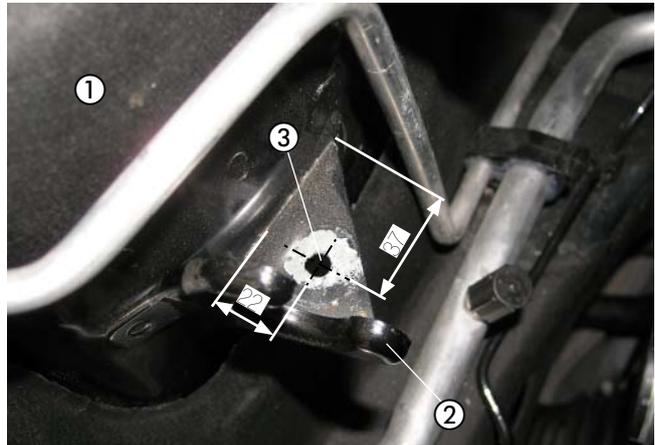


Photo 2

- ① Suspension strut dome
- ② Rear air filter box holder
- ③ Drilled hole 6.5 Ø



Photo 3

- ① Wiper tray cover
- ② Fitted M6 nut



2 Installation - Heater

Premount unit bracket and heater and remove duplicate nameplate from the heater

(see photos 4 and 5)

Insert four rubber buffers and two spacer sleeves (note installation direction) in the unit bracket as shown.

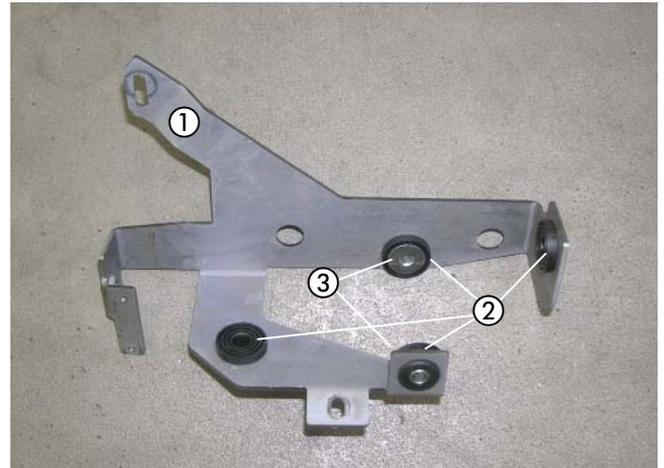


Photo 4

- ① Unit holder
- ② Rubber buffers inserted
- ③ Spacer sleeves inserted

Remove the duplicate nameplate from the heater.

Insert the heater in the unit bracket and fasten as shown, using the M6 x 130 Torx screw and an M6 collar nut.

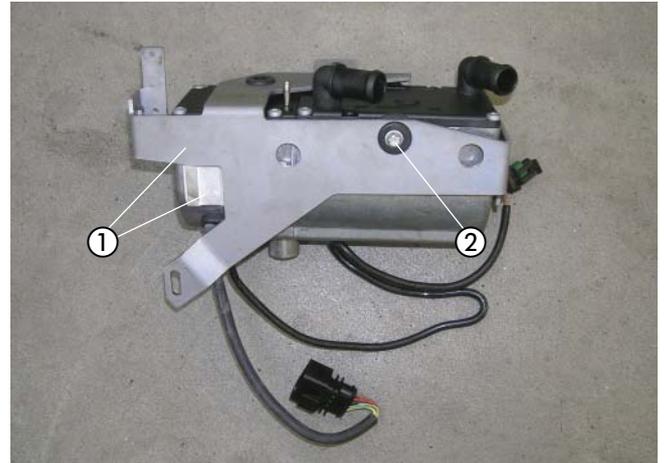


Photo 5

- ① Fitted M6 x 130 Torx screw
- ② Heater and unit bracket

Premount water pump

(see photo 6)

Insert the water pump in the rubber holder and fasten to the threaded bolt of the water pump holder with an M6 nut and a B6 body washer.

Push water hose 1 "engine - water pump inlet" onto the intake connection of the water pump together with a 16-25 mm Ø hose clip and fasten accordingly.

Insert two cable ties in the four 5 mm Ø holes of the water pump bracket as shown.

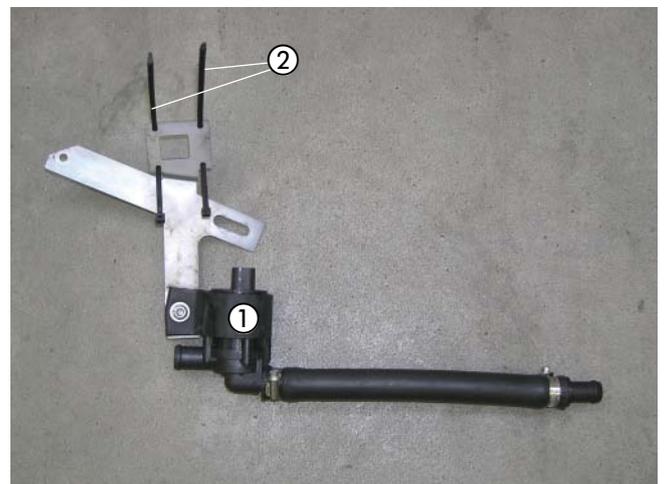


Photo 6

- ① Water pump mounted with water hose 1
- ② Cable ties fitted



2 Installation - Heater

Prepare the water hoses

(see photo 7)

Cut and prepare the water hoses according to the dimensions in the diagram.

Please note!

The water hoses are connected "inline" to the water circuit, refer to the Technical Description, in the chapter on "Installation" and here the section on "Connection to the Cooling Water Circuit".

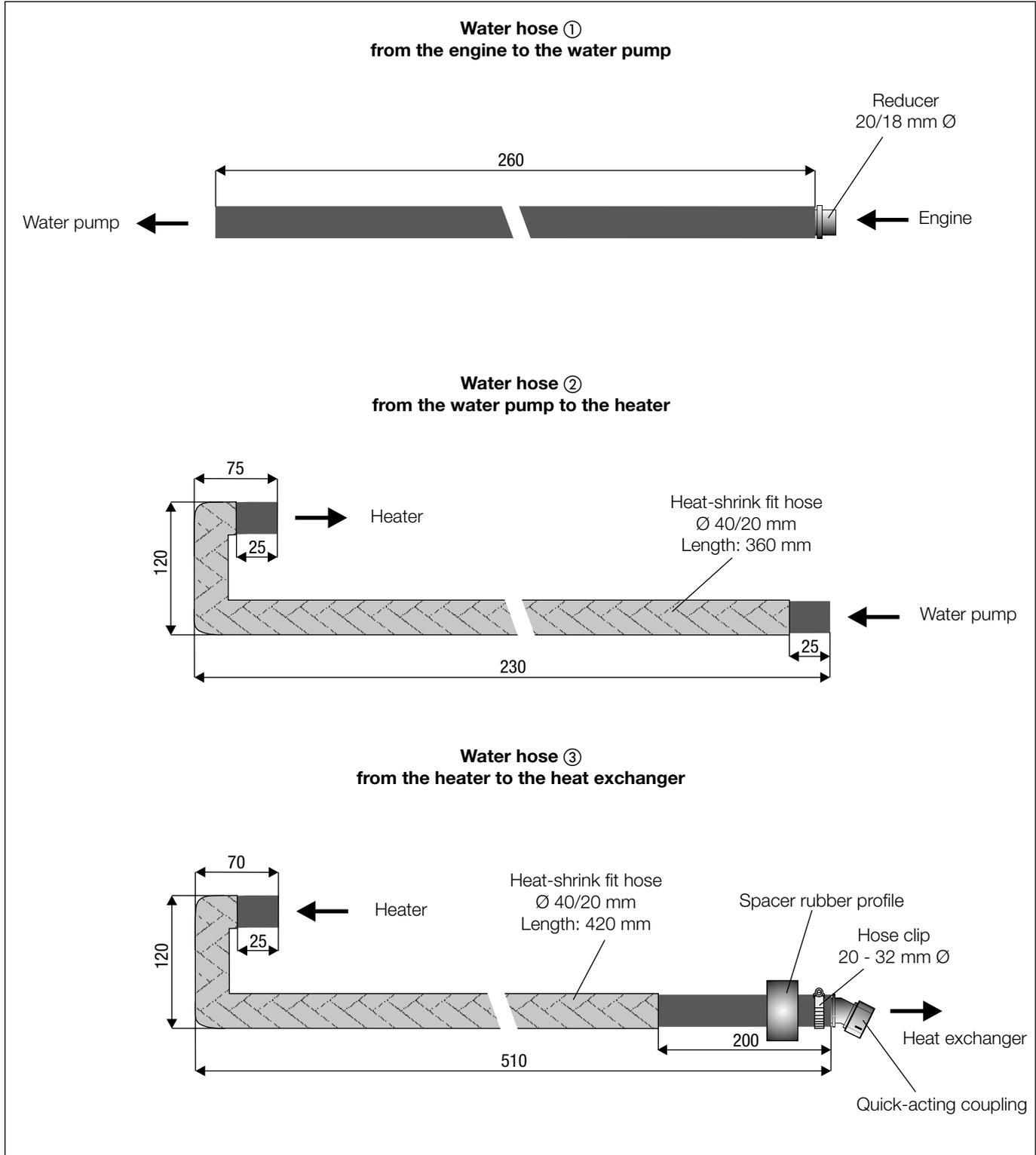


Photo 7



2 Installation - Heater

Premount heater and affix duplicate nameplate

(see photos 8 and 9)

Use two M4 x 12 fillister head screws to fix the fuse holder to the unit bracket.

