

Water-heater unit



Zusatzheizung *Thermo Top E*


00 0003

Zusatzheizung *Thermo Top C*


00 0002

Installation instructions

Hyundai Getz

Gasoline and diesel

From model year 2003

For left-hand drive vehicles only



WARNING!

Hazard warning:

Incorrect installation or repair of Webasto heating systems may cause a fire or result in the emission of carbon monoxide, which can be fatal. Serious or fatal injuries can be caused as a result.

Specialist company training, technical documentation, specialized tools and equipment are required to install and repair Webasto heating and cooling systems.

NEVER attempt to install or repair Webasto heating or cooling systems if you have not successfully completed the company training and thereby acquired the required technical skills or if you do not have access to the required technical documentation, tools and equipment needed to carry out correct installation and repairs.

ALWAYS follow all Webasto installation and repair instructions and observe all warning instructions.

Webasto does not accept any liability for defects and damage that are attributable to an installation by untrained staff.

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Validity

Manufacturer	Model	Type	EG-BE No. / ABE
Hyundai	Getz	TB	e4 * 98 / 14 * 0066 * ...

Engine type	Engine model	Power in kW	Engine capacity in cm ³
G4HG	Petrol	49	1086
G4EE	Petrol	71	1399
G4ED	Petrol	77	1599
G4EA	Petrol	60	1341
G4HD	Petrol	46	1086
D3EA to 08/2005	Diesel	60	1493

Vehicle and engine types, equipment variants as well as national specifications, which are not listed in these installation instructions, have not been tested. Installation according to these installation instructions may, however, be possible.

The installation location of a time switch and summer / winter switch should be confirmed with the end customer before installation.

Heater Unit / Installation Kit

Amount	Description	Order no.:
1	Commercial supply of required control	See price list
1	Installation kit for Hyundai Getz Gasoline and diesel	1302285D

Replace the windshield washer container on vehicles from model year 08/2005.

Amount	Description	Order no.:
1	Windshield washer container Hyundai order no.:	98620 1C 000

Recommended heater unit for the relevant vehicle class:

Vehicle	Heater unit
Compact car	Thermo Top E
Mid-class, station wagon	Thermo Top C
Luxury, van, off-roader	Thermo Top P



The choice of heater unit is based on the size of the vehicle passenger compartment and the customer's comfort requirements.

Foreword

These installation instructions apply to Hyundai Getz Gasoline and diesel vehicles – validity, see page 2 – from model year 2003 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to these installation instructions.

However, the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top C/P/E* are to be observed in any event.

The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

General Instructions

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and cable harnesses to original vehicle lines and cable harnesses using cable clips.

Sharp edges should be fitted with edge protectors (split open plastic hose).

Spray unfinished body areas, such as bore holes, with anti-corrosion wax (Tectyl 100K, Order no. 111329).

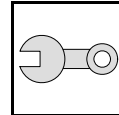
Special Tools

- Torque spanner for 2.0 - 10 Nm
- Vice-grip wrench
- Riveting nut tool

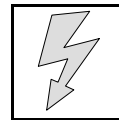
Explanatory Notes on the Document

To provide you with a quick overview of the individual working steps, you will find an identification mark on the outside top right corner of the page in question.

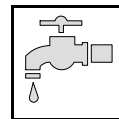
Mechanics



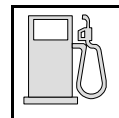
Electrics



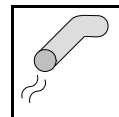
Water connection



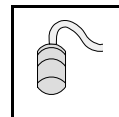
Fuel connection



Exhaust System



combustion air



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



Specific risk of fire or explosion.



Reference to general installation instructions of Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.



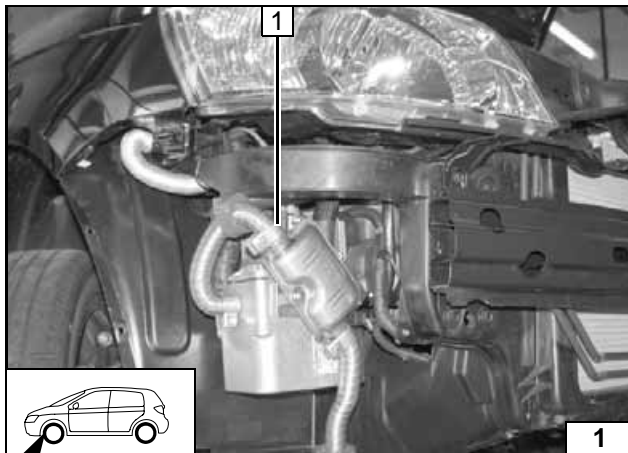
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

Preliminary work

WARNING!

- Open the tank cap, ventilate the tank.
- Close the tank cap again.
- Disconnect the battery.
- Let off pressure in the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- The label: "**Order windshield washer container**" should be attached in a visible location next to the duplicate label.
- Completely remove the battery.
- Completely remove the air filter with intake hose.
- Remove the bumper.
- Remove the windshield washer container, this will be replaced.
- Remove the servo oil container bracket
- Remove the right cover under the headlight mounting.
- Remove the left dashboard panel.

Remove page 29 "Operating instructions for the end customer" and insert with vehicle operating instructions.



Heater unit installation location

- 1 Heater unit

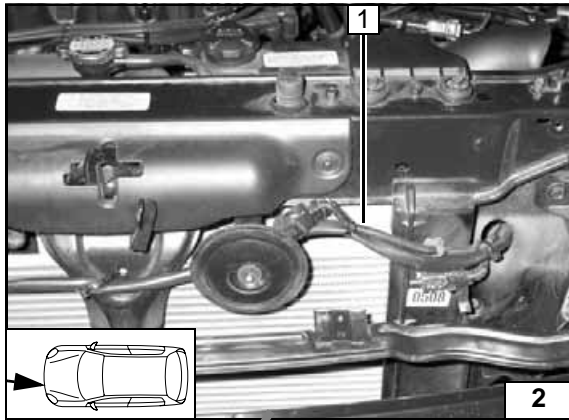
Installation
location



Electrical Connections

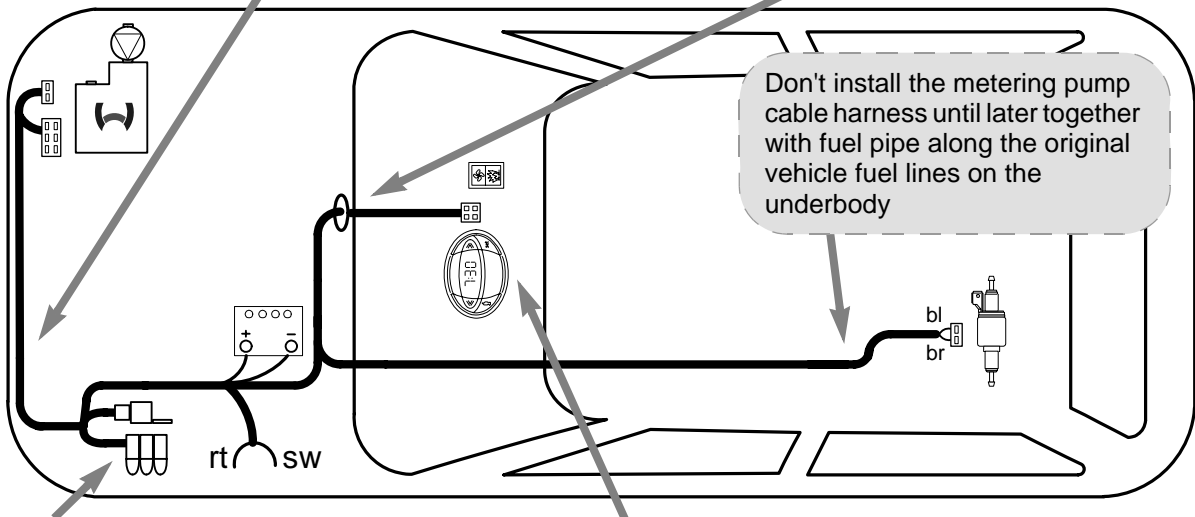
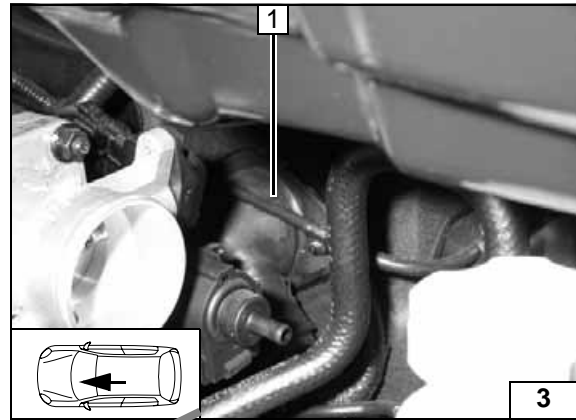
Cable harness feed-through

1 Heater unit cable harness

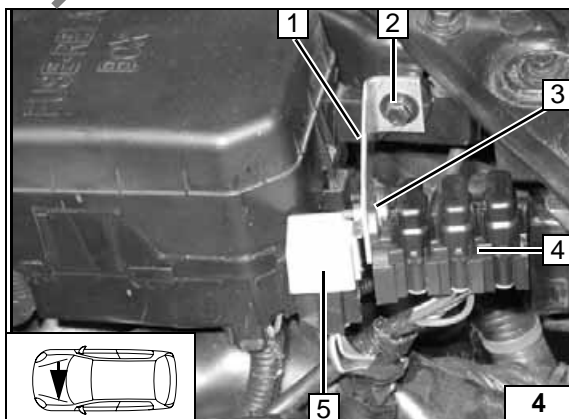


Time switch

1 Cable sleeves

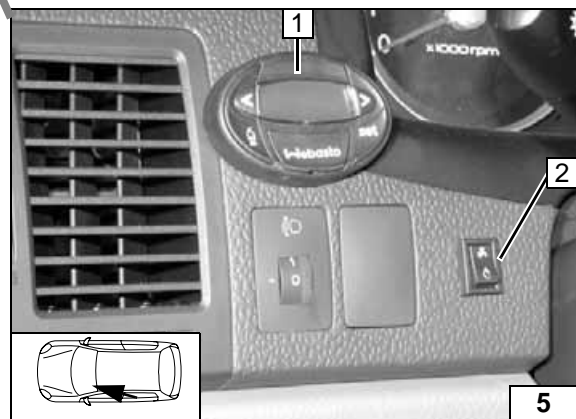


Cable harness installation diagram



Fuse holder, K3 relay

- 1 Mounting bracket
- 2 M6x20 bolt, spring washer, washer
- 3 M4x12 bolt, washer [2x], M4 nut
- 4 Fuse holder
- 5 K3 blower relay

