

Thermo Top C Parking Heater e1 00 0002

Installation documentation

Seat Altea / Altea Freetrack

Diesel
from model year 2005
Left-hand drive vehicle
5- and 6-gear manual transmission.
Direct gear transmission not checked.



WARNING!

Hazard warning:

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



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

NEVER attempt to install or repair Webasto heating or cooling systems if you have not successfully completed the company training and thereby acquired the required technical skills, or if you do not have access to the required technical documentation, tools and equipment needed to carry out correct installation and repairs.

ALWAYS follow all Webasto installation and repair instructions and observe all warnings.

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

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

Seat Altea / Altea Freetrack

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Validity

Manufacturer	Model	Type	EG BE No. / ABE
Seat	Altea	5P	e9 * 2001 / 116 * 0050 * ...
Seat	Altea XL	5P	e9 * 2001 / 116 * 0050 * ...

Engine type	Engine model	Output in kW	Displacement in cm ³
BKC	Diesel	77	1896
BKD	Diesel	103	1968
BMN	Diesel	103	1968

Manufacturer	Model	Type	EG BE No. / ABE
Seat	Altea Freetrack	5P	e9 * 2001 / 116 * 0050 * ...

Engine type	Engine model	Output in kW	Displacement in cm ³
BMM	Diesel	103	1968

Vehicle and engine types, equipment variants and national specifications 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.

Seat Altea / Altea Freetrack

Heater / Installation Kit

Quantity	Designation	Order No.:
1	Retail accessories for <i>Thermo Top C</i>	See price list
1	Installation kit for Seat Altea / Altea Freetrack 2005 Diesel	9012150B
1	Heater control	See price list

Also required with Climatronic:

Quantity	Designation	Order No.:
1	Climatronic kit	9013645A

Heater recommended for the respective vehicle class:

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

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



Foreword

This installation documentation applies to the Seat Altea / Altea Freetrack Diesel vehicles - for validity, see page 2 - from model year 2005 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this installation documentation.

However, where this is the case the stipulations in this "installation documentation", the "operating instructions" and the "installation instructions" for the *Thermo Top C* should 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. Insulate loose wire ends and tie back.

Sharp edges should be fitted with rub protection (split-open plastic hose).

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

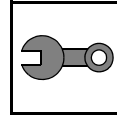
Special tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Centre bit up to 42 mm dia..

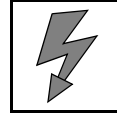
Explanatory Notes on Document

To provide you with a quick overview of the individual working steps, you will find an identification mark on the outside top right corner of the page in question.

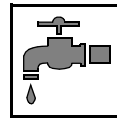
Mechanical system



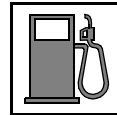
Electrical system



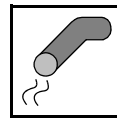
Coolant circuit



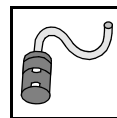
Fuel



Exhaust gas



Combustion air



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



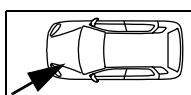
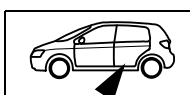
Specific risk of fire or explosion.



Reference to general installation instructions of Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.

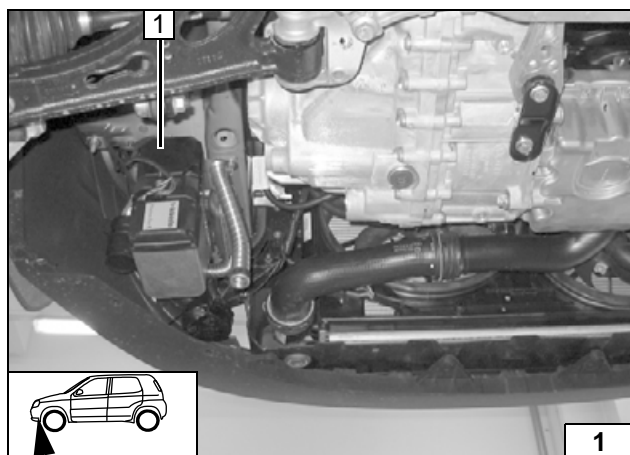


The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

Preliminary Work

Warning!

- Open the fuel tank cap, ventilate the tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Disconnect the battery earth connection.
- Remove the battery.
- Remove the battery carrier.
- Remove the air filter together with the intake hose.
- Remove the left front wheel.
- Remove the front left wheel well trim.
- Remove the underride protection.
- Remove the right-hand underbody trim.
- Remove the rear bench seat.
- Open the right-hand tank-fitting service lid.
- Remove the footwell trim on the driver's side.
- Remove the lower instrument panel trim on the driver's side.
- Only for vehicles with Climatronic: Remove the footwell trim on the front passenger side.



Heater installation location

Installation location is in front of left front wheel

1 Heater



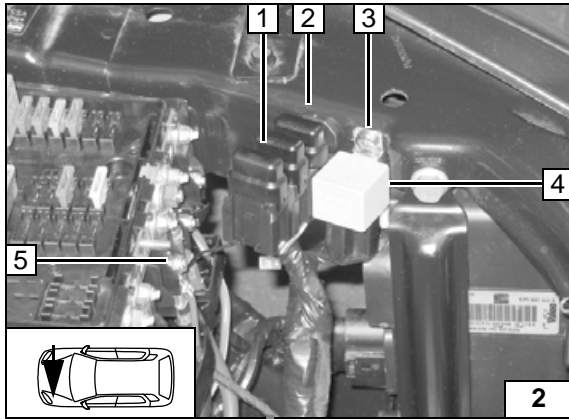
Installation location



Electrical system

Fuse holder, K3 relay, positive connection

- 2 Retaining plate, 4 mm dia. hole, 5.5x9.5 self-tapping screw
- 1 Fuse holder mounted
- 4 K3 relay
- 3 4 mm dia. hole, 5.5x9.5 self-tapping screw
- 5 Red (rt) positive wire on original vehicle main fuse



Wiring routing, earth connection

- 1 Route wiring harness of heater control, fan control and metering pump in cable duct to firewall
- 2 Brown (br) earth wire on original vehicle earth point

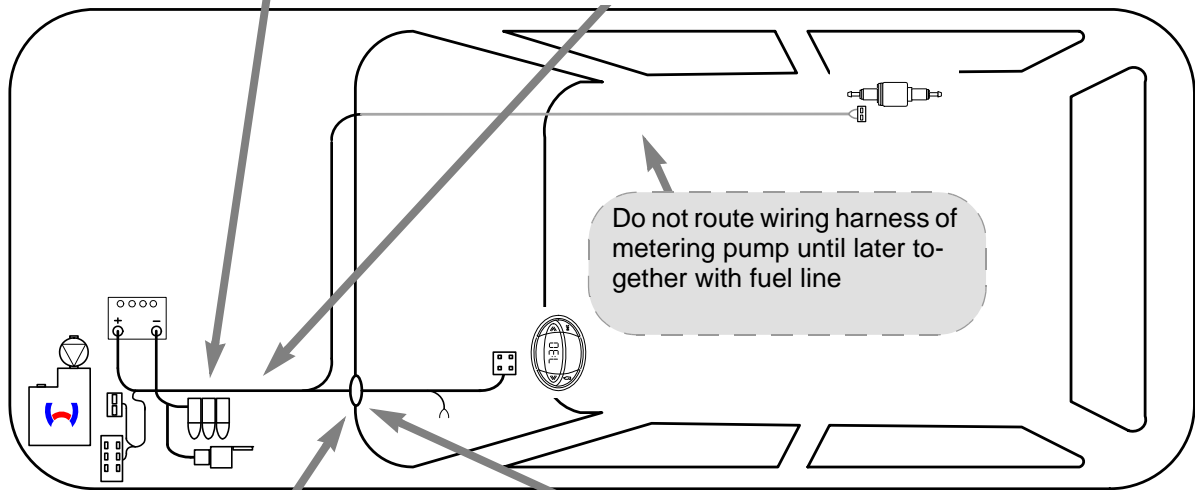
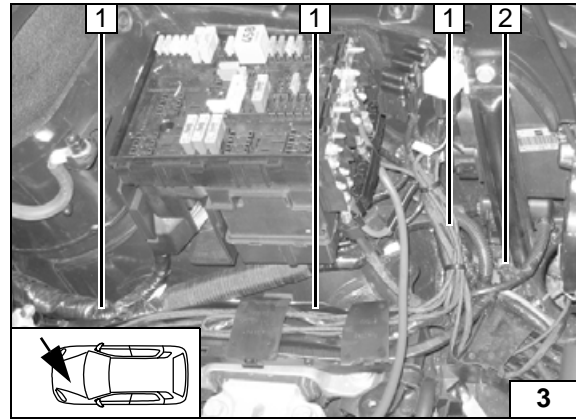
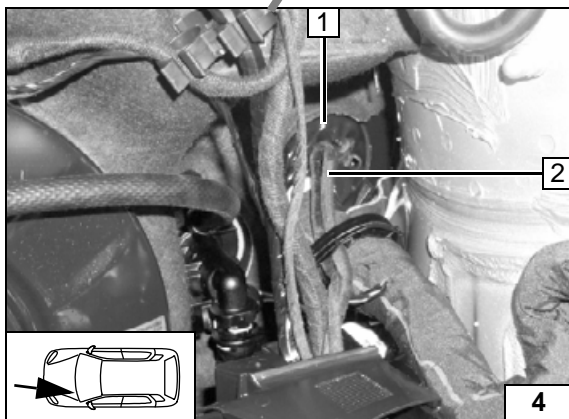
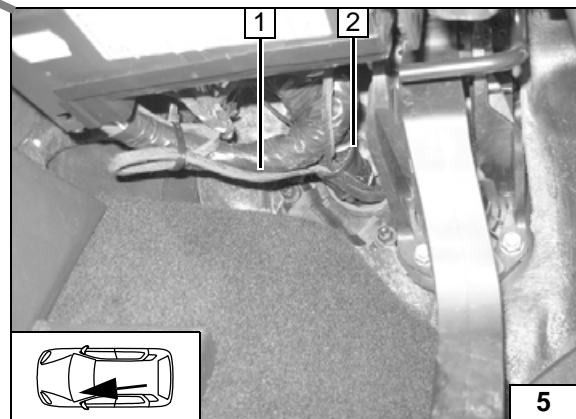


Diagram of wiring harness routing for all equipment



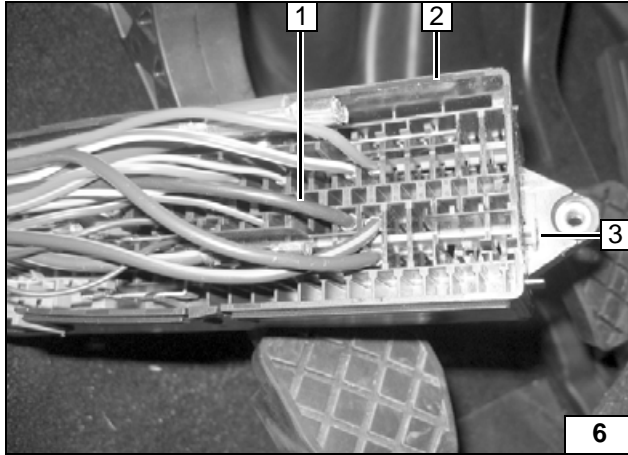
Wiring harness pass through

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



Wiring harness pass through

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



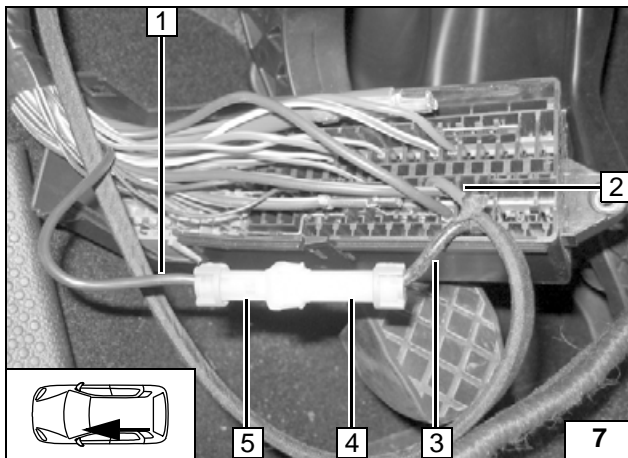
Climatic fan control

Disconnect original vehicle fuse carrier (2) (driver's side footwell) and unlock contact lock (3)

Remove black (sw) wire, 4 mm² (1) on fuse output SC35

- 2 Fuse carrier
- 3 Contact lock
- 1 Black (sw) wire, 4 mm²

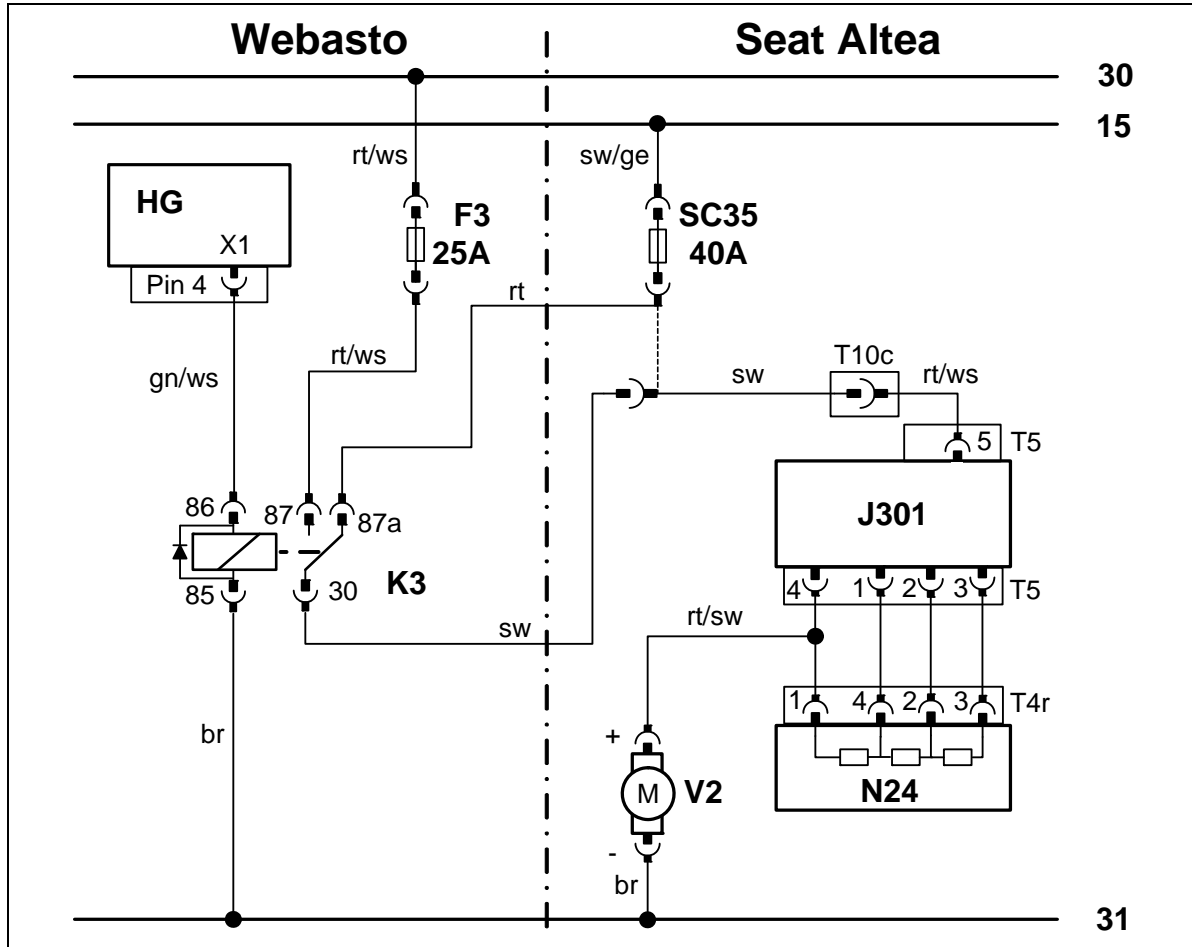
Removing wire



Produce connections as shown in wiring diagram.

