Water Heater

Webasto
Feel the drive

***Thermo Top V* Parking Heater** e1 00 0018

Installation instructions

Mercedes Benz E Class Coupe C207

Gasoline and Diesel
from Model Year 2009
Left-hand drive vehicle
Not for E 63 AMG
AMG Optic package not checked
Blue Efficiency

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.: 1315476A_EN Fee Euro 10.00

Table of Contents

Validity

Manufacturer	Model	Type	EG-BE No./ABE
Daimler AG	E-Class	C207	e1 * 2001 / 116 * 0502 * ...

Engine type	Engine model	Output in kW	Displacement in cm³
E 350 CGI (Blue Efficiency)	Gasoline / V6	215	3498
E 350 CDI 4Matic	Diesel / V6	170	2987

Heater/Installation Kit

Quantity	Description	Order No.:
1	LU TT-V Mercedes Benz E Class BR 212 / 207 Gasoline with Telestart T91	1315111B

or

Quantity	Description	Order No.:
1	LU TT-V Mercedes Benz E Class BR 212 / 207 Diesel with Telestart T91	1315069B

Optional heater control either:

Quantity	Description	Order No.:
1	1533 Digital timer only in conjunction with Y-adapter	9005753C
		9001505A
1	Thermo Call Comfort/Connect/Locate	See price list

The installation location of the digital timer/push button should be confirmed with the end customer before installation.

Foreword

This installation instructions applies to vehicles Mercedes Benz E Class C207 Gasoline and Diesel from model year 2009 and later - for validity, see page 2 - assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Vehicle and engine types, equipment variants and national specifications not listed in these installation instructions have not been tested. The installation must be undertaken according to these "installation instructions" - modifications are not allowed.

The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

However, where this is the case the stipulations in this "installation instructions" and "operating instructions" for the *Thermo Top V* should be observed.

The additional ventilation function is not possible!

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).

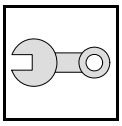
Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Stepped drill

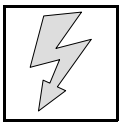
Explanatory Notes on Document

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.

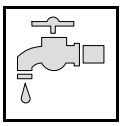
Mechanical system



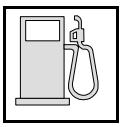
Electrical system



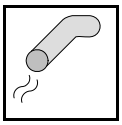
Water



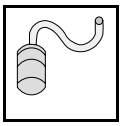
Fuel



Exhaust gas



Combustion air



Software

Special features are highlighted using the following symbols:

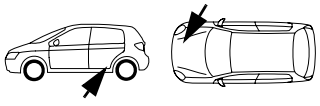
Specific risk of injury or fatal accidents.

Specific risk of damage to components.

Specific risk of fire or explosion.

Reference to these, the general installation instructions of the Webasto operating elements and to vehicle-specific documents of the manufacturer

Reference to a special technical feature.



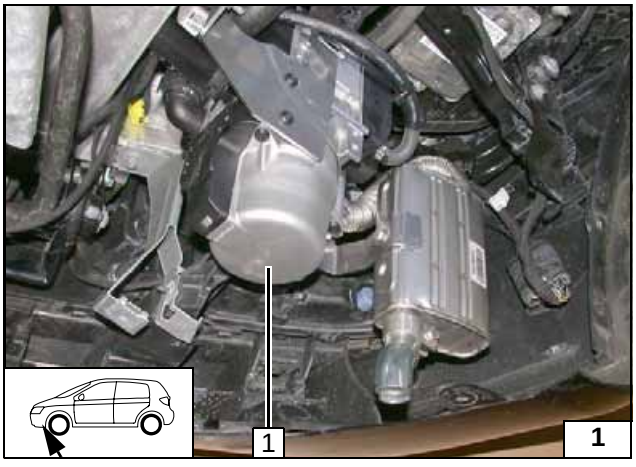
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

All dimensions are in mm! Install fuel connections without any collisions!
Starting torque of 5x13 heater unit bolts = 8Nm!
Starting torque of 5x15 bolts of water branch retaining plate = 8Nm!

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 trim of the passenger compartment fan air intake
- Remove the windshield wipers.
- Remove the coolant reservoir cap.
- Remove the dome strut on the left.
- Remove windshield wiper motor fully
- Remove the cover of the air intake for the passenger compartment fan in the engine compartment on the right.
- Remove battery with carrier fully
- Remove battery control unit
- Remove the engine design cover.
- Remove air intake pipe (right)
- Remove the lower engine cover.
- Remove the lower vehicle trim (right)
- Remove the right-hand front wheel.
- Remove the wheel well trim (right)
- Remove the seat bench of the rear bench seat.
- Remove the fuel-tank sending unit in accordance with the manufacturers specifications (right)
- Remove cover below the glove compartment
- Remove the door sill panel trim at the front right
- Remove lower A Column trim at front right
- Fold back the cover in the foot well on the co-driver side, remove cover plate (plastic nuts) and turn to the rear.
- Remove front air-conditioning control panel
- Remove shift lever cover or storage compartment in the 7-gear automatic transmission box
- Remove the ashtray or storage compartment with the socket outlet below the A/C control panel.
- Discharge engine coolant according to manufacturer's specification



Heater installation location

1 Heater

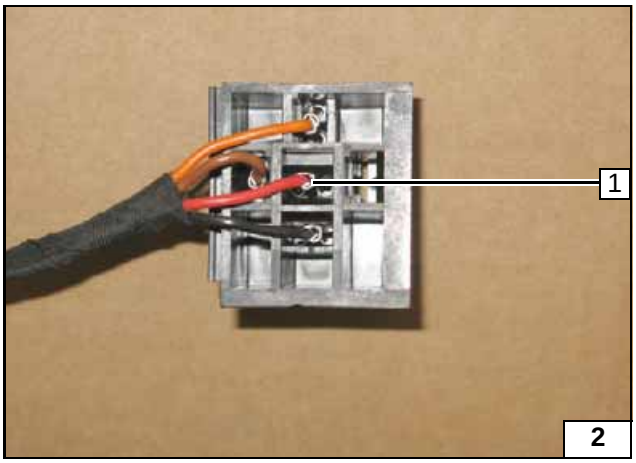
Installation location

Preparing electrical system

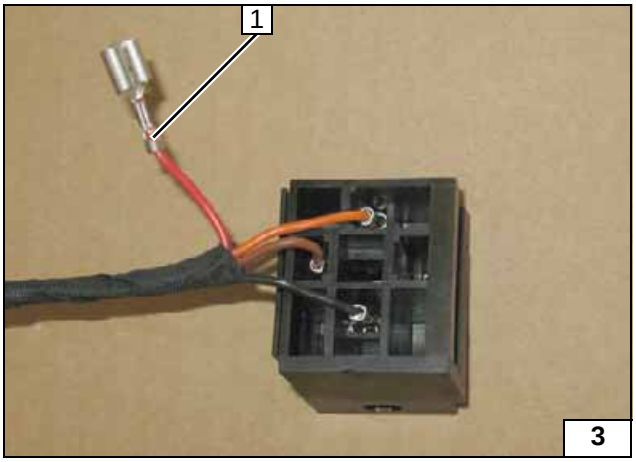
Preparing PC wiring harness

Remove red (R) wire**1** from socket 15 PC (if available).

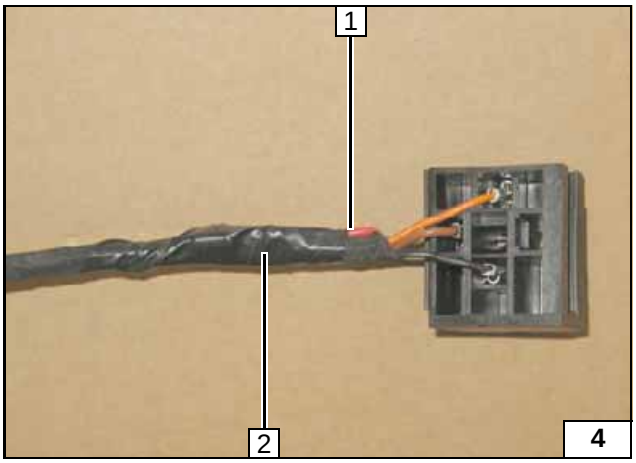
Remove wire from terminal 15 IPCU



Insulate and tie back red (R) wire **1**.



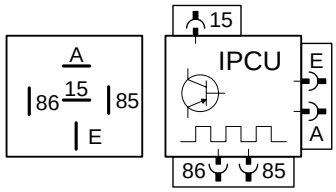
Red (rt) wire **1** secured with insulation tape to wiring harness of IPCU **2**!



IPCU view on contact side!

Duty cycle: 56%
Frequency: 400Hz
Voltage: 3.0V
Function: High-side

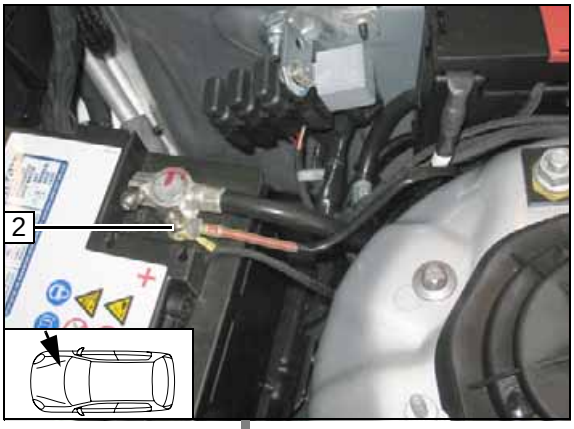
IPCU



Electrical system

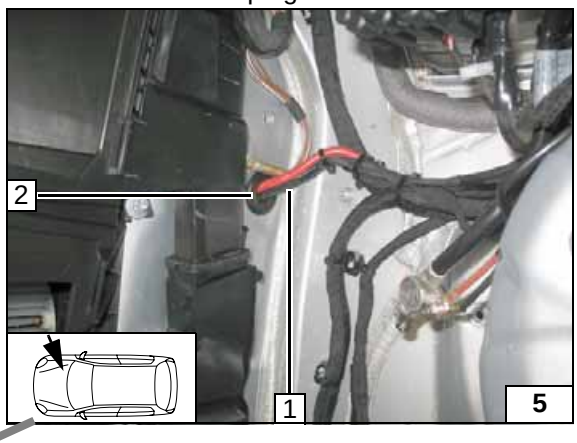
Plus wire

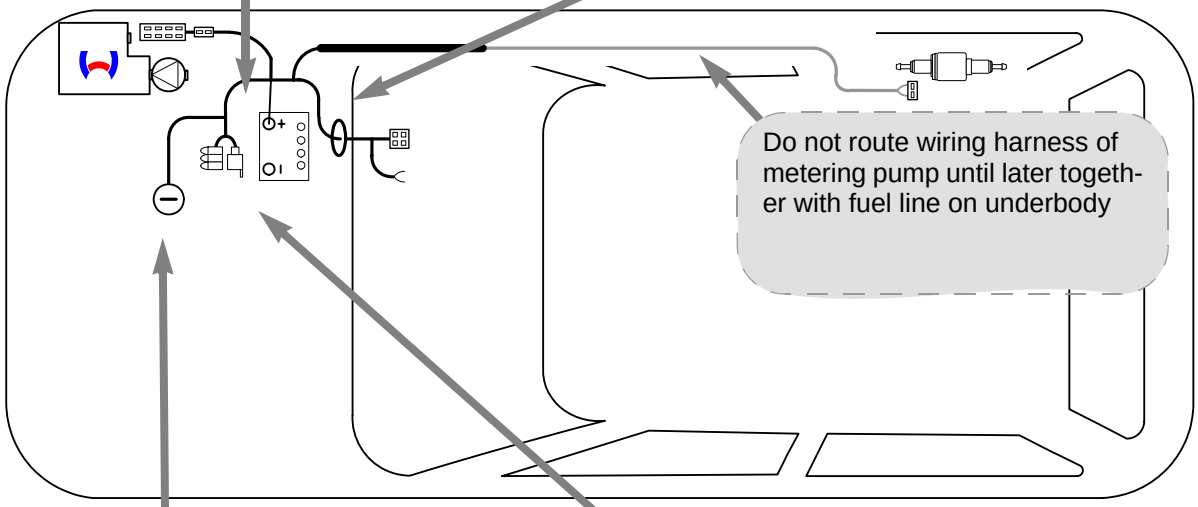
1 Positive wire on positive terminal of battery



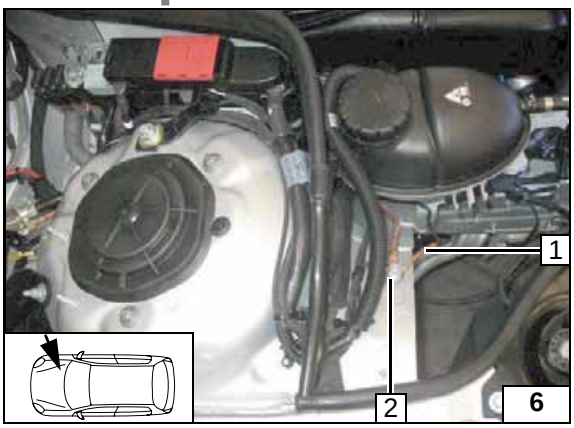
Wiring harness pass through

1 Wiring harness of heater control, wiring harness of fan controller relay K3
2 Protective rubber plug



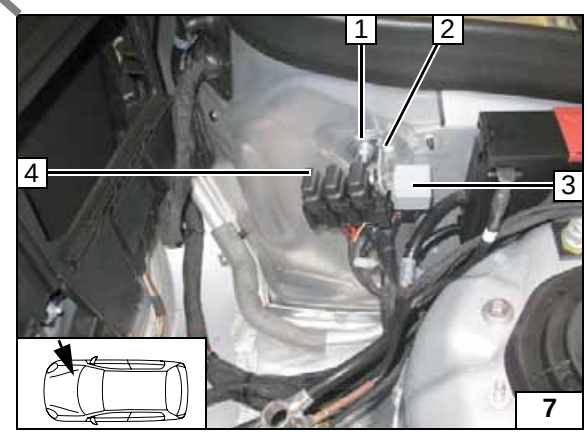


Wiring harness installation diagram



Ground wire

1 Ground wire
2 Original vehicle ground support point

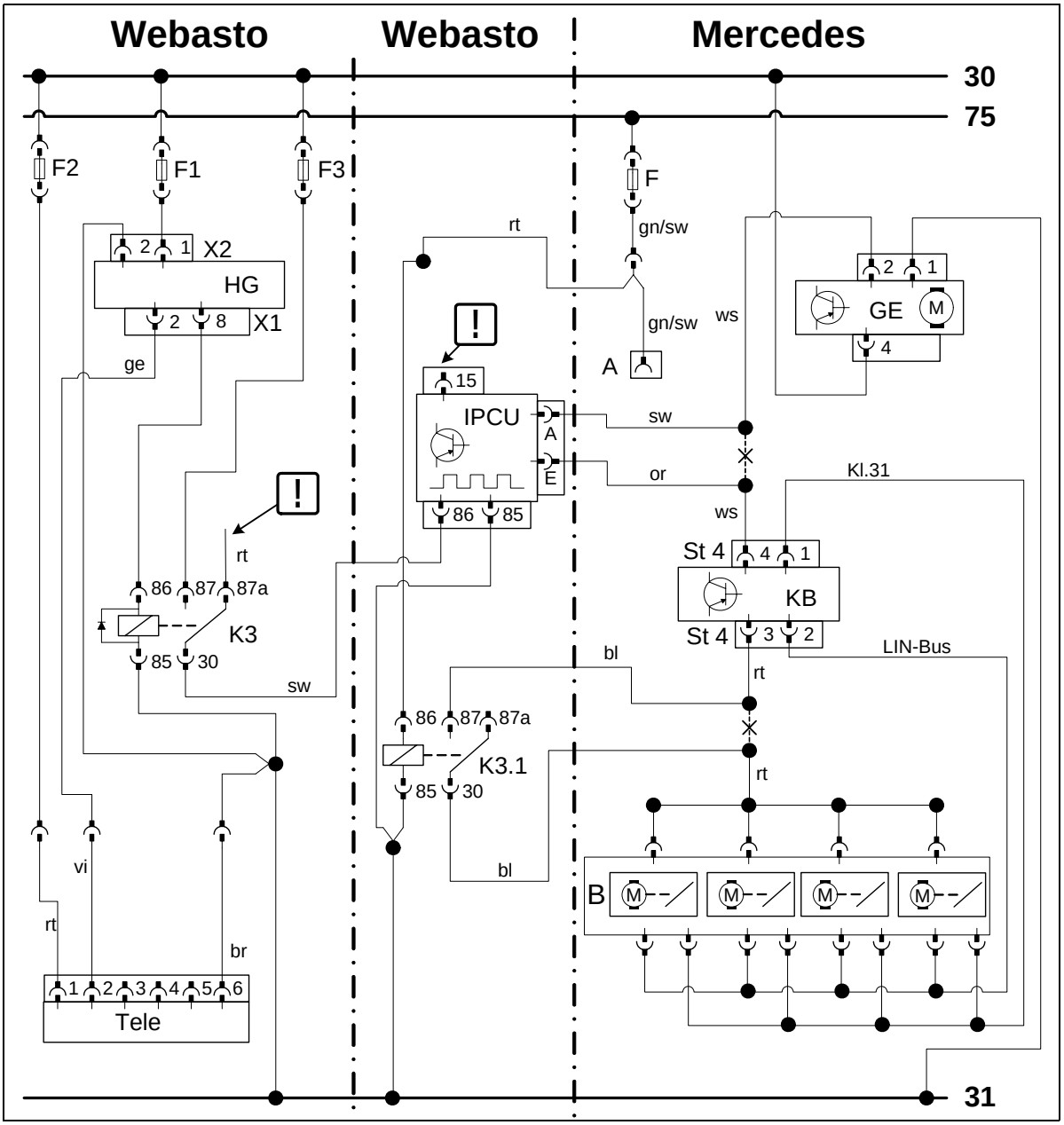


Fuse holder, K3 relay

1 Remove clip
2 Mount angle bracket, MD bolt, large diameter washer, flanged nut loosely
3 MD bolt, washer, retaining plate of fuse holder, KS relay, MD nut
4 Fuse carrier

