Water Heater

***Thermo Top E* Parking Heater** e1 00 0003

***Thermo Top C* Parking Heater** e1 00 0002

***Thermo Top P* Parking Heater** e1 00 0104

Installation instructions

Nissan Pixo

1.0 Gasoline
from Model Year 2009
Left-hand drive vehicle
Manual air-conditioning system

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, specialised 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 warnings.

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

Ident. No.: 1315218A_EN Fee Euro 10.00

Table of Contents

Validity

Manufacturer	Model	Type	EG-BE No./ABE
Nissan	Pixo	HF	e6 * 2001 / 116 * 0124 * ...

Engine type	Engine model	Output in kW	Displacement in cm³
K10B	Gasoline	50	996

Vehicle and engine types, equipment variants and national specifications not listed in these installation instructions have not been tested. However, installation according to these installation instructions may be possible.

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

Heater/Installation Kit

Quantity	Description	Order No.:
1	Nissan-specific delivery scope *Thermo Top E* Gasoline	See Nissan Price list
1	Installation kit for Nissan Pixo 2009 1.0 Gasoline	1315151A
1	Heater control	See Nissan Price list

Heater recommended for the respective vehicle class:

Vehicle	Heater
Compact car	Thermo Top E
Mid-size car, station wagon	Thermo Top C
Full-size car, van, offroader	Thermo Top P

The selection of the heater is based on the passenger compartment size of the vehicle and the level of comfort required by the customer!

Foreword

These installation instructions apply to vehicles Nissan Pixo 1.0 Gasoline - for validity, see page 2 - from model year 2009 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, where this is the case the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top E/C/P* should be observed.
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 wiring harnesses to original vehicle lines and wiring harnesses using cable ties.
Sharp edges must be provided with rub protection (cut-open fuel hose)!
Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

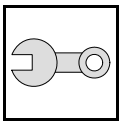
Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit

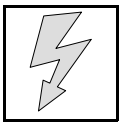
Explanatory Notes on Document

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.

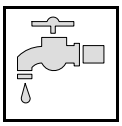
Mechanical system



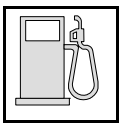
Electrical system



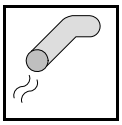
Coolant circuit



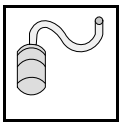
Fuel



Exhaust gas



Combustion air



Software

Special features are highlighted using the following symbols:

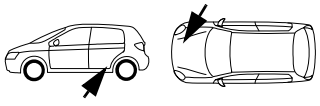
Specific risk of injury or fatal accidents.

Specific risk of damage to components.

Specific risk of fire or explosion.

Reference to general installation instructions of Webas- to 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.

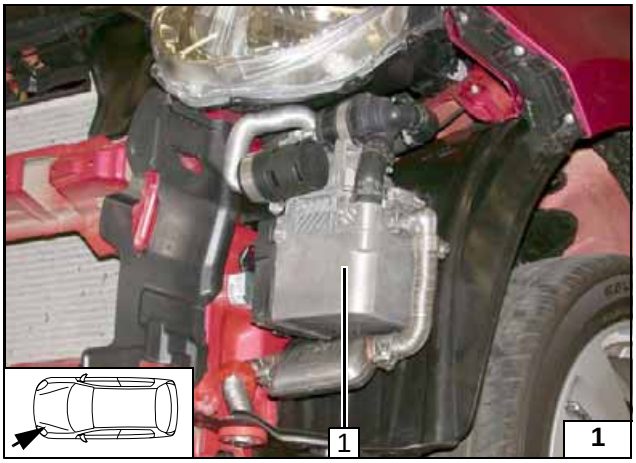
All dimensions are in mm!
Tightening torque of hose clamps = 2.0 + 0.5 Nm!
Tightening torque of Ejot screws, Ejot studs = 10 Nm!

Preliminary Work

WARNING!

- Open fuel tank cap, ventilate tank.
- Close the tank cap again.
- Disconnect the battery "earth" or "ground" connection.
- Depressurize 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 battery
- Remove the air filter together with the intake hose
- Detach the wheel well trim on the right and left.
- Remove bumper trim
- Remove fuel-tank in accordance with manufacturer's instructions.
- Remove the fuel-tank sending unit in accordance with the manufacturers specifications.
- Remove footwell trim on the driver side

Remove page 24 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater installation location

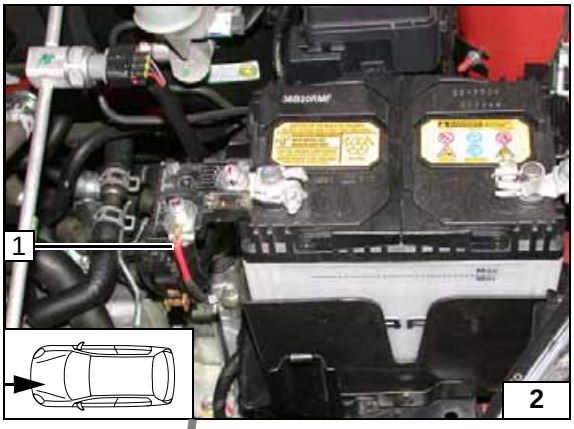
1 Heater

Installation location

Electrical system

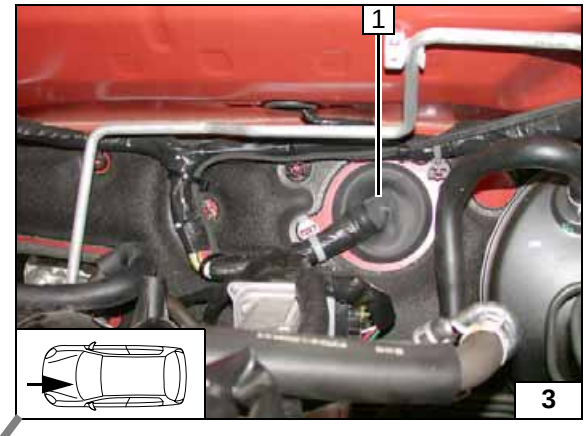
Plus wire

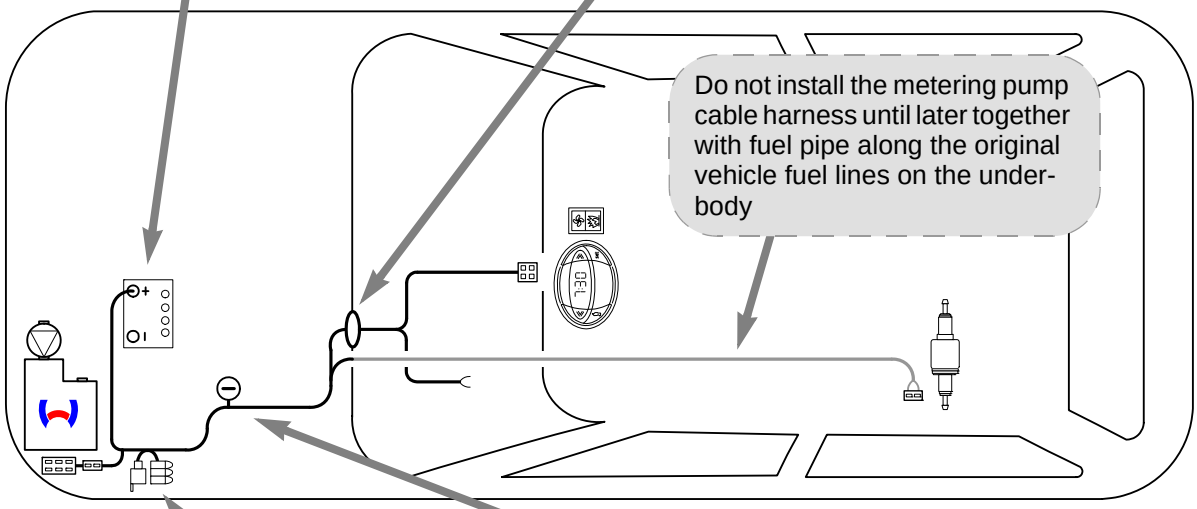
1 Positive wire to positive battery terminal



