

part number: 13343696

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(TR)	Tasarım, donanım ve renk bakımından değişiklik yapma hakkı ve hata ve eksiklik mahfuzdur. Veriler ve resimler bağlayıcı değildir.	(TR)	Montaj talimatı / Sadece satıcı tarafında monte edilir
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(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
(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 2009 model

2.0 l cubic capacity / 4 cylinder in-line engine CDTI / 81 kW - 110 HP

2.0 l cubic capacity / 4 cylinder in-line engine CDTI / 96 kW - 130 HP

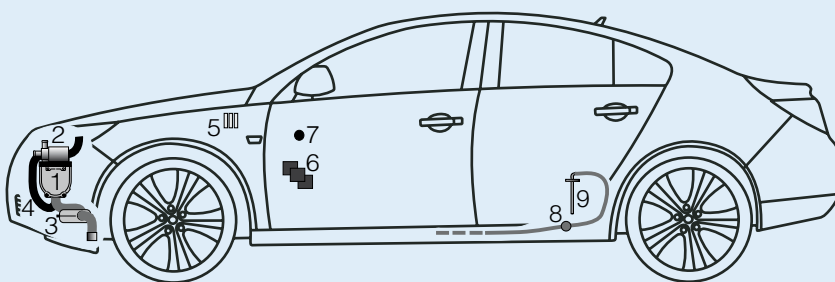
2.0 l cubic capacity / 4 cylinder in-line engine CDTI / 118 kW - 160 HP

- with automatic air conditioning
- with fog lamps
- with manual gearbox or automatic gearbox

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
- 2 Water pump
- 3 Exhaust pipe with exhaust silencer
- 4 Combustion air pipe
- 5 Fuse holder

- 6 Relay, stationary part R⁺ and control box SVM
- 7 Button
- 8 Metering pump
- 9 Fuel tank extractor

Installation location

The Hydronic D5W S is installed cross-wise with the bracket in the right-hand quarter bumper.

The exhaust connection faces downwards and the control box to the right.

Parts needed for installation:

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

Installation time: approx. 8 h

Please note!

Deliver the vehicle with an empty tank.

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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 by authorised and trained persons according to the specifications in the technical documents and repaired using original spare parts.
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)	81 / 110	6S
2.0 l (CDTI)	96 / 130	6S
2.0 l (CDTI)	118 / 160	6S
2.0 l (CDTI)	118 / 160	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 *	
JE No.	24 8416 00 00 00
GM No.	13343696
(2) Heater:	
1 Hydronic D5W S	
JE No.	25 2581 99 02 00
GM No.	13343692

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

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

Please note!

During disassembling the manufacturer guidance / instructions must be followed.



2 Installation - Heater

Prepare the installation position

(see photo 1)

Make a drillhole Ø 8.5 mm in the right-hand side member according to the dimensioning in the photo.

Remove the existing screw M12 x 40 as shown in the photo.

Please note!

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

Pre-assemble the unit bracket

(see photos 2 and 3)

Use two screws M6 x 16 to fix the exhaust silencer holder to the unit bracket.

Insert three rubber buffers and a spacer sleeve (note installation direction) as shown in the photo.

Insert a rubber buffer and a spacer sleeve into the front unit bracket (note installation direction).

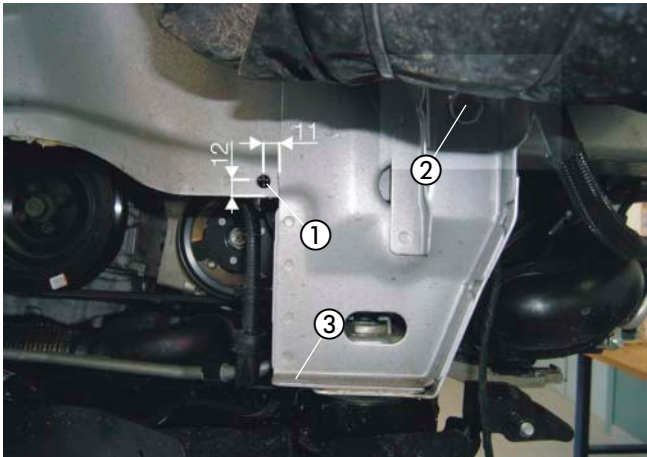


Photo 1

- ① Drillhole Ø 8.5 mm made
- ② Remove existing screw M12 x 40
- ③ Bottom fixing point of the unit bracket

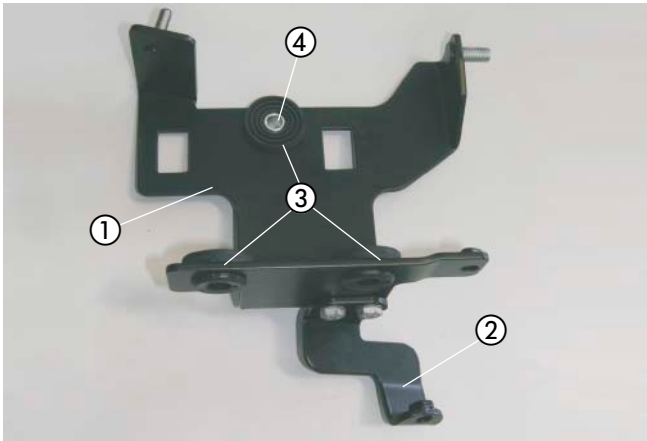


Photo 2

- ① Unit holder
- ② Holder, exhaust silencer
- ③ Rubber buffer inserted
- ④ Spacer sleeve inserted

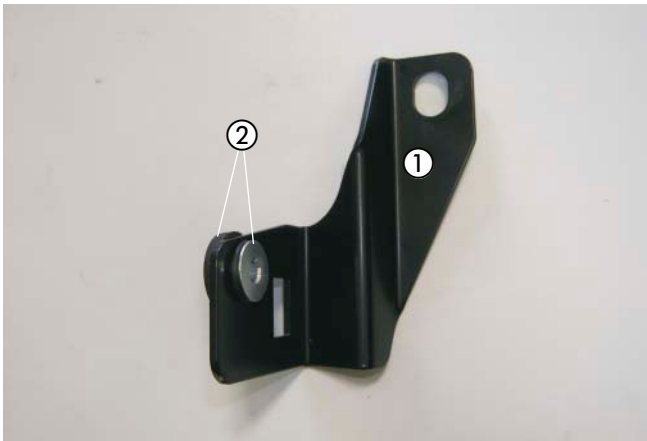


Photo 3

- ① Front heater bracket
- ② Rubber buffer with spacer sleeve



2 Installation - Heater

Preassemble heater and affix duplicate nameplate

(see photos 4 and 5)

Remove the duplicate nameplate from the heater.

Insert the heater in the unit bracket and use the Torx screw M6 x 130, to screw a hexagon nut with collar M6 and the front unit bracket with 9 Nm.

Insert the water pump in the rubber holder and use one nut M6 and one body washer B6 to fix to the threaded bolt of the unit bracket.

Connect the short water hose to the discharge connection of the water pump and to the water intake connection of the heater.

