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Installation documentation

for Thermo Top Evo water heater

'Inline' coolant circuit with engine preheating

Skoda Kodiaq / Seat Tarraco

Manufacturer	Model	Type	Model year	EG-BE-No. / ABE
Skoda	Kodiaq	NS	from 2017	E8*2007/46*0249*…

Motorisation	Fuel	Emission standard	Transmission type	Output [kW]	Displace-ment [cm³]	Engine code
1.4P	Petrol	Euro 6	SG	110	1395	CZEA
1.4P	Petrol	Euro 6	DSG	110	1395	CZDA
2.0P	Petrol	Euro 6d Temp	DSG	140	1984	DKZA
2.0D	Diesel	Euro 6	DSG	110	1968	DFGA
2.0D	Diesel	Euro 6d Temp	DSG	140	1968	DFHA

Manufacturer	Model	Type	Model year	EG-BE-No. / ABE
Seat	Tarraco	KN	from 2019	E9*2007/46*6666*…

Motorisation	Fuel	Emission standard	Transmission type	Output [kW]	Displace-ment [cm³]	Engine code
1.5P	Petrol	Euro 6d Temp	SG	110	1498	DADA
2.0D	Diesel	Euro 6d Temp	DSG	140	1968	DFHA

Validity	Equipment variants	Model	
		Kodiaq	Tarraco
Verified equipment variants	Multi-zone automatic air-conditioning	x	x
	Halogen main headlights	x	---
	LED main headlights	---	x
	LED front fog lights	x	x
	Halogen front fog lights	x	---
	LED daytime running lights	---	x
	Headlight washer system	x	---
	Passenger compartment monitoring	---	x
	Alarm system	---	x
	Automatic Start-Stop system	---	x
	Easy Start	x	x
	Kessy	x	x
	2 WD	x	x
	4 WD	x	x
Unverified equipment variants	Manual air-conditioning	x	x
	Dynamic cornering light	x	x

Total installation time	Note
7.0 hours	

Contents

1 List of abbreviations

2 WD	Front wheel drive
4 WD	All-wheel
AAC	Automatic air-conditioning
AC	Manual air-conditioning
DP	Fuel pump
DSG	Direct gear transmission
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

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
Scope of delivery of Skoda Kodiaq MY 2017 Seat Tarraco MY 2019 TSI TT-Evo	1325804D
Scope of delivery of Skoda Kodiaq MY 2017 Seat Tarraco MY 2019 TDI TT-Evo	1325774D
The following must also be ordered for automatic air-conditioning (AAC): Additional 'Webasto Standard' A/C control kit for VW / Skoda / Seat or Additional 'Webasto Comfort' A/C control kit for VW / Skoda / Seat	 1325085_ 1325012_
In case of Telestart, control element, as well as indicator lamp in consultation with end customer	In accordance with price list
In case of MultiControl CAR installation - MultiControl installation frame	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.

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	K
Vehicle-specific installation documentation of the cold start kit	M
Webasto Comfort A/C control	H
Webasto Standard A/C control	G
Tank extracting device (e.g. FuelFix)	F
Exhaust end fastener (EFIX)	E
Combustion air intake silencer	L
Spacer bracket (ASH)	S

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

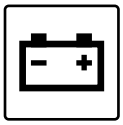
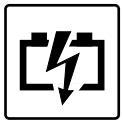
▶ Actions to protect yourself against risks.

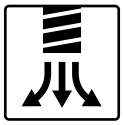
Reference to the vehicle manufacturer's specific documents.

Note on a special technical feature

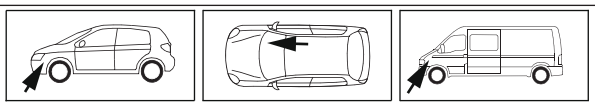
3.4.3 Work step identification marks

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 mm^2
- Crimping pliers for cable lugs 0.5 – 10 mm^2
- Crimping pliers for male connector 0.14 – 6 mm^2
- Crimping pliers for connector 0.25 – 6 mm^2
- 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	▶ Open the fuel tank cap ▶ Ventilate the fuel tank ▶ Close the fuel tank cap again ▶ Depressurise the cooling system	K
Engine compartment and body	▶ Battery with battery carrier ▶ Complete air filter with intake hose (diesel only) ▶ Front wheel on the front passenger's side ▶ Front passenger's side wheel well trim ▶ Engine underride protection ▶ Underride protection on the front passenger's side ▶ Tank underride protection (if available)	K
Passenger compartment	▶ Footwell trim on the driver's and front passenger's side ▶ Side instrument panel trim on the driver's side (in case of Teletart) ▶ A-pillar trim on the driver's side (in case of Telestart) ▶ Rear seat	K H G

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

DANGER

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

Vehicle body	▶ Open the tank fitting service lid on the front passenger's side	K

5.2 Heater preparation

Engine compartment	▶ 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

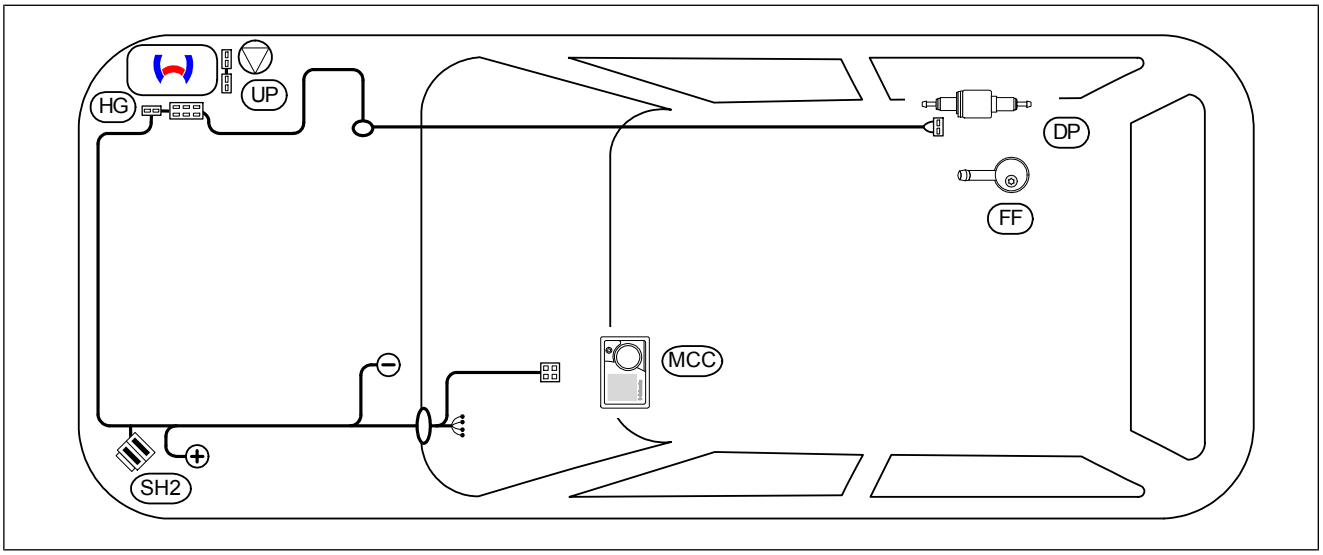


Fig. 1

Legend to installation overview

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

The retrofitting of the parking heater is shown on petrol and diesel vehicles respectively for Kodiaq and Terraco. If there is no separate note, the installation is identical. Special features are mentioned separately.

Heater assembly installation location

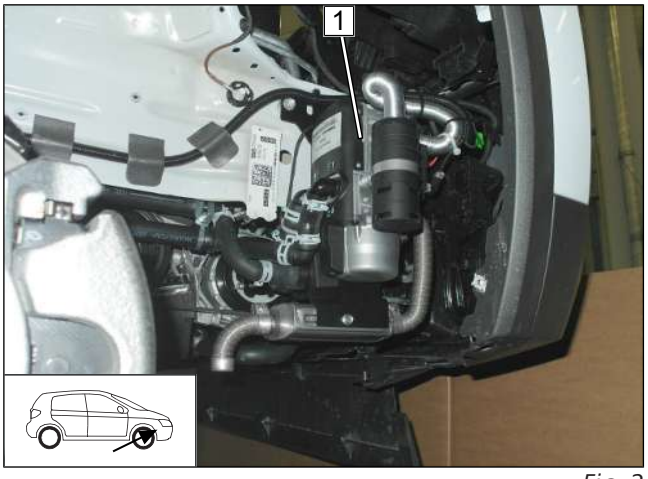


Fig. 2

1 Heater assembly

7 Electrical system of engine compartment

Pre-assembling engine compartment fuses

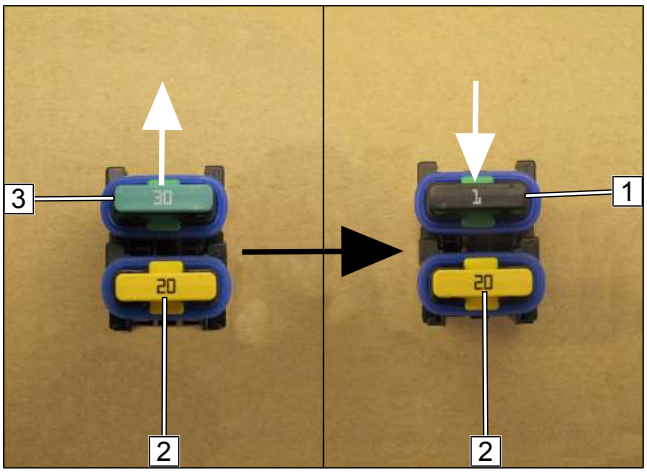


Fig. 3

▶ Replace 30A passenger compartment main fuse F2 [3] with 1A fuse [1].

[2] Fuse F1: 20A

Removing cover

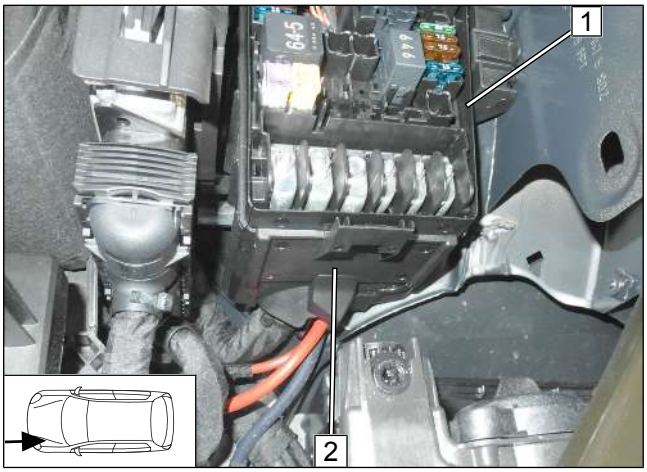


Fig. 4

▶ Remove original vehicle cover [2] from engine compartment fuse and relay box [1].

Copying hole pattern, drilling hole

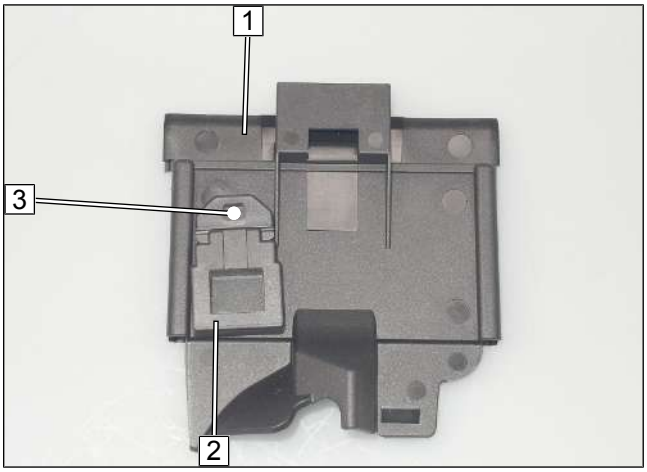


Fig. 5

▶ Position retaining plate of SH2 [2] onto cover [1], copy hole pattern [3] and drill a Ø6 hole.

Premounting retaining plate of SH2

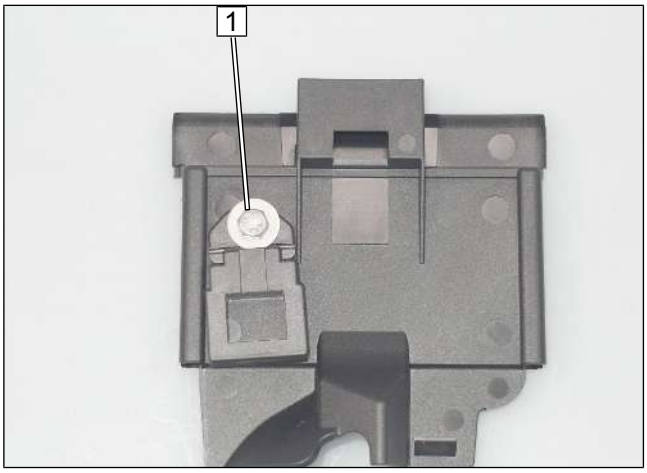


Fig. 6

1 M5x12 bolt, large diameter washer, retaining plate of SH2, original vehicle cover, large diameter washer, flanged nut

Mounting fuses F1 and F2

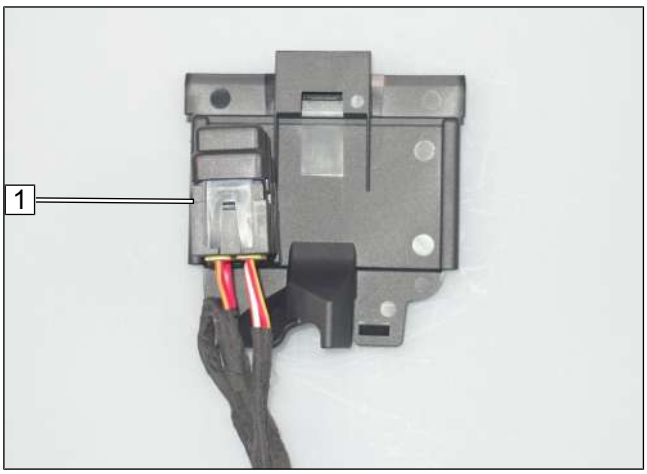


Fig. 7

1 Fuse F1 and F2

Positive wire connection

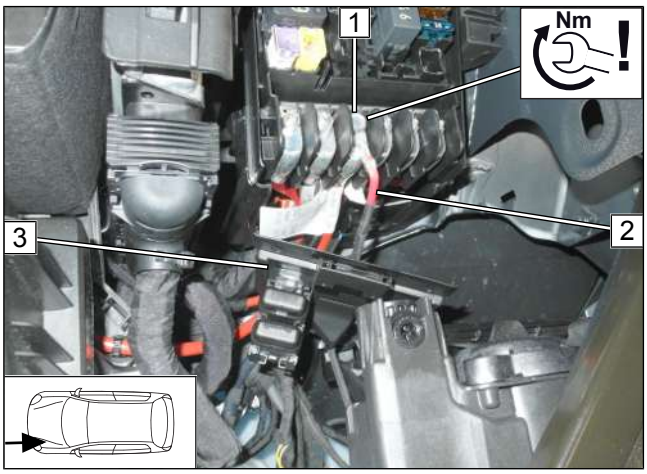


Fig. 8

DANGER

Fire hazard due to insufficient tightening torque

▶ Observe tightening torque

▶ Position premounted original vehicle cover 3 as shown.

1 Original vehicle positive point

2 Positive wire

Mounting cover

Fig. 9

▶ Mount original vehicle cover 1 of engine compartment fuse and relay box.

Routing passenger compartment, control element and earth wiring harnesses

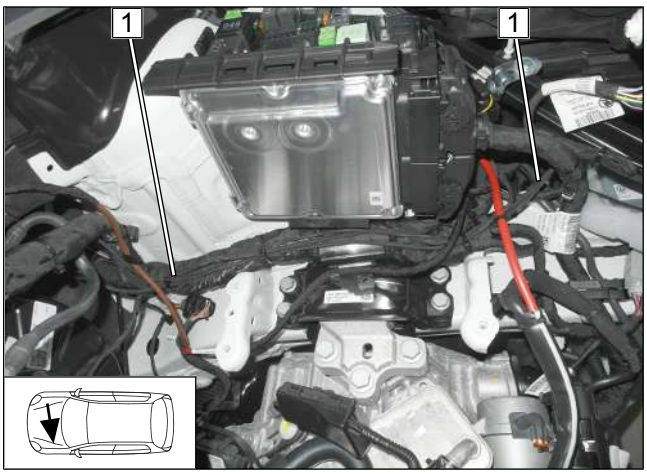


Fig. 10

▶ Route wiring harnesses 1 along original vehicle wiring harness as shown.

Earth wire connection

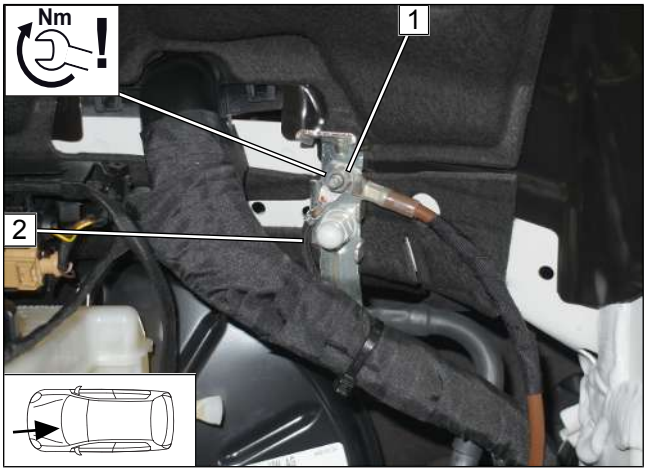


Fig. 11

DANGER

Fire hazard due to insufficient tightening torque.

▶ Observe tightening torque

1 Original vehicle earth point

2 Earth wire

Passenger compartment wiring harness pass through

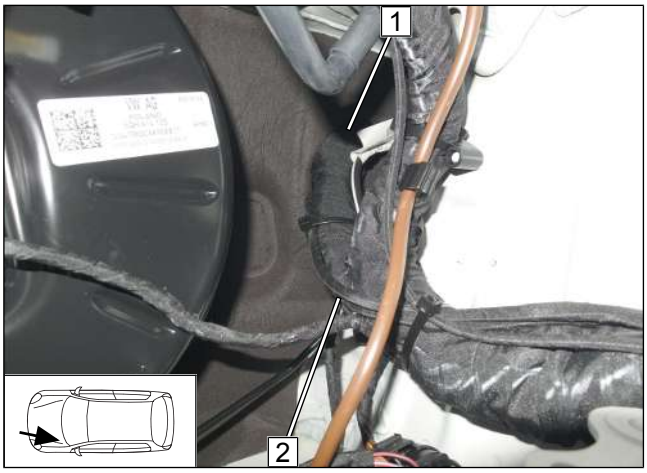


Fig. 12

1 Protective rubber plug

2 Passenger compartment and control element wiring harnesses

Heater wiring harness routing

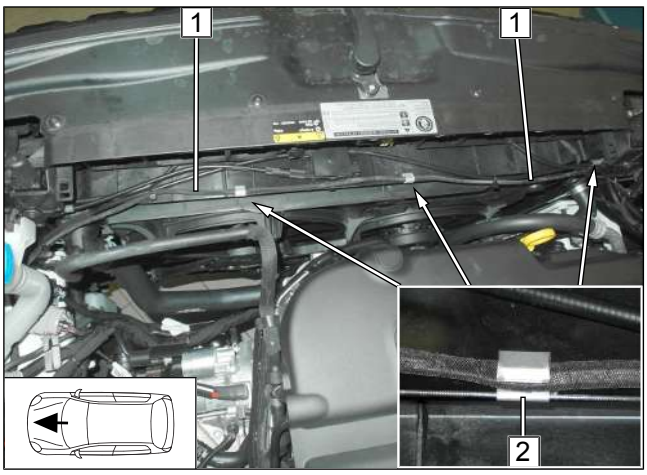


Fig. 13

▶ Route heater wiring harness 1 as shown and secure using metal clip 2.

8 Mechanical system

8.1 Installation location preparation

Positioning distance washer

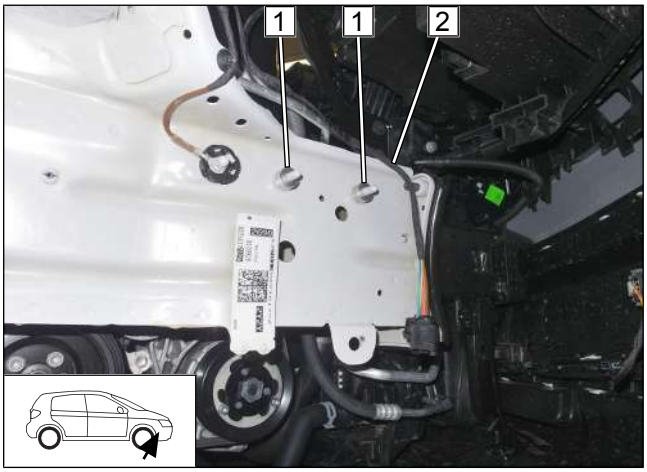


Fig. 14

1 Spacer (5), spacer 10, on original vehicle stud bolt
2 Heater wiring harness

Fastening horn wiring harness

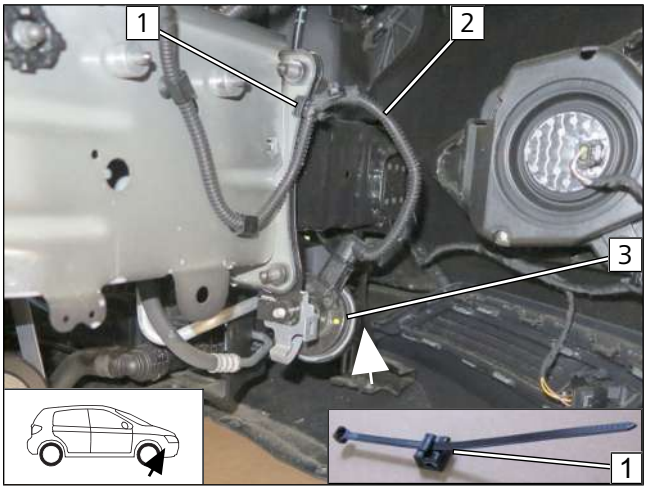


Fig. 15

Tarraco only

▶ Bend horn 3 in the direction of the arrow as shown, it will be straightened later.

