Water Heater

Thermo Top Evo Parking Heater

E1
00 0258

With FuelFix

Installation Documentation
Ford Mondeo / S-Max / Galaxy (CD 4)

Validity

Manufacturer	Model	Type	EG BE No. / ABE
Ford	Mondeo	BA7	e13 * 2001 / 116 * 0249 *..

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
2.0 TDCi	Diesel	AG / SG	110	1997	T7CE
2.0 TDCi	Diesel	AG / SG	132	1997	T8CC
2.0 TDCi Biturbo	Diesel	AG	154	2000	T9CA
1.5 EcoBoost	Petrol	AG / SG	118	1499	UNCA / UNCB / UNCE / UNCF
2.0 EcoBoost	Petrol	AG / SG	177	1997	R9CB / R9CF / R9CH

SG = manual transmission
AG = automatic transmission

Manufacturer	Model	Type	EG BE No. / ABE
Ford	S-Max / Galaxy	WA 6	e13 * 2001 / 116 * 0185 *..

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
2.0 TDCi	Diesel	AG / SG	110	1997	T7CE
2.0 TDCi	Diesel	AG / SG	132	1997	T8CC
2.0 TDCi Biturbo	Diesel	ASG	154	2000	T9CB / T9CC
1.5 EcoBoost	Petrol	AG / SG	118	1499	UNCA / UNCB / UNCE / UNCF
2.0 EcoBoost	Petrol	AG / SG	177	1997	R9CB / R9CF / R9CH

SG = manual transmission
AG = automatic transmission
ASG = Semi-automatic transmission

From model year 2015
Left-hand drive vehicle

Verified equipment variants: Automatic air-conditioning
2WD / 4WD
Start - Stop
Euro 6

Not verified: Passenger compartment monitoring

Total installation time: approx. 9 hours

Ford Mondeo / S-Max / Galaxy (CD 4)

Table of Contents

Necessary Components

- Basic delivery scope of Thermo Top Evo based on price list
- Installation kit with FuelFix for Ford Mondeo / S-Max / Galaxy (CD 4) 2015 Petrol and diesel: **1323974C**
- Additional kit ‘Webasto Standard’ A/C control for Ford Mondeo / S-Max / Galaxy (CD 4): **1324011**_
  or
  Additional kit ‘Webasto Comfort’ A/C control for Ford Mondeo / S-Max / Galaxy (CD 4): **1324050**_
- Heater control in accordance with price list and upon consultation with end customer
- In case of Telestart, indicator lamp in accordance with price list and in consultation with end customer
- In case of MultiControl CAR installation: MultiControl installation frame: **9030077**_

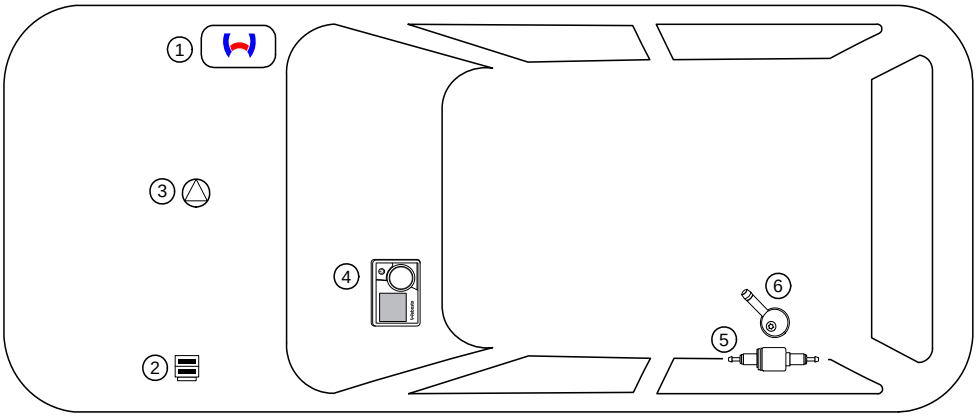
Installation instructions:

- Arrange for the vehicle to be delivered with the tank only about ¼ full.
- The installation location of the push button in case of Telestart or ThermoCall should be confirmed with the end customer.
- Depending on the space required and the vehicle manufacturer's instructions, we recommend the use of a vehicle battery with a higher electrical capacity.

Installation Overview

Legend:

1. Heater
2. Engine compartment fuse holder
3. Circulating pump
4. MultiControl CAR
5. Metering pump
6. FuelFix



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.

Ford Mondeo / S-Max / Galaxy (CD 4)

Information on Operating and Installation Instructions

1 Important information (not complete)

1.1 Installation and repair

The improper installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide, leading to serious injury or death.

To install and repair Webasto heating and cooling systems you need to have completed a special company training course and have the appropriate technical documentation, special tools and special equipment.

Installation and repair may ONLY be carried out by persons trained and certified in a Webasto training course. NEVER try to install or repair Webasto heating or cooling systems if you have not completed a Webasto training course, you do not have the necessary technical skills and you do not have the technical documentation, tools and equipment available to ensure that you can complete the installation and repair work properly.

Only use genuine Webasto parts. See the Webasto air and water heaters accessories catalogue for this purpose.

1.2 Operation

To ensure safe operation, we recommend having the heater checked every two years by an authorised Webasto dealer, especially when used over a long period and/or under extreme environmental conditions.

Do not operate the heater in closed rooms due to the danger of poisoning and suffocation.

Always switch off the heater before refuelling.

The heater may only be used with the prescribed fuel diesel (DIN EN 590) or petrol (DIN EN 228).

The heater may not be cleaned with a high-pressure cleaner.

1.3 Please note

ALWAYS follow all Webasto installation and operating instructions and observe all warnings.

To become familiar with and understand all functions and properties of the heater, the operating instructions must be read carefully and observed at all times.

For proper, safe installation and repair work, the installation instructions with all warnings and safety information must be carefully read and observed at all times. Please always contact a workshop authorised by Webasto for all installation and repair work.

Important

Webasto shall assume no liability for defects, damage and injuries resulting from a failure to observe the installation, repair and operating instructions of the information contained in them.

This liability exclusion particularly applies to improper installations and repairs, installations and repairs by untrained persons or in the case of a failure to use genuine spare parts.

The liability due to culpable disregard to life, limb or health and due to damage or injuries caused by a wilful or reckless breach of duty remain unaffected, as does the obligatory product liability.

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties. Insulate loose wire ends and tie back. Connectors on electronic components have to audibly click into place during installation.

Sharp edges should be fitted with rub protection. Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K).

Observe the instructions and guidelines of the respective vehicle manufacturer for demounting and mounting vehicle specific components!

The initial startup is to be executed with the Webasto Thermo Test Diagnosis.

When installing a programmable control module (e.g. a PWM Gateway), the corresponding settings must be checked or adjusted.

2 Statutory regulations governing installation

Guidelines	Thermo Top Evo
Heating Directive ECE R122	E1 00 0258
EMC Directive ECE R10	E1 04 5627

Note

The regulations of these guidelines are binding in the scope of the Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries in which there are no special regulations.

Important

Failure to follow the installation instructions will result in the invalidation of the type approval for the heater and therefore invalidation of the general **homologation of the vehicle**.

Note

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

2.1 Excerpt from ECE regulation 122 (heating system) paragraph 5 for the installation of the heater

Beginning of excerpt.

ANNEX VII

REQUIREMENTS FOR COMBUSTION HEATERS AND THEIR INSTALLATION

1. GENERAL REQUIREMENTS

1.7.1. A clearly visible tell-tale in the operator's field of view shall inform when the combustion heater is switched on or off.

2. VEHICLE INSTALLATION REQUIREMENTS

2.1. Scope

2.1.1. Subject to paragraph 2.1.2. combustion heaters shall be installed according to the requirements of this Annex.

2.1.2. Vehicles of category O having liquid fuel heaters are deemed to comply with the requirements of this Annex.

2.2. Positioning of heater

2.2.1. Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination.

2.2.2. The combustion heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be fulfilled if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields.

2.2.3. In the case of M2 and M3 vehicles, the heater must not be positioned in the passenger compartment. However, an installation in an effectively sealed envelope which also complies with the conditions in paragraph 2.2.2 may be used.

2.2.4. The label referred to in paragraph 1.4 or a duplicate, must be positioned so that it can be easily read when the heater is installed in the vehicle.

2.2.5. Every reasonable precaution should be taken in positioning the heater to minimise the risk of injury and damage to personal property.

2.3. Fuel supply

2.3.1. The fuel filler must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage.

2.3.2. In the case of liquid fuel heaters, where a supply separate to that of the vehicle is provided, the type of fuel and its filler point must be clearly labelled.

2.3.3. A notice, indicating that the heater must be shut down before refuelling, must be affixed to the fuelling point. In addition a suitable instruction must be included in the manufacturer's operating manual.

2.4. Exhaust system

2.4.1. The exhaust outlet must be located so as to prevent emissions from entering the vehicle through ventilators, heated air inlets or opening windows.

2.5. Combustion air inlet

2.5.1. The air for the combustion chamber of the heater must not be drawn from the passenger compartment of the vehicle.

2.5.2. The air inlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

2.6. Heating air inlet

2.6.1. The heating air supply may be fresh or recirculated air and must be drawn from a clean area not likely to be contaminated by exhaust fumes emitted either by the propulsion engine, the combustion heater or any other vehicle source.

2.6.2. The inlet duct must be protected by mesh or other suitable means.

2.7. Heating air outlet

2.7.1. Any ducting used to route the hot air through the vehicle must be so positioned or protected that no injury or damage could be caused if it were to be touched.

2.7.2. The air outlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

End of excerpt.

In multilingual versions the German language is binding.

Ford Mondeo / S-Max / Galaxy (CD 4)

Information on Validity

This installation documentation applies to Ford Mondeo / S-Max / Galaxy (CD 4) Petrol and diesel vehicles - for validity, see page 1 - from model year 2015 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this 'installation documentation'.

Vehicle and engine types, equipment variants and other specifications not listed in this installation documentation have not been tested. However, installation according to this installation documentation may be possible.

Technical Information

Special Tools
- Hose clamp pliers for auto-tightening hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Automatic wire stripper, 0.2 - 6mm²
- Crimping pliers for cable lug / tab connector, 0.5 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Deep-hole marker
- Webasto Thermo Test Diagnosis with current software

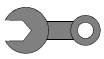
Dimensions
- All dimensions are in mm.

Tightening torque values
- Tightening torque values of 5x13 heater bolts and 5x11 heater stud bolts = 8Nm.
- Tightening torque value of 5x15 water connection piece retaining plate bolt = 7Nm.
- Tighten other bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art-technology.

Explanatory Notes on Document

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

Mechanical System



Electrical System

Coolant Circuit

Combustion Air

Fuel

Exhaust Gas

Software

Special features are highlighted using the following symbols:

Specific risk of damage to components.

Specific risk due to electrical voltage.

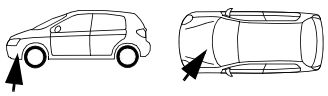
Specific risk of injury or fatal accidents.

Specific risk of fire or explosion.

Reference to the manufacturer's vehicle-specific documents or to the general installation instructions of Webasto components.

Reference to a special technical feature.

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



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

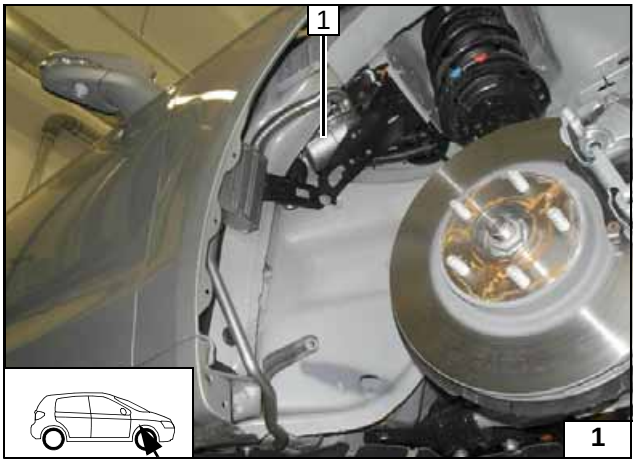
Preliminary Work

Vehicle

- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Completely remove the air filter box.
- Disconnect and remove the battery together with the battery carrier.
- Remove the windscreen wipers.
- Remove the brake fluid container and put it aside (Galaxy only).
- Remove the engine control unit on the right.
- Remove the cover of the coolant reservoir and the coolant reservoir.
- Remove the front underride protection (to drain the coolant).
- Remove the engine underride protection.
- Remove the left underbody protection.
- Remove the fuel tank underbody protection on the right and left.
- Remove the right front wheel.
- Remove the right wheel-well inner panel.
- Lower the exhaust pipe and middle silencer.
- Remove the fuel tank according to the manufacturer's instructions.
- Remove the lower footwell trim on the front passenger's side (only in case of Telestart and/or ThermoCall).
- Remove the trim strip and air outlet trim above the glove box (only in case of Telestart and/or ThermoCall).
- Remove the glove box (only in case of Telestart and/or ThermoCall).

Heater

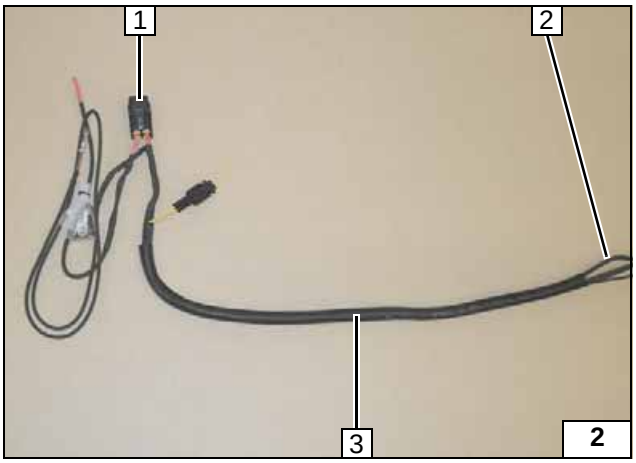
- Remove years that do not apply from the type and duplicate label.
- Attach the duplicate label (type label) visibly in the appropriate place in the engine compartment.



Heater Installation Location

1 Heater

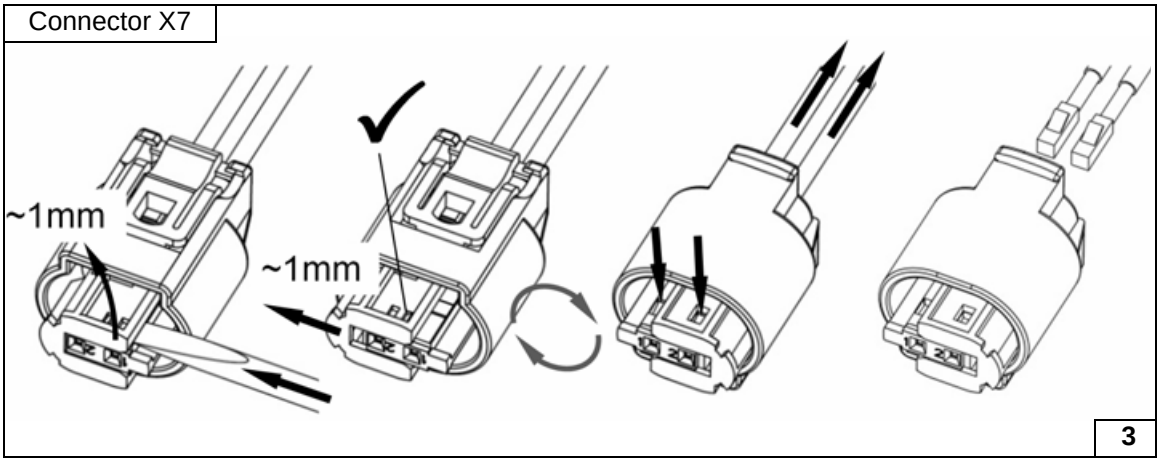
Installation location



Preparing Electrical System

1 Fuses F1-2
2 Wiring harnesses of heater and heater control
3 13mm dia., 700 long slit open corrugated tube

Pulling wiring harnesses into corrugated tube

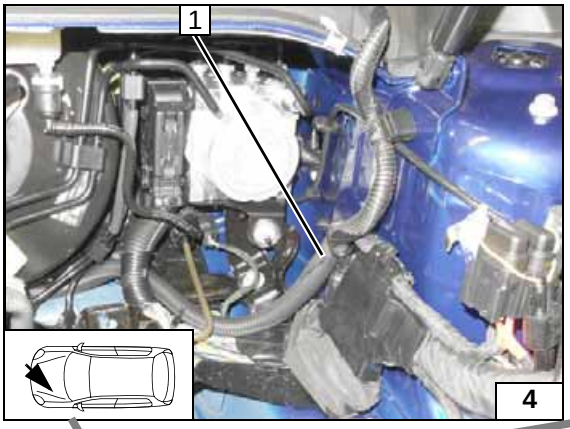


Dismantling metering pump connector

Electrical System

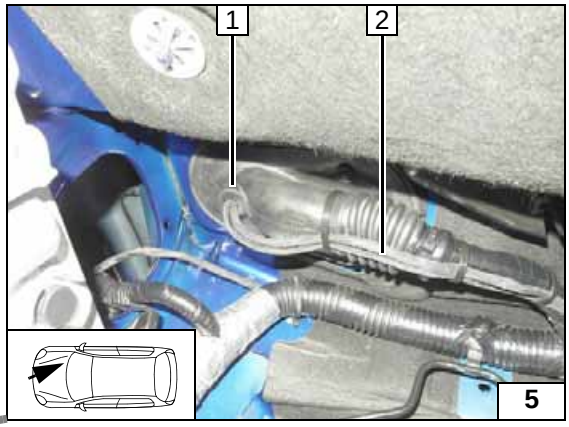
Wiring Harness Routing

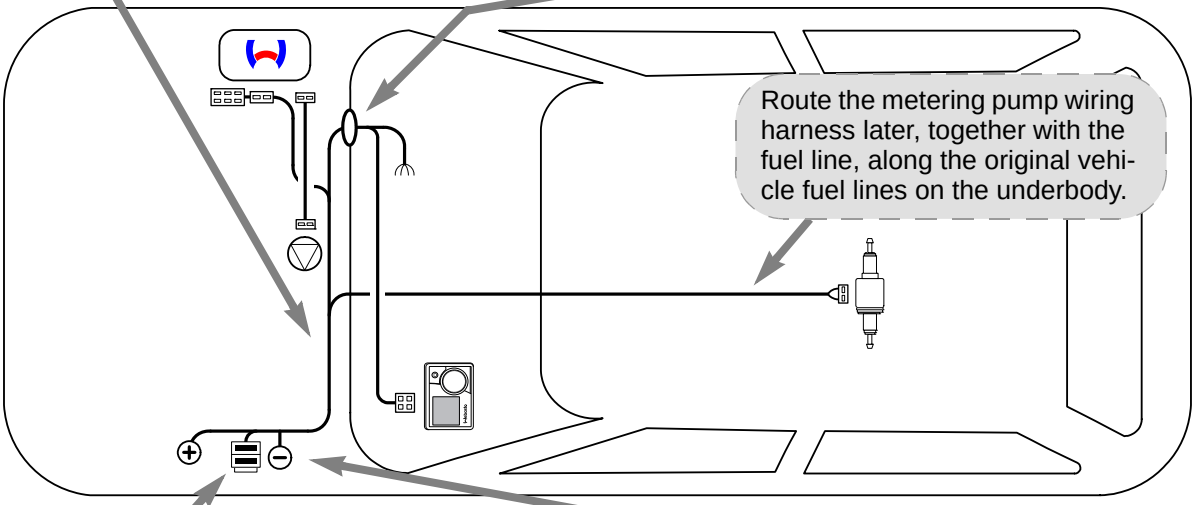
1 Wiring harnesses of heater, heater control in corrugated tube



