Water Heater

Webasto
Feel the Drive

Thermo Top Evo Parking Heater

E1
00 0258

Installation Documentation
Suzuki Swift

Validity

Manufacturer	Model	Type	EG BE No. / ABE
Suzuki	Swift	NZ	e4 * 2007 / 46 * 0155 * ...

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
1.2 P	Petrol	5-speed SG	66	1242	K12B
1.2 P	Petrol	5-speed SG	69	1242	K12B
1.2 P	Petrol	5-speed SG	69	1242	K12B (DUALJET)

SG = Manual transmission

From Model Year 2011
Left-hand drive vehicle

Verified equipment variants: Manual / automatic air-conditioning system
Front fog light
LED daytime running lights
Keyless Start
2WD
4WD

Not verified: Passenger compartment monitoring
Headlight washer system
Bi Xenon
Start - Stop

Total installation time: about 9.5 hours

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Suzuki Swift

Table of Contents

Necessary Components

- Basic delivery scope of *Thermo Top Evo* based on price list
- Installation kit for Suzuki Swift 2011 Petrol: **1316727B**
- 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

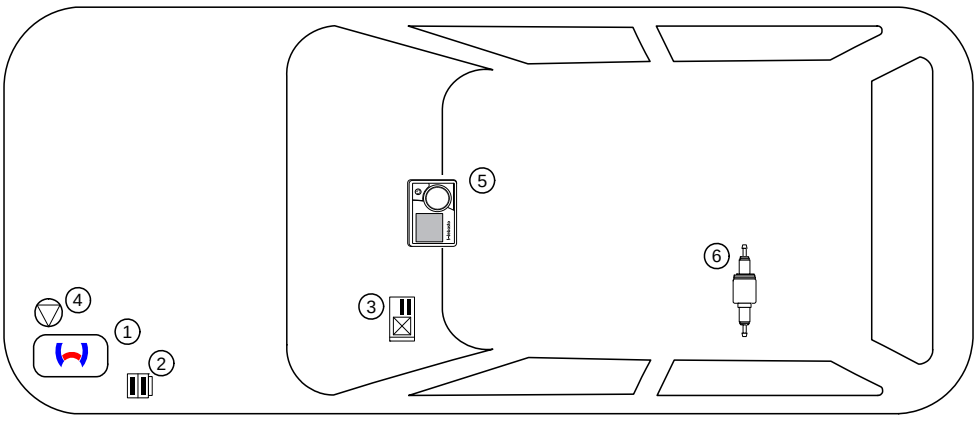
Installation instructions:

- Arrange for the vehicle to be delivered with the tank only about 1/4 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 space required and the manufacturer's instructions, we recommend the use of a vehicle battery with a higher electrical capacity!

Installation Overview

Legend:

1. Heater
2. Fuse holder of engine compartment
3. Relay and fuse holder of passenger compartment
4. Circulating pump
5. MultiControl CAR
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.

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Information on Operating and Installation Instructions

1 Important Information (not complete)

1.1 Installation and Repair

The improper installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide, leading to serious injury or death.

To install and repair Webasto heating and cooling systems you need to have completed a special company training course and have the appropriate technical documentation, special tools and special equipment.

Installation and repair may ONLY be carried out by persons trained and certified in a Webasto training course. NEVER try to install or repair Webasto heating or cooling systems if you have not completed a Webasto training course, you do not have the necessary technical skills and you do not have the technical documentation, tools and equipment available to ensure that you can complete the installation and repair work properly.

Only use genuine Webasto parts. See the Webasto air and water heaters accessories catalogue for this purpose.

1.2 Operation

To ensure safe operation, we recommend having the heater checked every two years by an authorised Webasto dealer, especially when used over a long period and/or under extreme environmental conditions.

Do not operate the heater in closed rooms due to the danger of poisoning and suffocation.

Always switch off the heater before refuelling.

The heater may only be used with the prescribed fuel Diesel (DIN EN 590) or petrol (DIN EN 228).

The heater may not be cleaned with a high-pressure cleaner.

1.3 Please note

ALWAYS follow all Webasto installation and operating instructions and observe all warnings.

To become familiar with and understand all functions and properties of the heater, the operating instructions must be read carefully and observed at all times.

For proper, safe installation and repair work, the installation instructions with all warnings and safety information must be carefully read and observed at all times. Please always contact a workshop authorised by Webasto for all installation and repair work.

Important

Webasto shall assume no liability for defects, damage and injuries resulting from a failure to observe the installation, repair and operating instructions of the information contained in them.

This liability exclusion particularly applies to improper installations and repairs, installations and repairs by untrained persons or in the case of a failure to use genuine spare parts.

The liability due to culpable disregard to life, limb or health and due to damage or injuries caused by a wilful or reckless breach of duty remain unaffected, as does the obligatory product liability.

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties. Insulate loose wire ends and tie back. Connectors on electronic components must audibly 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 a programmable control module (e.g. a PWM Gateway), the corresponding settings must be checked or adjusted.

2 Statutory regulations governing installation

Guidelines	Thermo Top Evo
Heating Directive ECE R122	E1 00 0258
EMC Directive ECE R10	E1 04 5627

Note

The regulations of these guidelines are binding in the scope of the Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries in which there are no special regulations.

Important

Failure to follow the installation instructions will result in the invalidation of the type approval for the heater and therefore invalidation of the general **homologation of the vehicle**.

Note

The heater is licensed in accordance with paragraph 19, section 3, No. 2b of the StVZO (German Road Traffic Licensing Authority).

2.1 Excerpt from ECE regulation 122 (heating system) paragraph 5 for the installation of the heater

Beginning of excerpt.

ANNEX VII

REQUIREMENTS FOR COMBUSTION HEATERS AND THEIR INSTALLATION

1. GENERAL REQUIREMENTS

1.7.1. A clearly visible tell-tale in the operator's field of view shall inform when the combustion heater is switched on or off.

2. VEHICLE INSTALLATION REQUIREMENTS

2.1. Scope

2.1.1. Subject to paragraph 2.1.2. combustion heaters shall be installed according to the requirements of this Annex.

2.1.2. Vehicles of category O having liquid fuel heaters are deemed to comply with the requirements of this Annex.

2.2. Positioning of heater

2.2.1. Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination.

2.2.2. The combustion heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be fulfilled if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields.

2.2.3. In the case of M2 and M3 vehicles, the heater must not be positioned in the passenger compartment. However, an installation in an effectively sealed envelope which also complies with the conditions in paragraph 2.2.2 may be used.

2.2.4. The label referred to in paragraph 1.4 or a duplicate, must be positioned so that it can be easily read when the heater is installed in the vehicle.

2.2.5. Every reasonable precaution should be taken in positioning the heater to minimise the risk of injury and damage to personal property.

2.3. Fuel supply

2.3.1. The fuel filler must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage.

2.3.2. In the case of liquid fuel heaters, where a supply separate to that of the vehicle is provided, the type of fuel and its filler point must be clearly labelled.

2.3.3. A notice, indicating that the heater must be shut down before refuelling, must be affixed to the fuelling point. In addition a suitable instruction must be included in the manufacturer's operating manual.

2.4. Exhaust system

2.4.1. The exhaust outlet must be located so as to prevent emissions from entering the vehicle through ventilators, heated air inlets or opening windows.

2.5. Combustion air inlet

2.5.1. The air for the combustion chamber of the heater must not be drawn from the passenger compartment of the vehicle.

2.5.2. The air inlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

2.6. Heating air inlet

2.6.1. The heating air supply may be fresh or recirculated air and must be drawn from a clean area not likely to be contaminated by exhaust fumes emitted either by the propulsion engine, the combustion heater or any other vehicle source.

2.6.2. The inlet duct must be protected by mesh or other suitable means.

2.7. Heating air outlet

2.7.1. Any ducting used to route the hot air through the vehicle must be so positioned or protected that no injury or damage could be caused if it were to be touched.

2.7.2. The air outlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

End of excerpt.

In multilingual versions the German language is binding.

Notes on Validity

This installation documentation applies to the Suzuki Swift Petrol 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

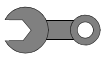
Special tools
- Hose clamp pliers for self-clamping hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Automatic wire stripper 0.2 - 6 mm²
- Crimping pliers for cable lug / tab connector 0.5 - 6 mm²
- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Webasto 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 = 8 Nm.
- Tightening torque of the bolt of 5x15 water connection piece retaining plate = 7 Nm.
- 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 

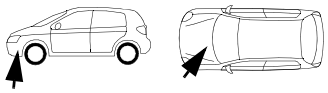
Specific risk due to electrical voltage 

Specific risk of damage to components 

Specific risk of fire or explosion 

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

Reference to a special technical feature 

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

Tightening torque according to the manufacturer's vehicle-specific documents 

Suzuki Swift

Preliminary Work

Vehicle

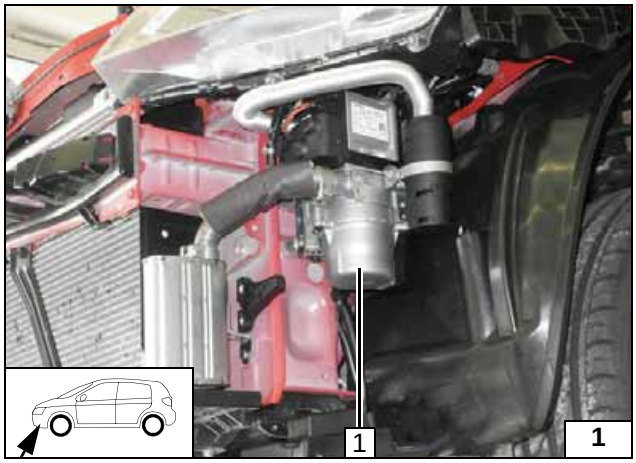
- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Disconnect and remove the battery.
- Remove the battery carrier with engine control unit.
- Remove the air filter together with the intake hose.
- Detach the wheel well trim on the right and left.
- Remove the bumper.
- Remove the lower instrument panel trim on the front passenger's side.
- Remove the glove compartment.
- Remove the cover of the air nozzle in the middle.
- Remove the radio with the cover of the radio cage.
- Remove the instrument panel trim on the driver's side.

The following work should only be performed during the corresponding installation sequence:

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

Heater

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



Heater Installation Location

1 Heater

Installation location

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Preparing Electrical System

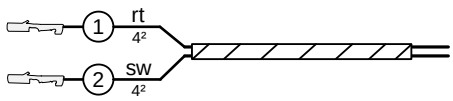
Wire sections retain their numbering in the whole document.

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

Assigning wires

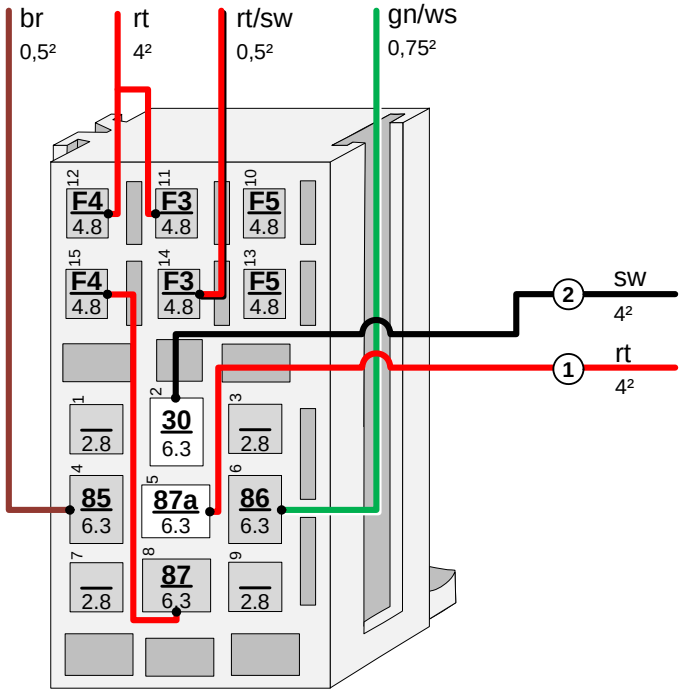
Manual air-conditioning

① Red (rt) wire of fan wiring harness
② Black (sw) wire of fan wiring harness



2

Connecting wires to passenger compartment relay and fuse holder



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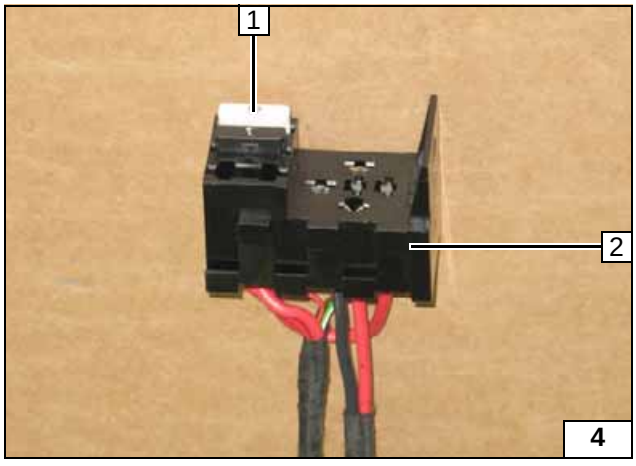

4

1 Fuse F4 25A
2 Relay and fuse holder of passenger compartment

Installing fuse F4

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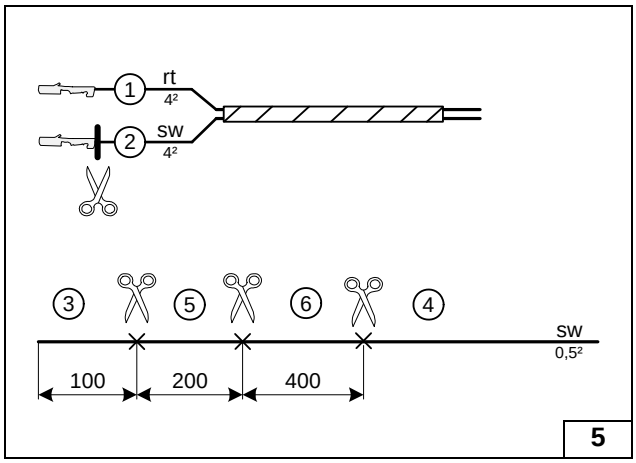


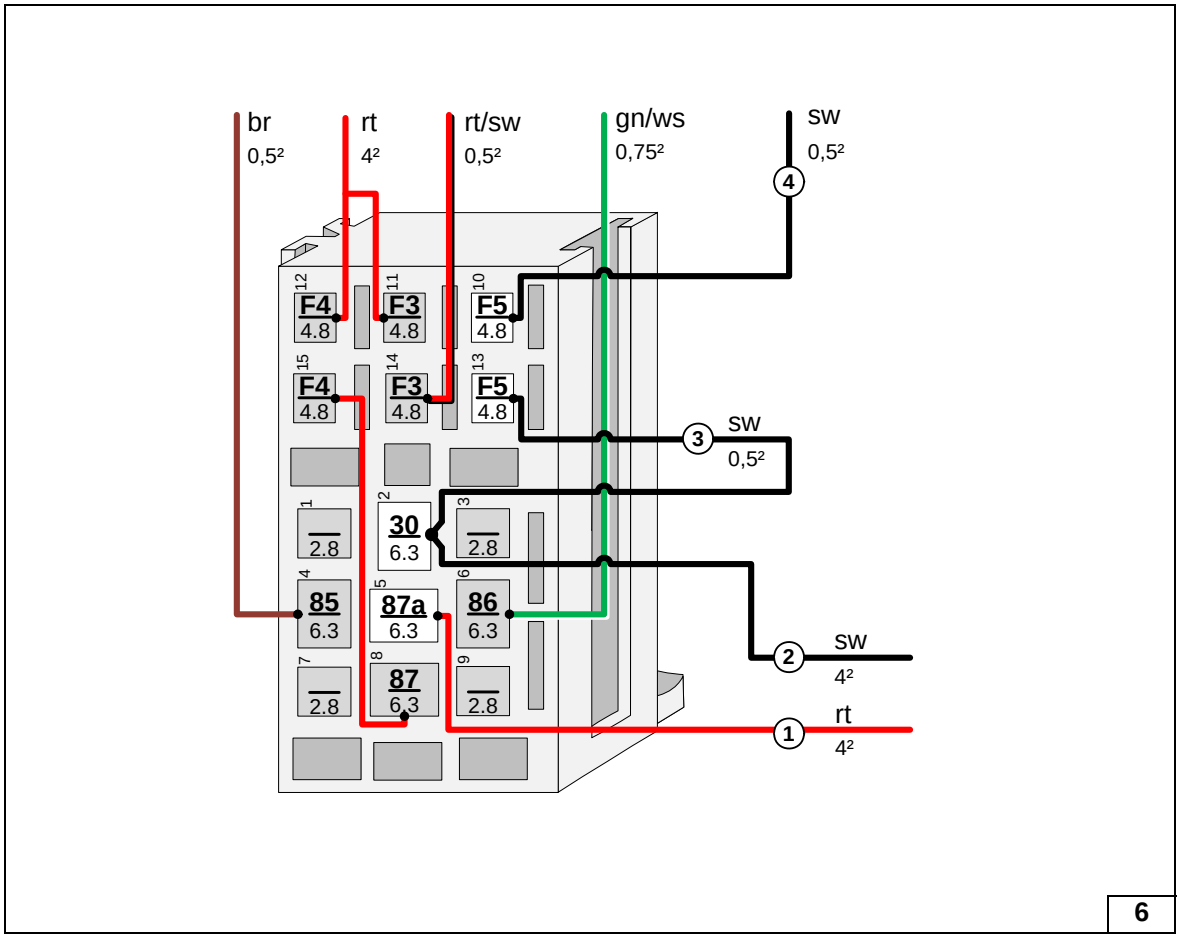
5

Automatic air-conditioning

Pull wire section ④ into provided protective sleeving.

