Water Heater

***Thermo Top Evo 5+* Parking Heater** E1 00 0258

Installation Documentation
Jeep Grand Cherokee

Validity

Manufacturer	Model	Type	EG-BE-Nr. / ABE
Jeep	Grand Cherokee	WK	e4 * 2007 / 46 * 0186 * ...

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
5.7 V8	Petrol	AT	259	5654	EZH

AT = Automatic transmission

From Model Year 2011
Left-hand drive vehicle

Verified equipment variants:	Automatic air-conditioning
	Front fog light
	Headlight washer system
Not verified:	Passenger compartment monitoring
Total installation time:	about 12.5 hours

Jeep Grand Cherokee

Table of Contents

Necessary Components

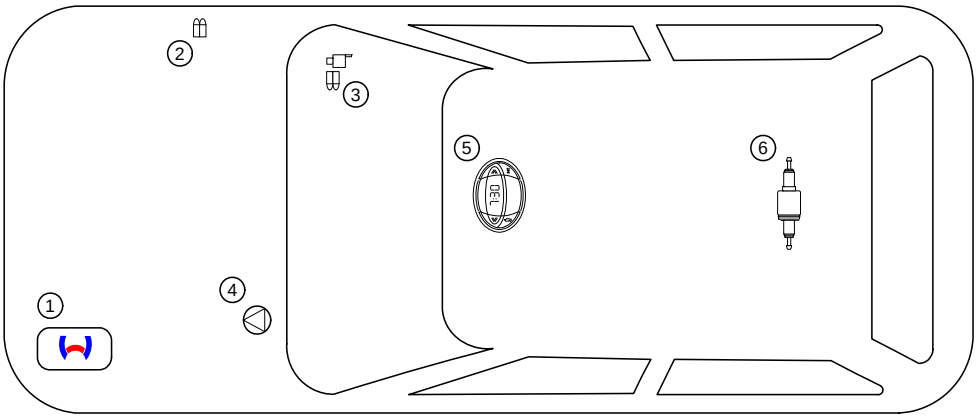
- Basic delivery scope *Thermo Top Evo 5+* based on price list
- Installation kit for Jeep Grand Cherokee 2011: **1317820A**
  Additional kit Jeep Grand Cherokee 2011 5.7 Petrol V8: **1317861A**
- Heater control in accordance with price list and upon consultation with end customer
- In case of Telestart, indicator lamp in accordance with price list and in consultation with end customer

Note:
To facilitate the installation, the vehicle should only be delivered with a quarter-full fuel tank.

Installation Overview

Legend:

1. Heater
2. Fuse holder of engine compartment
3. 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.

Jeep Grand Cherokee

Notes on Validity

This installation document applies to the Jeep Grand Cherokee 5.7 Petrol V8 vehicles - for validity, see page 1 - from model year 2011 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 auto-tightening hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Automatic wire stripper 0.2 - 6mm²
- Crimping pliers for cable lug / tab connector 0.5 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Webasto Thermo Test Diagnosis with current software

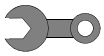
Dimensions
- All dimensions in mm

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 bolts = 7Nm.
- Tighten other bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art-technology.

Explanatory Notes on Document

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

Mechanical system



Electrical system

Coolant circuit

Combustion air

Fuel

Exhaust gas

Software

Special features are highlighted using the following symbols:

Specific risk of injury or fatal accidents

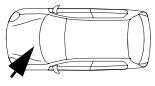
Specific risk of damage to components

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



Jeep Grand Cherokee

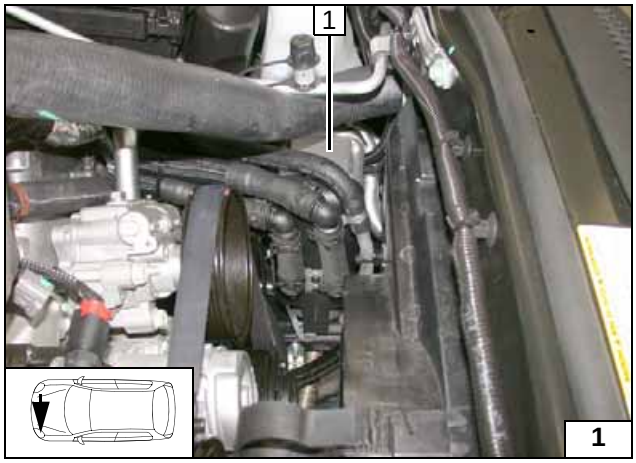
Preliminary Work

Vehicle

- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Disconnect the battery.
- Remove the exhaust pipe (centre + end silencer).
- Remove the heat protection trim of the cardan shaft.
- Remove the cardan shaft according to the manufacturer's instructions.
- Remove the fuel lines trim at the left on the underbody.
- Remove the fuel tank according to the manufacturer's instructions.
- Remove the fuel-tank sending unit according to the manufacturer's instructions.
- Remove the right front wheel.
- Remove the right wheel well trim.
- Remove the lower engine cover.
- Drain the engine coolant.
- Remove the engine design cover.
- Completely remove the air filter.
- Remove the washer reservoir.
- Remove the plenum chamber from the engine.
- Remove the bumper trim.
- Remove the footwell trim under the glove compartment.
- Remove the air outlet nozzle in the right footwell.
- Remove the trim of the entrance strip on the right side (for Telestart option only).
- Remove the lower A-pillar trim in the right footwell.
- 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

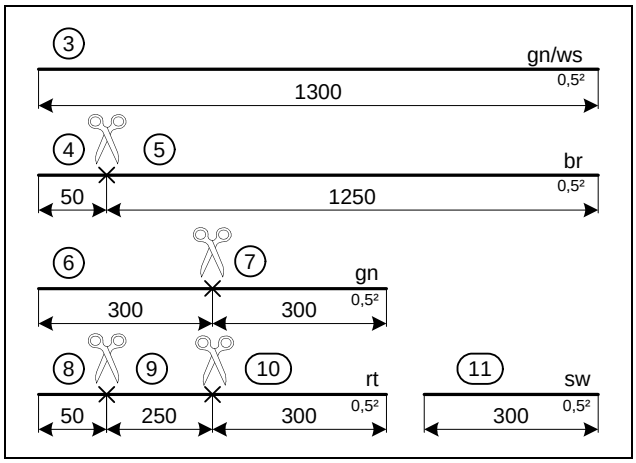
1 Heater

Installation location

Preparing Electrical System

Wire sections retain their numbering in the whole document.

Cutting wires to length

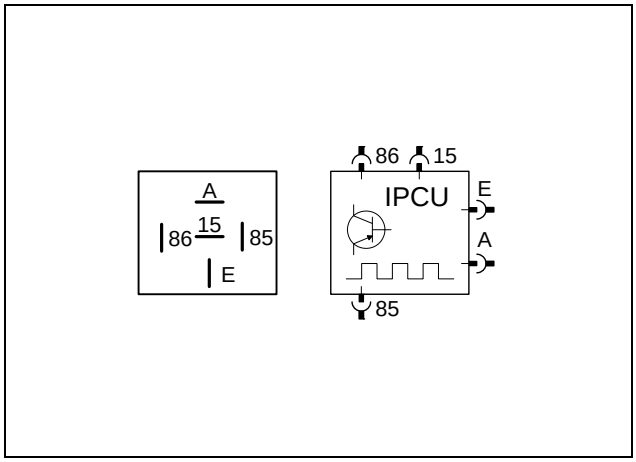


IPCU view on the contact side.
The IPCU provided in the kit is to be pre-programmed with the following settings:

Duty cycle: 62%
Frequency: 100Hz
Voltage: 10V
Function: Low-side

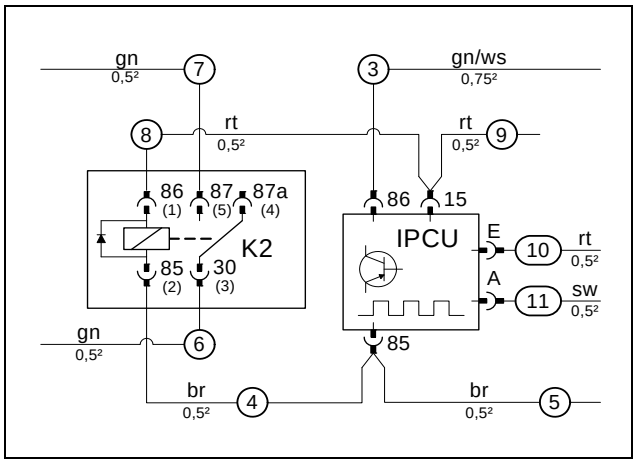
The settings must be checked during start-up of heater and adjusted if necessary.

Premounting IPCU and K2



Connect wires to IPCU socket and to socket of K2 relay.

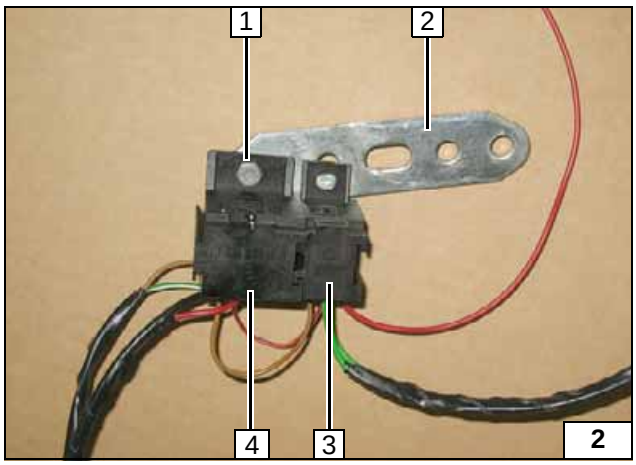
Preparing IPCU and K2 relay

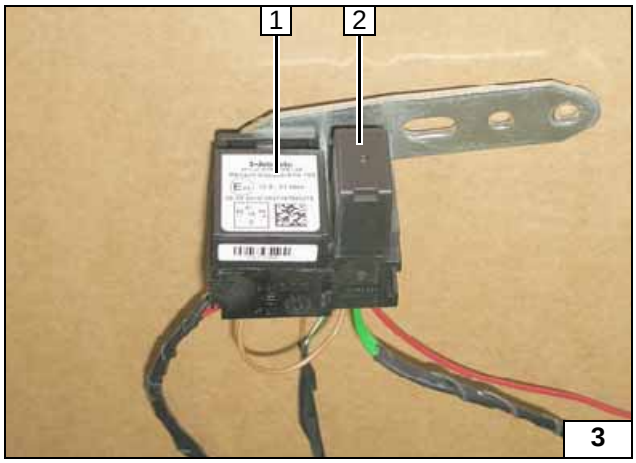


Engage relay socket **3** with IPCU socket **4**.

1 M5x16 bolt, large diameter washer, flanged nut
2 Perforated bracket

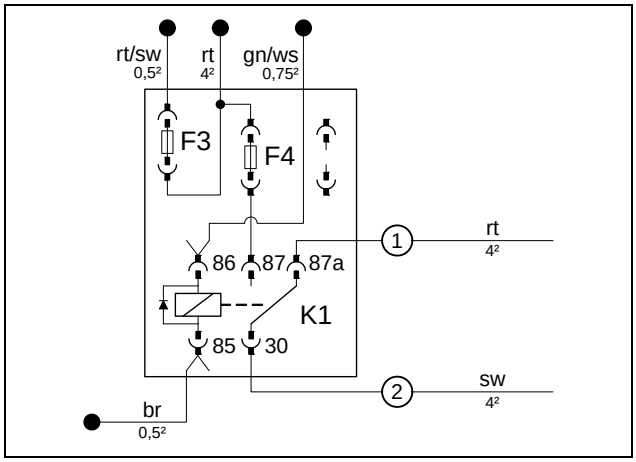
Premounting IPCU and K2 relay





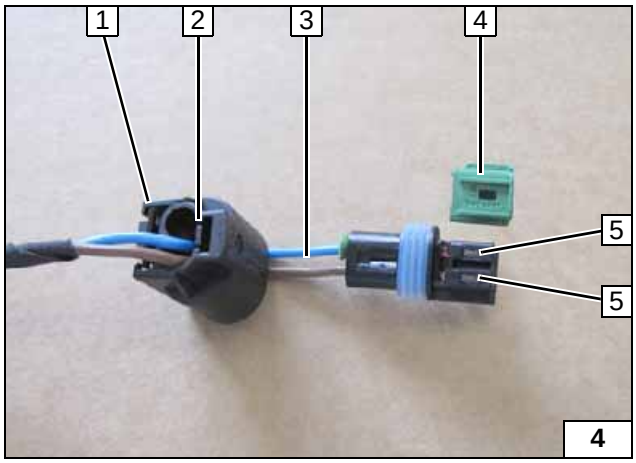
1 IPCU
2 K2 relay

Mounting IPCU and K2 relay



Produce connections as shown in wiring diagram. Connect wires of fan wiring harness to K1 relay socket. Green/white (gn/ws) wire ③ and brown (br) wire ⑤ will be mounted in the passenger compartment only. Insert 25A fuse F4. Install K1 relay only later.