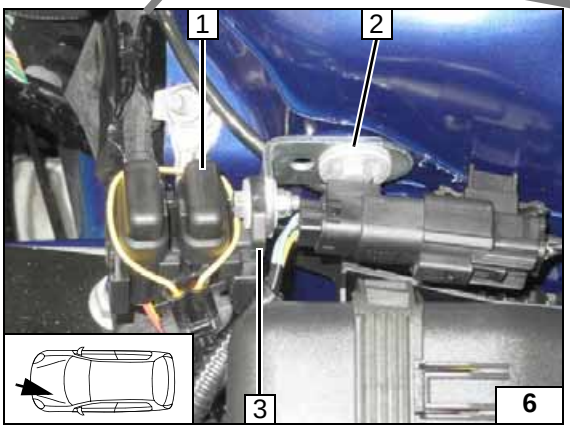
Wiring harness pass through

1 Protective rubber plug
2 Wiring harnesses of heater, heater control





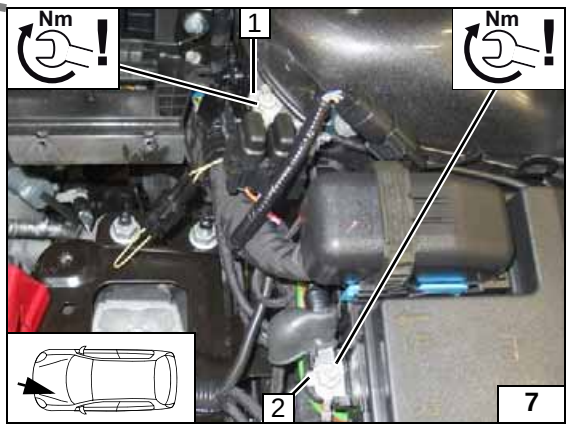
Wiring harness routing diagram



Engine compartment fuse holder

Replace 30A fuse F2 with 1A fuse only in case of 'Comfort' fan controller!

1 Fuses F1-2
2 M6x12 bolt, large diameter washer, original vehicle hole, flanged nut
3 M5x16 bolt, washer [2x], retaining plate of fuse holder, angle bracket, nut



Positive and earth wire

1 Earth wire on original vehicle earth support point
2 Positive wire on positive distributor

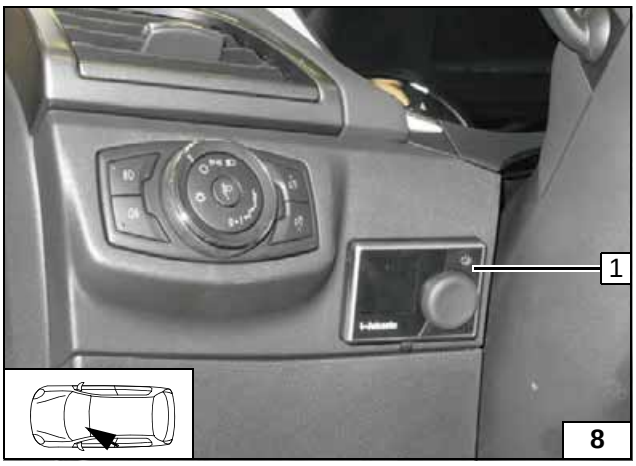
Air-Conditioning Control

! Connect the A/C control in accordance with the separate installation documentation:

Installation documentation **'Webasto Standard**' A/C control
for Ford Mondeo / S-Max / Galaxy (CD 4)

or

Installation documentation **'Webasto Comfort'** A/C control
for Ford Mondeo / S-Max / Galaxy (CD 4)

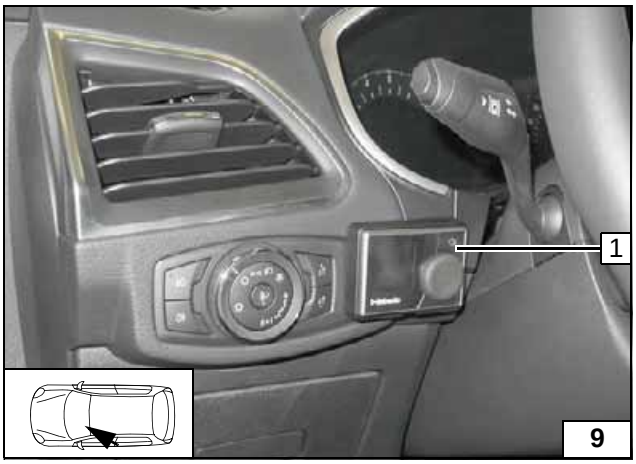


MultiControl CAR Option

Mondeo

1 MultiControl CAR

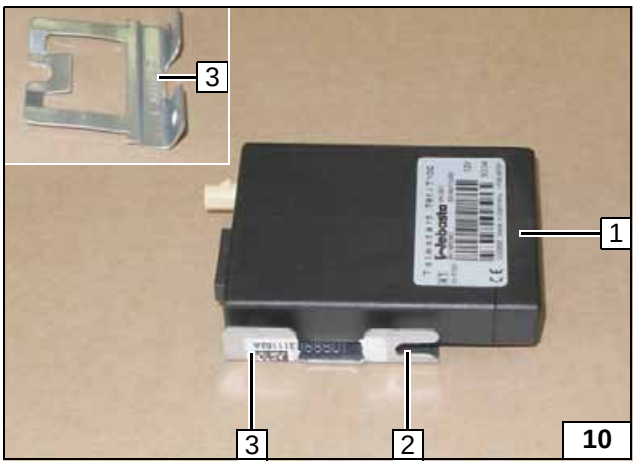
Installing MultiControl CAR



S-Max / Galaxy

1 MultiControl CAR with installation frame

Installing MultiControl CAR



Remote Option (Telestart)

All vehicles

Bend receiver bracket **3** as shown!

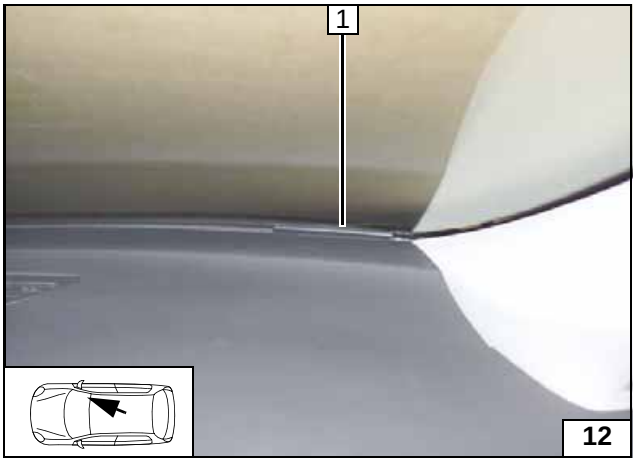
1 Receiver
2 Bracket with oblong hole

View of receiver with bracket

Mondeo

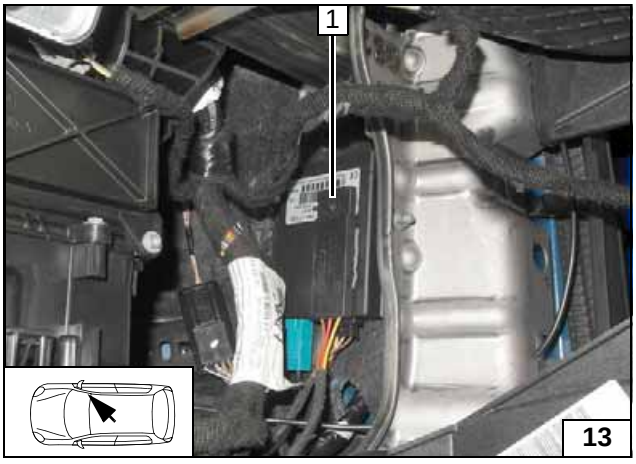
1 Receiver
2 Existing hole, M5x16 bolt, flanged nut

Installing receiver



1 Aerial

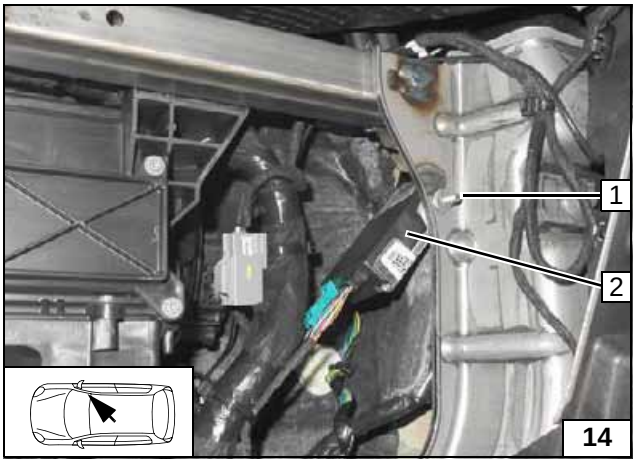
Installing aerial



Temperature sensor T100 HTM

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

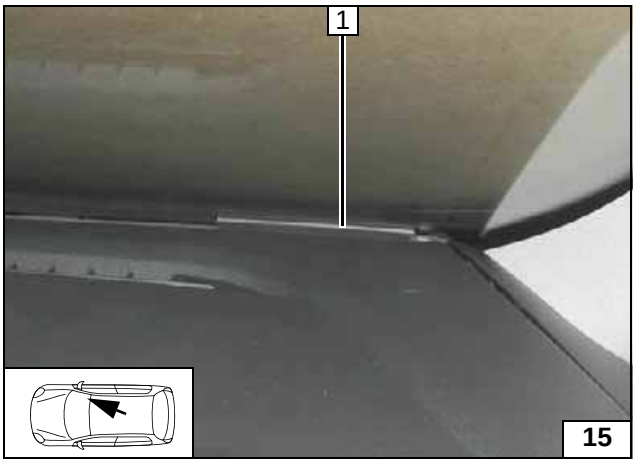
Installing temperature sensor



S-Max / Galaxy

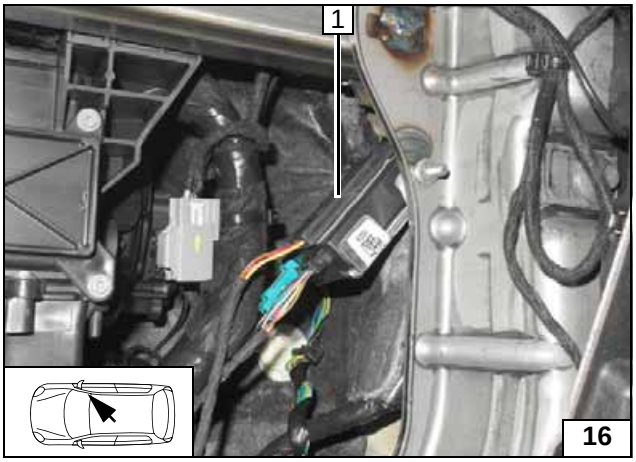
1 M5x16 bolt, existing hole, flanged nut
2 Receiver

Installing receiver



1 Aerial

Installing aerial



Temperature sensor T100 HTM

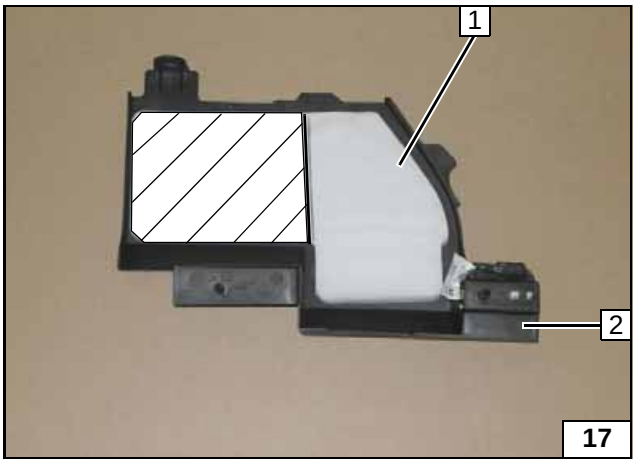
Fasten temperature sensor **1** with double-sided adhesive tape.

Installing temperature sensor

ThermoCall Option

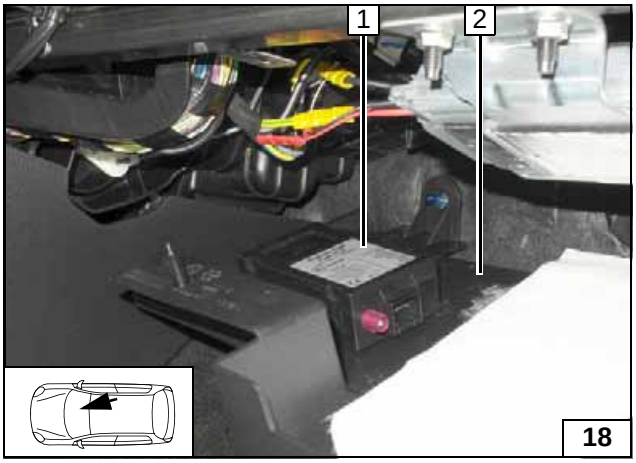
All vehicles

Shown on Mondeo!



1 Insulation mat
2 Front passenger's side footwell trim

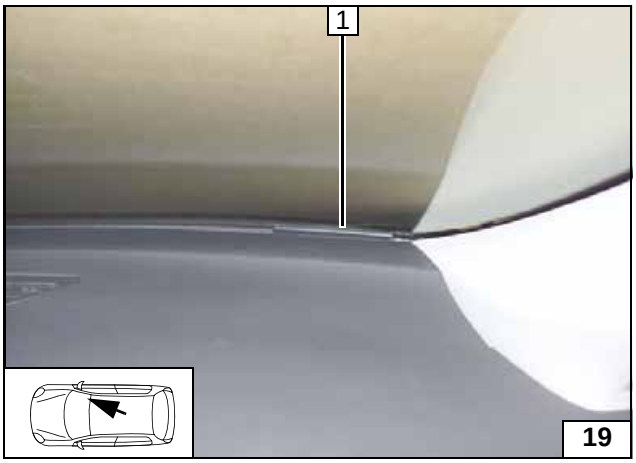
Removing insulation mat in shaded area



Position receiver **1** in front of fastening, ensure freedom of movement and fasten with double-sided adhesive tape.

2 Footwell trim

Installing receiver



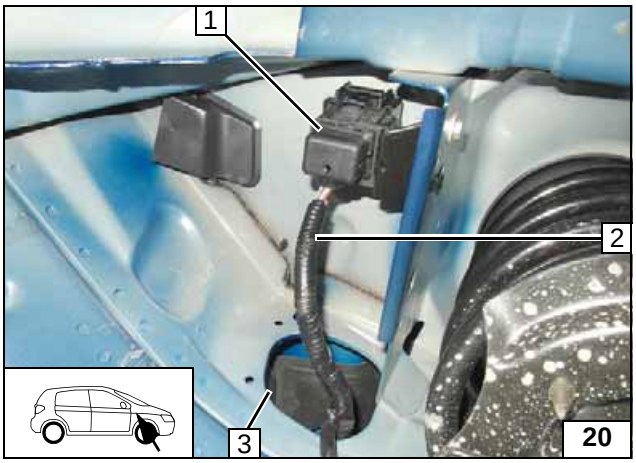
1 Aerial (optional)

Installing aerial

Preparing Installation Location

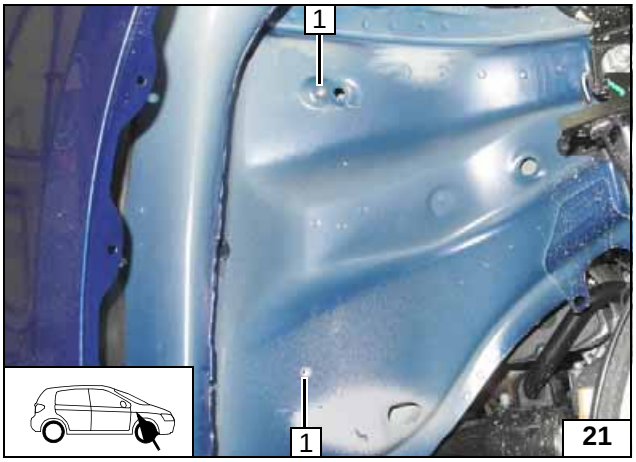
Remove original vehicle relay **1** and route with wiring harness **2** through opening **3** in the engine compartment.