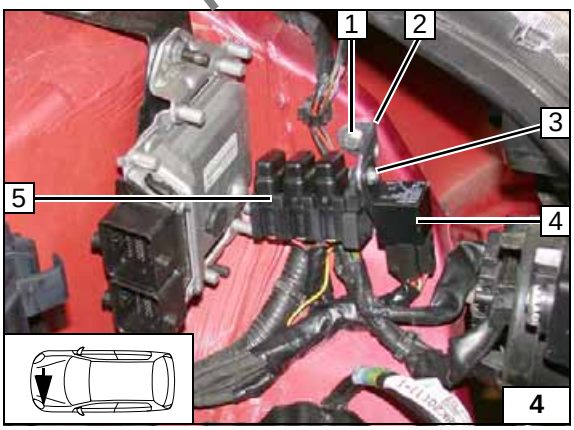
Wiring harness pass through

1 Protective rubber plug



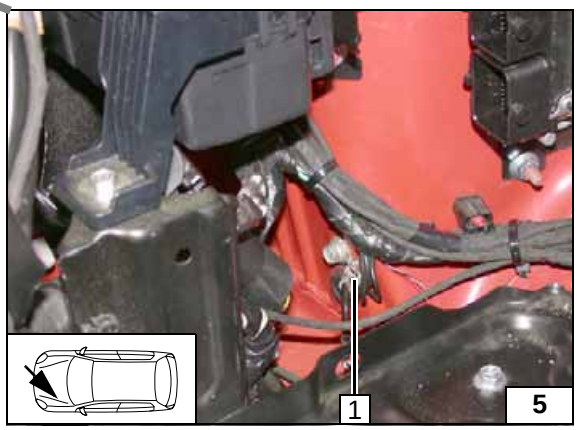


Wiring harness installation diagram



Fuse holder, K3 relay

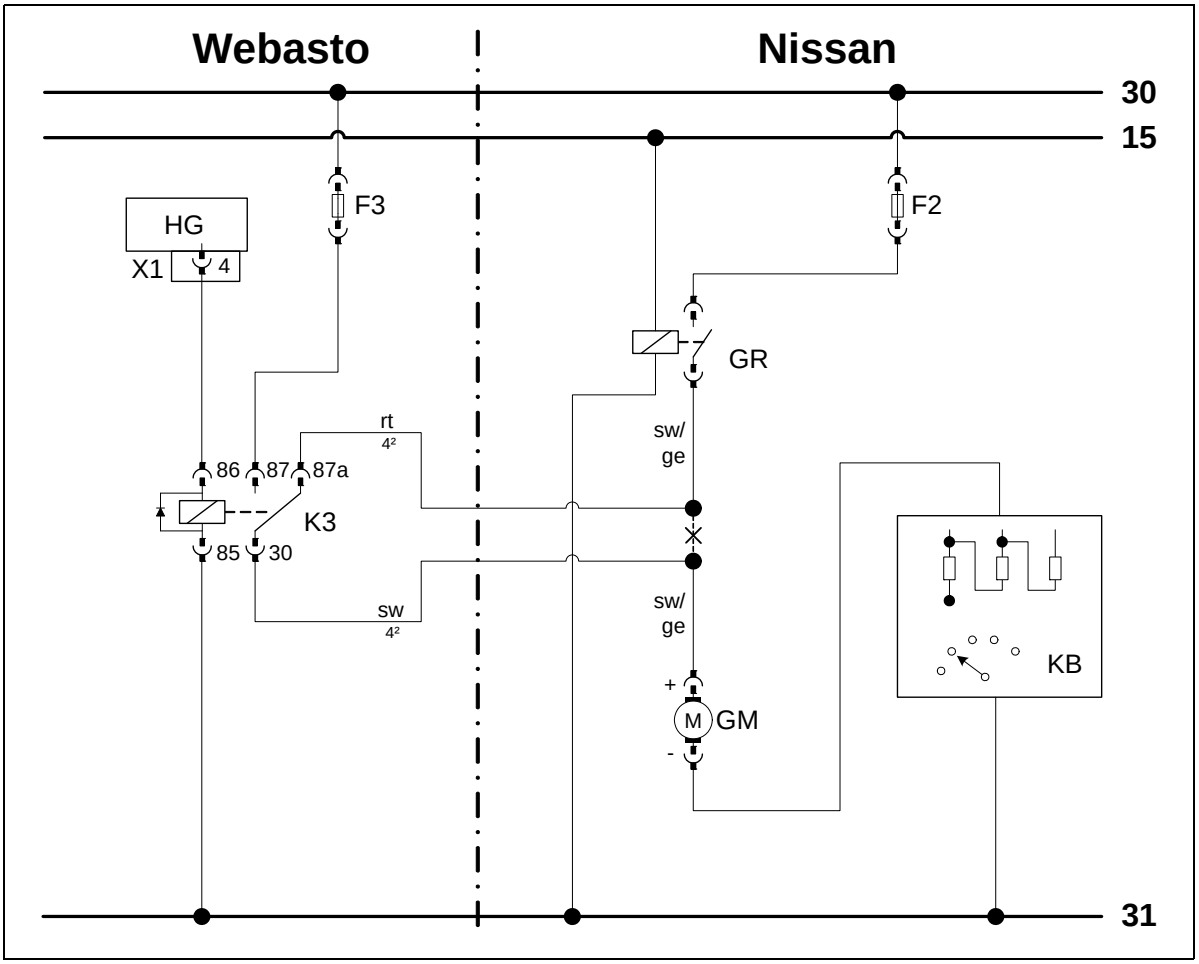
1 Mount M6x20 bolt, spring lockwasher, flanged nut, existing hole
2 Angle bracket
3 M5x16 bolt, washers, fuse holder retaining plate, flanged nut
4 K3 relay
5 F1-3 fuses mounted



Ground wire

1 Groundwire to original vehicle ground support point

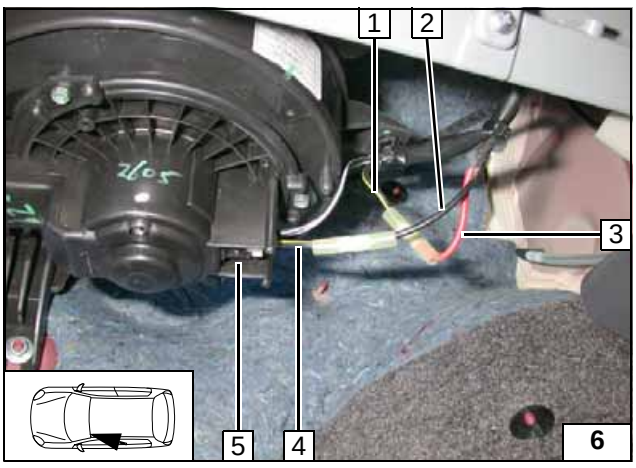
Fan controller



Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-E/C/P	GM	Fan motor	rt	red
X1	6-pin heater connector	GR	Fan relay	ge	yellow
K3	Fan relay	KB	A/C control panel	sw	black
F3	25A fuse	F2	30A fuse		
				X	Cutting point
				Wiring colours may vary.	

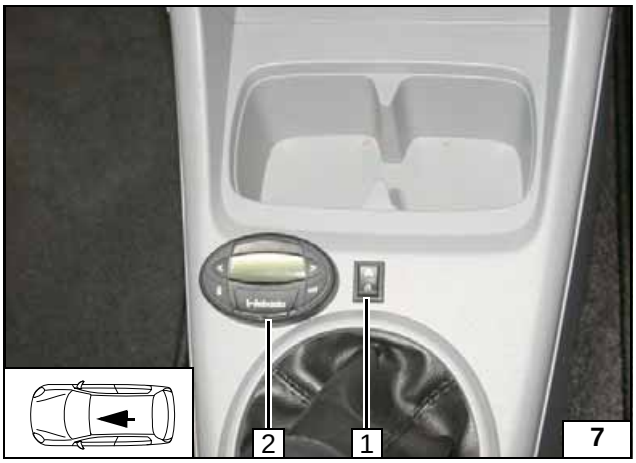
Legend



Connection to 2-pin connector **5** from fan motor.
Produce connections as shown in wiring diagram.

1 Black / yellow (se/ge) wire to fan relay
2 Black (sw) wire from K3/30
3 Red (rt) wire from K3/87a
4 Black / yellow (se/ge) wire to connector

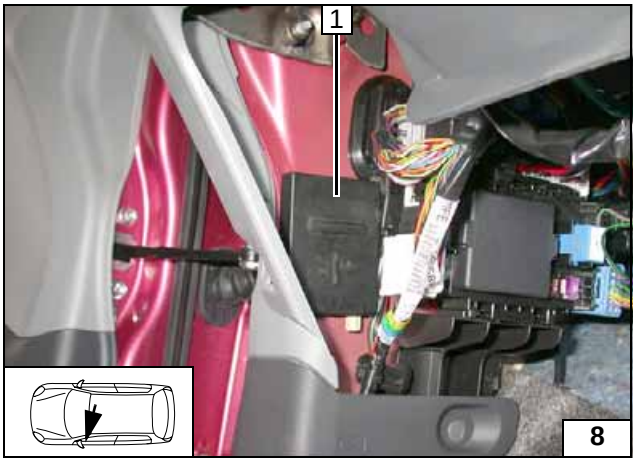
Connecting fan-motor



Digital timer, summer/winter switch option

1 12 mm dia. hole, summer/winter switch
2 Digital timer

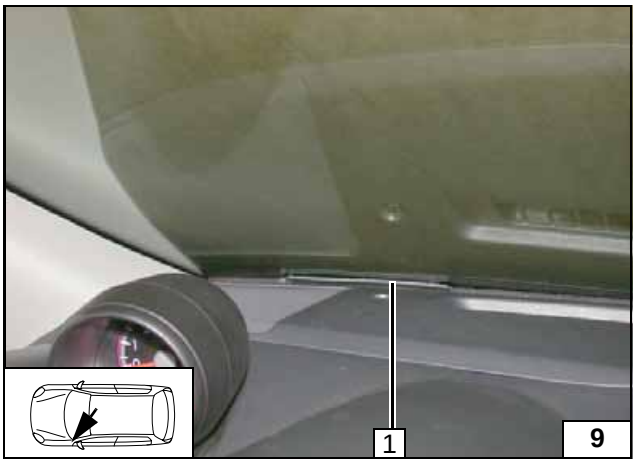
Installing digital timer



Remote option (Telestart)