1 Edge clip cable tie
2 Horn wiring harness

Removing original vehicle charge-air hose

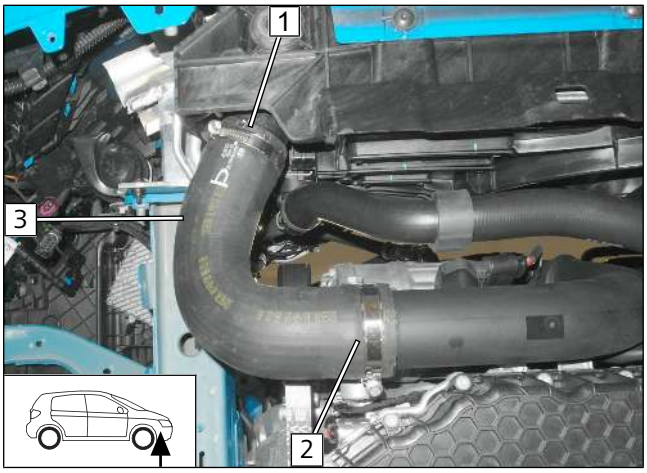


Fig. 16

2.0 petrol vehicles only

1 Intercooler side
2 Charge-air tube (engine) side
3 Original vehicle charge-air hose

Shortening original vehicle charge-air hose

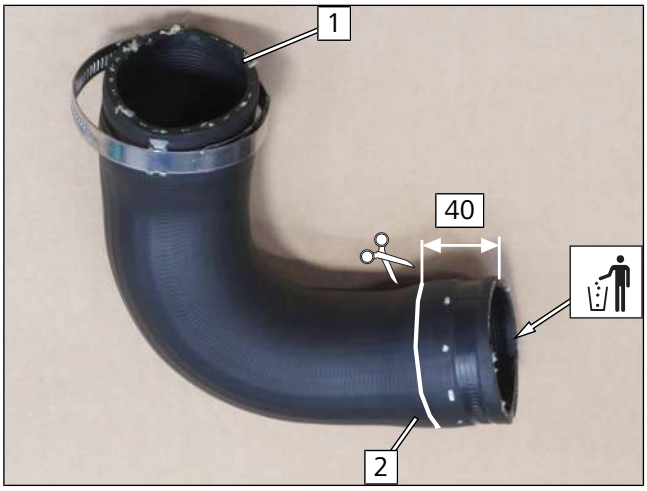


Fig. 17

▶ Shorten charge-air tube as shown.

1 Intercooler side
2 Charge-air tube (engine) side

Mounting original vehicle charge-air hose

Fig. 18

▶ Mount charge-air hose.

1 Shortened side on charge-air tube (engine)

8.2 Heater assembly installation

Heater assembly

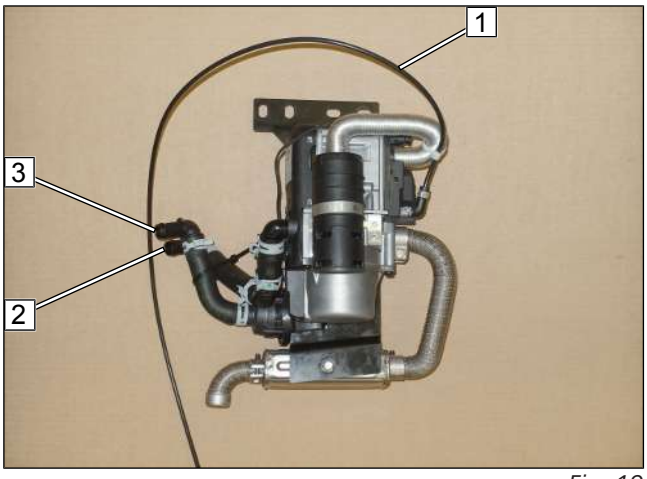


Fig. 19

all vehicles

1 Fuel line
2 Heater outlet connection
3 Heater inlet connection

Assigning heater assembly hoses

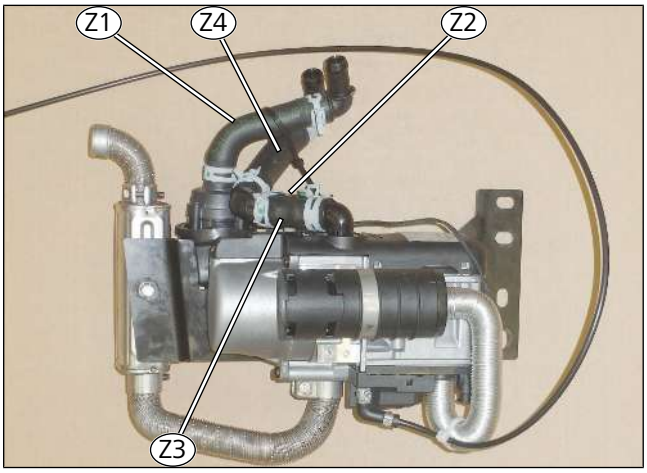


Fig. 20

Z1 Coolant pump inlet hose section

Z2 Coolant pump outlet/heater inlet hose section (covered)

Z3 Heater outlet hose section

Z4 Hose section on hose **Z3** (heater outlet)

Heater wiring harness installation

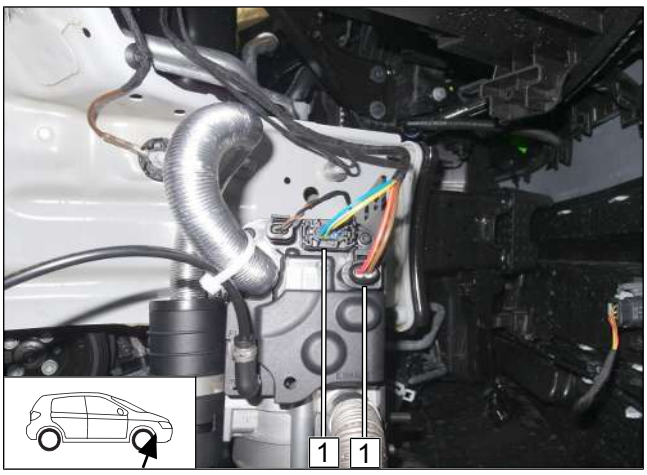


Fig. 21

1 Heater wiring harness connector

Heater assembly installation

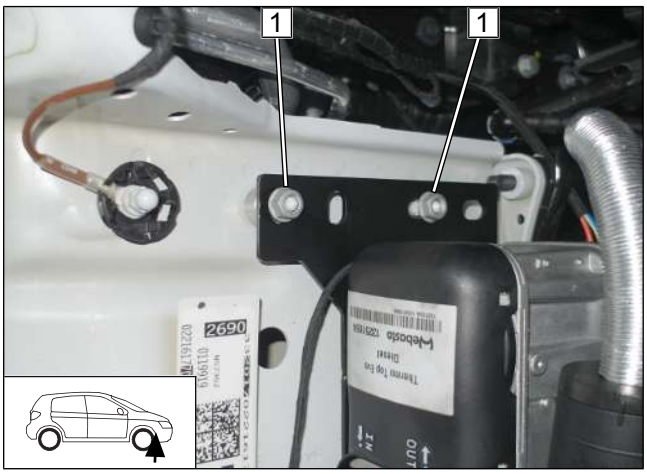


Fig. 22

▶ Mount flanged nut **1** loosely.

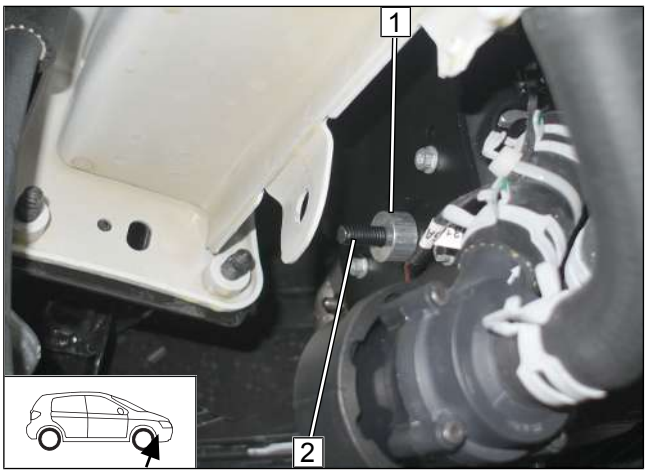


Fig. 23

1 Spacer (10)
2 Heater bracket stud bolt

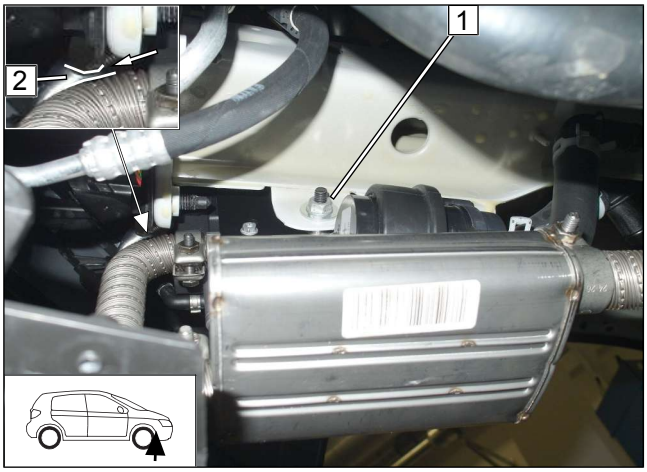


Fig. 24

Ensure sufficient distance from neighbouring components at position 2, correct if necessary.

1 Large diameter washer, flanged nut

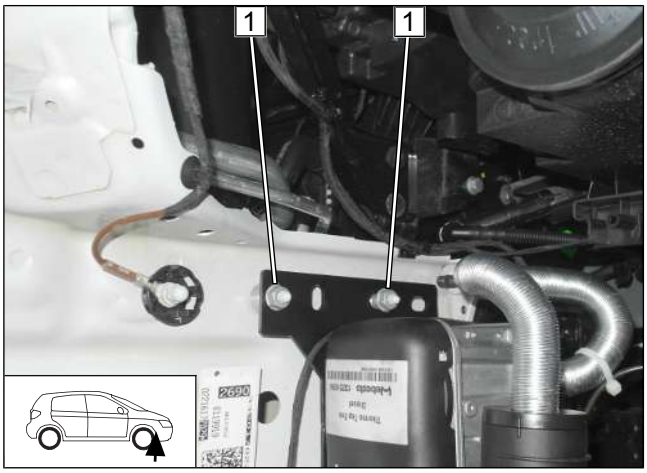


Fig. 25

▶ Tighten flanged nut 1.

Checking distance

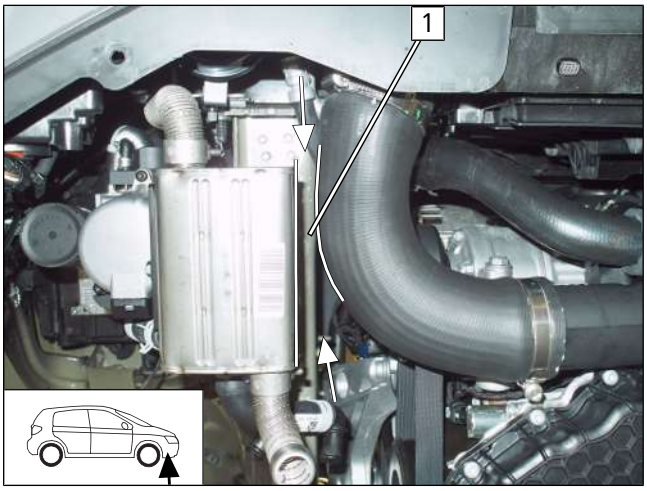


Fig. 26

2.0 petrol vehicles only

Ensure sufficient distance from neighbouring components at position 1, correct if necessary.

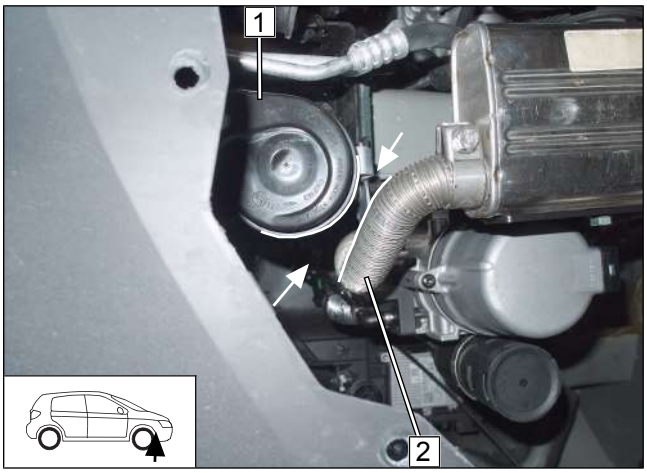


Fig. 27

Seat Tarraco only

Ensure sufficient distance from neighbouring components, correct if necessary.

>20

1 Horn

2 Exhaust pipe

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

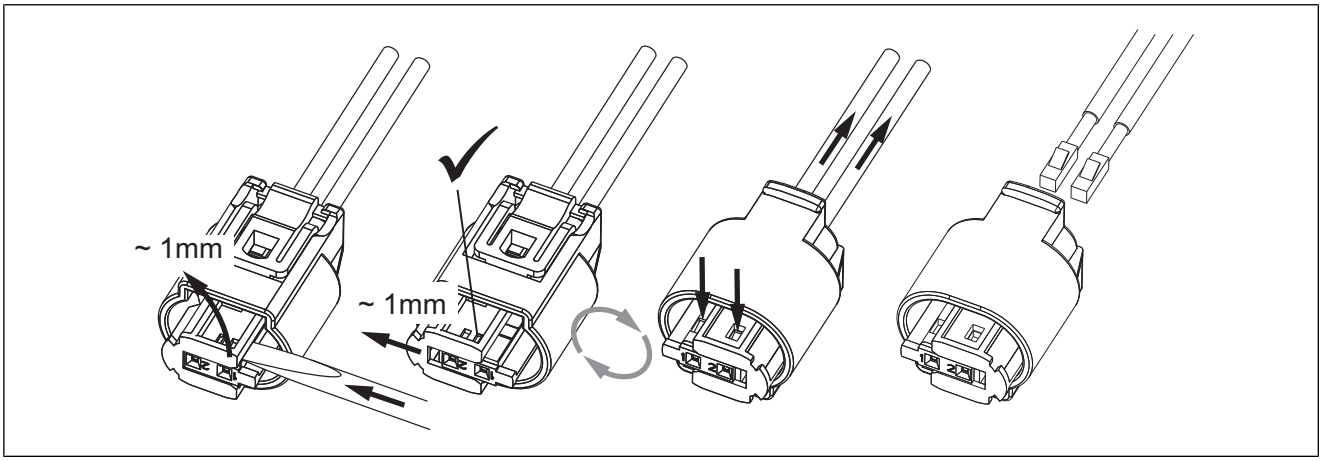


Fig. 28

9.1 Routing fuel line

Routing fuel line in wheel well

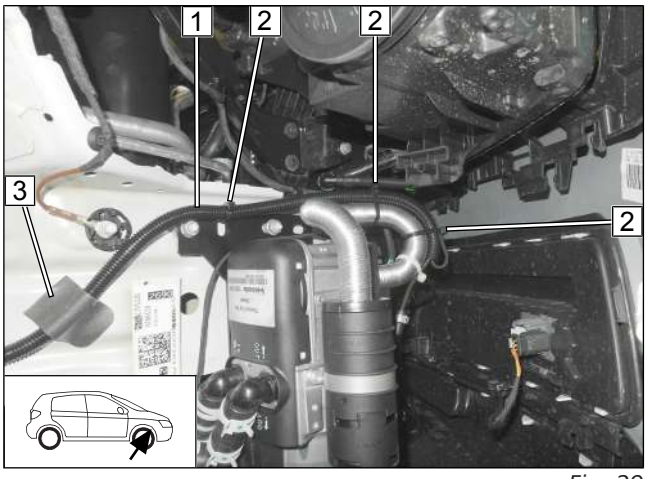


Fig. 29

1 Fuel line and fuel pump wiring harness in corrugated tube
2 Cable tie
3 Self-adhesive foam cut in half

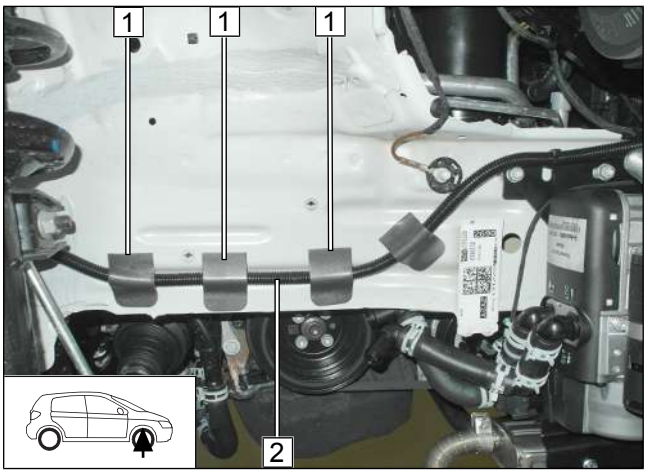


Fig. 30

1 Self-adhesive foam cut in half

2 Fuel line and fuel pump wiring harness in corrugated tube

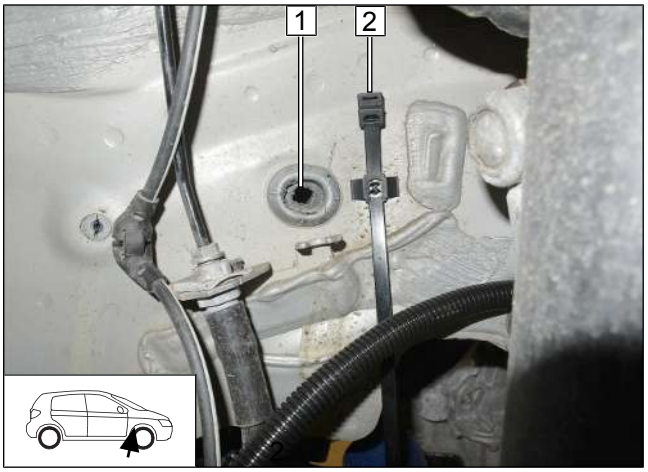


Fig. 31

▶ Pierce original vehicle pass through 1 in the middle as shown.

2 Eyelet cable tie in original vehicle hole

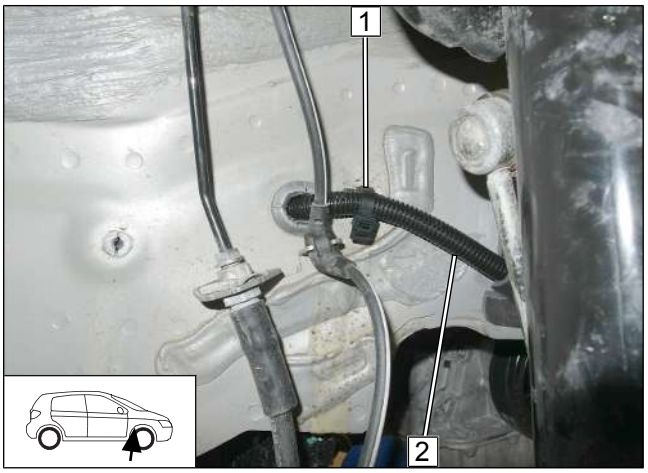


Fig. 32

1 Close cable tie

2 Fuel line and fuel pump wiring harness in corrugated tube

Premounting fuel pump

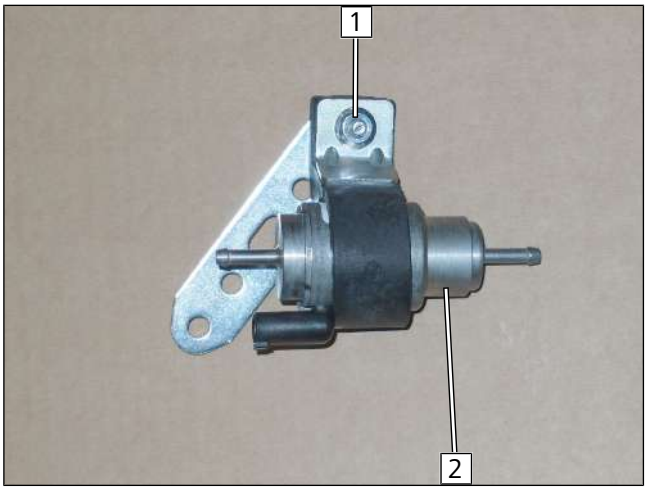


Fig. 33

1 M6x25 bolt, perforated bracket, fuel pump mount, support angle bracket, flanged nut

2 Fuel pump

Fuel pump installation

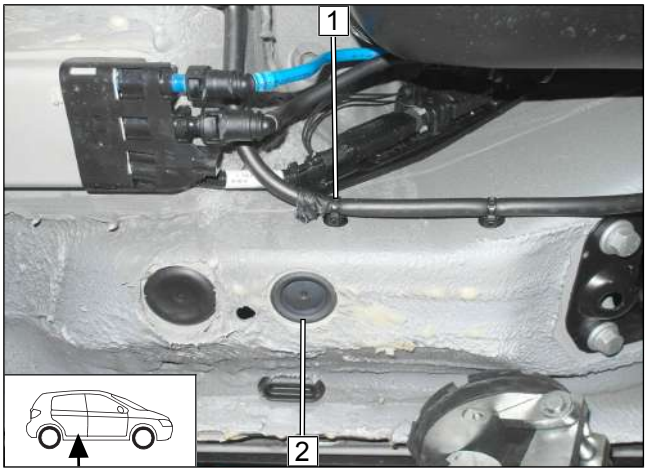


Fig. 34

▶ Remove clip-type cable tie 1 and plug 2. Plug 2 will be reused.