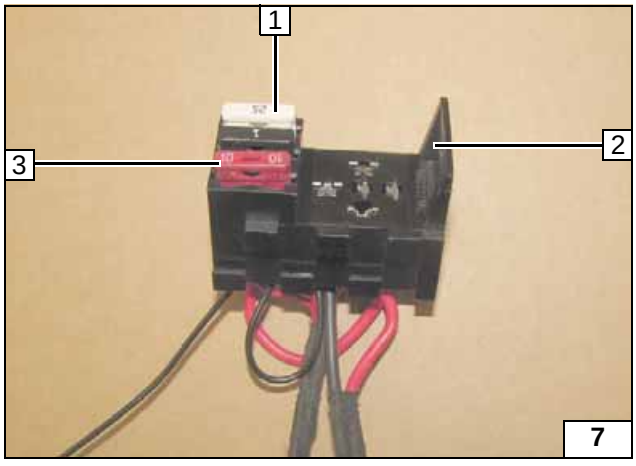
① Red (rt) wire of fan wiring harness
② Black (sw) wire of fan wiring harness

Cutting to length / assigning wires



6

Connecting wires to passenger compartment relay and fuse holder



7

1 Fuse F4 25A
2 Relay and fuse holder of passenger compartment
3 Fuse F5 10A

Installing fuses F4 and F5

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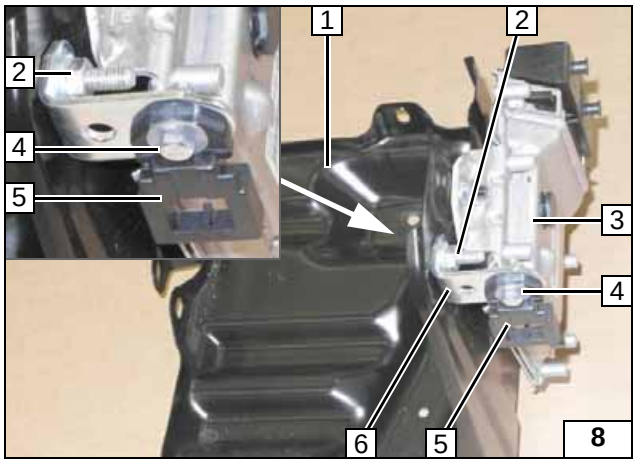
Installing angle bracket



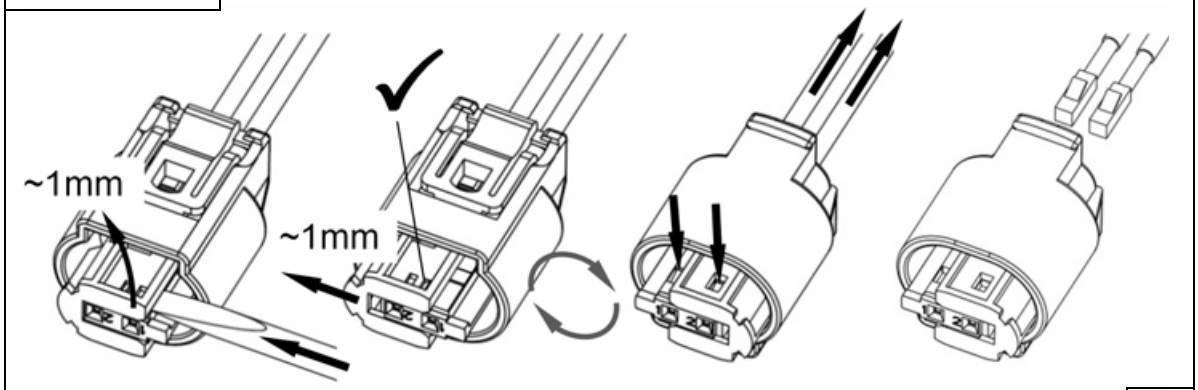
8

All vehicles

1 Battery carrier
2 M6x20 bolt, flanged nut, existing hole
3 Engine control unit
4 M5x16 bolt, large diameter washer [2x], nut
5 Retaining plate for engine compartment fuse holder
6 Angle bracket

Removing metering pump connector

Connector X7



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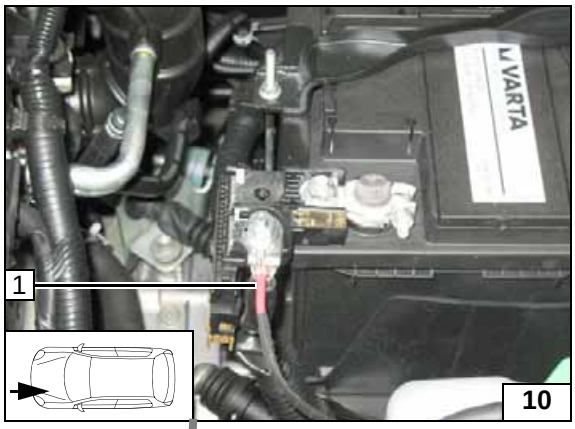
Electrical System

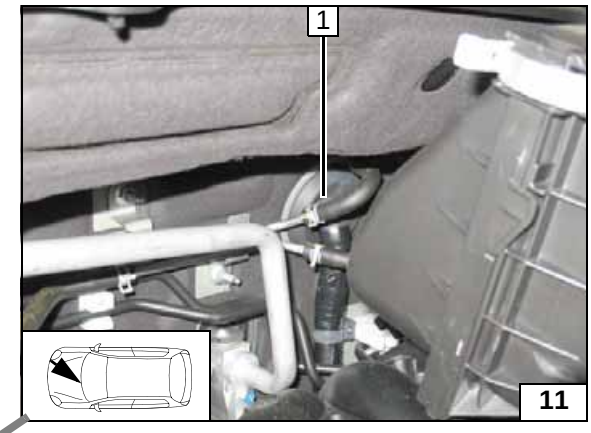
Positive wire

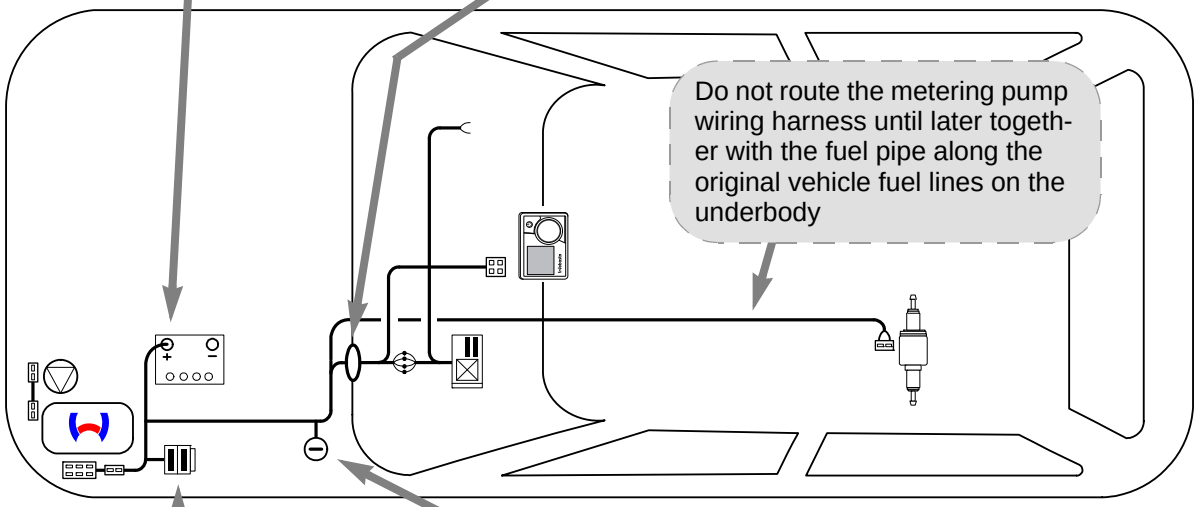
1 Positive wire on positive battery distributor



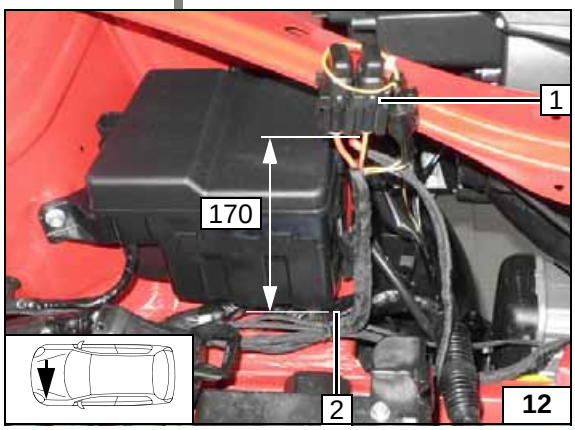
Wiring harness pass through

1 Protective rubber plug



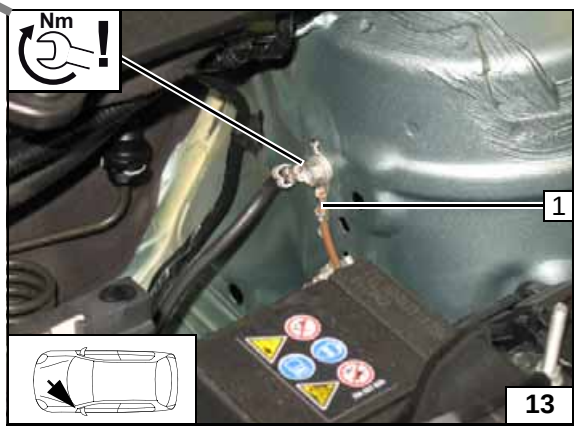


Wiring harness routing diagram



Fuse holder of engine compartment

Position engine compartment fuse holder **1** at installation location, will be installed during the "Final Work" phase. Maintain distance from original vehicle wiring harness **2**!



Earth wire

1 Earth wire to original vehicle earth point

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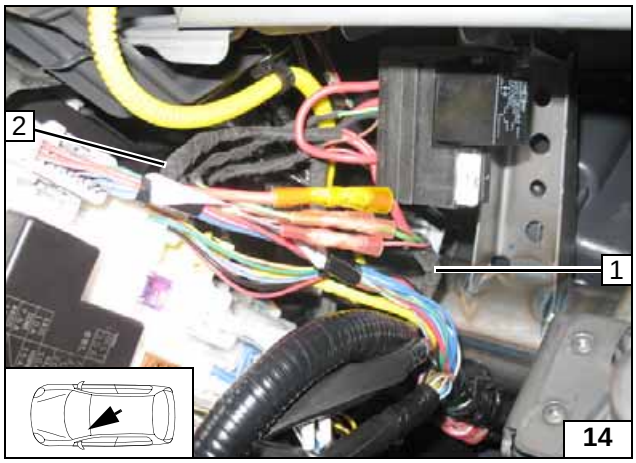

1 Wiring harness of heater
2 Wiring harness of passenger compartment relay and fuse holder

Connecting same colour wires of wiring harnesses

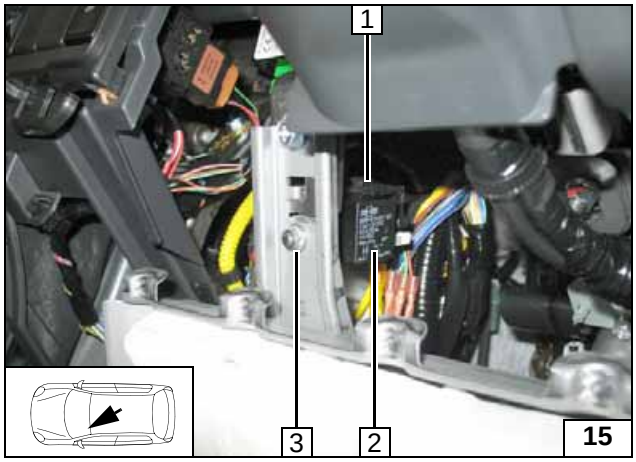

Figure shows manual air-conditioning system. Insert 10 mm shim between relay and fuse holder of passenger compartment **1** and cross member. After installation, mount the K1 relay **2**.

