HYDRONIC

Installation Recommendations

Eberspächer

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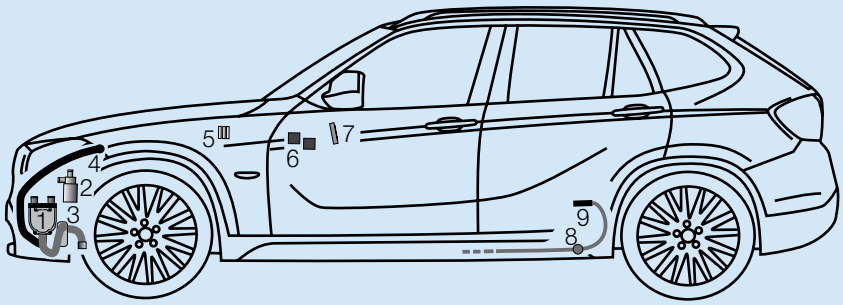
New vehicle-specific installation kit + heater

Hydronic II B 5 S in the BMW X1 sDrive 18i (X1)

from 2010 model to 02/2013
HSN: 0005
TSN: AYQ
2.0 l cubic capacity / 4 cylinder in-line engine / 110 kW - 150 HP
- with automatic air-conditioning
- with fog lamps
- with xenon headlamps
- with rear-wheel or four-wheel drive
- 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 II
2 Water pump
3 Exhaust pipe with exhaust silencer
4 Combustion air pipe
5 Fuse holder
6 IPCU and isolating relay
7 EasyStart T
8 Metering pump
9 Adapter Ø 7.5 / 3.5 mm

Installation location

The Hydronic II is fastened horizontally in the front left quarter bumper.
The exhaust connection faces downwards and the control box to the left.

Parts needed for installation:

(1) Vehicle-specific installation kit
(2) B 5 S
(3) EasyStart control unit as chosen
(4) Hydronic II auxiliary heater kit, optional

Installation time: approx. 8 h

Please note!

Please deliver the vehicle with an empty tank!

Contents

		Page
1	Introduction	2
2	Preparation of the vehicle	4
3	Preliminary assembly	6
4	Installation	14
5	After installation	28
6	Parts Overview	30
7	Leaflet for the customer	31

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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 sDrive	110 / 150	6S
2.0 l sDrive	110 / 150	6A

6S = 6-gear manual gearbox
6A = 6-gear automatic gearbox (Steptronic)

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*	24 8602 00 00 00
(2) Heater:	
1 Hydronic II B 5 S	20 1904 05 00 00
(3) EasyStart control unit as chosen:	
1 EasyStart T	22 1000 32 88 00
1 Console	22 1000 51 32 00
or	
1 EasyStart R+ radio remote control	22 1000 32 80 00
or	
1 EasyStart R radio remote control	22 1000 32 85 00
(4) Hydronic II auxiliary heater kit, optional:	
1 Auxiliary heater kit	24 8532 00 00 00

**** Important:*** *The new vehicle-specific installation kit contains* ***all*** *parts needed for installation.*

Special tools required

- Torque wrench (5....50 Nm)
- Anti-corrosion agent
- Pliers for spring band clamps
- Step drill
- Crimping tool
- Ejector tool for plug-in contacts

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

2 Preparation of the vehicle

- Disconnect the battery
- Remove rear seat bench
- Remove the AirCon control unit
- Remove the lower panelling of the instrument panel on the left
- Dismantle the bottom engine panelling
- Dismantle the right-hand underbody panelling
- Remove left-hand front wheel
- Dismantle left-hand front wheel arch housing
- Dismantle air filter housing and intake air pipe
- Depressurise the cooling system
- Drain coolant into a clean container

Instructions for removing the rear seat bench
(see photos 1 and 2)

Release the front part of the rear seat bench by pulling it up and out of the holders on the underbody.

Tip the rear seat bench forwards.



Photo 1

① Rear seat bench holder on the underbody
② Release the rear seat bench upwards and out of the holders of the underbody

Fold the insulation mat under the rear seat bench towards the rear of the vehicle.

Remove the cover above the tank fitting on the right-hand side of the vehicle by undoing the four nuts M6.

Disconnect the electric plugs from the tank fitting.

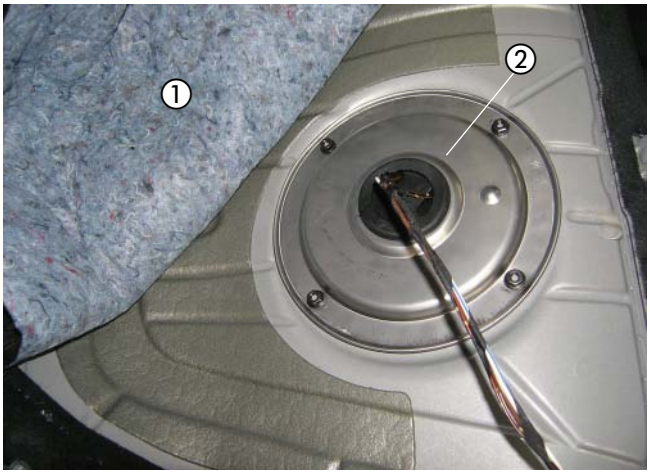


Photo 2

① Insulation mat under the rear seat bench
② Remove the cover above the tank fitting on the right-hand side of the vehicle

2 Preparation of the vehicle

Instructions for removing the AirCon control unit (AirCon control unit installed above the radio)
(see photo 3)

Insert two plastic wedges between the middle console and the air conditioning (AirCon) control unit and, from behind, release the air conditioning control unit from the installation shaft.

Disconnect the electric plug from the air conditioning control unit.



Photo 3

① AirCon control unit
② Insert two plastic wedges

Instructions for removing the AirCon control unit (AirCon control unit installed below the radio)
(see photos 4 and 5)

Use a plastic wedge to release the cover of the middle console upwards and out of the middle console.



Photo 4

① Release the middle console cover from above

Insert two plastic wedges between the middle console and the air conditioning (AirCon) control unit and, from behind, release the air conditioning control unit from the installation shaft.

Disconnect the the electric plug from the air conditioning control unit.



Photo 5

① AirCon control unit
② Insert two plastic wedges

3 Preliminary assembly

Prepare the unit holder
(see photo 6 and diagrams 1 to 3)

Prepare the holder 9304 as shown in the diagram.

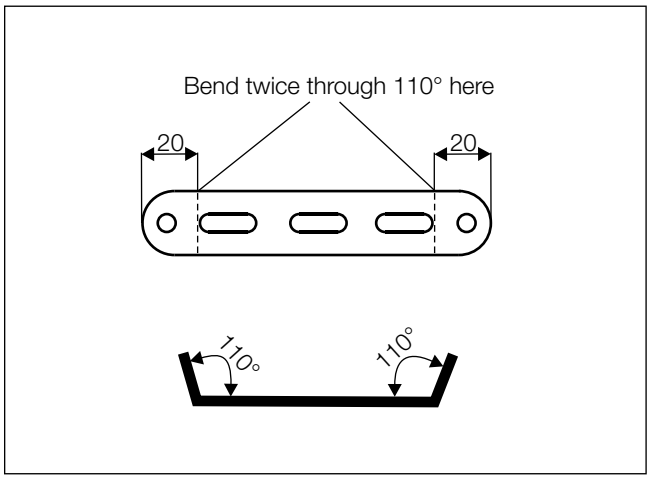


Diagram 1

Prepare the holder 9305/1 as shown in the diagram.

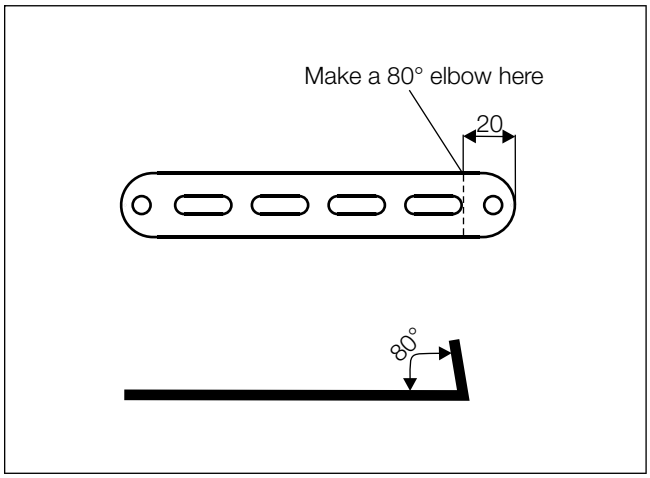


Diagram 2

Prepare the holder 9305/2 as shown in the diagram.

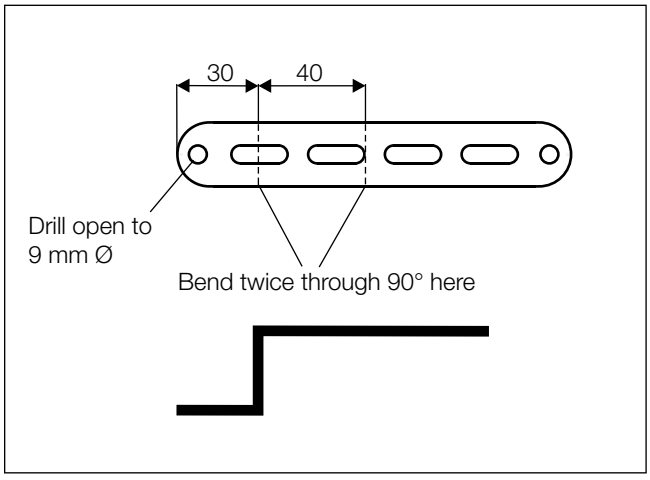


Diagram 3

3 Preliminary assembly

Use four screws M6 x 16 to install the prepared holder on the unit holder and align as shown in the photo.

