

Water Heater

Thermo Top Evo Parking Heater



Installation Documentation

Renault Scenic / Grand Scenic / Megane

Validity

Manufacturer	Model	Type	EG-BE No. / ABE
Renault	Scenic	JZ	e2 * 2001 / 116 * 0379 * ...
Renault	Grand Scenic	JZ	e2 * 2001 / 116 * 0379 * ...
Renault	Megane	KZ/Z/BZ/DZ	e2 * 2001 / 116 * 0373 * ...

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm ³	Engine code
1.6 B	Petrol	6-speed SG	81	1598	K4M

SG = Manual transmission

From Model Year 2012

Left-hand drive vehicle

Verified equipment variants: Manual / automatic air-conditioning system
 Front fog light
 Bi-Xenon with headlight washer system
 Daytime Running Lights / LED Daytime Running Lights
 Bumper, GT optics
 Euro 5 Emission Standard
 XMOD package

Not verified: Passenger compartment monitoring

Total installation time: about 9.5 hours

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Necessary Components

- Basic delivery scope of *Thermo Top Evo* based on price list
- Installation kit for Renault Scenic / Grand Scenic / Megane 2012 Petrol: **1318633B**
- 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

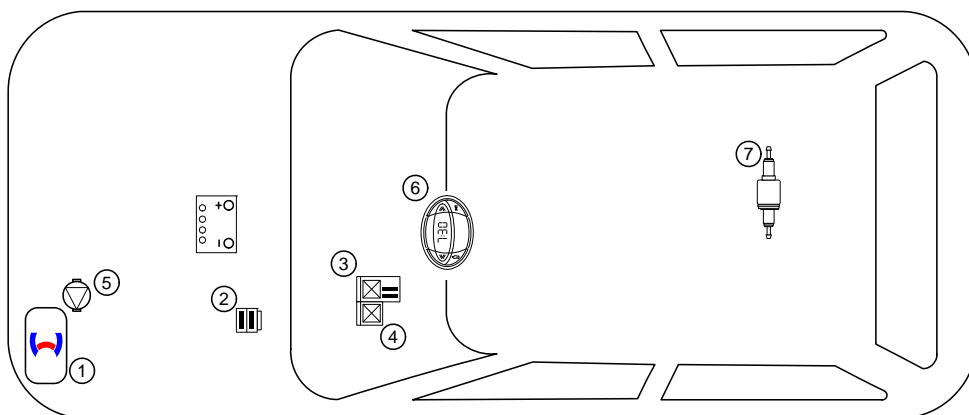
Installation instructions:

- Arrange for the vehicle to be delivered with the tank only about ¼ full!
- The installation location of the push button in the 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. Fuse holder of engine compartment
3. Relay and fuse holder of passenger compartment
4. PWM Gateway
5. Circulating pump
6. Digital timer (Scenic installation location)
7. Metering pump



Notes on Total Installation Time

The total installation time includes the time needed for mounting and demounting of 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 227).

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 snap into place during assembly.

Sharp edges should be fitted with rub protection. Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

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 an PWM-Gateway, the corresponding settings must be checked or adjusted before the installation.

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

For vehicles with an EU permit, no entry in accordance with § 19 Sub-Section 4 of Annex VIII b to the Road Traffic Act is required.

2.1 Excerpt from the directive 2001/56/EC Appendix VII 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.

Notes on Validity

This installation documentation applies to Renault Scenic / Grand Scenic / Megane Petrol vehicles - for validity, see page 1 - from model year 2012 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 Instructions

Special Tools

- Hose clamp pliers for self-clamping 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
- Webasto Thermo Test diagnosis with current software

Dimensions

- All dimensions are in mm

Tightening torque values

- Tightening torque values for 5x13 heater bolts and 5x11 heater stud bolts = 8Nm.
- Tightening torque values of 5x15 retaining plate of water connection piece 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:

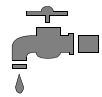
Mechanical system



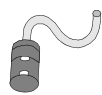
Electrical system



Coolant circuit



Combustion air



Fuel



Exhaust gas



Software



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



Specific risk of fire and explosion



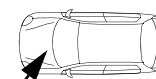
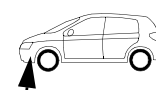
Reference to general installation instructions of the Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature



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



Renault Scenic / Grand Scenic / Megane

Preliminary Work

All "Scenic" and "Grand Scenic" will be referred to as "Scenic" from this point forward.

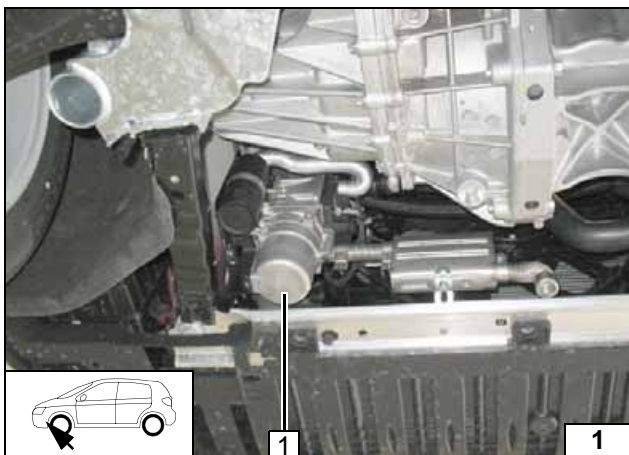


Vehicle

- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Disconnect and completely remove the battery, including the carrier.
- Remove the air filter together with the intake hose.
- Remove the underride protection.
- Remove the back seat [3x].
- Remove the drawers of the rear seat area (if present).
- Open the right-hand tank-fitting service lid.
- Remove the fuel-tank sending unit in accordance with the manufacturer's instructions.
- Remove the instrument panel trim on the driver's side.
- Remove the accelerator pedal.
- Remove the side trim centre console on the driver's side.

Heater

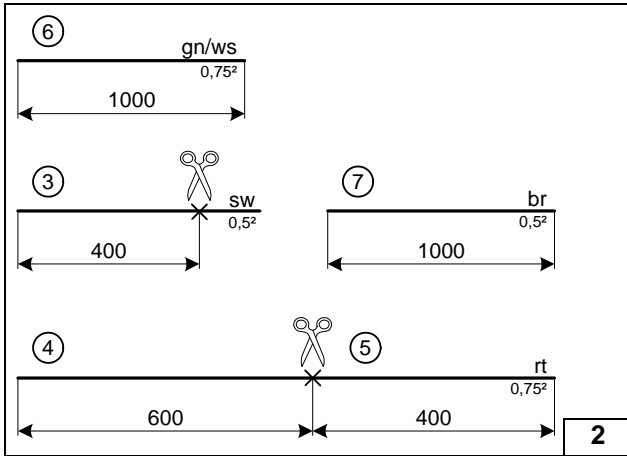
- Remove years that do not apply from the type and duplicate label.
- Attach the duplicate label (type label) in the appropriate place inside the engine compartment.



Heater Installation Location

1 Heater

Installation location



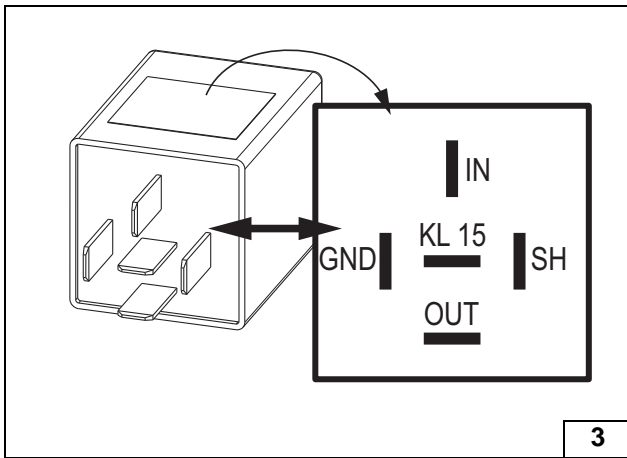
Preparing Electrical System

Wire sections retain their numbering in the entire document.

Supplied fan wiring harness contains red (rt) 4² wire ① and black (sw) 4² wire ②!



Cutting wires to length



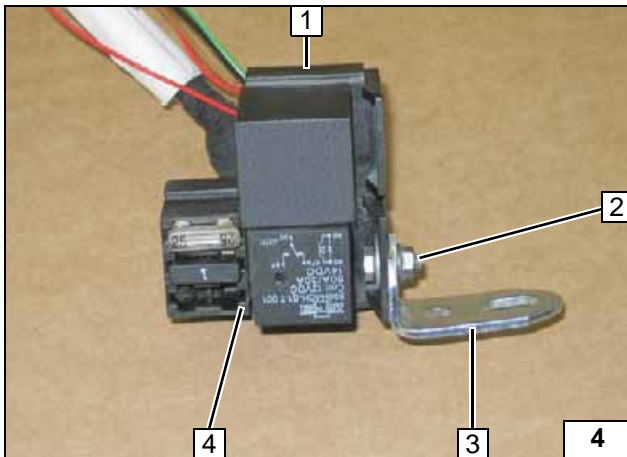
Check the PWM Gateway settings when starting up the heater and adjust if necessary.

Adjustment values:

- Duty cycle: 65%
- Frequency: 400Hz
- Voltage: 9V
- Function: Low-side



Preparing PWM Gateway



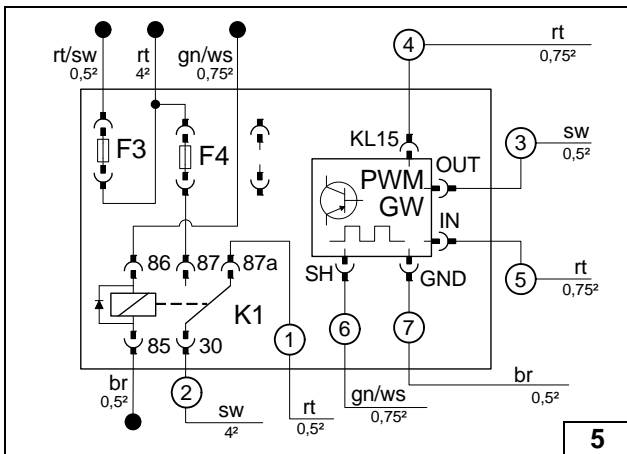
Passenger compartment relay and fuse holder

Interlock PWM Gateway socket 1 and relay and fuse holder of passenger compartment 4.

- 2 M5x16 bolt, washer [2x], nut
- 3 Angle bracket



Preparing relay and fuse holder of passenger compartment

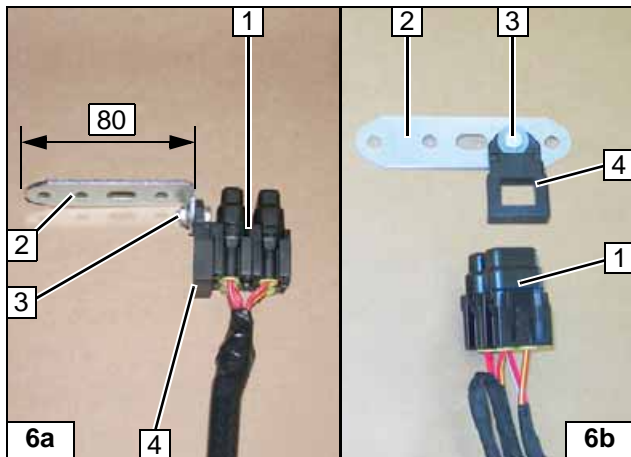


Produce connections as shown in wiring diagram.

Pull wires ③ and ⑤ as well as wire ④ into one protective sleeving each. Insert PWM Gateway, K1 relay and 25A fuse F4.



