

Water Heater

Thermo Top Evo Parking Heater



Installation Documentation Audi SQ5

Validity

Manufacturer	Model	Type	EG BE No. / ABE
Audi	SQ5	8R	e1 * 2001 / 116 * 0473 * ...

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm ³	Engine code
3.0 TDI	Diesel	8-speed Tiptronic	230	2967	CGQB

Tiptronic = automatic transmission

From model year 2015
Left-hand drive vehicle

Verified equipment variants: Automatic air-conditioning
Front fog lights
Headlight washer system
Xenon plus
Passenger compartment monitoring
Quattro

Total installation time: approx. 11 hours

Audi SQ5

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Necessary Components

- Basic delivery scope of Thermo Top Evo based on price list
- Installation kit for Audi SQ5 2015 Diesel: **1324026A**
- 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

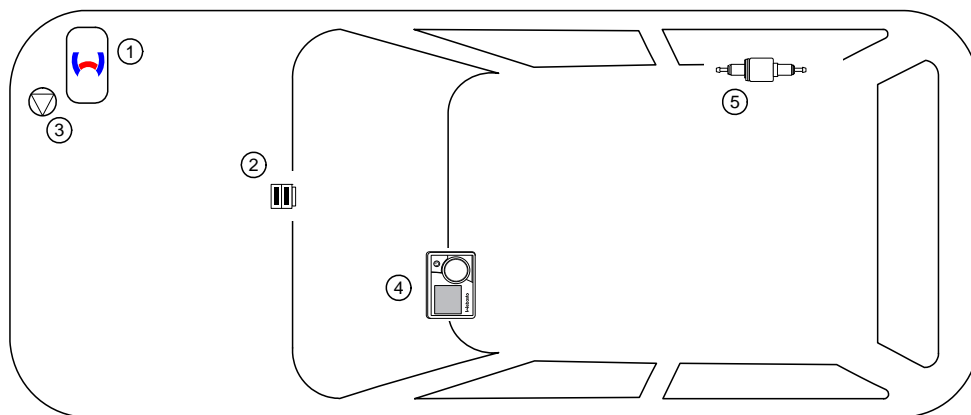
Installation instructions:

- Arrange for the vehicle to be delivered with the tank only about $\frac{1}{4}$ 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



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 to original vehicle lines and wiring harnesses using cable ties. Insulate loose wire ends and tie back. Connectors on electronic components must 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.

Audi SQ5

Information on Validity

This installation documentation applies to Audi SQ5 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
- 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
- Deep-hole marker
- Metric thread-setter kit
- 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.

Special features are highlighted using the following symbols:

Mechanical System



Electrical System



Coolant Circuit



Combustion Air



Fuel



Exhaust Gas



Software



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.



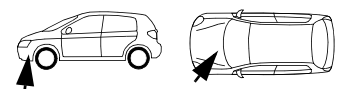
Reference to general installation instructions of the Webasto components or to the manufacturer's vehicle-specific documents.



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

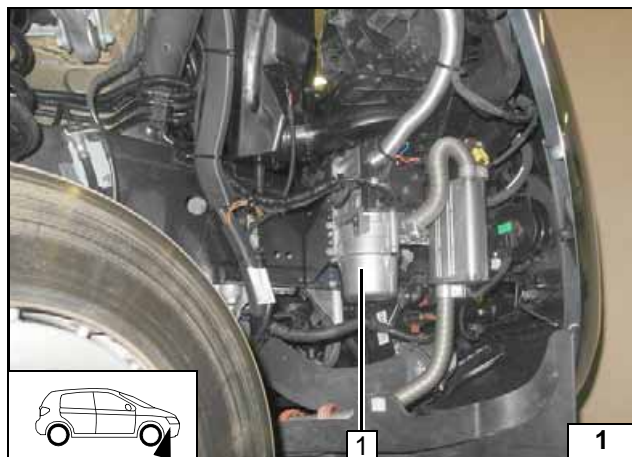


- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Remove the engine design cover.
- Remove the air filter housing, the plenum and the intake hose.
- Remove the upper coolant reservoir cap.
- Remove the filler neck for the washer reservoir.
- Remove the cover of the central electrical box on the right side in the coolant reservoir.
- Remove the right front wheel.
- Remove the right front wheel well trim.
- Remove the front lower engine trim.
- Detach the underbody trim (inner fastening) on the right side.
- Remove the rear single seat on the right side (to do this, remove the Isofix cover and seat cushion, detach the seat console screw fittings (4x)).
- Open the right-hand tank-fitting service lid.
- Remove the fuel tank sending unit in accordance with the manufacturer's instructions.
- Remove the lateral instrument panel cover on the left side.
- Remove the instrument panel trim on the driver's side.
- Remove the A/C control panel in accordance with the manufacturer's instructions.



Heater

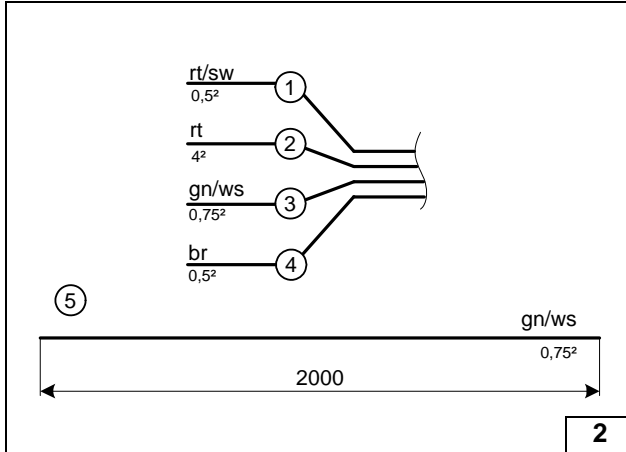
- Remove years that do not apply from the type and duplicate label.
- Attach the duplicate label (type label) visibly in the appropriate place in the engine compartment.



Heater Installation Location

- 1 Heater

Installation
Location



Preparing Electrical System

Wire sections retain their numbering in the entire document.

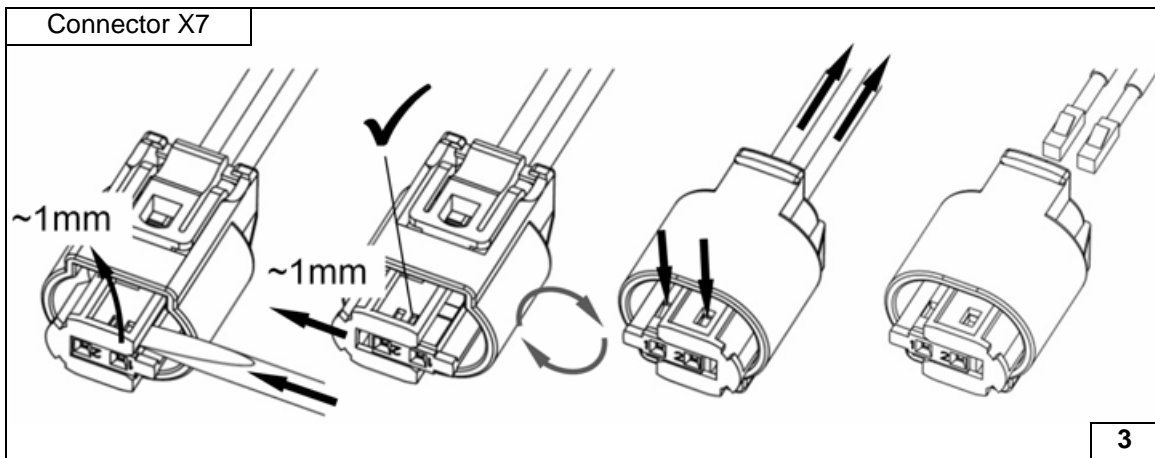
Produce all following electrical connections as shown in the wiring diagram.

Pull wire ⑤ into 4mm dia. protective sleeving

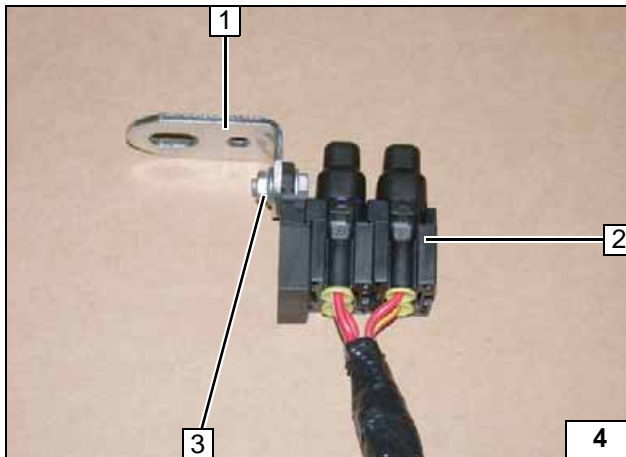
- ① Red/black (rt/sw) wire of heater/ X10 wiring harness
- ② Red (rt) wire of heater/ F2 wiring harness
- ③ Green/white (gn/ws) wire of heater/ X1/5 wiring harness
- ④ Brown (br) wire of heater/ X2/2 wiring harness



Assigning wires



Dismantling metering pump connector

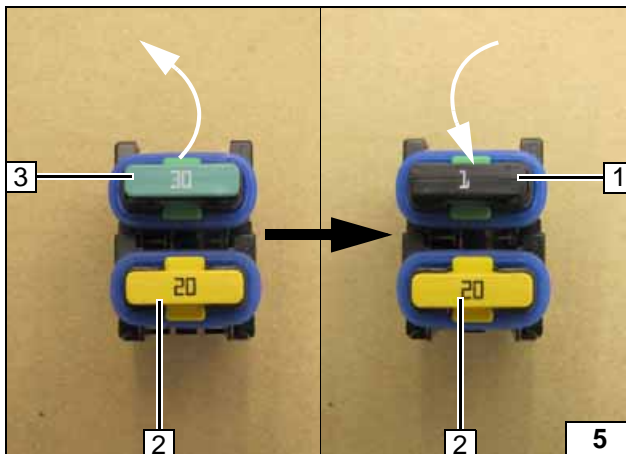


Replace 30A fuse F1 with 1A fuse.

- 1 Angle bracket
- 2 Fuses F1-F2 inserted
- 3 M5x16 bolt, large diameter washer [2x], retaining plate of fuse holder, nut



Preparing engine compartment fuse holder



Replace 30A passenger compartment main fuse F2 3 with 1A fuse!

- 2 20A heater fuse F1

Preparing engine compartment fuses

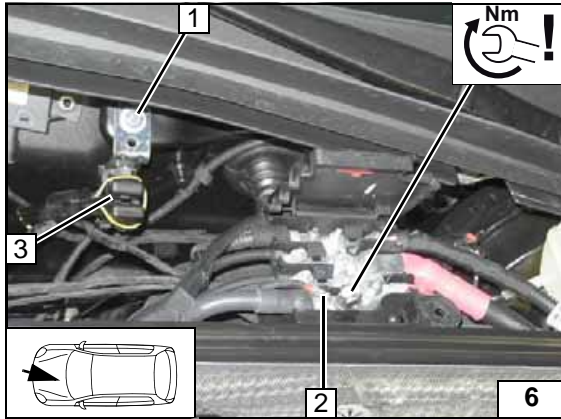


Electrical System



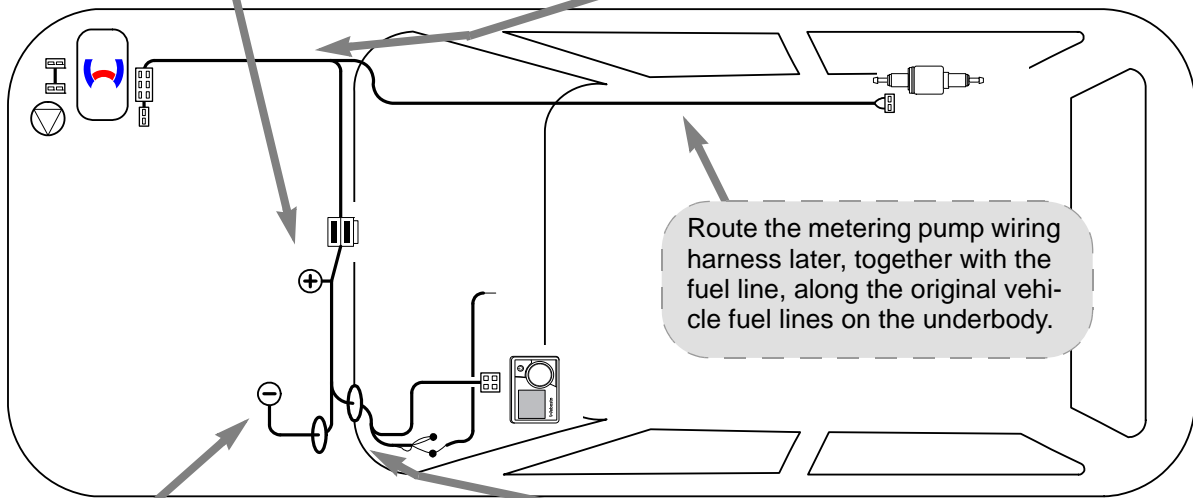
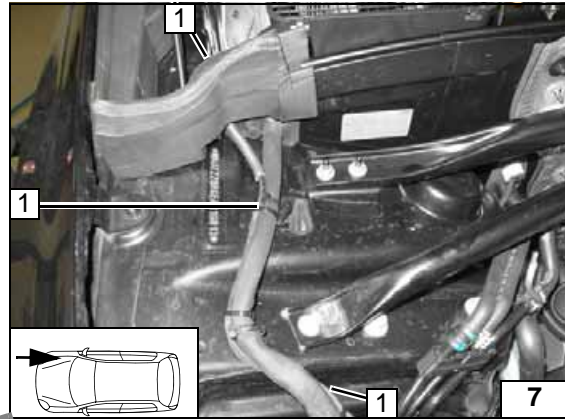
Positive wire and engine compartment fuse holder

- 1 M6x12 bolt, spring lockwasher, large diameter washer, angle bracket, existing thread
- 2 Positive wire on original vehicle positive distributor
- 3 Fuses F1-2

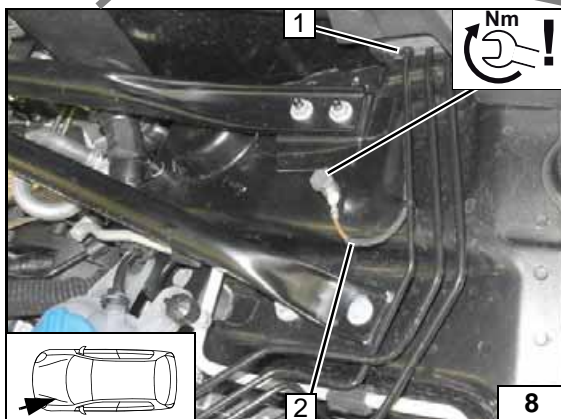


Wiring Harness Routing

Route heater wiring harness 1 with heater connecting plug from coolant reservoir along original vehicle line in the engine compartment.