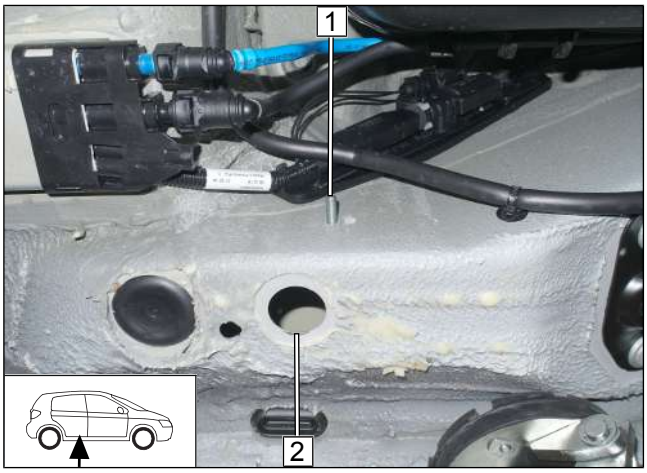


Fig. 35

▶ Insert M6x20 bolt 1 through opening 2 using flat nose pliers.

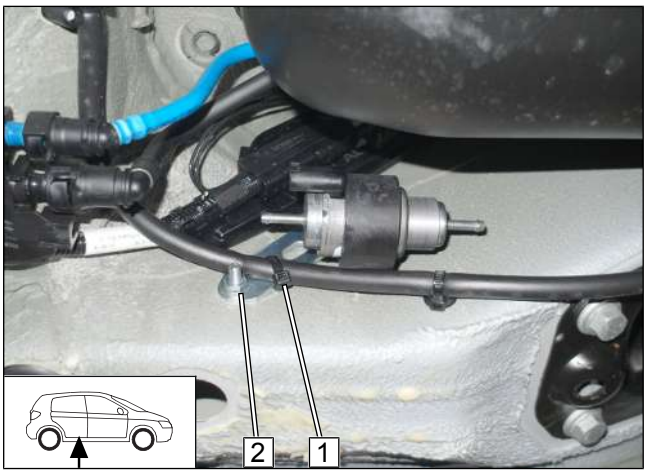


Fig. 36

1 Cable tie
2 Flanged nut

Assembling fuel pump connector

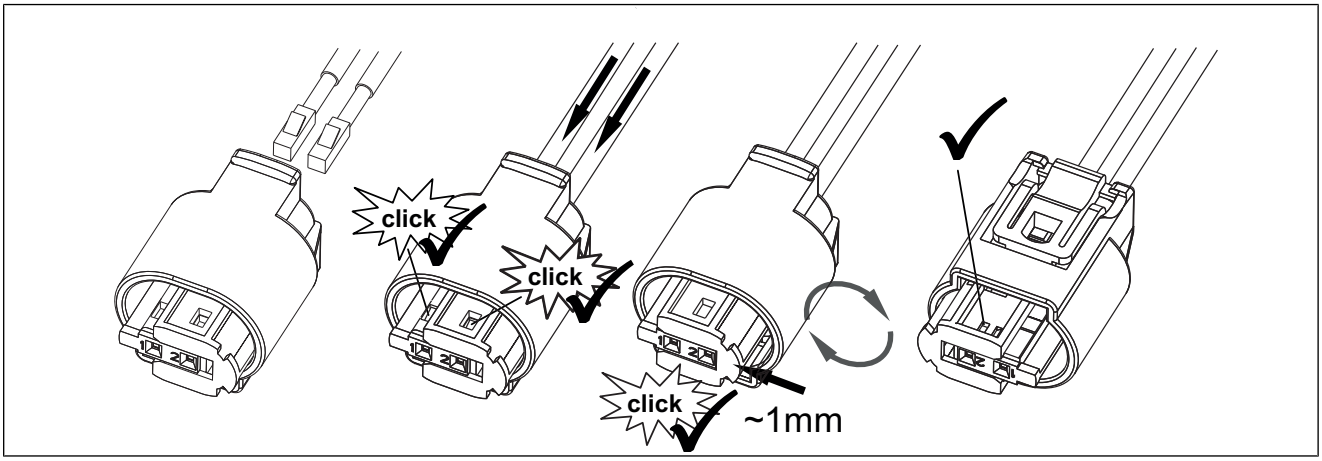


Fig. 37

Fuel pump connection

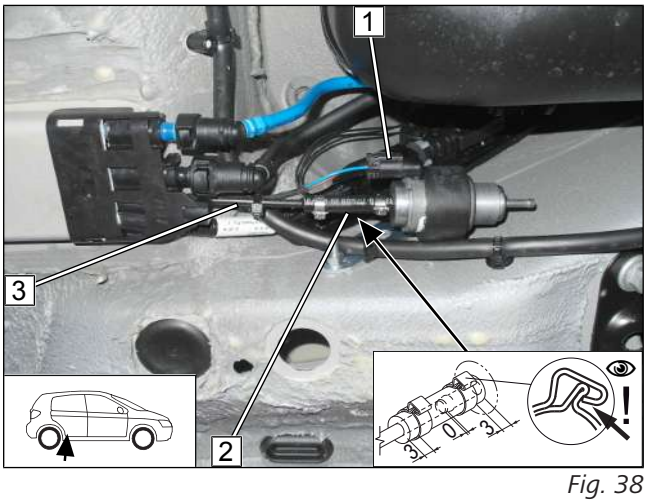


Fig. 38

1 Fuel pump wiring harness, connector X7 mounted
2 Hose section, Ø10 clamp [2x]
3 Heater fuel line

9.2 Installing FuelFix, 2WD petrol vehicles

Preparing drilling template

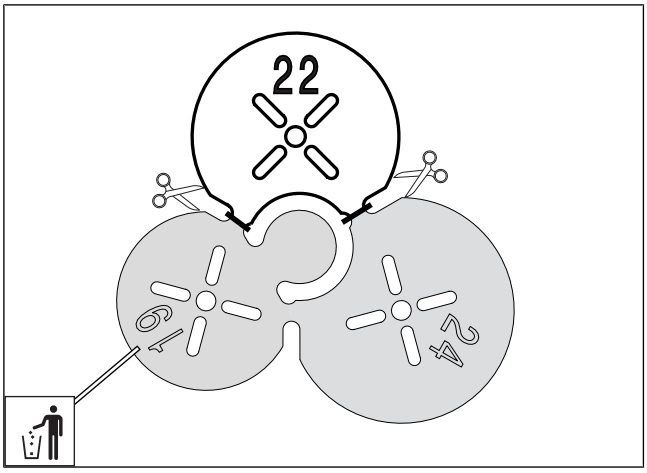


Fig. 39

Detaching label

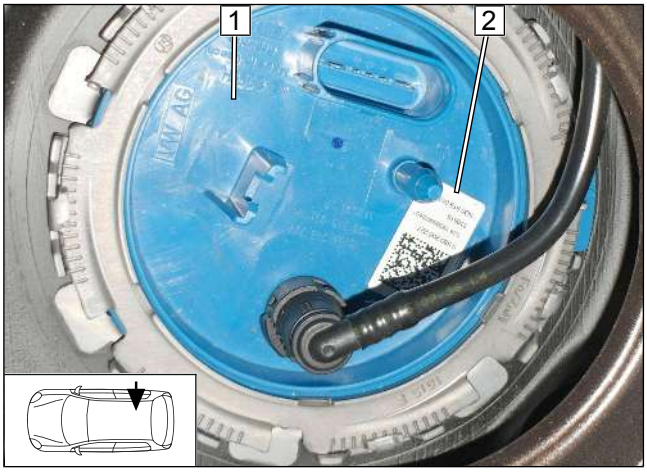


Fig. 40

The colour of the tank fitting may vary.

[1] Tank fitting
[2] Label

Work steps F1, F2

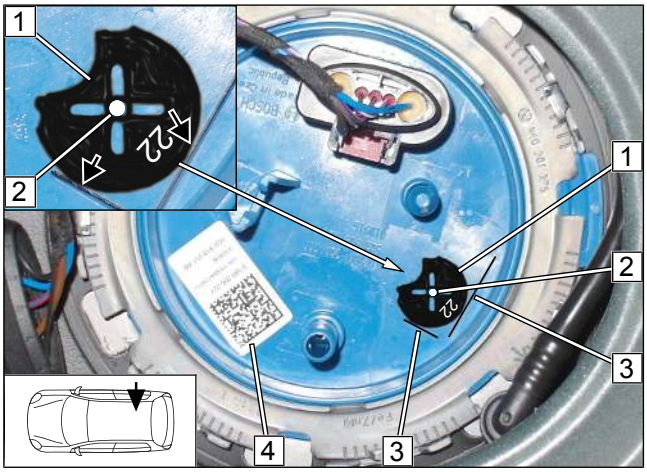


Fig. 41

Observe the installation instructions of the tank extracting device.

▶ Affix label [4] as shown.
▶ Draw guide line [3] on existing embossing.

[1] Position Ø22 drilling template as shown in fig.
[2] Hole pattern

Work step F3

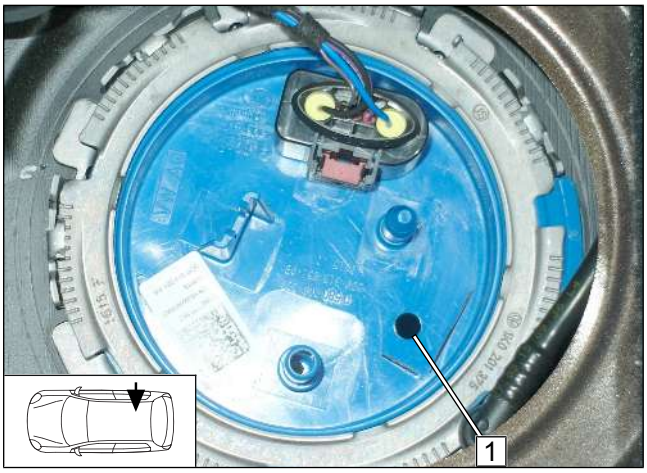


Fig. 42

DANGER

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

1 Hole made with provided drill

Work steps F4, F5

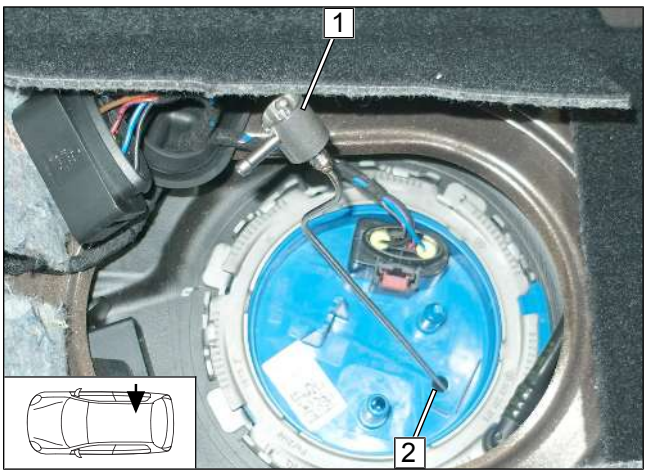


Fig. 43

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

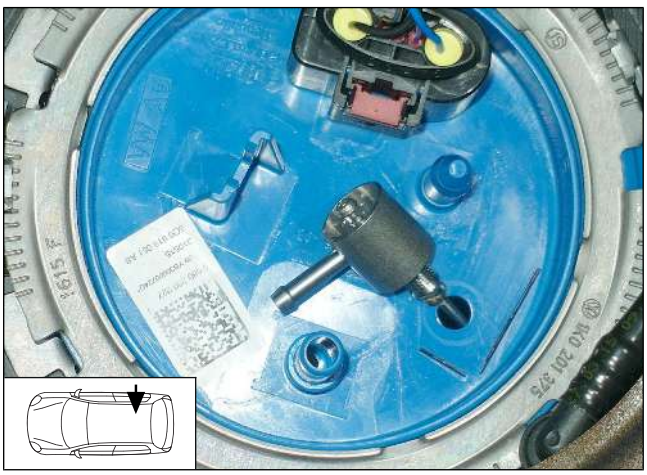


Fig. 44

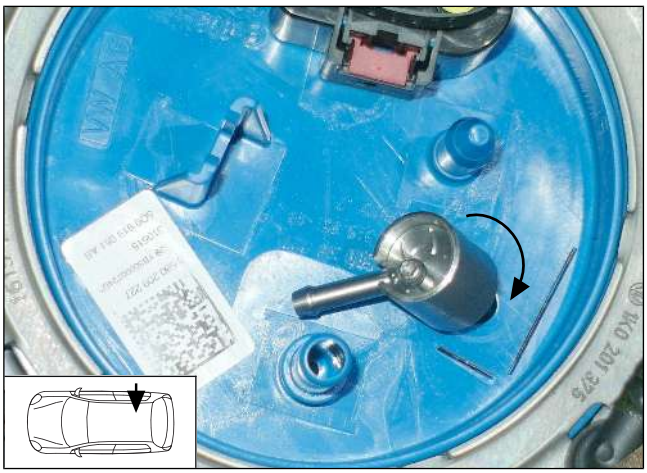


Fig. 45

Work steps F5.3, F5.4

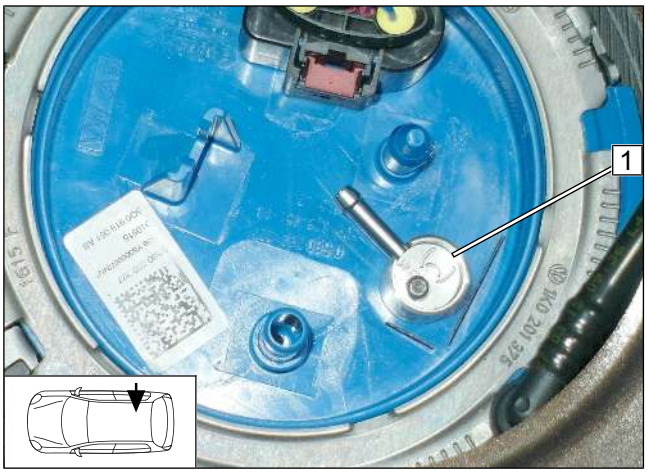


Fig. 46

▶ Align FuelFix 1 as shown.

Work step F6

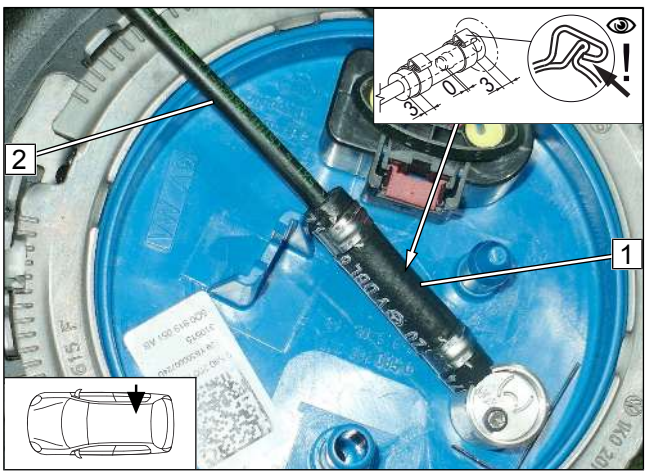


Fig. 47

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

Work step F7

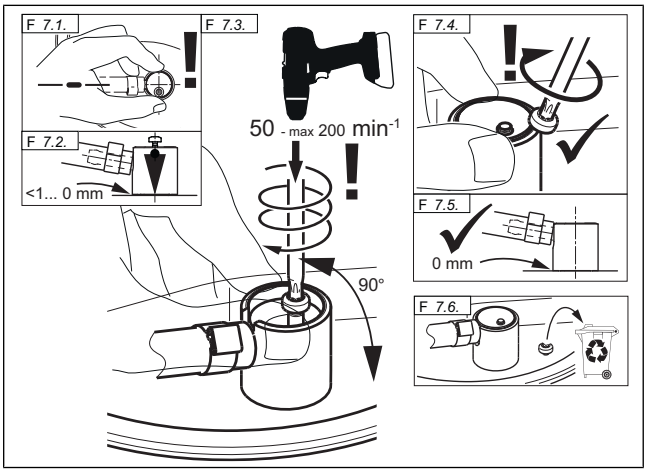


Fig. 48

DANGER

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

Work step F8

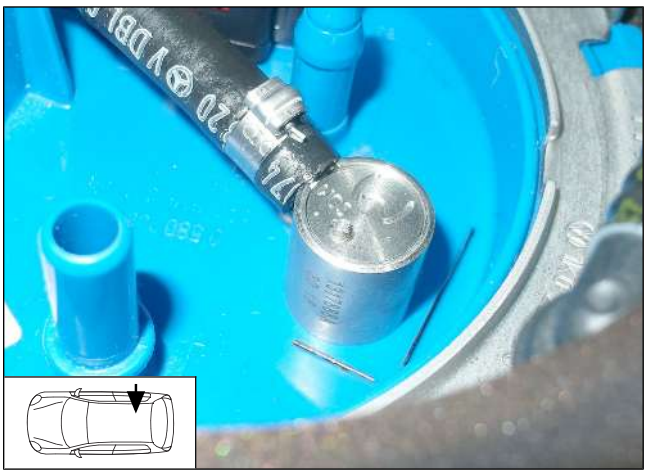


Fig. 49

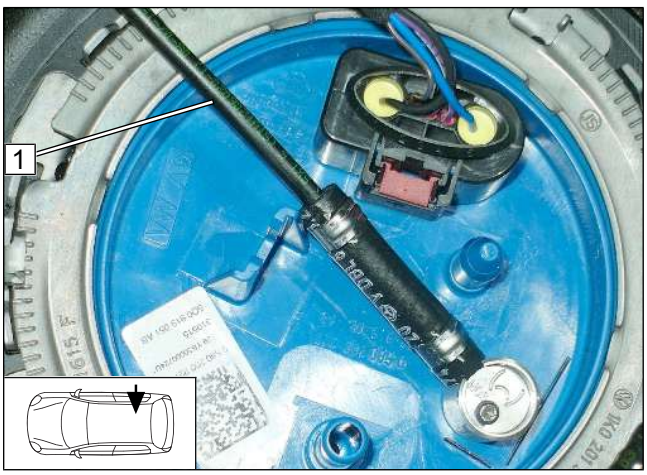


Fig. 50

▶ Secure fuel line 1 using a cable tie in a suitable location for tension relief.

9.3 Installing FuelFix, 4WD petrol vehicles

Preparing drilling template

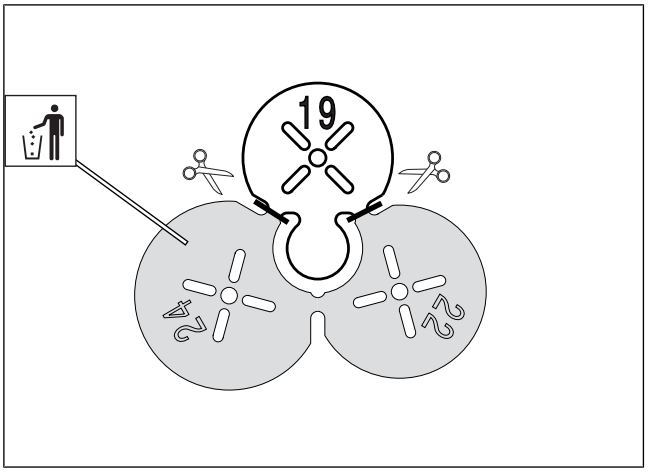


Fig. 51

Work steps F1, F2

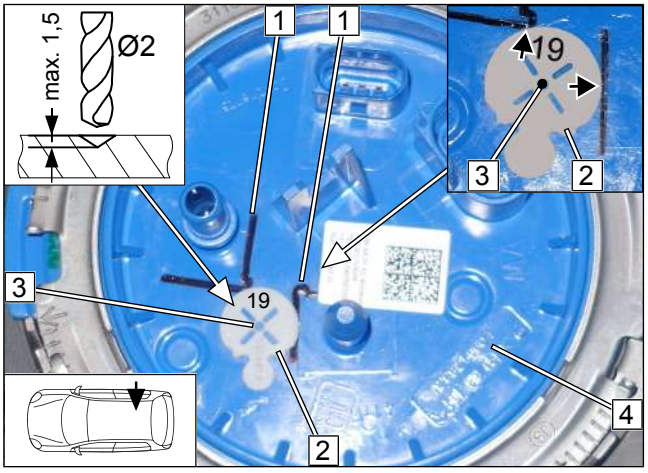


Fig. 52

Observe the installation instructions of the tank extracting device.

▶ Draw guide line 1 on existing embossing.

2 Position Ø19 drilling template as shown in fig.

3 Ø2 centring hole

4 Tank fitting

Work step F3

Fig. 53

DANGER

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

1 Hole made with provided drill

Work steps F4, F5

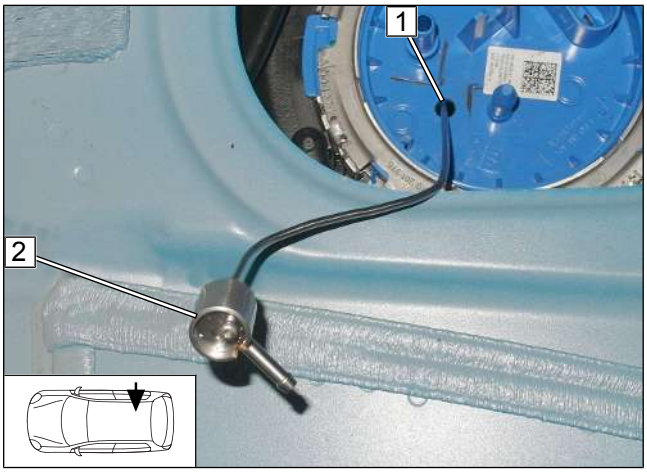


Fig. 54

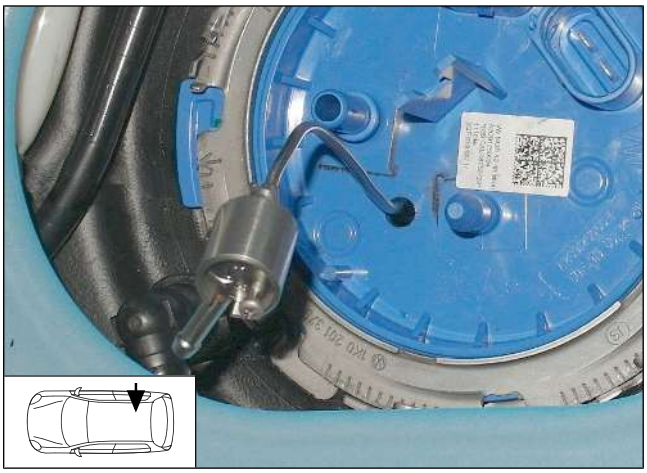


Fig. 55

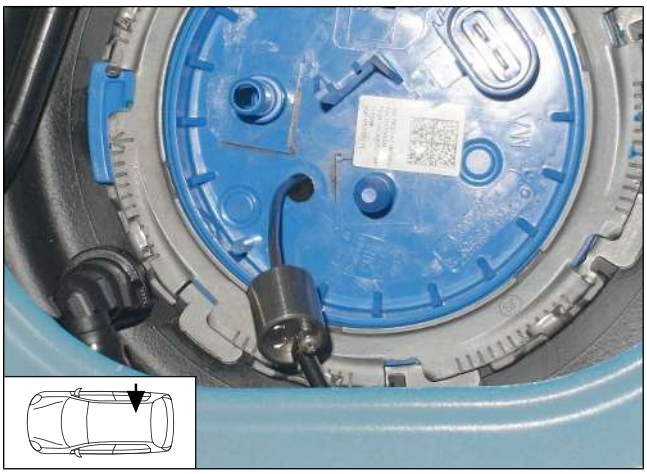


Fig. 56

▶ Bend FuelFix [2] according to template and cut to length. Insert in hole [1].

