Water Heater Unit

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

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

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

Installation Instructions

Nissan Tiida

Diesel
from Model Year 2008
Left-hand drive vehicle

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 warnings.

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

Ident. No.:1313380A_EN Fee Euro 10.00

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Validity

Manufacturer	Model	Type	EG-BE No./ABE
Nissan	Tiida	C11	e11 * 2001/116 * 0296.

Engine type	Engine model	Output in kW	Displacement in cm³
K9K	Diesel	78	1461

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 Unit/Installation Kit

Quantity	Description	Order No.:
1	Nissan-specific retail accessories	See Nissan price list
1	Heater control	See Nissan price list
1	Installation kit for Nissan Tiida Diesel	1313379A

Heater unit recommended for the respective vehicle class:

Vehicle	Heater unit
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 unit 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 Nissan Tiida Diesel vehicles - for validity, see page 2 - from model year 2008 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* must always 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 should be fitted with edge protectors (split-open plastic hose).
Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

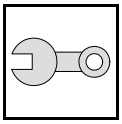
Special Tools

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

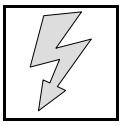
Explanatory Notes on Document

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

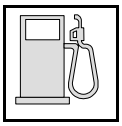


Electrical system



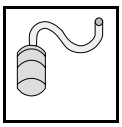
Water

Fuel



Exhaust gas

Combustion air



Special features are highlighted using the following symbols:

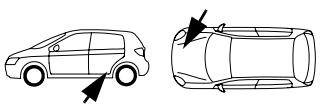
Specific risk of injury or fatal accidents.

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.

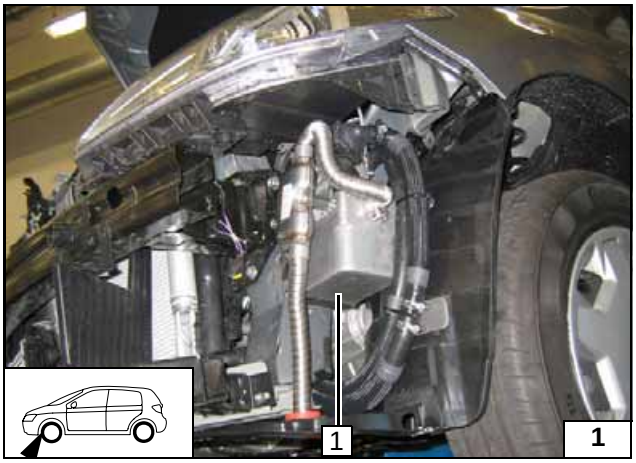
All dimensions are in mm!
Tightening torque of hose clamps = 2.0 + 0.5 Nm!
Tightening torque of Ejot screws, Ejot studs = 10 Nm!

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.
- Completely remove the battery.
- Remove the air filter together with the intake hose.
- Detach the wheel well trim on the left
- Remove the bumper.
- Remove the underride protection.
- Remove the rear bench seat.
- Open the right-hand fuel sender service lid.
- Remove the left-hand instrument panel trim.
- Remove the fuse and relay carrier on the left.
- Remove the A/C control panel according to the manufacturer's instructions (only with automatic air-conditioning).

Remove page 26 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater unit installation location

