

Water Heater unit



Supplementary heating *Thermo Top C*  00 0002

Installation instructions

Dodge Caliber

Petrol

From model year 2007

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
Daimler Chrysler (USA)	Dodge Caliber	PK	e11 * 2001 / 116 * 0142 * ...

Engine type	Engine model	Power in kW	Engine capacity in cm ³
Code: P	Petrol	110	1798
Code: A	Petrol	115	1998
Code: B	Petrol	125	2359

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	LU Thermo Top C-B with time switch	90604D
1	LU Thermo Top C (B) with T80 remote start	9007504A
1	Installation kit for Dodge CaliberPetrol	1311352A

Foreword

These installation instructions apply to Dodge vehicles with Caliber Petrol – validity, see page 2 – from model year 2007 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).

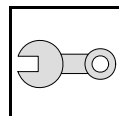
Special Tools

- Torque spanner for 2.0 - 10 Nm
- Vice-grip wrench
- Special Chrysler tool no: 9340

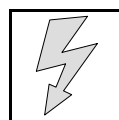
Explanatory Notes on the Document

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.

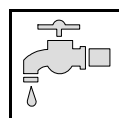
Mechanics



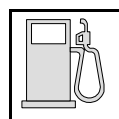
Electrics



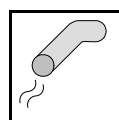
Water connection



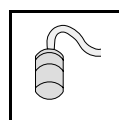
Fuel connection



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.



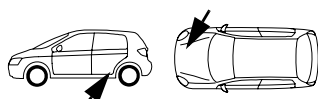
Specific risk of fire or explosion.



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



Reference to a special technical feature.



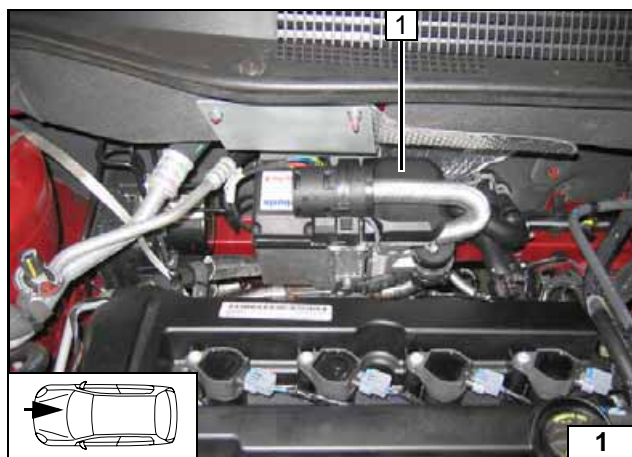
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

Preliminary work

WARNING!

- Open the tank cap, ventilate the tank.
- Close the tank cap again.
- Disconnect the battery.
- 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.
- Remove the motor cover.
- Remove the air filter box
- Remove the front left wheel-house panel
- Remove the rear left underride protection
- Remove the rear seat bench.
- Open the left tank mounting service lid
- Remove tank mounting according to manufacturer's instructions.
- Remove the dashboard panel on the driver's side.
- Remove the steering column panel on the driver's side.

Remove page 21 "Operating instructions for the end customer" and insert with vehicle operating instructions.



Heater unit installation location

1 Heater unit

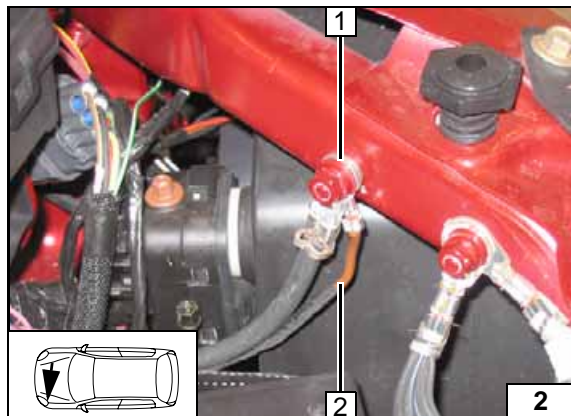
Installation
location



Electrical Connections

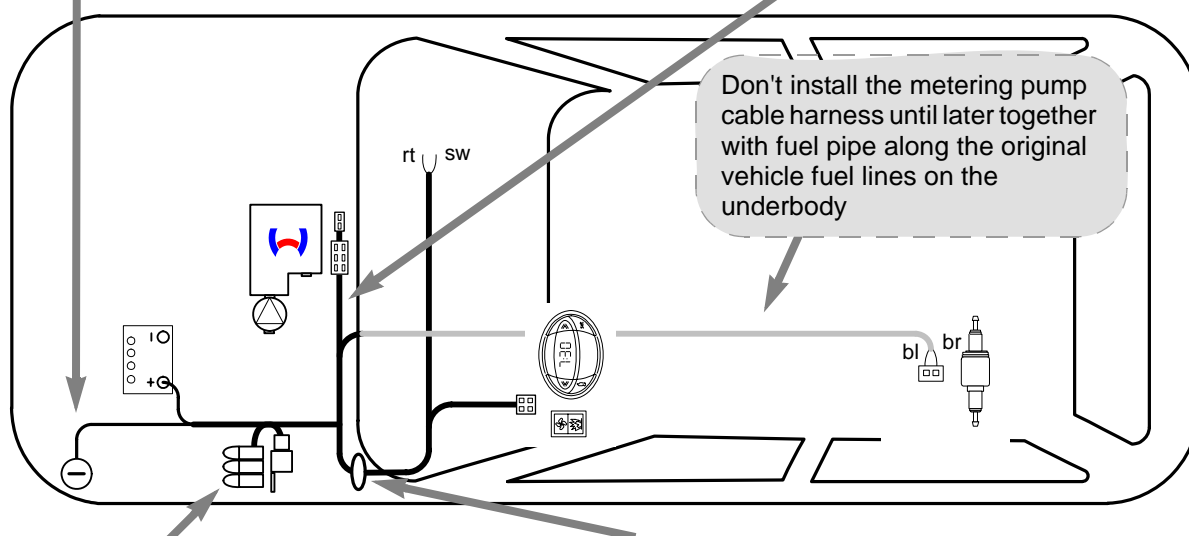
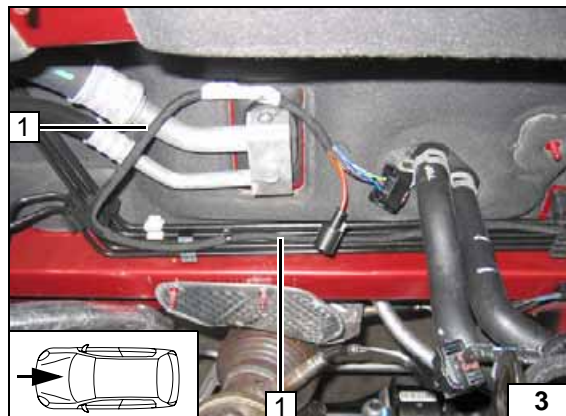
Ground connection

