Water Heater

Webasto
Feel the drive

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

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

Installation documentation

Skoda Yeti

Diesel - CR
from model year 2010
Left-hand drive vehicle
Climatronic

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.

The initial startup is to be executed with the Webasto Thermo Test Diagnosis.

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

Ident. No.: 1315337D_EN Fee Euro 10.00

Table of Contents

Validity

Manufacturer	Model	Type	EG-BE No./ABE
Skoda	Yeti	5L	e11 * 2007 / 46 * 0010 * ...

Engine type	Engine model	Output in kW	Displacement in cm³
CFHA	Diesel - CR	81	1968
CBDB	Diesel - CR	103	1968
CBBB	Diesel - CR	125	1968

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

The installation location of the digital timer must be coordinated with the end customer before the installation.

Heater / Installation Kit

Quantity	Description	Order No.:
1	Retail accessories *Thermo Top E / C*	See price list
1	Installation kit for Skoda Yeti 2010 Diesel - CR	1315336B
1	Heater control	See price list

Required additionally for automatic air-conditioning system -Climatronic:

Quantity	Description	Order No.:
1	ZSK IPCU for Climatronic trade	9013645A

Heater recommended for the respective vehicle class:

Vehicle	Heater
Compact car	Thermo Top E
Mid-size car, estate car	Thermo Top C

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 documentation applies to Skoda Yeti Diesel - CR vehicles - for validity, see page 2 - from model year 2010 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 documentation.

However, the stipulations in this "installation documentation", the "operating instructions" and the "installation instructions" for the *Thermo Top E / C* 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 rub protection (fuel hose).
Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).
Check or adjust the corresponding settings before installing an IPCU!

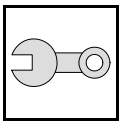
Special Tools

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

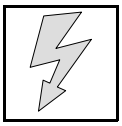
Explanatory Notes on Document

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.

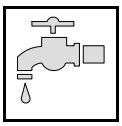
Mechanical system



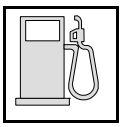
Electrical system



Coolant circuit

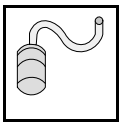


Fuel



Exhaust gas

Combustion air



Software

Special features are highlighted using the following symbols:

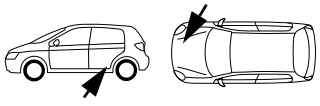
Specific risk of injury or fatal accidents.

Specific risk of damage to components.

Specific risk of fire or explosion.

Reference to general installation instructions of 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.

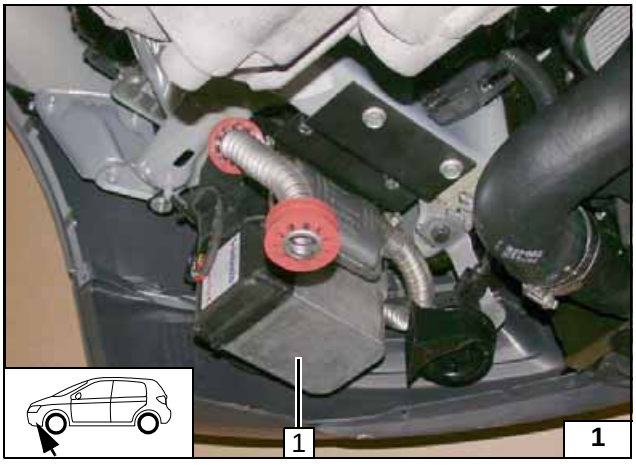
All dimensions are in mm!
Tightening torque of hose clamps = 2.0 + 0.5 Nm!
Tightening torque of Ejot screws, Ejot studs = 10 Nm!

Preliminary Work

WARNING!

- Open the fuel tank cap, ventilate the tank.
- Close the fuel tank cap again.
- Disconnect the battery "earth" or "ground" connection.
- Depressurise 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 engine cover.
- Remove the charge-air hose.
- Remove the air filter together with the intake hose.
- Completely remove the battery together with the carrier.
- Remove the cover of the fuse and relay box in the engine compartment.
- Remove the front left wheel.
- Remove the left-hand wheel well trim.
- Remove the underride protection.
- Remove the right-hand underbody trim.
- Remove the rear bench seat.
- Open the right-hand tank-fitting service lid.
- Remove the left-hand instrument panel trim.
- Remove the lower instrument panel trim on the front passenger's side.
- Remove the lower instrument panel trim of the centre console.

Remove page 30 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater installation location

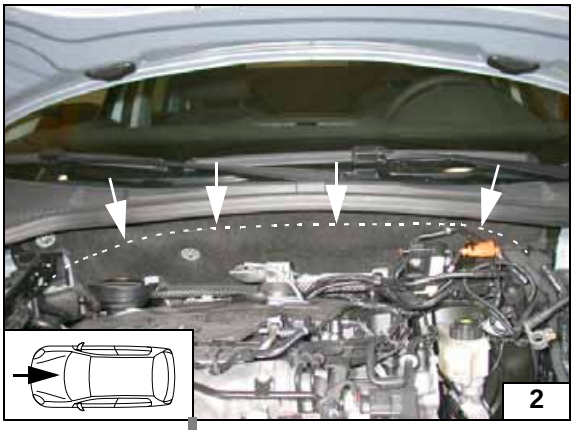
1 Heater

Installation location

Electrical system

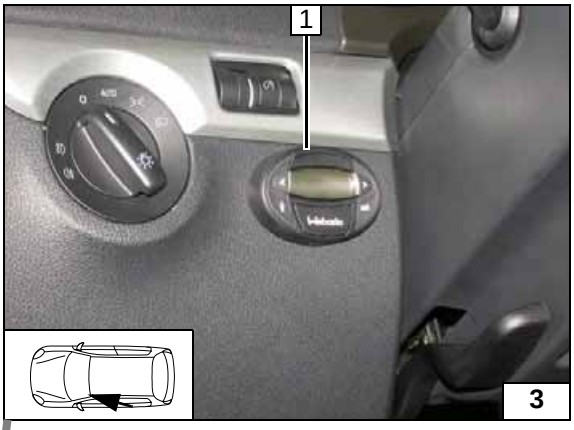
Wiring routing

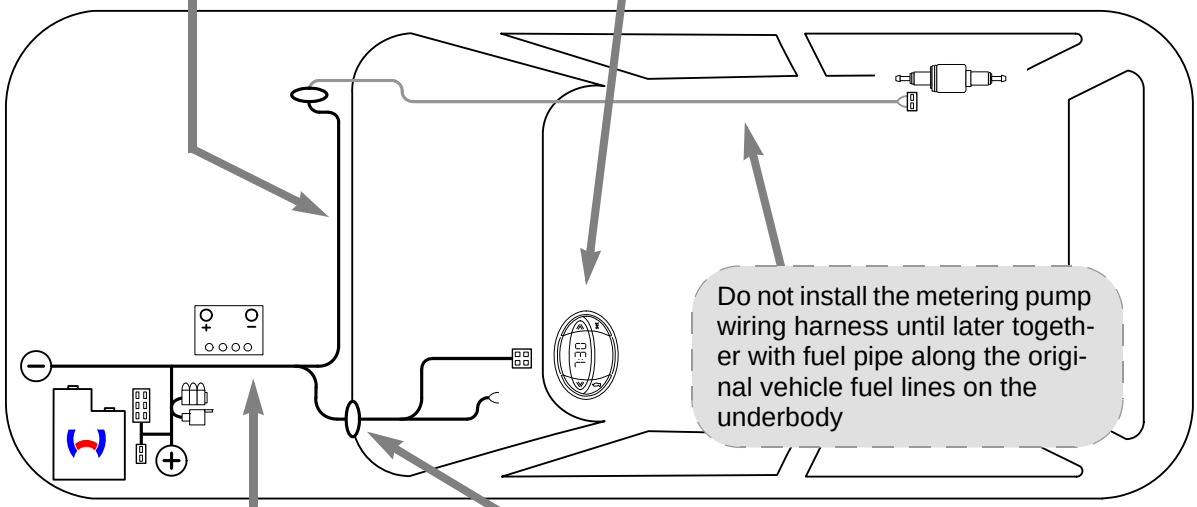
Route wiring harness of metering pump and fuel line in fabric protective hose behind insulation mat to right-hand vehicle side



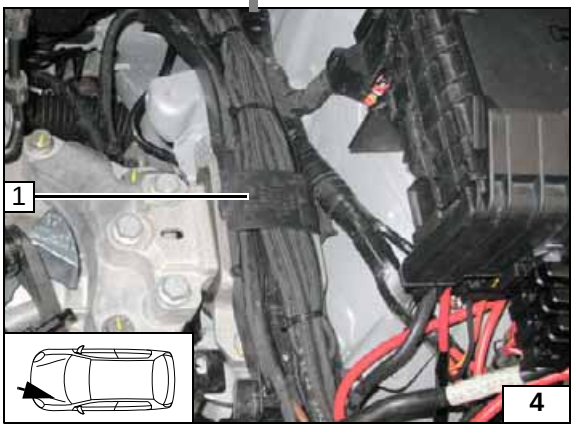
Digital timer

1 Digital timer



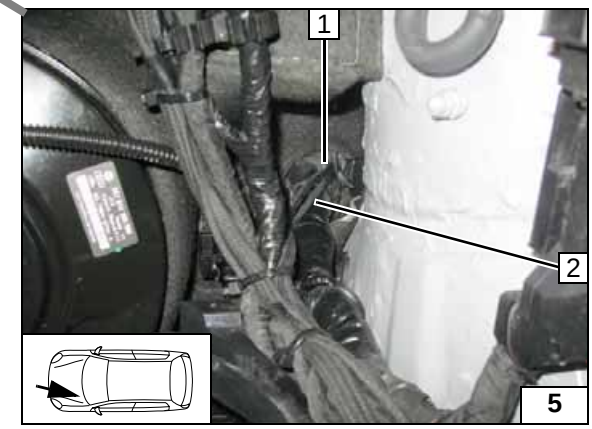


Wiring harness routing diagram



Wiring harness routing

Route wiring harnesses in original vehicle cable duct.



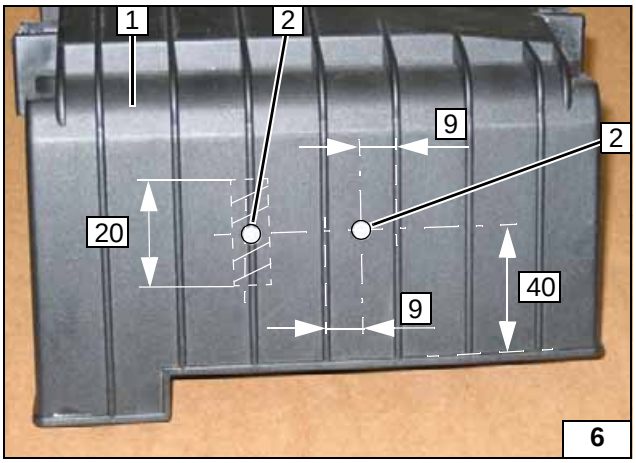
Wiring harness pass through

1 Protective rubber plug
2 Wiring harnesses of fan controller and heater control

Preparing fuse holder and K3 relay

Countersink 5.5 mm dia. hole [2x] **2** from behind.

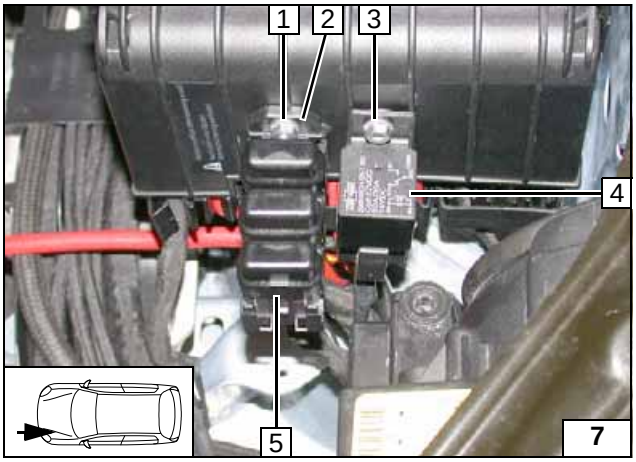
1 Cover of fuse and relay carrier



Holes in fuse carrier

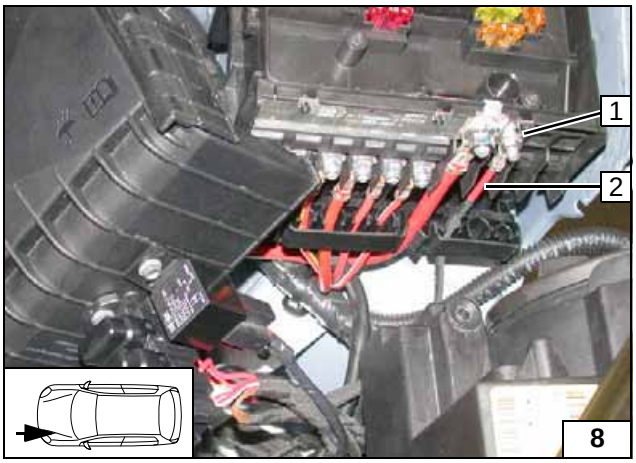
Insert large diameter washer between cover and retaining plate **2**. Replace 25 A fuse F3 with 3 A fuse.

