Water heater

Thermo Top Evo parking heater ‘Island based circuit’

E1
00 0258

Installation documentation

BMW
3 Series Gran Turismo F34

Validity

Manufacturer	Model	Type	EG BE No. / ABE
BMW	3 Series Gran Turismo	F34	e1 * 2007 / 46 * 0559 *...

Motorisation	Fuel	Emission standard	Transmission type	Output in kW	Displacement in cm³	Engine code
320i	Petrol	Euro 6	ASG	135	1997	B48B20A
330i	Petrol	Euro 6d-Temp	AG	185	1997	B48B20B
330d	Diesel	Euro 6	AG	190	2993	N57D36

ASG = semi-automatic transmission (Steptronic)
AG = automatic transmission

From model year 2015

Left-hand drive vehicle

Verified equipment variants: Automatic air-conditioning (1 zone)
Multi-zone automatic air-conditioning (2 zones)
LED main headlights
LED front fog lights
2 WD
XDrive
Headlight washer system
Xenon headlights

Not verified: Passenger compartment monitoring

Total installation time: approx. 9 hours

Table of contents

Necessary components

- Basic delivery scope of Thermo Top Evo based on price list
- Installation kit for BMW 3 Series Gran Turismo F34 2015 Petrol and diesel: **1324710E**
- Additional ‘Webasto Comfort’ air-conditioning control kit BMW X1 / 1 / 2 / 3 / 4 / Mini: **1324388_**
- Control element in accordance with price list and upon consultation with end customer
- The installation location should be chosen together with the end customer in case of MultiControl CAR.
- In case of Telestart, indicator lamp in accordance with price list and installation location in consultation with end customer

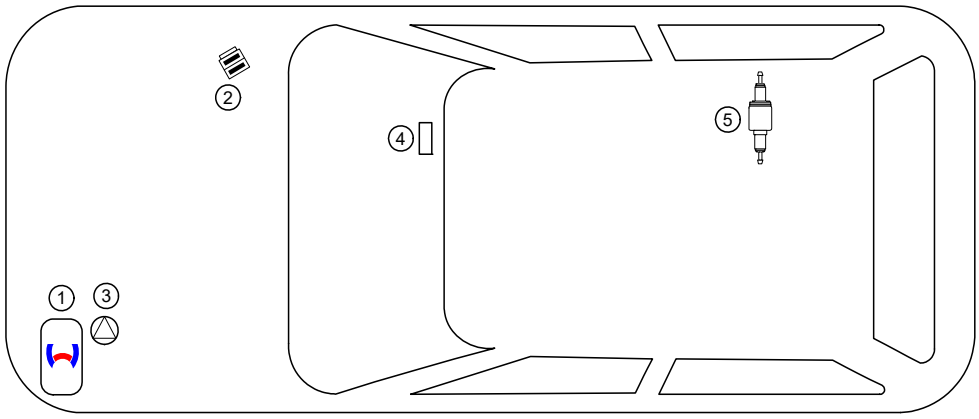
Installation instructions:

- 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.

Installation overview

Legend:

1. Heater
2. Engine compartment fuse holder
3. Circulating pump
4. Telestart or ThermoCall receiver
5. Fuel pump



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.

BMW 3 Series Gran Turismo F34

Information on validity

This installation documentation applies to BMW 3 Series Gran Turismo F34 Petrol and diesel vehicles - for validity, see page 1 - from model year 2015 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 male connector, 0.14 - 6mm²
- Crimping pliers for cable lug, 0.5 - 10mm²
- Crimping pliers for connector, 0.25 - 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.

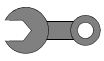
Tightening torque values

- 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.

Mechanical system



Electrical system

Coolant circuit

Combustion air

Fuel

Exhaust gas

Software

Special features are highlighted using the following symbols:

Specific risk of injury or fatal accidents.

Specific risk due to electrical voltage.

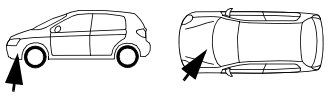
Specific risk of damage to components.

Specific risk of fire and explosion.

Reference to general installation instructions of the 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.



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

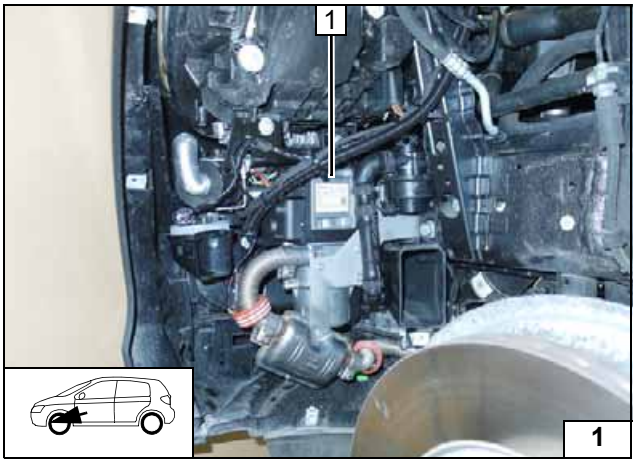
Preliminary work

Vehicle

- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Disconnect the battery.
- Remove the electrical box.
- Remove the air filter completely, together with the intake hose (petrol vehicles only).
- Remove the water drain chamber cover on the right and left.
- Detach the engine cover from the clips.
- Detach the radiator cover from the clips.
- Remove the lower engine cover.
- Remove the right and left front wheel.
- Remove the front parts of the wheel well trim on the front left and right.
- Remove the rear part of the wheel well trim at the front on the right.
- Remove the underride protection on the right.
- Remove the middle underride protection.
- Remove the bumper.
- Remove the lower footwell trim on the front passenger's side.
- Remove the glove box.
- Remove the rear bench seats.
- Open the right-hand tank fitting service lid.
- Remove the headlight on the left (diesel only).
- Remove the air duct on the left (diesel only).

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

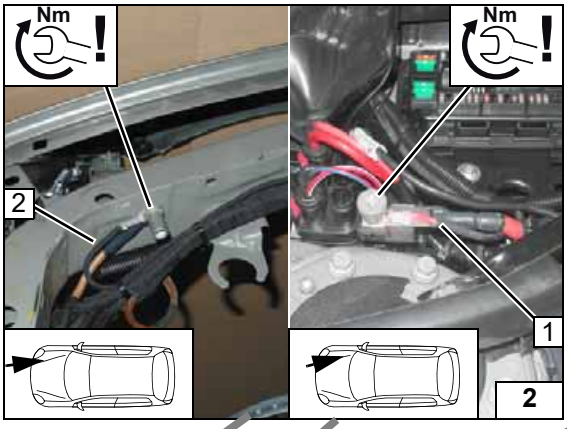
1 Heater

Installation location

Electrical system

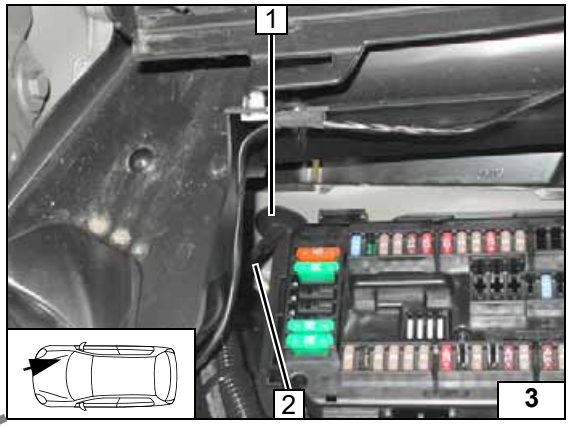
Positive and earth wire

1 Positive wire on original vehicle positive support point
2 Earth wire on original vehicle earth support point

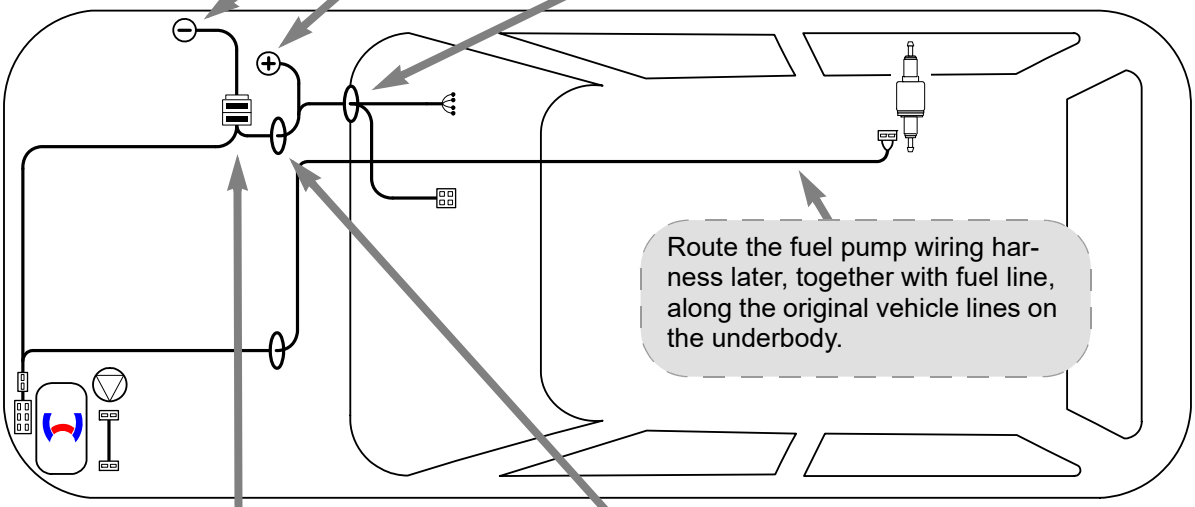


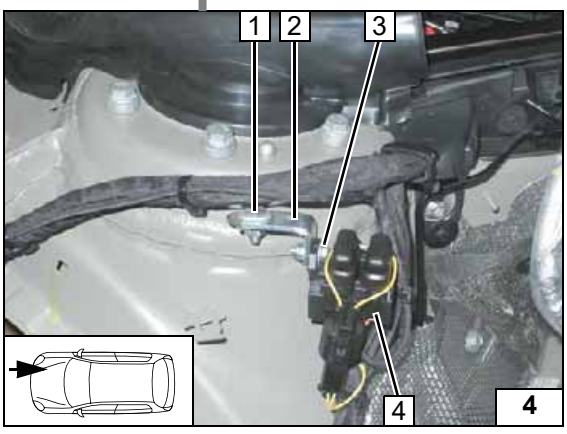
Wiring harness pass through of passenger compartment

1 Protective rubber plug
2 Wiring harnesses of heater, control element



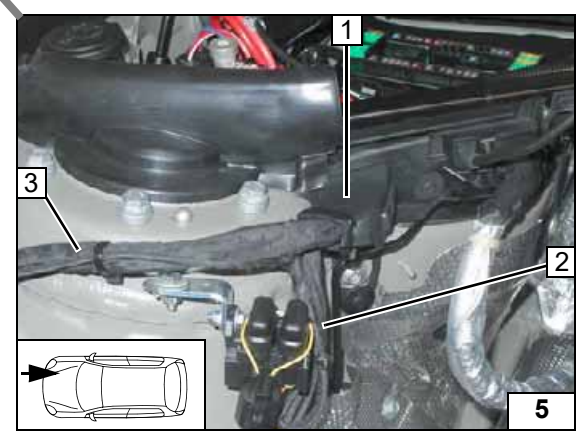
Wiring harness routing diagram





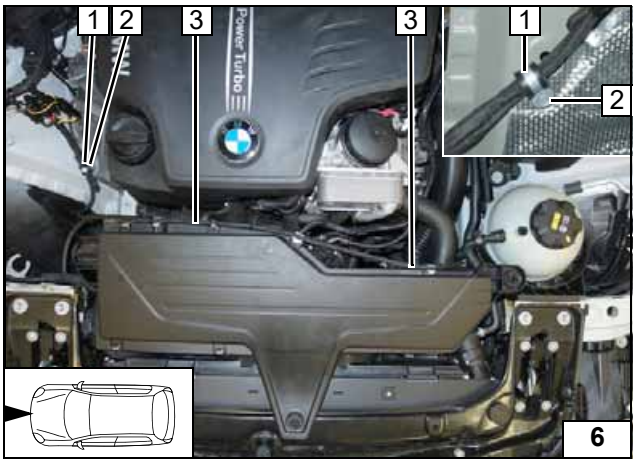
Engine compartment fuse holder

1 M6x20 bolt, large diameter washer, original vehicle hole, flanged nut
2 Angle bracket
3 M5x16 bolt, large diameter washer [2x], retaining plate of fuse holder, nut
4 Fuses F1-2



Water drain chamber wiring harness pass through

1 Water drain chamber pass through
2 Route positive wire, fan controller and control element wiring harness in the water drain chamber
3 Earth wire

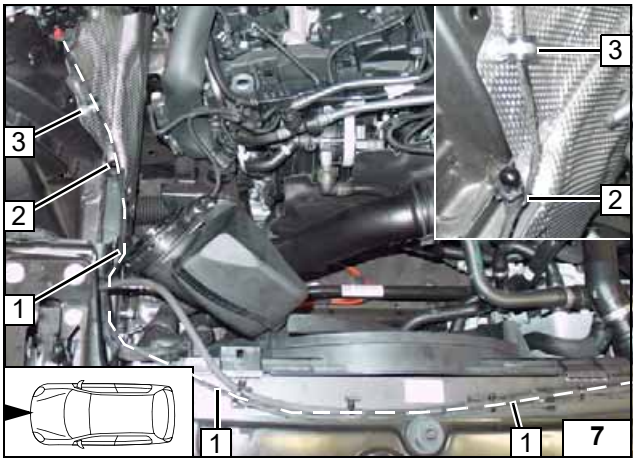


320i 135kW petrol

Route wiring harness **3** on the bonnet lock cable behind the air filter box as shown.

1 Ø15 rubber-coated p-clamp
2 Original vehicle bolt

Routing heater wiring harness

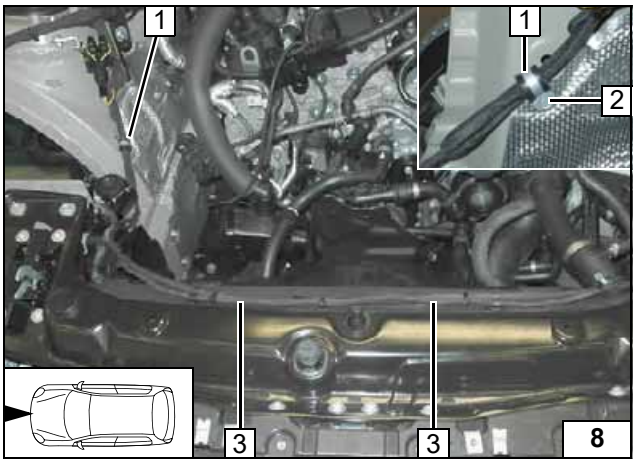


330i 185kW petrol

Route wiring harness **1** on the bonnet lock cable as shown and further along the original vehicle wiring harness and fasten.

2 Cable tie
3 Original vehicle bolt, Ø15 rubber-coated p-clamp

Routing heater wiring harness



Diesel

Route wiring harness **3** along original vehicle lines to the right side of the vehicle.

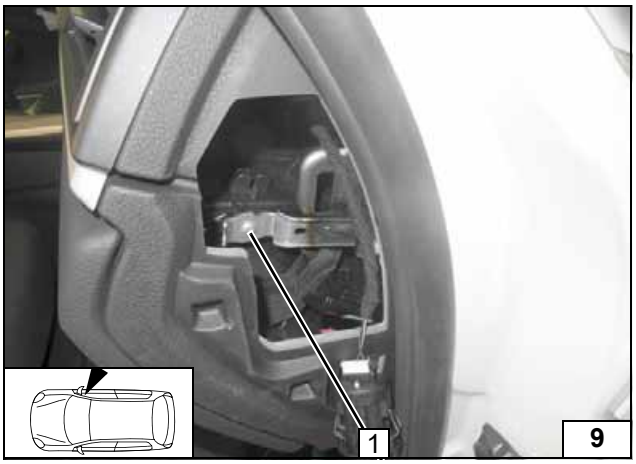
1 Ø15 rubber-coated p-clamp
2 Original vehicle bolt

Routing heater wiring harness

Air-conditioning control

Connect the A/C control in accordance with the separate installation documentation:

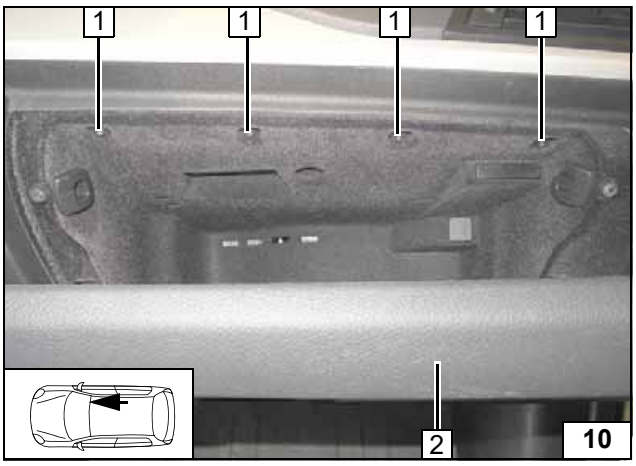
Installation documentation of **'Webasto Comfort'** A/C control for BMW X1 / 1 / 2 / 3 / 4 / Mini with AAC



Glove box dismantling instructions

1 Original vehicle bolt

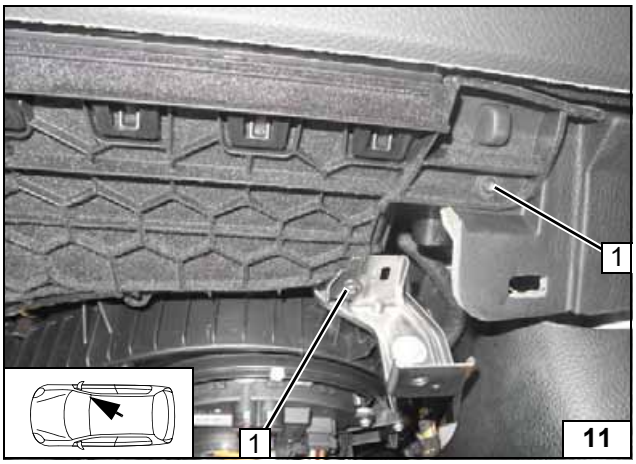
Removing bolt



Open glove box cover **2**.

