# Water heater

## Thermo Top Evo parking heater

E1
00 0258

# Installation documentation
# Skoda Octavia
# MQB

### Validity

| Manufacturer | Model | Type | Model year | EG BE No. / ABE |
|---|---|---|---|---|
| Skoda | Octavia III | 5E | From model year 2013 up to 2016 | e11 * 2007 / 46 * 0243 * ... |

| Motorisation | Fuel | Emission standard | Transmission type | Output in kW | Displacement in $cm^3$ | Engine code |
|---|---|---|---|---|---|---|
| 1.2 TSI | Petrol | Euro 6 | 5-speed SG | 63 | 1197 | CJZB |
| 1.2 TSI | Petrol | Euro 6 | 6-speed SG | 77 | 1197 | CJZA |
| 1.4 TSI | Petrol | Euro 5 | 6-speed SG | 103 | 1395 | CHPA |
| 1.4 TSI | Petrol | Euro 5 | DSG | 103 | 1395 | CPTA |
| 1.6 TDI | Diesel | Euro 5 | 5-speed SG | 77 | 1598 | CLHA |
| 1.6 TDI | Diesel | Euro 5 | DSG | 77 | 1598 | CLHA |
| 2.0 TDI | Diesel | Euro 5 | 6-speed SG | 110 | 1968 | CKFC |
| 2.0 TDI | Diesel | Euro 5 | DSG | 110 | 1968 | CKFC |
| 2.0 TDI | Diesel | Euro 6 | 6-speed SG | 135 | 1968 | CUPA |
| 2.0 TDI | Diesel | Euro 6 | DSG | 135 | 1968 | CUPA |

SG = manual transmission
DSG = direct gear transmission

**Left-hand drive vehicle**

**Verified equipment variants:** Climatic
Climatronic
Front fog lights
Start - Stop
Xenon / headlight washer system

**Not verified:** Passenger compartment monitoring
LED - Headlights
4WD

**Exclusion:** Heavy-duty running gear

**Total installation time:** approx. 7.5 hours

## Skoda Octavia

| Manufacturer | Model | Type | Model year | EG BE No. / ABE |
|---|---|---|---|---|
| Skoda | Octavia III | 5E | From 2017 | e11 * 2007 / 46 * 0243 * ... |

| Motorisation | Fuel | Emission standard | Transmission type | Output in kW | Displacement in cm³ | Engine code |
|---|---|---|---|---|---|---|
| 1.0 TSI | Petrol | Euro 6 | 6-speed DSG | 85 | 999 | CHZD |
| 1.4 TSI | Petrol | Euro 6 | 7-speed DSG | 110 | 1395 | CZDA |
| 1.8 TSI | Petrol | Euro 6 | 7-speed DSG | 132 | 1798 | CJSA |
| 1.6 TDI | Diesel | Euro 6 | 6-speed SG | 85 | 1598 | DDYA |
| 2.0 TDI | Diesel | Euro 6 | 6-speed SG | 110 | 1968 | CRMB |

SG = manual transmission
DSG = direct gear transmission

**Left-hand drive vehicle**

**Verified equipment variants:**
Climatic
Climatronic
Front fog lights
LED main headlights
Xenon / headlight washer system
Halogen headlights
LED daytime running lights
Static cornering light
Kessy (keyless access and Start - Stop button)
Start - Stop
2WD / 4WD

**Not verified:** Passenger compartment monitoring

**Exclusion:** Heavy-duty running gear

**Total installation time:** approx. 7.5 hours

## Skoda Octavia

## Table of contents



## Necessary components

| Description | Order No.: |
|---|---|
| Delivery scope of VW / Skoda / Seat MQB A/B model 2013 petrol | 1325108B |
| Delivery scope of VW / Skoda / Seat MQB A/B model 2013 diesel | 1325106B |
| In case of 1.8TSi petrol: Additional exhaust kit for Skoda Octavia 1.8 petrol | 1321303_ |
| Additional ‘Webasto Standard’ A/C control kit for VW / Skoda / Seat MQB Climatic and Climatronic A/C control<br>or<br>Additional ‘Webasto Comfort’ kit for VW / Skoda / Seat MQB Climatronic A/C control | 1325085_<br><br>1325012_ |
| In case of Telestart, control element, as well as indicator lamp in consultation with end customer | In accordance with price list |

## Webasto Individual Option

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

## Installation instructions

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

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

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

Ensure sufficient distance from original vehicle components when installing the premounted heater assembly, correct if necessary.

## 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 have to audibly click into place during installation.**

**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.

## Skoda Octavia

## Information on validity

This installation documentation applies to Skoda Octavia Petrol and diesel vehicle models - for validity, see pages 1 and 2 - 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 auto-tightening hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Hose clamping pliers
- 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
- Metric thread-setter kit
- Deep-hole marker
- Webasto Thermo Test Diagnosis with current software

**Dimensions**
- All dimensions are in mm.

**Tightening torque values**
- Tighten bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art-technology.

## Explanatory notes on document

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

**Mechanics** **Electrics** **Coolant circuit** **Combustion air** **Fuel** **Exhaust gas** **Software**

Special features are highlighted using the following symbols:

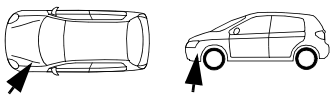
**Specific risk of damage to components.**

**Specific risk due to electrical voltage.**

**Specific risk of fire or explosion.**

**Reference to a special technical feature.**

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



**Reference to the manufacturer's vehicle-specific documents.**

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

**Reference to general installation instructions of Webasto components.**

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

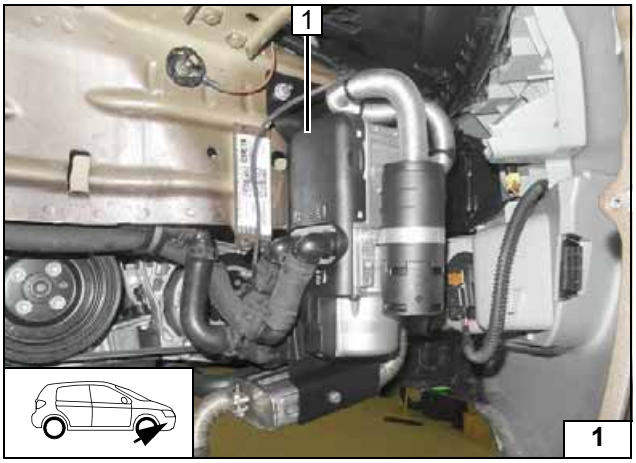
## Preliminary work

### 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 engine underride protection.
- Remove the right underride protection.
- Remove the fuel tank underride protection, if present.
- Remove the right front wheel.
- Remove the front right wheel well trim.
- Remove the lateral instrument panel trim on the driver's side.
- Remove the A-pillar trim on the driver's side (in case of Telestart).
- Remove the footwell trim on the front passenger's side.
- Remove the rear bench seat.
- Open the right-hand tank fitting service lid.

### 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.



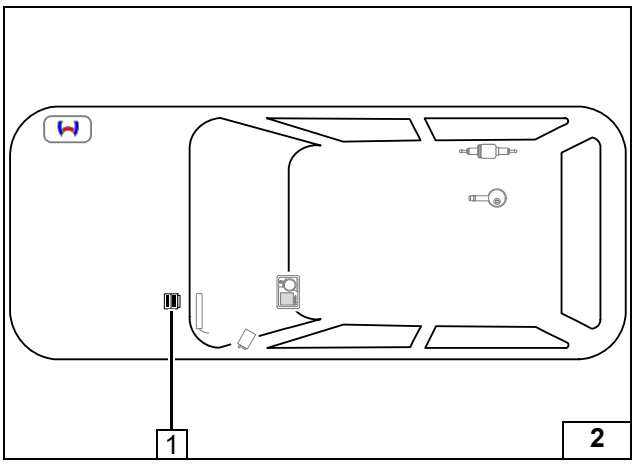

## Heater assembly installation location

**1** Heater assembly

**Installation location**

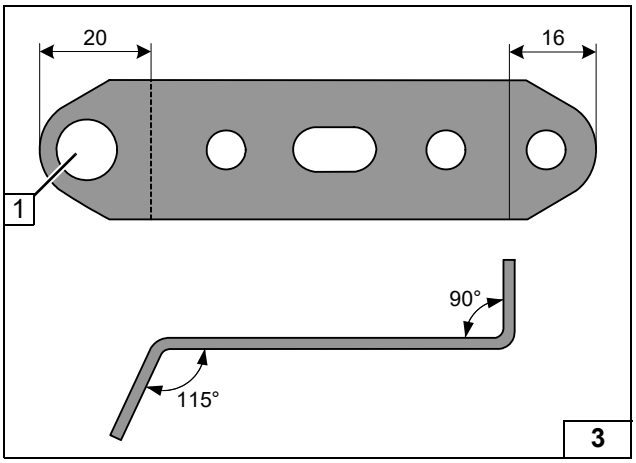
  

## Preparing electrical system



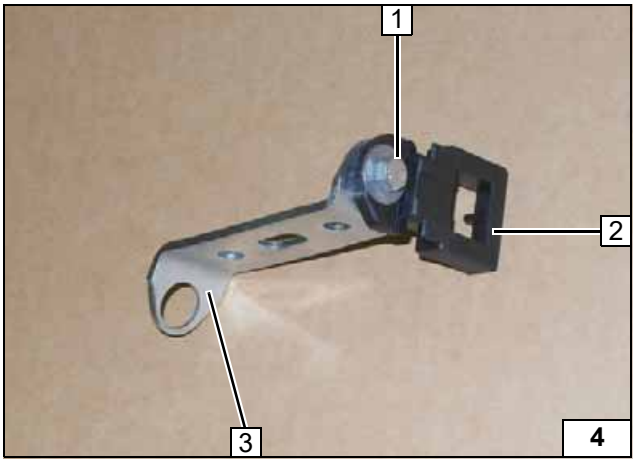

**1** Engine compartment fuse holder

Installation overview



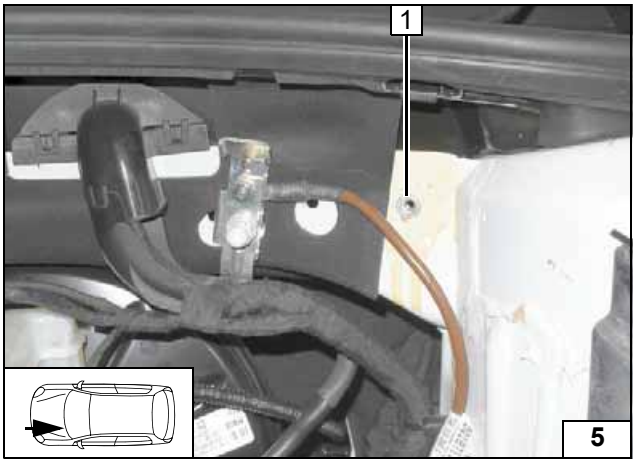

**1** Drill out hole to Ø12.5

Preparing perforated bracket




**1** M5x16 bolt, washer [2x], nut
**2** Fuse holder retaining plate
**3** Perforated bracket

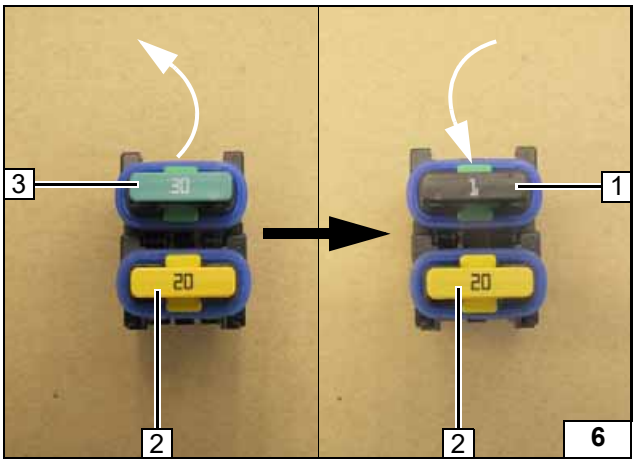
Premounting fuse holder engine compartment




**1** Drill out existing hole to Ø9, rivet nut

Installing rivet nut

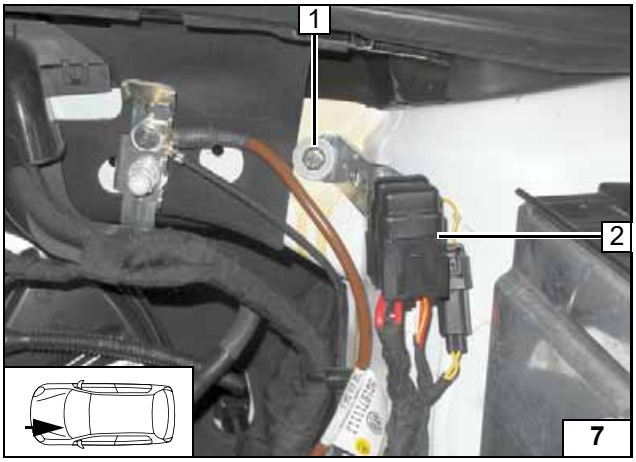
  




Replace 30A passenger compartment main fuse F2 **3** with 1A fuse **1**.

**2** 20A heater fuse F1

**Preparing engine compartment fuses**




**1** M6x20 bolt, spring lock washer, large diameter washer
**2** Fuses F1-2

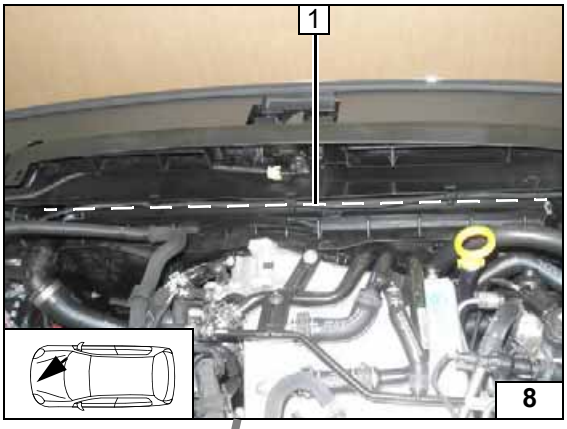
**Installing fuse holder of engine compartment**

## Electrical system

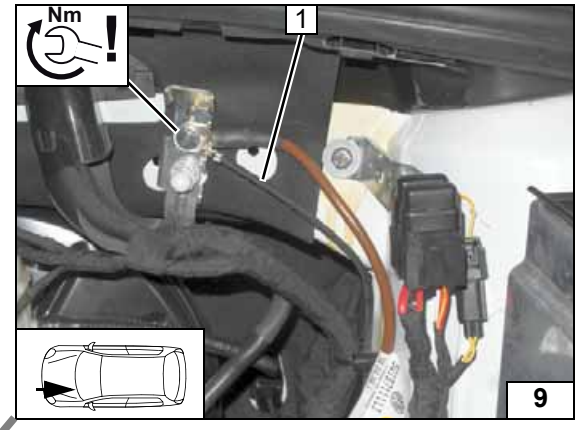
### Wiring harness routing

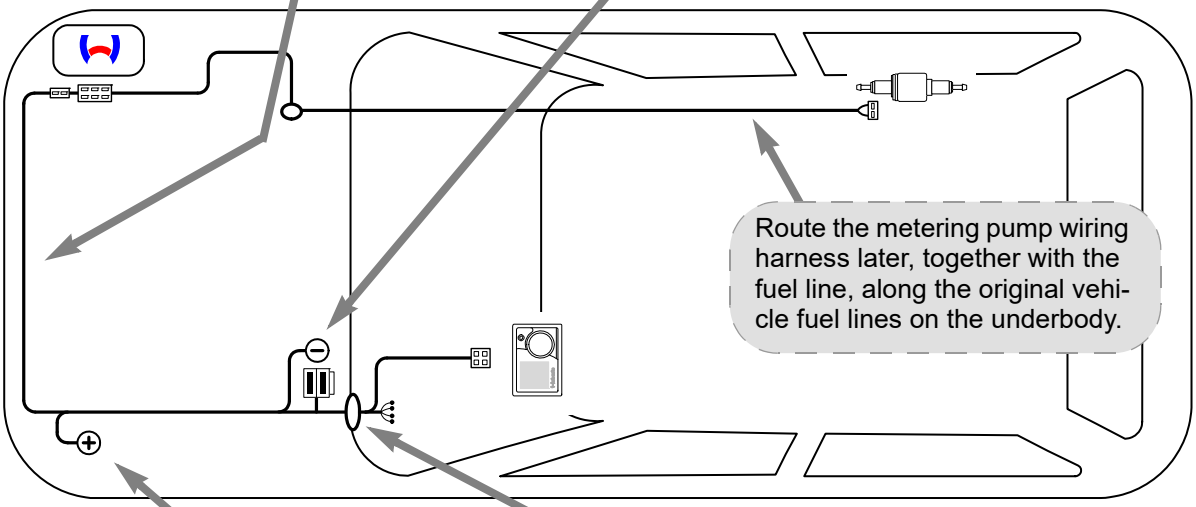
Route the heater wiring harness under the cover and at the marking to the installation location of the heater then fasten it using retaining clamp **1** [3x].



