

Water heater



Thermo Top E Parking heater

e1

00 0003

Thermo Top C Parking heater

e1

00 0002

Thermo Top P Parking heater

e1

00 0104

Installation documentation

VW Passat / Passat CC

Diesel PD

Diesel CR 6-step gear box

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.

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.

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Validity

Manufacturer	Model	Type	EG-BE No./ABE
Volkswagen	Passat	B6	e1 * 2001/116 * 0307 * ...
Volkswagen	Passat CC	3CC	e1 * 2001/116 * 0468 * ...
Volkswagen	Passat	3C	e1 * 2001/116 * 0307 * ...

Engine type	Engine model	Output in kW	Displacement in cm ³
BKC	Diesel	77	1896
BKP	Diesel	103	1968
BMP	Diesel	103	1968
BMN	Diesel	125	1968
CBAB	Diesel CR	103	1968
CFFB	Diesel CR	103	1968

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

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

Heater/Installation Kit

Quantity	Description	Order No.:
1	Retail accessories <i>Thermo Top E/C/P</i>	See Price list
1	Installation Kit for VW Passat PQ46 Diesel	9013731B
1	Heater control	See Price list

Also required with Climatronic:

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

Foreword

These installation instructions apply to VW Passat vehicles with a Diesel engine - for validity, see above - 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, the stipulations in this "installation documentation" and "operating instructions" and the "maintenance instructions" for the *Thermo Top E/C/P* must always be observed.

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

General Instructions

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

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

Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

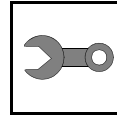
Special Tool

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- VAS tester (adjustment of passenger compartment monitoring)

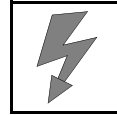
Explanatory Notes on Document

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.

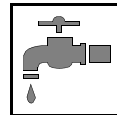
Mechanical system



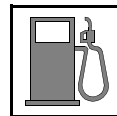
Electrical system



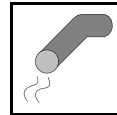
Coolant circuit



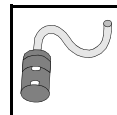
Fuel



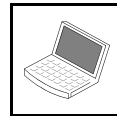
Exhaust gas



Combustion air



Software



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



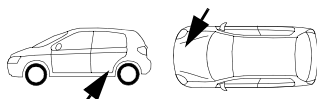
Specific risk of fire or explosion.



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!

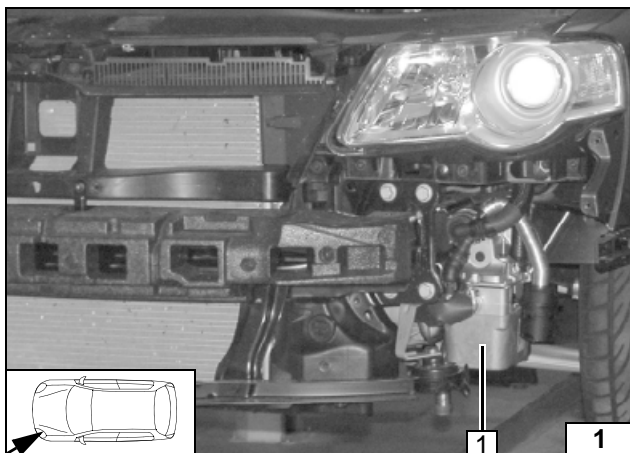
Tightening torque of hose clamps = 2.0 + 0.5 Nm!

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

Preliminary Work

WARNING!

- Disconnect the battery "earth" or "ground" connection.
- Completely remove the battery together with the 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 air filter together with the intake hose.
- Remove the fuse and relay box.
- Open the fuel tank cap, ventilate the tank.
- Close the tank cap again.
- Remove the front left wheel.
- Remove the left-hand wheel well trim.
- Remove the underride protection
- Remove the right-hand underbody trim.
- Remove the rear bench seat.
- Remove the tank-fitting service lid.
- Remove the fuel-tank sending unit in accordance with the manufacturers specifications.
- Only on vehicles with Climatronic, remove radio or navigation system cover.
- Only on vehicles with Climatronic, remove the A/C control panel.
- Only on vehicles with a particle filter, remove the engine cover and the charge-air hose



Heater installation location

Bumper only removed for a better illustration

1 Heater



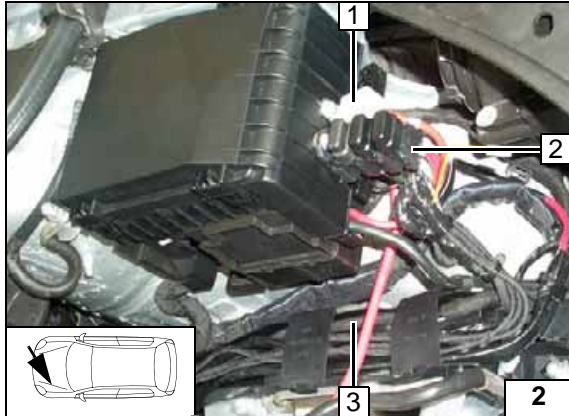
Installation location



Electrical system

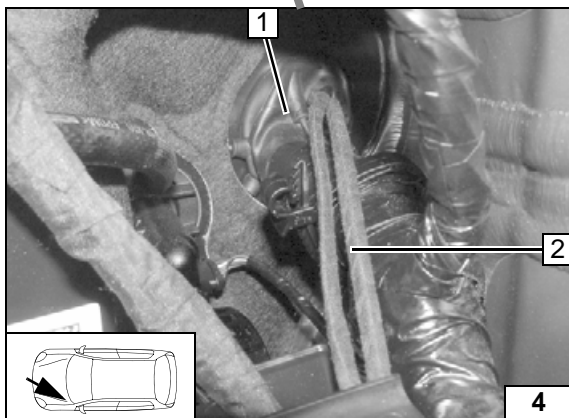
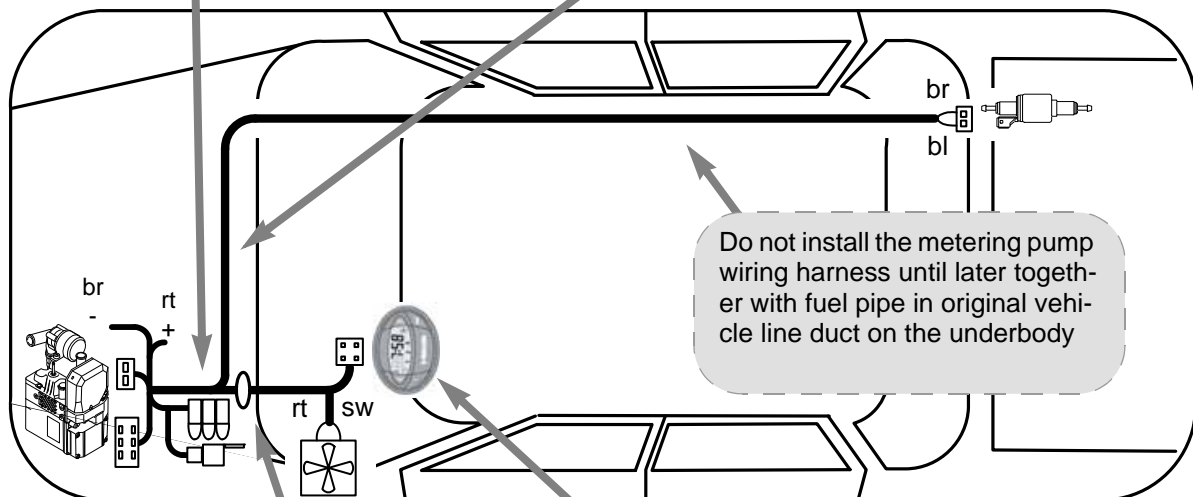
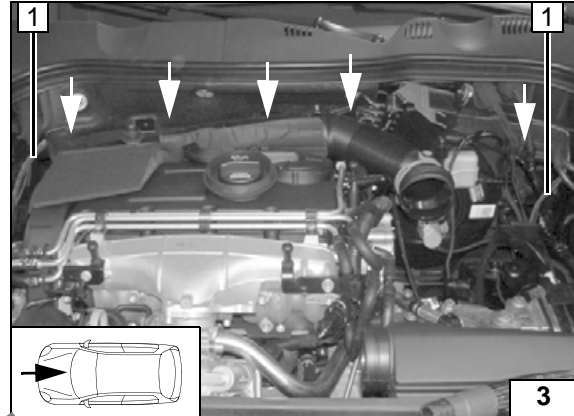
Fuse holder

- 1 K3 relay
- 2 Fuse holder
- 3 Route wiring harnesses of heater control, fan controller and metering pump with fuel line in cable duct to firewall



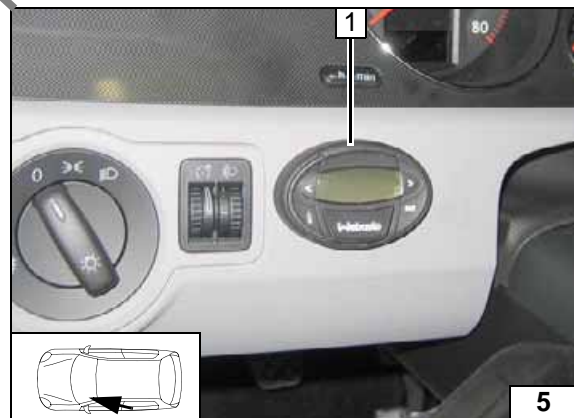
Wiring routing

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



Cable pass through

- 1 Original vehicle cable pass through
- 2 Wiring harnesses for fan controller and heater control

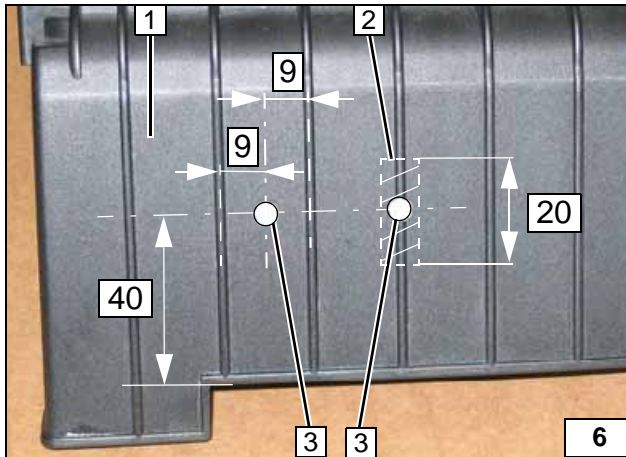


Digital timer

- 1 Digital timer



Wiring harness installation diagram



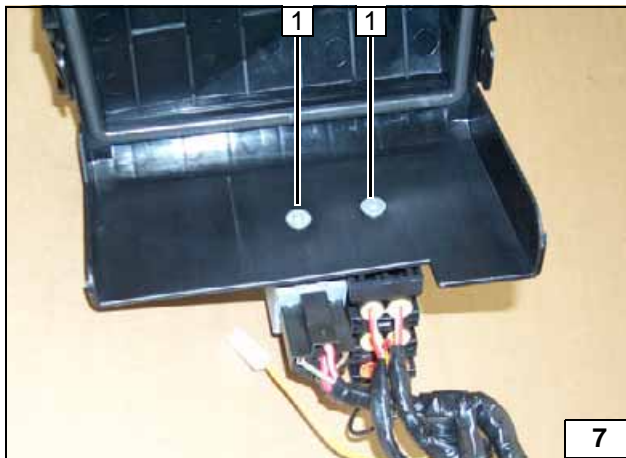
Fuse holder and relay K3

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]

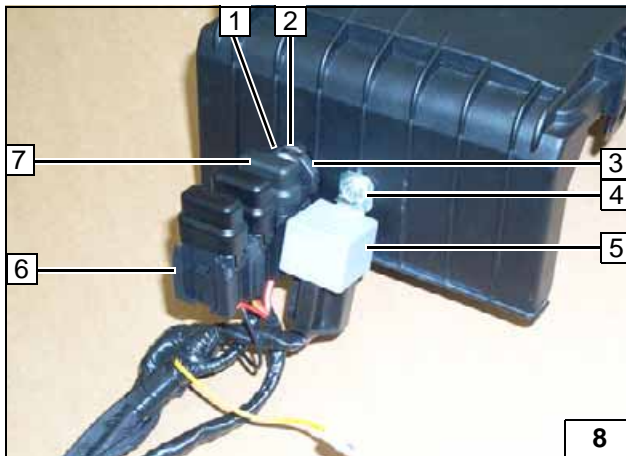


Holes in cover



- 1 M5x12 countersunk head screw [2x]

Installing fuse holder and relay K3

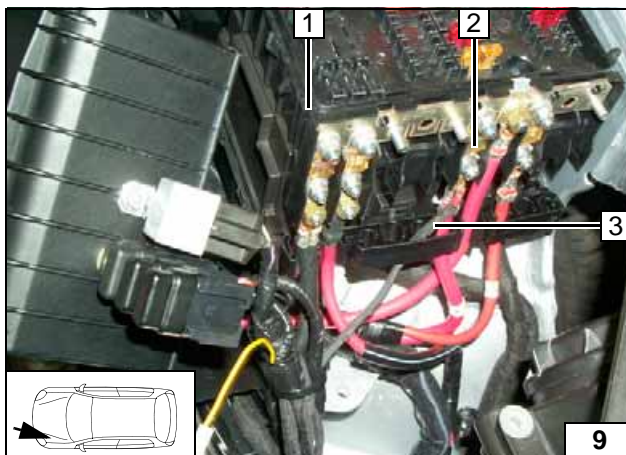


On vehicles with Climatronic, replace 25 A fuse F3 7 with 3 A fuse provided.

- 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.

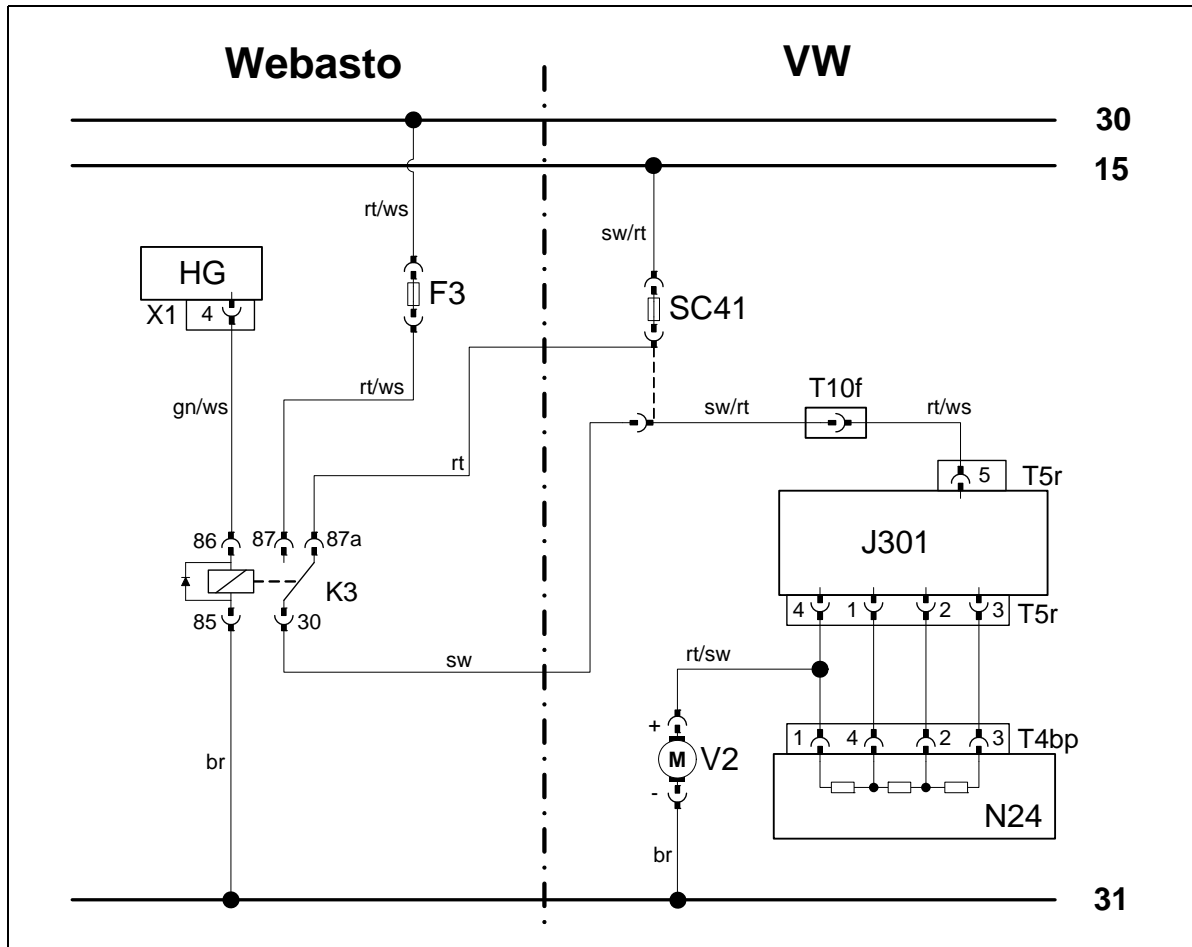
- 1 Fuse/relay carrier
- 2 Original main vehicle fuse
- 3 Red (rt) positive wire



Connecting positive and earth wire



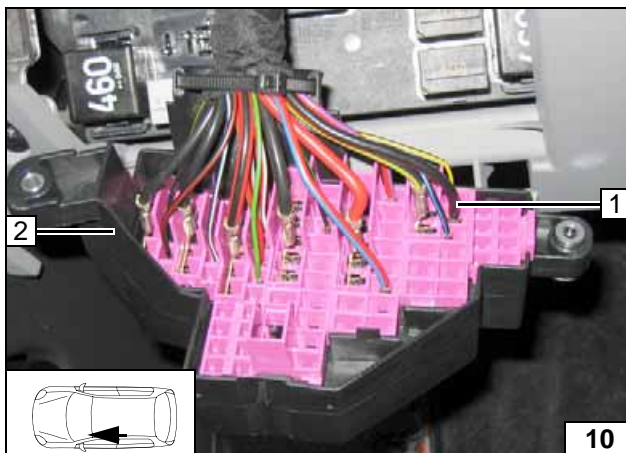
Fan controller without Climatronic



Wiring diagram without Climatronic

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E/P	SC41	40 A fan-fuse	rt	red
X1	6-pin heater connector	J301	Control unit of A/C	ws	white
F3	25 A fuse	N24	Resistor group	sw	black
K3	Fan relay	V2	Fan motor	br	brown
		T...	Connector	gn	green

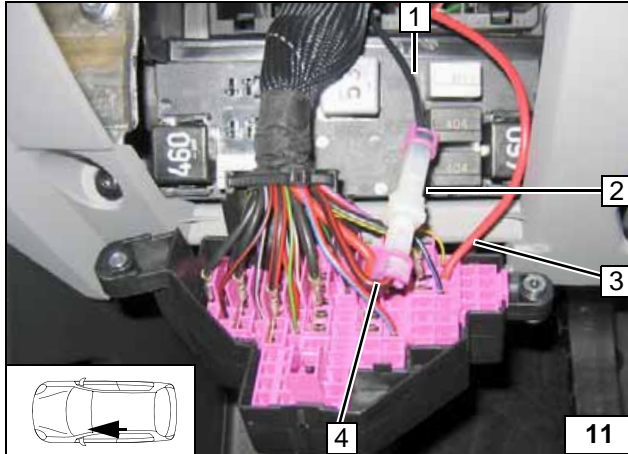
Legend



Release original vehicle fuse holder 2 (instrument panel at upper left). Uncrimp black/red (sw/rt) wire 1 on fuse output SC41.



