HYDRONIC

**Installation Recommendations**

Eberspächer

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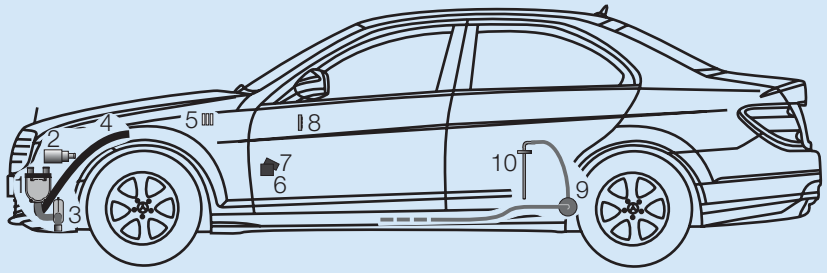
# *HYDRONIC* D 5 W S in Mercedes Benz C Class (W 204)

**2007 model**
**with THERMATIC (S) 2-zone automatic air conditioning or**
**with THERMOTRONIC 3-zone comfort automatic air conditioning**
**with or without xenon headlights**
**with or without front fog lamps**
**with or without 4MATIC 4-wheel drive**
**with or without residual heat pump**
**with manual or with automatic gearbox or with 7G-TRONIC**

- **2.2 l cubic capacity / 100 kW - 136 HP (200 CDI)**
- **2.2 l cubic capacity / 125 kW - 170 HP (220 CDI)**
- **3.0 l cubic capacity / 165 kW - 224 HP (320 CDI)**

**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 it 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* D 5 W S
2 Water pump
3 Exhaust pipe with exhaust silencer
4 Combustion air tube
5 Fuse holder
6 Fan relay
7 IPCU module
8 Timer
9 Metering pump
10 Fuel tank extractor

**Installation position**
The *HYDRONIC* D 5 W S is fixed using a bracket in a horizontal position in the right-hand quarter bumper.
The exhaust connection faces downwards, the control box to the left.

**Installation time: approx. 8 h**

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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 poisonous exhaust entering the inside of the vehicle.
This can cause serious and even fatal risks.

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/or repair are dangerous and are therefore 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 noted observed 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 |
| 2.2 l | 100 / 135 | 6S / 5AT |
| 2.2 l | 125 / 170 | 6S / 5AT |
| 3.0 l | 165 / 224 | 6S / 7GT |

6S = 6 gear manual gearbox
5AT = 5 gear automatic gearbox
7GT = 7G-TRONIC

**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, however, be possible.

# 1 Introduction

**Parts required for the installation**

| Quantity | Designation | Order No. |
|---|---|---|
| 1 | *HYDRONIC* D 5 W S as complete kit | 25 2386 05 00 00 |
| 1 | Vehicle-specific additional parts | 24 8310 00 00 00 |

In addition, a control is required:

| | | |
|---|---|---|
| 1 | EasyStart T | 22 1000 32 88 00 |
| or | | |
| 1 | EasyStart R radio remote control | 22 1000 32 85 00 |
| or | | |
| 1 | EasyStart R+ radio remote control | 22 1000 32 80 00 |

**Please note!**

If using the IPCU module and the vehicle's software is subsequently updated, the control of the vehicle's fan and the function of the air damper control can also be disrupted.

**Special tools required**

- Torque wrench (5....50 Nm)
- Anti-corrosion agent
- Pliers for spring strip clamps
- Step drill
- Tool for bind rivet nuts
- 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 |

Fit all screwed connections, except those of the heater itself (M6 x 97), with a circlip (corrugated ring washer) or a split washer.

**Preparation on the vehicle**

- disconnect the battery
- remove the lower trim of the glove compartment
- remove the air conditioning control
- remove the centre console with cigarette lighter
- remove car mat on the passenger side
- remove toeboard on the passenger side
- remove rear seat bench
- remove air filter box
- remove right-hand wheel
- remove right-hand wheelhouse panel
- remove bottom engine panel
- remove bottom bumper fascia
- remove right-hand underside panelling
- depressurise the cooling system
- drain coolant into clean container

# 2 Installation - Heater

**Prepare the installation position**
(see Photos 1 and 2)

In vehicles with residual heat pump, pull the ventilation hose off the residual heat pump.

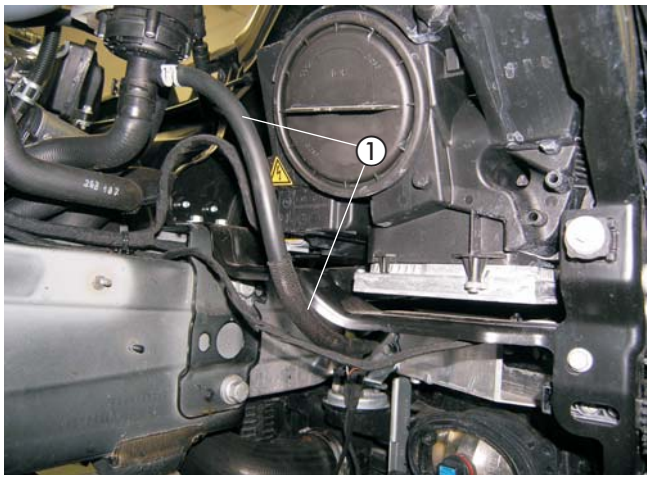



Photo 1

① Ventilation hose

Make the Ø 9 mm holes in the right-hand side member according to the dimensioning in the Photo.
Pull one M6 blind rivet nut into each of the Ø 9 mm holes.
Attach the edge protection (250 mm and 50 mm) to the strut of the right-hand headlights as shown in the photo.
Attach the edge protection (60 mm) to the bumper carrier.

In vehicles with residual heat pump, lay the removed ventilation hose over the strut of the right-hand headlight to the residual heat pump and reconnect.

**Please note!**

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

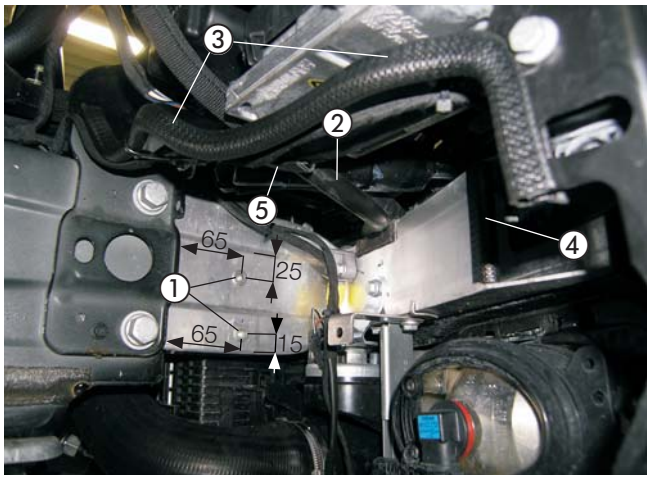



Photo 2

① Ø 9 mm hole with M6 blind rivet nut
② Ventilation hose laid
③ Edge protection (250 mm)
④ Edge protection (60 mm)
⑤ Edge protection (50 mm)

**Install heater**
(see Photos 3 to 6)

Fasten an M6 metal-rubber buffer to the top M6 blind rivet nut.

Use the existing M6 screw to install the bracket (22 1000 50 14 00) on the carrier of the bumper as shown in the photo.

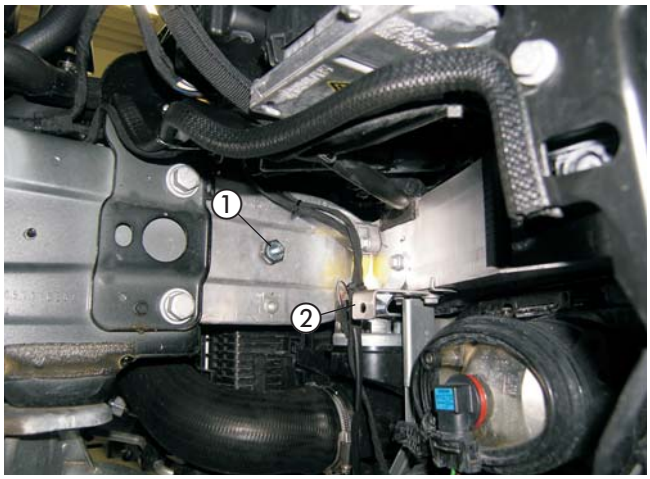



Photo 3

① M6 metal-rubber buffer fastened
② Bracket (22 1000 50 14 00) installed

# 2 Installation - Heater

Install the heater bracket on the right-hand side member and on the bracket (22 1000 50 14 00) using M6 x 16 screws and M6 nuts as shown in the photo.