- 1 Chassis ground point
- 2 Ground wire

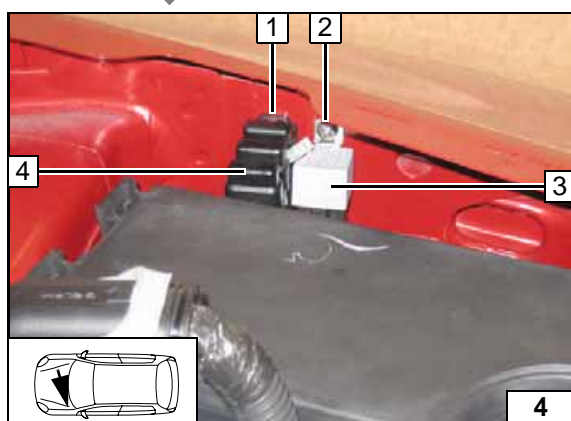


Installing the heater unit cable harness

- 1 Heater unit cable harness to original vehicle lines

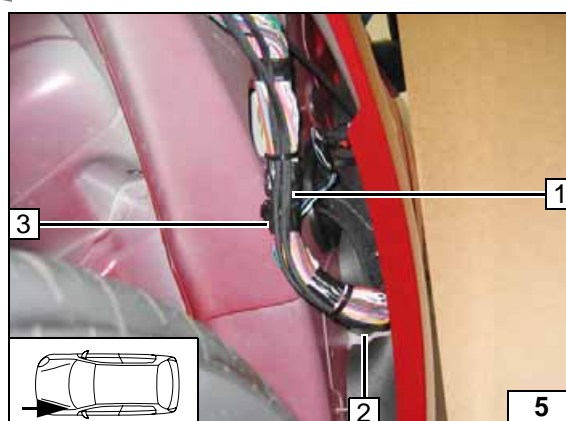


Cable harness installation diagram



Fuse holder, K3 relay

- 1 Fuse holder retaining plate, bore hole
Ø 4mm, 5.5x13 self-tapping screw
- 2 Ø 4mm bore hole, 5.5x13 self-tapping screw
- 3 K3 relay
- 4 Fuse holder



Cable harness feed-through

Extend the blower cable harness in the interior with the enclosed wires of the same color!

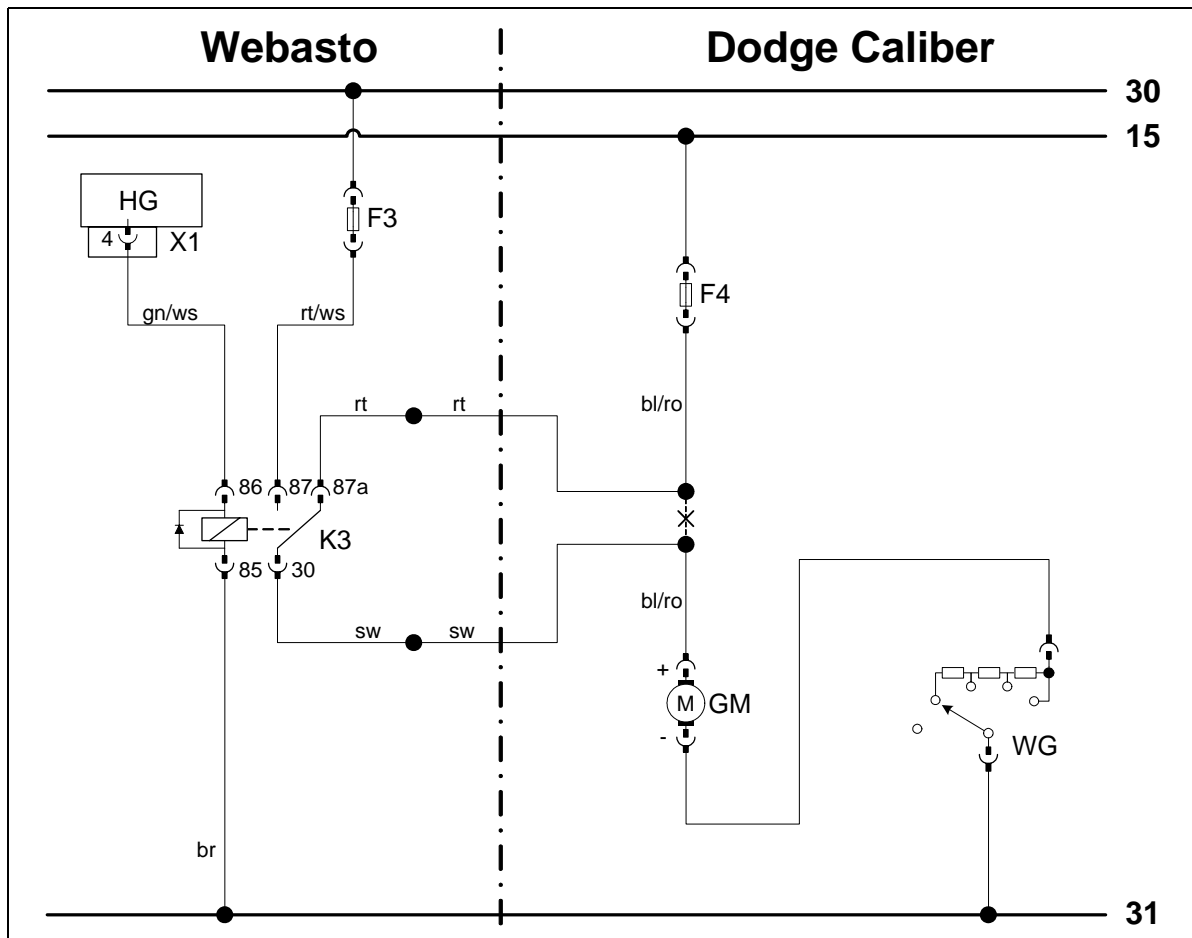
- 1 Blower control cable harness
- 2 Original vehicle protective rubber sleeve
- 3 Time switch cable harness



Manual air conditioning blower control

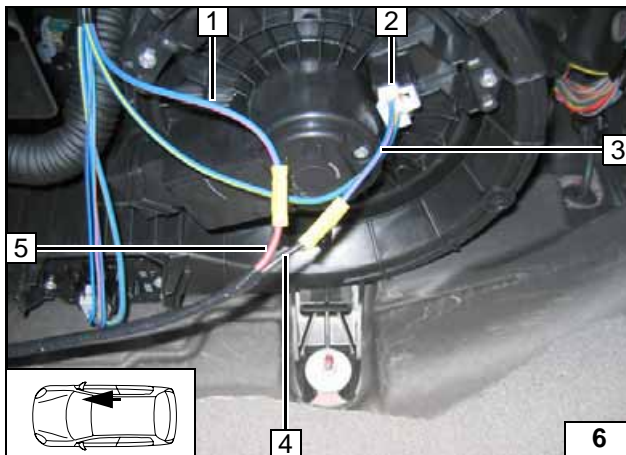


Circuit diagram



Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Blower motor	rt	red
X1	6-pin heater unit connector	WG	Resistor group	ws	white
F3	Fuse 25A	F4	Blower fuse	sw	black
K3	Blower relay			br	brown
				gn	green
				bl	blue
				ro	pink
				X	splitting point
				Cable colors may vary.	

Legend

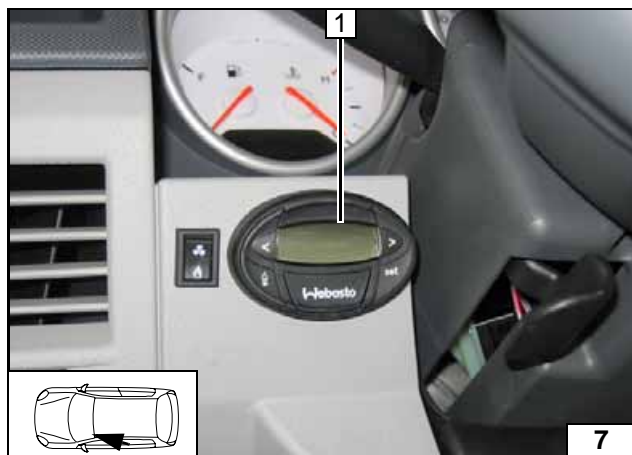


Extend the blower cable harness with the enclosed wires of the same color and run to the blower motor!

Connection to 2-pin connector 2 from the blower motor.
Reconnect according to the circuit diagram.

