

Water Heater



Thermo Top E Parking Heater


00 0003

Thermo Top C Parking Heater


00 0002

Thermo Top P Parking Heater


00 0104

Installation documentation

VW Passat / Passat CC

1.4 TSI / 1.6 FSI / 1.8 TSI

from Model Year 2005

Left-hand drive vehicle



WARNING!

Hazard warning:

Incorrect installation or repair of Webasto heating systems may cause a fire or result in the emission of carbon monoxide, which can be fatal. Serious or fatal injuries can be caused as a result.



Specialist company training, technical documentation, 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.

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Validity

Manufacturer	Model	Type	EG-BE No./ABE
Volkswagen	Passat	3C	e1 * 2001/116 * 0307 * ...
Volkswagen	Passat CC	3CC	e1 * 2001/116 * 0468 * ...

Engine type	Engine model	Output in kW	Displacement in cm ³
CAXA	Petrol TSI	90	1390
BLF	Petrol	85	1598
BZB	Petrol	118	1798
CDAA	Petrol	118	1798

Vehicle and engine types and equipment variants not listed in this installation documentation have not been tested. However, installation according to this installation documentation may be possible. The installation location of a digital timer and summer/winter switch should be confirmed with the end customer before installation.

Heater/Installation Kit

Quantity	Description	Order No.:
1	Retail accessories with desired heater control	See price list
1	Installation Kit for VW Passat 1.6 FSI	9014044B

Additionally required for 1.4 TSI and 1.8 TSI:

Quantity	Description	Order No.:
1	Installation kit VW Passat CC 1.8 TSI and 1.4 TSI SG / DSG	1314169A

Also required with Climatronic:

Quantity	Description	Order No.:
1	Kit for Climatronic with IPCU	9013645A

Heater recommended for the respective vehicle class:

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

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



Foreword

This installation documentation applies to VW Passat / Passat CC vehicles with:

- 1.6 FSI engine from model year 2005 and later
 - 1.8 TSI engine from model year 2008 and later
 - 1.4 TSI engine from model year 2010 and later
- for validity, see page 2 - if 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 "maintenance instructions" for the *Thermo Top C/P/E* must always be observed.

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

General Instructions

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties.

Sharp edges should be fitted with edge protectors (split-open plastic hose).

Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329). While installing an IPCU, the corresponding settings must be checked or adjusted before the installation.

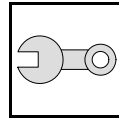
Special Tool

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Center bit up to 42 mm dia.
- Deburring tool
- VAS tester (adjustment of passenger compartment monitoring)

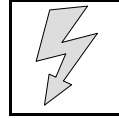
Explanatory Notes on Document

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.

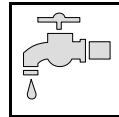
Mechanical system



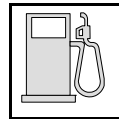
Electrical system



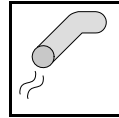
Coolant circuit



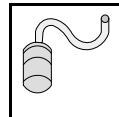
Fuel



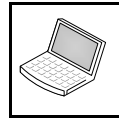
Exhaust gas



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!

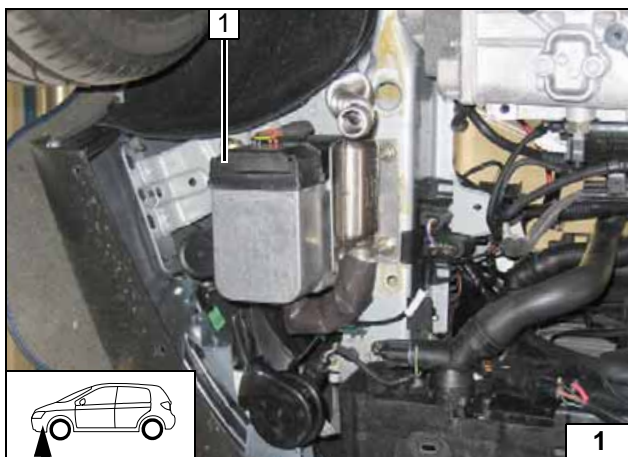
Tightening torque of hose clamps = 2.0 + 0.5 Nm!

Tightening torque of Ejet screws, Ejet studs = 10 Nm!

Preliminary Work

WARNING!

- Open the fuel tank cap, ventilate the tank.
- Close the tank cap again.
- Disconnect and remove the battery.
- Remove the battery carrier.
- 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 engine cover.
- Remove the left front wheel.
- Remove the front section of the left front wheel well trim.
- Remove the left-hand front fog light or, on vehicles without front fog lights, the left-hand cover.
- Remove the underride protection
- Remove the right-hand underbody trim.
- Open the right-hand fuel sender service lid.
- Remove the footwell trim on the driver's side
- Remove the lower instrument panel trim on the driver's side.
- Remove A/C control panel (only vehicles with Climatronic)



Heater installation location

1 Heater

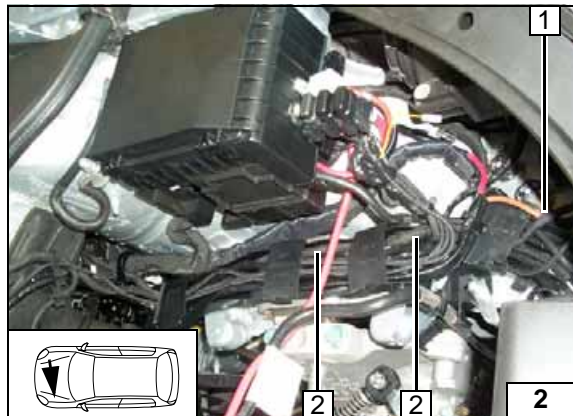
Installation location



Electrical system

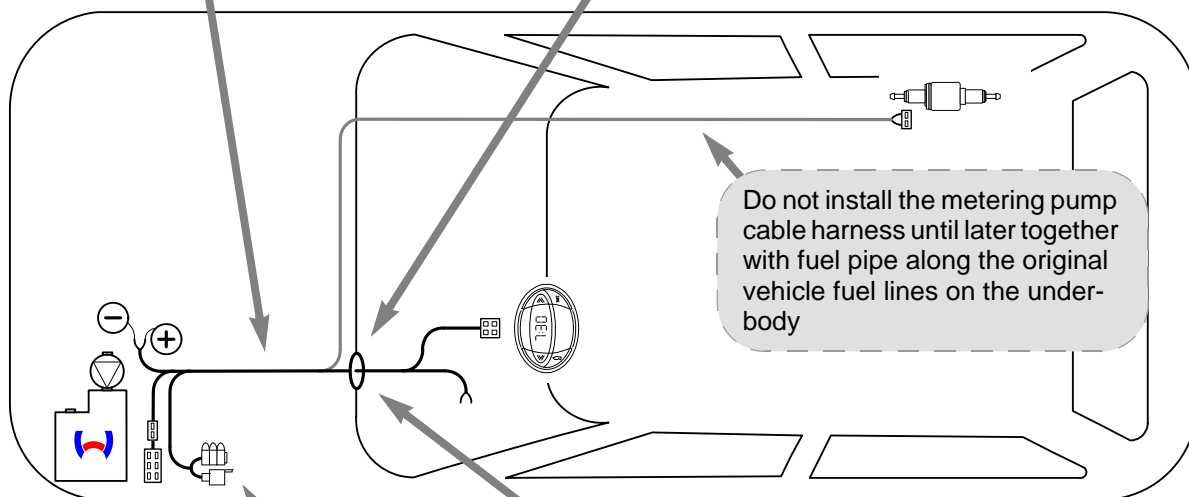
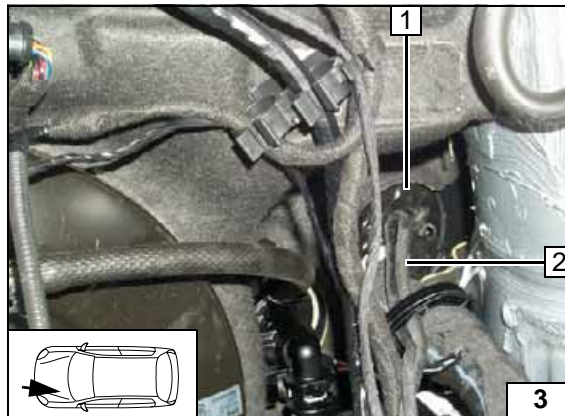
Wiring harness routing

Route excess lengths from wiring harness 1 in cable duct 2 below battery and secure with cable ties.

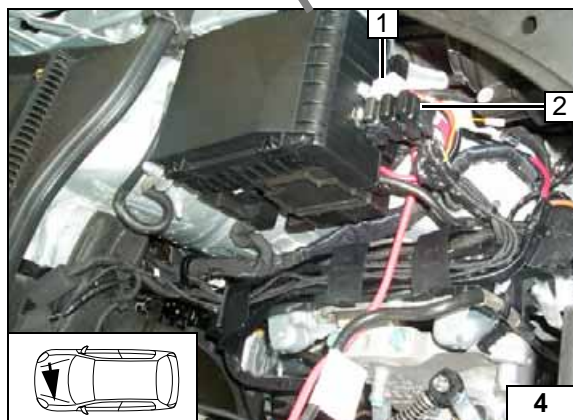


Wiring harness pass through

1 Original vehicle wiring harness pass through

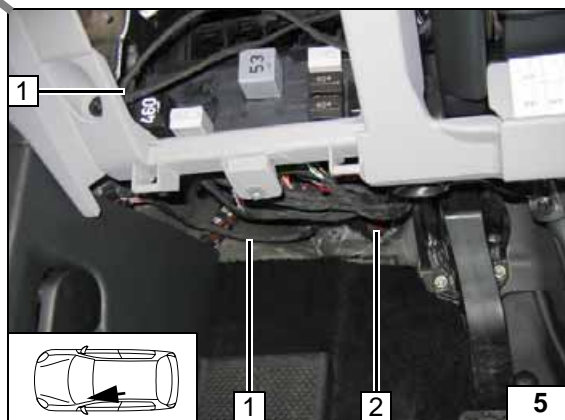


Wiring harness installation diagram



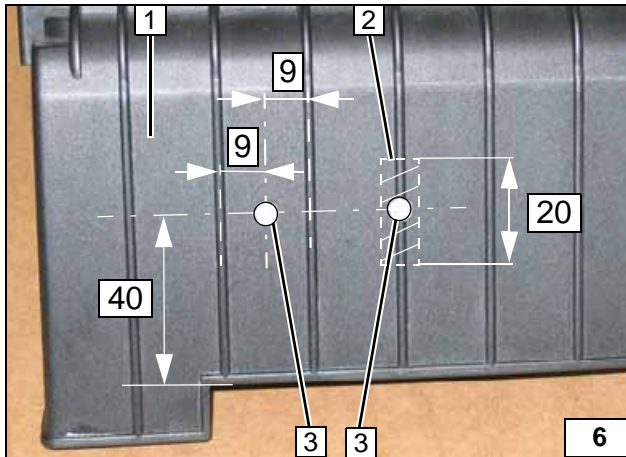
Fuse holder, K3 relay

Description of installation for K3 relay 1 and fuse carrier 2 on Page 7



Wiring harness pass through

1 Wiring harnesses for fan controller and heater control
2 Original vehicle wiring harness pass through



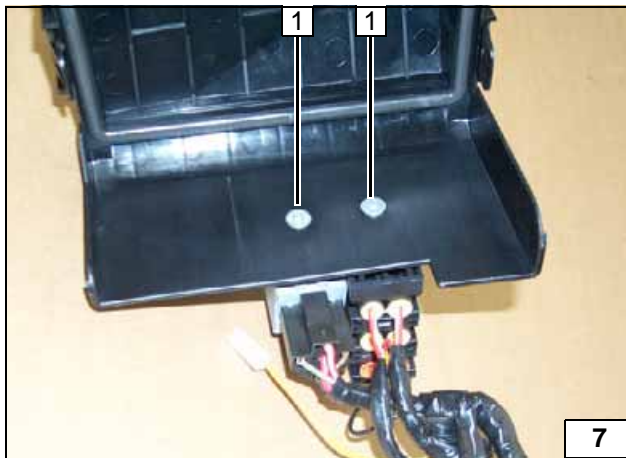
Fuse holder and relay K3

Countersink holes **3** from behind for M5 countersunk head screws.

- 1** Cover of fuse/relay carrier in engine compartment
- 2** Cut away bar in shaded area
- 3** 5 mm dia. hole [2x]

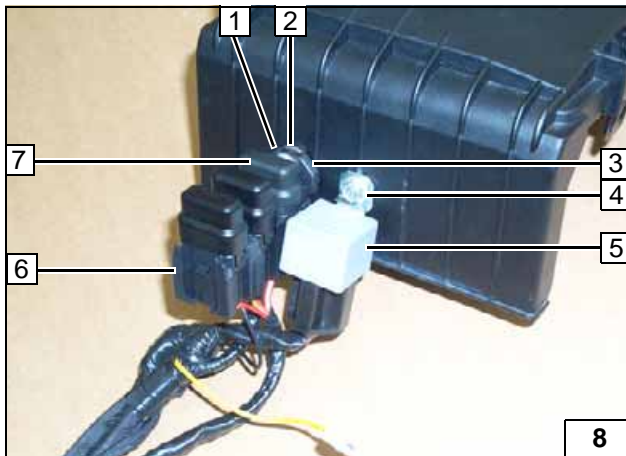


Holes in cover



- 1** M5x12 countersunk head screw [2x]

Installing fuse holder and relay K3

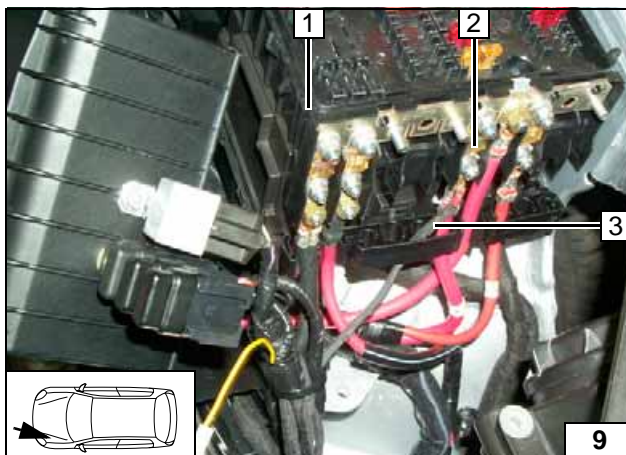


On vehicles with Climatronic, replace 25 A fuse F3 7 with 3 A fuse provided.

- 1** M5 flanged nut
- 2** Large diameter washer (between cover and retaining plate)
- 3** Retaining plate
- 4** M5 flanged nut
- 5** Relay K3
- 6** Fuse holder



Installing fuse holder and relay K3

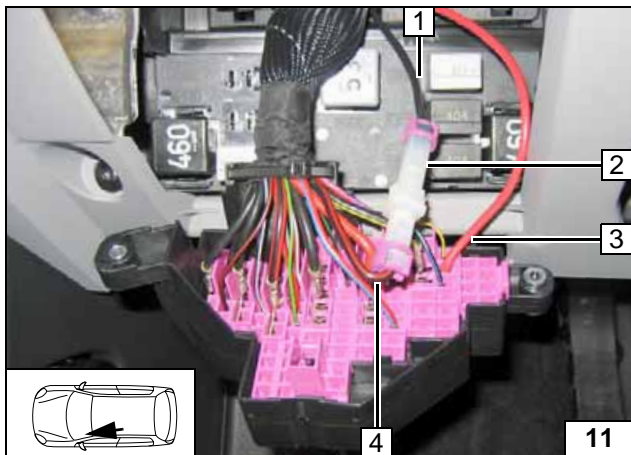


Route brown (br) earth wire to original vehicle earth support point below headlight and connect.

- 1** Fuse/relay carrier
- 2** Original main vehicle fuse
- 3** Red (rt) positive wire



Connecting positive and earth wire



Produce connections as shown in wiring diagram.