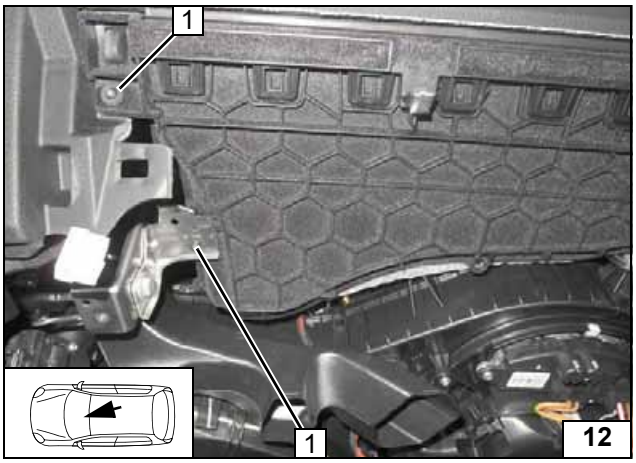
1 Original vehicle bolt [4x]

Removing bolts



1 Original vehicle bolt [2x]

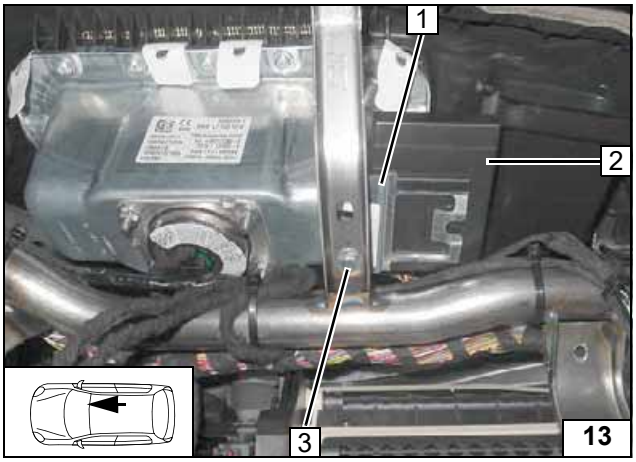
Removing bolts



1 Original vehicle bolt [2x]

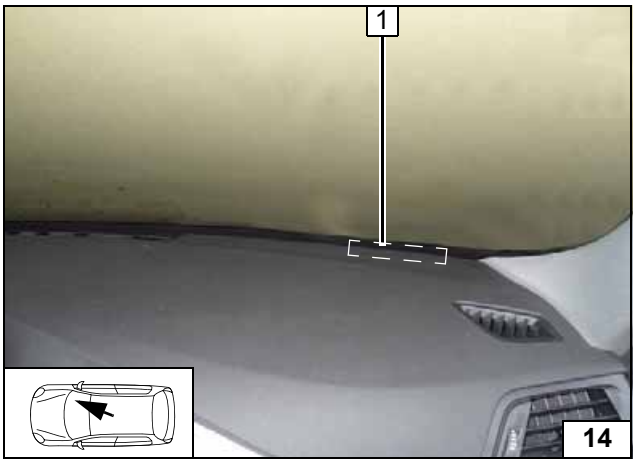
Removing bolts

Remote option (Telestart)



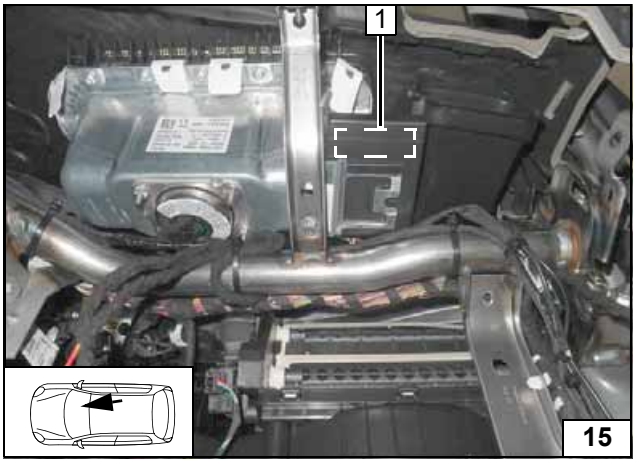
1 Receiver bracket
2 Receiver
3 M5x16 bolt, large diameter washer, original vehicle hole, flanged nut

Installing receiver



1 Aerial

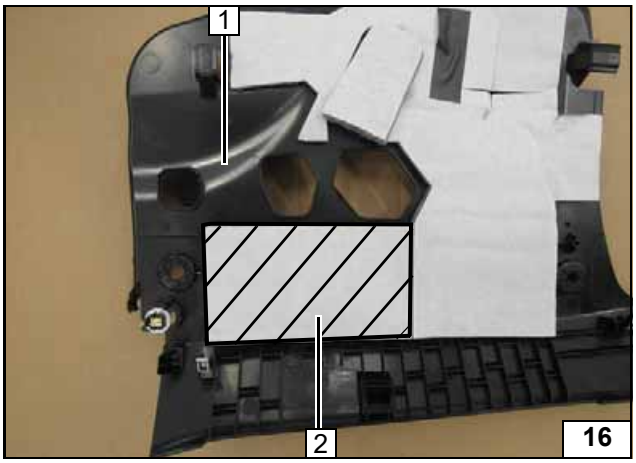
Installing aerial



Temperature sensor T100 HTM

Fasten temperature sensor **1** (hidden) with double-sided adhesive tape.

Installing temperature sensor

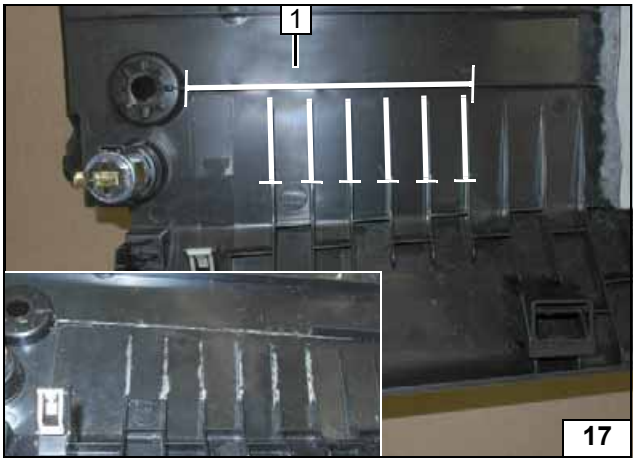


ThermoCall option

Remove marked section **2** of insulation mat.

1 Lower footwell trim on the front passenger's side

Adapting lower trim



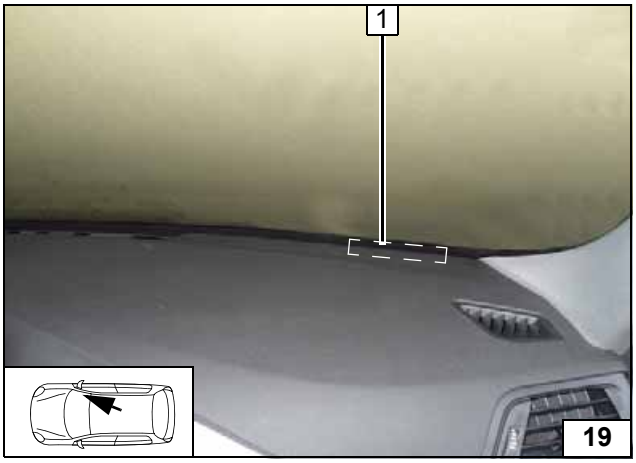
Cut off marked ribs of trim flush with surface.

1 Lower footwell trim on the front passenger's side

Installing receiver

Fasten receiver **1** with double-sided adhesive tape.

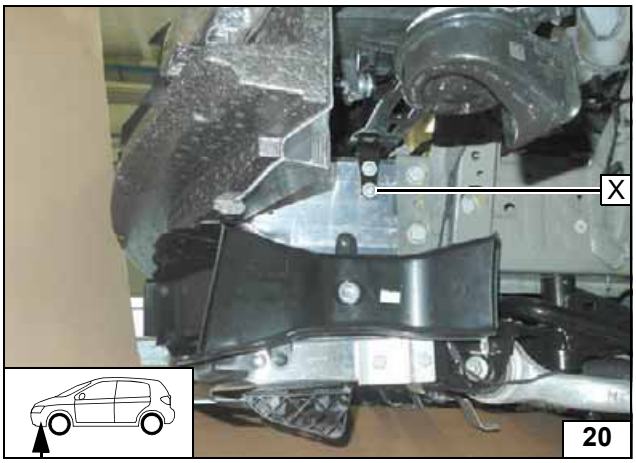
Installing receiver



1 Aerial (optional)

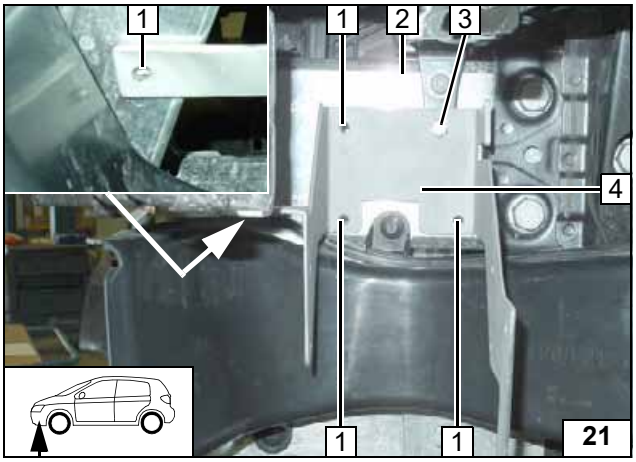
Installing aerial

Preparing installation location



X =

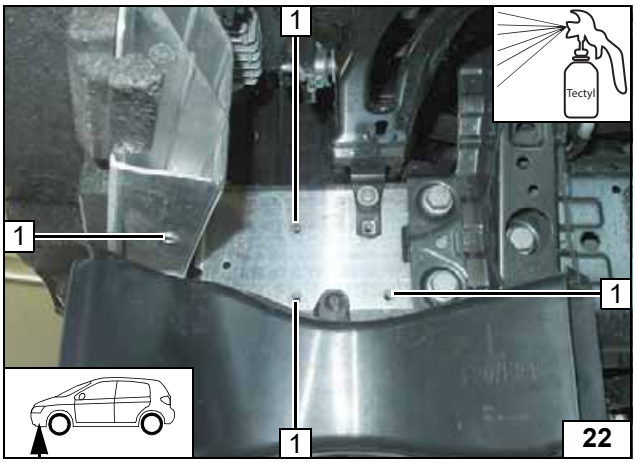
Removing bolt



Align bracket **4** parallel with frame side member **2**.

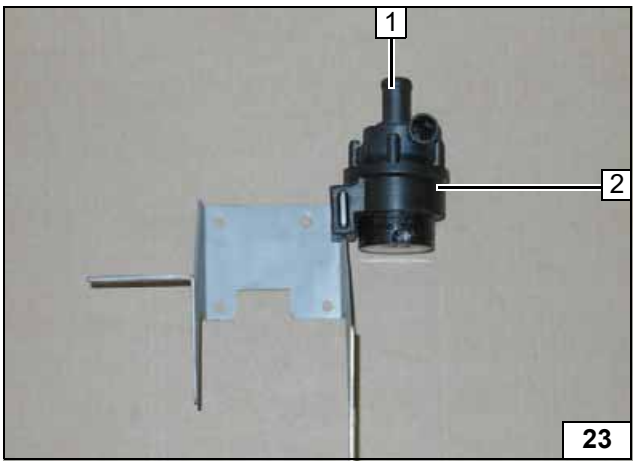
1 Hole pattern [4x]
3 M6x20 bolt

Copying hole pattern



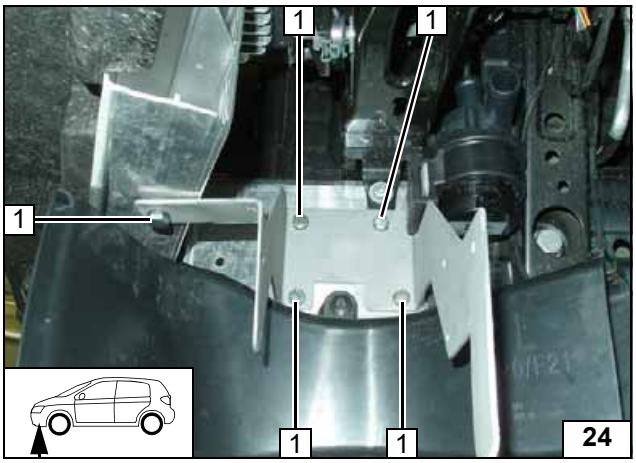
1 Ø9 hole, rivet nut [4x each]

Installing rivet nut



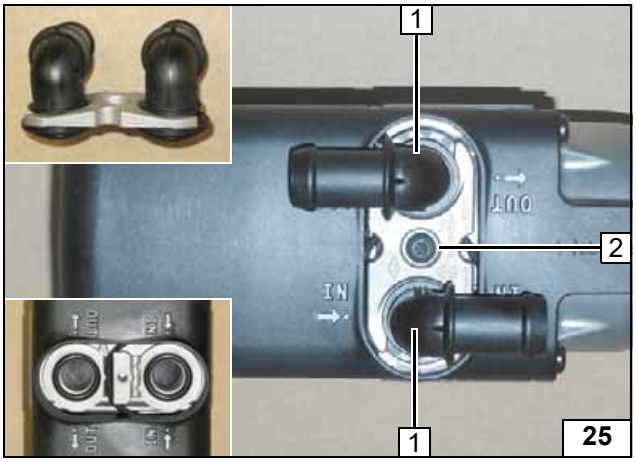
1 Circulating pump
2 Circulating pump mount

Premounting bracket



1 M6x20 bolt, spring lock washer [5x each]

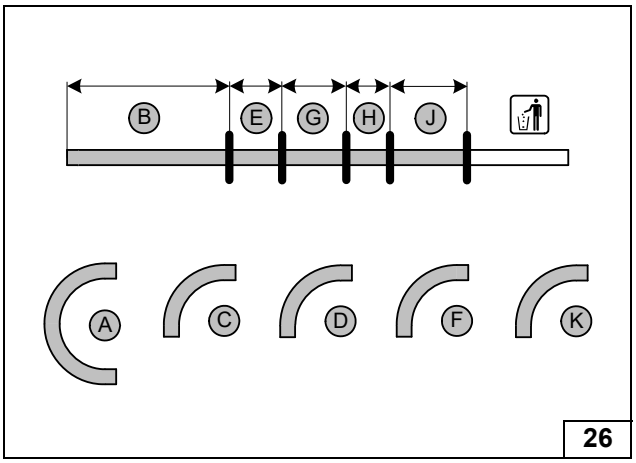
Installing bracket



Preparing heater

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

Installing water connection piece

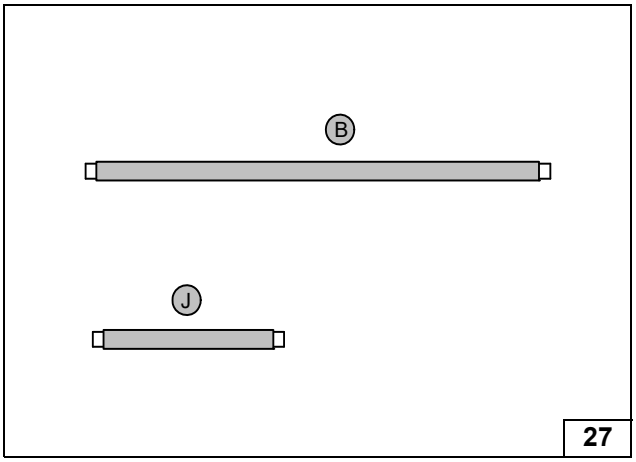


320i 135kW petrol

A = 180°, Ø18. moulded hose
C, D, F and **K** = 90°, Ø18 moulded hose

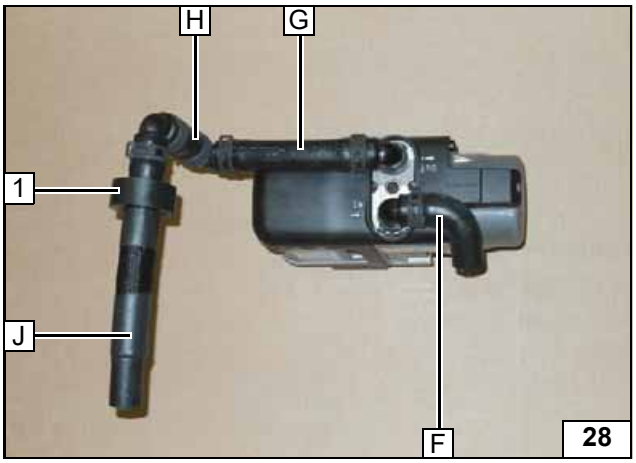
B = 690
E = 90
G = 130
H = 60
J = 230

Cutting hoses to length



Slide on fabric heat shrink tubing, cut to length and shrink.