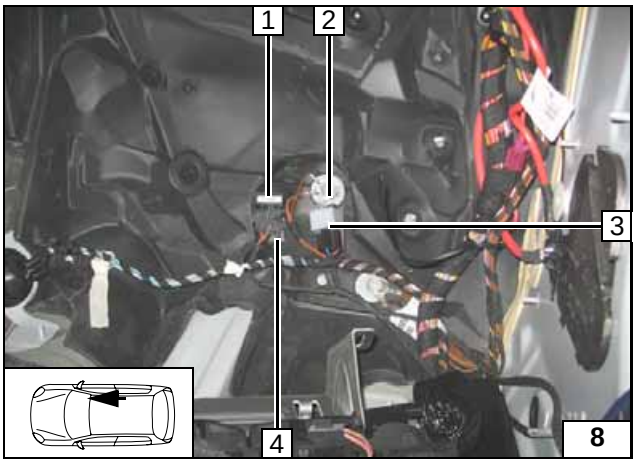
Fan controller

Wiring diagram



Legend

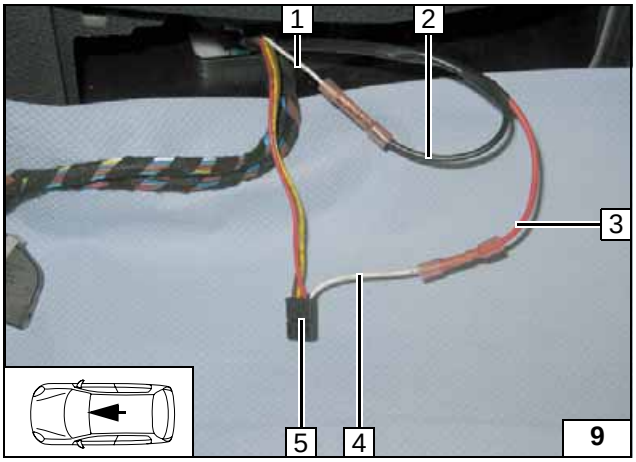
Webasto components		Vehicle components		Colours and symbols	
HG	TT-V heater	ge	Fan unit	rt	red
X1; X2	Connector HG	KB	A/C control element	ws	white
F1	Fuse, 20A	A	Socket outlet/lighter	sw	black
F2	Fuse, 1A	B	Flap positioning module	bl	blue
F3	Fuse, 5A	F	Fuse	gn	green
K3	Relay	ST 4	Connector, 4-pin, KB	ge	yellow
K3.1	Relay			or	orange
IPCU	Pulse width modulator			vi	violet
Tele	Telestart				
IPCU adjustment values:					
Duty cycle:	56%			!	Insulate wire ends and tie back
Frequency:	400Hz				
Voltage:	3.0V			**X**	Cutting point
Function:	High-side			Wiring colours may vary.	



Black (sw) K3/30 wire **4** in Kl86 IPCU socket, route IPCU wiring harness to socket outlet on centre console connect, secure with cable ties!

1 IPCU, adhesive tape
2 Ground point
3 Relay K3.1, adhesive tape

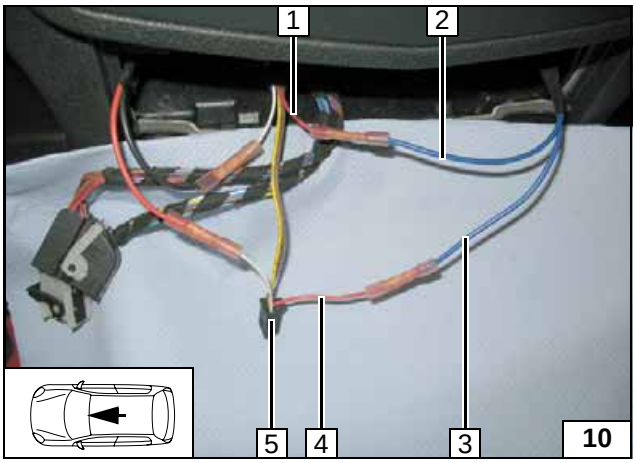
Connecting and routing IPCU wiring harness



Connection to 4-pin connector **5** from A/C control element.
Produce connections as shown in wiring diagram.

1 White (ws) wire
2 Black (sw) wire of IPCU/A
3 Orange (or) wire of IPCU/E
4 White (ws) wire of connector

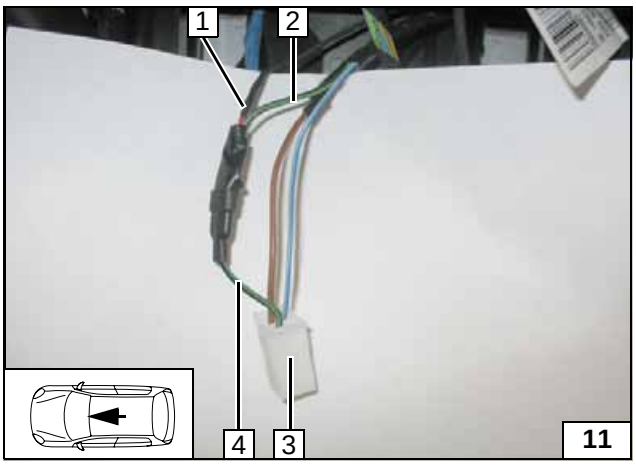
Connecting A/C control panel



Connection to 4-pin connector **5** from A/C control element.
Produce connections as shown in wiring diagram.

1 Red (rt) wire
2 Blue (bl) wire K3.1
3 Blue (bl) wire K3.1
4 Red (rt) wire of connector

Connecting A/C control panel



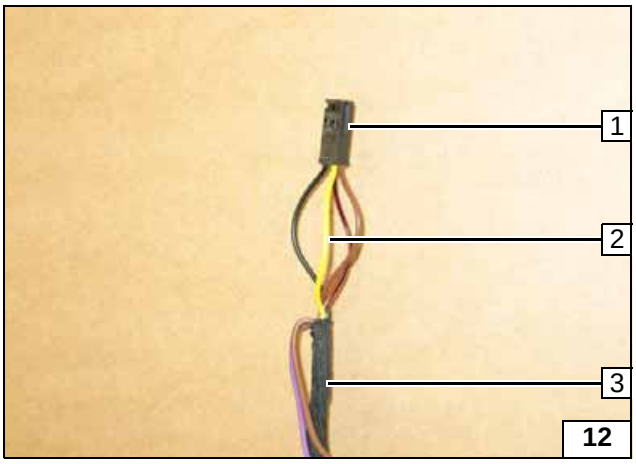
Connection to connector **3** of socket outlet/lighter.
Produce connections as shown in wiring diagram.

1 Red (rt) wire
2 Green/black (gr/sw) wire
4 Green/black (gr/sw) wire

Connection to socket outlet/lighter

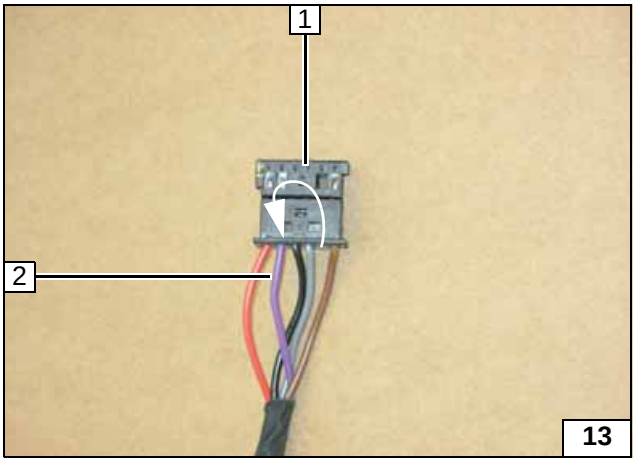
Heater controls

Telestart and push button combination



Mount yellow (ge) wire **2** in free socket of 4-pin connector **1** of heater-unit wiring harness **3**.

Preparing wiring harness of heater



Move violet (vi) wire **2** from socket 5 to socket 2 in 6-pin connector of Telestart **1**.

Preparing Telestart connector

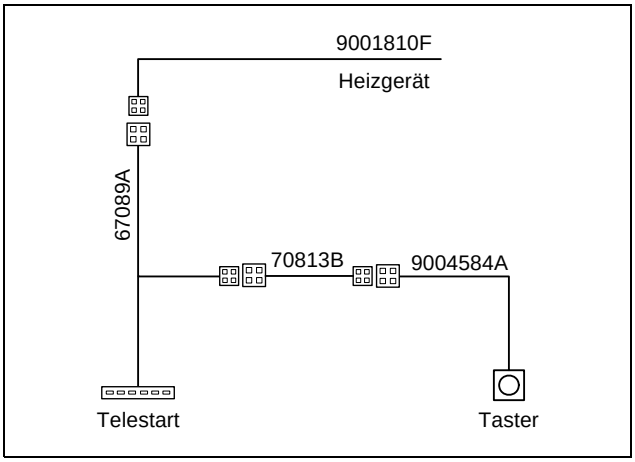
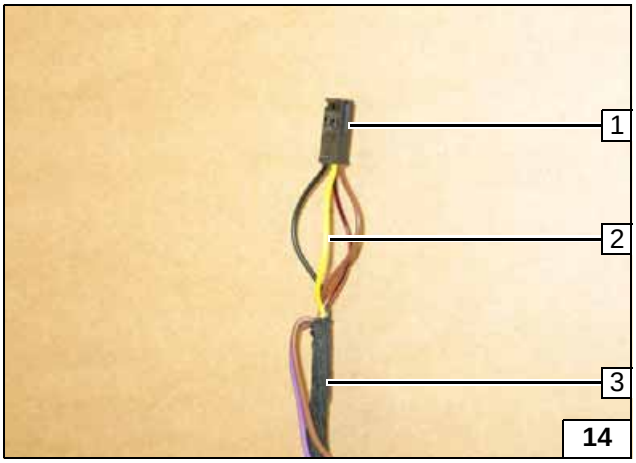


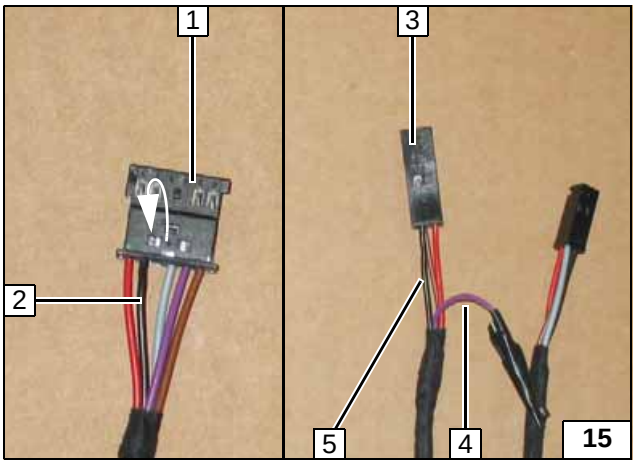
Diagram of standard heater controls

Combination of digital timer, Telestart and/or Thermo Call with push button



Mount yellow (ge) wire **2** in free socket of 4-pin connector **1** of heater-unit wiring harness **3**.

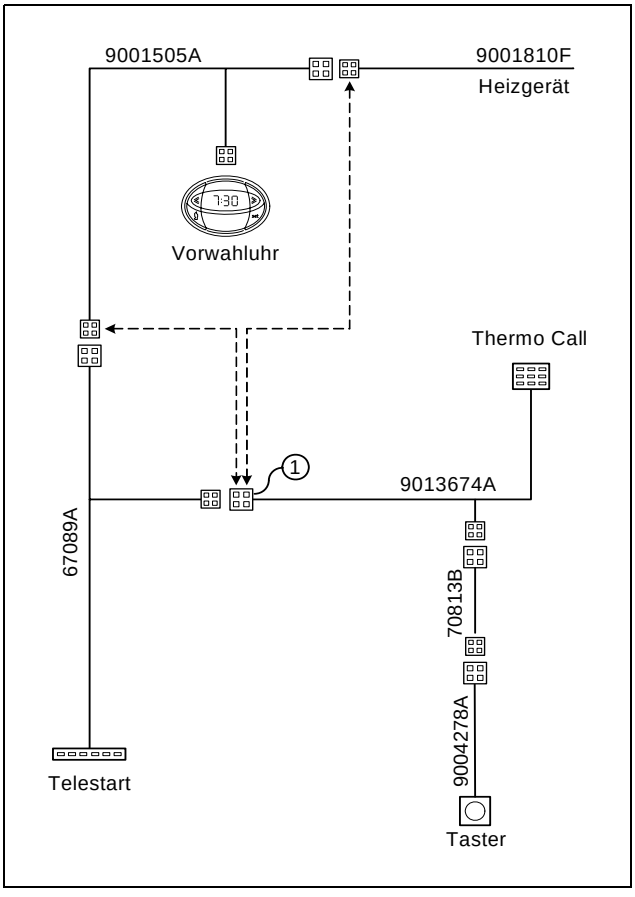
Preparing wiring harness of heater



Move black (vi) wire **2** from socket 3 to socket 2 in 6-pin connector of Telestart **1**.

Remove violet (vi) wire **4** from socket 1 from 4-pin connector housing **3**, insulate and tie back.
Remove black (sw) wire **5** from socket 2 and insert in socket 1.

Preparing adapter wiring harness (67089A)



Selection of individual heater controls can be combined with each other!

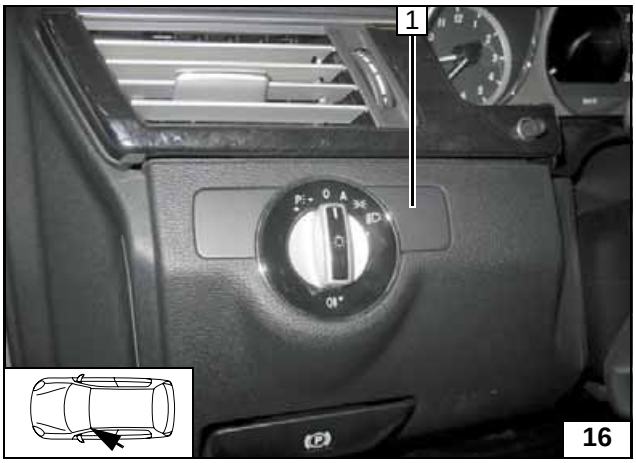
WARNING:
1 Insert yellow (ge) wire in free socket

Diagram of optional heater controls

Push button installation

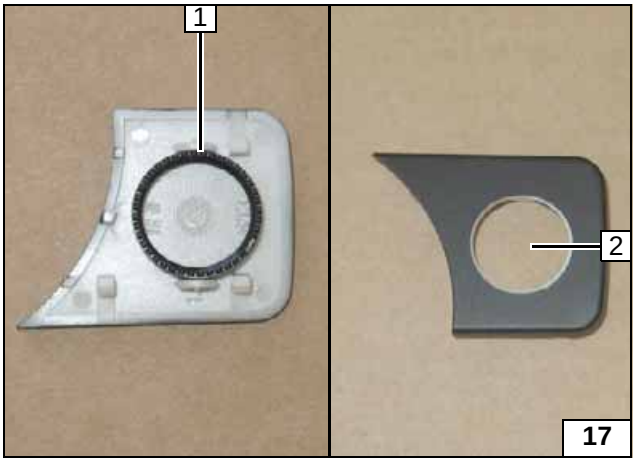
1 Cover

Removing cover



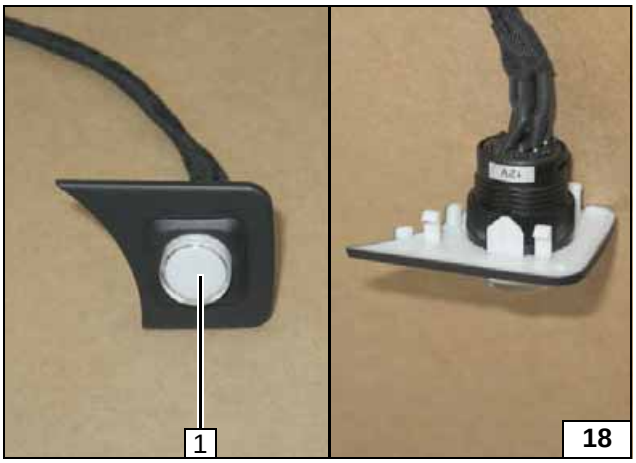
Mount cap nut **1** of push button, align in centre and drill 16mm dia hole **2** in the cover (step drill)!

Hole in cover



Install push button **1**, align and secure it with cap nut!

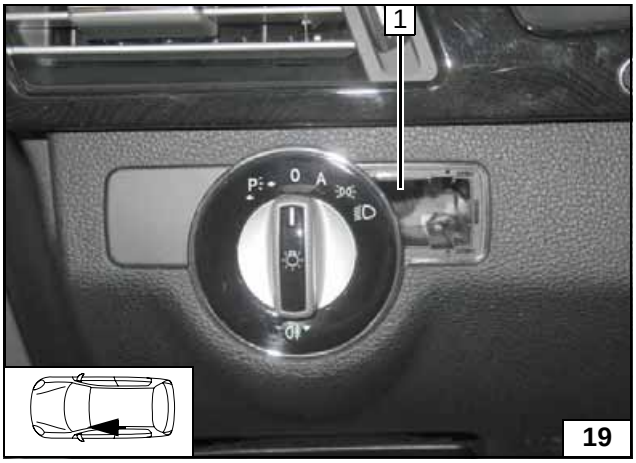
Installing push button



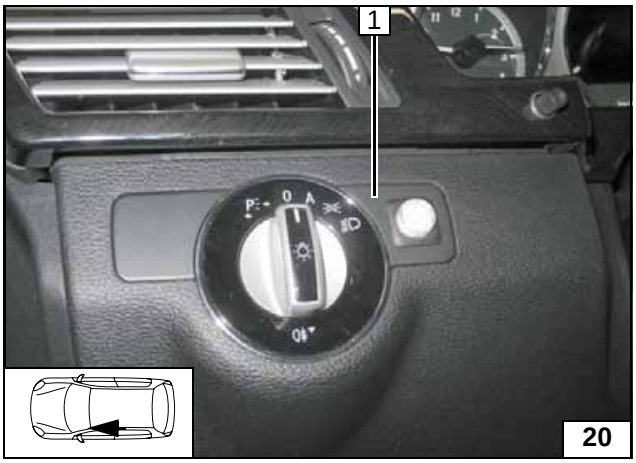
When drilling, watch components located behind.