- 1 Blue/pink (bl/ro) wire from blower fuse
- 3 Blue/pink (bl/ro) wire to 2 pin connector
- 4 Black (sw) wire from relay K3/30
- 5 Red (rt) wire to relay K3/87a

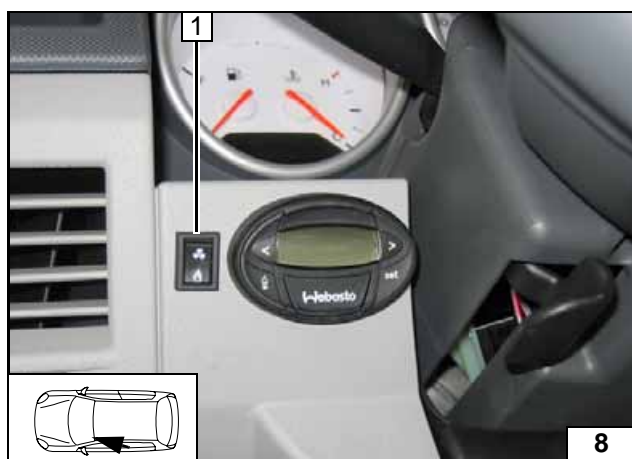
Connecting the blower motor



Time switch

- 1 Time switch

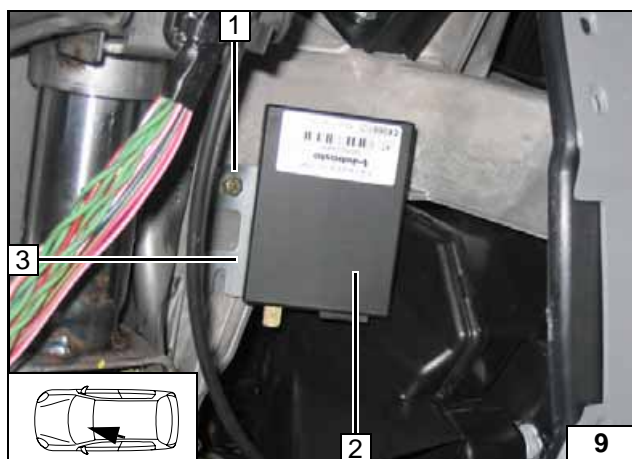
Assembling the time switch



Summer / winter switch option

- 1 Bore hole Ø 12 mm, summer / winter switch

Assembling the summer / winter switch



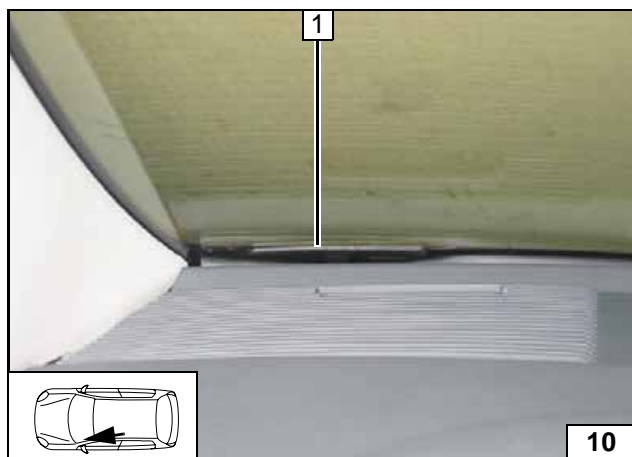
Remote Start Option

Position the bracket **3** according to the illustration.

- 1 Bolt M5x16, M5 flanged nut in previously drilled hole
- 2 Receiver (to the right next to the steering column)

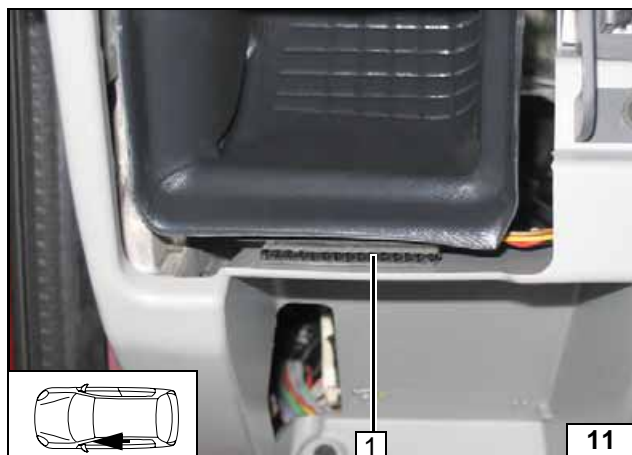


Assembling the receiver



- 1 Antenna

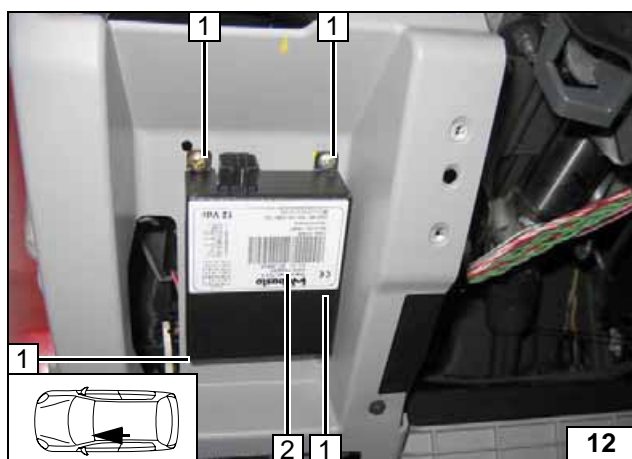
Assembling the antenna



Temperature sensor for HTM100 only

- 1 Secure the temperature sensor in an appropriate manner (use double-sided adhesive tape here)

Assembling the temperature sensor

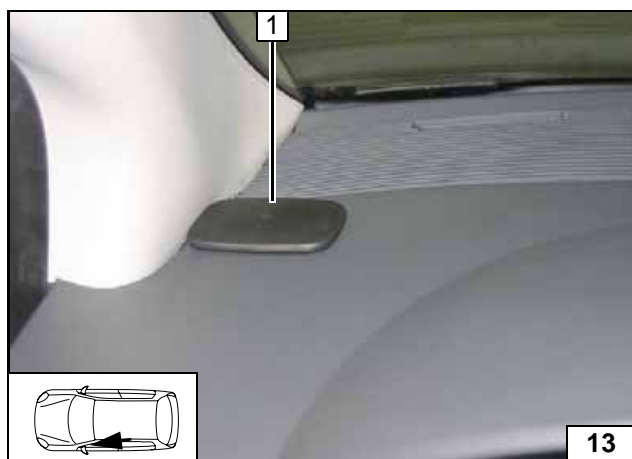


Thermo Call Option

- 1 Ø 4mm bore hole, 5.5x13 self-tapping screws [4x each]
- 2 Receiver (to the left next to the steering column)

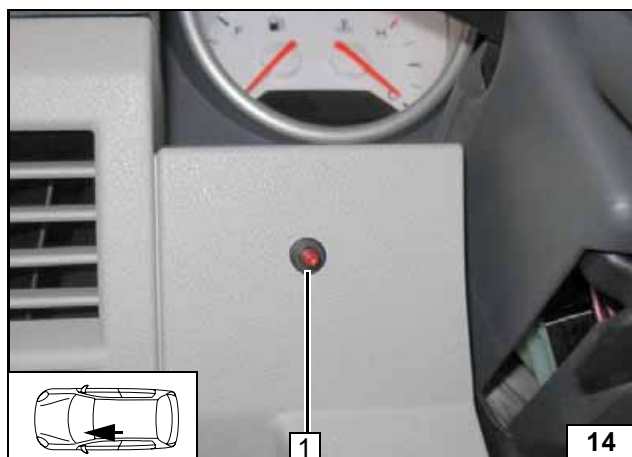


Assembling the receiver



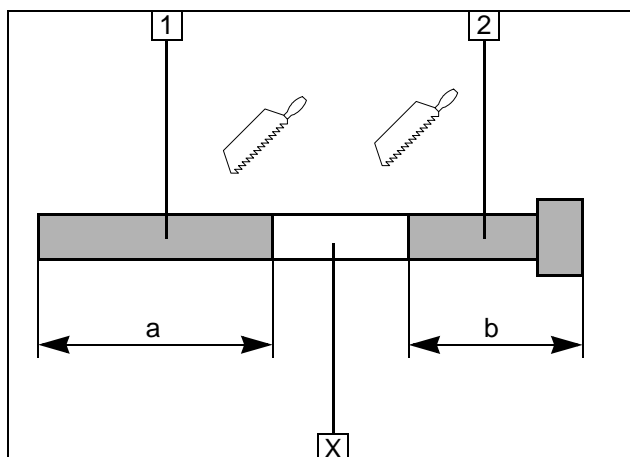
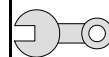
- 1 Antenna