Removing original vehicle relay



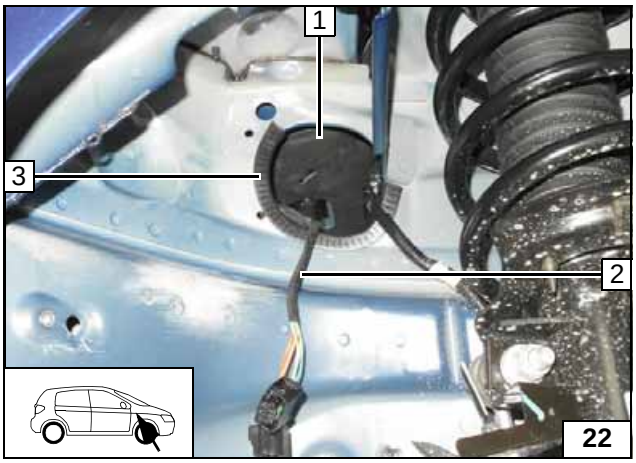
1 Rivet nut, existing hole [2x each]

Installing rivet nuts



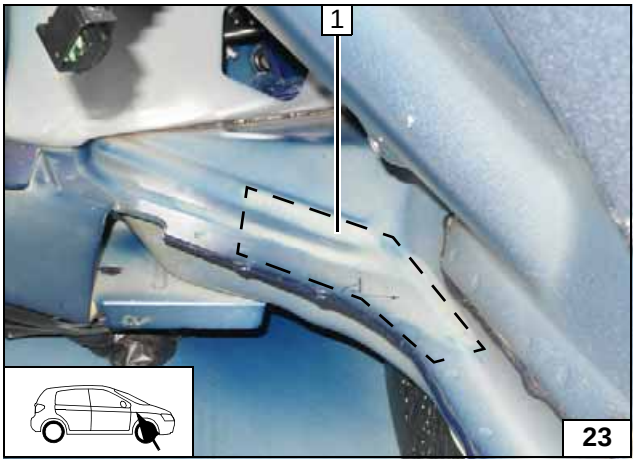
1 Pass through
2 Heater wiring harness
3 Edge protection

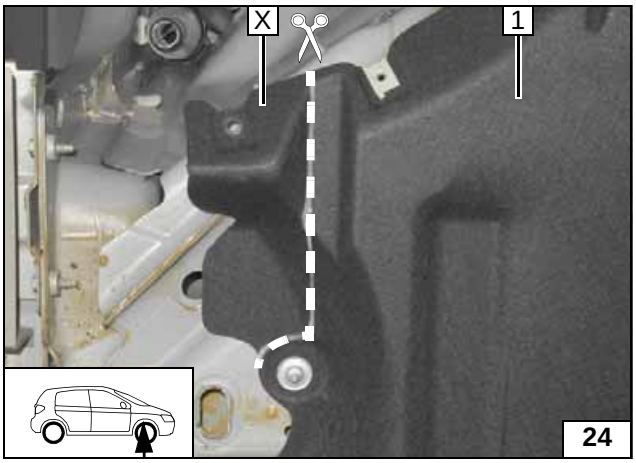
Routing heater wiring harness



1 Area for fastening adhesive base

Cleaning body surface



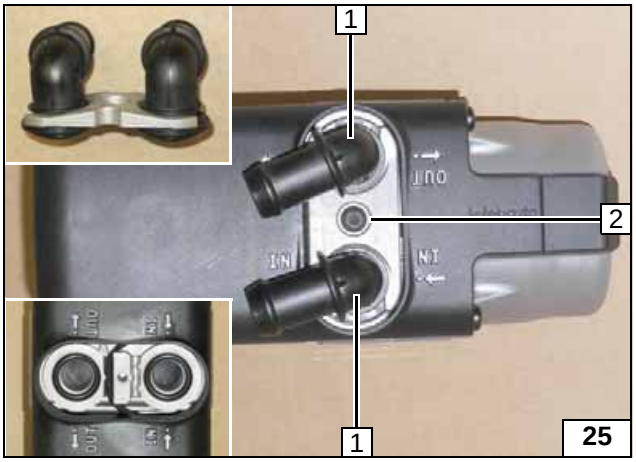


When not cut off at the factory.

1 Underbody protection

X =

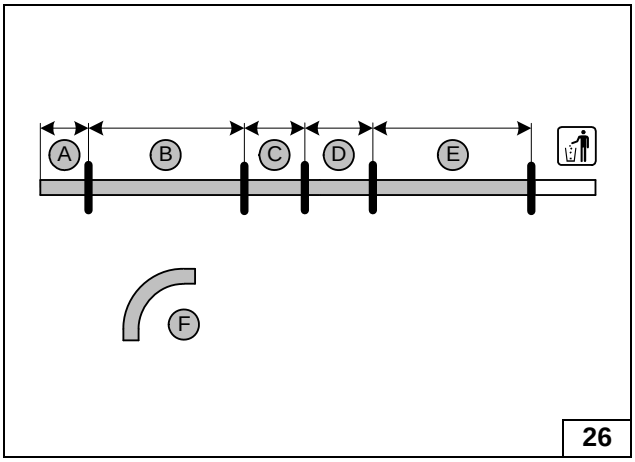
Cutting out underbody protection



Preparing Heater

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

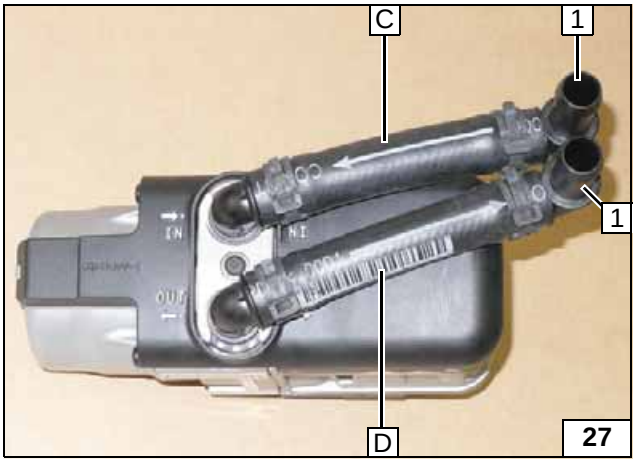
Installing water connection piece



All vehicles except 2.0 TDCi 154 kW

A = 60
B = 500
C = 130
D = 130
E = 500
F = 90°, 15x18mm dia.

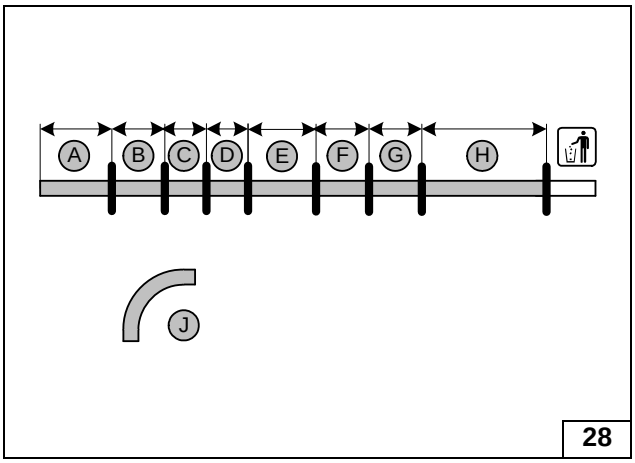
Cutting hoses to length



All spring clips = 25 mm dia.

1 90°, 18x18mm dia. connecting pipe [2x]

Installing hoses

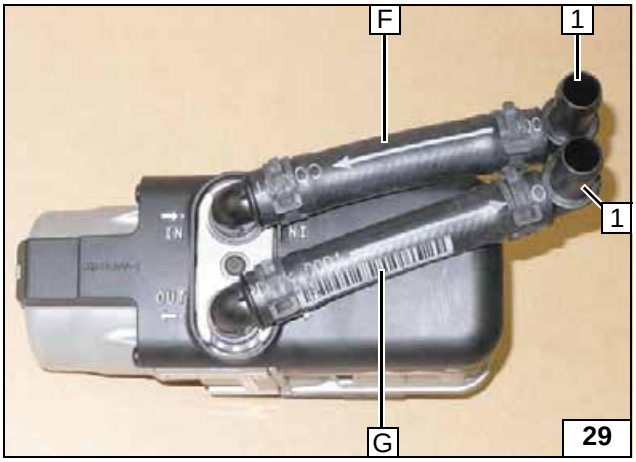


28

2.0 TDCi 154 kW only

A = 230
B = 120
C = 60
D = 60
E = 200
F = 130
G = 130
H = 500
J = 90°, 15x18mm dia.

Cutting hoses to length

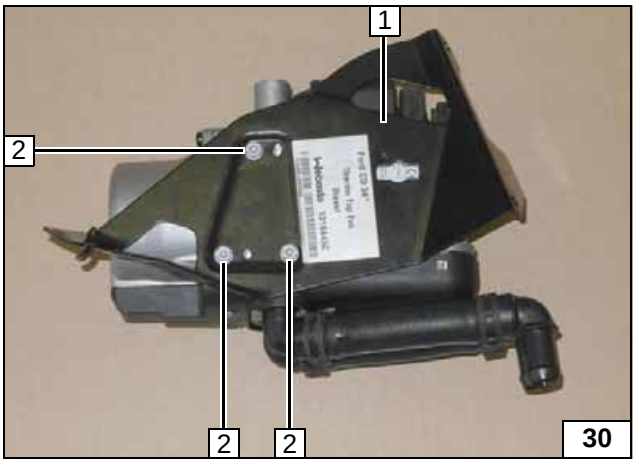


29

All spring clips = 25 mm dia.

1 90°, 18x18mm dia. connecting pipe [2x]

Installing hoses



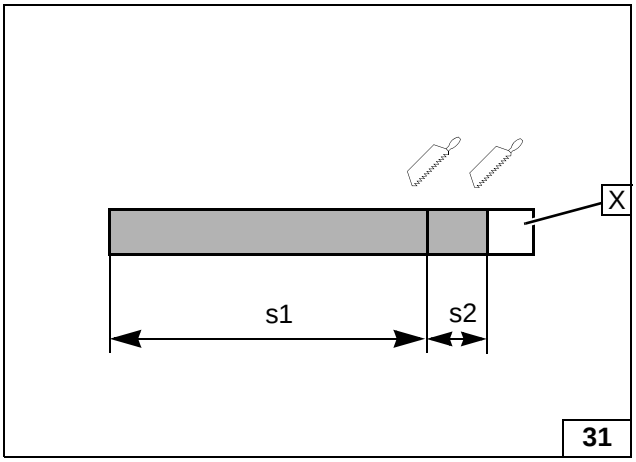
30

All vehicles

Screw 5x13 self-tapping bolts **2** [3x] into existing holes according to hole pattern of bracket.

1 Bracket

Installing bracket

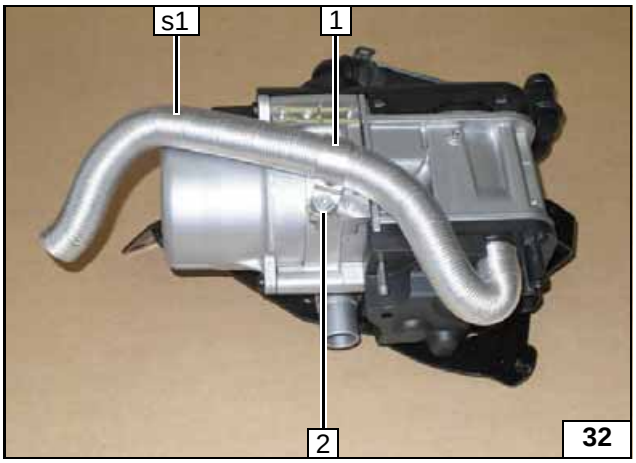


31

s1 = 400
s2 = 50

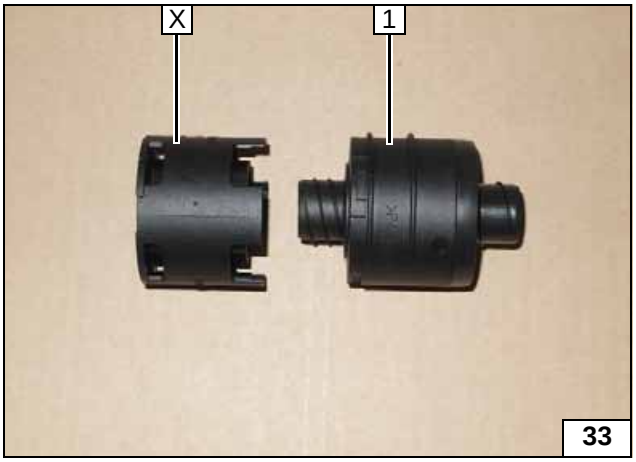
X =

Cutting combustion air pipe to length



1 25 mm dia. clamp
2 M5x13 self-tapping bolt in existing hole

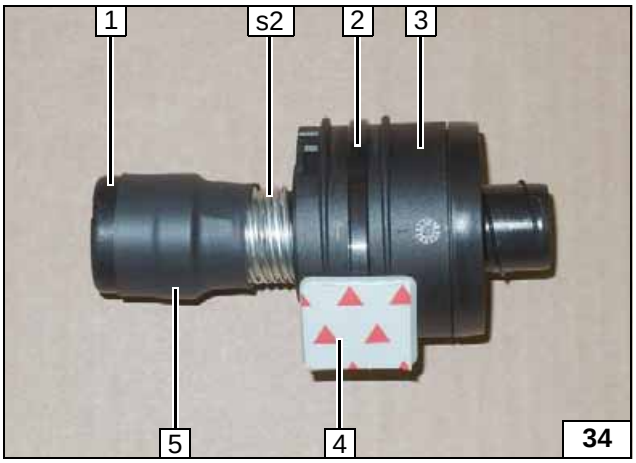
Installing combustion air pipe s1



1 Combustion air silencer

X = 

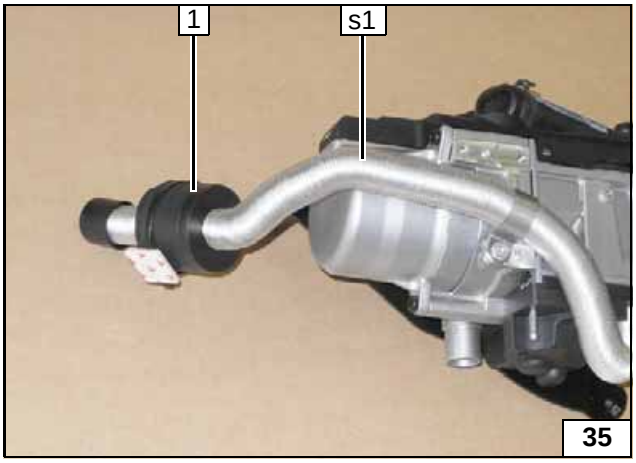
Preparing combustion air silencer



Fasten adhesive base **4** with cable tie **2** to combustion air silencer **3** as shown.

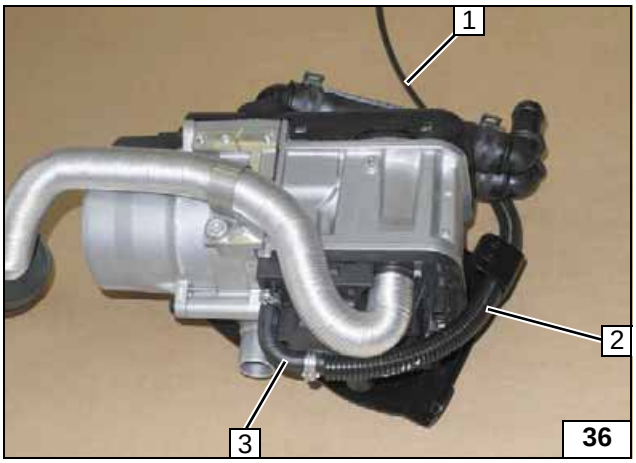
1 Protective cap
5 30 mm heat shrink plastic tubing

Premounting combustion air silencer



1 Combustion air silencer

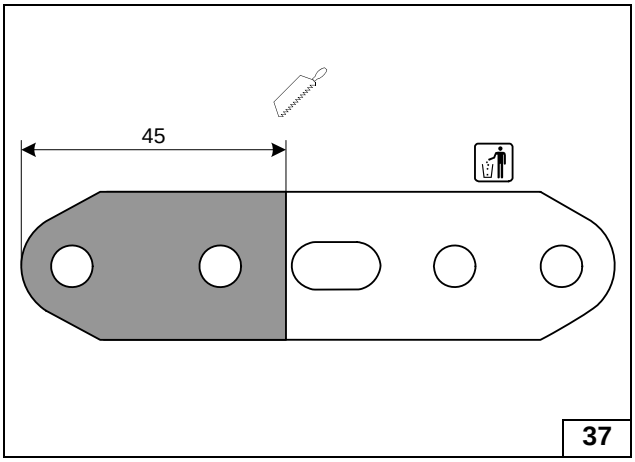
Installing combustion air silencer



10 mm dia., 300 mm long corrugated tube **2** onto fuel line **1**.

3 90° moulded hose, 10 mm dia. clamp [2x]

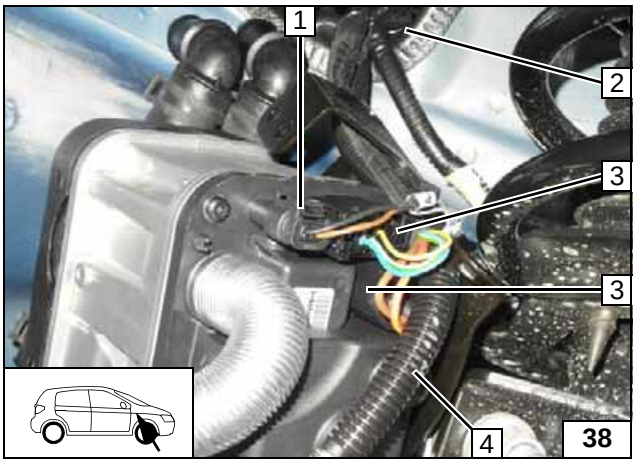
Installing fuel line



Only in case of heater installation version 2 (see following figures)!

Shortening perforated bracket

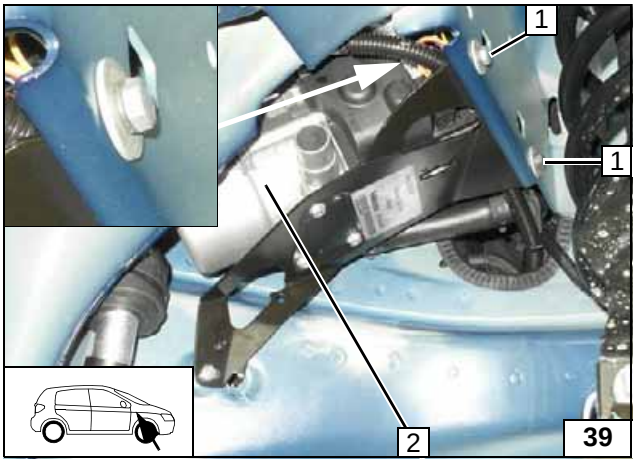
Installing Heater



Route corrugated tube with fuel line **4** through pass through **2** into the engine compartment.