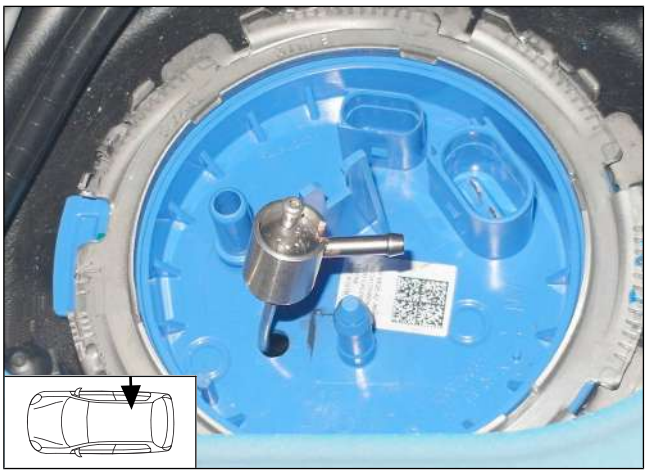


Fig. 57

Work steps F5.3, F5.4

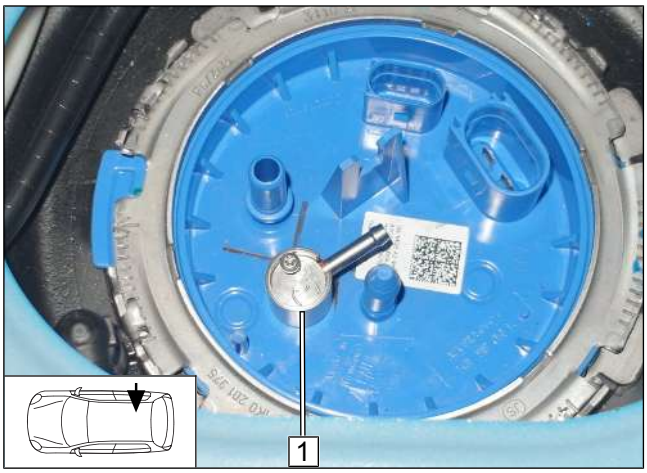


Fig. 58

▶ Align FuelFix 1 as shown.

Work step F6

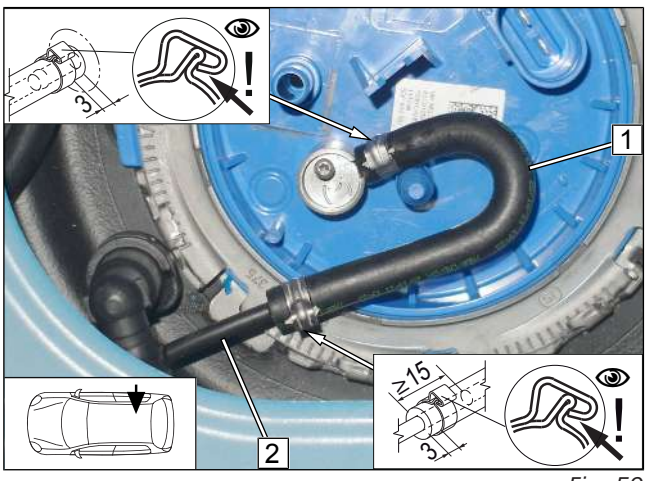


Fig. 59

1 180° moulded hose, Ø10 clamp [2x]

2 Fuel line

Work step F7

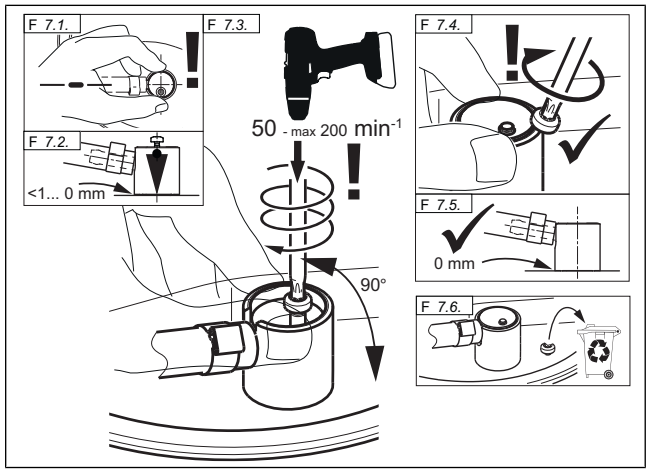


Fig. 60

DANGER

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

Work step F8

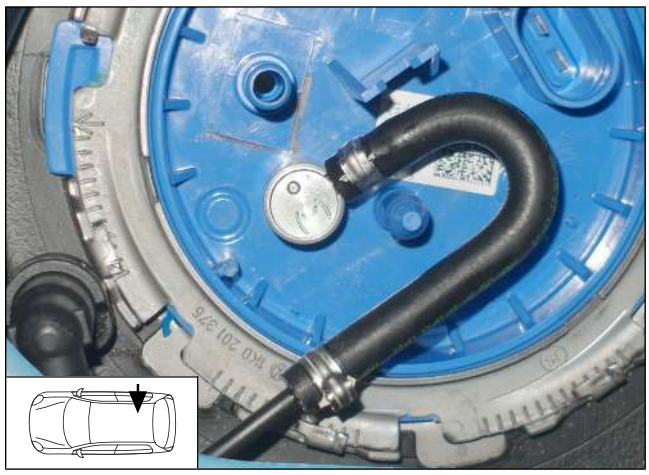


Fig. 61

Securing fuel line

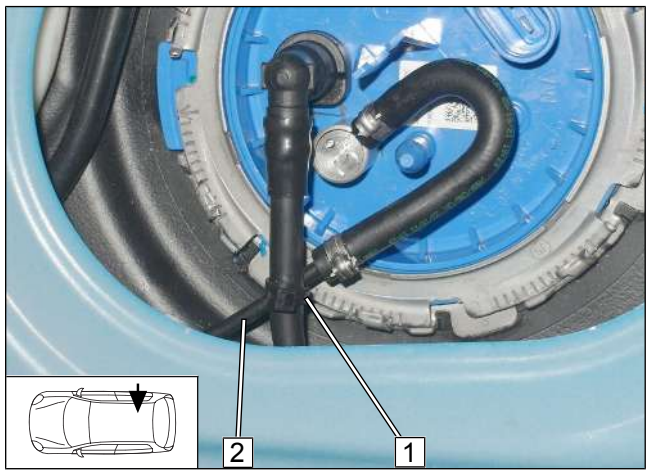


Fig. 62

1 Cable tie for tension relief
2 Fuel line of FuelFix

9.4 Installing FuelFix, 4WD diesel vehicles

Preparing drilling template

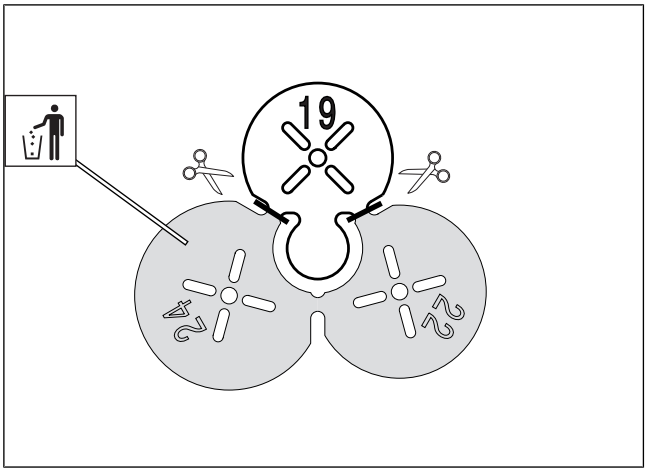


Fig. 63

Moving label

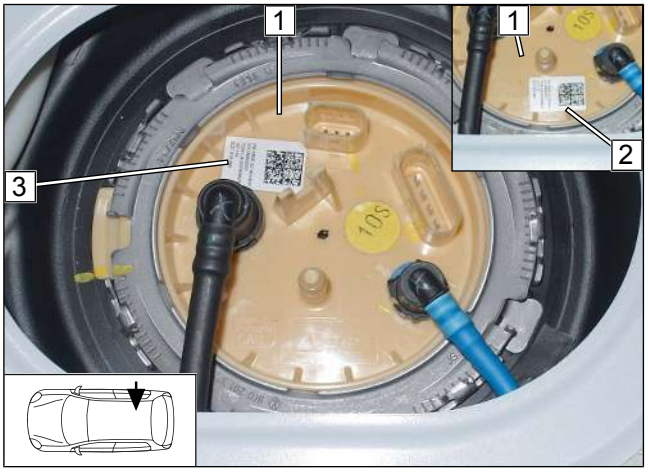


Fig. 64

1 Tank fitting
2 Label new position
3 Label old position

Work steps F1, F2

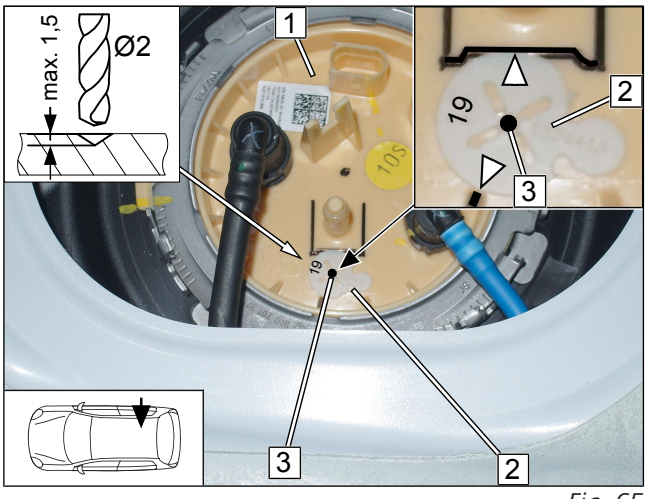


Fig. 65

Observe the installation instructions of the tank extracting device.

1 Tank fitting
2 Position Ø19 drilling template as shown in fig.
3 Ø2 centring hole

Work step F3

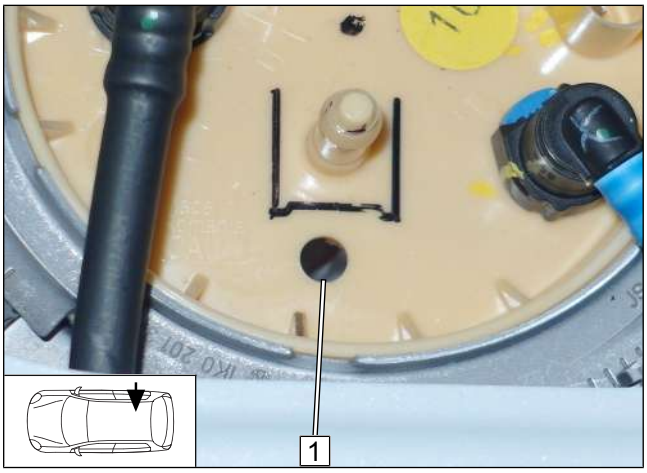


Fig. 66

DANGER

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

1 Hole made with provided drill

Work steps F4, F5

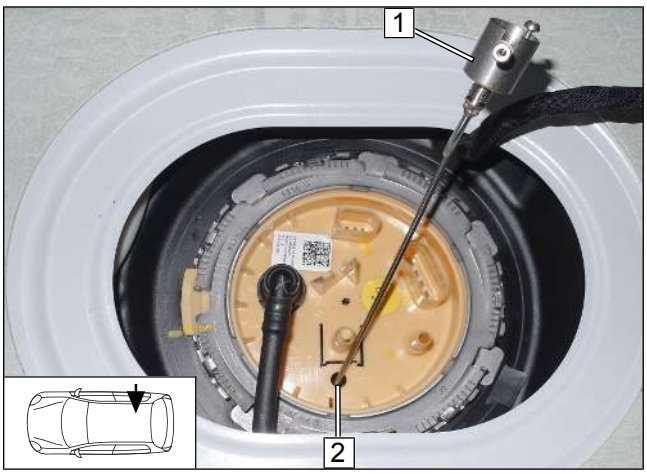


Fig. 67

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

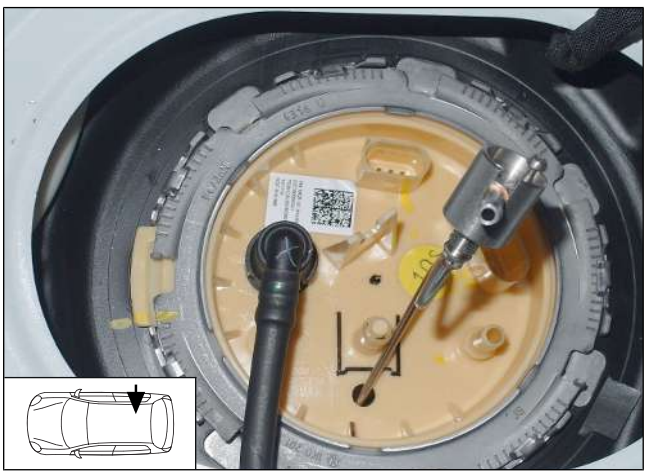


Fig. 68

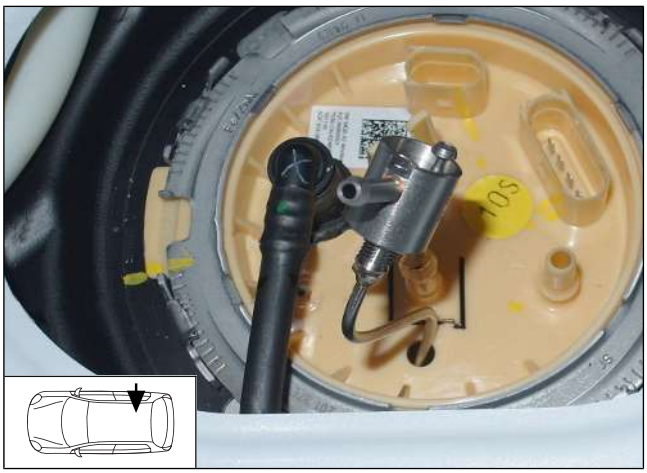


Fig. 69

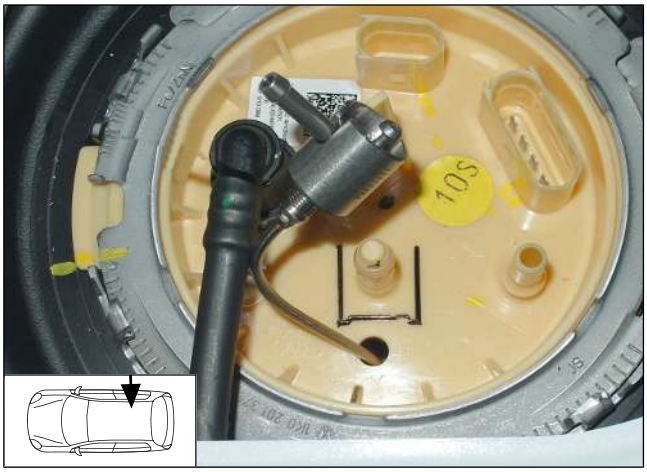


Fig. 70

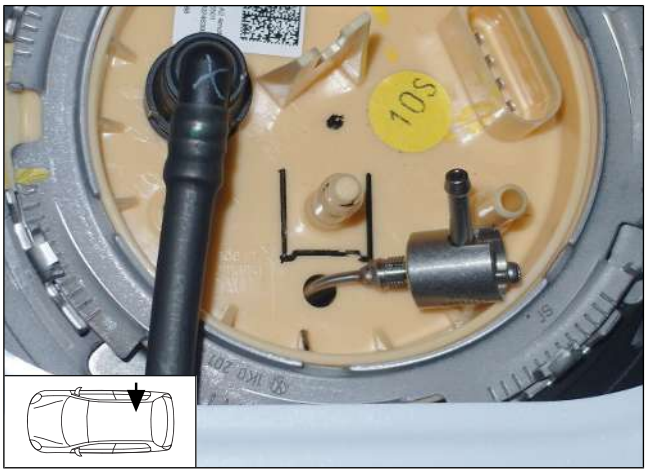


Fig. 71

Work steps F5.3, F5.4

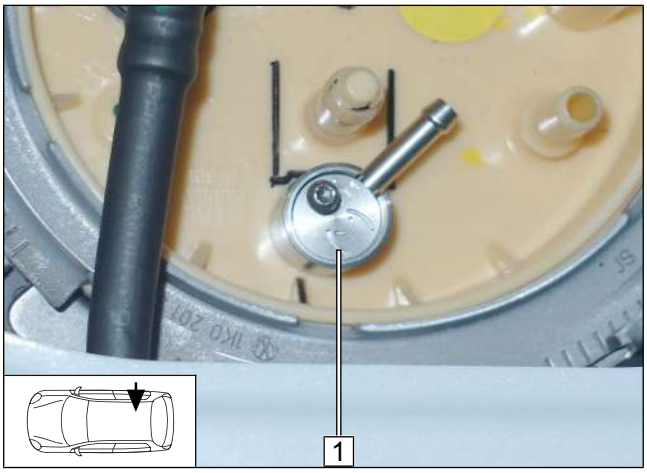


Fig. 72

▶ Align FuelFix [1] as shown.

Work step F6

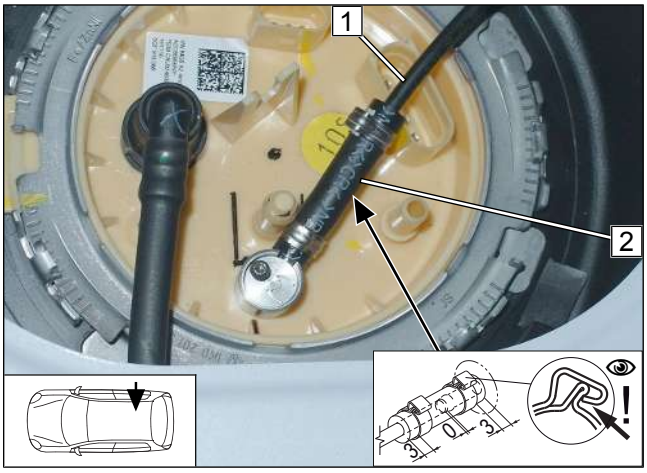


Fig. 73

[1] Fuel line

[2] Hose section, Ø10 clamp [2x]

