Water Heater

Webasto
Feel the drive

***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

Skoda Roomster / Fabia II / Fabia II Station wagon

Diesel

from Model Year 2006

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, specialised tools and equipment are required to install and repair Webasto heating and cooling systems.
Only original Webasto parts must be used. For this, also see the catalog of air and water heater accessories from Webasto.

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.: 1313701B_EN Fee Euro 10.00
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Validity

Manufacturer	Model	Type	EG-BE No./ABE
Skoda	Roomster	54	e11 * 2001/116 * 0291 * ...
Skoda	Fabia II / Fabia II Station Wagon	54	e11 * 2001/116 * 0291 * ...

Engine type	Engine model	Output in kW	Displacement in cm³
BNM	Diesel	51	1422

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	Retail accessories with desired heater control	See price list
For installation parts, see Webasto calculation program		

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

This installation instruction applies to vehicles Skoda Roomster / Fabia II / Fabia II Station wagon Diesel - for validity, see page 2 - from model year 2006 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 this installation instruction.

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).

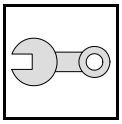
Special Tools

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

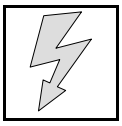
Explanatory Notes on Document

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



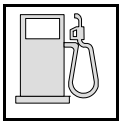
Electrical system



Coolant circuit



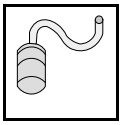
Fuel



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.



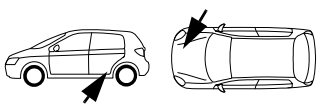
Specific risk of fire or explosion.



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.

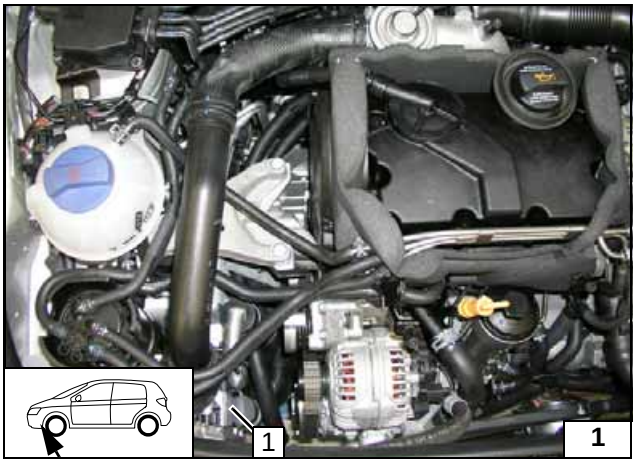
All dimensions are in mm!
Tightening torque of hose clamps = 2.0 + 0.5 Nm!
Tightening torque of Ejot screws, Ejot studs = 10 Nm!

Preliminary Work

WARNING!

- Open the fuel tank cap, ventilate the 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 the air filter together with the intake hose
- Remove the coolant reservoir cap.
- Remove the right-hand charge-air tube.
- Remove the right-hand wheel well trim.
- Remove the underride protection
- Open the right-hand fuel sender service lid
- Remove the fuel-tank sending unit in accordance with the manufacturers specifications.
- Remove the footwell cover on the driver's side.
- Detach the fuse box.
- Remove the A/C control panel in accordance with the manufacturers specifications.

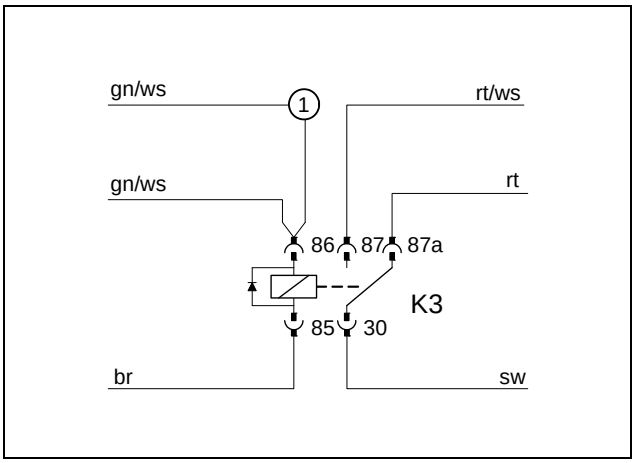
Remove page 31 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater installation location

1 Heater

Installation location

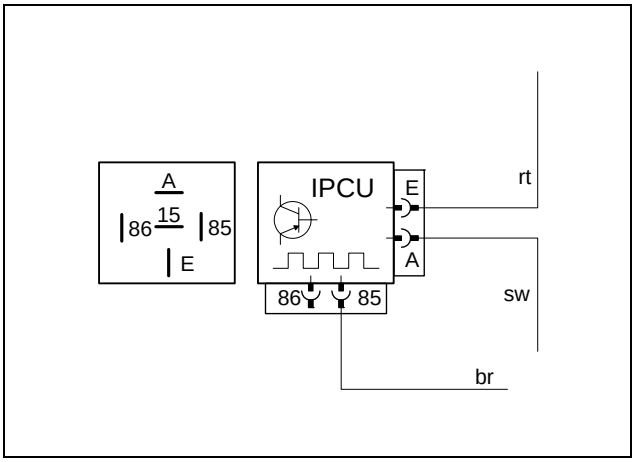


Preparing electrical system

Automatic air-conditioning

Produce connections as shown in wiring diagram. Fasten wire section **1** on fan wiring harness with insulating tape.

Preparing wiring harness



Connect included lines to IPCU. Crimp 8 mm dia. cable lug onto brown (br) line. Following adjustment values of IPCU must be checked and set if necessary prior to installation:

Duty cycle: 100%
Frequency: 14 KHz
Voltage: 3.3 - 3.7V
Function: High side active

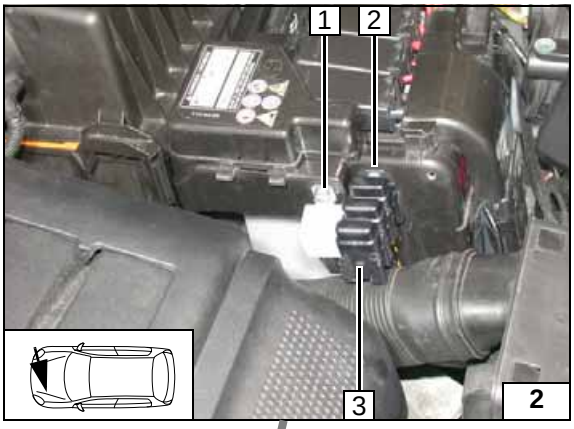
The voltage value (speed of fan motor) is to be checked after the function test; correct if necessary!

Preassembling IPCU

Electrical Connections

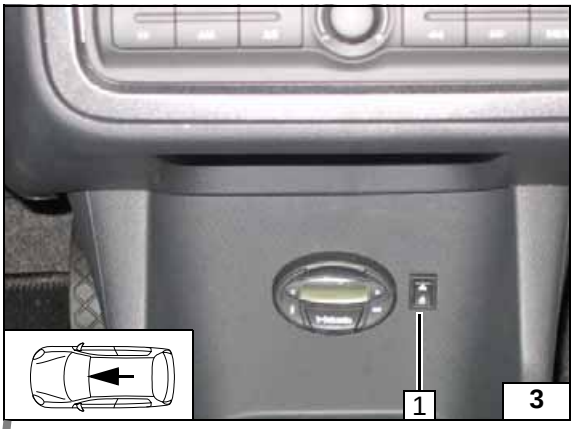
Fuse holder, K3 relay

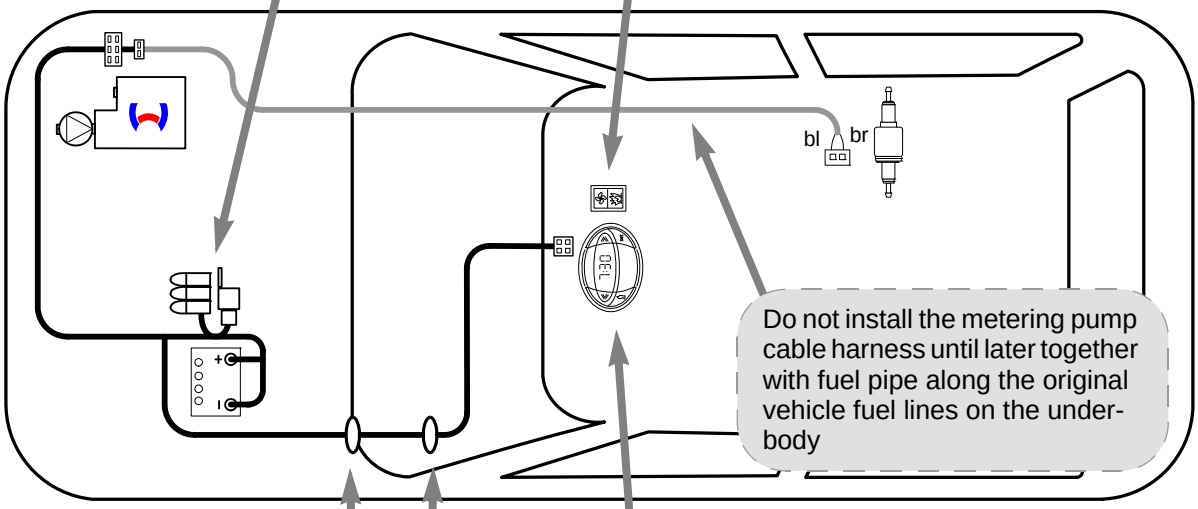
1 K3 relay, M5x16 bolt, washer, M5 flanged nut
2 Retaining plate fuse holder, M5x16 bolt, washer, M5 flanged nut
3 Fuse holder