Preparing relay and fuse holder of passenger compartment



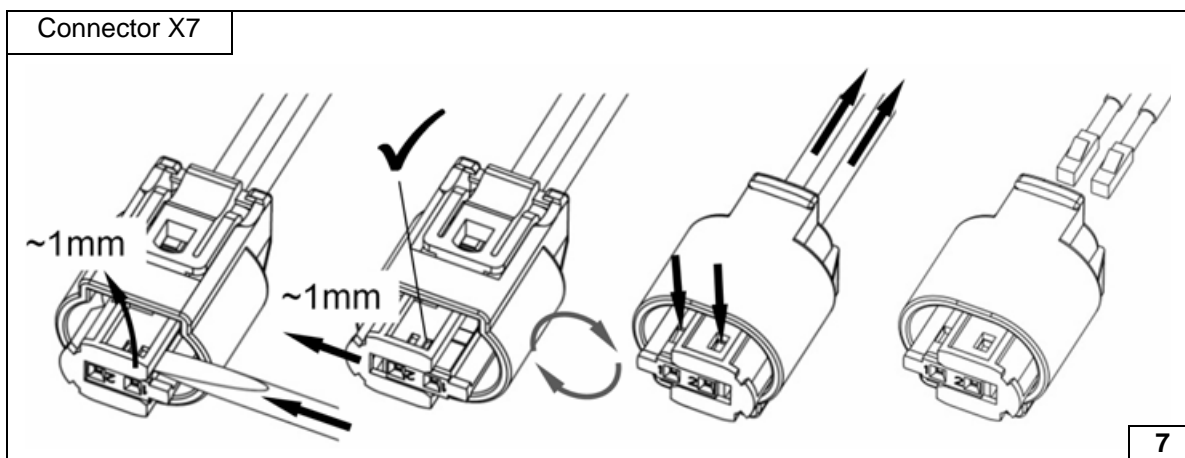
Fuse holder of engine compartment

Figure 6a = Megane
Figure 6b = Scenic

- 1 F1-2 fuses
- 2 Perforated bracket (angle down by 90° for Megane.)
- 3 M5x16 bolt, washer [2x], nut
- 4 Retaining plate for fuse holder

Preparing fuse holder

All vehicles



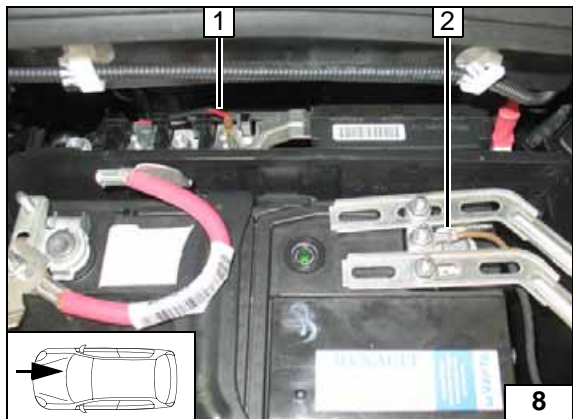
Dismantling connector of metering pump



Electrical System

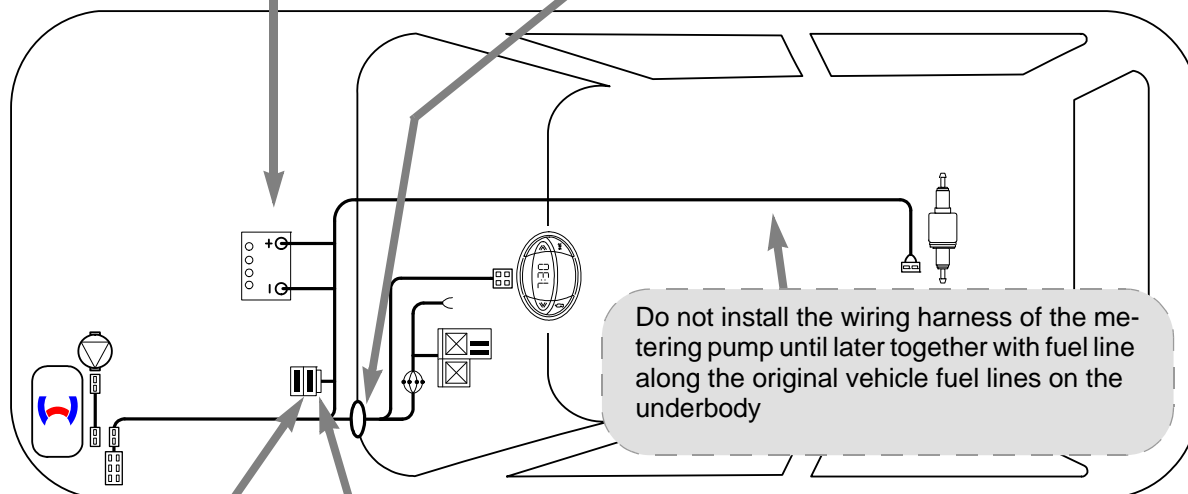
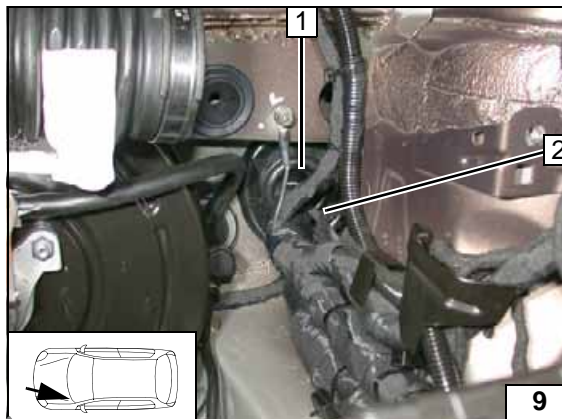
Positive wire

- 1 Positive wire on positive support point
- 2 Earth wire on negative battery terminal

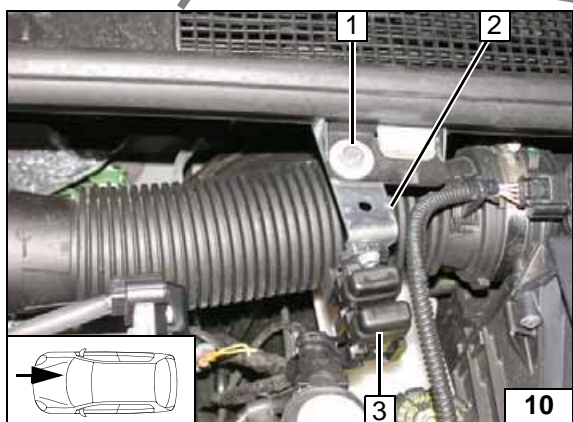


Wiring harness pass through

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

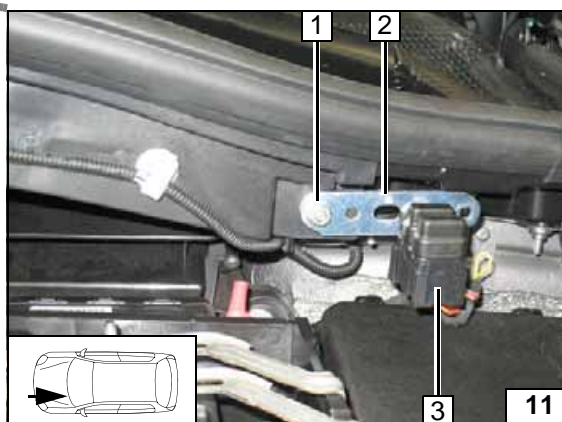


Wiring harness routing diagram



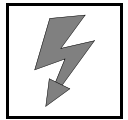
Fuse holder in engine compartment of the Megane

- 1 M6x20 bolt, large diameter washer, flanged nut
- 2 Perforated bracket
- 3 Fuses F1 and F2

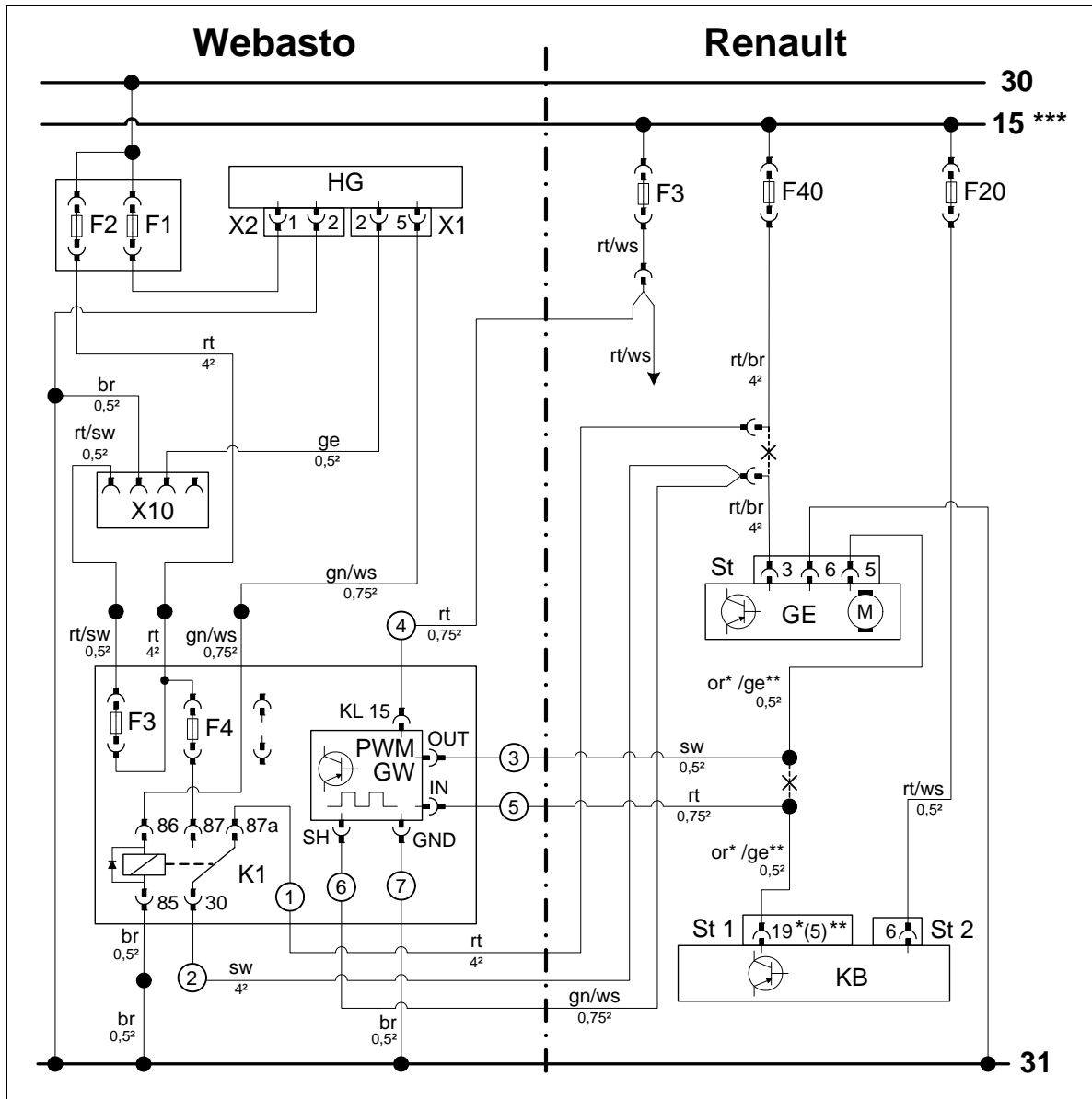


Fuse holder in the engine compartment of the Scenic

- 1 Original vehicle stud bolt, flanged nut
- 2 Perforated bracket
- 3 Fuses F1 and F2



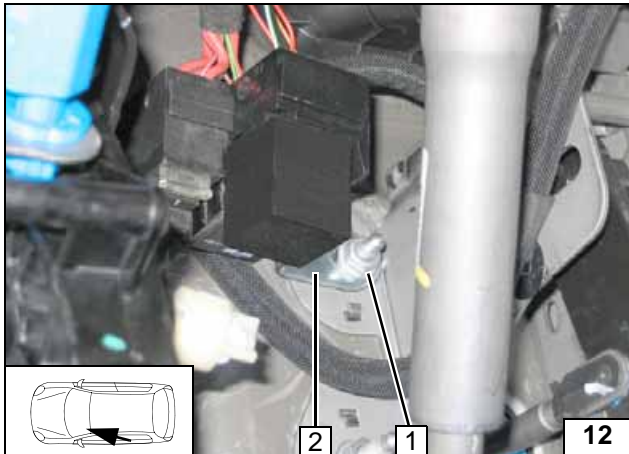
Fan Controller



Wiring diagram

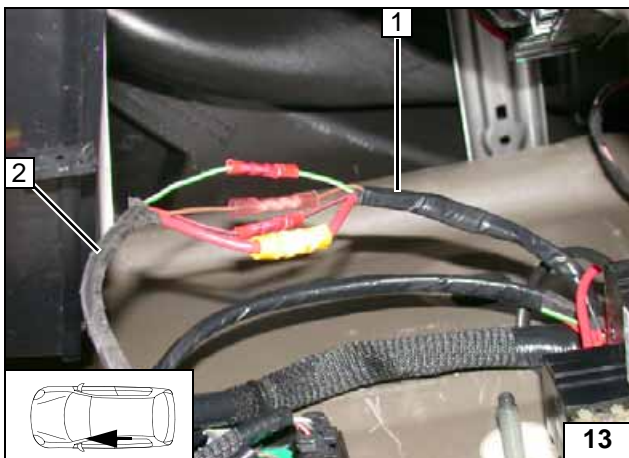
Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	F3	15A fuse Cigarette lighter	rt	red
X1	6-pin heater connector	F40	40A fuse	sw	black
X2	2-pin heater connector	F20	5A fuse	ge	yellow
X10	4-pin connector of heater control	St	6-pin connector GE	gn	green
K1	Fan relay	GE	Fan unit	or	orange
F1	20A fuse	St 1	40-pin connector KB	ws	white
F2	30A fuse	St 2	24-pin connector KB	br	brown
F3	1A fuse	KB	A/C control panel		
F4	25A fuse				
PWM GW	Pulse width modulator				
PWM Gateway settings:				*	Automatic air-conditioning
Duty cycle: 65%				**	Manual air-conditioning
Frequency: 400Hz				***	delayed
Voltage: 9V				X	Cutting point
Function: Low-side				Wiring colours may vary.	