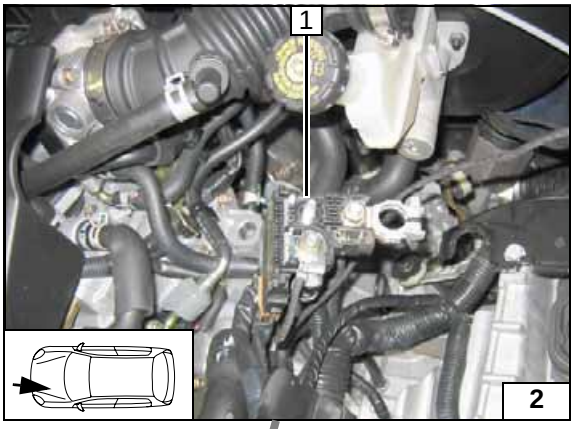
1 Heater unit

Installation location

Electrical system

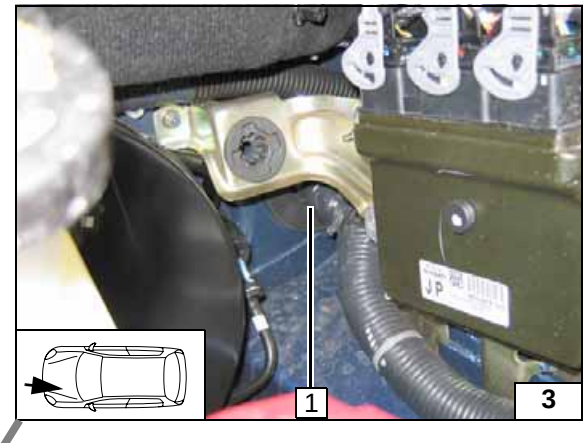
Positive connection

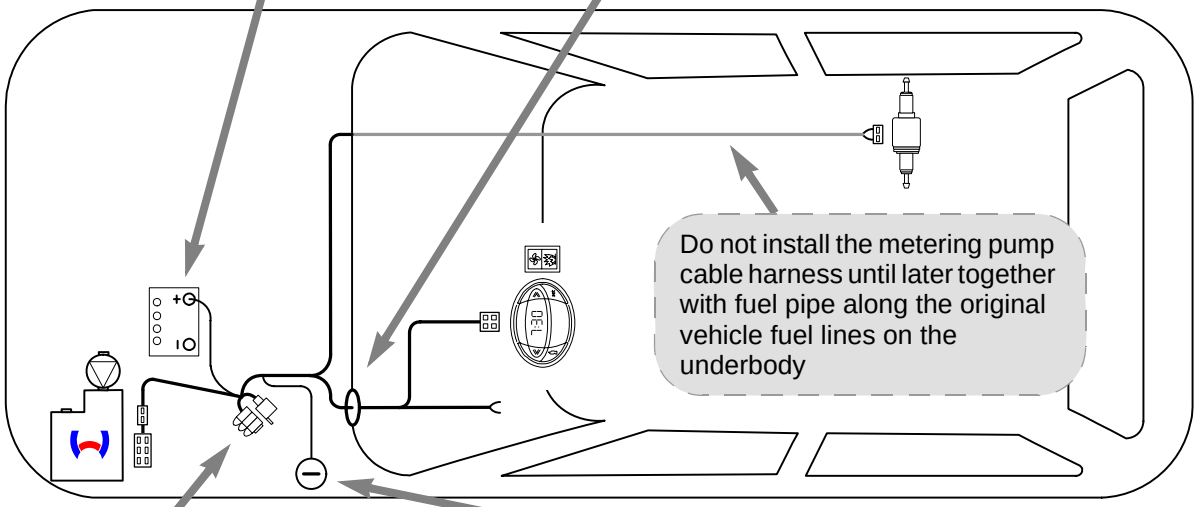
1 Positive distribution of battery



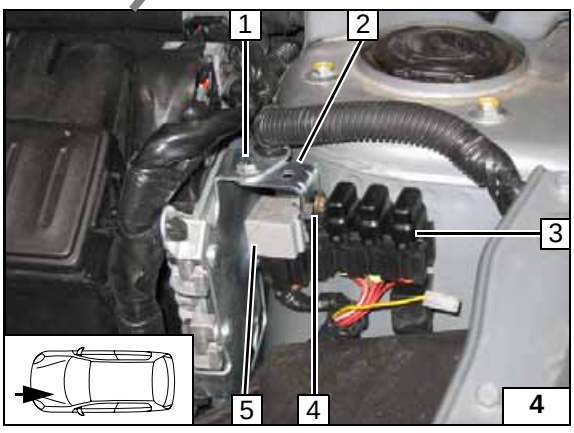
Wiring harness pass through

1 Pass through into passenger compartment



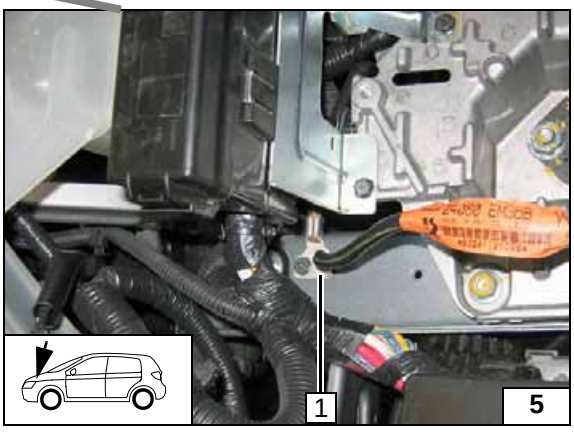


Wiring harness installation diagram



Fuse holder, relay K3

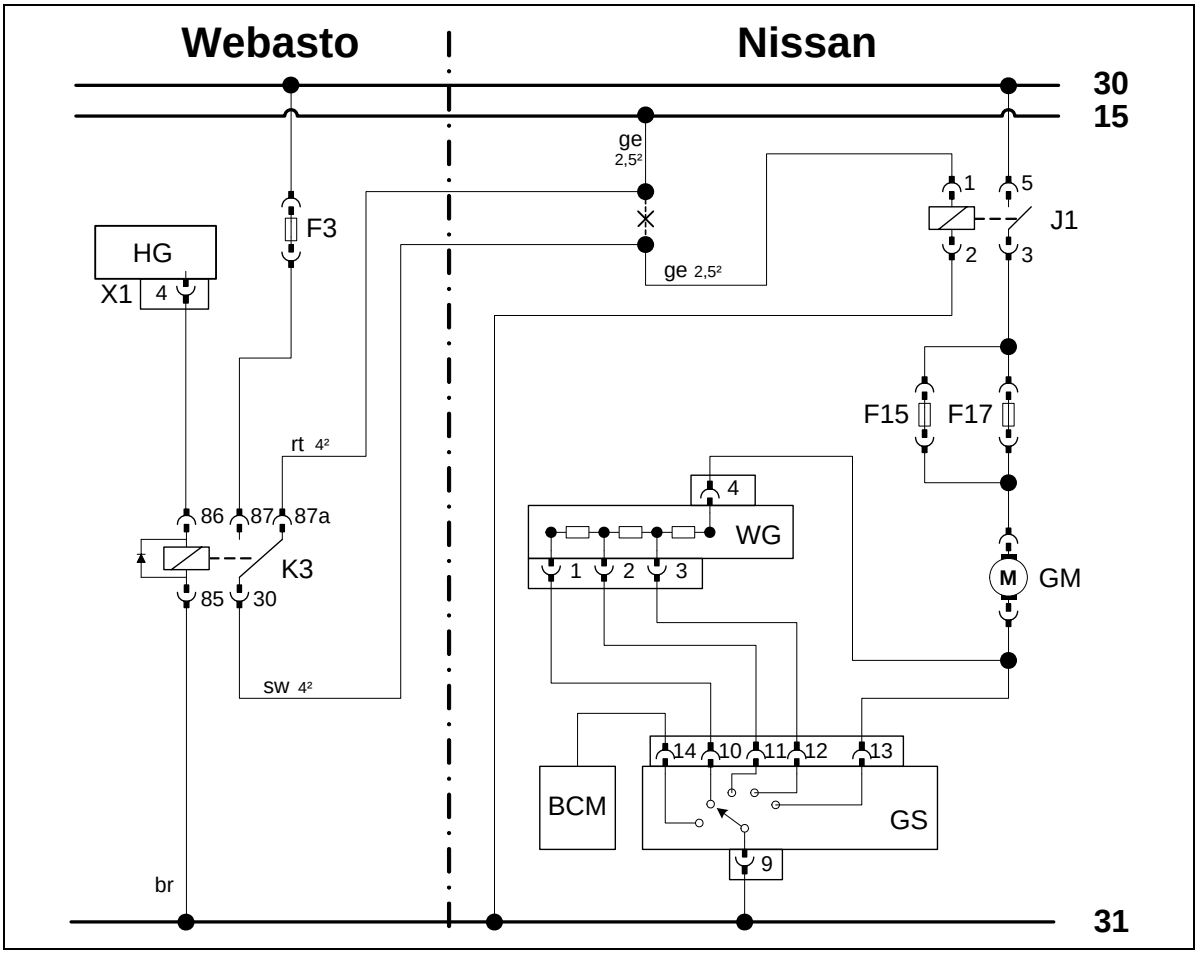
1 Detach clip from original vehicle wiring harness, drill out hole to 7 mm dia., M6x20 bolt, angle bracket **2**, M6 flanged nut
3 Fuse holder
4 Retaining plate, M5x16 bolt, large diameter washer, K3 relay **5**, M5 flanged nut



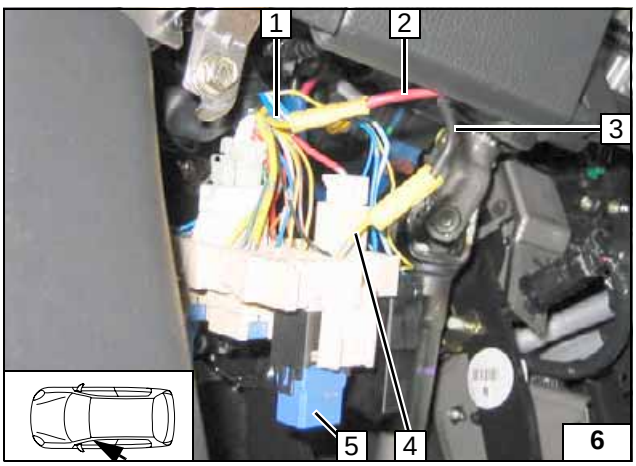
Ground connection

1 Ground support point

Fan controller for manual air conditioning



Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater unit connector	J1	Fan relay	ge	yellow
K3	Fan relay	WG	Resistor group	sw	black
F3	Replace 25 A fuse with 10 A fuse	GS	Fan switch	br	brown
		BCM	Body control unit		
		F15	15 A fuse		
		F17	15 A fuse	**X**	Cutting point
				Wiring colors may vary.	



Connection to fan relay **5** behind fuse and relay carrier. Produce connections as shown in wiring diagram.

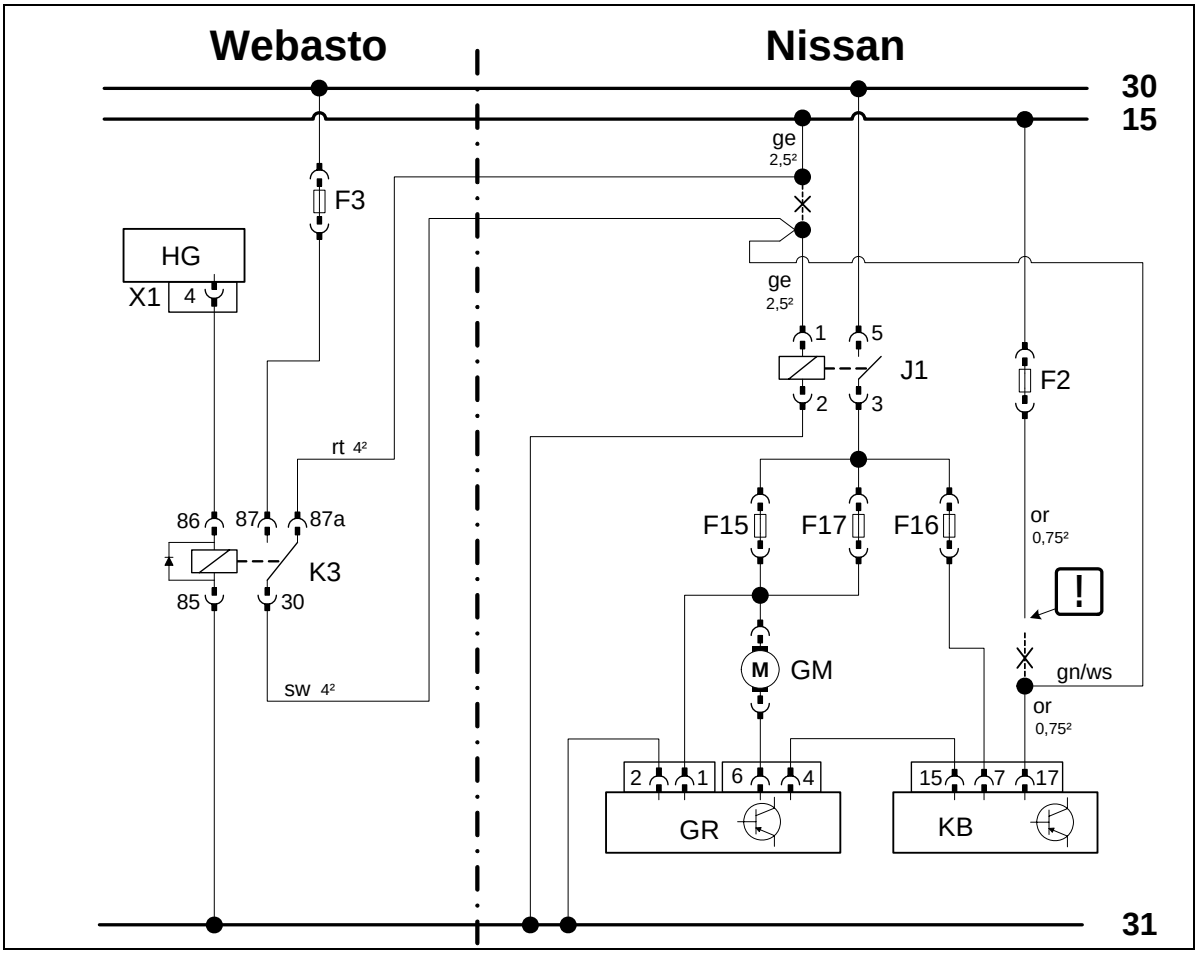
1 Yellow (ge) wire of Terminal 15
2 Red (rt) wire from K3/87a
3 Black (sw) wire from K3/30
4 Yellow (ge) wire J1, Pin 1

Wiring diagram

Legend

Connecting fan-motor

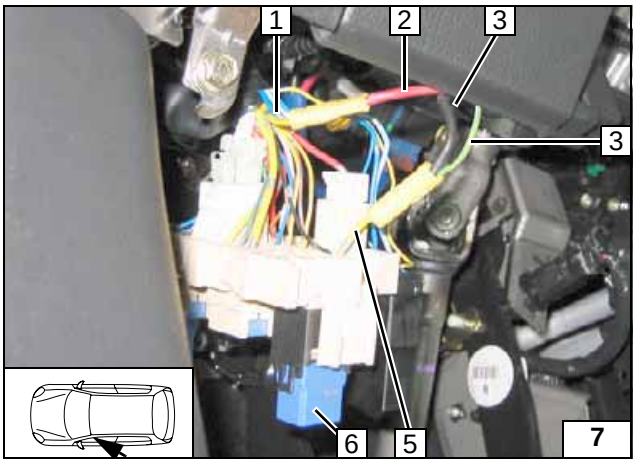
Automatic air-conditioning fan controller



Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater unit connector	J1	Fan relay	ws	white
K3	Fan relay	GR	Fan controller	sw	black
F3	Replace 25 A fuse with 10 A fuse	KB	Air-conditioning control panel	or	orange
		F2	10 A fuse	ge	yellow
		F15	15 A fuse	gn	green
		F16	10 A fuse		
		F17	15 A fuse	!	Insulate wire end and tie back
				X	Cutting point
				Wiring colors may vary.	