1 12 mm dia hole

Hole for wiring harness



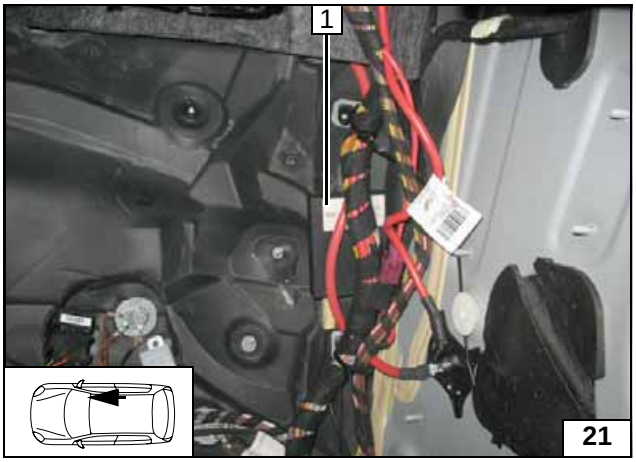
Mounting cover



1 Cover

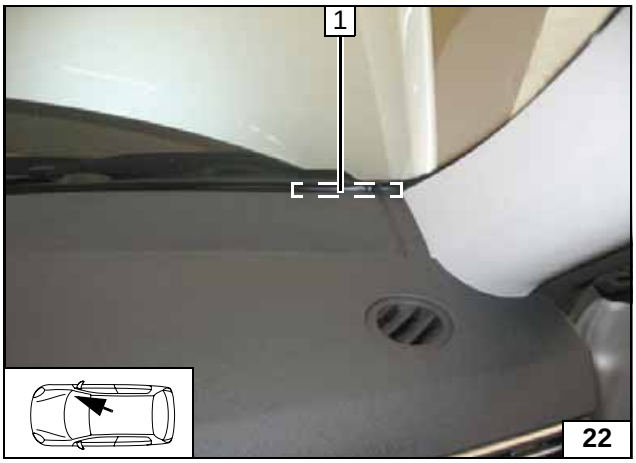
Telestart

Installing receiver



1 Receiver, adhesive tape

Installing antenna

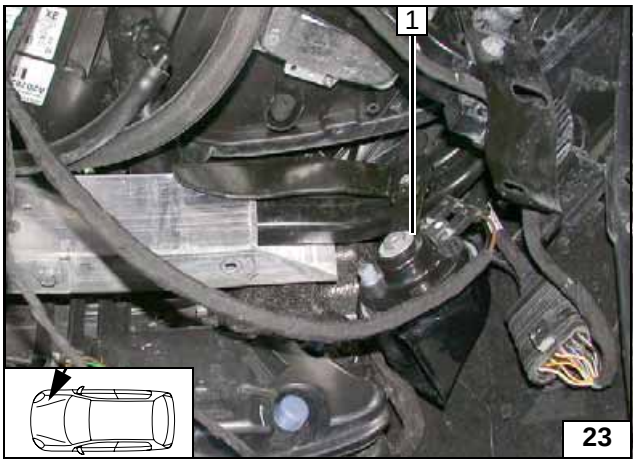


1 Antenna

Preparing installation location

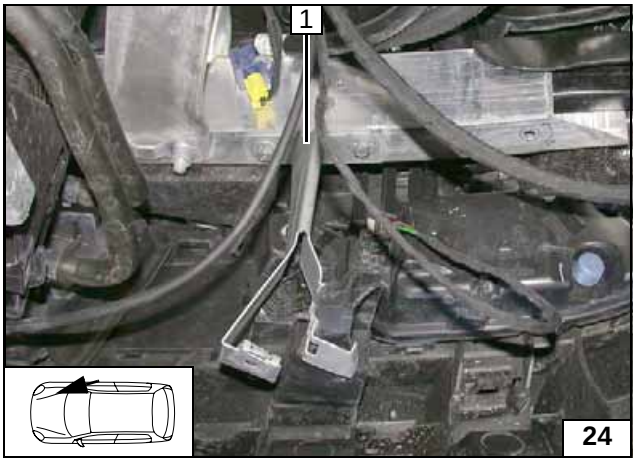
Remove horn**1** with bracket. Bolt will be re-used!

Removing horn



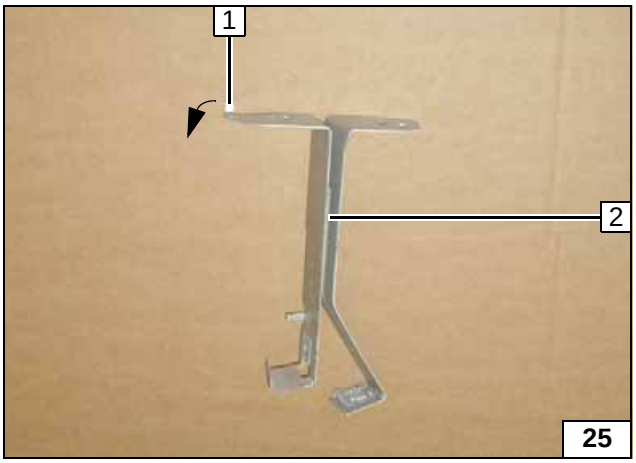
Detaching bracket **1**. Bolts will be reused!

Detaching bracket



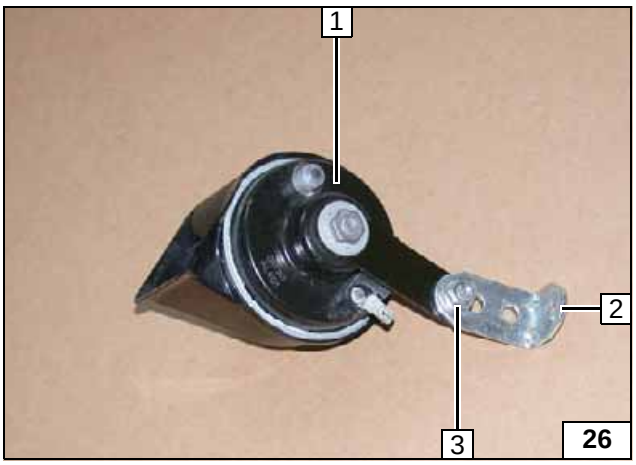
Bend back tab (twist protection) **1** of bracket **2**!

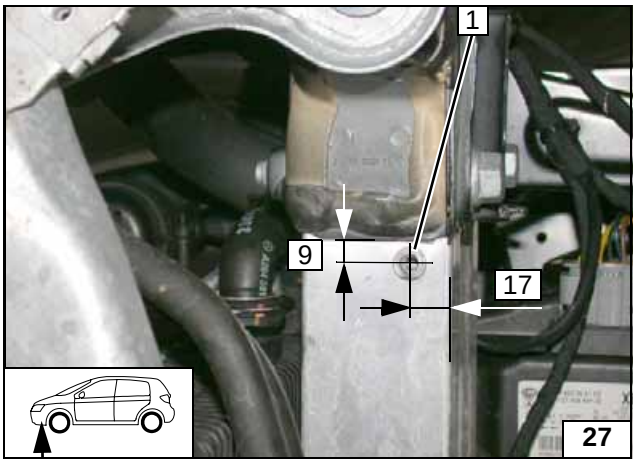
Preparing bracket



1 Horn
2 Angle bracket
3 Original vehicle bolt, flanged nut

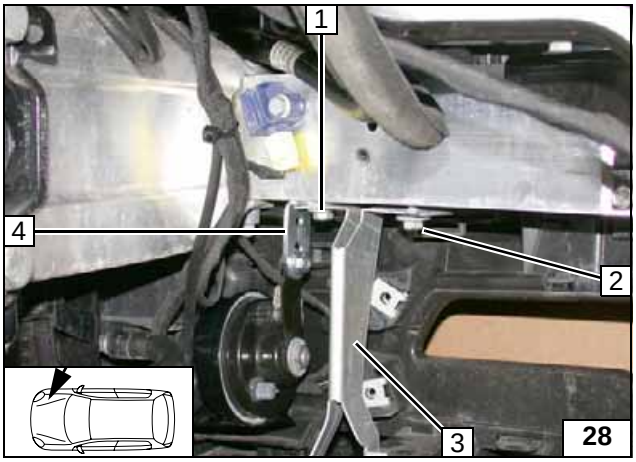
Preparing horn





1 9.1 mm dia. hole, rivet nut

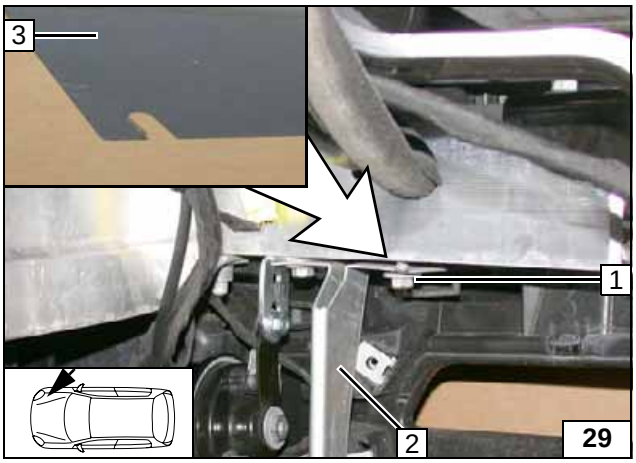
Installing rivet nut



Mount angle bracket **4** between bracket **3** and cross member. Reroute LED TFL wiring harness and secure with cable tie!

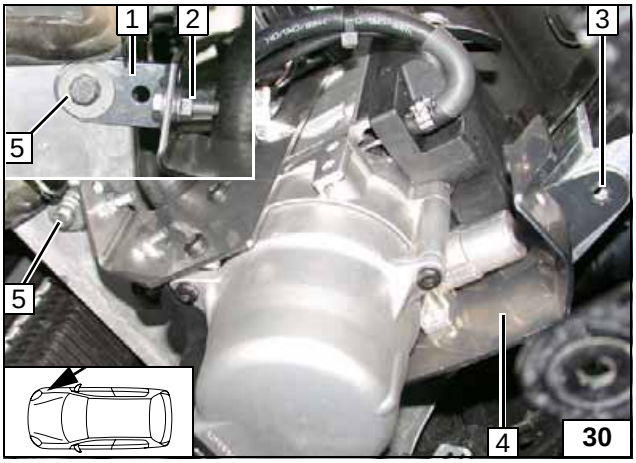
1 Original vehicle bolt
2 Mount original vehicle bolt loosely

Installing bracket, horn



Mount heater bracket **3** with oblong hole between bracket **2** and bumper at position **1**.

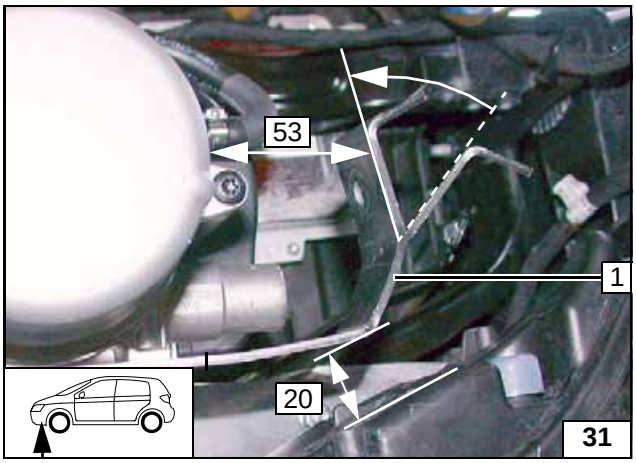
Mounting heater



Mount heater bracket **4** with oblong hole between bracket and bumper (see previous figure). Mount heater at position **5** loosely!

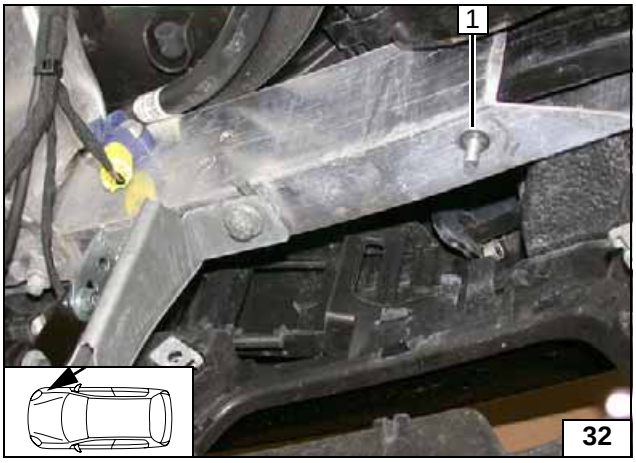
1 Angle bracket
2 M6x20 bolt, flanged nut
3 Copy hole pattern
5 M6x20 bolt, large diameter washer

Copying hole pattern



Bend heater bracket **1** according to figure. Check the distances.

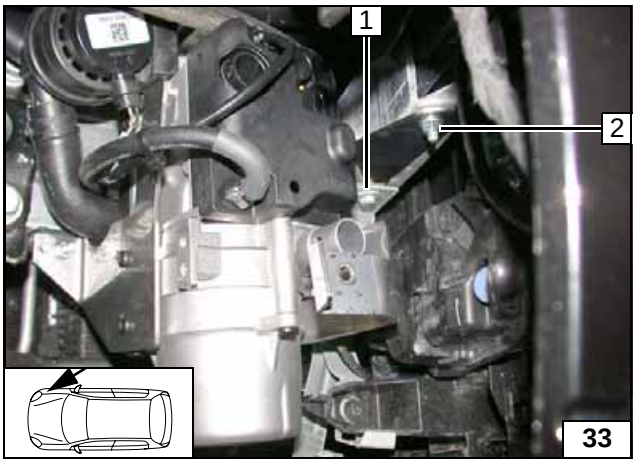
Bending bracket



Removing heater.

1 7 mm dia hole, M6x20 nut, pin lock

Hole in bumper

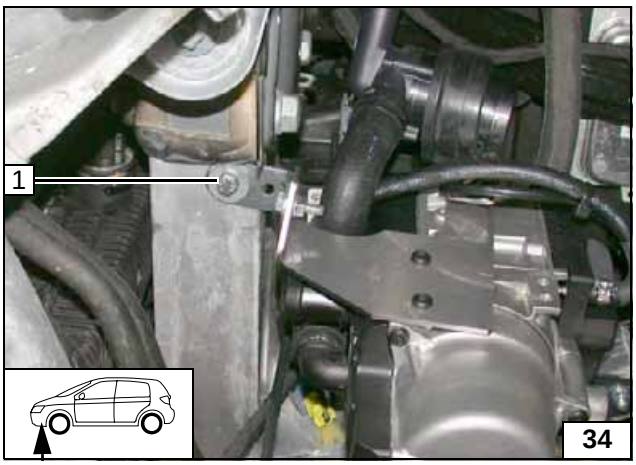


Installing heater

Mount heater bracket with oblong hole between bracket and bumper and align (see previous workstep). Tighten bolt at position **1**.