- 1 Black (sw) wire K3/30 with crimped-on tab connector
- 2 AMP connector
- 3 Red (rt) wire K3/87a with crimped-on standard power timer engaged in fuse output SC41
- 4 Black/red (sw/rt) wire with original standard power timer

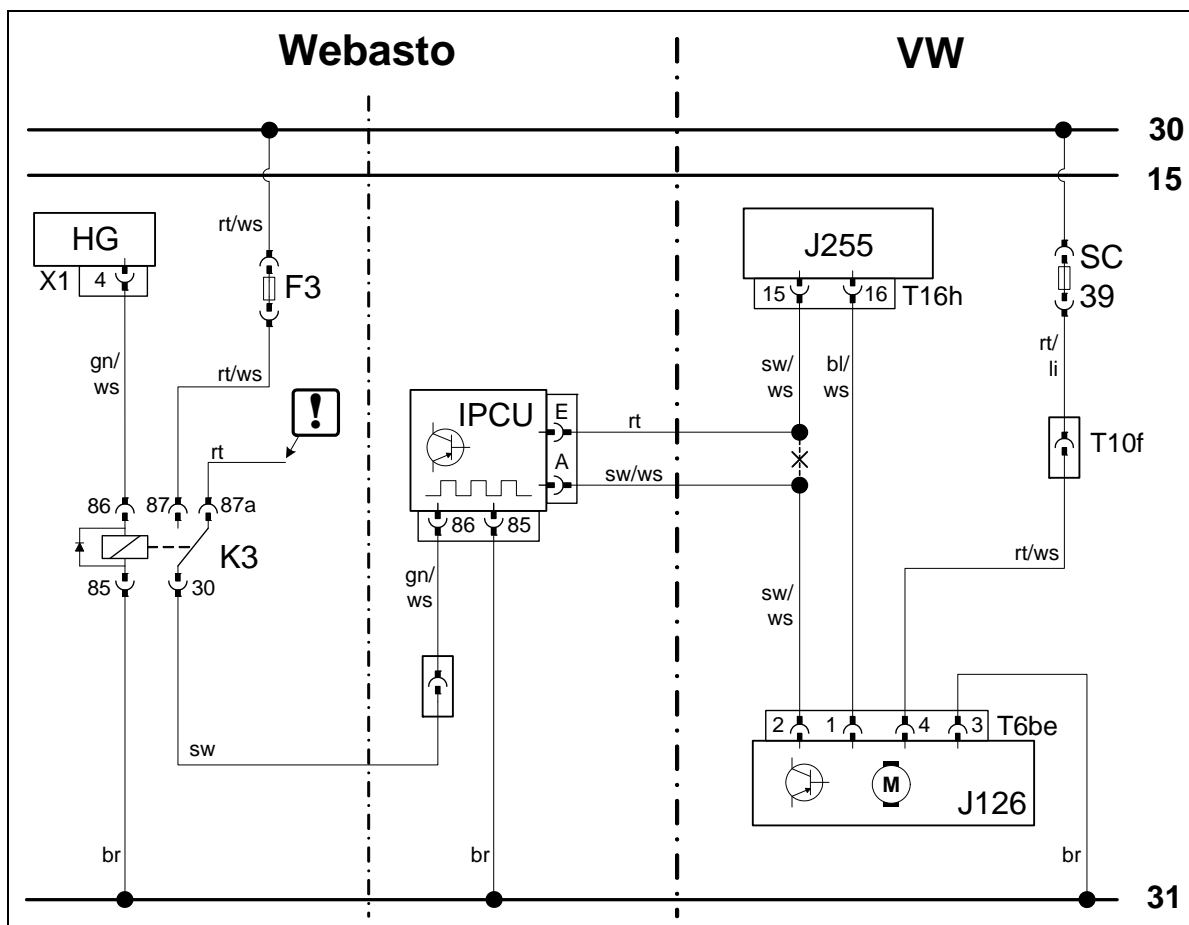


**Connect-
ing wires**

Climatronic fan controller

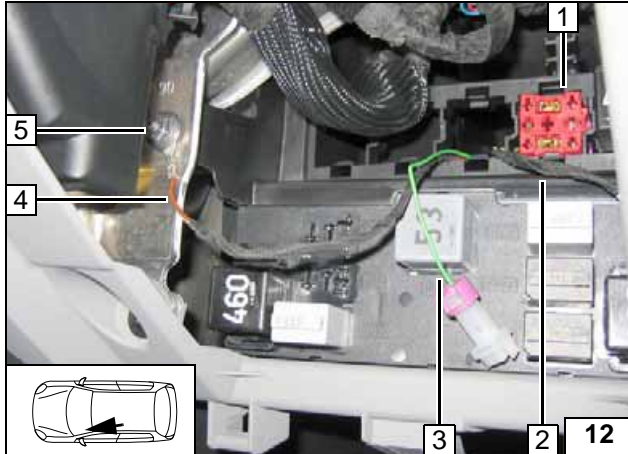


Climatronic wiring diagram



Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	SC 39	40 A fan-fuse	rt	red
F3	Fuse (25 A replaced with 3 A)	J255	Climatronic control unit	ws	white
K3	Fan relay	J126	Fan control unit	sw	black
IPCU	Pulse width modulator	V2	Fan motor	br	brown
		T...	Plug connections	gn	green
				li	purple
				bl	blue
				!	Insulate wire end and tie back
				X	Cutting point
				Wiring colours may vary.	

Legend



Produce connections as shown in wiring diagram.

Position of free sockets dependent on vehicle equipment. Install wiring harness 2 with red (rt) wire from IPCU/E and black/white (sw/ws) wire from IPCU/A to the centre console.

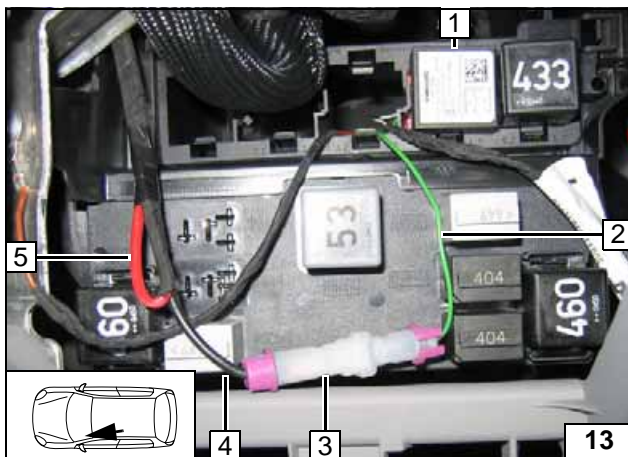
Note:

Attach IPCU socket 1 with cable ties for new form of the fuse carrier.

- 1 IPCU socket
- 3 Green/white (gn/ws) wire of IPCU/86
- 4 Brown (br) wire IPCU/85
- 5 Original vehicle nut



Installing wiring harness of Climatronic

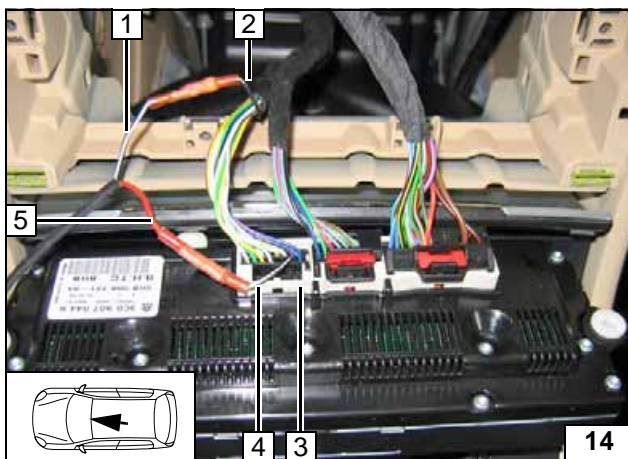


Produce connections as shown in wiring diagram. Insulate and tie back red (rt) wire from K3/87a 5.

- 1 IPCU mounted
- 2 Green/white (gn/ws) wire of IPCU/86
- 3 AMP housing
- 4 Black (sw) wire K3/30 with crimped-on tab connector
- 5 Red (rt) wire K3/87a



Connection to heater wiring harness



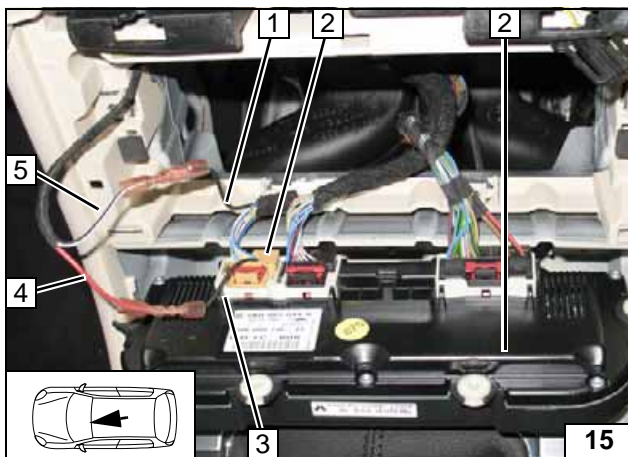
Version 1:

Connection on connector T16h 3 from A/C control panel. Produce connections in accordance with wiring diagram.

- 1 Black/white (sw/ws) wire of IPCU/A
- 2 Black/white (sw/ws) wire from fan unit
- 4 Black/white (sw/ws) wire from connector T16h/15
- 5 Red (rt) wire of IPCU/E



Connecting air-conditioning control element



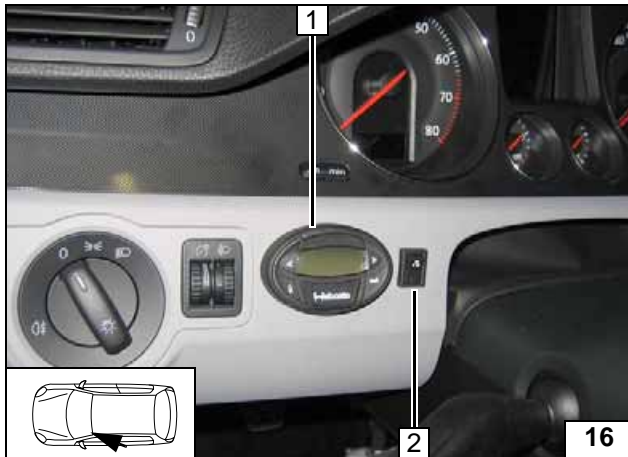
Version 2:

Connection on connector T16h 2 from A/C control panel. Produce connections in accordance with wiring diagram.

- 1 Black/white (sw/ws) wire from fan unit
- 3 Black/white (sw/ws) wire from connector T16h/15
- 4 Red (rt) wire of IPCU/E
- 5 Black/white (sw/ws) wire of IPCU/A



Connection of A/C control panel

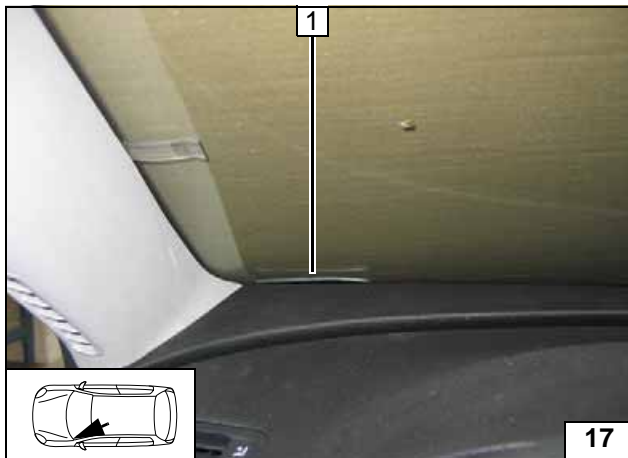


Digital timer / Opt. Summer/winter switch

- 1 Digital timer
- 2 Summer/winter switch



Installing digital timer

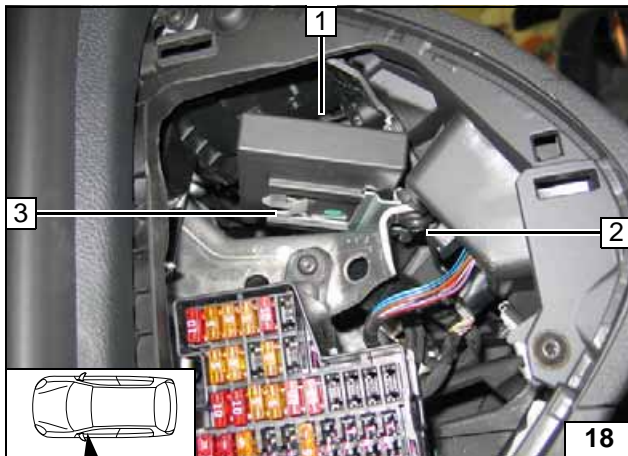


Remote option (Telestart)

- 1 Antenna



Installing antenna

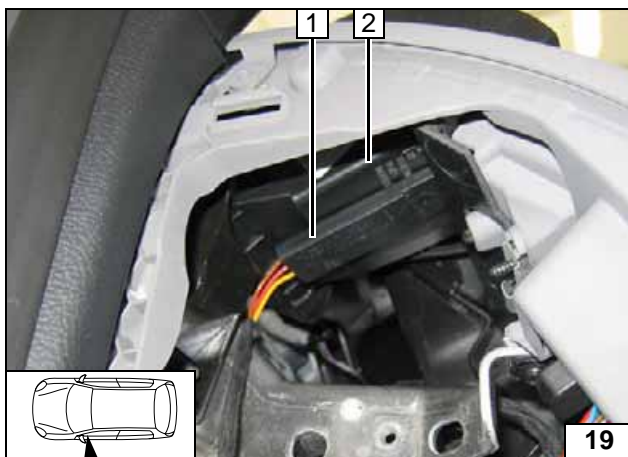


Ensure freedom of movement of receiver 1. Rebend bracket 3 if necessary.

- 2 Original vehicle bolt



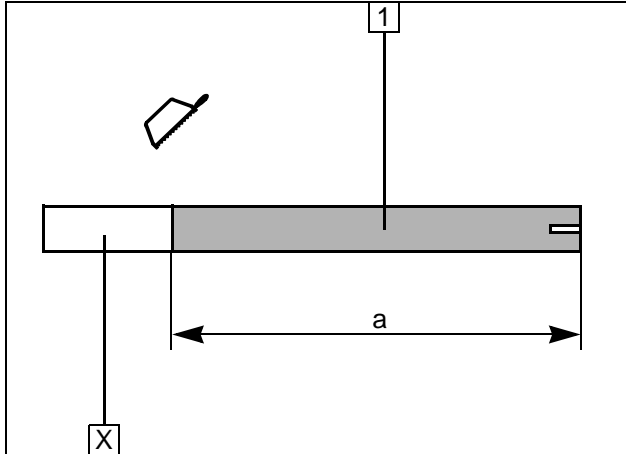
Installing receiver



Only with Telestart T100 HTM

- 1 Double-sided adhesive tape, temperature sensor
- 2 Air duct

Install temperature sensor

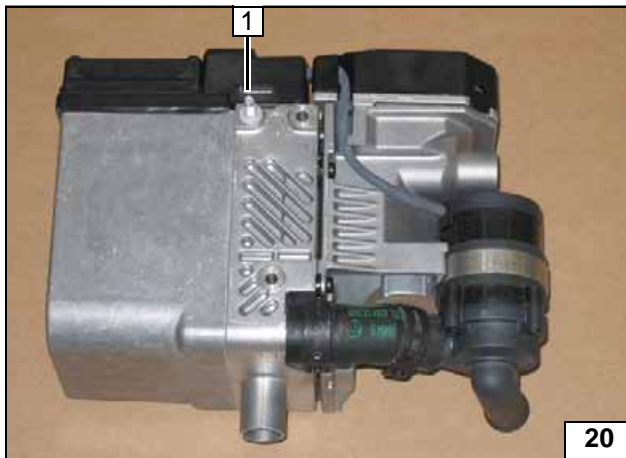


Premounting heater

- 1 Combustion air pipe
a = 250

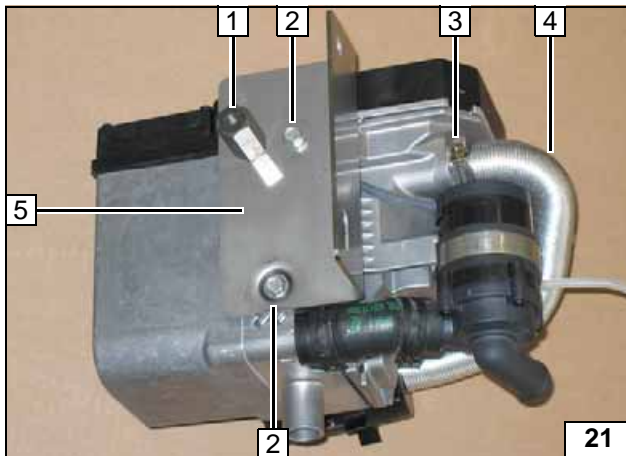
Discard section X

Cutting combustion air pipe to length



- 1 Eject stud

Premounting heater

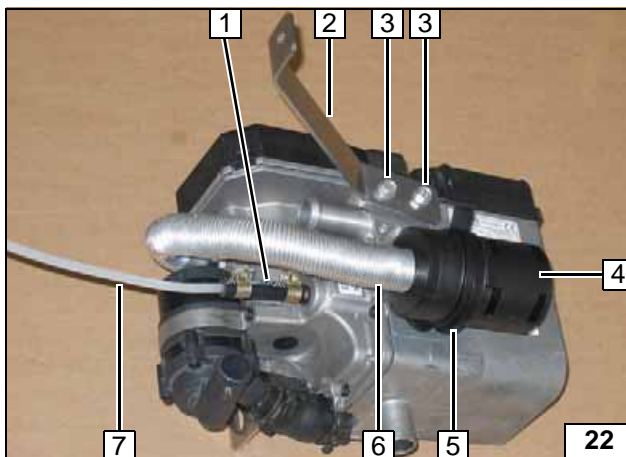


Insert one washer each between heater and bracket 5 at positions 2

- 1 M6x30 spacer nut
- 2 Washer, Eject screw [2x]
- 3 27 mm dia. hose clamp
- 4 Combustion air pipe