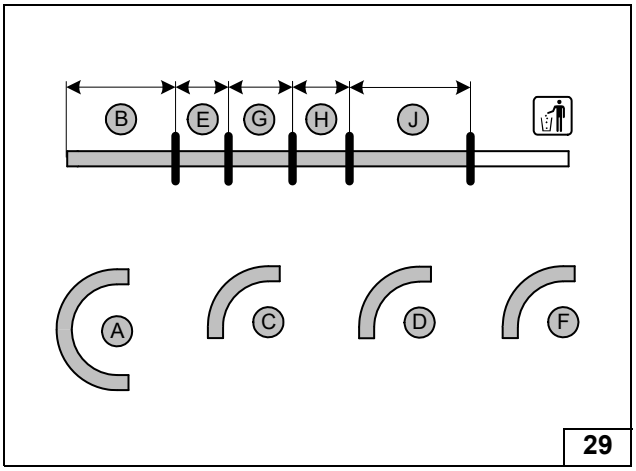
Preparing hoses



All spring clips = Ø25.
All connecting pipes = 90°, Ø18x18.

1 Rubber isolator

Installing hoses

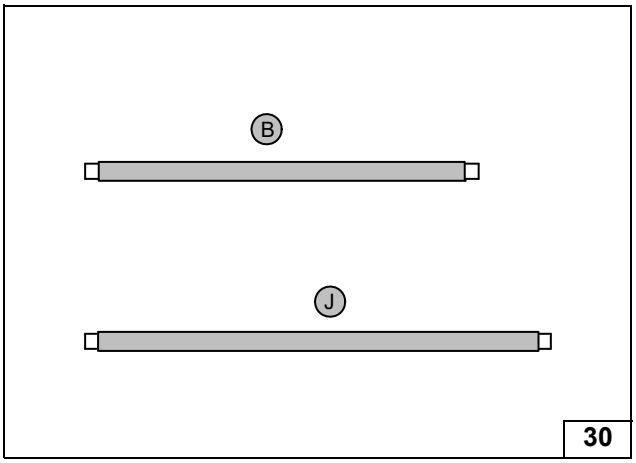


330i 185kW petrol

A = 180°, Ø18 moulded hose
C, D and **F** = 90°, Ø18 moulded hose

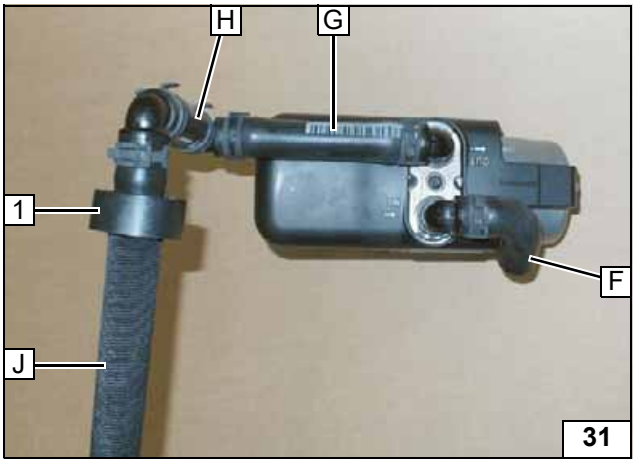
B = 420
E = 110
G = 130
H = 60
J = 730

Cutting hoses to length



Slide on fabric heat shrink tubing, cut to length and shrink.

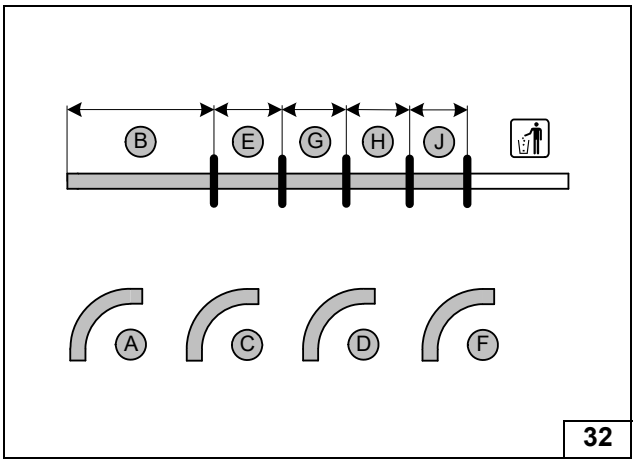
Preparing hoses



All spring clips = Ø25.

1 Black (sw) rubber isolator

Installing hoses



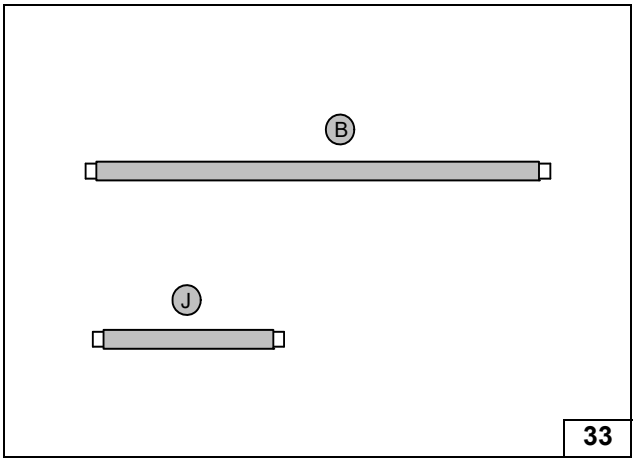
32

Diesel

A, C, D and **F** = 90°, Ø18 moulded hose

B = 580
E = 150
G = 120
H = 120
J = 170

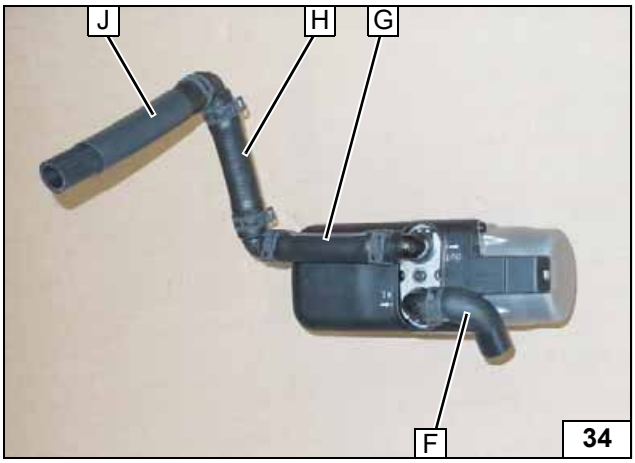
Cutting hoses to length



33

Slide on fabric heat shrink tubing, cut to length and shrink.

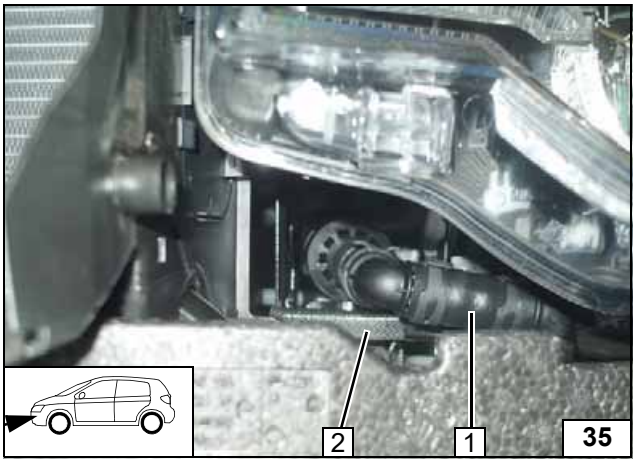
Preparing hoses



34

All spring clips = Ø25.
All connecting pipes = 90°, Ø18x18.

Installing hoses



35

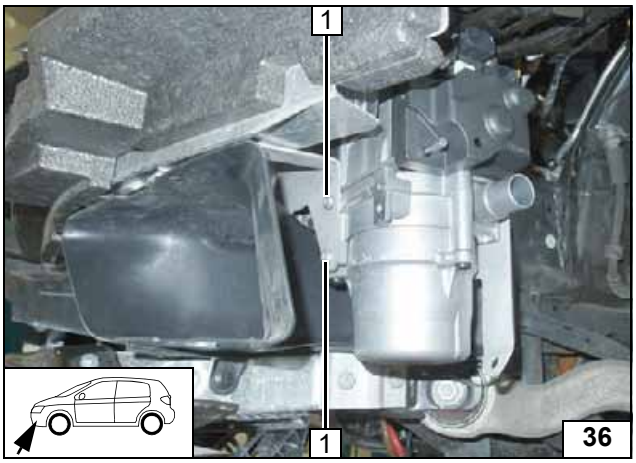
Installing heater

Petrol

Route hoses of heater outlet **1** as shown.

2 100 long edge protection

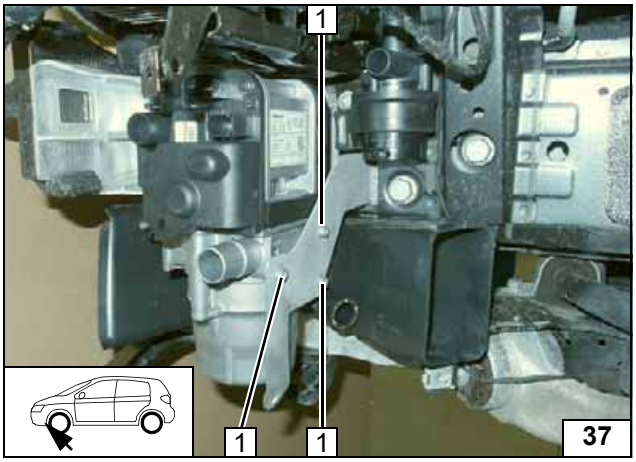
Installing heater



All vehicles

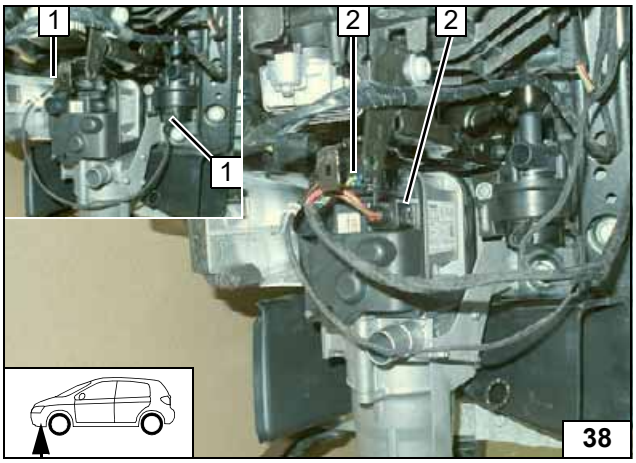
1 5x13 self-tapping bolt [2x]

Installing heater



1 5x13 self-tapping bolt [3x]

Installing heater



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

Installing wiring harnesses

Fuel

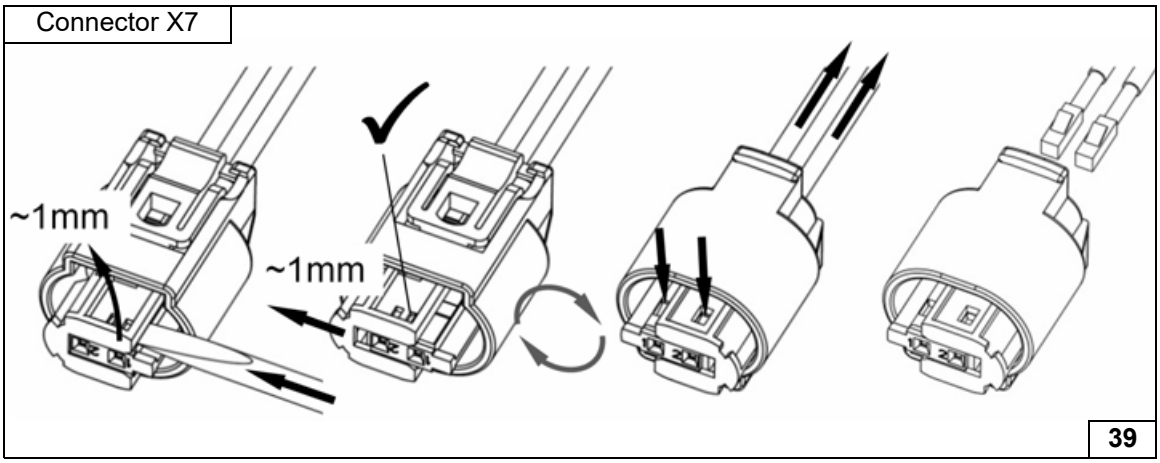
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off in an appropriate container.

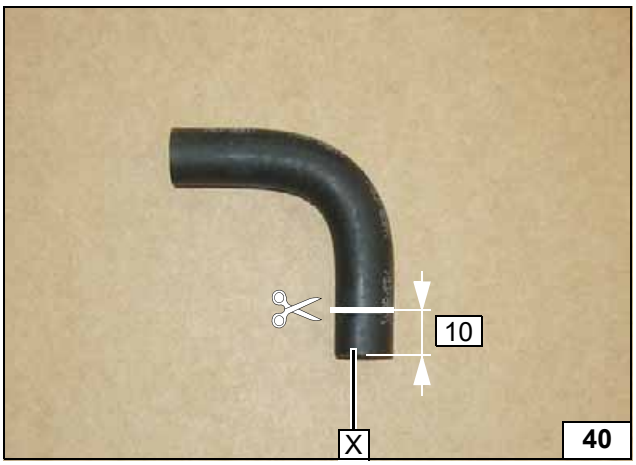
Route fuel line and fuel pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.
Provide rub protection for fuel line and wiring harness in areas where there are sharp edges.

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

Dismantling fuel pump connector

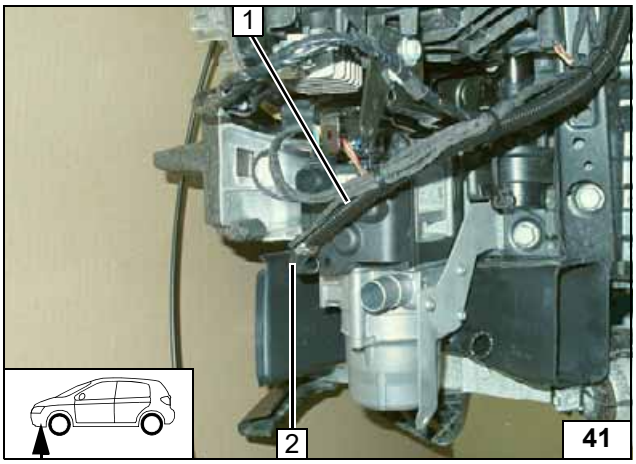


Shortening 90° moulded hose



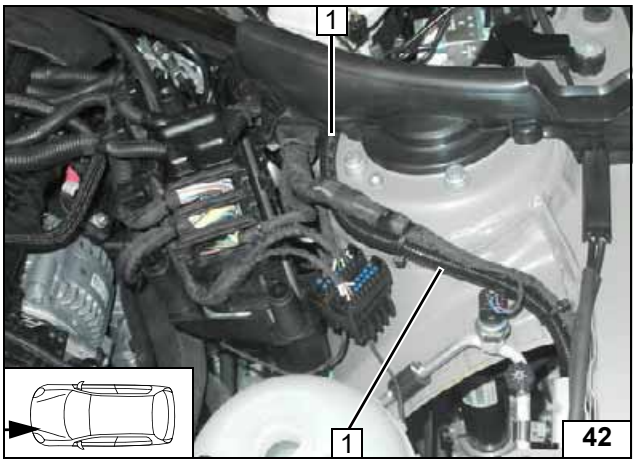
X = 

Connecting heater



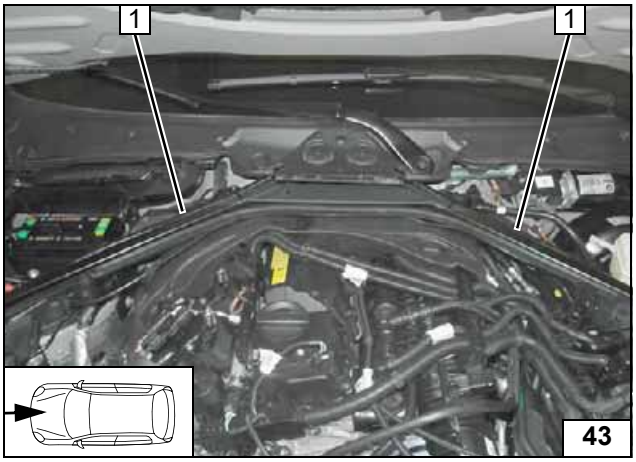
Draw wiring harness of fuel pump and fuel line together into corrugated tube **1** and route in the engine compartment.

