

# K Installation documentation

for Thermo Top Evo water heater

VW Polo / Seat Arona

Manufacturer	Model	Type	Model year	EG-BE-No. / ABE
VW	Polo	AW	from 2018	e1* 2007/46* 1783*...

Motorisation	Fuel	Emission standard	Transmission type	Output[kW]	Displacement[cm <sup>3</sup> ]	Engine code
1.0	Petrol	Euro 6	SG	55	999	CHYB
1.0	Petrol	Euro 6	SG	70	999	CHZL
1.0	Petrol	Euro 6	DKG	70	999	CHZL

Manufacturer	Model	Type	Model year	EG-BE-No. / ABE
Seat	Arona	KJ	from 2018	e1* 2007/46* 3134*...

Motorisation	Fuel	Emission standard	Transmission type	Output[kW]	Displacement[cm <sup>3</sup> ]	Engine code
1.0	Petrol	Euro 6	SG	70	999	CHZL
1.0	Petrol	Euro 6	SG	85	999	CHZJ
1.0	Petrol	Euro 6	DKG	85	999	CHZJ

Validity	Equipment variants	Model	
		Polo	Arona
Verified equipment variants	Automatic air-conditioning	X	X
	Manual air-conditioning	X	
	Halogen main headlights	X	X
	Halogen front fog lights	X	X
	LED main headlights with integrated LED daytime running lights	X	X
	LED daytime running lights in the front fog light housing	X	
	Automatic Start-Stop system	X	X
Unverified equipment variants	Keyless lock and start system 'Kessy'		X
	Manual air-conditioning		X
	Passenger compartment monitoring	X	X

Total installation time	Note
8.9 hours	

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# 1 List of abbreviations

AAC	Automatic air-conditioning
AC	Manual air-conditioning
DKG	Dual clutch transmission
DP	Fuel pump
FF	FuelFix (tank extracting device)
HG	Heater
MCC	MultiControl (control element)
SG	Manual transmission
SH2	Engine compartment fuse holder for F1/F2
UP	Coolant pump
Veh.	Vehicle

## 2 Installation notes

### 2.1 Information on Validity

This installation documentation applies to vehicles listed on page 1, 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.

### 2.2 Components used

Designation	Order number
Basic delivery scope of TT-Evo, petrol	In accordance with price list
Installation kit for Seat Arona / VW Polo 2018 petrol	1326341A
The following must also be ordered for AAC : Additional kit for VW / Skoda / Seat 'Webasto Standard' A/C control	1325085_
The following must also be ordered for AC : Additional kit for VW Polo / Seat Ibiza 'Webasto Standard' A/C control	1326636_
In case of control element as well as Telestart indicator lamp in consultation with end customer	In accordance with price list
In case of MultiControl CAR installation - installation frame for MultiControl	9030077_

### 2.3 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.

### 2.4 Installation recommendations

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

For the MultiControl CAR option, the recommended installation locations for the Telestart or ThermoCall push button 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.

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## 3 About this document

### 3.1 Purpose of the document

This installation documentation is part of the product and contains all the information required to ensure professional vehicle specific installation of the:

Thermo Top Evo heater
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### 3.2 Warranty and liability

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 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.

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.

#### 3.2.1 Statutory regulations governing installation

The Thermo Top Evo heater has been type-tested and approved in accordance with ECE-R 10 (EMC) and ECE-R 122 (heater). 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.

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

### 3.3 Safety

#### Qualifications of installation personnel

The installation personnel must have the following qualifications:

- Successful completion of Webasto training
- Corresponding qualification for working on technical systems

#### Regulations and legal requirements

The regulations from the heater's general installation and operating instructions must be observed.

#### 3.3.1 Safety information on installation

##### Danger posed by live parts

- ▶ Prior to installation, disconnect the vehicle from the voltage supply.
- ▶ Make sure the electrical system is earthed correctly.
- ▶ Always comply with legal requirements.
- ▶ Observe data on type label.

##### Danger of fire and leaking toxic gases due to improper installation

- ▶ Vehicle parts in the vicinity of the heater must be protected against excessive heating by the following measures:
  - ⇒ Maintain minimum safety distances.
  - ⇒ Ensure adequate ventilation.
  - ⇒ Use fire-resistant materials or heat shields.

##### Danger due to sharp edges

- Lacerations
- Short circuit due to electrical wire damage
- ▶ Fit protectors on sharp edges.

### 3.4 Using this document

Before installing and operating the heater, read this installation documentation, the installation instructions of the heater, the operating instructions and supplementary sheets provided.

#### 3.4.1 Explanatory Notes on the Document

There is an identification mark near the respective work step to allow you to quickly allocate the other applicable documents to the Webasto components to be installed:

Generally valid Webasto documentation	
Vehicle-specific installation documentation	
Webasto Comfort A/C control	
Webasto Standard A/C control	
Tank extracting device (e.g. FuelFix)	
Exhaust end fastener (EFIX)	
Combustion air intake silencer	
Spacer bracket (ASH)	

#### 3.4.2 Use of symbols



#### DANGER

Type and source of the risk

Consequences: Failure to follow the instructions can result in death

► Actions to protect yourself against risks.



#### WARNING

Type and source of the risk

Consequences: Failure to follow the instructions can lead to serious or even fatal injuries

► Actions to protect yourself against risks.



#### CAUTION

Type and source of the risk

Consequences: Failure to follow the instructions can lead to minor injuries

► Actions to protect yourself against risks.



Type and source of the risk

Consequences: Failure to follow the instructions can lead to material damage

► Actions to protect yourself against risks.



Reference to the vehicle manufacturer's specific documents.



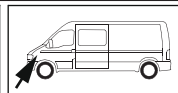
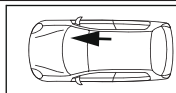
a note on a special technical feature

#### 3.4.3 Work step identification marks

The ongoing work step is indicated on the outside top corner of the page:

Mechanical system	Electrical System	High-voltage	Coolant
Combustion air	Fuel	Exhaust gas	Software

#### 3.4.4 Orientation aid



The arrow indicates the position on the vehicle and the viewing angle

#### 3.4.5 Use of highlighting

Highlight	Explanation
►	Necessary action
⇒	Result of an action
<b>1</b> / <b>12</b> / <b>a1</b> / <b>A</b>	Position numbers for the image descriptions
① / ⑫	Position numbers for the image descriptions for electrical wires and wiring harnesses and coolant hose sections

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## 4 Technical Information

### Dimension specifications

- All dimensions specified in mm

### Tightening torque specifications

- 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
- 5x12 bolt tightening torque of 2-part heater bracket = 6Nm
- Tighten other bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art-technology

### Specified temperature for fabric heat shrink tubing

- Shrink temperature max. 230°C

### Necessary special tools

- Hose clamp pliers for self-clamping hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Hose clamping pliers
- Hose cutter
- Automatic wire stripper 0.2 - 6 mm<sup>2</sup>
- Crimping pliers for cable lugs 0.5 – 10 mm<sup>2</sup>
- Crimping pliers for tab connector 0.14 – 6 mm<sup>2</sup>
- Crimping pliers for connector 0.25 – 6 mm<sup>2</sup>
- Torque wrench for 2.0 - 10 Nm
- Deep-hole marker
- Metric thread-setter kit
- Webasto Thermo Test Diagnosis with current software

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## 5 Preparing measures

### 5.1 Vehicle preparation



Further information can be found in the vehicle manufacturer's technical documentation.

- ▶ Open the fuel tank cap
- ▶ Ventilate the fuel tank
- ▶ Close the fuel tank cap again
- ▶ Depressurise the cooling system
- ▶ Remove the right front wheel
- ▶ Remove the front wheel well trim on the right
- ▶ Remove the lower engine cover
- ▶ Remove the underbody trim on the right
- ▶ Remove the front fog light on the right (Seat Arona)
- ▶ Remove the engine design cover (if available)
- ▶ Disconnect the battery and remove it
- ▶ Completely remove the air filter box
- ▶ Remove the windscreen wipers
- ▶ Remove the coolant reservoir cap on the left
- ▶ Remove the windscreen wiper linkage and put it aside
- ▶ Drain and store the engine coolant
- ▶ Remove the side instrument panel trim on the left
- ▶ Remove the footwell trim, lower instrument panel trim and A-pillar trim (in case of Telestart) on the driver's side
- ▶ Remove the rear bench seat
- ▶ Open the tank fitting service lid on the right

### 5.2 Heater preparation



Observe the general installation instructions of the 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.



## 6 Installation overview

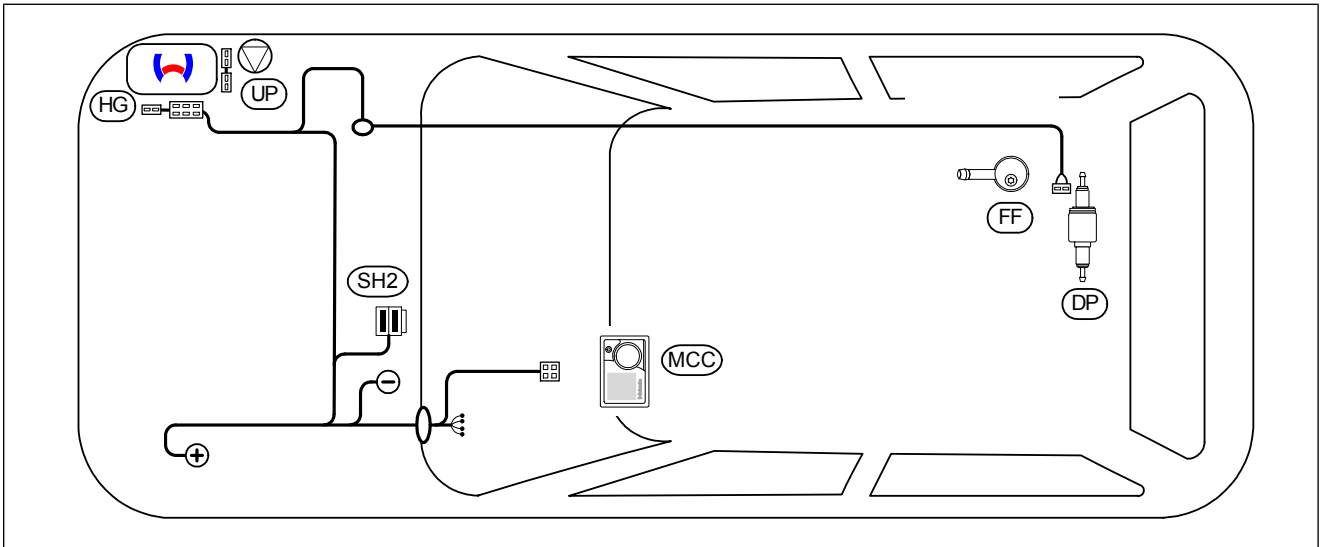
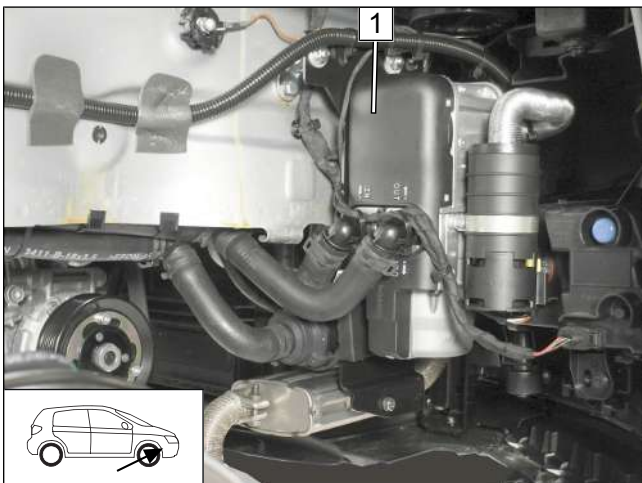


Fig. 1

Legend to installation overview

Abbreviation	Component
DP	Fuel pump
FF	FuelFix
HG	Heater
MCC	MultiControl CAR
SH2	Engine compartment fuse holder for F1/F2
UP	Coolant pump

Heater installation location



1 Heater

Fig. 2



## 7 Electrical system of engine compartment

### Pre-assembling engine compartment fuses

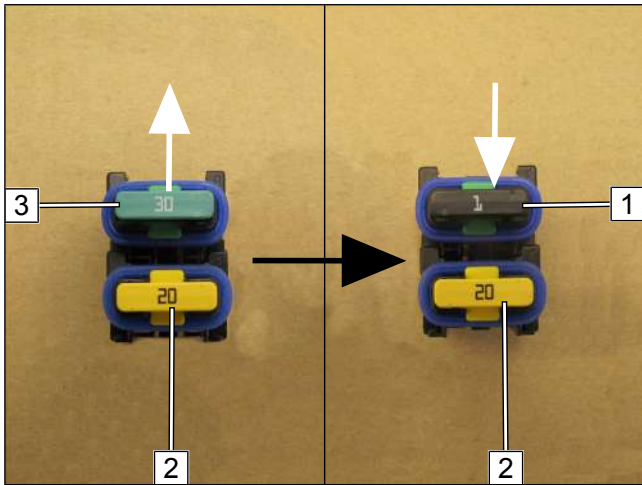


Fig. 3



#### Only automatic air-conditioning

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

- 2** Fuse F1: 20A

### Premounting fuse holder



Fig. 4



#### All vehicles

- 1** M5x16 bolt, large diameter washer, retaining plate of SH2, angle bracket, large diameter washer, nut

### Mounting fuses F1 and F2

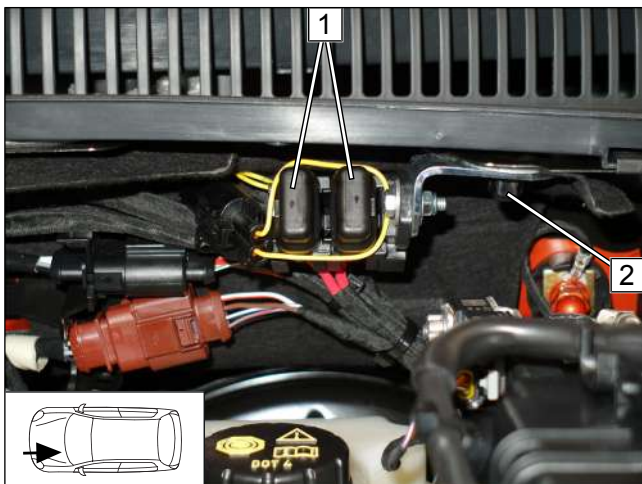


Fig. 5

- 1** Fuse F1/F2

- 2** Original vehicle stud bolt, plastic nut



## Earth wire connection

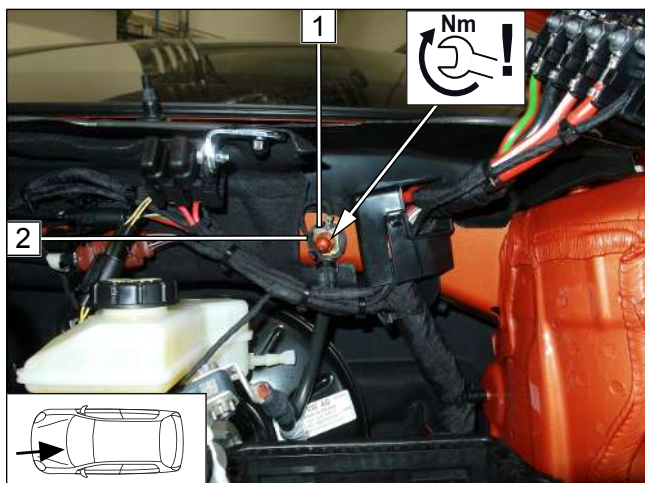


Fig. 6



### DANGER

Fire hazard due to insufficient tightening torque

► Observe tightening torque

- 1 Original vehicle earth point
- 2 Earth wire

## Positive wire connection

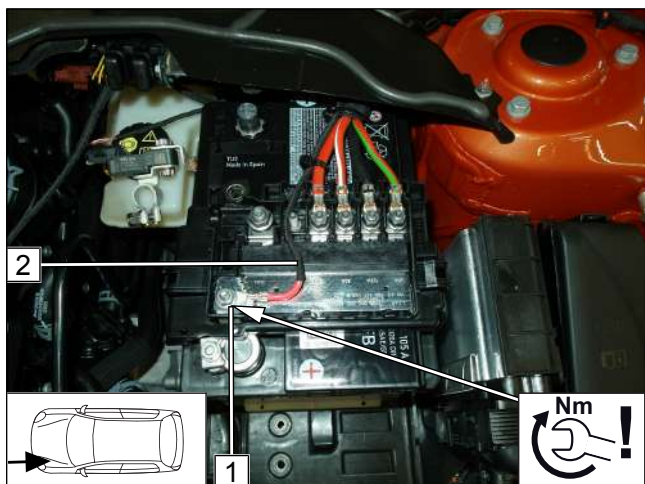


Fig. 7



### DANGER

Fire hazard due to insufficient tightening torque

► Observe tightening torque

- 1 Original vehicle positive point
- 2 Positive wire

## Passenger compartment wiring harness pass through



Fig. 8

- 1 Passenger compartment and control element wiring harness
- 2 Protective rubber plug



## Routing wiring harnesses

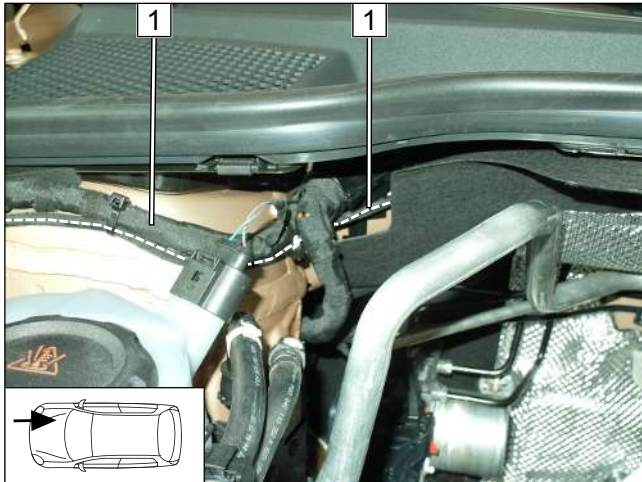


Fig. 9



### Version 1: Veh. with insulation mat

- ▶ Route wiring harness **1** on the firewall behind the insulation mat, along the original vehicle wiring harness as shown and secure using cable ties.