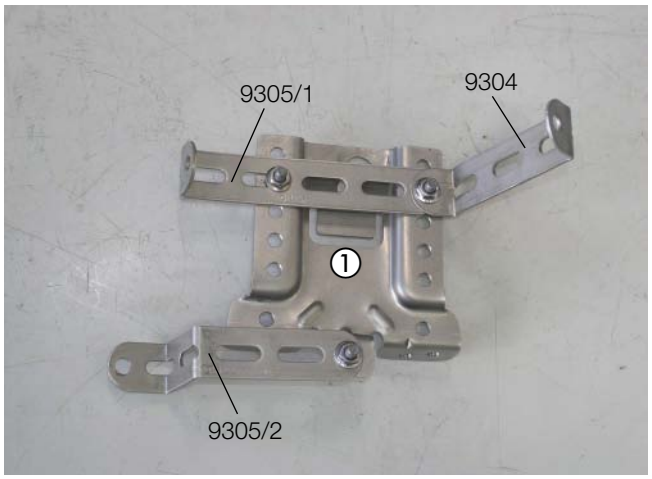


Photo 6

① Unit holder, with installed holders

Preassemble water pump
(see photo 7 and diagram 4)

Prepare a holder 9305 as shown in the diagram.

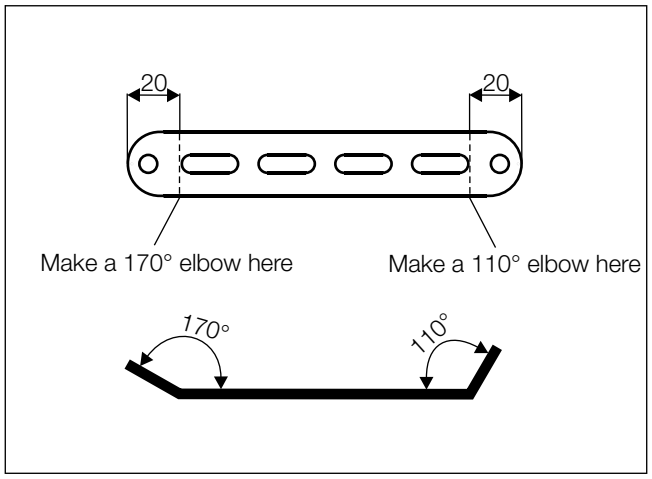


Diagram 4

Insert the water pump in water pump holder 22 1000 51 39 00 as shown.

Use two screws M6 x 12 to install the prepared holder 9305 to the water pump holder and align as shown in the photo.

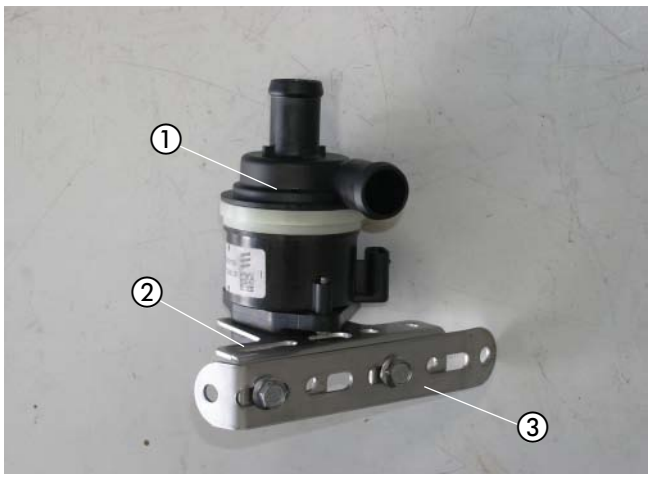


Photo 7

① Water pump
② Water pump holder 22 1000 51 39 00
③ Prepared holder 9305

3 Preliminary assembly

Preassemble the exhaust silencer for vehicles with manual gearbox
(see photos 8 and 9)

Use a screw M6 x 16 to mount the holder (Z bracket) for the exhaust silencer onto the exhaust silencer as shown in the photo.

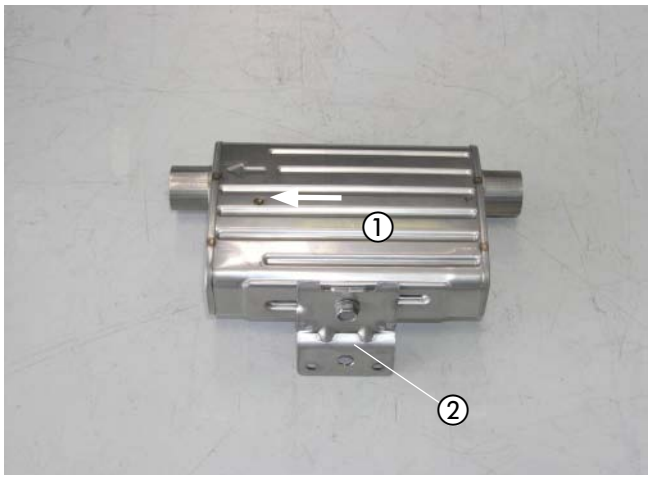


Photo 8

① Exhaust silencer
② Holder (Z bracket), exhaust silencer

Cut the exhaust pipe to a length of 500 mm and shape as shown.

Push a pipe clamp Ø 28 mm onto the exhaust pipe and align as shown in the photo.
Use a pipe clamp to connect the exhaust pipe to the inlet connection of the exhaust silencer.

Cut the exhaust end pipe to a length of 190 mm. Use a pipe clamp to connect the exhaust end pipe to the exhaust silencer's outlet connection and shape it as shown in the photo.

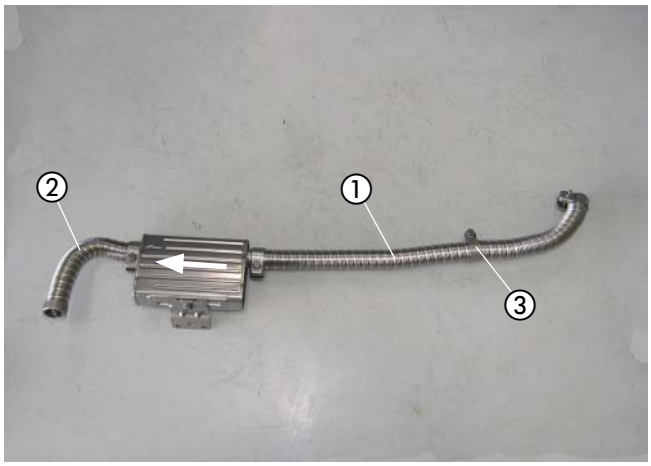


Photo 9

① Exhaust pipe
② Exhaust end pipe
③ Pipe clamp Ø 28 mm

Preassemble the exhaust silencer for vehicles with automatic gearbox
(see photos 10 to 12)

Use a screw M6 x 16 to mount the holder (90° bracket) for the exhaust silencer onto the exhaust silencer as shown in the photo.

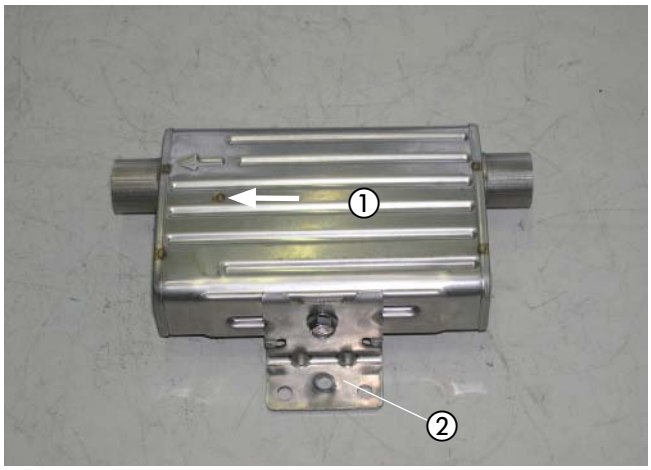


Photo 10

① Exhaust silencer
② Exhaust silencer holder (90° angle)

3 Preliminary assembly

Cut the exhaust pipe to a length of 250 mm and shape as shown.

Cut the exhaust end pipe to a length of 160 mm and shape as shown.

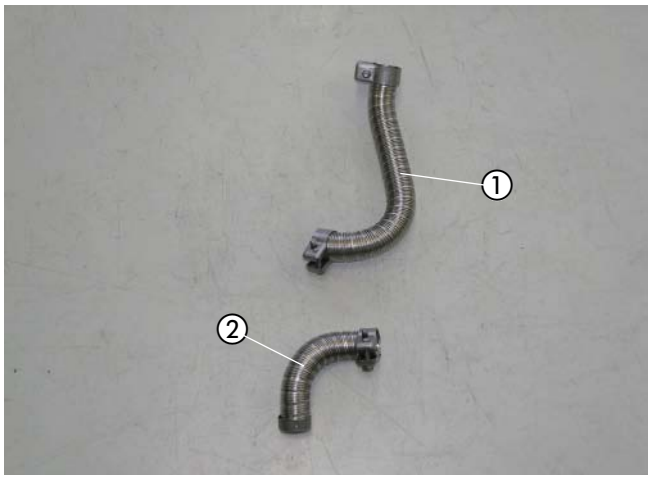


Photo 11

① Exhaust pipe
② Exhaust end pipe

Use a pipe clamp to connect the exhaust pipe to the inlet connection of the exhaust silencer.

