Water Heater

***Thermo Top Evo* Parking Heater** E1 00 0258

Installation Documentation
Dacia Logan MCV

Validity

Manufacturer	Model	Type	EG-BE No. / ABE
Dacia	Logan MCV	SD	e2 * 2001 / 116 * 0314 * ...

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
1.2 B	Petrol	5-speed SG	55	1149	D4F

SG = Manual transmission

From model year 2014
Left-hand drive vehicle

Verified equipment variants: Manual air-conditioning

Front fog light
Daytime running lights
Euro 5 emission standard

Not verified: Passenger compartment monitoring
Automatic air-conditioning

Total installation time: approx. 7 hours

Dacia Logan MCV

Table of Contents

Necessary Components

- Basic delivery scope of *Thermo Top Evo*based on price list
- Installation kit for Dacia Sandero / Sandero Stepway / Logan MCV 2013 petrol and diesel: **1319229B**
- Heater control in accordance with price list and upon consultation with final customer
- In case of Telestart, indicator lamp in accordance with price list and upon consultation with final customer

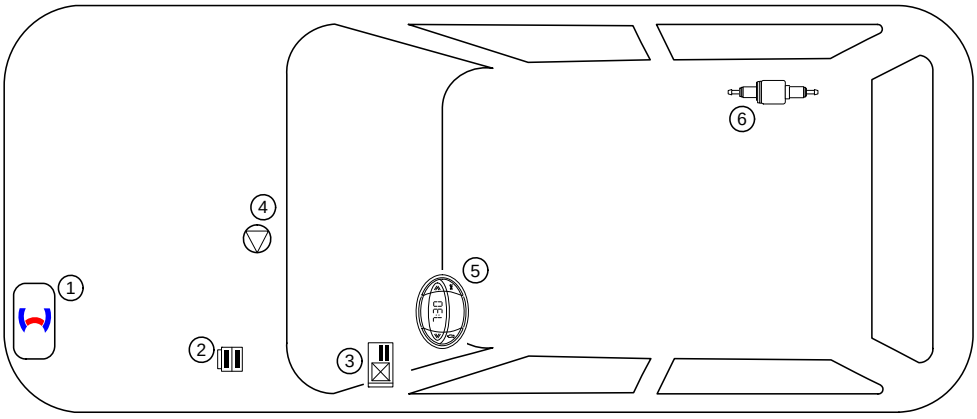
Installation instructions:

- 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.
- When installing a parking heater, we recommend the use of a larger battery for the vehicle.

Installation Overview

Legend:

1. Heater
2. Fuse holder of engine compartment
3. Relay and fuse holder of passenger compartment
4. Circulating pump
5. Digital timer
6. 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 IPCU, 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 03 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 Dacia Logan MCV Petrol vehicles - for validity, see page 1 - from model year 2014 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

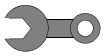
Dimensions
- All dimensions are in mm

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

Explanatory Notes on Document

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

Mechanical system



Electrical system

Coolant circuit

Combustion air

Fuel

Exhaust gas

Software

Special features are highlighted using the following symbols:

Specific risk of injury or fatal accidents.

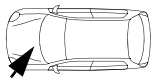
Specific risk of damage to components.

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.



Dacia Logan MCV

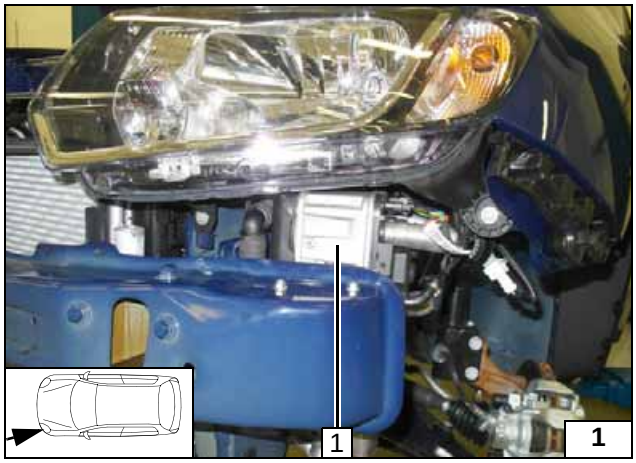
Preliminary Work

Vehicle

- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Disconnect and remove the battery.
- Remove the air ducting to the air filter.
- Remove the air filter housing.
- Remove the left-hand wheel well trim.
- Remove the left front wheel.
- Remove the bumper trim.
- Remove the lower engine cover.
- Fold over the seating area of the rear bench seat.
- 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 trim on the driver's side (only in case of Telestart T100 HTM).
- Remove the lower instrument panel trim on the driver's side.
- Remove the trim piece of the centre console (clipped).
- Remove the radio and navigation system in accordance with manufacturer's instructions.
- Remove the A/C control panel.

Heater

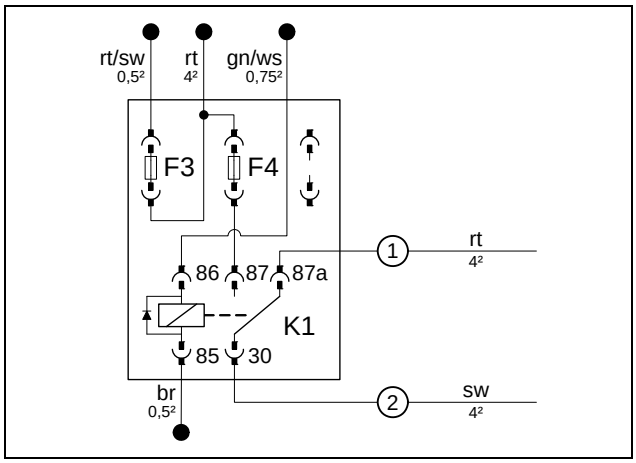
- Remove years that do not apply from the type and duplicate label
- Attach the duplicate label (type label) in the appropriate place inside the engine compartment.



Heater Installation Location

1 Heater

Installation location

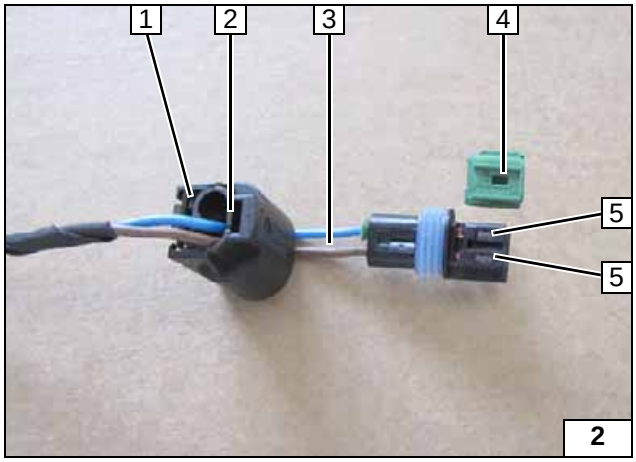


Preparing Electrical System

Wire sections retain their numbering in the entire document.

① Red (rt) wire from K1/87a
② Black (sw) wire of K1/30

Cutting wires to length



Complete connector of metering pump again after routing. Pin assignment is not relevant.

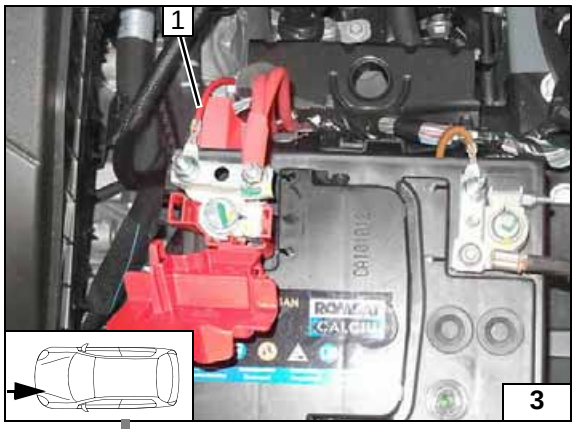
1 Connector housing
2 Lock
3 Blue/brown (bl / br) wires
4 Coding
5 Timer lock

Dismounting connector

Electrical System

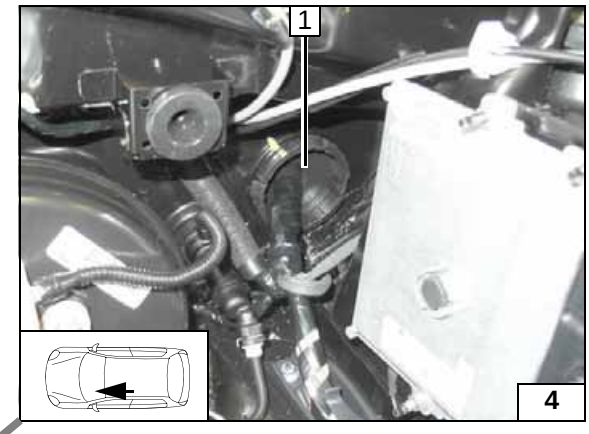
Positive wire

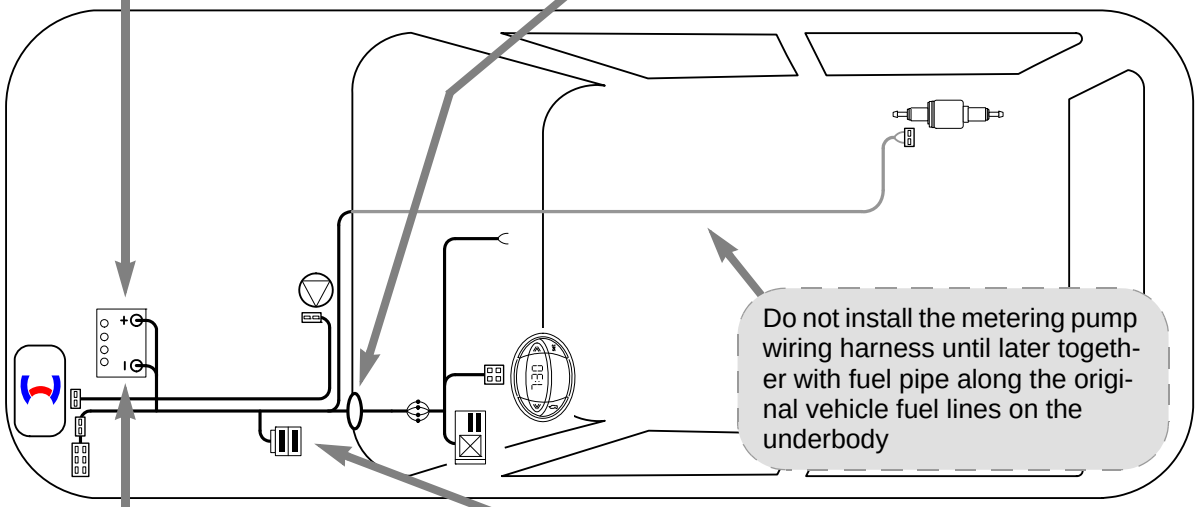
1 Positive wire, cable lug on positive terminal of battery