- 1 Black (sw) wire with original standard power timer
- 5 AMP housing
- 3 Black (sw) wire K3/30 with crimped-on tab connector
- 4 AMP housing
- 2 Red (rt) wire from K3/87a with crimped-on standard power timer engaged in fuse output SC35

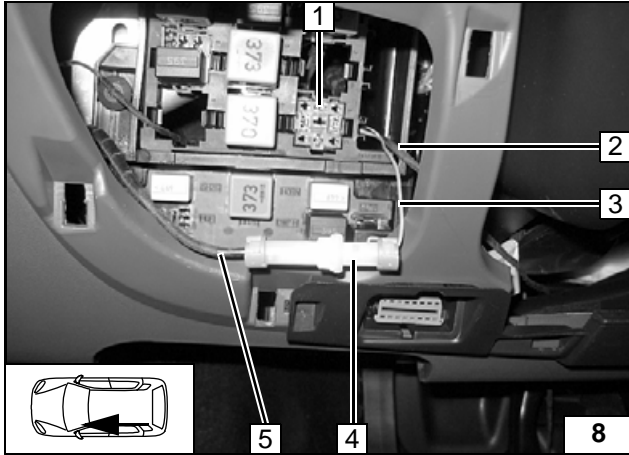
Connecting wires



Wiring diagram for manual air conditioning

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C	SC35	Fan fuse	rt	red
X1	6-pin heater connector	J301	Control unit of air conditioning	ws	white
F3	Fuse	N24	Resistor group	sw	black
K3	Fan relay	V2	Fan motor	br	brown
		T ..	Plug connections	gn	green
				ge	yellow

Legend



Climatronic fan control

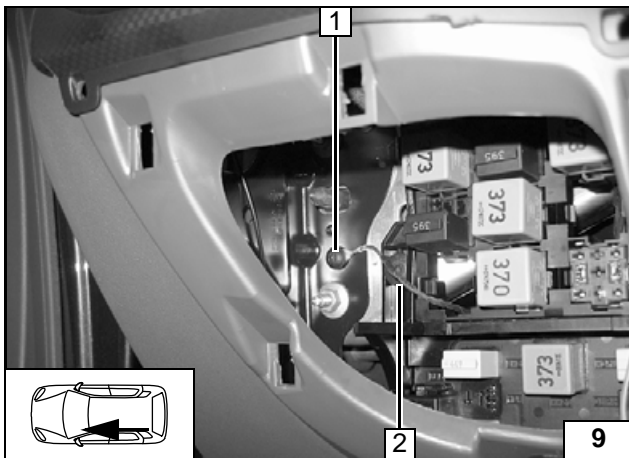
Produce connections as shown in wiring diagram.

Position of free sockets depends on vehicle equipment. Route red (rt) and black/white (sw/ws) wire 2 to fan unit.

- 1 IPCU socket
- 3 Green/white (gn/ws) wire of IPCU/86
- 4 AMP connector
- 5 Black (sw) wire from K3/30

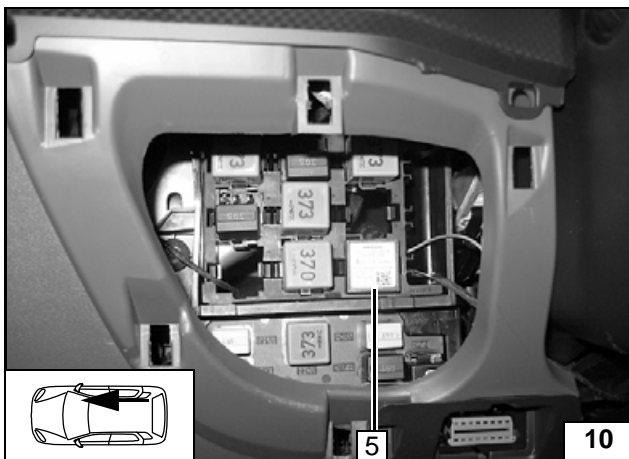


Mounting wiring harness



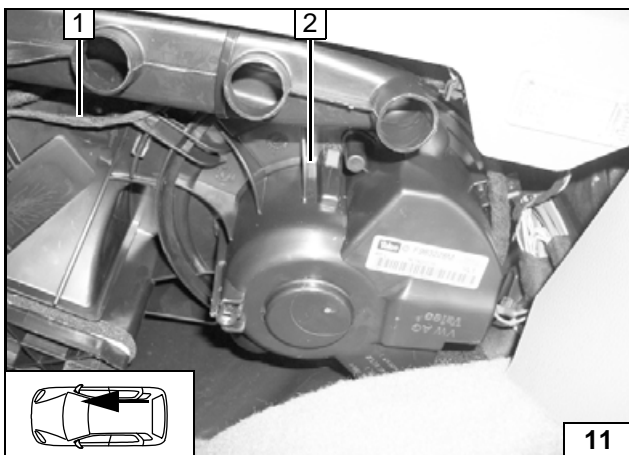
- 1 Original vehicle M6 bolt
- 2 Brown (br) wire of IPCU/85

Earth connection



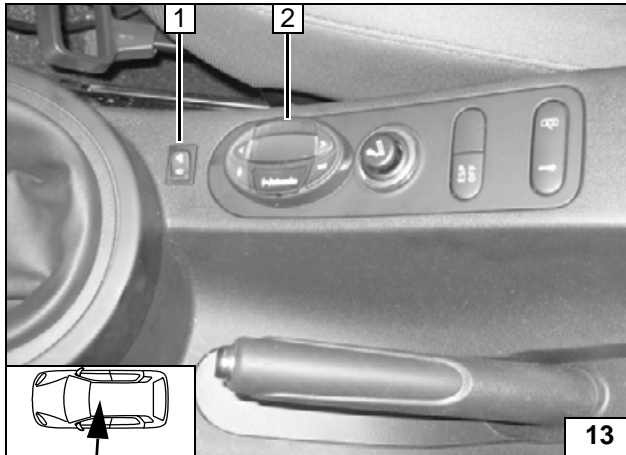
- 1 IPCU

Mounting IPCU



- 1 Wiring harness with red (rt) wire from IPCU/E and black/white (sw/ws) wire from IPCU/A
- 2 Fan unit

Routing wiring harness from IPCU



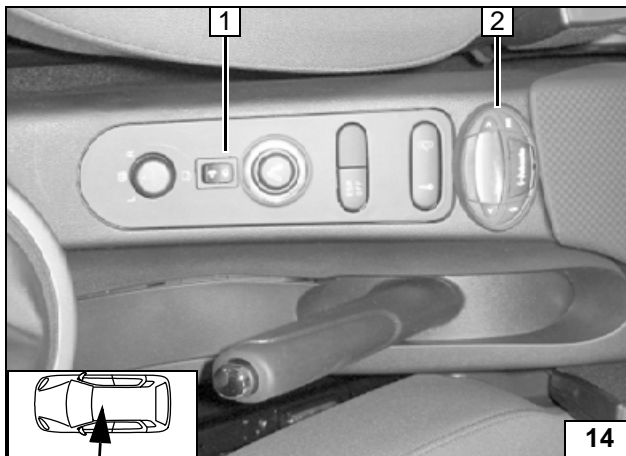
Digital timer / opt. summer/winter switch

Do not press on display.

Version 1:

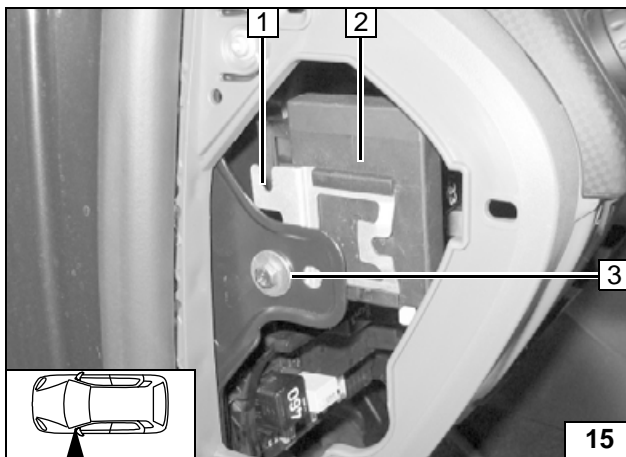
Depending on vehicle equipment, installation can be carried out as shown in Figure 13 or 14.

- 1 Summer/winter switch
- 2 Digital timer



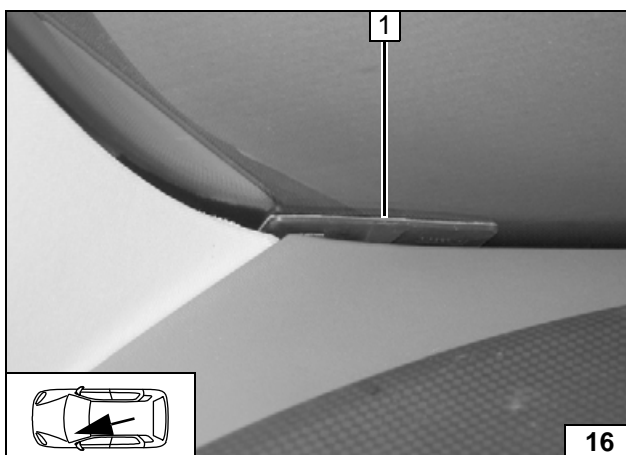
Version 2:

- 1 Summer/winter switch
- 2 Digital timer



Remote option (Telestart)

- 1 Bracket, lower hole drilled out to 6.5 mm dia.
- 2 Receiver
- 3 M6x20 bolt, large diameter washer, flanged nut



Produce all connections in accordance with general installation instructions and fasten wires with cable ties.

- 1 Antenna on windscreen at lower left



Digital timer and summer/winter switch



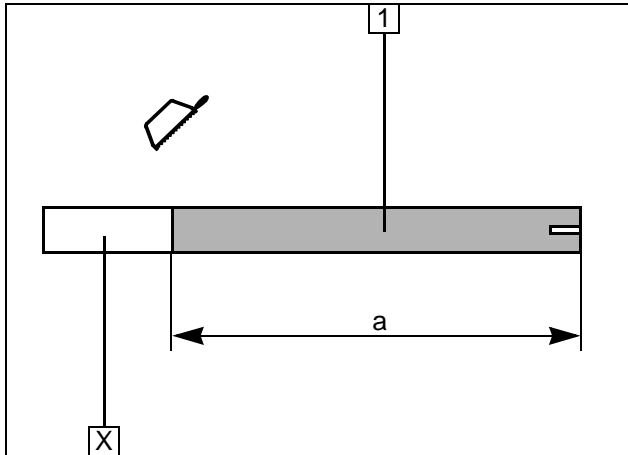
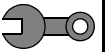
Digital timer and summer/winter switch



Mounting receiver



Mounting antenna

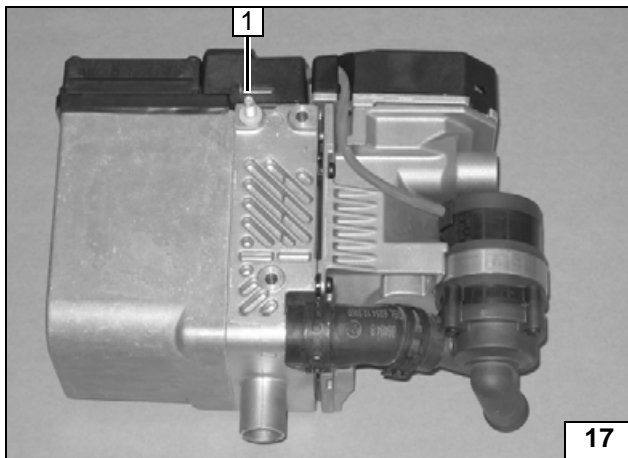


Premounting heater

- 1 Combustion air pipe
a = 250 mm

Discard section X

Cutting combustion air pipe to length

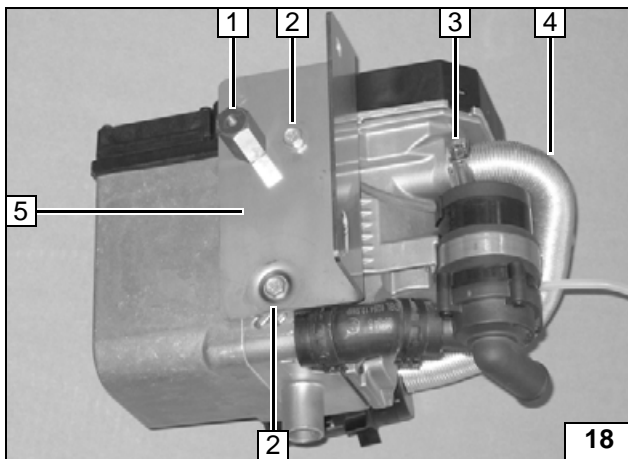


Ejot stud, tightening torque 10 Nm.