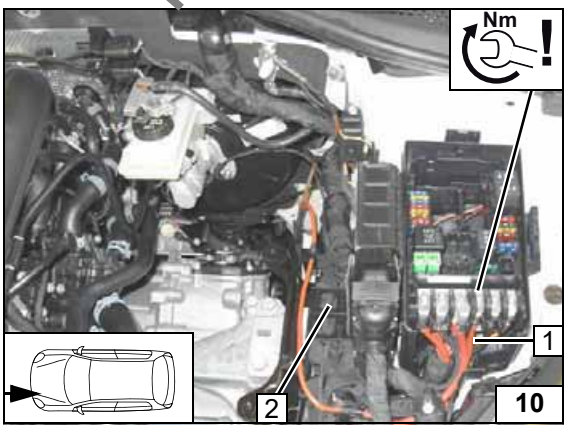

### Earth wire

**1** Earth wire on original vehicle earth support point



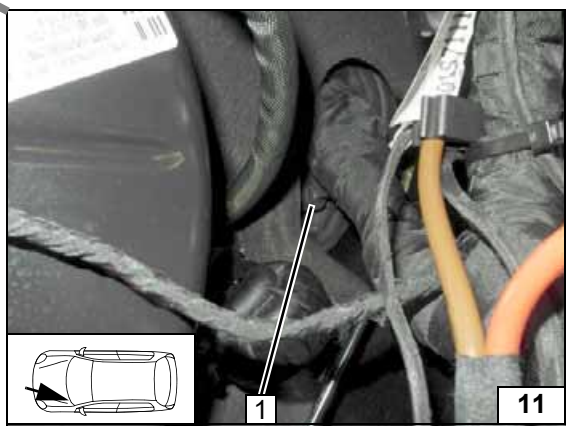




**Wiring harness routing diagram**




### Positive wire

**1** Positive wire on positive distributor
**2** Wiring harnesses in original vehicle line duct




### Wiring harness pass through

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

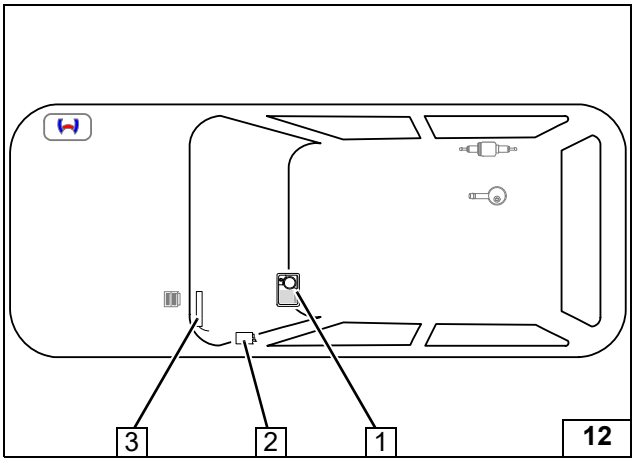
## Air-conditioning control

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

'**Webasto Standard**' A/C control installation documentation for VW / Skoda / Seat MQB Climatic and Climatronic

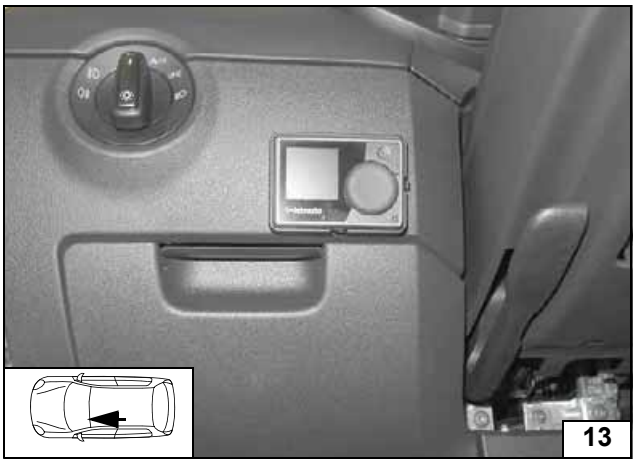
or

'**Webasto Comfort**' A/C control installation documentation for VW / Skoda / Seat MQB Climatronic

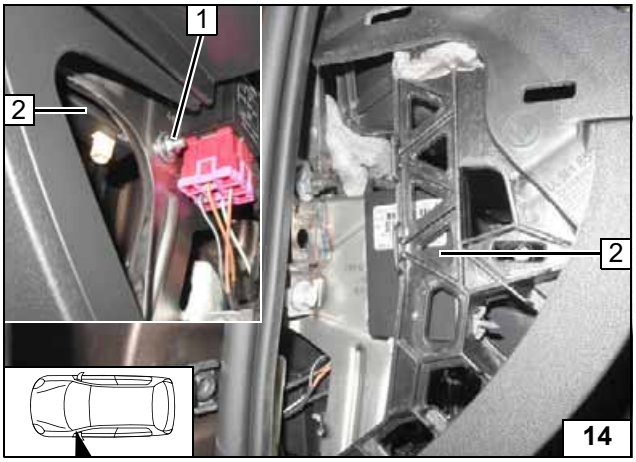



### Control elements

**1** MultiControl CAR
**2** Telestart / ThermoCall receiver
**3** Telestart / ThermoCall aerial




### MultiControl CAR option




### Remote option (Telestart)

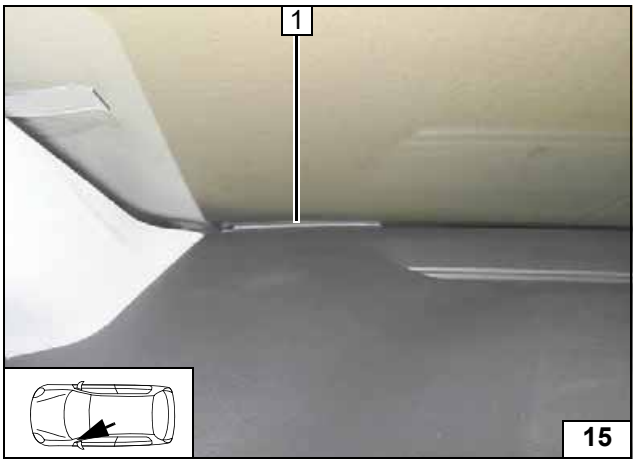
**1** M5x16 bolt, large diameter washer, nut, existing hole
**2** Receiver

**Installation overview**

**Installing MultiControl CAR**

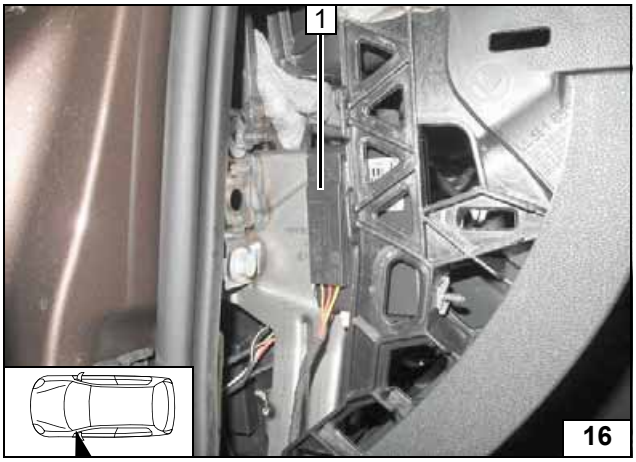
**Installing receiver**




**1** Aerial

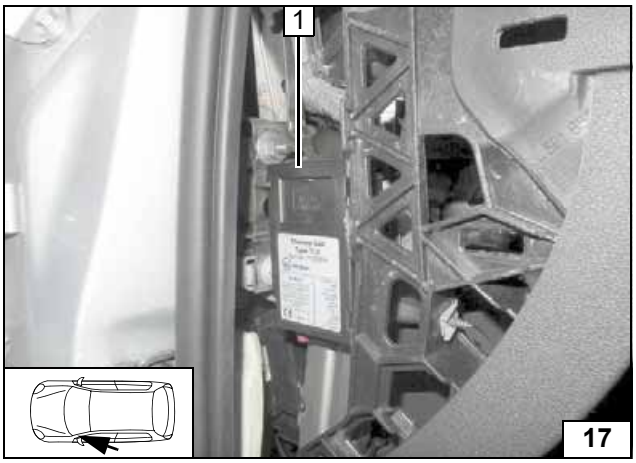
**Installing aerial**




**Temperature sensor T100 HTM**

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

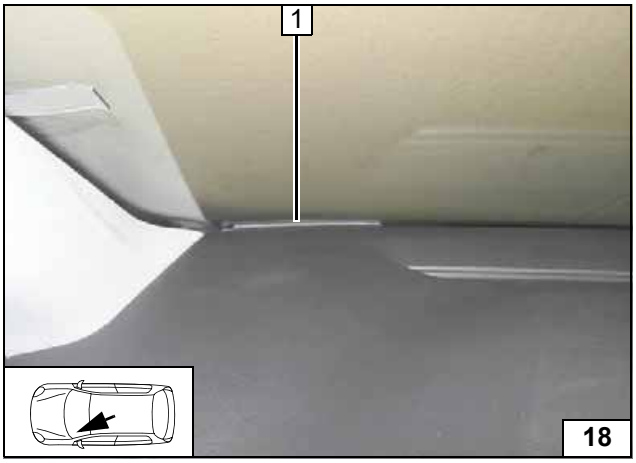
**Installing temperature sensor**




## ThermoCall option

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

**Installing receiver**

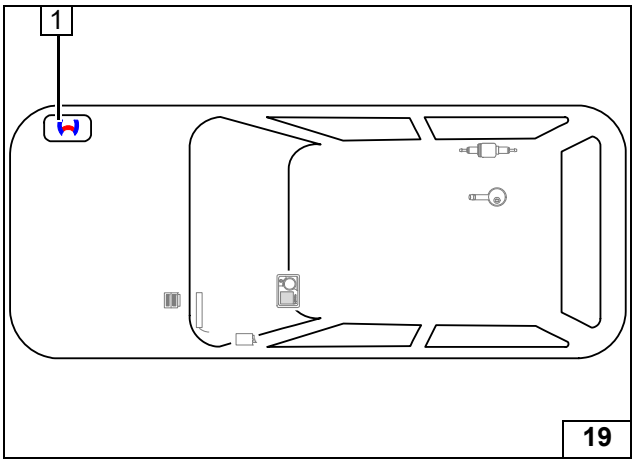



**1** Aerial (optional)

**Installing aerial**

## Preparing installation location



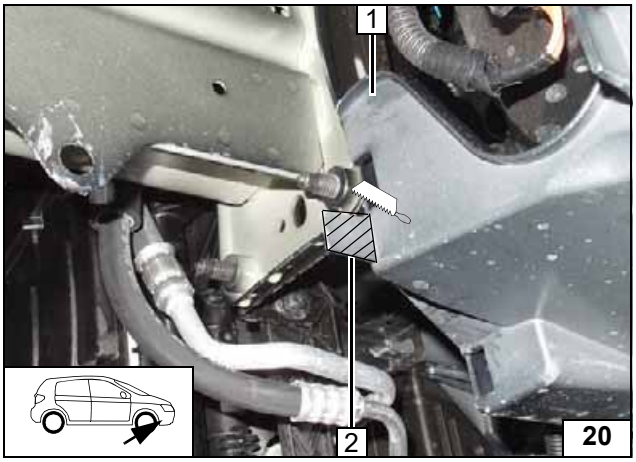

**1** Heater assembly

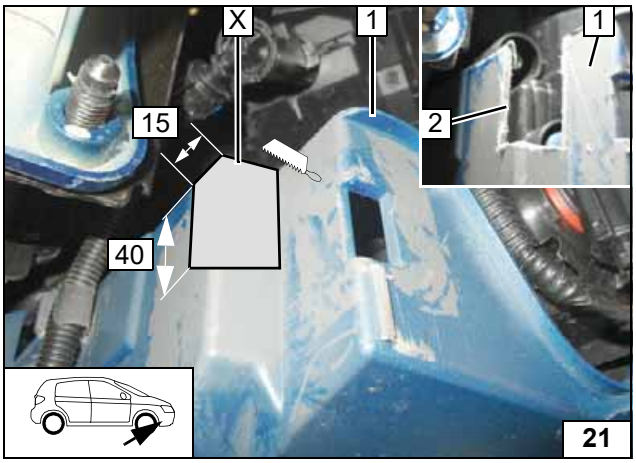
Installation overview

**Vehicles from model year 2017**

Cut off tab **2** of trim **1** as shown.

Cutting off tab

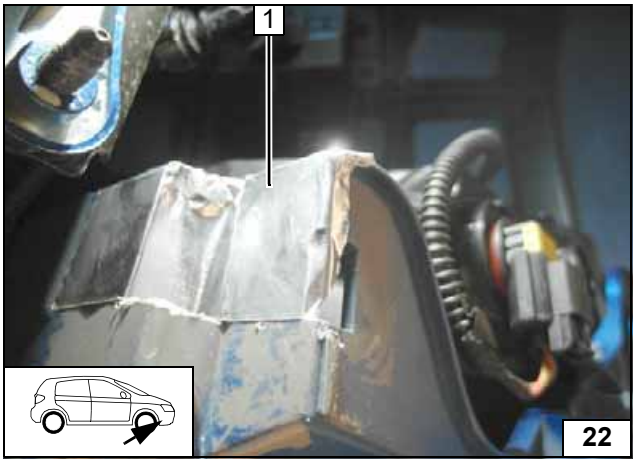



**1** Bumper
**2** Cutout

**X** =

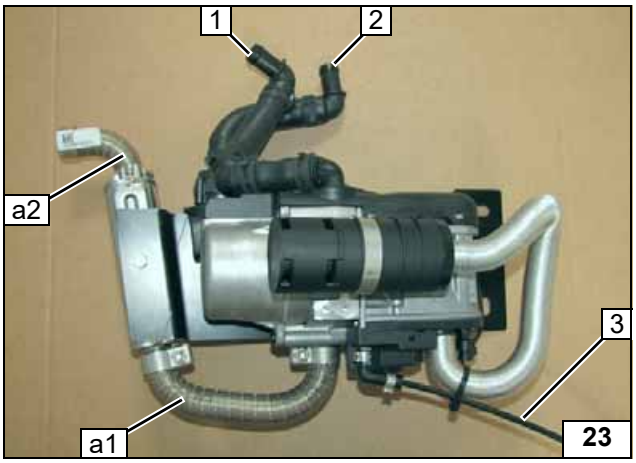
Cutting out bumper




**1** Heat protection film

Sticking on heat protection film

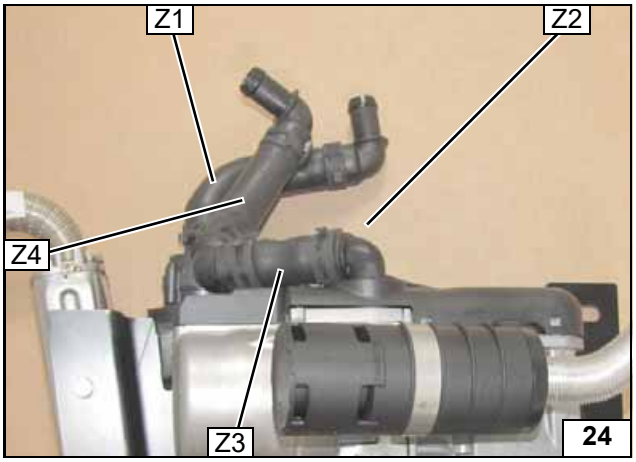
  




## Installing heater assembly

**1** Connection of heater outlet
**2** Connection of heater inlet
**3** Fuel line
**a1** Exhaust pipe
**a2** Exhaust pipe

**Heater assembly**



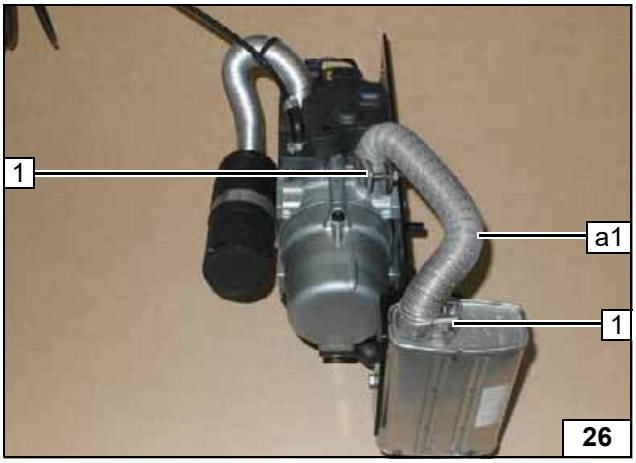

**Z1** Hose section of circulating pump inlet
**Z2** Hose section of circulating pump outlet/heater inlet (covered)
**Z3** Hose section of heater outlet
**Z4** Hose section on hose **Z3** (heater outlet)

**View of heater hoses assembly**


**Except for 1.8 petrol**

**1** Detach hose clamp [2x], will be reused

**Removing exhaust pipe a1**

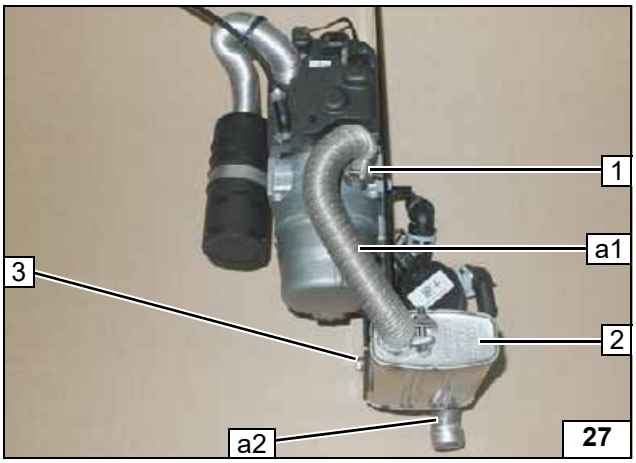



Install exhaust pipe **a1** turned by 180°.

**1** Hose clamp [2x]

**Installing exhaust pipe a1**

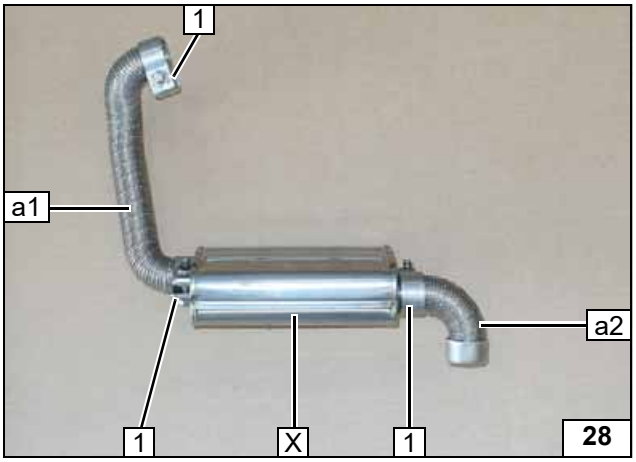



**1.8 petrol only**

Detach hose clamp **1** and bolt **3**, will be re-used.

**2** Silencer

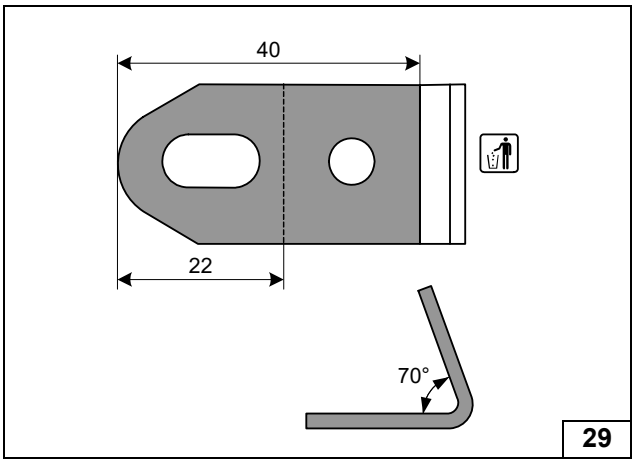
**Dismantling exhaust silencer, exhaust pipes a1 and a2**



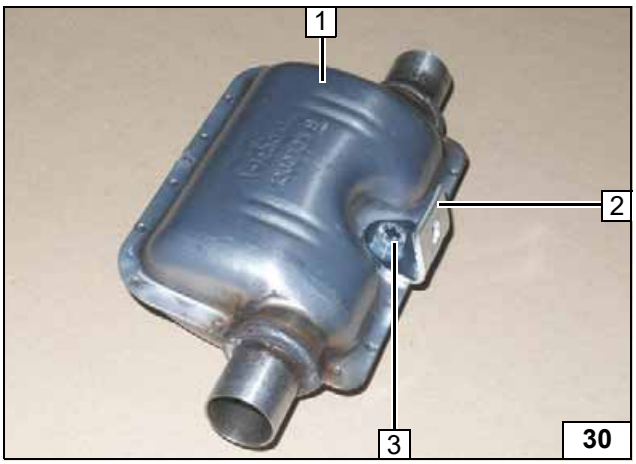

Exhaust pipes **a1**, **a2** and hose clamp **1** [3x] will be reused.

