



Water Heater

Thermo Top Evo Parking Heater



Installation Documentation Renault Scenic

Validity

Manufacturer	Model	Type	Model year	EG BE No. / ABE
Renault	Scenic	RFA	From model year 2017	e2 * 2007 / 46 * 0574 * ...

Motorisation	Fuel	Emission standard	Transmission type	Output in kW	Displacement in cm ³	Engine code
1.2 P	Petrol	Euro 6	6-speed SG	97	1197	H5F
1.6 D	Diesel	Euro 6	6-speed SG	96	1598	R9M
1.6 D	Diesel	Euro 6	6-speed DKG	118	1598	R9M

SG = manual transmission

DKG = dual clutch transmission EDC

Left-hand drive vehicle

Verified equipment variants: Two zone automatic air-conditioning
 LED main headlights incl. cornering light
 LED daytime running lights
 Halogen front fog lights
 Headlight washer system
 Start button with keycard

Not verified: Halogen main headlights
 LED front fog lights
 Grand Scenic

Total installation time: approx. 9.3 hours

Renault Scenic

Table of Contents

Validity	1	Preparing Installation Location	11
Necessary Components	2	Preparing Bracket	12
Installation Instructions	2	Preparing Heater	14
Information on Total Installation Time	2	Installing Heater	16
Information on Operating and Installation Instructions	3	Coolant Circuit for Petrol Vehicles	17
Information on Validity	4	Coolant Circuit for Diesel Vehicles	22
Technical Information	4	Fuel	24
Explanatory Notes on Document	4	Installation of FuelFix for Petrol Vehicles	26
Preliminary Work	5	Installation of FuelFix for Diesel Vehicles	29
Heater Installation Location	5	Combustion Air	34
Preparing Electrical System	6	Exhaust Gas	35
Electrical System	7	Exhaust End Fastener Installation	36
Air-Conditioning Control	8	Final Work	38
Heater Control Installation	8	FuelFix Template for Petrol Vehicles	39
Remote Option (Telestart)	8	FuelFix Template for Diesel Vehicles	40
ThermoCall Option	9		

Necessary Components

Description	Order No.:
Basic delivery scope of Thermo Top Evo	In accordance with price list
Installation kit for Renault Scenic 2017 Petrol and diesel	1325453B
Additional 'Webasto Standard' A/C control kit for Renault Scenic or Additional 'Webasto Comfort' A/C control kit for Renault Scenic	1324475_ 1324908_
In case of Telestart, heater control, as well as indicator lamp in consultation with end customer	In accordance with price list
Note	
The installation location should be confirmed with the end customer in case of MultiControl.	

Webasto Individual Option

Description	Order No.:
Additional Webasto Individual Auxiliary Heating kit	1320077_
Additional Webasto Individual Quick kit	9030826_
Additional Webasto Individual Select kit	9030828_

Installation Instructions

Arrange for the vehicle to be delivered with the tank only about ¼ full.

The installation location of the push button in case of Telestart or ThermoCall should be confirmed with the end customer.

Depending on the space required and the vehicle manufacturer's instructions, we recommend the use of a vehicle battery with a higher electrical capacity.

Information on Total Installation Time

The total installation time includes the time needed for mounting and demounting the vehicle-specific components, the heater specific installation time and all other times required for the system integration and initial start-up of the heater.

The total installation time may vary for vehicle equipment other than provided.

Information on Operating and Installation Instructions

1 Important information (not complete)

1.1 Installation and repair



The improper installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide, leading to serious injury or death.



To install and repair Webasto heating and cooling systems you need to have completed a special company training course and have the appropriate technical documentation, special tools and special equipment.



Installation and repair may ONLY be carried out by persons trained and certified in a Webasto training course. NEVER try to install or repair Webasto heating or cooling systems if you have not completed a Webasto training course, you do not have the necessary technical skills and you do not have the technical documentation, tools and equipment available to ensure that you can complete the installation and repair work properly.

Only use genuine Webasto parts. See the Webasto air and water heaters accessories catalogue for this purpose.

1.2 Operation

To ensure safe operation, we recommend having the heater checked every two years by an authorised Webasto dealer, especially when used over a long period and/or under extreme environmental conditions.

Do not operate the heater in closed rooms due to the danger of poisoning and suffocation.

Always switch off the heater before refuelling.

The heater may only be used with the prescribed fuel diesel (DIN EN 590) or petrol (DIN EN 228).

The heater may not be cleaned with a high-pressure cleaner.

1.3 Please note

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

To become familiar with and understand all functions and properties of the heater, the operating instructions must be read carefully and observed at all times.

For proper, safe installation and repair work, the installation instructions with all warnings and safety information must be carefully read and observed at all times. Please always contact a workshop authorised by Webasto for all installation and repair work.

Important

Webasto shall assume no liability for defects, damage and injuries resulting from a failure to observe the installation, repair and operating instructions of the information contained in them.

This liability exclusion particularly applies to improper installations and repairs, installations and repairs by untrained persons or in the case of a failure to use genuine spare parts.

The liability due to culpable disregard to life, limb or health and due to damage or injuries caused by a wilful or reckless breach of duty remain unaffected, as does the obligatory product liability.

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties. Insulate loose wire ends and tie back. Connectors on electronic components must audibly snap into place during assembly.

Sharp edges should be fitted with rub protection. Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K).

Observe the instructions and guidelines of the respective vehicle manufacturer for demounting and mounting vehicle specific components!

The initial start-up is to be executed with the Webasto Thermo Test Diagnosis.

When installing a programmable control module (e.g. a PWM Gateway), the corresponding settings must be checked or adjusted.

2 Statutory regulations governing installation

Guidelines	Thermo Top Evo
Heating Directive ECE R122	E1 00 0258
EMC Directive ECE R10	E1 04 5627

Note

The regulations of these guidelines are binding in the scope of the Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries in which there are no special regulations.

Important

Failure to follow the installation instructions will result in the invalidation of the type approval for the heater and therefore invalidation of the general **homologation of the vehicle**.

Note

The heater is licensed in accordance with paragraph 19, section 3, No. 2b of the StVZO (German Road Traffic Licensing Authority).

2.1 Excerpt from ECE regulation 122 (heating system) paragraph 5 for the installation of the heater

Beginning of excerpt.

ANNEX VII

REQUIREMENTS FOR COMBUSTION HEATERS AND THEIR INSTALLATION

1. GENERAL REQUIREMENTS

1.7.1. A clearly visible tell-tale in the operator's field of view shall inform when the combustion heater is switched on or off.

2. VEHICLE INSTALLATION REQUIREMENTS

2.1. Scope

2.1.1. Subject to paragraph 2.1.2, combustion heaters shall be installed according to the requirements of this Annex.

2.1.2. Vehicles of category O having liquid fuel heaters are deemed to comply with the requirements of this Annex.

2.2. Positioning of heater

2.2.1. Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination.

2.2.2. The combustion heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be fulfilled if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields.

2.2.3. In the case of M2 and M3 vehicles, the heater must not be positioned in the passenger compartment. However, an installation in an effectively sealed envelope which also complies with the conditions in paragraph 2.2.2 may be used.

2.2.4. The label referred to in paragraph 1.4 or a duplicate, must be positioned so that it can be easily read when the heater is installed in the vehicle.

2.2.5. Every reasonable precaution should be taken in positioning the heater to minimise the risk of injury and damage to personal property.

2.3. Fuel supply

2.3.1. The fuel filler must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage.

2.3.2. In the case of liquid fuel heaters, where a supply separate to that of the vehicle is provided, the type of fuel and its filler point must be clearly labelled.

2.3.3. A notice, indicating that the heater must be shut down before refuelling, must be affixed to the fuelling point. In addition a suitable instruction must be included in the manufacturer's operating manual.

2.4. Exhaust system

2.4.1. The exhaust outlet must be located so as to prevent emissions from entering the vehicle through ventilators, heated air inlets or opening windows.

2.5. Combustion air inlet

2.5.1. The air for the combustion chamber of the heater must not be drawn from the passenger compartment of the vehicle.

2.5.2. The air inlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

2.6. Heating air inlet

2.6.1. The heating air supply may be fresh or recirculated air and must be drawn from a clean area not likely to be contaminated by exhaust fumes emitted either by the propulsion engine, the combustion heater or any other vehicle source.

2.6.2. The inlet duct must be protected by mesh or other suitable means.

2.7. Heating air outlet

2.7.1. Any ducting used to route the hot air through the vehicle must be so positioned or protected that no injury or damage could be caused if it were to be touched.

2.7.2. The air outlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

End of excerpt.

In multilingual versions the German language is binding.

Renault Scenic

Information on Validity

This installation documentation applies to Renault Scenic Petrol and diesel vehicles - for validity, see page 1 - from model year 2017 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.

Vehicle and engine types, equipment variants and other specifications not listed in this installation documentation have not been tested. However, installation according to this installation documentation may be possible.

Technical Information

Special Tools

- Hose clamp pliers for auto-tightening hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Automatic wire stripper, 0.2 - 6mm²
- Crimping pliers for cable lug / tab connector, 0.5 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Deep-hole marker
- Webasto Thermo Test Diagnosis with current software

Dimensions

- All dimensions are in mm.

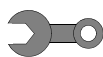
Tightening torque values

- Tightening torque values of 5x13 heater bolts and 5x11 heater stud bolts = 8Nm.
- Tightening torque value of 5x15 water connection piece retaining plate bolt = 7Nm.
- Tighten other bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art technology.

Explanatory Notes on Document

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

Mechanics



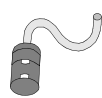
Electrics



Coolant Circuit



Combustion Air



Fuel



Exhaust Gas



Software



Special features are highlighted using the following symbols:

Specific risk of damage to components.



Specific risk due to electrical voltage.



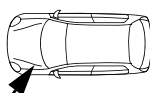
Specific risk of fire or explosion.



Reference to a special technical feature.



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



Reference to the manufacturer's vehicle-specific documents.



Reference to specific installation instructions of Webasto components (demonstrated with the example of the FuelFix).



Reference to general installation instructions of Webasto components.



Tightening torque according to the manufacturer's vehicle-specific documents.



Renault Scenic

Preliminary Work

Vehicle

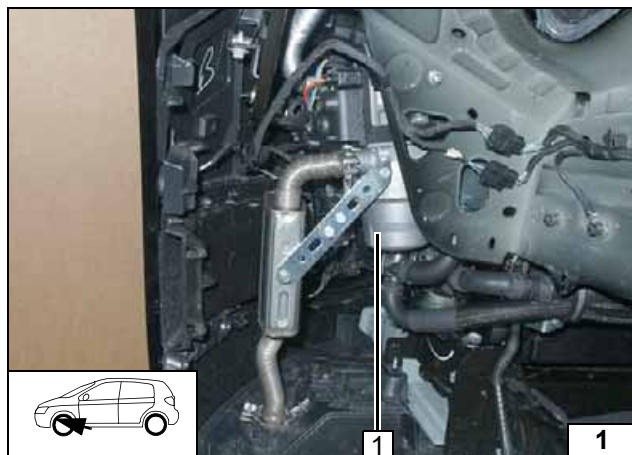


- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Disconnect and completely remove the battery together with the carrier.
- Completely remove the air filter.
- Detach the brake fluid reservoir with the filler neck and put this aside.
- Remove the wheel on the left side.
- Remove the coolant reservoir cap and coolant reservoir.
- Remove the front wheel well trim on the left side.
- Detach the front wheel well trim at the front on the right.
- Remove the front bumper trim in the engine compartment.
- Remove the lower engine cover.
- Remove the underride protection on the right.
- Remove the rear bench seat in the middle and on the right side.
- Open the right-hand tank-fitting service lid.
- Remove the lower instrument panel trim on the left side.
- Remove the door sill trim on the left side.
- Remove the lower A-pillar trim on the left side.



Heater

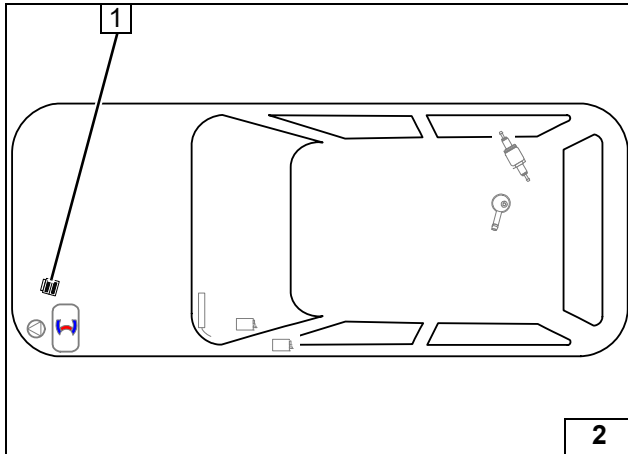
- Remove years that do not apply from the type and duplicate label.
- Attach the duplicate label (type label) visibly in the appropriate place in the engine compartment.



Heater Installation Location

- 1 Heater

Installation location

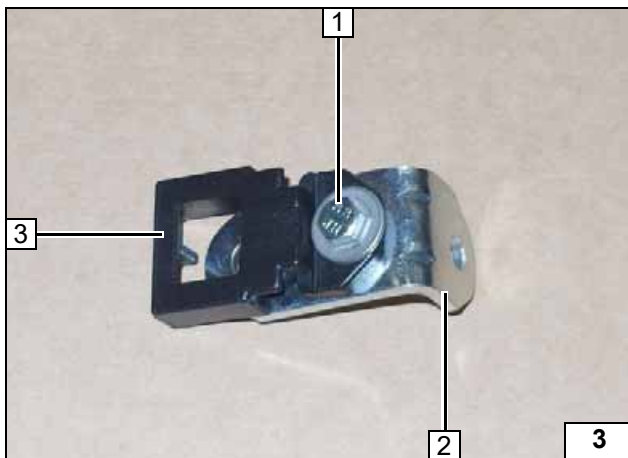


Preparing Electrical System

- 1 Engine compartment fuse holder

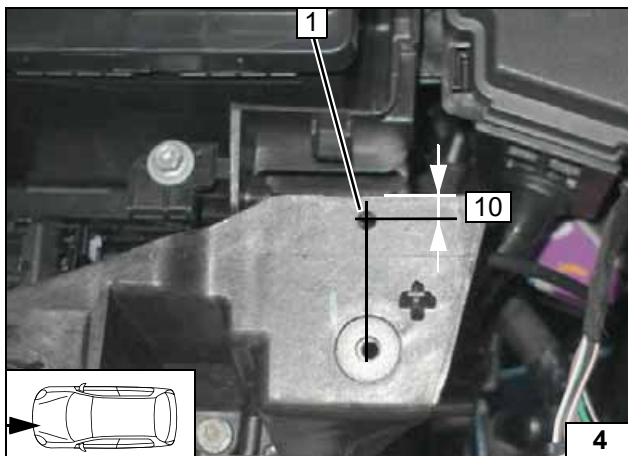


Installation overview



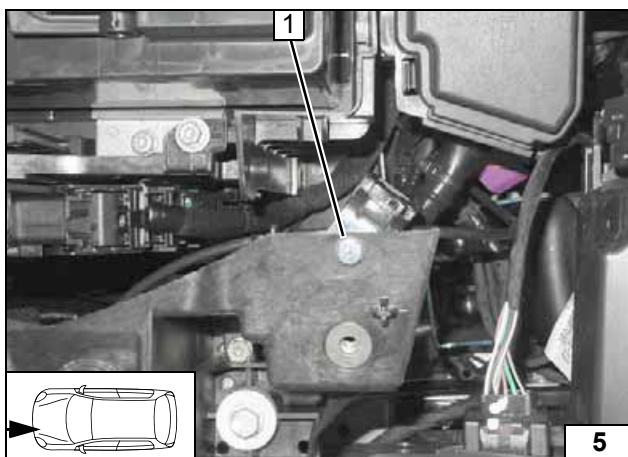
- 1 M5x16 bolt, large diameter washer [2x], nut
- 2 Angle bracket
- 3 Retaining plate of engine compartment fuse holder