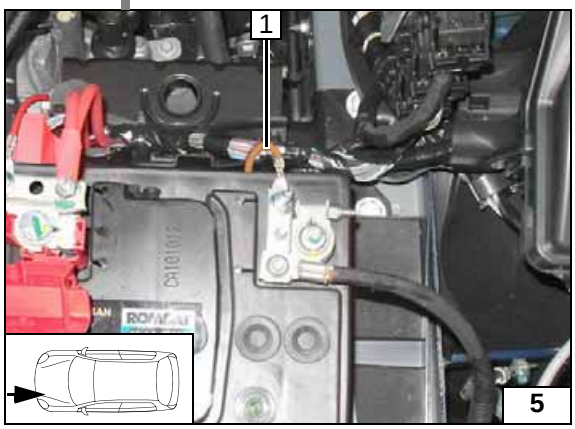
Wiring harness pass through

1 Protective rubber plug



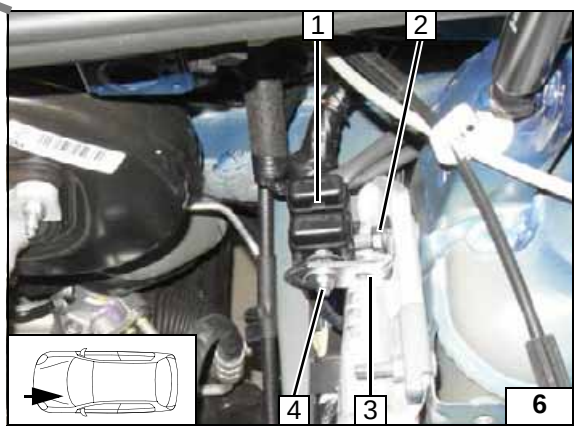


Wiring harness routing diagram



Earth wire

1 Earth wire, cable lug on negative terminal of battery

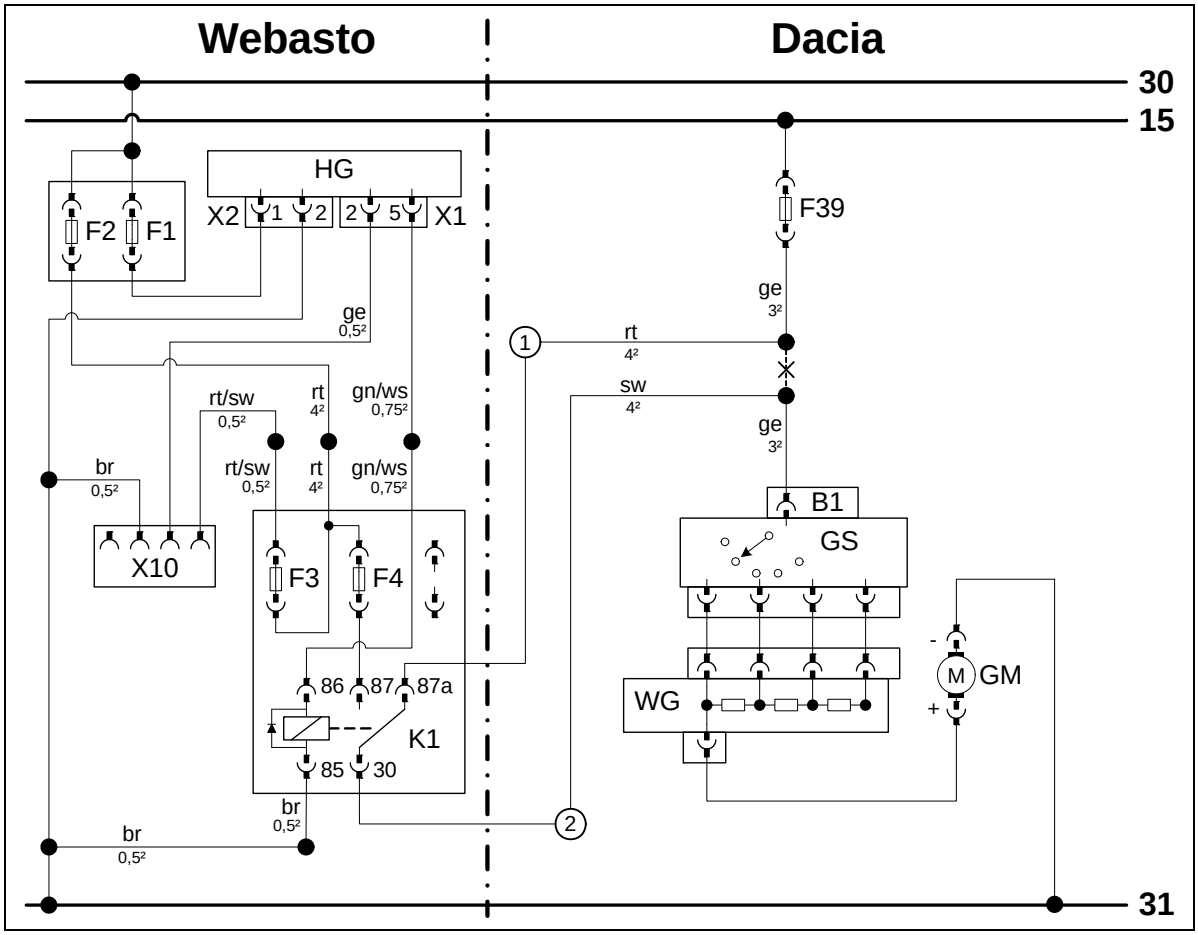


Fuse holder of engine compartment

1 F1-2 fuses
2 Original vehicle stud bolt of control unit, flanged nut
3 Angle bracket
4 M5x16 bolt, washer [2x], retaining plate of fuse holder, nut

Fan Controller

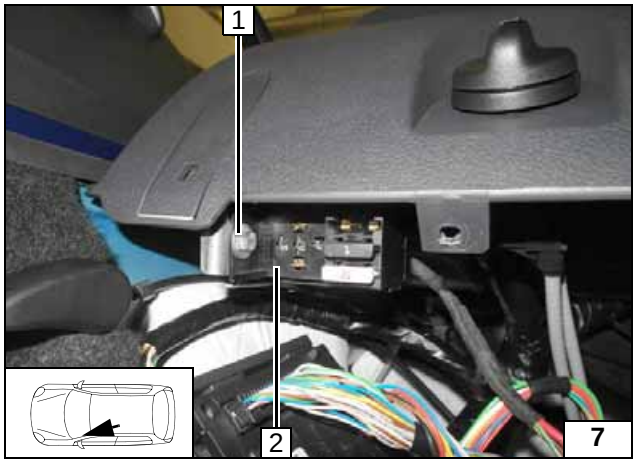
Wiring diagram



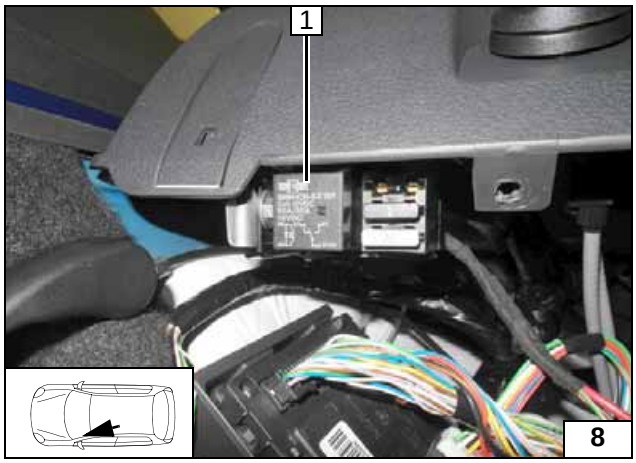
Legend

Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	F39	30A fuse	rt	red
X1	6-pin heater connector	B1	Connector B Pin 1	sw	black
X2	2-pin heater connector	GS	Fan switch	ge	yellow
X10	4-pin connector of heater control	GM	Fan motor	gn	green
		WG	Resistor group	br	brown
K1	Fan relay			ws	white
F1	20A fuse			br	brown
F2	30A fuse				
F3	1A fuse			**X**	Cutting point
F4	25A fuse			Wiring colours may vary.	

