Water Heater

Webasto
Feel the Drive

***Thermo Top Evo* Parking Heater**

E1
00 0258

Installation Documentation
Skoda Octavia III

Validity

Manufacturer	Model	Type	EG-BE No./ ABE
Skoda	Octavia III	5E	e11 * 2007 / 46 * 0243 * ...

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
1.2 TSI	Petrol	5-gear SG	63	1197	CJZB
1.2 TSI	Petrol	6-gear SG	77	1197	CJZA
1.4 TSI	Petrol	6-gear SG	103	1395	CHPA
1.4 TSI	Petrol	DSG	103	1395	CPTA
1.8 TSI	Petrol	6-gear SG	132	1798	CJSA
1.8 TSI	Petrol	DSG	132	1798	CJSA
1.6 TDI	Diesel	5-gear SG	77	1598	CLHA
1.6 TDI	Diesel	DSG	77	1598	CLHA
2.0 TDI	Diesel	6-gear SG	110	1968	CKFC
2.0 TDI	Diesel	DSG	110	1968	CKFC
2.0 TDI	Diesel	6-gear SG	135	1968	CUPA
2.0 TDI	Diesel	DSG	135	1968	CUPA

SG = manual transmission
DSG = direct gear transmission

from Model Year 2013
Left-hand drive vehicle

Verified equipment variants: Climatic / Climatronic
Front fog light
Headlight washer system
Start - Stop
Xenon

Not verified: Passenger compartment monitoring
LED - Headlights

Exclusion: Rough Road Package

Total installation time: approx. 8.5 hours

Skoda Octavia III

Table of Contents

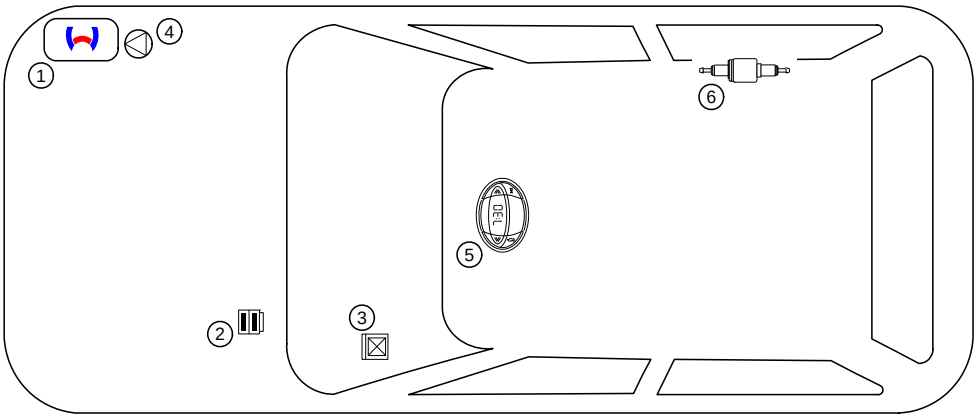
Necessary Components

- Basic delivery scope *Thermo Top Evo* in accordance with price list
- Installation kit for Skoda Octavia III 2013 Petrol and diesel: **1319885A**
- Also required for **1.8 TSI**: Additional exhaust kit for 1.8 TSI: **1321303A**
- Heater control in accordance with price list and upon consultation with end customer
- In case of Telestart, indicator lamp in accordance with price list and in consultation with end customer

Installation instructions

- Arrange for the vehicle to be delivered with the tank only about 1/4 full.
- The installation location of the push button in the case of Telestart or Thermo Call should be confirmed with the end customer.
- Depending on the space required and the 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. LIN- Gateway
4. Circulating pump
5. Digital timer
6. Metering pump

Information on Total Installation Time

The total installation time includes the time needed for mounting and demounting of 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, Order No. 111329).

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

The initial startup 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.

Skoda Octavia III

Information on Validity

This installation documentation applies to Skoda Octavia III Petrol and diesel vehicles - for validity, see page 1 - from model year 2013 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 self-clamping 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
- Webasto Thermo Test Diagnosis with current software

Dimensions
- All dimensions are in mm

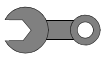
Tightening torque values
- Tightening torque values of 5x13 heater bolts and 5x11 heater stud bolts = 8Nm.
- Tightening torque values of 5x15 retaining plate of water connection piece bolts = 7Nm.
- Tighten other bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art-technology.

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.

Special features are highlighted using the following symbols:

Mechanical system



Electrical system

Coolant circuit

Combustion air

Fuel

Exhaust gas

Software

Specific risk of injury or fatal accidents

Specific risk due to electrical voltage

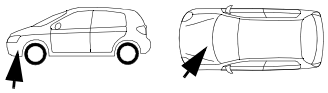
Specific risk of damage to components

Specific risk of fire or 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

Skoda Octavia III

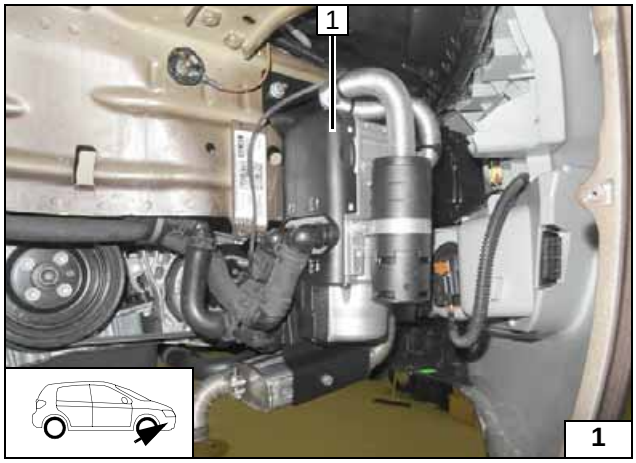
Preliminary Work

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.
- Remove the entire air filter box together with the intake hose.
- Remove the right underride protection.
- Remove the lower engine cover.
- Remove the fuel tank underride protection, if present.
- Remove the right front wheel.
- Remove the right-hand front wheel well trim.
- Remove the lateral instrument panel trim on the driver's side.
- Remove the storage compartment of the driver's side instrument panel.
- Remove the A-pillar trim on the driver's side (only with Telestart option).
- Remove the footwell trim on the front passenger's side.
- Remove the rear bench seat.
- Open the right-hand tank-fitting service lid.
- Remove the fuel-tank sending unit in accordance with the manufacturer's instructions.

Heater

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



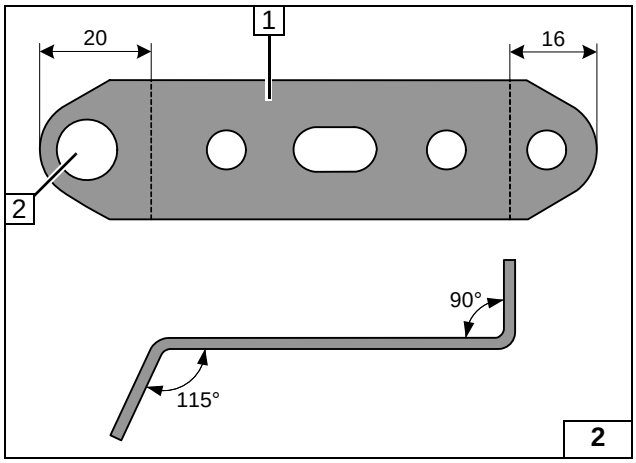
Heater Installation Location

Figure shows 1.4 TSI.

1 Heater

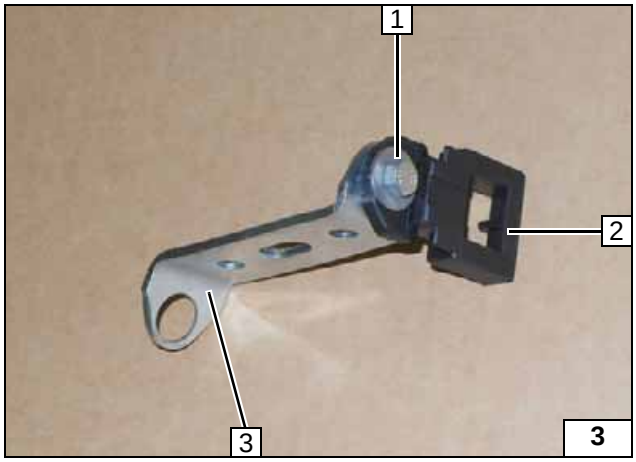
Installation location

Preparing Electrical System



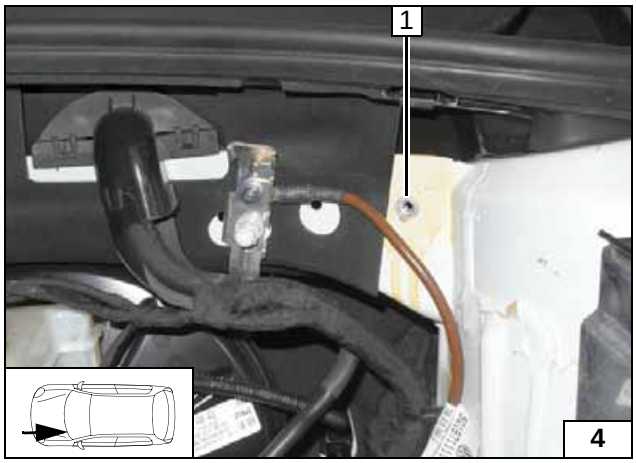
1 Perforated bracket
2 12.5mm dia. hole

Preparing perforated bracket



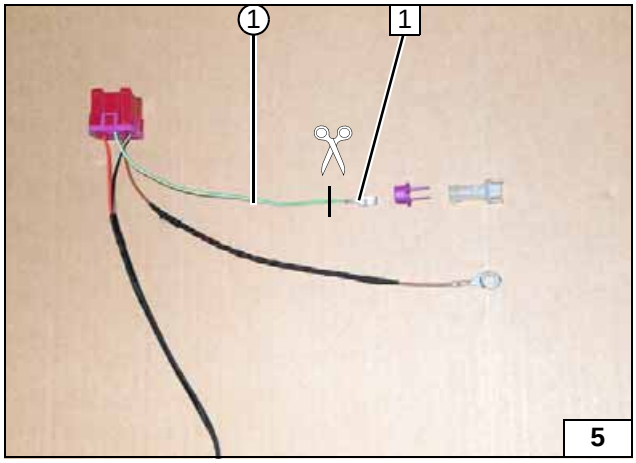
1 M5x16 bolt, washer [2x], nut
2 Retaining plate for fuse holder
3 Perforated bracket

Premounting fuse holder engine compartment



1 Drill out existing hole to 9.1mm dia; rivet nut

Installing rivet nut



Wire sections retain their numbering in the entire document.

Produce all following electrical connections as shown in the wiring diagram.

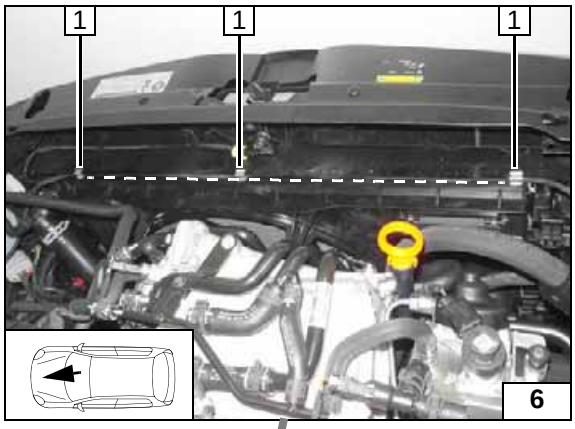
Cut green/white (gn/ws) wire ① of LIN-Gateway/SH at the marking (if connector premounted). Discard section **1** and connector.

Preparing wiring harness

Electrical System

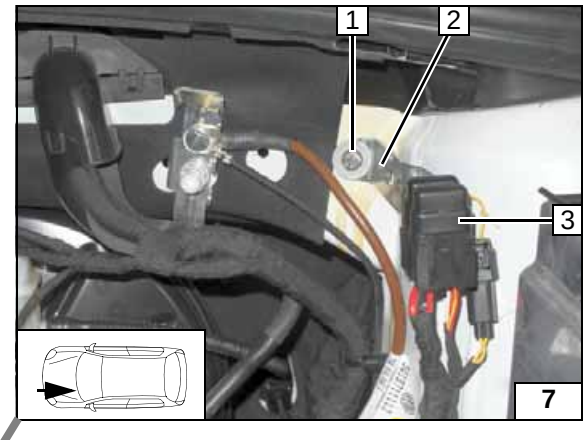
Wiring harness routing

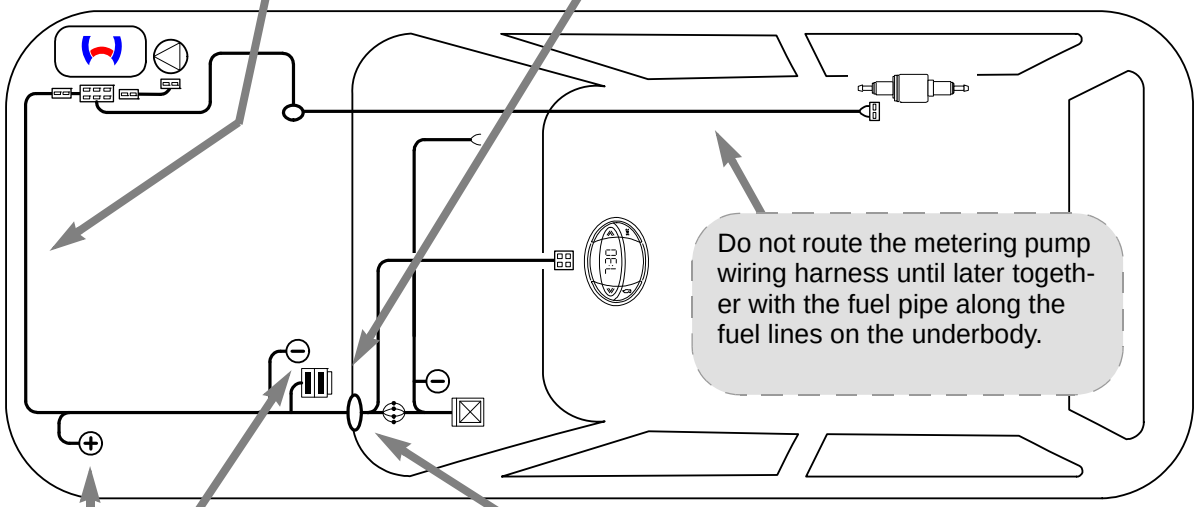
Route wiring harness of heater below the cover and at the marking to the installation location of the heater and fasten it using retaining clamp **1** [3x].



