HYDRONIC

Installation Recommendations

Eberspächer

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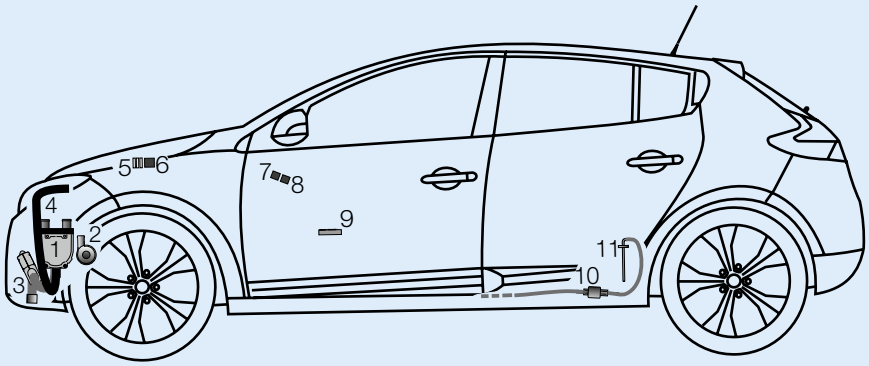
New vehicle-specific installation kit + heater

HYDRONIC D 4 W S in Renault Mégane III (BZ)

from 2008, model 2009
with gearbox
with front fog lamps
with manual AirCon or 2-zone automatic AirCon

- **1.5 l cubic capacity / 4 cylinder in-line engine / 66 kW - 90 HP (dCi)**
- **1.5 l cubic capacity / 4 cylinder in-line engine / 78 kW - 106 HP (dCi)**

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

Installation location
HYDRONIC D 4 W S is fastened to the inner side of the left chassis beam.
The exhaust connection faces downwards and the control box to the right.

Parts needed for installation:
(1) Vehicle-specific installation kit
(2) Heater *HYDRONIC* D 4 W S
(3) EasyStart control unit as chosen
(4) Renault parts

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 in poisonous exhaust fumes entering the vehicle interior.
This can pose a serious risk to life and limb.

The heater may only be installed according to the specifications in the technical documents and repaired using original spare parts by authorised and trained persons. Installation and repairs by unauthorised and untrained persons, repairs using non-original spare parts and without the technical documents required for installation and/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 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
1.5 l dCi	66 / 90	5S
1.5 l dCi	78 / 106	5S

5S = 5-gear manual 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 *	24 8401 00 00 00
(2) Heater	
1 *HYDRONIC* D 4 W S	25 2355 05 00 00
(3) EasyStart control unit as chosen	
1 EasyStart T	22 1000 32 88 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) To be ordered from Renault	
1 Locking ring for tank fitting Renault No.	77.01.209.115

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

Special tools required

- Torque wrench (5....50 Nm)
- Anti-corrosion agent
- Ejector tool for plug-in contacts
- Step drill
- Spanner for union nut of the tank fitting
- 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 bottom left-hand instrument panel covering
- Remove the AirCon control
- Tip rear seat bench forwards
- Remove battery and battery holder
- Remove top engine panelling
- Remove bottom engine panelling
- Remove the front left wheel arch housing
- Depressurise the cooling system
- Drain coolant into a clean container

2 Installation - Heater

Prepare the installation position
(see photo 1)

Make the 9 mm Ø holes in the left chassis beam member according to the dimensions shown in the photo.

Pull three M6 blind rivet nuts into the 9 Ø mm holes.

Please note!

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

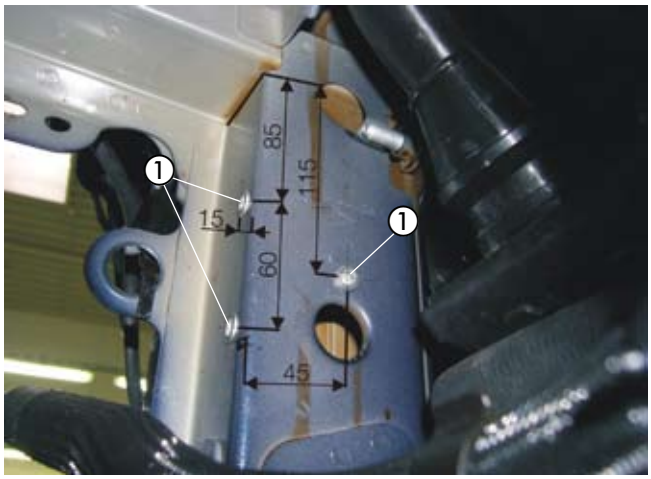


Photo 1

① 3x 9 mm Ø holes drilled and M6 blind rivet nuts inserted

Prepare and install unit holder
(see photos 2 to 4)

Prepare holder 93 02 according to the photo.

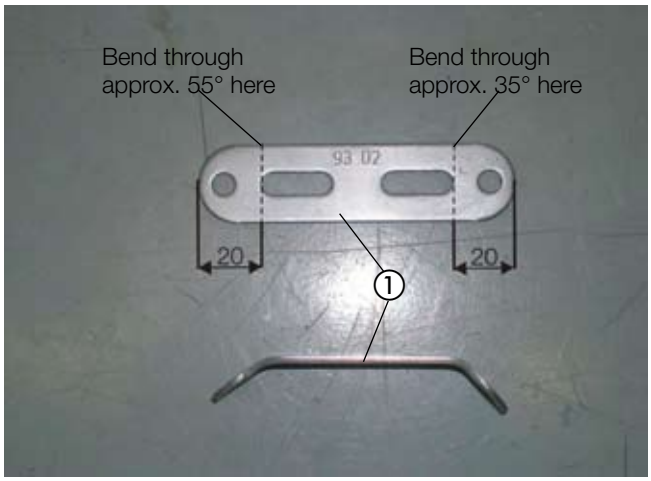


Photo 2

① Holder 93 02, prepared

Fit the prepared holder 93 02 to the unit holder with an M6 x 16 screw as shown in the photo.

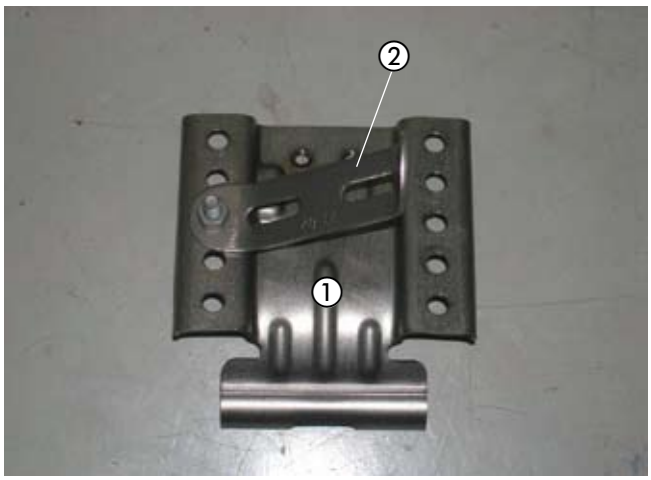


Photo 3

① Unit holder
② Holder 93 02, installed

2 Installation - Heater

Screw the unit holder to the ready mounted M6 blind rivet nuts using three M6 x 16 screws.

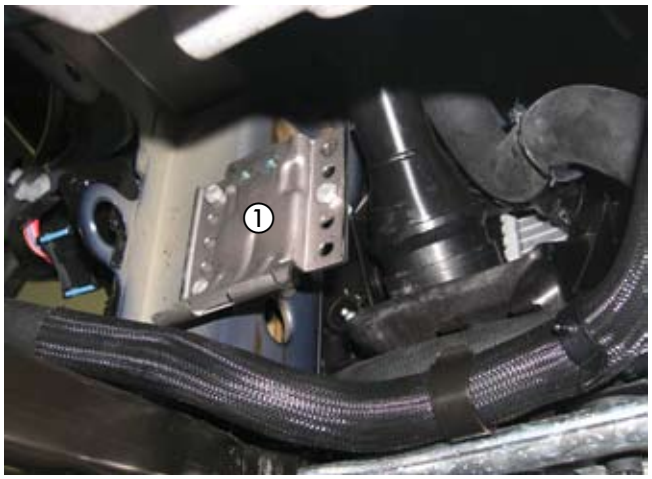


Photo 4

① Unit holder, installed

Prepare and install the heater
(see photos 5 to 8)

Install the elbowed water pipe socket 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

Insert the water pump in the rubber holder.

Mount the holder 93 03 to the rubber holder of the water pump using the M6 x 20 screw and a B6 body washer as shown in the photo.



Photo 6

① Water pump
② Holder 93 03 fitted to rubber holder

2 Installation - Heater

Premount the prepared water pump to the heater with the M6 x 97 screw as shown in the photo.

The water pump intake connection faces to the right and the discharge connection faces upwards.