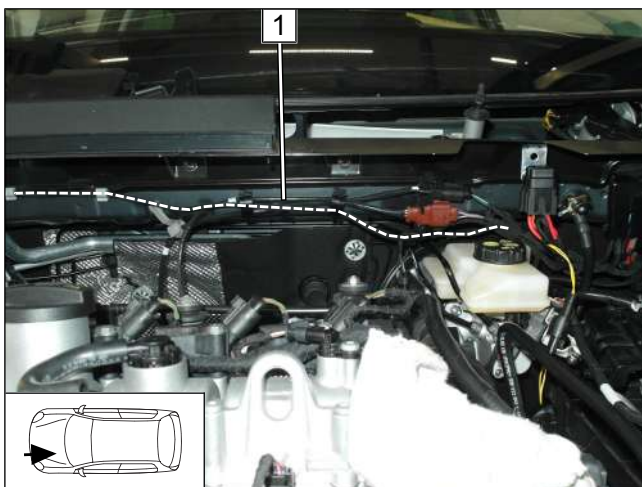


Fig. 10



### Version 2: Veh. without insulation mat

- ▶ Route wiring harness **1** on the firewall, along the original vehicle wiring harness as shown, fasten with clips [3x] and secure using cable ties.

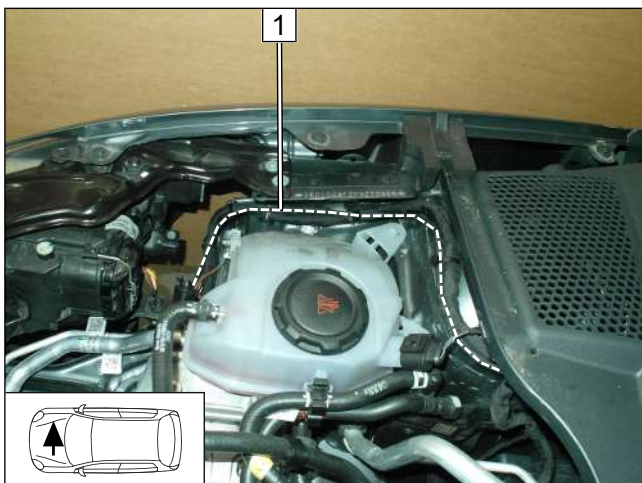


Fig. 11



### All vehicles

- ▶ Route wiring harness **1** on the wing, along the original vehicle wiring harness as shown and secure using cable ties.





## 8 Mechanical system

### 8.1 Heater assembly realization

#### Cutting hoses to length

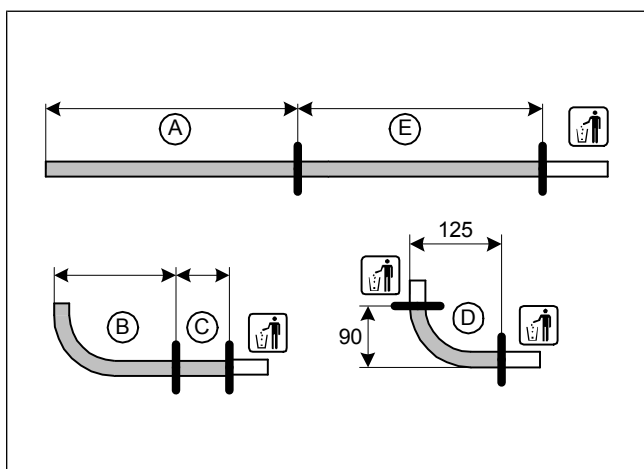


Fig. 12

► Hose **D** = shorten 90° moulded hose as shown.

	55 kW	70 kW / 85 kW
<b>A</b>	980	980
<b>B</b>	110	110
<b>C</b>	65	65
<b>E</b>	940	980

#### Mounting heat protection hose

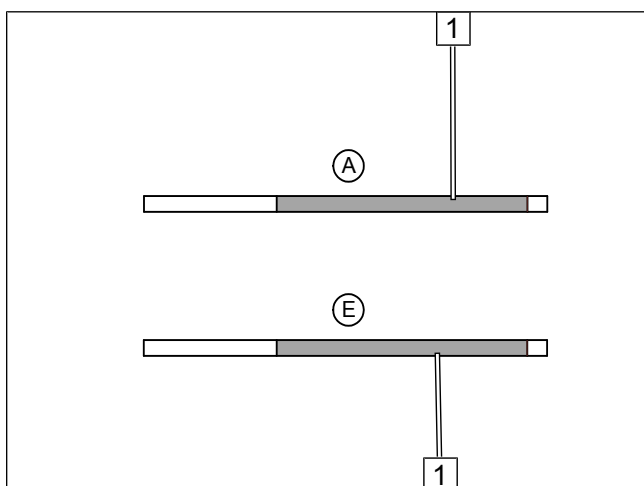


Fig. 13

► Cut heat protection hose **1** to length and slide onto hose **A** and hose **E**.

	55 kW	70 kW / 85 kW
for <b>A</b>	540	600
for <b>E</b>	480	600

#### Premounting coolant pump

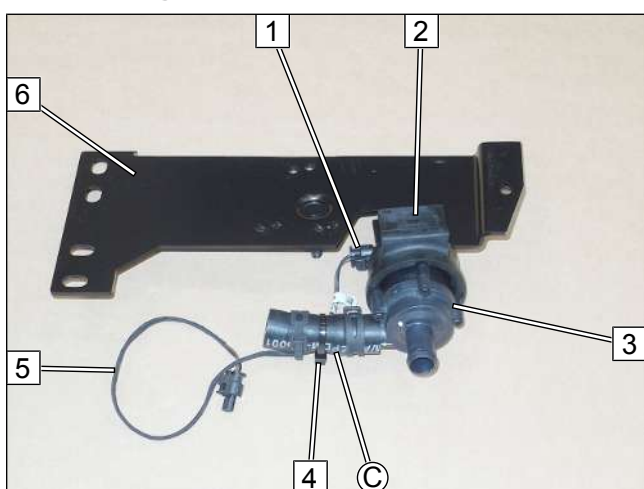


Fig. 14

► All spring clips, 25mm dia.

- 1** Coolant pump wiring harness connector
- 2** Coolant pump mount
- 3** Coolant pump
- 4** Cable tie
- 5** Coolant pump wiring harness



## Mounting water connection piece

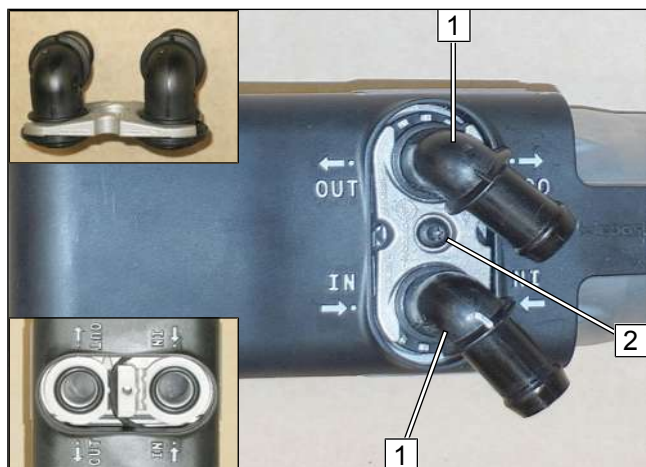


Fig. 15



Observe the general installation instructions of the heater.

- 1 Water connection piece, seal
- 2 5x15 self-tapping bolt, water connection piece retaining plate

## View of fastening points on bracket

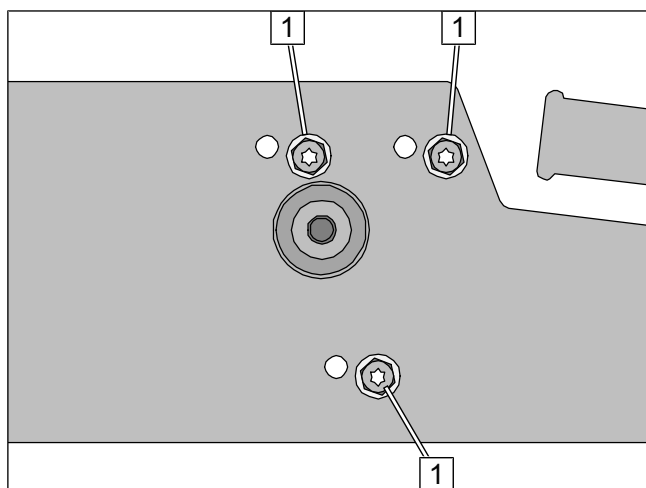


Fig. 16

- 1 Fastening point

## Mounting bracket

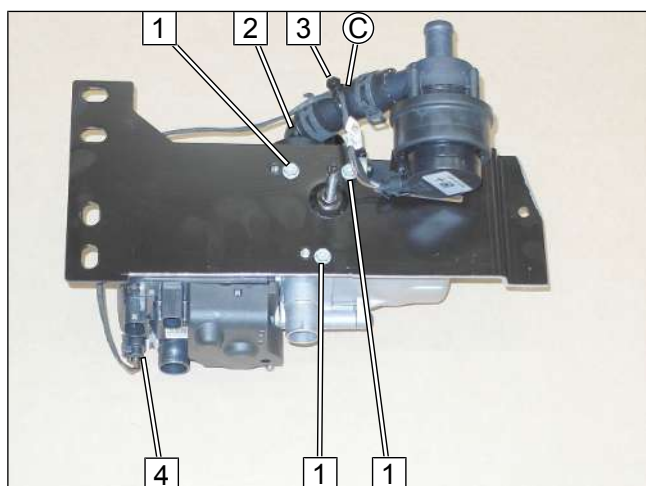


Fig. 17

► Before fixing the heater, fit hose (C) onto heater/IN connection piece (2) and mount using a 25mm dia. spring clip.

► Fix coolant pump wiring harness using cable tie (3).

- 1 5x13 self-tapping bolt
- 4 Mounted connector of coolant pump wiring harness



### Mounting hose B and hose D

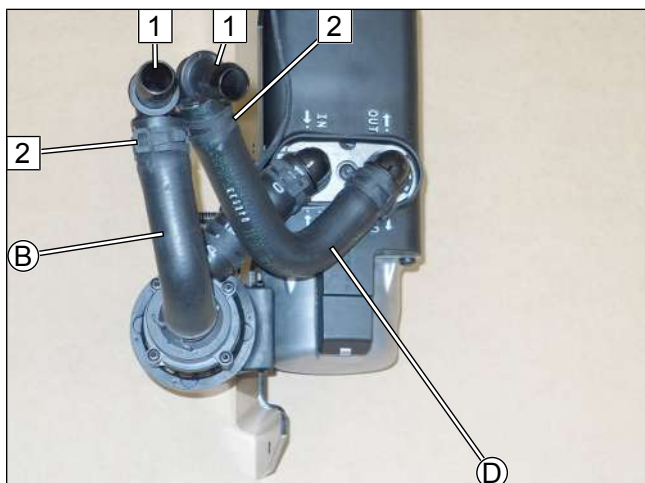


Fig. 18

- 1 18x18mm dia. connecting pipe
- 2 25mm dia. spring clip

### Mounting exhaust silencer loosely

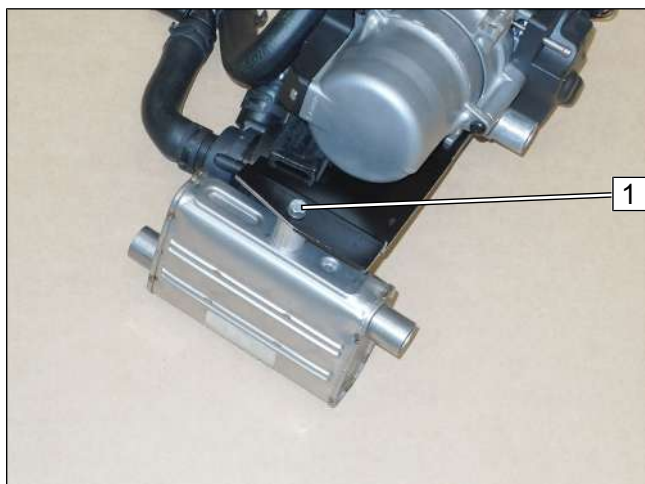


Fig. 19

- 1 M6x30 bolt, spring lockwasher, bracket, 20mm shim, exhaust silencer

### Cutting exhaust pipe to length

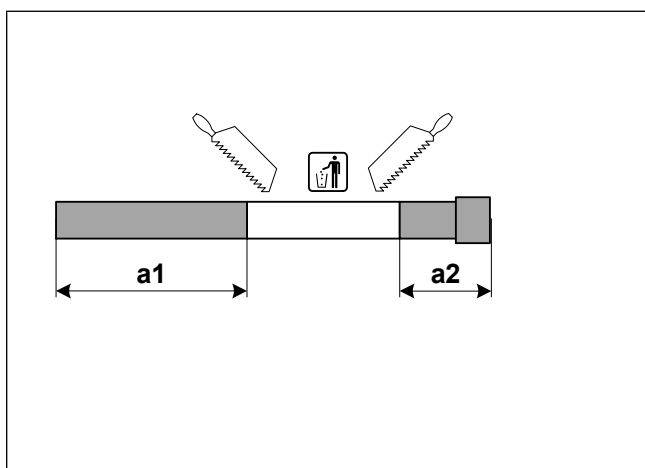


Fig. 20

a1	230
a2	100



## Mounting exhaust pipes **a1** and **a2**

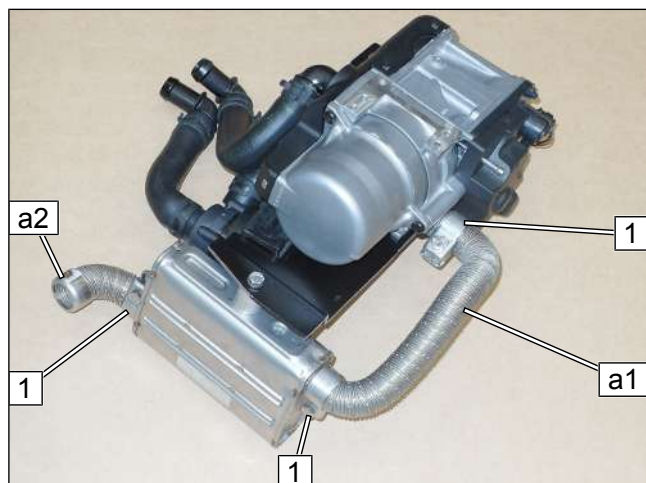


Fig. 21

- 1 Hose clamp

## Mounting combustion air silencer

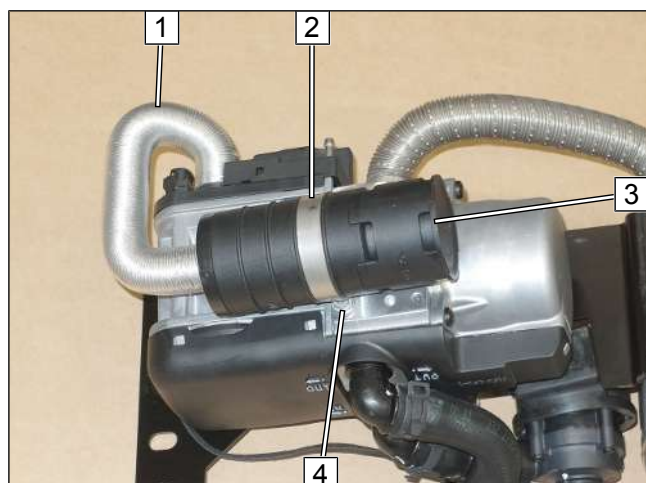


Fig. 22



Observe the installation instructions of the combustion air intake silencer.

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

## Mounting fuel line

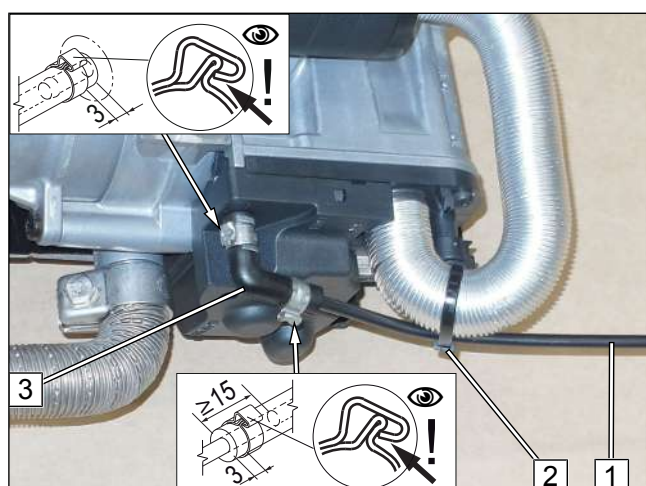


Fig. 23

- 1 Fuel line
- 2 Cable tie
- 3 90° moulded hose, 10mm dia. clamp [2x]





## 8.2 Installation location preparation

Dismantling original vehicle connector and horn with bracket

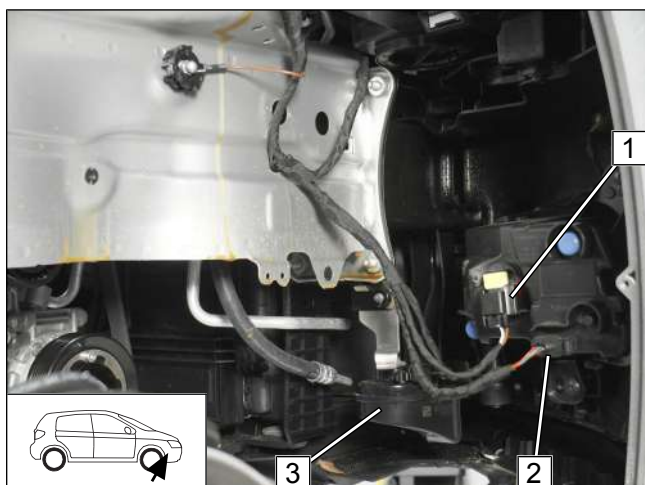


Fig. 24

► Discard horn bracket fastening bolt.

