EN

K

Installation documentation

for Thermo Top Evo water heater

VW Tiguan Allspace

Manufacturer	Model	Type	Model year	EG-BE-No. / ABE
VW	Tiguan Allspace	5N	2018	e1* 2001/116* 0450*…

Motorisation	Fuel	Emission standard	Transmission type	Output [kW]	Displace-ment [cm³]	Engine code
2.0 TDI	Diesel	Euro 6	DSG	110	1968	DFGA
2.0 TDI	Diesel	Euro 6	DSG	176	1968	CUAA

Validity	Equipment variants	Model
		Tiguan Allspace
Verified equipment variants	Multi-zone automatic air-conditioning	x
	LED headlight	x
	Halogen front fog lights	x
	Static cornering light	x
	Headlight washer system	x
	Keyless Go	x
	Start - Stop	x
	Start button	x
	4 WD	x
Unverified equipment variants	Manual air-conditioning	x
	Halogen main headlights	x
	Passenger compartment monitoring	x
	Alarm system	x
	Offroad package	x

Total installation time	Note
8.4 hours	

Contents

1 List of abbreviations

4 WD	All-wheel drive
AAC	Automatic air-conditioning
AC	Manual air-conditioning
ASH	Spacer bracket
DP	Fuel pump
DSG	Direct gear transmission
FF	FuelFix (tank extracting device)
Fig.	Figure
HG	Heater
MCC	MultiControl (control element)
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 VW Tiguan Allspace 176kW diesel, model year 2018 TT-Evo	1326438A
The following must also be ordered for AAC : Additional kit for VW / Skoda / Seat 'Webasto Standard' A/C control or Additional kit for VW / Skoda / Seat 'Webasto Comfort' A/C control	 1325085_ 1325012_
In case of control element as well as Telestart indicator lamp in consultation with end customer	In accordance with price list
In case of MultiControl CAR installation - installation frame for MultiControl	9030077_

2.3 Information on Total Installation Time

The total installation time includes the time needed for mounting and demounting the vehicle-specific components, the heater specific installation time and all other times required for the system integration and initial start-up of the heater.
The total installation time may vary for vehicle equipment other than provided.

2.4 Installation recommendations

Arrange for the vehicle to be delivered with the tank only about ¼ full.
For the MultiControl CAR option, the recommended installation locations for the Telestart or ThermoCall push button should be confirmed with the end customer.
Depending on the space required and the vehicle manufacturer's instructions, we recommend the use of a vehicle battery with a higher electrical capacity.

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

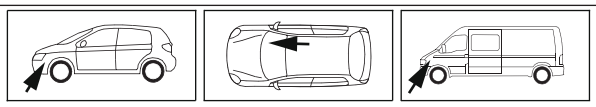
3.4.3 Work step identification marks

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

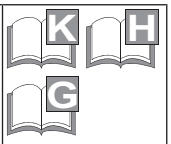
Specified temperature for fabric heat shrink tubing
– Shrink temperature max. 230°C

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	▶ Open the fuel tank cap ▶ Ventilate the fuel tank ▶ Close the fuel tank cap again ▶ Depressurise the cooling system	
Engine compartment and body	▶ Disconnect the battery (located in the boot) ▶ Complete air filter with intake box and intake hose ▶ Front wheel on the front passenger's side ▶ Front wheel well trim on the front passenger's side ▶ Cover in the bumper trim on the front passenger's side ▶ Engine underride protection ▶ Underride protection on the front passenger's side ▶ Underride protection at the tank, if available	
Passenger compartment	▶ Side instrument panel trim on the driver's side ▶ Lower instrument panel trim on the driver's side ▶ Side trim of the centre console on the driver's side ▶ A-pillar trim on the driver's side (only in case of Telestart and ThermoCall) ▶ Rear bench on the front passenger's side ▶ Open the tank fitting service lid on the front passenger's side	

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

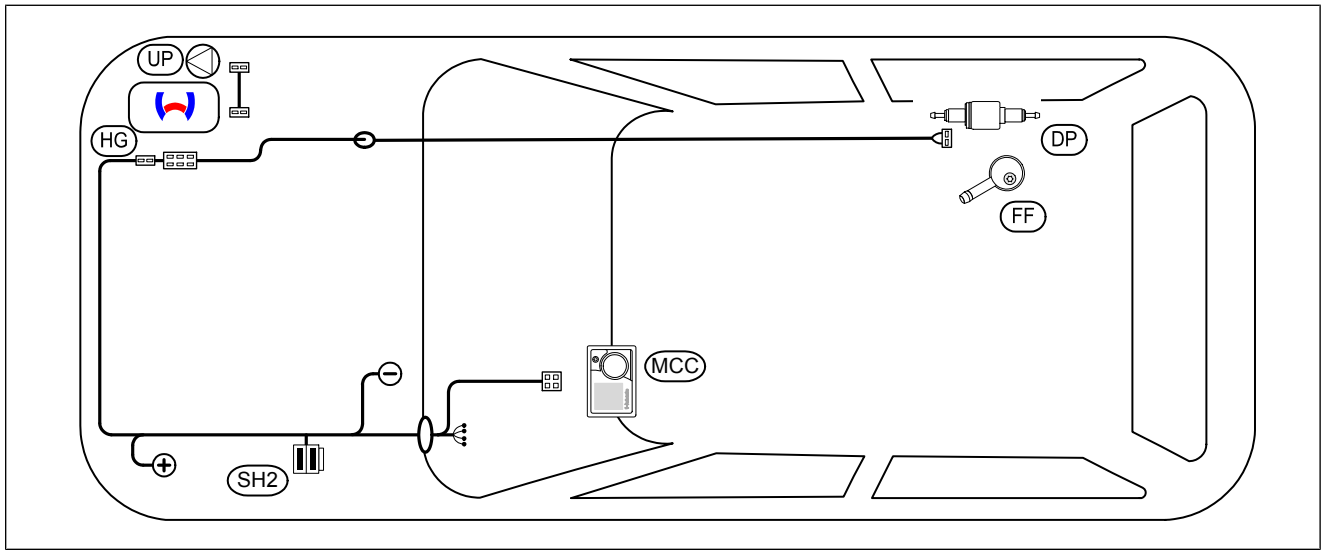


Fig. 1

Legend to installation overview

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

Heater installation location

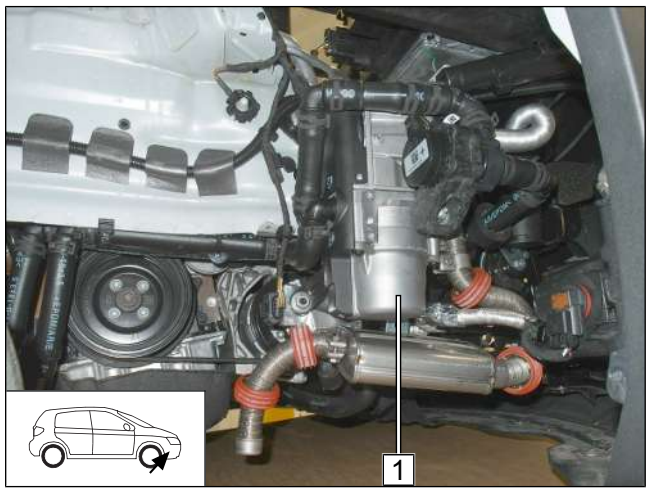


Fig. 2

1 Heater

7 Electrical system of engine compartment

Premounting SH2

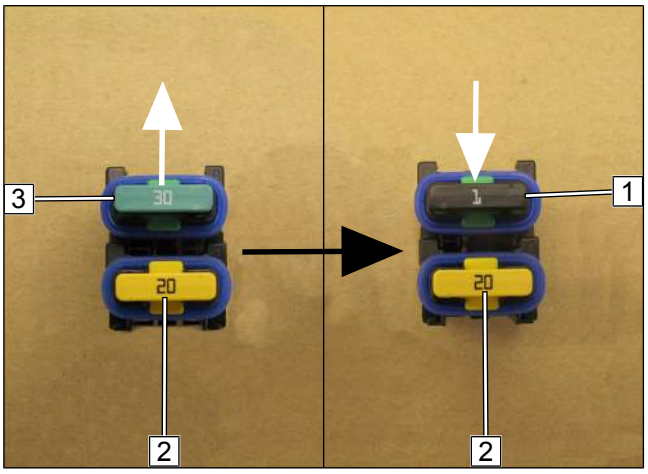


Fig. 3

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

[2] Fuse F1: 20A

Shortening angle bracket

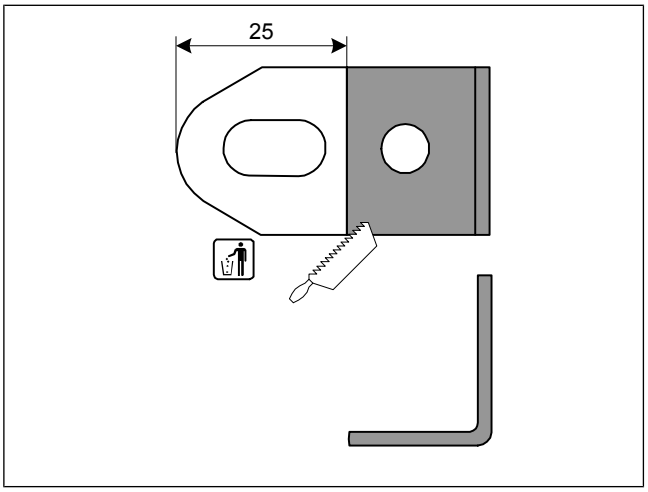


Fig. 4

Mounting angle bracket

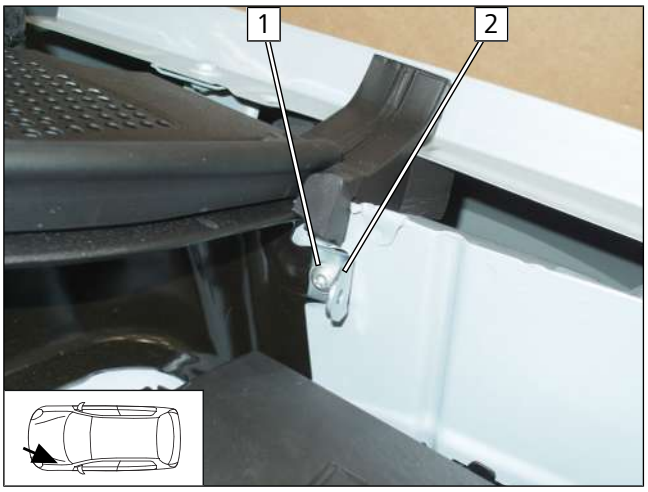


Fig. 5

[1] Original vehicle bolt

[2] Shortened angle bracket

Mounting SH2

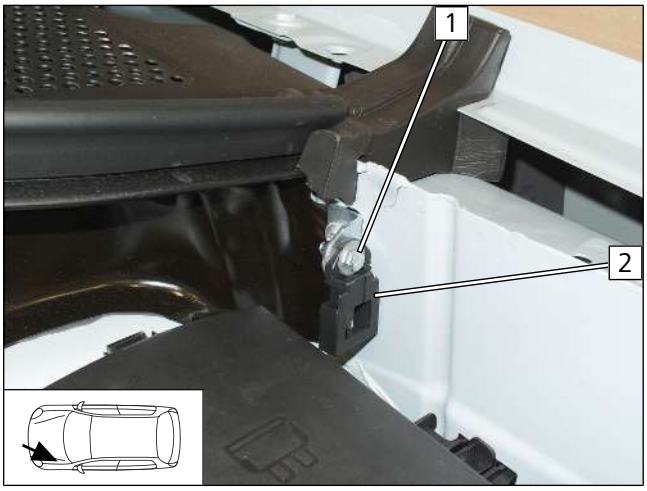


Fig. 6

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

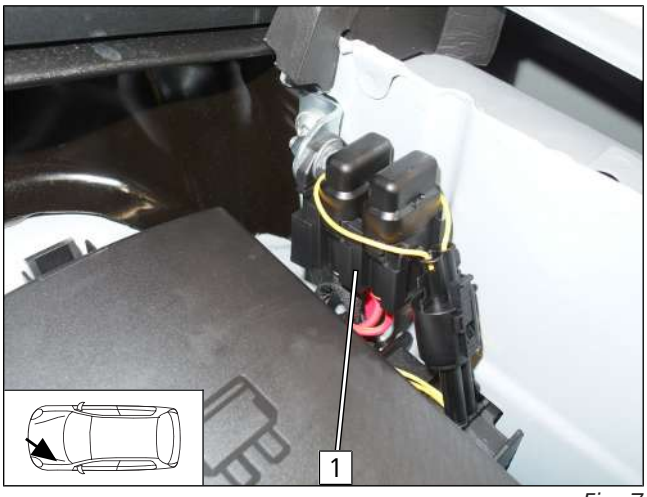


Fig. 7

1 Fuses F1 / F2

Earth wire connection

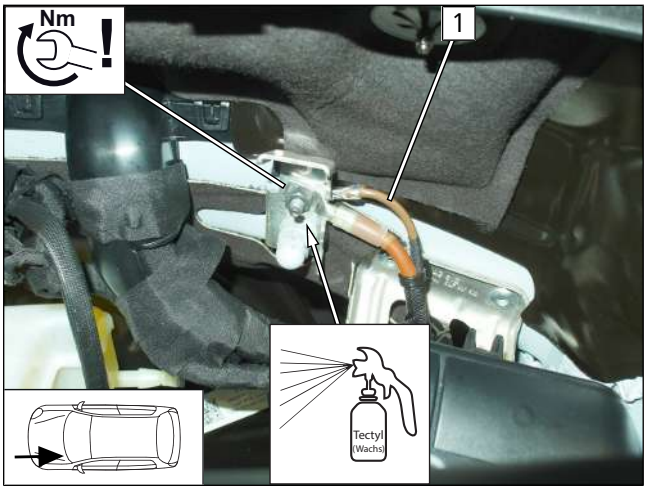


Fig. 8

DANGER

Fire hazard due to insufficient tightening torque.

▶ Observe tightening torque

1 Earth wire at original vehicle earth point

Positive wire connection

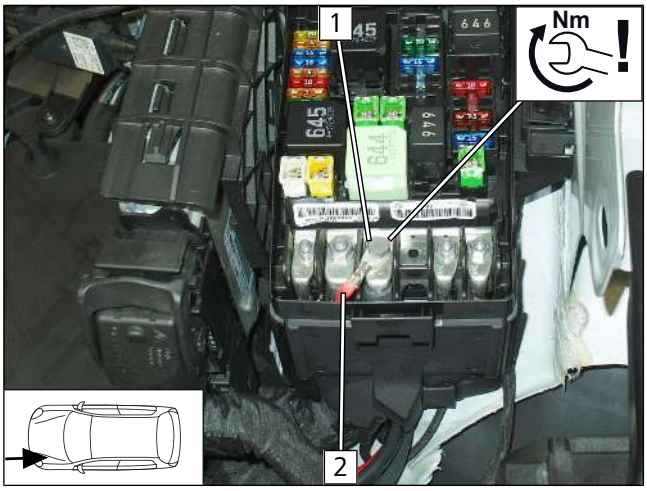


Fig. 9

DANGER

Fire hazard due to insufficient tightening torque.

▶ Observe tightening torque

1 Original vehicle positive point

2 Positive wire

Wiring harness routing

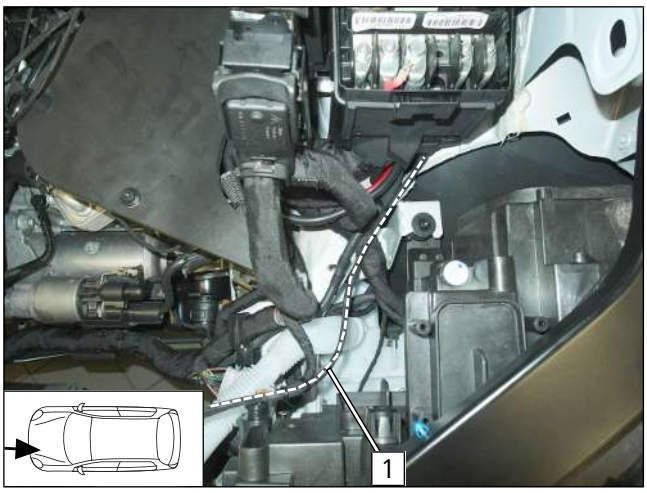


Fig. 10

▶ Route heater wiring harness 1 along the marking to the radiator and fasten using a cable tie.

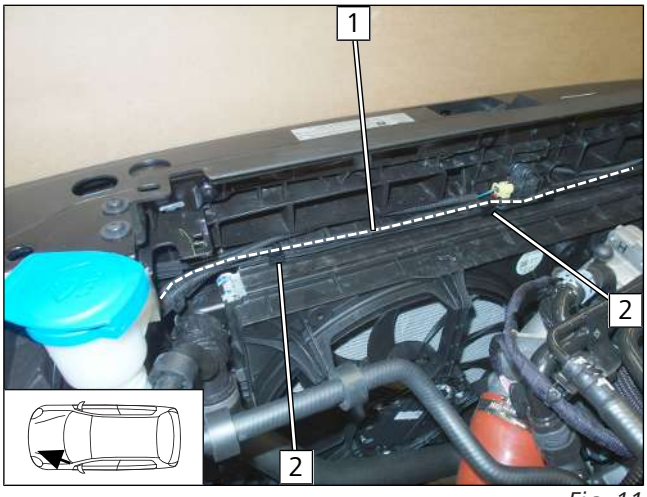


Fig. 11

▶ Route heater wiring harness 1 along the marking to the heater installation location and fasten using edge clip cable ties 2.