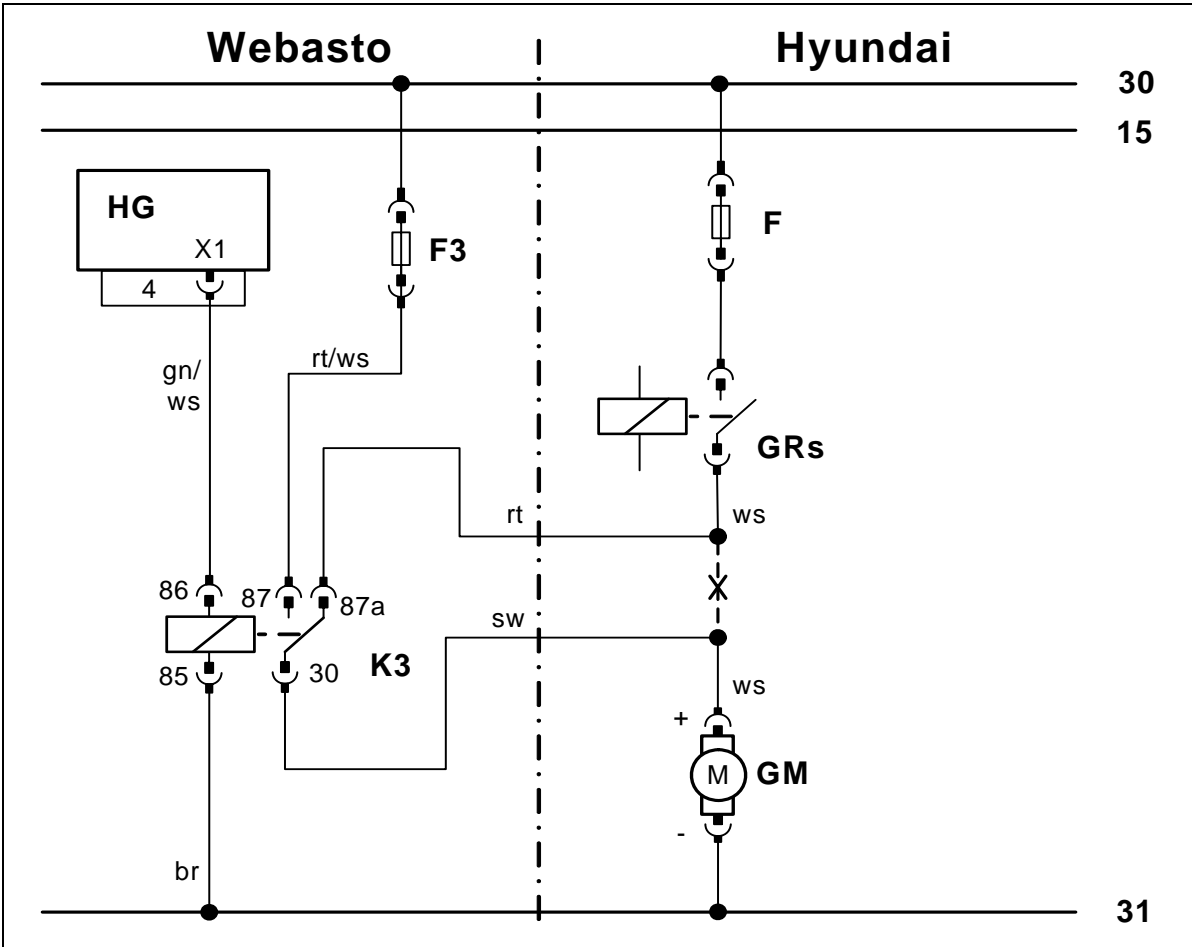


Time switch and summer / winter switch option

- 1 Time switch
- 2 Summer / winter switch, bore hole Ø 12 mm.



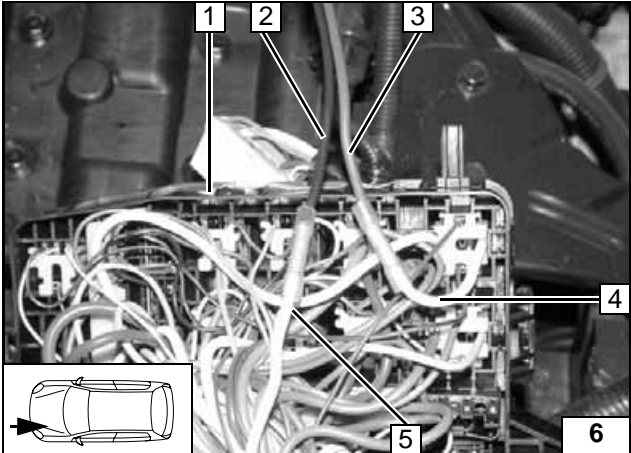
Manual air conditioning blower control



Circuit diagram

Webasto components		Vehicle components		Colours and symbols	
HG	heater unit TT-C/E	GM	blower motor	rt	red
X1	6-pin connector	GRs	blower relay	ws	white
F3	fuse	Fx	fuse	sw	black
K3	blower relay			br	brown
				gn	green
				bl	blue
				X	splitting point
				Cable colors may vary.	

Legend

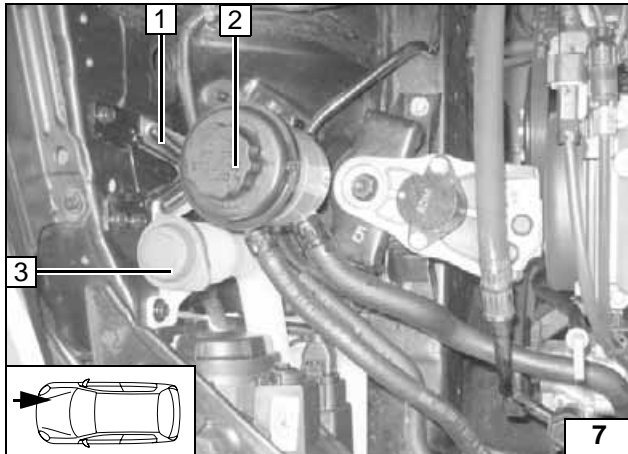
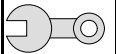


The connection is in the central electronics 1 in the engine compartment. Connect with enclosed connectors according to the circuit diagram.

- 2 Black (sw) wire from K3/30
- 3 Red (rt) wire to K3/87a
- 4 White (ws) wire from vehicle blower relay
- 5 White (ws) wire to the blower motor



Blower control



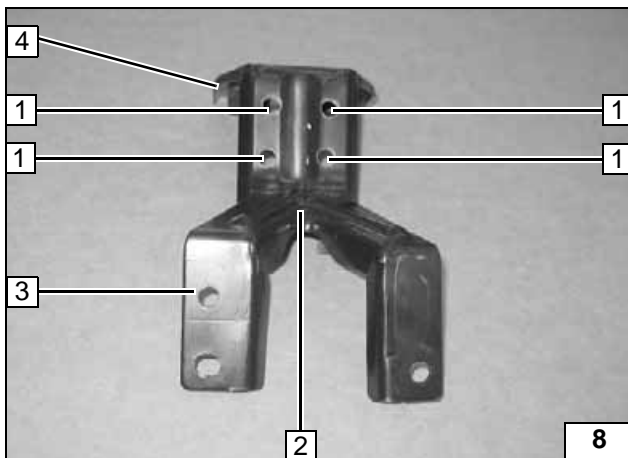
Preparing the Installation Location

All vehicles from 08/2005

Disassemble the filling support for the windshield washer container 3.
Disassemble the bracket 1 from the servo oil container bracket 2.



Rebuild the servo oil container bracket



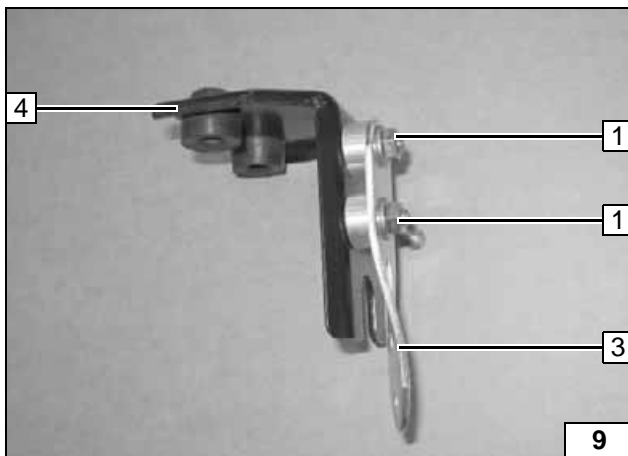
In the bracket 2, drill the welding points 1 [4x].

Part 3 not used.
Part 4 on the bracket will be used again.

1 Ø 7.5mm bore hole [4x]



Rebuild the servo oil container bracket



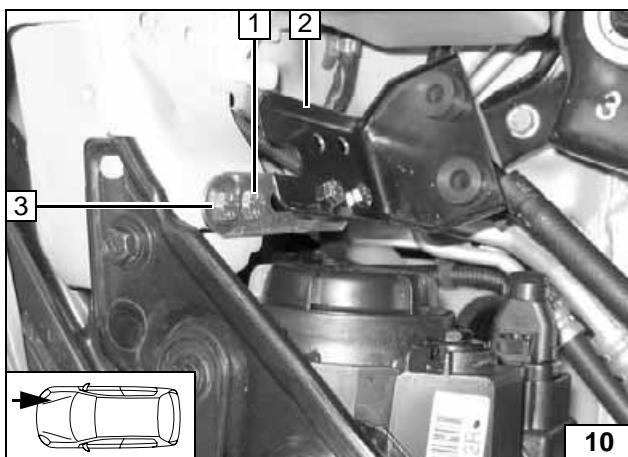
Bend the fastening strap 3 by ca. 30° according to the illustration.

Assemble the fastening strap 3 on to the bracket 4 according to the illustration.

1 M6x20 bolt [2x], 8mm spacer washer [2x], M6 flanged nut [2x]



Assembling the fastening strap

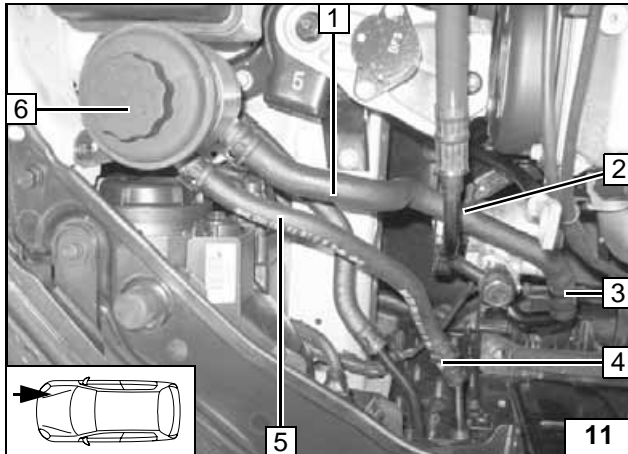
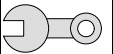


Assemble the pre-assembled bracket 2 according to the illustration. Use the protective anti-corrosion wax at position 1.

1 Ø 4.5mm bore hole, 5.5x13 hex self-tapping screw
3 M6x20 bolt, body washer, original vehicle threaded insert



Assemble the servo oil container bracket



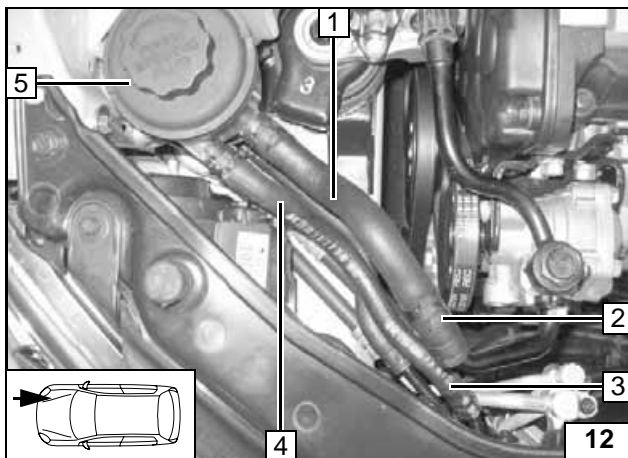
1.1 49 Kw vehicles

Slide the hoses **1** and **5** about 30 mm further on the connecting pieces **3** and **4**. Ensure sufficient distance to adjacent components, especially at position **2**!

6 Servo oil container bracket



Assembling the servo oil container bracket



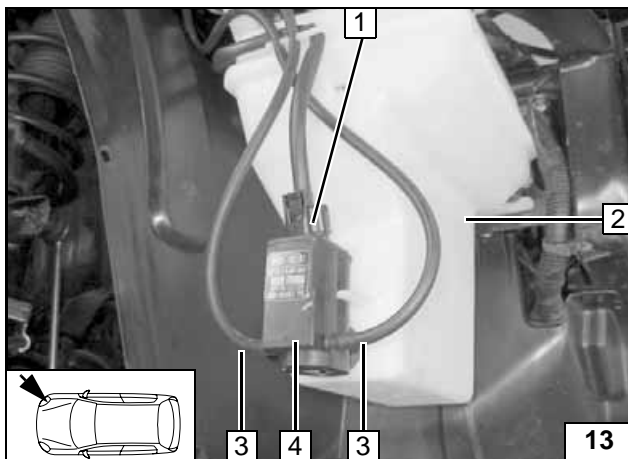
1.4 74Kw vehicles

Slide the hoses **1** and **5** about 30 mm further on the connecting pieces **2** and **3**.

