

K Installation documentation

for Thermo Top Evo water heater

'Inline' coolant circuit with engine preheating

Jeep Wrangler

Left-hand drive vehicle

Manufacturer	Model	Type	Model year	EG-BE-No. / ABE		
Jeep	Wrangler	JL	from 2019	e4* 2001/116* 0116*...		
Motorisation	Fuel	Emission standard	Transmission type	Output [kW]	Displacement [cm ³]	Engine code
2.0 T-GDI	Petrol	Euro 6d Temp	8-speed AG	199	1995	ESS

Validity	Equipment variants	Model
		Wrangler
Verified equipment variants	2 zone automatic A/C	x
	LED main headlights	x
	LED front fog lights	x
	Long wheelbase	x
	4 WD	x
Unverified equipment variants	Alarm system	x
	Halogen main headlights	x

Total installation time	Note
7.8 hours	

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1 List of abbreviations

AG	Automatic transmission
ASH	Spacer bracket
DP	Fuel pump
EPT	Telestart receiver
FF	FuelFix (tank extracting device)
Fig.	Figure
HG	Heater
SH2	Engine compartment fuse holder for F1/F2
UP	Coolant pump

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 Thermo Top Evo	In accordance with price list
Installation kit for Jeep Wrangler JL 2.0P 2019	1327264A
Additional 'Webasto Comfort' A/C control kit for Jeep	1325260_
Rivet for wheel well trim, Jeep order No.	3x K06506007AA
In case of Teleststart, control element, as well as indicator lamp in consultation with end customer	In accordance with price list

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 Teleststart 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.

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

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	
Vehicle-specific installation documentation of the cold start kit	
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.



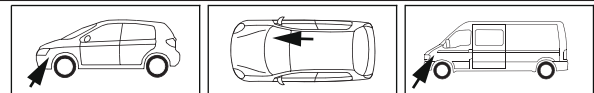
Note on a special technical feature

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	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
1 / 12 / a1	Position numbers for the image descriptions
① / ⑫ / Ⓐ	Position numbers for the image descriptions for electrical wires and coolant hose sections

4 Technical Information

Dimension specifications

- All dimensions specified in mm
- Perforated brackets and mounting angles are shown to scale
- Observe data regarding scale on the templates

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

Temperature specification for heat shrink plastic tubings

- Fabric heat shrink tubing: shrink temperature max. 230°C
- Standard heat shrink plastic tubing: shrink temperature max. 300°C

Necessary special tools

- Hose clamp pliers for auto-tightening hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Hose clamping pliers
- Hose cutter
- Automatic wire stripper 0.2 - 6 mm²
- Crimping pliers for cable lugs 0.5 – 10 mm²
- Crimping pliers for male connector 0.14 – 6 mm²
- Crimping pliers for connector 0.25 – 6 mm²
- Torque wrench for 2.0 - 10 Nm
- Deep-hole marker
- Metric thread-setter kit
- Webasto Thermo Test Diagnosis with current software

5 Preparing measures

5.1 Vehicle preparation



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

Vehicle area	Components to be removed	Other applicable documents
General	<ul style="list-style-type: none"> ▶ Open the fuel tank cap ▶ Ventilate the fuel tank ▶ Close the fuel tank cap again ▶ Depressurise the cooling system 	
Engine compartment and body	<ul style="list-style-type: none"> ▶ Disconnect the battery ▶ Front wheel on the driver's side ▶ Wheel-well inner panel on the driver's side ▶ Wheel-well inner panel on the front passenger's side ▶ Engine design cover ▶ big coolant expansion tank with bracket 	
Passenger compartment	<ul style="list-style-type: none"> ▶ Carpet on the driver's side, folded back ▶ Cover under steering wheel and control unit located behind ▶ Inside door sill trim on the driver's side 	



DANGER

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



Carry out the following work only during the corresponding installation sequence:

Vehicle body	<ul style="list-style-type: none"> ▶ Remove the fuel tank 	
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5.2 Heater preparation

Engine compartment	<ul style="list-style-type: none"> ▶ 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 	
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6 Installation overview

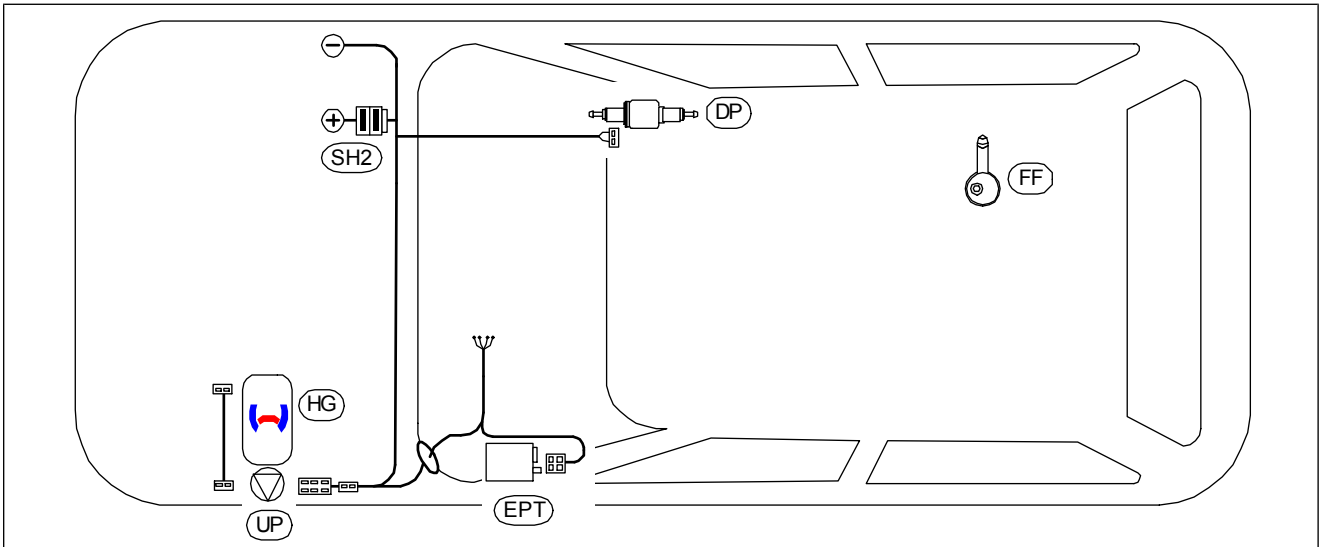
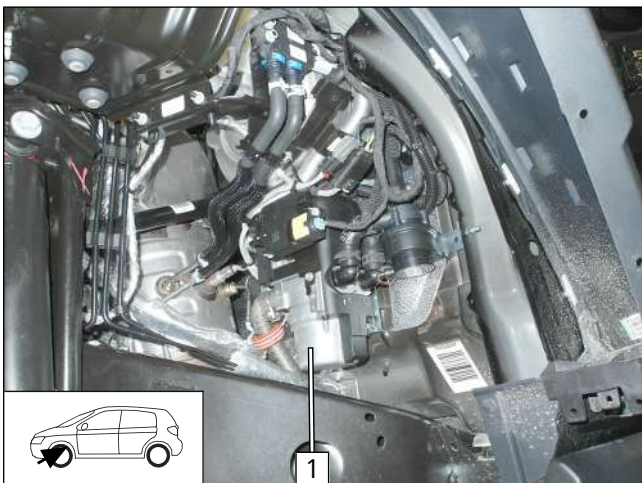


Fig. 1

Legend to installation overview

Abbreviation	Component
DP	Fuel pump
EPT	Telestart receiver
FF	FuelFix
HG	Heater
SH2	Engine compartment fuse holder for F1/F2
UP	Coolant pump

Heater installation location



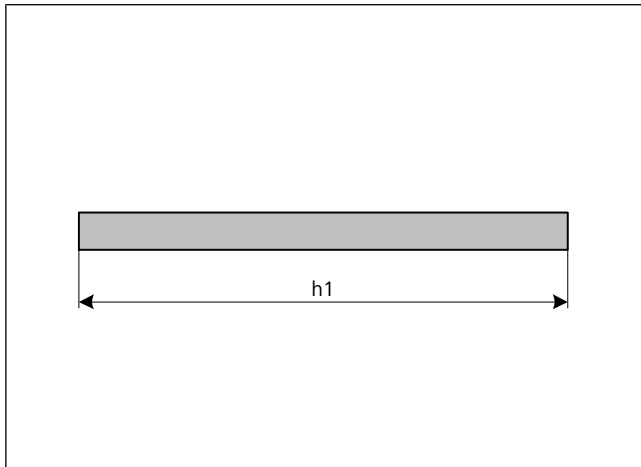
1 Heater

Fig. 2



7 Electrical system of engine compartment

Cutting Ø13 slit corrugated tube to length



h1 500

Fig. 3

Premounting wiring harness

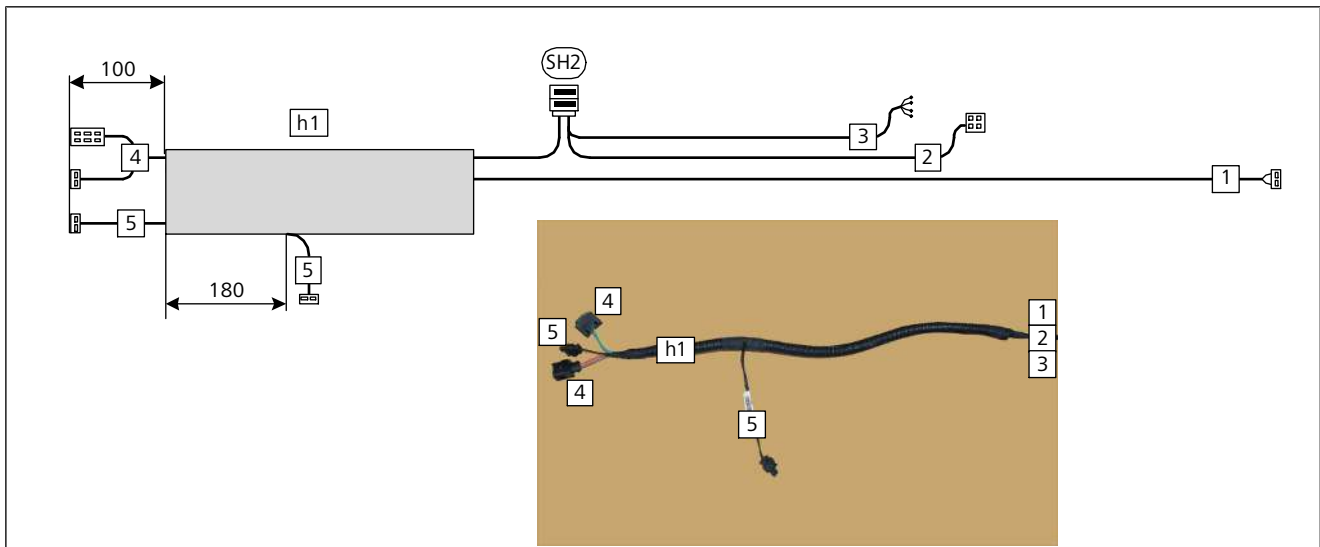


Fig. 4

► Seal the ends of corrugated tube **h1** with insulating tape.

- 1** Fuel pump wiring harness
- 2** Control element wiring harness
- 3** Passenger compartment wiring harness
- 4** Heater wiring harness with connectors X1 and X2
- 5** Coolant pump wiring harness



Premounting retaining plate of SH2



Fig. 5

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

Mounting SH2

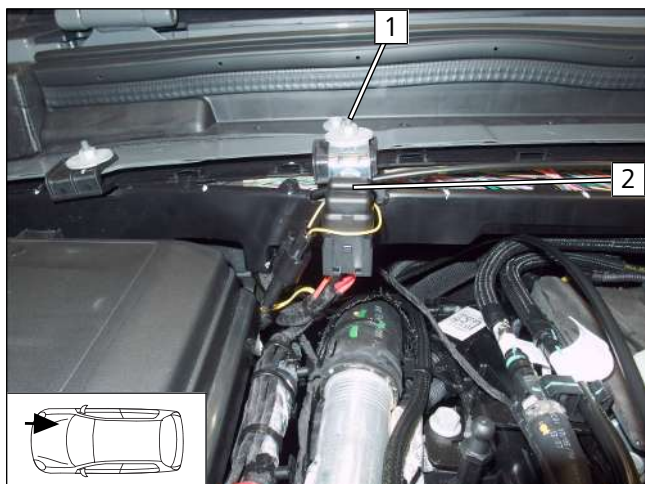


Fig. 6

- 1 Original vehicle stud bolt, premounted angle bracket, original vehicle washer with nut
- 2 Fuse F1/F2

Wiring routing overview

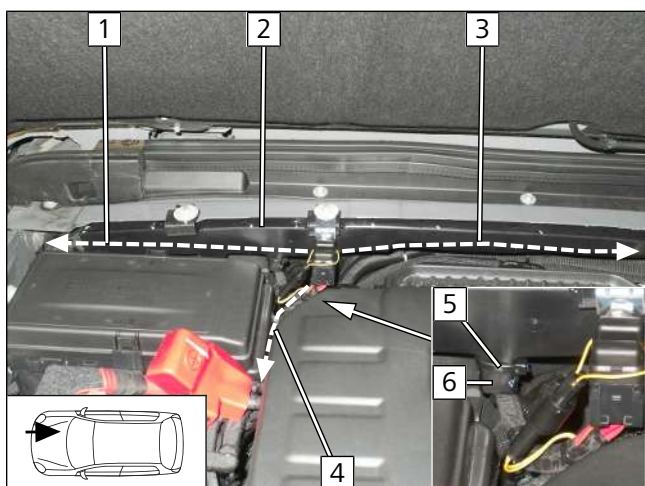


Fig. 7

- Open original vehicle cable duct **2**.
 - Route earth wire, fuel pump wiring harness as well as HG and control element wiring harnesses through cable duct **6** into original vehicle cable duct **2**.
- 1 Earth wire, fuel pump wiring harness
 - 3 HG and control element wiring harnesses
 - 4 Positive wire
 - 5 Cable tie