- 1 Front fog light connector
- 2 Daytime running lights connector (if available)
- 3 Horn

Modifying horn

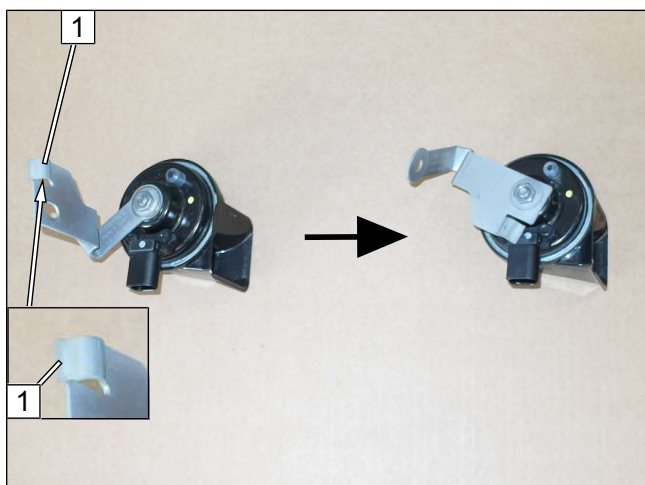


Fig. 25

- 1 Straighten tab

Adapting headlight carrier, if available

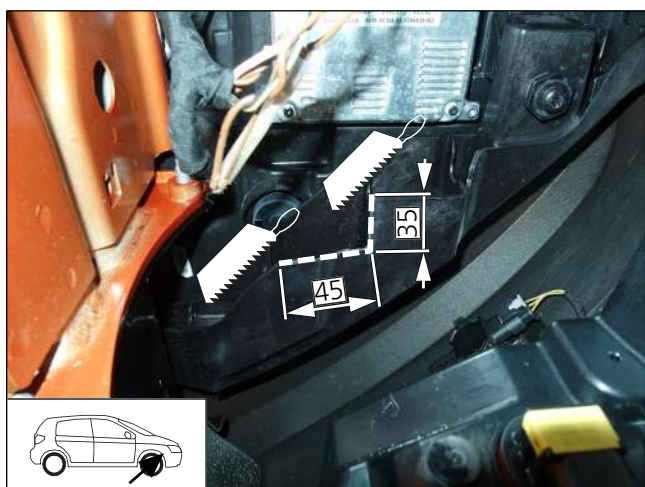


Fig. 26



## Mounting horn with bracket

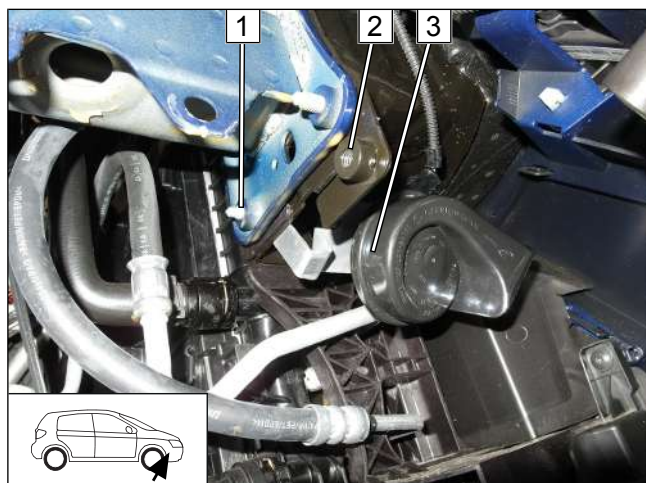


Fig. 27

► Remove original vehicle bolt **1** and reinstall together with premounted horn **3**.

**2** Old fastening position of the horn

## Processing original vehicle wiring harness

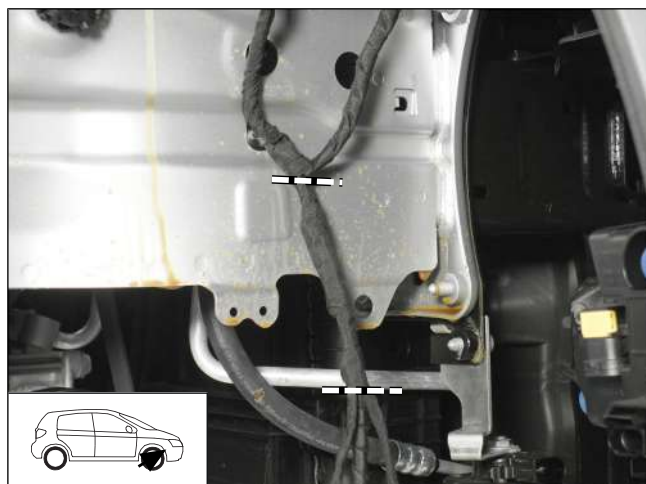


Fig. 28



Fire risk due to possible short circuit

► Take care not to damage the electric wires when removing the insulation.

► Remove the insulation from the original vehicle wiring harness in the marked area.

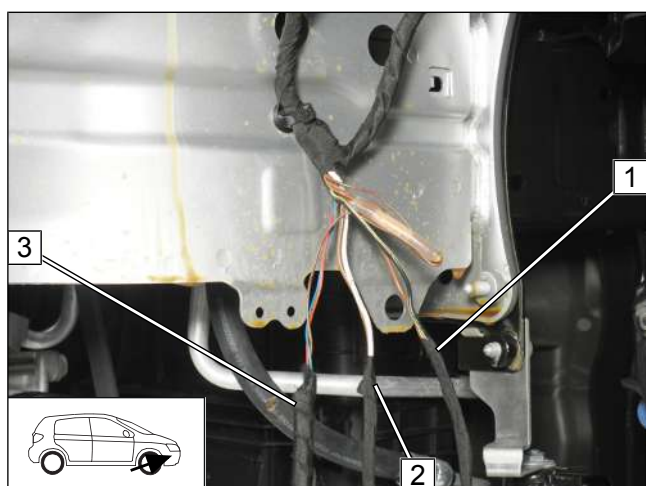


Fig. 29

► Separate the wiring harnesses as shown.

**1** Horn wiring harness

**2** Front fog light wiring harness

**3** Daytime running light wiring harness (if available)

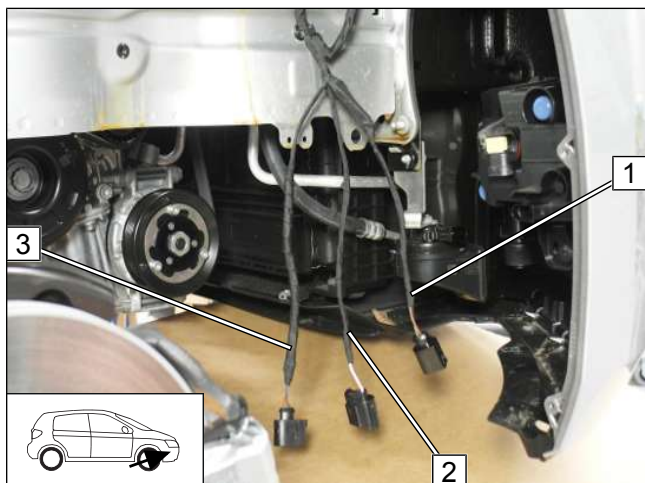


Fig. 30

► Reinsulate wiring harnesses as shown.

- 1 Horn wiring harness
- 2 Front fog light wiring harness
- 3 Daytime running light wiring harness (if available)

### Adapting body

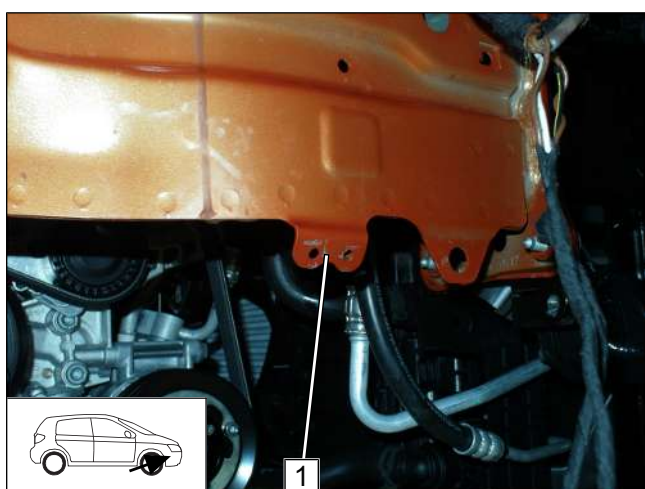


Fig. 31

► Slightly bend lug on frame side member 1 inward.

### Loosely mounting heater

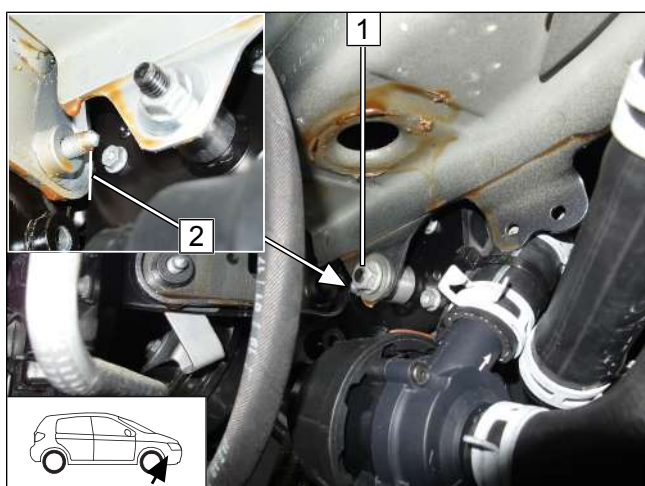


Fig. 32

► Place heater assembly with bracket at position 2 on frame side member.

- 1 Stud bolt of bracket, 20mm shim, original vehicle hole, large diameter washer, M8 flanged nut





## Copying hole pattern

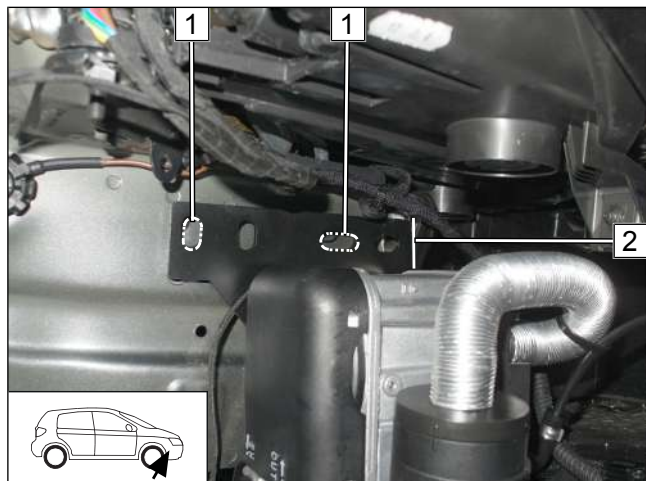


Fig. 33

- ▶ Align bracket parallel with frame side member, position on edge **2** and copy hole pattern **1**.

## Adapting bumper near heater assembly

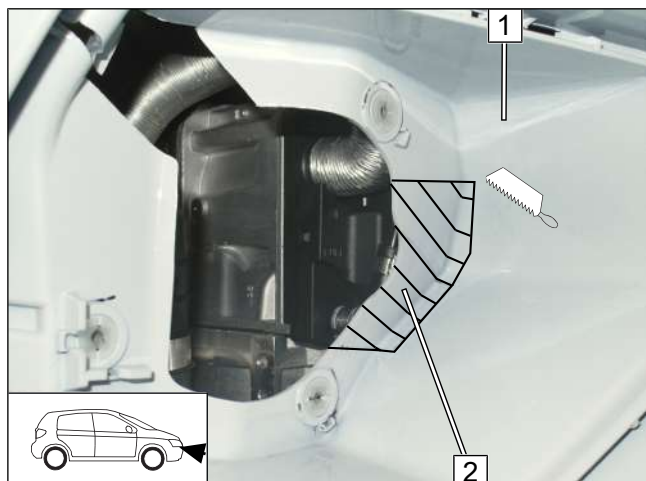


Fig. 34

### **Seat Arona only**

- ▶ Copy markings **2** onto original vehicle bumper **1** as shown.
- ▶ Remove heater assembly again.
- ▶ Cut out the bumper at the markings.

## View of hole pattern

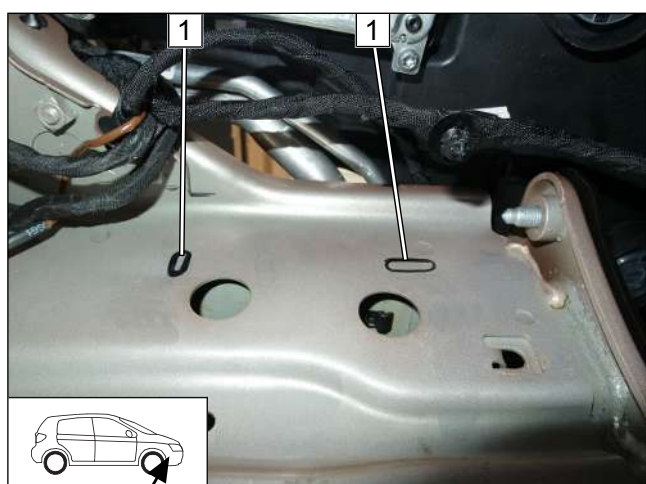


Fig. 35

### **All vehicles**

- ▶ Remove heater assembly again.
- ▶ Hole pattern **1** will be used later for the alignment of the fastening points.



### Drilling hole, inserting rivet nuts

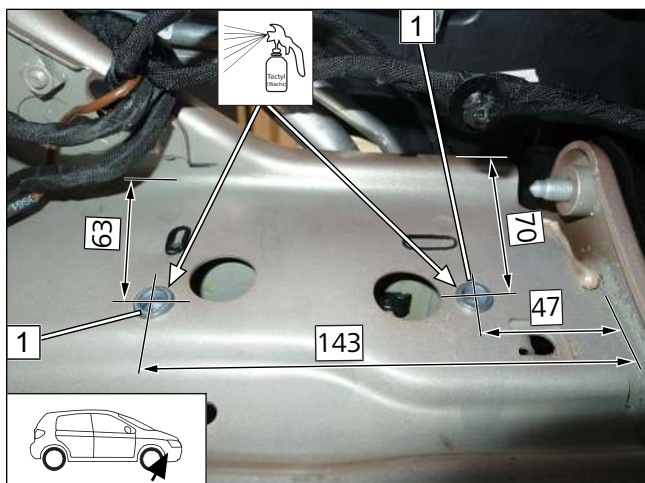


Fig. 36

- 1 9mm dia. hole, M6 rivet nut

### Bending two angle brackets

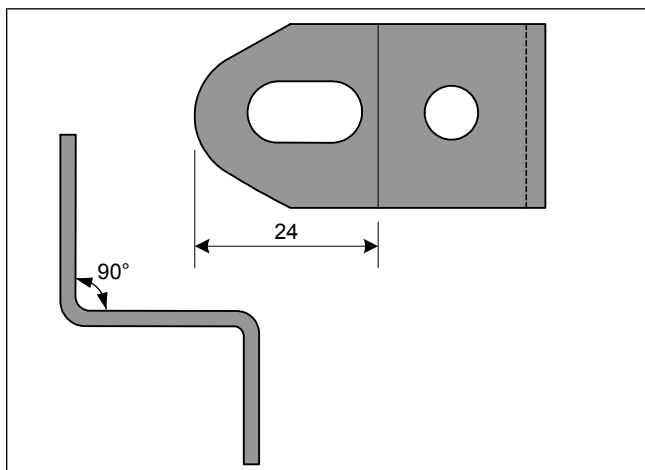


Fig. 37

### Preparing two angle brackets



Fig. 38

- 1 M6x16 bolt with serrated flange, lock washer



## Mounting angle bracket

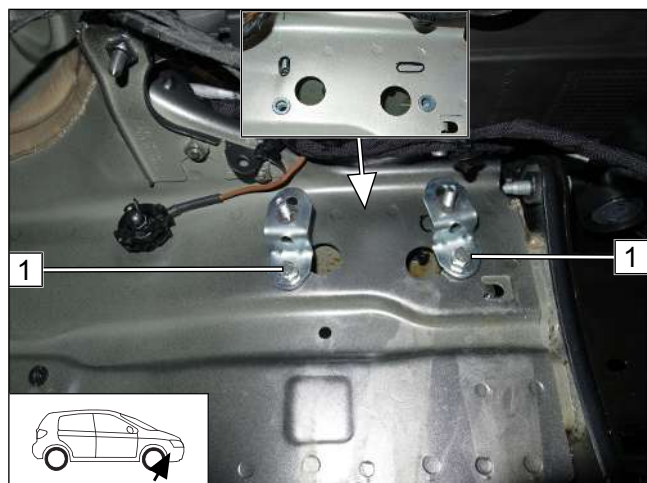


Fig. 39



► Align angle brackets, centered with hole pattern of bracket.

