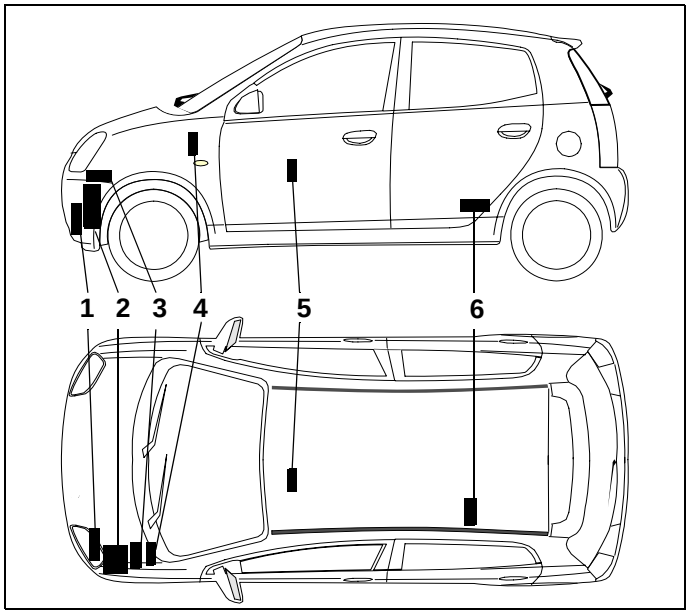
Water heater

***Thermo Top E* Parking heater** e1 00 0003

***Thermo Top C* Parking heater** e1 00 0002

***Thermo Top P* Parking heater** e1 00 0104



Installation instructions

Suzuki Swift
Suzuki Swift 4WD

Petrol from Model 2005
and
Diesel from Model 2006

Applicable to Chassis No.: TSMMZ...
JSAEZ...

For left-hand drive vehicles only

Legend for Figure 1:
1 Exhaust silencer
2 Thermo Top C/E/P heater
3 Combustion-air intake silencer
4 Blade-type fuse holder
5 Digital timer
6 Metering pump

WARNING!

Hazard warning:

Incorrect installation or repair of Webasto heating systems may cause a fire or result in the emission of carbon monoxide, which can be fatal. Serious or fatal injuries can be caused as a result.

Specialist company training, technical documentation, specialised tools and equipment are required to install and repair Webasto heating and cooling systems.
Only original Webasto parts must be used. For this, also see the catalog of air and water heater accessories from Webasto.

NEVER attempt to install or repair Webasto heating or cooling systems if you have not successfully completed the company training and thereby acquired the required technical skills, or if you do not have access to the required technical documentation, tools and equipment needed to carry out correct installation and repairs.

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

Webasto does not accept any liability for defects and damage that are attributable to installation by untrained staff.

Table of Contents

Validity

Manufacturer	Model	Type	EG BE No. / ABE
Suzuki	Swift	MZ	e4 * 2001 / 116 * 0090 * ...
Suzuki	Swift	EZ	e4 * 2001 / 116 * 0102 * ...

Engine type	Engine model	Output in kW	Displacement in cm³
Z13DT	Diesel	51	1248
D13A	Diesel	55	1248
M13A	Petrol	68	1328
M15A	Petrol	75	1490
M16A	Petrol	92	1586

Vehicle types, engine types, equipment variants and national specifications not listed in these installation instructions have not been tested.
However, installation according to these installation instructions may be possible.

The installation location of a digital timer and summer/winter switch should be confirmed with the end customer before installation.

Heater / Installation Kit

Quantity	Description	Order No.:
1	Suzuki-specific heater delivery scope	See Suzuki price list
1	Installation Kit for Suzuki Swift Petrol from MY 05	1303675C
or		
1	Installation Kit for Suzuki Swift Diesel from MY 06	1311134A

Optional heater control either:

Description	Order No.:
Heater controls	See Suzuki price list

Optional auxiliary heater only 1.3 DDIS:

Quantity	Description	Order No.:
1	Auxiliary heating kit	65954B

Heater recommended for the respective vehicle class:

Vehicle	Heater
Compact car	Thermo Top E
Mid-size car, station wagon	Thermo Top C
Full-size car, van, offroader	Thermo Top P

The selection of the heater is based on the passenger compartment size of the vehicle and the level of comfort required by the customer!

Foreword

These installation instructions apply to Suzuki Swift vehicles with a Petrol engine and diesel engine - for validity, see page 2 - from model year 2005/2006 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 these installation instructions.

However, the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top C/P/E* must always be observed.
The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

General Instructions

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

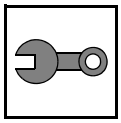
Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit

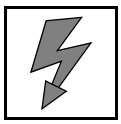
Explanatory Notes on Document

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

Mechanical system

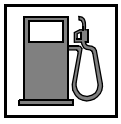


Electrical system

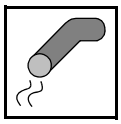


Coolant circuit

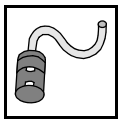
Fuel



Exhaust gas



Combustion air



Special features are highlighted using the following symbols:

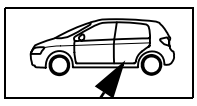
Specific risk of injury or fatal accidents.

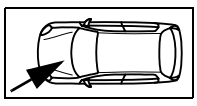
Specific risk of damage to components.

Specific risk of fire or explosion.

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

Reference to a special technical feature.





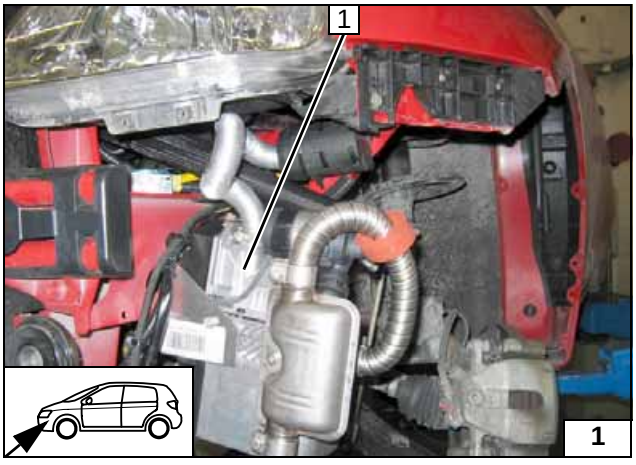
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

Preliminary Work

WARNING!

- Disconnect the battery "earth" or "ground" connection.
- Depressurise the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Completely remove the battery.
- Remove the air filter complete with the intake hose (not M16A).
- Open fuel tank cap, ventilate tank.
- Close the fuel tank cap again.
- Detach the wheel well trim on the right and left.
- Remove the bumper.
- Remove the left wheel well trim.
- Remove the lower cover of the fuel line (on diesel vehicles only).
- Remove middle silencer
- Remove the fuel tank in accordance with manufacturer's instructions.
- Remove the fuel-tank sending unit in accordance with manufacturer's instructions.
- Remove the glove compartment.
- Remove the lower trim of the centre console in the footwell of the front passenger side (only with Telestart).
- Remove the A-pillar trim on the right (only with Telestart).
- Remove the glove compartment on the front passenger side (only with Telestart T100 HTM).

Remove page 35 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



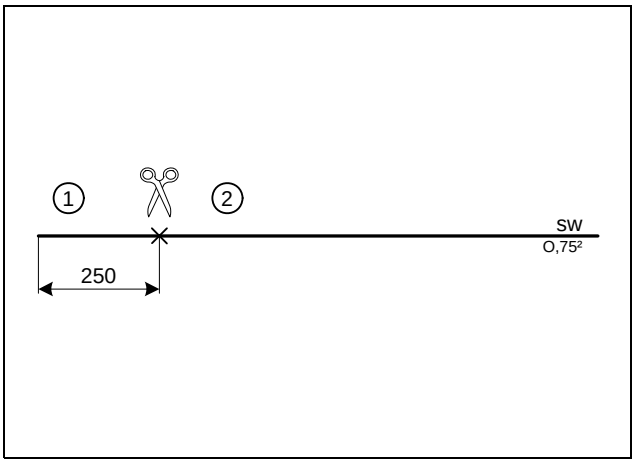
Heater installation location

1 Heater

Preparing electrical system

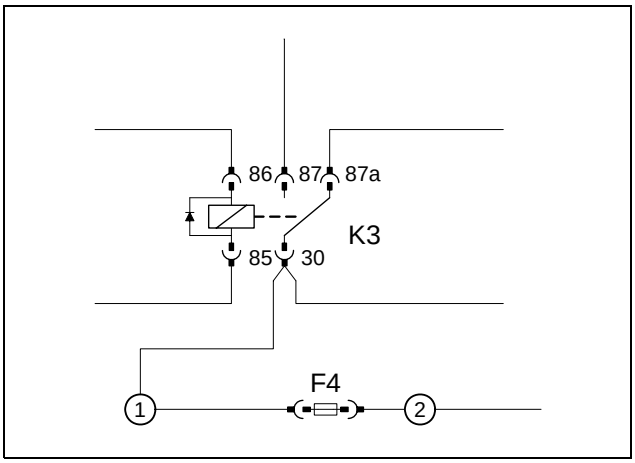
Automatic air-conditioning only

Cutting wires to length



Preparing fuse F4

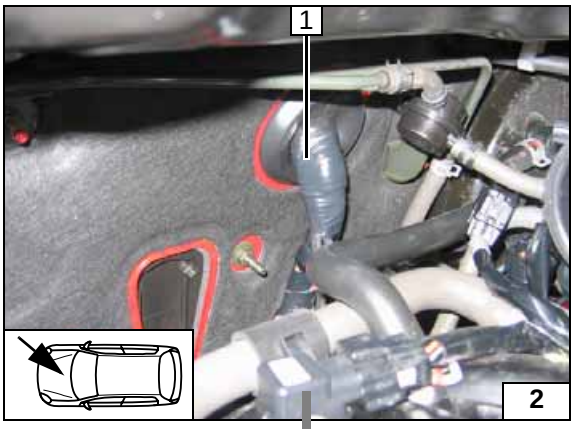
Produce connections as shown in wiring diagram. Install wire section **2** in protective sleeving provided



Electrical system

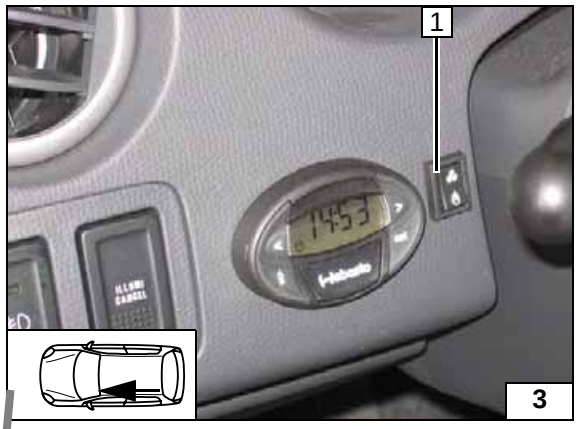
Wiring harness pass through

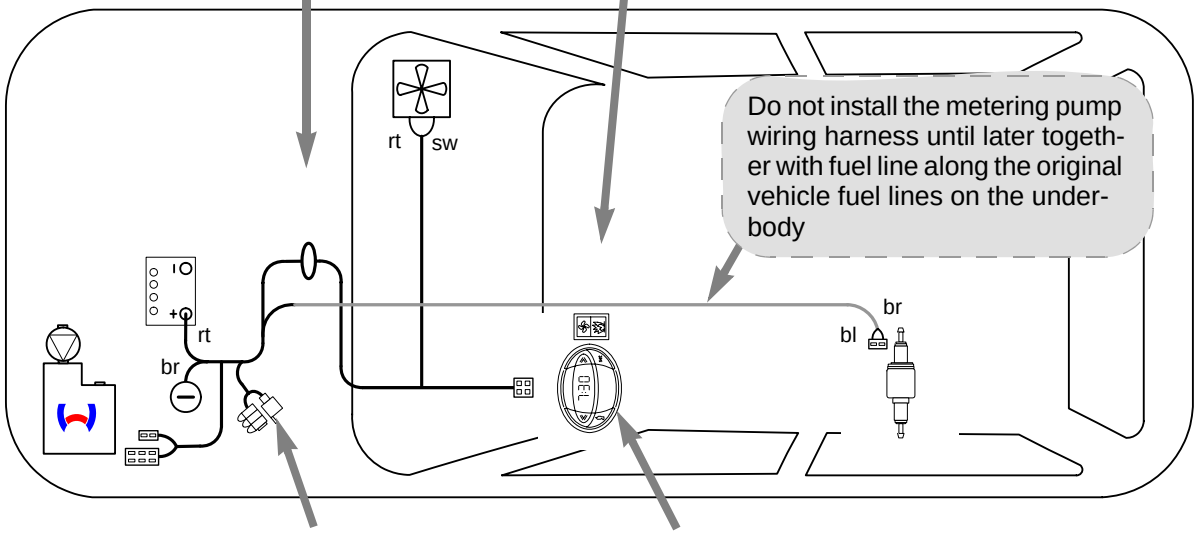
Strip insulation from cable pass through **1**, guide through cable and insulate cable pass through **1** again.