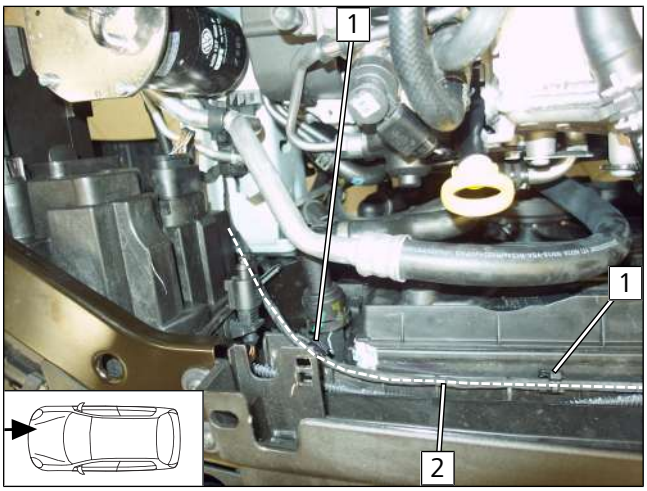


Fig. 12

▶ Route heater wiring harness 2 along the marking to the heater installation location and fasten using edge clip cable ties 1.

Passenger compartment wiring harness pass through

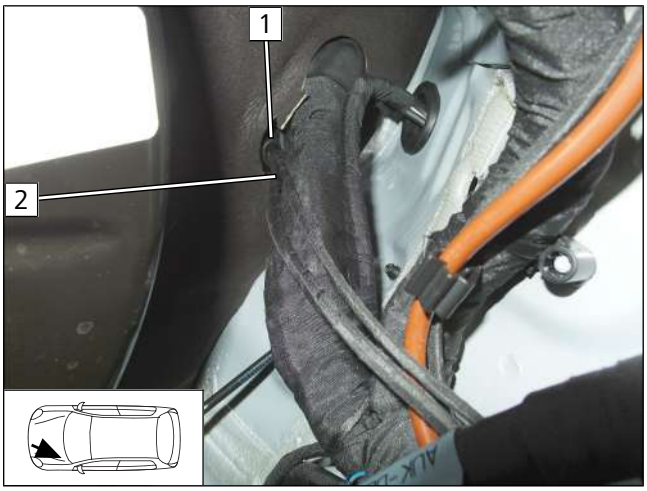


Fig. 13

1 Protective rubber plug

2 Passenger compartment and control element wiring harnesses

8 Mechanical system

8.1 Installation location preparation

Removing original vehicle bracket

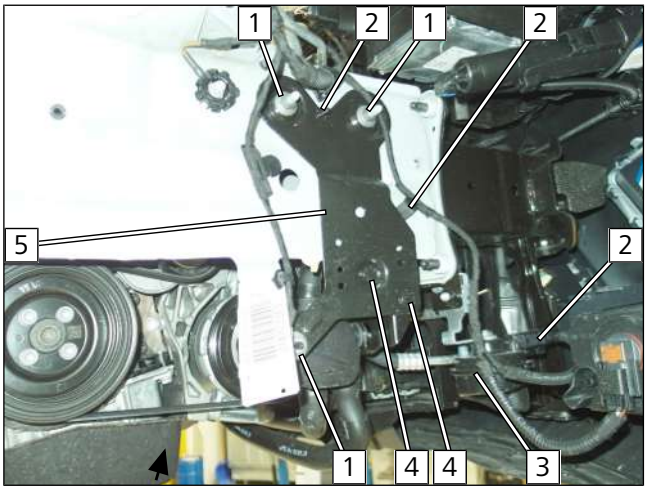


Fig. 14

- ▶ Loosen original vehicle wiring harness at position **2**.
- ▶ Remove original vehicle bracket **5** at positions **1** and **4** (covered). All original vehicle nuts will be reused.
- ▶ Remove horn **3** with bracket and discard bolt.

Removing label

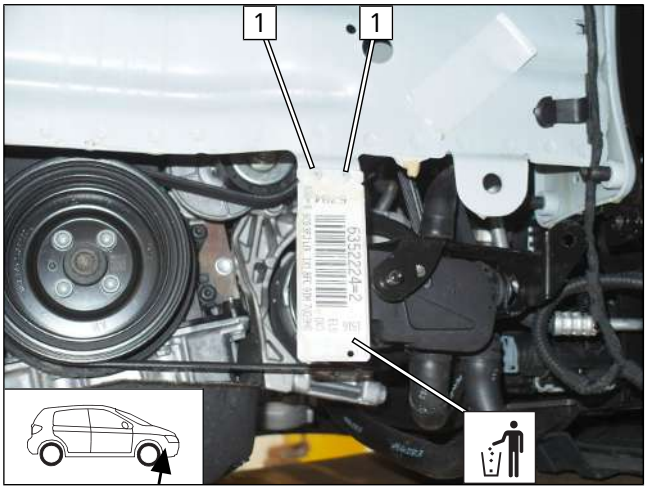


Fig. 15

- ▶ Drill out rivets at position **1**.

Bending tab

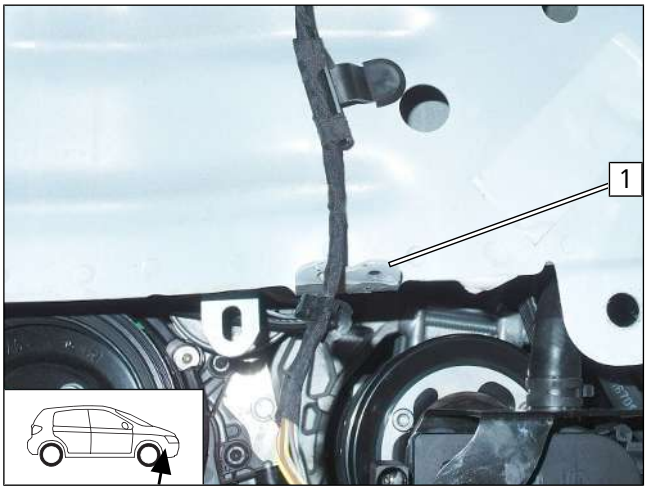


Fig. 16

- ▶ Bend original vehicle tab **1** up as shown.

Inserting rivet nut

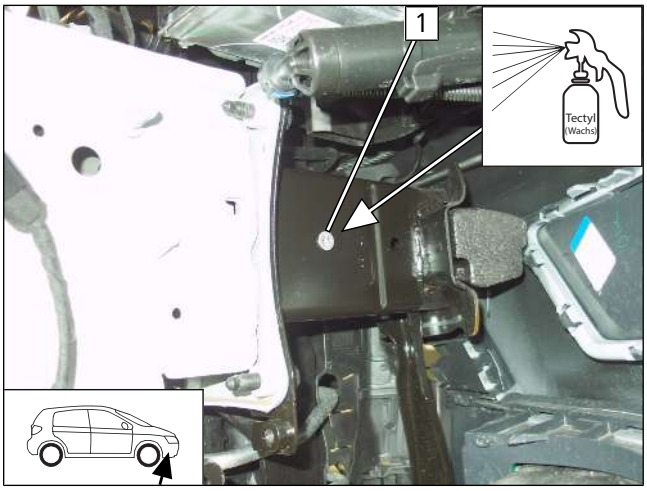


Fig. 17

▶ Drill out original vehicle hole at position 1 to Ø9.

1 Rivet nut

Removing horn bracket

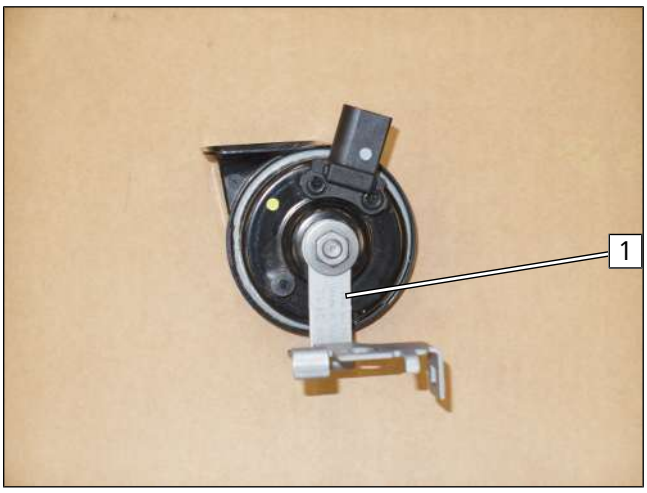


Fig. 18

▶ Remove and discard horn bracket **1**. The nut will be reused.

Preparing perforated bracket

▶ Drill out hole at position **1** to 8.5 mm dia.

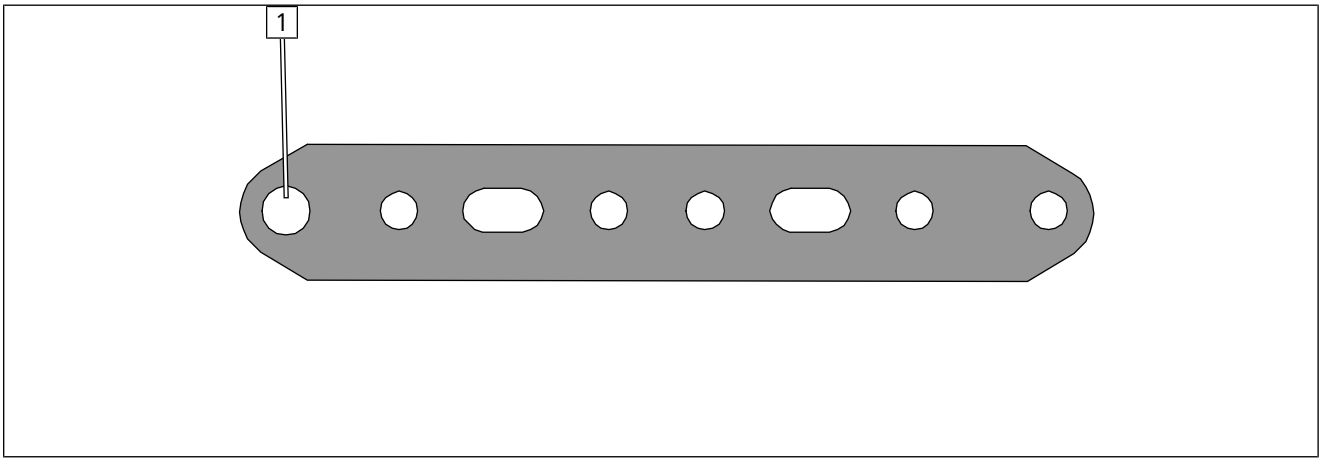


Fig. 19

Mounting horn

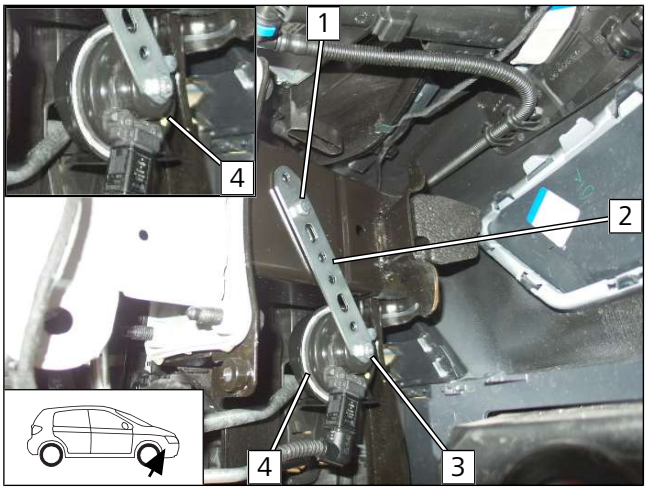


Fig. 20

▶ Align horn [4] as shown.

[1] M6x20 bolt, spring lockwasher
[2] Perforated bracket
[3] Original vehicle nut

Checking distance

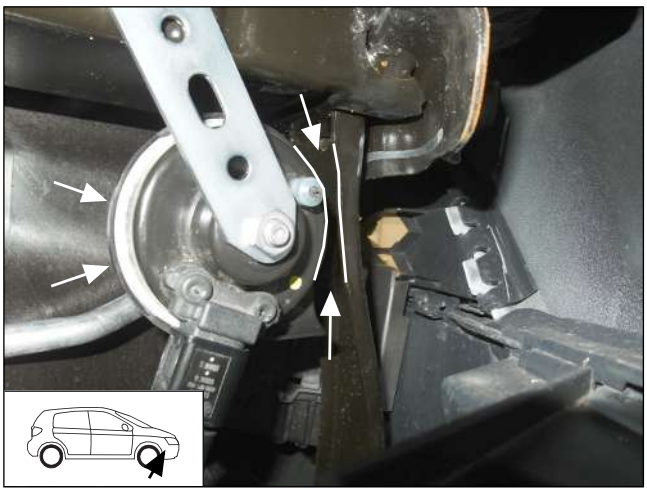


Fig. 21

Danger of damage to components

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

Preparing edge clip cable tie

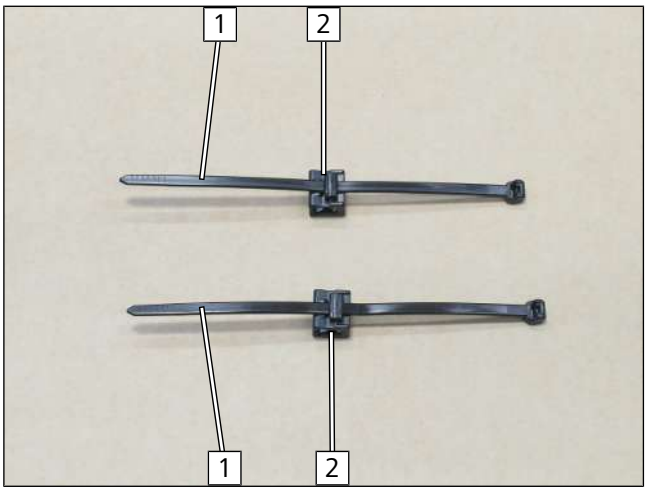


Fig. 22

▶ Remove cable tie [1] from edge clip [2].

Mounting edge clip

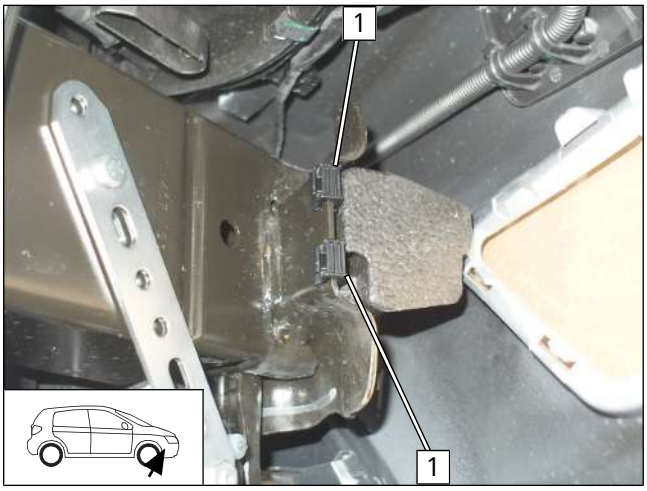


Fig. 23

▶ Mount edge clip **1** as shown.

Gluing foam

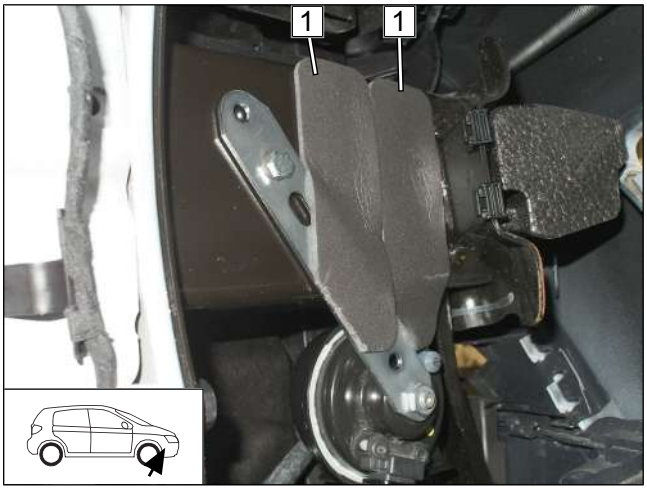


Fig. 24

▶ Position self-adhesive foam **1** as shown.