- 1 M6x20 bolt, spring lockwasher, angle bracket

## Fastening horn wiring harness

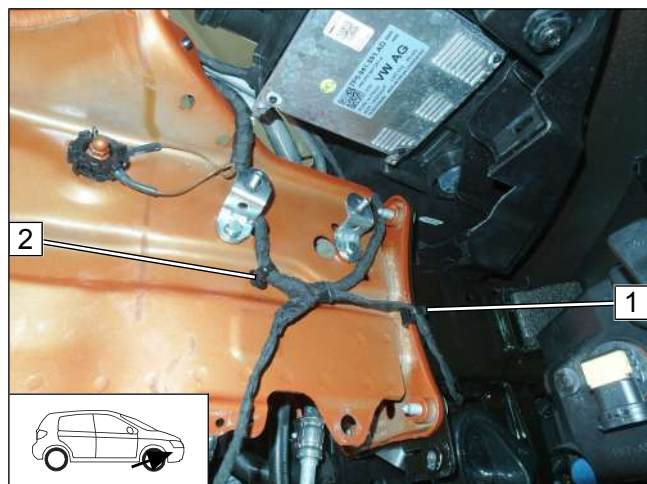


Fig. 40

- 1 Edge clip cable tie
- 2 Eyelet cable tie

## 8.3 Heater assembly installation

### Mounting wiring harness

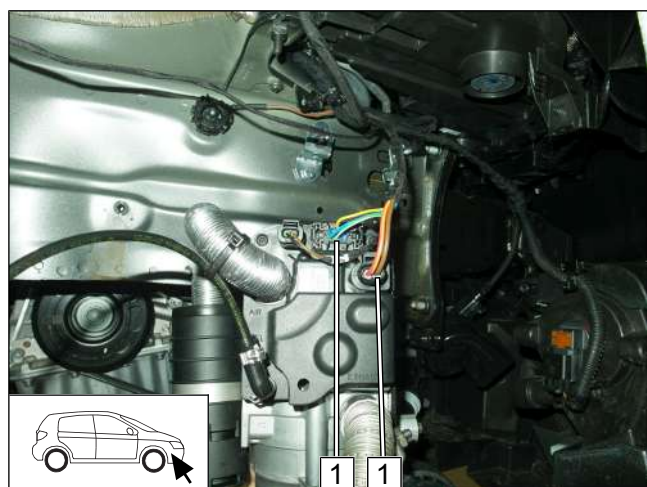


Fig. 41

- 1 Heater wiring harness connector



## Heater assembly installation

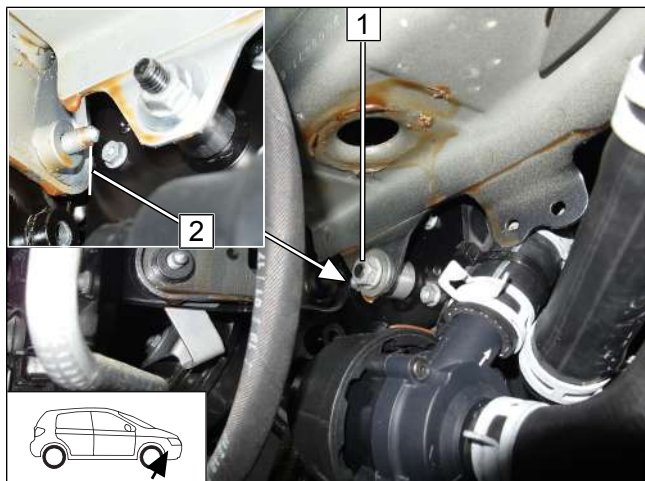


Fig. 42

► Place heater assembly with bracket at position **2** on frame side member.

- 1** Stud bolt of bracket, 20mm shim, original vehicle hole, large diameter washer, M8 flanged nut

## Checking distance

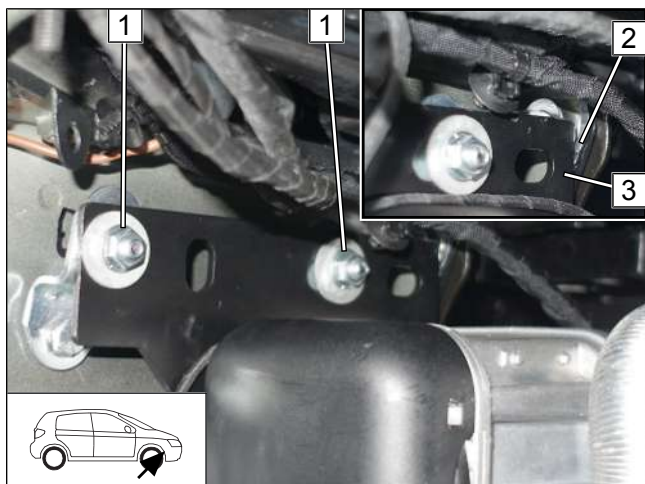


Fig. 43

► Position heater bracket **3** before fastening the nuts on carrier **2**.

- 1** Premounted M6x16 bolt, large diameter washer, flanged nut

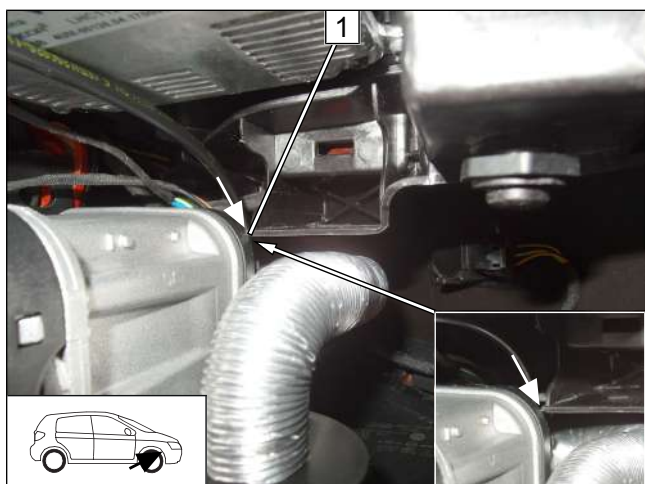
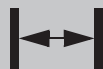


Fig. 44



If there is a headlight carrier, ensure sufficient distance from the heater housing at position **1**, correct if necessary.





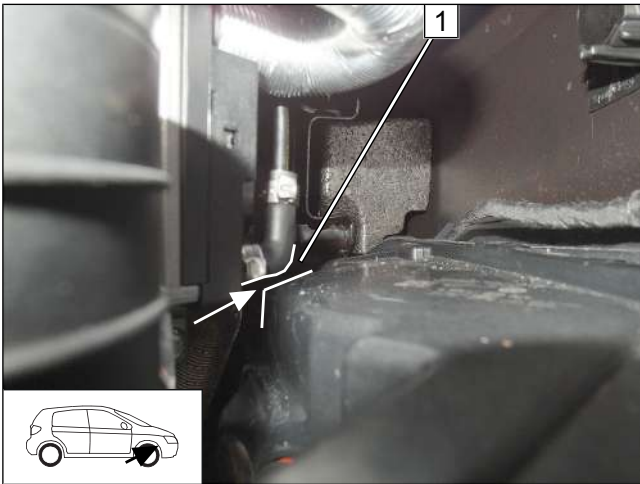


Fig. 45



Ensure sufficient distance between headlight housing and heater fuel hose at position **1**, correct if necessary.

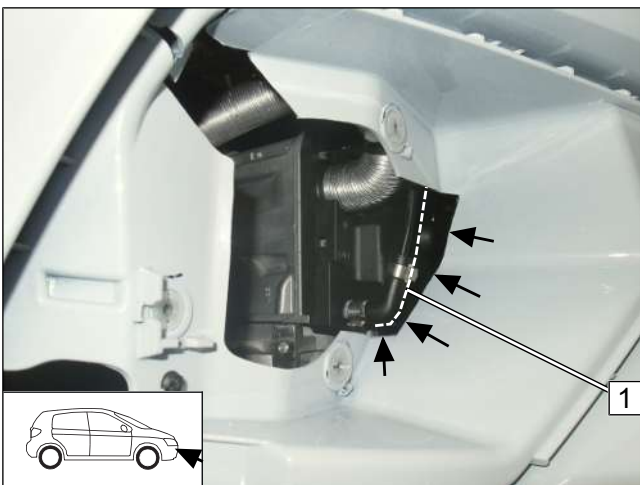


Fig. 46



**Seat Arona only**



Ensure sufficient distance between bumper and heater fuel hose **1** in marked area, correct if necessary.

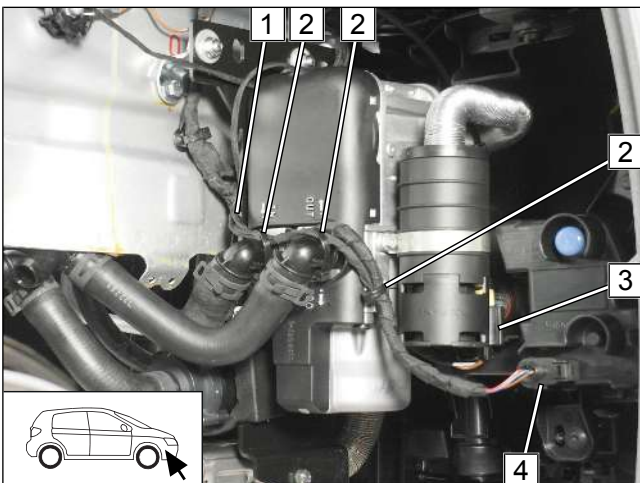


Fig. 47



**All vehicles**

- 1** Front fog light and daytime running light wiring harness (if available)
- 2** Cable tie
- 3** Front fog light wiring harness connector
- 4** Daytime running light wiring harness connector (if available)





## 9 Fuel



### DANGER

**Risk of fire and explosion due to leaking fuel and escaping fuel vapours.**

The Incorrect installation of the fuel extractor can cause damage and fire.

- ▶ Avoid electrostatic discharges and open fire.
- ▶ When working on the fuel system, ensure sufficient ventilation and bleeding.
- ▶ Open the fuel tank cap of the vehicle.
- ▶ Ventilate the fuel tank
- ▶ Re-close the tank lock.
- ▶ Catch any fuel running off with an appropriate container.



### Danger of damage to components

- ▶ Install fuel line and fuel pump wiring harness so that they are protected against stone impact.
- ▶ Provide rub protection for fuel line and wiring harness in areas where there are sharp edges.

### Dismantling fuel pump connector X7

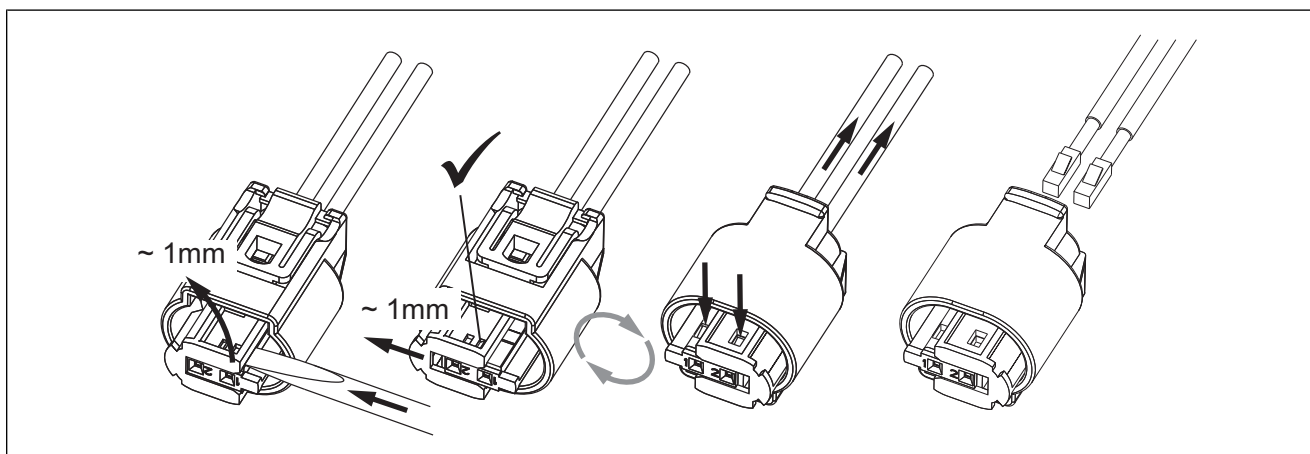


Fig. 48

### 9.1 Routing fuel line

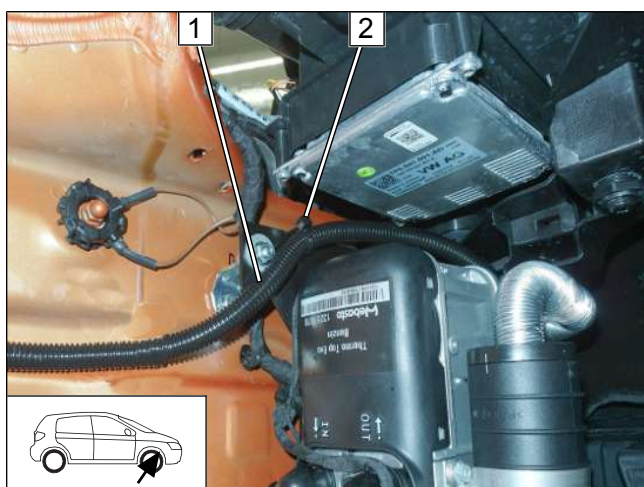


Fig. 49

- ▶ Draw fuel line and fuel pump wiring harness into 10mm dia., 800 long corrugated tube **1** and attach using bracket hole and cable tie **2**.



## Adapting pass through

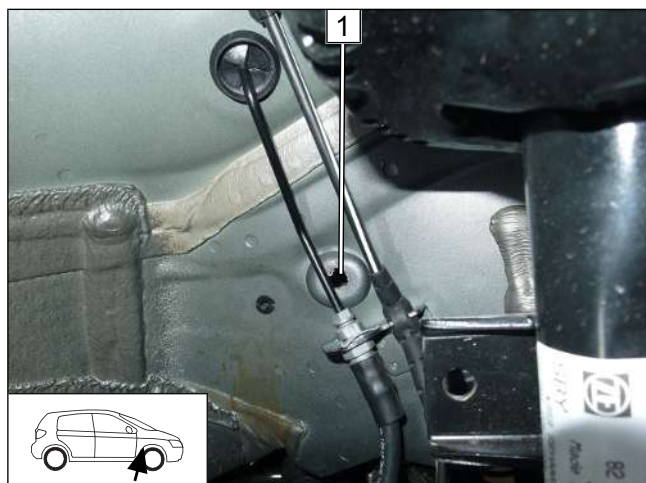


Fig. 50

- ▶ Open original vehicle pass through **1** as shown.

## Cutting two foam strips in half

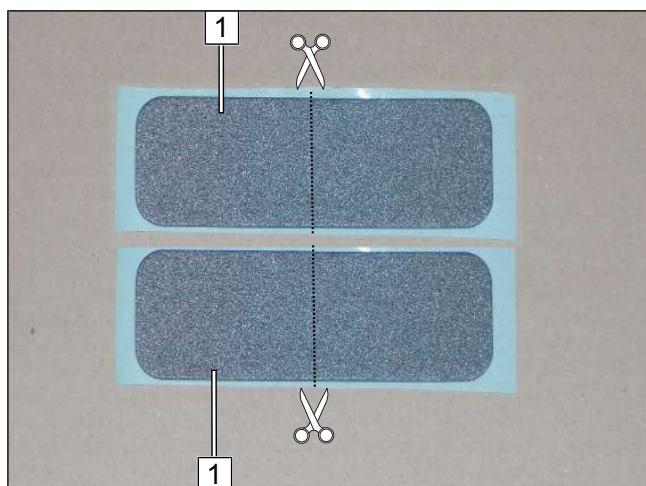


Fig. 51

- ▶ Cut self-adhesive foam **1** in half as shown.

## Routing in wheel well

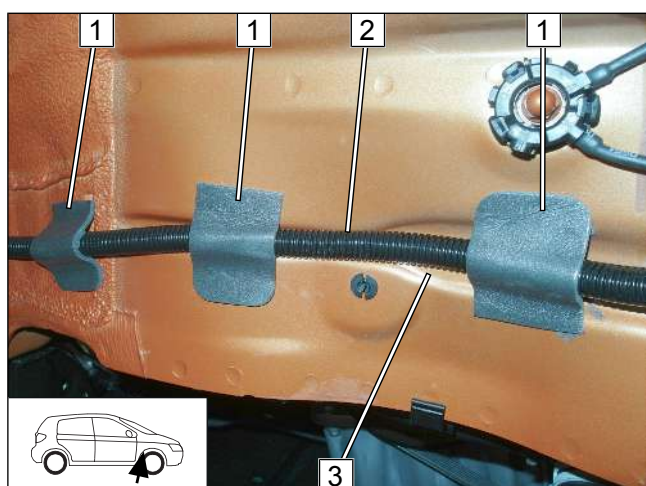


Fig. 52

- ▶ Route corrugated tube with fuel line and fuel pump wiring harness **2** along original vehicle bead **3**.