Uncrimping wire



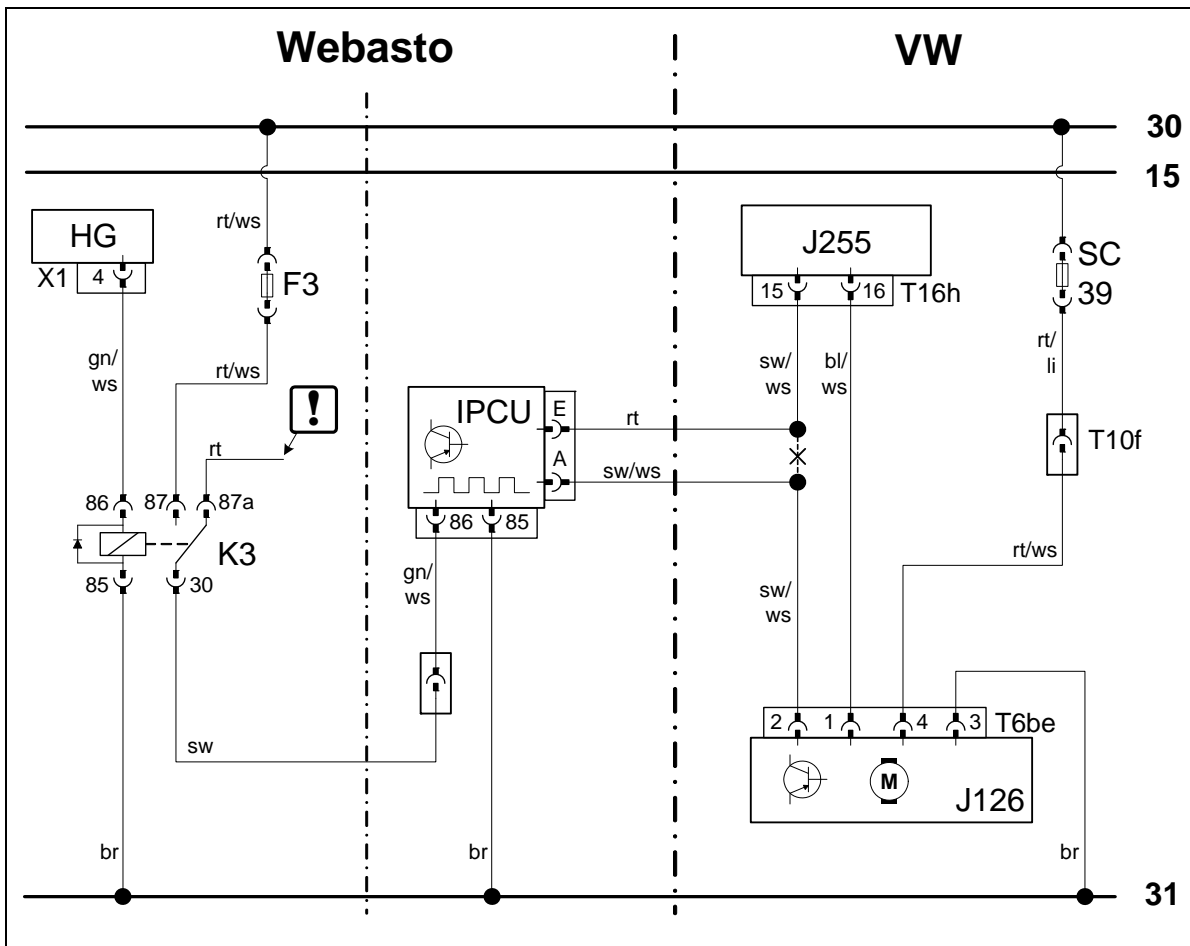
Produce connections as shown in wiring diagram.

- 1 Black (sw) wire from K3/30
- 2 AMP connector
- 3 Red (rt) wire K3/87a, standard power timer
- 4 Black/red (sw/rt) wire



Connecting wires

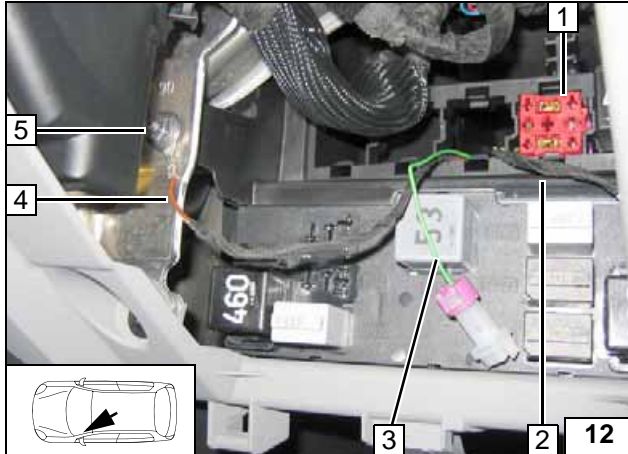
Climatronic fan controller



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

Legend

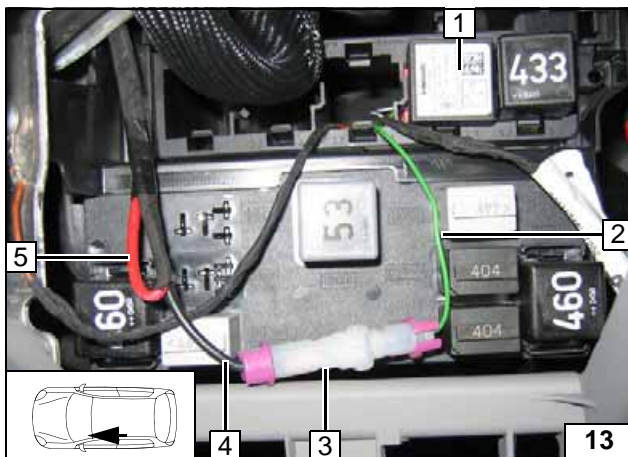


Position of free socket dependent on vehicle equipment. Install wiring harness 2 (Red and black/white (rt and sw/ws) wire IPCU) to the centre console.

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



Installing IPCU socket

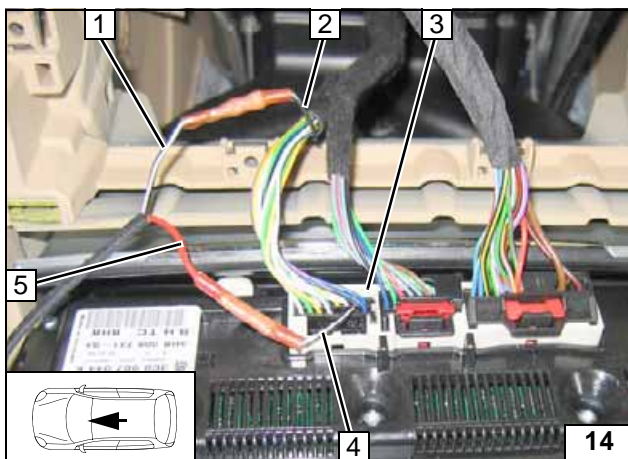


Produce connections as shown in wiring diagram. Insulate red (rt) wire K3/87a 5 and tie back.

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



Connect IPCU



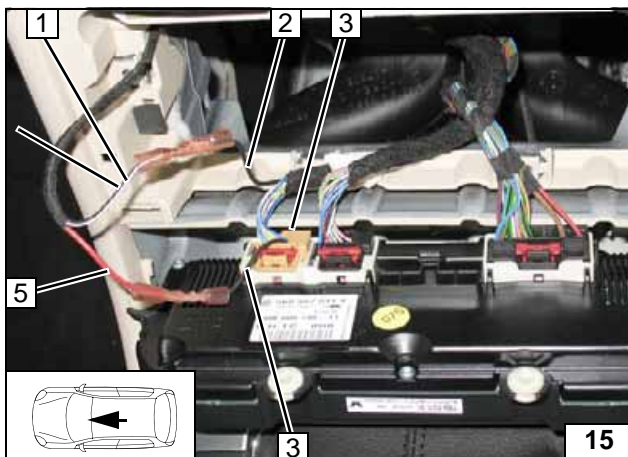
Create connection on connector T16h 3 from the A/C control panel according to the circuit diagram depending on the vehicle equipment.

Version 1:

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



Connecting A/C control panel

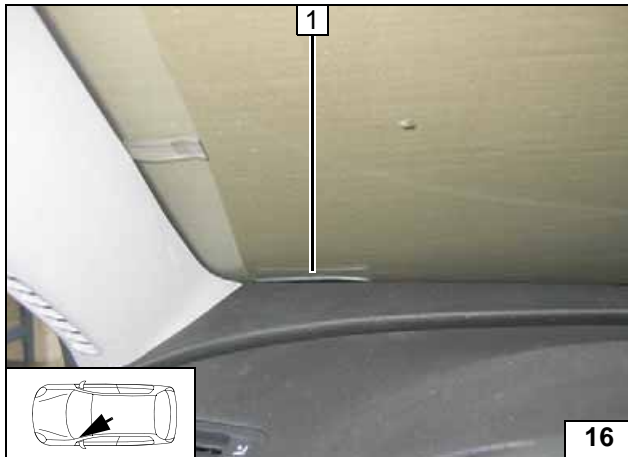


Version 2:

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



Connecting A/C control panel

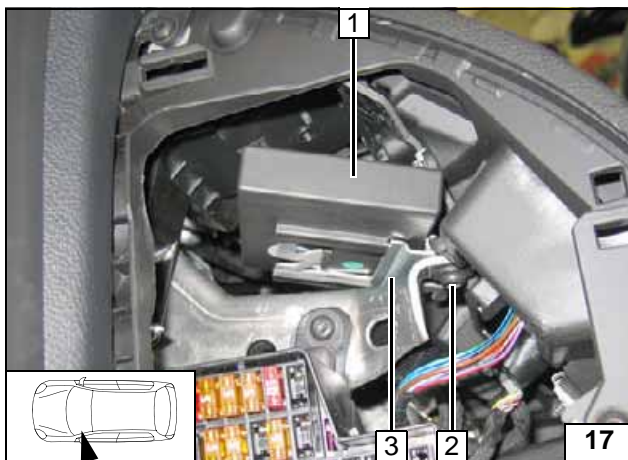


Remote option (Telestart)

1 Antenna



Installing antenna

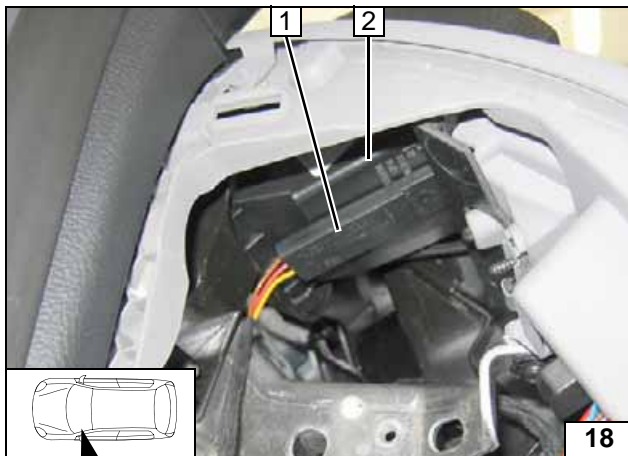


Rebend bracket **3** if necessary.

1 Receiver
2 Original vehicle bolt



Installing receiver

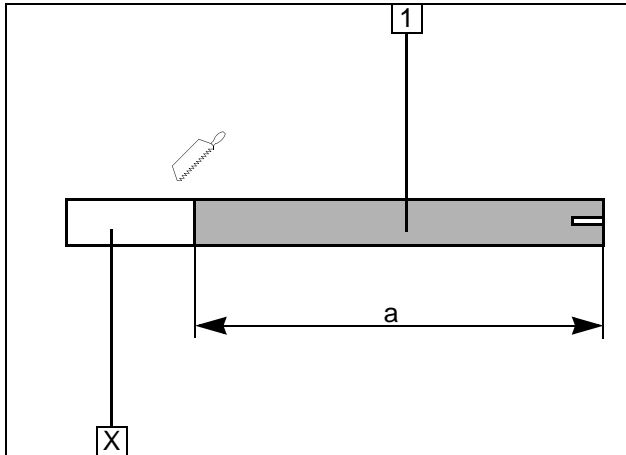
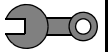


Temperature sensor T100 HTM

Fasten temperature sensor **1** with adhesive tape.



Installing temperature sensor



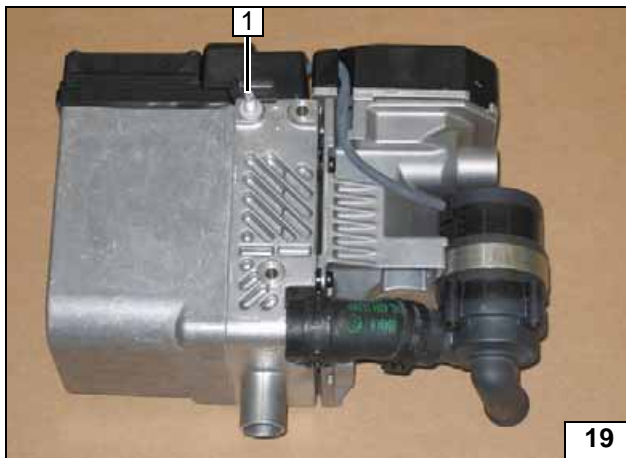
Premounting heater

Discard section X.

- 1 Combustion air pipe
a = 250

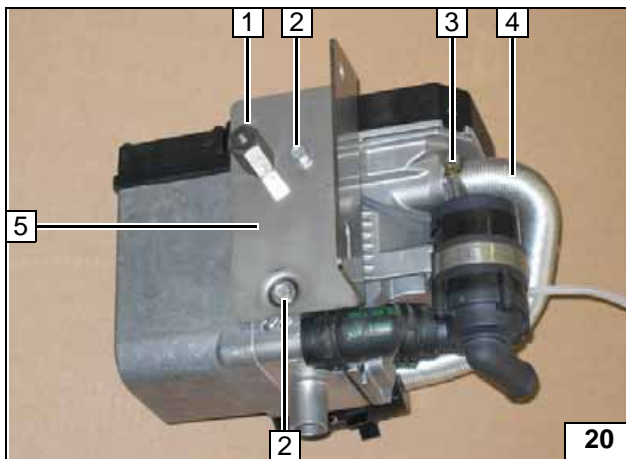


Cutting combustion air pipe to length



- 1 E-jot stud

Premounting heater

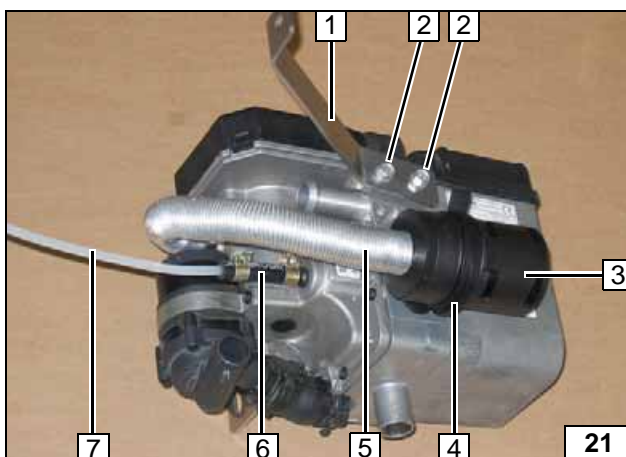


Insert one washer each between heater and bracket at positions 2.