Preparing fuse holder of engine compartment



- 1 Copy hole pattern, 7mm dia. hole

Hole for fuse holder



- 1 M6x20 bolt, flanged nut

Installing retaining plate of engine compartment fuse holder

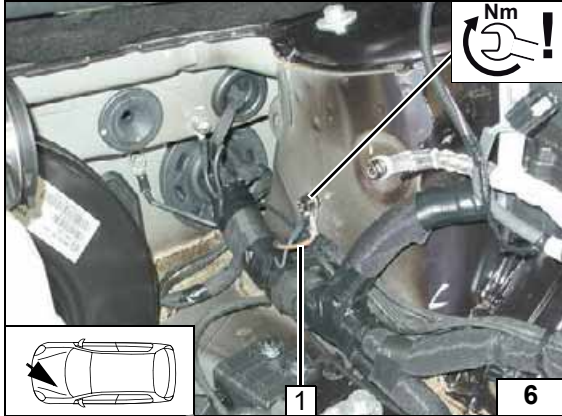


Electrical System



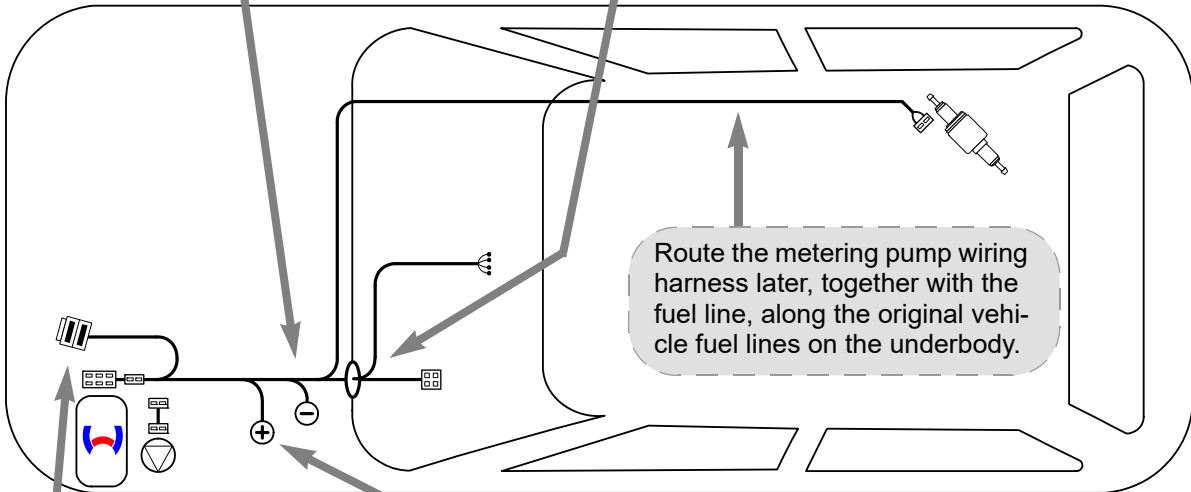
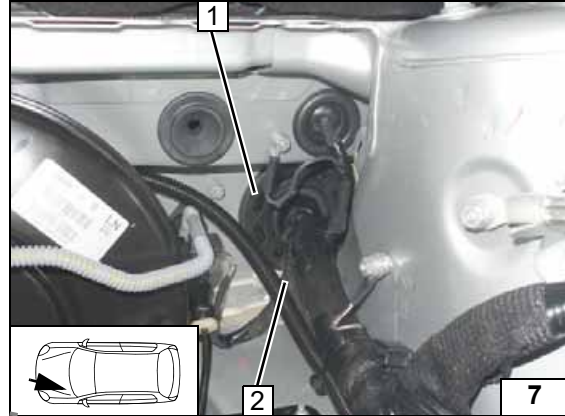
Earth wire

- 1 Earth wire on original vehicle earth support point

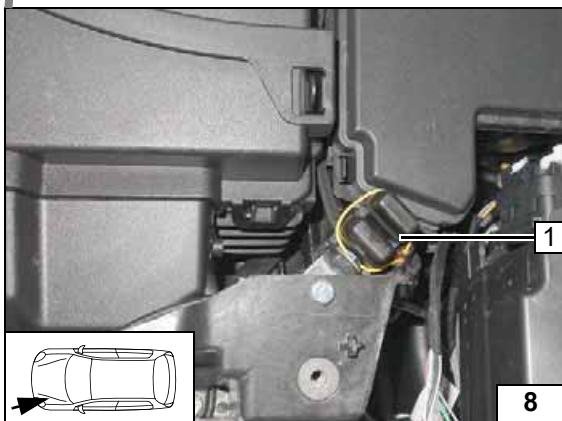


Cable pass through

- 1 Protective rubber plug
- 2 Heater wiring harnesses, heater control

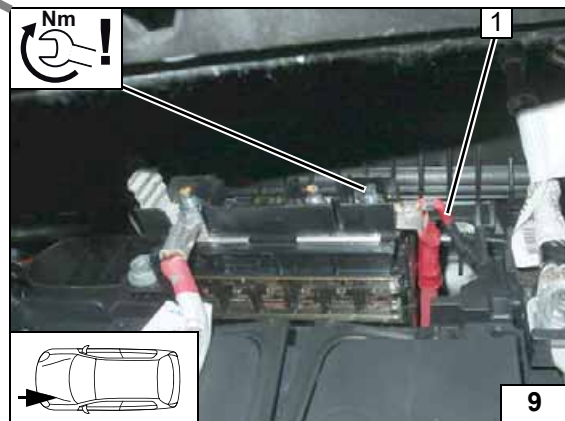


Wiring harness routing diagram



Engine compartment fuse holder

- 1 Fuses F1-2



Positive wire

- 1 Positive wire on original vehicle positive support point





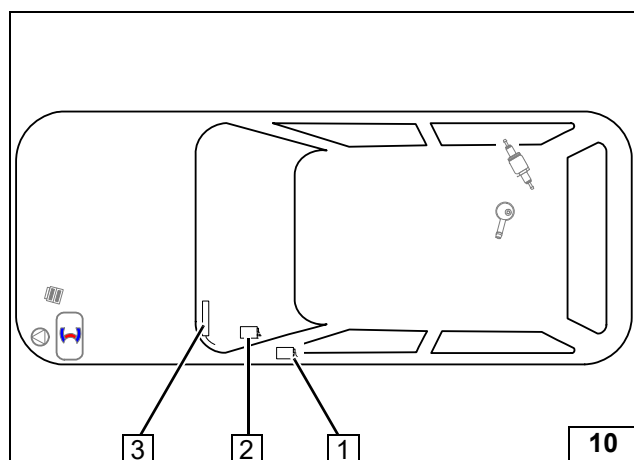
Air-Conditioning Control

! Integrate the A/C control as explained in the separate installation documentation:

Installation documentation of '**Webasto Standard**' A/C control for Renault Espace / Scenic

or

Installation documentation of '**Webasto Comfort**' A/C control for Renault Espace / Scenic

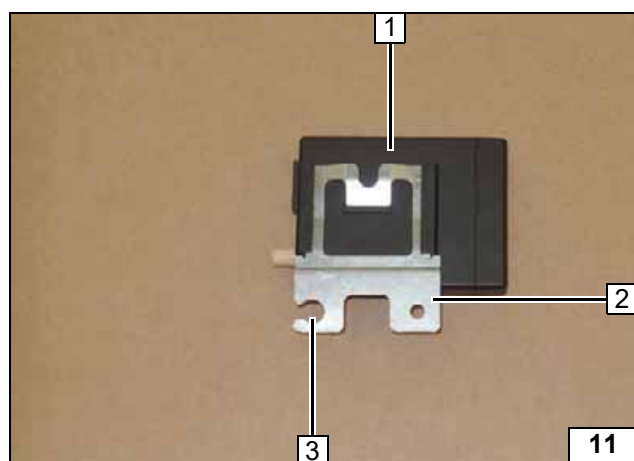


Heater Control Installation

- 1 ThermoCall receiver
- 2 Telestart receiver
- 3 Telestart / ThermoCall aerial



Installation overview

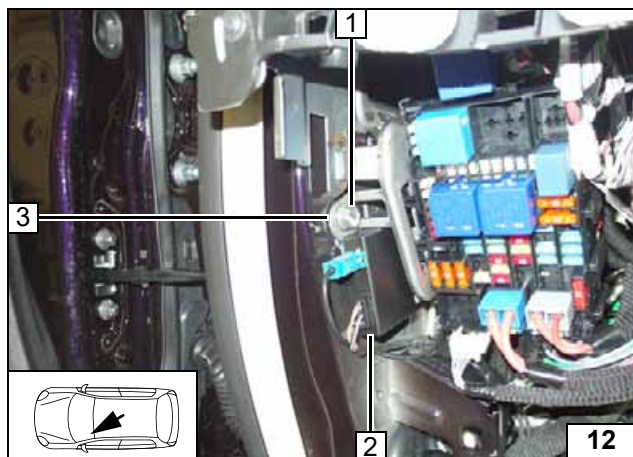


Remote Option (Telestart)

- 1 Receiver
- 2 Bracket
- 3 8.5 mm dia. hole



Preparing receiver

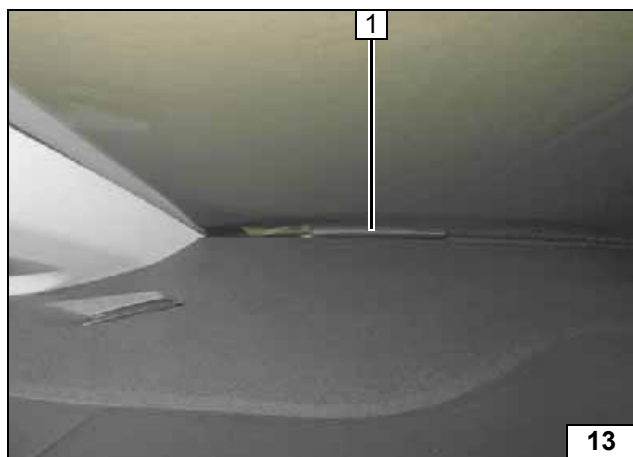


Remove original vehicle bolt **1**. Place Tel-start bracket between vehicle and original vehicle retaining plate at position **3** and secure using original vehicle bolt.



2 Receiver

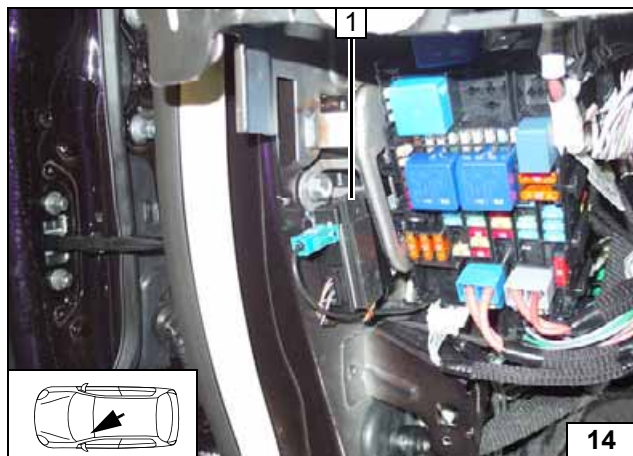
Installing receiver



1 Aerial



Installing aerial



Temperature sensor T100 HTM

Fasten temperature sensor **1** with double-sided adhesive tape



Installing temperature sensor



ThermoCall Option

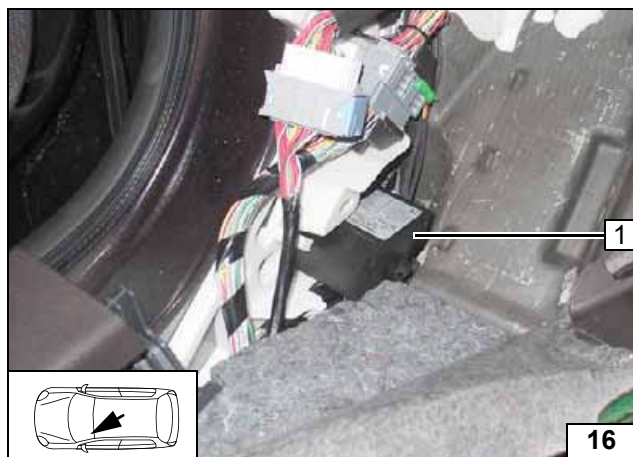
Carefully remove the mounting tab on the receiver!



1 Receiver

X =

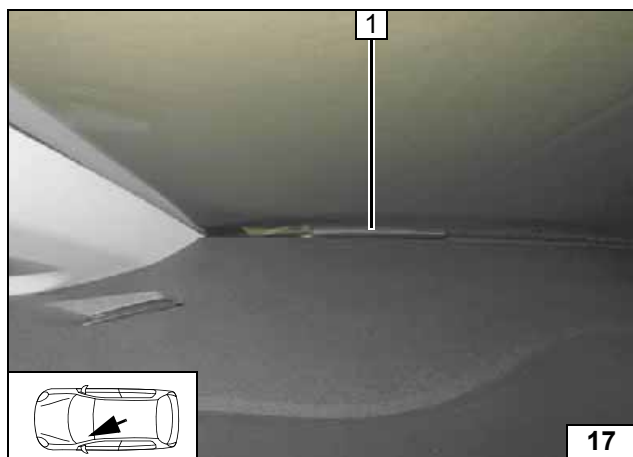
Preparing receiver



Fasten receiver 1 in line duct using double-sided adhesive tape.

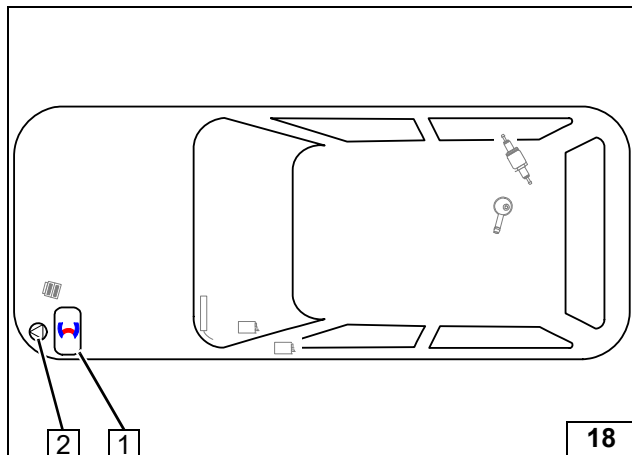


Installing receiver



1 Aerial (optional)

Installing aerial

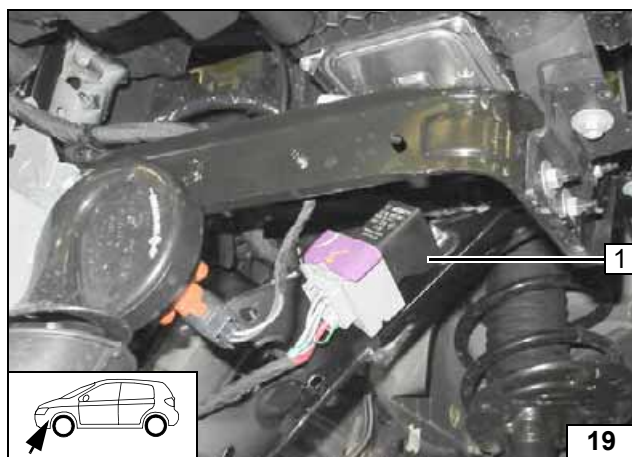


Preparing Installation Location

- 1 Heater
- 2 Circulating pump



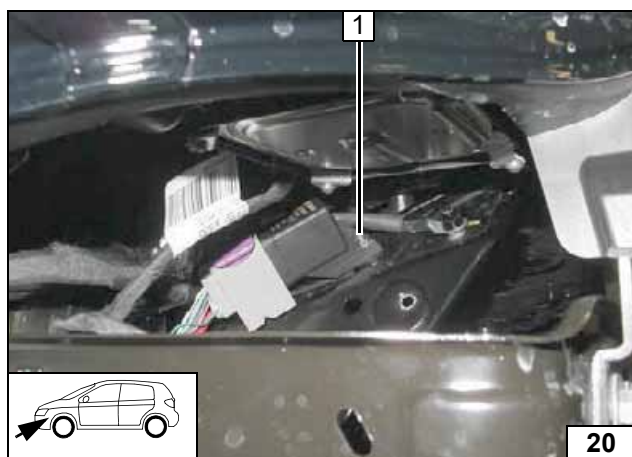
Installation overview



Diesel only

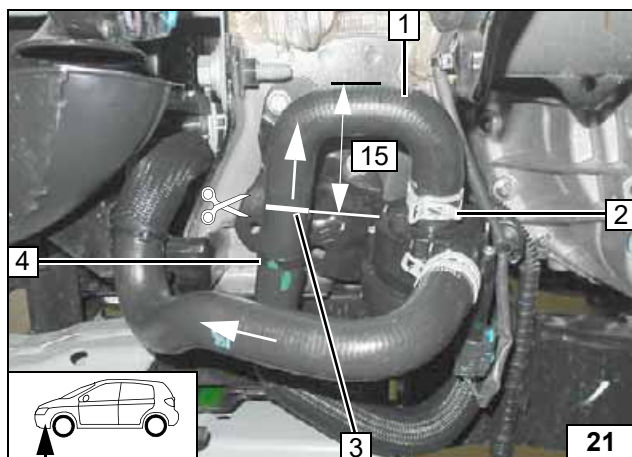
- 1 Original vehicle relay

Removing original vehicle relay



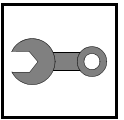
- 1 M6x20 bolt, large diameter washer, original vehicle hole, flanged nut

Removing original vehicle relay



- 1 Dismantle original vehicle heat exchanger outlet hose (will be reused)
- 2 Dismantle original vehicle spring clip (will be reused)
- 3 Cutting point
- 4 Remove cable tie and discard

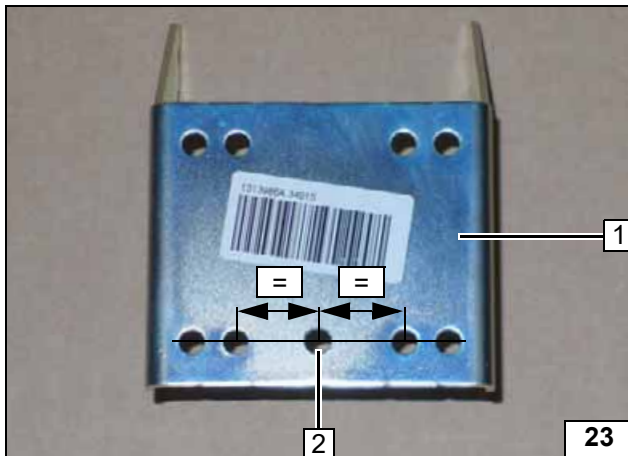
Separating hose



All vehicles

- 1 Original vehicle stud bolt

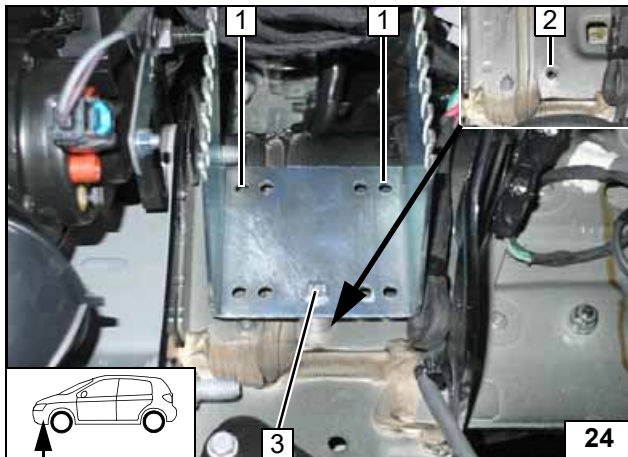
Removing stud bolt



Preparing Bracket

- 1 Bracket
- 2 Copy hole pattern, 7mm dia. hole

Preparing bracket

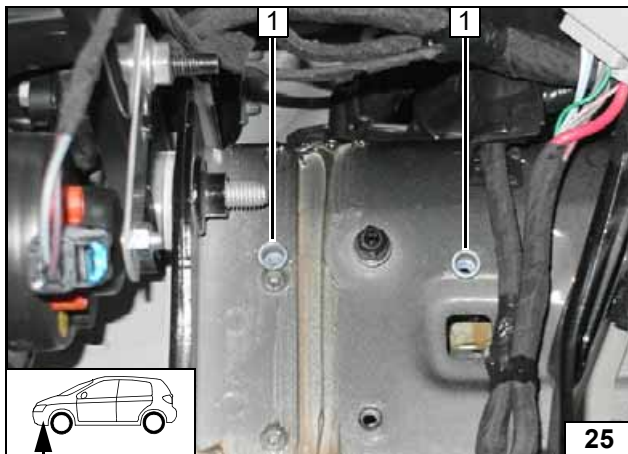


Next pictures show work steps on a diesel vehicle!

