



Water Heater

Thermo Top Evo Parking Heater

E1 00 0258

Installation Documentation Toyota Auris

Validity

Manufacturer	Model		Type Mode		Model year		EG BE No. / ABE		
Toyota	ōyota Auris		E15UT(A)			Starting wit 2015	h e11 * 2001 / 116 *	e11 * 2001 / 116 * 0305 *	
Motorisation		Fuel	Transmissio	n type	Outpu	ut in kW	Displacement in cm ³	Engine code	
1.2 P		Petrol	6-gear SG		85		1197	8NR	
1.6 D		Diesel	6-gear SG		82		1598	1WW	

SG = manual transmission

Left-hand drive vehicle

Verified equipment variants: Manual air-conditioning system

2 zone automatic air-conditioning Front fog lights Xenon with headlight washer system Start / Stop Euro 6 Exhaust Emission Standard

Not verified: Passenger compartment monitoring

Total installation time:approx. 6.5 hours without A/C control
approx. 7.0 hours with A/C control 'Standard' for manual air-conditioning
approx. 7.5 hours with A/C control 'Standard' for automatic air-conditioning

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Necessary Components

- Basic delivery scope of Thermo Top Evo according to price list
- Installation kit for Toyota Avensis 2012 / Auris 2015 Petrol and diesel: 1318288B

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 Additional kit A/C control of automatic air-conditioning for Toyota Auris 2015 'Standard': 1324414_

or

- Additional kit A/C control of manual air-conditioning for Toyota Auris 'Standard': **1324454**
- 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
- Gasket of fuel tank sending unit: Toyota ID.: 77169-0D030

Installation instructions:

- Arrange for the vehicle to be delivered with the tank only about 1/4 full.
- The installation location of the push button in case of Telestart or Thermo Call should be confirmed with the end customer.
- Depending on the available space and manufacturer's instructions, we recommend the use of a vehicle battery with more electrical capacity.

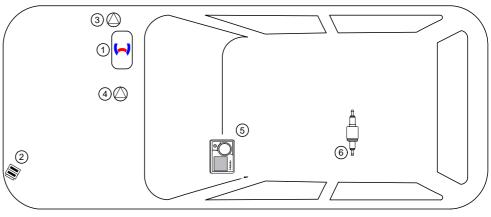
Installation Overview

Legend:

- 1. Heater
- 2. Engine compartment fuse holder
- 3. Circulating pump in case of petrol vehicle
- 4. Circulating pump in case of diesel vehicle
- 5. MultiControl CAR
- 6. Metering pump

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.



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 or 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 StV-ZO (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.

VEHICLE INSTALLATION REQUIREMENTS

2.1. Scope

2.

- 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.

Information on Validity

This installation documentation applies to Toyota Auris 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

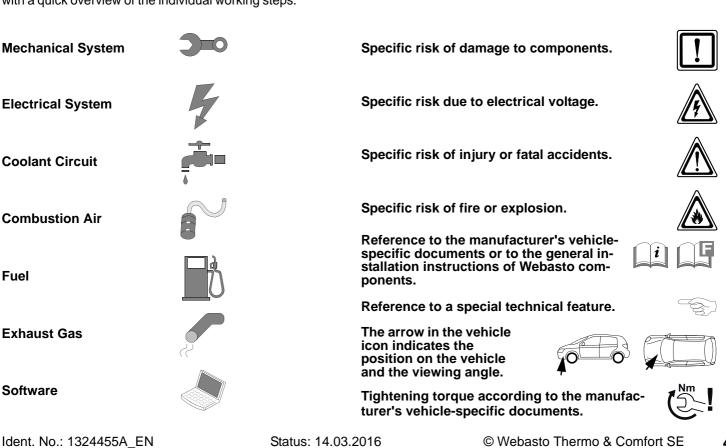
- · Hose clamp pliers for auto-tightening hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Automatic wire stripper, 0.2 6mm²
- Crimping pliers for cable lug / tab connector, 0.5 6mm²
- Torque wrench for 2.0 10 Nm
- · Hose clamping pliers
- · Metric thread-setter kit
- Deep-hole marker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

Dimensions

All dimensions are in mm.

Tightening torque values

- Tightening torgue 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-arttechnology.



Explanatory Notes on Document

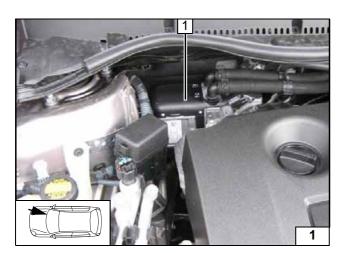
You will find an identification mark on the outside top right corner of the page in question to provide you with a quick overview of the individual working steps. Special features are highlighted using the following symbols:

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Preliminary Work

Vehicle

i D • Open the fuel tank cap. • Ventilate the fuel tank. • Close the fuel tank cap again. • Depressurise the cooling system. • Disconnect the battery. • Remove the engine design cover. • Completely remove the air filter. • Remove the relay box (only in case of Diesel engine). • Remove the windscreen wiper. • Remove the entire coolant reservoir. • Remove the left-hand underride protection. • Remove the engine underride protection. • Remove the rear bench seat. • Open the tank-fitting service lid. • Remove the fuel tank sending unit in accordance with the manufacturer's instructions. O • Remove the footwell trim on the driver's side. • Remove the A-pillar trim in the driver's side footwell. Heater • Remove years that do not apply from the type and duplicate label. i O • Attach the duplicate label (type label) visibly in the appropriate place in the engine compartment.