Preparing fuse holder of passenger compartment



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

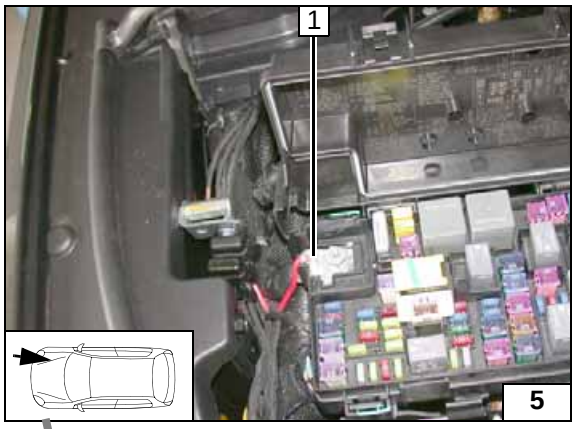
1 Connector housing
2 Lock
3 Blue (bl) / brown (br) wires
4 Coding
5 Timer lock

Removing connector

Electrical System

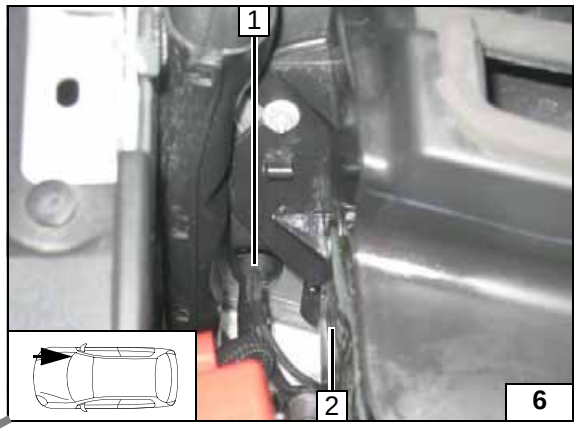
Positive wire

1 Positive wire on original vehicle positive support point



Wiring harness pass through

1 Cable grommet



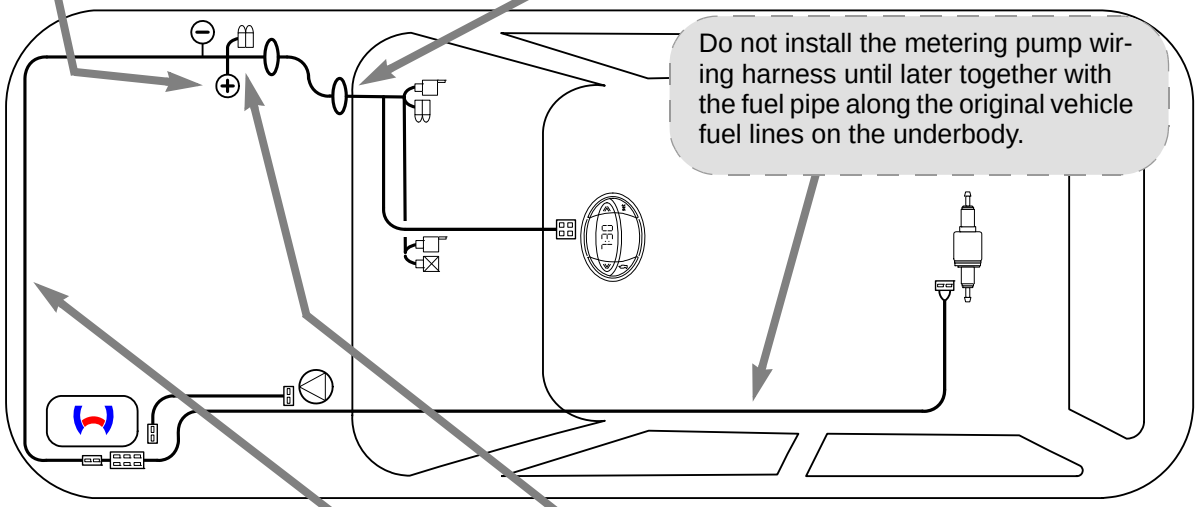
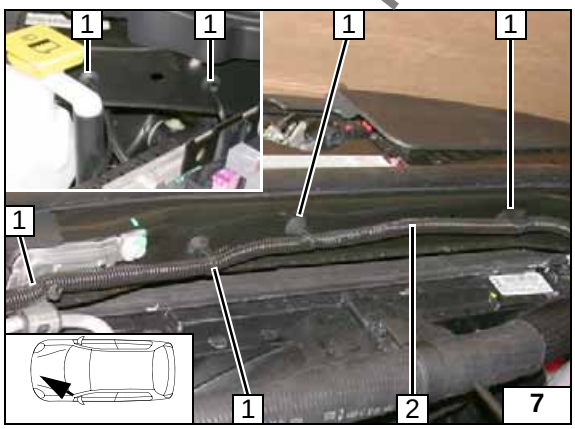
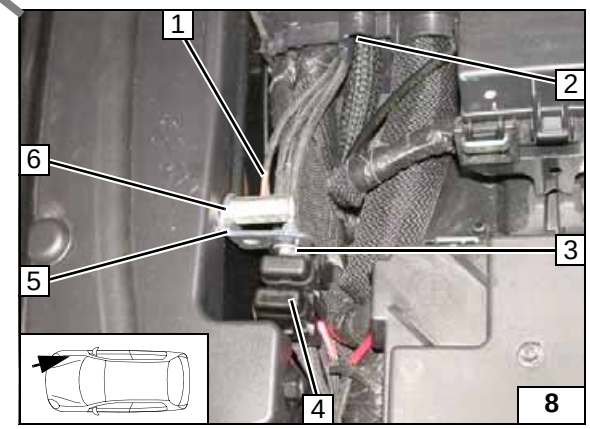


Diagram of wiring harness routing



Wiring harness routing

Insert clip-type cable tie [6x] in existing holes and route wiring harnesses of heater and metering pump in 10 mm dia. 2100mm long corrugated tube (slit longitudinally) to heater.

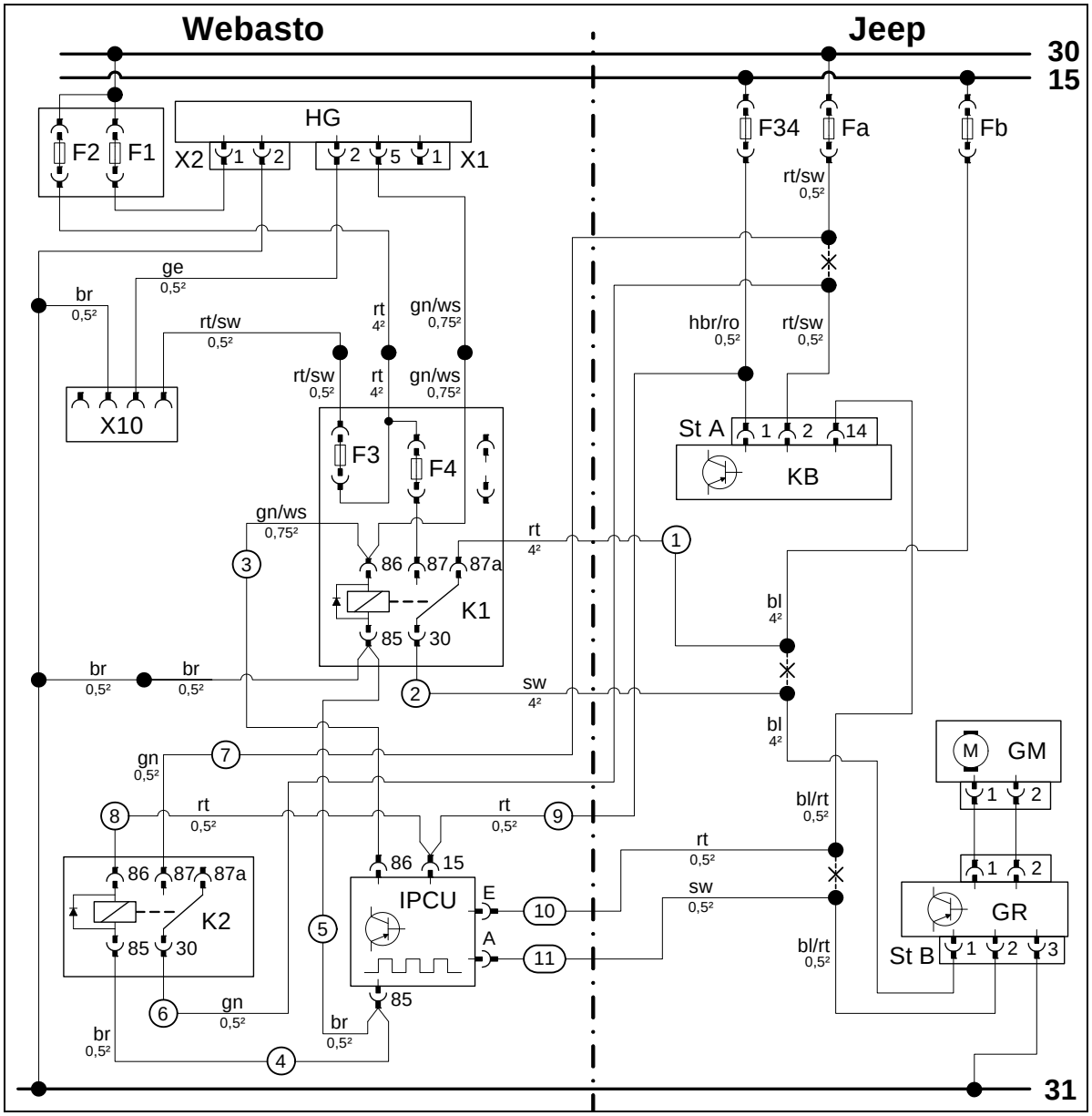


Fuse holder of engine compartment, earth wire

1 Earth wire, 8 mm dia. cable lug
2 Cable pass through via partition wall
3 M5x16 bolt, washer [2x], retaining plate for fuse holder, nut
4 Fuses F1-2
5 Angle bracket
6 Original vehicle earth support point

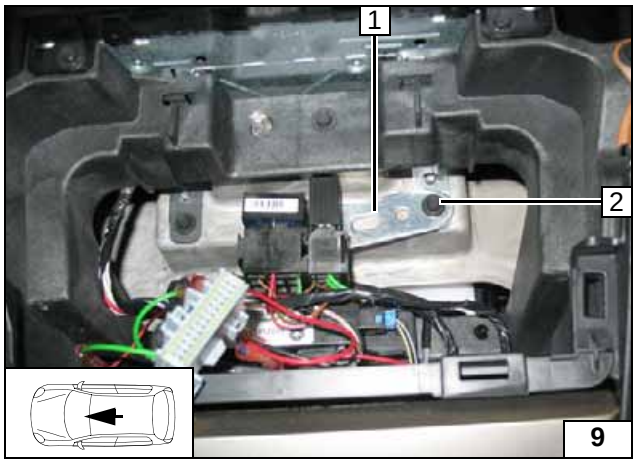
Fan Control

Wiring diagram



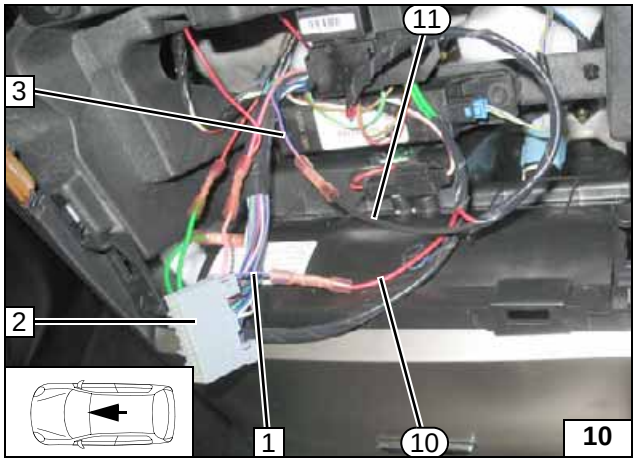
Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-Evo	F34	Fuse	rt	red
X1	6-pin heater connector	Fa	Fuse	sw	black
X2	2-pin heater connector	Fb	Fuse	ge	yellow
X10	Heater control	St A	26-pin connector of KB	gn	green
MV	Solenoid valve	KB	A/C control panel	ro	pink
K1	Fan relay	GM	Fan motor	ws	white
K2	Additional relay	GR	Fan controller	br	brown
F1	20A fuse	St B	3-pin connector GR	hbr	light brown
F2	30A fuse			bl	blue
F3	1A fuse				
F4	25A fuse				
IPCU	Pulse width modulator				
IPCU settings:					
Duty cycle:	62%				
Frequency:	100Hz				
Voltage:	10V			**X**	Cutting point
Function:	Low-side			Wiring colours may vary.	

Legend



1 Perforated bracket
2 Original vehicle bolt

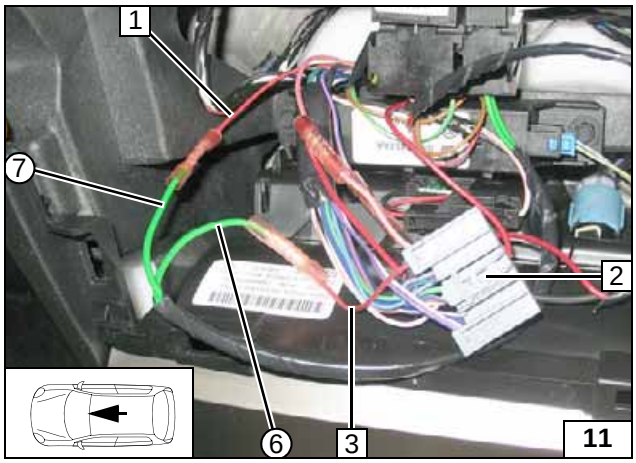
Premounting K2 relay and IPCU



Connection to 26-pin connector **2** from A/C control panel. Produce connections as shown in wiring diagram.

1 Blue/red (bl/rt) wire of A/C control panel connector Pin 14
3 Blue/red (bl/rt) wire of fan controller
⑩ Red (rt) wire from IPCU/E
⑪ Black (sw) wire from IPCU/A

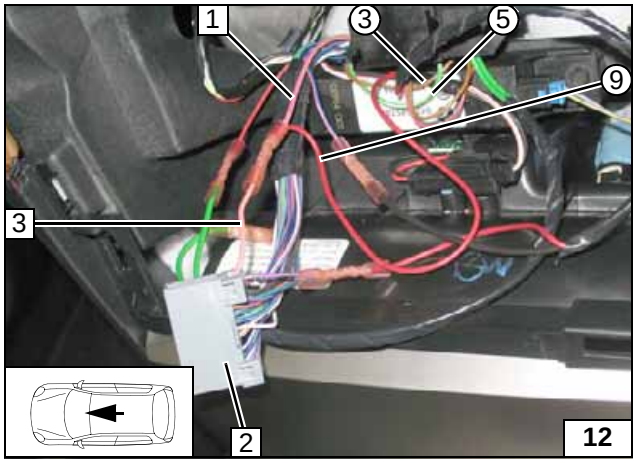
Connection of IPCU A/C control panel



Connection to 26-pin connector **2** from A/C control panel. Produce connections as shown in wiring diagram.