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

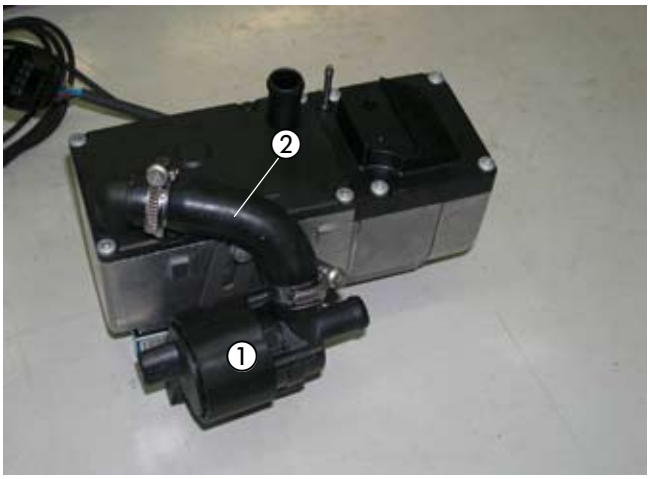


Photo 7

① Water pump
② Water hose ②

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 premounted heater in the right threaded hole of the unit holder using the M6 x 97 screw with $6^{+0.5}$ Nm.



Photo 8

① Heater, installed

Install and connect exhaust silencer 22 1000 40 09 00
(see photos 9 to 13 and diagram 1 and 2)

Prepare holder 93 02 according to the diagram.

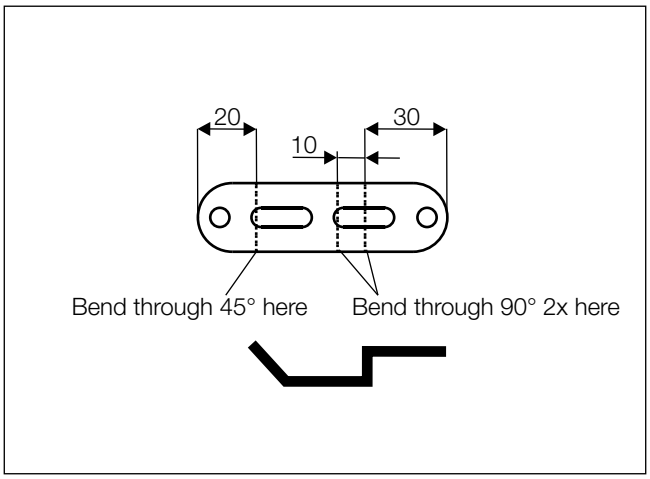


Diagram 1

Mount the prepared holder 93 02 to the exhaust silencer 22 1000 40 09 00 using an M6 x 16 screw and a body washer B6.

The arrow on the exhaust silencer faces to the right.

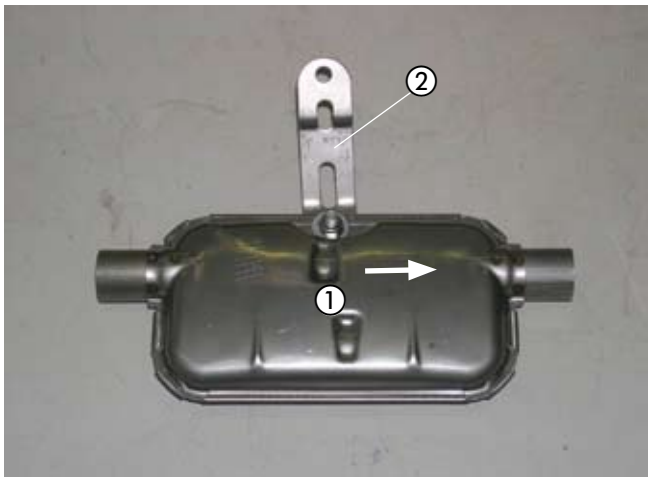


Photo 9

① Exhaust silencer 22 1000 40 09 00
② Holder 93 02, mounted

Drill a 7 mm Ø hole in the middle section of the lower radiator crossbeam according to the dimensions shown in the photo.

Please note!

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

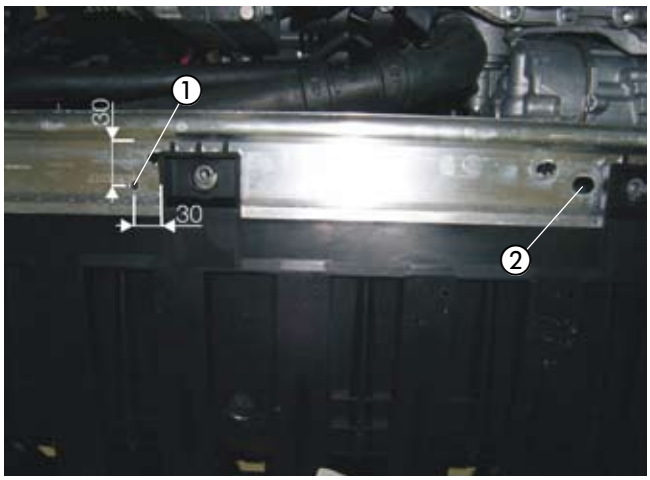


Photo 10

① 7 mm Ø hole, drilled
② Fastening point for the exhaust silencer

Prepare holder 93 03 according to the diagram.

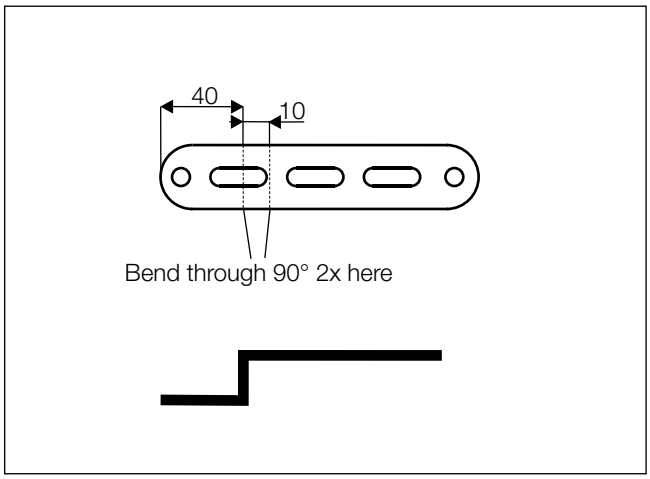


Diagram 2

Mount the premounted exhaust silencer to the hole in the lower radiator crossbeam with an M6 x 16 screw and a B6 body washer.

The arrow on the exhaust silencer faces to the right.

Mount the prepared holder 93 03 to the hole in the radiator crossbeam with an M6 x 16 screw.

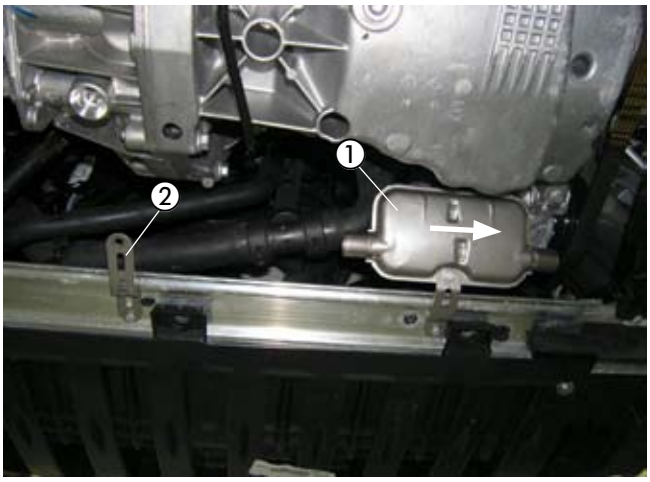


Photo 11

① Exhaust silencer, installed
② Holder 93 03, mounted

Cut the exhaust pipe to a length of 540 mm and push on a spacer rubber profile.

Use a pipe clamp to connect the exhaust pipe to the heater outlet connection and to the exhaust silencer intake connection.

Screw the 28 mm Ø pipe clamp to holder 93 03 with an M6 x 16 screw.

Position the spacer rubber profile on the lower radiator hose as shown in the photo.

Please note!

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

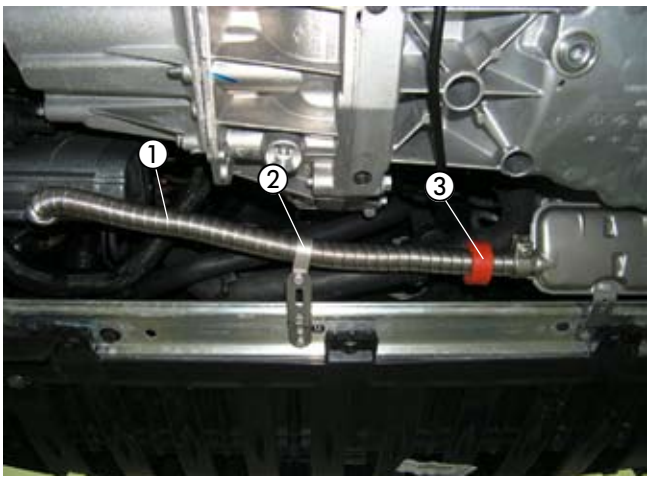


Photo 12

① Exhaust pipe, connected
② Pipe clamp 28 mm Ø fastened to holder 93 03
③ Spacer rubber profile, positioned

3 Exhaust and combustion air system

Cut the exhaust pipe end to a length of 130 mm.