- 1 M6x30 spacer nut
- 2 E-jot screw, washer [2x each]
- 3 27 mm dia. clamp
- 4 Combustion air pipe
- 5 Bracket

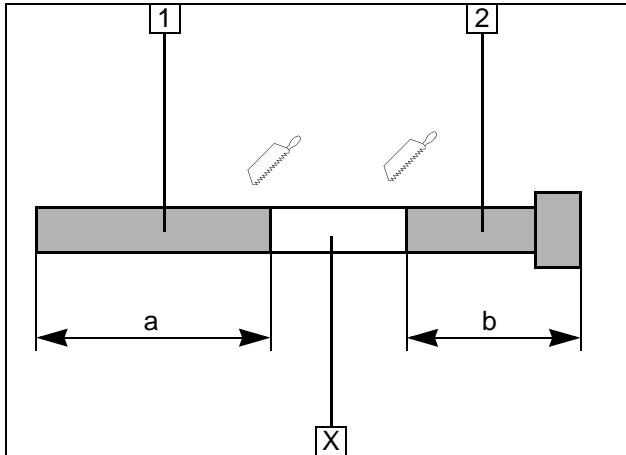
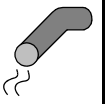


Premounting heater



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

Premounting heater



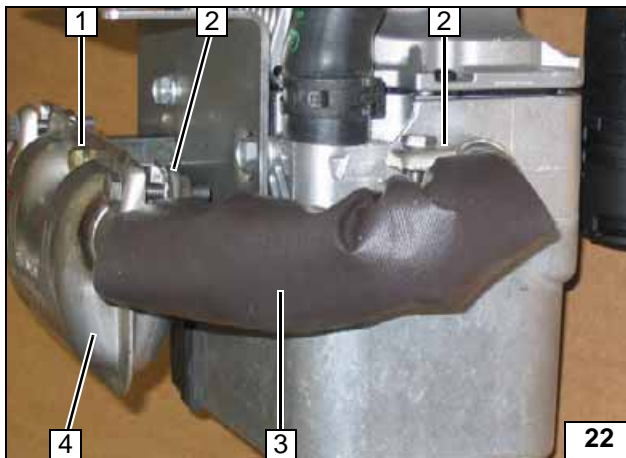
Premounting exhaust system

Discard section X.

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



Preparing exhaust pipe

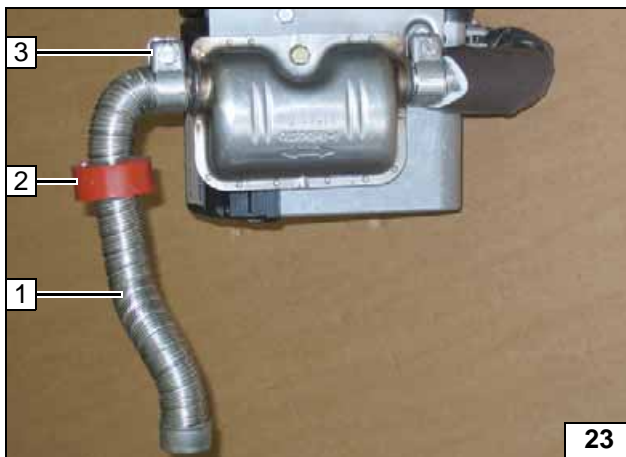


Slide insulation 3 onto exhaust pipe.

- 1 M6x16 bolt, spring lockwasher
- 2 Hose clamp [2x]
- 4 Silencer

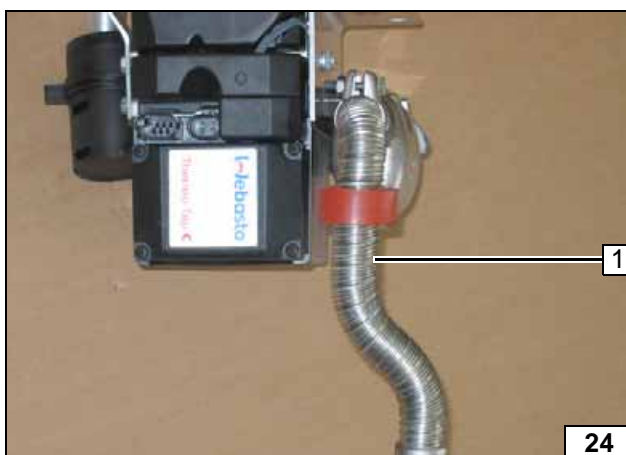


Installing exhaust pipe



- 1 Exhaust end section
- 2 Slide on red rubber isolator
- 3 Hose clamp

Installing exhaust end section



- 1 Exhaust end section

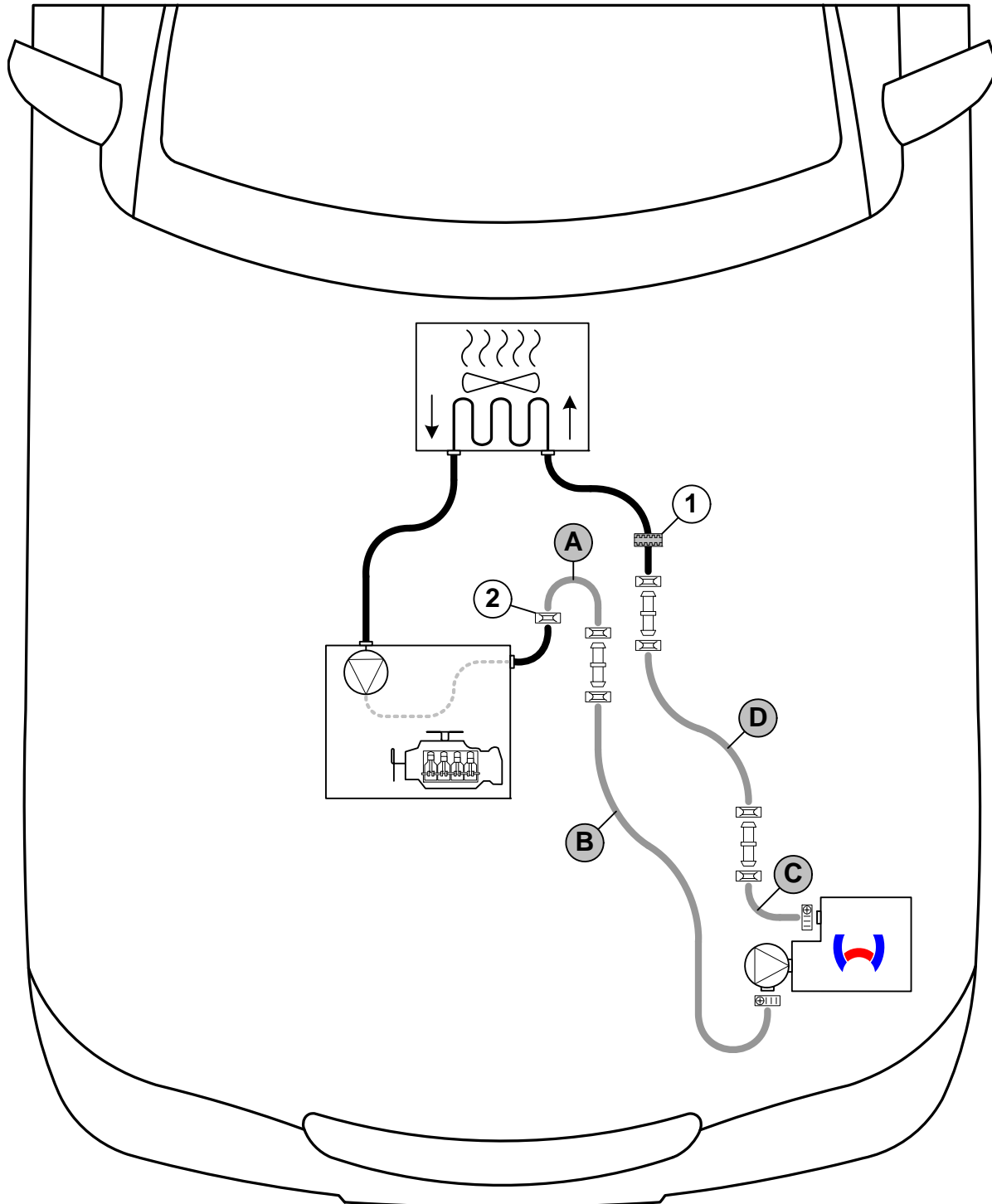
Aligning exhaust end section








Preparing coolant without DPF

WARNING!

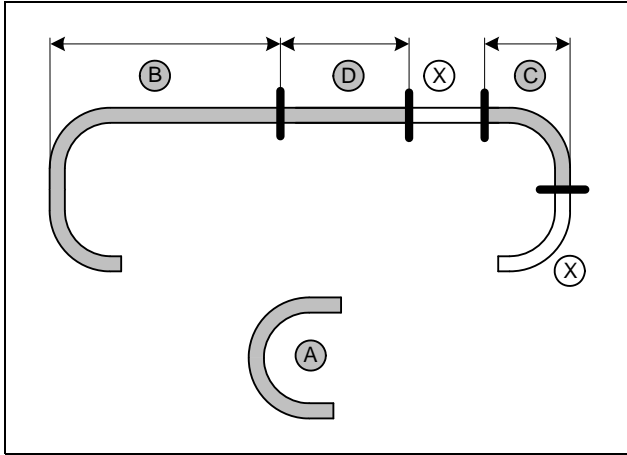
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant! The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



Hose installation diagram

All spring clips  = 27 mm dia.. **2** = Original vehicle spring clip  .
 All connecting pipes  = dia. 20x20. All hose clamps  = 20-27 mm dia.!
1 = Black (sw) rubber isolator  .



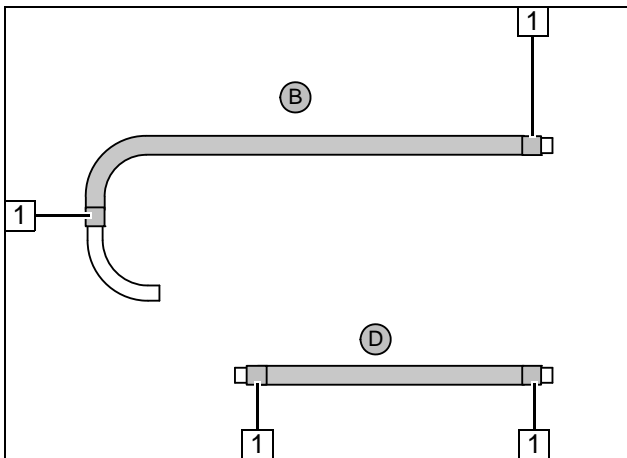


Hose **A** = 180° moulded hose
Discard section **X**.

- B** = 620
- C** = 100
- D** = 580



Cutting hoses to length

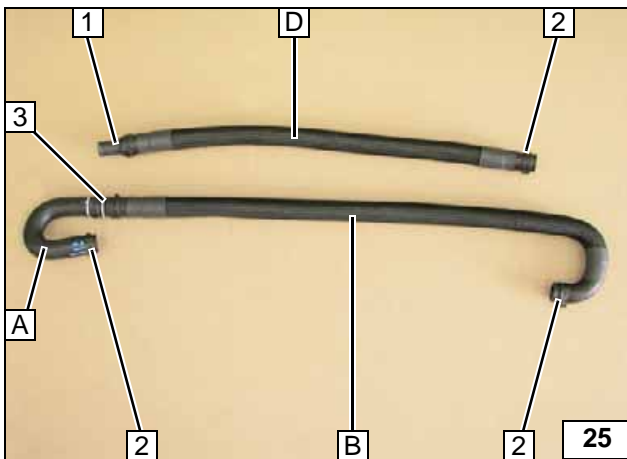


Push braided protection hoses onto hose **B** and **D** and cut to length.
Cut heat shrink plastic tubing to length.

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



Preparing hoses

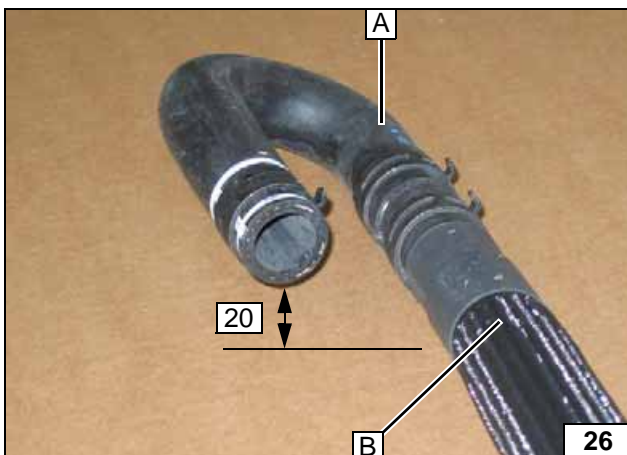


Ensure positioning of hose **A** and **B** as shown in following figure.

- 1** 20x20 connecting pipe, 27 mm dia. spring clip
- 2** Slide on 27 mm dia. spring clip [3x]
- 3** 20x20 mm connecting pipe, 27 mm dia. spring clip [2x]



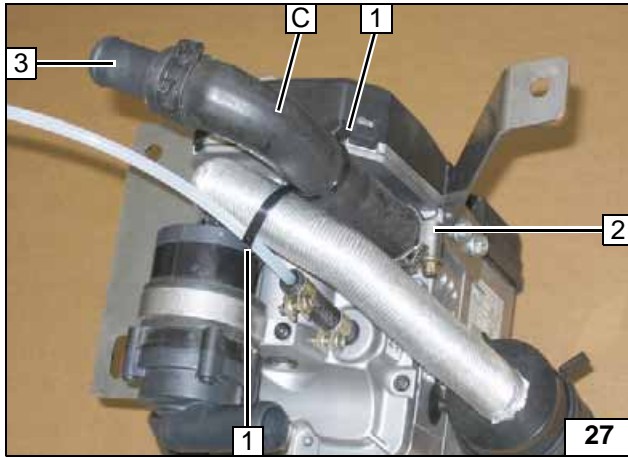
Premounting hoses



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

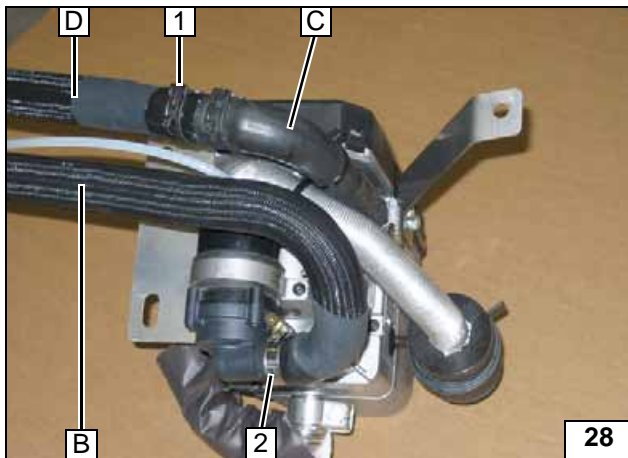


Premounting hoses



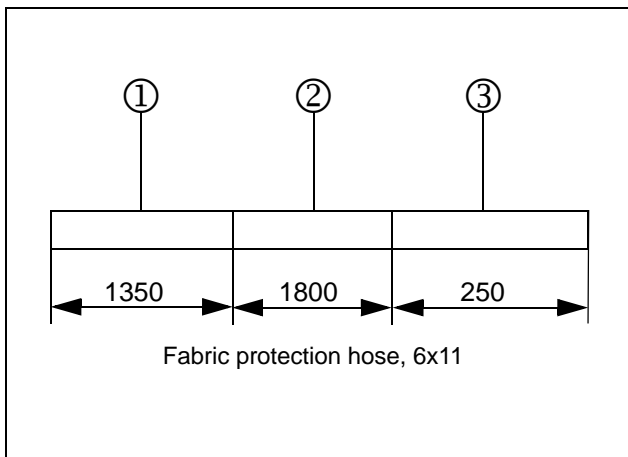
- 1 Cable tie [2x]
- 2 27 mm dia. hose clamp
- 3 20x20 connecting pipe, 27 mm dia. spring clip

Installing hose C



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

Installing hoses



Push protective hose ② onto fuel line. Sections ① and ③ will be used later.