Fastening original vehicle wiring harness

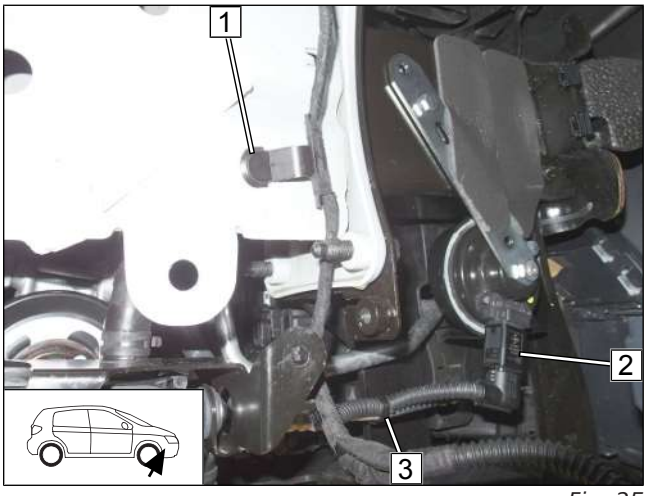


Fig. 25

1 Original vehicle clip
2 Horn connector
3 Horn wiring harness with cable tie

Preparing heat protection tube

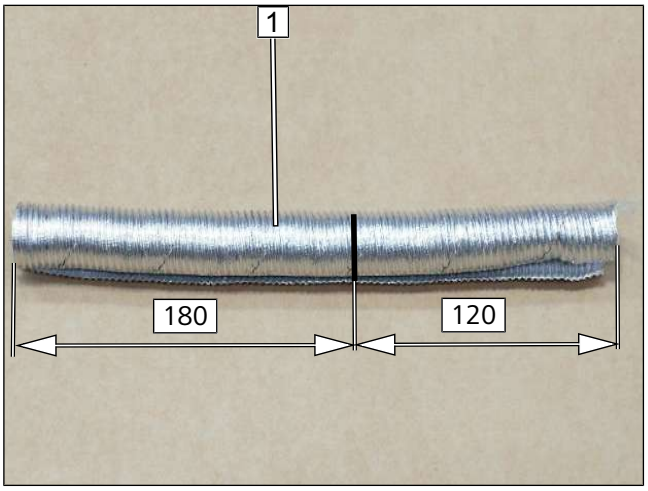


Fig. 26

▶ Slit the heat protection tube lengthwise open and cut it to length as shown in Fig..

Mounting heat protection tube

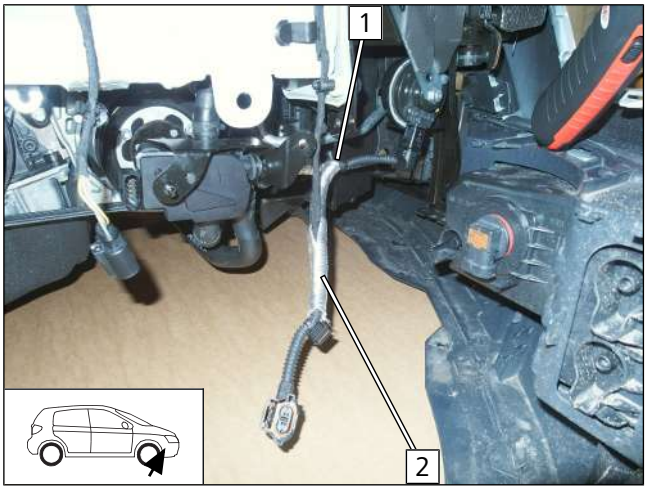


Fig. 27

▶ Mount 180mm long heat protection tube **2** as shown, starting at the cable tie at position **1**.

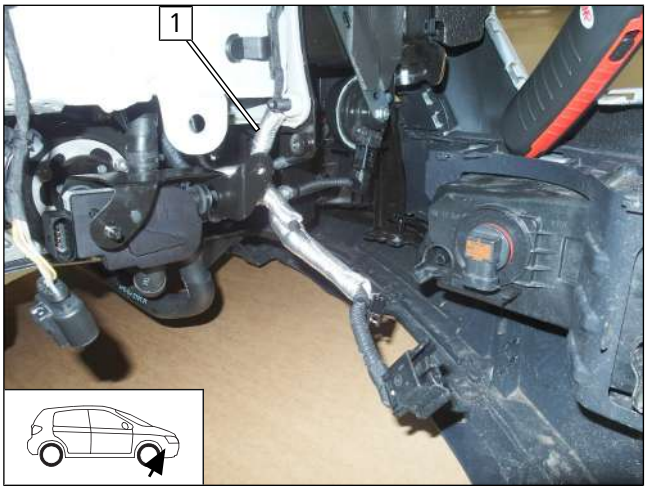


Fig. 28

▶ Mount 120mm long heat protection tube **1** as shown.

Wrapping heat protection tube

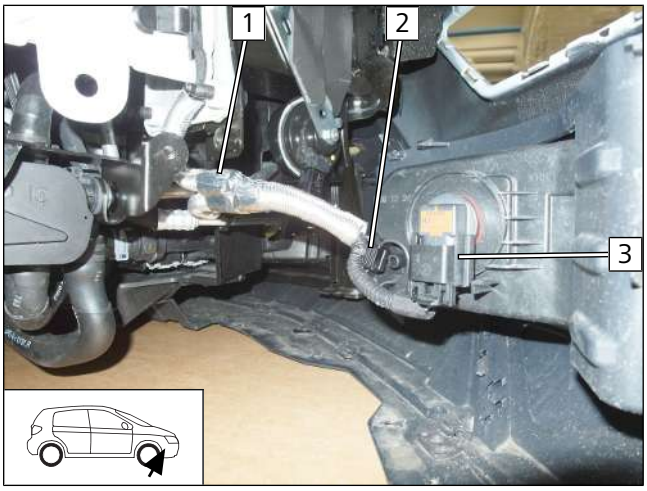


Fig. 29

▶ Wrap heat protection tube at the cutting point with self-adhesive heat protection film as shown.

1 Edge clip cable tie
2 Mount front fog light connector

8.2 Premounting heater

Mounting water connection piece

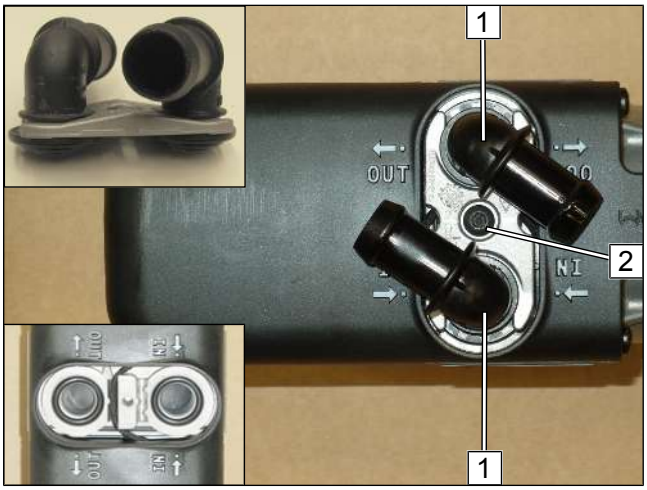


Fig. 30

Observe the general installation instructions of the heater.

1 Water connection piece, sealing ring
2 5x15 self-tapping bolt, retaining plate of water connection piece

Cutting hoses to length

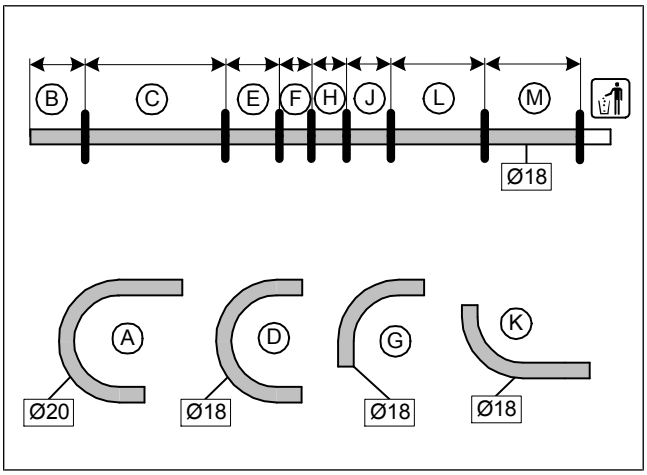


Fig. 31

Ⓐ	180°, 20x20 moulded hose
Ⓑ	140
Ⓒ	400
Ⓓ	180°, 18x18 moulded hose
Ⓔ	170
Ⓕ	60
Ⓖ	90°, 18x18 moulded hose
Ⓗ	90
Ⓙ	100
Ⓚ	90°, 18x18 moulded hose
Ⓛ	210
Ⓜ	200

Preparing moulded hose Ⓚ

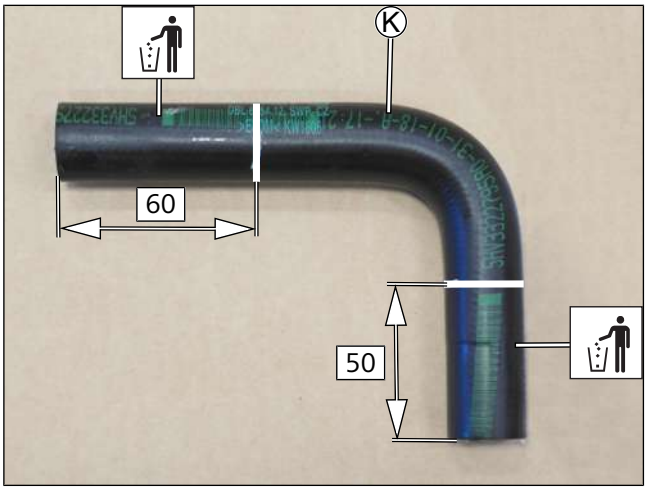


Fig. 32

▶ Cut hose Ⓚ as shown.

Mounting original vehicle bracket

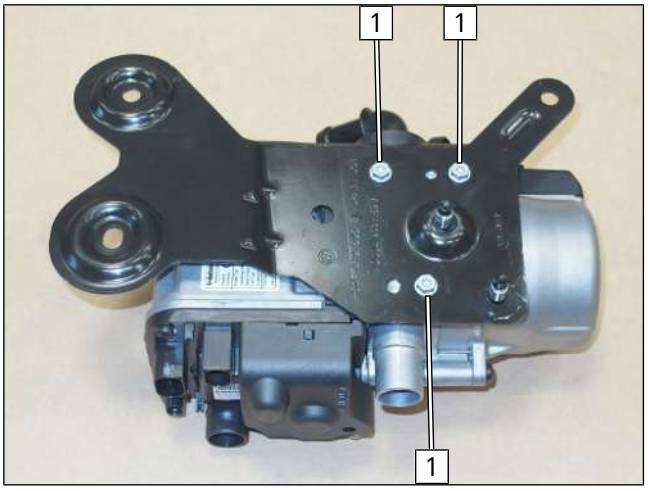


Fig. 33

1 5x13 self-tapping bolt

Mounting stud bolt and moulded hose

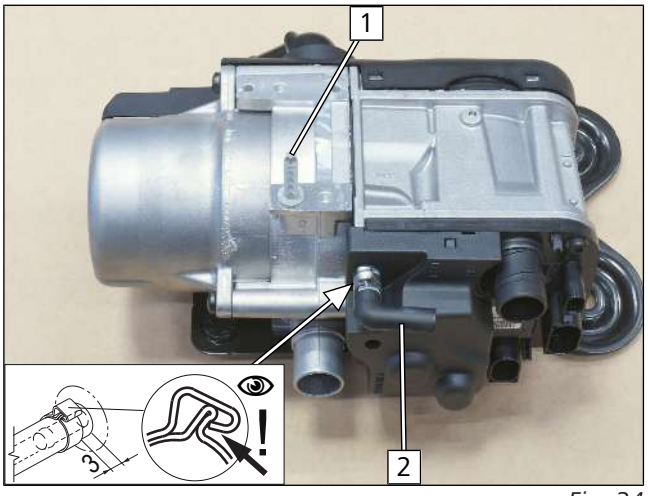


Fig. 34

1 M6x25.5 stud bolt
2 90° moulded hose, Ø10 clamp

Mounting coolant pump

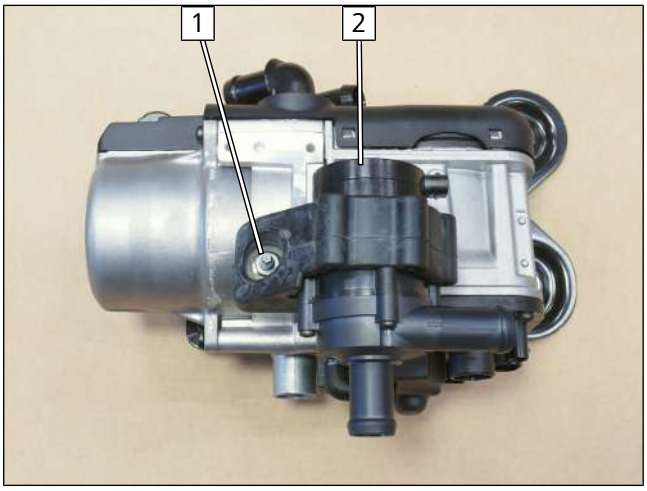


Fig. 35

1 Stud bolt, coolant pump mount, flanged nut
2 Coolant pump

Mounting hoses Ⓖ, Ⓗ and Ⓙ

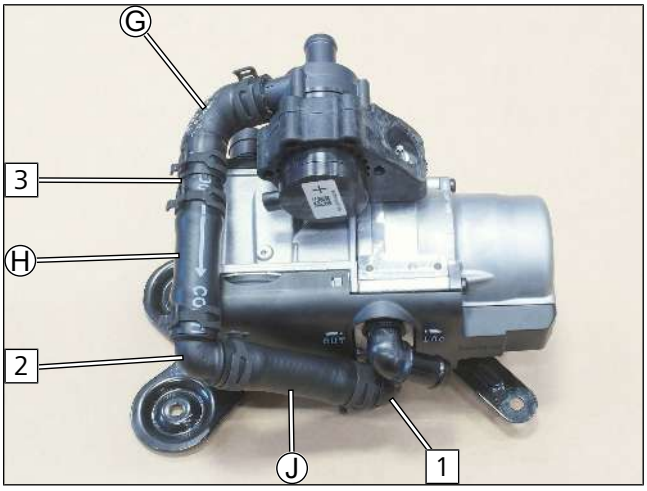


Fig. 36

All spring clips, Ø25

1 HG/IN
2 Ø18x18 / 90° connecting pipe
3 Ø18x18 connecting pipe

Mounting hoses Ⓚ, Ⓛ and Ⓜ

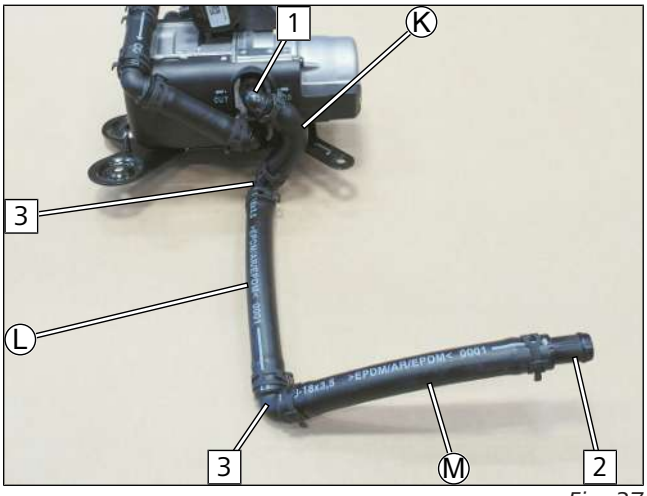


Fig. 37

All spring clips, Ø25

1 Heater/OUT
2 Ø18x20 connecting pipe
3 Ø18x18 / 90° connecting pipe

Mounting coolant pump wiring harness

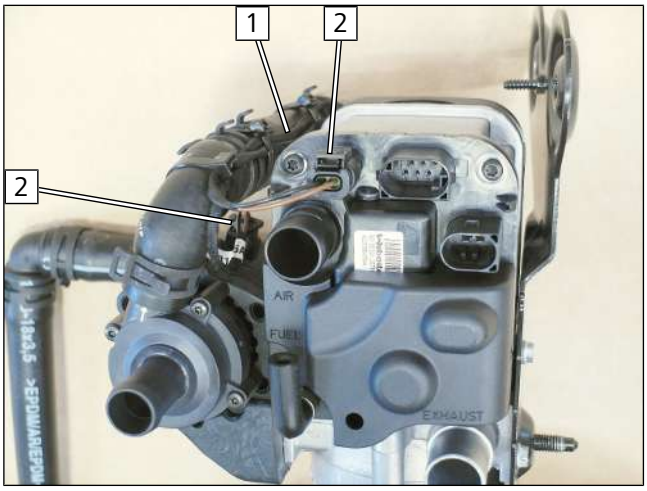


Fig. 38

▶ Fasten the rest of coolant pump wiring harness **1** using cable ties as shown.

