

Water Heater



Thermo Top E Parking Heater


00 0003

Thermo Top C Parking Heater


00 0002

Installation documentation

Hyundai i30

Petrol and Diesel
from Model Year 2007
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
Hyundai	i30 CW FD	ED	e11 * 2001 / 116 * 0313 ...
Hyundai	i30 CW FDH	ED	e11 * 2001 / 116 * 0343 ...

Engine type	Engine model	Output in kW	Displacement in cm
G4FA	Petrol	80	1396
G4FC	Petrol	90	1591
G4GC	Petrol	105	1975
D4FB	Diesel	85	1582
D4FB-L	Diesel	66	1582
D4EA-F	Diesel	103	1991

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.

Heater/Installation Kit

Quantity	Description	Order No.:
1	Retail accessories with desired heater control	See price list
1	Installation kit for Hyundai i30 petrol	1313213A
or		
1	Installation kit for Hyundai i30 diesel	1313242A

Required additionally for 2.0 liter CRDI:

Quantity	Description	Order No.:
1	Additional kit Hyundai i30 / cee'd 2.0 Diesel	1313241A

Heater recommended for the respective vehicle class:

Vehicle	Heater
Compact car	Thermo Top E
Mid-size car, station wagon	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 Hyundai i30 Petrol and Diesel vehicles - for validity, see page 2 - from model year 2007 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 the "installation documentation", the "operating instructions" and the "installation instructions for the *Thermo Top E / 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.

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).

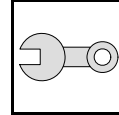
Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Flexible socket wrench, 7 mm

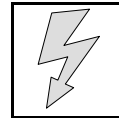
Explanatory Notes on Document

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.

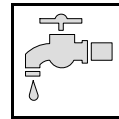
Mechanical system



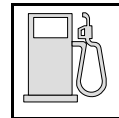
Electrical system



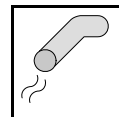
Coolant circuit



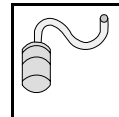
Fuel



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.



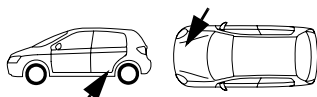
Specific risk of fire or explosion.



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.
- Disconnect the battery "earth" or "ground" connection.
- Depressurise the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Remove door sill trim on front passenger side.
- Remove the A-pillar trim in the front passenger side footwell.
- Remove the upper storage compartment of the instrument panel [screwed on 4x] (only with automatic air-conditioning).
- Remove the trim with the A/C control panel [screwed on 1x] (only with automatic air-conditioning).
- Remove the radio trim.
- Remove the lower instrument panel trim on the driver's side.
- Fold up the rear seat cushion (sedan).
- Remove the rear seat cushion (station wagon) [bolted on 4x].
- Open the tank-fitting service lid.
- Remove the air filter together with the intake hoses.
- Detach the trim of the cable pass through on the firewall.
- Detach the wheel well trim on the right and left.
- Remove the bumper
- Remove the underride protection on the left
- Remove the rear left tank trim.

Remove page 50 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater installation location

1 Heater

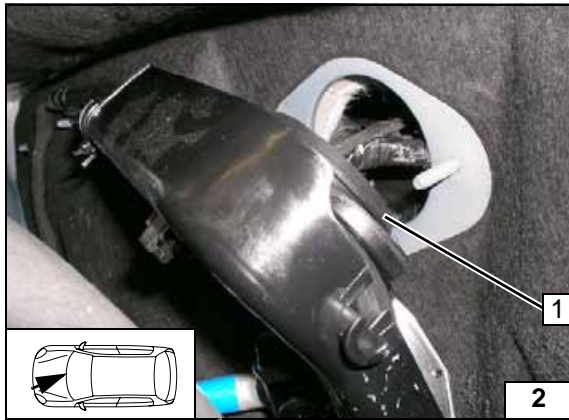
Installation location



Electrical Connections

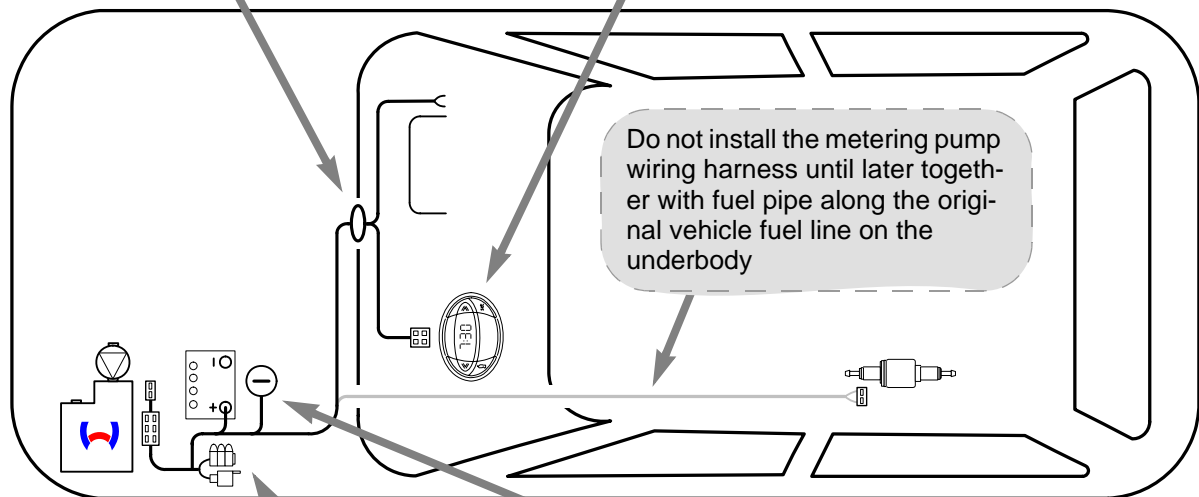
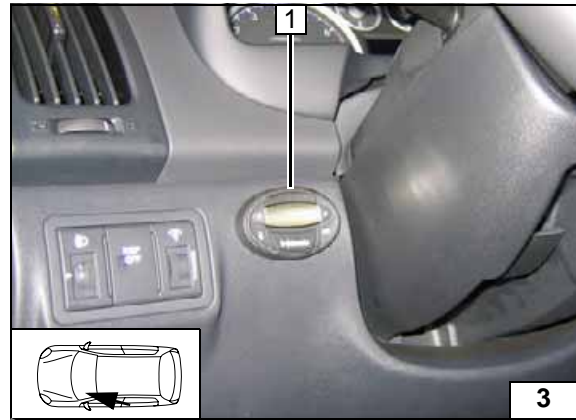
Wiring harness pass through

1 Protective rubber plug

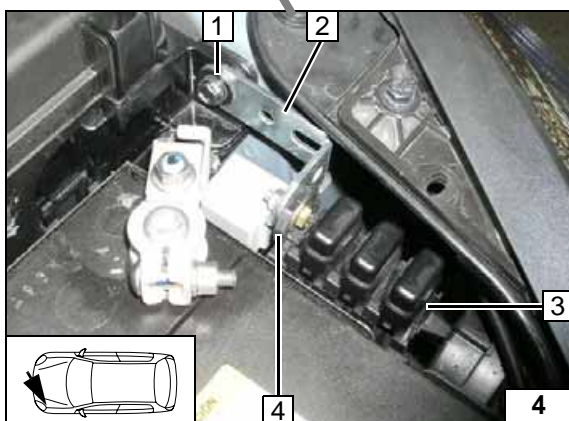


Digital timer

1 Digital timer



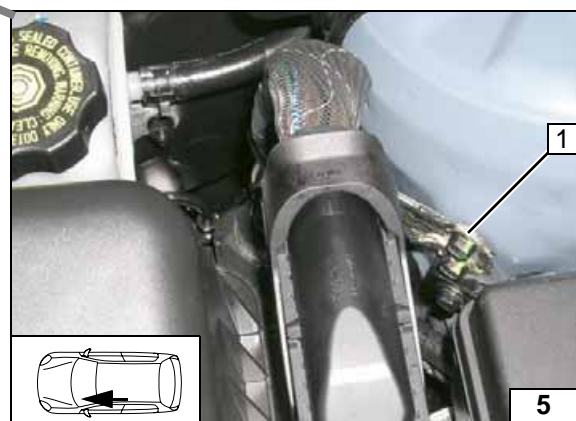
Wiring harness routing diagram



Fuse holder, K3 relay

Angle down perforated bracket 2 according to template.

- 1 Original vehicle bolt
- 3 Fuse holder, replace F3 25 A fuse with 10 A fuse.
- 4 M5x16 bolt, washer, retaining plate of fuse holder, K3 relay , nut

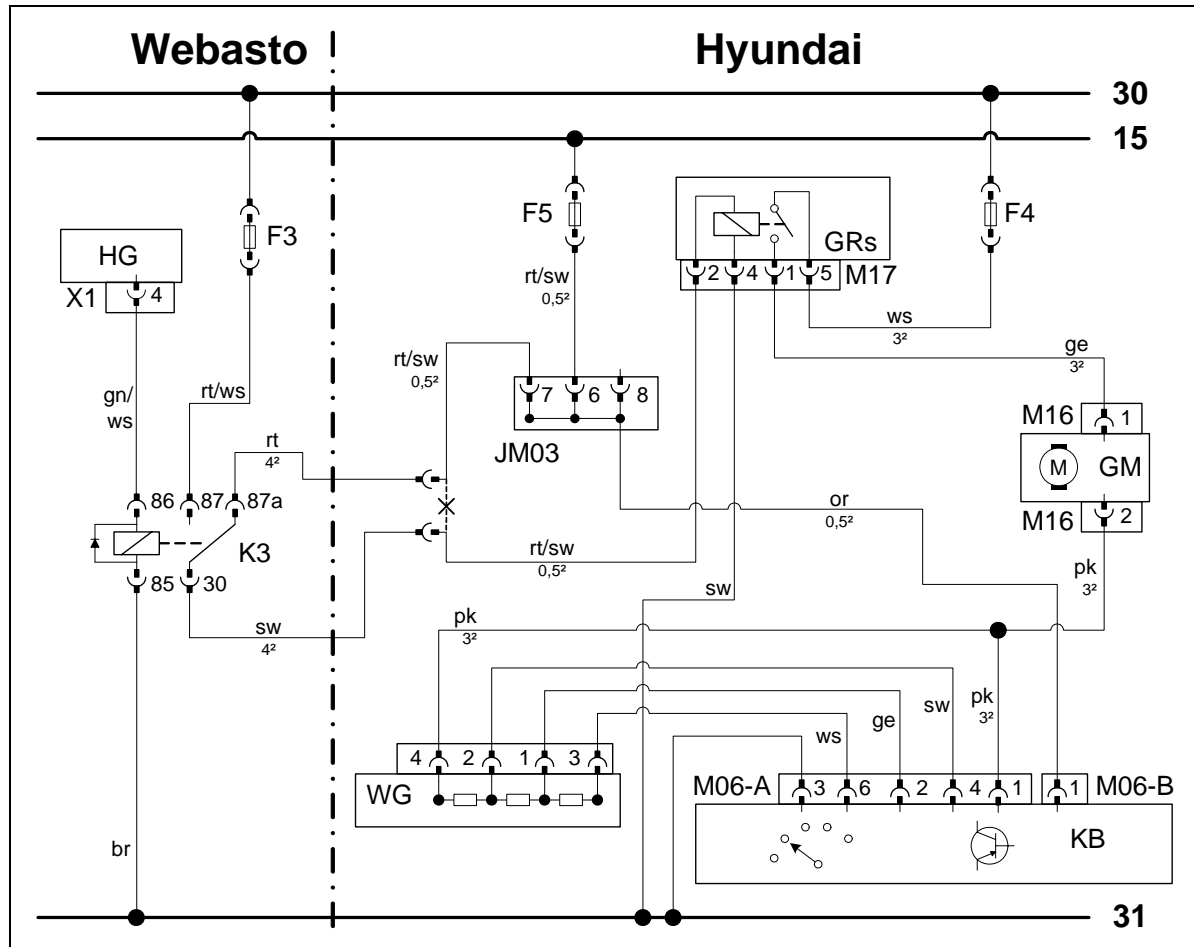


Earth connection

1 Earth point on strut tower



Fan controller
Manual air conditioning: Variant 1



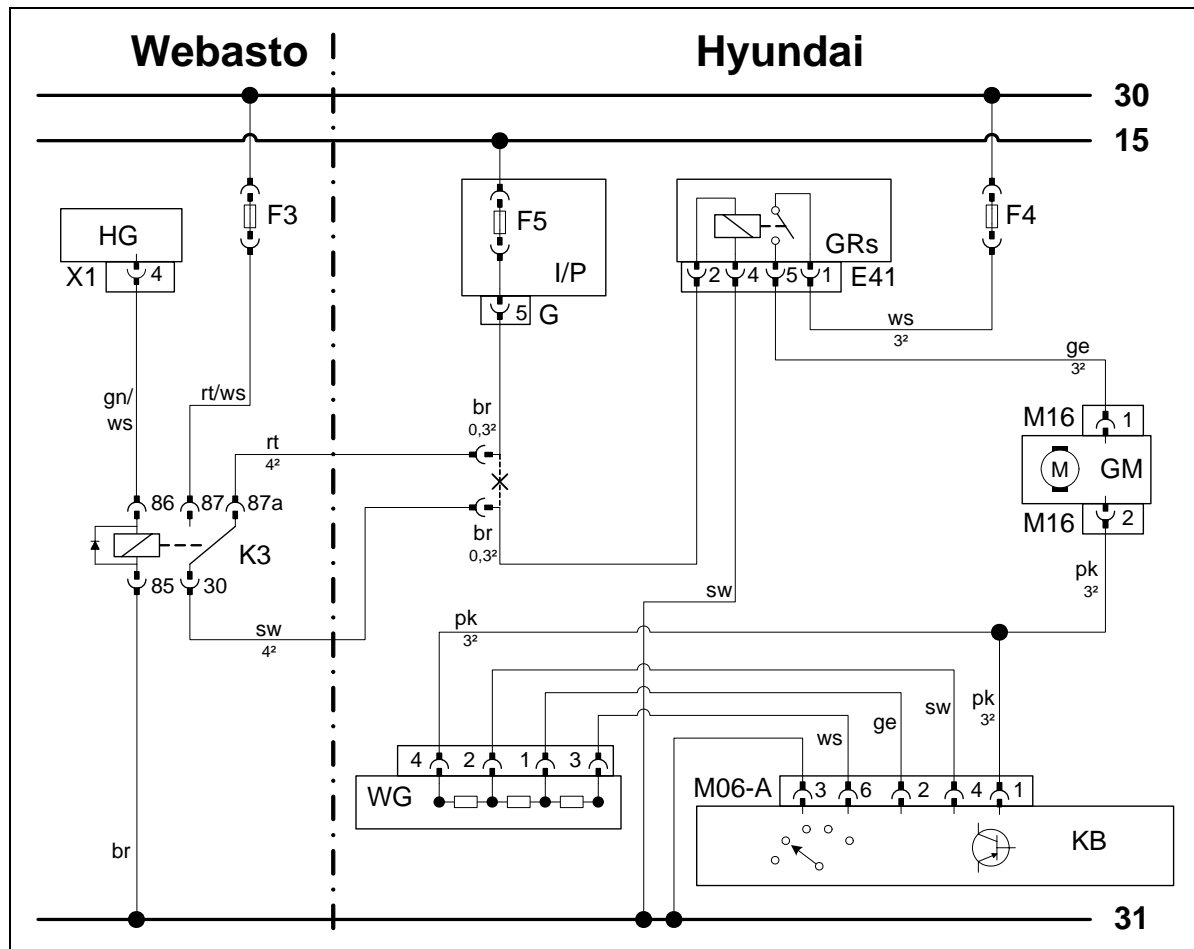
Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater connector	M16	Connector GM	ws	white
F3	Replace 25 A with 10A fuse.	KB	A/C control panel / Fan switch	sw	black
K3	Fan relay	M06-A	6-pin KB connector	or	orange
		M06-B	40-pin KB connector	gn	green
		F4	40 A blower fuse	br	brown
		F5	Fuse A/CON 10 A	ge	yellow
		GRs	Fan relay	pk	pink
		M17	5-pin connector GRs		
		JM03	Connector	Insulate wire end and tie back	
		WG	Resistor group		
				X	Cutting point
				Wiring colours may vary.	

Legend



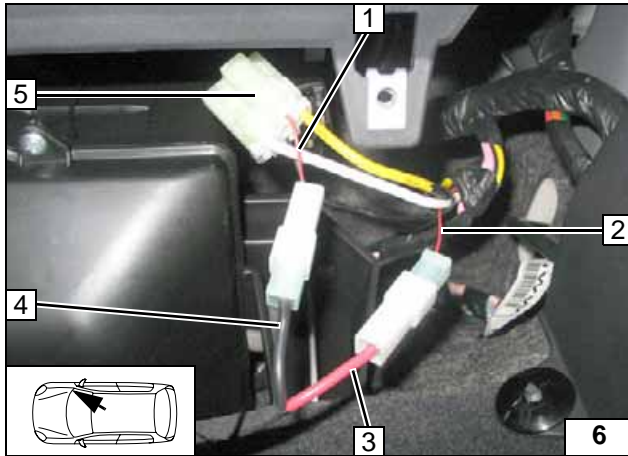
Manual air conditioning:Variant 2



Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater connector	M16	Connector GM	ws	white
F3	Replace 25 A with 10A fuse.	KB	A/C control panel / Fan switch	sw	black
K3	Fan relay	M06-A	6-pin KB connector	br	brown
		M06-B	40-pin KB connector	gn	green
		F4	40 A blower fuse	pk	pink
		F5	Fuse A/CON 10 A	ge	yellow
		GRs	Fan relay		
		E41	5-pin connector GRs		
		I/P	Junction box passenger compartment		Insulate wire end and tie back
		G	21-pin I/P connector		
				X	Cutting point
				Wiring colours may vary.	

Legend

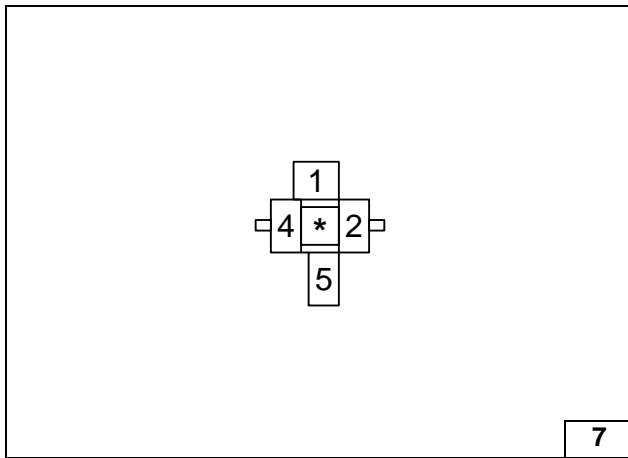


Variant 1

Connection on connector M17 5 of fan relay on right next to glove compartment. Produce connections as shown in wiring diagram.