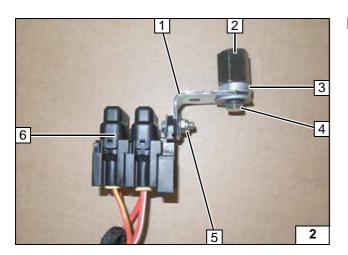
Heater Installation Location

1 Heater

Installation location



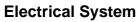




Preparing Electrical System

- 1 Angle bracket
- 2 20 mm spacer nut
- **3** 5 mm shim
- 4 M6x16 bolt, spring lockwasher, large diameter washer
- 5 M5x16 bolt, large diameter washer [2x], retaining plate for fuse holder, nut holder
- 6 Fuses F1-2

Premounting engine compartment fuse holder





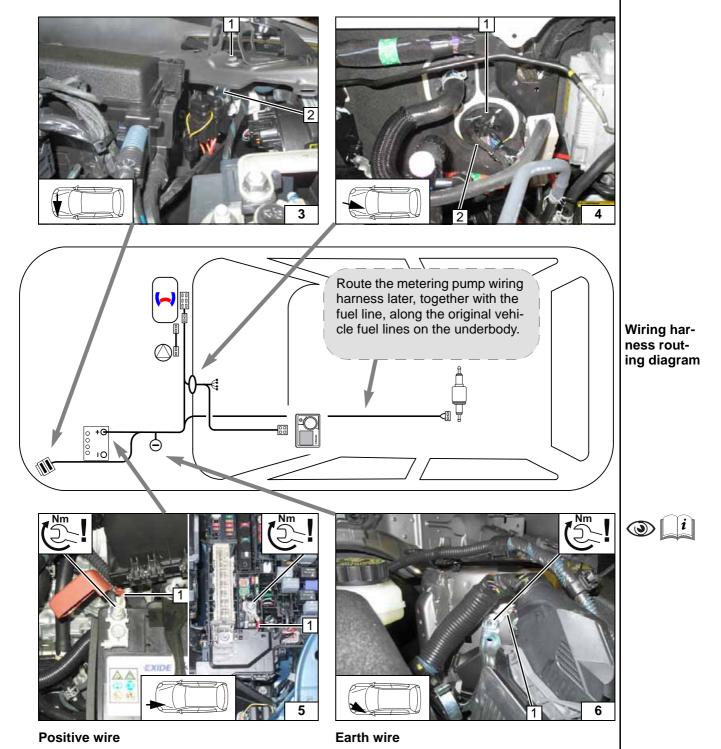
Engine compartment fuse holder

- 1 M6x12 bolt, spring lockwasher, large diameter washer, original vehicle hole
- 2 Angle bracket

Wiring harness pass through

For wiring harness routing, see 'Installing heater' section

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



1 Earth wire on original vehicle earth support point

- Left figure shows 1.2 P Right figure shows 1.6 D.
 - 1 Positive wire on original vehicle positive support point

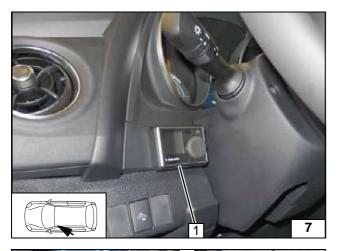


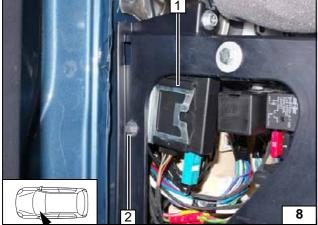
Air-Conditioning Control

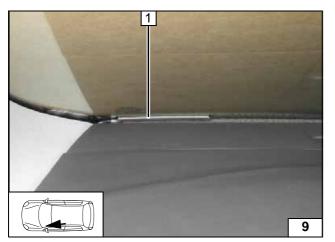
The connection of the A/C control has to be carried out in accordance with the separate installation documentation:

Installation documentation of automatic air-conditioning for Auris 2015 A/C control '**Standard**' or

Installation documentation of A/C control 'Standard' for manual air-conditioning of Auris 2015







MultiControl CAR Option

1 Installation frame







Installing MultiControl CAR

Remote Option (Telestart)

- **1** Receiver with bracket
- 2 M5x16 bolt, large diameter washer, receiver bracket, nut