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

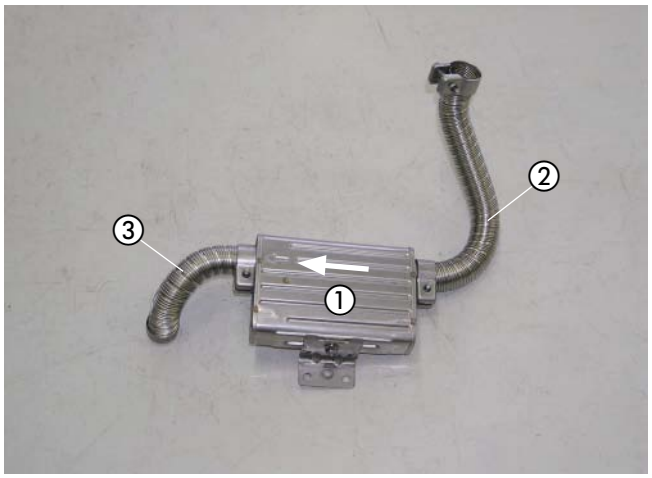


Photo 12

① Exhaust silencer
② Exhaust pipe
③ Exhaust end pipe

3 Preliminary assembly

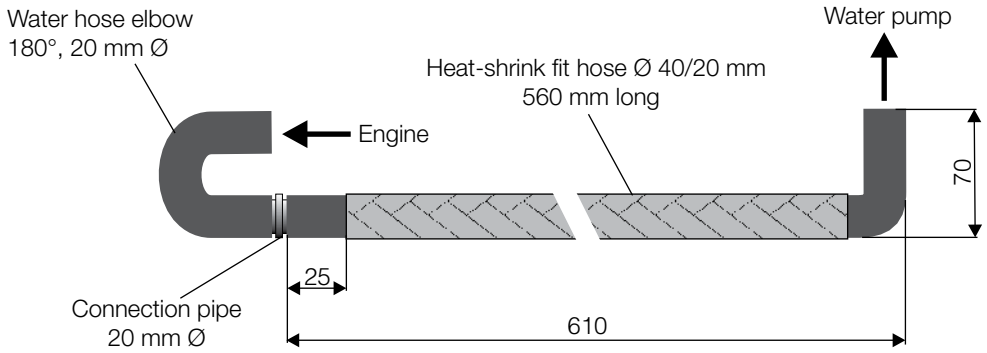
Prepare the water hoses
(see diagram 5)

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

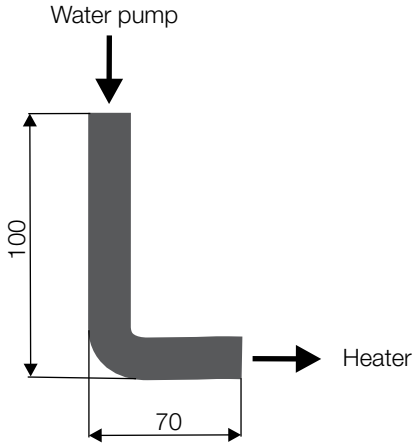
Please note!

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".

Water hose ① from the engine to the water pump



Water hose ② from the water pump to the heater



Water hose ③ from the heater to the heat exchanger

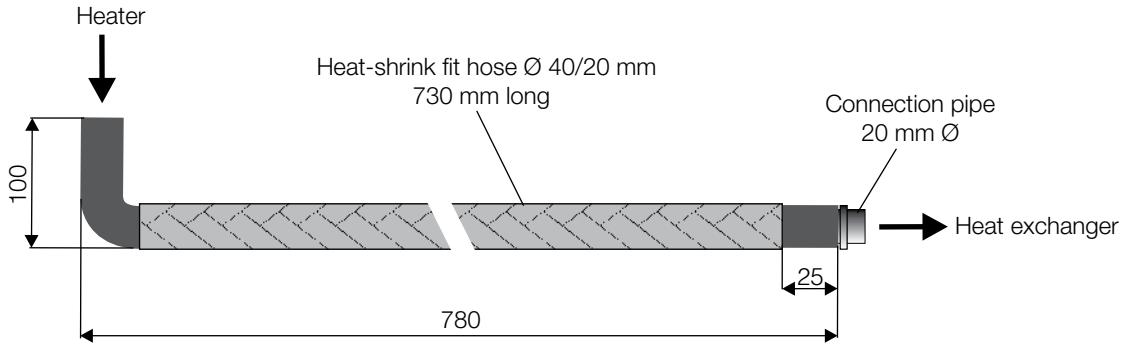


Diagram 5

3 Preliminary assembly

Preassemble heater
(see photos 13 to 15)

Remove the duplicate nameplate from the heater.
Deface the inapplicable dates to make them illegible.
Attach the duplicate nameplate in a suitable, clearly visible position in the engine compartment.

Fasten the Torx screw M6 x 14.5 in the existing threaded hole of the heater with $6^{+0,5}$ Nm as shown.



Photo 13

① M6 x 14.5 Torx screw fitted to the heater

Use a screw M6 x 12 to tightly screw the prepared water pump onto the heater as shown in the photo.

Use a hose clip Ø 16-25 mm to connect the combustion air pipe to the heater and shape as shown in the photo.

Use insulating tape to fix the metering pump cable to the fuel pipe Ø 4 x 1.25 mm.

Connect the 4 x 1.25 mm Ø fuel pipe with 3.5 x 3 mm Ø fuel hose, length 50 mm, to the fuel connection of the heater using a 9 mm Ø hose clip.

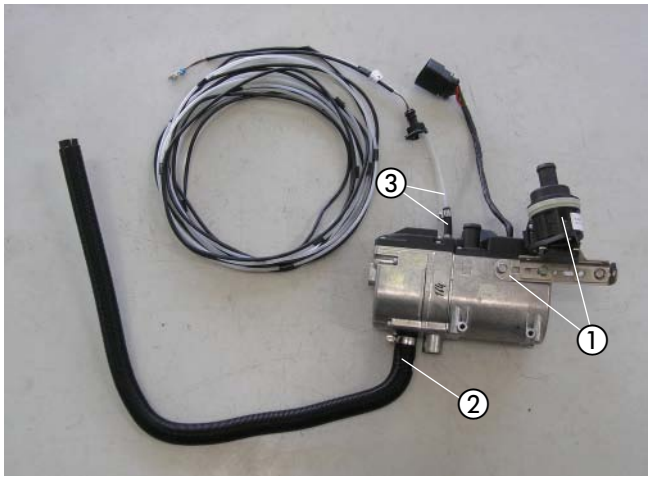


Photo 14

① Prepared water pump mounted onto the heater
② Combustion air pipe connected to the heater
③ Fuel pipe Ø 4 x 1.25 mm preassembled at the heater

Connect the water hose ② to the heater's water inlet connection and to the discharge connection of the water pump.

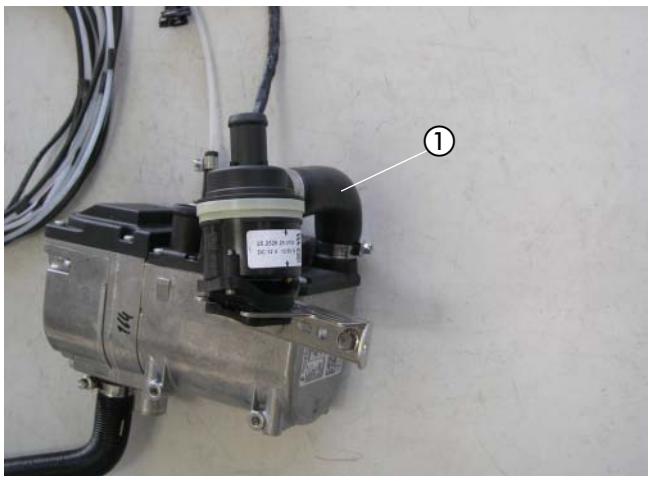


Photo 15

① Water hose ② installed

3 Preliminary assembly

Prepare fuel tank extractor
(see photo 16)

Use a hot air blower to heat and straighten the fuel pipe Ø 4 x 1 mm over a length of approx. 250 mm.

Push the adapter Ø 7.5/3.5 mm onto the fuel pipe Ø 4 x 1 mm, position according to dimensions shown in the photo and fix using clip Ø 11 mm to Ø 3.5 mm.

Bevel the end of the fuel pipe by 45°.

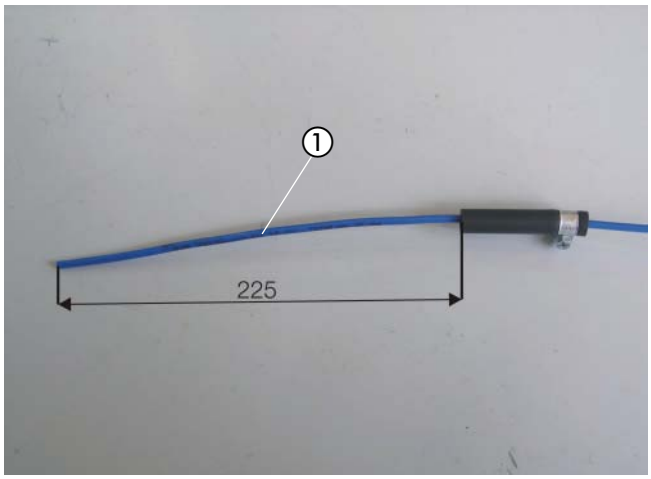


Photo 16

① Fuel pipe Ø 4 x 1 mm, straightened, installed in the adapter Ø 7.5/3.5 mm

Prepare metering pump
(see photo 17)

Drill open the hole Ø 6 mm in the long leg of the holder 9501 to Ø 10 mm.

Insert the metering pump in the rubber holder.

Use a screw M6 x 20 to fix the holder 9501 to the rubber holder of the water pump and align as shown in the photo.



Photo 17

① Metering pump inserted into the rubber holder
② Holder 9501 installed

3 Preliminary assembly

Prepare the holder for the fuse block and install the fuses
(see photo 18 and diagram 6)

Mark the holder for the fuse block as shown in the diagram.

Clamp up to marking ①, use pliers to clamp in at marking ② and turn through 90° in the direction of the arrow.