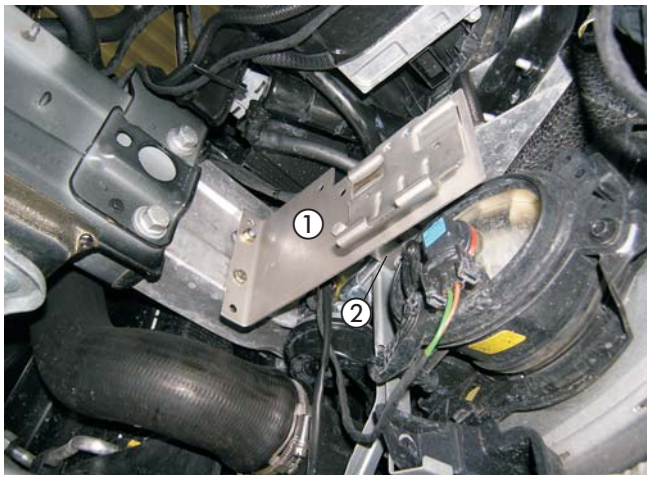



Photo 4

① Heater bracket installed
② Bracket (22 1000 50 14 00)

Install the water pipe sockets of the heater as shown in the photo, see Technical Description,
"Installation" chapter, "Installation of the elbowed water pipe sockets" section.

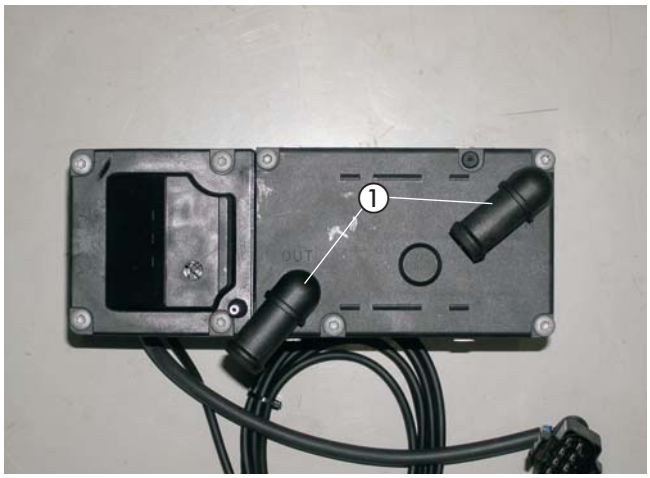



Photo 5

① Elbowed water pipe sockets installed

Remove the duplicate rating plate from the heater.
Deface the date Photos which are not applicable so that they are illegible.
Attach the duplicate rating plate in a suitable, clearly visible position in the engine compartment.

Insert the heater in the bracket and use the M6 x 97 fixing screw to screw into the right-hand threaded hole with $6^{+0,5}$ Nm.

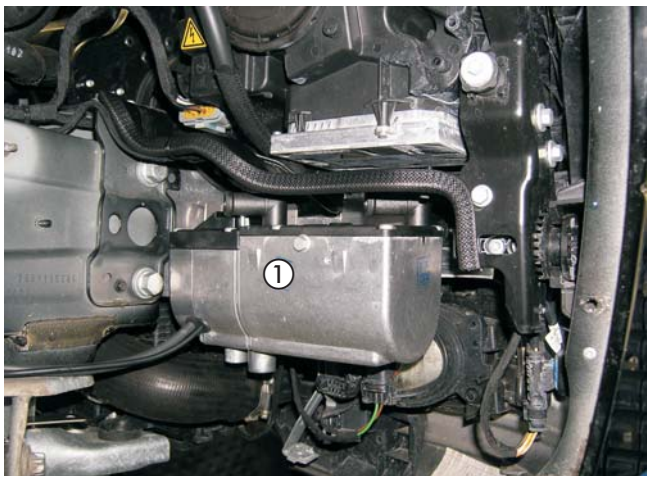



Photo 6

① Heater installed

# 3 Exhaust and combustion air circuit

**Install exhaust silencer and connect**
(see Photos 7 to 13)

Use M6 x 16 screw, M6 nut and two B6 body washers to install the bracket (90° angle) onto the exhaust silencer. Use M6 x 16 screw and M6 nut to install a second bracket (Z angle) to the bracket (90° angle) as shown in the photo.

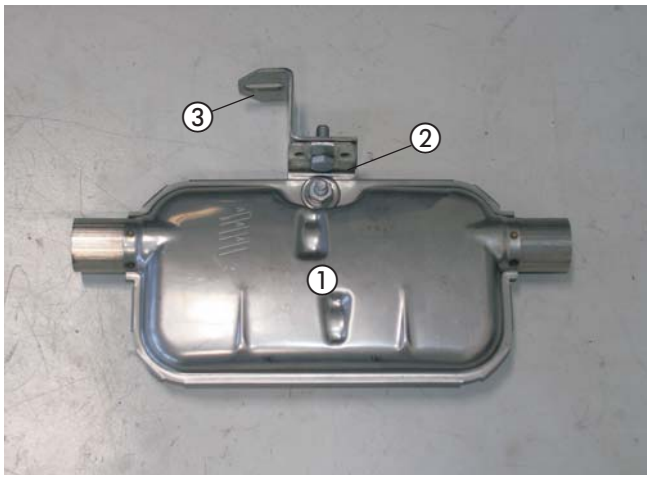



Photo 7

① Exhaust silencer
② Bracket (90° angle) installed
③ Bracket (Z angle) installed

Loosely pre-fit the exhaust silencer to the front left-hand fastening of the bottom bumper fascia using the existing M6 screw.

The arrow on the exhaust silencer faces towards the left.

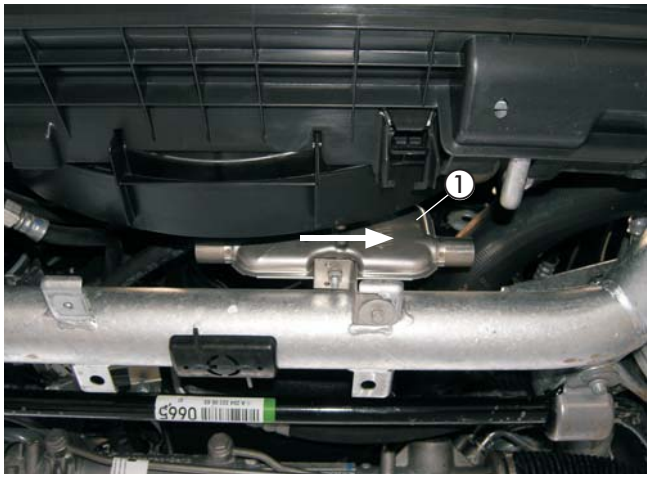



Photo 8

① Exhaust silencer installed

Mount the bracket (22 9000 50 21 03) in the existing Ø 7 mm hole of the right-hand cross-member using the M6 x 16 screw and M6 nut as shown in the photo.

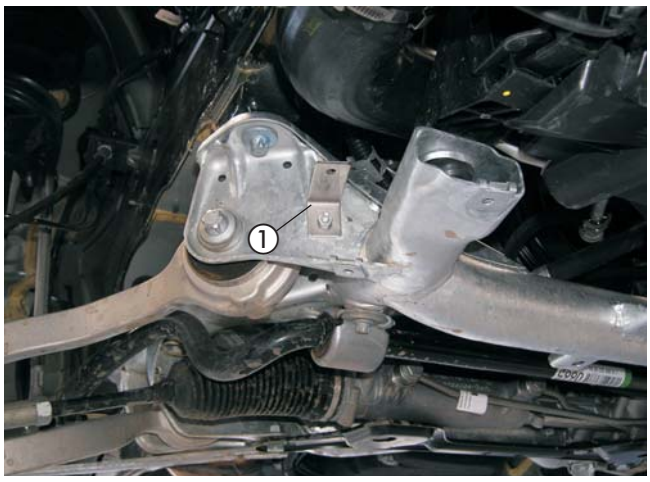



Photo 9

① Bracket (22 9000 50 21 03) installed

# 3 Exhaust and combustion air circuit

Cut the exhaust pipe to a length of 630 mm and push on two spacer rubber profiles.
Use a pipe clamp to fasten the exhaust pipe to the exhaust outlet connections of the heater, lay to the exhaust inlet connection of the exhaust silencer and fix using a pipe clamp.
Fix the exhaust pipe to the pre-installed bracket (22 9000 50 21 03) using Ø 28 mm clamp, M6 x 16 screw and M6 nut as shown in the photo.
Position the spacer rubber profiles between the hose of the intercooler and the engine bearer as well as between the air conditioning line and the engine bearer.