Connect the exhaust pipe end with a pipe clamp to the outlet connection of the exhaust silencer and shape it in the elbow downwards as shown in the photo.



Photo 13

① Exhaust pipe, connected

Install and connect exhaust silencer 22 1000 40 19 00
(see photos 14 to 19 and diagram 3 and 4)

Prepare holder 93 06 according to the diagram.

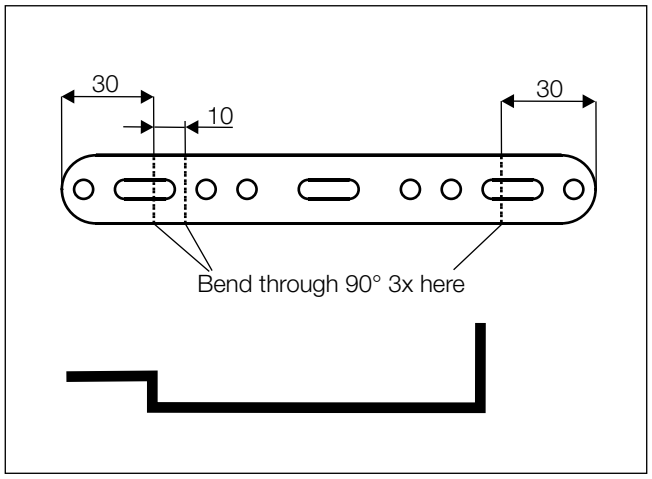


Diagram 3

Mount the prepared holder 93 06 to the exhaust silencer 22 1000 40 19 00 using an M6 x 16 screw and a body washer.

The arrow on the exhaust silencer faces to the left.

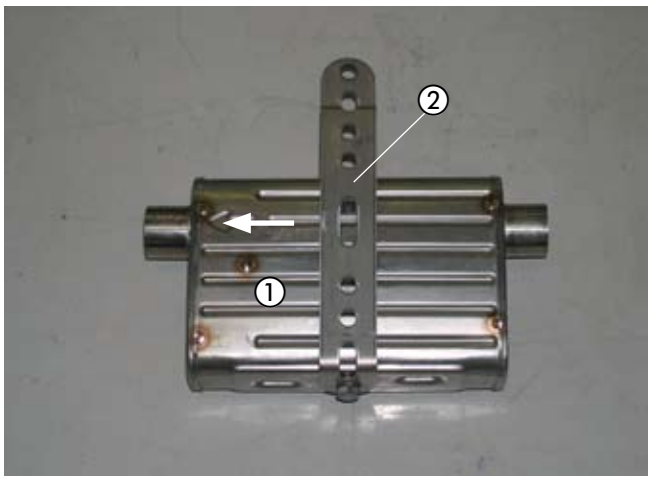


Photo 14

① Exhaust silencer 22 1000 40 19 00
② Holder 93 06, mounted

Drill a 7 mm Ø hole in the middle section of the lower radiator crossbeam according to the dimensions shown in the photo.

Please note!

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

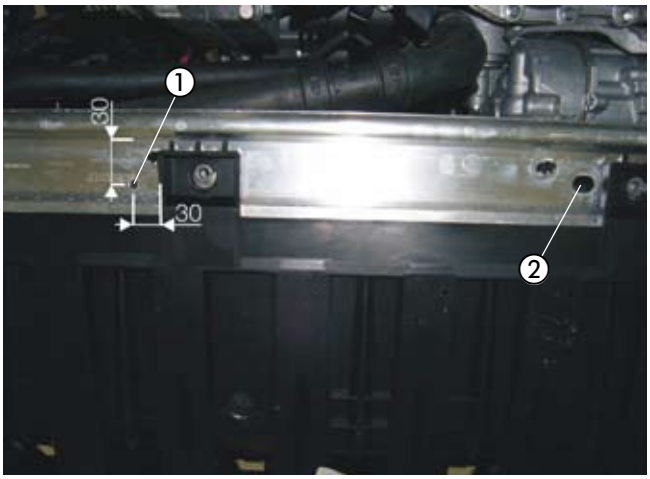


Photo 15

① 7 mm Ø hole, drilled
② Fastening point for the exhaust silencer

Prepare holder 93 03 according to the diagram.

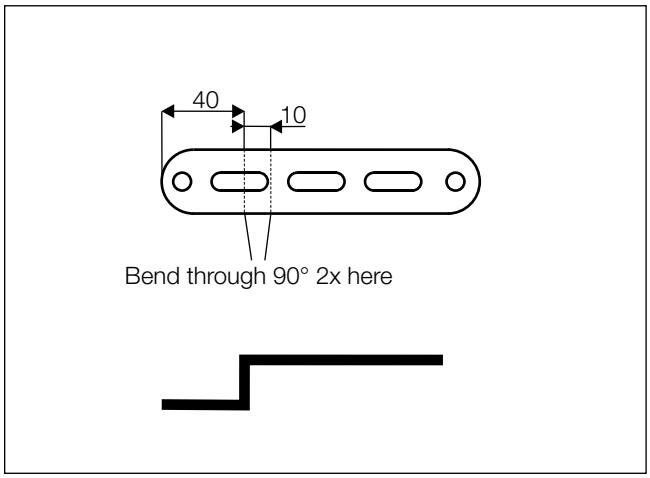


Diagram 4

Mount the premounted exhaust silencer to the hole in the lower radiator crossbeam with an M6 x 16 screw and a B6 body washer.

The arrow on the exhaust silencer faces to the right.

Mount the prepared holder 93 03 to the hole in the radiator crossbeam with an M6 x 16 screw.

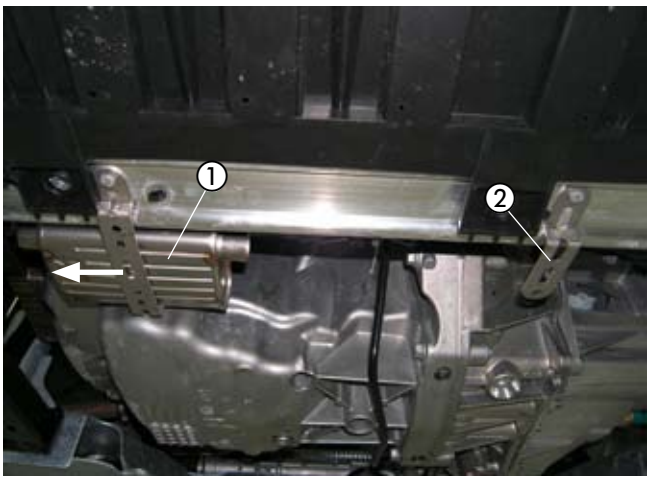


Photo 16

① Exhaust silencer, installed
② Holder 93 03, mounted

3 Exhaust and combustion air system

Cut the exhaust pipe to a length of 580 mm and push on a spacer rubber profile.

Use a pipe clamp to connect the exhaust pipe to the heater outlet connection and to the exhaust silencer intake connection.

Screw the 28 mm Ø pipe clamp to holder 93 03 with an M6 x 16 screw.

Position the spacer rubber profile on the lower radiator hose as shown in the photo.

Please note!

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

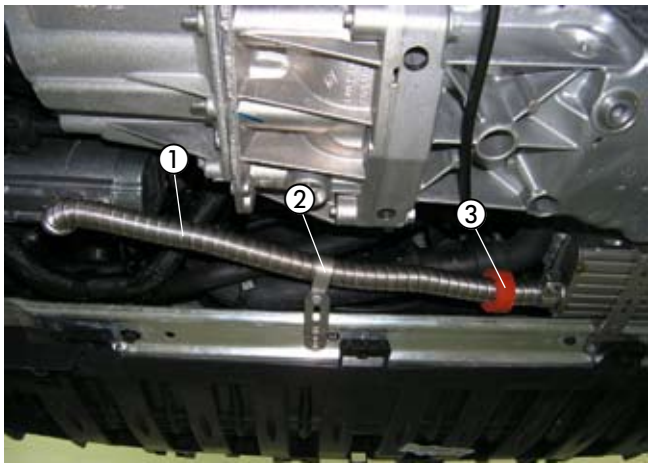


Photo 17

① Exhaust pipe, connected
② Pipe clamp 28 mm Ø fastened to holder 93 03
③ Spacer rubber profile, positioned

Cut the exhaust pipe end to a length of 130 mm.

Connect the exhaust pipe end with a pipe clamp to the outlet connection of the exhaust silencer and shape it in the elbow downwards as shown in the photo.



Photo 18

① Exhaust pipe, connected

Install combustion air pipe
(see photo 19)

Connect the combustion air pipe to the heater using a 16 - 25 mm Ø hose clip, lay upward in the elbow and in the protected section of the radiator.