Assembling the antenna



- 1 Tip switch

Assembling the tip switch

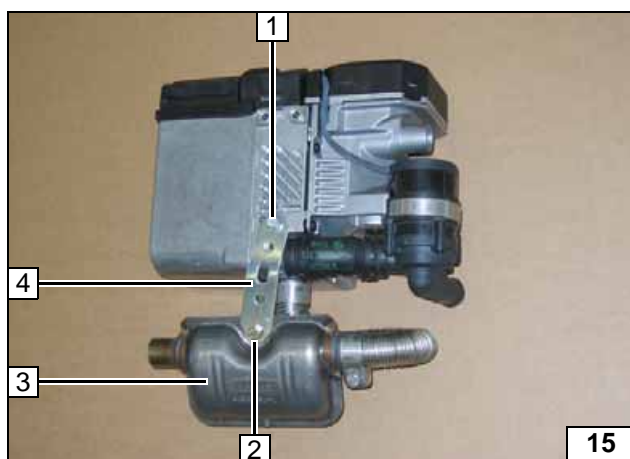


Preparing the Heater Unit

- 1 Exhaust pipe
a = 230mm
- 2 Exhaust end section
b = 540mm

Dispose of section X

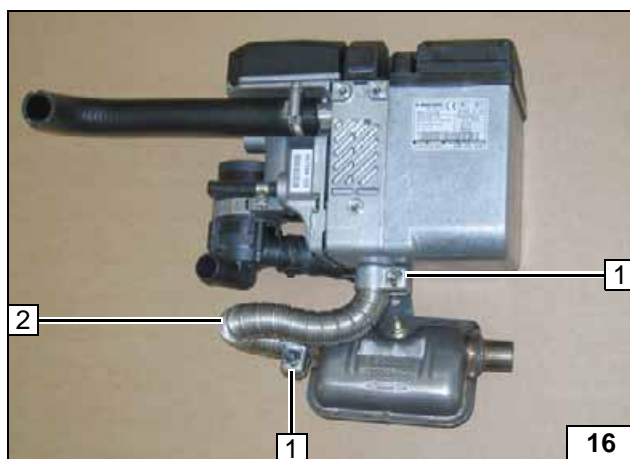
Preparing the exhaust pipe



Bend the fastening strap 4 by ca. 10° in the middle according to the illustration
Eject screw bolt 1, tightening torque 10 Nm.

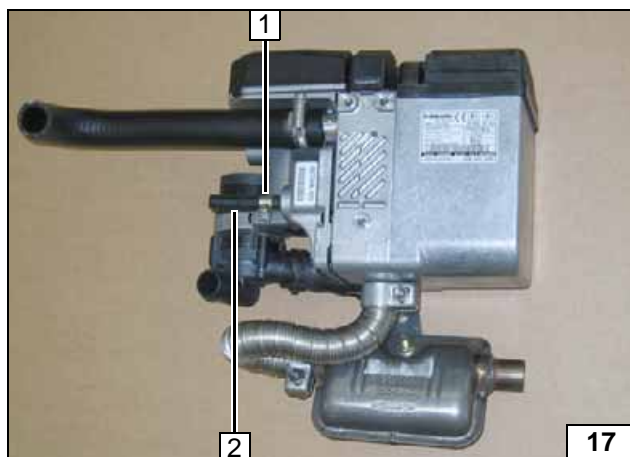
- 2 M6x20 bolt, flanged nut M6
- 3 Exhaust silencer

Pre-assembling the exhaust silencer



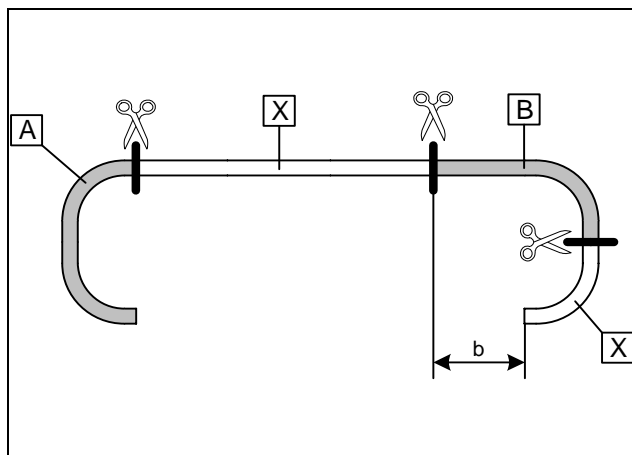
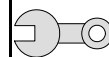
- 1 Hose clamp [2x]
- 2 Exhaust pipe

Pre-assembling the exhaust pipe



- 1 Ø 10mm hose clamp
- 2 Hose section

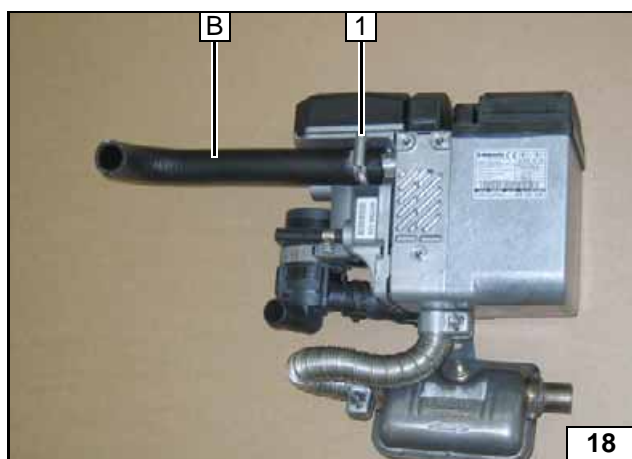
Pre-assembling the fuel on the heater unit



$b = 130\text{mm}$

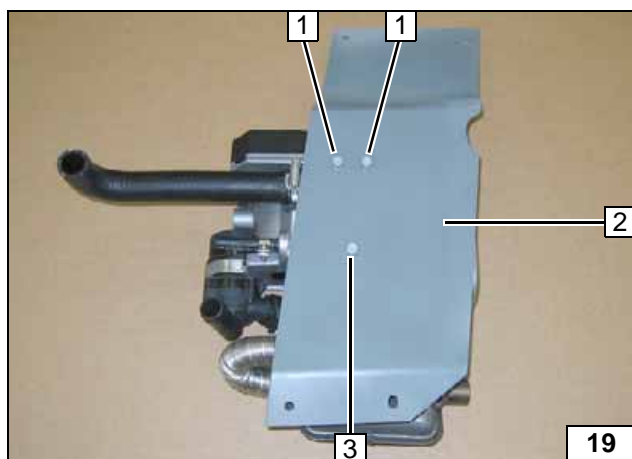
Dispose of section **X**

**Cutting
water
hoses into
sections**



1 Ø 27 mm hose clamp

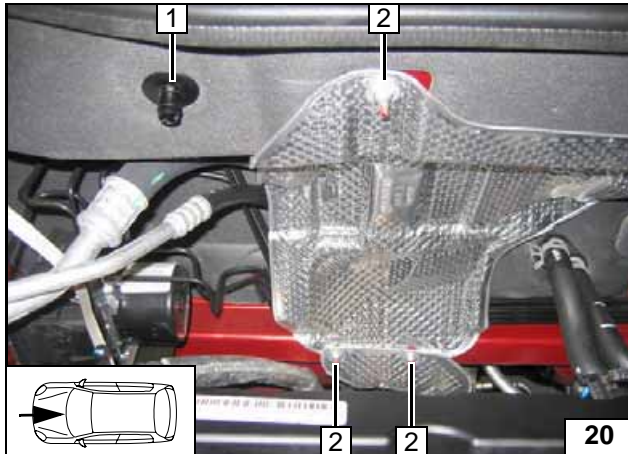
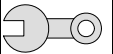
**Pre-
assem-
bling hose
B on the
heater unit**



Ejot screw bolts tightening torque 10 Nm!
Insert two washers between the heater unit
and the bracket **2** in position **3**.