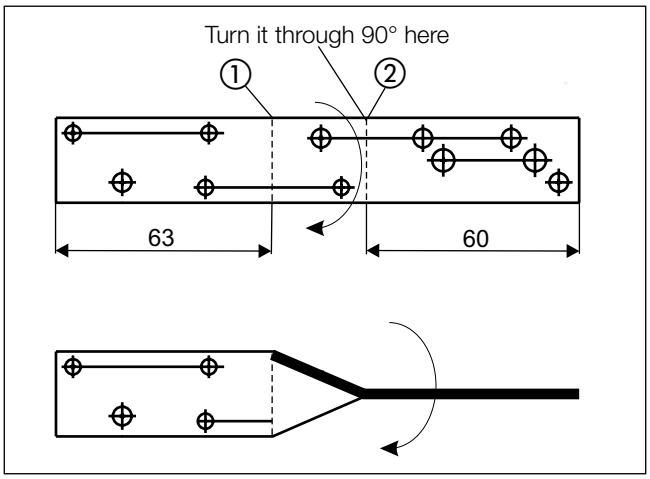


Diagram 6

Use two plastic expansion rivets to fasten the fuse holder to the prepared holder for the fuse block.

Remove the 25A fuse from the fuse holder.

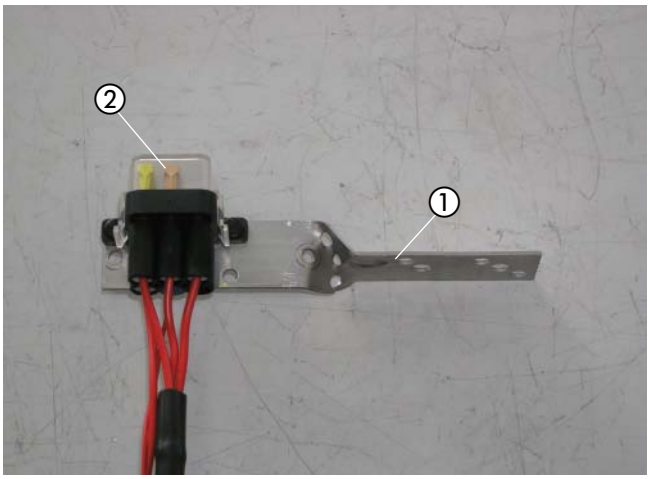


Photo 18

① Fuse block holder
② Fuses installed

Preassemble the stationary part of the EasyStart R/R+
(see photo 19)

Use two screws M4 x 16 to install the stationary part of the EasyStart R/R+ to the holder as shown in the photo.

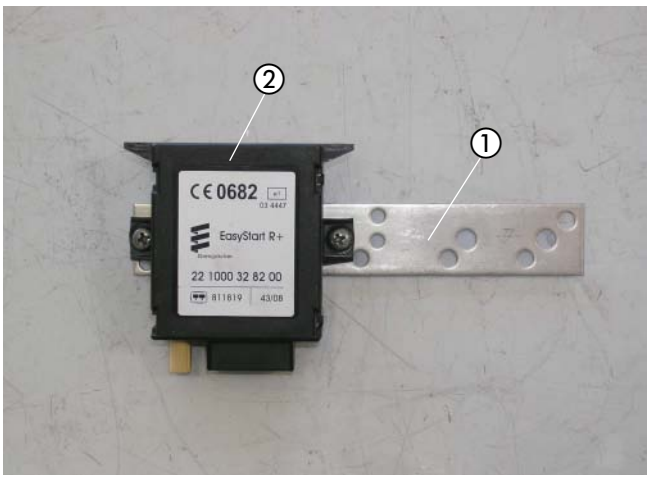


Photo 19

① Holder for the stationary part of the EasyStart R/R+
② Stationary part of the EasyStart R/R+

4 Installation

Prepare the installation position
(see photos 20 to 22)

Make a hole Ø 9 mm on the inside of the left side member according to the dimensions shown in the photo.

Insert a blind rivet nut M6 into the hole made.

Attach the edge protection to the top edge of the left side member, as shown in the photo.

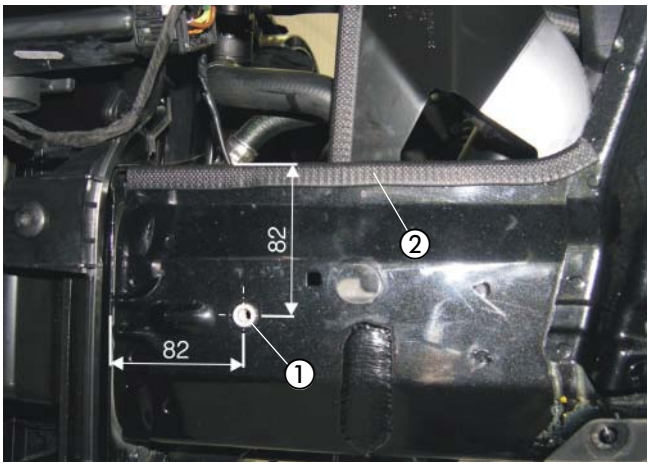


Photo 20

① Hole Ø 9 mm made and blind rivet nut M6 pulled in
② Edge protection attached

Drill open the existing hole Ø 6 mm in the left-hand outside of the front cross member to Ø 9 mm.

Insert a blind rivet nut M6 into the hole Ø 9 mm made.

Please note!

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

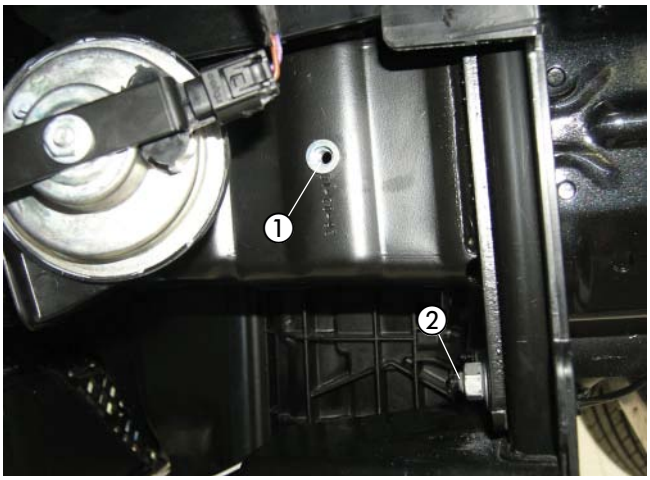


Photo 21

① Existing hole drilled open to Ø 9 mm and a blind rivet nut M6 inserted
② Existing stud bolt M8

Make a hole Ø 7 mm on the left outside of the front side member according to the dimensions shown in the photo.

The blind rivet nuts M6 of the existing stud bolts M8 and the hole Ø 7 mm made are used as fixing points for the unit holder.

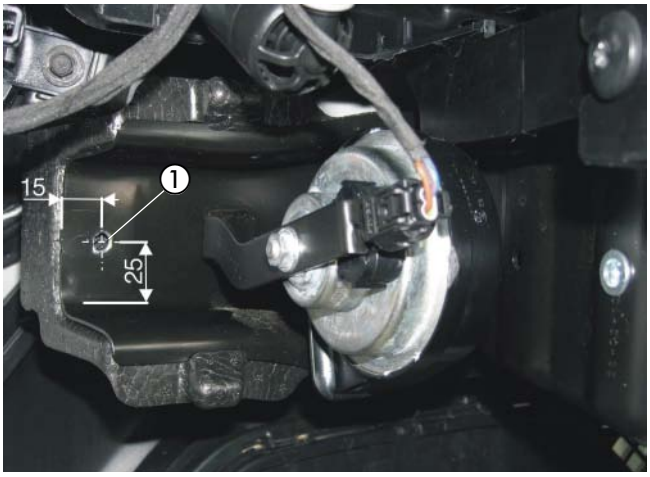


Photo 22

① Hole drilled open to Ø 7 mm

Unit holder, installed
(see photo 23)

Use a screw M6 x 16 to tightly screw the prepared unit holder to the blind rivet nut M6 and the hole Ø 7 mm made.

Use the existing nut M8 to tightly screw the bottom holder 9305 onto the existing stud bolt M8.



Photo 23

① Prepared unit holder installed

Install heater
(see photo 24)

Insert the prepared heater into the unit holder and screw tight with two M6 x 12 screws with microencapsulation.

Use a screw M6 x 16 to fasten the holder 9305 onto the blind rivet nut M6 of the left side member.

Connect the connector of the water pump's cable loom and lay it up to the connector of the main cable harness.
Remove the dummy plugs in chambers 8 and 9 of the main cable harness connector.
Slot the 0.75 mm² vi cable from the water pump cable loom in chamber 8 and the 0.75 mm² br cable in chamber 9.

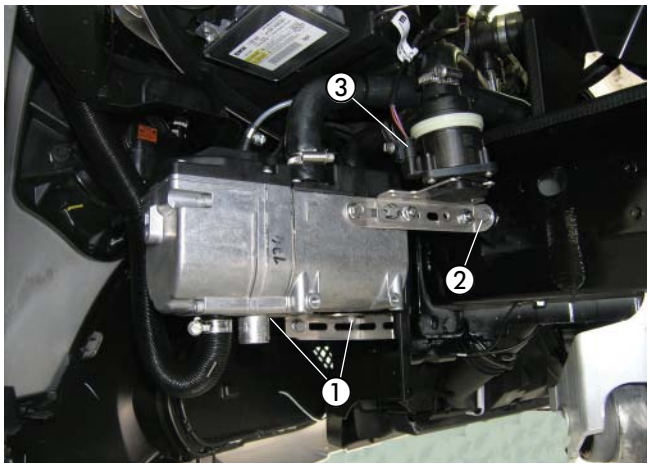


Photo 24

① Preassembled heater inserted into the unit holder and fastened with two screws M6 x 12
② Holder 9305 fixed onto the side member
③ Water pump cable loom connected

Laying the combustion air pipe
(see photo 25)

Lay the combustion air pipe upwards into the protected area behind the left-hand headlight.