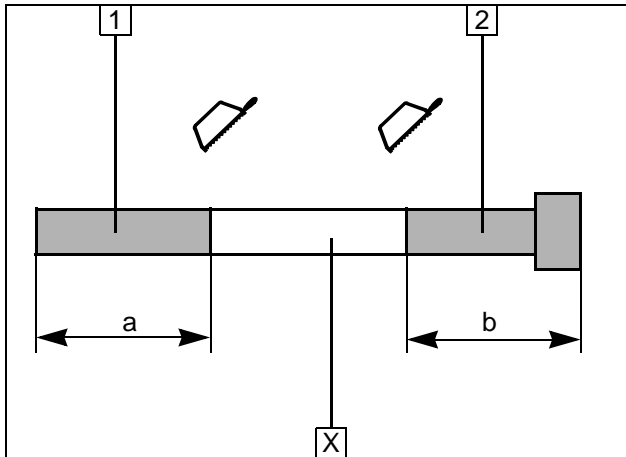
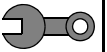
Premounting heater



- 1 Hose section, 10 mm dia. hose clamp [2x]
- 2 Strut
- 3 Eject screw [2x]
- 4 Silencer
- 5 Retaining clip in hole of heater
- 6 Combustion air pipe
- 7 Fuel line



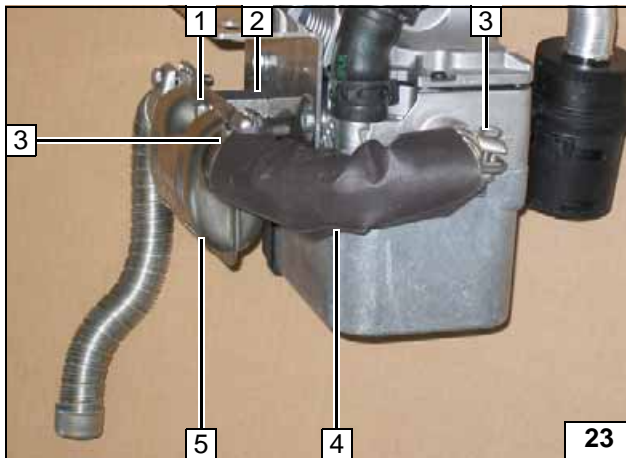
Premounting heater



- 1 Exhaust pipe
a = 190
- 2 Exhaust end section
b = 240

Discard section X

Preparing exhaust pipe

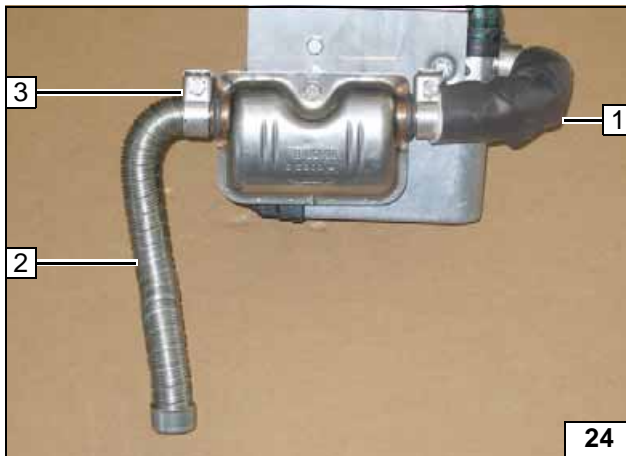


Slide insulation onto exhaust pipe.

- 1 M6x16 bolt, spring lockwasher
- 2 M6x30 spacer nut
- 3 Hose clamp [2x]
- 4 Exhaust pipe with insulation
- 5 Silencer



Premounting exhaust system



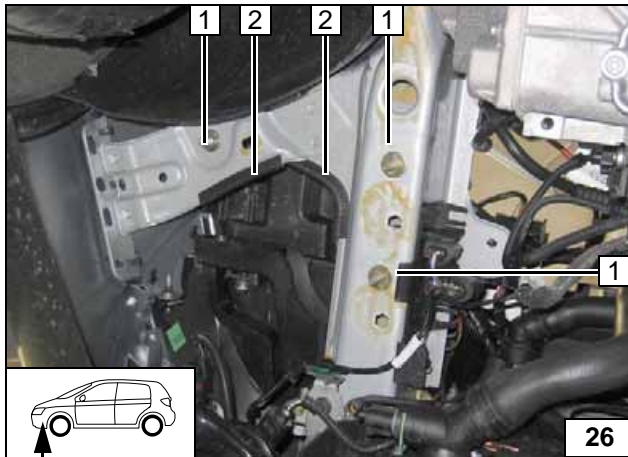
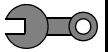
- 1 Exhaust pipe
- 2 Exhaust end section
- 3 Hose clamp

Premounting exhaust system



- 1 Exhaust end section

Premounting exhaust system

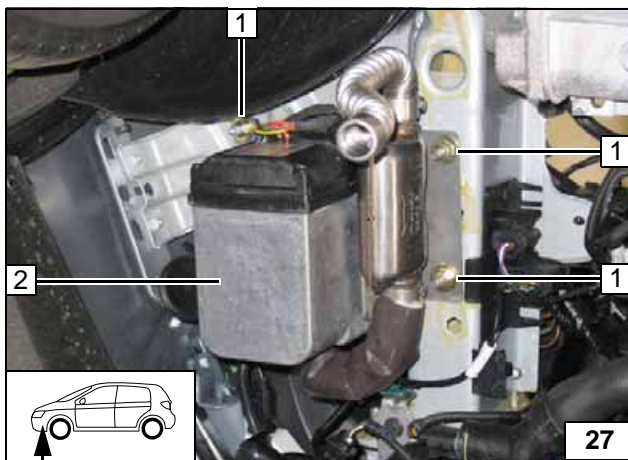


Preparing installation location

Secure large diameter washer against falling with putty etc.

- 1 Large diameter washer on original vehicle stud bolt [3x]
- 2 100 mm edge protection

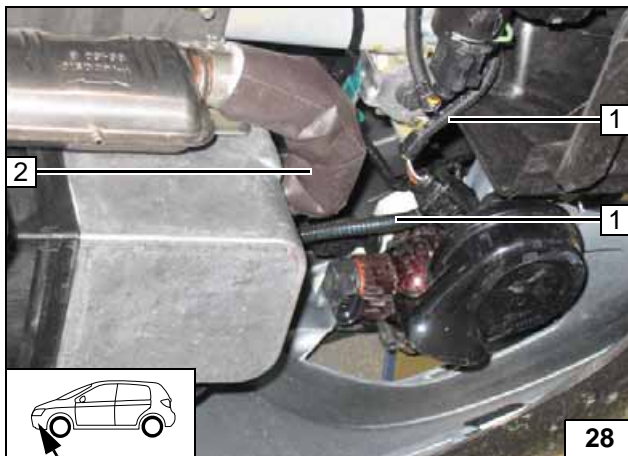

Preparing installation location



Installing heater

- 1 Large diameter washer, flanged nut M8 [3x]
- 2 Heater (preassembled)

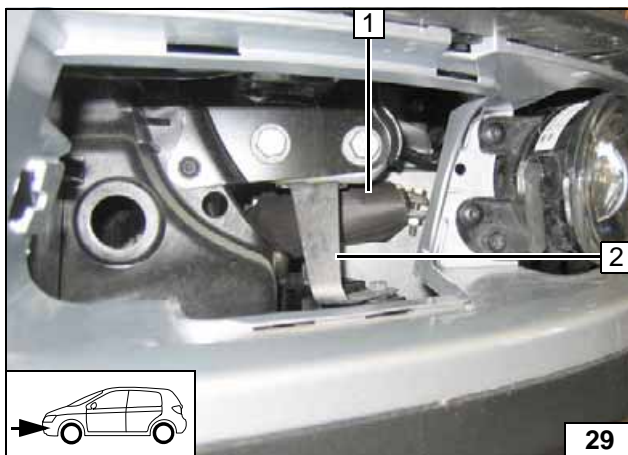
Installing heater



Ensure freedom of movement of exhaust system relative to original vehicle component and lines.

- 1 Original vehicle wiring harnesses (secured with cable ties)
- 2 Exhaust pipe with insulation

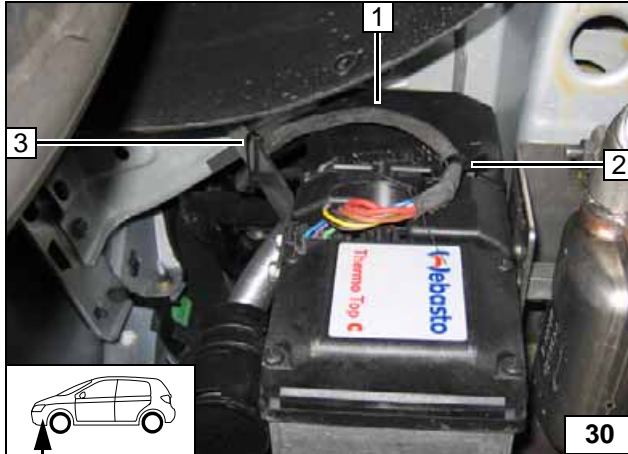
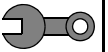

Aligning exhaust system



Ensure freedom of movement of exhaust system relative to original vehicle component and lines.

- 1 Exhaust pipe with insulation
- 2 Horn bracket


Aligning exhaust system



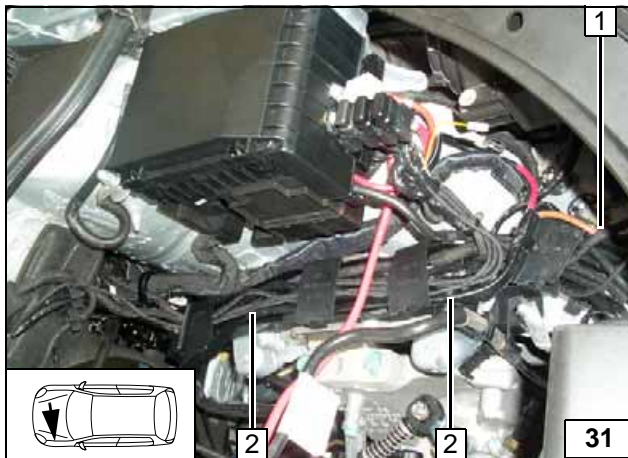
Wiring harness of heater

Watch routing of wiring harness. Danger of rubbing!

- 1 Wiring harness of heater
- 2 Clip cable tie in pre-perforated hole of heater cover
- 3 Cable tie



Mounting and routing wiring harness

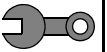


Watch routing of wiring harness. Danger of rubbing!

Route excess lengths from wiring harness 1 in cable duct 2 below battery and secure with cable ties.



Routing wiring harness



Fuel

CAUTION!

Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

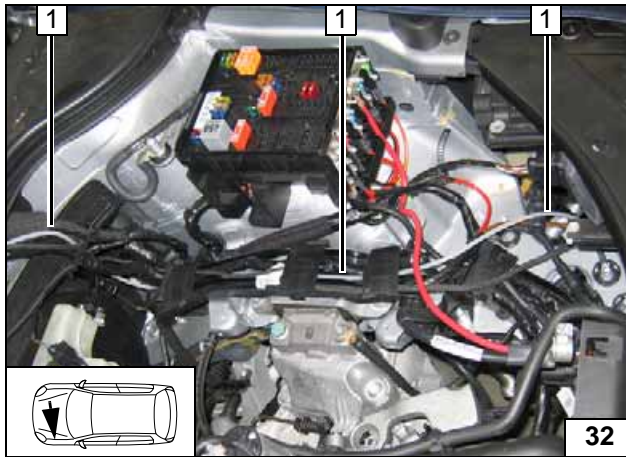
Catch any fuel running off with an appropriate container.

Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.

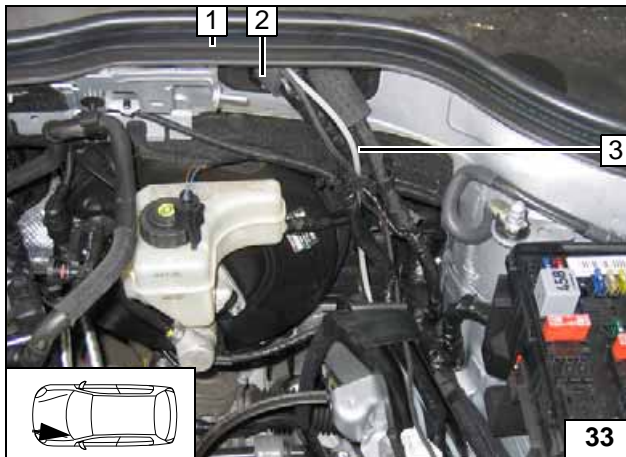
Mount the fuel line and wiring harness with rub protection on sharp edges.

WARNING!

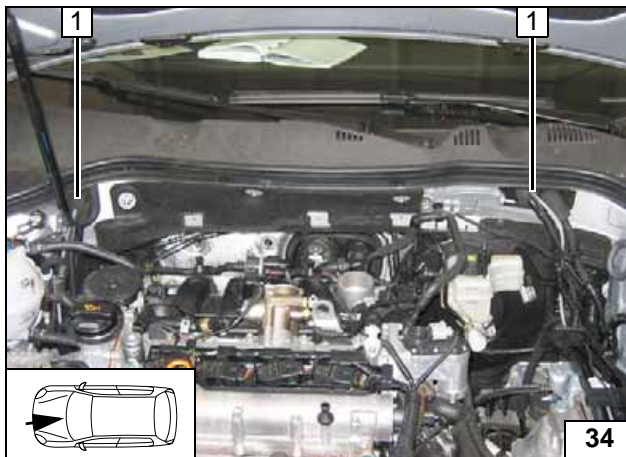
The fuel line and wiring harness are routed to the metering pump in as shown in the wiring harness routing diagram.



1 Fuel line



- 1 Coolant reservoir cap detached
- 2 Existing pass through
- 3 Fuel line and wiring harness of metering pump



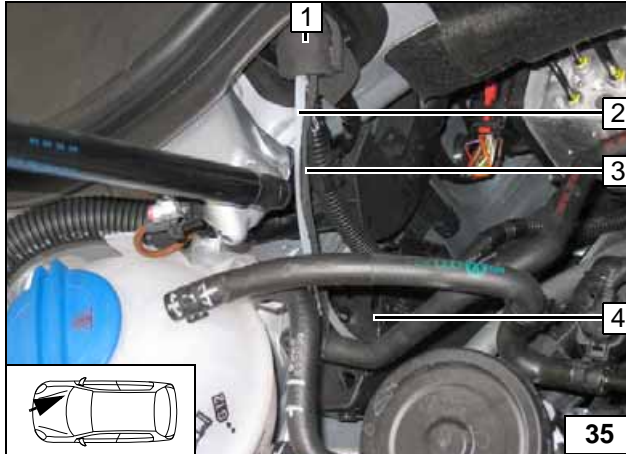
Fasten fuel line and wiring harness of metering pump 1 in coolant reservoir on original vehicle lines with cable ties. Pay particular attention to freedom of movement of wiper linkage.

Routing line

Routing line



Routing line

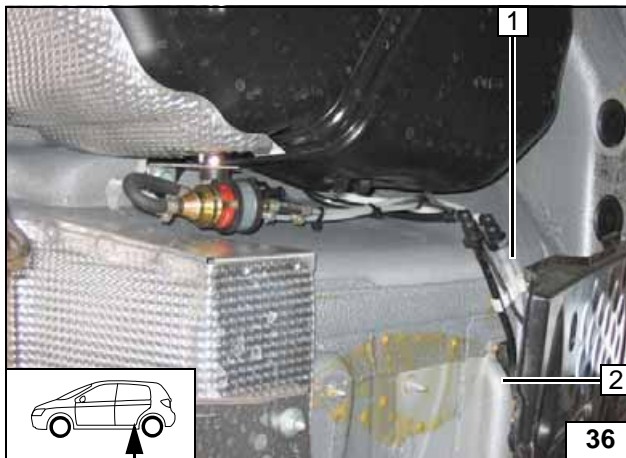


Guide fuel line **2** and wiring harness of metering **3** into original vehicle line duct **4** and route to underbody.

1 Existing pass through



Routing line

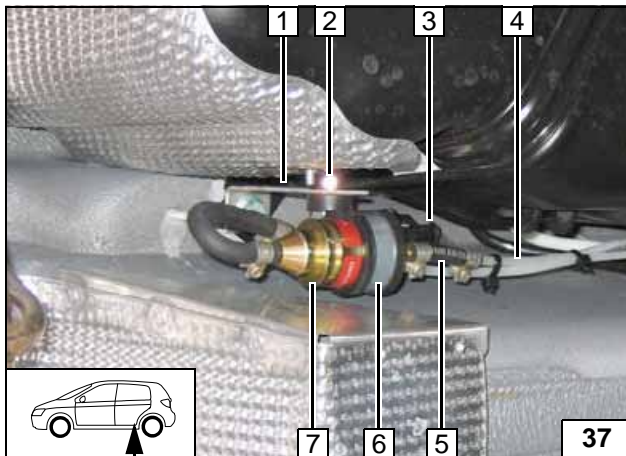


Route fuel line and wiring harness of metering pump along original vehicle fuel lines **1** to fuel tank.