- 1 Copy hole pattern [2x]
- 2 Original vehicle thread
- 3 M6x40 bolt, spring lockwasher, 20mm spacer

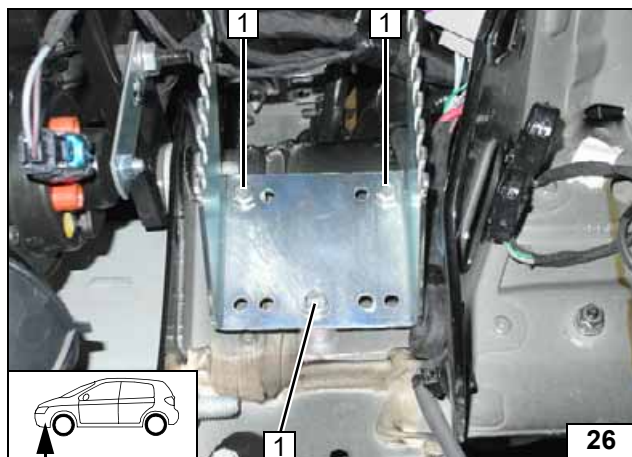
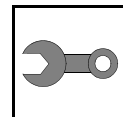
Copying hole pattern

Remove bracket.



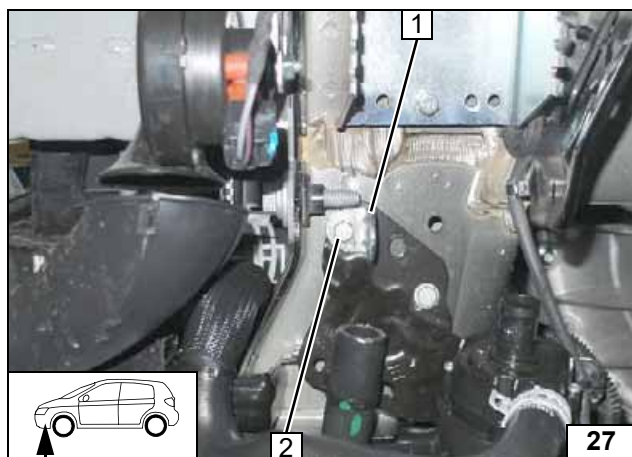
- 1 9.1 mm dia. hole, rivet nut [2x each]

Installing rivet nut



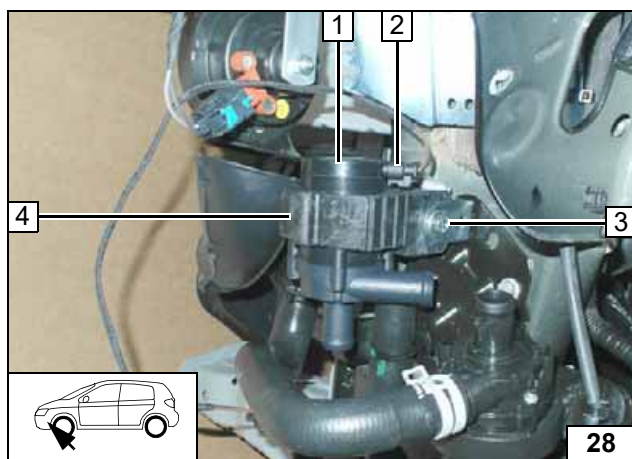
- 1 M6x40 bolt, spring lockwasher, 20 mm spacer [3x each]

Installing bracket



- 1 Angle bracket
- 2 Original vehicle bolt

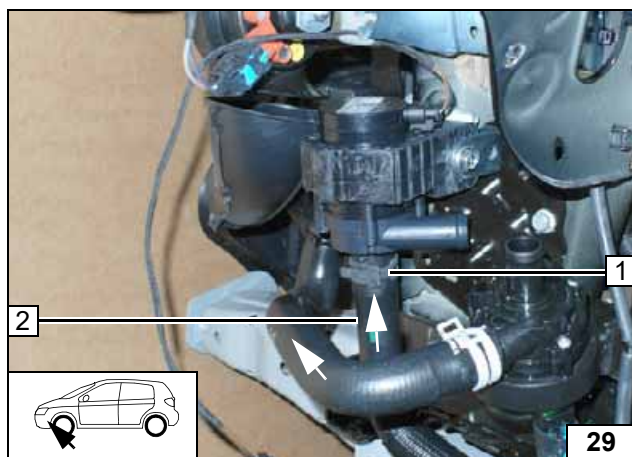
Installing angle bracket



- 1 Circulating pump
- 2 Connector of circulating pump wiring harness
- 3 M6x25 bolt, flanged nut
- 4 Circulating pump mount

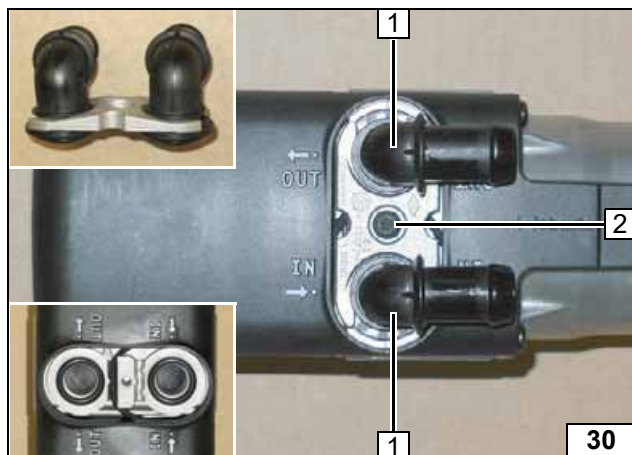
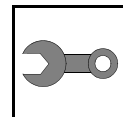
Installing circulating pump

Diesel only



- 1 25 mm dia. spring clip
- 2 Hose section of heat exchanger outlet

Installing bracket



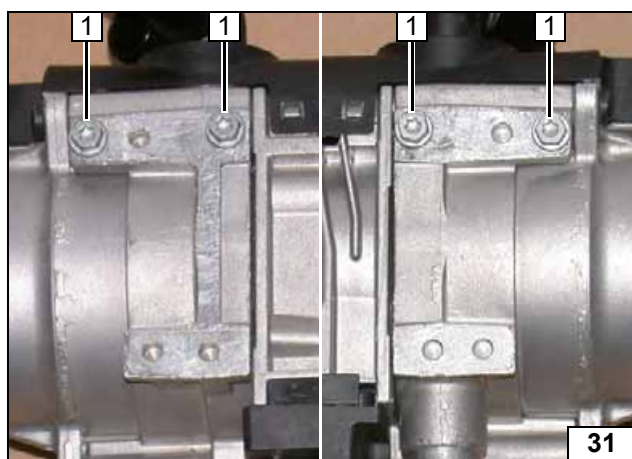
Preparing Heater

All vehicles

- 1 Water connection piece, sealing ring [2x each]
- 2 5x15 self-tapping bolt, retaining plate of water connection piece



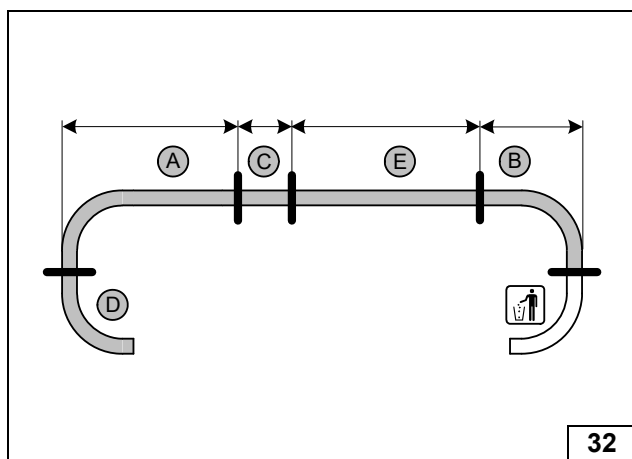
Installing water connection piece



Screw 5x13 self-tapping bolts 1 [4x] into existing holes by a maximum of 3 thread turns.



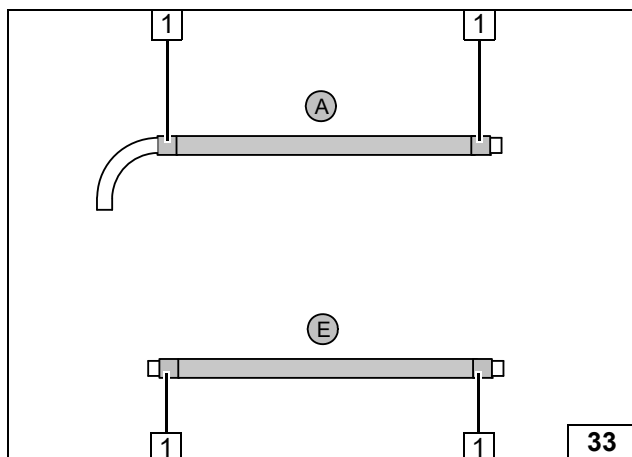
Premounting bolts loosely



Petrol

- A = 990
- B = 150
- C = 130
- D = 90° elbow
- E = 930

Cutting hoses to length

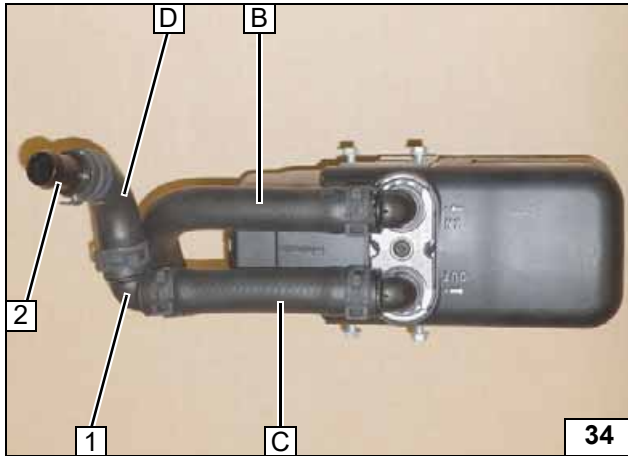
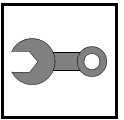


Push braided protection hoses onto hose A and E and cut to length. Cut heat shrink plastic tubing to size.



- 1 Heat shrink plastic tubing, 60 mm long [4x]

Preparing hoses

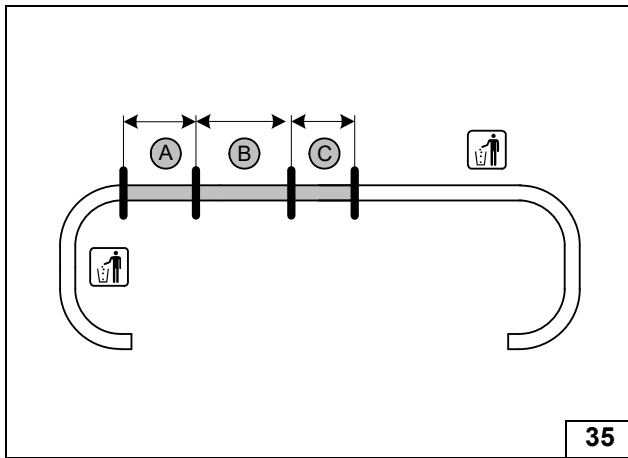


All spring clips 25 mm dia.

- 1 90°, 18x18 connecting pipe
- 2 180°, 18x18 connecting pipe



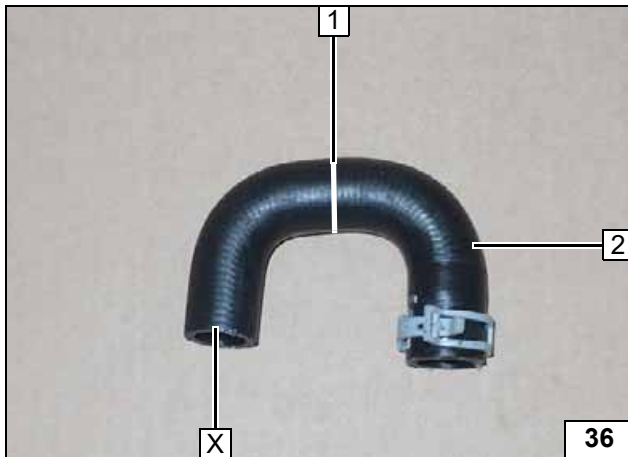
Premounting hose B, C and D



Diesel

- A = 60
- B = 140
- C = 100

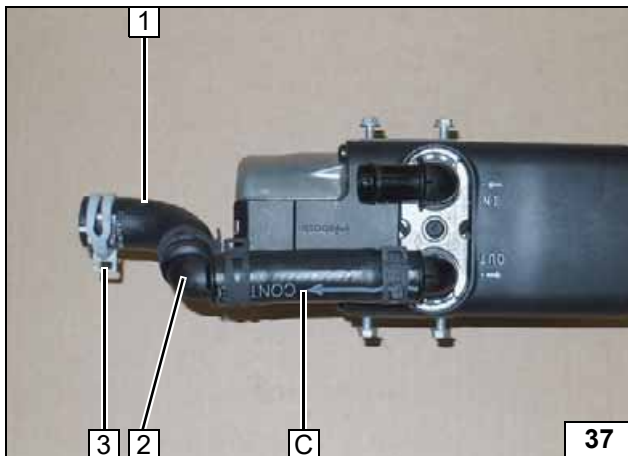
Cutting hoses to length



- 1 Cutting point
- 2 Original vehicle hose section

X =

Preparing original vehicle hose section

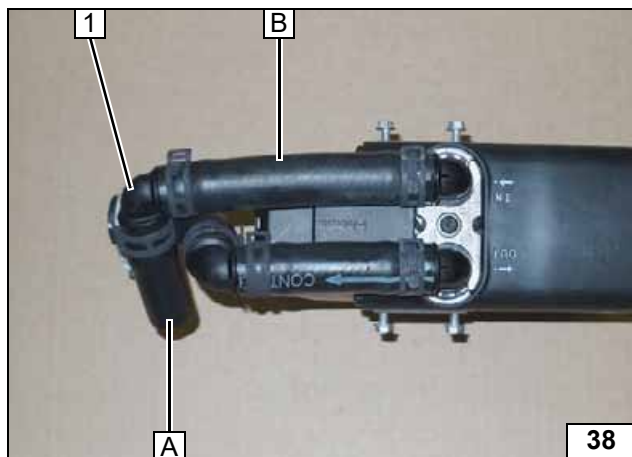


All spring clips 25 mm dia.