Mounting positive wire

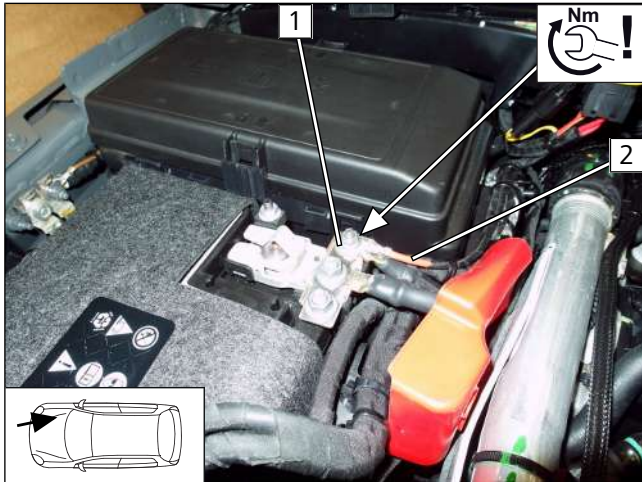


Fig. 8



DANGER

Fire hazard due to insufficient tightening torque

► Observe tightening torque

- 1 Original vehicle positive support point
- 2 Positive wire

Mounting earth wire

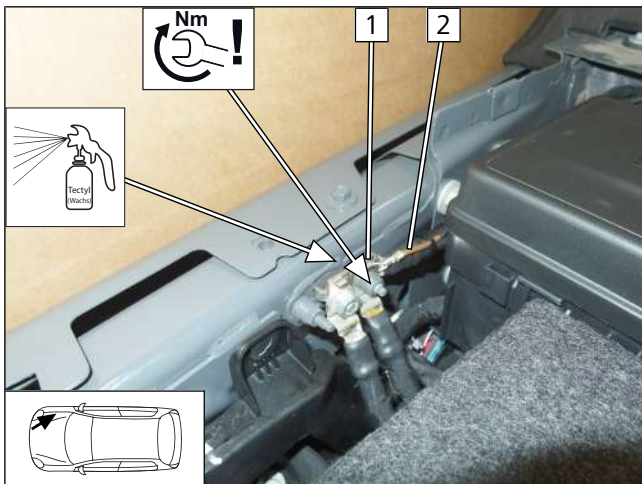


Fig. 9



DANGER

Fire hazard due to insufficient tightening torque

► Observe tightening torque

- 1 Original vehicle earth support point
- 2 Earth wire

Passenger compartment wiring harness pass through

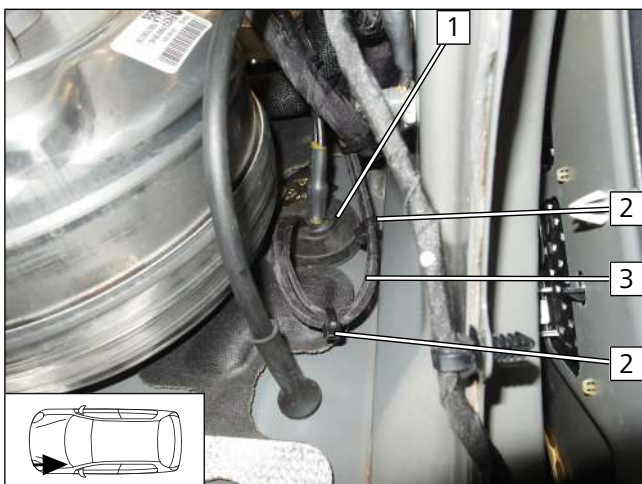


Fig. 10

- 1 Grommet
- 2 Cable tie
- 3 Passenger compartment and control element wiring harnesses



8 Mechanical system

8.1 Preparing installation location

Removing original vehicle control unit

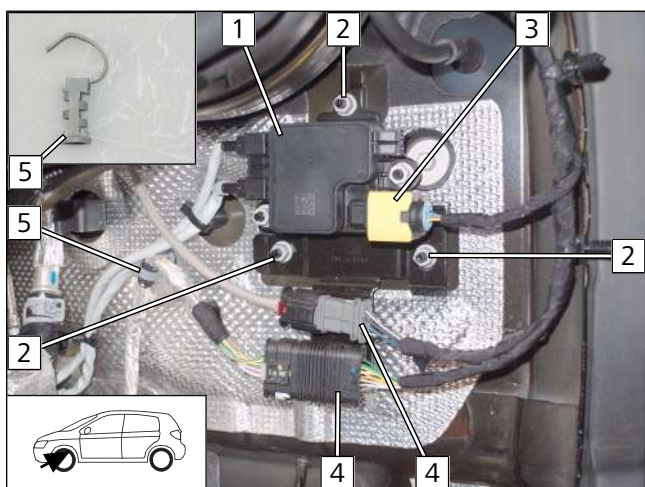


Fig. 11

- ▶ Remove original vehicle control unit with bracket **1**.
 - ▶ Disconnect connector **3** and detach connectors **4** from bracket.
 - ▶ Pull cable holder **5** from stud bolt and remove from wiring harness. It will be reused later.
- 2** Original vehicle nut

Cutting out insulation mat

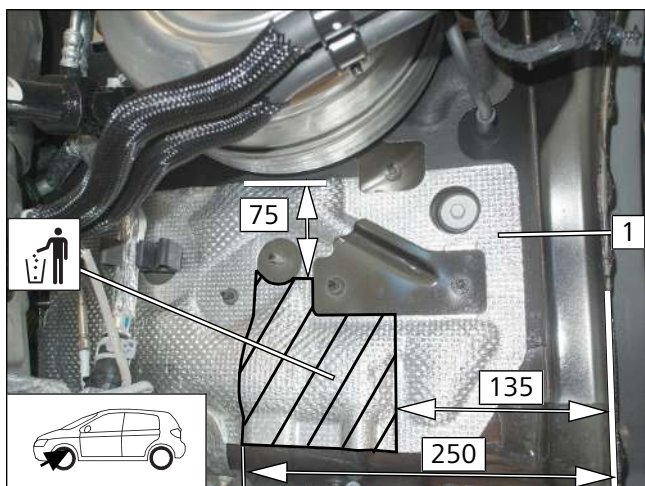


Fig. 12

- ▶ Cut out marked area on insulation mat **1**.

Drilling hole

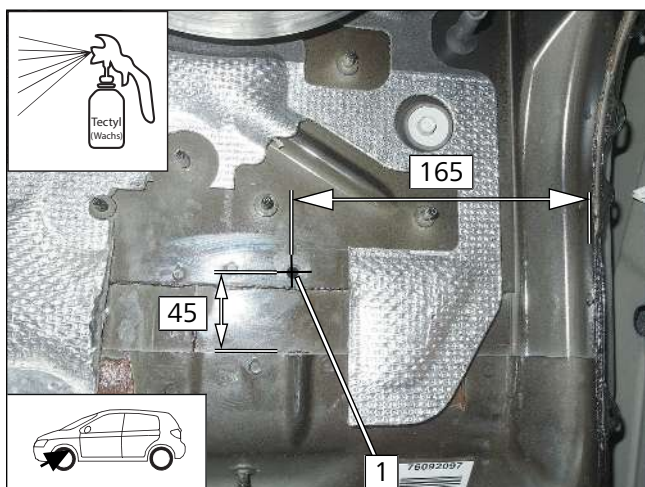


Fig. 13

- ▶ The carpet in the footwell on the driver's side must be folded back.
- 1** Ø7 hole



Premounting bolts

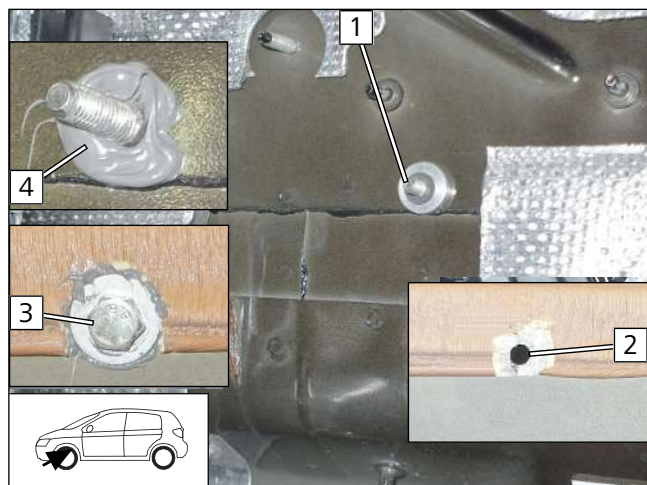


Fig. 14



Block the bolt in the passenger compartment when mounting the lock washer.



Use sealing and adhesive compound according to the specifications of the vehicle manufacturer.

- ▶ Remove body putty for Ø12 washer at pos. **2**, apply sealing compound.
- ▶ Position M6x20 bolt, large diameter washer **3** as shown.
- ▶ Apply sealing compound **4**, on the engine compartment side, as shown, mount spacer (5) and lock washer **1**.

Assigning two-part bracket

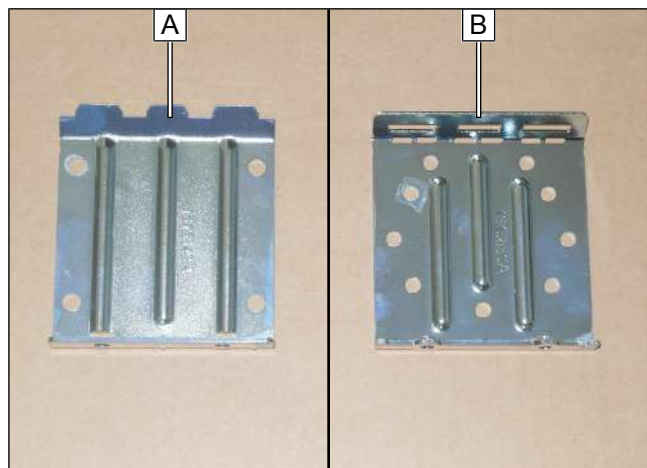


Fig. 15

Preparing bracket **A**

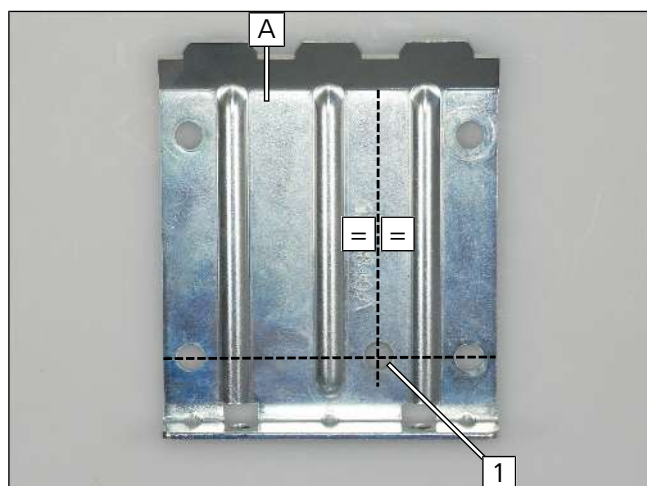


Fig. 16

1 Ø7 hole



Copying hole pattern, drilling hole

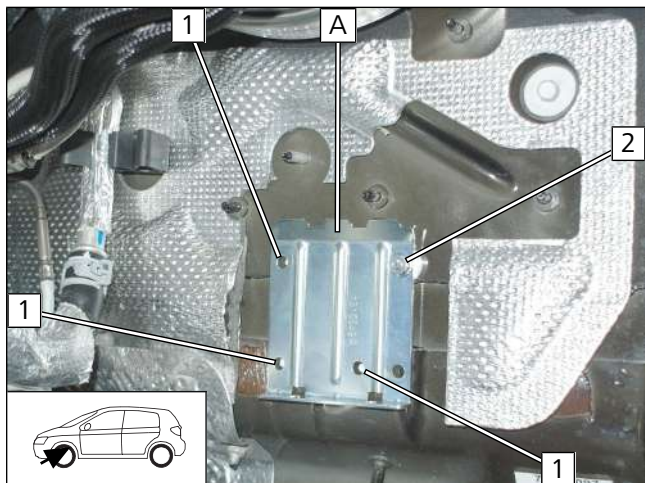


Fig. 17

► Align bracket **A** horizontally and mount as shown in fig.

1 Copy hole pattern, Ø7 hole

2 Premounted M6x20 bolt, bracket **A**, flanged nut

► Remove bracket **A** again.

► Drill Ø7 hole.

Preparing holes

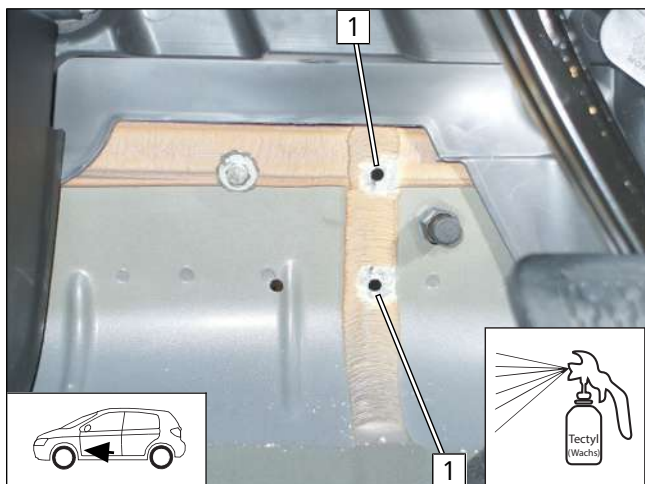


Fig. 18

► Remove body putty for Ø12 washer at pos. **1**.

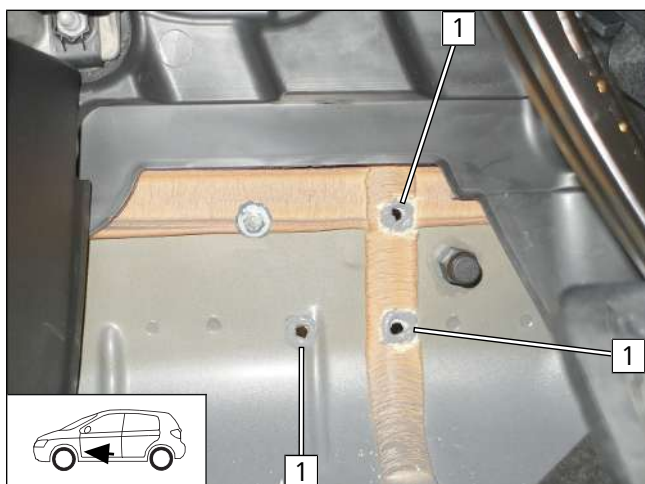


Fig. 19



Use sealing and adhesive compound according to the specifications of the vehicle manufacturer.

► Apply sealing compound at position **1** as shown.



Premounting bolts in passenger compartment

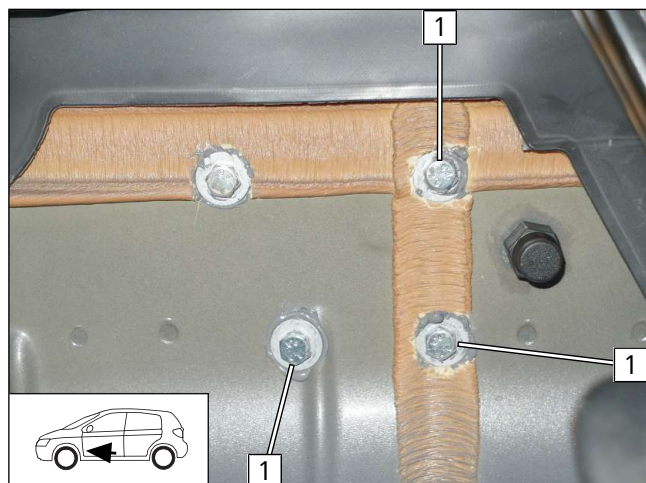


Fig. 20

- 1 M6x20 bolt, large diameter washer, drilled hole

Mounting spacers

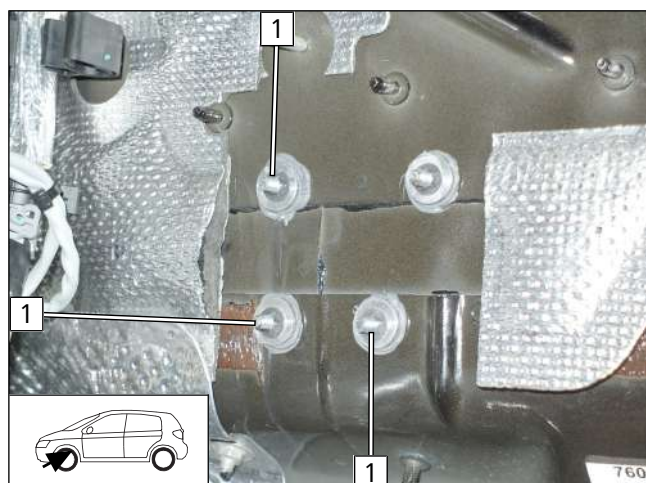


Fig. 21

- Before installation, apply sealing compound between body and large diameter washer at position 1.