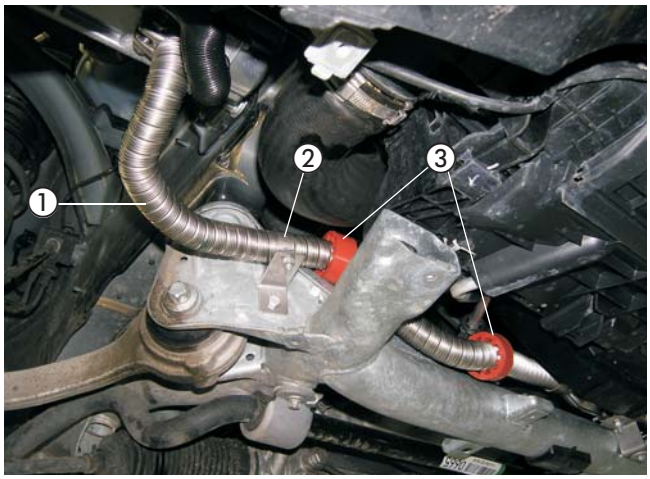



Figure 10

① Exhaust pipe connected
② Clamp Ø 28 mm
③ Spacer rubber profile

Cut the exhaust end pipe to a length of 220 mm and use a pipe clamp to fasten to the exhaust outlet connection of the exhaust silencer.
Shape the exhaust end pipe and lay as shown in the photo.




Photo 11

① Exhaust end pipe connected

In the bottom left-hand side bumper fascia, make Ø 41 mm hole according to the dimensions in the photo and insert the grommet for the exhaust pipe.




Photo 12

① Grommet for exhaust pipe inserted

# 3 Exhaust and combustion air circuit

Install the bottom bumper fascia and at the same time use the existing M6 screw to fix the exhaust silencer.
Guide the exhaust end pipe through the grommet for the exhaust pipe.

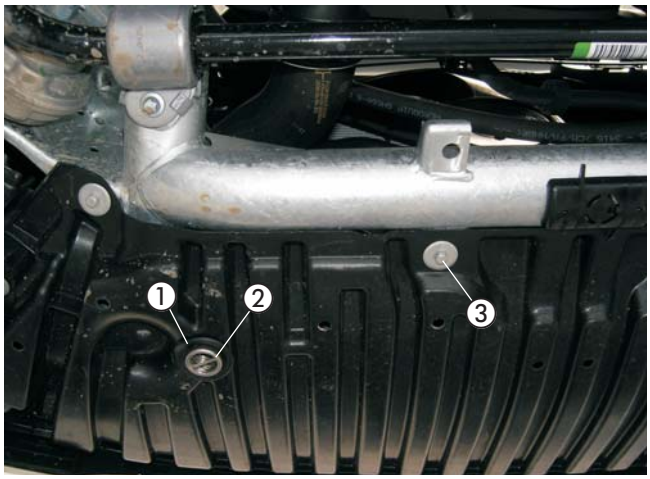



Photo 13

① Grommet for exhaust pipe
② Exhaust end pipe connected
③ M6 screw

**Please note!**

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

**Install combustion air pipe**
(see Figure 14)

Connect the combustion air pipe to the heater using a Ø 16 – 25 mm hose clip, lay upward and along the right-hand wheel housing.
Use cable ties to fix the combustion air pipe.
Make a drain hole Ø 2 mm for condensation in the deepest point of the laid combustion air pipe.

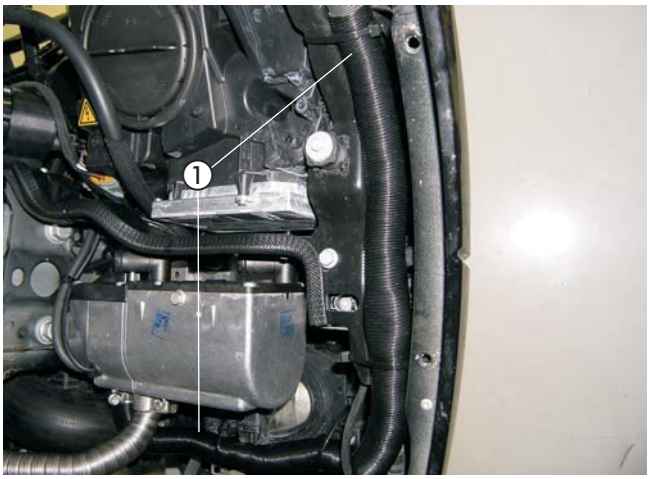



Photo 14

① Combustion air pipe laid

**Please note!**

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

# 4 Water circuit

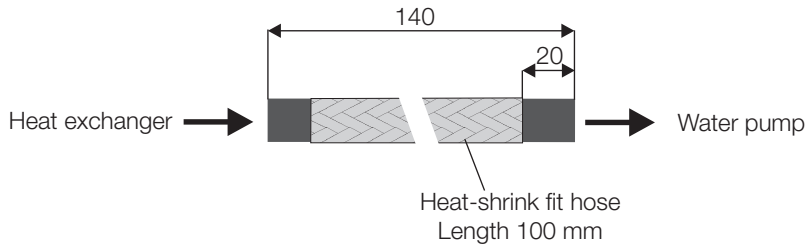
**Prepare the water hoses**
**for vehicles without residual heat pump**
(see Sketch 1)

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

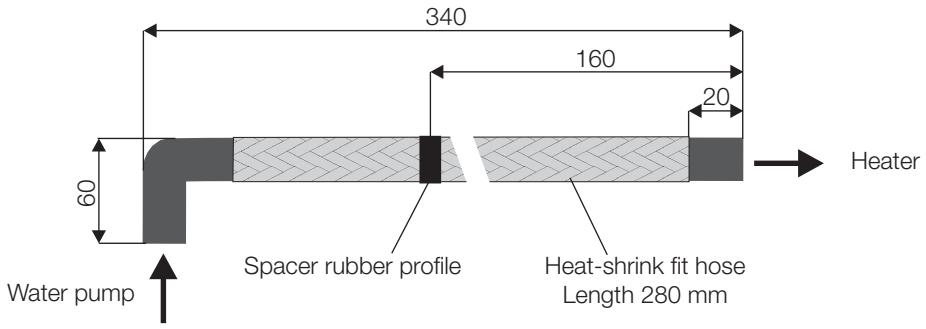
**Please note!**

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

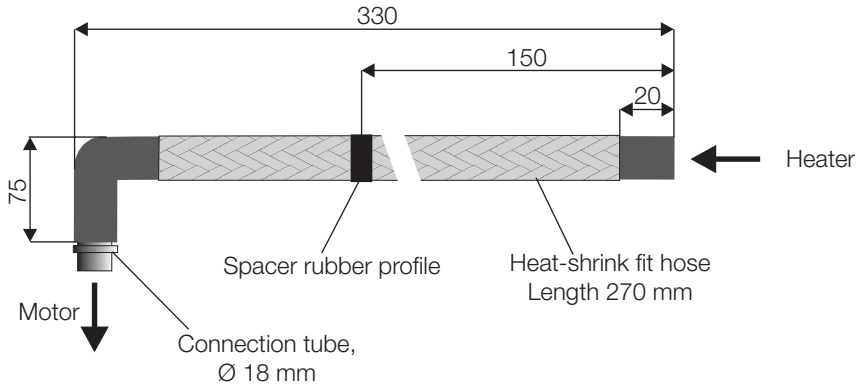
**Water hose**
**from heat exchanger to the water pump**