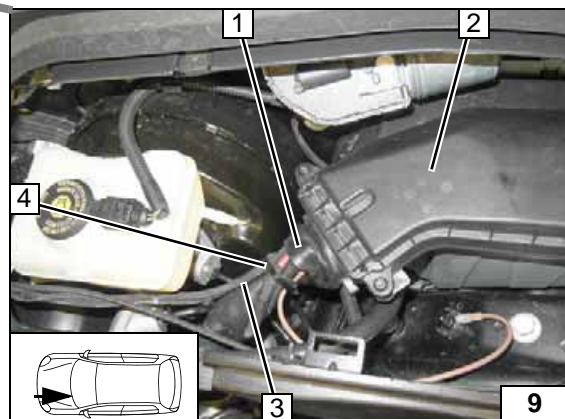
Wiring harness routing diagram



Earth wire

Route earth wire 2 through original vehicle pass through 1 into the engine compartment.

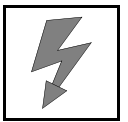
- 2 Earth wire on original vehicle earth support point



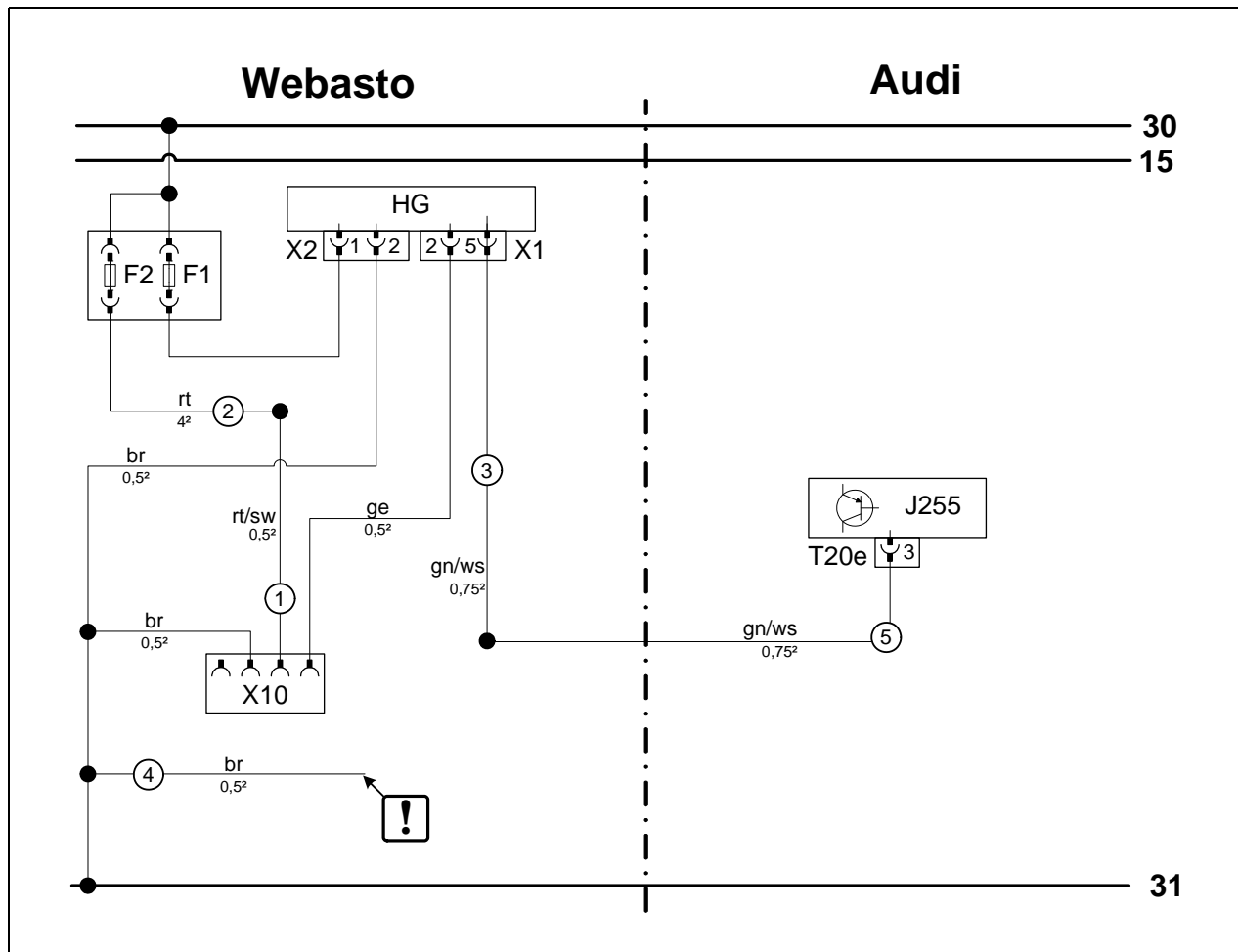
Wiring harness routing/ pass through

- 1 Original vehicle protective rubber plug
- 2 Remove cover of engine compartment central electrical box
- 3 Wiring harnesses of heater and heater control
- 4 Cable tie





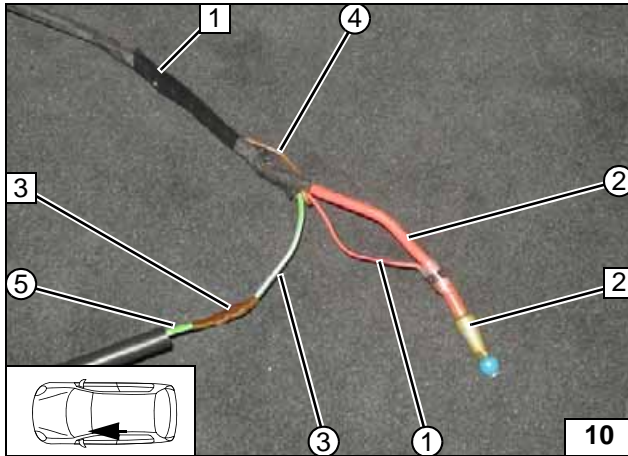
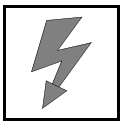
Automatic Air-Conditioning Fan Controller



Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	J255	A/C control panel	rt	red
X1	6-pin heater connector	T20e	20-pin connector J255	gn	green
X2	2-pin heater connector			sw	black
F1	20A fuse			ge	yellow
F2	30A replaced with 1A fuse.			br	brown
X10	4-pin heater control socket				Insulate wire end and tie back
				X	Cutting point
				Wiring colours may vary.	

Legend

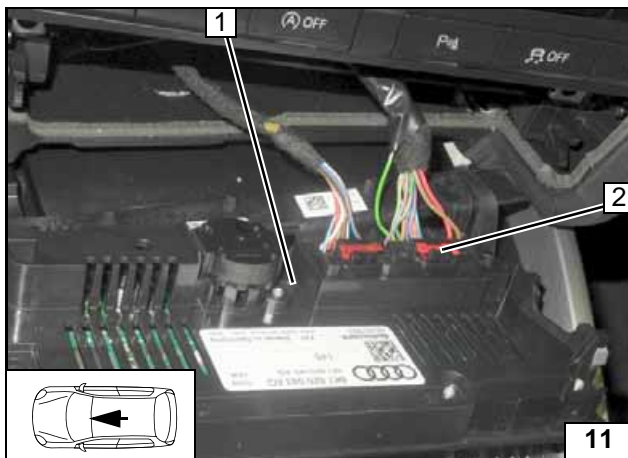


Insulate and tie back brown (br) wire ④

- 1 Heater wiring harness
- 2 Solder wire terminator
- 3 Butt connector shrinkable

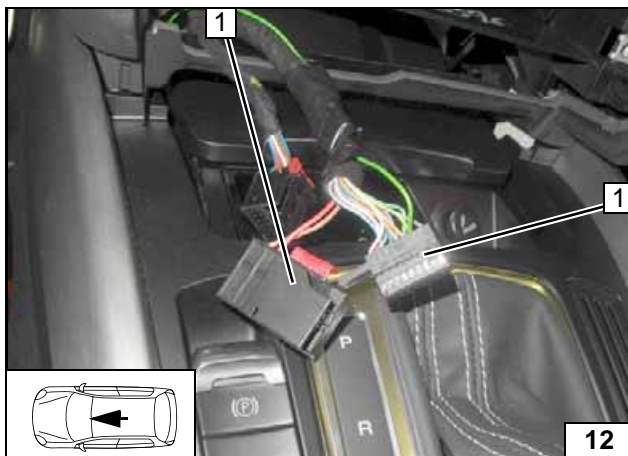


Connect-
ing wiring
harness of
heater in
passenger
compart-
ment



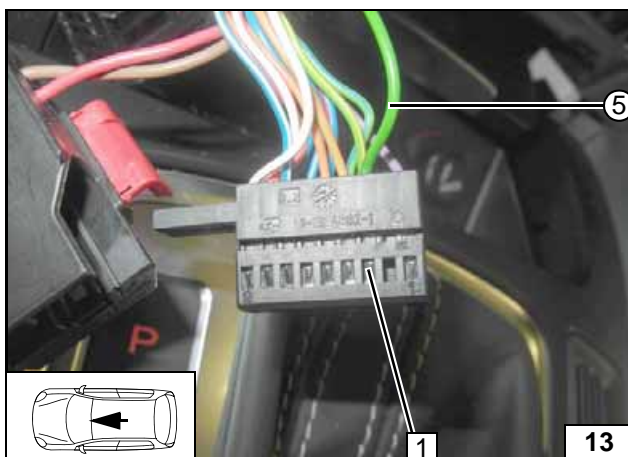
- 1 A/C control panel
- 2 Connector T20e

View of
connector
T20e



- 1 Connecting plug T20e of A/C control panel, dismantled

Dismantling
connector
T20e

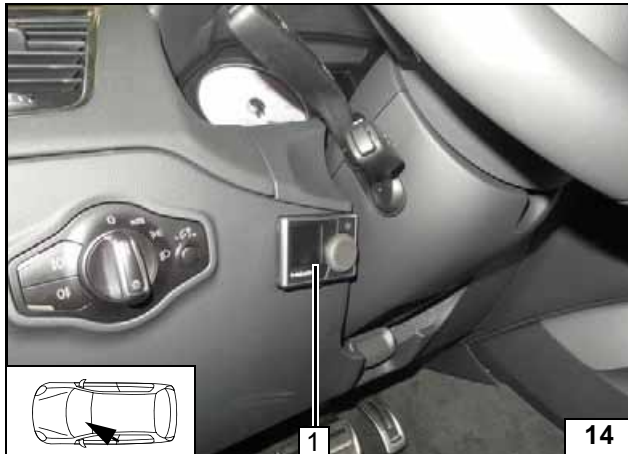
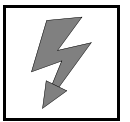


Crimp provided socket contact onto green/white (gn/ws) wire ⑤.