2 Line duct



Routing line



1 Bracket of metering pump, original vehicle bolt

2 Silent block, flanged nut [2x]

3 Wiring harness of metering pump, connector housing completed

4 Fuel line

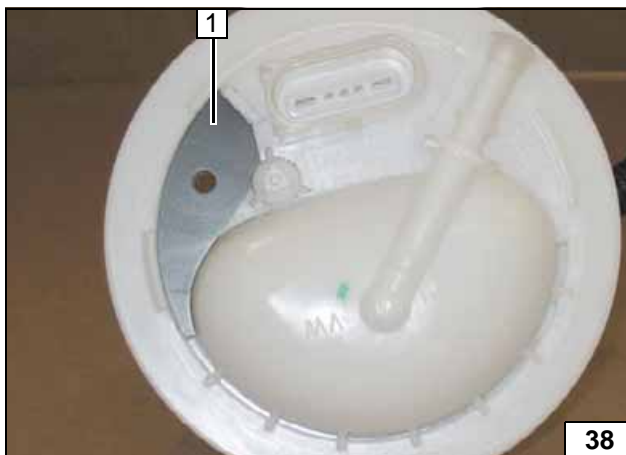
5 Hose section, 10 mm dia. hose clamp [2x]

6 Rubber-coated pipe clamp

7 Metering pump



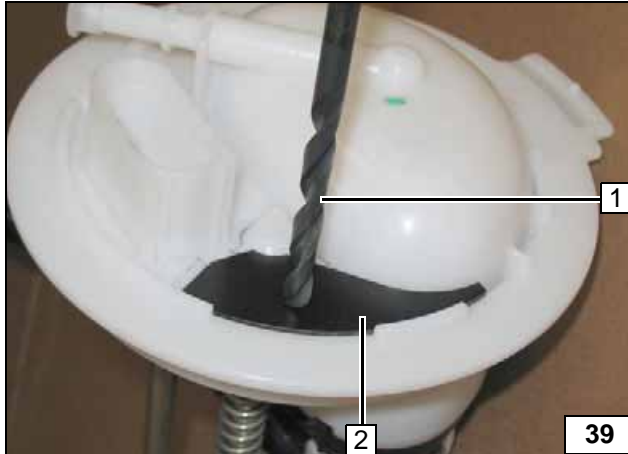
Installing metering pump



Dismantle fuel-tank sending unit according to manufacturer's specifications. Engage metal drilling template **1** play-free on fuel-tank sending unit as shown.



Engaging drilling template

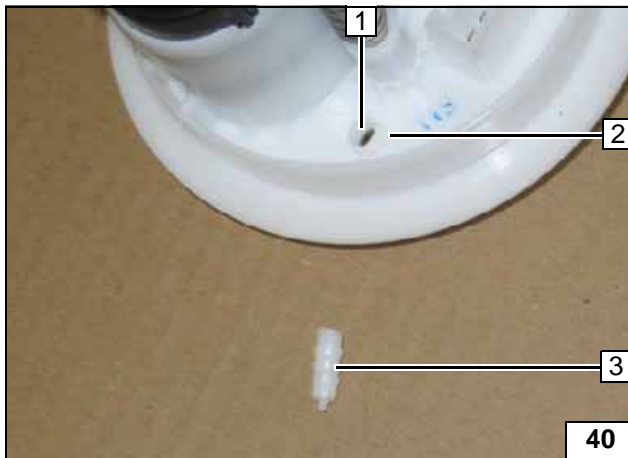


Ensure firm seating of template 2. Guide drill bit 1 exactly perpendicular to surface of fuel-tank sending unit. Carefully drill at low speed and only with light pressure!

- 1 6.0 mm dia. drill bit
- 2 Metal drilling template



Hole in fuel-tank sending unit



- 1 6.0 mm dia. hole
- 2 Overhanging, circumferential edge of approx. 1 mm
- 3 Drilled-out blind connection piece



View of underside of fuel-tank sending unit

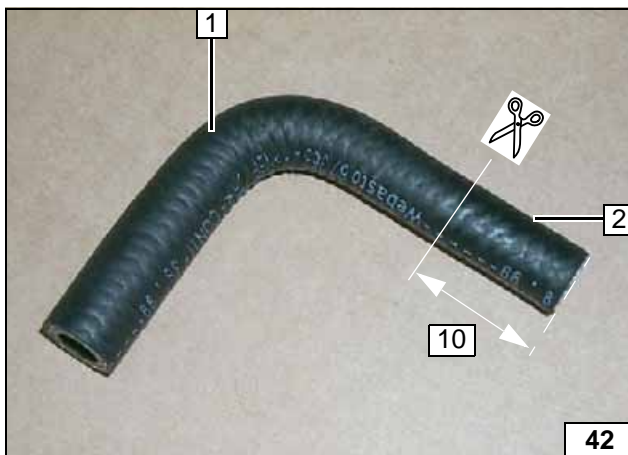


Carefully remove overhanging edge with deburring tool.

- 1 Deburring tool

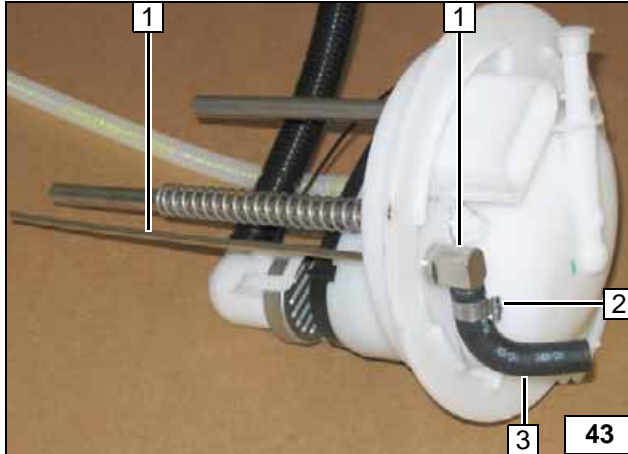


Removing edge



- 1 90° 4.5 mm dia. moulded hose
- 2 Discard section

Shortening hose

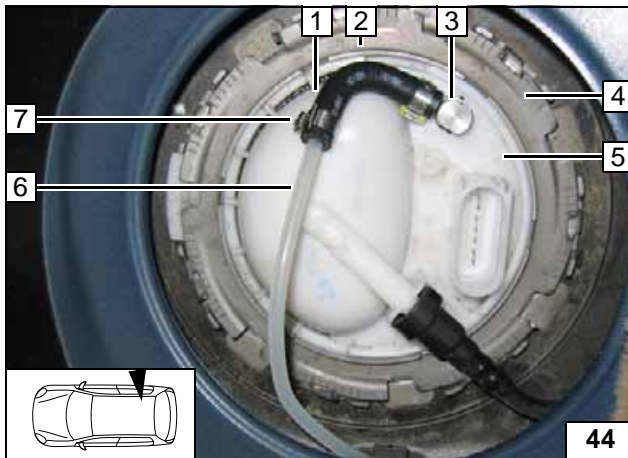


Cut fuel standpipe **1** to length according to template and install.
Moulded hose **2** 4.5 mm dia., with shortened side on fuel standpipe **1**!

3 10 mm dia. Caillau clamp



Installing fuel standpipe

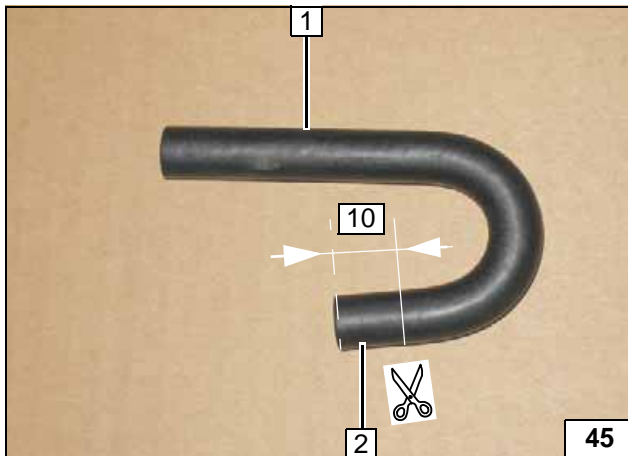


Install fuel-tank sending unit **5** in accordance with manufacturer's specifications.
Ensure sufficient spacing between moulded hose **1** and edge of locking ring **4** at position **2**.

3 Fuel standpipe
6 Fuel line
7 10 mm dia. Caillau clamp

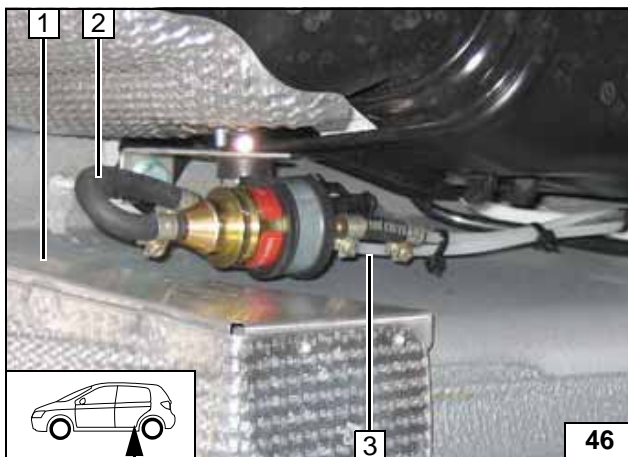


Installing fuel-tank sending unit



1 Moulded hose 180°
2 Discard section

Shorten moulded hose



The design of the guard plate **1** depends on the vehicle. Moulded hose **2** with shortened side on metering pump. Ensure sufficient spacing between guard plate **1** and moulded hose **2**.

Check routing of fuel lines and wiring harness of metering pump over entire length and correct if necessary.

2 180° moulded hose, hose clamp dia 10 mm [2x];
3 Fuel line from fuel standpipe



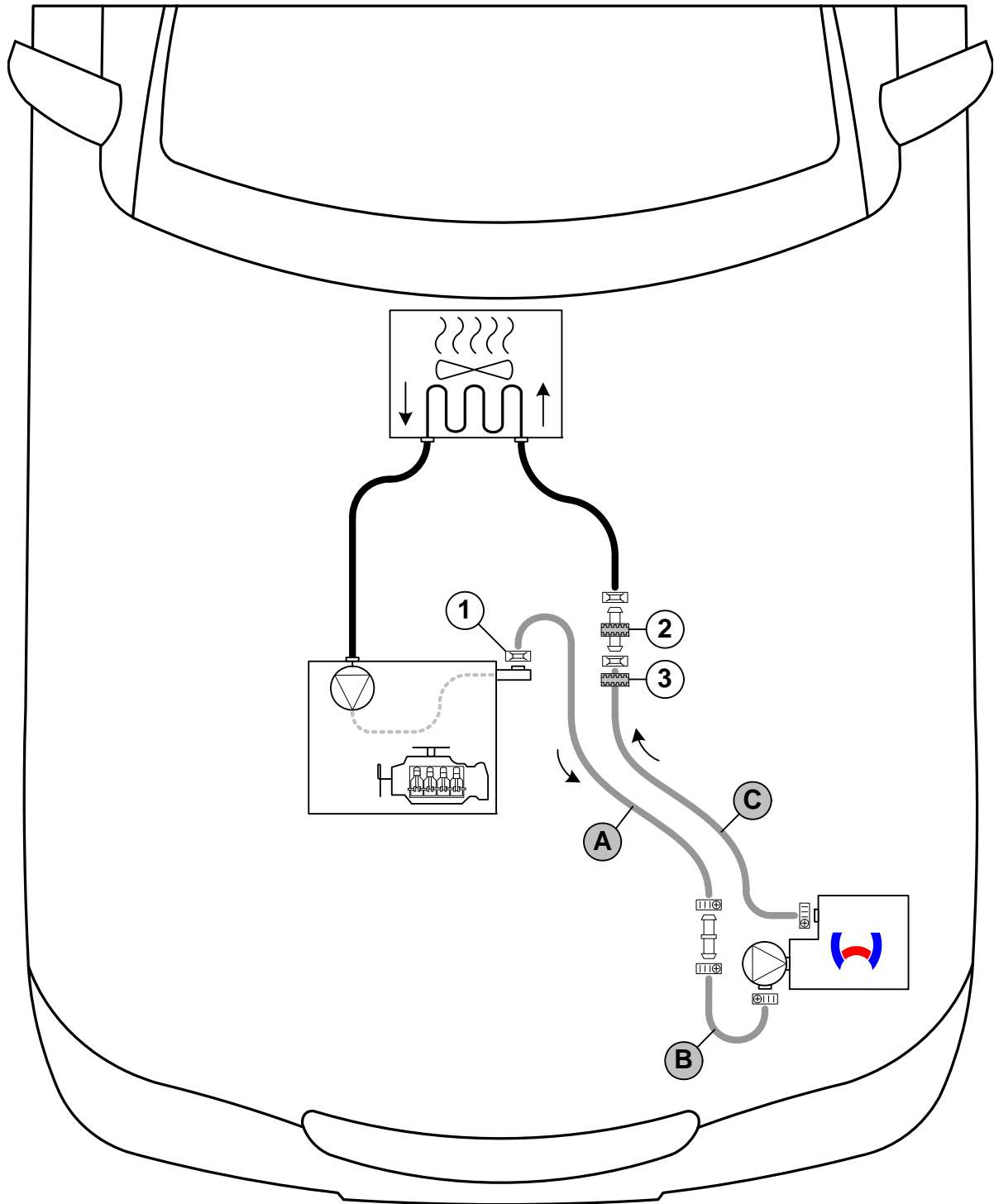
Connecting metering pump



Coolant circuit 1.4 TSI

WARNING!

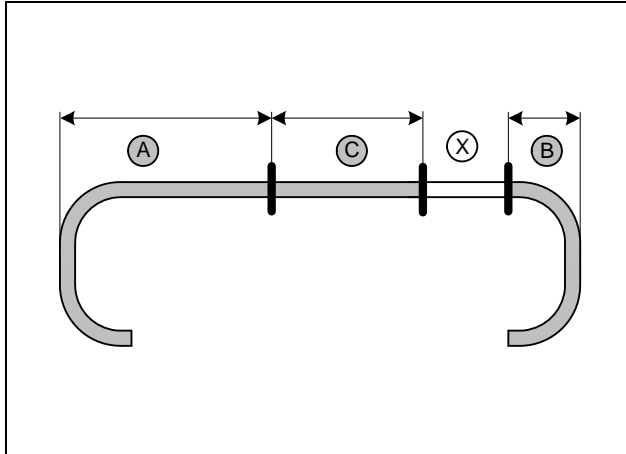
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant! The connection should be "inline" based on the following diagram:



Hose installation 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 = 20x20 mm dia.
2 = Black (sw) rubber isolator (DSG only)! **3** = Black (sw) rubber isolator (SG only)!





Discard section X

Manual transmission

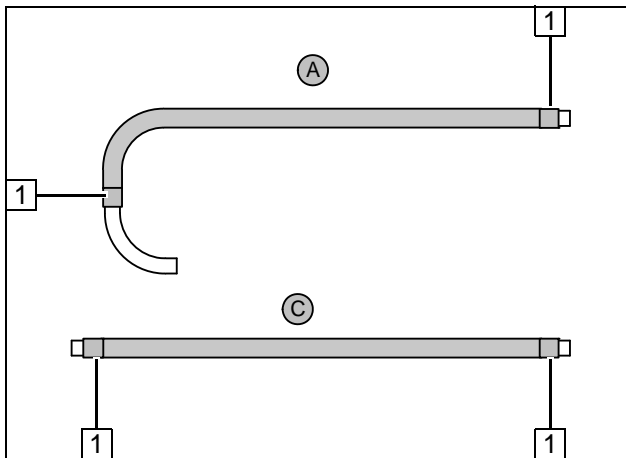
- A = 780
- B = 120
- C = 1000

DSG

- A = 670
- B = 120
- C = 700



Cutting coolant hoses to length



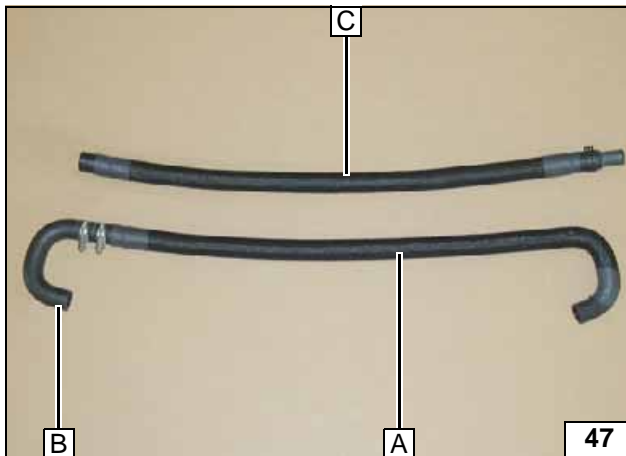
All vehicles

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

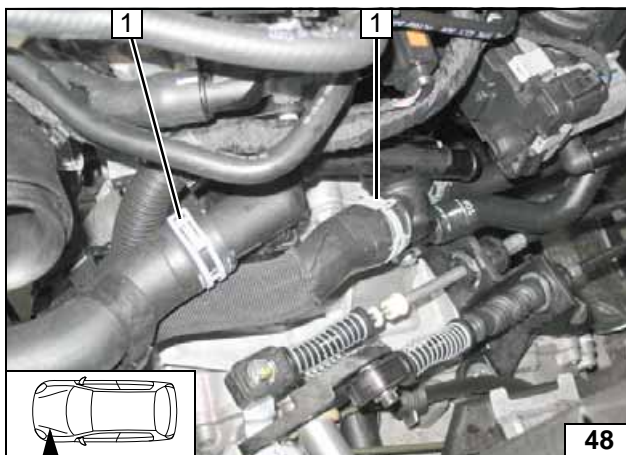
- 1 25 mm long heat shrink plastic tubing [4x]



Preparing coolant hoses



Pre-assembling coolant hoses

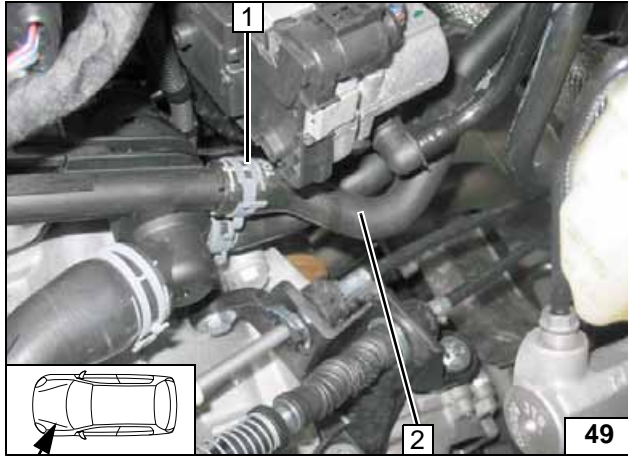


Manual transmission

Turn clamp lock 1 [2x] toward the engine.