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 19

① Combustion air pipe, connected and laid

4 Water circuit

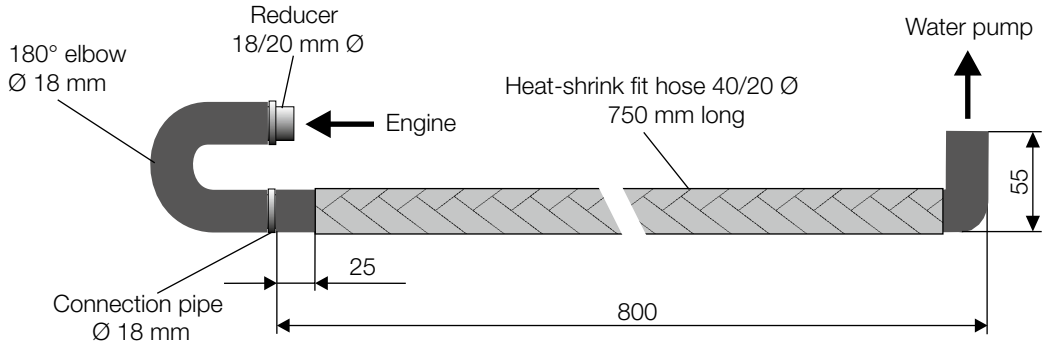
Prepare the water hoses
(see diagram 5)

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

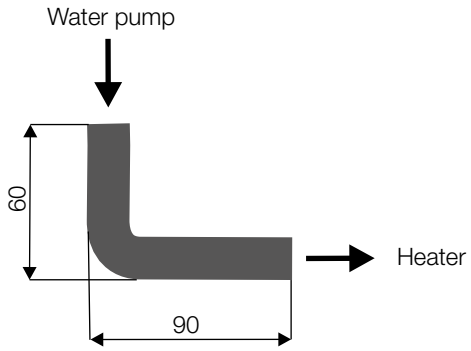
Please note!

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

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

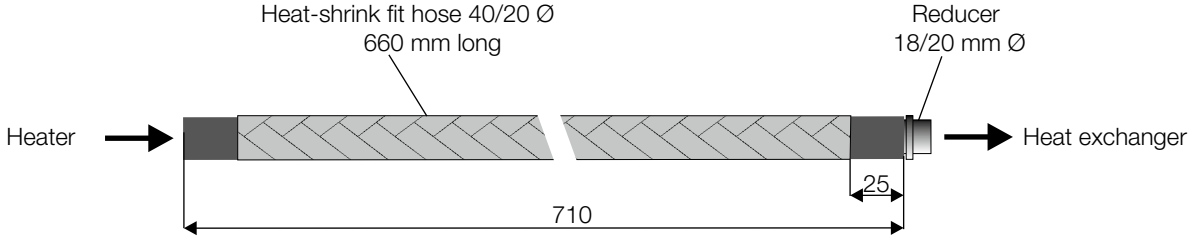
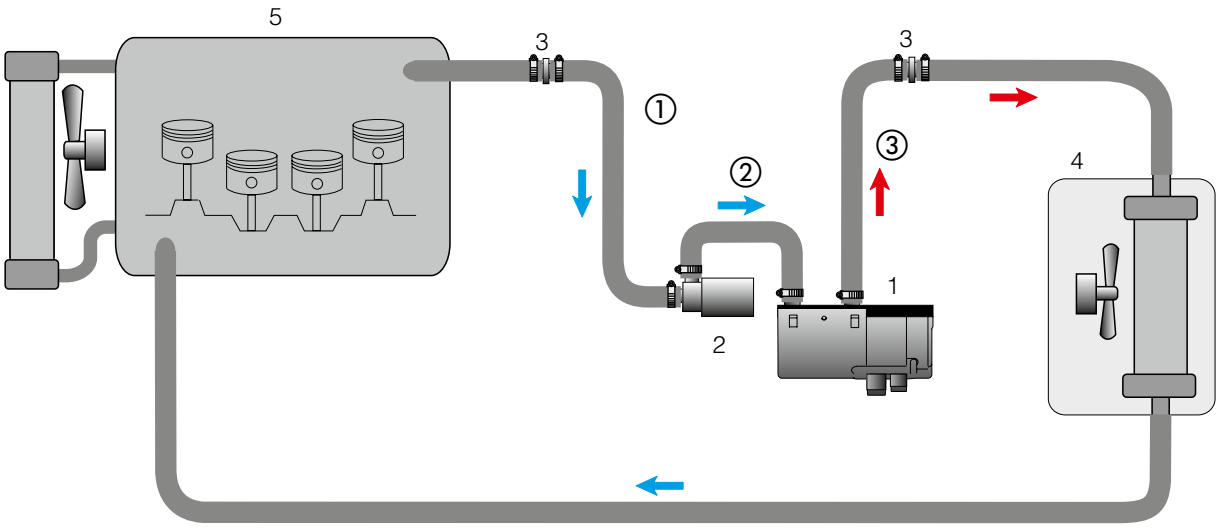


Diagram 5

4 Water circuit



1 - Heater
2 - Water pump
3 - Vehicle T-piece and reducer Ø 18 mm
4 - Vehicle heat exchanger
5 - Engine
- Hose clip, Ø 20 – 32 mm

Diagram 6

Cut water flow hose
(see photo 20)

Cut the water flow hose from the engine to the heat exchanger (the bottom right water hose at the heat exchanger) according to the dimensions shown in the photo.

Remove the heat-shrink fit hose from the water flow hose.

Turn the engine hose elbow through 180° to the left.

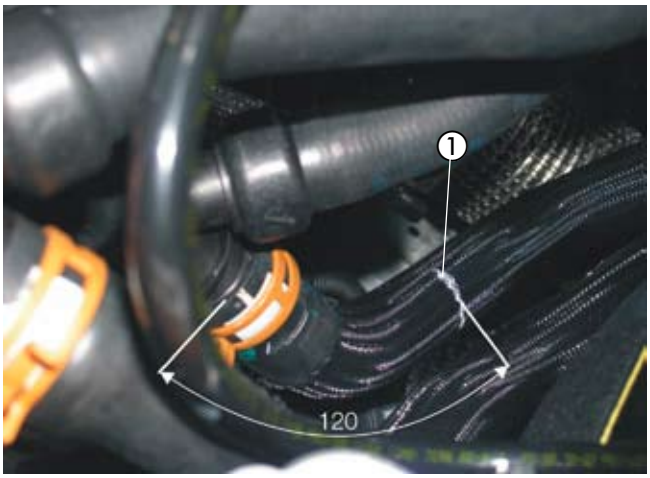


Photo 20

① Cutting point in the water flow hose

Lay and connect water hoses
(see photos 21 to 22 and diagrams 5 to 6)

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

Connect the water hose ③ to the heater's water outlet connection.

Lay the two water hoses upwards along the water return flow hose from the electric auxiliary heater and secure with cable ties.

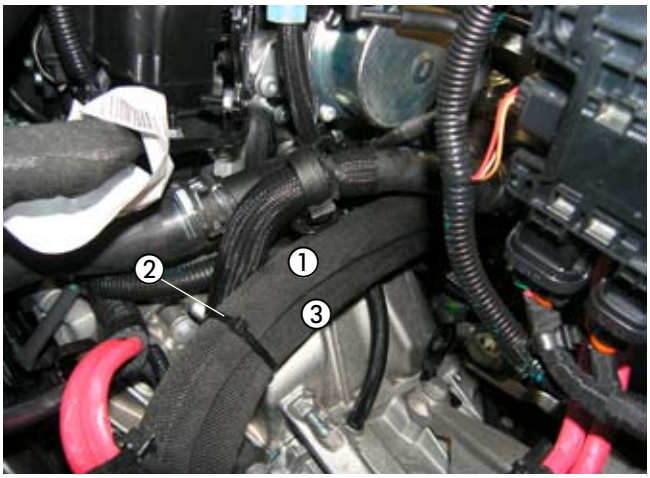


Photo 21

① Water hose ①
② Cable ties
③ Water hose ③

Connect the water hose ① with the 18/20 mm Ø reducer to the water hose piece of the engine connection.

Connect the water hose ③ with the 18/20 mm Ø reducer at the cut water flow hose to the heat exchanger.

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

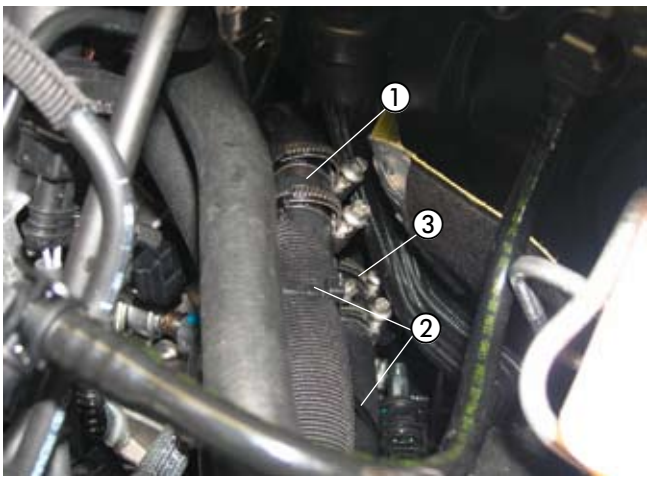


Photo 22

① Water hose ①
② Cable ties
③ Water hose ③

5 Fuel supply

Install fuel tank extractor
(see photos 23 to 25 and diagram 7)

Prepare the riser pipe of the fuel tank extractor as shown in the diagram.
Cut off the lower end of the fuel tank extractor at an angle of 45°.