3 M5x20 bolt, large diameter washer, 10 mm shim, flanged nut, existing hole

Installing relay and fuse holder of passenger compartment

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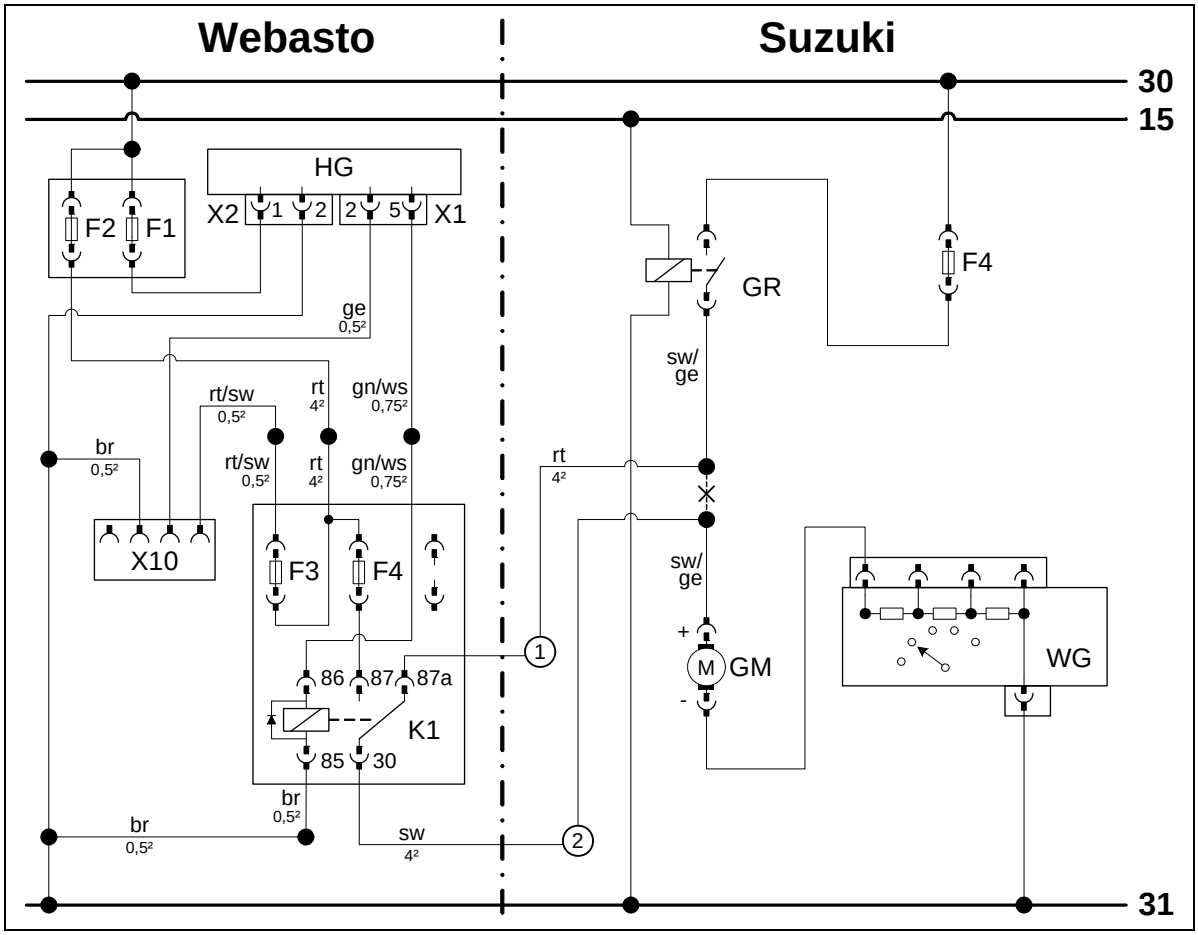
Manual Air-Conditioning Fan Controller

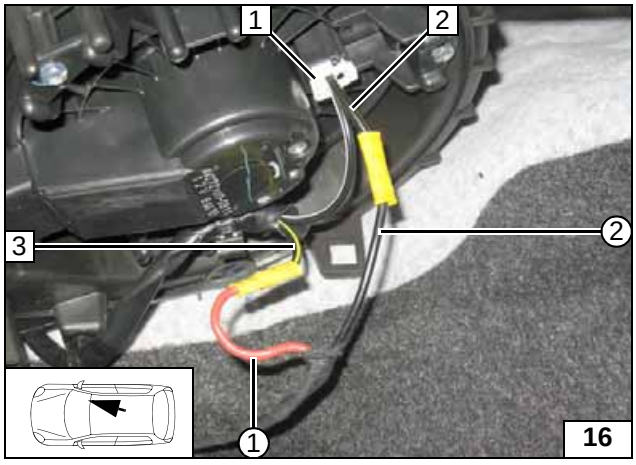
Wiring diagram



Legend

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

Connecting fan motor



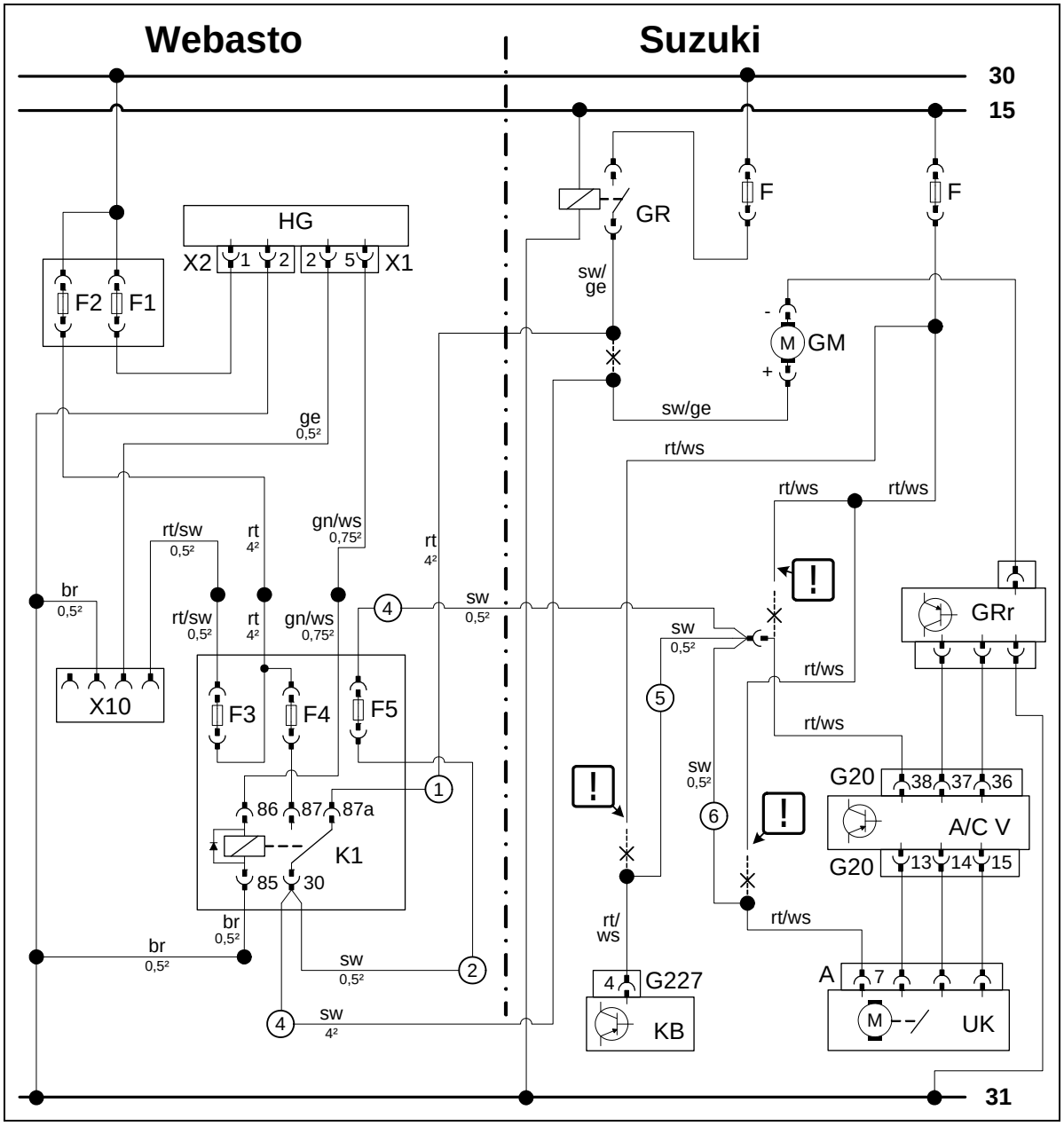
Connection to 2-pin connector **1** from the fan motor.

- **2** Black/yellow (sw/ge) wire from connector of fan motor
- **3** Black/yellow (sw/ge) wire of fan relay
- ① Red (rt) wire of K1/87a, fan wiring harness
- ② Black (sw) wire of K1/30, fan wiring harness

 © Webasto Thermo & Comfort SE

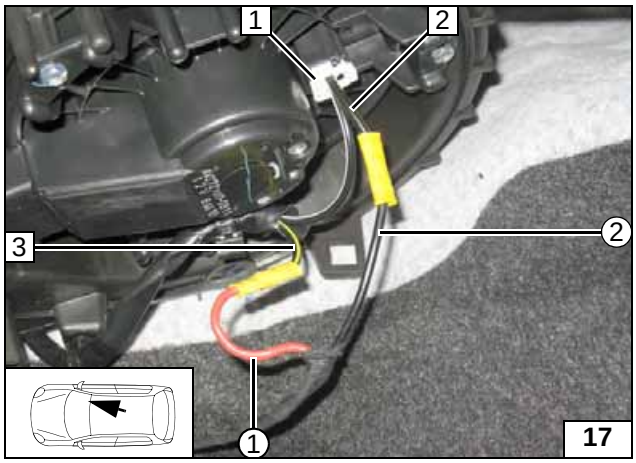
Automatic Air-Conditioning Fan Controller

Wiring diagram



Legend

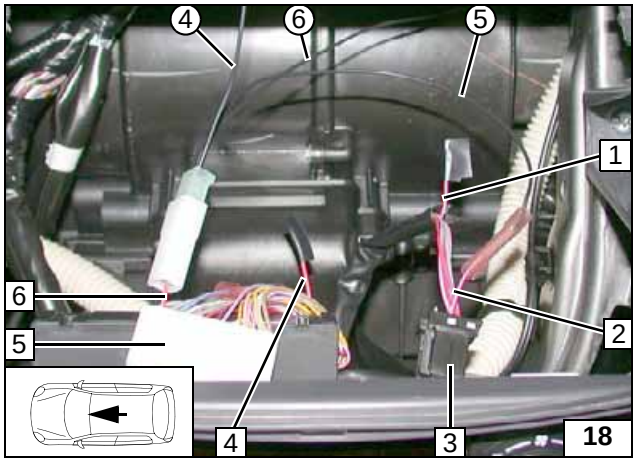
Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	GR	Fan relay	rt	red
X1	6-pin heater connector	F	Fuses of vehicle	ws	white
X2	2-pin heater connector	GM	Fan motor	sw	black
F1	20A fuse	GRr	Fan controller	br	brown
F2	30A fuse	A/C V	A/C booster	gn	green
X10	4-pin connector of heater control	G20	40-pin connector A/C V	ge	yellow
		KB	A/C control panel		
F3	1A fuse	G227	Connector KB	!	Insulate wire end and tie back
F4	25A fuse	UK	Fresh / recirculating air flap		
F5	10A fuse	A	7-pin connector UK	**X**	Cutting point
K1	Fan relay			Wiring colours may vary.	



Connection to 2-pin connector **1** from the fan motor.

2 Black/yellow (sw/ge) wire from connector of fan motor
3 Black/yellow (sw/ge) wire of fan relay
① Red (rt) wire of K1/87a, fan wiring harness
② Black (sw) wire of K1/30, fan wiring harness

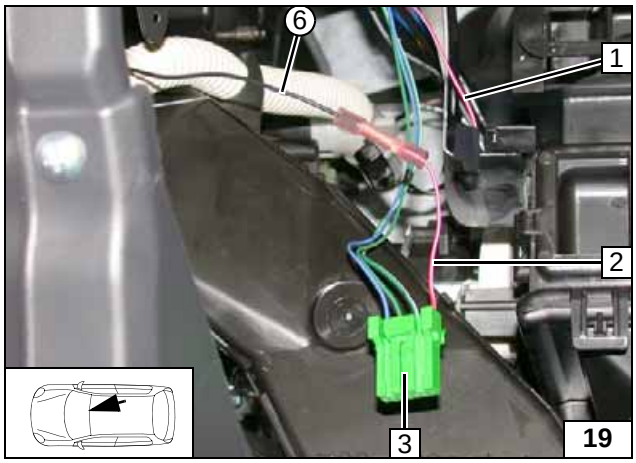
Connecting fan motor



Connection on 40-pin connector G20 **5** of A/C booster and on connector G227 **3** of A/C control panel.

1 Insulate red/white (rt/ws) wire of terminal 15 and tie back
2 Red/white (rt/ws) wire from connector of G227 Pin 4
4 Insulate red/white (rt/ws) wire of original vehicle fuse and tie back
6 Red/white (rt/ws) wire from connector of G20 Pin 38
④ Black (sw) wire of 10A fuse F5
⑤ Additional black (sw) wire
⑥ Additional black (sw) wire

Connecting A/C booster and A/C control panel



Connect to 7-pin connector **3** of the fresh and recirculating air flap.

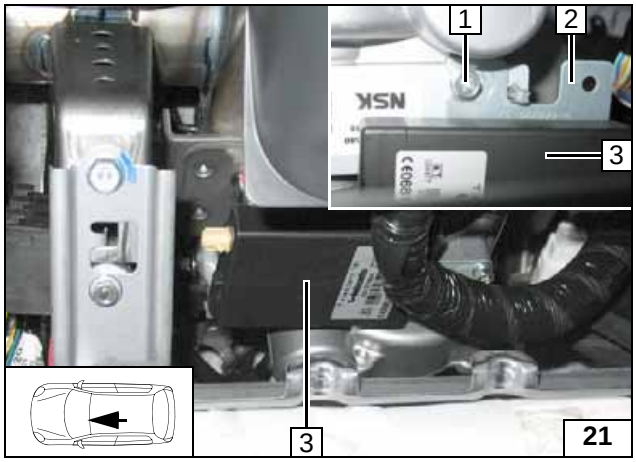
1 Insulate red/white (rt/ws) wire of terminal 15 and tie back
2 Red/white (rt/ws) wire from connector of fresh and recirculating air flap Pin 7
⑥ Additional black (sw) wire

Connecting fresh / recirculating air flap

MultiControl CAR Option

1 MultiControl CAR

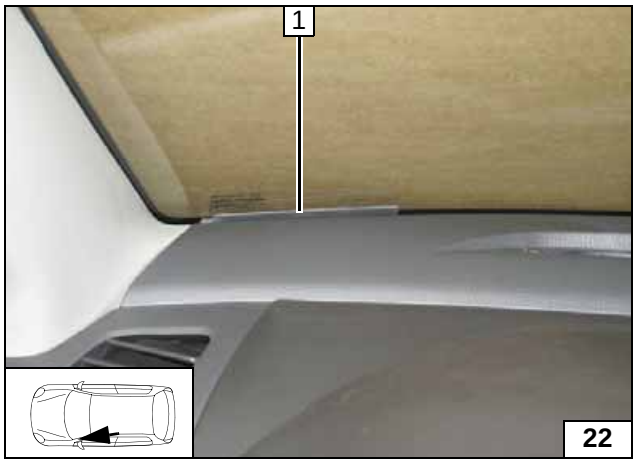
Installing MultiControl CAR



Remote Option (Telestart)

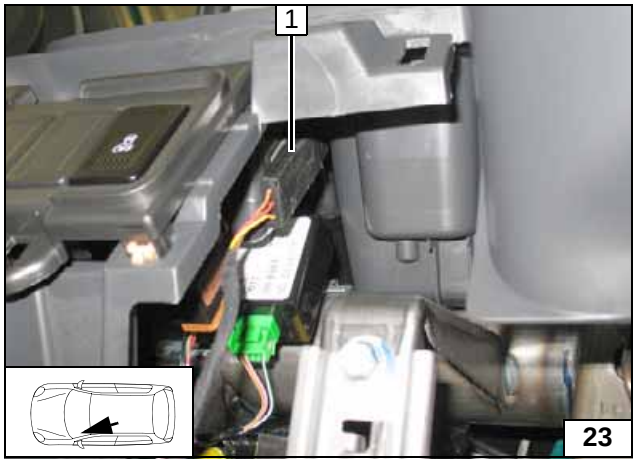
1 Original vehicle bolt
2 Bracket
3 Receiver

Mounting receiver



1 Antenna

Mounting antenna



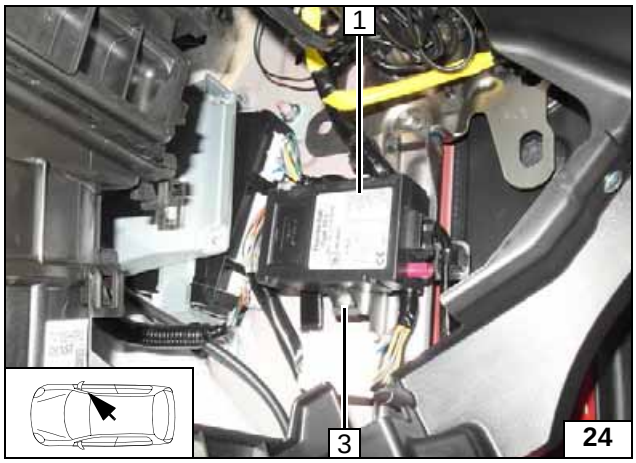
Temperature sensor T100 HTM

Fasten temperature sensor **1** with adhesive tape.