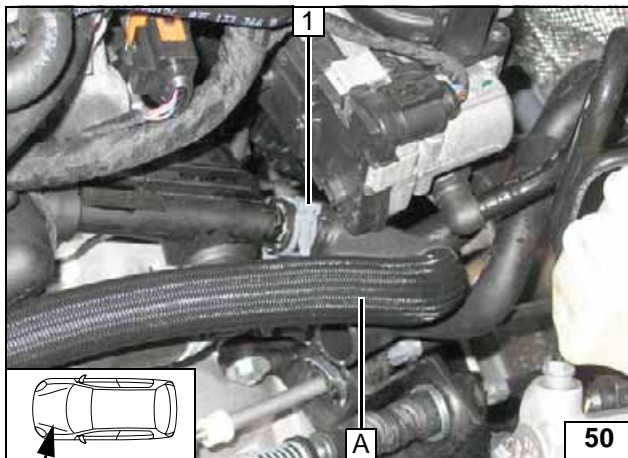
Twisting clamps



Pull off hose on engine outlet/heat exchanger inlet **2** on connection piece of engine outlet. Spring clip **1** will be reused.



Cutting point

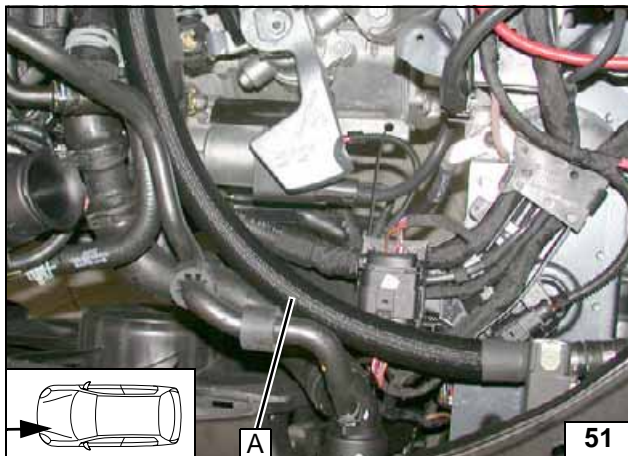


Install hose **A** with 180° elbow on connection piece of engine outlet.

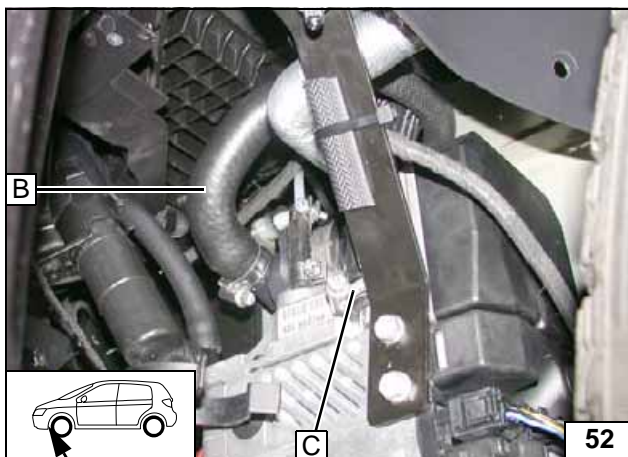
1 Original vehicle spring clip



**Connect-
ing engine
outlet**



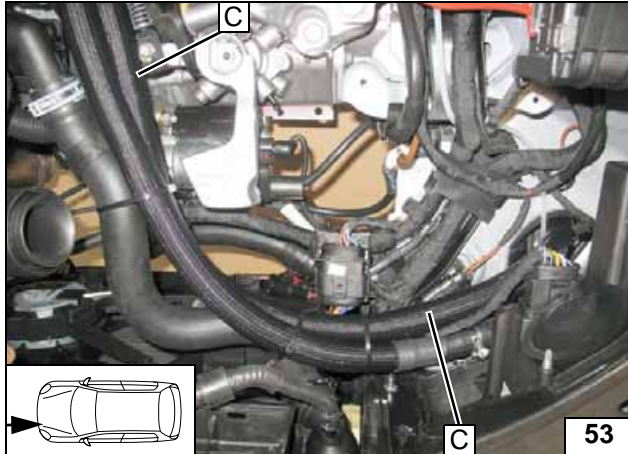
**Routing in
engine
compartment**



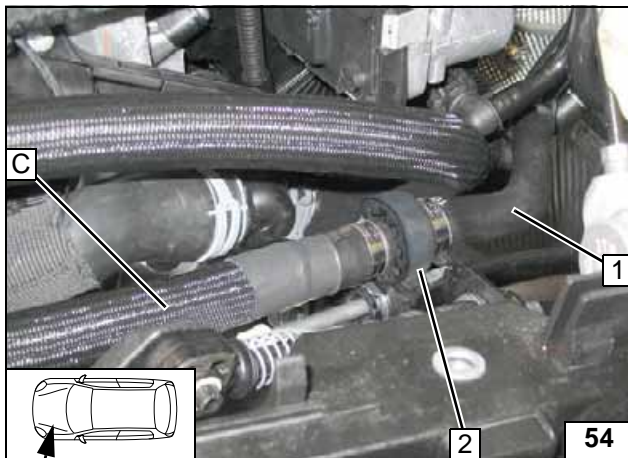
Combustion air silencer tied back for demonstration purposes.



**Connect-
ing heater**



Routing in engine compartment

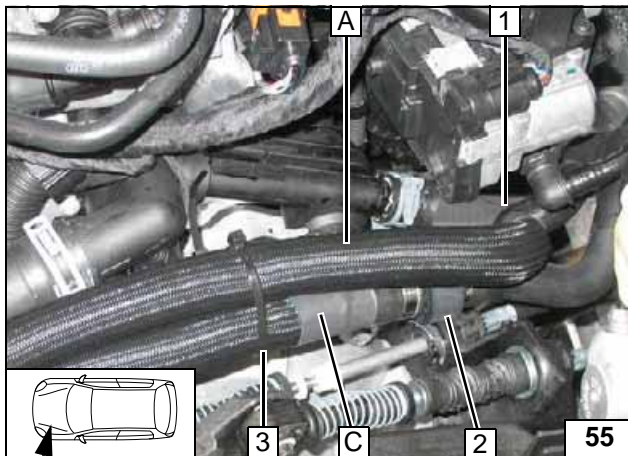


Insert black (sw) rubber insulator 2 in connecting point.



1 Hose on heat exchanger inlet

Connecting heat exchanger inlet

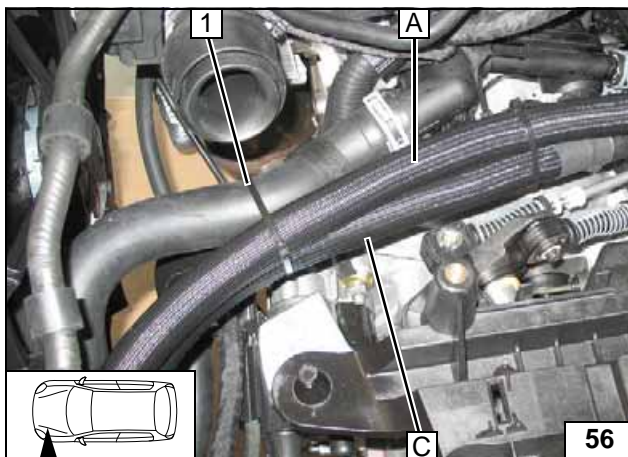


Align black (sw) rubber insulator 2 on bracket of manual gearshift. Align hoses and attach with cable tie 3 on original vehicle hose. Ensure sufficient distance to adjacent components, especially to the manual gearshift. Adjust if necessary!



1 Cable tie

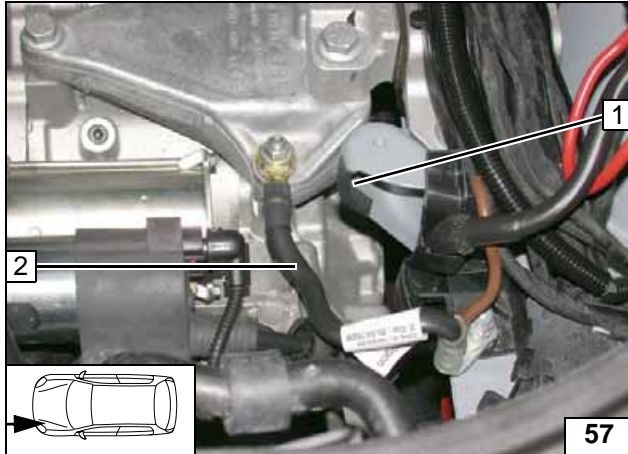
Fastening hoses



Align hoses and attach with cable tie 1 on original vehicle hose.



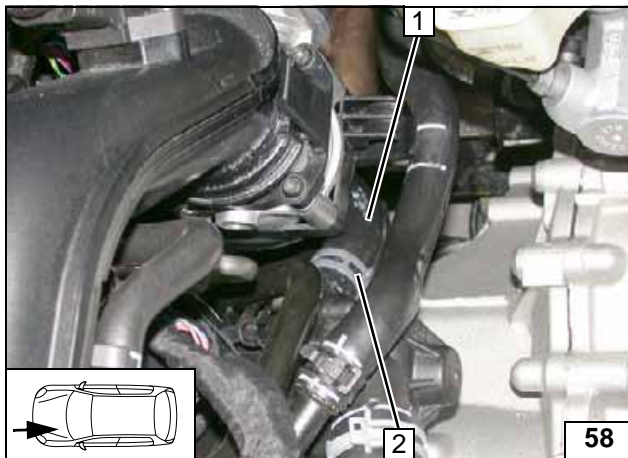
Fastening hoses



DSG

- 1 50 mm narrow edge protection
- 2 Straighten earth cable

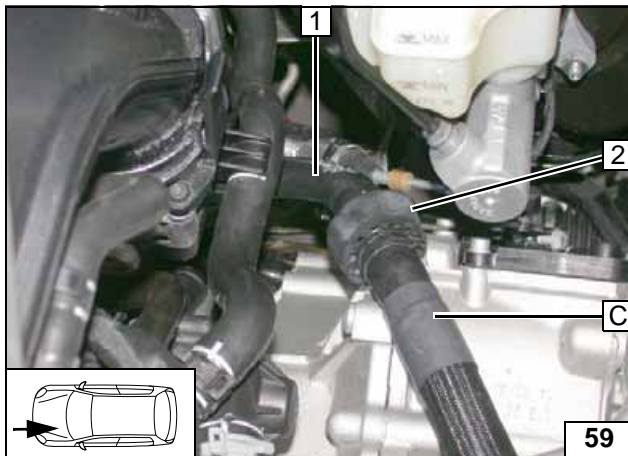
Installing edge protection



Pull off hose on engine outlet/heat exchanger inlet 1 on connection piece of engine outlet. Spring clip 2 will be reused.

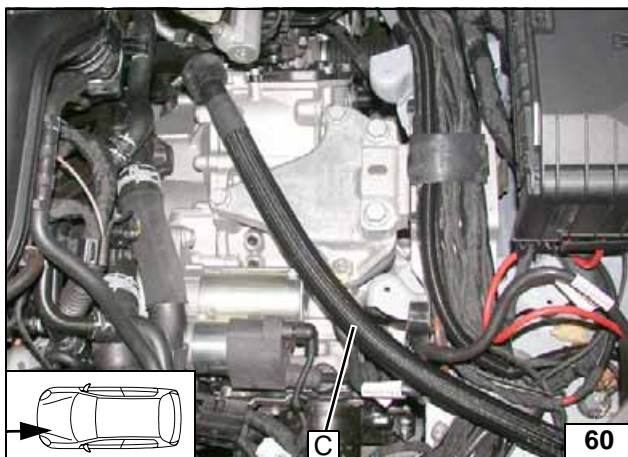


Cutting point

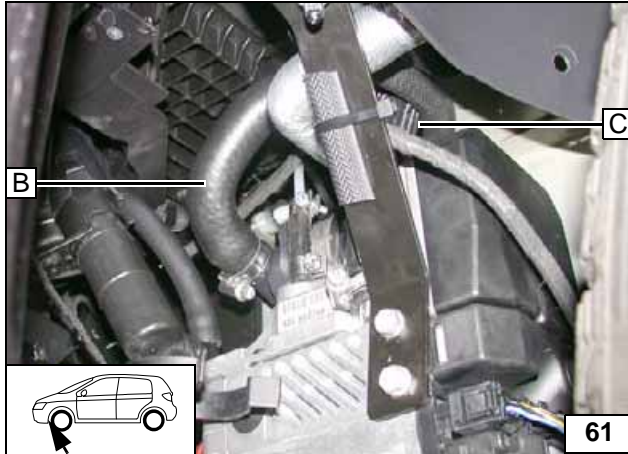


- 1 Hose on heat exchanger inlet
- 2 Black (sw) rubber isolator

Connecting heat exchanger inlet



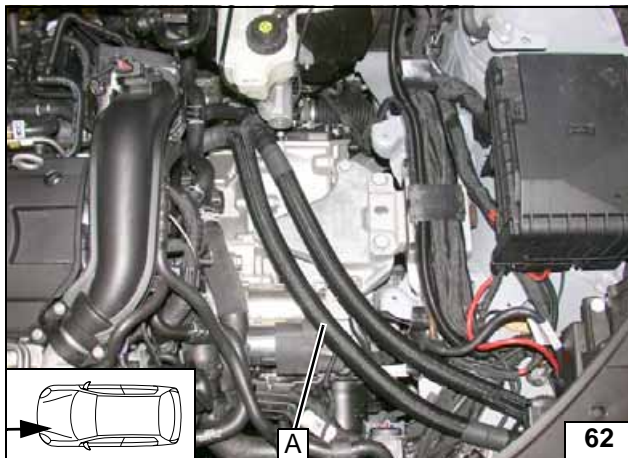
Routing in engine compartment



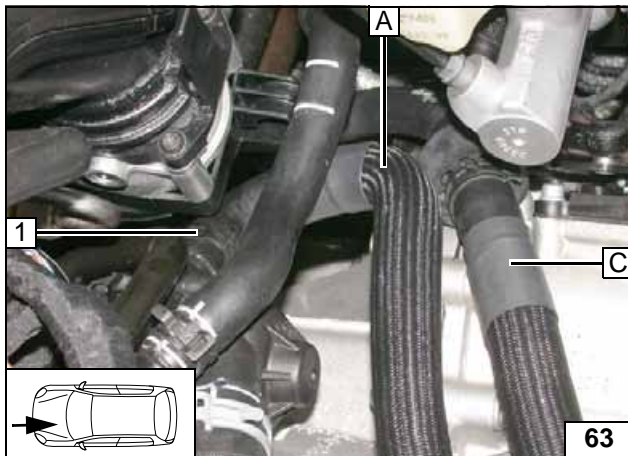
Combustion air silencer tied back for demonstration purposes.



**Connect-
ing heater**



**Routing in
engine
compartment**

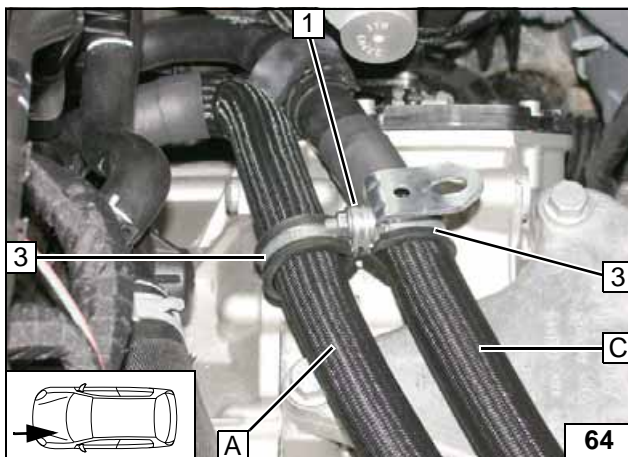


Install hose **A** with 180° elbow on connection piece of engine outlet.