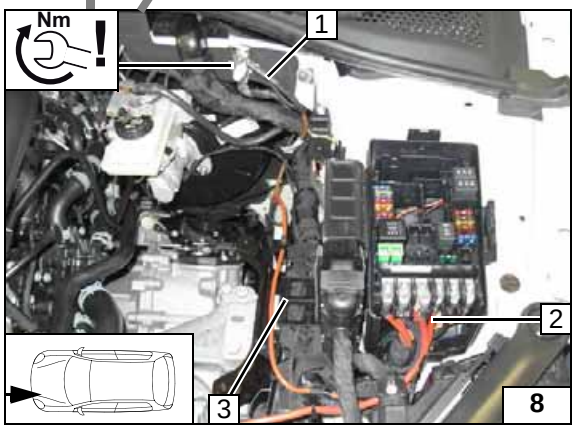
Fuse holder of engine compartment

1 M6x20 bolt, large diameter washer
2 Perforated bracket
3 Fuses F1-2



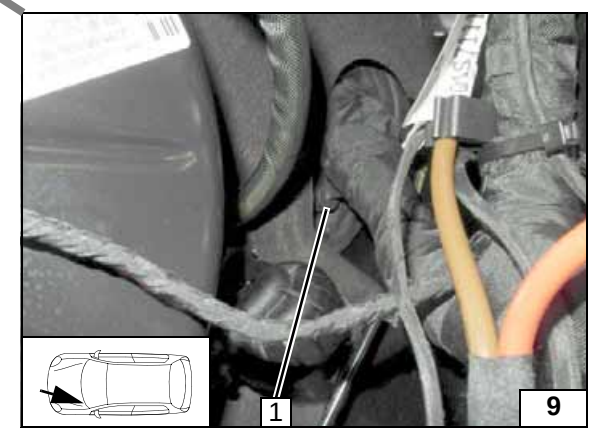


Wiring harness routing diagram



Positive and earth wire

1 Earth wire on original vehicle earth point
2 Positive wire on positive distributor
3 Wiring harnesses in original vehicle line duct

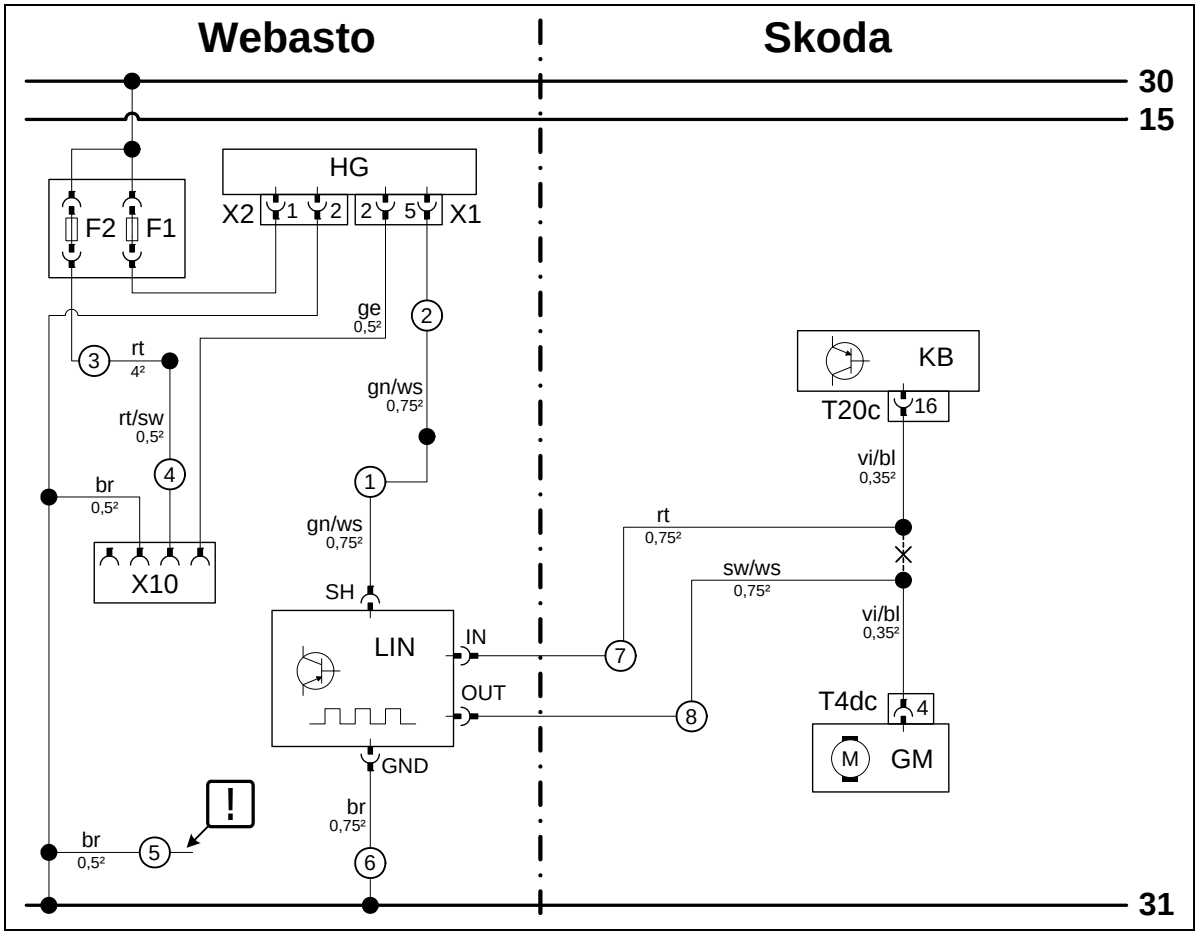


Wiring harness pass through

Route wiring harnesses of heater and heater control into the passenger compartment through protective rubber plug **1**.

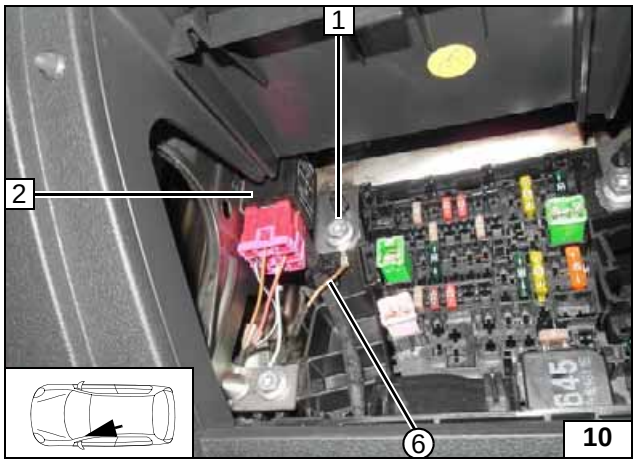
Fan Controller

Wiring diagram



Legend

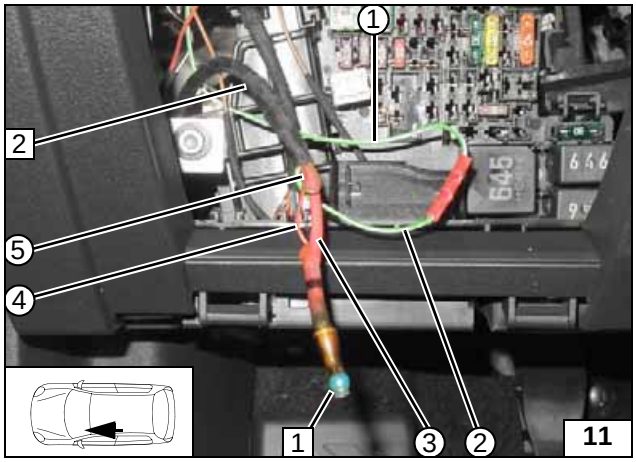
Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-Evo	KB	A/C control unit	rt	red
X1	6-pin heater connector	T20c	20-pin connector of KB	sw	black
X2	2-pin heater connector	GM	Fan motor	ge	yellow
F1	20A fuse	T4dc	4-pin connector of GM	gn	green
F2	Replace 30A fuse with 1A fuse			vi	violet
				ws	white
X10	4-pin connector of heater control			br	brown
				bl	blue
LIN	LIN- Gateway				
				!	Insulate wire end and tie back
				X	Cutting point
				Wiring colours may vary.	



Mount LIN-Gateway **2** on socket and fasten it using adhesive tape. Check that there is freedom of movement with respect to the storage compartment.

1 Original vehicle bolt
⑥ Brown (br) wire of LIN-Gateway/GND

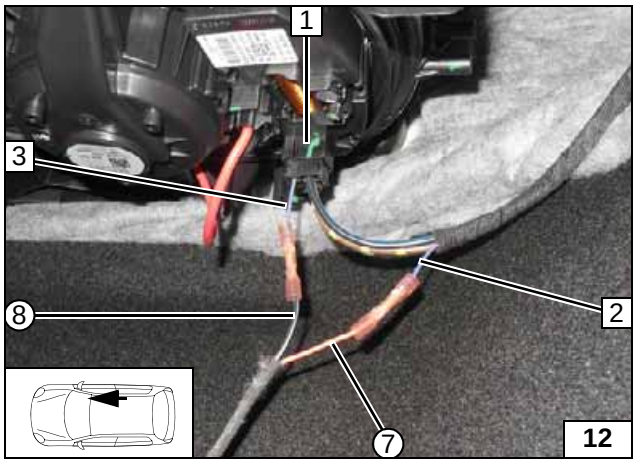
Installing LIN- Gateway



Connect red (rt) wire ③ and red/black (rt/sw) wire ④ from wiring harness according to wiring diagram. Insulate brown (br) wire ⑤ and tie back.

1 Solder wire terminator
2 Wiring harness of heater
① Green/white (gn/ws) wire of LIN-Gateway/SH
② Green/white (gn/ws) wire of X1/5 heater

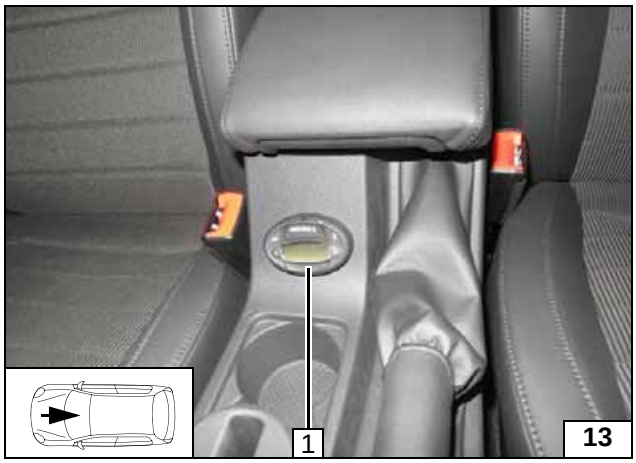
Connecting wiring harnesses



Connection to 4-pin connector **1** from the fan motor.

2 Violet/blue (vi/bl) wire of T20c, Pin 16 of A/C control unit
3 Violet/blue (vi/bl) wire of 4-pin connector GM, Pin 4
⑦ Red (rt) wire of LIN-Gateway/IN
⑧ Black/white (sw/ws) wire of LIN-Gateway/OUT

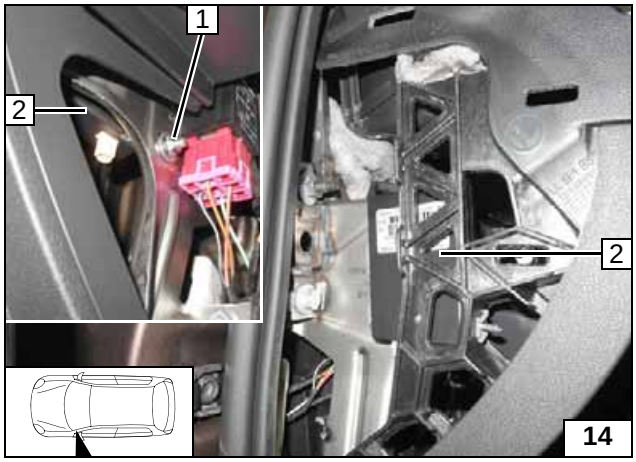
Connecting fan motor



Digital Timer

1 Digital timer

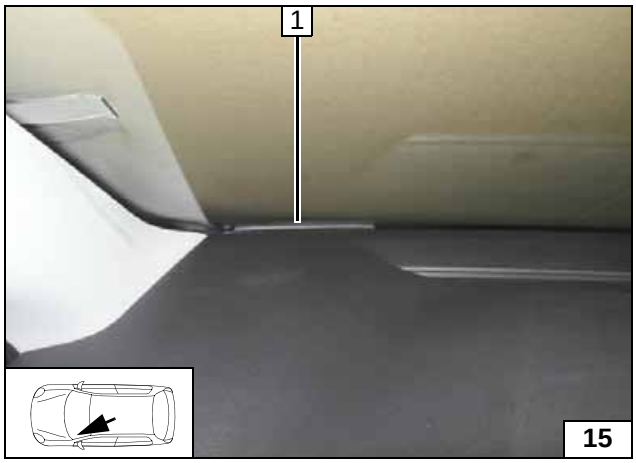
Installing digital timer



Remote Option (Telestart)

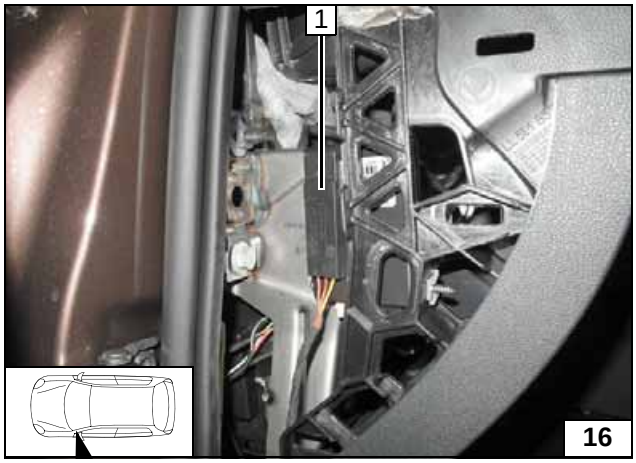
1 M5x16 bolt, washer, nut, existing hole
2 Receiver

Installing receiver



1 Antenna

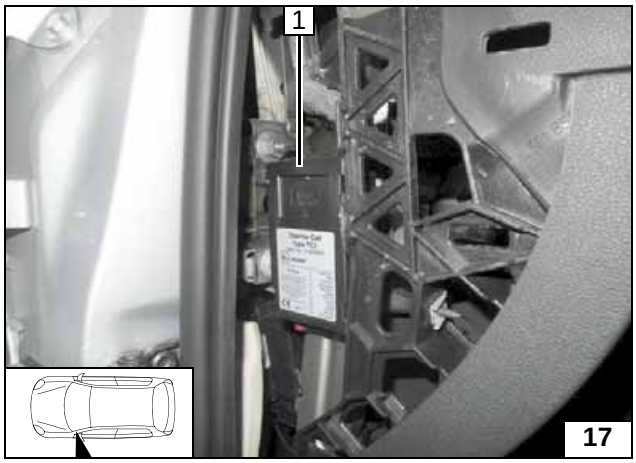
Installing antenna

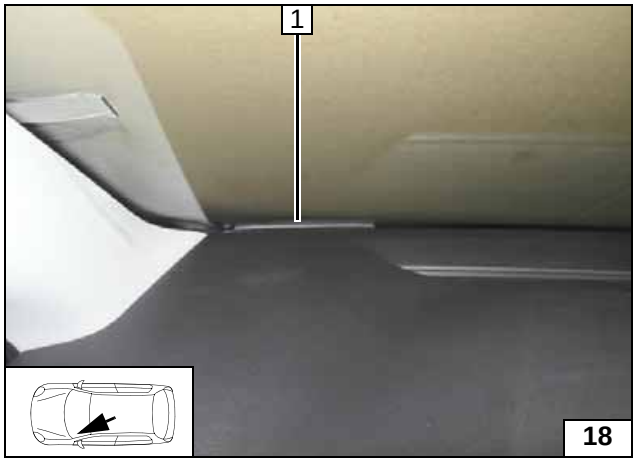


Temperature sensor T100 HTM

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

Installing temperature sensor





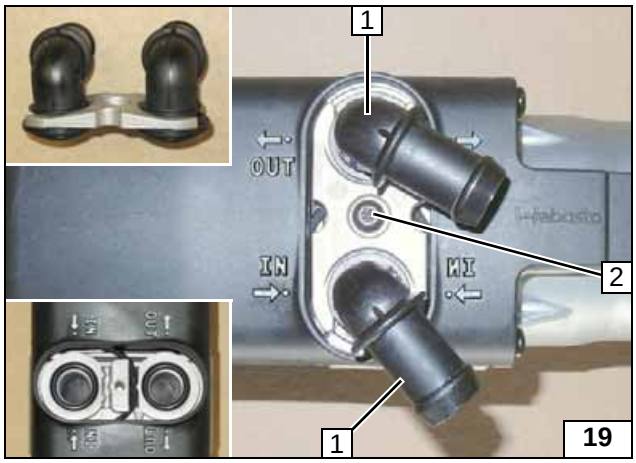
Thermo Call Option

Fasten Thermo Call receiver **1** with adhesive tape.