2 Flanged nut

Installing heater



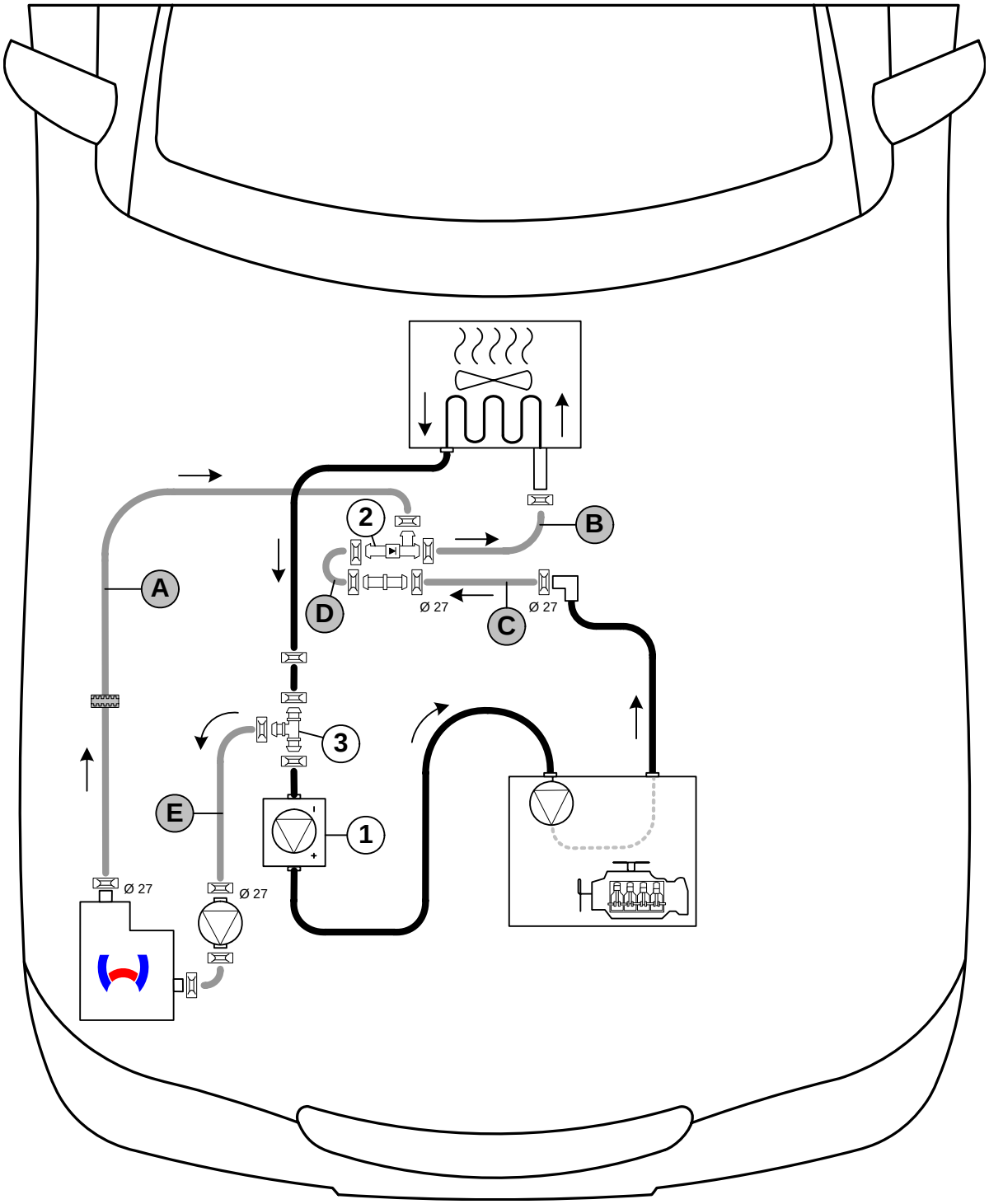
1 M6x20 bolt, large diameter washer

Installing heater

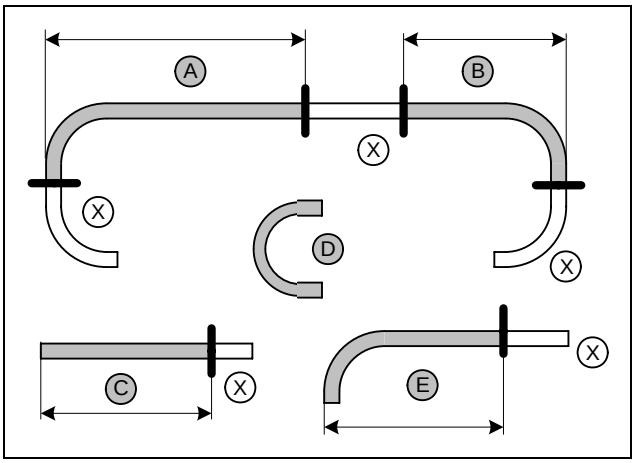
Coolant circuit
With available electr. circulating pump

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 based on the following diagram:

Coolant routing diagram



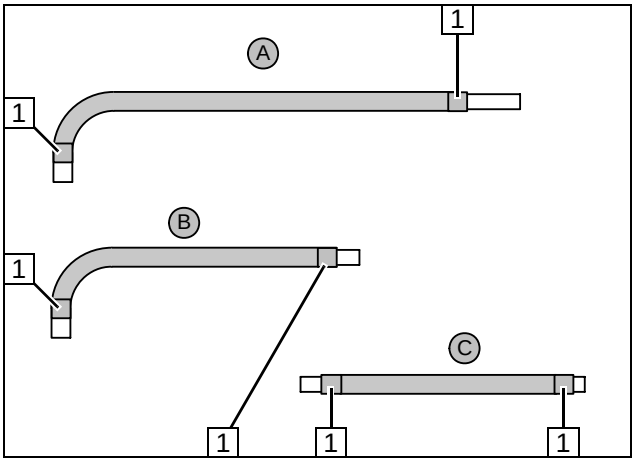
All spring clips without a specific designation = 25 mm dia. **1**= Original vehicle circulating pump Black (sw) rubber isolator. Connecting pipe = 18x20 dia. **3** = check valve. **4**= 90° T-piece



Hose **D** = 180° moulded hose (18 mm dia)
Discard **X** section

A = 1330 (Ø 18)
B = 500 (Ø 18)
C = 490 (Ø 20)
E = 200 (Ø 18)

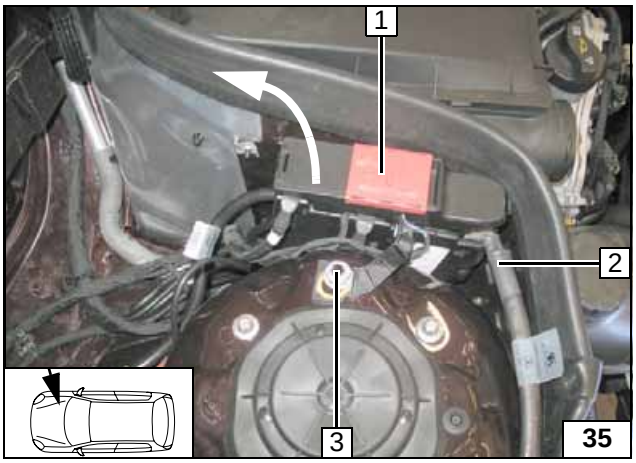
Cutting coolant hoses to length



Push braided protection hoses on to hoses **A**, **B** and **C** and cut to size!

1 Shrink hose [6x]

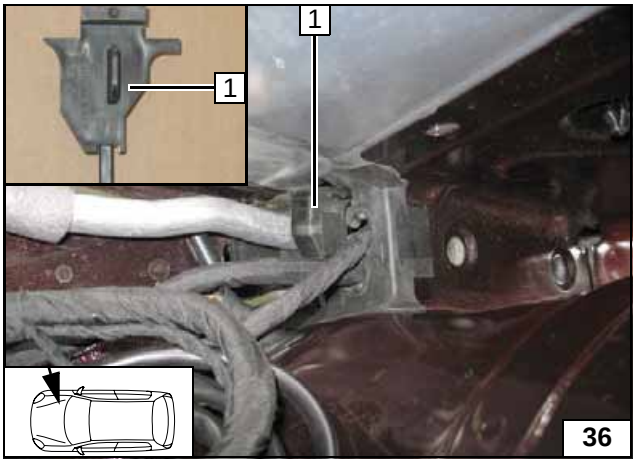
Preparing coolant hose



Loosen battery control unit **1**.

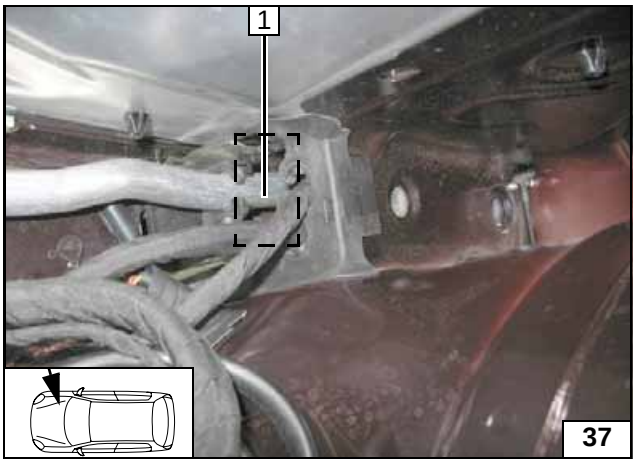
2 Remove supply line
3 Remove flanged nut

Preparing routing in engine compart-ment



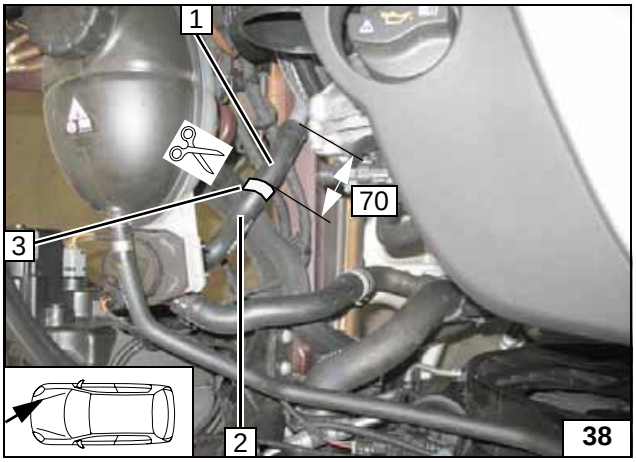
Remove Cover **1**; will not be reused.

Removing cover



1 Execution for Hose **A**

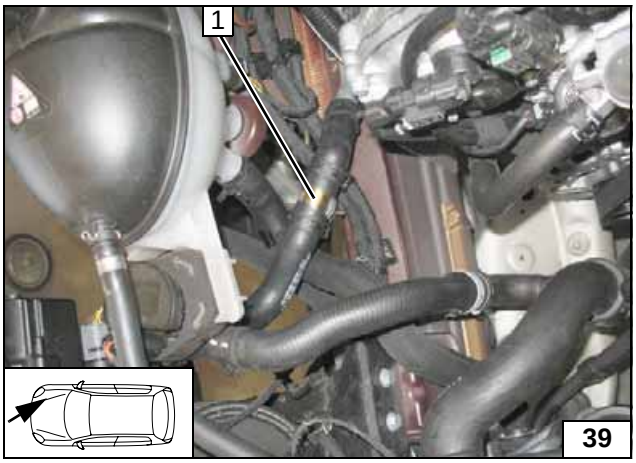
Preparing routing in engine compartment



Cut out 15 mm from original vehicle hose at Position **3** !

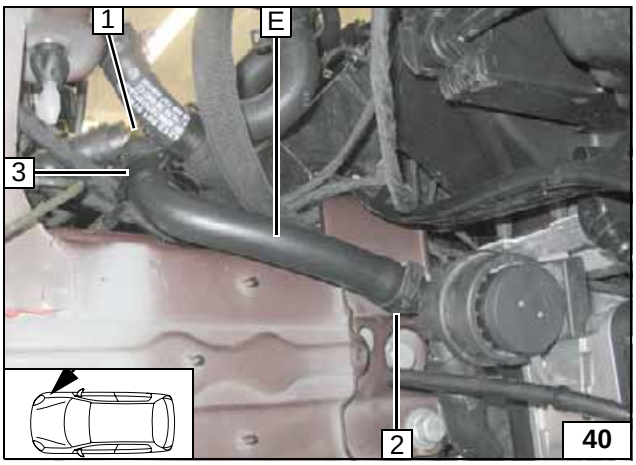
1 Hose section on heat exchange outlet
2 Hose section on circulating pump inlet / engine inlet

Cutting point



1 T-piece, 3x18mm dia

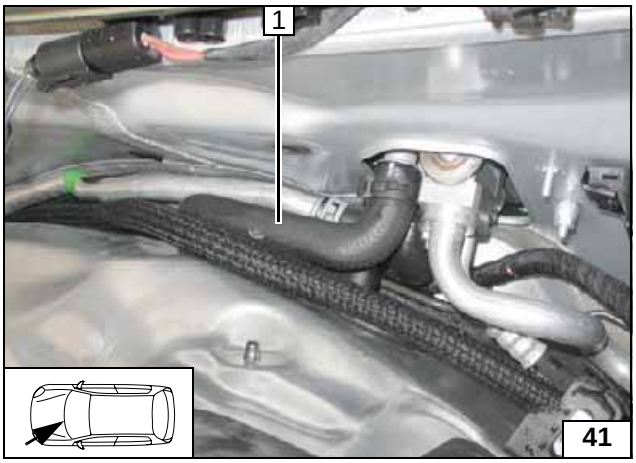
Installing T-piece



Mount Hose bracket **3** between hose **E** and original vehicle hose from expansion tank!

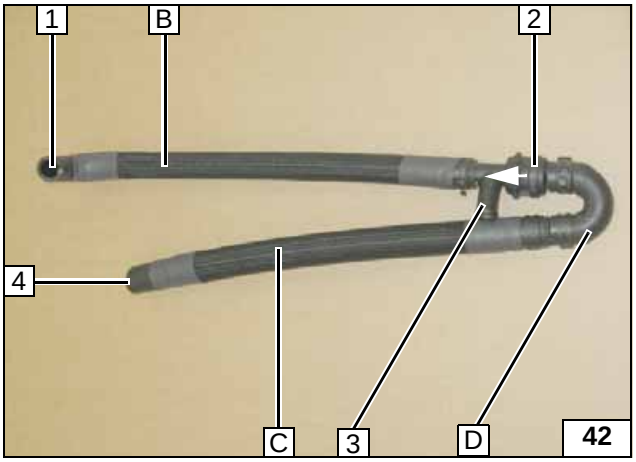
1 T-piece
2 Heater coolant inlet

Connecting Hose E to heater



Remove original vehicle hose **1**.

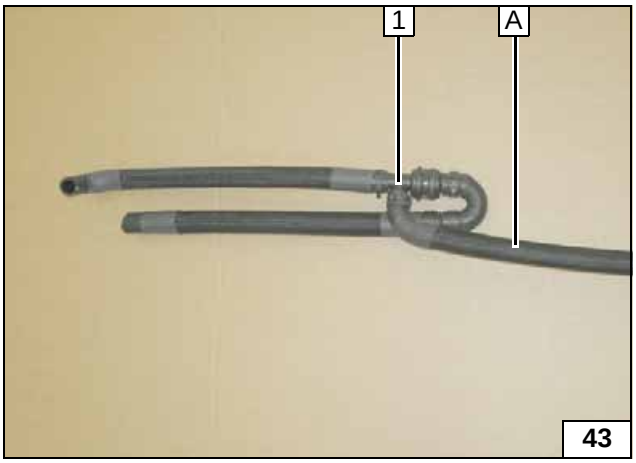
Cutting point



Watch flow direction from check valve **2**.

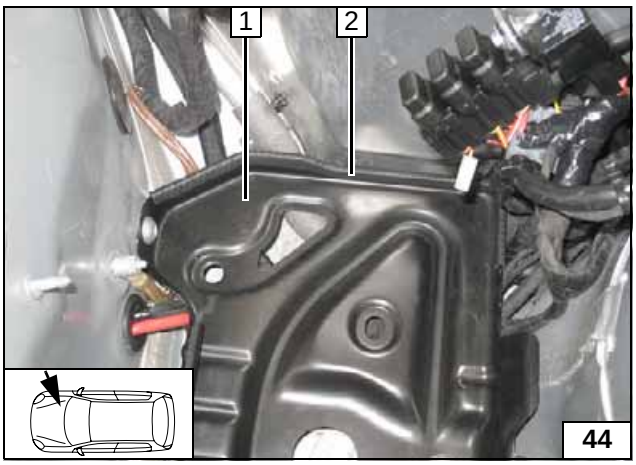
1 Connection on heat exchanger inlet
3 Connection for Hose A
4 Connection on quick coupling engine outlet

Pre-installing check valve



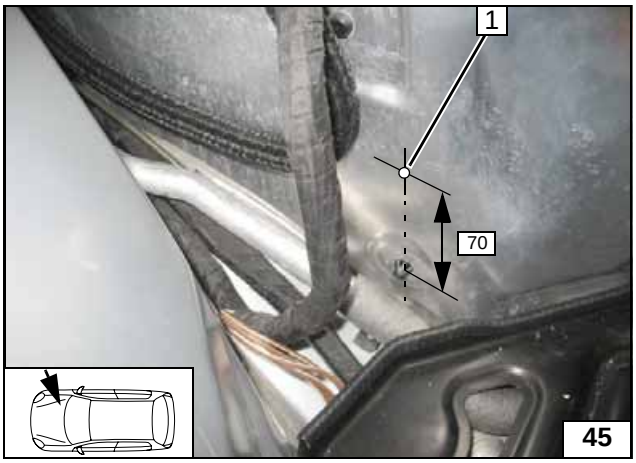
MountHose **A** on check valve **1**.

Pre-installing check valve



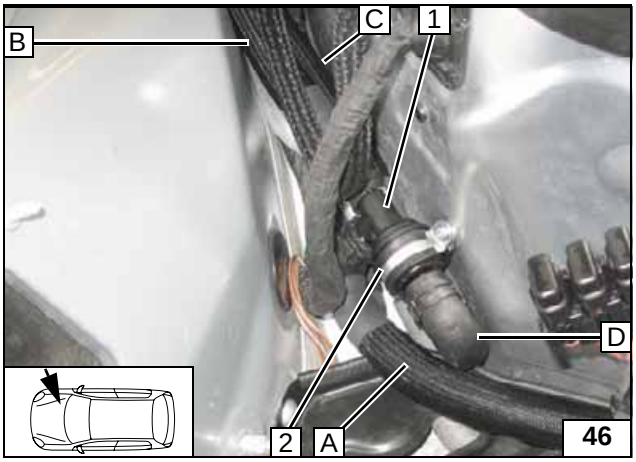
Mount battery carrier **1** and install edge protection **2**.