1 Red/black (rt/sw) wire from Fuse Fa
3 Red/black (rt/sw) wire of A/C control panel connector Pin 2
⑥ Green (gn) wire of K2/30
⑦ Green (gn) wire of K2/87

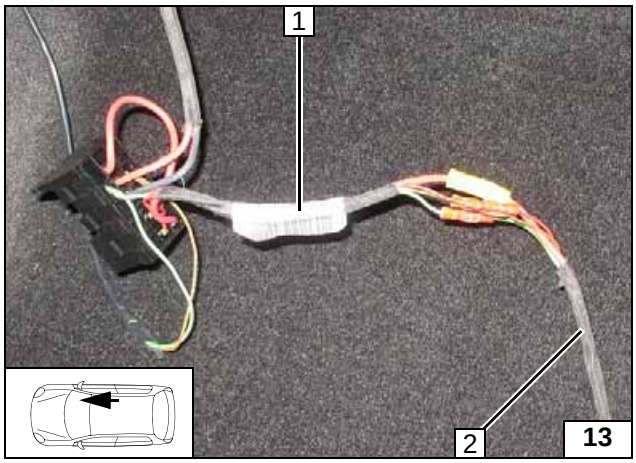
Connection of K2 relay, A/C control panel



Connection to 26-pin connector **2** from A/C control panel. Make connections according to wiring diagram. Route green/white (gn/ws) wire ③ of IPCU/86 and brown (br) wire ⑤ of IPCU/85 from centre console in the front passenger's side footwell.

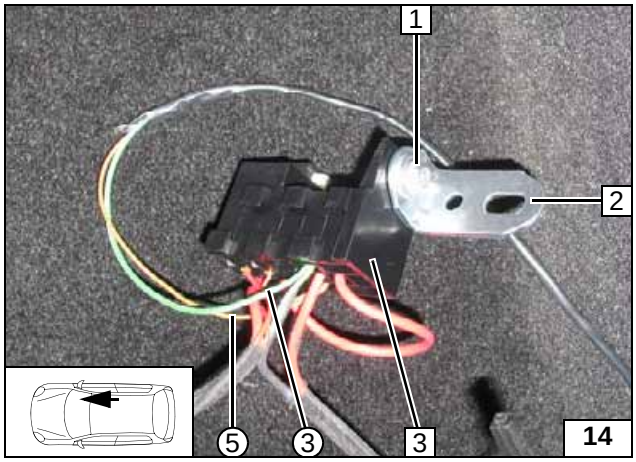
1 Light brown/pink (hbr/ro) wire from fuse F34
3 Light brown/pink (hbr/ro) wire of A/C control panel connector Pin 1
⑨ Red (rt) wire from IPCU/15

Connecting IPCU/15



Connect same colour wires of wiring harness of passenger compartment fuse holder **1** with wiring harness of heater **2** as shown in wiring diagram.

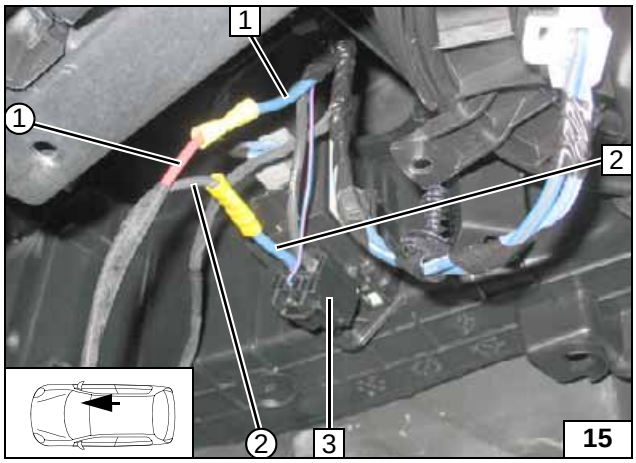
Connecting wiring harnesses



Make connections according to wiring diagram. Connect green/white (gn/ws) wire ③ to terminal 86 and brown (br) wire ⑤ to terminal 85 of K1 socket. Install K1 relay only later.

1 M5x16 bolt, large diameter washer, flanged nut
2 Angle bracket
3 Fuse holder of passenger compartment
③ Green/white (gn/ws) wire of IPCU/86
⑤ Brown (br) wire from IPCU/85

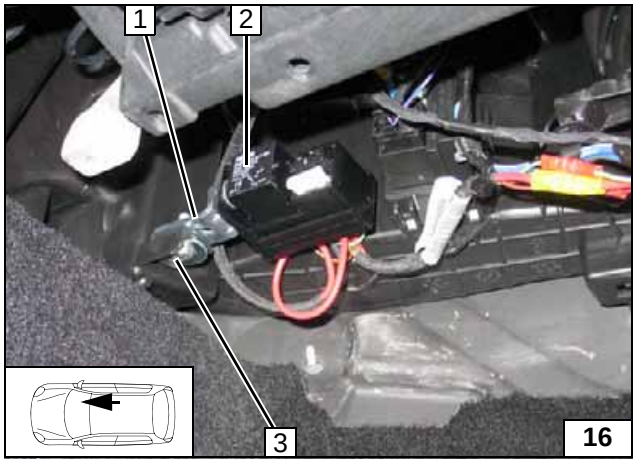
Preparing fuse holder of passenger compartment



Connection to 3-pin connector **3** from fan controller. Produce connections as shown in wiring diagram.

1 Blue (bl) wire of fuse
2 Blue (bl) wire of fan controller connector Pin 1
① Red (rt) wire from K1/87a
② Black (Sw) wire from K1/30

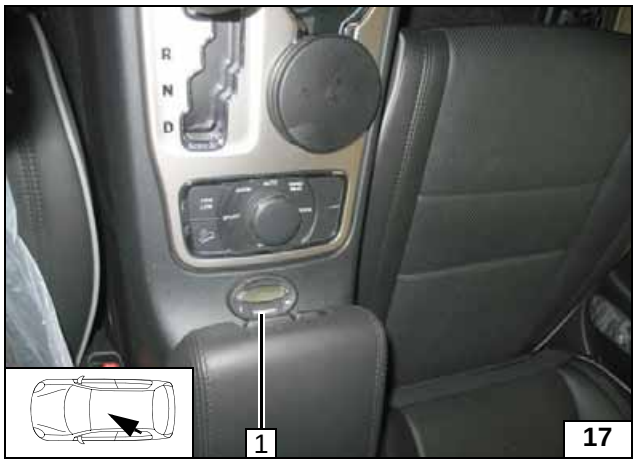
Connecting fan controller



Mount K1 relay **2** after installation.

1 Angle bracket
3 M6x20 bolt, large diameter washer, flanged nut, original vehicle hole

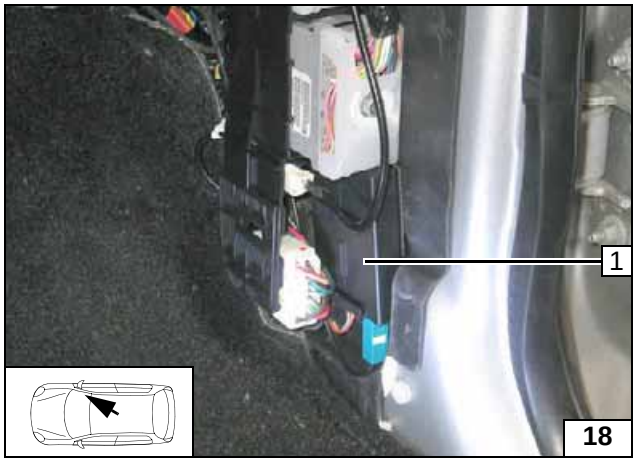
Installing fuse holder



Digital Timer

1 Digital timer

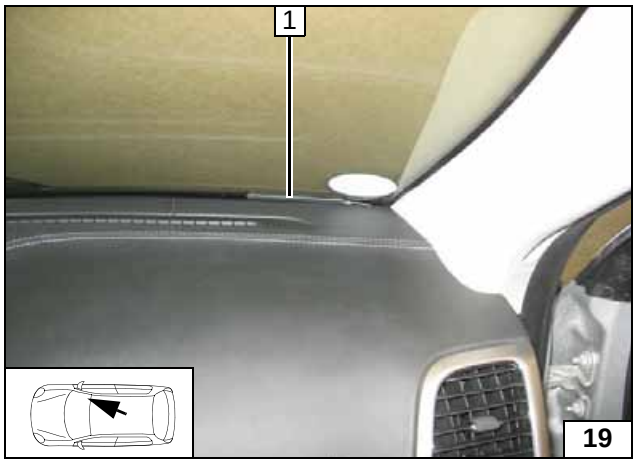
Installing digital timer



Remote Option (Telestart)

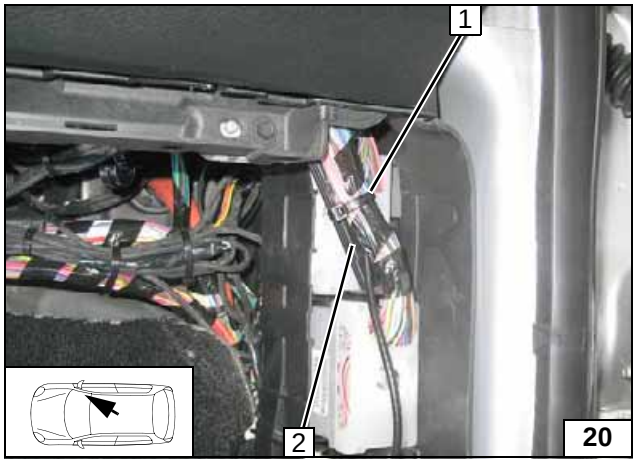
Fasten receiver **1** with adhesive tape.

Installing receiver



1 Antenna

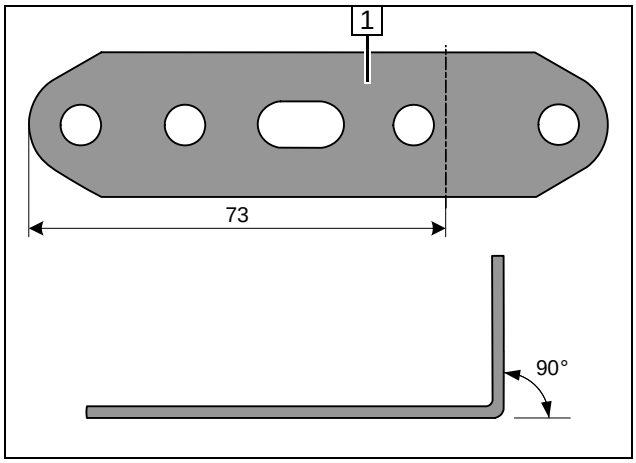
Installing antenna



Temperature sensor T100 HTM

Fasten temperature sensor **2** with cable tie **1**.