Legend



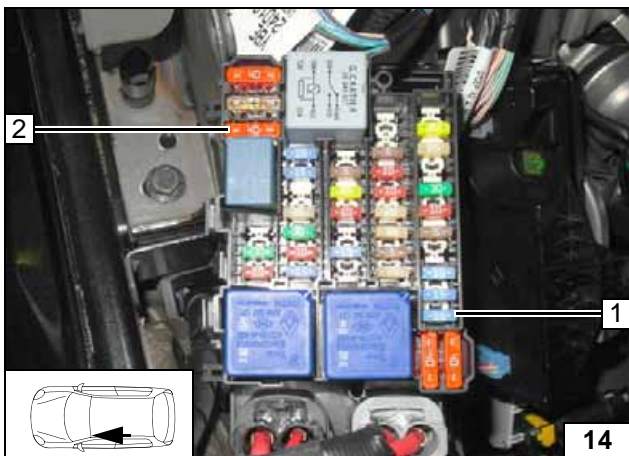
- 1 Original vehicle stud bolt, flanged nut
- 2 Angle bracket

Installing relay and fuse holder of passenger compartment



- 1 Wiring harness of passenger compartment relay and fuse holder
- 2 Wiring harness of heater

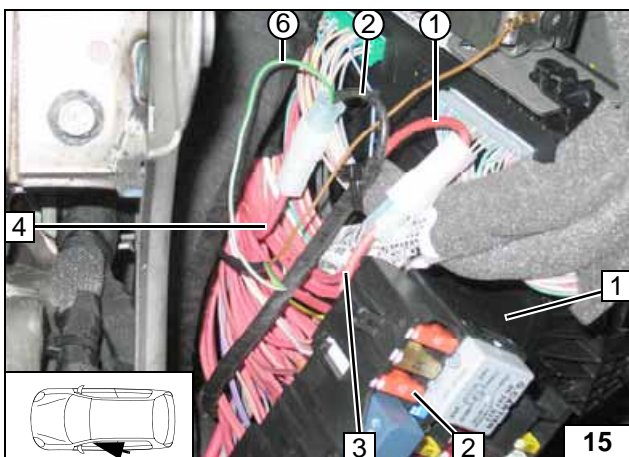
Connecting wiring harnesses using same colour wires



- 1 Socket for fuse F3
- 2 Socket for fuse F40



Socket for fuses



Connection to fuse and relay box 1. Cut wires to length. Produce connections as shown in wiring diagram.

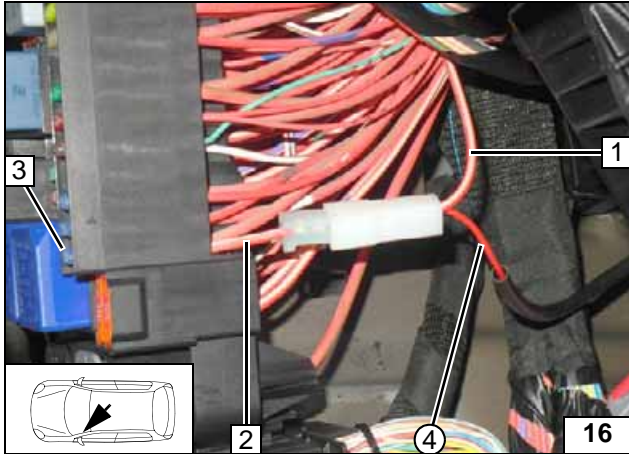
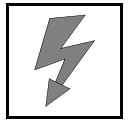
Warning:

Output fuse F40 switches off after a delay.

- 2 Socket for fuse F40
- 3 Red/brown (rt/br) wire of fuse F40
- 4 Red/brown (rt/br) wire of fan unit
- ① Red (rt) wire of K1/87a
- ② Black (sw) wire of K1/30
- ⑥ Green/white (gn/ws) wire of PWM Gateway/SH



Connecting fuse box



Connection to fuse F3 3. Produce connection as shown in wiring diagram.



Warning:

Output fuse F3 switches off after a delay.

- 1 Red/white (rt/ws) wire of cigarette lighter
- 2 Red/white (rt/ws) wire of fuse F3
- ④ Red (rt) wire of PWM Gateway/terminal 15 (KL 15)

Terminal 15 of PWM Gateway

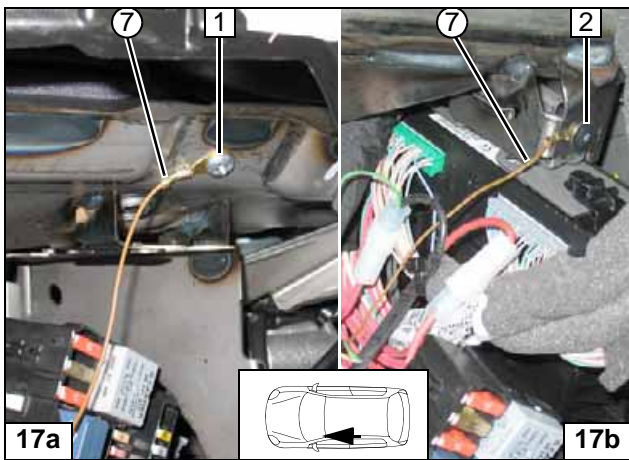


Figure 17a = Megane

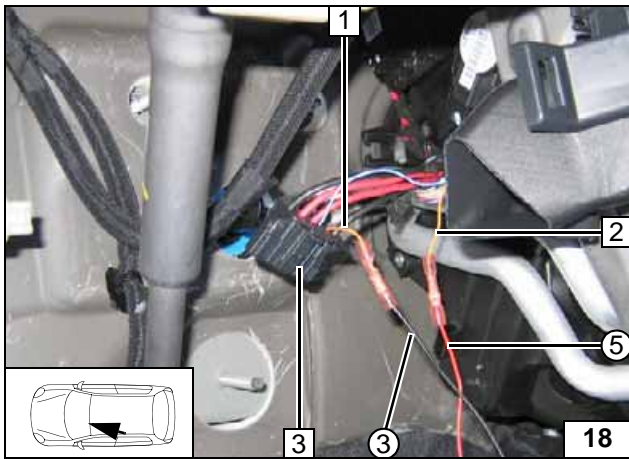
Figure 17b = Scenic

Produce connections as shown in wiring diagram.



- 1 Self-tapping screw 5.5x13; existing hole or dia. 4 mm hole, if not available
- 2 Original vehicle bolt
- ⑦ Brown (br) wire of PWM Gateway/GND, cable lug

PWM Gateway earth connection



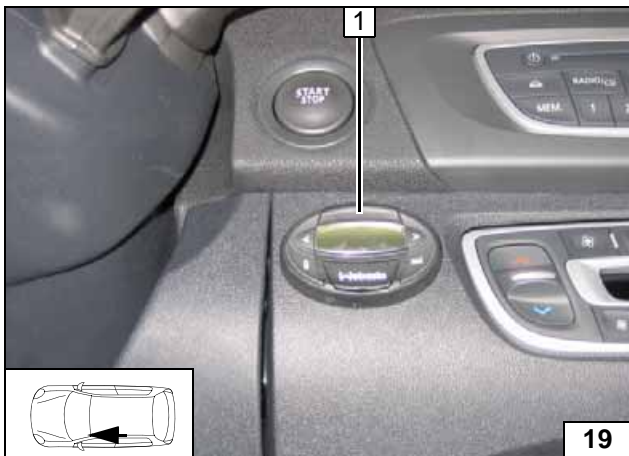
Connection on 6-pin connector 3 from the fan unit. Orange (or) wire for automatic air-conditioning or yellow (ge) wire for manual air-conditioning system.

Produce connections as shown in wiring diagram.



- 1 Orange (or) or yellow (ge) wire of fan unit connector Pin 5
- 2 Orange (or) / yellow (ge) wire of A/C control panel
- ③ Black (sw) wire of PWM Gateway/OUT
- ⑤ Red (rt) wire of PWM Gateway/IN

Connecting of fan unit



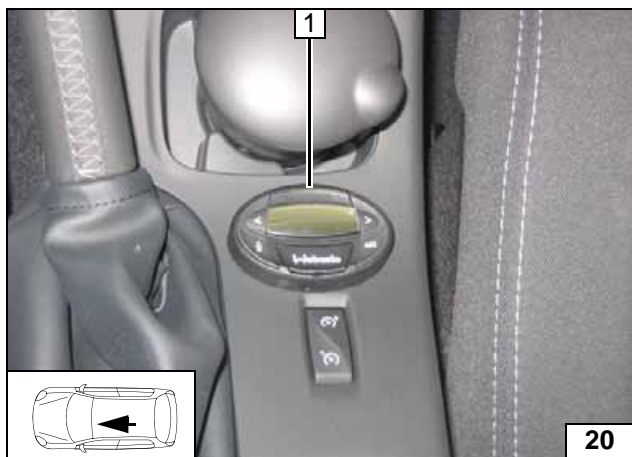
Digital Timer

Scenic

- 1 Digital timer



Installing digital timer

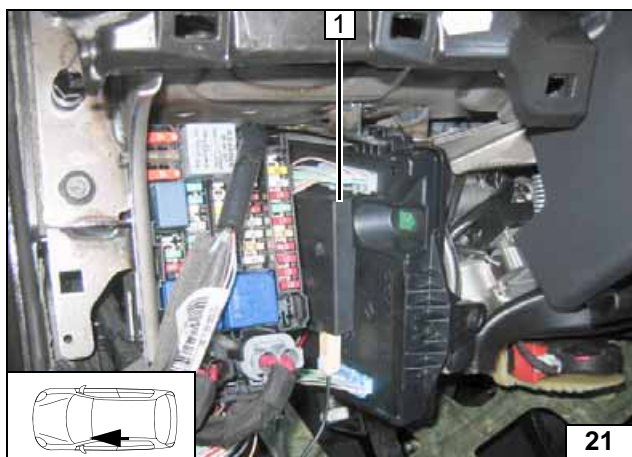


Megane

- 1 Digital timer



Installing digital timer

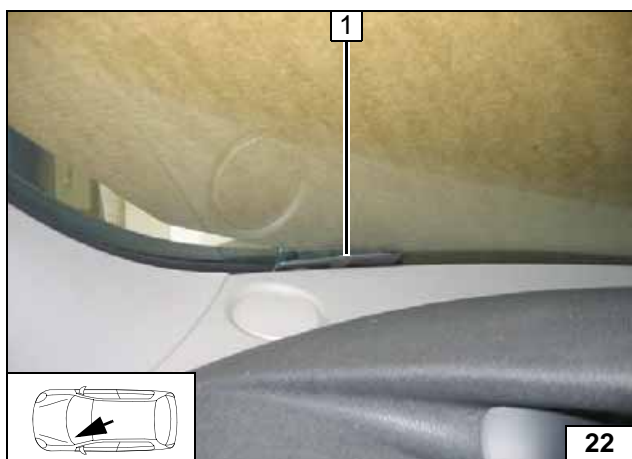


Remote Option (Telestart)

- 1 Fasten receiver with adhesive tape.

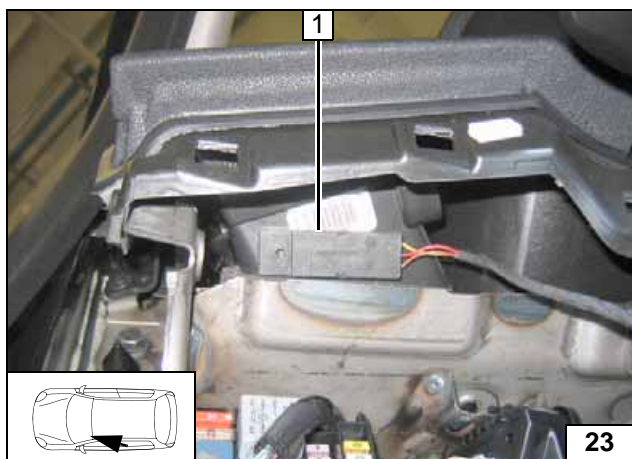


Installing receiver



- 1 Antenna

Installing antenna

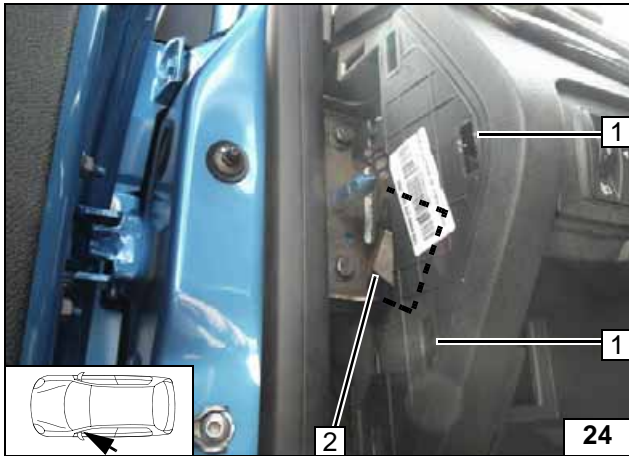
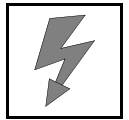


Temperature sensor T100 HTM

Fasten temperature sensor 1 with adhesive tape.