**X** =

**Dismantling exhaust pipes a1 and a2**



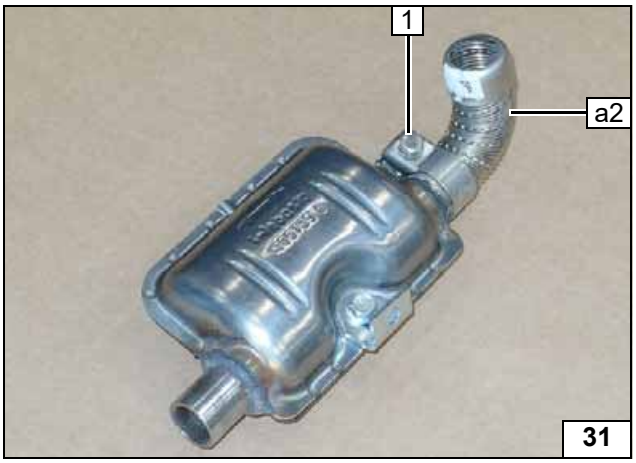

**Preparing angle bracket**




**1** New silencer
**2** Angle bracket
**3** M6x16 bolt, flanged nut

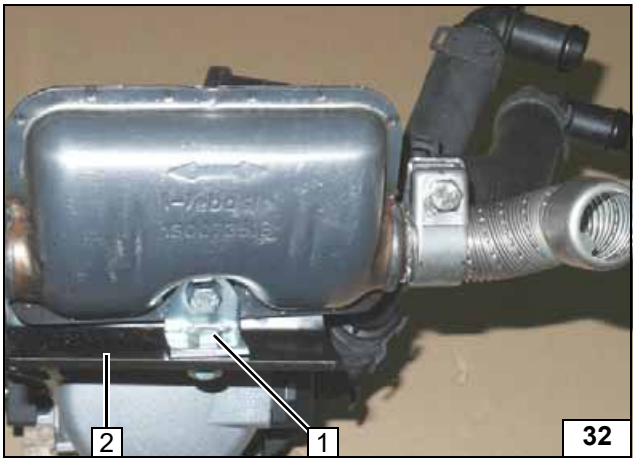
**Installing angle bracket**



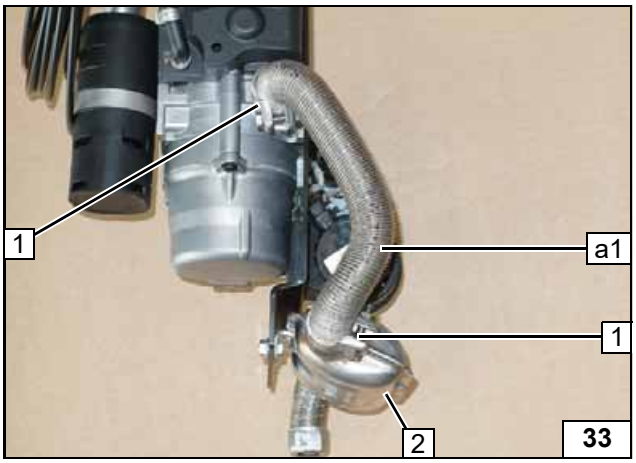

**1** Hose clamp

**Installing exhaust pipe a2**




**1** M6x12 bolt, flanged nut
**2** Bracket of heater

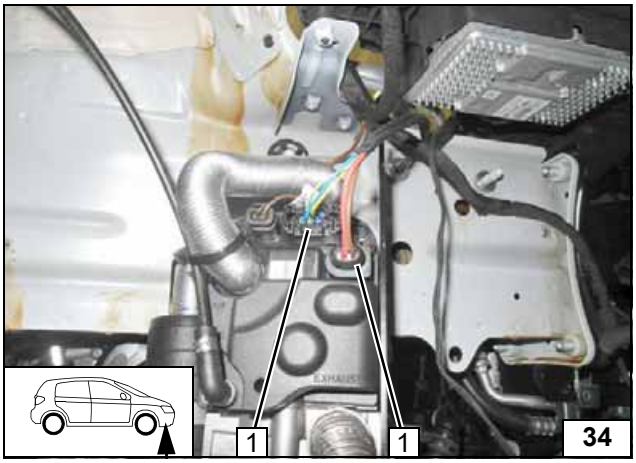
**Installing silencer**




Reinstall exhaust pipe **a1** turned by 180°.

**1** Hose clamp [2x]
**2** Exhaust silencer

**Installing exhaust pipe a1**

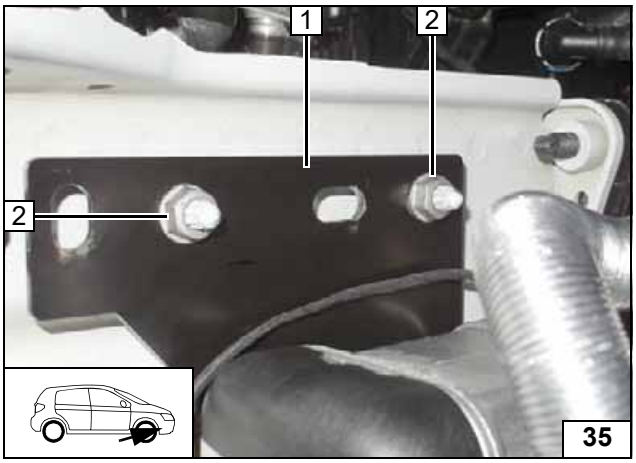



**All vehicles**

**1** Heater wiring harness connector [2x]

**Installing wiring harness**




**Vehicles up to model year 2016**

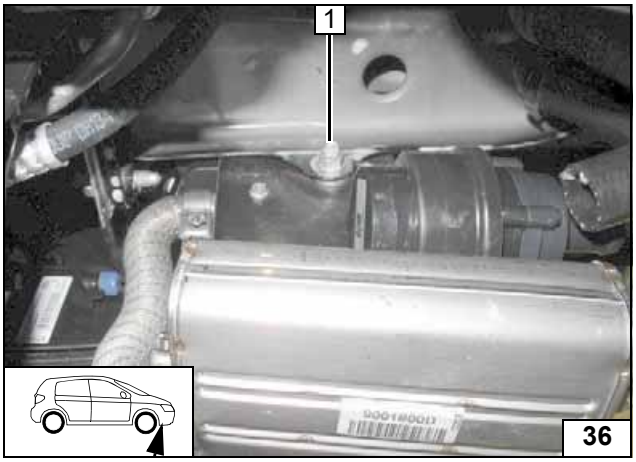
Insert one spacer each between bracket **1** and frame side member at position **2** [2x].

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

**Vehicles from model year 2017**

**2** Original vehicle stud bolt, M8 flanged nut [2x each]

**Installing heater**

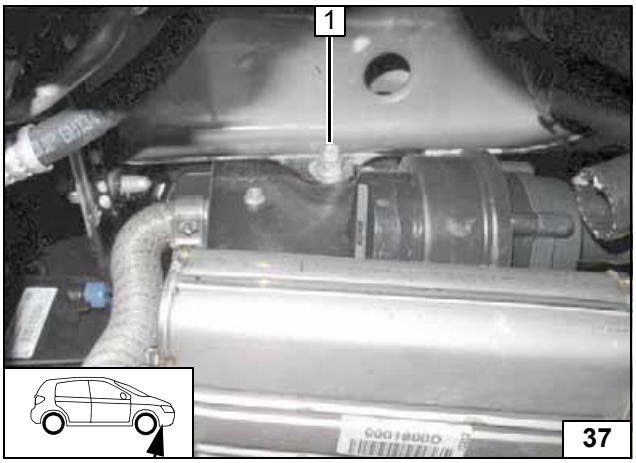



**Vehicles up to model year 2016**

Insert one 5mm spacer between bracket and frame side member at position **1**.

**1** Stud bolt of bracket, large diameter washer, 5mm spacer, M8 flanged nut

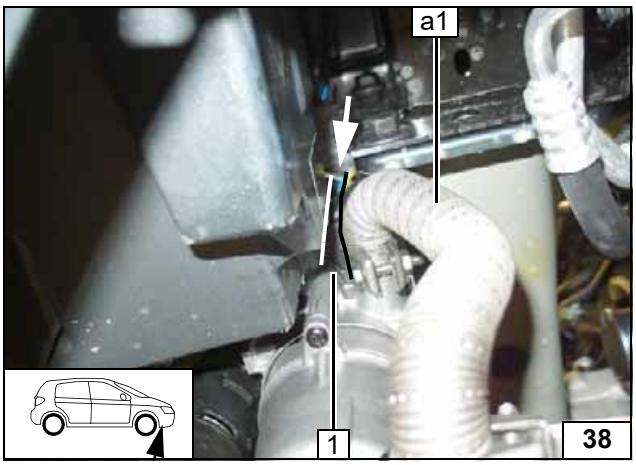
**Installing heater**




**Vehicles from model year 2017**

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

**Installing heater**




Ensure sufficient distance between exhaust pipe **a1** and front fog lights trim at position **1**, correct if necessary.

≥ 10mm

**Aligning exhaust pipe**

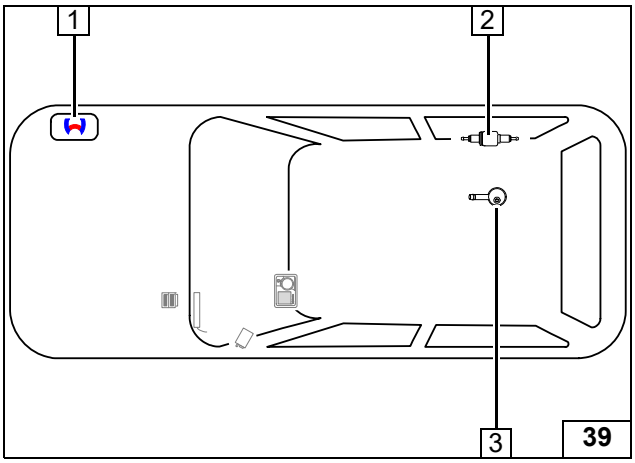
## Fuel

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

Catch any fuel running off in an appropriate container.

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

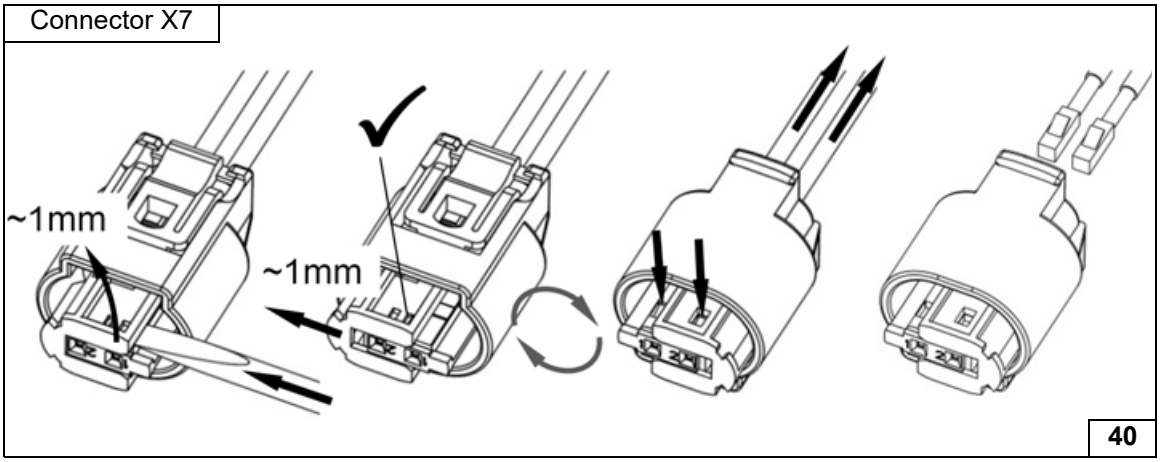
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



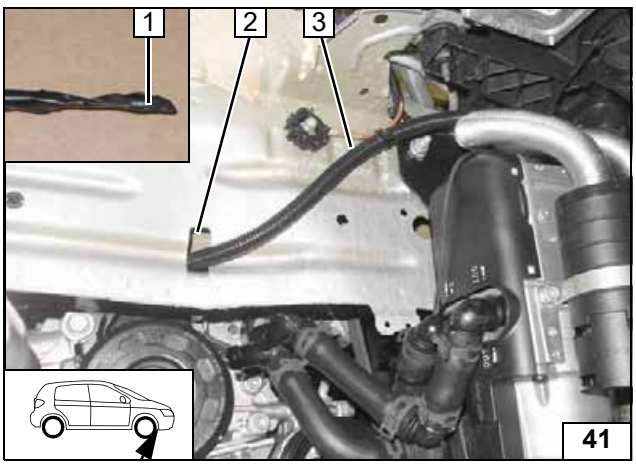

**All vehicles**

**1** Heater assembly
**2** Metering pump
**3** FuelFix

**Installation overview**



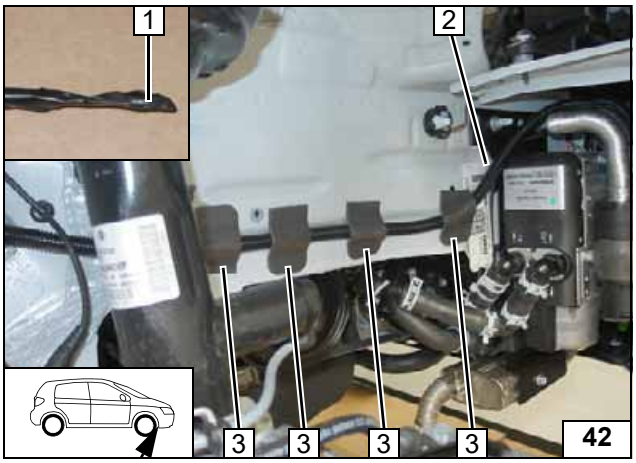

**Dismantling metering pump connector**




**Vehicles up to model year 2016**

Close the opening in fuel line **1** with insulating tape.
Pull fuel line and wiring harness of metering pump into Ø10 corrugated tube **3** and through original vehicle pass through **2** to the underbody.

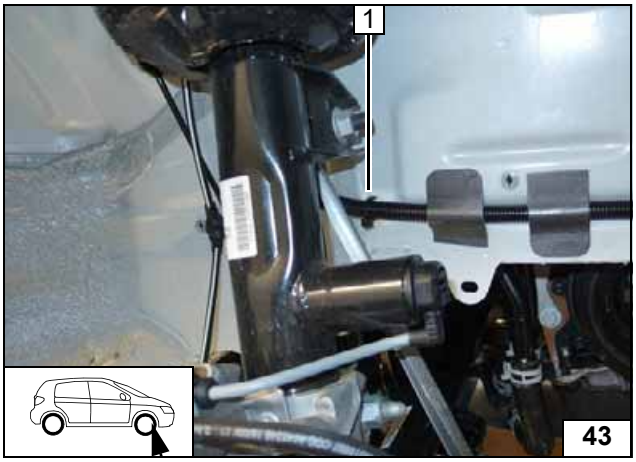
**Routing lines**




**Vehicles from model year 2017**

Close the opening in fuel line **1** with insulating tape.
After degreasing the bonding surface at position **3** [4x] draw fuel line and metering pump wiring harness into Ø10 corrugated tube (900 long) **2**, route in wheel well as shown and secure using self-adhesive foam [4x] **3**.

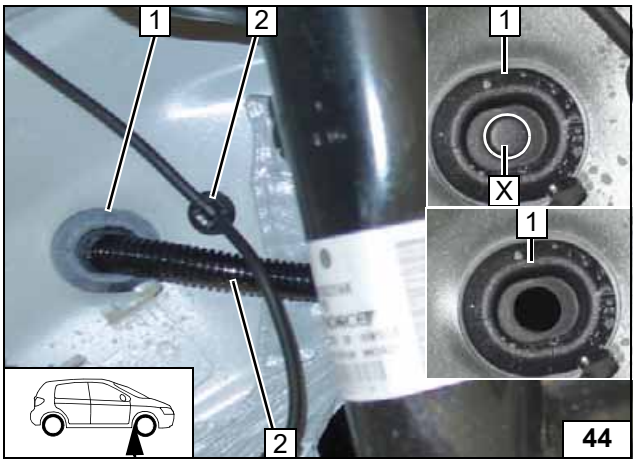
**Routing lines**




Degrease bonding surface at position **1**.

**1** Self-adhesive socket with cable tie

**Preparing installation location of metering pump**

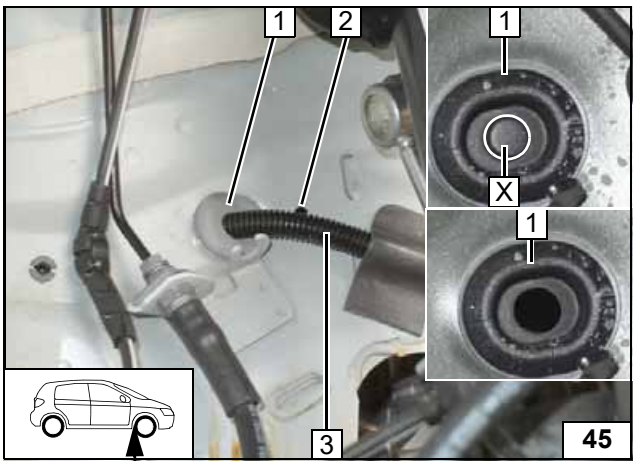



**Vehicles with clip at position 2**

Open original vehicle pass through **1** as shown, draw in corrugated tube with fuel line and metering pump wiring harness **2**.