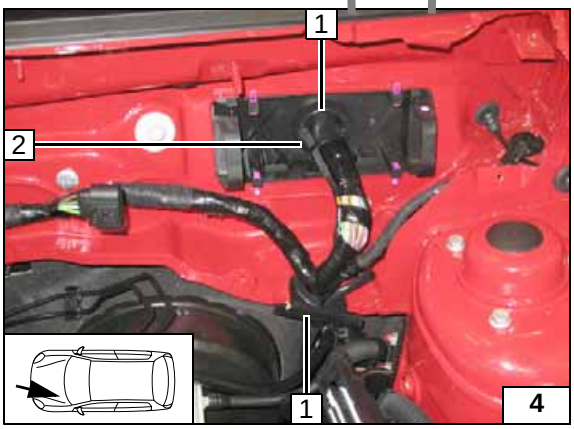
Summer/winter switch option

1 Summer/winter switch, drilled hole 12 mm dia.



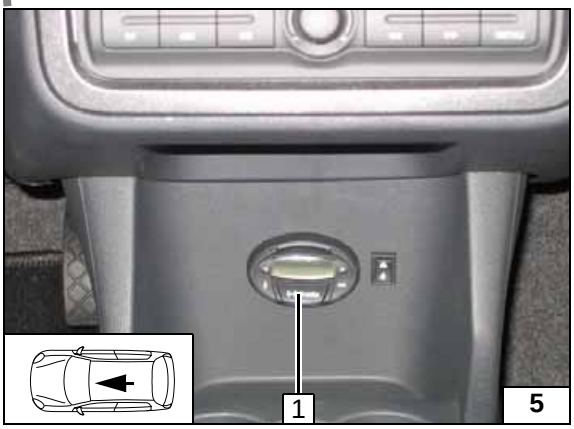


Wiring harness installation diagram



Wiring harness pass through

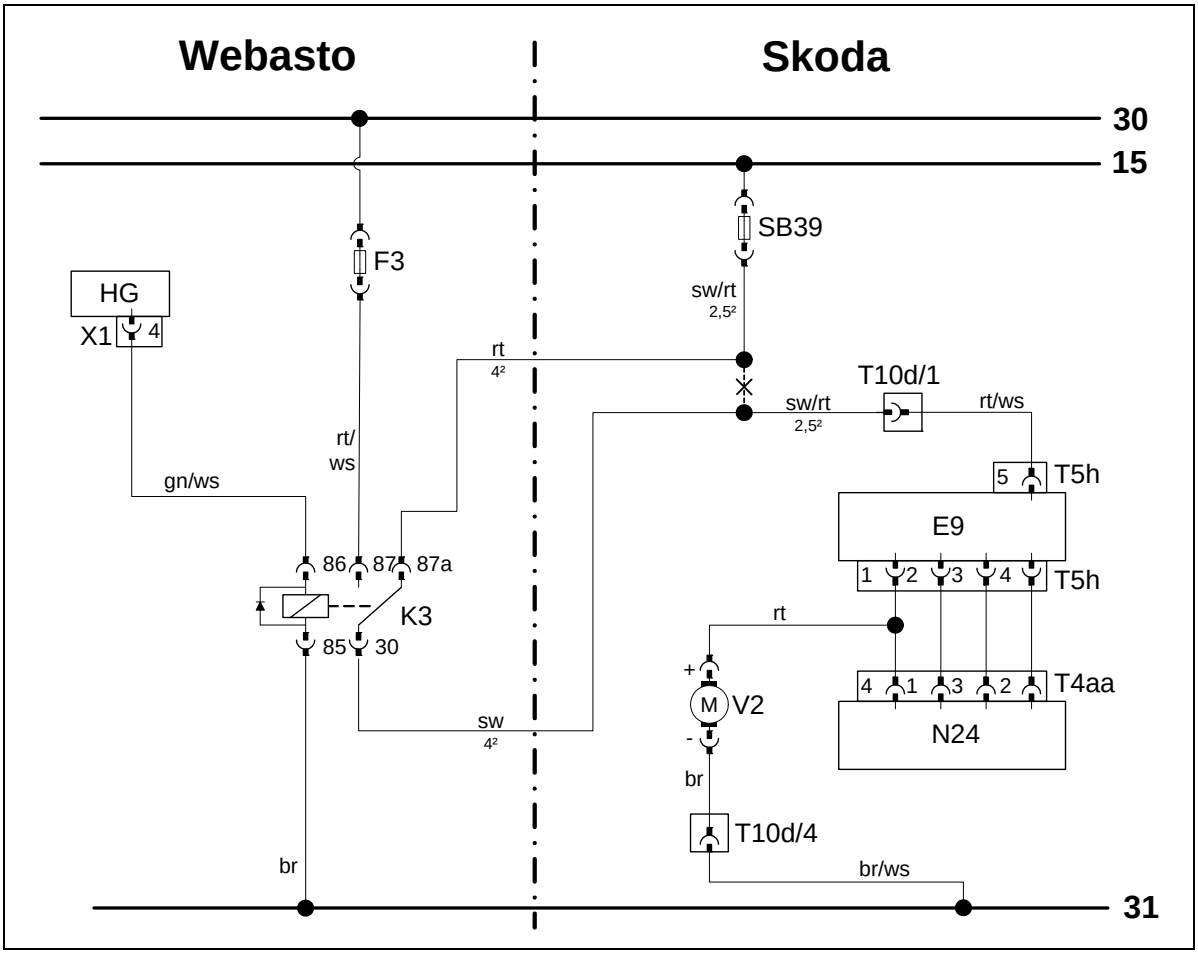
1 Protective rubber plug [2x]
2 Wiring harnesses of clock, fan controller and additional green/white (gn/ws) wire with automatic air-conditioning



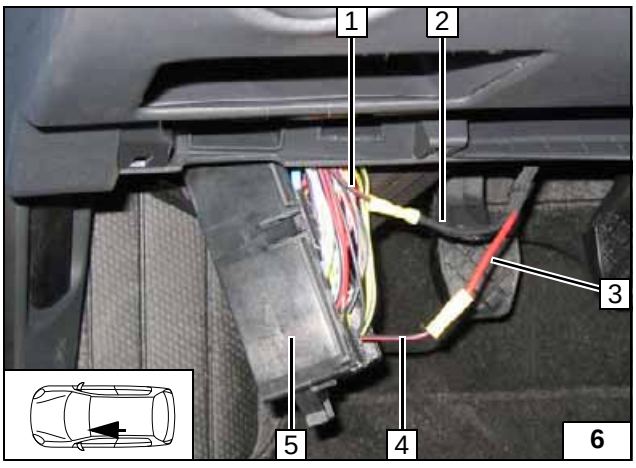
Digital timer

1 Digital timer

Fan controller for manual air conditioning



Webasto components		Vehicle components		Colours and symbols	
HG	Heater	E9	Fan switch	rt	red
X1	6-pin heater connector	T5h	5-pin connector E9	ws	white
F3	Fuse, 25 A	N24	Resistor group	sw	black
K3	Fan relay	T4aa	4-pin connector N24	br	brown
		SB39	Fuse, 25 A	gn	green
		T10d	10-pin connector		
		V2	Fan motor		
				X	Cutting point
				Wiring colours may vary.	



Connection on central electrical box **5** to fan module.
Produce connections as shown in wiring diagram.

1 Black/red (sw/rt) wire of fuse SB39, 25 A
2 Black (sw) wire from K3/30
3 Red (rt) wire from K3/87a
4 Black/red (sw/rt) wire of connector T6aa

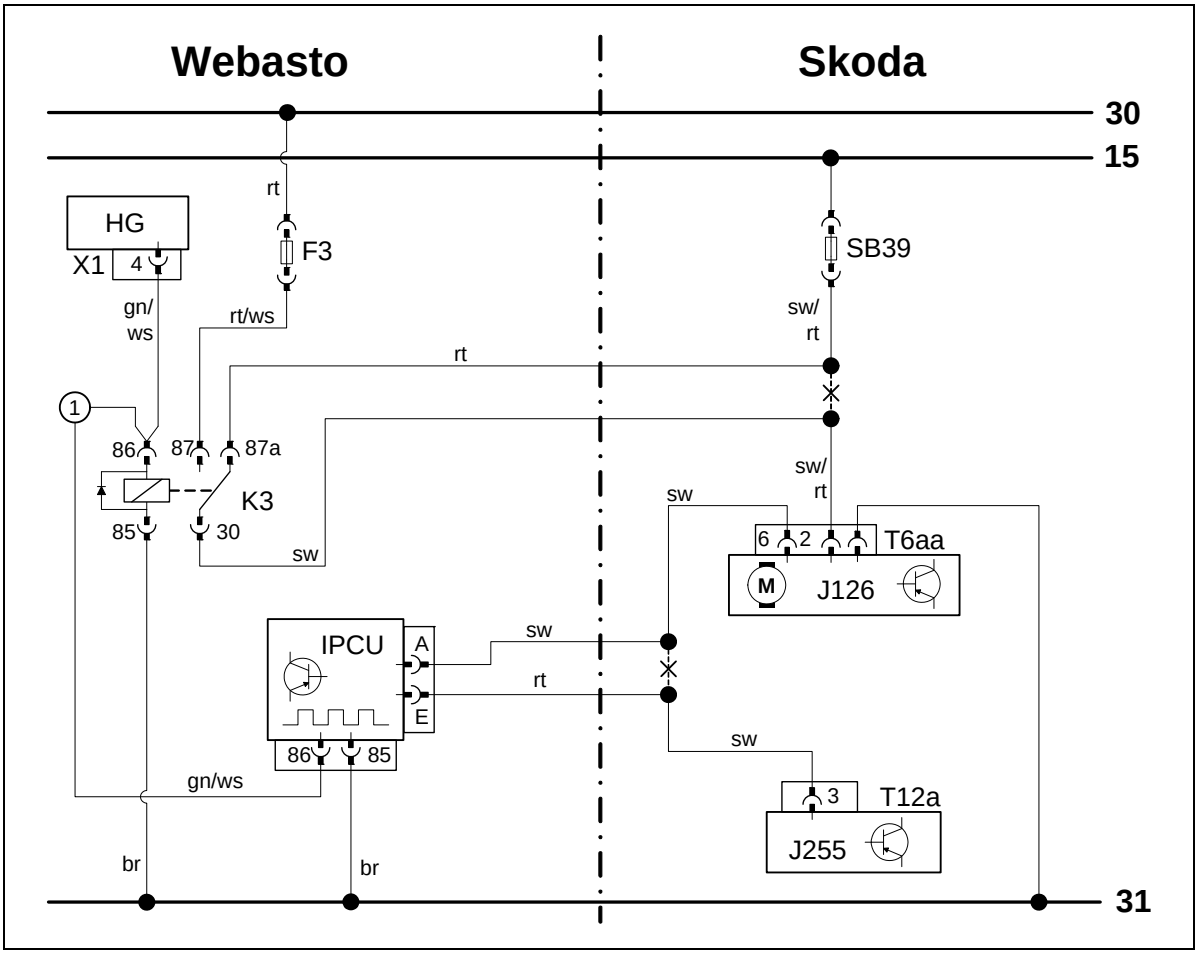
Wiring diagram

Legends

Connecting central electrical box

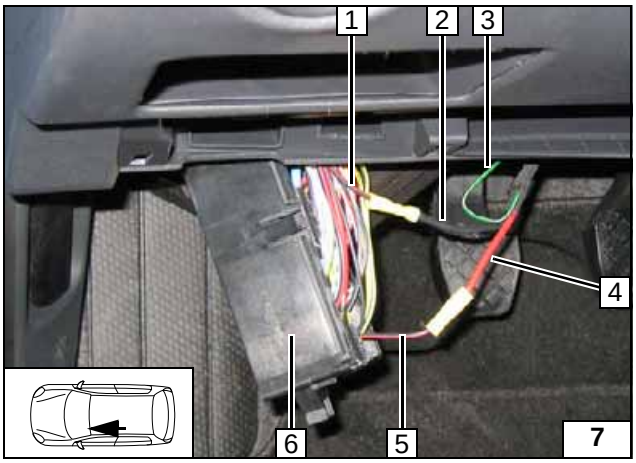
Automatic air-conditioning fan controller

Wiring diagram



Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	J126	Fan unit	rt	red
X1	6-pin connector	J255	A/C control panel	ws	white
F3	Fuse	SB39	Fuse, 25 A	sw	black
K3	Fan relay	T...	Plug connections	br	brown
				gn	green
IPCU adjustment values:					
Duty cycle:	100%				
Frequency	14 kHz				
Function	High side active			**X**	Cutting point
Voltage	3.3 - 3.7V			Wiring colours may vary.	

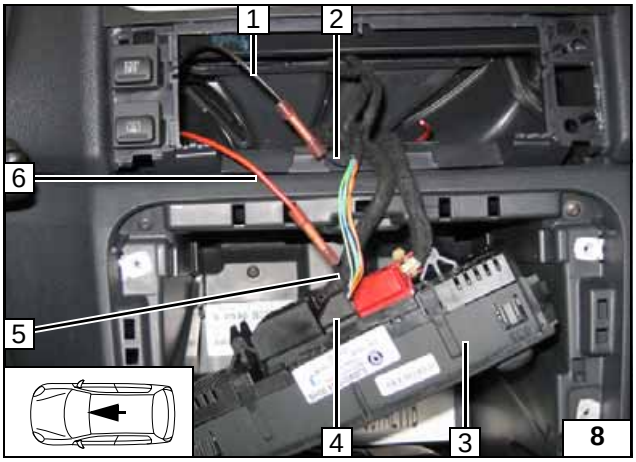
Legends



Connection on central electrical box **6** to fan module.
Produce connections as shown in wiring diagram.

1 Black/red (sw/rt) wire of fuse SB39, 25 A
2 Black (sw) wire from K3/30
3 Route additional green/white (gn/ws) wire to IPCU
4 Red (rt) wire from K3/87a
5 Black/red (sw/rt) wire of connector T6aa

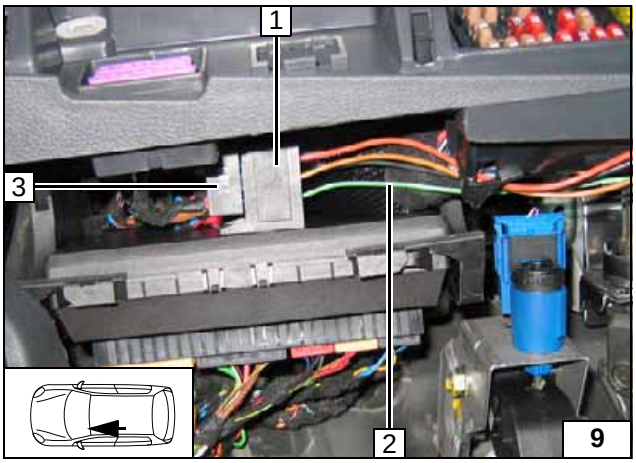
Connecting central electrical box



Connection on connector T12a **4**, Pin 3 of A/C control panel **3**.
Produce connections as shown in wiring diagram.