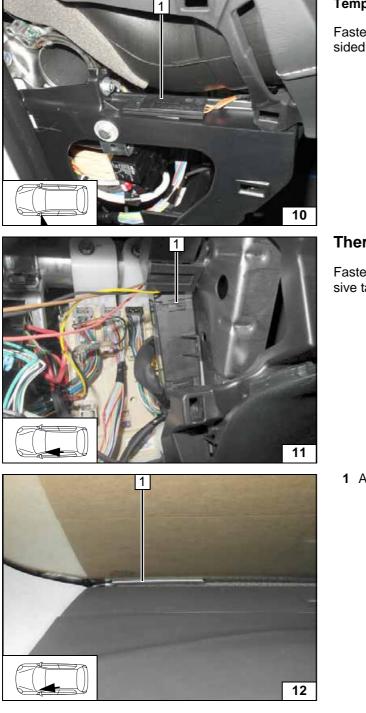


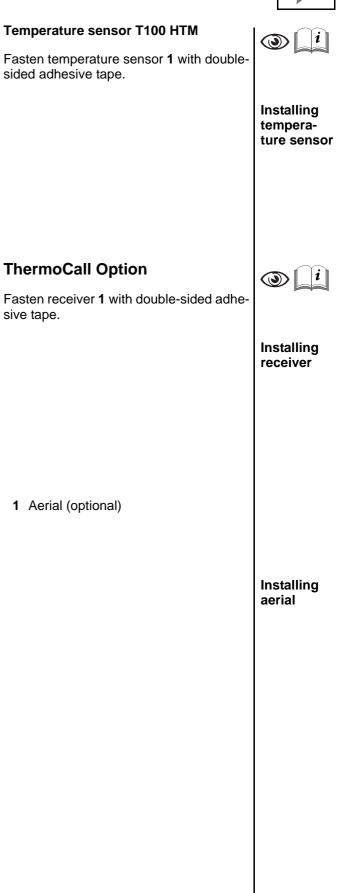
Installing receiver

1 Aerial

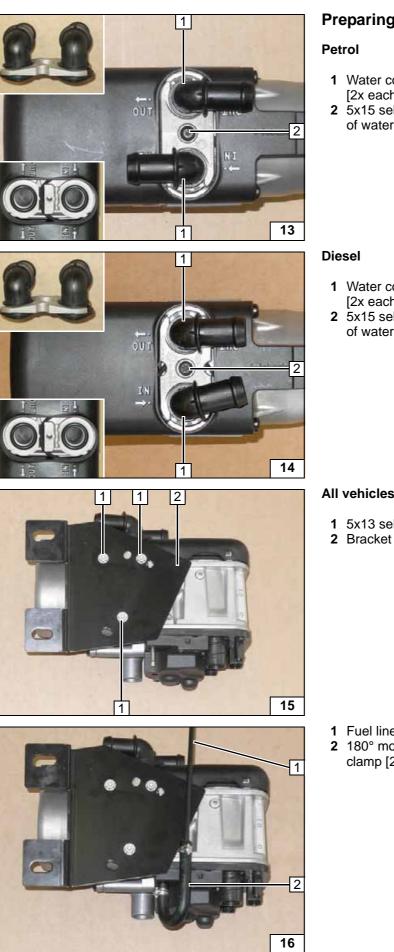
Installing aerial











Preparing Heater

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

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Installing water connection piece

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

Installing water connection piece

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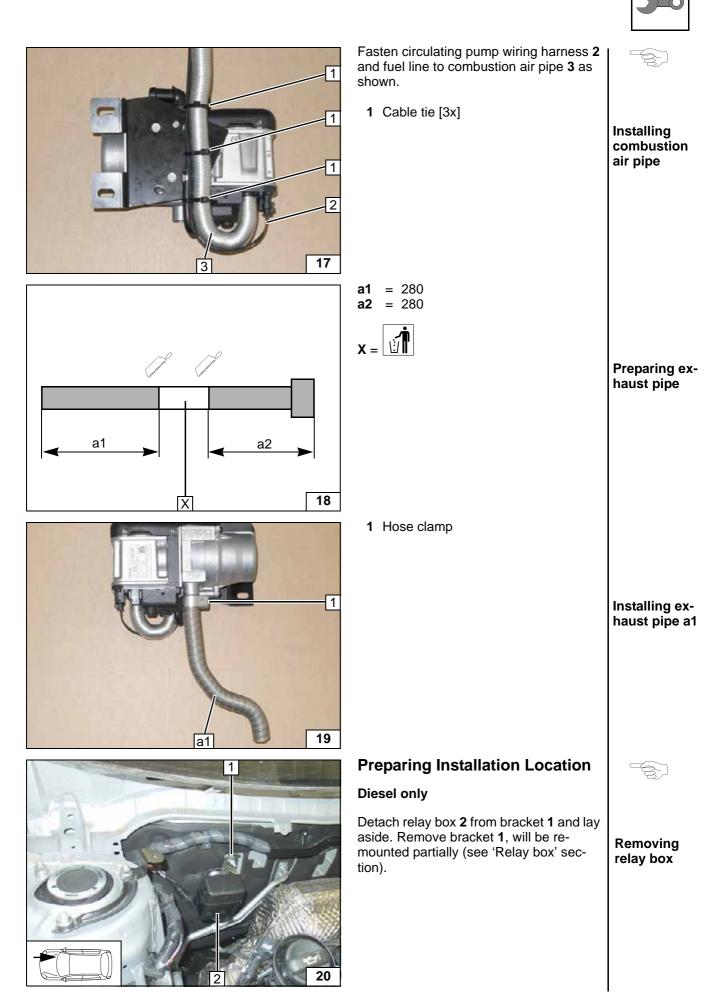
All vehicles

- 1 5x13 self-tapping bolt [3x]

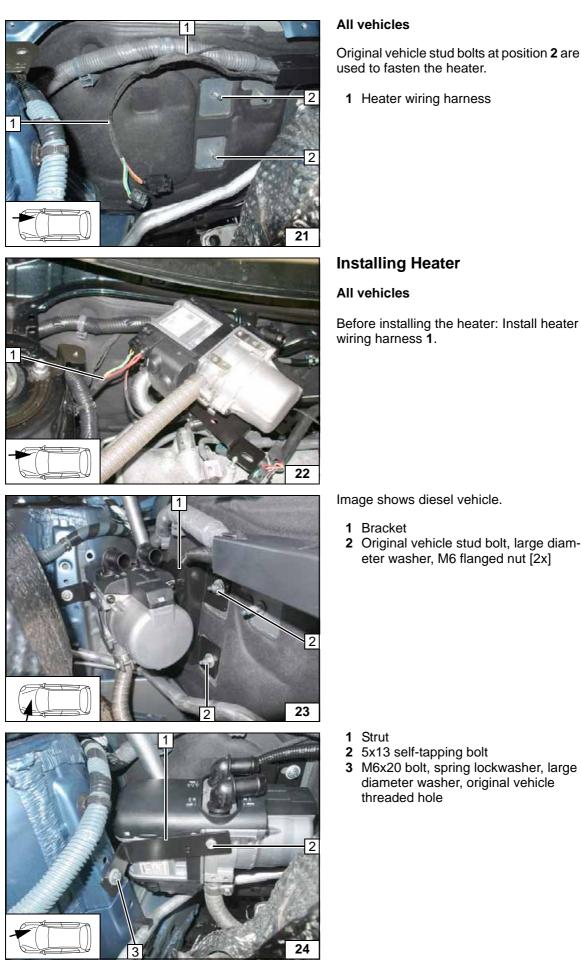
Premounting bracket on heater

- **1** Fuel line
- 2 180° moulded hose, 10mm dia. clamp [2x]

Premounting fuel line







Original vehicle stud bolts at position 2 are used to fasten the heater.

1 Heater wiring harness

Routing wir-ing harness of heater to installation location



Installing

heater

Image shows diesel vehicle.