1 M5x12 countersunk head screw, large diameter washer, flanged nut
3 M5x12 countersunk head screw, flanged nut
4 K3 relay
5 Fuses pushed on



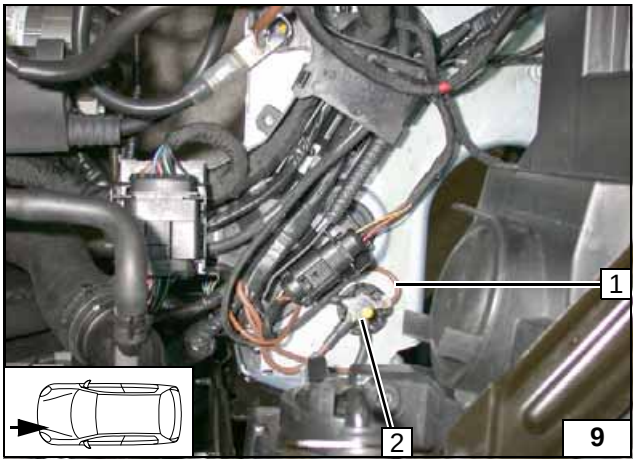
Installing fuse holder and K3 relay

1 Original vehicle positive support point
2 Positive wire



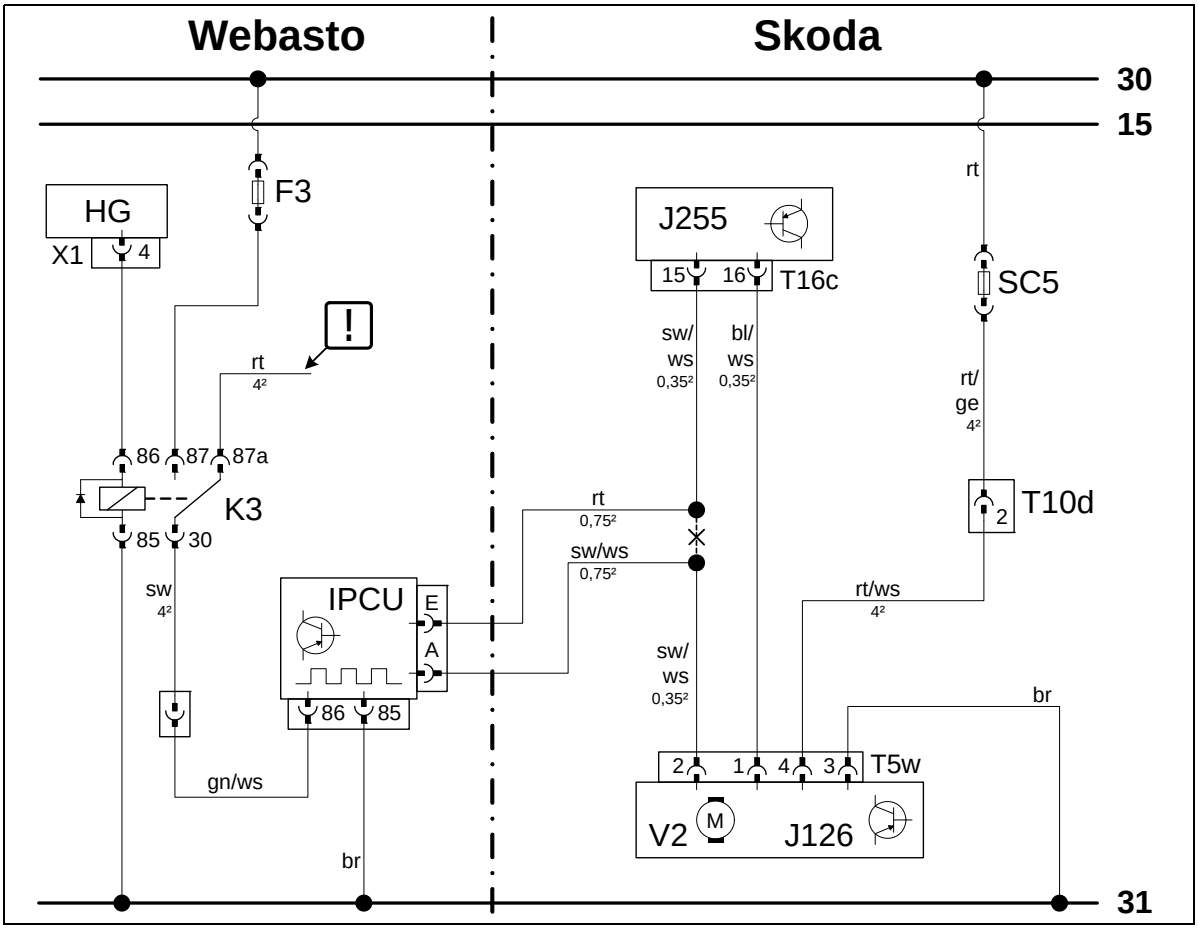
Positive wire

1 Earth wire
2 Original vehicle earth support point

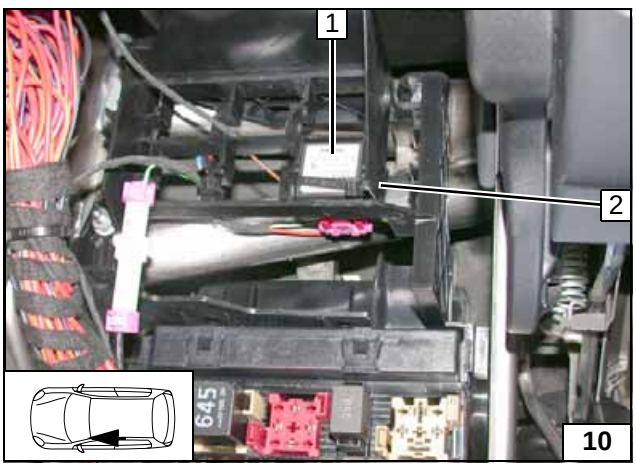


Earth wire

Fan controller



Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	SC5	40 A fan fuse	rt	red
X1	6-pin heater connector	T...	Plug connections	ws	white
F3	Replace 25A fuse with 3A fuse.	J126	Fan controller	sw	black
		J255	A/C control panel	br	brown
K3	Fan relay	V2	Fan motor	gn	green
IPCU	Pulse width modulator			bl	blue
IPCU adjustment values:					
Duty cycle: 30%				!	Insulate wire end and tie back
Frequency: 400Hz					
Voltage: 8V				**X**	Cutting point
Function: High-side active				Wiring colours may vary.	

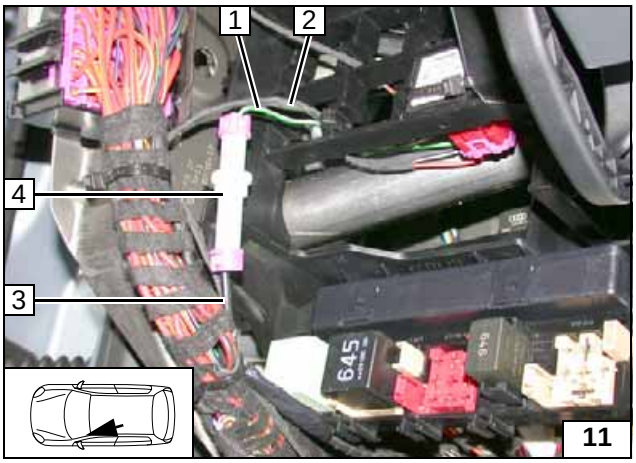


Mount IPCU **1** on relay socket, insert in free slot and fasten with cable tie **2**.
Produce connections as shown in wiring diagram.

Climatronic wiring diagram

Legend

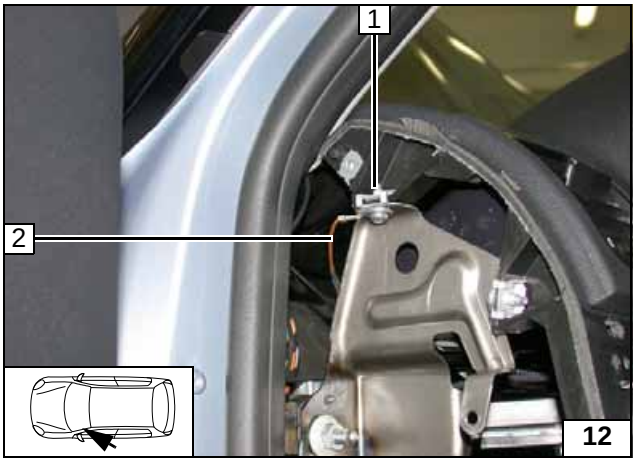
Installing IPCU



Insulate red (rt) wire of K3/87a and tie back.
Produce connections as shown in wiring diagram.

1 Green/white (gn/ws) wire IPCU/86
2 Wiring harness of fan control (black (sw) wire IPCU/A, red (rt) wire IPCU/E)
3 Black (sw) wire from K3/30
4 AMP connector

Connecting IPCU

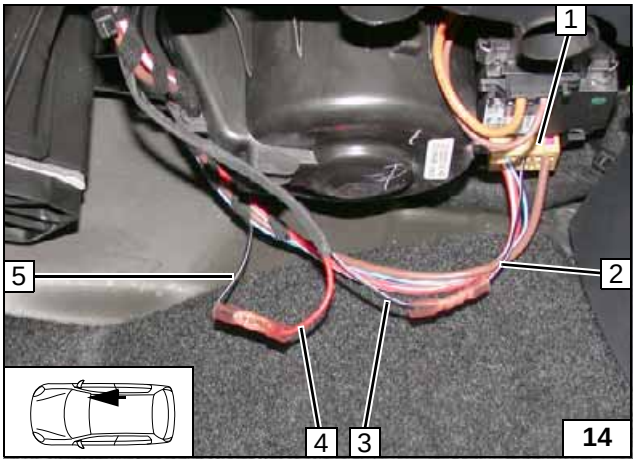


1 Original vehicle bolt
2 Brown (br) wire of IPCU/85

Earth connection of IPCU

1 Wiring harness of fan controller

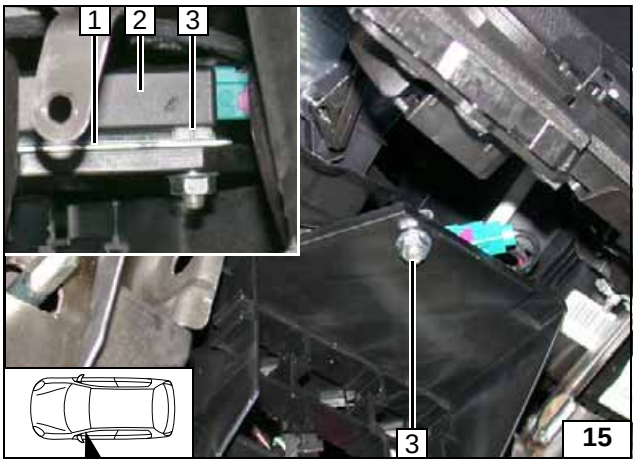
Wiring routing



Connection on 6-pin connector **1** T5w, Pin 2 from fan controller.
Produce connections as shown in wiring diagram.