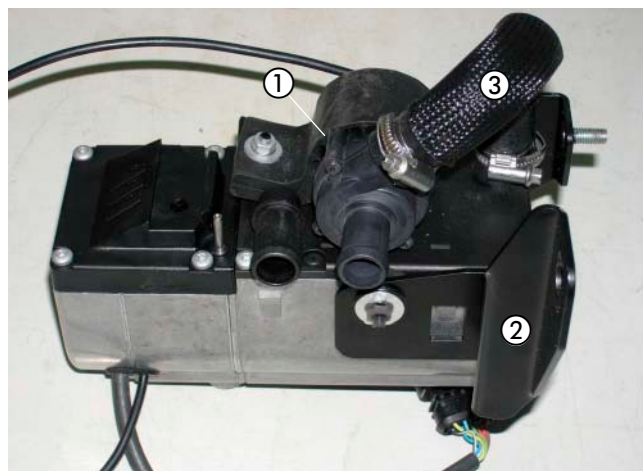


Photo 4

- ① Water pump installed
- ② Front heater bracket installed
- ③ Water hose connected

Deface the inapplicable dates to make them illegible.

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



Photo 5

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

Install heater

(see photo 6)

Position the preassembled heater on the side member, at the same time, feed the rear threaded bolt of the unit bracket into the drillhole Ø 8.5 mm made and bolt with a nut M8.

Use the new screw M12 x 45 to fix the front unit bracket to the right-hand side member with 100 Nm.

Screw a screw M6 x 12 into the bottom fixing point.

Please note!

The Torx screw M6 x 130 has to be inserted forwards from the wheel arch housing, facing the engine.



Photo 6

- ① Fix preassembled heater to the right-hand side member



3 Exhaust and Combustion Air System

Install and connect exhaust silencer

(see photos 7 to 9)

Cut the exhaust pipe to a length of 120 mm.

Shape the exhaust pipe as shown in the photo and connect to the inlet connection of the exhaust silencer.

Cut the exhaust end pipe to a length of 110 mm.

Shape the exhaust end pipe as shown and connect to the outlet connection of the exhaust silencer.

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

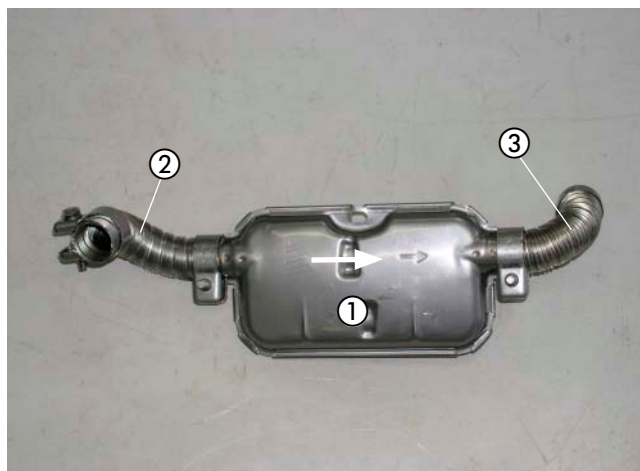


Photo 7

- ① Exhaust silencer
- ② Exhaust pipe mounted
- ③ Exhaust end pipe mounted

Mount the prepared exhaust silencer onto the bracket using a screw M6 x 16 and body washer B6.

Use a pipe clamp to connect the exhaust pipe to the outlet connection of the heater.

Please note!

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



Photo 8

- ① Exhaust silencer installed

Use two cable ties to secure the ABS line to the air conditioning line as shown in the photo.

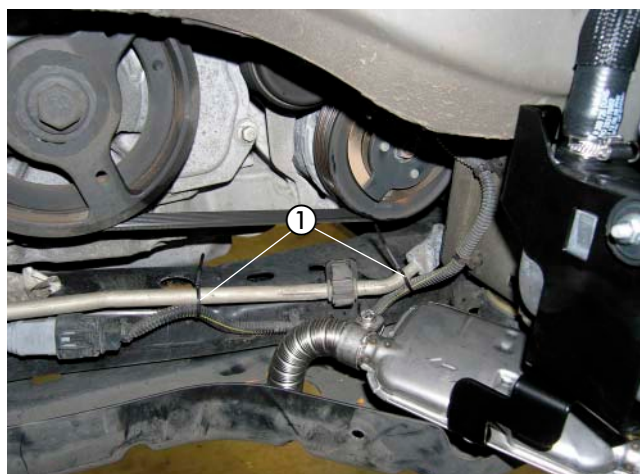


Photo 9

- ① ABS line fixed to the air conditioning line with two cable ties



3 Exhaust and Combustion Air System

Make drillhole for exhaust end pipe and cut out right-hand engine underbody panelling

(see photos 10 and 11)

Mark the drillhole for the exhaust end pipe on the right-hand side of the engine underbody panelling and drill with \varnothing 50 mm.

Remove the insulation mat in the area of the right-hand underbody panelling.

Cut out the right-hand engine underbody panelling with the dimensions shown in the photo.

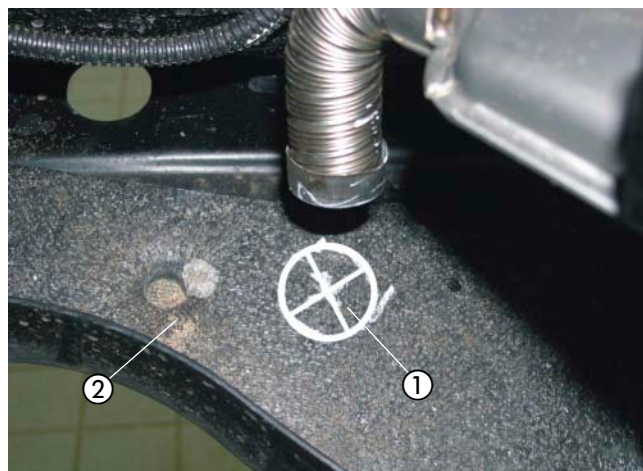


Photo 10

- ① Drillhole for exhaust end pipe made
- ② Remove insulation mat

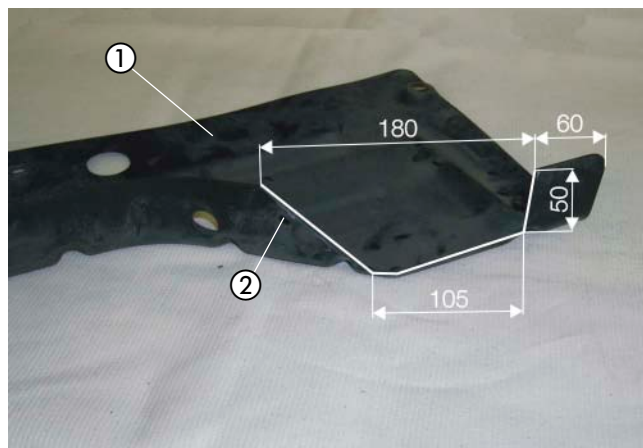


Photo 11

- ① Cut out right-hand engine underbody panelling
- ② Existing drillhole \varnothing 7 mm

Install combustion air pipe

(see photo 12)

Use a hose clip \varnothing 16 - 25 mm to connect the combustion air pipe to the heater and lay upwards in the protected area of the front cross member.

Use cable ties to fix the combustion air pipe to the intake air pipe.

Please note!