Installing receiver

1 Antenna

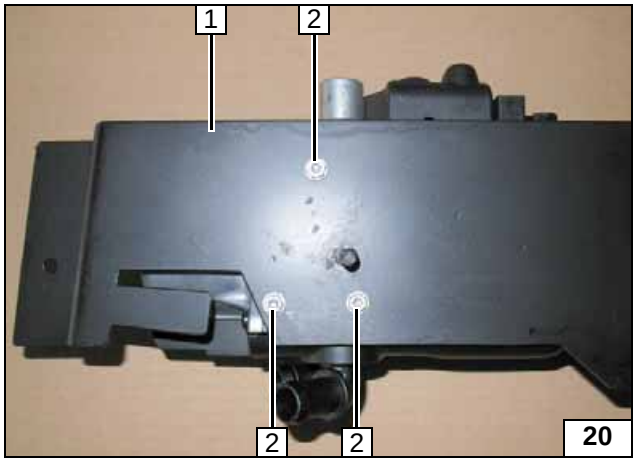
Installing antenna



Preparing Heater

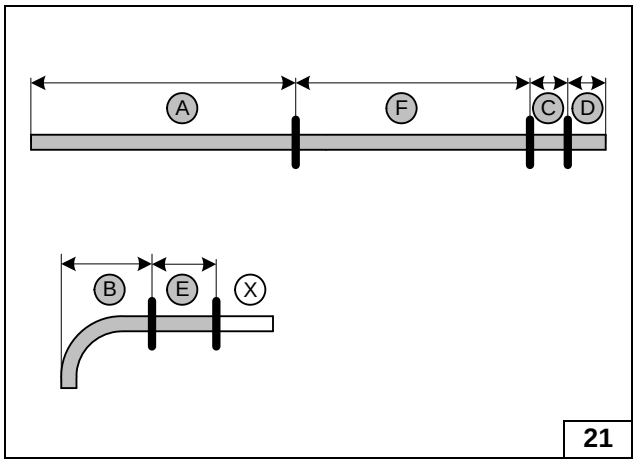
1 Water connection piece, sealing ring [2x each]
2 5x15mm self-tapping bolt, retaining plate of water connection piece

Installing water connection piece



1 Bracket
2 5x13 self-tapping bolt [3x]

Installing bracket

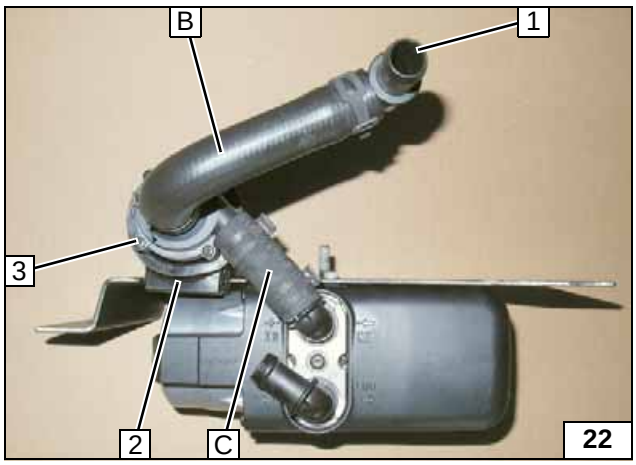


TSI

Discard section **X**.

1.2 TSI / 1.4 TSI		1.8 TSI	
A =	1070	**A** =	1000
B =	110	**B** =	110
C =	60	**C** =	60
D =	80	**D** =	80
E =	110	**E** =	110
F =	990	**F** =	990

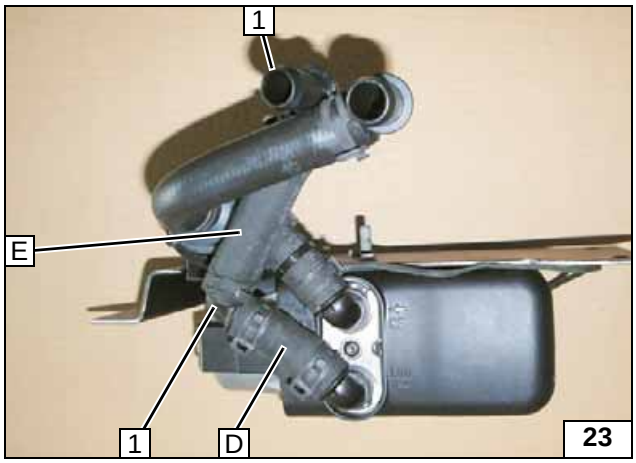
Cutting hoses to length



All spring clips = 25 mm dia.
Slide circulating pump mounting **2** onto tab of bracket.

1 90° connecting pipe
3 Circulating pump

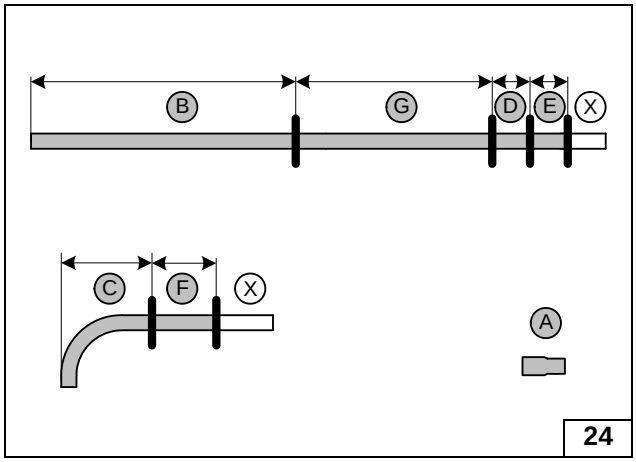
Premounting hoses



All spring clips = 25 mm dia.

1 90° connecting pipe [2x]

Premounting hoses

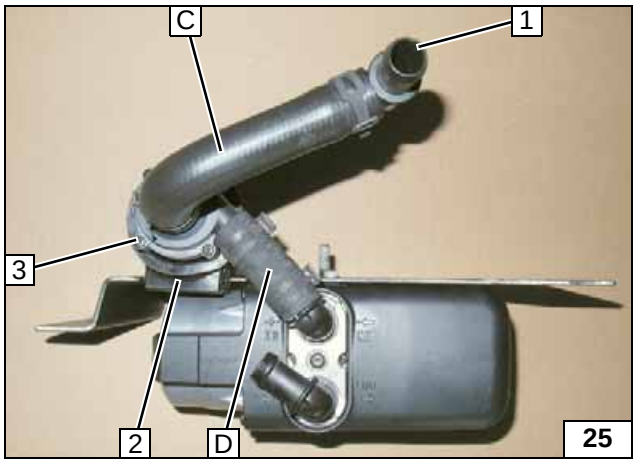


TDI

Discard section **X**.
Hose **A** = 18x20mm dia., straight moulded hose

B = 1020
C = 110
D = 60
E = 70
F = 110
G = 980

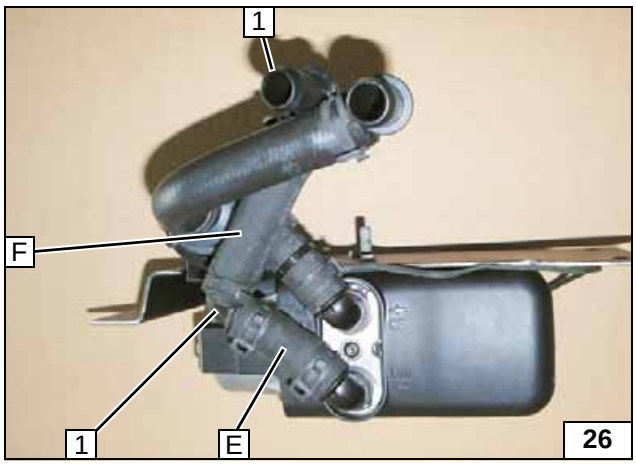
Cutting hoses to length



All spring clips = 25 mm dia.
Slide circulating pump mounting **2** onto tab of bracket.

1 90° connecting pipe
3 Circulating pump

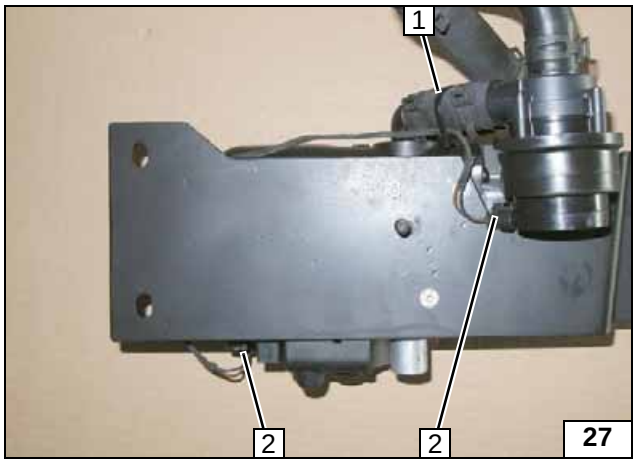
Premounting hoses



All spring clips = 25 mm dia.

1 90° connecting pipe [2x]

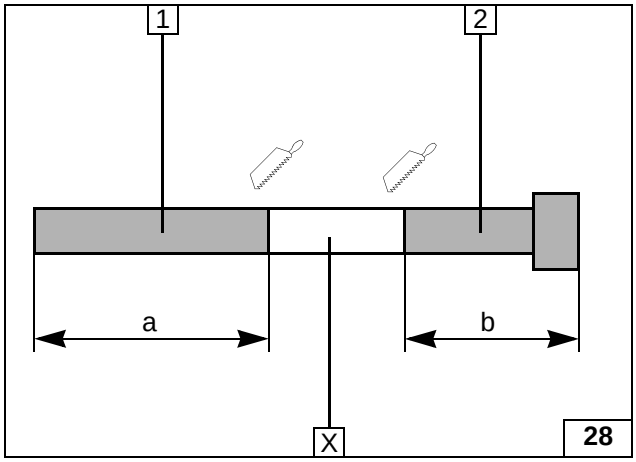
Premounting hoses



All vehicles

1 Cable tie
2 Wiring harness of circulating pump [2x]

Installing wiring harness



Discard section **X**.

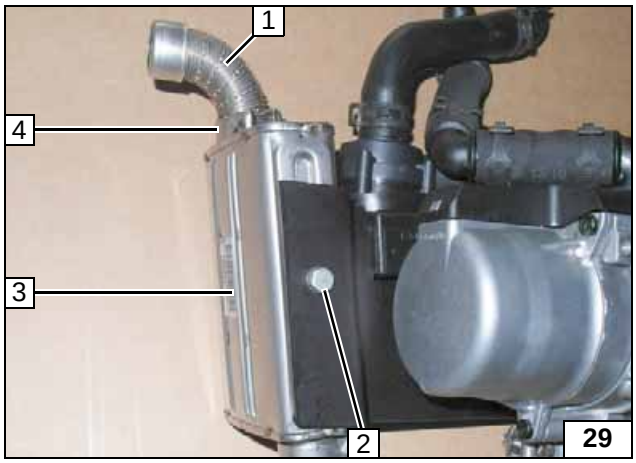
1.2 TSI / 1.4 TSI / TDi

1 Exhaust pipe
a = 195
2 Exhaust end section
b = 80

1.8 TSI

1 Exhaust pipe
a = 210
2 Exhaust end section
b = 90

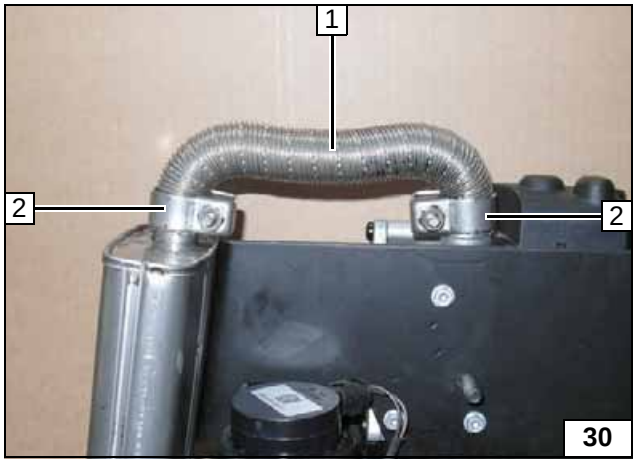
Preparing exhaust pipe



Only for 1.2 TSI / 1.4 TSI / TDi

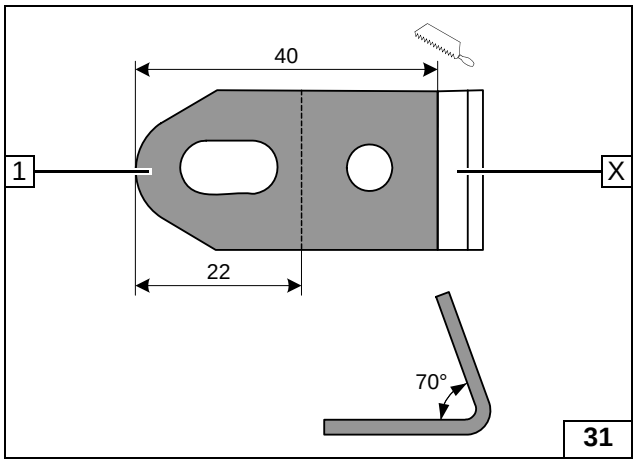
1 Exhaust end section
2 M6x16 bolt, spring lockwasher
3 Silencer
4 Hose clamp

Installing silencer and exhaust end section



1 Exhaust pipe
2 Hose clamp [2x]

Installing exhaust pipe

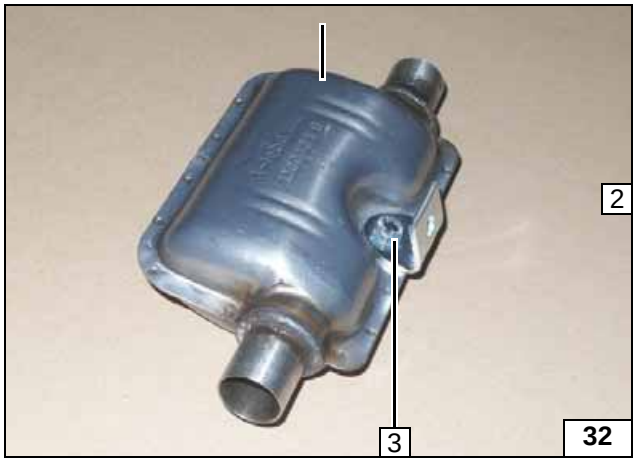


1.8 TSI only

Discard section **X**.

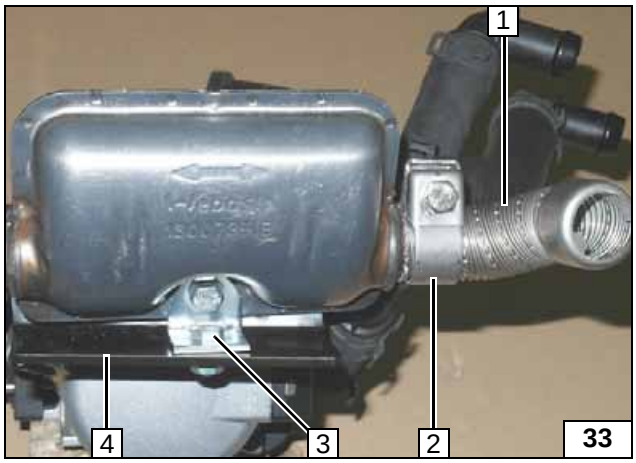
1 Angle bracket

Preparing angle bracket



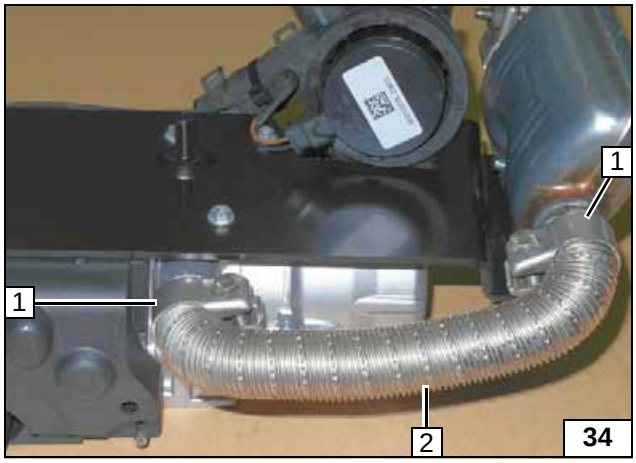
1 Silencer
2 Angle bracket
3 M6x16 bolt, flanged nut

Premounting silencer



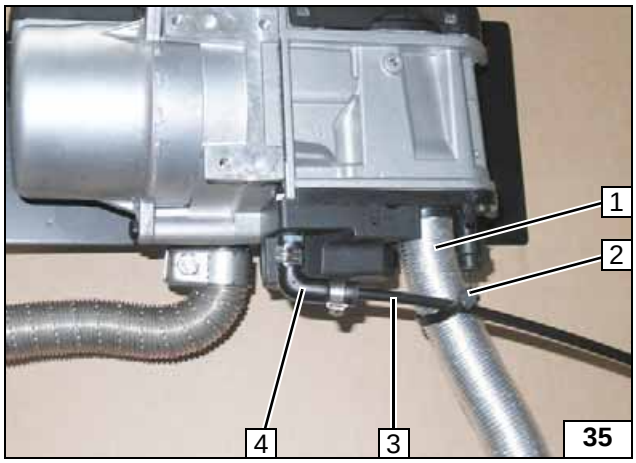
1 Exhaust end section
2 Hose clamp
3 M6x12 bolt, flanged nut
4 Heater bracket