**1** Self-adhesive foam



## Routing in wheel well and through original vehicle pass through to underbody

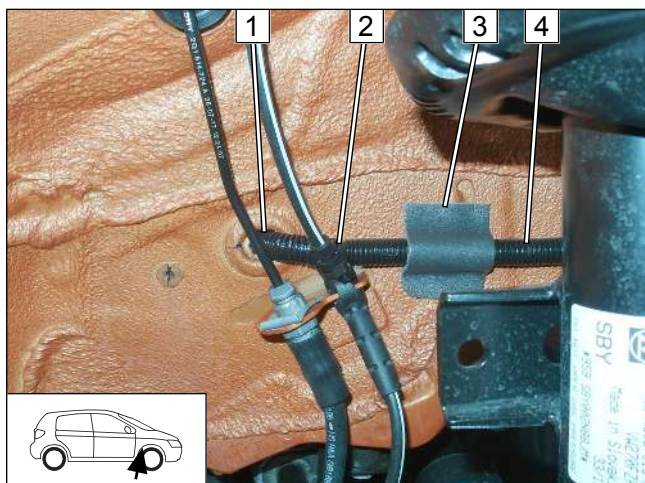


Fig. 53

- 1 Original vehicle pass through
- 2 Cable tie
- 3 Self-adhesive foam
- 4 Fuel line and fuel pump wiring harness in corrugated tube

## Routing on underbody

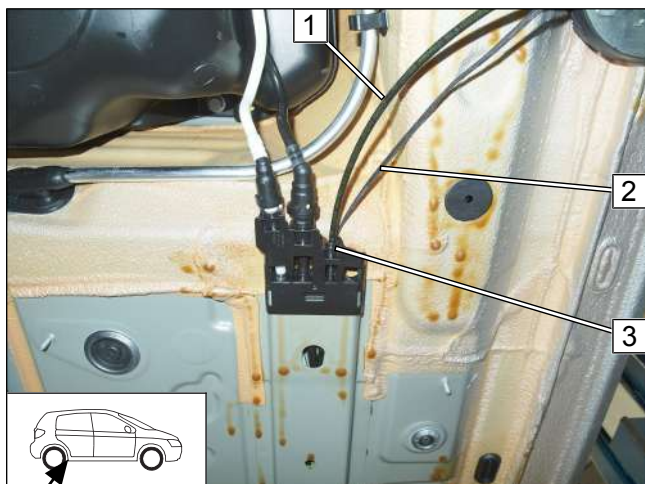


Fig. 54

- 1 Fuel line
- 2 Fuel pump wiring harness
- 3 Original vehicle pass through

## Preparing perforated bracket

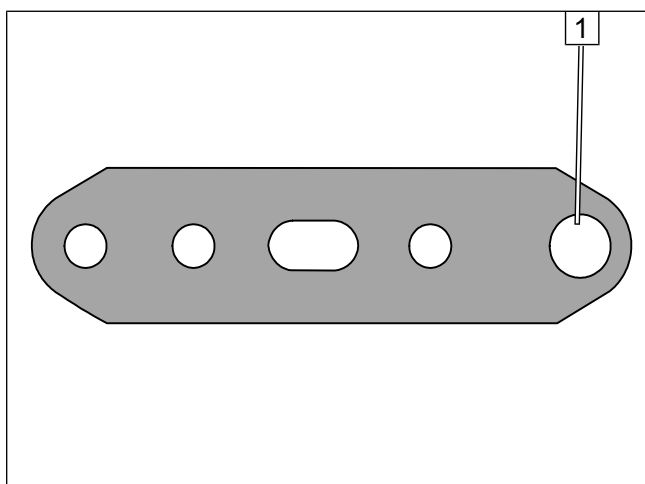


Fig. 55

- 1 Drill out hole to 8.5mm dia.



## Premounting fuel pump

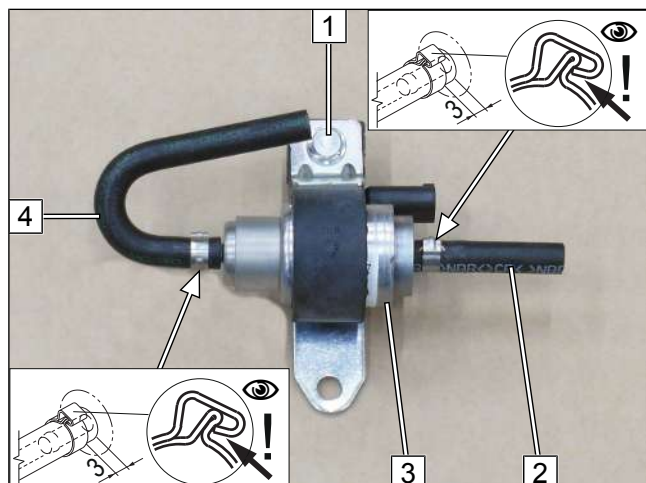


Fig. 56

- 1 M6x25 bolt, support angle bracket, fuel pump mount, perforated bracket, flanged nut
- 2 Hose section, 10mm dia. clamp
- 3 Fuel pump
- 4 180° moulded hose, 10mm dia. clamp

## Fuel pump installation

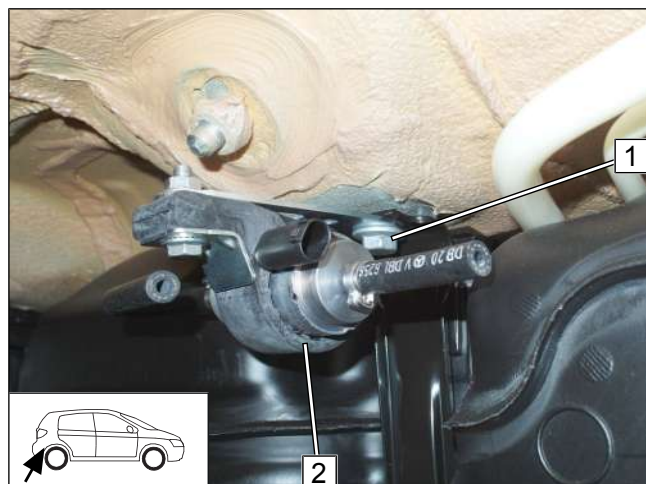


Fig. 57

- 1 Original vehicle bolt, large diameter washer
- 2 Premounted fuel pump

## Routing to fuel pump



Fig. 58

- Cut corrugated tube 1 to length as shown before the installation. Draw fuel line and fuel pump wiring harness into corrugated tube and route as shown.





## Mounting fuel pump connector X7

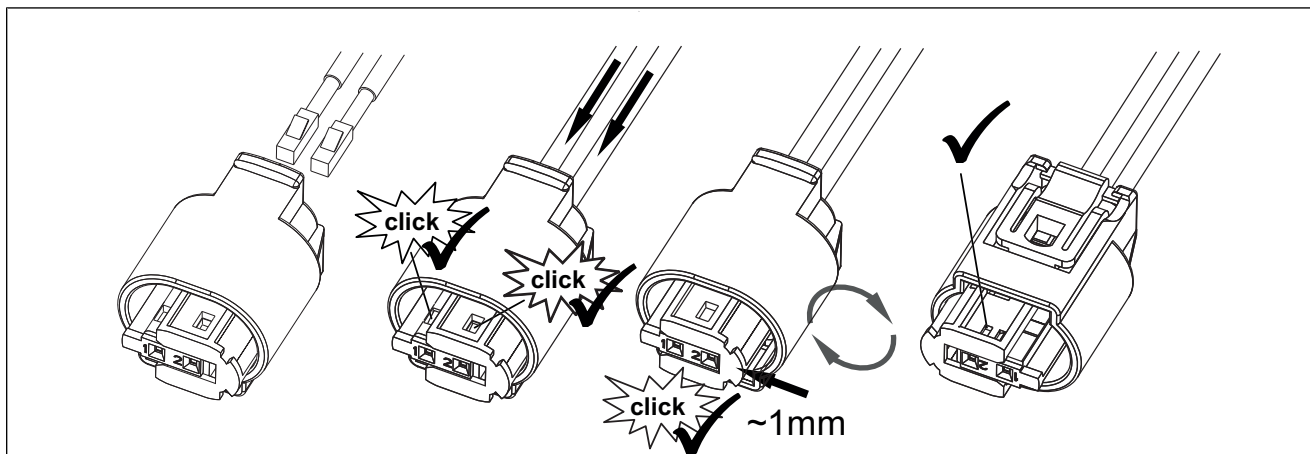


Fig. 59

## Fuel pump connection

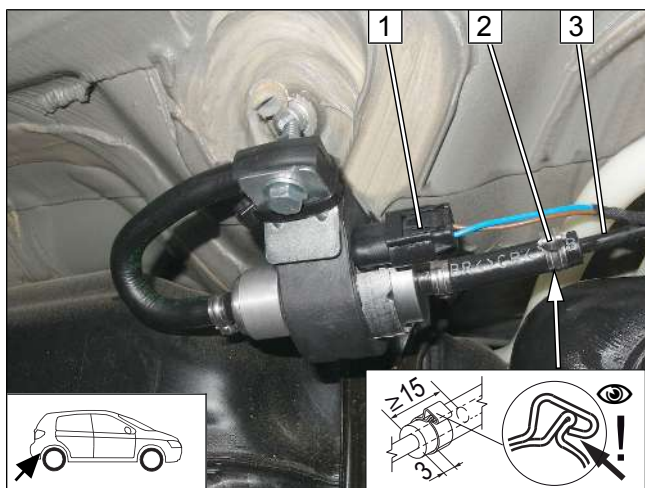


Fig. 60

- 1 Fuel pump wiring harness, connector X7 mounted
- 2 10mm dia. clamp
- 3 Heater fuel line

## 9.2 Installing FuelFix

### Preparing drilling template

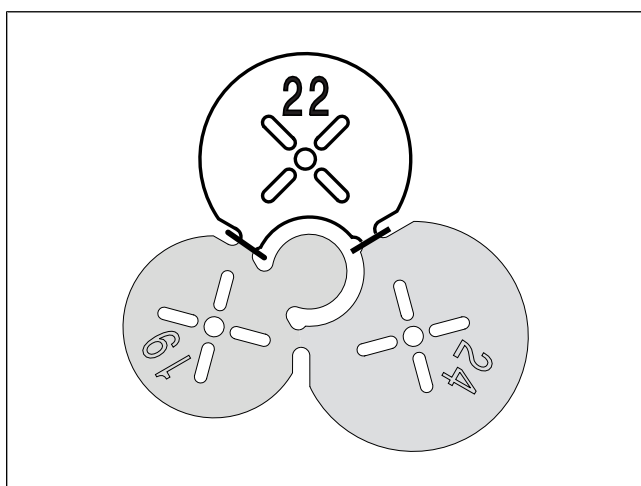


Fig. 61

- Bend 19mm dia. and 24mm dia. up by 90°.



## Copying hole pattern

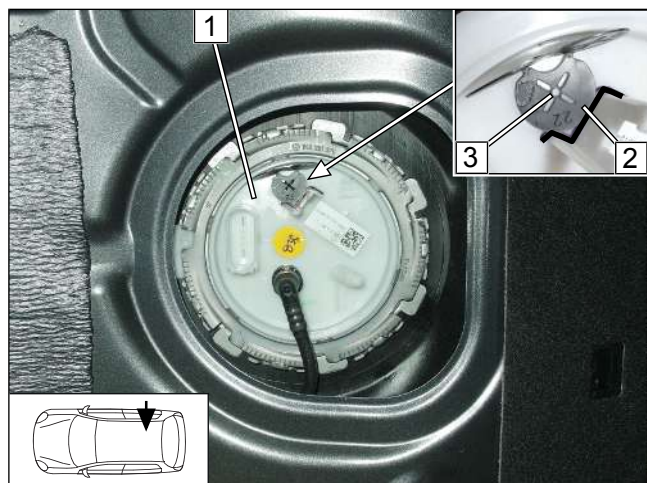


Fig. 62



Observe the installation instructions of the tank extracting device.



The colour of the tank fitting may vary.

► Work steps F1, F2

- 1 Tank fitting
- 2 Position 22mm dia. drilling template as shown
- 3 Hole pattern

## Hole for FuelFix

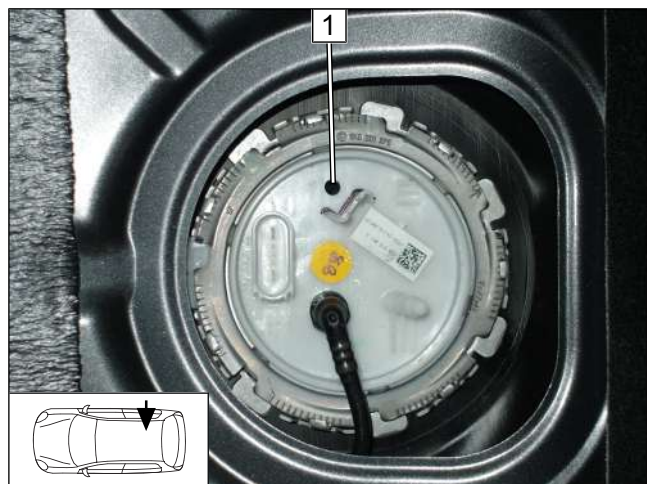


Fig. 63



### DANGER

Risk of fire and explosion due to leaking fuel and escaping fuel vapours

► Work step F3

- 1 Hole made with provided drill

## Preparing FuelFix

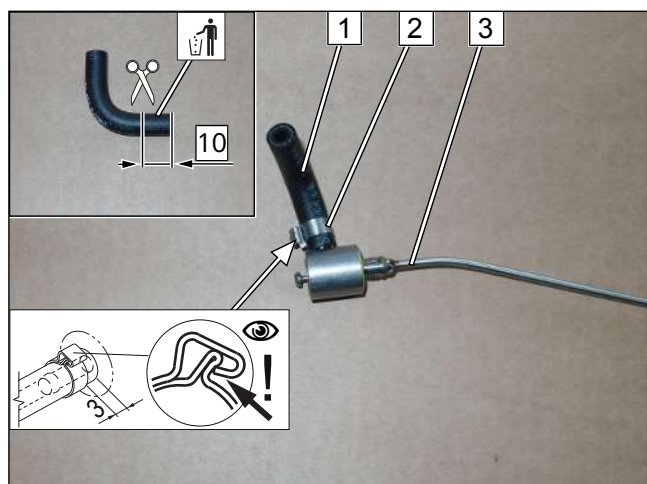


Fig. 64

► Work steps F4, F6.1

► Bend FuelFix 3 as shown in template and cut to length.

- 1 90° moulded hose, shortened hose end on FuelFix
- 2 10mm dia. clamp



## Inserting FuelFix

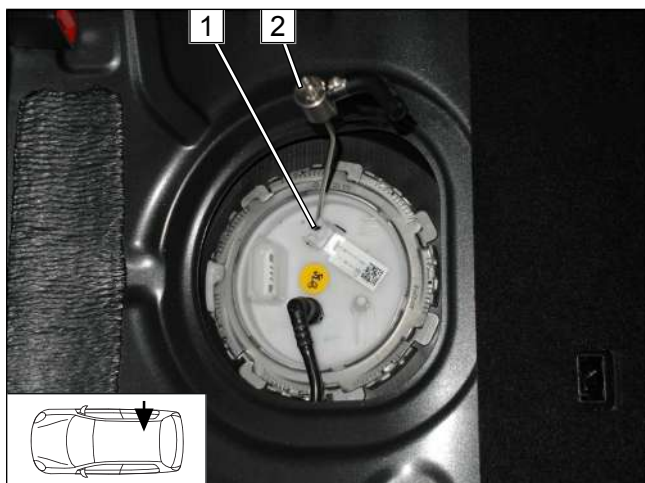


Fig. 65

- ▶ Work step F5
- ▶ Insert FuelFix **2** in hole **1**.



Fig. 66

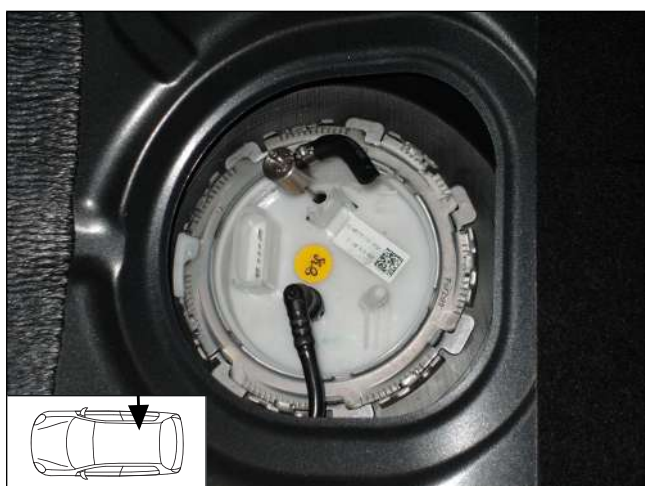


Fig. 67



## Aligning FuelFix

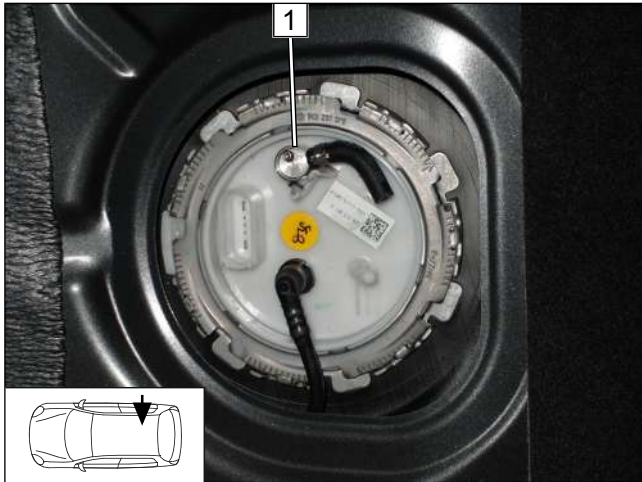


Fig. 68

- ▶ Work steps F5.3, F5.4
- ▶ Align FuelFix **1** as shown.