Block the bolts in the passenger compartment when mounting the lock washers.

- 1 M6x20 bolt, spacer (5), lock washer

Mounting bracket A

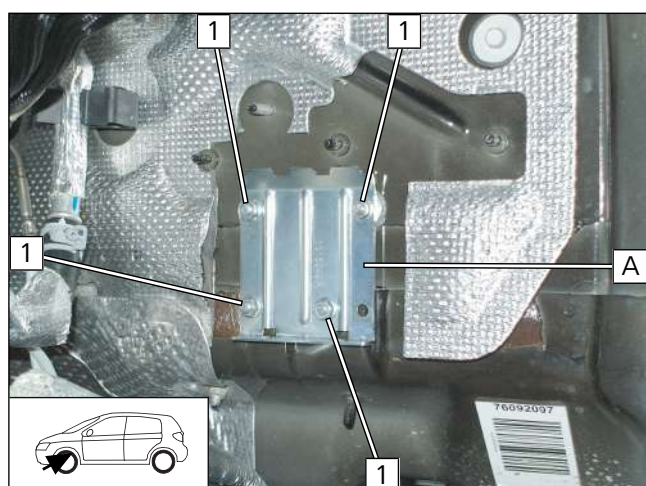


Fig. 22

- 1 Premounted bolt, bracket A, flanged nut



Copying hole pattern, drilling hole

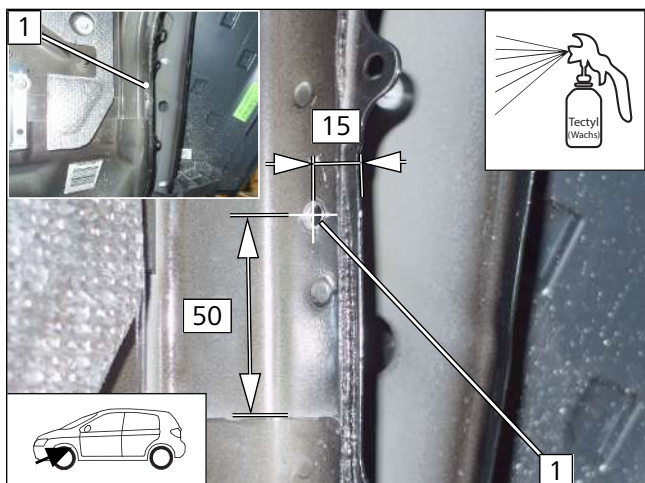


Fig. 23

1 Ø7 hole

Premounting cable tie

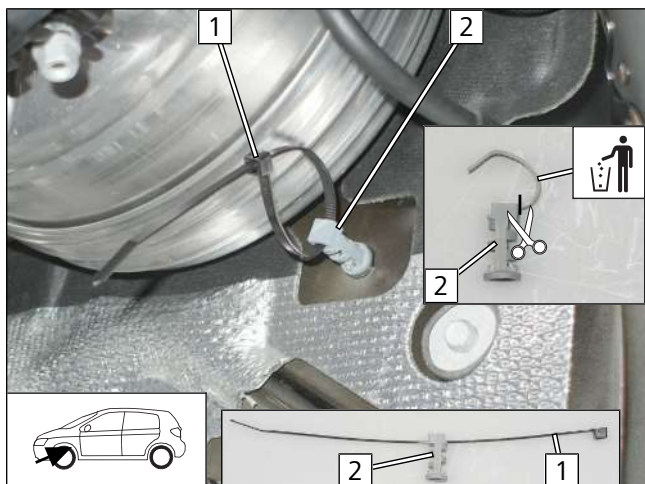


Fig. 24

► Prepare original vehicle cable holder **2** as shown and mount onto original vehicle stud bolt.

1 Cable tie

Routing heater and coolant pump wiring harnesses

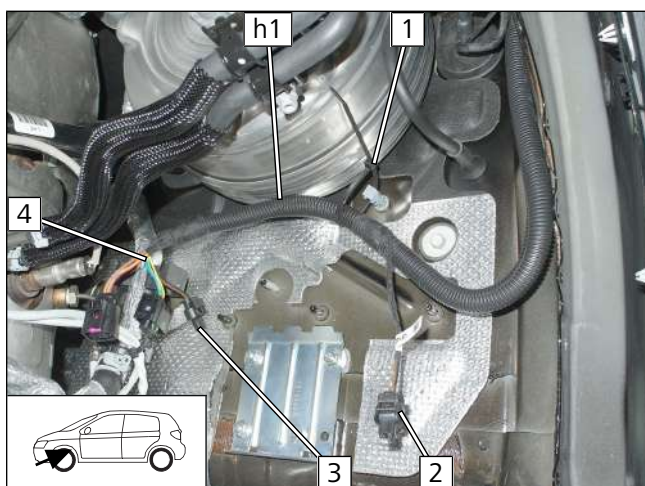


Fig. 25

► Route corrugated tube **h1** with heater wiring harness **4** and coolant pump wiring harness **3** through cable tie **1** as shown.

2 Coolant pump wiring harness



8.2 Premounting heater

Mounting water connection piece

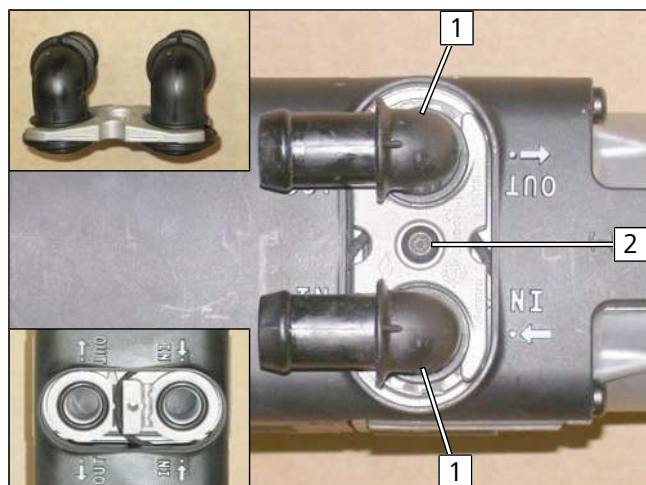


Fig. 26



Observe the general installation instructions of the heater.

- 1 90° water connection piece, seal
- 2 5x15 self-tapping bolt, water connection piece retaining plate

Mounting bracket **B** on HG

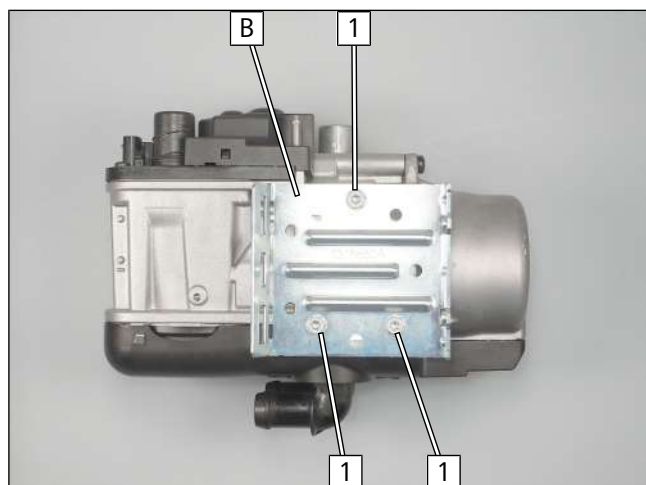


Fig. 27

- 1 5x15 self-tapping bolt

Mounting fuel line

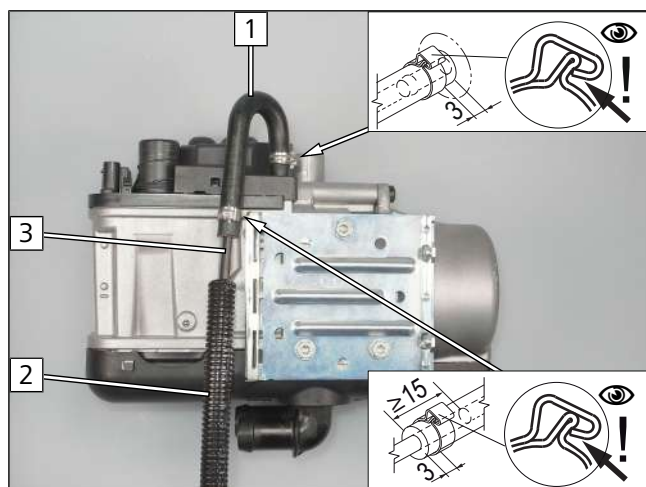
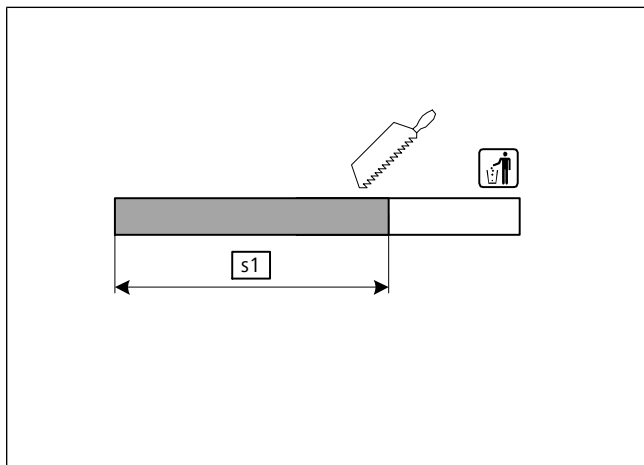


Fig. 28

- 1 180° moulded hose, Ø10 clamp [2x]
- 2 Ø10 corrugated tube
- 3 Fuel line



Cutting combustion air intake pipe to length



s1 770

Fig. 29

Mounting combustion air intake pipe



Fig. 30

8.3 Mounting heater

View of bracket **A** and **B** assembly

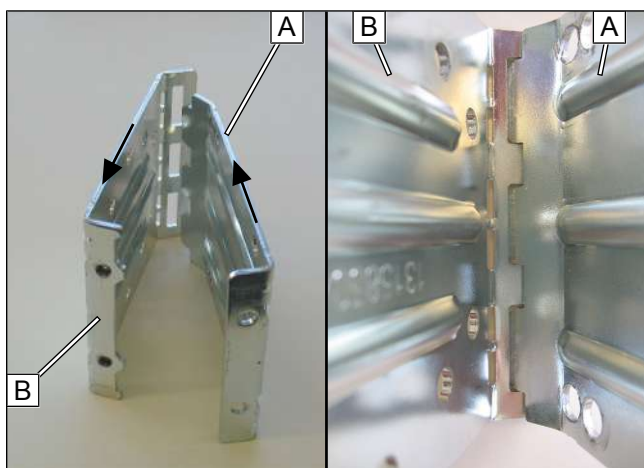


Fig. 31



Observe the general installation instructions of the heater.

► The recesses of bracket **B** must be guided to the locking tabs of bracket **A**.

- A** Bracket (mounted on the vehicle)
- B** Bracket (mounted on the heater)



Mounting wiring harnesses

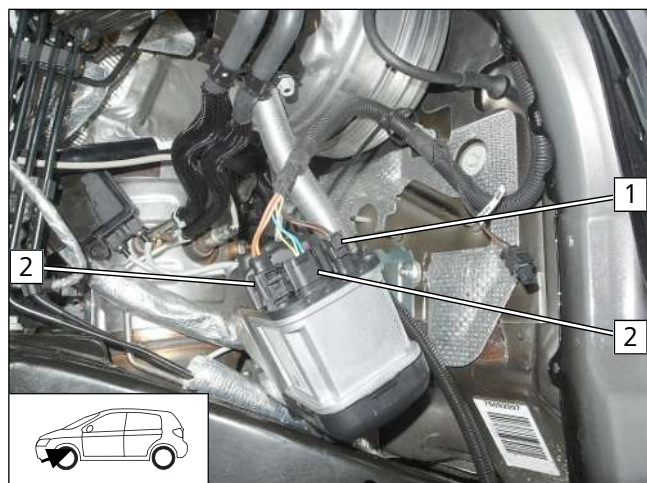


Fig. 32

- 1 Coolant pump wiring harness connector
- 2 Heater wiring harness connector

Mounting heater

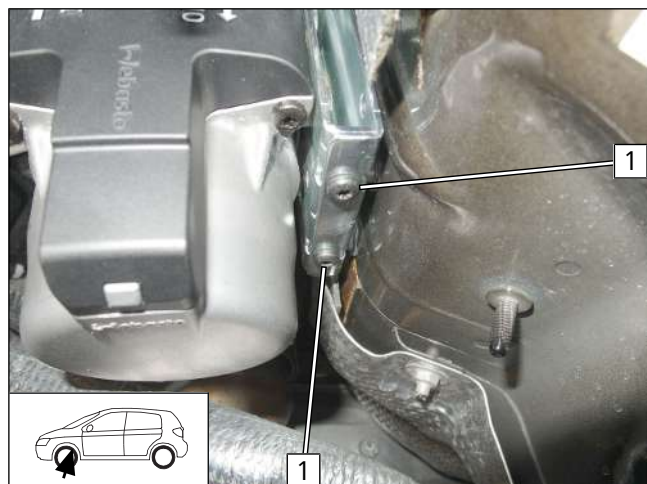


Fig. 33

- ▶ Check the assembly of bracket **A** and bracket **B**, then bolt them together.