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

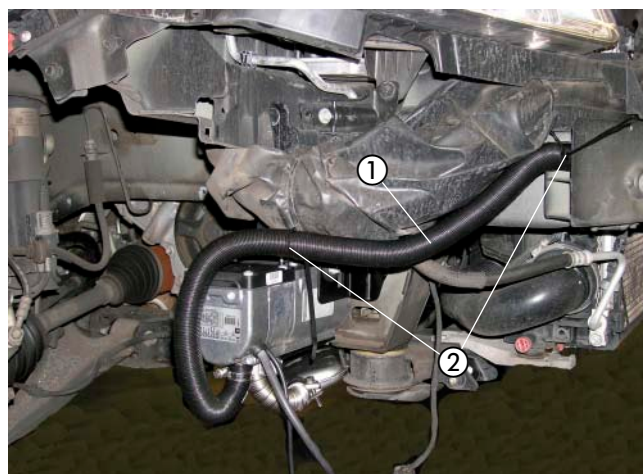


Photo 12

- ① Combustion air pipe installed
- ② Cable ties



4 Water Circuit

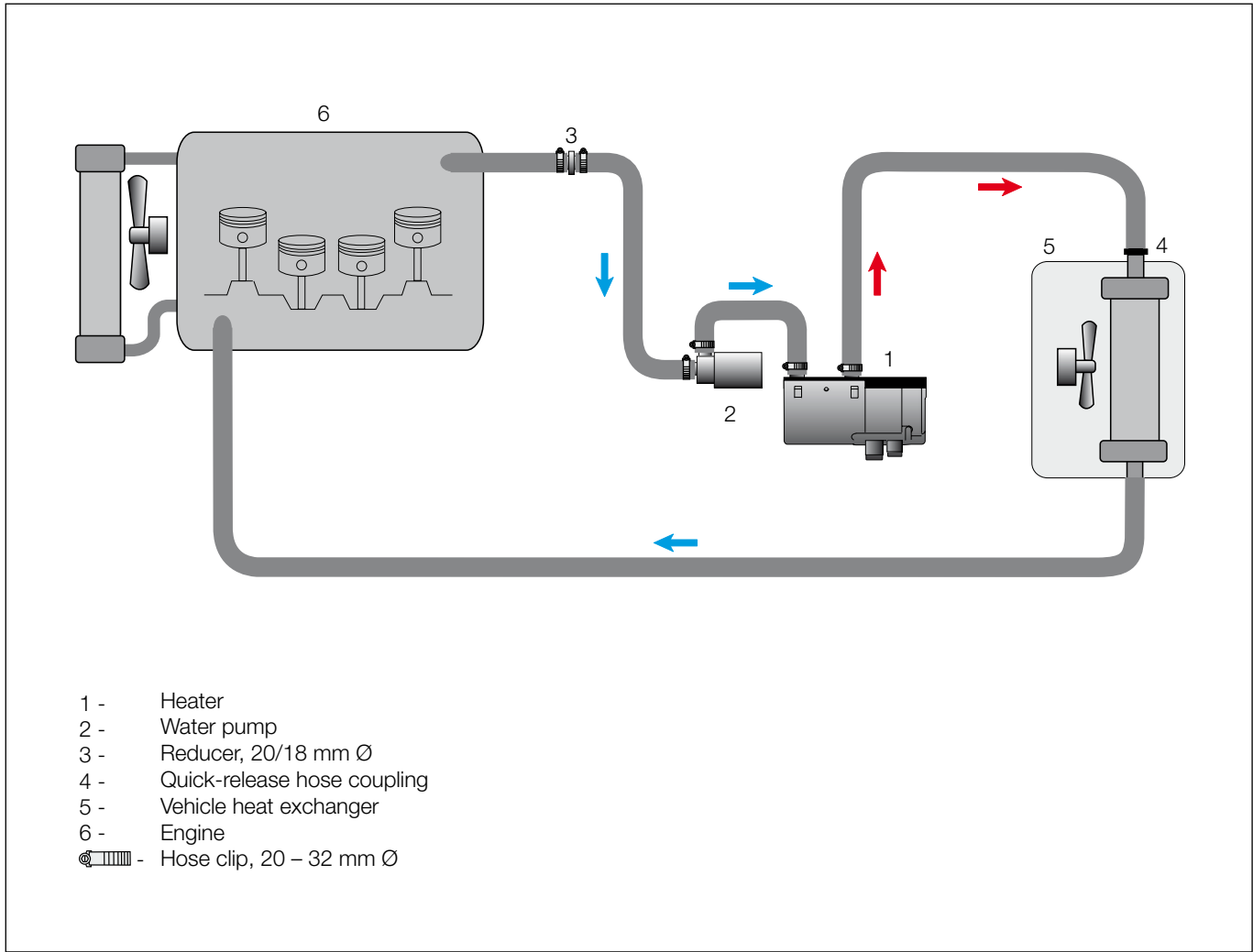


Diagram 1

Cut water flow hose

(see photo 13)

Cut through the vehicle's water feed hose (upper hose at heat exchanger connection) with the dimensions as shown.

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



Photo 13

① Cutting point in the water flow hose



4 Water Circuit

Lay and connect water hoses

(see photos 14 to 22 and diagram 1)

Connect the water hose from the engine to the water pump to the intake connection of the water pump.

Connect the water hose from the heater to the heat exchanger to the water outlet connection of the heater.

Lay the water hose group above the right-hand engine bearer bearing in the bend to the right-hand side member.

Use a cable strap to fix the water hose from the heater to the heat exchanger to the air conditioning line as shown in the photo.

Make a drillhole Ø 6.5 mm in the edge of the right-hand wheel arch according to the dimensions shown in the photo.

Push a rubberised clip Ø 28 mm onto the water hose from the heater to the heat exchanger and use a screw M6 x 16 to fix it at the drillhole made.

To ensure adequate spacing, latch the water hose and the brake line on the two sides of the plastic holder 4.3-22.

Use cable ties to fix the two water hoses to each other.

Please note!

Deburr all holes made and treat with anti-corrosion agent. When installing the water hoses, ensure they are at a sufficient distance from moving vehicle parts.

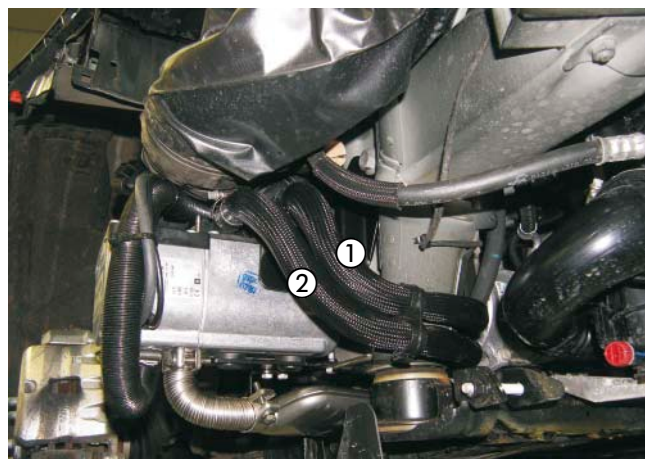


Photo 14

- ① Water hose from the engine to the water pump
- ② Water hose from the heater to the heat exchanger