## Connecting fuel line and routing it to fuel pump installation location

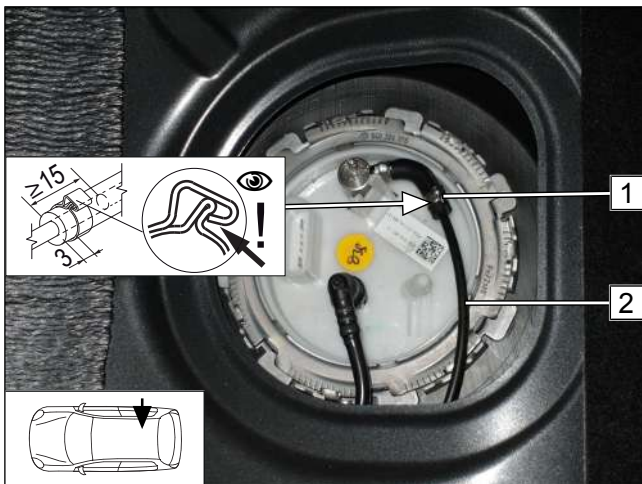


Fig. 69

- ▶ Work step F6.2
- 1** 10mm dia. clamp
- 2** Fuel line

## Mounting FuelFix

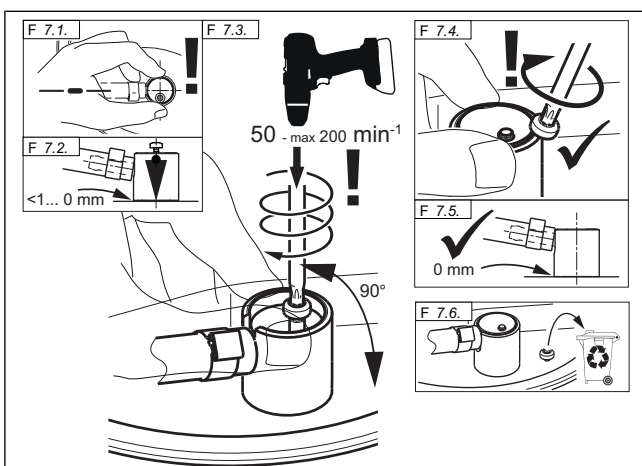


Fig. 70



### DANGER

Risk of fire and explosion due to leaking fuel and escaping fuel vapours

- ▶ Work step F7





## Checking firm seating of FuelFix

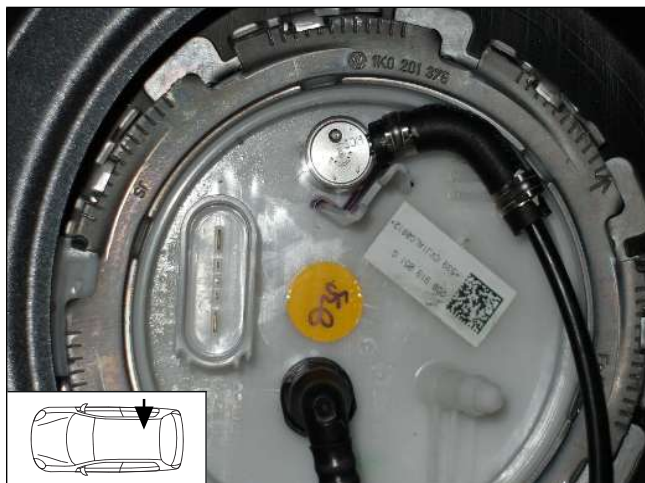


Fig. 71

► Work step F8

## Securing fuel line

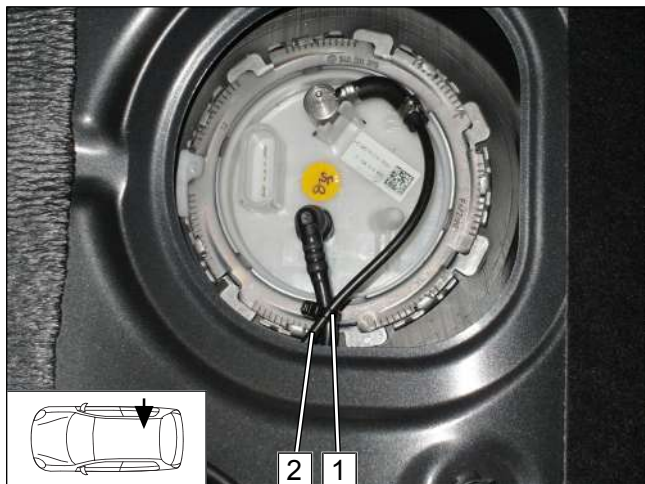


Fig. 72

- 1 Cable tie for tension relief
- 2 Fuel line FuelFix

## 9.3 Fuel pump connection

### Connecting fuel line of FuelFix

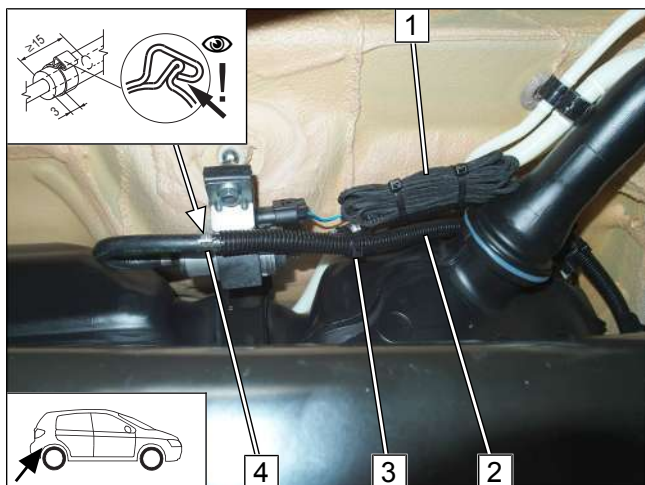


Fig. 73

► Fasten rest of fuel pump wiring harness **1** with heater fuel line to original vehicle line as shown.

- 2 Corrugated tube with FuelFix fuel line
- 3 Cable tie
- 4 10mm dia. clamp



## 10 Coolant

### 10.1 Hose routing diagram

'Inline' coolant circuit

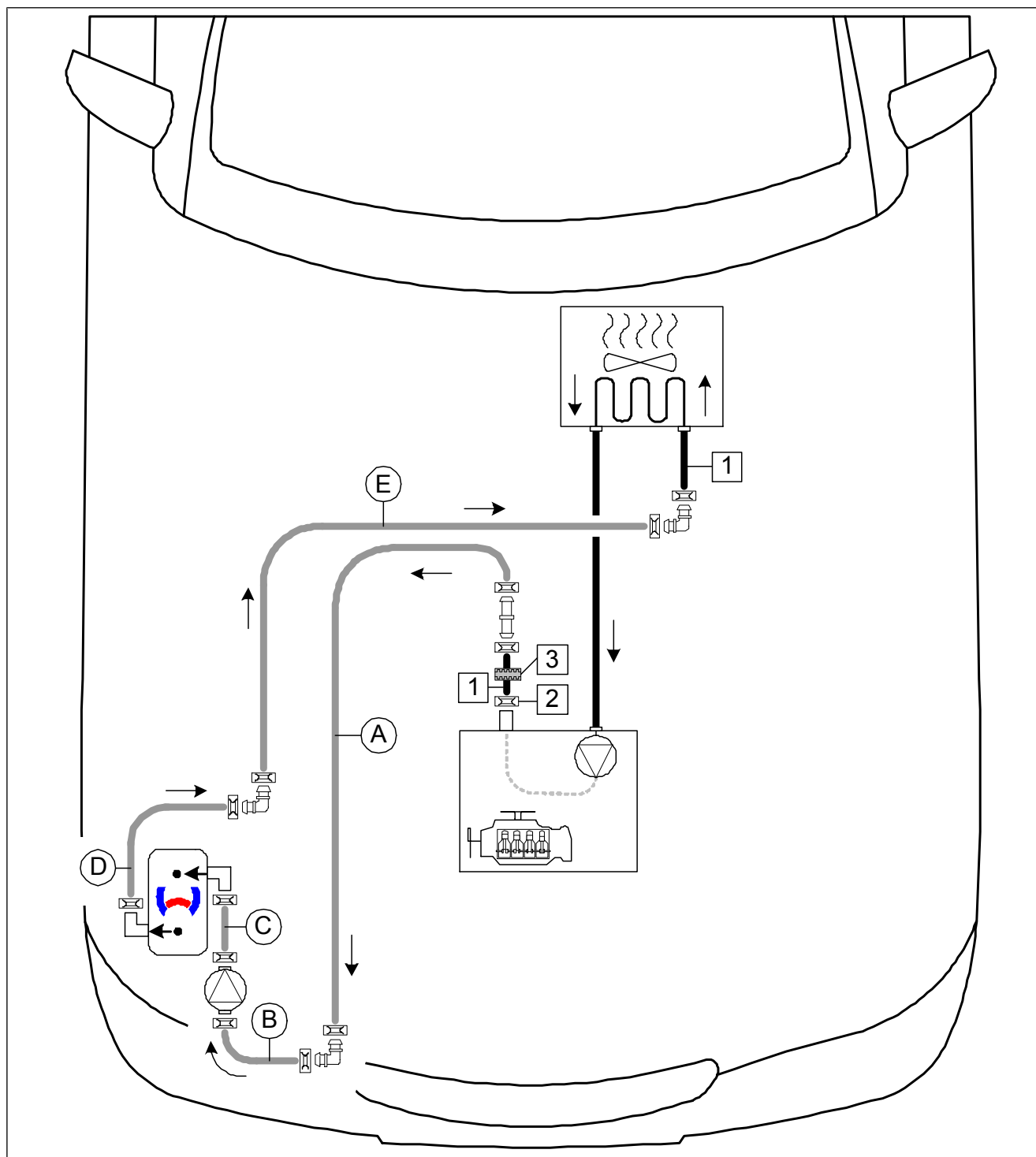






Fig. 74

All spring clips without a specific designation  = 25mm dia.

All connecting pipes  or  = 18x18mm dia.

**1** Original vehicle coolant hose; **2** Original vehicle spring clip ; **3** Black (sw) rubber isolator  70kW and 85kW only



## 10.2 Preliminary work

### Preparing perforated bracket 1

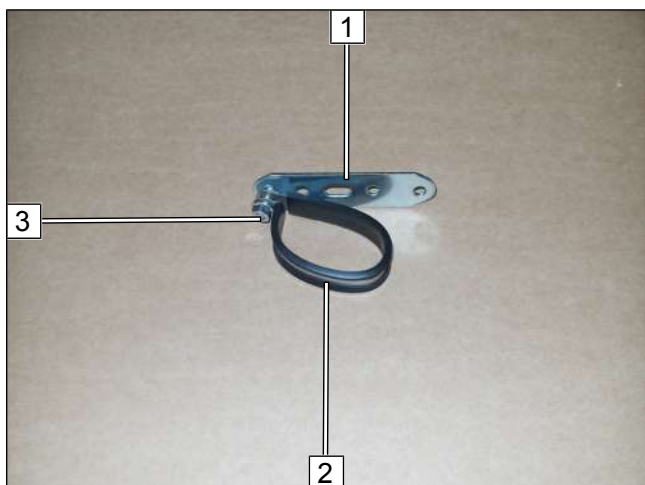


Fig. 75

- 1 Perforated bracket 1
- 2 48mm dia. rubber-coated p-clamp
- 3 M6x20 bolt, flanged nut mounted loosely

### Bending perforated bracket 2

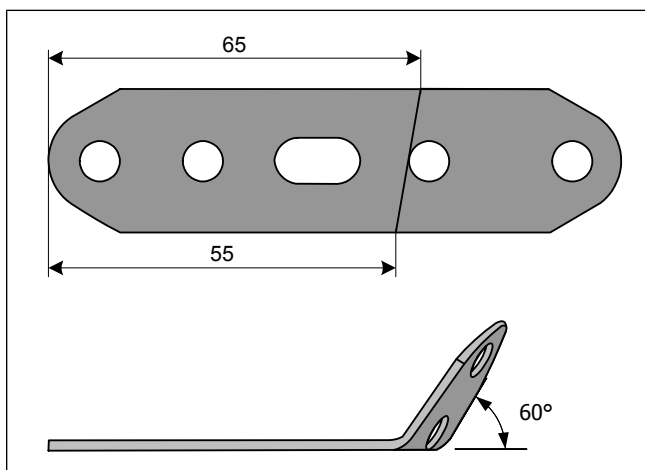


Fig. 76

### Preparing perforated bracket 2

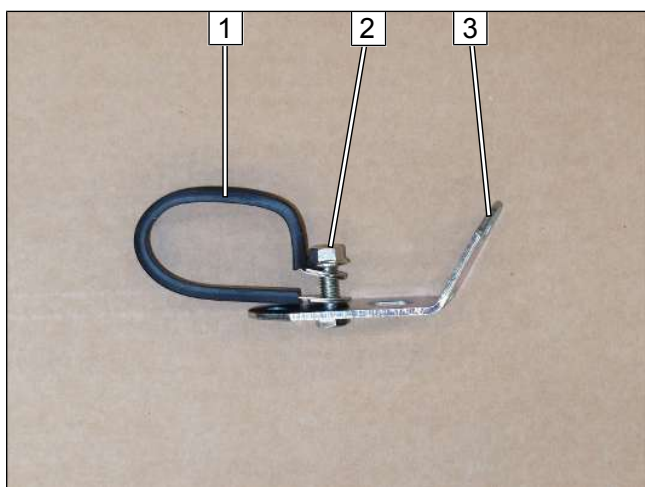
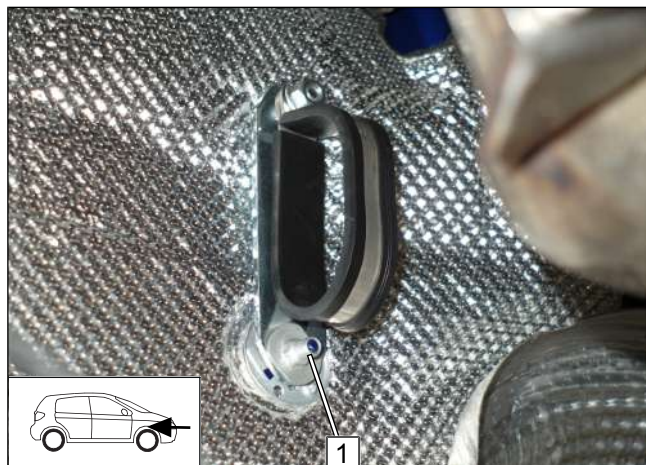