- 1 Connector T20e / Pin 3



Connect-
ing connec-
tor T20e

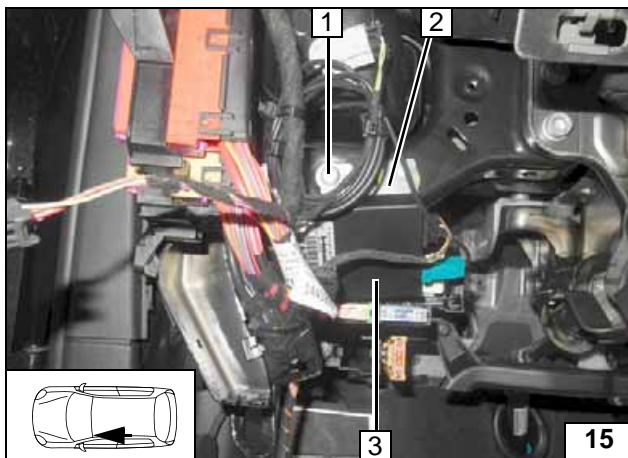


MultiControl CAR Option

- 1 MultiControl CAR



Installing
MultiControl
CAR

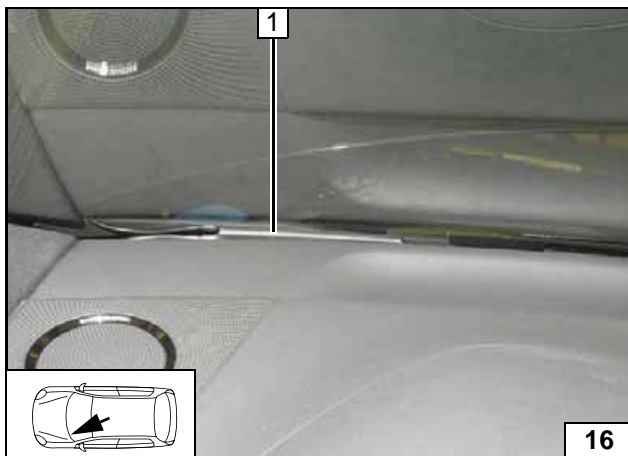


Remote Option (Telestart)

- 1 M5x16 bolt, washer, bracket 2, existing hole, flanged nut
- 2 Receiver bracket
- 3 Receiver

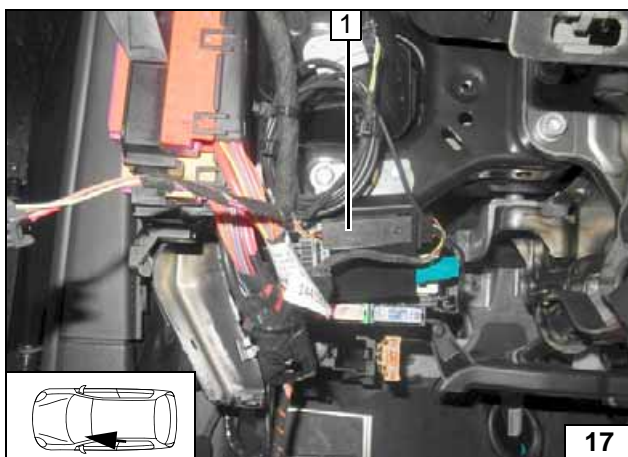


Installing
receiver



- 1 Aerial

Installing
aerial

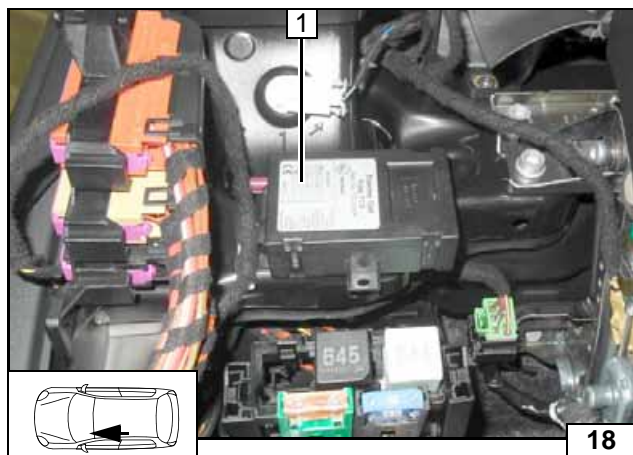


Temperature sensor T100 HTM

Fasten temperature sensor 1 with double-sided adhesive tape.



Installing
temperature
sensor

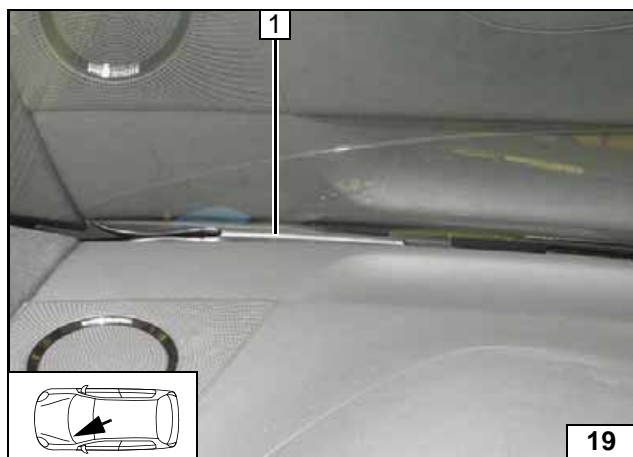


ThermoCall Option

Fasten receiver 1 with double-sided adhesive tape.

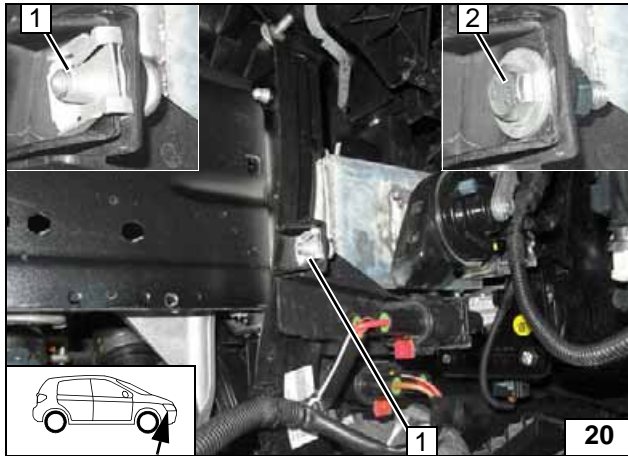
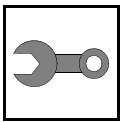


Installing receiver



1 Aerial (optional)

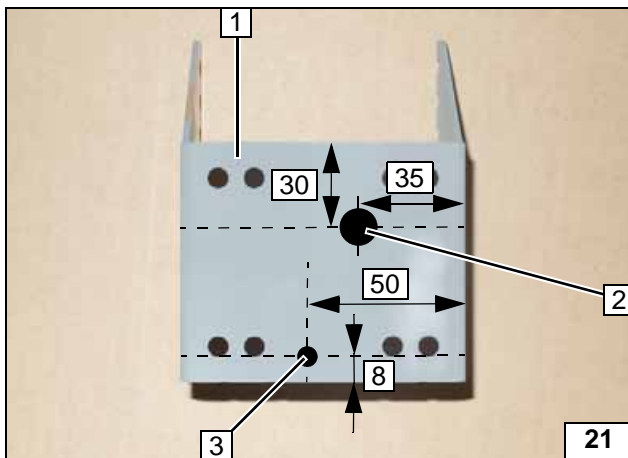
Installing aerial



Preparing Installation Location

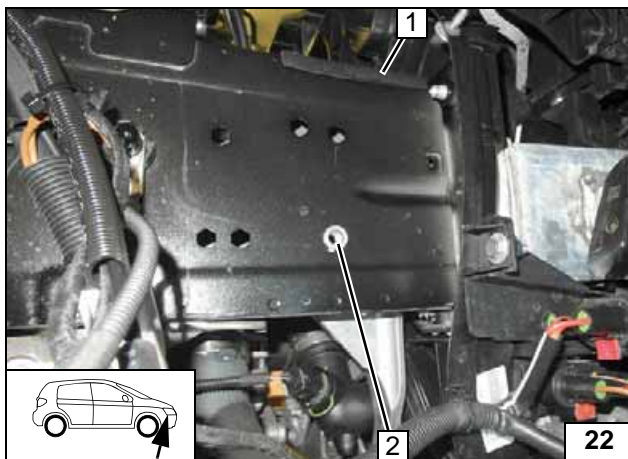
- 1 Remove old screw fitting and discard
- 2 New screw fitting, M6x20 bolt, large diameter washer, flanged nut

Replacing screw fitting



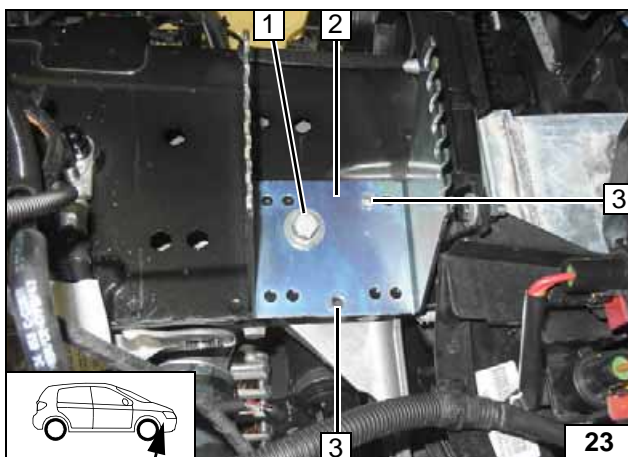
- 1 Bracket
- 2 10 mm dia. hole
- 3 6.5 mm dia. hole

Preparing bracket



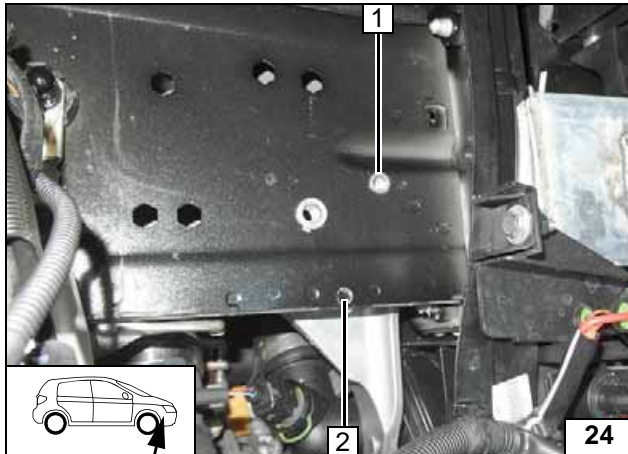
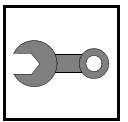
- 1 100 mm edge protection
- 2 M8 rivet nut

Installing rivet nut



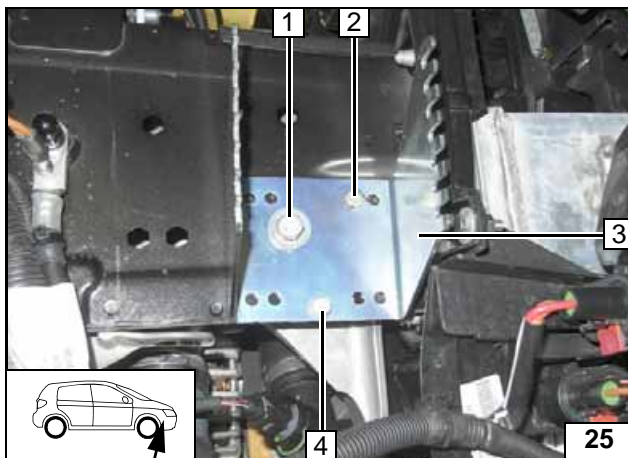
- 1 Loosely install M8x20 bolt
- 2 Align bracket, parallel to lower edge of frame side member
- 3 Copy hole pattern [2x]

Installing bracket loosely



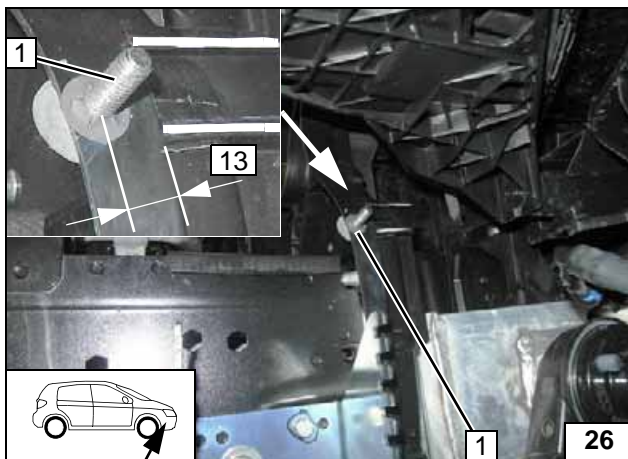
- 1 9.1mm dia. hole; rivet nut
- 2 6.5 mm dia. hole

Installing rivet nut



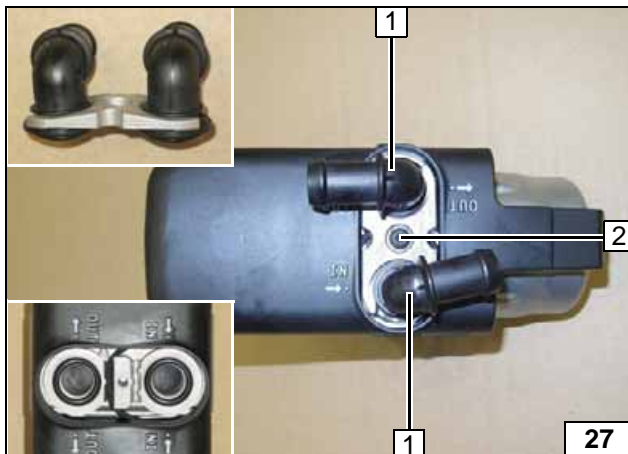
- 1 M8x25 bolt, spring lockwasher, large diameter washer
- 2 M6x20 bolt, spring lockwasher
- 3 Bracket
- 4 M6x12 bolt, flanged nut

Installing bracket



- 1 M6x25 bolt, large diameter washer, 6,5 mm dia. hole, screw lock

Inserting bolt

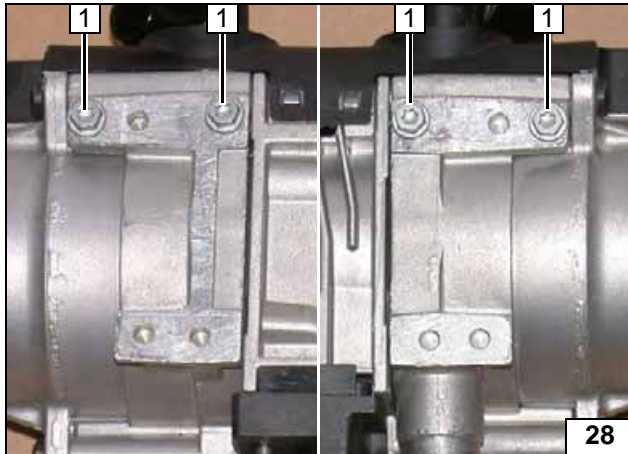
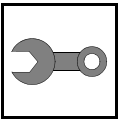


Preparing Heater

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



Installing water connection piece



Screw 5x13 self-tapping bolts **1** [4x] into existing holes by a maximum of 3 thread turns.