Mounting temperature sensor

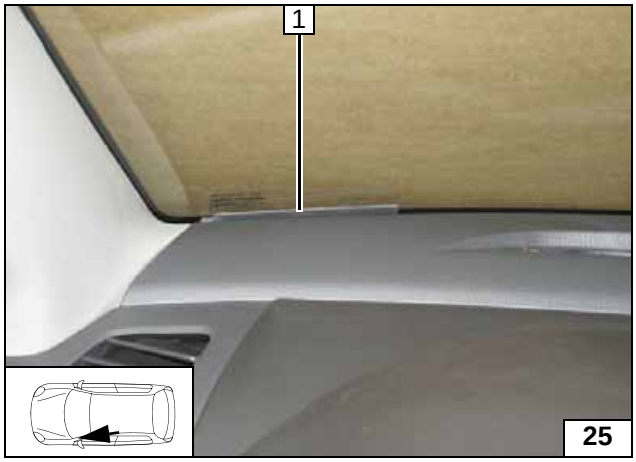
Remote Option Thermo Call

Mounting receiver



1 Receiver
2 5x13 self-tapping screw, existing hole

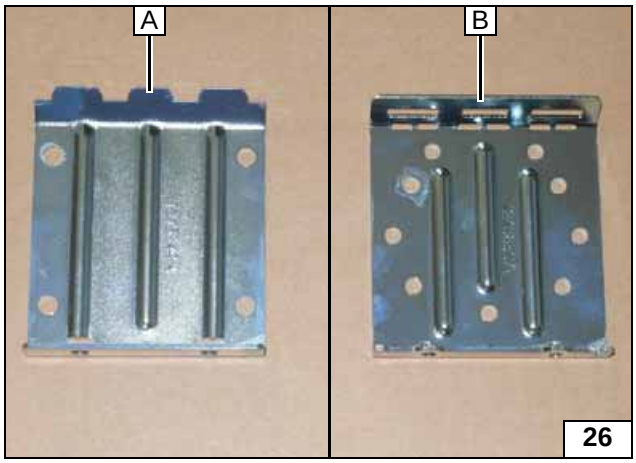
Mounting antenna



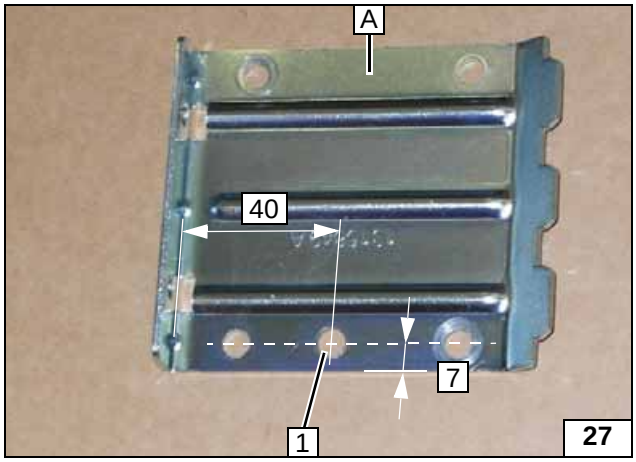
1 Antenna

 © Webasto Thermo & Comfort SE

Preparing Installation Location

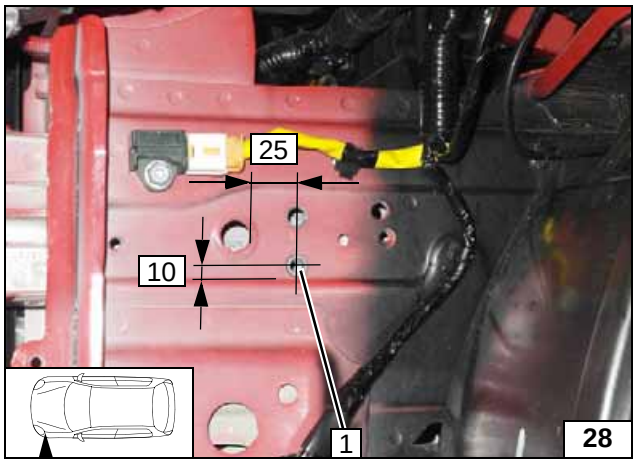


View of bracket, parts A and B



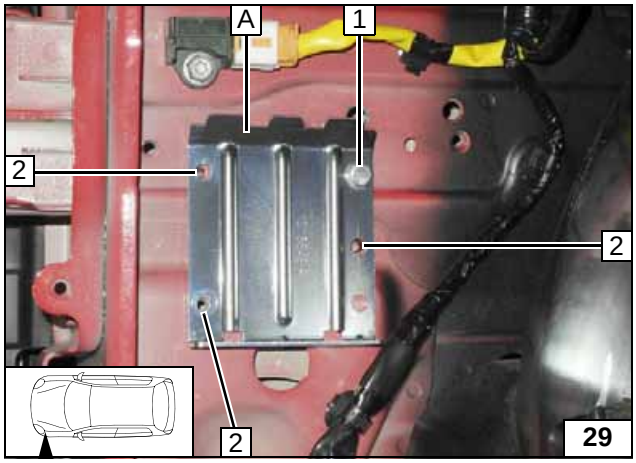
1 7 mm dia. hole

Hole in bracket part A



1 9.1 mm dia. hole, rivet nut

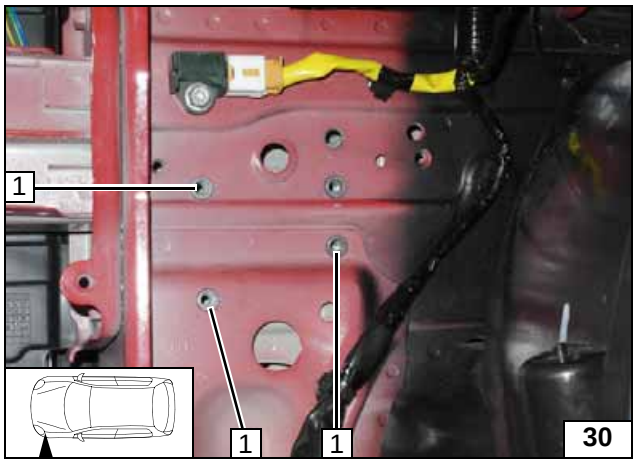
Installing rivet nut



Install bracket part **A** loosely and align vertically.

1 M6x20 bolt on rivet nut
2 Copy hole pattern [3x]

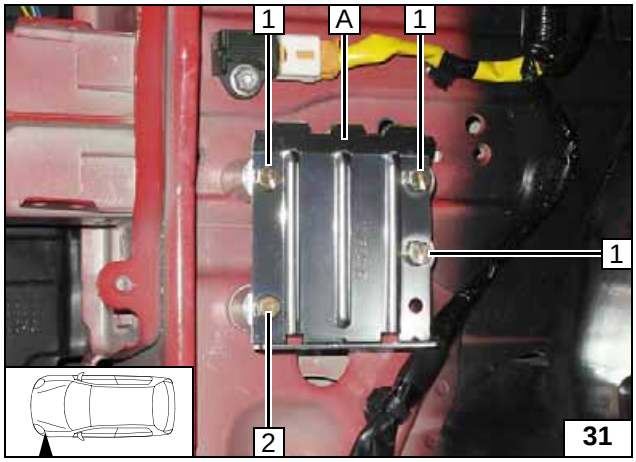
Copying hole pattern



Remove bracket

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

Installing rivet nuts

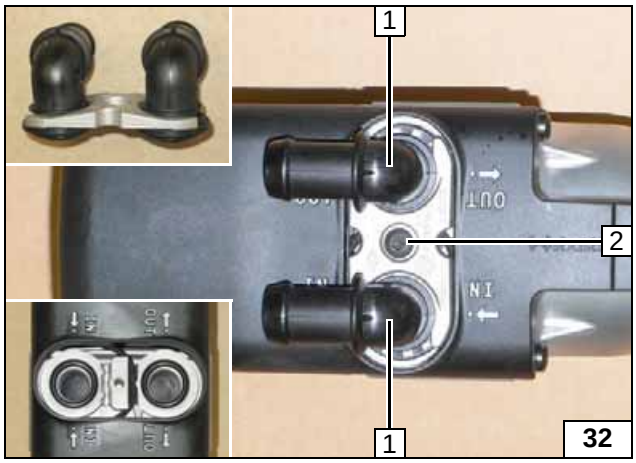


Insert shims between bracket part **A** and frame side member!

1 M6x50 bolt, spring lockwasher, 30mm shim [3x each]
2 M6x40 bolt, spring lockwasher, 20mm shim, large diameter washer with outer dia. d_a = 24mm

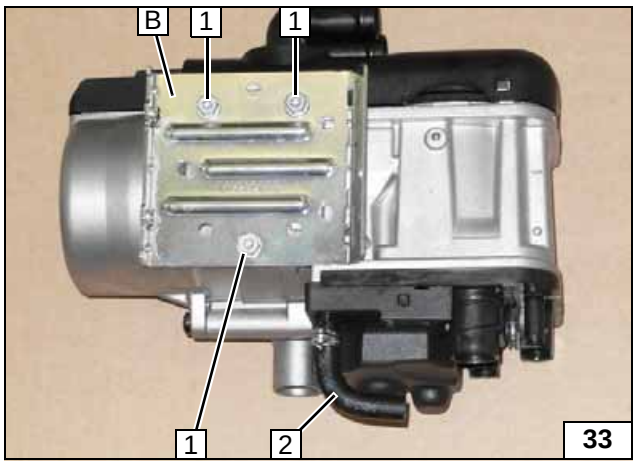
Installing bracket part A

Preparing Heater



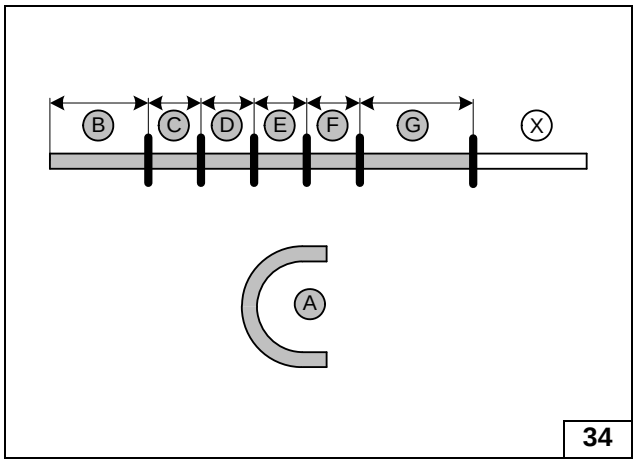
1 Water connection piece, sealing ring [2x each]
2 5x15 self-tapping bolt, retaining plate of water connection piece

Installing water connection piece



1 5x13 self-tapping bolt [3x]
2 90° moulded hose, 10 mm dia. clamp

Installing bracket part B and moulded hose

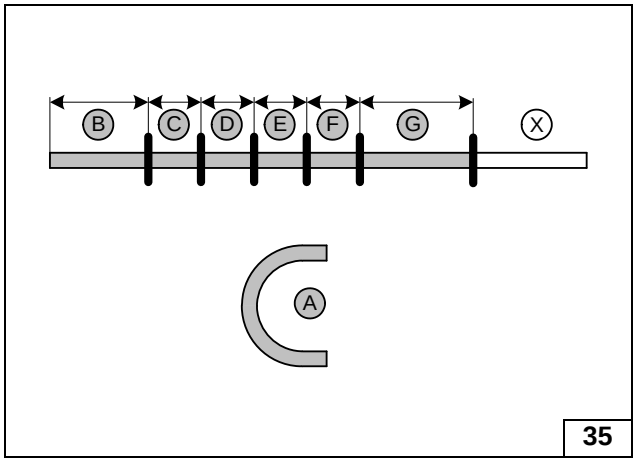


69 kW up to MY 2013

Discard section **X**
Hose **A** = 180°, 20x20 mm dia. moulded hose

B = 290
C = 60
D = 240
E = 140
F = 110
G = 720

Cutting hoses to length

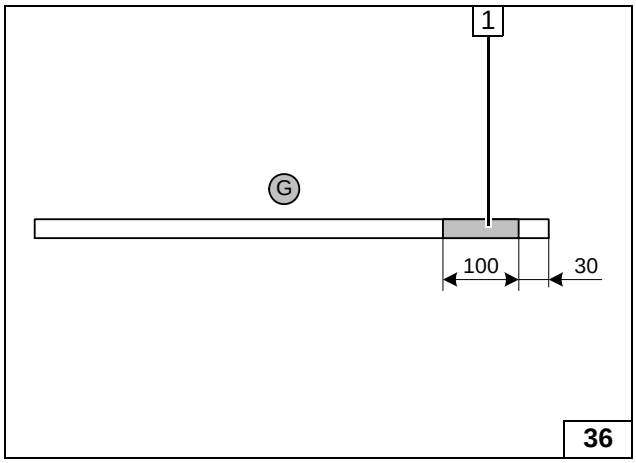


66 kW / 69 kW from MY 2014

Discard section **X**
Hose **A** = 180°, 18x18 mm dia. moulded hose

B = 290
C = 60
D = 240
E = 140
F = 110
G = 580

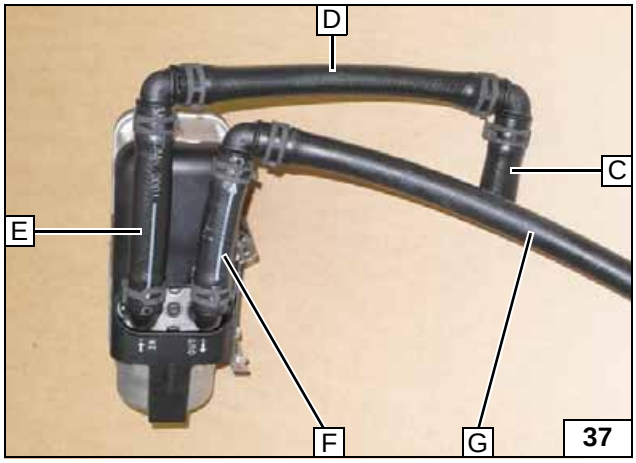
Cutting hoses to length



The side with heat shrink plastic tubing **1** will be connected to the heat exchanger inlet hose!

1 Heat shrink plastic tubing

Preparing hose G

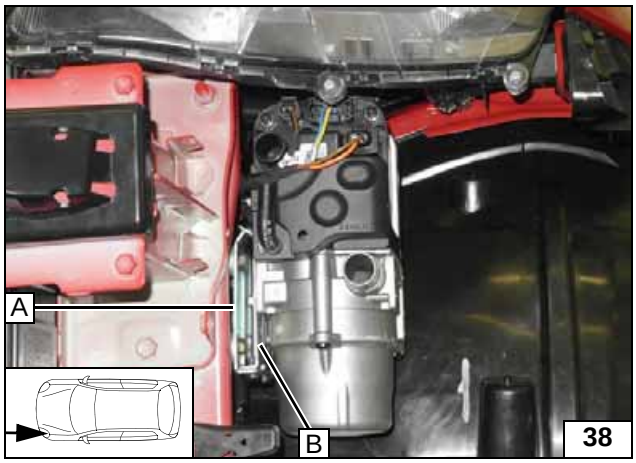


All vehicles

All spring clips = 25 mm dia.
All 90° connecting pipes = 18x18 mm dia.