**X=**

**Routing corrugated tube through original vehicle pass through**

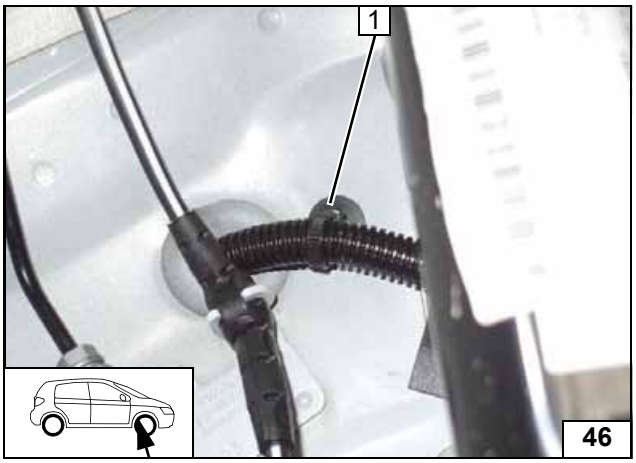



**Vehicles without clip at position 2**

Open original vehicle pass through **1** as shown, draw in corrugated tube with fuel line and metering pump wiring harness **3**.

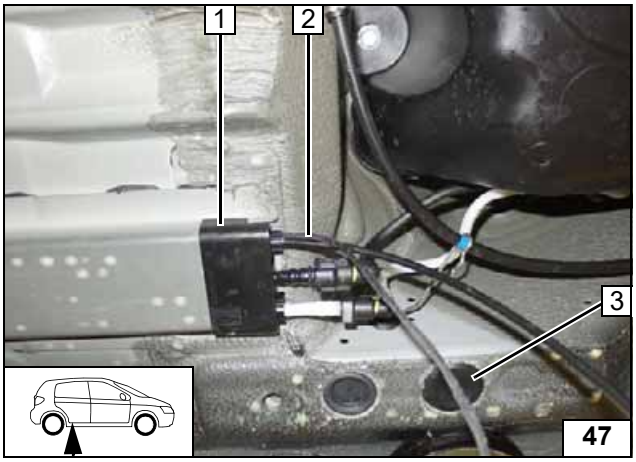
**X=**

**Routing corrugated tube through original vehicle pass through**




**1** Original vehicle hole, eyelet cable tie

**Securing corrugated tube**

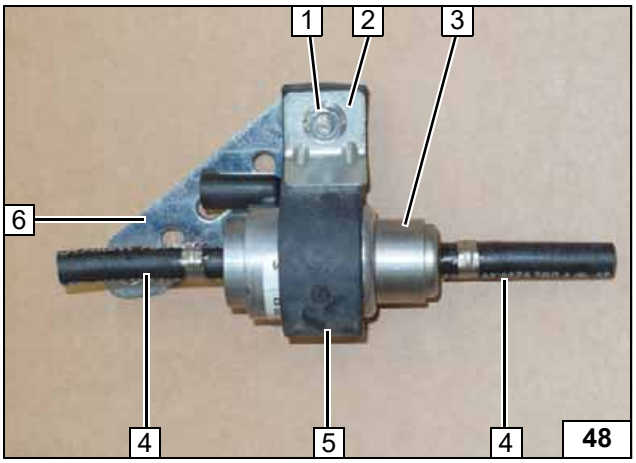



**All vehicles**

**Version 1**
(Vehicles with mechanical handbrake)

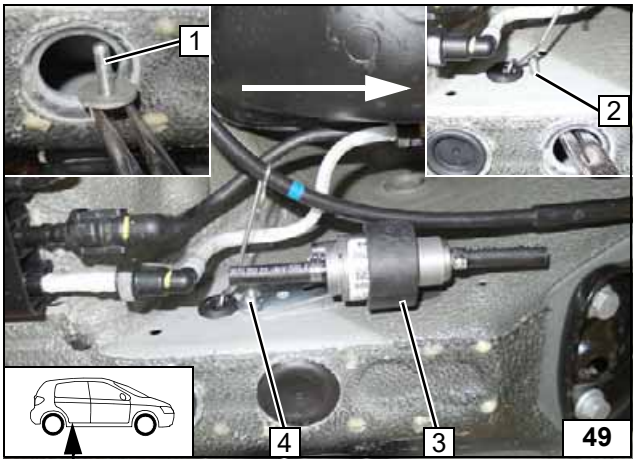
**1** Original vehicle pass through
**2** Fuel line and metering pump wiring harness
**3** Remove plug (will be reused)

**Routing lines**




**1** M6x25 bolt, flanged nut
**2** Support angle bracket
**3** Metering pump
**4** Hose section, Ø10 clamp [2 each]
**5** Metering pump mount
**6** Perforated bracket

**Premounting metering pump**



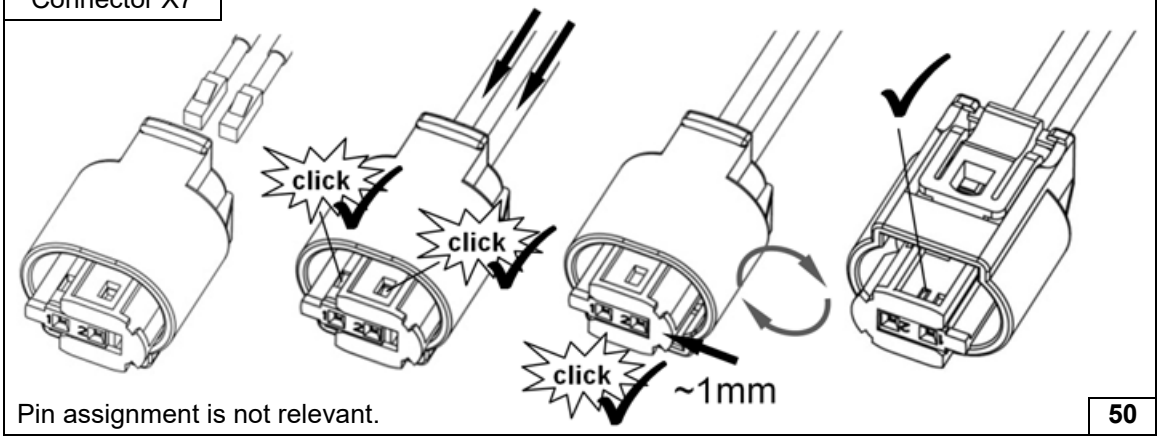

Position M6x20 bolt with large diameter washer **1**
as shown at original vehicle hole **2**.

**3** Premounted metering pump
**4** M6 flanged nut

**Installing metering pump**

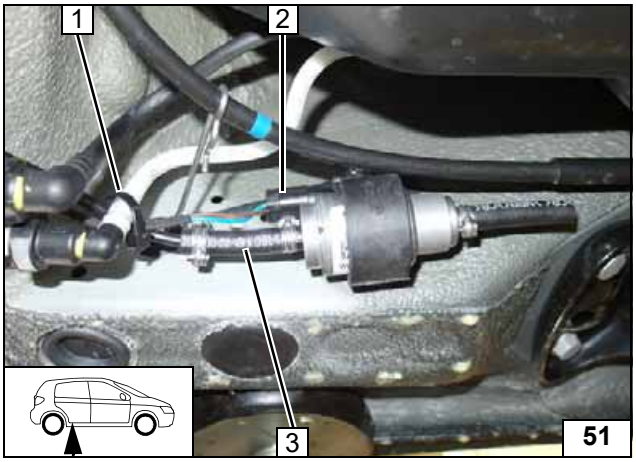
Connector X7




Pin assignment is not relevant.

50

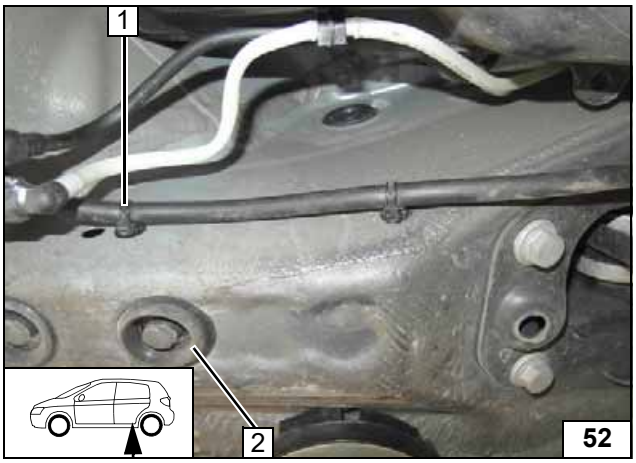
**Completing metering pump connector**




51

**1** Cable tie
**2** Metering pump wiring harness, connector X7 mounted
**3** Fuel line of heater, hose section, Ø10 clamp [2x]

**Connecting metering pump**

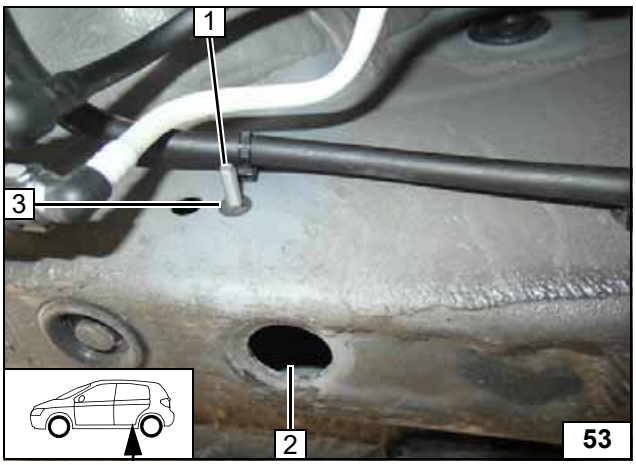



52

**Version 2**
(Vehicles with electrical handbrake)

**1** Remove retaining clip from hole (if present)
**2** Remove cover cap (will be re-inserted later)

**Preparing installation location of metering pump**



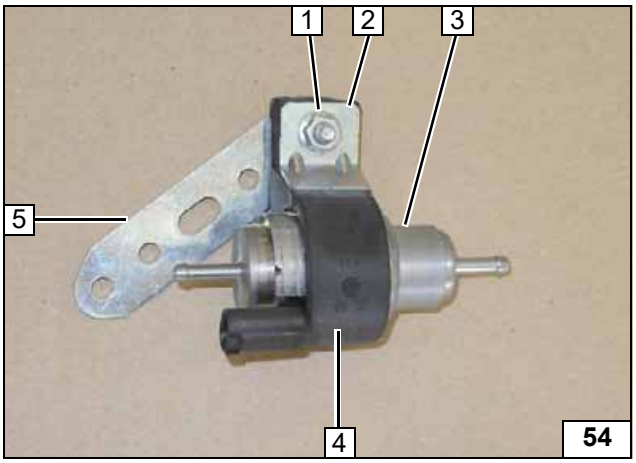

53

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

**3** Lock washer

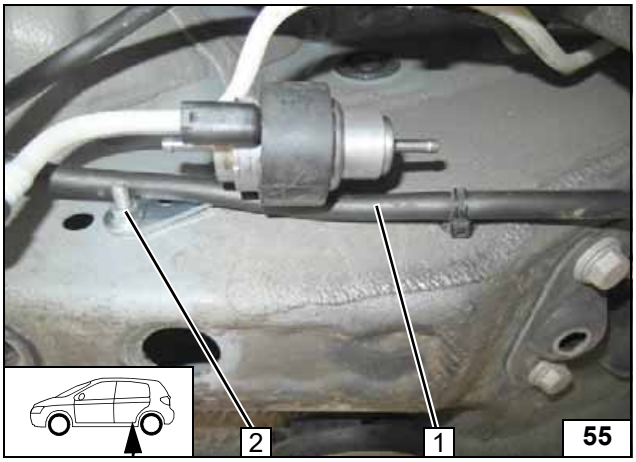
**Preparing installation location of metering pump**




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

**Premounting metering pump**

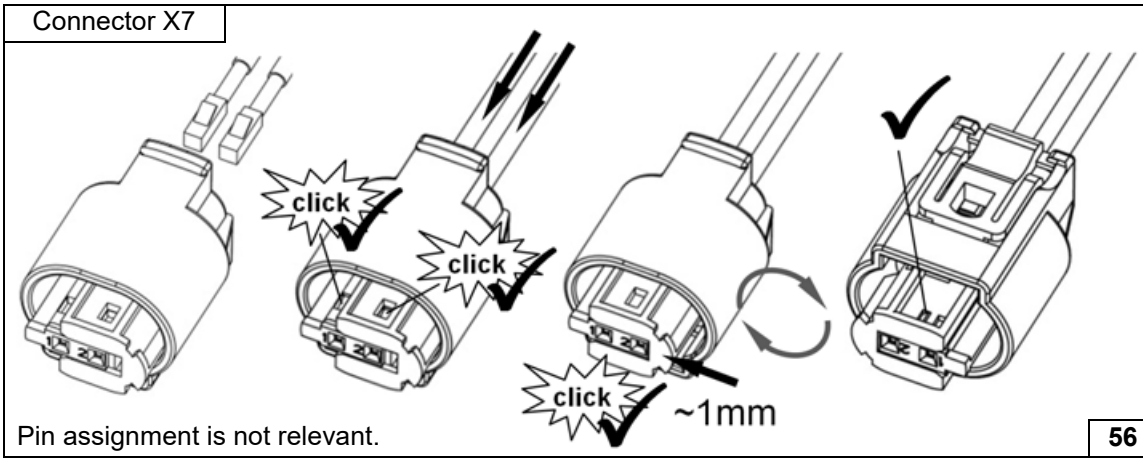



Reroute original vehicle wiring harness **1** as shown.

**2** M6 flanged nut

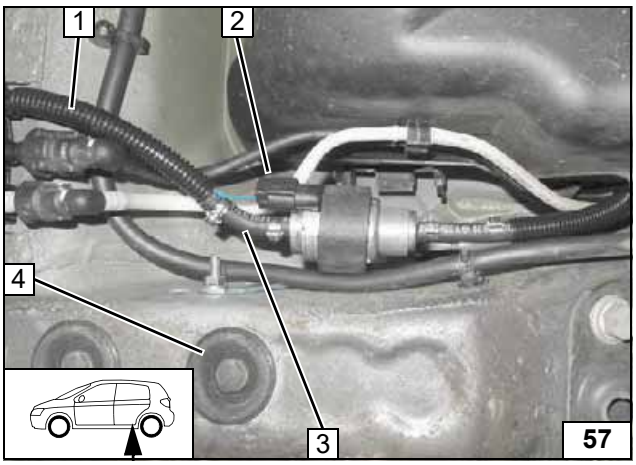
**Installing metering pump**

Connector X7




Pin assignment is not relevant.

**Completing metering pump connector**



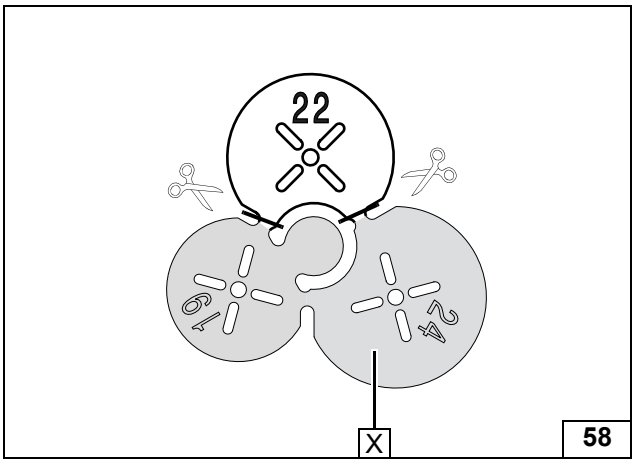

Shorten Ø10 corrugated tube by 130mm. Pull fuel line and wiring harness of metering pump into 130 long corrugated tube **1**.

**2** Metering pump wiring harness, connector X7 mounted
**3** Fuel line of heater, hose section, Ø10 clamp [2x]
**4** Cover cap inserted

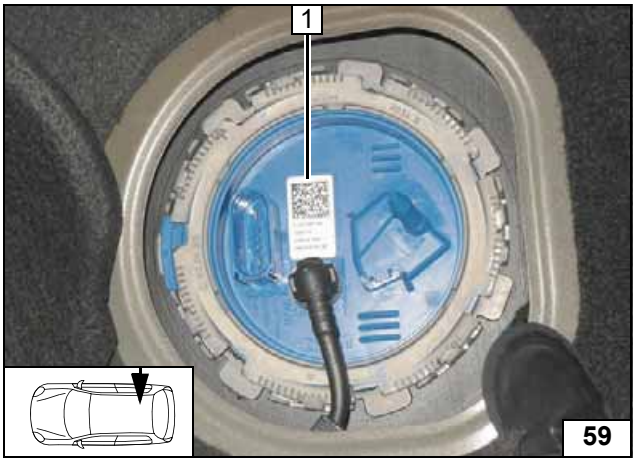
**Connecting metering pump**

## Installing FuelFix for TSI

X =



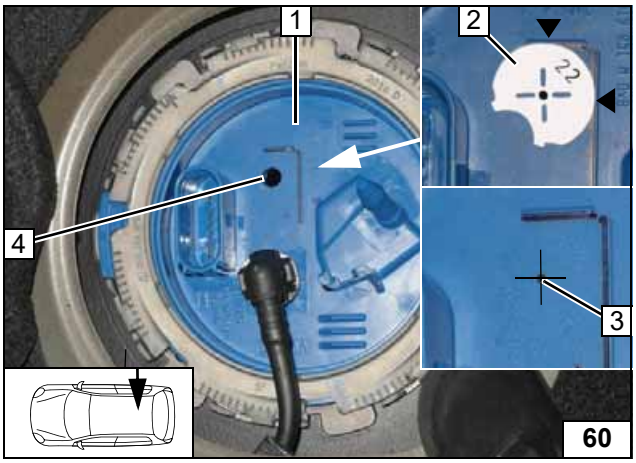

**Preparing drilling template**




Work step F1.

Detach sticker **1**, will finally be applied again in a new position.

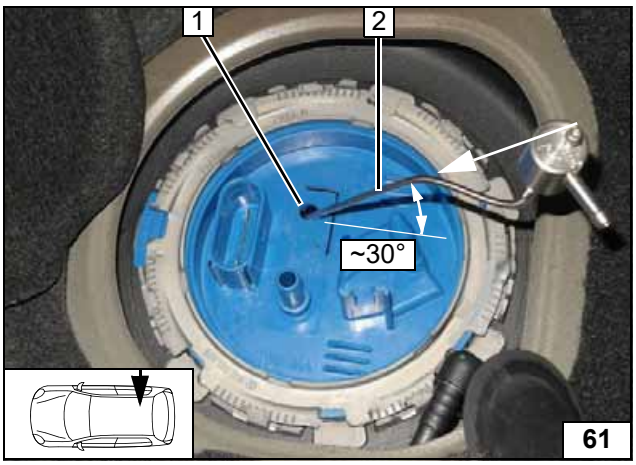
**Moving sticker**




Work steps F2 and F3.