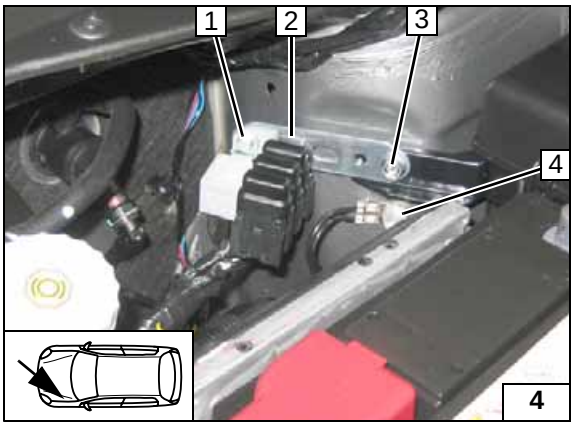


Summer/winter switch option

1 Summer/winter switch, drilled hole 12 mm dia.

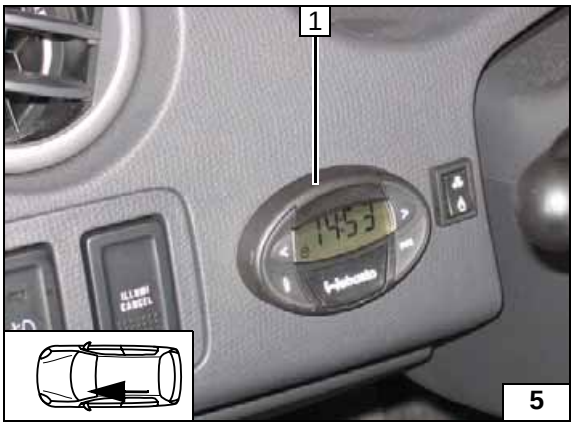






Fuse holder, K3 relay

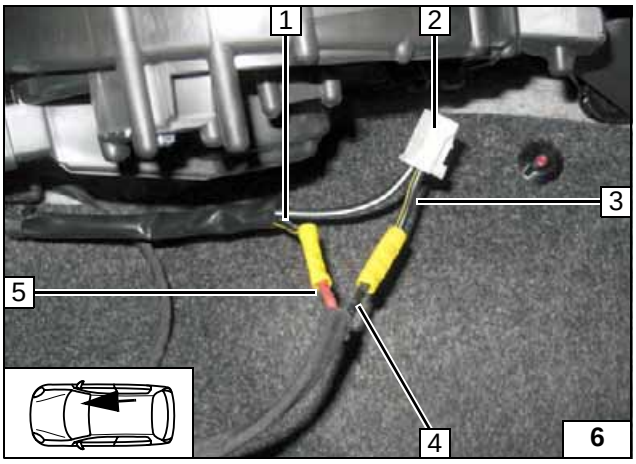
1 K3 relay, M5x16 bolt, flanged nut
2 Fuse holder, M5x16 bolt, washers, flanged nut
3 Original vehicle bolt, perforated bracket
4 Earth wire on original vehicle earth point



Digital timer

1 Digital timer

Electrical diagram



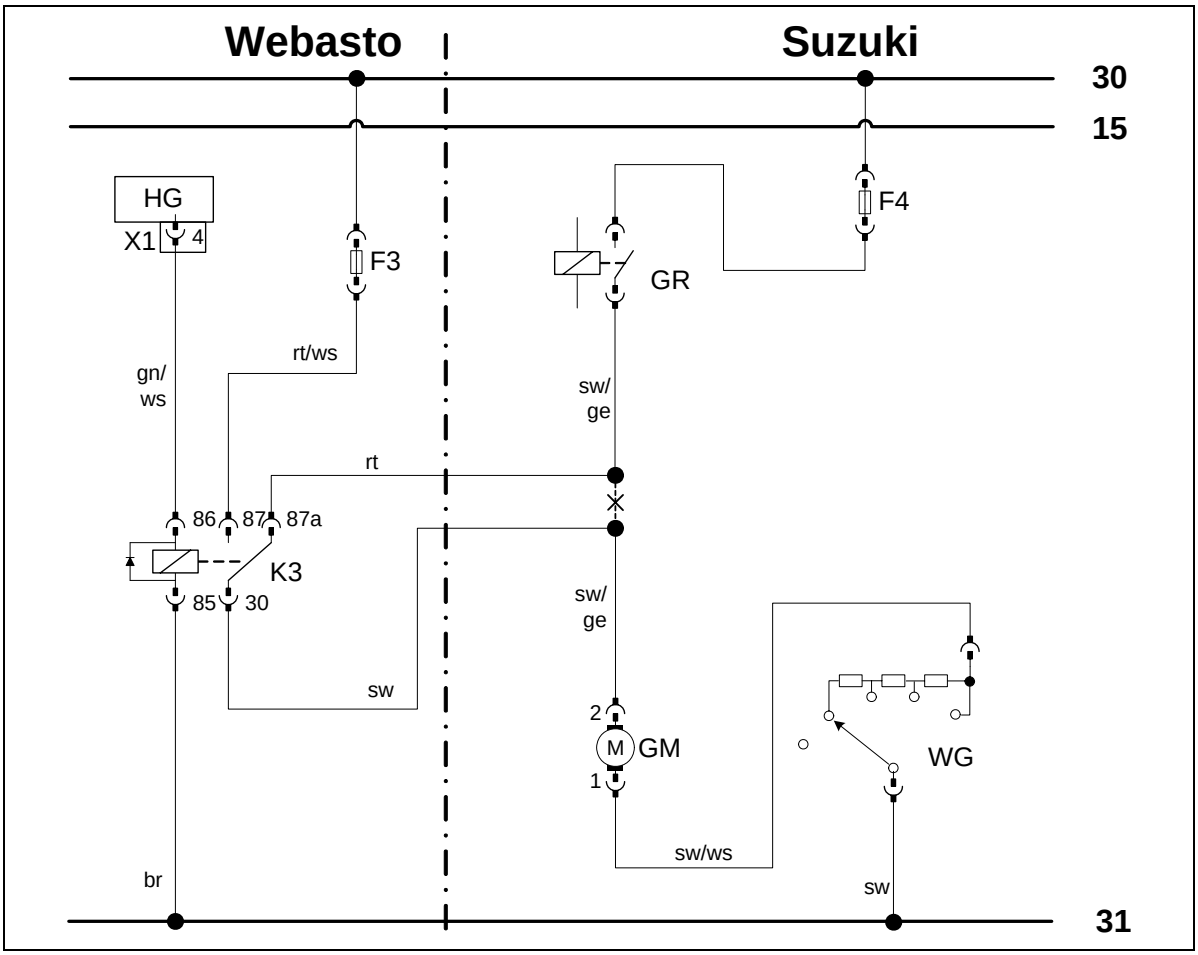
Fan control for manual air conditioning

Integration on 2-pin connector **2** from fan motor. Produce connections as shown in wiring diagram.

1 Black/yellow (sw/ge) wire of fan relay
3 Black/yellow (sw/ge) connector of fan motor
4 Black (sw) wire from K3/30
5 Red (rt) wire from K3/87a

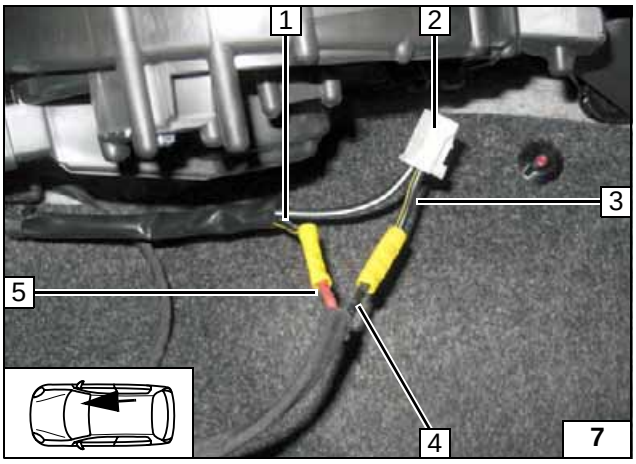
Connecting fan-motor

Wiring diagram



Webasto components		Suzuki Swift components		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater connector	F4	30A fuse	ws	white
F3	25 A fuse	WG	Resistor group	sw	black
K3	Fan relay	GR	Fan relay	br	brown
				gn	green
				ge	yellow
				X	Cutting point
				Wiring colours may vary.	

Legend

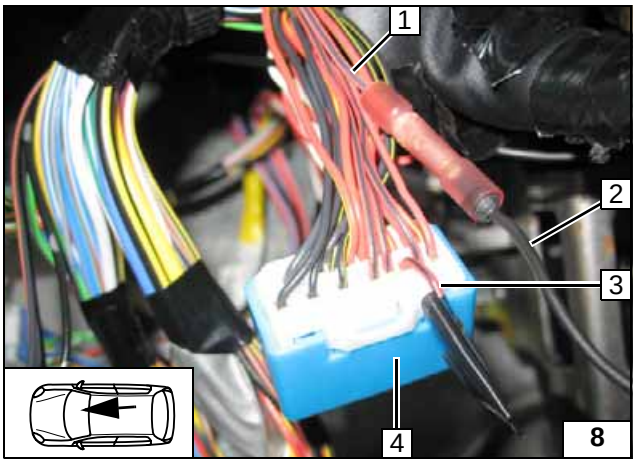


Automatic air-conditioning fan control

Integration on 2-pin connector G05 **2** of fan motor.
Produce connections as shown in wiring diagram.

Connecting fan-motor

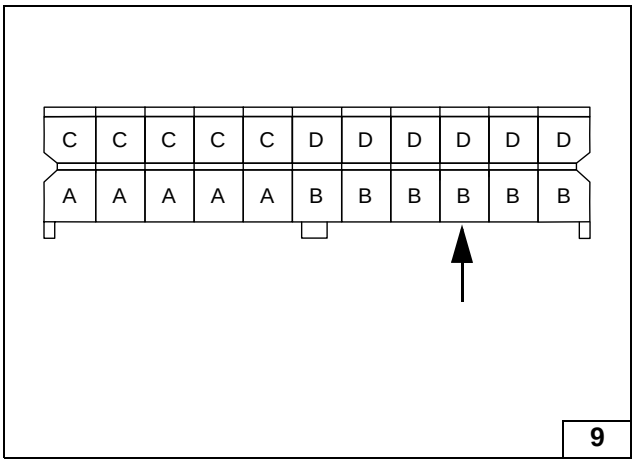
1 Black/yellow (sw/ge) wire of fan relay
3 Black/yellow (sw/ge) connector of fan motor
4 Black (sw) wire from K3/30
5 Red (rt) wire from K3/87a



Integration on connector G31 **4**.
Connector G31 (with blue cap) is fastened with adhesive tape on cable under instrument carrier.
Produce connections as shown in wiring diagram.

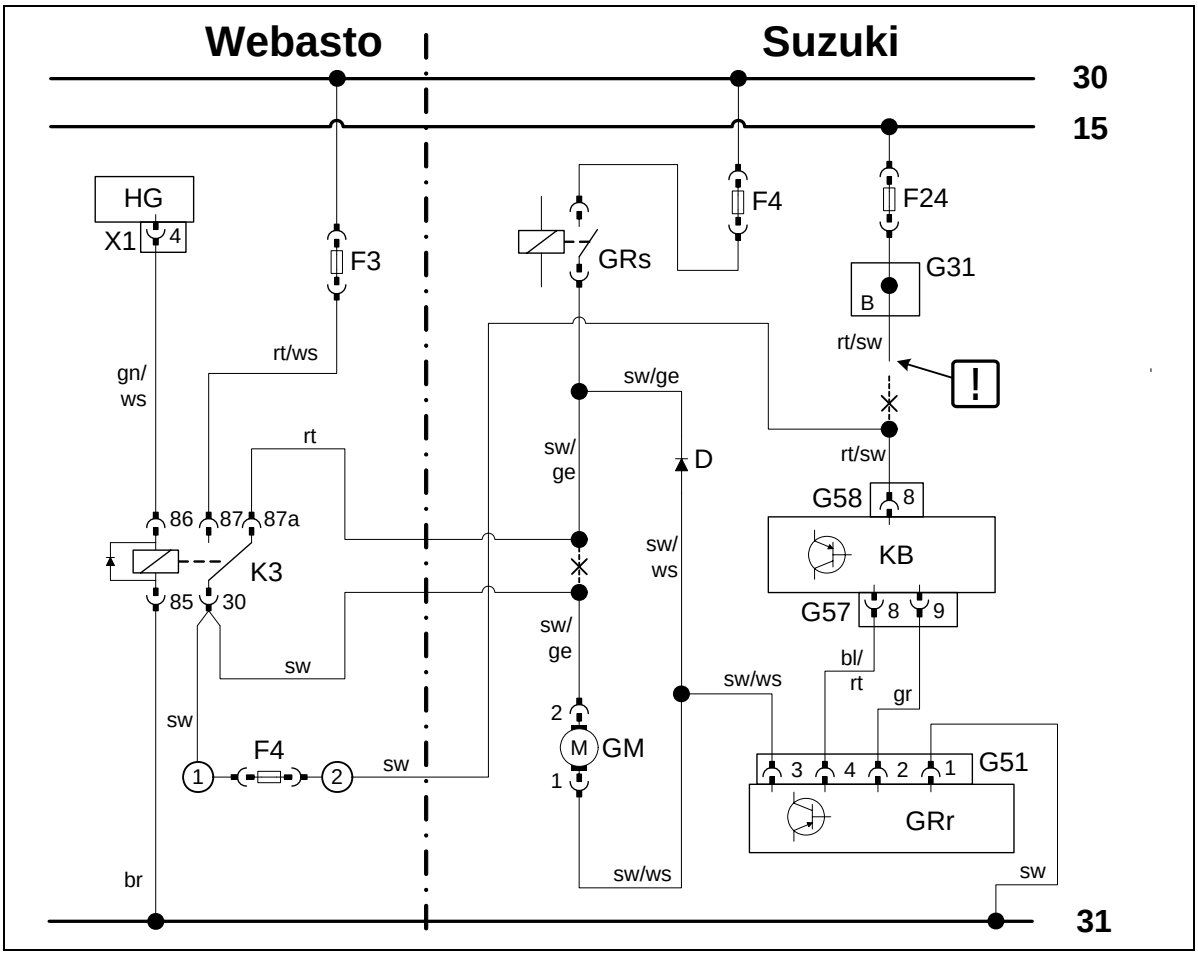
Connecting A/C control panel

1 Red/black (rt/sw) wire of connector G58/8
2 Black (sw) wire of F4
3 Insulate red/black (rt/sw) connector G31/B and tie back



Connector G31 on line side.