- 1 Original vehicle hose section
- 2 90°, 18x18 connecting pipe
- 3 Original vehicle spring clip



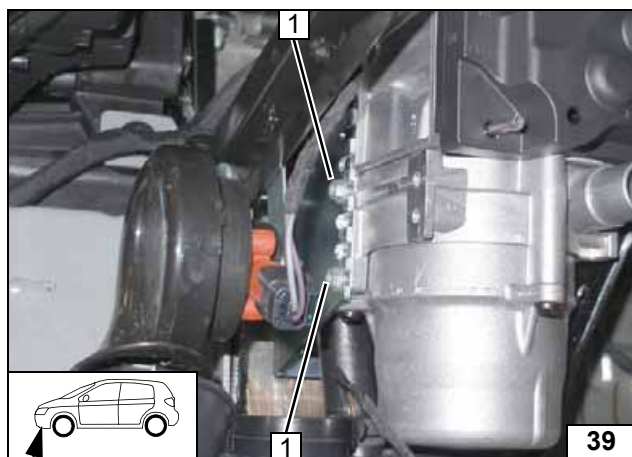
Premounting hose C



All spring clips 25 mm dia.

- 1 90°, 18x18 connecting pipe

Premounting hoses A and B

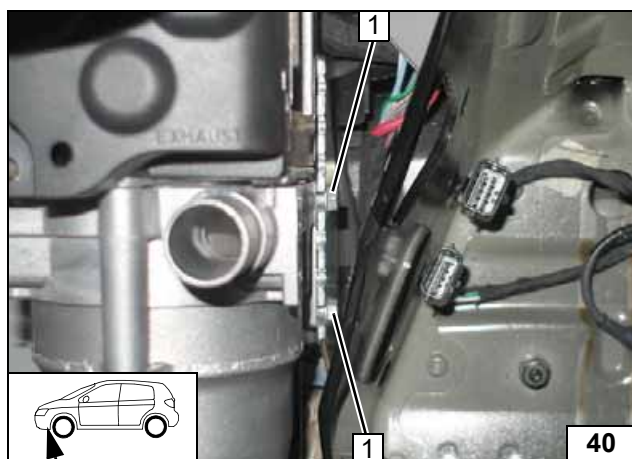


Installing Heater

All vehicles

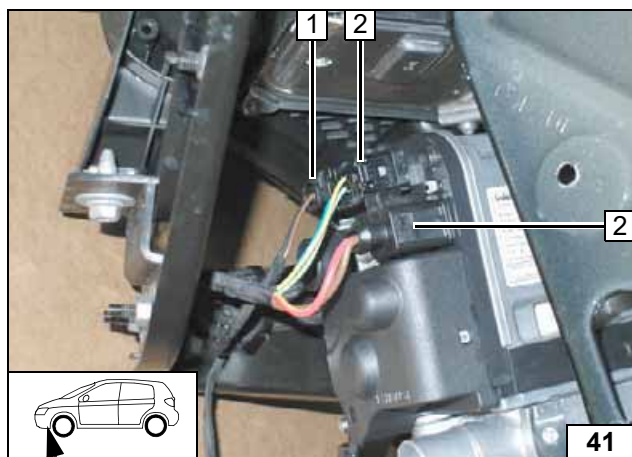
- 1 Tighten 5x13 self-tapping bolt [2x]

Installing heater



- 1 Tighten 5x13 self-tapping bolt [2x]

Installing heater



- 1 Connector of circulating pump wiring harness
- 2 Heater wiring harness connector [2x]

Installing wiring harness of heater



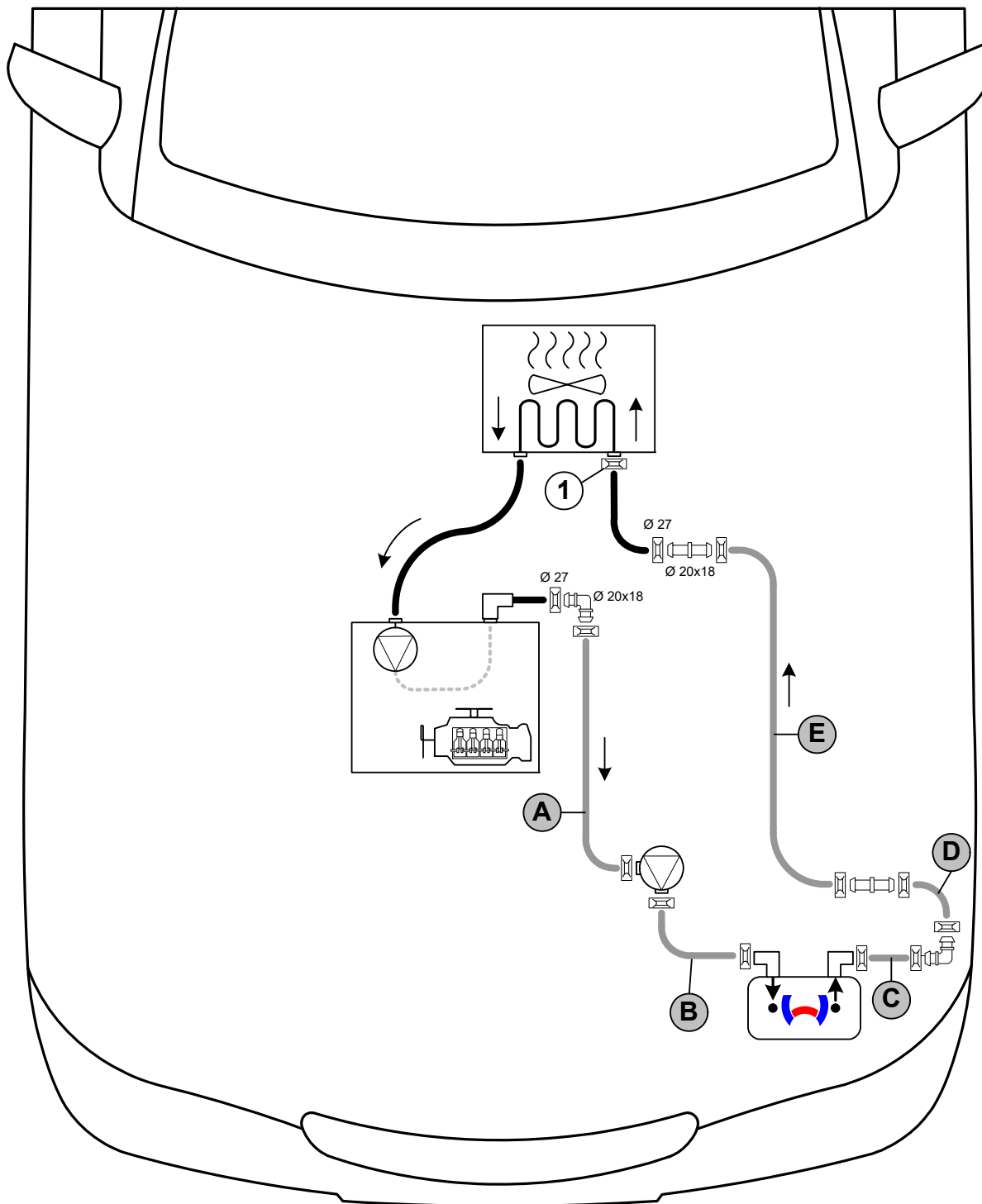
Coolant Circuit for Petrol Vehicles







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



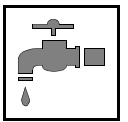
The connection should be modelled on an 'inline' circuit and based on the following diagram:



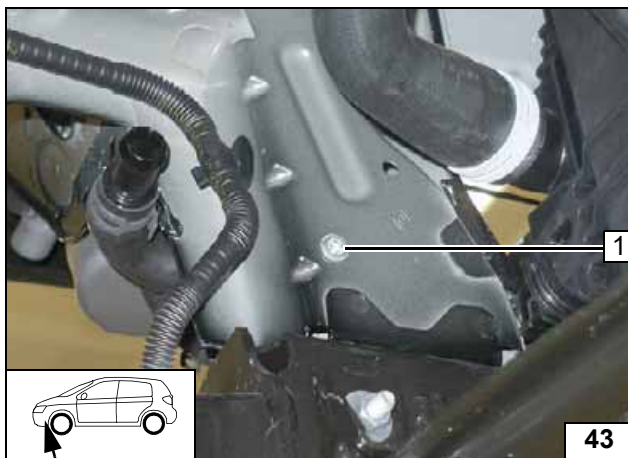
Hose routing diagram

All spring clips without a specific designation  = 25 mm dia.
 All connecting pipes without a specific designation  and  = 18x18mm dia.
 1 = original vehicle spring clips .



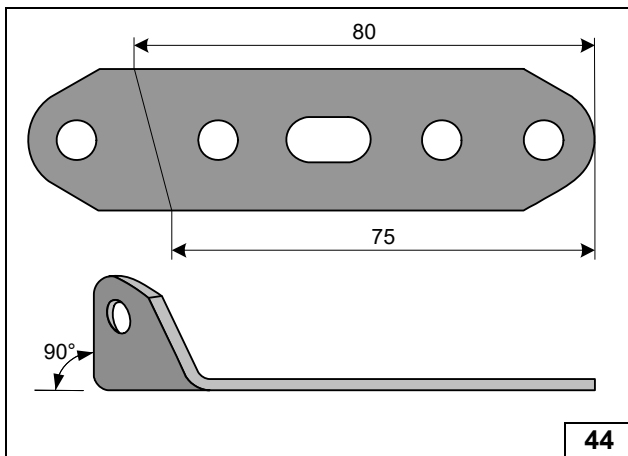


Connect-
ing circulat-
ing pump

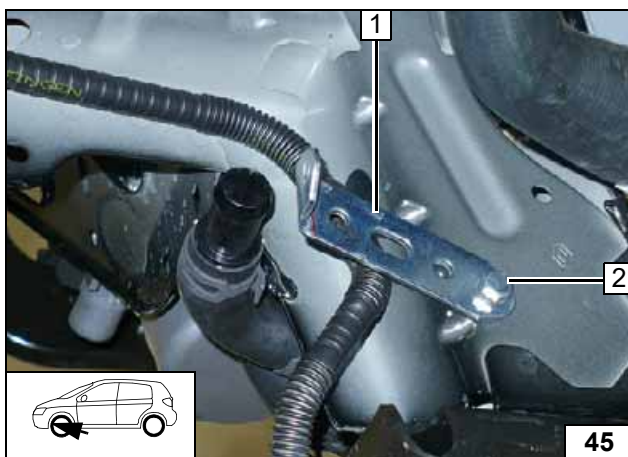


1 Existing hole, rivet nut

Installing
rivet nut

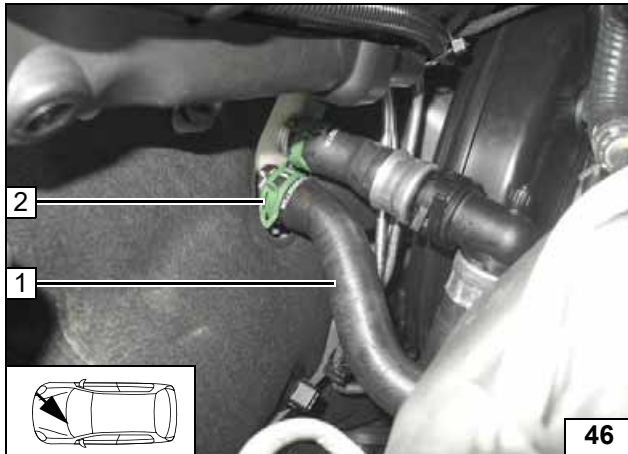
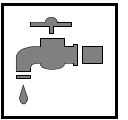


Bending
perforated
bracket



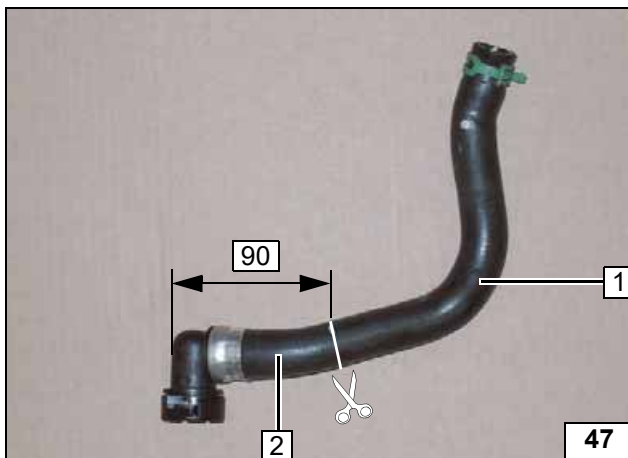
1 Perforated bracket
2 M6x20 bolt, spring lockwasher

Installing
perforated
bracket



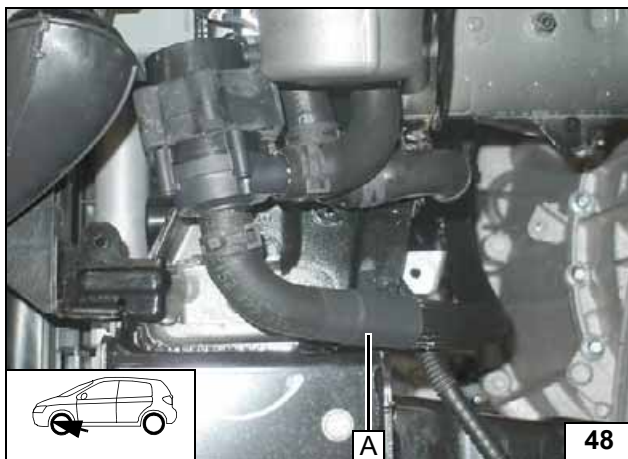
Remove hose of engine outlet / heat exchanger inlet **1** with coupling piece. Spring clip **2** will be reused.

Cutting point

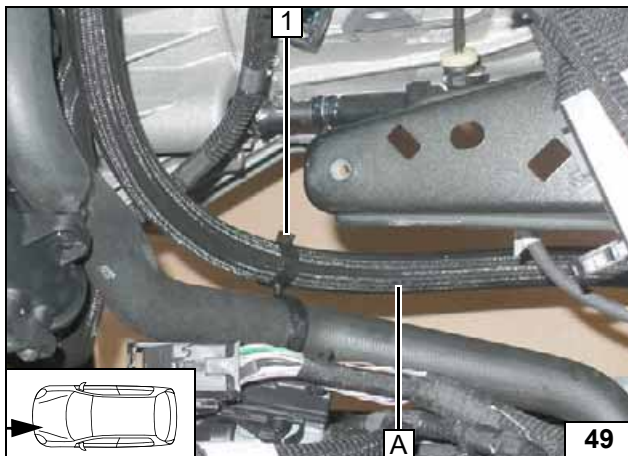


- 1 Heat exchanger inlet hose section
- 2 Hose section with engine outlet coupling piece

Cutting point

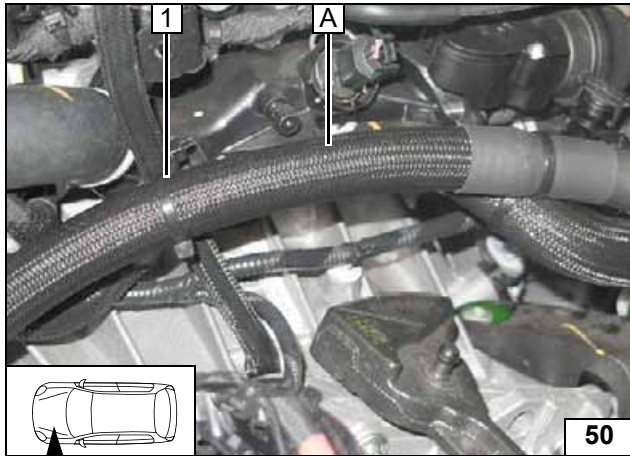
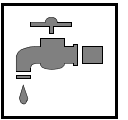


Connecting circulating pump



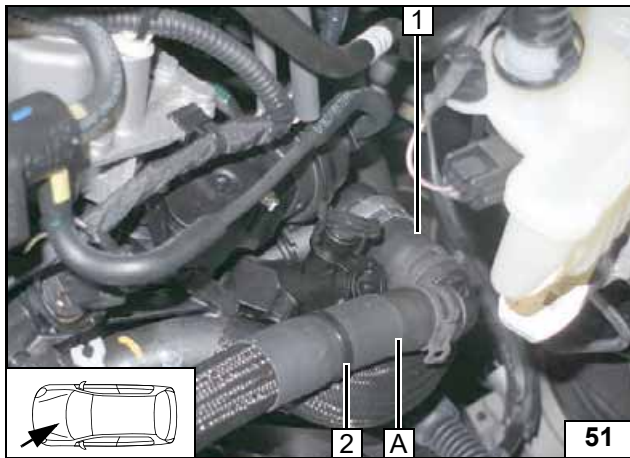
- 1 25-37 hose bracket

Routing in engine compartment



1 Cable tie

Routing in engine compartment



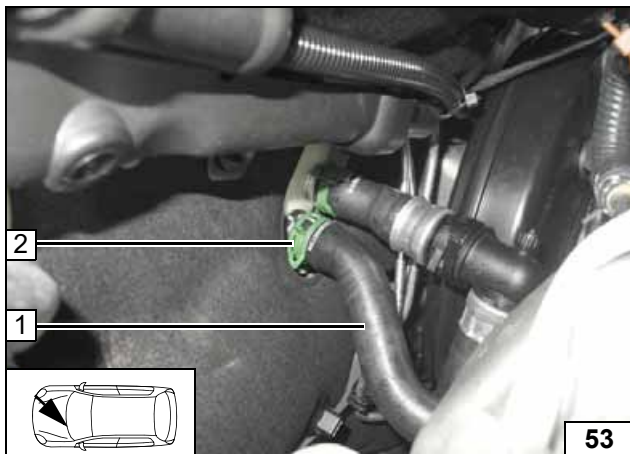
1 Hose section with engine outlet coupling piece
2 Cable tie