**1** Tank fitting
**2** Position template with outer Ø $d_a$ = 22 at the marking.
**3** Hole pattern
**4** Hole made with provided drill

**Copying hole pattern, drilling hole**

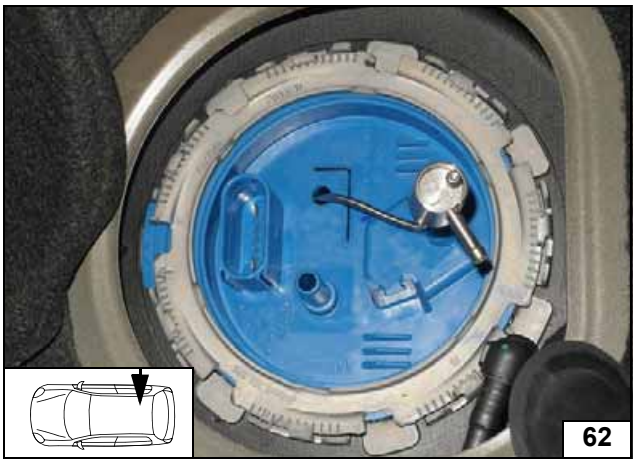



Work steps F4 and F5.

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

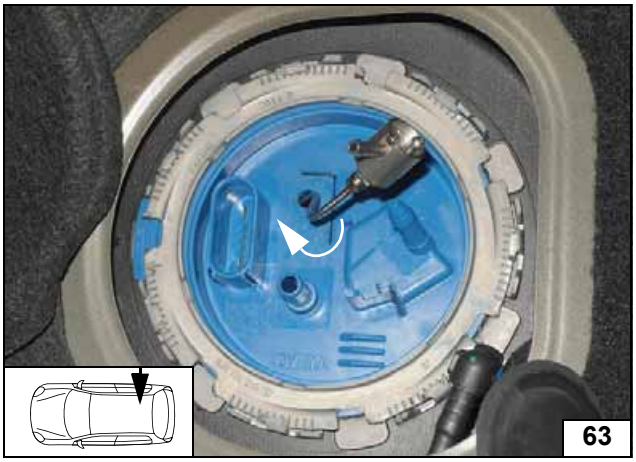
**Inserting FuelFix**

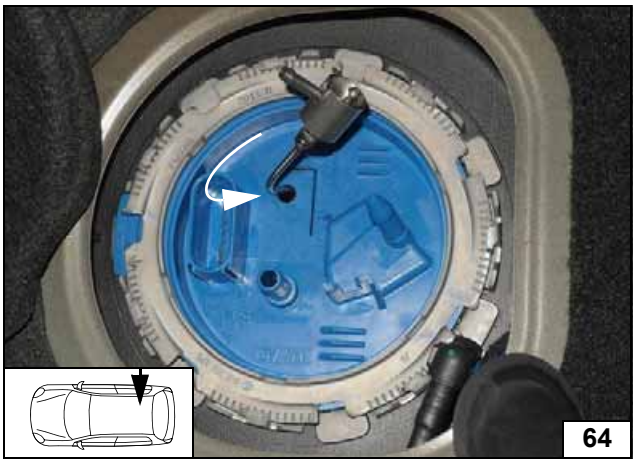



Work step F5.

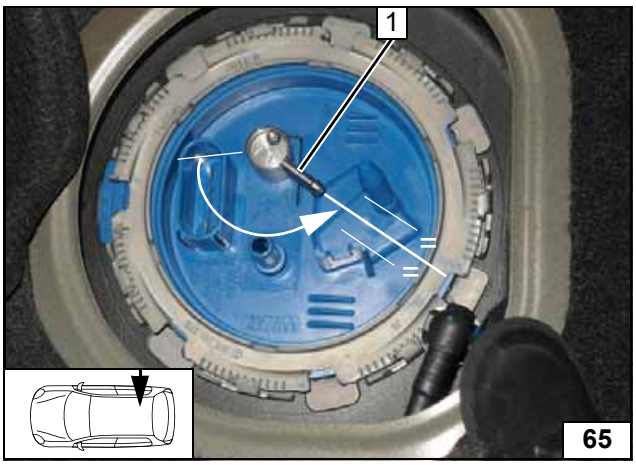
**Inserting FuelFix**




**Inserting FuelFix**




**Inserting FuelFix**

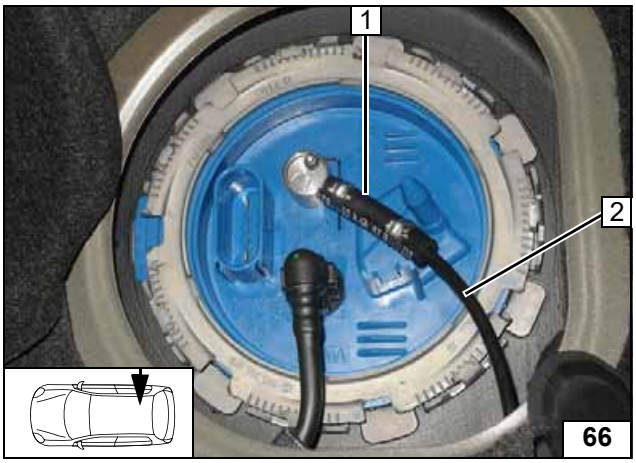



Work steps F5.3 and F5.4.

Align FuelFix **1** as shown.

**Inserting FuelFix**

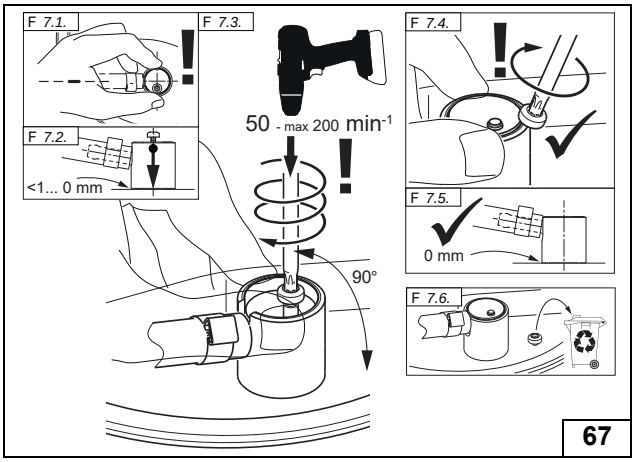
  




Work step F6.

**1** Hose section, Ø10 clamp [2x]
**2** Fuel line

**Connecting fuel line**

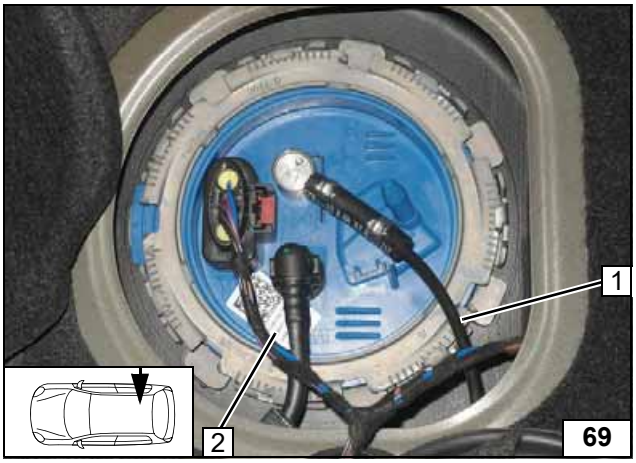



Work step F7.

**Installing FuelFix**


Work step F8.

**Ensuring firm seating of FuelFix**




Attach fuel line **1** for tension relief at an appropriate place with a cable tie.

**2** Move sticker

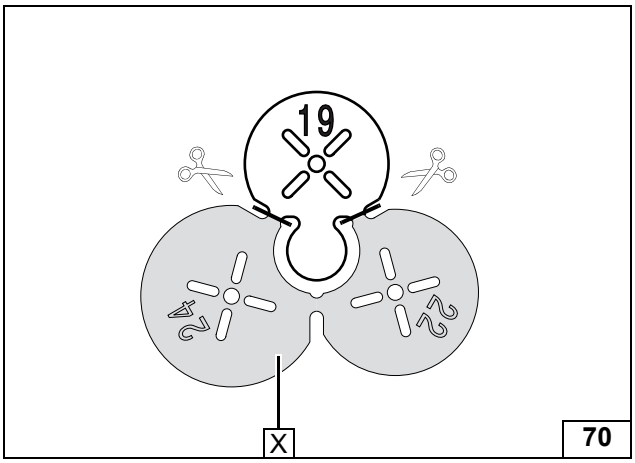
**Securing fuel line**

## Installing FuelFix for TDI

X= 

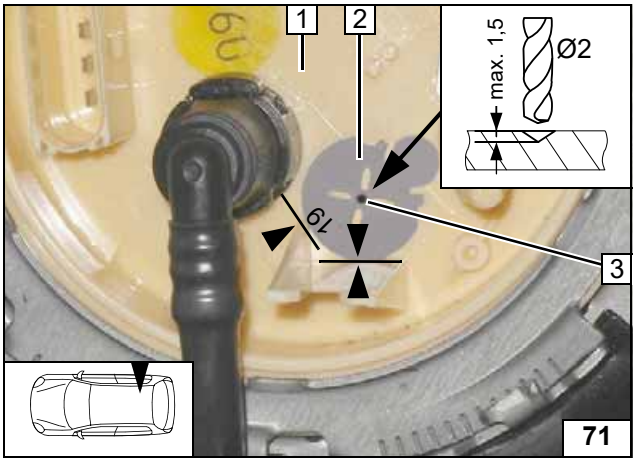
**Preparing drilling template**




Work steps F1 and F2.

**1** Tank fitting
**2** Position Ø19 drilling template as shown
**3** Ø2 centring hole

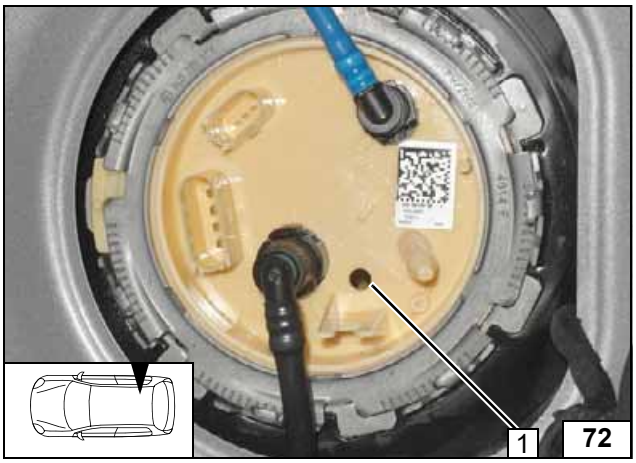
**Copying hole pattern**




Work step F3.

**1** Hole made with provided drill

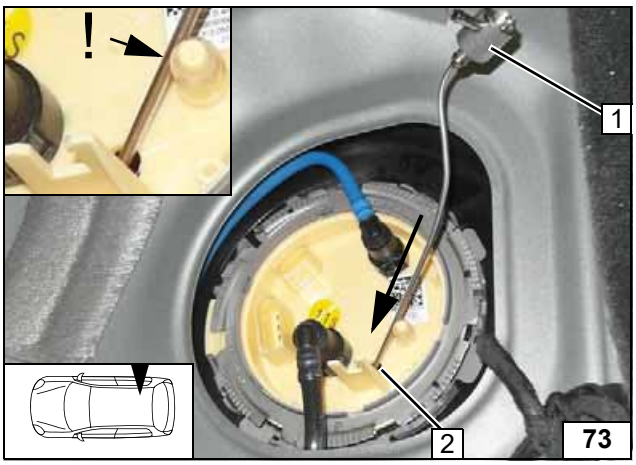
**Hole for FuelFix**




Work steps F4 and F5.

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

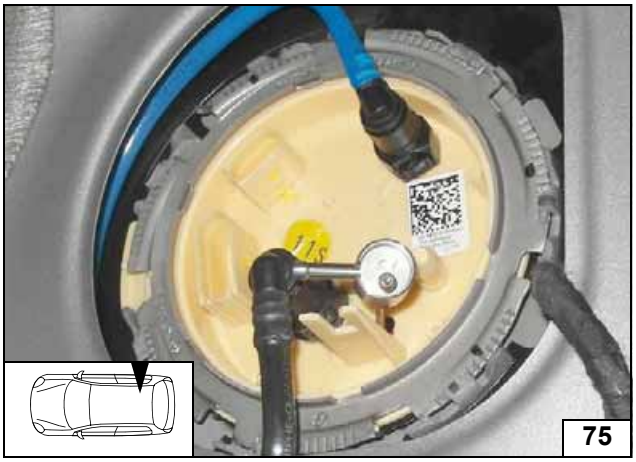
**Inserting FuelFix**



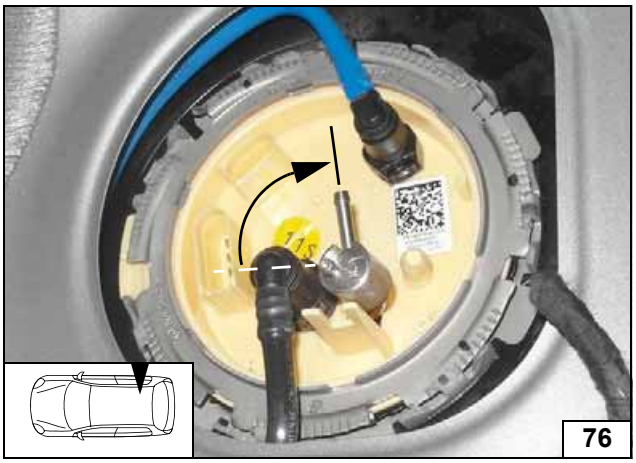

  


Work step F5.

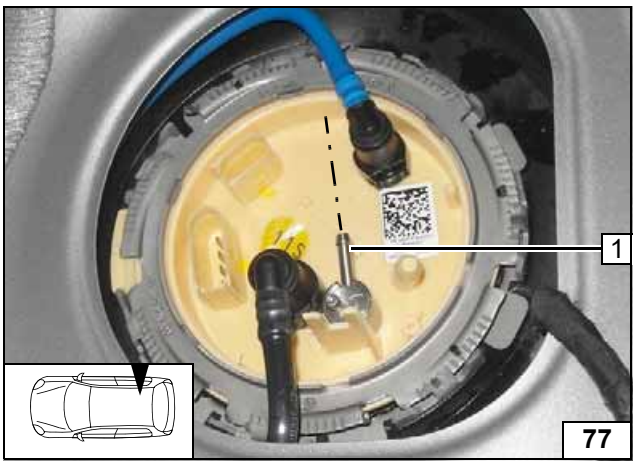
**Inserting FuelFix**




**Inserting FuelFix**




**Inserting FuelFix**

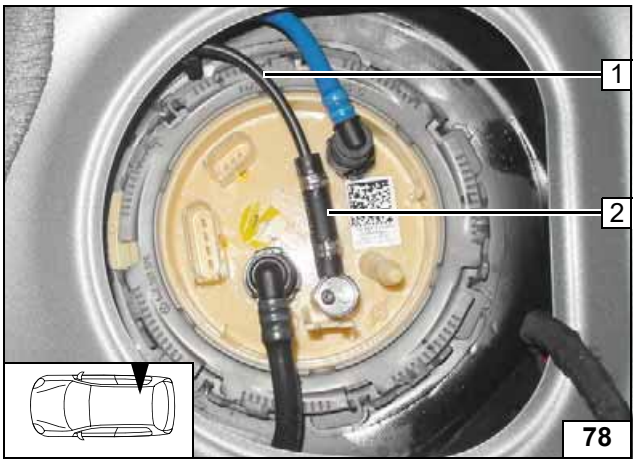



Work steps F5.3 and F5.4.

Align FuelFix **1** as shown.

**Aligning FuelFix**

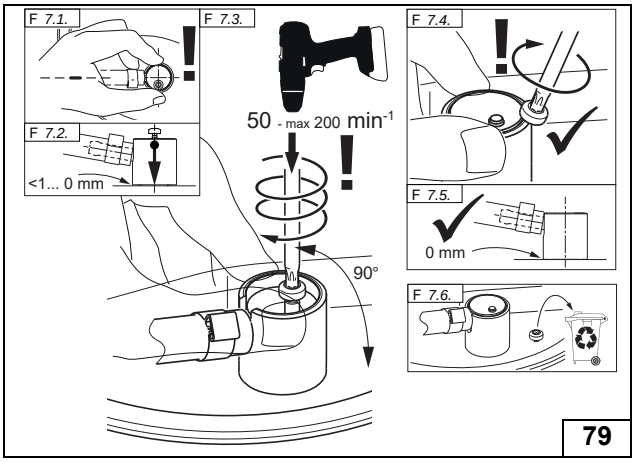
  




Work step F6.

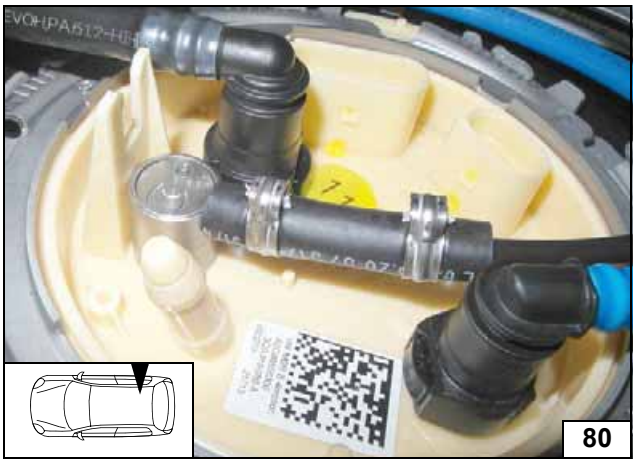
**1** Fuel line
**2** Hose section, Ø10 clamp [2x]

**Connecting fuel line**



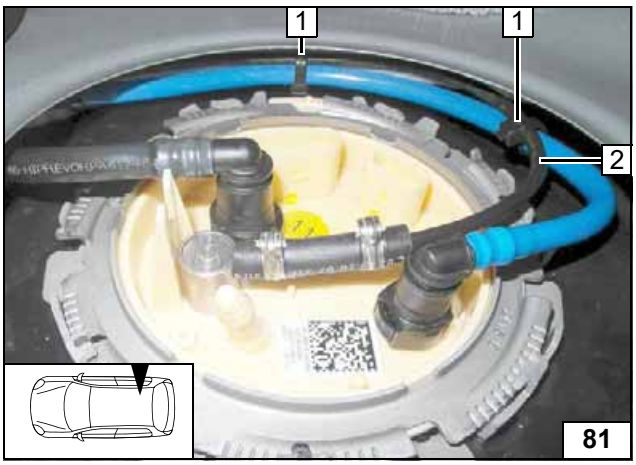

Work step F7.