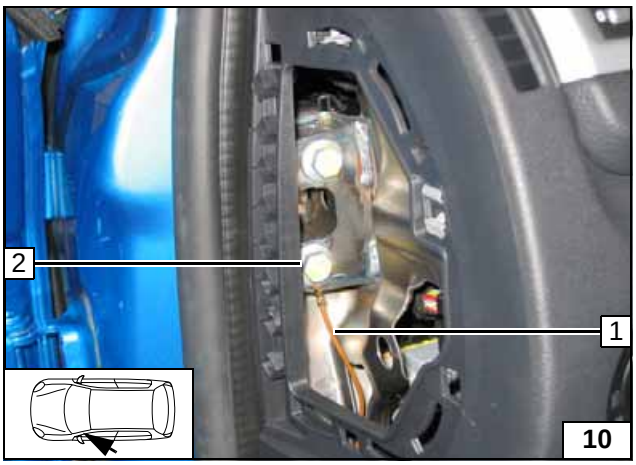
1 Black (sw) wire of IPCU/A
2 Black (sw) wire of fan unit
5 Black (sw) wire of connector T12a
6 Red (rt) wire of IPCU/E

Connecting air-conditioning control element



Connect additional green/white (gn/ws) wire **2** to IPCU/86.
Program ICPU **3** accordingly before mounting (see Preparing electrical system).
Fasten IPCU socket **1** with double-sided adhesive tape.

Installing IPCU

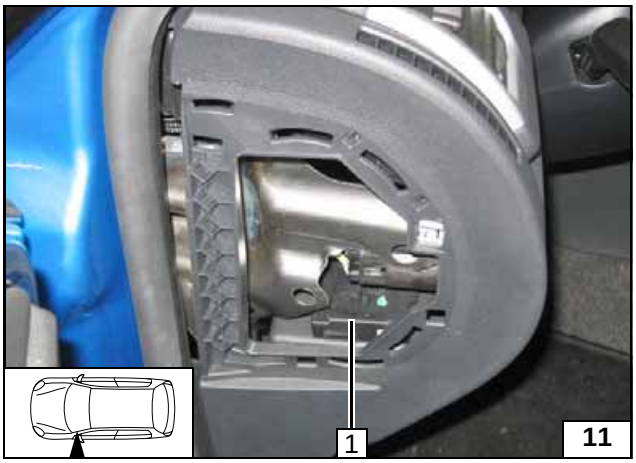


1 Brown (br) wire from IPCU/85, 8 mm dia. cable lug
2 Original vehicle bolt

Ground connection of IPCU

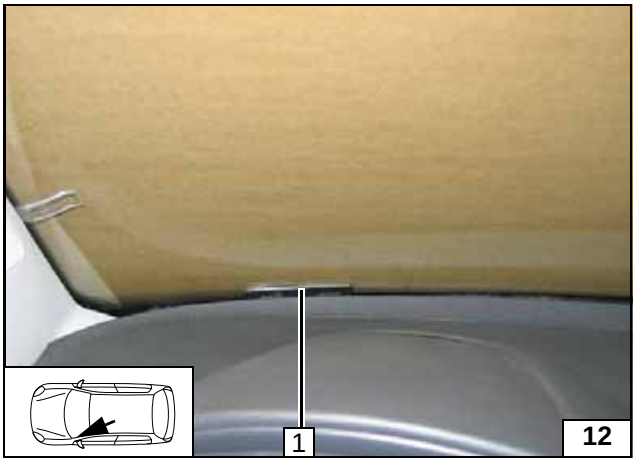
Remote option Telestart

Installing receiver



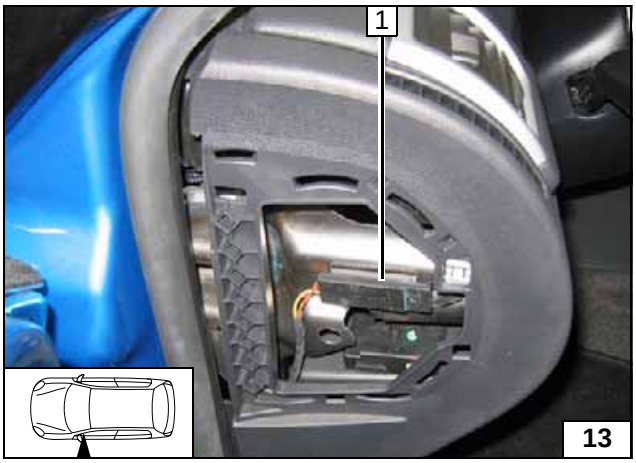
1 Install receiver with double-sided adhesive tape as shown.

Installing antenna



1 Antenna

Installing temperature sensor



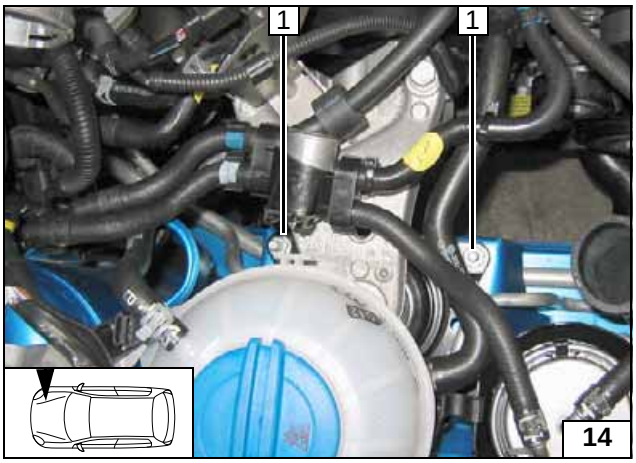
Temperature sensor for HTM100 only

1 Install temperature sensor with double-sided adhesive tape as shown.

Preparing installation location

Replace original vehicle bolts **1** [2x] of engine bearing with double bolts provided. Observe tightening torque according to manufacturer.

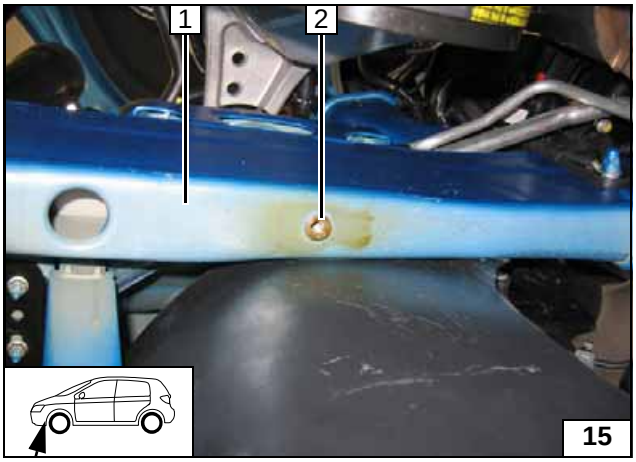
Replacing bolts



Corrosion protection at Position **2**!

1 Right-hand frame side member
2 M8 rivet nut in existing hole

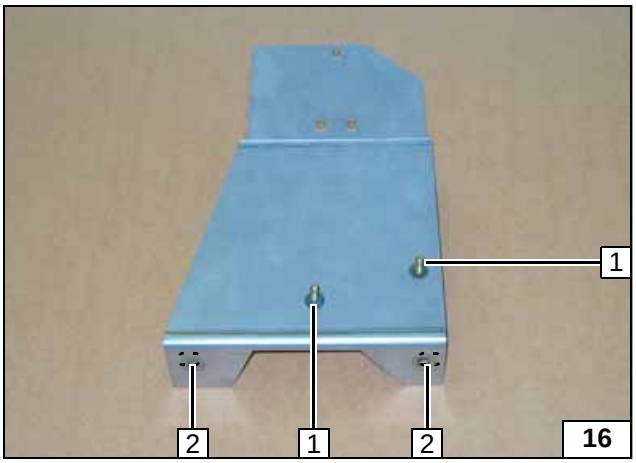
Installing rivet nut



Widen holes **2** in bracket [2x] toward outside if necessary!

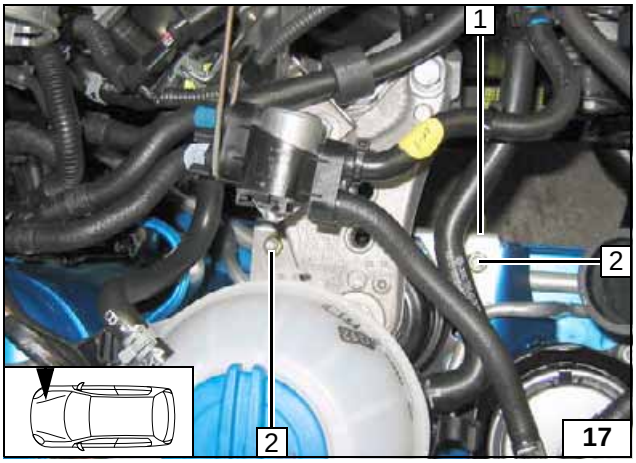
1 M6x20 bolt, pin lock [2x each]

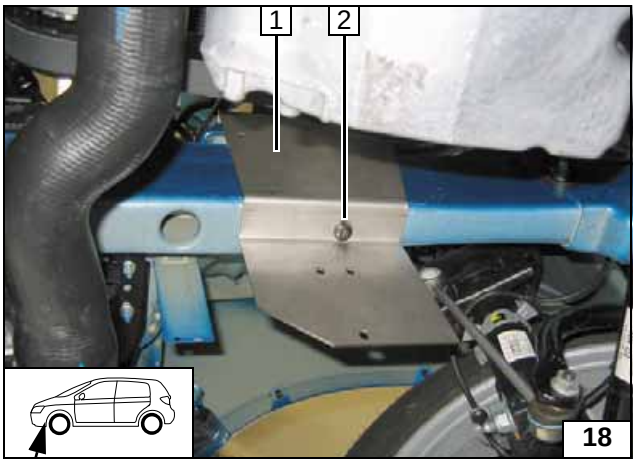
Preparing bracket



1 Loosely mount bracket
2 M8 flanged nut [2x]

Installing bracket





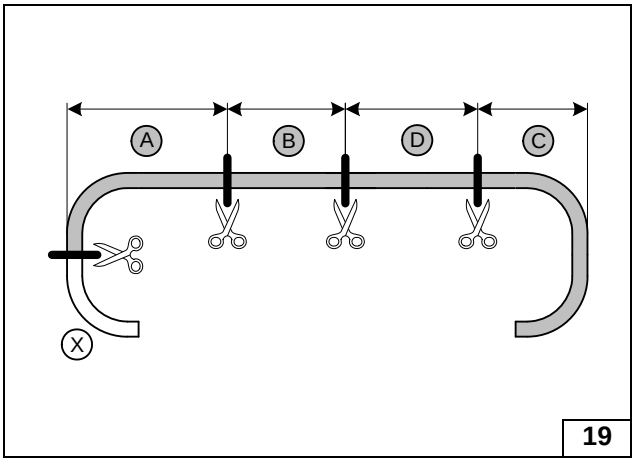
1 Bracket
2 M8x30 Torx screw

Installing bracket

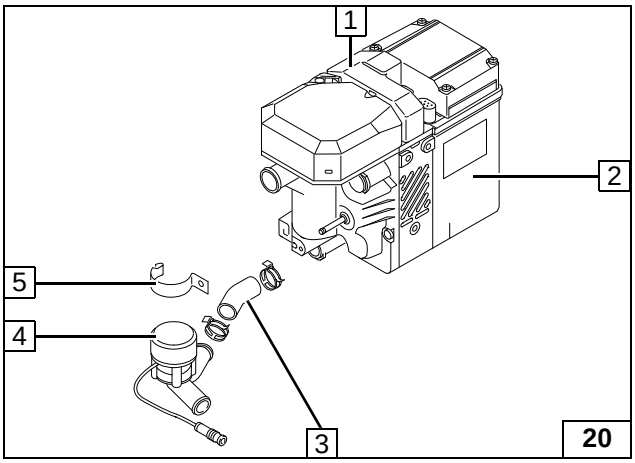
Preparing heater

a = 1000
b = 210
c = 110
d = 880

Discard section **X**



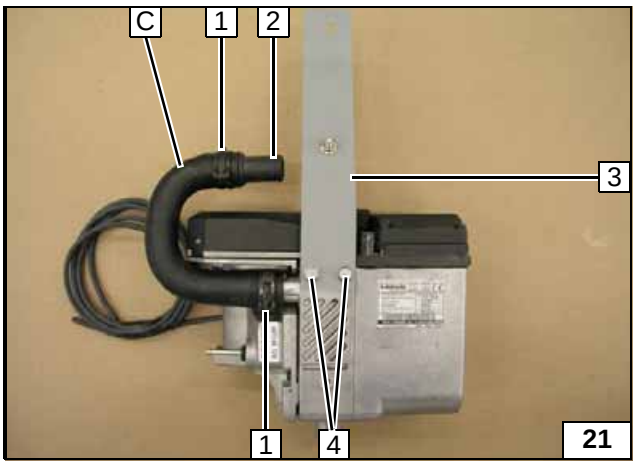
Cutting coolant hose to length



Remove heater cover 1 and replace cable of circulating pump with wiring harness extension. Spring clips will be reused!