**Water hose**
**from the water pump to the heater**




**Water hose**
**from heater to the engine**




Sketch 1

# 4 Water circuit

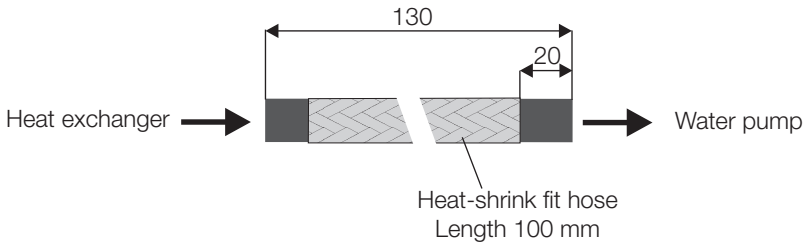
**Prepare the water hoses**
**for vehicles with residual heat pump**
(see Sketch 2)

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

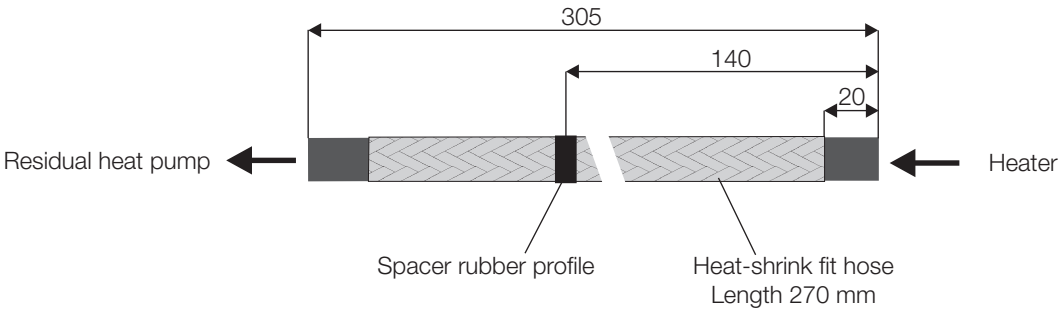
**Please note!**

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

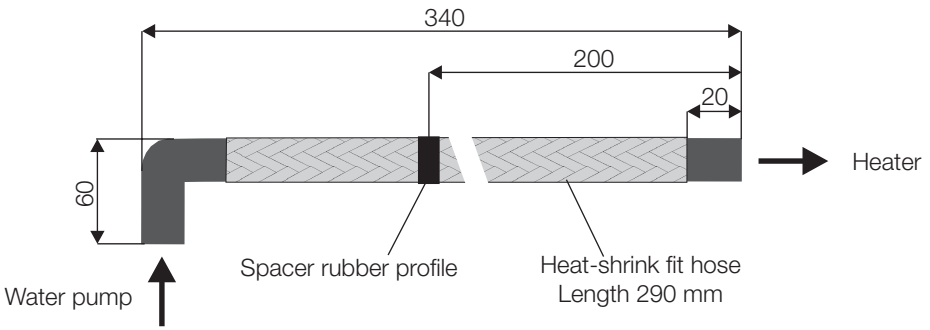
**Water hose**
**from heat exchanger to the water pump**




**Water hose**
**from heater to the residual heat pump**




**Water hose**
**from the water pump to the heater**




Sketch 2

# 4 Water circuit

**Cut water return hose**
**in vehicles without residual heat pump**
(see Photo 15)

Cut the water return hose from the engine to the heat exchanger according to the dimensions in the photo.
Remove the piece of hose (95 mm), it is no longer required.

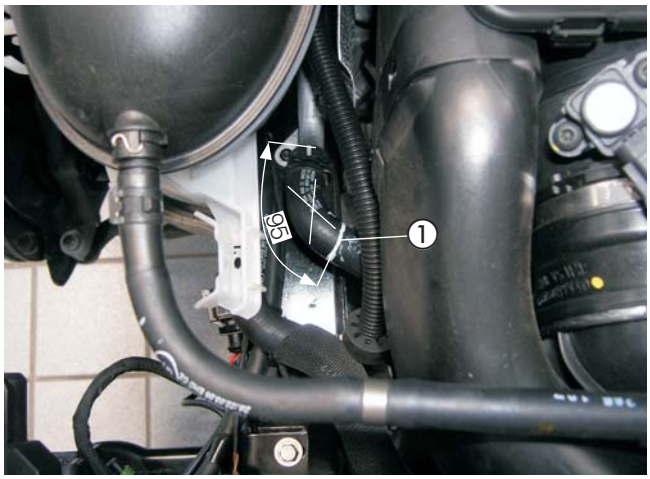



Photo 15

① Cutting point in water return hose

**Install water pump**
**in vehicles without residual heat pump**
(see Photo 16)

Insert the water pump in the rubber holder and install on the right-hand side member.
To do this, unscrew the existing rear M6 screw and fasten the water pump using M6 x 30 screw and B6 body washer as shown in the photo.
The discharge connection is pointed to the right and the intake connection to the rear.




Photo 16

① Water pump with rubber holder installed

**Connect the water hoses and lay in vehicles without residual heat pump**
(see Photo 17 and Sketch 1)

Connect the water hose from the heat exchanger to the water pump to the intake connection of the water pump and to the water strip of the water return using Ø 20 – 32 mm hose clips.

Connect the water hose from the water pump to the heater at the water inlet connections of the heater and at the discharge connection of the water pump using Ø 20 – 32 mm hose clips.

Connect the water hose from the heater to the engine at the water outlet connection of the heater using Ø 20 – 32 mm hose clip.
Lay the water hose to the cutting point and connect to the water hose of the engine with Ø 18 mm connection pipe and Ø 20 – 32 mm hose clip.

Fix the water hose from the heat exchanger to the water pump and the water hose from the heater to the engine with each other using plastic clips and cable ties.

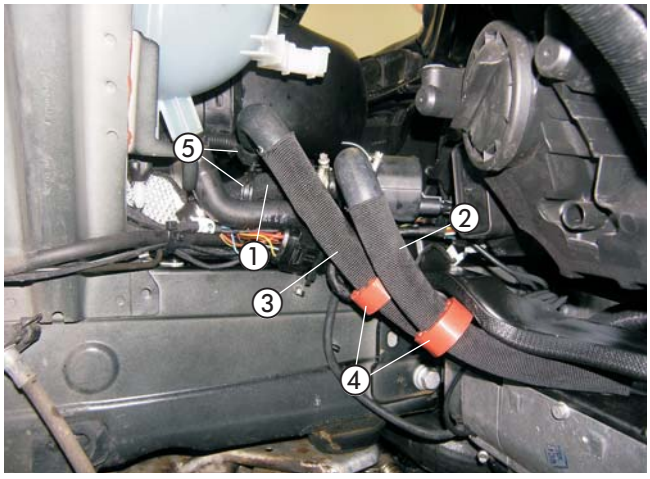



Photo 17

① Water hose from heat exchanger to the water pump
② Water hose from the water pump to the heater
③ Water hose from heater to the engine
④ Spacer rubber profile
⑤ Plastic clamp

**Please note!**

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

**Remove water return hose**
**for vehicles with residual heat pump**
(see Photo 18)

Remove the water return hose from the engine to the heat exchanger between the water strip and the residual heat pump, the hose is no longer needed.




Photo 18

① Water return hose

**Install water pump**
**for vehicles with residual heat pump**
(see Photo 19)

Insert the water pump in the rubber holder and install on the right-hand side member.
To do this, unscrew the existing rear M6 screw and fasten the water pump using M6 x 30 screw and B6 body washer as shown in the photo.
The discharge connection is pointed to the right and the intake connection to the rear.