**Installing FuelFix**



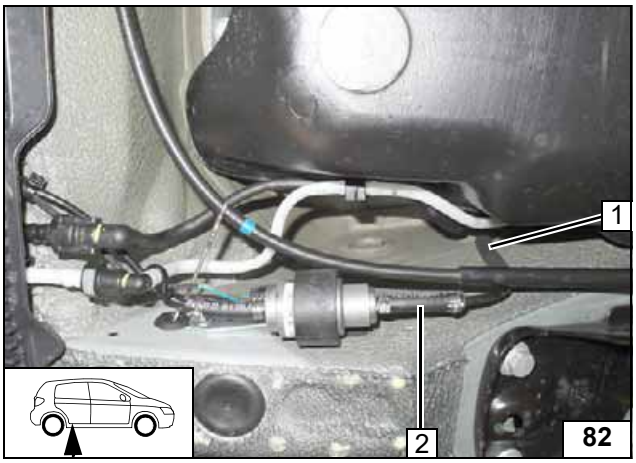

Work step F8.

**Ensuring firm seating of FuelFix**




**1** Cable tie as tension relief [2x]
**2** Fuel line

**Securing fuel line**




Slide Ø10 corrugated tube **1** onto fuel line. Check the position of the components; adjust if necessary. Check that they have freedom of movement.

**2** Fuel line of FuelFix, hose section, Ø10 clamp [2x]

**Connecting metering pump**

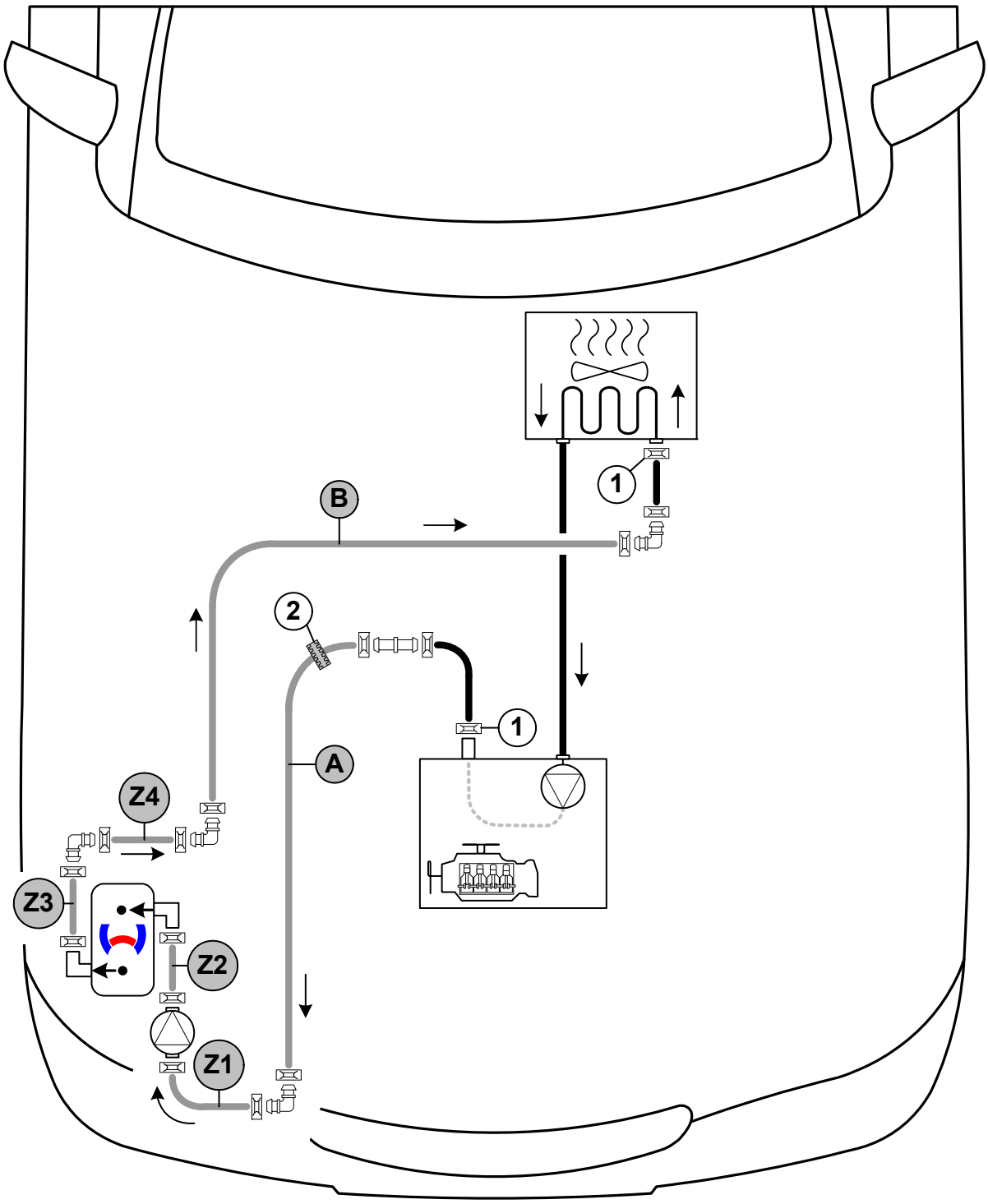
  

## Coolant circuit for TSI

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

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

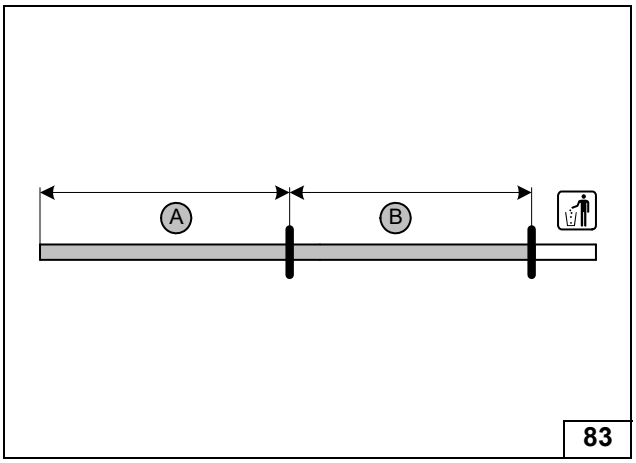
**Hose routing diagram**




All spring clips without a specific designation = Ø25. All connecting pipes and = Ø18x18.
**1** = Original vehicle spring clip. **2** = Black (sw) rubber isolator.

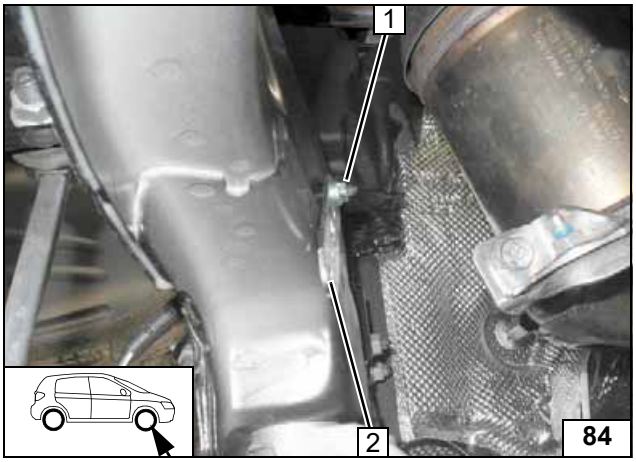
  

## Cutting hoses to length



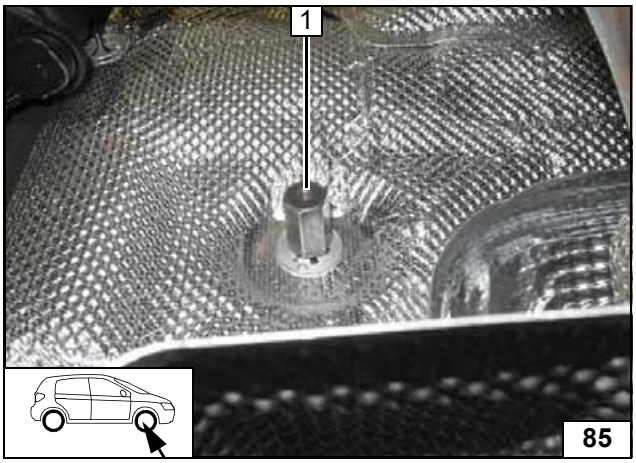

| | 1.0, 1.2 and 1.4 Petrol | 1.8 Petrol |
|---|---|---|
| **A** | 1070 | 1000 |
| **B** | 990 | 990 |

## Installing perforated bracket



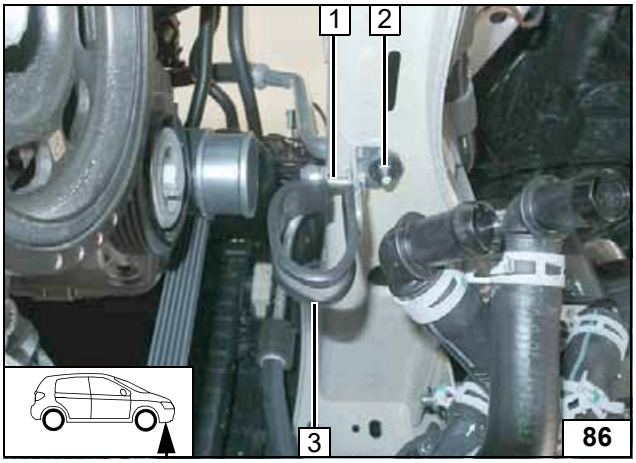

**1** M6 flanged nut, original vehicle stud bolt
**2** Perforated bracket

## Installing spacer nut



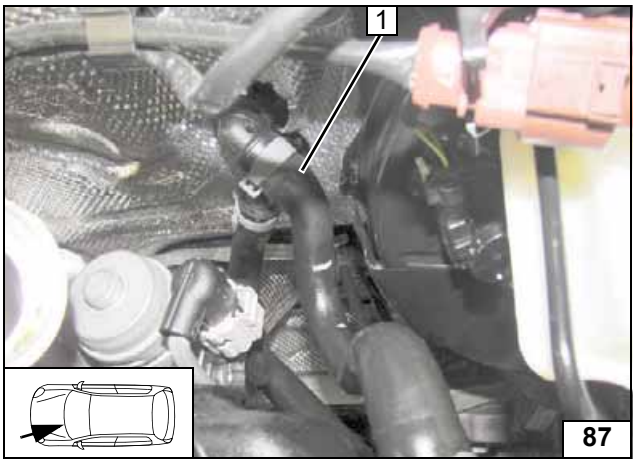

**1** M6x30 spacer nut, original vehicle stud bolt

## Installing rubber-coated p-clamp




**1** Loosely install M6x20 bolt
**2** Original vehicle stud bolt, angle bracket, plastic nut
**3** Ø38 rubber-coated p-clamp

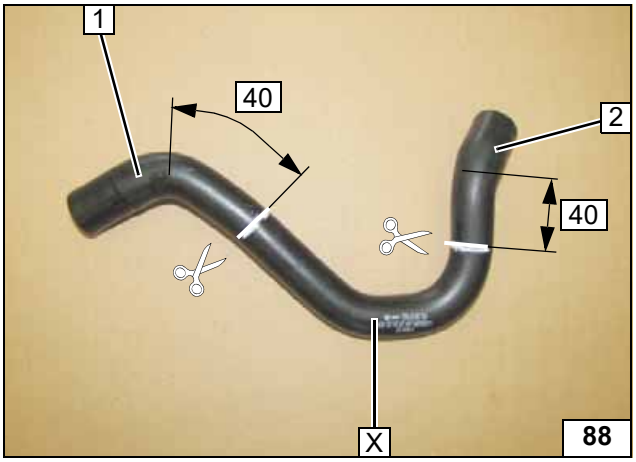
  




**Except for 1.8 petrol**

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

**Cutting point**

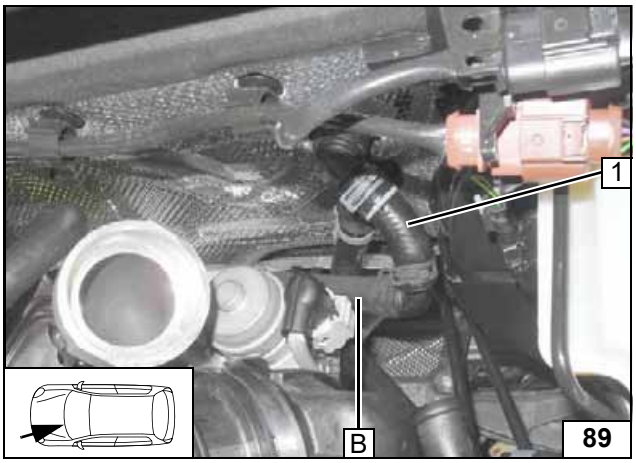



**Version 1**

**1** Engine outlet hose section
**2** Heat exchanger inlet hose section

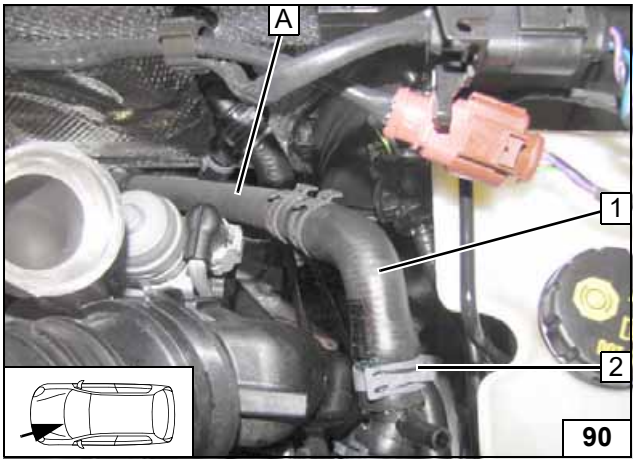
**X** =

**Preparing engine outlet / heat exchanger inlet hose**




**1** Heat exchanger inlet hose section

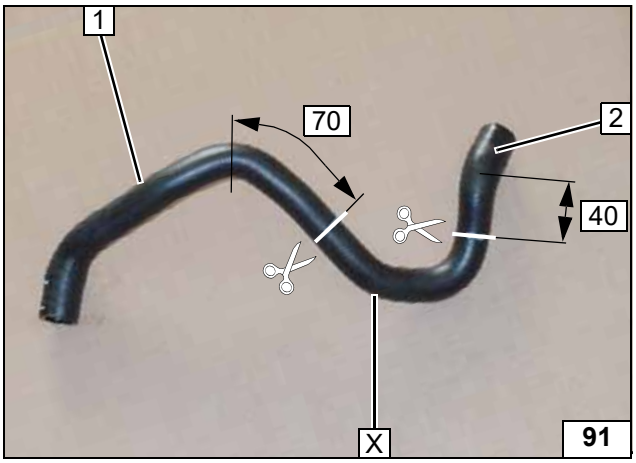
**Connecting heat exchanger inlet**




**1** Engine outlet hose section
**2** Original vehicle spring clip

**Connecting engine outlet**

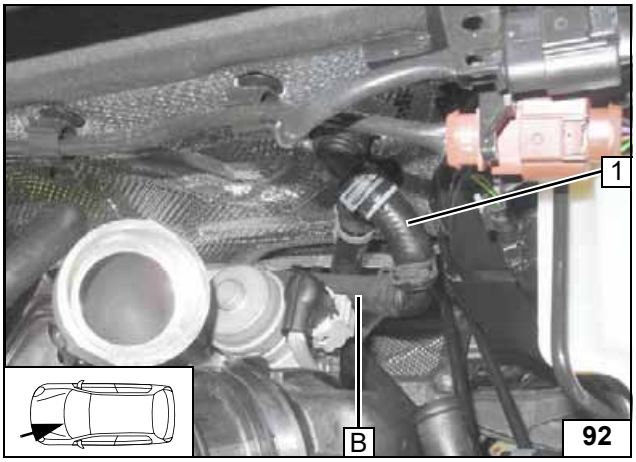



**Version 2**

**1** Engine outlet hose section
**2** Heat exchanger inlet hose section

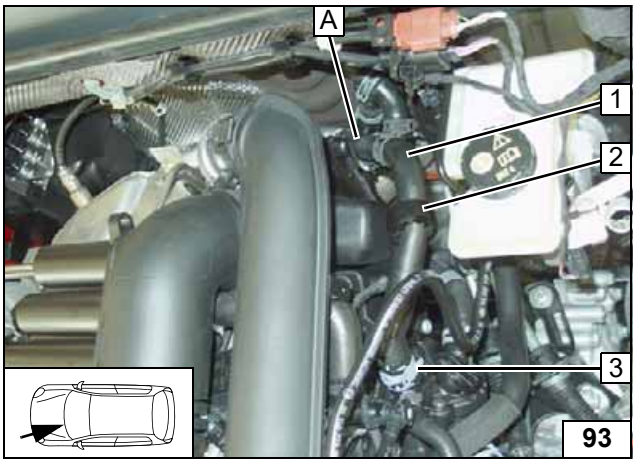
**X** =

**Preparing engine outlet / heat exchanger inlet hose**



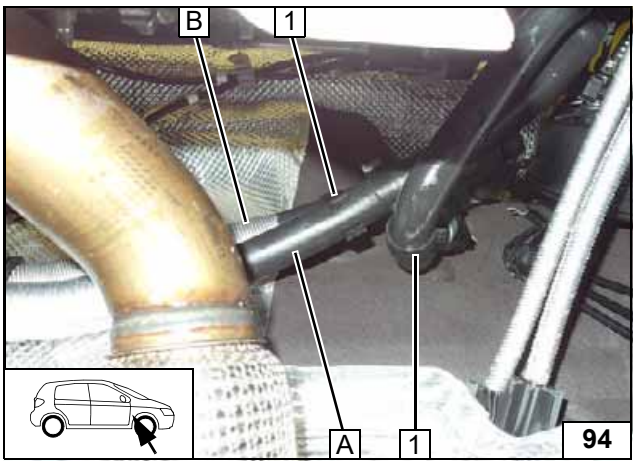

**1** Heat exchanger inlet hose section

**Connecting heat exchanger inlet**




**1** Engine outlet hose section
**2** Black (sw) rubber isolator
**3** Original vehicle spring clip

**Connecting engine outlet**

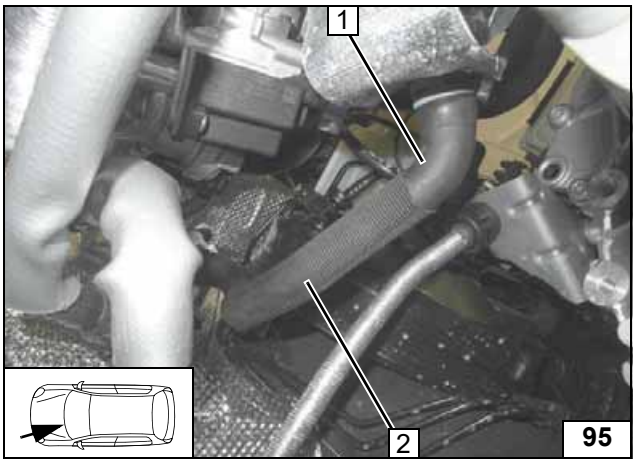



Slide one 600 long heat protection hose onto hose **A** and one onto hose **B**.