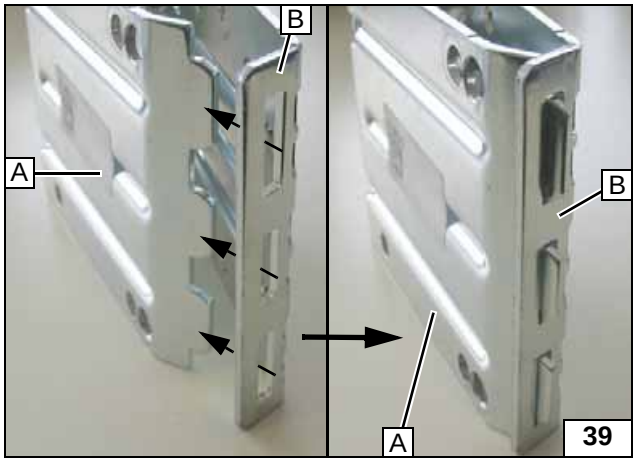
Premounting hoses

Installing Heater



Route premounted hoses to the engine compartment.
Insert the heater from above at the installation location.
Position the openings of bracket part **B** over the locking tabs of bracket part **A** (see next figure)!

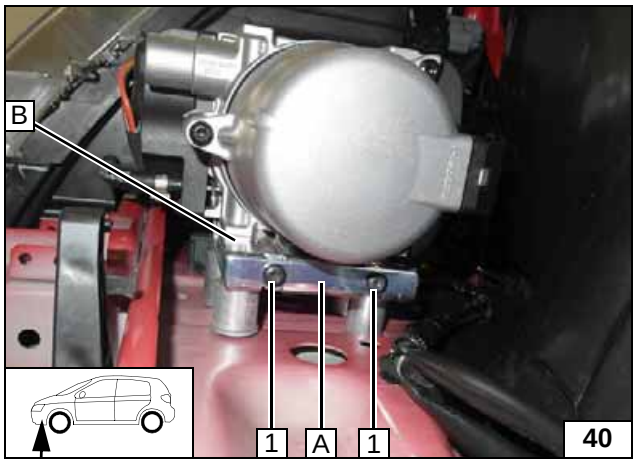
Installing heater



The openings of bracket **B** must be placed over the locking tabs of bracket **A**!

A Bracket (fitted to the vehicle)
B Bracket (fitted to the heater)

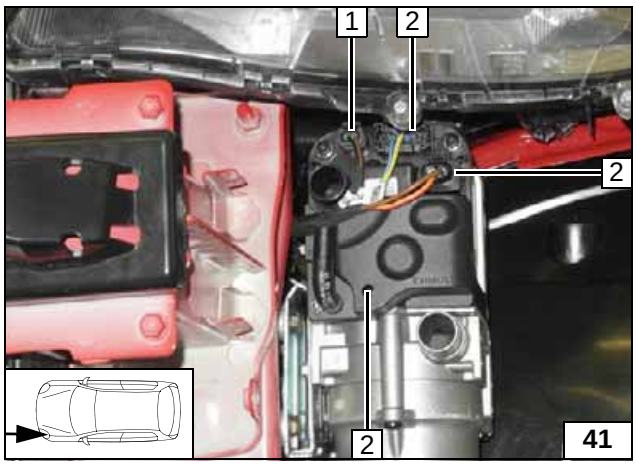
Interlocking bracket A and B



Check the assembly of bracket part **A** and bracket part **B**, then screw the parts together!

1 M5x12 Torx screw [2x]

Installing heater



1 Connector of circulating pump wiring harness
2 Connector of heater wiring harness [2x]

Installing wiring harnesses

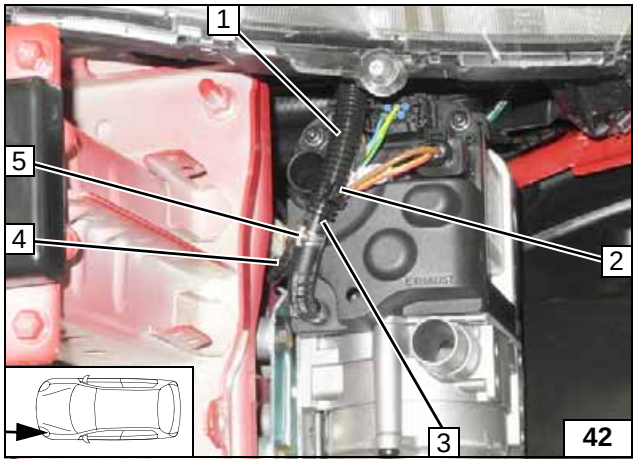
Fuel

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.

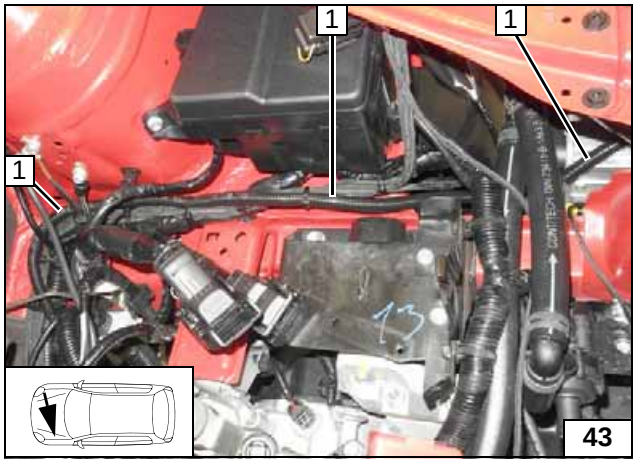
WARNING!
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



Route fuel line **3** and wiring harness of metering pump **4** in 1130mm corrugated tube **1** in the engine compartment!

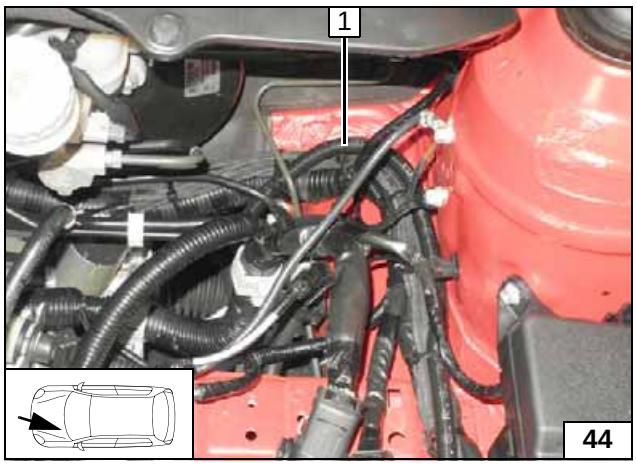
2 Cable tie
5 10 mm dia. clamp

Connecting heater



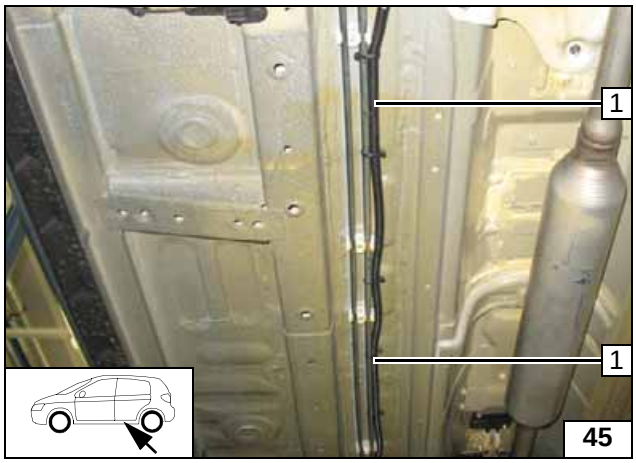
1 Fuel line and wiring harness of metering pump in 1130 mm corrugated tube

Routing lines



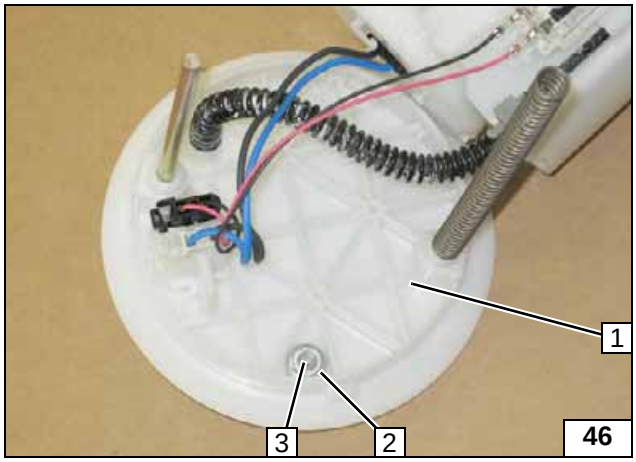
Route fuel line and wiring harness of metering pump in 2100 mm corrugated tube **1** along original vehicle lines to the underbody.

Routing lines



Route fuel line and wiring harness of metering pump into 2100mm corrugated tube **1** along the original vehicle lines to the installation location of the metering pump.

Routing lines



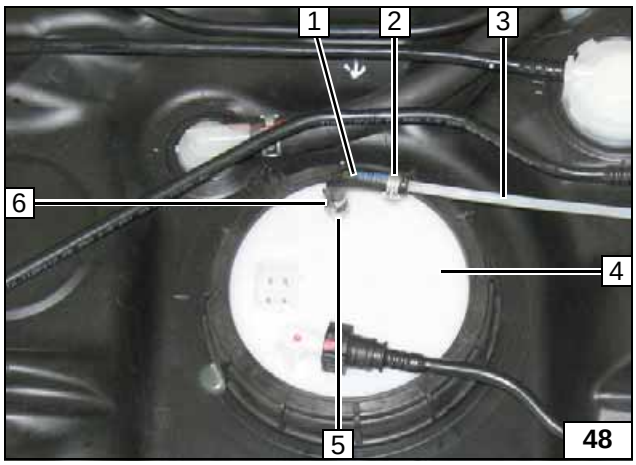
Remove fuel-tank in accordance with manufacturer's instructions. Remove and dismantle fuel-tank sending unit **1** in accordance with manufacturer's instructions.

2 M6 flanged nut
3 Copy hole pattern, 6 mm dia. hole

Fuel extraction

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

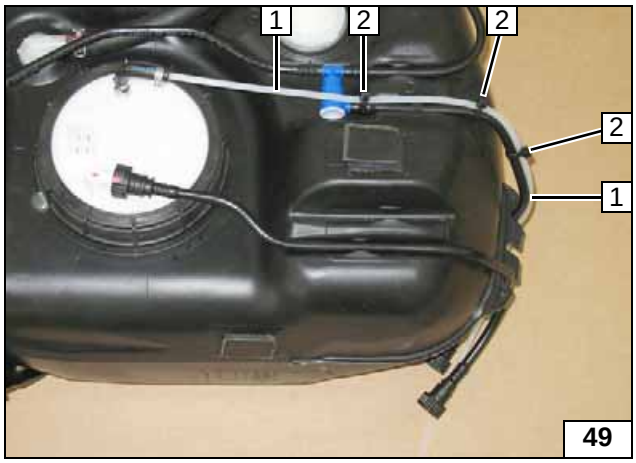
Installing fuel standpipe



Install fuel-tank sending unit **4** in accordance with manufacturer's instructions. 3.5 mm dia., 90° moulded hose **1** on fuel standpipe **5**.

2 10 mm dia. clamp
3 Fuel line
6 9 mm dia. clamp

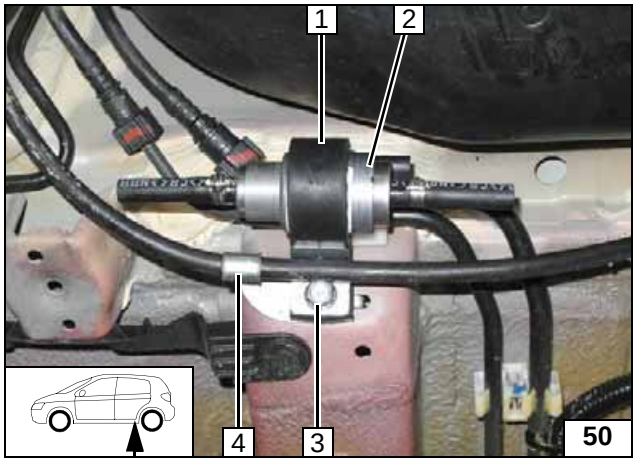
Connecting fuel line



After installation, mount the fuel tank in accordance with the manufacturer's instructions!

1 Fuel line
2 Cable tie

Routing fuel line

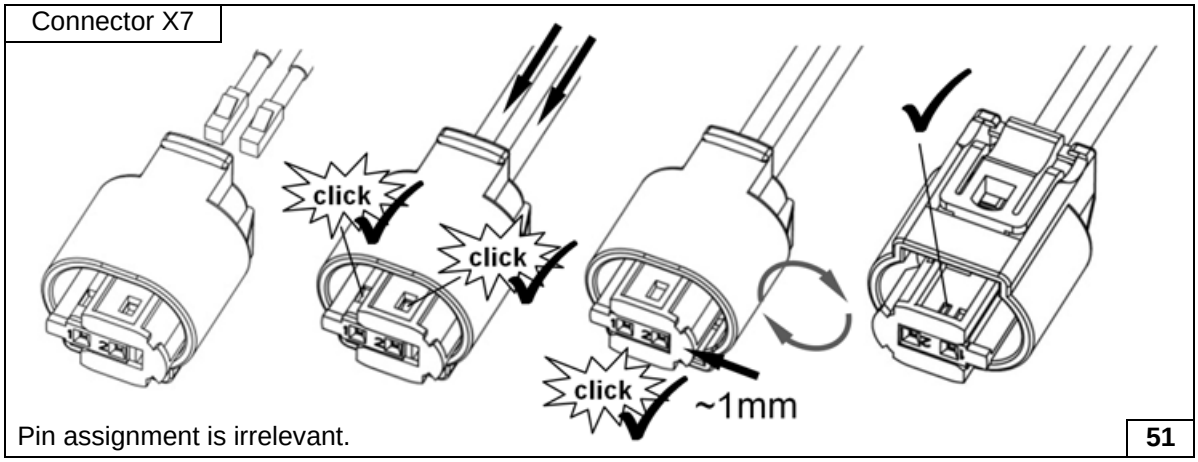


Replace original vehicle bolt at position **3**. Align bracket of handbrake cable **4** downwards.

1 Metering pump intake
2 Metering pump
3 M6x25 bolt, support angle bracket

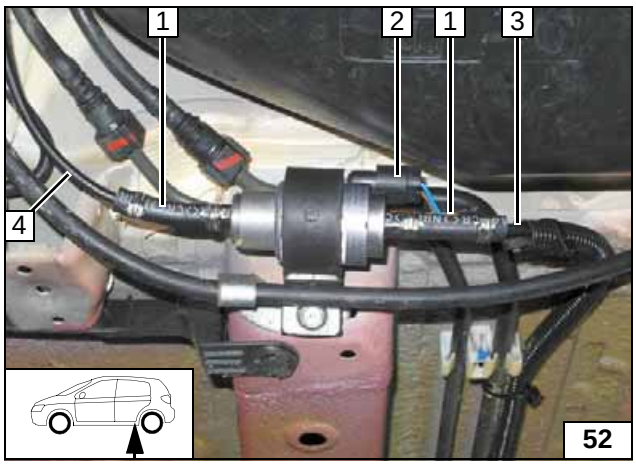
Installing metering pump

Connector X7



Pin assignment is irrelevant.