5 Servo oil container



Assembling the servo oil container bracket



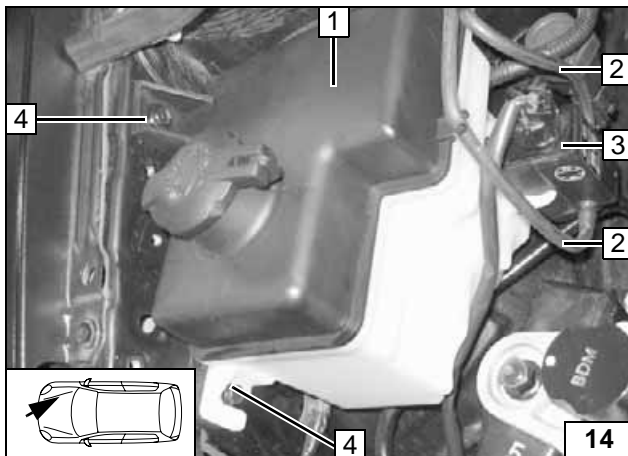
All vehicles from 08/2005

Pull off the windshield washer container **2**, mark the hoses **3** accordingly, pull the connector **1** off the pump **4**; the pump will be used again.

Run the pump cable harness **1**, hoses **3** [2x] to the engine compartment.

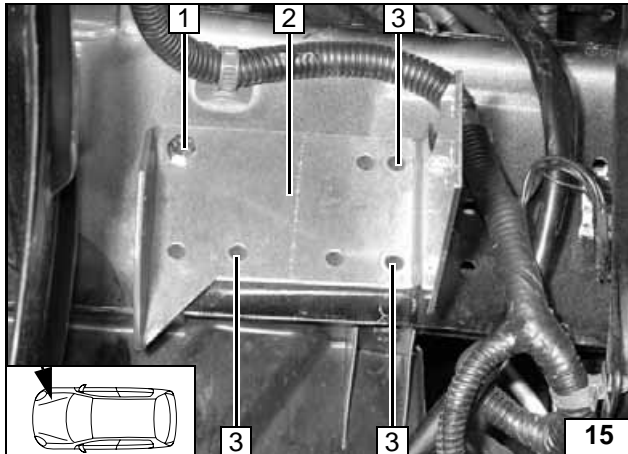
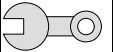


Remove the windshield washer container



- 1** Windshield washer container order no 986201C000
- 2** Hoses [2x]
- 3** Pumps
- 4** Bolts [2x], original vehicle threaded inserts [2x]

Assemble the windshield washer container

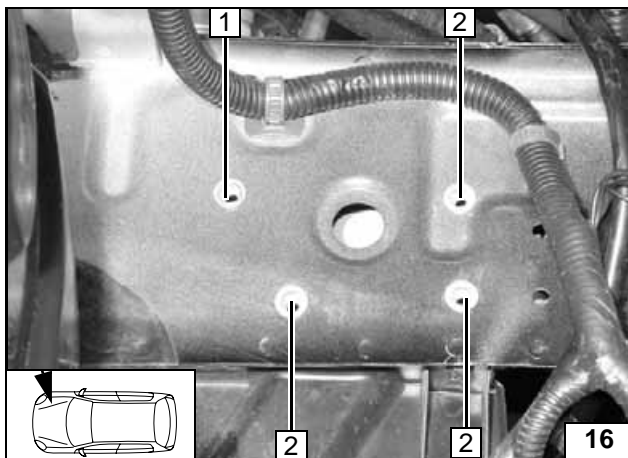


Depending on the vehicle equipment, there may be an M6 threaded hole or a hole passage at position 1. If there is a hole passage, drill this to $\varnothing 9.1\text{mm}$ and insert an M6 rivet nut.

- 1 M6x20 bolt
- 2 Bracket
- 3 Copy the hole image, $\varnothing 9.1\text{mm}$ bore hole [3x]

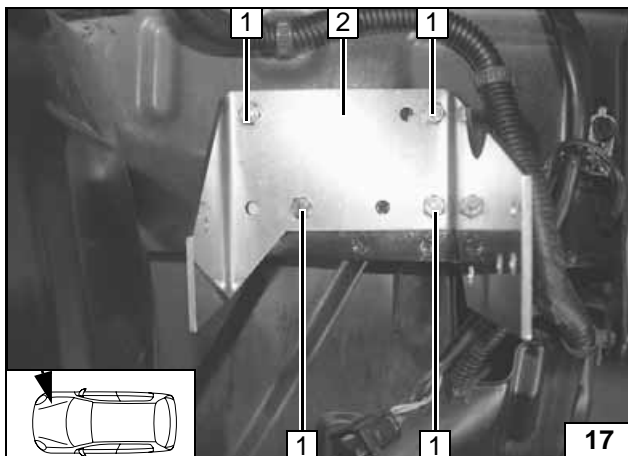


Copying the hole image



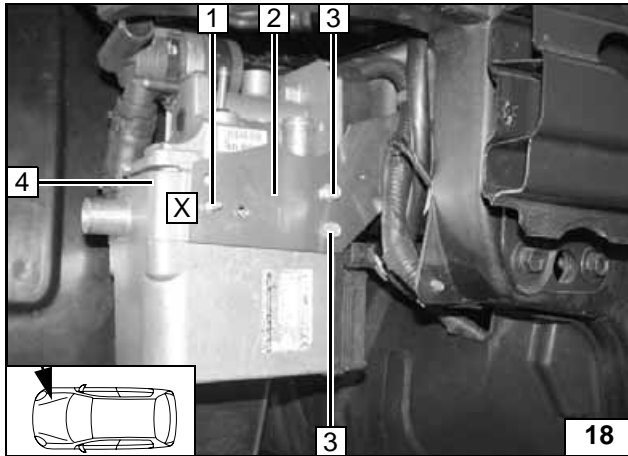
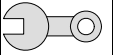
- 1 Existing threaded insert or M6 rivet nut
- 2 $\varnothing 9.1\text{mm}$ bore hole [3x], M6 rivet nut [3x]

Inserting rivet nuts



- 1 M6x20 bolts [4x], spring washers [4x]
- 2 Bracket

Inserting rivet nuts



Installing the Heater Unit

Assemble the E-jot bolts **1** before inserting the heater unit **4** in the bracket **2**.

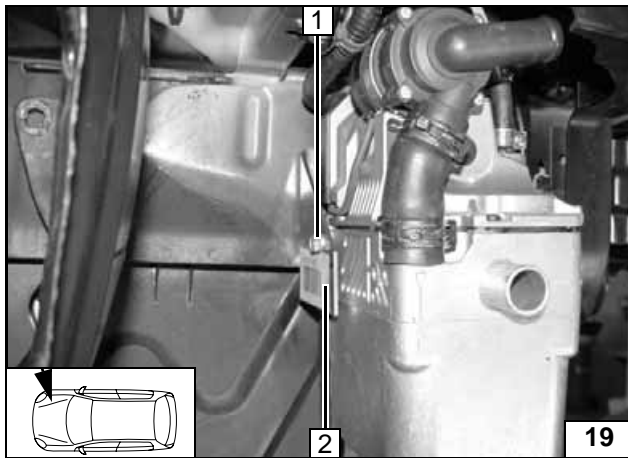
E-jot screw bolts tightening torque 10 Nm!

Insert two washers between the heater unit and the bracket in position **x**.

3 E-jot screw bolts [2x]



Assembling the Heater Unit



E-jot screw bolt tightening torque 10 Nm!

- 1** E-jot screw bolt
- 2** Bracket



Assembling the Heater Unit



Fuel Connection

CAUTION!

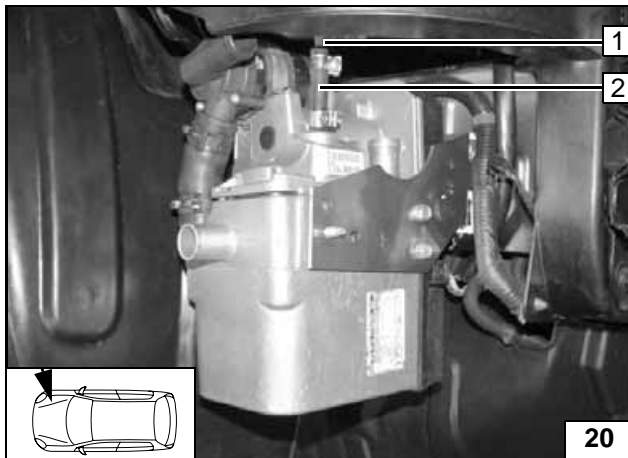
Open the vehicle's tank-cap lock, ventilate the tank and then re-close the tank lock.

Catch any fuel running off with an appropriate container.

Install fuel line and metering pump cable harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable clips! Fit the fuel line and cable harness with edge protectors around sharp edges.

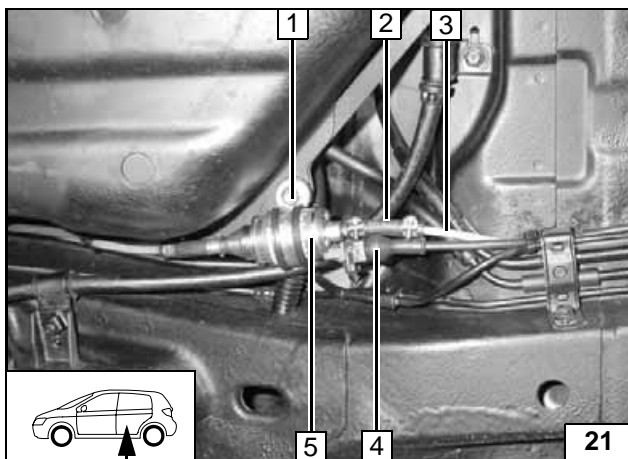
WARNING!

The fuel line and cable harness to the metering pump should be installed based on the cable harness installation diagram.



- 1 Fuel line
- 2 Hose section, Ø 10 mm hose clamps [2x]

Connection to heater

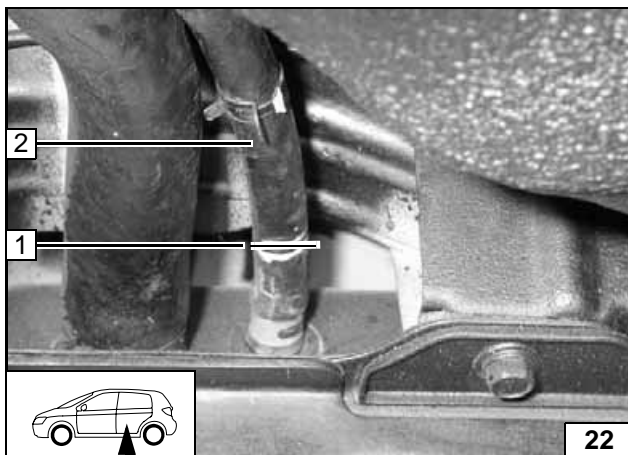


Note the installation position of the metering pump, see the Installation Instructions. Installation location is to the right next to the vehicle tank.

Fuel line **3** from the heater unit on the pressure side of the metering pump **5** [side with connector].