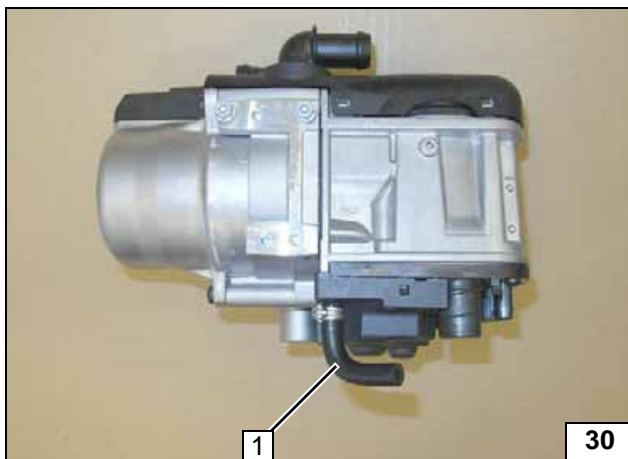


Premounting bolts loosely



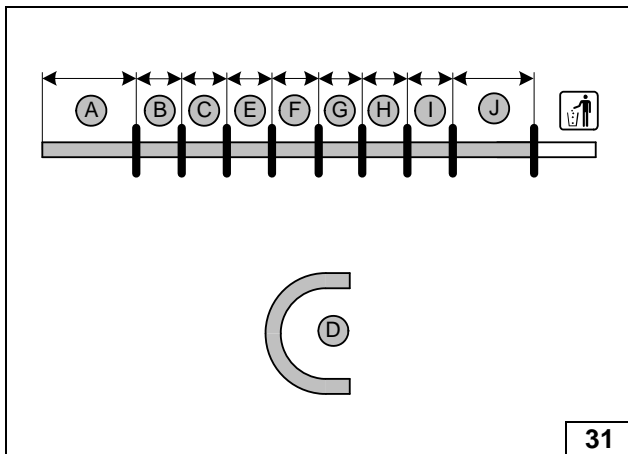
1 5x13 mm self-tapping bolts, large diameter washer, angle bracket

Installing angle bracket



1 90° moulded hose, 10mm dia. clamp

Installing hose

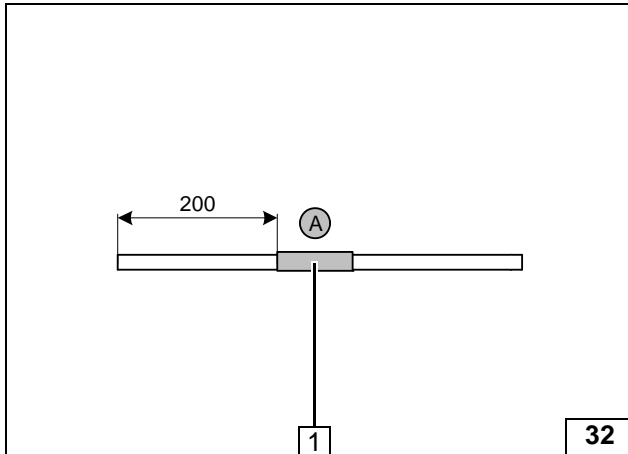
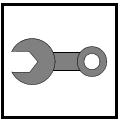


Hose **D** = 180°, 18mm dia. moulded hose



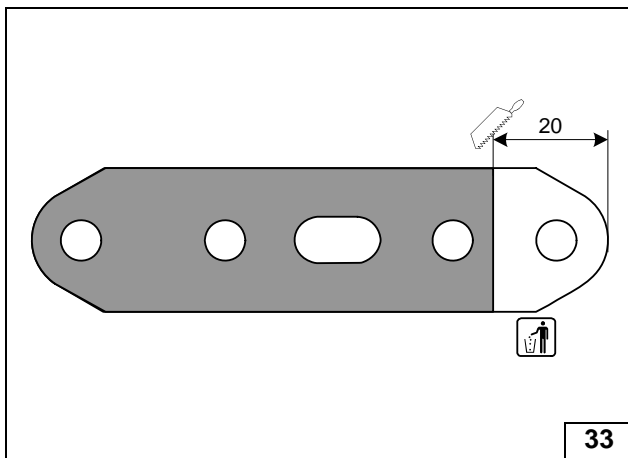
- A** = 600
- B** = 115
- C** = 135
- E** = 140
- F** = 85
- G** = 60
- H** = 100
- I** = 60
- J** = 600

Cutting hoses to length

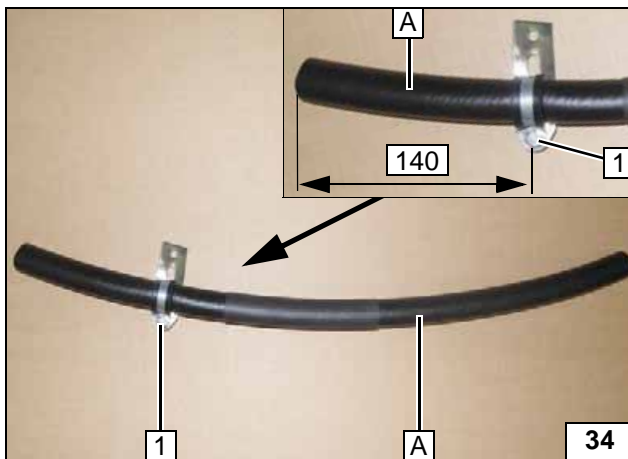


- 1 100 mm long heat shrink plastic tubing

Preparing hose A

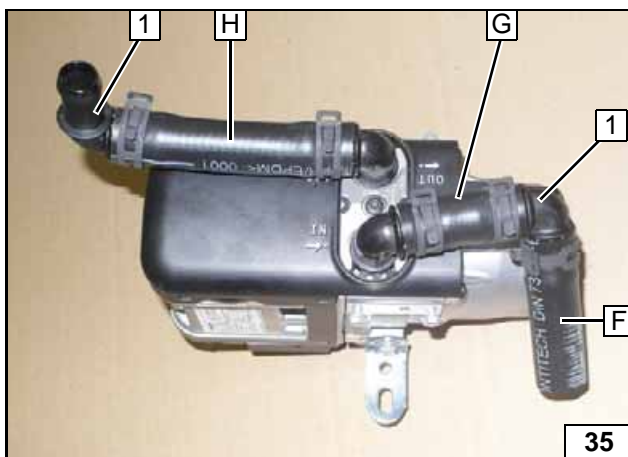


Preparing perforated bracket



- 1 M6x20 bolt, 25 mm dia. p-clamp, perforated bracket, flanged nut

Preparing hose A

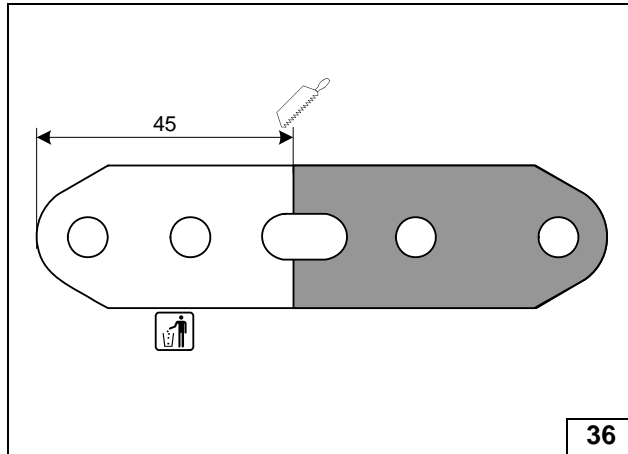
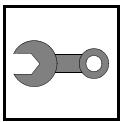


All spring clips = 25 mm dia.

- 1 18x18mm, 90° connecting pipe [2x]

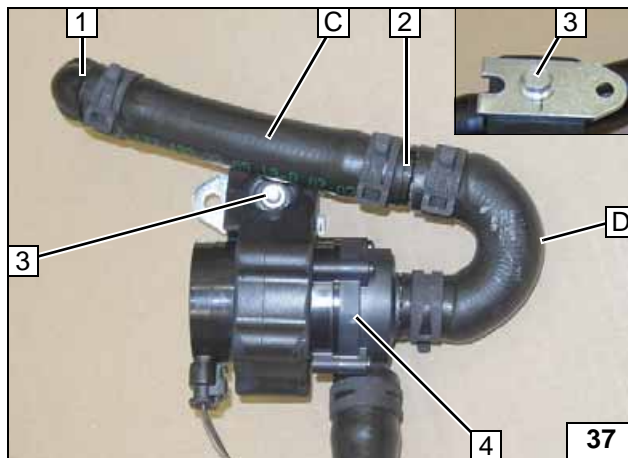


Premounting hoses



36

Preparing perforated bracket



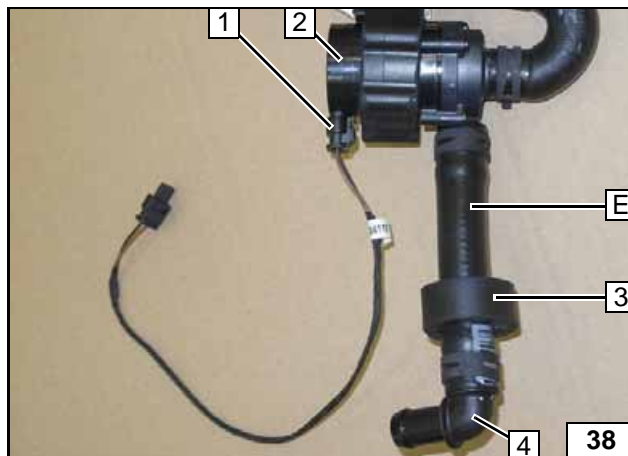
37

All spring clips =25mm dia.

- 1 90°, 18x18 connecting pipe
- 2 18x18 connecting pipe
- 3 M6x25 bolt, perforated bracket, circulating pump mounting, flanged nut
- 4 Circulating pump



Premounting circulating pump



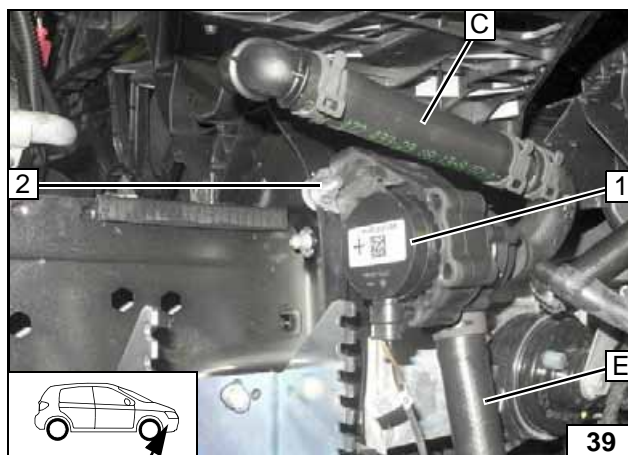
38

All spring clips =25mm dia.