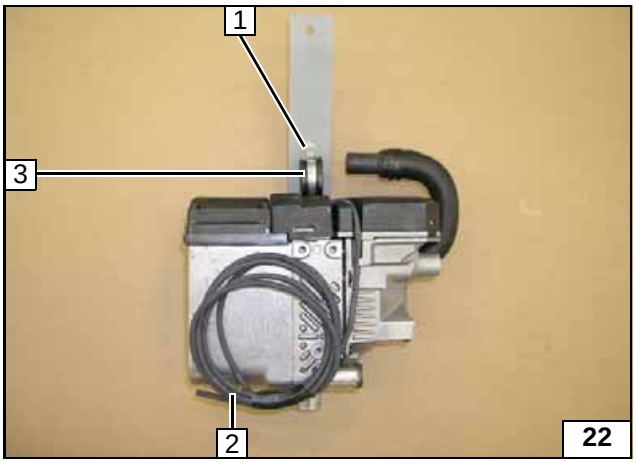
2 Heater
3 Discard hose section
4 Circulating pump
5 Discard clamp

Removing circulating pump from heater



1 Spring clip of circulating pump [2x]
2 20x20 connecting pipe
3 Strut
4 Ejot bolt [2x]

Preassembling heater

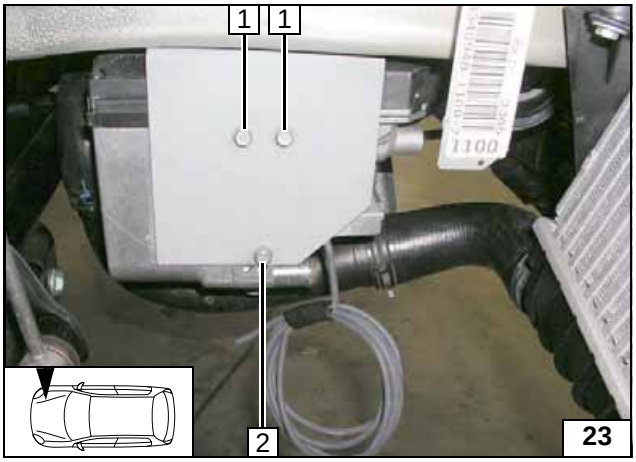


1 M6x20 bolt, M6 flanged nut
2 Wiring harness extension of circulating pump
3 29 mm dia. rubber-coated p-clamp

Preassembling heater

Installing heater

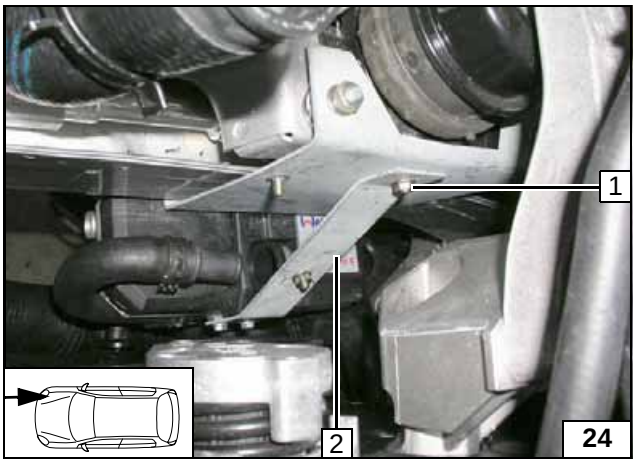
Insert two 6 mm dia. washers between heater and bracket at position **2**.



1 Ejot screw [2x]
2 Ejot screw

Installing heater

After installing M8 nuts, tighten double bolts and strut on heater!



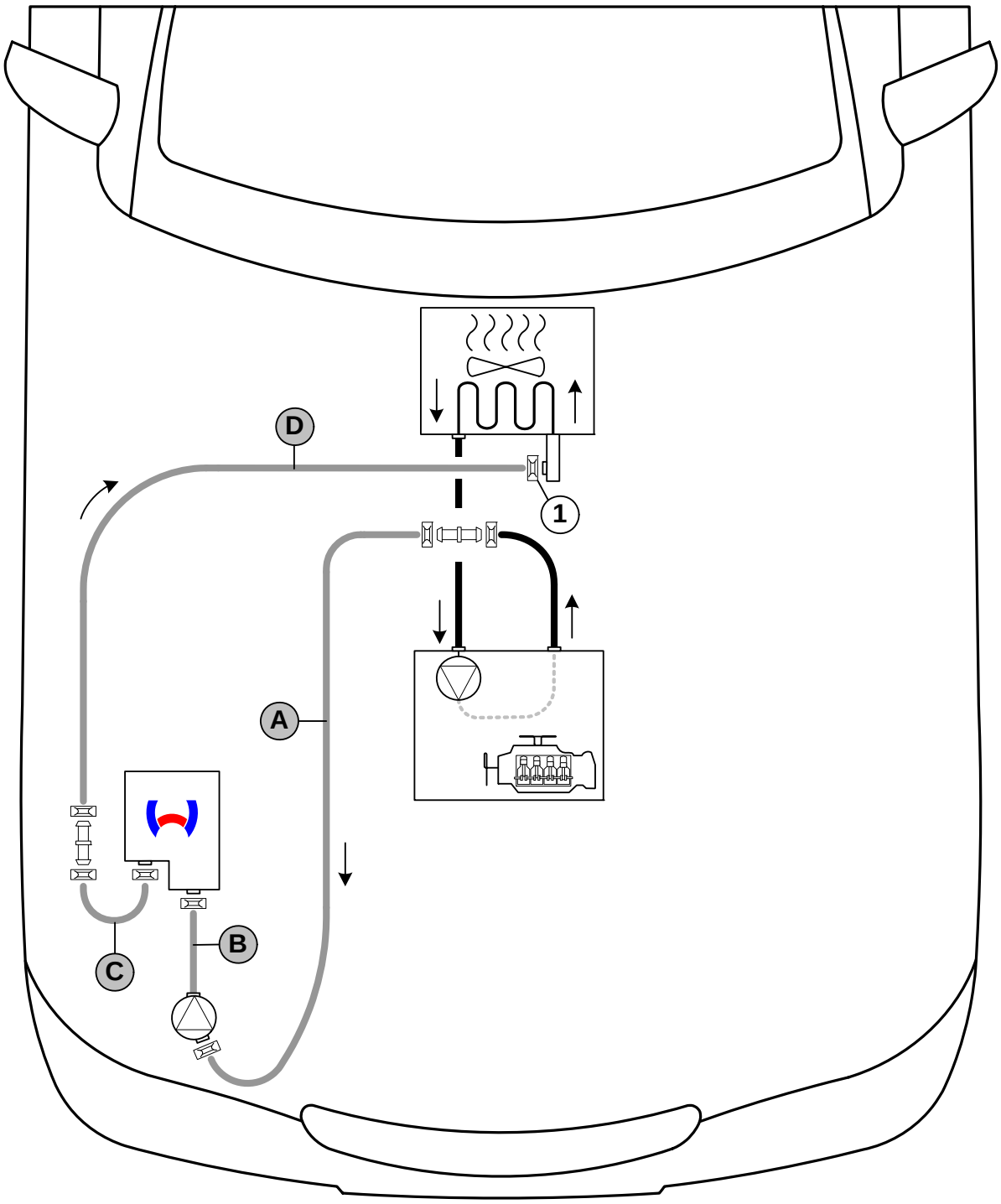
1 M6 flanged nut
2 Strut

Installing heater

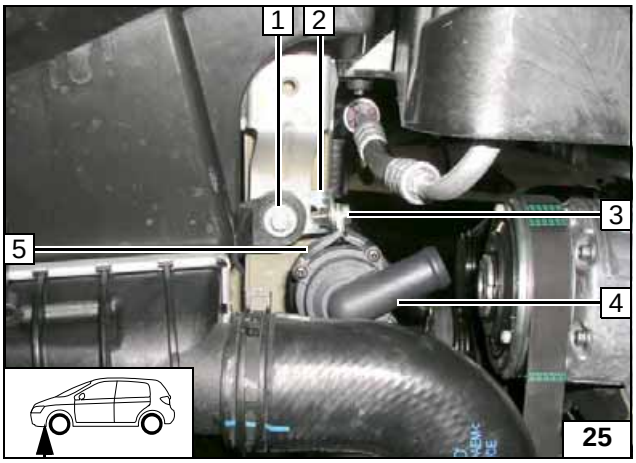
Coolant circuit

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

Hose routing diagram

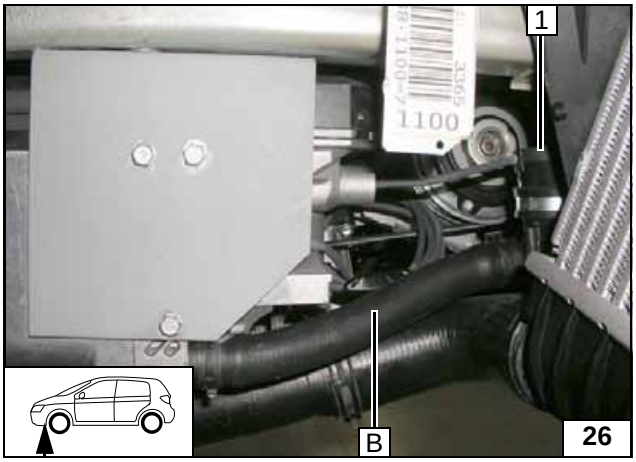


Connecting pipe = 20x20 dia. **1** = Original vehicle spring clip.
All spring clips without a specific designation = 27 mm dia.