Completing metering pump connector



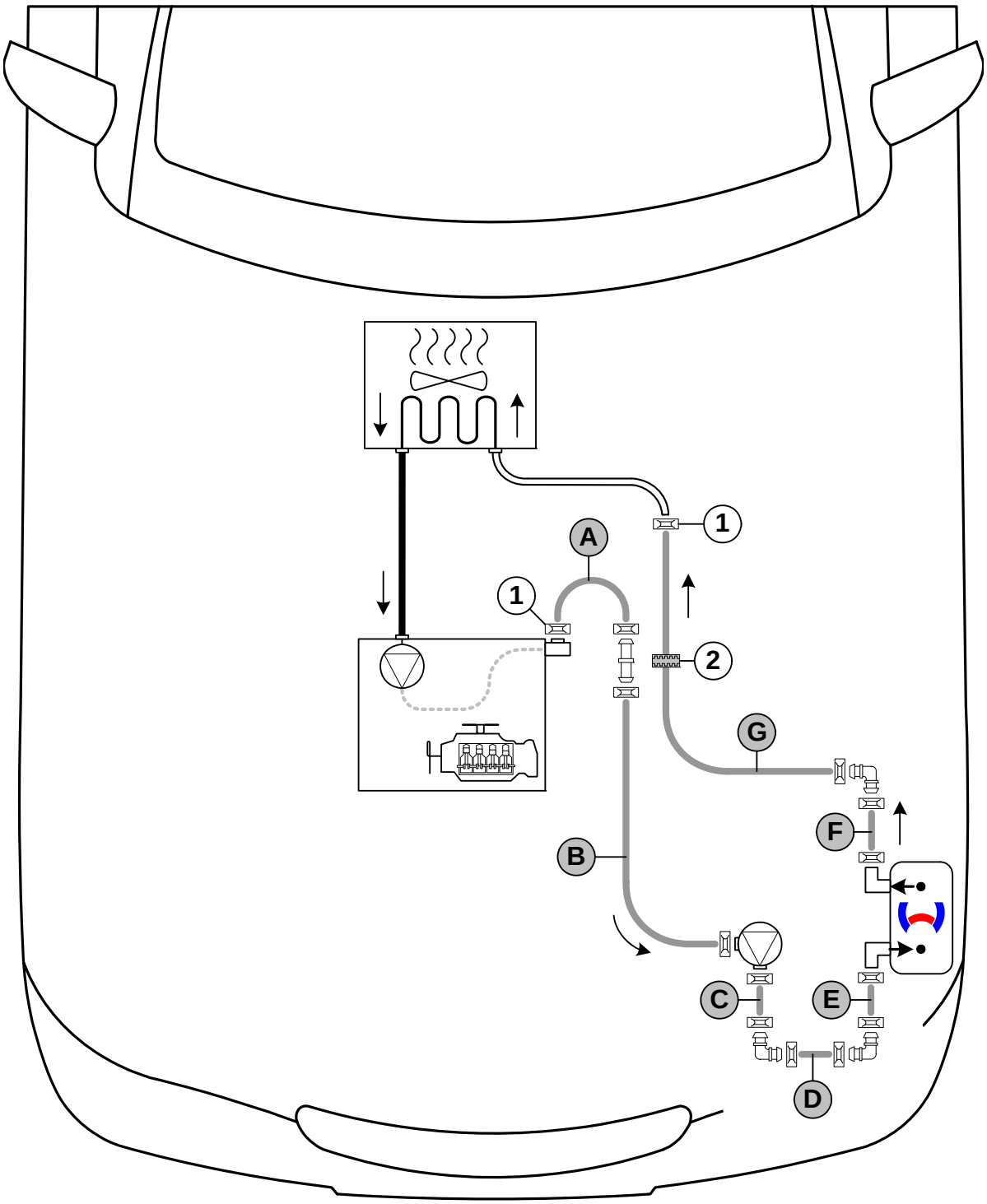
1 Hose section [2x], 10 mm dia. clamp [4x]
2 Wiring harness of metering pump, X7 connector installed
3 Fuel line of heater
4 Fuel line of fuel standpipe

Connecting metering pump

Coolant Circuit for 69 kW up to MY 2013

WARNING!
Any coolant running off should be collected using an appropriate container. Route 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 mounting the coolant hose. The connection should be modelled on an "inline" circuit and based on the following diagram:

Hose routing diagram

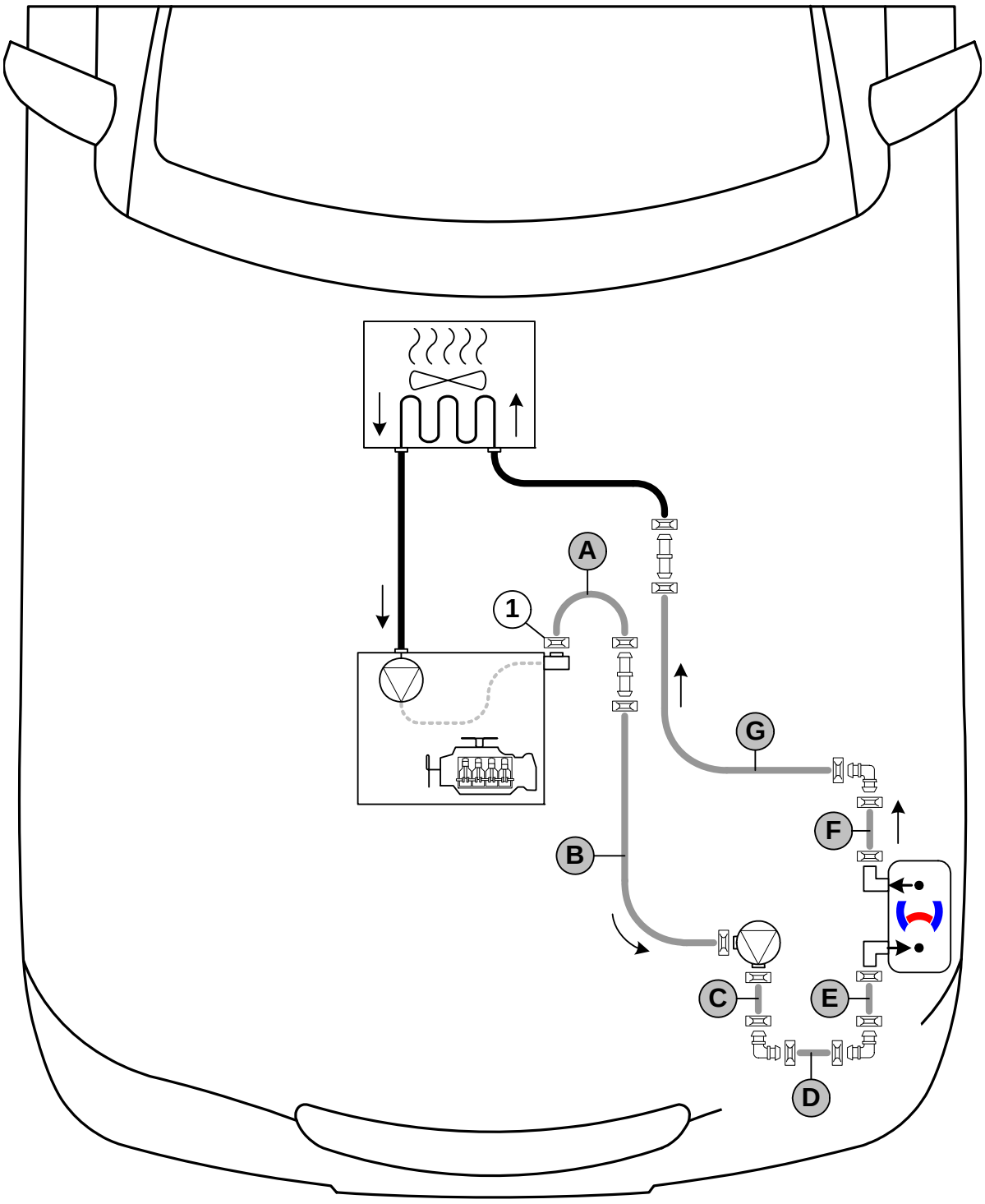


All connecting pipes without a specific designation = 25 mm dia. **1** = Original vehicle spring clip !
2 = Black (sw) rubber isolator !
All connecting pipes and = 18x18mm dia.

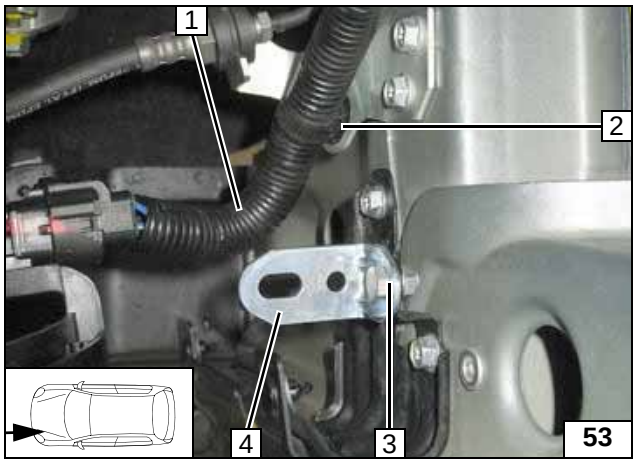
Coolant Circuit for 66 kW / 69 kW from MY 2014

WARNING!
Any coolant running off should be collected using an appropriate container. Route 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 mounting the coolant hose. The connection should be modelled on an "inline" circuit and based on the following diagram:

Hose routing diagram



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

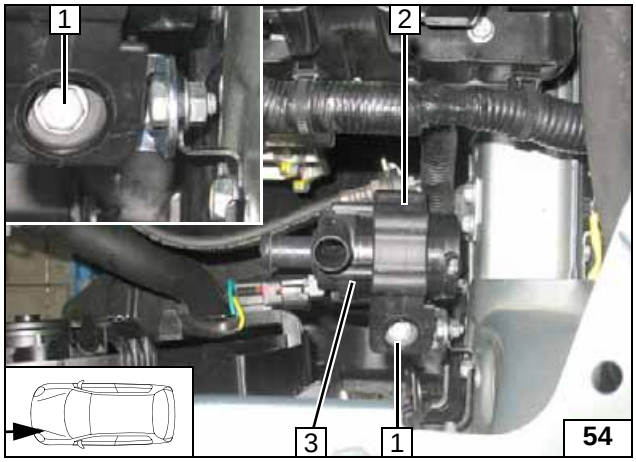


All vehicles

Detach retaining clip of original vehicle wiring harness **1** at Position **3** and insert it at Position **2**

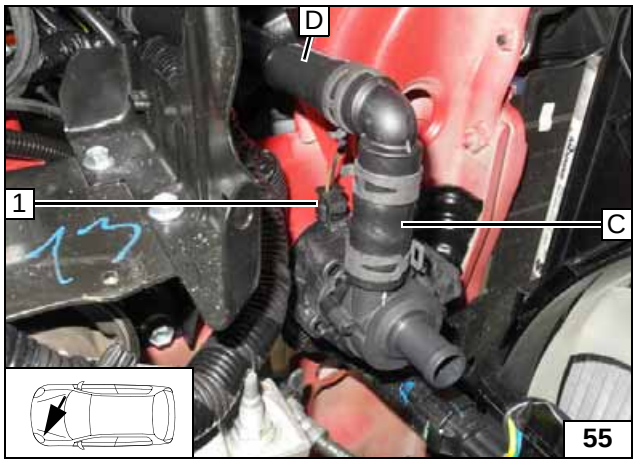
Installing angle bracket

2 Existing hole
3 M6x12 bolt, flanged nut, existing hole
4 Angle bracket



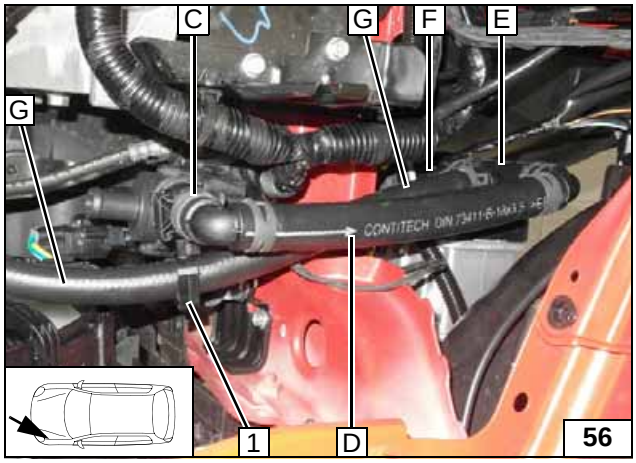
1 M6x25 bolt, large diameter washer, flanged nut
2 Circulating pump intake
3 Circulating pump

Installing circulating pump



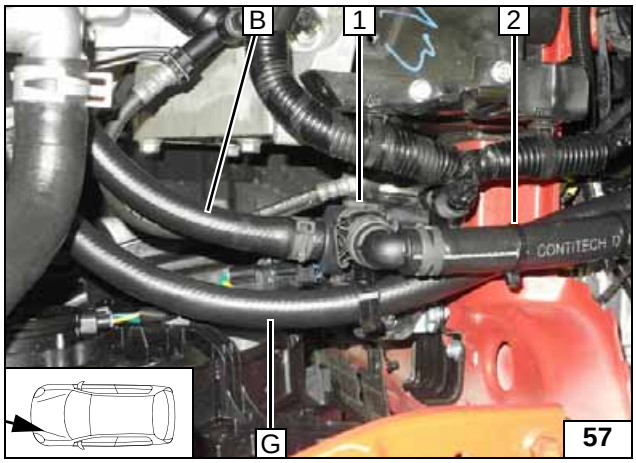
1 Connector of circulating pump wiring harness

Connecting circulating pump



1 Hose bracket (between hoses **C** and **G**)

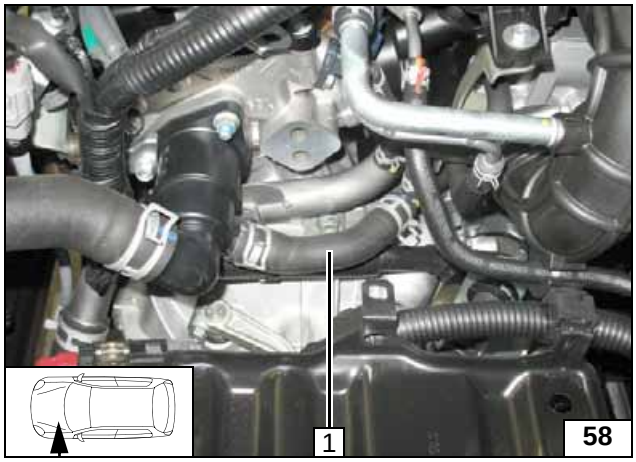
Connecting heater outlet



Route hose **B** and **G** to the cutting point

1 Circulating pump
2 Cable tie

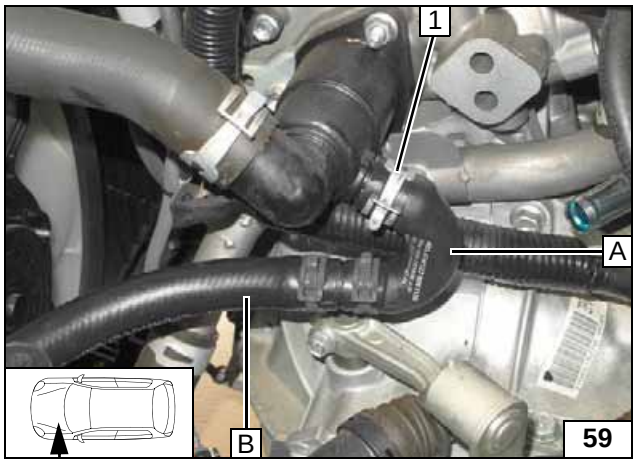
Connecting circulating pump



69 kW up to MY 2013

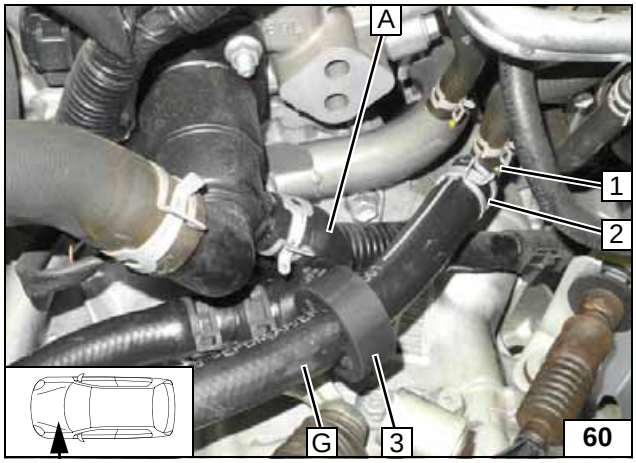
Remove hose of engine outlet / heat exchanger inlet **1** and discard. Spring clamps will be reused.