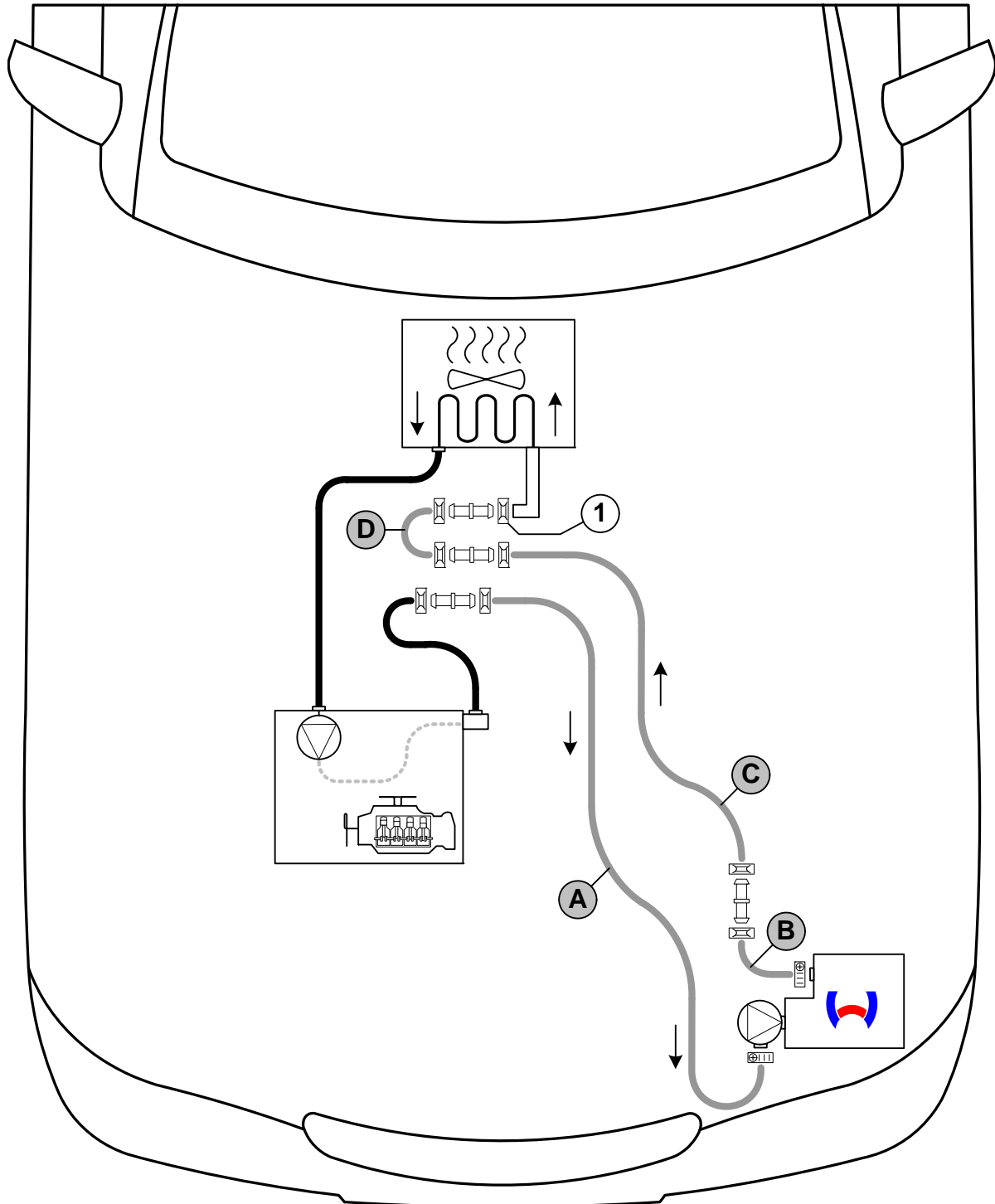
Cutting protective hose to length







Prepare coolant circuit with DPF up to MY 2010

WARNING!

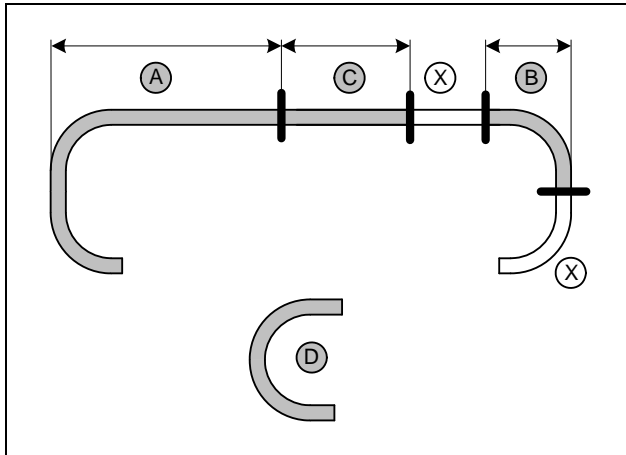
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant! The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



Hose installation diagram

All spring clips  = 27 mm dia.. 1 = Original vehicle spring clip  .
 All connecting pipes  = dia. 20x20.
 All hose clamps  = 20-27 mm dia.





Diesel PD

Hose D = 180° moulded hose
Discard section X.

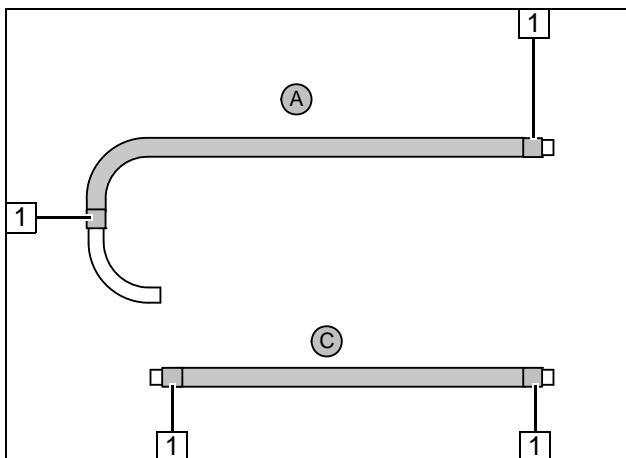
- A = 1000
- B = 100
- C = 880

Diesel CR

- A = 920
- B = 100
- C = 910



Cutting hoses to length

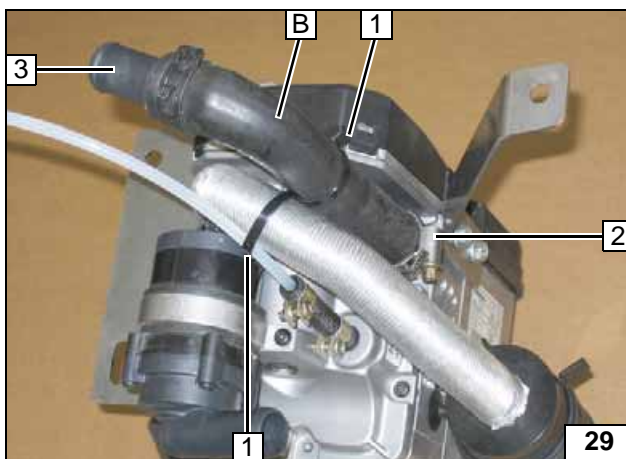


Push braided protection hoses onto hose A and C and cut to length.
Cut heat shrink plastic tubing to length.

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

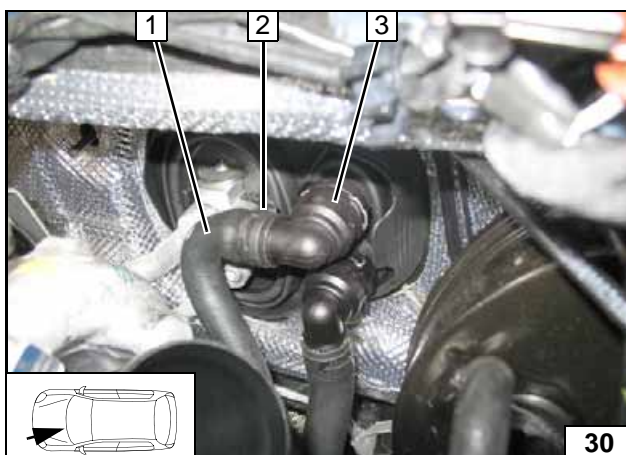


Preparing hoses



- 1 Cable tie [2x]
- 2 27 mm dia. hose clamp
- 3 20x20 connecting pipe, 27 mm dia. spring clip

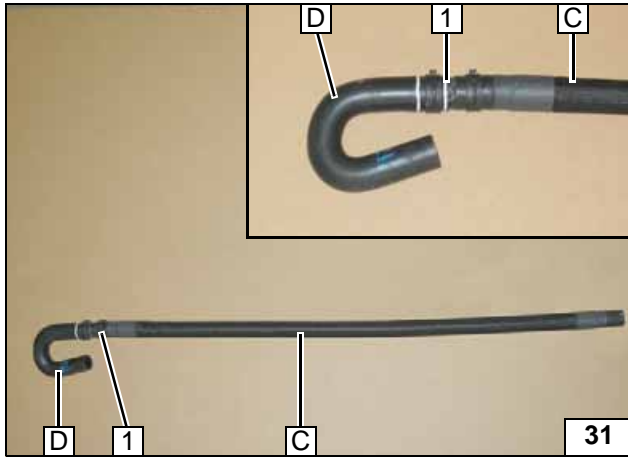
Installing hose C



Remove hose on engine outlet 1 and spring clip 2 from coupling of heat exchanger inlet 3.
Remove coupling of heat exchanger inlet 3.

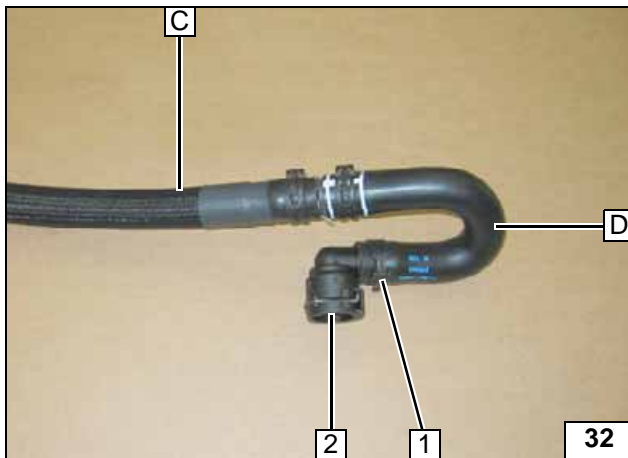


Removing coupling piece



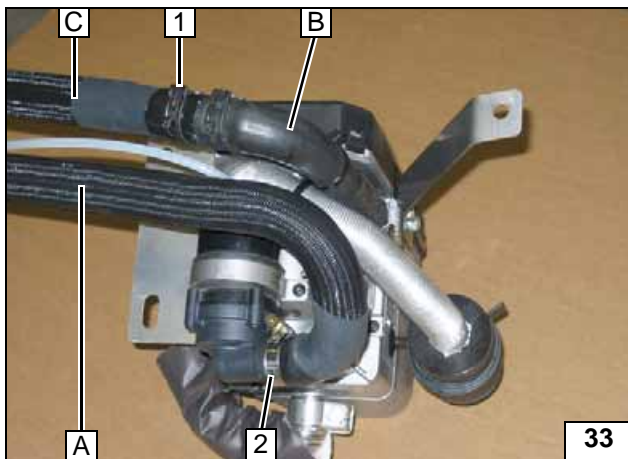
1 20x20 mm connecting pipe, 27 mm dia. spring clip [2x]

Preparing hose C and D



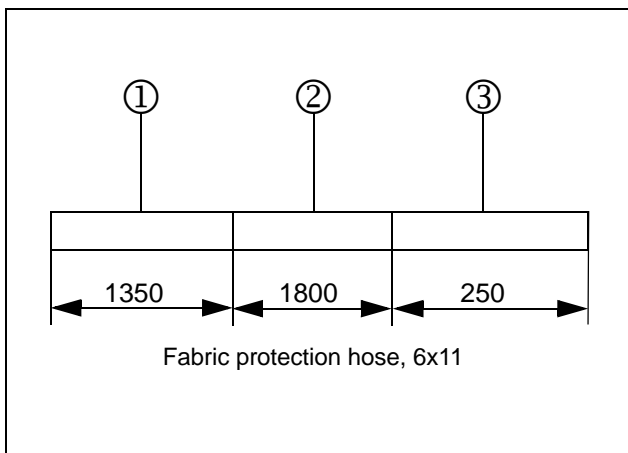
1 Original vehicle spring clip
2 Coupling of heat exchanger inlet

Premounting hose C and D



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

Installing hoses



Push protective hose ② onto fuel line. Sections ① and ③ will be used later.



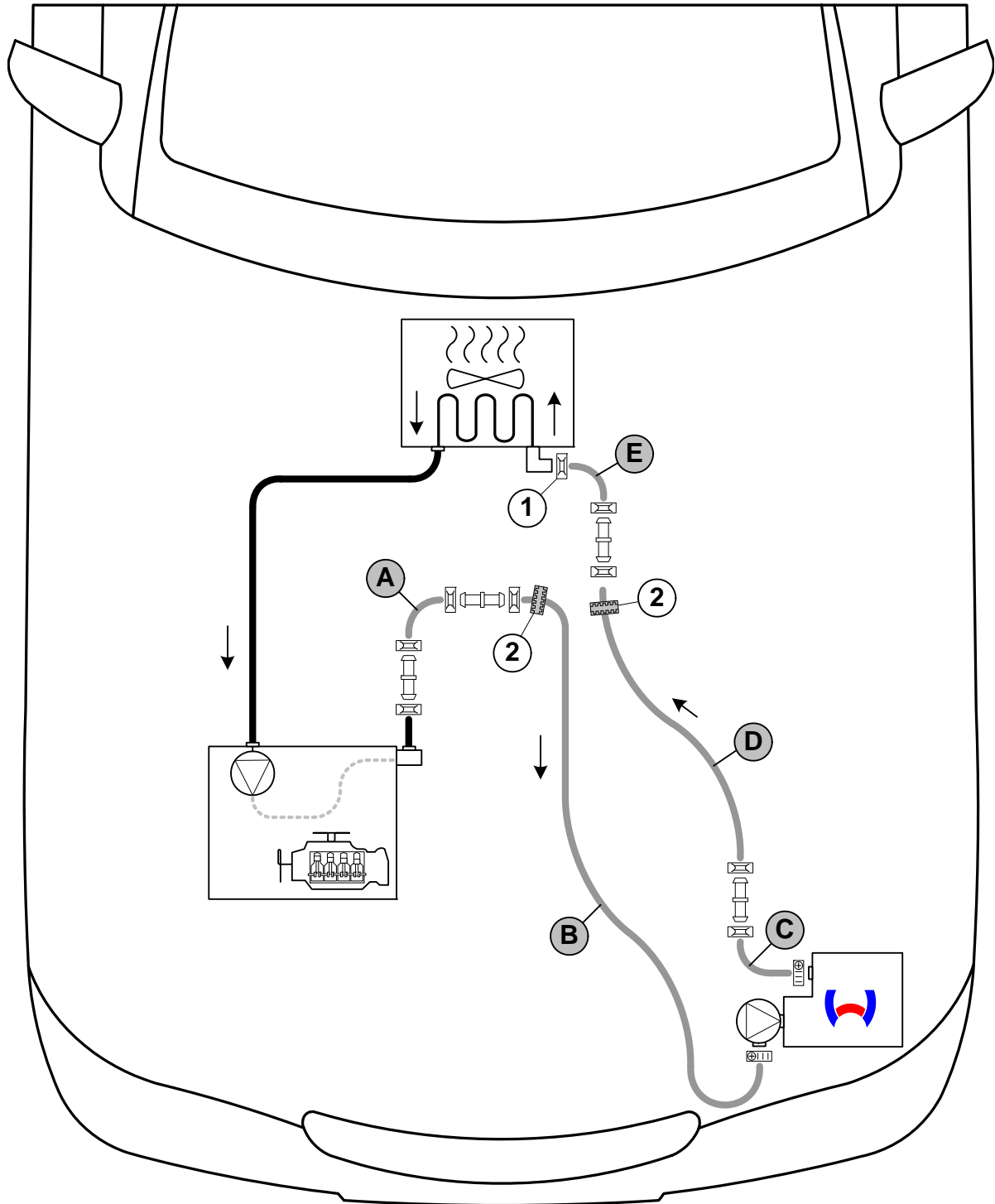
Cutting protective hose to length








Prepare coolant circuit with DPF from MY 2011

WARNING!

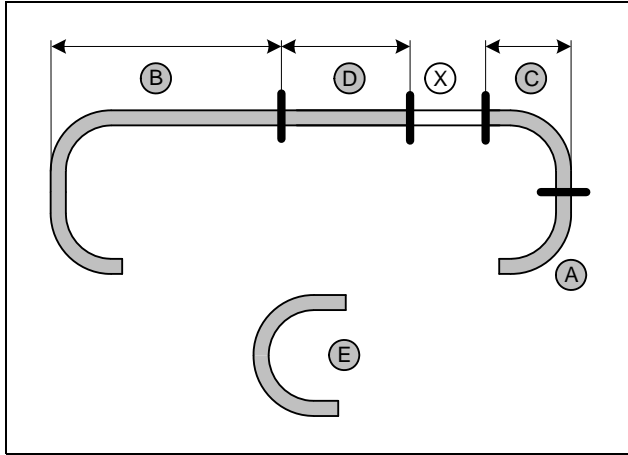
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free! Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant! The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



Hose installation diagram

All spring clips  = 27 mm dia.. 1 = Original vehicle spring clip  .
 All connecting pipes  = dia. 20x20. All hose clamps  = 20-27 mm dia.!
 1 = Black (sw) rubber isolator  [2x]!





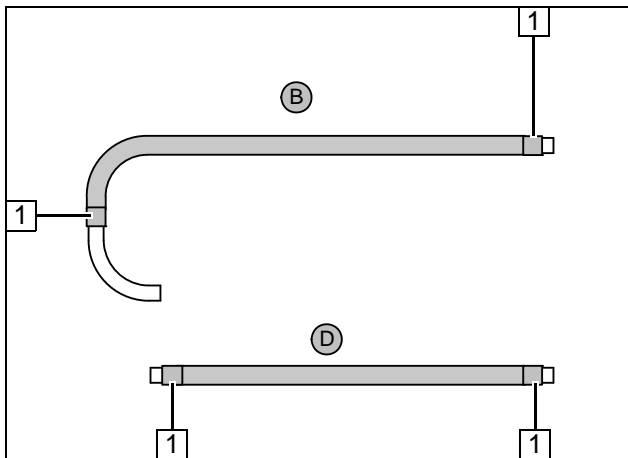
Diesel CR

Hose E = 20 mm dia. moulded hose 180°
Discard section X.