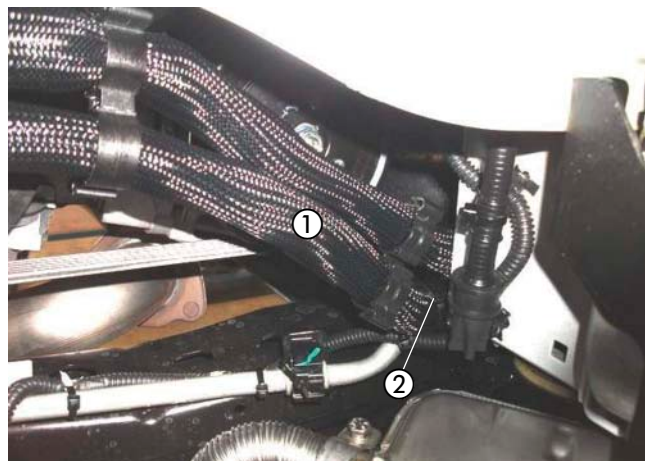


Photo 15

- ① Water hose from the heater to the heat exchanger
- ② Cable strap

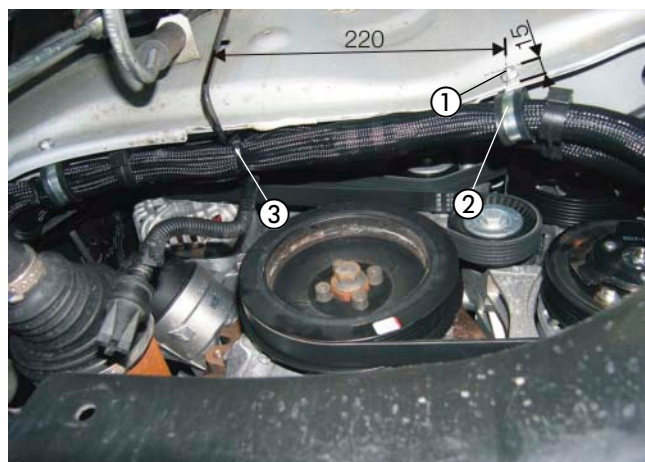


Photo 16

- ① One drillhole Ø 6.5 mm made
- ② Rubberised clip Ø 28 mm
- ③ Plastic holder 4.3-22



4 Water Circuit

Make a further drillhole Ø 6.5 mm in right-hand side member according to the dimensioning shown in the photo. Use the rubberised clip Ø 28 mm and a screw M6 x 16 to fix the water hose from the heater to the heat exchanger at the hole Ø 6.5 mm made.

Please note!

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

Insert the plastic speed nut with foam ring into the square hole punched in the right-hand side member.

Fix the water hose from the heater to the heat exchanger (the bottom hose in the hose group) using a rubberised clip Ø 28 mm, a body washer and a plain washer 5.3.

Guide the water hose group upward and lay it along the engine partition up to the water disconnection point.

Use a cable strap to secure the water hose group to the air conditioning line.

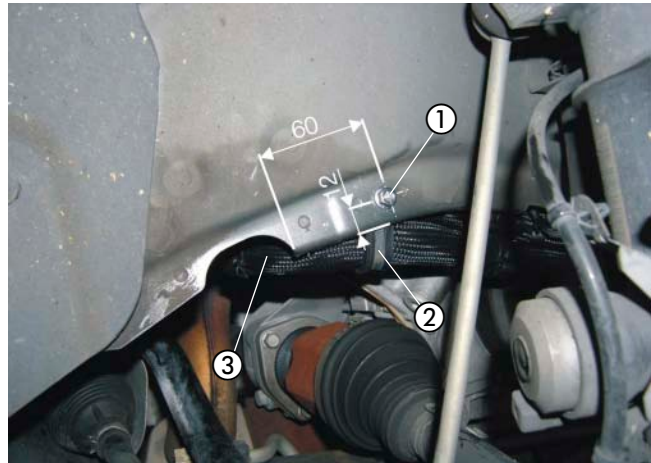


Photo 17

- ① Drillhole Ø 6.5 mm
- ② Rubberised clip Ø 28 mm
- ③ Water hose from the heater to the heat exchanger



Photo 18

- ① Rubberised clip Ø 28 mm mounted onto the right-hand side member

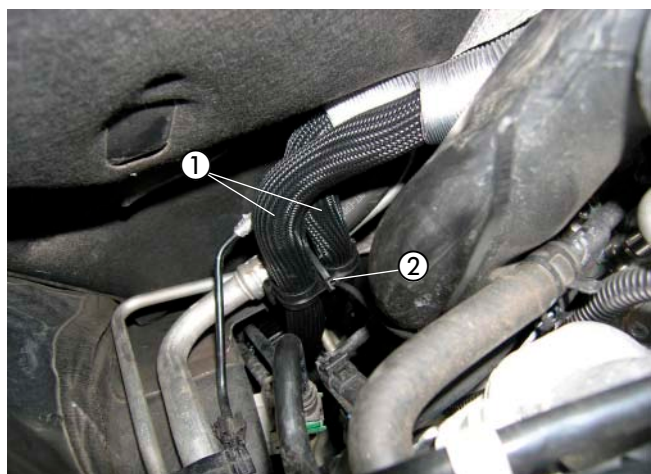


Photo 19

- ① Water hose group
- ② Cable strap



4 Water Circuit

Use three hose holders for pivoted fixing of the two water hoses to each other and to the air conditioning line.



Photo 20

- ① 3 x hose holders, pivot-mounted

Pre-fill both water hoses with coolant.

Connect the water hose from the engine to the water pump with the reducer Ø 20/18 mm to the disconnected water flow hose.

Use the quick-release hose coupling to connect the water hose from the heater to the heat exchanger to the top connection of the heat exchanger.

Use a cable strap to hold the water hoses together.

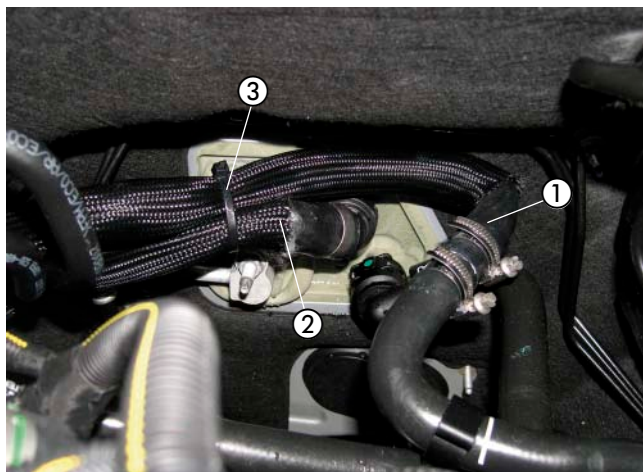


Photo 21

- ① Water hose from the engine to the water pump
② Water hose from the heater to the heat exchanger
③ Cable strap

Use a plastic holder 4.3-22 to fix the water hose from the engine to the water pump to the brake line as shown in the photo.

Please note!

Secure all hose connections with hose clips.
Protect the water hoses against chafing and use cable ties to secure in suitable positions.



Photo 22

- ① Water hose from the engine to the water pump
② Plastic holder 4.3-22



5 Fuel supply

Install fuel tank extractor

(see photos 23 to 25 and diagram 2)

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.

Make an 8 mm Ø hole in the top part of the tank fitting with the dimensions shown in the photo.

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.