2 Black/white (sw/ws) wire of 6-pin connector T5w, Pin 2
3 Black/white (sw/ws) wire from IPCU/A
4 Red (rt) wire of IPCU/E
5 Black/white (sw/ws) wire of A/C control panel

Connecting fan controller

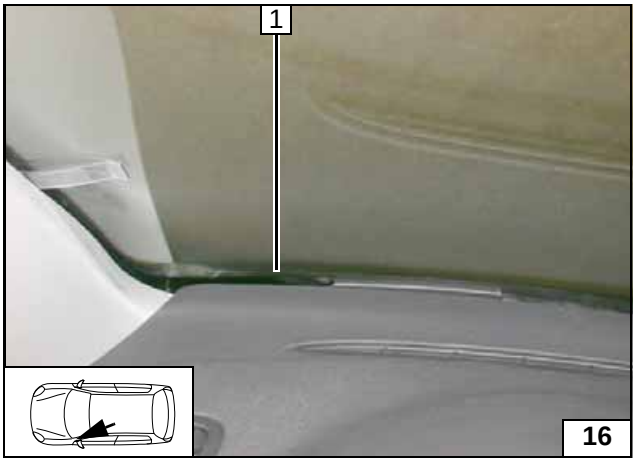


Remote option Telestart

Drill bracket of receiver **1** at Position **3** to 6.5mm dia.

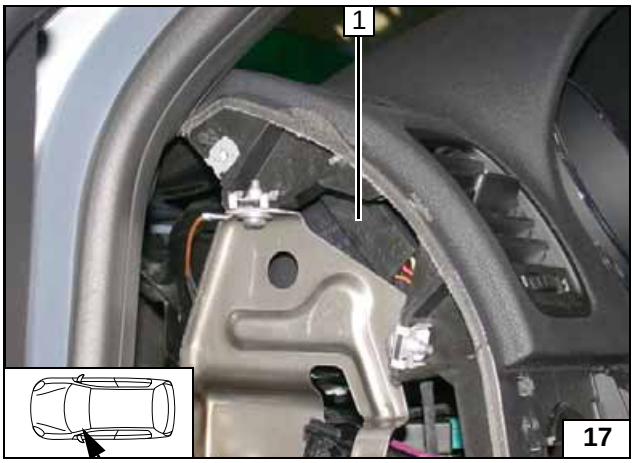
2 Receiver
3 M6x16 bolt, flanged nut

Installing receiver



1 Antenna

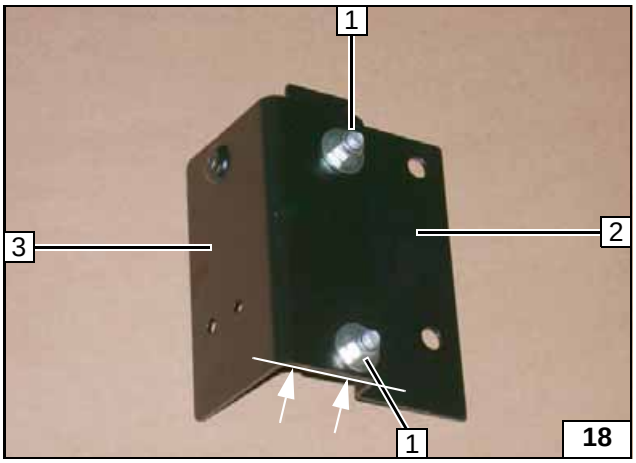
Installing antenna



Temperature sensor HTM 100

Fasten temperature sensor **1** with double-sided adhesive tape.

Installing temperature sensor

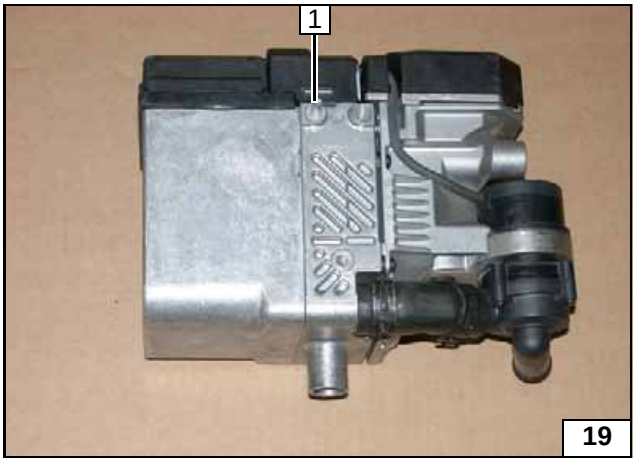


Preparing heater

Premounting bracket

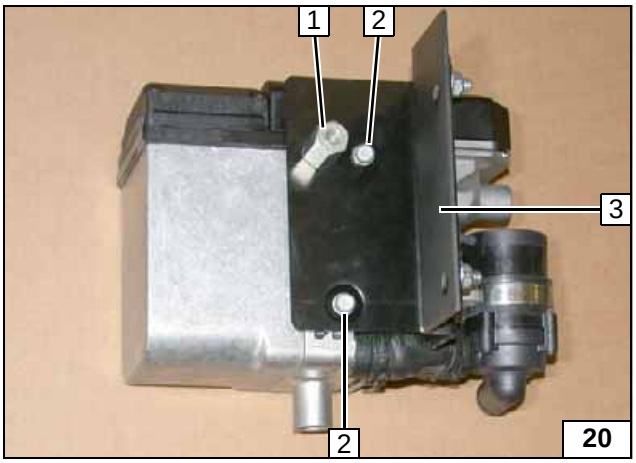
Align bracket Part A **2** and bracket Part B **3** at the markings.

1 M8x20 bolt, large diameter washer, self-locking nuts [2x each]



Premounting heater

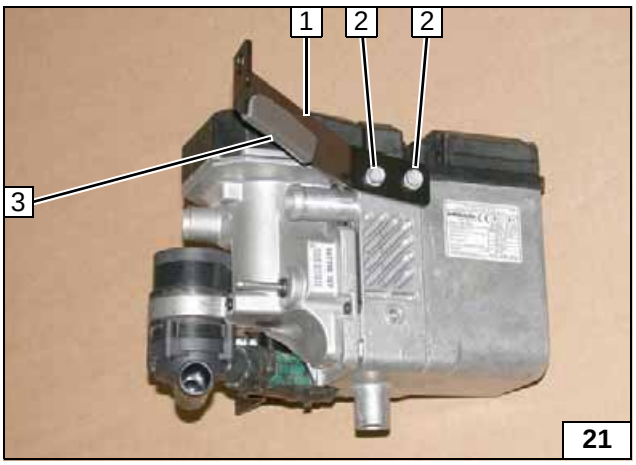
1 Ejot stud



Premounting bracket on heater

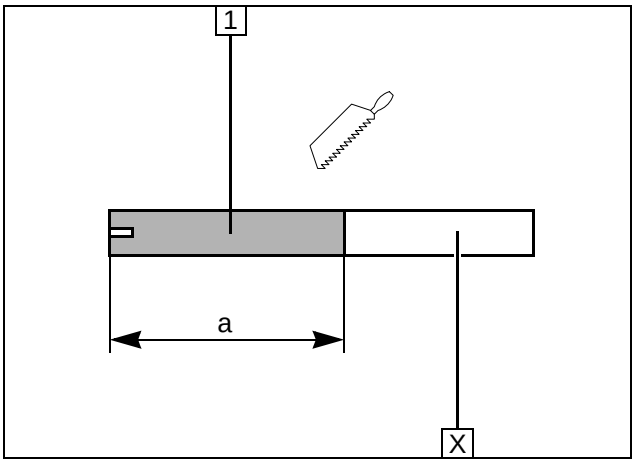
Insert one washer each between heater and bracket **3** at position **2**.

1 M6x30 spacer nut
2 Ejot screw, washer [2x each]



Installing strut

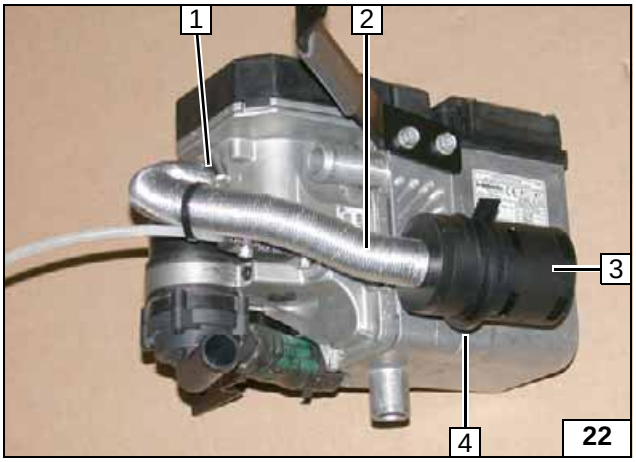
1 Strut
2 Ejot screw [2x]
3 Glue on rub protection



1 Combustion air pipe
a = 250

Discard section **X**

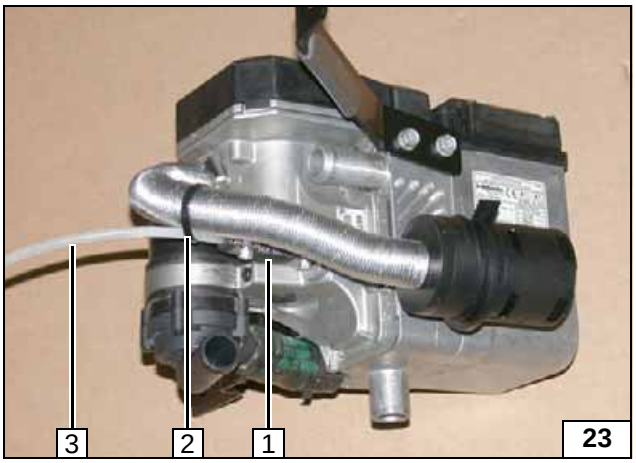
Cutting combustion air pipe to length



Insert retaining clip **4** in existing hole of heater.

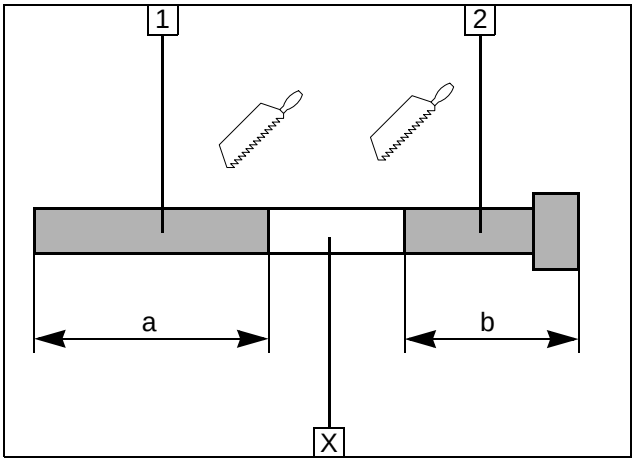
1 27 mm dia. clamp
2 Combustion air pipe
3 Silencer

Premounting combustion air pipe



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

Preinstalling fuel line

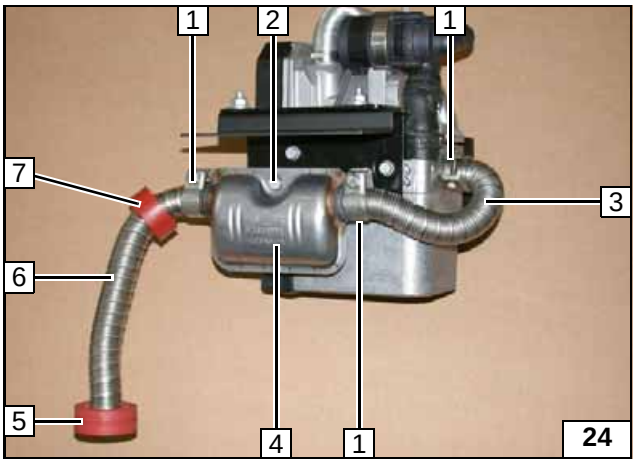


1 Exhaust pipe
a = 210
2 Exhaust end section
b = 270

Discard section **X**

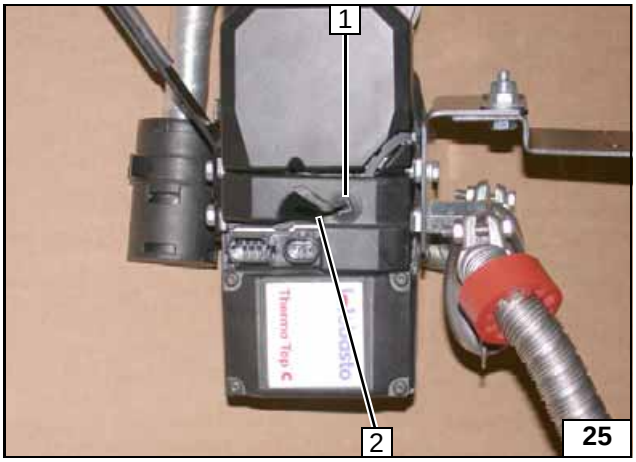
Preparing exhaust pipe

Premounting exhaust system



1 Hose clamp [3x]
2 M6x16 bolt, spring lockwasher
3 Exhaust pipe
4 Exhaust silencer
5 Red (rt) rubber isolator with groove
6 Exhaust end section
7 Red (rt) rubber isolator

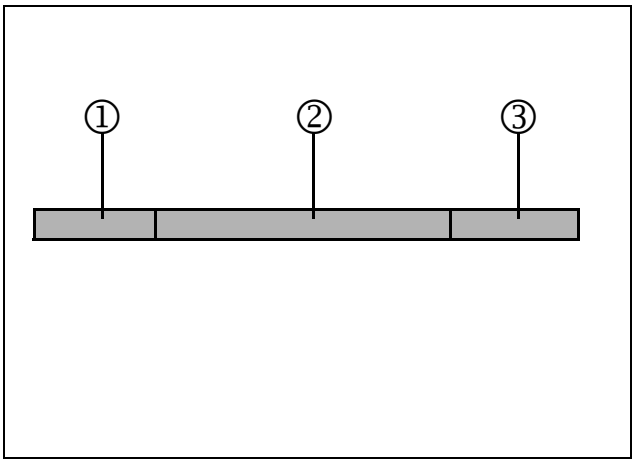
Installing clip-type cable tie



Punch through perforation at position **1**.