- 1 Red/black (rt/sw) wire of connector M17, Pin 2
- 2 Red/black (rt/sw) wire of connector JM03, Pin 7
- 3 Red (rt) wire from K3/87a
- 4 Black (sw) wire from K3/30

Connector M17 on contact side

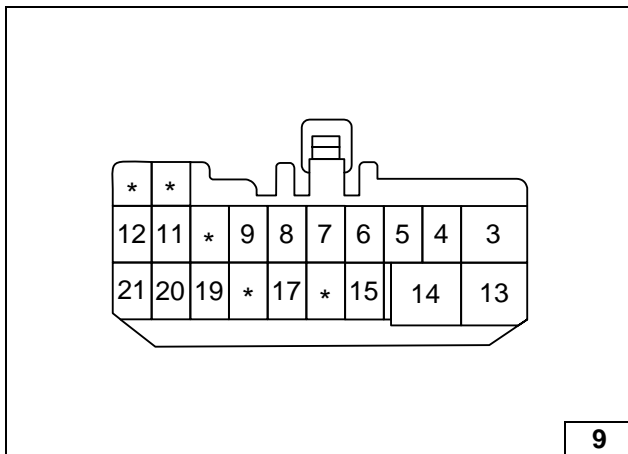
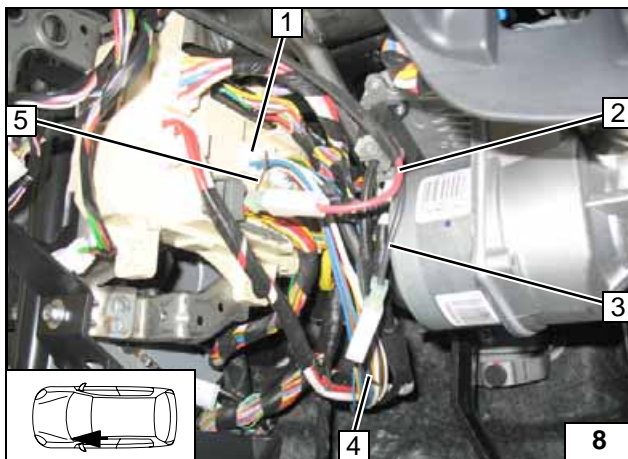


Variant 2

Connection to I/P-G connector 1 Pin 5 passenger compartment junction box. Produce connections as shown in wiring diagram.

- 2 Red (rt) wire from K3/87a
- 3 Black (sw) wire from K3/30
- 4 Brown(br) wire of fan relay
- 5 Brown (br) wire of connector I/P-G pin 5

I/P-G connector, contact side



**Connect-
ing fan re-
lay**



**Connector
M17**



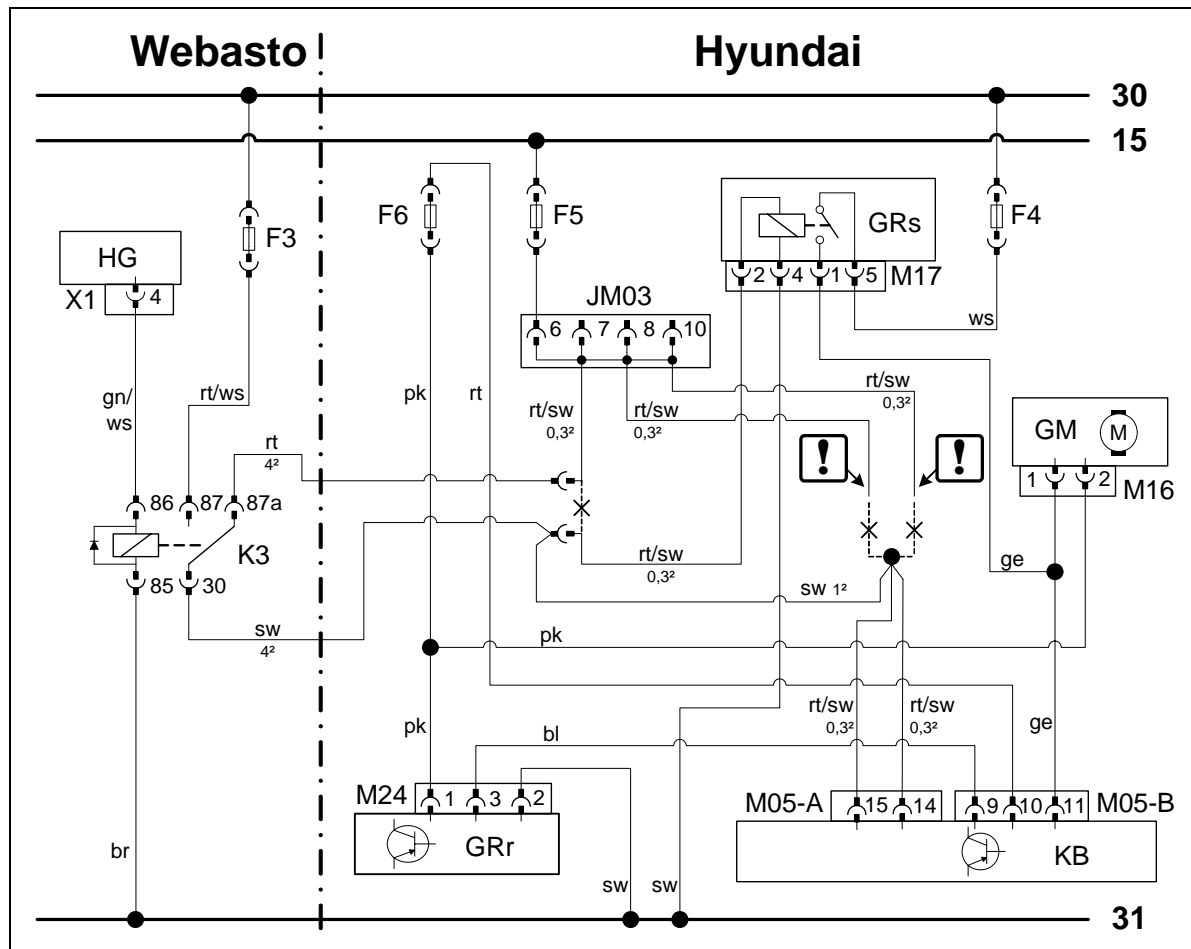
**Connect-
ing fan re-
lay**



**Connector
I/P-G**



Automatic air-conditioning:Variant 1



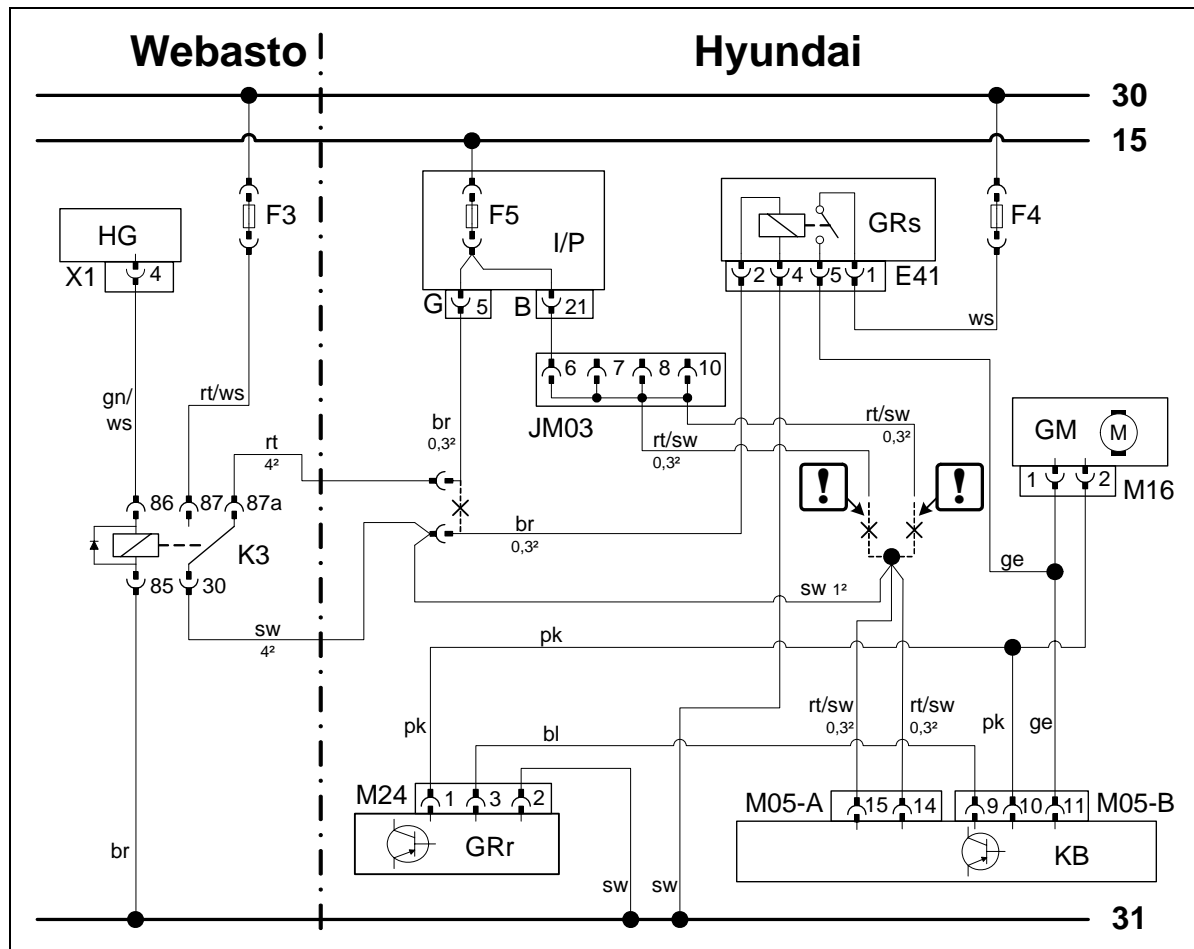
Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater connector	M16	Connector GM	ws	white
F3	25 A replaced with 10 A fuse.	KB	A/C control panel	sw	black
K3	Fan relay	M05-A	26-pin KB connector	pk	pink
		M05-B	22-pin KB connector	gn	green
		F4	40 A blower fuse	bl	blue
		F5	Fuse A/CON 10 A	ge	yellow
		F6	Fuse A/CON SW 10 A	br	brown
		GRs	Fan relay		
		M17	5-pin connector GRs		
		JM03	Connector	!	Insulate wire end and tie back
		GRr	Fan controller	X	Cutting point
		M24	Connector GRr	Wiring colours may vary.	

Legend



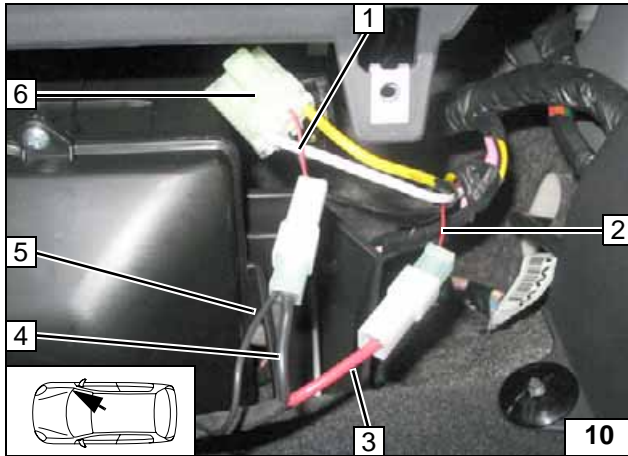
Automatic air-conditioning: Variant 2



Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater connector	M16	Connector GM	ws	white
F3	25 A replaced with 10 A fuse.	KB	A/C control panel	sw	black
K3	Fan relay	M05-A	26-pin KB connector	pk	pink
		M05-B	22-pin KB connector	gn	green
		F4	40 A blower fuse	bl	blue
		F5	Fuse A/CON 10 A	ge	yellow
		F6	Fuse A/CON SW 10 A	br	brown
		GRs	Fan relay		
		M17	5-pin connector GRs		
		JM03	Connector		
		GRr	Fan controller		
		M24	Connector GRr		
		I/P	Junction box passenger compartment		
		G	21-pin I/P connector	!	Insulate wire end and tie back
		B	I/P connector	X	Cutting point
				Wiring colours may vary.	

Legend

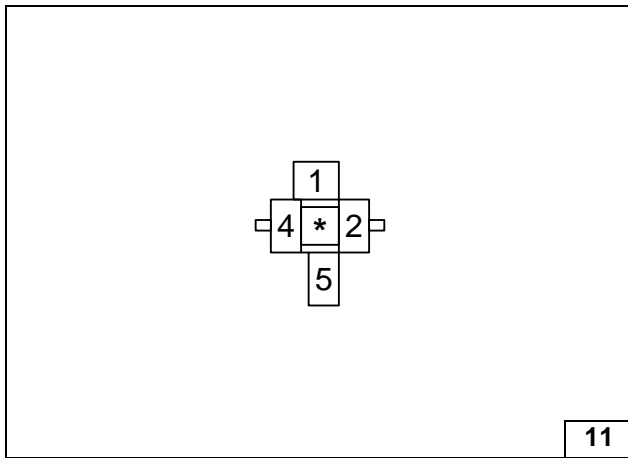


Variant 1

Connection on connector M17 **6** of fan relay on right next to glove compartment. Produce connections as shown in wiring diagram.

- 1 Red/black (rt/sw) wire of connector M17, Pin 2
- 2 Red/black (rt/sw) wire of connector JM03, Pin 7
- 3 Red (rt) wire from K3/87a
- 4 Black (sw) wire from K3/30
- 5 Black (sw) additional wire, 1²

Connector M17 on contact side



**Connect-
ing fan re-
lay**

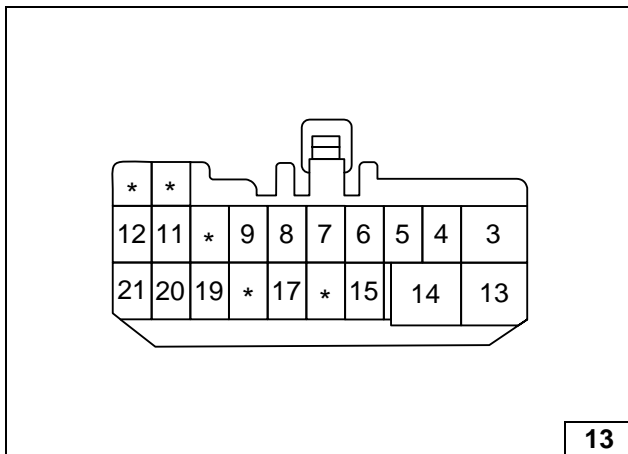
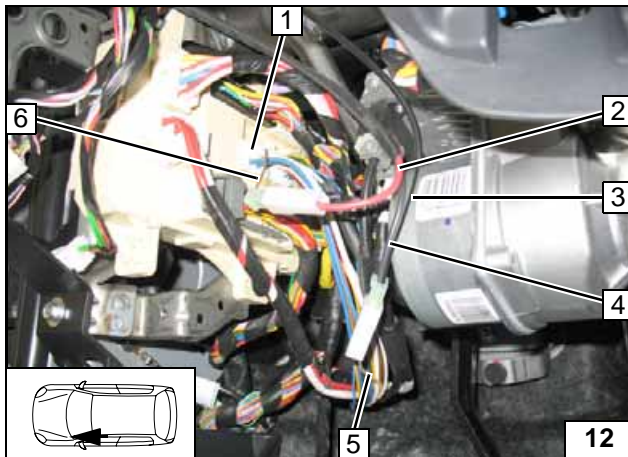
**Connector
M17**

Variant 2

Connection to I/P-G connector 1 Pin 5 pas-
senger compartment junction box. Produce
connections as shown in wiring diagram.

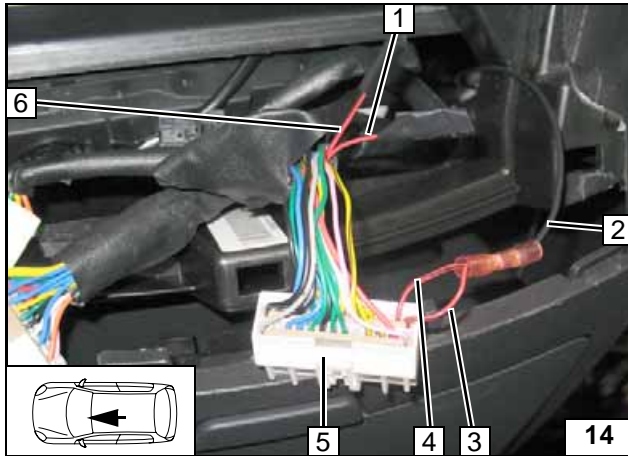
- 2 Red (rt) wire from K3/87a
- 3 Black (sw) additional wire, 1²
- 4 Black (sw) wire from K3/30
- 5 Brown(br) wire of fan relay
- 6 Brown (br) wire of connector I/P-G pin 5

I/P-G connector, contact side



**Connect-
ing fan re-
lay**

**Connector
I/P-G**

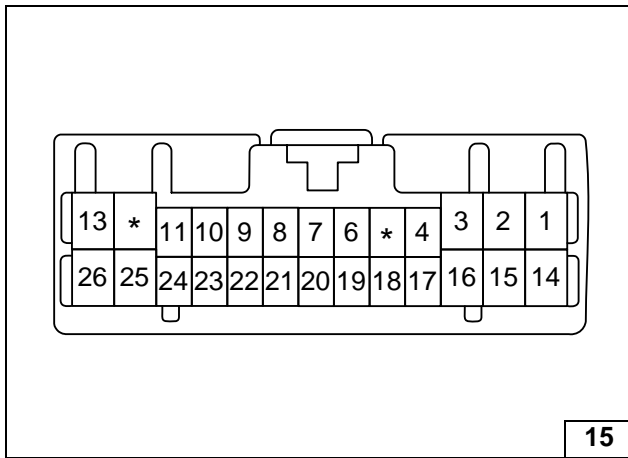


Variants 1 and 2

Connection on connector M05-A 5 of A/C control panel. Insulate red/black (rt/sw) wires 1 and 6 of connector JM03, PIN 8 and 10 and tie back. Make connections as shown in wiring diagram.

- 2 Black (sw) additional wire, 1²
- 3 Red/black (rt/sw) wire of connector M05-A, Pin 14
- 4 Red/black (rt/sw) wire of connector M05-A, Pin 15

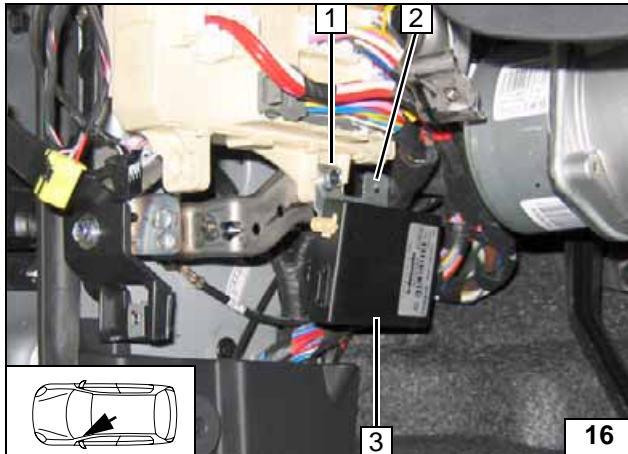
Connector M05-A on contact side



**Connect-
ing A/C
control
panel**



**Connector
M05-A**



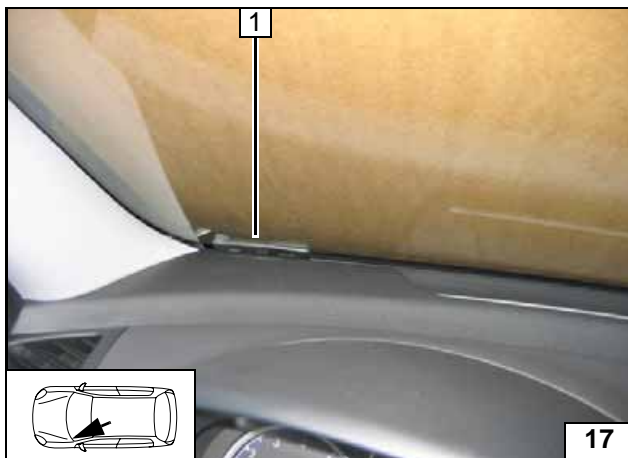
Remote option (Telestart)

Drill out bracket 2 to 6.5 mm dia. at Position 1.