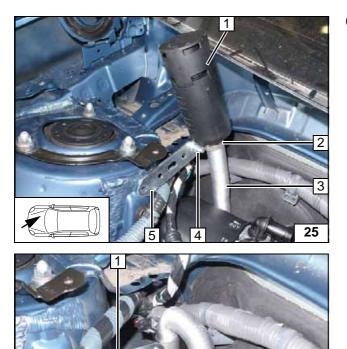
2 Original vehicle stud bolt, large diameter washer, M6 flanged nut [2x]

Installing heater

- **2** 5x13 self-tapping bolt
- 3 M6x20 bolt, spring lockwasher, large diameter washer, original vehicle threaded hole

Installing heater





Combustion Air

- 1 Silencer

- 2 25 mm dia. p-clamp
 3 Combustion air pipe
 4 M6x20 bolt, flanged nut
 5 Perforated bracket

- 1 Perforated bracket
- 2 Align silencer

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3 M6x20 bolt, large diameter washer, flanged nut, existing hole



Premounting silencer

Installing silencer



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.



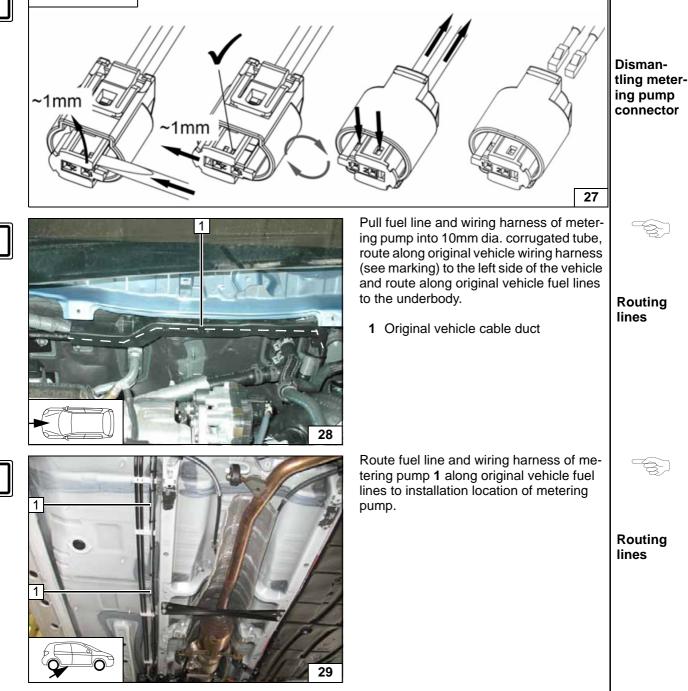
Route fuel line and metering pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.

Provide rub protection for fuel line and wiring harness in areas where there are sharp edges.

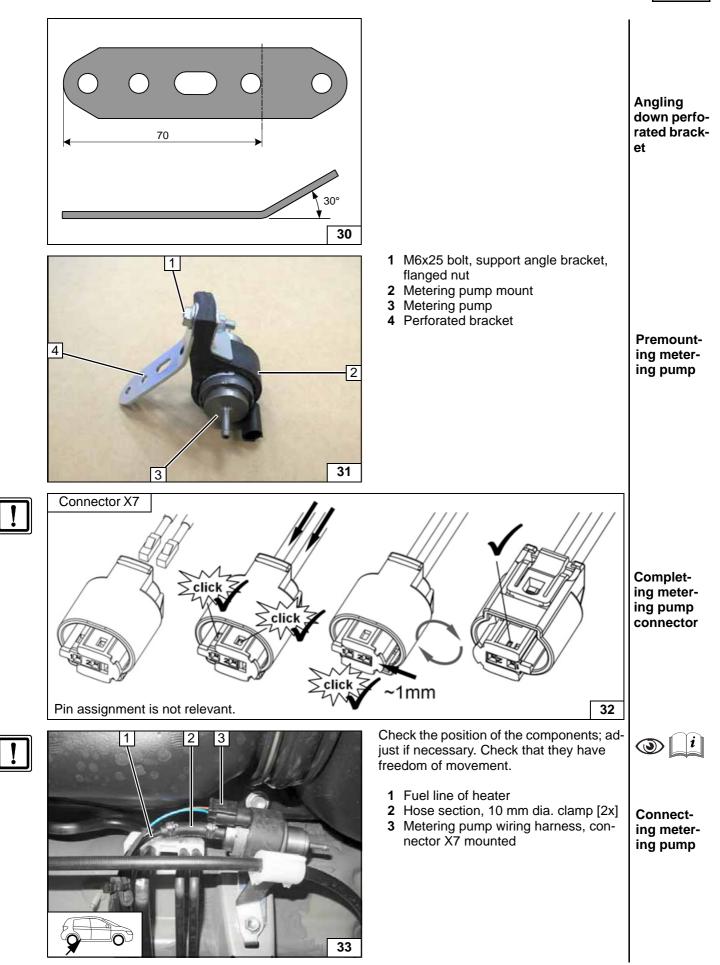
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