- 1 Ejot stud



Premounting heater

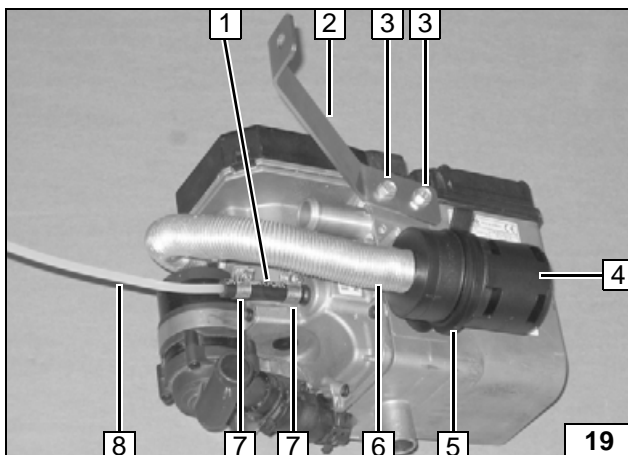


Ejot screws, tightening torque 10 Nm.
Insert one washer each between heater and bracket at positions (2)

- 5 Bracket
- 2 Washer, Ejot screw [2x]
- 1 M6x30 spacer nut
- 4 Prepared combustion air pipe (slotted side on heater)
- 3 Hose clamp



Premounting heater

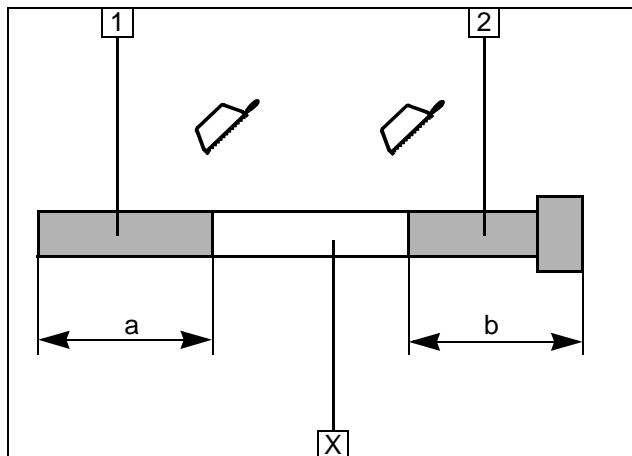
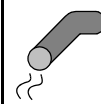


Ejot screws, tightening torque 10 Nm. Ensure proper installation position of combustion-air intake silencer, see "Installation Instructions".

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



Premounting heater



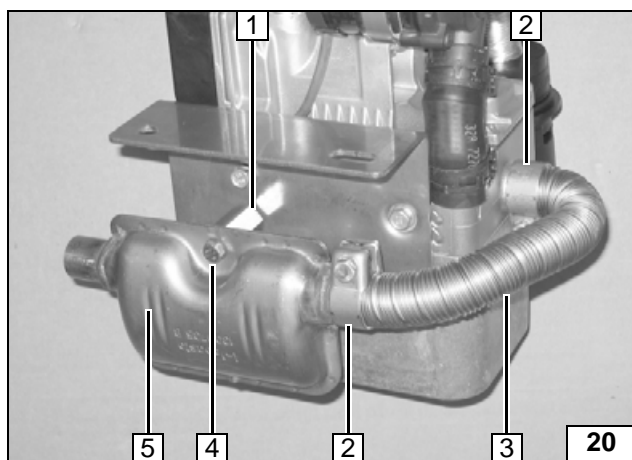
Premounting exhaust system

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

Discard section X



Preparing exhaust pipe

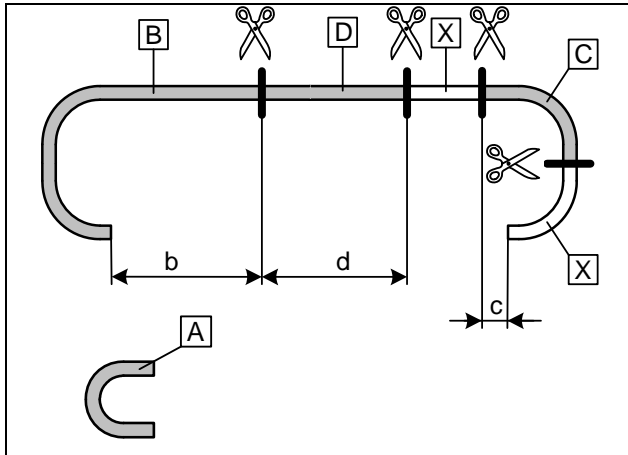


Shape exhaust pipe as shown in picture.

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



Premounting exhaust system



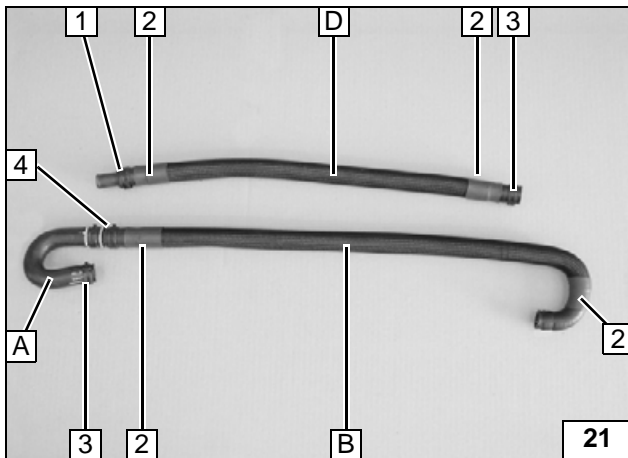
Premount hoses without DPF

Hose A = 180° moulded hose.
Discard section X

b = 620 mm
c = 100 mm
d = 580 mm



Cutting hoses to length

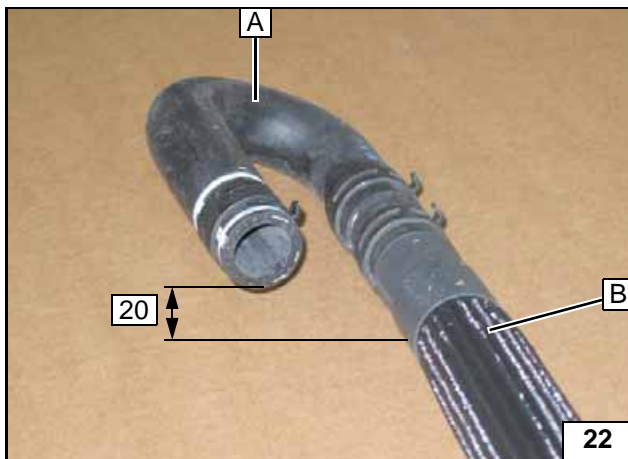


Push braided protection hoses onto hose D and B and cut to length.
Ensure positioning of hose A and B as shown in Figure 28.

- 2 Push on heat shrink plastic tubing, shrink down [4x]
- 1 20x20 connecting pipe, 27 mm dia. spring clip
- 4 20x20 connecting pipe, 27 mm dia. spring clip [2x]
- 3 27 mm dia. spring clip [2x] premounted



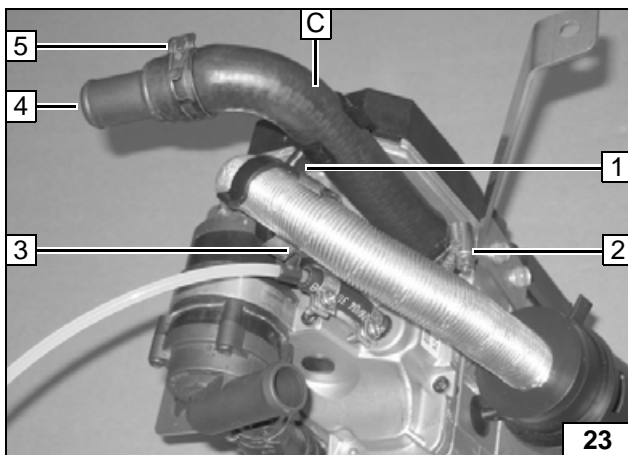
Premounting hoses



When mounting hoses A and B, lift hose A approx. 20 mm off support.

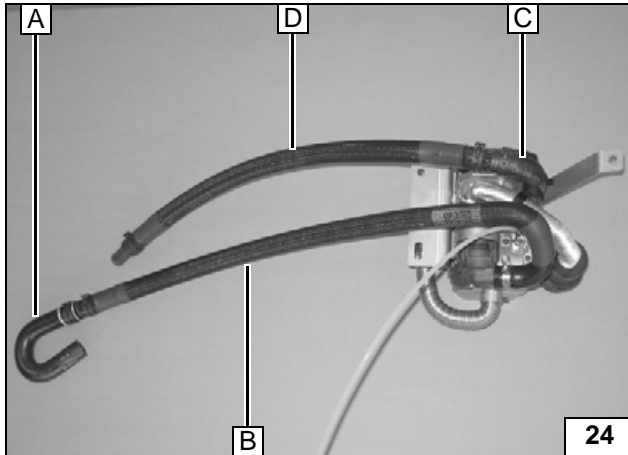
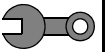


Premounting hoses

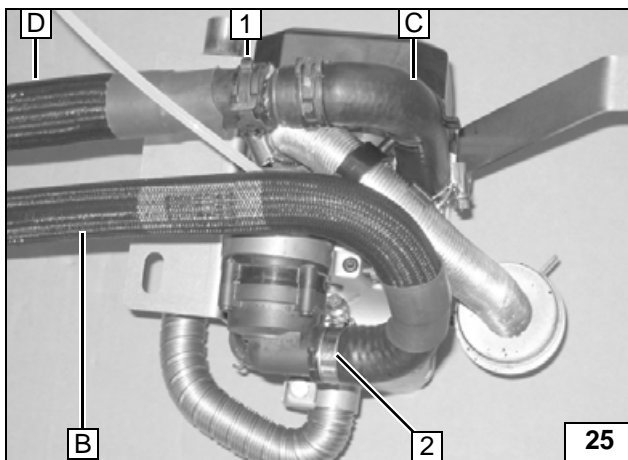


- 2 24-27 mm dia. hose clamp
- 4 20x20 mm connecting pipe
- 5 27 mm dia. spring clip
- 1 25x27 mm retaining clip on combustion air pipe and hose C
- 3 5x25 retaining clip on combustion air pipe and fuel line

Connecting hose C to heater

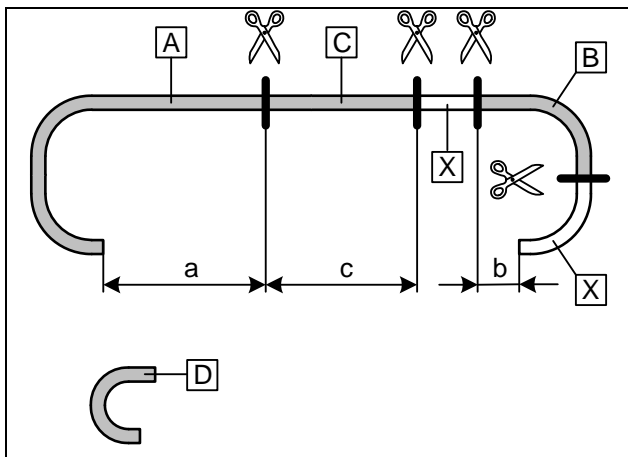


Connect-
ing hoses
to the heat-
er



- 1 27 mm dia. spring clip
- 2 24-27 mm dia. hose clamp

Connect-
ing hoses
to the heat-
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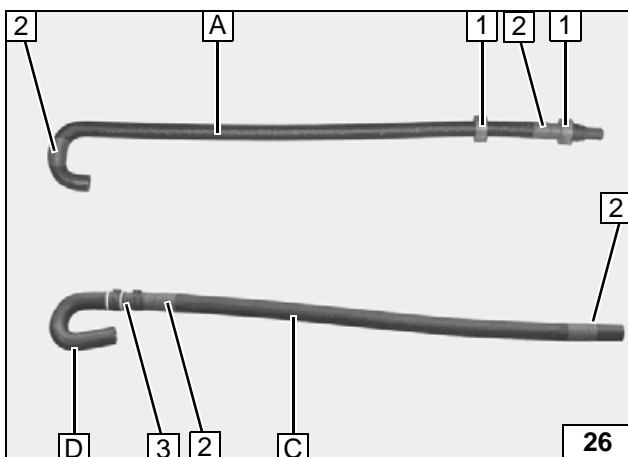
Premount hoses with DPF

Hose D = 180° moulded hose.
Discard section X

- a = 880 mm
- b = 100 mm
- c = 880 mm



Cutting
coolant
hoses to
length

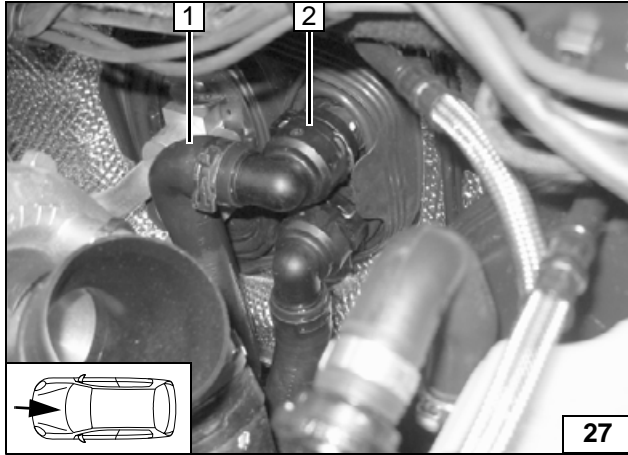


Push braided protection hoses onto hose A and C and cut to length.
Cut heat shrink plastic tubing to length.
Slide rubber isolator 1 [2x] onto hose A. Connect hose C and D.