Push a 250 mm length of sponge rubber hose onto the 4 x 1.25 mm Ø fuel pipe as shown and secure with two cable ties.

Fasten the metering pump cable to the 4 x 1.25 mm Ø fuel pipe using insulating tape and connect to the 105° hose bend on the heater using a 9 mm Ø hose clip.

Push water hose 2 "water pump outlet - heater inlet" onto the water pump outlet and heater inlet together with a 16-25 mm Ø hose clip in each case and fasten as shown.

Push water hose 3 "heater outlet - heat exchanger" onto the heater outlet together with a 16-25 mm Ø hose clip and fasten as shown. Secure water hoses 2 and 3 together using cable ties and fasten a rotatable line holder to water hose 2 as shown.

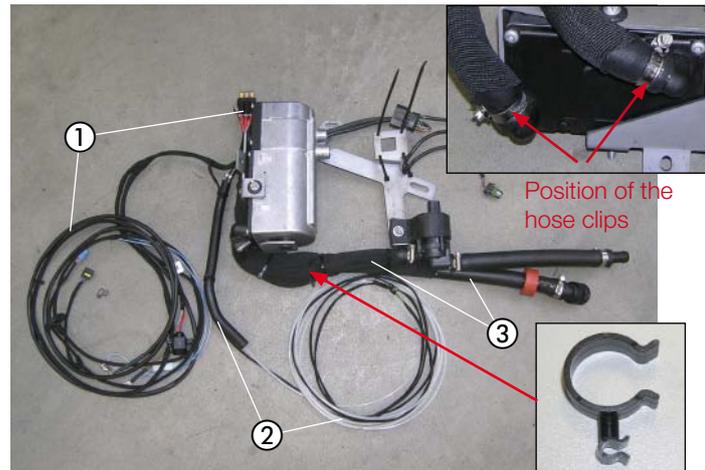


Photo 8

- ① Mounted fuse holder
- ② 4 x 1.25 mm Ø fuel pipe covered with sponge rubber hose, connected
- ③ Water hoses 2 and 3, connected

Affix the duplicate nameplate to the B pillar on the driver's side as shown.



Photo 9

- ① Duplicate nameplate attached to the B-pillar on the driver's side



2 Installation - Heater

Install heater

(see photos 10 and 11)

Fit the premounted heater to the engine partition on the right.

Route the premounted 4 x 1.25 mm Ø fuel pipe with the metering pump cable to the left along the engine partition behind the vehicle's air-con line to the middle of the vehicle as shown, and push downwards.

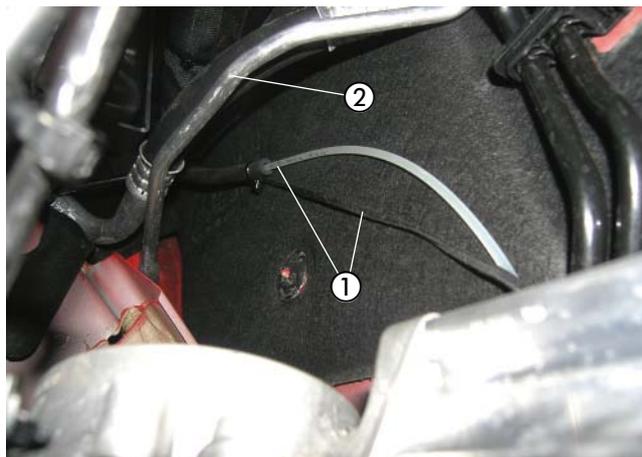


Photo 10

- ① Premounted 4 x 1.25 mm Ø fuel pipe, routed, with metering pump cable
- ② Vehicle's air-con line

Position the premounted heater at the engine partition.

Loosely screw an M5 x 25 fillister head screw into the upper fixing point of the unit bracket.

Loosely screw an M6 x 25 screw into the upper middle shared fixing point of the unit bracket and the water pump holder.

If an M6 stud bolt is present, loosely screw an M6 nut into the shared fixing point.

Use the vehicle's own fastening clip to fix the left fixing point of the water pump holder.

Loosely screw the front unit bracket to the side fixing point with an M6 x 12 screw and to the front fixing point with an M6 x 25 screw.

Fit a 50 mm length of edge protection to the right upper edge of the wiper tray as shown.

Screw all fastening screws tight, starting with the upper M5 x 25 fastening screw.

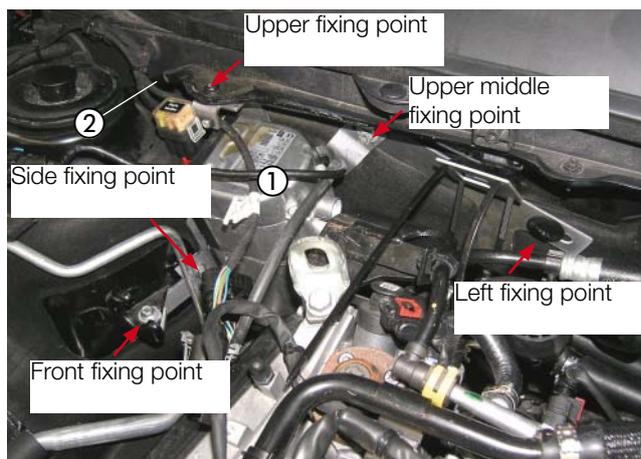


Photo 11

- ① Premounted heater fastened to the right of the engine partition and to the right suspension strut dome
- ② Edge protection mounted



3 Exhaust and combustion air system

Install and connect exhaust silencer

(see photos 12 to 15)

Cut the exhaust pipe to a length of 530 mm.

Push the exhaust insulation onto the exhaust pipe.

Shape the exhaust pipe as shown and fasten an exhaust pipe elbow to each end using a clamp.

Route the premounted exhaust pipe from above to the installation site of the exhaust silencer and fit it to the outlet connection of the heater using a clamp.



Photo 12

- ① Exhaust insulation mounted
- ② 2x exhaust pipe elbow, mounted
- ③ Exhaust pipe connected to heater

Fasten the exhaust silencer holder to the exhaust silencer using an M6 x 12 screw as shown.

Cut the exhaust pipe end to a length of 100 mm.

Fasten the exhaust pipe end to the outlet connection of the exhaust silencer using a clamp as shown.

The arrow for the direction of flow through the exhaust silencer points to the right.

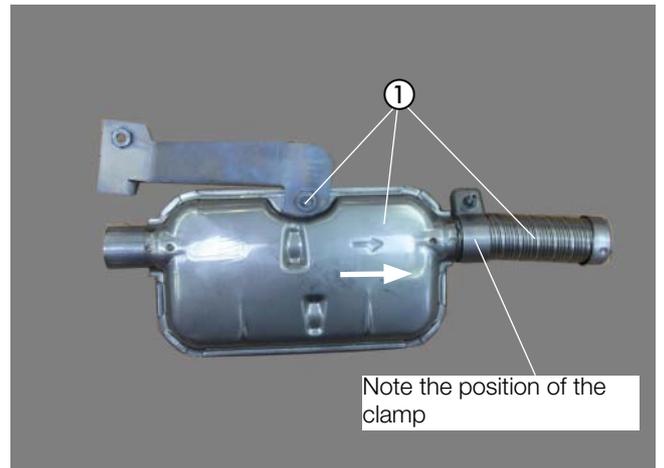


Photo 13

- ① Premounted exhaust silencer

Please note!

When laying the exhaust pipes, ensure they are at a sufficient distance from adjacent body components.

Drill a 6.5 mm Ø hole to the front, right-hand chassis beam with the dimensions shown.

Please note!

Deburr all finished holes and treat with anti-corrosion agent.