Installing silencer / exhaust end section



1 Hose clamp [2x]
2 Exhaust pipe

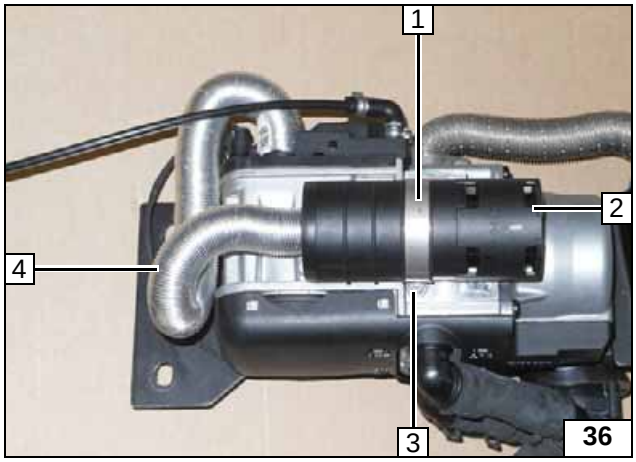
Installing exhaust pipe



All vehicles

1 Combustion air pipe
2 Cable tie
3 Fuel line
4 90° short moulded hose, 10mm dia. clamp [2x]

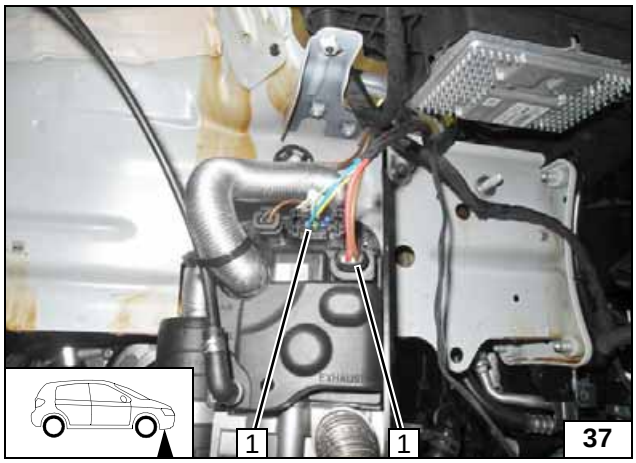
Premounting combustion air pipe and fuel line



1 51mm dia. clamp
2 Combustion air silencer
3 5x13 self-tapping bolt
4 Combustion air pipe

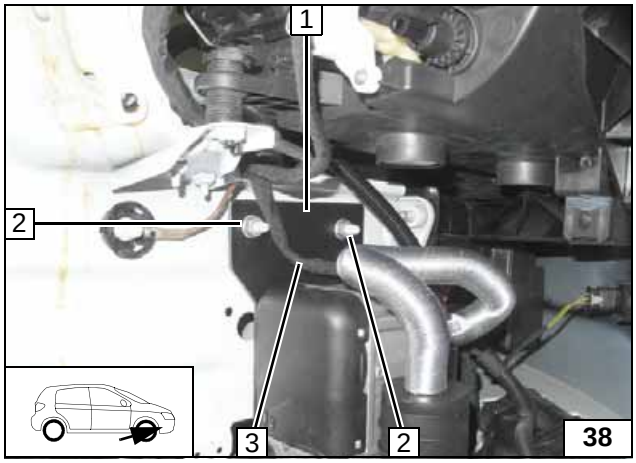
Premounting combustion air silencer

Installing Heater



1 Wiring harness of heater [2x]

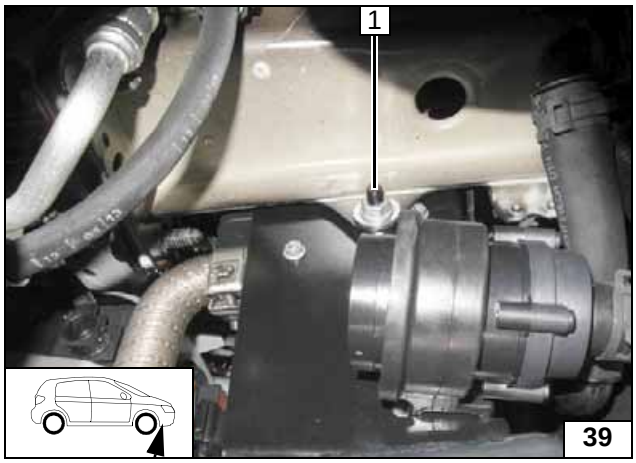
Installing wiring harness



Insert one 5mm shim each between bracket **1** and frame side member. Route original vehicle wiring harness **3** in front of the bracket as shown.

2 Original vehicle stud bolt, 5mm shim, M8 flanged nut [2x each]

Installing heater



1 Stud bolt of bracket, large diameter washer, M8 flanged nut

Installing heater

Fuel

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

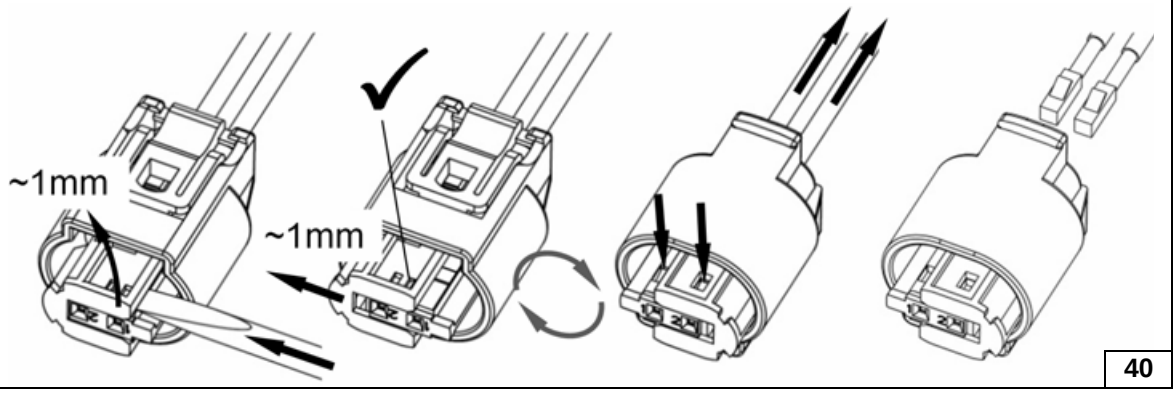
Catch any fuel running off with an appropriate container.

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

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

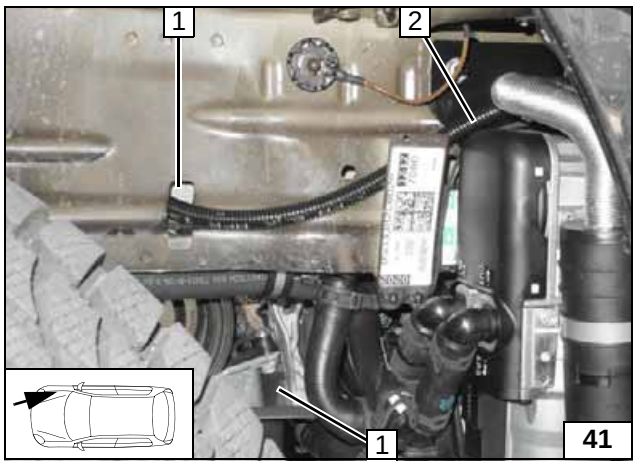
Dismantling connector of metering pump

Connector X7



40

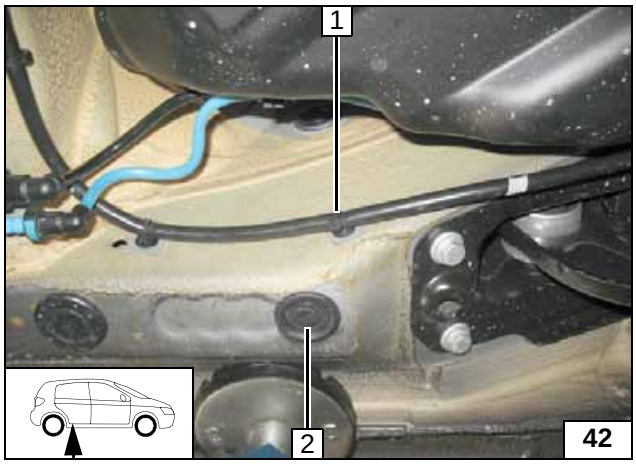
Routing lines



41

Pull fuel line and wiring harness of metering pump into corrugated tube **2** and through original vehicle pass through **1** to underbody.

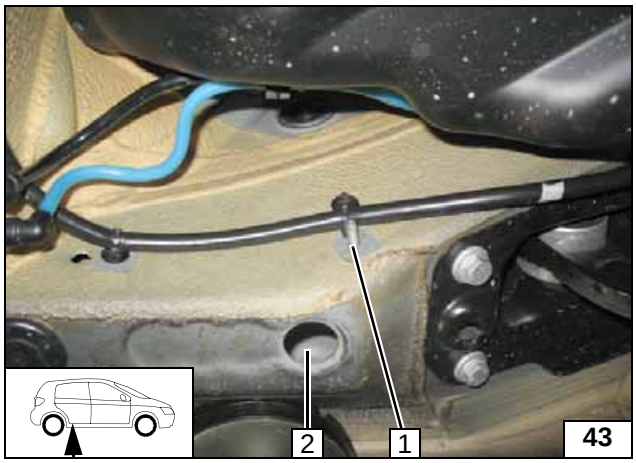
Preparing installation location of metering pump



42

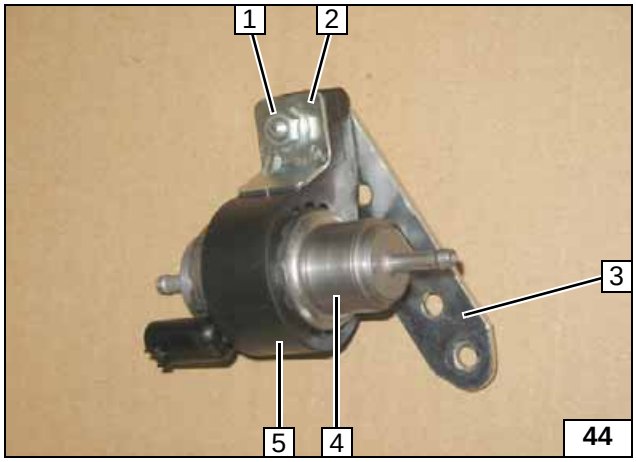
Version 1

1 Detach retaining clip of original vehicle wiring harness (if present) from hole
2 Remove cover cap (will be re-inserted later)



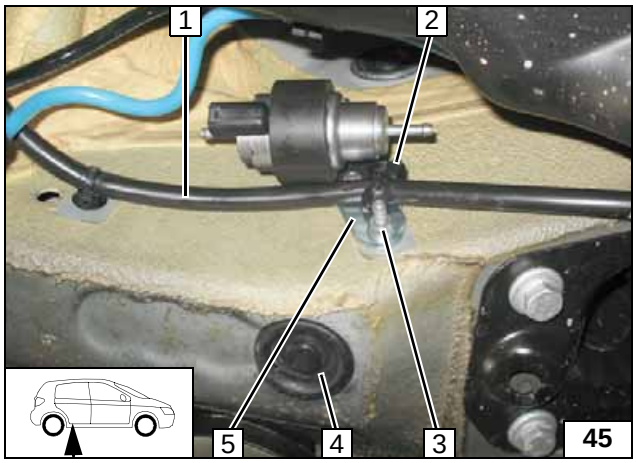
Insert M6x20 bolt **1** into hole through opening **2**.

Preparing installation location of metering pump



1 M6x25 bolt, flanged nut
2 Support angle bracket
3 Perforated bracket
4 Metering pump
5 Metering pump mount

Premounting metering pump

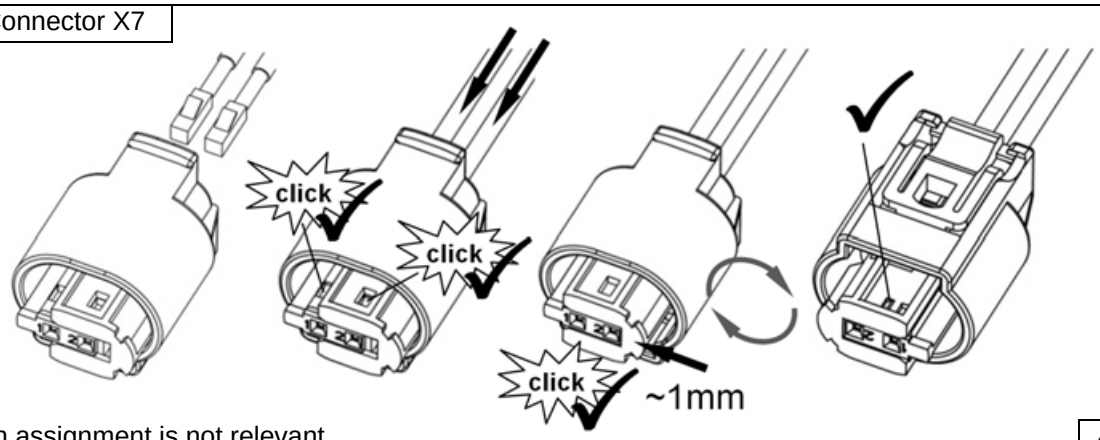


Fasten original vehicle wiring harness **1** (if present) with cable tie **2** to perforated bracket **5**.

3 M6 flanged nut
4 Cover cap inserted

Installing metering pump

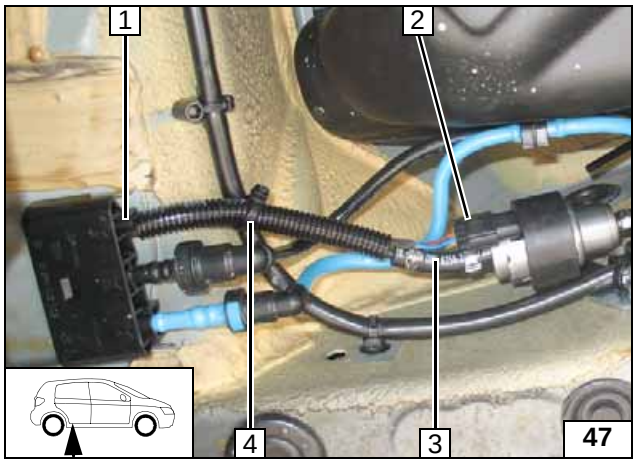
Connector X7



Pin assignment is not relevant.

46

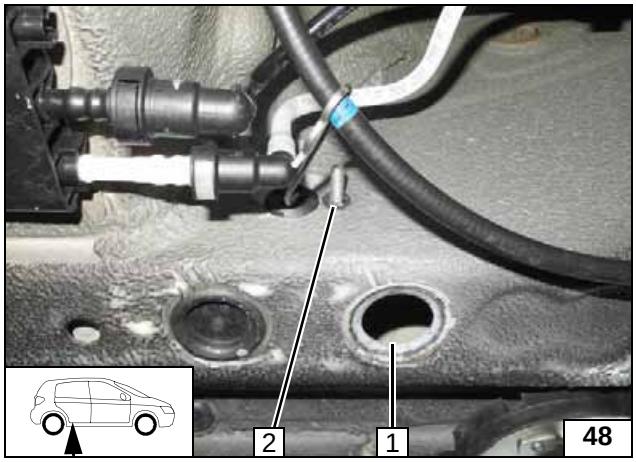
Completing connector of metering pump



Cut 10mm dia. corrugated tube to length accordingly. Route fuel line and wiring harness of metering pump from original vehicle pass through **1** and pull them into corrugated tube.