Fig. 77

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



### Mounting perforated bracket 1



- 1 Original vehicle stud bolt, premounted perforated bracket, plate nut

Fig. 78

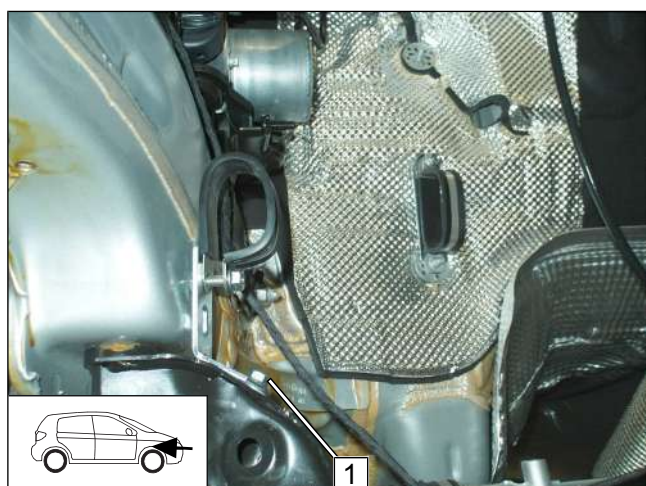
### Inserting rivet nut



- 1 Aluminium rivet nut in original vehicle hole

Fig. 79

### Mounting perforated bracket 2



- 1 M6x20 bolt, spring lockwasher, premounted perforated bracket

Fig. 80





## 10.3 Coolant circuit installation for 55 kW

### Cutting point

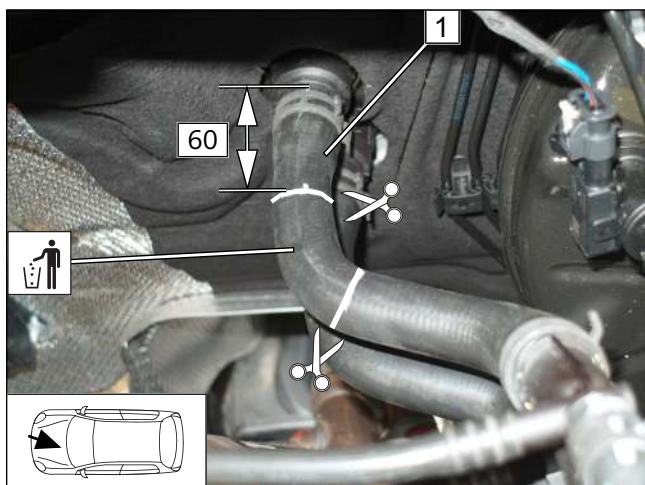


Fig. 81

- 1 Engine outlet / heat exchanger inlet hose

### Engine outlet and heat exchanger inlet connection

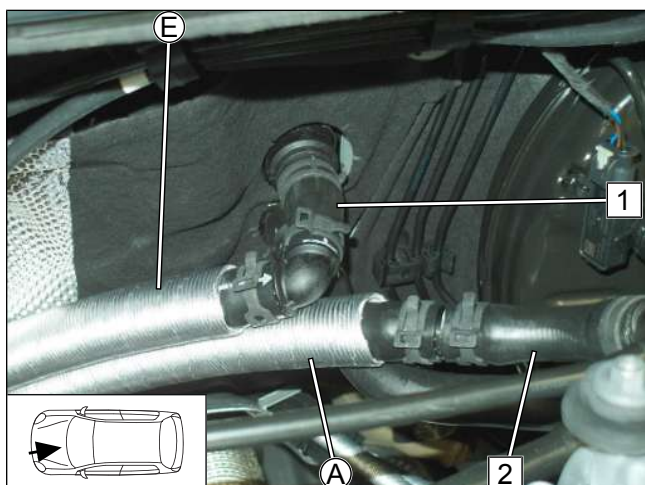


Fig. 82

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

### Fastening hose

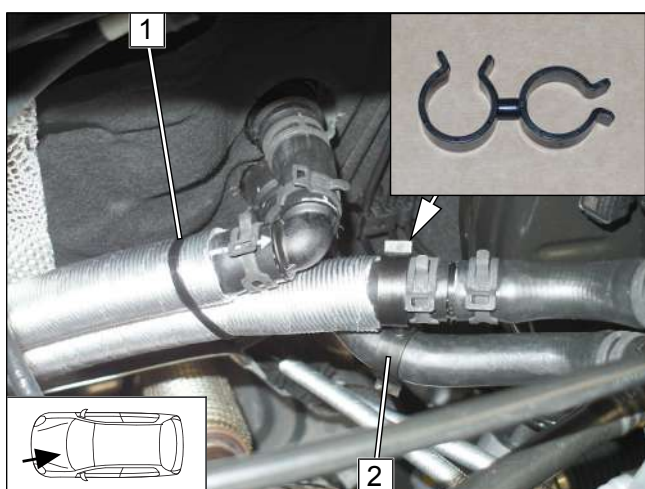


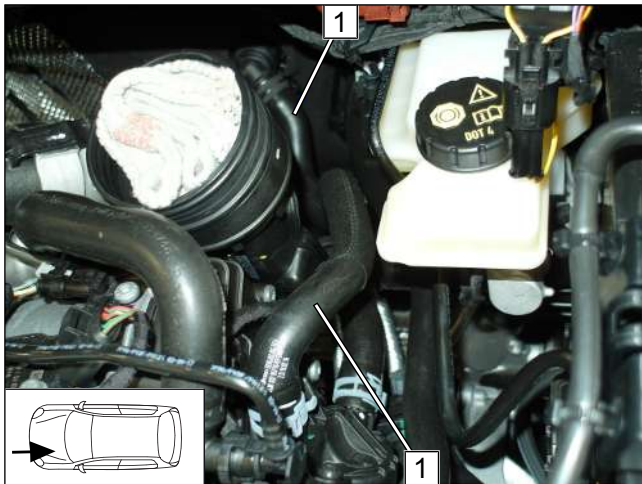
Fig. 83

- Fasten hoses (A) and (E) using cable tie 1.
- Hose bracket 2 between hose (A) and original vehicle hose.



## 10.4 Coolant circuit installation for 70 kW and 85 kW

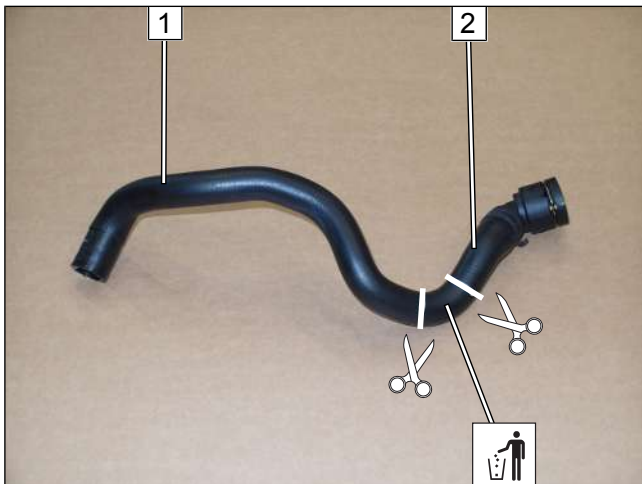
### Removing original vehicle hose



- ▶ Remove hose of engine outlet / heat exchanger inlet **1**.

Fig. 84

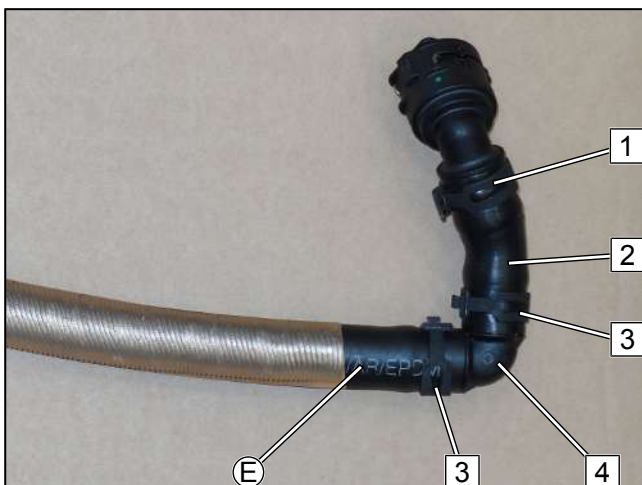
### Cutting engine outlet / heat exchanger inlet hose to length



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

Fig. 85

### Premounting hose (E)



- 1** Original vehicle spring clip
- 2** Heat exchanger inlet hose section
- 3** 25mm dia. spring clip
- 4** 18x18 / 90° connecting pipe

Fig. 86



## Heat exchanger inlet connection

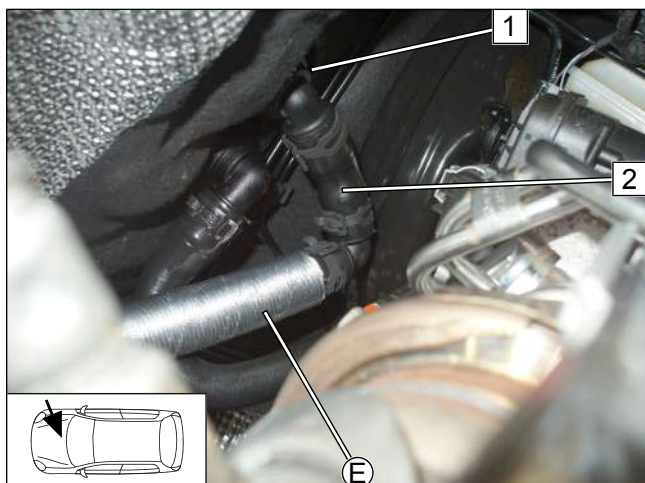


Fig. 87

- 1 Heat exchanger inlet connection piece
- 2 Heat exchanger inlet hose section

## Premounting hose (A)

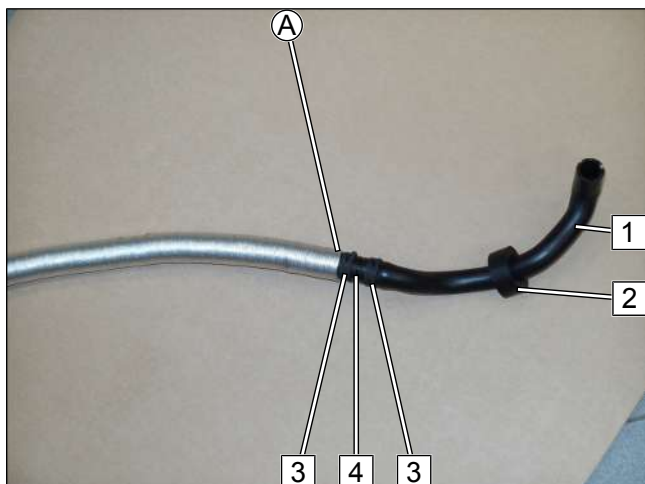


Fig. 88

- 1 Engine outlet hose section
- 2 Black (sw) rubber isolator
- 3 25mm dia. spring clip
- 4 18x18mm connecting pipe

## Engine outlet connection

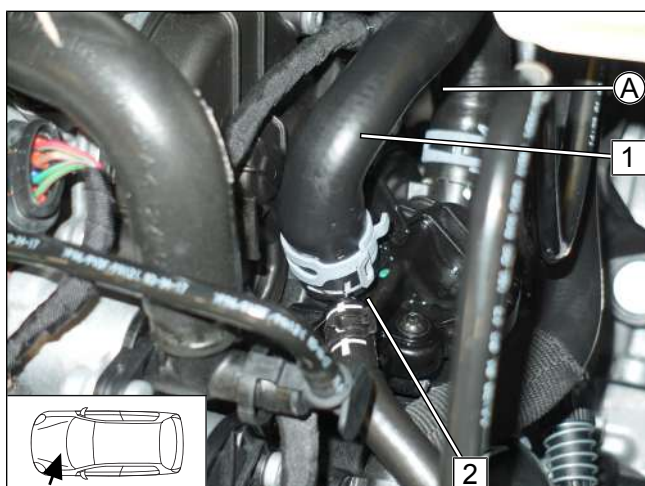


Fig. 89

- 1 Engine outlet hose section
- 2 Engine outlet connection piece



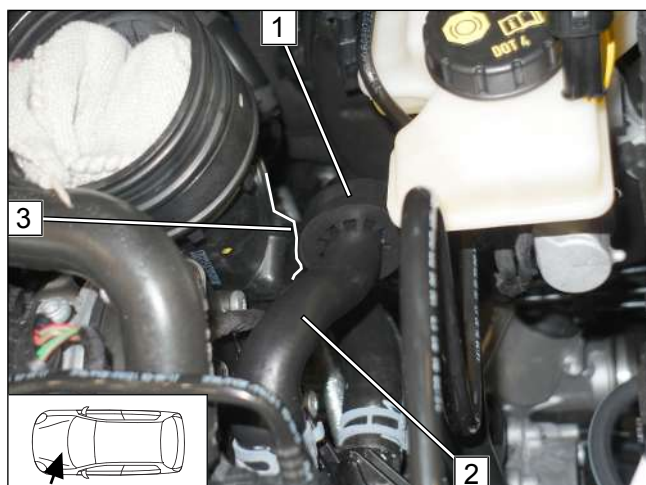


Fig. 90

- ▶ Position black rubber isolator **1** on edge **3** as shown.
- 2** Engine outlet hose section

### Mounting hose bracket

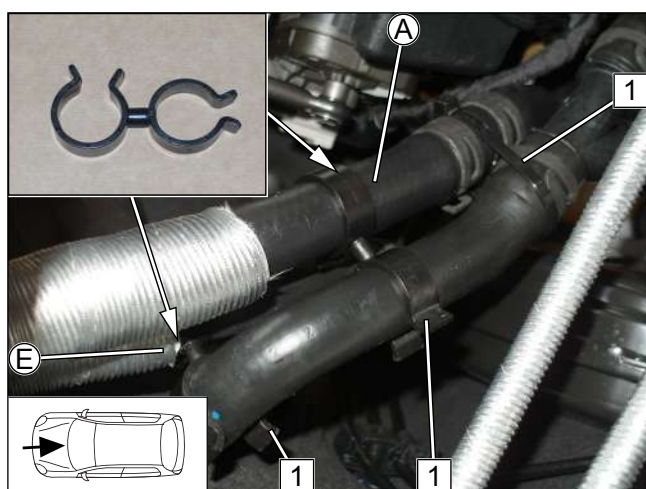


Fig. 91

- ▶ Fasten hoses **A** and **E** to original vehicle hose, each time by using hose brackets **1**.
- 1** Cable tie

## 10.5 Routing coolant hoses and connecting heater

### Routing hoses **A** and **E**

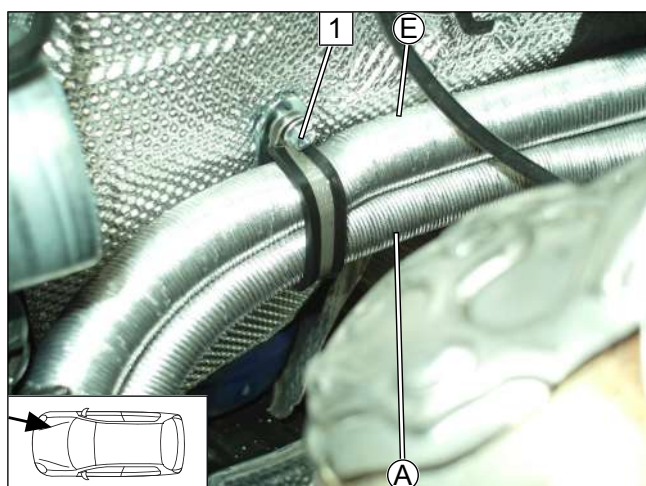


Fig. 92

- 1** 48mm rubber-coated p-clamp, M6x20 bolt, tighten flanged nut



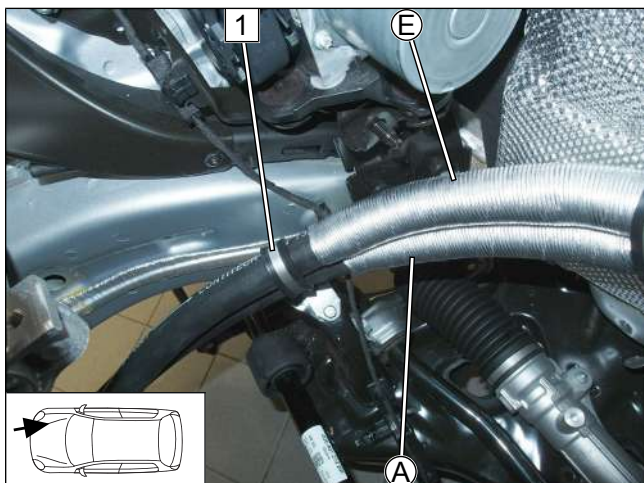


Fig. 93

- 1 38mm rubber-coated p-clamp, M6x20 bolt, tighten flanged nut

### Mounting hose (E)

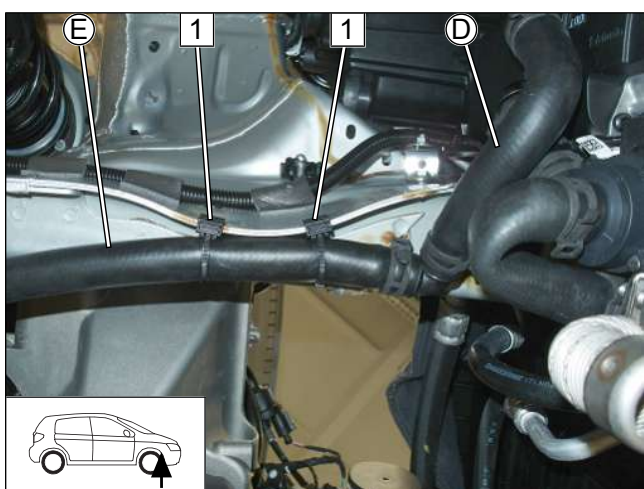


Fig. 94

- 1 Edge clip cable tie

### Mounting hose (A)

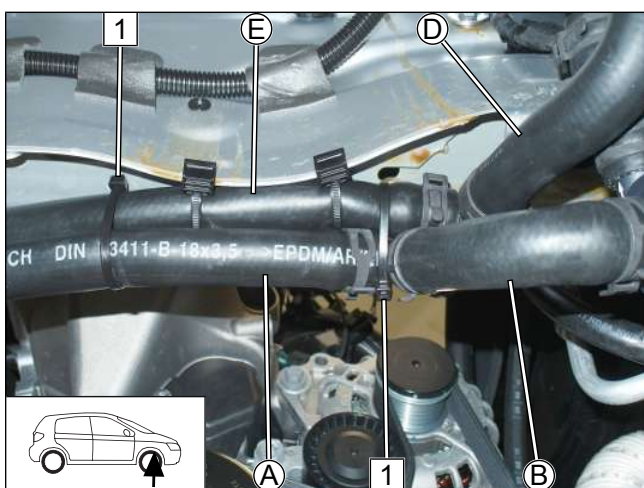


Fig. 95

- 1 Cable tie



## Checking distance



Fig. 96



Ensure sufficient distance from neighbouring components, correct if necessary.





## 11 Final work in engine compartment

### Aligning exhaust silencer

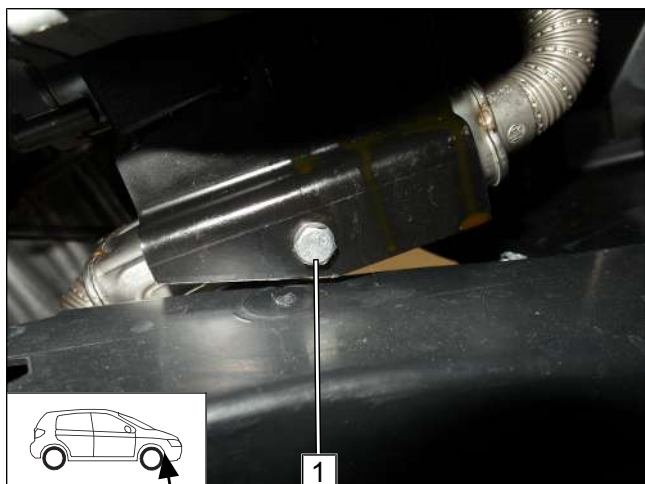


Fig. 97

- ▶ Align exhaust silencer, tighten M6x30 bolt **1**.