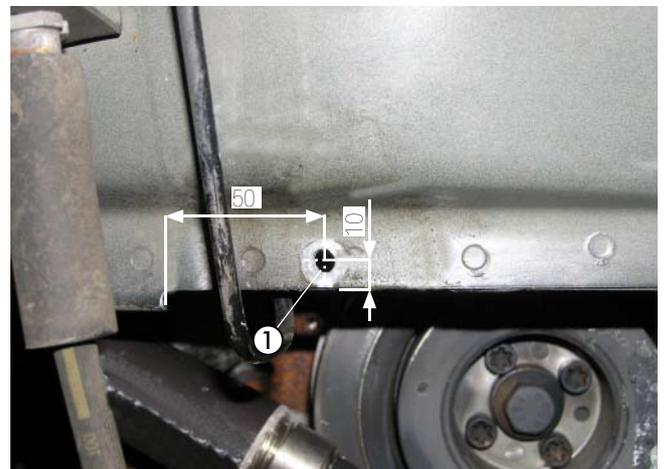


Photo 14

- ① Drilled 6.5 mm Ø hole



3 Exhaust and combustion air system

Use an M6 x 12 screw to fix the prepared exhaust silencer to the front, right-hand chassis beam as shown.

Fasten the prepared the exhaust pipe to the heater outlet connection and exhaust silencer inlet connection with a clamp in each case.



Photo 15

① Exhaust silencer installed

Hole drilled for exhaust end pipe

(see photo 16)

Mark the hole for the exhaust pipe end on the right-hand side of the engine underbody panelling and drill with 60 mm Ø .



Photo 16

① Hole drilled for exhaust pipe end

Install the combustion air pipe and fasten the 8-pin connector

(see photo 17)

Connect the 8-pin connector of cable loom 1 with the 8-pin flat connector housing of the heater's cable loom.

Fasten the 8-pin connector to the unit bracket using the two cable tapes as shown.

Fasten the combustion air elbow to the heater using a 16-25 mm Ø hose clip as shown.

Cut the combustion air pipe to a length of 380 mm and push the end cap onto the end of the pipe.

Push the combustion air pipe onto the combustion air elbow and route to the front as shown.

Fasten the combustion air pipe to the vehicle's air-con line using a rotatable line holder.

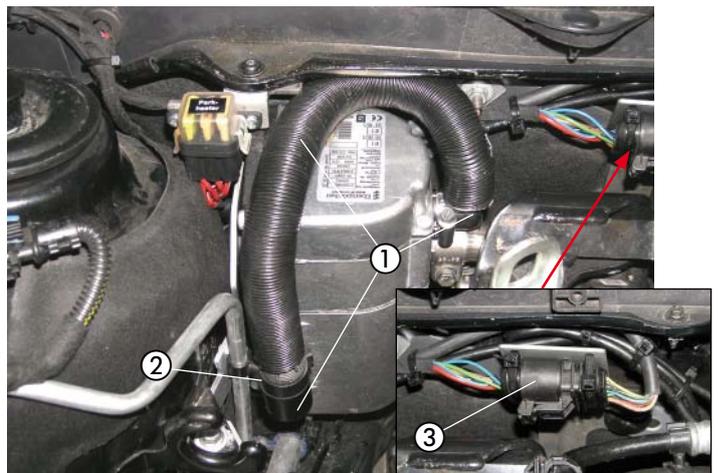


Photo 17

① Combustion air pipe mounted
 ② Line holder, rotatable, mounted
 ③ 8-pin connector, fastened

Please note!

Lay the combustion air pipe so that only clean, dry combustion air is drawn in through the heater.



4 Water circuit

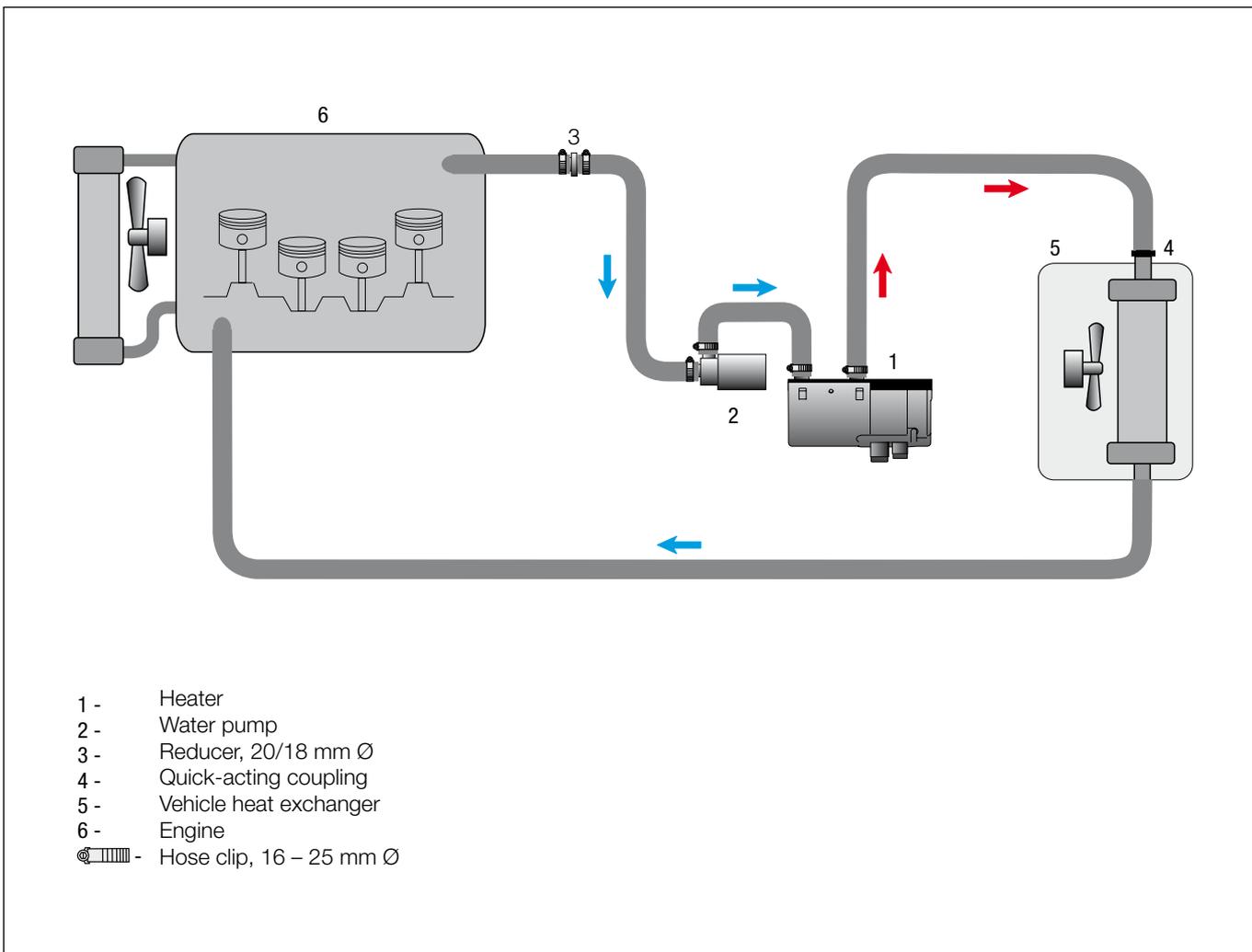


Photo 18

Cut water flow hose

(see photo 19)

Unslot the vehicle's water flow hose (upper hose at heat exchanger connection) from the vehicle's water hose clip.

Cut off the water flow hose at the existing marking on the left in the direction of travel, as shown.

Pull off the coupling at the heat exchanger and remove with the disconnected piece of hose (is no longer needed).

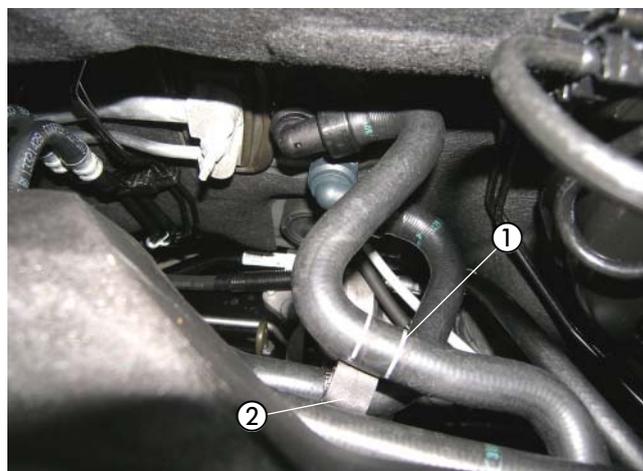


Photo 19

- ① Cutting point in the water flow hose
- ② Vehicle's water hose clip



4 Water circuit

Lay and connect water hoses

(see photos 20 to 22 and photo 18)

Route water hoses 1 "engine to water pump" and 3 "heater to heat exchanger" along the engine partition to the cutting point.