2 Clip-type cable tie

Cutting fabric protective hose to length

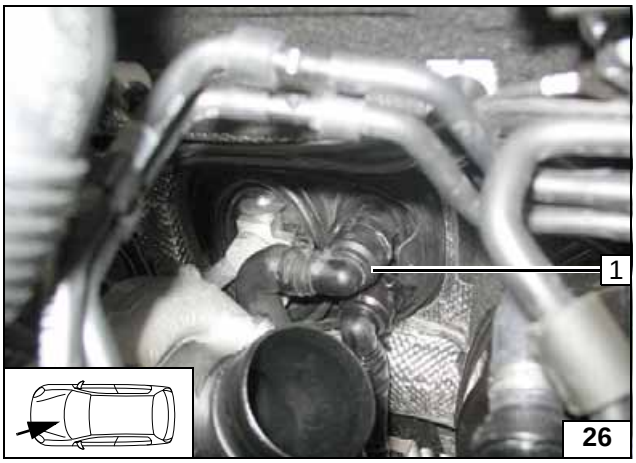


①= 400
②= 1800
③= 600

Preparing coolant circuit

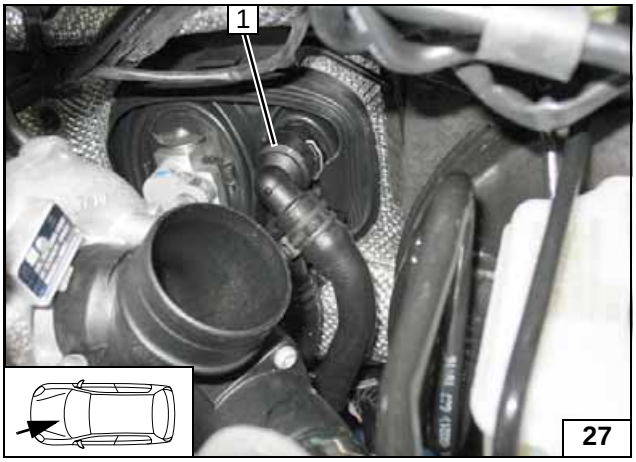
Depending on the vehicle specific equipment, a distinction is made between variant **A** and **B**.

Variant A

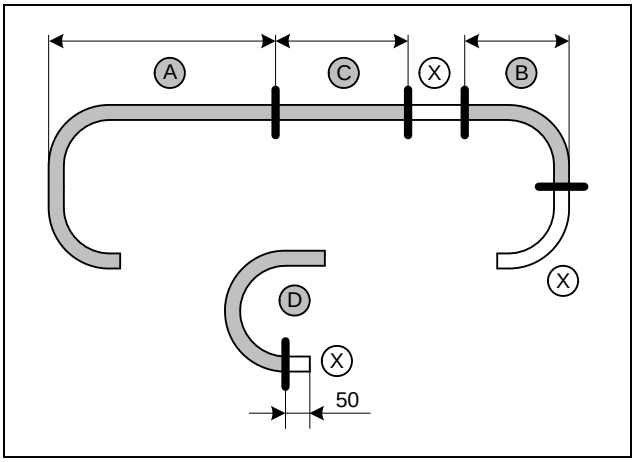


Coupling piece of heat exchanger inlet **1** points to the right.

Variant B

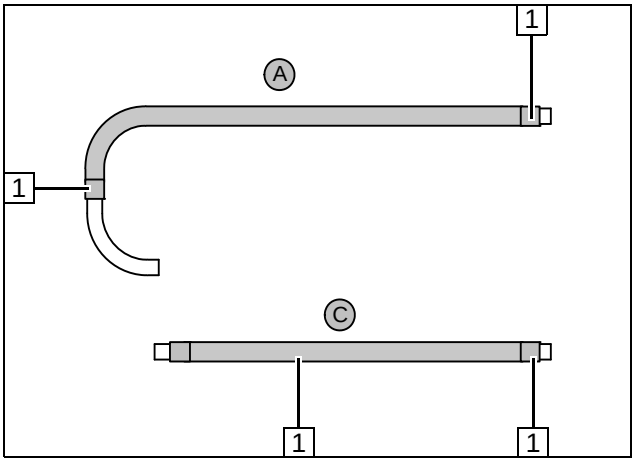


Coupling piece of heat exchanger inlet **1** points to the bottom left.



D = shorten 180°, 20mm dia. moulded hose
Discard section **X**

Variant A	Variant B
A = 900	**A** = 870
B = 100	**B** = 100
C = 860	**C** = 860



Push braided protection hoses onto hose **A** and **C** and cut to length.
Cut heat shrink plastic tubing to length.

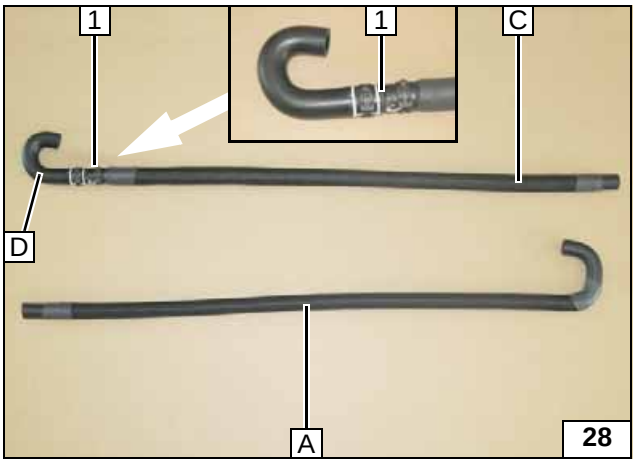
1 50 mm long heat shrink plastic tubing [4x]

Variant A

Variant B

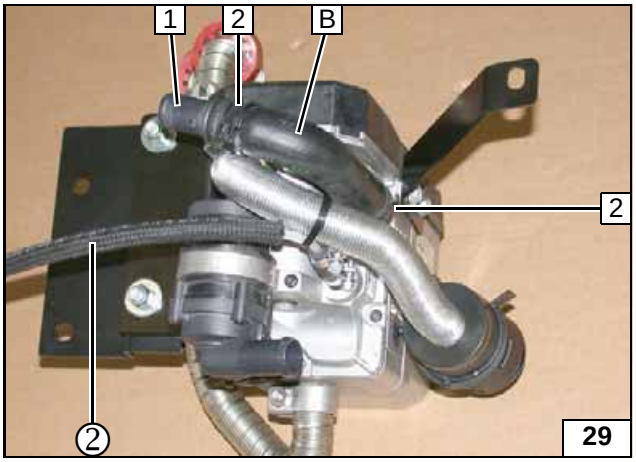
Cutting hoses to length

Preparing hoses



1 20x20 mm connecting pipe, 27 mm dia. spring clip [2x]

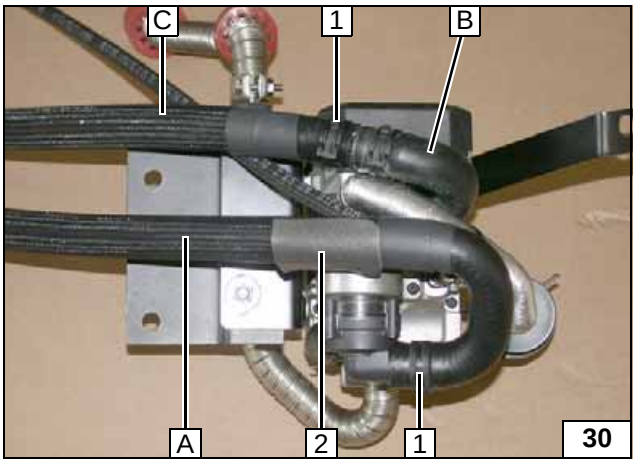
Premounting hoses



Slide fabric protective hose ② onto fuel line.

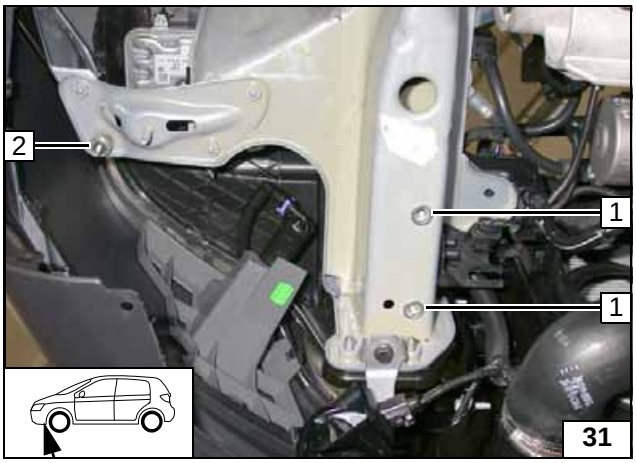
1 20x20 connecting pipe
2 27 mm dia. spring clip [2x]

Premounting heater



1 27 mm dia. spring clip [2x]
2 Glue on rub protection

Premounting coolant hoses

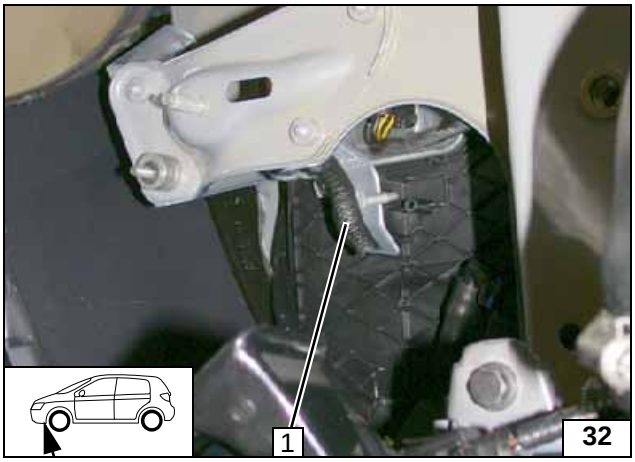


Preparing installation location

Remove original vehicle bolt at Position **2** and discard.