- 1 Original vehicle bolt
- 3 Receiver

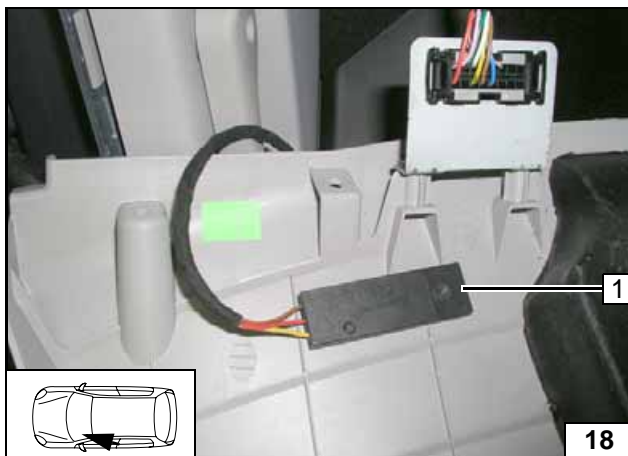


Installing receiver



- 1 Antenna

Installing antenna

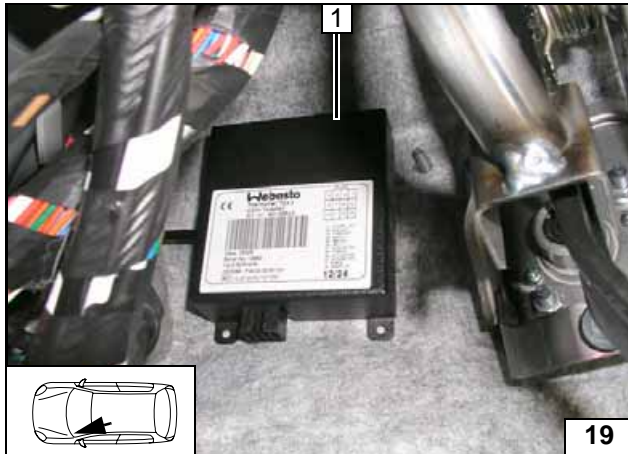


Temperature sensor only with T100 HTM

Fasten temperature sensor 1 with suitable means.



Installing temperature sensor

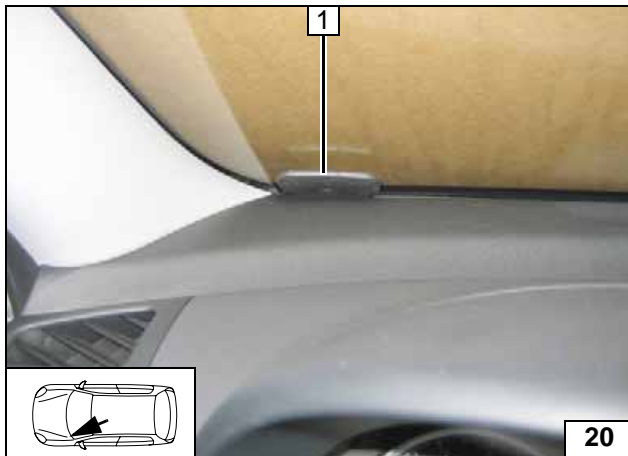


Thermo Call option

1 Receiver, Velcro strip

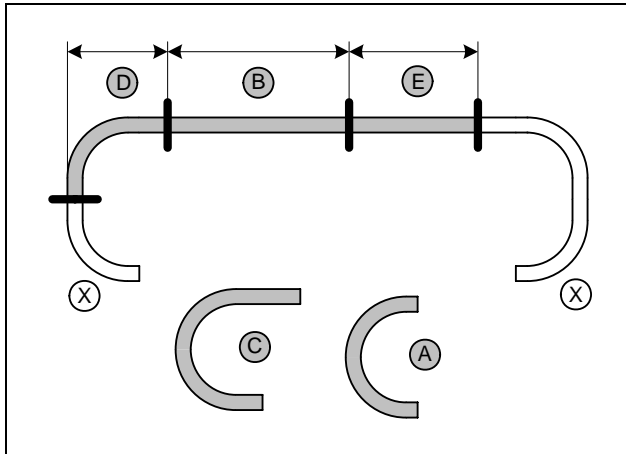
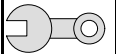


Installing receiver



1 Antenna

Installing antenna



Preparing heater for petrol vehicles

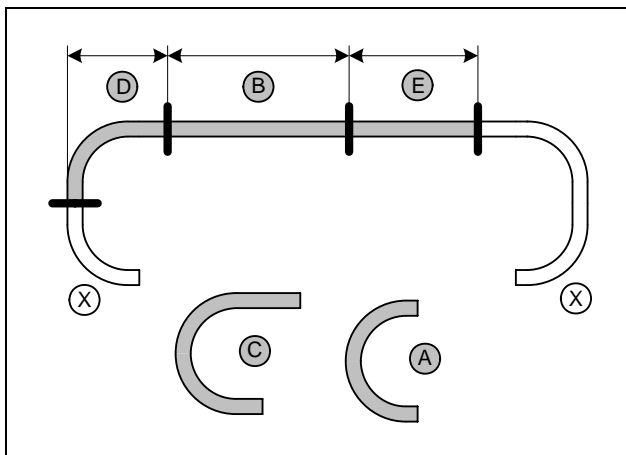
Hoses 1.4 and 1.6 Petrol

B = 1020mm
D = 130mm
E = 920mm

Discard section X



Cut hoses to length



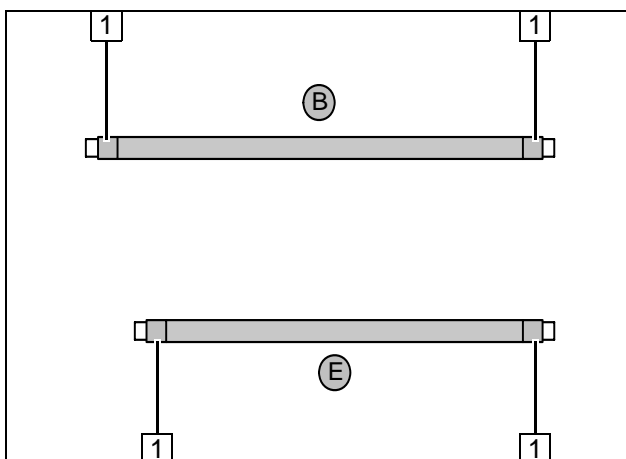
Hoses 2.0 Petrol

B = 1120mm
D = 130mm
E = 950mm

Discard section X



Cut hoses to length



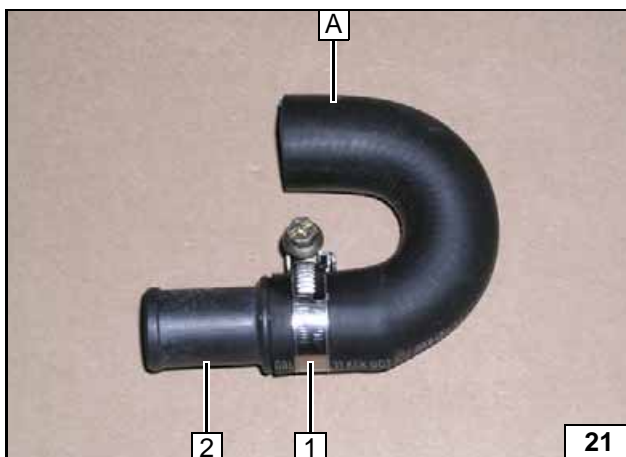
Petrol

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

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

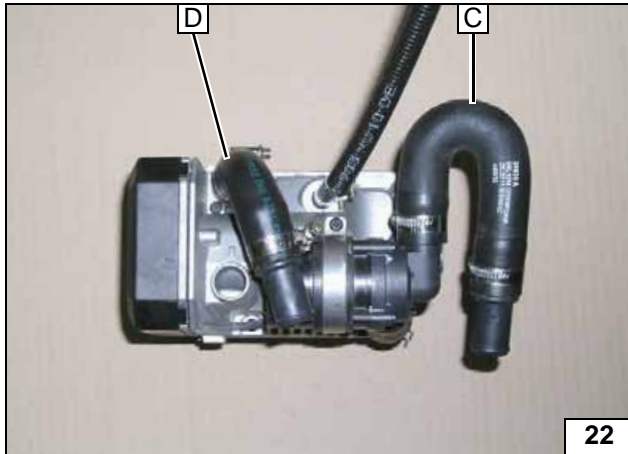
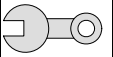


Preparing hoses



- A 180° moulded hose 403474
- 1 27mm dia. clamp
- 2 Connecting pipe, dia. 18x20 mm

Preparing hose A



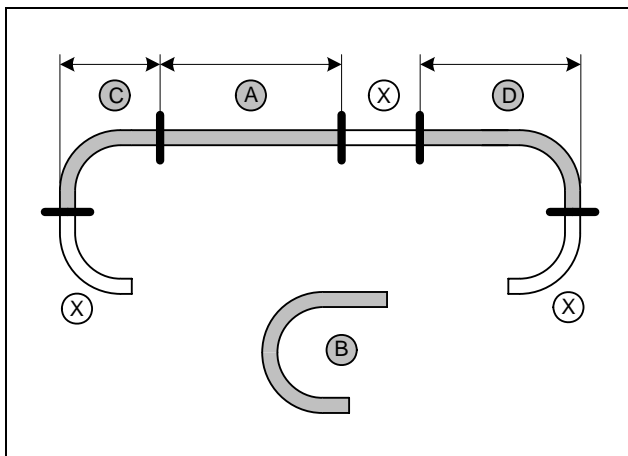
- D** Hose section, connecting pipe
20x20mm dia., 27mm dia. clamp [2x]
- C** 180° moulded hose 29938, connecting
pipe, dia. 20x20 mm, 27 mm dia. clamp [2x]

Premounting hoses



- 1** Hose section, 10 mm dia. clamp [2x]
- 2** Fuel line in corrugated hose

Premounting fuel pipe



Preparing heater for diesel vehicles

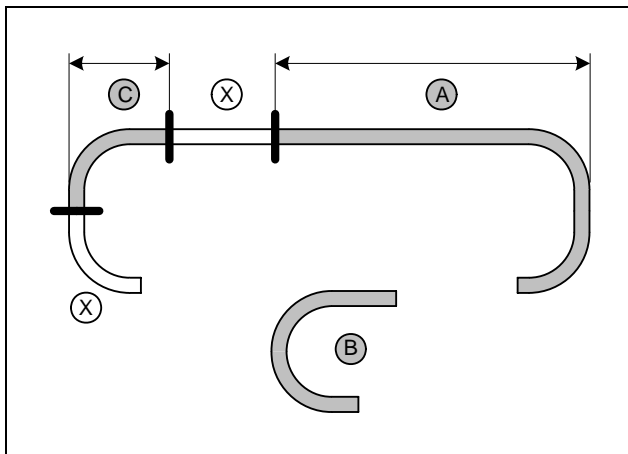


Hoses 1.6 Diesel

- A = 840mm
- C = 130mm
- D = 790mm

Discard section X

Cut hoses to length



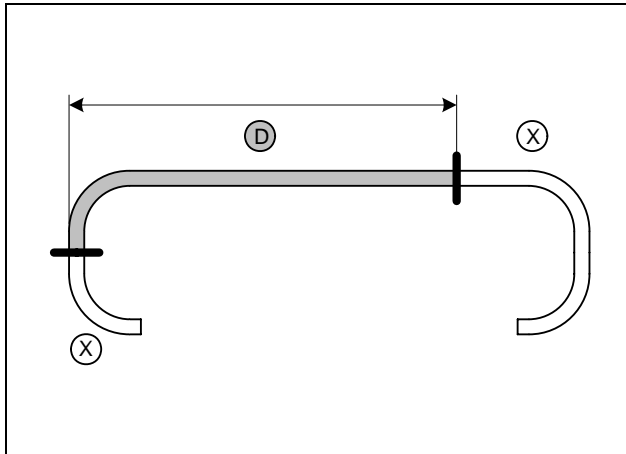
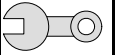
Coolant hose on 2.0 diesel vehicles



- A = 1510mm
- C = 130mm

Discard section X

Cut hoses to length

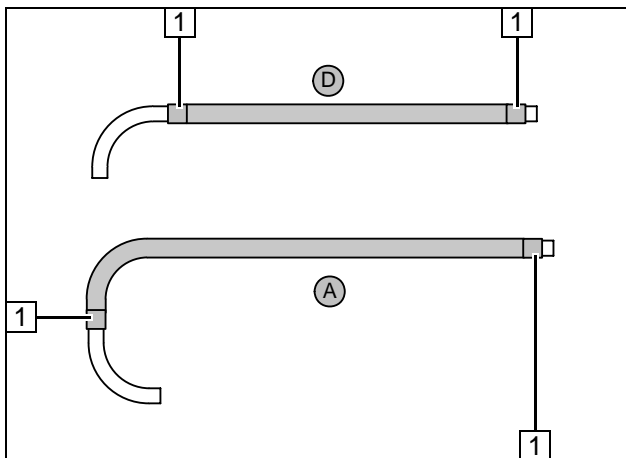


D = 1200mm

Discard section X



Cut hoses to length

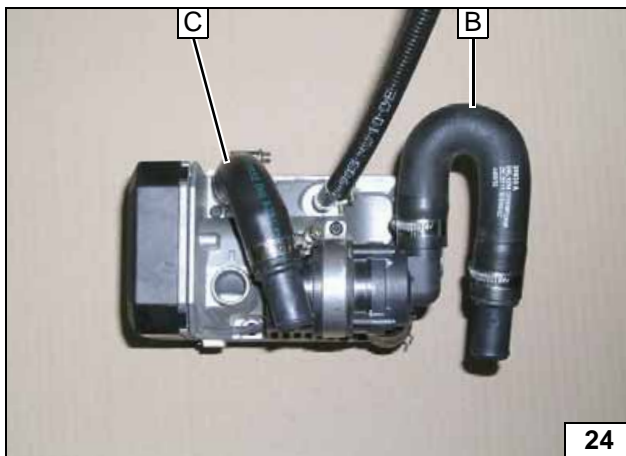


Push braided protection hoses onto hose A and D and cut to length.
Cut heat shrink plastic tubing to length.

1 25 mm heat shrink plastic tubing [4x]



Preparing hoses



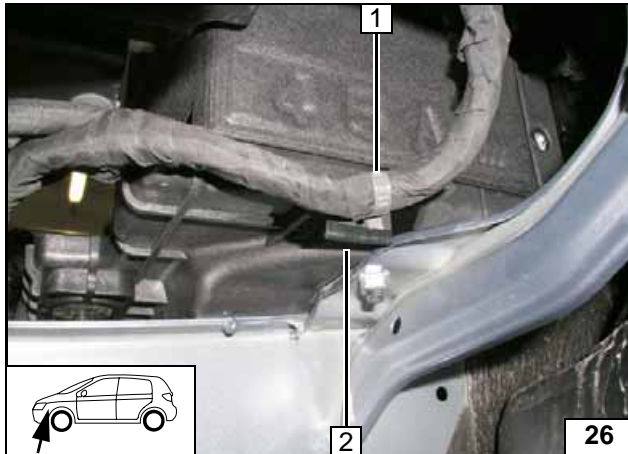
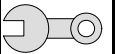
C Hose section, connecting pipe
20x20mm dia., 27mm dia. clamp [2x]
B 180° moulded hose 29938, connecting
pipe, dia. 20x20 mm, 27 mm dia. clamp
[2x]

Premounting hoses



1 Hose section, 10 mm dia. clamp [2x]
2 Fuel line in corrugated hose

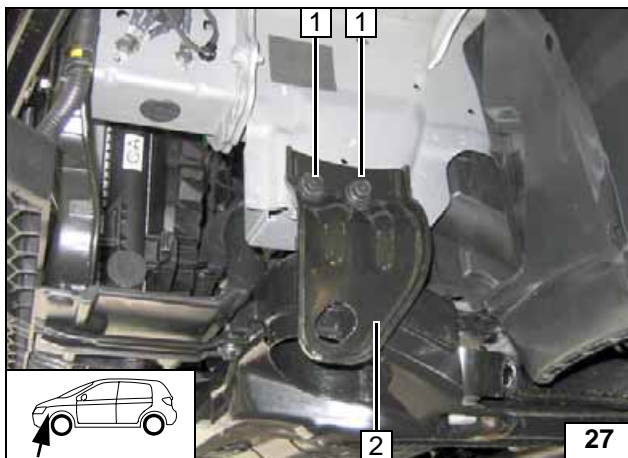
Premounting fuel pipe



Preparing installation location

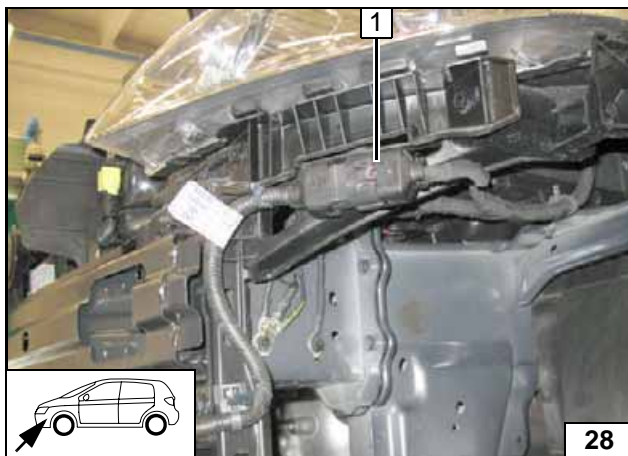
- 1 Original vehicle retaining clip released
- 2 Insert 30 mm edge protection

Moving wiring harness



- 1 Remove original vehicle bolt [2x] and discard
- 2 Discard towing eye

Removing towing eye

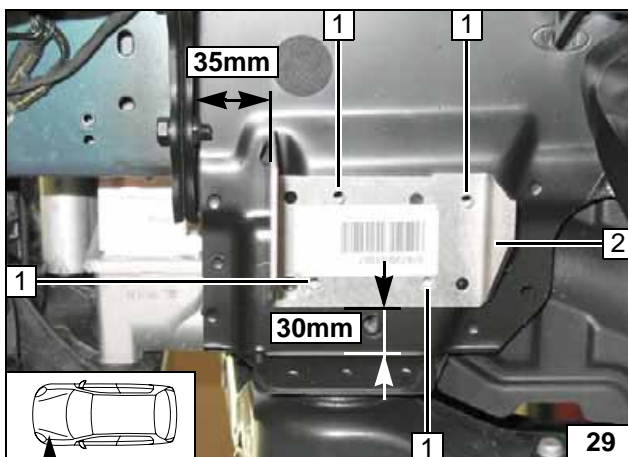


2.0 Diesel

Fasten connector of front sensors 1 with double-sided adhesive tape.