- 1 M5x12 Torx screw



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

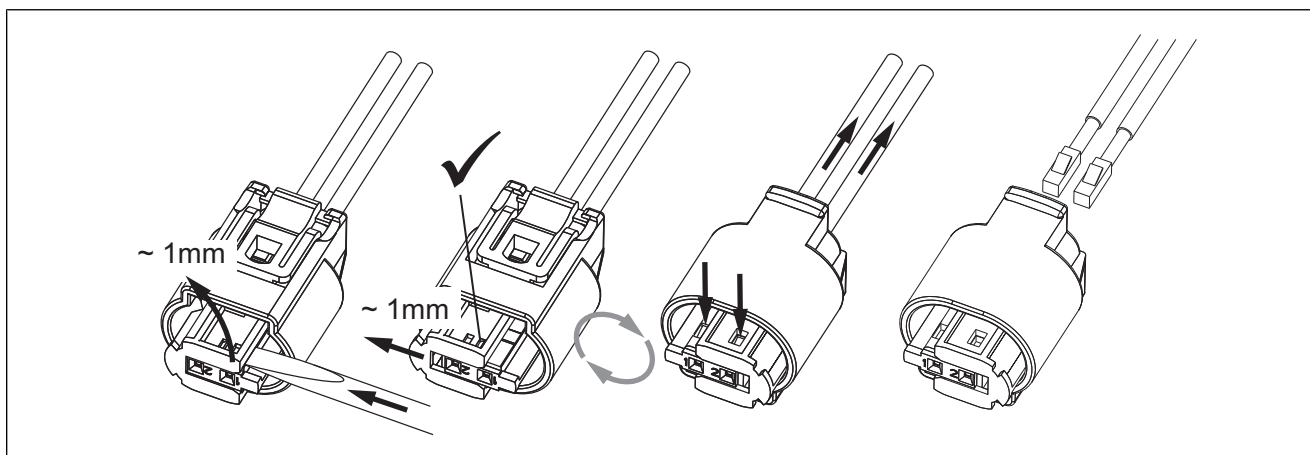


Fig. 34

9.1 Routing fuel line

Installing lines

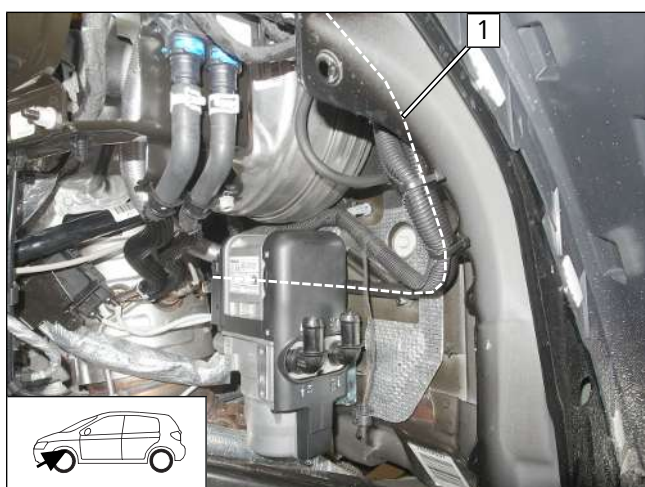


Fig. 35

- ▶ Route corrugated tube with fuel line **1** in the engine compartment and fasten with cable ties.

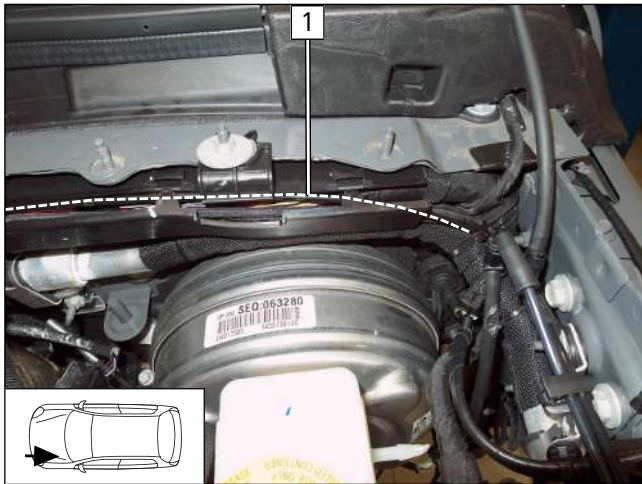


Fig. 36

- ▶ Route fuel line and fuel pump wiring harness **1** in cable duct.

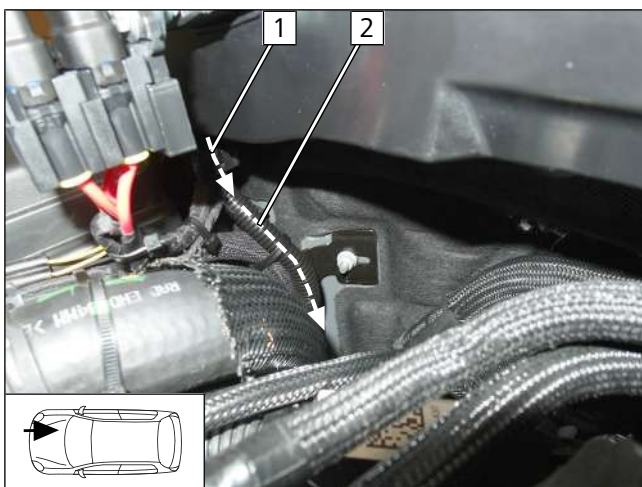


Fig. 37

- ▶ Lead fuel line and fuel pump wiring harness **1** out of cable duct and route further in Ø10 unslit corrugated tube **2** on original vehicle coolant lines to fuel pump installation location.
- ▶ Attach corrugated tube to original vehicle coolant lines with cable ties.

Premounting fuel pump

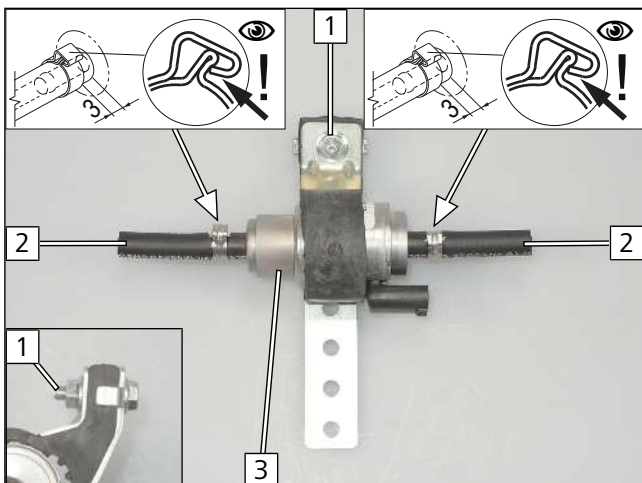


Fig. 38

- 1** M6x25 bolt, perforated bracket, DP mount, support angle bracket, flanged nut
- 2** Hose section, Ø10 clamp
- 3** Fuel pump



Mounting fuel pump

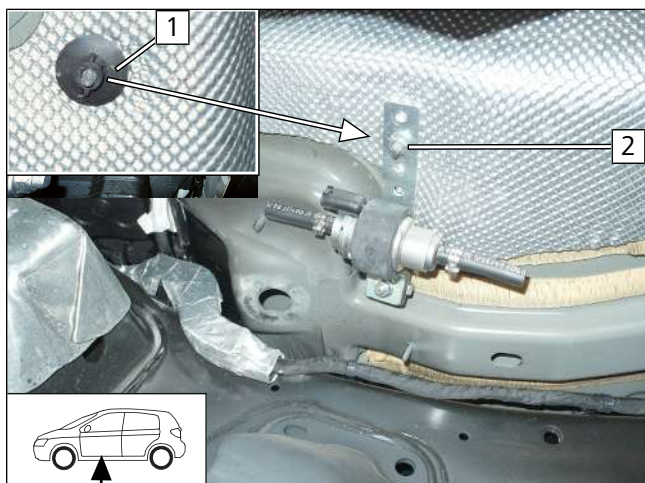


Fig. 39

► Remove and dispose of original vehicle plastic nut **1**.

2 Original vehicle stud bolt, perforated bracket, flanged nut

Assembling fuel pump connector X7

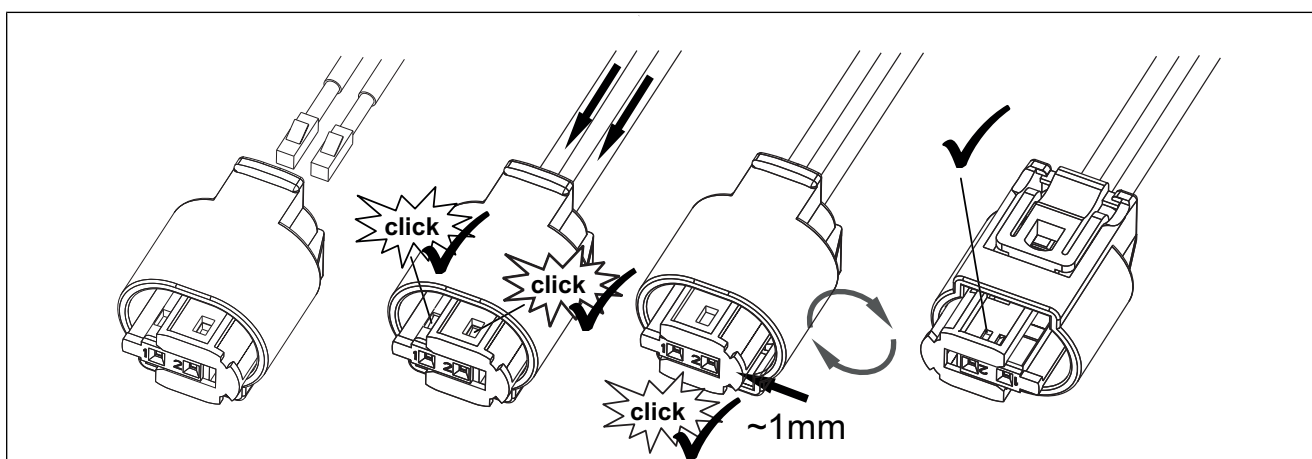


Fig. 40

Fuel pump connection

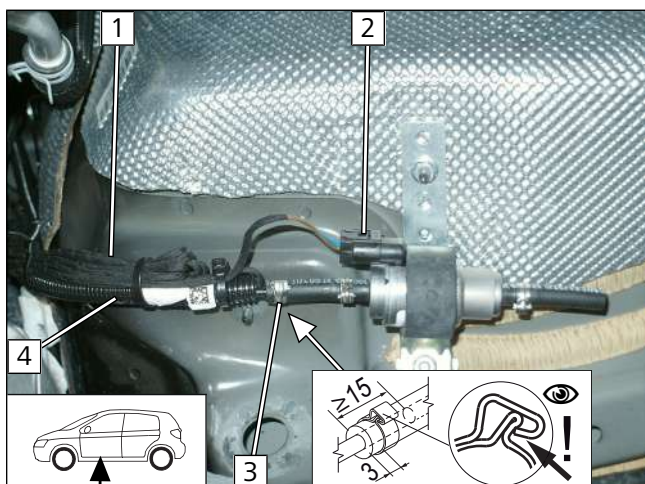


Fig. 41

2 Fuel pump wiring harness, X7 connector mounted

3 Ø10 clamp

4 Heater fuel line in corrugated tube

► Attach the rest of wiring harness **1** to corrugated tube with a cable tie.



9.2 Installing FuelFix

Repositioning sticker

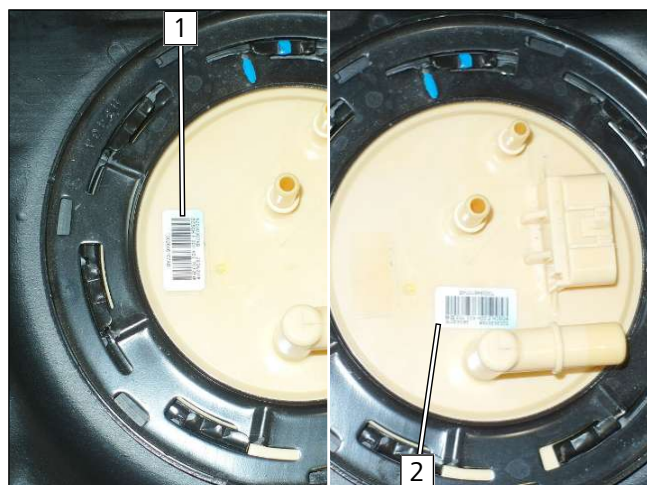


Fig. 42

- 1 Original position of sticker
- 2 New position of sticker

Preparing drilling template

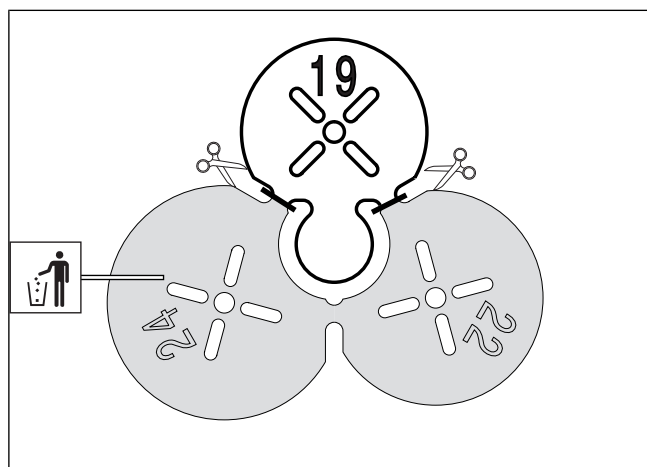


Fig. 43

Work steps F1, F2

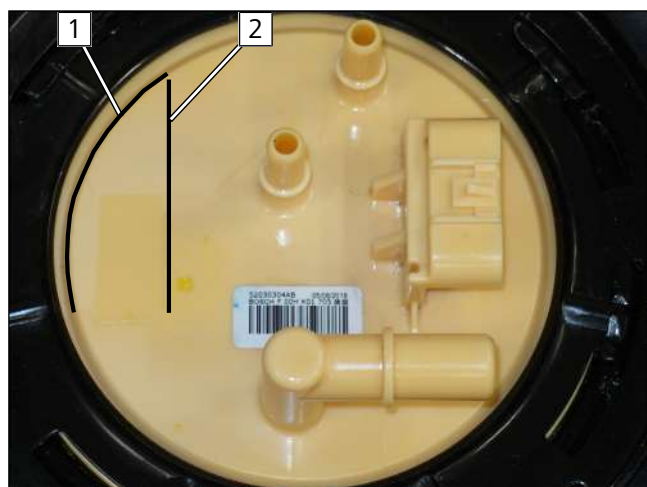


Fig. 44



Observe the installation instructions of the tank extracting device.

- Trace the outline of edge 1 and existing raised part 2 then extend the line as shown.