2 Coolant pump wiring harness connector

Mounting original vehicle wiring harness bracket

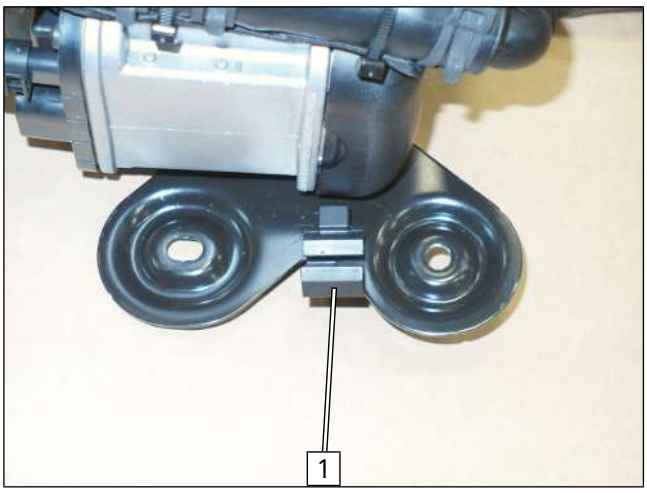


Fig. 39

1 Original vehicle wiring harness bracket

Mounting fuel line

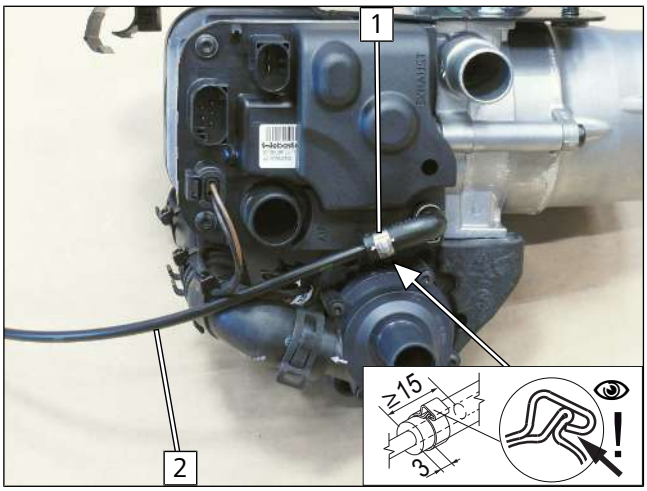


Fig. 40

1 Ø10 clamp

2 Fuel line

Premounting hoses Ⓐ, Ⓑ and Ⓒ

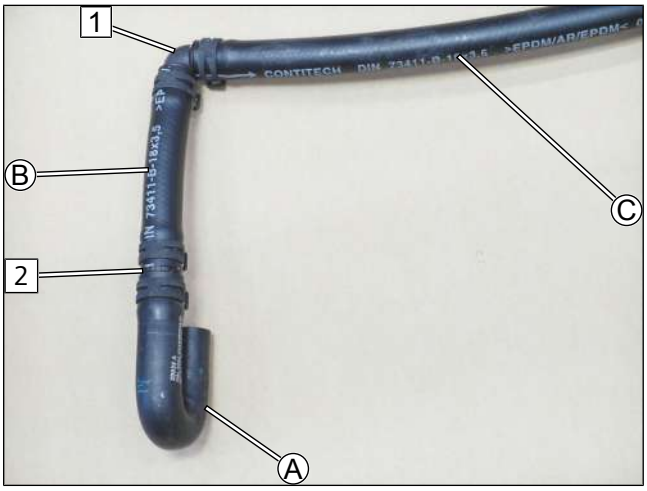


Fig. 41

All spring clips, Ø25

1 Ø18x18 / 90° connecting pipe
2 Ø18x20 connecting pipe

Premounting hoses Ⓒ, Ⓓ, Ⓔ and Ⓕ

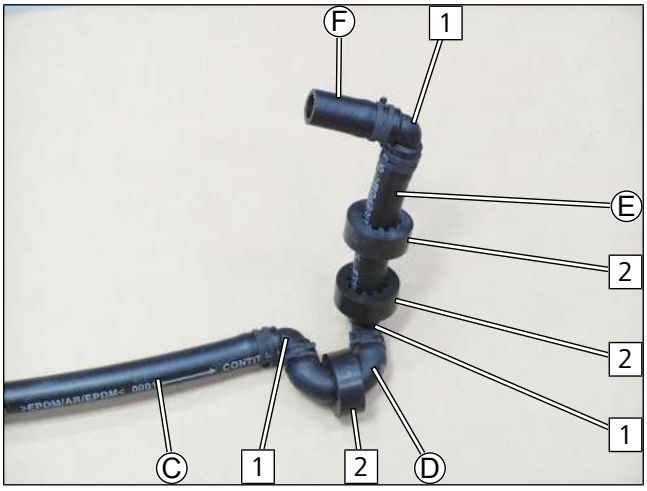


Fig. 42

All spring clips, Ø25

1 Ø18x18 / 90° connecting pipe
2 Black (sw) rubber isolator

View of heat exchanger outlet / coolant pump inlet hose group

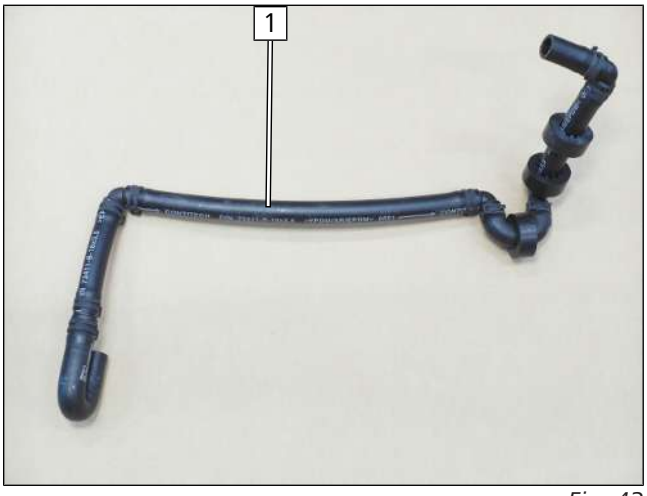


Fig. 43

1 Overall view of hose group

Routing heat exchanger outlet / coolant pump inlet hose group

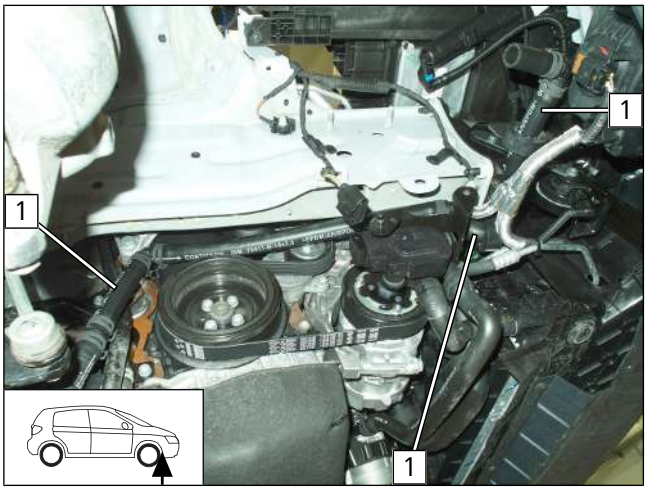


Fig. 44

▶ Route hose group 1 as shown.

8.3 Heater mounting

Mounting heater

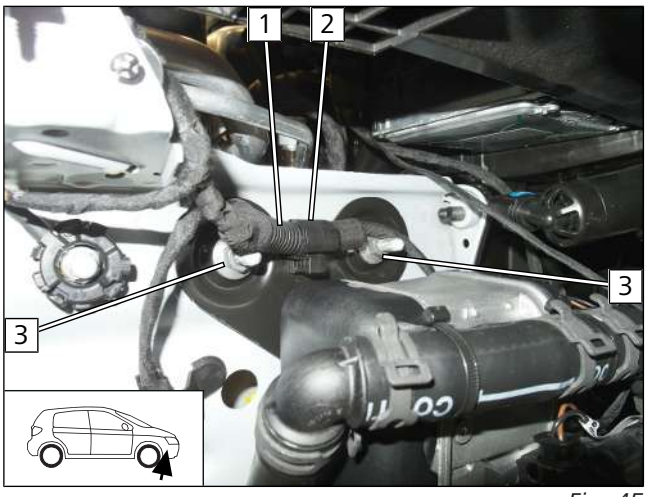


Fig. 45

1 Original vehicle wiring harness
2 Close premounted wiring harness bracket
3 Original vehicle nut

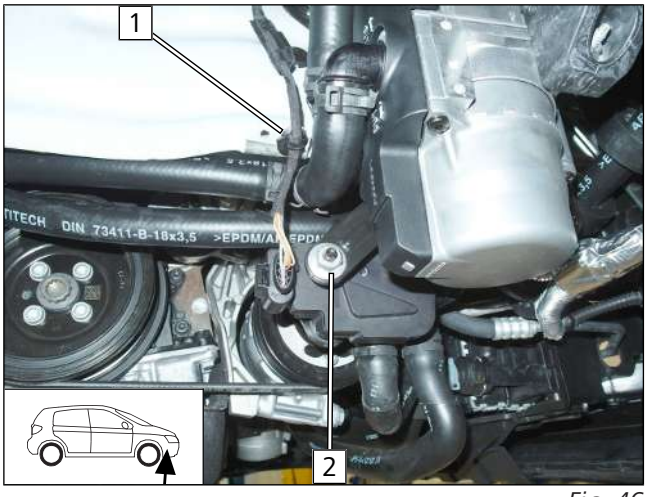


Fig. 46

1 Mount original vehicle eyelet cable tie
2 Original vehicle nut

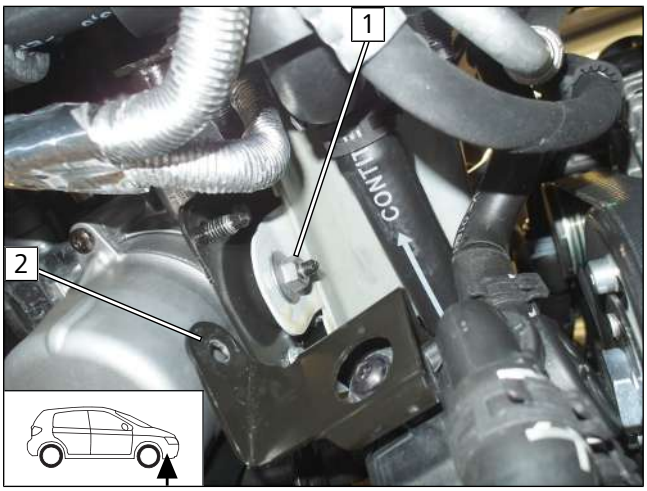


Fig. 47

▶ Position 2 will be mounted later.

1 Original vehicle nut

Mounting heater wiring harness

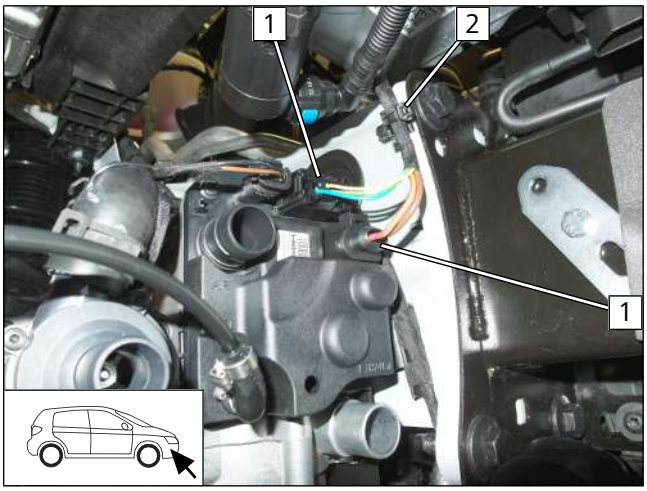


Fig. 48

1 Heater wiring harness connector

2 Edge clip cable tie

Fastening original vehicle wiring harness

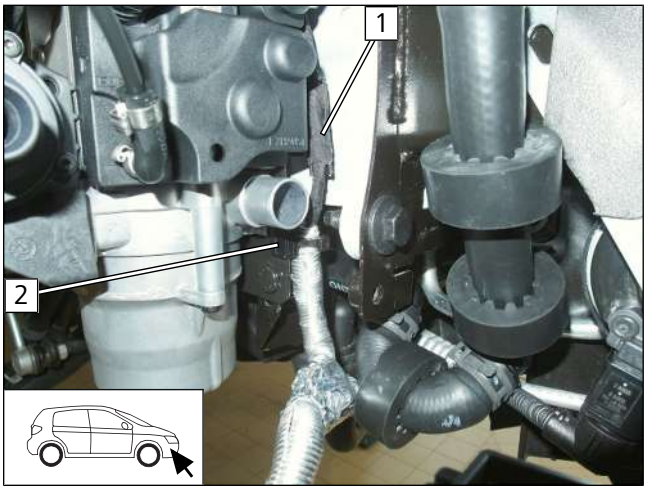


Fig. 49

1 Original vehicle wiring harness

2 Edge clip cable tie

Connecting coolant pump

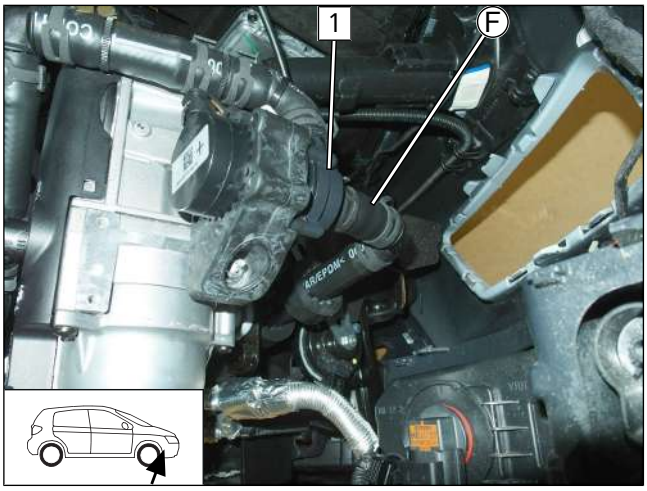


Fig. 50

1 Coolant pump

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

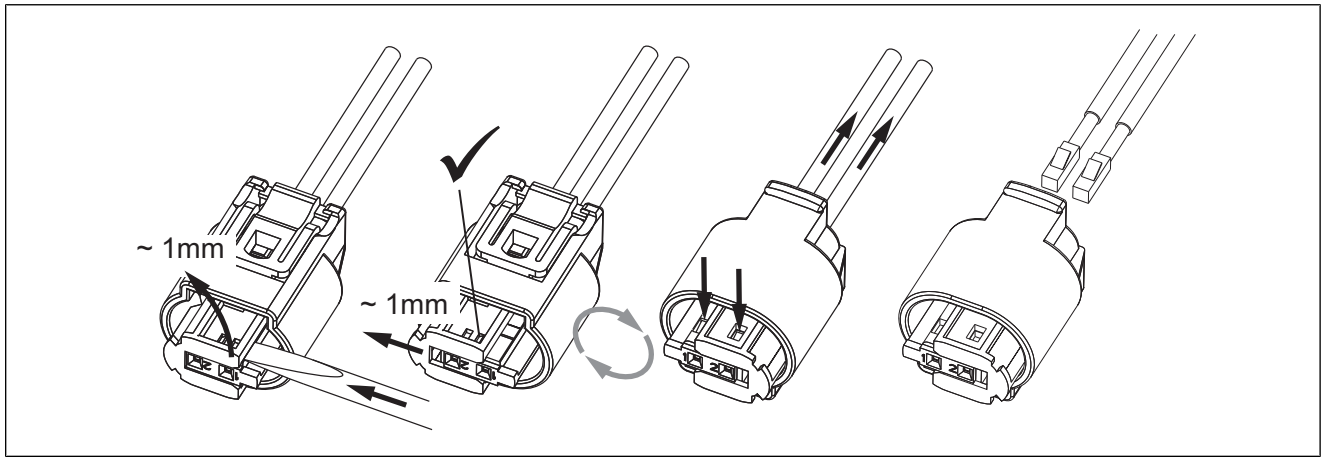


Fig. 51

9.1 Routing fuel line

Cutting two foam strips in half

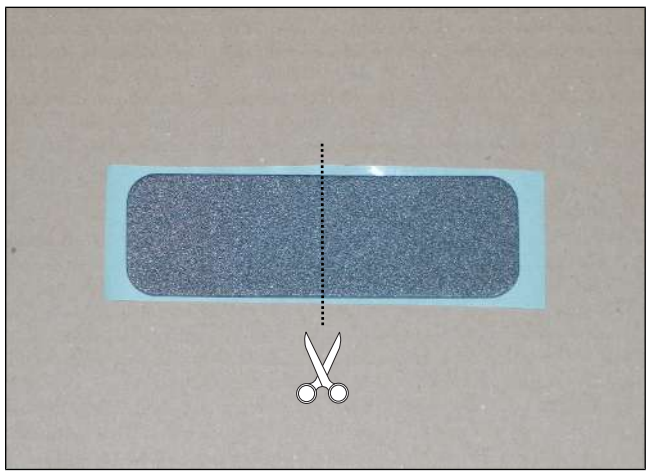


Fig. 52

Routing fuel line in wheel well

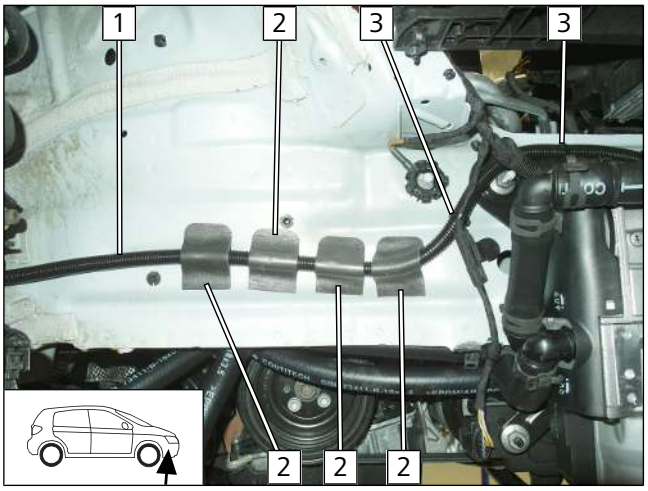


Fig. 53

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

Drilling hole

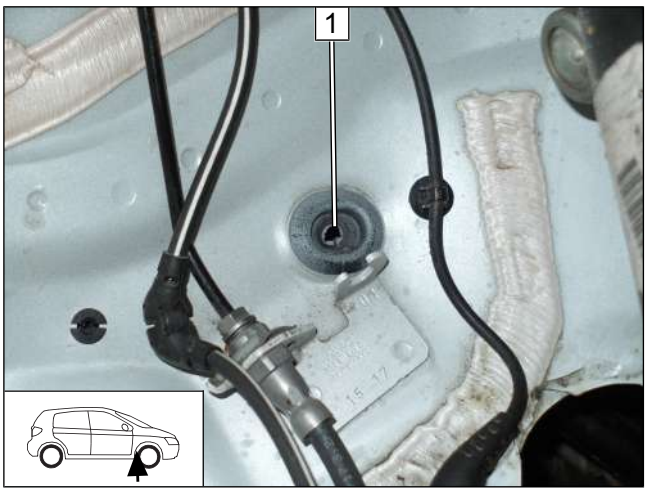


Fig. 54

▶ Open original vehicle pass through 1 in the centre as shown.