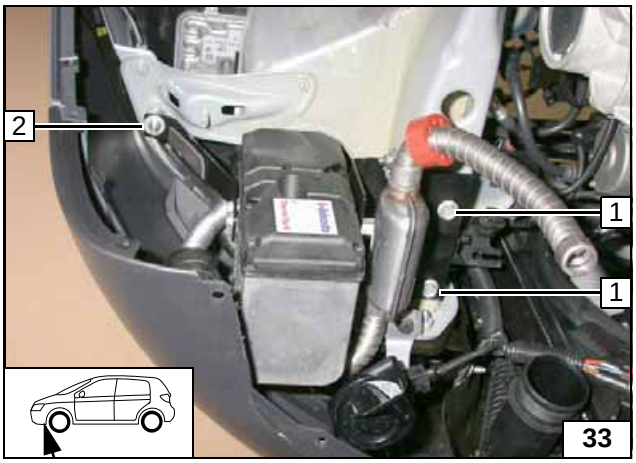
1 Original vehicle hole, M10 rivet nut [2x]
2 M6x40 bolt, 10mm shim, 5mm shim, pin lock

Preparing installation location



1 50 mm edge protection

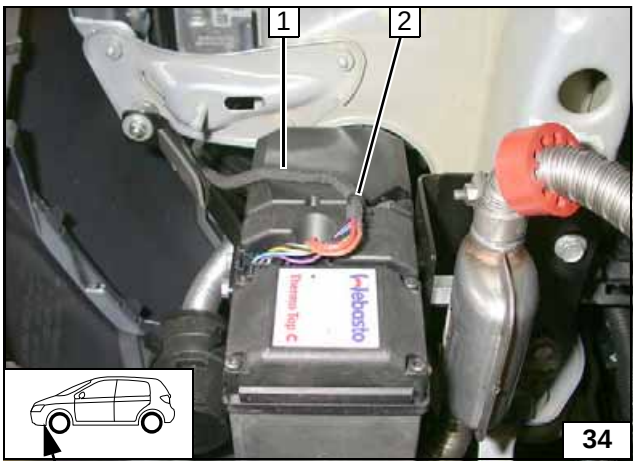
Installing edge protection



Installing heater

1 M10x30 bolt [2x]
2 Large diameter washer, M6 flanged nut

Installing heater



Mount wiring harness **1** on heater and fasten on clip-type cable tie **2**.

Mounting wiring harness

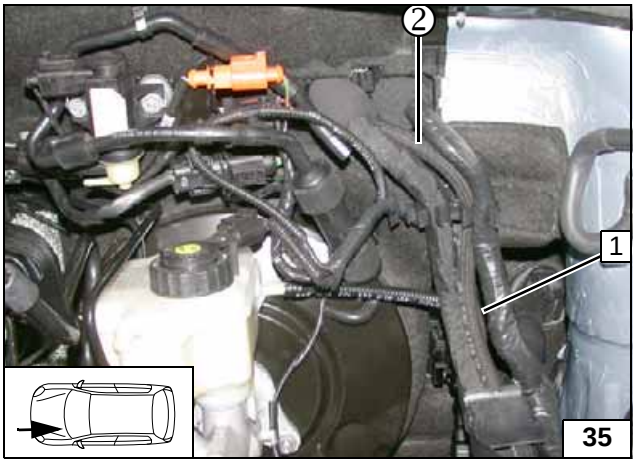
Fuel

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.

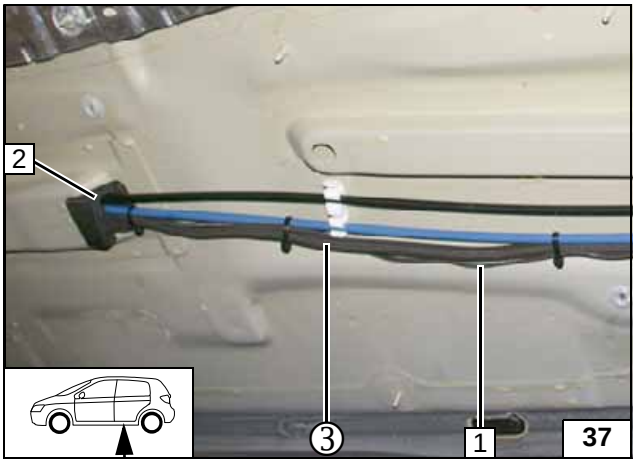


Route wiring harness of metering pump **1** and fuel line in fabric protective hose ② behind insulation mat to right-hand side of vehicle.

Installing lines

Route wiring harness of metering pump and fuel line in fabric protective hose ② in original vehicle line duct **1** to underbody.

Installing lines

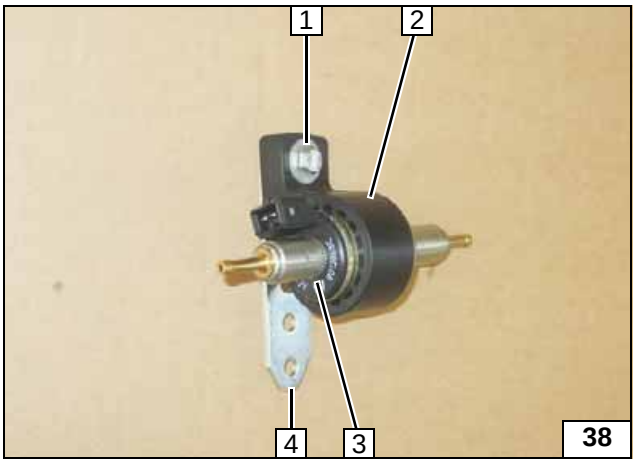


Guide fuel line out of original vehicle wiring duct **2** and slide on fabric protective hose ③.

1 Metering pump wiring harness

Installing lines

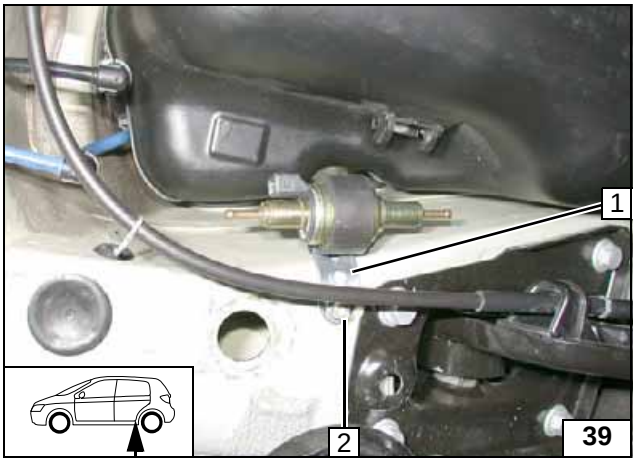
Premounting metering pump



Secure bracket of metering pump **2** with cable tie on perforated bracket **4**.

1 M6x20 bolt, large diameter washer, flanged nut
3 Metering pump

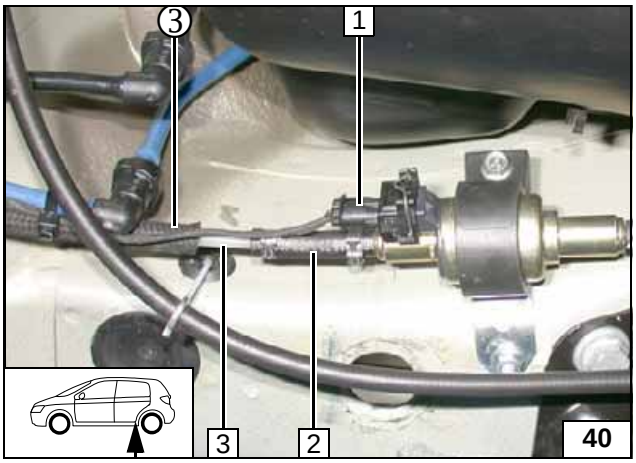
Installing metering pump



Align metering pump and bend perforated bracket **1** upward.

2 Existing hole, M6x20 bolt, large diameter washer, flanged nut

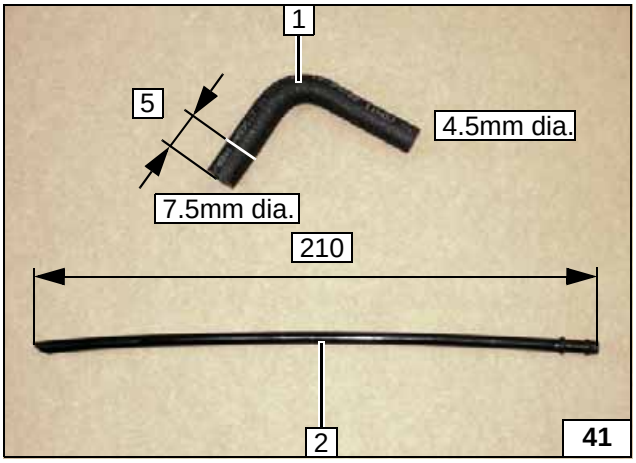
Connecting metering pump



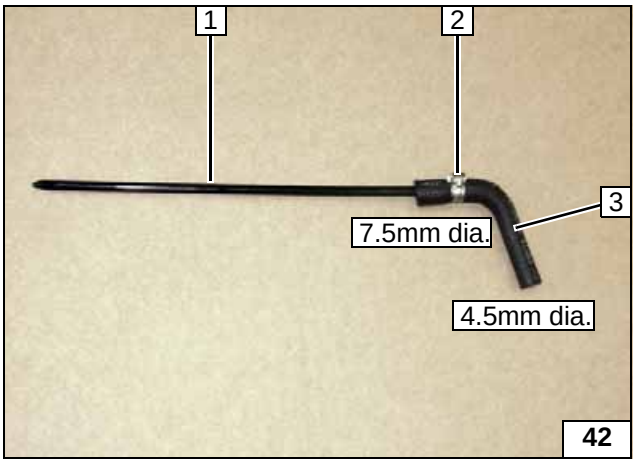
Secure fabric protective hose ③ with cable tie.

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

Cutting standpipe and moulded hose to length



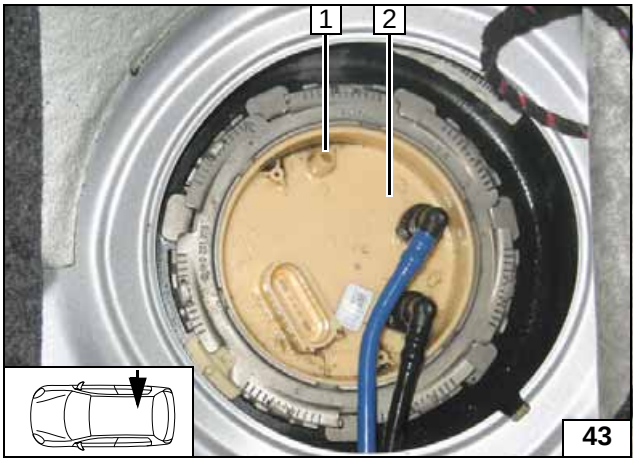
1 90° moulded hose
2 Standpipe



10 mm dia. clamp **2** in centre between beads on end of standpipe.

1 Standpipe
3 90° moulded hose

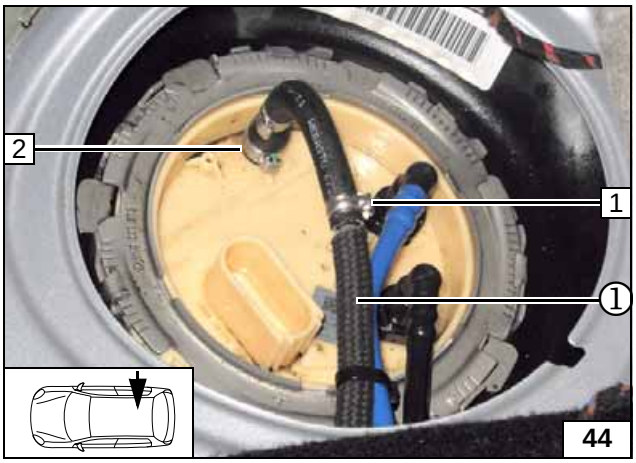
Premounting fuel standpipe



Cut 3 mm off blind plug **1**.

2 Fuel-tank sending unit

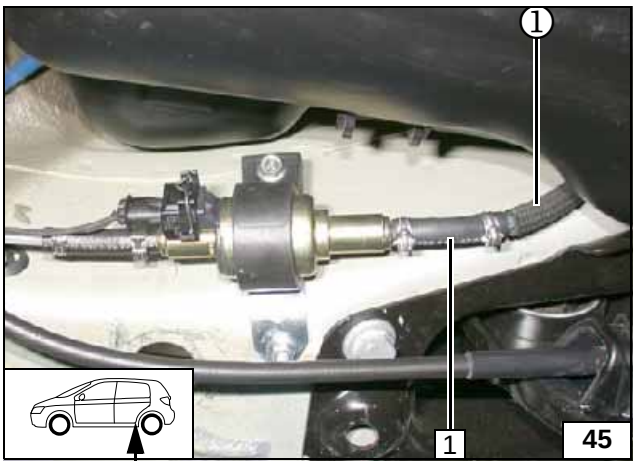
Cutting off blind plug



Slide fabric protective hose ① onto fuel line.

1 10 mm dia. Caillau clamp
2 13.5 mm dia. Caillau clamp

Installing fuel standpipe



Check the position of the components; adjust if necessary. Check that they have freedom of movement.