- 1 Circulating pump wiring harness connector
- 2 Circulating pump
- 3 Black rubber isolator
- 4 90°, 18x18 connecting pipe



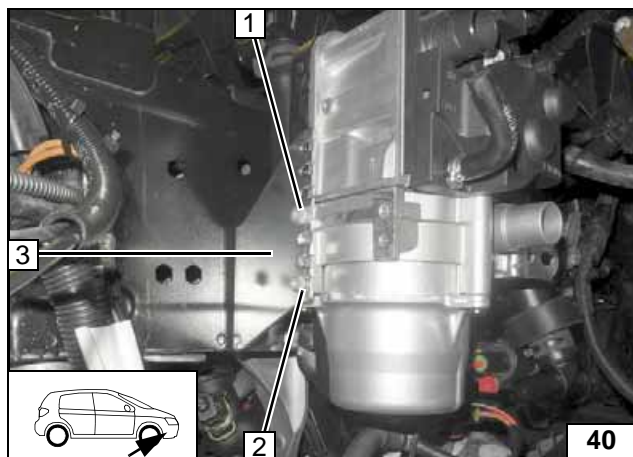
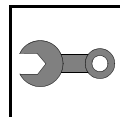
Premounting circulating pump



39

- 1 Circulating pump
- 2 M6x25 bolt premounted, perforated bracket, flanged nut

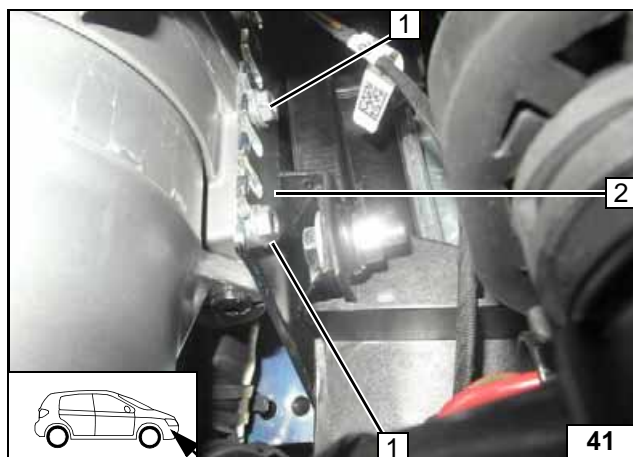
Installing circulating pump



Installing Heater

- 1 5x13 self-tapping bolt
- 2 5x13 self-tapping stud bolt
- 3 Bracket

Installing heater



- 1 5x13 self-tapping bolt [2x]
- 2 Bracket

Installing heater



Align black (sw) rubber isolator 1 with the original vehicle connector.



Connecting hoses E and F



Fuel



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

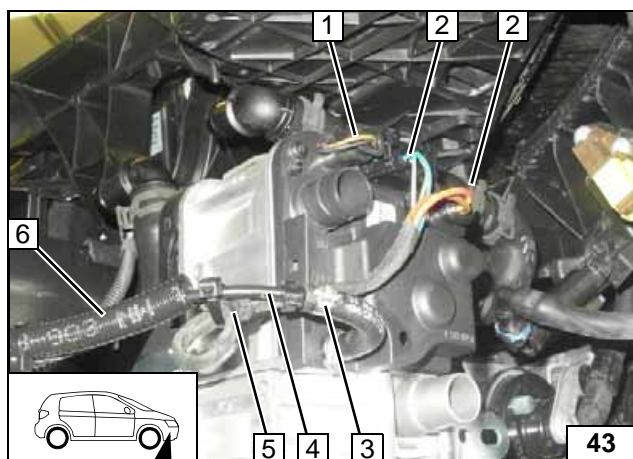
Catch any fuel running off in an appropriate container.



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.

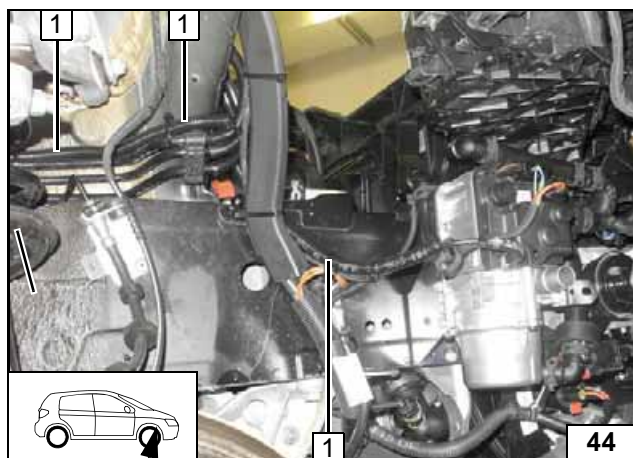


Pull fuel line **4** and wiring harness of metering pump **5** in corrugated tube **6** and route to wheel well.

- 1 Circulating pump wiring harness connector
- 2 Heater wiring harness connector [2x]
- 3 10 mm dia. clamp



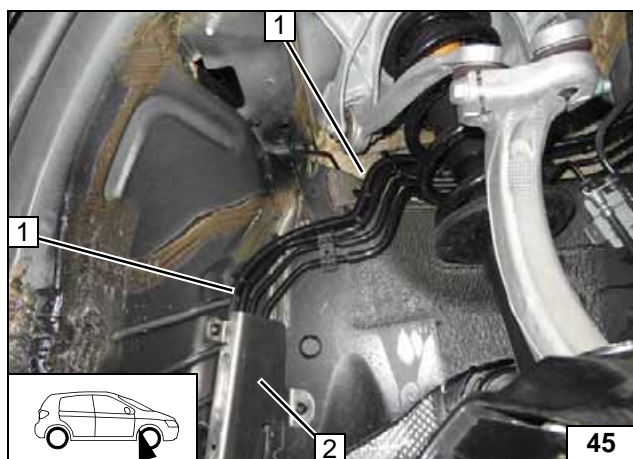
Connecting heater



Route fuel line and wiring harness of metering pump in corrugated tube **1** along original vehicle fuel lines into the wheel well.



Routing lines

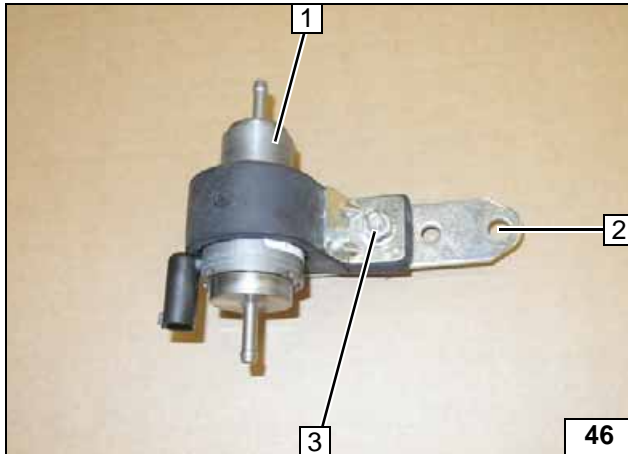


Route fuel line and wiring harness of metering pump in corrugated tube **1** along original vehicle fuel lines to the underbody.

- 2 Remove trim if necessary



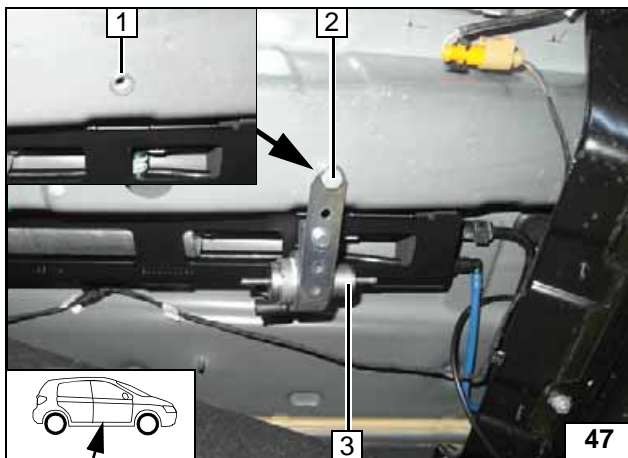
Routing lines



- 1 Metering pump
- 2 Drill out perforated bracket to 8.5mm dia.
- 3 M6x25 bolt, perforated bracket, metering pump mounting, support angle bracket, flanged nut



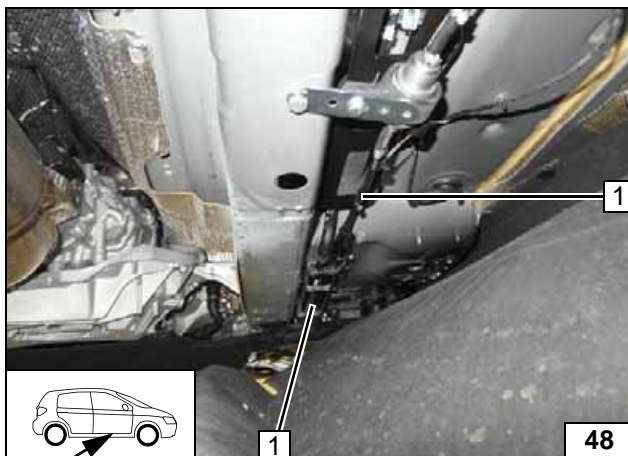
Premounting metering pump



- 1 Rivet nut in existing hole
- 2 M8x25 bolt, spring lockwasher
- 3 Premounted metering pump



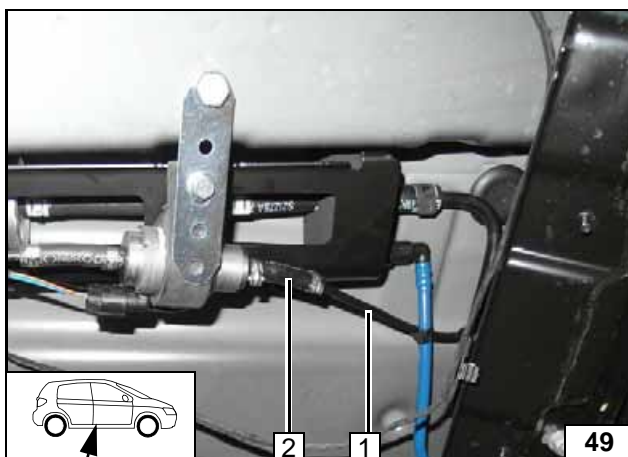
Installing metering pump



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



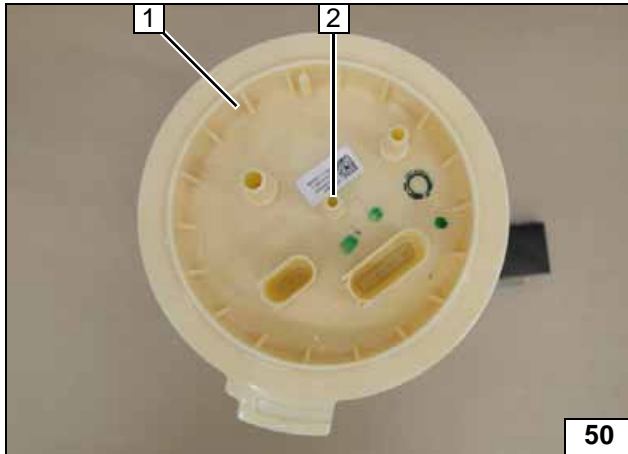
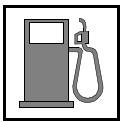
Routing lines



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



Connecting metering pump



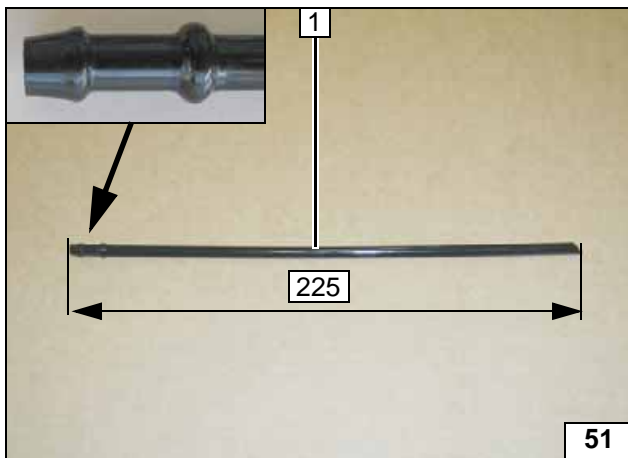
50

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

- 2** Drill out connection piece to 2.5 mm dia.



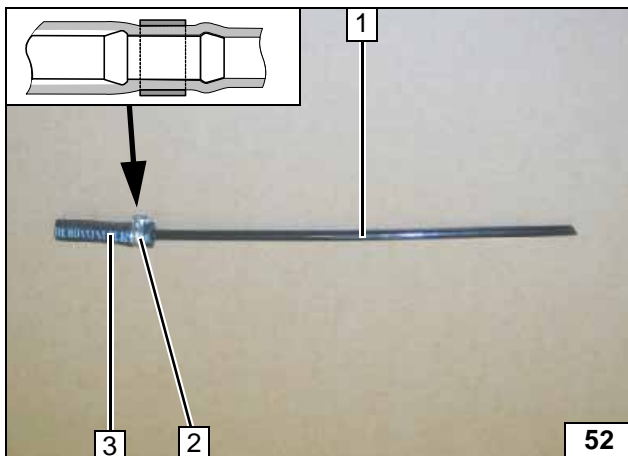
Fuel extraction



51

- 1** Standpipe

Cutting standpipe at an angle



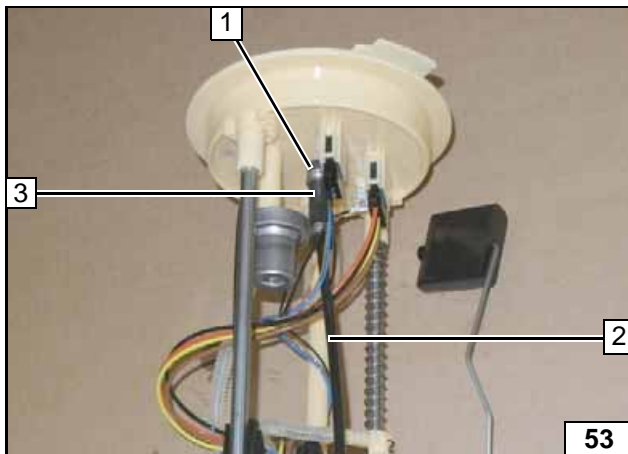
52

Place 10 mm dia. clamp **2** exactly between both bulges of the standpipe.