- B = 920
- C = 100
- D = 880



Cutting hoses to length

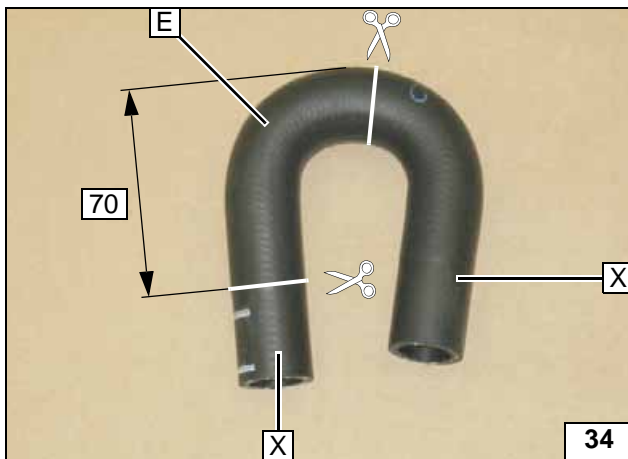


Push braided protection hoses onto hose B and D and cut to length.
Cut heat shrink plastic tubing to length.

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

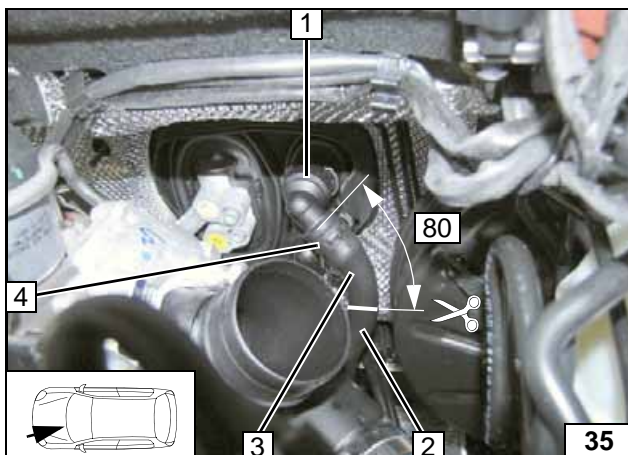


Preparing hoses



Discard sections X.

Prepare hose E

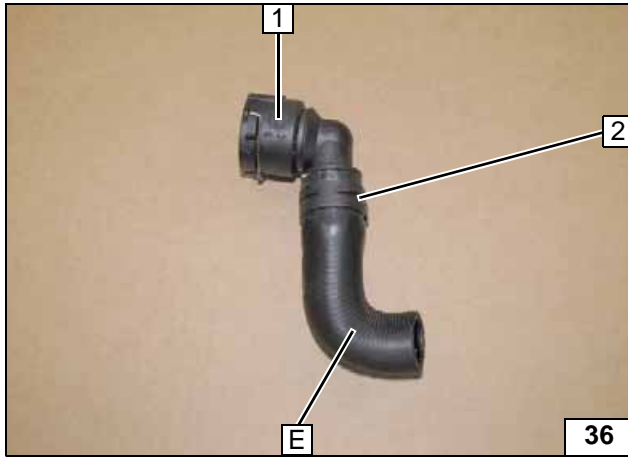


Cut off hose on engine outlet/heat exchanger inlet at marking.

- 1 Remove coupling from heat exchanger inlet.
- 2 Engine outlet hose section
- 3 Remove hose section and discard
- 4 Original vehicle spring clip

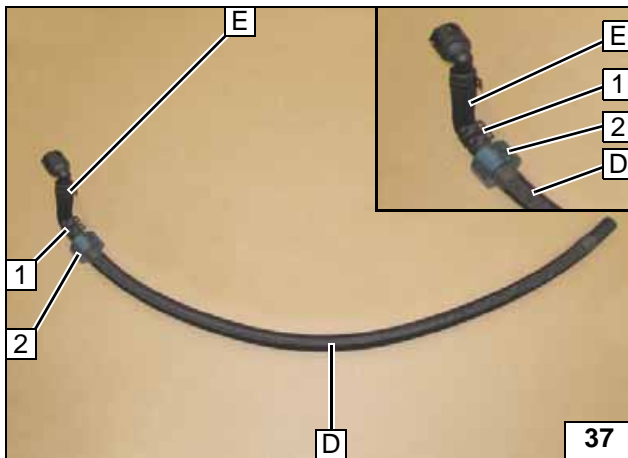


Removing coupling piece



- 1 Coupling of heat exchanger inlet
- 2 Original vehicle spring clip

Pre-mount hose E

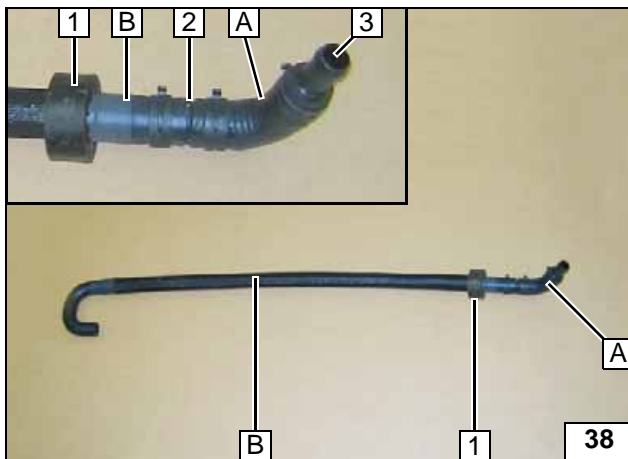


Before installing, push black (sw) rubber isolator 2 onto hose D.



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

Pre-mount hose D and E

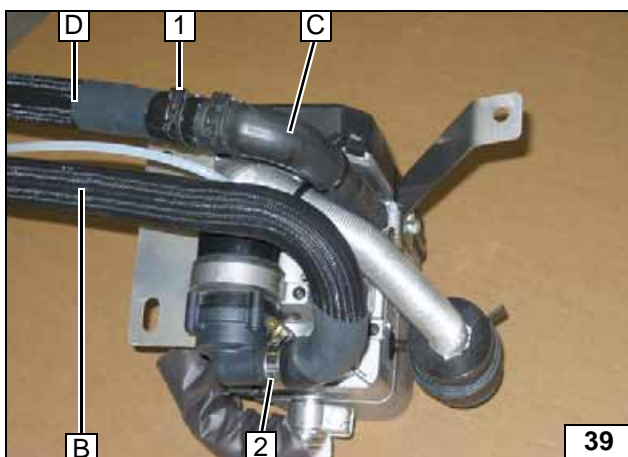


Before installing, push black (sw) rubber isolator 1 onto hose B.



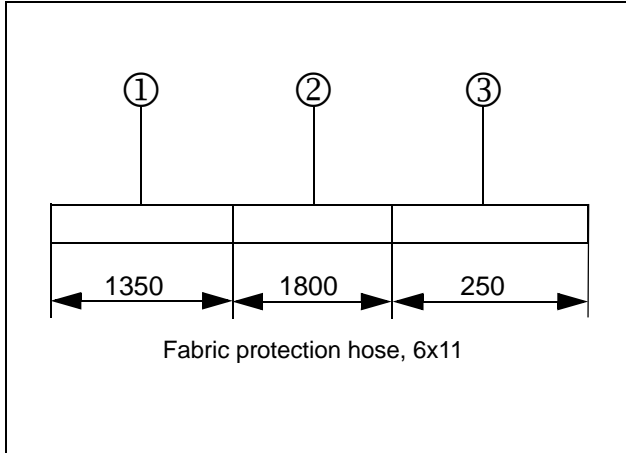
- 2 20x20 mm connecting pipe, 27 mm dia. spring clip [2x]
- 3 20x20 mm connecting pipe, 27 mm dia. spring clip

Preinstalling hoses A and B



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

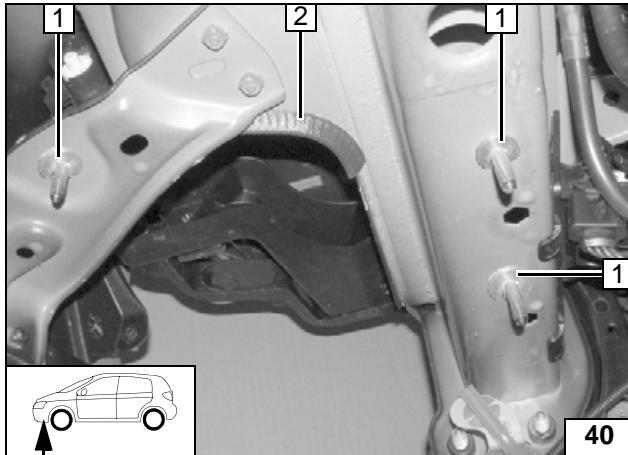
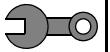
Installing hoses



Push protective hose ② onto fuel line. Sections ① and ③ will be used later.



Cutting protective hose to length



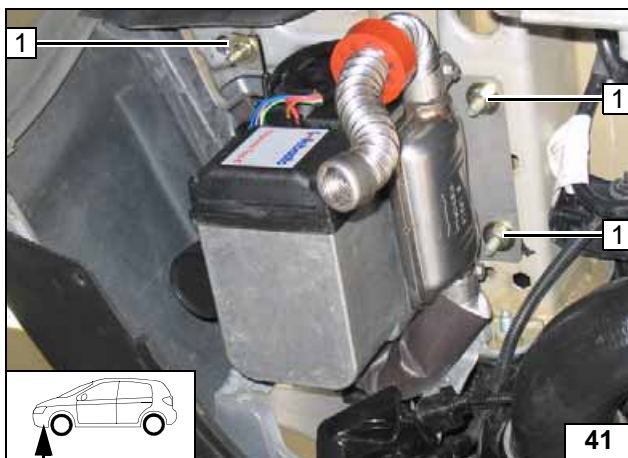
Preparing installation location



Secure large diameter washer against falling with putty etc.

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

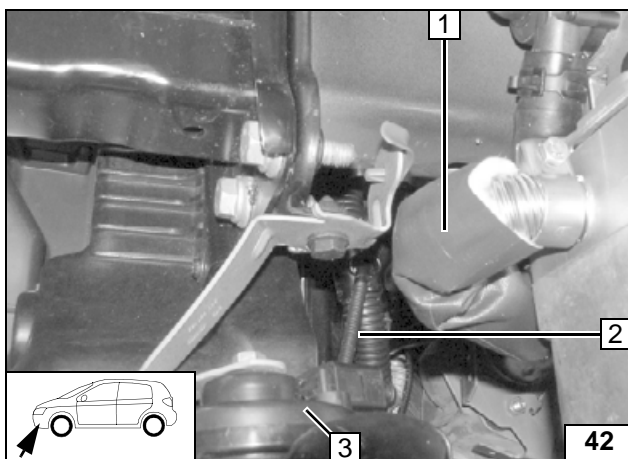
Preparing installation location



Installing heater

Installing heater

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

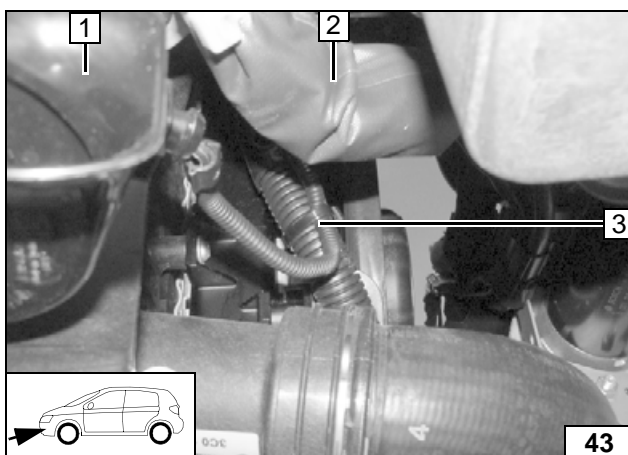


Ensure freedom of movement of exhaust system relative to adjacent components and lines.



- 1 Exhaust pipe with insulation
- 2 Original vehicle wiring harnesses
- 3 Horn

Aligning exhaust system

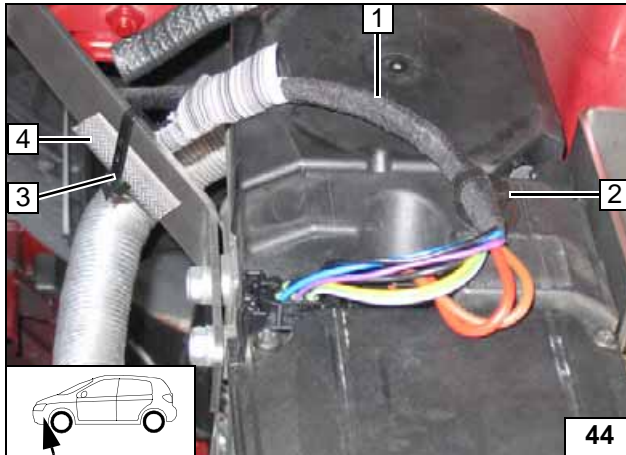
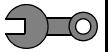


Ensure freedom of movement of exhaust system relative to adjacent components and lines.



- 1 Horn
- 2 Exhaust pipe with insulation
- 3 Original vehicle wiring harnesses (secured with cable tie)

Aligning exhaust system

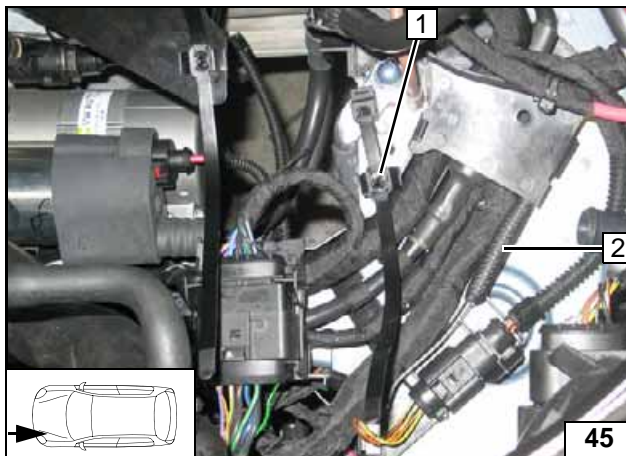


Punch through perforation of heater lid at position 2. Mount clip cable tie 2 and fasten wiring harness of heater 1.

- 3 Cable tie
- 4 50 mm edge protection



Connecting wiring harness

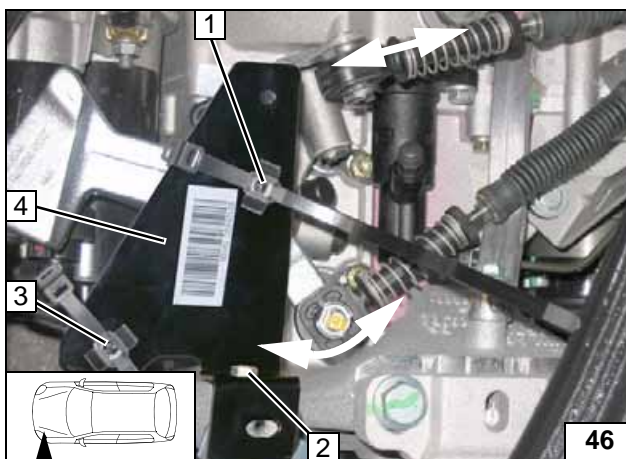


6 mm hole on position 1. When drilling, watch lines located behind. Install clip-type cable ties 1. On vehicles with Diesel PD, lock of clip-type cable tie 1 faces in driving direction!

- 2 50 mm edge protection



Installing clip-type cable tie



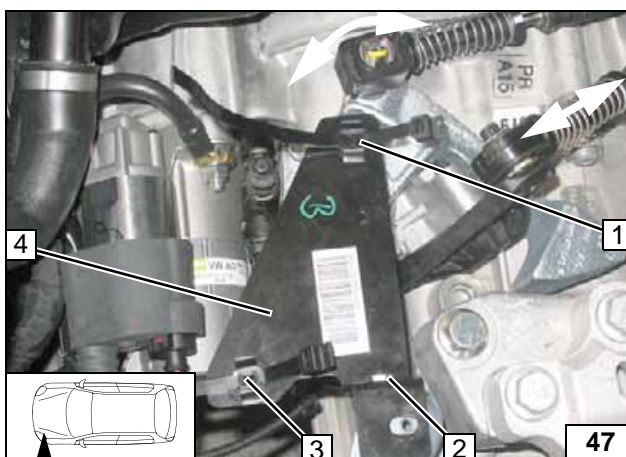
5-speed manual transmission

Insert clip-type cable tie 1, 3 according to figure. Locks of clip-type cable ties 1, 3 face toward front.

- 2 Original vehicle hole, M6x20 bolt, flanged nut, original vehicle hole
- 4 Hose bracket



Install hose bracket



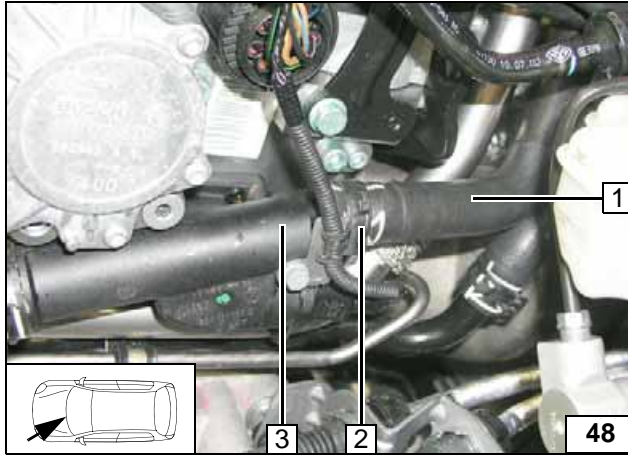
6-speed manual transmission

Insert clip-type cable tie 1, 3 according to figure. Locks of clip-type cable ties 1, 3 face toward front.