Fasten the rotatable line holder from water hose 2 "water pump to heater" to the vehicle's brake line.

Connect the 2-pin connector of the water pump cable loom to the water pump as shown.



Photo 20

- ① Water hose 1 "engine to water pump"
- ② Water hose 3 "heater to heat exchanger"
- ③ 2-pin connector of water pump cable loom, connected

Remove the middle webs and the upper locking noses from the supplied large rotatable line holders.

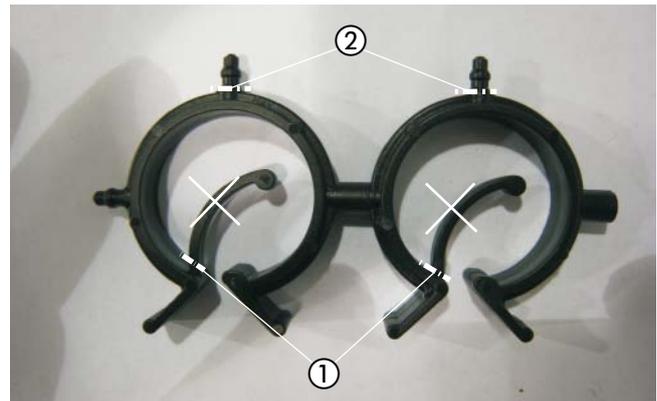


Photo 21

- ① Remove 2x webs
- ② Remove 2x locking noses

Use the quick-release hose coupling to connect water hose 3 "heater - heat exchanger" to the heat exchanger connection.

Connect water hose 1 "engine - water pump" to the vehicle's hose piece from the engine using the 20/18 mm Ø reducer and fasten with a 16-25 mm Ø hose clip.

Fix water hoses 1 and 3 using two rotatable line holders.

Please note!

When installing the water hoses, ensure they are at a sufficient distance from moving vehicle parts.

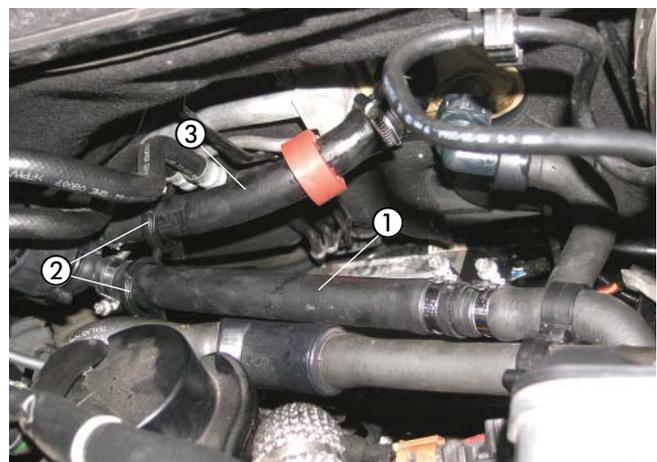


Photo 22

- ① Water hose 1 "engine to water pump", integrated
- ② Line holder, rotatable, mounted
- ③ Water hose 3 "heater to heat exchanger", mounted



5 Fuel supply

Installing the tank extractor for vehicles without AWD (see photos 23 to 26)

Cut the riser pipe of the fuel tank extractor to the right length as shown in the diagram.

Remove the tank according to the manufacturer's instructions. At the same time, undo the plug-in connection and the fuel line at the tank connection.

Remove the tank fitting from the tank opening by undoing the locking ring.

Please note!

The tank fitting should not be removed for longer than 10 minutes because of expansion of the tank!
When drilling, ensure that no dirt gets into the tank or supply lines.

Drill an 8 mm \varnothing hole in the top part of the tank fitting with the dimensions shown.

Feed the fuel tank extractor from above through the hole made in the tank fitting, align and screw tight with the nut M8 and body washer B8 from underneath.

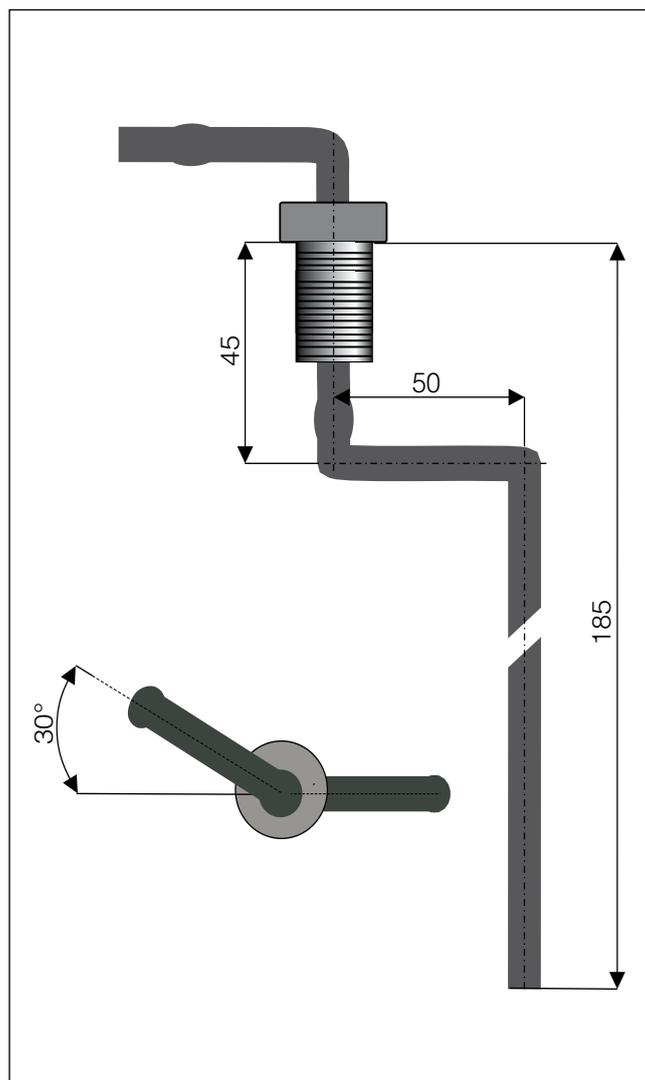


Photo 23



Photo 24

① Drill an 8 mm \varnothing hole in the top part of the tank fitting

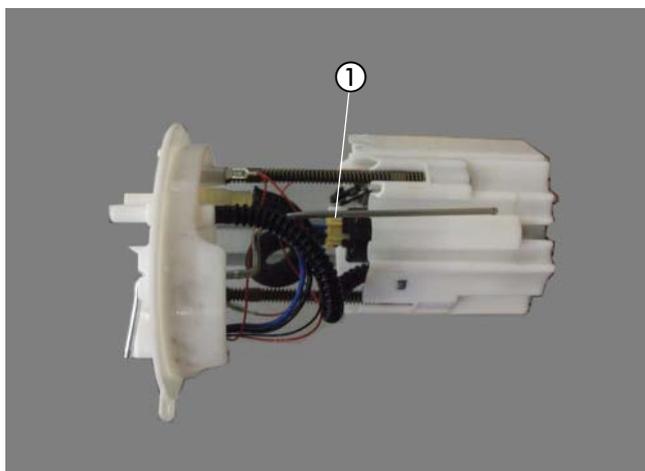


Photo 25

① Fuel tank extractor mounted



5 Fuel supply

Insert the tank fitting in the tank again with a new seal (22682111) and fasten, making sure that the seal fits properly.

At the intake connection of the fuel tank extractor, connect the fuel pipe $\varnothing 4 \times 1$ mm with fuel hose $\varnothing 3.5 \times 3$ mm, length 50 mm.

Secure the connection points with 9 mm \varnothing hose clips.

Install the tank again according to the manufacturer's instructions.



Photo 26

① Fuel pipe, $\varnothing 4 \times 1$ mm, connected

Installing the tank extractor for vehicles with AWD

(see photos 27 to 30)

Shape and cut the riser pipe of the tank extractor to the right length as shown in the diagram.

Remove the tank according to the manufacturer's instructions. At the same time, undo the plug-in connection and the fuel line at the tank connection.

Remove the tank fitting from the tank opening by undoing the locking ring.

Please note!

The tank fitting should not be removed for longer than 10 minutes because of expansion of the tank! When drilling, ensure that no dirt gets into the tank or supply lines.

Drill an 8 mm \varnothing hole in the top part of the tank fitting with the dimensions shown.

Feed the fuel tank extractor from above through the hole made in the tank fitting, align and screw tight with the nut M8 and body washer B8 from underneath.