2 Wiring harness of metering pump, connector mounted
3 Fuel line of heater, hose section, 10mm dia. clamp [2x]
4 Cable tie

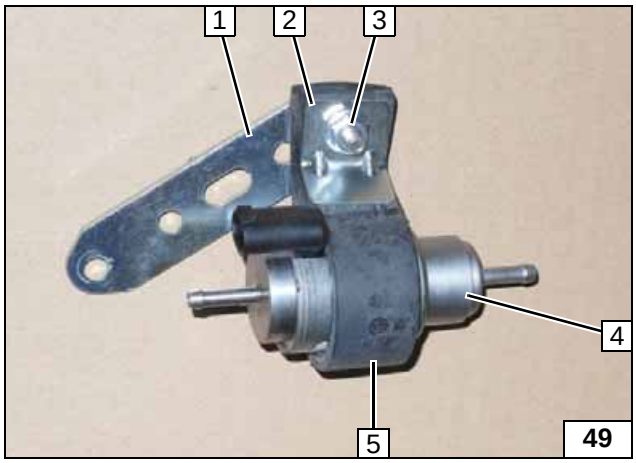
Connecting metering pump



Version 2

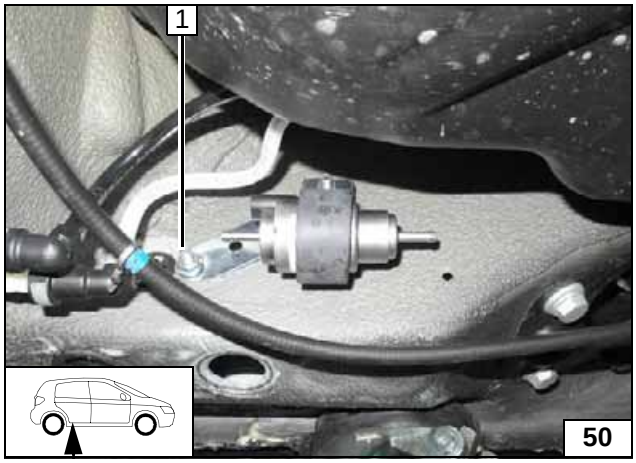
1 Remove cover cap (will be re-inserted later)
2 M6x20 bolt, original vehicle hole, screw locking device

Preparing installation location of metering pump



1 Perforated bracket
2 Support angle bracket
3 M6x25 bolt, flanged nut
4 Metering pump
5 Metering pump mount

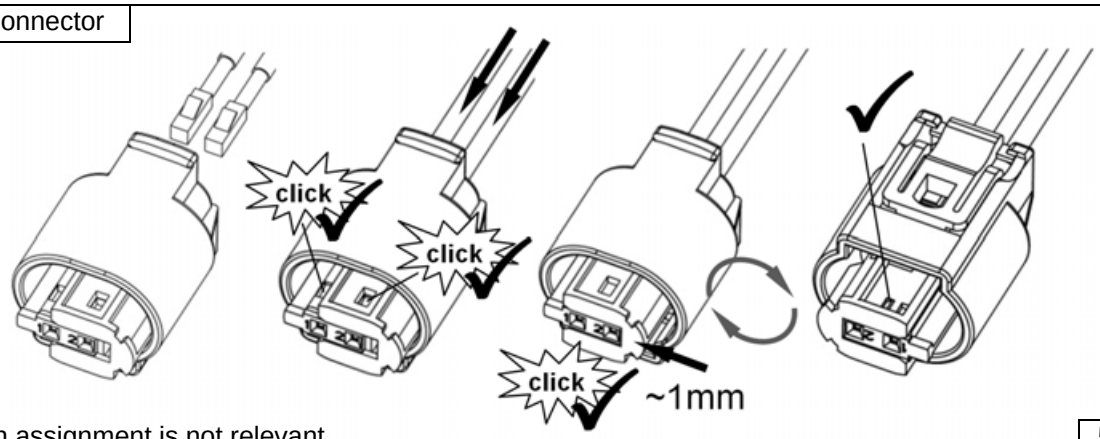
Premounting metering pump



1 M6 flanged nut, spring lockwasher

Installing metering pump

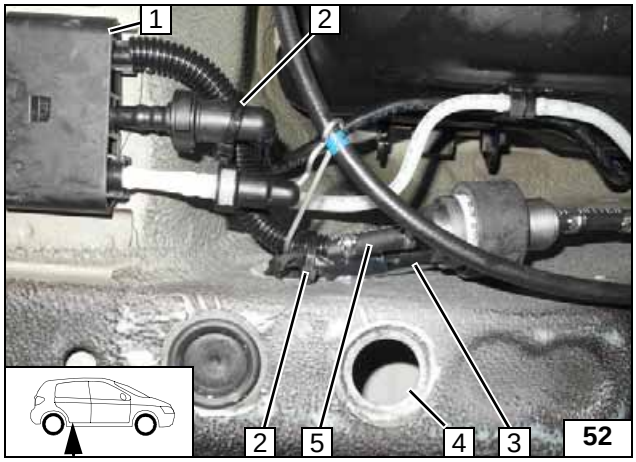
Connector



Pin assignment is not relevant.

51

Completing connector of metering pump



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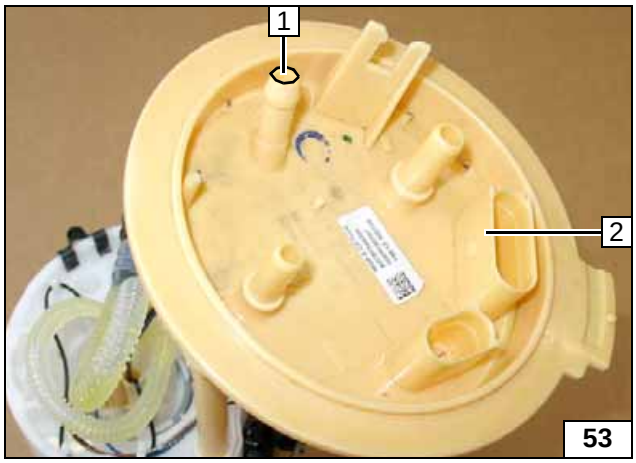
Cut 10mm dia. corrugated tube to length accordingly. Route fuel line and wiring harness of metering pump from original vehicle pass through **1** and pull them into corrugated tube. Reinstall cover cap in pos. **4**.

Connecting metering pump

- **2** Cable tie [2x]
- **3** Wiring harness of metering pump, connector mounted
- **5** Fuel line of heater, hose section, 10mm dia. clamp [2x]

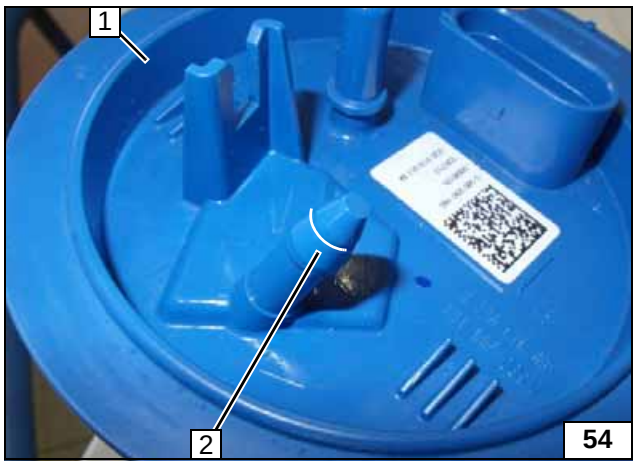


53

Version 1

Remove fuel-tank sending unit **2** in accordance with manufacturer's instructions. Cut off top of connection piece **1** using a suitable tool.
Caution, risk of rupture!

Fuel extraction

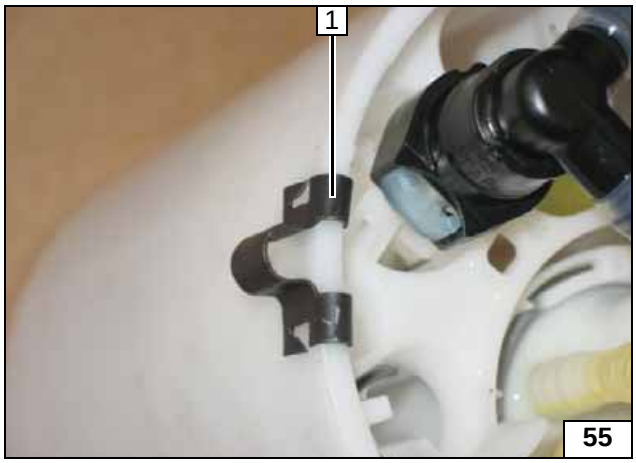


54

Version 2

Remove fuel-tank sending unit **1** in accordance with manufacturer's instructions. Cut off top of connection piece **2** at the perforation using a suitable tool. Caution, risk of rupture!

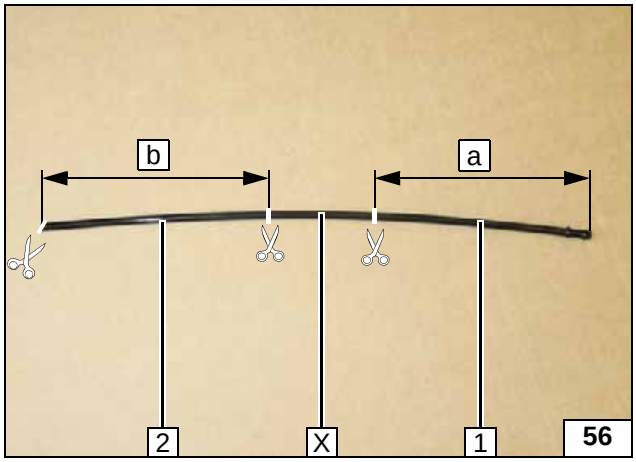
Fuel extraction



All vehicles

Install retaining clamp **1** on fuel-tank sending unit.

Installing retaining clamp

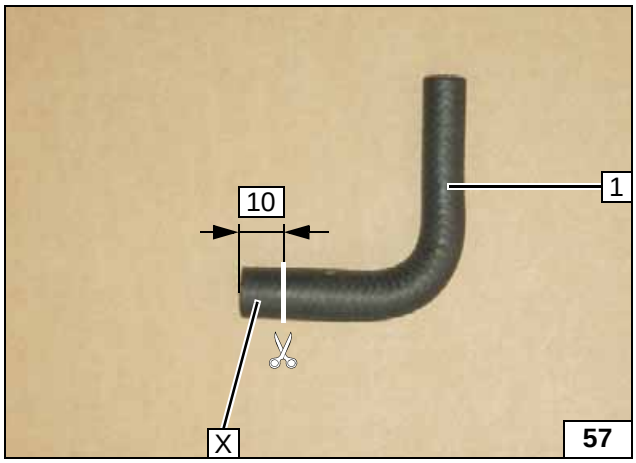


Cut off standpipe B **2** obliquely at the end. Discard section **X**.

1 Standpipe A

	TSI	TDI
a =	120	145
b =	130	140

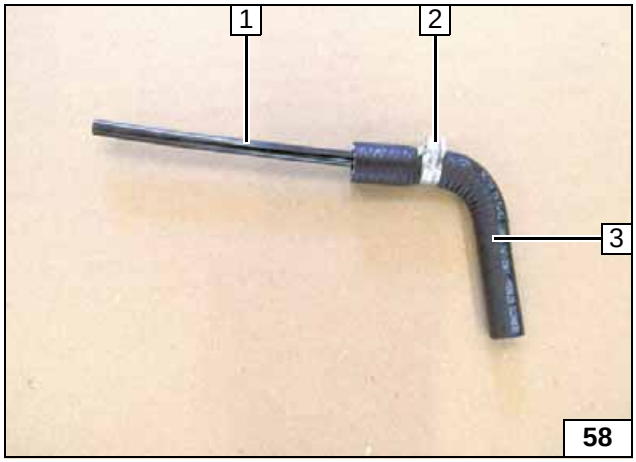
Cutting standpipes to length



Discard section **X**.

1 90° moulded hose with inner dia. d_i = 4.5x10.5mm

Cutting moulded hose to length



1 Standpipe A
2 10 mm dia. clamp
3 90° moulded hose with inner dia. d_i = 4.5x10.5mm

Premounting moulded hose

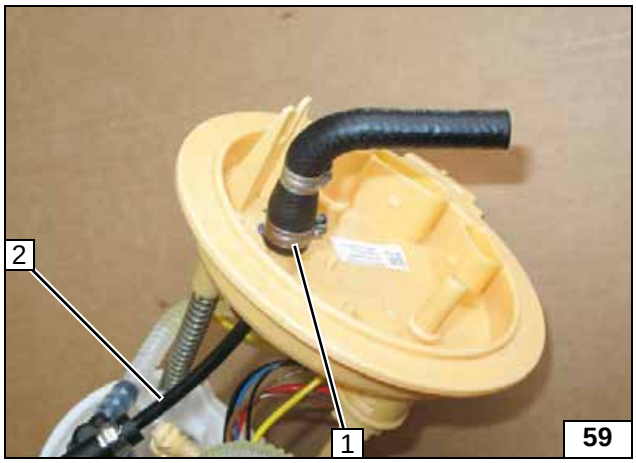
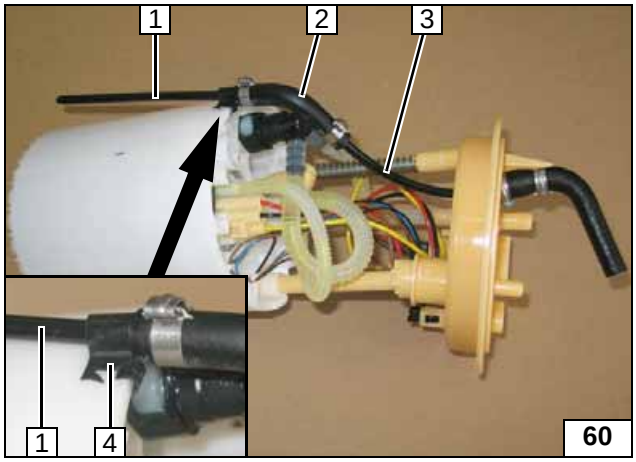


Figure shows TDI.

1 13.5 mm dia. clamp
2 Standpipe A

Installing standpipe A

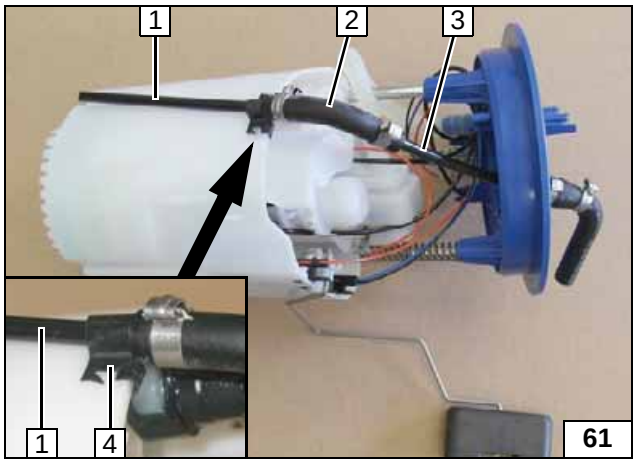


Version 1

Route standpipe B 1 through retaining clamp 4.

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

Installing standpipe B

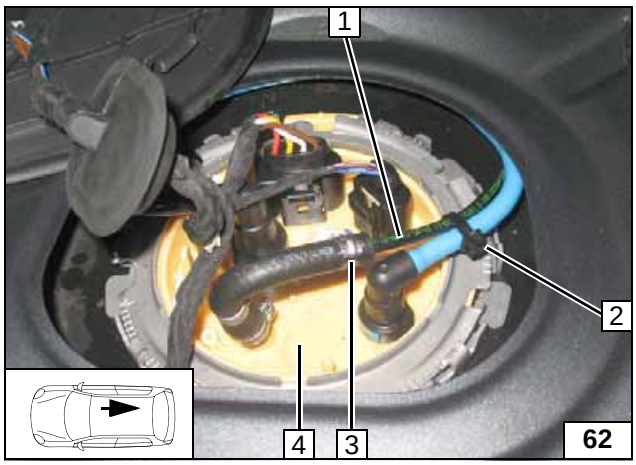


Version 2

Route standpipe B **1** through retaining clamp **4**.

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

Installing standpipe B

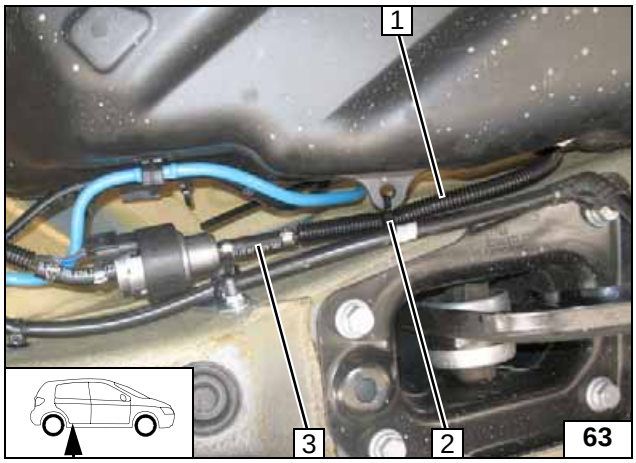


All vehicles

Figure shows TDI.
Install fuel-tank sending unit **4** in accordance with manufacturer's instructions.