**1** Spacer bracket, rotatable [2x]

**Routing on firewall**

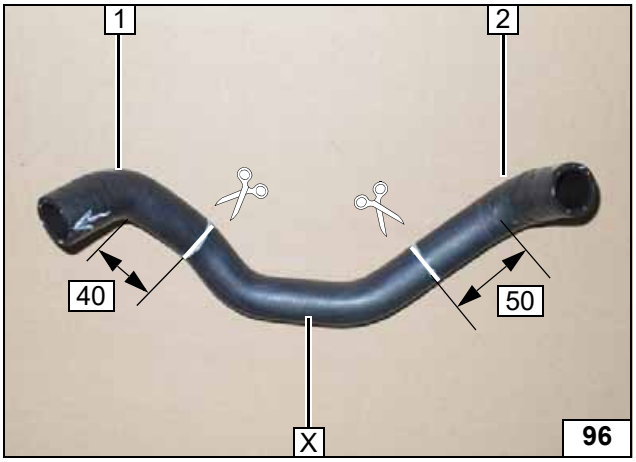
  




**1.8 Petrol**

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

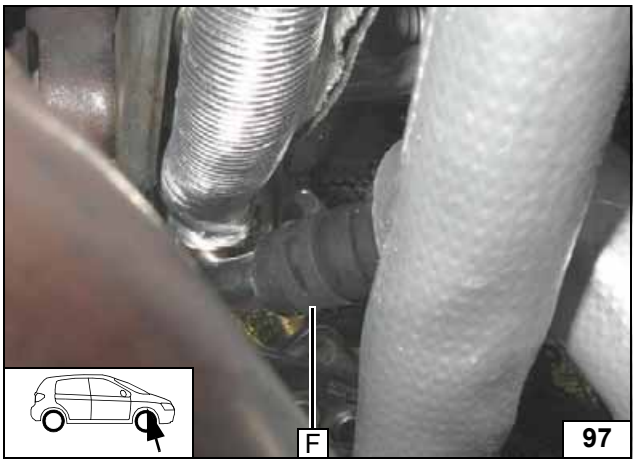
**Cutting point**




**1** Heat exchanger inlet hose section
**2** Engine outlet hose section

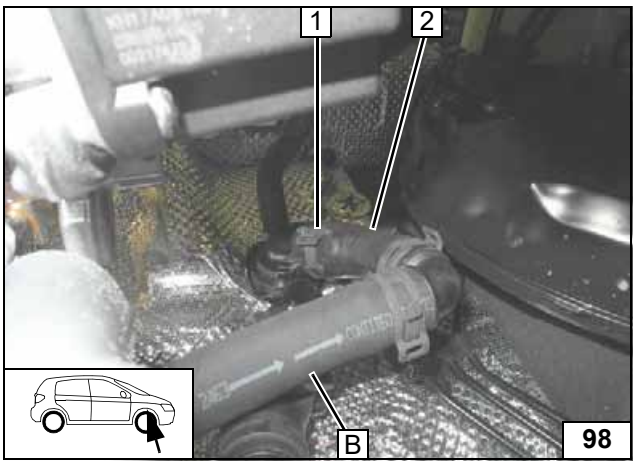
**X** =

**Preparing engine outlet / heat exchanger inlet hose**




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

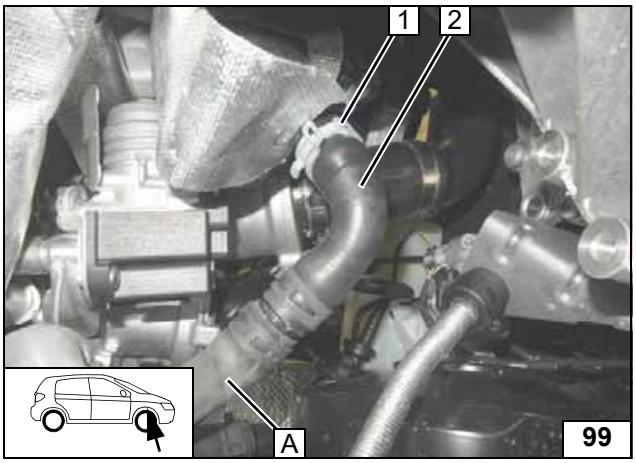
**Connecting heat exchanger inlet**




**1** Original vehicle spring clip
**2** Heat exchanger inlet hose section

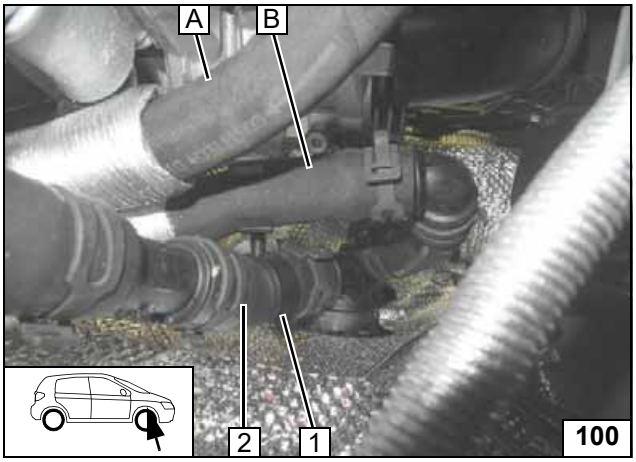
**Connecting heat exchanger inlet**




**1** Original vehicle spring clip
**2** Engine outlet hose section

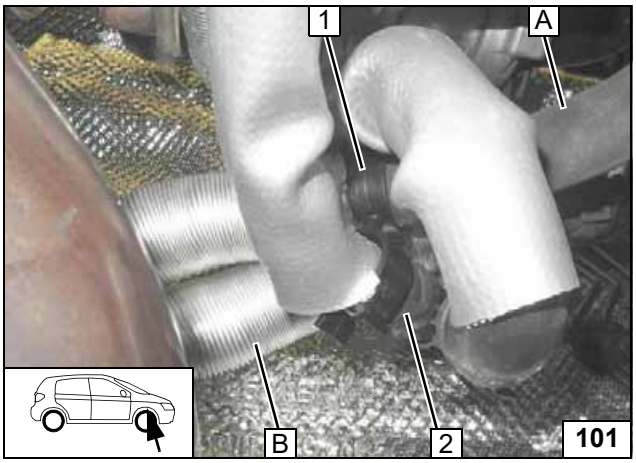
**Connecting engine outlet**




Slide one 600 long heat protection hose onto hose **A** and one onto hose **B**.

**1** Spacer bracket, twistable
**2** Hose on heat exchanger outlet

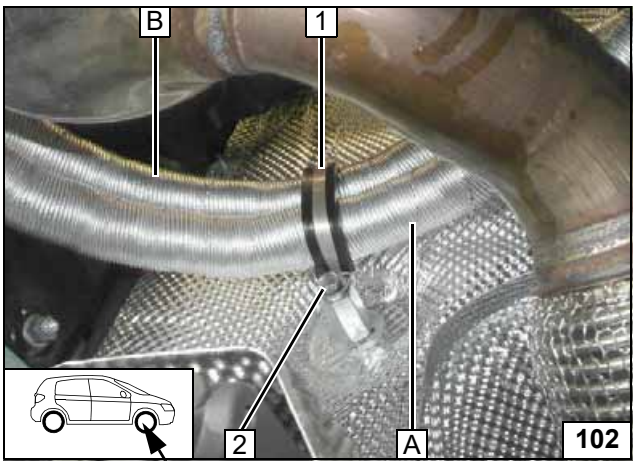
**Routing on firewall**




Align hoses **A** and **B** and ensure sufficient distance from exhaust tube!

**1** Spacer bracket, twistable
**2** Original vehicle hose

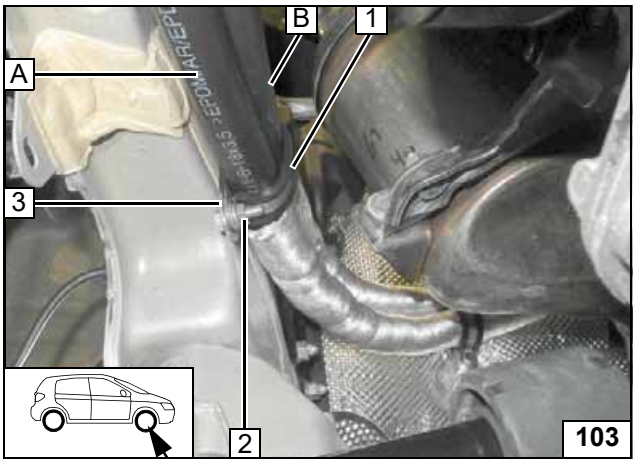
**Routing on firewall**




**All petrol vehicles**

**1** Ø48 rubber-coated p-clamp
**2** M6x20 bolt, spring lock washer

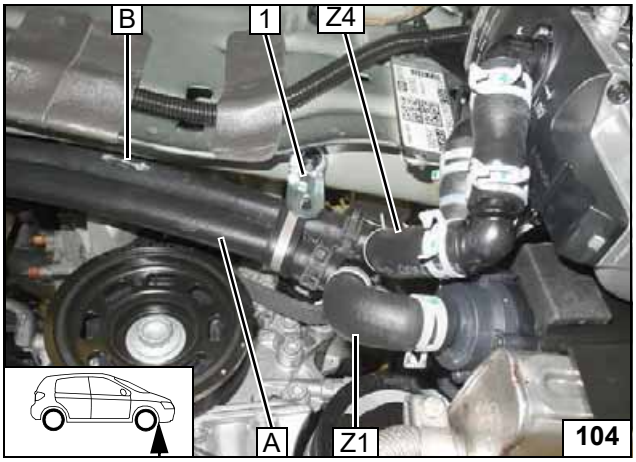
**Fastening on firewall**




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

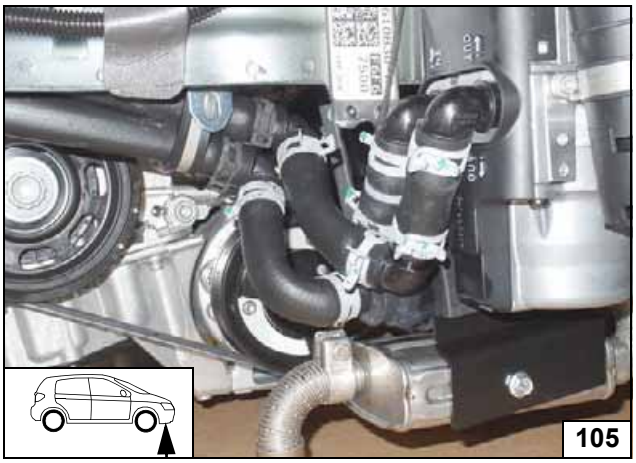
**1** Ø38 rubber-coated p-clamp
**2** M6x20 bolt, flanged nut
**3** Perforated bracket

**Routing on frame side member**




**1** Tighten bolt

**Connecting heater**




Align hoses and spring clips as shown.
Ensure sufficient distance from adjacent components, correct if necessary.

**Aligning hoses and spring clips**

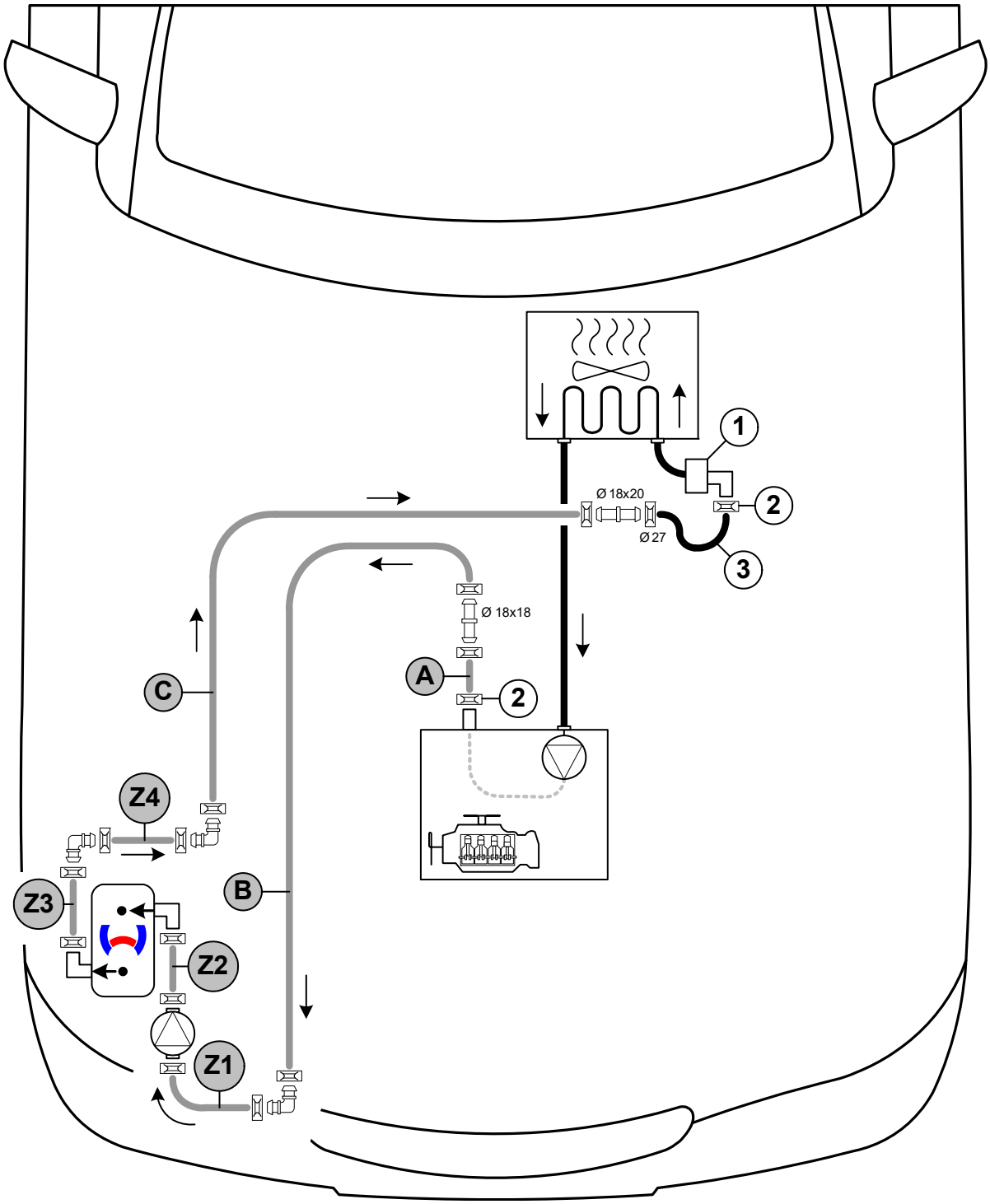
  

## Coolant circuit of TDI front-wheel drive

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

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

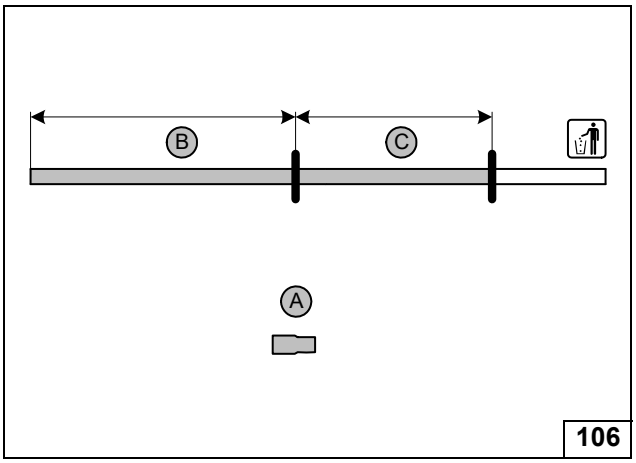
**Hose routing diagram**




All spring clips without a specific designation = Ø25. All connecting pipes = Ø18x18.
**1** = EGR.
**2** = Original vehicle spring clip .
**3** = Original vehicle hose.