- 1** Ejot screw bolt [2x]
- 3** Ejot screw bolt, washer [2x]

**Pre-
assem-
bling the
bracket on
the heater
unit**

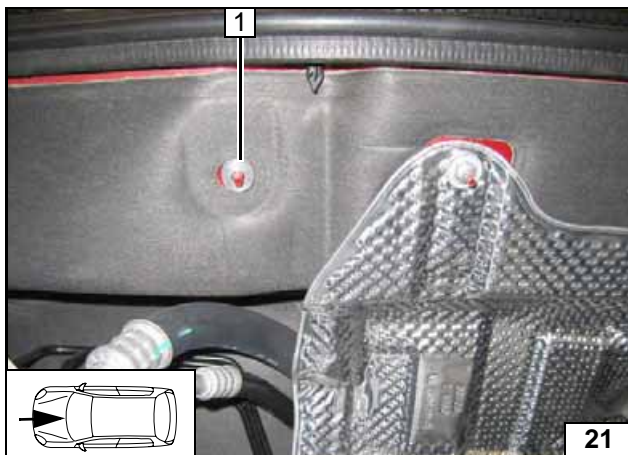


Preparing the Installation Location

Remove plastic stoppers **1** from original vehicle stay bolts.
Remove metal nut from position **2** [3x].



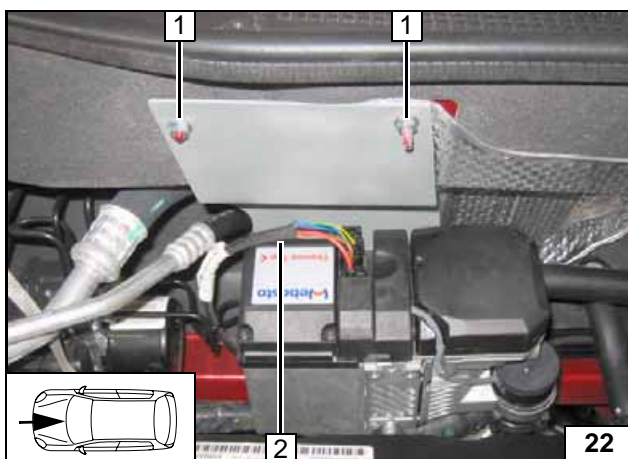
Preparing the Installation Location



Cut away insulating mat from original vehicle stay bolts. Insert the 8 mm spacer **1** on the stay bolt.



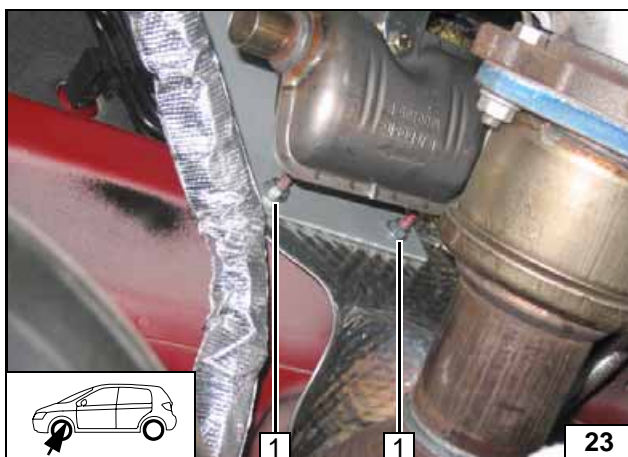
Copy the hole image



Installing the Heater Unit

- 1** M6 flanged nut to original vehicle stay bolts [2x]
- 2** Insert the heater unit cable harness

Assembling the Heater Unit



- 1** M6 flanged nut to original vehicle stay bolts [2x]

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.

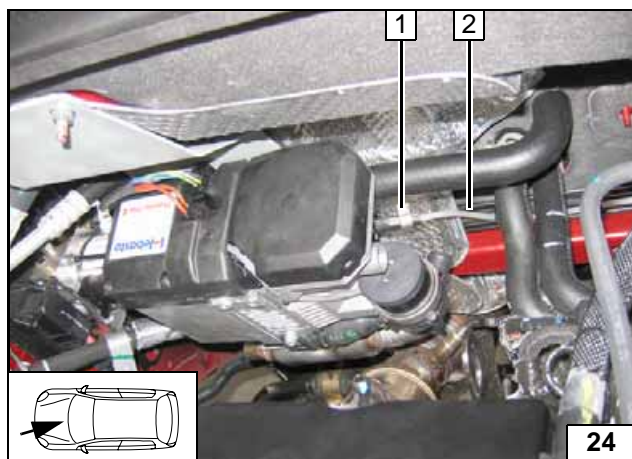
Install fuel line and metering pump cable harness so that they are protected against stone impact.

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.



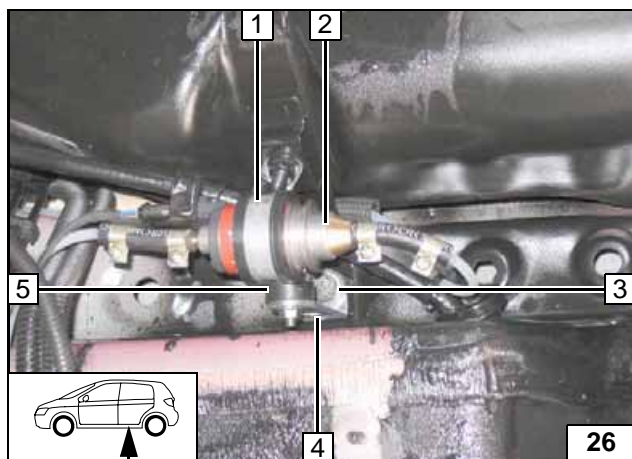
- 1 Ø 10mm hose clamp
- 2 Fuel line

Conne-
ction to
heater



- 1 Mecanyl fuel pipe, metering pump cable harness to original vehicle wires

Installing
lines

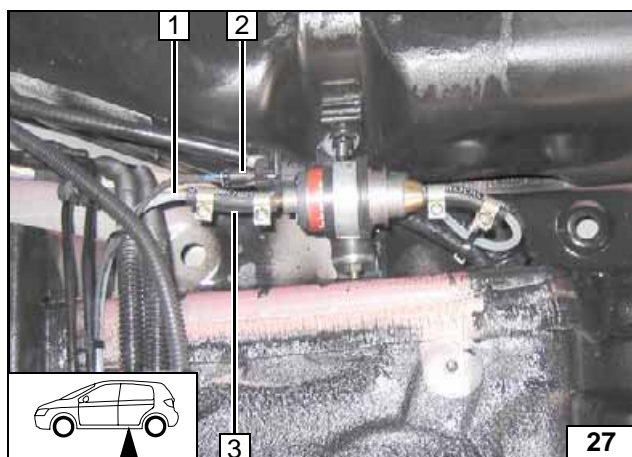


Note the installation position of the metering pump **2**, see the "Installation Instructions". The installation location is on the left before the vehicle tank.