1 Fuel line
2 Cable tie
3 10mm dia. clamp

Connecting fuel line

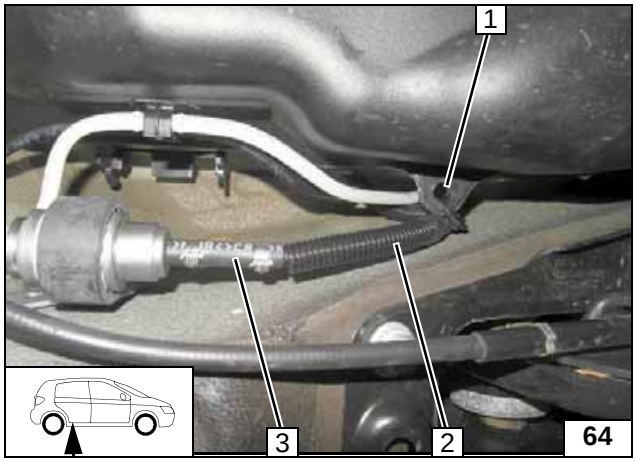


Version 1

Cut 10mm dia. corrugated tube **1** to length and slide it onto fuel line. Check the position of the components; adjust if necessary. Check that they have freedom of movement.

2 Cable tie
3 Fuel line, hose section, 10 mm dia. clamp [2x]

Connecting metering pump



Version 2

Cut 10mm dia. corrugated tube **2** to length and slide it onto fuel line. Check the position of the components; adjust if necessary. Check that they have freedom of movement.

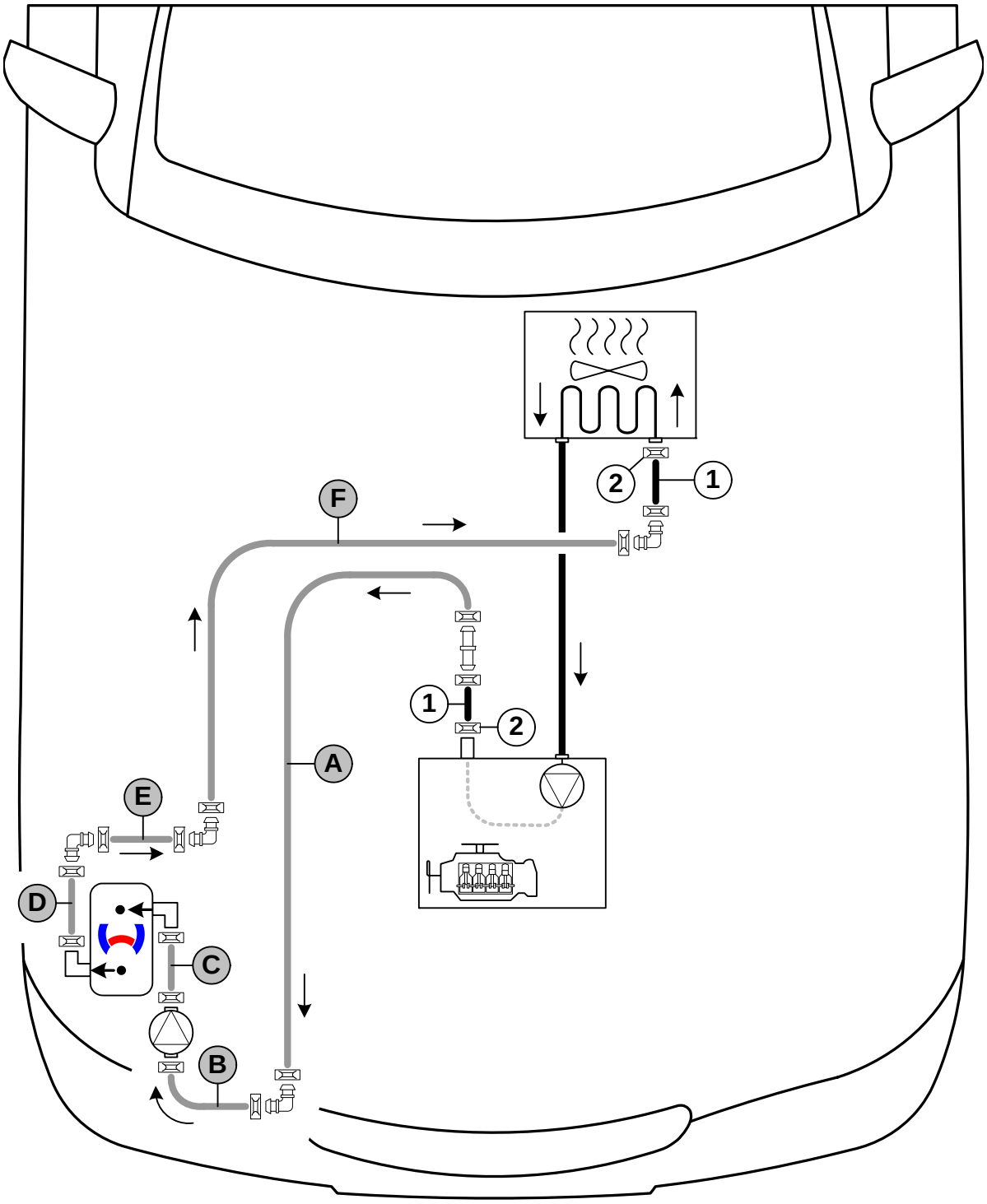
1 Cable tie
3 Fuel line, hose section, 10 mm dia. clamp [2x]

Connecting metering pump

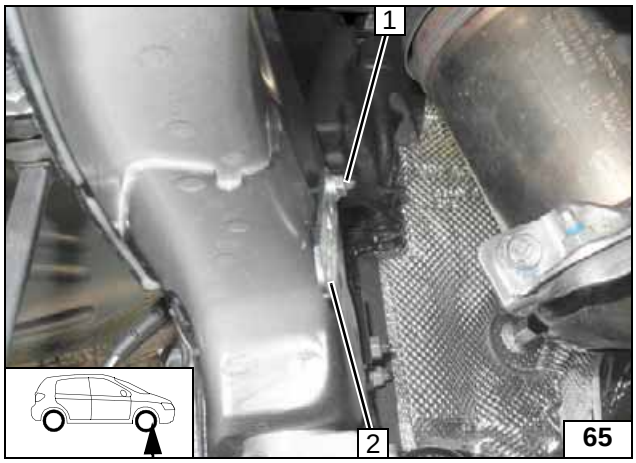
TSI Coolant Circuit

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

Hose routing diagram

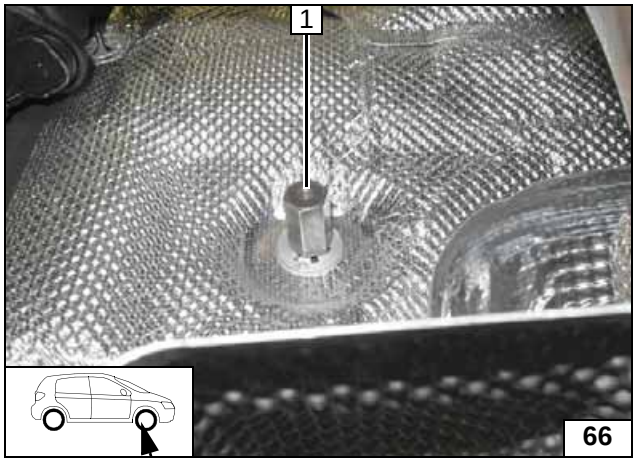


All spring clips without a specific designation = 25 mm dia. **2** = Original vehicle spring clip. **1** = Original vehicle hose. All connecting pipes and = 18x18mm dia.



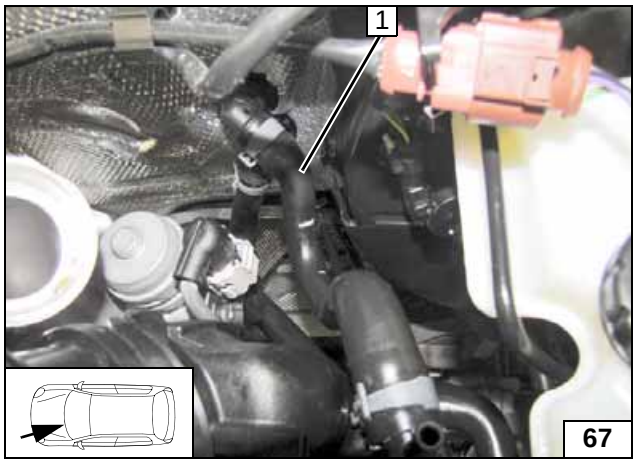
1 M6 flanged nut, original vehicle stud bolt
2 Perforated bracket

Installing perforated bracket



1 M6x30 spacer nut, original vehicle stud bolt

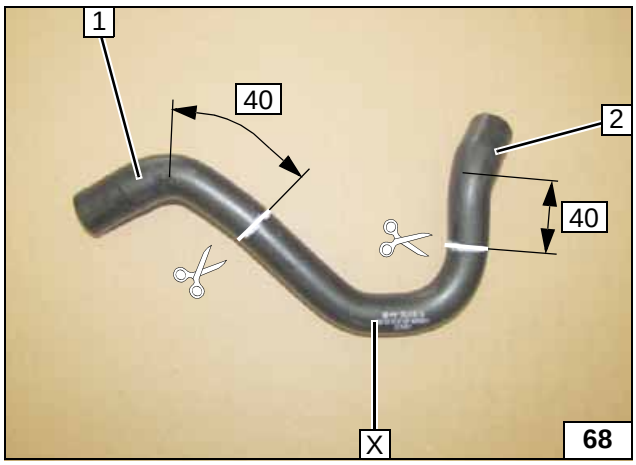
Installing spacer nut



1.2 TSI / 1.4 TSI

Remove hose on engine outlet / heat exchanger inlet **1**. Spring clips will be re-used.

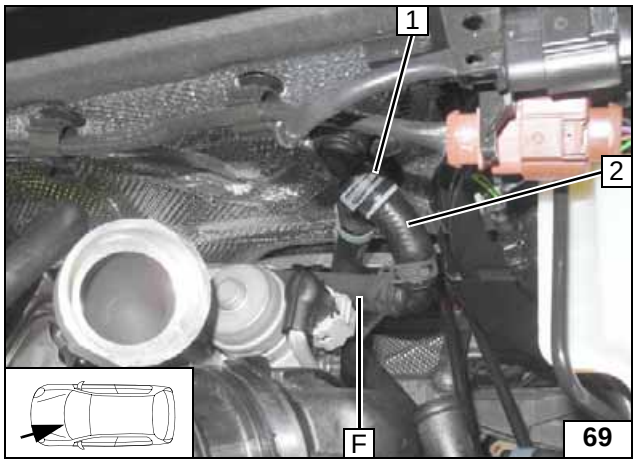
Cutting point



Discard section **X**.

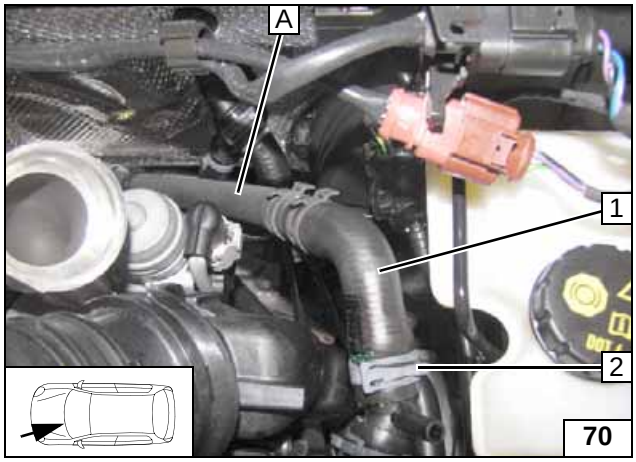
1 Engine outlet hose section
2 Hose section of heat exchanger inlet

Cutting point



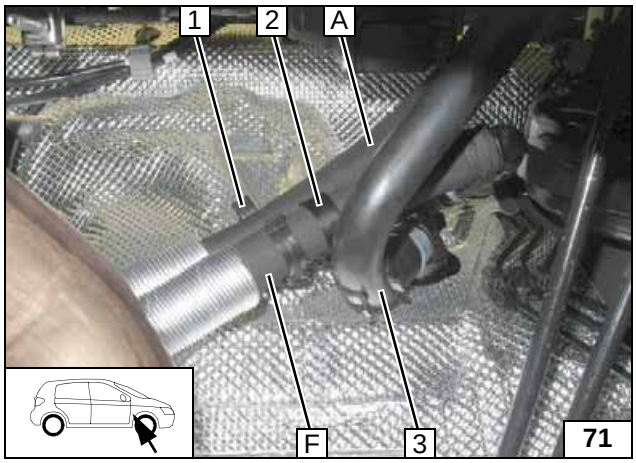
1 Original vehicle spring clip
2 Hose section of heat exchanger inlet

Connecting heat exchanger inlet



1 Hose of engine outlet
2 Original vehicle spring clip

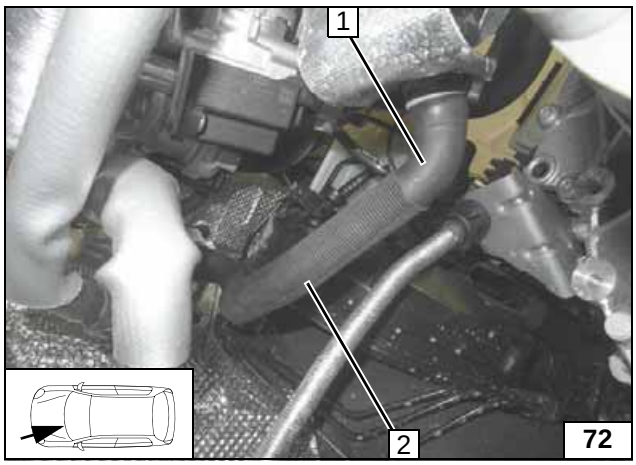
Connecting engine outlet



Push one 600mm long heat protection hose each onto hoses **A** and **F**.

1 Spacer bracket
2 Spacer bracket, twistable
3 Hose of heat exchanger outlet

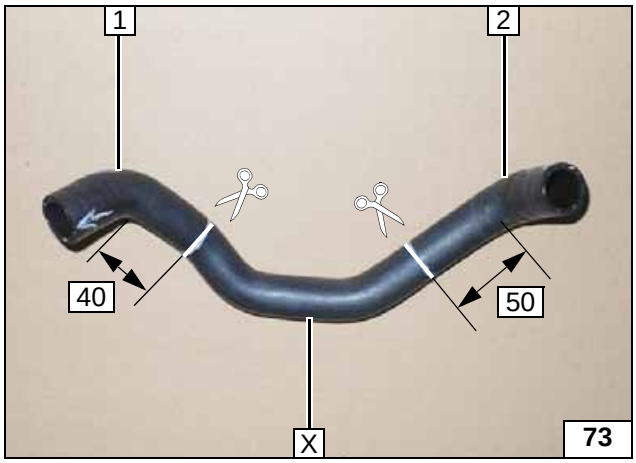
Routing on firewall



1.8 TSI

Remove hose on engine outlet / heat exchanger inlet **1**. Spring clips will be re-used. Remove rub protection **2**.

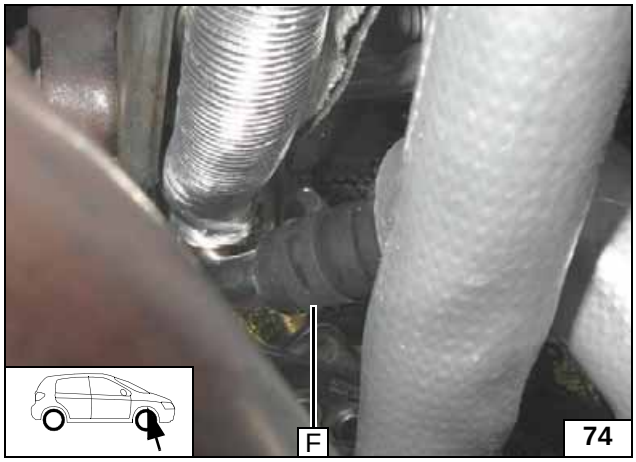
Cutting point



Discard section **X**.