Connector X7









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Preparing

fuel tank sending unit

Fuel extrac-

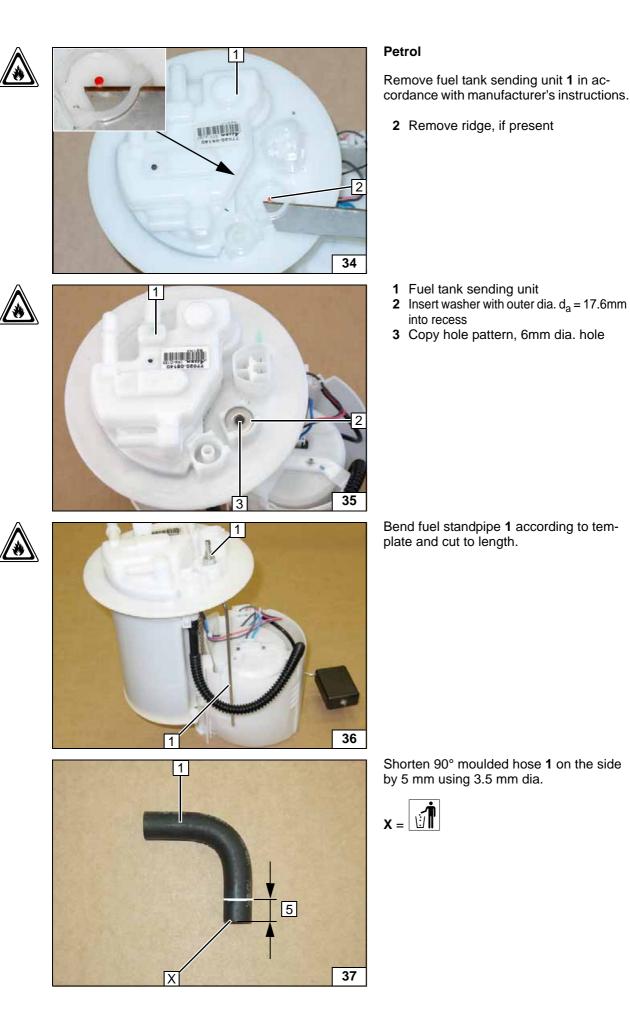
Installing fuel stand-

Shortening moulded hose

pipe

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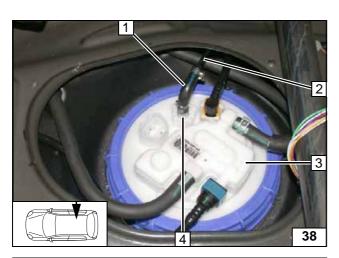
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Connect-

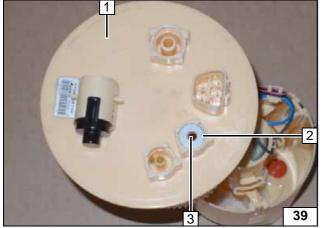
ing fuel line

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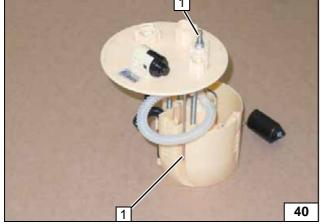


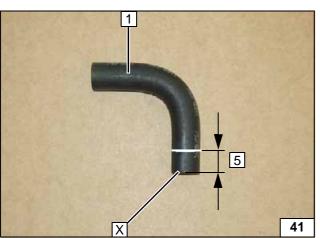












Install fuel tank sending unit **3** in accordance with manufacturer's instructions.

- 1 90° moulded hose with inner dia. $d_i = 3.5x4.5mm$; shortened side on fuel standpipe
- 2 Fuel line, 10mm dia. clamp
- 4 Fuel standpipe, 9 mm dia. clamp



Remove fuel tank sending unit **1** in accordance with manufacturer's instructions.

- 2 Insert washer with outer dia. d_a = 17.6mm into recess Fuel extrac-
- 3 Copy hole pattern, 6mm dia. hole

Bend fuel standpipe **1** according to template and cut to length.



Installing fuel standpipe

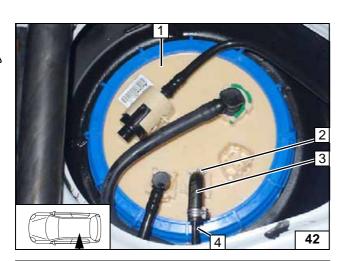
Shorten 90° moulded hose **1** on the side by 5 mm using 3.5 mm dia.



Shortening moulded hose







Install fuel tank sending unit **1** in accordance with manufacturer's instructions.

- 2 Fuel standpipe, 9mm dia. clamp
- **3** 90° moulded hose with inner dia.
 d_i = 3.5x4.5mm; shortened side on fuel standpipe
- 4 Fuel line, 10mm dia. clamp



Connecting fuel line

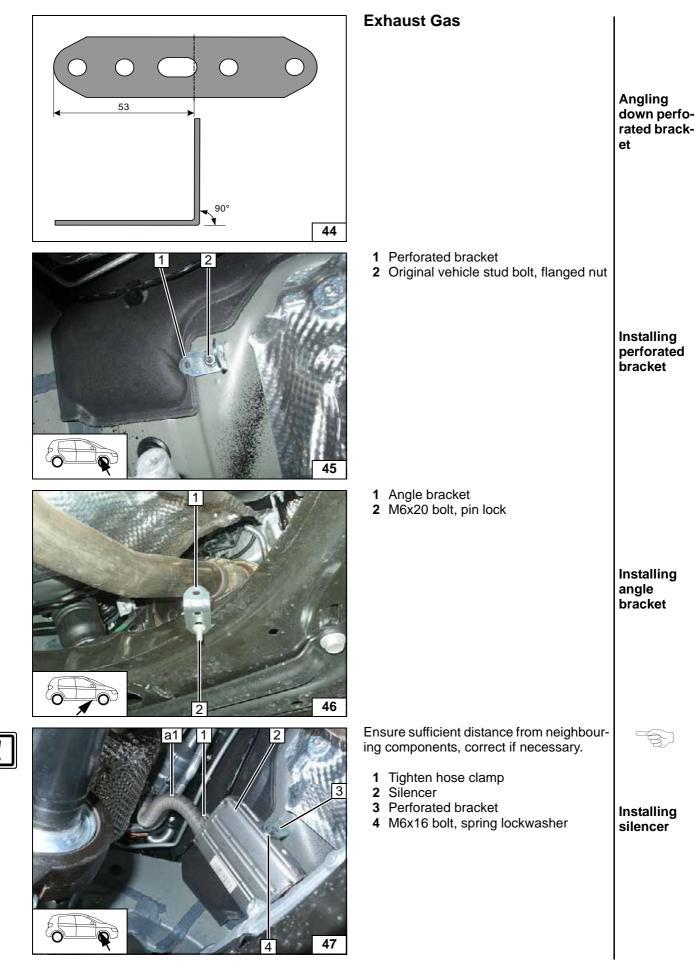
All vehicles

Slide corrugated tube **2** onto fuel line of fuel standpipe. Check the position of the components; adjust if necessary. Check that they have freedom of movement.