2 90° moulded hose with shortened side on heater, Ø10 clamp [2x]



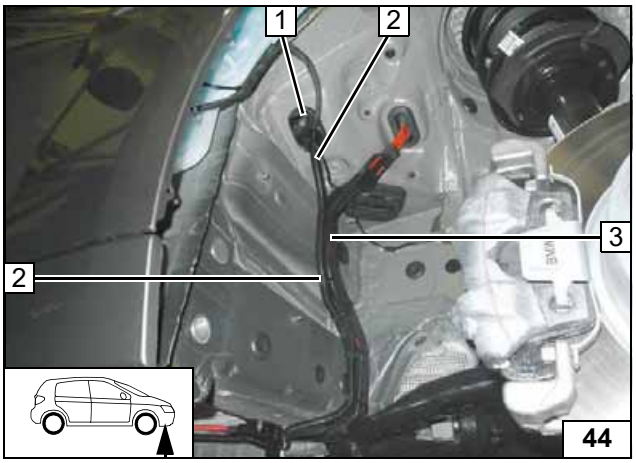
Route corrugated tube **1** with fuel line and fuel pump wiring harness into the water drain chamber.

Routing lines



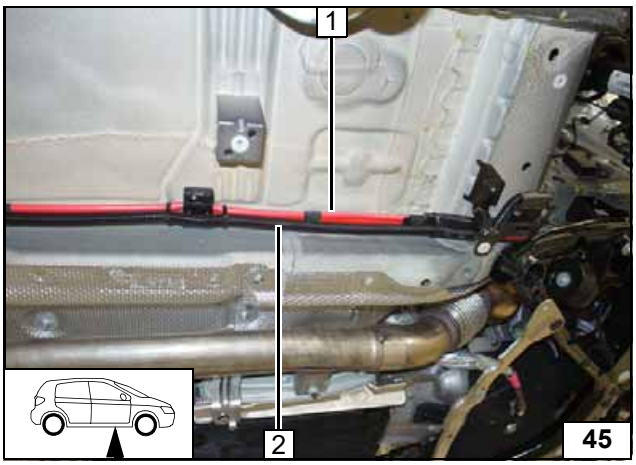
Route corrugated tube **1** with fuel line and fuel pump wiring harness on the strut to the right side of the vehicle, fasten with cable ties.

Routing lines



Route corrugated tube **2** with fuel line and fuel pump wiring harness through original vehicle grommet **1** in the wheel well and along original vehicle positive wire **3** to the underbody.

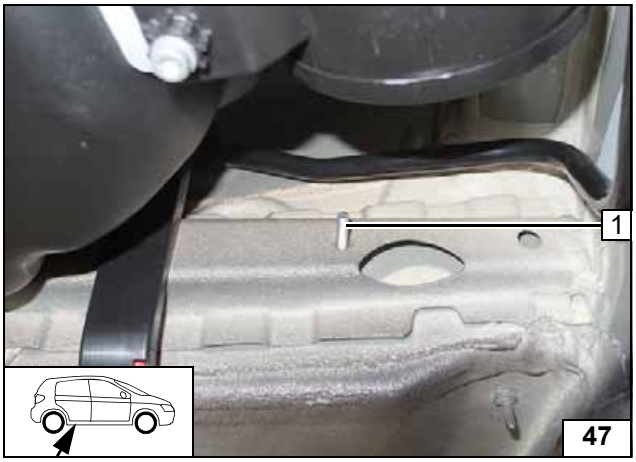
Routing lines



Route corrugated tube **2** with fuel line and fuel pump wiring harness along original vehicle positive wire **1** to the installation location of the fuel pump.

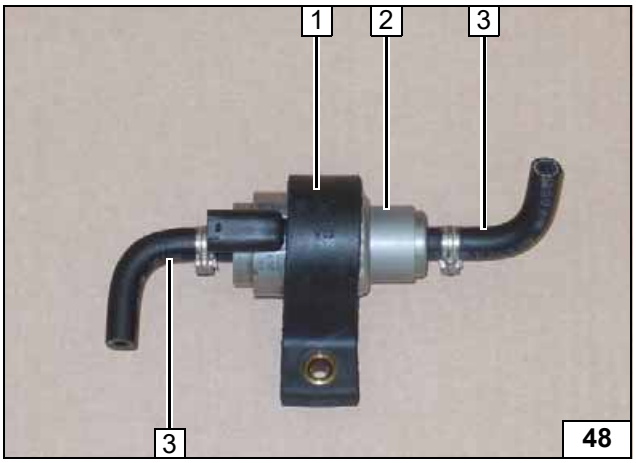
Routing lines

Routing lines



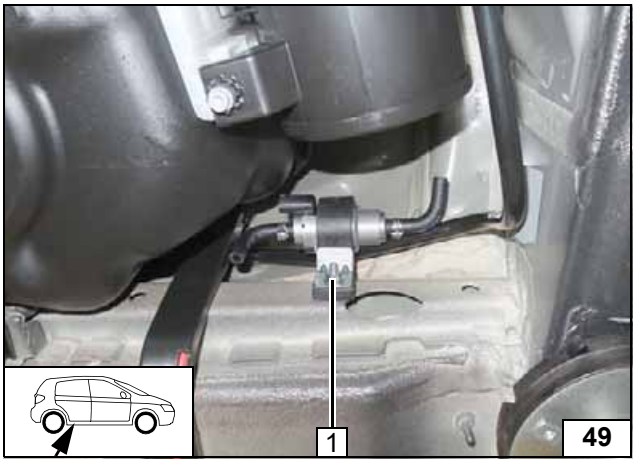
1 Original vehicle hole, M6x25 bolt

Inserting bolt into hole



1 Fuel pump mount
2 Fuel pump
3 90° moulded hose, Ø10 clamp [2x each]

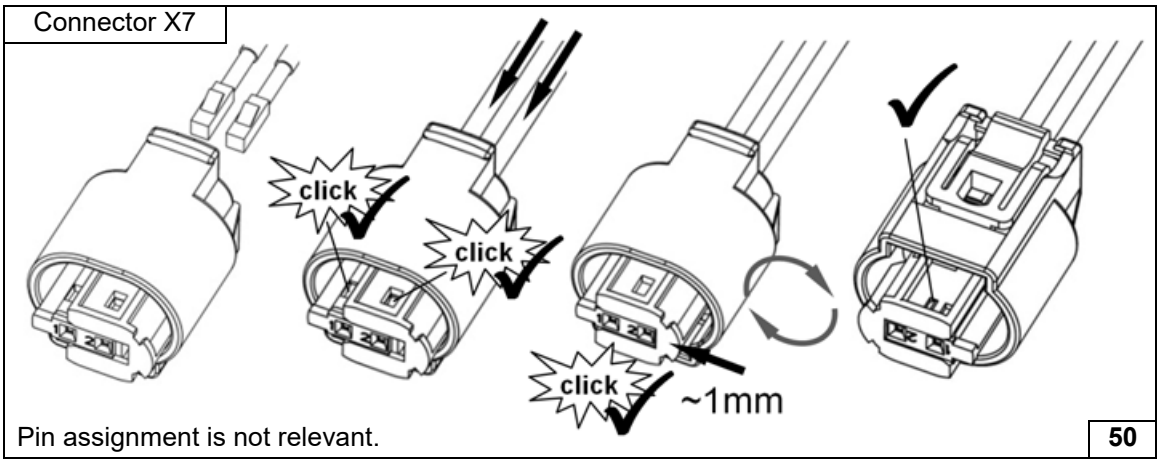
Premounting fuel pump



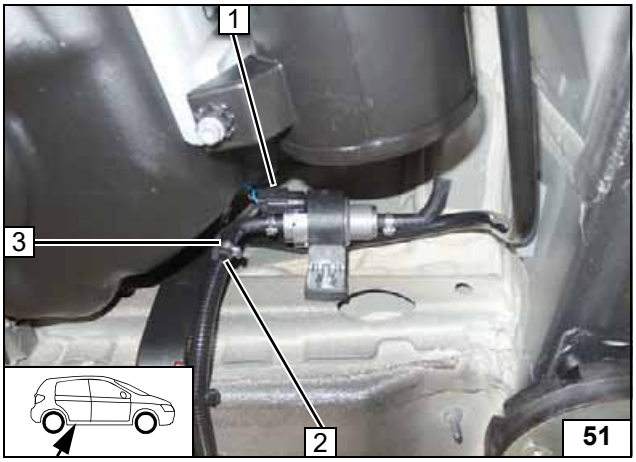
1 Support angle bracket, flanged nut

Mounting fuel pump

Completing fuel pump connector



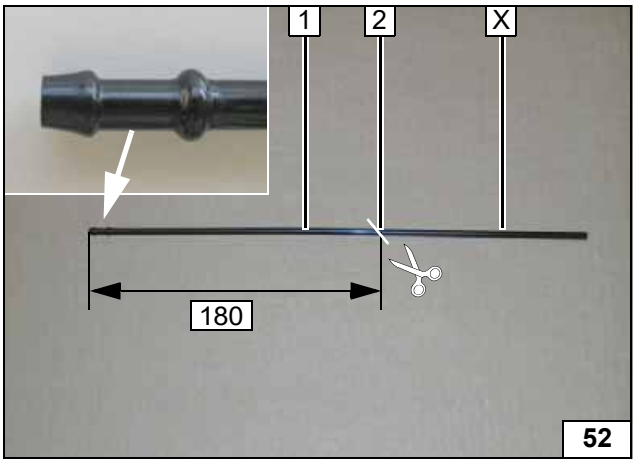
Fuel pump connection



Ensure sufficient distance from neighbouring components, correct if necessary.

1 Fuel pump wiring harness, mounted connector X7
2 Fuel line of heater
3 Ø10 clamp

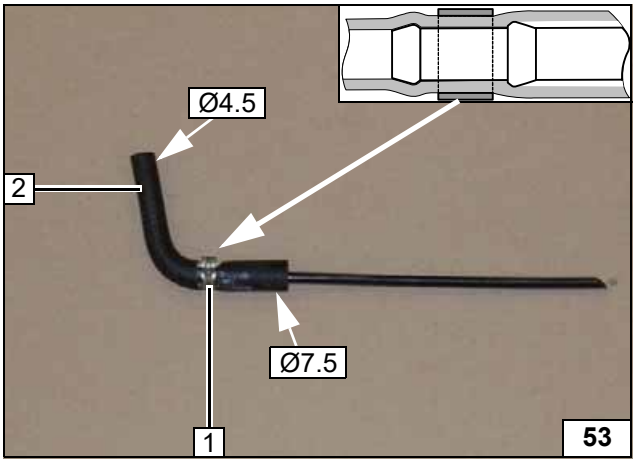
Cutting standpipe to length



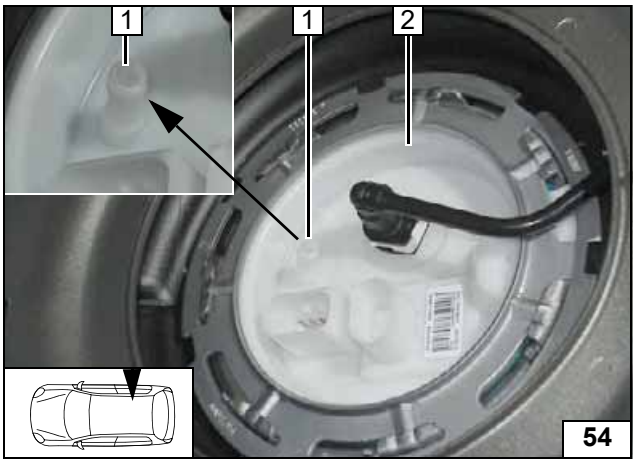
1 Standpipe
2 Cutting point

X =

Premounting standpipe



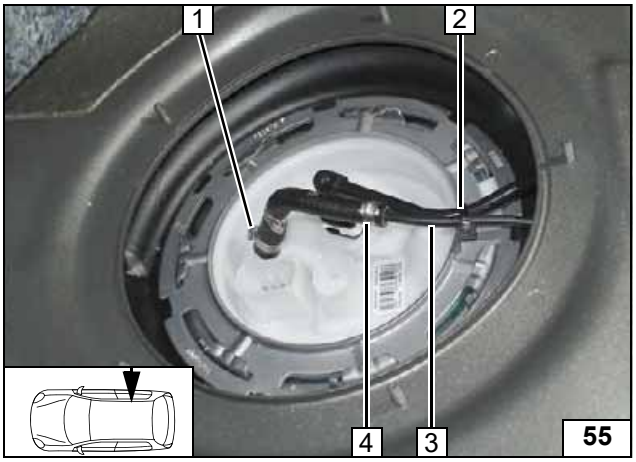
1 Ø10 clamp
2 90°, 4.5x7.5 moulded hose



Remove end cap from connection piece **1**.

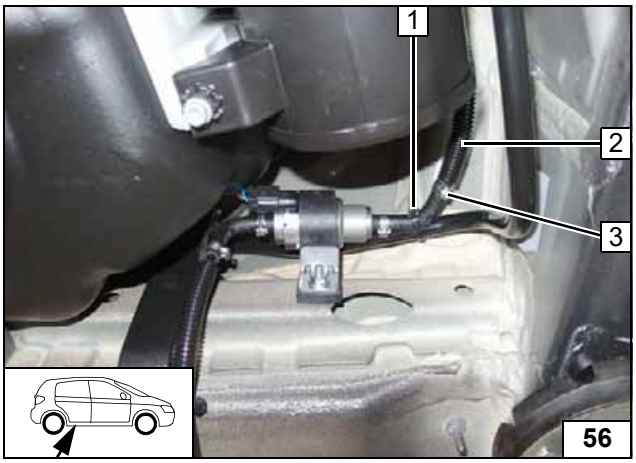
2 Tank fitting

Preparing tank fitting



1 Ø13.5 clamp
2 Cable tie
3 Fuel line
4 Ø10 clamp

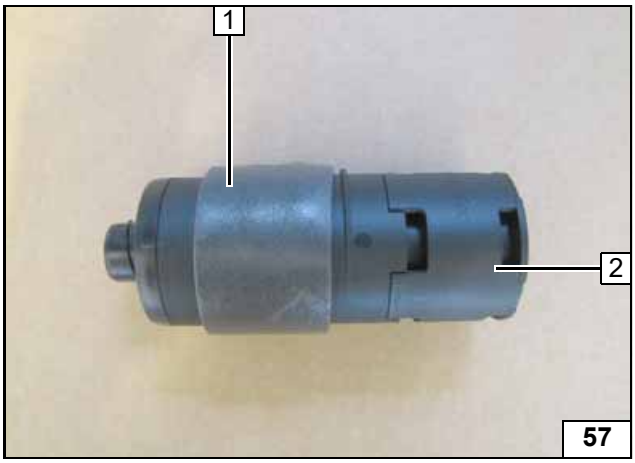
Installing standpipe



Ensure sufficient distance from neighbouring components, correct if necessary.