Routing through original vehicle pass through to underbody

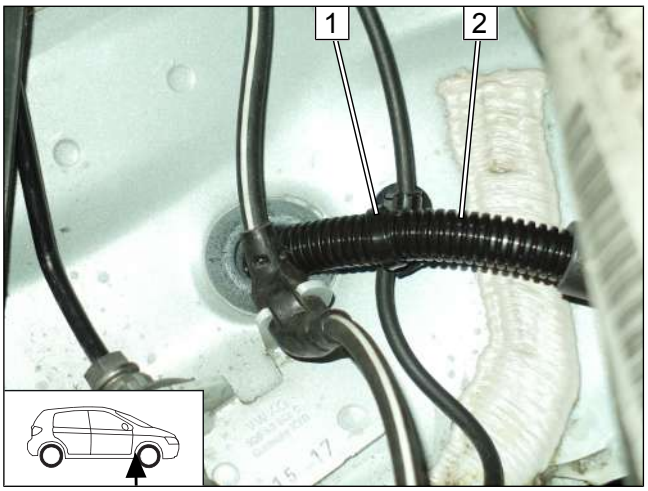


Fig. 55

1 Cable tie
2 HG fuel line and fuel pump wiring harness in corrugated tube

Premounting fuel pump

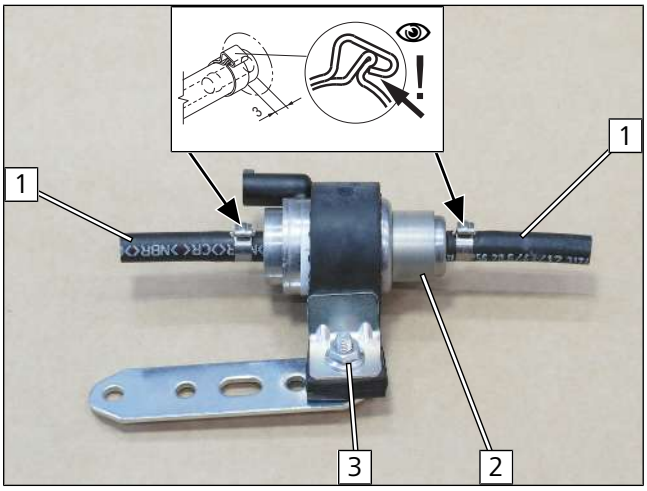


Fig. 56

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

Fuel pump installation

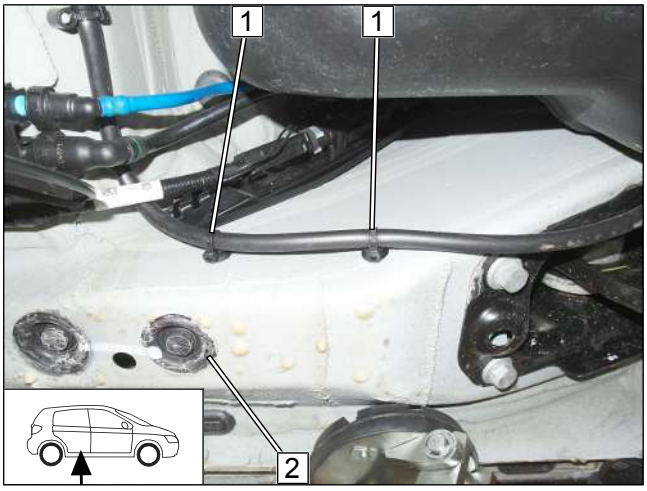


Fig. 57

▶ Detach eyelet cable tie 1 and plug 2, they will be re-used.

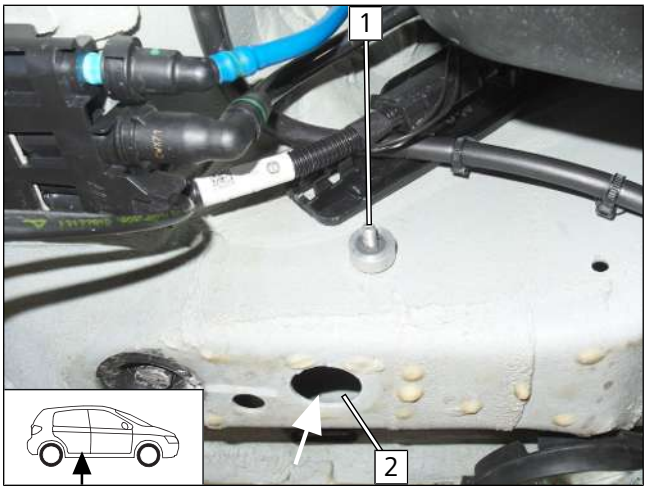


Fig. 58

▶ Insert M6x25 bolt via opening 2 using suitable means.

1 M6x25 bolt, original vehicle hole, 10mm spacer, lock washer

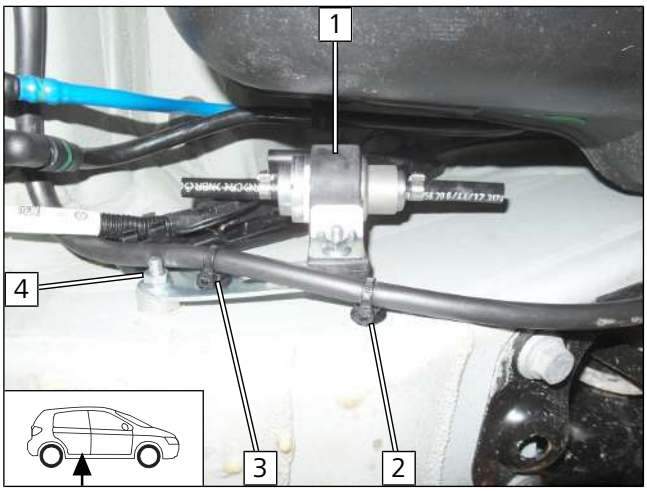


Fig. 59

1 Premounted fuel pump
2 Original vehicle eyelet cable tie in original vehicle hole
3 Original vehicle eyelet cable tie in perforated bracket
4 Flanged nut

Assembling fuel pump connector X7

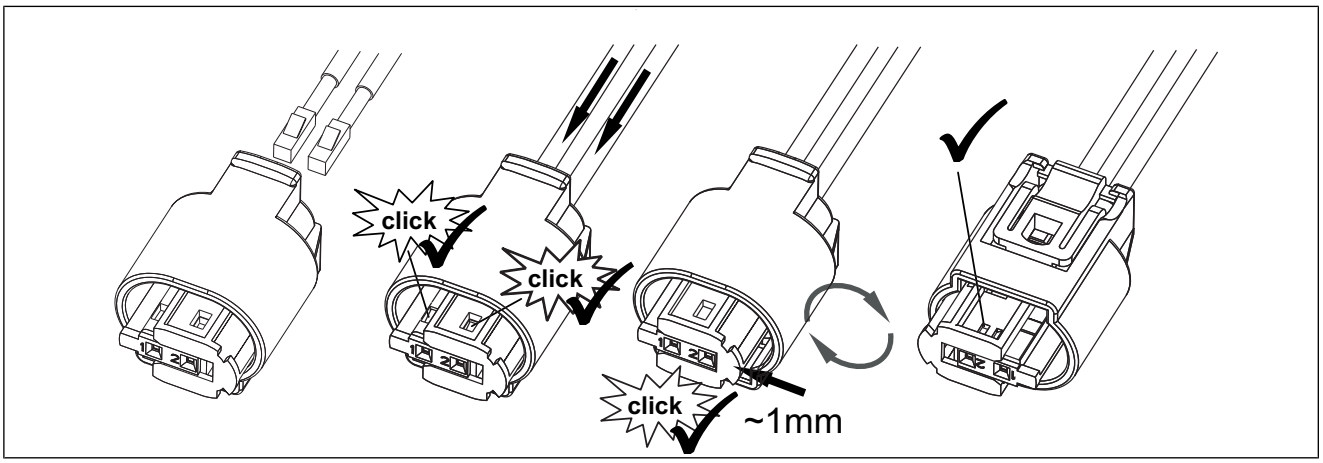


Fig. 60

Fuel pump connection

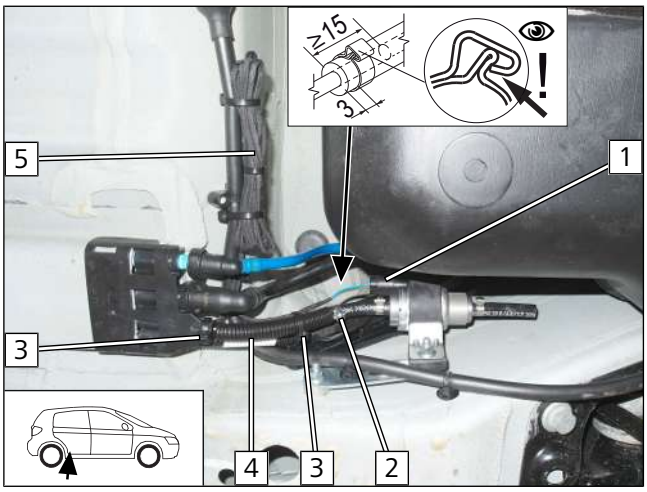


Fig. 61

▶ Fasten the rest of fuel pump wiring harness 5 with cable ties as shown.

1 Fuel pump wiring harness, connector X7 mounted
2 Ø10 clamp
3 Cable tie
4 HG fuel line in corrugated tube

9.2 Installing FuelFix

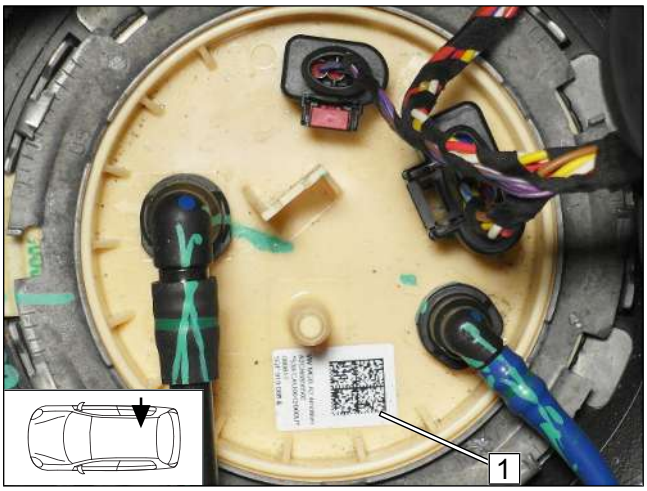


Fig. 62

▶ Remove label 1, it will be reapplied later.

Preparing drilling template

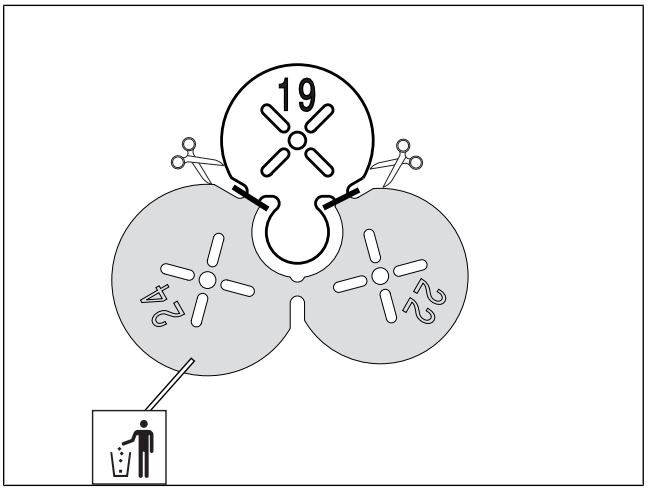


Fig. 63

Copy hole pattern

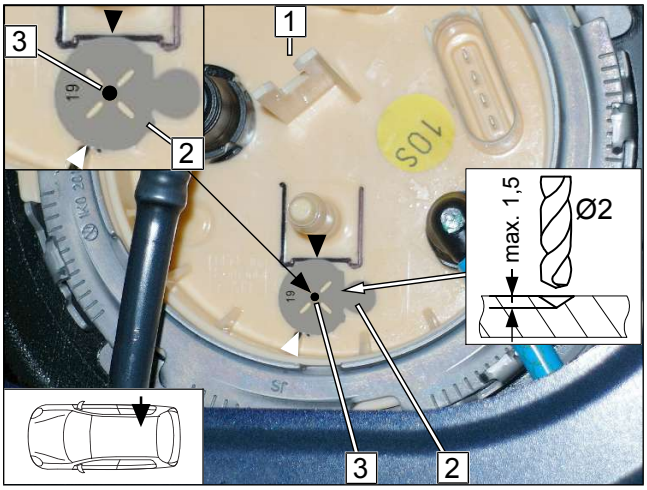


Fig. 64

Observe the installation instructions of the tank extracting device.