### Aligning exhaust pipe **a2**



Fig. 98



#### VW Polo and Seat Arona version 1

- ▶ Mount wheel well trim **1** and underride protection **2**.
- ▶ Align exhaust pipe **a2** with centre of pass through.

### Preparing wheel well trim

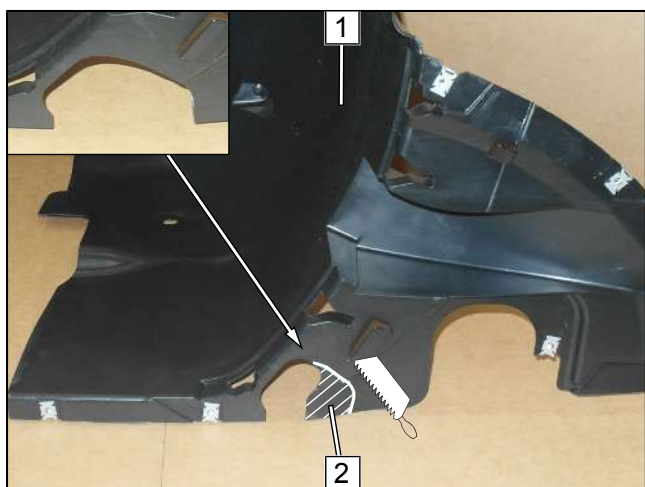


Fig. 99



#### Seat Arona version 2

- ▶ Cut out marked area **2** on wheel well trim **1** as shown.



## Preparing underride protection

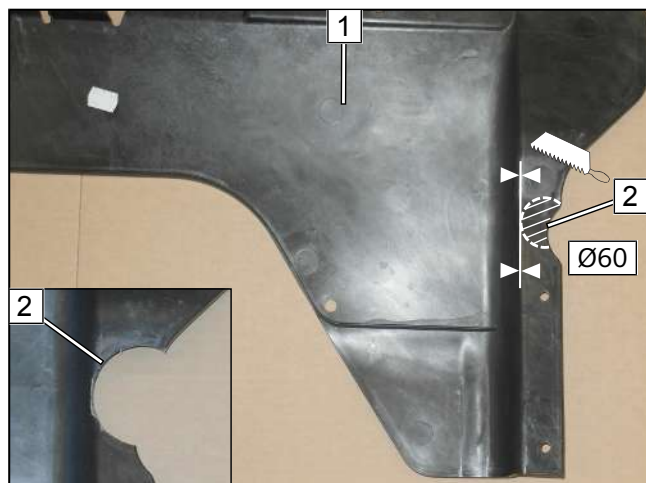


Fig. 100

- ▶ Cut out marked area **2** on underride protection **1** as shown.

## Aligning exhaust pipe **a2**

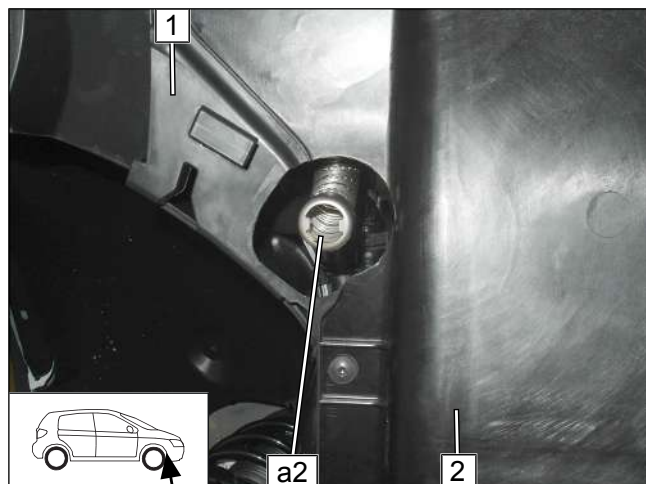


Fig. 101

- ▶ Mount wheel well trim **1** and underride protection **2**.
- ▶ Align exhaust pipe **a2** with centre of pass through.

## Checking distance

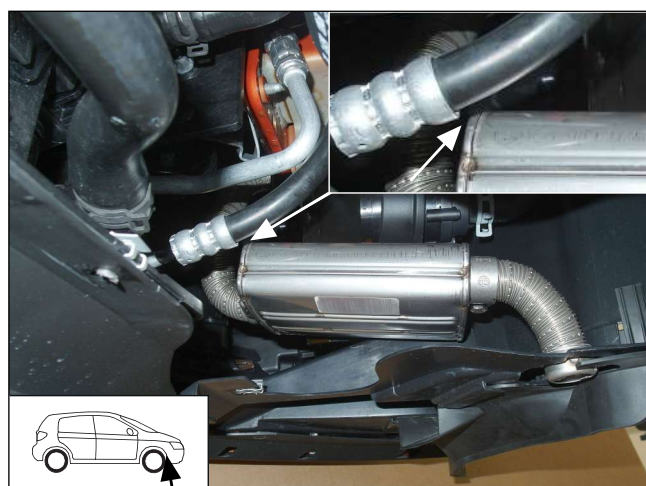


Fig. 102



**All vehicles**



Danger of damage to components

- ▶ Ensure sufficient distance from neighbouring components, correct if necessary.



## 12 Electrical system of passenger compartment

### 12.1 Air-conditioning control

Integrate the air-conditioning control as per the separate installation documentation:



**'Webasto Standard'** A/C control installation documentation for VW / Skoda / Seat MQB with AAC

or



**'Webasto Standard'** A/C control installation documentation for VW Polo / Seat Ibiza with AC





## 13 Electrical system of control elements

### 13.1 MultiControl CAR option

#### Mounting MultiControl CAR

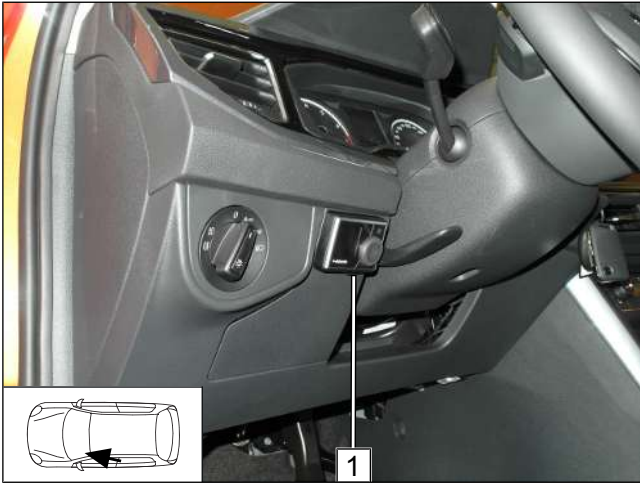


Fig. 103



Observe the MultiControl CAR installation documentation.

- 1 Installation frameMultiControl CAR

### 13.2 Telestart option

#### Mounting receiver

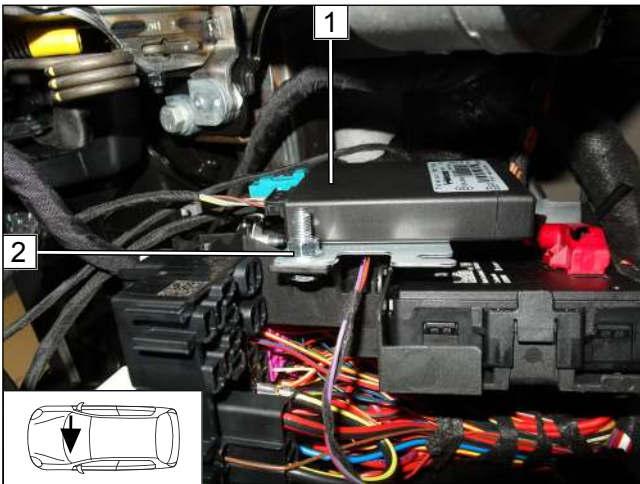


Fig. 104



Observe the Telestart installation documentation.

- 1 Receiver
- 2 M5x16 bolt, large diameter washer, original vehicle hole, receiver bracket, large diameter washer, M5 flanged nut

#### Mounting temperature sensor, only in case of T100 HTM

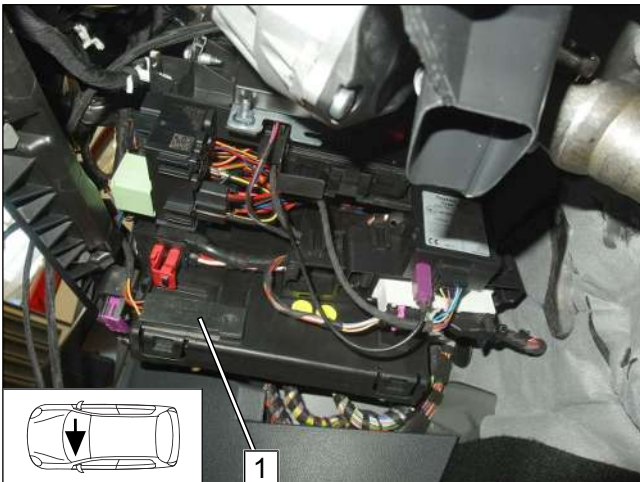


Fig. 105

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



## Mounting aerial

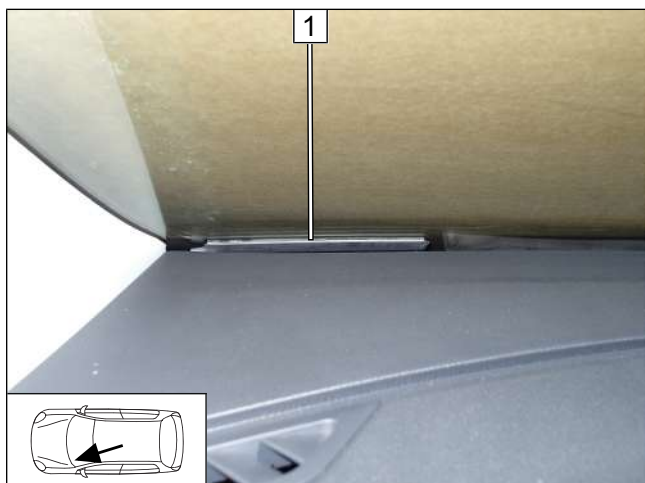


Fig. 106

**1** Aerial

## 13.3 ThermoCall option

### Mounting receiver

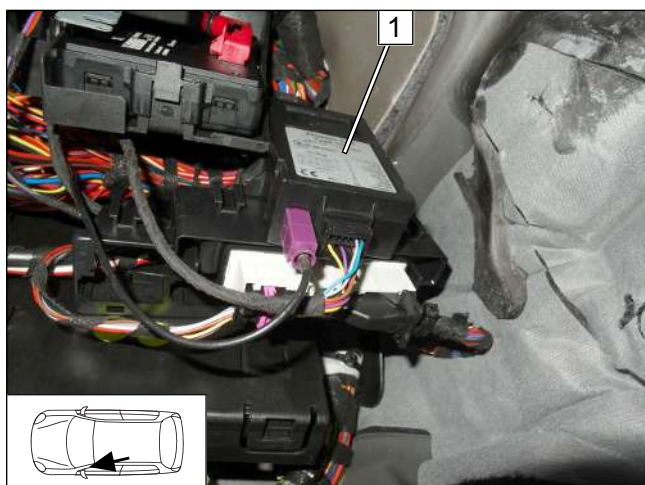


Fig. 107



Observe the ThermoCall installation documentation.

► Fasten receiver **1** using double-sided adhesive tape.

### Mounting aerial (optional)

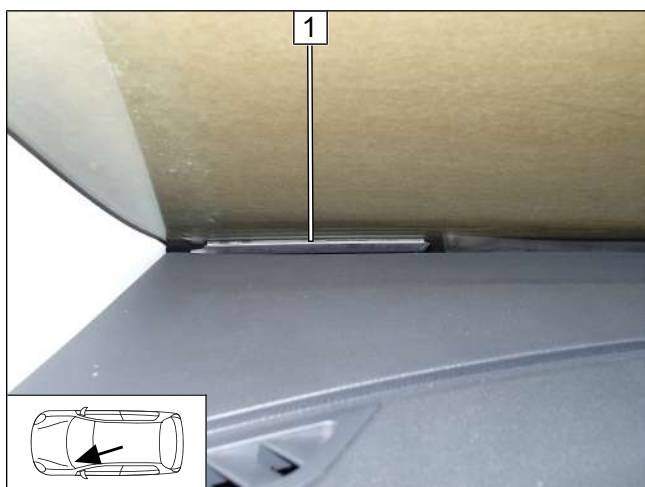


Fig. 108

**1** Aerial



## 14 Final work



Further information can be found in the vehicle manufacturer's technical documentation.

- ▶ Mount removed parts in reverse order.



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

▶ Insulate and tie back loose lines

▶ Spray heater and electrical components with anti-corrosion wax (Tectyl 100K).

▶ Connect the battery.



**Only use manufacturer-approved coolant.**

- ▶ Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.



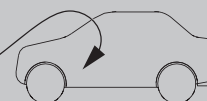
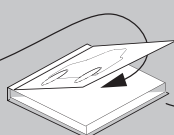
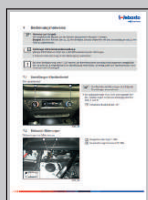
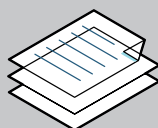
Further information can be found in the general installation and operating instructions of the Webasto components.

▶ Program MultiControl CAR, teach Telestart transmitter

▶ If the fan function or A/C control panel settings need to be checked, see the installation documentation in the additional kit 'Webasto Standard' A/C control, section 'Final work'

▶ Initial start-up and function check

▶ Affix 'Switch off parking heater before refueling' caution label in area of filler neck





These are the original instructions. The German language is binding.  
You can request your language if it is missing. The telephone number of each country can be found in the Webasto service centre leaflet or the website of the respective Webasto representative of your country.

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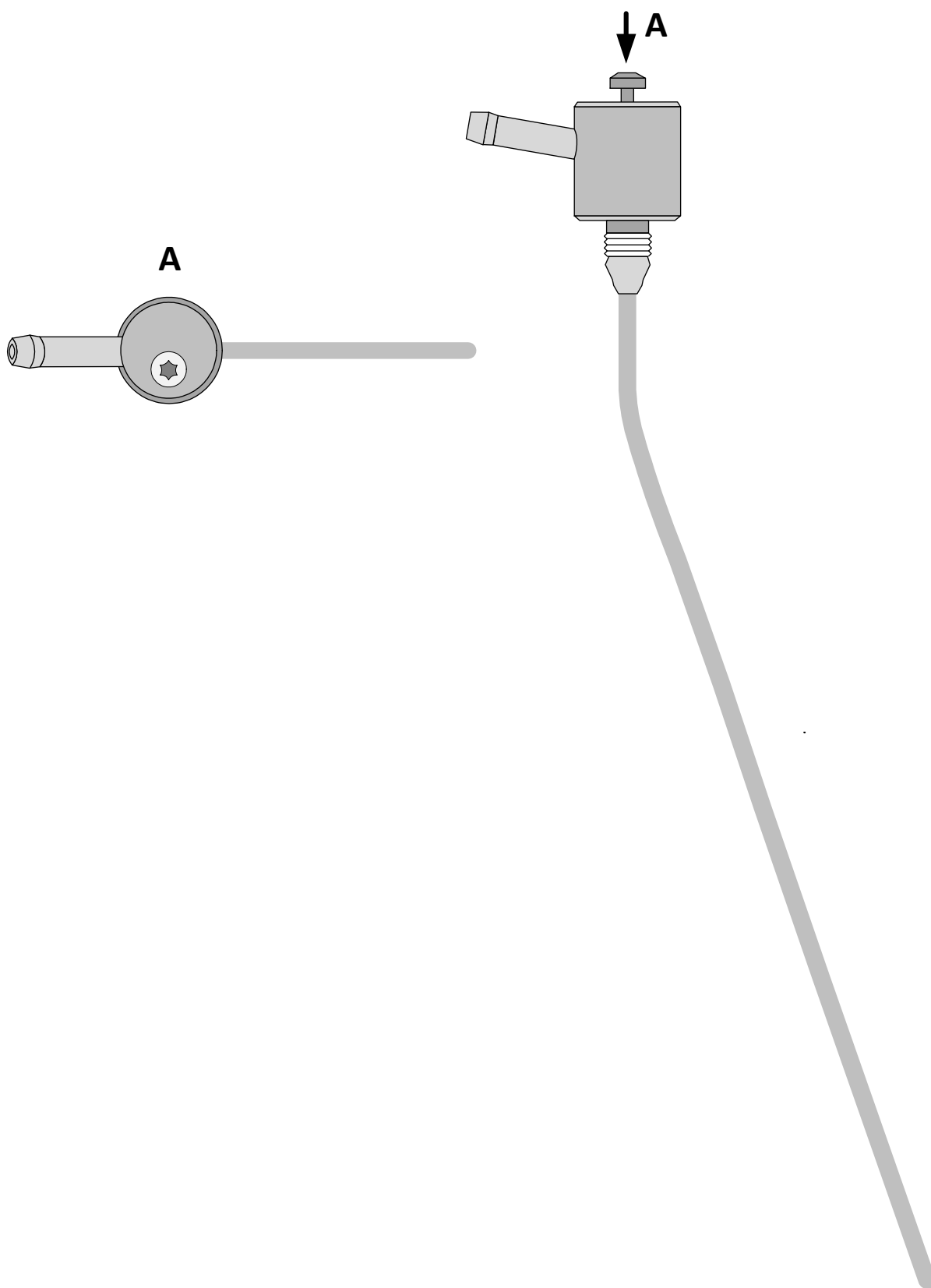


[WWW.WEBASTO.COM](http://WWW.WEBASTO.COM)





## 15 FuelFix template



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.

0

100mm