1 Cable tie
2 Fuel line in corrugated tube
3 Ø10 clamp

Fuel pump connection

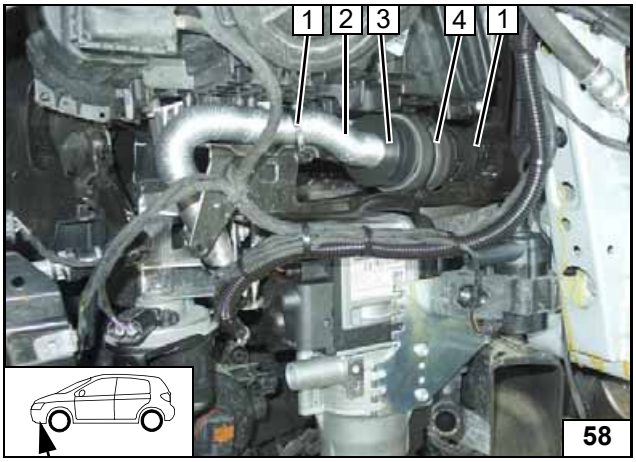


Combustion air

Vehicle with headlight washer system

1 Foam
2 Combustion air intake silencer

Affixing foam



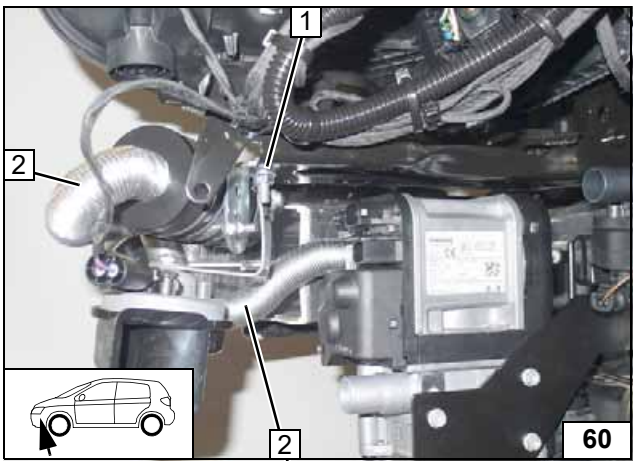
1 Cable tie [2x]
2 Combustion air pipe
3 Combustion air intake silencer
4 Cable tie

Mounting combustion air intake silencer

Vehicle without headlight washer system

1 Combustion air intake silencer
2 M5x16 bolt, Ø51 clamp, angle bracket, flanged nut

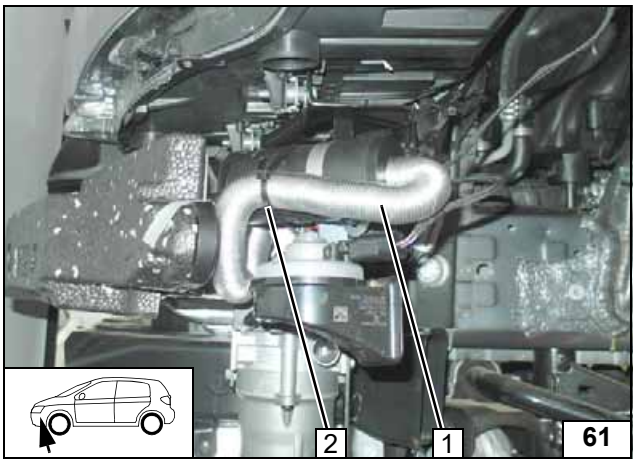
Premounting combustion air intake silencer



The connections of the fuel line and connectors of the wiring harnesses on the heater are dismantled for a better view.

1 M6x20 bolt, angle bracket, original vehicle hole, flanged nut
2 Combustion air pipe

Mounting combustion air intake silencer



1 Combustion air pipe
2 Cable tie around combustion air intake silencer and combustion air pipe

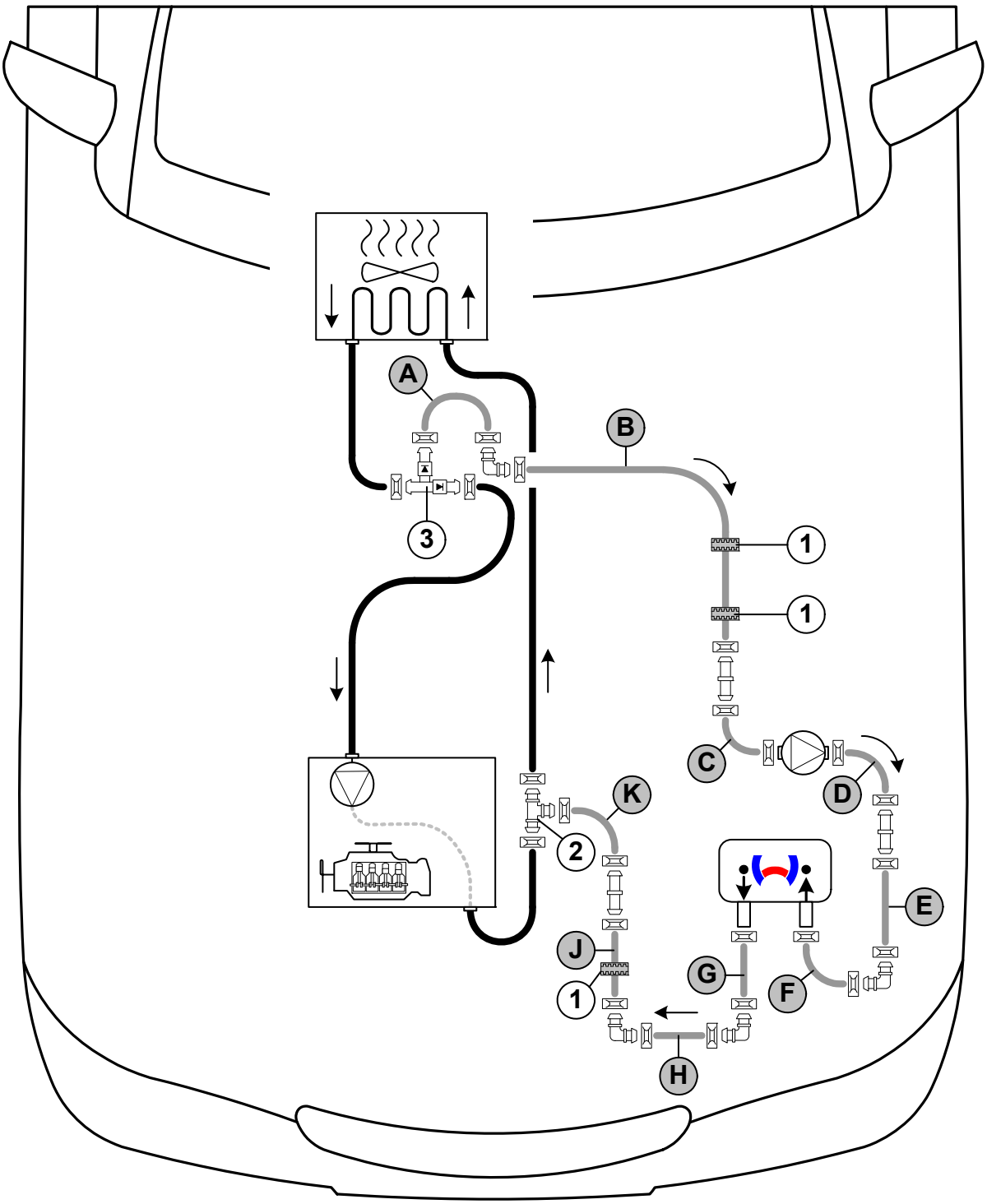
Fastening combustion air pipe

Coolant circuit for 320i 135kW petrol

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.

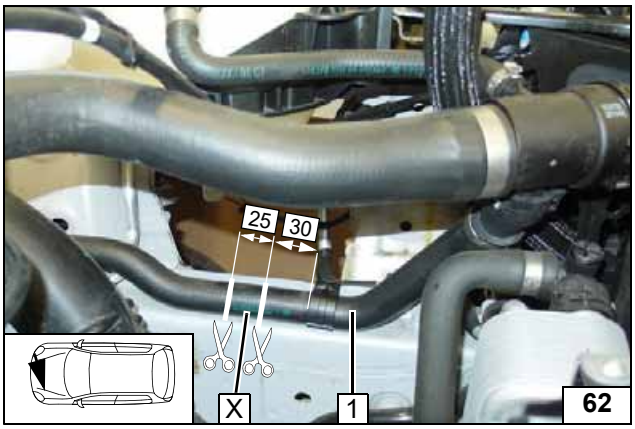
The connection should be modelled on an ‘island’ circuit and based on the following diagram:

Hose routing diagram



All spring clips without a specific designation = Ø25. All connecting pipes and = Ø18x18.

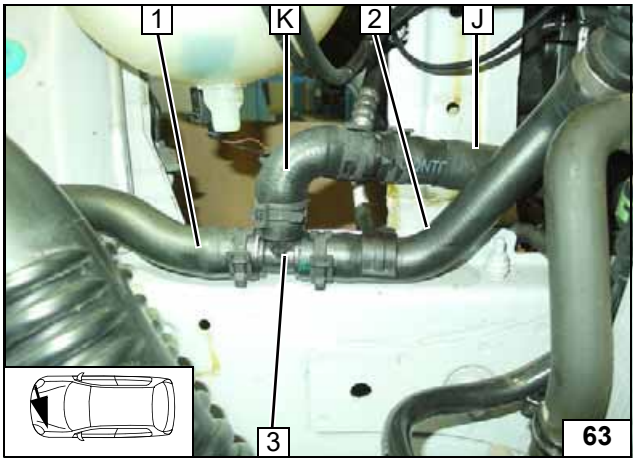
1 = Black (sw) rubber isolator . **2** = T-piece . **3** = Non return valve .



Cut hose of engine outlet / heat exchanger inlet **1** at the markings.

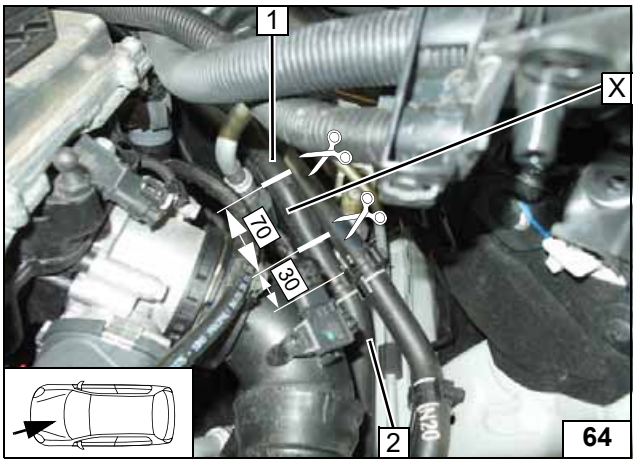
X = 

Cutting point 1



1 Heat exchanger inlet hose section
2 Engine outlet hose section
3 T-piece

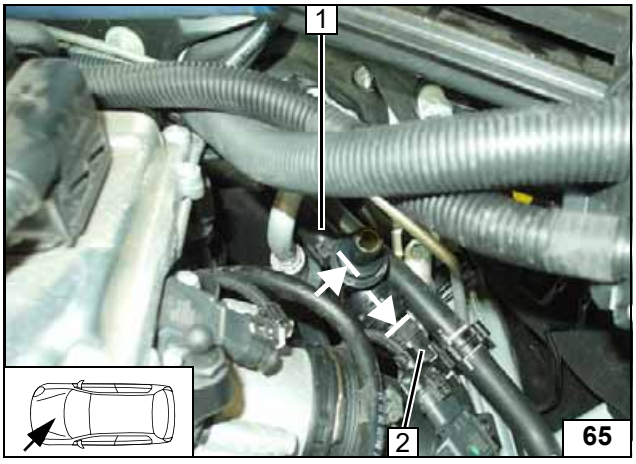
Installing T-piece



1 Heat exchanger outlet hose section
2 Engine inlet hose section

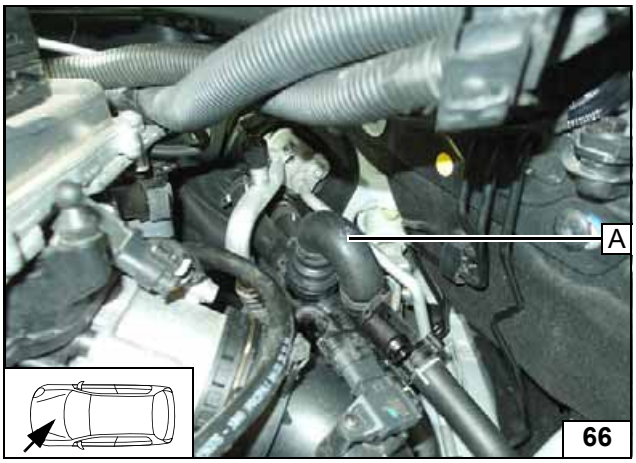
X = 

Cutting point 2

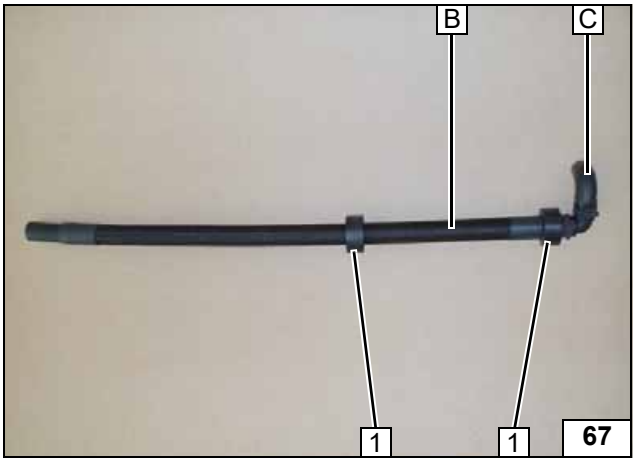


1 Heat exchanger outlet hose section
2 Engine inlet hose section

Installing non return valve

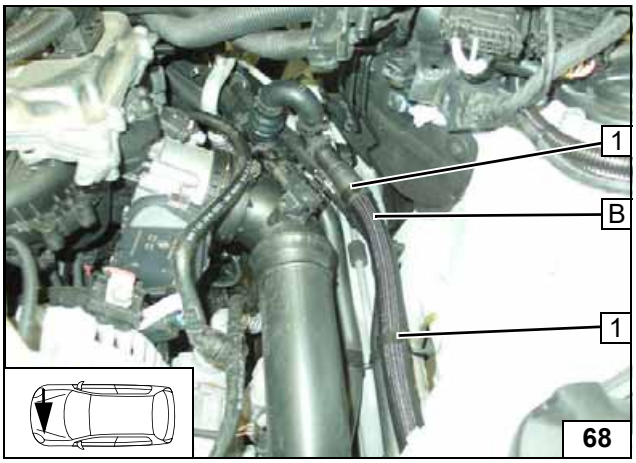


Installing hose A



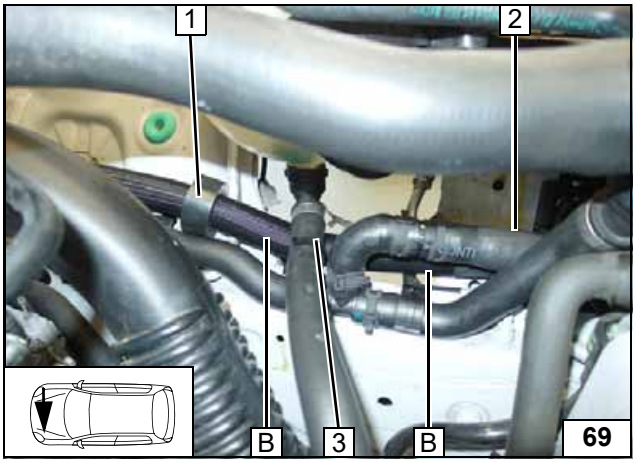
1 Black (sw) rubber isolator [2x]

Premounting hoses B and C



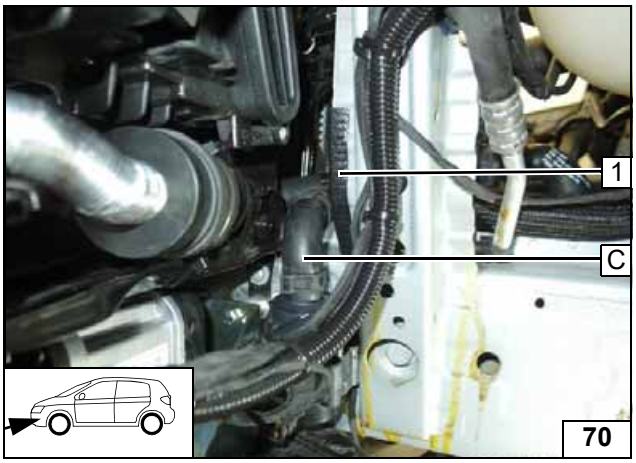
1 20x22 hose bracket [2x]

Installing hose B



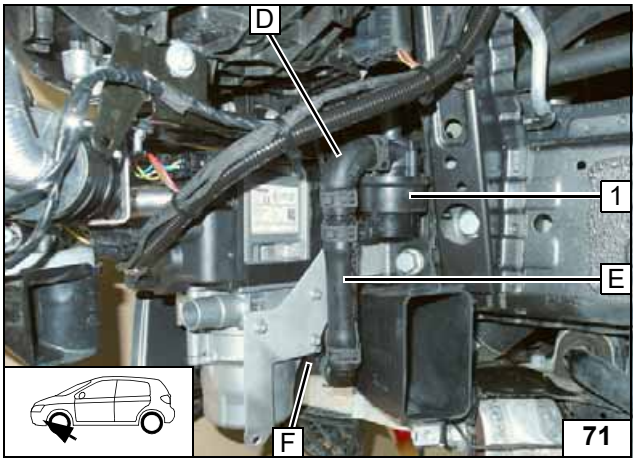
1 Black (sw) rubber isolator
2 Black (sw) rubber isolator (covered)
3 20x22 hose bracket