Drill and bend the fastening strap **4** according to the template

- 1 Rubberized tube clamp
- 3 Original vehicle bolt
- 5 Silent block, flanged nut [2x]

Metering
pump
installation
location

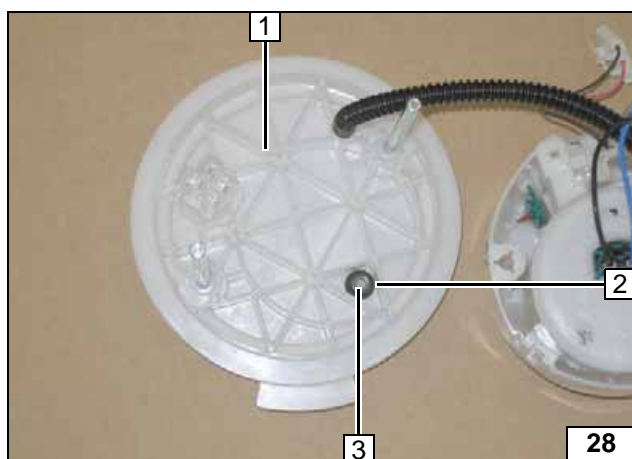


Fuel line from the heater unit 1 on the pressure side of the metering pump [side with connector].

- 2 Metering pump cable harness, single wire seals [2x], flat connector [2x], connector housing
- 3 Hose section, Ø 10 mm hose clamps [2x].



Connecting to metering pump



Remove the tank mounting according to the manufacturer's instructions and take it apart.

- 1 Upper section of tank mounting
- 2 Position the flanged nut between the ridges
- 3 Copy the hole image, Ø 6mm bore hole



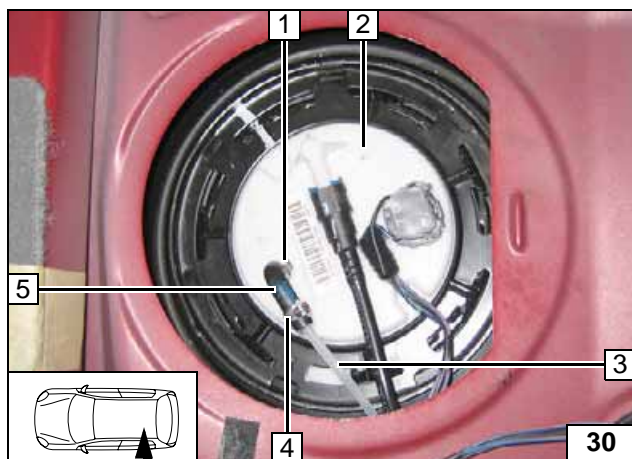
Fuel take-off



Shape, cut into sections, and insert the tank extracting device 1 according to the template, see the Installation Instructions.



Inserting tank extracting device

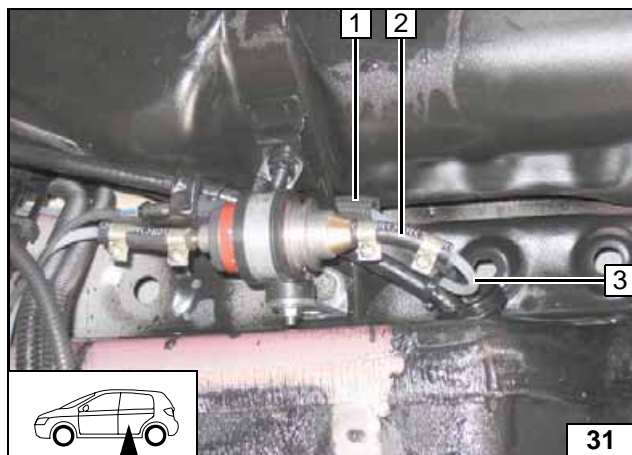


Install the tank mounting 2 according to the manufacturer's instructions. Shorten the moulded hose 5 by 10 mm for Ø 3.5 mm and put on the tank extracting device.

- 1 Universal clip Ø 9mm
- 3 Residual section of fuel line
- 4 Universal clip Ø 10 mm



Connecting and disconnecting the fuel pipe

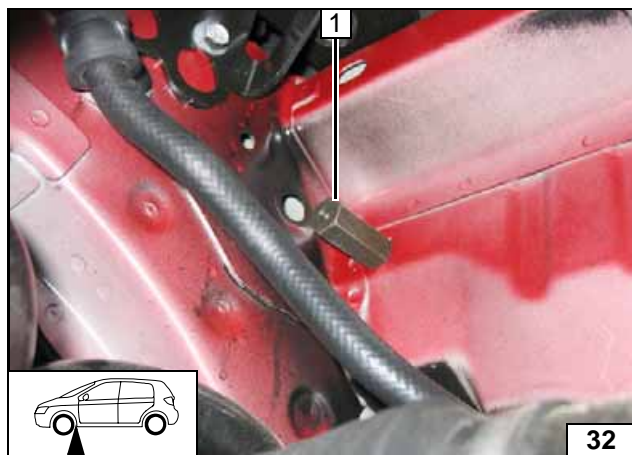


Fuel line from the tank extracting device **3** on the intake side of the metering pump [side without connector].
Check the position of the components; adjust if necessary. Check that they have free clearance.

- 1** Slide the protective hose onto the fuel line
- 2** Hose section, Ø 10 mm hose clamps [2x].



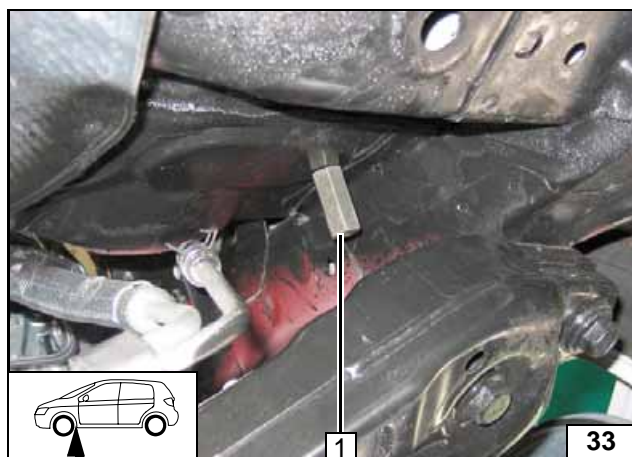
**Con-
nection to
metering
pump**



Exhaust System

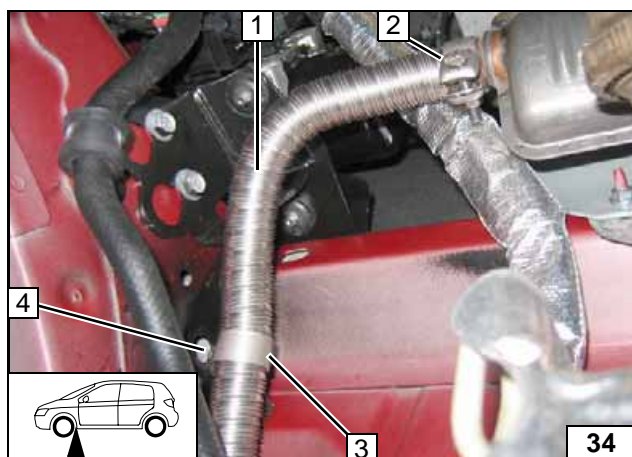
- 1 40mm spacer nut on original vehicle stay bolts