Connecting engine outlet



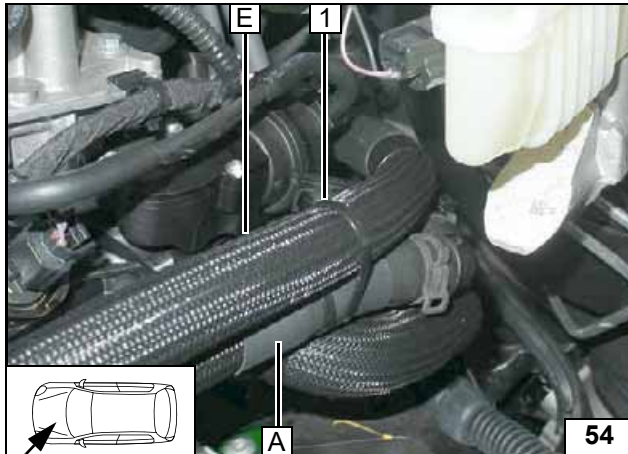
1 Heat exchanger inlet hose section

Premounting hose E



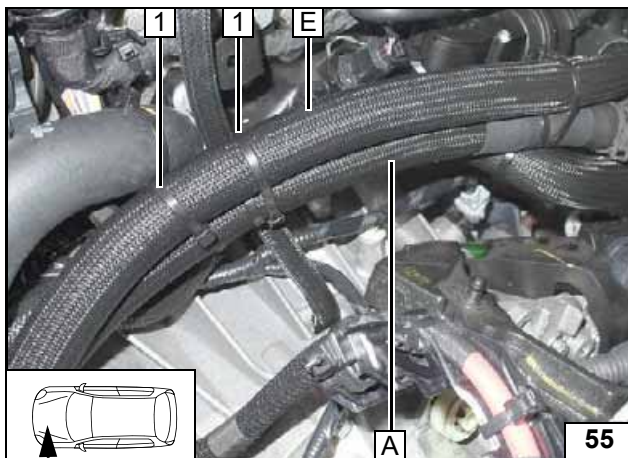
1 Heat exchanger inlet hose section
2 Original vehicle clamp

Connecting heat exchanger inlet



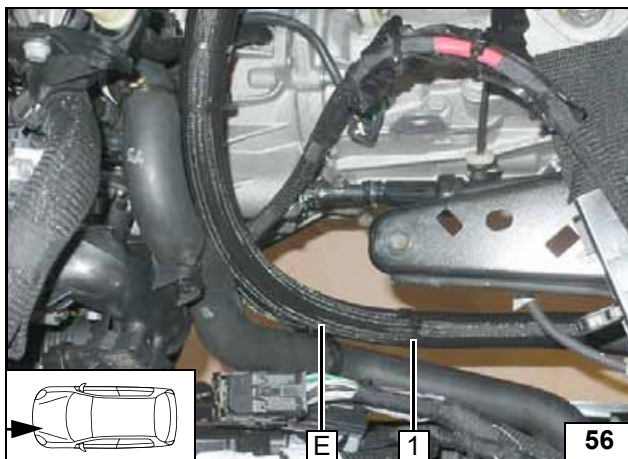
1 Cable tie

Routing in engine compartment



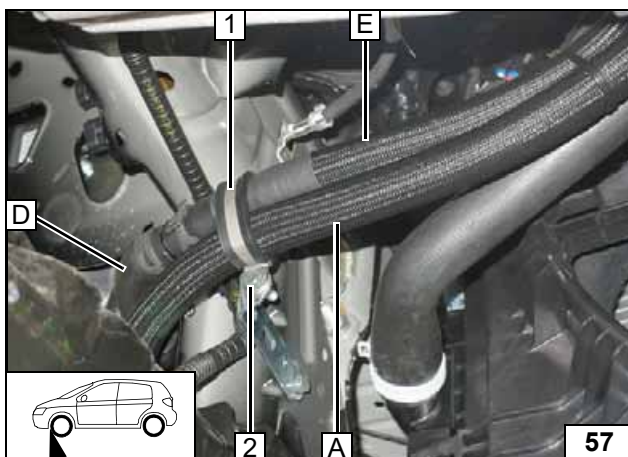
1 Cable tie [2x]

Routing in engine compartment



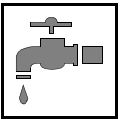
1 Cable tie

Routing in engine compartment



1 38mm dia. rubber-coated p-clamp
2 M6x20 bolt, flanged nut

Connecting heater outlet

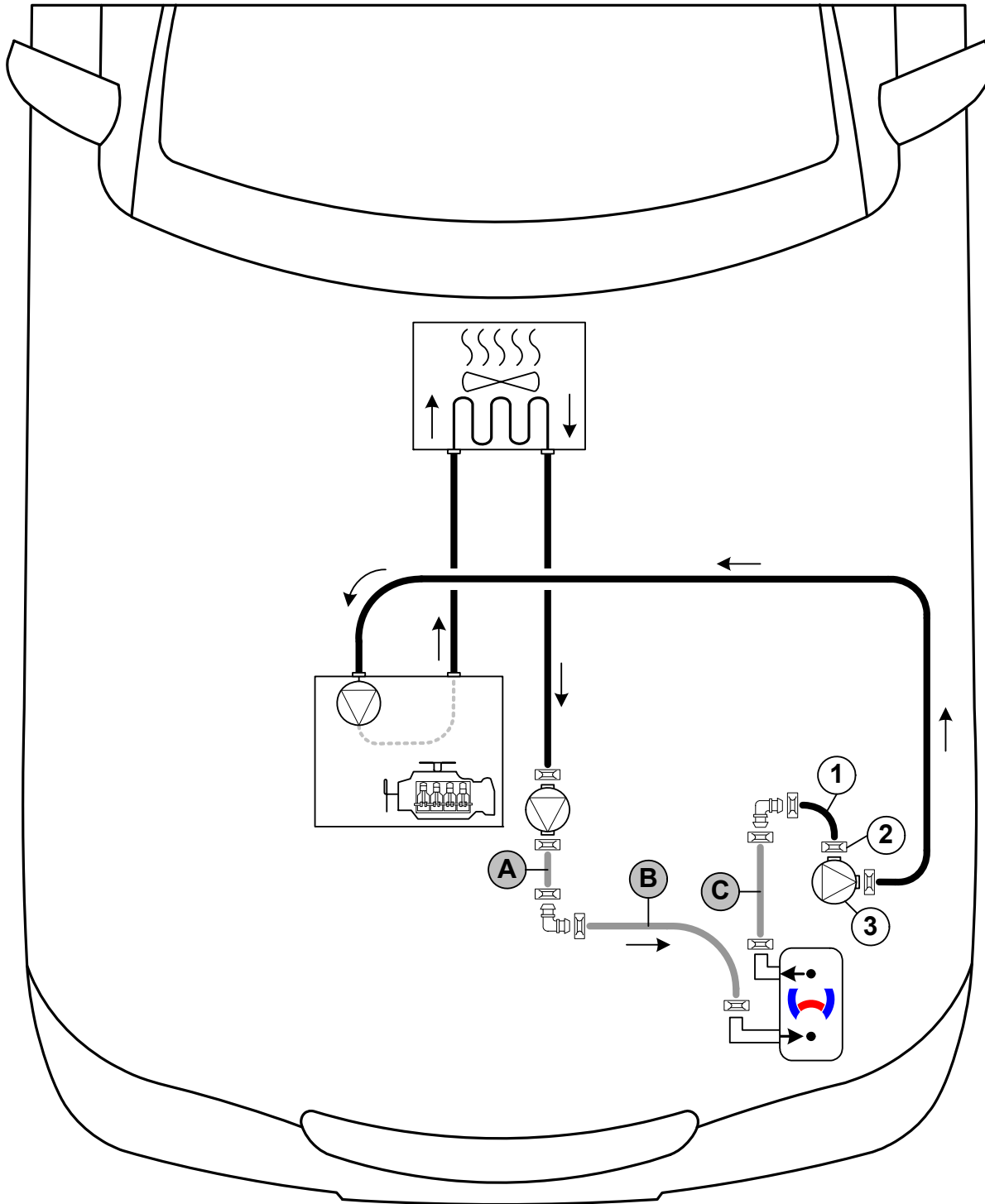


Coolant Circuit for Diesel Vehicles






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

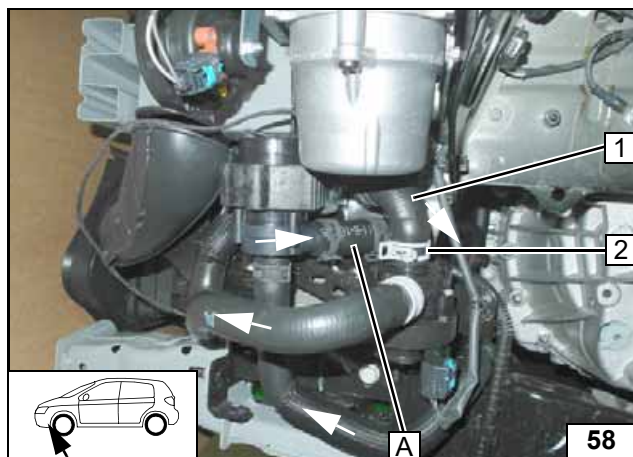
The connection should be modelled on an 'inline' circuit and based on the following diagram:



Hose routing diagram

All spring clips without a specific designation  = 25 mm dia. All connecting pipes  = 18x18 mm dia.
 2 = 90° original vehicle moulded hose. 2 = original vehicle spring clips .
 3 = Original vehicle circulating pump.



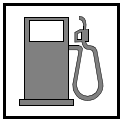


Align hoses. Ensure sufficient distance from neighbouring components, correct if necessary.

- 1 Original vehicle hose section
- 2 Original vehicle spring clip



**Connect-
ing heater**



Fuel



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

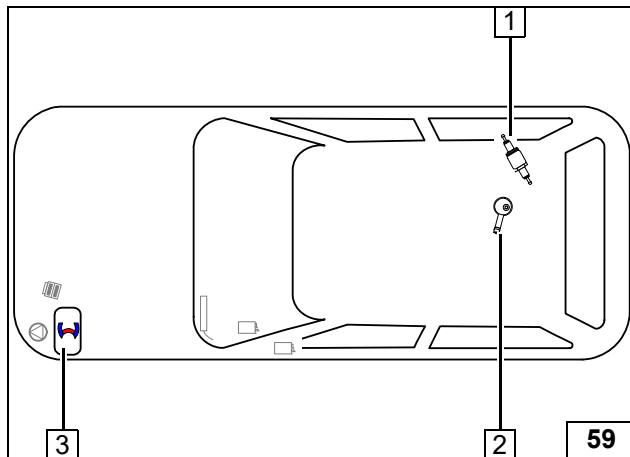
Catch any fuel running off in an appropriate container.

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



Provide rub protection for fuel line and wiring harness in areas where there are sharp edges.

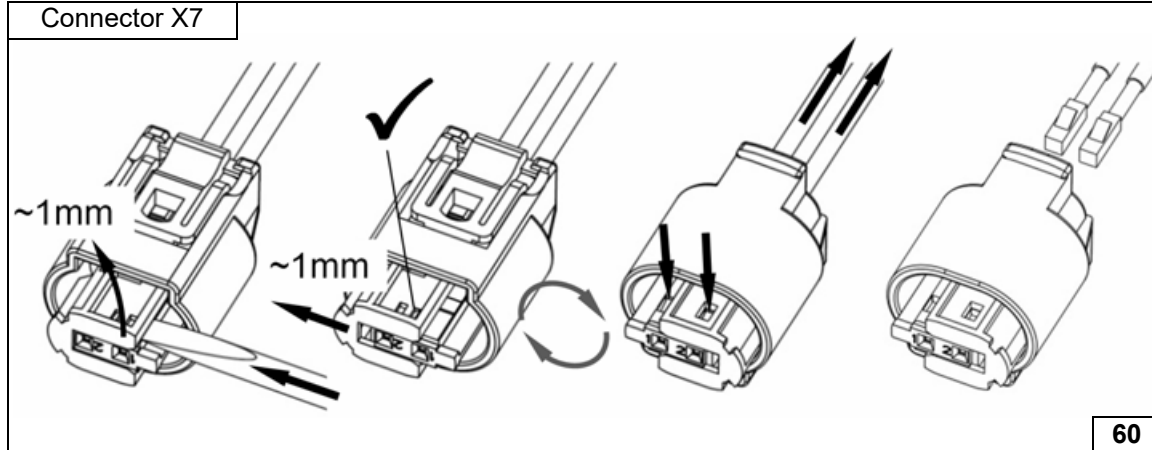
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



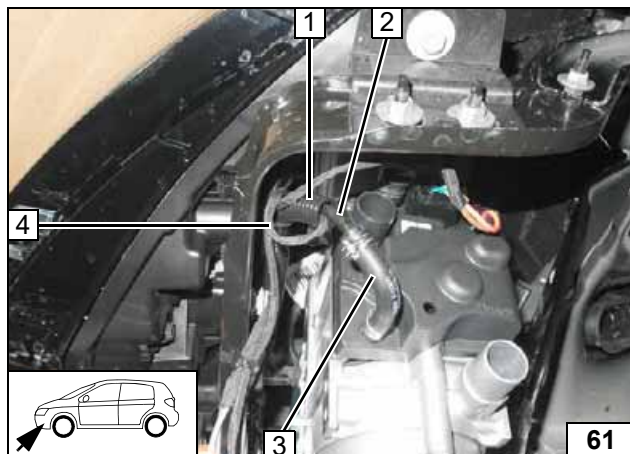
- 1 Metering pump
- 2 FuelFix
- 3 Heater



Installation overview



Dismantling metering pump connector

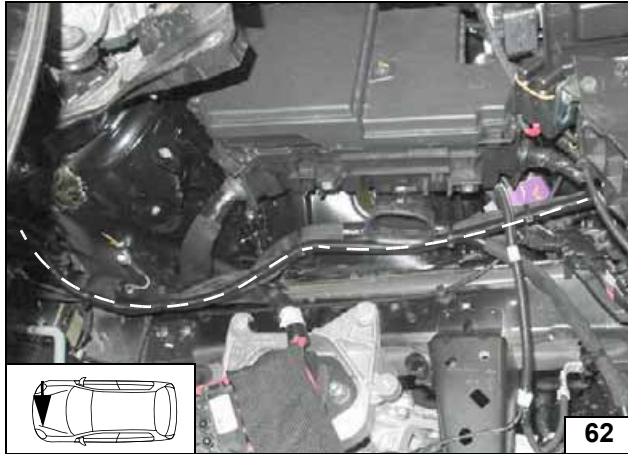
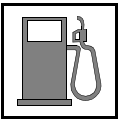


Pull fuel line 2 and metering pump wiring harness 4 into corrugated tube 1 and route in the engine compartment.

- 3 90° moulded hose, 10mm dia. clamp [2x]



**Connect-
ing heater**



Route corrugated tube with fuel line and metering pump wiring harness to the fire-wall.



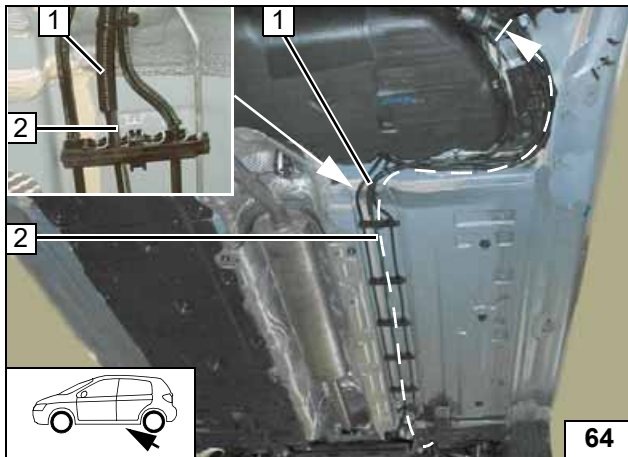
Routing lines



Route corrugated tube with fuel line and metering pump wiring harness to the right side of the vehicle and along original vehicle wires to the underbody.