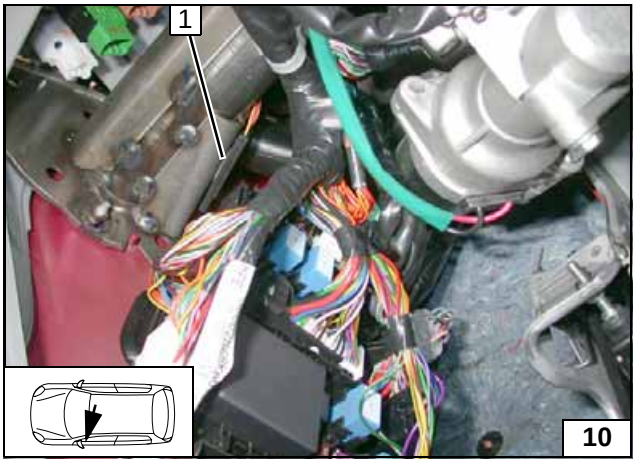
Fasten receiver **1** with adhesive tape.

Installing receiver



1 Antenna

Installing antenna



Temperature sensor HTM100

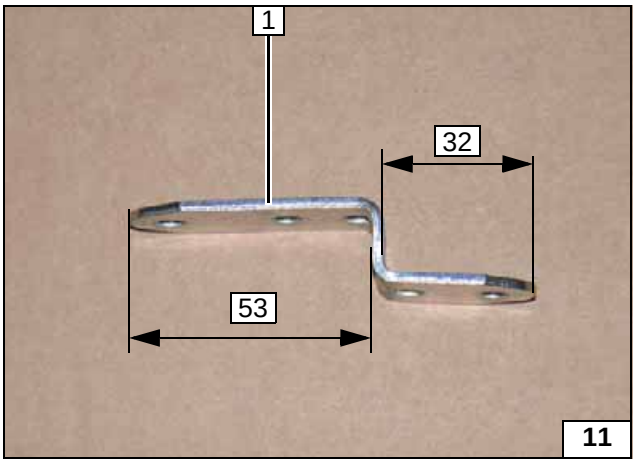
Fasten temperature sensor **1** with adhesive tape.

Installing temperature sensor

Preparing installation location

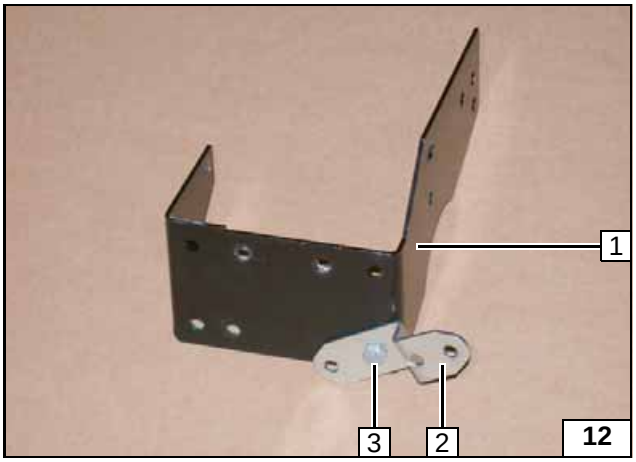
Angle down perforated bracket **1** 2x by 90°.

Angling down perforated bracket



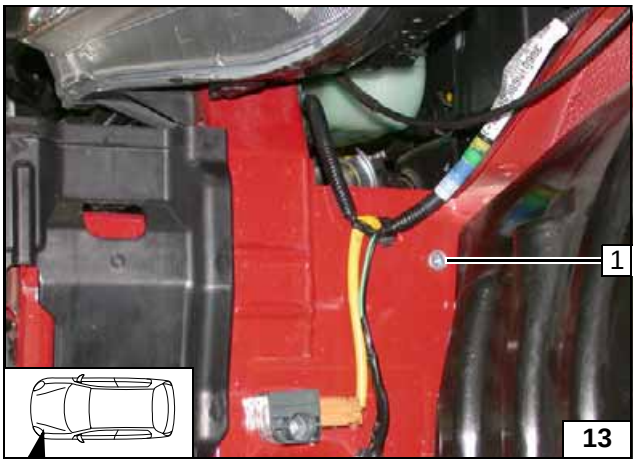
1 Bracket
2 Perforated bracket, mount loosely
3 M6x12 bolt, flanged nut

Preassembling bracket



Drill out existing hole to 9.1mm dia and tighten rivet nut!

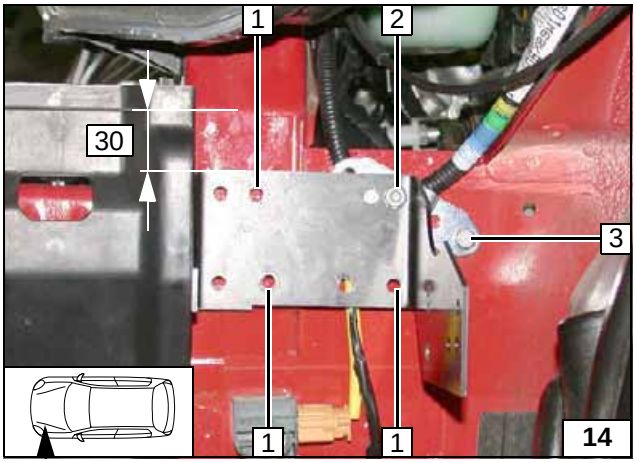
Installing rivet nut

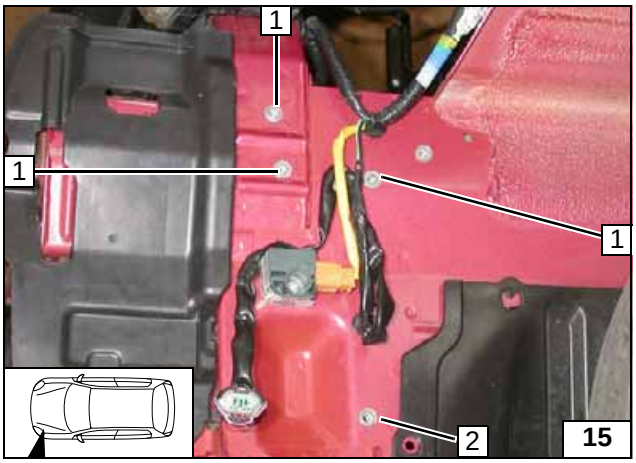


Align bracket **2**, mount loosely and copy hole pattern to Position **1** [3x]!

3 M6x20 bolt

Copying hole pattern

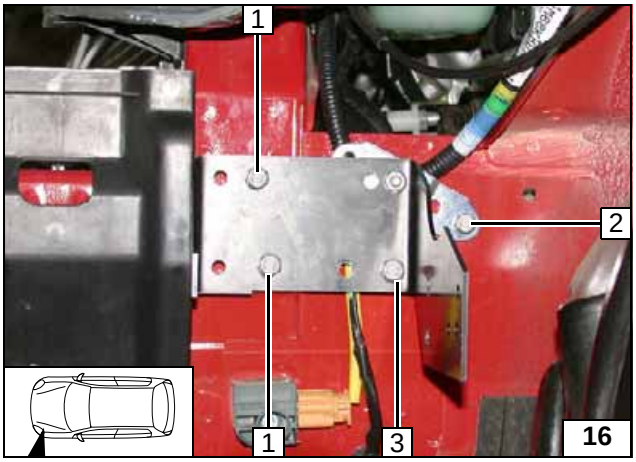




Remove bracket!

1 9.1 mm dia. hole; rivet nut [3x each]
2 Drill out hole to 9.1 mm dia, river nut

Installing rivet nut

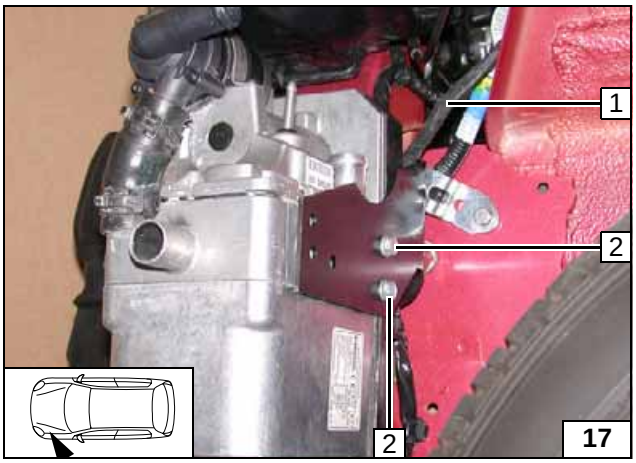


Insert one 15mm spacer nut each between bracket and side member at Position **1** and **3**, and a large diameter washer at Position **3**!