1 Connector of circulating pump wiring harness
3 Heater wiring harness connector [2x]

Mounting wiring harnesses

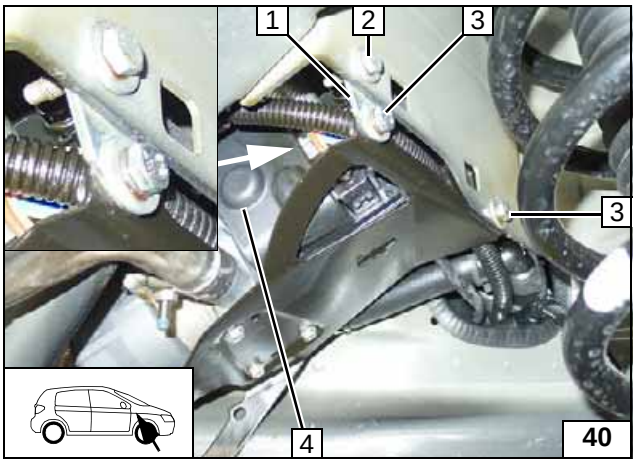


Version 1

Mount heater **2** as shown.

1 M6x16 bolt, spring lockwasher, large diameter washer [2x each], original vehicle hole

Installing heater

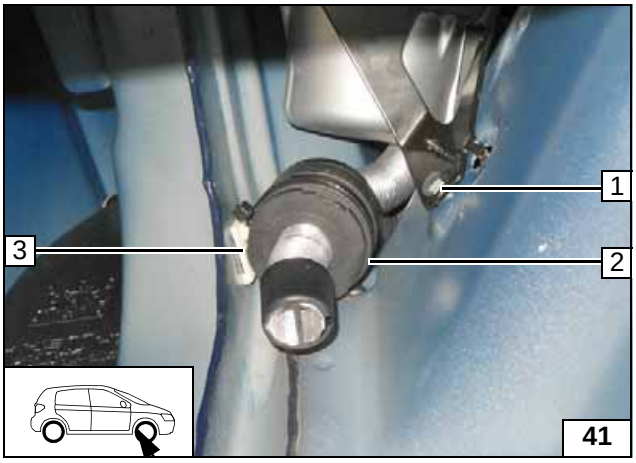


Version 2

Mount heater **4** as shown.

1 Perforated bracket
2 M6x20 bolt, large diameter washer, original vehicle hole, flanged nut
3 M6x16 bolt, spring lockwasher, large diameter washer [2x each], original vehicle hole

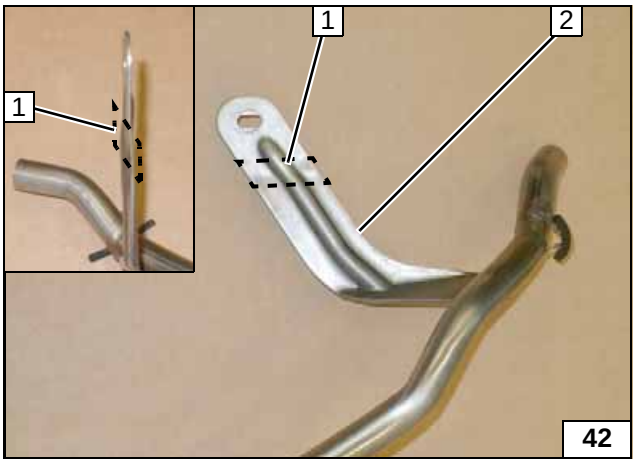
Installing heater



All vehicles

1 Mount M6x20 bolt, spring lockwasher, large diameter washer, loosely
2 Combustion air silencer
3 Adhesive base on cable tie

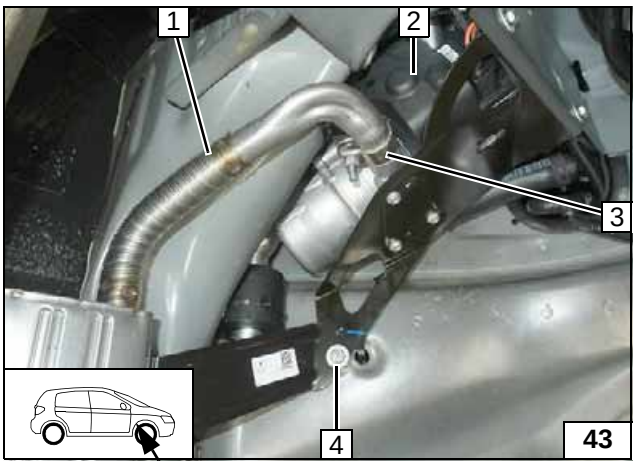
Fixing combustion air silencer with adhesive base



S-Max only

Straighten exhaust tube lug **2** in area **1** as shown.

Preparing exhaust tube

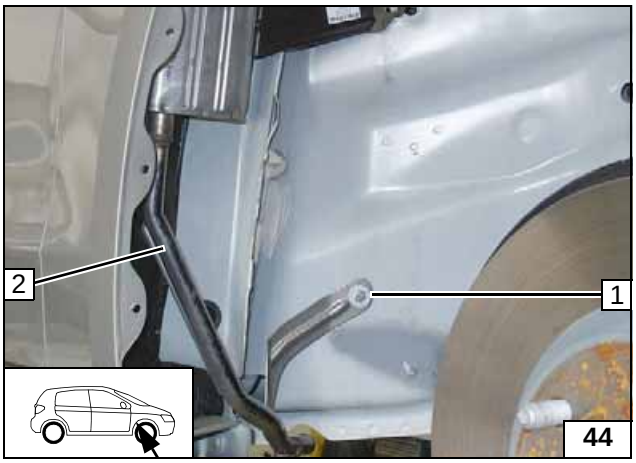


All vehicles

Install exhaust system **1** on heater **2** as shown.
Ensure sufficient distance from neighbouring components.

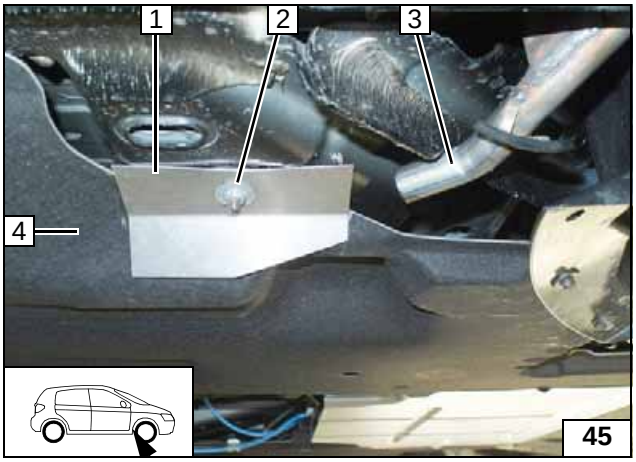
3 Hose clamp
4 M6x20 bolt, spring lockwasher, large diameter washer

Installing exhaust system



1 M6x20 bolt, spring lockwasher, large diameter washer
2 Exhaust system

Installing exhaust system



Install baffle plate **1** on vehicle underbody protection **4** (if present) as shown.

2 Original vehicle stud bolt, original vehicle plate nut
3 Exhaust tube

Installing baffle plate

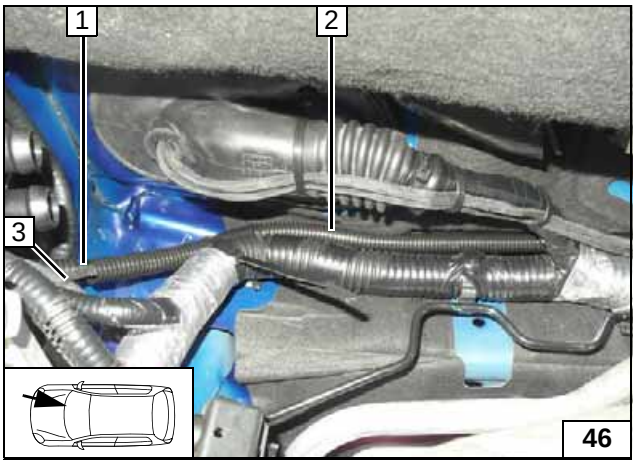
Fuel

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

Catch any fuel running off in an appropriate container.

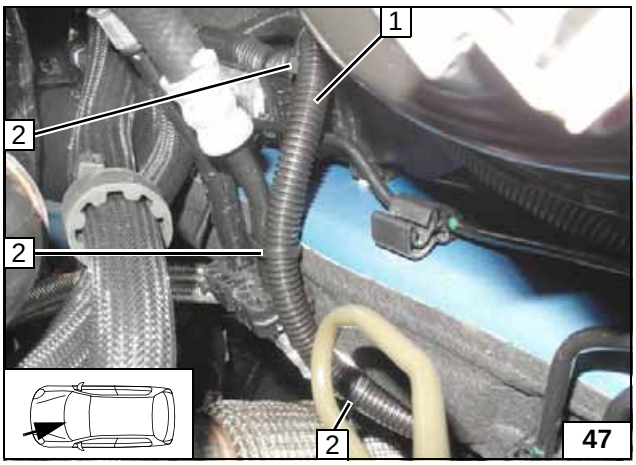
Route fuel line and metering pump wiring harness so that they are protected against stone impact.
Unless specified otherwise, always fasten using cable ties.
Provide rub protection for fuel line and wiring harness in areas where there are sharp edges.

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



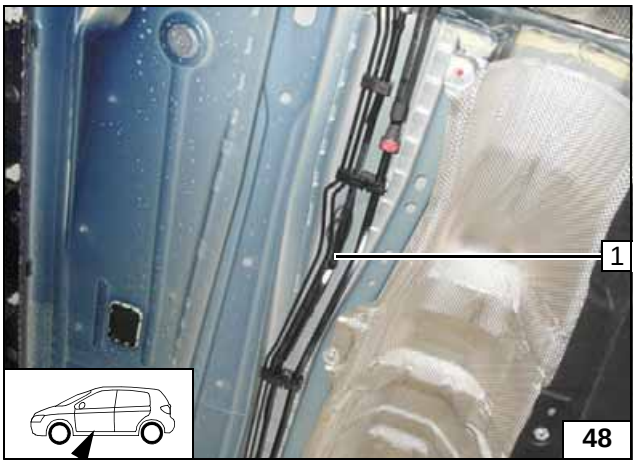
Pull fuel line **1** and metering pump wiring harness **3** into 1300 mm long 10 mm dia. corrugated tube **2** and route to the driver's side!

Routing lines



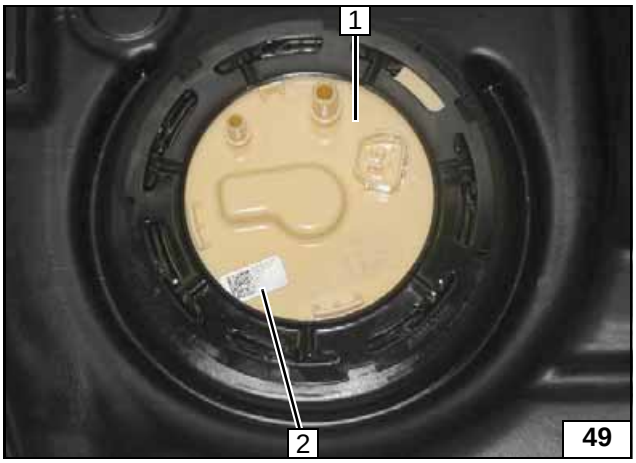
1 Fuel line and metering pump wiring harness in corrugated tube
2 Cable tie [3x]

Routing on firewall



Route fuel line and metering pump wiring harness **1** on the underbody along original vehicle fuel lines to the installation location of the metering pump.

Routing lines



FuelFix Installation for Diesel Vehicles

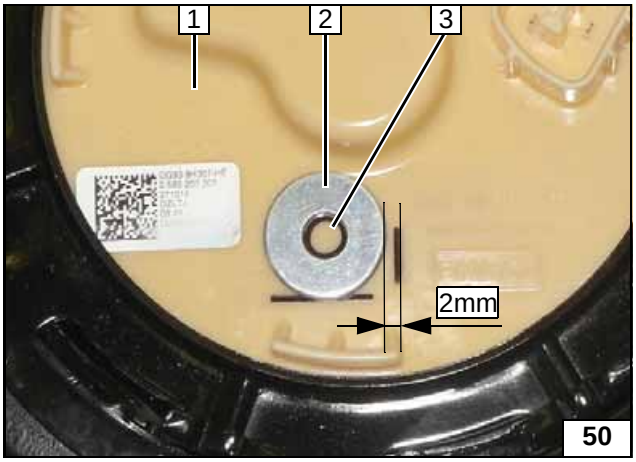
Mondeo

Remove the fuel tank according to the manufacturer's instructions.

Work step F1.

1 Fuel tank sending unit
2 Reposition barcode label

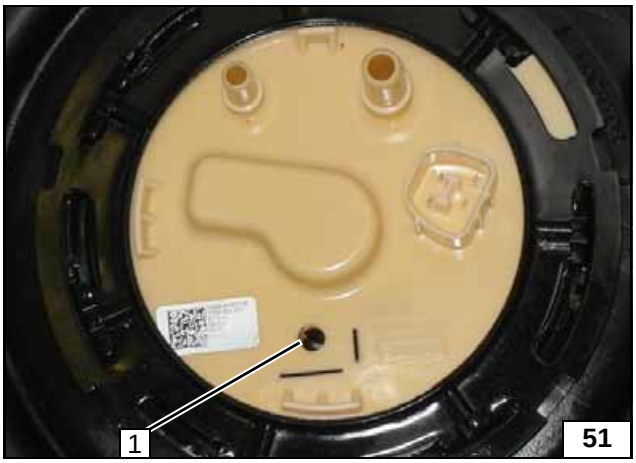
Moving bar-code label



Work step F2.

1 Fuel tank sending unit
2 Position washer with outer dia. d_a = 24 mm as template against the raised parts as shown
3 Hole pattern

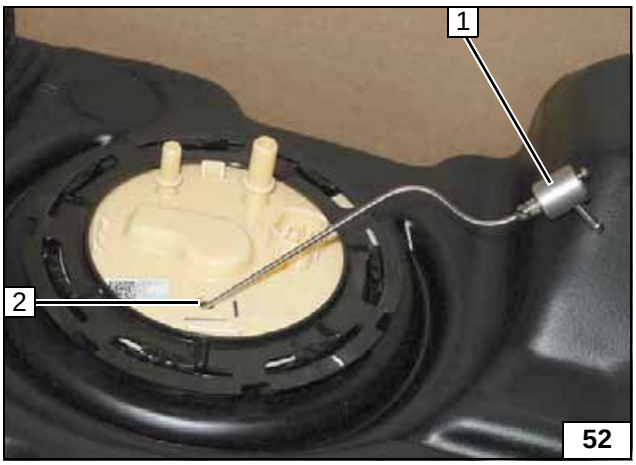
Copying hole pattern



Work step F3.

1 Hole made with provided drill

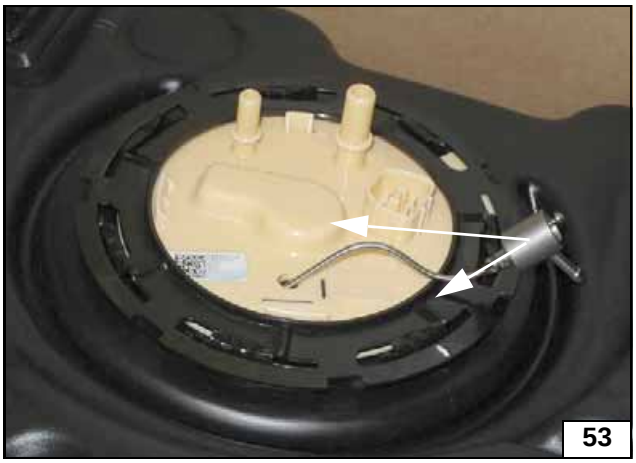
Hole for FuelFix



Work steps F4 and F5.

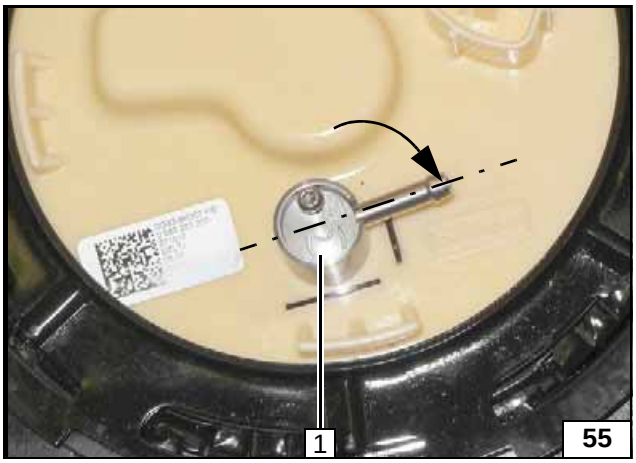
Bend FuelFix **1** according to template and cut to length.
Insert into hole **2**.

Inserting FuelFix



Inserting FuelFix

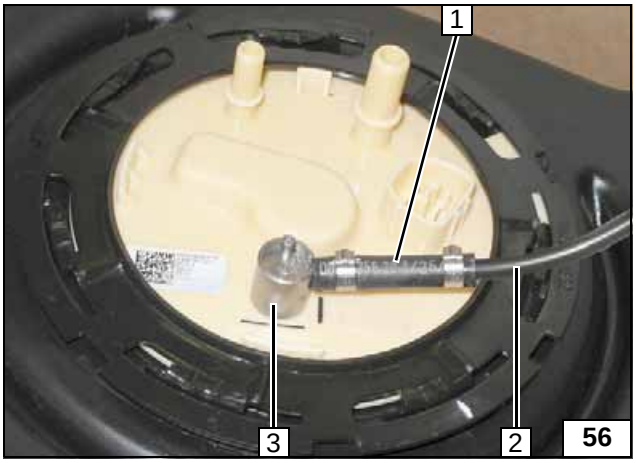
Inserting FuelFix



Work steps F5.3 and F5.4.

Align FuelFix **1** as shown.

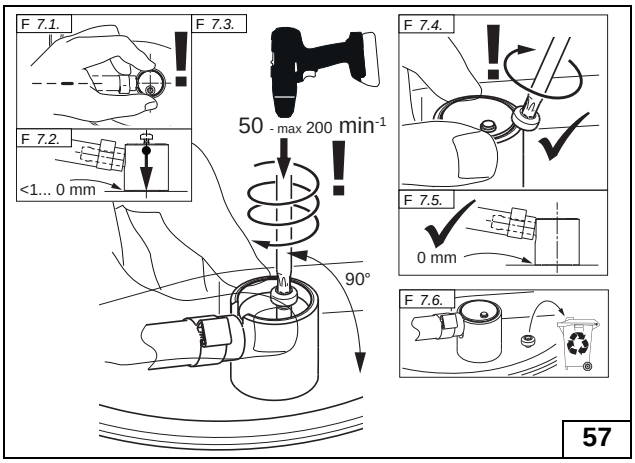
Aligning FuelFix



Work step F6.