1 Original vehicle spring clip

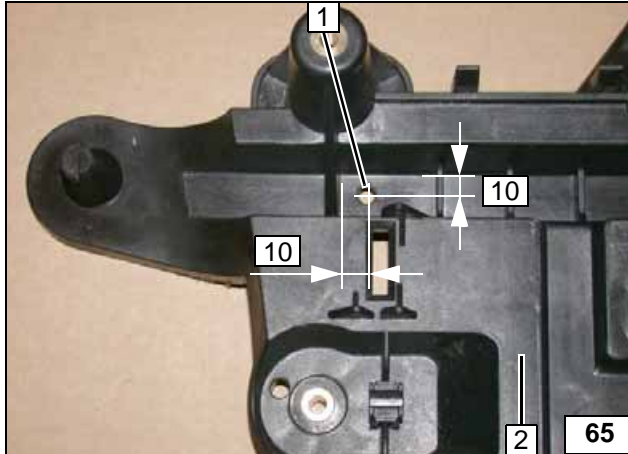


**Connect-
ing engine
outlet**



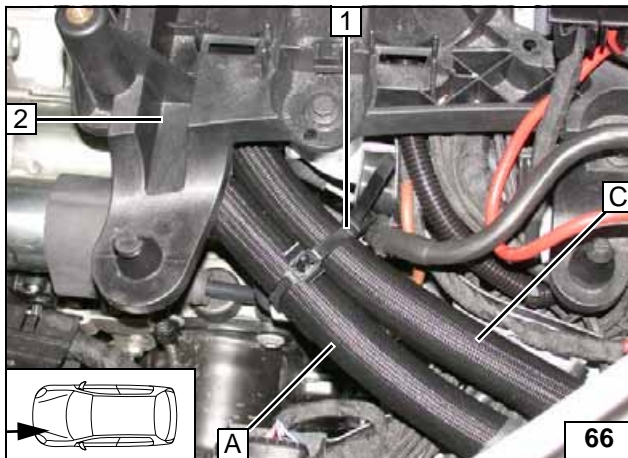
1 M6x20 bolt, flanged nut
2 Angle bracket
3 29 mm dia. rubber-coated p-clamp [2x]

**Fastening
hoses**



- 1 6 mm dia. hole
- 2 Battery carrier

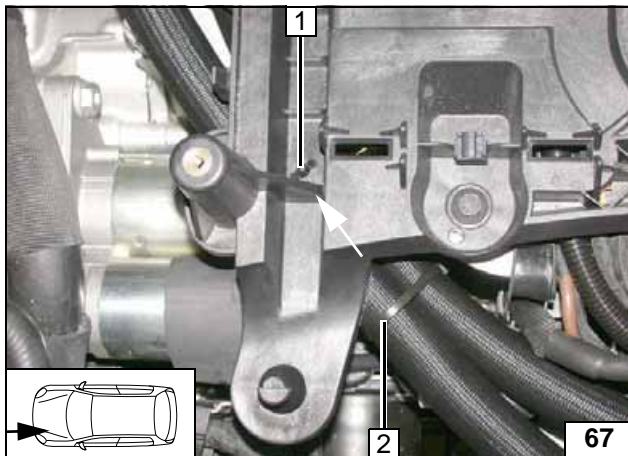
Preparing battery carrier



Install battery carrier 2. Loosely assemble clip-type cable tie 1 around hose A and C!



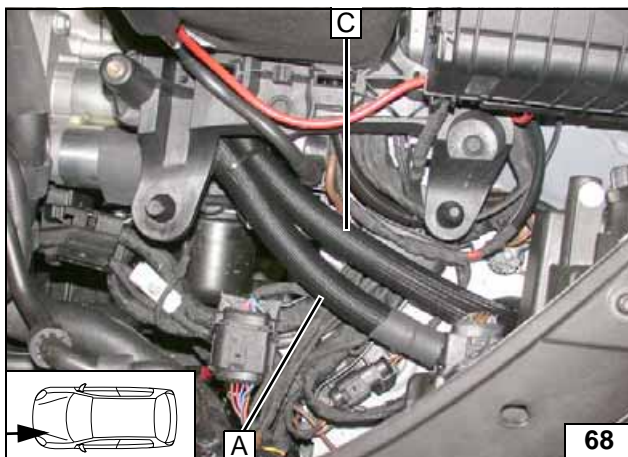
Fastening hoses



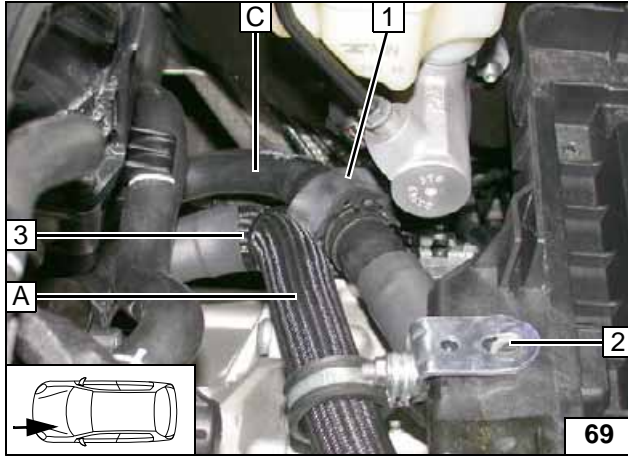
Shift clip-type cable tie under battery carrier, insert in hole on position 1 and tighten.



Fastening hoses



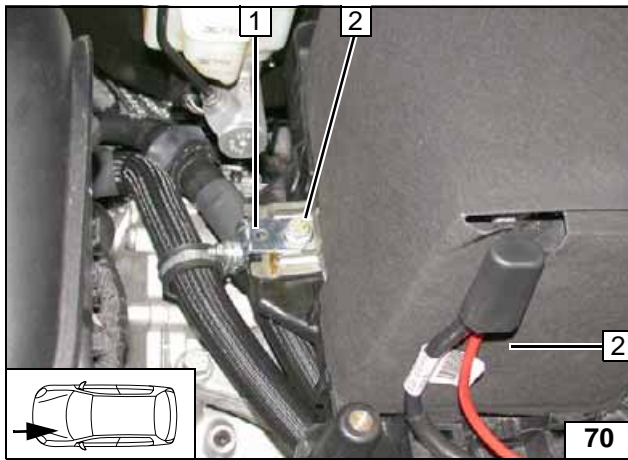
Aligning hoses



Fasten black (sw) rubber isolator 1 on with cable tie 3 on hose A. Align bracket on position 2 to the original vehicle hole.



Fastening hoses



Install battery. Ensure sufficient distance to neighboring components.

- 1 Angle bracket
- 2 Original vehicle bolt



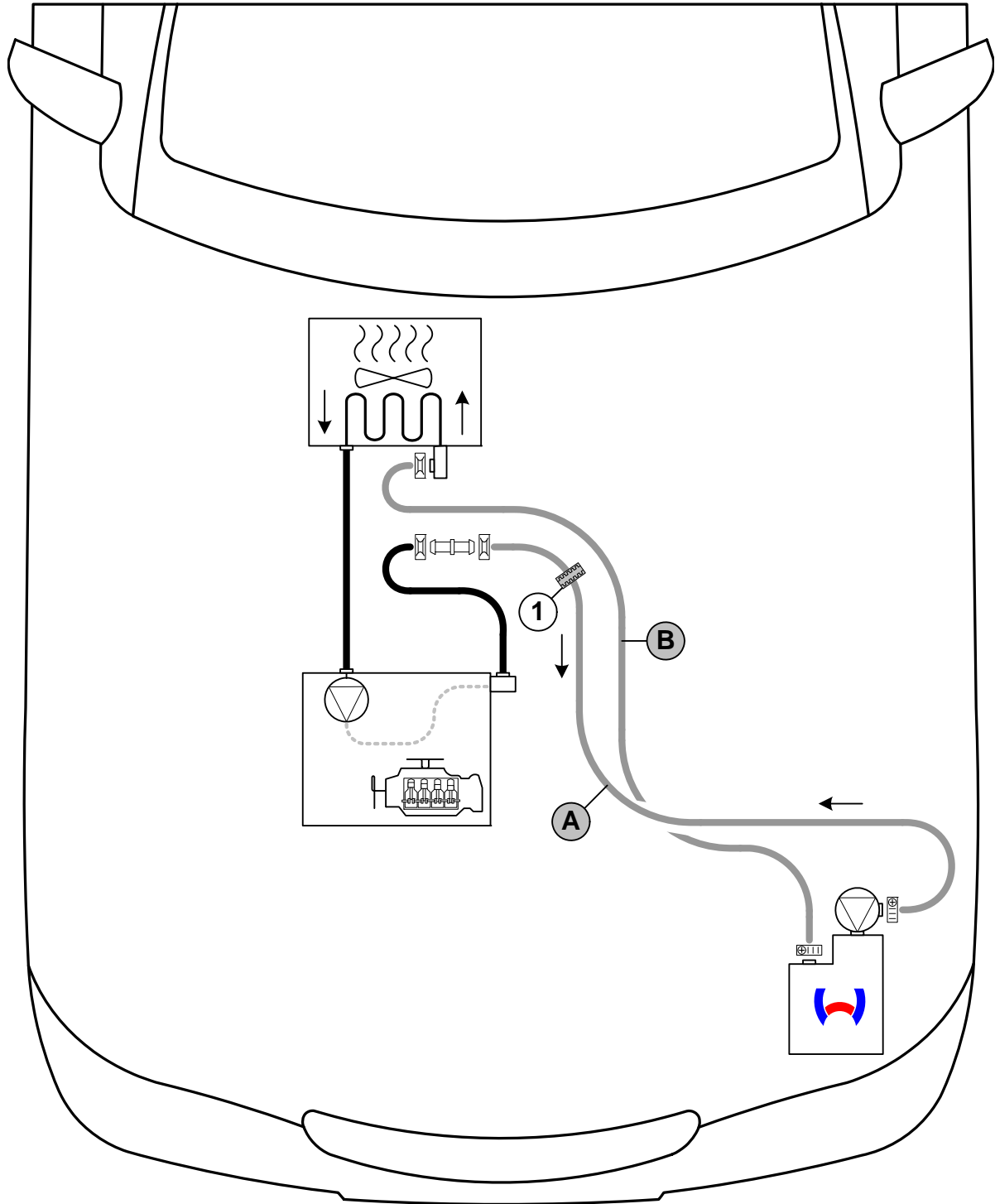
Fastening hoses







Coolant connection for 1.6 FSI

WARNING!

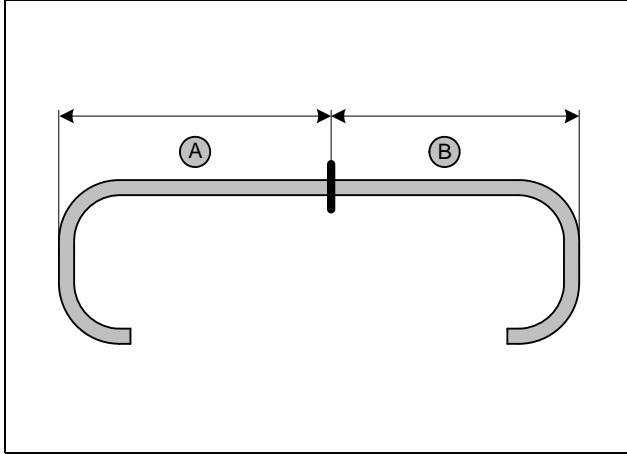
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant! The connection should be "inline" based on the following diagram:



Hose installation diagram

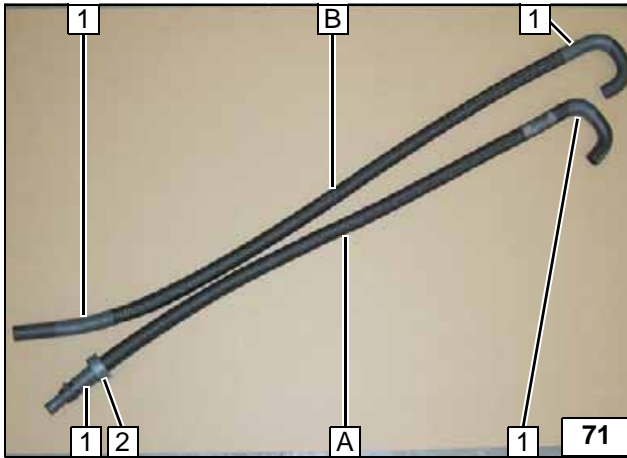
All spring clips  = 27 mm dia.. All connecting pipes  = 20x20 mm dia.
All hose clamps  = 20-27 mm dia.. 1 = Black (sw) rubber isolator .





A = 1000
B = 1050

Cutting coolant hoses to length

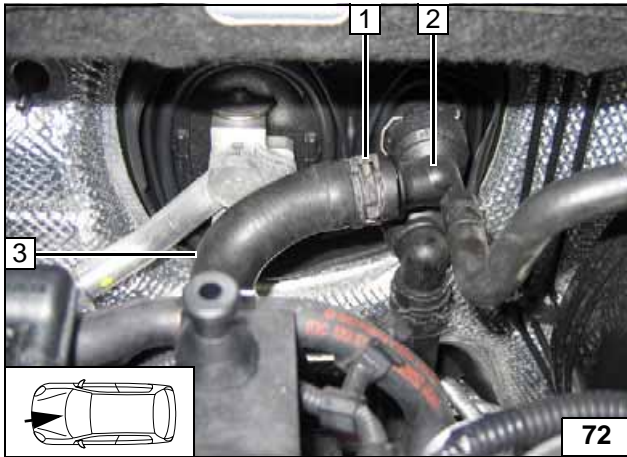


Push braided protection hoses onto hose **A** and **B** and cut to length.
Cut heat shrink plastic tubing to length.

- 1 25 mm long heat shrink plastic tubing [4x]
- 2 Black rubber isolator



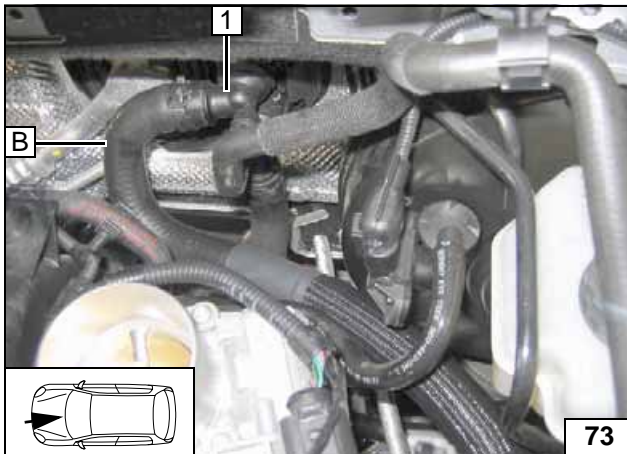
Preassembling coolant hoses



Pull off hose on engine outlet to heat exchanger inlet **3** on connection piece of heat exchanger inlet **2**. Spring clip **1** will be reused.
Install battery carrier.