Assembling the spacer nut



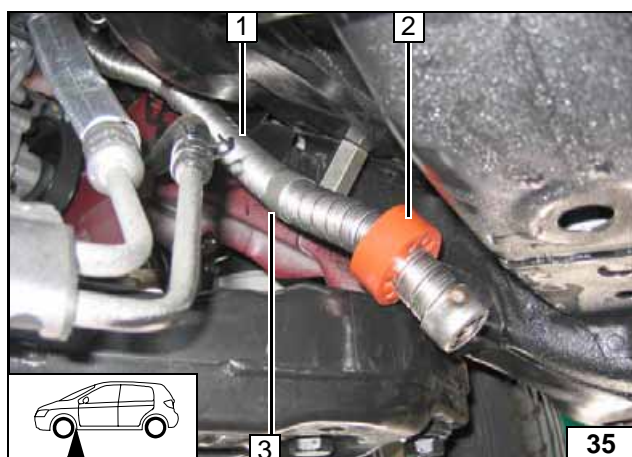
- 1 40mm spacer nut on original vehicle stay bolts

Assembling the spacer nut



- 1 Exhaust end section
- 2 Hose clamp
- 3 Tube clamp
- 4 M6x20 bolt on spacer nut

Assembling the exhaust end section



- 1 Exhaust end section
- 2 Red (rt) rubber profile
- 3 Tube clamp, M6x20 bolt on spacer nut

Assembling the exhaust end section



Water Connection

WARNING!

Tighten all hose clamps to $2.0 + 0.5$ Nm.

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

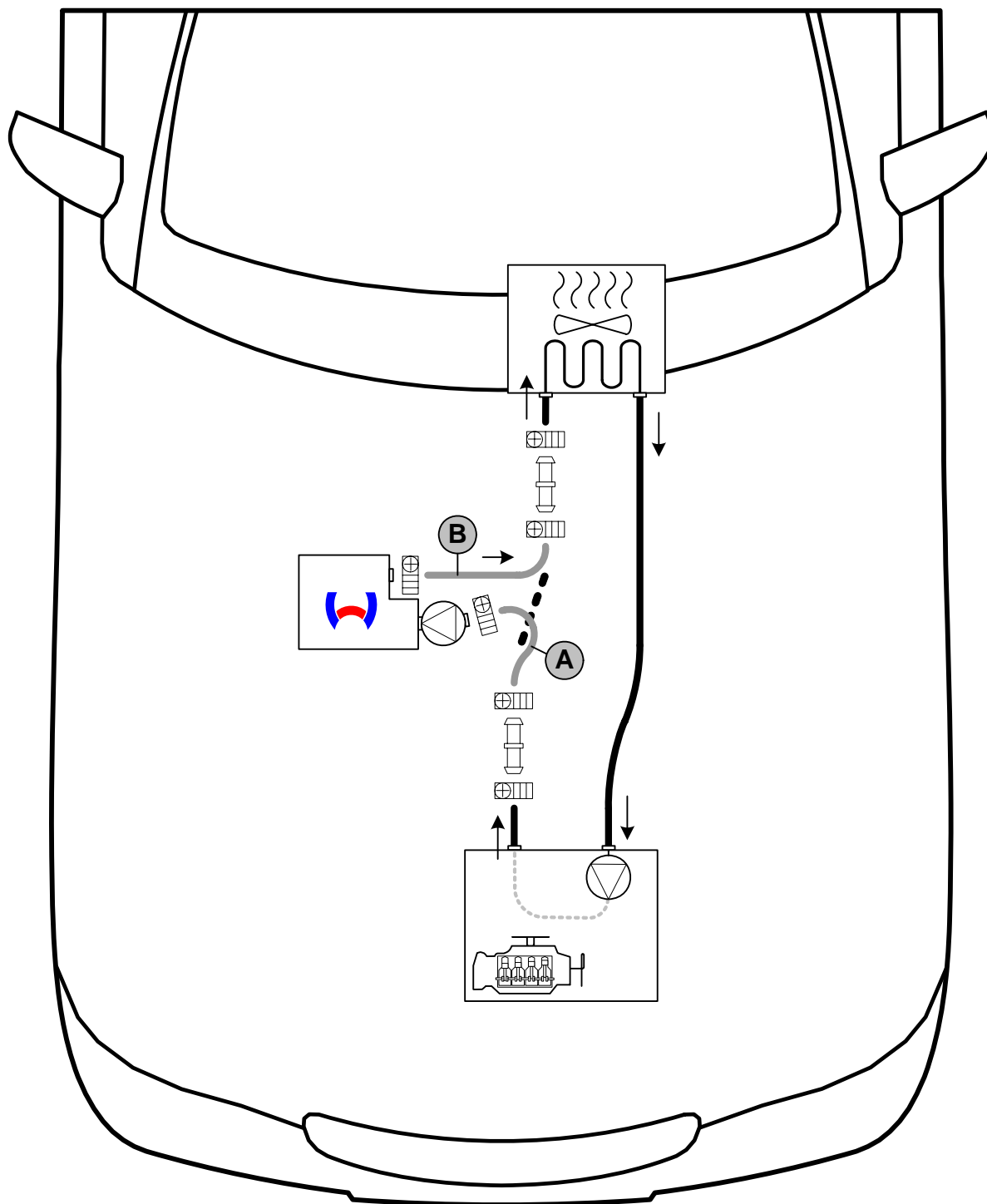
Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable clips!

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:



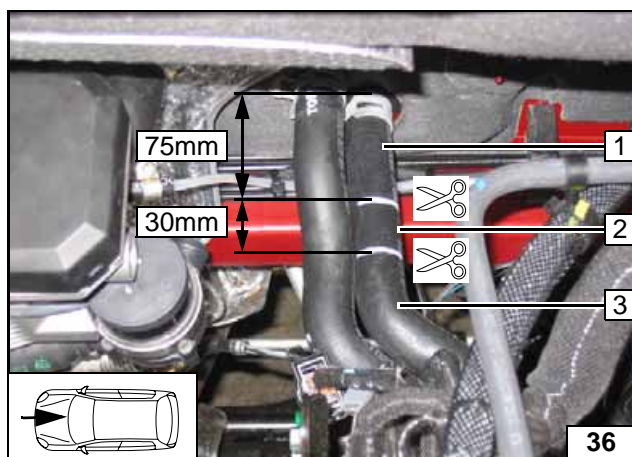
Water
installation
diagram



All hose clamps = \varnothing 20-27 mm!

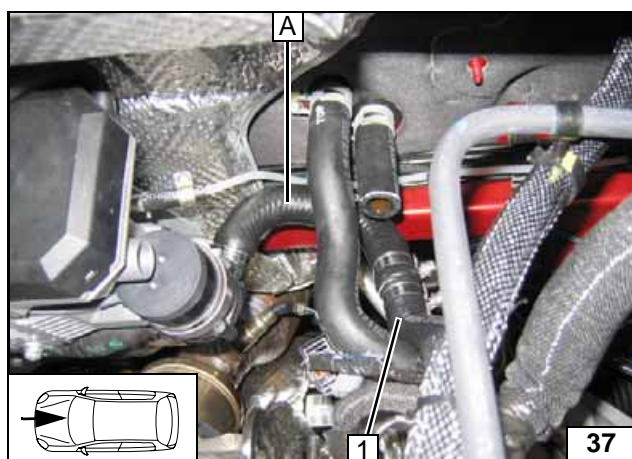
All connecting pipes = \varnothing 18x20!