Installing temperature sensor

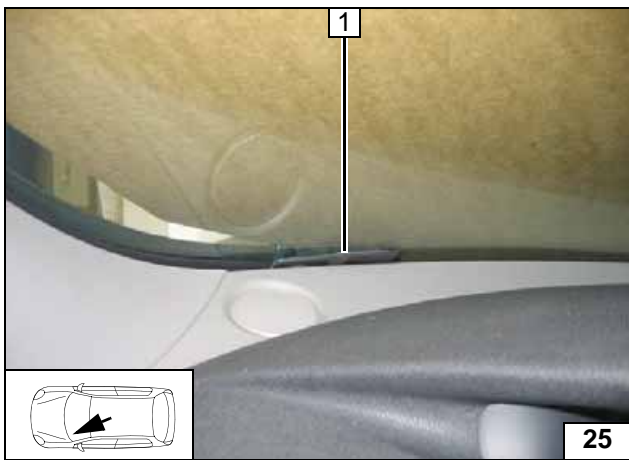


Remote Option (Thermo Call)

Keep openings for retaining clips 1 free.

- 2 Fasten receiver to instrument panel from the inside with adhesive tape

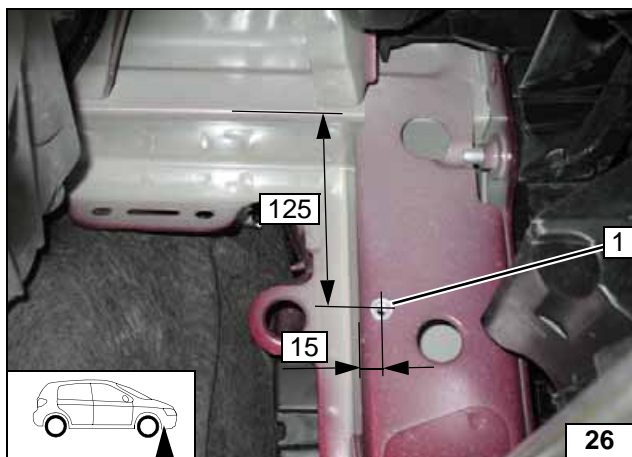
Installing receiver



- 1 Antenna



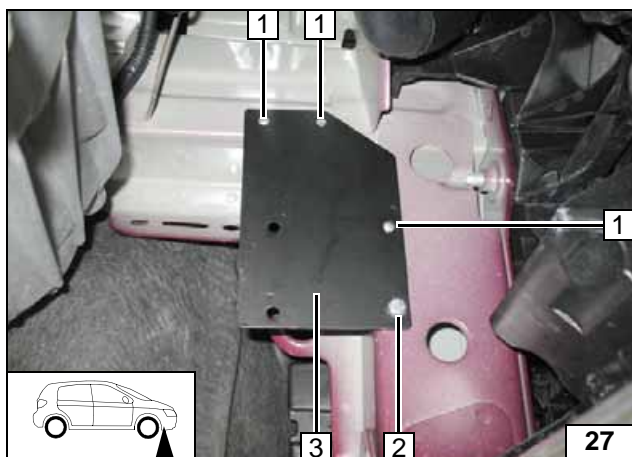
Installing antenna



Preparing Installation Location

- 1 9.1mm dia. hole, rivet nut

Installing rivet nut

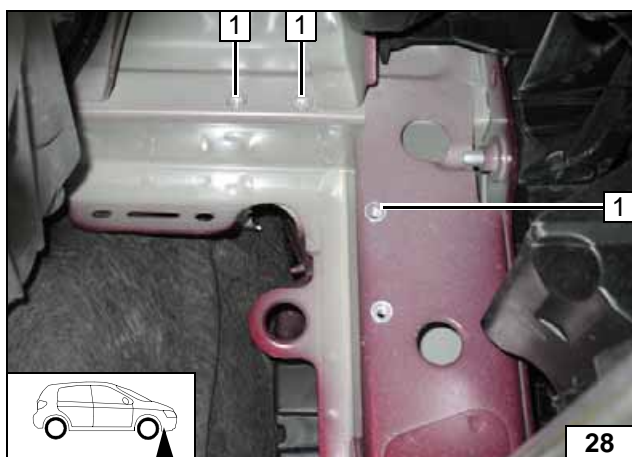


Loosely mount retaining plate 3 and align vertically.



- 1 Copy hole pattern [3x]
- 2 M6x20 bolt

Copying hole pattern

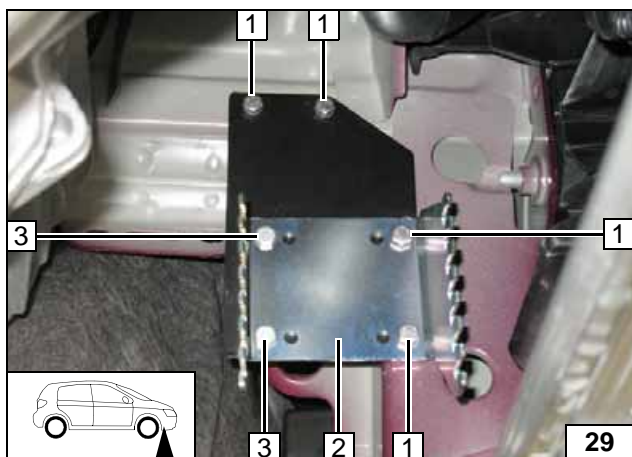


Remove retaining plate.



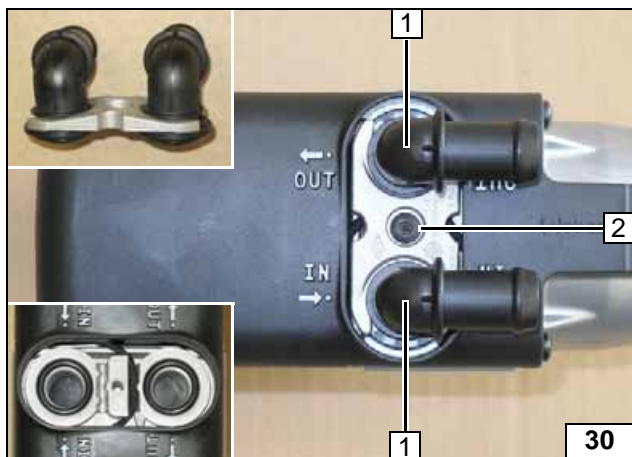
- 1 9.1 mm dia. hole; rivet nut [3x]

Installing rivet nut



- 1 M6x20 bolt, spring lockwasher [4x]
- 2 Bracket
- 3 M6x12 bolt, flanged nut [2x]

Installing bracket

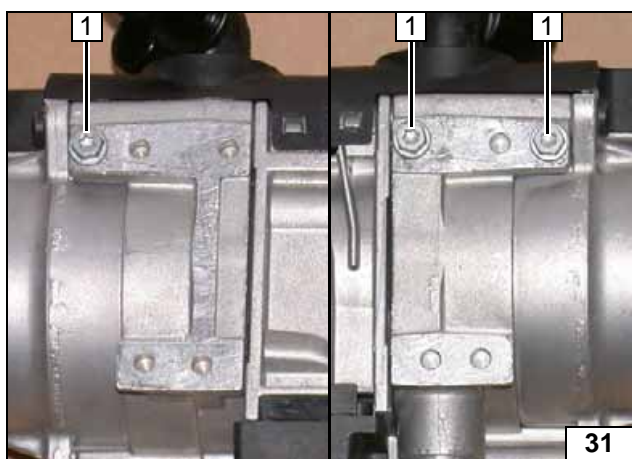


Preparing Heater

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



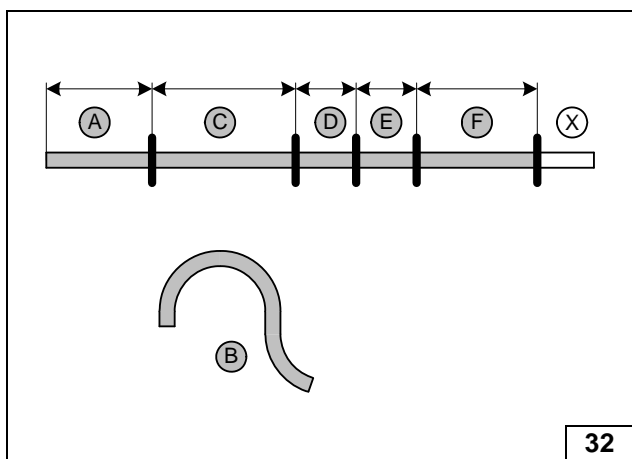
Installing water connection piece



Pre-cut threads with 5x13 self-tapping screws 1 [3x] and loosely install (turn in a max. of 3 threads).



Loosely premounting screws

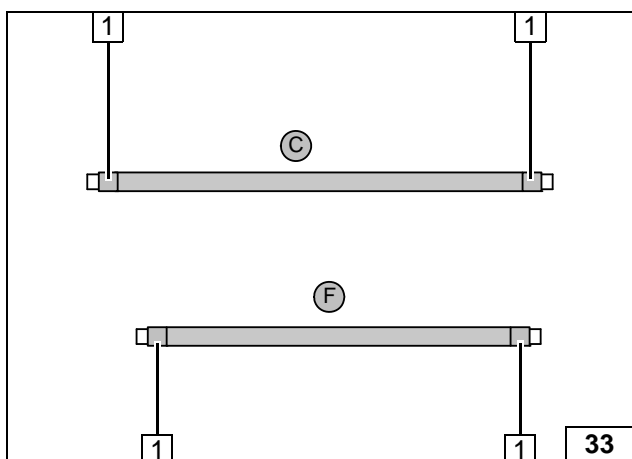


Discard section X.
Hose B = 18x18mm dia. moulded hose

- A = 200
- C = 620
- D = 180
- E = 180
- F = 480



Cutting hoses to length

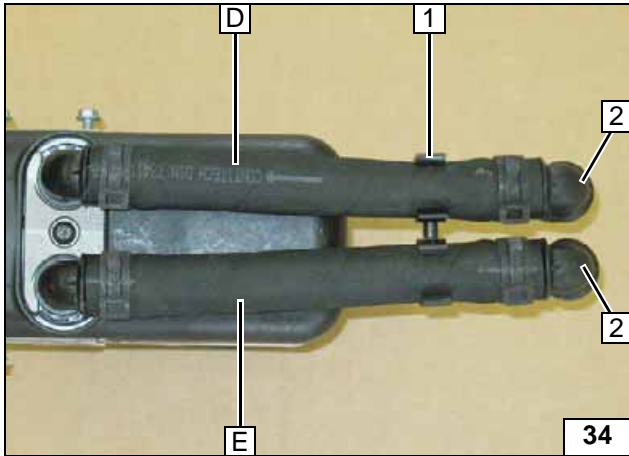


Push braided protection hoses onto hoses C and F and cut to length. Cut heat shrink plastic tubing to length.

- 1 50 mm long heat shrink plastic tubing [4x]



Preparing hoses

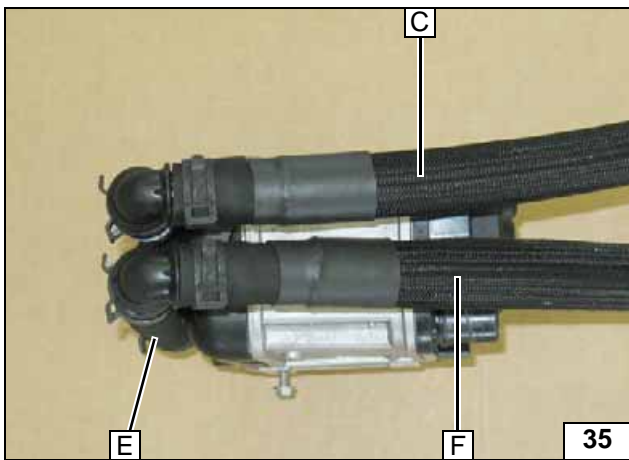


All spring clips 25mm dia.