- 2 25 mm heat shrink plastic tubing [2x each]
- 3 20x20 connecting pipe, 27 mm dia. spring clip [2x]



Preparing
coolant
hoses

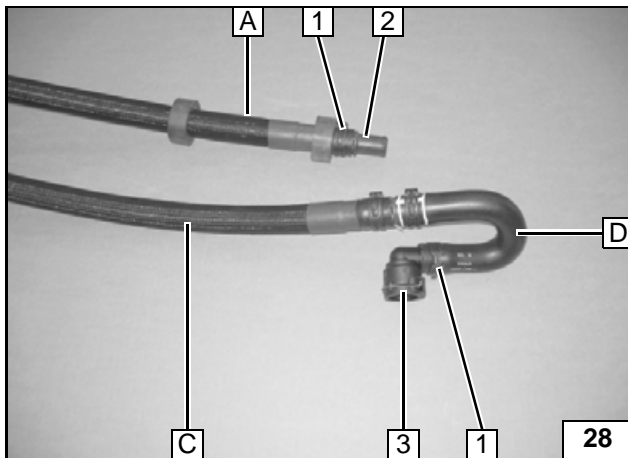


Pull coupling piece off connection piece on heat exchanger inlet. Remove coupling piece 2 on heat exchanger inlet; it will be reused.

1 Coolant hose on engine outlet



Water connection piece on heat exchanger inlet

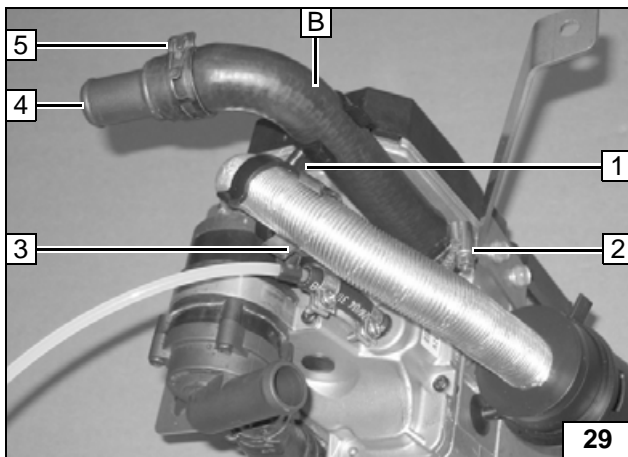


Coupling piece from connection piece on heat exchanger inlet. Connect coupling piece 3 to hose D.

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

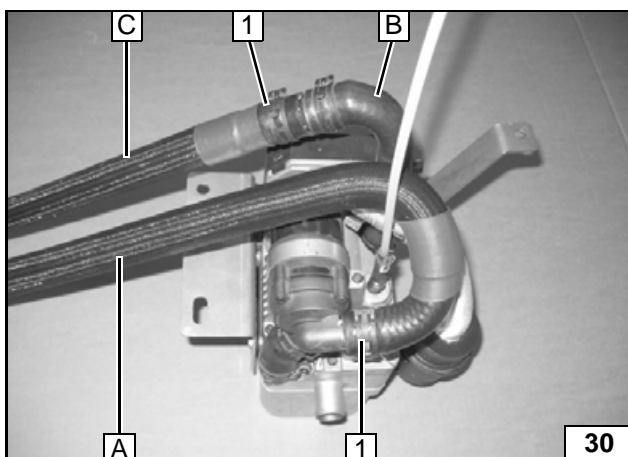


Preparing hoses



2 24-27 mm dia. hose clamp
4 20x20 mm connecting pipe
5 27 mm dia. spring clip
1 25x27 mm retaining clip on combustion air pipe and hose B
3 5x25 retaining clip on combustion air pipe and fuel line

Connecting hose B to heater

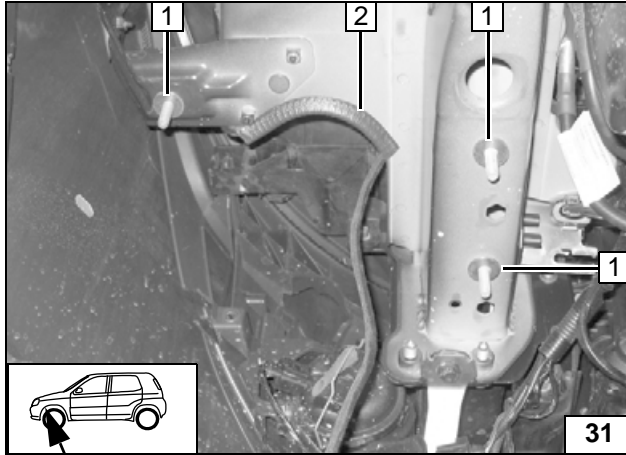
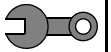


Connect hose B and C.

1 27 mm dia. spring clip [2x]



Premounting hose A and C



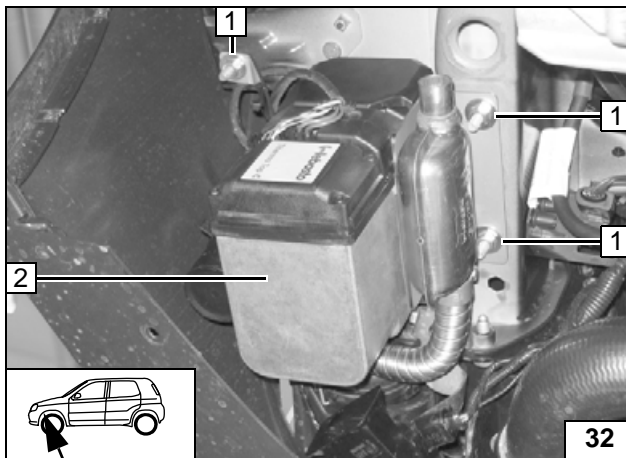
Preparing installation location

Stop large diameter washer from falling with putty etc.

- 1 Large diameter washer on original vehicle stud bolt [3x]
- 2 Edge protection section



Preparing installation location



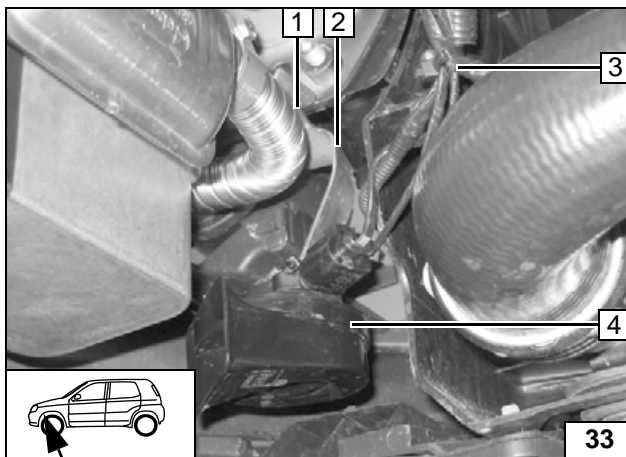
Mounting heater

On vehicles with headlight washer system (HWS), make sure that connection piece of circulating pump is positioned with hose B over HWS.

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



Mounting heater



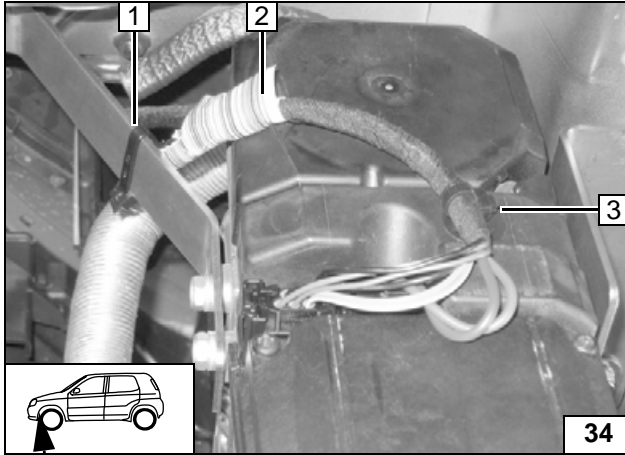
Ensure freedom of movement of exhaust system in respect to original vehicle component and lines.

Various horn brackets are installed depending on vehicle equipment.

- 1 Exhaust pipe
- 2 Horn bracket
- 3 Original vehicle wiring harnesses (secured with cable ties)
- 4 Horn



Aligning exhaust system



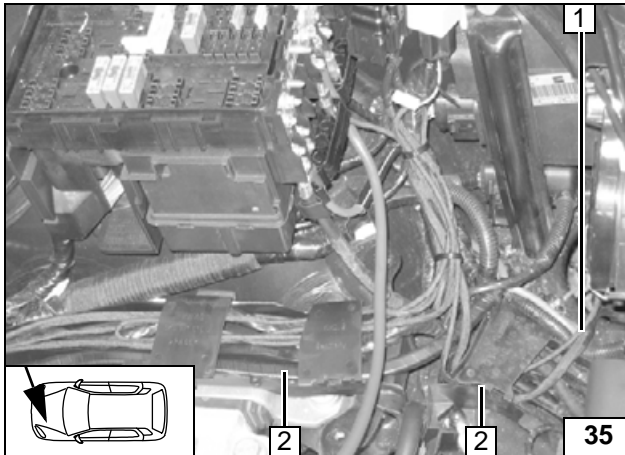
Wiring harness of heater

Watch routing of wiring harness. Danger of rubbing.

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



Mounting and routing wiring harness



Watch routing of wiring harness. Danger of rubbing.

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



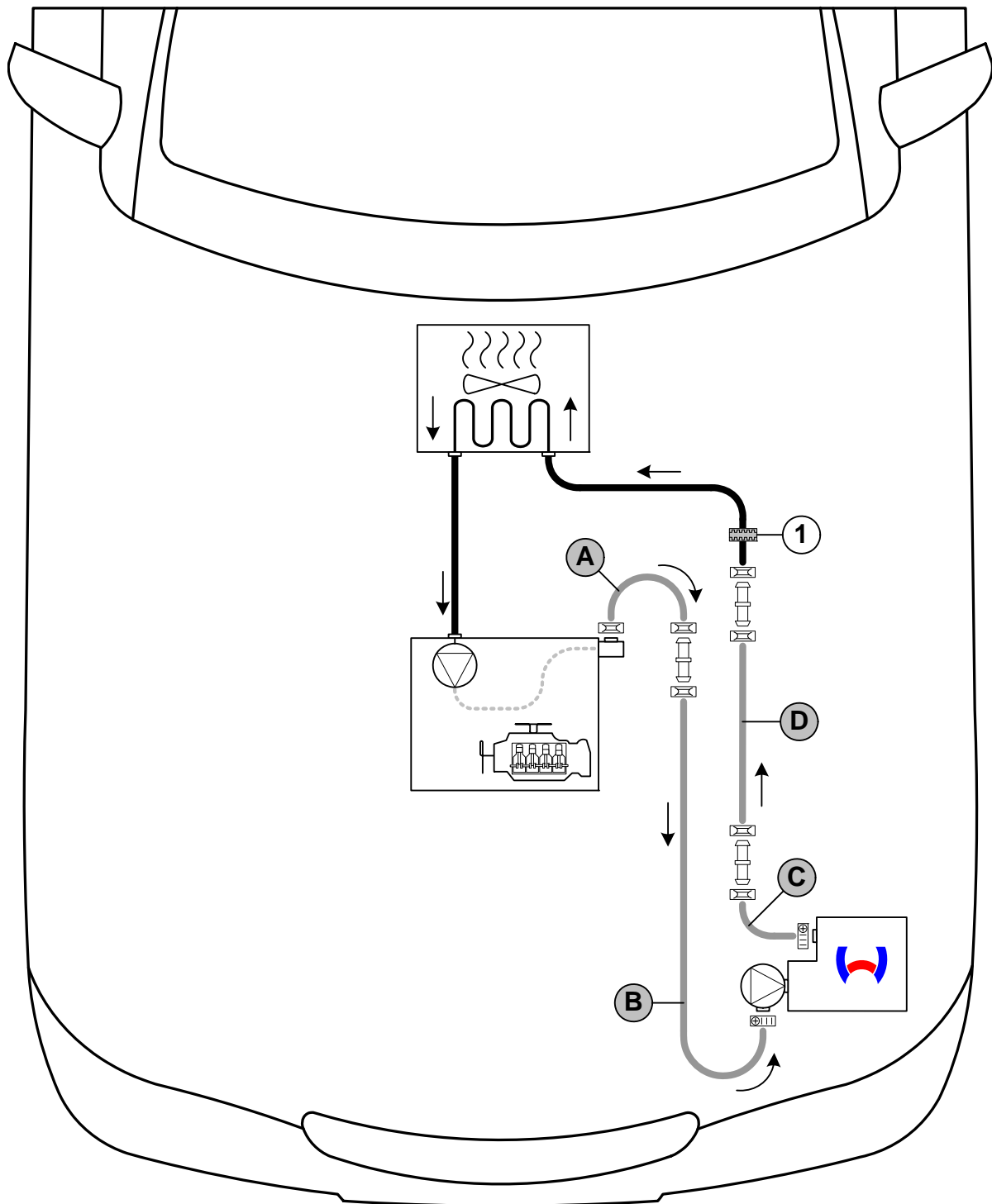
Routing wiring harness



Coolant circuit without DPF



WARNING!