Installing battery carrier



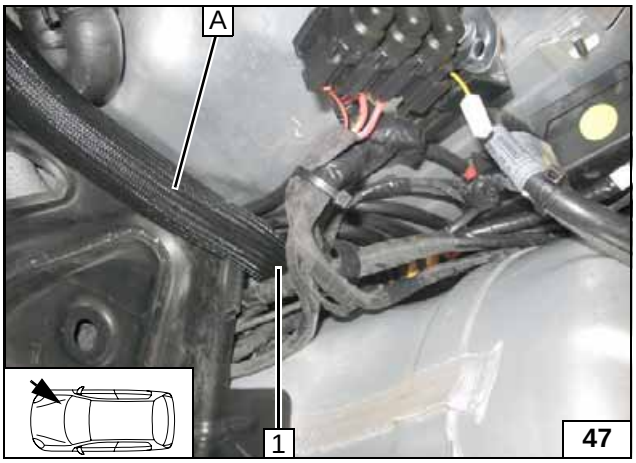
1 4.5 mm dia. hole

Installing battery carrier



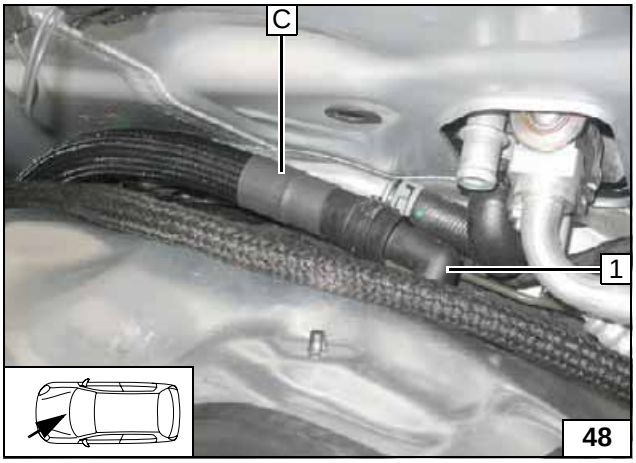
Rout hose **B** and **C** to cutting point. Route Hose **A** in the engine compartment (see following figure)!
Install rubber-coated pipe clamp of 35 mm dia **2** on check valve **1** loosely!

Positioning hose group



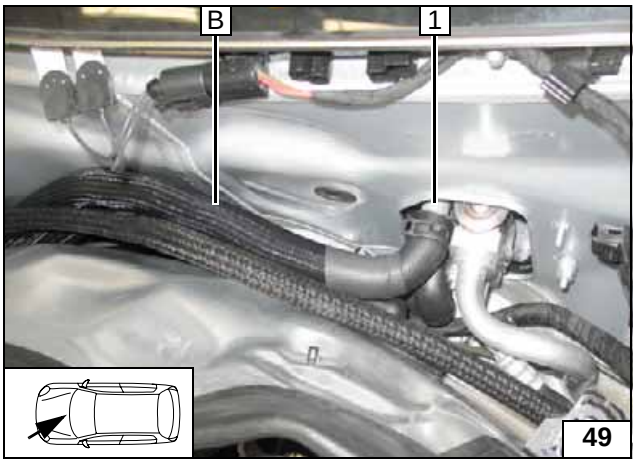
1 Pass through to engine compartment

Routing Hose A



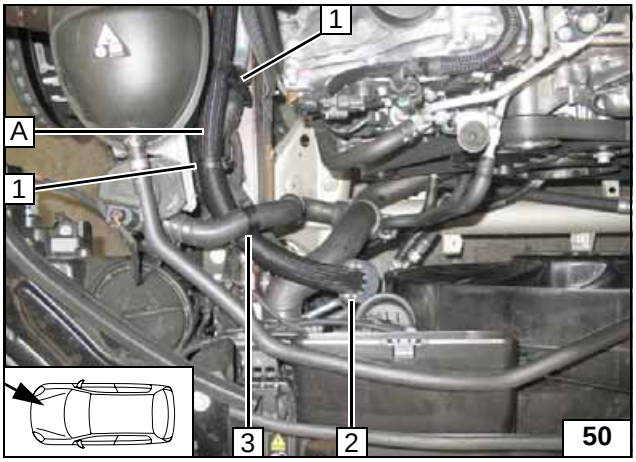
1 Quick coupling

Connecting engine outlet



1 Connection piece on heat exchanger inlet

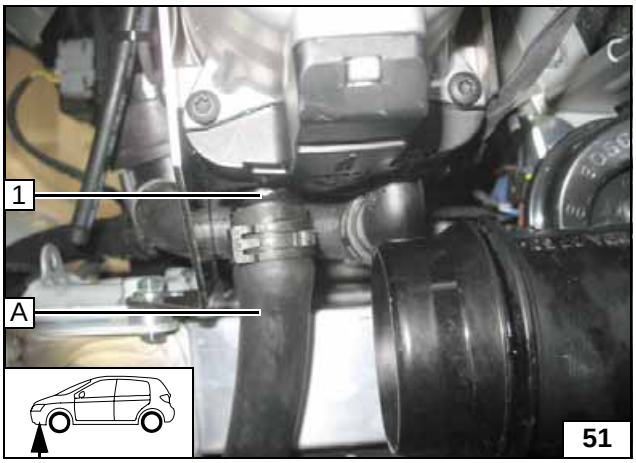
Connecting heat exchanger inlet



Route Hose **A** to heater!

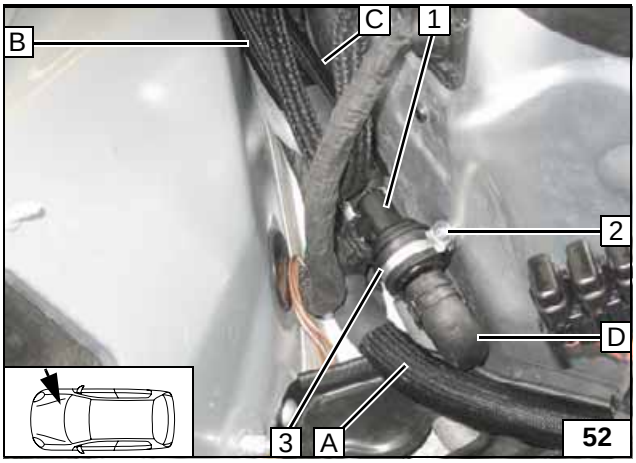
1 Hose bracket, can be locked [2x]
2 Align black (sw) rubber isolator
3 Hose bracket

Routing Hose A



1 Connecting piece of heater coolant outlet

Connecting Hose A to heater



Aligning hoses. Ensure sufficient distance to neighbouring components, correct if necessary.

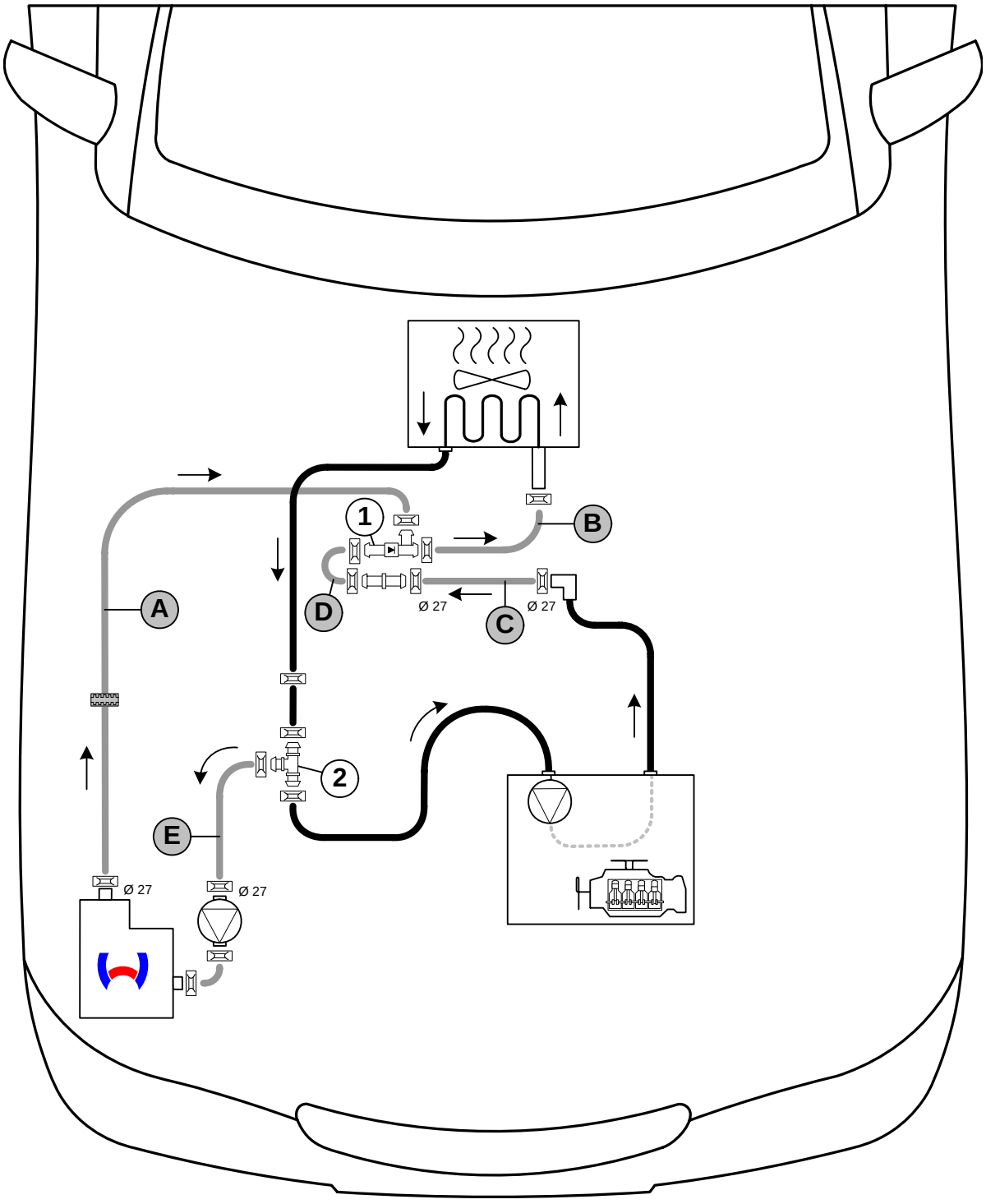
1 Check valve.
2 5.5x13 self-tapping screw
3 34 mm dia. rubber-coated p-clamp

Installing check valve

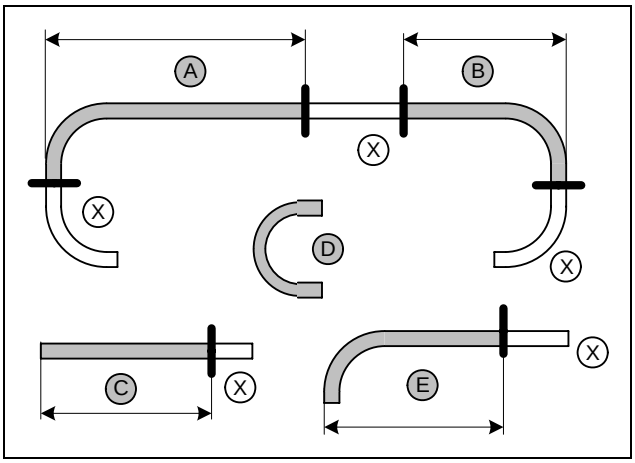
Coolant circuit
Without available electr. circulating pump

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 based on the following diagram:

Coolant routing diagram



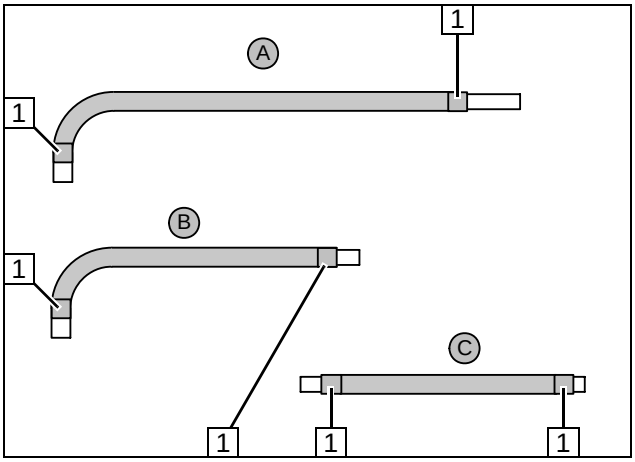
All spring clips without a specific designation = 25 mm dia. Black (sw) rubber isolator.
Connecting pipe = 18x20 dia. **1** = check valve. **2**= 90° T-piece



Hose **D** = 180° moulded hose (18 mm dia)
Discard **X** section

A = 1330 (Ø 18)
B = 500 (Ø 18)
C = 490 (Ø 20)
E = 200 (Ø 18)

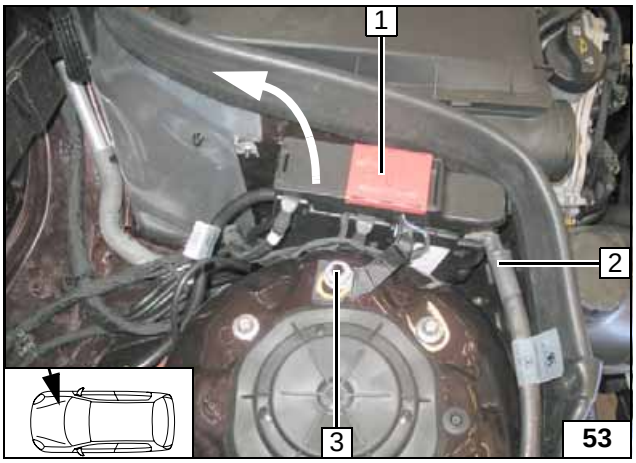
Cutting coolant hoses to length



Push braided protection hoses on to hoses **A**, **B** and **C** and cut to size!

1 Shrink hose [6x]

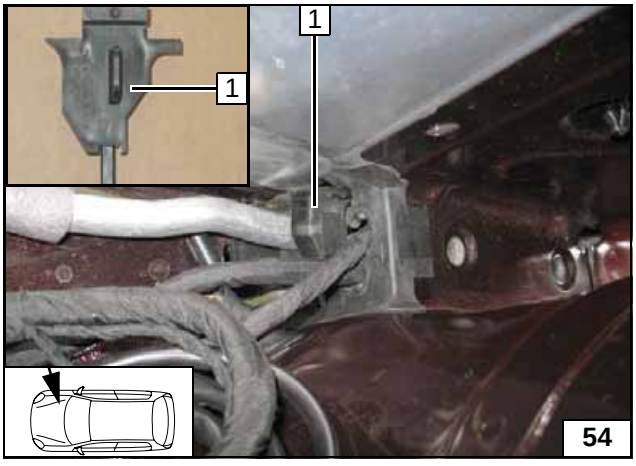
Preparing coolant hose



Loosen battery control unit **1**.

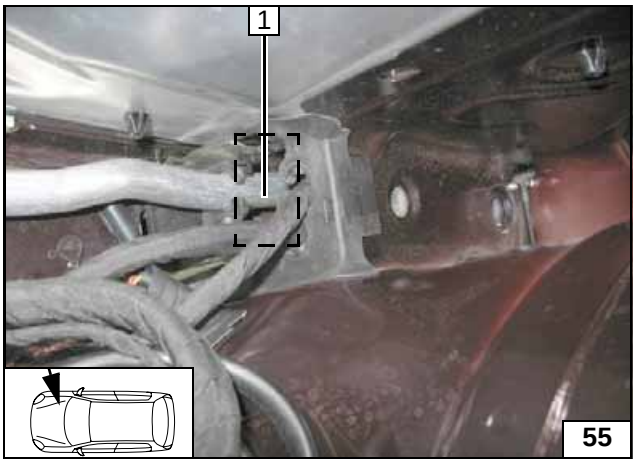
2 Remove supply line
3 Remove flanged nut

Preparing routing in engine compartment



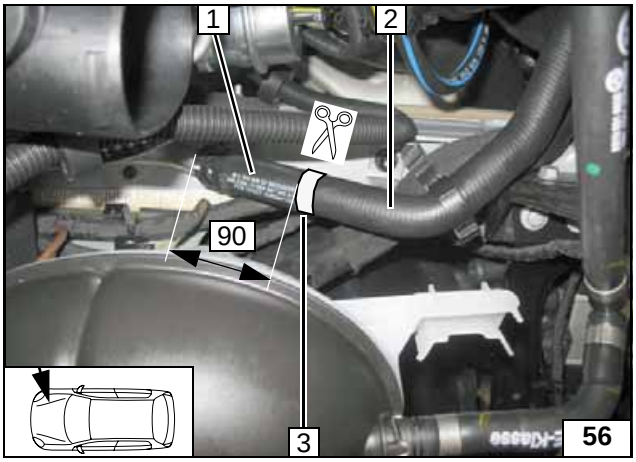
Remove Cover **1**; will not be reused.

Removing cover



1 Execution for Hose **A**

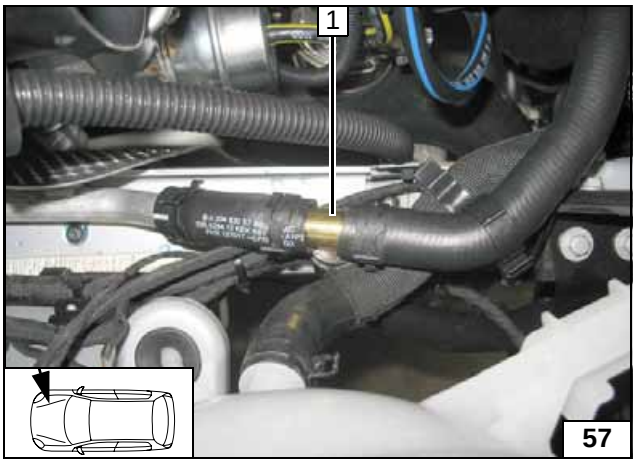
Preparing routing in engine compartment



Cut out 15 mm from original vehicle hose at Position **3** !