Routing hose B



1 Edge protection (100)

Connecting circulating pump



1 Circulating pump

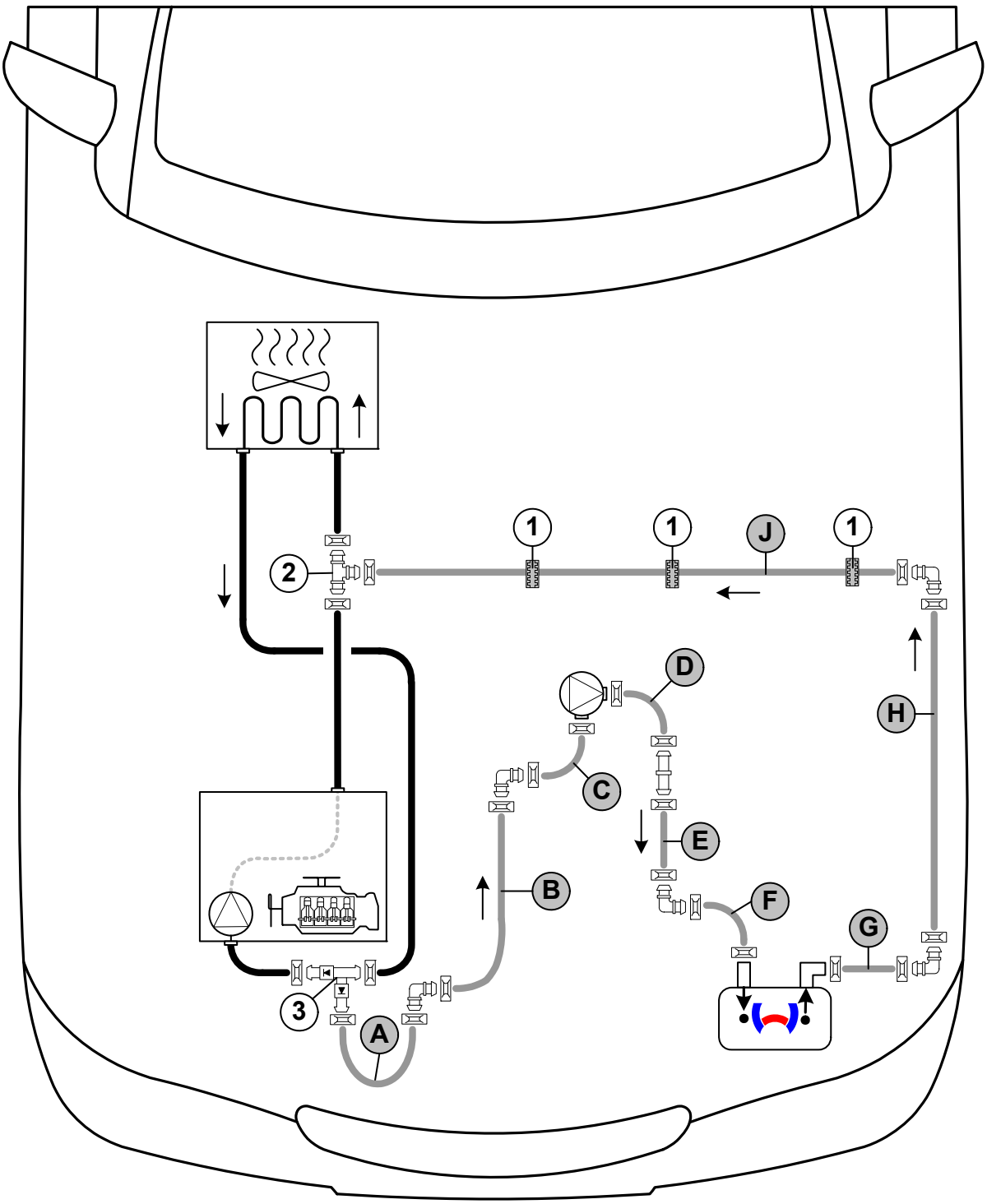
Connecting circulating pump

Coolant circuit for 330i 185kW petrol

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.

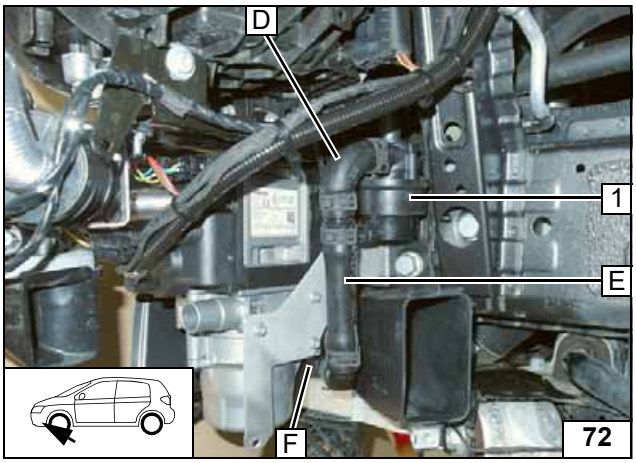
The connection should be modelled on an ‘island’ circuit and based on the following diagram:

Hose routing diagram



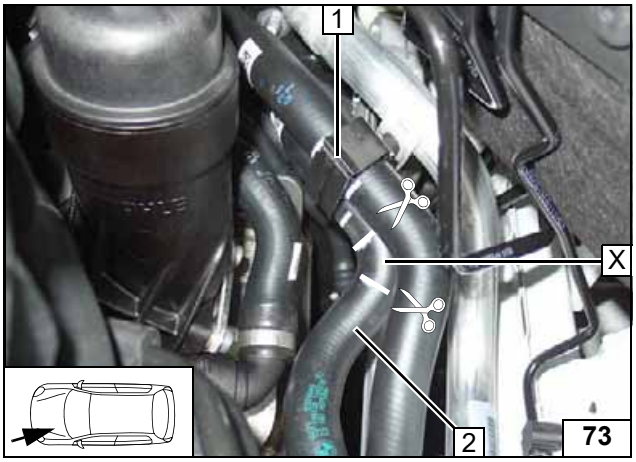
All spring clips = Ø25. All connecting pipes and = Ø18x18.

1 = Black (sw) rubber isolator . **2** = T-piece . **3** = Non return valve .



1 Circulating pump

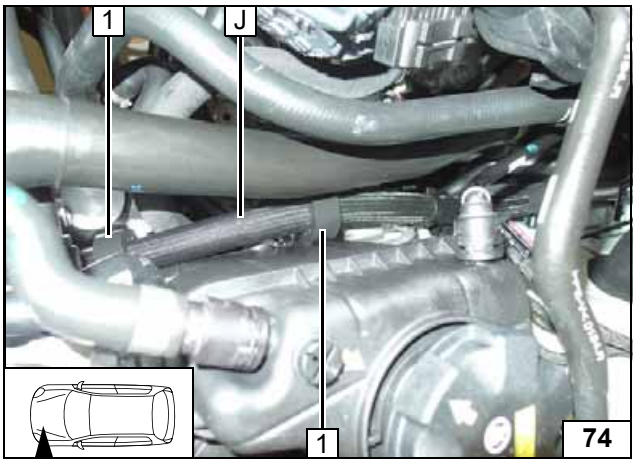
Connecting circulating pump



Open original vehicle hose bracket **1**. Cut hose of engine outlet / heat exchanger inlet **2** at the markings.

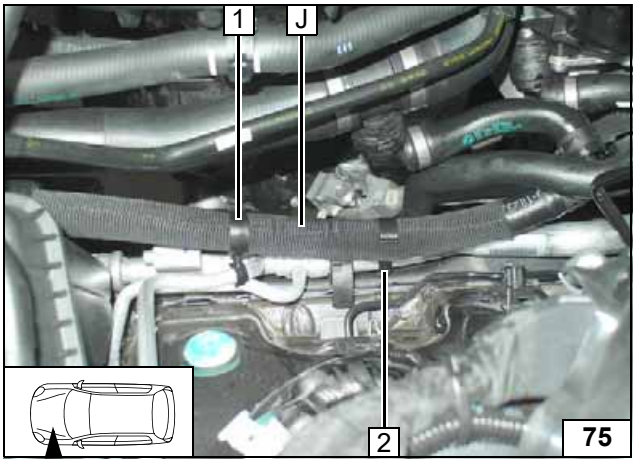
X = 

Cutting point 1



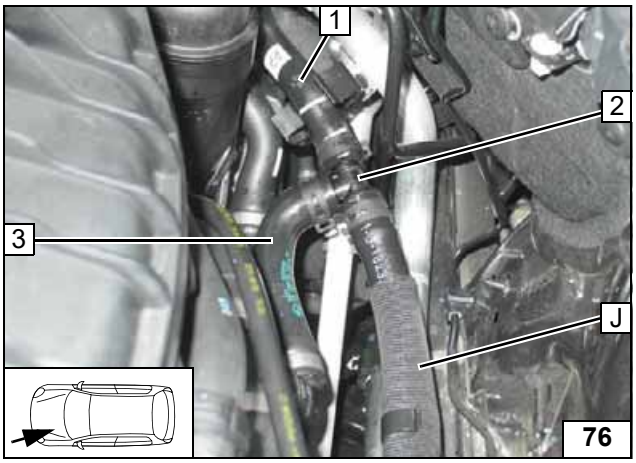
1 Position black (sw) rubber isolator [2x] as shown

Routing hose J



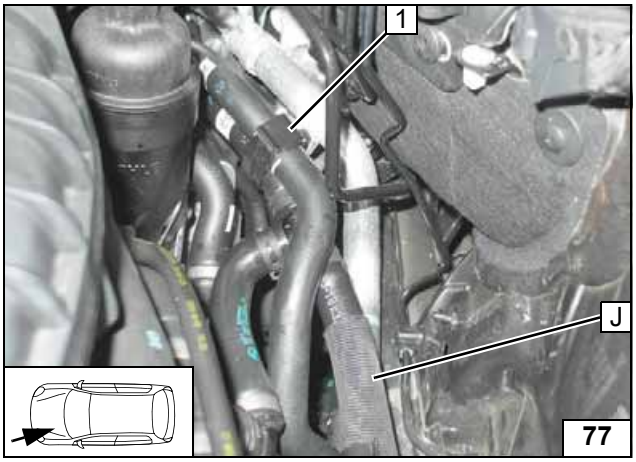
1 9x22 hose bracket
2 20x22 hose bracket

Routing hose J



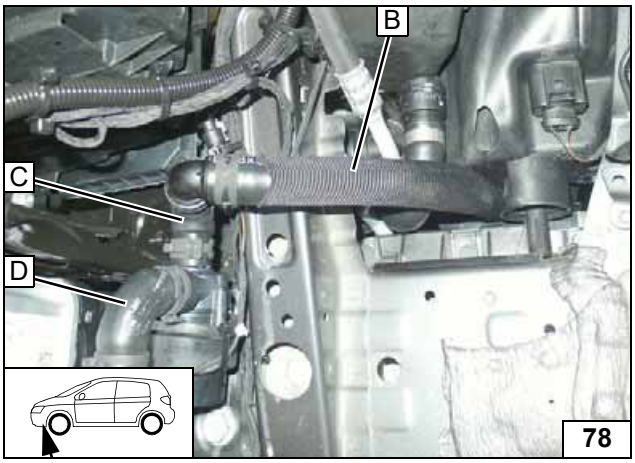
1 Heat exchanger inlet hose section
2 T-piece
3 Engine outlet hose section

Connecting heat exchanger inlet



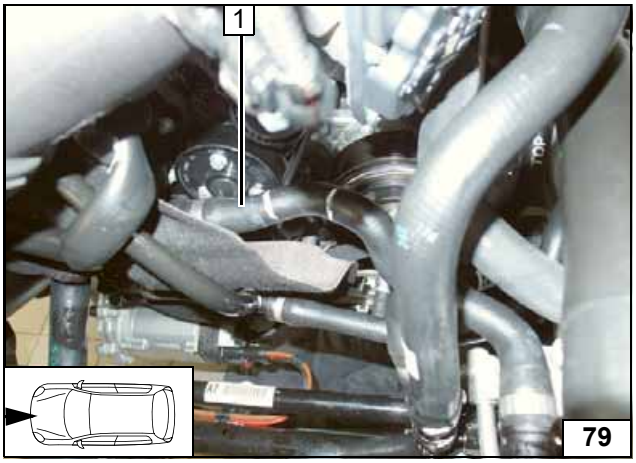
1 Original vehicle hose bracket

Closing original vehicle hose bracket



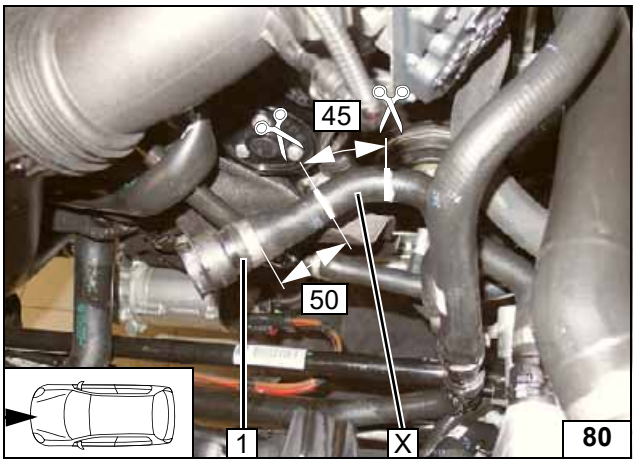
Route hose **B** in the engine compartment.

Connecting circulating pump



Detach hose of heat exchanger outlet / engine inlet **1** from engine inlet connection piece.

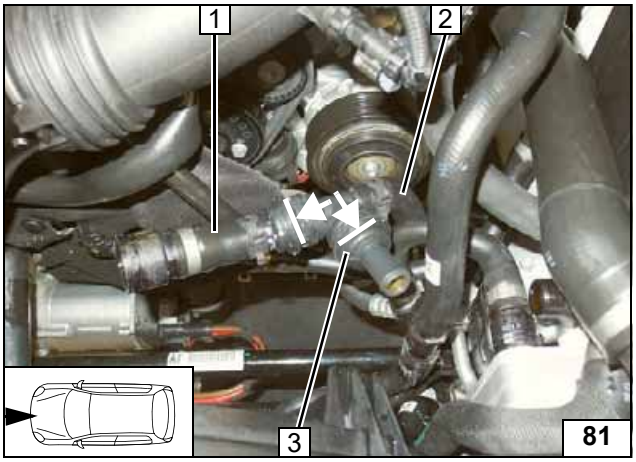
Preparing cutting point 2



Cut hose of heat exchanger outlet/ engine inlet **1** at the markings.

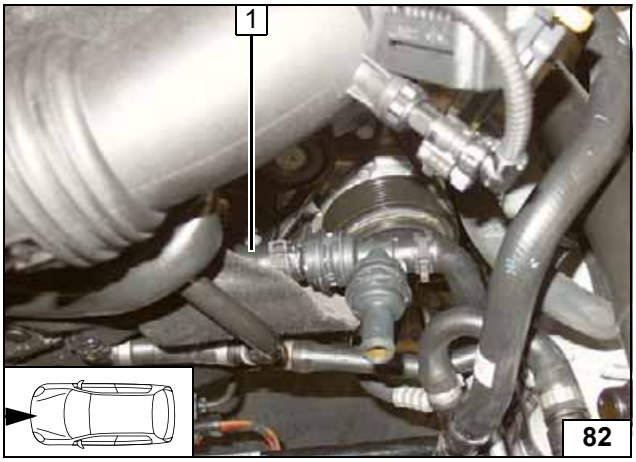
X = 

Cutting point 2



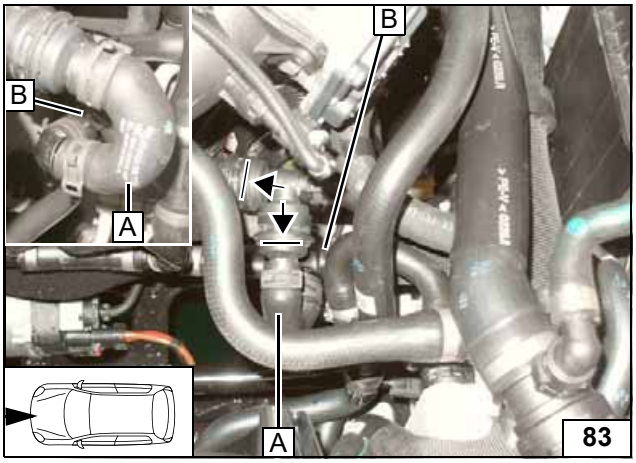
1 Engine inlet hose section
2 Heat exchanger outlet hose section
3 Non return valve

Connecting engine inlet

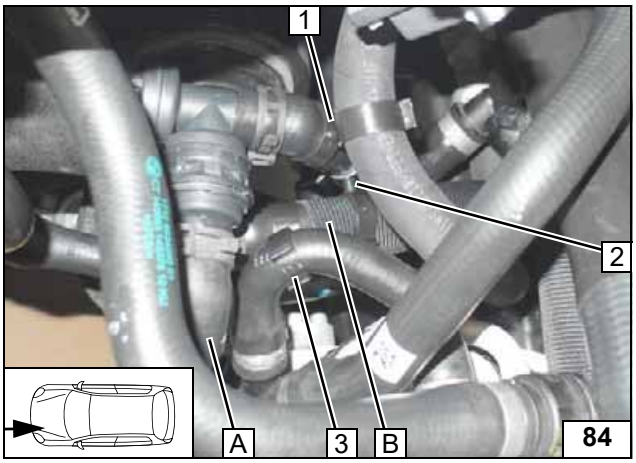


1 Install engine inlet hose section

Connecting engine inlet



Connecting non return valve



1 20x22 hose bracket between hose section of heat exchanger outlet and original vehicle hose
2 20x22 hose bracket between hose section of heat exchanger outlet and hose **B**
3 20x22 hose bracket between original vehicle hose and hose **B**