Work step F7

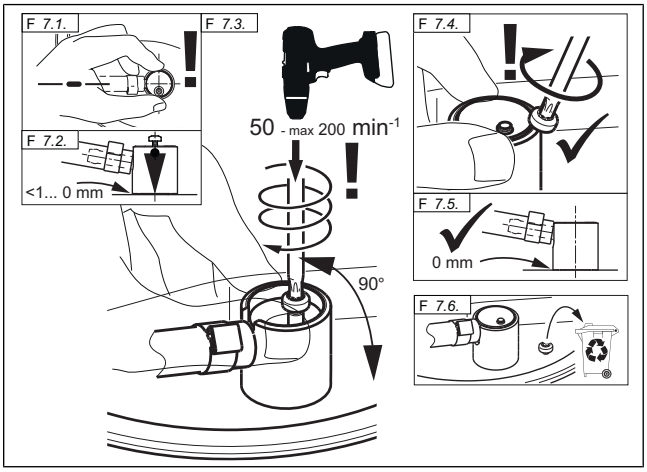


Fig. 74

DANGER

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

Work step F8

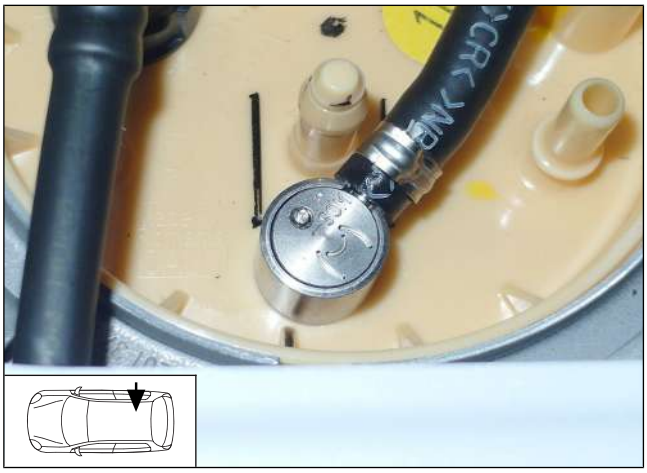


Fig. 75

Securing fuel line

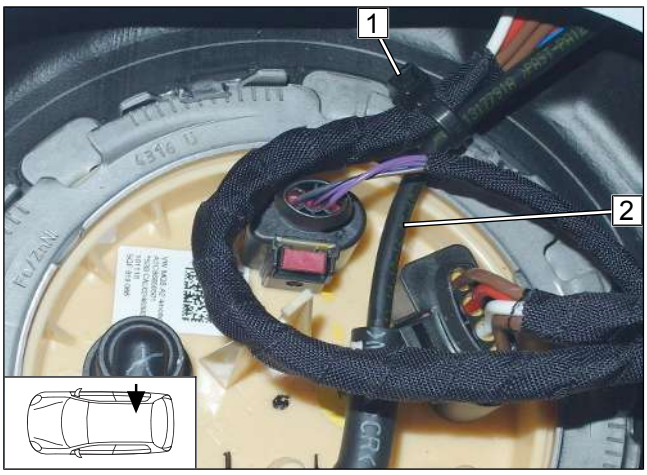


Fig. 76

1 Cable tie for tension relief
2 Fuel line of FuelFix

9.5 Fuel pump connection, all vehicles

Connecting fuel line of FuelFix

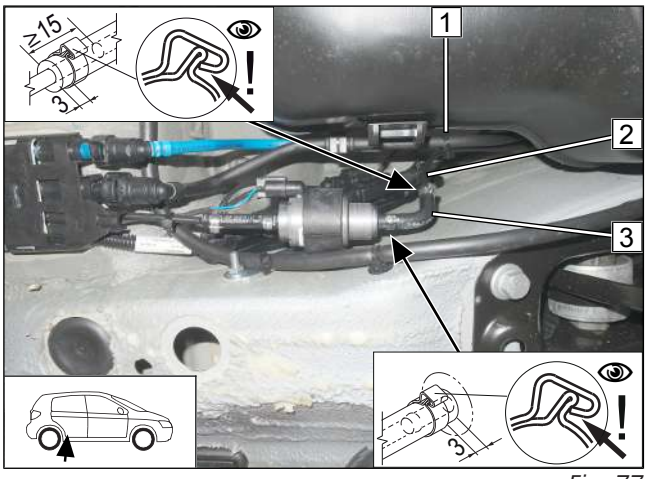


Fig. 77

all vehicles

1 Cable tie
2 Fuel line of FuelFix
3 90° moulded hose, Ø10 clamp [2x]

10 Coolant for 1.4 petrol vehicles

10.1 Hose routing diagram

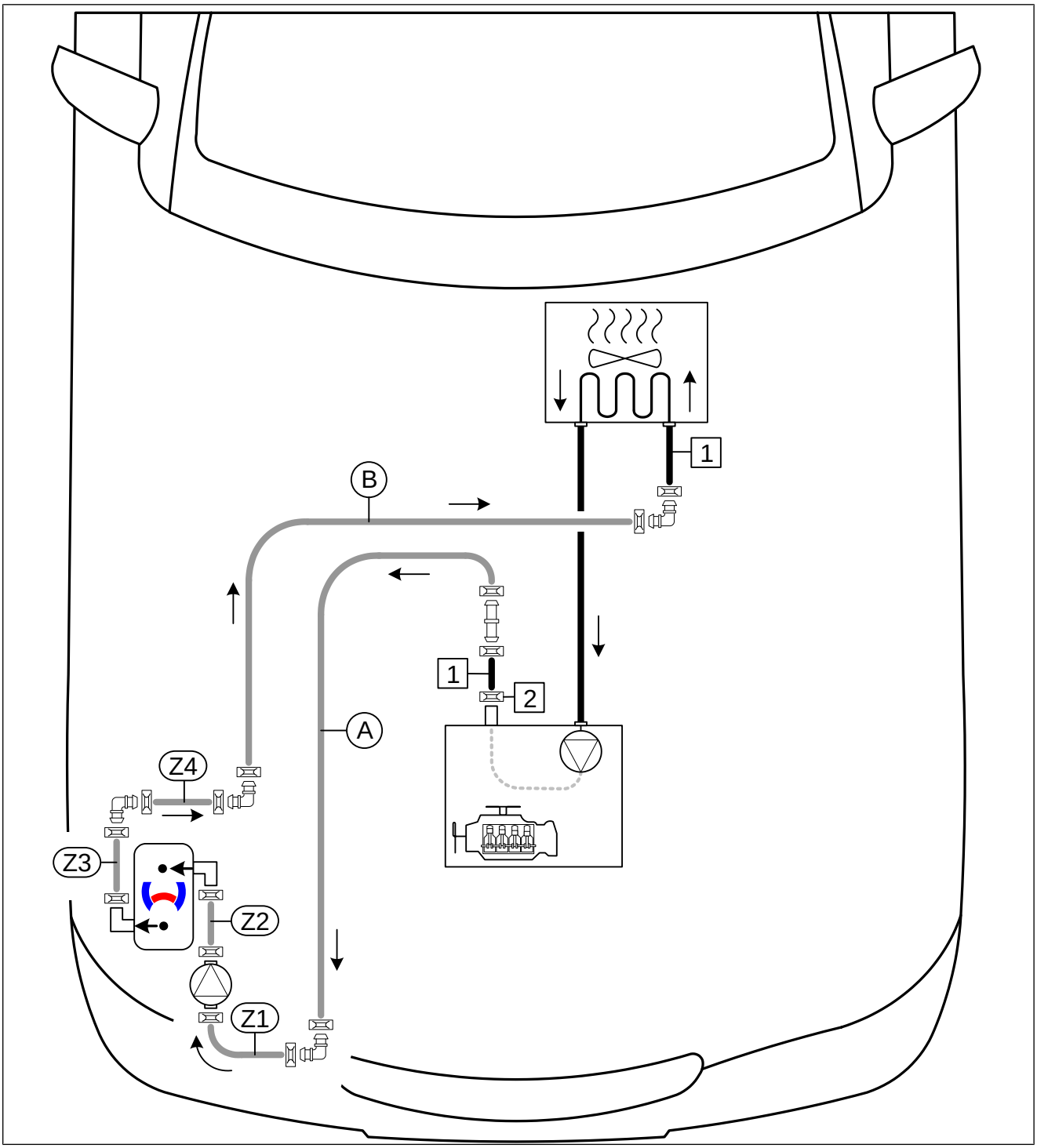


Fig. 78

All spring clips without a specific designation = Ø25

All connecting pipe or = Ø18x18

1 Original vehicle water hose; 2 Original vehicle spring clip

10.2 Coolant circuit installation

Cutting hoses to length

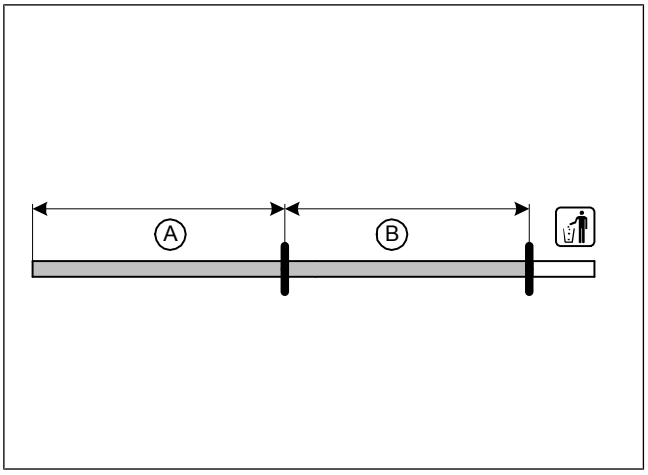


Fig. 79

Ⓐ	1100
Ⓑ	1000

Preparing hoses

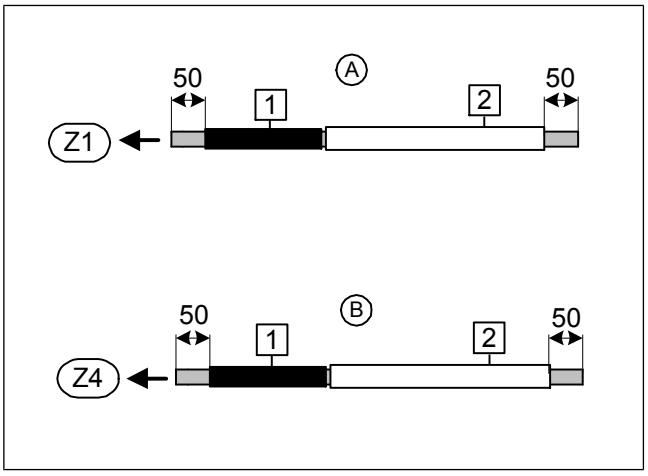


Fig. 80

Slide on fabric heat shrink tubing 1 as shown and use 230°C at most to shrink it.

▶ Slide on 600 long heat protection hose 2 as shown.

Rubber-coated p-clamp installation

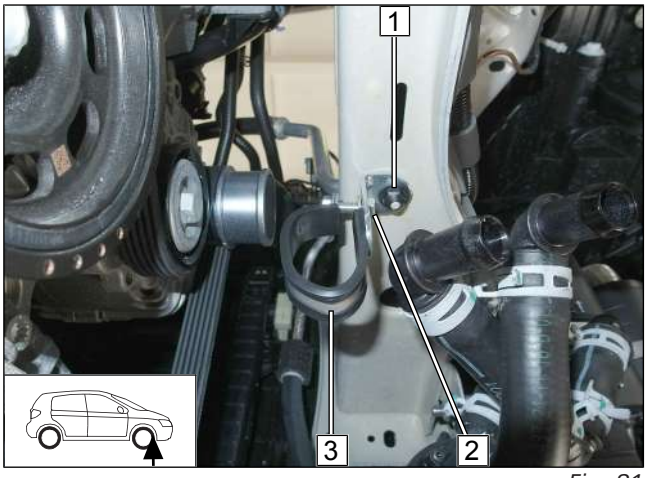


Fig. 81

1 Plastic nut, angle bracket, original vehicle stud bolt
2 M6x20 bolt, flanged nut mounted loosely
3 Ø38 rubber-coated p-clamp

Perforated bracket installation

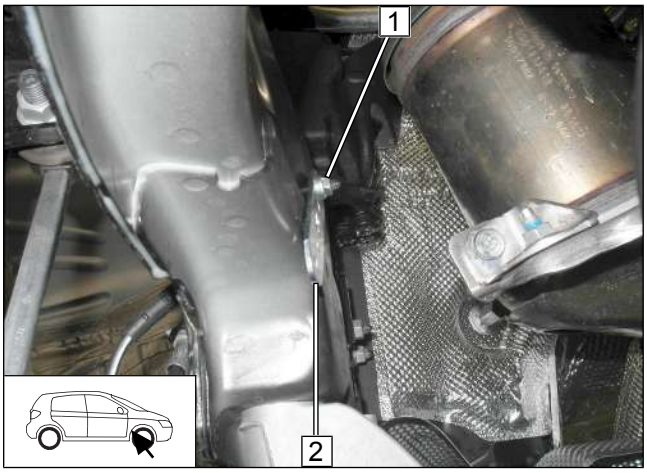


Fig. 82

1 Flanged nut, original vehicle stud bolt
2 Perforated bracket

Spacer nut installation

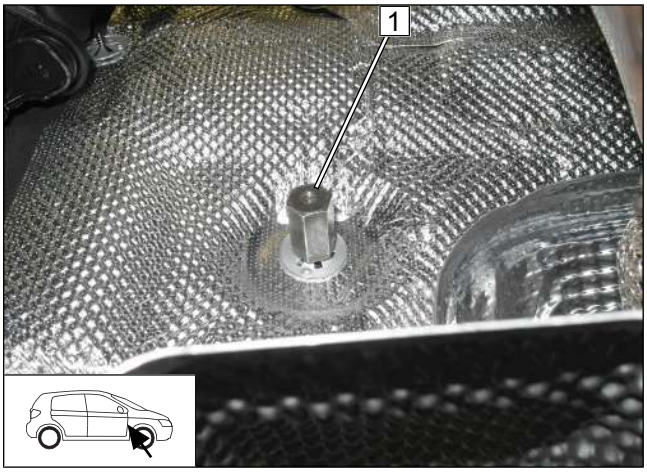


Fig. 83

1 M6x30 spacer nut, original vehicle stud bolt

Cutting point

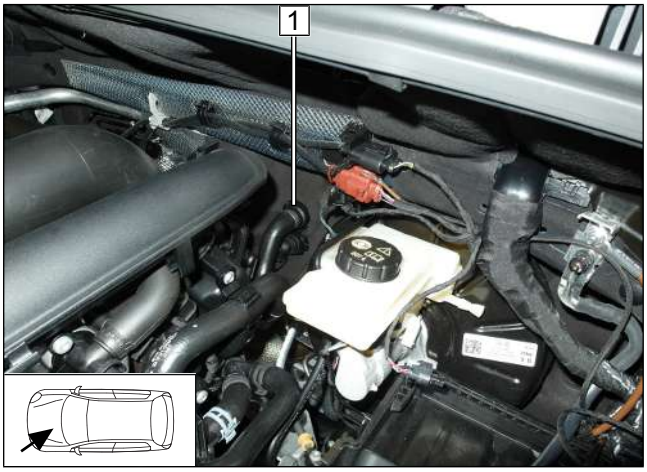


Fig. 84

▶ Disconnect engine outlet / heat exchanger inlet hose 1.

Cutting engine outlet / heat exchanger inlet hose to length

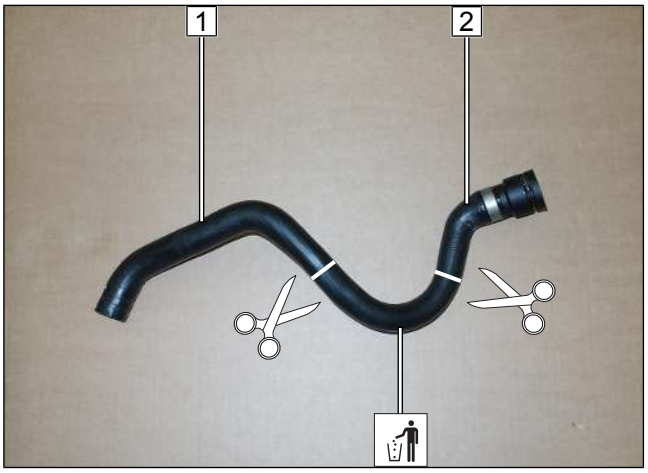


Fig. 85

Fig. shows hose of vehicle with manual transmission.

1 Engine outlet hose section
2 Heat exchanger inlet hose section

Mounting engine outlet hose section

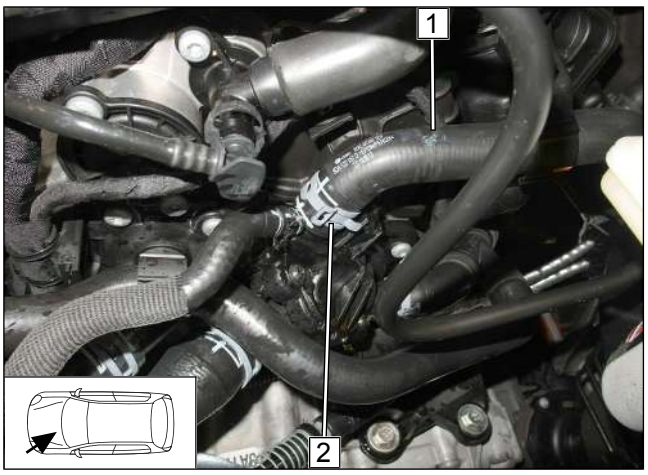


Fig. 86

1 Engine outlet hose section
2 Original vehicle spring clip

Engine outlet and heat exchanger inlet connection

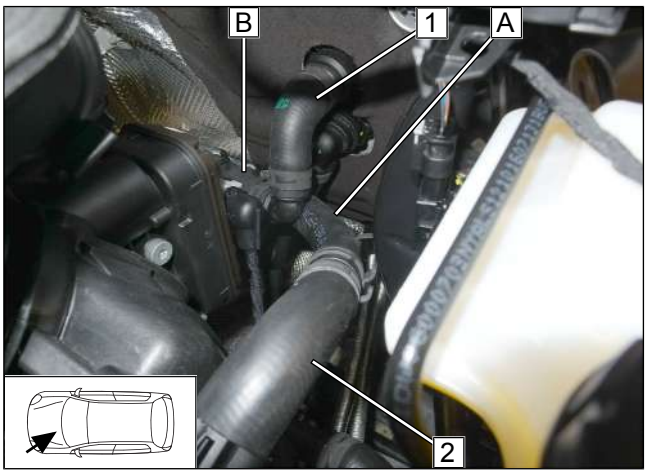


Fig. 87

1 Heat exchanger inlet hose section
2 Engine outlet hose section

Routing hoses Ⓐ and Ⓑ

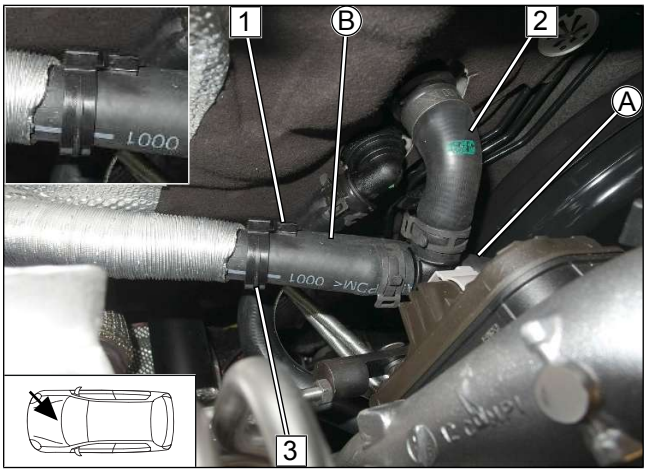


Fig. 88

1 25x25 hose bracket between heat exchanger outlet hose and hose Ⓑ

2 Heat exchanger inlet hose section

3 25x25 hose bracket between hose Ⓐ and hose Ⓑ

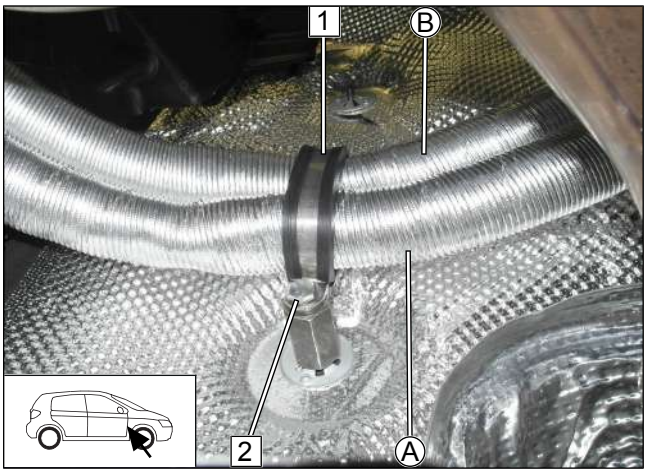


Fig. 89

1 Ø48 rubber-coated p-clamp

2 M6x20 bolt, spring lockwasher

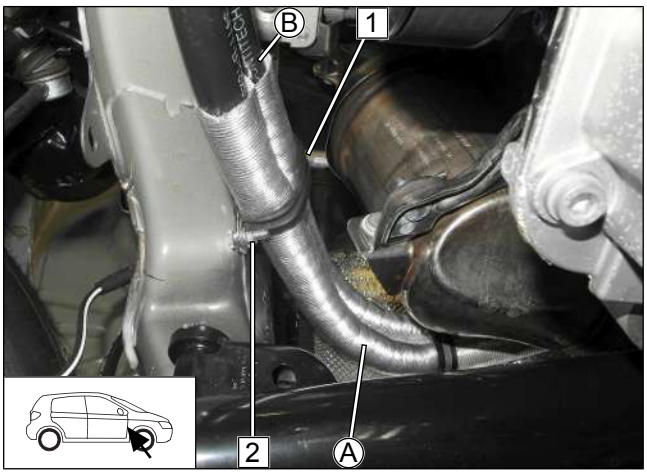


Fig. 90

1 Ø48 rubber-coated p-clamp

2 M6x20 bolt, flanged nut

Connecting hoses Ⓐ and Ⓑ

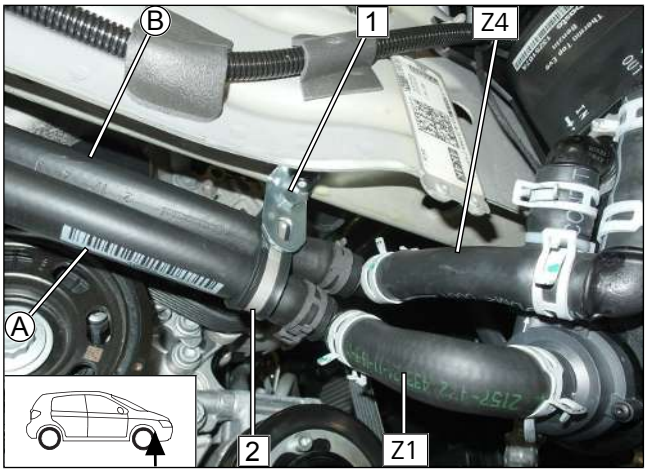


Fig. 91

1 M6x20 bolt, tighten flanged nut
2 Ø38 rubber-coated p-clamp

Aligning hoses

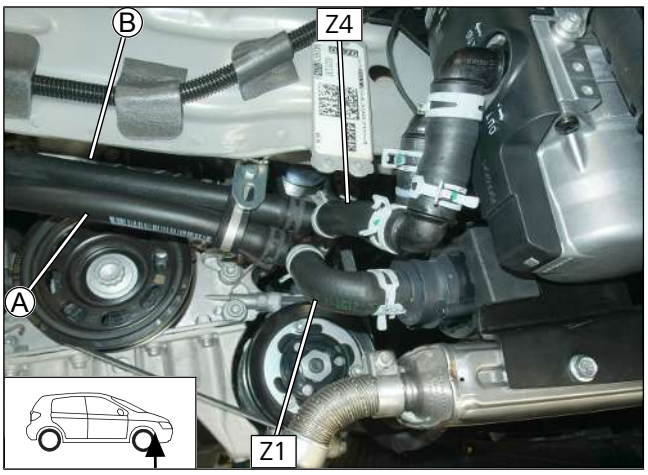


Fig. 92

▶ Aligning hoses and spring clips as shown.