1 M6x35 bolt, spring lockwasher, 15mm shim [2x each]
2 M6x20 bolt, spring lockwasher
3 M6x35 bolt, spring lockwasher, 15mm spacer nut, large diameter washer

Installing bracket

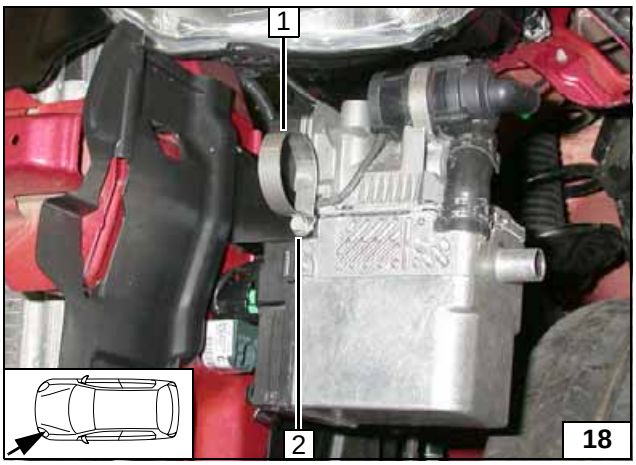
Installing heater



Connect wiring harness **1** on heater before installation.

2 Ejot screw [2x]

Installing heater



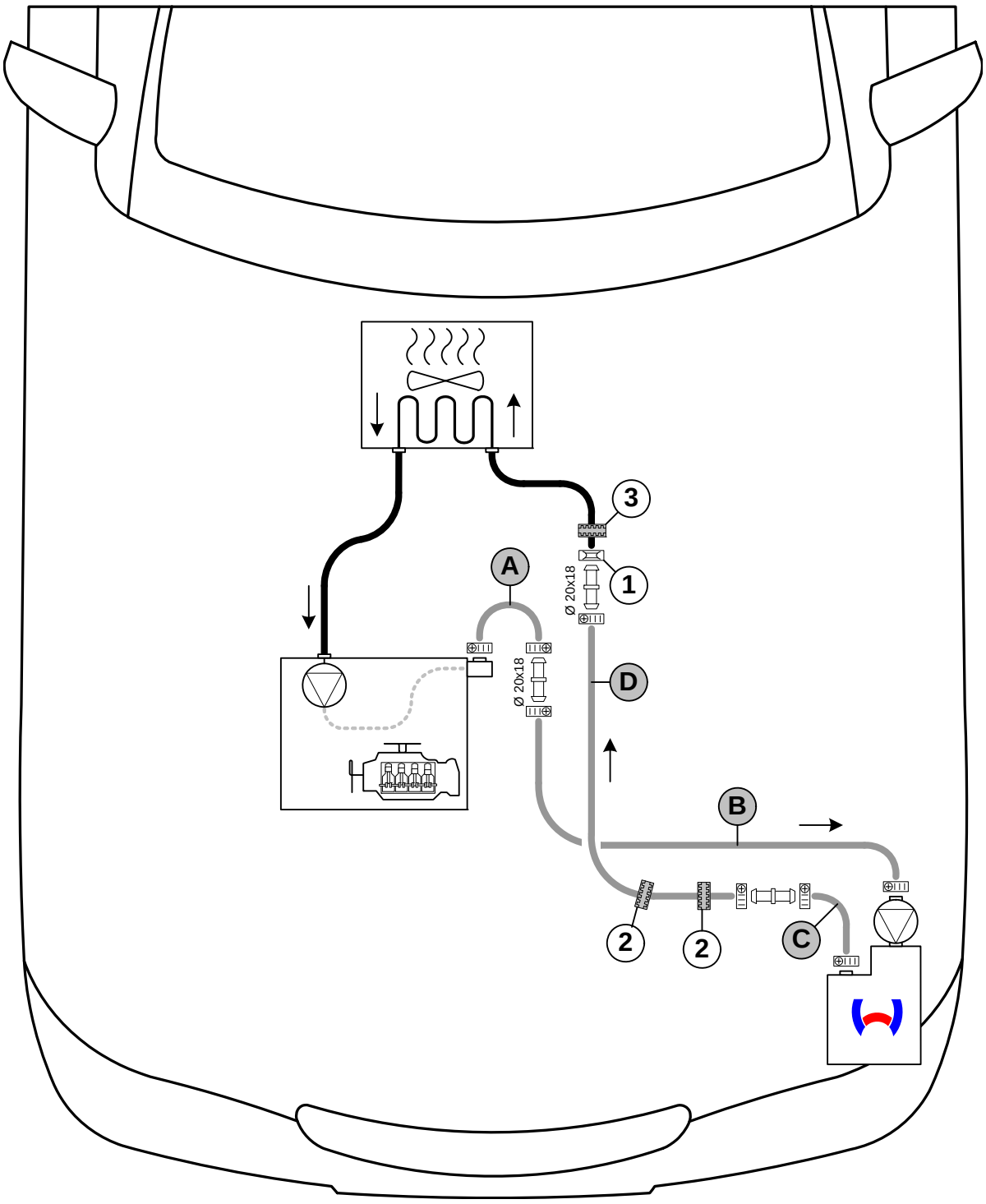
1 48 mm dia. p-clamp
2 Ejot screw, mount loosely

Installing heater

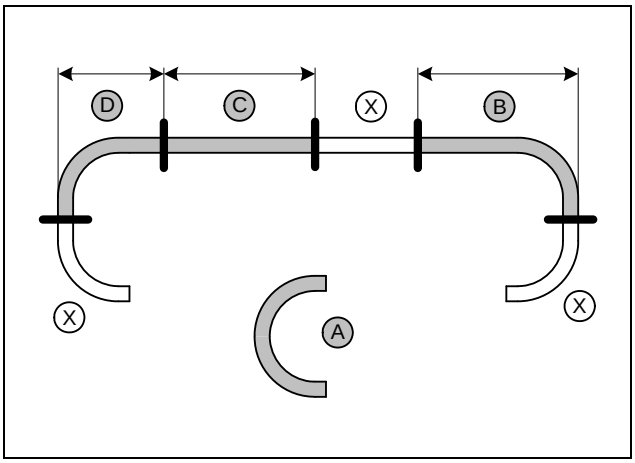
Coolant circuit

WARNING!
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 ties. Position clamps so that no other hose can be damaged! When installing the coolant hose, the heater must be filled with coolant. The connection should be "inline" based on the following diagram:

Coolant circuit diagram



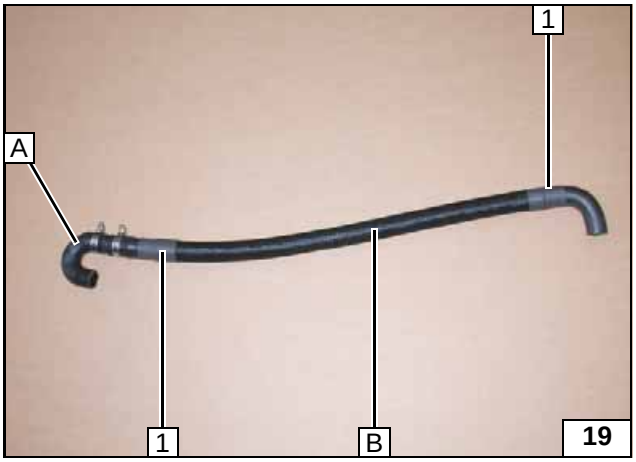
All connecting pipes without a specific designation = dia. 20x20 mm. **1** = Original vehicle spring clip .
All hose clamps without a specific designation = 20-27 mm dia **2** = Black (sw) rubber isolator dia = 25.5 mm
3 = Black (sw) rubber isolator dia = 22mm



Discard section **X**
Hose **A** = 180°, 18x18mm moulded hose

B = 635
C = 450
D = 100

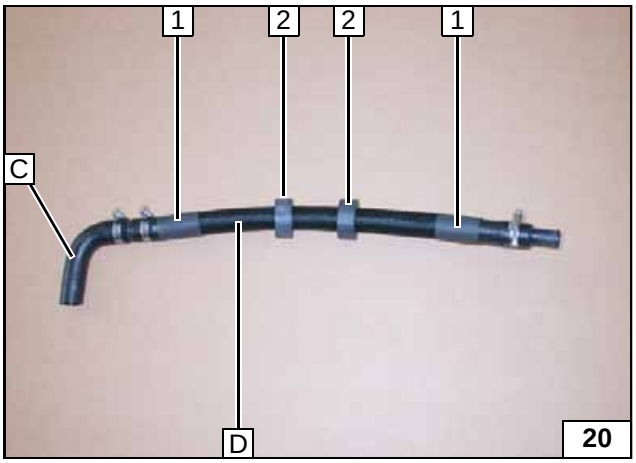
Cutting coolant hoses to length



Push braided protection hose onto hose **B** and cut to length!
Cut heat shrink plastic tubing to length.