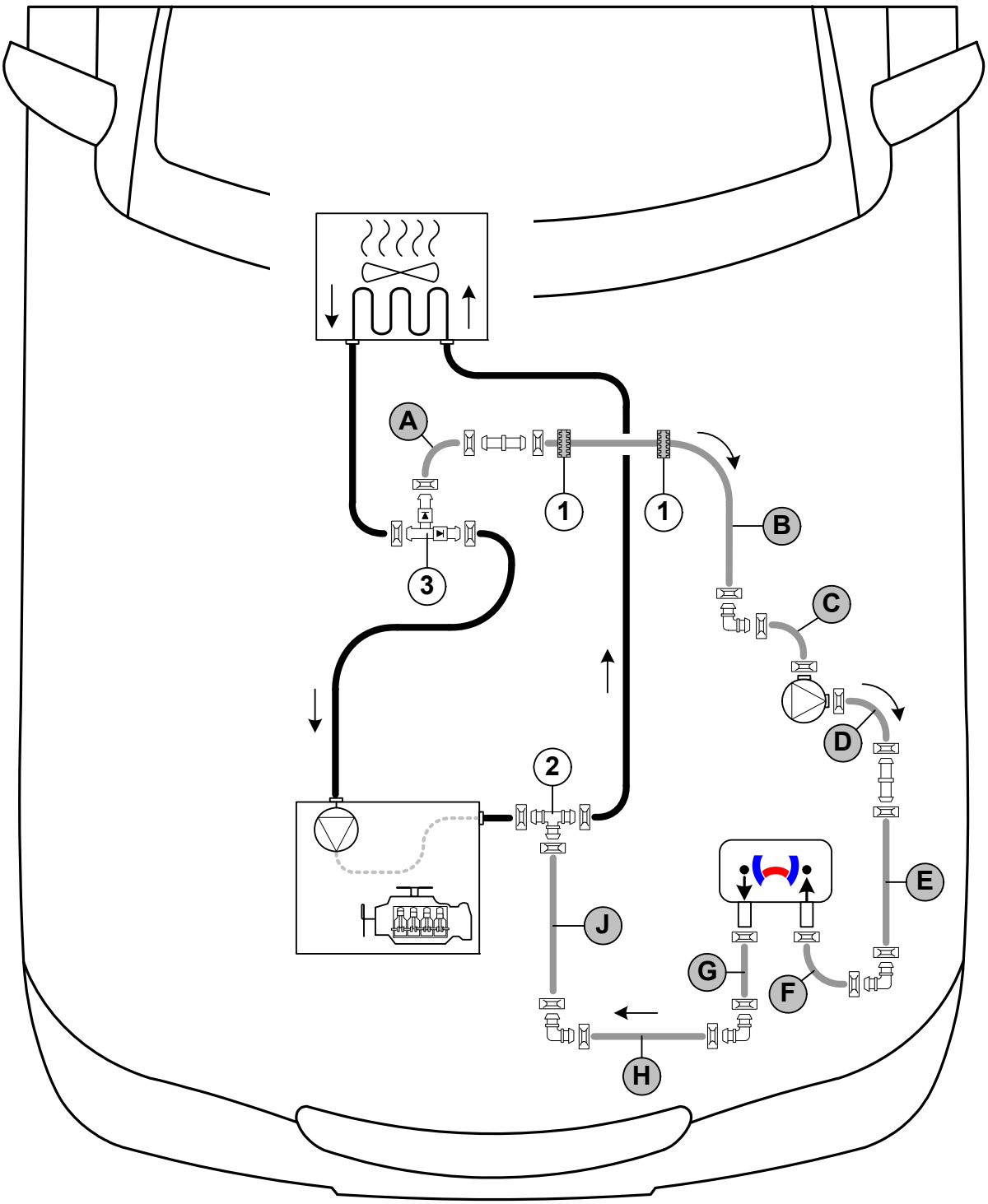
Installing hose bracket

Coolant circuit for 330d diesel

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.

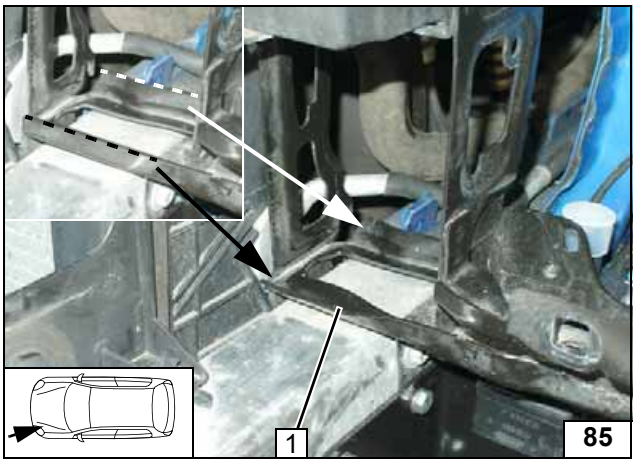
The connection should be modelled on an ‘island’ circuit and based on the following diagram:

Hose routing diagram



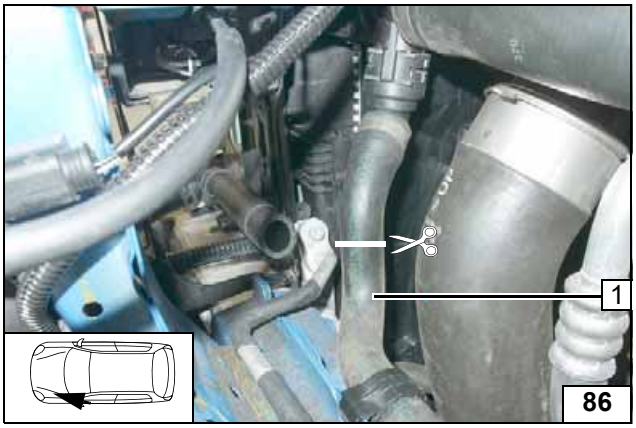
All spring clips without a specific designation = Ø25. All connecting pipes and = Ø18x18.

1 = Black (sw) rubber isolator . **2** = T-piece . **3** = Non return valve .



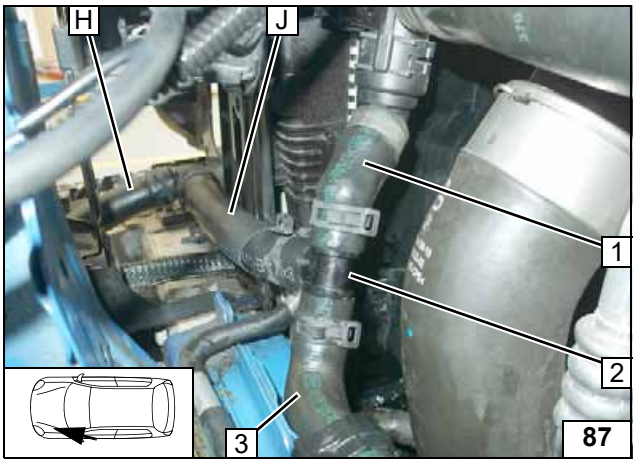
Align edges of original vehicle bracket **1** as shown.

Aligning edges



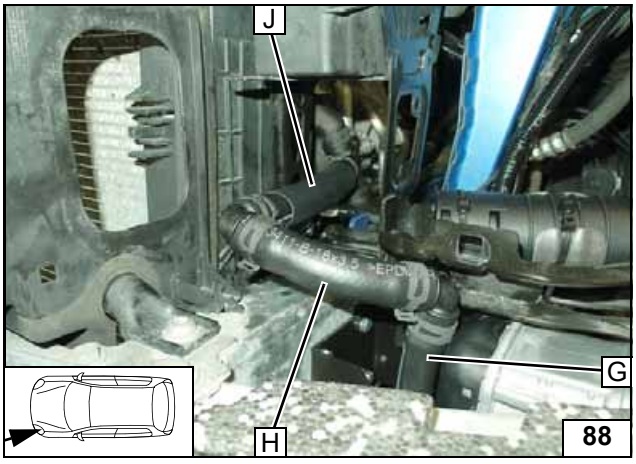
Cut hose of engine outlet / heat exchanger inlet **1** at the marking.

Cutting point 1

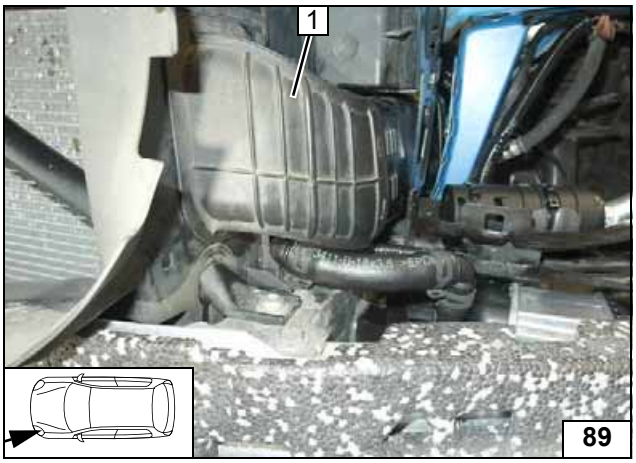


1 Engine outlet hose section
2 T-piece
3 Heat exchanger inlet hose section

Installing T-piece

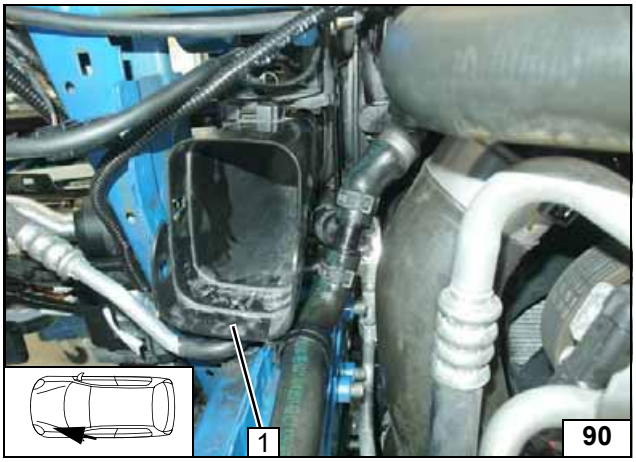


Connecting heater outlet



1 Original vehicle air duct, mounted

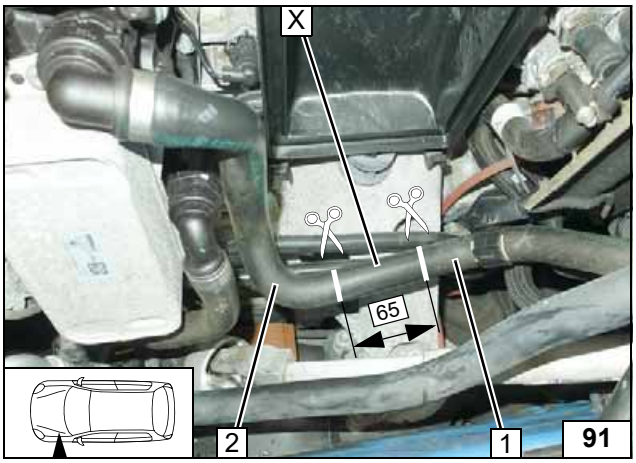
Mounting air duct on the left



Ensure sufficient distance from neighbouring components, correct if necessary.

1 Original vehicle air duct

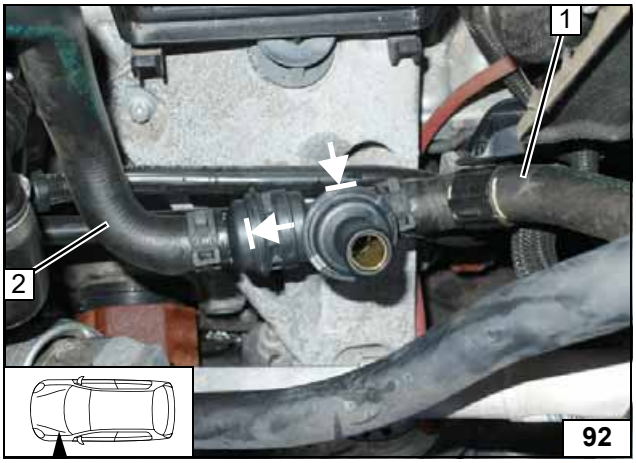
Checking distance



1 Heat exchanger outlet hose section
2 Engine inlet hose section

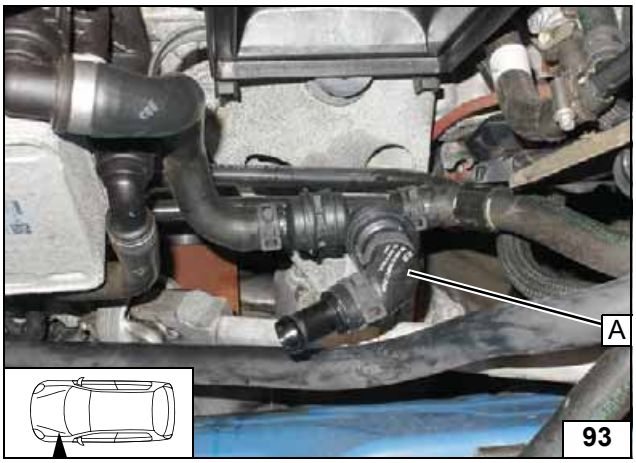
X =

Cutting point 2

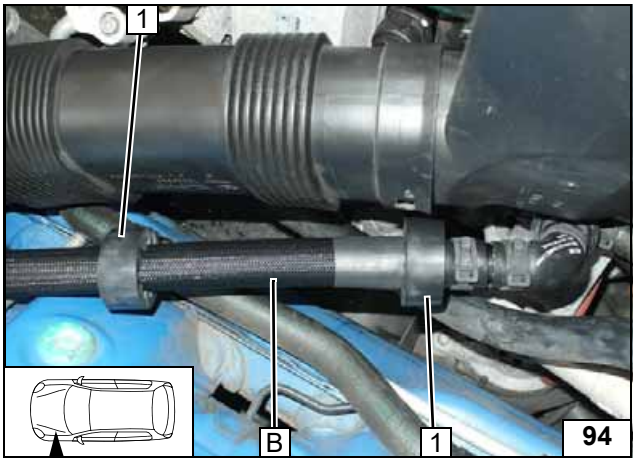


1 Heat exchanger outlet hose section
2 Engine inlet hose section

Installing non return valve

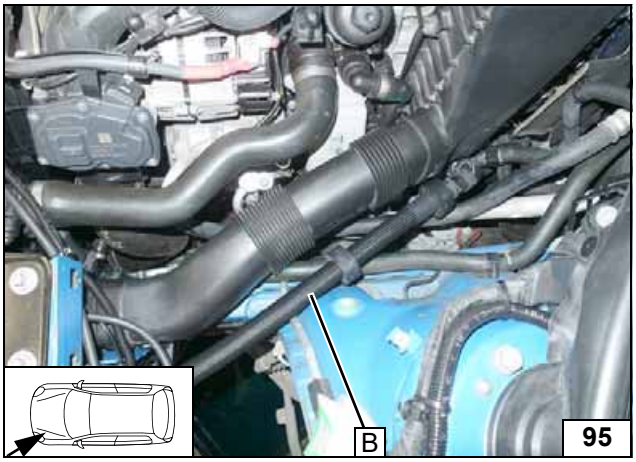


Installing hose A



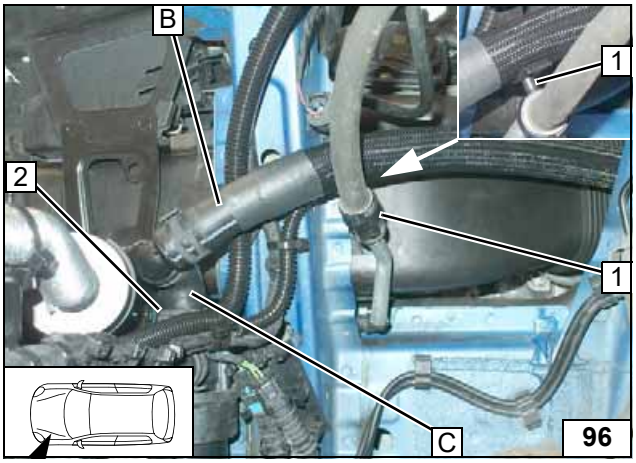
1 Black (sw) rubber isolator [2x]

Installing hose B



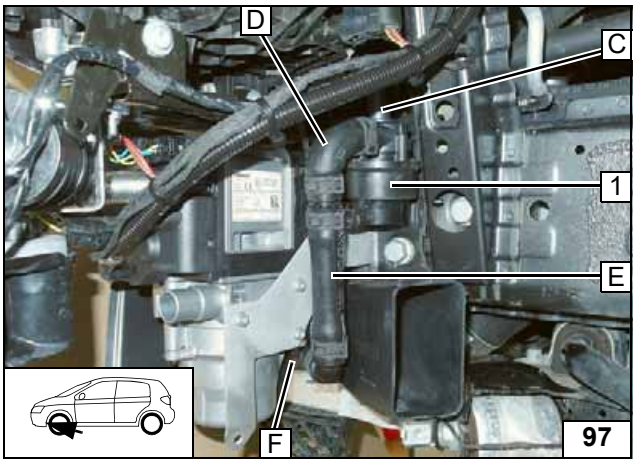
Ensure sufficient distance from neighbouring components, correct if necessary.