Use cable ties to fix the combustion air pipe in suitable places.

Make a 2 mm Ø drain hole for condensation at the lowest point of the laid combustion air pipe.

Please note!

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



Photo 25

① Combustion air pipe laid

Cut water flow hose
(see photo 26)

At the water flow hose of the from the engine to the heat exchanger (the bottom water hose at the heat exchanger), undo the hose clip at the outlet of the electric valve and pull off the water flow hose.



Photo 26

① Pull off the water flow hose at the outlet of the electric valve

Lay and connect water hoses
(see photos 27 to 28 and diagram 7)

Connect the water hose ① to the intake connection of the water pump.

Connect the water hose ③ to the water outlet connection of the heater.

Lay the water hoses ① and ③ up to the cutting point in the water flow hose.

Use cable ties to secure the water hoses ① and ③ to each other.

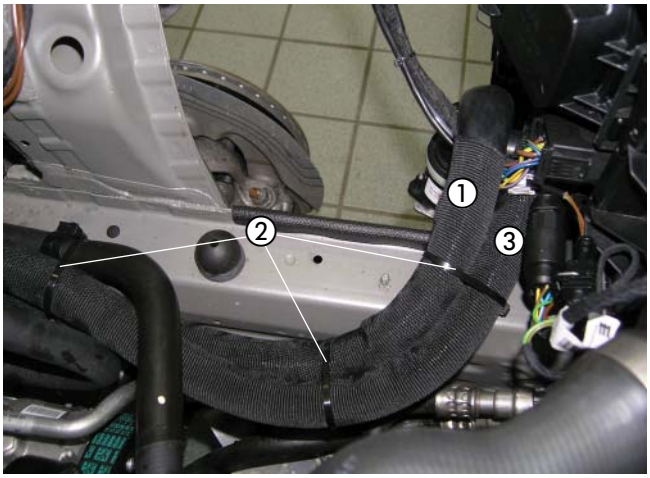


Photo 27

① Water hose ①
② Cable ties
③ Water hose ③

Use the 180° water hose elbow to connect water hose ① to the outlet connection of the electric valve.

Connect water hose ③ with the connection pipe Ø 20 mm to the water flow hose to the heat exchanger.

Use a cable tie to secure the water hoses ① and ③ to the vehicle's own water hose.

Please note!

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

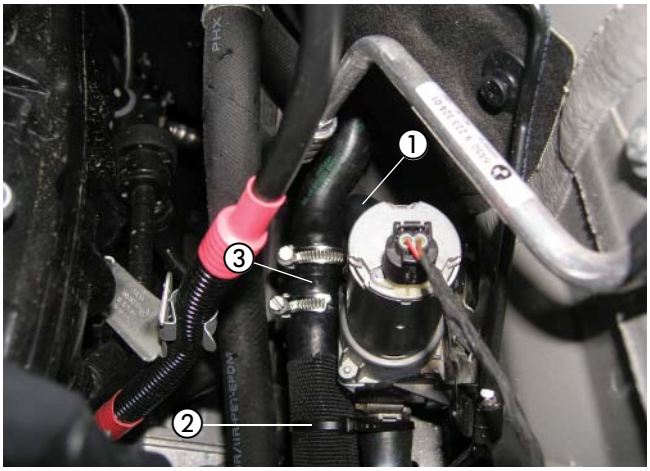
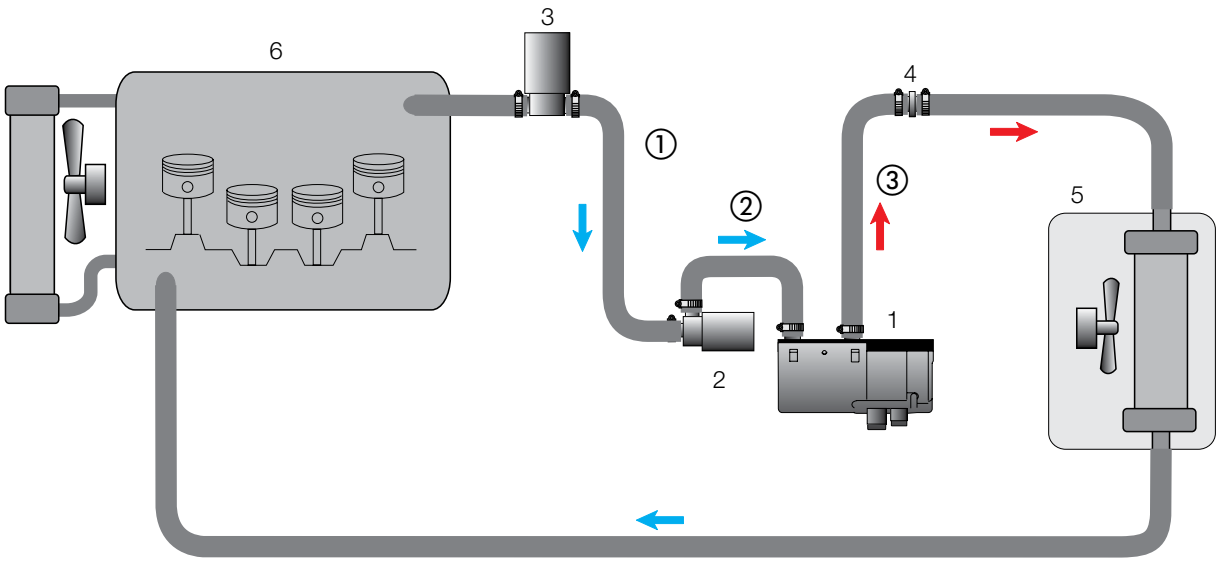


Photo 28

① Water hose ①
② Cable ties
③ Water hose ③



1 - Heater
2 - Water pump
3 - Vehicle‘s electric valve
4 - Connection pipe, 20 mm Ø
5 - Vehicle heat exchanger
6 - Engine
- Hose clip, 20 – 32 mm Ø

Diagram 7

Install the exhaust silencer and connect in vehicles with manual gearbox
(see photos 29 and 30)

Use the existing screw M5 to install the prepared exhaust silencer to the holder of the underbody panelling as shown in the photo.

The arrow on the exhaust silencer marks the direction of flow of the exhaust gas and points to the right.

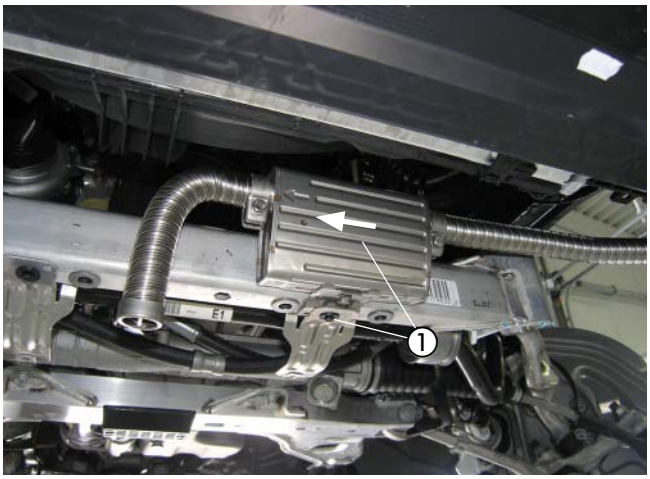


Photo 29

① Prepared exhaust silencer installed

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

Use a screw M6 x 16 to fasten the pipe clamp Ø 28 mm to the existing hole Ø 6 mm of the front cross member.

Please note!

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

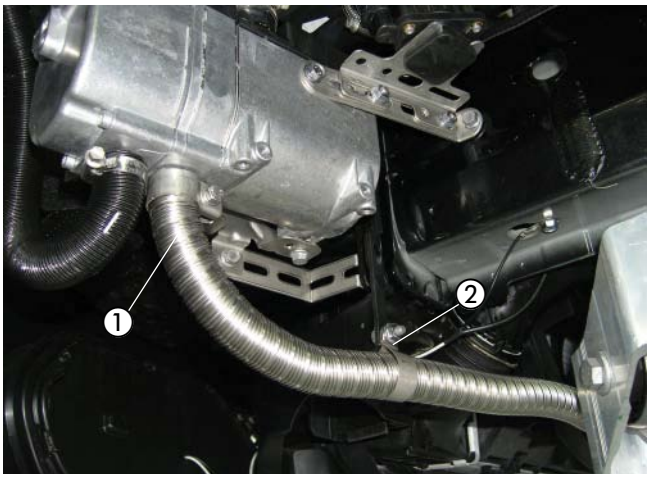


Photo 30

① Exhaust pipe connected
② Pipe clamp Ø 28 mm fixed to the existing hole Ø 6 mm of the front cross member

Install the exhaust silencer and connect it in vehicles with automatic gearbox
(see photos 31 and 32)

Make a hole Ø 7 mm on the left-hand side of the front metal underbody panelling with the dimensions shown in the photo.

Please note!

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

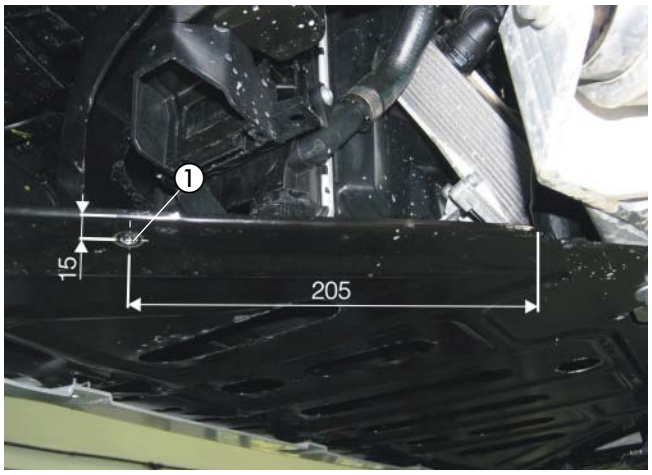


Photo 31

① Exhaust pipe connected
② Pipe clamp Ø 28 mm fixed to the existing hole Ø 6 mm of the front cross member

Use a screw M6 x 16 to install the prepared exhaust silencer in the hole Ø 7 mm made in the front metal underbody panelling as shown in the photo.