1 50 mm long heat shrink plastic tubing [2x]

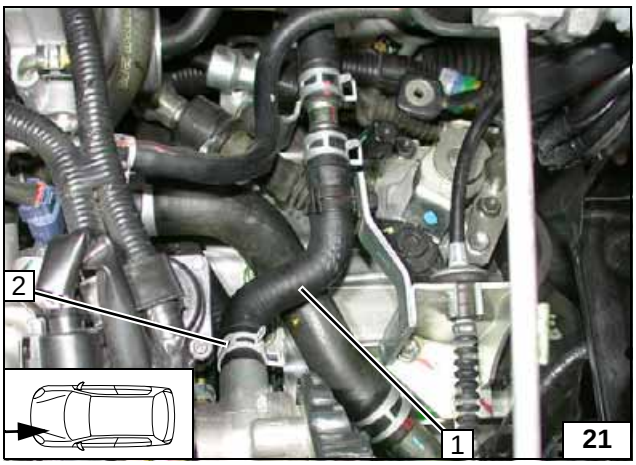
Preparing hoses A and B



Push braided protection hose onto hose **D** and cut to length!
Cut heat shrink plastic tubing to length.

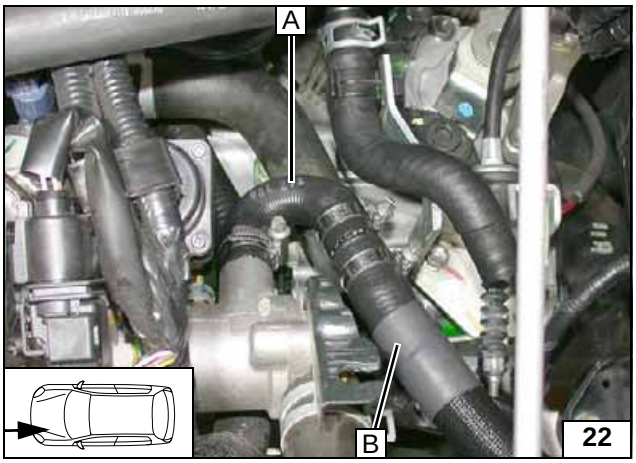
1 50 mm long heat shrink plastic tubing [2x]
2 = Black (sw) rubber isolator [2x]

Preparing hoses C and D

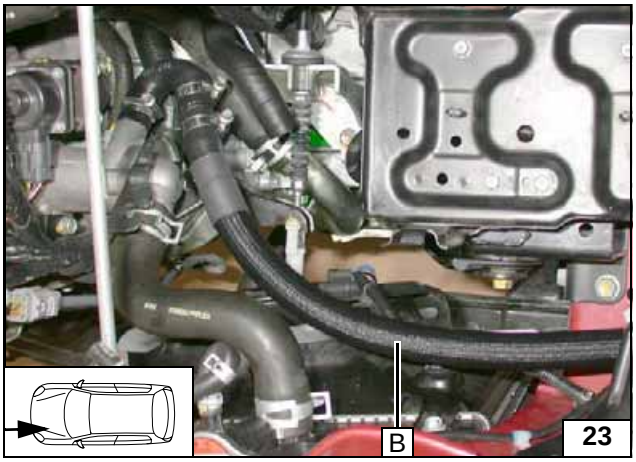


Detach engine outlet/heat exchanger inlet hose **1** on neck of engine outlet. Spring clip **2** will be reused.

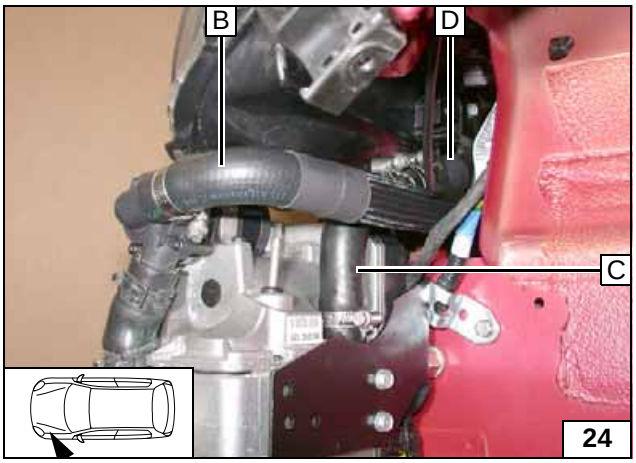
Cutting point



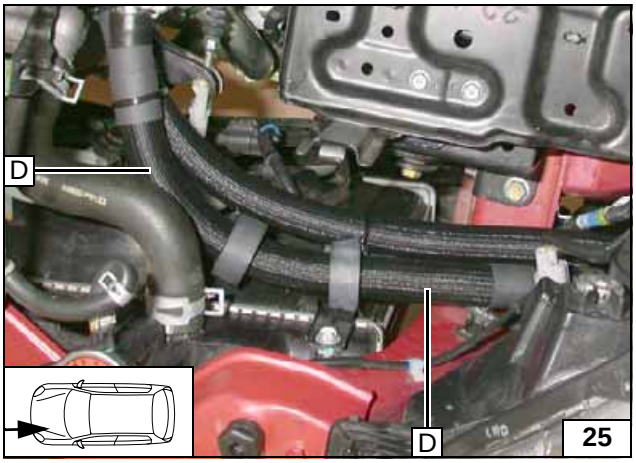
Connecting engine outlet



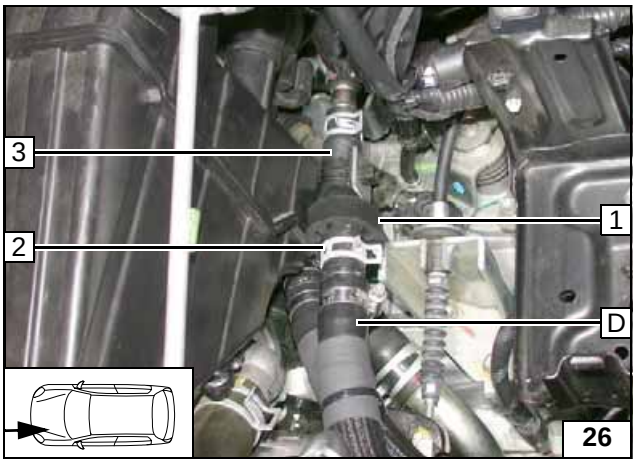
Routing in engine compartment



Connecting heater



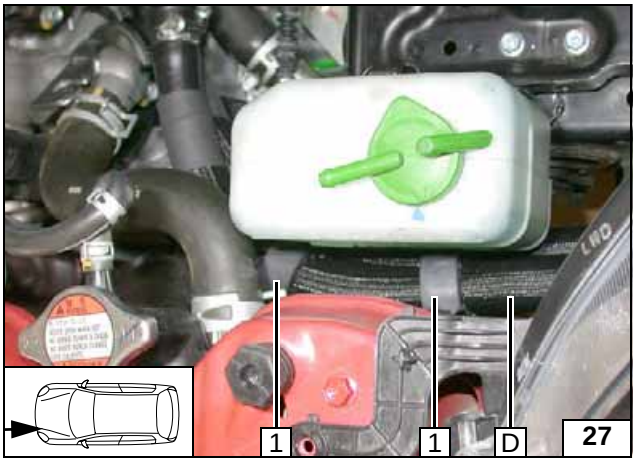
Routing in engine compartment



Slide black (sw) rubber isolator dia = 22 **1** onto hose of heat exchanger inlet **3** and align with air filter box.

2 Original vehicle spring clip

Connecting heat exchanger inlet



Ensure sufficient distance from neighbouring components. Align black (sw) rubber isolator **1** [2x] on expansion tank!

Aligning rubber isolator

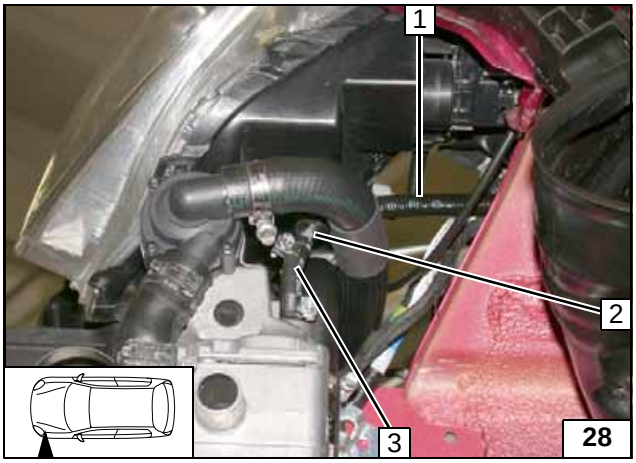
Fuel

CAUTION!
Open the vehicle's fuel tank cap, 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 wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.
Mount the fuel line and wiring harness with rub protection on sharp edges.