- 1 Silentblock, flanged nut M6 [2x], rubber tube clamp
- 2 Hose section, Ø 10 mm hose clamps [2x]
- 4 Metering pump cable harness

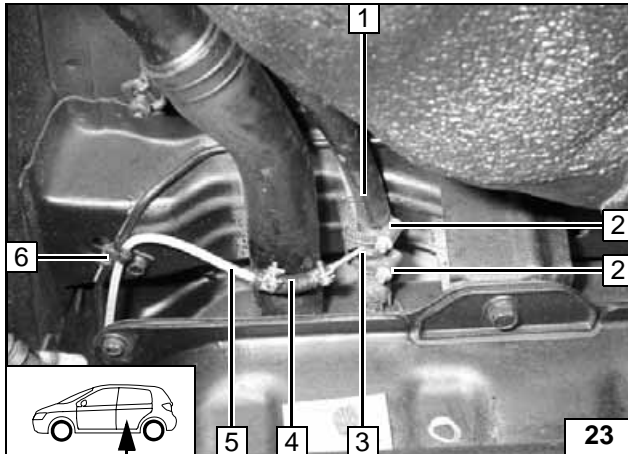
Assembly and connecting to metering pump



Cut the tank extracting device into sections according to the template and form. Check the position of the extractor. Separate the tank ventilation line **2** about 50mm before the connecting piece.

- 1 Splitting point

Fuel take-off

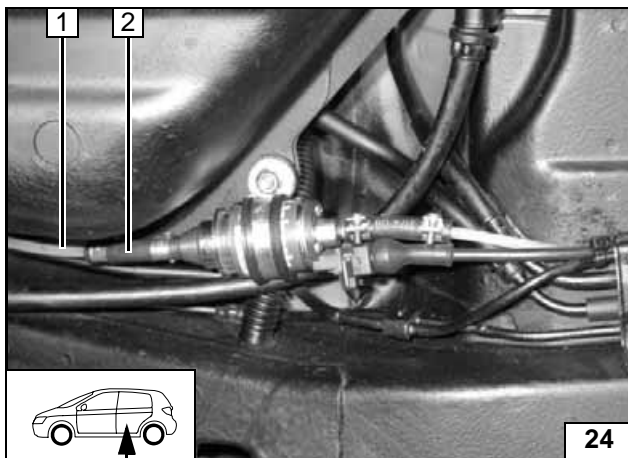


Align the removal tube for the tank extracting device **3** to the tank floor.
Fasten the fuel line **5** with cable clips **6**.

- 1** Tank ventilation line
- 2** Hose clamps Ø24 mm [2x]
- 4** Hose section, Ø 10 mm hose clamps [2x]



Inserting tank extracting device

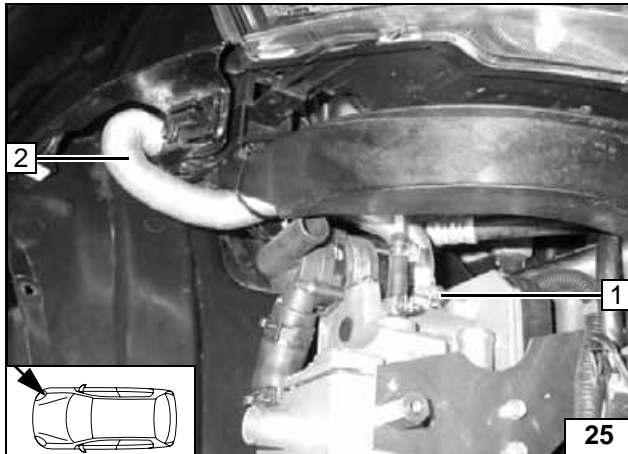


Fuel line from the fuel extractor on the intake side of the metering pump [side without connector].
Check the position of the components; adjust if necessary. Check that they have free clearance.

- 1** Fuel line from the tank extracting device
- 2** Hose section, Ø 10 mm hose clamps [2x]



Connecting to metering pump

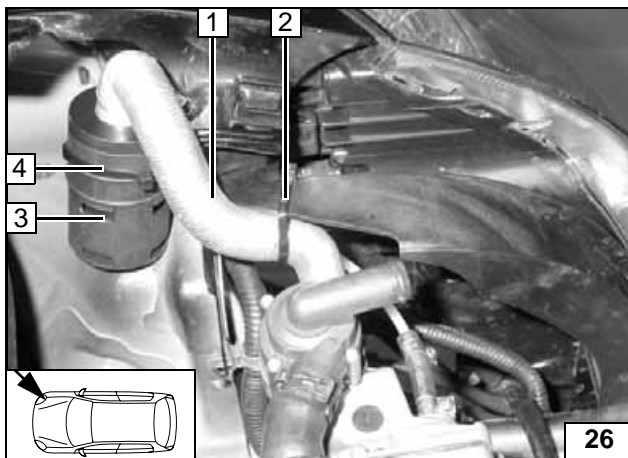


Combustion Air

- 1 Ø 27 mm hose clamp
- 2 Combustion air intake pipe



Assembling the vacuum line.



- 1 Cable clip
- 2 Combustion air intake pipe
- 3 Intake silencer
- 4 Cable clips [2x]



Assemble the intake silencer



Water connection for 1.1 gasoline

WARNING!

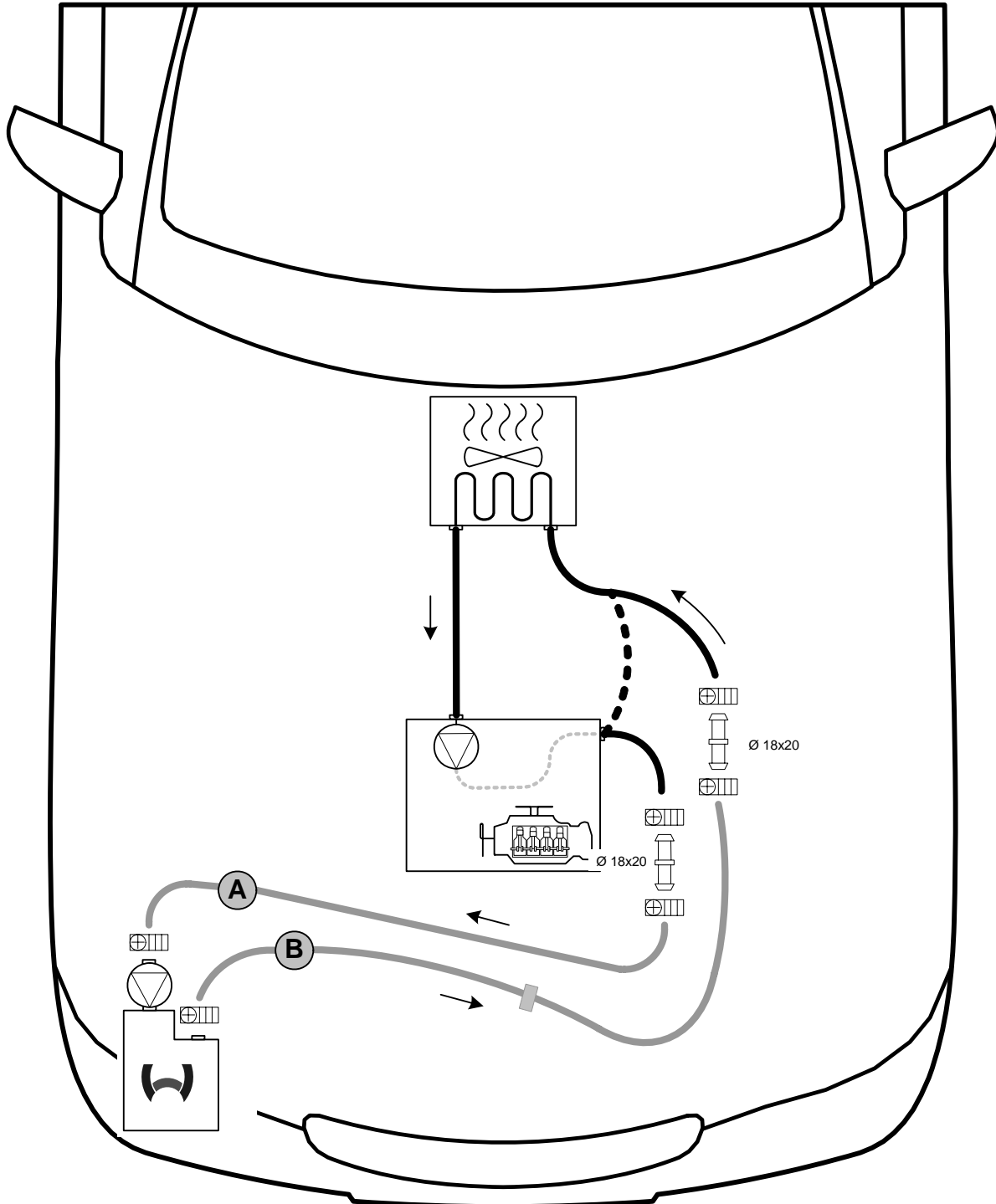
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any coolant running off should be collected using an appropriate container!

Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable clips!

Position hose clamps and spring band clamps so that no other hose can be damaged!

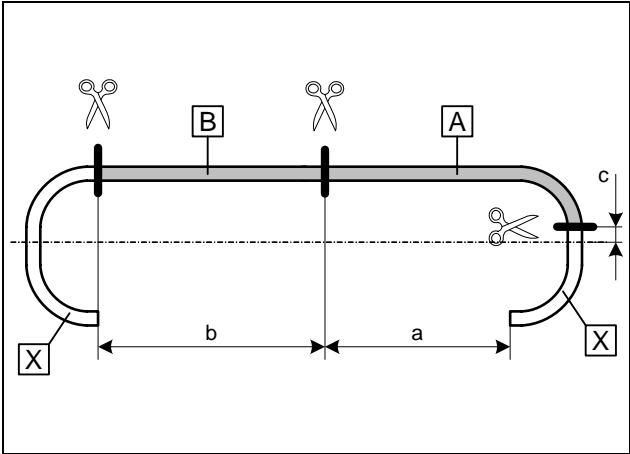
The connection should be "inline" based on the following diagram:



Water
installation
diagram

All undesignted clamps are \varnothing 20-27mm hose clamps.
All connecting pipes = \varnothing 18x20.

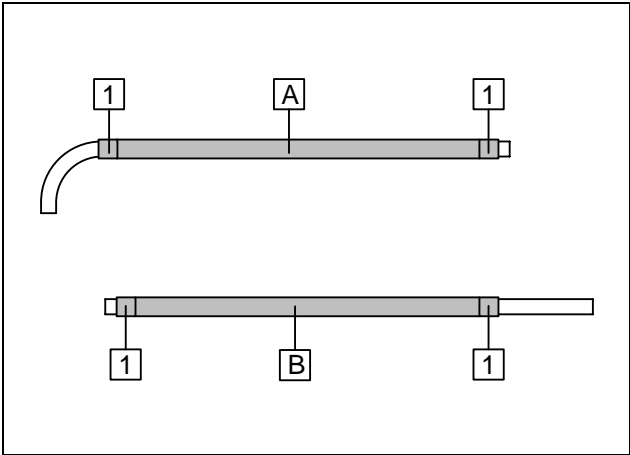




a = 1,300mm
 b = Residual section
 c = 20mm shortening

Dispose of section X

Cutting water hoses into sections

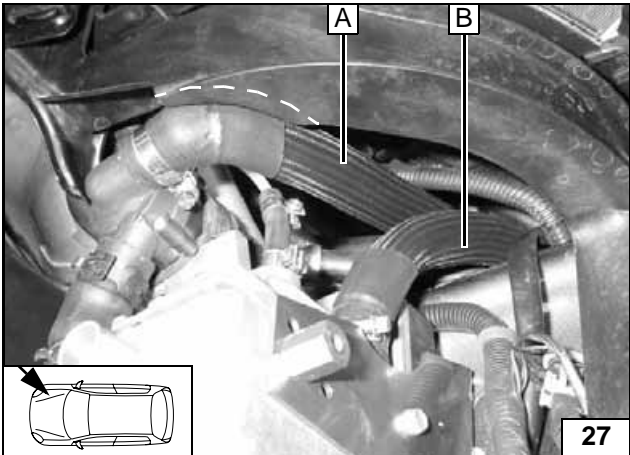


Slide the braided protective hoses onto hose A and B and cut into sections. Cut shrink-fit hose to size.