- 1 Hose bracket
- 2 90° connecting pipe [2x]



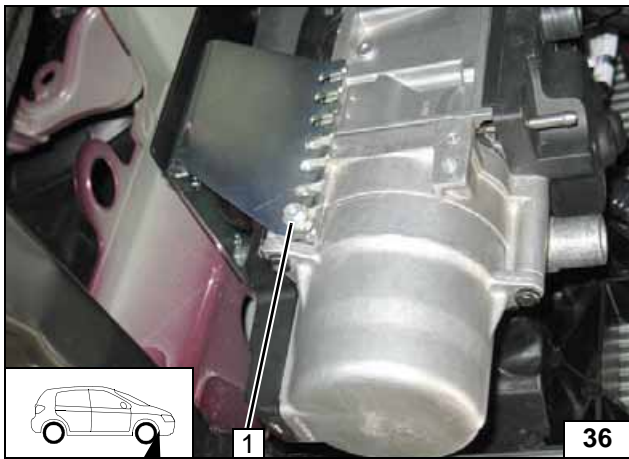
Premounting hoses



All spring clips 25mm dia.



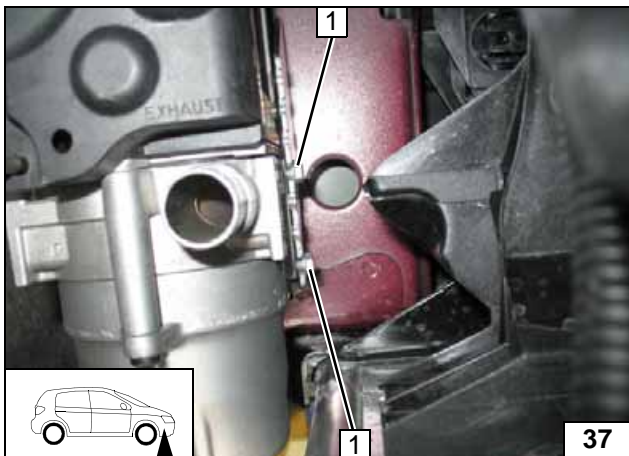
Premounting hoses



Installing Heater

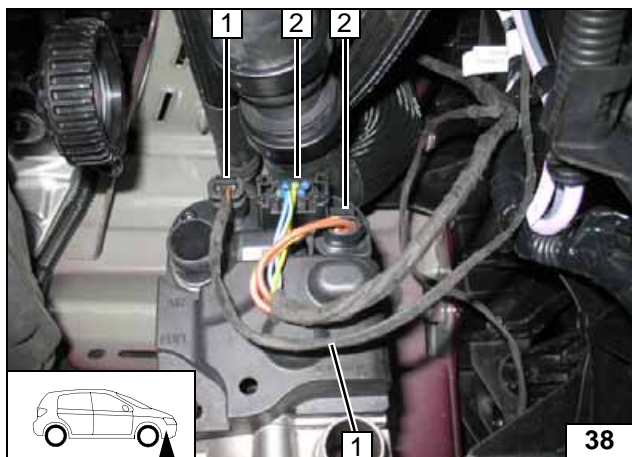
- 1 Tighten 5x13 self-tapping bolt

Installing heater



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

Installing heater



Attach wiring harness of circulating pump **1**, route to the installation location of the circulating pump.



2 Wiring harness of heater [2x]

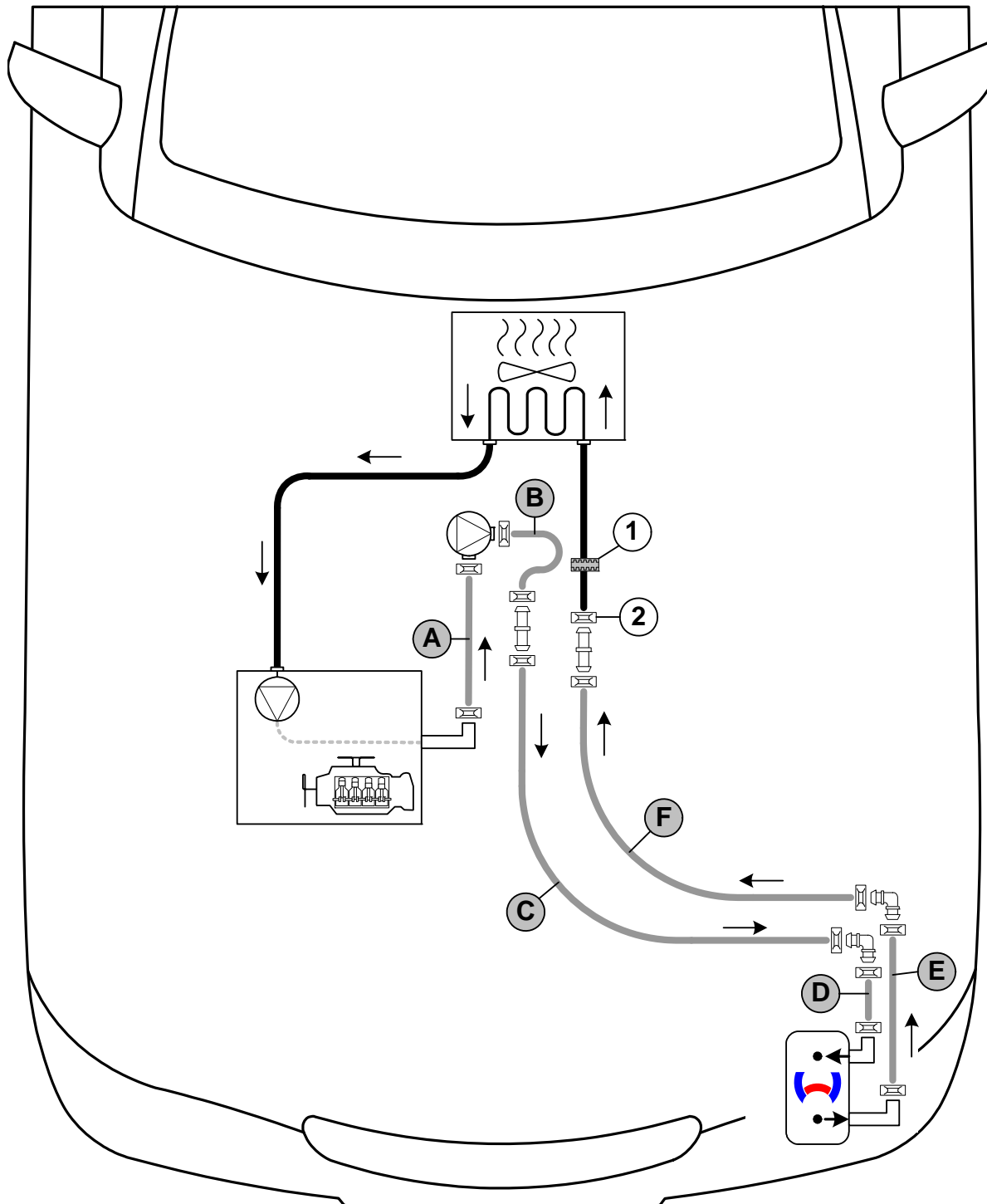
Installing wiring harness








Coolant Circuit

WARNING!

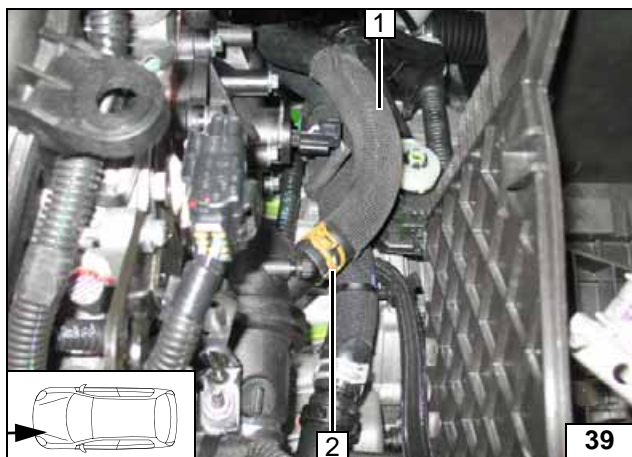
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged. When installing the hoses, the heater must be filled with coolant. The connection should be "inline" based on the following diagram:



Hose routing diagram

All spring clips without a specific designation  = 25mm dia. **2** = Original vehicle spring clip .
1 = Black (sw) rubber isolator . All connecting pipes  and  = 18x18 mm dia.

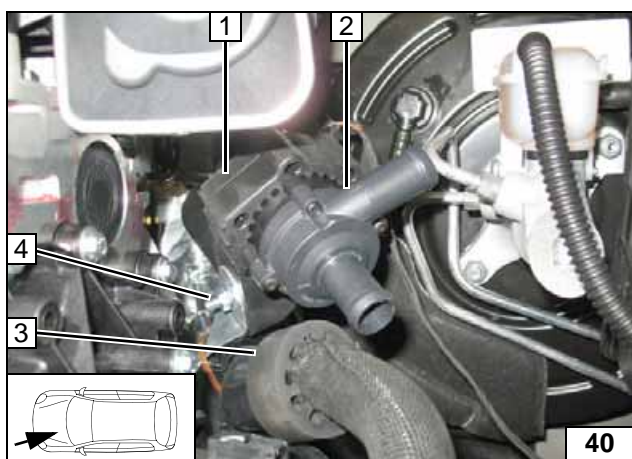




Pull hose of engine outlet / heat exchanger inlet **1** off the connection piece of the engine outlet, spring clip **2** will be reused.



Cutting point



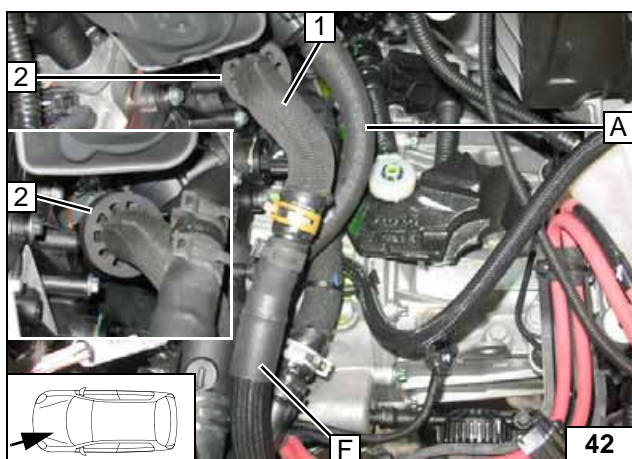
- 1 Circulating pump support
- 2 Circulating pump
- 3 Position black (sw) rubber isolator onto hose of heat exchanger inlet
- 4 M6x25 bolt, original vehicle bracket with hole, flanged nut

Installing circulating pump



- 1 Connection piece on engine outlet

Connecting engine outlet

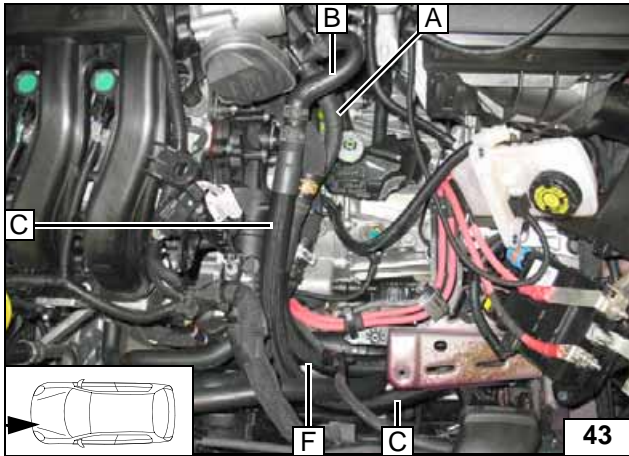


Position black (sw) rubber isolator **2** between engine and circulating pump.

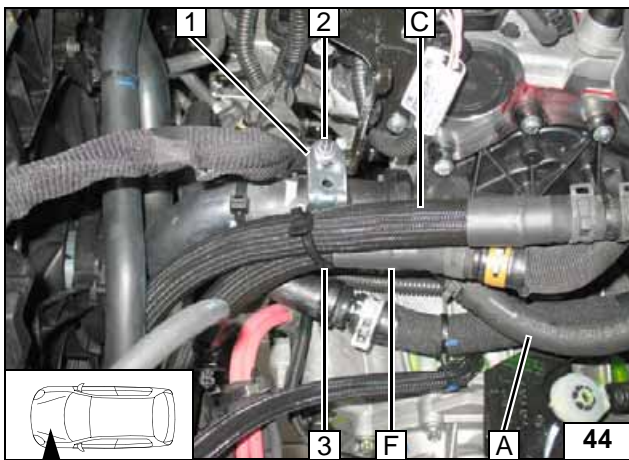
- 1 Hose on heat exchanger inlet



Connecting heat exchanger inlet



Conne-
tion of hose
C



Align hoses. Ensure sufficient distance to neighbouring components, adjust if necessary.