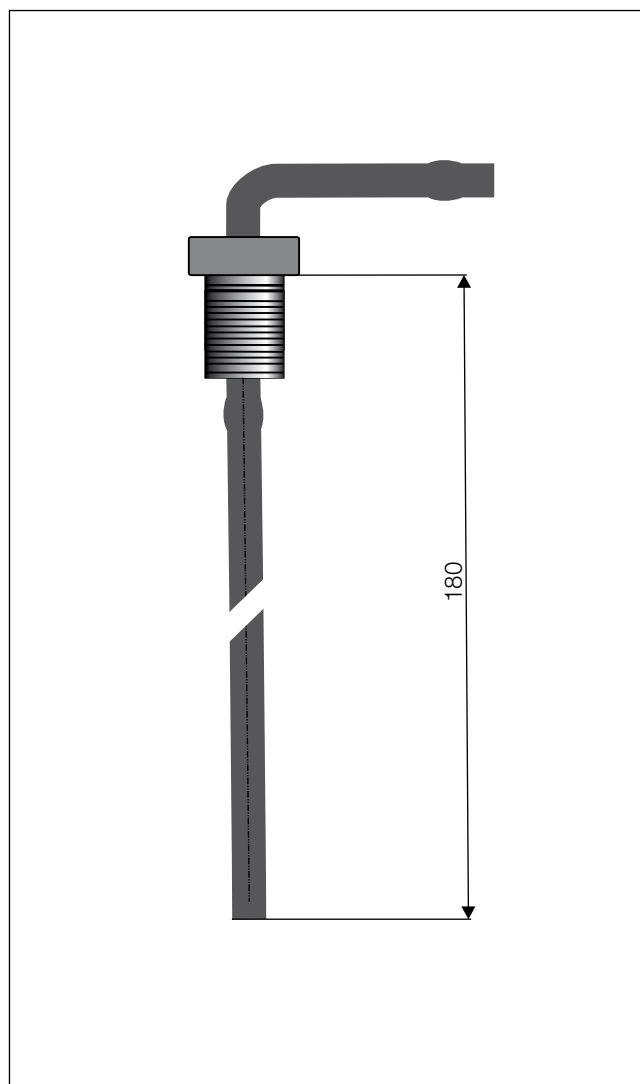


Diagram 2



Photo 23

① Drillhole Ø 8 mm made in the top part of the tank fitting

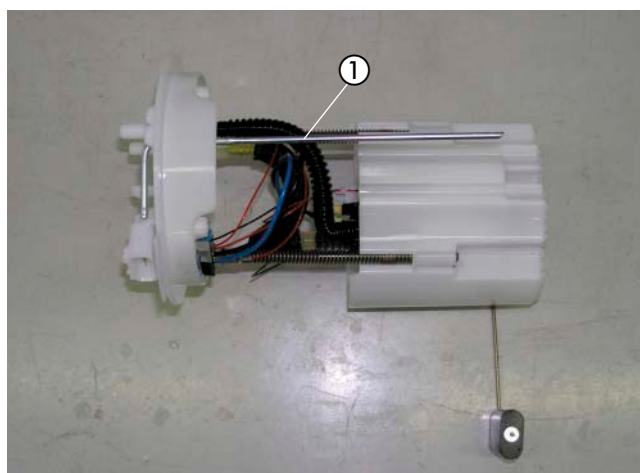


Photo 24

① Fuel tank extractor installed



5 Fuel supply

Insert the tank fitting with a new gasket (22682111) back into the tank and fasten with the new locking ring (10325852); ensure 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 clamps $\varnothing 10.5$ mm.

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

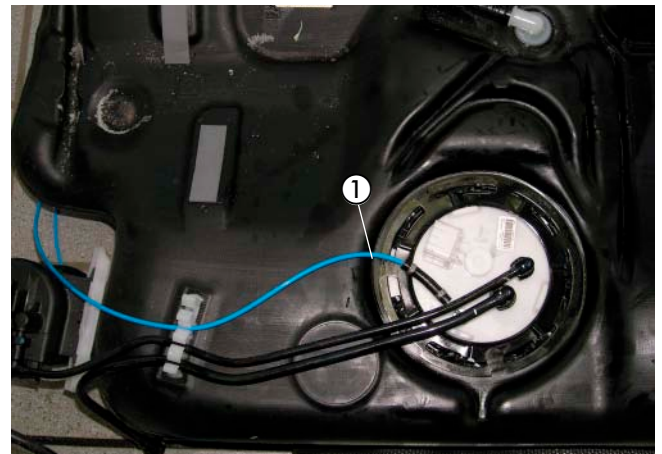


Photo 25

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

Lay fuel pipe with metering pump cable

(see photos 26 to 29)

Connect the fuel pipe $\varnothing 4 \times 1.25$ mm to the heater with a 105° fuel hose elbow and a clamp $\varnothing 10.5$ mm.

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

Use a cable strap to fix the 8-pin plug-in connection to the gusset plate of the right-hand wheel arch as shown in the photo.

Lay the fuel pipe $\varnothing 4 \times 1.25$ mm together with the metering pump cable underneath the right-hand headlight in the engine compartment and guide them further up to the right-hand side of the engine partition.

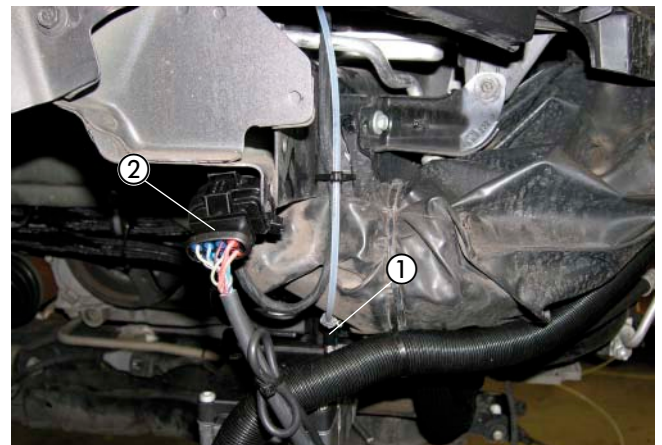


Photo 26

- ① Fuel pipe $\varnothing 4 \times 1.25$ mm connected
② 8-pin plug-in connection fixed

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

Lay the cable in the short bend and secure with a cable tie to the connector.



Photo 27

- ① 2-pin connector of the water pump cable loom connected



5 Fuel supply

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.



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 fuel pipe \varnothing 4 x 1.25 mm 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 30)

Insert the metering pump in the rubber holder and use the screw M6 x 25 and two body washers B6 to screw it into the existing hole of the right-hand side member, as shown in the photo.

Ensure it is installed with at least 15° rising gradient on the discharge side.

The discharge connection of the metering pump points towards the right.

Cut the fuel pipe \varnothing 4 x 1 mm from the tank extractor to the required length and connect to the intake side of the metering pump with fuel hose \varnothing 3.5 x 3 mm.

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

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



Photo 28

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



Photo 29

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



Photo 30

① Metering pump installed
② Cable strap



5 Fuel supply

(see photo 31)

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



Photo 31

① "Refuel" information sticker stuck on



6 Electrics

Laying cable loom 1

(see photos 32 to 36 and diagram 3)

Make a drillhole Ø 20 mm in the wiper pan and a drillhole Ø 30 mm in the engine partition, as shown in the photo.

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.

Use two screws M4 x 12 to mount the fuses at the fuse holder.

Mount the fuse holder on the existing fixing tab of the wiper pan using one fillister-head screw M6 x 25, two body washers B6 and one nut M5. Insert the body washers B6 between the wiper pan and the wiper pan cover.