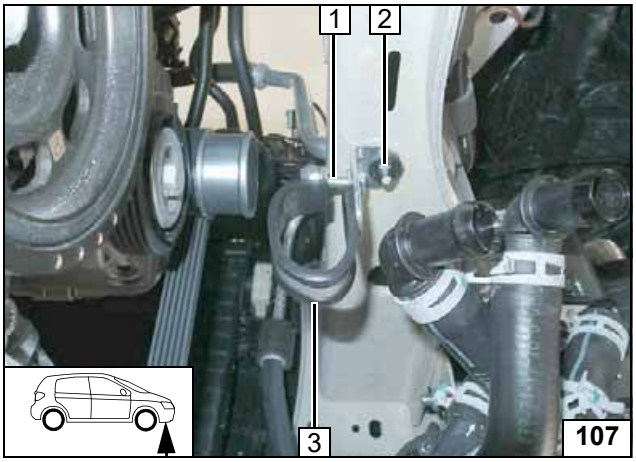
  

## Cutting hoses to length



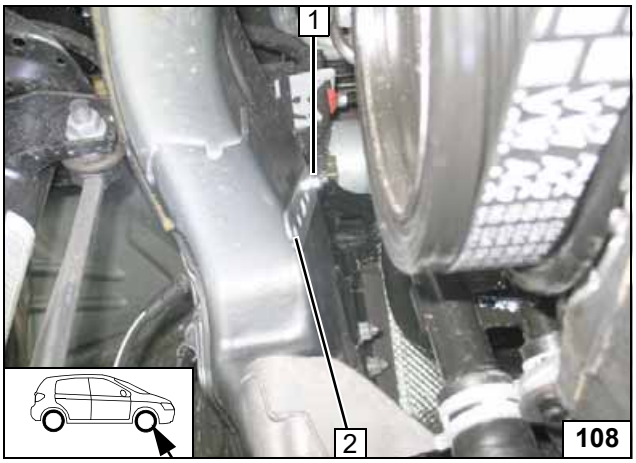

**A** = Ø18x20
**B** = 1020
**C** = 980

## Installing rubber-coated p-clamp



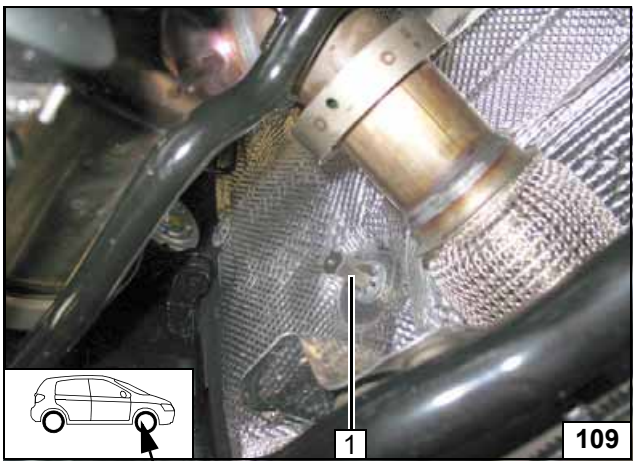

**1** Loosely install M6x20 bolt
**2** Original vehicle stud bolt, angle bracket, plastic nut
**3** Ø38 rubber-coated p-clamp

## Installing perforated bracket



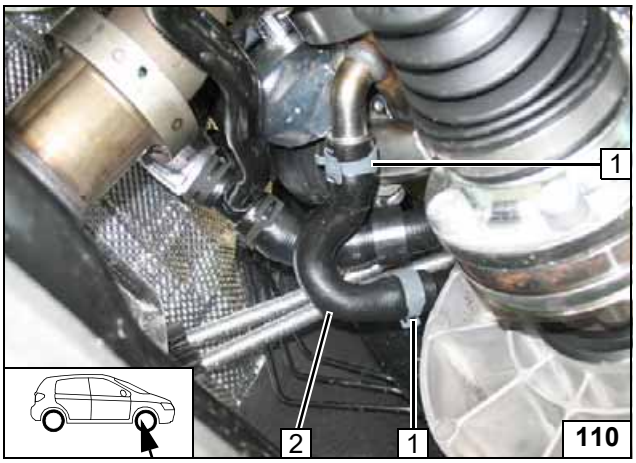

**1** M6 flanged nut, original vehicle stud bolt
**2** Perforated bracket

## Installing spacer nut



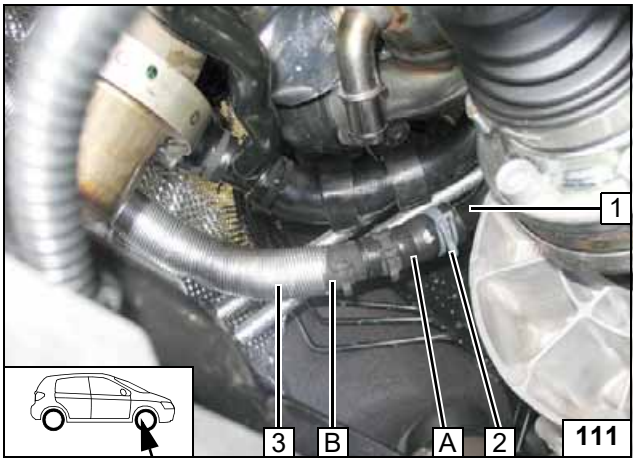

**1** M6x30 spacer nut, original vehicle stud bolt




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

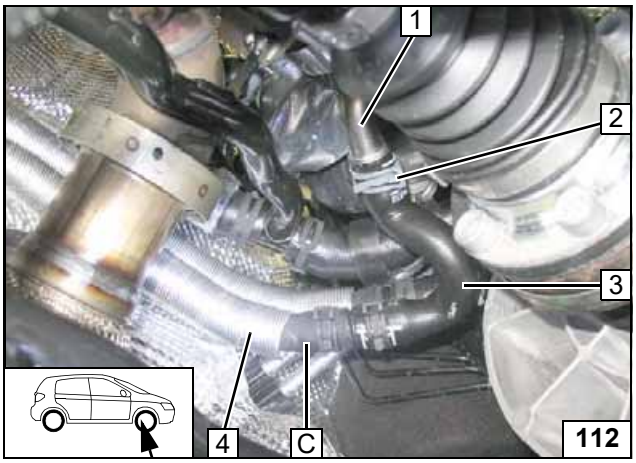
**Cutting point**




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

**1** Pipe of engine outlet
**2** Original vehicle spring clip

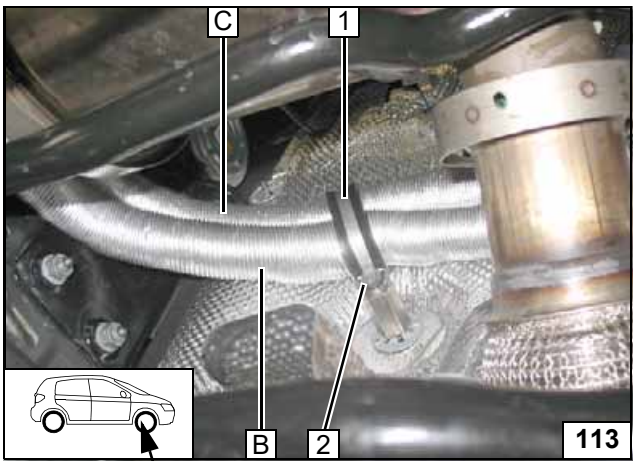
**Connecting engine outlet**




Slide 600 long heat protection hose **4** onto hose **C**.

**1** Pipe of EGR
**2** Original vehicle spring clip
**3** Original vehicle hose

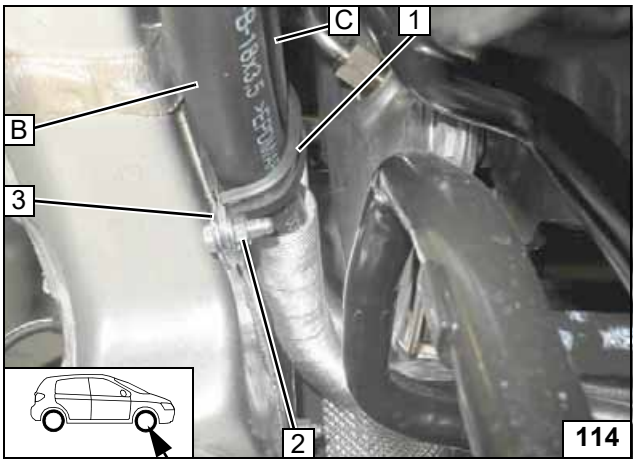
**Connecting heat exchanger inlet**




**1** Ø48 rubber-coated p-clamp
**2** M6x20 bolt, spring lock washer

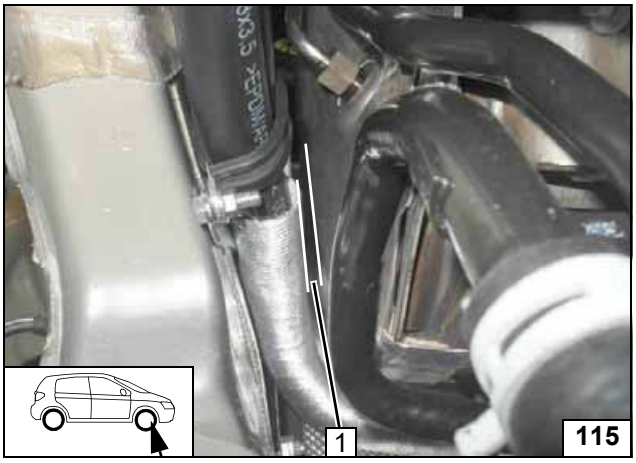
**Fastening on firewall**



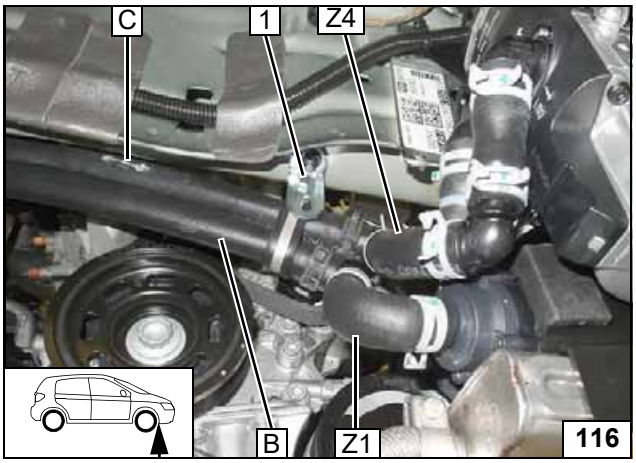

**1** Ø38 rubber-coated p-clamp
**2** M6x20 bolt, flanged nut
**3** Perforated bracket

**Routing on frame side member**



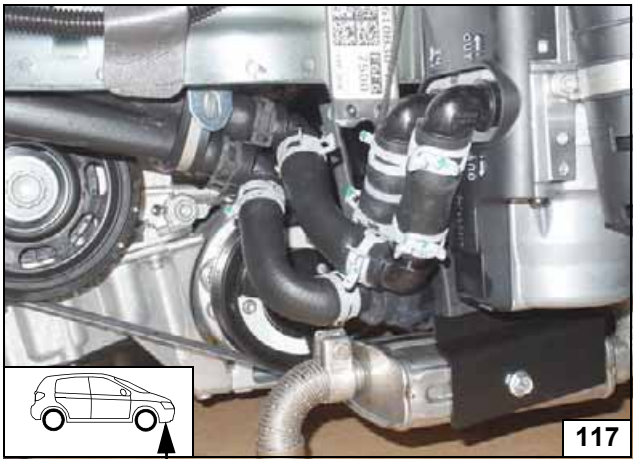

Align hoses. Ensure sufficient distance to catalytic converter at position **1** , correct if necessary.

**Routing in engine compart-ment**



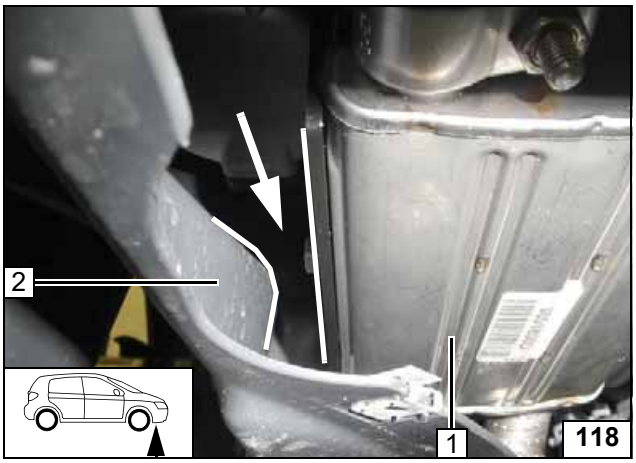

**1** Tighten bolt

**Connecting heater**




Align hoses and spring clips as shown. Ensure sufficient distance from adjacent components, correct if necessary.

**Aligning hoses and spring clips**

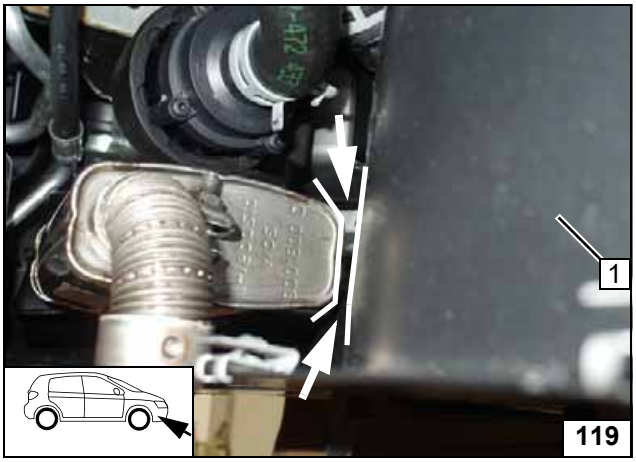



## Final work

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

≥ 10 mm

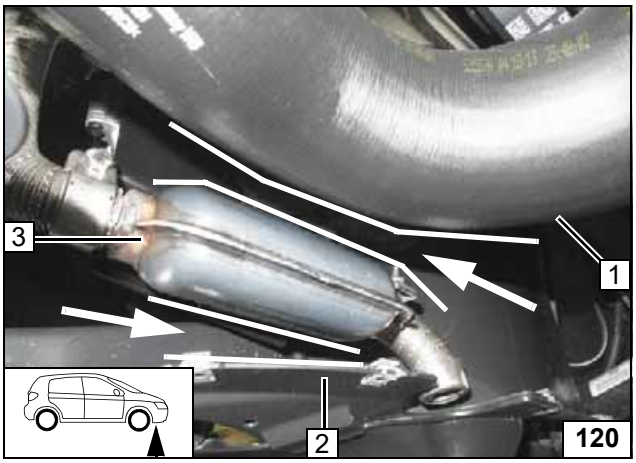
**Aligning exhaust pipe**




Ensure sufficient distance between exhaust silencer and wheel-well inner panel **1**, correct if necessary.

≥ 10 mm

**Aligning silencer**

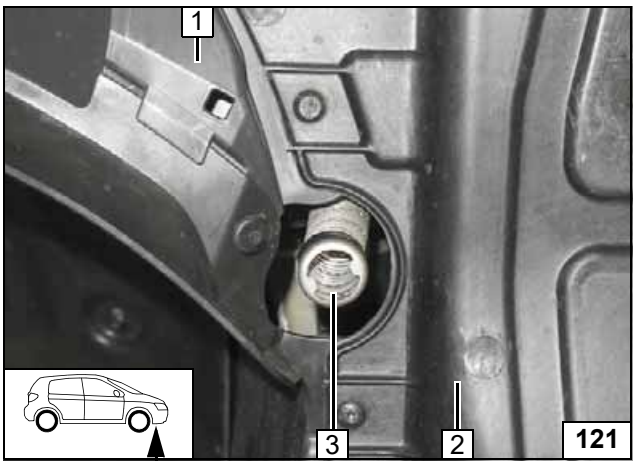



**1.8 TSI**

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

≥ 10 mm

**Aligning exhaust pipe**




**All vehicles**

Align exhaust outlet **3** with the centre of the pass through.

**1** Wheel well trim mounted
**2** Underride protection mounted

**Aligning exhaust pipe**

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

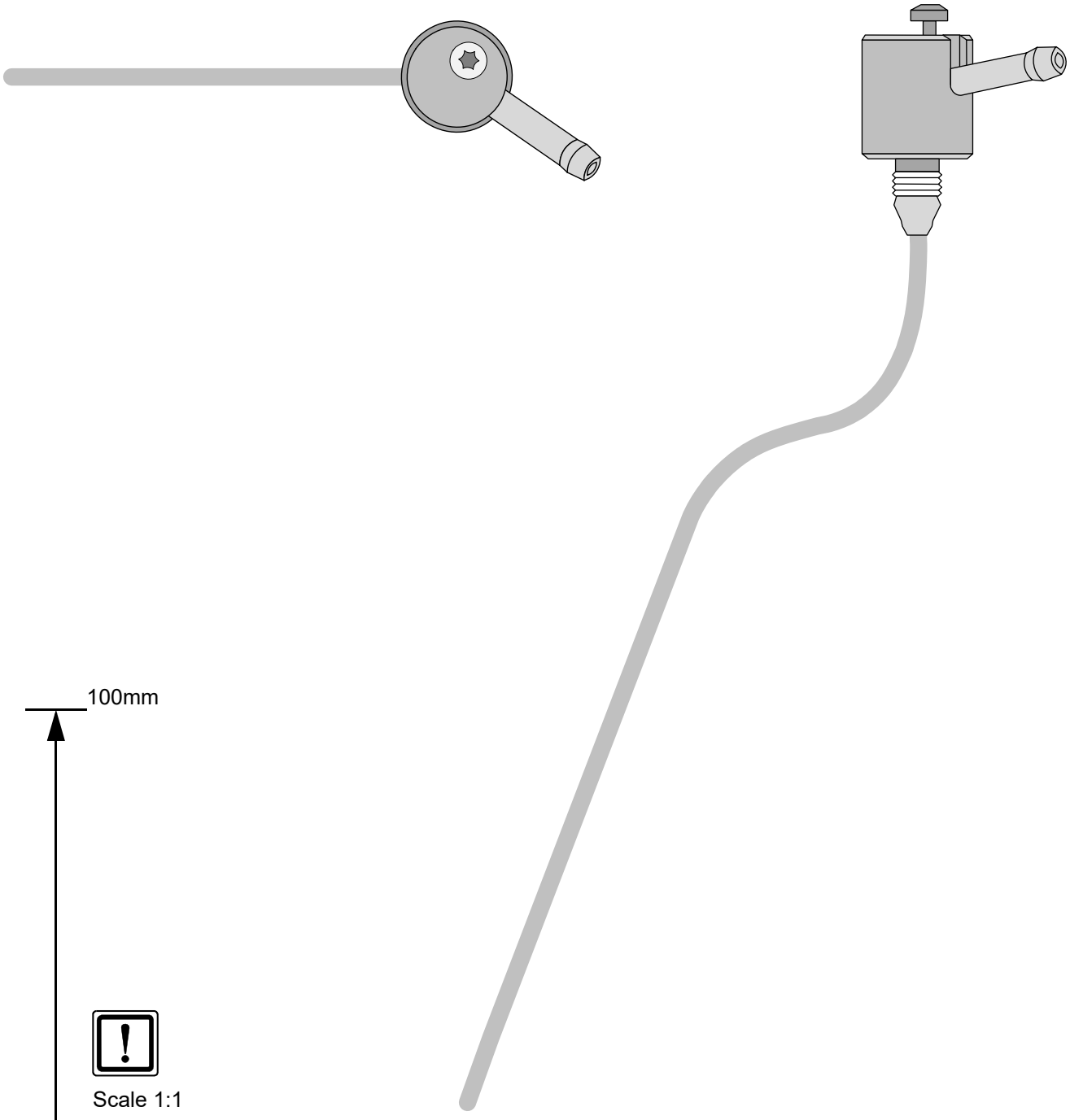
- **Connect the battery.**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.**
- **Program MultiControl CAR, teach Telestart transmitter.**
- **For initial start-up and function check, please see installation instructions.**
- **If the fan function or A/C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

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

## FuelFix template for TSI

**Top view**



100mm

Scale 1:1

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

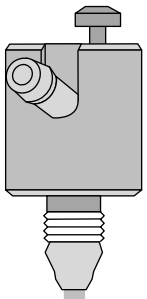
Set the printer settings to ‘no margin’ or ‘minimise margins’ and 100% of the normal size.

100mm

0

## FuelFix template for TDI



**Top view**

100mm

Scale 1:1

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

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

100mm

0