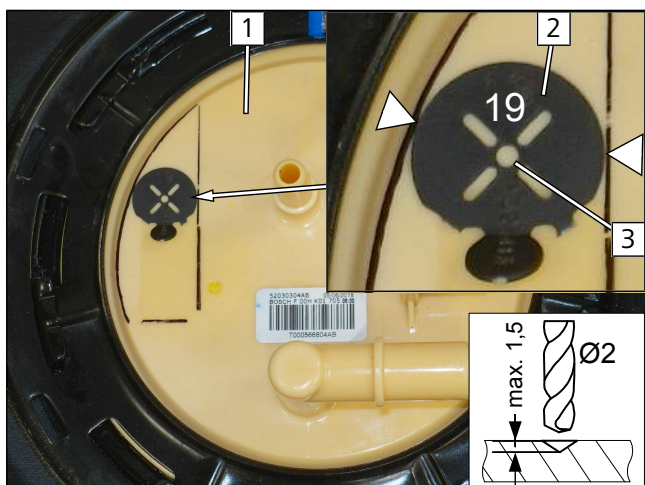


Fig. 45

- 1 Tank fitting
- 2 Position $\varnothing 19$ drilling template as shown in fig.
- 3 $\varnothing 2$ centring hole

Work step F3



Fig. 46



DANGER

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

- 1 Hole made with provided drill

Work steps F4, F5

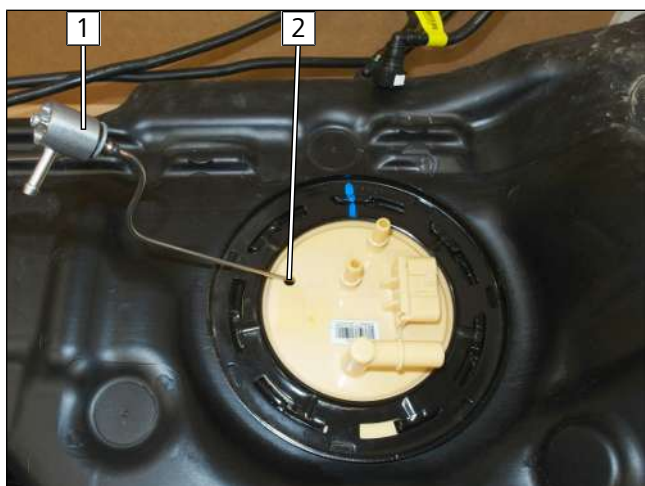


Fig. 47

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

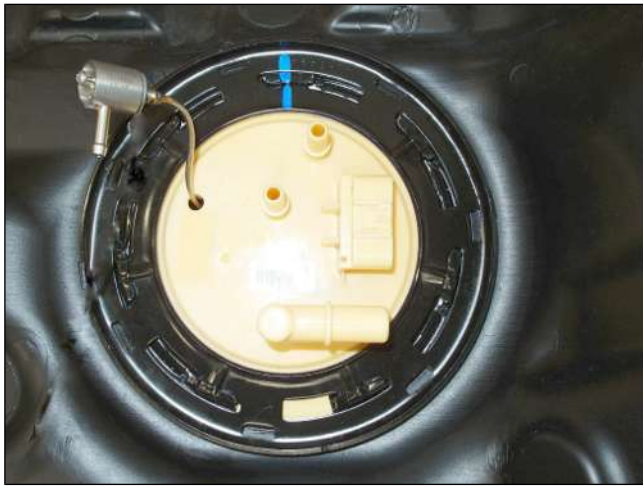


Fig. 48



Fig. 49

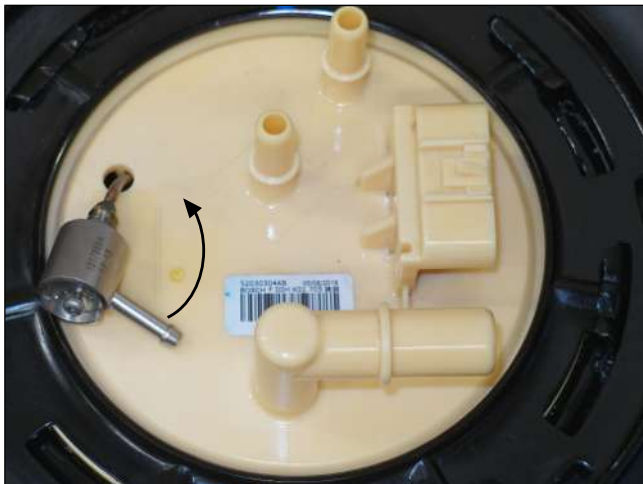


Fig. 50



Fig. 51

Work step F5.4



Fig. 52

► Align FuelFix **1** as shown.

Work step F6

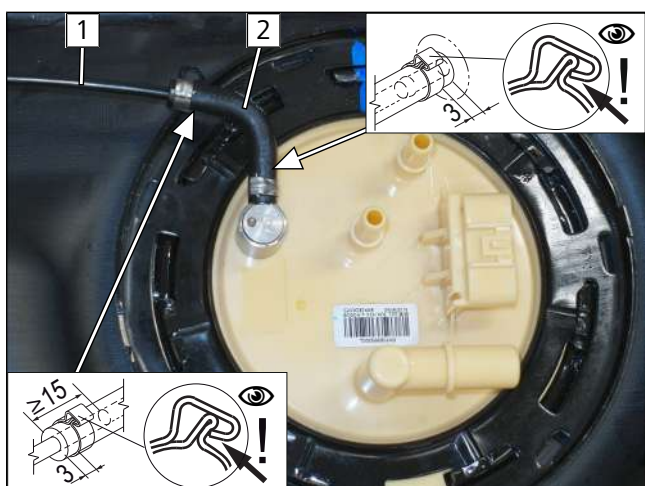


Fig. 53

- 1** Fuel line
- 2** 90° moulded hose, Ø10 clamp [2x]



Work step F7

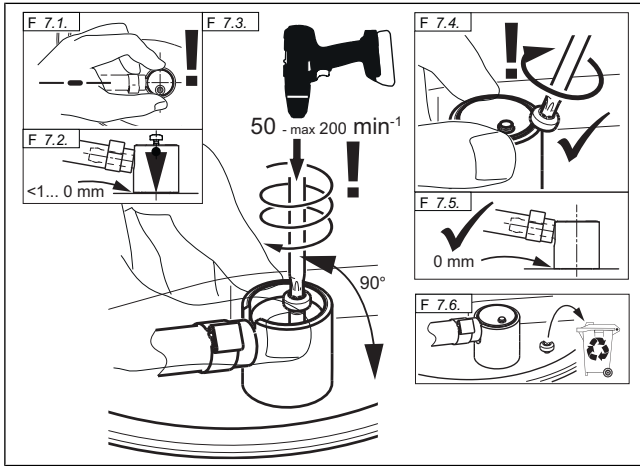


Fig. 54



DANGER

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

Work step F8



Fig. 55

Securing fuel line

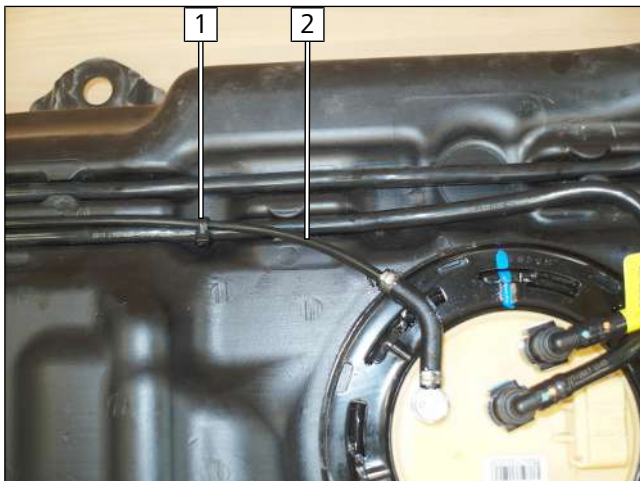


Fig. 56

- 1 Cable tie for tension relief
- 2 Fuel line



Routing fuel line

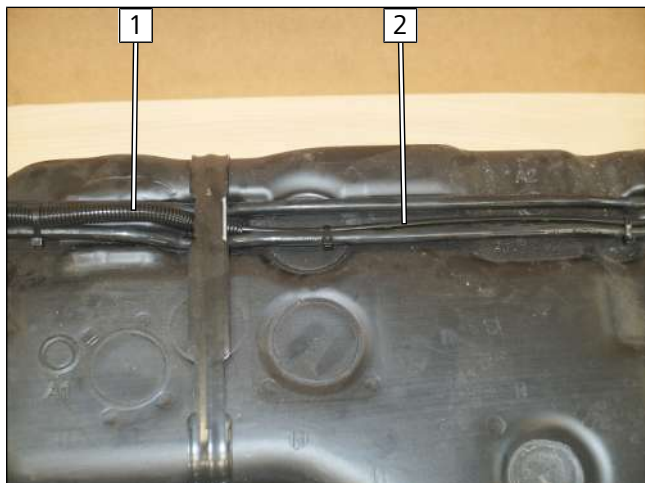


Fig. 57

► Route fuel line along the tank and fasten with cable ties.

- 1 Corrugated tube
- 2 Fuel line

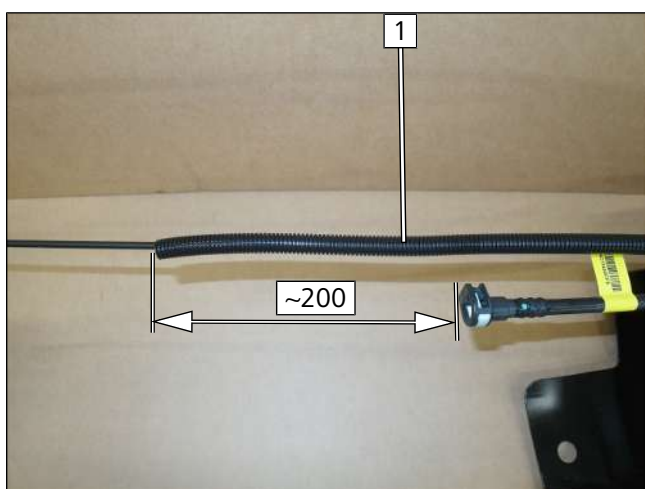


Fig. 58

- 1 700mm corrugated tube

9.3 Fuel pump connection

Connecting fuel line of FuelFix

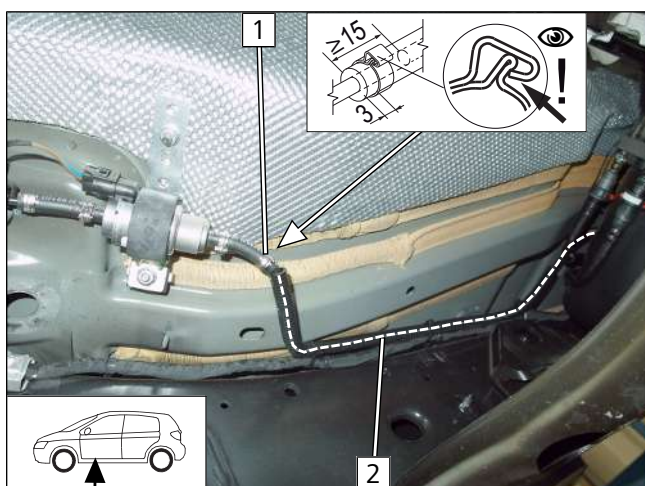


Fig. 59

► Route fuel line of FuelFix in corrugated tube 2 on original vehicle line to fuel pump installation location and fasten with cable ties.

- 1 Ø10 clamp



10 Exhaust

Premounting bolts

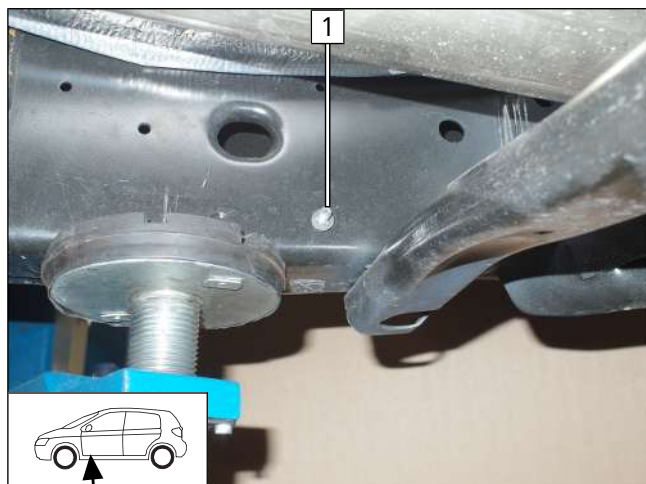


Fig. 60

- 1 M6x20 bolt, original vehicle hole, lock washer

Adapting angle bracket

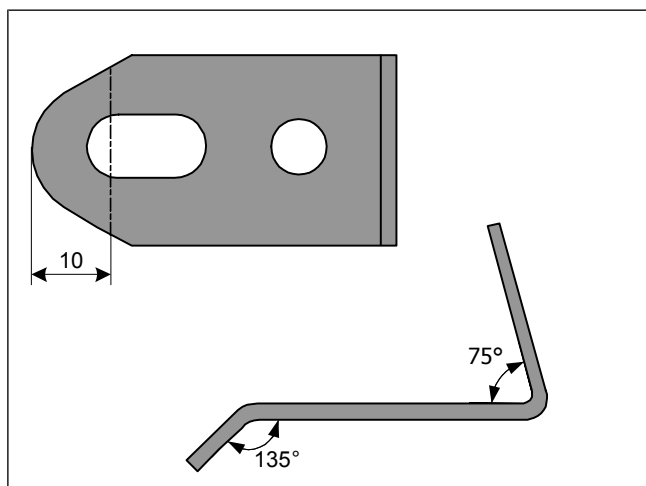


Fig. 61

Cutting exhaust pipe to length

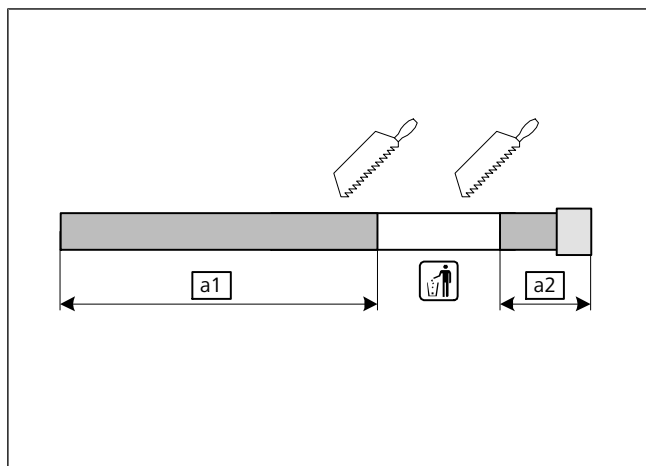


Fig. 62

a1 530

a2 50



Premounting exhaust silencer

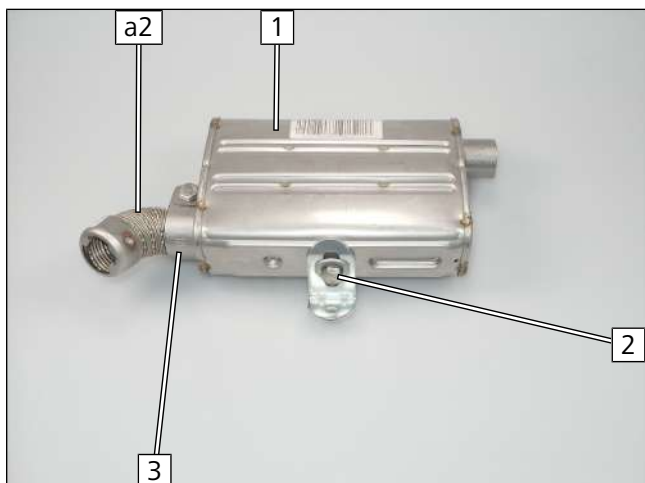


Fig. 63

- 1 Exhaust silencer
- 2 M6x16 bolt, spring lock washer, large diameter washer, angle bracket, exhaust silencer