11 Coolant for 1.5 and 2.0 petrol vehicles

11.1 Hose routing diagram

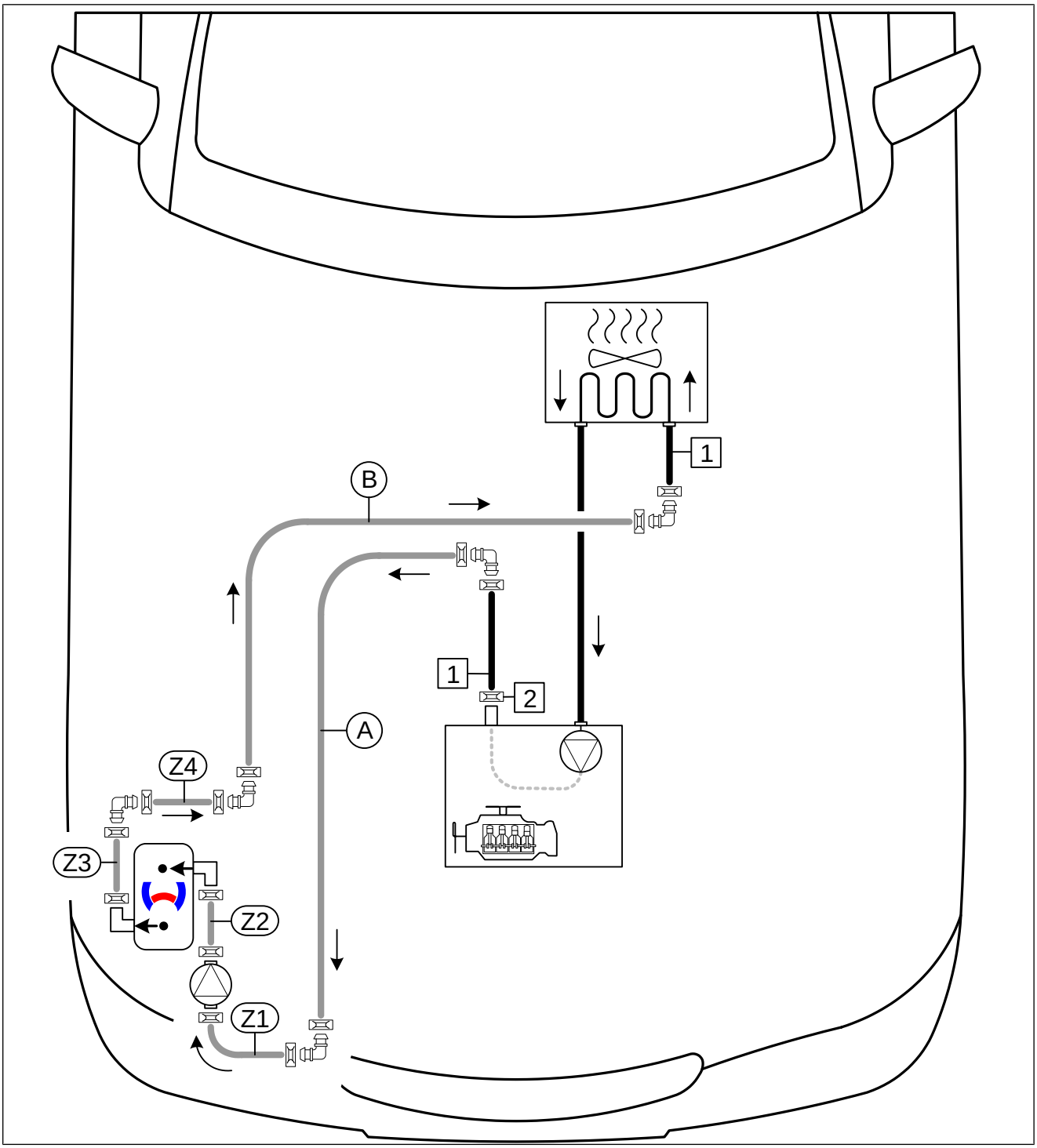


Fig. 93

All spring clips = Ø25; All connecting pipes = Ø18x18

[1] Original vehicle hose; [2] Original vehicle spring clip

11.2 Coolant circuit installation

Cutting the hose to length

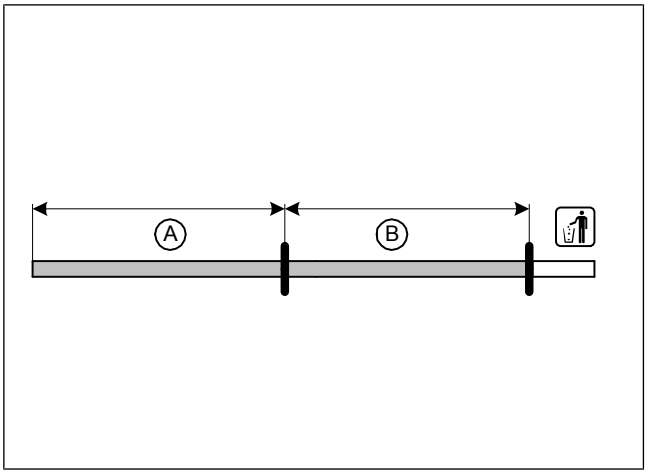


Fig. 94

Ⓐ 950
Ⓑ 1000

Preparing hoses

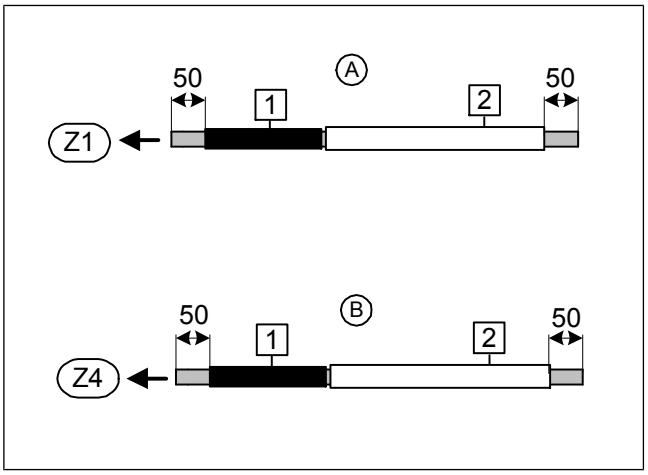


Fig. 95

Slide on fabric heat shrink tubing 1 as shown and use 230°C at most to shrink it.

▶ Slide on 600 long heat protection hose 2 as shown.

Shortening hose section

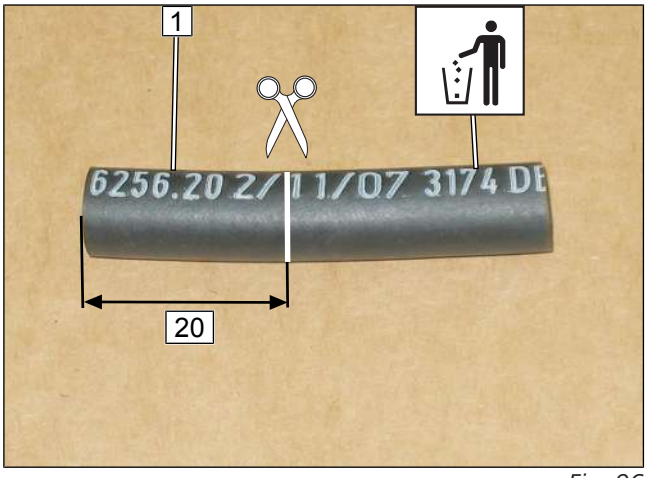


Fig. 96

1 Hose section $Ø_i$ 4.5

Mounting hose section

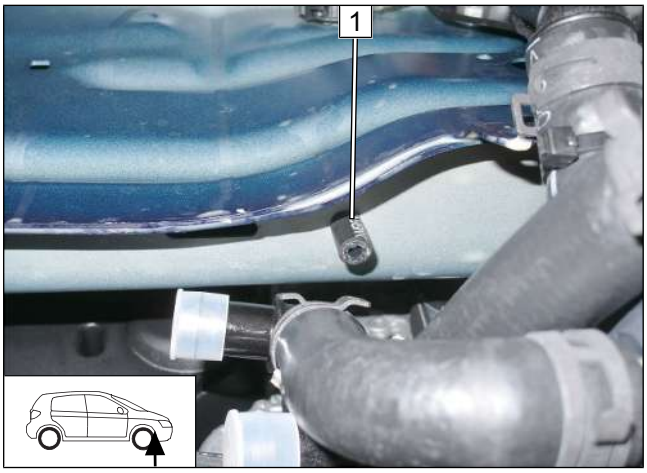


Fig. 97

[1] Hose section, original vehicle stud bolt

Perforated bracket installation

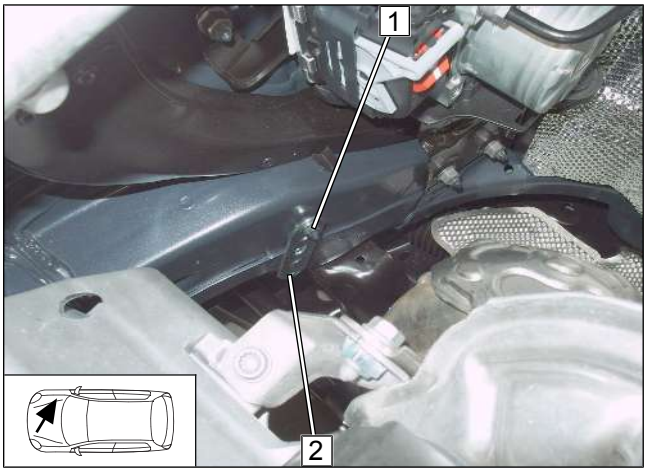


Fig. 98

[1] Flanged nut, original vehicle stud bolt
[2] Perforated bracket

Spacer nut installation

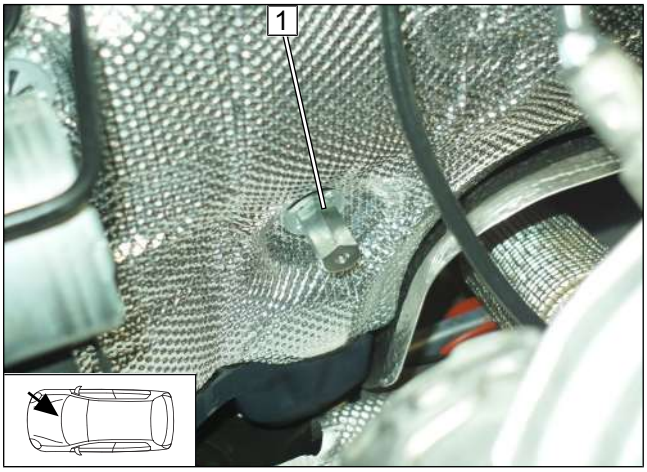


Fig. 99

[1] M6x30 spacer nut, original vehicle stud bolt

Removing engine outlet / heat exchanger inlet hose

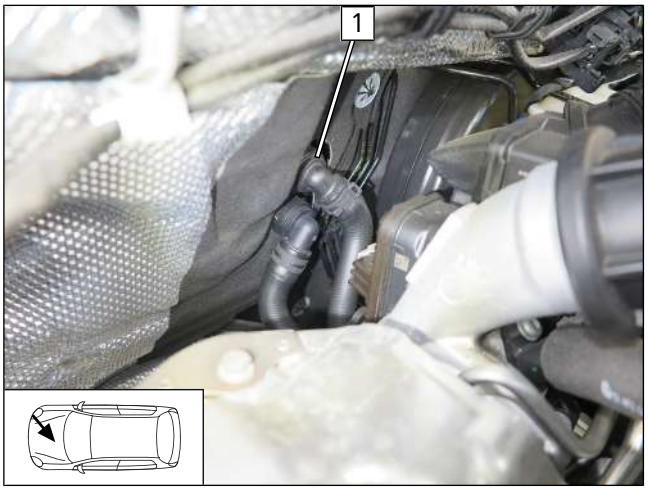


Fig. 100

▶ Disconnect engine outlet/heat exchanger inlet hose **1** at the heat exchanger inlet connection piece.

Cutting point

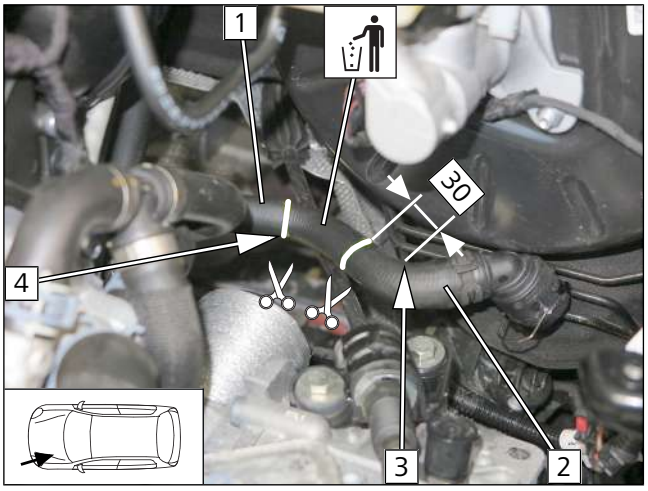


Fig. 101

1 Engine outlet hose section
2 Heat exchanger inlet hose section
3 End of the first hose bend
4 End of the second hose bend

Premounting hose Ⓑ

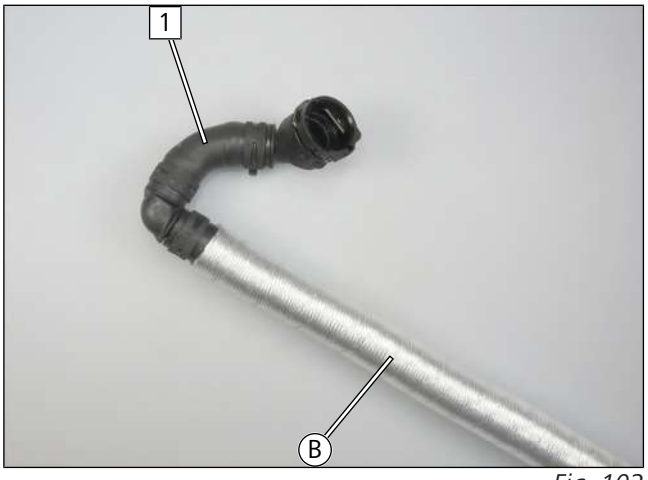


Fig. 102

1 Heat exchanger inlet hose section

Engine outlet connection

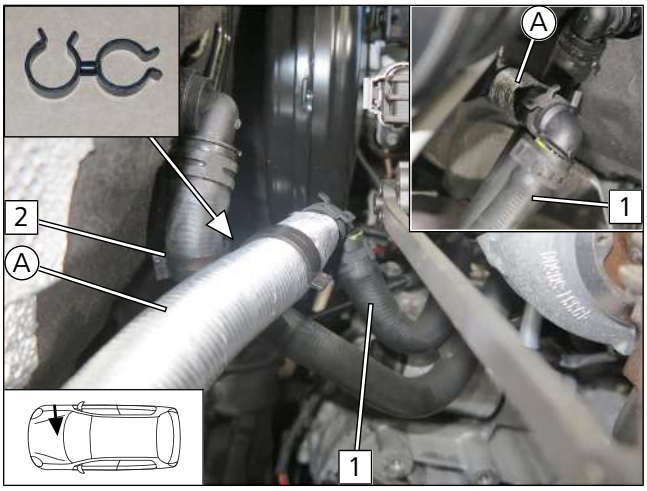


Fig. 103

1 Engine outlet hose section

2 25x28 spacer bracket between hose (A) and heat exchanger outlet/engine inlet hose

Heat exchanger inlet connection

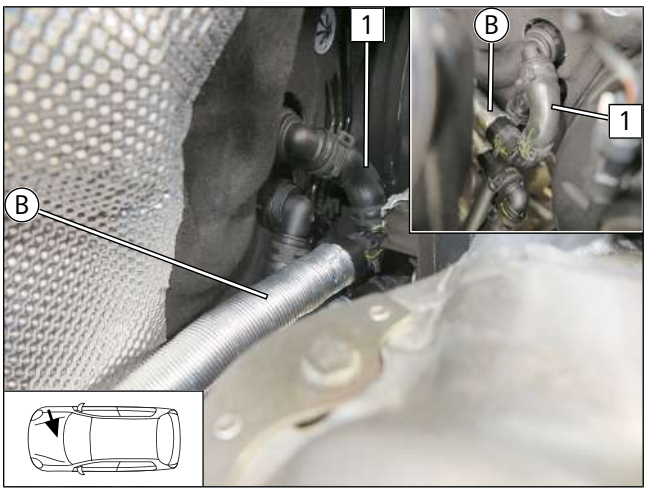


Fig. 104

1 Heat exchanger inlet hose section with original vehicle quick-release coupling

Routing hoses

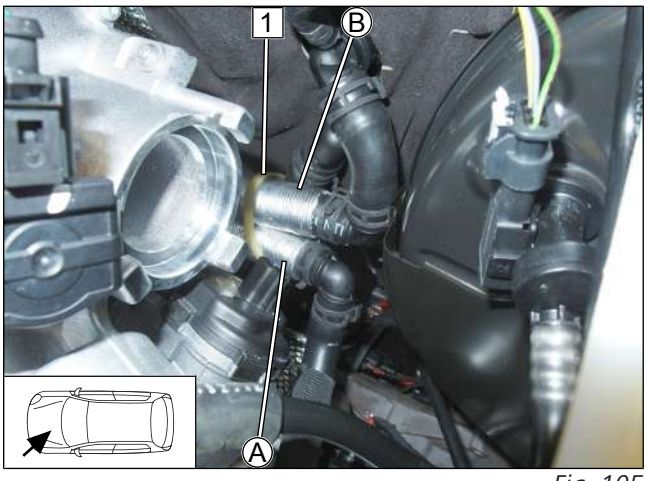


Fig. 105

1 White cable tie

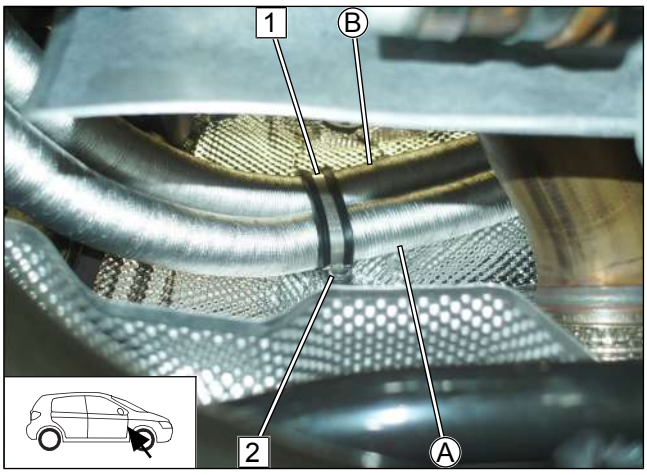


Fig. 106

1 Ø48 rubber-coated p-clamp

2 Mount M6x20 bolt, spring lockwasher, Ø48 rubber-coated p-clamp loosely

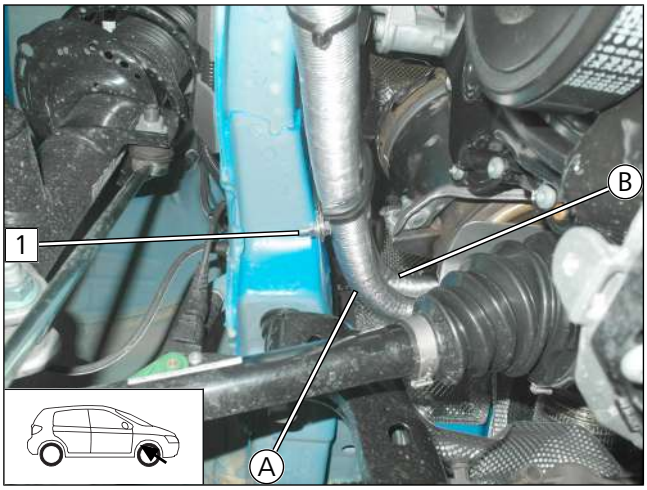


Fig. 107

1 Mount M6x20 bolt, Ø48 rubber-coated p-clamp, perforated bracket, flanged nut loosely

Connecting hoses Ⓐ and Ⓑ

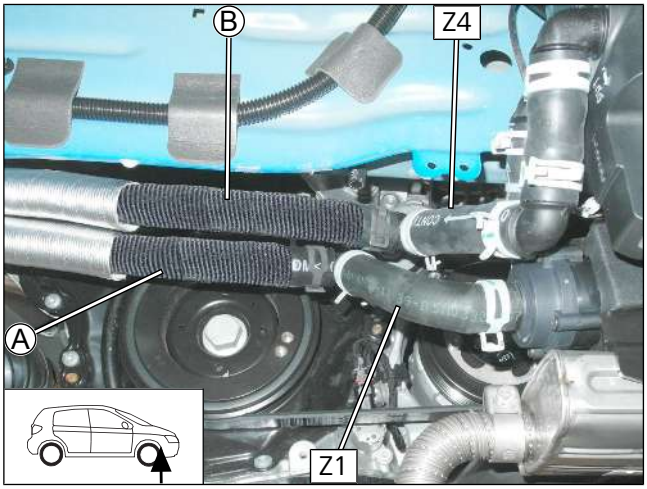


Fig. 108

Fastening hose (B)

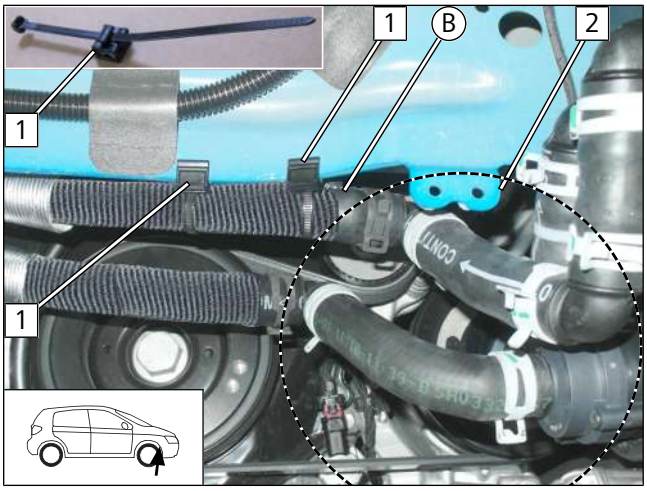


Fig. 109

Risk of engine damage due to loss of coolant

▶ Turn all spring clips in marked area 2 in such a way that there can be no chafing.