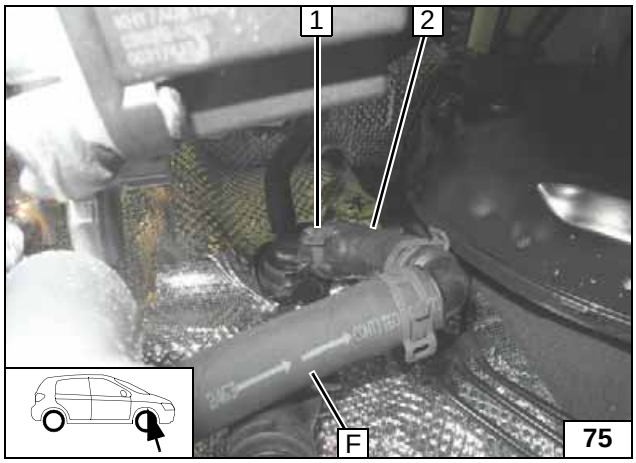
1 Hose section of heat exchanger inlet
2 Engine inlet hose section

Cutting point



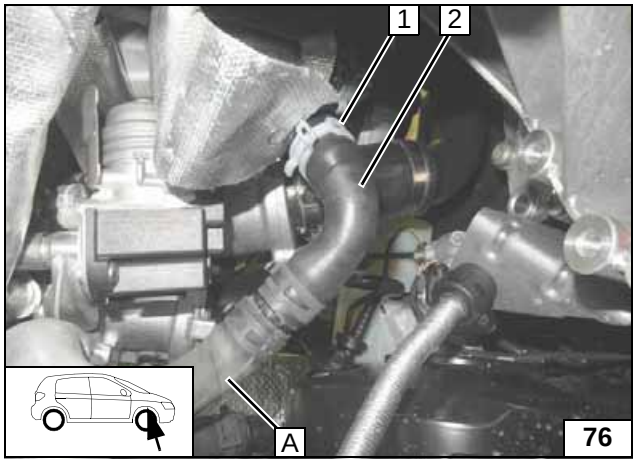
Turn upper spring clip of Turbo / Y-piece hose on heat exchanger outlet by 180° (see figure for final position).

Connecting heat exchanger inlet



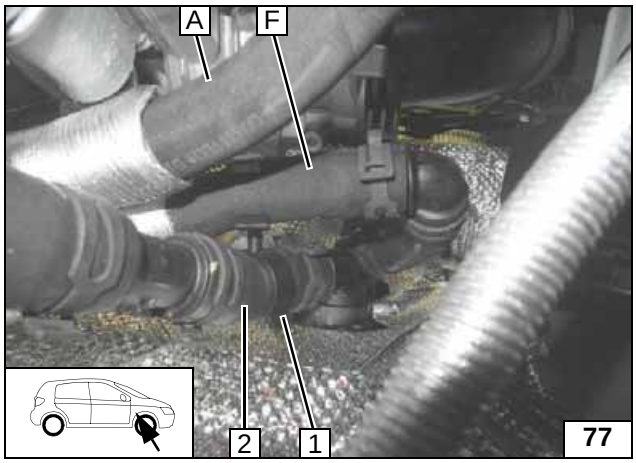
1 Original vehicle spring clip
2 Hose section of heat exchanger inlet

Connecting heat exchanger inlet



1 Original vehicle spring clip
2 Engine outlet hose section

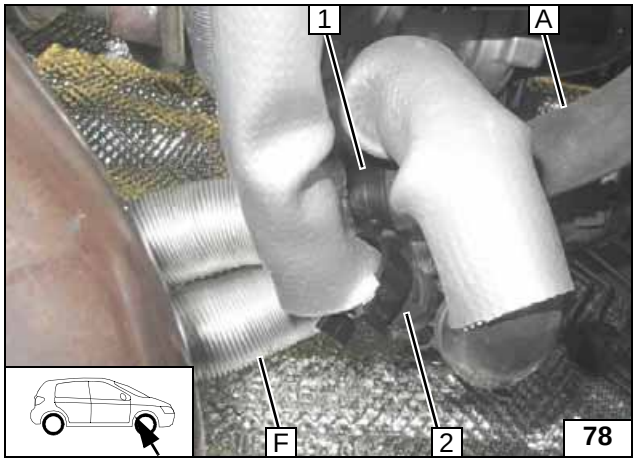
Connecting engine outlet



Push one 600mm long heat protection hose each onto hoses **A** and **F**.

1 Spacer bracket, twistable
2 Hose of heat exchanger outlet

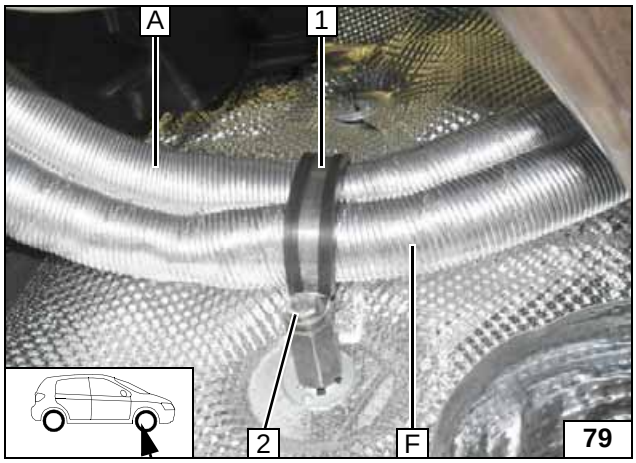
Routing on firewall



Align hoses **A** and **F** and ensure sufficient distance from exhaust pipe.

1 Spacer bracket, twistable
2 Original vehicle hose

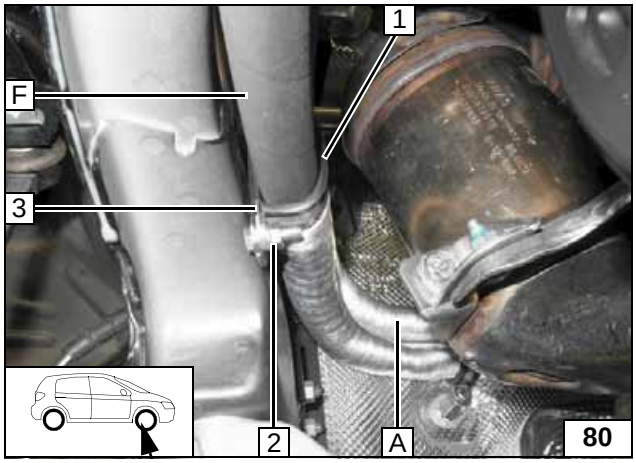
Routing on firewall



All vehicles

1 48 mm dia. rubber-coated p-clamp
2 M6x20 bolt, spring lockwasher

Fastening on firewall



Align hoses. Ensure sufficient distance to catalytic converter, correct if necessary.

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

Routing on frame side member

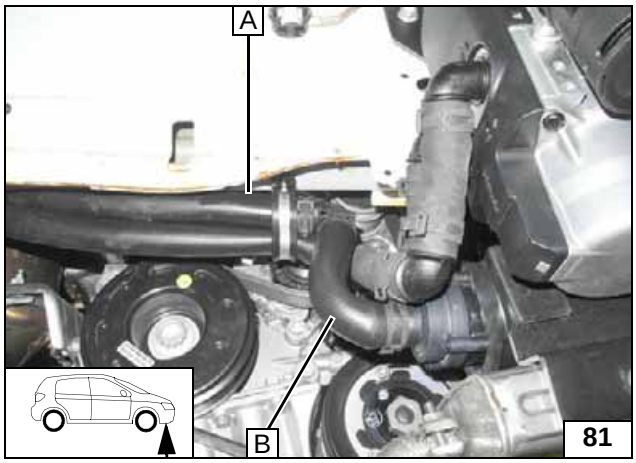
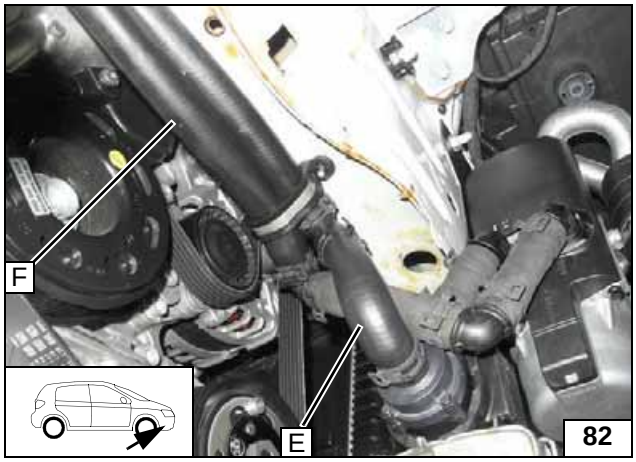
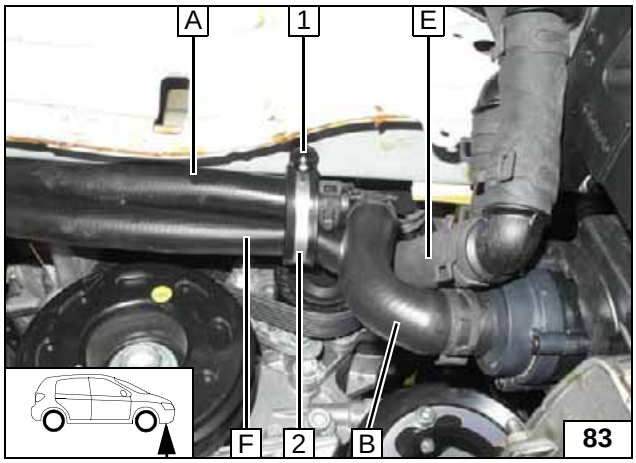


Figure shows 1.4 TSI.

Connecting heater inlet



Connecting heater outlet



Ensure sufficient distance to neighbouring components, correct if necessary.

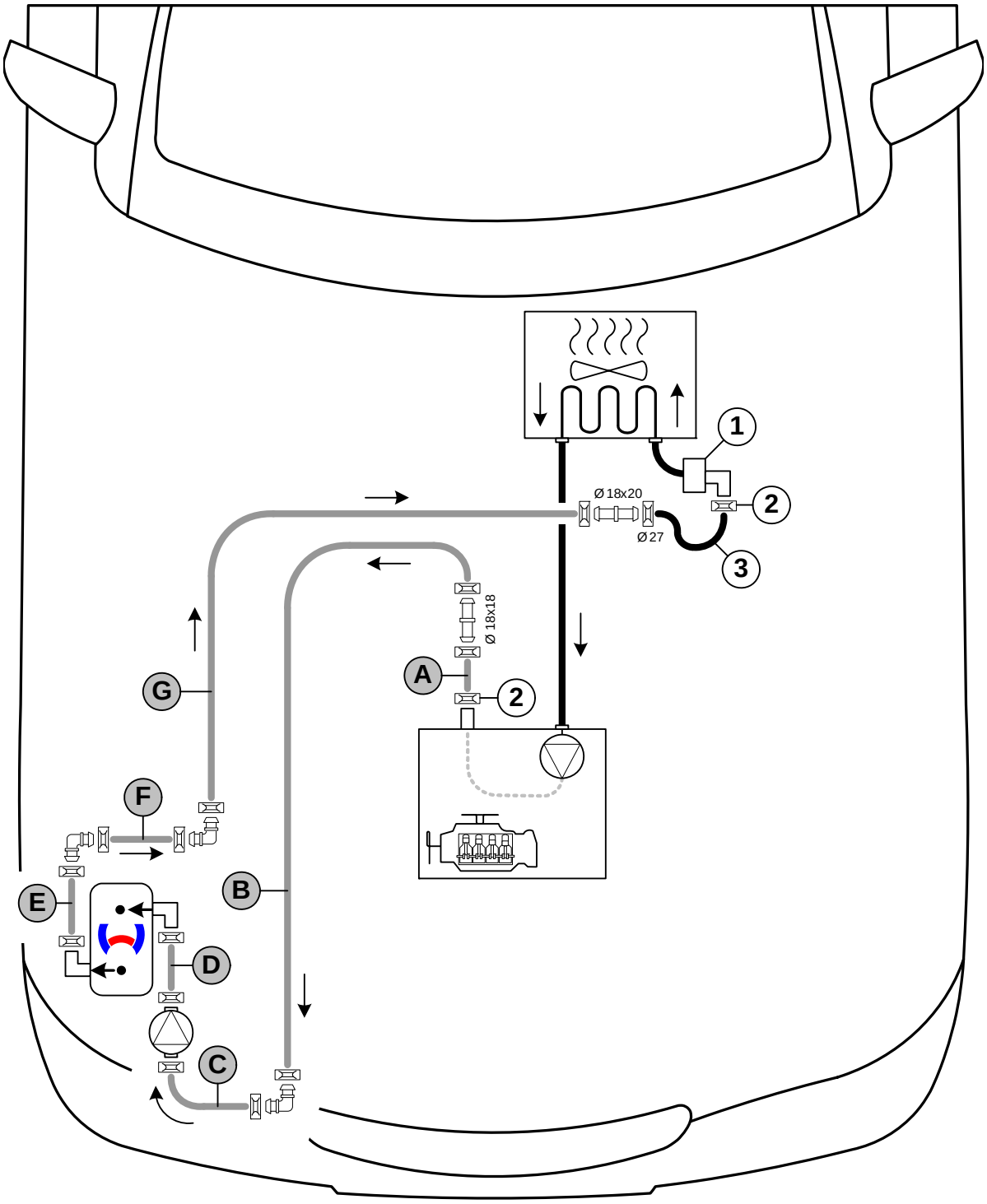
1 Original vehicle stud bolt, plastic nut
2 38mm dia. rubber-coated p-clamp

Aligning and fastening hoses

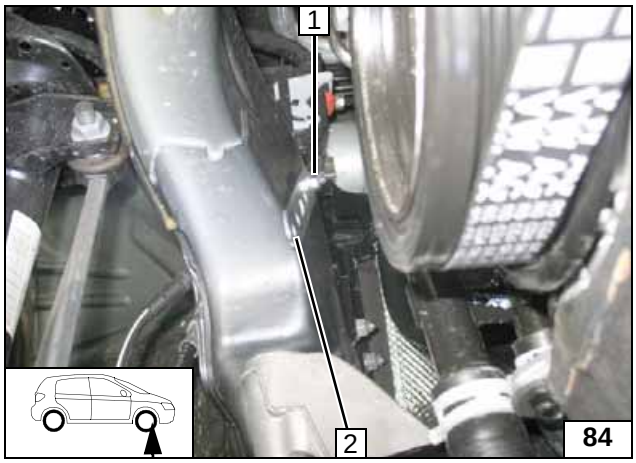
TDI Coolant Circuit

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

Hose routing diagram

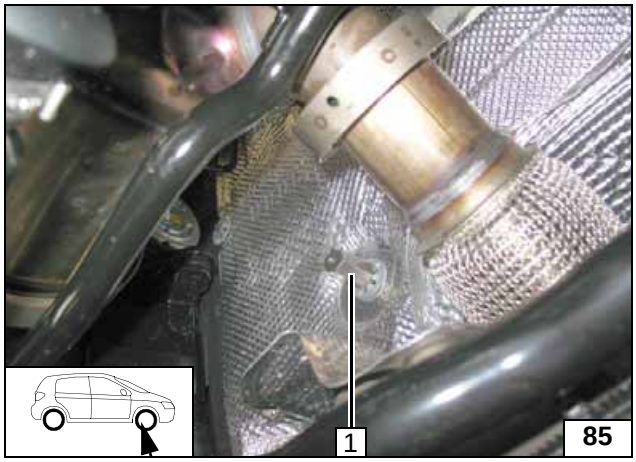


All spring clips without a specific designation = 25 mm dia. **2** = Original vehicle spring clip. **1** = EGR. **3** = original vehicle hose.
All connecting pipes = 18x18mm dia.