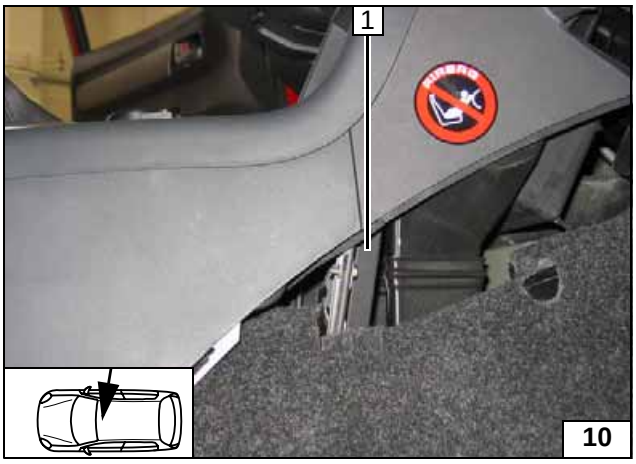
Connector G31



Wiring diagram

Webasto components		Suzuki Swift components		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater connector	F4	30A fuse	ws	white
F3	25 A fuse	F24	10A fuse	sw	black
F4	10A fuse	GRr	Fan controller	br	brown
K3	Fan relay	G51	Connector WG	gn	green
		GRs	Fan relay	ge	yellow
		KB	Air-conditioning control panel	gr	gray
		G57	Connector KB	bl	blue
		G58	Connector KB		
		G31	20-pin connector	!	Insulate wire end and tie back
		D	Diode	**X**	Cutting point
				Wiring colours may vary.	

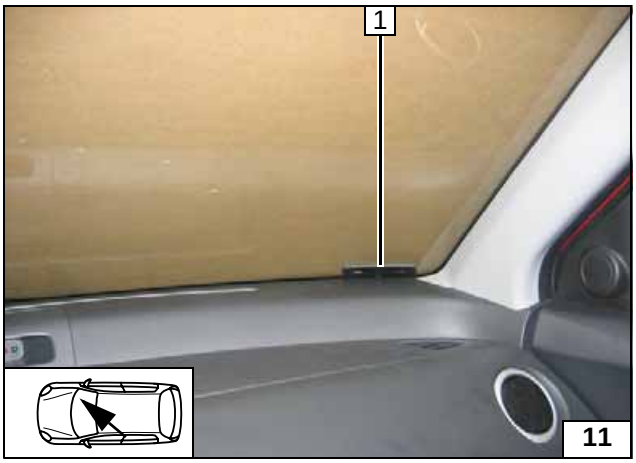
Legend



Remote option (Telestart)

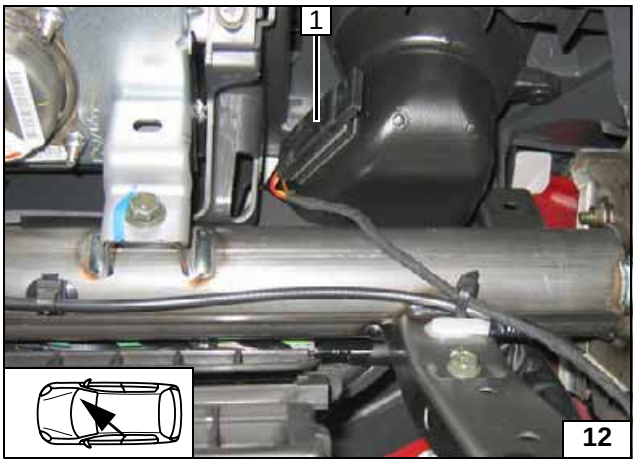
1 Receiver, M5x12 bolt, washer, M5 flanged nut

Installing receiver



1 Antenna

Antenna installing

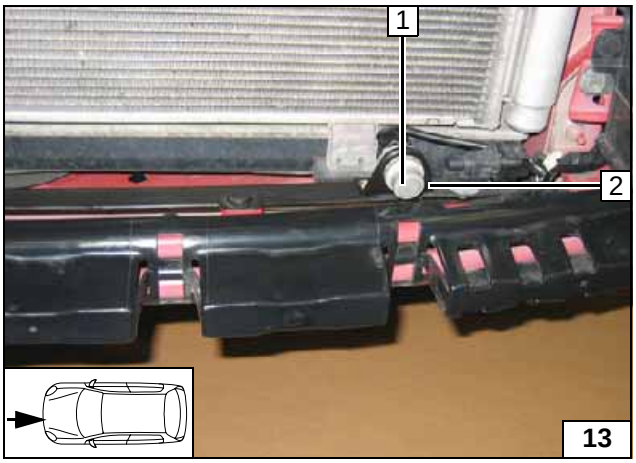


Temperature sensor for Telestart T100

Degrease adhesive bonding surfaces.

1 Temperature sensor, self-adhesive Dual Lock, right ventilation duct

Temperature sensor



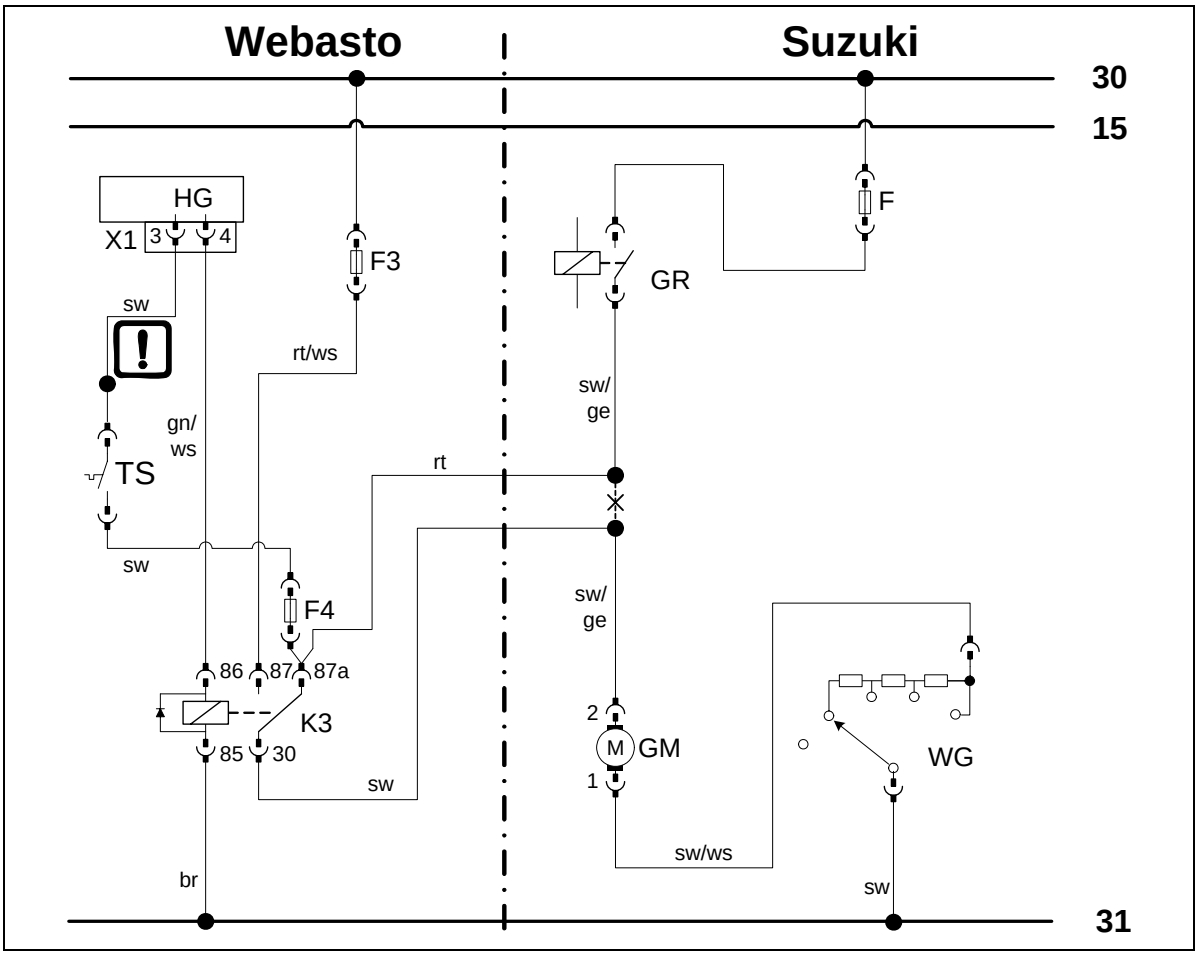
Optional auxiliary heater, diesel only

Copy hole pattern for temperature sensor bracket and fasten with self-tapping screw provided.

2 Bracket
1 Temperature sensor

Installing temperature sensor

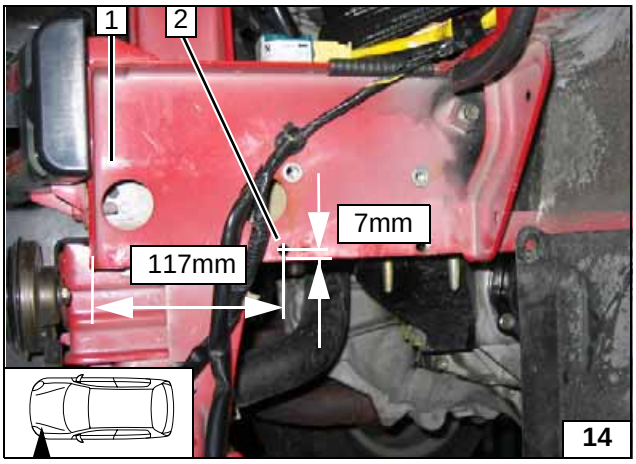
Wiring diagram for auxiliary heating



Legend

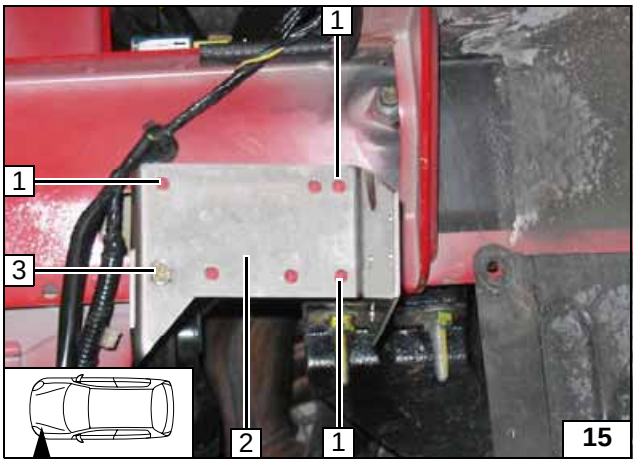
Webasto components		Components Suzuki Swift		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin connector	F	30A fuse	ws	white
F3	25 A fuse	WG	Resistor group	sw	black
K3	Fan relay	GR	Fan relay	br	brown
TS	Temperature switch			gn	green
F4	1A fuse (non included)			bl	blue
				ge	yellow
!	Connect black (sw) 0.5² wire from heater wiring harness with black (sw) 0.5² wire from TS.				
				X	Cutting point
				Wiring colours may vary.	