The arrow on the exhaust silencer marks the direction of flow of the exhaust gas and points to the rear right-hand side.

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.

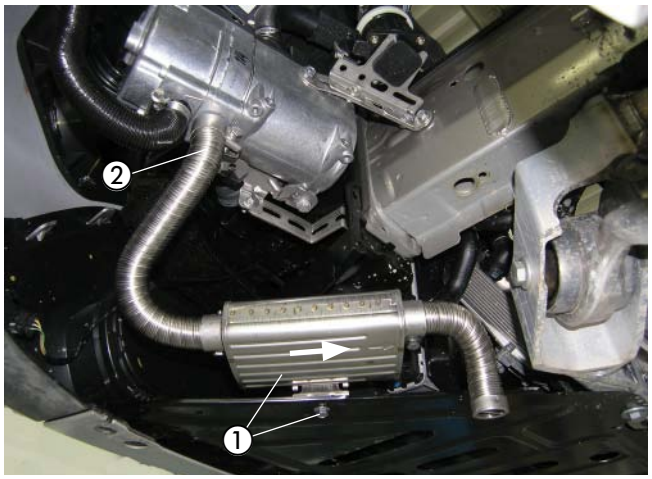


Photo 32

① Prepared exhaust silencer installed
② Exhaust pipe connected

Connect tank
(see photos 33 and 34)

Cut approx. 2 mm off the slanted connection at the tank fitting.

Please note!

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

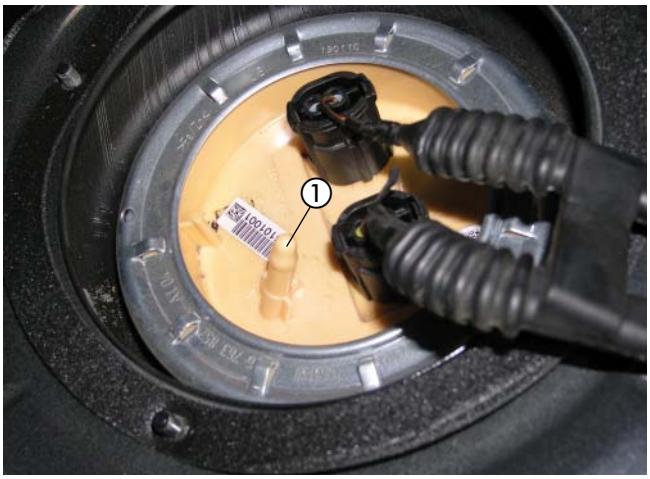


Photo 33

① Connection fitting at the tank fitting

Pass the already prepared fuel pipe Ø 4 x 1 mm through the connections in the tank, push the Ø 7.5/3.5 mm adapter onto the connection and screw tight with the Ø 11 mm clamp.

Lay the 4 x 1 mm Ø fuel pipe to the installation position of the metering pump behind the tank.

Refit the cover above the tank fitting.

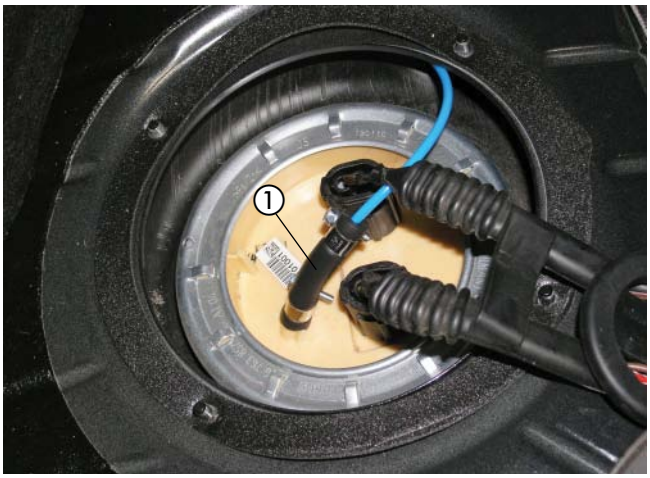


Photo 34

① Fuel pipe Ø 4 x 1 mm connected with the adapter Ø 7.5/3.5 mm

Install and connect the metering pump
(see photos 35 and 36)

Use a screw M10 x 20 to install the prepared metering pump in the existing threaded hole Ø 10 mm in the vehicle's underbody 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 to the left.

Cut the fuel pipe Ø 4 x 1 mm from the fuel tank connection to the metering pump to the required length and connect to the fuel hose Ø 3.5 x 3 mm, length 50 mm at the intake connection of the metering pump.

Connect the metering pump cable with the metering pump connection plug of the main cable harness.

Lay the prepared fuel pipe Ø 4 x 1.25 mm starting from the heater together with the metering pump cable along the vehicle's own positive cable on the right-hand underside of the vehicle to the metering pump.
Use cable ties to secure the fuel pipe Ø 4 x 1.25 mm at suitable points.

Cut the fuel pipe Ø 4 x 1.25 mm to the required length and connect with the fuel hose Ø 3.5 x 3 mm, length 50 mm, to the discharge connection of the metering pump.

Latch the plug-in contacts of the metering pump cable into the mating connector (206 31 290) regardless of polarity.
Connect the connector to the metering pump.

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.

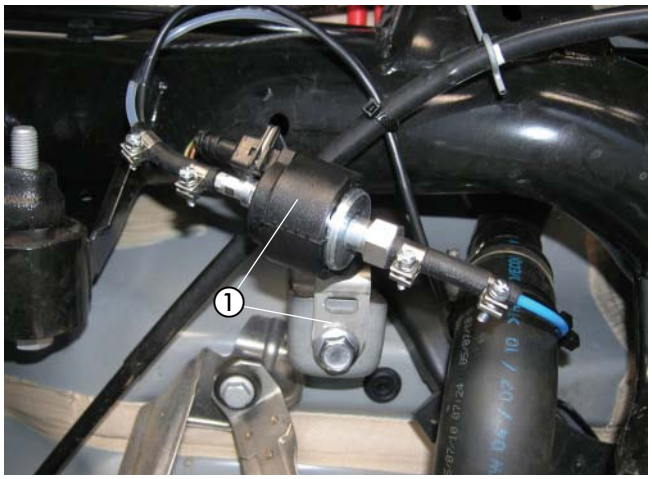


Photo 35

① Metering pump installed



Photo 36

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

Install fuses
(see photo 37)

Install the prepared holder with fuses to the fixing point of the front radiator cross member 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.

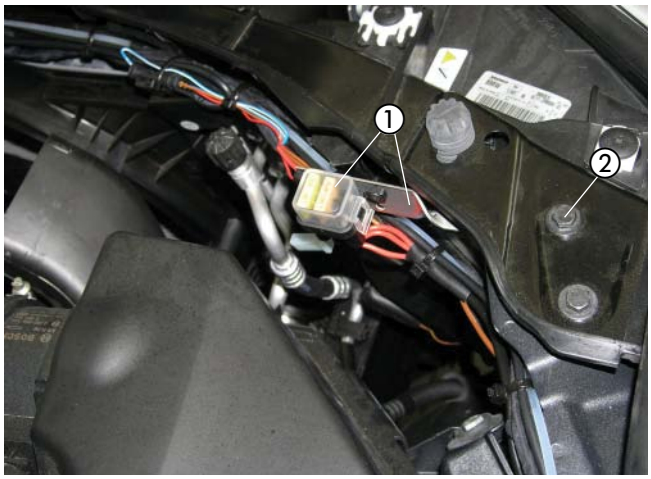


Photo 37

① Holder with fuses installed
② Fixing point of the fuse holder

Cable laying
(see photo 38)

Lay the "control unit" cable loom from the engine compartment, through the vehicle's own cable grommet on the left side of the engine partition and into the interior of the vehicle.

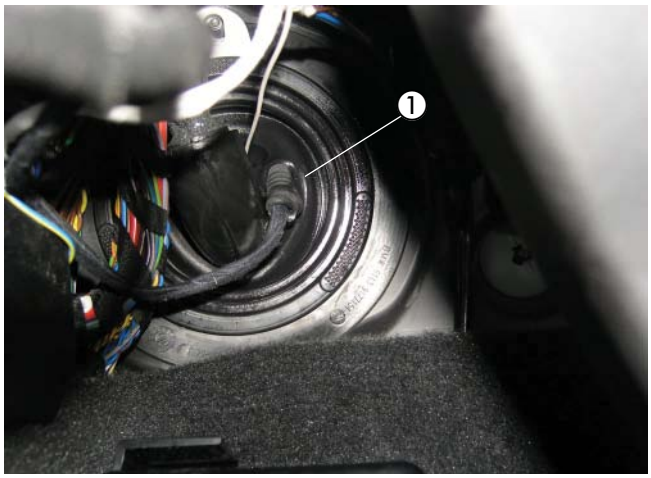


Photo 38

① Vehicle's cable grommet

Fan control
(see photos 39 to 43 and diagram 8)

Use a screw M5 x 10 to install the pre-wired IPCU and isolator relay block in the driver's footwell to the supporting strut of the instrument panel as shown in the photo.

Insert the IPCU module and the isolating relay in the respective connector block.



Photo 39

① Pre-wired IPCU and isolating relay block installed

Use the existing screw M6 to connect the earth cable 1 mm² br of the pre-wired IPCU and isolating relay block with cable lug A6 at the fixing point of the central electronics as shown in the photo.



Photo 40

① Earth cable 1 mm² br connected

Lay the 1 mm² sw and 1 mm² sw/ws cables from the connector block of the IPCU module as well as the 1 mm² ge and 1 mm² rt cables from the connector block of the isolating relay to the air-conditioning control.