1 25 mm shrink-fit hose [4x]

Preparing the water hoses

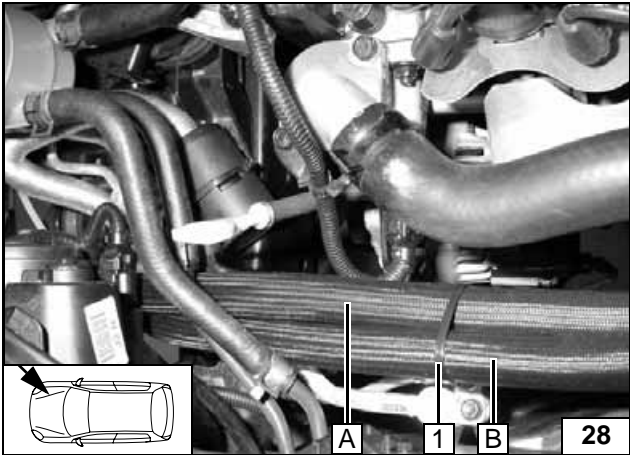


Slide hose A onto the circulation pump connecting piece as far as possible. If necessary, cut away the crossarm in the marked area.

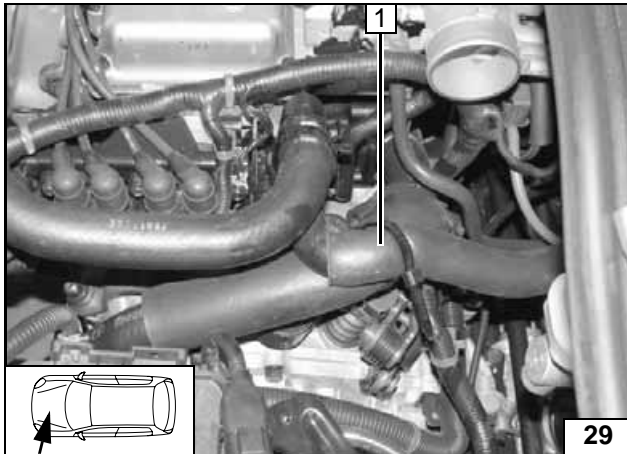


Connecting to the heater unit

1 Cable clip



Placement in the engine compartment

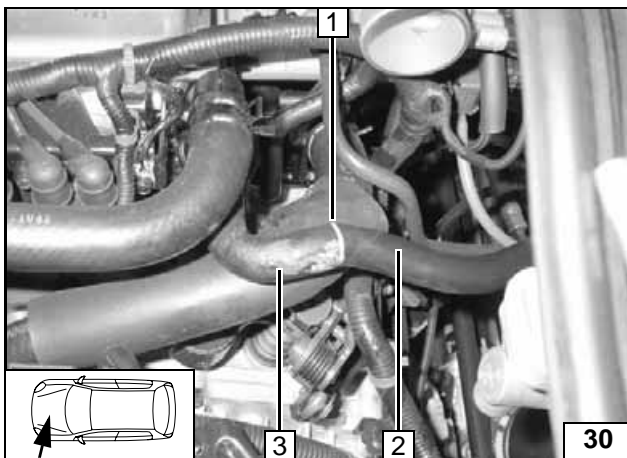


Remove the protective hose from the engine outlet hose in the splitting point area.

- 1 Engine exhaust hose



Remove the protective hose.

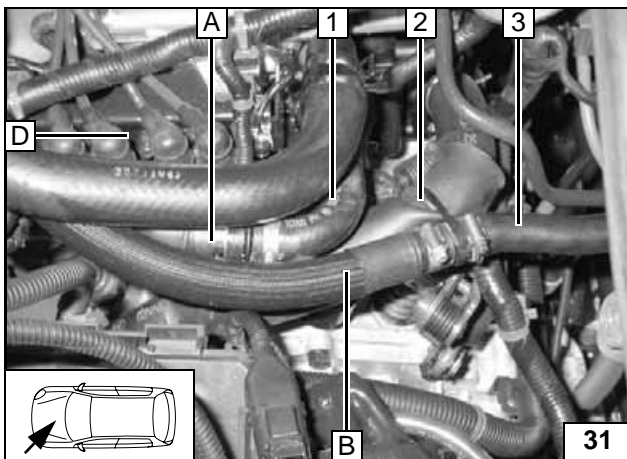


Turn the hose section on the engine outlet 3 to the front.

- 1 Splitting point
- 2 Heat exchanger inlet hose section
- 3 Engine exhaust hose section



Splitting point

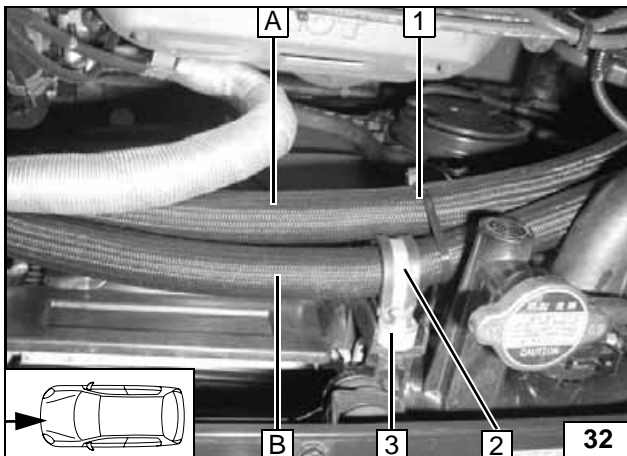


Before connecting, fill the water hoses with coolant.

- 1 Engine outlet hose turned
- 2 Cable clip
- 3 Heat exchanger inlet



Connecting the water hoses



- 1 Cable clips
- 2 Rubberized tube clamp
- 3 M6x25 bolt, 10mm spacer washer, original vehicle threaded insert

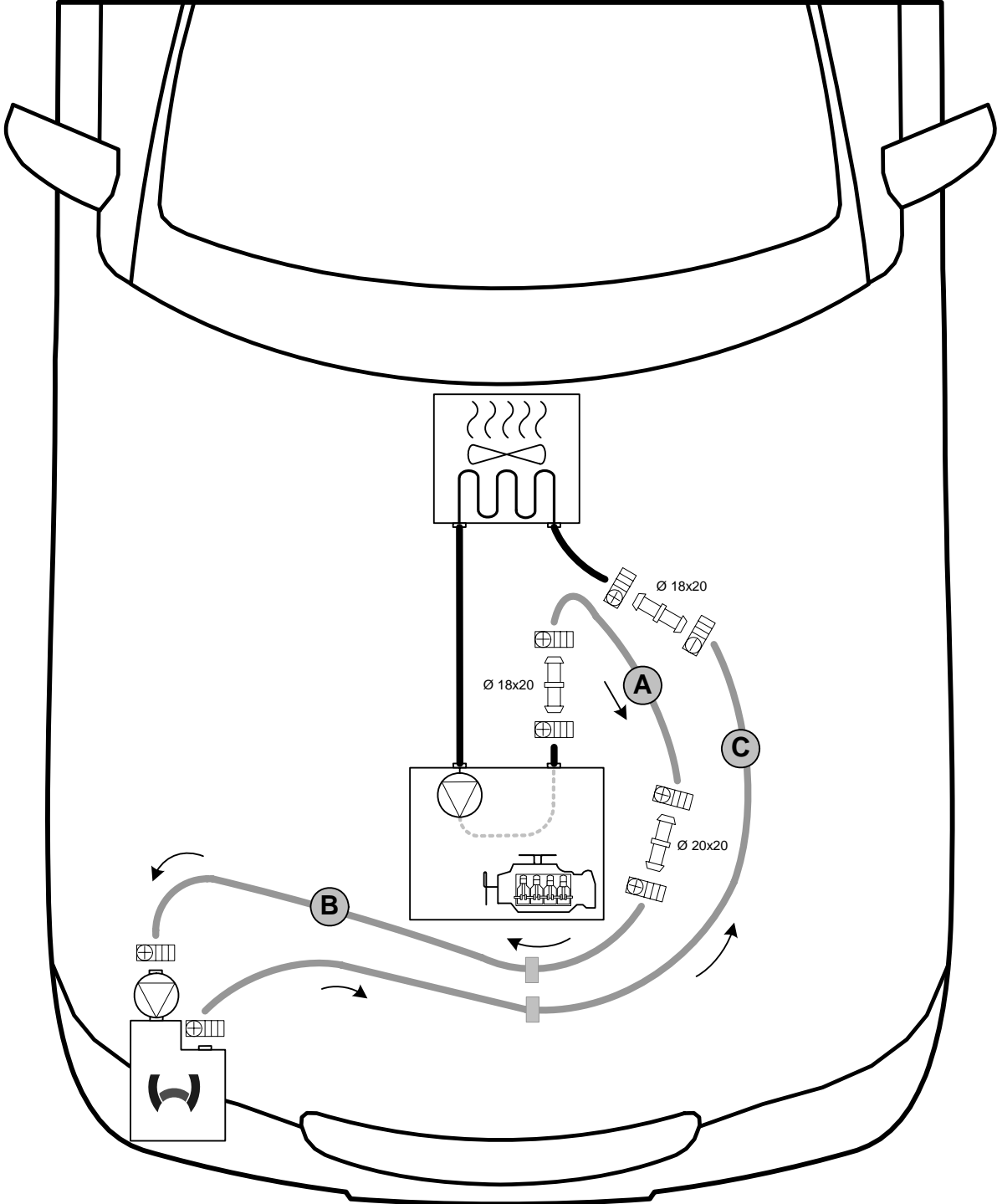
Fastening the water hoses



Water connection for 1.3 / 1.4 / 1.6 gasoline

WARNING!

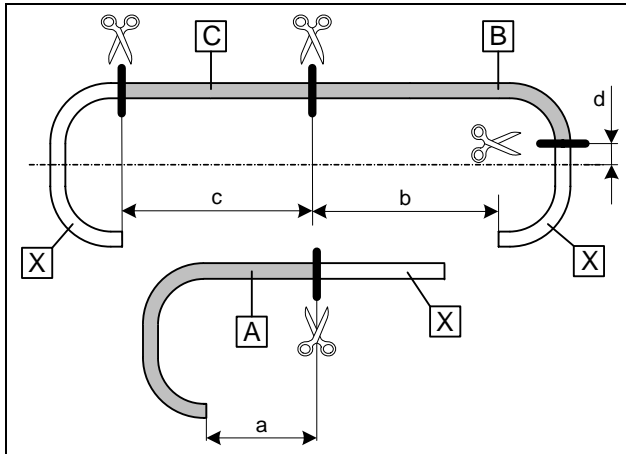
Tighten all hose clamps to 2.0 + 0.5 Nm. Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable clips! Position hose clamps and spring band clamps so that no other hose can be damaged! The connection should be "inline" based on the following diagram:



Water installation diagram

All undesiganted clamps are Ø 20-27mm hose clamps.