1 Hose section, 10mm dia. clamp [2x]
2 Fuel line
3 FuelFix

Connecting fuel line

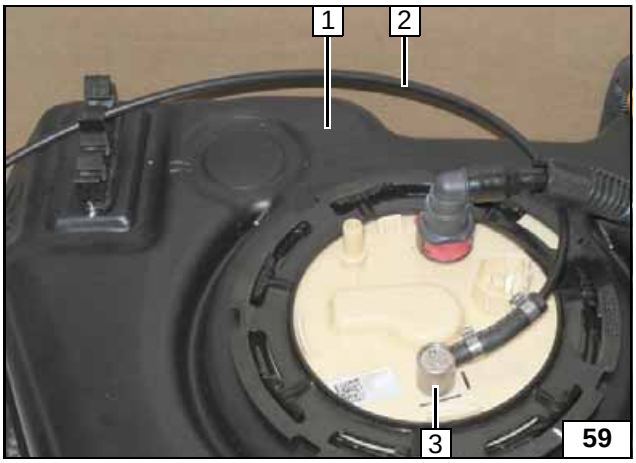


Work step F7.

Installing FuelFix

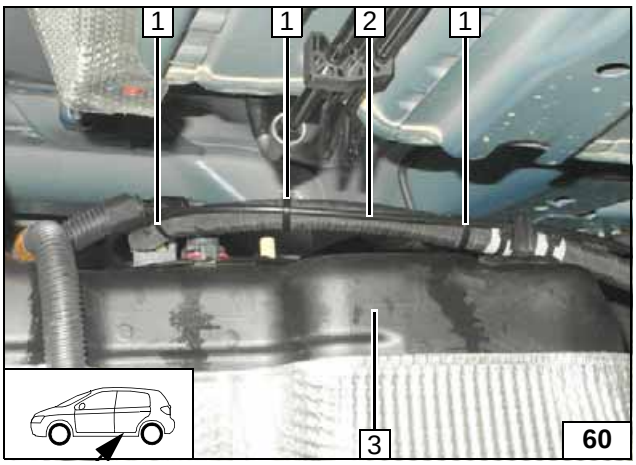
Work step F8.

Ensuring firm seating of FuelFix



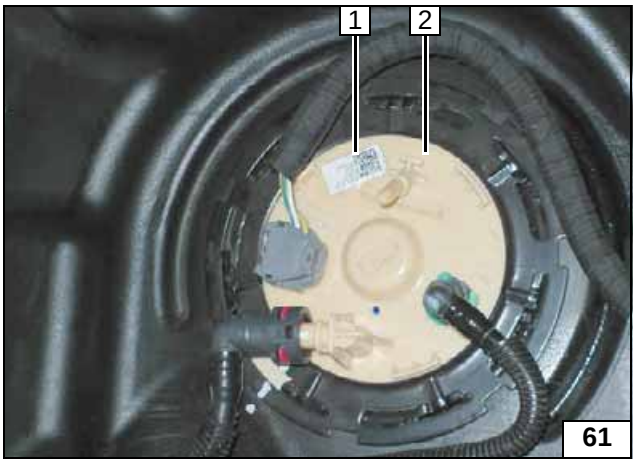
1 Tank
2 Fuel line of FuelFix
3 FuelFix

Routing fuel line



Install tank **3** according to the manufacturer's instructions.
Route FuelFix fuel line **2** along original vehicle wiring harness and secure with cable tie **1** [3x] as tension relief .

Routing fuel line



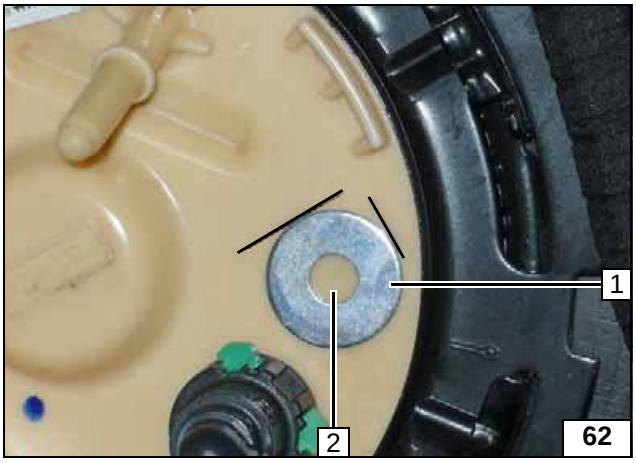
S-Max / Galaxy

Remove the fuel tank according to the manufacturer's instructions.

Work step F1.

1 Reposition barcode label
2 Fuel tank sending unit

Moving bar-code label



Work step F2.

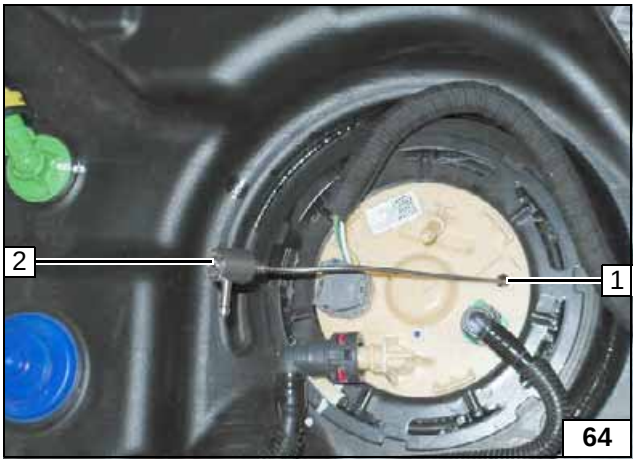
1 Position washer with outer dia. d_a = 24 mm as template at the outline as shown
2 Hole pattern

Copying hole pattern

Work step F3.

1 Hole made with provided drill

Hole for FuelFix



Work steps F4 and F5.

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

Inserting FuelFix

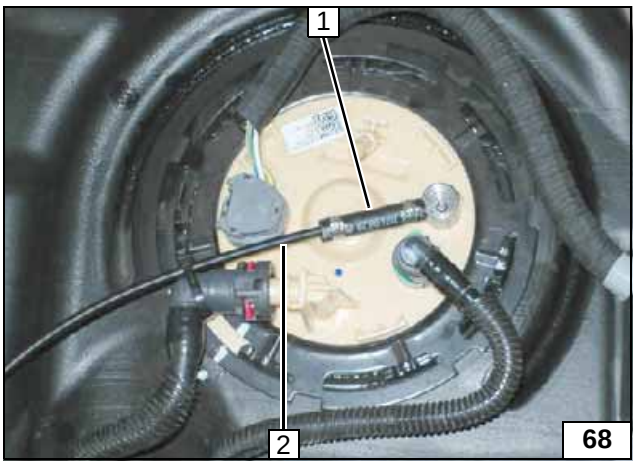
Inserting FuelFix

Inserting FuelFix

Work steps F5.3 and F5.4.

Align FuelFix **1** as shown.

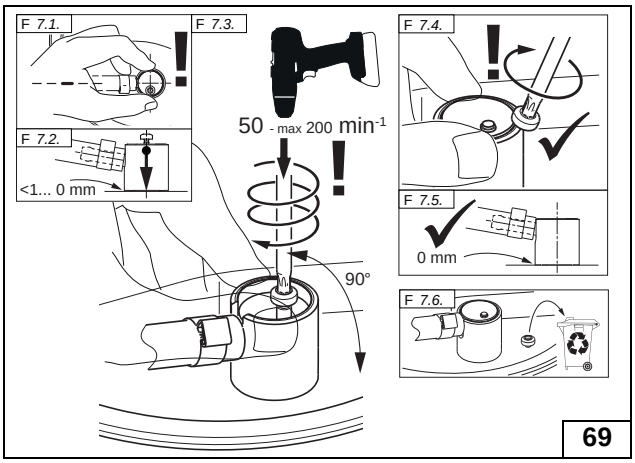
Aligning FuelFix



Work step F6.

1 Hose section, 10mm dia. clamp [2x]
2 Fuel line

Connecting fuel line

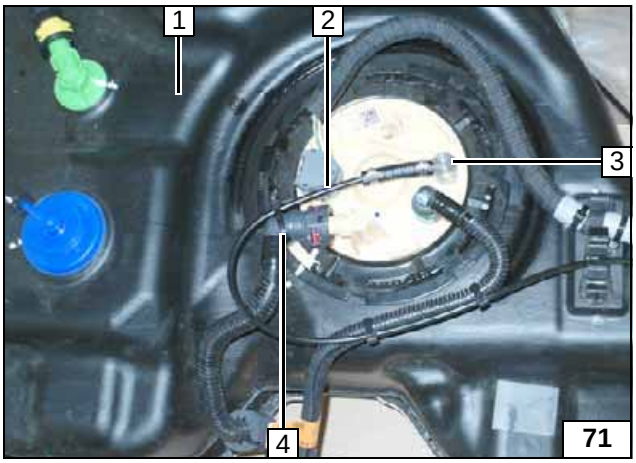


Work step F7.

Installing FuelFix

Work step F8.

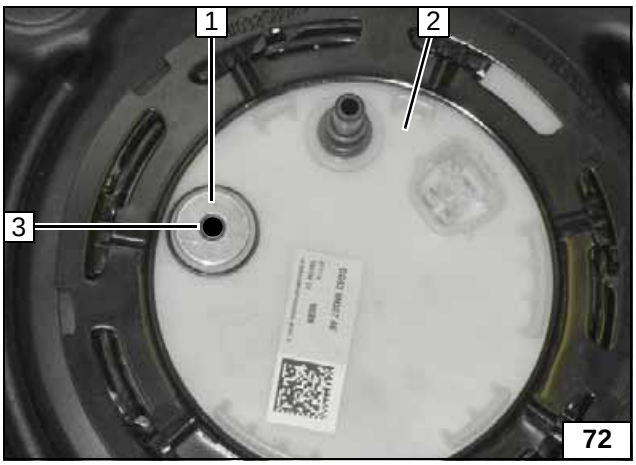
Ensuring firm seating of FuelFix



2 Fuel line of FuelFix
3 FuelFix mounted
4 Cable tie as tension relief

Install tank **1** according to the manufacturer's instructions.

Securing fuel line



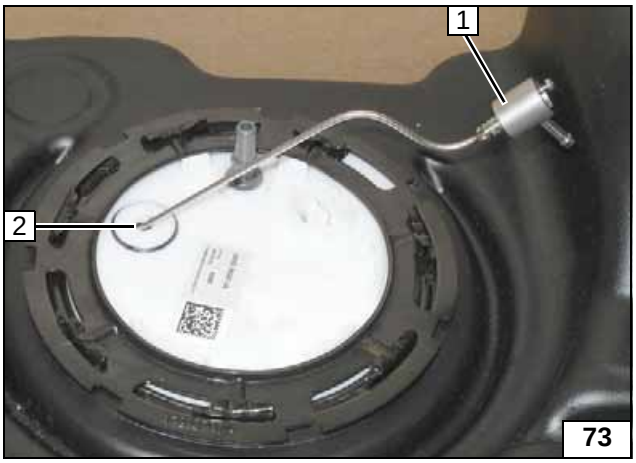
FuelFix Installation for Petrol Vehicles

Remove the fuel tank according to the manufacturer's instructions.

Work steps F1, F2 and F3.

1 Position washer with outer dia. d_a = 24 mm as template centrally on circular raised part as shown
2 Fuel tank sending unit
3 Hole pattern, hole made with provided drill

Copying hole pattern, Hole for FuelFix



73

Work steps F4 and F5.

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

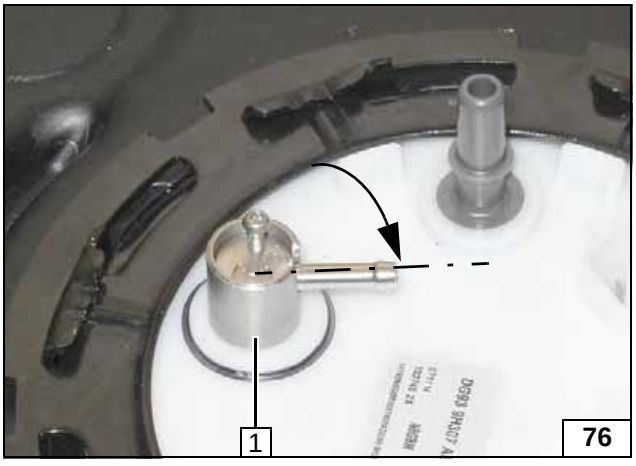
Inserting FuelFix


74

Inserting FuelFix


75

Inserting FuelFix

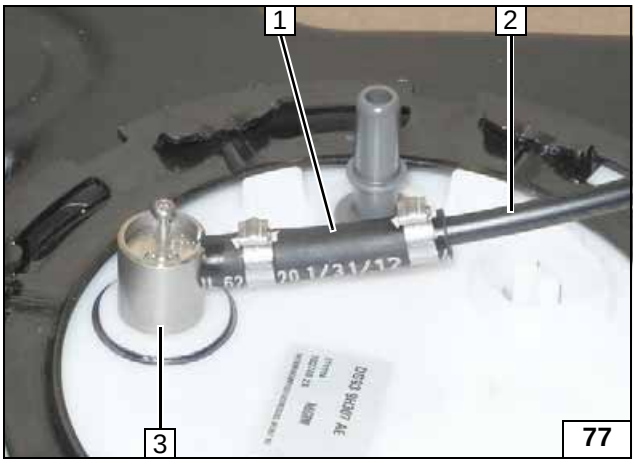


76

Work steps F5.3 and F5.4.

Align FuelFix **1** as shown.

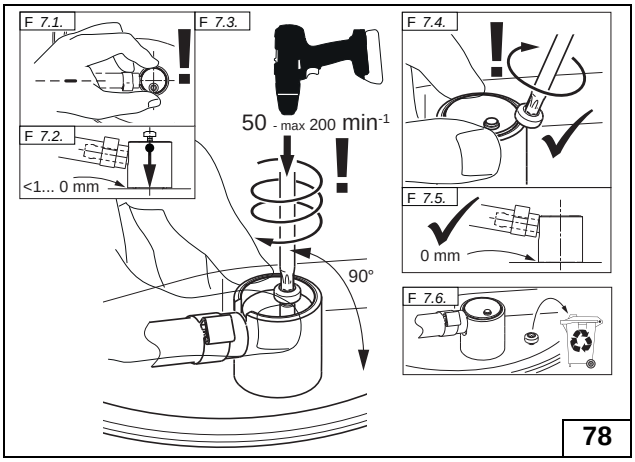
Aligning FuelFix



Work step F6.

1 Hose section, 10mm dia. clamp [2x]
2 Fuel line
3 FuelFix

Connecting fuel line

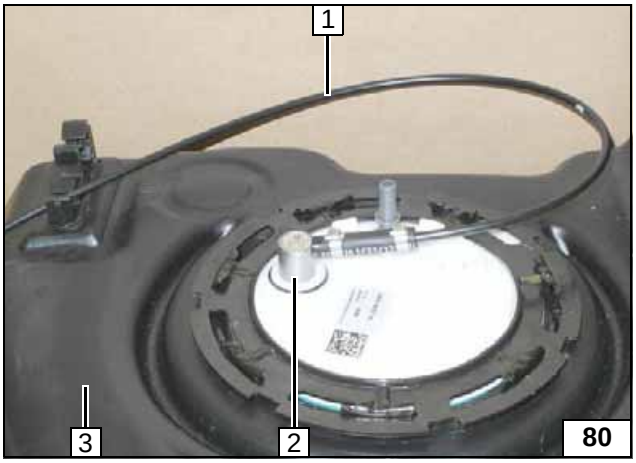


Work step F7.

Installing FuelFix

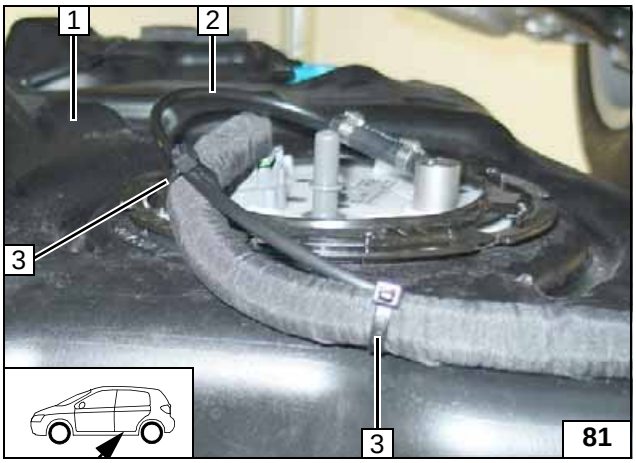
Work step F8.

Ensuring firm seating of FuelFix



1 Fuel line of FuelFix
2 FuelFix
3 Tank

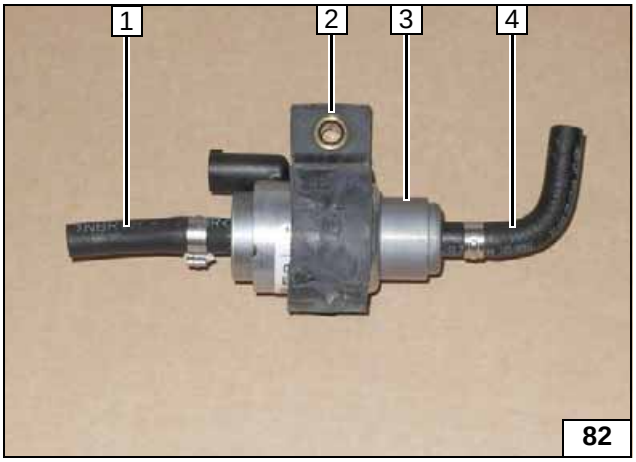
Routing fuel line



Route FuelFix fuel line **2** along original vehicle wiring harness and secure with cable tie **3** [2x] as tension relief .

Install tank **1** according to the manufacturer's instructions.