Repositioning connector

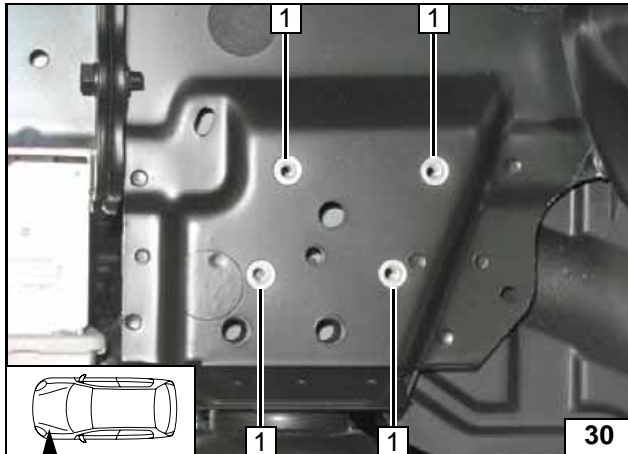
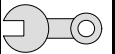


All vehicles

Align bracket 2, copy hole pattern 1 [4x]

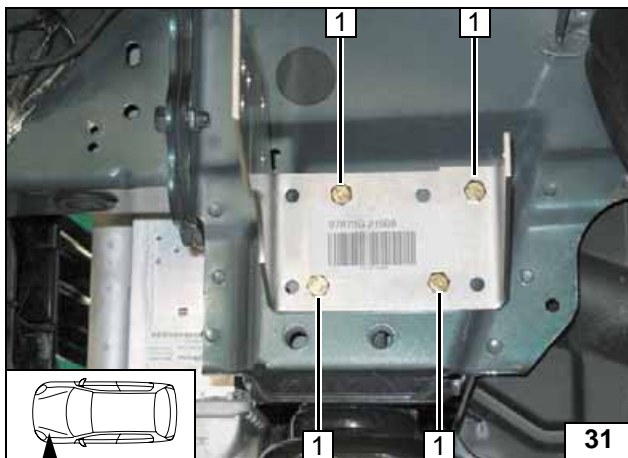


Copying hole pattern



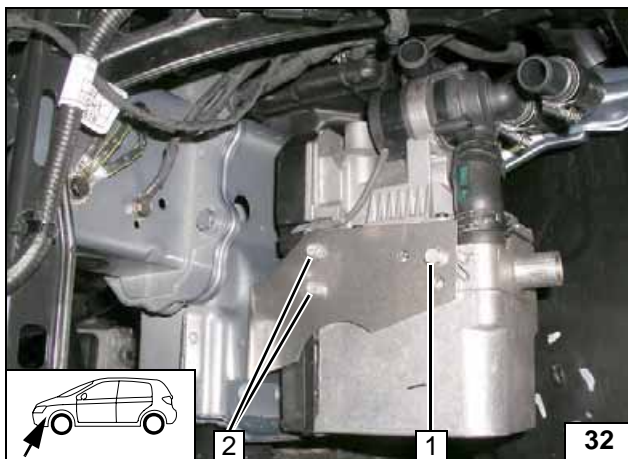
1 9.1 mm dia. hole; rivet nuts [4x each]

Installing rivet nuts



1 M6x25 bolt, spring lockwasher [4x each]

Installing bracket

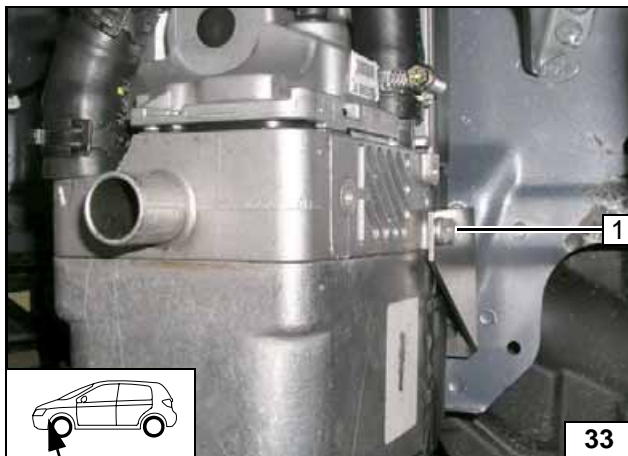


Installing heater

Tighten EJOT screws to 10 Nm. Insert two washers between heater and bracket at position 1.

- 1 Ejot screw, washer [2x]
- 2 Ejot screw [2x]

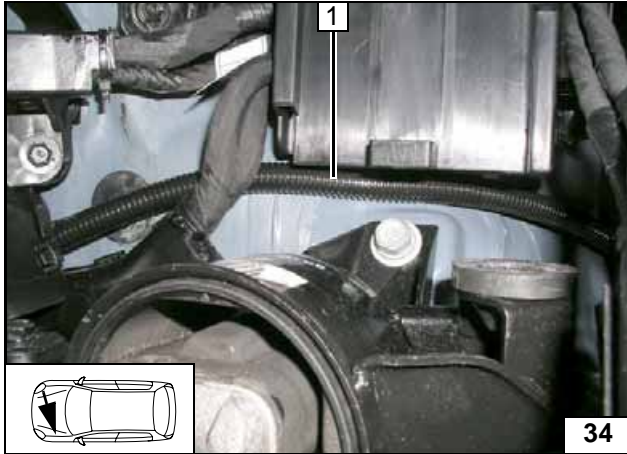
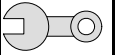
Installing heater



Ejot screw 1, tightening torque 10 Nm.

Installing heater

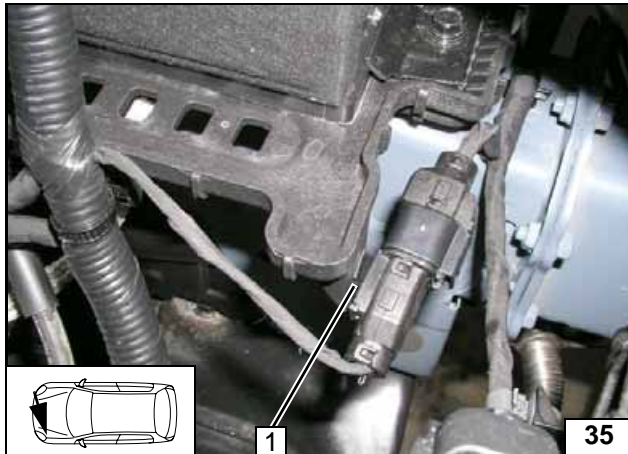
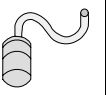




Route fuel line and wiring harness of metering pump in corrugated tube **1** to firewall and along original vehicle fuel lines to underbody. Cut fuel line to length at installation location of metering pump.



Routing fuel line and wiring harness



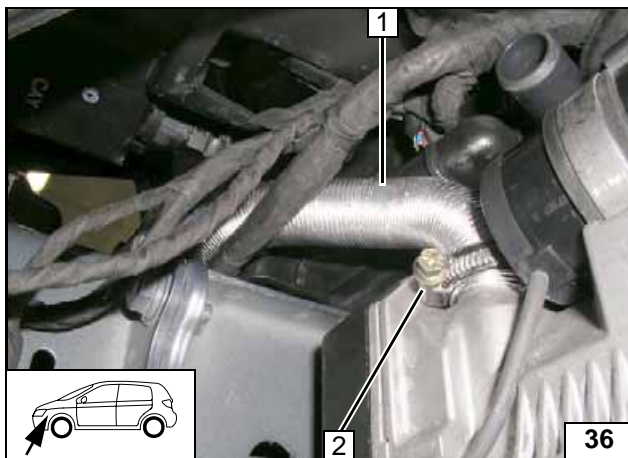
Combustion air

All vehicles

- 1 Retaining clip



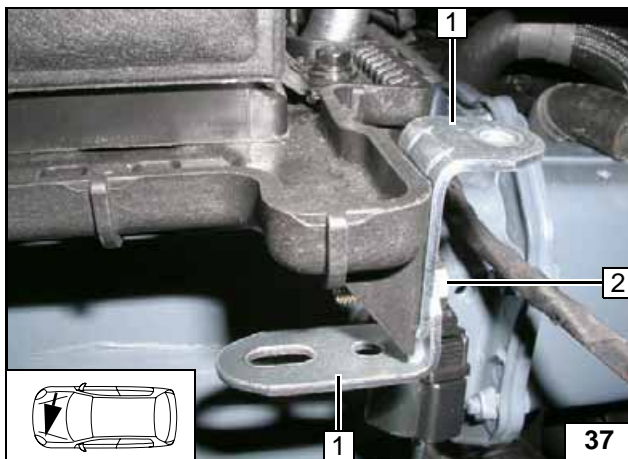
Detaching retaining clip of connector



- 1 Combustion-air intake pipe
- 2 27 mm dia. hose clamp



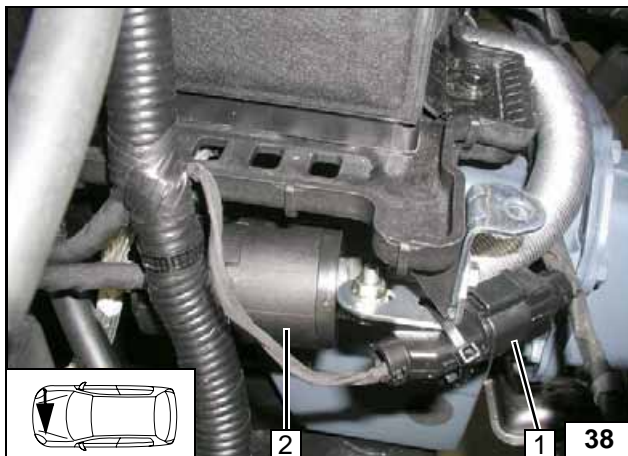
Installing intake pipe



Petrol and 1.6 Diesel

- 1 Angle bracket [2x]
- 2 M6x20 bolt, flanged nut

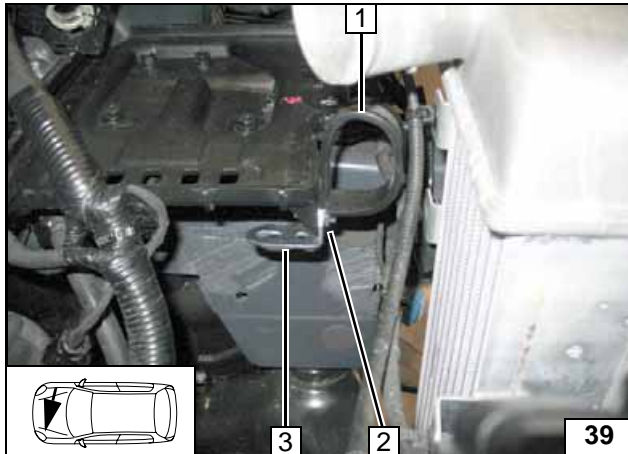
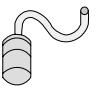
Installing angle bracket



- 1 Original vehicle connector, cable tie on angle bracket
- 2 Combustion-air intake silencer, 25 mm dia. p-clamp, M6x20 bolt, flanged nut on angle bracket.



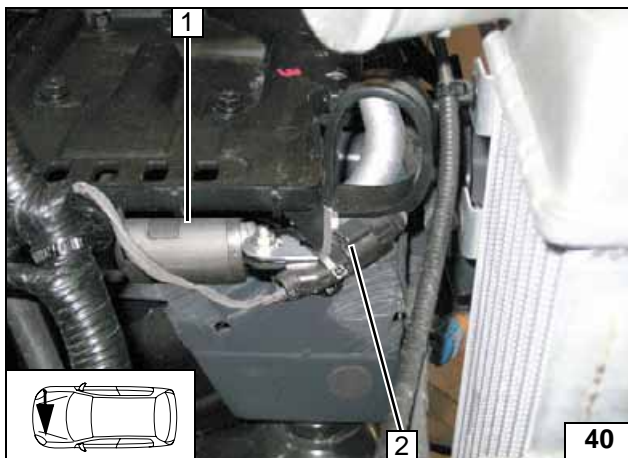
Installing silencer



2.0 Diesel

- 1 Rubber-coated pipe clamp, 48 mm dia.
- 2 M6x20 bolt, flanged nut
- 3 Angle bracket

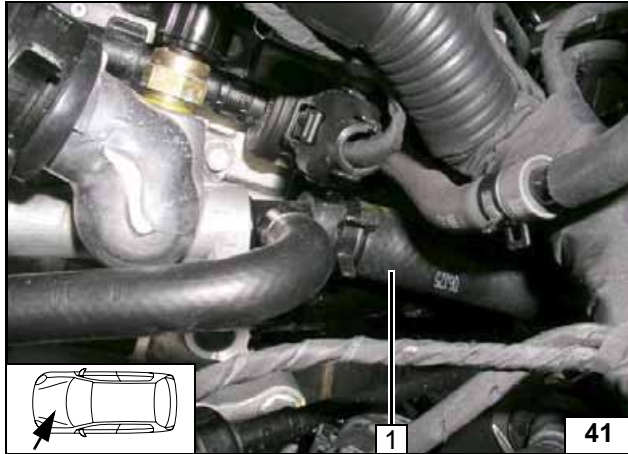
Installing angle bracket



- 1 Combustion-air intake silencer, 25 mm dia. p-clamp, M6x20 bolt, flanged nut on angle bracket.
- 2 Original vehicle connector, cable tie on angle bracket



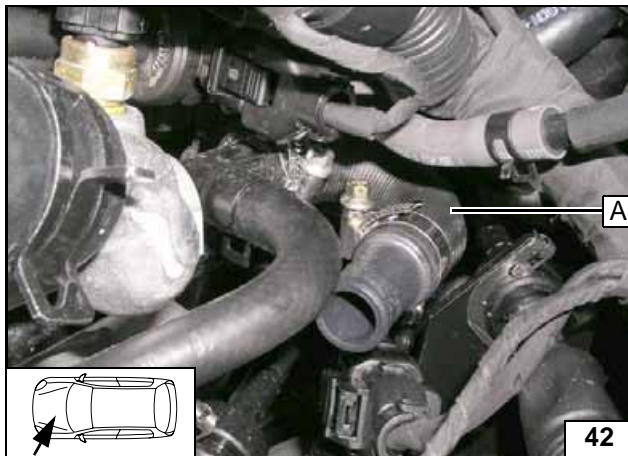
Installing silencer



Pull original vehicle hose 1 off connection piece of engine outlet.



Cutting point

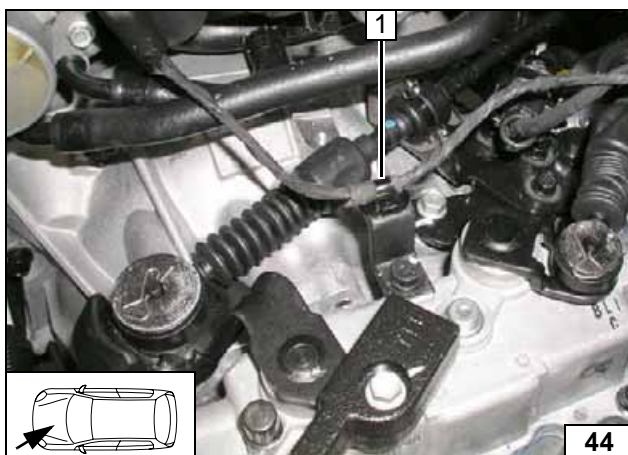


Connecting engine outlet



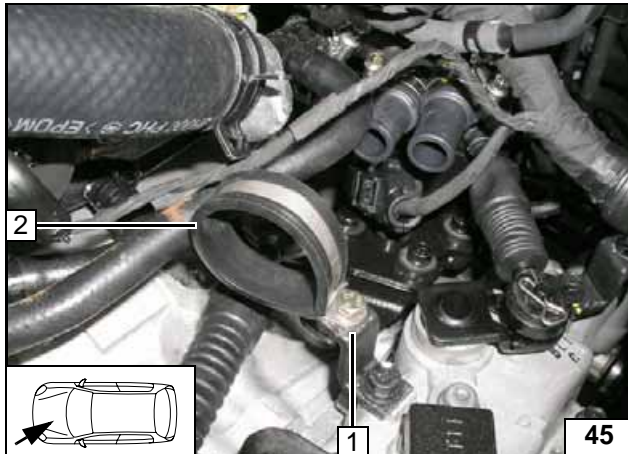
1 Hose section of heat exchanger inlet
2 Black rubber isolator

Installing rubber isolator



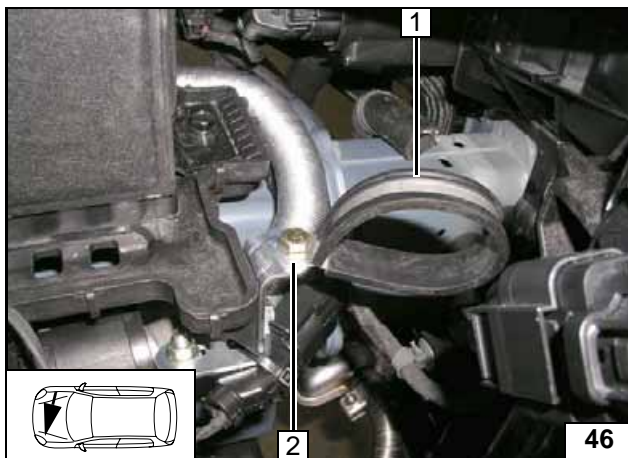
1 Retaining clip

Releasing retaining clip



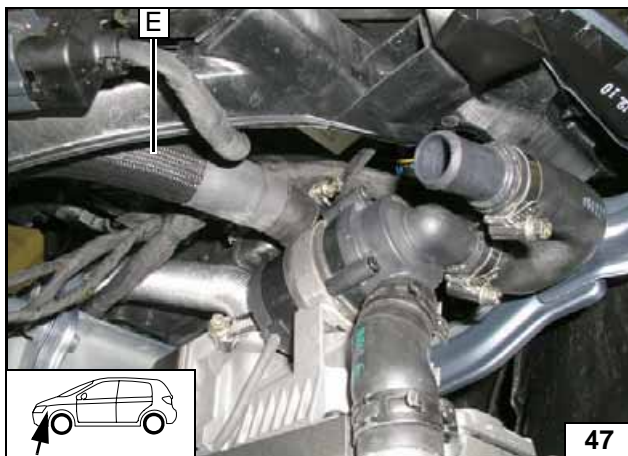
- 1 M6x20 bolt, flanged nut
- 2 Rubber-coated pipe clamp, 48 mm dia.