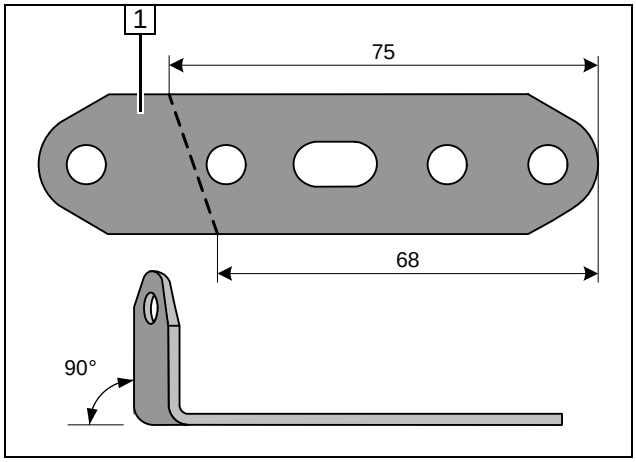
Installing temperature sensor



Preparing Bracket

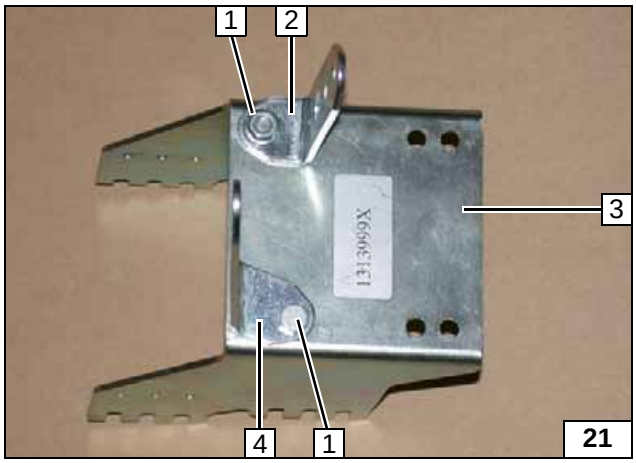
1 Perforated bracket **A**

Angling down perforated bracket A



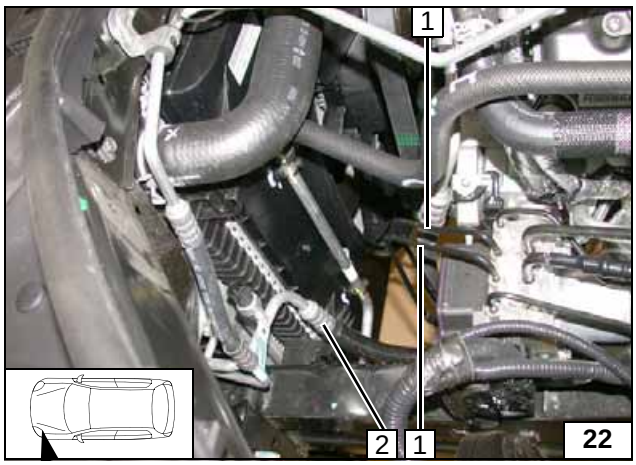
1 Perforated bracket **B**

Angling down perforated bracket B



1 M6x12 bolt, flanged nut [2x each]
2 Perforated bracket **A**
3 Bracket
4 Perforated bracket **B**

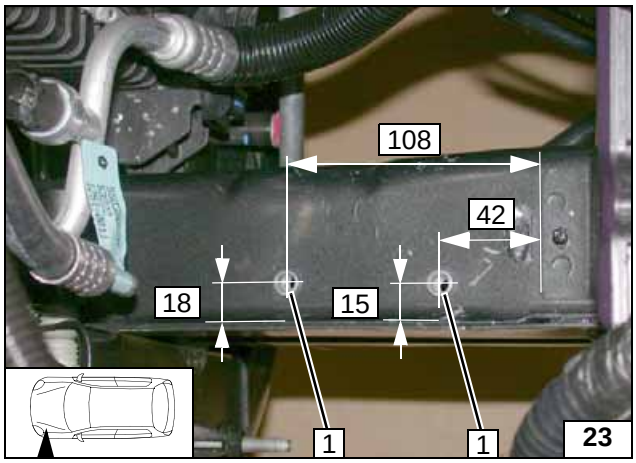
Premounting bracket



Preparing Installation Location

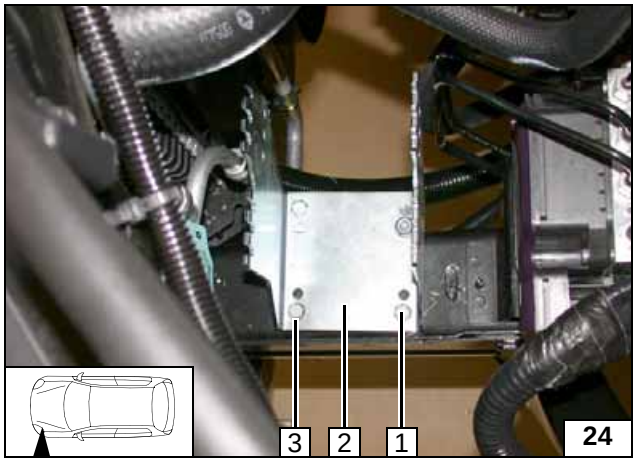
Align ABS wires **1** and wire of the air-conditioning system **2** as shown.

Aligning wires



1 9.1 mm dia. hole; rivet nut [2x each]

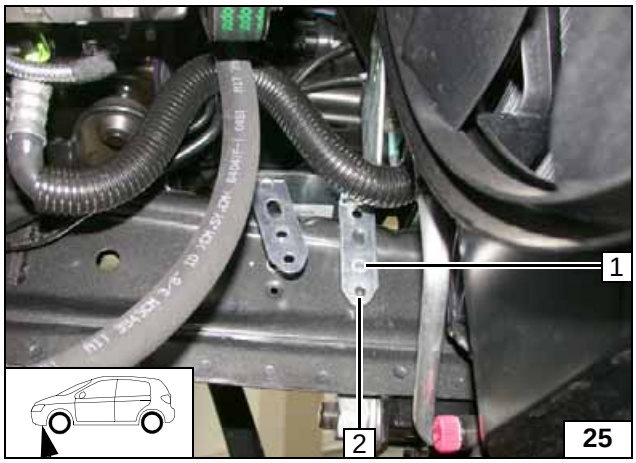
Installing rivet nuts



Insert 8mm shim between bracket **2** and frame side member at position **3**.

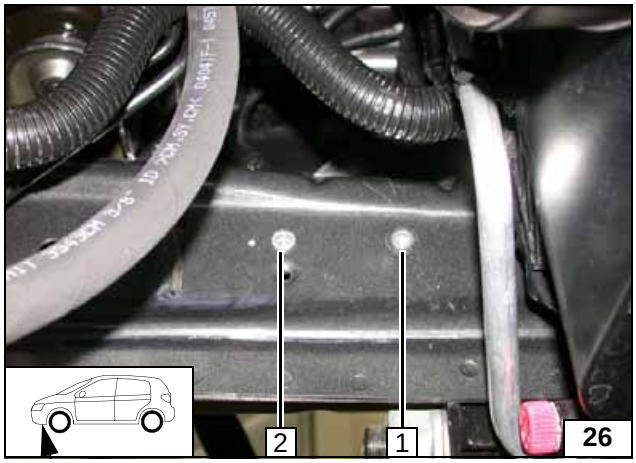
1 M6x20 bolt
3 M6x25 bolt

Mounting bracket loosely



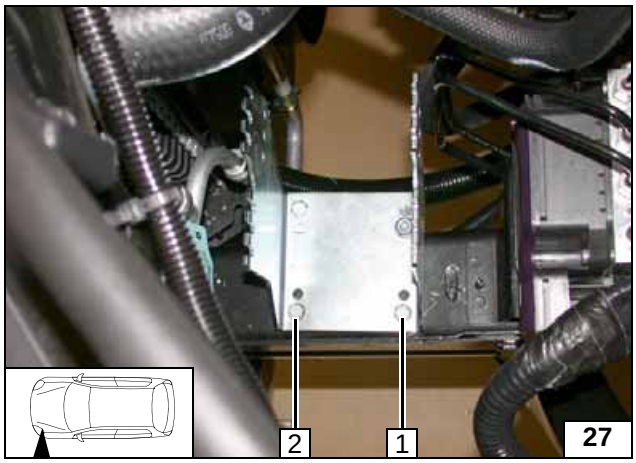
1 Copy hole pattern
2 Perforated bracket **A**

Copying hole pattern



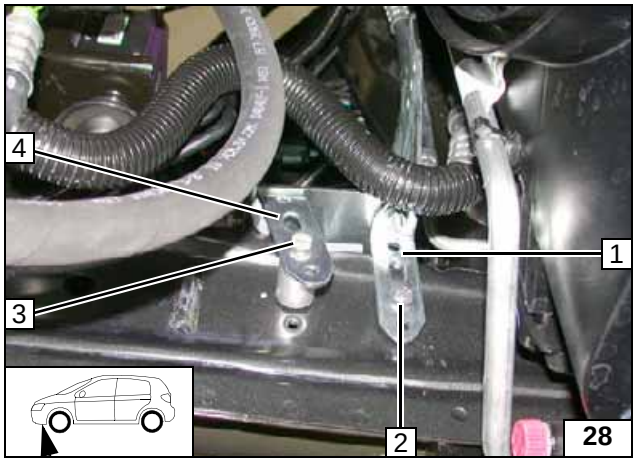
1 9.1 mm dia. hole; rivet nut
2 Drill out hole to 9.1 mm dia., rivet nut

Installing rivet nuts



1 M6x20 bolt, spring lockwasher
2 M6x25 bolt, spring lockwasher, 8mm shim

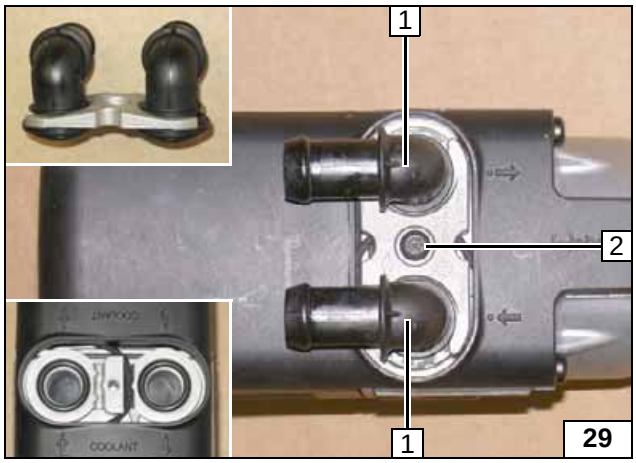
Installing bracket



Insert large diameter washer between perforated bracket **A** and frame side member.

1 Perforated bracket **A**
2 M6x20 bolt, spring lockwasher, large diameter washer
3 M6x50 bolt, spring lockwasher, 30mm shim
4 Perforated bracket **B**

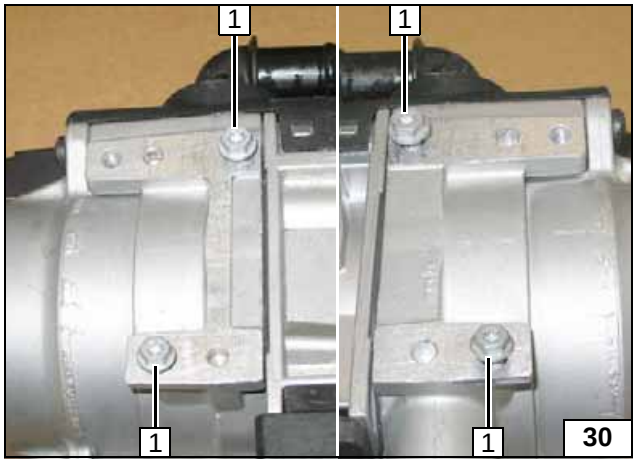
Installing bracket



Preparing Heater

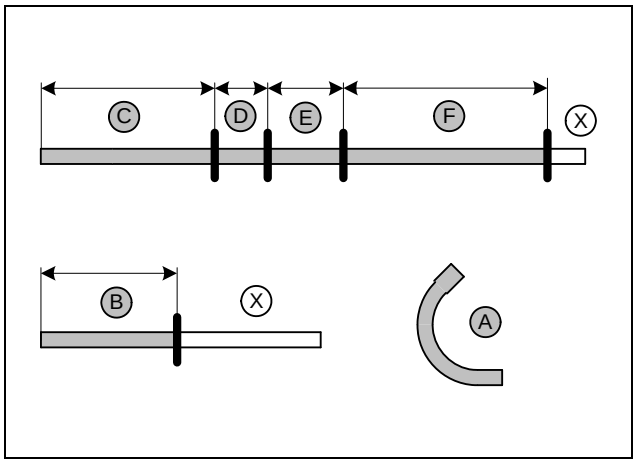
1 90° water connection piece, sealing ring [2x each]
2 5x15 self-tapping bolt, retaining plate of water connection piece

Installing water connection piece



Pre-tap threads with 5x13 self-tapping bolts **1** [4x] and install loosely (turn max. 3 threads).

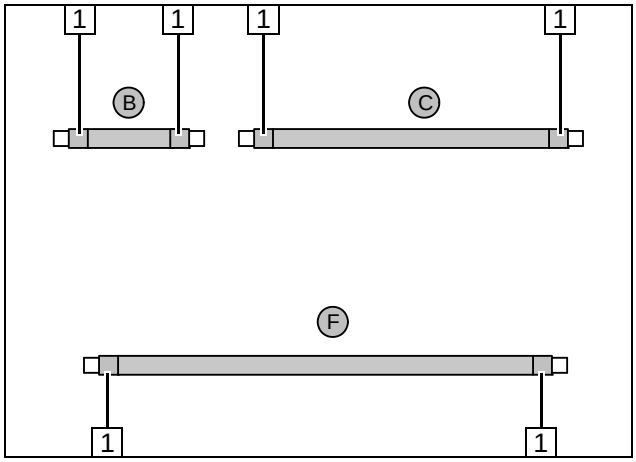
Premounting bolts loosely



Discard section **X**.
Hose **A** = 135°, 15x20 mm dia. moulded hose

B = 280
C = 720
D = 75
E = 100
F = 1000

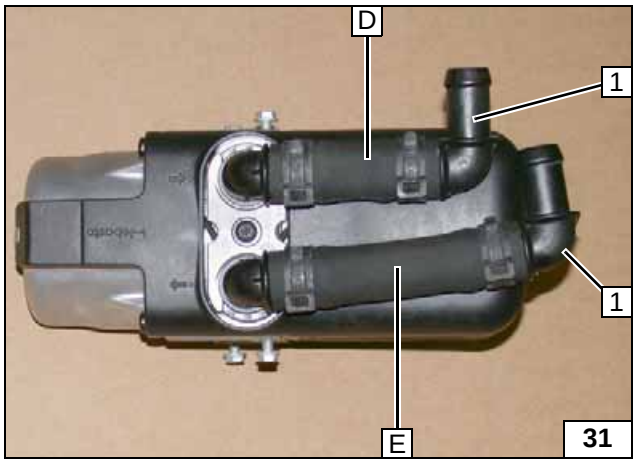
Cutting hoses to length



Push braided protection hose onto hose **B**, **C** and **D** and cut to length.
Cut heat shrink plastic tubing to length.

1 50 mm long heat shrink plastic tubing [6x]

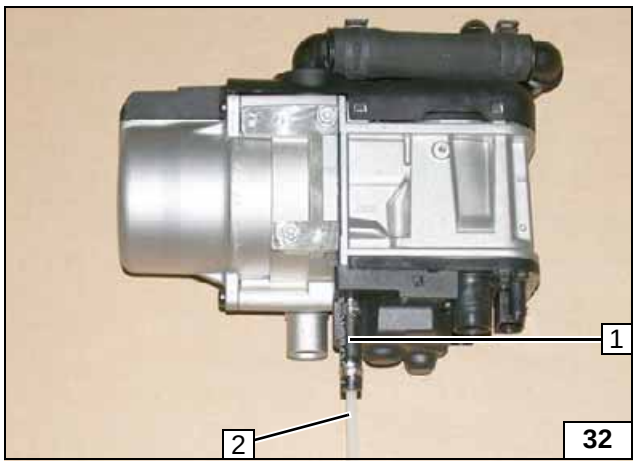
Preparing hoses



All spring clips = 25 mm dia. [4x].