- 2 Original vehicle hole, M6x20 bolt, flanged nut, original vehicle hole
- 4 Hose bracket



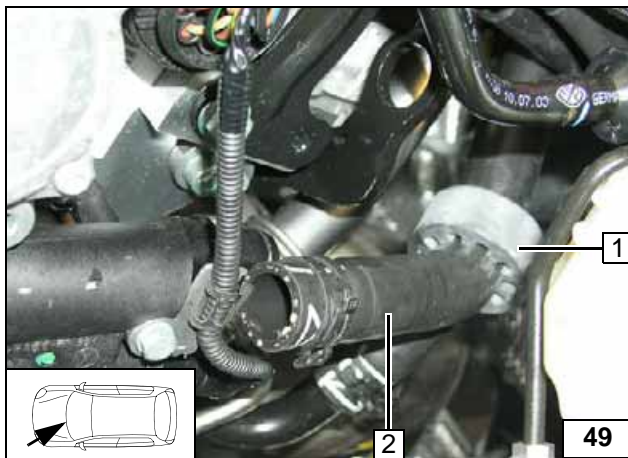
Install hose bracket



Preparing coolant circuit without DPF

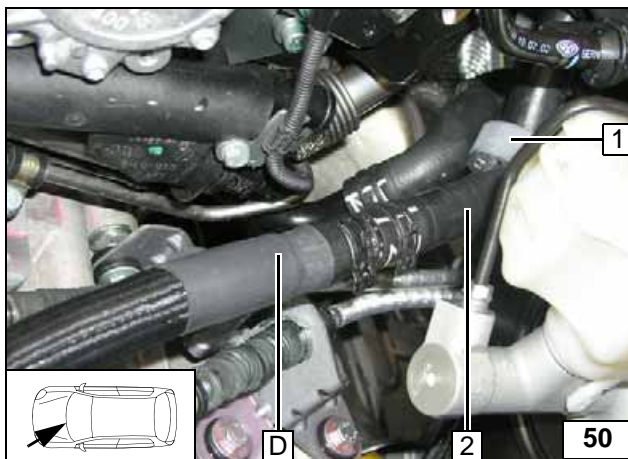
Pull off hose on engine 1 to heat exchanger inlet on connection piece of engine outlet 3. Spring clip 2 will be reused.

Cutting point



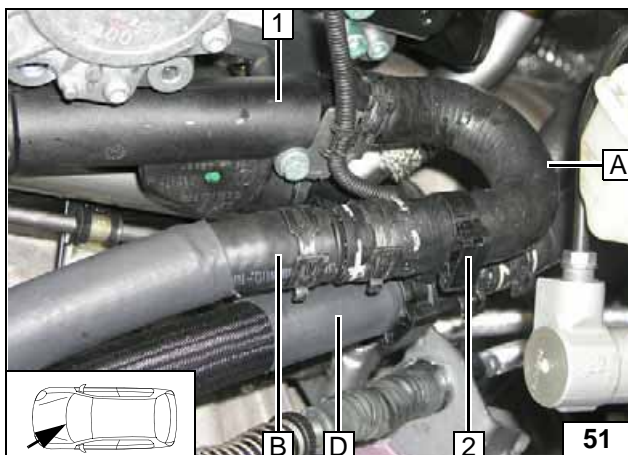
- 1 Black (sw) rubber isolator
- 2 Hose on heat exchanger inlet

Push on rubber isolator



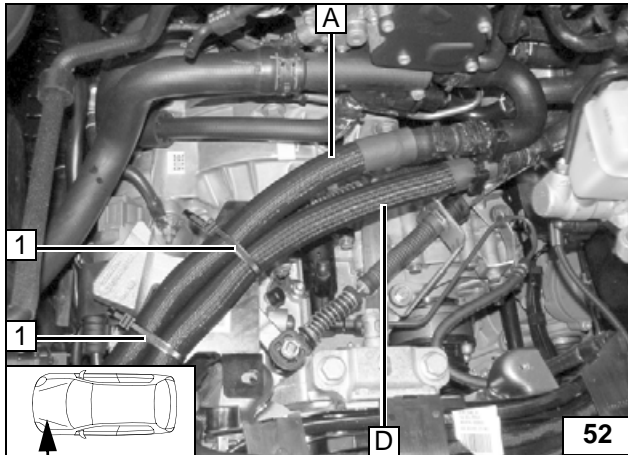
- 1 Align black (sw) rubber isolator
- 2 Hose on heat exchanger inlet

Connecting heat exchanger inlet



- 1 Engine-outlet connecting piece
- 2 Double clip 27x27 on hose A and D

Connecting engine outlet

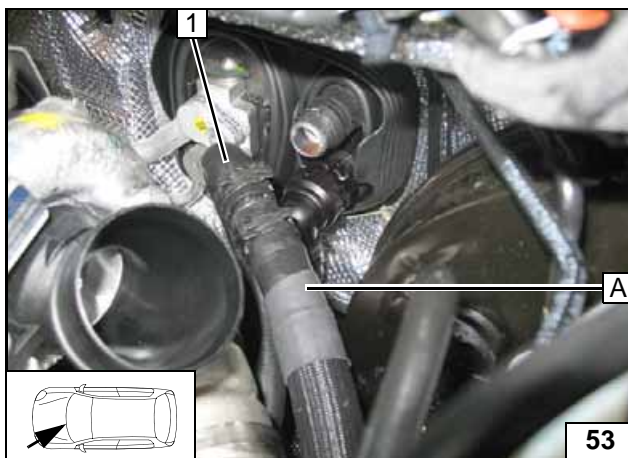


Ensure freedom of movement of shifting actuation. Bend bracket somewhat upward if necessary.

- 1 Close clip-type cable tie [2x]



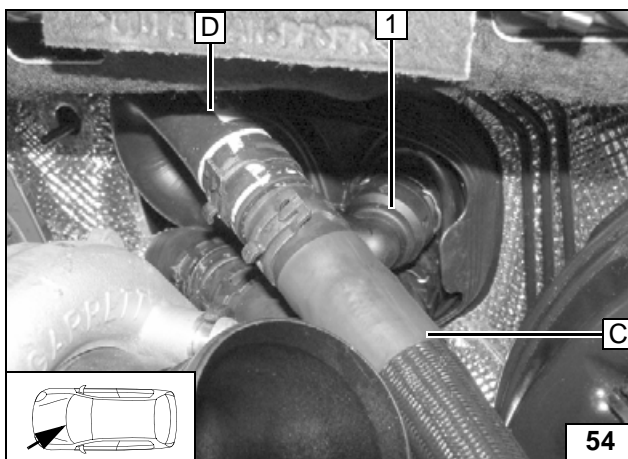
Routing in engine compartment



Coolant circuit PD with DPF

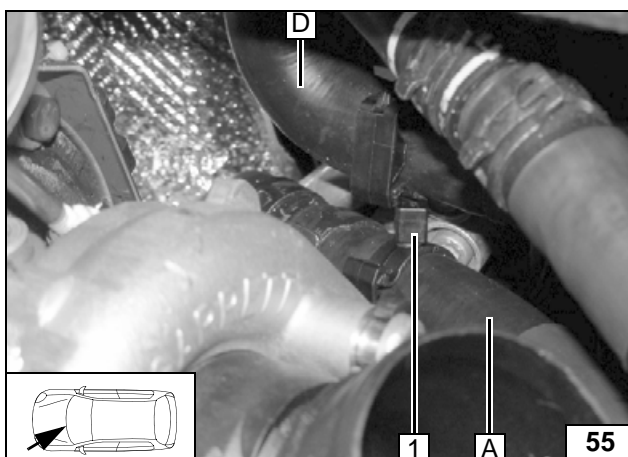
- 1 Hose of engine outlet

Connecting engine outlet



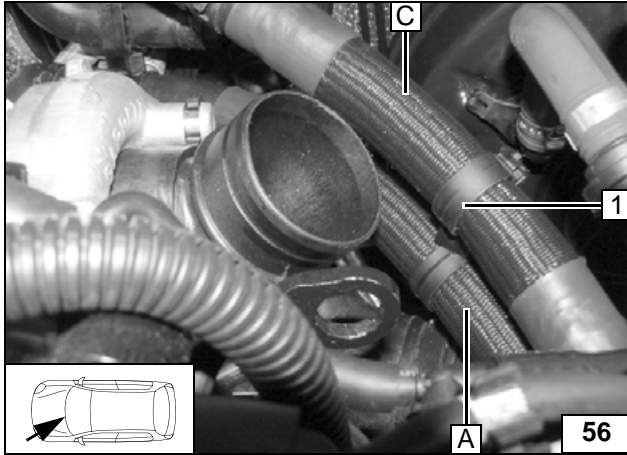
- 1 Coupling of heat exchanger inlet

Connecting heat exchanger inlet



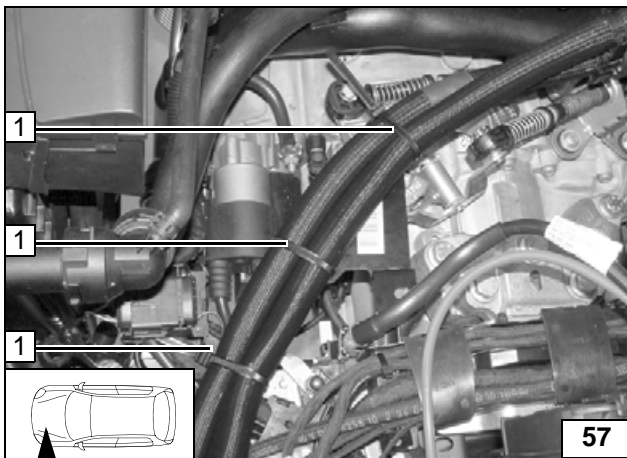
- 1 Hose clip 27x27 on hose A and D

Mounting hose bracket



1 Hose bracket 27x27 on hose A and C

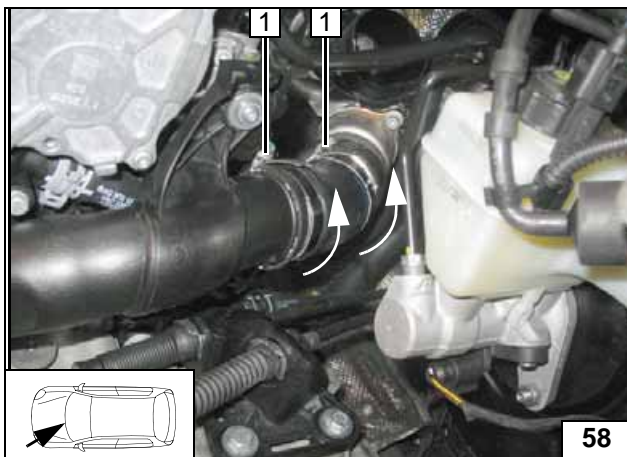
Mounting hose bracket



Ensure freedom of movement of shifting actuation. Bend bracket somewhat upward if necessary.

1 Close clip-type cable tie [3x].

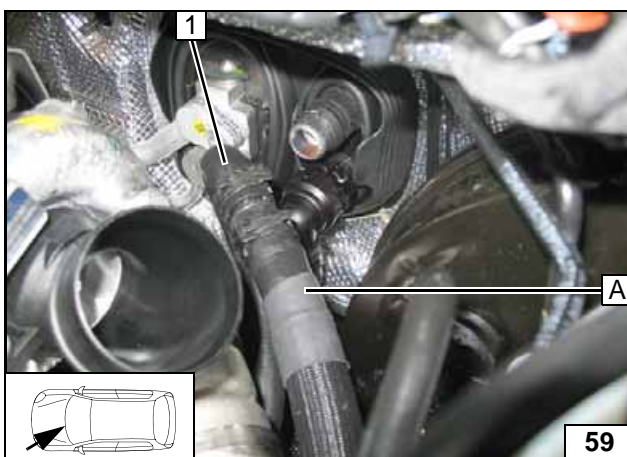
Routing in engine compartment



CR coolant circuit with DPF up to MY 2010

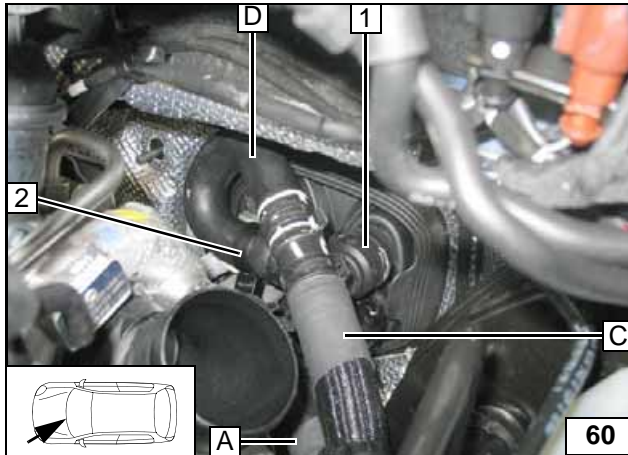
Turn clamp locks 1 [2x] as shown in the figure.

Preparing routing



1 Hose of engine outlet

Connecting engine outlet



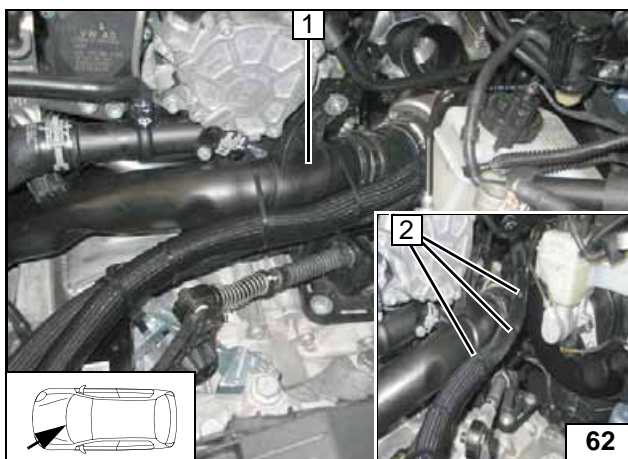
- 1 Coupling of heat exchanger inlet
- 2 Hose clip 27x27 on hose A and D

Connecting heat exchanger inlet



- 1 Hose bracket 27x27 on hose A and C

Routing in engine compartment



Secure coolant hoses on intake pipe 1 with cable tie 2.



Routing in engine compartment

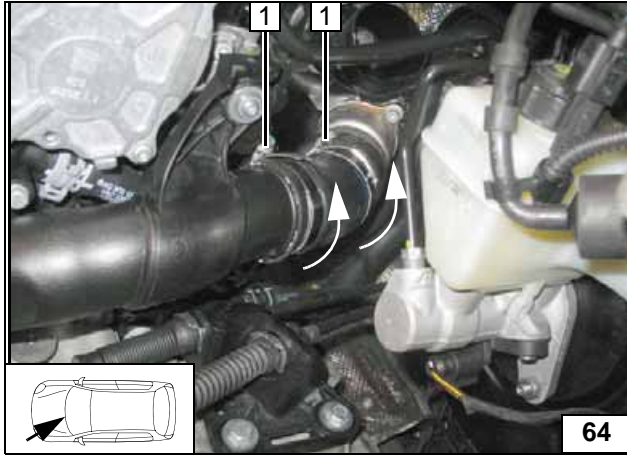


Ensure freedom of movement of shifting actuation. Bend bracket somewhat upward if necessary.



Routing in engine compartment

- 1 Close clip-type cable tie [3x].

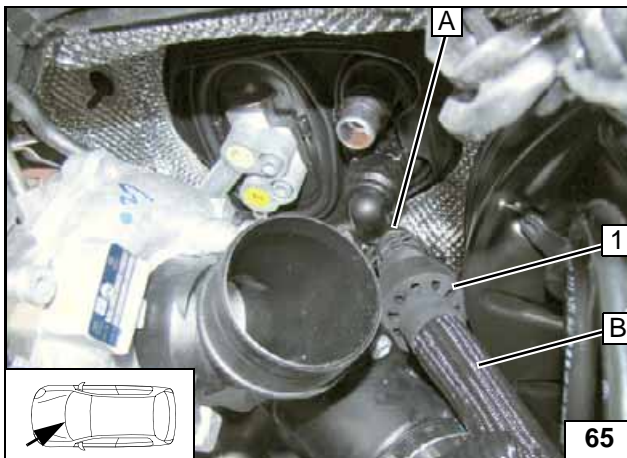


CR coolant circuit with DPF from MY 2011

Turn clamp locks 1 [2x] as shown in the figure.