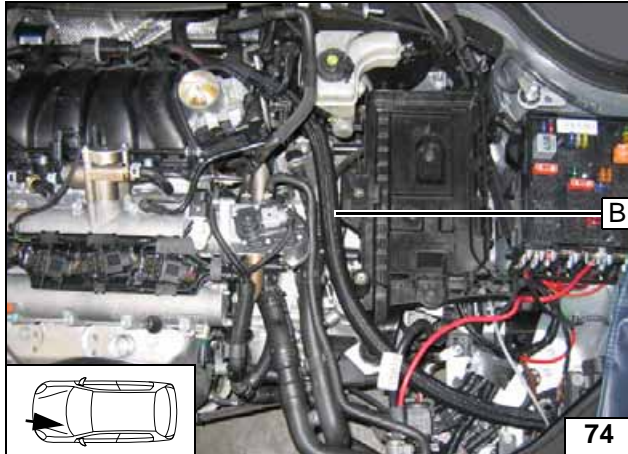


Cutting point

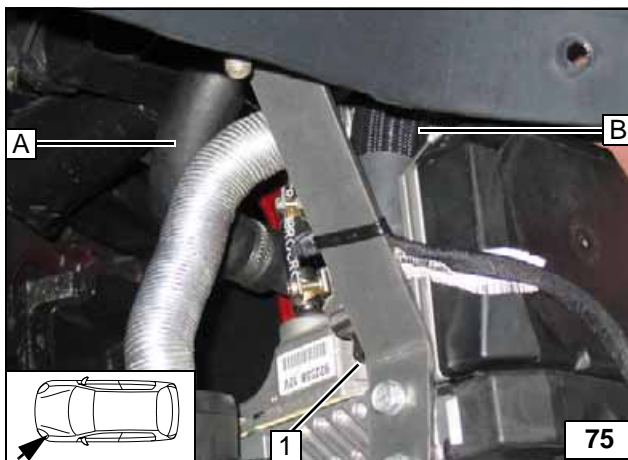


- 1 Connection piece of heat exchanger inlet

Connection to heat exchanger inlet

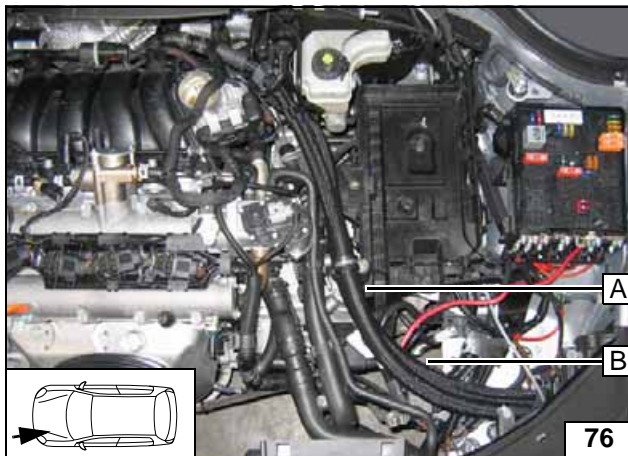


Routing hose B to heater

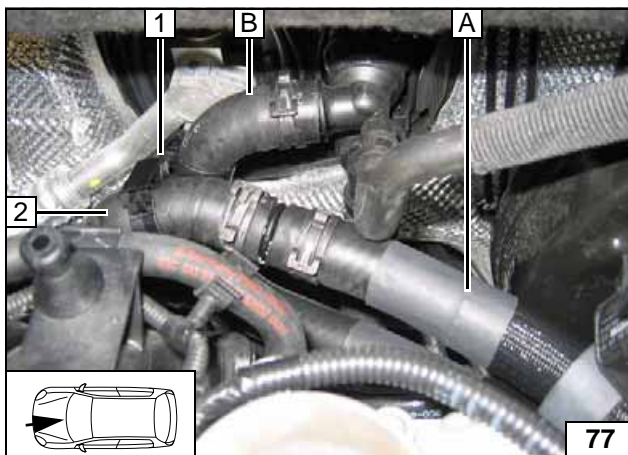


1 Heater outlet

Conne-
ction of
heaters

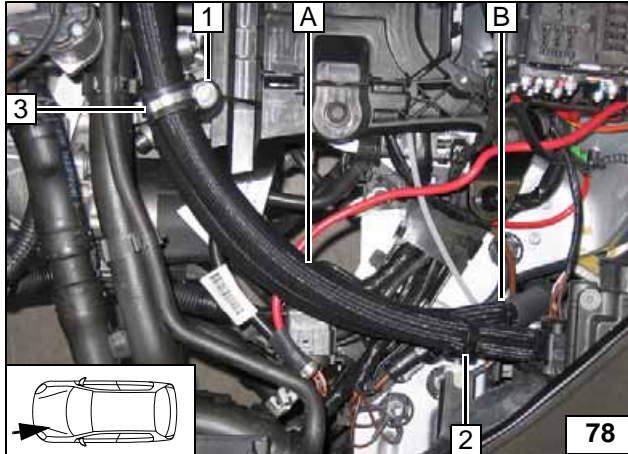


Routing hose A to engine out-
let



1 27x27 double clip, lockable
2 Hose of engine outlet

Conne-
ction to en-
gine outlet



- 1 M6x20 screw, spring lockwasher on existing thread
- 2 27x27 double clip, lockable
- 3 29 mm dia. rubber-coated p-clamp [2x]

Securing hoses A, B



Align hoses **A** and **B** over entire length and secure with cable ties.

- 1 27x6 double clip on hose **A** and brake line from brake master cylinder
- 2 27x6 double clip on hose **B** and brake line from brake master cylinder
- 3 Position rubber isolator



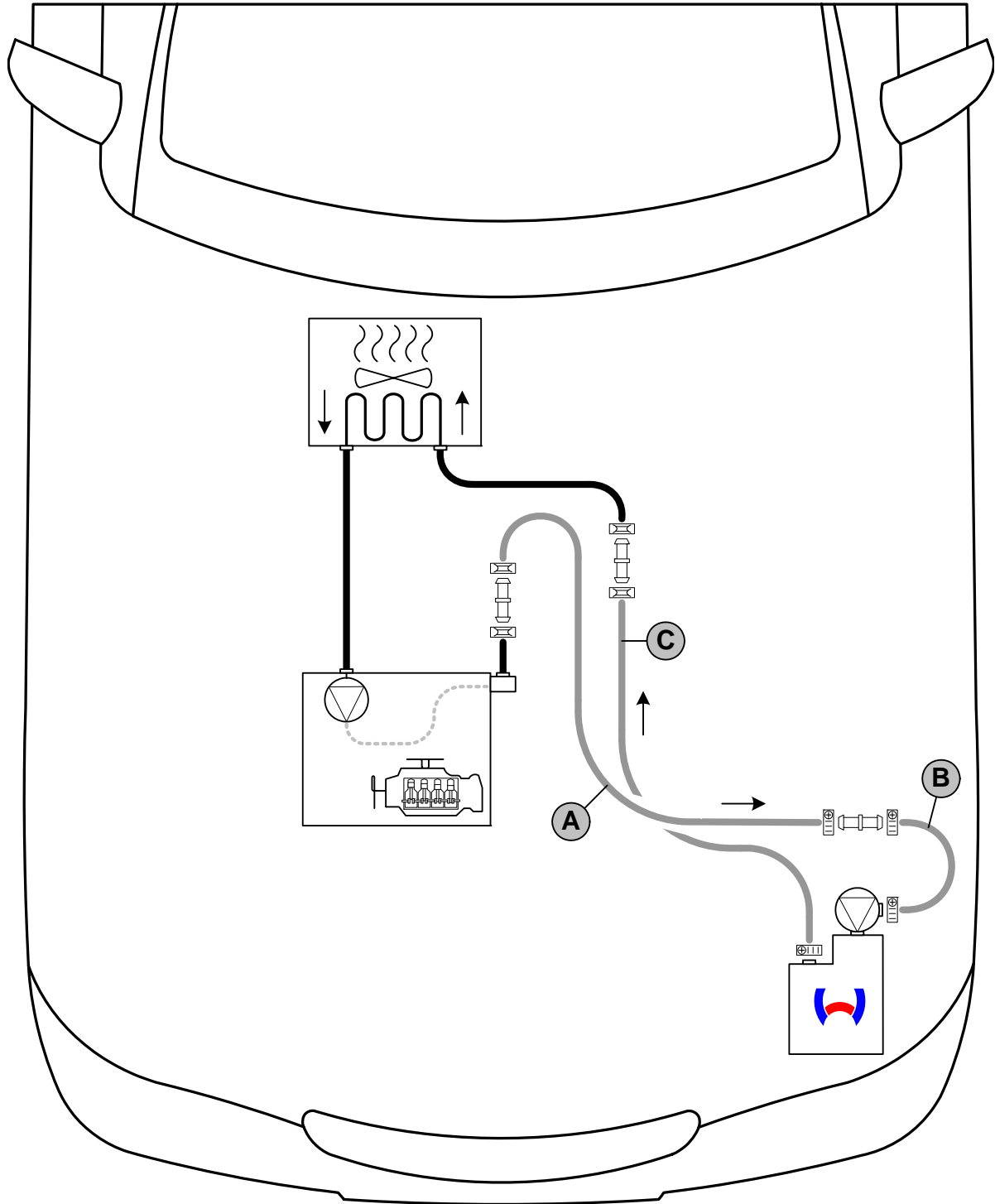
Securing hoses A, B






Coolant circuit 1.8 TSI

WARNING!

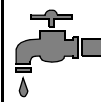
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant! The connection should be "inline" based on the following diagram:



Hose installation diagram

All spring clips without a specific designation  = 27 mm dia. All connecting pipes  = 20x20 mm dia. All hose clamps without a specific designation  = 20-27 mm dia.

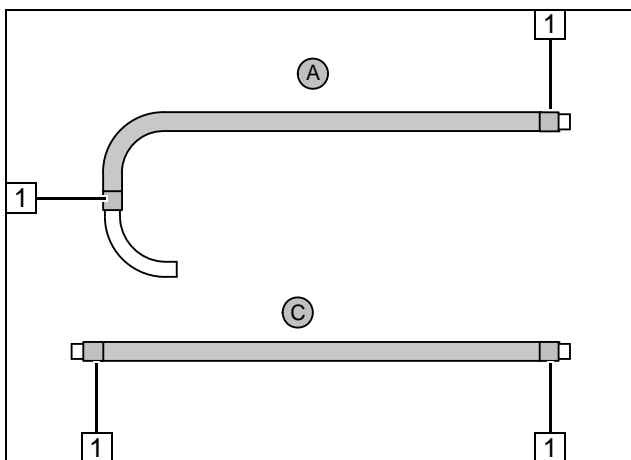
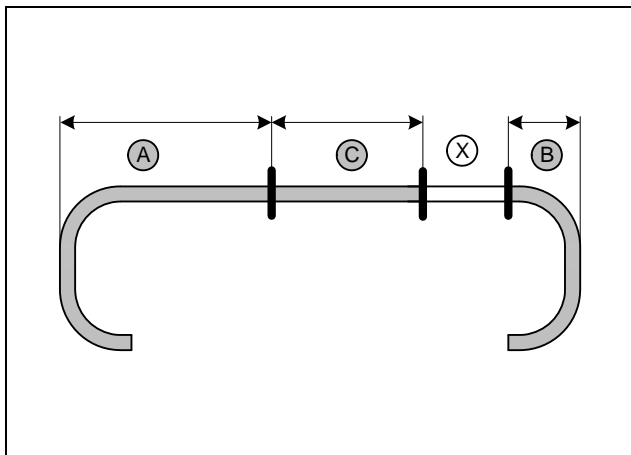




Manual transmission

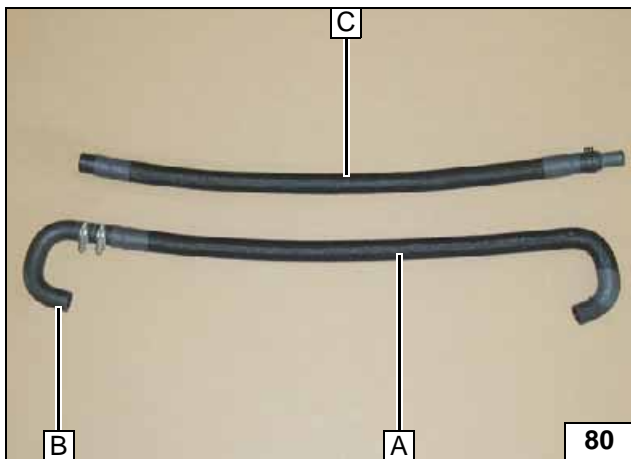
Discard section X

- A = 700
- B = 70
- C = 710



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

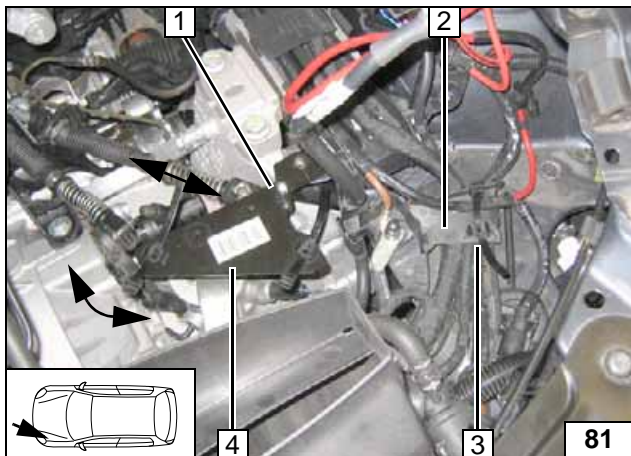
- 1 25 mm long heat shrink plastic tubing [4x]



Cutting coolant hoses to length

Preparing coolant hoses

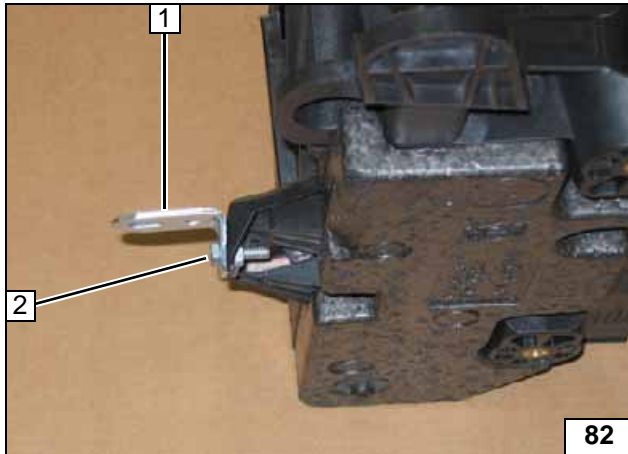
Pre-assembling coolant hoses



6 mm dia. hole in cable duct cover **2** on position **3**. When drilling, watch lines located behind!

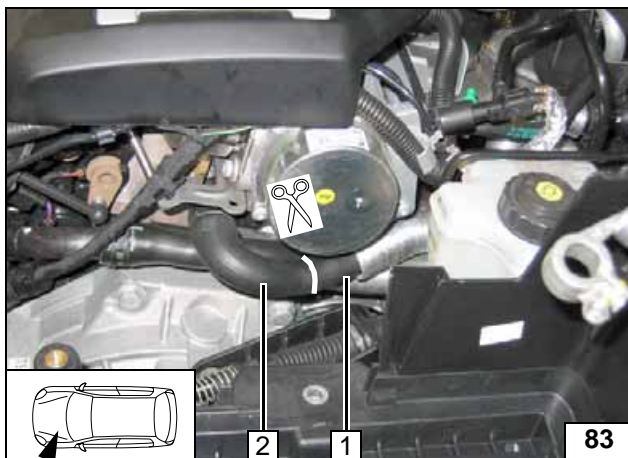
- 1 M6x12 bolt, flanged nut on existing hole
- 3 6 mm dia. hole, clip-type cable tie
- 4 Bracket

Installing bracket and clip-type cable tie



- 1 Angle bracket
- 2 Mount M6x20 bolt, flanged nut in existing hole

Preparing battery carrier

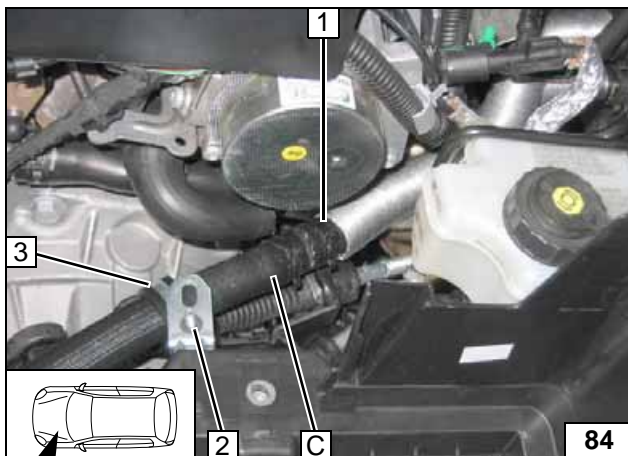


Cut off hose on engine outlet/heat exchanger inlet at marking.
Install battery carrier.



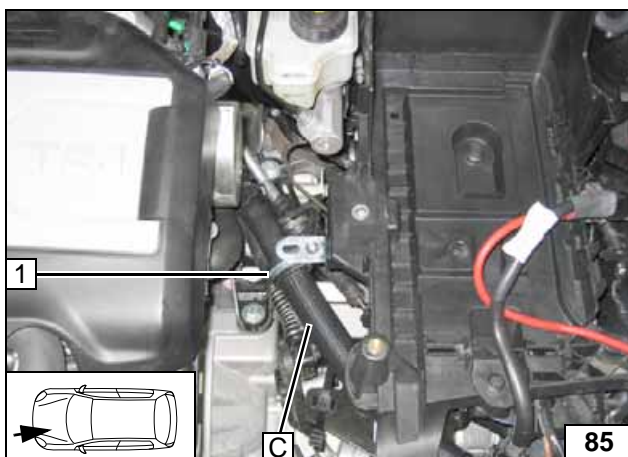
- 1 Hose section of heat exchanger inlet
- 2 Engine outlet hose section

Cutting point



- 1 Hose on heat exchanger inlet
- 2 M6x20 bolt, pin lock
- 3 29 mm dia. rubber-coated p-clamp

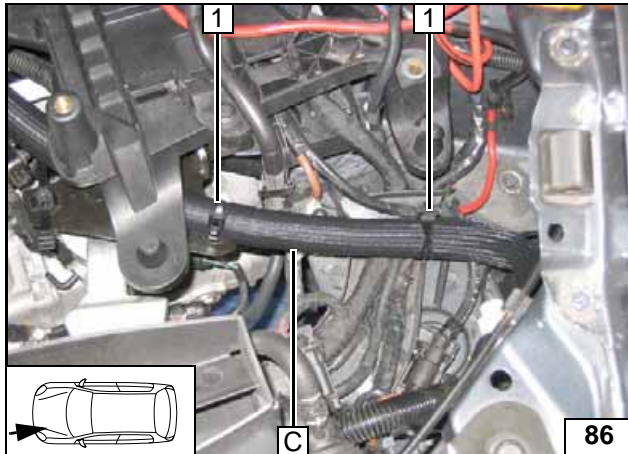
Connecting heat exchanger inlet



Route hose C through rubber-coated p-clamp 1.