Installing p-clamp

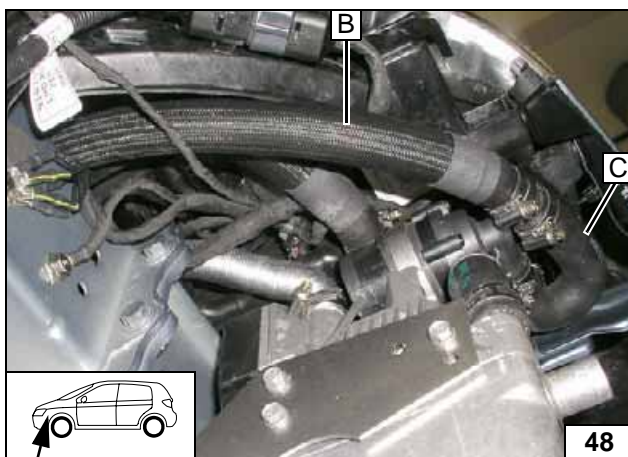


- 1 Rubber-coated pipe clamp, 48 mm dia.
- 2 M6x20 bolt, flanged nut

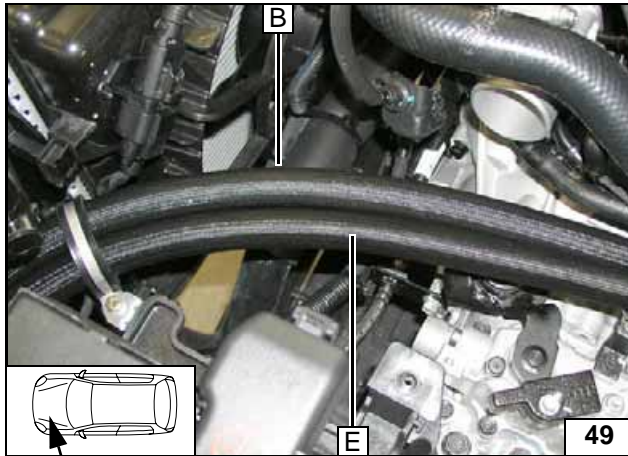
Installing p-clamp



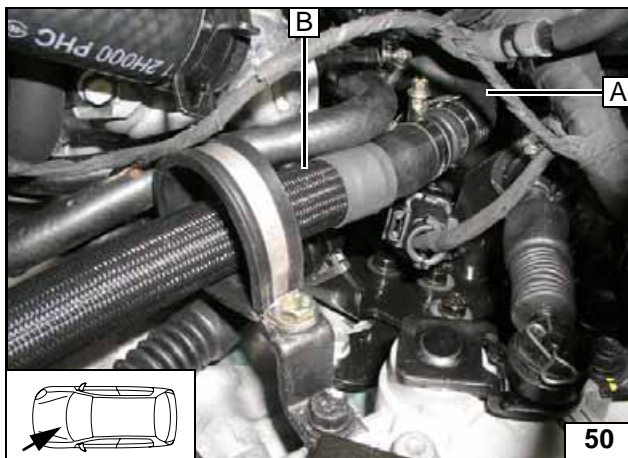
Connect-
ing heater
outlet



Connect-
ing heater
inlet



Routing in engine compartment



Connecting engine outlet

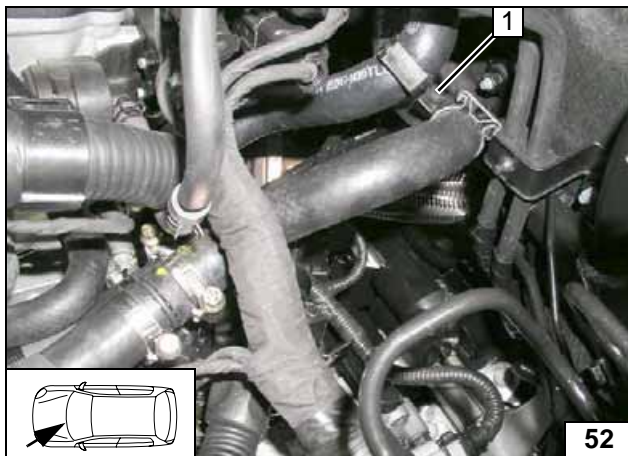


Before connecting, fill the coolant hoses with coolant.



- 1 Hose section of heat exchanger inlet
- 2 Original vehicle wiring harness, retaining clip removed, cable tie

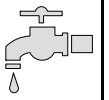
Connecting heat exchanger inlet



Ensure sufficient space to adjacent components; correct if necessary. Install spacer 1 and align black rubber isolator (covered)



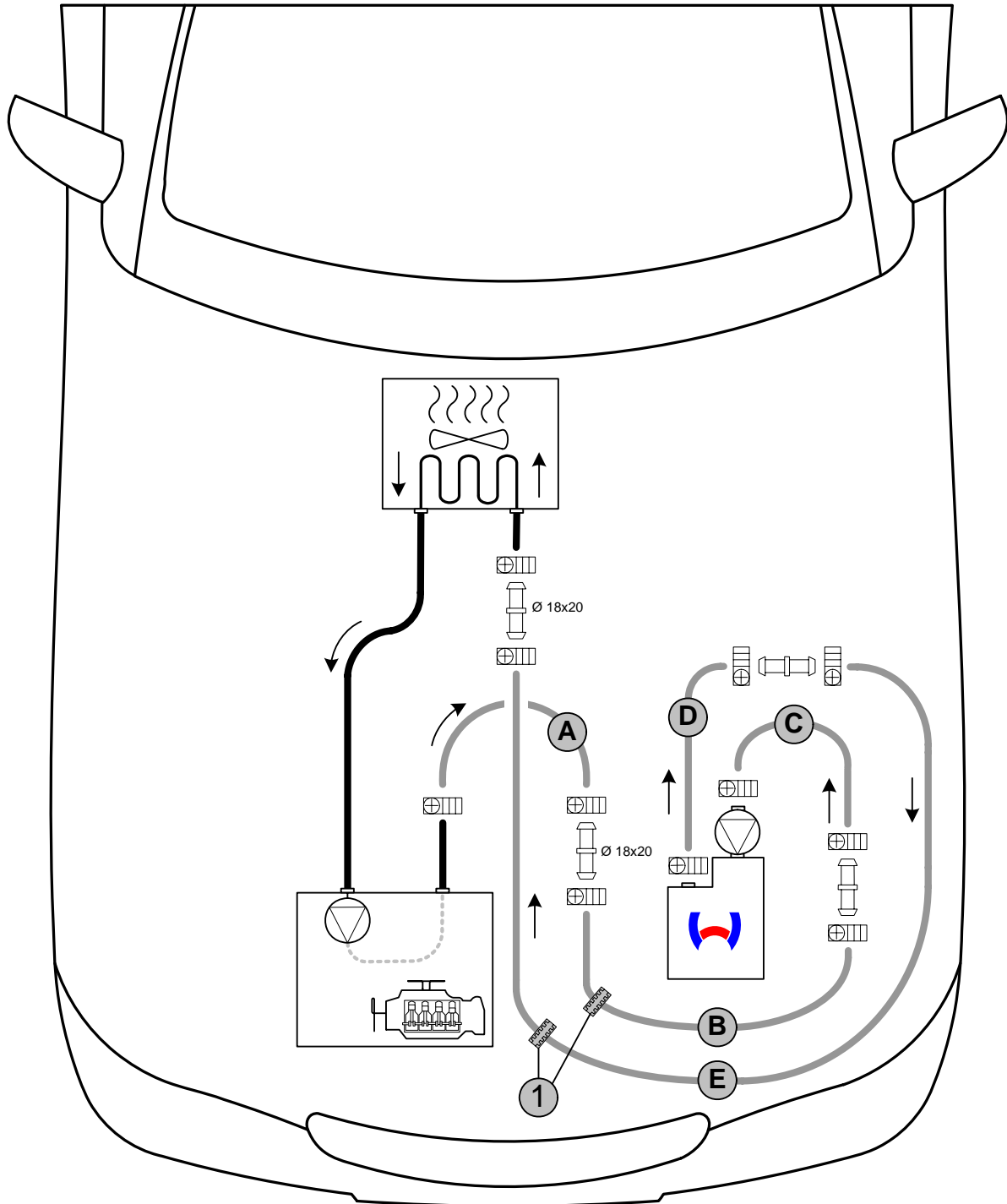
Aligning hoses






Coolant circuit for 2.0 Petrol

WARNING!

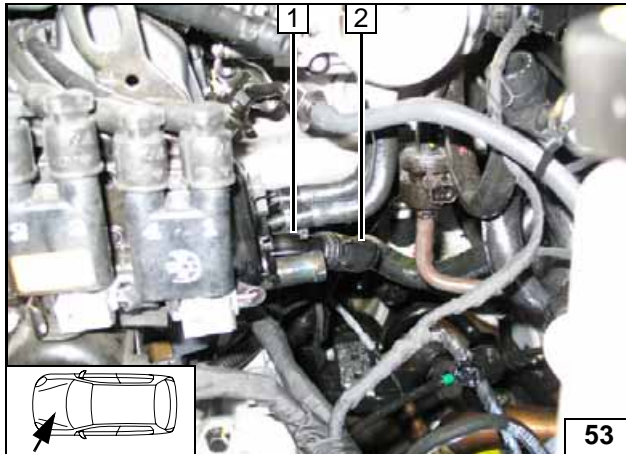
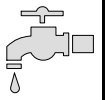
Any coolant running off should be collected using a suitable container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged. When installing the hoses, the heater must be filled with coolant. The connection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



Hose installation diagram

All hose clamps  = 20-27 mm dia.
 1 = Black (sw) rubber isolator  [2x]
 All connecting pipes without a specific designation  = 20x20 mm.

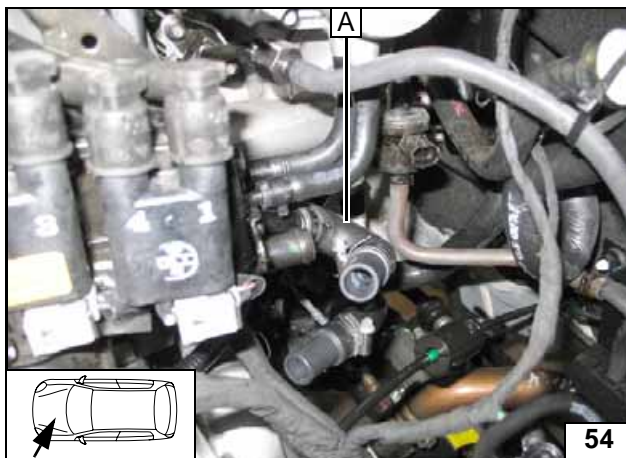




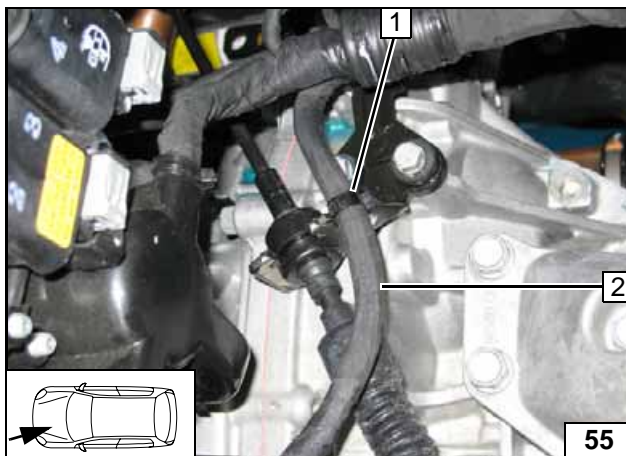
Pull original vehicle hose 2 off connection piece of engine outlet 1. Hose on engine inlet disconnected for documentation purposes.



Cutting point



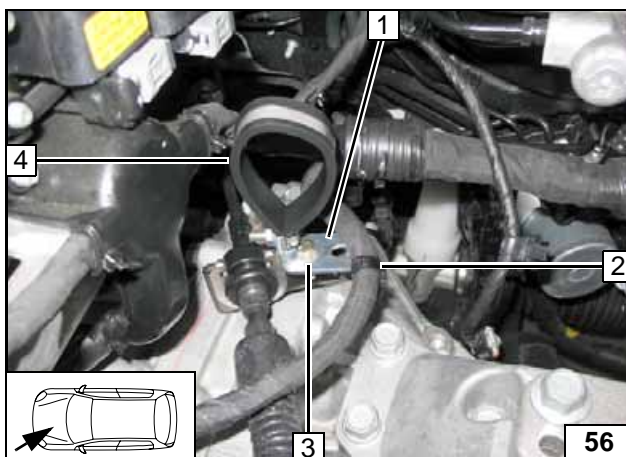
Connecting engine outlet



Remove retaining clip 1 of original vehicle wiring harness 2 from bracket



Releasing retaining clip

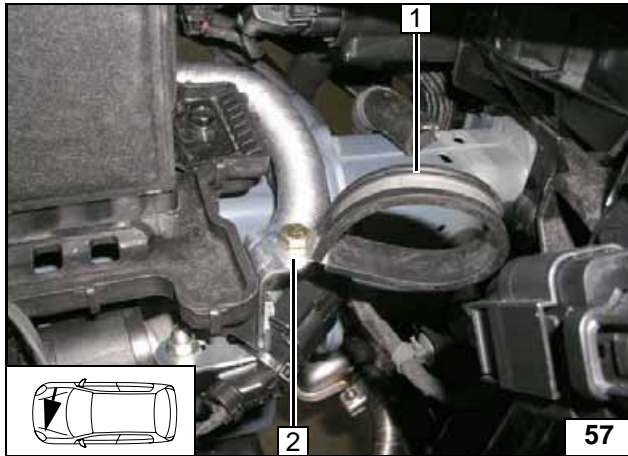


Mount retaining clip 2 of original vehicle wiring harness in oblong hole of angle bracket 1.

- 1 Angle bracket
- 3 M6x20 bolt, flanged nut
- 4 48 mm dia. rubber-coated p-clamp, M6x20 bolt on angle bracket

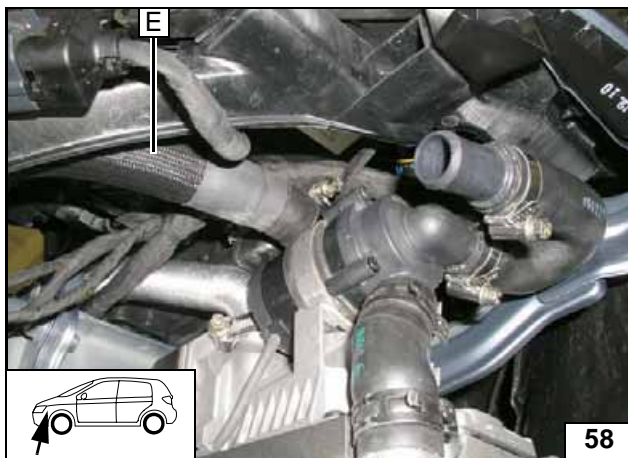


Installing p-clamp

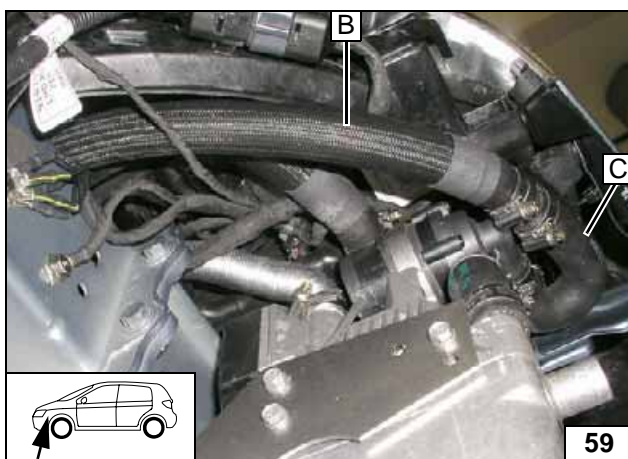


- 1 Rubber-coated pipe clamp, 48 mm dia.
- 2 M6x20 bolt, flanged nut

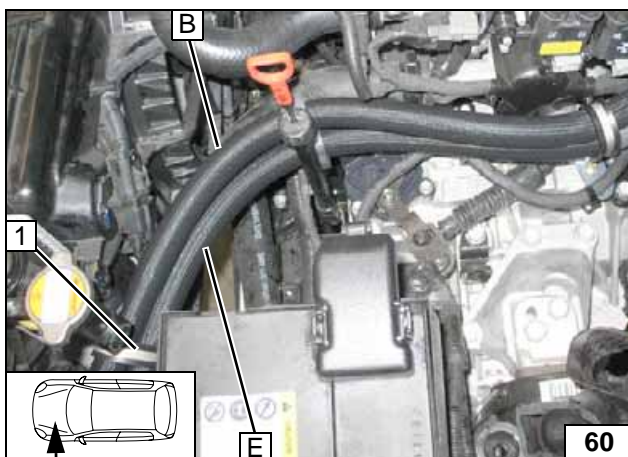
Installing p-clamp



Connect-
ing heater
outlet

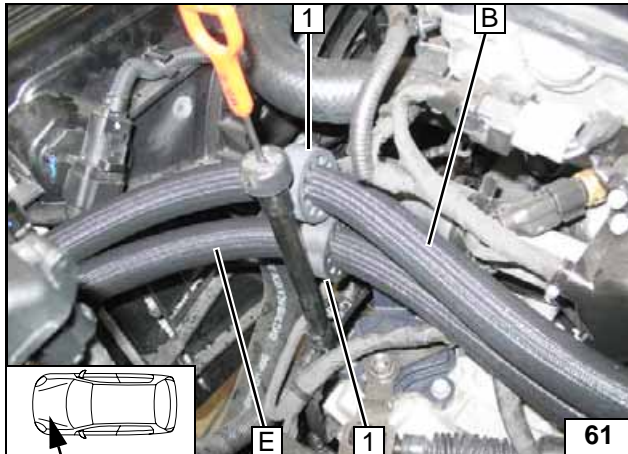


Connect-
ing heater
inlet



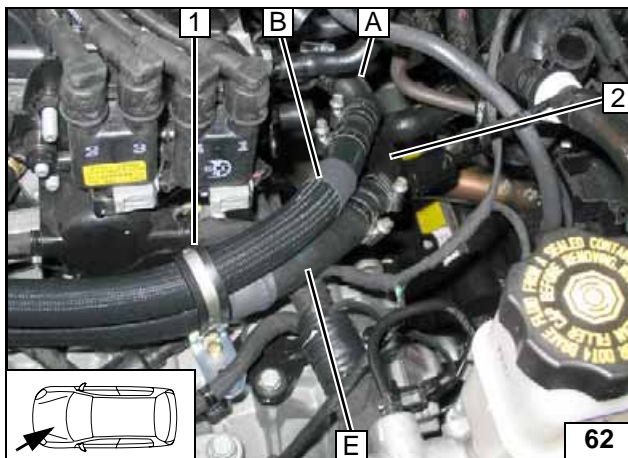
- 1 Rubber-coated pipe clamp

Routing in
engine
compartment



1 Black (sw) rubber isolator [2x]

Routing in engine compartment

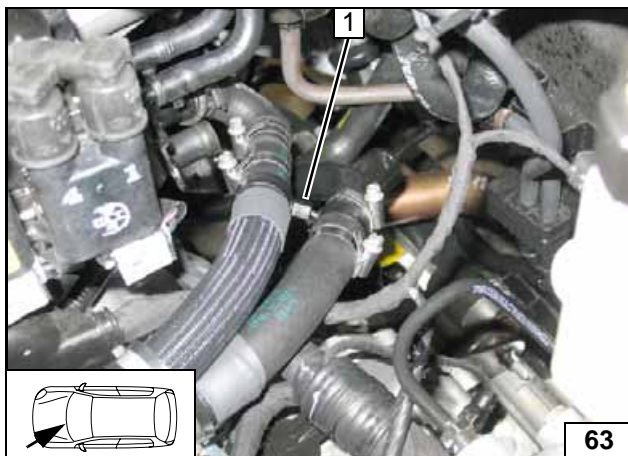


Before connecting, fill the coolant hoses with coolant.