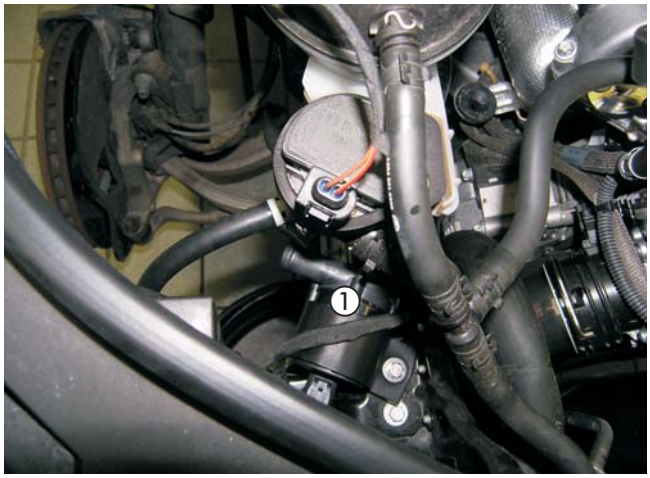



Photo 19

① Water pump with rubber holder installed

**Connect and lay water hoses**
**for vehicles with residual heat pump**
(see Photo 20 and Sketch 2)

Connect the water hose from the heat exchanger to the water pump to the intake connection of the water pump and to the water strip of the water return using Ø 20 – 32 mm hose clips.

Connect the water hose from the water pump to the heater at the water inlet connections of the heater and at the discharge connection of the water pump using Ø 20 – 32 mm hose clips.

Use Ø 20 – 32 mm hose clips to connect the water hose from the heater to the residual water pump at the water outlet connection of the heater and at the connection of the residual heat pump.

Fix the water hoses to each other using plastic clips and cable ties.

**Please note!**

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

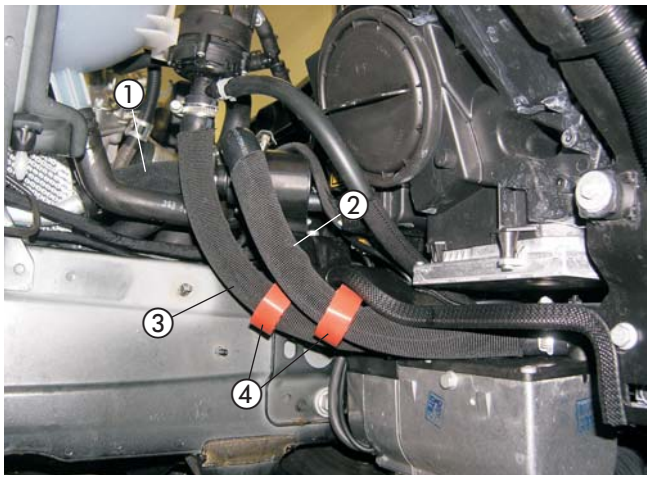



Photo 20

① Water hose from heat exchanger to the water pump
② Water hose from the water pump to the heater
③ Water hose from heater to the residual heat pump
④ Spacer rubber profile

# 5 Fuel supply

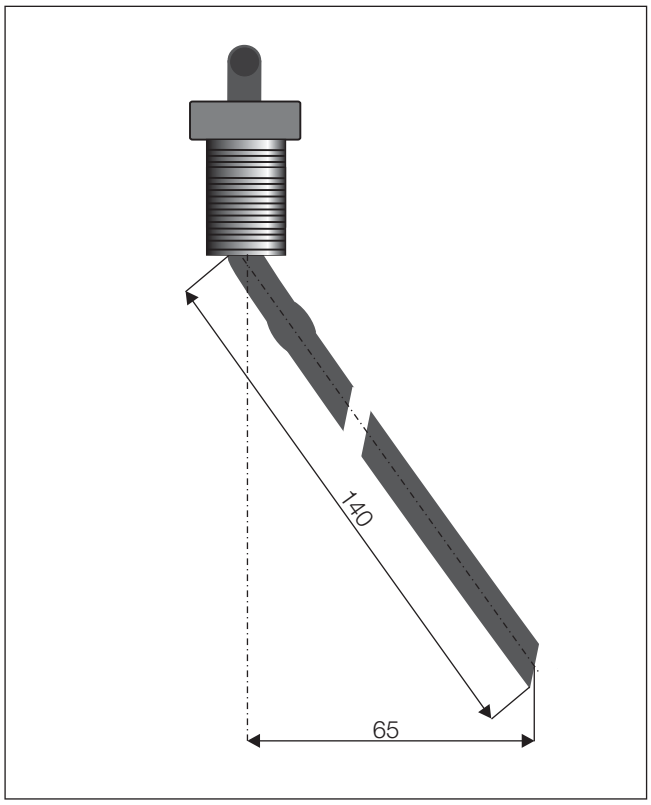
**Install fuel tank extractor**
(see Sketch 3 and Photos 21 to 23)

Prepare the riser pipe of the fuel tank extractor as shown in the sketch.
Obliquely cut the bottom end of the riser pipe, with approx. 45° angle, to the correct length.

Unscrew the cover above the right-hand tank fitting.
Undo the plug-in connection at the tank connection.
Remove the tank fitting from the tank opening by loosening the bayonet ring.

**Please note!**

The tank fitting should not be removed for longer than 10 minutes because of expansion of the tank!




Sketch 3

Make Ø 8 mm hole in the top part of the tank fitting with the dimensions shown in the photo.
Guide the fuel tank extractor through the prepared hole in the cover of the tank fitting, screw tight with the M8 nut and align as shown in the photo.

**Please note!**

When drilling, ensure that no dirt gets into the the tank or the supply lines.

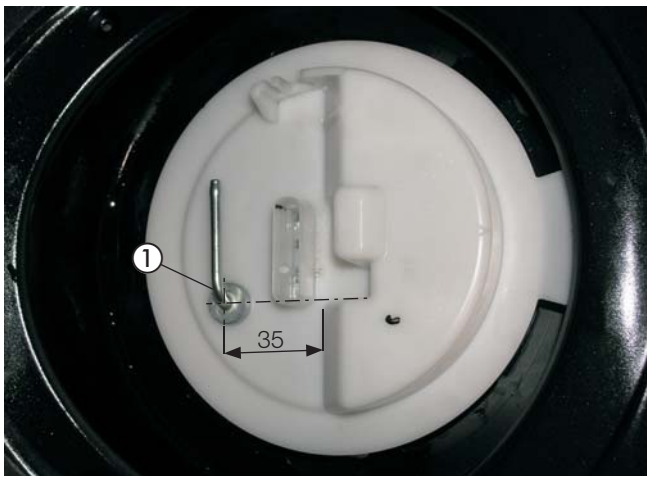



Photo 21

① Fuel tank extractor installed




Photo 22

① Fuel tank extractor installed

Insert the cover of the tank fitting back in the tank, fix with the bayonet ring; ensure the seal fits correctly.
Connect the cables back onto the tank fitting.
Connect the fuel pipe Ø 4 x 1 mm with fuel hose Ø 3.5 x 3 mm, length 50 mm, to the intake connection of the fuel tank extractor, cover with sponge rubber hose and lay to the installation position of the metering pump on the right-hand side behind the tank.
Secure the connection points with hose clips, Ø 9 mm.
Re-install the cover in the floor pan above the tank.

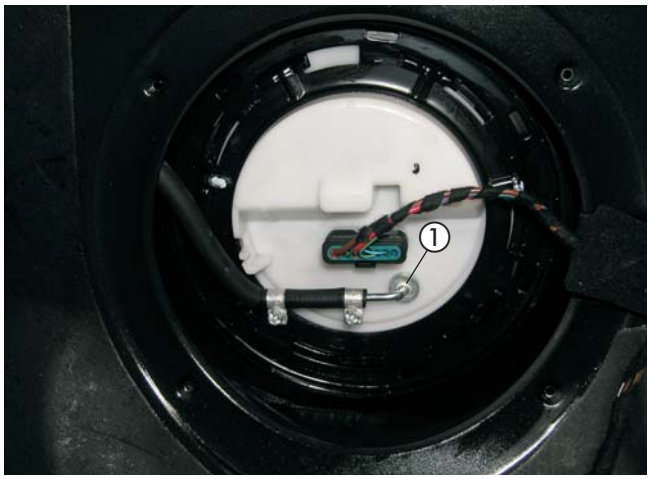



Photo 23

① Fuel tank extractor connected

**Install metering pump and connect**
(see Photos 24 and 25)

Insert the metering pump in the rubber holder and fix on the left behind the tank to the rear left-hand cross member in the existing Ø 7 mm hole using M6 x 20 screw, M6 nut and B6 body washer.
Ensure the pump is installed in a position with at least 15° rising gradient on the discharge side.
The discharge connection of the metering pump is facing towards the right.
Cut the fuel pipe Ø 4 x 1 mm from the fuel tank extractor to the metering pump and connect to the fuel hose Ø 3.5 x 3 mm, length 50 mm at the intake connection of the metering pump.
Remove the mating connector of the metering pump connection at the main cable harness.
Remove the dummy plugs from the mating connector.
Plug the connector of the metering pump cable supplied into the metering pump connection of the main cable harness.