Preparing installation location



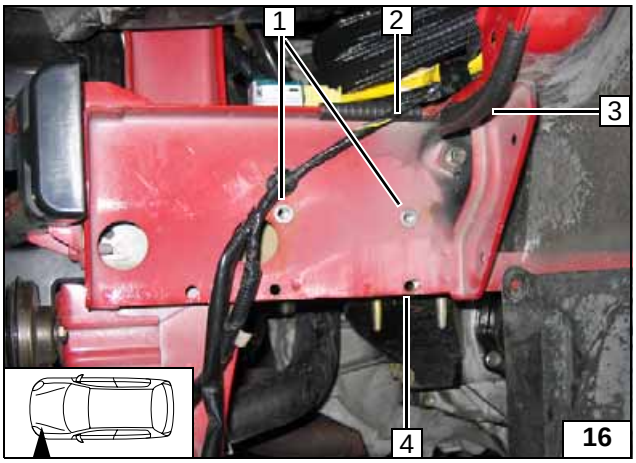
1 Original vehicle frame side member
2 7 mm dia. hole

Copying hole pattern



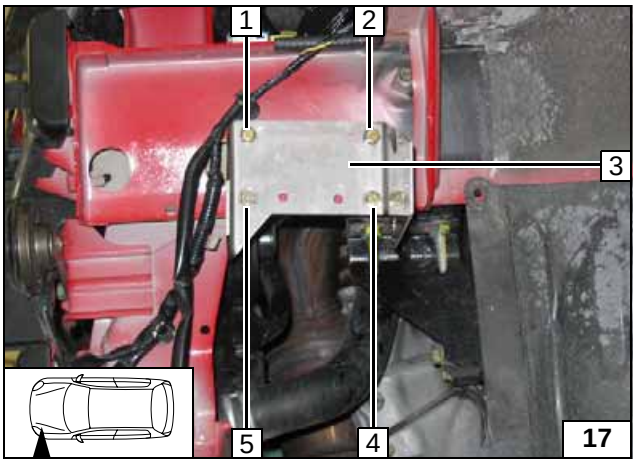
1 Copy hole pattern
2 Align bracket
3 M6x20 bolt, M6 flanged nut

Copying hole pattern



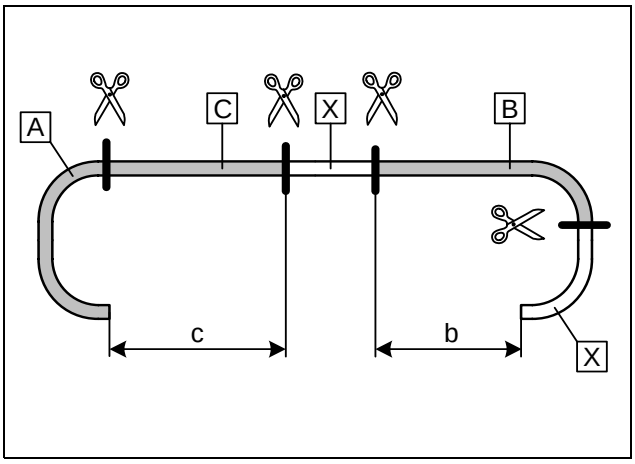
1 Drill 9.1 mm dia. hole; install rivet nuts
2 50mm edge protection
3 100 mm edge protection
4 7 mm dia. hole

Installing rivet nuts, installing edge protection section



1 M6x20 bolt, spring lockwasher
2 5 mm shim, M6x25 bolt, spring lockwasher
3 Bracket
4 5 mm shim, M6x25 bolt, M6 flanged nut
5 5 mm shim, large diameter washer [2x], M6x25 bolt, M6 flanged nut

Installing bracket



Preparing heater

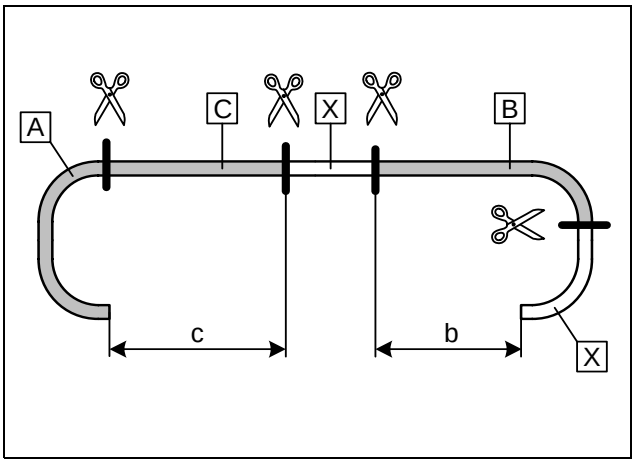
Petrol M13A / M15A

Cut hose **B** only shortly after elbow!

b = 680mm
c = 670mm

Discard section **X**

Cutting coolant hoses to length



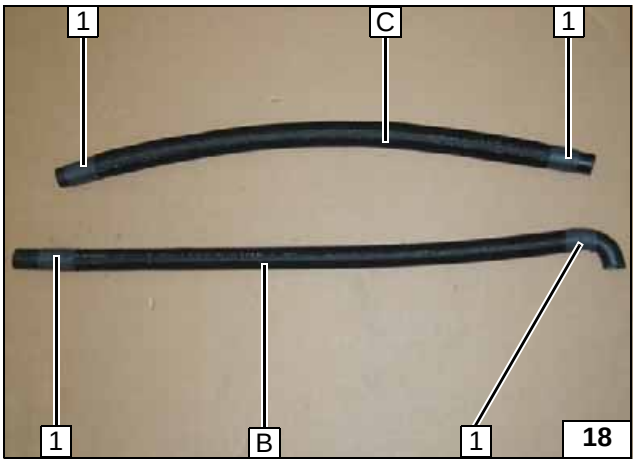
Petrol M16A

Cut hose **B** only shortly after elbow!

b = 700mm
c = 750mm

Discard section **X**

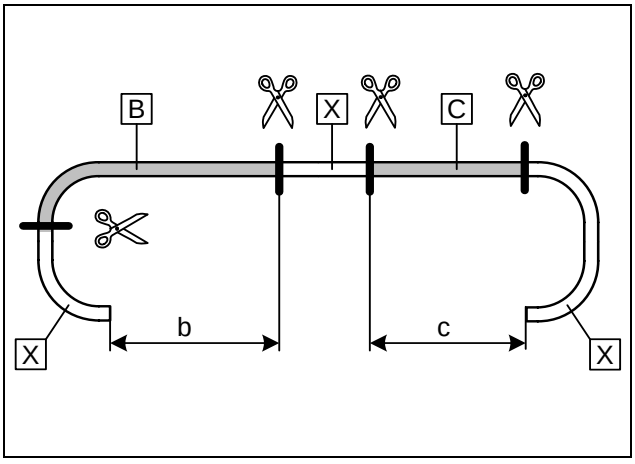
Cutting coolant hoses to length



Cut braided protection hoses to length and push onto hose **B** and **C**.
Cut heat shrink plastic tubing in half.

1 Push on heat shrink plastic tubing, shrink down [4x]

Preparing coolant hoses



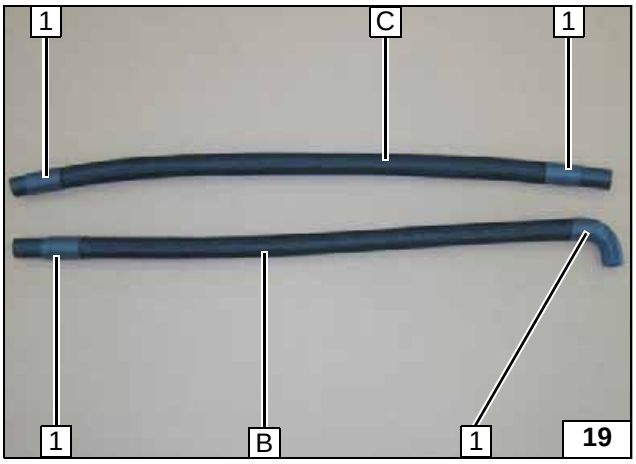
Diesel

Cut hose **B** only shortly after elbow!

b = 720mm
c = 790mm

Hose **A** = 180° moulded hose, included
Discard section **X**

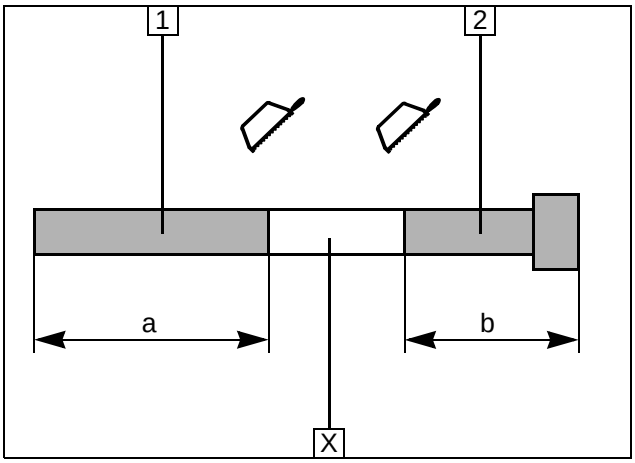
Cutting coolant hoses to length



Cut braided protection hoses to length and push onto hose **B** and **C**.
Cut heat shrink plastic tubing in half.

1 Push on heat shrink plastic tubing, shrink down [4x]

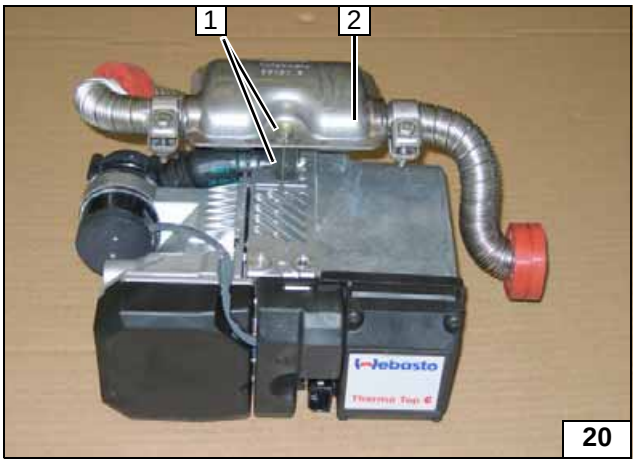
Preparing coolant hoses



1 Exhaust pipe
a = 320 mm
2 Exhaust end section
b = 180mm

Discard section **X**

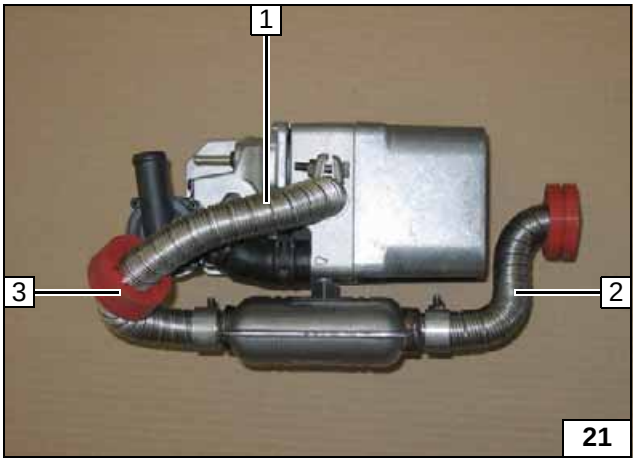
Preparing exhaust pipe



Tighten EJOT screws to 10 Nm!

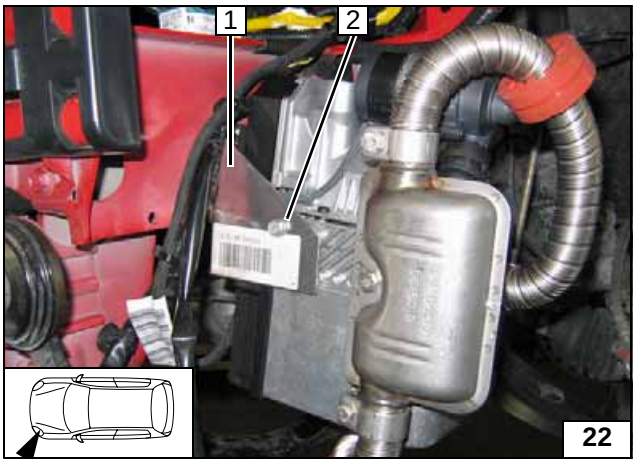
2 Exhaust silencer
1 Ejot stud, M6x30 spacer nut, M6x12 bolt, spring lockwasher

Premounting heater



1 Exhaust pipe, p-clamp [2x], rubber isolator
2 T-pipe end section, p-clamp, rubber isolator
3 Align rubber isolator

Premounting heater

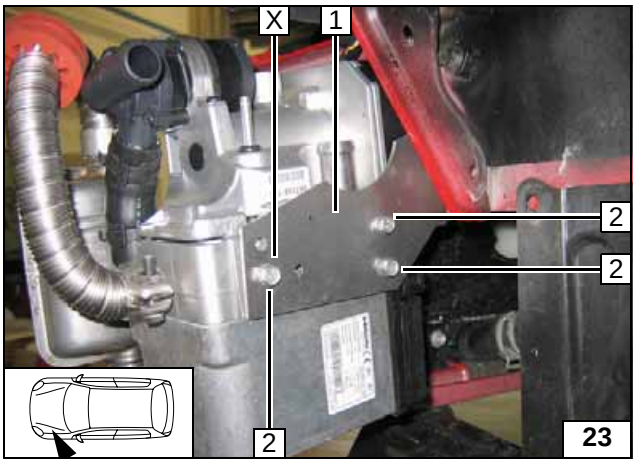


Installing heater

Tighten EJOT screws to 10 Nm!