Any coolant running off should be collected using an appropriate container. Route coolant hoses kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. The heater must be filled with coolant when installing the coolant hose. The connection should be "inline" based on the following diagram:



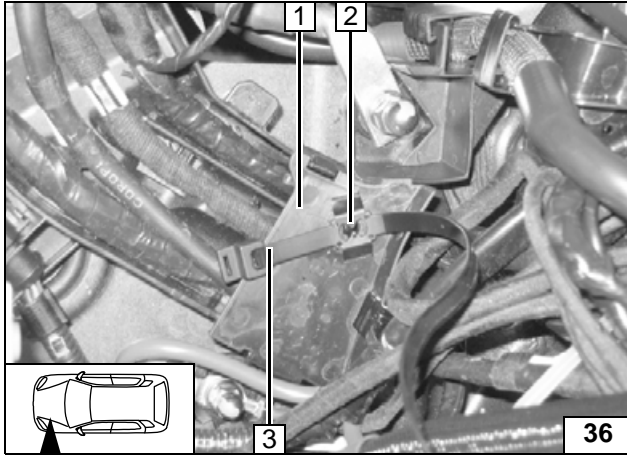
Hose routing diagram

All spring clips  = 27 mm dia. All hose clamps  = 20-27 mm dia.

All connecting pipes  = 20x20 mm dia. 1 = Black (sw) rubber isolator 



Seat Altea / Altea Freetrack

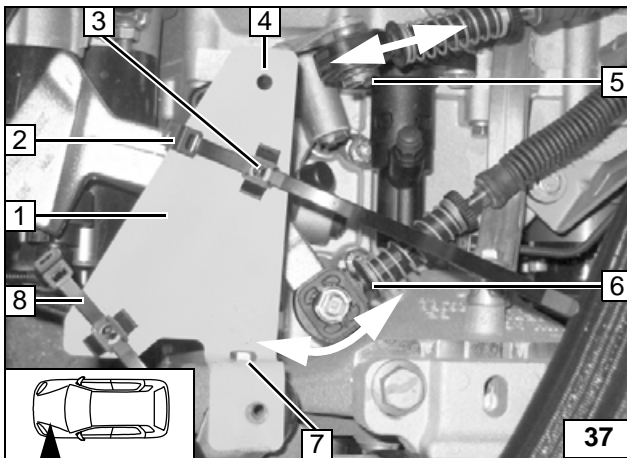


When drilling, watch lines located behind. Clip-type cable tie (3) faces toward front.

- 1 Cover
- 2 6 mm dia. hole
- 3 Clip-type cable tie



Mounting clip-type cable tie

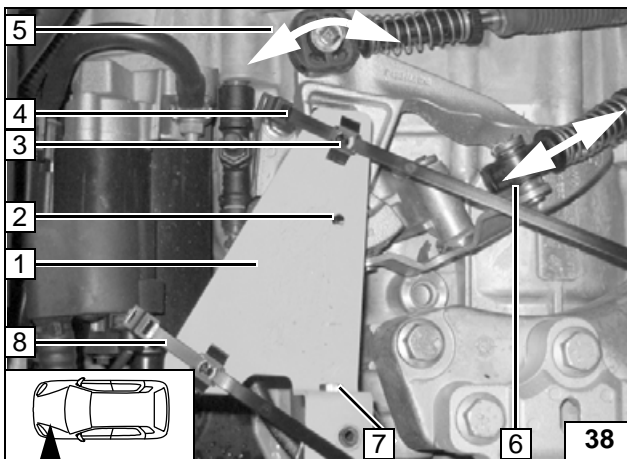


With manual gear change (5, 6) as shown, clip-type cable tie (2) is installed in hole (3). Locks of clip-type cable ties (2, 8) face toward front. Hole (4) remains clear.

- 1 Bracket
- 7 Original vehicle hole, M6x20 bolt, flanged nut
- 2 Clip-type cable tie
- 8 Clip-type cable tie
- 4 Free hole
- 5 Manual gear change
- 6 Manual gear change



Version 1: mounting bracket and clip-type cable tie

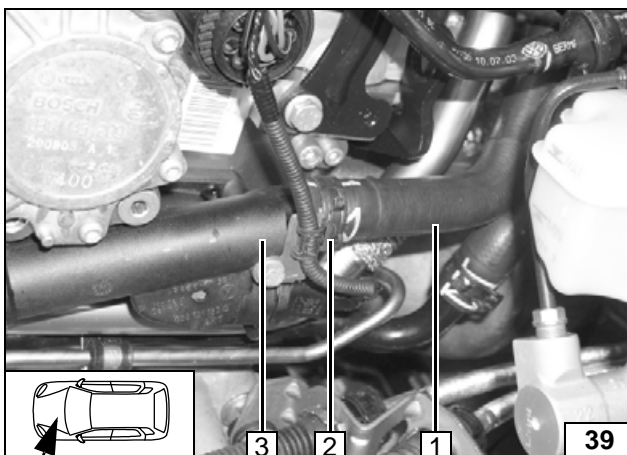


With manual gear change (5, 6) as shown, clip-type cable tie (4) is installed in hole (3). Locks of clip-type cable ties (4, 8) face toward front. Hole (2) remains clear.

- 1 Bracket
- 7 Original vehicle hole, M6x20 bolt, flanged nut
- 4 Clip-type cable tie
- 8 Clip-type cable tie
- 2 Free hole
- 5 Manual gear change
- 6 Manual gear change



Version 2: mounting bracket and clip-type cable tie

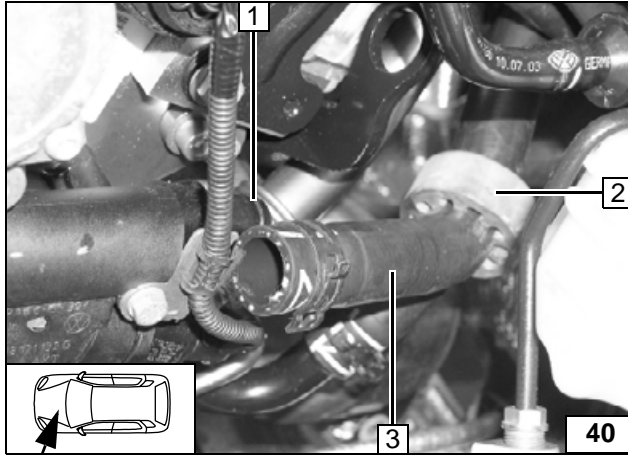


Pull off hose on engine (1) to heat exchanger inlet on connection piece of engine outlet (3). Spring clip (2) will be reused.

- 1 Hose from engine outlet to heat exchanger inlet
- 2 Spring clip
- 3 Connection piece for engine outlet

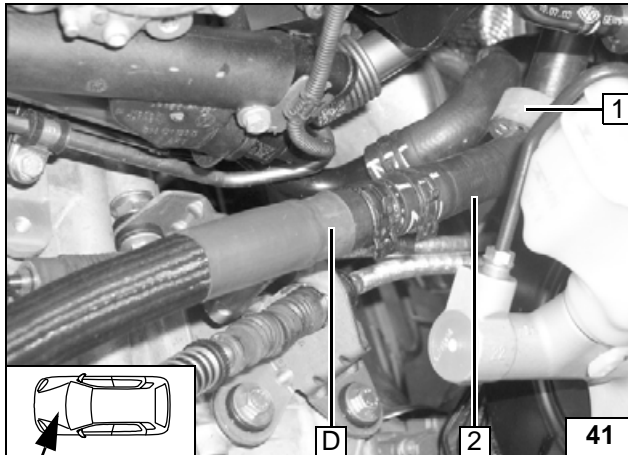


Cutting point



- 3 Hose to heat exchanger inlet pulled off
- 1 Connection piece for engine outlet
- 2 Black (sw) rubber isolator pushed on

Pull hose off engine outlet

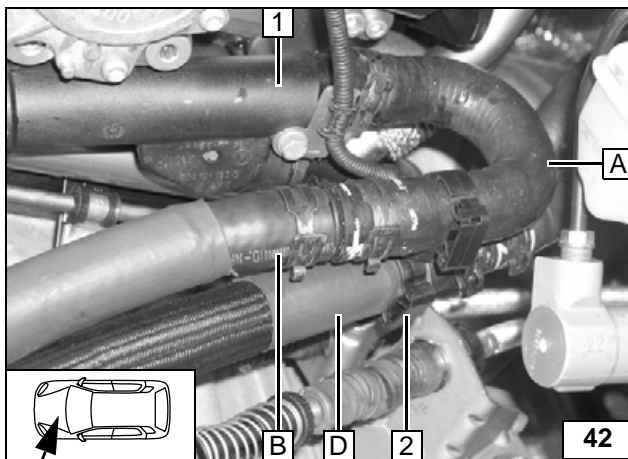


Before connecting, fill the coolant hoses with coolant.



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

Connection on heat exchanger inlet

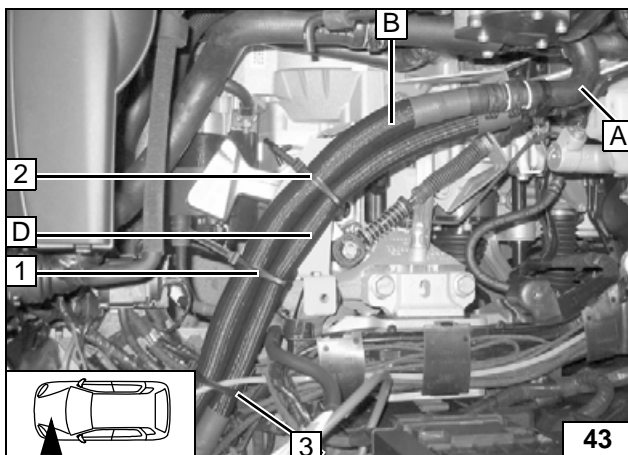


Before connecting, fill the coolant hoses with coolant.



- 1 Connection piece for engine outlet
- 2 Double clip 27x27 on hose A and D

Connection to engine outlet

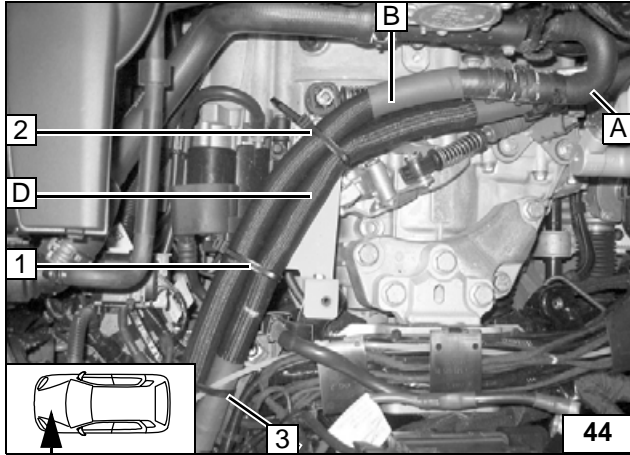


Ensure freedom of movement of gear change.



- 1 Clip-type cable tie
- 2 Clip-type cable tie
- 3 Clip-type cable tie

Version 1: routing in engine compartment

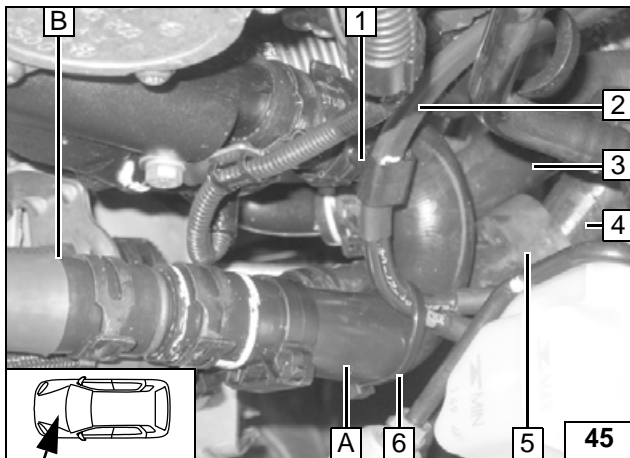


Ensure freedom of movement of gear change.

- 1 Clip-type cable tie
- 2 Clip-type cable tie
- 3 Clip-type cable tie



Version 2:
routing in
engine
compartment



Lines (2) and original vehicle double clip (1) are dependent on vehicle equipment.

- 1 Original vehicle double clip on hose A and original vehicle lines (2)
- 2 Lines (2) and original vehicle double clip (1) are dependent on vehicle equipment.
- 3 Hose for heat exchanger outlet
- 4 Hose on heat exchanger inlet
- 5 Black (sw) rubber isolator
- 6 Cable tie



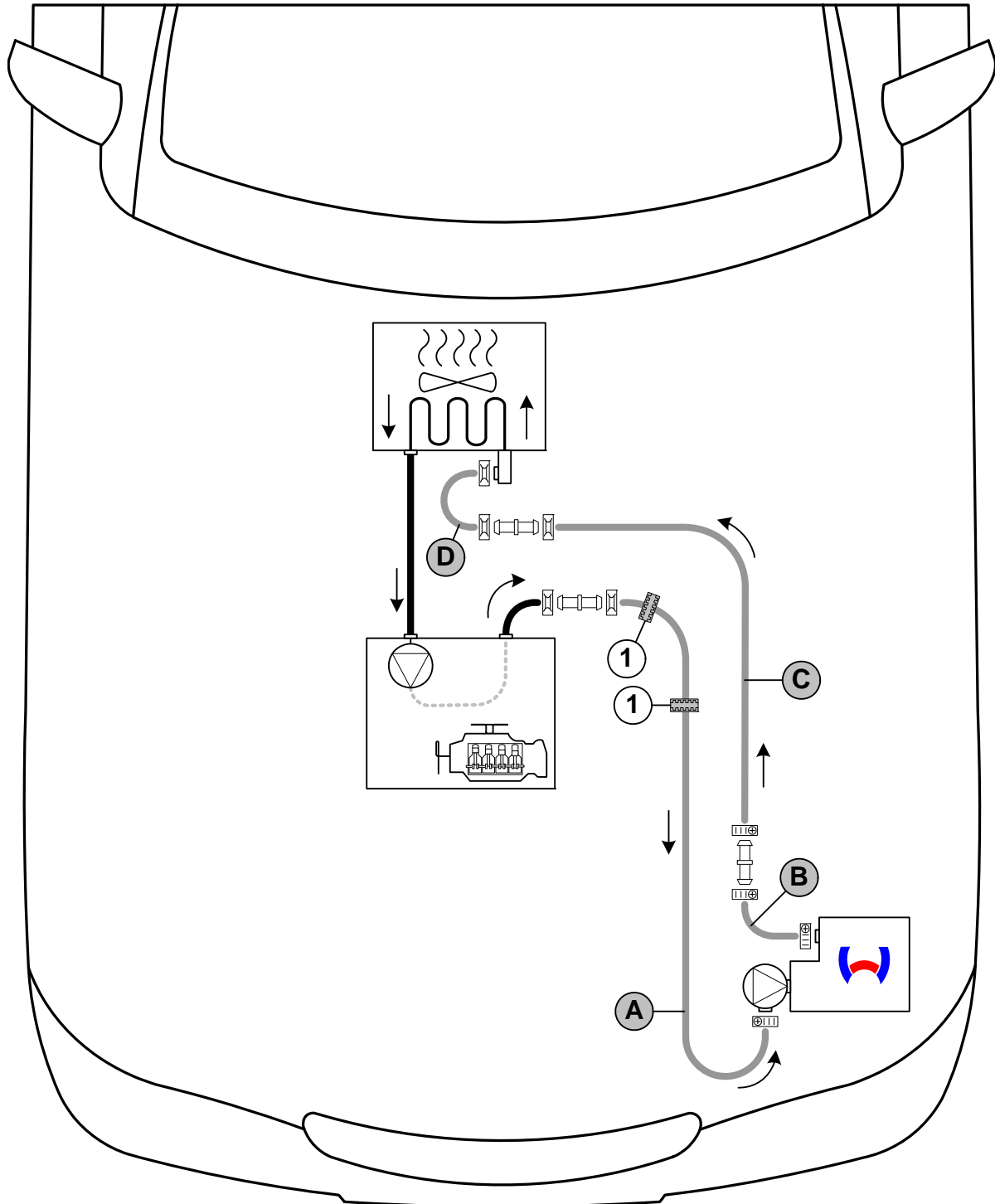
Aligning
hoses and
lines



Coolant circuit with DPF



WARNING!