Disconnect the cable 0.35 mm² ws/br (PIN 5) at the 12 pin black connector of the AirCon control unit and tie in the cables 1 mm² sw and 1 mm² sw/ws of the connector block of the IPCU module with the butt-type connectors 0.5 - 1.5 mm² as shown in the circuit diagram.

Disconnect the cable 0.35 mm² rt (PIN 3) at the 12 pin white connector of the AirCon control unit and tie in the cables 1 mm² ge and 1 mm² rt of the connector block of the isolating relay with the butt-type connectors 0.5 - 1.5 mm² as shown in the circuit diagram.

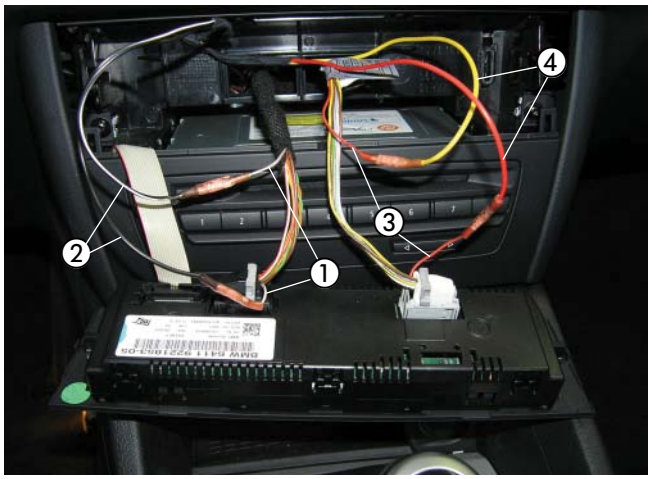


Photo 41

① Cable 0.35 mm² ws/br (PIN 5) disconnected
② Cables 1 mm² sw and 1 mm² sw/ws tied in
③ Cable 0.35 mm² rt (PIN 3) disconnected
④ Cables 1 mm² ge and 1 mm² rt tied in

Disconnect the cable 0.5 mm² vi/ws (PIN 1) at the 4 pin white connector of the brake light switch and use a butt-type connector 0.5 - 1.5 mm² to tie in the cable 1 mm² rt/ws from the connector block of the IPCU module.

Please note!

When laying the cable looms, ensure they are at a sufficient distance from moving vehicle parts.
Use cable ties to fix the cable looms in suitable places.

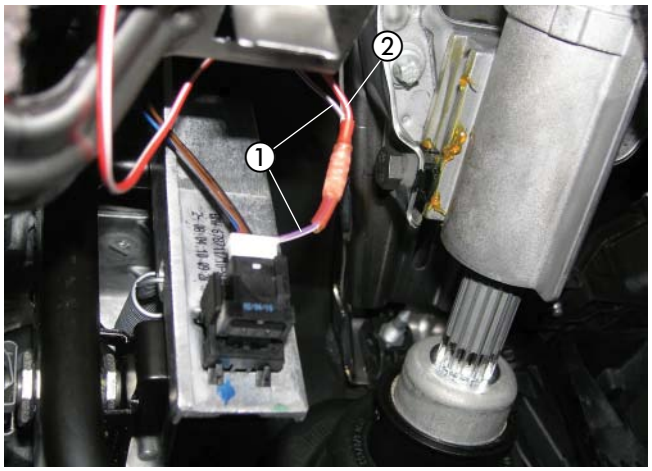


Photo 42

① Cable 0.5 mm² vi/ws (PIN 1 at the white connector) disconnected
② Cable 1 mm² rt/ws tied in

4 Installation

Connect the cable 0.5 mm² sw/rt of the "Control unit" cable loom to cable 1 mm² sw/rt of the connector block of the IPCU module with a butt-type connector 0.5 - 1.5 mm² as shown in the circuit diagram.

Please note!

Insulate the cable 0.5 mm² ge of the "Control unit" cable loom and tie it back.

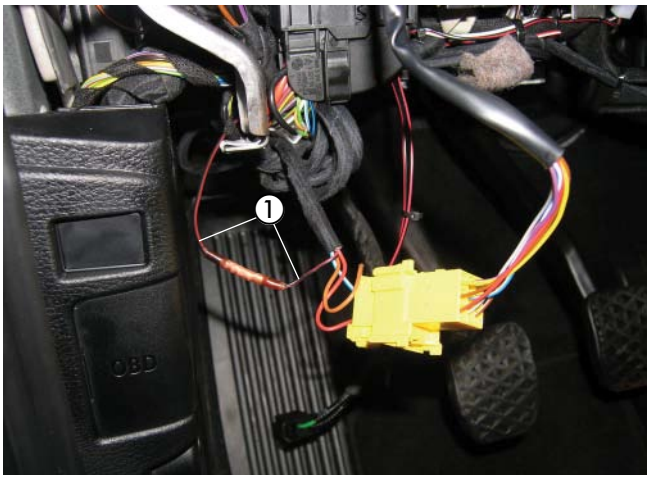


Photo 43

① Cable 0.5 mm² sw/rt of the "control unit" cable loom connected to the cable 1 mm² sw/rt of the connector block of the IPCU module

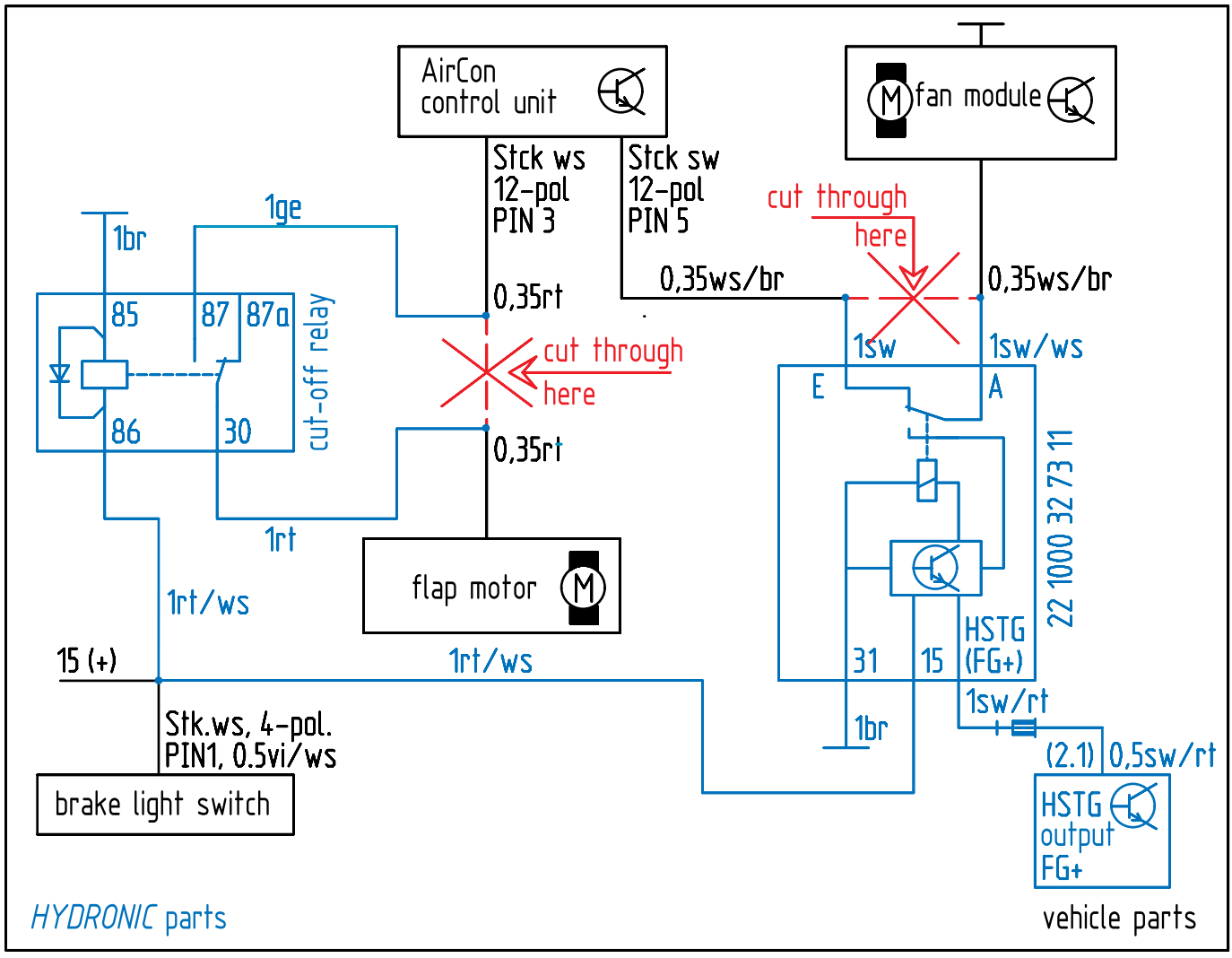


Diagram 8

Power supply
(see photos 44 and 45)

Route the positive cable 4 mm² rt to the positive wiring point on the right-hand side of the engine partition and connect with cable lug A6.



Photo 44

① Positive cable 4 mm² rt connected

Route the earth cable 2.5 mm² br to the earthing point of the right wheel arch panel and connect with cable lug A6.



Photo 45

① Earth cable 2.5 mm² br connected

Install EasyStart T
(see photo 46)

The EasyStart T is installed according to the "EasyStart T" installation instruction.

Install the EasyStart T timer on the panelling of the instrument panel above the air outlet nozzle.

Align the console on the mounting surface and trace the drillholes onto the mounting surface.
Make the Ø 3 mm and Ø 8 mm holes.
Remove the drilling template after making the holes.
Fix the console using the B 3.5 x 19 fixing screws supplied.