1 Bracket
2 Ejot screw

Installing heater



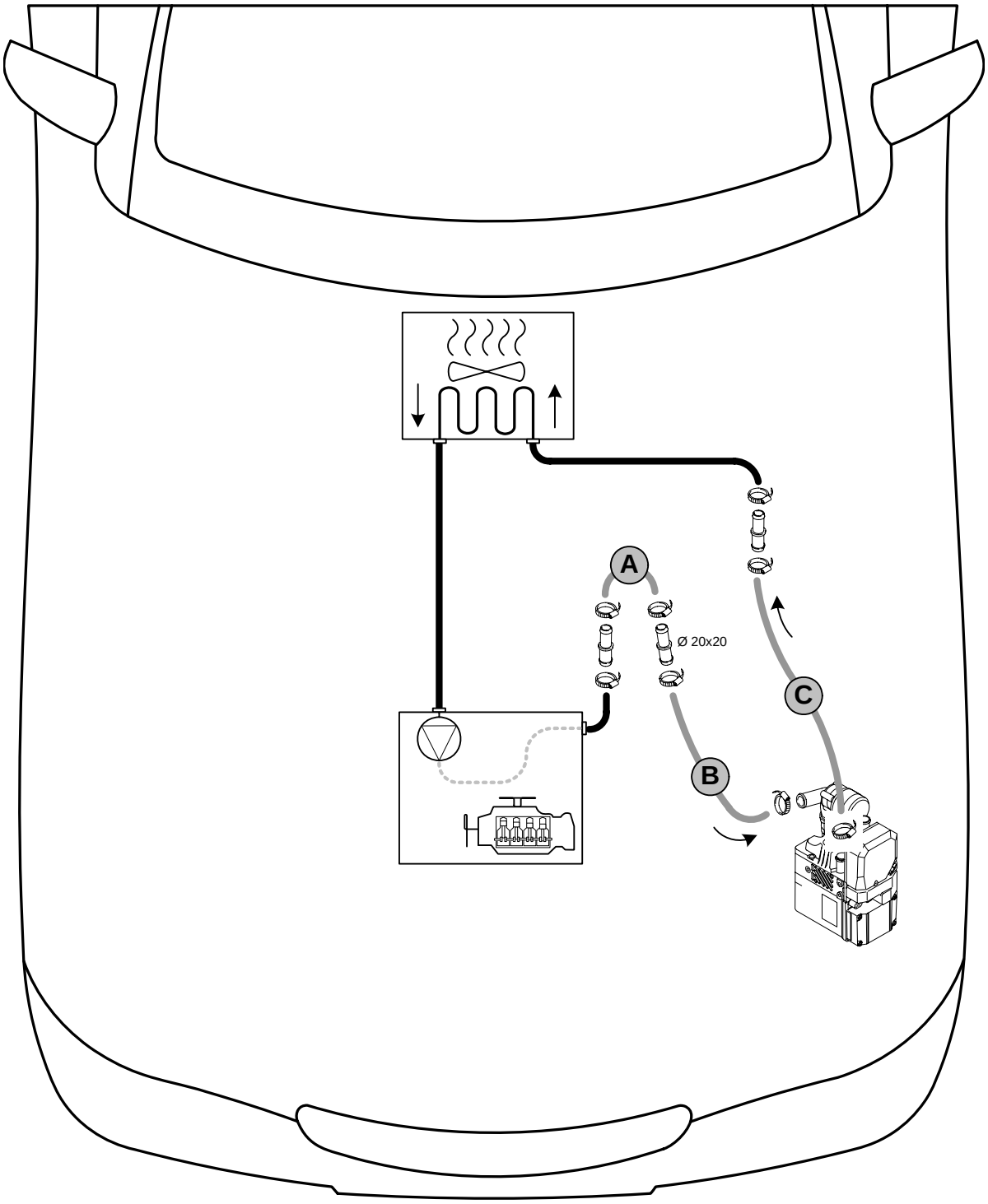
Tighten EJOT screws to 10 Nm!
Insert two washers between heater and bracket at position **x**.

1 Bracket
2 Ejot screw [3x]

Installing heater

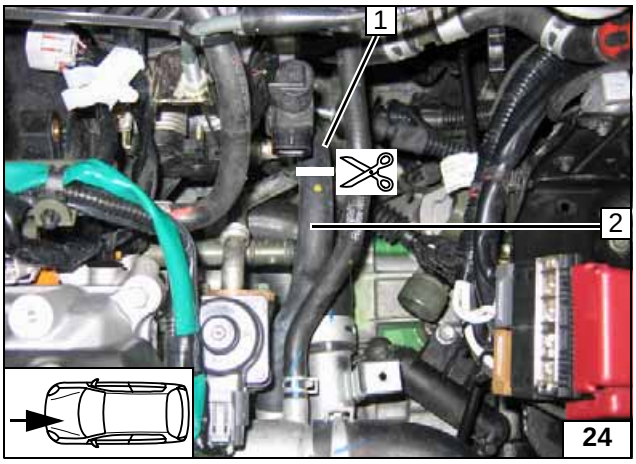
Coolant circuit petrol

WARNING!
Tighten all hose clamps to 2.0 + 0.5 Nm.
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant.
The connection should be "inline" based on the following diagram:



Hose routing diagram

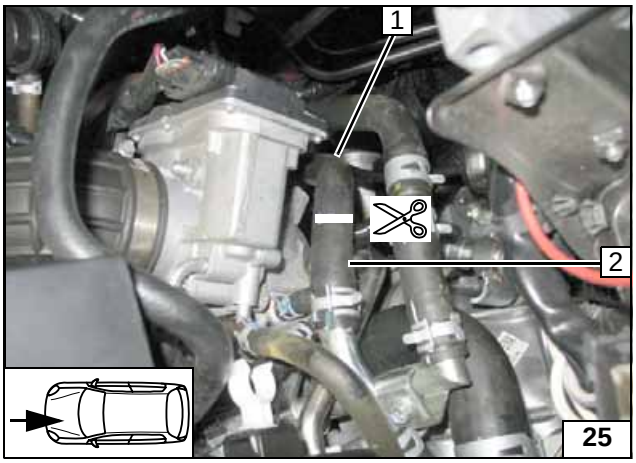
All hose clamps = 16-27 mm dia.!
All connecting pipes without a specific designation **M13A** and **M15A** = dia. 15x20!
All connecting pipes without a specific designation **M16A** = dia. 17x20!



Cutting point M13A and M15A

1 Hose section of heat exchanger inlet
2 Engine outlet hose section

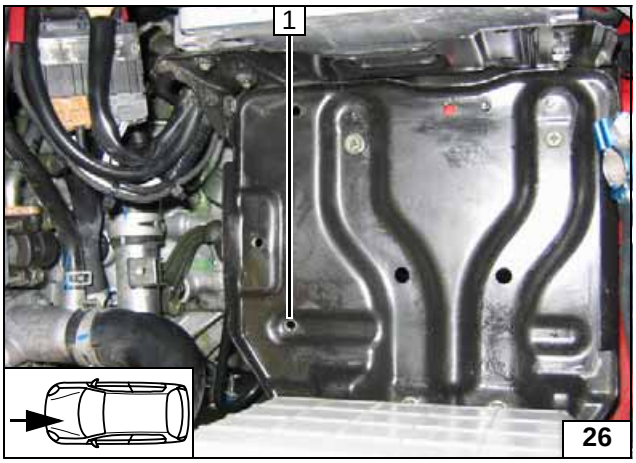
Cutting point



Cutting point M16A

1 Hose section of heat exchanger inlet
2 Engine outlet hose section

Cutting point

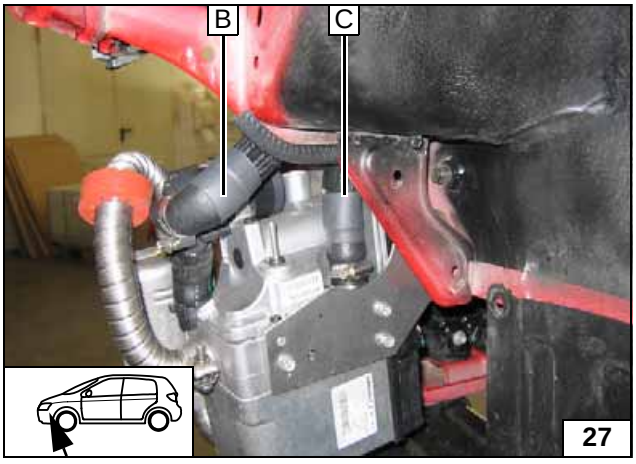


Petrol, all vehicles

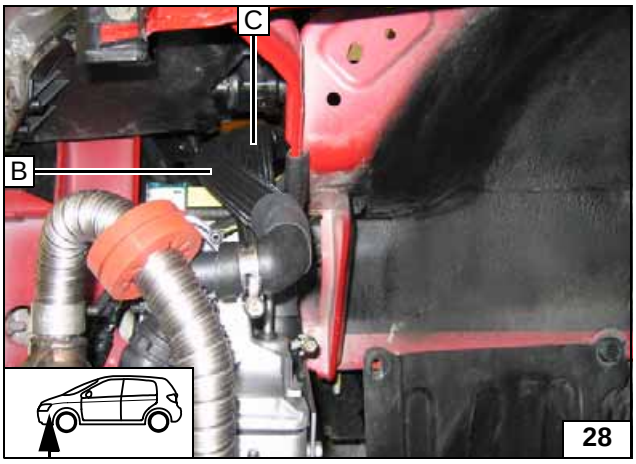
Drill 7 mm dia. hole as shown.

1 7 mm dia. hole

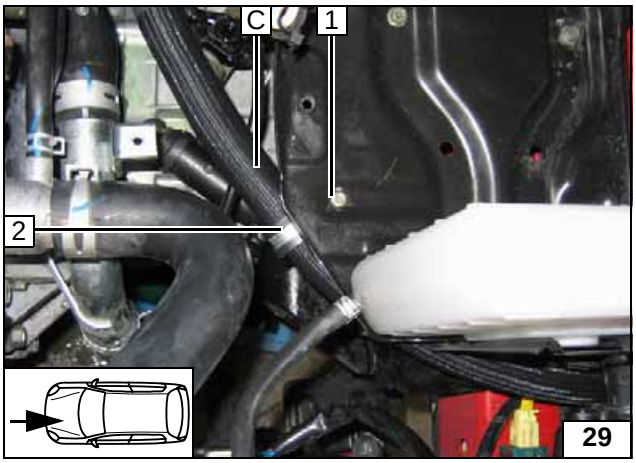
Preparing battery carrier plate



Connecting heater



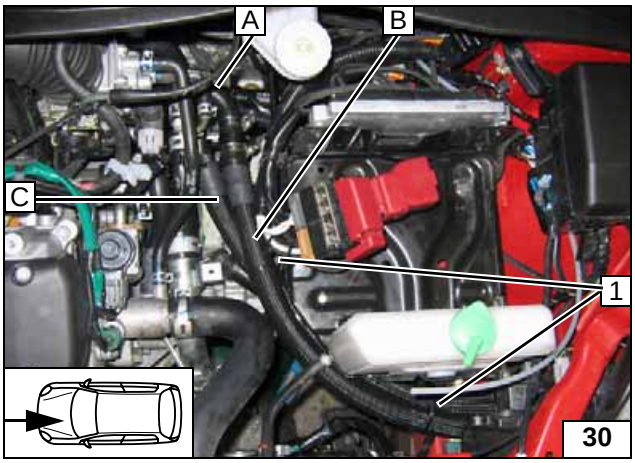
Routing of coolant hoses



Ensure sufficient distance to neighbouring components.

1 M6x20 bolt, M6 flanged nut
2 Rubber-coated pipe clamp, 29mm dia.

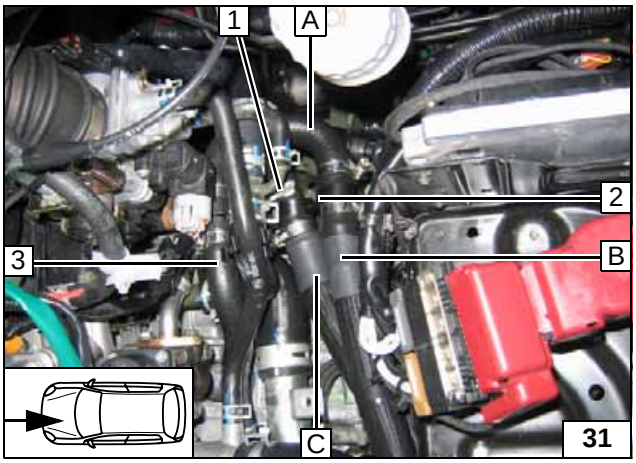
Routing in engine compartment



Ensure sufficient distance to neighbouring components.