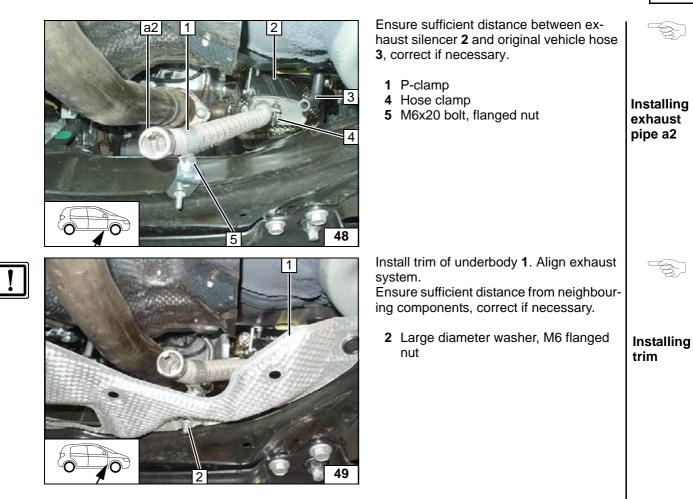
1 Hose section, 10 mm dia. clamp [2x]

Connecting metering pump









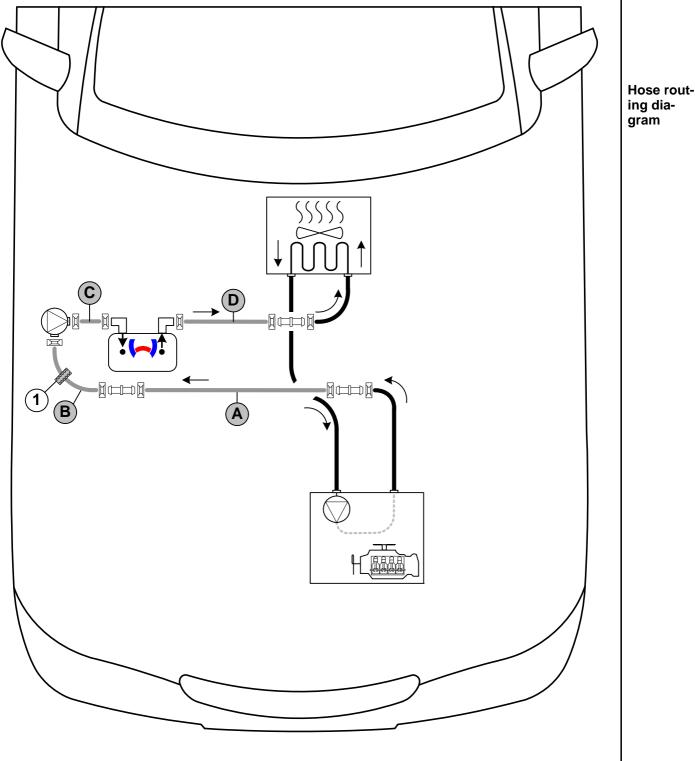


Coolant Circuit for Petrol Vehicles



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.

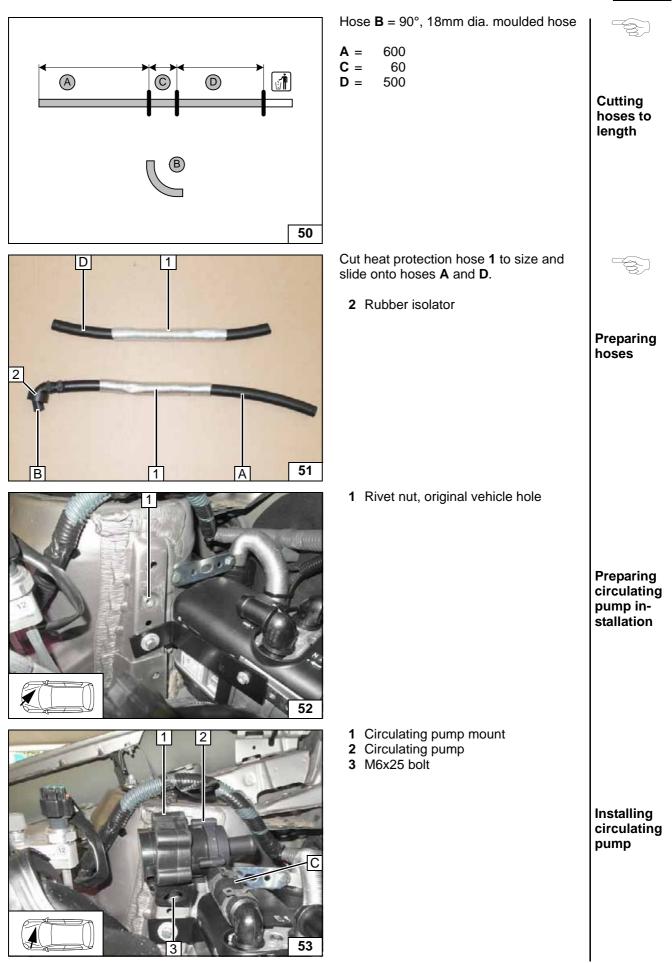
The connection should be modelled on an 'inline' circuit and based on the following diagram:



All spring clips $\square = 25$ mm dia. All connecting pipes $\square \square = 18x18$ mm dia. **1** = Black (sw) rubber isolator $\square \square$.