Installing relay and fuse holder of passenger compartment

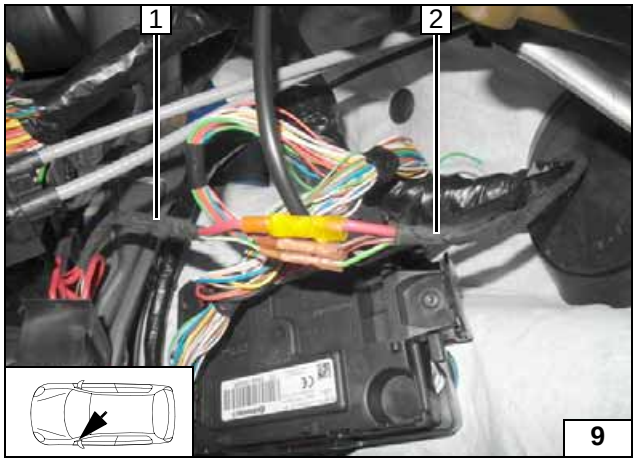


1 M5x16 bolt, large diameter washer [2x], nut, existing hole
2 Relay and fuse holder of passenger compartment



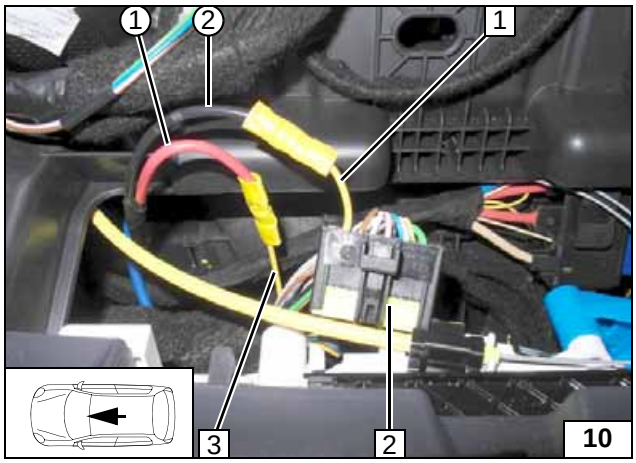
1 K1 relay

Attaching K1 relay



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

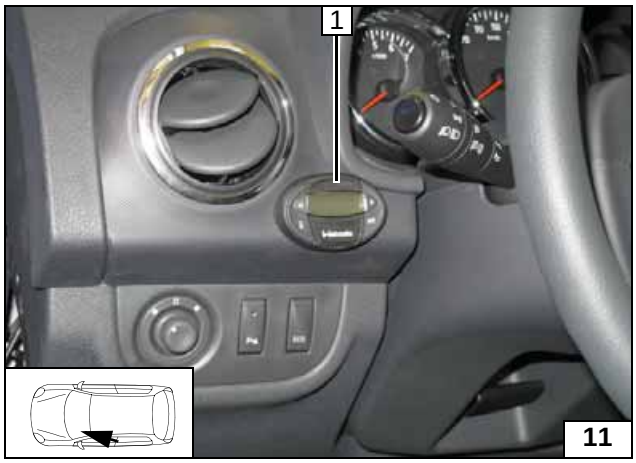
Connecting wiring harness using same colour wires



Connection to connector B **2** of fan switch. Produce connections as shown in wiring diagram.

1 Yellow (ge) wire from connector B, Pin1
3 Yellow (ge) wire from fuse 39
① Red (rt) wire from K1/87a
② Black (sw) wire of K1/30

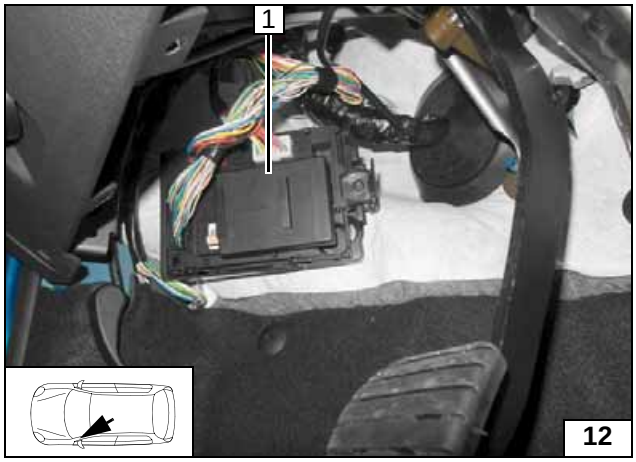
Connecting fan motor



Digital Timer

1 Digital timer

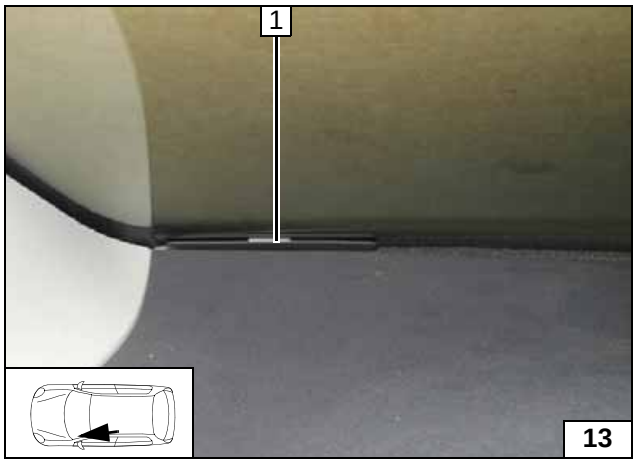
Installing digital timer



Remote Option (Telestart)

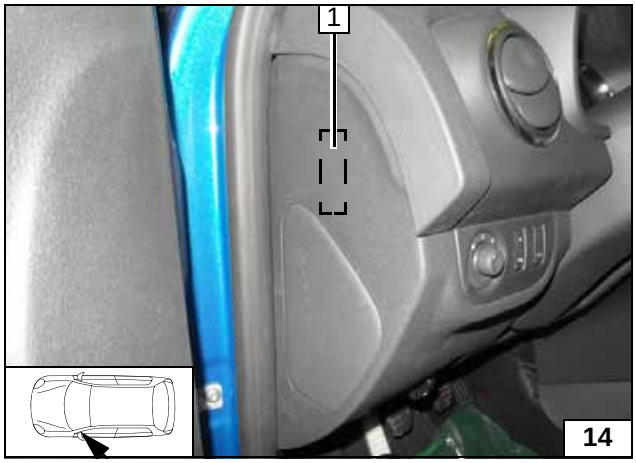
Fasten receiver **1** with adhesive tape.

Installing receiver



1 Antenna

Installing antenna

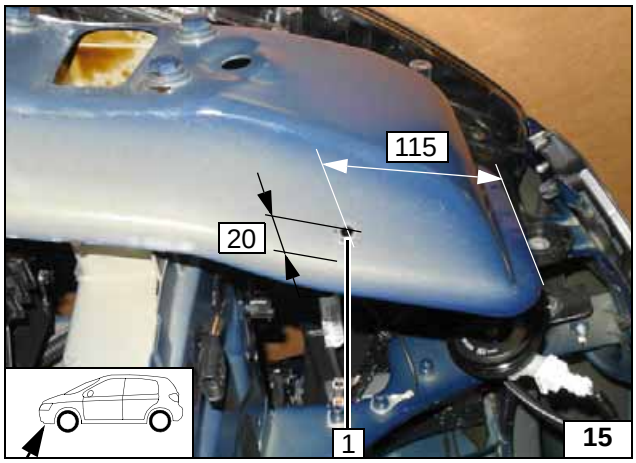


Temperature sensor T100 HTM

Fasten temperature sensor **1** behind the lateral instrument panel trim with adhesive tape.

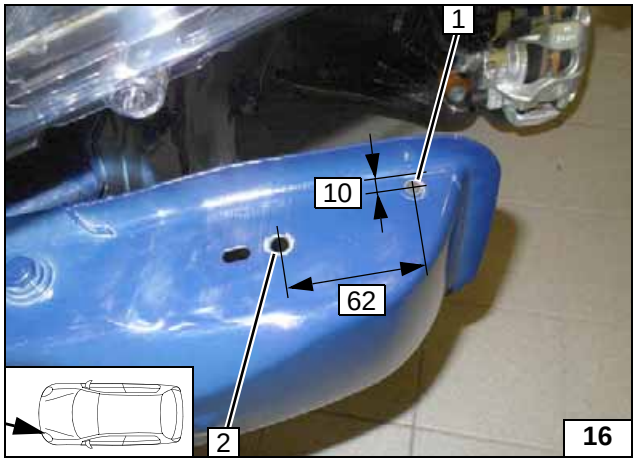
Installing temperature sensor

Preparing Installation Location



1 7 mm dia. hole

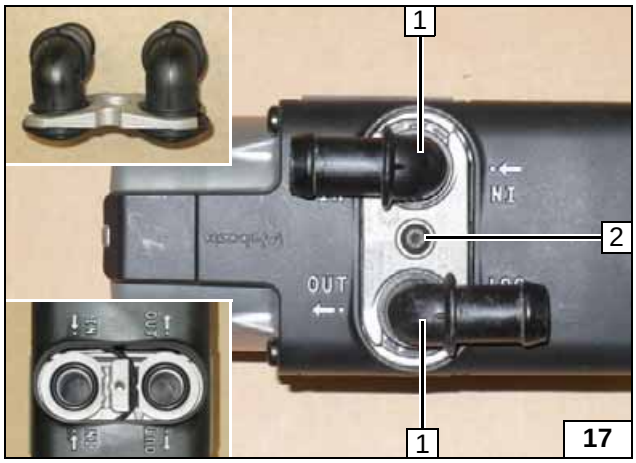
Hole in bumper



1 7 mm dia. hole
2 Existing hole

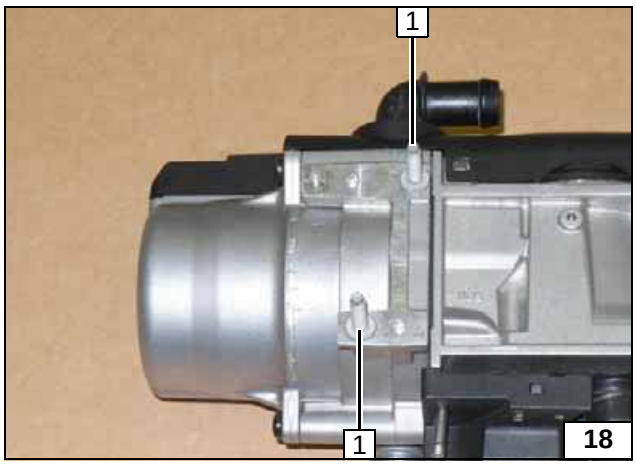
Hole in bumper

Preparing Heater



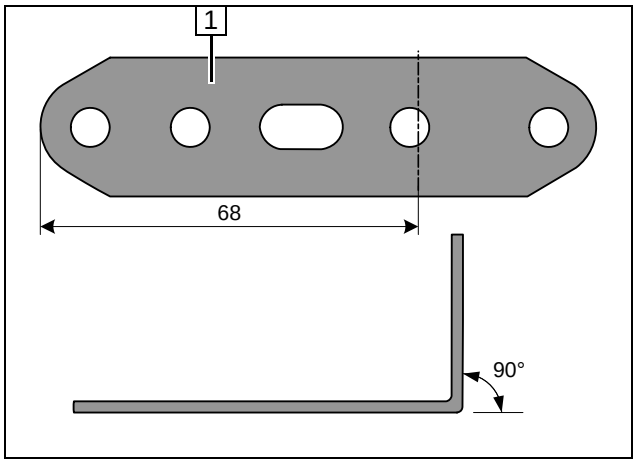
1 Water connection piece, sealing ring [2x each]
2 5x15 self-tapping bolt, retaining plate of water connection piece