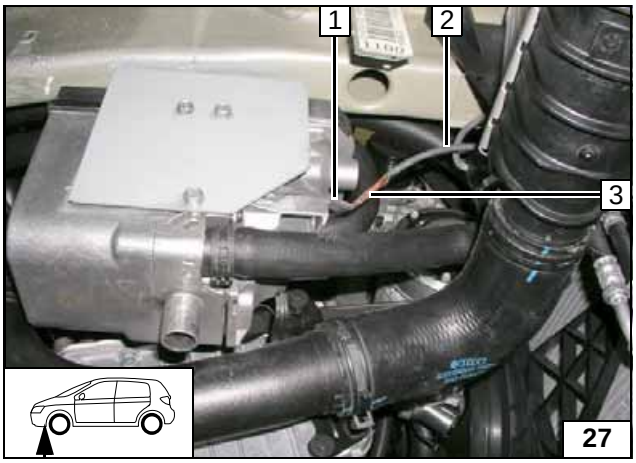
1 Original vehicle bolt
2 Angle bracket
3 M6x20 bolt, M6 flanged nut
4 Circulating pump
5 48 mm dia. rubber-coated p-clamp

Fastening circulating pump



1 Circulating pump

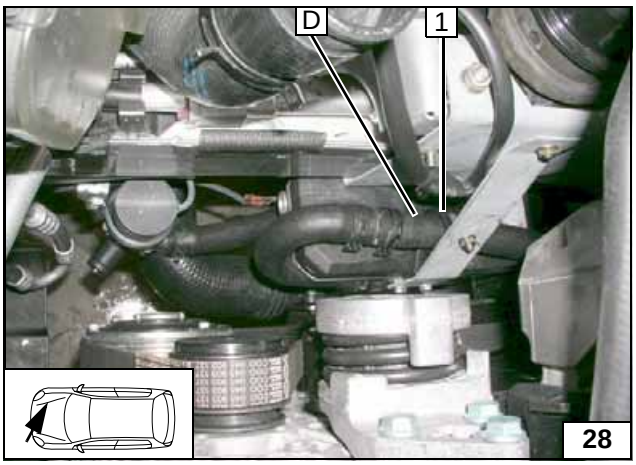
Connection to circulating pump on heater



Connect identical wire colours of wiring harness extension **1** and cable of circulating pump **2**.

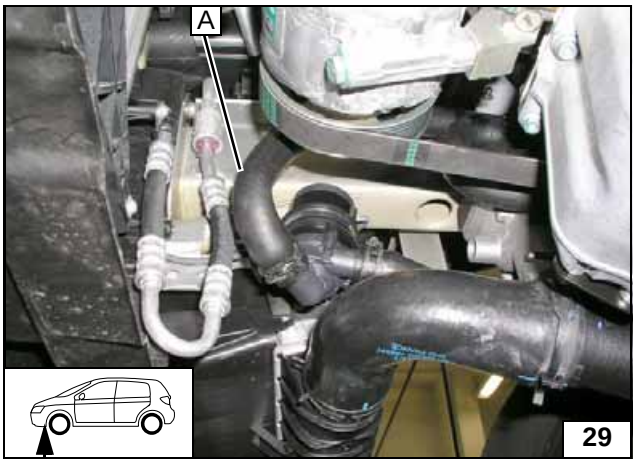
3 Red (rt) connector [2x]

Electrical connection to circulating pump



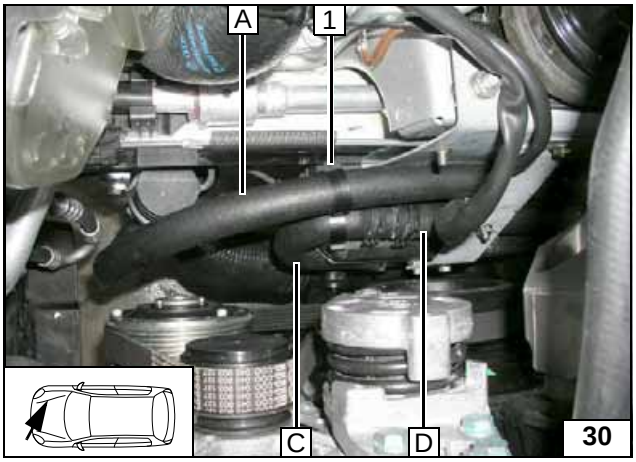
Before installing coolant hoses, connect wiring harness to heater. Route hose **D** through rubber-coated p-clamp **1**.

Connection to heater outlet



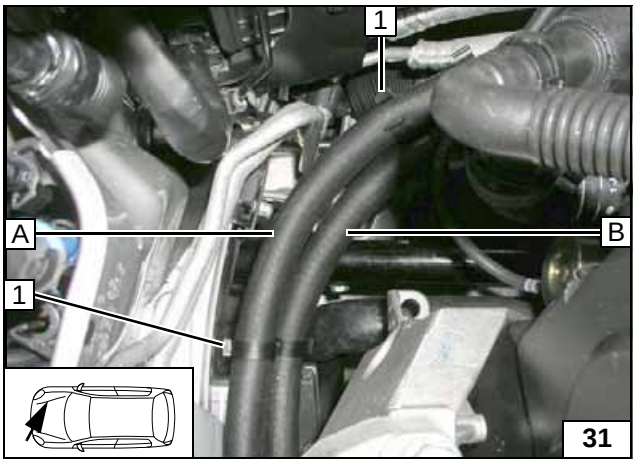
Install hose **A** with 90° elbow on circulating pump.

Connection of hose A



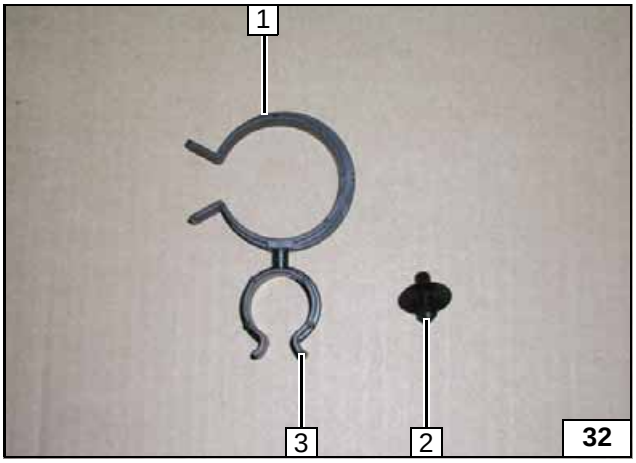
1 Spacer bracket

Routing in engine compartment



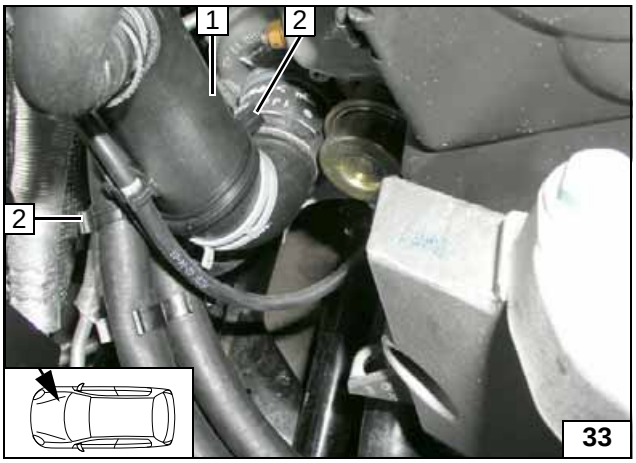
1 Spacer bracket [2x]

Routing in engine compartment



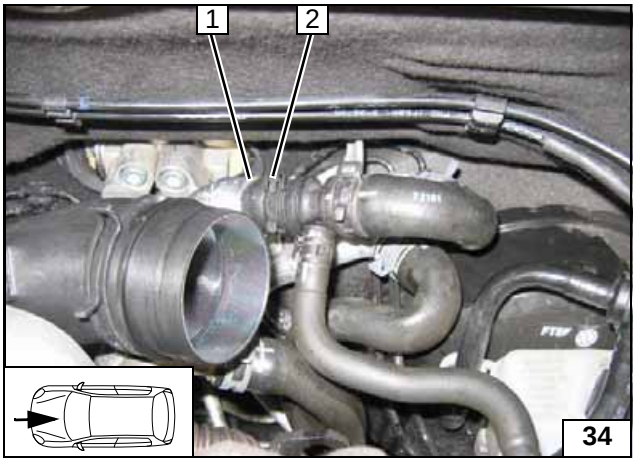
Remove fastening clip **2** from bracket of combustion-air intake muffler **1** and discard. Install spacer bracket **3** with bracket of combustion-air intake muffler.

Premounting spacer bracket



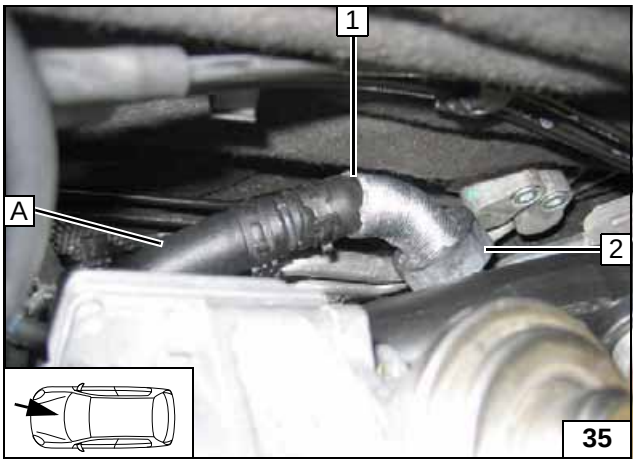
1 Charge-air tube
2 Premounted spacer bracket

Routing in engine compartment



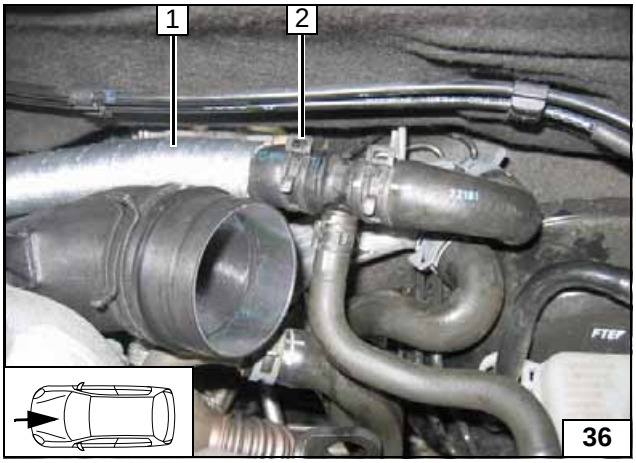
Pull off original vehicle hose **1** and turn toward right-hand side of vehicle. Spring clip **2** will be reused.

Cutting point



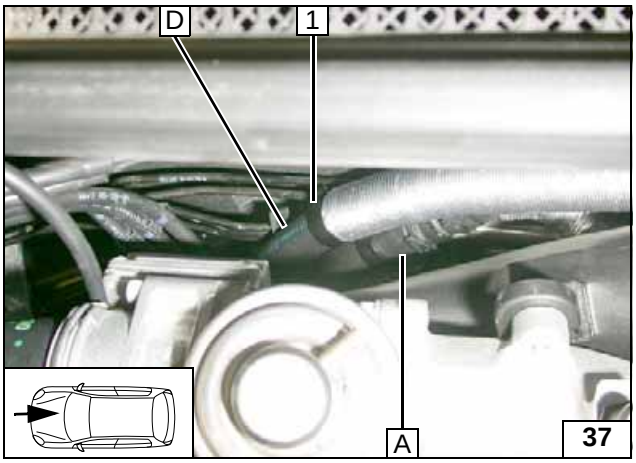
1 Hose of engine outlet
2 Black (sw) rubber profile

Connection to engine outlet



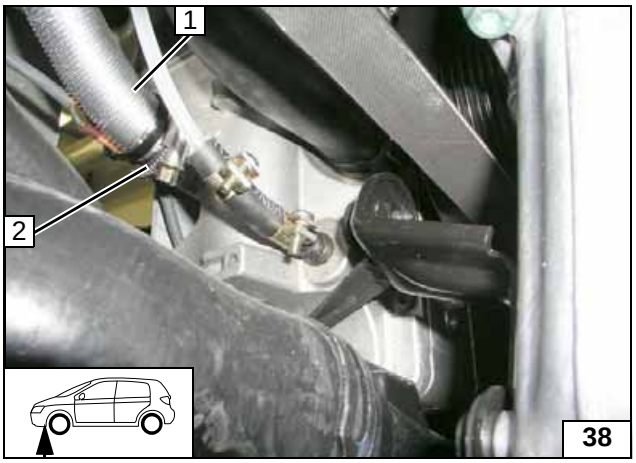
1 Slide on heat shield
2 Original vehicle spring clip