Photo 24

① Metering pump with rubber holder installed

Cover the fuel pipe Ø 4 x 1.25 mm from the heater to the metering pump with sponge rubber hose.
Connect the fuel pipe Ø 4 x 1.25 mm with the fuel hose Ø 3.5 x 3 mm, length 50 mm to the heater and lay from the heater, together with the metering pump cable, along the fuel lines, through the tunnel to the metering pump.
Cut the fuel pipe Ø 4 x 1.25 mm to the correct length, connect with fuel hose Ø 3.5 x 3 mm at the discharge connections of the metering pump and fix with cable ties.
Latch the plug-in contacts of the metering pump cable into the mating connector without noting the polarity.
Connect the connector to the metering pump.

**Please note!**

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

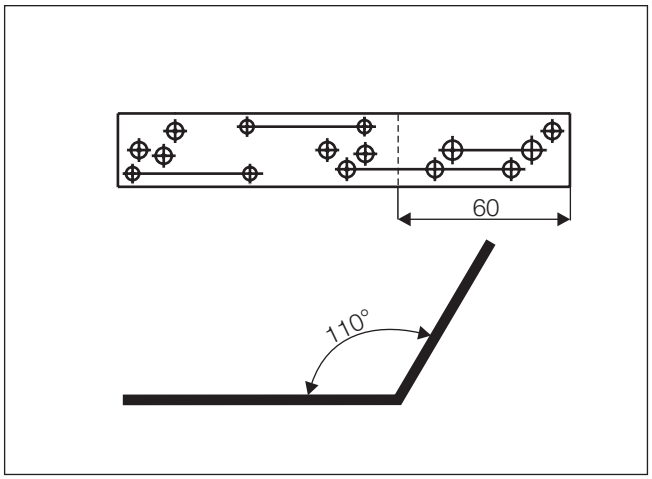



Photo 25

① Fuel pipe and cable loom laid

**Install fuses**
(see Photo 26 and Sketch 4)

Shape the holder for the fuse base as shown in the sketch.
Use two M4 x 16 screws to fix the fuse holder to the holder for the fuse base.
Remove the bottom dummy plug in the right-hand wiper trough and install the holder for the fuse base in the existing Ø 9 mm hole using M6 x 16 screw, M6 nut and B6 body washer as shown in the photo.
Connect the 8 pin connector of the main cable harness with the 8 pin flat connector housing of the heater's cable loom.
Install the relay 2.5.7 on the inside of the toeboard on the passenger side in the existing Ø 6 mm hole using M5 x 10 screw and M5 nuts (see Photo 29).




Sketch 4

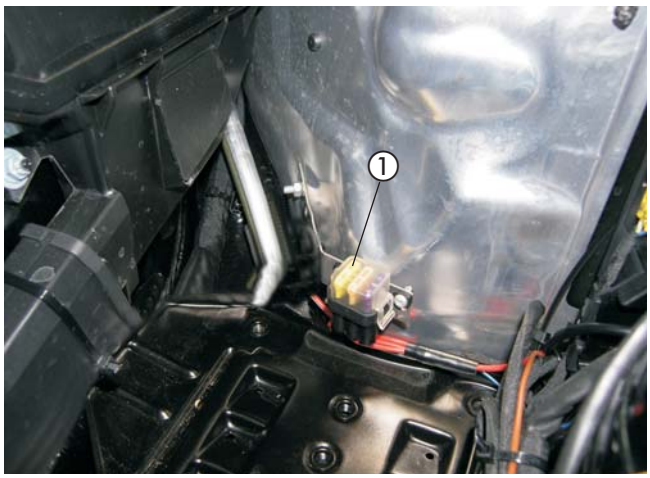



Photo 26

① Holder with fuses installed

**Cable laying**
(see Photo 27)

Lay the "control" cable loom through the vehicle's own cable grommet in the right-hand wiper trough into the inside of the vehicle.




Photo 27

① Cable penetration

**Power supply**
(see Photo 28)

Lay the plus cable 4 mm² rt to the existing plus support point on the left next to the right-hand MacPherson strut tower and connect to the front plus support point using the cable lug A8. To this end, replace the A6 cable lug with the A8 cable lug.

Guide the minus cable 2.5 mm² br to the existing ground support point on the right-hand MacPherson strut tower and connect with the cable lug A6.

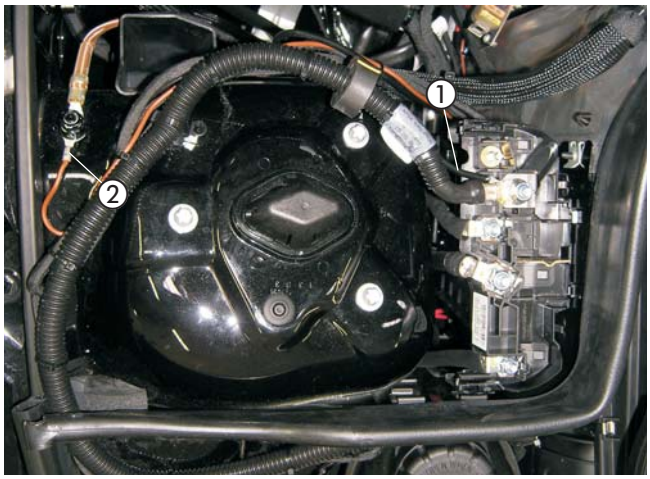



Photo 28

① Plus cable connected
② Minus cable connected

**Fan control**
(see Photos 29 to 32 and Sketch 5)

The fan is controlled using the air-conditioning control.
To this end, push the base of the IPCU module on the inside of the toeboard of the passenger side onto the base of the relay 2.5.7.
Lay the 1 mm² sw and 1 mm² sw/ws cables from the IPCU base as well as the 1 mm² sw/ws and 1 mm² rt/ws cables from the relay base to the air-conditioning control.
Lay the 1 mm² sw/rt cable from the IPCU base through the existing cable grommet into the engine compartment and use plug-in connector to connect with the 0.5 mm² sw/rt cable of the heater.

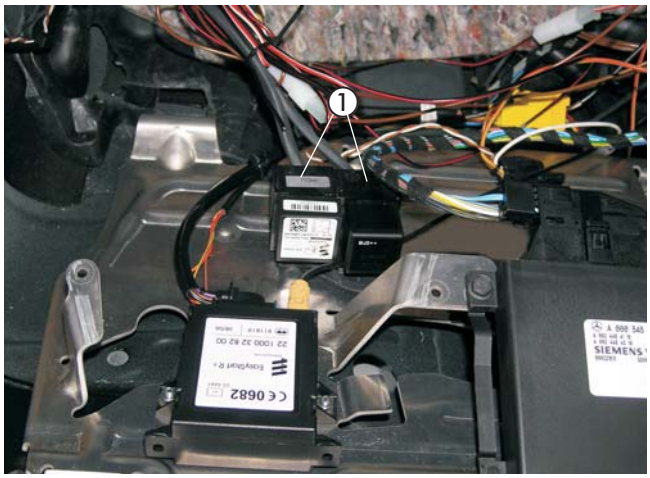



Photo 29

① IPCU module and relay 2.5.7 installed

Disconnect the 0.5 mm² ws cable at Pin 4 of the black 4-pin connector and tie in the 1 mm² sw and 1 mm² sw/ws cable from the IPCU base with the plug-in connectors in accordance with the circuit diagram.

Disconnect the 0.5 mm² rt cable at Pin 3 of the black 4-pin connector and tie in the 1 mm² rt/ws and 1 mm² sw/ws cable from the relay base with the plug-in connectors in accordance with the circuit diagram.