Wiring diagram

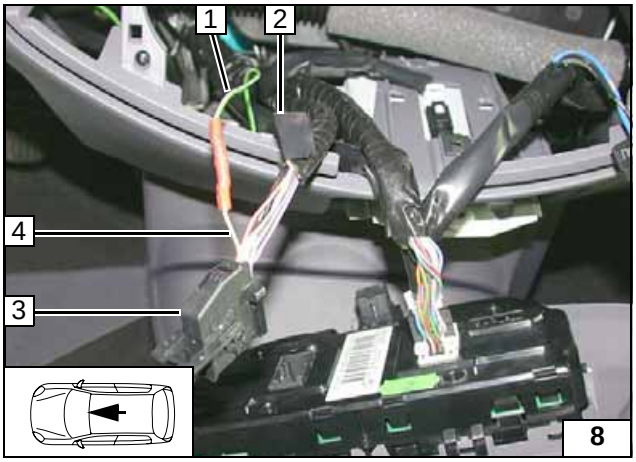
Legend



Connection to fan relay **6** behind fuse and relay carrier. Produce connections as shown in wiring diagram.

1 Yellow (ge) wire of Terminal 15
2 Red (rt) wire from K3/87a
3 Black (sw) wire from K3/30
4 Green/white (gn/ws) wire from KB
5 Yellow (ge) wire of J1, Pin 1

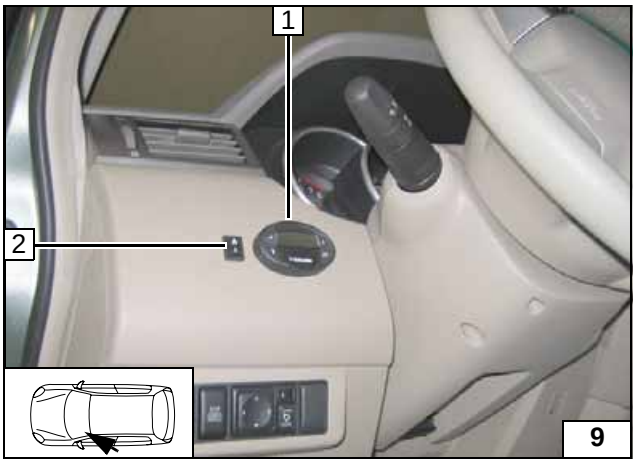
Connecting fan-motor



Connection to 18-pin connector **3** from A/C control element.
Produce connections as shown in wiring diagram.

1 Green/white (gn/ws) wire
2 Insulate orange (or) wire of fuse F2 and tie back
4 Orange (or) wire to connector of A/C control panel, Pin 17

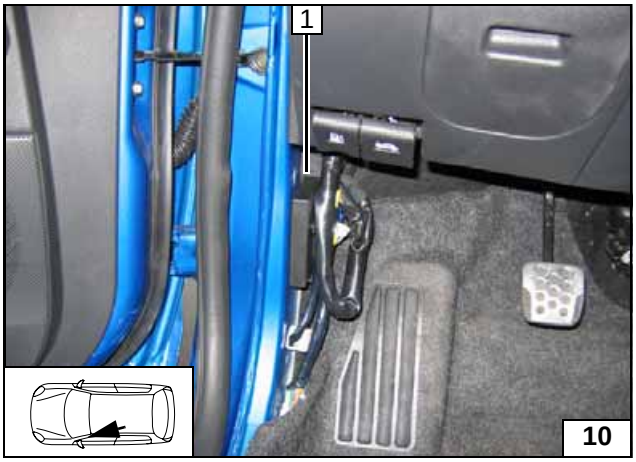
Connecting A/C control panel



Digital timer / summer/winter switch option

1 Digital timer
2 Summer/winter switch option

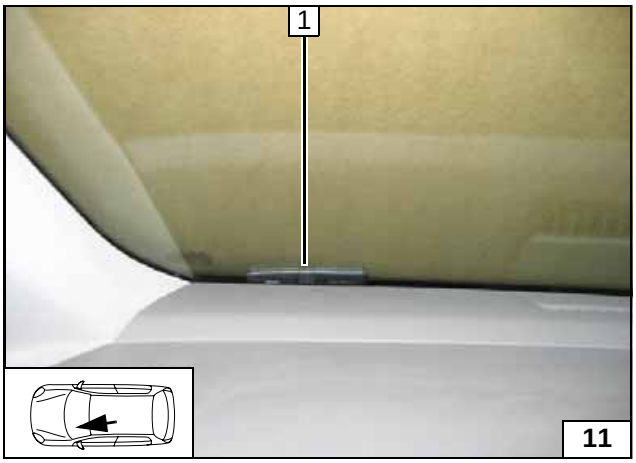
Installing receiver



Remote option (Telestart)

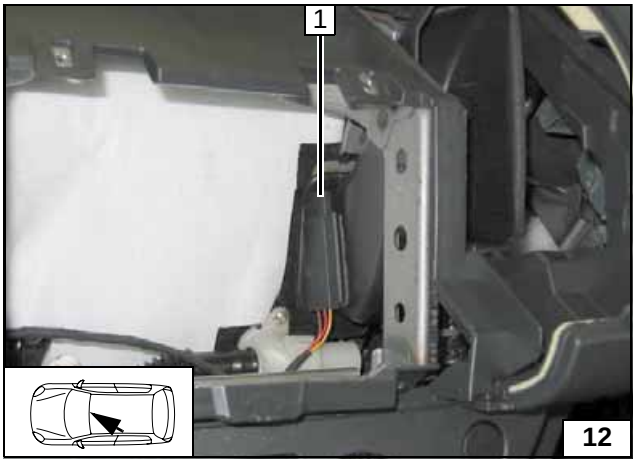
1 Receiver, fasten on left-hand A-pillar with suitable means

Installing receiver



1 Antenna

Installing antenna

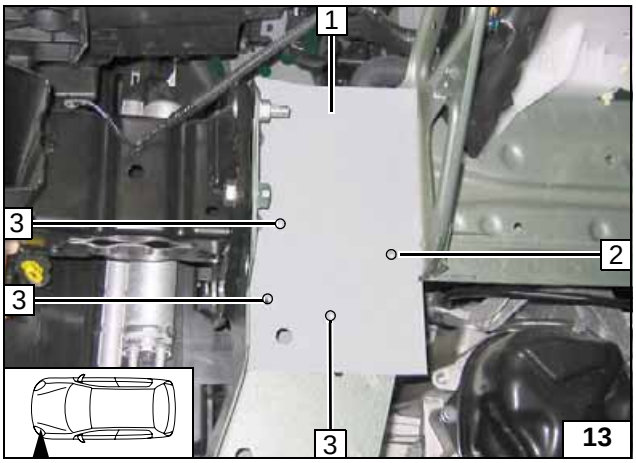


Temperature sensor for HTM100 only

1 Temperature sensor, fasten behind glove compartment with suitable means

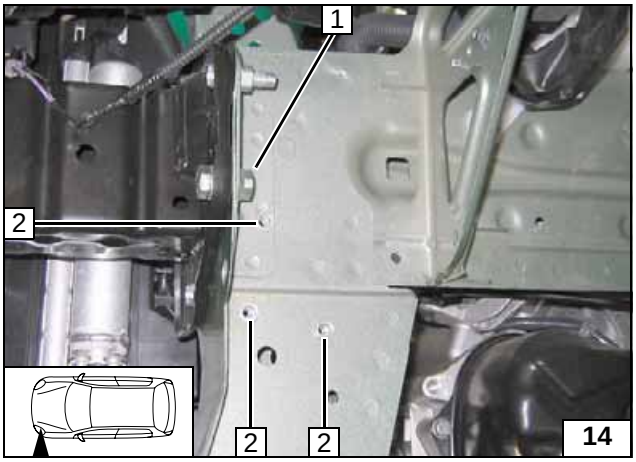
Installing tempera-ture sensor

Preparing installation location



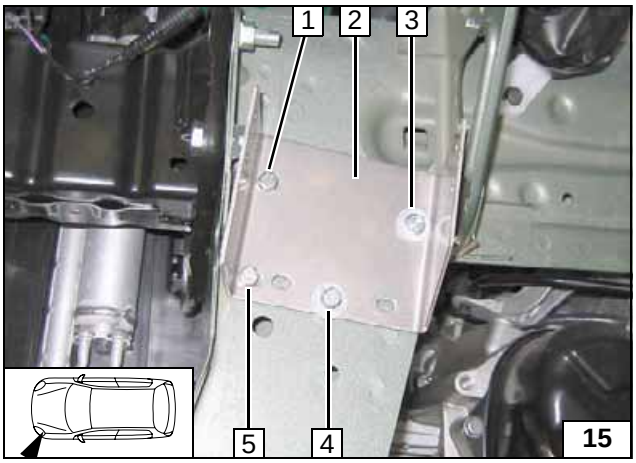
1 Template
2 Copy hole pattern, 7 mm dia. hole
3 Copy hole pattern, drill 9.1 mm hole [3x]