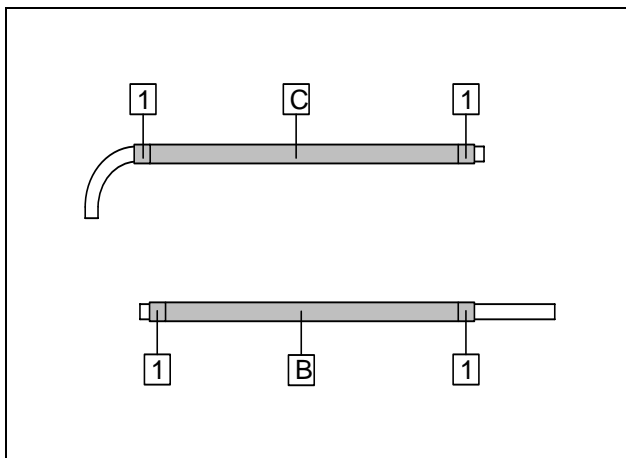


1.3 gasoline engines

a = 400mm
c = 1,300mm
b = Residual section
d = 20mm shortening

Dispose of section X

Cutting water hoses into sections

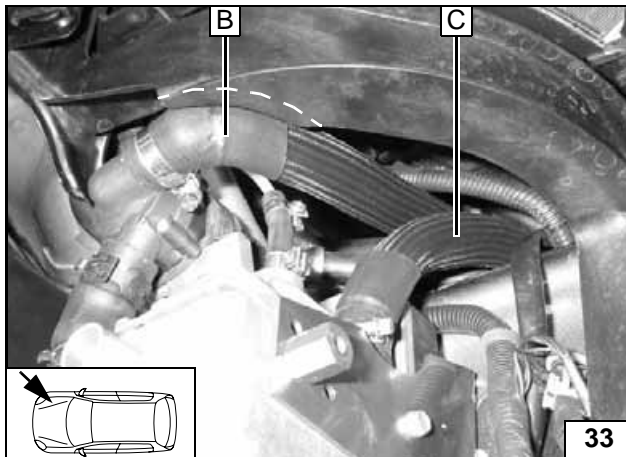


Slide the braided protective hoses onto hose B and hose C and cut into sections. Cut shrink-fit hose to size.



1 25 mm shrink-fit hose [4x]

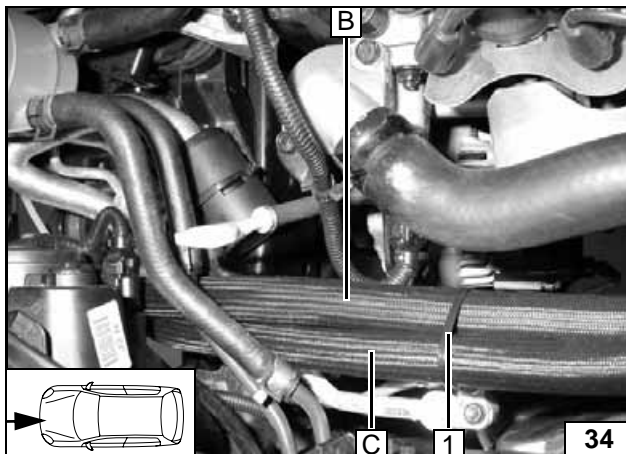
Preparing the water hoses



Slide hose A onto the circulation pump connecting piece as far as possible. If necessary, cut away the crossarm in the marked area.

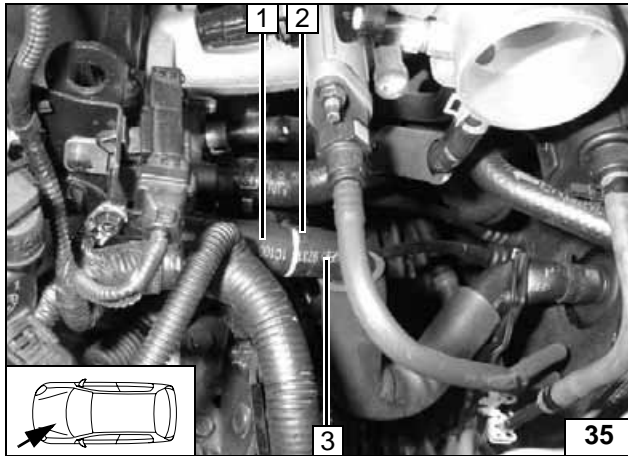


Connecting to the heater unit



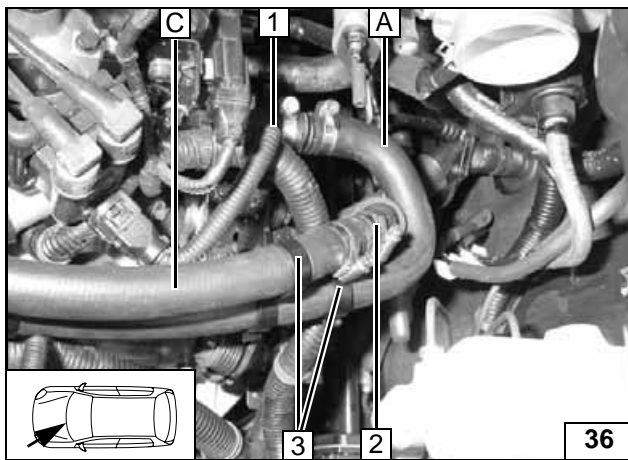
1 Cable clip

Placement in the engine compartment



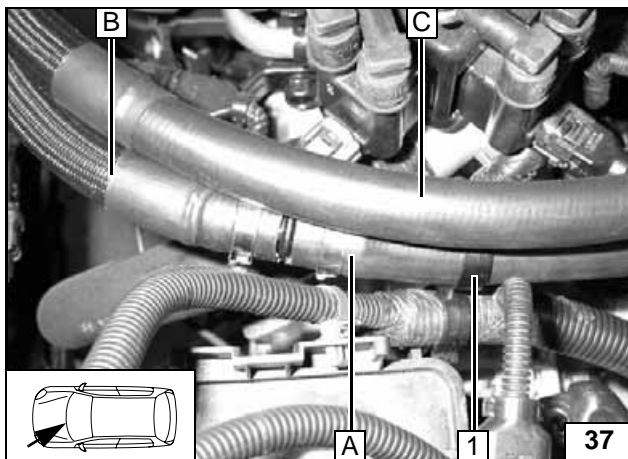
- 1 Engine exhaust hose section
- 2 Splitting point
- 3 Heat exchanger inlet hose section

Splitting point



- 1 Engine exhaust hose section
- 2 Heat exchanger inlet hose section
- 3 Spacer bracket [2x]

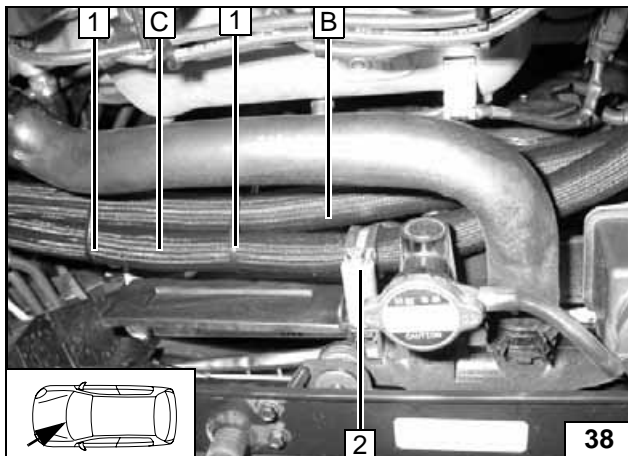
Connecting the water hoses



Before connecting, fill the water hoses with coolant.
Shorten hose B if necessary.

- 1 Spacer bracket

Connecting to the engine outlet

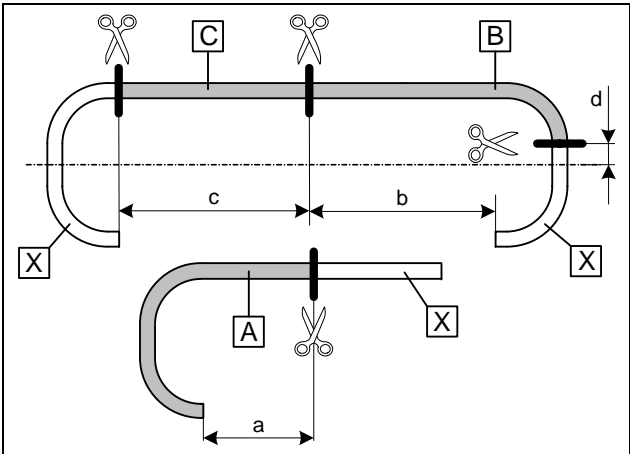


Before connecting, fill the water hoses with coolant.

- 1 Cable clips [2x]
- 2 M6x60 bolt, 60mm spacer, original vehicle threaded insert, rubber tube clamp



Connecting to the heat exchanger inlet

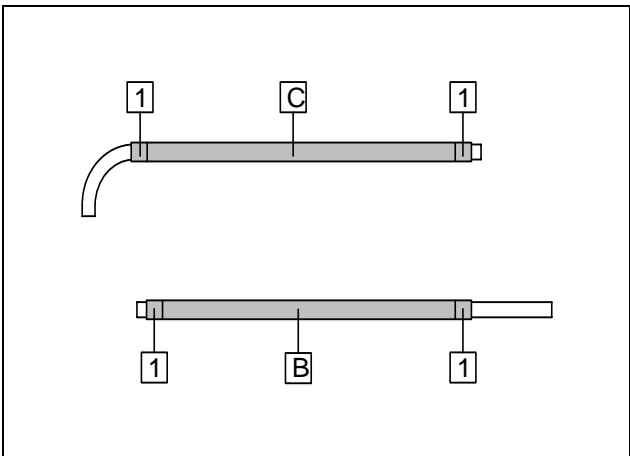


1.4 / 1.6 gasoline engines

a = 300mm
c = 1,200mm
b = Residual section
d = 20mm shortening

Dispose of section X

Cutting water hoses into sections

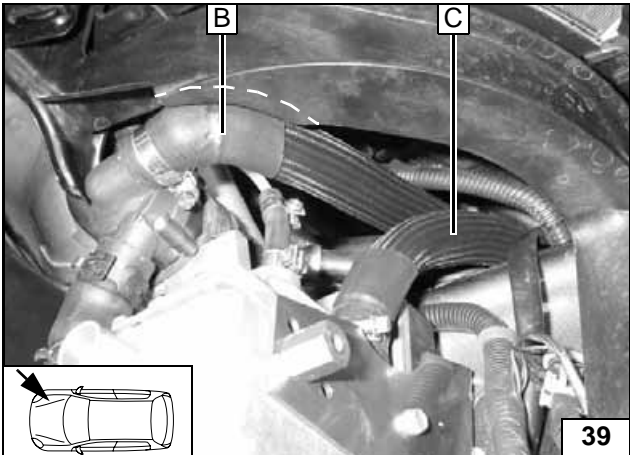


Slide the braided protective hoses onto hose B and hose C and cut into sections. Cut shrink-fit hose to size.

1 25 mm shrink-fit hose [4x]



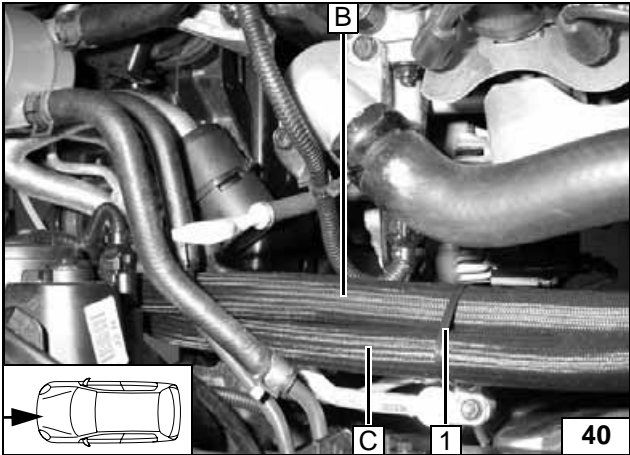
Preparing the water hoses



Slide hose A onto the circulation pump connecting piece as far as possible. If necessary, cut away the crossarm in the marked area.