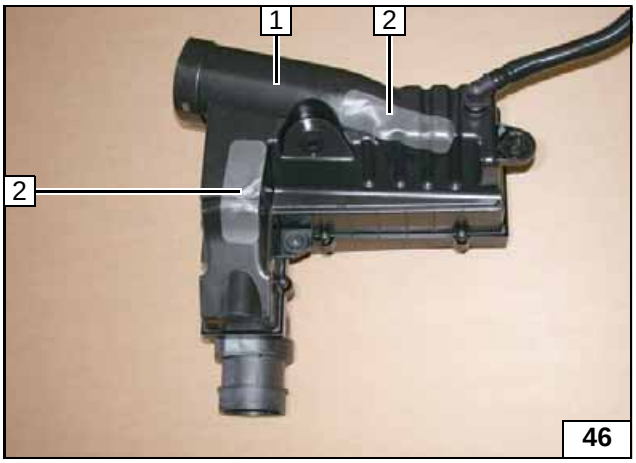
1 90° moulded hose, 10 mm dia. clamp [2x]

Connecting fuel line

Coolant circuit

All vehicles

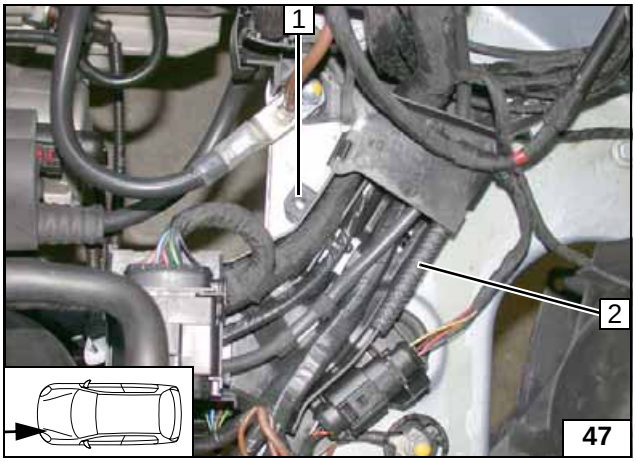
Preparing air filter box



1 Air filter box
2 Glue on rub protection [2x]

Installing edge protection

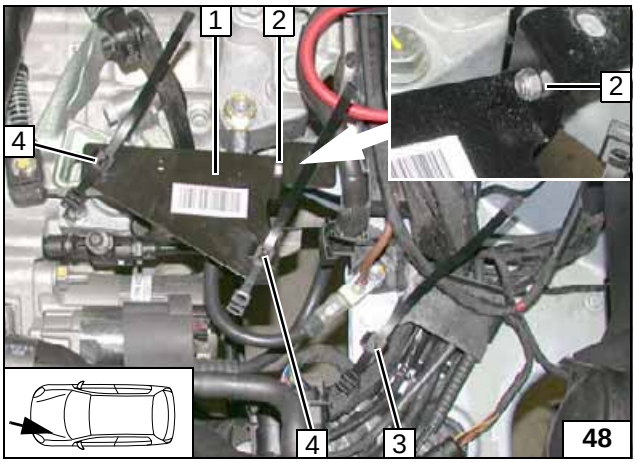
When drilling, watch components located behind!



1 6mm dia. hole in centre of tab
2 50 mm edge protection

Installing bracket for coolant hoses

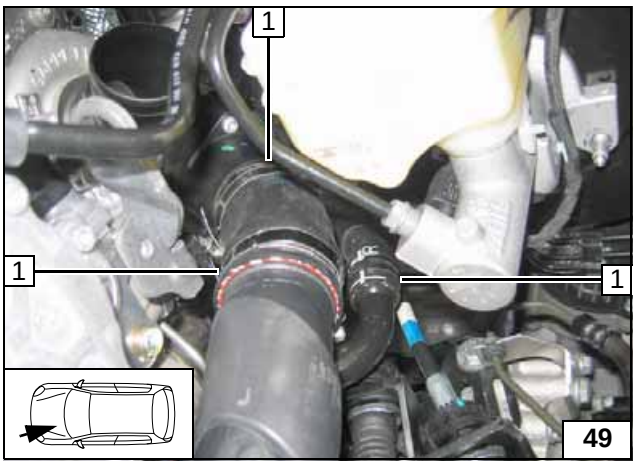
Insert clip-type cable tie **4** [2x] in existing holes of bracket for coolant hoses **1**.



2 Original vehicle hole, M6x20 bolt, flanged nut
3 Clip-type cable tie

Aligning clips

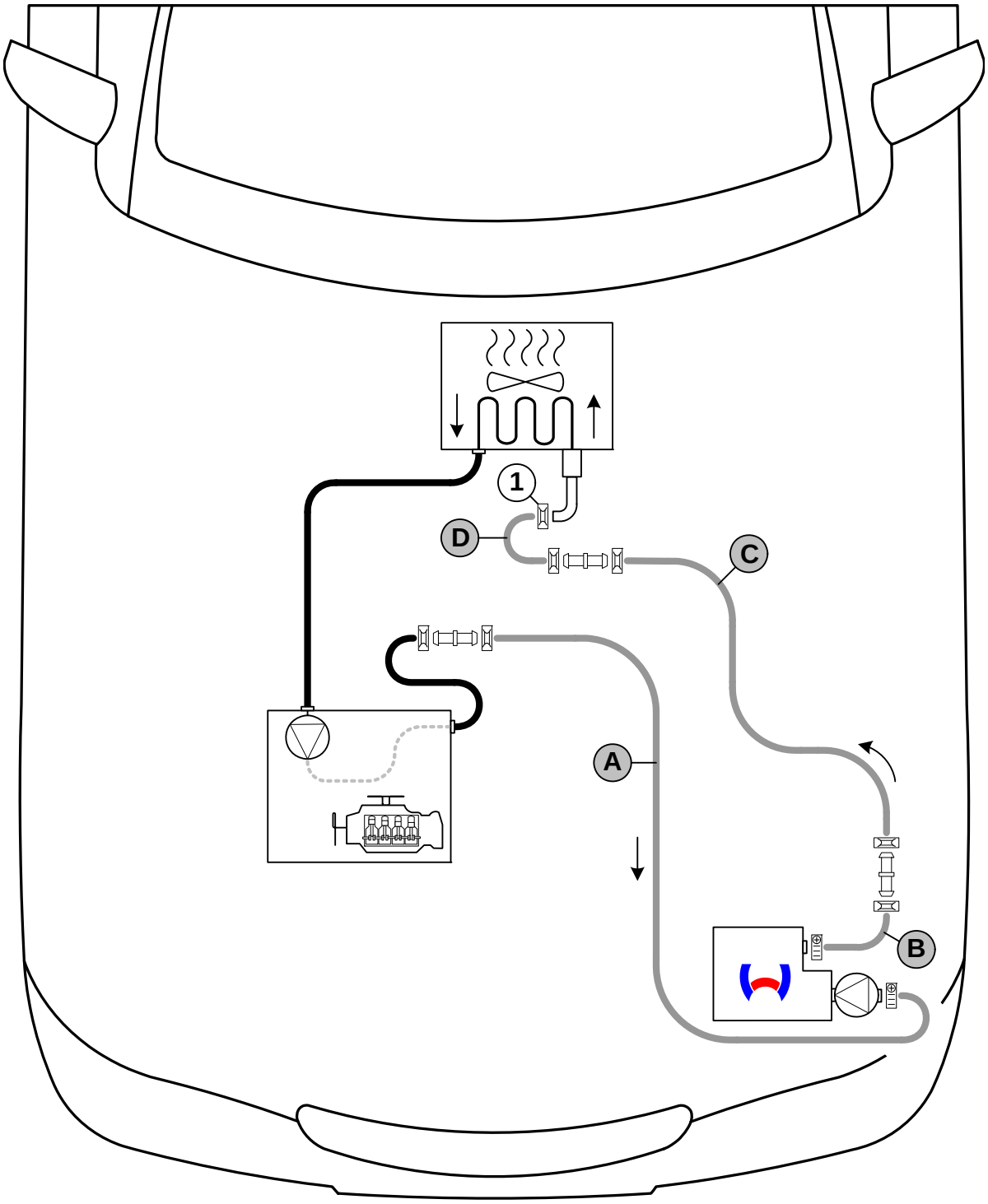
Align original vehicle hose clips **1** [3x] as shown.



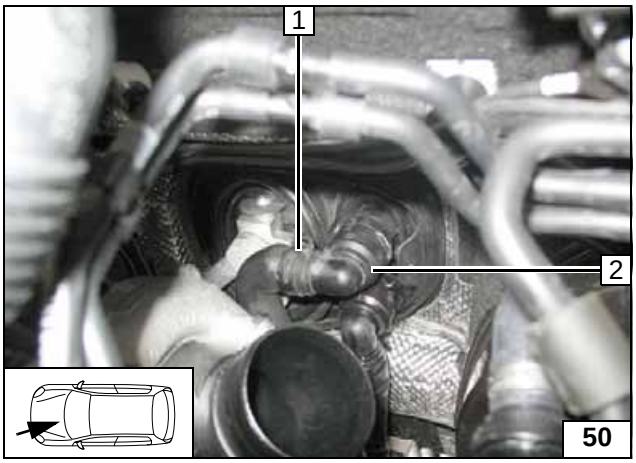
Variant A

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

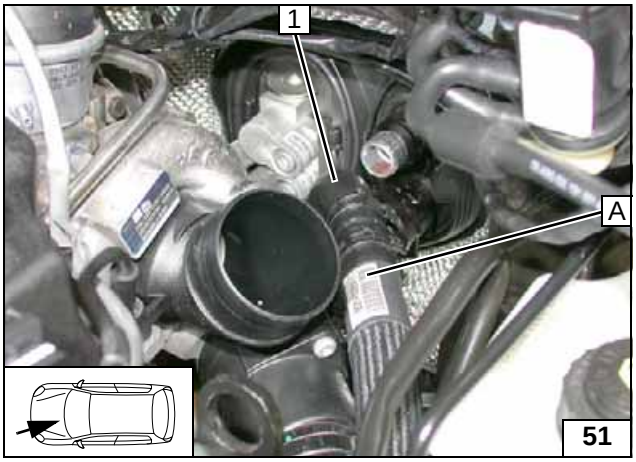


All spring clips without a specific designation = 27 mm dia. **1** = Original vehicle spring clip .
All hose clamps = 20-27 mm dia.! All connecting pipes without a specific designation = dia. 20x20 mm.



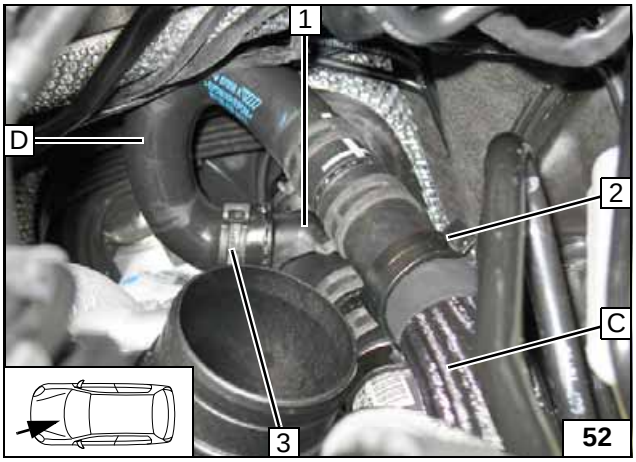
Remove coupling piece on heat exchanger inlet **2**. Spring clip **1** will be reused.