1 90°, 18x18 mm dia. connecting pipe [2x]

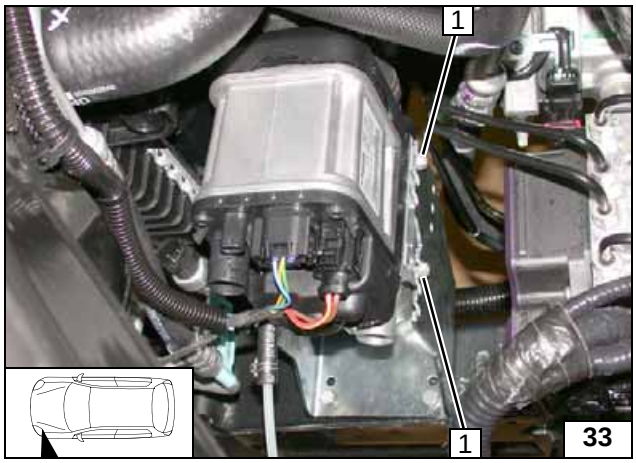
Premounting hoses



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

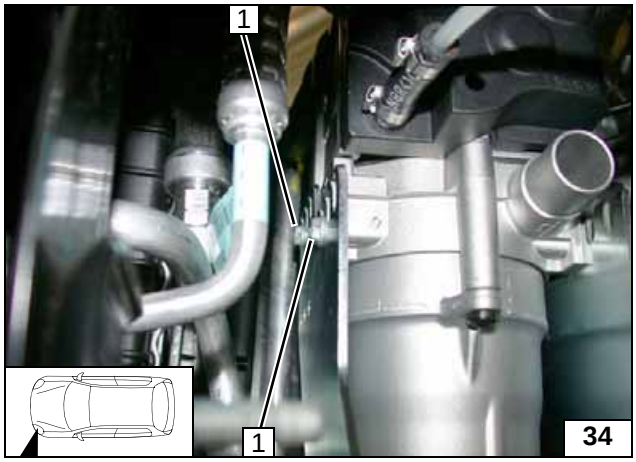
Premounting fuel line

Installing Heater



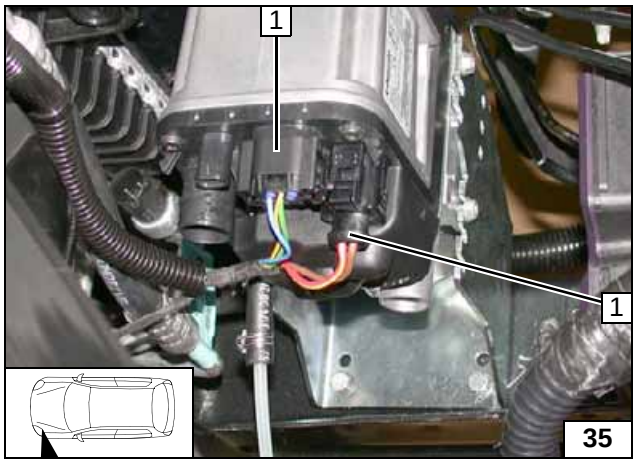
1 Tighten 5x13 self-tapping bolt [2x]

Mounting heater



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

Mounting heater



1 Wiring harness of heater [2x]

Mounting wiring harness

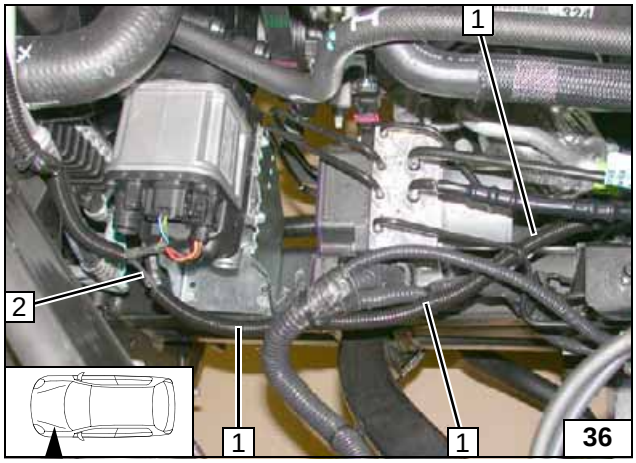
Fuel

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.

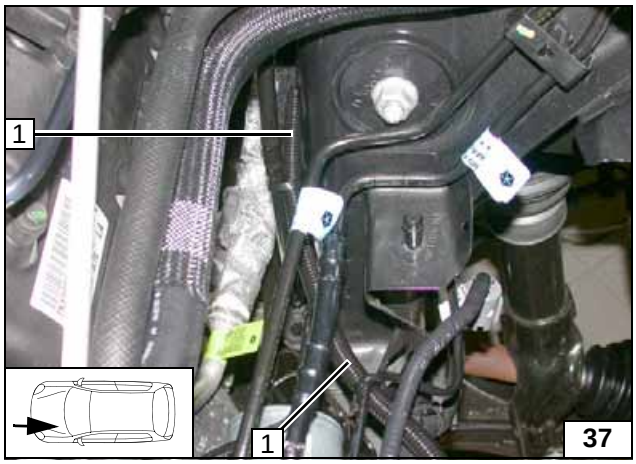
Route fuel line and metering pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.
Mount the fuel line and wiring harness with rub protection on sharp edges.

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



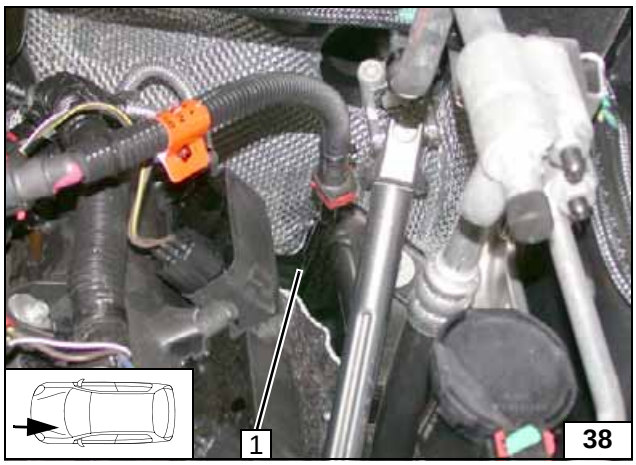
Route wiring harness of metering pump **2** and fuel line in 2100mm long, 10mm dia. corrugated tube **1** to firewall.

Routing in engine compartment



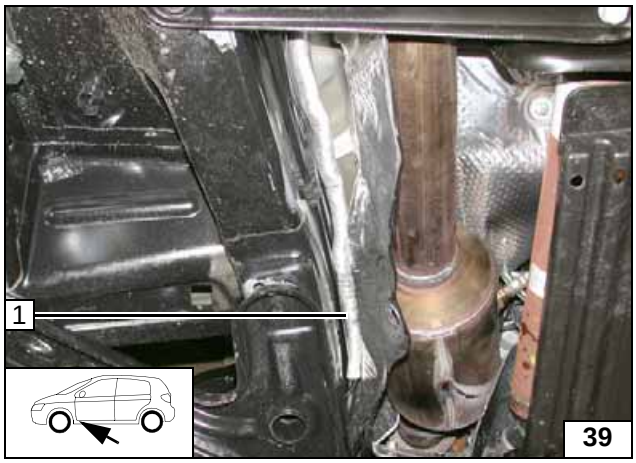
Route fuel line and wiring harness of metering pump in 10 mm dia. corrugated tube **1** to firewall.

Routing lines



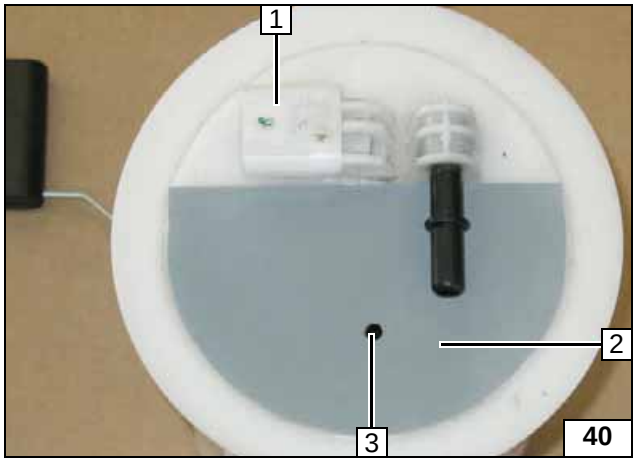
Route fuel line and wiring harness of metering pump in 10 mm dia. corrugated tube behind the heat shield on original vehicle fuel line **1** to the underbody.

Routing lines



Slide 700 mm long heat protection hose **1** onto fuel line and wiring harness of metering pump.

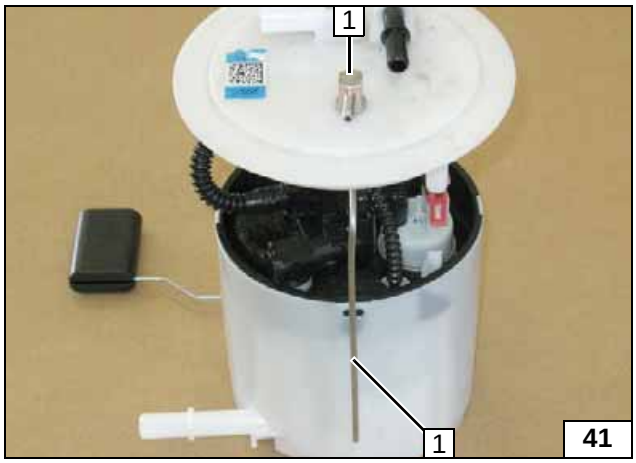
Routing lines



Remove the tank according to the manufacturer's instructions. Remove fuel-tank sending unit **1** in accordance with manufacturer's instructions. Cut out template of fuel-tank sending unit **2** and apply.

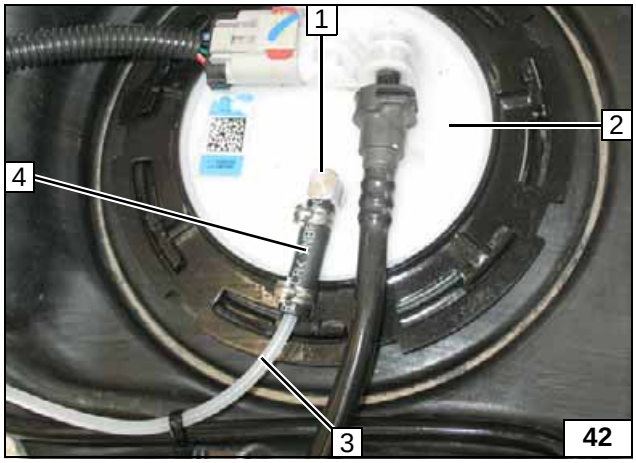
3 Copy hole pattern, 6 mm dia. hole

Fuel extraction



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

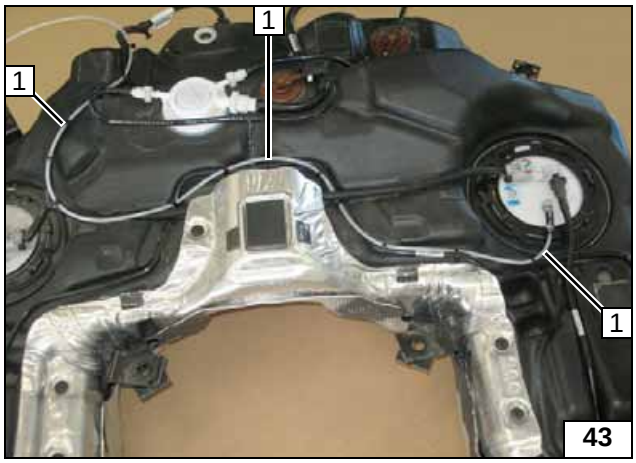
Installing fuel standpipe



Install fuel-tank sending unit **2** in accordance with manufacturer's instructions.

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

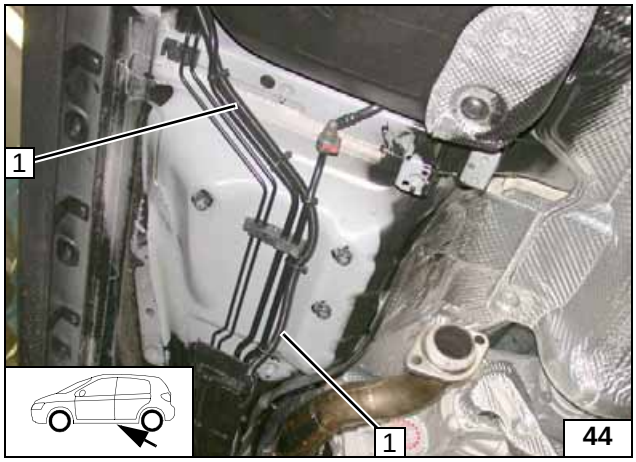
Connecting fuel line



Install tank after routing according to manufacturer's instructions.

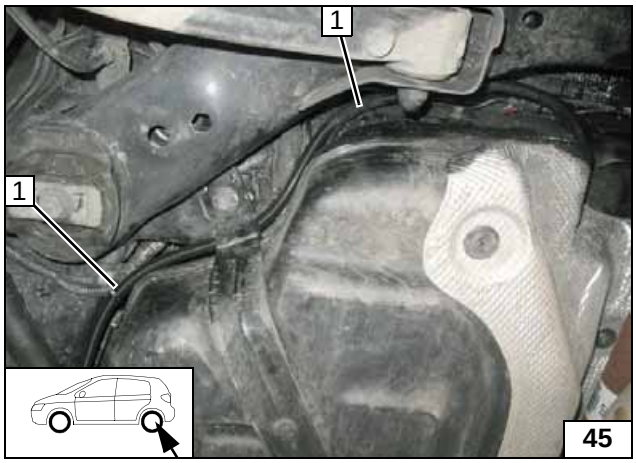
1 Fuel line

Routing fuel line



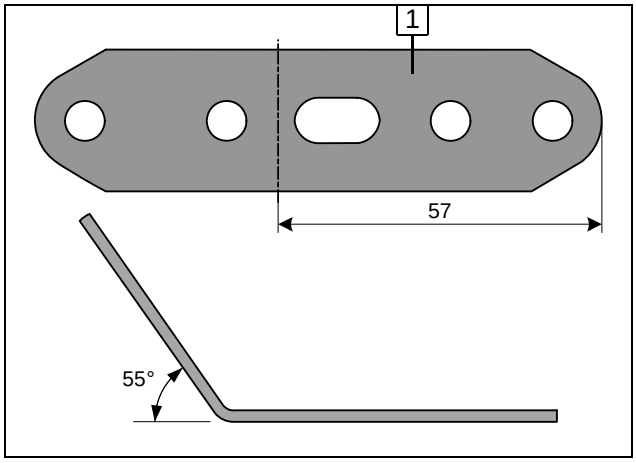
Route fuel line and wiring harness of metering pump in 2100mm long and 10 mm dia. corrugated tube **1** on original vehicle lines to the tank.