1 Cable tie [2x]

Routing in engine compartment



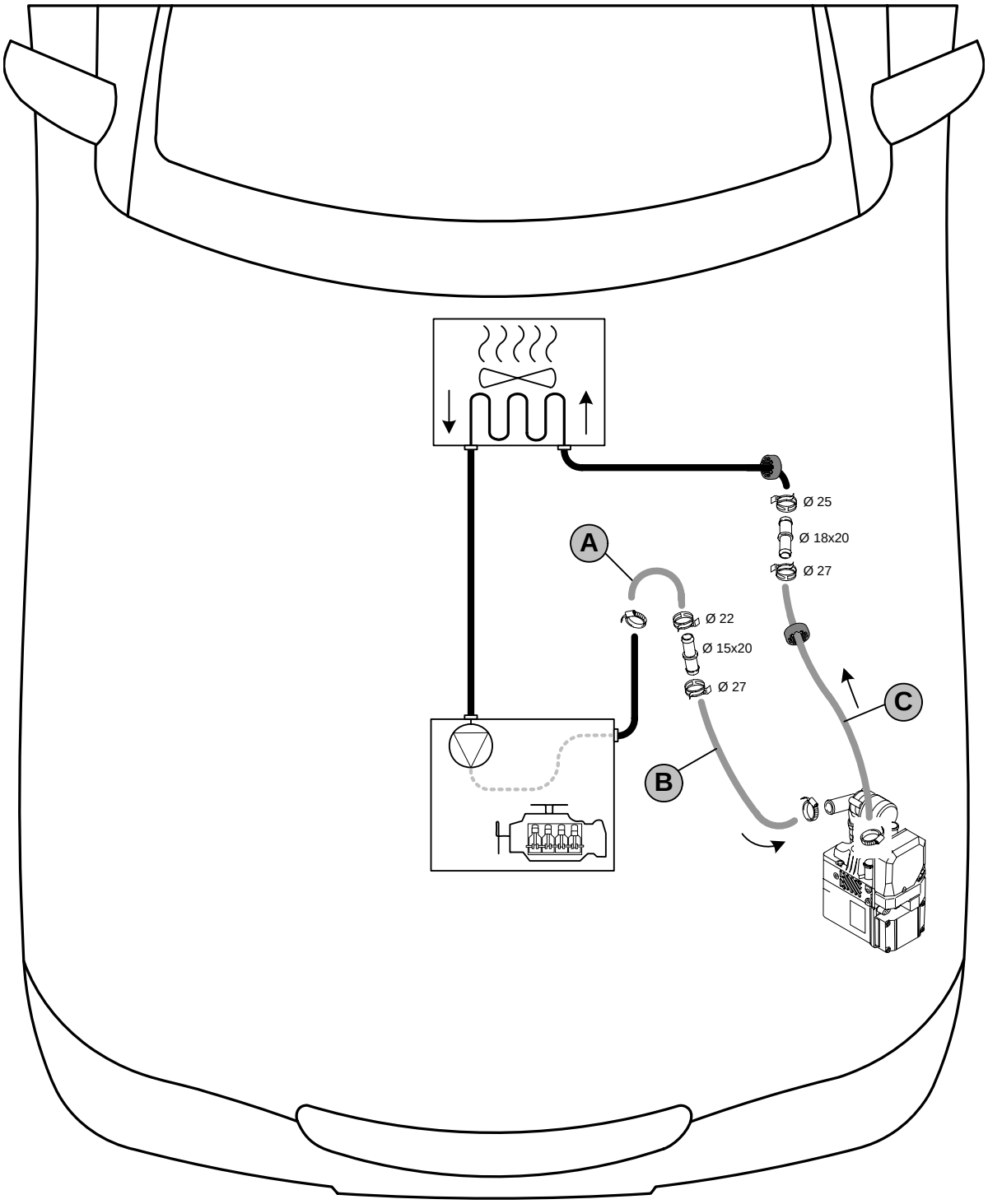
Before connecting, fill the coolant hoses with coolant.
Ensure sufficient spacing to shift linkage.

1 Hose on heat exchanger inlet
3 Hose of engine outlet
2 Spacer bracket

Connection on heat exchanger inlet and engine outlet

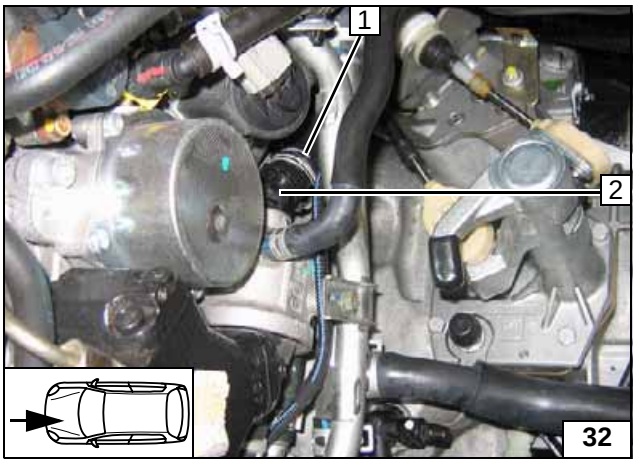
Coolant circuit diesel

WARNING!
Tighten all hose clamps to 2.0 + 0.5 Nm.
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant.
The connection should be "inline" based on the following diagram:



Hose routing diagram

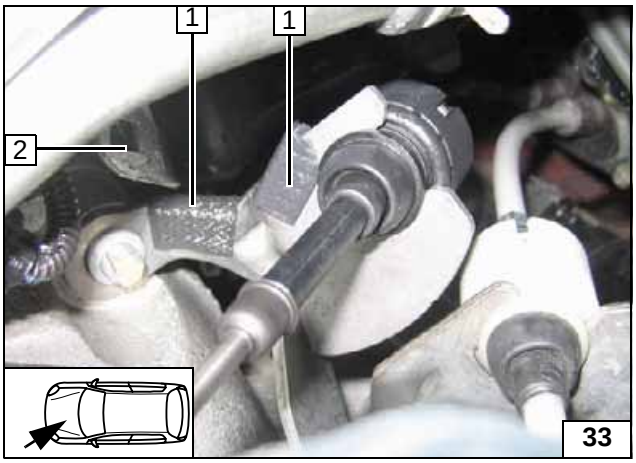
All hose clamps = 16-27 mm dia.!
Hose **A** = included moulded hose.



Remove original vehicle clamp and discard. Remove original vehicle hose bracket and discard.

1 Hose section of heat exchanger inlet
2 Connection piece for engine outlet

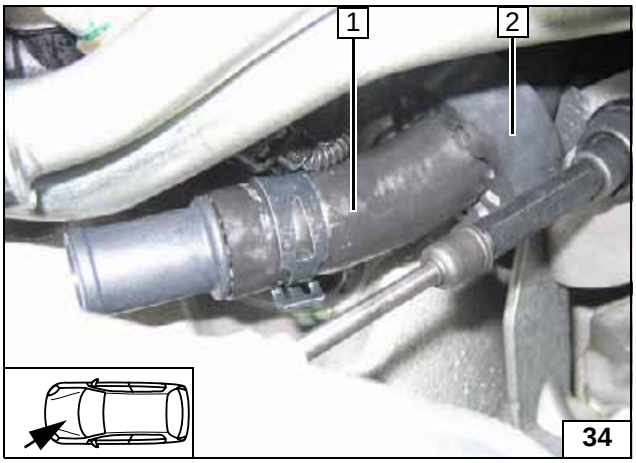
Cutting point



Cut 50 mm edge protection section provided in half as shown.

1 25 mm edge protection section [2x]
2 Mounting tab of hose bracket

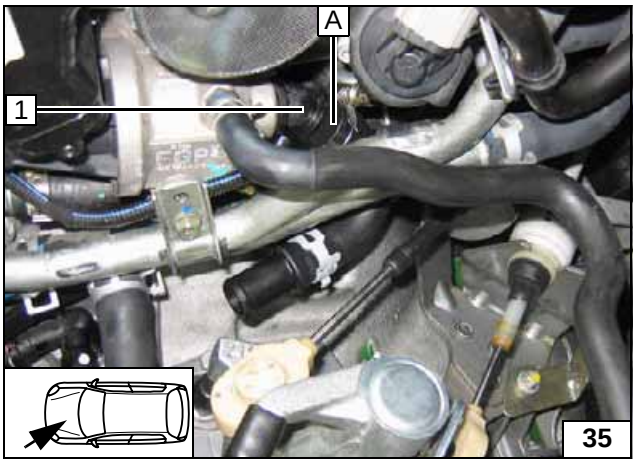
Installing edge protection section



Align black (sw) rubber isolator **2** as shown

1 Hose section on heat exchanger inlet

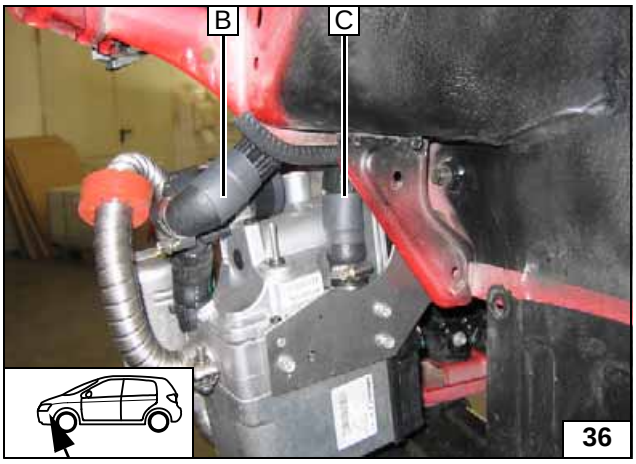
Installing rubber isolator



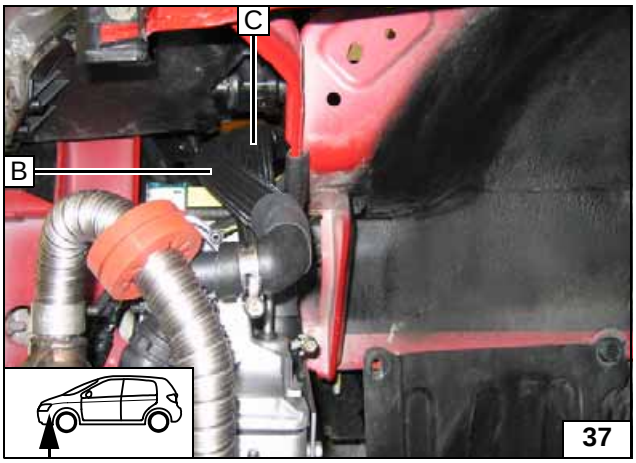
Install moulded hose **A** as shown

1 Connection piece for engine outlet

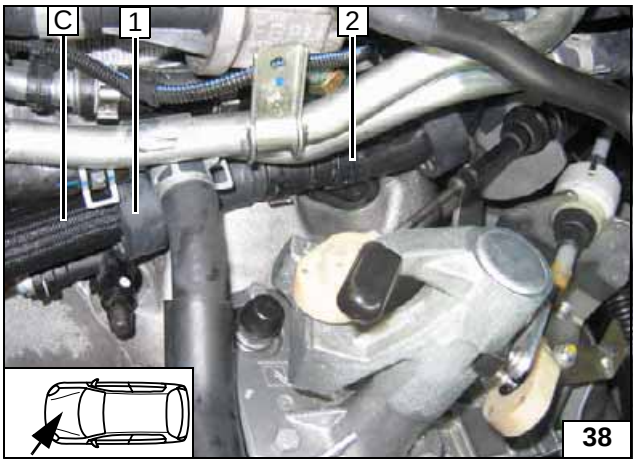
Connecting engine outlet



Connecting heater



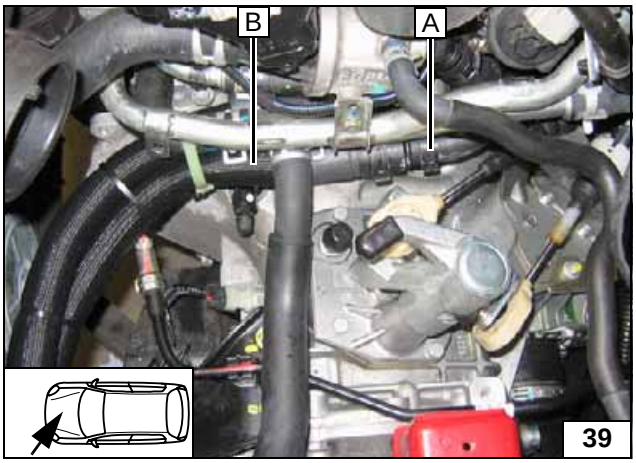
Routing of coolant hoses



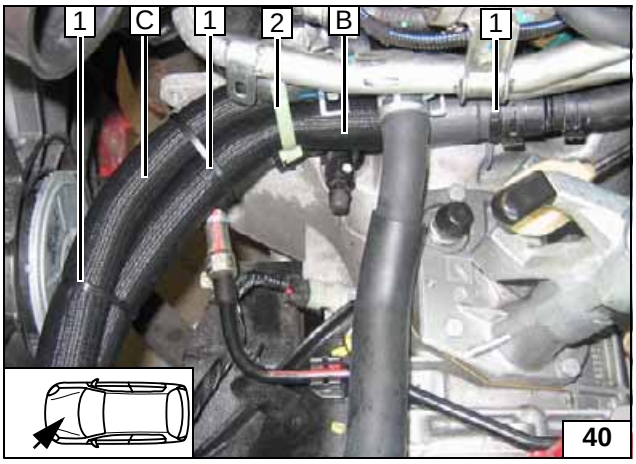
Align black (sw) rubber isolator **1** as shown.