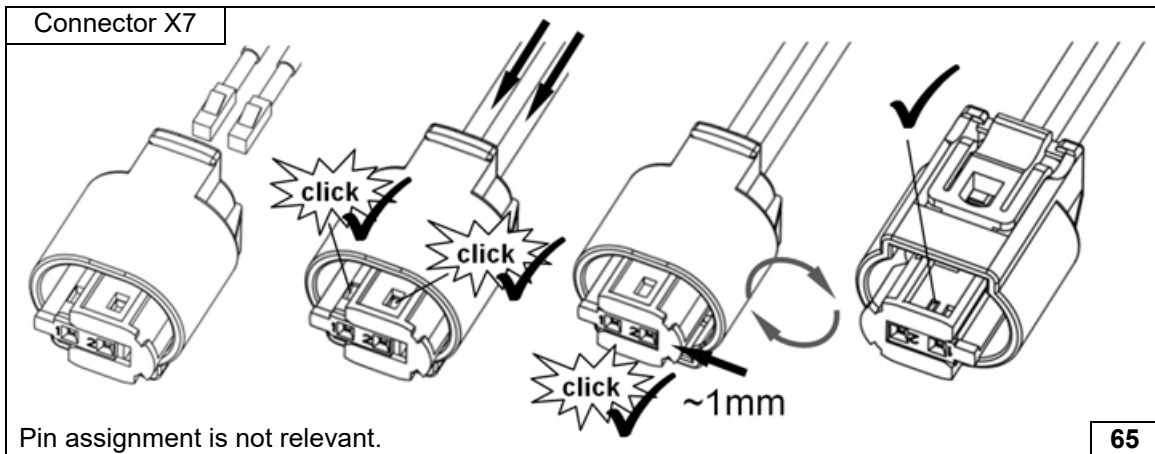


Routing lines

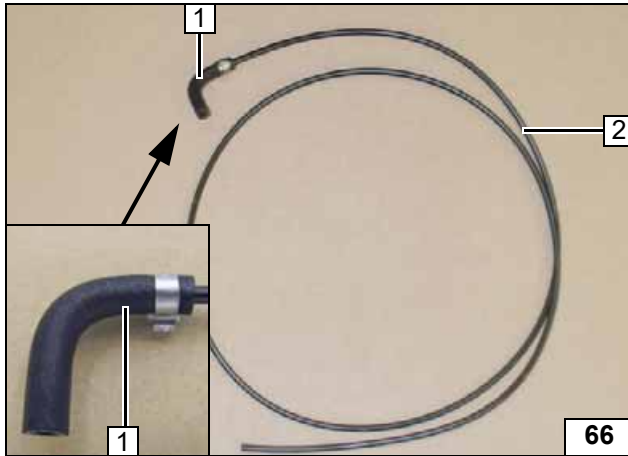
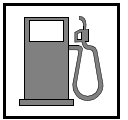


- 1 1130 mm dia. corrugated tube
- 2 Fuel line and wiring harness of metering pump

Routing lines

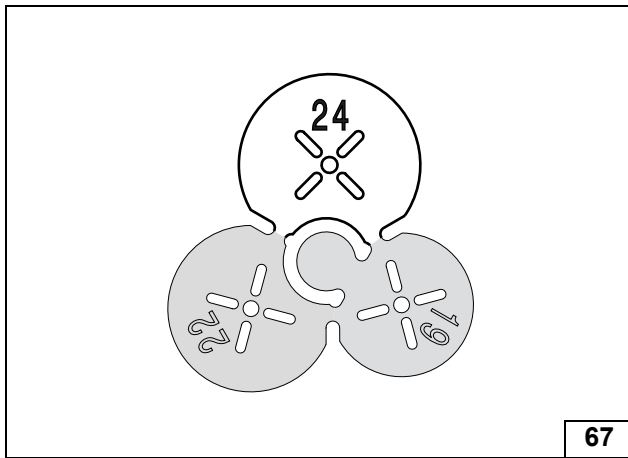


Completing metering pump connector



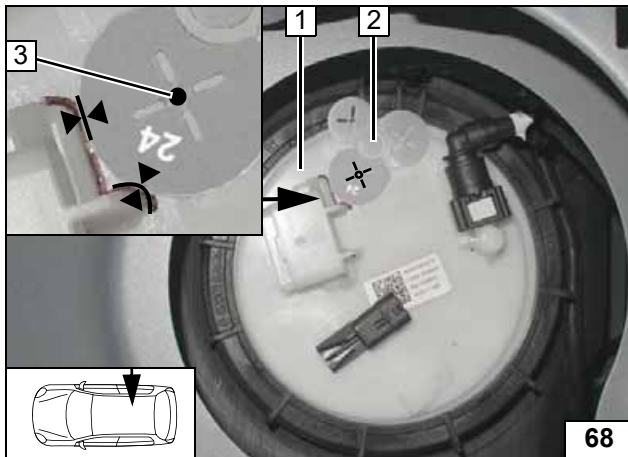
- 1 90° moulded hose, 10 mm dia. clamp
- 2 1500 mm long fuel line

Preparing fuel line



Installation of FuelFix for Petrol Vehicles

Drilling Template

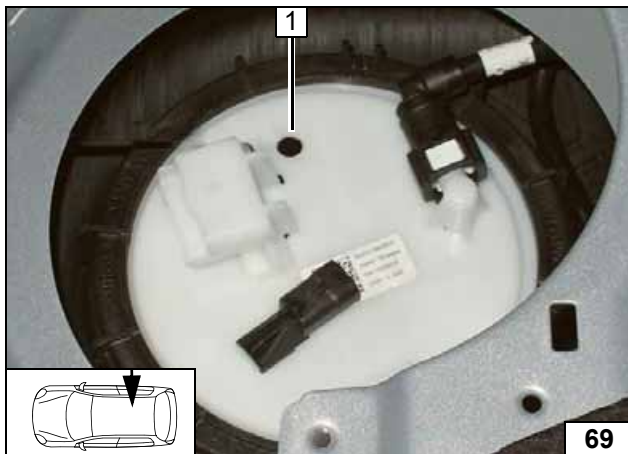


Work steps F1 and F2.

- 1 Fuel tank sending unit
- 2 Position 24mm dia. drilling template at the marking
- 3 Copy hole pattern



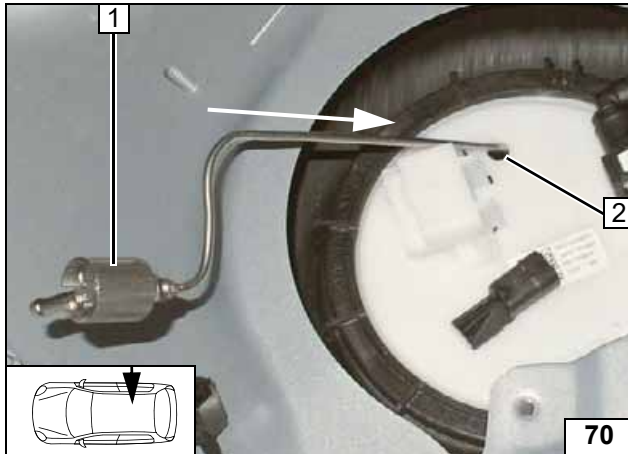
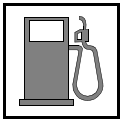
Copying hole pattern



Work step F3.

- 1 Hole made with provided drill

Hole for FuelFix



Work steps F4 and F5.

Bend FuelFix 1 according to template and cut to length. Insert into hole 2.



Inserting FuelFix

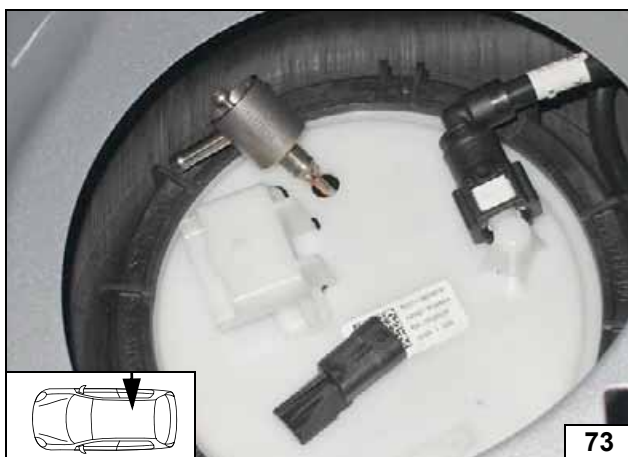


Work step F5.

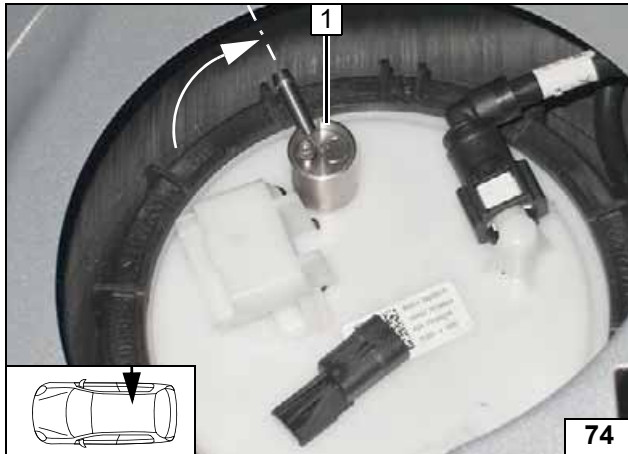
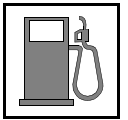
Inserting FuelFix



Inserting FuelFix



Inserting FuelFix

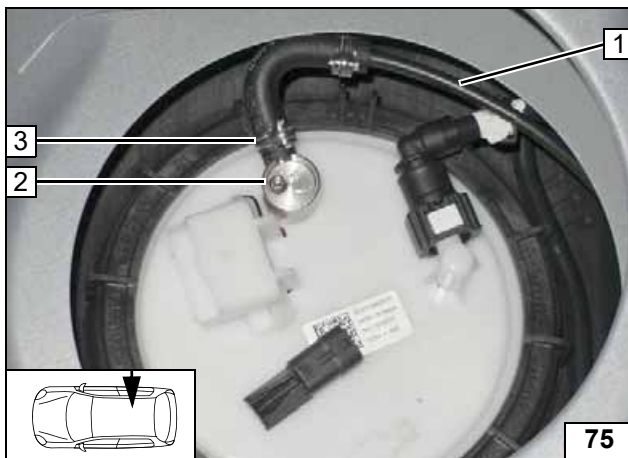


Work steps F5.3 and F5.4.

Align FuelFix 1 as shown.



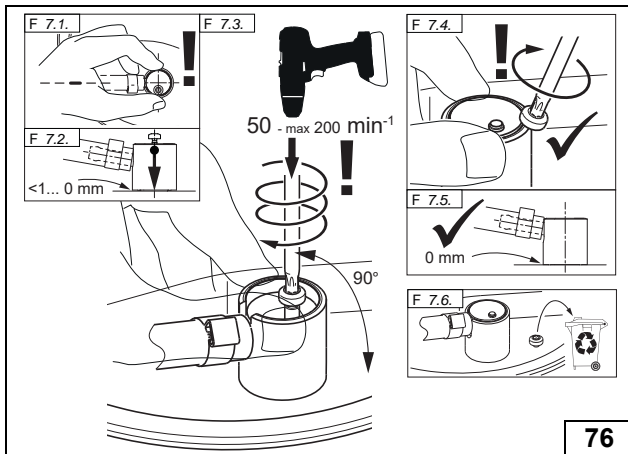
Aligning FuelFix



Work step F6.

- 1 Prepared fuel line
- 2 FuelFix
- 3 10 mm dia. clamp

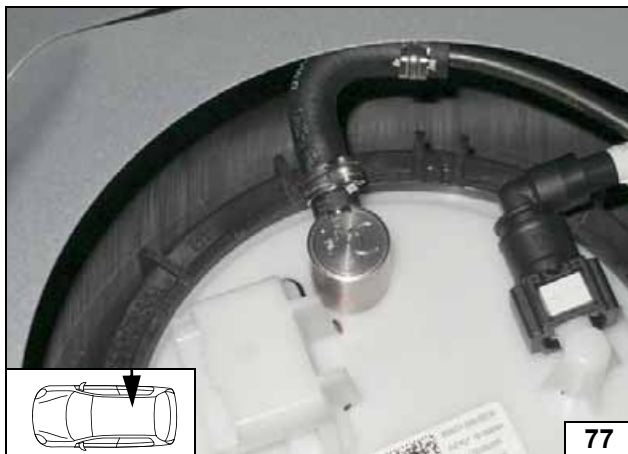
Connecting fuel line



Work step F7.

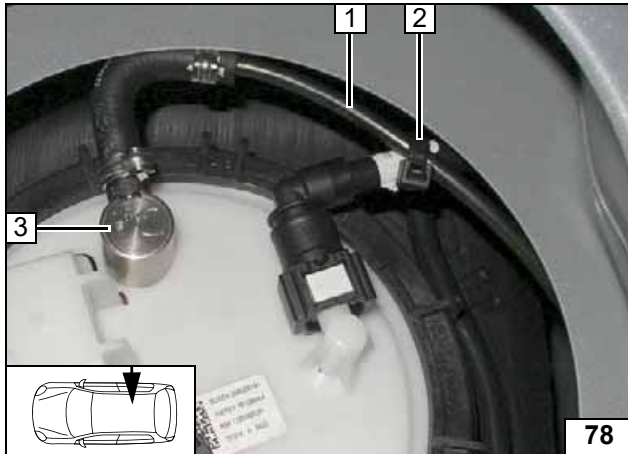


Installing FuelFix



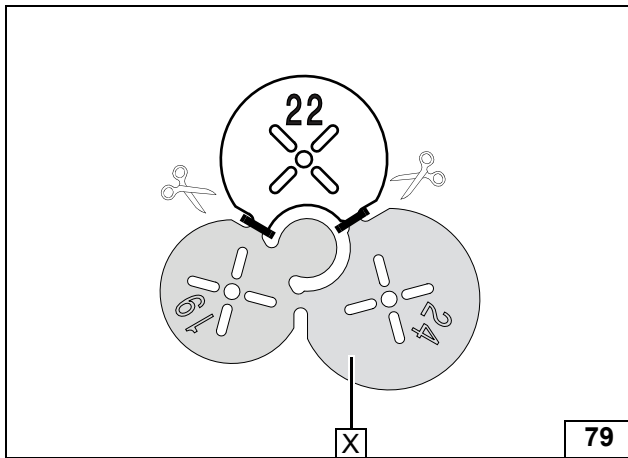
Work step F8.

Ensuring firm seating of FuelFix



- 1 Fuel line of FuelFix
- 2 Cable tie as tension relief
- 3 FuelFix

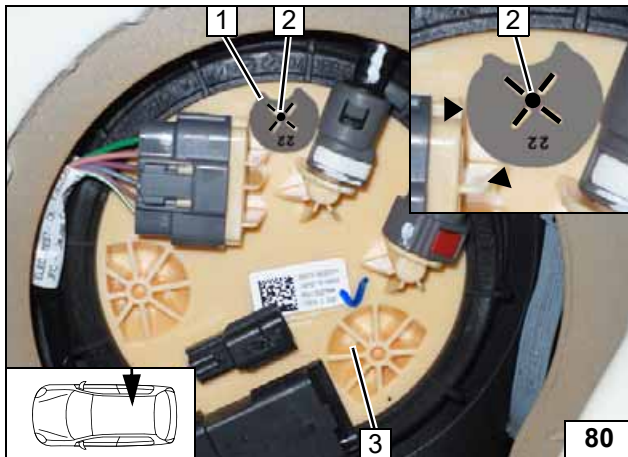
Securing fuel line



Installation of FuelFix for Diesel Vehicles

X =

Preparing drilling template

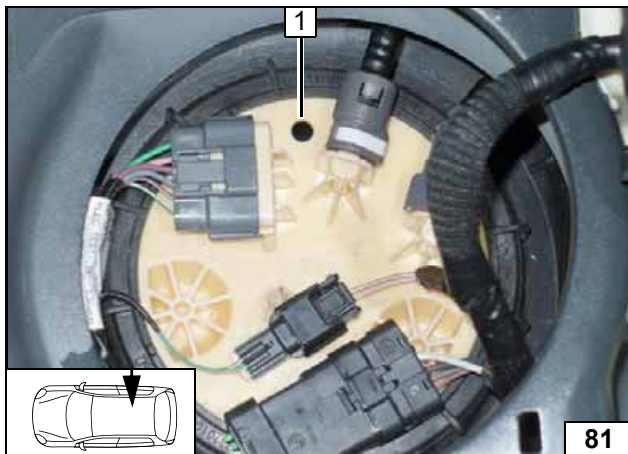


Work steps F1 and F2.

- 1 Position 22mm dia. drilling template at the marking
- 2 Copy hole pattern
- 3 Fuel tank sending unit



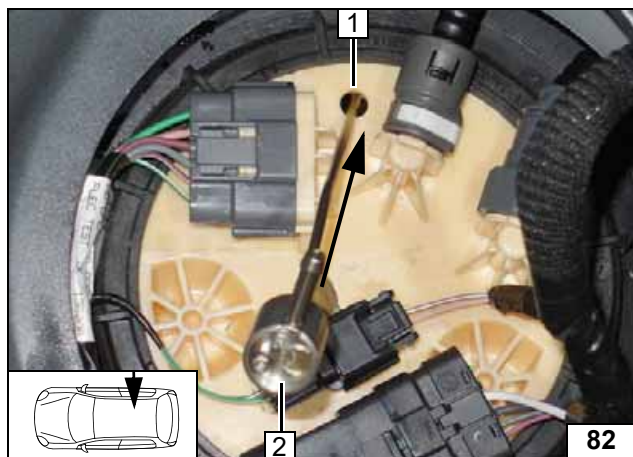
Copying hole pattern



Work step F3.