Any coolant running off should be collected using an appropriate container. Route coolant hoses kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. The heater must be filled with coolant when installing the coolant hose. The connection should be "inline" based on the following diagram:

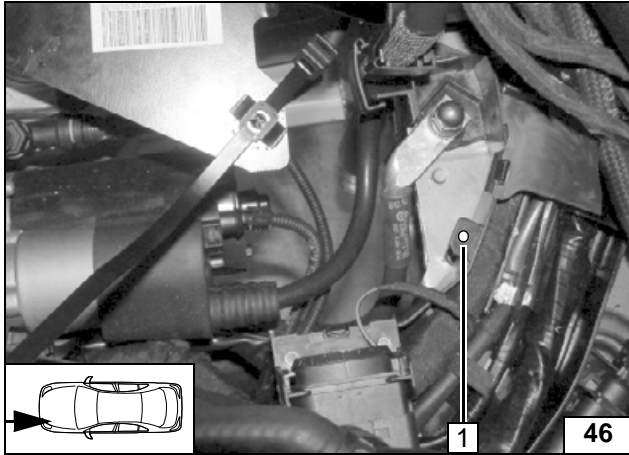


Hose routing diagram

All spring clips  = 27 mm dia. All hose clamps  = 20-27 mm dia.

All connecting pipes  = 20x20 mm dia. 1 = Black (sw) rubber isolator 



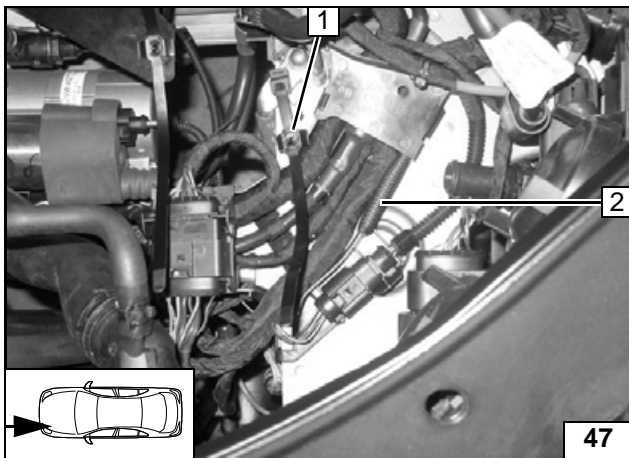


When drilling, watch lines located behind.

1 Bar, 6 mm dia. hole



Mounting clip-type cable tie

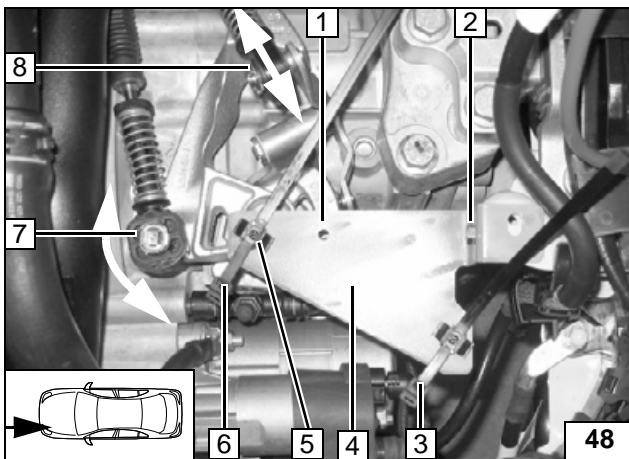


Cut included edge protection in half.
On vehicles with Diesel Unit Injector, lock of clip-type cable tie 1 faces in driving direction.

1 Clip cable tie in 6 mm dia. hole
2 Edge protection section



Mounting clip-type cable tie and edge protection

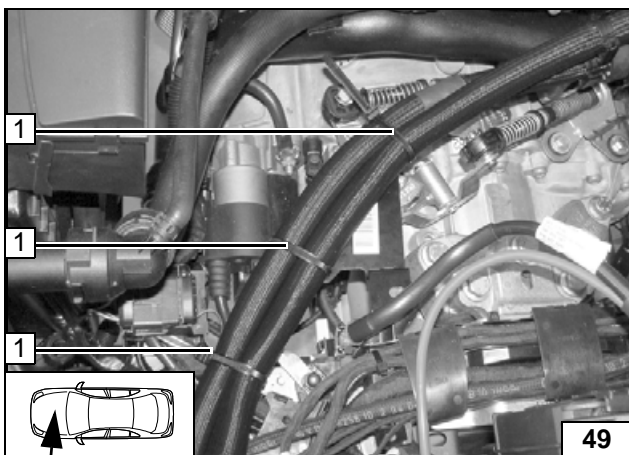


With manual gear change 7, 8 as shown, clip-type cable tie 6 is mounted in hole 5. Locks of clip-type cable ties 3, 6 face toward front. Hole 1 remains clear.

4 Bracket
2 Original vehicle hole, M6x20 bolt, flanged nut



Mounting bracket for coolant hoses

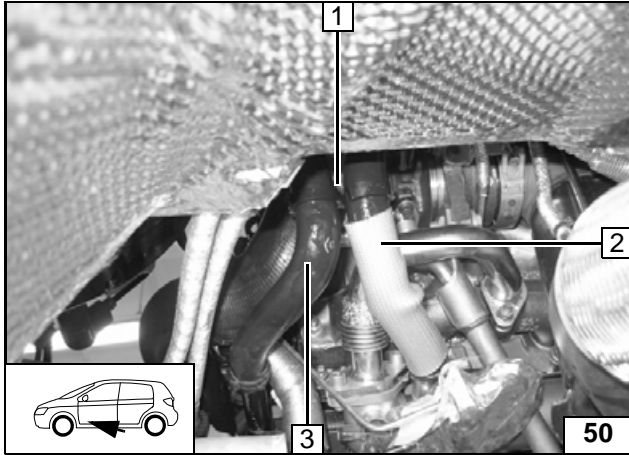


Ensure freedom of movement of gear change. Bend bracket upwards a little if necessary.

1 Clip-type cable tie

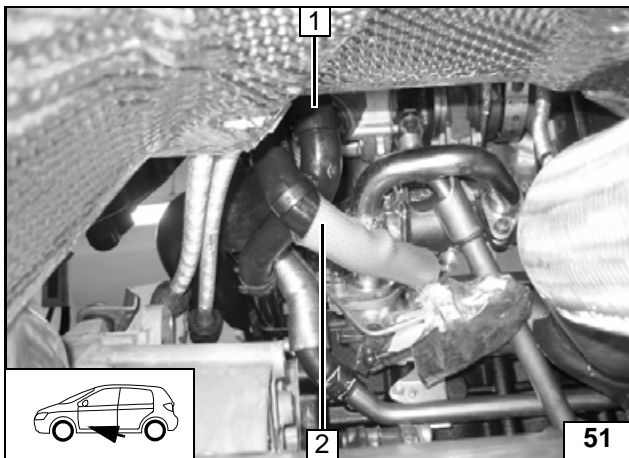


Routing in engine compartment



- 2 Hose to heat exchanger inlet
- 3 Hose to heat exchanger outlet
- 1 Cut off original vehicle spacer bracket

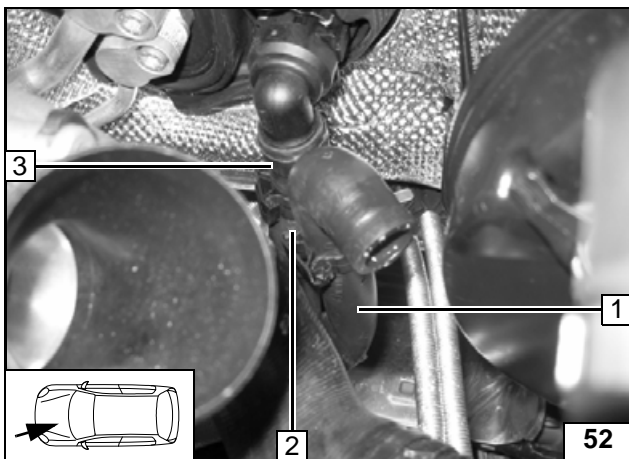
Routing hose for heat exchanger inlet



Route coolant hose on engine outlet to heat exchanger inlet **2** free of kinks and rubbing.

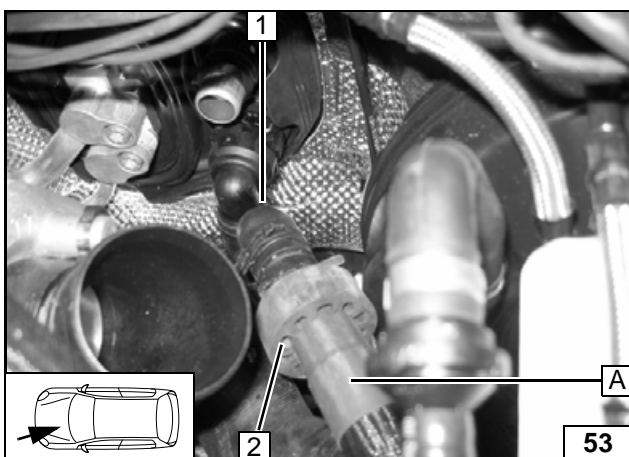
- 1 Hose to heat exchanger outlet

Routing hose for heat exchanger inlet



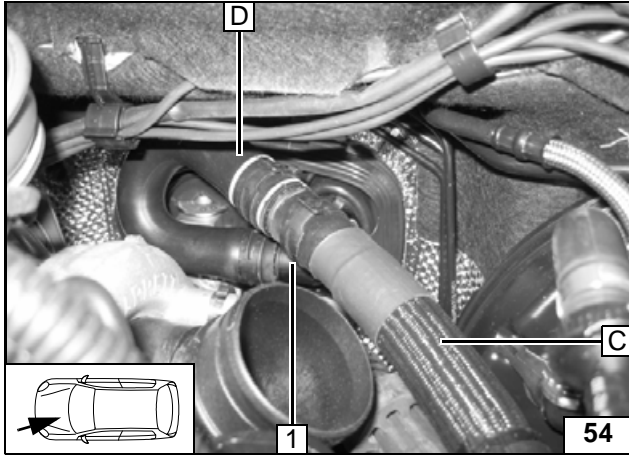
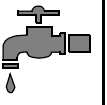
- 1 Hose on engine outlet, turned toward front
- 3 Hose for heat exchanger outlet
- 2 Double clip

Inserting double clip



- 1 Hose on engine outlet, turned toward front
- 2 Position black (sw) rubber isolator

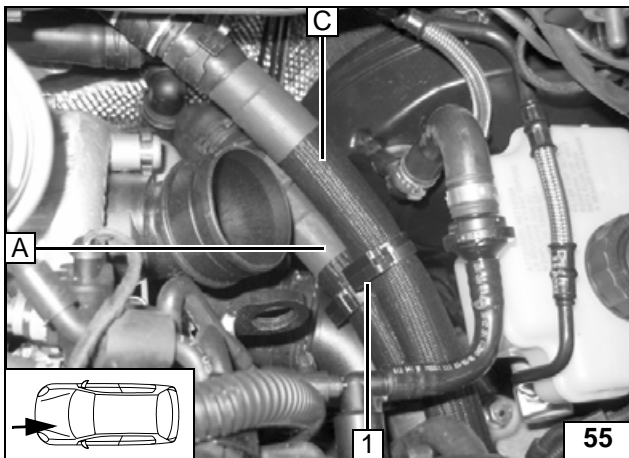
Connection to engine outlet



Before connecting, fill the coolant hoses with coolant.
Reconnect premounted coupling piece 1 on connection piece on heat exchanger inlet.