Installing water connection pieces



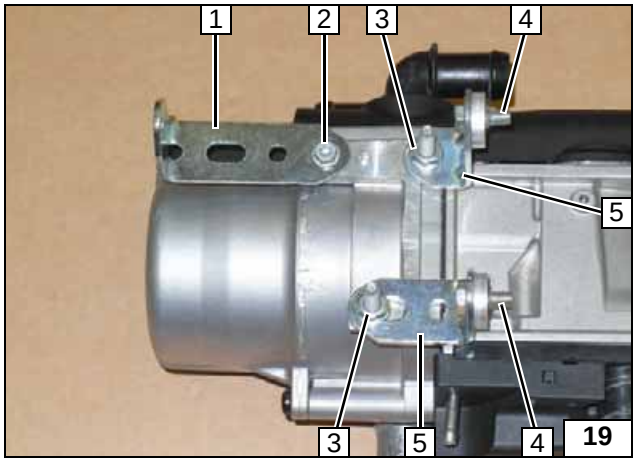
1 Stud bolt [2x]

Premounting stud bolts



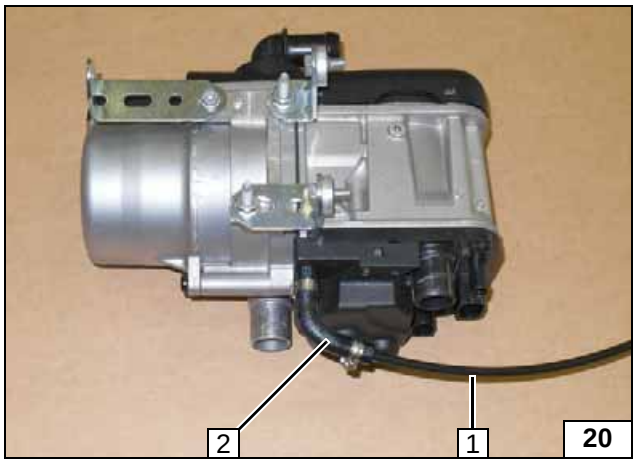
1 Perforated bracket

Preparing perforated bracket



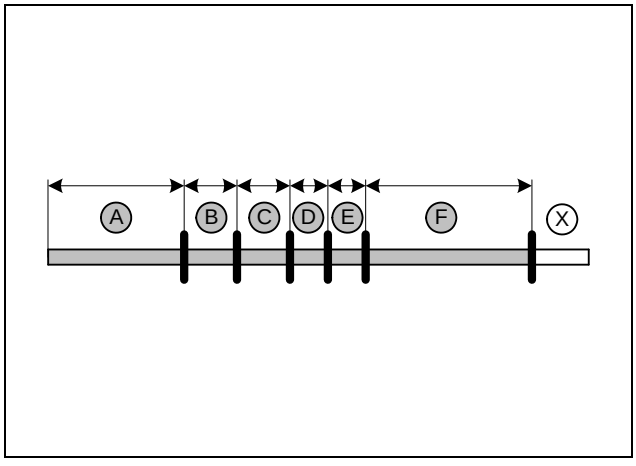
1 Perforated bracket
2 Mount 5x13 self-tapping bolt loosely
3 Flanged nut [2x]
4 M6x16 bolt, large diameter washer, 5mm shim, pin lock
5 Angle bracket [2x]
6 M6x16 bolt, 5mm shim, pin lock

Premounting heater



1 Fuel line
2 90° moulded hose, 10 mm dia. clamp [2x]

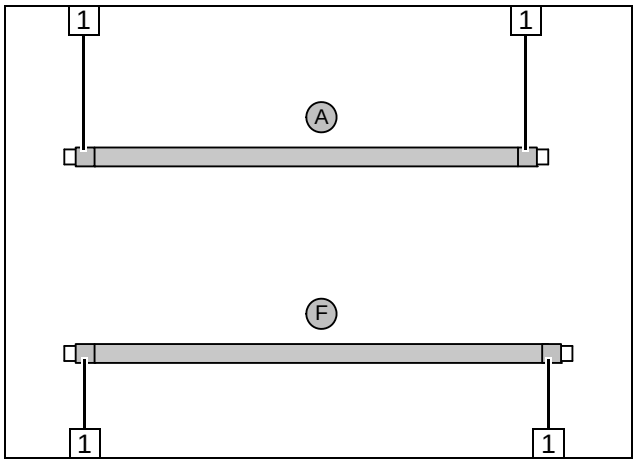
Premounting heater



Discard section **X**.

A = 620
B = 110
C = 130
D = 60
E = 60
F = 820

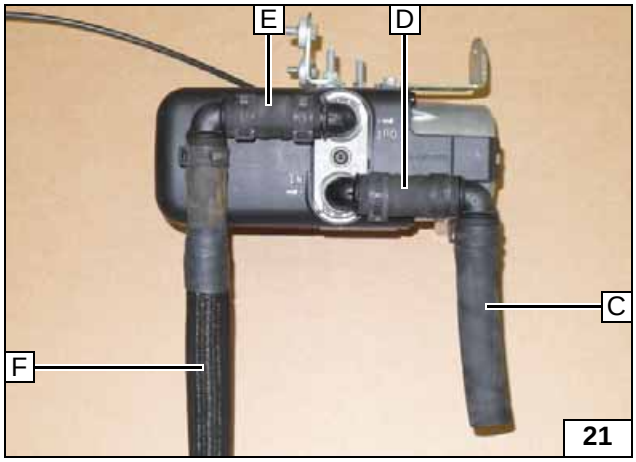
Cutting hoses to length



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

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

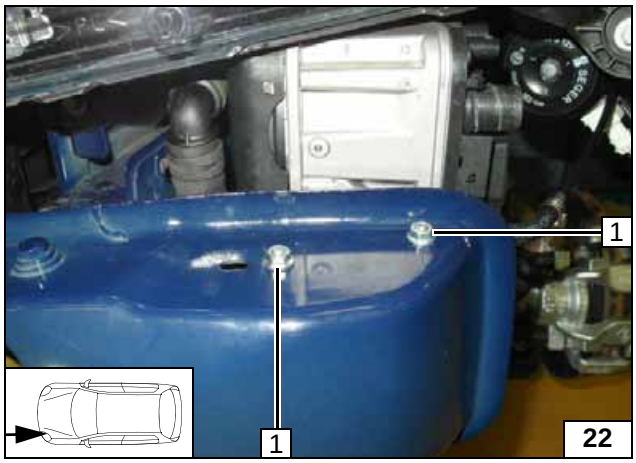
Preparing hoses



All spring clips = 25 mm dia.
All 90° connecting pipes = 18x18mm dia.

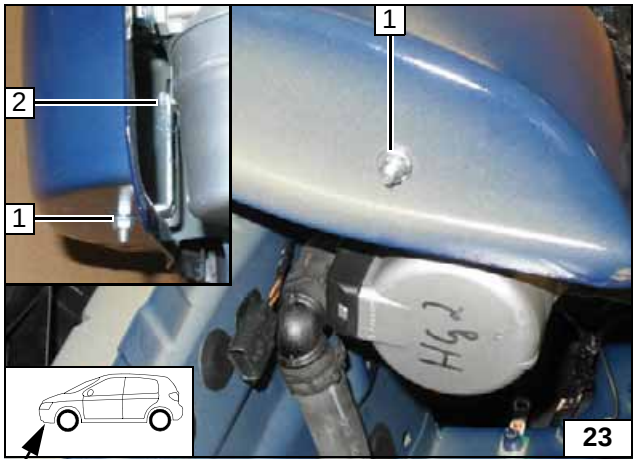
Premounting hoses

Installing Heater



1 Flanged nut [2x]

Installing heater



1 M6x12 bolt, flanged nut
2 Tighten 5x13 self-tapping bolt

Installing heater

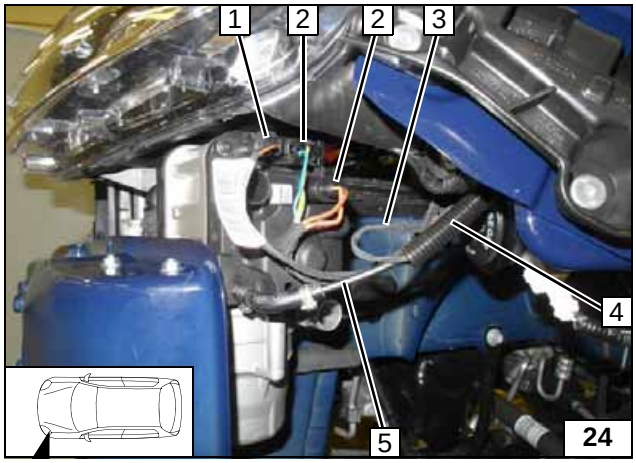
Fuel

CAUTION!
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.
Mount the fuel line and wiring harness with rub protection on sharp edges.

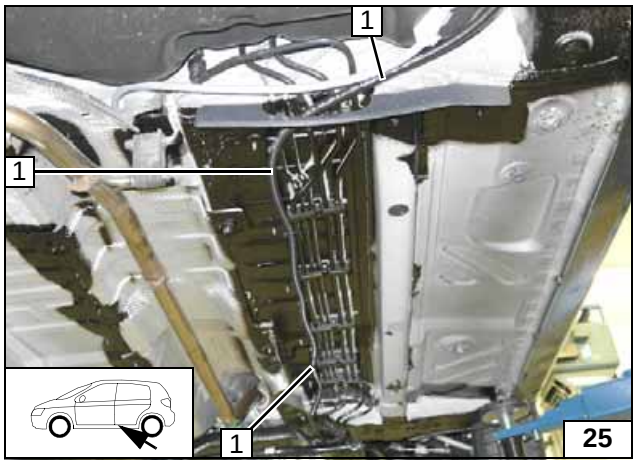
WARNING!
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



Pull fuel line **5** and wiring harness of metering pump **3** into 10mm dia. corrugated tube **4**, route to the firewall and further to the underbody.