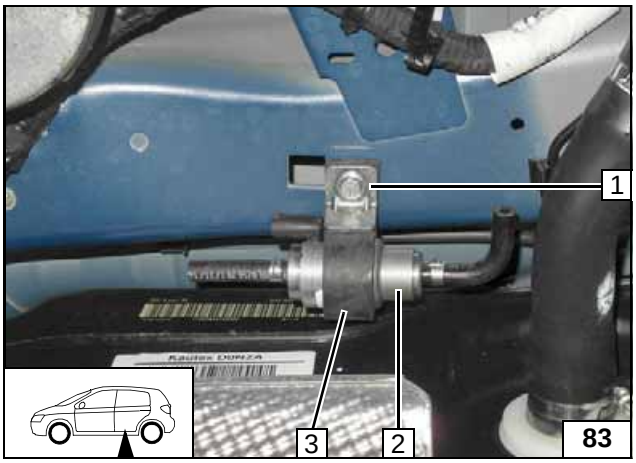
Routing fuel line



All vehicles

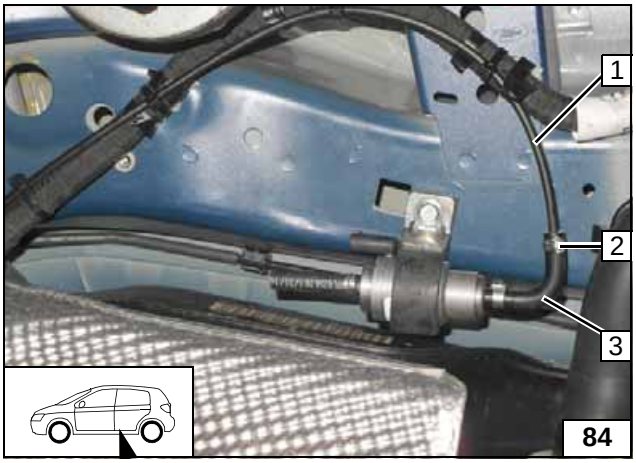
1 50 mm hose section, 10 mm dia. clamp
2 Metering pump mount
3 Metering pump
4 90° moulded hose, 10 mm dia. clamp

Preparing metering pump



1 Support angle bracket, M6x25 bolt, original vehicle hole, flanged nut
2 Metering pump
3 Metering pump mount

Installing metering pump



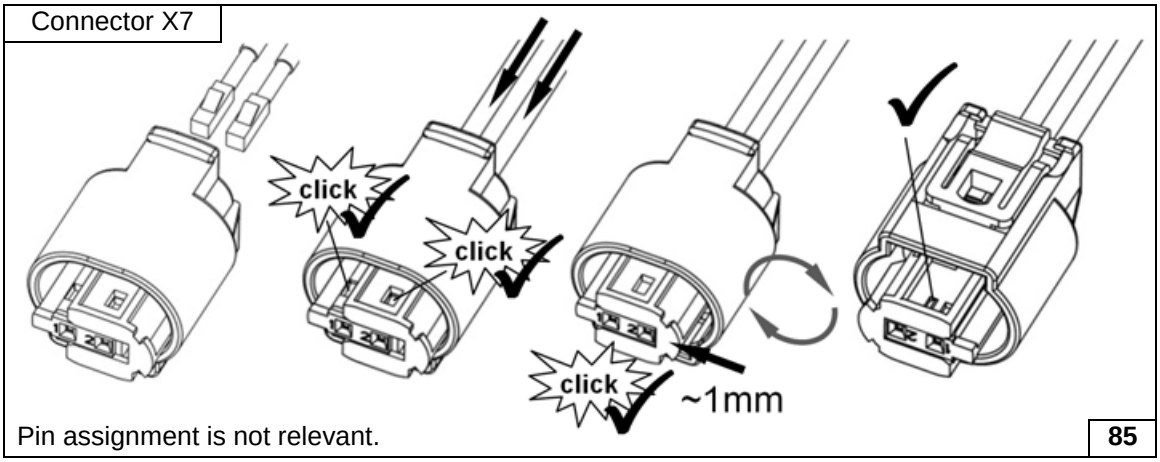
Connect FuelFix fuel line **1** on 90° moulded hose **3**.

2 10 mm dia. clamp

Installing fuel line

Completing metering pump connector

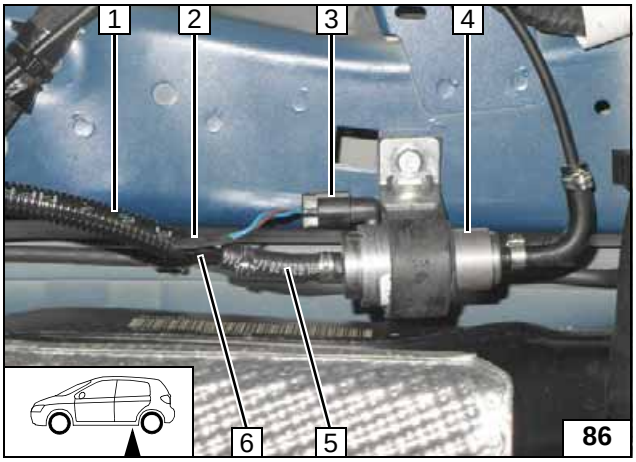
Connector X7



Pin assignment is not relevant.

85

Connecting metering pump



86

Pull heater fuel line **6** and metering pump wiring harness **2** into 10 mm dia. corrugated tube **1** and route to metering pump **4**. Ensure sufficient distance from neighbouring components, correct if necessary.

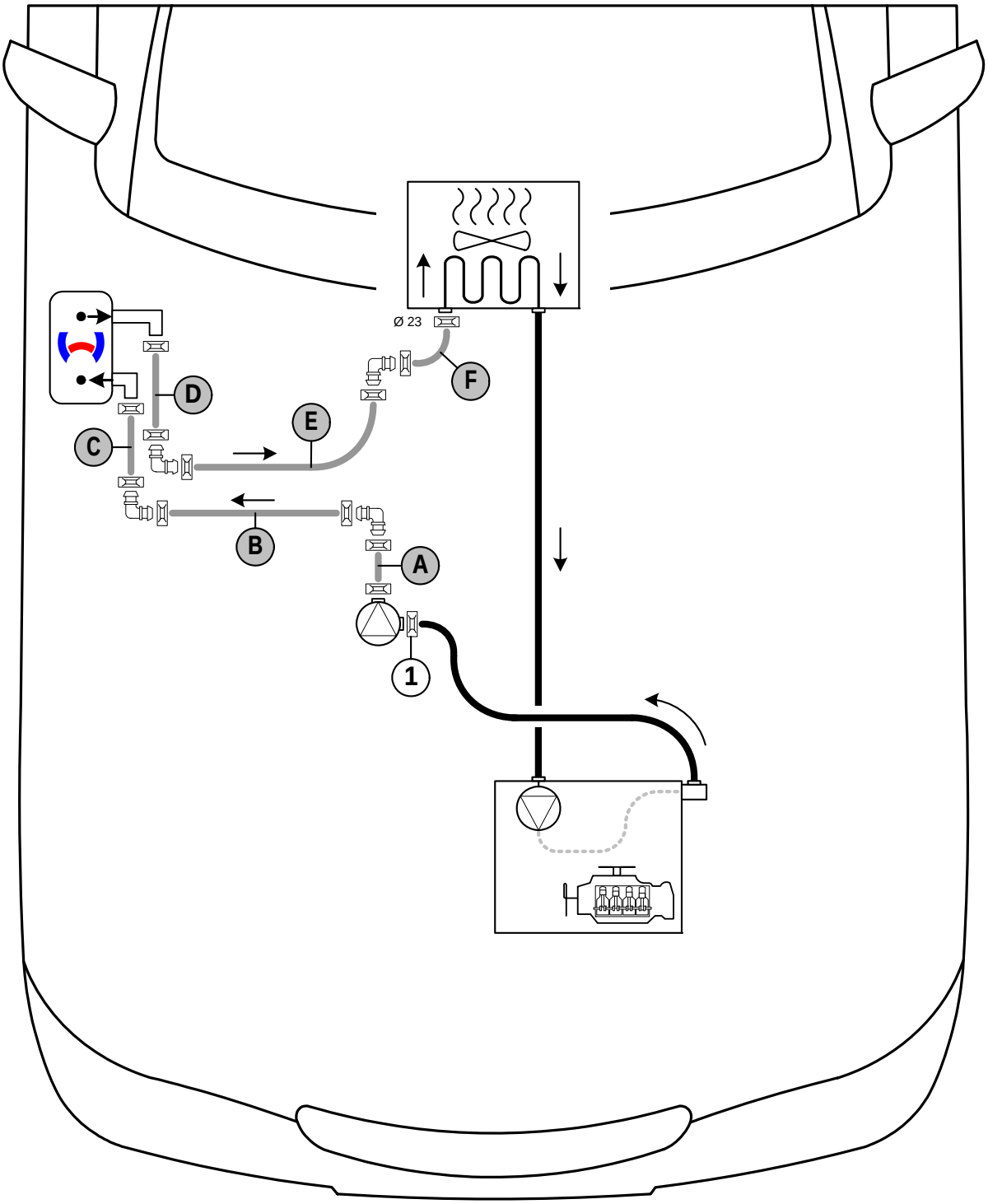
- **3** Metering pump wiring harness, connector X7 mounted
- **5** Hose section, 10 mm dia. clamp

Coolant Circuit Except for 2.0 TDCi 154 kW

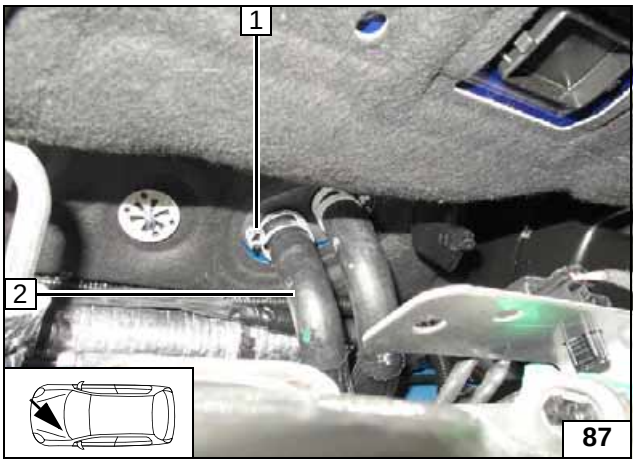
Any coolant running off should be collected in an appropriate container. Route hoses kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. The heater must be filled with coolant when installing the hoses.

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

Hose routing diagram

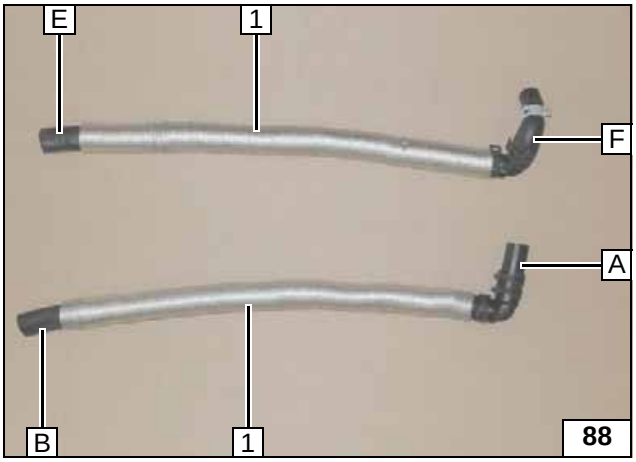


All spring clips without a specific designation = 25 mm dia. All connecting pipes and = 18x18mm dia.
1 = Original vehicle spring clip



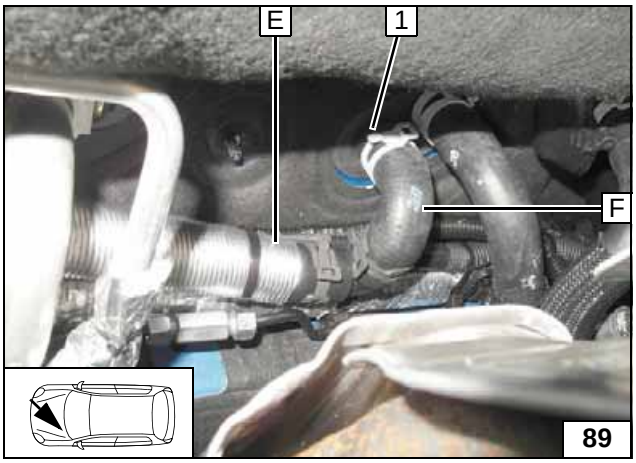
Pull off engine outlet / heat exchanger inlet hose **2**. Original vehicle spring clip **1** will be reused.

Cutting point



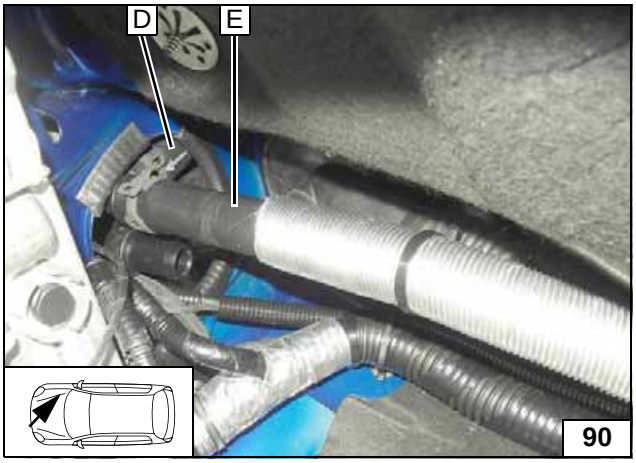
1 28 mm dia., 500 mm heat protection hose [2x]

Premounting hoses

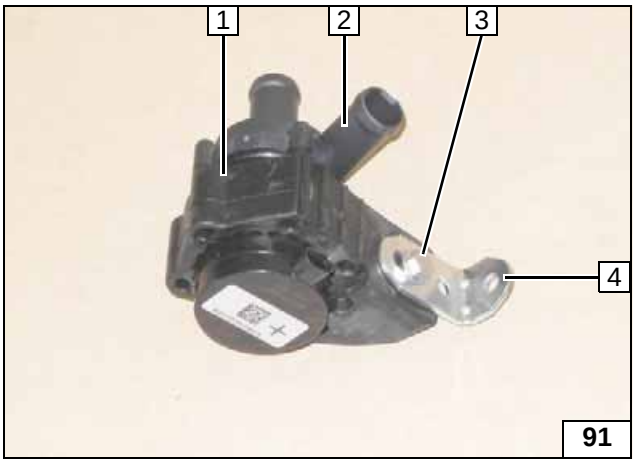


1 Connecting piece of heat exchanger inlet

Connecting heat exchanger inlet

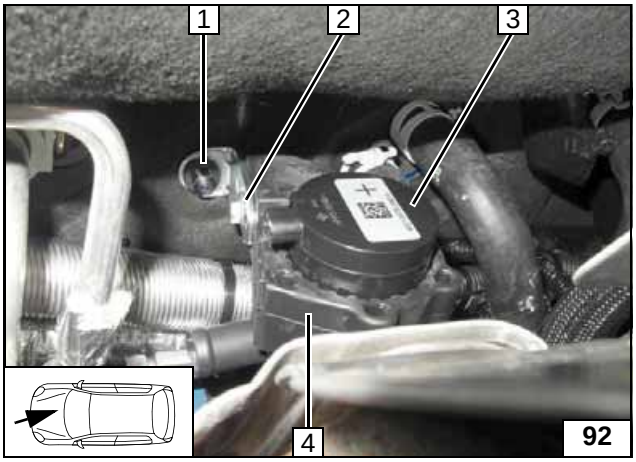


Connecting heater outlet



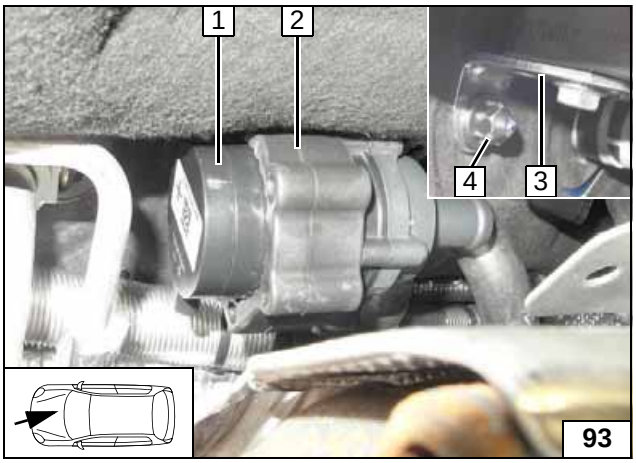
1 Circulating pump mount
2 Circulating pump
3 M6x25 bolt, flanged nut
4 Angle bracket

Preparing circulating pump



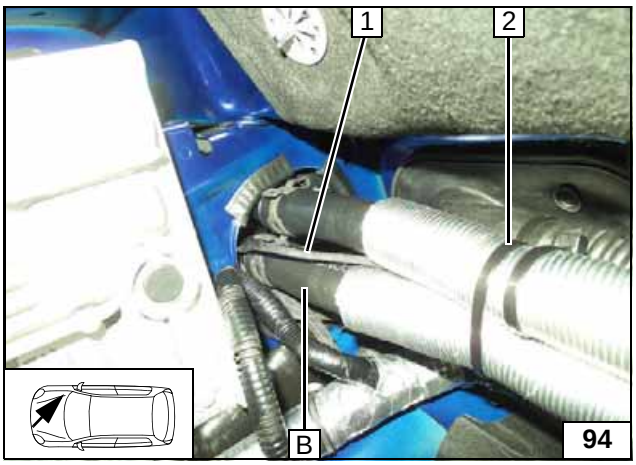
1 Original vehicle stud bolt, M6 plastic nut
2 M6x25 bolt, angle bracket, flanged nut
3 Circulating pump
4 Circulating pump mount

Loosely installing circulating pump



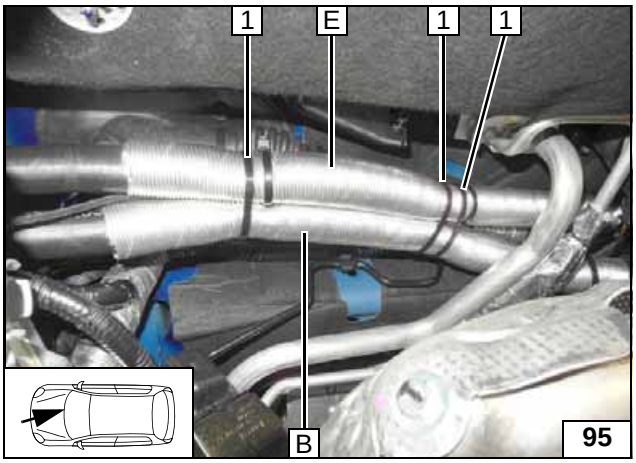
1 Circulating pump
2 Circulating pump mount
3 Angle bracket
4 Original vehicle stud bolt, M6 plastic nut

Aligning circulating pump



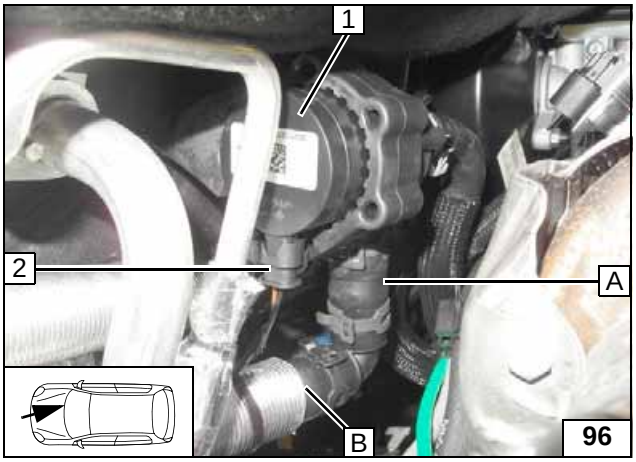
1 Wiring harness circulating pump
2 Cable tie

Connecting heater inlet



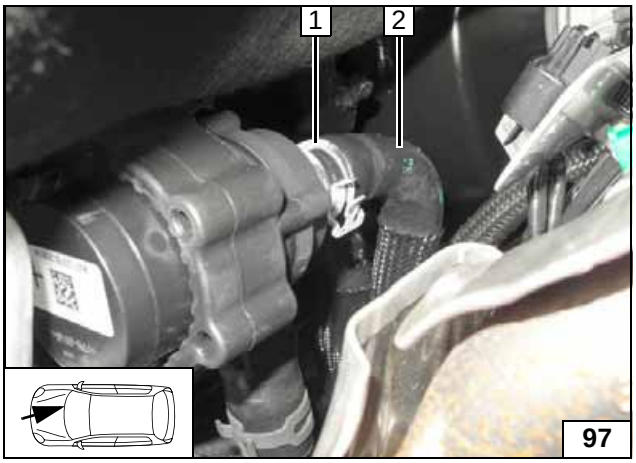
Align hoses and fasten with cable tie **1** [3x]. Ensure sufficient distance from neighbouring components, correct if necessary.