Cutting point



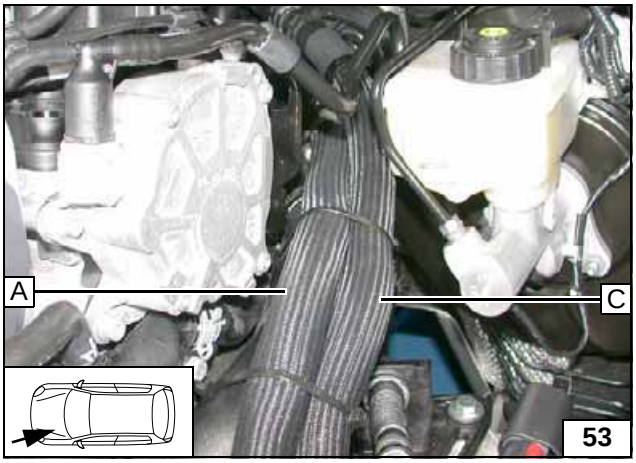
1 Engine outlet hose section

Connecting engine outlet



1 Coupling piece on heat exchanger inlet
2 Spacer bracket
3 Original vehicle spring clip

Connecting heat exchanger inlet

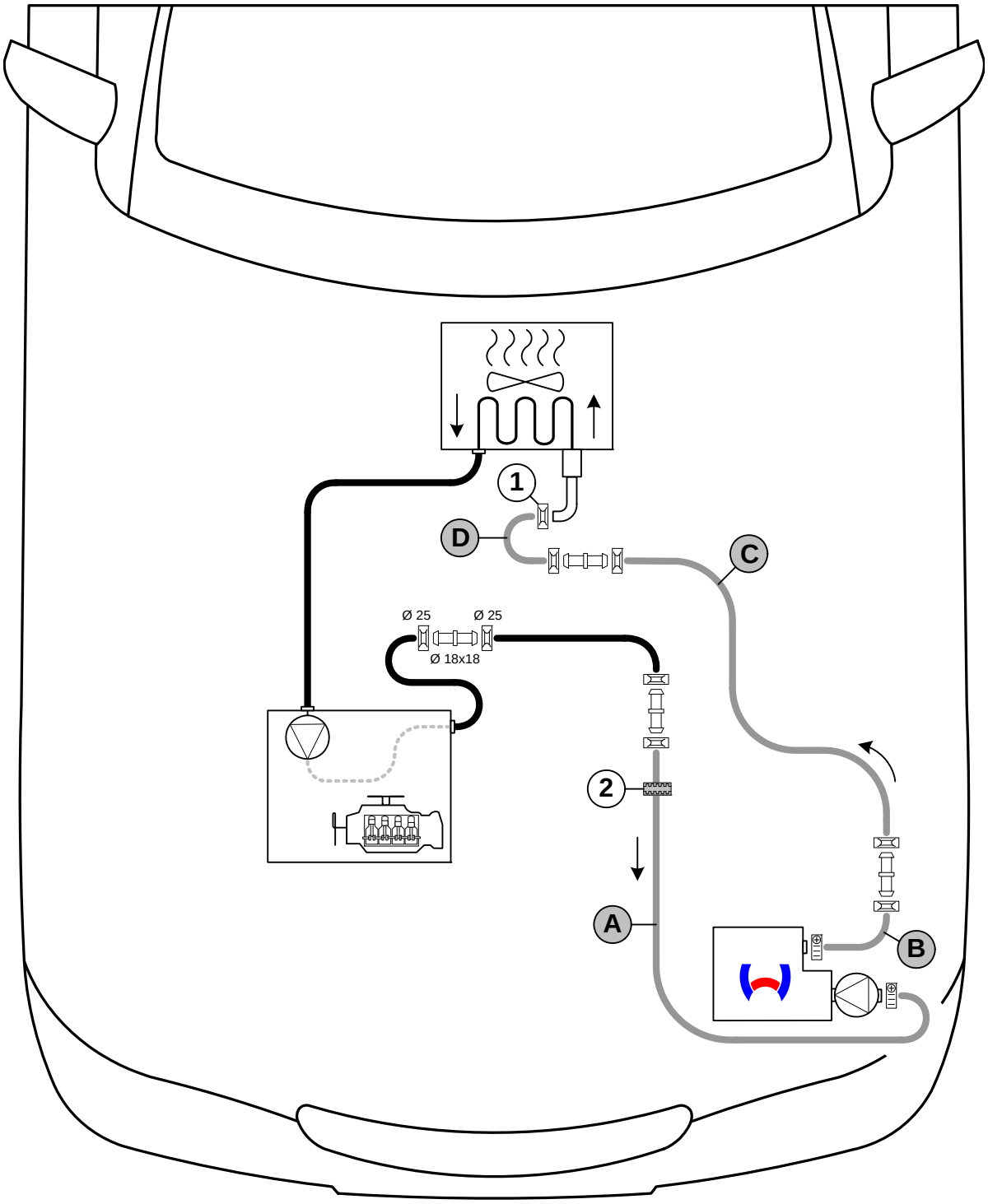


Routing in engine compartment

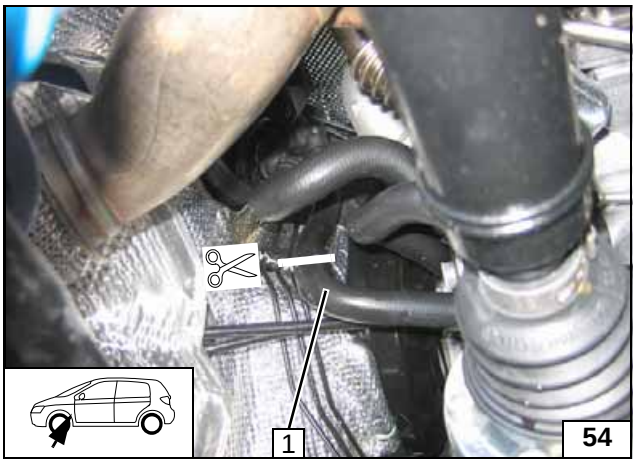
Variant B

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

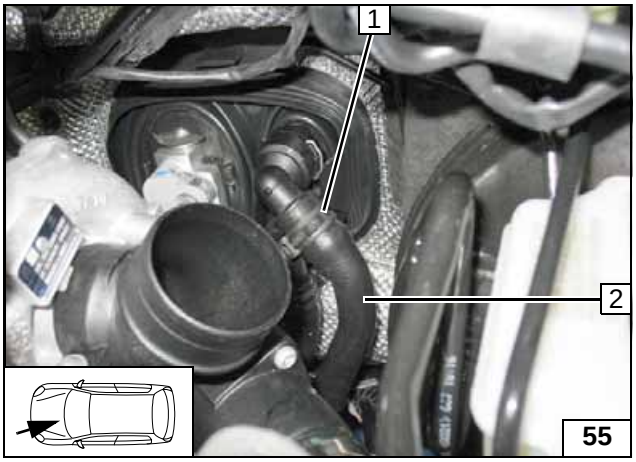


All spring clips without a specific designation = 27 mm dia. **1** = Original vehicle spring clip. All hose clamps = 20-27 mm dia.! All connecting pipes without a specific designation = dia. 20x20 mm. **2** = Black (sw) rubber isolator.



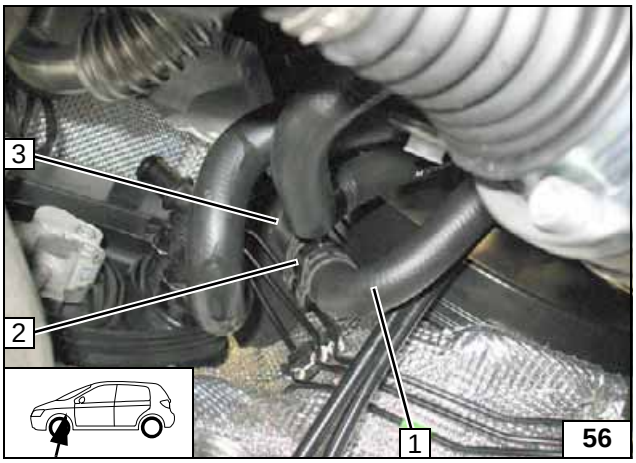
Cut off hose on engine outlet/heat exchanger inlet **1** at marking.

Cutting point



Remove hose section of engine outlet **2**. Spring clip **1** will be reused.

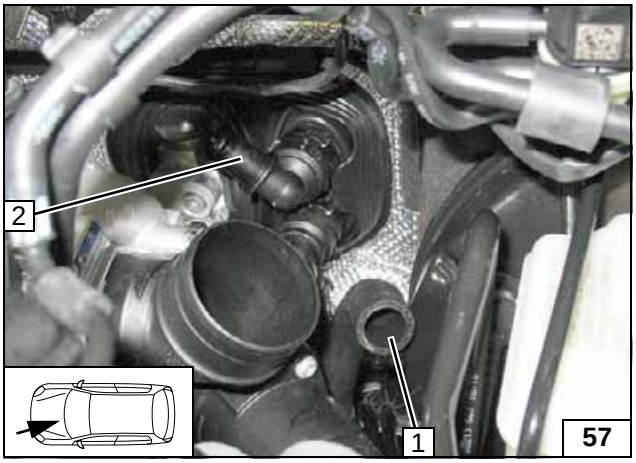
Cutting point



Install hose section of engine outlet **3** turned forward by 90° (see following image). Insert spacer bracket **2** in connecting position.

1 Hose of engine outlet

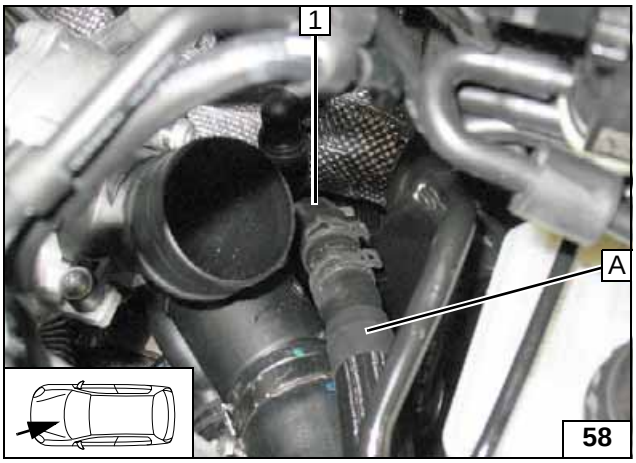
Cutting point



Install coupling piece of heat exchanger inlet **2** facing right as shown.