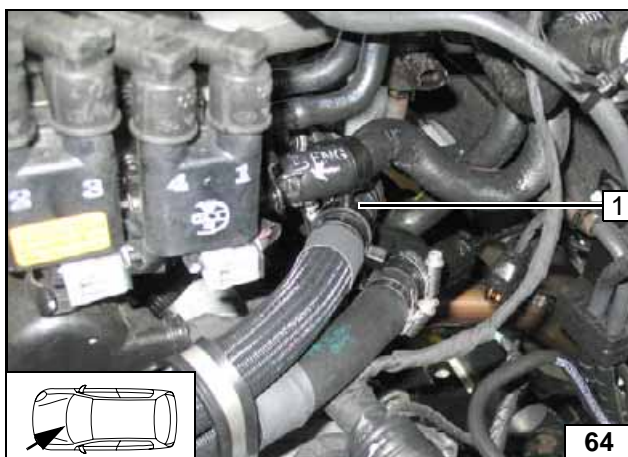
1 Rubber-coated pipe clamp
2 Hose section of heat exchanger inlet

Connecting engine outlet and heat exchanger inlet



1 Spacer bracket (lockable)

Installing spacer bracket



Ensure sufficient space to adjacent components; correct if necessary. Install spacer 1 and align black rubber isolator [2x] (covered)



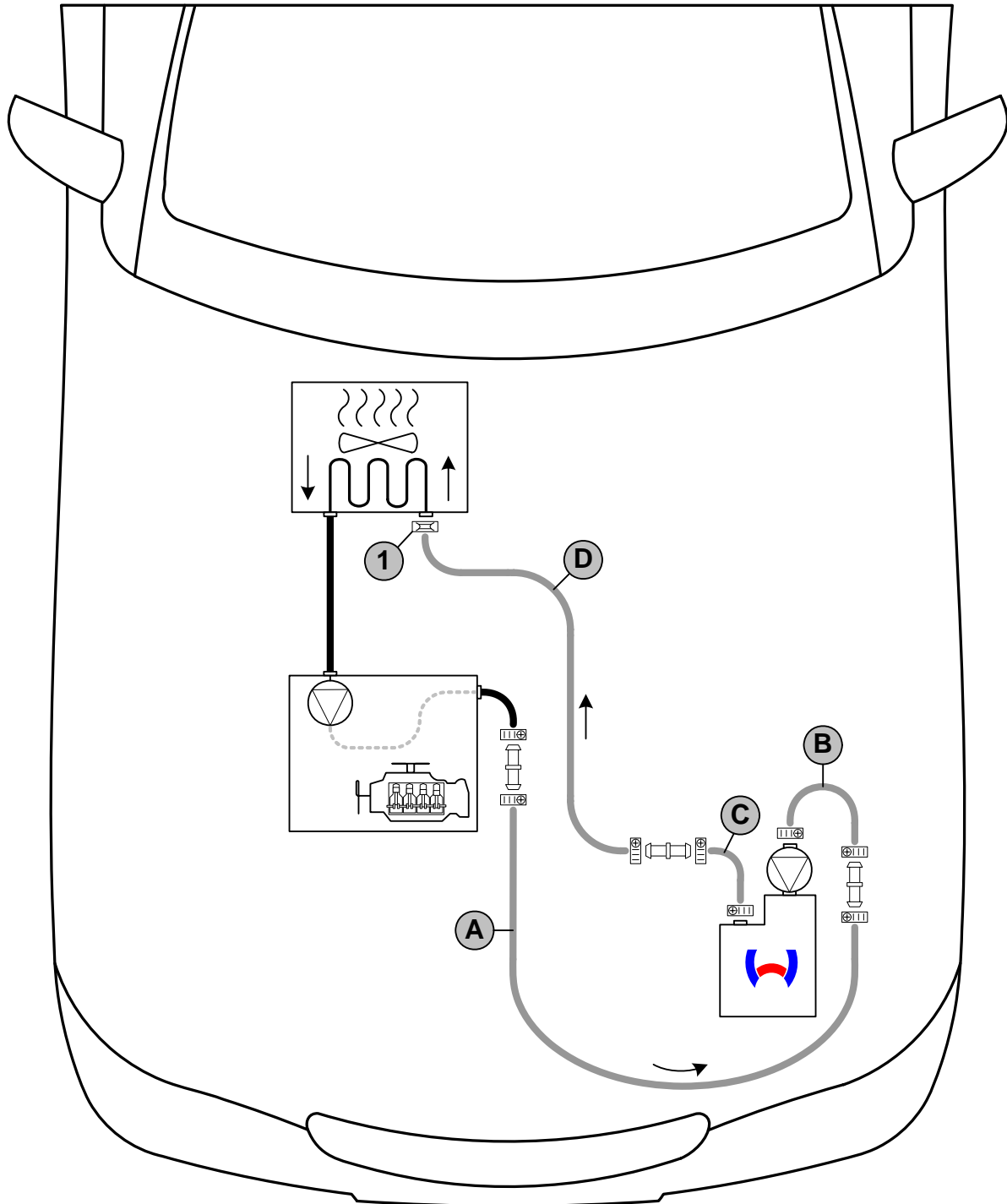
Installing spacer bracket






Coolant circuit 1.6 Diesel

WARNING!

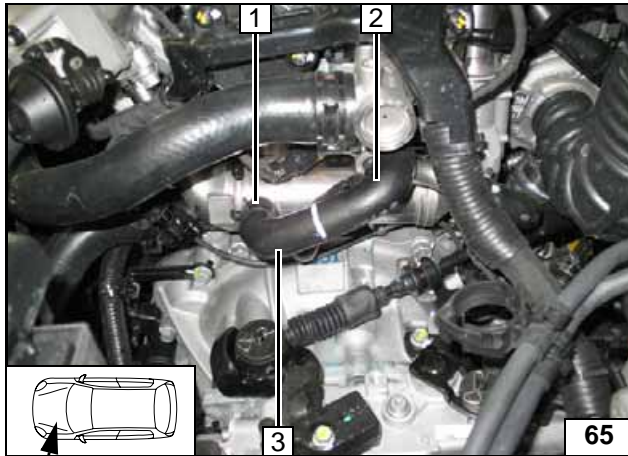
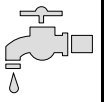
Any coolant running off should be collected using a suitable container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged. When installing the hoses, the heater must be filled with coolant. The connection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



Hose installation diagram

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



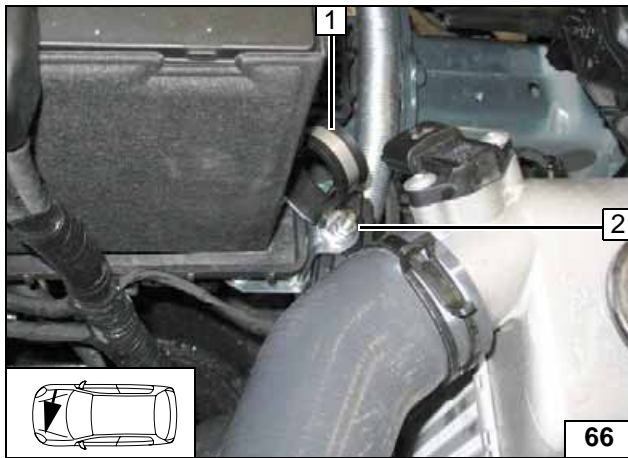


Remove hose section from heat exchanger inlet **3** and discard. Original vehicle spring clip **1** will be reused.

2 Engine-outlet hose section

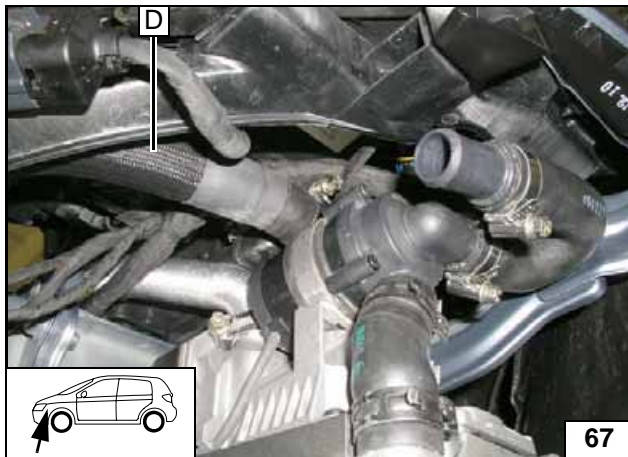


Cutting point

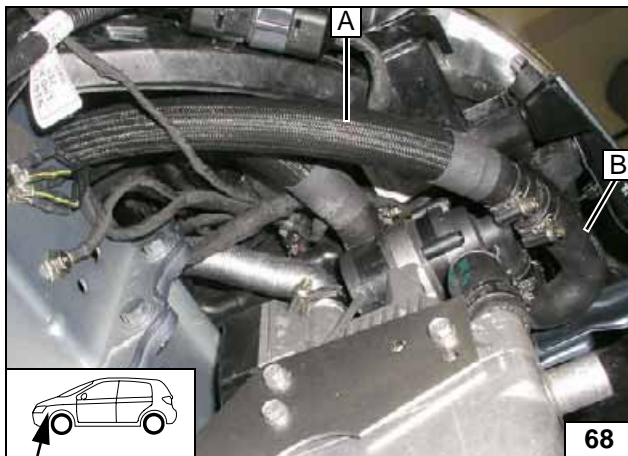


1 Rubber-coated pipe clamp, 48 mm dia.
2 M6x20 bolt, flanged nut

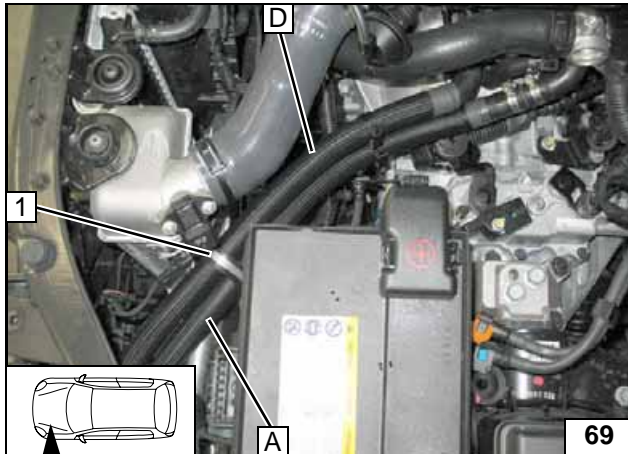
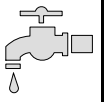
Installing p-clamp



**Connect-
ing heater
outlet**



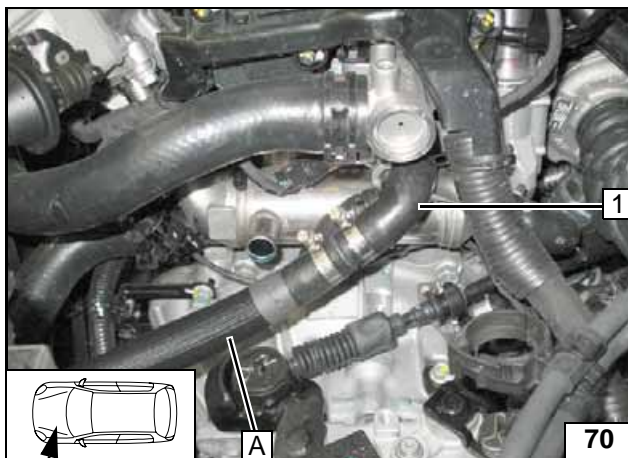
**Connect-
ing heater
inlet**



Route hose **A** and **D** through rubber-coated p-clamp **1**.
Ensure sufficient distance to neighbouring components.

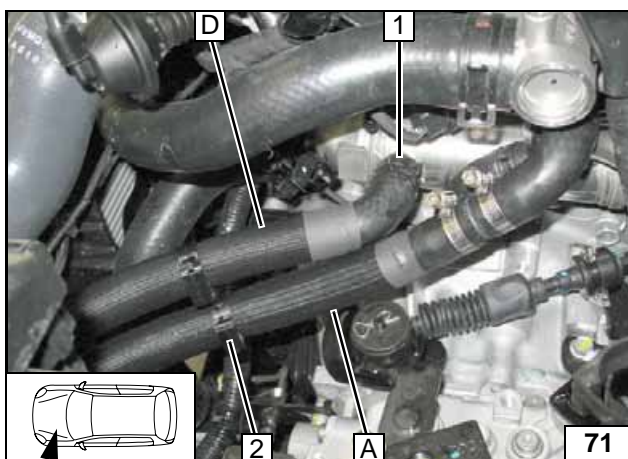


Routing in engine compartment



1 Engine-outlet hose section

Connecting engine outlet

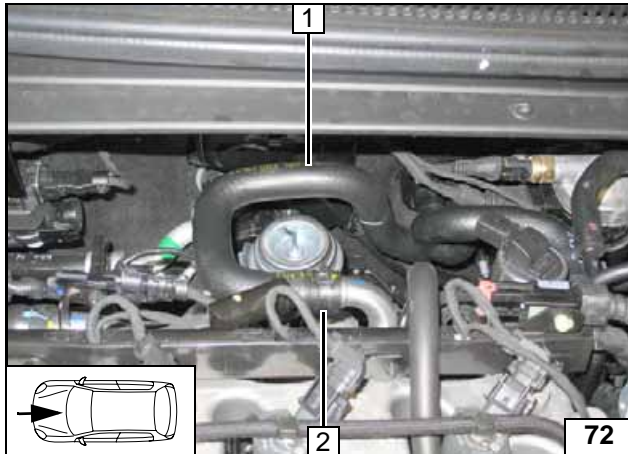
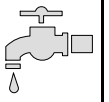


Before connecting, fill the coolant hoses with coolant.

- 1** Original vehicle spring clip
- 2** Spacer bracket



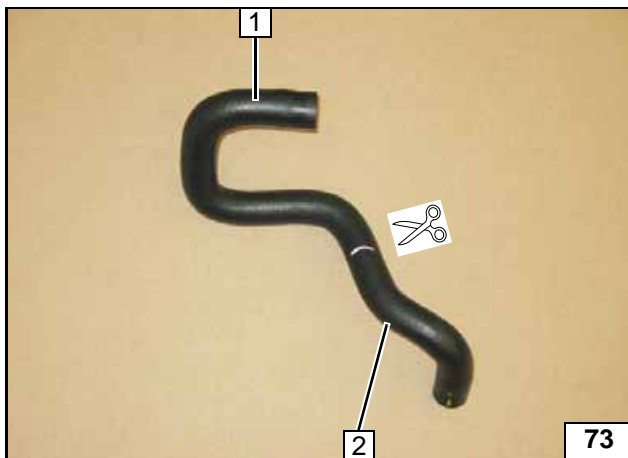
Connecting heat exchanger inlet



Remove original vehicle hose on engine outlet/heat exchanger inlet 1. Original vehicle spring clip 2 will be reused.

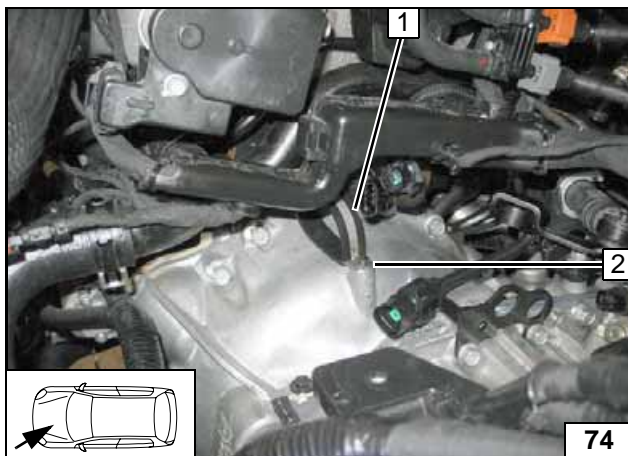


Cutting point



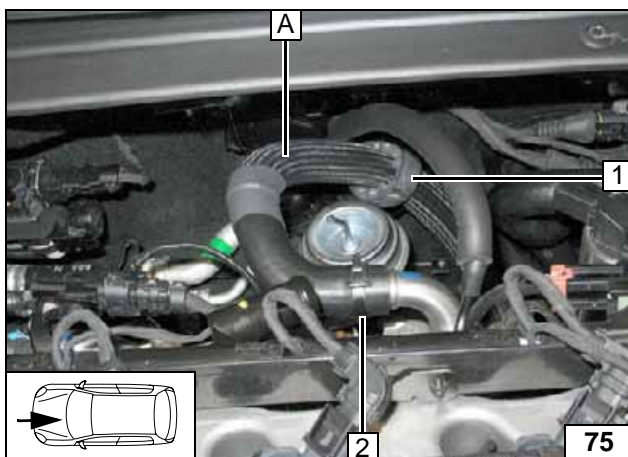
- 1 Discard hose section
- 2 Mount hose section on heat exchanger inlet again

Separating hose



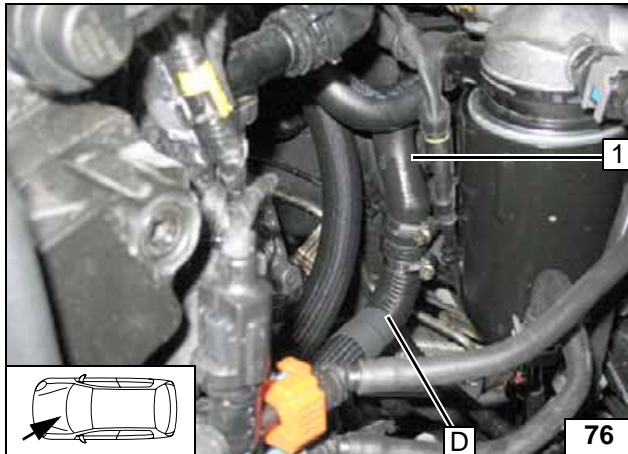
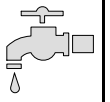
- 1 Rubber-coated pipe clamp, 48 mm dia.
- 2 M6x20 bolt

Installing p-clamp



- 1 Black (sw) rubber isolator
- 2 Original vehicle spring clip

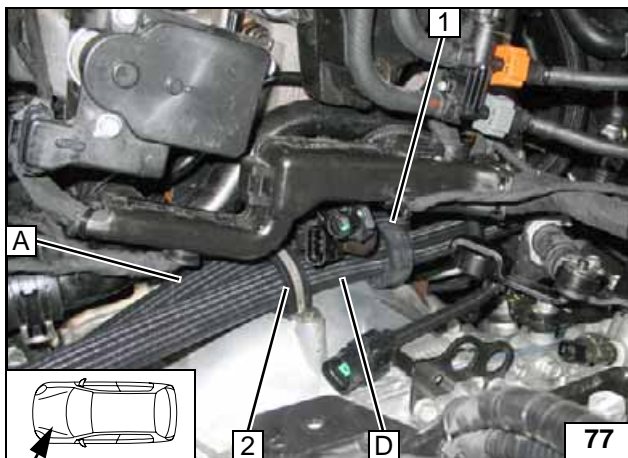
Connecting engine outlet



1 Hose section of heat exchanger inlet



Connect-
ing heat
exchanger
inlet

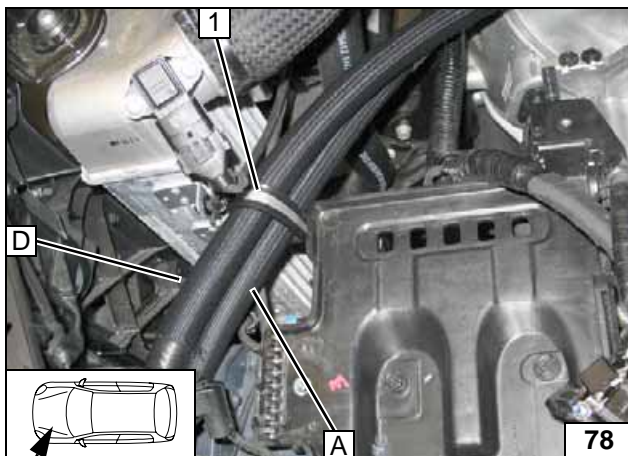


Route hose **A** and **D** through rubber-coated p-clamp **2**.
Ensure sufficient distance to neighbouring components.