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

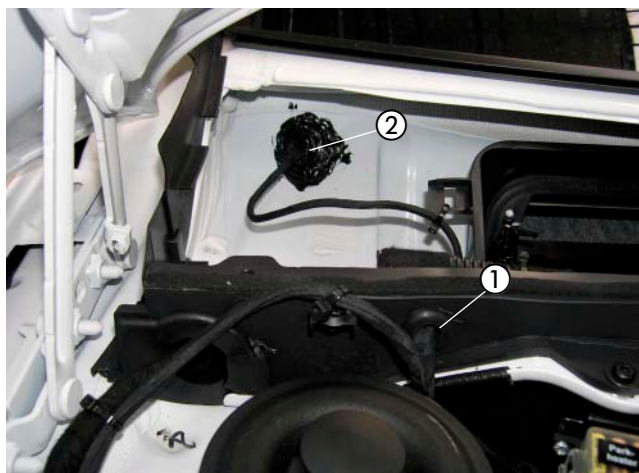


Photo 32

- ① Cable penetration, wiper pan
- ② Sealed cable grommet in the engine partition

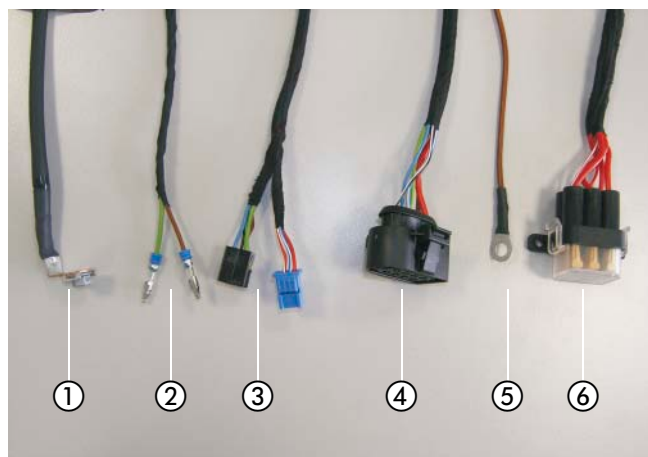


Photo 33 Cable loom 1

- ① Positive cable (fuse 30A)
- ② Metering pump cable
- ③ Connection, cable loom 2
- ④ Connection, heater
- 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 34

- ① Fuses, mounted
- ② 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 35

- 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 36a

- 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.

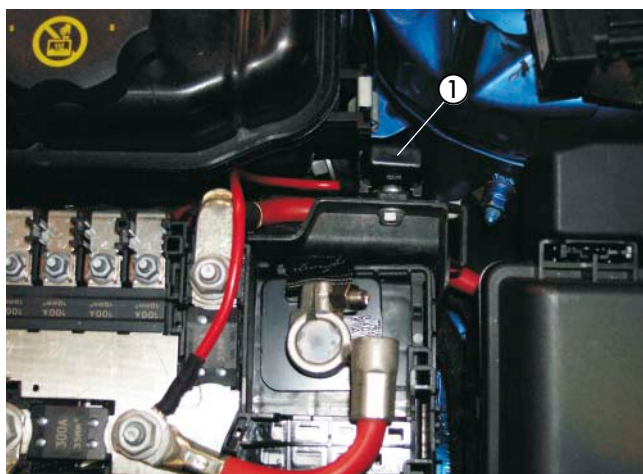


Photo 36b

- ① Single 30 A fuse mounted



6 Electrics

Laying cable loom 2

(see photos 37 to 46 and diagram 3)

Enlarge the drill hole in the holder to Ø 5.5 mm.

Fit the relay block at the hole made using a screw M5 x 10.

Insert the 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 preassembled holder onto the left-hand instrument panel strut on the passenger's side.

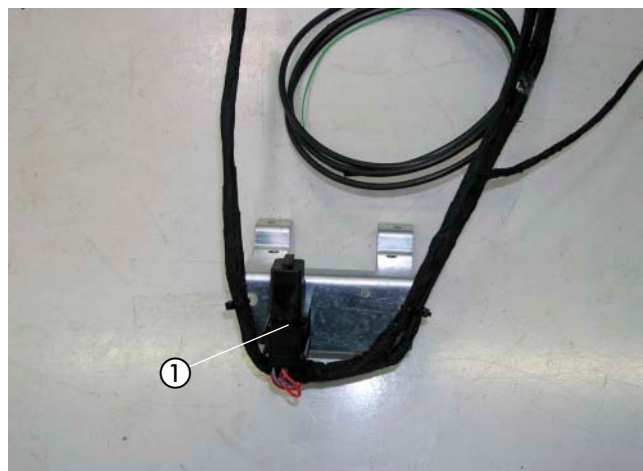


Photo 37

① Relay mounted on the holder

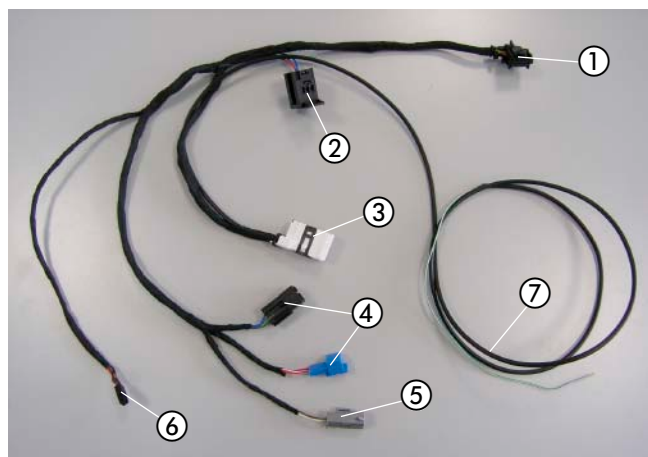


Photo 38

- ① Connection, stationary part R⁺
- ② Relay block
- 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.

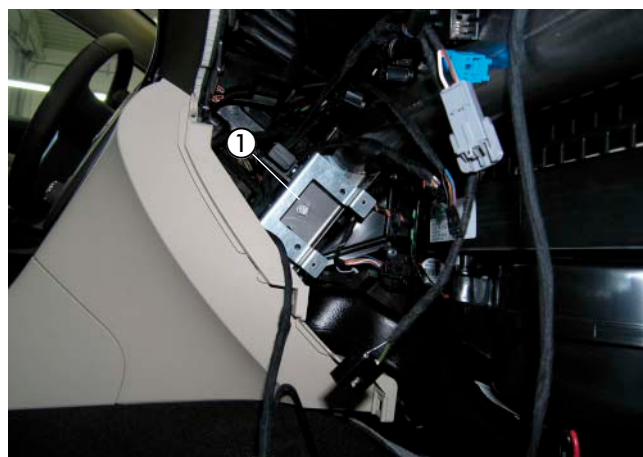


Photo 39

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



Photo 40

① Stationary part R⁺ mounted on the holder



6 Electrics

Use two 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 41

- 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.

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

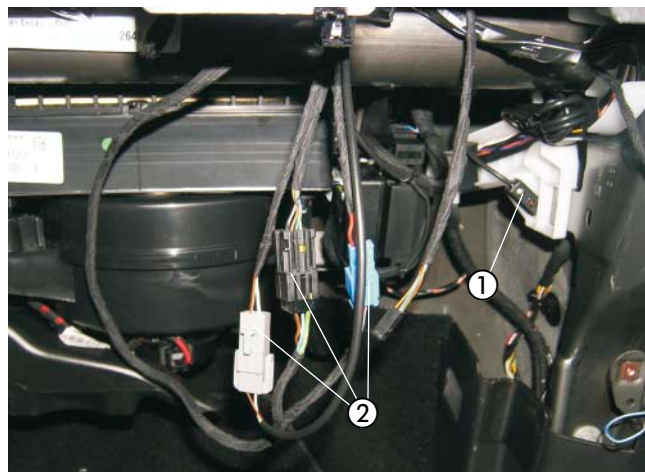


Photo 42

- ① Temperature sensor installed
② Plug-in connections made

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



Photo 43

- 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.