2 Hose section on heat exchanger inlet

Connecting heat exchanger inlet

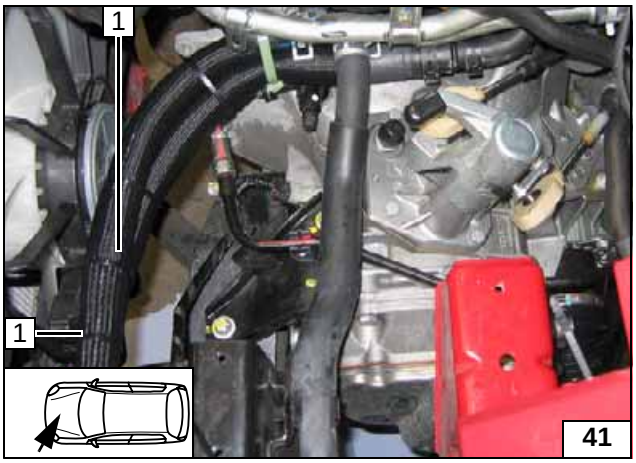


Connection on engine outlet



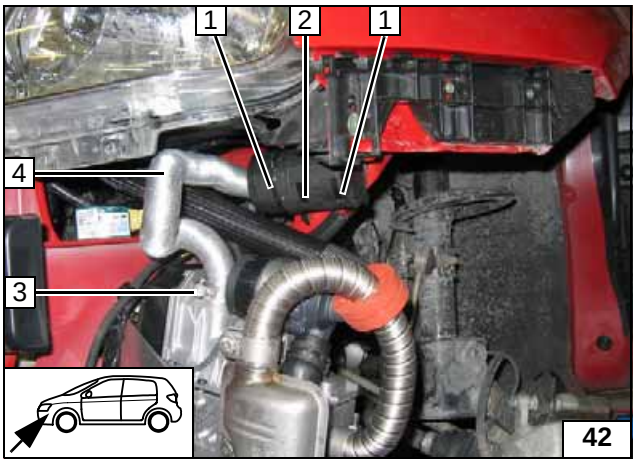
1 Cable tie [3x]
2 Green (gn) cable tie

Routing of coolant hoses



Fasten coolant hoses as shown with cable ties **1** [2x each] to the frame of the radiator fan.

Routing of coolant hoses



Combustion air

Ensure proper installation position of combustion-air intake silencer, see "Installation Instructions“.

4 Combustion-air intake pipe
3 27 mm dia. hose clamp
2 Combustion-air intake silencer
1 Cable ties [2x] on existing holes

Installing intake silencer

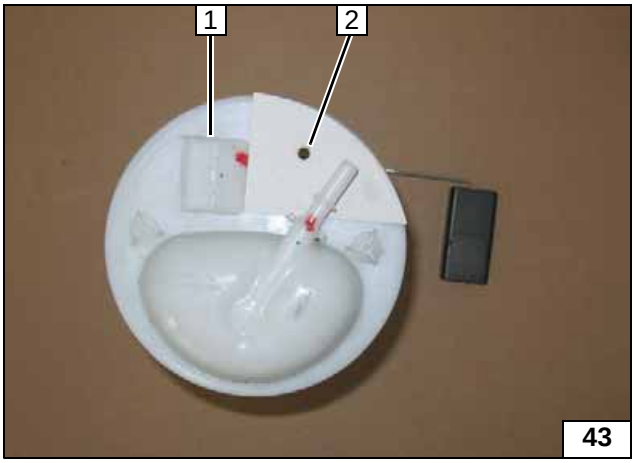
Fuel

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.

Install 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 in as shown in the wiring harness routing diagram.



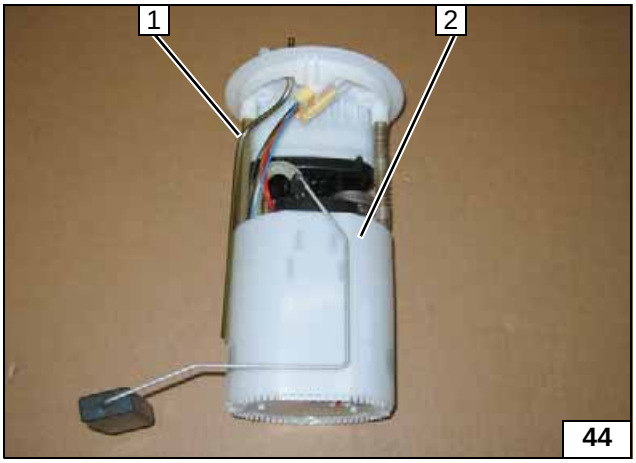
Fuel removal, petrol

Fuel-tank sending unit, **Version A**

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

1 Fuel-tank sending unit
2 Lay on template, copy hole pattern and drill 6 mm dia. hole

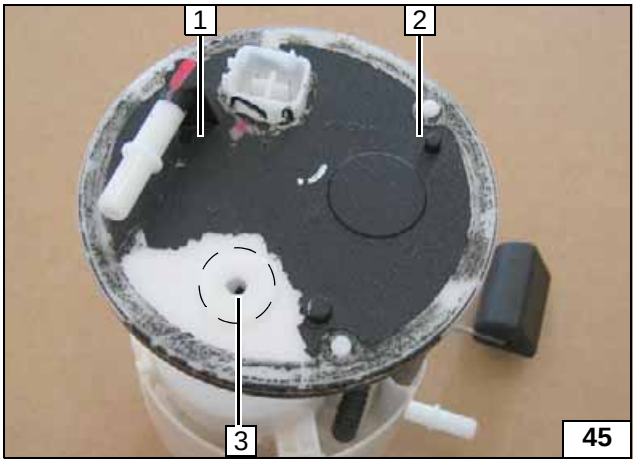
Removing fuel



Shape fuel standpipe according to template on page 31, cut to length and install, see "installation instructions".

2 Fuel-tank sending unit
1 Fuel standpipe

Installing fuel standpipe

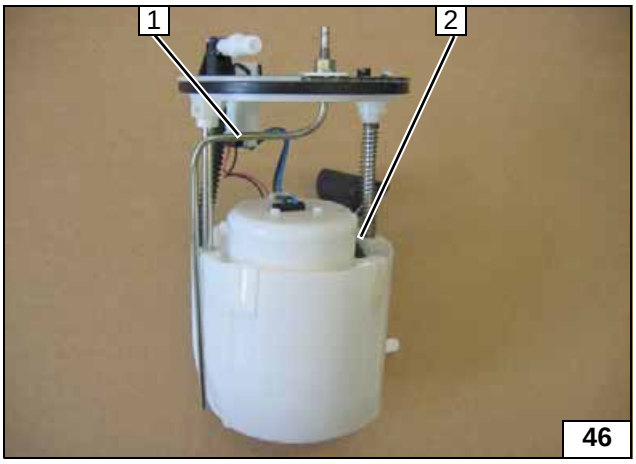


Fuel-tank sending unit, **Version B**

Remove fuel-tank sending unit in accordance with manufacturer's instructions.
Remove coating **2** in area of installation location of fuel standpipe.

1 Fuel-tank sending unit
3 Drill 6 mm dia. hole in centre of stamped area as shown

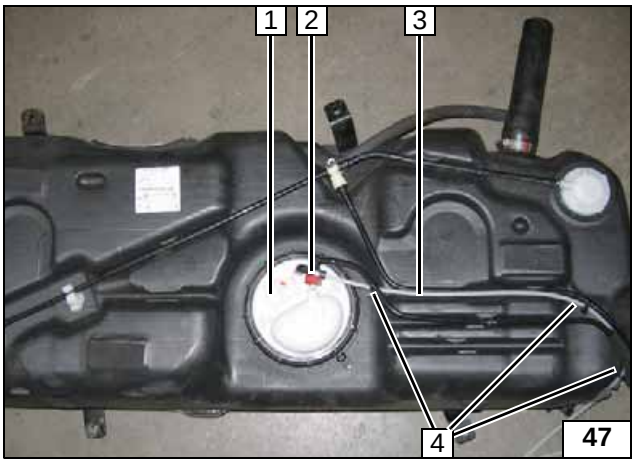
Removing fuel



Shape fuel standpipe according to template on page 32, cut to length and install, see "installation instructions".

2 Fuel-tank sending unit
1 Fuel standpipe

Installing fuel standpipe

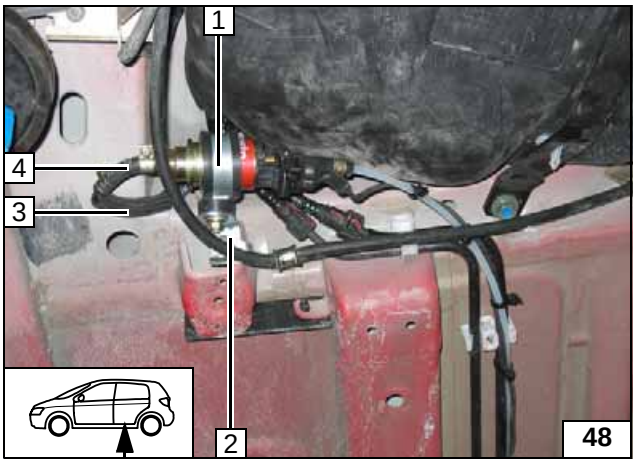


Fuel tank sending unit Version **A** displayed
Install fuel-tank sending unit in accordance with manufacturer's instructions. Shorten moulded hose with 3.5 mm dia. by 10 mm. Shortened side with 8 mm dia. Caillau clamp on fuel standpipe.

1 Fuel-tank sending unit with fuel standpipe
2 Moulded hose, dia. 3.5 mm x 4.5 mm, Caillau clamp, 8 mm dia., Caillau clamp, 10 mm dia.
3 Fuel line
4 Cable tie [3x]

Install fuel tank according to manufacturer's instructions.

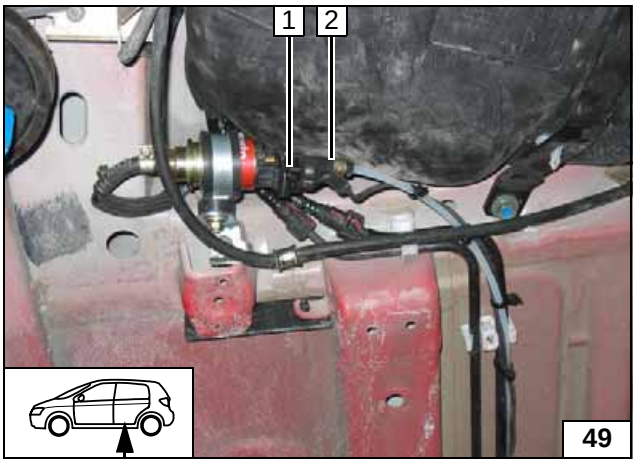
Connecting fuel line



Ensure proper installation position of metering pump, see "Installation Instructions".
Cut fuel line to length accordingly.
Fuel line from fuel standpipe on intake side of metering pump [side without connector]

1 Metering pump, rubber-coated p-clamp, silent block, M6 flanged nut [2x]
2 Angle bracket, handbrake cable bracket, original vehicle bolt
4 Hose section, 10 mm dia. hose clamp [2x], fuel line
3 Rub protection of 8x12, 70 mm hose [2x]

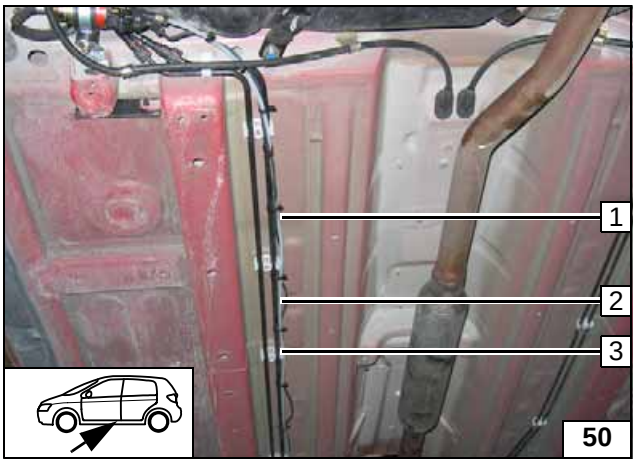
Installation location/connection of metering pump



Fuel line to heater on pressure side of metering pump [side with connector].