Remove the tank fitting, loosening the plug connection and the fuel pipes at the tank connection.
Remove the tank fitting by loosening the union nut.

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 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.
Take the fuel tank extractor from above through the prepared hole in the tank fitting and screw tight with the M8 nut and B8 washer.
Align the fuel tank extractor as shown in the photo.

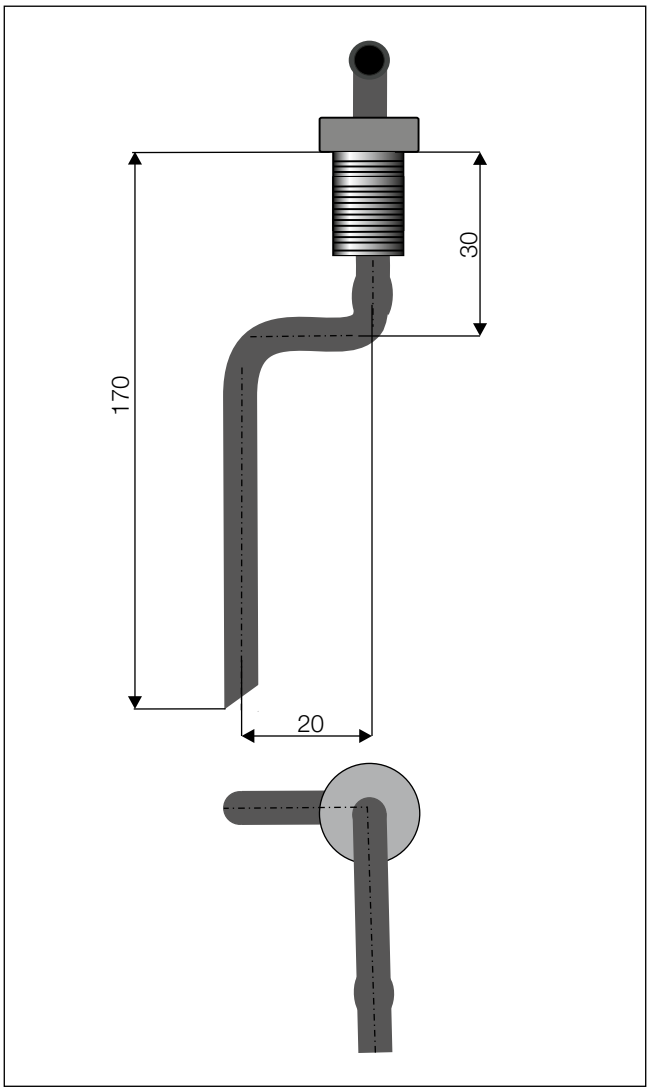


Diagram 7

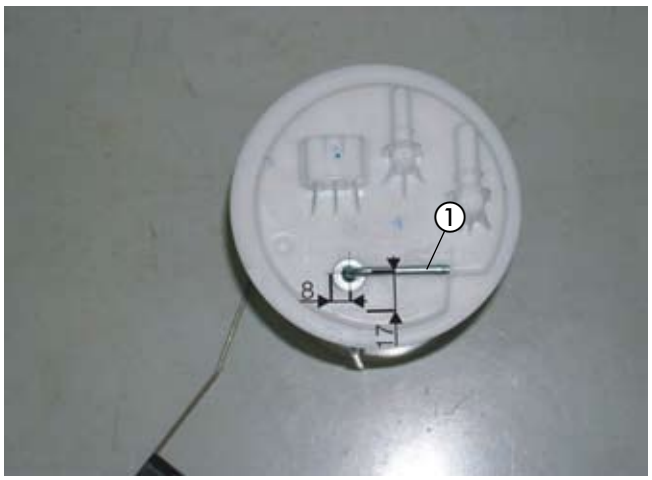


Photo 23

① Fuel tank extractor, installed

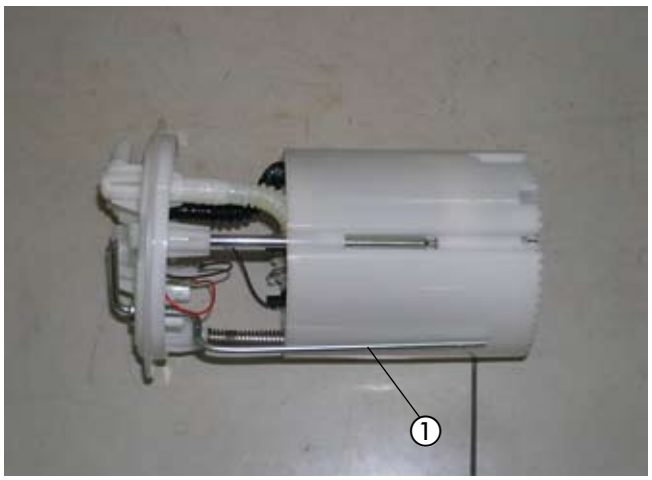


Photo 24

① Fuel tank extractor, installed

Insert the tank fitting with a new seal and fasten with the locking ring; ensure the seal fits properly.
At the intake connection of the fuel tank extractor, connect the 4 x 1 mm Ø fuel pipe with a 3.5 x 3 mm Ø fuel hose, 50 mm long.
Lay the 4 x 1 mm Ø fuel pipe to the installation position of the metering pump next to the tank on the right.
Connect the plug-in connection and the fuel line to the upper part of the tank fitting.



Photo 25

① Fuel tank extractor, connected

Install and connect metering pump
(see photos 26 and 27)

Insert the metering pump in the rubber holder and fit the 90° angle 20 1348 03 00 02 using the M6 x 20 screw and B6 body washer.
Fasten the premounted metering pump to the free hole in the right rear axle holder next to the tank as shown in the photo, using an M6 x 16 screw and a 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 faces forwards.
Cut the 4 x 1 mm Ø fuel pipe from the fuel tank extractor to the metering pump and connect to the fuel hose Ø 3.5 x 3 mm, length 50 mm on the intake side.

At the main cable harness, pull off the mating plug of the metering pump connection and push on the plug of the enclosed metering pump cable.

Connect the 4 x 1.25 mm Ø fuel pipe to the heater with a 3.5 x 3 mm Ø fuel hose. Lay the fuel pipe together with the metering pump cable along the fuel lines on the vehicle underbody on the right to the metering pump and connect with the 3.5 x 3 mm Ø fuel hose, 50 mm long, on the discharge side.

Slot the plug-in contacts of the metering pump cable into the mating connector without noting the polarity.
Connect the connector to the metering pump.

Use cable ties to secure the 4 x 1.25 mm Ø fuel pipe and the metering pump cable at suitable points.

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 26

① Metering pump with rubber holder, installed



Photo 27

① Fuel pipe and cable, laid

Install fuses and fan relay
(see photo 28 and diagrams 8 and 9)

Prepare the bracket 22 1000 51 21 00 as shown in the diagram.

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

Insert the 4 mm² rt/ws cable from the relay block of relay 2.5.7 into the still free slot of the fuse block.

Insert the 0.5 mm² br cable of the main cable harness in slot 85 of the relay block.

Lay the 1 mm² sw/rt cable from the prefabricated IPCU block from the interior through the existing cable grommet into the engine compartment as shown in photo 29.

Disconnect the bushing connector from the 0.5 mm² sw/rt cable of the main cable harness.

Fit the 1 mm² sw/rt cables from the prefabricated IPCU block and the 0.5 mm² sw/rt cable from the main cable harness together in a new bushing connector and insert in slot 86 of the relay block.