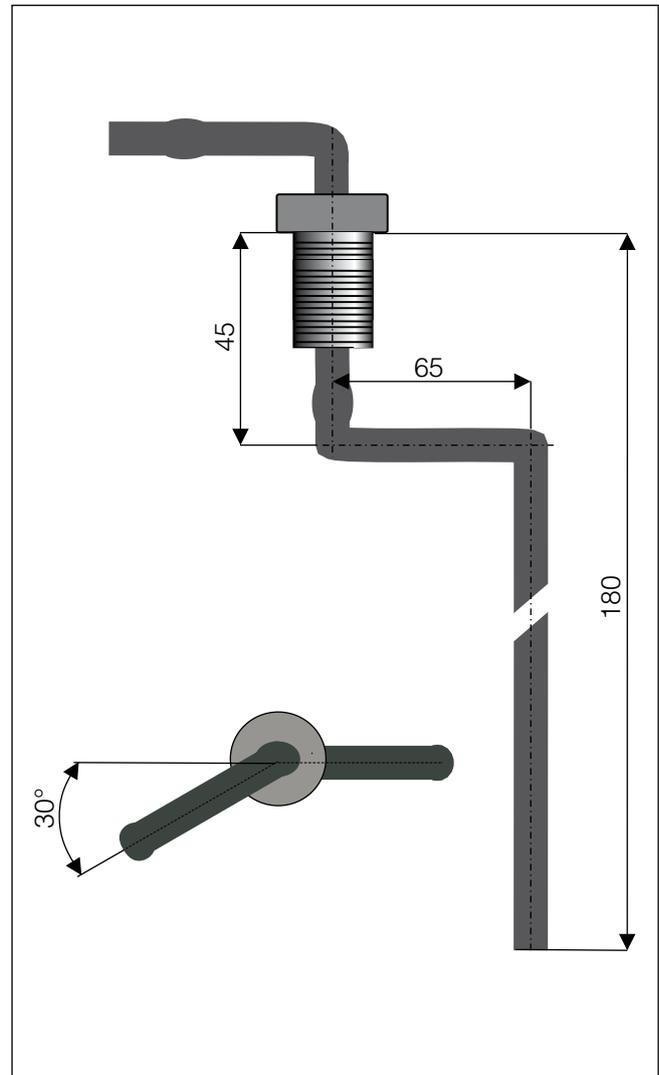


Photo 27



5 Fuel supply

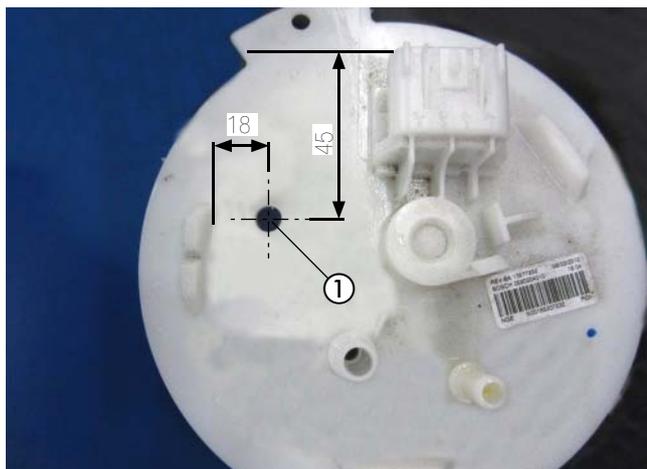


Photo 28

- ① Drill an 8 mm \varnothing hole in the top part of the tank fitting

Insert the tank fitting in the tank again with a new seal (22682111) and fasten, making sure that the seal fits properly.

Connect the 4 x 1 mm \varnothing fuel pipe with 3.5 x 3 mm \varnothing fuel hose, length 50 mm, to the intake connection of the tank extractor, and secure to the vehicle's fuel line using cable ties.

Secure the connection points with 9 mm \varnothing hose clips.

Install the tank again according to the manufacturer's instructions.

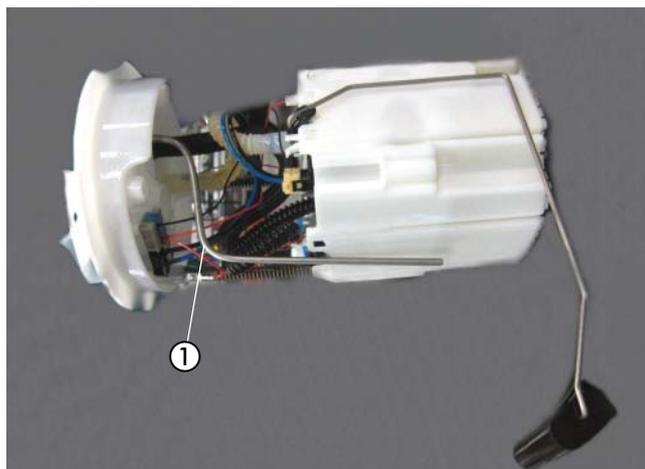


Photo 29

- ① Fuel tank extractor mounted

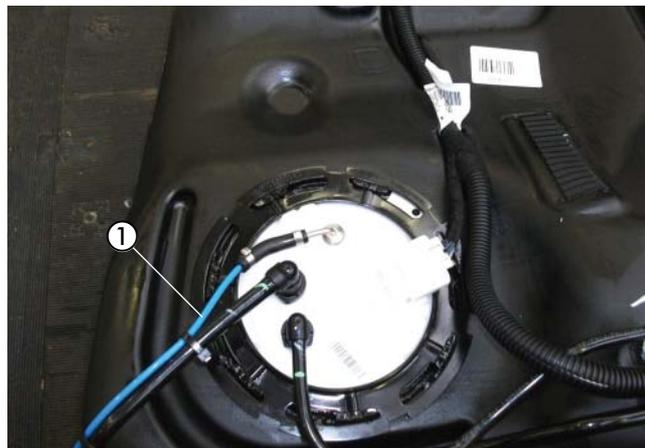


Photo 30

- ① Fuel pipe, \varnothing 4 x 1 mm, connected



5 Fuel supply

Lay fuel pipe with metering pump cable

(see photos 31 and 32)

Lay the fuel pipe \varnothing 4 x 1.25 mm together with the metering pump cable further along the vehicle's fuel pipes to the right-hand side of the underbody.

Use cable ties to secure the fuel pipe \varnothing 4 x 1.25 mm and the metering pump cable to the vehicle's fuel line.

Please note!

When laying the fuel line, ensure a sufficient distance from the stabiliser.

Lay the fuel pipe \varnothing 4 x 1.25 mm together with the metering pump cable above the vehicle's fuel line to the installation position of the metering pump.

Use cable ties to secure the 4 x 1.25 mm \varnothing fuel pipe and the metering pump cable to the vehicle's fuel line.

Please note!

Use a sharp knife to cut the fuel pipe to length. Secure all hose connections with hose clips. When laying fuel lines, always ensure they are at an adequate distance from hot vehicle and heater parts.

Install and connect the metering pump

(see photo 33)

Insert the metering pump in the rubber holder and use an M6 x 25 screw and two B6 body washers to screw it into the existing hole of the right-hand chassis beam, as shown. Ensure it is installed with at least 15° rising gradient on the discharge side.

The discharge connection of the metering pump is pointing towards the left.

Cut the 4 x 1 mm \varnothing fuel pipe from the tank extractor to the required length and connect to the intake side of the metering pump with 105° fuel hose elbow using two 9 mm \varnothing hose clips.

Cut the 4 x 1.25 mm \varnothing fuel pipe to the required length and connect to the discharge side of the metering pump with the 105° fuel hose elbow using two 9 mm \varnothing hose clips.

Slot the plug-in contacts of the metering pump cable into the mating connector, regardless of polarity, and connect to the metering pump.

Affix a 50 mm length of edge protection to the edge of the right rear axle retainer as shown.



Photo 31

① Fuel pipe \varnothing 4 x 1.25 mm and metering pump cable laid



Photo 32

① Fuel pipe \varnothing 4 x 1.25 mm and metering pump cable laid on the right-hand side of the underbody



Photo 33

① Metering pump mounted
② Cable tape
③ Edge protection mounted



5 Fuel supply

Adhere the "fuel tank" sticker

(see photo 34)

Stick the "refuel" information sticker on the inside of the fuel tank flap as shown.



Photo 34

① "Refuel" label adhered



6 Electrics

Laying cable loom 1

(see photos 35 to 38 and photo 46)

Drill a 20 mm Ø hole in the wiper pan and a 30 mm Ø hole in the engine partition as shown.

To do this, expose the area in the interior.

Lay cable loom 1 through the cable penetration made in the wiper pan.

Lay the connection to cable loom 2 through the cable penetration made in the engine partition and into the interior of the vehicle.

Use body sealing compound to seal the cable grommet inserted in the engine partition.

Fix the earth cable to the earthing point as shown in the photo.