Copying hole pattern



1 Shorten original vehicle bolt flush with nut
2 M6 rivet nut [3x]

Installing rivet nut

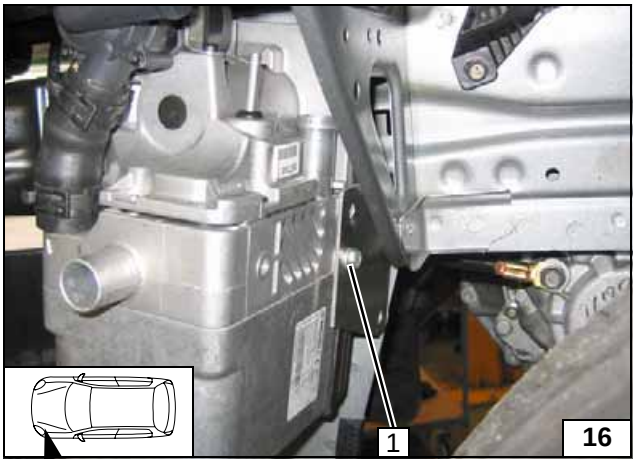


Insert one 5 mm spacer each between **2** and body at position **3**, **4** and **5**.

1 M6x20 bolt, spring lockwasher, large diameter washer
3 M6x20 bolt inserted from behind, large diameter washer, M6 flanged nut
4 M6x25 bolt, spring lockwasher, large diameter washer
5 M6x25 bolt, spring lockwasher, washer [2x]

Installing bracket

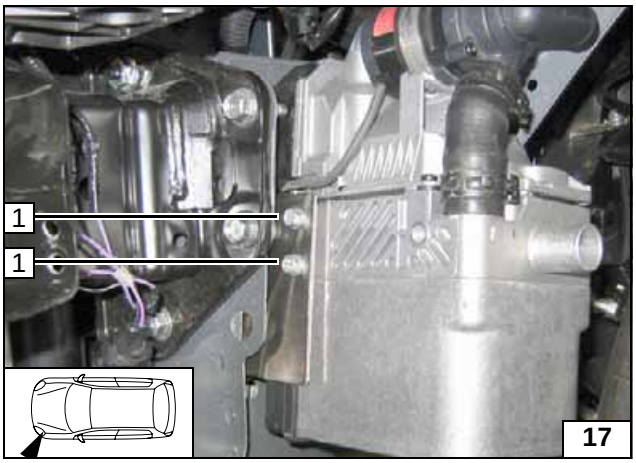
Installing heater unit



Before installing heater unit, connect wiring harness of heater unit.

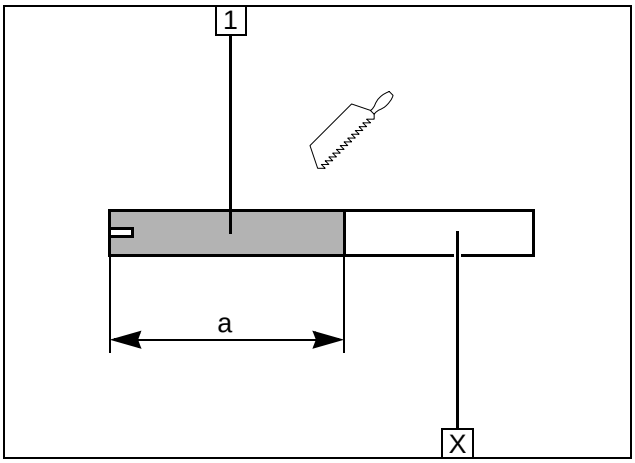
1 Ejot screw

Installing heater unit



1 Ejot screw [2x]

Installing heater unit

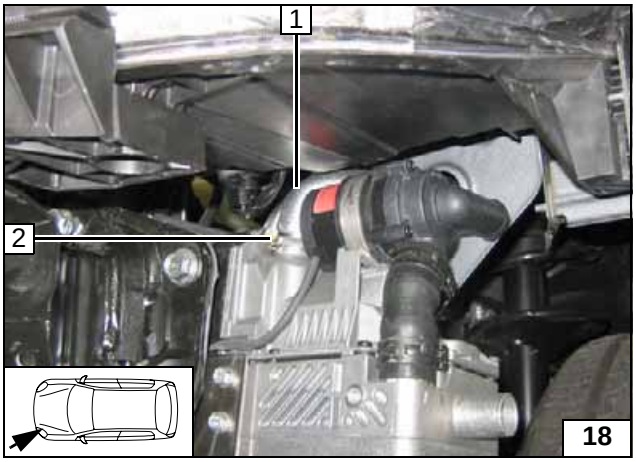


Combustion air

1 Combustion air pipe
a = 210

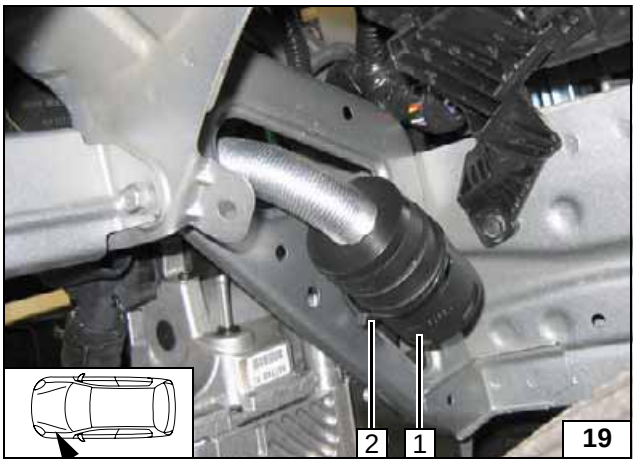
Discard section **X**

Cutting combustion air pipe to length



1 Combustion air pipe
2 20-27 mm dia. clamp

Installing combustion air pipe



Fasten muffler **1** at original vehicle hole with cable tie **2**.

Installing muffler

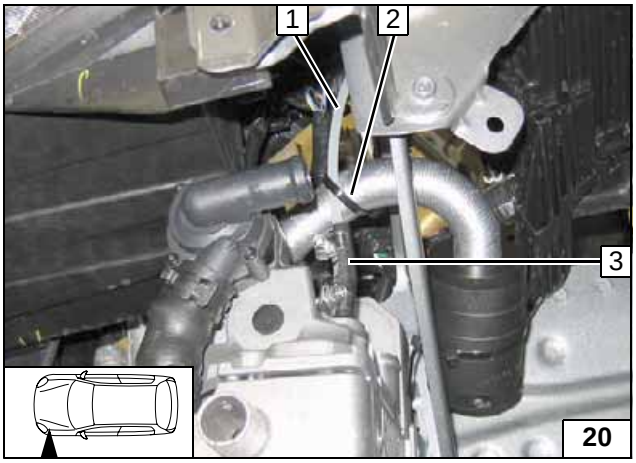
Fuel

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.

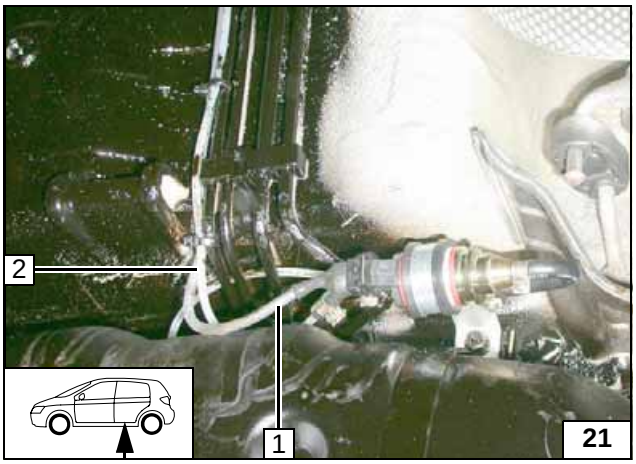
Install fuel line and metering-pump wiring harness so that they are protected against stone impact.
Unless specified otherwise, always fasten using cable ties.
Mount the fuel line and wiring harness with rub protection on sharp edges.

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



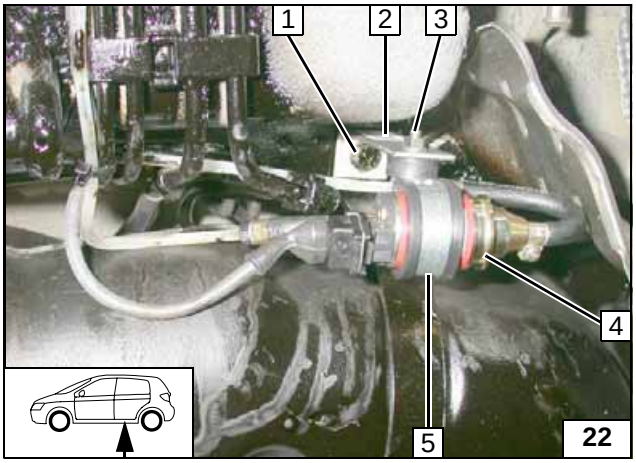
1 Fuel line
2 Cable tie
3 Hose section, 10 mm dia. clamp [2x]

Connecting heater unit



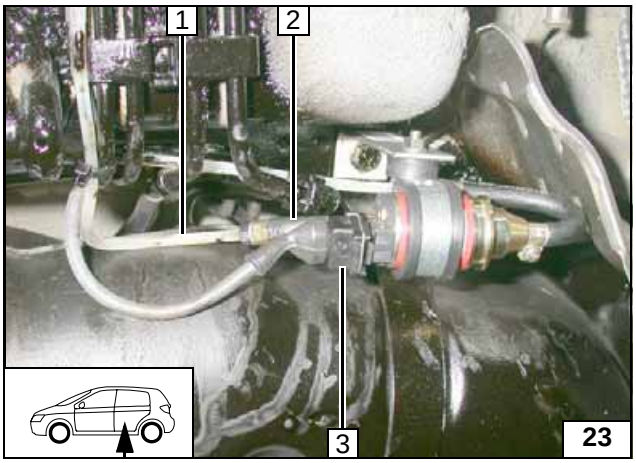
Route fuel line **2** together with wiring harness of metering pump **1** to installation location of metering pump.