Routing lines



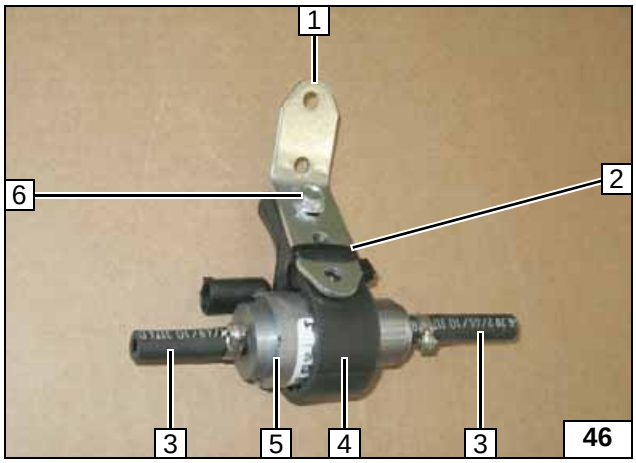
Route fuel line and wiring harness of metering pump in 10 mm dia. corrugated tube **1** to the installation location of the metering pump.

Routing lines



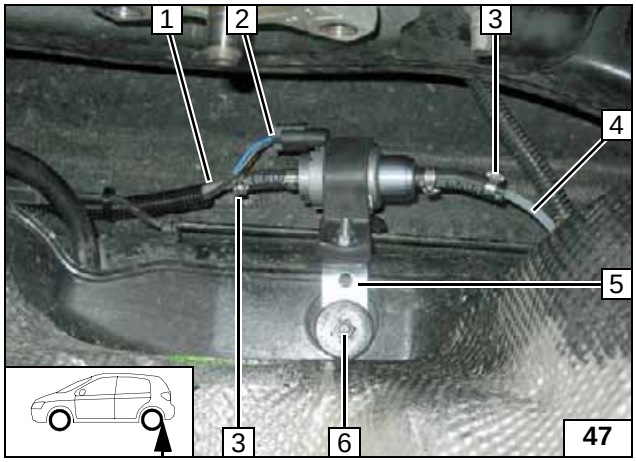
1 Perforated bracket

Preparing perforated bracket



1 Perforated bracket
2 Cable tie
3 Hose section, 10 mm dia. clamp [2x each]
4 Metering pump mounting
5 Metering pump
6 M6x25 bolt, support angle, flanged nut

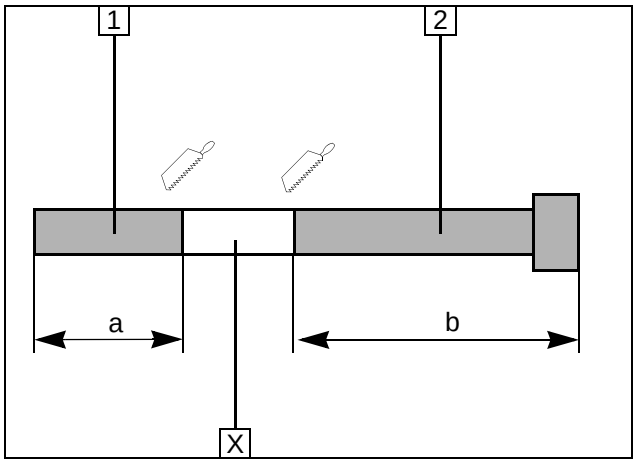
Premounting metering pump



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

1 Fuel line of heater
2 Wiring harness of metering pump, connector mounted
3 10 mm dia. clamp [2x]
4 Fuel line of fuel standpipe
5 Perforated bracket
6 Original vehicle bolt

Installing metering pump

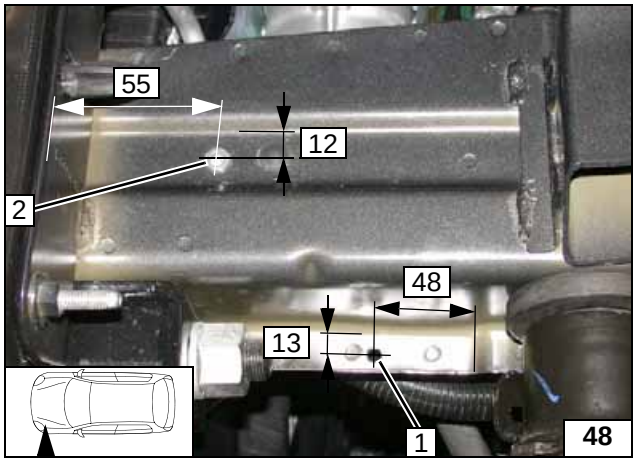


Exhaust Gas

Discard section **X**.

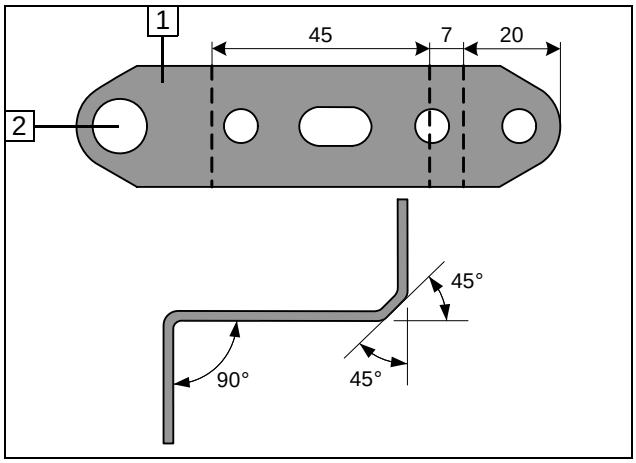
1 Exhaust pipe
a = 130
2 Exhaust end section
b = 550

Preparing exhaust pipe



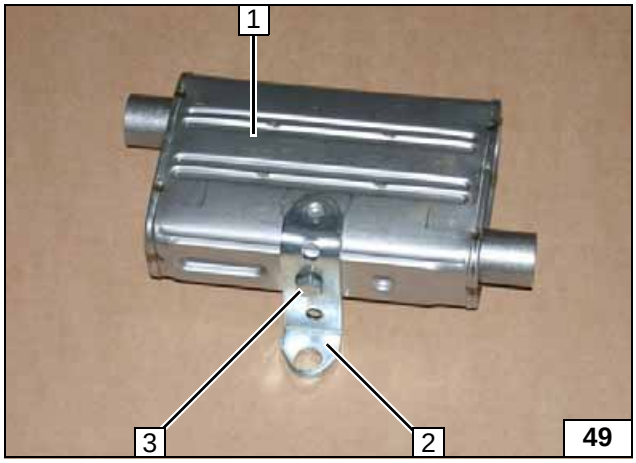
1 7 mm dia. hole
2 9.1 mm dia. hole; rivet nut

Installing rivet nut



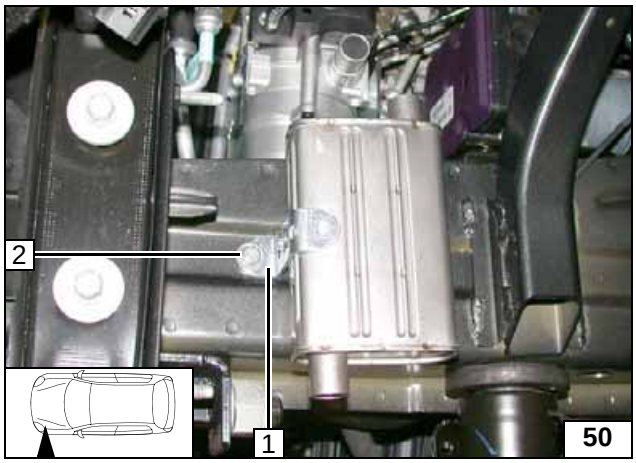
1 Perforated bracket
2 12 mm dia. hole

Preparing perforated bracket



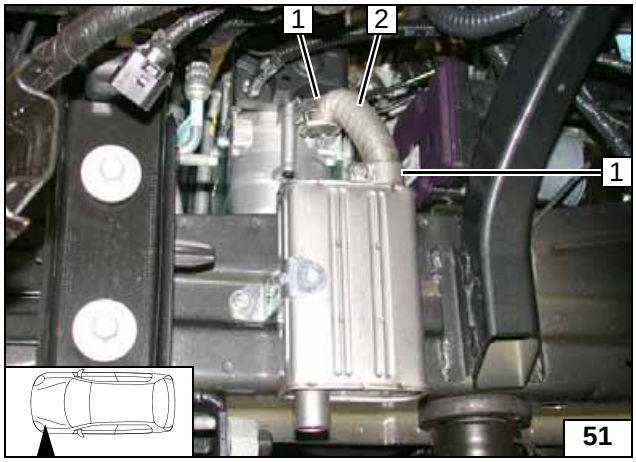
1 Silencer
2 Perforated bracket
3 M6x16 bolt, spring lockwasher

Premounting silencer



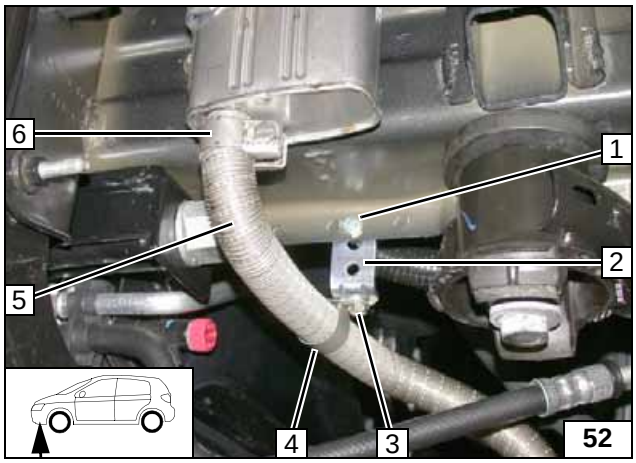
1 Perforated bracket
2 M6x20 bolt, large diameter washer

Installing silencer



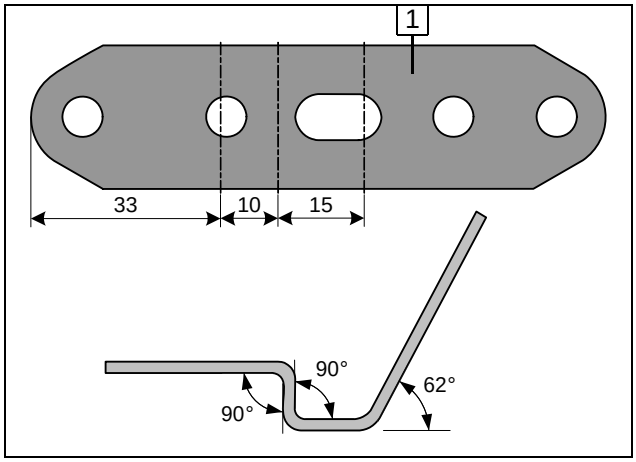
1 Hose clamp [2x]
2 Exhaust pipe

Mounting exhaust pipe



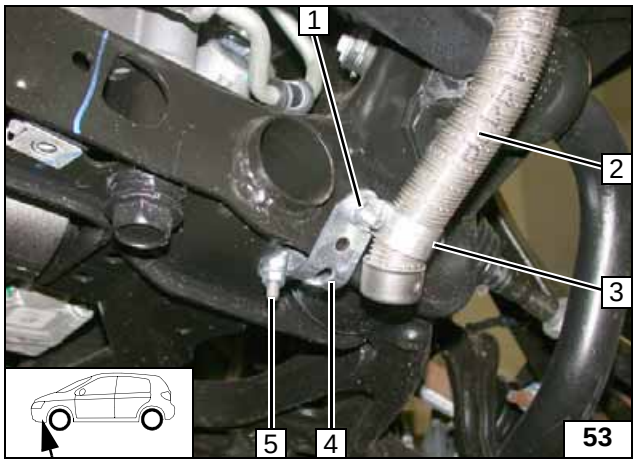
1 M6x20 bolt, large diameter washer, flanged nut
2 Angle bracket
3 M6x20 bolt, flanged nut
4 Pipe-clamp
5 Exhaust end section
6 Hose clamp

Installing exhaust end section



1 Perforated bracket

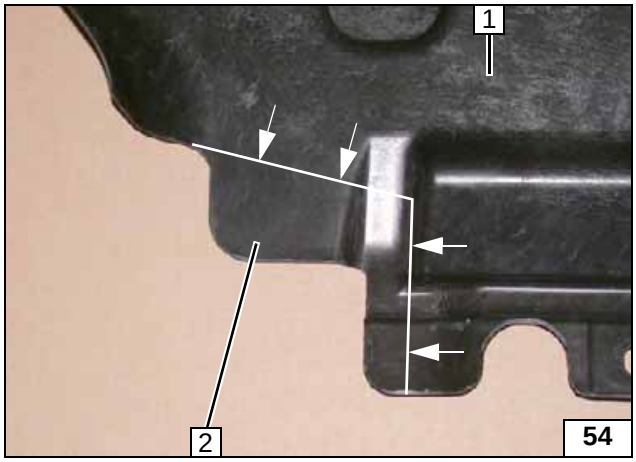
Preparing perforated bracket



Ensure sufficient distance to neighbouring components.