- 1 Angle bracket
- 2 Original vehicle stud bolt with nut
- 3 Cable tie with clip

Routing in
engine
compartment



Fuel

CAUTION!

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

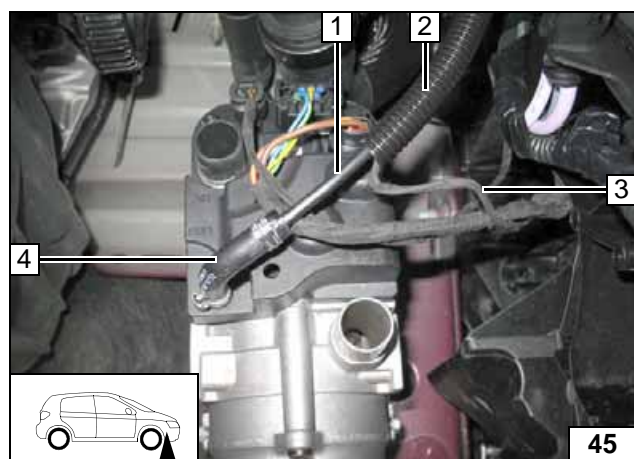
Catch any fuel running off with an appropriate container.

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.

WARNING!

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 wiring harness of metering pump **3** into 2100mm long corrugated tube **2**, route to the firewall.

4 90° moulded hose, 10 mm dia. clamp [2x]

Connect-
ing heater



Route fuel line and wiring harness of metering pump in 2100mm long corrugated tube **1** to the right side of the vehicle and on to the underbody along original vehicle lines.

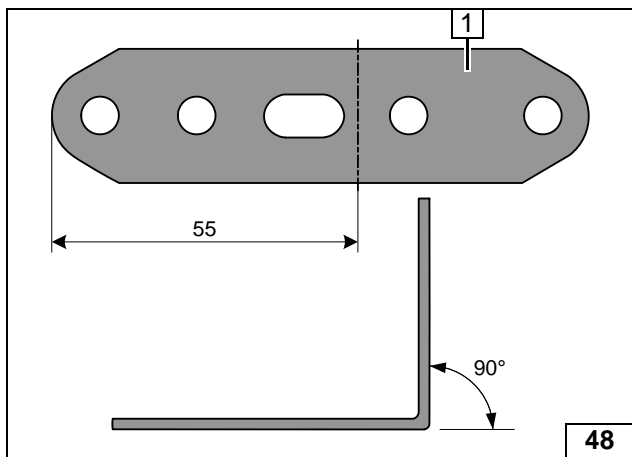
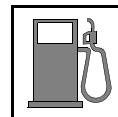
2 Fuel line in corrugated tube of heater

Routing
lines



Route fuel line and wiring harness of metering pump in 2100mm corrugated tube **1** to installation location of metering pump.

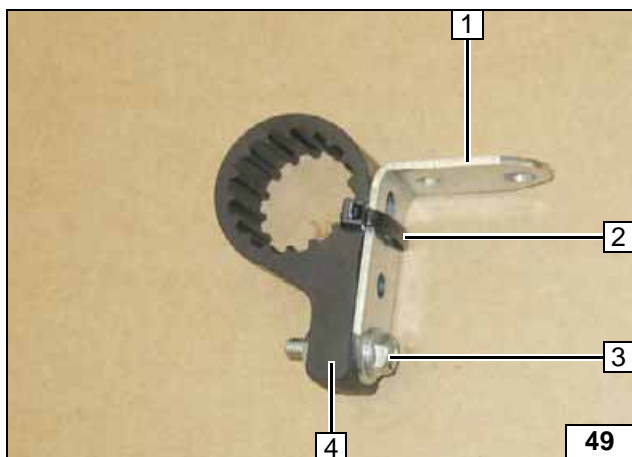
Routing
lines



1 Perforated bracket



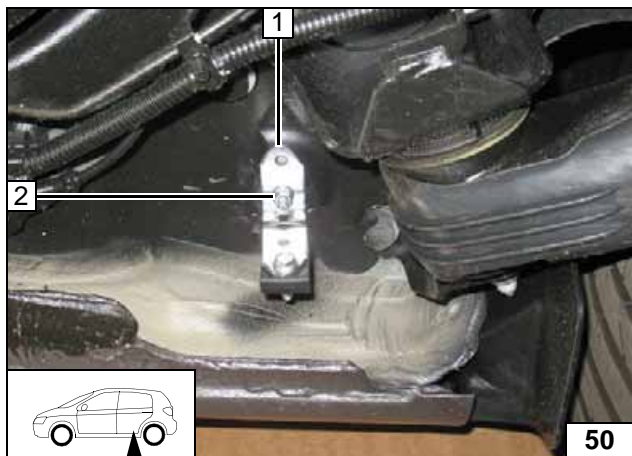
Angling down perforated bracket



- 1 Angled down perforated bracket
- 2 Cable tie
- 3 M6x25 bolt, support angle bracket, flanged nut
- 4 Metering pump support

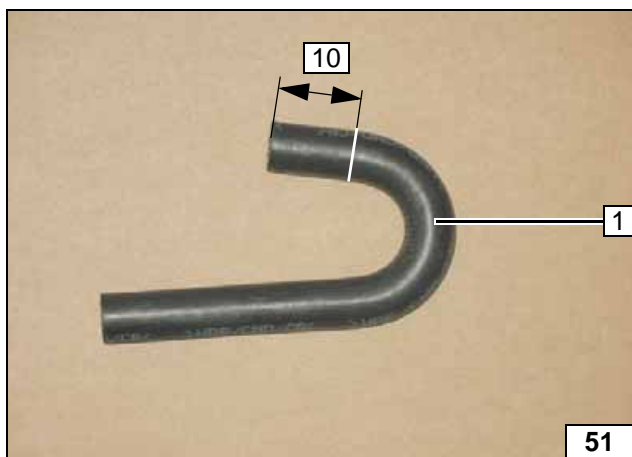


Preinstalling mounting of metering pump



- 1 Perforated bracket
- 2 M6x20 bolt, large diameter washer, flanged nut, existing hole of axis suspension bracket

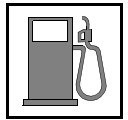
Installing metering pump mount



Shorten 180° moulded hose 1.

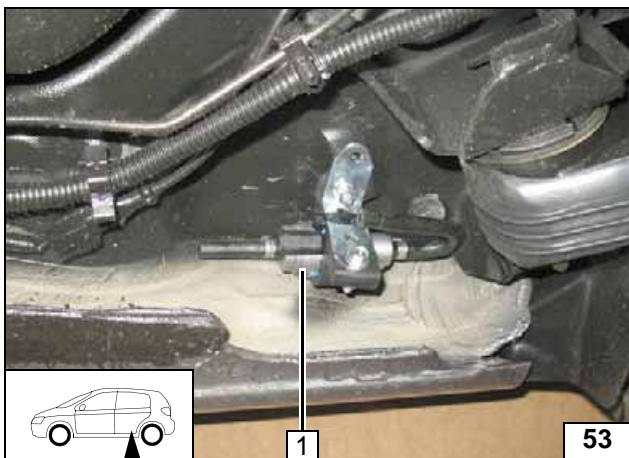


Cutting moulded hose to length



- 1 180° moulded hose
- 2 Metering pump
- 3 Hose section
- 4 10 mm dia. clamp [2x]

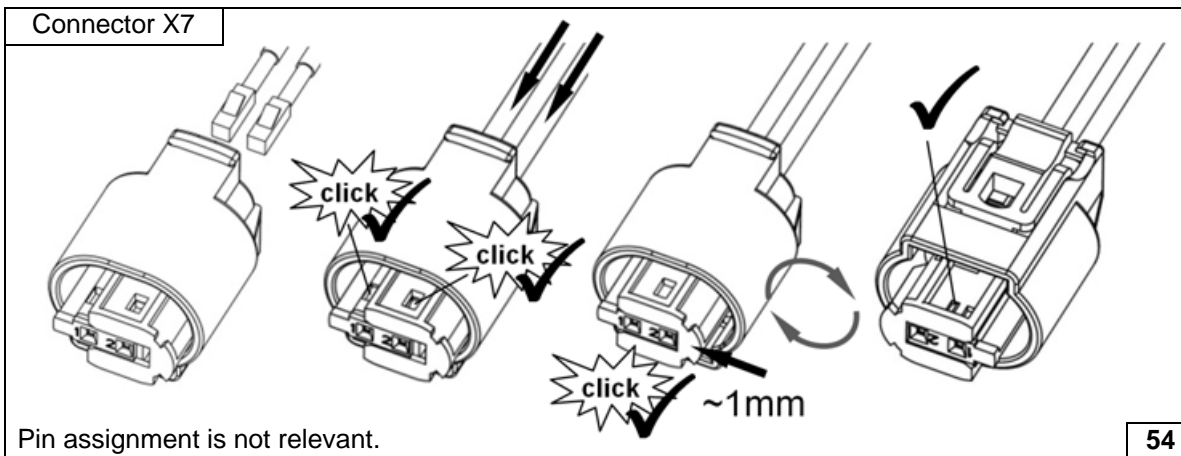
Premounting metering pump



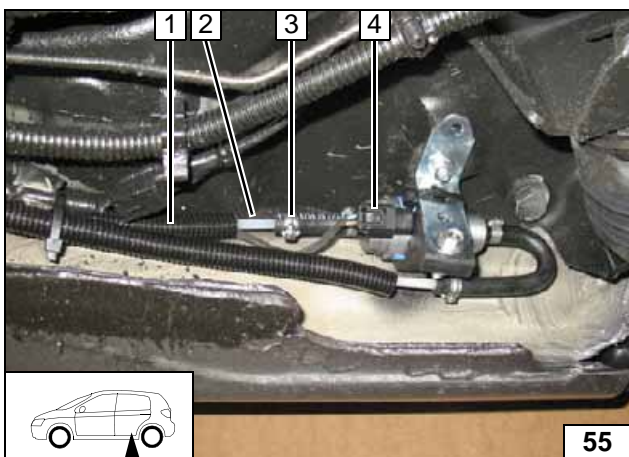
Install metering pump 1 in mount



Installing metering pump



Completing connector of metering pump

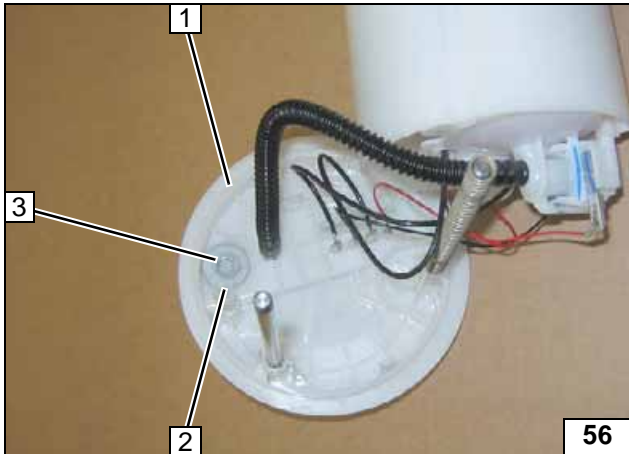
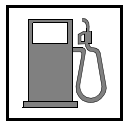


Cut 2100mm corrugated tube 1 at the metering pump to length. Check the position of the components; correct if necessary. Check that they have freedom of movement.

- 2 Fuel line of heater
- 3 10 mm dia. clamp
- 4 Wiring harness of metering pump, connector X7 mounted



Connection of metering pump

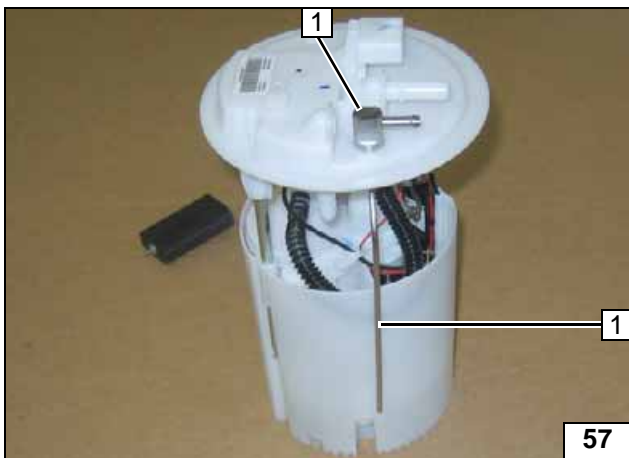


Remove and dismantle fuel-tank sending unit 1 according to manufacturer's instructions.