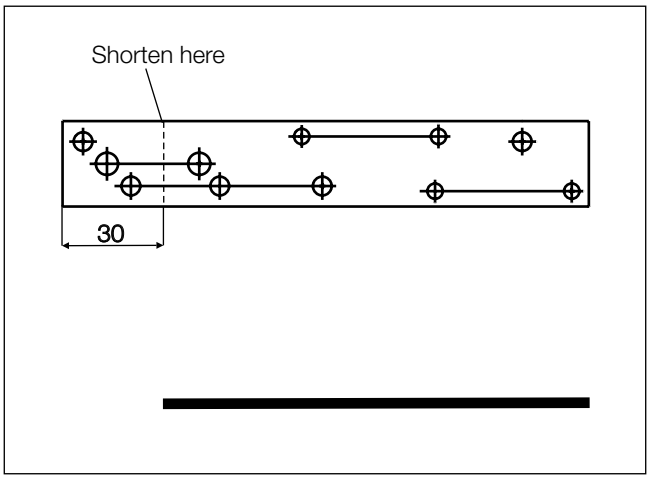


Diagram 8

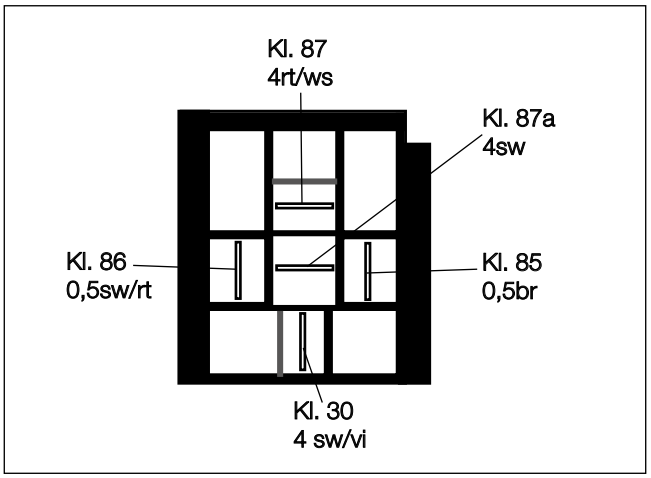


Diagram 9

View of the relay block from the cable inlet side

Screw holder 22 9000 50 95 01 to the front left wing fastening using the existing M6 screw.

Screw the fuse bracket with two M4 x 16 screws and the relay block of relay 2.5.7 to the prepared holder 22 1000 51 21 00 using an M5 x 12 screw.
Screw the holder 22 1000 51 21 00 to the ready mounted holder 22 9000 50 95 01 using an M6 x 12 screw as shown in the photo.



Photo 28

① Fuse bracket, installed
② Fan relay, installed

Cable laying
(see photo 29)

Lay the "control unit" and "fan control" cable loom through the existing cable grommet on the left side of the engine partition into the interior.



Photo 29

① Existing cable grommet

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.

Fan control
(see photos 30 to 34 and diagram 10)

Mount the prefabricated IPCU and additional relay block to the instrument panel support with an M6 x 16 screw as shown in the photo.

Fasten the 1 mm² br cable from the additional relay block to the left lower screwed connection of the instrument panel support.

Insert the additional relay and the IPCU in the corresponding block.



Photo 30

① IPCU module and additional relay, installed
② Cable 1 mm² br connected

At the 4-pin black plug at the brake light switch, disconnect the 0.5 mm² ge PIN 2 cable and integrate the 1 mm² rt/ws cable from the additional relay block with a 0.5 - 1.5 mm² butt-type connector.

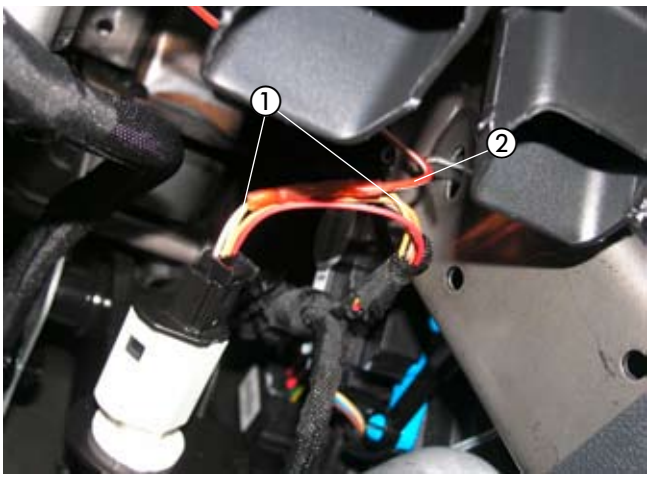


Photo 31

① 0.5 mm² ge cable, disconnected
② Cable 1 mm² rt/ws, integrated

Lay the "Fan control" cable loom to the central fuse box in the driver's footwell.

Disconnect the 4 mm² rt cable at the outlet of the F40/40A fuse and integrate the 4 mm² sw and 4 mm² sw/vi cables with 4 - 6 mm² butt-type connectors as shown in the circuit diagram.

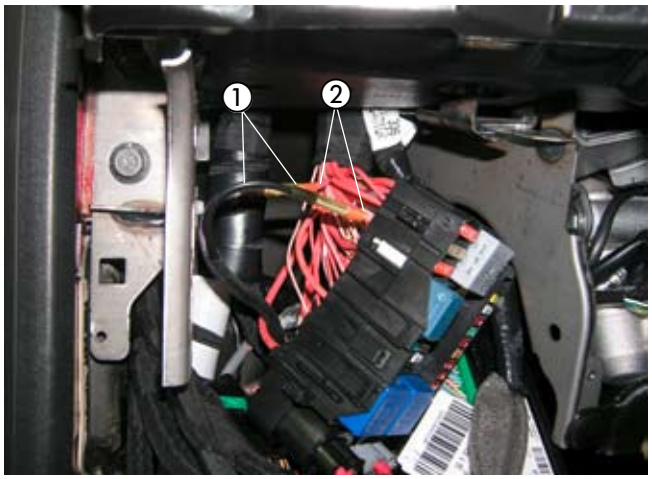


Photo 32

① 4 mm² rt cable, disconnected
② 4 mm² sw and 4 mm² sw/vi cables, integrated

in vehicles with manual AirCon

At the 6-pin black plug at the manual AirCon control, disconnect the 0.5 mm² ge PIN 5 cable and integrate the 1 mm² sw/ws cable from the additional relay block with a 0.5 - 1.5 mm² butt-type connector.

Please note!

Make sure that the battery is disconnected before disconnecting the 0.5 mm² ge cable at the manual AirCon control.

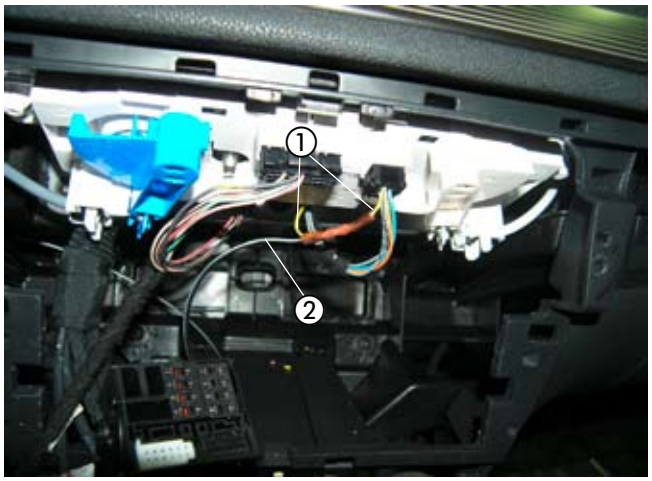


Photo 33

① 0.5 mm² ge cable, disconnected
② Cable 1 mm² sw/ws, integrated

for vehicles with automatic AirCon

At the 40-pin grey plug at the AirCon control, disconnect the 0.5 mm² ge PIN 19 cable and integrate the 1 mm² sw/ws cable from the additional relay block with a 0.5 - 1.5 mm² butt-type connector.

Please note!

Make sure that the battery is disconnected before disconnecting the 0.5 mm² ge cable at the AirCon control.

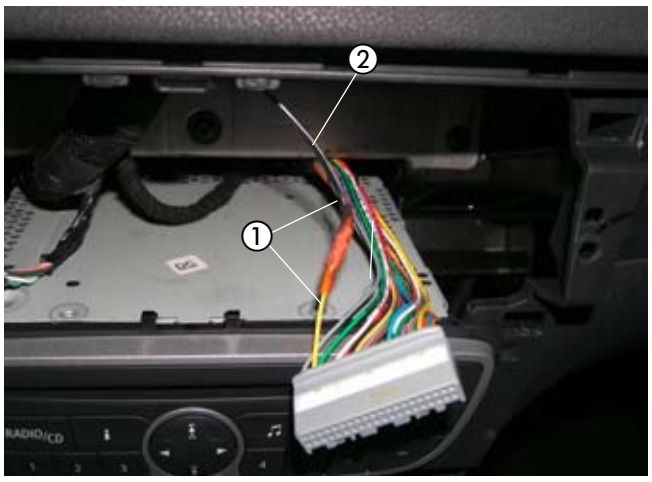


Photo 34

① 0.5 mm² ge cable, disconnected
② Cable 1 mm² sw/ws, integrated

Power supply
(see photo 35)

Take the 4 mm² rt cable to the positive terminal post of the battery and connect it there.

Take the 2.5 mm² br negative cable to the negative terminal post of the battery and connect it there.

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.