Routing in engine compartment



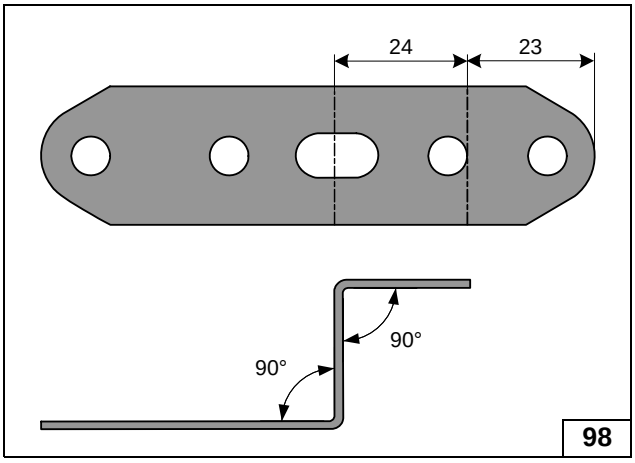
1 Circulating pump
2 Connector of circulating pump wiring harness

Connecting circulating pump

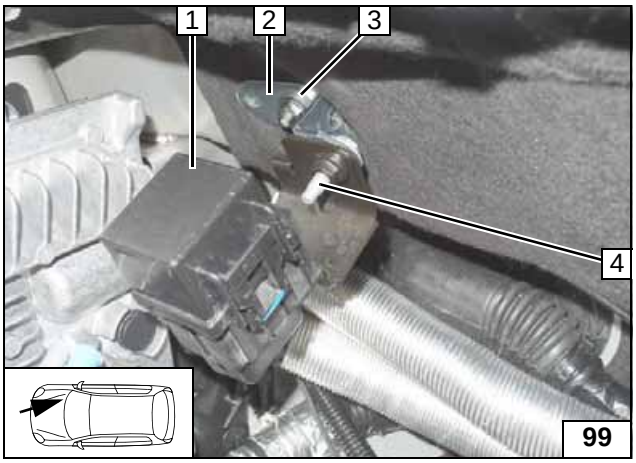


1 Original vehicle spring clip
2 Engine outlet hose

Connecting engine outlet

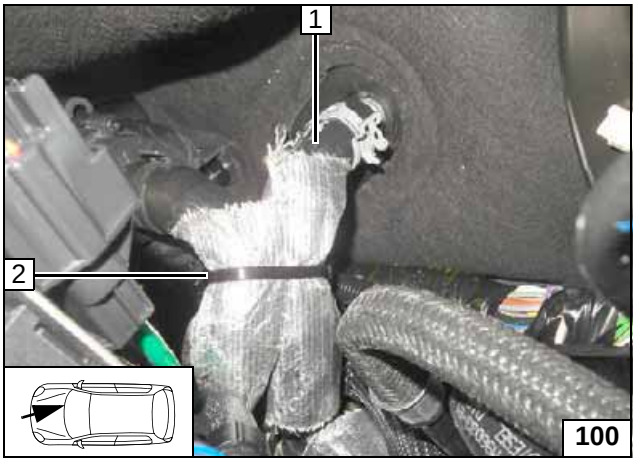


Preparing perforated bracket



1 Original vehicle relay
2 Perforated bracket
3 M6 plastic nut, original vehicle stud bolt
4 Original vehicle bolt

Installing original vehicle relay



Only in case of vehicles with 2 heat exchangers

Pull off hose of heat exchanger outlet **1**, cut off 20mm and re-mount.
Secure hoses using cable tie **2**.

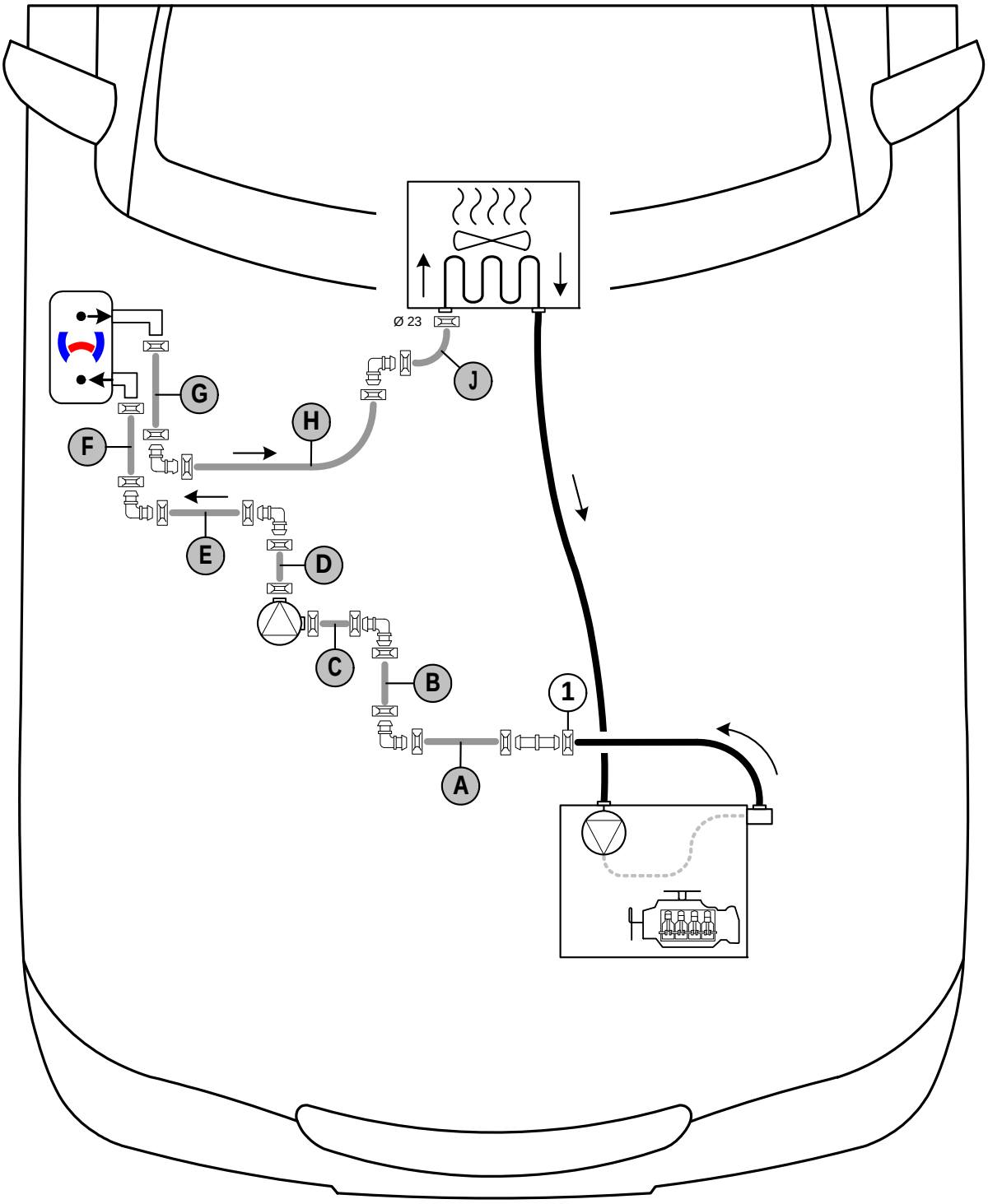
Shortening hose of heat exchanger outlet

Coolant Circuit for 2.0 TDCi 154 kW

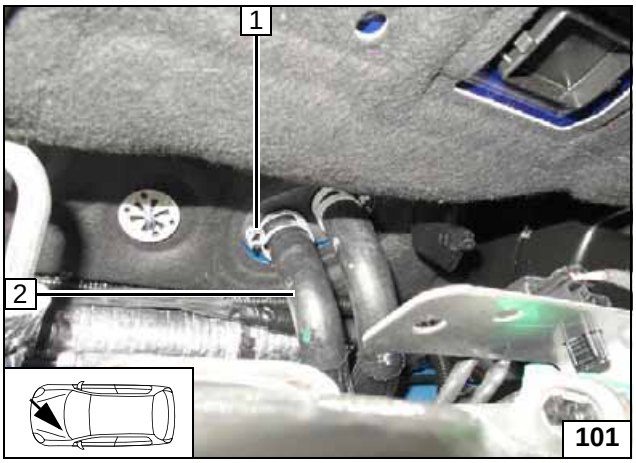
Any coolant running off should be collected in an appropriate container. Route hoses kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. The heater must be filled with coolant when installing the hoses.

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

Hose routing diagram

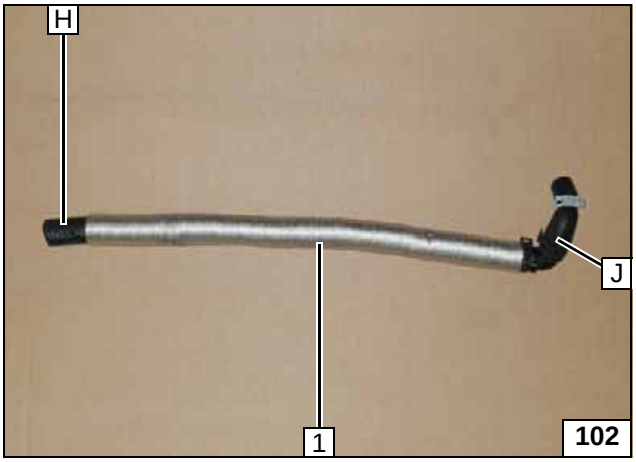


All spring clips without a specific designation = 25 mm dia. All connecting pipes and = 18x18mm dia.
1 = Original vehicle spring clip



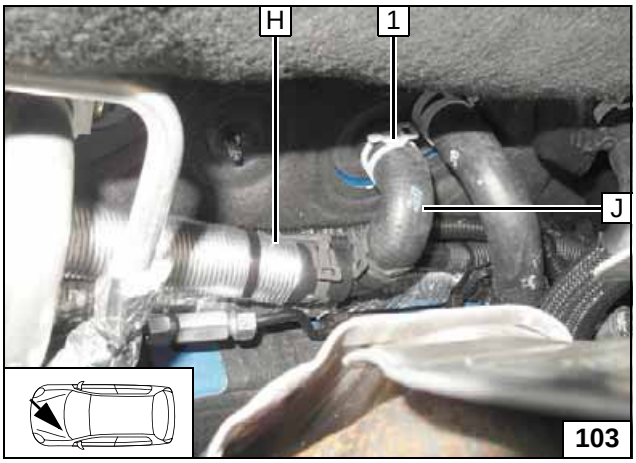
Pull off engine outlet / heat exchanger inlet hose **2**. Original vehicle spring clip **1** will be reused.

Cutting point



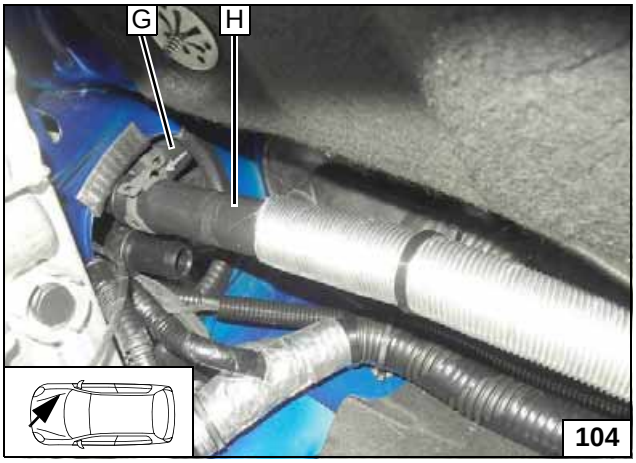
1 28mm dia., 430mm heat protection hose

Premounting hoses

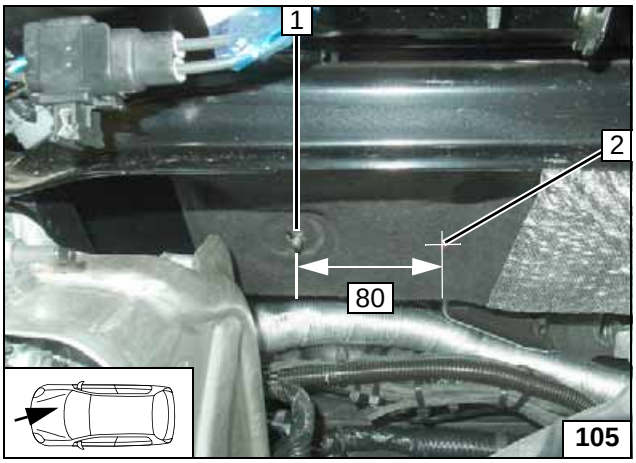


1 Spring clip

Connecting heat exchanger inlet



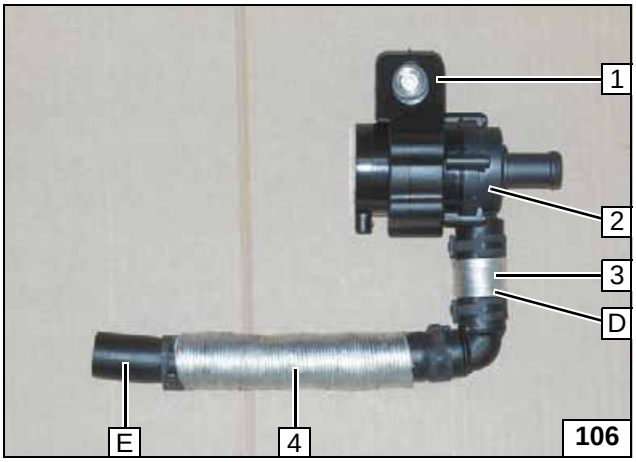
Connecting heater outlet



When drilling, be careful of components located behind!