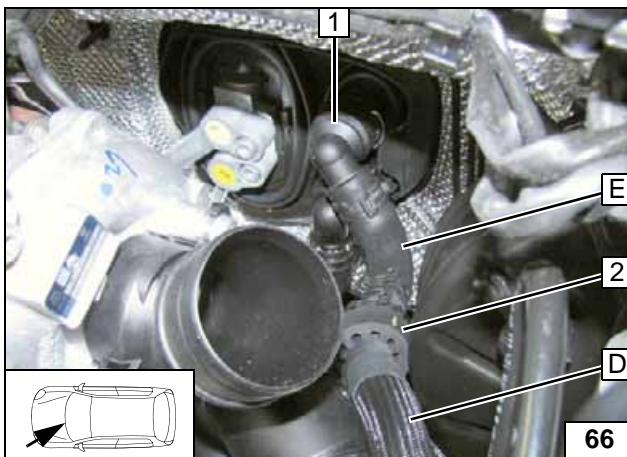


Preparing routing



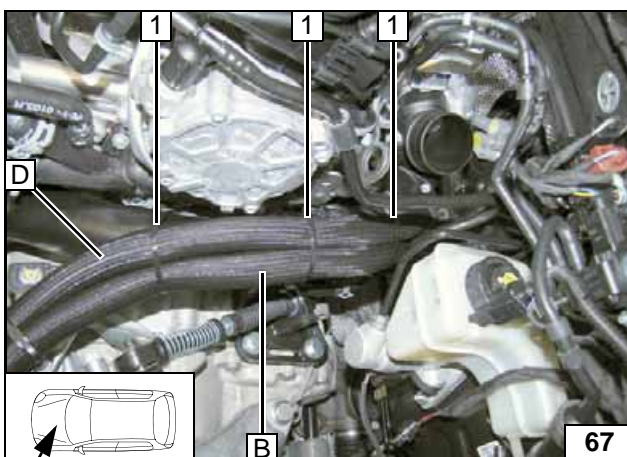
1 Align black [sw] rubber isolator downward

Connecting engine outlet



1 Coupling of heat exchanger inlet
2 Position black (sw) rubber isolator

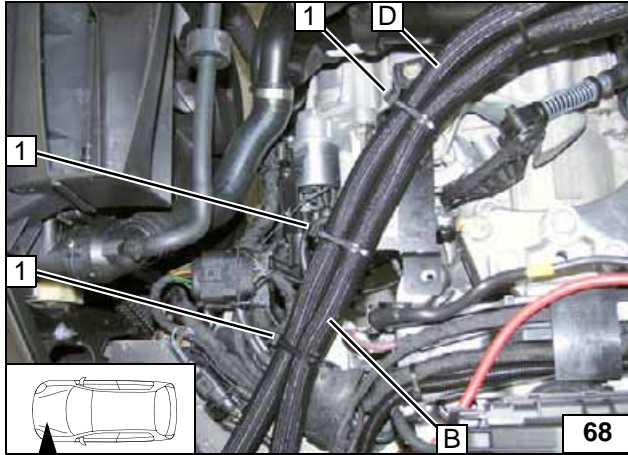
Connecting heat exchanger inlet



Secure hoses on intake pipe with cable tie 1.



Routing in engine compartment



Ensure freedom of movement of shifting actuation. Bend bracket somewhat upward if necessary.

1 Close clip-type cable tie [3x].



Routing in engine compartment

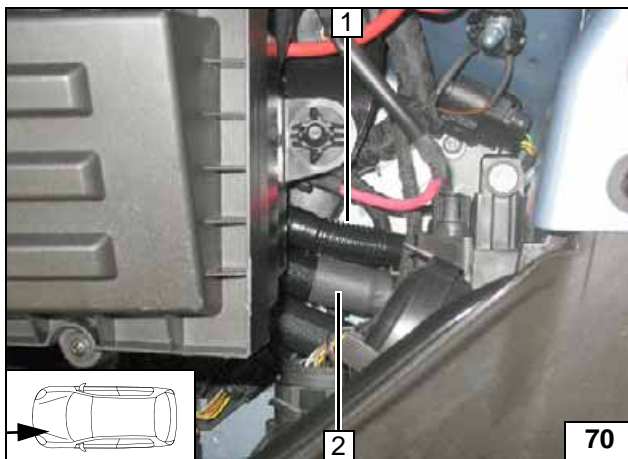


Air filter box

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



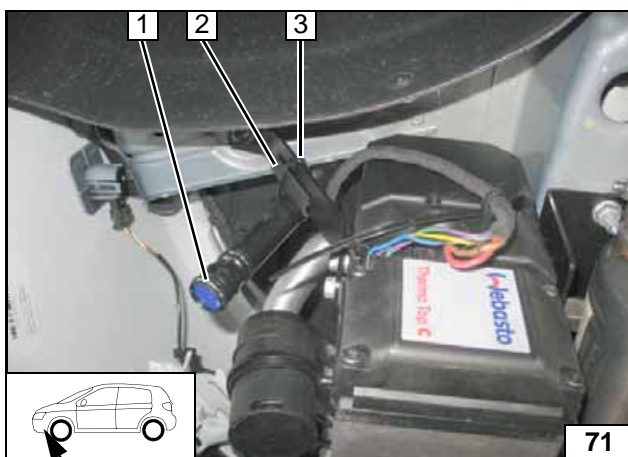
Preparing air cleaner housing



If drain pipe 1 present as shown, then route parallel to water hose 2.



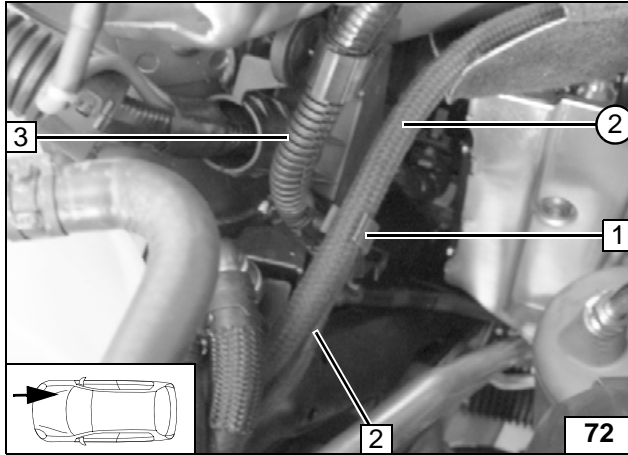
Installing air cleaner housing



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



Installing air cleaner housing



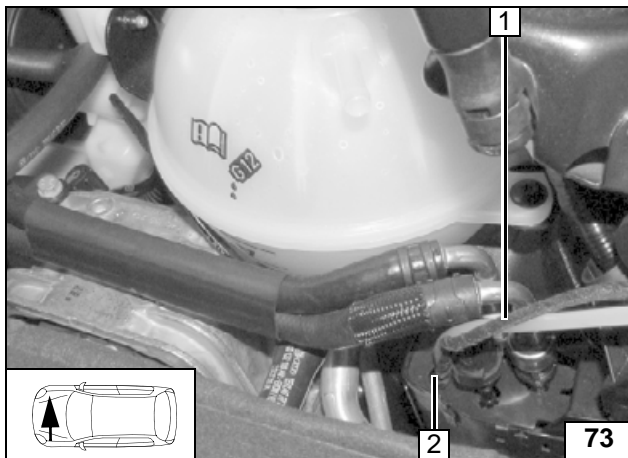
Fuel Connection

Fasten fuel line and wiring harness of metering pump 2 on original vehicle wiring harness 3 with 15x9 mm double clip 1

2 Fuel line in protective hose ② and wiring harness of metering pump



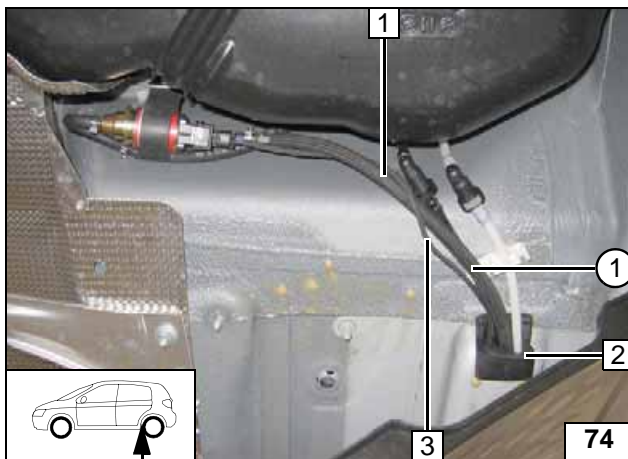
Installing lines



Guide fuel line and wiring harness of metering pump 1 into original vehicle line duct 2 and route to underbody.



Installing lines

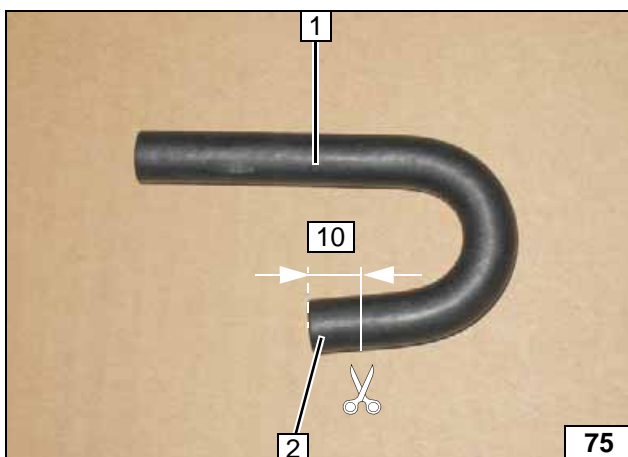


Route fuel line 1 and wiring harness of metering pump 3 along original vehicle fuel lines to fuel tank.

1 Fuel line in protective hose ①
2 Line duct

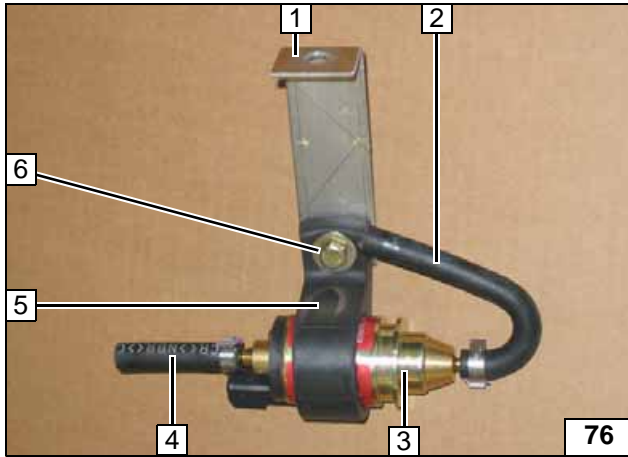


Installing lines



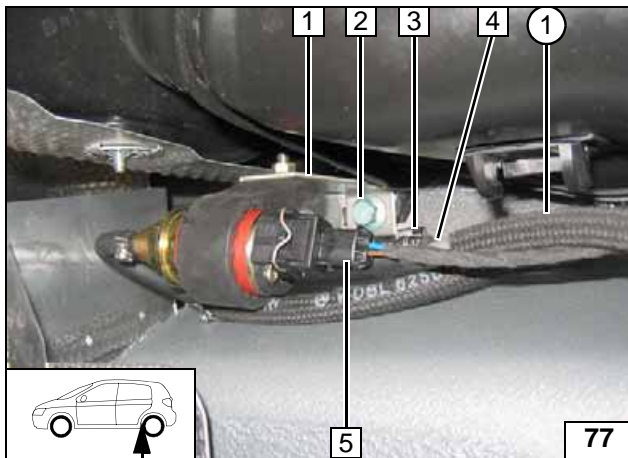
1 Moulded hose 180°
2 Discard section

Cutting moulded hose to length



- 1 Bracket
- 2 180° moulded hose, 10 mm dia. Caillau clamp
- 3 Metering pump
- 4 Hose section, 10 mm dia. Caillau clamp
- 5 Mounting of metering pump
- 6 M6x25 bolt, large diameter washer, flanged nut

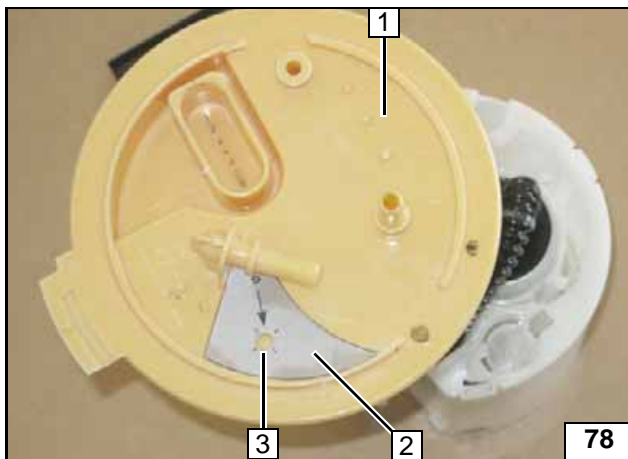
Premounting metering pump



- 1 Bracket of metering pump
- 2 Original vehicle bolt
- 3 10 mm dia. Caillau clamp
- 4 Fuel line in protective hose ①
- 5 Wiring harness of metering pump, connector mounted



Installing metering pump



Fuel removal is equipment-dependent and is distinguished according to the respective fuel-tank sending unit!

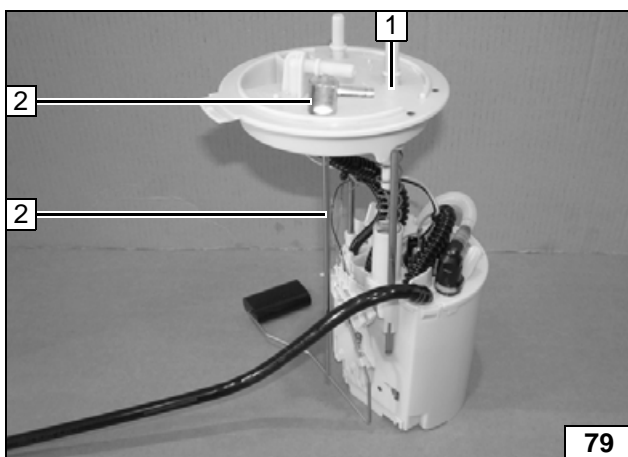
Version 1:

Remove fuel-tank sending unit 1 in accordance with manufacturer's specifications. Cut out template 2 and position as shown in the figure.

- 3 Copy hole pattern, 6 mm dia. hole



Removing fuel

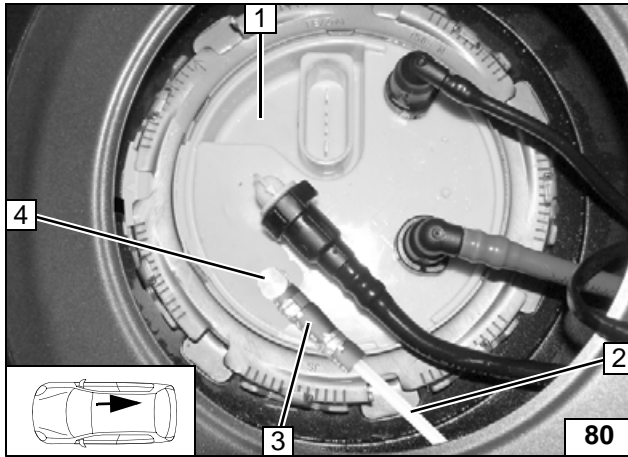


Cut fuel standpipe 2 to length according to template and install.

- 1 Fuel-tank sending unit



Installing fuel standpipe

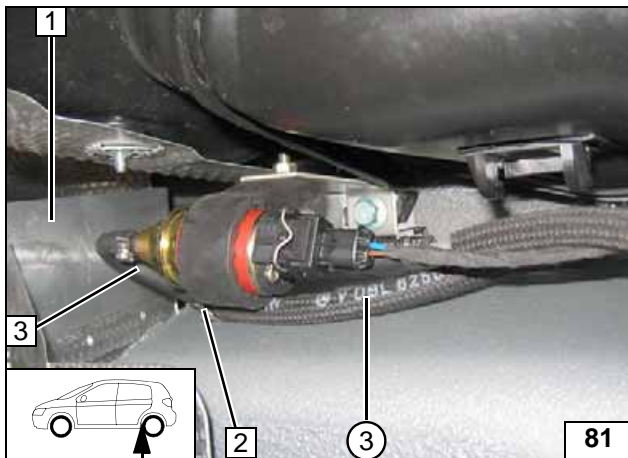


Install fuel-tank sending unit 1 in accordance with manufacturer's instructions.

- 2 Fuel line
- 3 Hose section, 10 mm dia. Caillau clamp [2x]
- 4 Fuel standpipe



Connect the fuel line

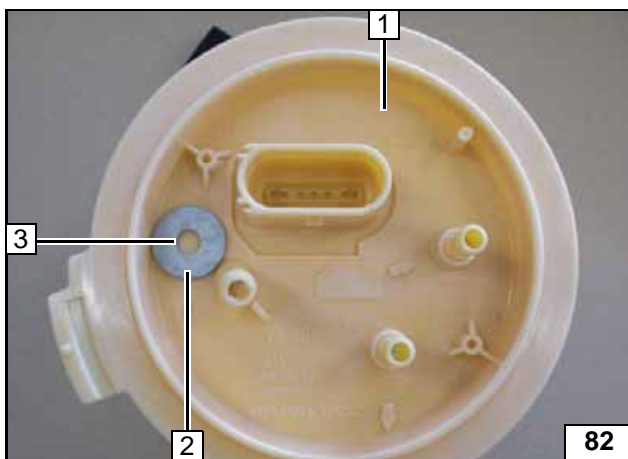


Ensure sufficient spacing between guard plate 1 and 180° moulded hose 3.

- 2 10 mm dia. Caillau clamp
- 3 Fuel line in protective hose ③



Connecting metering pump



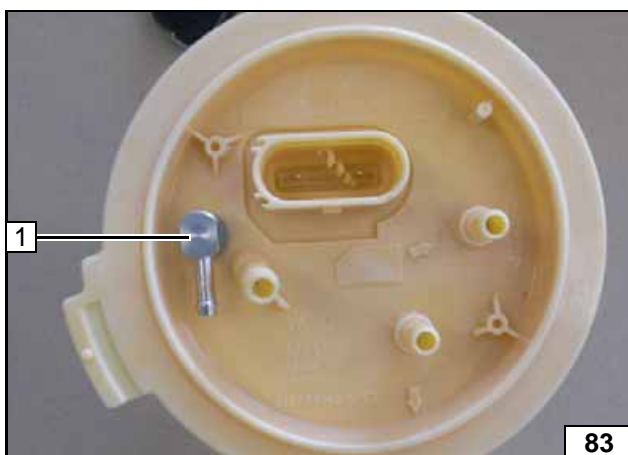
Version 2:

Remove fuel-tank sending unit 1 in accordance with manufacturer's specifications. Position 21.5 mm dia. d_a large diameter washer 2 as shown in the figure.