- 1** Standpipe
- 3** Hose section



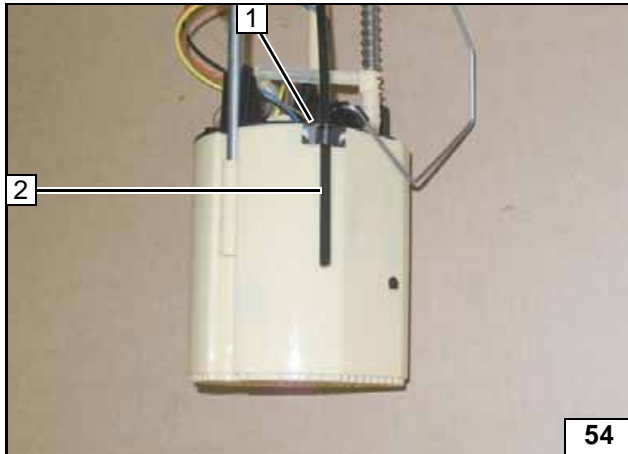
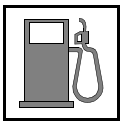
Premounting standpipe



53

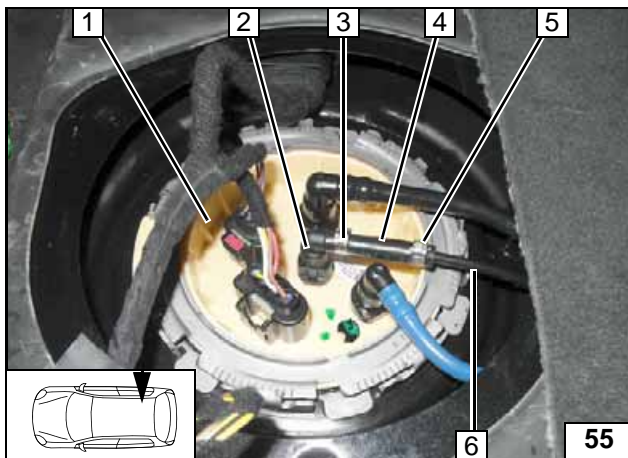
- 1** 10 mm dia. clamp
- 2** Standpipe
- 3** Premounted hose section

Installing standpipe



- 1 Retaining clamp
- 2 Standpipe

Fastening standpipe

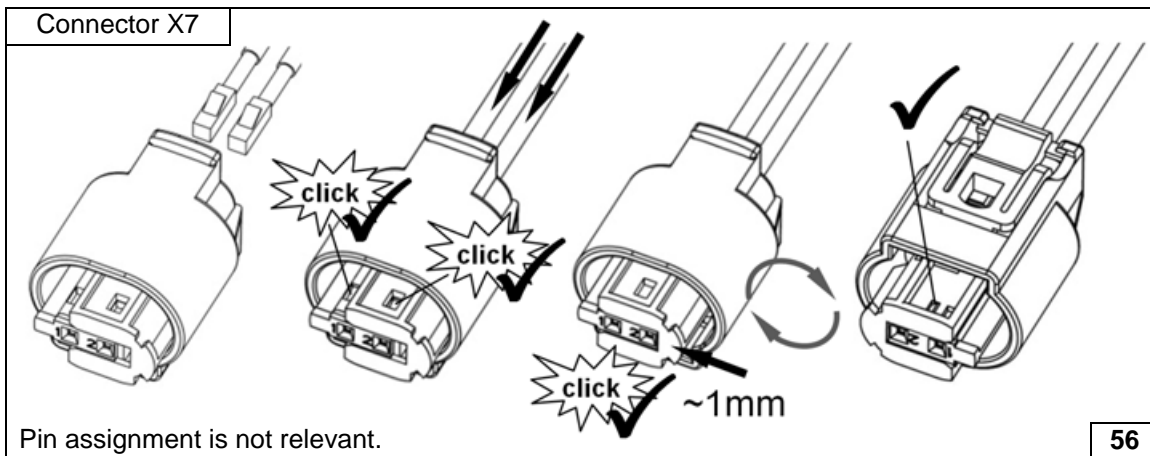


Install fuel tank sending unit 1 according to manufacturer's instructions.

- 2 90° coupling
- 3 8mm dia. clamp
- 4 3.5x4.5 moulded hose with 3.5mm dia. side on 90° coupling
- 5 10 mm dia. clamp
- 6 Fuel line of fuel standpipe

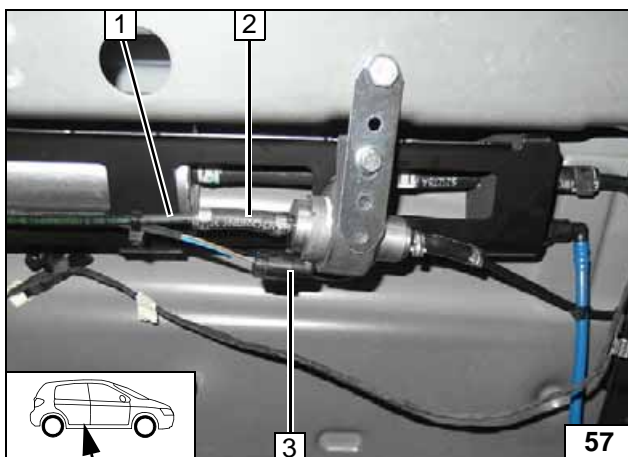


Connecting fuel line



Pin assignment is not relevant.

Completing metering pump connector

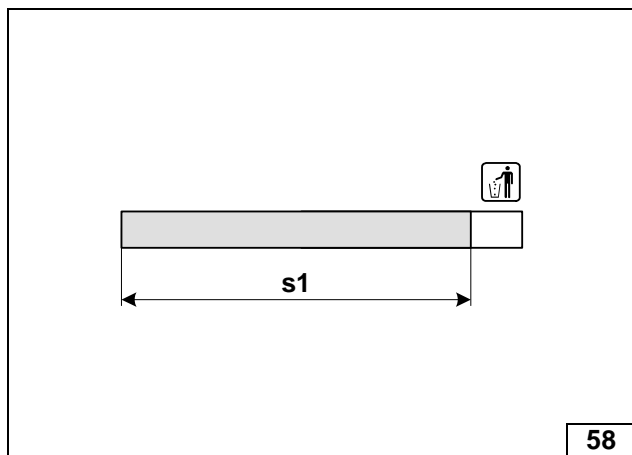
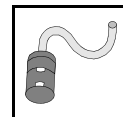


Ensure sufficient distance from neighbouring components, correct if necessary.

- 1 Fuel line of fuel standpipe
- 2 Hose section, 10mm dia. clamp [2x]
- 3 Metering pump wiring harness, connector X7 mounted



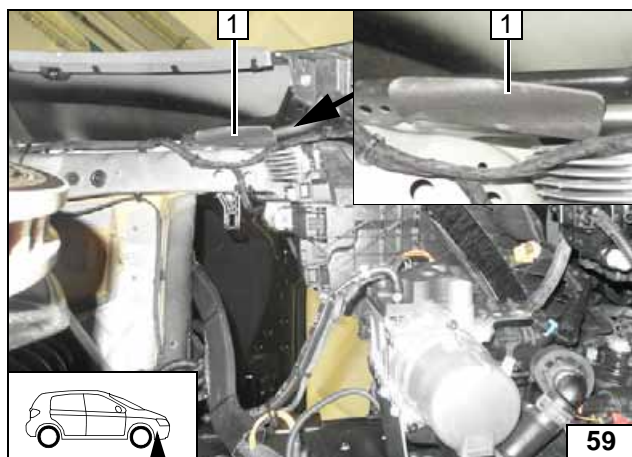
Connecting metering pump



Combustion Air

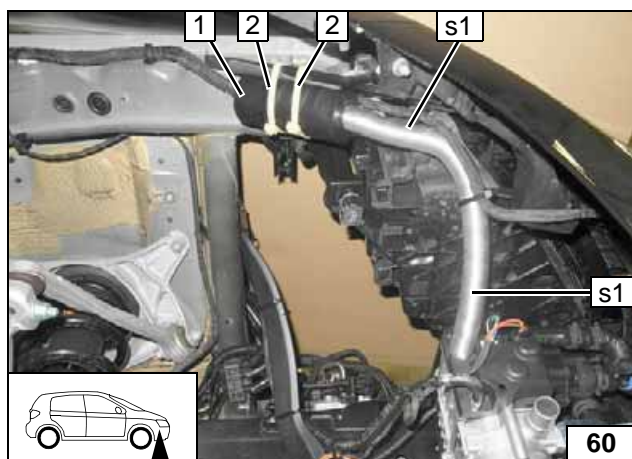
s1 = 300

Cutting combustion air pipe to length



1 Insulation protection strips

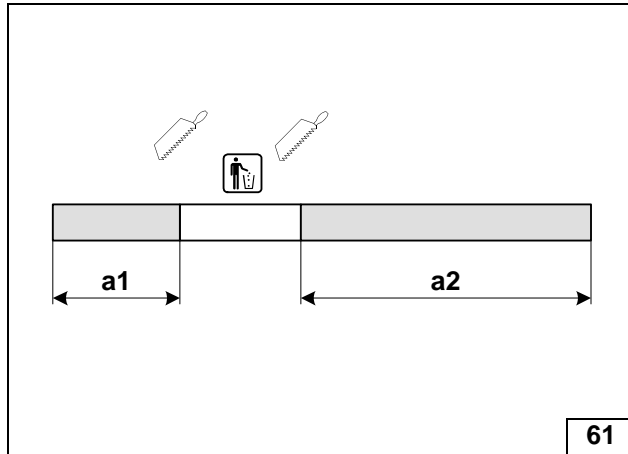
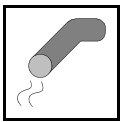
Sticking on insulation protection strips



- 1 Silencer
- 2 Long cable tie [2x]



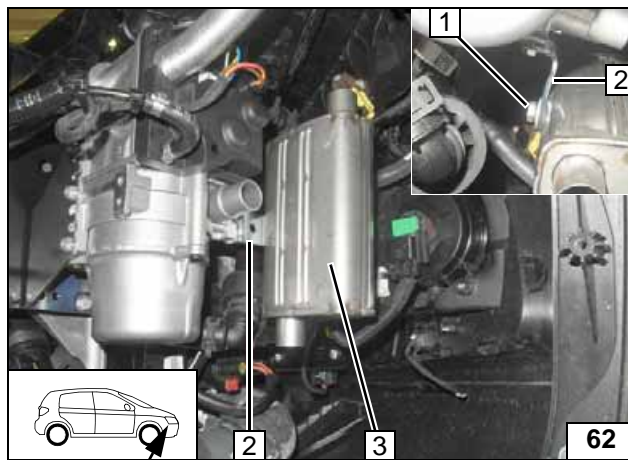
Installing combustion air pipe s1



Exhaust Gas

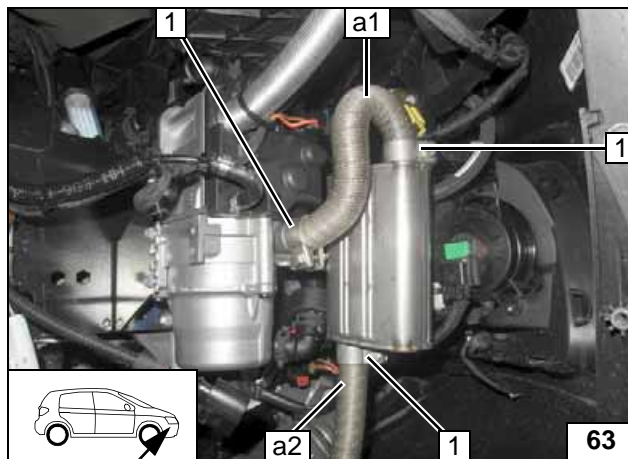
a1 = 280
a2 = 500

Preparing exhaust pipe



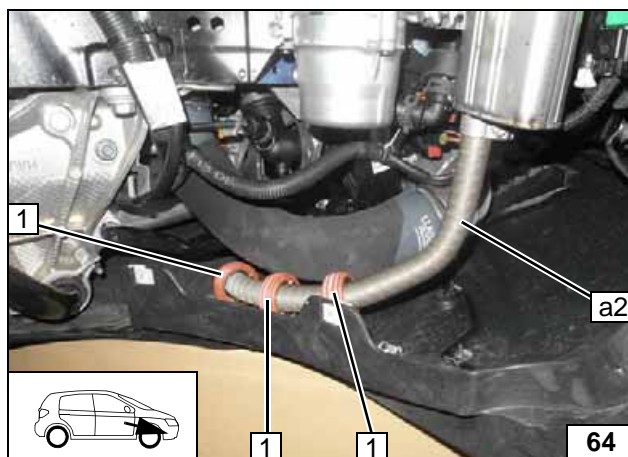
- 1 M6x16 bolt, spring lockwasher, large diameter washer, oblong hole on angle bracket
- 2 Premounted angle bracket
- 3 Silencer