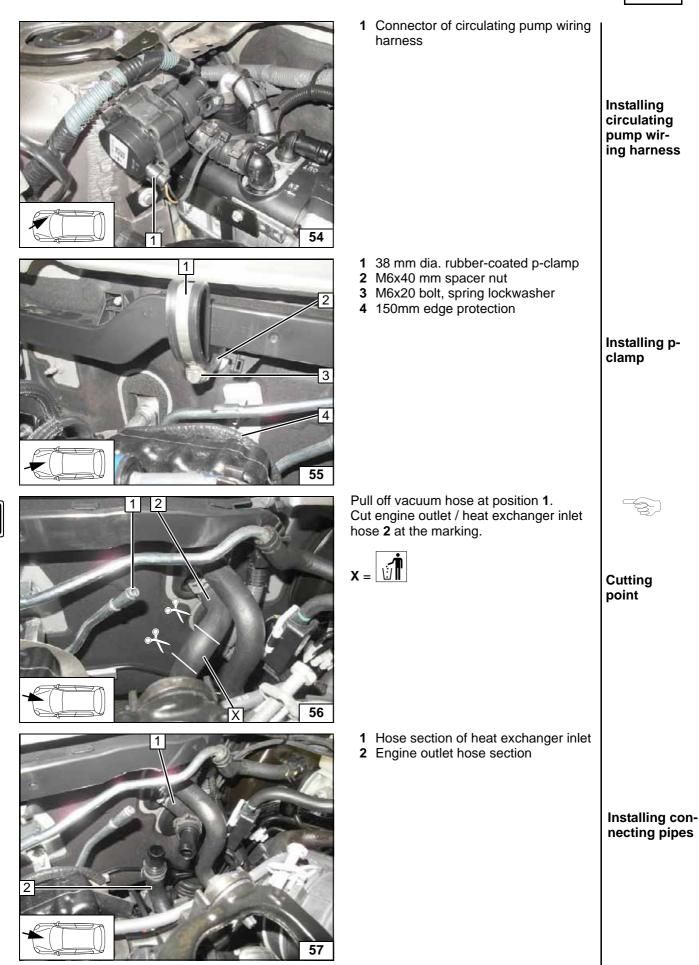
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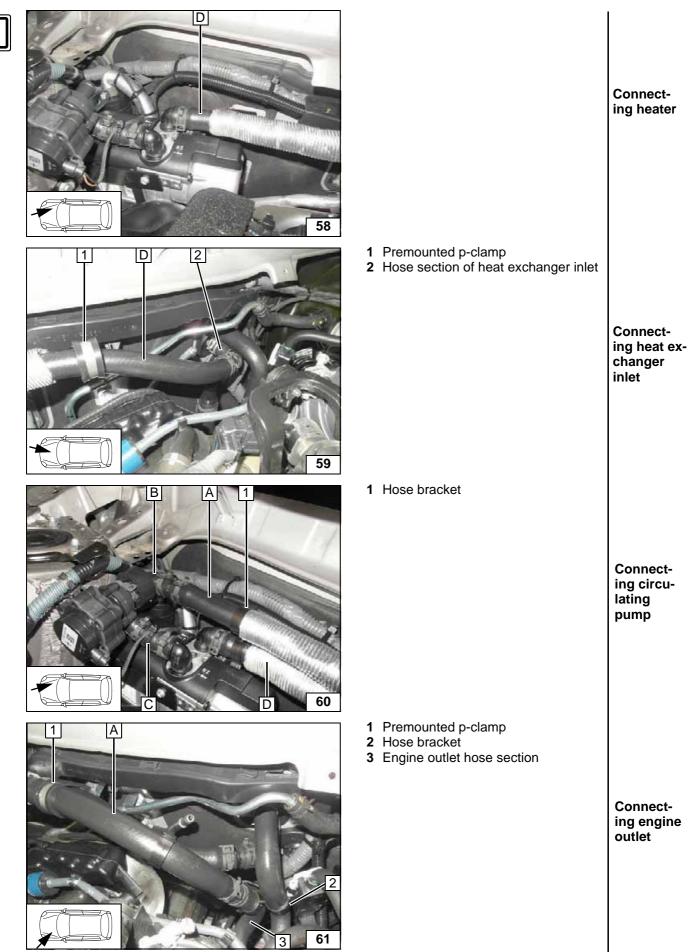
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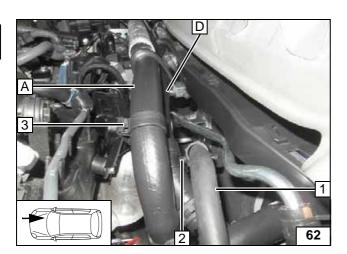


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Ensure sufficient distance from neighbouring components, correct if necessary. Installed vacuum hose **1**.

- 2 Hose bracket between hose **D** and vacuum hose
- 3 Hose bracket between hoses A and D

Installing hose bracket

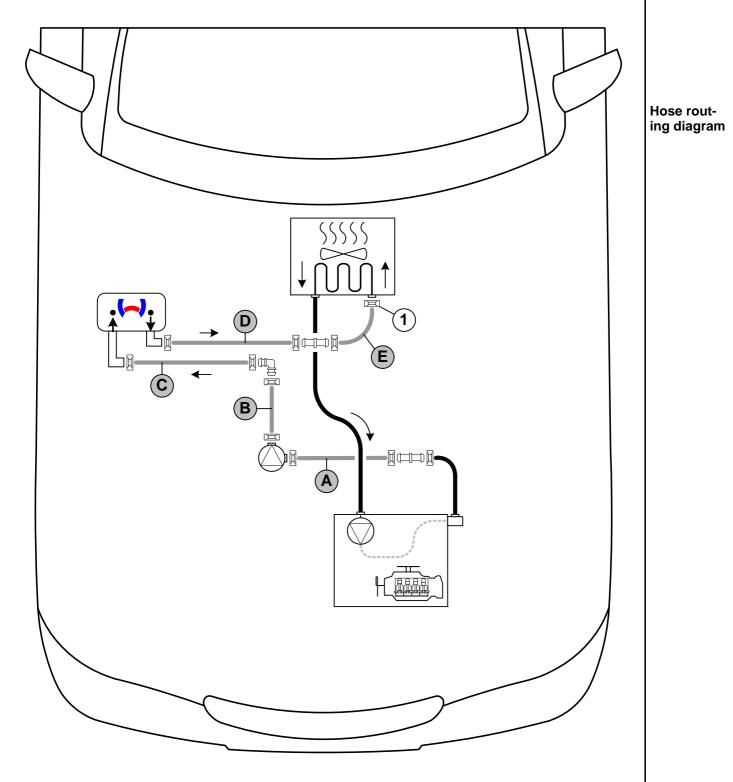


Coolant Circuit for Diesel Vehicles



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.