▶ Work steps F1, F2

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

Hole for FuelFix

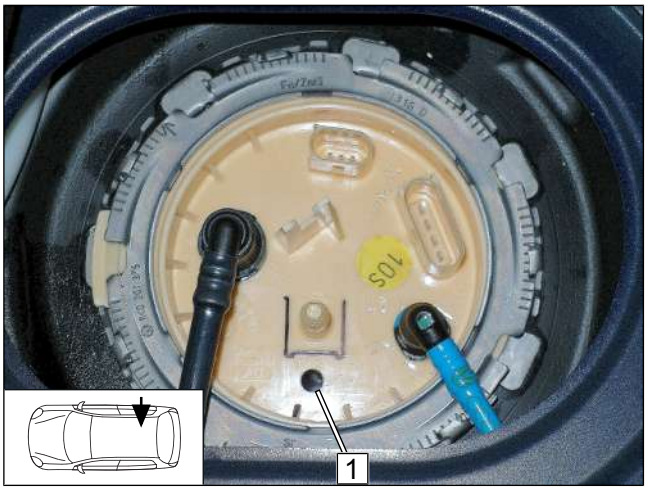


Fig. 65

DANGER

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

▶ Work step F3

1 Hole made with provided drill

Inserting FuelFix

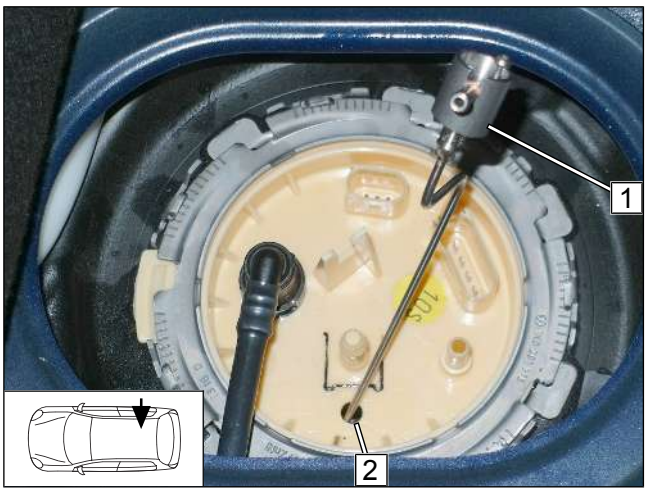


Fig. 66

▶ Work steps F4, F5

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

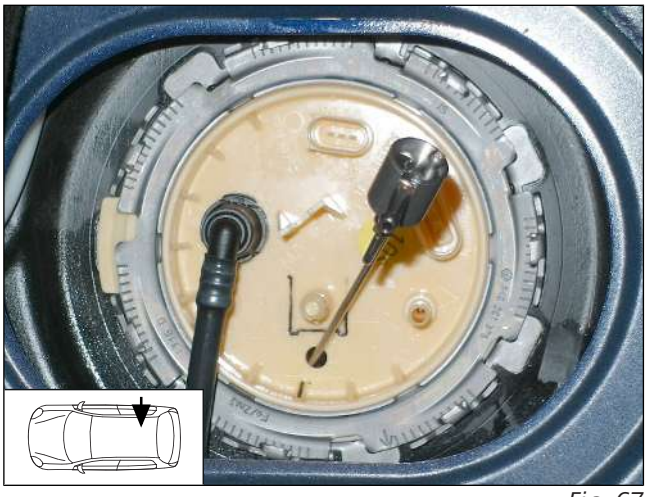


Fig. 67

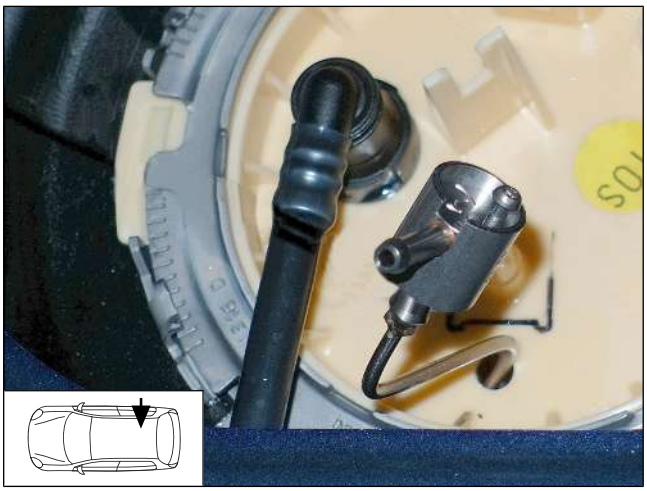


Fig. 68

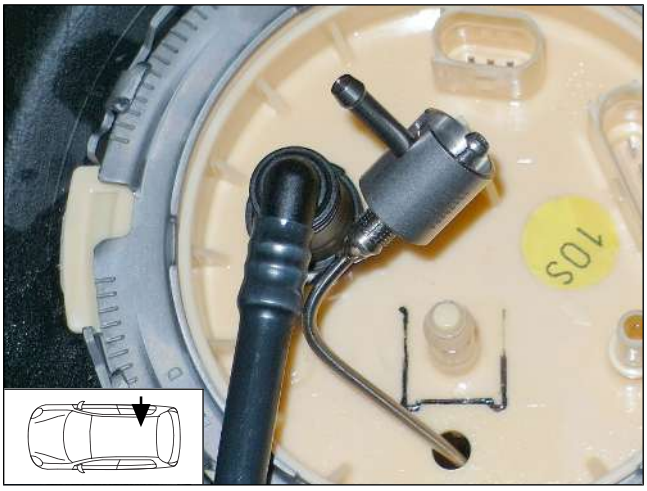


Fig. 69

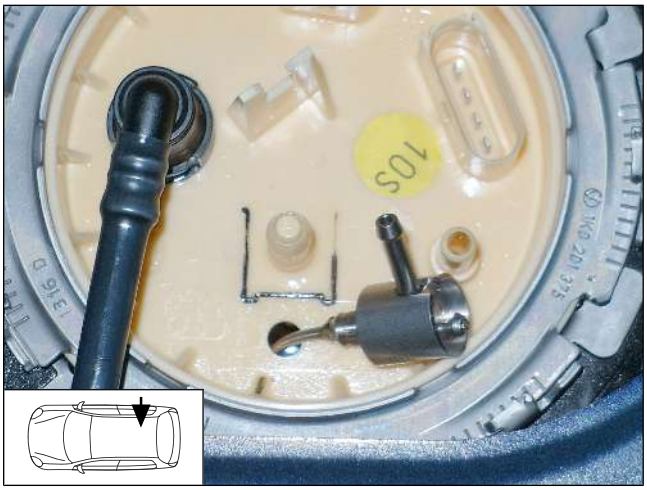


Fig. 70

Aligning FuelFix

Fig. 71

▶ Work steps F5.3, F5.4

▶ Align FuelFix **1** as shown.

Connecting fuel line

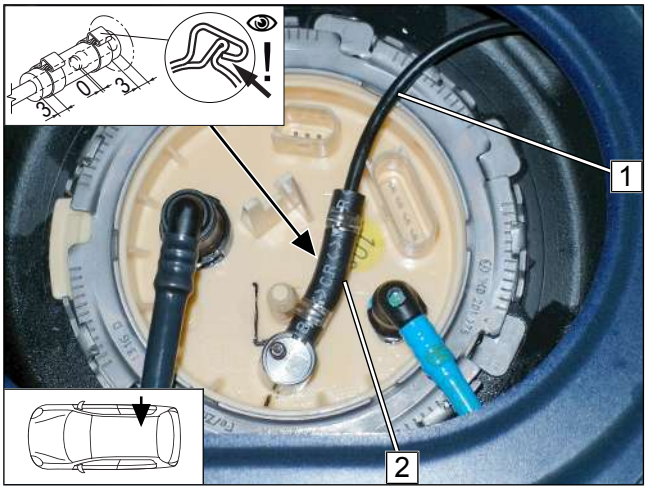


Fig. 72

▶ Work step F6

1 Fuel line

2 Hose section, Ø10 clamp [2x]

Mounting FuelFix

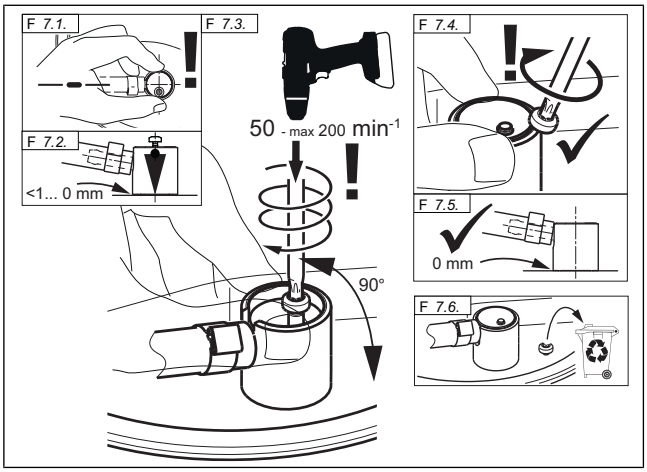


Fig. 73

DANGER

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

▶ Work step F7

Checking firm seating of FuelFix

Fig. 74

▶ Work step F8

Securing fuel line

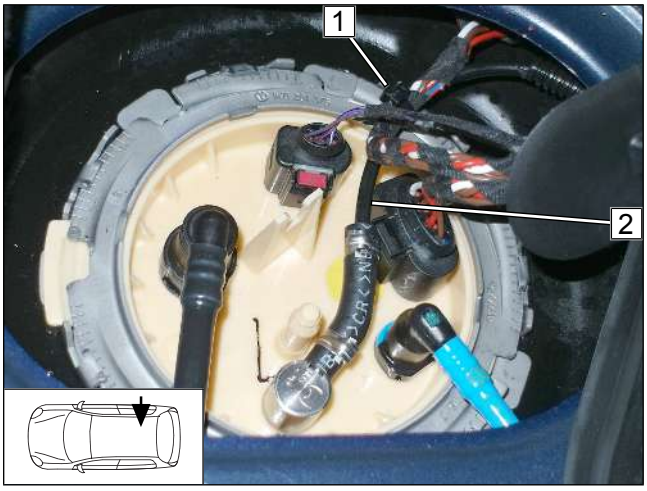


Fig. 75

[1] Cable tie for tension relief
[2] Fuel line of FuelFix

Reapplying label

Fig. 76

▶ Position label [1] as shown.

9.3 Fuel pump connection

Connecting fuel line of FuelFix

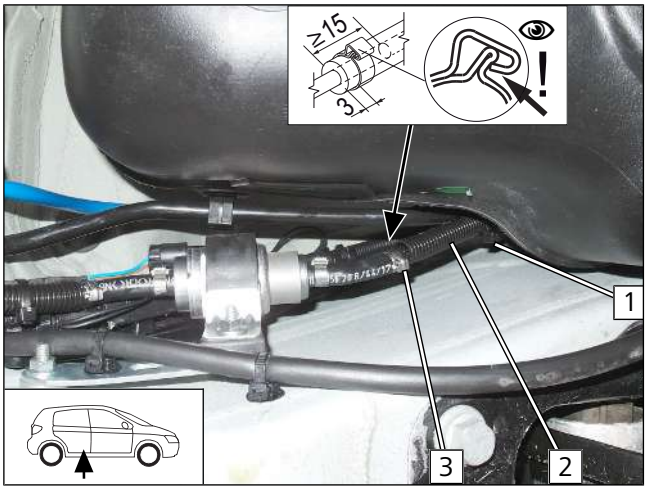


Fig. 77

1 Fuel line of FuelFix
2 Rest of corrugated tube
3 Ø10 clamp

10 Coolant

10.1 Hose routing diagram

'Inline' coolant circuit

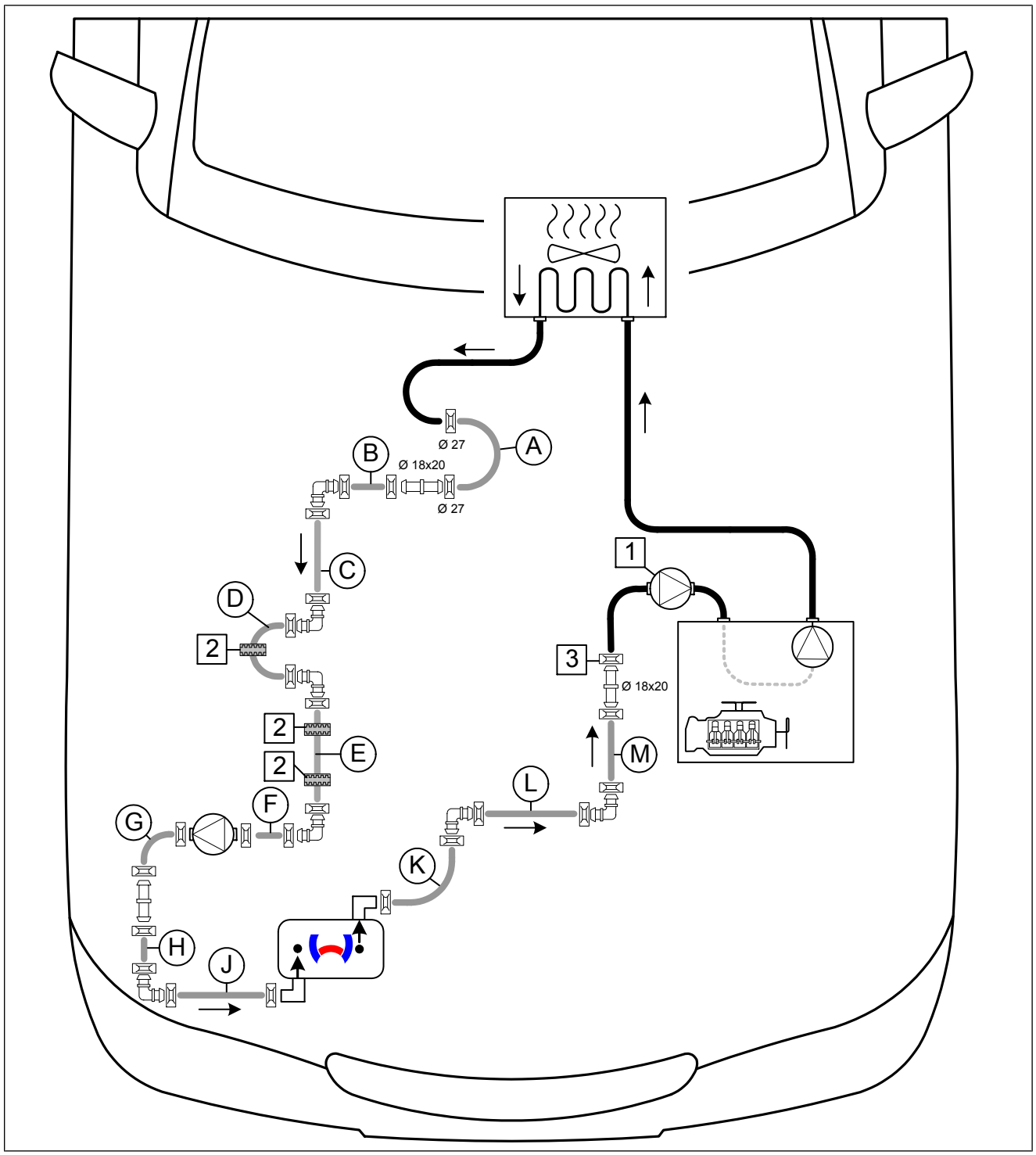


Fig. 78

All spring clips without a specific designation = Ø25

All connecting pipes without a specific designation = Ø18x18

1 Original vehicle residual heat pump; 2 Black (sw) rubber isolator; 3 Original vehicle spring clip

10.2 Coolant circuit installation

Mounting angle bracket

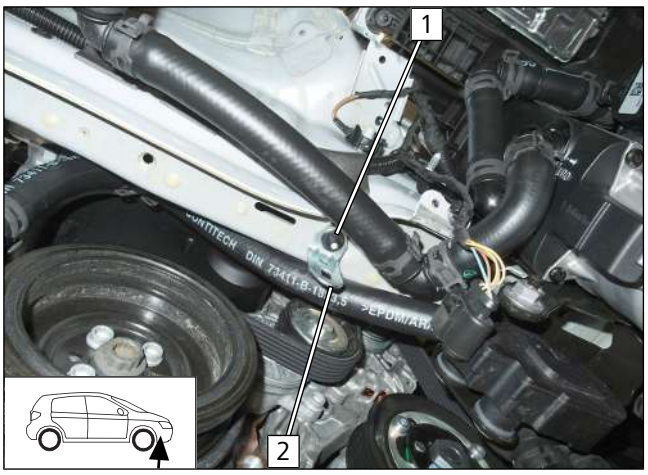


Fig. 79

1 Original vehicle stud bolt, angle bracket, plastic nut

2 Angle bracket

Fastening hose (D)

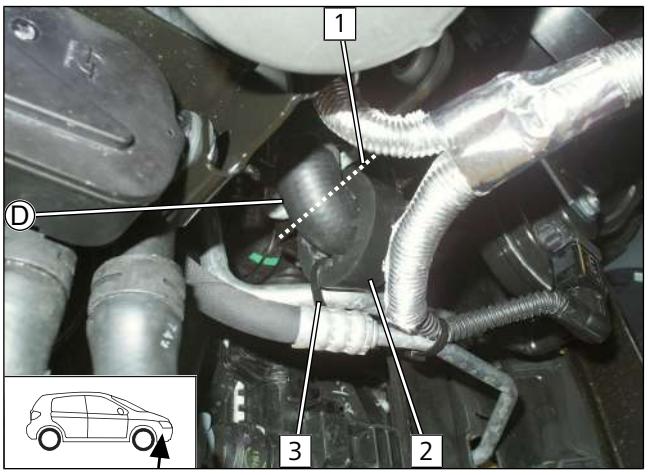


Fig. 80

▶ Align black (sw) rubber isolator **2** to the body edge **1** (covered).

1 Black (sw) rubber isolator

2 Cable tie

Position black (sw) rubber isolator

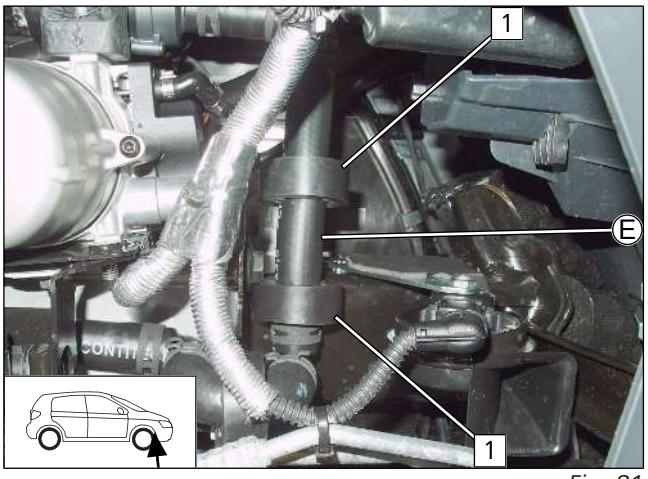


Fig. 81

▶ Position black (sw) rubber isolator **1** as shown.

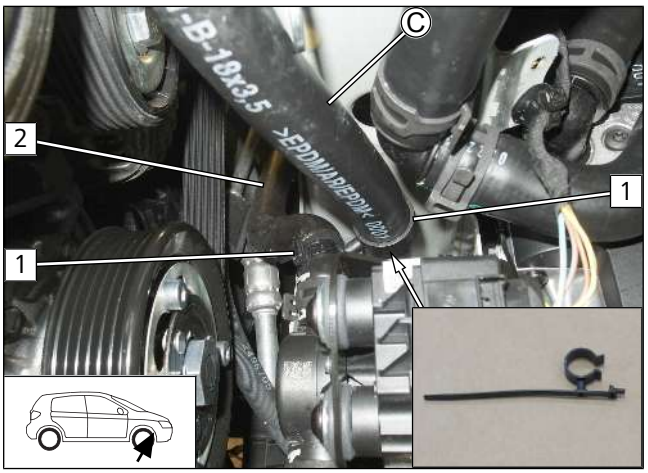


Fig. 82

1 Hose bracket with cable tie
2 Original vehicle hose

Cutting point

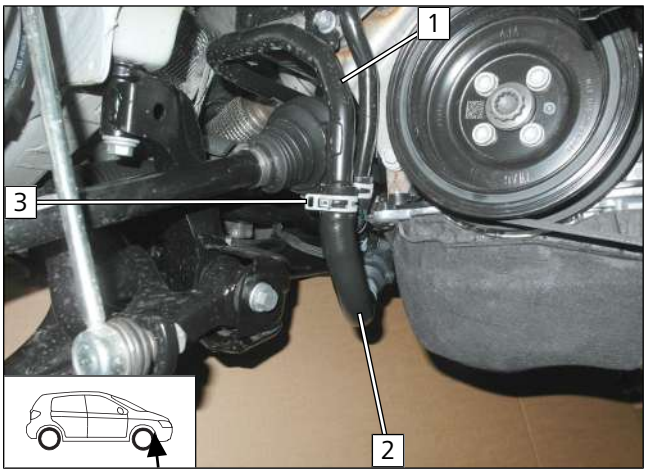


Fig. 83

▶ Remove heat exchanger outlet / engine inlet hose 2 at position 3 from heat exchanger outlet hose 1. Original vehicle spring clip 3 will be reused.