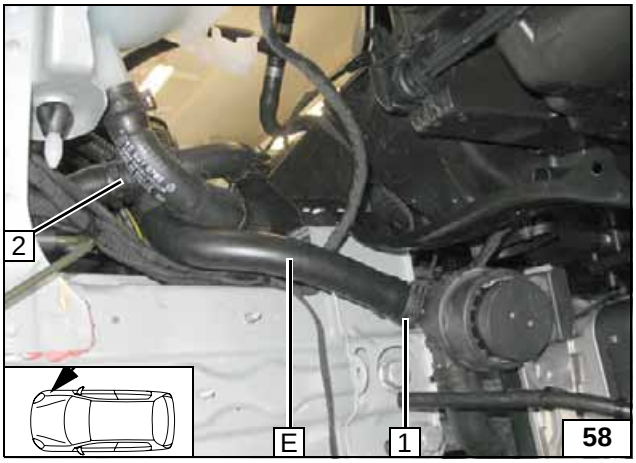
1 Hose section on heat exchange outlet
2 Hose section of engine inlet

Cutting point



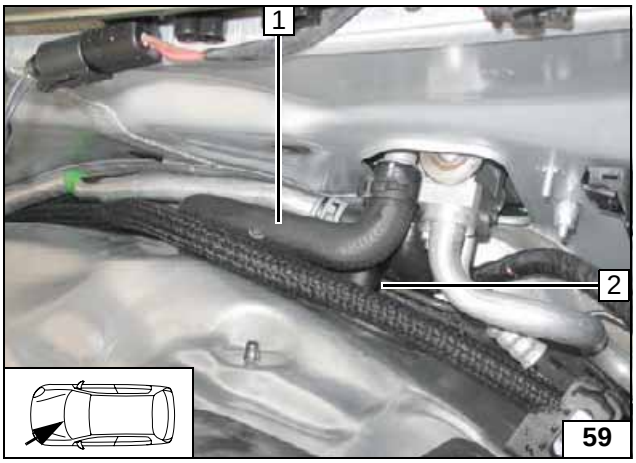
1 T-piece, 3x18mm dia

Installing T-piece



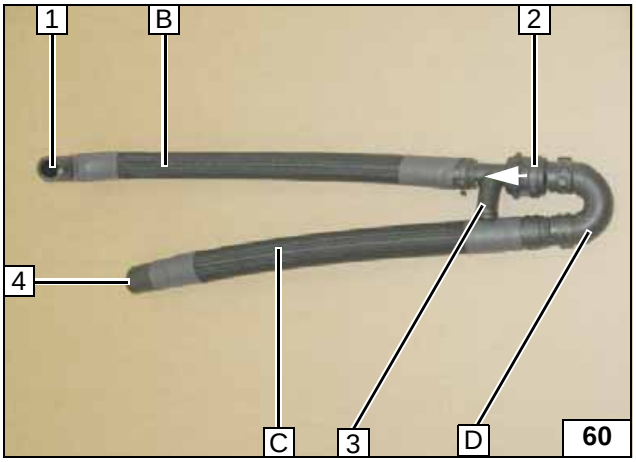
1 Heater coolant inlet
2 T-piece

Connecting Hose E to heater



Remove original vehicle hose **1**.

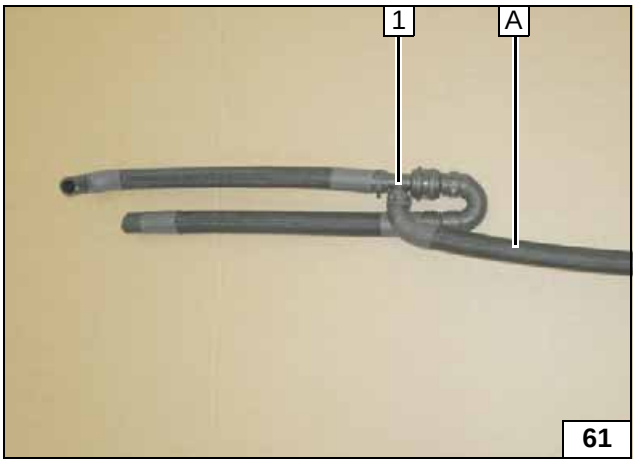
Cutting point



Watch flow direction from check valve **2**.

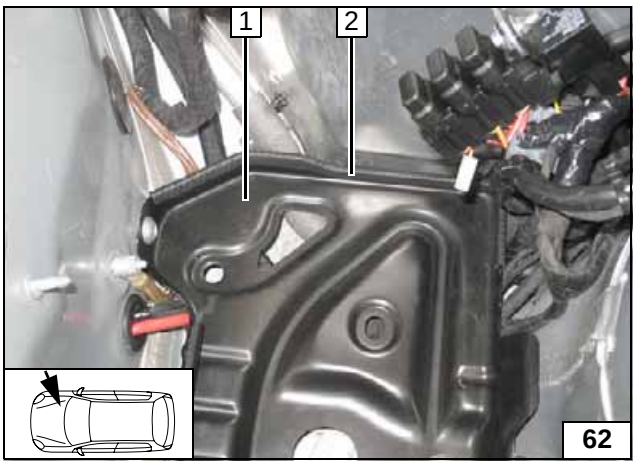
1 Connection on heat exchanger inlet
3 Connection for Hose A
4 Connection on quick coupling engine outlet

Pre-installing check valve



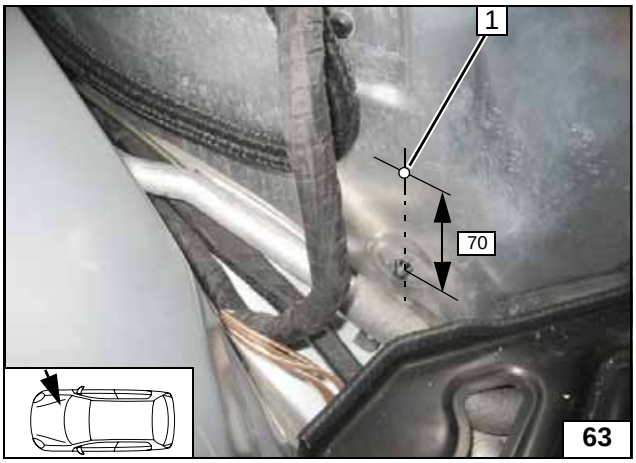
MountHose **A** on check valve **1**.

Pre-installing check valve



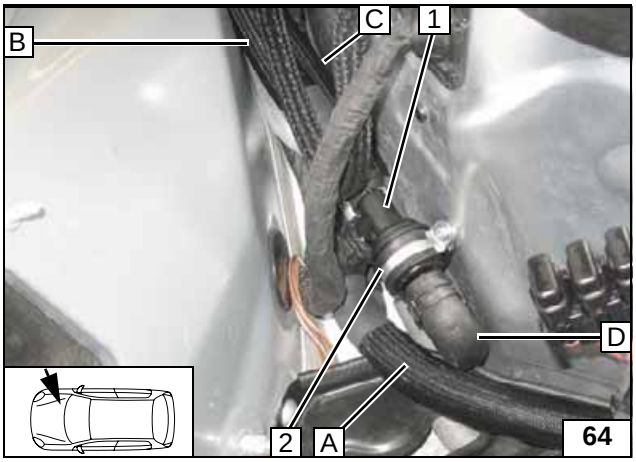
Mount battery carrier **1** and install edge protection **2**.

Installing battery carrier



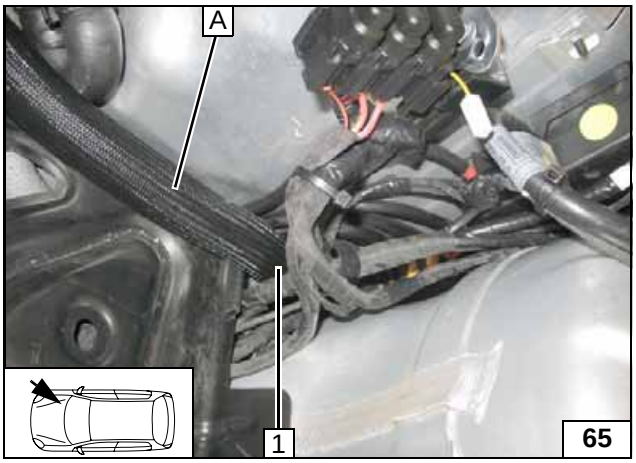
1 4.5 mm dia. hole

Installing battery carrier



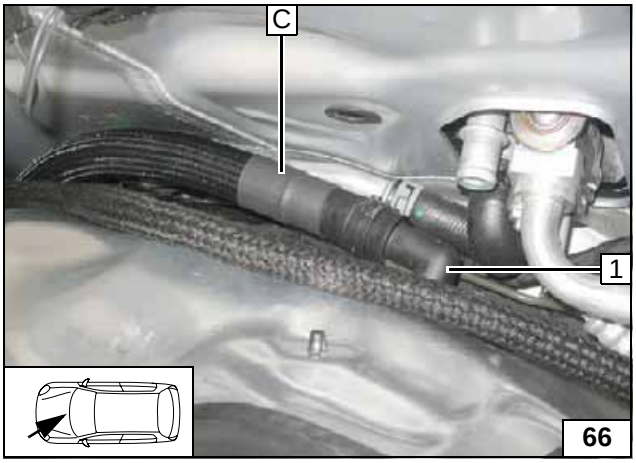
Rout hose **B** and **C** to cutting point. Route Hose **A** in the engine compartment (see following figure)!
Install rubber-coated pipe clamp of 35 mm dia **2** on check valve **1** loosely!

Positioning hose group



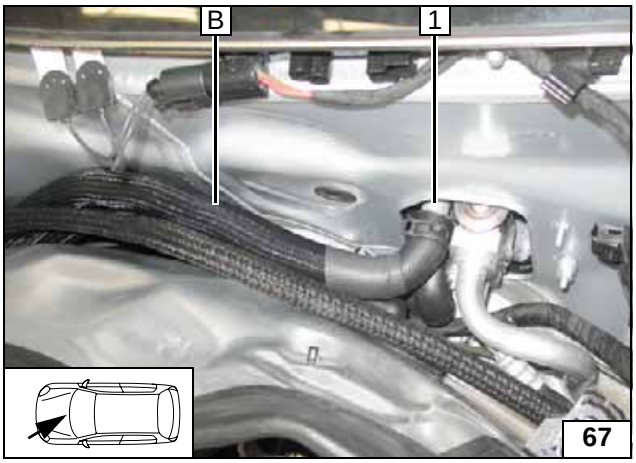
1 Pass through to engine compartment

Routing Hose A



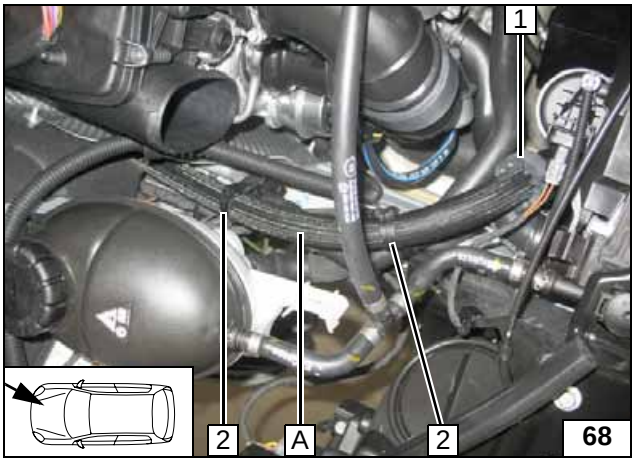
1 Quick coupling

Connecting engine outlet



1 Connection piece on heat exchanger inlet

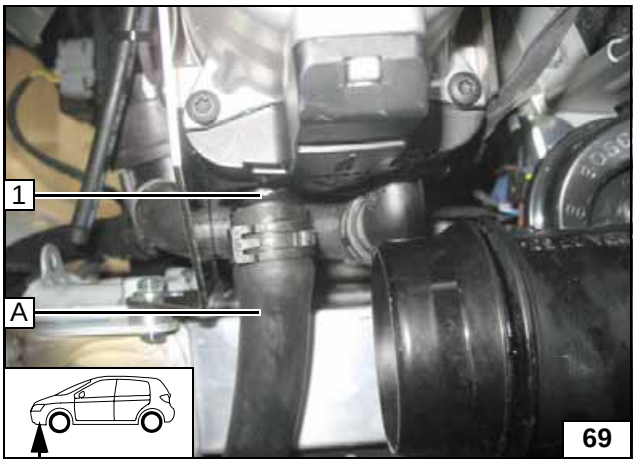
Connecting heat exchanger inlet



Route Hose **A** to heater!

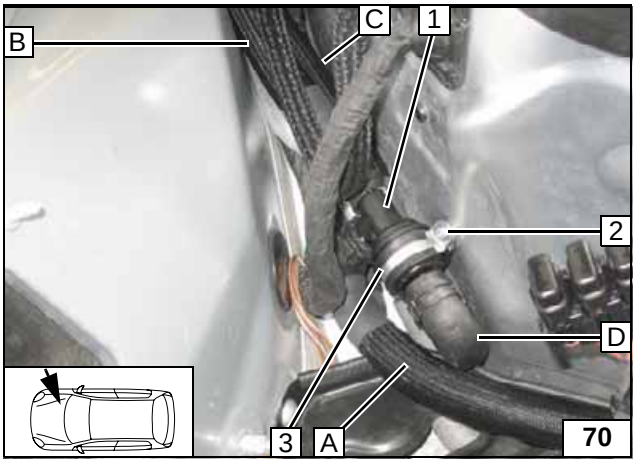
1 Align black (sw) rubber isolator
2 Hose bracket, can be locked [2x]

Routing Hose A



1 Connecting piece of heater coolant outlet

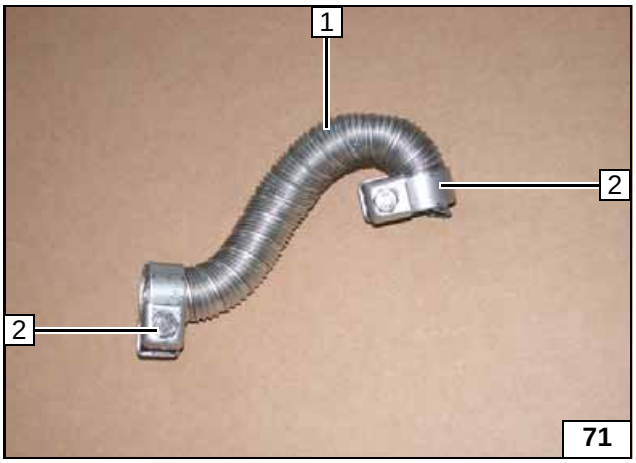
Connecting Hose A to heater



Aligning hoses. Ensure sufficient distance to neighbouring components, correct if necessary.

1 Check valve.
2 5.5x13 self-tapping screw
3 34 mm dia. rubber-coated p-clamp

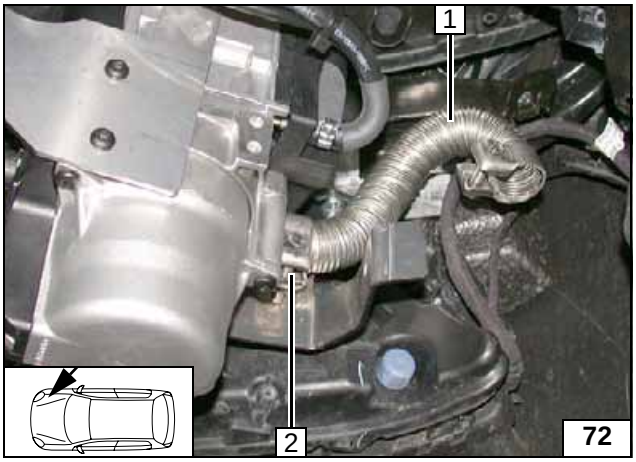
Installing check valve



Exhaust gas

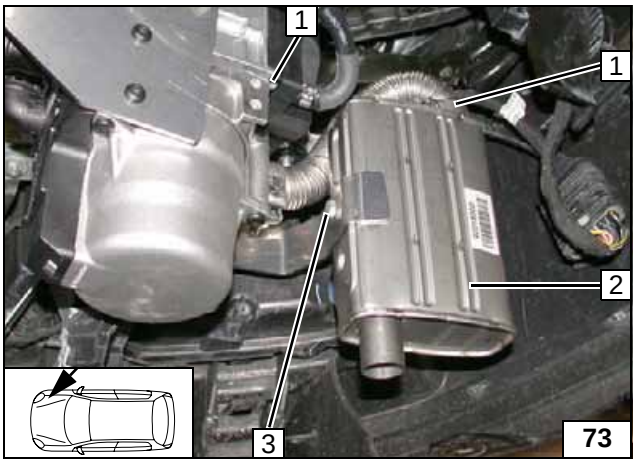
Shape exhaust line **1** according to figure and position hose clamps **2** [2x] loosely!

Preparing exhaust pipe



1 Exhaust pipe
2 Tighten hose clamp

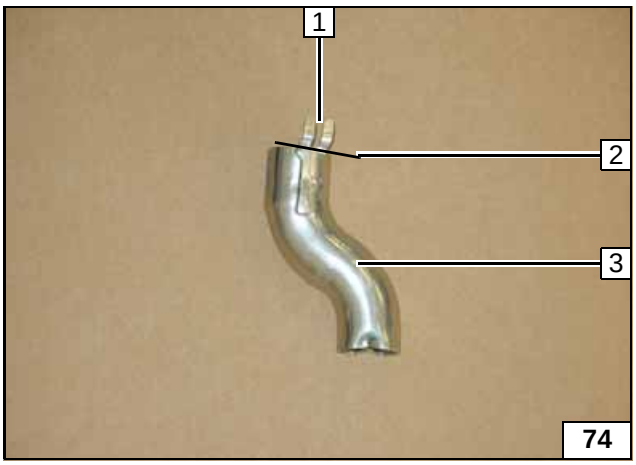
Installing exhaust pipe



Ensure sufficient distance to neighbouring components, correct if necessary.

1 Tighten hose clamp
2 Exhaust muffler
3 M6x12 bolt, spring lockwasher

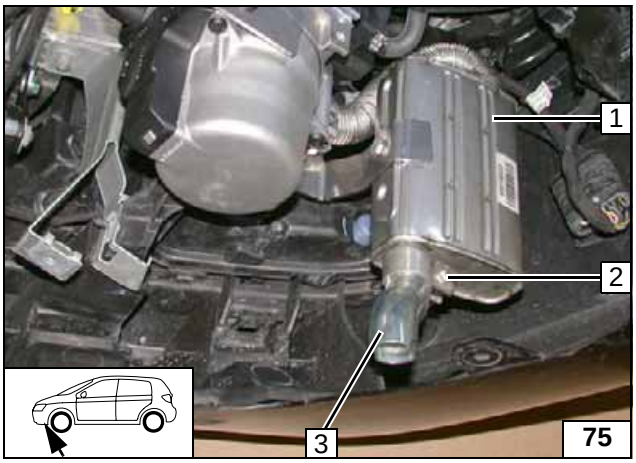
Installing muffler



Cut tab **1** off exhaust end section **3**.