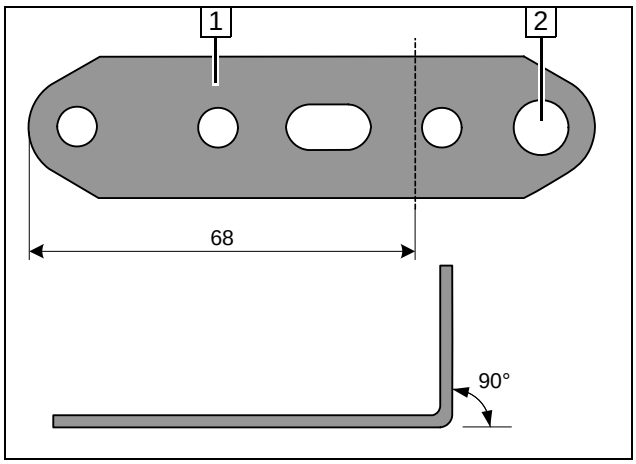
1 Wiring harness of circulating pump
2 Wiring harness of heater [2x]

Routing lines, connection of heater



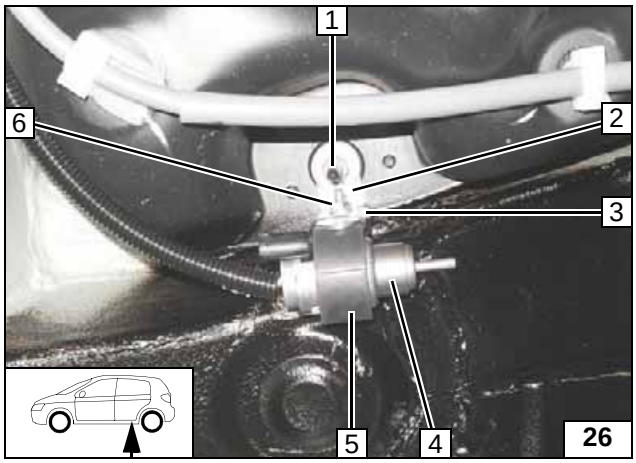
Route fuel line and wiring harness of metering pump in 10 mm dia. corrugated tube **1** to the installation location of the metering pump.

Routing lines



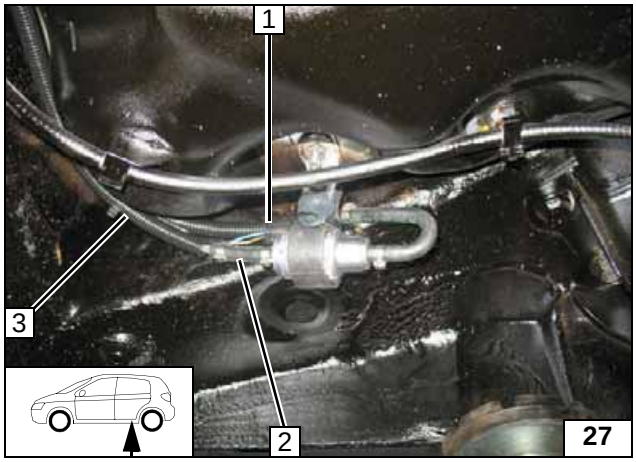
1 Perforated bracket
2 Drill hole to 8.5mm dia.

Preparing perforated bracket



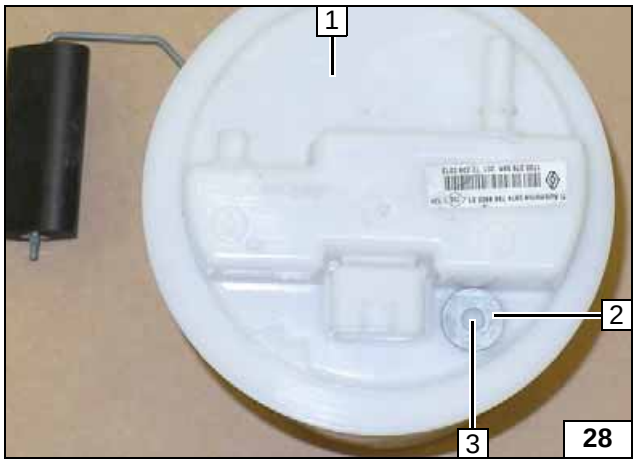
1 Original vehicle stud bolt
2 Perforated bracket
3 Cable tie
4 Metering pump
5 Metering pump mounting
6 M6x25 bolt, support angle bracket, flanged nut

Mounting metering pump



1 Wiring harness of metering pump, connector mounted
2 Hose section, 10 mm dia. clamp [2x]
3 Corrugated tube with metering pump wiring harness and fuel line

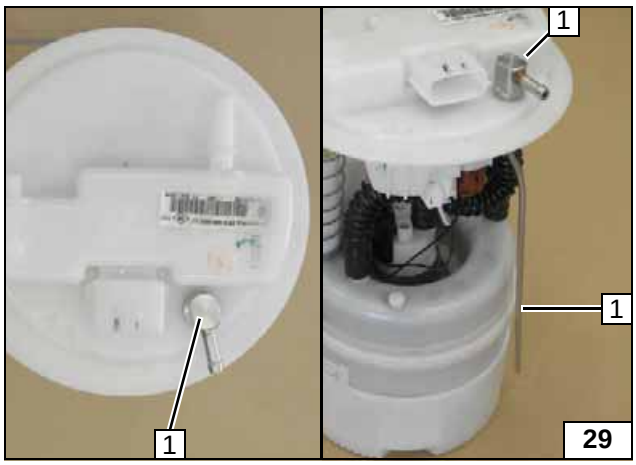
Connection of metering pump



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

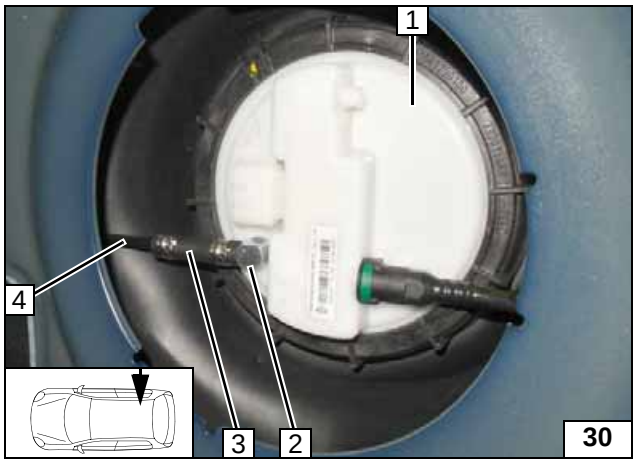
2 Washer with outer dia. d_a = 17.6mm
3 Copy hole pattern, 6 mm dia. hole

Fuel extraction



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

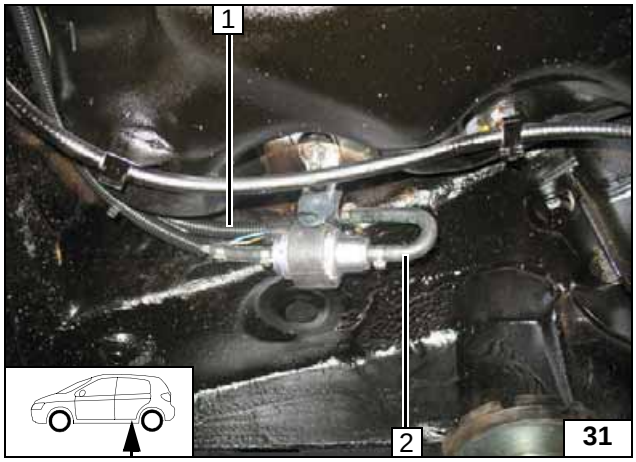
Installing fuel standpipe



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

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

Connecting fuel line



Check the position of the components; adjust if necessary. Check that they have freedom of movement.

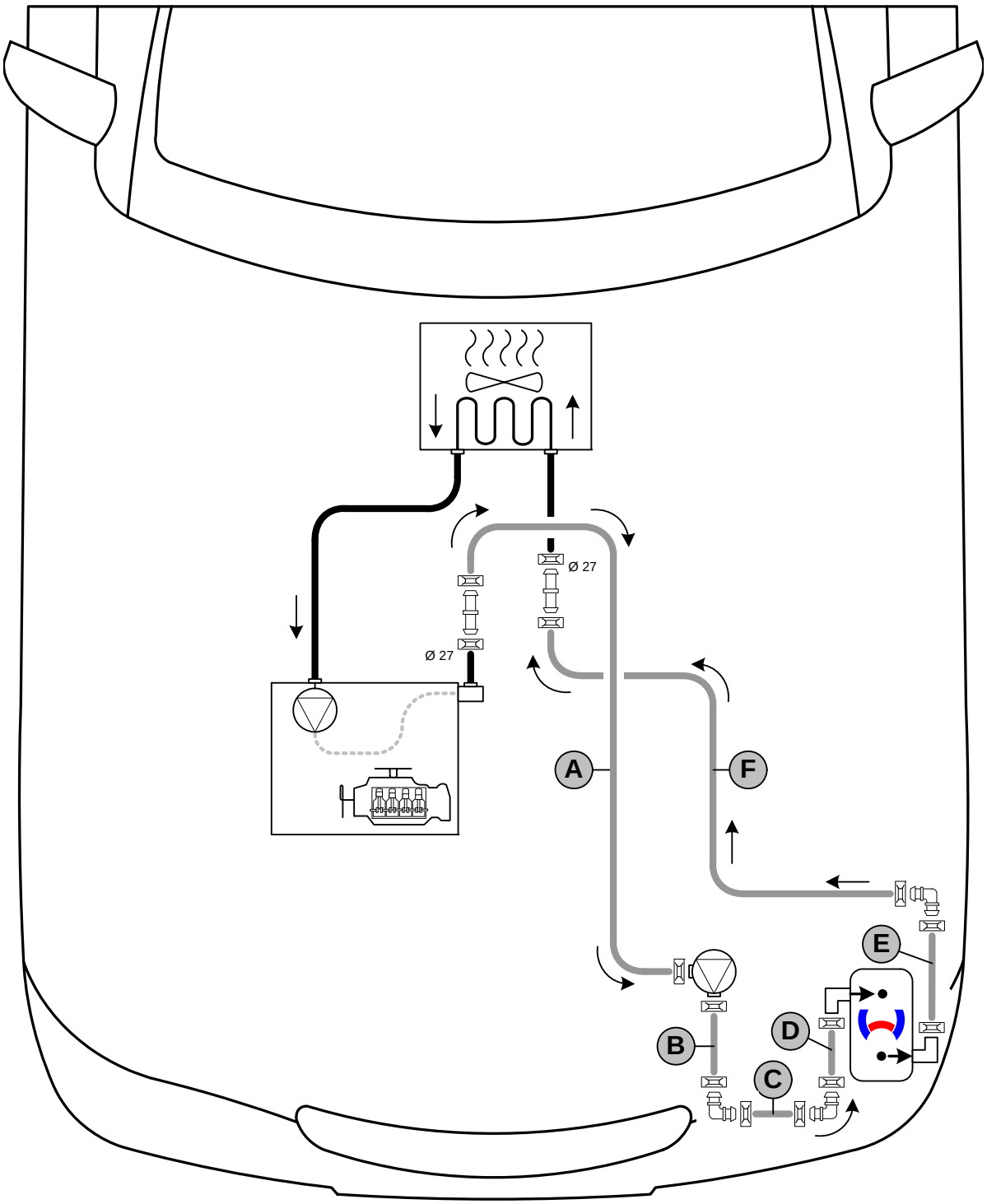
1 Corrugated tube with fuel line
2 180° moulded hose, 10 mm dia. clamp [2x]