Heat exchanger outlet connection

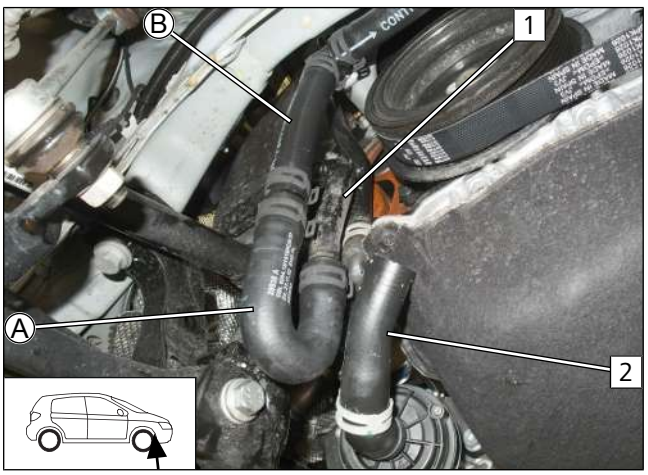


Fig. 84

1 Heat exchanger outlet connection pipe section
2 Engine inlet hose section

Engine inlet connection

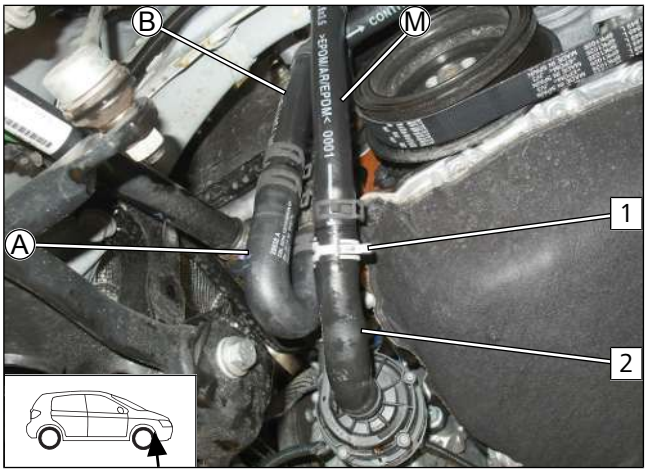


Fig. 85

1 Original vehicle spring clip
2 Engine inlet hose section

Fastening hoses Ⓒ and Ⓛ

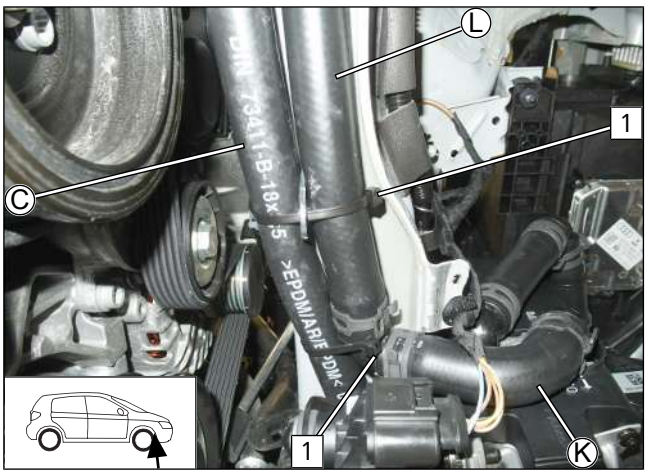


Fig. 86

1 Cable tie

Fastening hoses Ⓐ, Ⓑ and Ⓜ

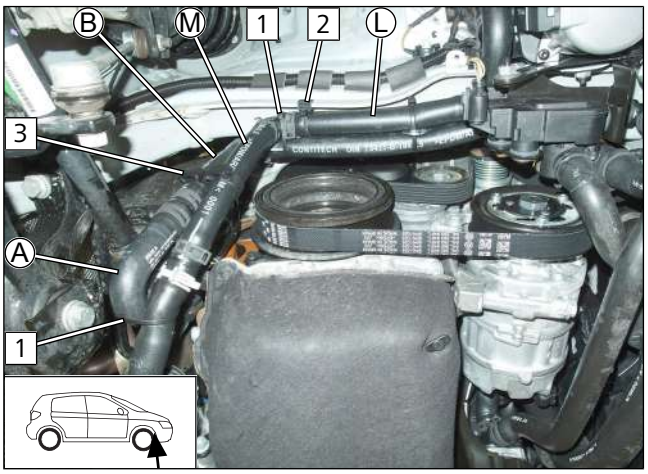


Fig. 87

1 Cable tie
2 Edge clip cable tie
3 Closable hose bracket

11 Exhaust

Sticking on heat shield

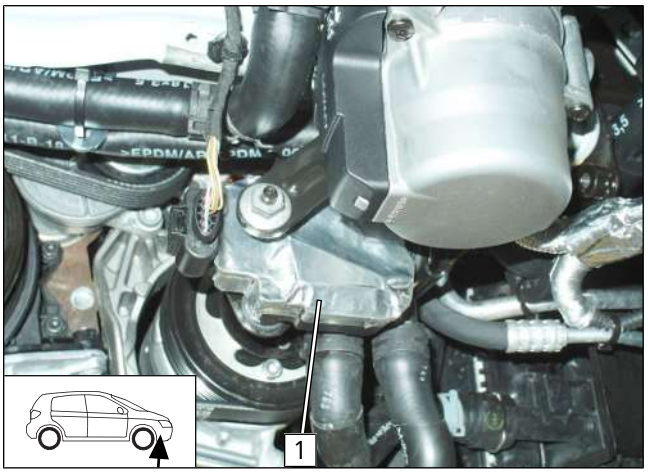


Fig. 88

▶ Apply self-adhesive heat shield to original vehicle 3-way valve 1 as shown.

Preparing perforated bracket

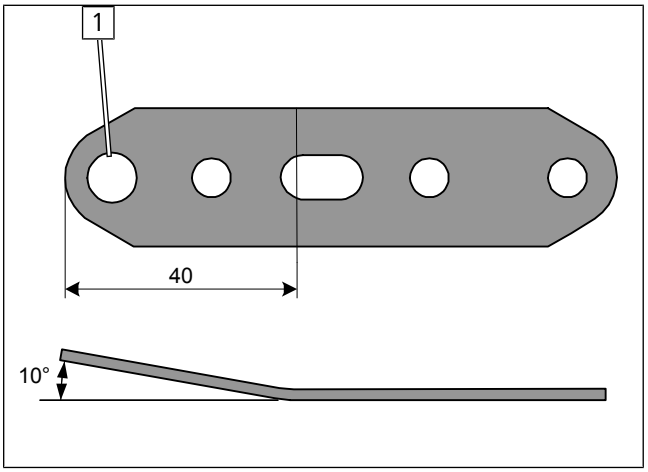


Fig. 89

1 Drill hole to Ø8.5

Premounting exhaust silencer

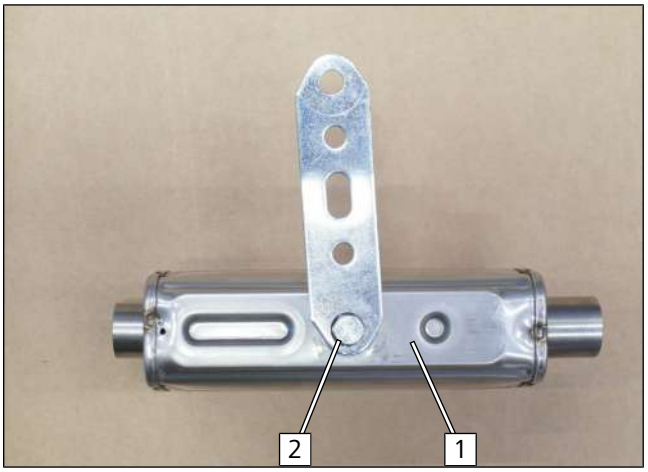


Fig. 90

1 Exhaust silencer

2 M6x16 bolt, spring lockwasher, perforated bracket

Mounting exhaust silencer

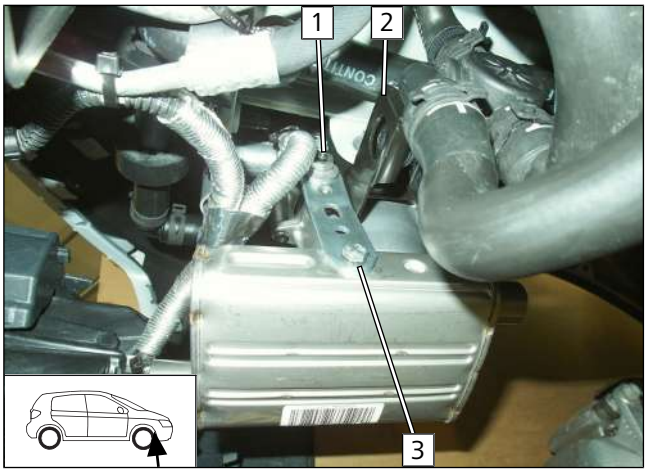


Fig. 91

1 Original vehicle nut
2 Original vehicle bracket
3 Premounted exhaust silencer

Cutting exhaust pipe to length

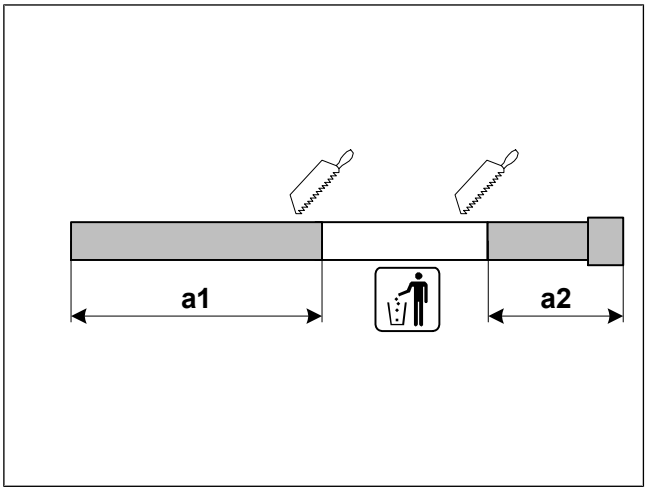


Fig. 92

a1	310
a2	190

Preparing exhaust pipe **a1**

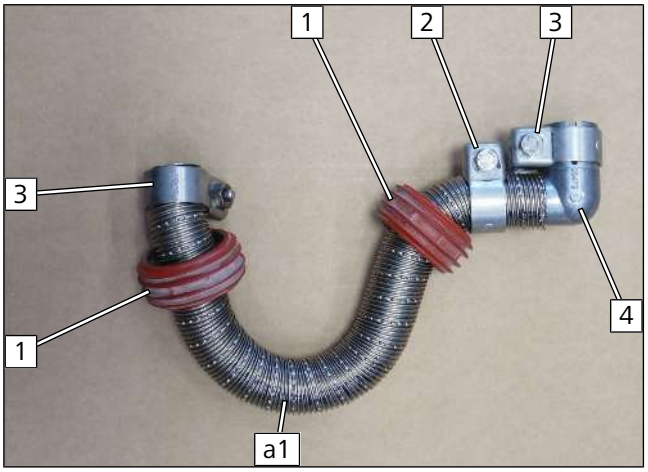


Fig. 93

▶ Bend exhaust pipe **a1** as shown.

1 ASH
2 Hose clamp
3 Mount hose clamp loosely
4 90° exhaust elbow

Preparing exhaust pipe **a2**

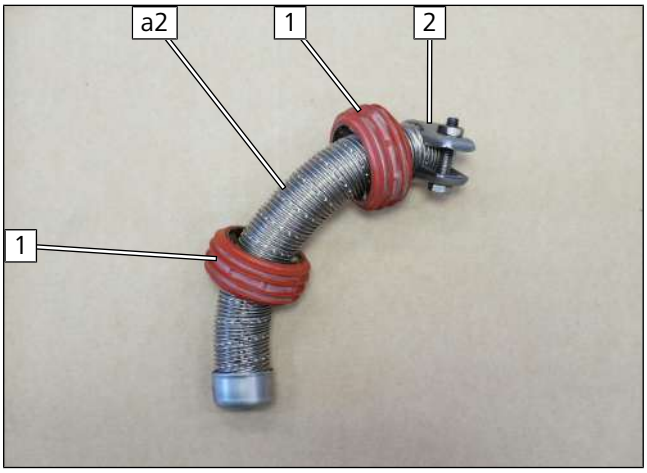


Fig. 94

▶ Bend exhaust pipe **a2** as shown.

1 ASH

2 Hose clamp

Installing exhaust pipe **a1**

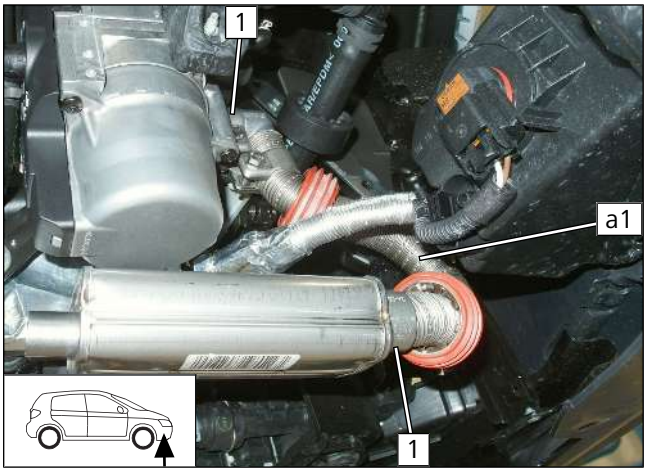


Fig. 95

Danger of damage to components

▶ Ensure sufficient distance between exhaust pipe **a1** and neighbouring components, correct if necessary.

1 Hose clamp

Mount exhaust pipe **a2**.

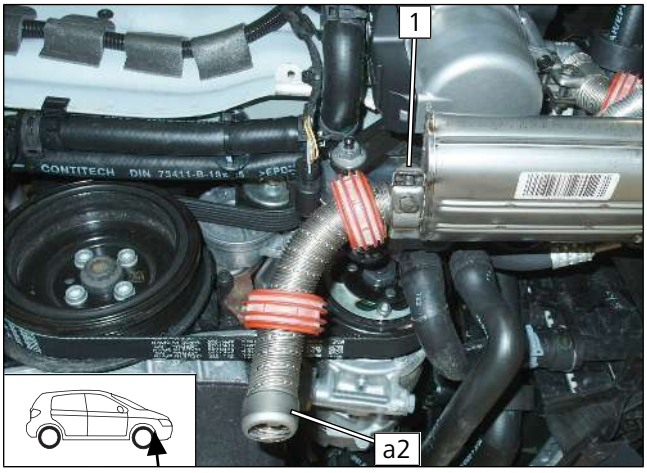


Fig. 96

1 Hose clamp

Aligning ASH

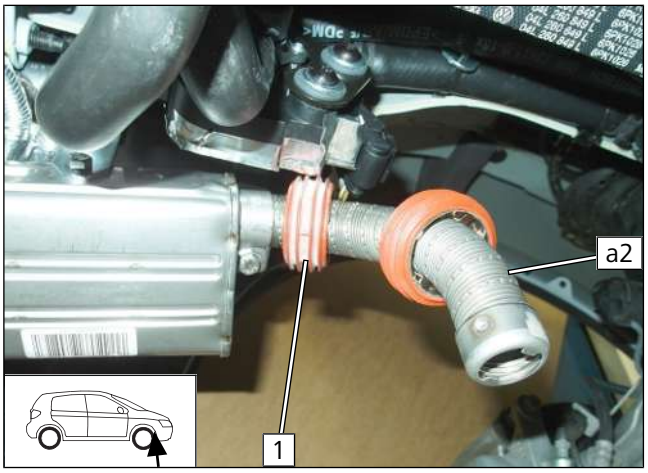


Fig. 97

Danger of damage to components

- ▶ Ensure sufficient distance between exhaust pipe **a2** and neighbouring components, correct if necessary.

1 ASH

12 Combustion air

Premounting cable tie

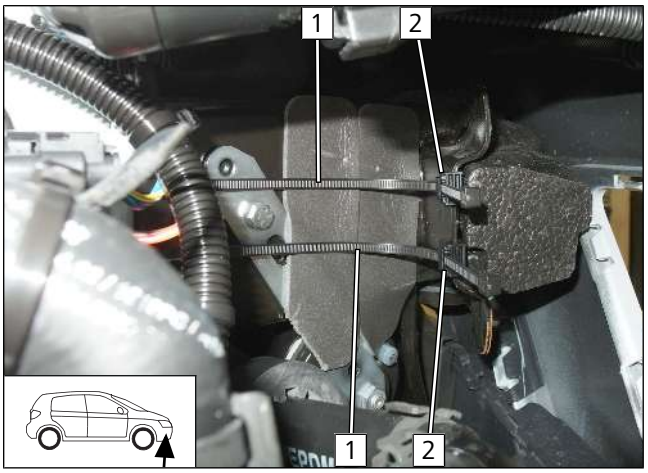


Fig. 98

▶ Pull provided longer cable tie **1** through premounted edge clip **2**.