- 2 Large diameter washer, outer dia. da = 21.6mm
- 3 Copy hole pattern, 6 mm dia. hole



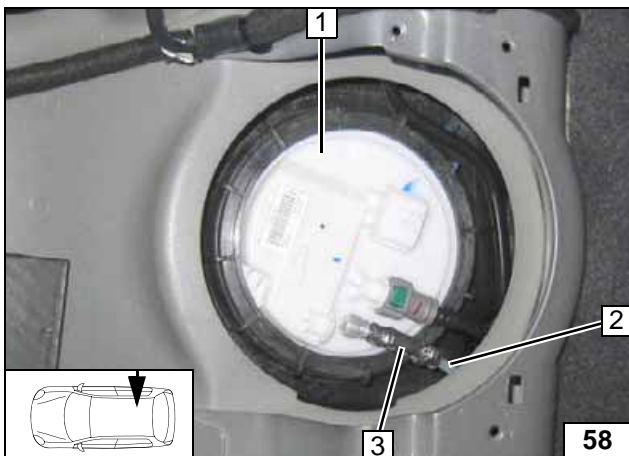
Fuel extraction



Shape fuel standpipe 1 according to template and cut to length.



Installing fuel standpipe

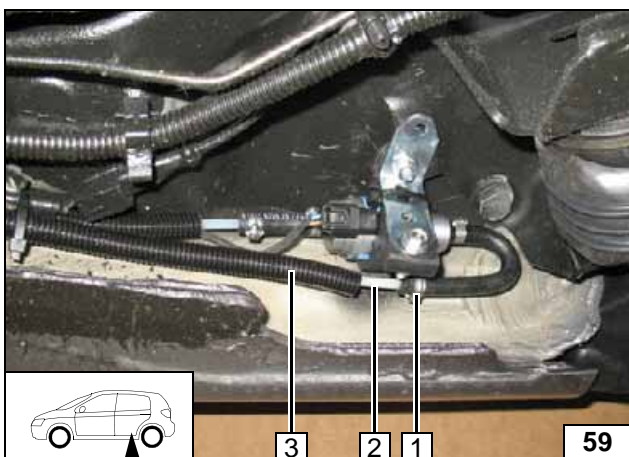


Install fuel-tank sending unit 1 in accordance with manufacturer's instructions.

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



Connecting fuel line

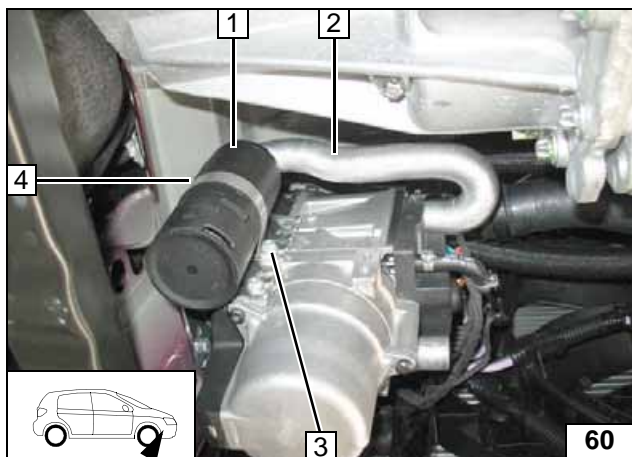
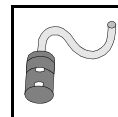


Slide 1130mm long corrugated tube 3 onto fuel line of fuel standpipe 2. Check the position of the components; correct if necessary. Check that they have freedom of movement.

- 1 10 mm dia. clamp



Connection of metering pump

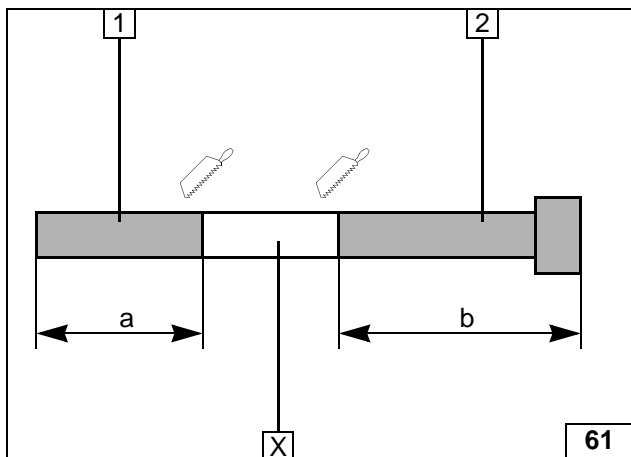
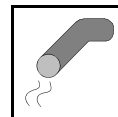


Combustion Air

- 1 Silencer
- 2 315mm combustion air pipe
- 3 5x13 self-tapping bolt
- 4 51mm dia. clamp



**Installing
combustion
air pipe**

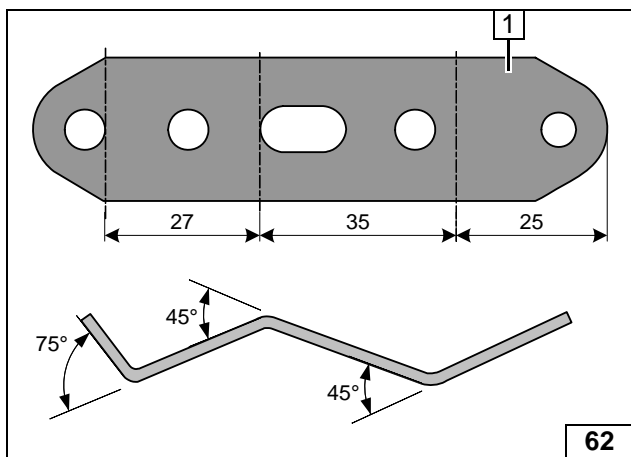


Exhaust Gas

Discard section X.

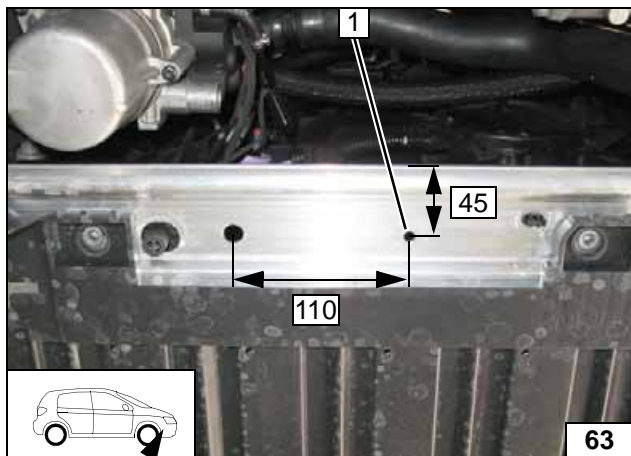
- 1 Exhaust pipe
a = 80
- 2 Exhaust end section
b = 130

Preparing exhaust pipe



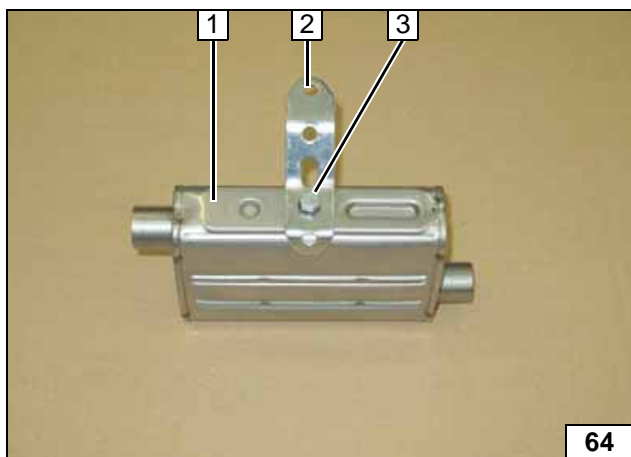
- 1 Perforated bracket

Angling down perforated bracket



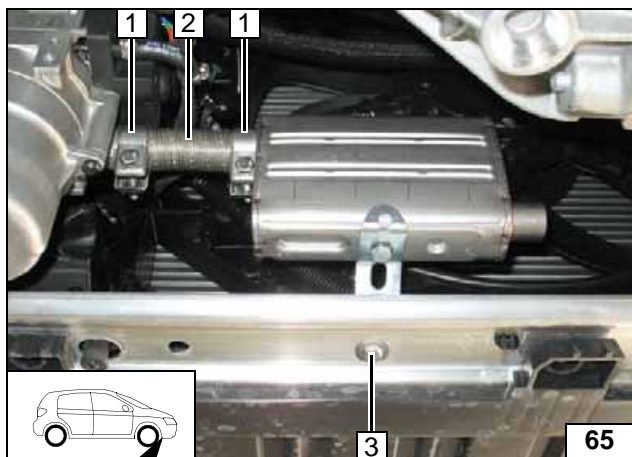
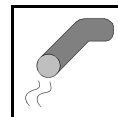
- 1 7 mm dia. hole

Copying hole pattern



- 1 Silencer
- 2 Perforated bracket
- 3 M6x16 bolt, spring lockwasher

Installing silencer

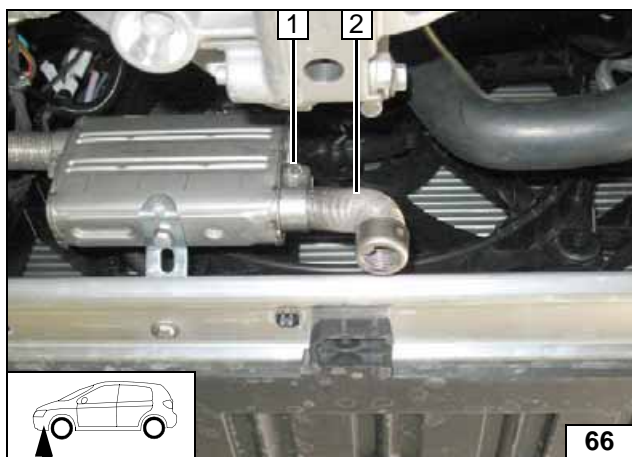


Ensure sufficient distance to neighbouring components, adjust if necessary.

- 1 Hose clamp [2x]
- 2 Exhaust pipe
- 3 M6x20 bolt, large diameter washer, flanged nut



**Installing
silencer**



Ensure sufficient distance (min. 20mm) from neighbouring components, correct if necessary.

- 1 Hose clamp
- 2 Exhaust end section



**Installing
exhaust
end section**



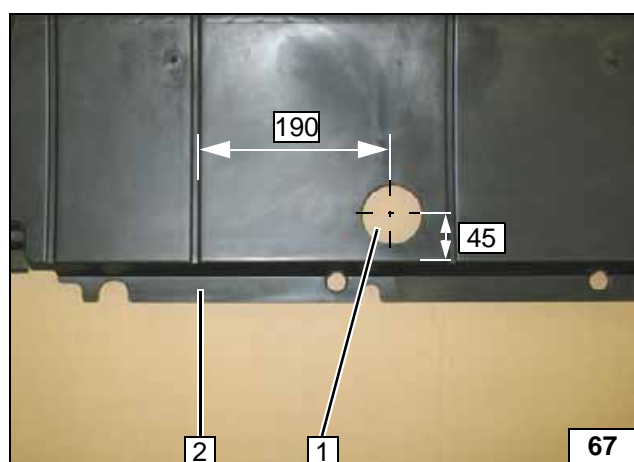
Final Work

WARNING!

Reassemble the disassembled 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 heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

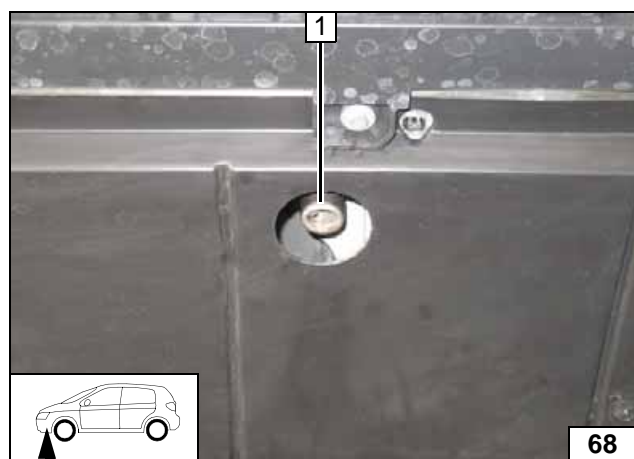


- **Connect the battery.**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's instructions.**
- **Set digital timer, teach telestart transmitter**
- **Make settings on A/C control panel according to the "Operating Instructions for End Customer".**
- **Place caution label "Switch off parking heater before refuelling" in the area of the filler neck.**
- **For initial start-up and function check, see installation instructions**
- **Follow the instructions for the fan function on the following pages.**



- 1 60 mm dia. hole
- 2 Underride protection

Cutting out
underride
protection

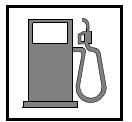


Align exhaust end section 1 with underride protection flush and in the centre of the hole.