Installation location of metering pump



1 Original vehicle bolt
2 Angle bracket
3 Silent block, flanged nut [2x]
4 Metering pump
5 Rubber-coated pipe clamp

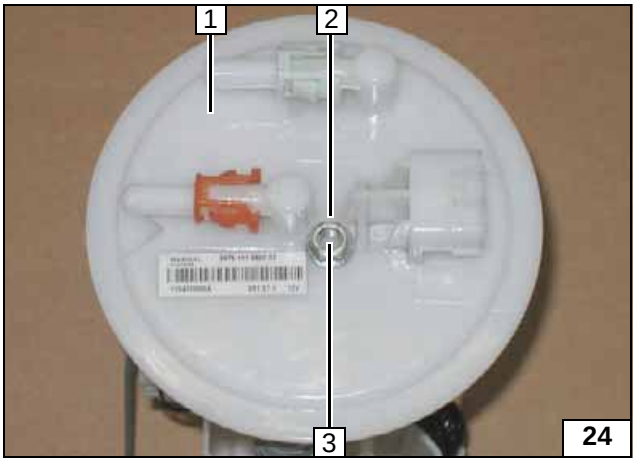
Installing metering pump



Check the position of the components; adjust if necessary. Check that they have free clearance.

1 Fuel line
2 Hose section, 10 mm dia. clamp [2x]
3 Wiring harness of metering pump, connector mounted

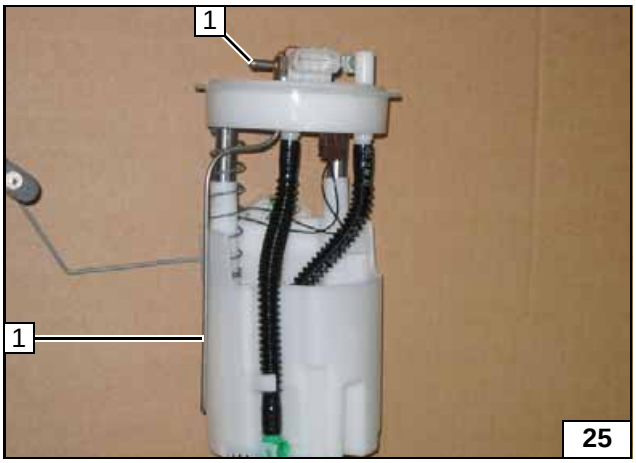
Connecting metering pump



Remove fuel-tank sending unit **1** according to manufacturer's specifications.

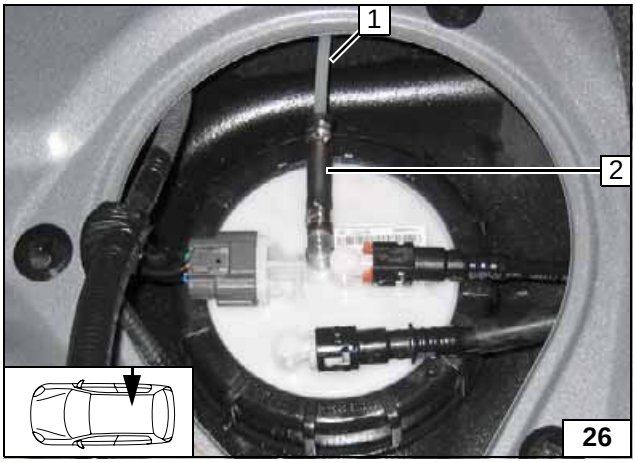
2 Position flanged nut
3 Copy hole pattern, 6 mm dia. hole

Removing fuel



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

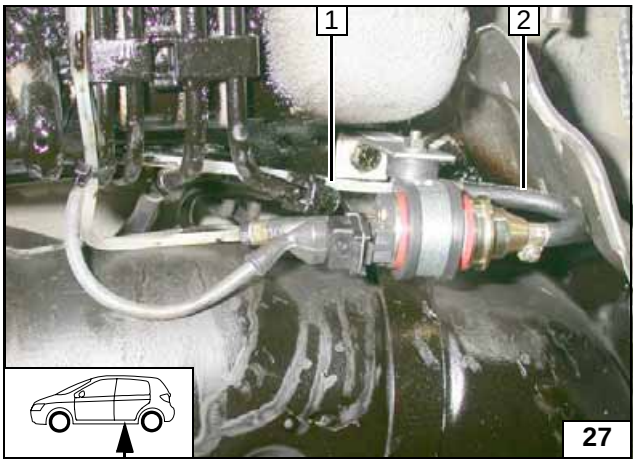
Installing fuel standpipe



Install fuel-tank sending unit according to manufacturer's specifications.

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

Connecting fuel line



Check the position of the components; adjust if necessary. Check that they have free clearance.

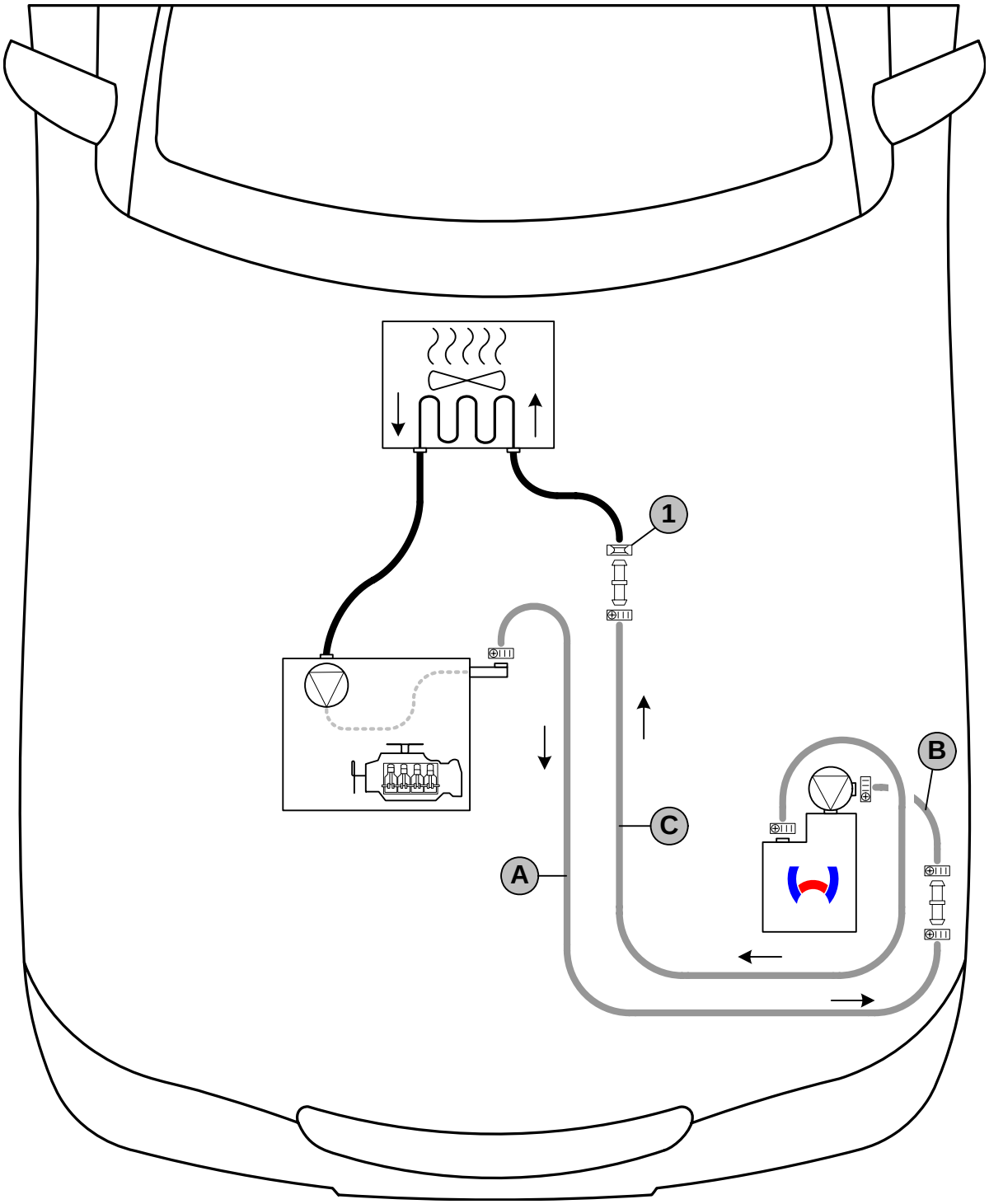
1 Fuel line
2 Molded hose, 10 mm dia. clamp [2x]