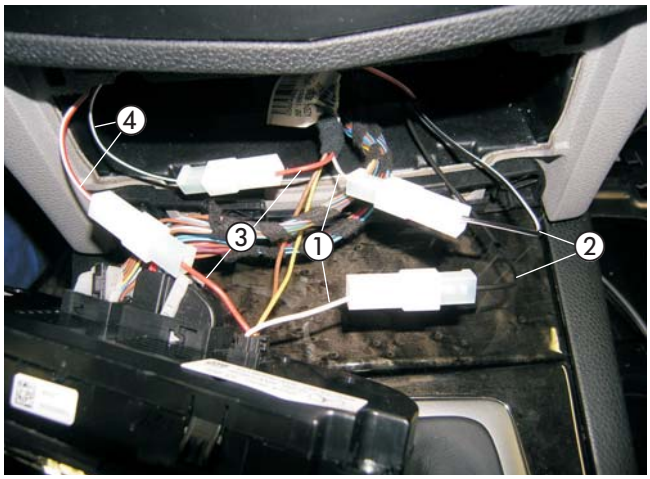



Photo 30

① 0.5 mm² ws cable disconnected
② 1 mm² sw and 1 mm² sw/ws cables connected
③ 0.5 mm² rt cable disconnected
④ 1 mm² rt/ws and 1 mm² sw/ws cables connected

Connect the minus cable 1 mm² br from IPCU base and 1 mm² br from relay base to the existing ground support point on the right in the passenger's footwell together in a cable lug A6.

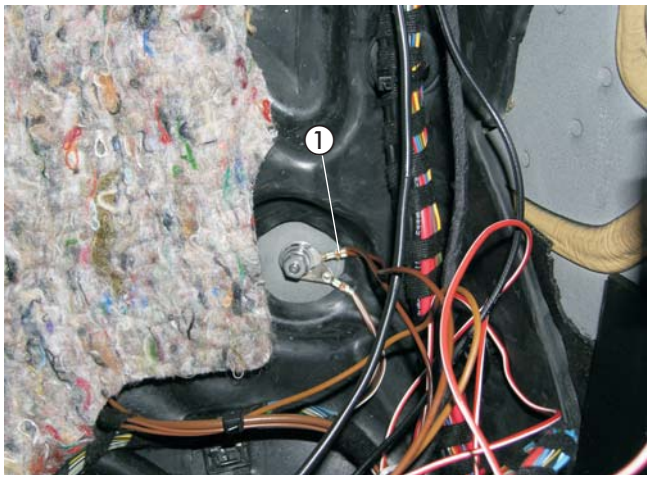



Photo 31

① Minus cable 1 mm² br connected

Lay the 1 mm² sw/rt cable from the relay base and the 1 mm² rt/ws cable from the IPCU base to the cigarette lighter in the centre console.
To this end, remove the centre console with cigarette lighter. Disconnect the 2.5 mm² rt cable at Pin 3 of the black 4-pin connector and tie in the 1 mm² sw/rt and 1 mm² rt/ws cable with the plug-in connector in accordance with the circuit diagram.

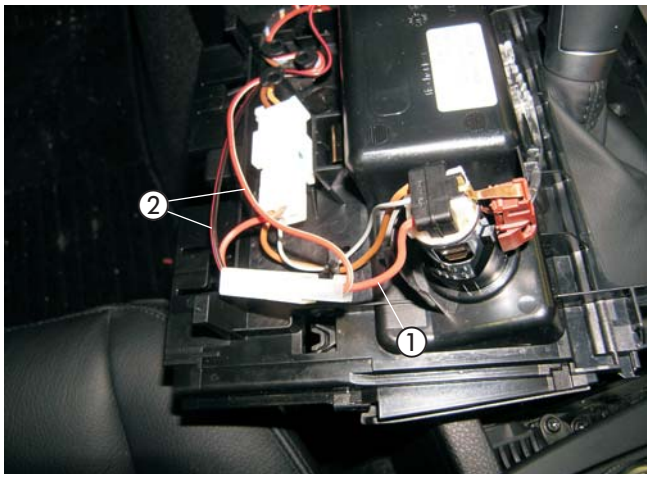
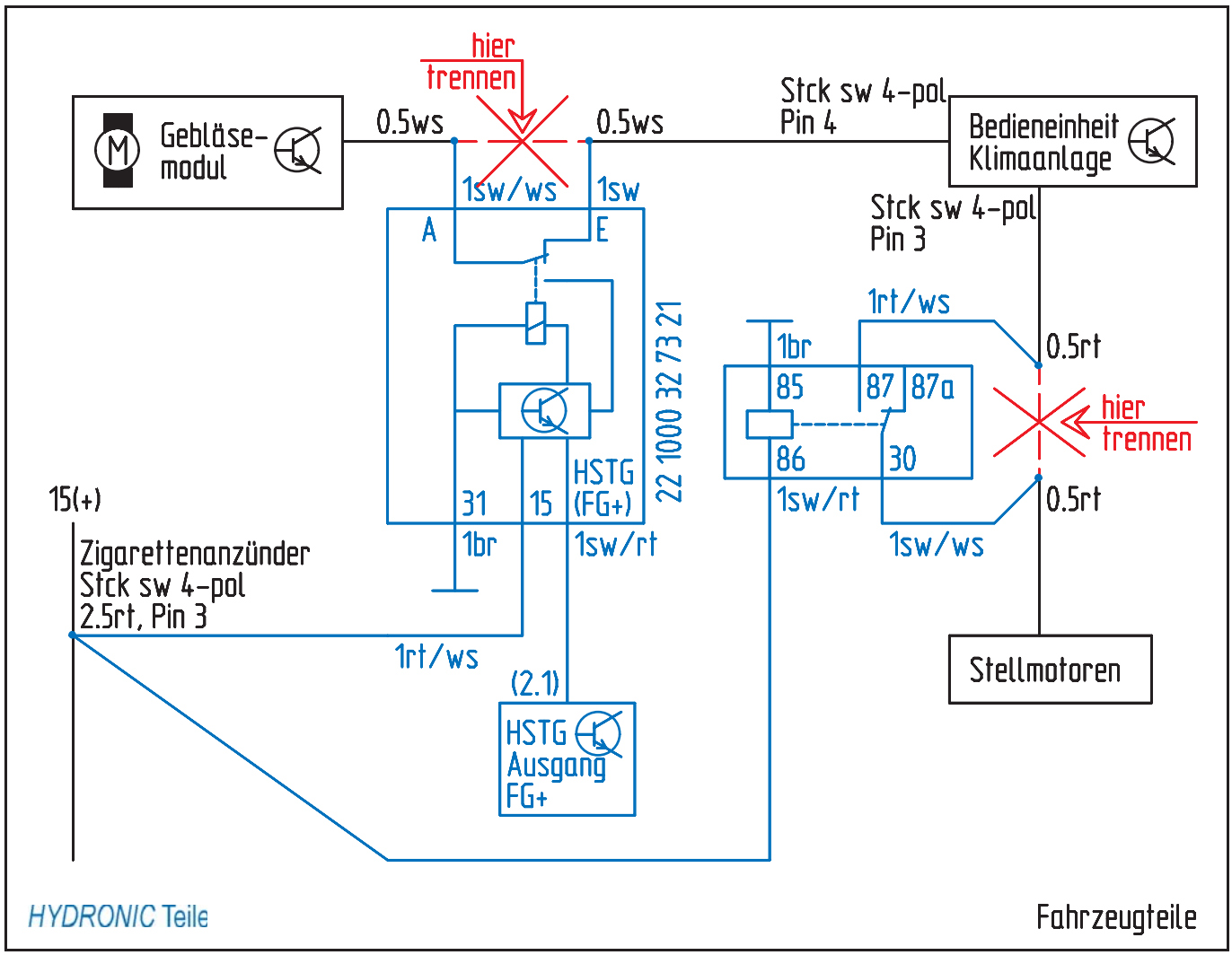



Photo 32

① 2.5 mm² rt cable disconnected
② 1 mm² sw/rt and 1 mm² rt/ws cables connected


hier
trennen
Gebläse-
modul
0.5ws
0.5ws
Stck sw 4-pol
Pin 4
Bedieneinheit
Klimaanlage
1sw/ws
1sw
A
E
Stck sw 4-pol
Pin 3
1rt/ws
1br
85
87
87a
0.5rt
hier
trennen
86
30
1sw/rt
0.5rt
1sw/ws
22 1000 32 73 21
HSTG
(FG+)
31
15
15(+)
1br
1sw/rt
Zigarettenanzünder
Stck sw 4-pol
2.5rt, Pin 3
1rt/ws
(2.1)
HSTG
Ausgang
FG+
Stellmotoren
HYDRONIC Teile
Fahrzeugteile

Sketch 5

**Install EasyStart T**
(see Photo 33)

The EasyStart T is installed according to the "EasyStart T" installation instruction.
Install the EasyStart T on the left-hand trim next to the steering column as shown in the photo.
Use the self-adhesive drilling template supplied to position and drill the holes for fixing the timer and the heater lead harness.
Make the Ø 6 mm and Ø 8 mm holes.
Remove the drilling template after making the holes.
If necessary, the foam template can be used to level out the unevenness.
To do this, pull off the protective film and stick the base onto the timer.
Guide the heater lead harness through the Ø 8 mm hole and use the expansion plug to pre-install the timer in the Ø 6 mm hole.
If the foam film is used, pull off the second protective film too.
Push or screw the fixing screw into the expansion plug and use it it fix the timer.
Attach the flat connector from the timer lead harness at the 9 pin flat connector housing, the already installed push-on sleeves on the push-on sleeve housing.
Push the fuse clasp into the flat connector housing.
Pull off the protective film of the cover cap and glue in the cover cap.