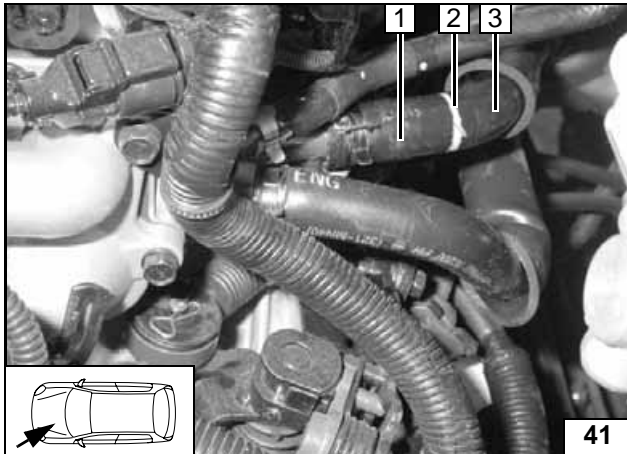


Connecting to the heater unit



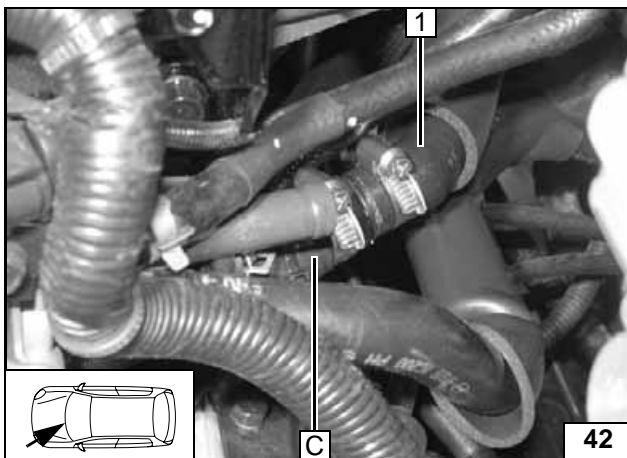
1 Cable clip

Placement in the engine compartment



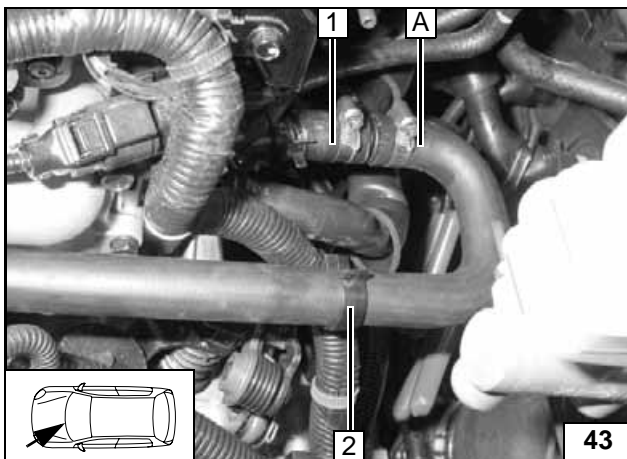
- 1 Engine exhaust hose section
- 2 Splitting point
- 3 Heat exchanger inlet hose section

Splitting point



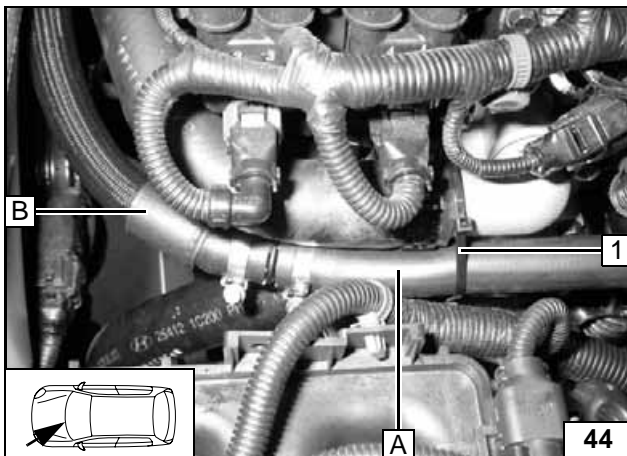
- 1 Heat exchanger inlet hose section

Heat exchanger inlet connection



- 1 Engine outlet hose
- 2 Spacer bracket

Connecting to the engine outlet

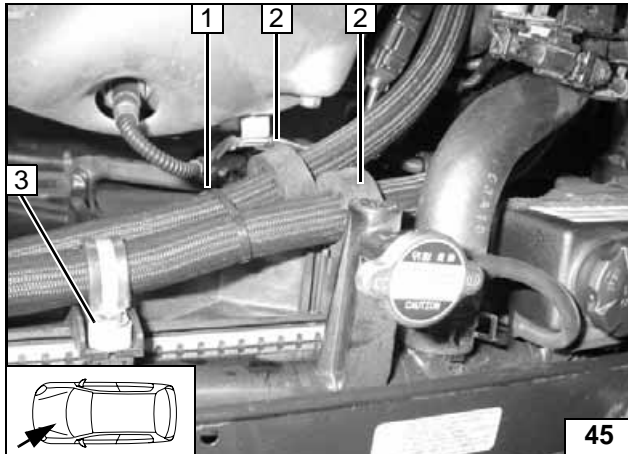


Before connecting, fill the water hoses with coolant.
Shorten hose B if necessary.

- 1 Cable clip

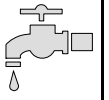


Installing



- 1 Cable clips
- 2 Black (sw) rubber profile [2x]
- 3 Rubberised tube clamp, M6x25 bolt, 10mm spacer washer, original vehicle threaded insert

**Fastening
the water
hoses**



Water connection for 1.5 diesel

WARNING!

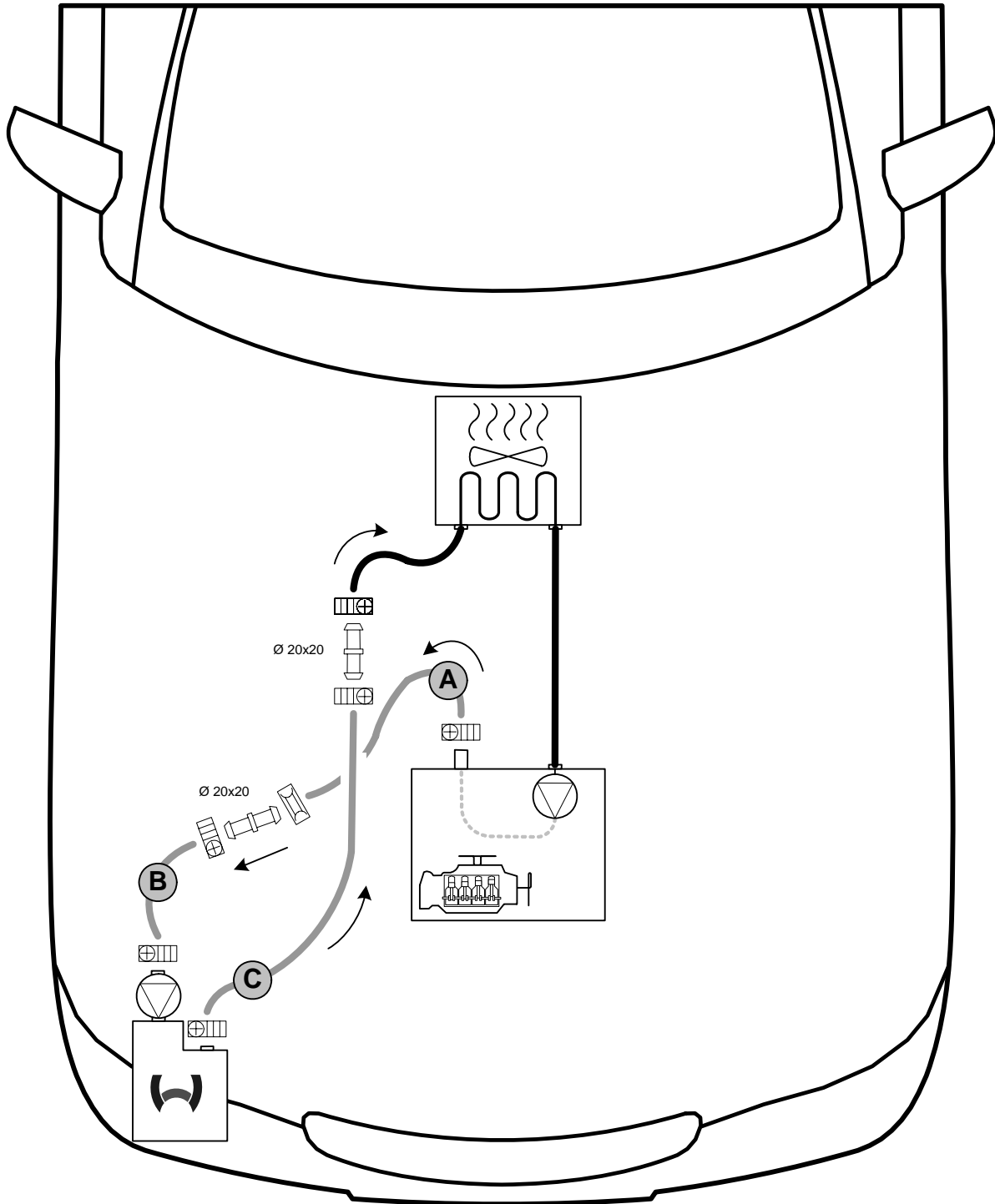
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any coolant running off should be collected using an appropriate container.

Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable clips!

Position hose clamps and spring band clamps so that no other hose can be damaged!

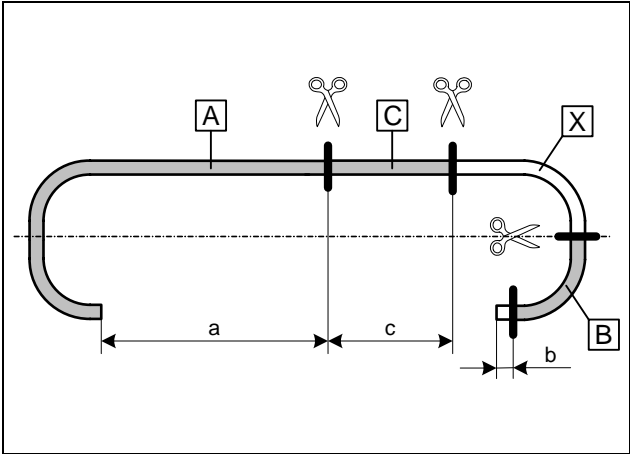
The connection should be "inline" based on the following diagram:



Water installation diagram

All undesiganted clamps are Ø 20-27mm hose clamps.



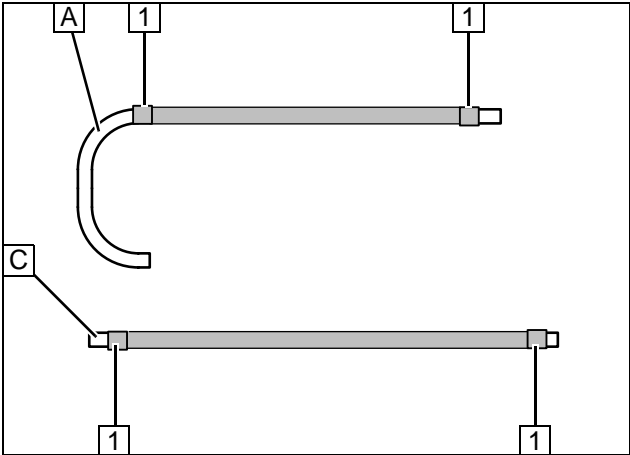


1.5 diesel engine

a = 650mm
c = 700mm
b = 20mm shortening

Dispose of section X

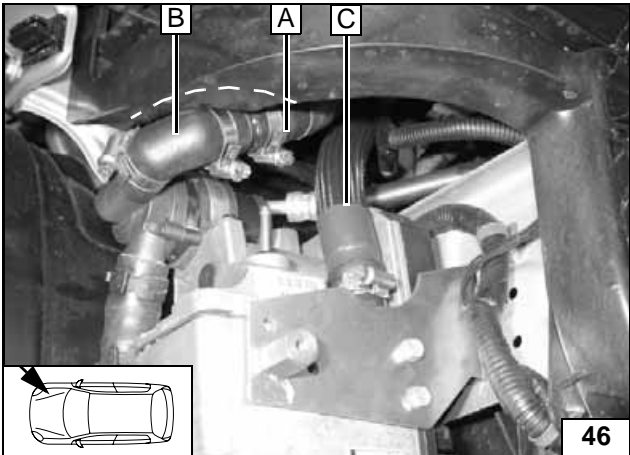
Splitting point



Slide the braided protective hoses onto hose **A** and **C** and cut into sections. Cut shrink-fit hose to size.