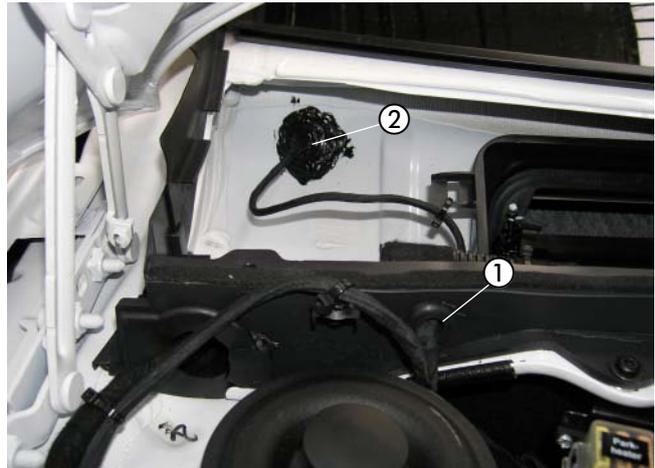


Photo 35

- ① Wiper tray cable penetration
- ② Sealed cable grommet in the engine partition

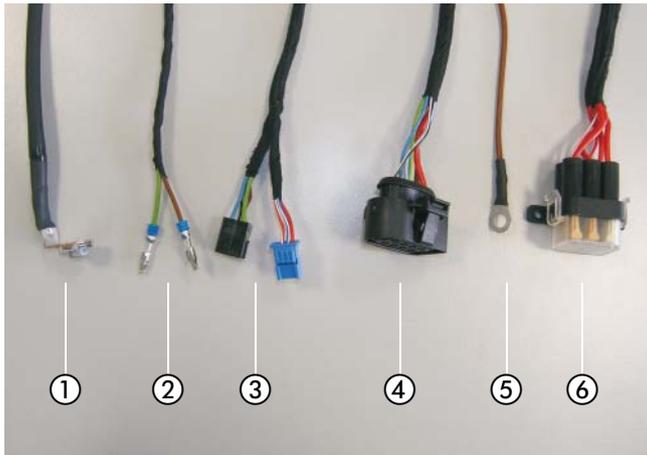


Photo 36 Cable loom 1

- ① Positive cable (fuse 30A)
- ② Metering pump cable
- ③ Connection, cable loom 2
- ④ Heater connection
- ⑤ Earth cable
- ⑥ Fuses

Please note!

When laying the cable looms, ensure they are at an adequate distance from hot vehicle and heater parts.

Use cable ties to fix the cable looms in suitable places.



Photo 37

- ① Earth cable connected



6 Electrics

Lay the positive cable in the wiper pan and guide it through the grommet on the left-hand side of the vehicle to the fuse block.

Use cable ties to fix the positive cable in suitable places.



Photo 38

- ① Positive cable in the wiper pan laid up to the fuse block on the driver's side

Remove the vehicle's 100 A fuse if not used, install 30 A fuse and connect the positive cable.

If the 100 A fuse is used (Quickheat System), remove the positive cable from the fuse, insulate and tie back. Replace the 100 A fuse with the 30A fuse and connect the positive cable to the heater.



Photo 38a

- ① Fuse 30 A mounted, positive cable connected

for vehicles without fuse box

Lay the positive cable in the wiper pan and guide it through the grommet on the left-hand side of the vehicle to the battery box.

Use a hexagon screw M5 x 16 and a nut M5 to fix the single 30A fuse with the fuse holder to the battery box as shown in the photo.

Crimp on a plug-in contact to the positive cable and latch it onto the fuse.

Crimp a cable lug A6 and a plug-in contact to cable 4 mm² rt and latch onto the fuse.

Connect the cable 4 mm² rt with cable lug A6 to the positive post of the battery.

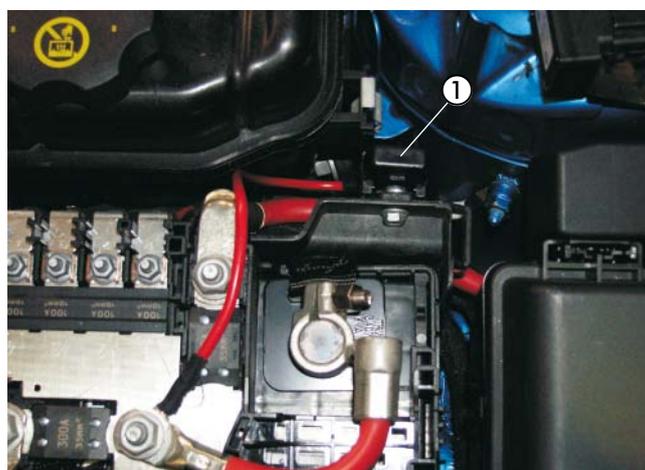


Photo 38b

- ① Single 30 A fuse mounted



6 Electrics

Laying cable loom 2

(see photos 39 to 49)

Mount the relay block to the holder with an M3.9 x 9.5 self-tapping screw.

Insert the auxiliary heater relay in the relay block.

Use cable ties to fix the outgoing cable to the outer holes of the holder.

Use a screw M6 x 12 and a body washer B6 to mount the premounted holder onto the left-hand instrument panel strut on the passenger's side.

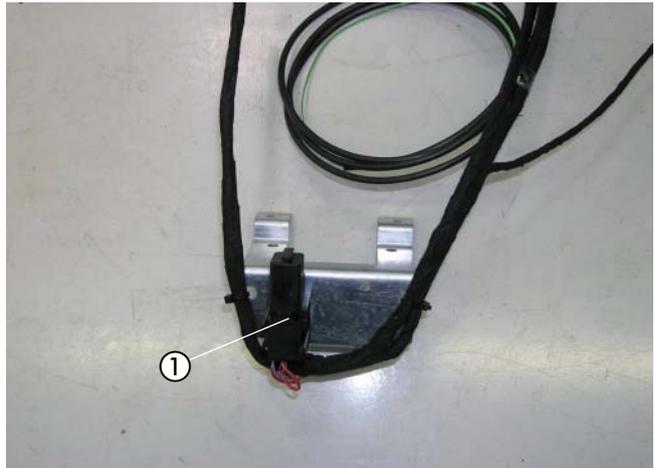


Photo 39

① Relay mounted on the holder

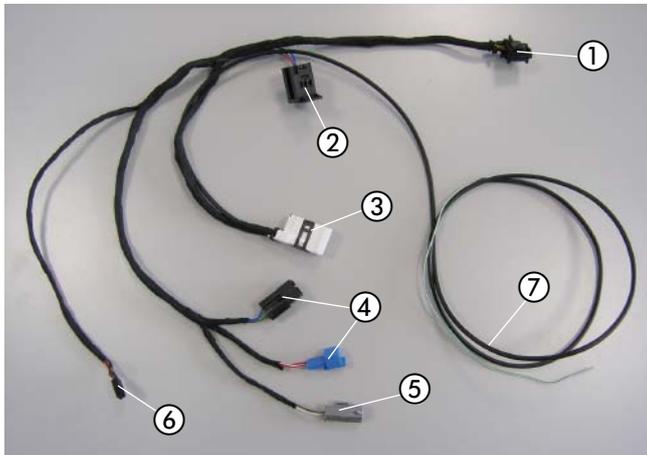


Photo 40

- ① Connection, stationary part R⁺
- ② Relay block for auxiliary heater relay
- ③ SVM control box
- ④ Connection, cable loom 1
- ⑤ Temperature sensor R⁺
- ⑥ Button R⁺
- ⑦ Connection, CAN bus (DLC connector)

Push on the two light-blue plastic nuts at the fixing points of the stationary part.

Insert the stationary part of the EasyStart R⁺ in the holder and fix using two flat-head screws with collar ST 5 x 20.

From cable loom 2, connect the connector for the stationary part of EasyStart R⁺ and the antenna cable to the stationary part of EasyStart R⁺.

Feed the antenna cable to the right and lay in the rubber door seal on the passenger side.

Please note!

Avoid contact with metal parts at the uninsulated end of the antenna cable.

Use cable ties to fix any excessive length of antenna cable underneath the instrument panel; do not lay it in loops.



Photo 41

① Holder for relay, SVM control box and EasyStart R⁺ stationary part mounted



Photo 42

① Stationary part R⁺ mounted on the holder



6 Electrics

Use two self-tapping screw screws 3.9 x 9.5 to mount the SVM control box on the holder.
Connect the connector of cable loom 2 for the SVM control box.



Photo 43

- ① SVM control box mounted on the holder

Mount the temperature sensor behind the glove compartment on the holder of the vehicle's cable loom, using an M2.9 x 25 screw.

Connect the blue connector (6-pin), the black connector (4-pin) and the grey connector (2-pin) with each other.