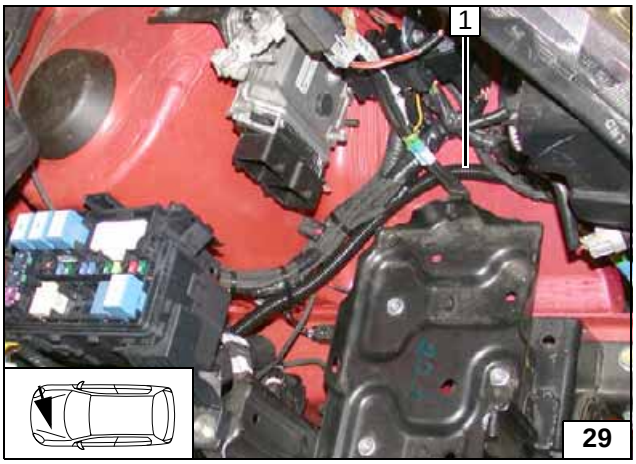
WARNING!
The fuel line and wiring harness are routed to the metering pump in as shown in the wiring harness routing diagram.



Slide protective hose **1** onto fuel line **2**

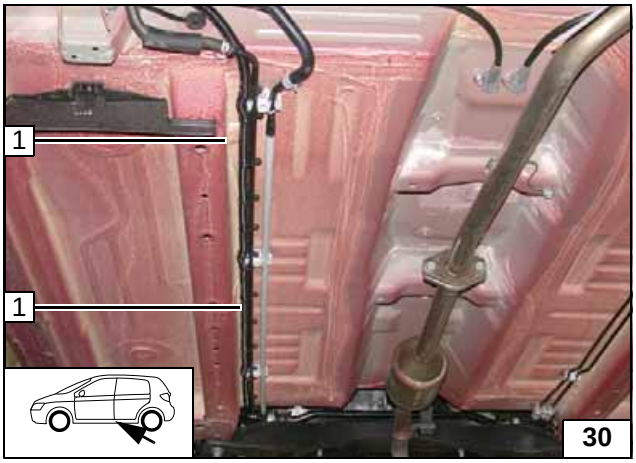
3 Hose section, 10 mm dia. clamp [2x]

Connecting heater



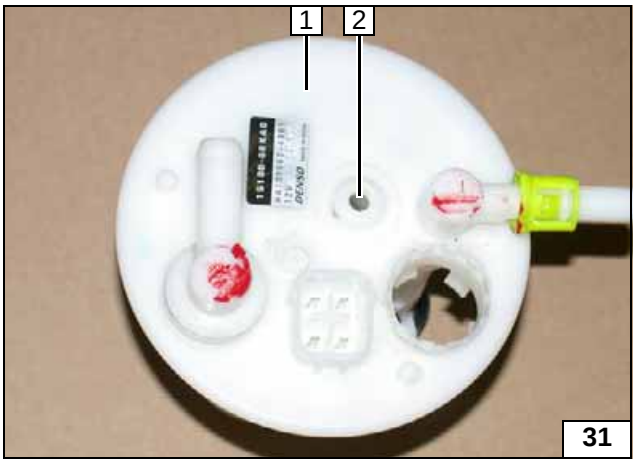
Detach corrugated tube **1**. Route fuel line and wiring harness of metering pump in corrugated tube **1** to firewall!

Installing lines



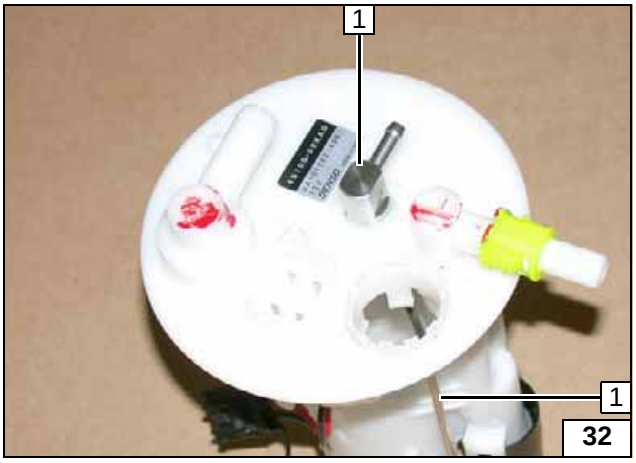
Route fuel line and wiring harness of metering pump in corrugated tube **1** to original vehicle lines at the installation location of the metering pump!

Installing lines



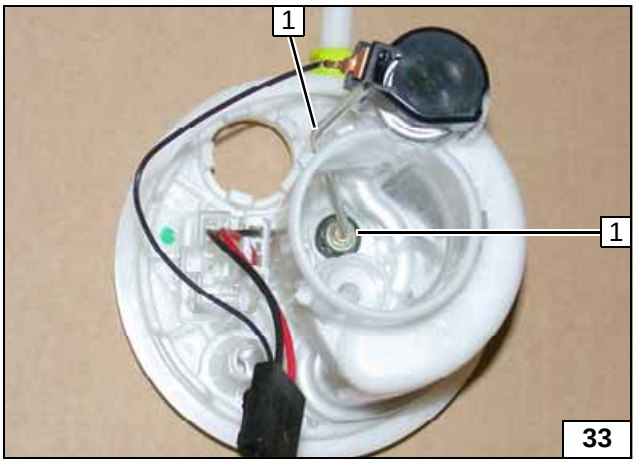
Remove fuel-tank in accordance with manufacturer's instructions. Remove fuel-tank sending unit **1** according to manufacturer's specifications. Remove fuel pump, level indicator and charcoal filter connecting pieces. Drill 6mm dia hole **2** at the centre of the circular elevation.
Pay attention to the components at the rear when drilling!

Removing fuel



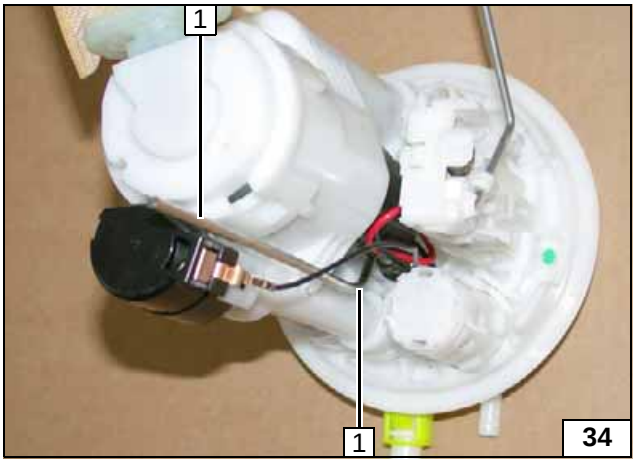
Shape fuel standpipe **1** according to template, cut to length and install according to the following figures.

Installing fuel standpipe



1 Fuel standpipe

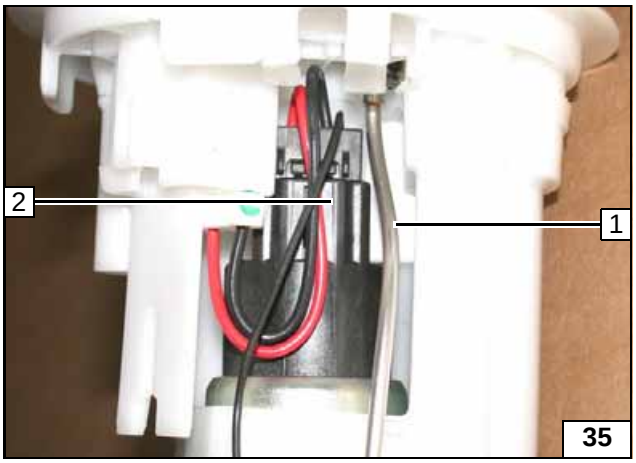
Installing fuel standpipe



Complete the fuel tank sending unit. Check the position of the components; adjust if necessary. Check that they have free clearance.

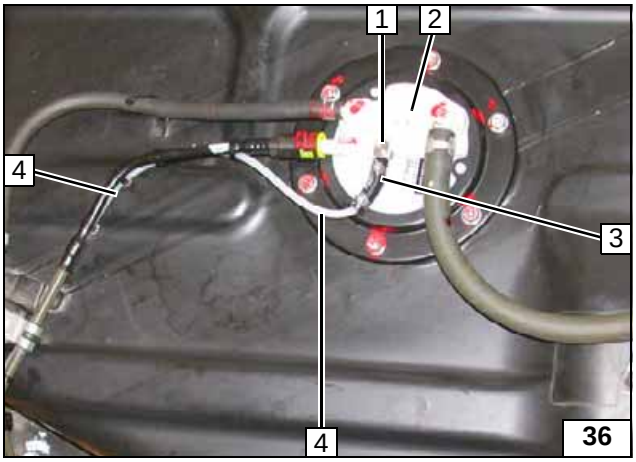
1 Fuel standpipe

Installing fuel standpipe



Ensure sufficient distance between fuel tank standpipe **1** and connector **2**.