Routing hose B



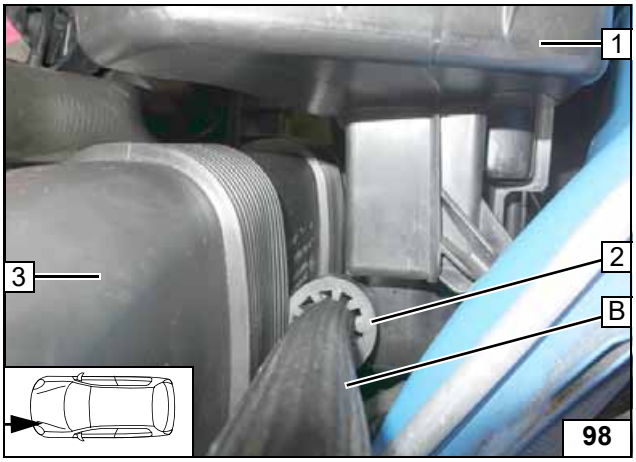
1 9x22 hose bracket
2 Circulating pump (covered)

Connecting circulating pump



1 Circulating pump

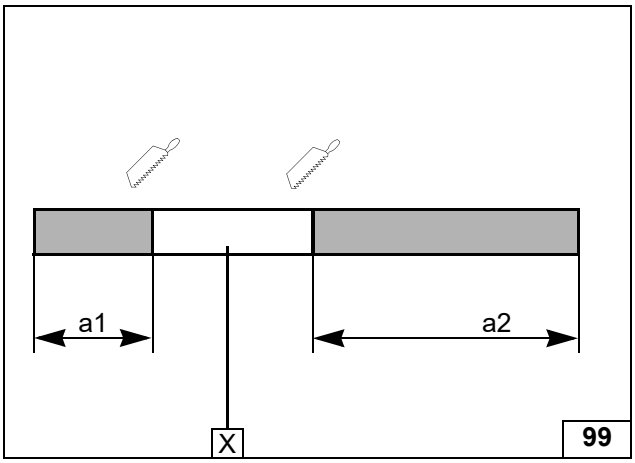
Connecting circulating pump



Align black (sw) rubber isolator **2** with original vehicle air duct **3** as shown.

1 Original vehicle electrical box, mounted

Checking distance

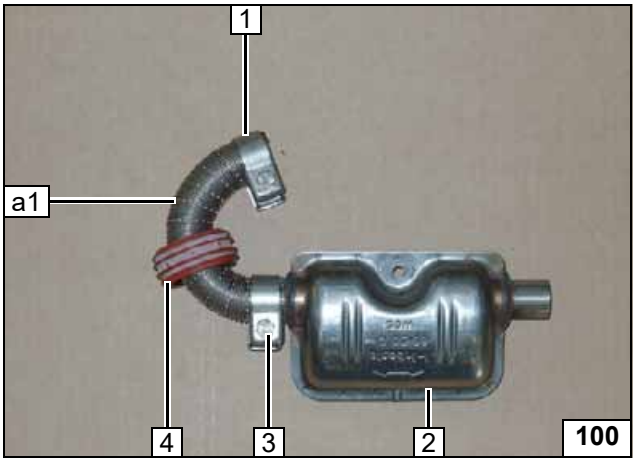


Exhaust gas

a1 = 150
a2 = 340

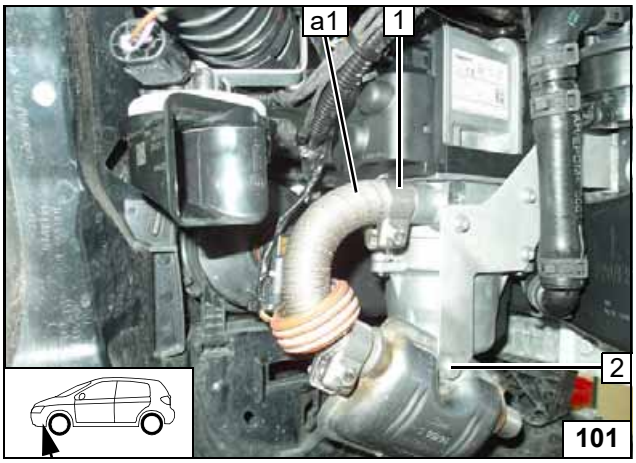
X =

Preparing exhaust pipes



1 Install hose clamp loosely
2 Silencer
3 Hose clamp
4 Spacer bracket

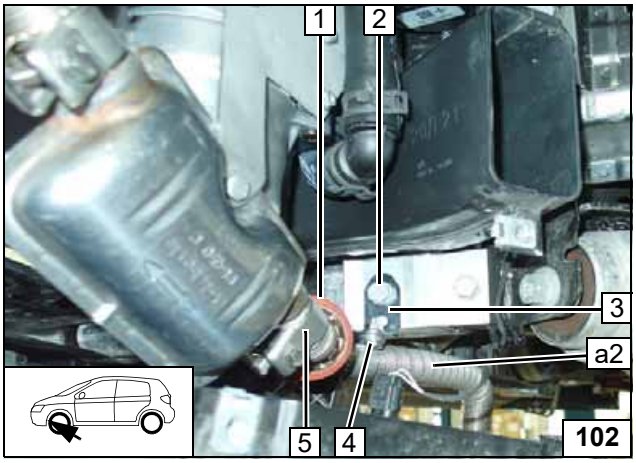
Premounting silencer



Install bumper.

1 Tighten hose clamp
2 M6x16 bolt, flanged nut

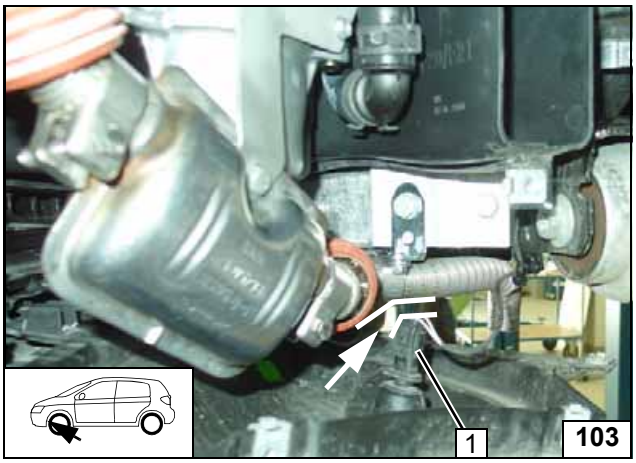
Installing silencer



Ensure sufficient distance from neighbouring components, correct if necessary.

1 Spacer bracket
2 Original vehicle bolt
3 Angle bracket
4 M6x20 bolt, p-clamp, flanged nut
5 Hose clamp

Installing exhaust pipe a2

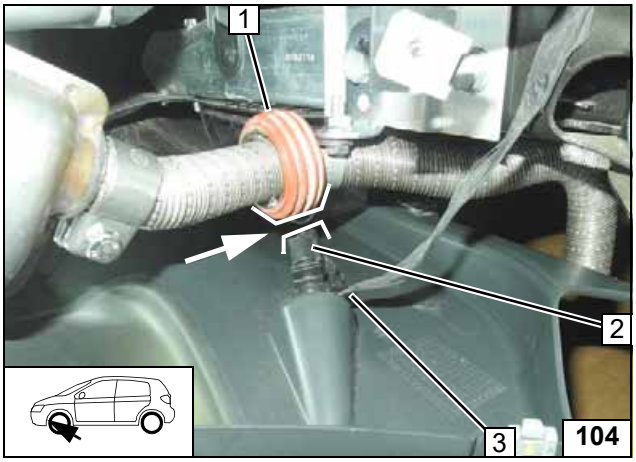


Version 1

1 Original vehicle sensor position

≥ 20 mm

Checking distance



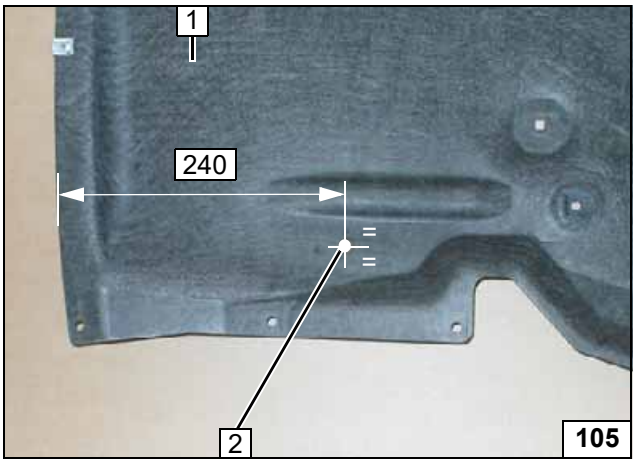
Version 2

1 Align ASH with original vehicle sensor
2 Original vehicle sensor position
3 Fix sensor wiring harness using a cable tie

≥ 20 mm

Checking distance

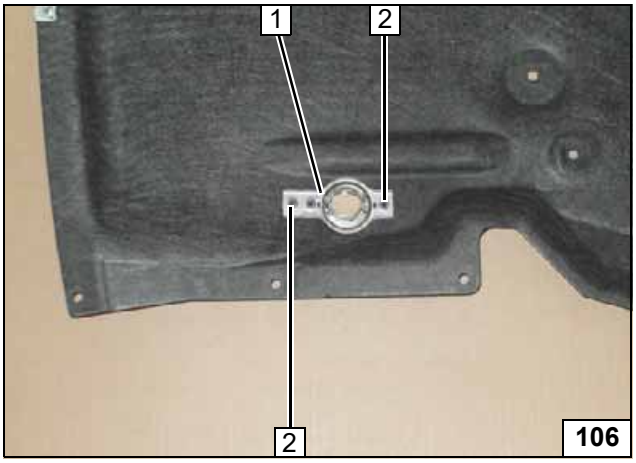
Installing exhaust end fastener



Work step E1.

1 Underride protection
2 Hole

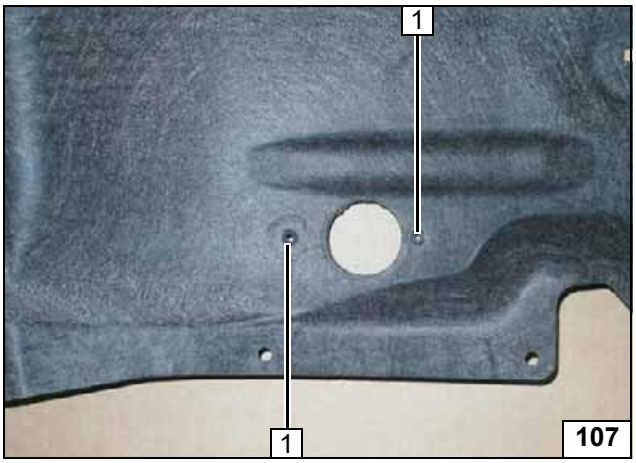
Hole in underride protection



Work step E3.

1 Exhaust end fastener
2 Hole pattern [2x]

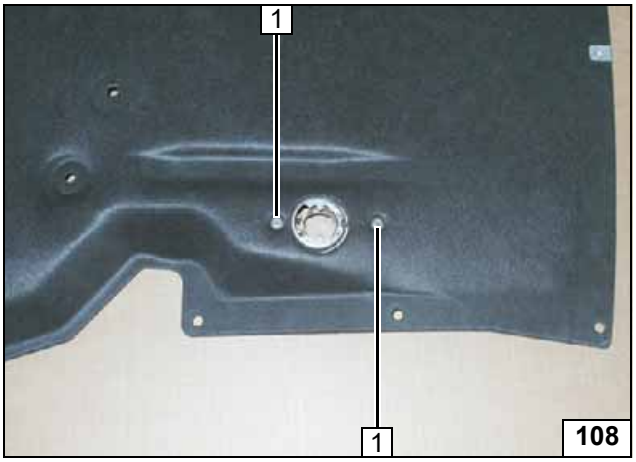
Copying hole pattern



Work step E4.

1 Hole [2x]

Holes in underride protection

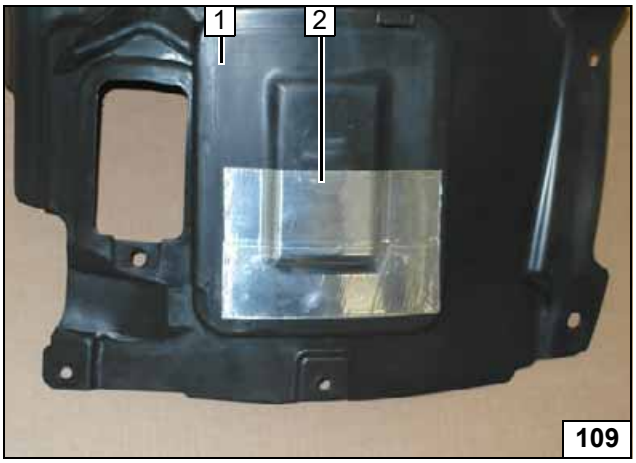


Work step E5.

1 5x13 self-tapping screw [2x]

Install underride protection.

Installing exhaust end fastener



Version 1

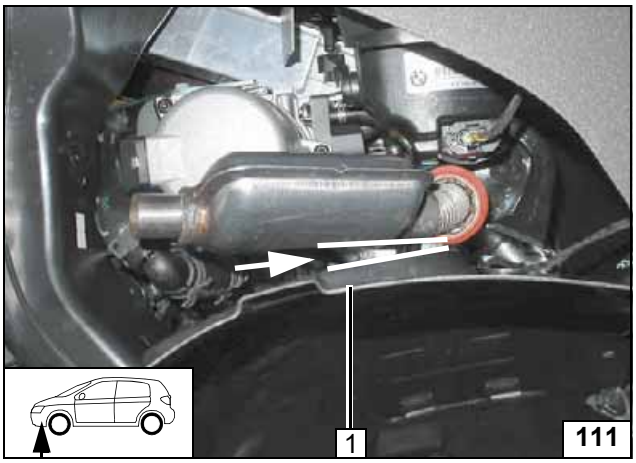
Stick 100x150 self-adhesive heat protection film **2** onto wheel-well inner panel **1** as shown.
Install wheel-well inner panel.

Preparing wheel-well inner panel

Version 2

Stick 100x150 self-adhesive heat protection film **2** onto wheel-well inner panel **1** as shown.
Install wheel-well inner panel.

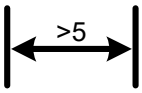
Preparing wheel-well inner panel



All vehicles

Front wheel well trim was removed for improved view.

1 Wheel-well inner panel

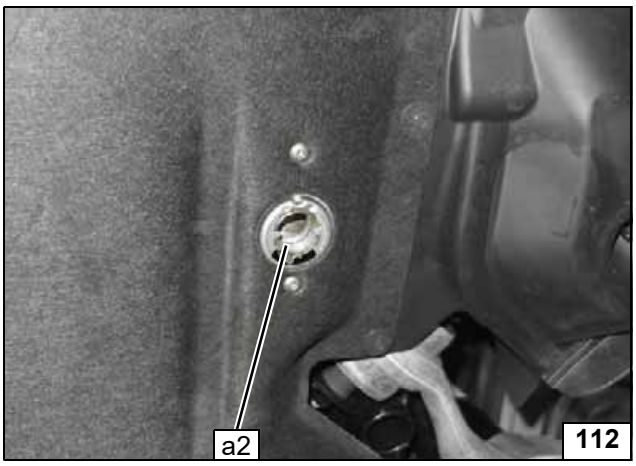


Installing wheel-well inner panel, checking distance

Final work

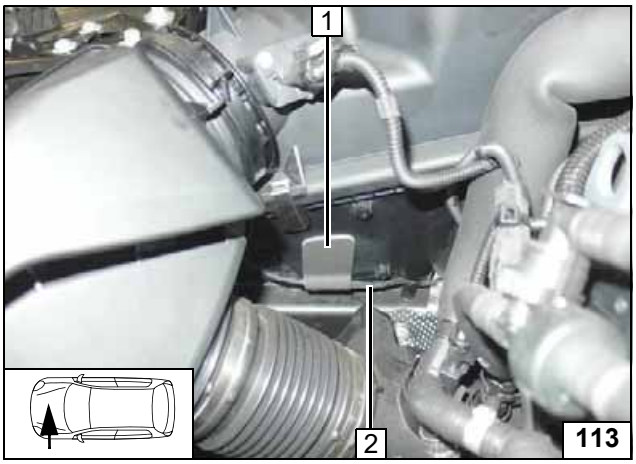
Reassemble the components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back loose lines.
Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K).

- **Connect the battery.**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's instructions.**
- **Teaching control element**
- **For initial start-up and function check, please see installation instructions.**
- **For the A/C control panel settings, see the installation documentation in the additional kit 'Webasto Comfort' A/C control, section 'Final Work'.**
- **Place the 'Switch off parking heater before refuelling' caution label near the filler point.**



Work steps E6 - E8.

Installing exhaust pipe a2



330i 185kW petrol

Attach heater wiring harness **2** to the lower part of the air filter box using self-adhesive foam **1**.

Attaching heater wiring harness

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