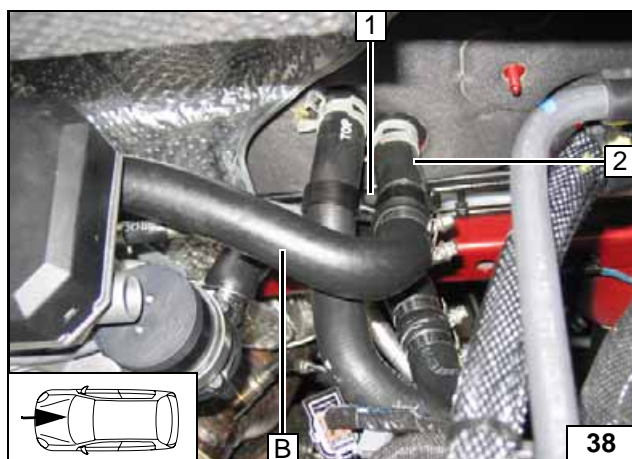
- 1 Heat exchanger inlet hose section
- 2 Dispose of 30 mm hose section
- 3 Engine outlet hose section

Splitting point



- 1 Engine outlet hose section

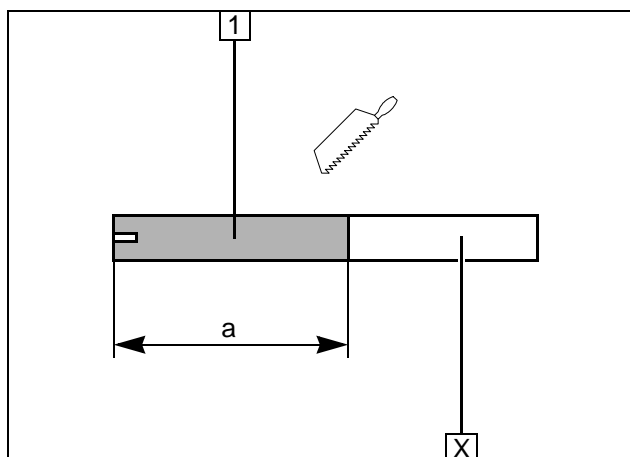
Connecting engine outlet



Before connecting, fill the water hoses with coolant.

- 1 Spacer bracket
- 2 Heat exchanger inlet hose section

Heat exchanger inlet connection

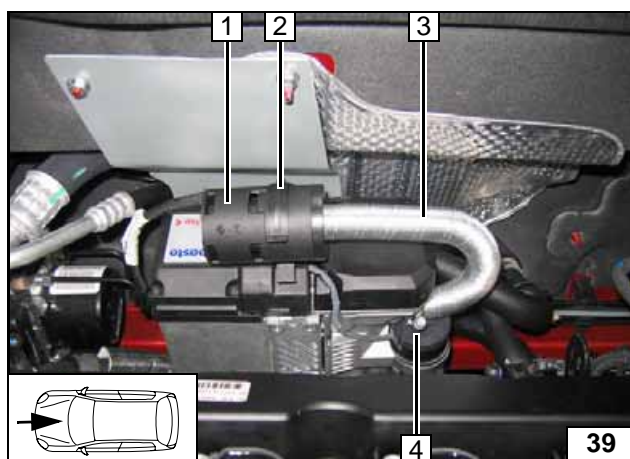


Combustion Air

- 1 Combustion air pipe
a = 260 mm

Dispose of section X

Cutting the combustion air pipe into sections

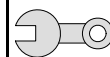


Punch out the heater unit cover on the perforation and insert the retaining clip 2!

- 1 Combustion air intake silencer
3 Combustion air intake pipe
4 Ø 27 mm hose clamp



Assembling the vacuum line.



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.



Operating instructions for the end customer

Please remove page and add to the vehicle operating instructions.



Note:

We recommend adjusting the heating time to the driving time

Heating time = driving time

Example:

For a driving time of 20 minutes (one way) we recommend not exceeding 20 minutes of power on time.

It the summer / winter switch option is installed for the heater unit, switch this according to the season. The heater unit will then heat when set to Winter and only blow air to ventilate the passenger compartment when set to Summer.

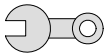
When leaving the vehicle, deactivate the interior monitoring according to the vehicle user's manual in preparation for starting the auxiliary heater.

Before parking the vehicle, make the following settings:

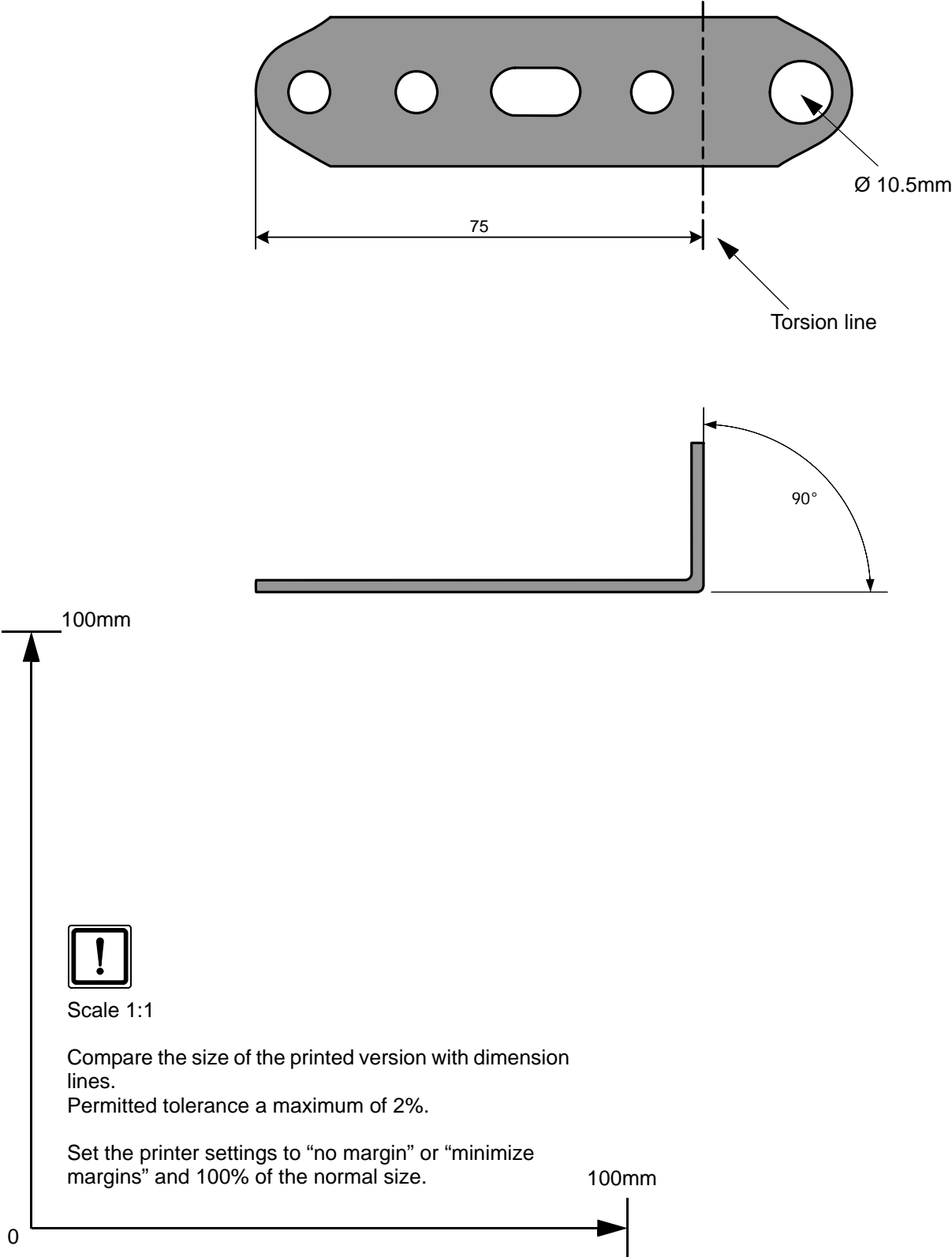


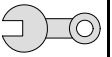
- 1 Blower set to level "1" possibly "2"
- 2 Temperature to "max."
- 3 Air outlet to windscreen

For
vehicles
with
manual air
condition-
ing



Fastening Strap Template for the Metering Pump





Tank Extracting Device Template