- 1 Hole made with provided drill

Hole for FuelFix

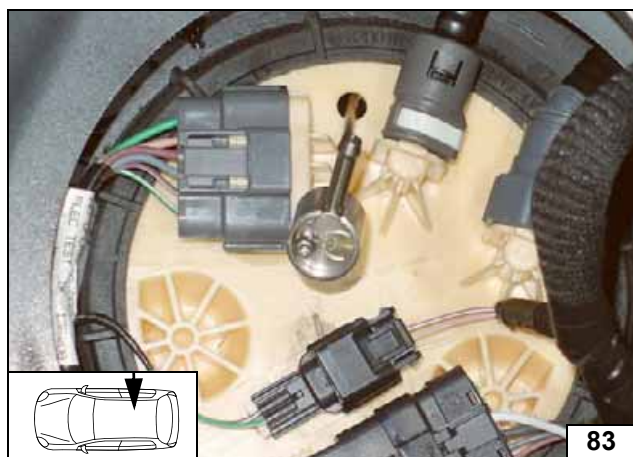


Work steps F4 and F5.

Bend FuelFix 2 according to template and cut to length. Insert into hole 1.

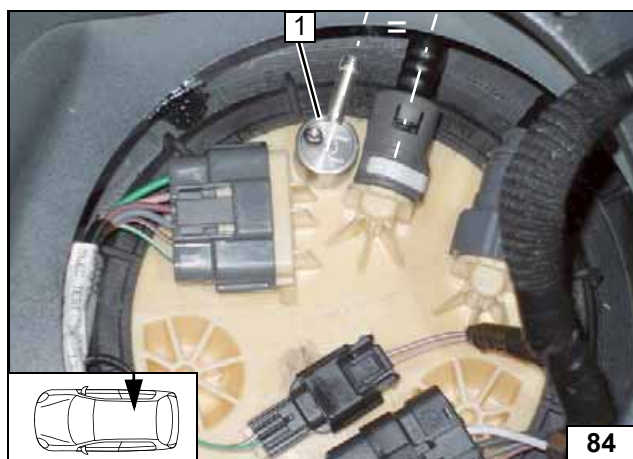


Inserting FuelFix



Work step F5.

Inserting FuelFix

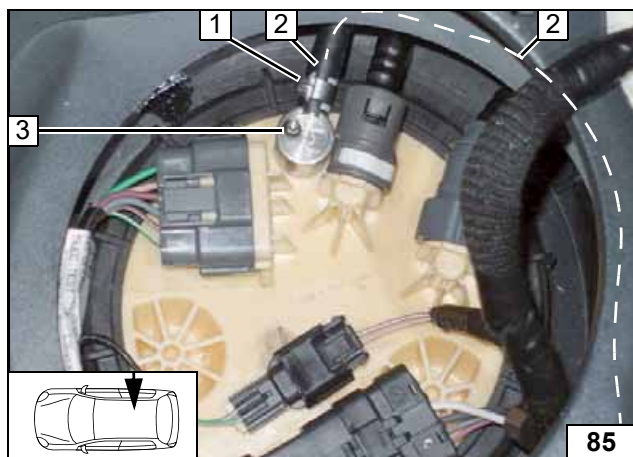


Work steps F5.3 and F5.4.

Align FuelFix 1 as shown.



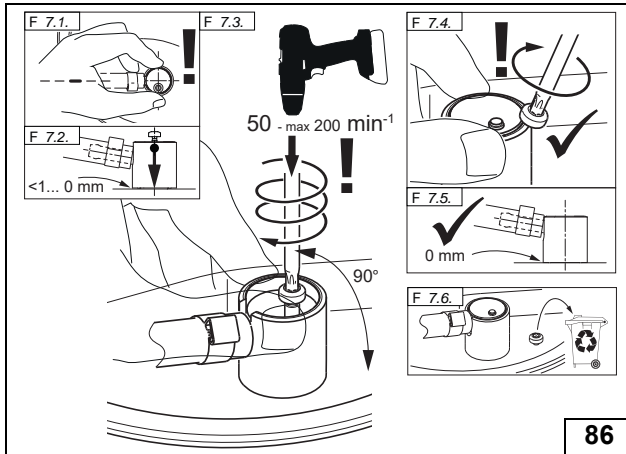
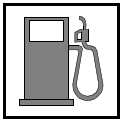
Aligning FuelFix



Work step F6.

- 1 10mm dia. clamp
- 2 Prepared fuel line
- 3 FuelFix

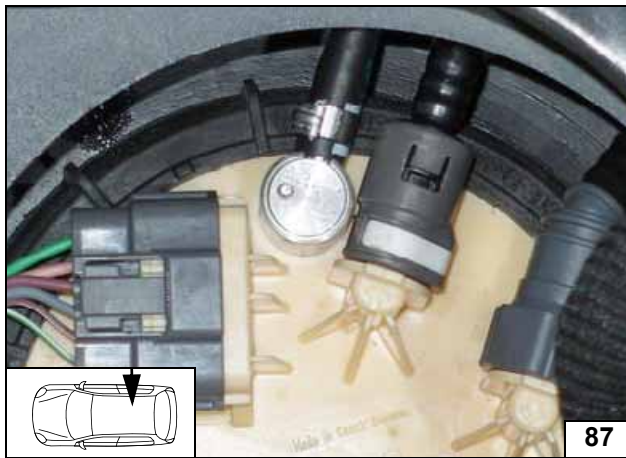
**Connect-
ing fuel line**



Work step F7.

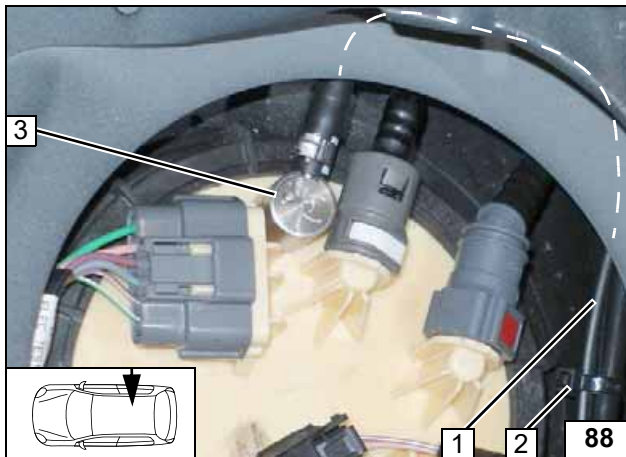


Installing FuelFix



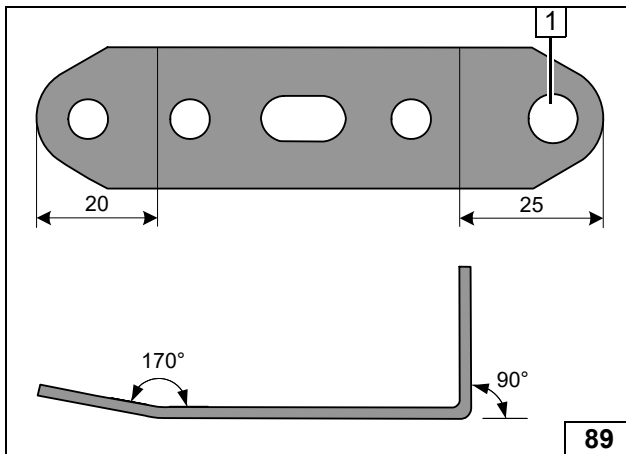
Work step F8.

Ensuring firm seating of FuelFix



- 1 Fuel line of FuelFix
- 2 Cable tie as tension relief
- 3 FuelFix

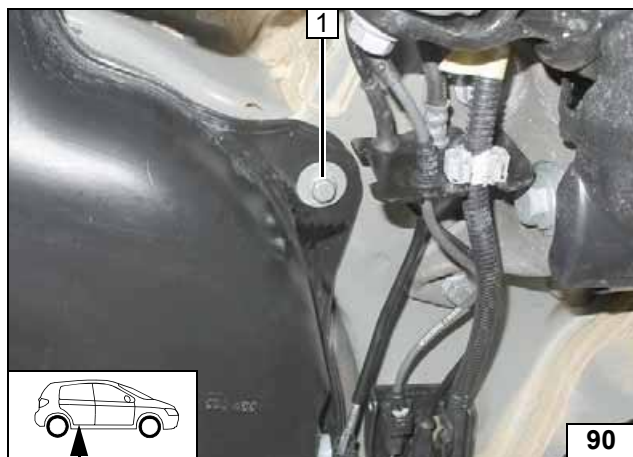
Securing fuel line



All vehicles

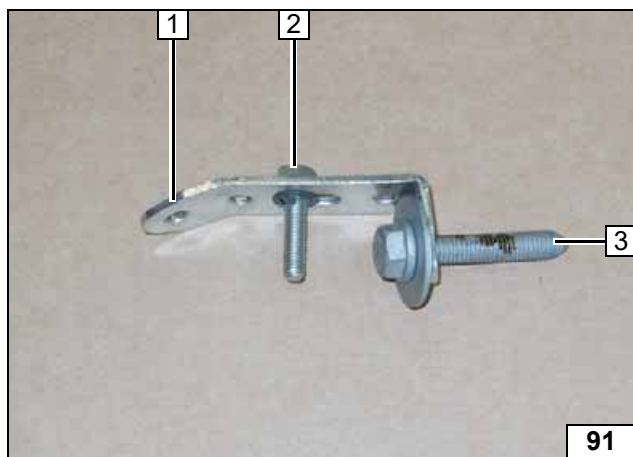
- 1 Drill out hole to 8.5 mm dia.

Preparing perforated bracket



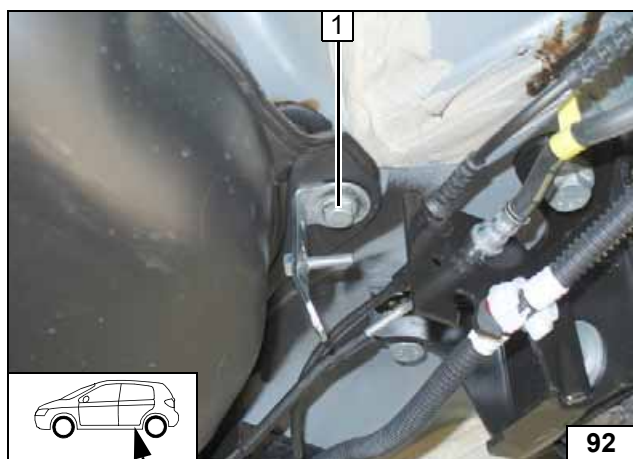
1 Original vehicle bolt

Removing original vehicle bolt



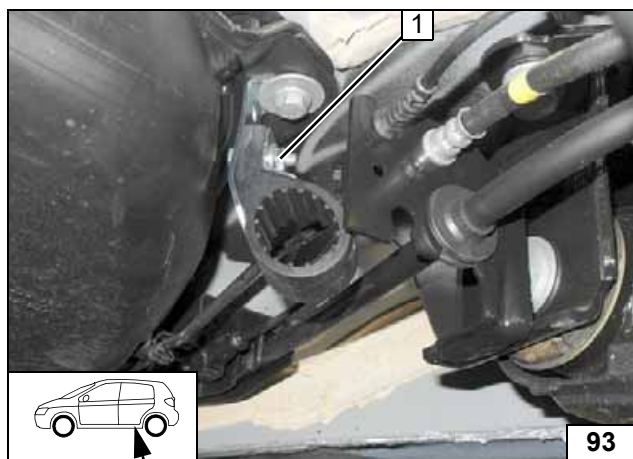
1 Perforated bracket
2 M6x25 bolt, lock washer
3 Original vehicle bolt

Premounting perforated bracket



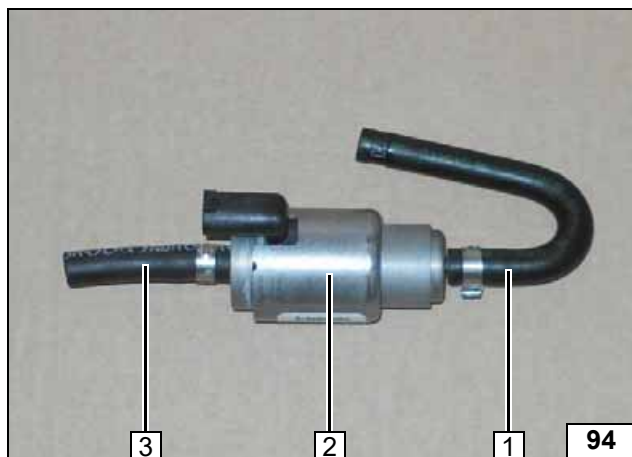
1 Original vehicle bolt with washer, perforated bracket

Installing perforated bracket



1 Metering pump mount, support angle bracket, flanged nut

Installing metering pump mount

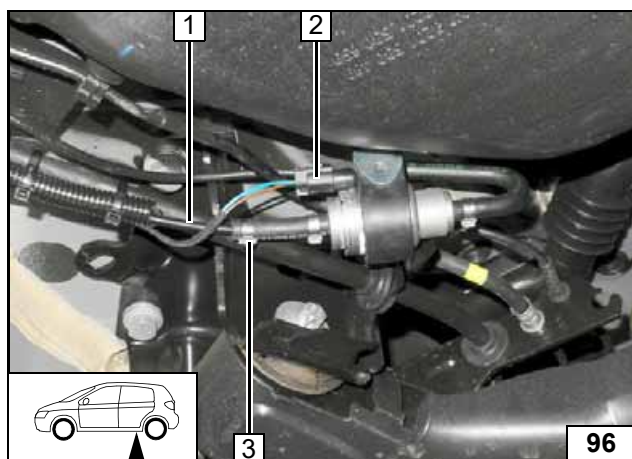


- 1 180° moulded hose, 10 mm dia. clamp
- 2 Metering pump
- 3 Hose section, 10mm dia. clamp

Premounting metering pump



Installing metering pump



- 1 Fuel line of heater
- 2 Metering pump wiring harness, connector X7 mounted
- 3 10 mm dia. clamp



Connecting metering pump

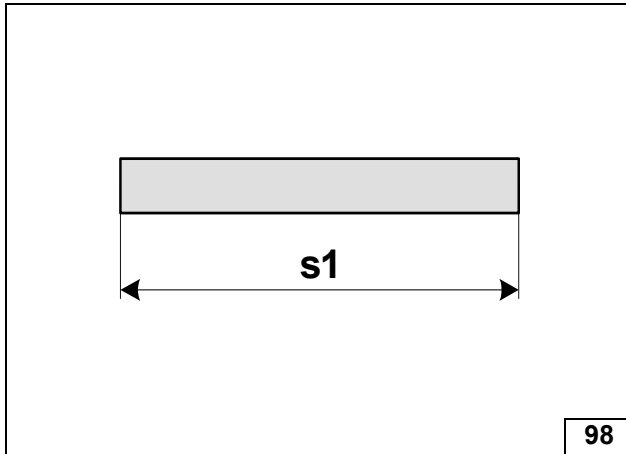
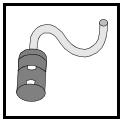


Ensure sufficient distance from neighbouring components, correct if necessary.