Connecting metering pump

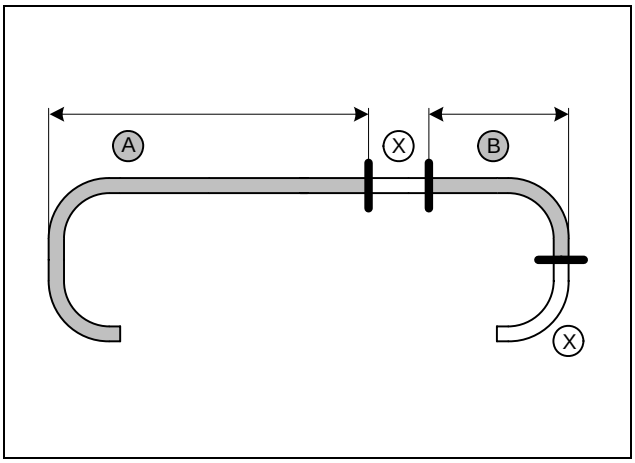
Coolant

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 unit must be filled with coolant.
The connection should be "inline" based on the following diagram:

Coolant routing diagram



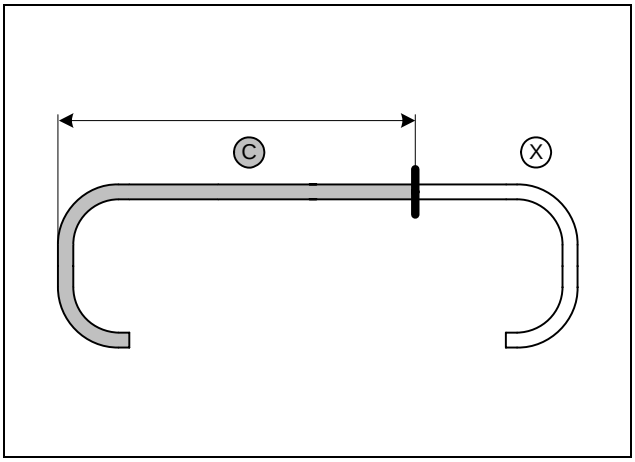
All connecting pipes without a specific designation = dia. 20x20. All hose clamps = 20-27 mm dia.!
1= Original vehicle spring clip



a = 1100
b = 300

Discard section **X**

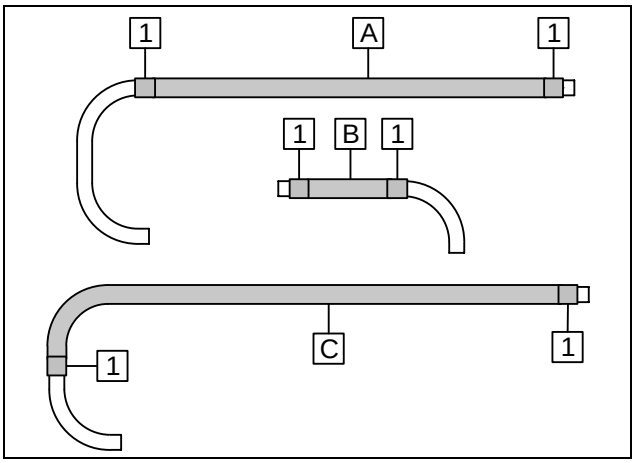
Cutting coolant hose 1 to length



c = 1280

Discard section **X**

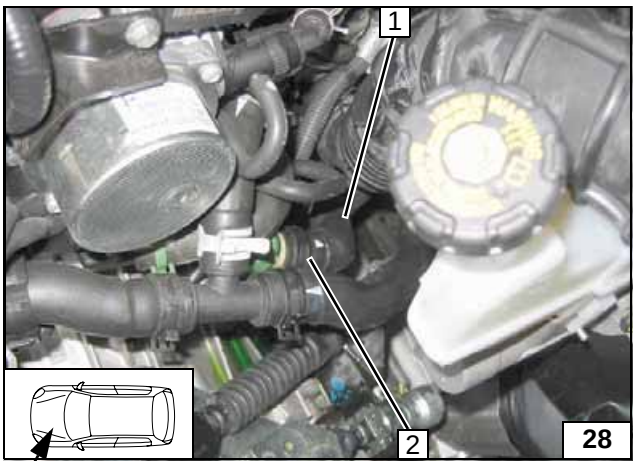
Cutting coolant hose 2 to length



Cut braided protection hoses on hose **A, B** and **C** to size, slide on and cut to length. Cut heat shrink plastic tubing to size.

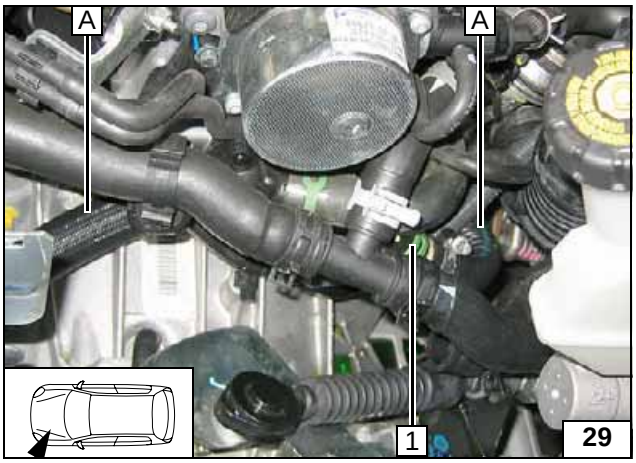
1 25 mm long heat shrink plastic tubing [6x]

Preparing coolant hoses



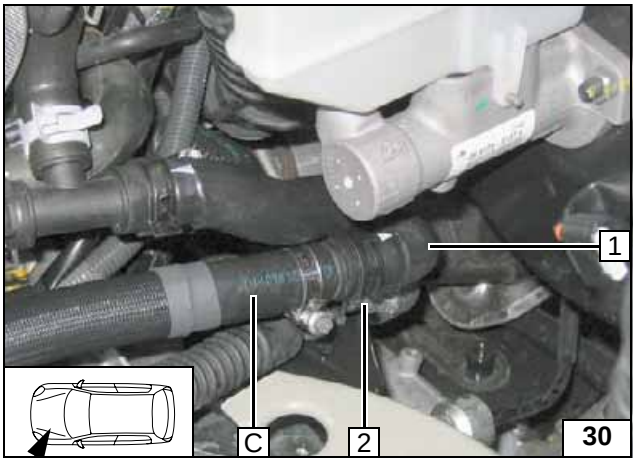
1 Pull hose off heat exchanger inlet
2 Original spring clip will be reused

Cutting point



1 Connection piece for engine outlet

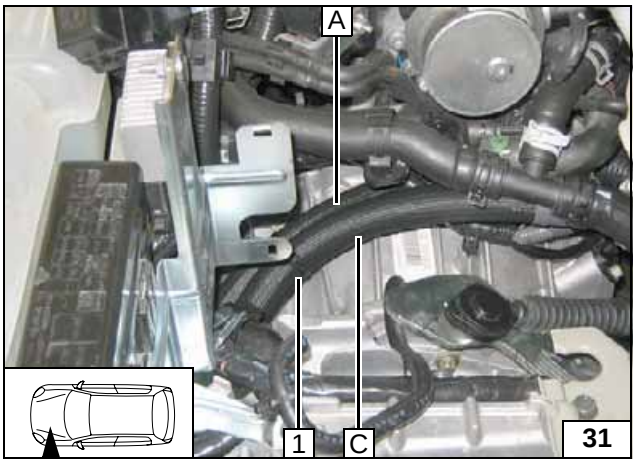
Connecting engine outlet



Ensure sufficient distance to neighboring components.

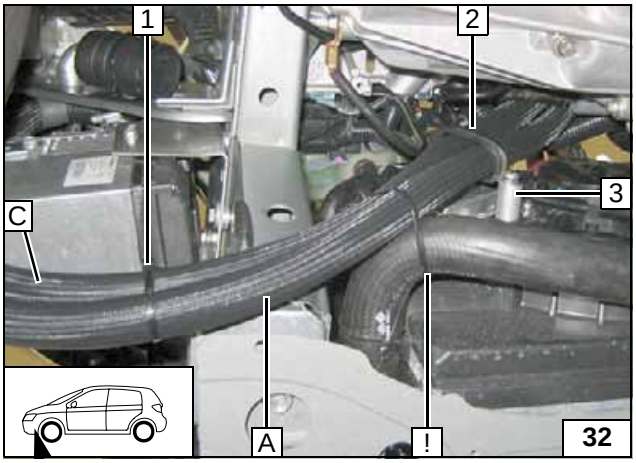
1 Hose on heat exchanger inlet
2 Original vehicle spring clip

Connecting heat exchanger inlet



1 Cable tie

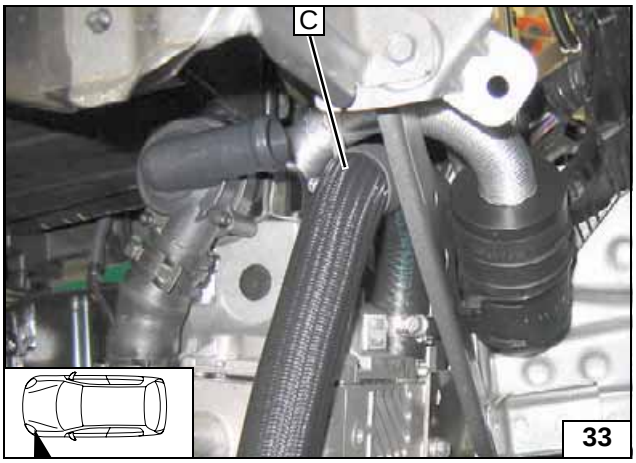
Routing of coolant hoses



Remove original vehicle bolt at position **3** and discard.