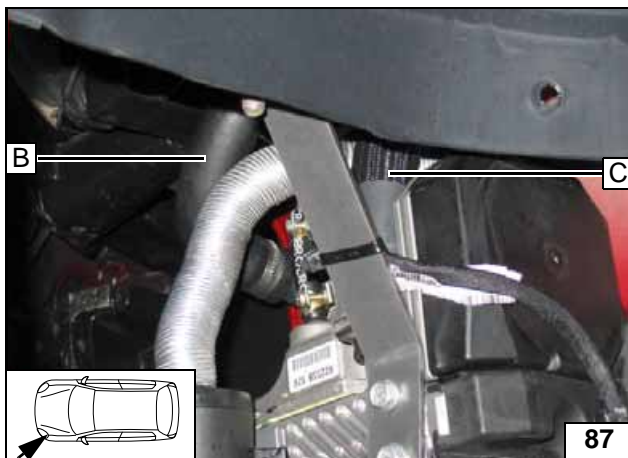
Routing in engine compartment



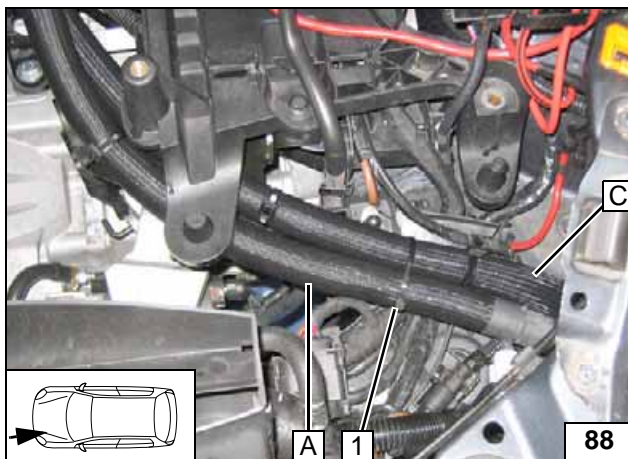
Fasten hose C on clip-type cable tie 1 [2x].



Routing in engine compartment



Connecting heater

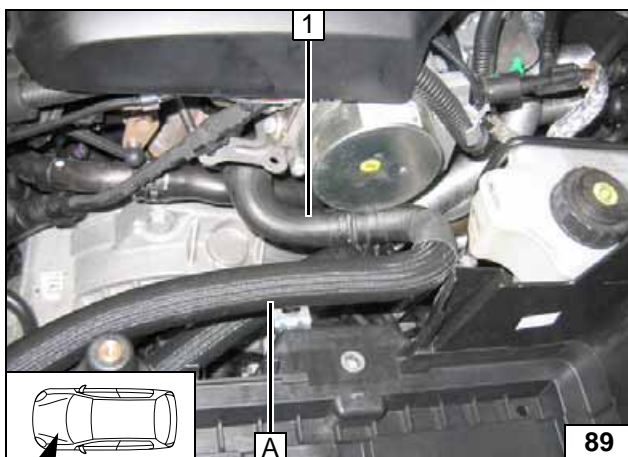


Route hose A along hose C.

1 Cable tie

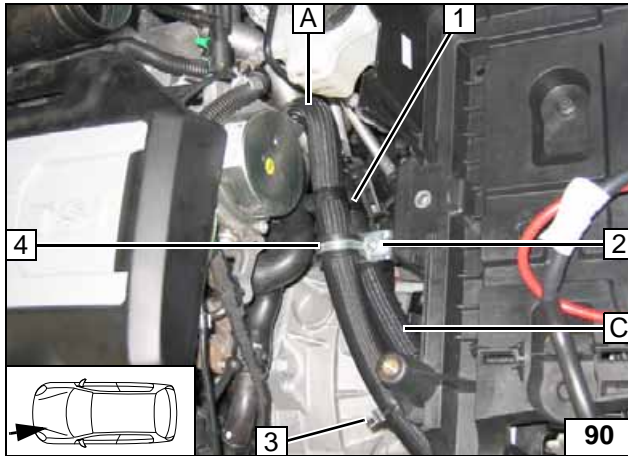


Routing in engine compartment



1 Hose of engine outlet

Connecting engine outlet

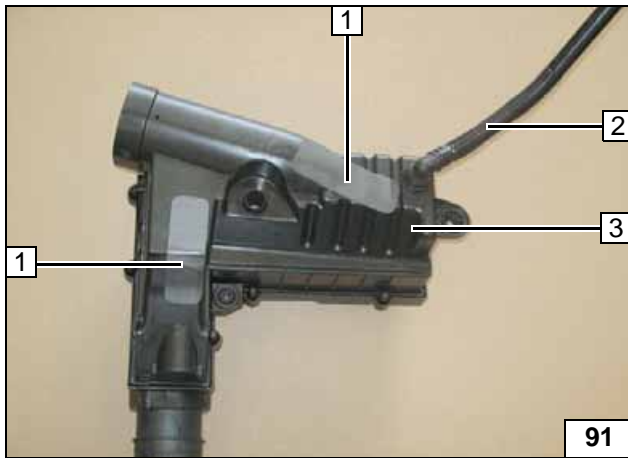


Fasten hose **A** on clip-type cable tie **3**. Ensure sufficient distance to neighboring components.

- 1 Spacer bracket
- 2 Flanged nut on M6x20 bolt
- 4 29 mm dia. rubber-coated p-clamp



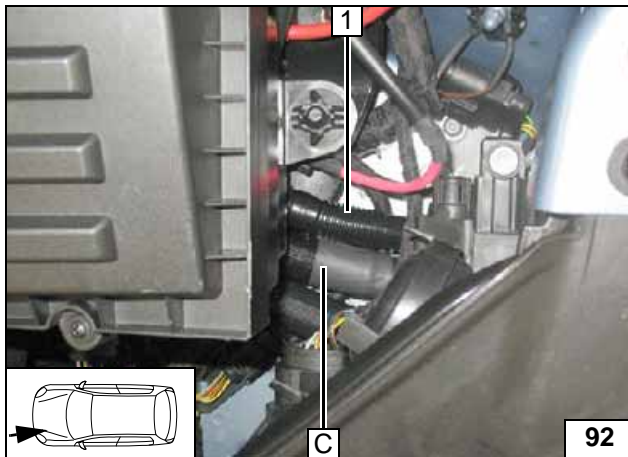
Fastening hoses



Position of drain pipe **2** may vary. Glue rub protection **1** [2x] onto air cleaner housing **3** as shown.



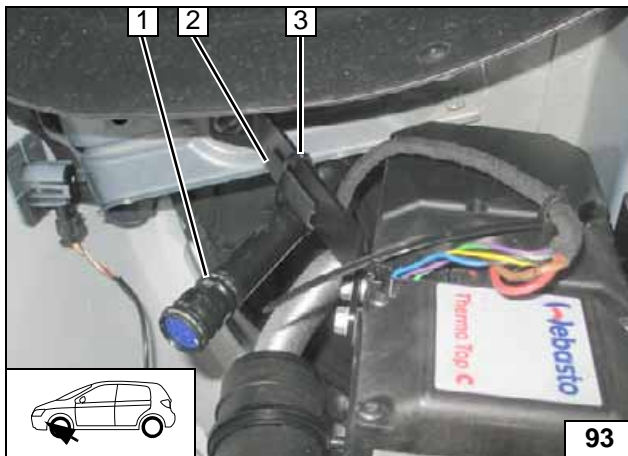
Preparing air cleaner housing



If drain pipe **1** present as shown, then route parallel to hose **C**.



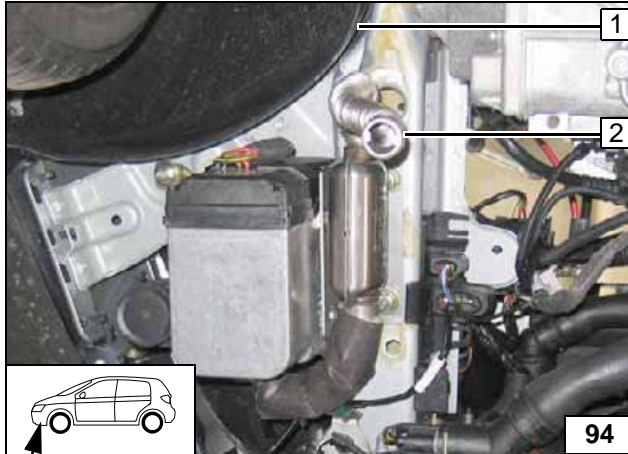
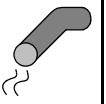
Installing air cleaner housing



- 1 Drain pipe
- 2 50 mm edge protection section
- 3 Cable tie



Installing air cleaner housing

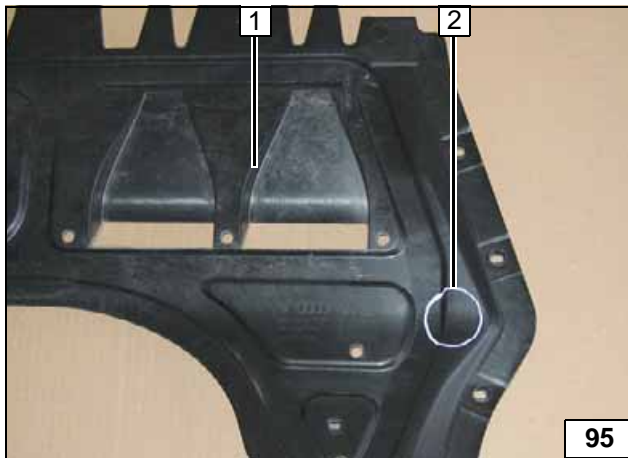


Exhaust end section and wheel well trim

Shape exhaust end section **2** as shown. Ensure sufficient spacing of exhaust end section **2** to transmission and to wheel well trim **1**.



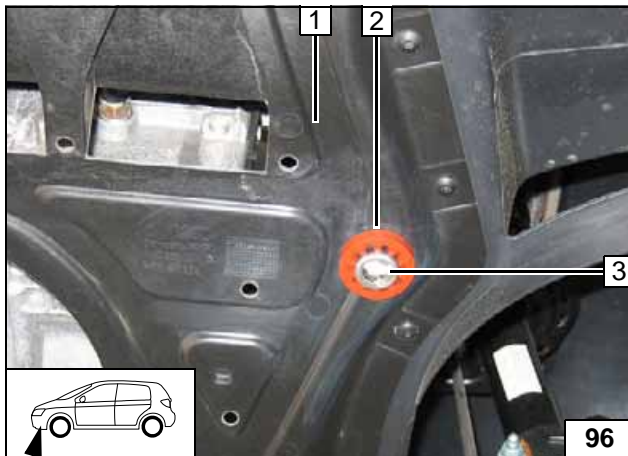
Installing wheel well trim



Underride protection

- 1 Underride protection
- 2 42 mm dia. hole

Hole in underride protection

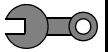


Align exhaust end section **3** flush on red rubber isolator **2**.

- 1 Underride protection



Inserting rubber isolator



Final Work

WARNING!

Reassemble the disassembled components in reverse order.

Check all hoses, spring and Caillau clamps, as well as all electrical connections for firm seating.

Secure all loose cables using cable ties.

Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111 329).

- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer, teach the Telestart
- Adjust vehicle heater in accordance with "Operating Instructions for End Customer".
- Check the proper operation of the parking heater, see the operating instructions/installation instructions.
- File included vehicle-specific "Operating Instructions for End Customer" in vehicle logbook.
- Place the "Switch off parking heater before refuelling" signboard in the area of the filling connection pieces



Adjusting passenger compartment monitoring

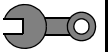
WARNING!

This can only be carried out at an authorized workshop! Observe the applicable repair manual of the respective vehicle.

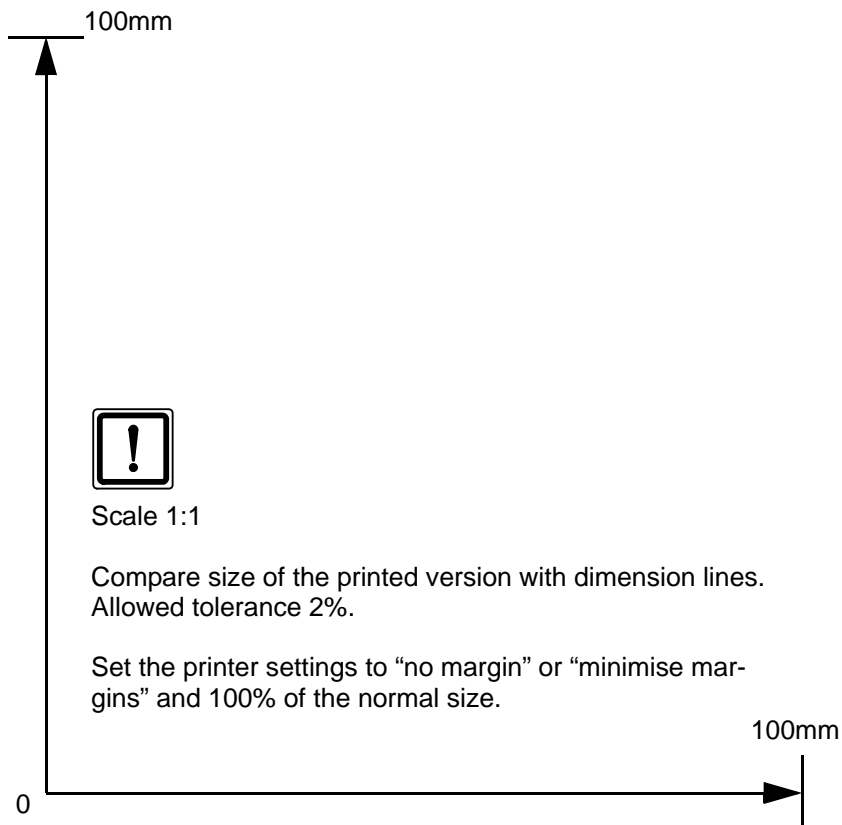
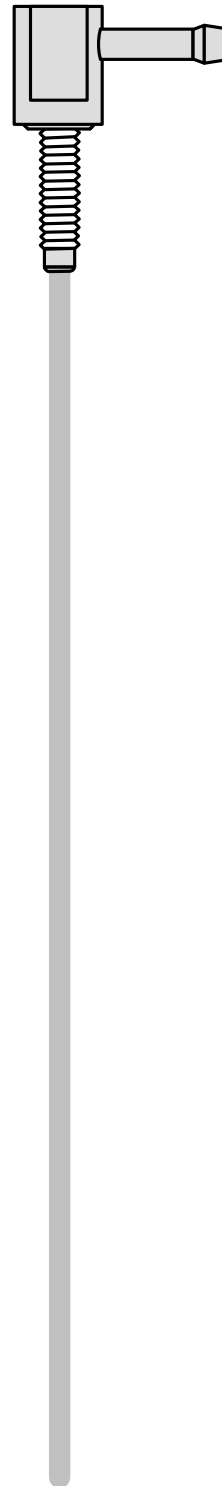
- Connect the VAS tester.
- Open Item 46 (Central Module of Comfort System)
- Go to Item 10 (Adjustment)
- Follow the request for the code entry and enter the code 15
- Reduce the sensitivity of the passenger compartment monitoring to 50 %
- Save this setting
- The adjustment of the sensitivity of the passenger compartment monitoring is completed.



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Template for Fuel Standpipe



Operating Instructions for End Customer

Please remove the page and file it in the vehicle logbook.



Note:

We recommend matching the heating time to the driving time.

Heating time = driving time

Example:

For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

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

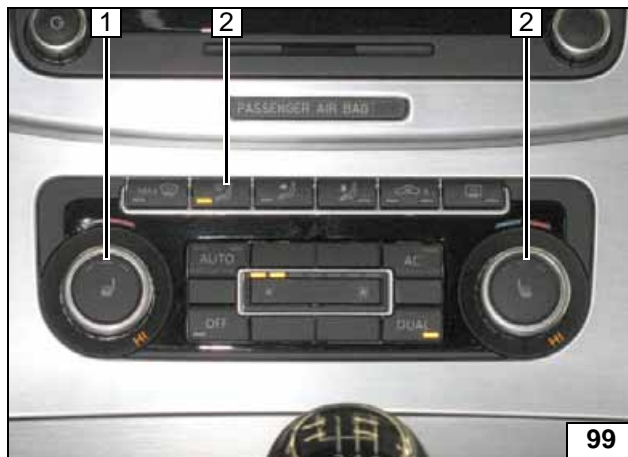
Before parking the vehicle, make the following settings:



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



- 1 Set temperature to „HI“ [2x]
- 2 Air outlet faces upward



- 1 Air outlet to windscreen
- 2 Set temperature to "max."



For vehicles without Climatronic

For vehicles with Climatronic

For vehicles with Climatronic