1 Edge clip cable tie

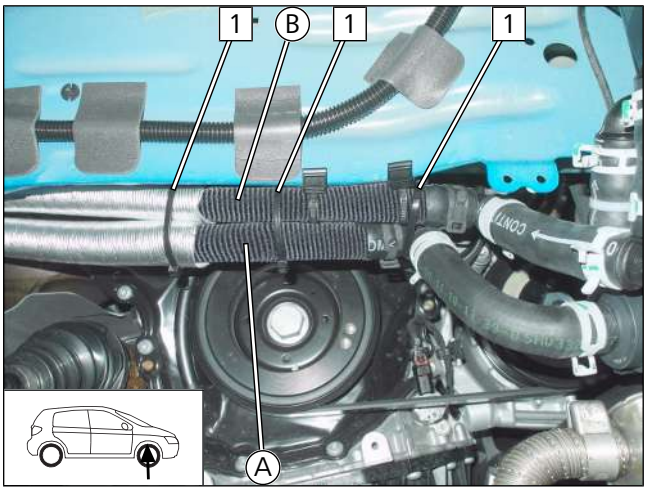


Fig. 110

▶ Align hoses and tighten screw connection of the Ø48 rubber-coated p-clamps.

1 Cable tie

12 Coolant for diesel vehicles

12.1 Hose routing diagram

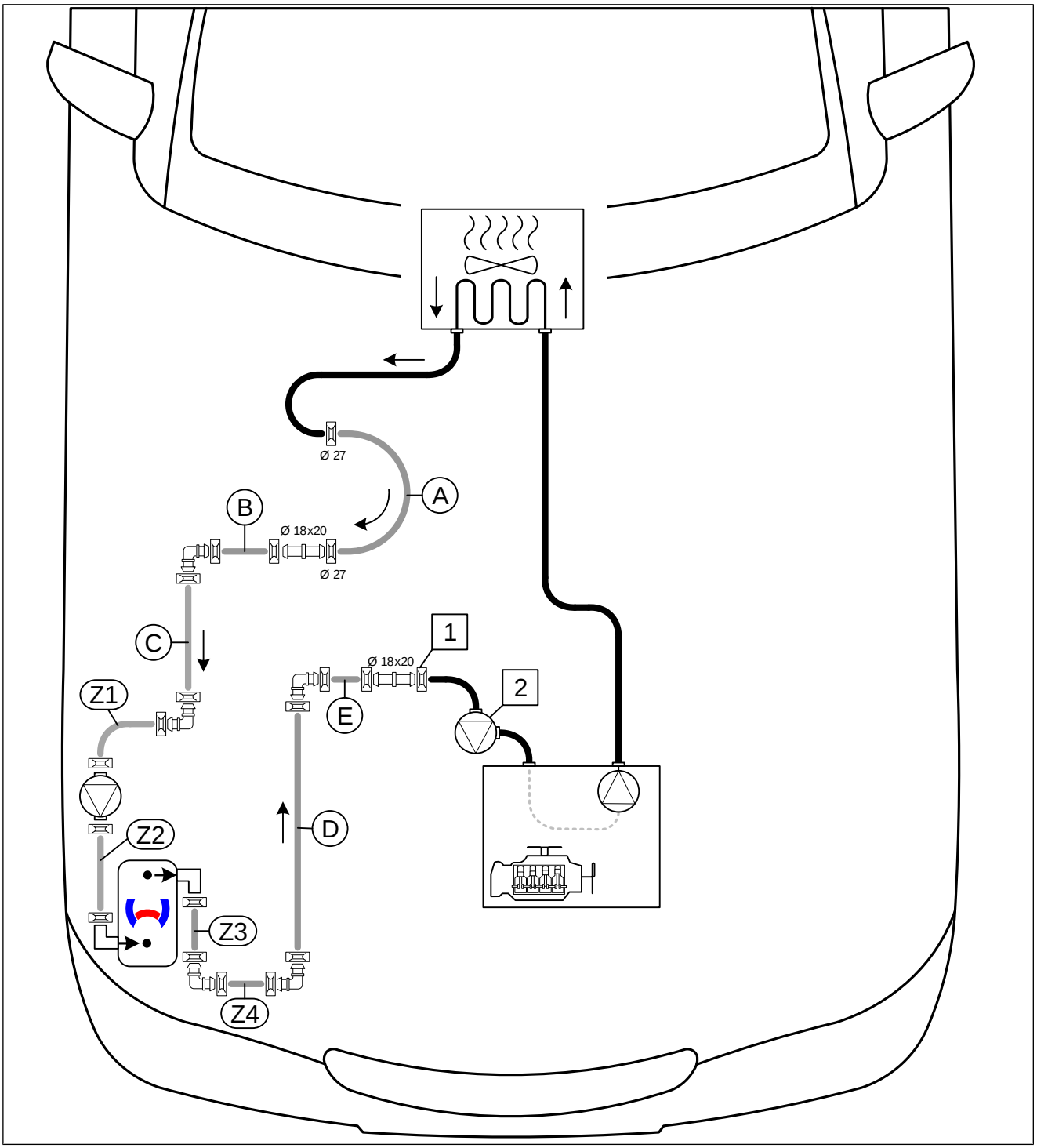


Fig. 111

All spring clips without a specific designation = Ø25

All connecting pipes without a specific designation or = Ø18x18

1 Original vehicle spring clip; 2 Original vehicle residual heat pump

12.2 Coolant circuit installation

Cutting hoses to length

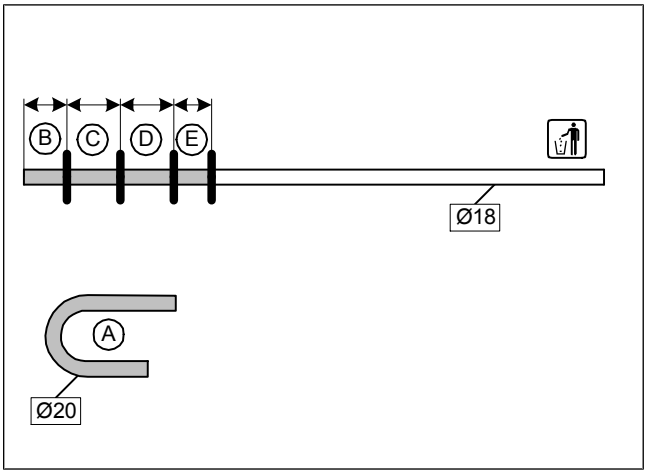


Fig. 112

▶ Hose Ⓐ = 180° moulded hose

Ⓑ	100
Ⓒ	230
Ⓓ	220
Ⓔ	120

Mounting fabric heat shrink tubing

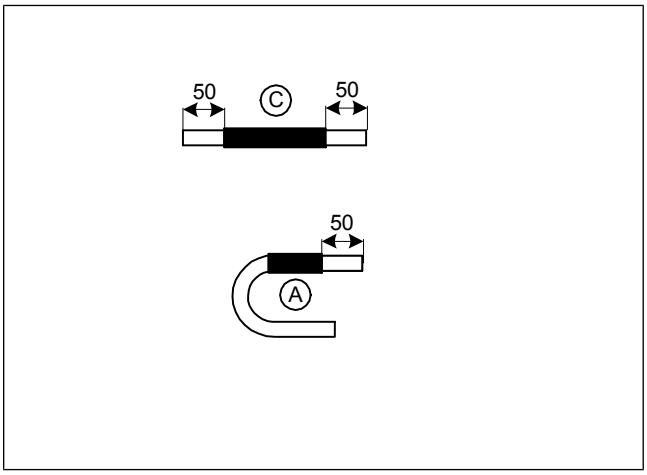


Fig. 113

Slide on fabric heat shrink tubing as shown, cut to length and use 230°C at most to shrink it.

Premounting hoses Ⓐ, Ⓑ and Ⓒ

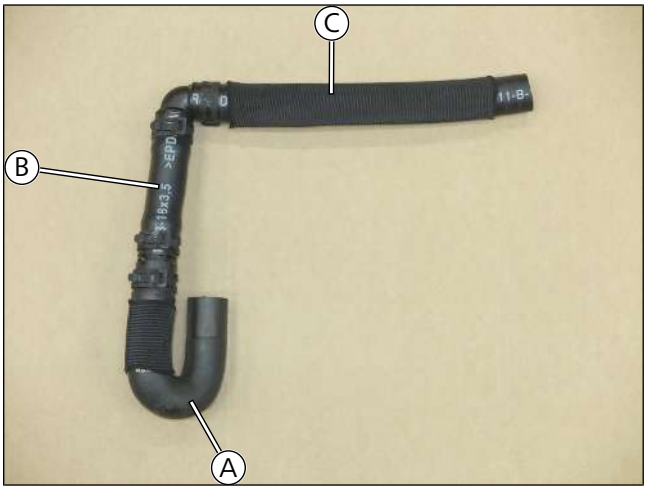


Fig. 114

Premounting hoses Ⓓ and Ⓔ

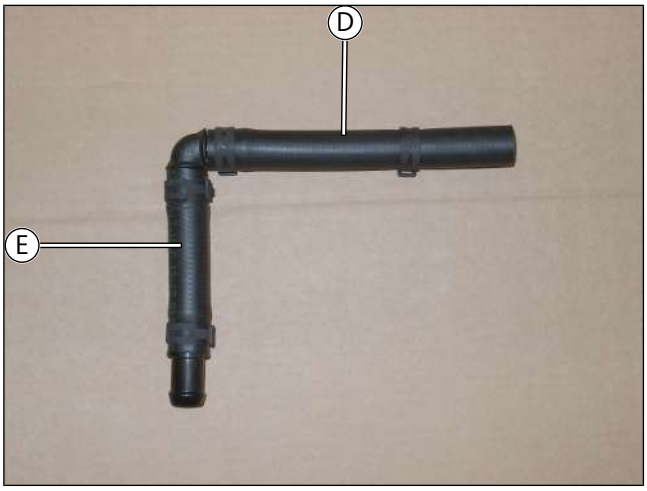


Fig. 115

Cutting point

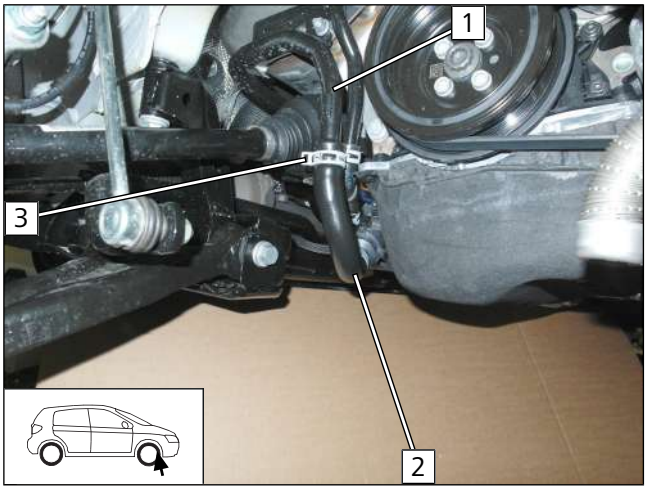


Fig. 116

▶ Disconnect hose of heat exchanger outlet / engine inlet [2] at position [3] from heat exchanger outlet line [1]. Original vehicle spring clip [3] will be reused.

Heat exchanger outlet connection

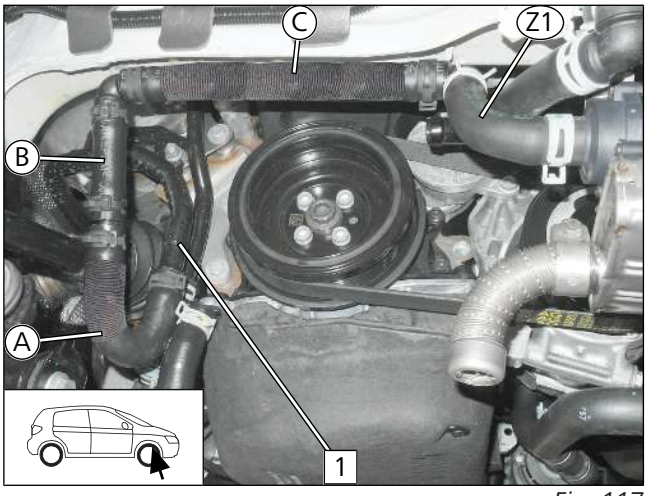


Fig. 117

[1] Heat exchanger outlet line

Engine inlet connection

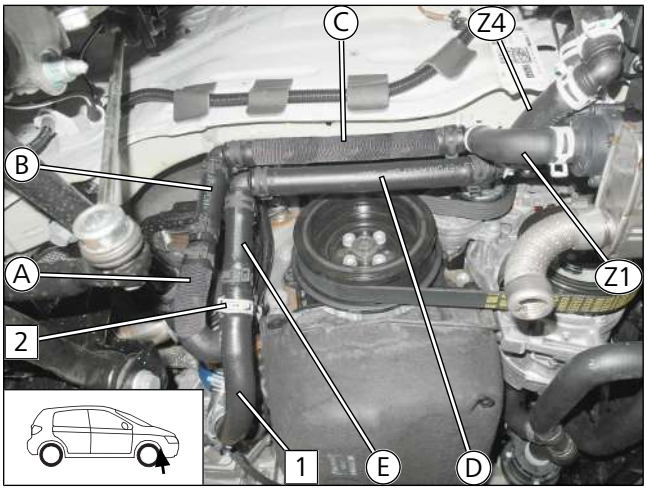


Fig. 118

1 Engine inlet hose section
2 Original vehicle spring clip

Fastening hose Ⓒ

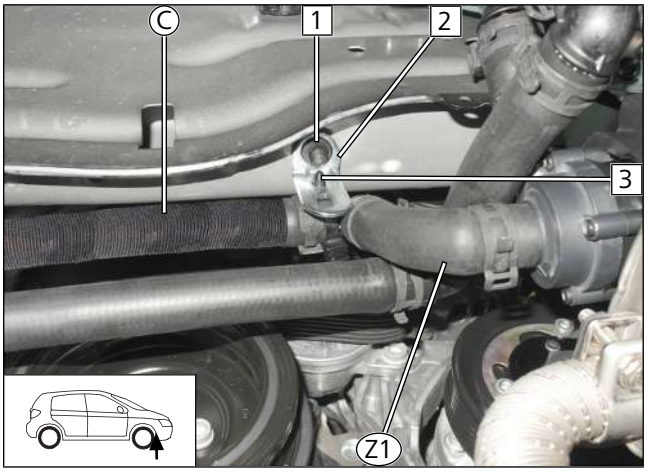


Fig. 119

1 Original vehicle stud bolt, plastic nut
2 Angle bracket
3 Clip-type cable tie around hose Ⓒ

Fastening hose Ⓓ

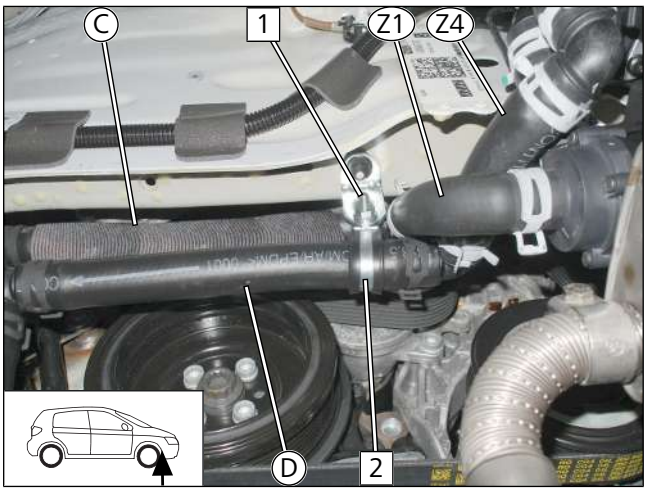


Fig. 120

1 M6x20 bolt, flanged nut
2 Ø25 rubber-coated p-clamp

Fastening hoses

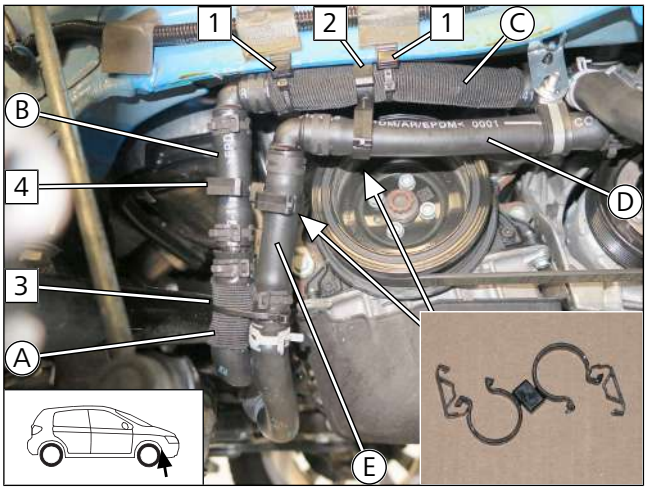


Fig. 121

1 Edge clip cable tie around hose (C)
2 Closable hose bracket around hoses (C) and (D)
3 Cable tie around hoses (A) and (E)
4 Closable hose bracket around hoses (B) and (E)

13 Final work in engine compartment

Aligning exhaust outlet

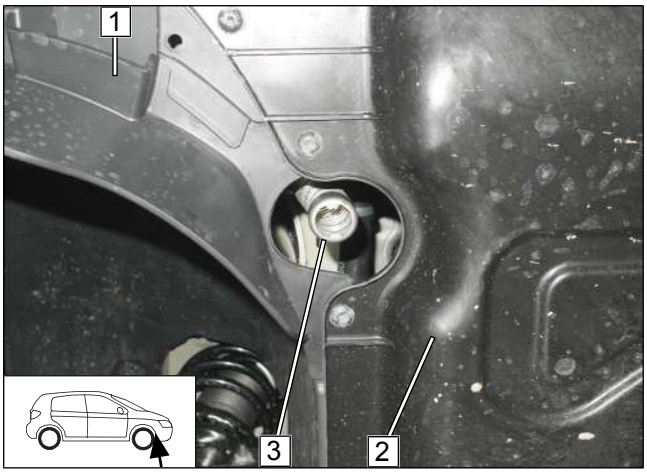


Fig. 122

- ▶ Mount wheel well trim **1** and underride protection **2**.
- ▶ Align exhaust outlet **3** with the centre of the pass through.

14 Electrical system of passenger compartment

14.1 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 AC and AAC

or

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

15 Electrical system of control elements for Skoda Kodiaq

15.1 MultiControl CAR option

Installing MultiControl CAR

Fig. 123

1 MultiControl CAR installation frame

15.2 Remote option (Telestart)

Preparing receiver bracket

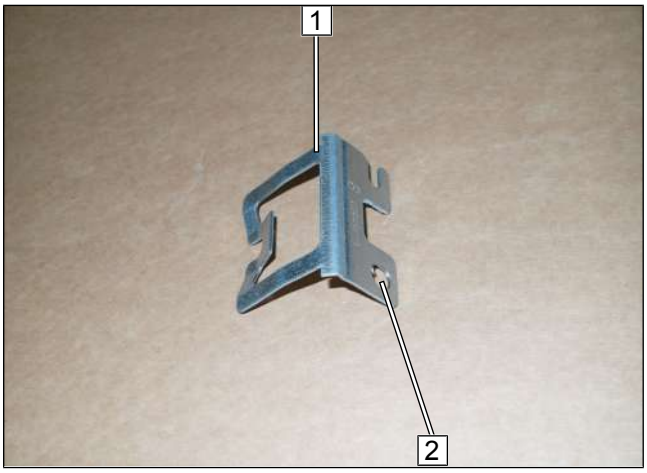


Fig. 124

Observe the Telestart installation documentation.

1 Bending receiver bracket

2 Drill out hole to Ø8.5

Mounting receiver bracket

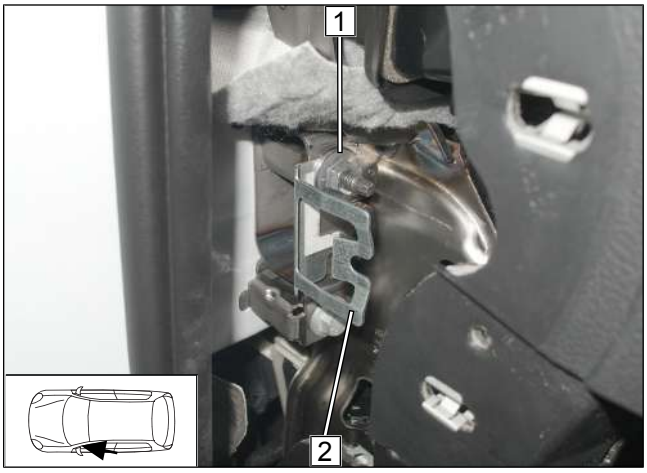


Fig. 125

1 Original vehicle nut

2 Receiver bracket

Mounting receiver

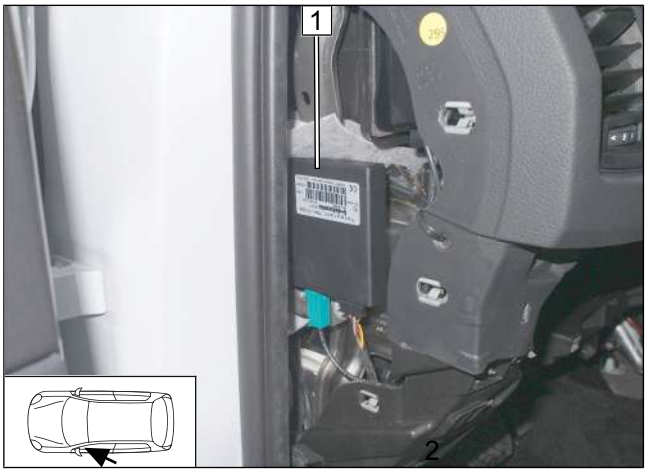


Fig. 126

1 Receiver

Mounting temperature sensor, only in case of T100 HTM

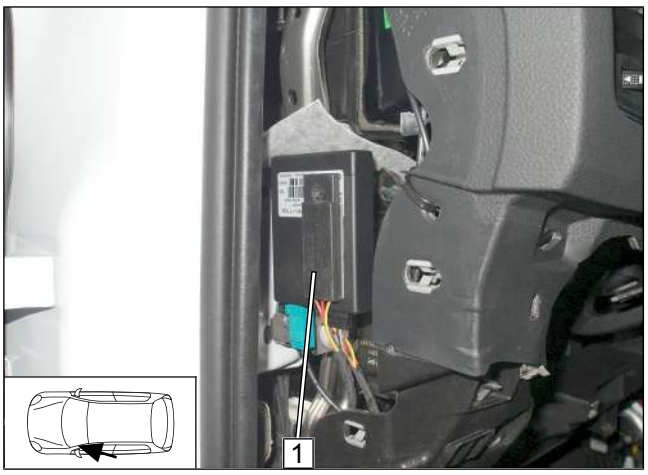


Fig. 127

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

Mounting aerial

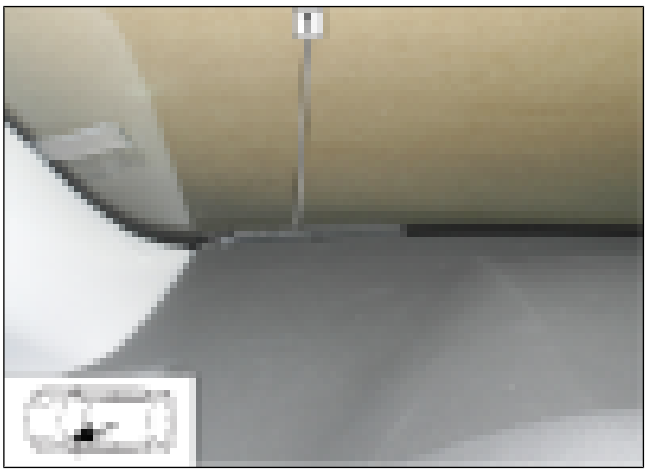


Fig. 128

1 Aerial

15.3 ThermoCall option

Mounting receiver

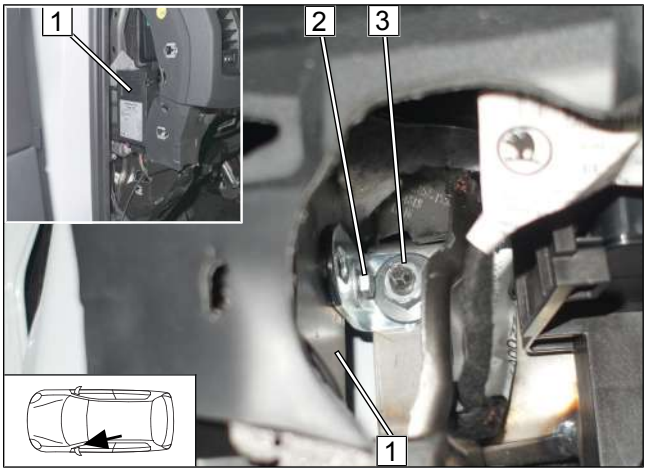


Fig. 129

Observe the ThermoCall installation documentation.