Connection of metering pump

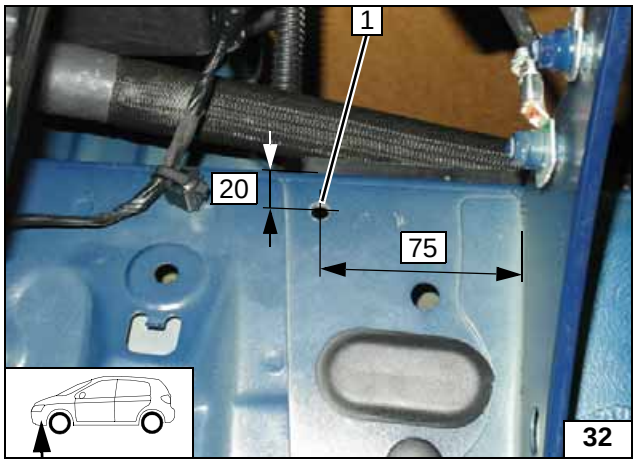
Coolant Circuit

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 other hoses cannot be damaged. The heater must be filled with coolant when installing the hoses.
The connection should be "inline" based on the following diagram:

Hose routing diagram

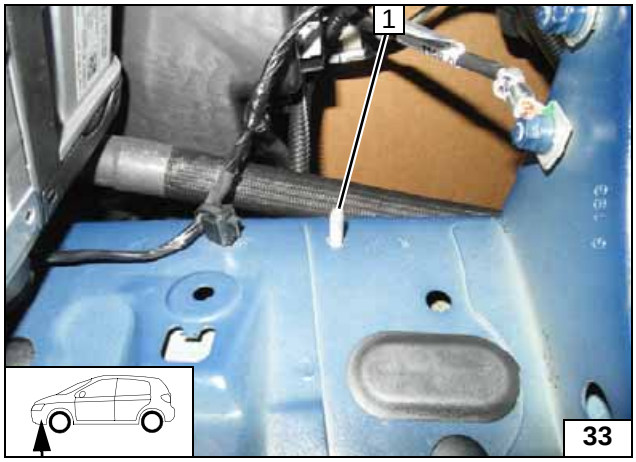


All spring clips without a specific designation = 25mm dia.
All connecting pipes = 18x20 mm dia. All connecting pipes = 18x18mm dia.



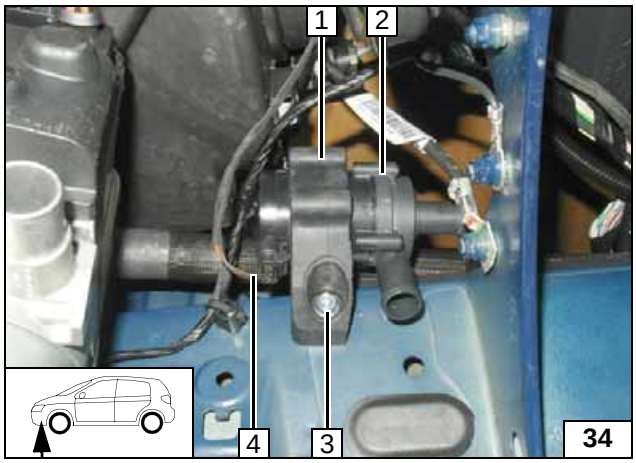
1 7 mm dia. hole

Hole for circulating pump



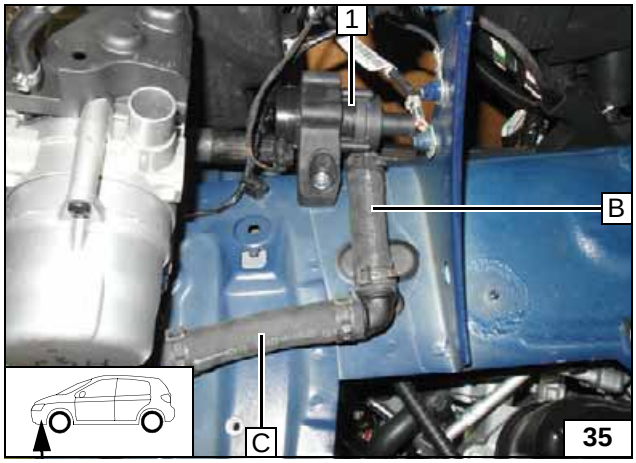
1 M6x25 bolt, insert from behind

Installing bolt



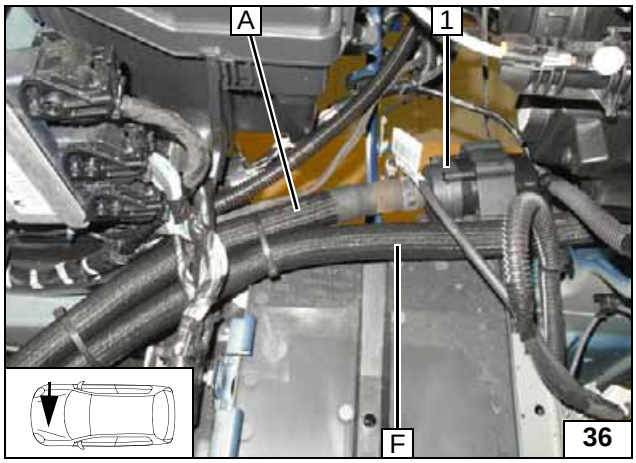
1 Mounting for circulating pump
2 Circulating pump
3 Flanged nut on M6x25 bolt
4 Mount wiring harness of circulating pump

Installing circulating pump



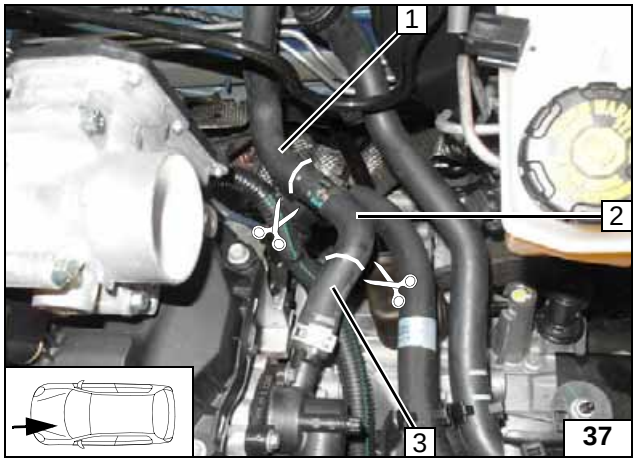
1 Circulating pump

Connecting circulating pump



1 Circulating pump

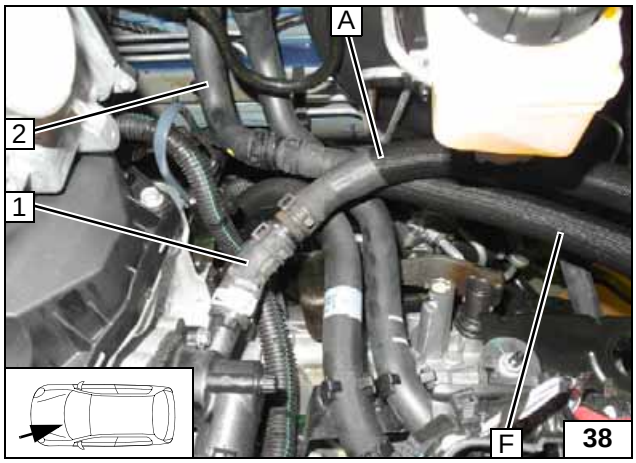
Routing in engine compartment



Cut hose of engine outlet / heat exchanger inlet at the markings.

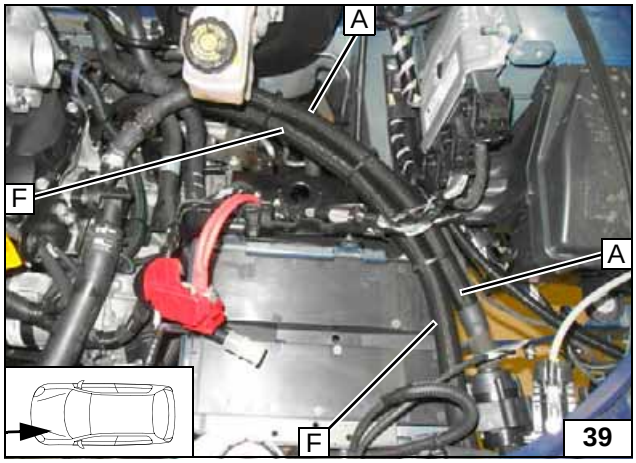
1 Hose section on heat exchanger inlet
2 Discard section
3 Engine outlet hose section

Cutting point



1 Hose on engine outlet
2 Hose on heat exchanger inlet

Connection of engine outlet and heat exchanger inlet

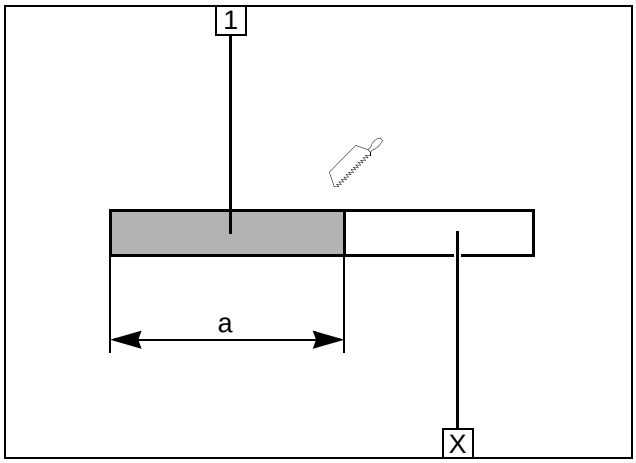


Ensure sufficient distance to neighbouring components, check that there is freedom of movement, correct if necessary.