Mounting exhaust silencer

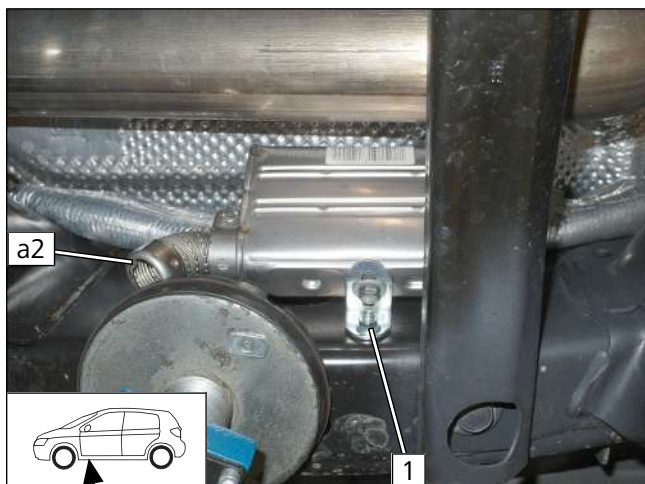


Fig. 64

- 1 Premounted bolt, angle bracket, flanged nut

Mounting exhaust pipe **a1**

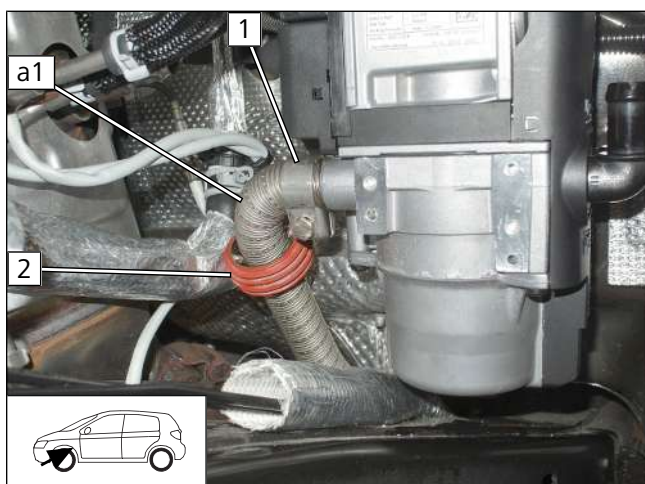
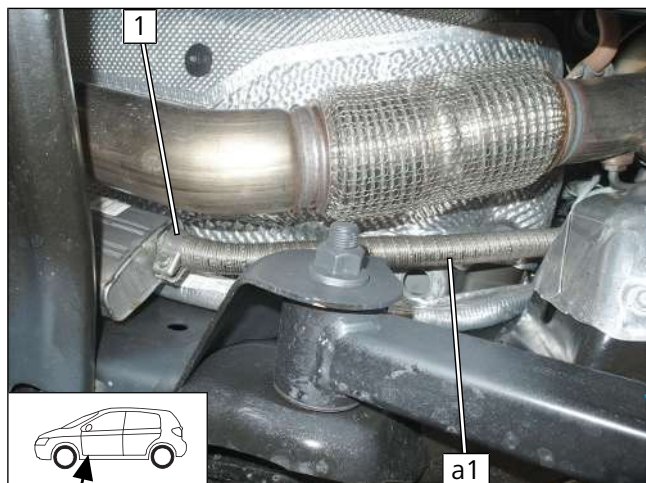



Fig. 65

- 1 Pipe clamp
- 2 Position ASH



 Danger of damage to components
► Ensure sufficient distance from neighbouring components, correct if necessary.

1 Pipe clamp

Fig. 66



11 Coolant

11.1 Hose routing diagram

'Inline' coolant circuit

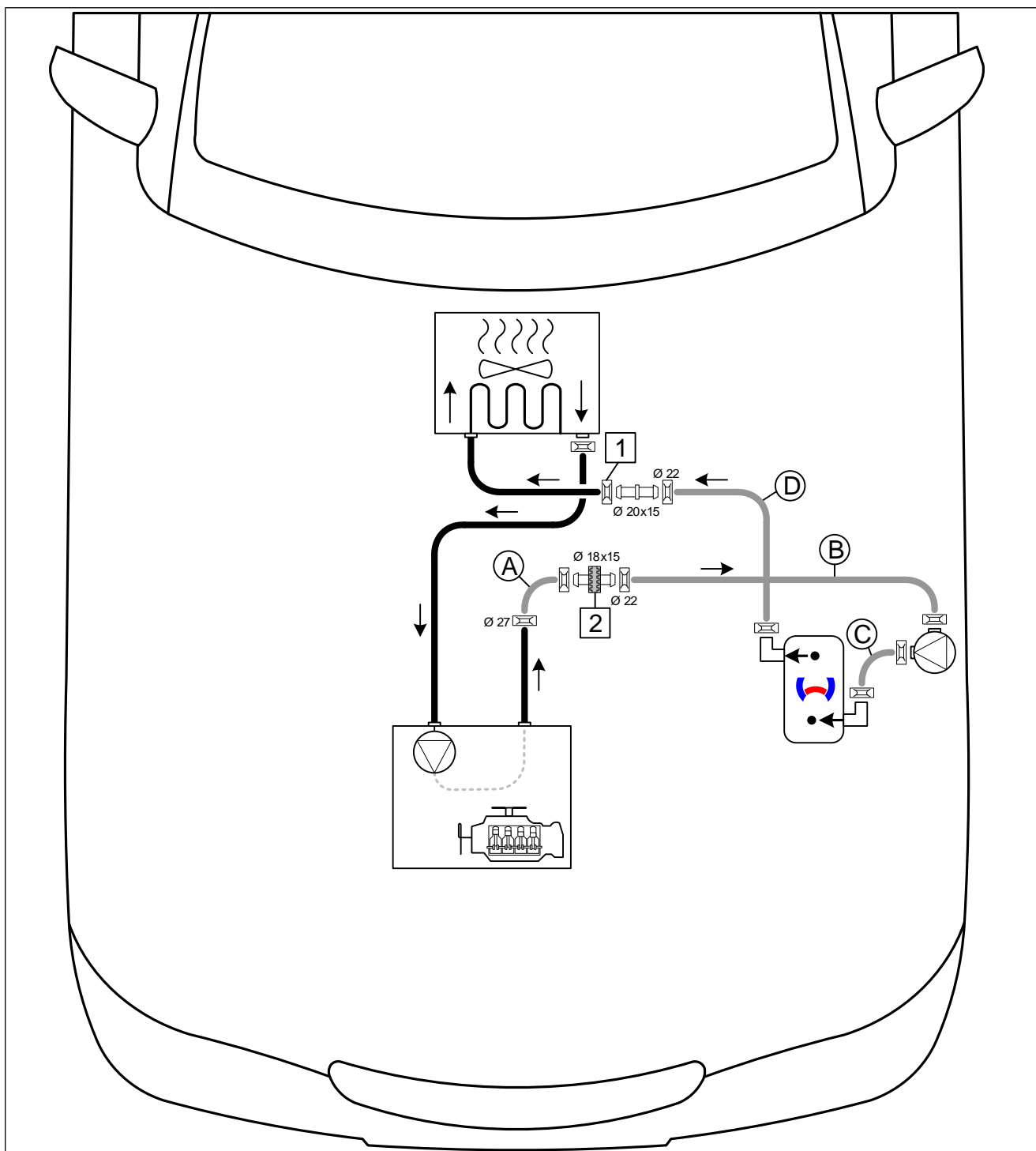


Fig. 67

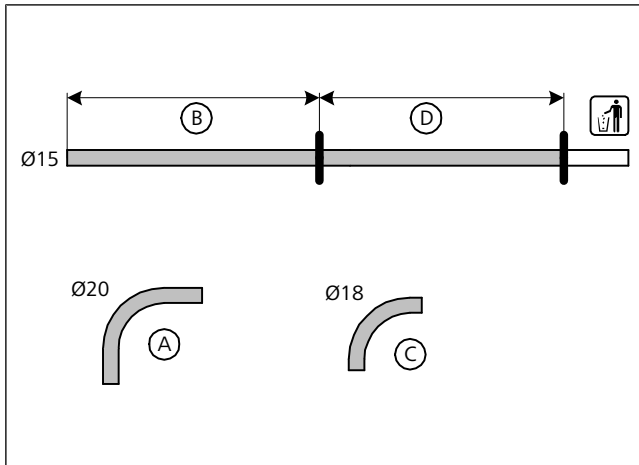
All spring clips without a specific designation  = Ø25

1 Original vehicle spring clip; **2** Black (sw) rubber isolator 



11.2 Coolant circuit installation

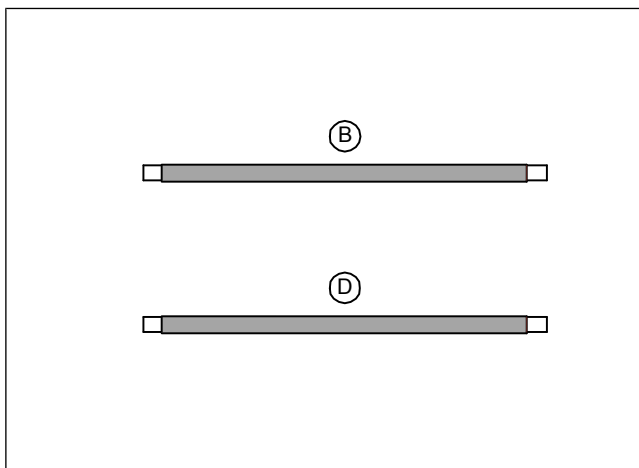
Cutting the hose to length



A	90°
B	700
C	90°
D	730

Fig. 68

Mounting fabric heat shrink tubing



- Slide fabric heat shrink tubings onto hoses **B** and **D**, cut to length and shrink.

Fig. 69

Cutting foam in half

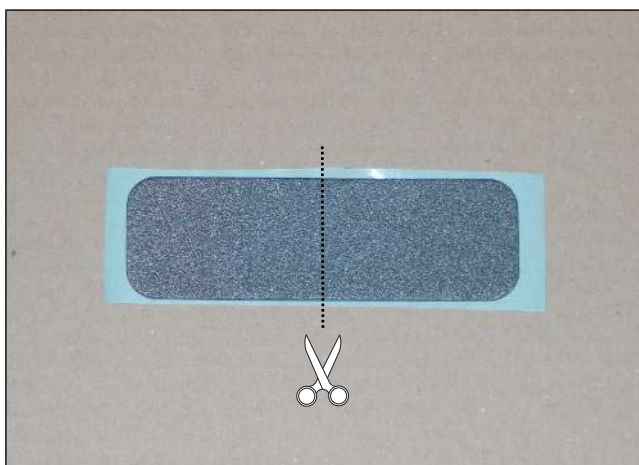


Fig. 70



Masking stud bolt

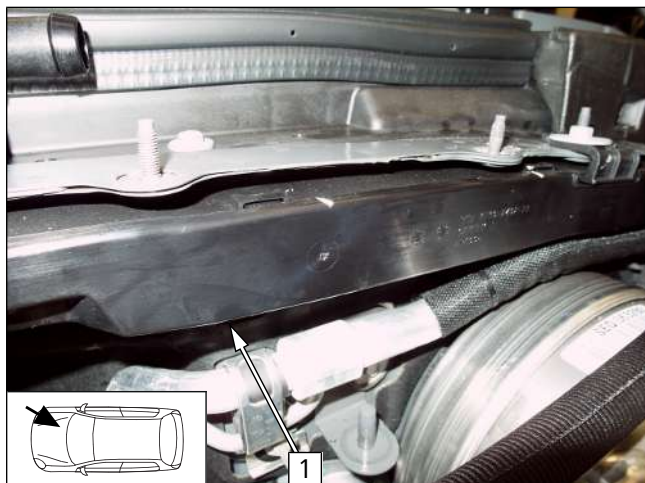


Fig. 71

- ▶ The stud bolt can be found at position **1**.

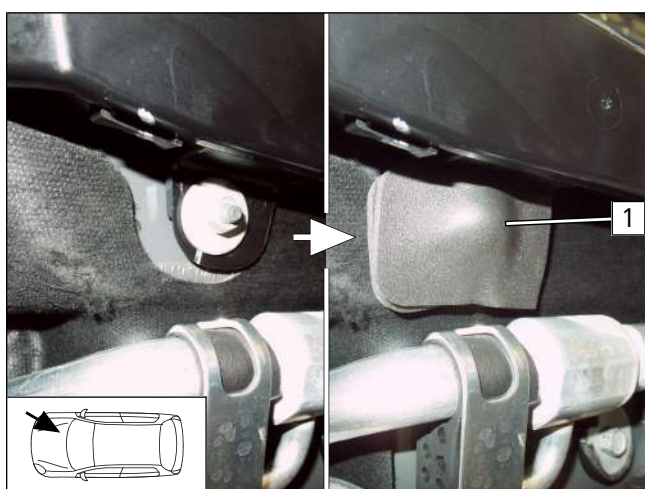


Fig. 72

- ▶ Glue both halves of foam **1** onto the stud bolt.

Cutting point

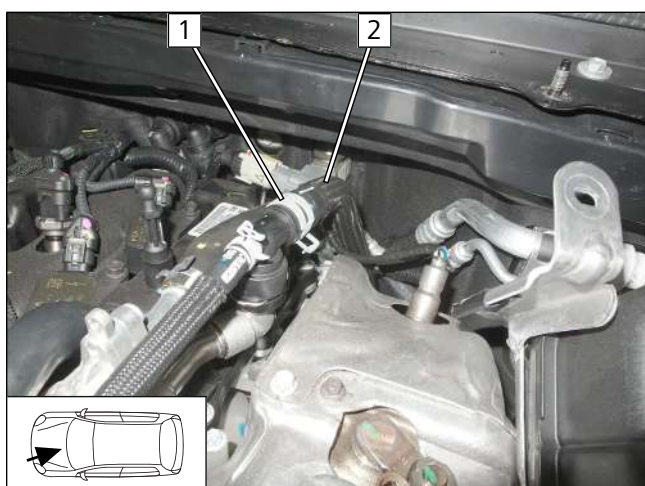


Fig. 73

- ▶ Disconnect heat exchanger inlet/engine outlet hose **2**. Original vehicle spring clips **1** will be reused.