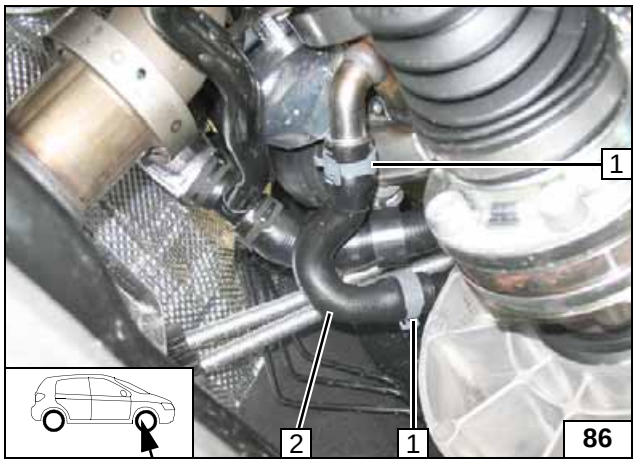
1 M6 flanged nut, original vehicle stud bolt
2 Perforated bracket

Installing perforated bracket



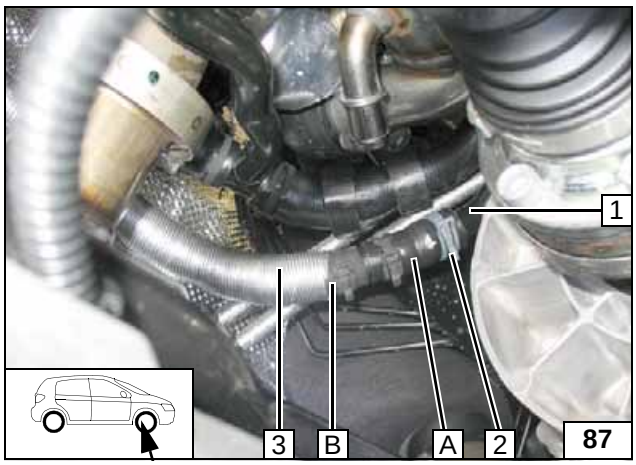
1 M6x30 spacer nut, original vehicle stud bolt

Installing spacer nut



Remove hose on engine outlet / EGR inlet **2**. Spring clips **1** will be re-used.

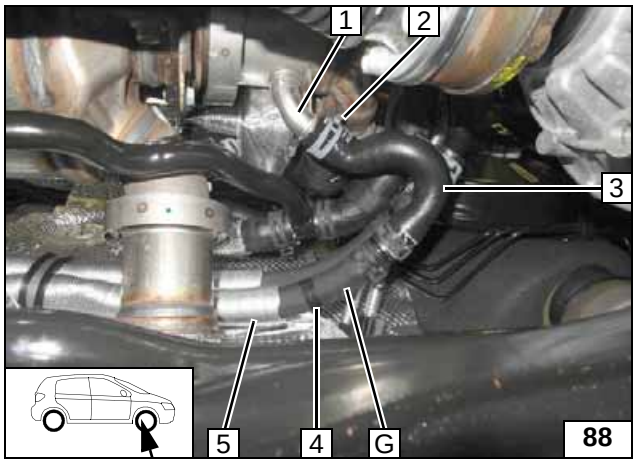
Cutting point



Slide 600mm long heat protection hose **3** onto hose **B**.

1 Pipe of engine outlet
2 Original vehicle spring clip

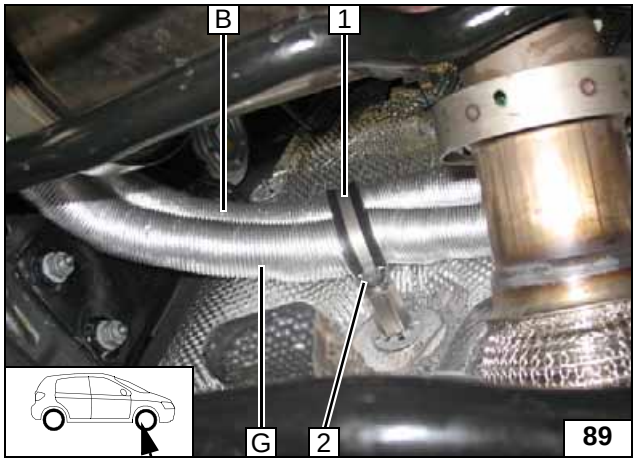
Connecting engine outlet



Slide 600mm long heat protection hose **5** onto hose **G**.

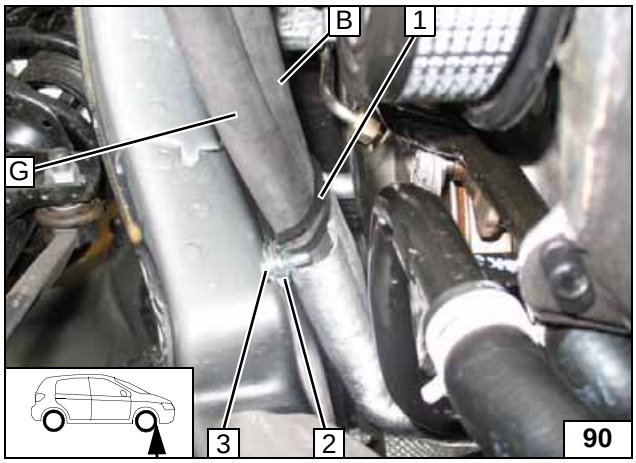
1 Pipe of EGR
2 Original vehicle spring clip
3 Original vehicle hose mounted in the opposite direction
4 Spacer bracket

Connecting heat exchanger inlet



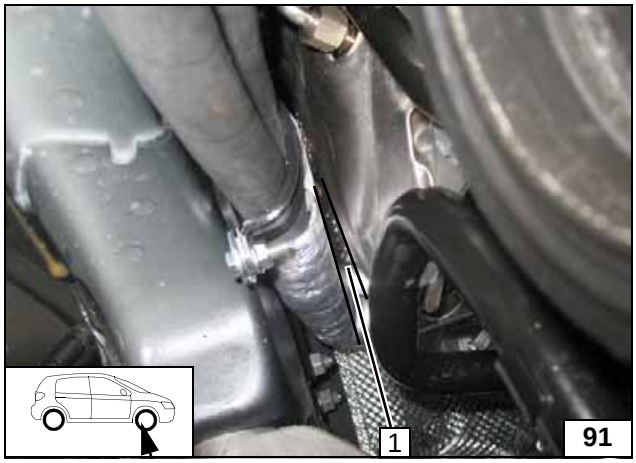
1 48 mm dia. rubber-coated p-clamp
2 M6x20 bolt, spring lockwasher

Fastening on firewall



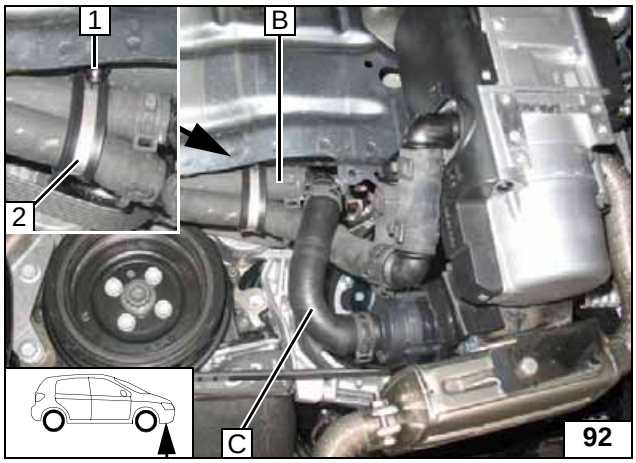
1 38mm dia. rubber-coated p-clamp
2 Perforated bracket
3 M6x20 bolt, flanged nut

Routing on frame side member



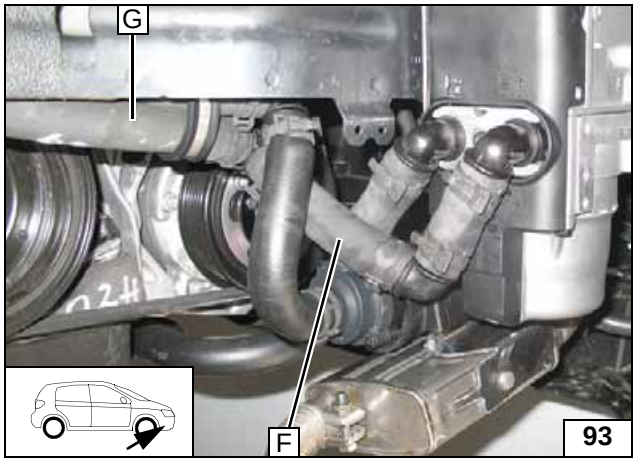
Align hoses. Ensure sufficient distance to catalytic converter at position **1**, correct if necessary.

Routing in engine compartment



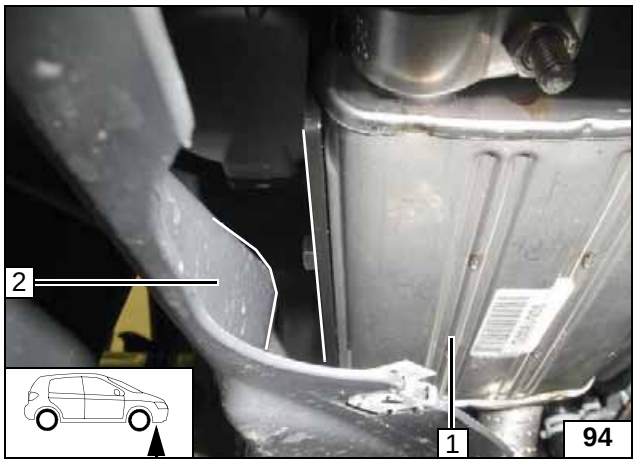
1 Original vehicle stud bolt, plastic nut
2 38mm dia. rubber-coated p-clamp

Connecting heater inlet



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

Connecting heater outlet

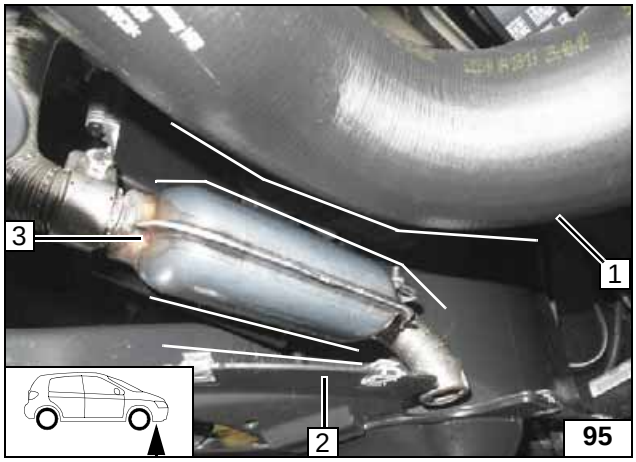


Final Work

1.2 TSI / 1.4 TSI / TDi

Ensure sufficient distance between wheel well trim **2** and silencer **1**, correct if necessary.

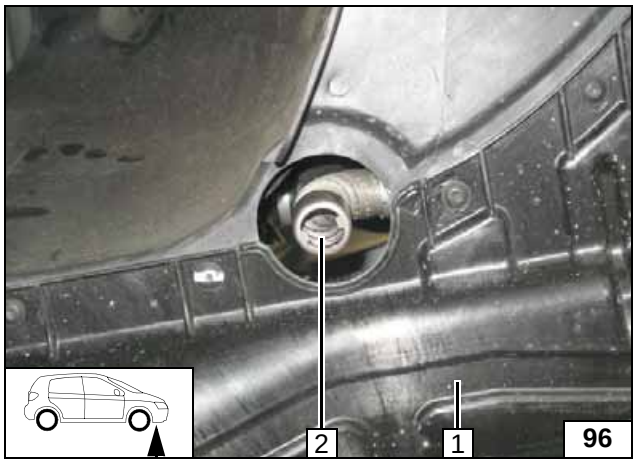
Aligning exhaust silencer



1.8 TSI

Ensure sufficient distance between exhaust silencer **3**, wheel-well inner panel **2** and charge-air hose **1**, correct if necessary.

Aligning exhaust silencer



All vehicles

Install underride protection and wheel-well inner panel!
Align exhaust end section **2** centred in pass through.

1 Underride protection installed

Aligning exhaust end section

WARNING!
Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate all loose wires and tie back.
Only use manufacturer-approved coolant. Spray heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

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

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

Operating Instructions for Climatic

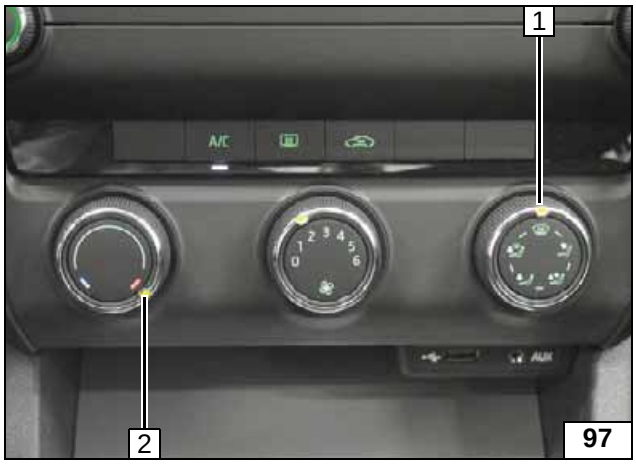
Please remove page and add to the vehicle operating instructions.

Note:
We recommend matching the heating time to the driving time.
Heating time = driving time
Example:
For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

Passenger compartment monitoring, if installed, must be deactivated in addition to the vehicle settings for the heating operation.
For information on deactivation, please see the vehicle owner's manual.

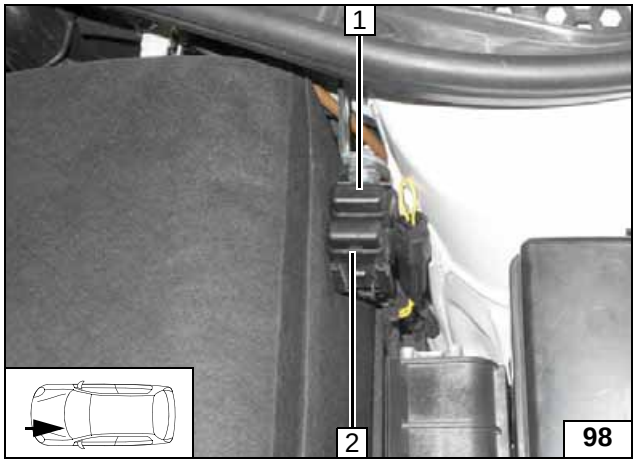
Before parking the vehicle, make the following settings:

A/C control panel



1 Direct air outlet towards windscreen
2 Set temperature to "max"

Engine compartment fuses



1 1A fuse F2 of passenger compartment
2 20A heater fuse F1

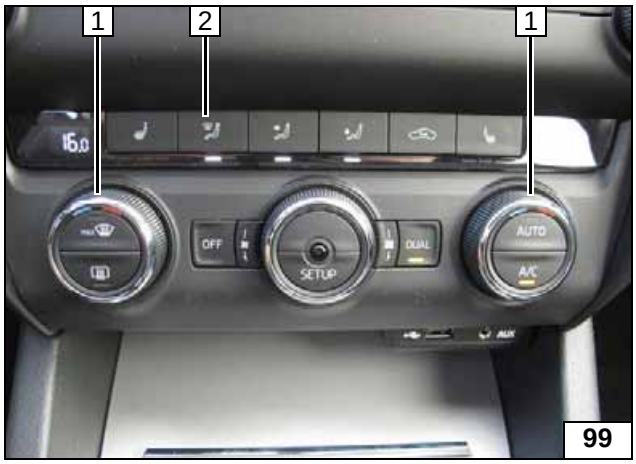
Operating Instructions for Climatronic

Please remove page and add to the vehicle operating instructions.

Note:
We recommend matching the heating time to the driving time.
Heating time = driving time
Example:
For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

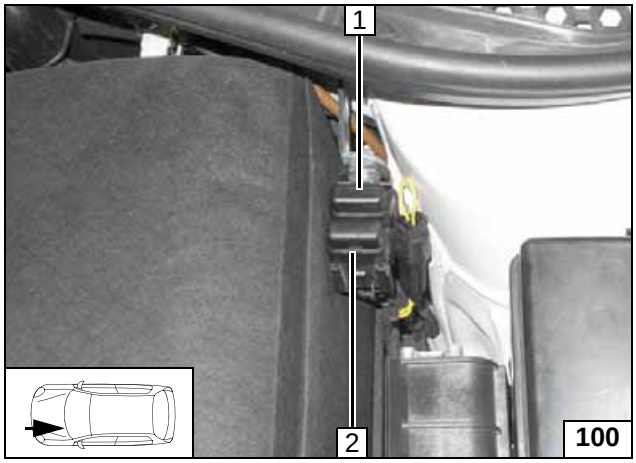
Passenger compartment monitoring, if installed, must be deactivated in addition to the vehicle settings for the heating operation.
For information on deactivation, please see the vehicle owner's manual.

Before parking the vehicle, make the following settings:



1 Set temperature on both sides to "HI".
2 Direct air outlet towards windscreen

A/C control panel



1 1A fuse F2 of passenger compartment
2 20A heater fuse F1

Engine compartment fuses