1 M6x20 bolt, flanged nut
2 Exhaust end section
3 Pipe-clamp
4 Perforated bracket
5 M6x20 bolt, large diameter washer, flanged nut, existing hole

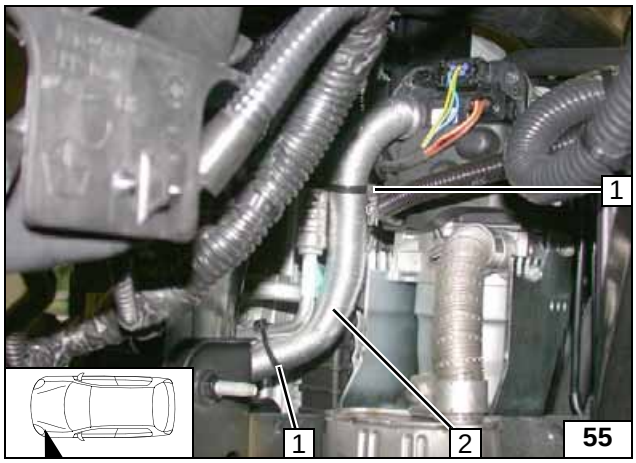
Installing exhaust end section



Cut underride protection **1** at markings.

2 Discard section

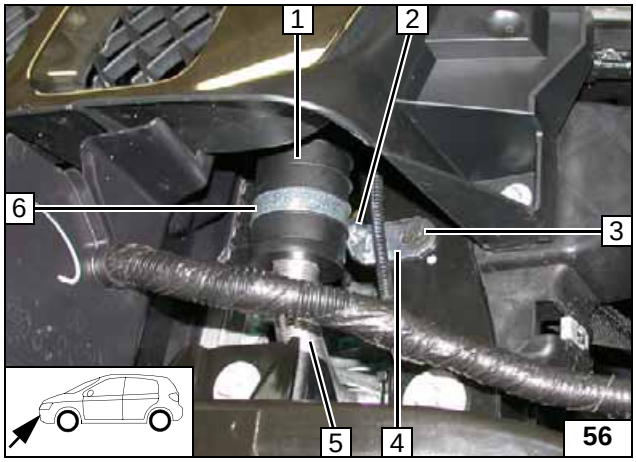
Cutting out underride protection



Combustion Air

1 Cable tie
2 Intake pipe

Installing combustion air pipe



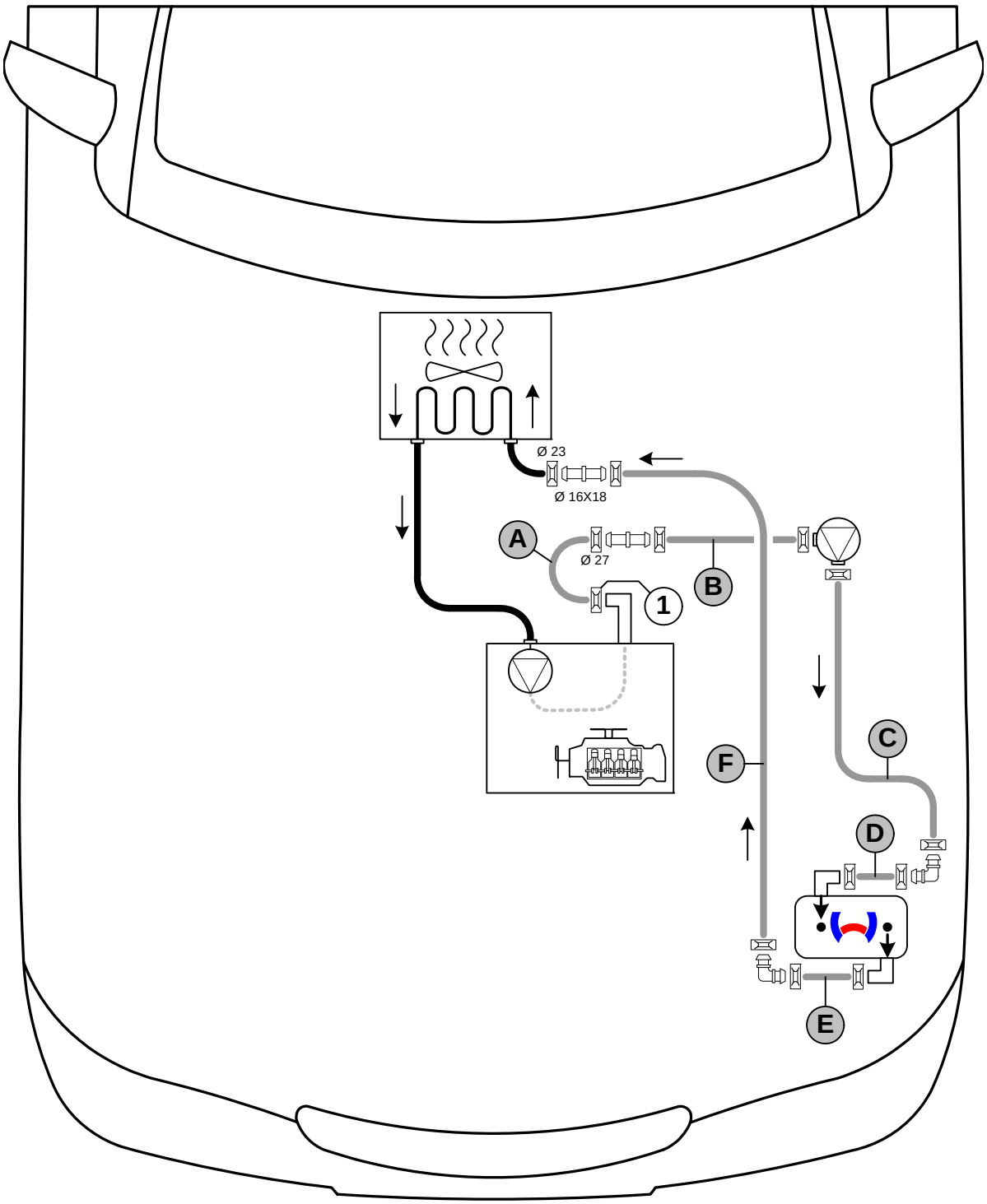
1 Silencer
2 M5x16 bolt, large diameter washer, flanged nut
3 Original vehicle bolt
4 Angle bracket
5 Intake pipe
6 51 mm dia. clamp

Installing silencer

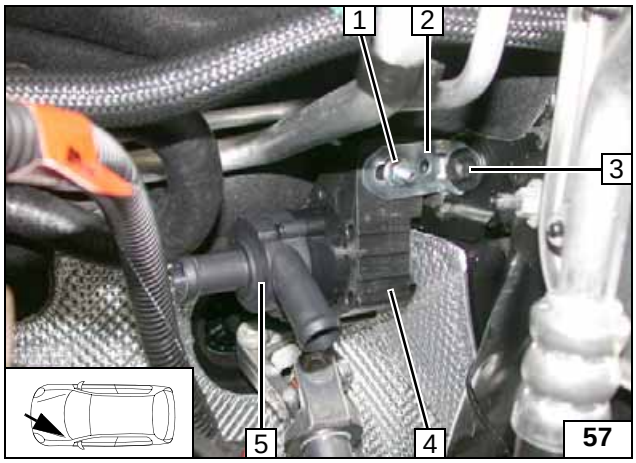
Coolant Circuit

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

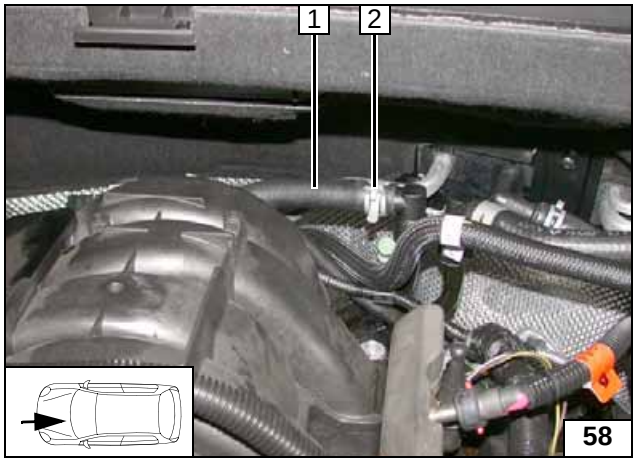


All spring clips without a specific designation = 25 mm dia. **1** = Original vehicle spring clip .
All connecting pipes 18x18 mm dia. All connecting pipes without a specific designation = 20x18 mm dia.



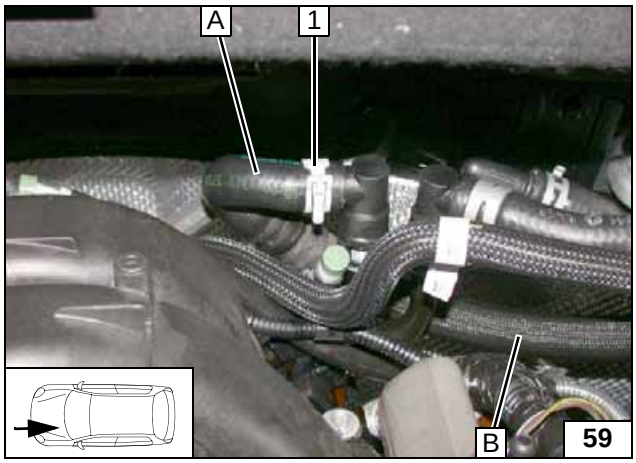
1 M6x25 bolt, flanged nut
2 Angle bracket
3 Original vehicle bolt
4 Circulating pump mounting
5 Circulating pump

Installing circulating pump



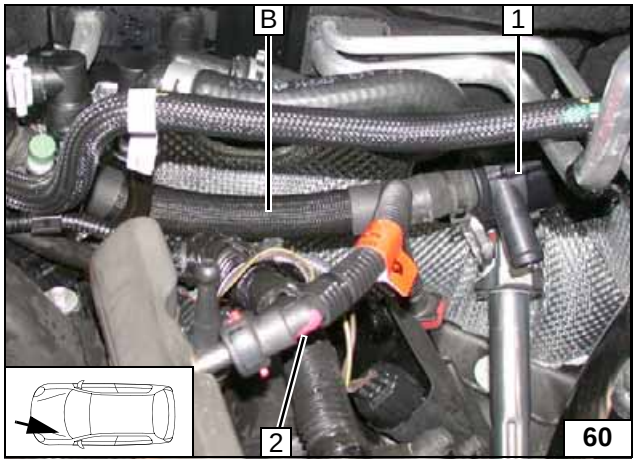
Pull off hose of engine outlet / heat exchanger inlet **1** on the engine outlet connection piece. Spring clip **2** will be reused.

Cutting point



1 Original vehicle spring clip

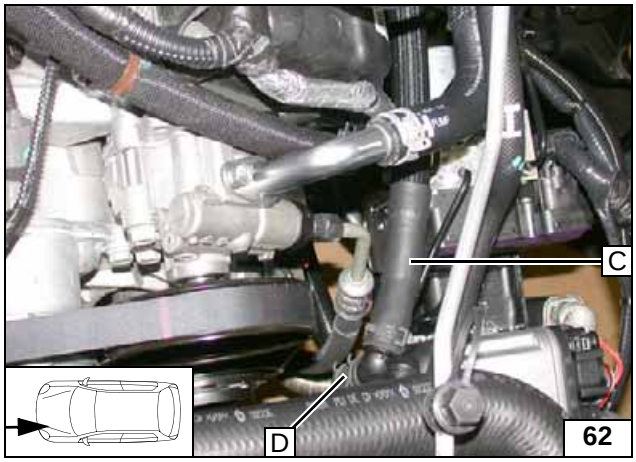
Connecting engine outlet



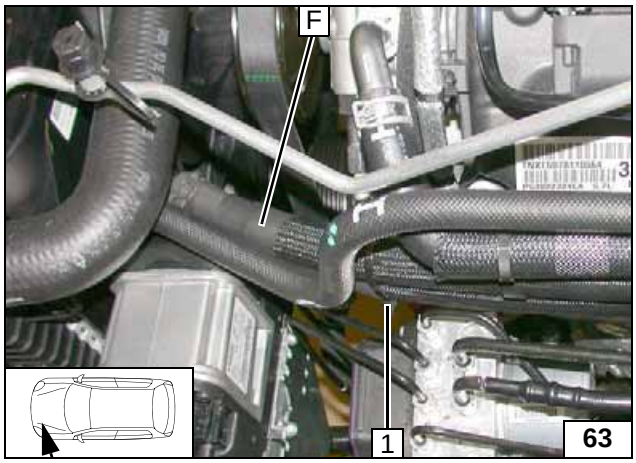
1 Circulating pump

Connecting circulating pump

Connecting circulating pump



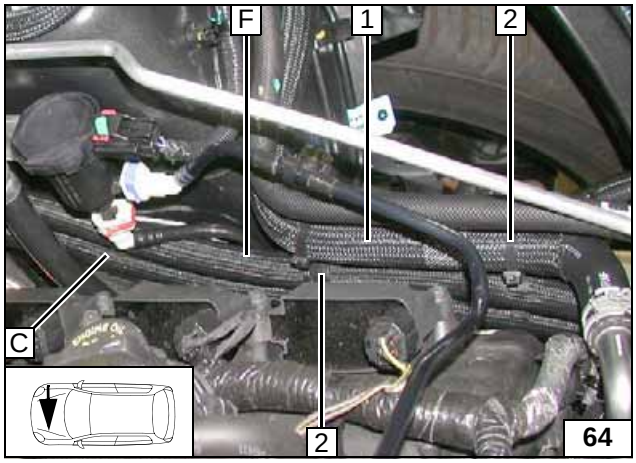
Connecting heater inlet



Connect hose **F** and **E** (at heater outlet).