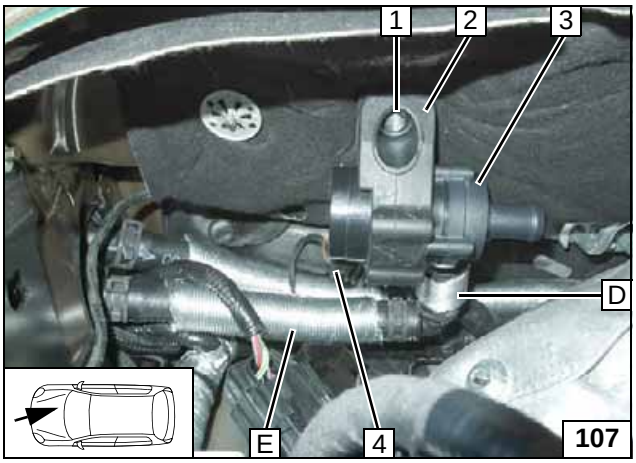
1 Original vehicle stud bolt
2 7 mm dia. hole

Copying hole pattern



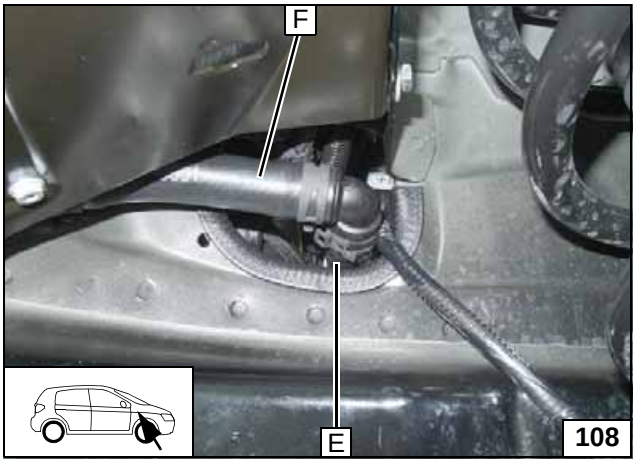
1 Circulating pump mount
2 Circulating pump
3 28mm dia., 30mm heat protection hose
4 28mm dia., 140mm heat protection hose

Premounting circulating pump / hoses

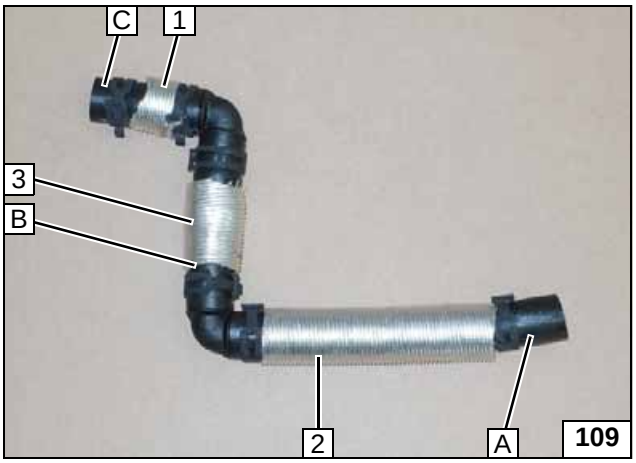


1 M6x35 bolt, flanged nut
2 Circulating pump mount
3 Circulating pump
4 Connector of circulating pump wiring harness

Installing circulating pump

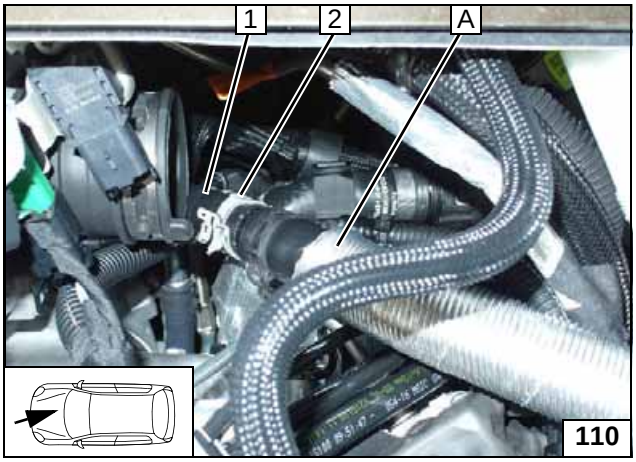


Connecting hose section E with hose section F



1 28mm dia., 30mm heat protection hose
2 28mm dia., 170mm heat protection hose
3 28mm dia., 80mm heat protection hose

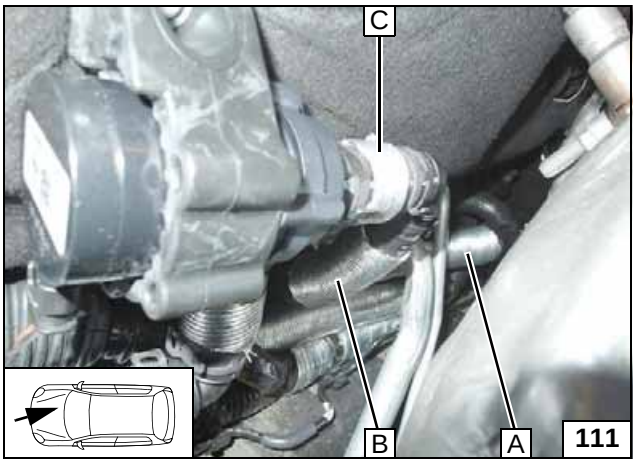
Premounting hoses



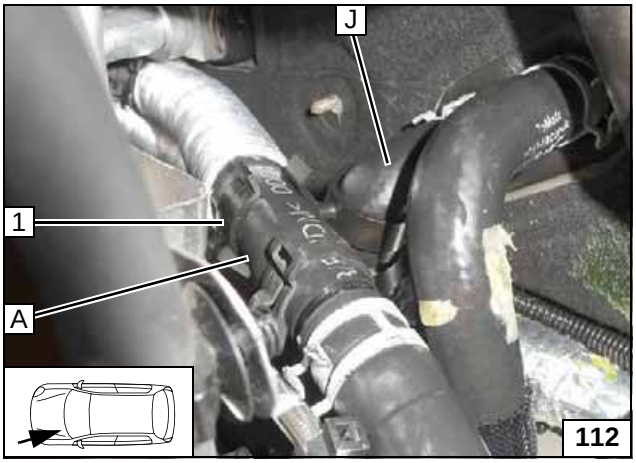
Route hose **A** after the connection along engine outlet hose **1** to the front passenger's side.

2 Original vehicle spring clip

Connecting engine outlet



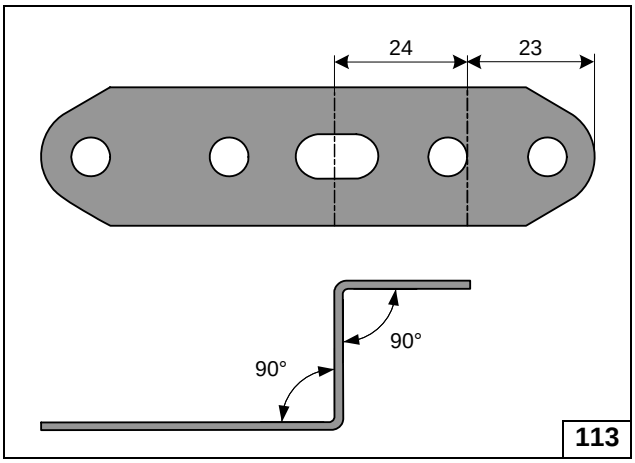
Connecting circulating pump



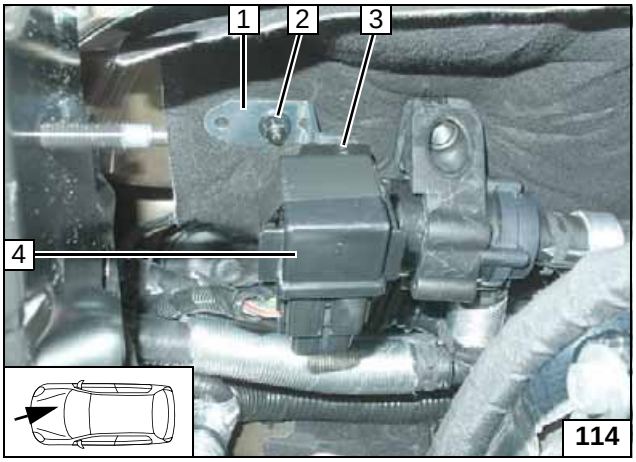
Align hoses and fasten with cable tie. Ensure sufficient distance from neighbouring components, correct if necessary.

1 Hose bracket between hose **A** and hose **J**

Installing hose bracket

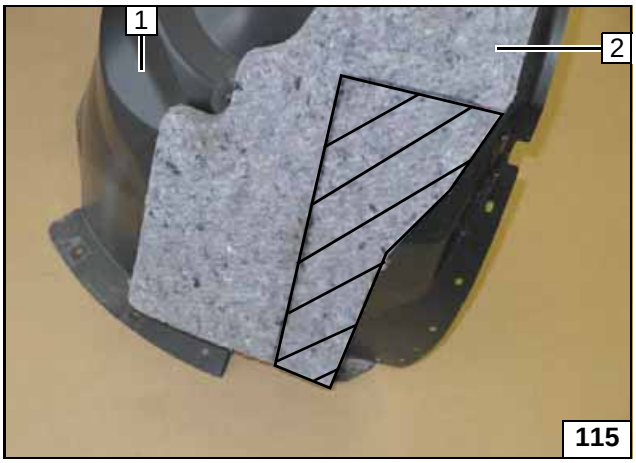


Preparing perforated bracket



1 Perforated bracket
2 M6 plastic nut, original vehicle stud bolt
3 Original vehicle bolt
4 Original vehicle relay

Installing original vehicle relay

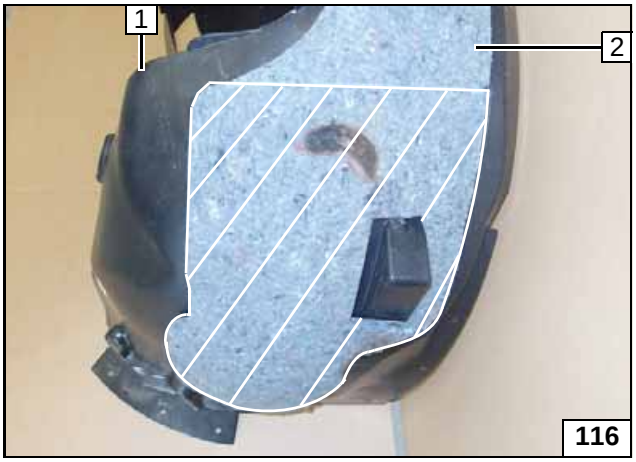


Final Work

Mondeo

1 Wheel-well inner panel
2 Insulation

Removing insulation in shaded area



S-Max / Galaxy

1 Wheel-well inner panel
2 Insulation

Removing insulation in shaded area

1 Heat protection film

Sticking on heat protection film

All vehicles

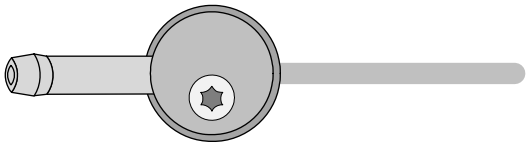
Reassemble the components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back loose lines.
Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K).

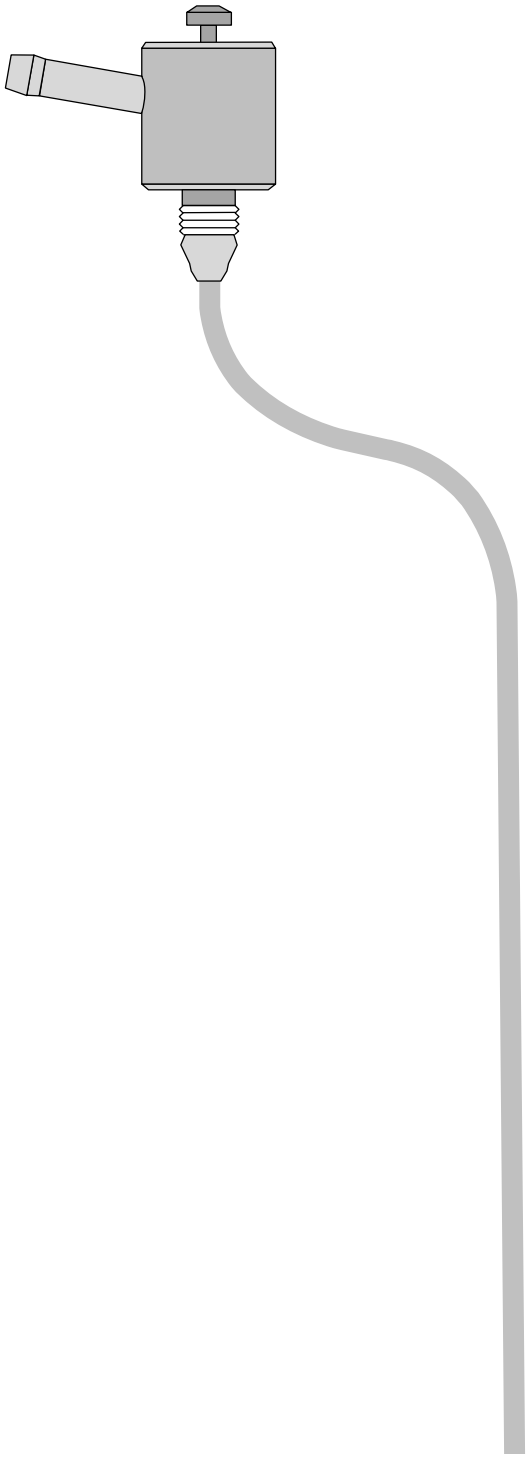
- **Connect the battery.**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's instructions.**
- **Program MultiControl CAR, teach Telestart transmitter.**
- **For initial startup and function check, please see installation instructions.**
- **If the fan function or A/C control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

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

FuelFix Template for Mondeo Diesel

Top view





100mm

Scale 1:1

Compare size of printout with dimension lines.
Allowed tolerance a maximum of 2%.

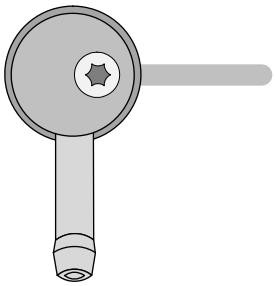
Set the printer settings to ‘no margin’ or ‘minimise margins’ and 100% of the normal size.

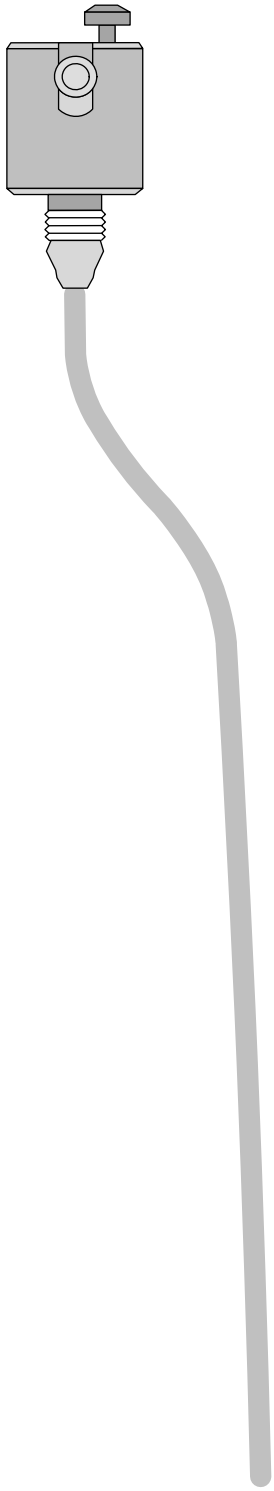
100mm

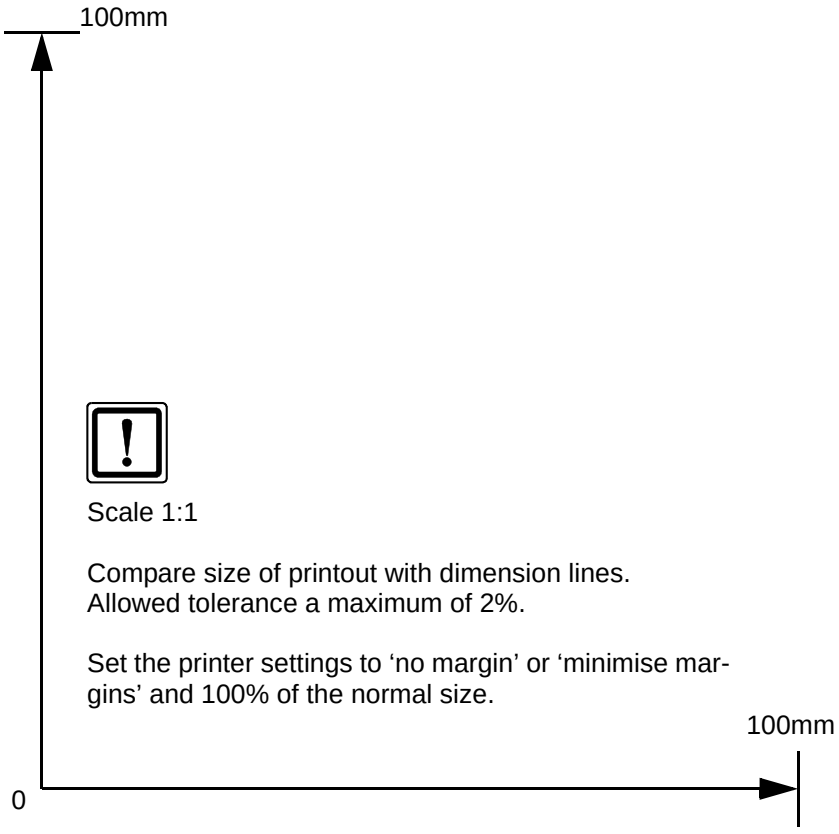
0

FuelFix Template for S-Max / Galaxy Diesel

Top view

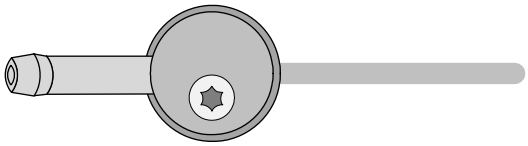


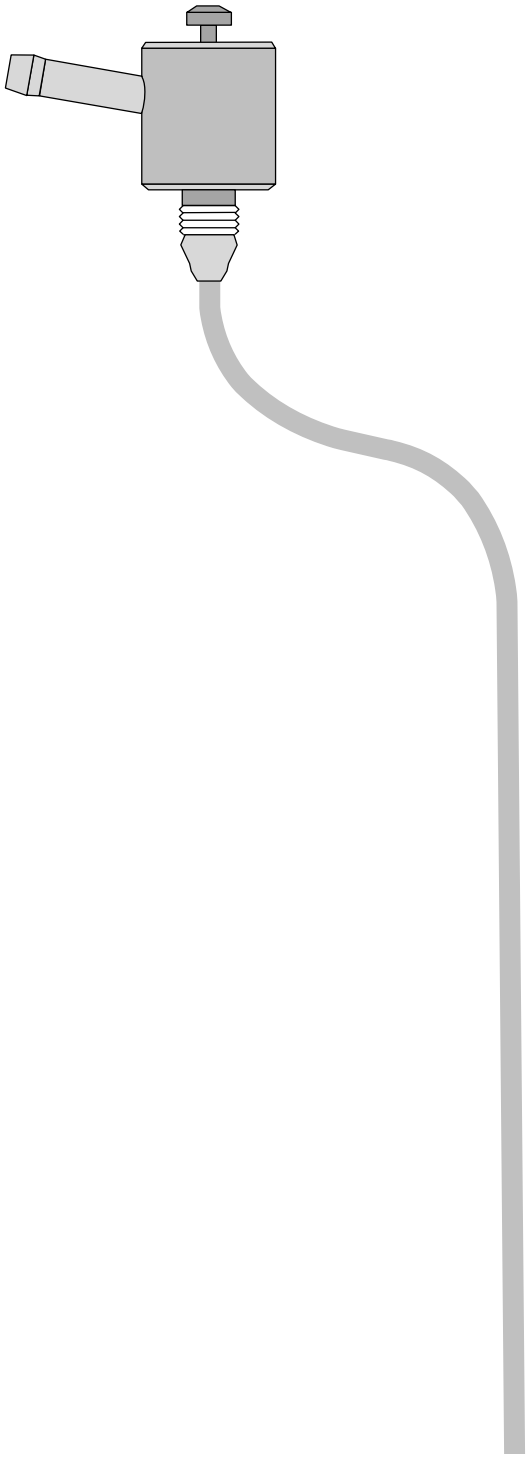




FuelFix Template for Petrol Vehicles

Top view





100mm

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Compare size of printout with dimension lines.
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Set the printer settings to ‘no margin’ or ‘minimise margins’ and 100% of the normal size.

100mm

0