Shortening combustion air pipe

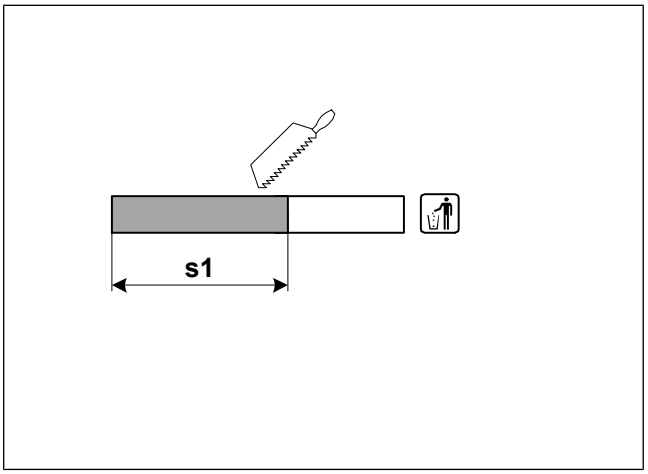


Fig. 99

s1	270

Mounting combustion air pipe **s1**

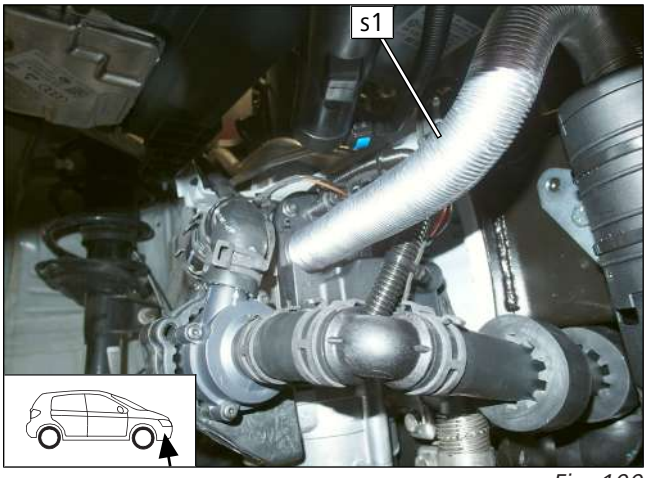


Fig. 100

Observe the installation instructions of the combustion air intake silencer.

Mounting combustion air silencer

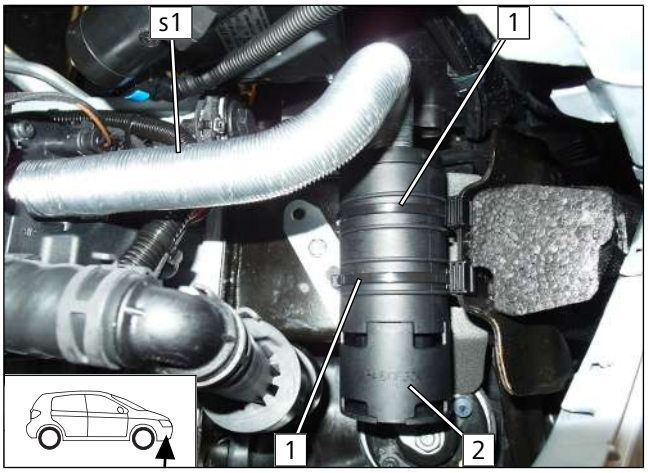


Fig. 101

1 Close cable tie
2 Combustion air silencer

13 Final work in engine compartment

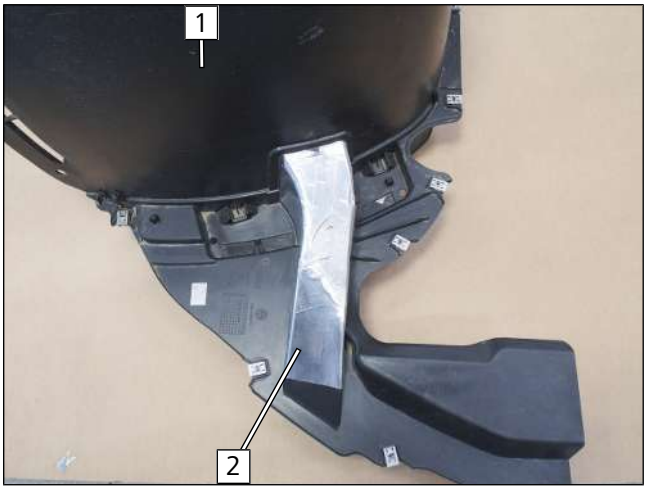


Fig. 102

▶ Glue heat protection film 2 on wheel-wall inner panel 1 as shown.

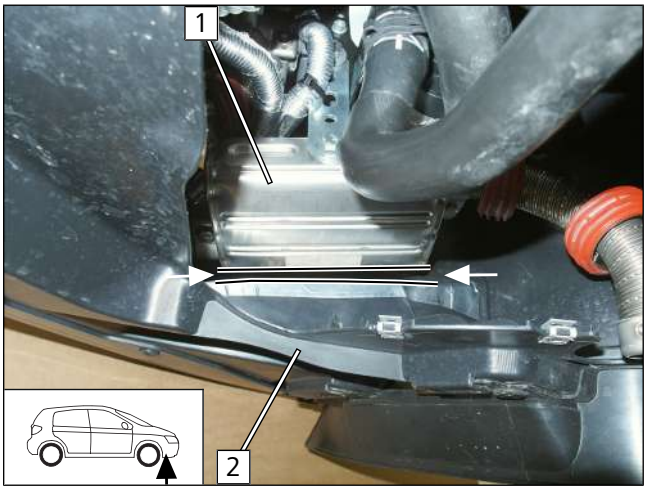


Fig. 103

Danger of damage to components

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

▶ Mount wheel-well inner panel 2.

▶ Align exhaust silencer 1 parallel to wheel-well inner panel 2.

Aligning spring clips

Fig. 104

Danger of damage to components

▶ Align spring clip lock 2 as shown.

1 Wheel-well inner panel

Aligning exhaust outlet

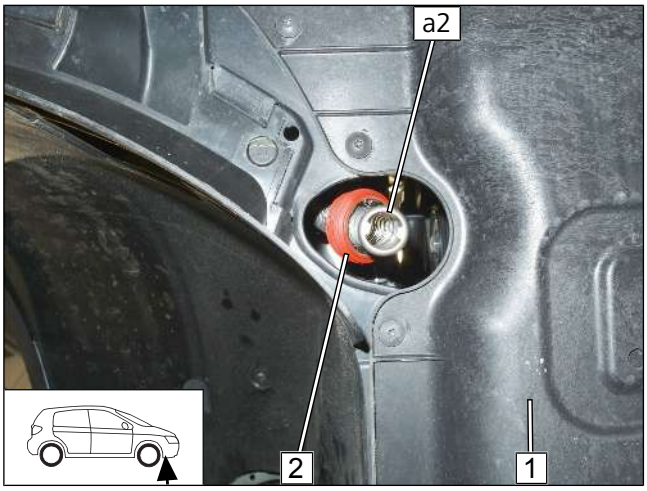


Fig. 105

- ▶ Mount underride protection **1**.
- ▶ Align ASH **2** and **a2** 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

15.1 MultiControl CAR option

Mounting MultiControl CAR

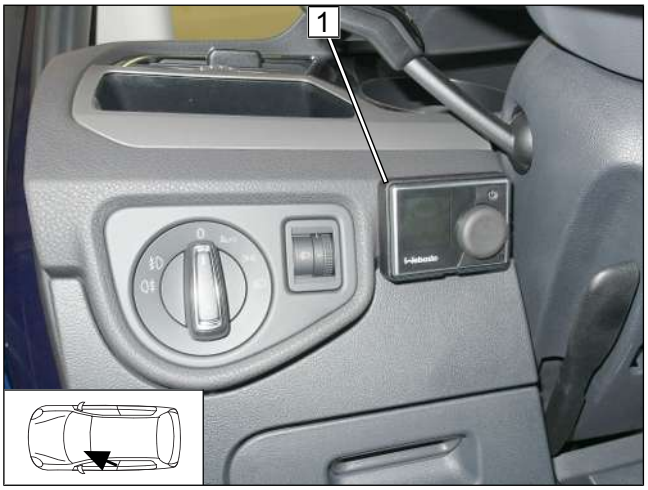


Fig. 106

1 MultiControl CAR

15.2 Telestart option

Mounting receiver

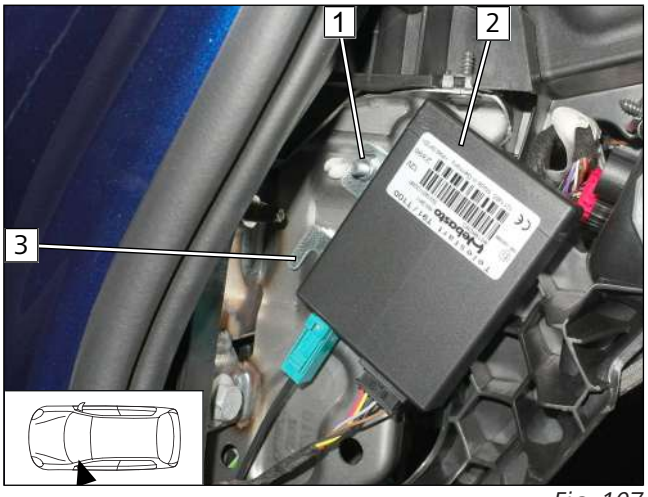


Fig. 107

Observe the Telestart installation documentation.

1 M5x16 bolt, large diameter washer, existing hole, Telestart receiver bracket, nut

2 ReceiverTelestart

3 Telestart receiver bracket

Mounting temperature sensor, only in case of T100 HTM

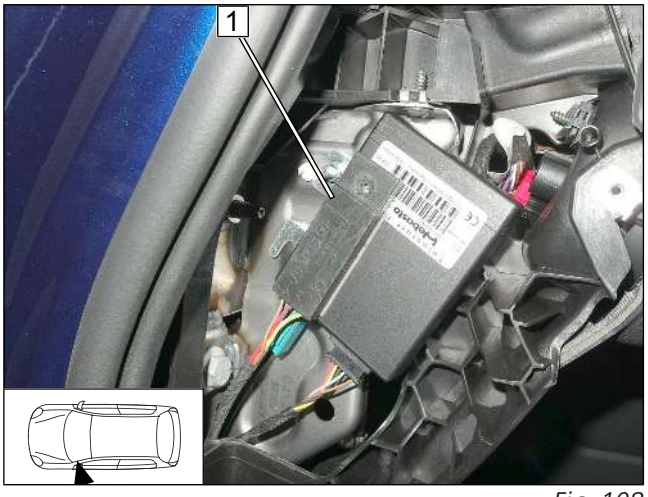


Fig. 108

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

Mounting aerial

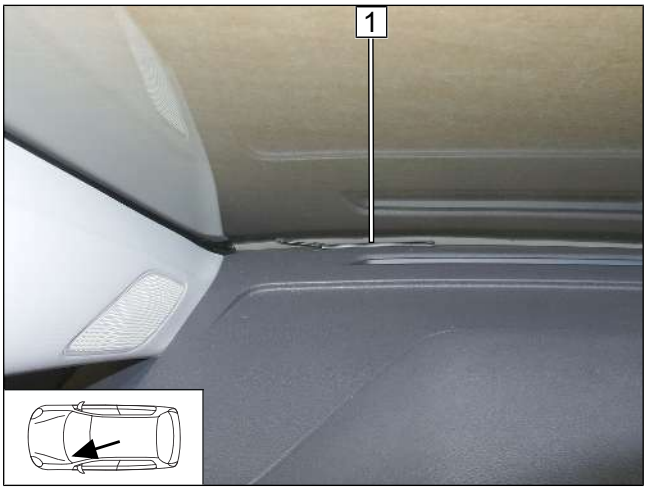


Fig. 109

1 Aerial

15.3 ThermoCall option

Mounting receiver

Fig. 110

Observe the ThermoCall installation documentation.

▶ Fasten receiver 1 using double-sided adhesive tape.

Mounting aerial (optional)

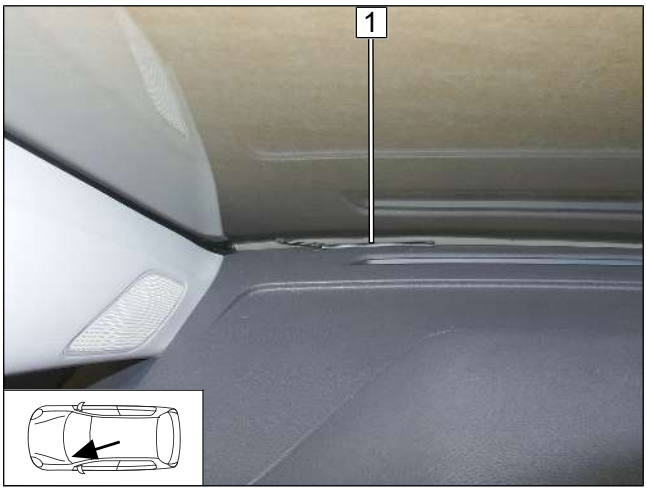


Fig. 111

1 Aerial

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

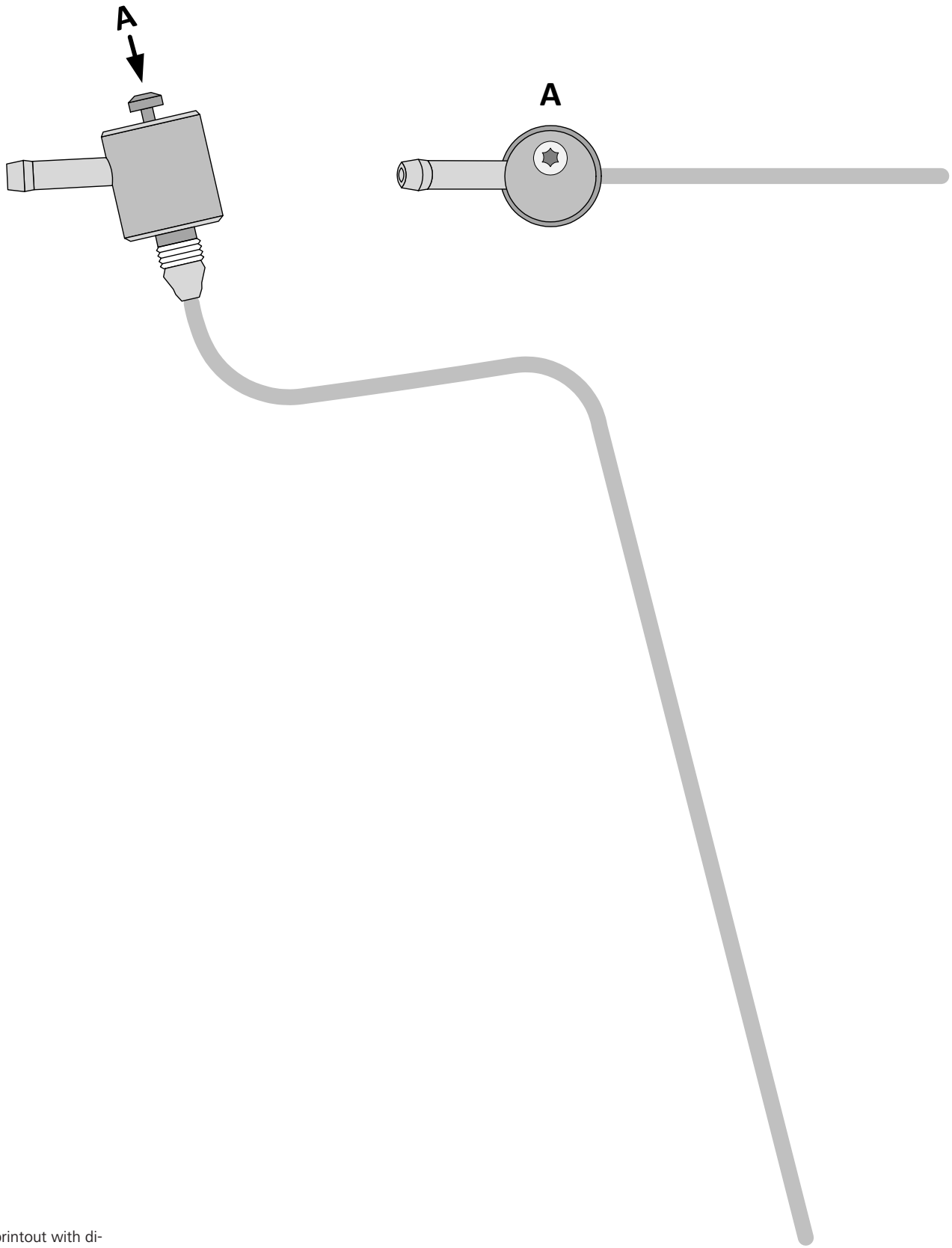
Company address:
Friedrichshafener Str. 9
82205 Gilching
Germany

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

CE

WWW.WEBASTO.COM

16 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.