2 Cutting point

Preparing exhaust end section



1 Muffler
2 Hose clamp
3 Exhaust end section

Installing exhaust end section

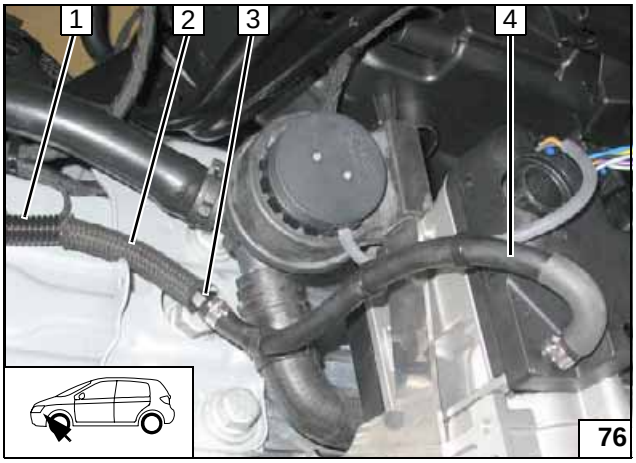
Fuel

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.

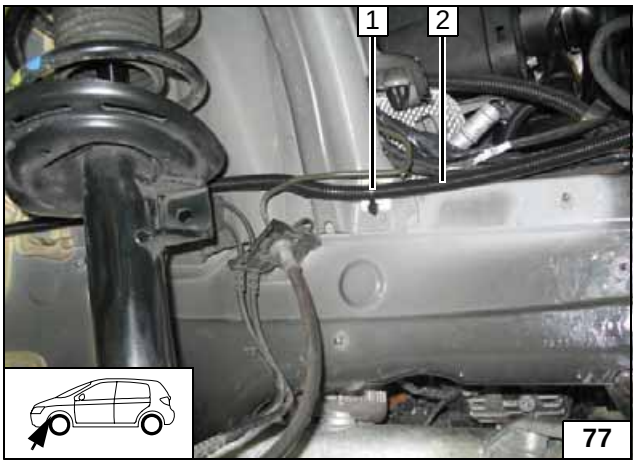


All vehicles

Pin out connector housing of metering-pump wiring harness before pulling into corrugated tube.

1 9 mm dia. corrugated tube, wiring harness of metering pump
2 Cloth protection hose
3 Fuel line, 10 mm dia. clamp
4 Moulded hose of heater

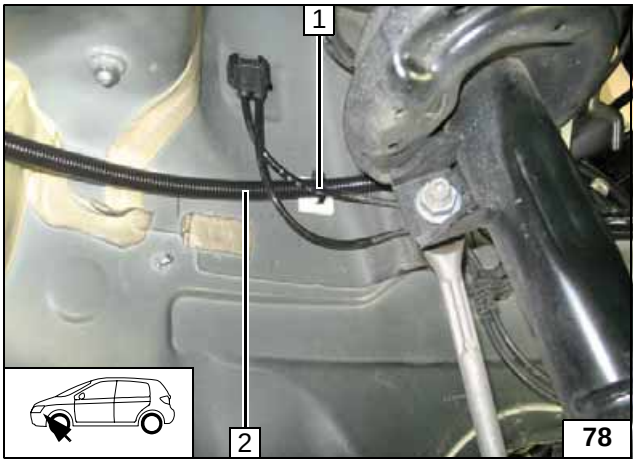
Connection to heater



Degrease adhesive surface for adhesive base **1**.

1 Adhesive base, cable tie
2 Corrugated tube

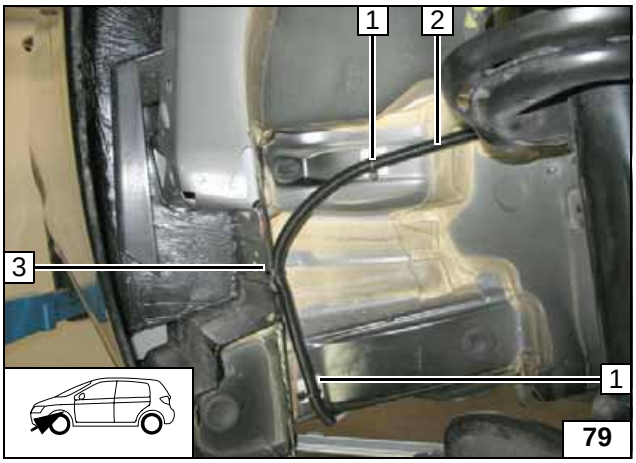
Installing lines



Degrease adhesive surface for adhesive base **1**.

1 Adhesive base, cable tie
2 Corrugated tube

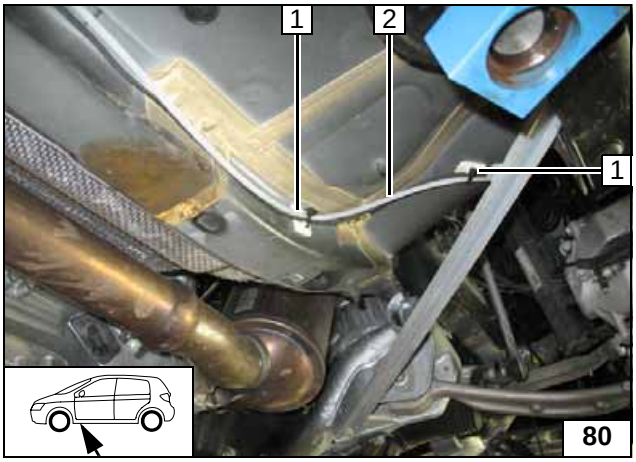
Installing lines



Degrease adhesive surface for adhesive base **1**.

1 Adhesive base [2x], cable tie [2x]
2 Corrugated tube
3 Cable tie, existing hole

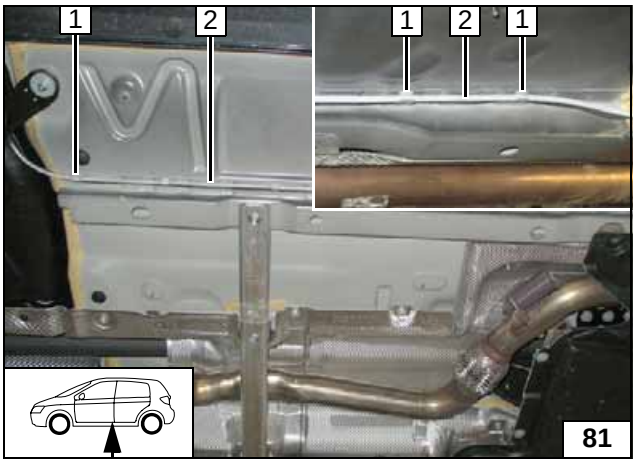
Installing lines



Degrease adhesive surface for adhesive base **1**.

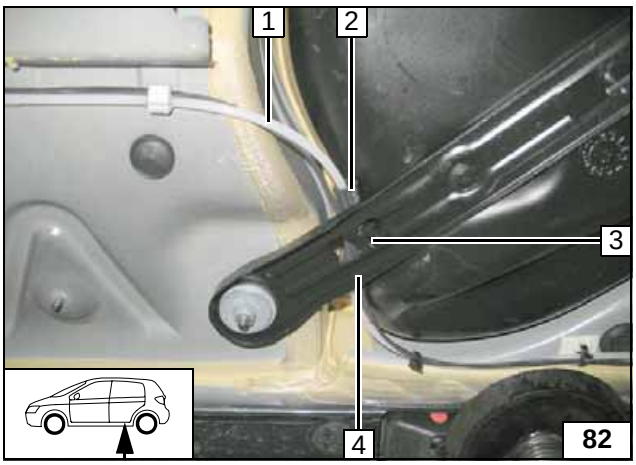
1 Adhesive base [2x], cable tie [2x]
2 Fuel line, wiring harness of metering pump

Installing lines



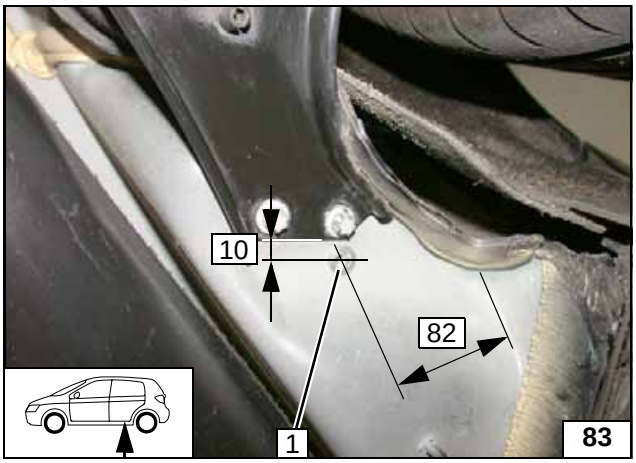
Distribute retaining clips **1** [6x] evenly along vehicle underbody and insert fuel line and wiring harness of metering pump **2**.

Installing lines



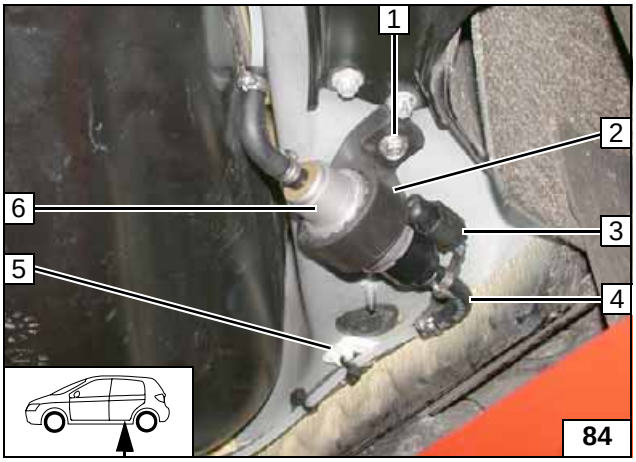
1 Fuel line, wiring harness of metering pump
2 hose section 8x12 dia
3 Cable tie
4 Original vehicle retaining strap

Installing lines



1 9.1 mm dia. hole, rivet nut

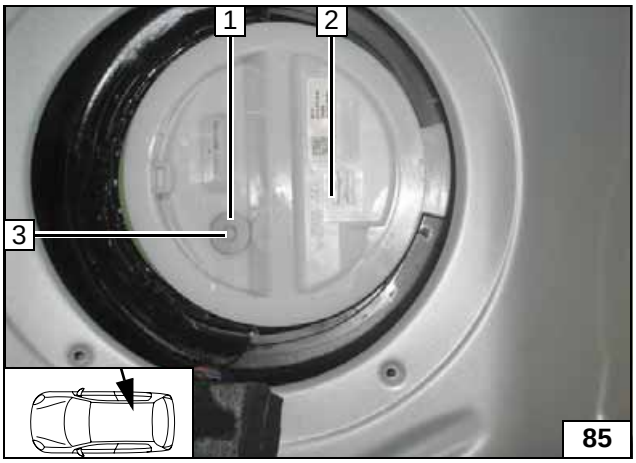
Installing rivet nut



Mount connector housing of metering pump cable **4** on wiring harness again.
Degrease adhesive surface for adhesive base **5**.

1 M6x25 bolt
2 Mount
3 Metering pump connector
4 90° moulded hose, 10 mm dia. clamp [2x], fuel line
5 Adhesive base, cable tie
6 Metering pump

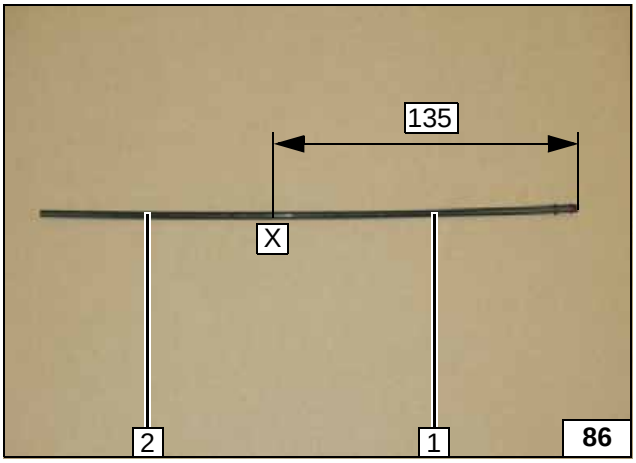
Installing metering pump



Diesel

Remove fuel-tank sending unit **2** in accordance with manufacturer's specifications.
Mount large diameter washer **1** according to figure, copy hole pattern**3** for 6mm dia hole.
When drilling, make sure drilling chips do not get into fuel tank or fuel-tank sending unit.

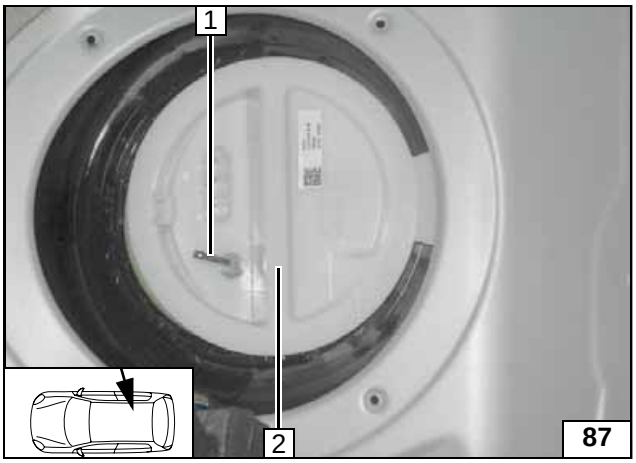
Removing fuel



Cut off standpipe **1** at an angle at position **X**.

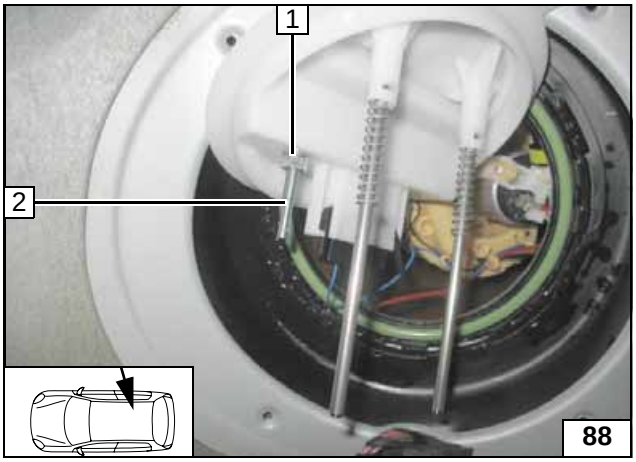
2 Discard section

Cutting standpipe to size



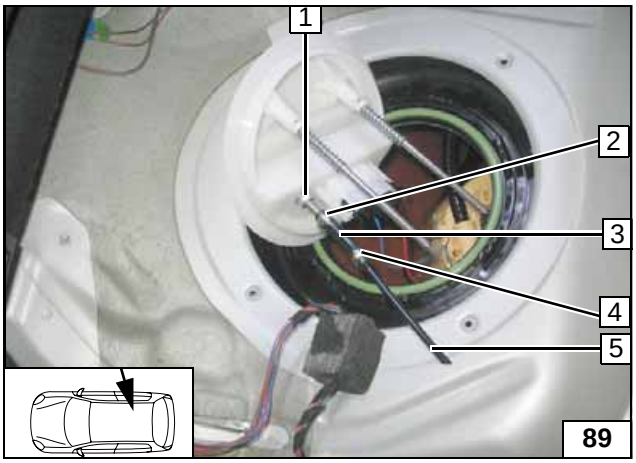
Insert fuel standpipe **1** into fuel-tank sending unit **2**.

Installing fuel stand pipe



Observe Torque **5** Nm of the flanged nut **1** from fuel stand pipe **2**.

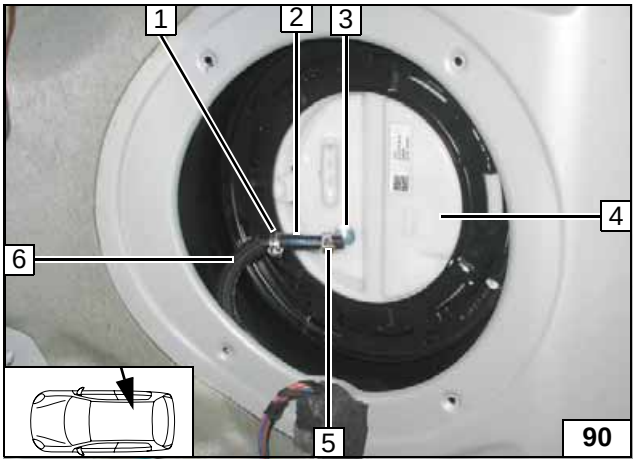
Installing fuel stand pipe



Mount 3.5 mm dia. moulded hose **3** on fuel standpipe **1**.

2 8 mm dia. clamp
4 10 mm dia. clamp
5 Standpipe

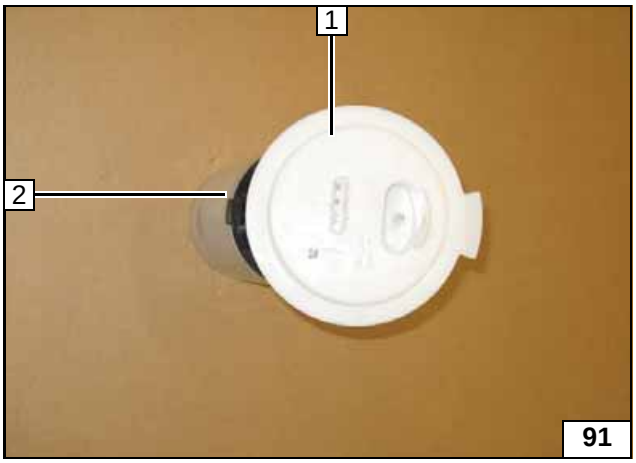
Installing standpipe



Install fuel-tank sending unit **4** in accordance with manufacturer's specifications.
Mount 3.5 mm dia. moulded hose **2** on fuel standpipe **3**.