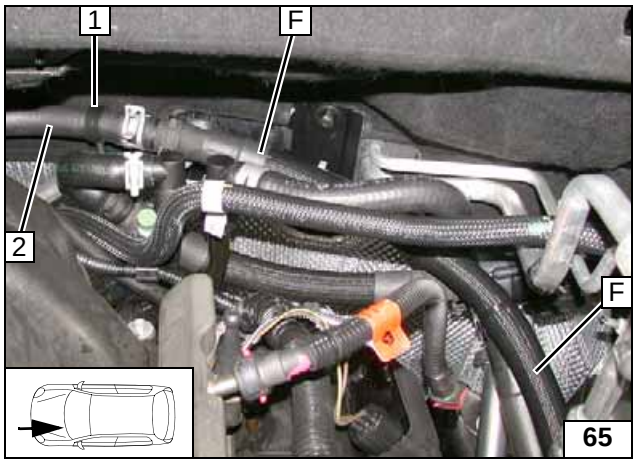
1 Cable tie

Connecting heater outlet



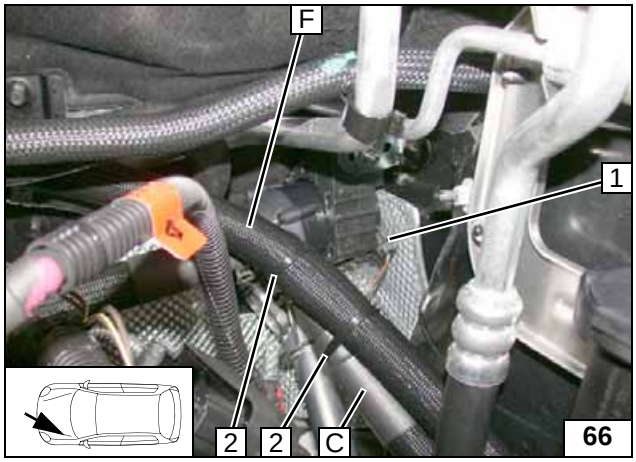
1 Original vehicle hose
2 Hose bracket with cable tie [2x]

Routing in engine compartment



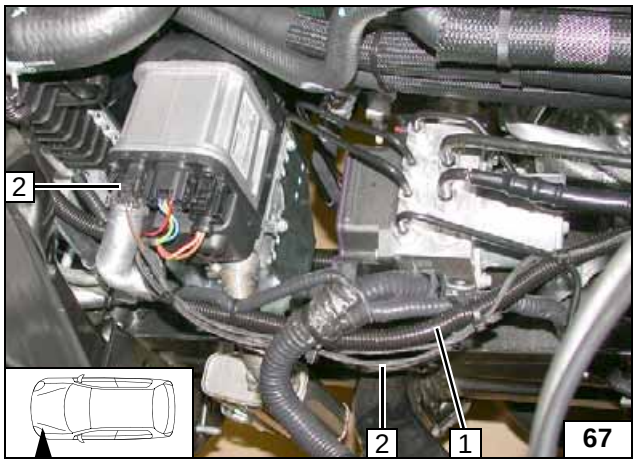
1 Hose bracket with cable tie on air-conditioning line
2 Hose on heat exchanger inlet

Connecting heat exchanger inlet



1 Wiring harness of circulating pump
2 Cable tie

Mounting wiring harness of circulating pump



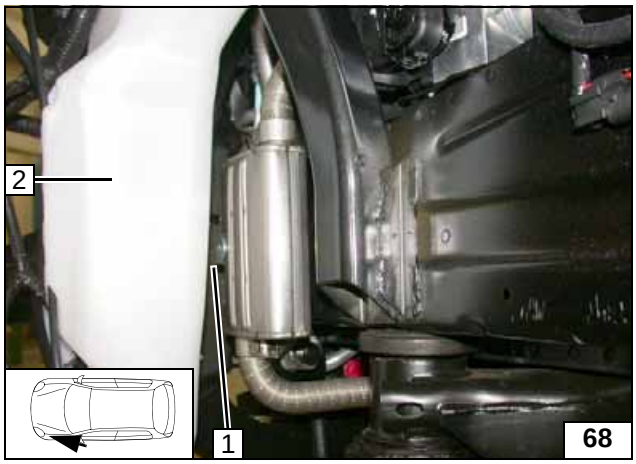
Route 1500 mm long wiring harness of circulating pump **2** on fuel line and wiring harness of metering pump in 10 mm dia. corrugated tube **1** to heater and attach. Align hoses. Ensure sufficient distance to neighbouring components.

Connecting heater

Final Work

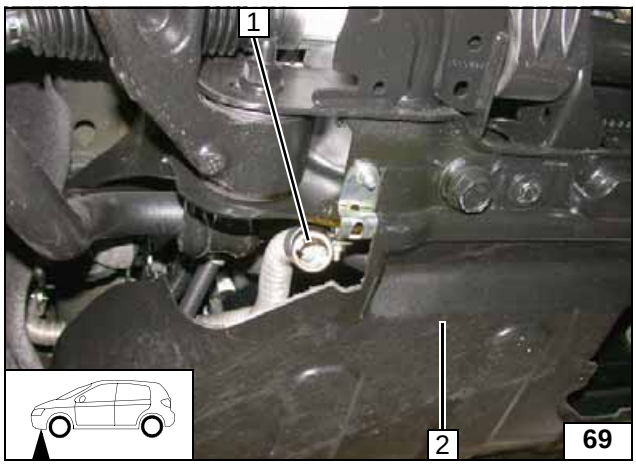
WARNING!
Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back all loose wires.
Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- **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 signboard "Switch off parking heater before refueling" in the area of the filler neck.**
- **For initial startup and function check, please see Installation Instructions.**



Mount washer reservoir **2**. Ensure sufficient distance to exhaust silencer at position **1**, correct if necessary.

Aligning silencer



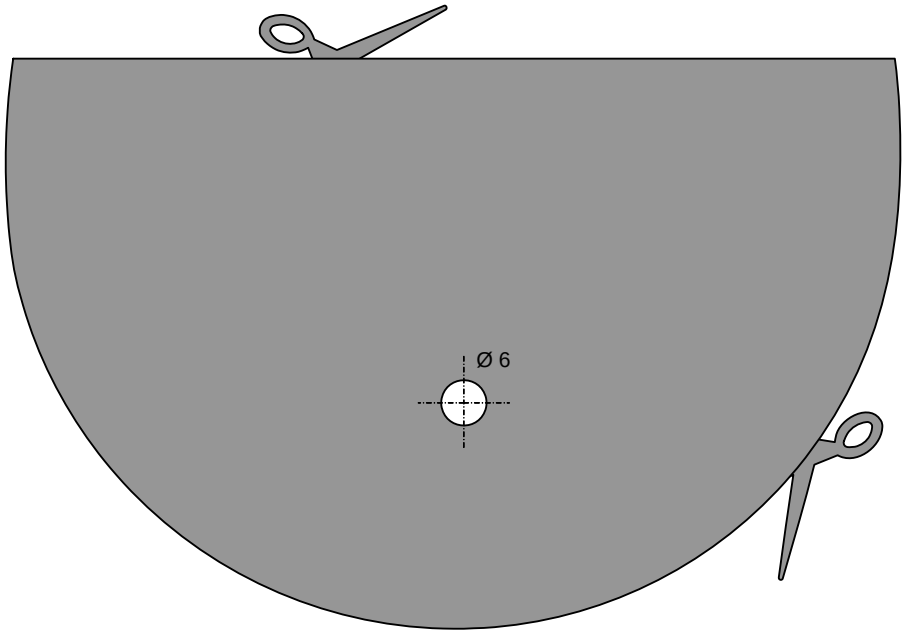
Ensure sufficient distance to neighbouring components.

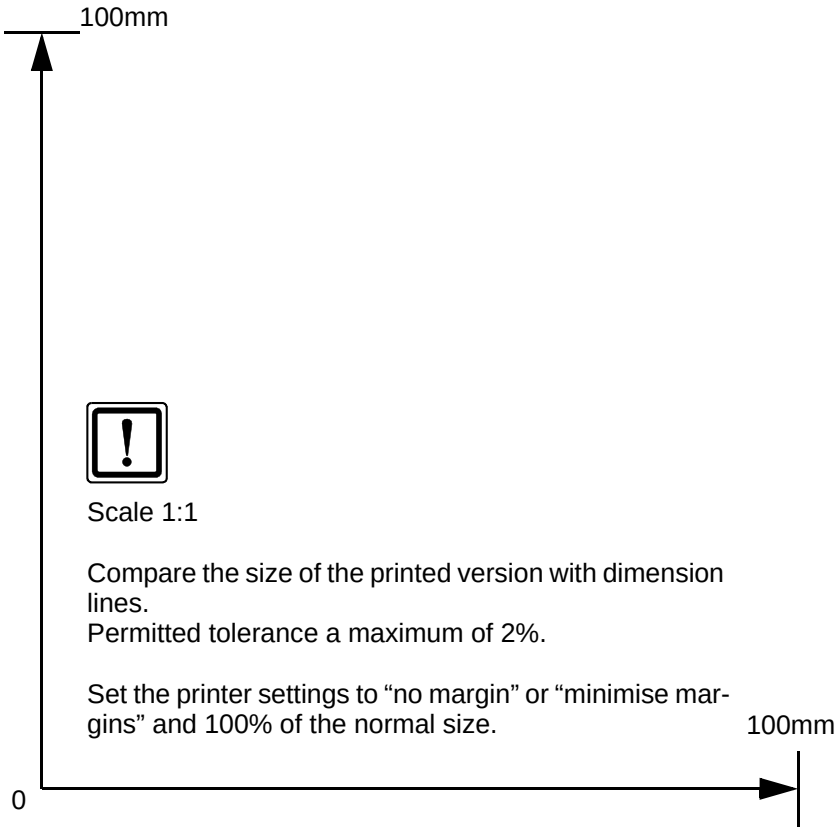
1 Exhaust end section
2 Mount underride protection

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-Tank Sending Unit



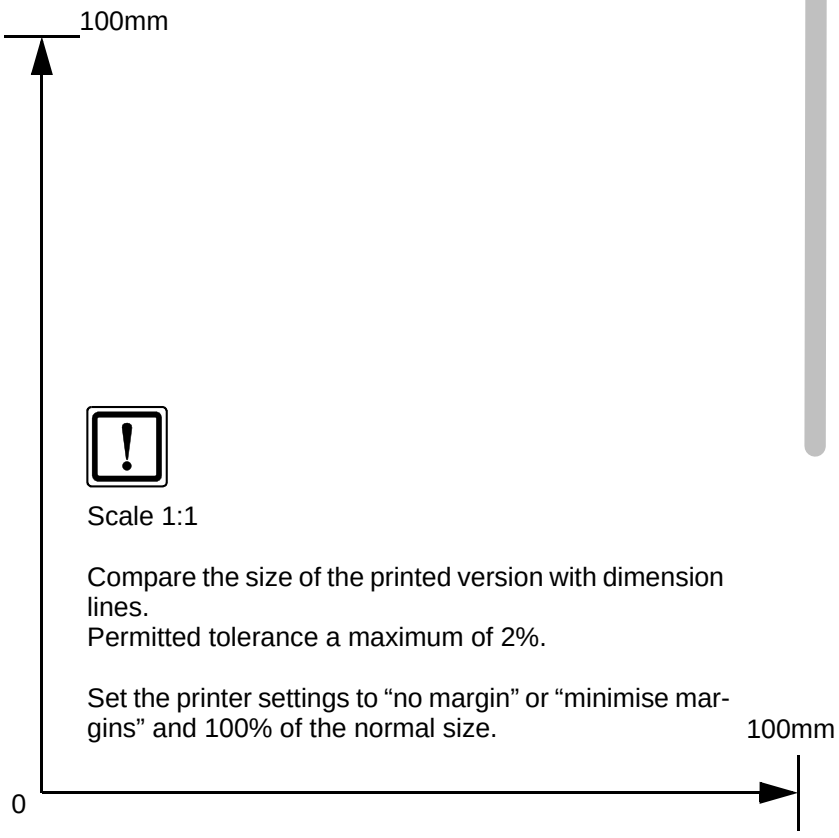


Scale 1:1

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.

Template for Fuel Standpipe



Scale 1:1

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 Automatic Air-Conditioning

Please remove this page in case of automatic air-conditioning and add it 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.

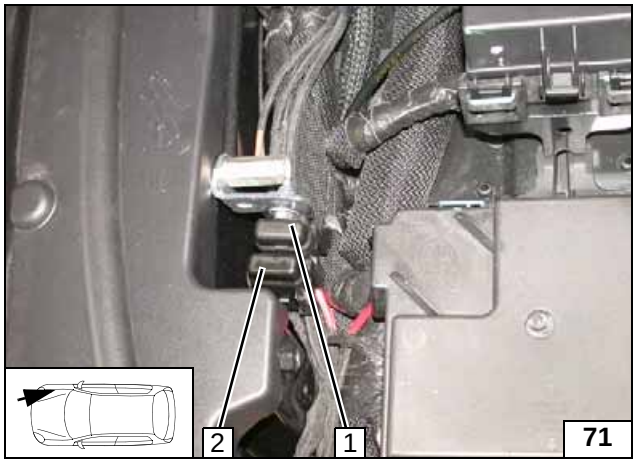
If vehicles have passenger compartment monitoring, this must be deactivated in addition to the vehicle settings for the heating operation.
Instructions for deactivation are given in the Operating Manual of the vehicle!

Before parking the vehicle, make the following settings:

The fan speed need not be pre-selected.

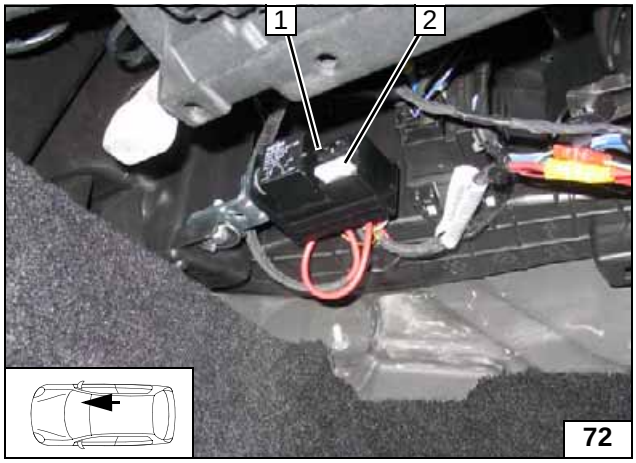
1 Set temperature to "HI"
2 Air outlet to windscreen

A/C control panel



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

Fuses of engine compartment



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

Fuses of passenger compartment