Connecting hose **D**



- 1** Heater/OUT

Fig. 74

Routing hose **D**

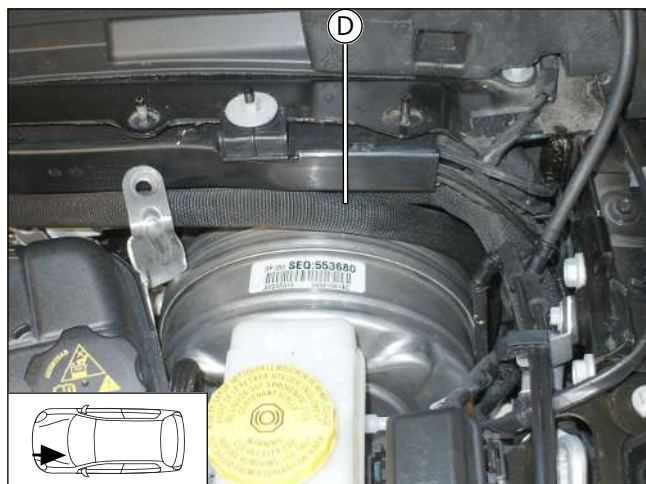
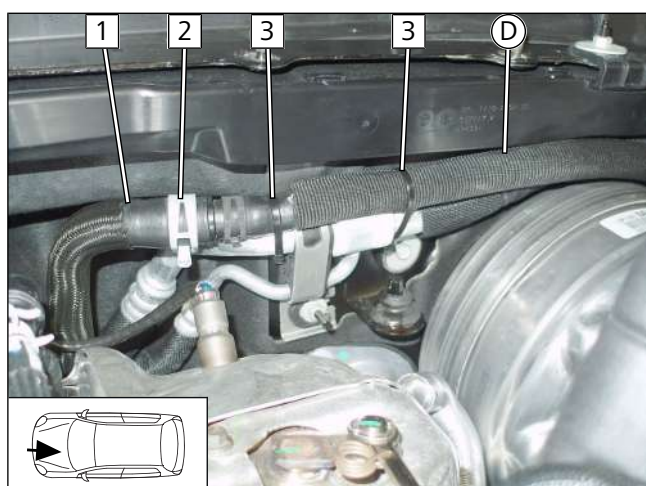


Fig. 75

Connecting hose **D** to heat exchanger inlet hose



- 1** Heat exchanger inlet hose
- 2** Original vehicle spring clip
- 3** Cable tie

Fig. 76



Preparing perforated bracket

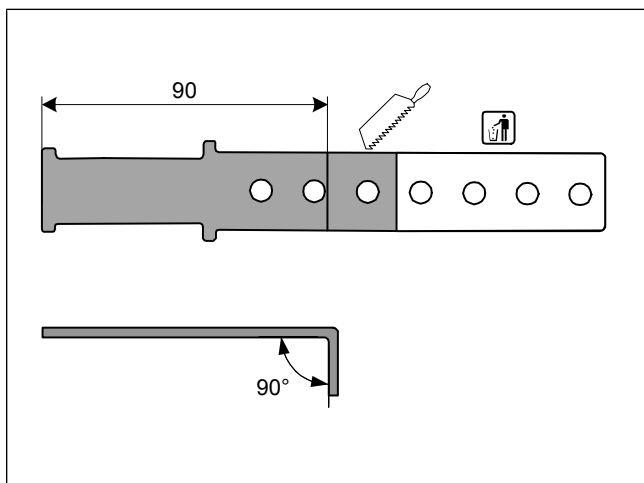


Fig. 77

Premounting coolant pump

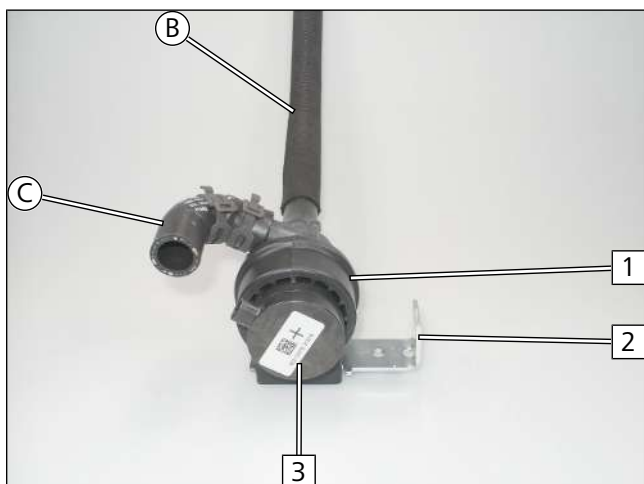


Fig. 78

- 1 Coolant pump mount
- 2 Prepared perforated bracket
- 3 Coolant pump

Mounting coolant pump, connecting hose (C) to heater

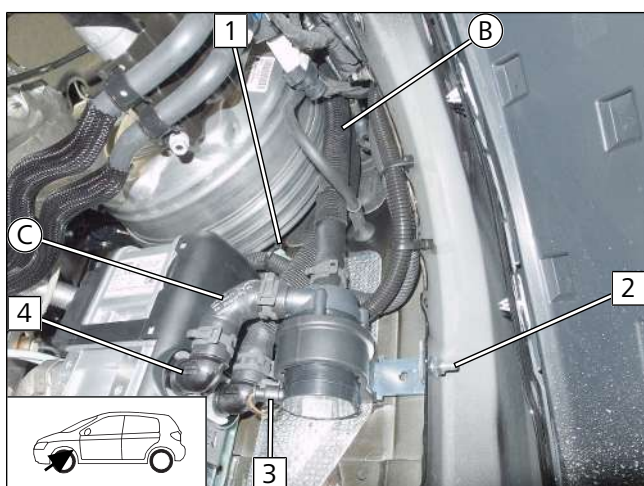


Fig. 79

- Tighten cable tie 1.
- 2 M6x20 bolt, perforated bracket, drilled hole, flanged nut
- 3 Coolant pump wiring harness connector
- 4 HG/IN



Routing hose **B**

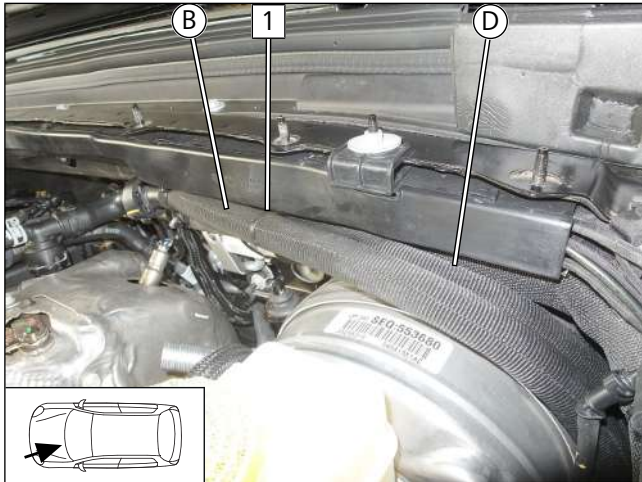


Fig. 80

- 1** Cable tie around hoses **B** and **D**

Connecting engine outlet

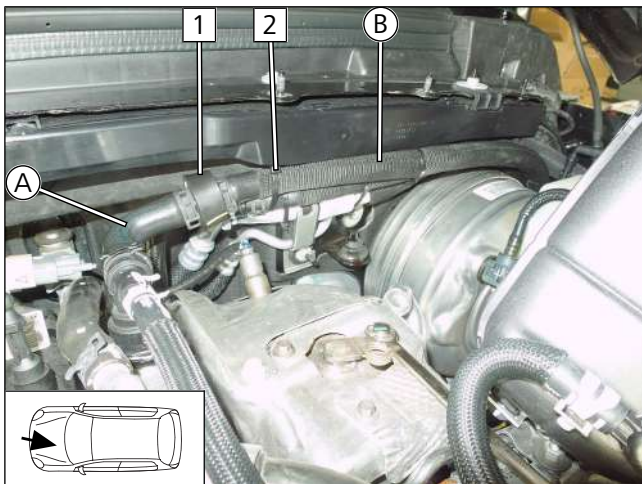


Fig. 81



Danger of damage to components

► Ensure sufficient distance from neighbouring components, correct if necessary.

- 1** Black (sw) rubber isolator
- 2** Cable tie

Adapting expansion tank bracket

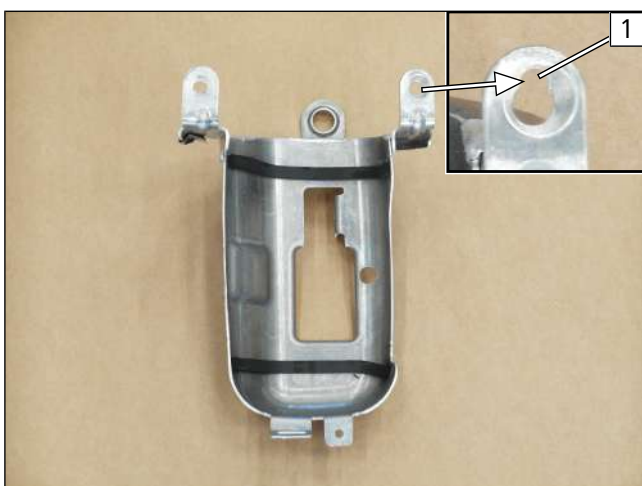


Fig. 82

- Create an oblong hole by enlarging the existing hole at pos. **1**.



Mounting expansion tank

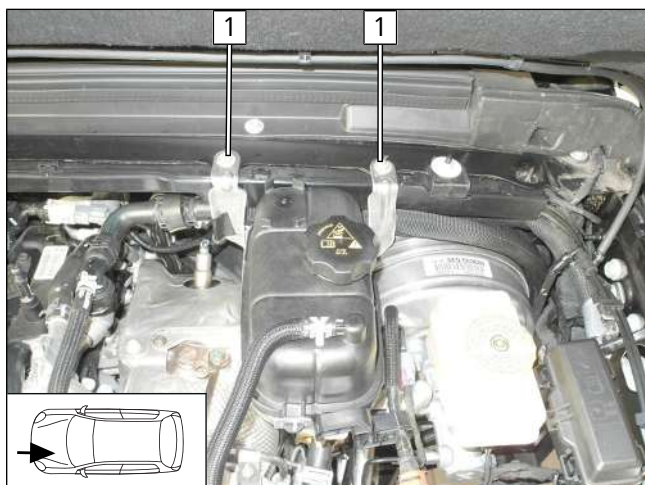


Fig. 83

► Move the expansion tank bracket as far as possible in the direction of the engine compartment.

- 1 Original vehicle stud bolt, expansion tank bracket , original vehicle nut



12 Combustion air

Shortening perforated bracket

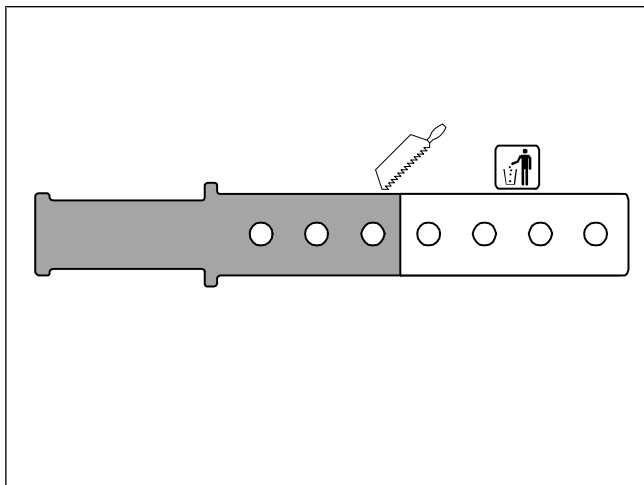
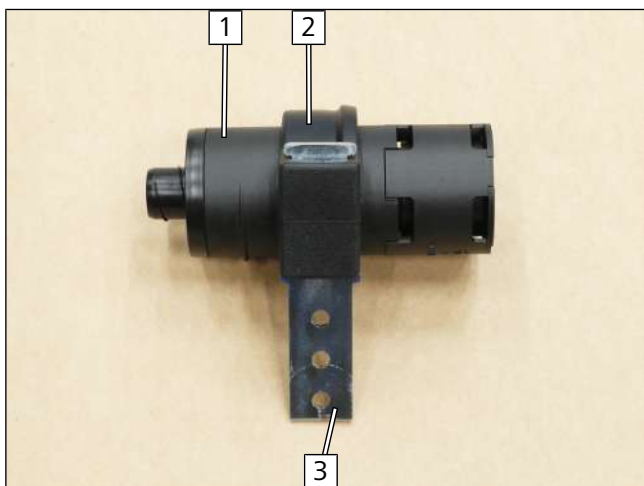


Fig. 84

Premounting combustion air intake silencer



- 1 Combustion air intake silencer
- 2 Mount
- 3 Perforated bracket

Fig. 85

Routing combustion air intake pipe **s1**

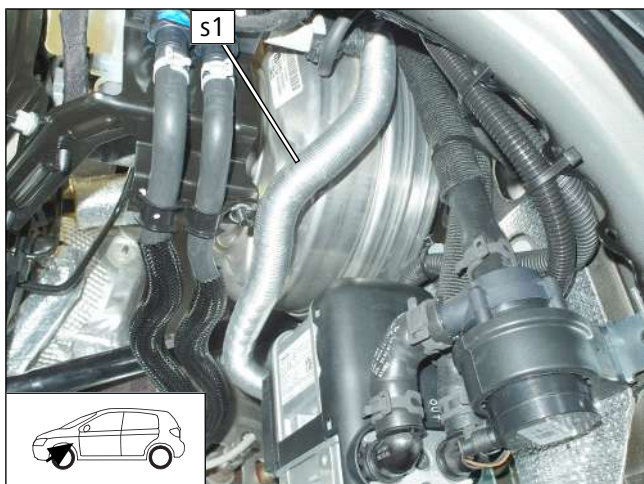


Fig. 86



Observe the installation instructions of the combustion air intake silencer.