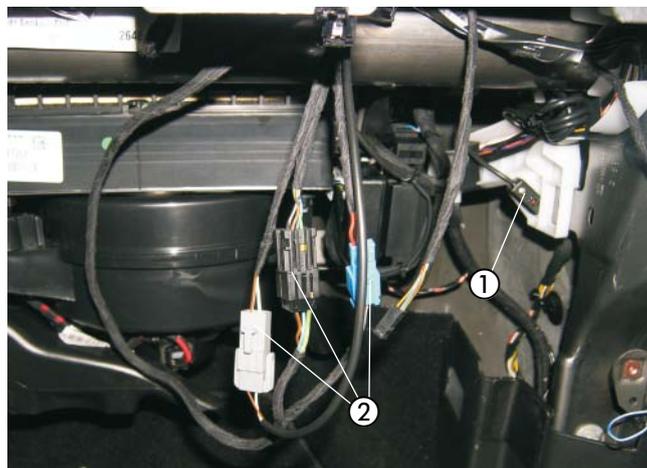


Photo 44

- ① Temperature sensor mounted
- ② Connection completed

Lay the diagnostics cable 0.5 mm² bl / ws near the airbag switch on the passenger side.



Photo 45

- ① Diagnostics cable 0.5 mm² bl / ws



6 Electrics

Make a hole \varnothing 16 mm as shown in the photo for the button in the glove compartment on the right-hand side.

Make two holes \varnothing 4.5 mm for the spacer-rubber plugs next to the button, as shown in the photo, and insert the spacer-rubber plugs in the holes.

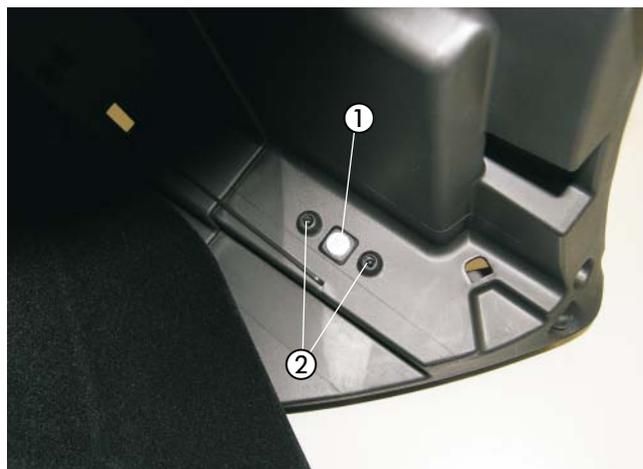


Photo 46

- ① Button
- ② Spacer rubber plugs

In the area behind the glove compartment, wind insulating strips around all cables, as shown in the photo, and use cable ties to fix in suitable places.



Photo 47

- ① Cables with insulating strips wound around them

Wind insulating strips around the cable $0.5 \text{ mm}^2 \text{ gn} / \text{ws}$ and lay it up to the DLC connector behind the shelf on the Driver's side.

Disconnect the cable $0.5 \text{ mm}^2 \text{ gn}$ at the 16-pin DLC connector (Pin 1) and use a red butt-type connector to tie in the cable $0.5 \text{ mm}^2 \text{ gn} / \text{ws}$ as shown in the photo.

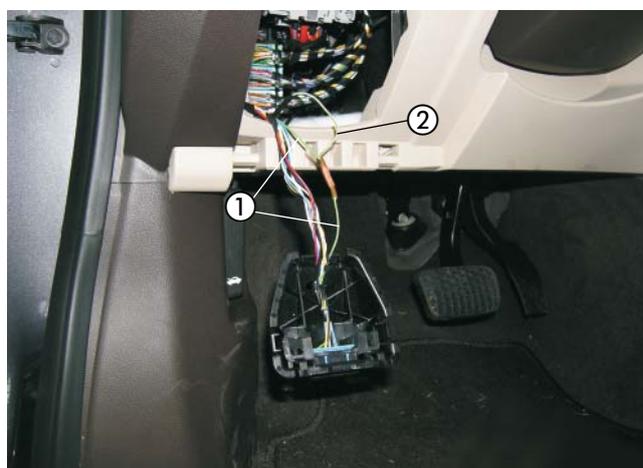


Photo 48

- ① $0.5 \text{ mm}^2 \text{ gn}$ cable disconnected
- ② $0.5 \text{ mm}^2 \text{ gn} / \text{ws}$ cable integrated



6 Electrics

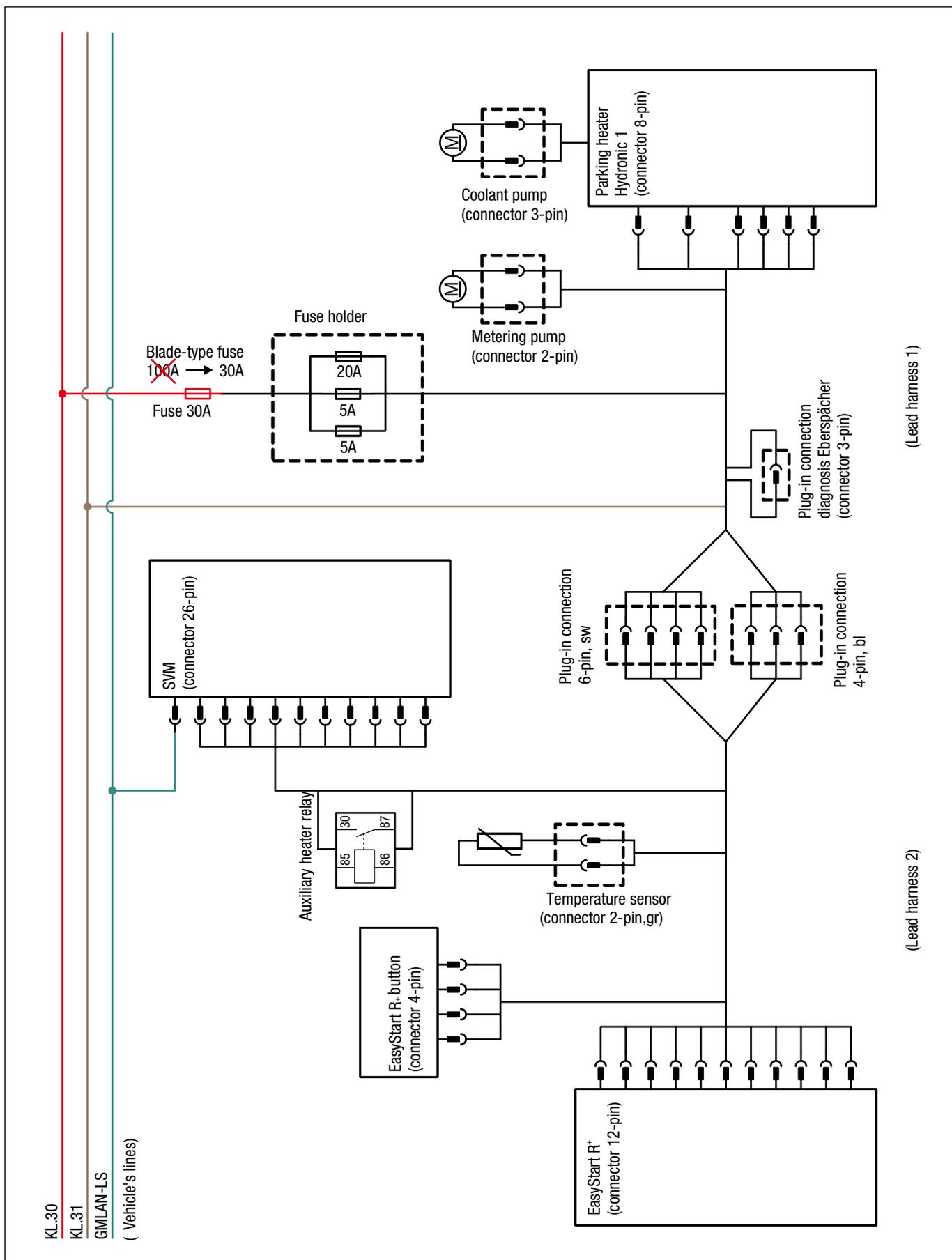


Photo 49



7 After installation

Install engine underbody panelling

(see photo 50)

Install the right-hand engine underbody panelling and guide the exhaust end pipe through the hole.



Photo 50

- ① Engine underbody panelling
- ② 60 mm Ø hole
- ③ Exhaust pipe end

Complete the vehicle

- Comply with the manufacturers' guidelines/instructions when fitting the removed parts.
- Reconnect the battery.
- Check that the hoses, hose clips and pipe clamps as well as all electrical connections are fitted securely.
- Use cable ties to secure all loose cables, lines, etc.
- Restore all the vehicle's programmed settings (radio, window lift, etc.).
- Fill the cooling system, start the engine, vent the cooling system and check for leaks, top up any missing cooling liquid up to the marking (arrow).
- Please also note and follow the vehicle manufacturer's information on filling and venting the cooling system.
- Read and observe all official regulations and safety instructions in the Technical Description.
- Program the control unit and place the Operating Instructions, the Technical Description and the leaflet for the customer in the glove compartment.