Cutting point



1 Original vehicle spring clip

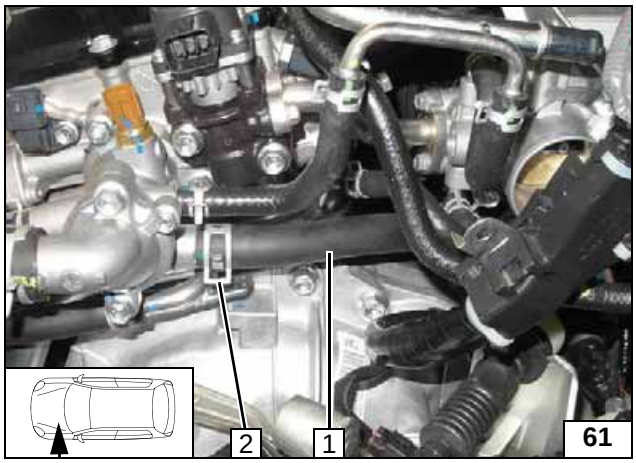
Connection of engine outlet



Slide black (sw) rubber isolator **3** onto hose **B** and align to hose **A**. Ensure sufficient distance from neighbouring components.

1 Pipe on heat exchanger inlet
2 Original vehicle spring clip

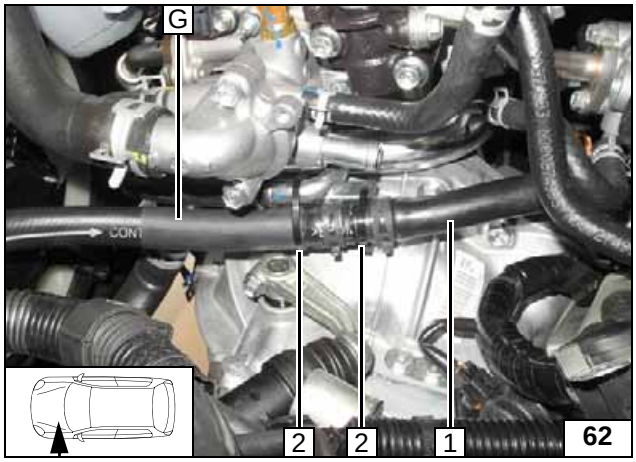
Connecting heat exchanger inlet



66 kW from MY 2014

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

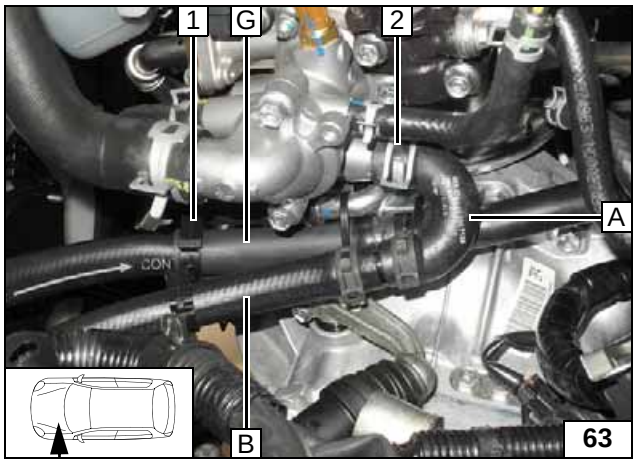
Cutting point



Ensure sufficient distance from gear change.

1 Hose on heat exchanger inlet
2 Cable tie [2x]

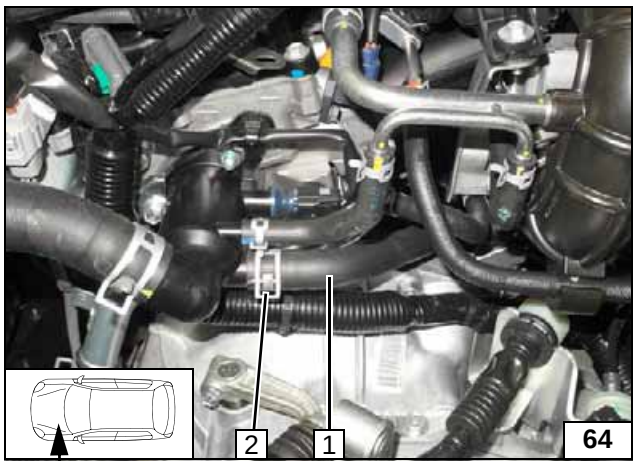
Connecting heat exchanger inlet



Align hoses. Ensure sufficient distance from gear change.

1 Hose bracket (between hoses **B** and **G**)
2 Original vehicle spring clip

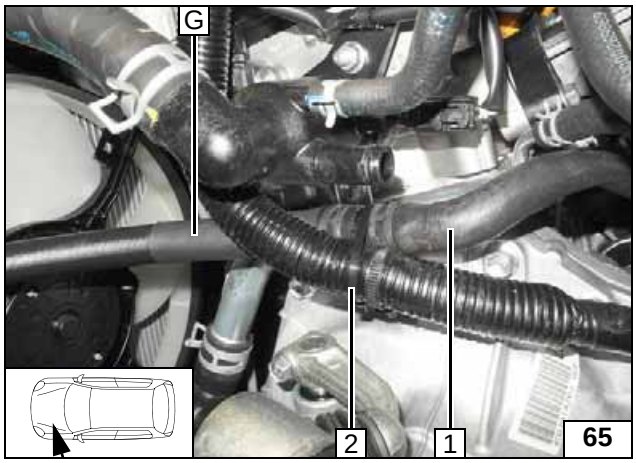
Connection of engine outlet



69 kW from MY 2014

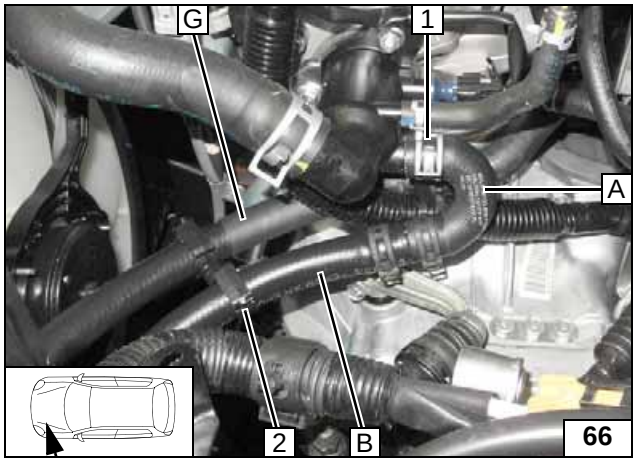
Pull hose of engine outlet/heat exchanger inlet **1** from connection piece of engine outlet. Spring clip **2** will be reused.

Cutting point



1 Hose on heat exchanger inlet
2 Cable tie

Connecting heat exchanger inlet

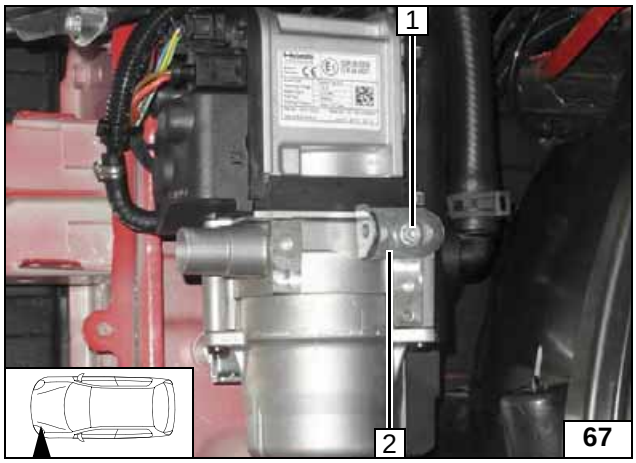


Align hoses. Ensure sufficient distance from gear change.

1 Original vehicle spring clip
2 Hose bracket (between hoses **B** and **G**)

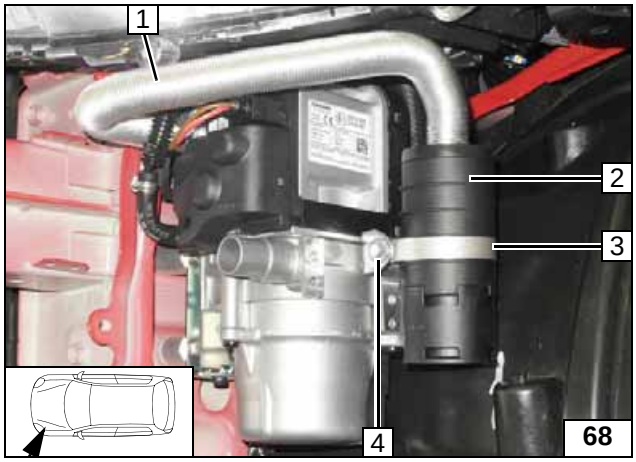
Connection of engine outlet

Combustion Air



1 5x13 self-tapping bolt
2 Angle bracket

Installing angle bracket

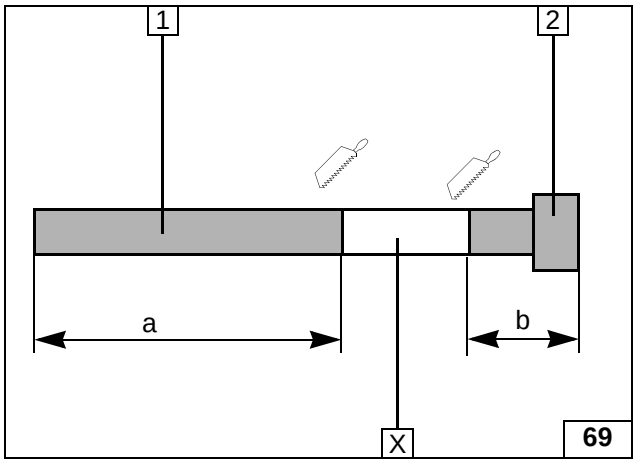


1 Combustion air pipe
2 Silencer
3 51 mm dia. clamp
4 M5x16 bolt, large diameter washer, flanged nut

Mounting silencer

 © Webasto Thermo & Comfort SE

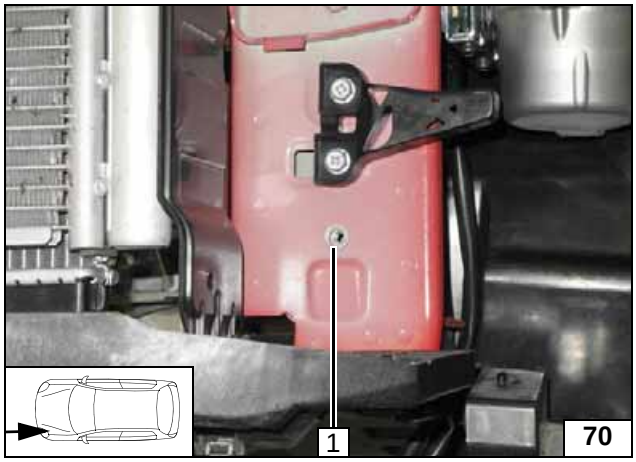
Exhaust Gas



Discard section **X**

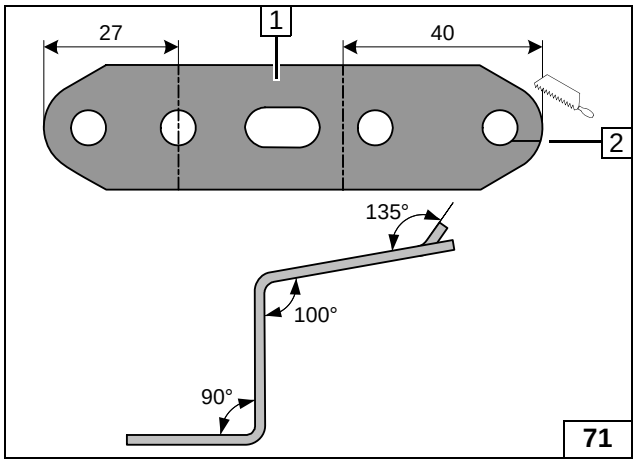
1 Exhaust pipe
a = 220
2 Exhaust end section
b = 50mm

Preparing exhaust pipe



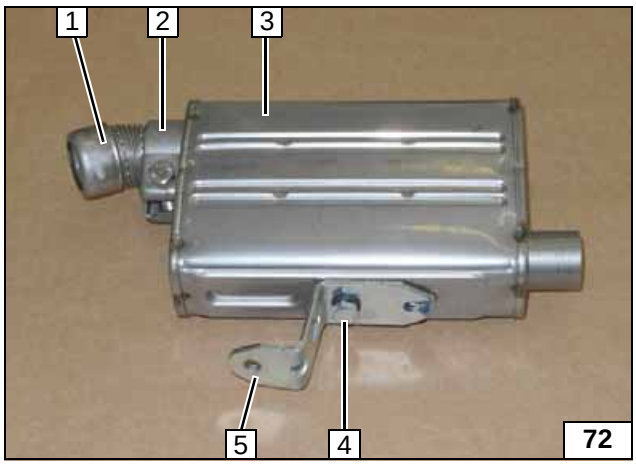
1 Rivet nut, existing hole

Installing rivet nut



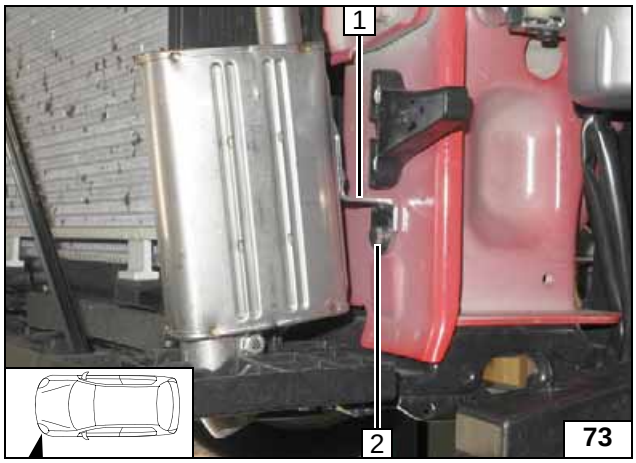
Cut perforated bracket **1** at position **2** up to the hole and angle down to prevent twisting!