Aligning hoses

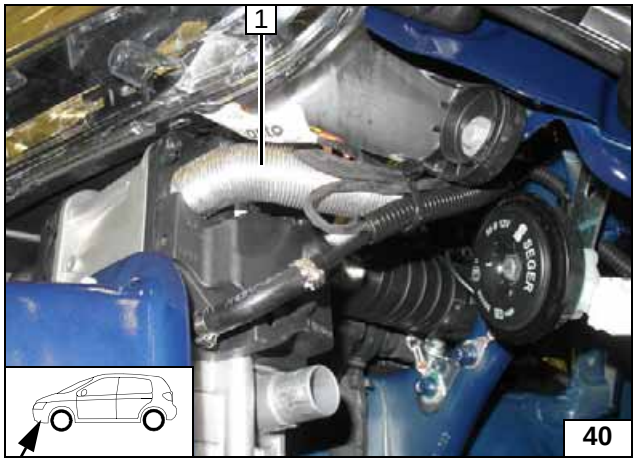
Combustion Air

Discard section **X**.



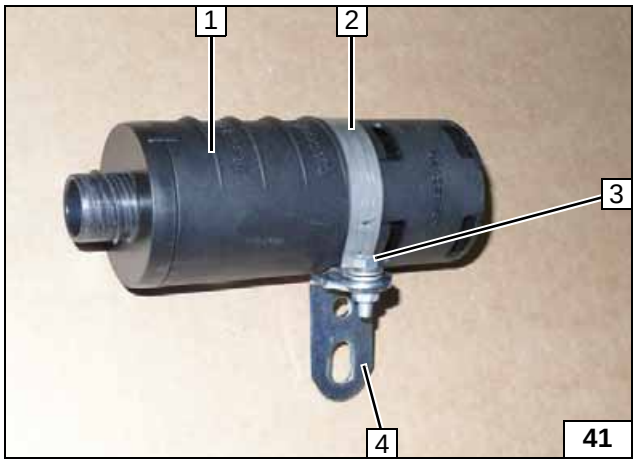
1 Combustion air pipe
a = 240

Cutting combustion air pipe to length



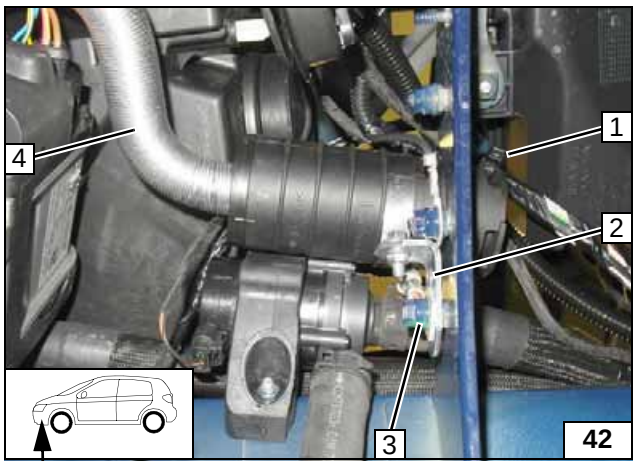
1 Combustion air pipe

Installing combustion air pipe



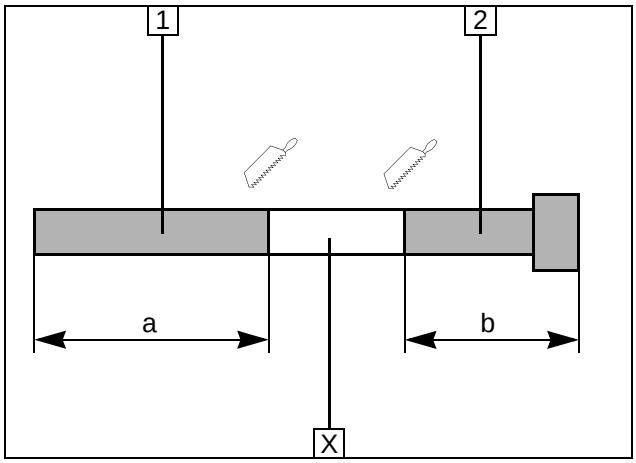
1 Silencer
2 51mm dia. clamp
3 M5x16 bolt, flanged nut
4 Angle bracket

Premounting silencer



1 Cable tie (through silencer on original vehicle wiring harness)
2 Angle bracket
3 Earth support point, angle bracket, original vehicle earth wire with cable lug, original vehicle nut
4 Combustion air pipe

Mounting silencer

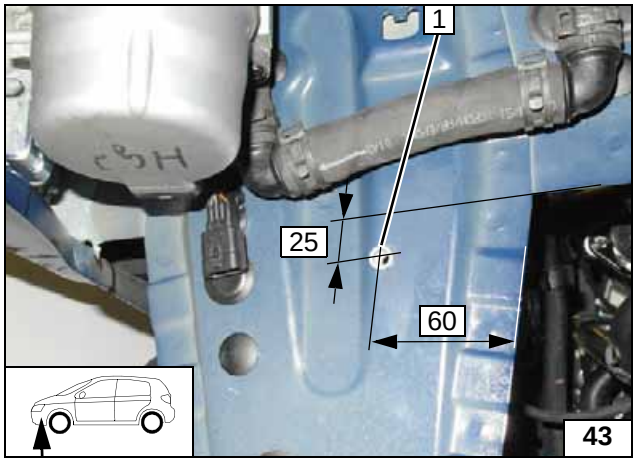


Exhaust Gas

Discard section **X**.

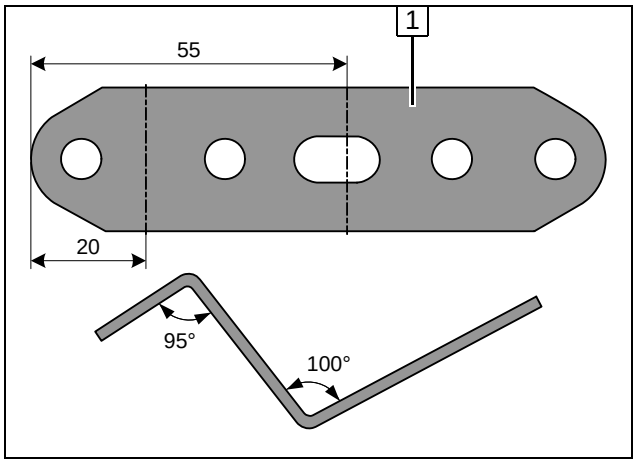
1 Exhaust pipe
a = 150
2 Exhaust end section
b = 230

Preparing exhaust pipe



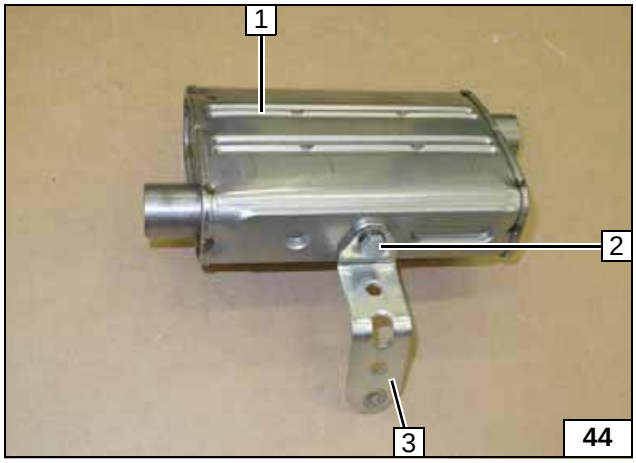
1 Drill hole to 9.1mm dia.; steel rivet nut

Installing rivet nut



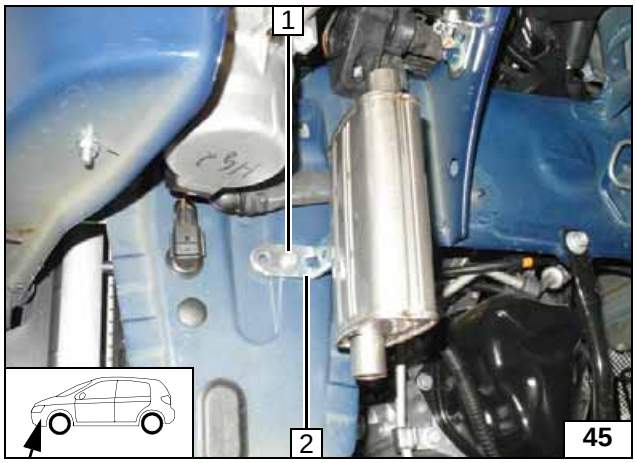
1 Perforated bracket

Preparing perforated bracket



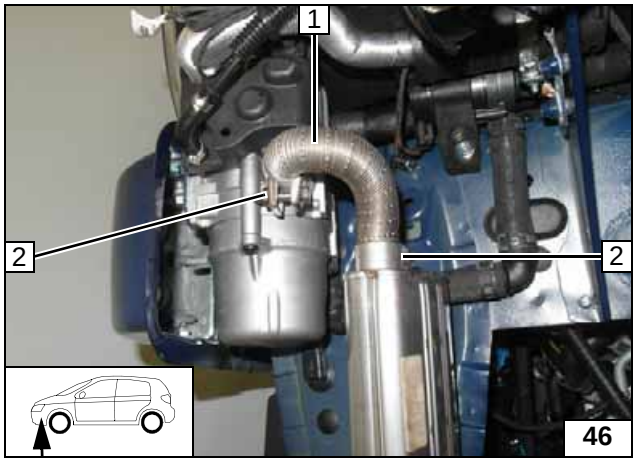
1 Silencer
2 M6x16 bolt, spring lockwasher
3 Perforated bracket