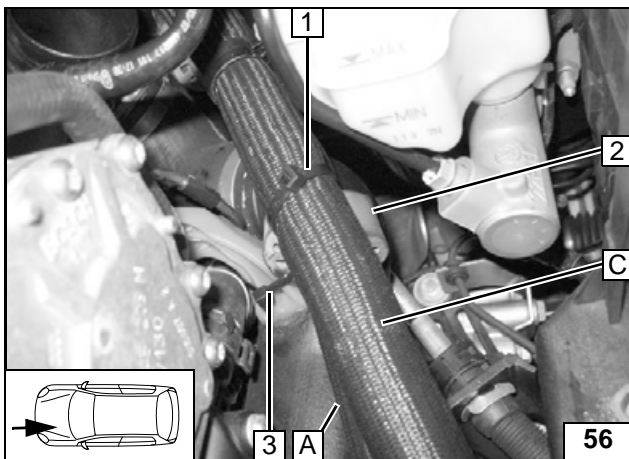


Connection on heat exchanger inlet



1 Double clip

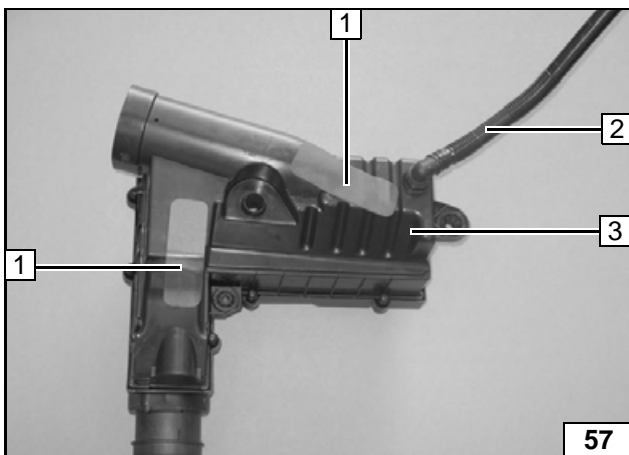
Inserting double clip



Fasten black (sw) rubber isolator 2 on bracket of air charging pipe with cable tie 3. Fasten hose C with cable tie 1 to black (sw) rubber isolator 2 of hose A.



Positioning rubber isolator

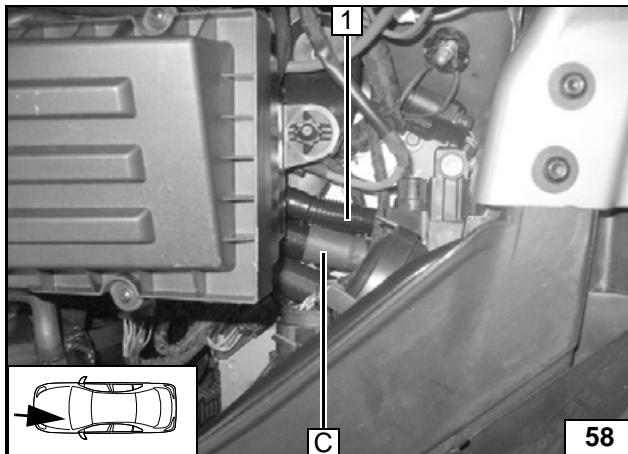
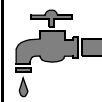


All vehicles

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



Preparing air cleaner housing

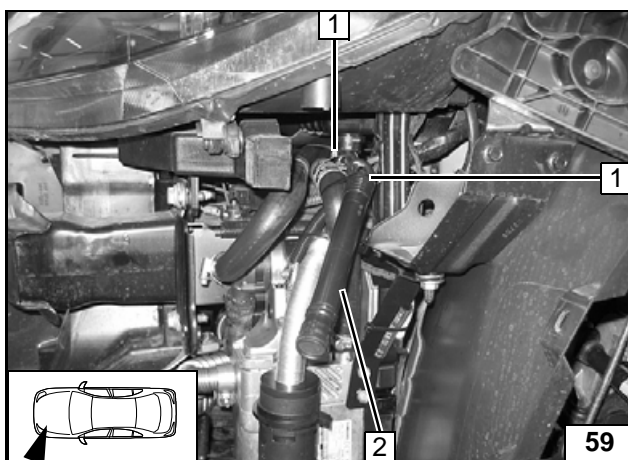


Version 1:

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

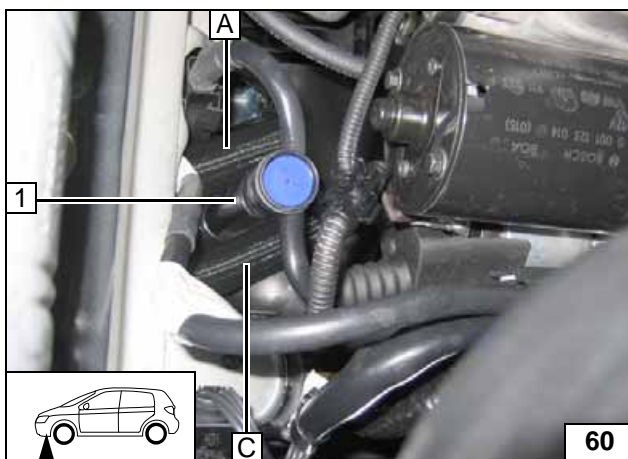


**Mounting
air clean-
er housing**



- 1 Cable tie [2x]
- 2 Drain pipe

**Mounting
air clean-
er housing**



Version 2:

If drain pipe 1 is present as shown, then route between coolant hoses A and C.



**Mounting
air clean-
er housing**



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.

Route 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 as shown in the wiring harness diagram.

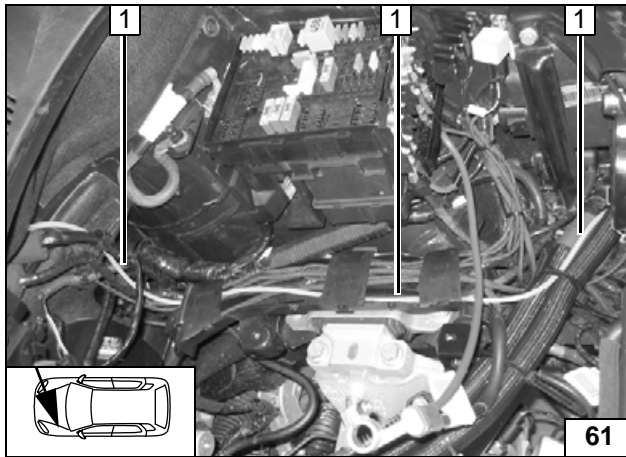
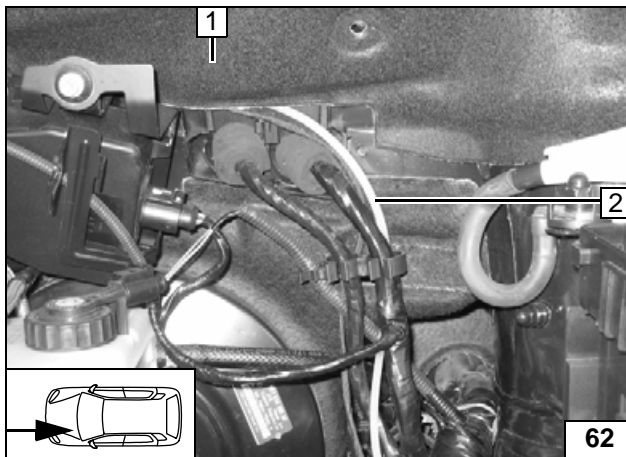


Figure shows vehicle without installed air filter box

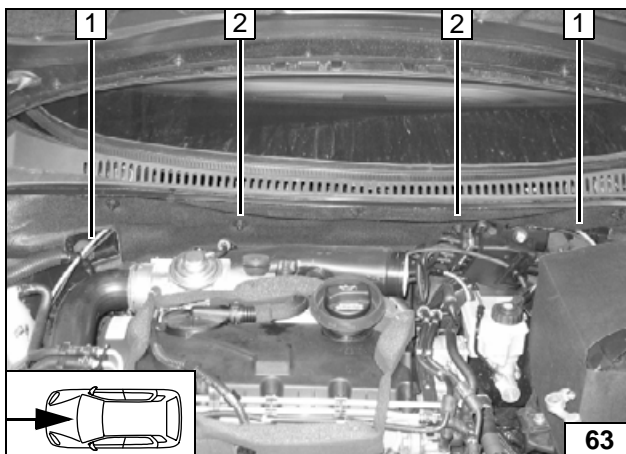
1 Fuel line

Routing fuel line to firewall



1 Insulation mat
2 Fuel line and wiring harness of metering pump

Route fuel line and wiring harness of metering pump behind insulation mat

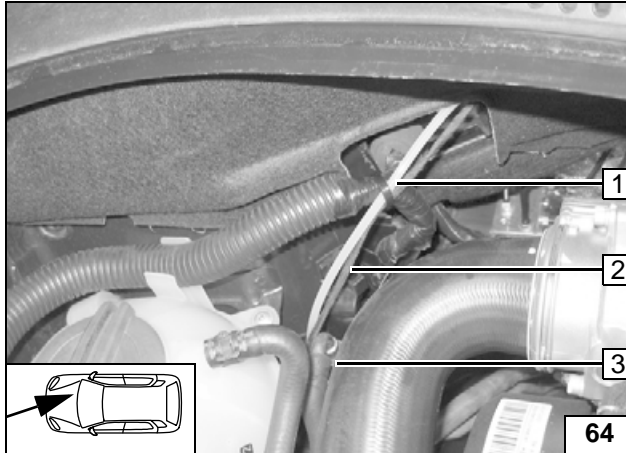


Route fuel line and wiring harness of metering pump via fastening points (2).

1 Fuel line and wiring harness of metering pump
2 Fastening points of insulation mat [2x]



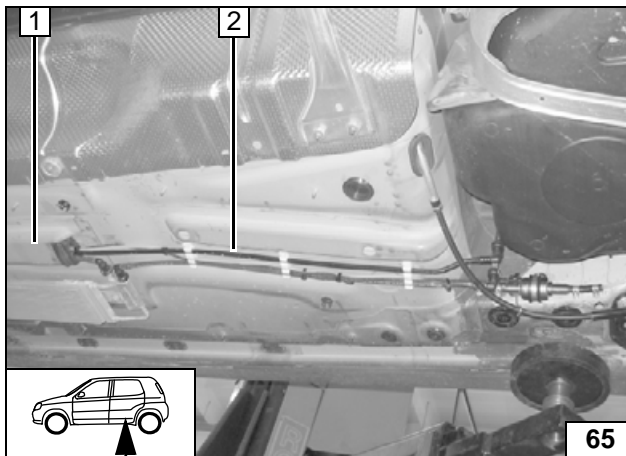
Routing fuel line and wiring harness of metering pump to right



Guide fuel line (1) and wiring harness of metering pump (2) into original vehicle line duct (3). Route fuel line (1) together with wiring harness of metering pump (2) in original vehicle line duct to underbody.



Routing fuel line and wiring harness of metering pump

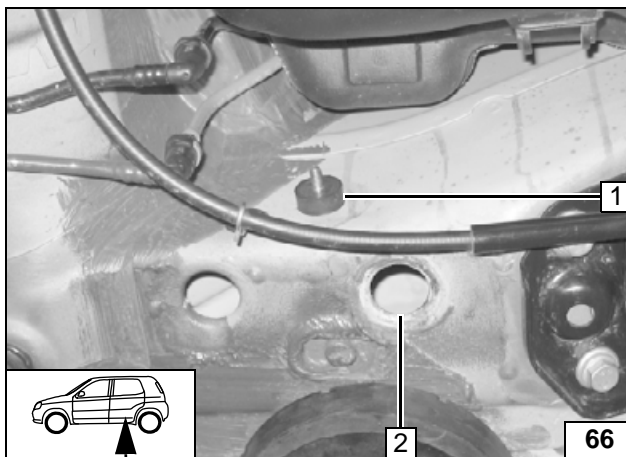


Route fuel line and wiring harness of metering pump along original vehicle fuel lines (2) to fuel tank.



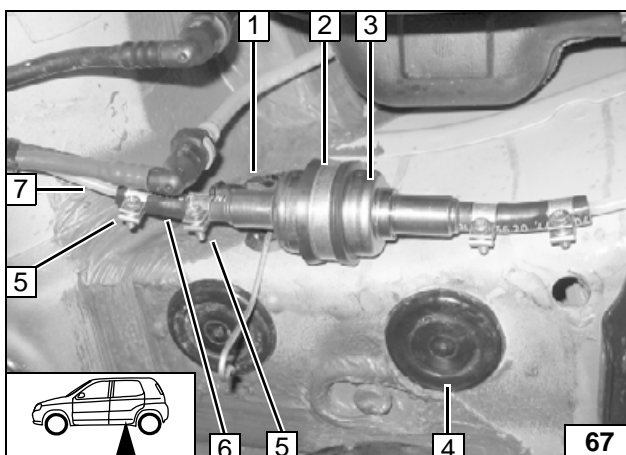
Routing fuel line and wiring harness of metering pump

1 Line duct



2 Remove sealing plug
1 Silent block, large diameter washer, M6 flanged nut

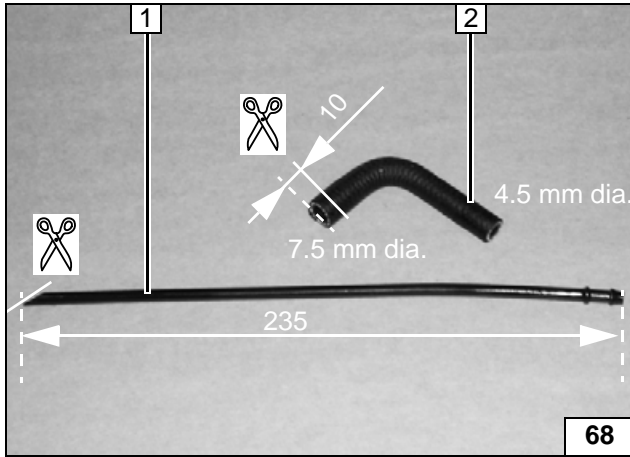
Mounting silent block



3 Metering pump
2 Secure rubber-coated p-clamp on silent block with flanged nut
1 Connector housing, single-wire seals, plug-in contacts
7 Fuel line and wiring harness of metering pump
6 Hose section
5 10 mm dia. hose clamp [2x]
4 Plug remounted



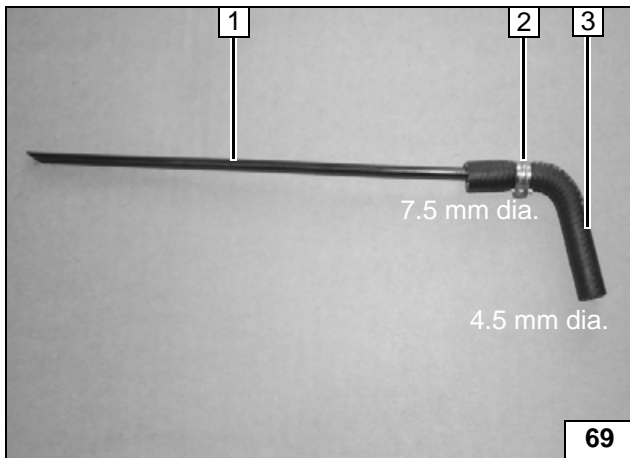
Mounting metering pump and connecting pressure side



Fuel extraction

- 1 Standpipe
- 2 Moulded hose

Cutting standpipe and moulded hose to length

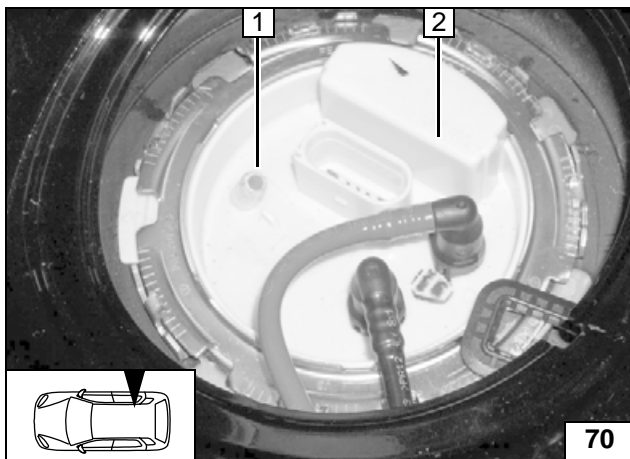


Caillau clamp (2) centred between beads at end of standpipe.