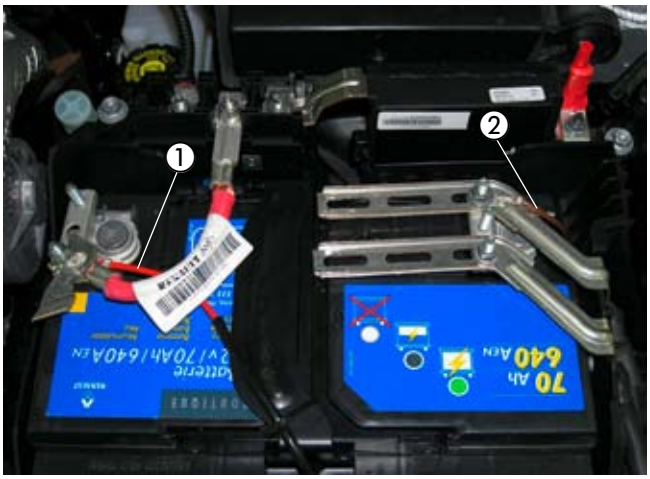
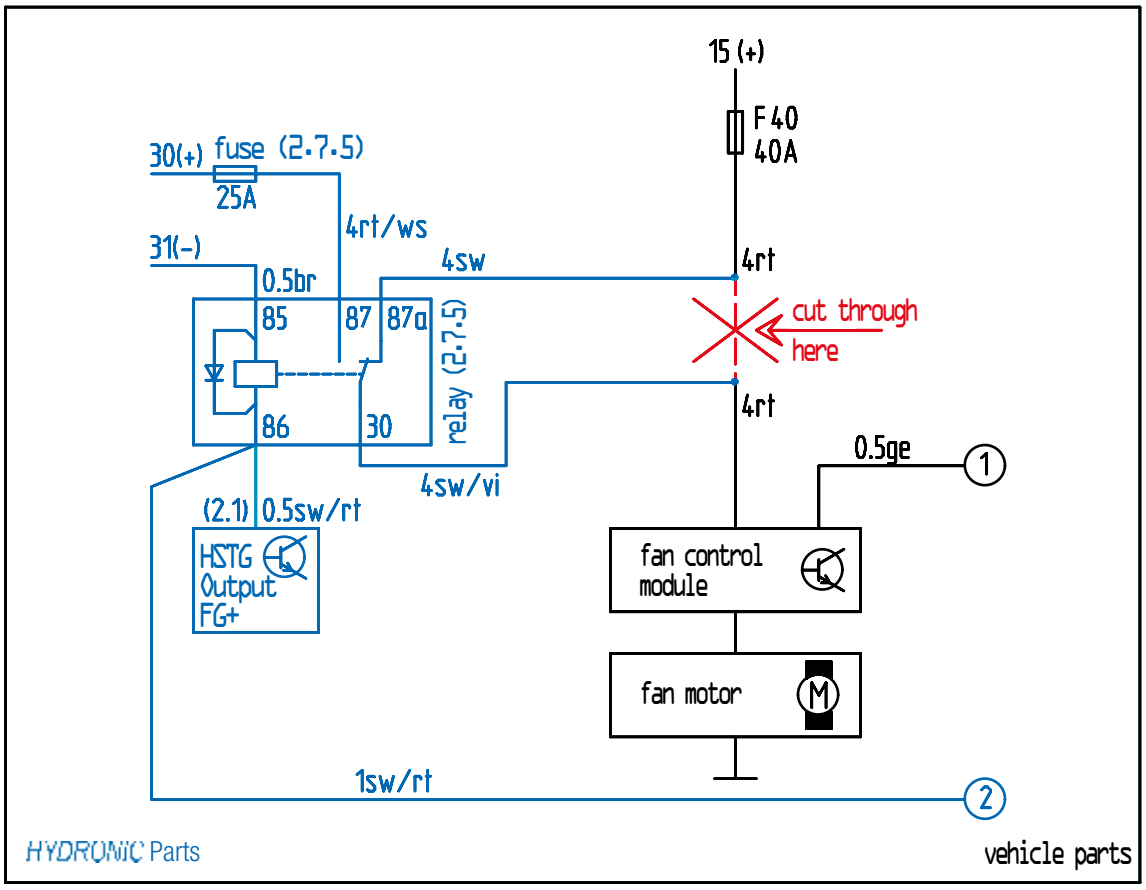


Photo 35

① Power supply plus
② Power supply minus


15 (+)
F 40
40A
30(+) fuse (2.7.5)
25A
4rt/ws
31(-)
0.5br
4sw
4rt
85
87
87a
relay (2.7.5)
cut through
here
86
30
4rt
0.5ge
1
4sw/vi
(2.1) 0.5sw/rt
HSTG
Output
FG+
fan control
module
fan motor
M
1sw/rt
2
HYDRONIC Parts
vehicle parts

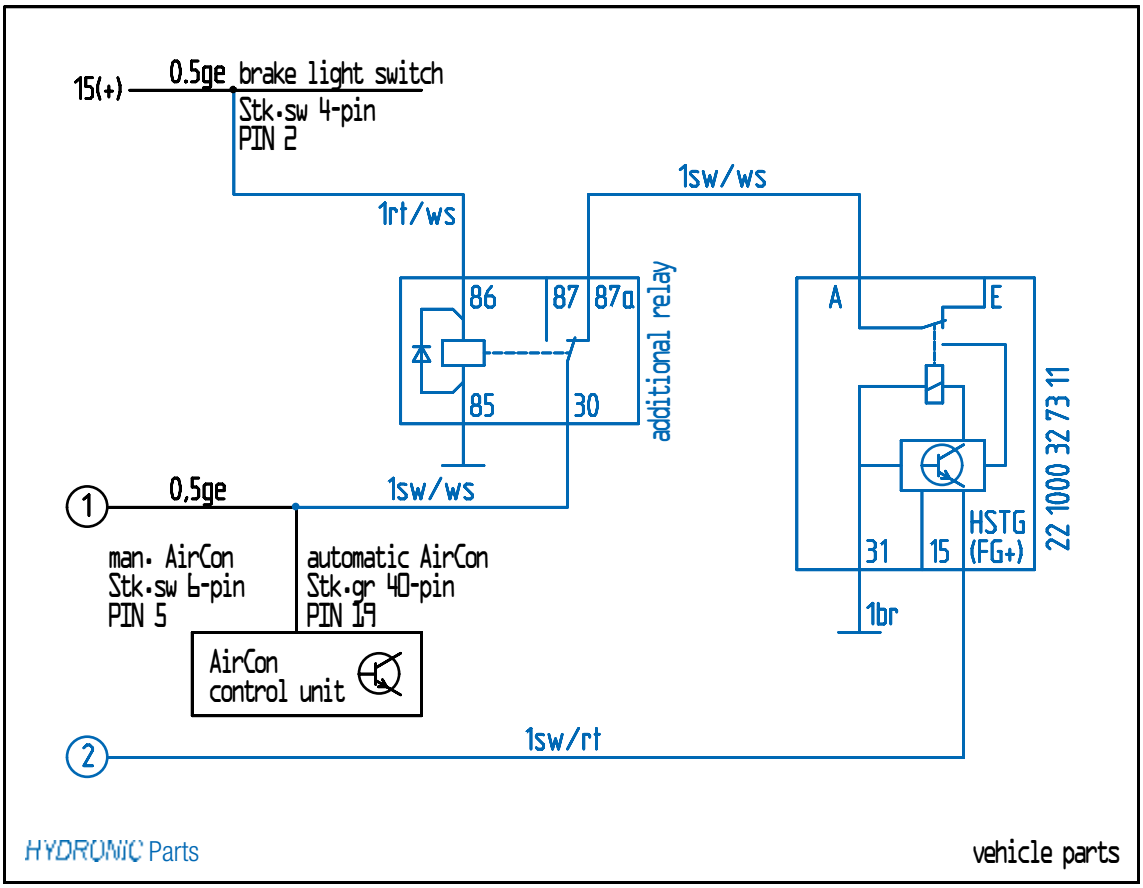

15(+)
0.5ge brake light switch
Stk.sw 4-pin
PIN 2
1sw/ws
1rt/ws
86
87
87a
85
30
additional relay
A
E
1
0,5ge
1sw/ws
man. AirCon
Stk.sw 6-pin
PIN 5
automatic AirCon
Stk.gr 40-pin
PIN 19
AirCon
control unit
31
15
HSTG
(FG+)
1br
22 1000 32 73 11
2
1sw/rt
HYDRONIC Parts
vehicle parts

Diagram 10

Install EasyStart T timer
(see photo 36)

The EasyStart T timer is installed according to the "EasyStart T" installation instruction.
Fit the EasyStart T timer to the gearshift lever cover.
Use the supplied self-adhesive drilling template to position and drill the holes for fixing the timer and the heater lead harness.
Make the Ø 6.5 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 timer lead harness through the 8 mm Ø hole and use the expansion plug to premount the timer in the 6.5 mm Ø 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 to fix the timer.
Attach the flat connector from the timer lead harness at the 9 pin flat connector housing and the already installed bushing connectors on the bushing connector 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.



Photo 36

① EasyStart T, installed

Please note!

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

Install EasyStart R/R+ radio remote control (Alternative suggestion - consult with the customer)
(see photos 37 to 38 and diagram 11)

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 panelling as shown in the photo.
To do so, make an 8 mm Ø hole and fit the button in the hole.