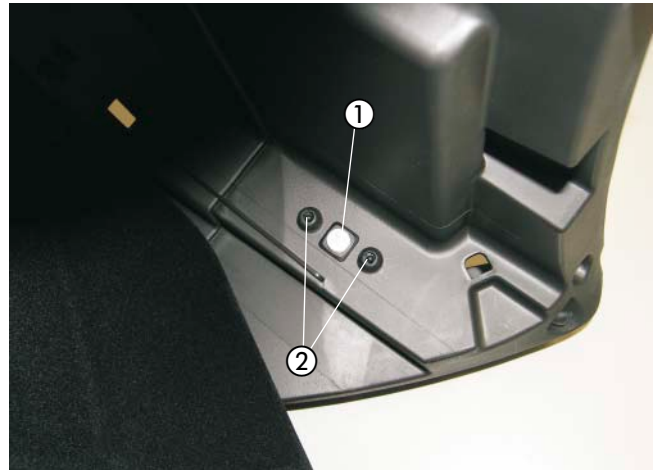


Photo 44

- 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 45

- ① Cables with insulating strips wound around them

Wind insulating strips around the cable 0.5 mm² gn / ws and lay it up to the DLC connector behind the shelf on the Driver's side.

Disconnect the cable 0.5 mm² gn at the 16-pin DLC connector (Pin 1) and use a red butt-type connector to tie in the cable 0.5 mm² gn / ws as shown in the photo.

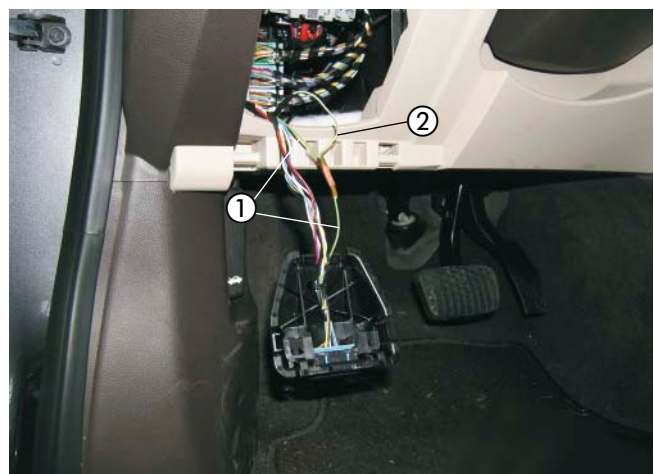


Photo 46

- ① Cable 0.5 mm² gn disconnected
- ② Cable 0.5 mm² gn / ws tied in



6 Electrics

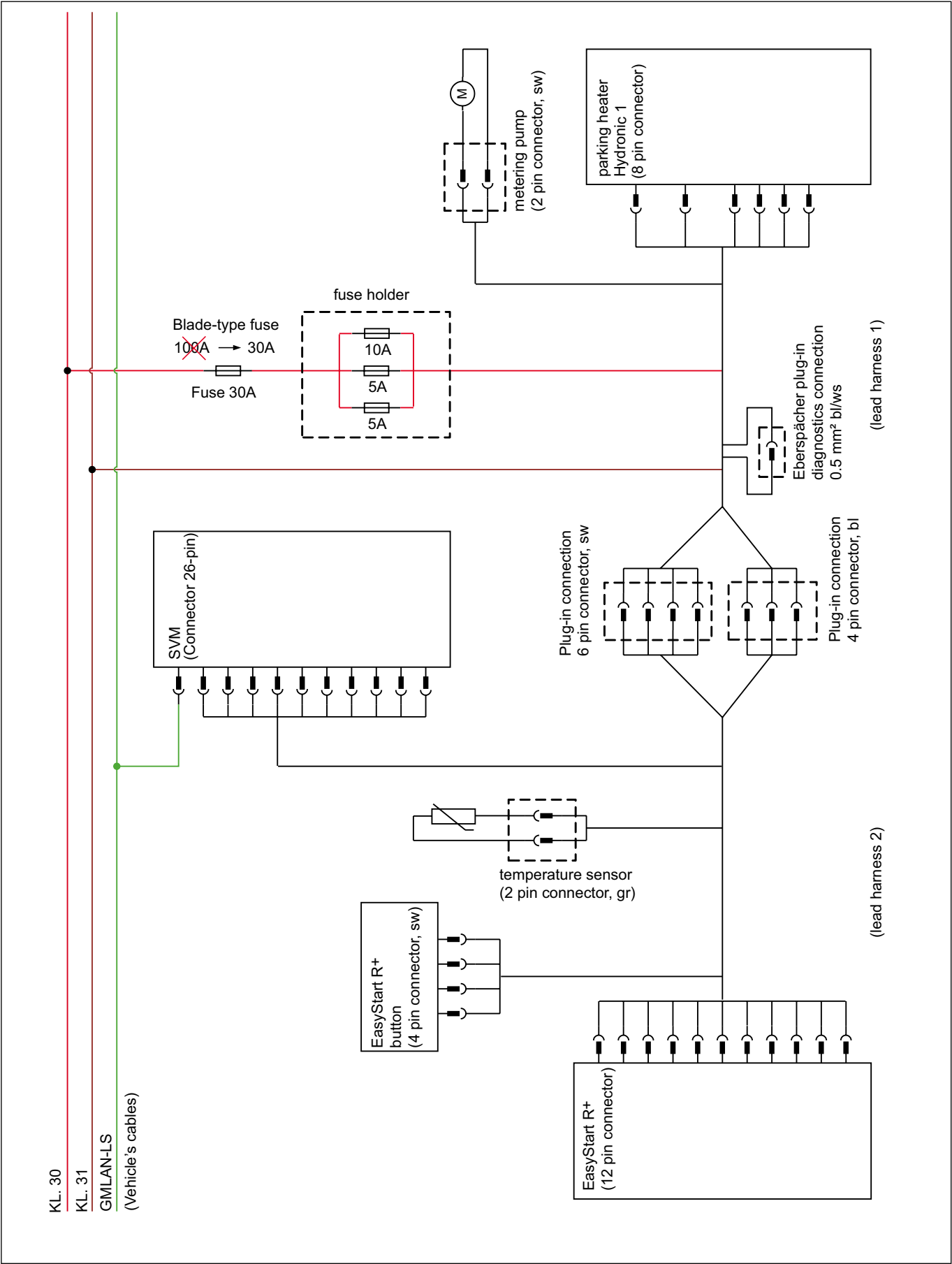


Diagram 3



7 After Installation

Install the heat shield and cover on the right-hand wheel arch housing

(see photos 47 to 49)

Lay the heat shield in line with the hole above the drillhole in the wheel arch liner and align as shown in the photo.

Mark and make the four drillholes Ø 8 mm in the wheel arch liner.

Use four plastic plugs and four plain washers M8 to fix the heat shield at the holes made.

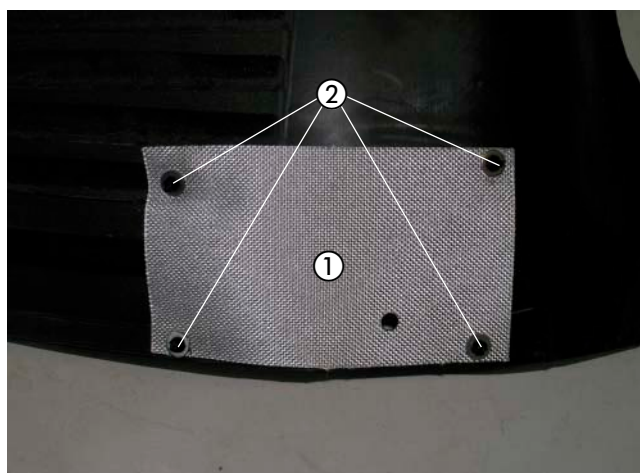


Photo 47

- ① Heat shield
- ② 4 x plastic plugs with 4 x plain washers M8

Use two cable ties to fix the cover of the right-hand wheel arch housing to the fixing points and align as shown in the photo.