- 3 Copy hole pattern, 6 mm dia. hole



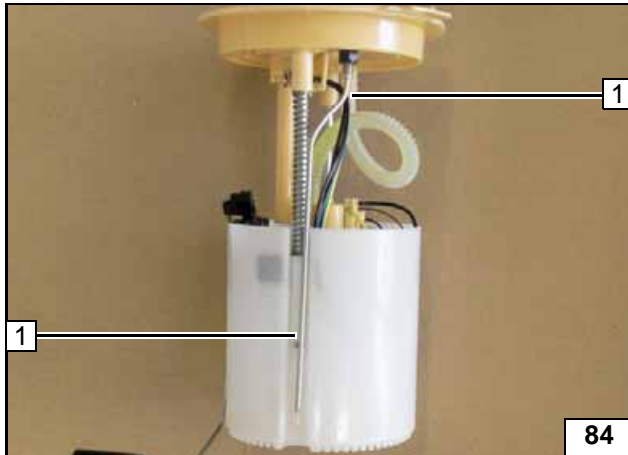
Removing fuel



Shape fuel standpipe 2 according to template, cut to length and install.

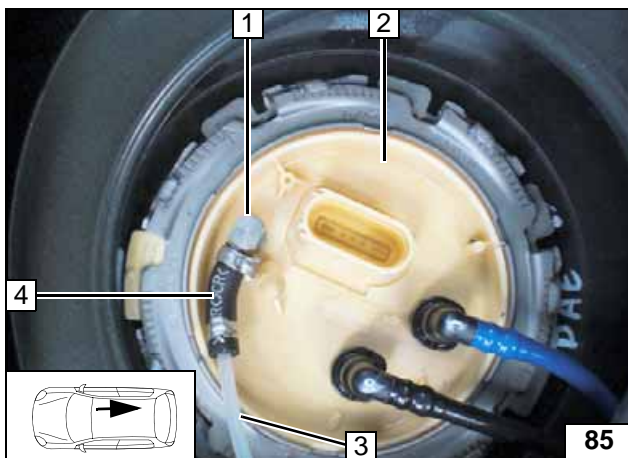


Installing fuel standpipe



1 Fuel standpipe

Installing fuel standpipe

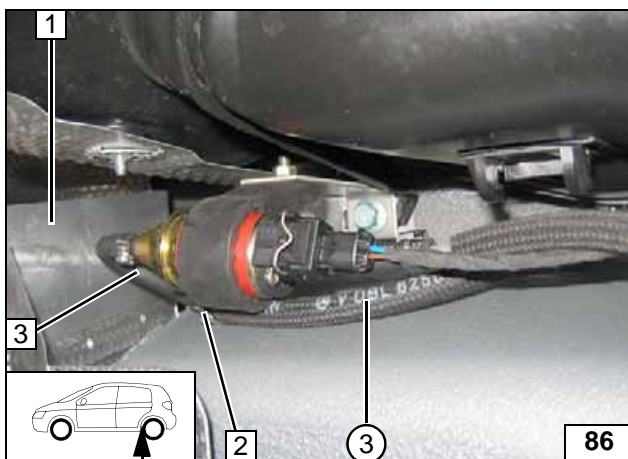


Install fuel-tank sending unit 2 in accordance with manufacturer's instructions.

- 1 Fuel standpipe
- 3 Fuel line
- 4 Hose section, 10 mm dia. Caillau clamp [2x]



Connect the fuel line

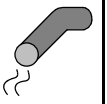


Ensure sufficient spacing between guard plate 1 and 180° moulded hose 3.

- 2 10 mm dia. Caillau clamp
- 3 Fuel line in protective hose ③



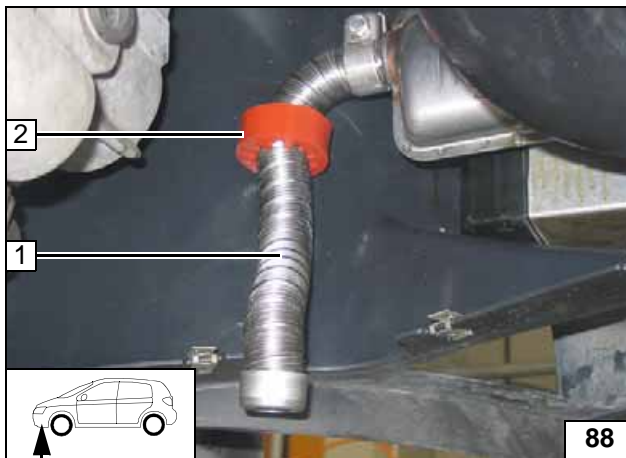
Connecting metering pump



Exhaust end section

1 Exhaust end section

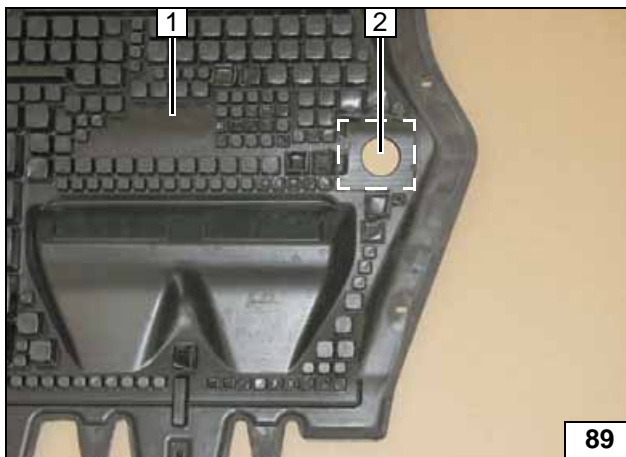
Shaping
exhaust
end sec-
tion



Align exhaust end section 1 and rubber isolator 2 as shown in the figure.



Installing
wheel well
trim

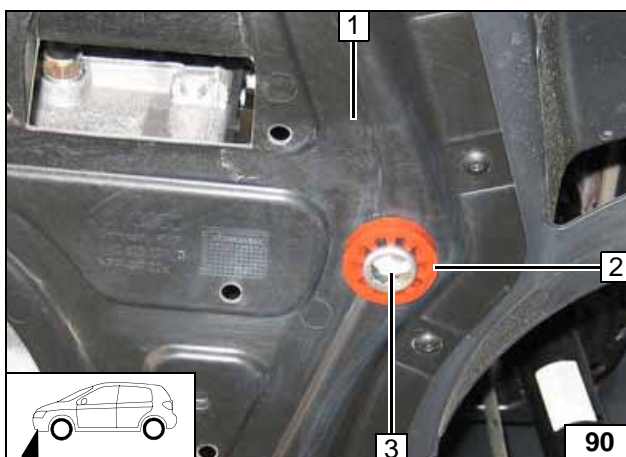


Remove insulation in the area marked, if available.

- 1 Underride protection
- 2 42 mm dia. hole



Hole in un-
der-ride
protection

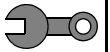


Align exhaust end section 3 flush on red rubber isolator 2.

- 1 Underride protection



Inserting
rubber iso-
lator



Final Work

WARNING!

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

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

- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set digital timer, teach telestart transmitter
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Place the "Switch off parking heater before refuelling" signboard in the area of the filling connection pieces
- See installation instructions for initial start-up and function test

Adjusting passenger compartment monitoring

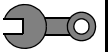
WARNING!

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

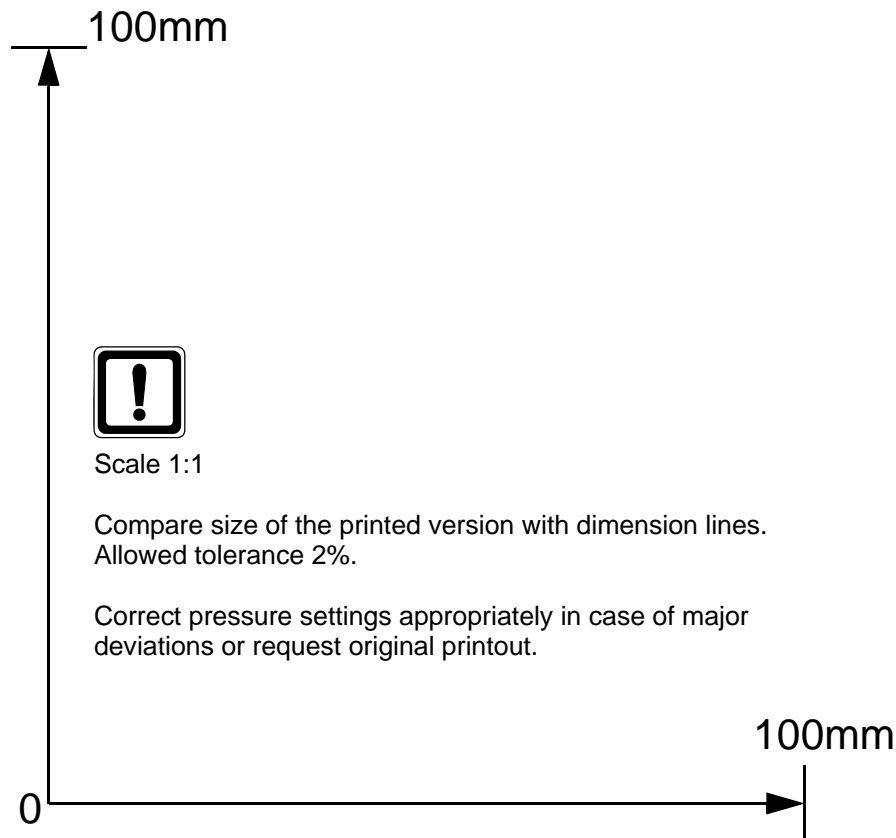
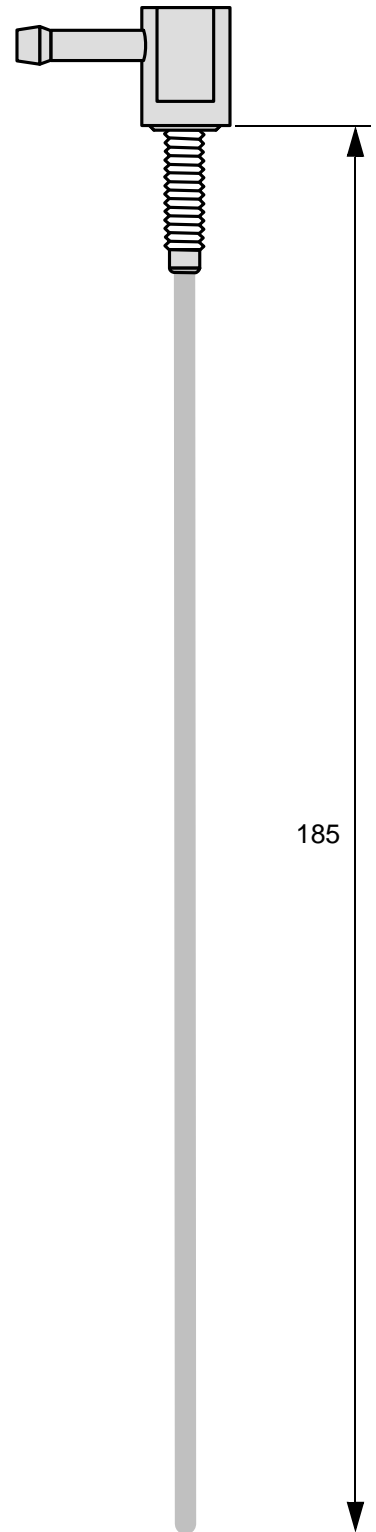
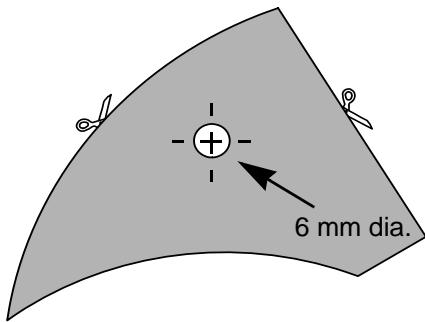


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Template for Fuel Standpipe of Version 1

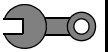
Template for fuel sender Version 1



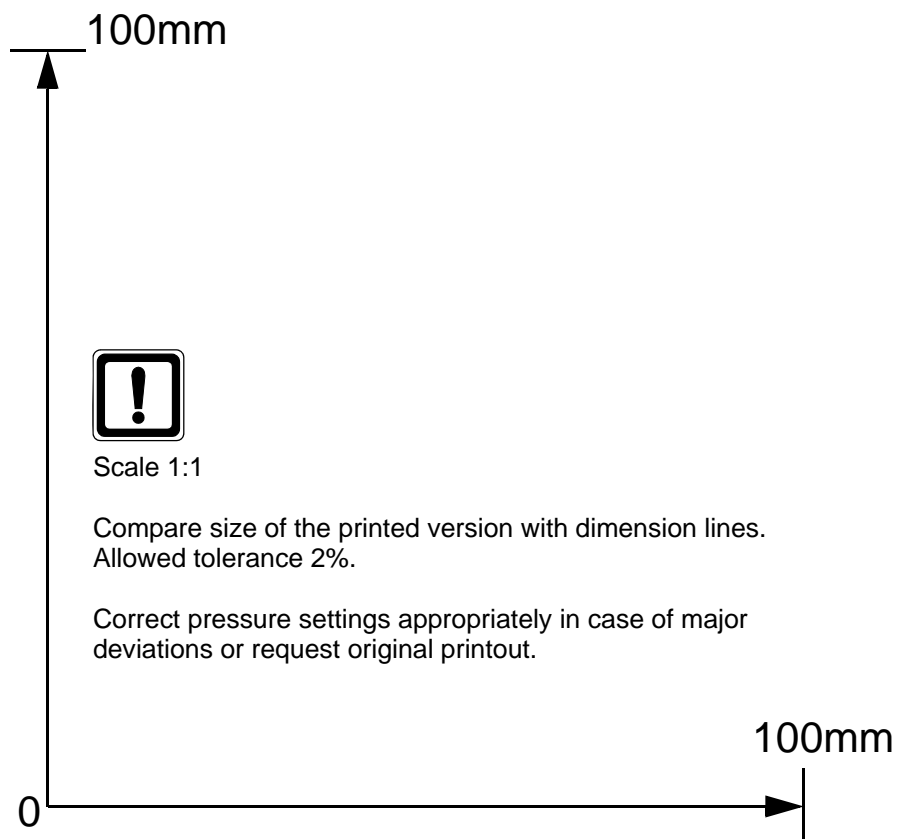
Scale 1:1

Compare size of the printed version with dimension lines.
Allowed tolerance 2%.

Correct pressure settings appropriately in case of major
deviations or request original printout.



Template for Fuel Standpipe of Version 2



Operating Instructions for End Customer

Please remove page and add to the vehicle operating instructions.

To ensure proper operation of the parking heater, the fuel level in the tank must be above the "Reserve" level. The sensitivity of the passenger compartment monitoring has been reduced.

Note:

We recommend matching the heating time to the driving time.

Heating time = driving time

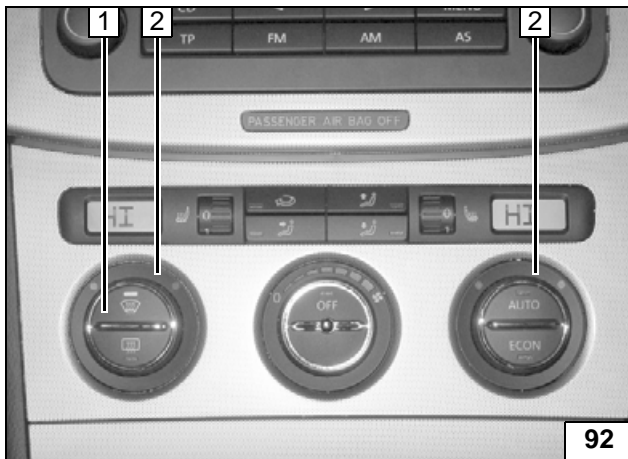
Example:

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

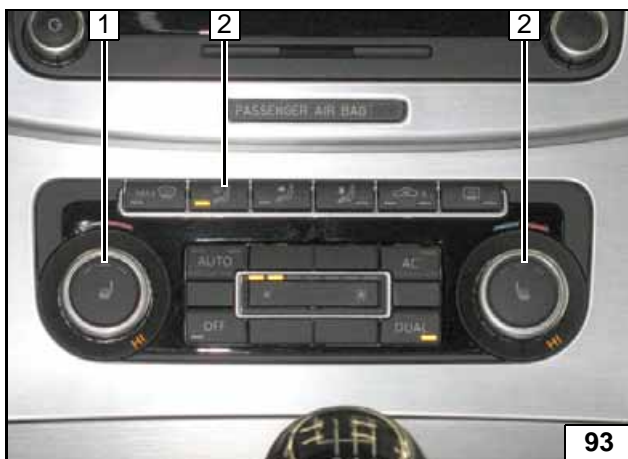
Before parking the vehicle, make the following settings:



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



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



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



Without
Climatronic

Climatronic



Climatronic