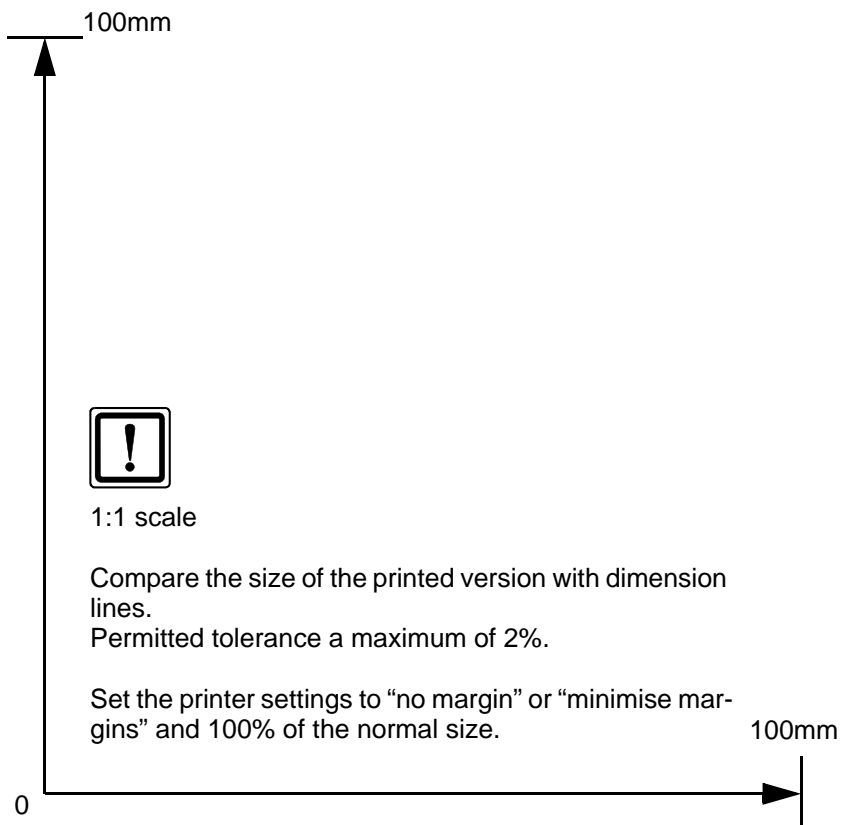
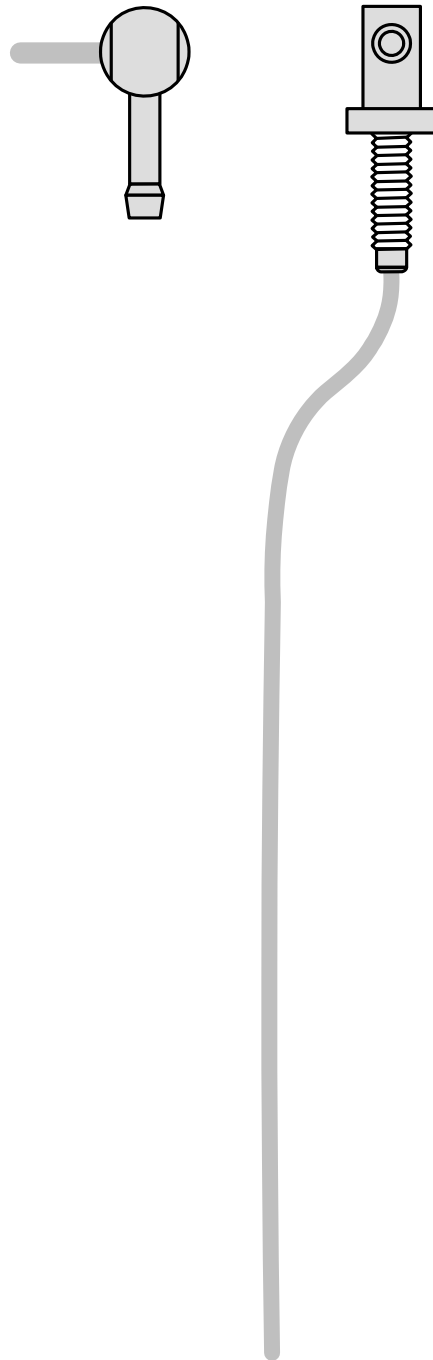


Aligning
exhaust
end section

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



Template for Fuel Standpipe



Operating Instructions for Manual Air-Conditioning

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

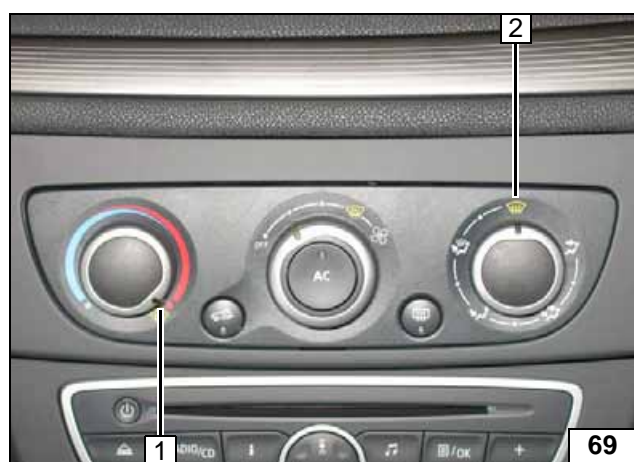
Example:

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

While unlocking the vehicle (when the parking heater is on) the fan controller is deactivated by the parking heater. The original functionalities are available on activating the A/C control panel or switching the ignition on.

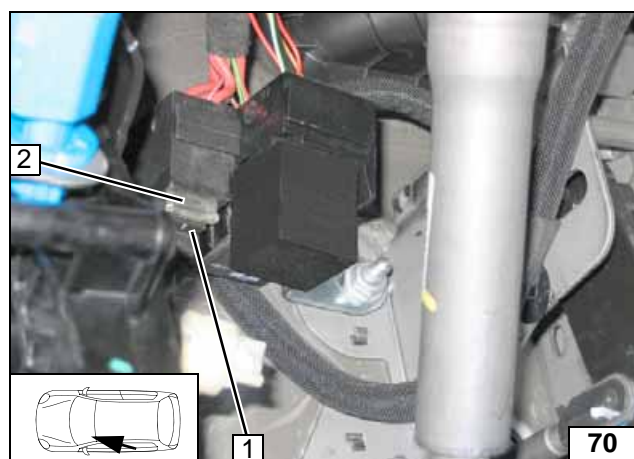
After locking the vehicle, it takes the parking heater several minutes to activate the fan controller.

Before parking the vehicle, make the following settings:



- 1 Set temperature to "max."
- 2 Air outlet to windscreen

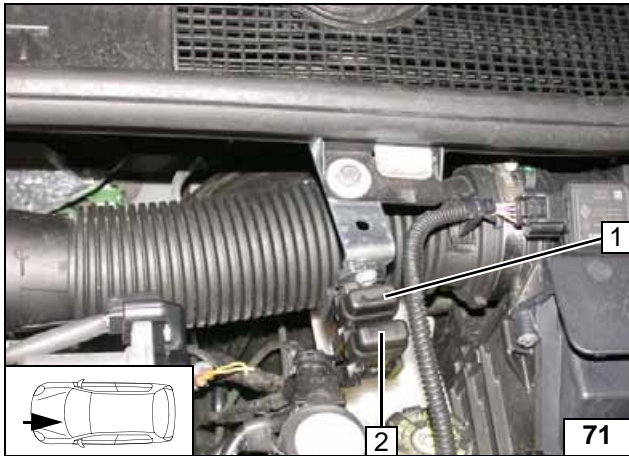
A/C control panel



- 1 1A fuse F3 of heater control
- 2 25A fan fuse F4

Fuses of passenger compartment

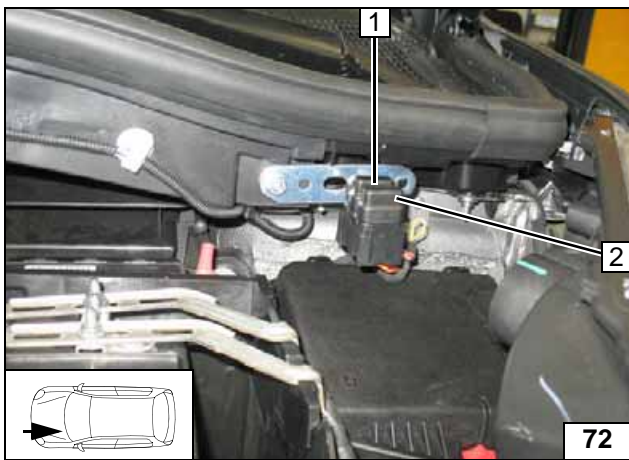




Megane

- 1 30A main fuse F2 of passenger compartment
- 2 20A heater fuse F1

Fuses of engine compartment



Scenic

- 1 30A main fuse F2 of passenger compartment
- 2 20A heater fuse F1

Fuses of engine compartment



Operating Instructions for Automatic Air-Conditioning

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.

While unlocking the vehicle (when the parking heater is on) the fan controller is deactivated by the parking heater. The original functionalities are available on activating the A/C control panel or switching the ignition on.

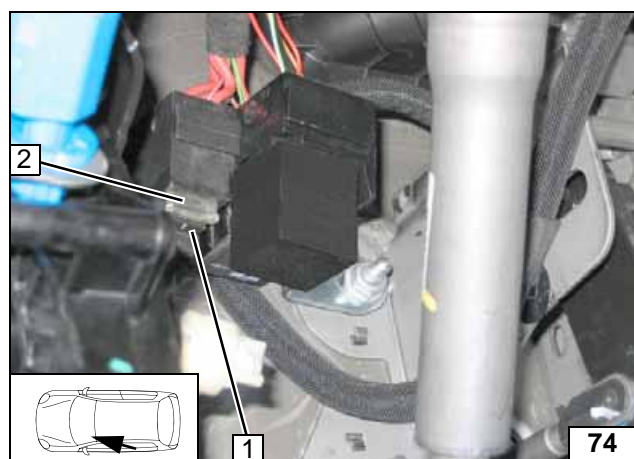
After locking the vehicle, it takes the parking heater several minutes to activate the fan controller.

Before parking the vehicle, make the following settings:



- 1 Set temperature on both sides to "HI"
- 2 Air outlet to windscreen

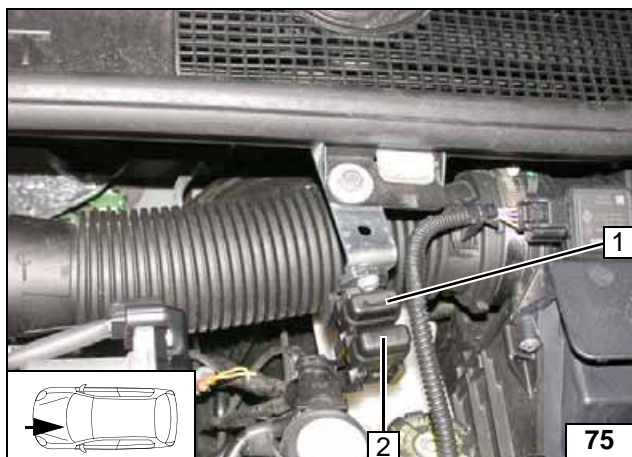
A/C control panel



- 1 1A fuse F3 of heater control
- 2 25A fan fuse F4

Fuses of passenger compartment

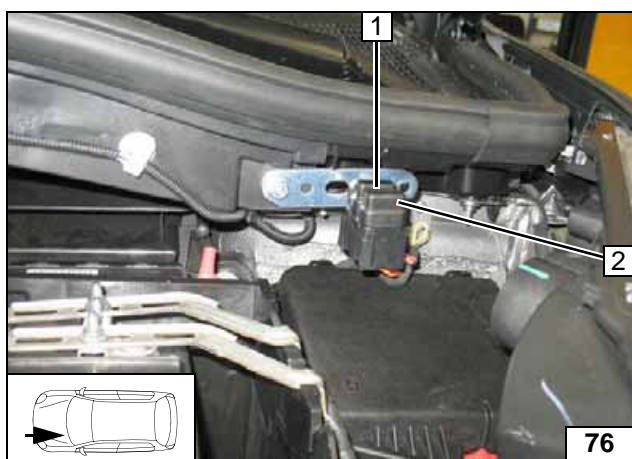




Megane

- 1 30A main fuse F2 of passenger compartment
- 2 20A heater fuse F1

Fuses of engine compartment



Scenic

- 1 30A main fuse F2 of passenger compartment
- 2 20A heater fuse F1

Fuses of engine compartment