Make two drillholes Ø 6.5 mm in the right-hand wheel arch housing.



Photo 48

- ① Cover of the wheel arch housing
- ② Two drillholes Ø 6.5 mm made

Use two flat-head screws, two body washers B6 and two hexagon nuts with collar M6 to fix the cover of the right-hand wheel arch housing as shown in the photo.

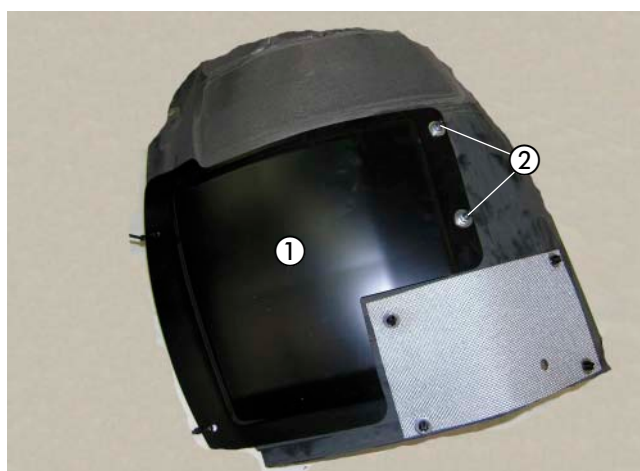


Photo 49

- ① Cover of the wheel arch housing
- ② Cover fixing points



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 Drillhole Ø 50 mm
- ③ Exhaust end pipe

- During installation of all removed parts the manufacturer guidance / instructions must be followed.
- 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 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 unit.
See Operating Instructions - Control.



Initial start-up

• Configure system

The system must be configured depending on the application.

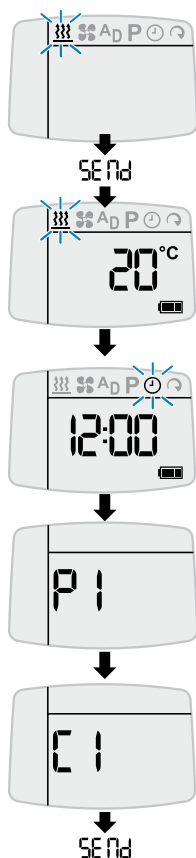
press until the menu bar appears in the display, then release the key.
The symbol and the SEND text appear briefly.

Select symbol using or .
then briefly press and simultaneously.

Confirm menu **P1** with **OK**.

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

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 **OK**, they are displayed step by step.



If the menu item C1 / 07 has been confirmed with **OK** 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.

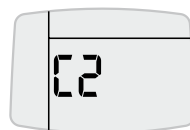
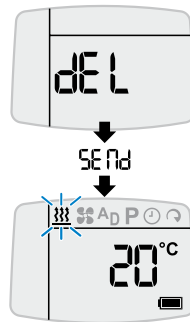
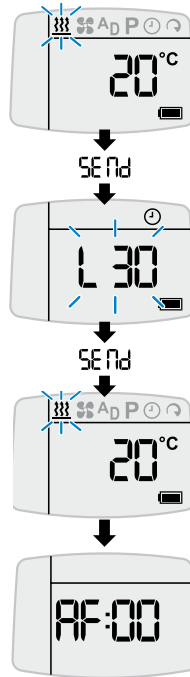
The diagnosis is completed.

Display system configuration

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

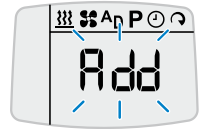
After they have been confirmed with , the individual menu items are displayed step by step.

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**.

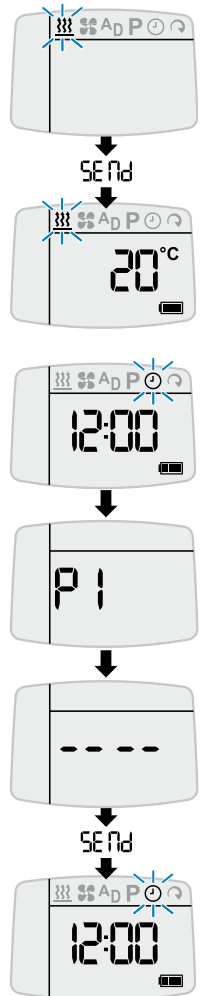
Menu **P1** is displayed.

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

Item	Designation	Quantity	Order number
1	Vehicle specific additional parts		13343696
	Unit bracket	1	
	Unit bracket, front	1	
	Exhaust holder	1	
	Fuse holder	1	
	Relay holder, stationary part R ⁺ , SVM control box	1	
	Torx screw M6 x 130	1	
	Rubber buffer	4	
	Spacer sleeve	2	
	Hexagon screw M6 x 12	2	
	Hexagon screw M6 x 16	6	
	Hexagon screw M6 x 25	1	
	Hexagon nut M6	7	
	Body washer B6.4	8	
	Flat head screw with collar 3.9 x 9.5	2	
	Plastic nut, light blue	2	
	Flat head screw with collar ST 5 x 20	2	
	Fillister-head screw M5 x 25	1	
	Screw M5 x 10	1	
	Hexagon screw M5 x 16	1	
	Hexagon nut M5	5	
	Body washer B5	1	
	Fillister-head screw M4 x 12	2	
	Plain washer 8.4	4	
	Plain washer 5.3	2	
	Hexagon nut M8	1	
	Body washer B8	1	
	Body screw B 4.8 x 19	1	
	Hexagon screw M12 x 45	1	
	Flat-head screws (wheel arch housing)	2	
	Screw 9 x 19-A2	1	
	Exhaust pipe with end sleeve	0.3 m	
	Exhaust clip	3	
	Foam strips	2	
	Butt-type connector, red	1	
	Hose holder, pivoted	3	
	Exhaust silencer	1	
	Combustion air pipe	1	
	Hose clip Ø 16-25 mm	1	
	Moulded hose without Ohlerflex	1	
	Moulded hose Ø 20 x 180°	1	
	Water pump holder	1	
	Reducer Ø 20/18 mm	1	
	Clips Ø 20-32 mm	6	
	Rubberised clip Ø 28 mm	3	
	Plastic holder 4.3 - 22	2	
	Fuel pipe Ø 4 x 1 mm	2 m	
	Fuel pipe Ø 4 x 1.25 mm	5 m	
	Metering pump holder	1	
	Gemi clip Ø 10.5 mm	8	
	Fuel tank extractor	1	
	Fuel hose elbow 105°	2	
	Fuel hose 3.5 mm x 50 mm	0.05 m	
	Fuel hose 3.5 mm x 50 mm	0.05 m	



8 Parts Overview

Item	Designation	Quantity	Order number
1	Vehicle specific additional parts		13343696
	Cover, wheel arch housing	1	
	Cable loom 1	1	
	Cable loom 2	1	
	Spacer - rubber plugs (button)	2	
	Relay 20A	1	
	Fuse 30A	1	
	SVM control box	1	
	Button	1	
	Easy Start R+	1	
	Cable ties	10	
	Cable ties	60	
	Cable ties	5	
	Sticker (refuelling)	1	
	gasket for tank fitting	1	
	locking ring for tank fitting	1	
	Plastic plugs	4	
	Speed nut, plastic	1	
	Heat shield material	1	
	Cable lug A6	1	
	Single fuse holder	1	
	Retaining plate	1	
	Seal, yellow	2	
	Fuse contact 4 - 6 mm ²	2	
	Fuse 30A	1	
	Cable 4 mm ² red	0.2 m	