Connection to heat exchanger inlet



1 Spacer bracket

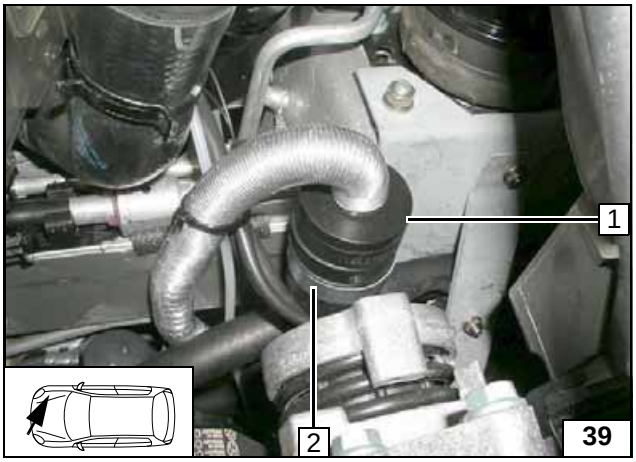
Installing spacer bracket



Combustion air

1 Combustion air pipe
2 27 mm dia. hose clamp

Installing combustion air pipe



1 Muffler
2 51 mm dia. p-clamp, flanged nut

Installing muffler

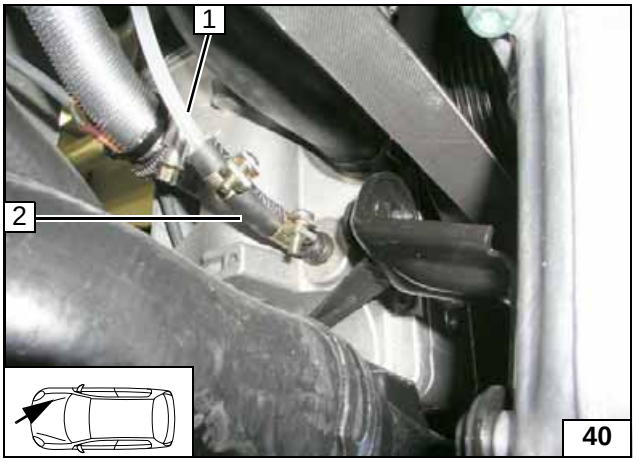
Fuel Connection

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.

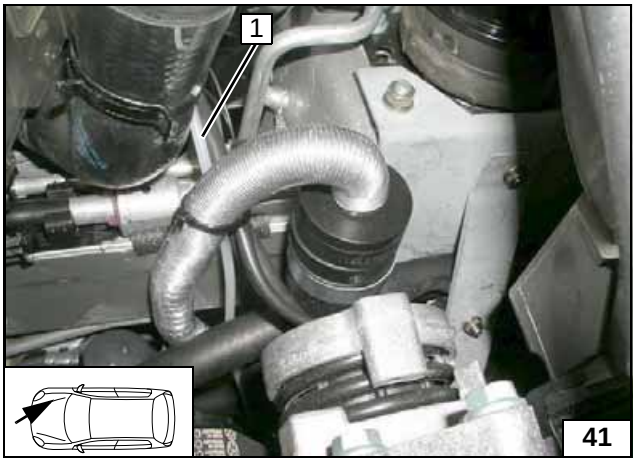
Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.
Mount the fuel line and wiring harness with rub protection on sharp edges.

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



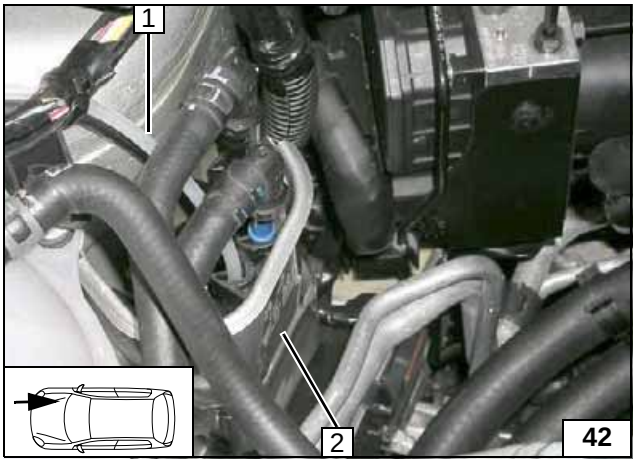
1 Fuel line
2 Hose section, 10 mm dia. hose clamp [2x]

Connection to heater



Pull line **1** into corrugated tube and route to line duct.

Installing lines



Route fuel line and wiring harness of metering pump **1** through line duct **2** to installation location of metering pump.

Installing lines

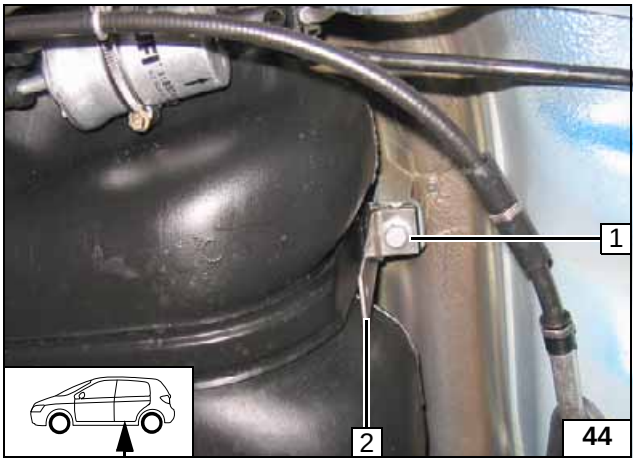


Fabia II Sedan and Roomster

Installation location in front of vehicle fuel tank!

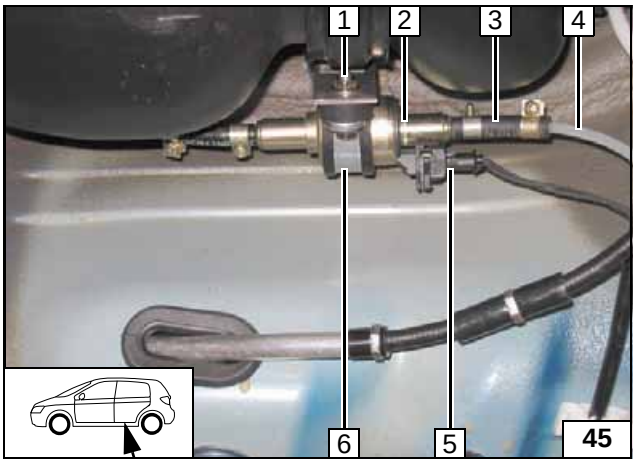
1 Wiring harness of metering pump, fuel line of heater

Installing lines



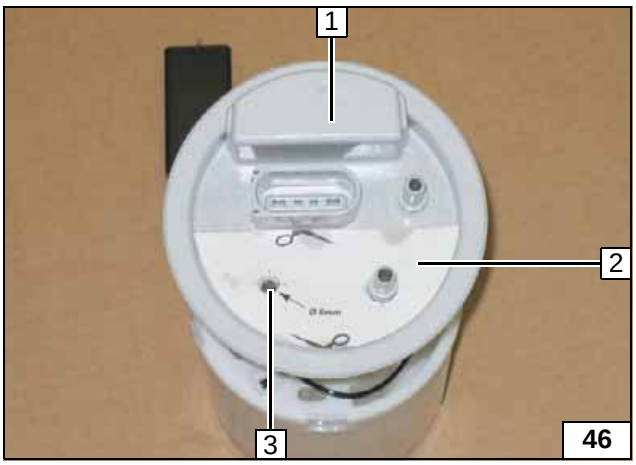
1 Original vehicle bolt
2 Angle bracket

Installing angle bracket



1 Silent block, flanged nut [2x]
2 Metering pump
3 Hose section, 10 mm dia. hose clamps [2x]
4 Fuel line
5 Wiring harness of metering pump, connector mounted
6 Rubber-coated pipe clamp

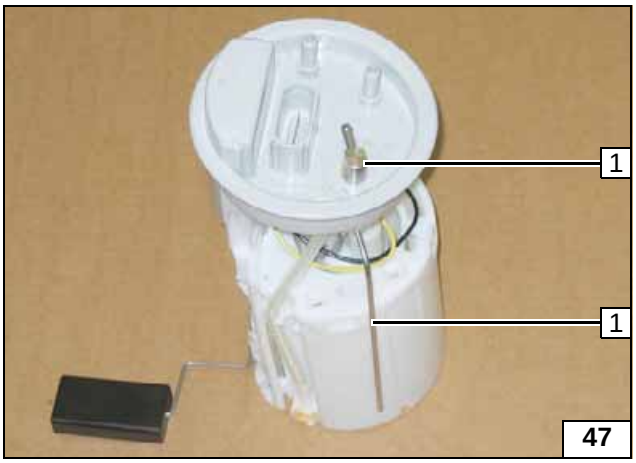
Installing metering pump



Remove fuel-tank sending unit **1** in accordance with manufacturer's specifications.

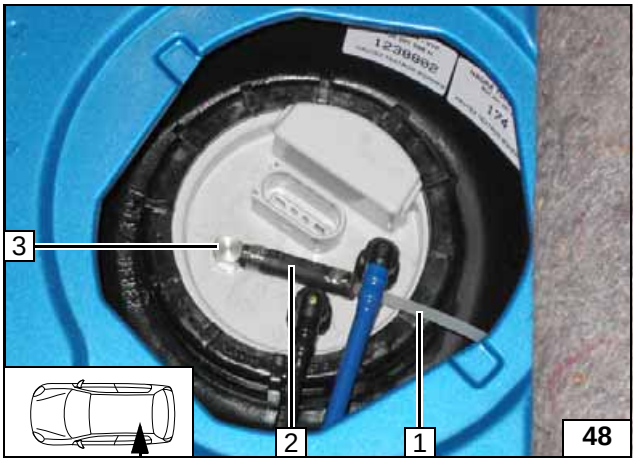
2 Template
3 Copy hole pattern, 6 mm dia. hole

Removing fuel



Shape fuel standpipe **1** according to template, cut to length and install, see "installation instructions".

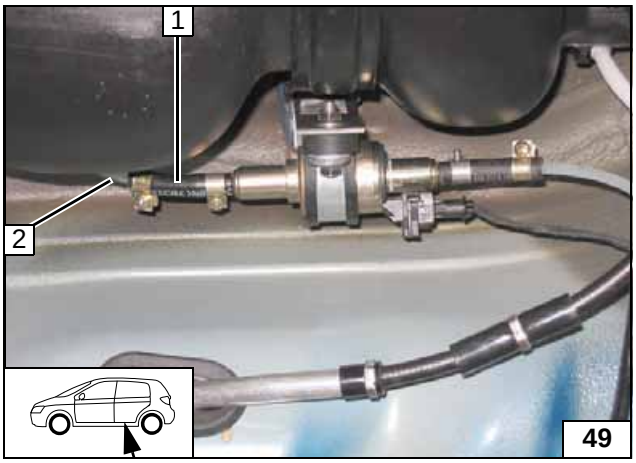
Installing fuel standpipe



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

1 Fuel line
2 Moulded hose, 10 mm dia. Caillau clamp [2x]
3 Fuel standpipe

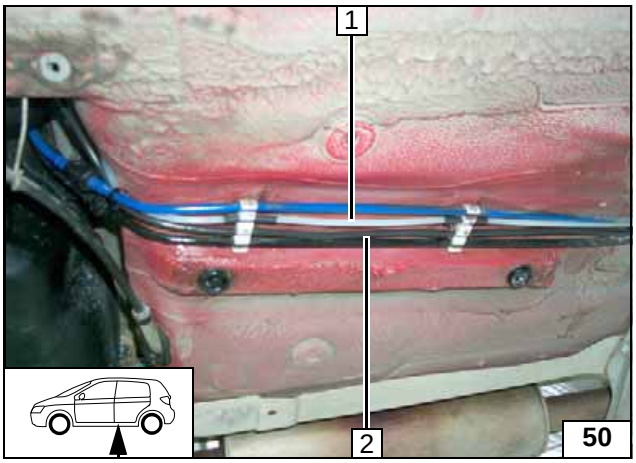
Connecting fuel line



Fuel line **2** from fuel standpipe on intake side of metering pump [side without connector]. Check the position of the components; adjust if necessary. Check that they have free clearance.