**Please note!**

Do not decide on the installed location of the timer until after consulting the customer.




Photo 33

① EasyStart T installed

**Install EasyStart R/R⁺ radio remote control (Alternative suggestion - consult with the customer)**
(see Photos 34 and 35)

The EasyStart R/R⁺ is installed according to the Technical Description for the EasyStart R/R⁺ Radio Remote Control; see the "Installation Instruction" section.
Install the EasyStart R/R⁺ button on the left on the cover of the shift gate as shown in the photo.
To this end, remove the cover and make a hole Ø 8 mm.
Insert the button in the Ø 8 mm hole.




Photo 34

① EasyStart R/R⁺ button installed

# 6 Electrics

Fix the stationary part of the EasyStart R/R+ on the inside of the toeboard on the passenger side using two M4 x 10 screws and M4 nuts as shown in the photo.
To do this, position the stationary part, mark the drilling points and make the Ø 4 mm holes.

Attach the temperature sensor of the EasyStart R/R+ to the trim of the A pillar in the passenger footwell.
Lay the cable from the installed button and temperature sensor together with the "Control" cable loom to the installed position of the stationary part.
Cut the cables to the correct length, crimp the push-on sleeves, attach the bush housing B7 and connect to the stationary part.
Connect the antenna cable of the EasyStart R/R+ to the stationary part, guide 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 dashboard.

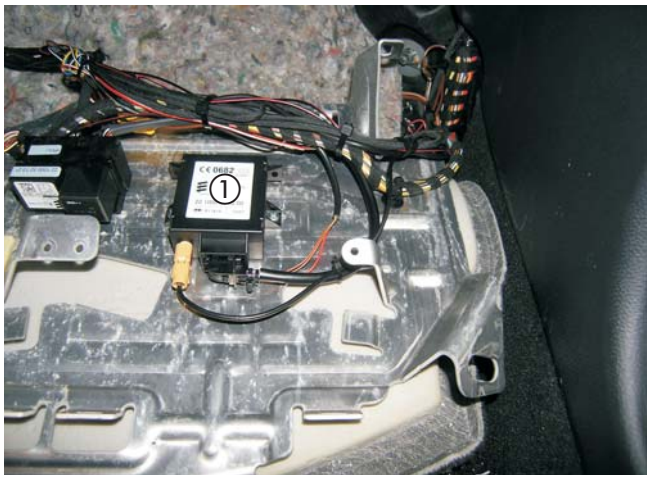



Photo 35

① EasyStart R/R+ stationary part installed

# 7 After installation

**Complete the vehicle**

- Install all removed parts in the reverse order.
- Reconnect the battery.
- Check the hoses, hose clips and pipe clamps as well as all electrical connections for secure fit.
- Use cable ties to secure all loose cables, lines, etc.
- Set the clock.
- 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 Instruction together with the leaflet for the customer in the glove compartment.

**Please note!**

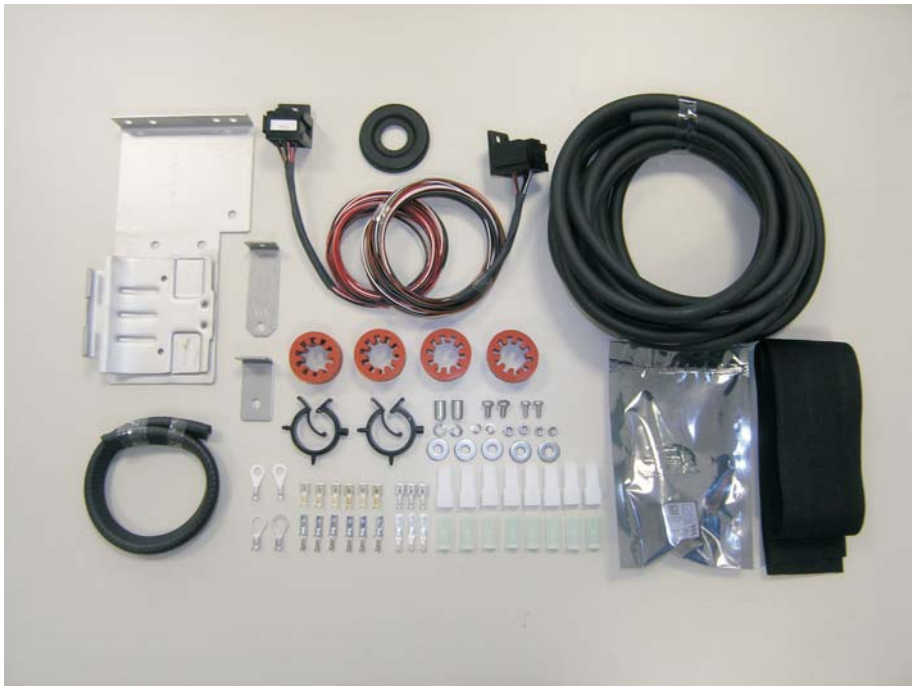
Fill the cooling system with the coolant liquid specified by the vehicle manufacturer only.

**Starting up the heater**

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

# Parts Overview

| Item | Designation | Quantity | Order number |
|---|---|---|---|
| 1 | Vehicle-specific additional parts<br>of which, the following are to be used: | 1 | 24 8310 00 00 00 |
| | Bracket, heater | 1 | |
| | Bracket | 1 | |
| | Bracket | 1 | |
| | Blind rivet nut M6 | 2 | |
| | Fillister-head screw M5 x 10 | 2 | |
| | Hexagon nut M5 | 2 | |
| | Circlip (corrugated ring washer) B5 | 2 | |
| | Fillister-head screw M4 x 10 | 2 | |
| | Hexagon nut M4 | 2 | |
| | Circlip (corrugated ring washer) B4 | 2 | |
| | Body washer B6 | 5 | |
| | Cable lug A8 | 2 | |
| | Cable lug A6 | 2 | |
| | Push-on sleeve 1 mm² | 3 | |
| | Push-on sleeve 2.5 mm² | 6 | |
| | Flat connector 1 mm² | 6 | |
| | Flat connector 2.5 mm² | 3 | |
| | Flat connector housing | 8 | |
| | Push-on sleeve housing | 8 | |
| | Spacer rubber profile | 4 | |
| | Grommet for exhaust pipe | 1 | |
| | Plastic clamp | 2 | |
| | IPCU base, pre-wired | 1 | |
| | IPCU module | 1 | |
| | Relay base, pre-wired | 1 | |
| | Edge protection | 0.36 m | |
| | Heat-shrink fit hose | 0.70 m | |
| | Sponge rubber hose Ø 5 x 3 mm | 6.00 m | |



Item 1 Vehicle-specific additional parts 1 set

# 9 Leaflet for the customer

**Before switching on**
(see Photo 1 or 2)

- Before switching on or pre-programming heating mode with the ignition switched on, set the vehicle's temperature controller ① to "Hot" (maximum setting).
- Switch the button for the air system ② to Defroster. Maximum air directed to the front windscreen.
- The fan speed does not need to be pre-selected.

**Please note!**

The adjustment of the butterfly control valves with the ignition switched on does not become effective until after approx. 10 to 15 seconds.




Photo 1

① Temperature controller
② Button for the air system




Photo 2

① Temperature controller
② Button for the air system