Installing silencer



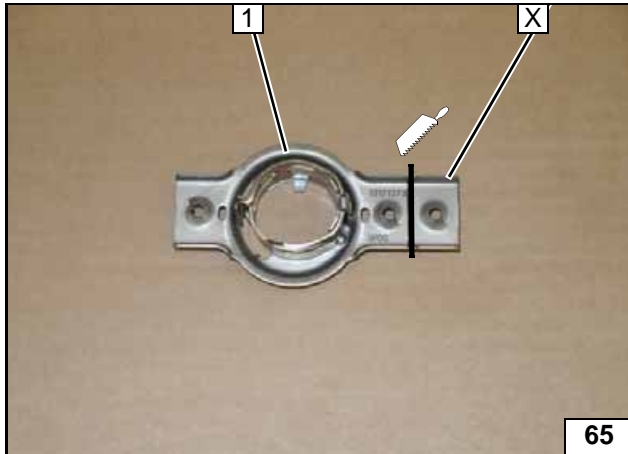
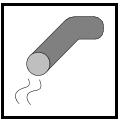
- 1 Hose clamp [3x]

Installing exhaust pipes a1 and a2



- 1 Spacer bracket [3x]

Installing spacer bracket

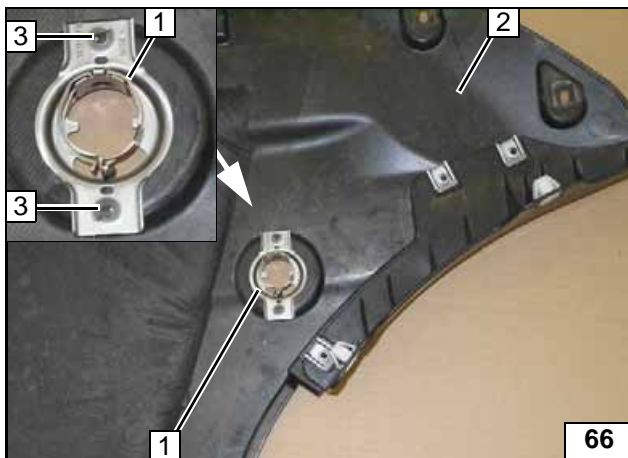


1 Exhaust end fastener

X =



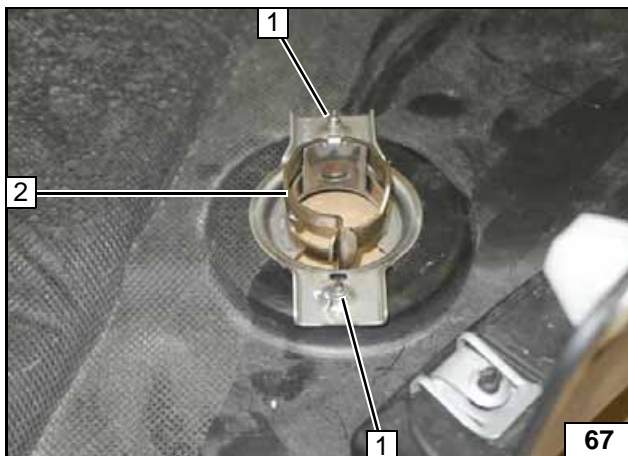
Preparing exhaust end fastener



Place exhaust end fastener 1 as per work steps 3 and 4 of the installation instructions, copy hole pattern 3 [2x] and drill holes.



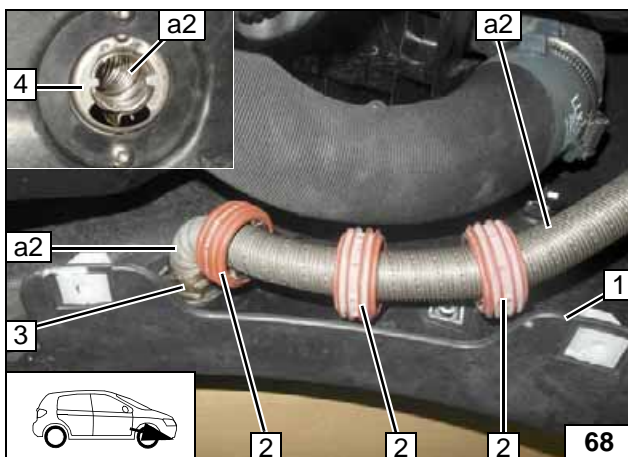
Holes in underride protection



1 5x13 self-tapping screw [2x] as per work step 5 of the installation instructions
2 Exhaust end fastener



Installing exhaust end fastener



Install underride protection 1. Install exhaust pipe a2 as per work step 2 as well as work steps 6 - 8 of the installation instructions. Ensure sufficient distance from neighbouring components, correct if necessary.



Installing exhaust pipe a2

2 Align spacer bracket with charge-air tube [2x]
3 Exhaust end fastener

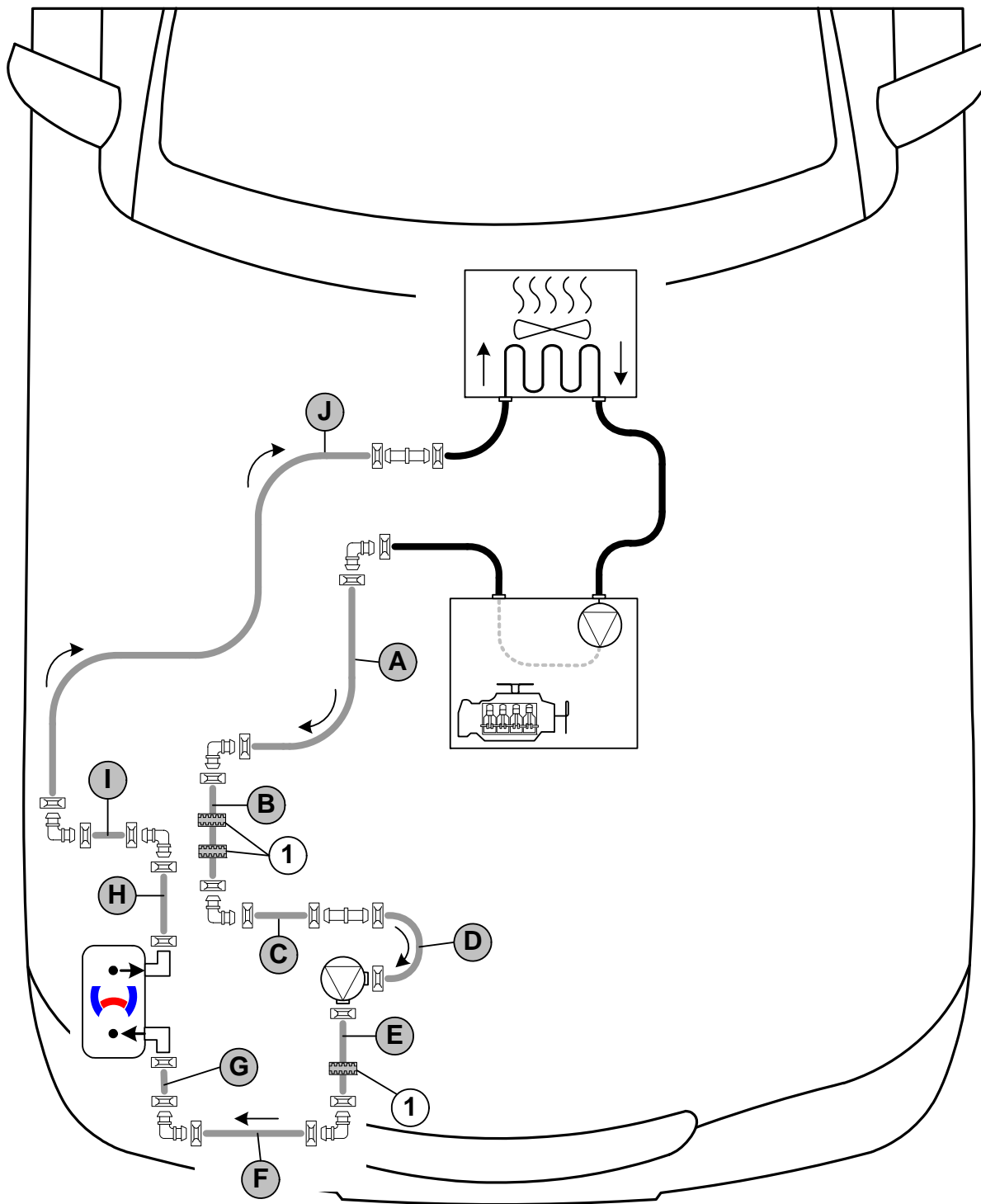


Coolant Circuit







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.

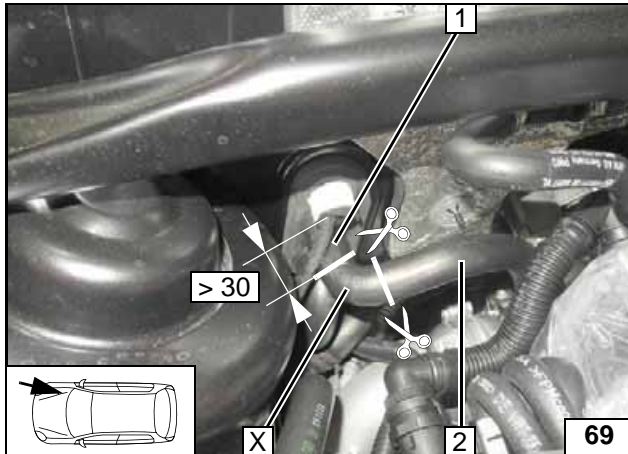
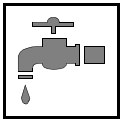
The connection should be modelled on an 'inline' circuit and based on the following diagram:



Hose routing diagram

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

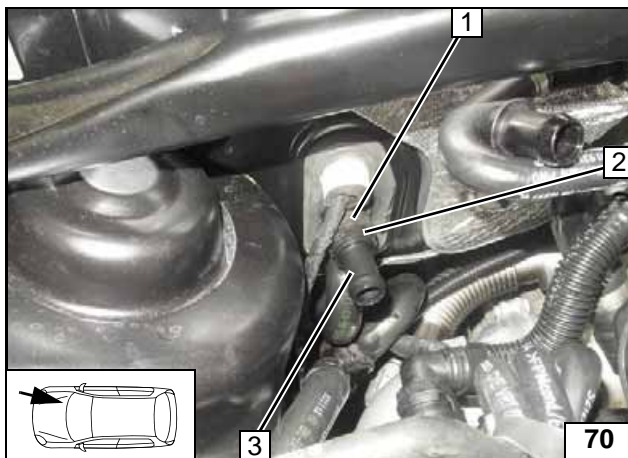




- 1 Heat exchanger inlet hose section
- 2 Engine outlet hose section

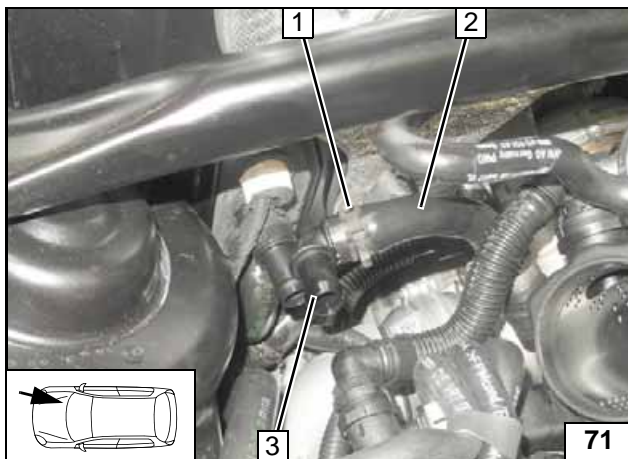
X =

Cutting point



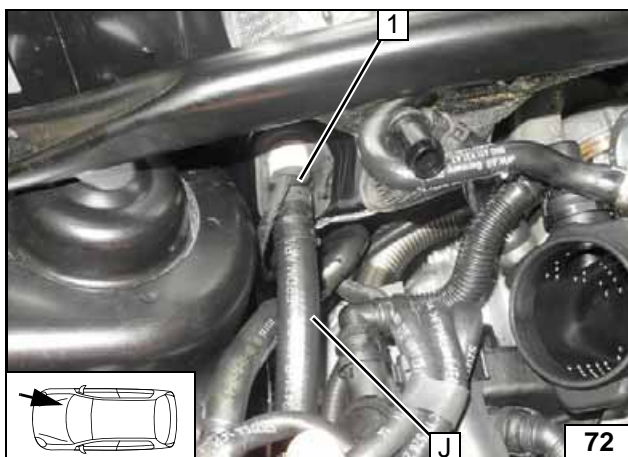
- 1 25 mm dia. spring clip
- 2 Heat exchanger inlet hose section
- 3 18x18mm dia. connecting pipe