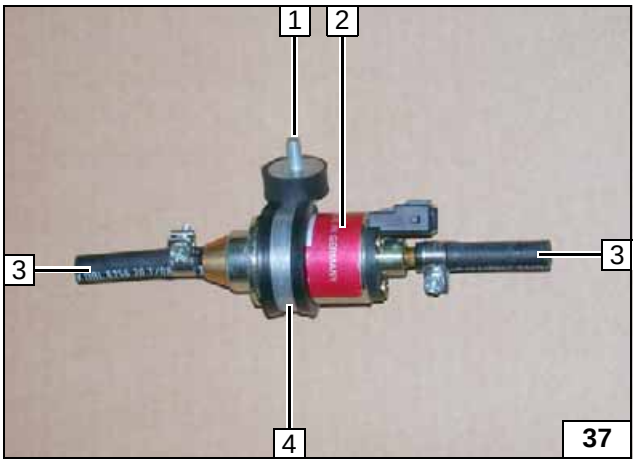
Installing fuel standpipe



Install fuel-tank sending unit **2** in accordance with manufacturer's specifications.

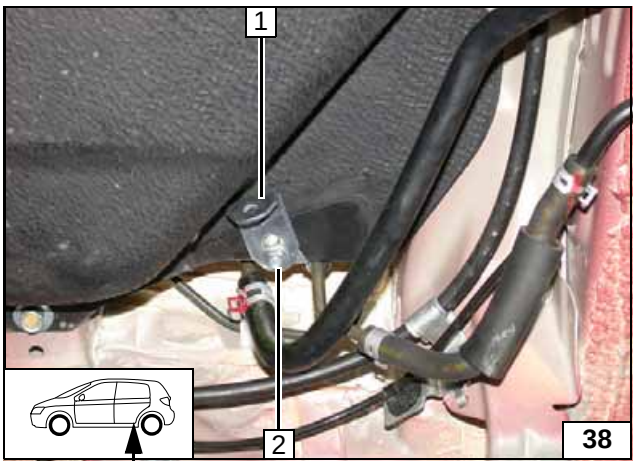
1 Fuel standpipe
3 Hose section, 10 mm dia. clamp [2x]
4 Fuel line

Connecting fuel line



1 Silent block, flanged nut
2 Metering pump
3 Hose section, 10 mm dia. clamp [2x]
4 Rubber-coated pipe clamp

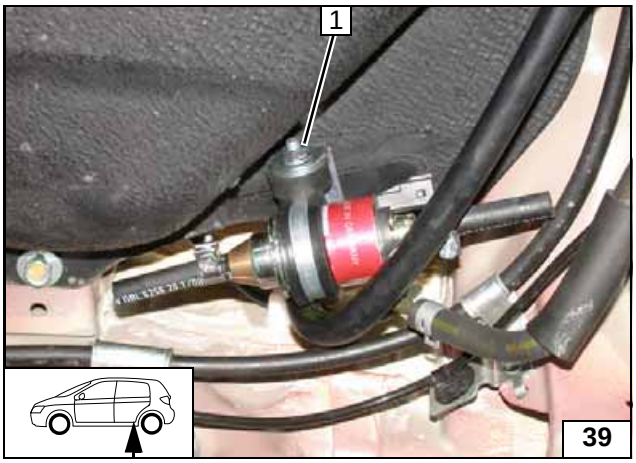
Premounting metering pump



Remove fuel-tank in accordance with manufacturer's instructions.

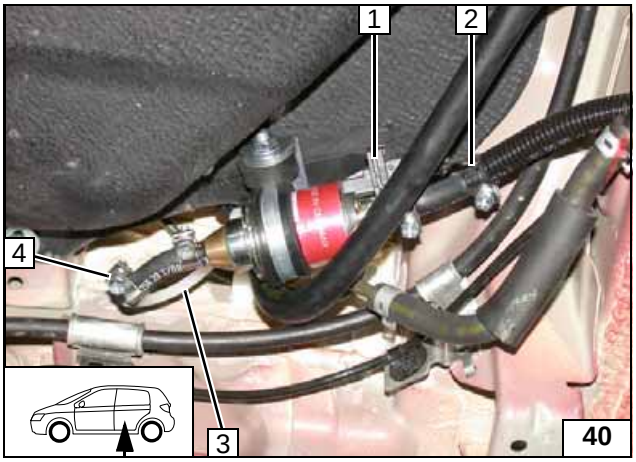
1 Angle bracket
2 Original vehicle bolt, flanged nut

Installing metering pump



1 Flanged nut

Installing metering pump

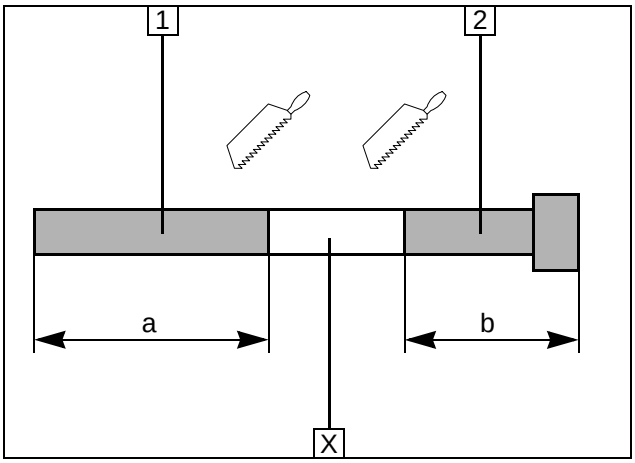


Route fuel line from fuel tank standpipe **3** to metering pump. Check the position of the components; adjust if necessary. Check that they have free clearance.

1 Wiring harness of metering pump, connector mounted
2 Fuel line of heater, 10mm dia clamp
4 10 mm dia. clamp

Connecting metering pump

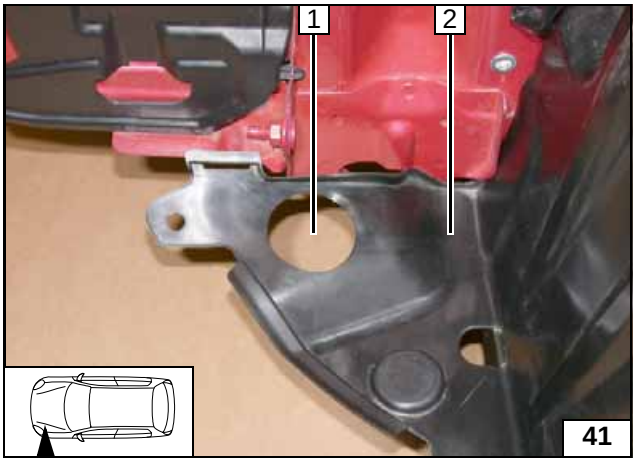
Exhaust gas



Discard section **X**

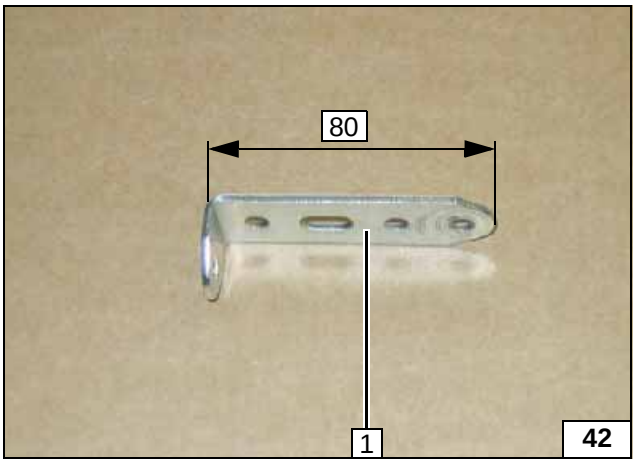
1 Exhaust pipe
a = 145
2 Exhaust end section
b = 145

Preparing exhaust pipe



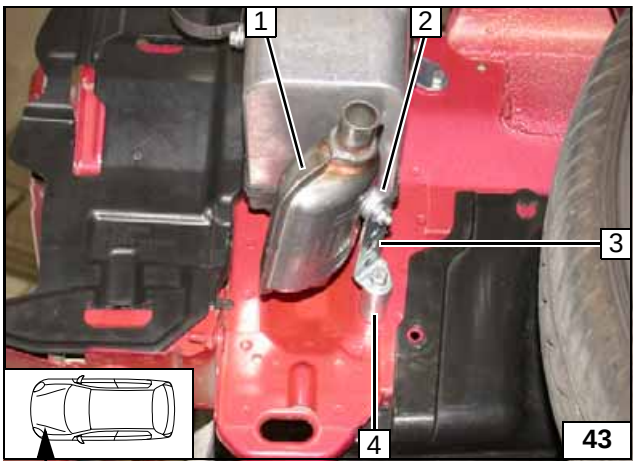
1 42 mm dia. hole
2 Wheel well inner panel

Cutting out wheel well inner panel



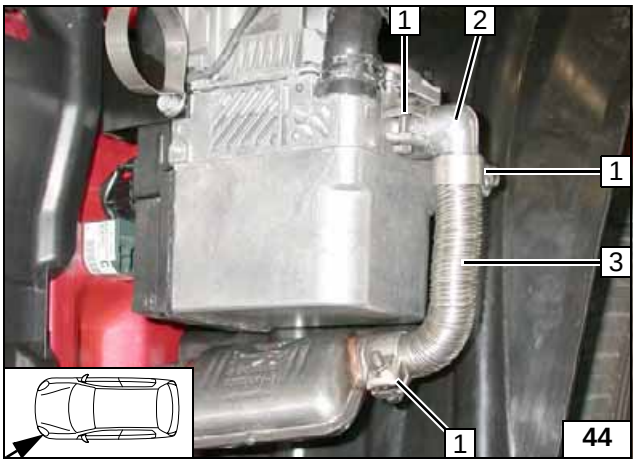
Angle down perforated bracket**1** by 90°.