Please note!

Fill the cooling system only with the coolant liquid specified by the vehicle manufacturer.

Starting up the heater

- Switch on the heater at the control.
See Operating Instructions - Control.





Initial start-up

• Configure system

The system must be configured depending on the application.

press until the menu bar appears in the display, then release the key. The symbol and the SEND text appear briefly.

Select symbol using or . then briefly press and simultaneously.

Confirm menu **P1** with .

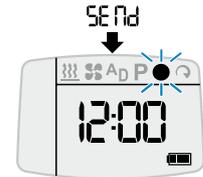
Select the submenu **C1** or **C2** using or and confirm with .

The submenu **C1** has been selected:
After the individual menu items have been set to of or on using or or selected using or and confirmed with , they are displayed step by step.



If the menu item C1 / 07 has been confirmed with the data is transferred. Then the time is displayed.

The system configuration is finished.



Notes on the menu items

04

- These menu item is not to be used for the current heaters and must be set to "of".

05

- This menu item only applies to heaters in the function as an independent heater and with JE diagnosis.

06

In air heaters:

- This menu item must be set to "of".

In water heaters:

- If the valve 25 2014 80 62 00 or 25 2014 80 72 00 is used in the water circuit, the engine capacity given can be reduced by 500 cm³.
- If a greater heat requirement exists the engine capacity information can be increased by 500 cm³.

Please note!

The values for the increase and reduction of the engine capacity information only apply to cooling water circuits whose vehicle blower heat exchanger is flowed through before the vehicle's engine.

07

- If the vehicle is only used on short routes the maximum operating time must be reduced in agreement with the customer.

00	Add-on unit Ad (see table of „permissible unit combinations“)	of / on
01	Temperature unit	of for °C on for F
02	Language / weekdays	of for DE on for EN
03	Time display format	of for 24h on for AM / PM
04	---	of
05	Upgrade box mode	of / on
06	In water heater, use or to change vehicle engine capacity, e.g. 18 = 1800 ccm	10 – 40 or of (automatic calculation of the operating period is deactivated).
	In air heater	of
07	Automatic runtime calculation, change operating period with or	10 – 60

Permissible unit combinations

Unit 1 connected to diagnosis cable	Unit 2 connected to switching output
Air heater with JE diagnosis (control units with second diagnosis cable)	Water heater Diagnosis not connected
Air heater with JE diagnosis (control units with second diagnosis cable)	e.g. Parking air conditioning



Diagnostics

Perform heater diagnosis

Activate mobile unit

Confirm symbol with .

Heater is switched on.

Confirm operating time with .

and : **simultaneously** press briefly.

The following actions are possible

- Call up error memory.
Use or to call up the error memory F1 – F5.
- Call up error memory again.
 and : **simultaneously** press briefly.
- Delete error memory (dEL display)
 press.

Press again.

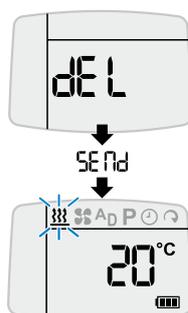
The diagnosis is completed.

Display system configuration

Select submenu **C2** as described on page 8.

After they have been conformed with , the individual menu items are displayed step by step.

00	Heater type	0 = unknown unit 1 = Air heater 2 = Water heater 3 = Add-on unit
01	Diagnosis	0 = --- 1 = None 2 = Free running 3 = JE diagnosis
02	Ventilation function	of / on
03	Temperature sensor installed	of / on
04	Not used	--
05	Not used	--



Teach additional mobile unit

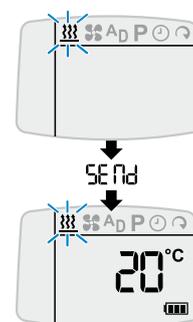
- Press the pushbutton installed in the vehicle until the pushbutton's LED begins to flash.
 - Activate mobile unit.
 - Select Add symbol using or and confirm with .
- The additional mobile unit has been taught.



Reset function

The reset function is used to reset the radio remote control to the factory settings.

press until the menu bar appears in the display, then release the key. The symbol and the SEND text appear briefly.

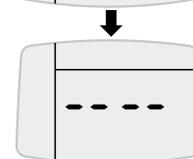


Select symbol using or , then briefly press and **simultaneously**.

Menu **P1** is displayed.



Select reset function using and and confirm with .



The radio remote control is reset to the factory settings.



Please note!

All timer settings are lost.
Heating mode is terminated.



8 Parts overview

No.	Designation	Quantity	Order number
1	Vehicle-specific additional parts		13423951
	Tank connection (riser M8x300)	1	
	Hose, 3.5x3 (fuel, straight)	1	
	Mecanyl fuel line (4x1.25 transparent) 3 m	1	
	Mecanyl fuel line (4x1 blue) 1 m	1	
	Bracket, metering pump, parking heater (rubber-black)	1	
	Bracket, metering pump, parking heater (rubber-black)	1	
	End cap intake air parking heater (D/B-4WS)	1	
	Exhaust silencer parking heater JE large	1	
	Hose clamp Ø26-28mm W=16mm VA	3	
	Exhaust pipe with end sleeve 800 mm	1	
	Fuel hose DIN 19.5	1	
	Collar nut M6	5	
	105° fuel hose elbow 3.5 x 3 mm	3	
	Hex screw M6x25 DIN933	3	
	Fillister head screw M4x12 DIN7985	2	
	Hose clip Ø20-32 - spring-loaded	1	
	Countersunk fillister head screw 2.9x25 DIN7983	1	
	Actuation (radio remote control kit)	1	
	Damping rubber heater holder parking heater	4	
	SPACER MOTOR COOLING FLOW HEATER	2	
	Exhaust pipe elbow 90° JE heater	2	
	Heat shield exhaust pipe JE parking heater L=0.5m	1	
	90° intake air connection Eberspächer	1	
	Cable ties 3.5x290mm Ø10-76, 35 ea.	2	
	Connection pipe 20x18	1	
	Clamp 9 mm Ø W = 8mm	8	
	Butt-type connector, red, 0.5-1.5 mm ²	1	
	Hex screw M6x12 DIN933	6	
	Washer Ø6.4x18 ISO7093	5	
	Self-tapping screw DIN7981-B3.9x9.5	3	
	Hose clip Ø16-25mm	7	
	Rotatable line holder Ø 30 mm	3	
	Edge protection piping w=6mm h=8mm l=100mm	0.1m	
	Rotatable line holder Ø 10 mm	1	
	Rivet nut, M6x14.5	1	
	Rubber stopper	1	
	Washer Ø8.4x24x2 DIN9021 VA	1	
	Shrink hose W55 Ø40/20	0.85m	
	Foam rubber hose	0.25 m	
	Main cable set parking heating Insignia	1	
	EXTENSION LEAD	1	
	Screw M5 x 16	1	
	Nut M5	1	
	Fuse bracket with cap	1	
	Fuse contact	2	
	Fuse 30 A	1	
	Cable 4 mm ² rt	0.2m	
	Cable lug A6	1	
	Seal, yellow	2	
	Holding plate	1	
	Refuelling sticker	1	
	Installation instructions JE German	1	
	Installation instructions JE English	1	



8 Parts overview

No.	Designation	Quantity	Order number
1	Vehicle-specific additional parts		13423951
	Screw-type fuse MIDI 30 A	1	
	Emergency button parking heater	1	
	Lock nut form 1 pale blue (Ejot)	2	
	Fillister head screw M5x25 Ø15	1	
	Quick-release hose coupling water system at heat exchanger inlet	1	
	Hose Øi20mm,L2200mm,2x180°- L20xH130	1	
	SVM parking heater Insignia	1	
	HOLDER REMOTE CONTROL PARKING HEATER	1	
	Heater holder, end wall, Insignia Diesel	1	
	Reinforcement heater holder, Insignia Diesel	1	
	Silencer holder, end wall, Insignia Diesel	1	
	Water pump holder, end wall, Insignia Diesel	1	
	Rubber buffer, glove compartment, Astra-H	2	
	Relay 20A N/O contact mini - fastening web	1	
	Inner Torx screw M8x42, cardan shaft, Insignia	3	
	Damping strip 40x1000mm (winding felt)	3	
	Holder, cable ties l=160mm hole Ø6	2	
	Flat head collar screw ST5X20 (EJOT)	2	
	Outer Torx screw M6x130 ON2128 ZN	1	
	Holder 4.3-22	1	
	OM parking heater German KTA 9934	1	
	OM parking heater Europe KTA 9935	1	