- 1 Standpipe
- 2 10 mm dia. Caillau clamp
- 3 Moulded hose



Premounting standpipe and moulded hose

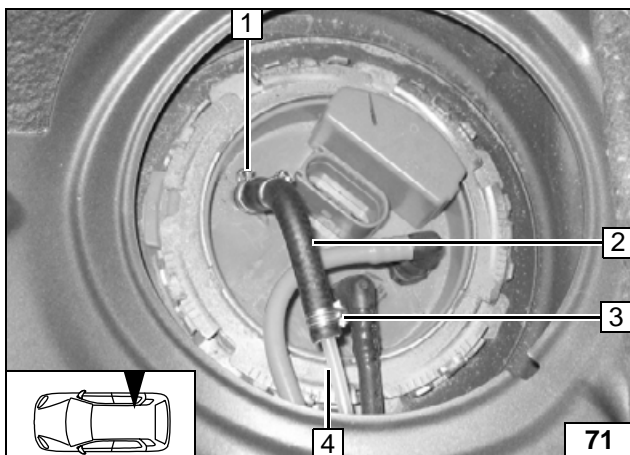


Cut 3 mm off blind plug.

- 1 Tip cut off blind plug
- 2 Fuel-tank sending unit

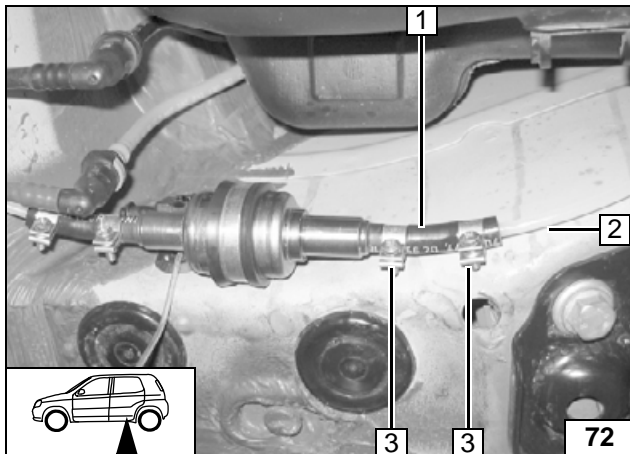


Cutting off blind plug



- 1 13.5 mm dia. Caillau clamp
- 2 Premounted moulded hose with standpipe
- 3 10 mm dia. Caillau clamp
- 4 Remaining section of fuel line

Connection to fuel-tank sending unit



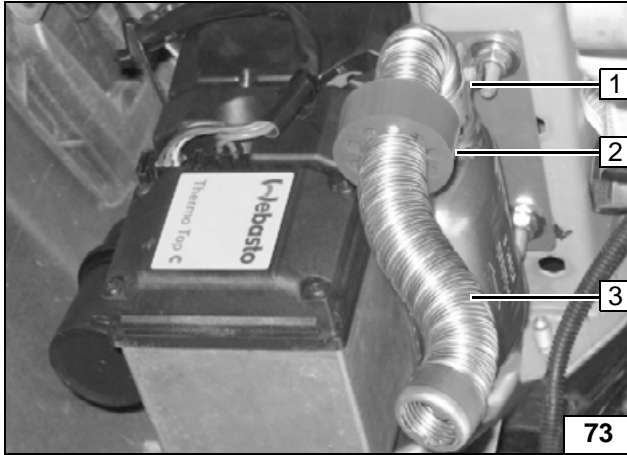
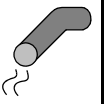
- 2 Fuel line from fuel-tank sending unit
- 1 Hose section
- 3 10 mm dia. hose clamp [2x]



**Connect-
ing intake
side of
metering
pump**

Align fuel lines and wiring harness of metering pump over entire length and secure with cable ties

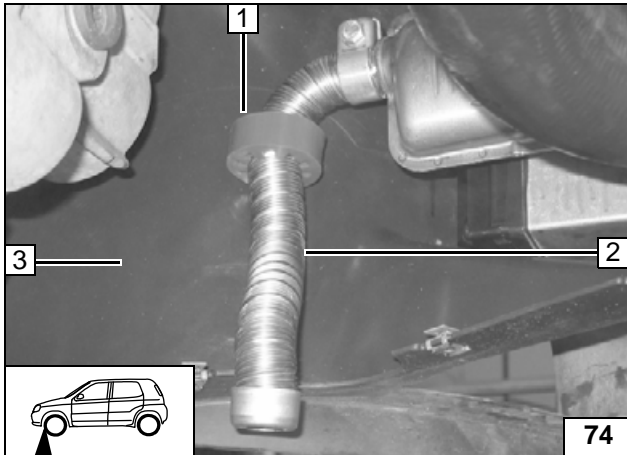




Exhaust end section

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

Mounting exhaust pipe end section

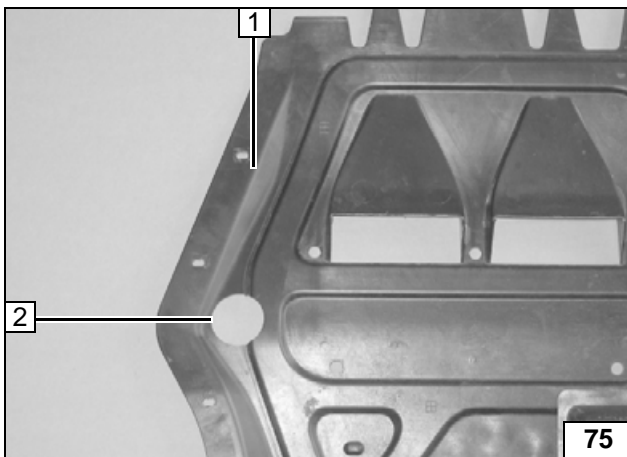


Align exhaust end section and rubber isolator as shown

- 3 Wheel well trim
- 2 Exhaust end section
- 1 Red (rt) rubber isolator



Mounting wheel well trim

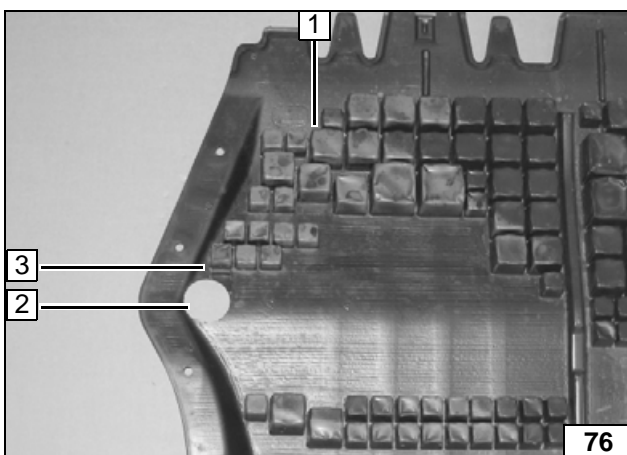


Design of under-ride protection depends on the respective vehicle equipment.

- 1 Under-ride protection
- 2 42 mm dia. hole

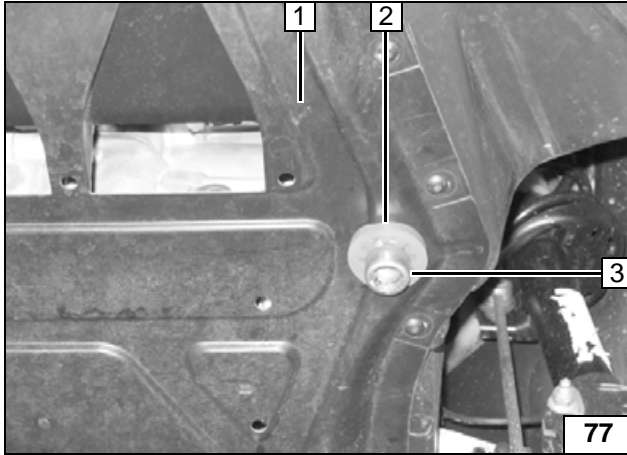
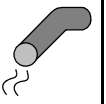


Version 1:
Hole in under-ride protection



- 1 Under-ride protection
- 2 42 mm dia. hole
- 3 Insulation cut away

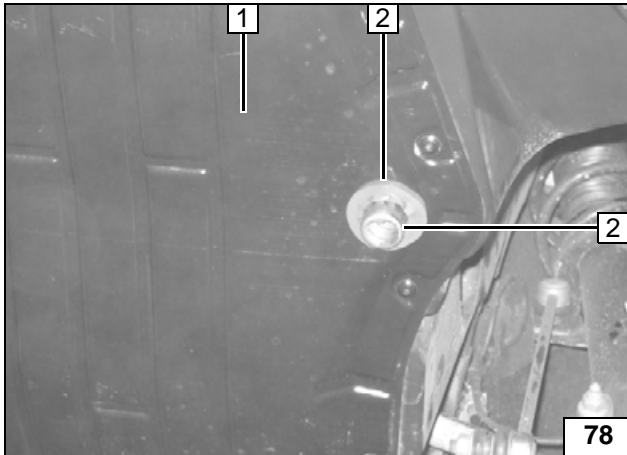
Version 2:
Hole in under-ride protection



First position red (rt) rubber isolator (2) on exhaust end section (3) from below, then insert with groove in underide protection (1). Align end cap of exhaust end section (3) flush on red (rt) rubber isolator (2) as shown.



**Version 1:
Inserting
rubber
isolator**



First position red (rt) rubber isolator (2) on exhaust end section (3) from below, then insert with groove in underide protection (1). Align end cap of exhaust end section (3) flush on red (rt) rubber isolator (2) as shown.



**Version 2:
Inserting
rubber
isolator**



Final Work

WARNING!

Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate all loose wires and tie back.

Only use manufacturer-approved coolant. Spray heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- **Connect the battery.**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.**
- **Adjust digital timer, teach Telestart transmitter**
- **Make settings on A/C control panel according to the "Operating Instructions for End Customer".**
- **Place "Switch off parking heater before refuelling" signboard in the area of the filler neck**
- **For initial start-up and function check, see installation instructions**



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<http://www.webasto.com>

Operating Instructions for End Customer



Please remove page and add to the vehicle operating instructions.

Note:

We recommend matching the heating time to the driving time.

Heating time = driving time

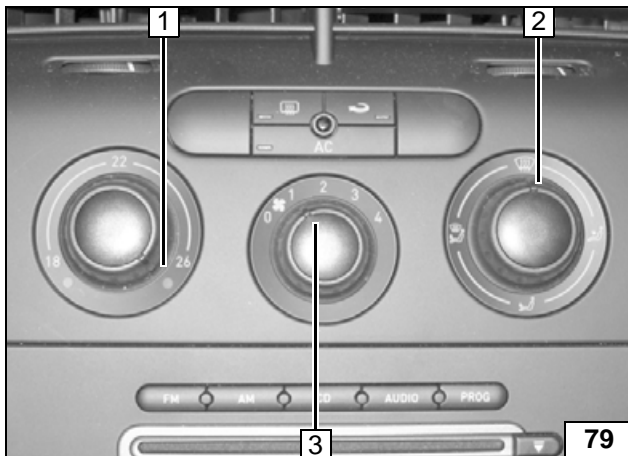
Example:

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

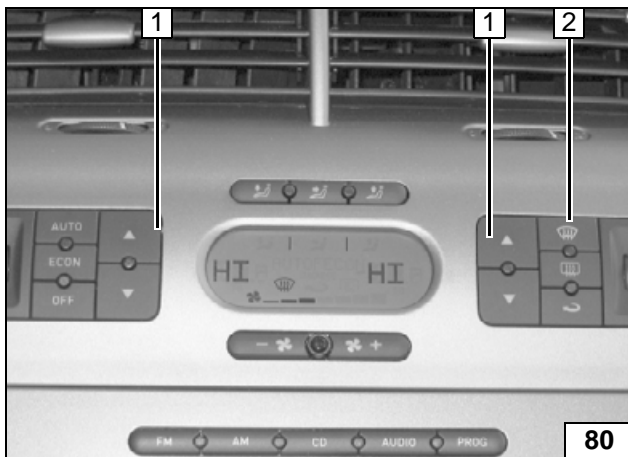
If the summer/winter switch option has been installed, this must be switched in accordance with the time of year. The heater will then heat in the position Winter and in the position Summer it will only switch on the vehicle fan to ventilate the vehicle interior.



Before parking the vehicle, make the following settings:



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



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

Vehicles with Climatic

Vehicles with Climatronic