Angling down perforated bracket



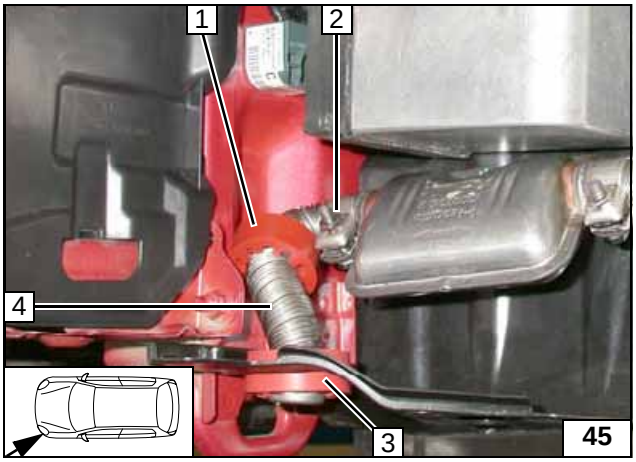
1 Exhaust muffler
2 M6x35 bolt, spring lockwasher, 20 mm shim, flanged nut
3 Perforated bracket
4 M6x55 bolt, spring lockwasher, 40 mm shim

Installing muffler



1 Hose clamp [3x]
2 Exhaust manifold
3 Exhaust pipe

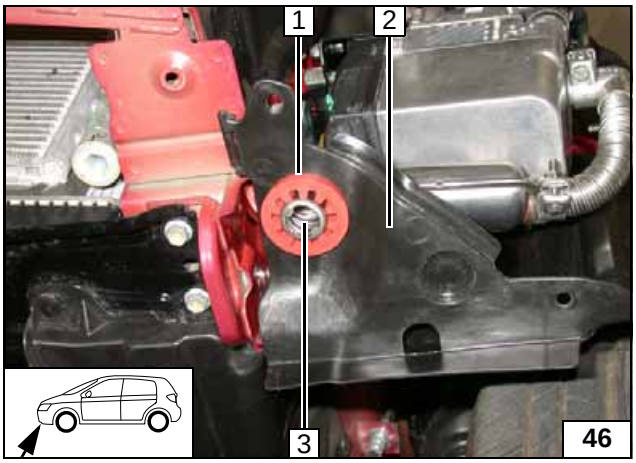
Installing exhaust pipe



Slide red (rt) rubber isolator **1** and red (rt) rubber isolator with groove **3** on to exhaust end section **4**. Position red (rt) rubber isolator **1** along side member.

2 Hose clamp

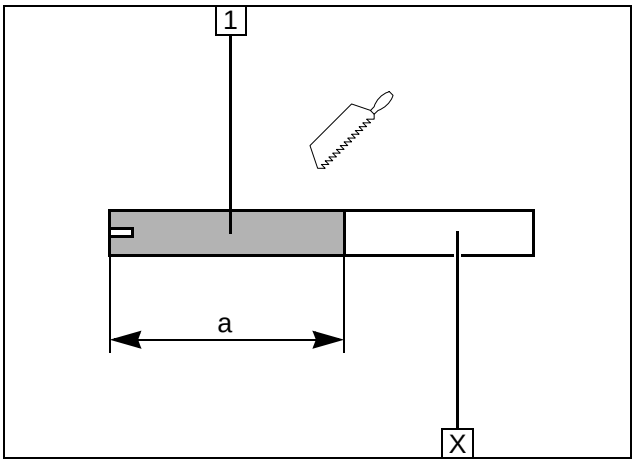
Installing exhaust end section



Ensure sufficient distance to neighbouring components.
Align exhaust end section **3** flush on red rubber isolator **1**.

2 Wheel well inner panel

Mounting rubber isolator

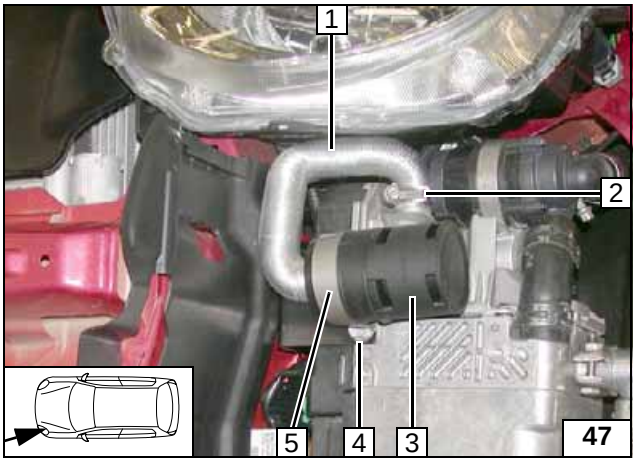


Combustion air

Discard section **X**

1 Combustion air pipe
a = 220

Cutting combustion air pipe to length



1 Combustion air pipe
2 27 mm dia. clamp
3 Muffler
4 Tighten Ejot screw
5 48 mm dia. p-clamp

Installing muffler

Final Work

WARNING!
Mount removed parts in reverse order.
Check all hoses, clamps and all electrical connections for firm seating.
Secure all loose cables using cable ties.
Only use manufacturer-approved coolant.
Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect the battery.
- Fill and bleed the coolant circuit according to the vehicle manufacturer’s specifications.
- Set the digital timer.
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Check the proper operation of the parking heater, see the operating instructions/installation instructions.
- Apply the sticker "Switch off parking heater before refilling" in the area of the filling neck

Webasto AG
Postfach 80
D-82131 Stockdorf / Germany
National Hotline: 01805 93 22 78
(14 Cent aus dem deutschen Festnetz)
Hotfax: 0395 5592 353
Hotmail: hotline@webasto.de
http://www.webasto.de

1315218A_EN Printed in Germany 07/2010 Printing: Steffen

Template for Fuel Standpipe

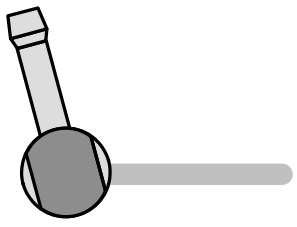
100mm

Scale 1:1

Compare the size of the printed version with dimension lines.
Permitted tolerance a maximum of 2%.

Set the printer settings to “no margin” or “minimise margins” and 100% of the normal size.

Top view



100mm

0

Operating Instructions for End Customer

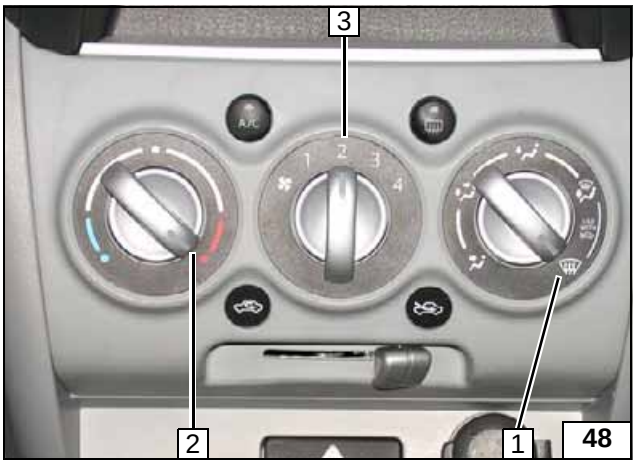
Please remove page and add to the vehicle operating instructions.

Note:
We recommend matching the heating time to the driving time.
Heating time = driving time
Example:
For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

The passenger compartment monitoring is to be deactivated in vehicles equipped with anti-theft alarm system.
Deactivation instructions can be taken from the operating instructions of the vehicle!

If the summer/winter switch option has been installed, this must be switched in accordance with the time of year. The heater will then only switch on the vehicle fan to ventilate the vehicle interior in the position Winter heat and in the position Summer .

Before parking the vehicle, make the following settings:



1 Air outlet to windshield
2 Set temperature to "max."
3 Set fan to level "1“ or max. "2"