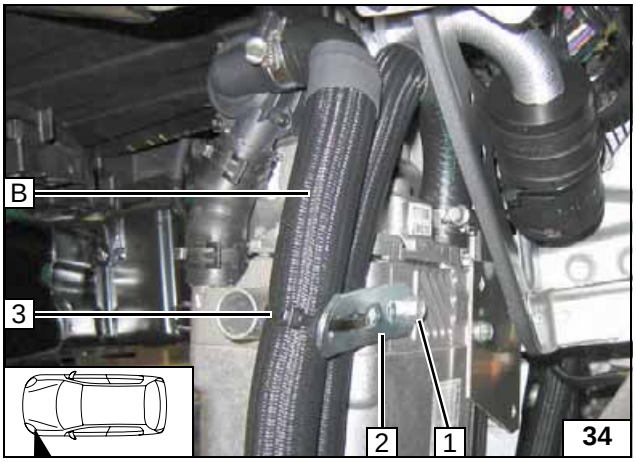
1 Cable tie [2x]
2 48 mm dia. rubber-coated p-clamp
3 M6x50 bolt, spring lockwasher, 30 mm spacer

Routing of coolant hoses



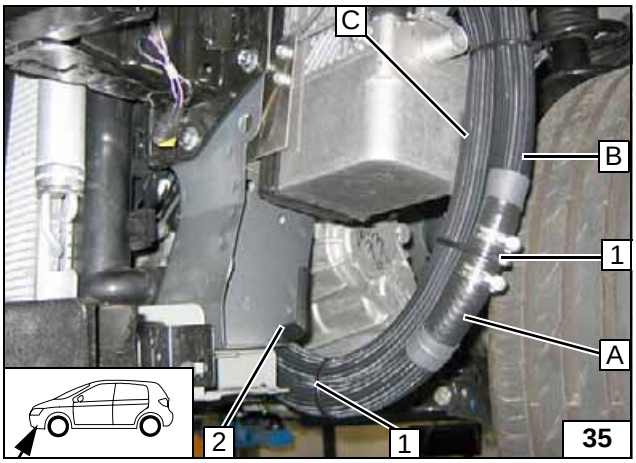
Align hose **C** over entire length; correct if necessary.

Connecting heater unit outlet



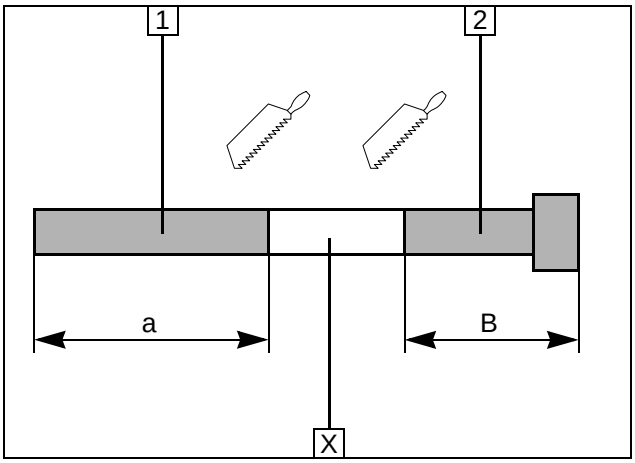
1 Ejot screw
2 Perforated bracket
3 Cable tie

Connecting heater unit inlet



1 Cable tie [2x]
2 Edge protection

Connecting hose A and B

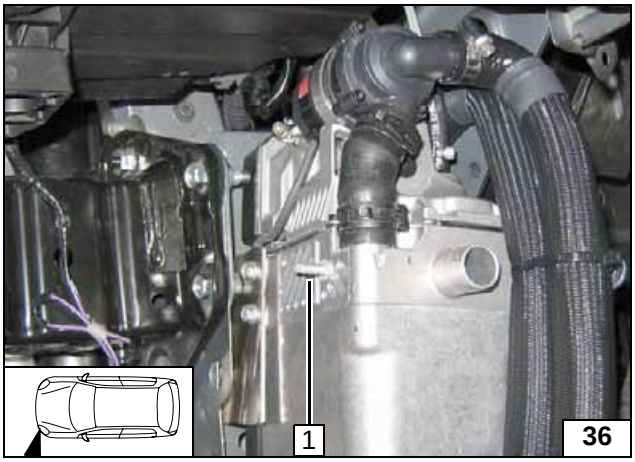


Exhaust gas

1 Exhaust pipe
a = 280
2 Exhaust end section
b = 250

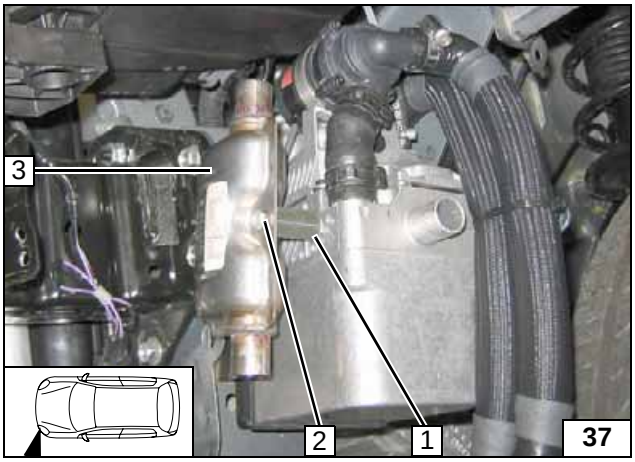
Discard section **X**

Preparing exhaust pipe



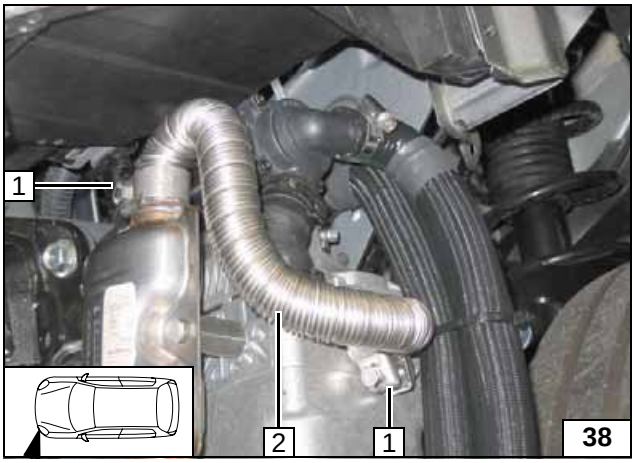
1 Ejot stud

Installing muffler



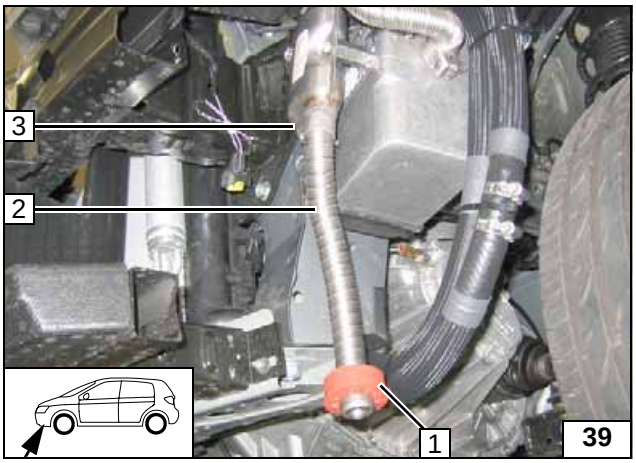
1 M6x30 spacer nut
2 M6x12 bolt, spring lockwasher
3 Muffler

Installing muffler



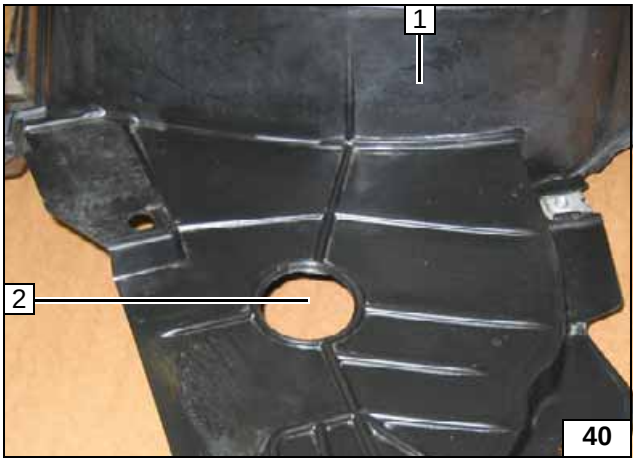
1 Hose clamp [2x]
2 Exhaust pipe

Installing exhaust pipe



1 Red (rt) rubber isolator with groove
2 Exhaust end section
3 Hose clamp

Installing end section



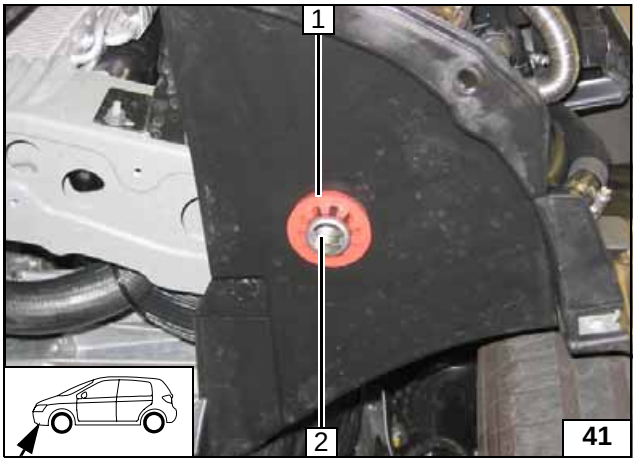
1 Wheel well trim
2 42 mm dia. hole

Hole in wheel well trim

Final Work

WARNING!
Reassemble the disassembled components 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 unit 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 additional heater, see the operating instructions/installation instructions.
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.