Adapting original vehicle control unit bracket

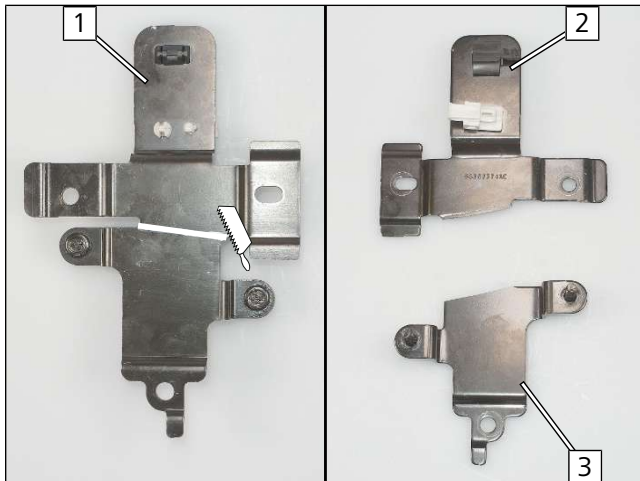


Fig. 87

- 1 Control unit bracket
- 2 Original vehicle bracket, part 1
- 3 Original vehicle bracket, part 2

Fixing combustion air intake pipe s1

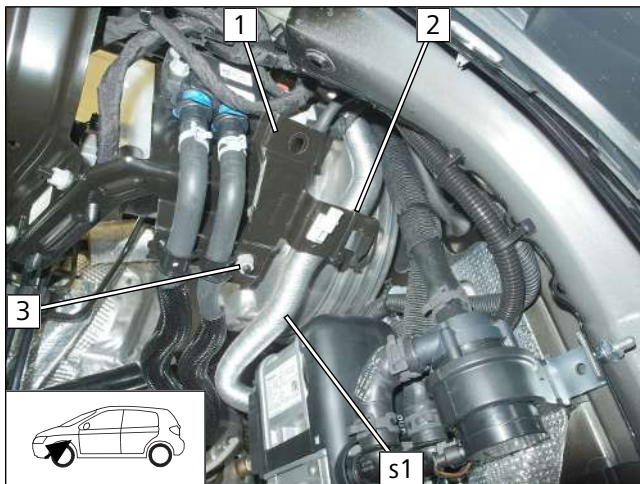


Fig. 88

- 1 Original vehicle bracket, part 1
- 2 Cable tie, for fastening s1
- 3 Original vehicle stud bolt, bracket part 1, original vehicle flanged nut

Mounting combustion air intake silencer

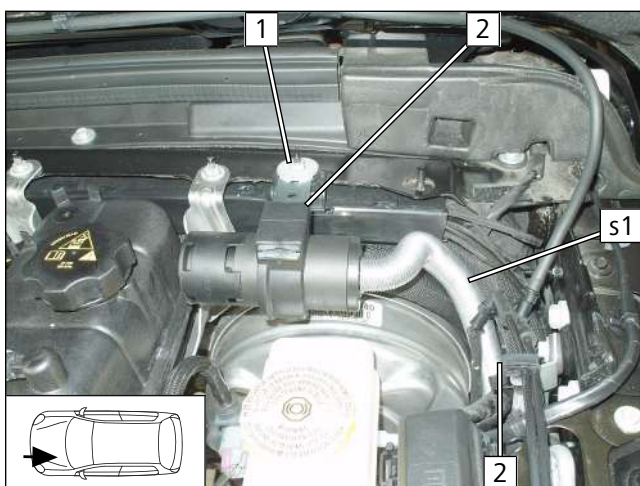


Fig. 89

- ▶ Mount combustion air pipe s1 on combustion air intake silencer 2.
- ▶ Align the combustion air intake silencer horizontally by slightly bending the perforated bracket.
 - 1 Original vehicle stud bolt, perforated bracket, original vehicle nut with washer



13 Electrical system of passenger compartment

13.1 Air-conditioning control

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



'Webasto Comfort' A/C control installation documentation for Jeep Wrangler JL with AAC



14 Final work in engine compartment

Mounting original vehicle connector

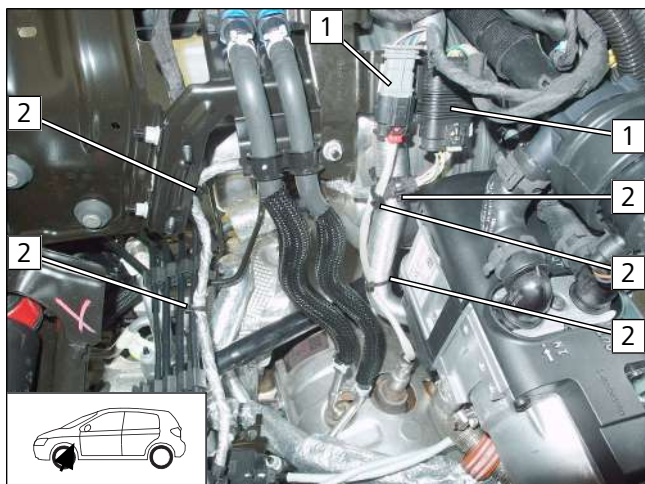


Fig. 90

Attach original vehicle wiring harnesses with cable ties **2** as shown

- 1** Original vehicle connector on bracket part 1

Mounting original vehicle control unit

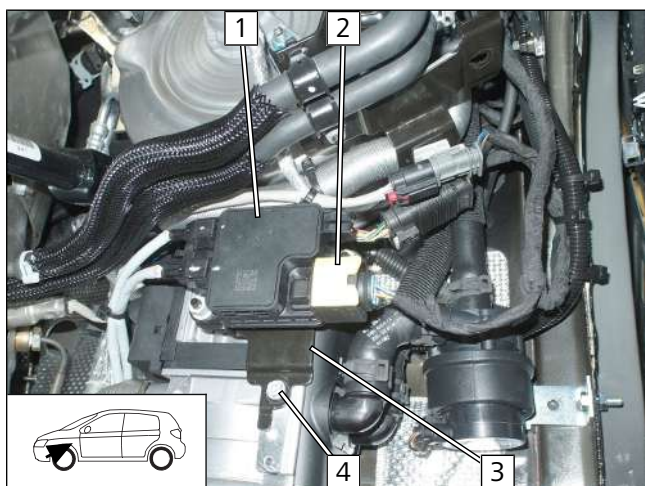


Fig. 91

► Connect connector **2** to original vehicle control unit **1**.

- 3** Original vehicle bracket, part 2
- 4** 5x13 self-tapping bolt



15 Electrical system of control element

15.1 Telestart option

Installing spacer nut



Fig. 92

- 1 Original vehicle stud bolt, spacer nut (30)

Premounting receiver

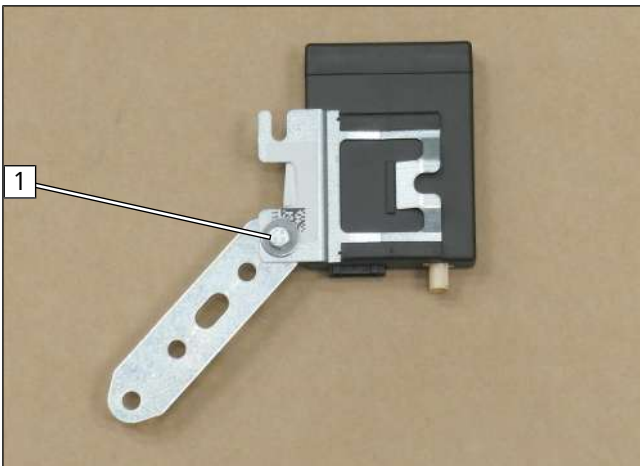


Fig. 93

- 1 M5x16 bolt, large diameter washer, receiver bracket, perforated bracket, large diameter washer, nut

Mounting receiver

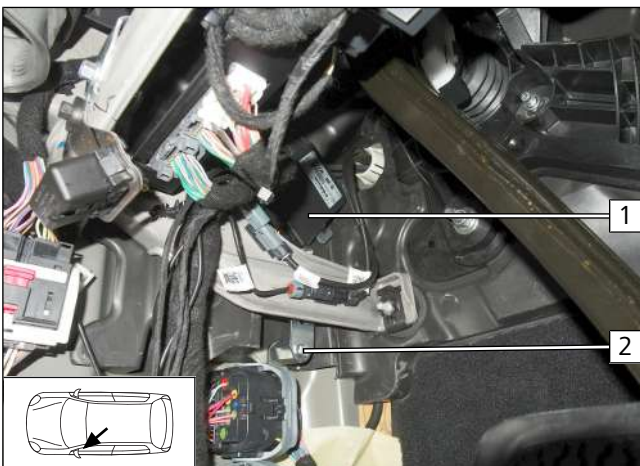


Fig. 94



Observe the Telestart installation documentation.

- 1 Receiver
- 2 M6x16 bolt, spring lock washer, perforated bracket, spacer nut



Mounting temperature sensor, only in case of T100 HTM

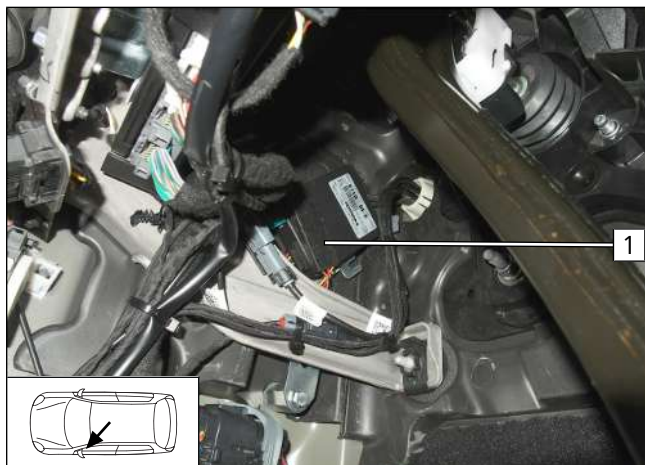


Fig. 95

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

Mounting aerial

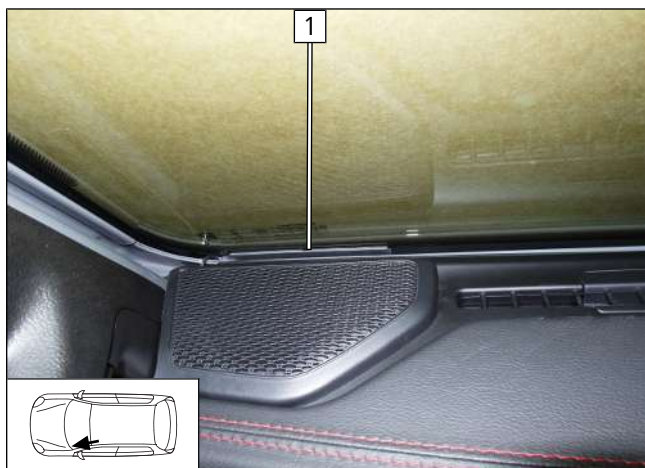


Fig. 96

- 1** Aerial

15.2 ThermoCall option

Mounting receiver



Fig. 97

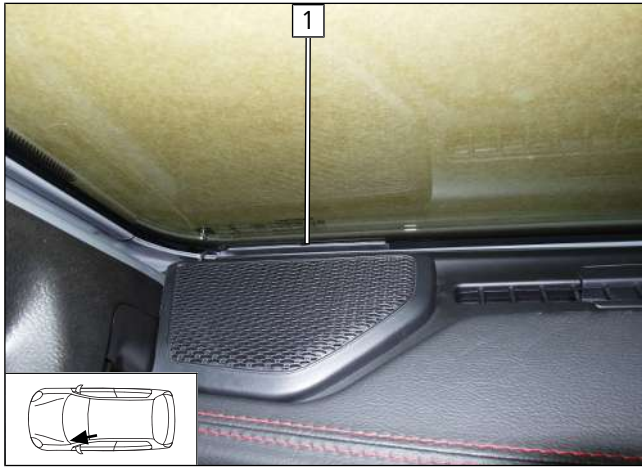


Observe the ThermoCall installation documentation.

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



Mounting aerial (optional)



1 Aerial

Fig. 98



16 Final Work

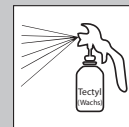


Further information can be found in the vehicle manufacturer's technical documentation.

- ▶ 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.



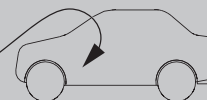
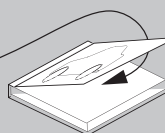
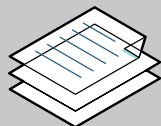
Only use manufacturer-approved coolant.

- ▶ 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
- ▶ Make settings on A/C control panel according to the 'Operating Instructions'.
- ▶ Initial operation and functional test
- ▶ 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.

Webasto Thermo & Comfort SE
Postfach 1410
82199 Gilching
Germany

Company address:
Friedrichshafener Str. 9
82205 Gilching
Germany

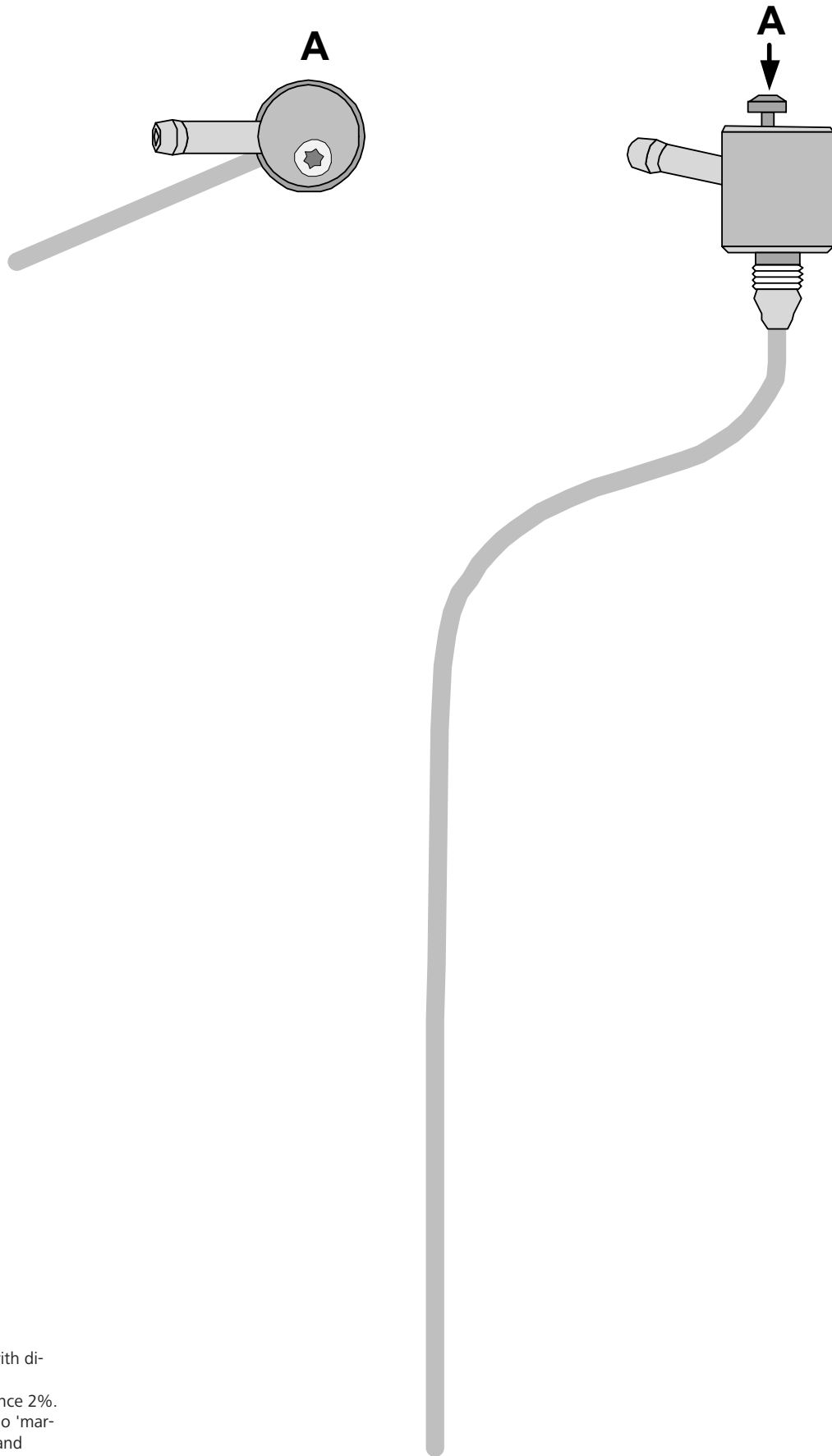
Technical Extranet: <https://dealers.webasto.com>



WWW.WEBASTO.COM



17 FuelFix template



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.