1 Black (sw) rubber isolator



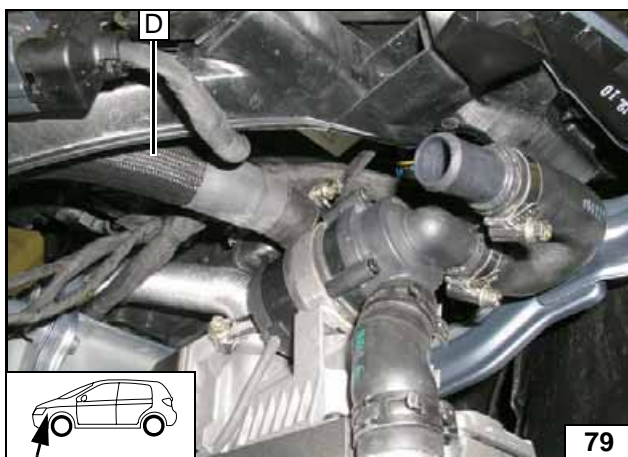
Routing in
engine
compart-
ment



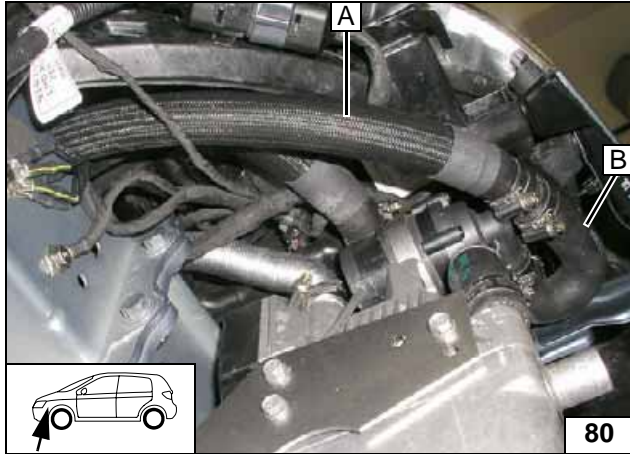
Route hose **A** and **D** through rubber-coated p-clamp **1**.
Ensure sufficient distance to neighbouring components.



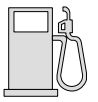
Routing in
engine
compart-
ment



Connect-
ing heater
outlet



Connect-
ing heater
inlet



Fuel

CAUTION!

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

Catch any fuel running off in a suitable container.

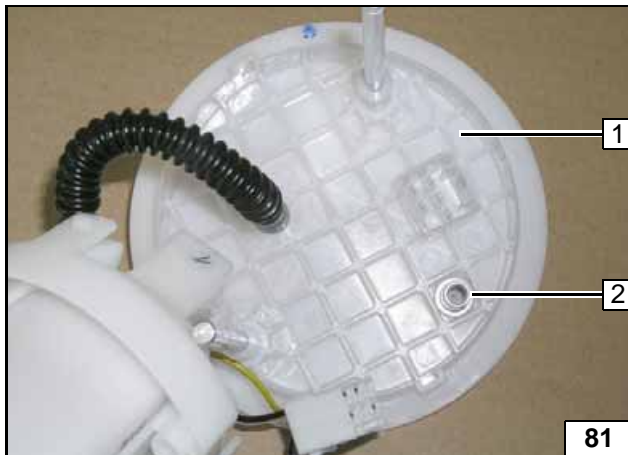
Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties. Mount the fuel line and wiring harness with rub protection on sharp edges.

WARNING!

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



Copying hole pattern



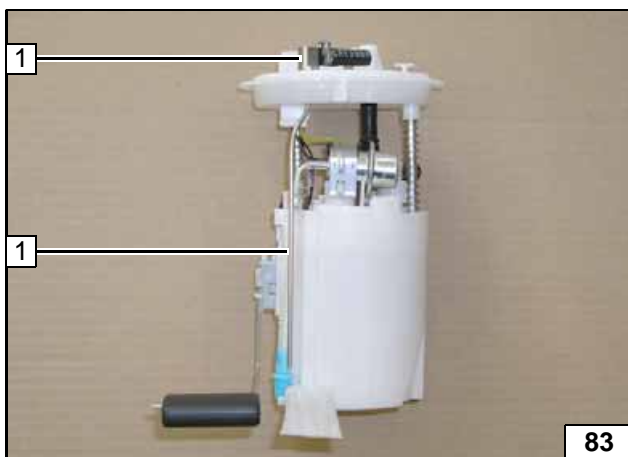
Removing petrol

Remove and dismantle fuel-tank sending unit according to manufacturer's instructions. Insert rivet nut 2 for centering in the middle of the segment of the cover 1 and pre-drill 5mm dia. hole

1 Drill out 6 mm dia. hole



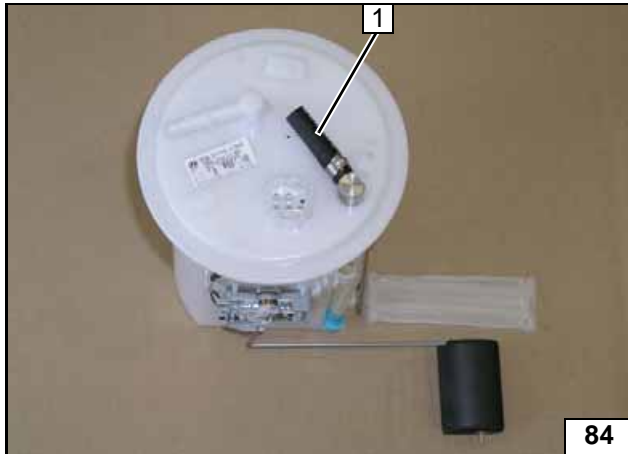
Drilling hole in fuel-tank sending unit



Shape fuel standpipe 1 according to template, cut to length and install, see "installation instructions". Insert 4x 6 mm dia. washers between cover of fuel-tank sending unit and nut of fuel standpipe to adjust height.



Installing fuel standpipe



1 Hose section, 10 mm dia. Caillau clamp



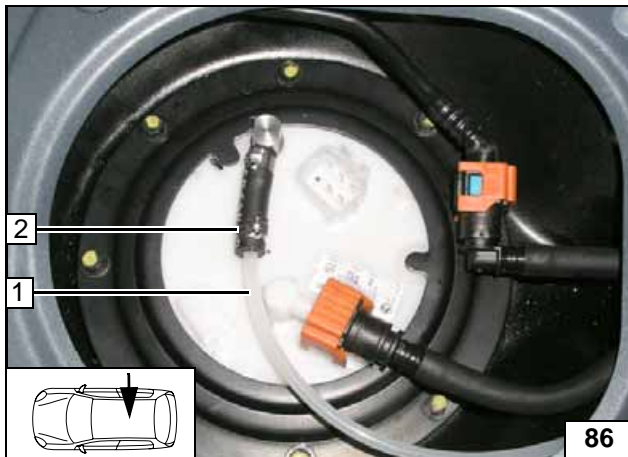
Aligning fuel stand-pipe



Cut out mounting flange 1 in the area of the marking



Laying on mounting flange

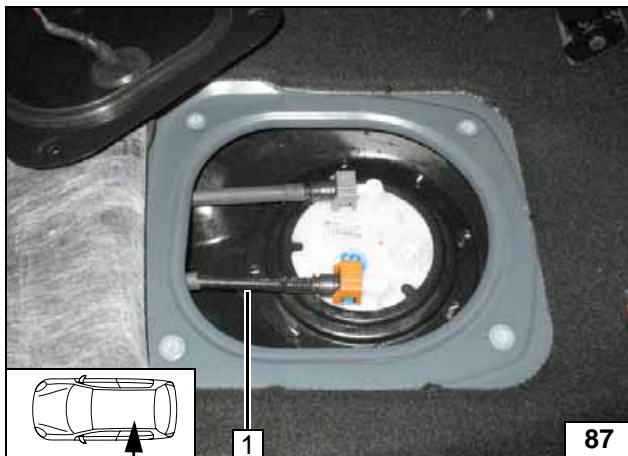


Install fuel-tank sending unit in accordance with manufacturer's instructions.

- 1 Fuel line
- 2 Hose section, 10 mm dia. Caillau clamp



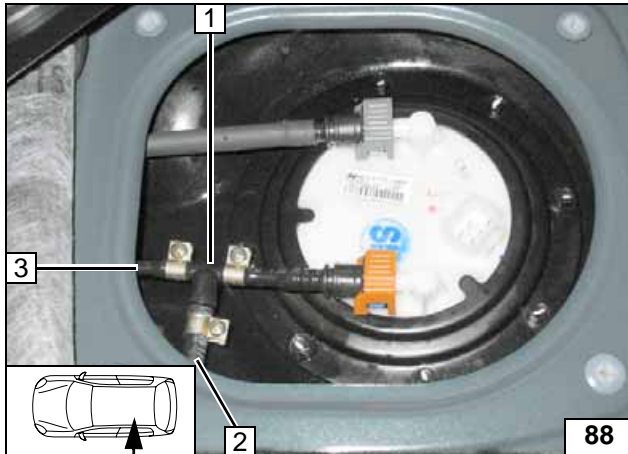
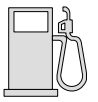
Connecting fuel line



Removal 1.6 Diesel

- 1 Remove protective sleeving on fuel supply line

Removing protective sleeving

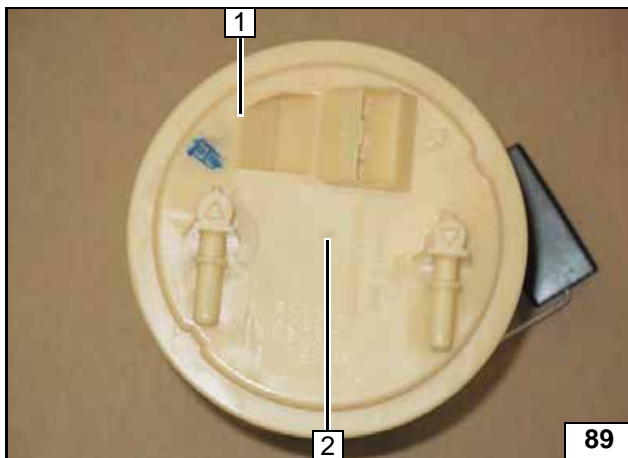


Cut off fuel supply line **3** approx. 50 mm before coupling and insert fuel standpipe.

- 1 6x5x6 mm fuel standpipe clamp
8mm dia. [2x]
- 2 Fuel line, hose section, 10 mm dia. clamp
[2x]



Inserting fuel standpipe

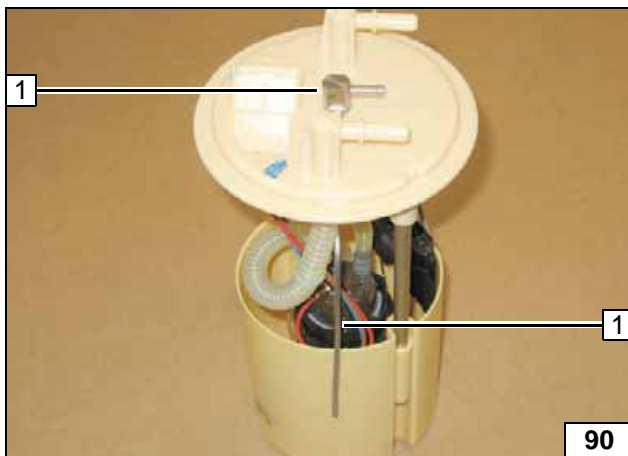


Removal 2.0 Diesel

Remove fuel-tank sending unit **1** in accordance with manufacturer's instructions. Remove type label from fuel-tank sending unit. Drill 6mm dia. hole **2** in centre in perforation of cover



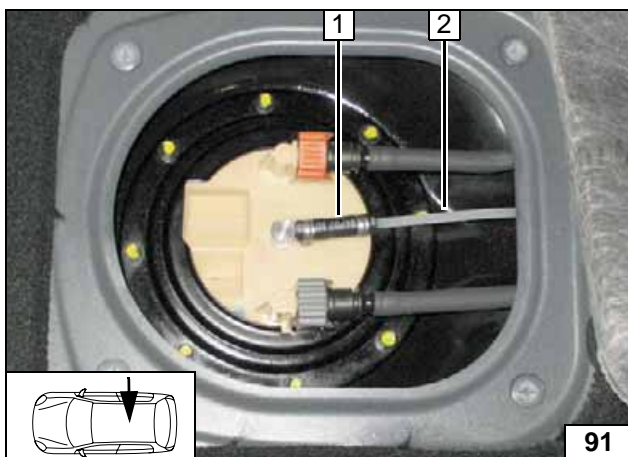
Drilling hole in fuel-tank sending unit



Shape fuel standpipe **1** according to template, cut to length and install, see "installation instructions".



Installing fuel standpipe

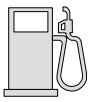


Install fuel-tank sending unit in accordance with manufacturer's instructions.

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



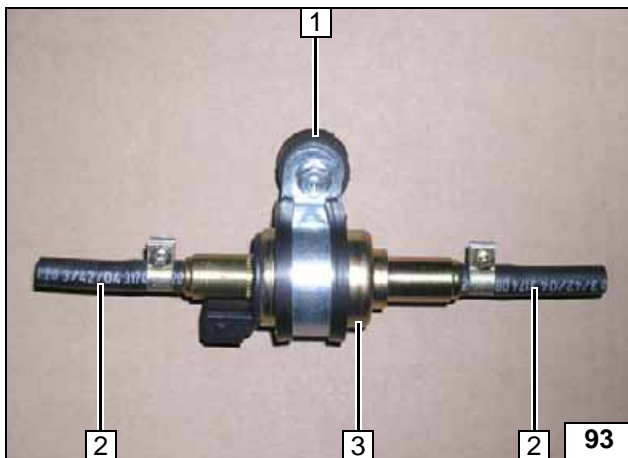
Connecting fuel line



All vehicles

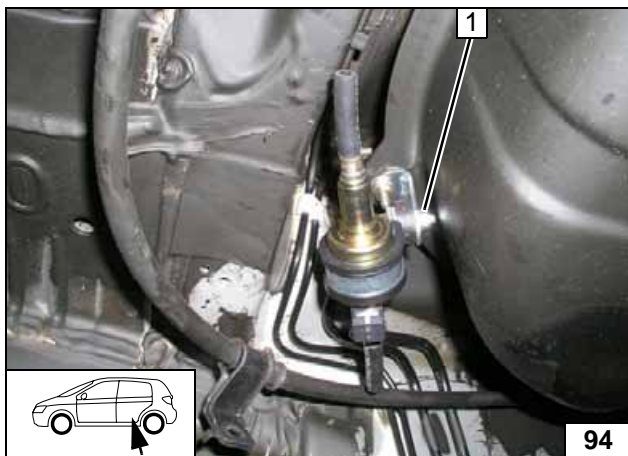
- 1 Angle bracket, M6x20 bolt, large diameter washer, flanged nut on existing hole
- 2 Fuel line from fuel standpipe

Installing angle bracket



- 1 Silent block, rubber-coated p-clamp, flanged nut
- 2 Hose section, 10 mm dia. clamp [2x each]
- 3 Metering pump

Premounting metering pump



Ensure proper installation position of metering pump, see "Installation Instructions"

- 1 M6 flanged nut on angle bracket



Installing metering pump

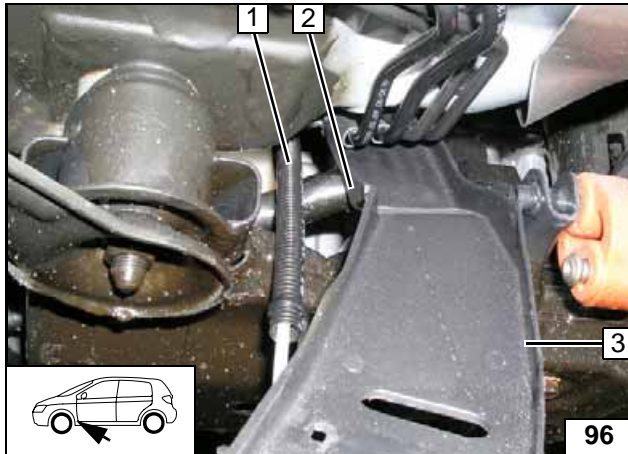


Fuel line from fuel standpipe on intake side of metering pump. Check the position of the components; adjust if necessary. Check that they have freedom of movement.

- 1 Hose section (rub protection), cable tie [2x]
- 2 10 mm dia. clamp



Connecting fuel line

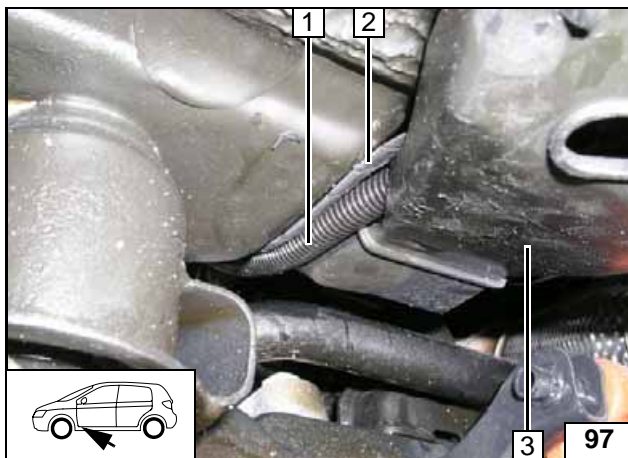


Detach line duct **3** and fold down, cut out edge at Pos. **2** for corrugated tube.