Premounting silencer



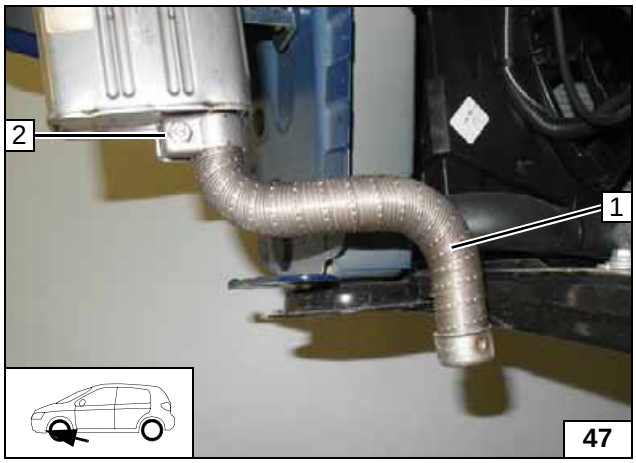
1 M6x20 bolt, spring lockwasher
2 Perforated bracket

Mounting silencer



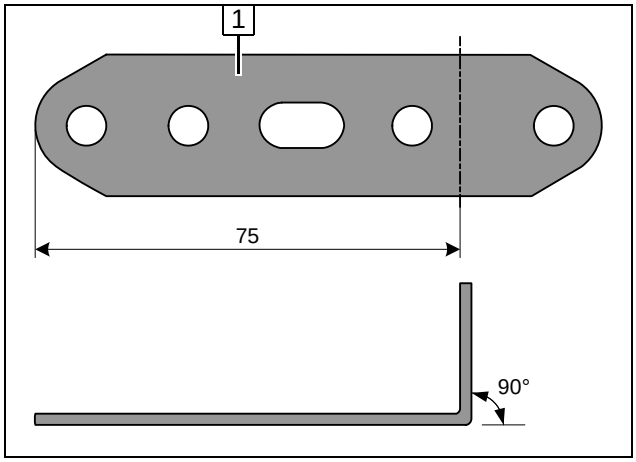
1 Exhaust pipe
2 Hose clamp [2x]

Mounting exhaust pipe



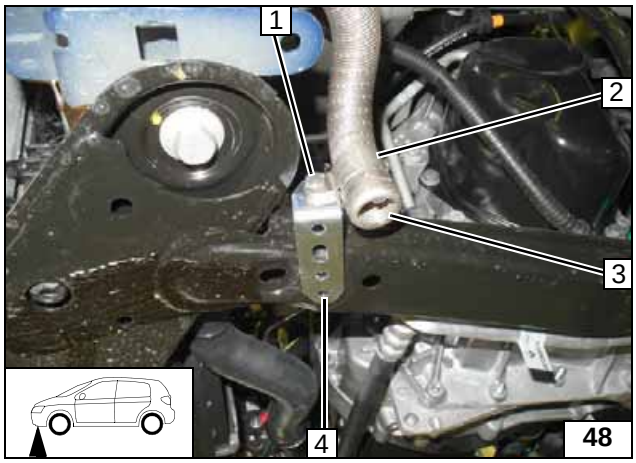
1 Exhaust end section
2 Hose clamp

Mounting exhaust end section



1 Perforated bracket

Preparing perforated bracket



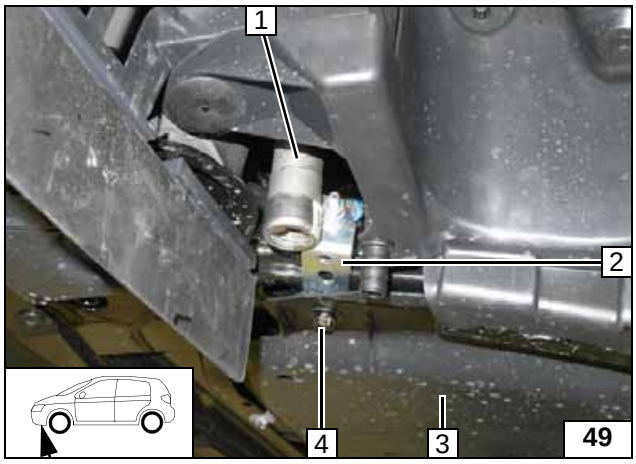
1 M6x12 bolt, flanged nut
2 P-clamp
3 Exhaust end section
4 Perforated bracket

Mounting perforated bracket

Final Work

WARNING!
Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate all loose wires and tie back.
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.**
- **Adjust 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 checks, see installation instructions**



Install perforated bracket **2** together with underride protection **3**. Align exhaust end section **1** with the centre of the recess. Ensure sufficient distance (min. 20mm) to neighbouring components, correct if necessary.

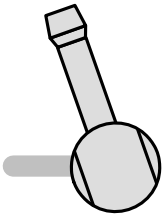
4 Original vehicle bolt

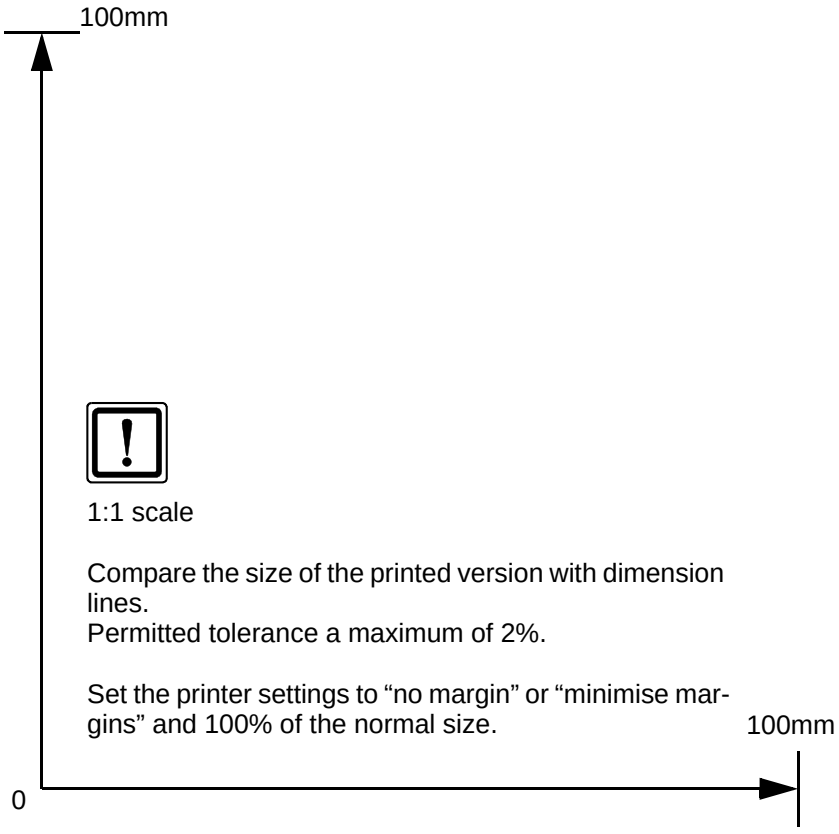
Aligning exhaust end section

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

Template for Fuel Standpipe

Top view





1:1 scale

Compare the size of the printed version with dimension lines.
Permitted tolerance a maximum of 2%.

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

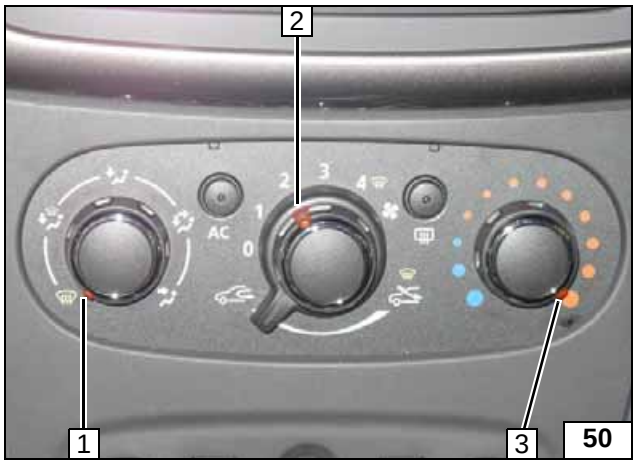
Operating Instructions for End Customer

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.

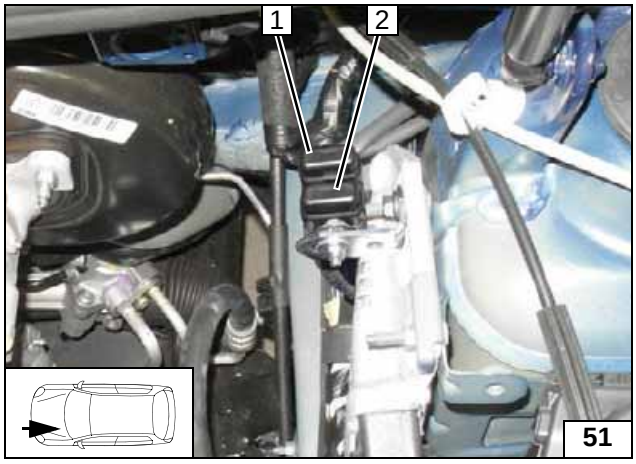
If the vehicle has passenger compartment monitoring this must be deactivated in addition to the vehicle settings for the heating operation.
Instructions on deactivation can be taken from the operating instructions of the vehicle.

Before parking the vehicle, make the following settings:



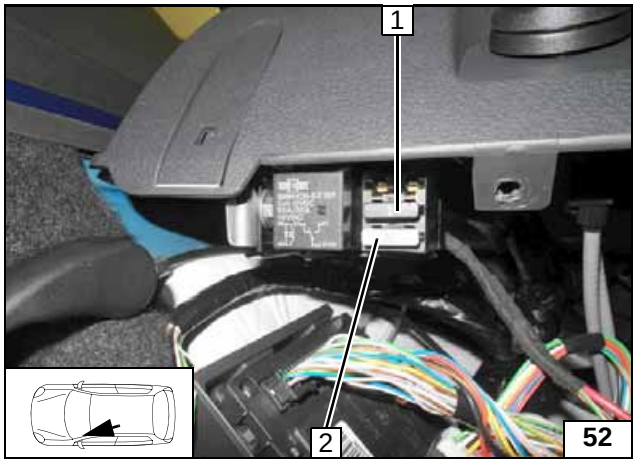
1 Direct air outlet towards windscreen
2 Set fan to level "1", or max. "2"
3 Set temperature to "max."

A/C control panel



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

Fuses of engine compartment



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

Fuses of passenger compartment