Connecting heat exchanger inlet



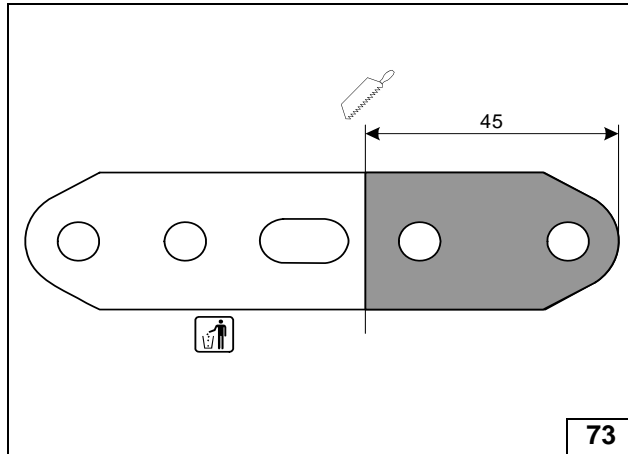
- 1 25 mm dia. spring clip
- 2 Engine outlet hose section
- 3 90°, 18x18mm dia. connecting pipe

Connecting engine outlet



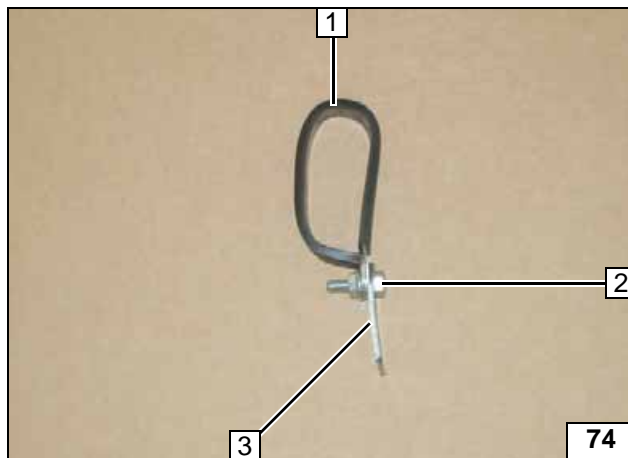
- 1 Heat exchanger inlet hose section

Installing hose J



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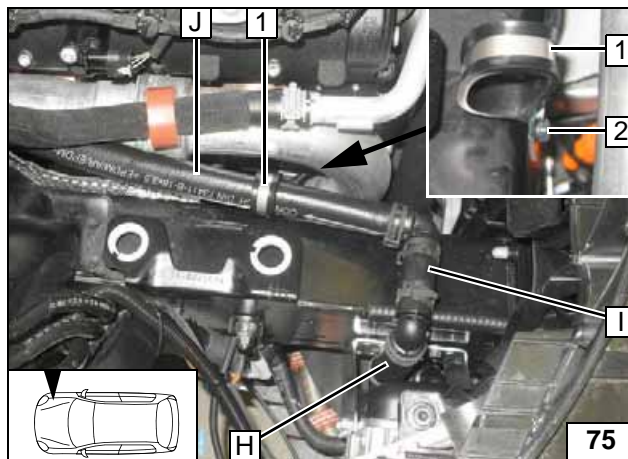
Cutting perforated bracket to length



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- 1 Shape 48mm dia. rubber-coated p-clamp
- 2 M6x20 bolt, cut to length perforated bracket 3, rubber-coated p-clamp 1, flanged nut

Preparing p-clamp

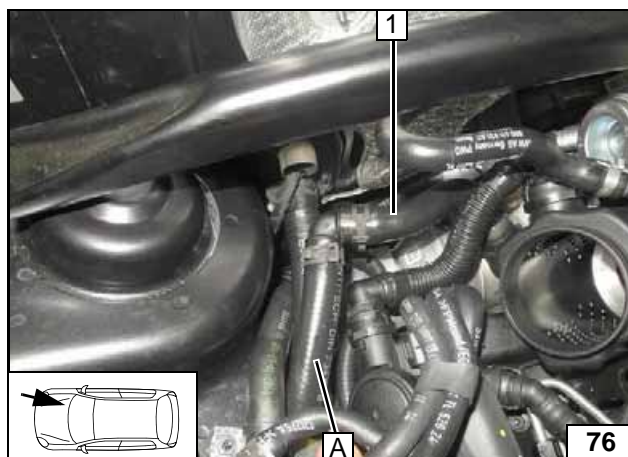


75

Lead hose J through rubber-coated p-clamp 1.

- 1 48 mm dia. rubber-coated p-clamp
- 2 Loosely install M6x20 bolt, rubber-coated p-clamp 1, spring lockwasher, original vehicle thread

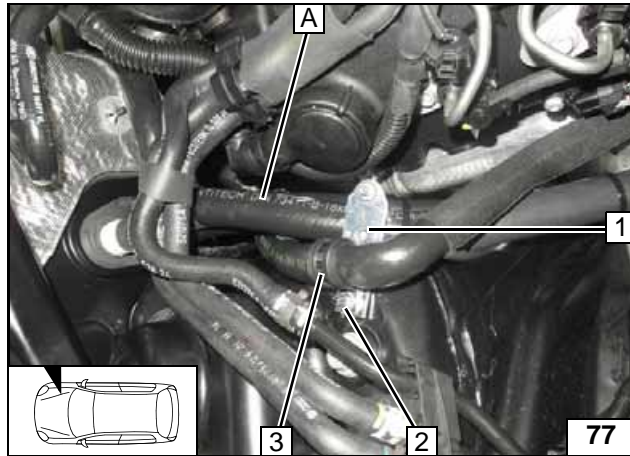
Installing rubber-coated p-clamp and hose J



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- 1 Engine outlet hose section

Mounting hose A

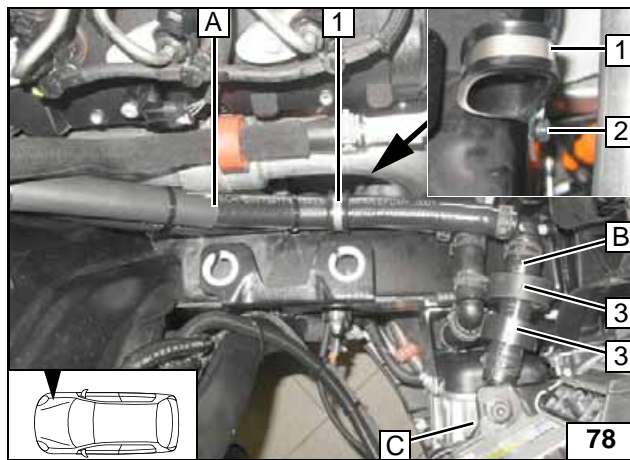


Remove original vehicle clamp **3** from stud bolt **2** and mount again together with pre-mounted perforated bracket **1**.



- 2 Original vehicle stud bolt, perforated bracket **1**, original vehicle flanged nut

Hose installation

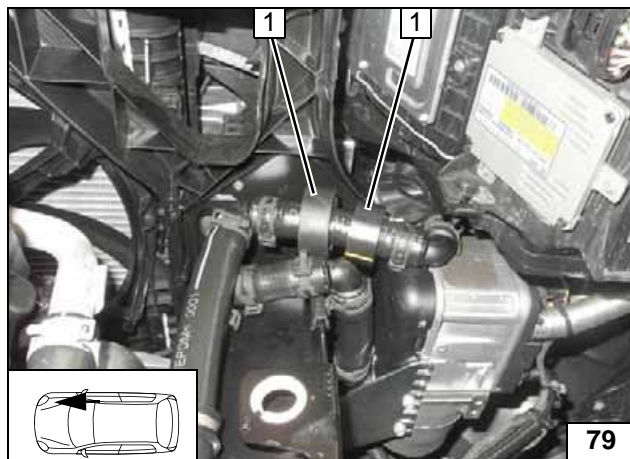


Lead hose **A** through rubber-coated p-clamp **1**.



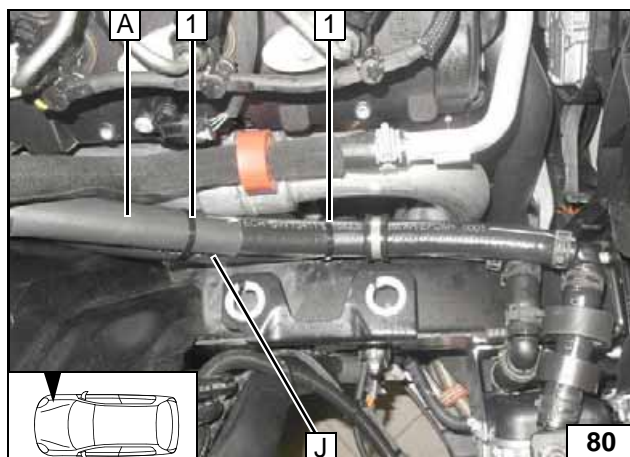
- 1 48 mm dia. rubber-coated p-clamp
- 2 Tighten M6x20 bolt
- 3 Black (sw) rubber isolator [2x]

Installing hoses A and B



- 1 Black rubber isolator [2x]

Aligning rubber isolator



- 1 Cable tie around hose **A** and **J**

Fastening hoses A and J



Final Work



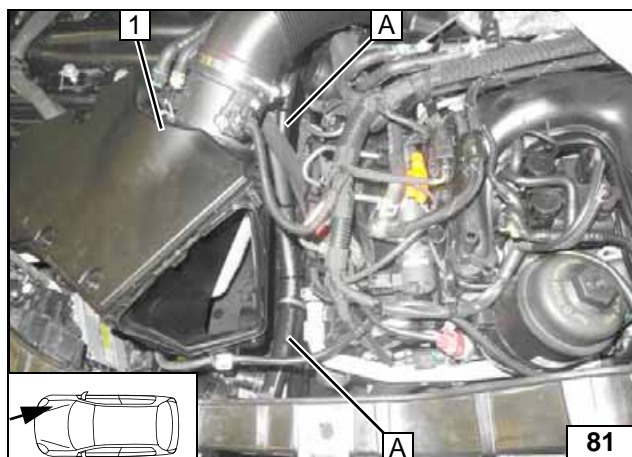
Reassemble the components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back loose lines. Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K).

- Connect the battery.
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Program MultiControl CAR, teach Telearstart transmitter.
- Make settings on the A/C control panel according to the 'Operating Instructions'.
- Place the 'Switch off parking heater before refuelling' caution label near the filler neck.
- For initial startup and function check, please see installation instructions.

Vehicle Specific Work

- Adaptation of Climatronic J255 control unit, e.g. with VAS 5051/52 in 'Guided functions' mode:

Adaptation of Heating / Air Conditioning - set channel 17 from '0' to '1' - save



Install air filter 1. Ensure sufficient distance from hose A, correct if necessary.



Checking hose routing

Operating Instructions

Please remove page and add to the vehicle operating instructions.

Note:

We recommend matching the heating time to the driving time.

Heating time = driving time

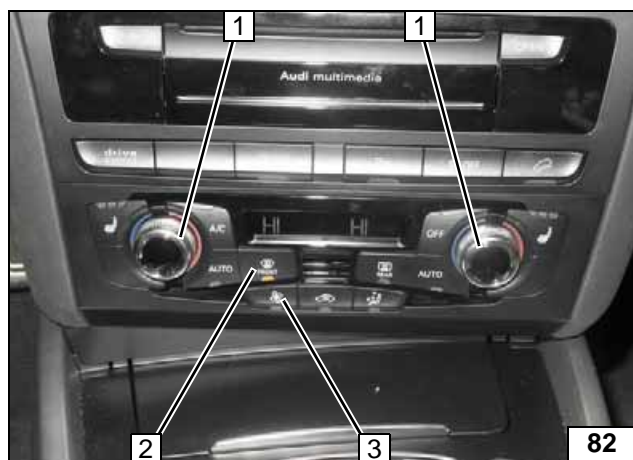
Example:

For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

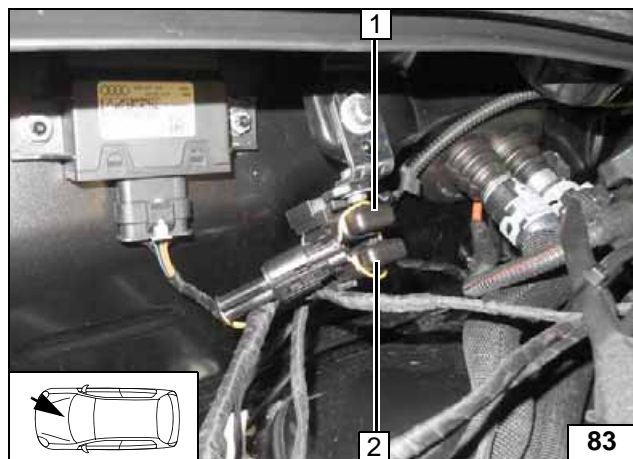
Passenger compartment monitoring, if installed, must be deactivated in addition to the vehicle settings for the heating operation.

For instructions on deactivation, please refer to the operating instructions of the vehicle.

Before parking the vehicle, make the following settings:



- 1 Set temperature on both sides to 'HI'
- 2 Air outlet to windscreen
- 3 Set fan to level '3', max. '4'



- 1 1A main fuse F2 of passenger compartment
- 2 20A heater fuse F1



A/C control panel

Engine compartment fuses