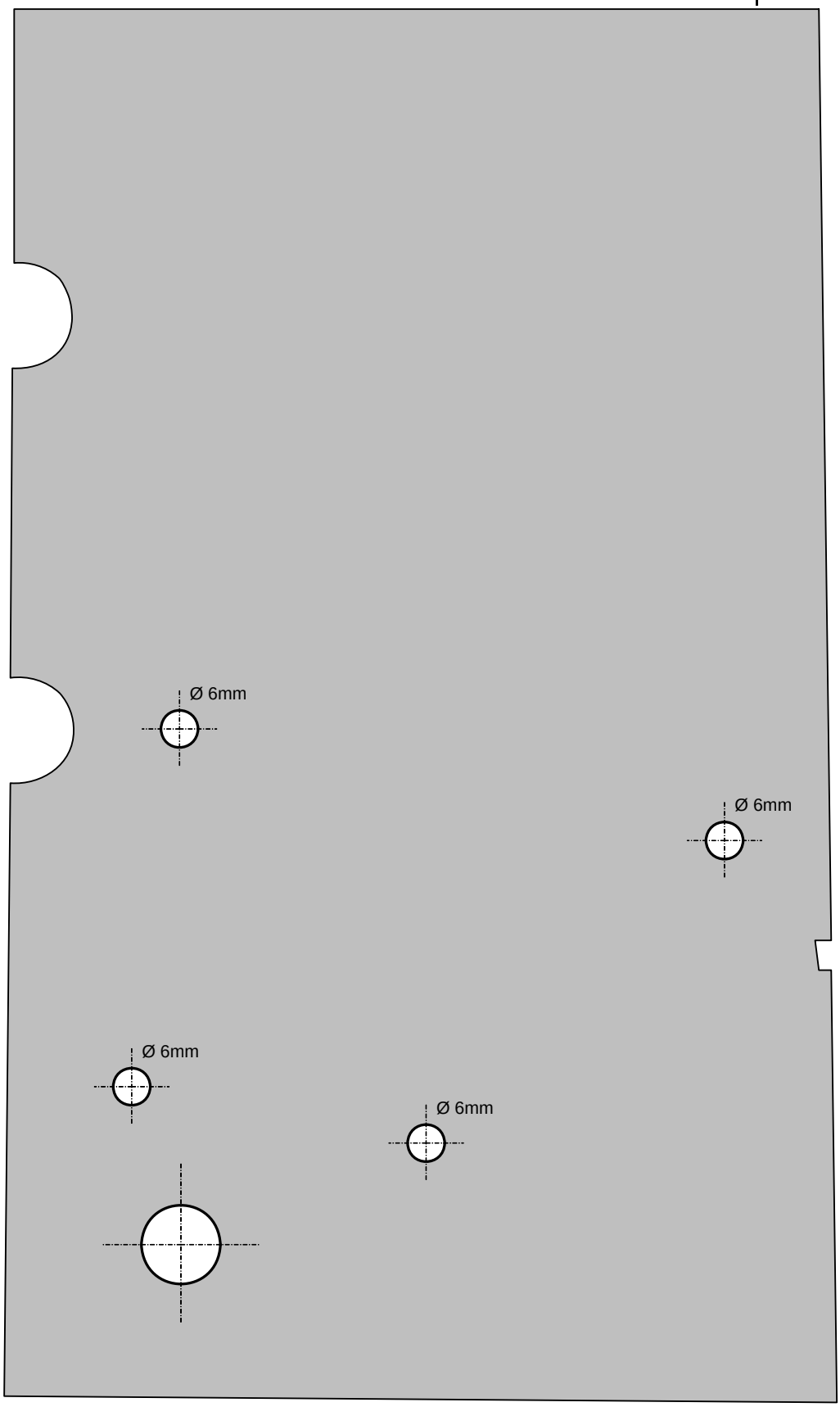


Align exhaust end section **2** flush on red rubber isolator **1**.

Mounting rubber isolator

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

Drilling Template



100 mm

Scale 1:1

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

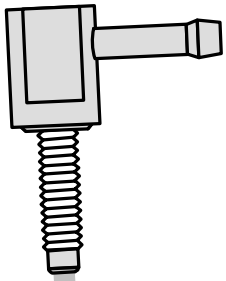
Set the printer settings to “no margin” or “minimize margins” and 100% of the normal size.

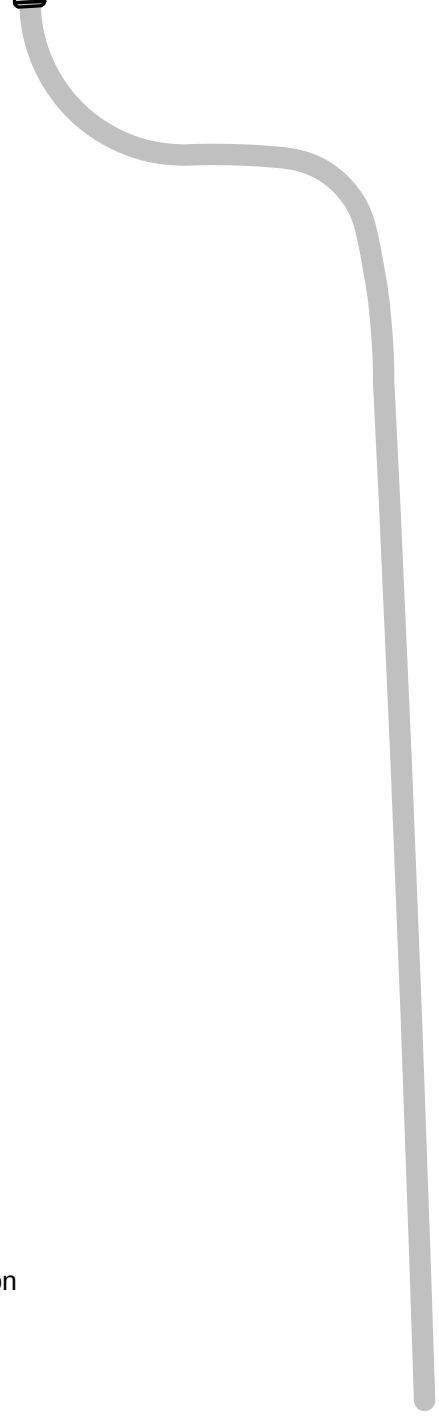
100 mm

0

1313380A_EN

Template for Fuel Standpipe





100 mm

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 “minimize margins” and 100% of the normal size.

100 mm

0

Operating Instructions for End Customer

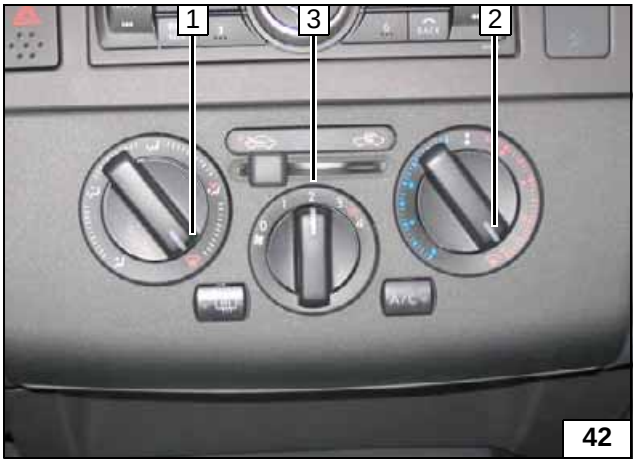
Please remove page and add to the vehicle operating instructions.

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.

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

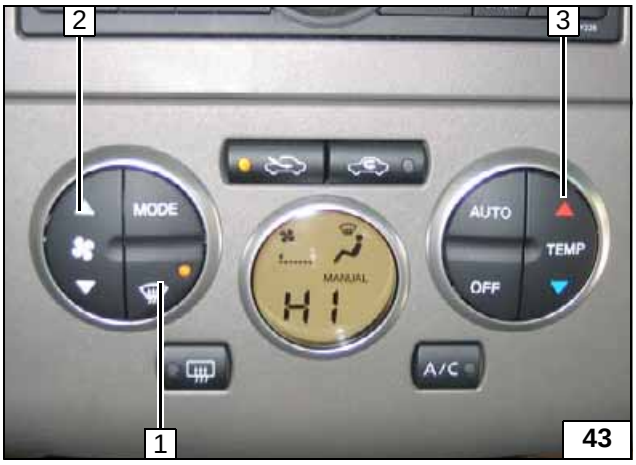
Before parking the vehicle, make the following settings:

Manual air conditioning



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

Automatic air-conditioning



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