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

Connecting to metering pump

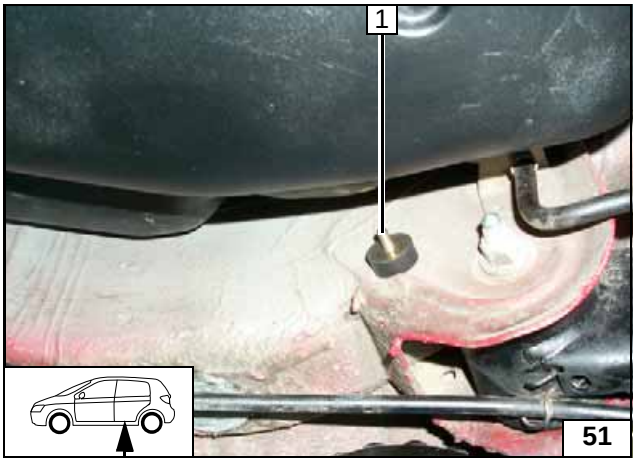


Fabia II Station Wagon

Installation location next to fuel tank on right!

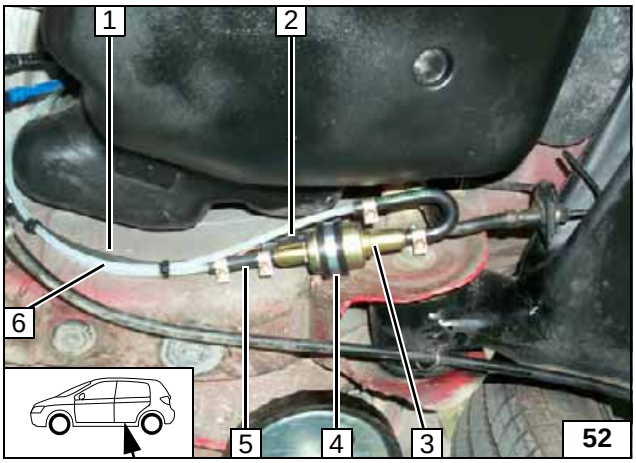
1 Fuel line from heater
2 Metering pump wiring harness

Installing lines



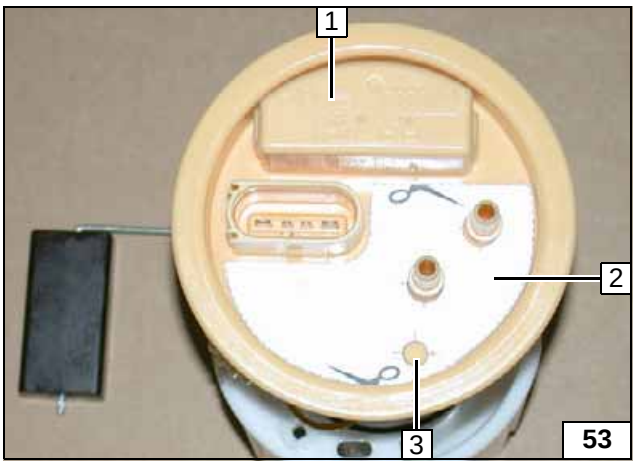
1 Silent block, large diameter washer, flanged nut in existing hole

Installing silent block



1 Metering pump wiring harness
2 Connector installed
3 Metering pump
4 Rubber-coated p-clamp, flanged nut on silent block
5 Hose section, 10 mm dia. hose clamps [2x]
6 Fuel line

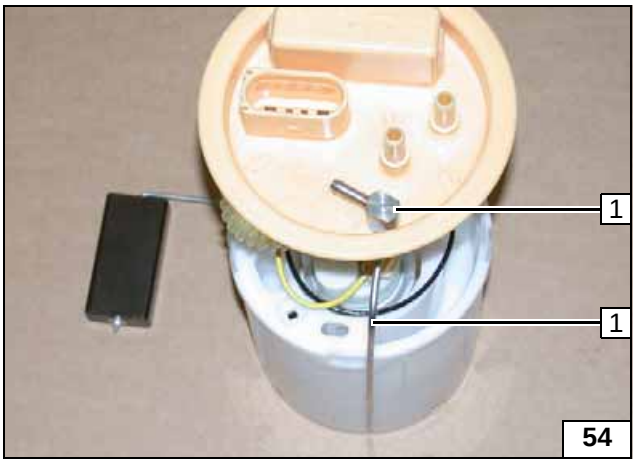
Installing metering pump



Remove fuel-tank sending unit **1** in accordance with manufacturer's specifications.

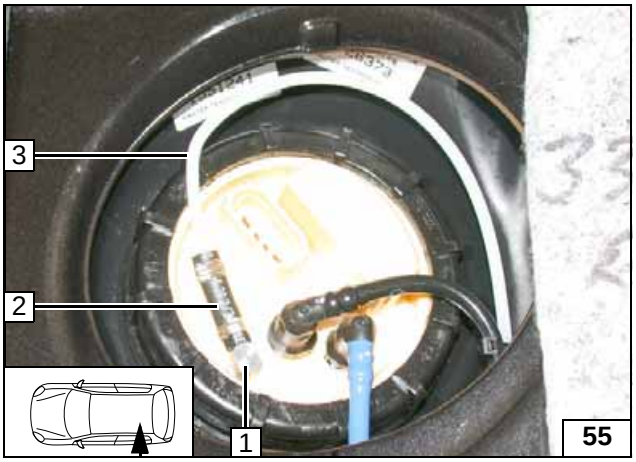
2 Template
3 Copy hole pattern, 6 mm dia. hole

Removing fuel



Shape fuel standpipe **1** according to template, cut to length and install, see "installation instructions".

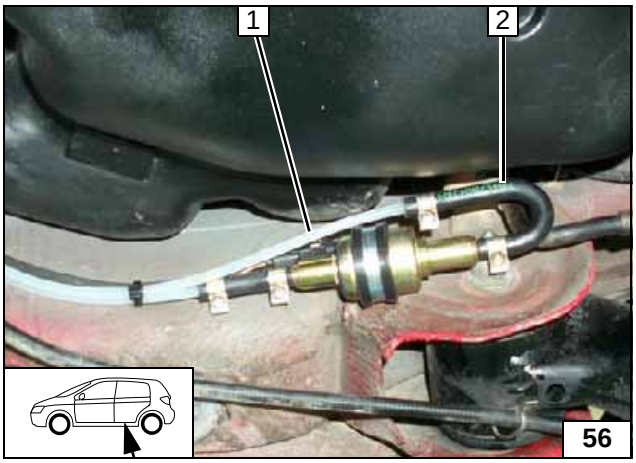
Installing fuel standpipe



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

1 Fuel standpipe
2 Moulded hose, 10 mm dia. Caillau clamp [2x]
3 Fuel line

Connecting fuel line

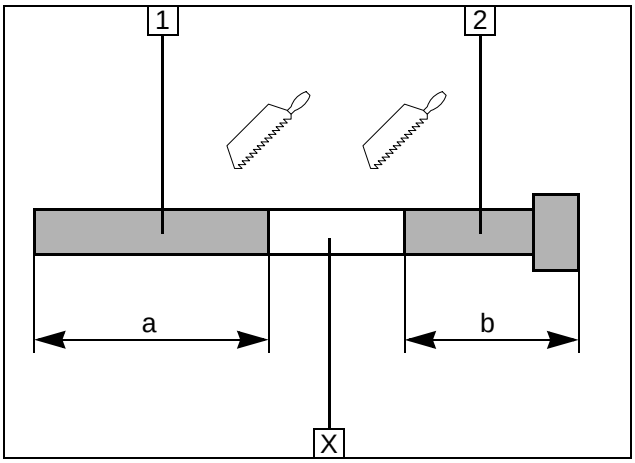


Check the position of the components; adjust if necessary. Check that they have free clearance.

1 Fuel line
2 180° moulded hose, 10 mm dia. hose clamp [2x]

Connecting to metering pump

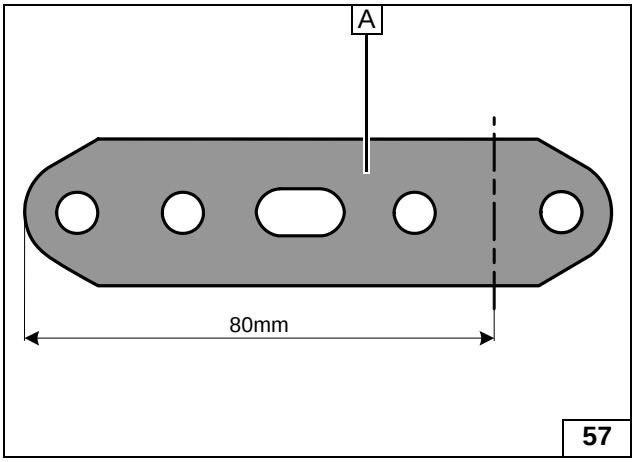
Exhaust system



1 Exhaust pipe
a = 380
2 Exhaust end section
b = 380

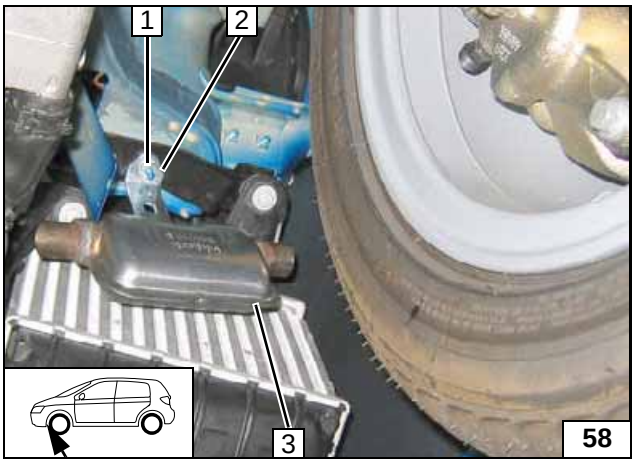
Discard section **X**

Preparing exhaust pipe



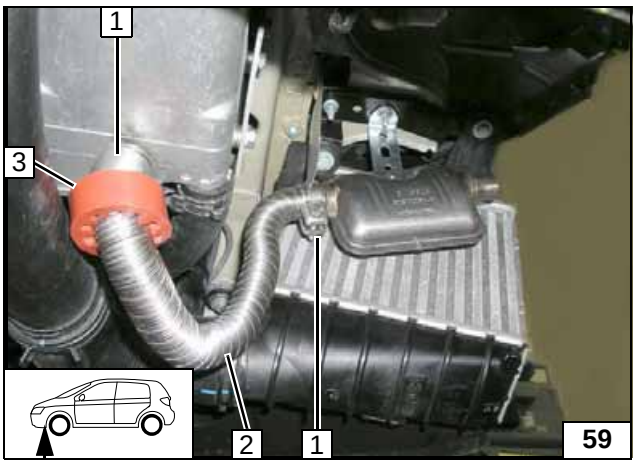
Angle down perforated bracket **A** 90°

Angling down perforated bracket



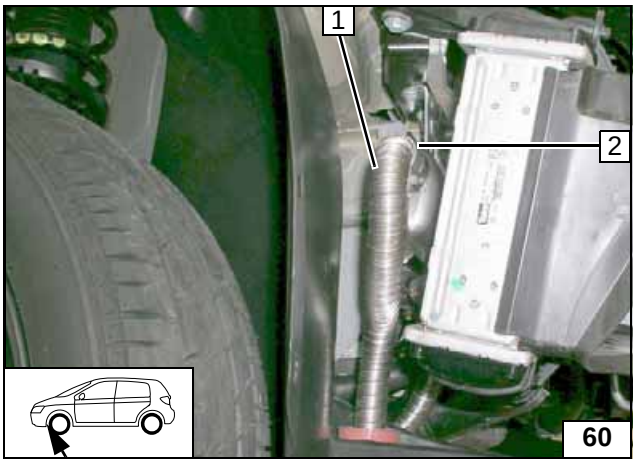
1 Original vehicle bolt
2 Perforated bracket **A**
3 Muffler, M6x20 bolt, flanged nut on perforated bracket

Installing muffler



1 Hose clamp [2x]
2 Exhaust pipe
3 Position red (rt) rubber isolator [2x]

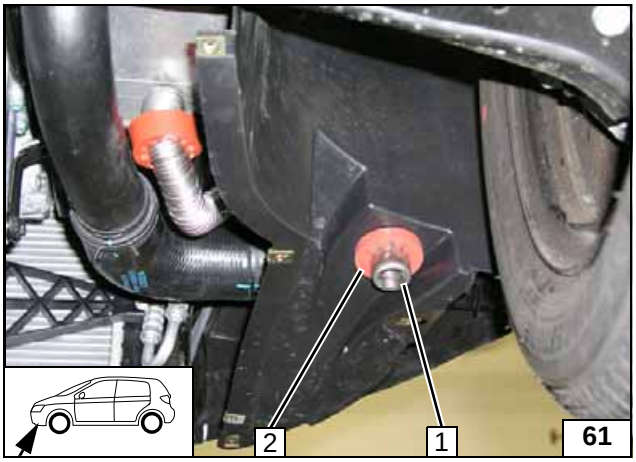
Installing exhaust pipe



Ensure sufficient distance to adjacent components, especially to wheel-well inner panel!