Preparing perforated bracket



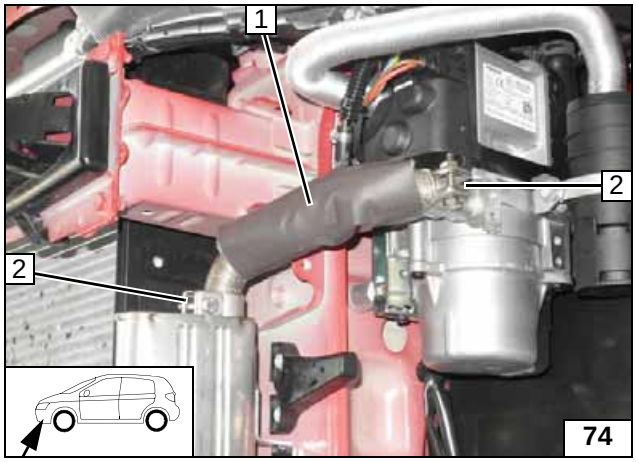
1 Exhaust end section
2 Hose clamp
3 Silencer
4 M6x16 bolt, spring lockwasher
5 Perforated bracket

Premounting silencer



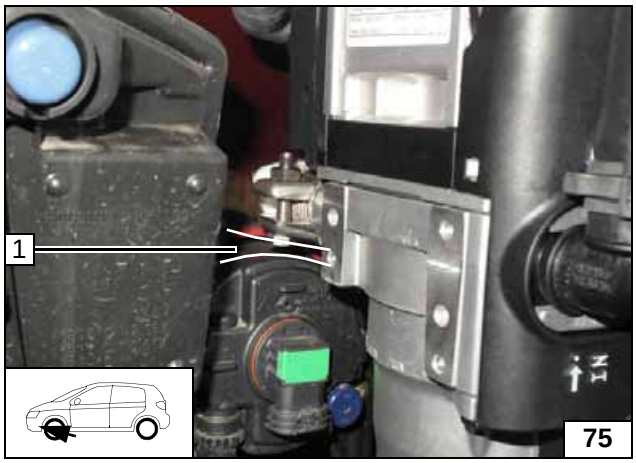
1 Perforated bracket
2 M6x20 bolt

Mounting silencer



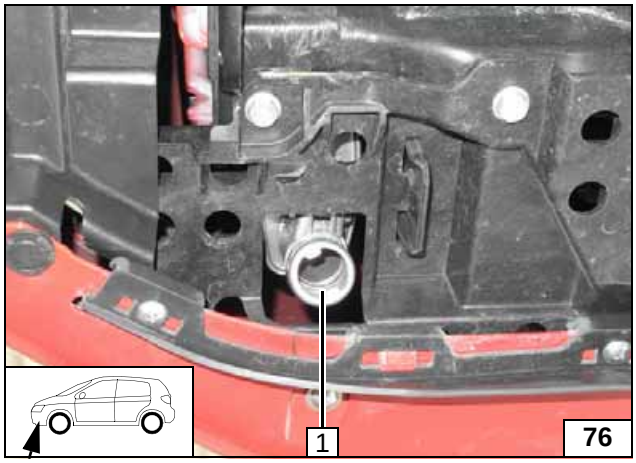
1 Exhaust insulation on exhaust pipe
2 Hose clamp [2x]

Mounting exhaust pipe



Install bumper!
Ensure sufficient distance **1** between exhaust pipe and front fog lights (at least 20mm), correct if necessary!

Checking the distance



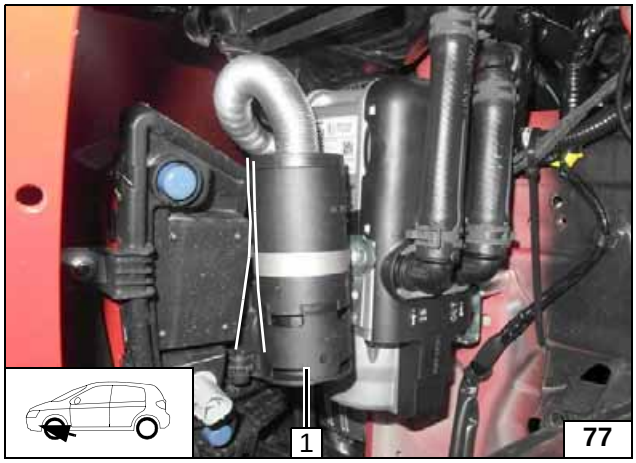
Align exhaust end section **1** in the middle of the opening and flush with the underride protection. Ensure sufficient distance from adjacent components, correct if necessary.

Aligning exhaust end section

Final Work

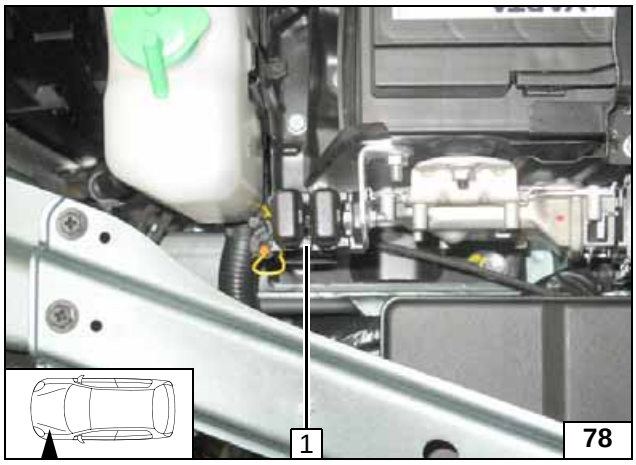
WARNING!
Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Secure all loose wires using cable ties.
Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

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



Ensure sufficient distance between combustion air silencer and LED headlight (at least 10mm), correct if necessary!

Checking the distance



1 Fuel holder of engine compartment

Installing fuse holder

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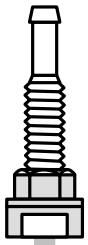
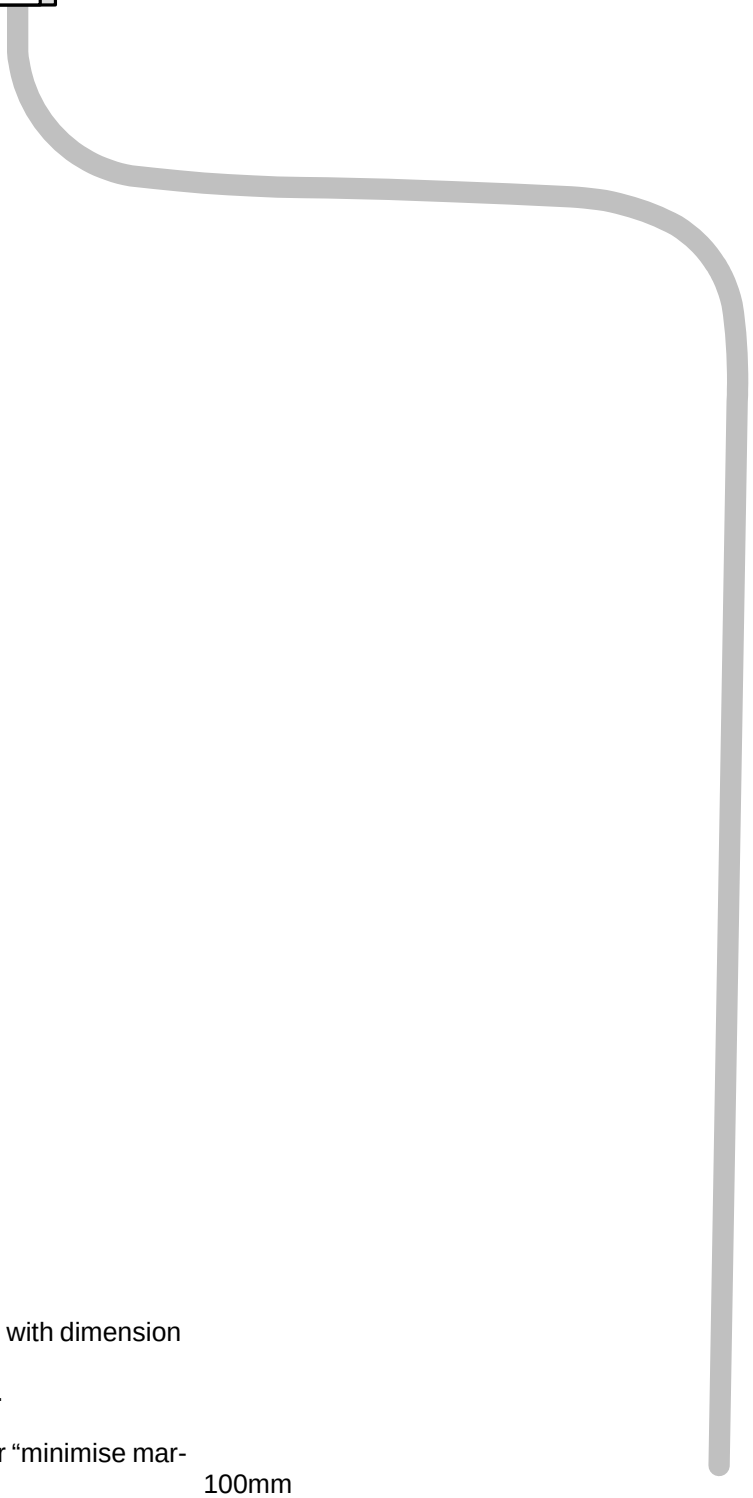
82199 Gilching
Germany
Internet: www.webasto.com
Technical Extranet:
http://dealers.webasto.com

 © Webasto Thermo & Comfort SE

Template for Fuel Standpipe





100mm

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.

100mm

0

Webasto
Feel the Drive

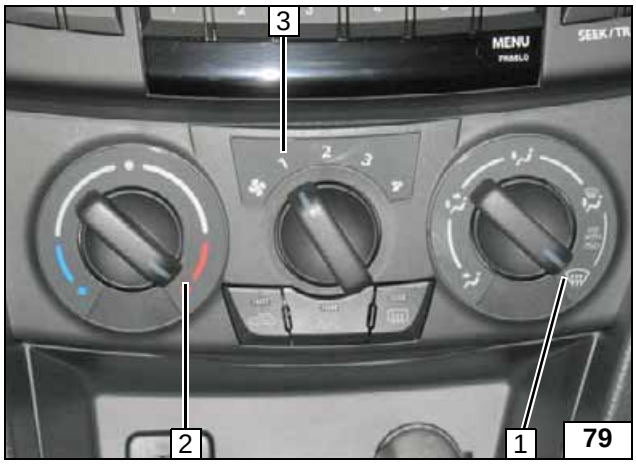
Operating Instructions for Manual Air-Conditioning

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.

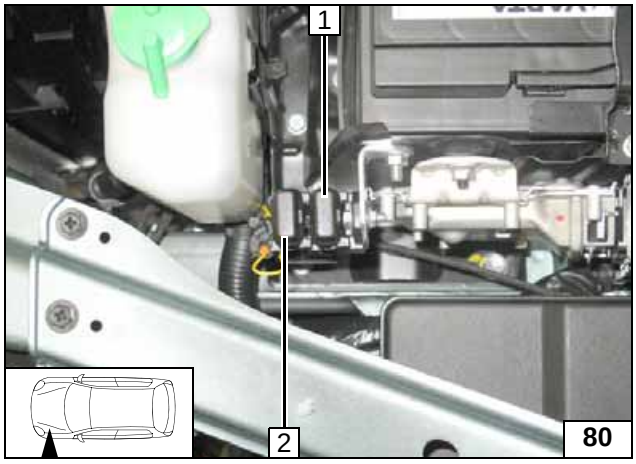
Passenger compartment monitoring, when installed, must be deactivated as well as deactivating the vehicle settings for the heating operation.
For instructions on deactivation, please refer to the operating instructions of the vehicle.

Before parking the vehicle, make the following settings:



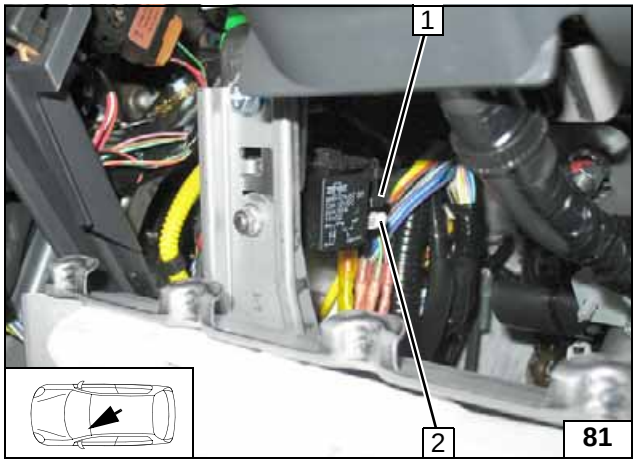
1 Air outlet to windscreen
2 Set temperature to "max."
3 Set fan to level "1" or max. "2"

A/C control panel



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

Engine compartment fuses



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

Passenger compartment fuses

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.

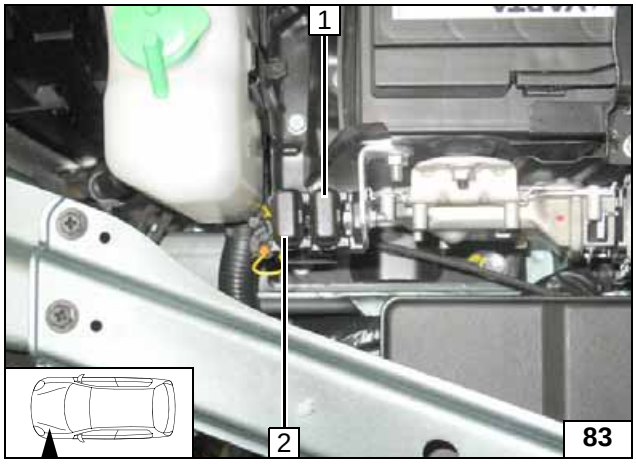
Passenger compartment monitoring, when installed, must be deactivated as well as deactivating the vehicle settings for the heating operation.
For instructions on deactivation, please refer to the operating instructions of the vehicle.

Before parking the vehicle, make the following settings:

A/C control panel

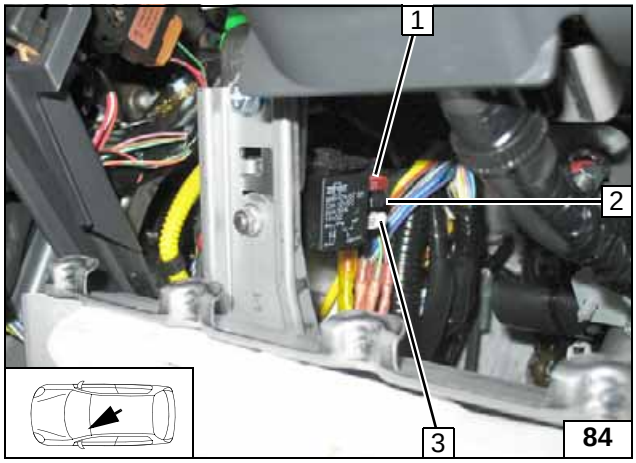
1 Air outlet to windscreen
2 Set temperature to "HI"
3 Set fan to level "3" or max. "4"

Engine compartment fuses



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

Passenger compartment fuses



1 10A additional fuse F5
2 1A fuse F3 of heater control
3 25A fan fuse F4