- 1 10 mm dia. clamp
- 2 FuelFix fuel line, in 1130mm corrugated tube

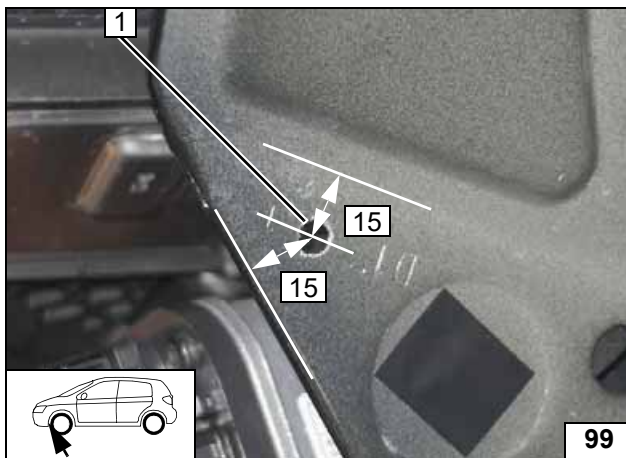


Connecting metering pump



Combustion Air

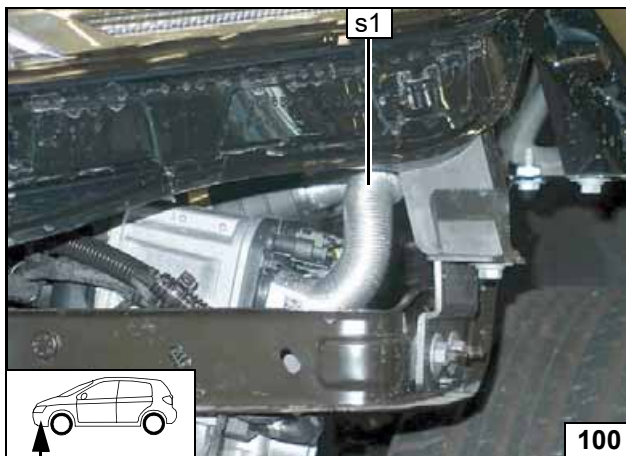
s1 = 315



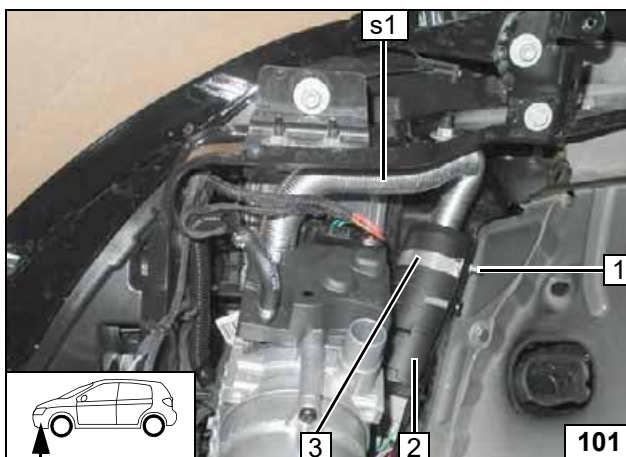
1 6 mm dia. hole

Cutting combustion air pipe to length

Drilling hole for combustion air silencer



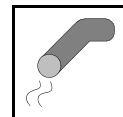
Installing combustion air pipe



- 1 M5x16 bolt, nut
- 2 Silencer
- 3 51 mm dia. clamp



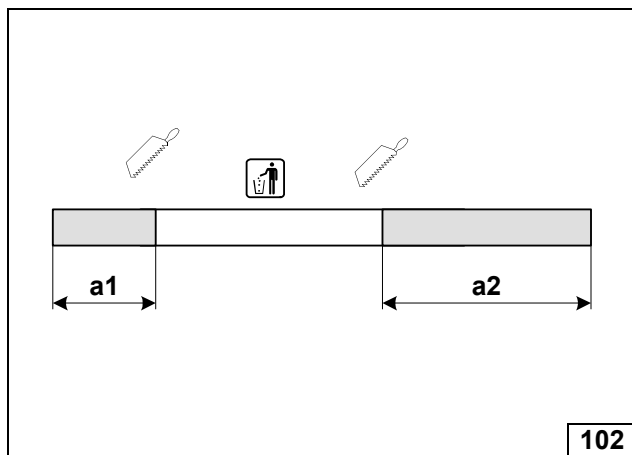
Installing silencer



Exhaust Gas

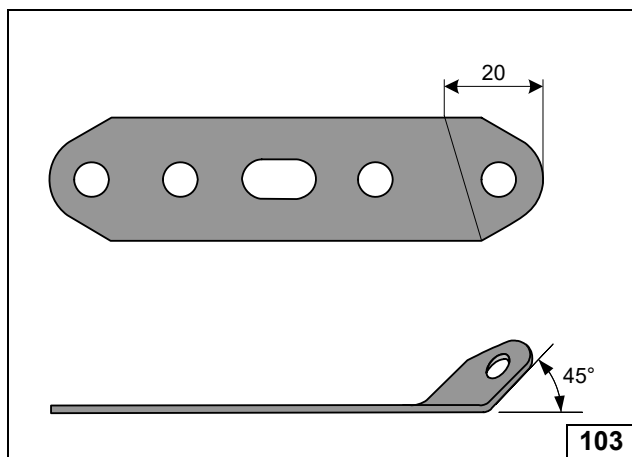
a1 = 90

a2 = 170



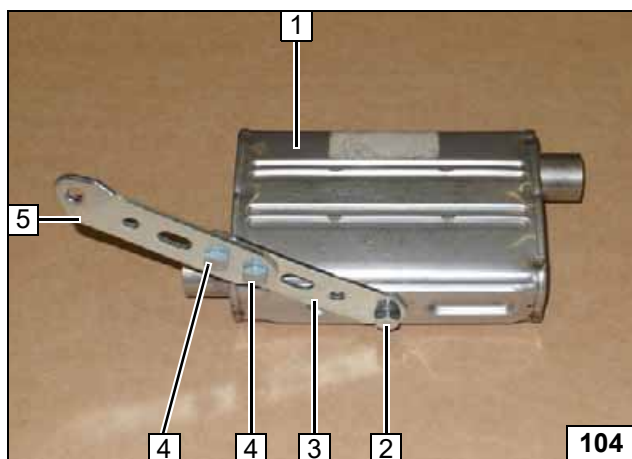
102

Preparing ex-
haust pipe



103

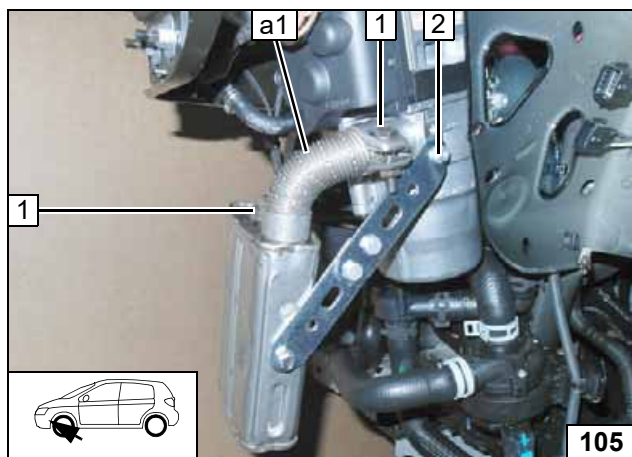
Preparing
perforated
bracket



104

- 1 Silencer
- 2 M6x16 bolt, spring lockwasher
- 3 Perforated bracket
- 4 M6x12 bolt, flanged nut [2x each]
- 5 Prepared perforated bracket

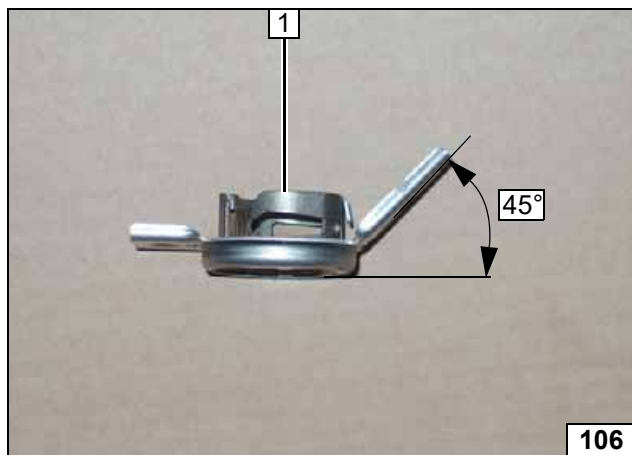
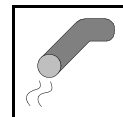
Premount-
ing silencer



105

- 1 Hose clamp [2x]
- 2 5x13 self-tapping bolt

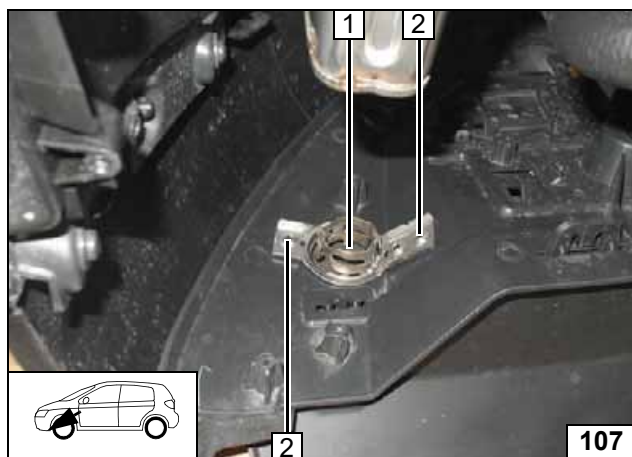
Installing
silencer



Exhaust End Fastener Installation

- 1 Exhaust end fastener

Bending exhaust end fastener

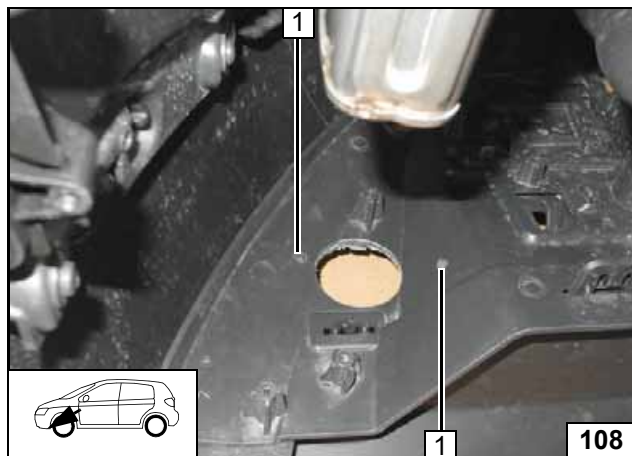


Work steps E1 and E3.

- 1 Hole
- 2 Hole pattern [2x]



Hole in lower bumper trim

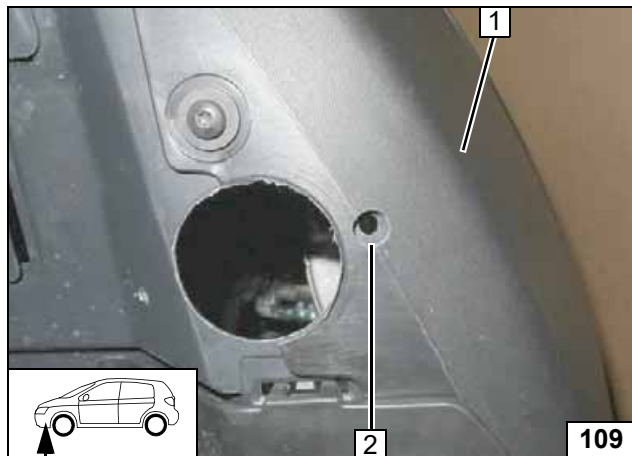


Work step E4.

- 1 Hole [2x]



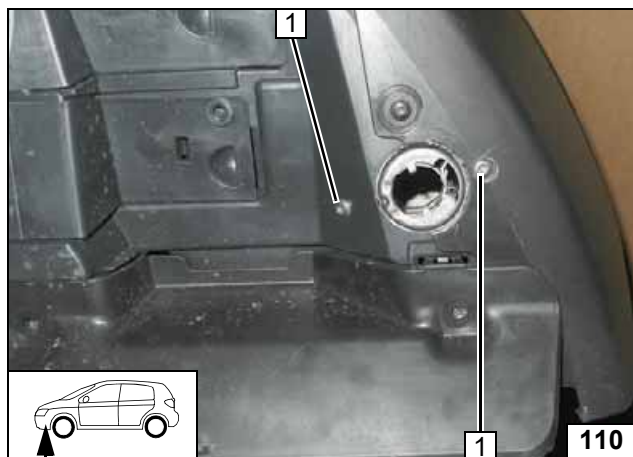
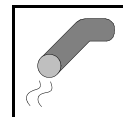
Hole in lower bumper trim



Drill 12mm dia. hole 2 for bolt head only in outer bumper trim 1.



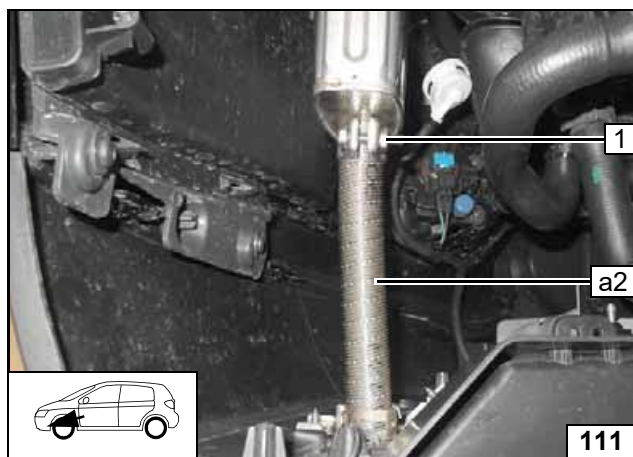
Hole in bumper trim



Work step E5.

- 1 5x13 self-tapping screw [2x]

Installing exhaust end fastener

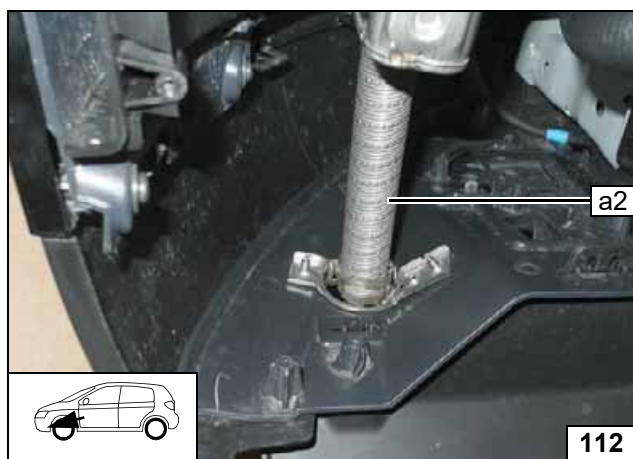


Ensure sufficient distance from neighbouring components, correct if necessary.



- 1 Hose clamp

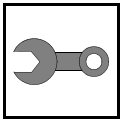
Installing exhaust pipe a2



Work steps E6 - E8.



Installing exhaust pipe a2

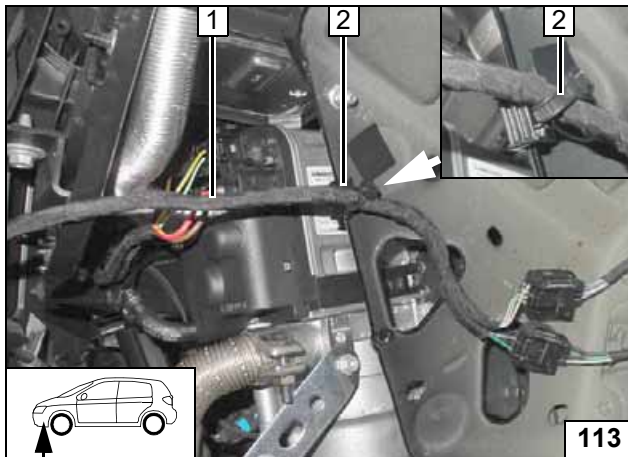


Final Work



Reassemble the components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate loose wire ends and tie back.
Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K).

- **Connect the battery.**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's instructions.**
- **Program MultiControl CAR, teach Teleshield transmitter.**
- **For initial start-up and function check, please see installation instructions.**
- **If the fan function or A/C control panel settings need to be checked, see the installation documentation in the additional 'Webasto Standard' or 'Webasto Comfort' A/C control kit, section 'Final Work'.**
- **Place the 'Switch off parking heater before refuelling' caution label near the filler neck.**



- 1 Original vehicle wiring harness
- 2 Edge clip cable tie

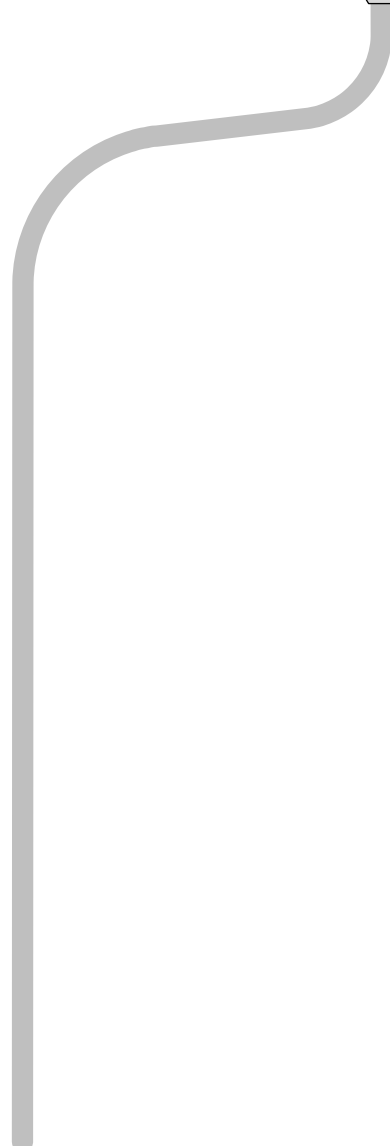
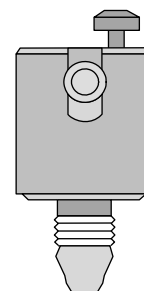
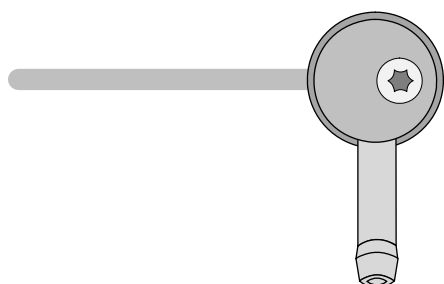
Attaching original vehicle wiring harness

Webasto Thermo & Comfort SE
Postfach 1410
82199 Gilching
Germany
Internet: www.webasto.com
Technical Extranet:
<http://dealers.webasto.com>



FuelFix Template for Petrol Vehicles

Top view



100mm



Scale 1:1

Compare size of printout with dimension lines.
Maximum permitted tolerance 2%.

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

100mm

0



FuelFix Template for Diesel Vehicles

Top view