1 Exhaust end section
2 Hose clamp

Installing end section



Drill 42 mm dia. hole in wheel well trim at Position **2**.
Align exhaust end section **1** flush on red (rt) rubber isolator **2** as shown.

Installing exhaust end section

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 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.
- Check fan speed, correct IPCU settings if necessary
- Place instruction signboard "Switch off parking heater before refuelling“ in the area of the filling connection pieces

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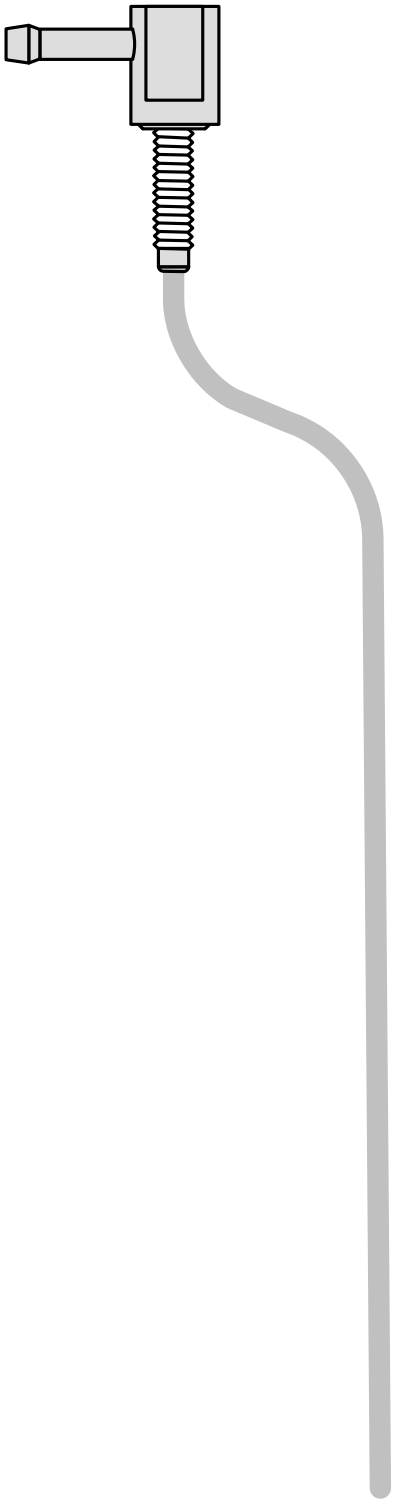
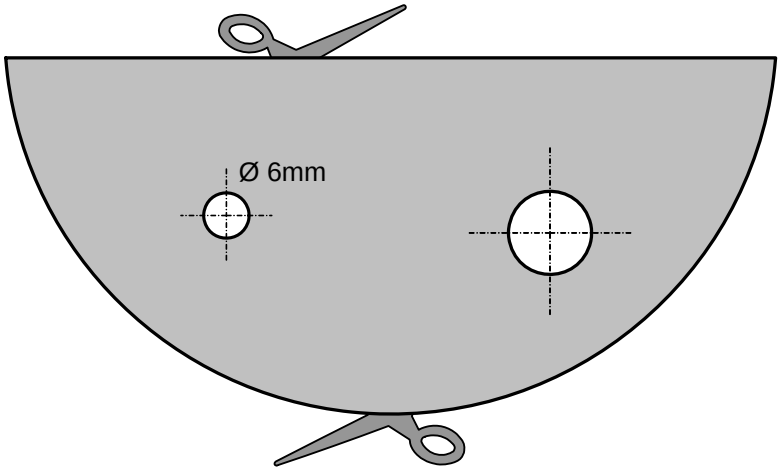
(14 Cent aus dem deutschen Festnetz)
Hotfax: 0395 5592 353

Fuel standpipe on Fabia II Sedan and Roomster



Fuel-tank sending unit on Fabia II Sedan and Roomster



100mm

Scale 1:1

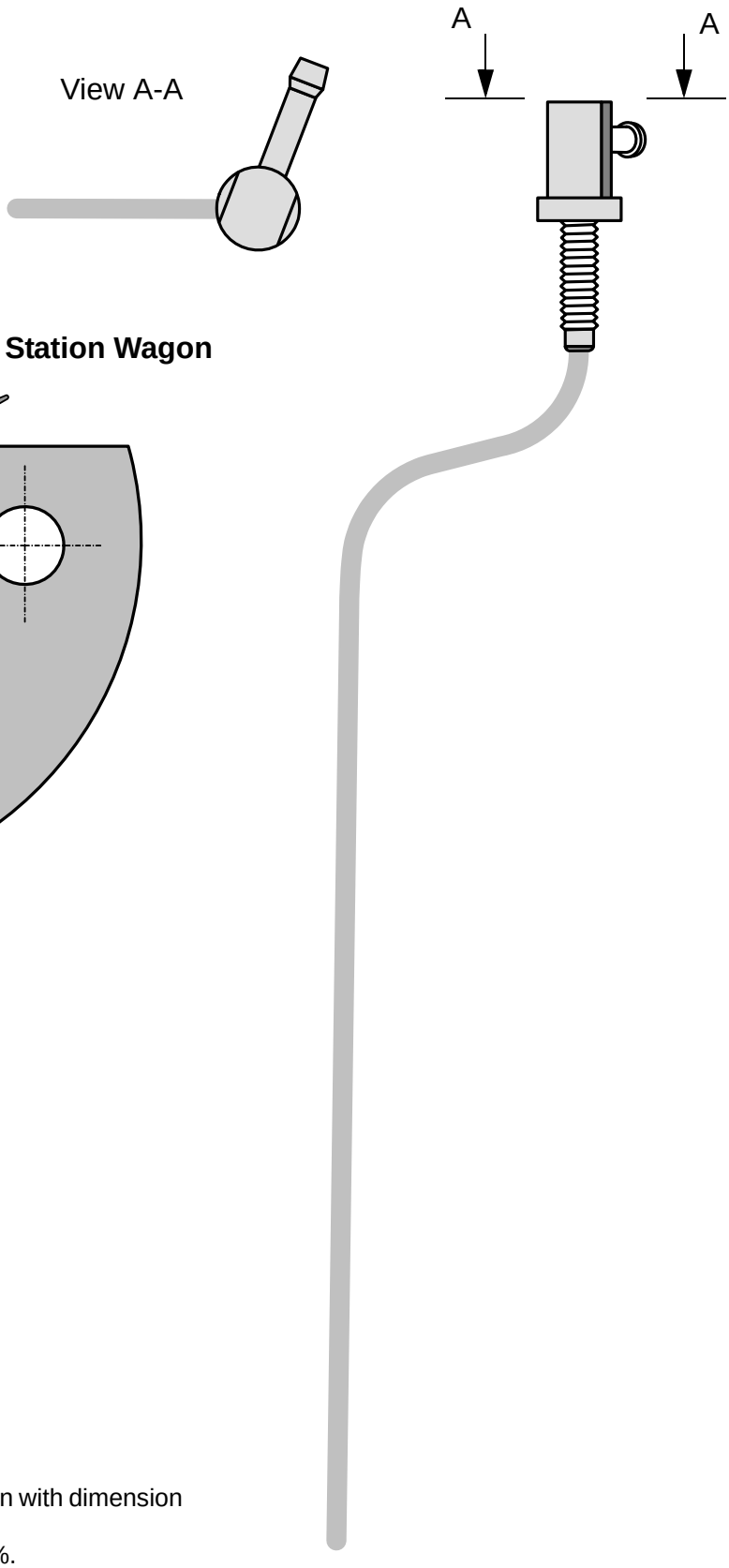
Compare the size of the printed version with dimension lines.
Permitted tolerance a maximum of 2%.

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

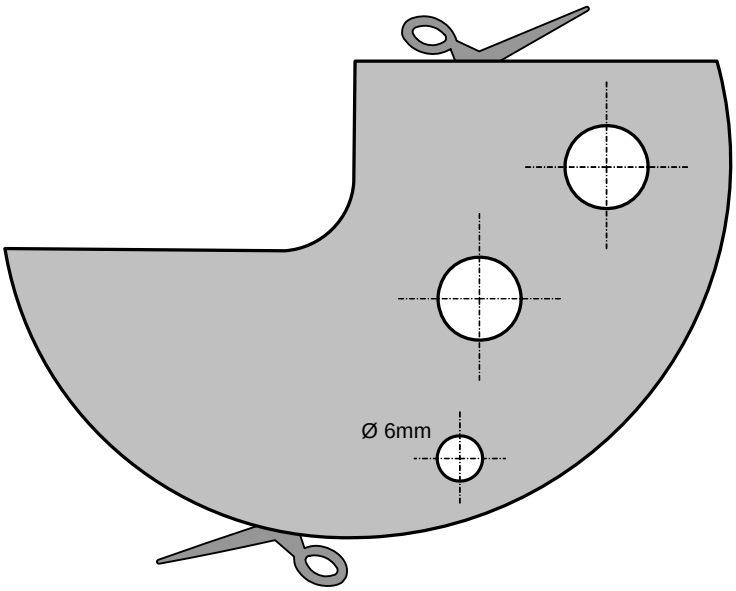
100mm

0

Fuel Standpipe on Fabia II Station Wagon



Fuel-Tank Sending Unit on Fabia II Station Wagon



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

100mm

0

Operating Instructions for End Customer

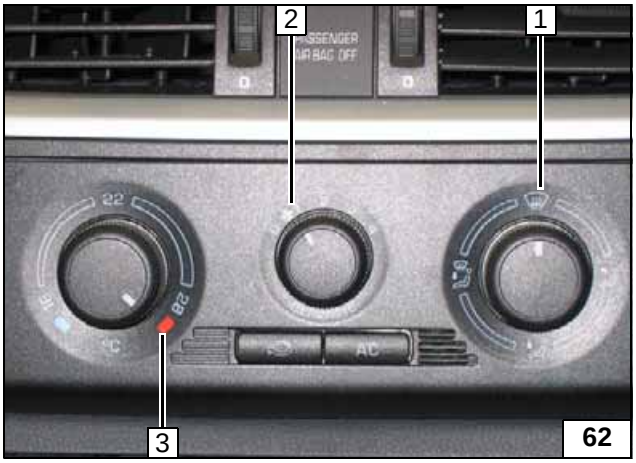
Please remove page and add to the vehicle operating instructions.

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.

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

Before parking the vehicle, make the following settings:

Manual air conditioning



1 Direct air outlet toward windshield
2 Set fan to level "1" or "2"
3 Set temperature to "max."

Automatic air-conditioning



1 Direct air outlet toward windshield
2 Set temperature to "HI"