Photo 37

① EasyStart R/R+ button, installed

Prepare the holder as shown in the diagram.
Use two M4 x 10 screws to fix the stationary part to the bracket.
Fit the stationary part of EasyStart R/R+ with holder to the existing M8 threaded bolt of the steering column fastening.
Attach the temperature sensor of the EasyStart R/R+ in a suitable position to the panelling in the driver's footwell.
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.
Connect the antenna cable of the EasyStart R+ to the stationary part, take it to the left and lay it in the rubber door seal on the driver's side.

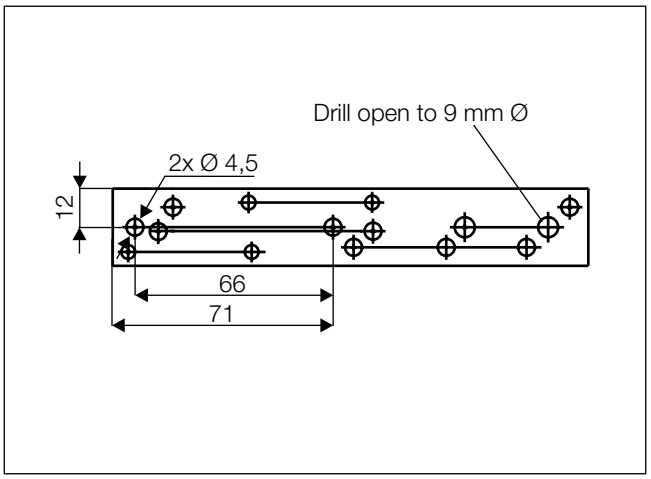


Diagram 11

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.

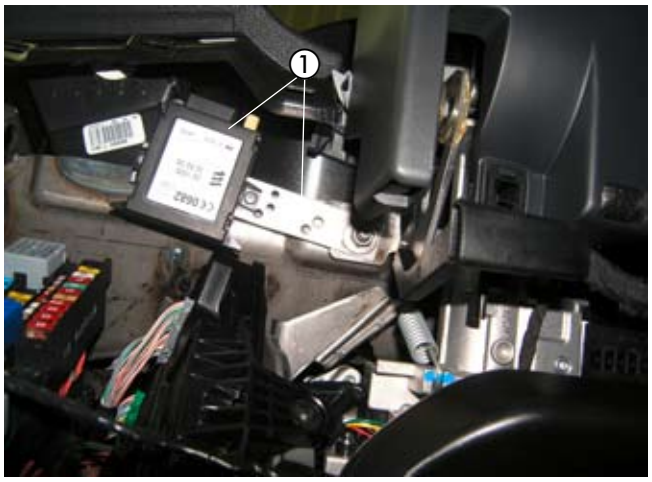


Photo 38

① Stationary part of the EasyStart R/R+, installed with holder

7 After installation

Mount grommet for exhaust end pipe
(see photos 39 and 40)

Make a 38 mm Ø hole in the removed engine sub-panelling according to the dimensions shown in the photo.

Fit the 41 mm Ø grommet in the hole.

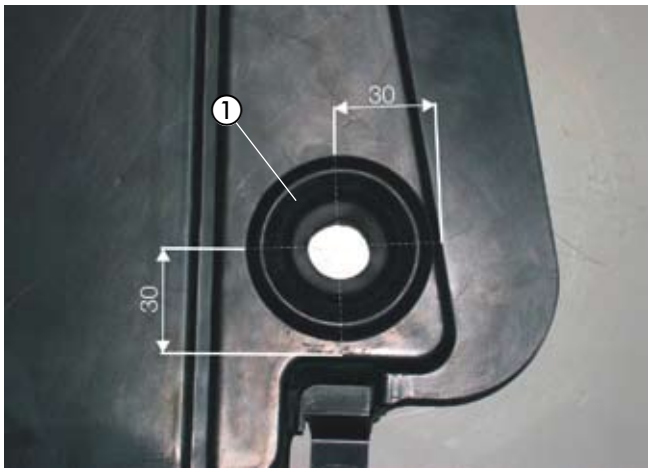


Photo 39

① Grommet for exhaust pipe end, installed

Mount the lower engine panelling and take the exhaust pipe end through the grommet.

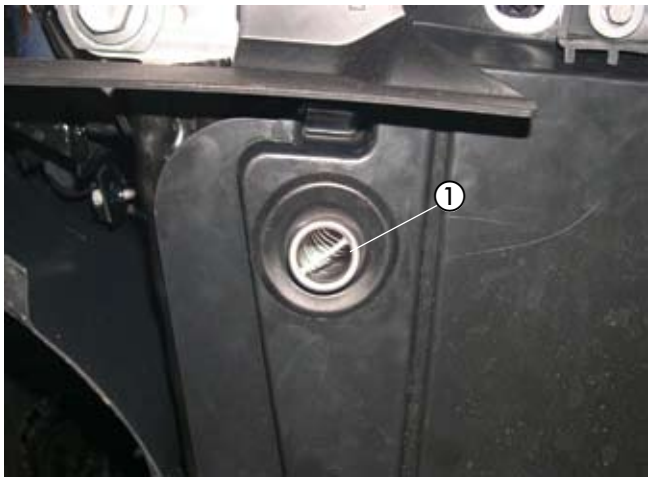


Photo 40

① Exhaust pipe end, installed

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.
- 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 only with the coolant liquid specified by the vehicle manufacturer.

Starting up the heater

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

8 Parts Overview

No.	Designation	Quantity	Order number
1	Vehicle-specific installation kit		24 8401 00 00 00
	Heater holder, new	1	
	Hexagon screw M6 x 95	1	
	Lead harness, heater	1	
	Holder, fuse	1	
	Exhaust silencer	1	
	Exhaust pipe, L = 300 mm	1	
	Holder, water pump	1	
	Hose, shaped, 18 mm Ø	1	
	Hose clip, 16 - 25 mm Ø	1	
	Hose clip, 20 - 32 mm Ø	6	
	Pipe clamp, 26 - 28 mm Ø	3	
	Holder, metering pump	1	
	Lead harness, metering pump	1	
	Fuel hose, 3.5 x 3 mm Ø, L = 50 mm	3	
	Hose clip, one-piece with clamping jaws	6	
	Fuel pipe, 4 x 1 mm Ø	2 m	
	Fuel pipe, 4 x 1.25 mm Ø	5 m	
	Cable tape, 2.5 x 100 mm	10	
	Cable tape, 5.0 x 200 mm	20	
	Cable tie with internal toothing	5	
	Hexagon screw M4 x 16	2	
	Hexagon nut M4	2	
	Hexagon screw M5 x 10	1	
	Hexagon nut M5	1	
	Hexagon screw M6 x 16	5	
	Hexagon screw M6 x 20	1	
	Hexagon screw M6 x 30	1	
	Hexagon nut M6	7	
	Holder (22 9000 50 93 02)	2	
	Holder (22 9000 50 93 06)	1	
	Holder (22 9000 50 93 03)	1	
	Holder (20 1348 03 00 02)	1	
	Holder (22 9000 50 95 01)	1	
	Holder R+	1	
	Screw M4 x 16	2	
	Hexagon nut M4	2	
	Hexagon screw M6 x 16	4	
	Hexagon screw M6 x 12	1	
	Hexagon nut M6	1	
	Body washer B6	4	
	Blind rivet nut M6	3	
	Grommet Ø 41 mm	1	
	Spacer rubber profile	1	
	Hose clip, 20 -32 mm Ø	4	
	Hose elbow 180°, 18 mm Ø	1	
	Connection tube, Ø 18 mm	1	
	Reducer 20/18 mm	2	
	Fuel tank extractor	1	
	Clamp 28 mm Ø	1	
	Clamp 9 mm Ø	2	
	Fuel hose, 3.5 x 3 mm Ø, L = 50 mm	1	
	Angled neck	1	
	Lead harness, fan	1	

8 Parts Overview

No.	Designation	Quantity	Order number
1	Vehicle-specific installation kit		24 8401 00 00 00
	Relay 12V 30/20 A	1	
	Relay 12V 70/60 A	1	
	Cable loom with IPCU and changeover relay	1	
	IPCU module	1	
	Butt-type connector, red	2	
	Butt-type connector, yellow	2	
	Bushing connector 1.5 mm^2	1	
	Exhaust pipe	0.7 m	
	Heat-shrink fit hose Ø 40/20 mm	1.5 m	

9 Leaflet for the customer

Before switching on
in vehicles with manual AirCon
(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" (maximum setting).
- Set the button for the air system ② to maximum air flow for the windscreen.
- The fan speed does not need to be pre-selected.



Photo 1

① Temperature controller
② Air system controller

Before switching on
in vehicles with automatic AirCon
(see photo 2)

- Before switching on or pre-programming heating mode with the ignition switched on, set the vehicle's temperature controller ① to "Hot" ("HI" in the display).
- Set the button for the air system ② to maximum air flow for the windscreen.
- The fan speed does not need to be pre-selected.



Photo 2

① Temperature controller
② Button for the air system