- 1** Fuel line from heater in corrugated tube

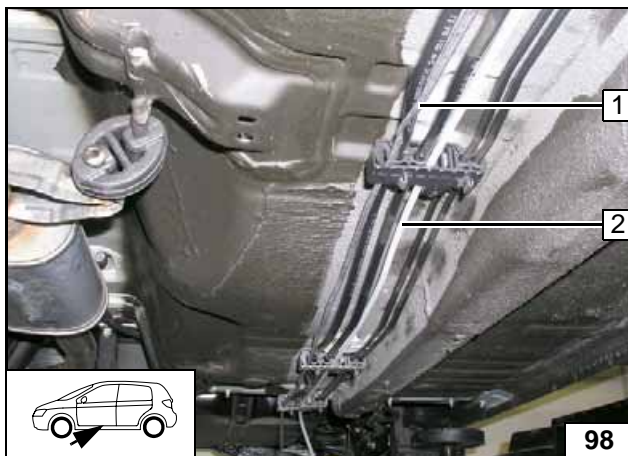


Cutting out line duct



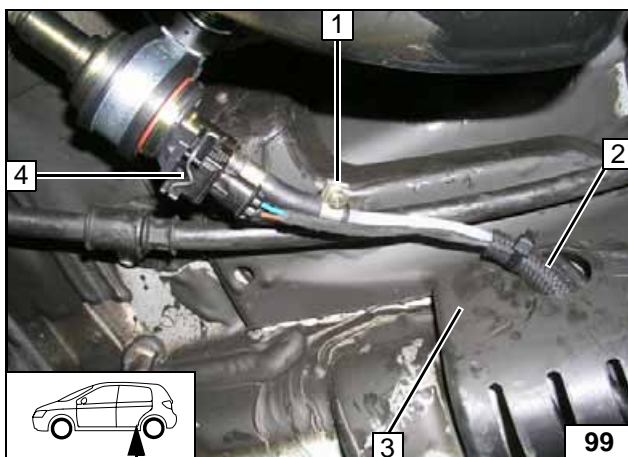
- 1** Fuel line in corrugated tube
- 2** Metering pump wiring harness
- 3** Line duct

Guiding lines into cover



- 1** Metering pump wiring harness
- 2** Fuel line

Installing lines on underbody

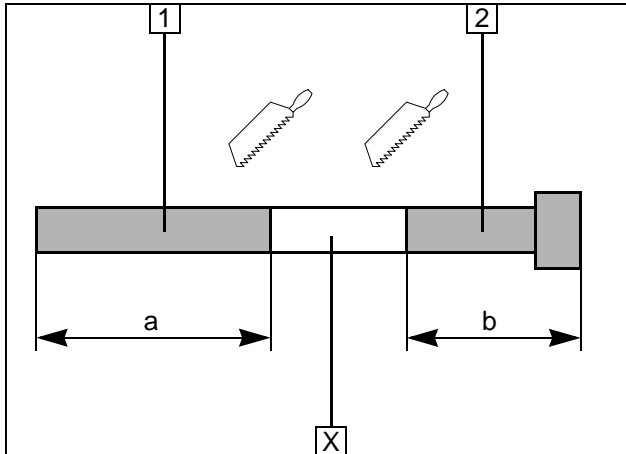
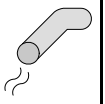


Fuel line from heater on pressure side of metering pump. Check the position of the components; adjust if necessary. Check that they have freedom of movement.

- 1** 10 mm dia. clamp
- 2** Hose section (rub protection), cable tie [2x]
- 3** Installed line duct
- 4** Wiring harness of metering pump, connector mounted



Connecting to metering pump

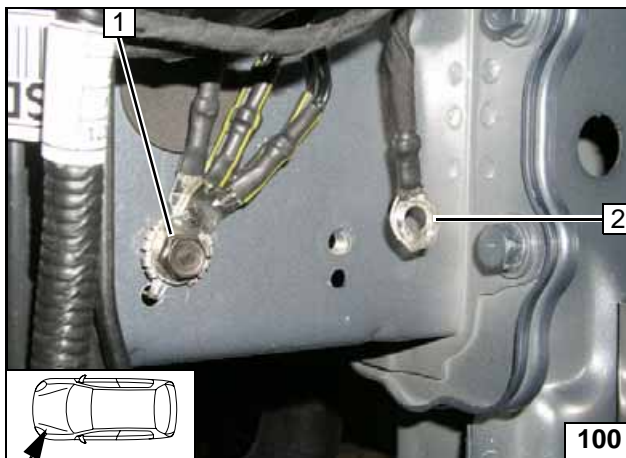


Exhaust gas

- 1 Exhaust pipe
a = 310mm
- 2 Exhaust end section
b = 175mm

Discard section X

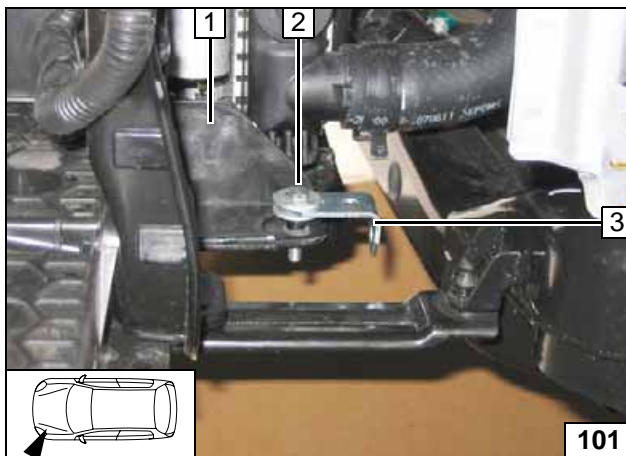
Preparing exhaust pipe



Disconnect earth cable 2 and fasten to adjacent earth point 1.

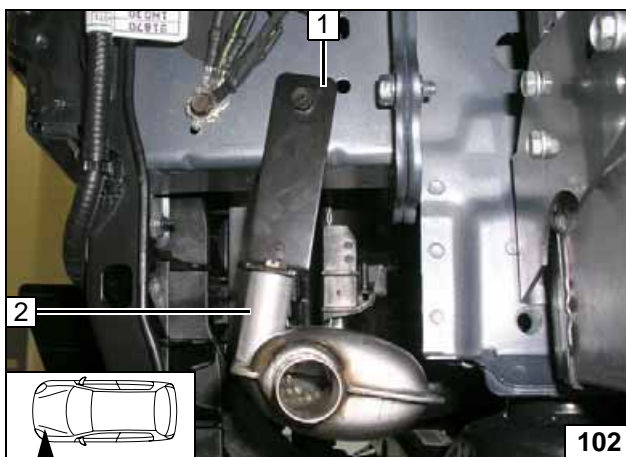


Refastening earth wire



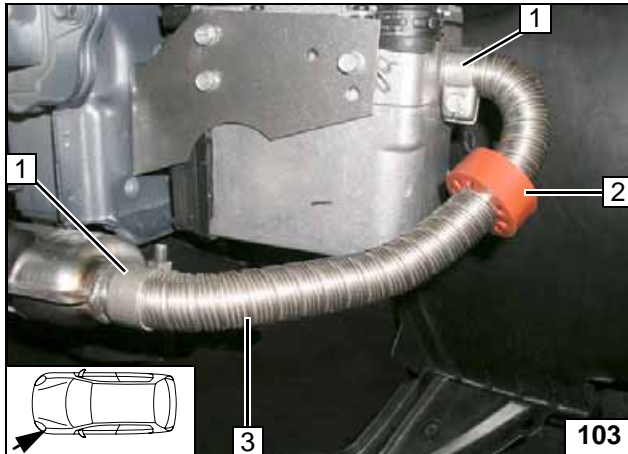
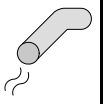
- 1 Radiator cross member
- 2 M6x30 bolt, large diameter washer [2x] on existing rivet nut
- 3 Angle bracket

Installing angle bracket



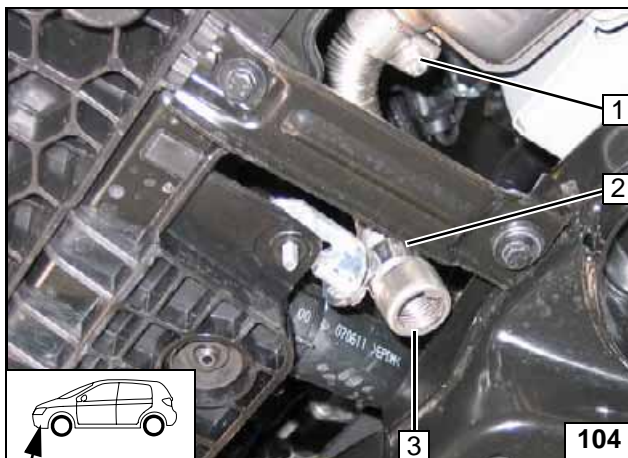
- 1 Angle bracket, original vehicle bolt
- 2 Exhaust silencer, 40 mm spacer, M6x50 bolt, flanged nut

Installing silencer



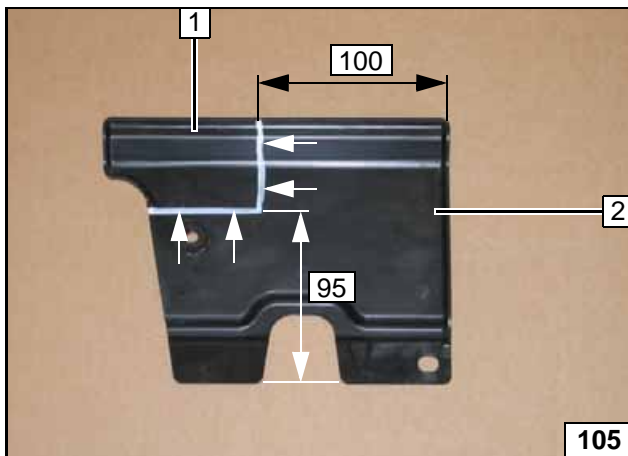
- 1 Hose clamp [2x]
- 2 Red (rt) rubber isolator
- 3 Exhaust pipe

Installing exhaust pipe



- 1 Hose clamp
- 2 P-clamp, M6x20 bolt on angle bracket
- 3 Exhaust end section

Installing exhaust end section

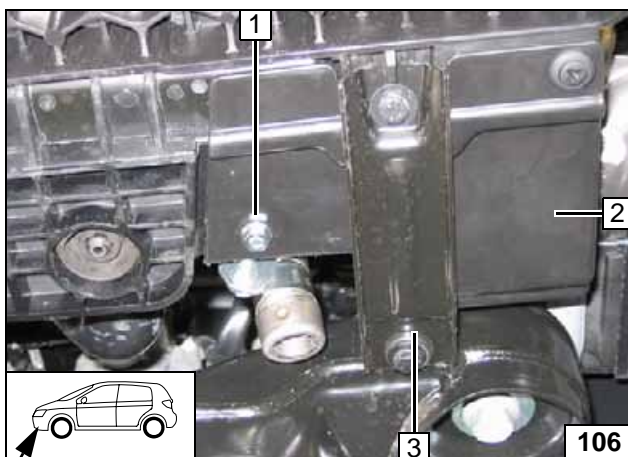


Cut out underride protection 2 on marking.

- 1 Discard section

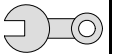


Cutting out underride protection



- 1 Flanged nut on M6x30 bolt
- 2 Underride protection

Installing underride protection



Final Work

WARNING!

Reassemble the disassembled components in reverse order.

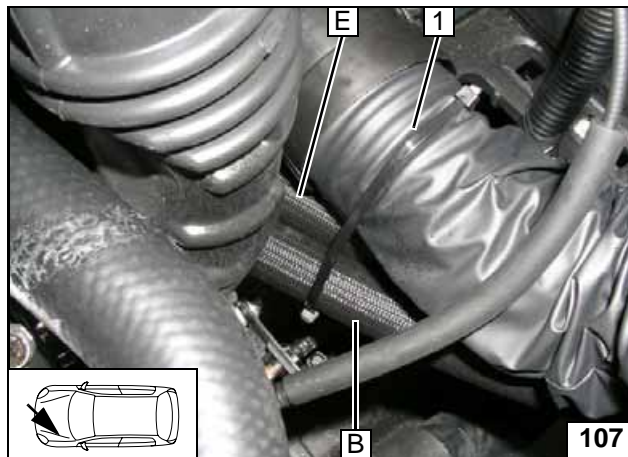
Check all hoses, clamps and all electrical connections for firm seating.

Secure all loose wires using cable ties.

Only use manufacturer-approved coolant.

Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set 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 refueling" signboard near the filler neck
- See installation instructions for initial start-up and function check



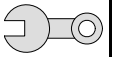
1.4 and 1.6 Petrol

1 Cable tie

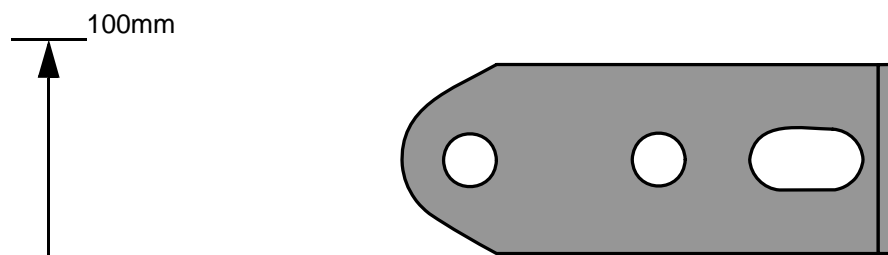
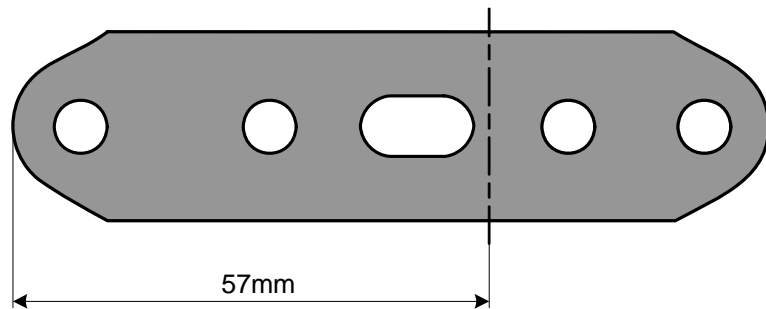
Fastening
hoses

Webasto
Feel the drive

Webasto AG
Postfach 80
D-82132 Stockdorf / Germany
National Hotline: 01805 93 22 78
(14 Cent aus dem deutschen Festnetz)
Hotfax: 0395 5592 353
Hotmail: hotline@webasto.de
<http://www.webasto.de>



Template for perforated bracket

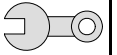


Scale 1:1

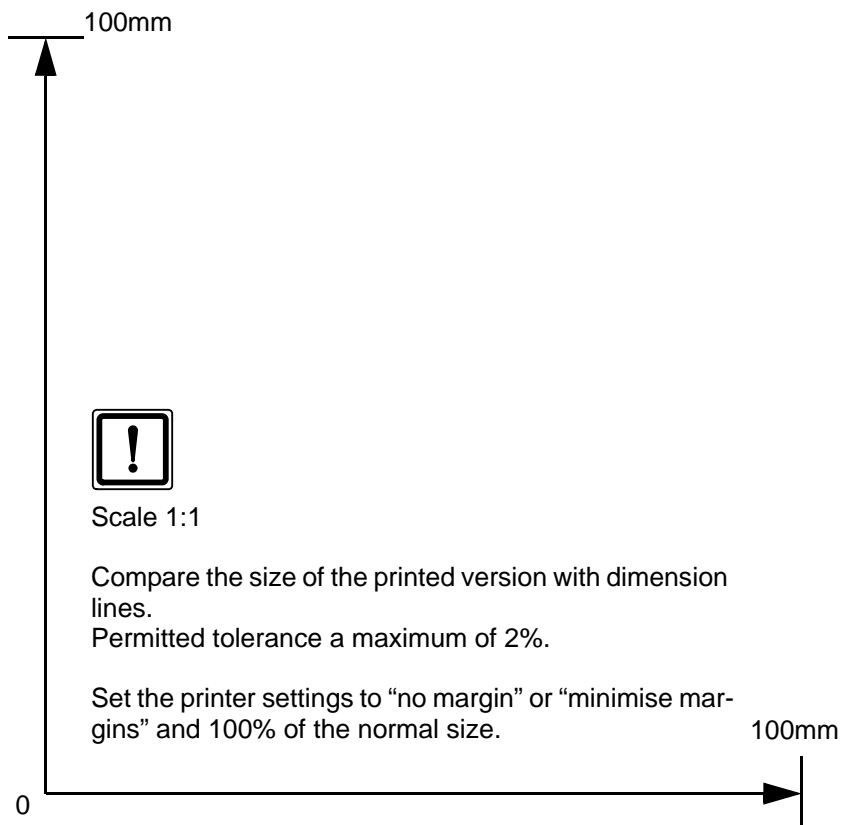
Compare the size of the printed version with dimension lines.

Permitted tolerance a maximum of 2%.

Set the printer settings to "no margin" or "minimise margins" and 100% of the normal size.



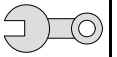
Template for Petrol Fuel Standpipe



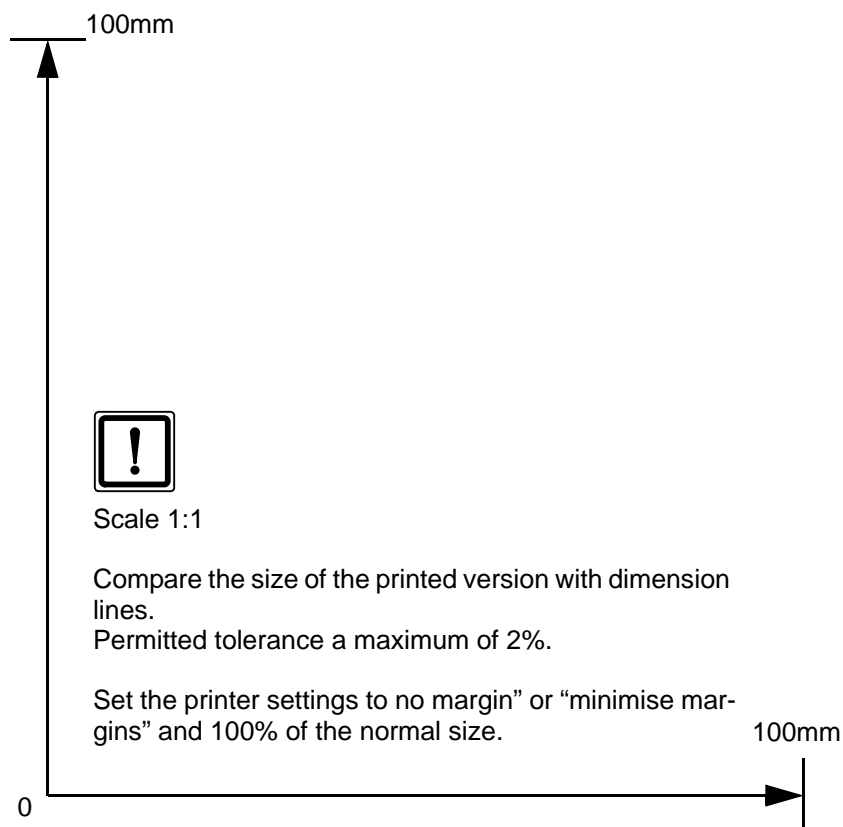
Scale 1:1

Compare the size of the printed version with dimension lines.
Permitted tolerance a maximum of 2%.

Set the printer settings to "no margin" or "minimise margins" and 100% of the normal size.



Template for Fuel Standpipe 2.0 Diesel



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.

In vehicles with passenger compartment monitoring , this must also be de-activated for the vehicle settings for the heating process.



Instructions for de-activation may be obtained from the operating instructions of the vehicle.

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

Manual air conditioning



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

Automatic air-conditioning