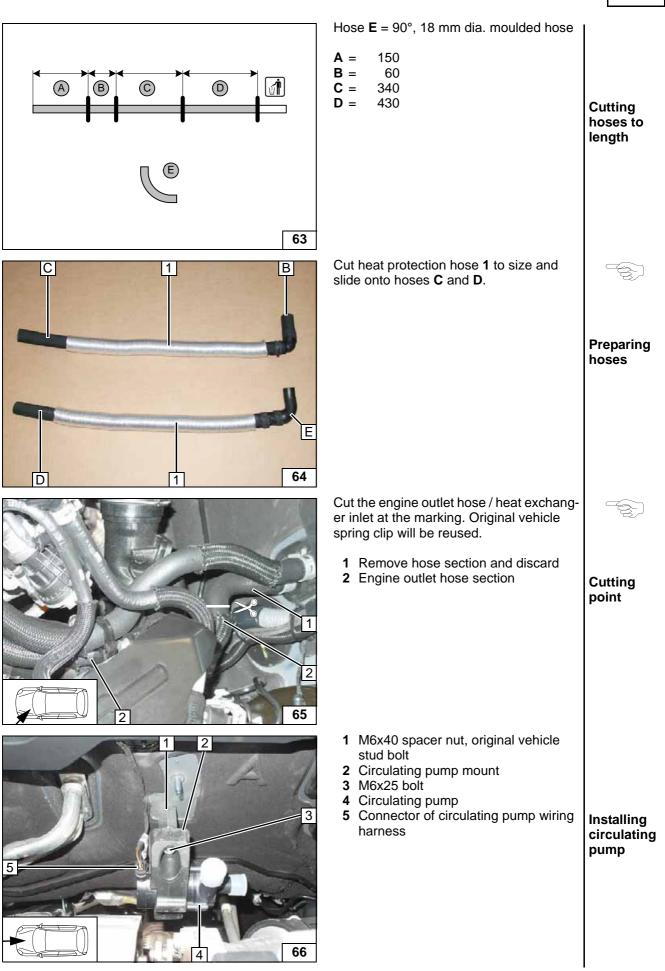
The connection should be modelled on an 'inline' circuit and based on the following diagram:



All spring clips without a specific designation $\square = 25 \text{ mm}$ dia. All connecting pipes \square and $\square = 18x18 \text{ mm}$ dia. **1** = Original vehicle spring clip \square .

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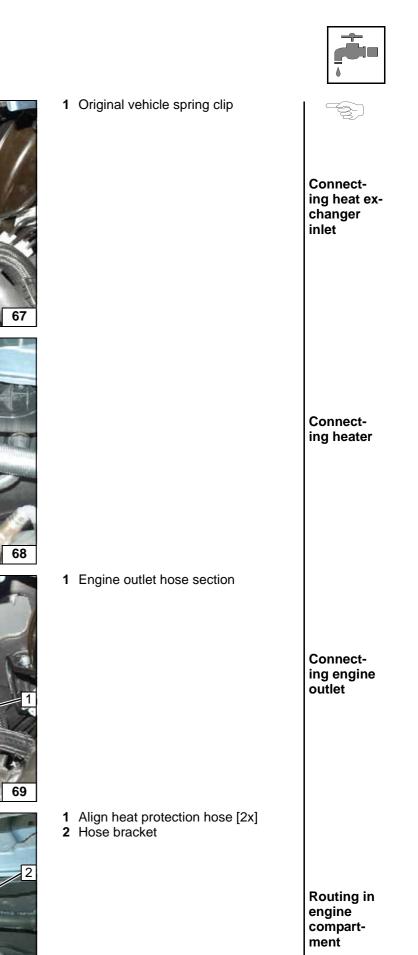


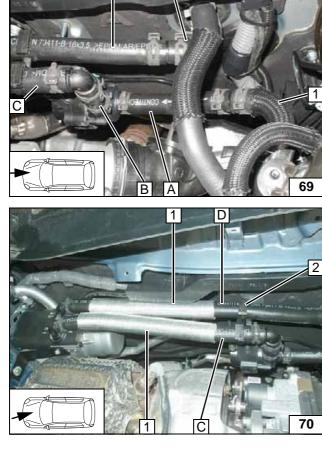
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 Installing Relay Box (Only in case of Diesel Vehicles) 1 Drill out welding points [2x] to 7 mm dia. with a drill 2 Discard bracket 3 Bracket, will be reused 	Preparing bracket of relay box
	Angling down perfo- rated brack- et
 M6x20 bolt, flanged nut, existing hole Perforated bracket Loosely mount M6x12 bolt, flanged nut Relay box mounted Bracket of relay box Original vehicle bolt 	Mounting relay box
1 Align relay box, tighten bolt	Aligning re- lay box

Final Work



Reassemble the components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back all 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 specifications.
- Program MultiControl CAR, teach Telestart transmitter.
- · For initial startup and function check, see TT-Evo installation instructions
- If the fan function or A/C control panel settings need to be checked, see the installation documentation in the additional kit A/C control 'Standard', section 'Final Work'.
- Place the 'Switch off parking heater before refuelling' caution label near the filler neck.

Proceed as follows with the Webasto Thermo test diagnostics during initial start-up:

- Control coolant pump under Menu Component test, check coolant level
- Pre-feed fuel for the heater using the line filling menu.
- Check CO2 settings; take setting values from the general installation instructions
- During the trial run, all water and fuel connections must be checked for leakage and firm seating
- Conduct troubleshooting in case of malfunctions.

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

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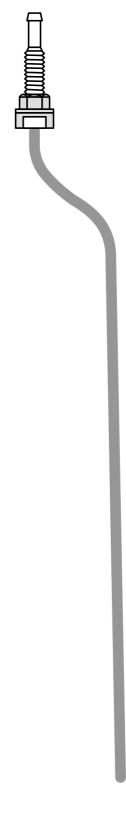
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Ident. No.: 1324455A_EN

Fuel Standpipe Template





100mm 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