1 Receiver
2 M5x16 bolt, angle bracket, flanged nut
3 Original vehicle nut

Mounting aerial (optional)

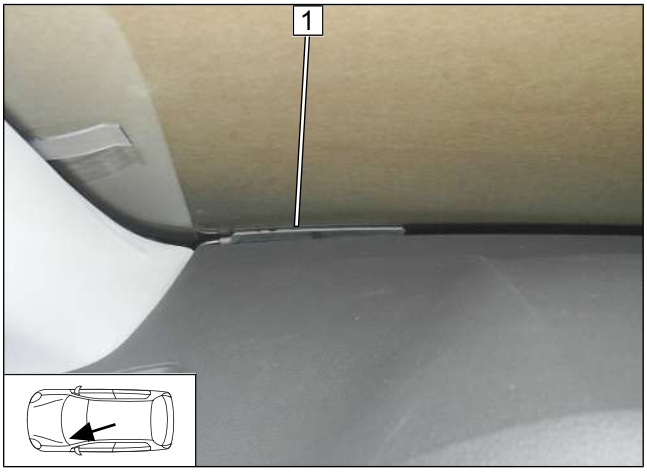


Fig. 130

1 Aerial

16 Electrical system of control elements for Seat Tarraco

16.1 MultiControl CAR option

Installing MultiControl CAR

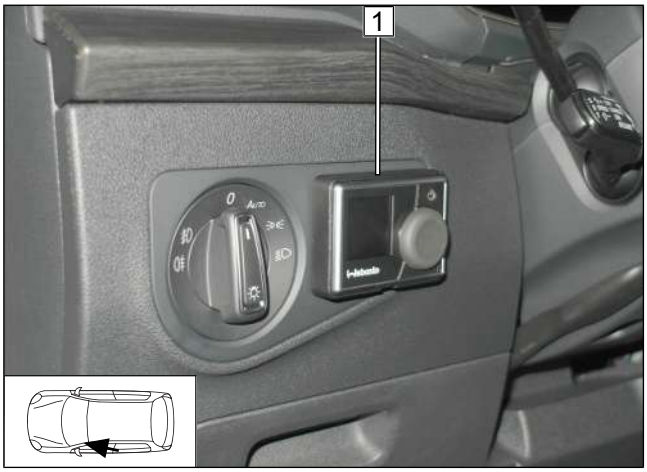


Fig. 131

1 MultiControl CAR installation frame

16.2 Remote option (Telestart)

Mounting receiver

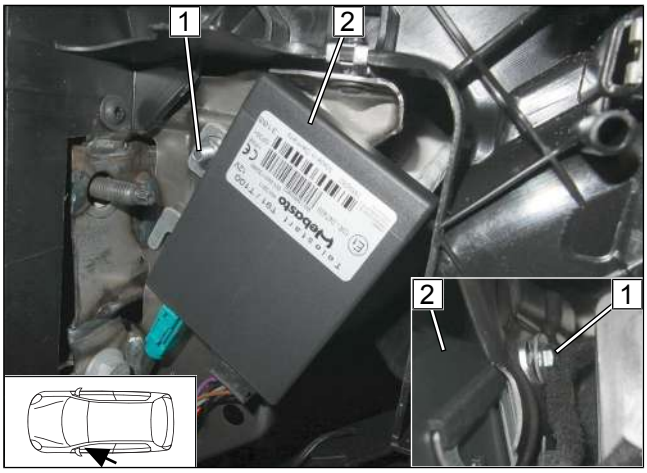


Fig. 132

▶ Enlarge in Telestart bracket at position 1 to Ø6.5.

1 M6x20 bolt, large diameter washer, original vehicle hole, Telestart receiver bracket, flanged nut

2 Telestart receiver

Mounting temperature sensor, only in case of T100 HTM

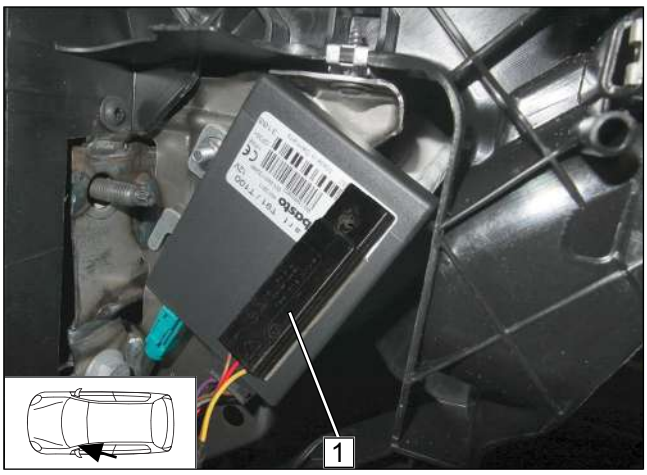


Fig. 133

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

Mounting aerial

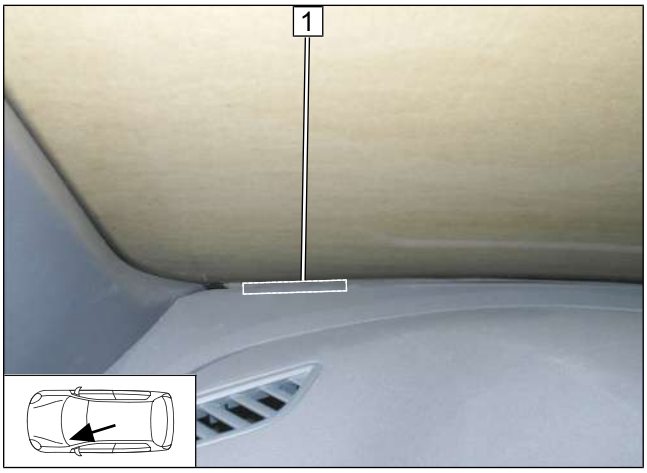


Fig. 134

1 Aerial

16.3 ThermoCall option

Mounting receiver

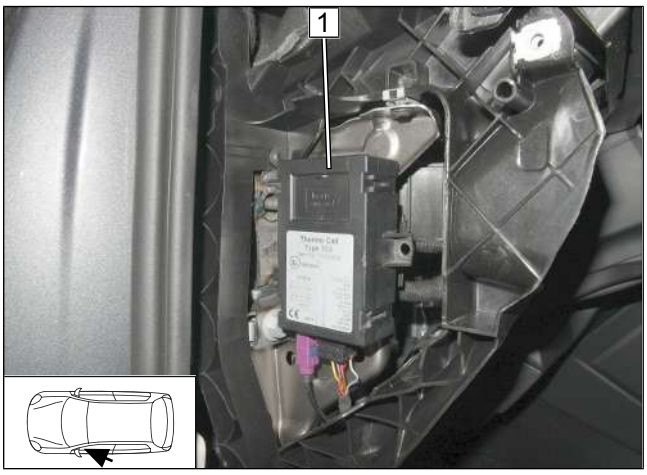


Fig. 135

Observe the ThermoCall installation documentation.

▶ Fasten ThermoCall receiver using double-sided adhesive tape.

Mounting aerial (optional)

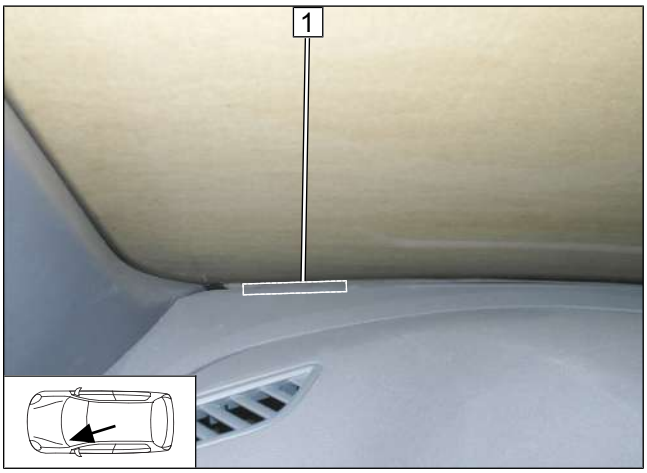


Fig. 136

1 Aerial

17 Final work

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

- ▶ Mount removed parts in reverse order.

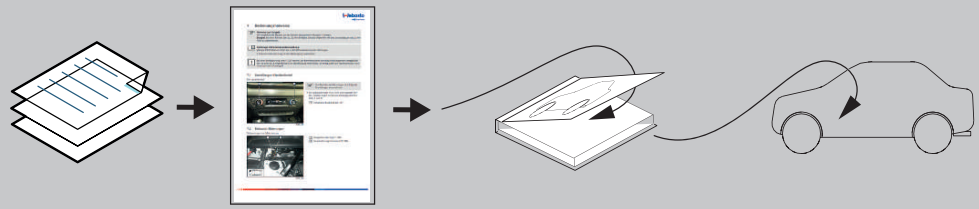
- ▶ Check all hoses, clamps and all electrical connections for firm seating.
- ▶ Insulate and tie back loose lines
- ▶ Spray heater and electrical components with anti-corrosion wax (Tectyl 100K).
- ▶ Connect the battery.

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 'Webasto Standard' A/C control or 'Webasto Comfort' kit, 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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82199 Gilching
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Friedrichshafener Str. 9
82205 Gilching
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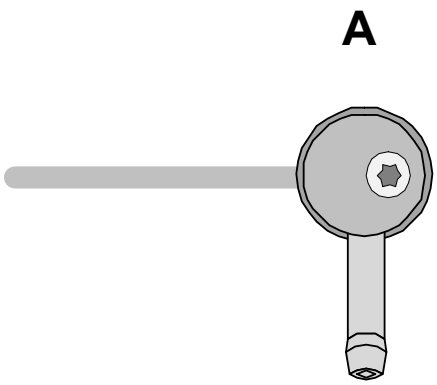
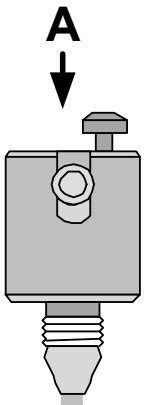
Technical Extranet: https://dealers.webasto.com

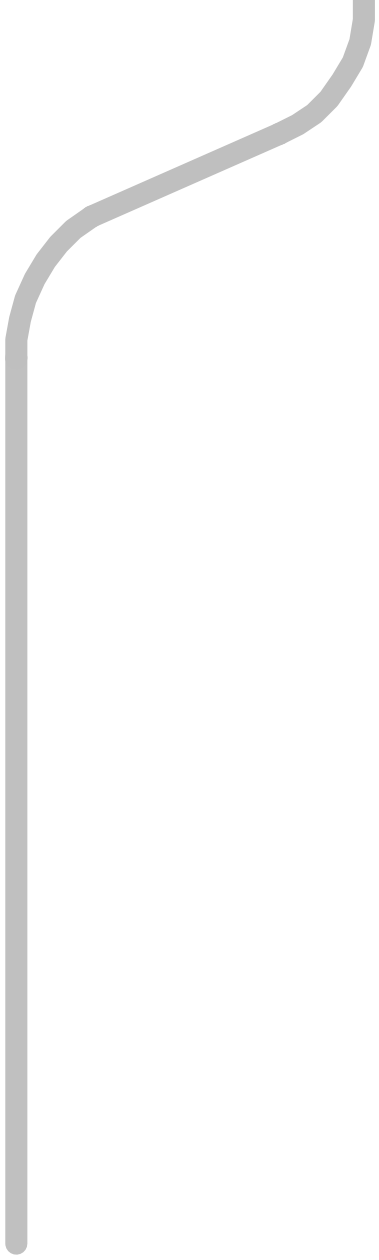
CE

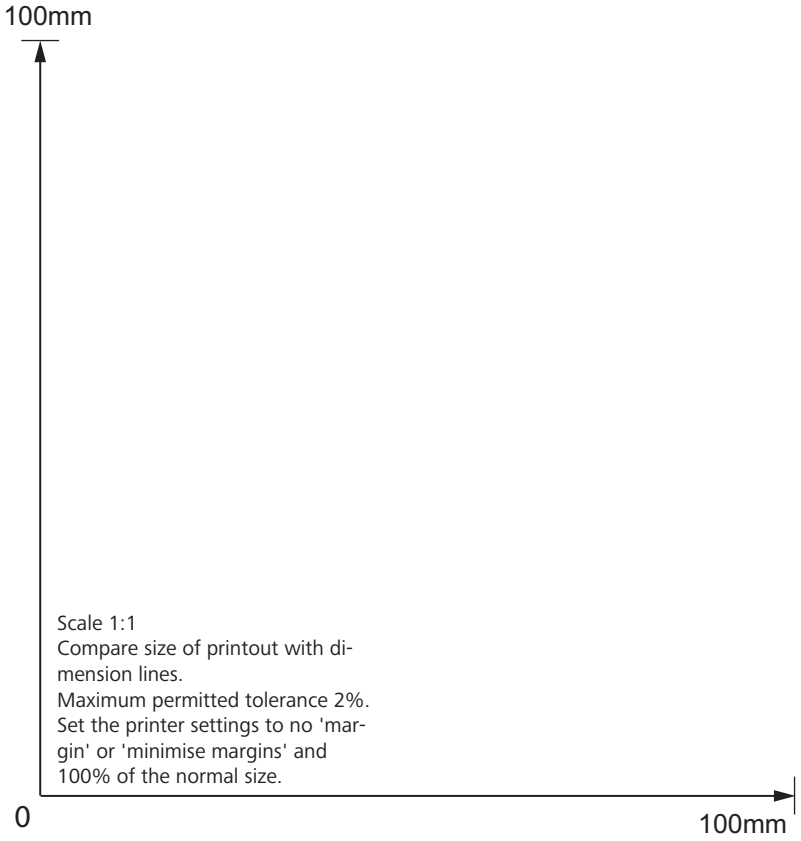
WWW.WEBASTO.COM

18 FuelFix template, 2WD petrol vehicles



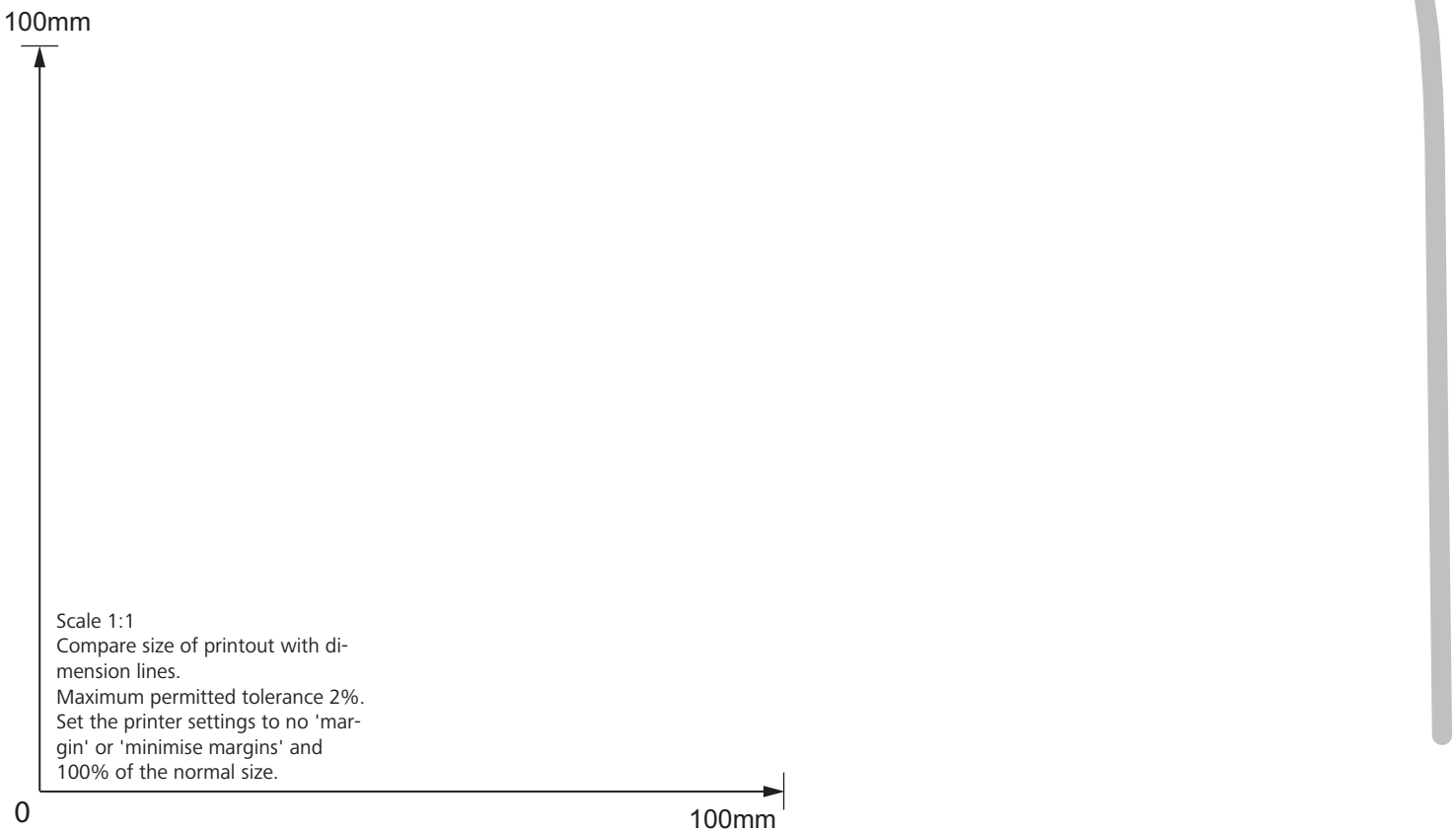






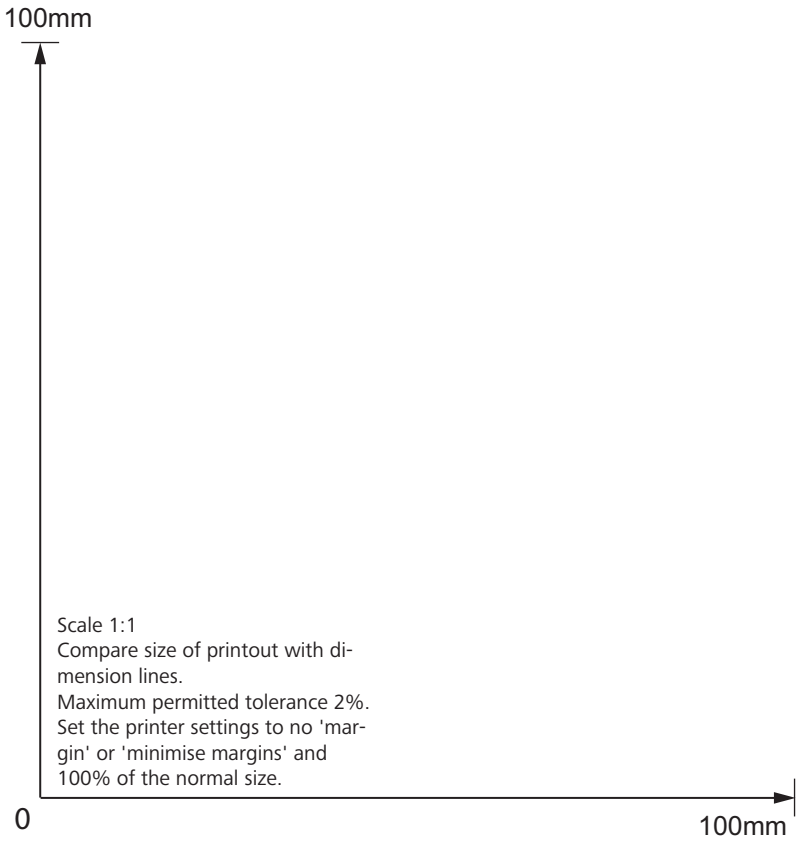
Scale 1:1
Compare size of printout with dimension lines.
Maximum permitted tolerance 2%.
Set the printer settings to no 'margin' or 'minimise margins' and 100% of the normal size.

19 FuelFix template, 4WD petrol vehicles



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.

20 FuelFix template, 4WD diesel vehicles



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.