1 10 mm dia. clamp, fuel line
5 8 mm dia. clamp
6 6x11 cloth hose, rattle protection

Installing fuel line

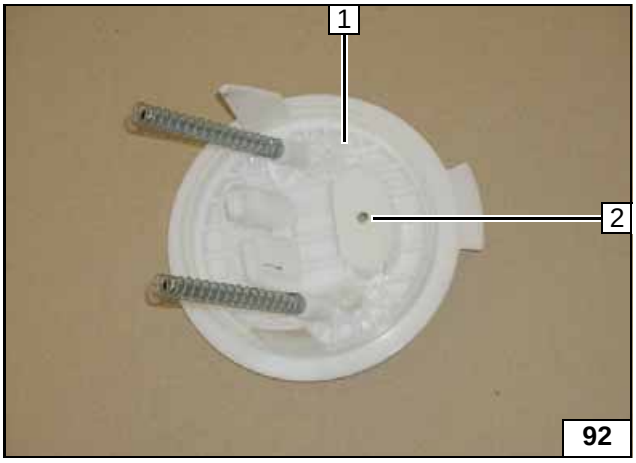


Gasoline

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

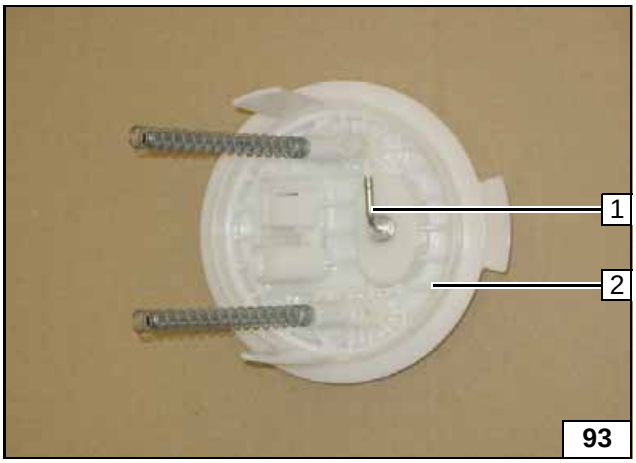
Remove upper section **1** from lower section **2** in accordance with manufacturer's instructions.

Removing fuel



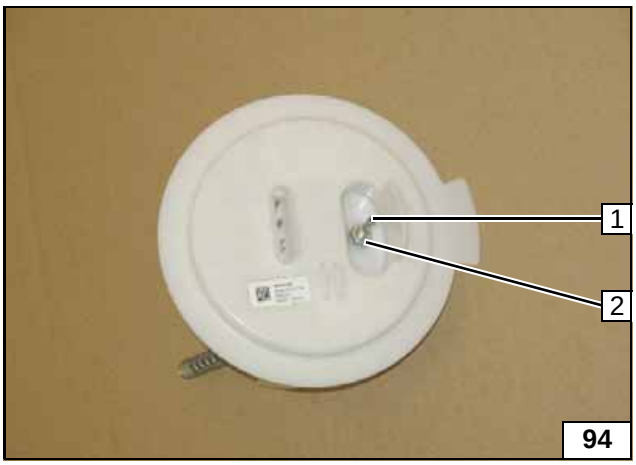
Cut off connection piece **2** flush on underside **1**. Drill 6 mm dia. hole in centre.

Removing fuel



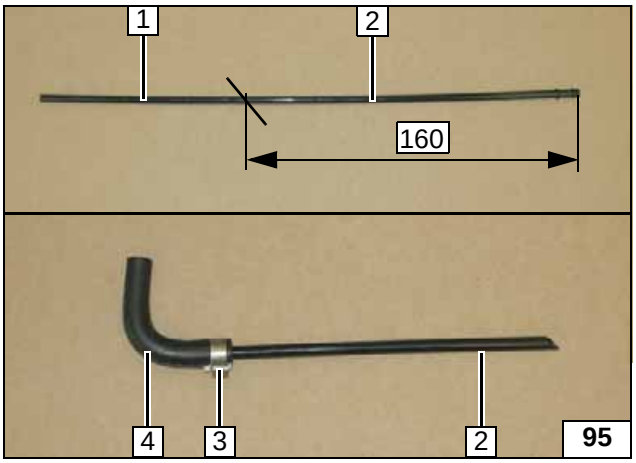
Insert fuel standpipe **1** in upper section of fuel-tank sending unit **2**.

Removing fuel



Observe tightening torque 5 Nm of flanged nut **2** on fuel standpipe **1**.

Removing fuel



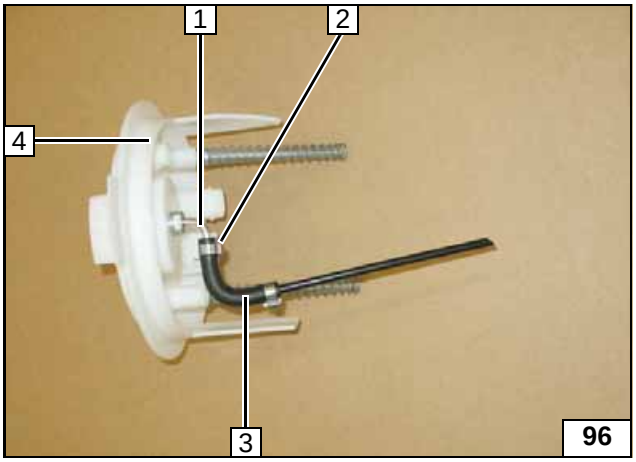
Cut standpipe **2** obliquely!

1 Section, discard

Mount standpipe **2** in 4.5 mm dia. moulded hose **4**.

3 10 mm dia. clamp

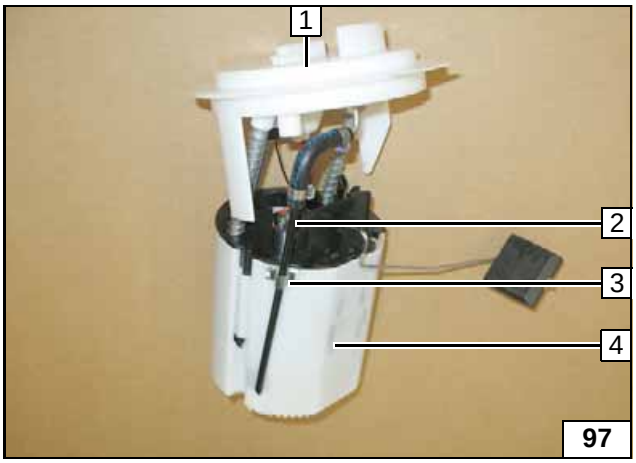
Cutting to length and pre-mounting stand pipe



Premount standpipe **3** on fuel standpipe **1** and secure with 8 mm dia. clamp **2**.

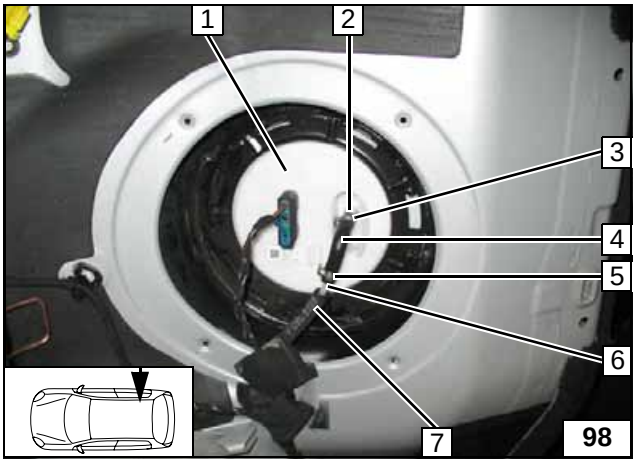
4 Fuel-tank sending unit

Installing standpipe



Install fuel-tank sending unit **1** in accordance with manufacturer's specifications.
Insert line holder **3** for guiding standpipe **2** in lower section of fuel-tank sending unit **4**.

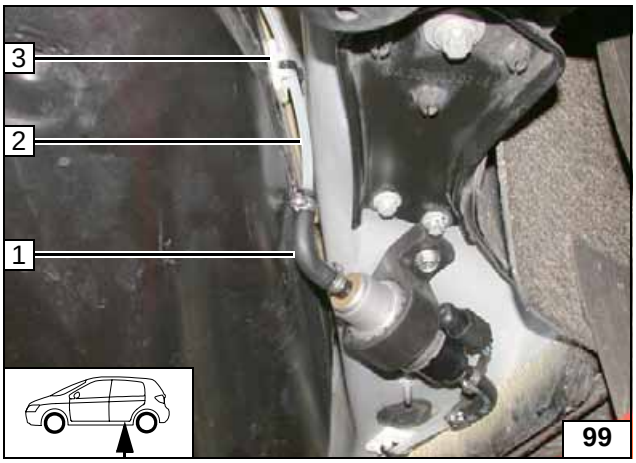
Installing standpipe



Install fuel-tank sending unit **1** in accordance with manufacturer's specifications.
Mount 3.5 mm dia. moulded hose **4** on fuel standpipe **2**.

3 8 mm dia. clamp
5 10 mm dia. clamp
6 Fuel line
7 6x11 hose (rattle protection)

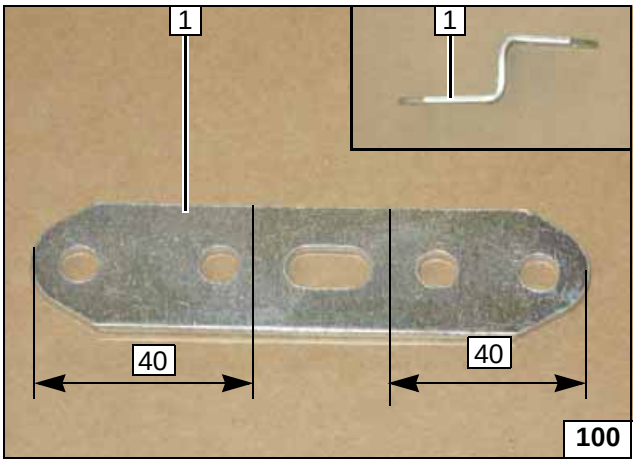
Installing line



All vehicles

Degrease adhesive surface for adhesive base **3**.

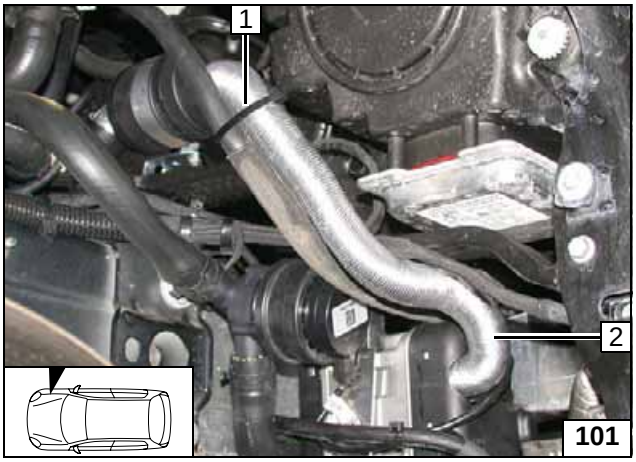
1 90° moulded hose, 10 mm dia. clamp
2 Fuel line
3 Cable tie, adhesive base



Combustion air

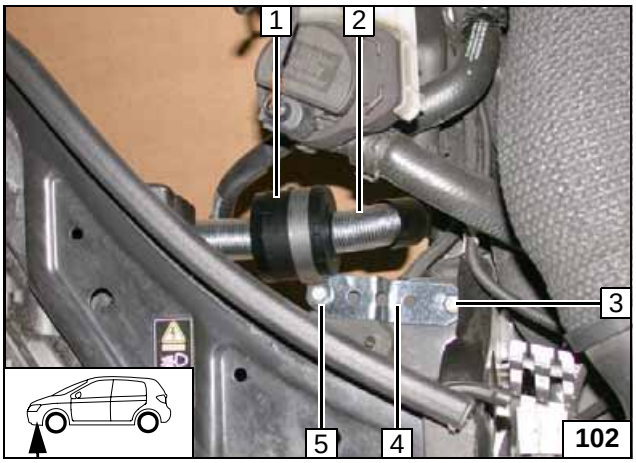
Bend perforated bracket **1** 2x 90°.

Bending perforated bracket



1 Cable tie
2 Combustion air pipe

Installing combustion air pipe



Install perforated bracket **4** with original vehicle bolt **3**.

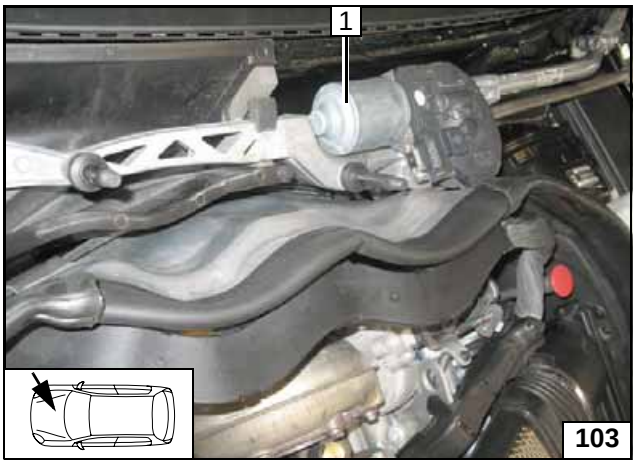
1 Muffler
2 Combustion air pipe, protection flap
5 M5x20 bolt, 48 mm dia clamp, flanged nut

Installing muffler

Final Work

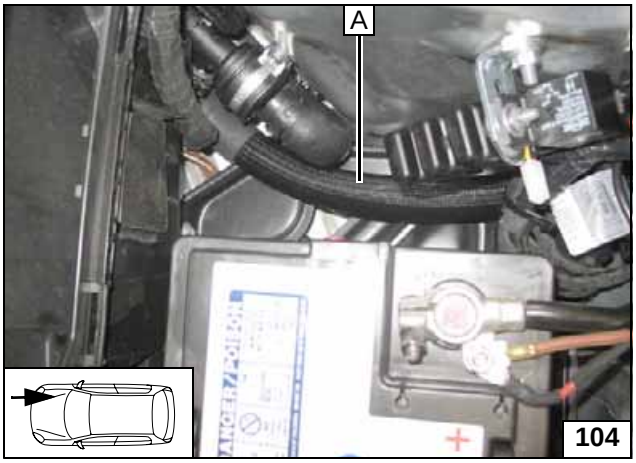
WARNING!
Reassemble the disassembled components in reverse order.
Check all hoses, clamps and all electrical connections for firm seating.
Secure all loose cables using cable ties.
Only use manufacturer-approved coolant.
Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer.
- Define settings of the air-conditioning control panel according to the "Operating Instructions for End Customer".
- Check the proper operation of the parking heater, see the operating instructions/installation instructions.
- Attach the "Switch off parking heater before refueling" sticker to the left-hand B-pillar.



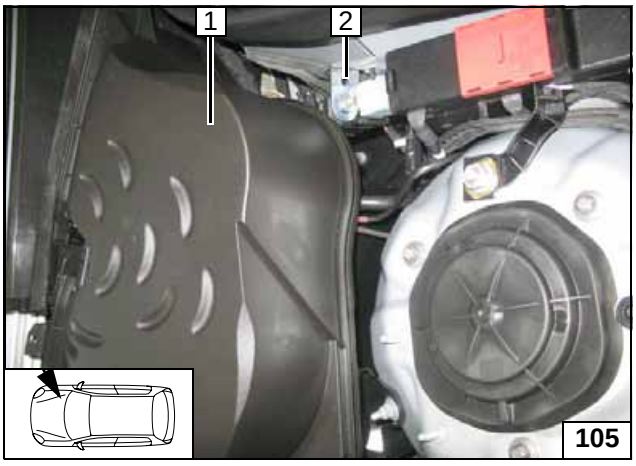
While installing the windshield wiper motor **1** observe the distance from the linkage to the hoses below it!

Installing windshield wiper engine



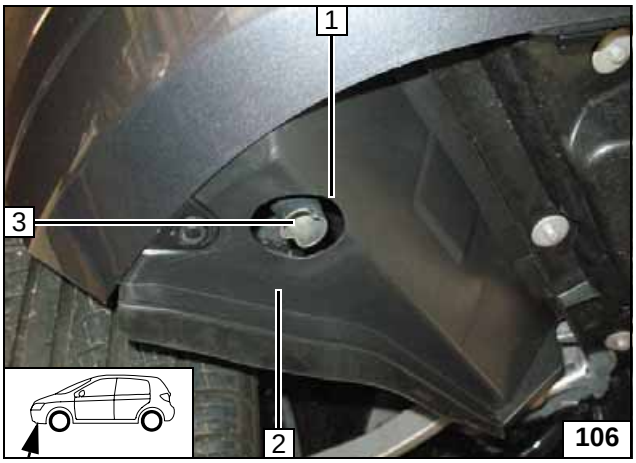
Ensure sufficient distance, especially from hose **A**!

Installing battery



After installing the cover **1**, tighten the screw joint of the angle bracket **2** .!

Tightening screw joint of angle bracket



Drill 45 mm dia. hole **1** in trim **2**.

The exhaust end section **3**, must be centered relative to the hole **1** and aligned flush with the trim **2**; realign exhaust end section **3** if necessary.

3 Exhaust end section

Aligning exhaust end section

1 Exhaust end section

Aligning exhaust end section

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