Guide the "control unit" lead harness through the Ø 8 mm hole and use the expansion plug to pre-install the timer in the Ø 6.5 mm hole.
Push or screw the fixing screw into the expansion plug and use it to fix the timer.

Slot the flat connector from the "Control unit lead harness into the 9 pin flat connector housing, the already installed push-on sleeves into 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 46

① EasyStart T installed

Install EasyStart R/R⁺ radio remote control (Alternative suggestion - consult with the customer)
(see photos 47 and 48)

The EasyStart R/R⁺ is installed according to the Technical Description for the EasyStart R/R⁺ Radio Remote Control; see the "Installation Instructions" section.

Install the button of the EasyStart R/R⁺ on the panelling of the instrument panel, on the right, next to the light switch unit.

To do this, make a hole Ø 8 mm in the panelling and insert the button in the hole made.



Photo 47

① Button of the EasyStart R/R⁺ installed

4 Installation

Install the prepared stationary part of the EasyStart R/R+ with the existing Torx screw to the cross strut of the instrument panel on the driver's side.

Connect the antenna cable of the EasyStart R/R+ to the stationary part, take it to the left and lay it in the rubber door seal on the driver's side.

Attach the temperature sensor of the EasyStart R+ to the footwell panelling on the driver's side.

Lay the cables from the installed button and temperature sensor together with the "Control" cable loom to the installed position of the stationary part and connect to the stationary part.

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.

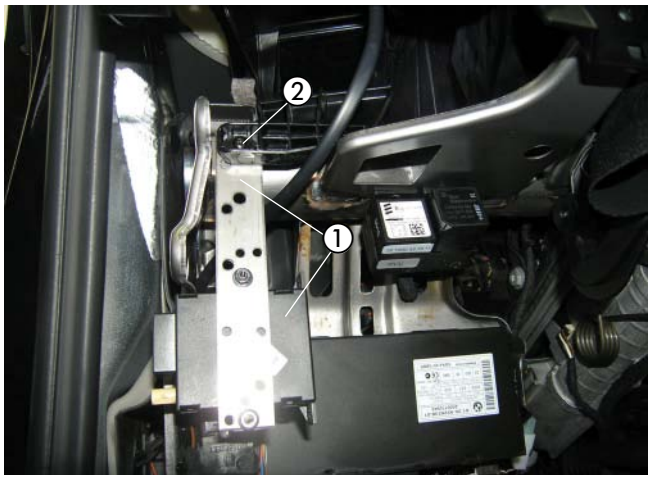


Photo 48

① Stationary part of the EasyStart R/R+ with holder installed
② Existing Torx screw

Install the grommet for exhaust end pipe in vehicles with manual gearbox
(see photos 49 to 51)

Make a hole Ø 38 mm in the removed metal underbody panelling according to the dimensions shown in the photo.

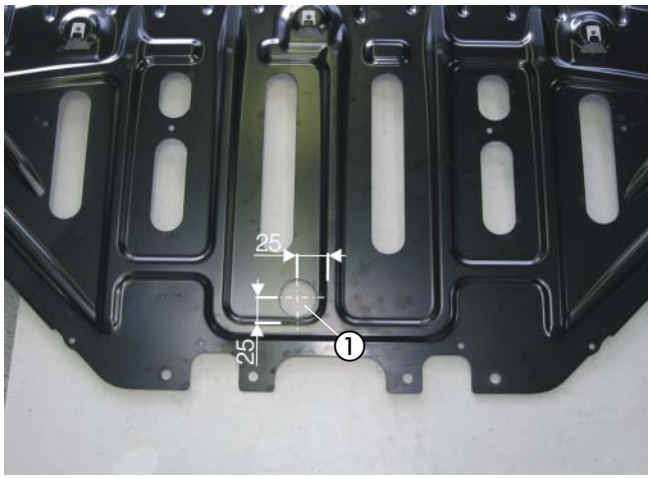


Photo 49

① Hole Ø 38 mm made in the metal underbody panelling

Make a hole Ø 38 mm in the removed metal underbody panelling according to the dimensions shown in the photo.

Insert the grommet Ø 41 mm in the hole made.

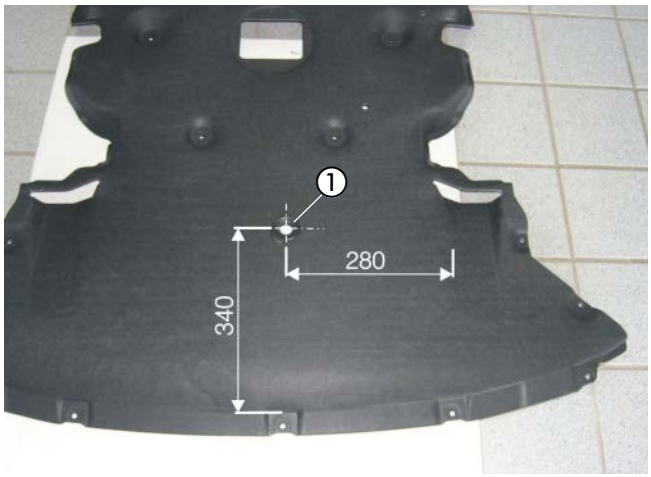


Photo 50

① Grommet for the exhaust end pipe installed

Install the engine underbody panelling and guide the exhaust end pipe through the grommet.



Photo 51

① Exhaust end pipe passed through the exhaust grommet

5 Following installation

Install the grommet for exhaust end pipe in vehicles with automatic gearbox
(see photos 52 and 53)

Make a hole Ø 38 mm in the removed metal underbody panelling according to the dimensions shown in the photo.

Insert the grommet Ø 41 mm in the hole made.

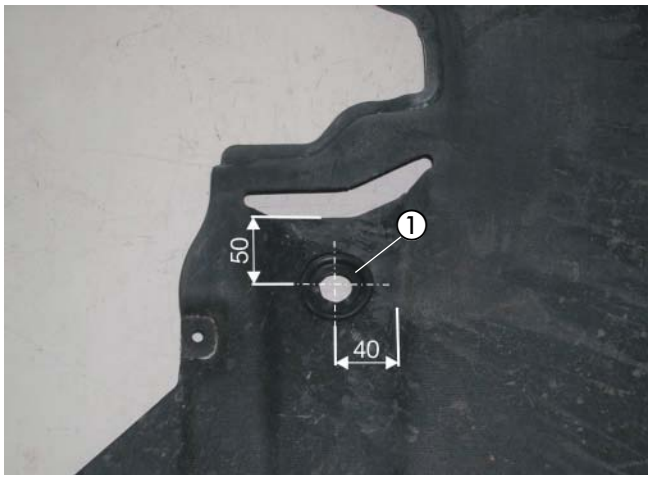


Photo 52

① Grommet for the exhaust end pipe installed

Install the engine underbody panelling and guide the exhaust end pipe through the grommet.



Photo 53

① Exhaust end pipe passed through the exhaust grommet

Complete the vehicle

- Install all removed parts in the reverse order.
- 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).
- Stick the "Refuel" sticker inside the fuel tank flap.
- 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 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 Unit.

6 Parts Overview

Item	Designation	Quantity	Order number
1	Vehicle-specific installation kit	24 8602 00 00 00	
	Hydronic II unit holder	1	
	Water pump holder	1	
	Metering pump holder	1	
	Fuse holder	1	
	Hexagon screw M6 x 25	1	
	Hexagon screw M6 x 14	1	
	Hexagon screw M6 x 12 with microencapsulation	2	
	Hexagon screw M6 x 12	1	
	Hexagon nut M6	1	
	Metering pump push-on sleeve housing	1	
	Plastic expanding rivet for fuse holder	4	
	Plastic expanding rivet for relay block	2	
	Hose clip, 20 -32 mm Ø	6	
	Hose clip, 16 -25 mm Ø	1	
	Clamp	3	
	Water hose	1	
	Combustion air pipe	1	
	Exhaust pipe	1	
	Exhaust silencer	1	
	Cable harness, heater	1	
	Lead harness, metering pump	1	
	Lead harness, water pump	1	
	Fuel pipe, Ø 4 x 1 mm	2 m	
	Fuel pipe, Ø 4 x 1.25 mm	6 m	
	Fuel hose, Ø 3.5 mm x 3 mm, L = 50 mm	3	
	Hose clip, Ø 9 mm	6	
	Cable tie, set	1	
	Holder (90° bracket)	1	
	Holder (9304)	1	
	Holder (9305)	3	
	Exhaust holder (Z bracket)	1	
	Exhaust holder (90° bracket)	1	
	R+ holder	1	
	Hexagon screw M6 x 16	7	
	Hexagon nut M6	7	
	Hexagon screw M6 x 12	4	
	Hexagon screw M6 x 20	1	
	Body washer B6	1	
	Screw M5 x 10	1	
	Hexagon nut M5	1	
	Screw M4 x 16	2	
	Hexagon nut M4	2	
	Blind rivet nut M6	2	
	Clamp Ø 28 mm	1	
	Grommet Ø 41 mm	1	
	Connection pipe Ø 20 mm	2	
	Water hose elbow 180°, Ø 20 mm	1	
	Clamp Ø 20-32 mm	3	
	Adapter Ø 7.5 x 3.5 mm	1	
	Clamp Ø 11 mm	2	
	Cable loom, IPCU and isolating relay	1	
	IPCU module	1	
	Relay 12V	1	
	Butt-type connector 0.5 - 1.5 mm^2 (red)	2	
	Exhaust pipe	0.5 m	
	Edge protection	0.3 m	
	Heat-shrink fit hose Ø 40/20 mm	1.3 m	

7 Leaflet for the Customer

Before switching on
(see photo 1)

- Before switching on or pre-programming heating mode, with the ignition switched on, set the vehicle's temperature controller ① to "Hot" ("28.0°" in the display).
- 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.



Photo 1

① Temperature controller
② Button for the air system