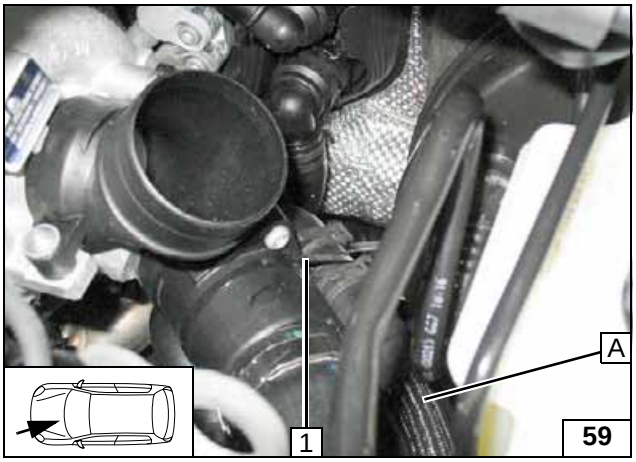
1 Engine outlet hose section

Connecting engine outlet



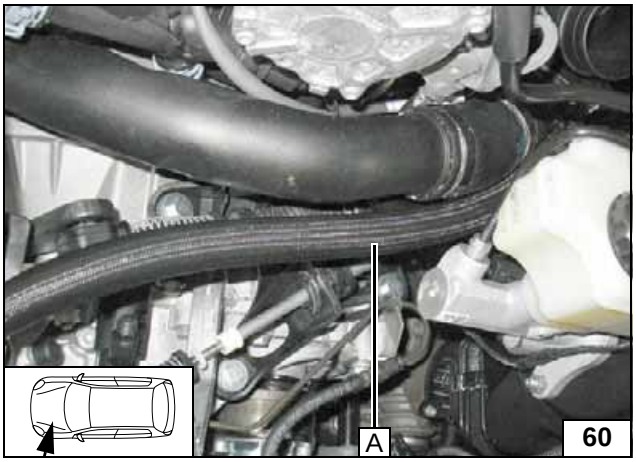
1 Engine outlet hose section

Connecting engine outlet

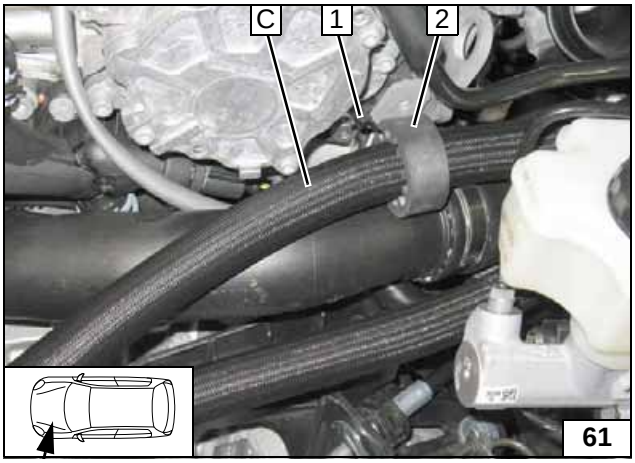


1 Cable tie

Routing in engine compartment

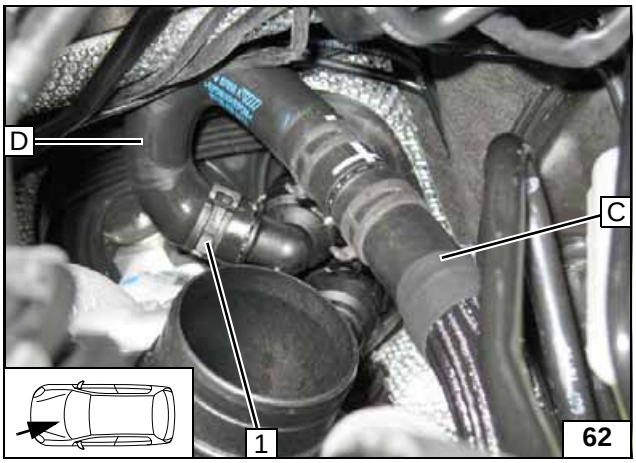


Routing in engine compartment



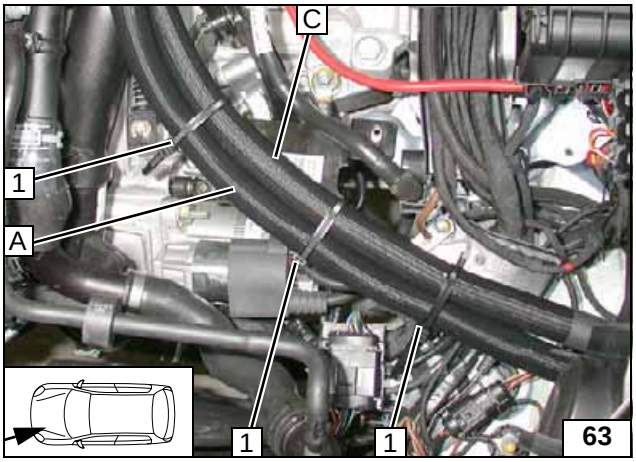
Push black (sw) rubber isolator **2** onto hose **C** and fasten it to the engine tab using cable tie **1**.

Routing in engine compartment



1 Original vehicle spring clip

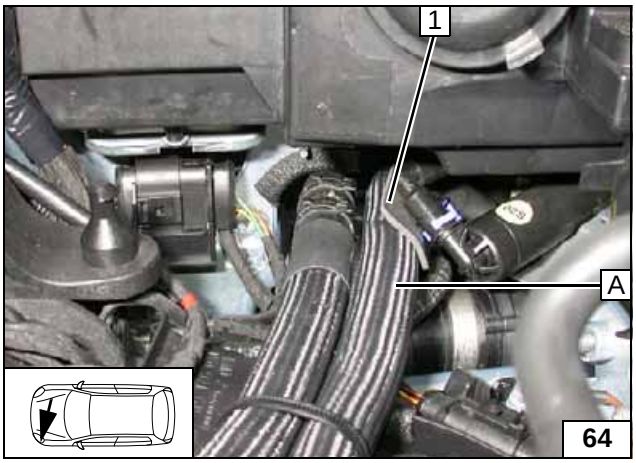
Connecting heat exchanger inlet



All vehicles

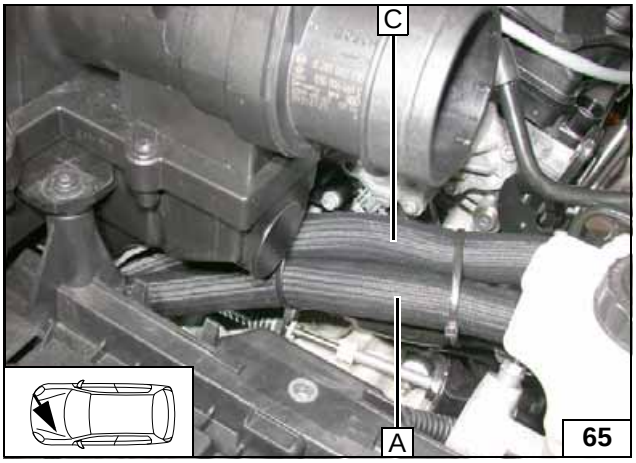
1 Close clip-type cable tie

Routing in engine compartment



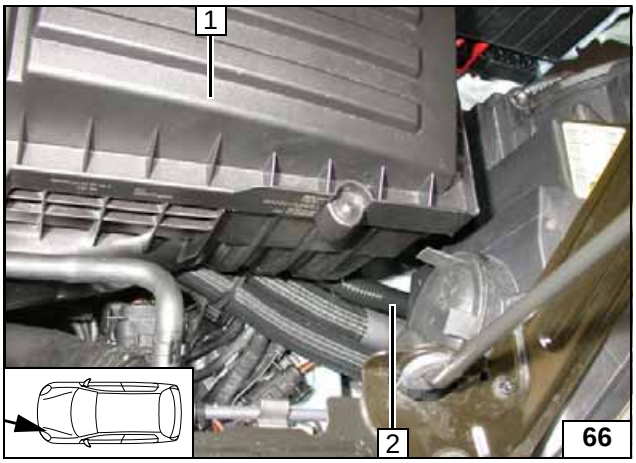
1 Rub protection

Gluing rub protection



Install battery carrier and air filter box. Ensure sufficient distance to neighbouring components.

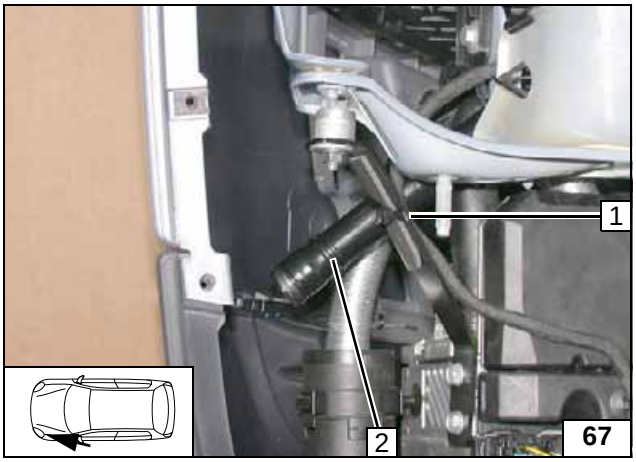
Aligning hoses



Ensure sufficient distance to neighbouring components.

1 Air filter box
2 Drain pipe

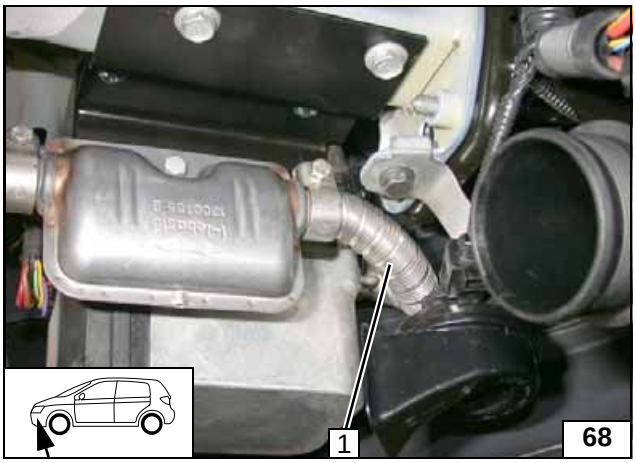
Routing drain pipe



Ensure sufficient distance to neighbouring components.

1 Cable tie
2 Drain pipe

Fastening drain pipe

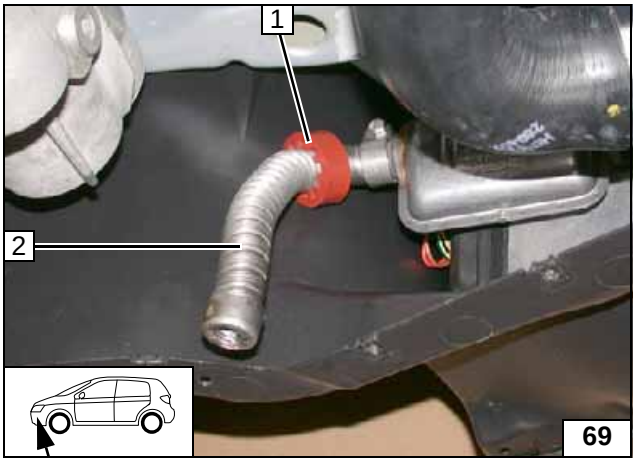


Exhaust gas

Ensure sufficient distance to neighbouring components, correct if necessary.

1 Exhaust pipe

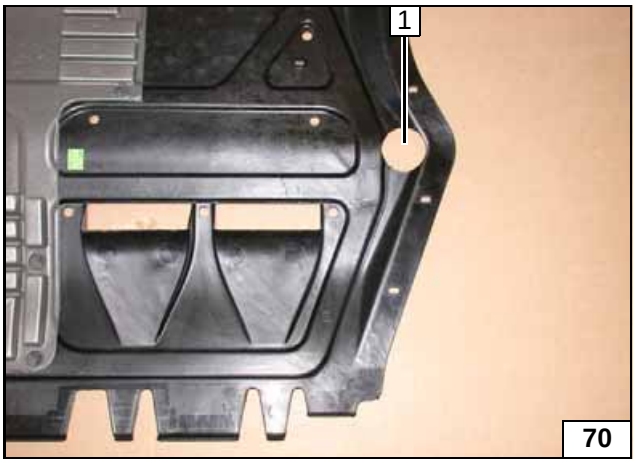
Aligning exhaust pipe



Position red (rt) rubber isolator **1** to wheel-well inner panel.

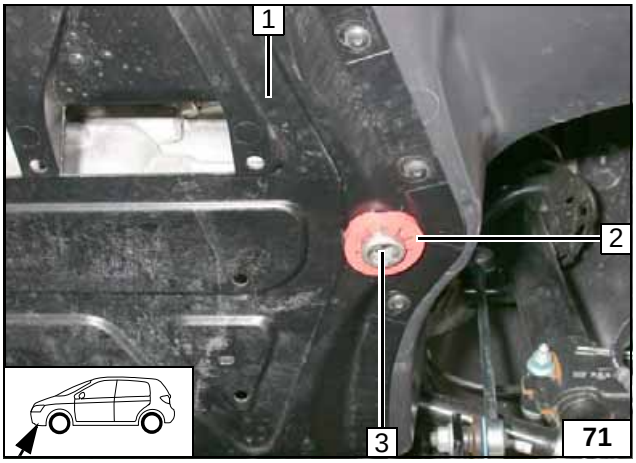
2 Exhaust end section

Aligning exhaust end section



1 42 mm dia. hole

Cutting out underride protection



Align exhaust end section **3** flush on red (rt) rubber isolator **2**.

1 Underride protection

Mounting rubber isolator

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.**
- **Adjust digital timer, teach Telestart**
- **Make settings on A/C control panel according to the "Operating Instructions for End Customer".**
- **Place instruction signboard "Switch off parking heater before refuelling" in the area of the filler neck**
- **For initial start-up and function test, refer to installation instructions**

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http://www.webasto.com

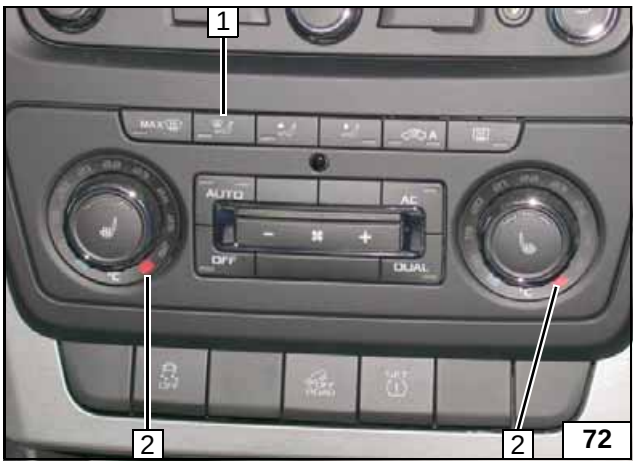
Operating Instructions for End Customer

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.

On vehicles with anti-theft alarm, the passenger compartment monitoring system must be deactivated. For information on deactivation, please see the vehicle owner's manual.

Before parking the vehicle, make the following settings:



1 Direct air outlet toward windscreen
2 Set temperature on both sides to "HI".