1 25 mm shrink-fit hose [4x]

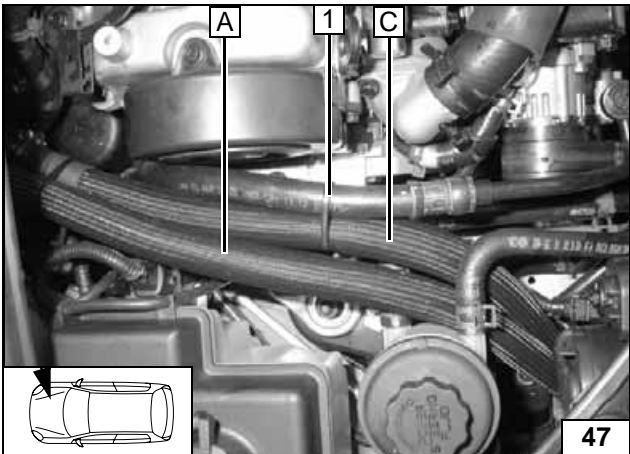
Heat exchanger inlet connection



Slide hose **B** onto the circulation pump connecting piece as far as possible. If necessary, cut away the crossarm in the marked area.



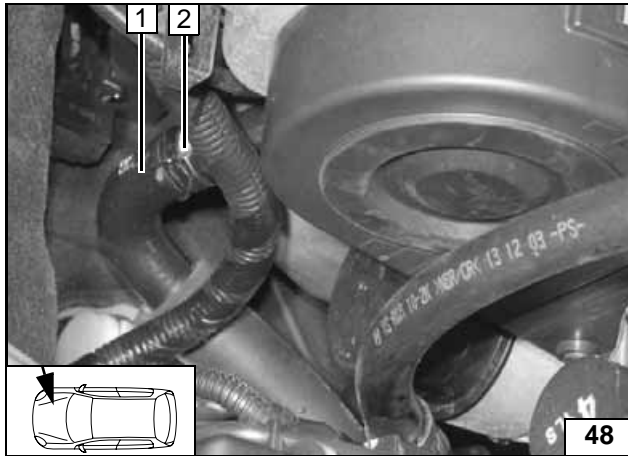
Connecting to the heater unit



1 Cable clip



Installing

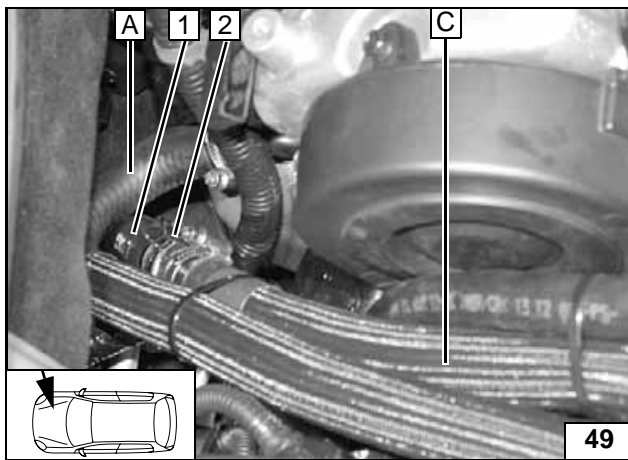


Reuse the original vehicle spring band clamp 2.

1 Engine exhaust hose

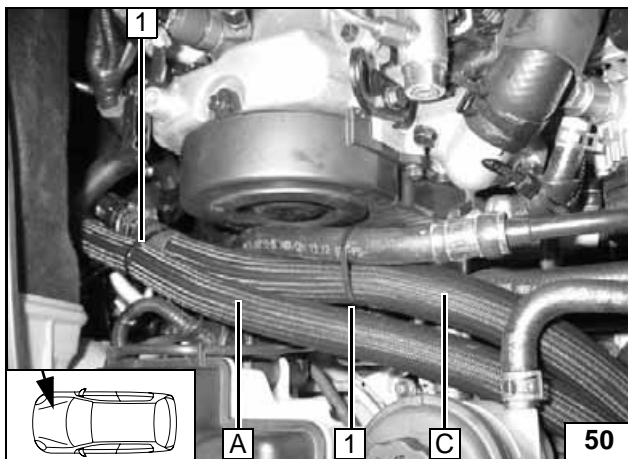


Splitting point



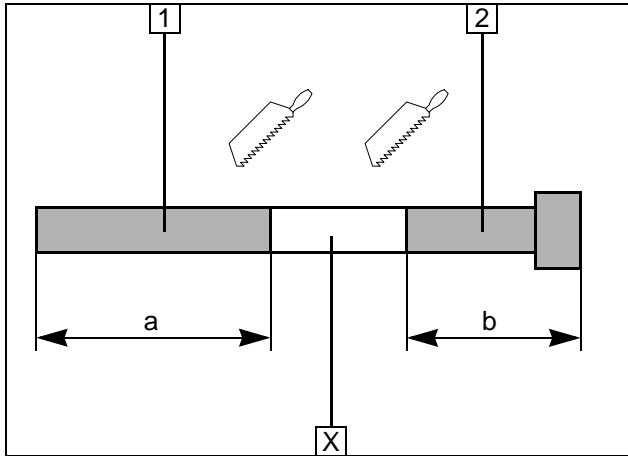
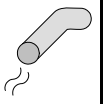
1 Heat exchanger inlet hose section
2 original vehicle spring band clamp

Connections



1 Cable clips [2x]

Installing

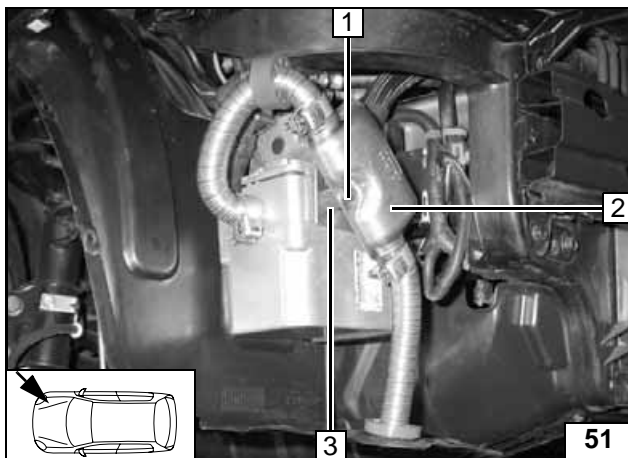


Exhaust System

- 1 Exhaust pipe
a = 210mm
- 2 Exhaust end section
b = 170mm

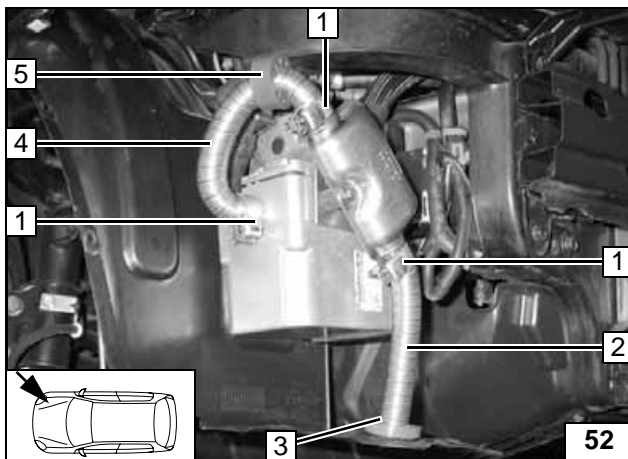
Dispose of section X

Preparing the exhaust pipe



- 1 M6x12 bolt, spring washer
- 2 Silencer
- 3 M6x20 spacer nut, E-jot stay bolts

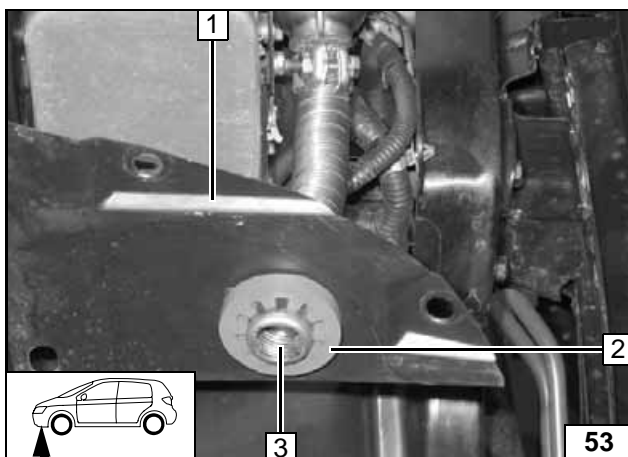
Assembling the silencer



Ensure sufficient distance from adjacent components.

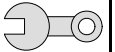
- 1 Hose clamps [3x]
- 2 Exhaust end section
- 3 Red (rt) rubber profile with groove
- 4 Exhaust pipe
- 5 Red (rt) rubber profile

Assembling the exhaust pipe.



Hole \varnothing 42mm in wheel-house panel 1. Align the exhaust end section 3 flush with the red (rt) rubber profile 2, according to the illustration.

Positioning the rubber profile



Final Work

WARNING!

Reassemble disassembled components in reverse order.

Check that all hose lines, clips, and all electrical connections are securely fastened.

Secure all loose cables using cable clips.

Only use manufacturer-approved coolant.

Spray heating unit components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the time switch.
- Set the manual air conditioning or automatic air conditioning according to the "operating instructions for the end customer".
- Check that the auxiliary heating operates properly, see operating instructions / installation instructions.
- Attach the "Switch off auxiliary heating before re-fuelling" sticker onto the left side of the B-pillar.



Webasto
Feel the drive

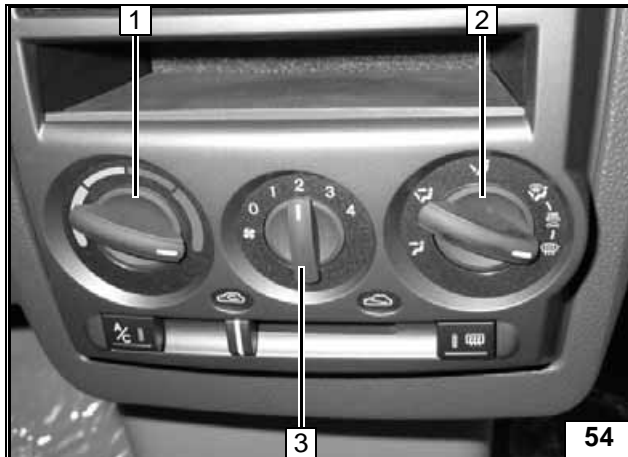
Webasto AG
PO Box 80 - 82132 Stockdorf
Hotline 01805 / 932278 - Hotfax 0395 / 5592-353
<http://www.webasto.de>

Operating instructions for the end customer

Please remove page and add to the vehicle operating instructions.



Before parking the vehicle, make the following settings:

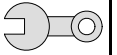


- 1 Temperature to "max."
- 2 Air outlet to windscreen
- 3 Blower set to level "1" possibly "2"

Settings on
the air
conditioning
control

For short distance trips, it is not recommended that the rear window heating be used!

Rule of thumb for operating the auxiliary heating: driving time = heating time!



Tank Extracting Device Template