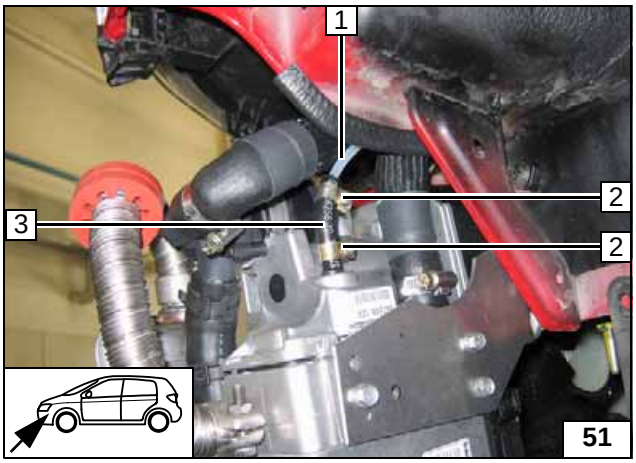
1 Wiring harness metering pump, metering pump connector
2 Hose section, 10 mm dia. hose clamp [2x], fuel line

Connecting metering pump



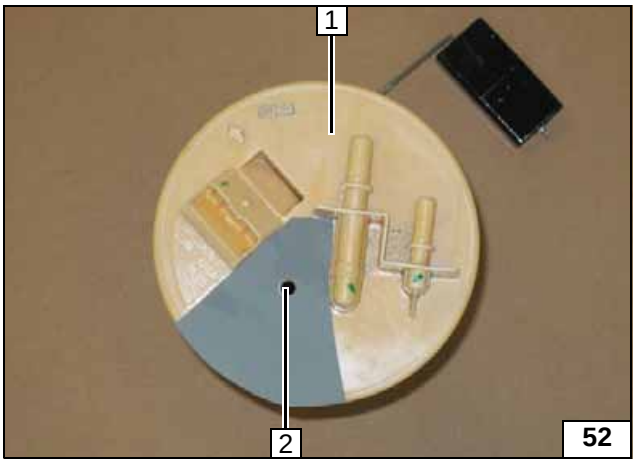
1 Mecanyl fuel line
2 Metering pump wiring harness
3 Original vehicle fuel lines

Installing lines



1 Mecanyl fuel line
2 10 mm dia. hose clamp [2x]
3 Hose section

Connection to heater

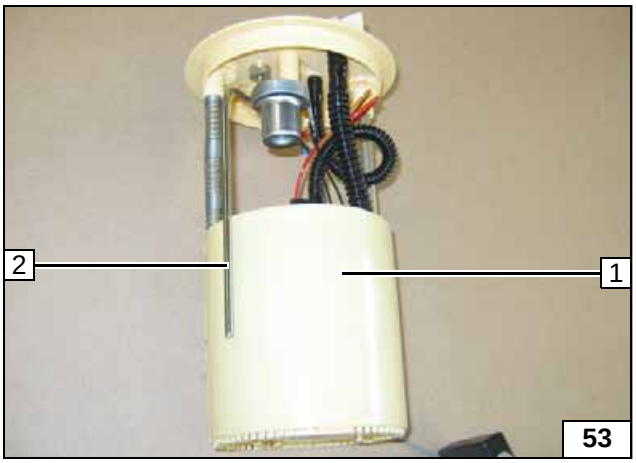


Fuel removal, diesel

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

1 Fuel-tank sending unit
2 Place template, copy hole pattern and drill 6 mm dia. hole

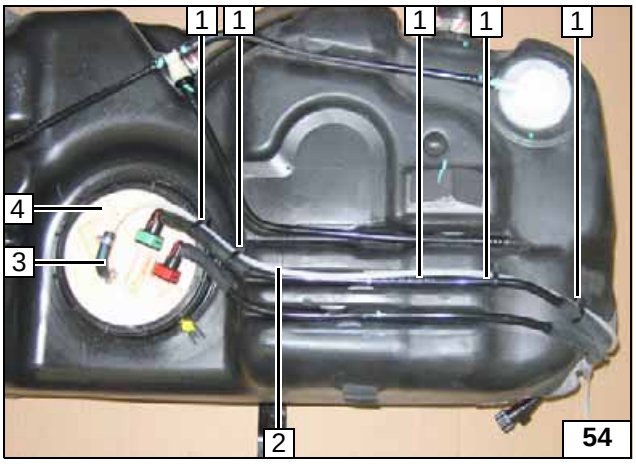
Fuel removal



Shape fuel standpipe according to template, cut to length and install, see "installation instructions".

1 Fuel-tank sending unit
2 Fuel standpipe

Installing fuel standpipe

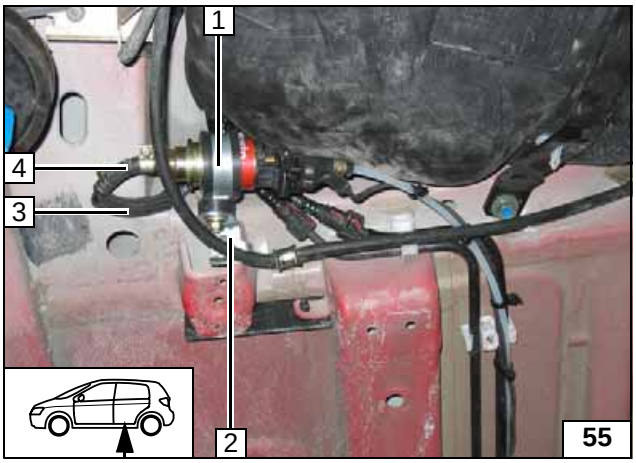


Install fuel-tank sending unit in accordance with manufacturer's instructions. Shorten moulded hose with 3.5 mm dia. by 10 mm. Shortened side with 8 mm dia. Caillau clamp on fuel standpipe.

4 Fuel-tank sending unit
3 Moulded hose, dia. 3.5 mm x 4.5 mm, Caillau clamp, 8 mm dia., Caillau clamp, 10 mm dia.
2 Fuel line
1 Cable tie [5x]

Install fuel tank according to manufacturer's instructions.

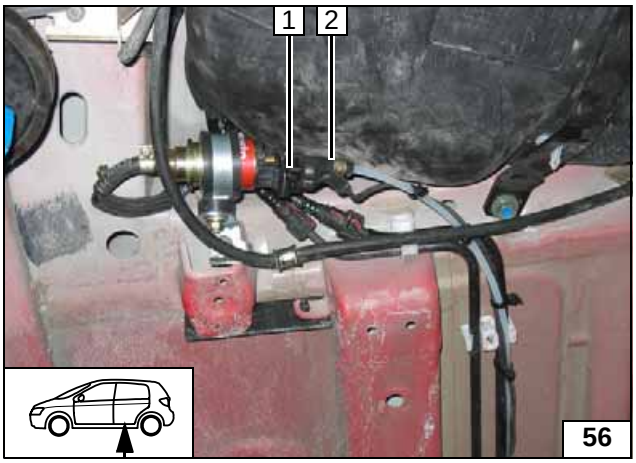
Connecting fuel line



Ensure proper installation position of metering pump, see "Installation Instructions".
Cut fuel line to length accordingly.
Fuel line from fuel standpipe on intake side of metering pump [side without connector]

1 Metering pump, rubber-coated p-clamp, silent block, M6 flanged nut [2x]
2 Angle bracket, handbrake cable bracket, original vehicle bolt
4 Hose section, 10 mm dia. hose clamp [2x], fuel line
3 Rub protection of 8x12, 70 mm hose [2x]

Installation location / connection of metering pump

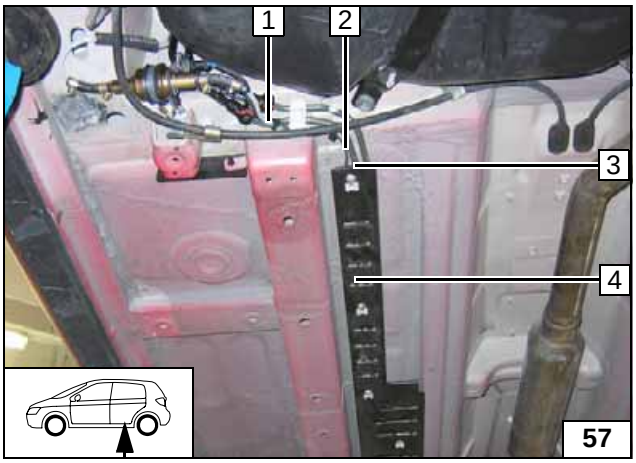


Ensure proper installation position of metering pump, see "Installation Instructions".

Fuel line to heater on pressure side of metering pump [side with connector].

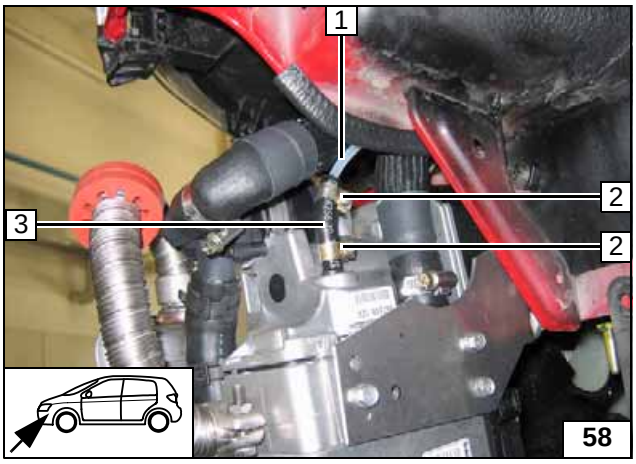
1 Wiring harness metering pump, metering pump connector
2 Hose section, 10 mm dia. hose clamp [2x], fuel line

Connecting metering pump



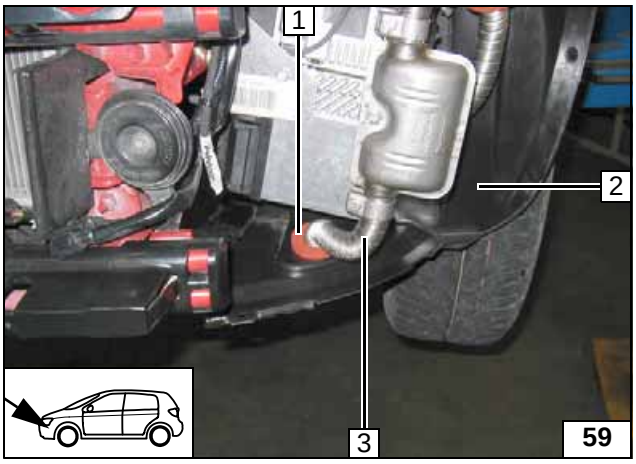
1 Mecanyl fuel line
2 Metering pump wiring harness
3 Original vehicle fuel lines
4 Cover of original vehicle fuel line (if installed)

Installing lines



1 Mecanyl fuel line
2 10 mm dia. hose clamp [2x]
3 Hose section

Connection to heater



Exhaust gas

Reinstall wheel well trim on left.

3 Exhaust tail pipe
2 Wheel well trim
1 42 mm dia. hole, rubber isolator

Machining wheel well trim

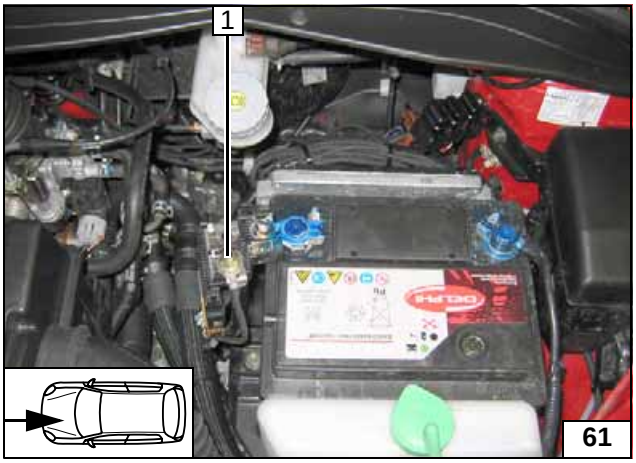
1 Exhaust tail pipe, rubber isolator

Mounting rubber isolator

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 batteries
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Adjust the digital timer if installed
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Check the proper functioning of the parking heater, see the operating instructions/installation instructions.
- Attach the "Switch off parking heater before refueling" adhesive label to the left-hand B-pillar.



Depending on vehicle equipment, replace claw cable lug present on positive wire with 8 mm claw cable lug provided.

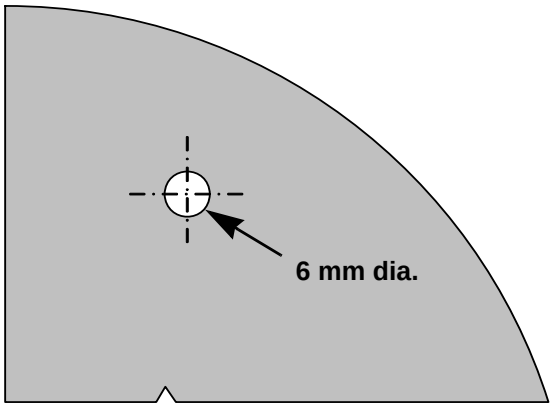
1 Connect positive wire to claw cable lug on positive battery terminal

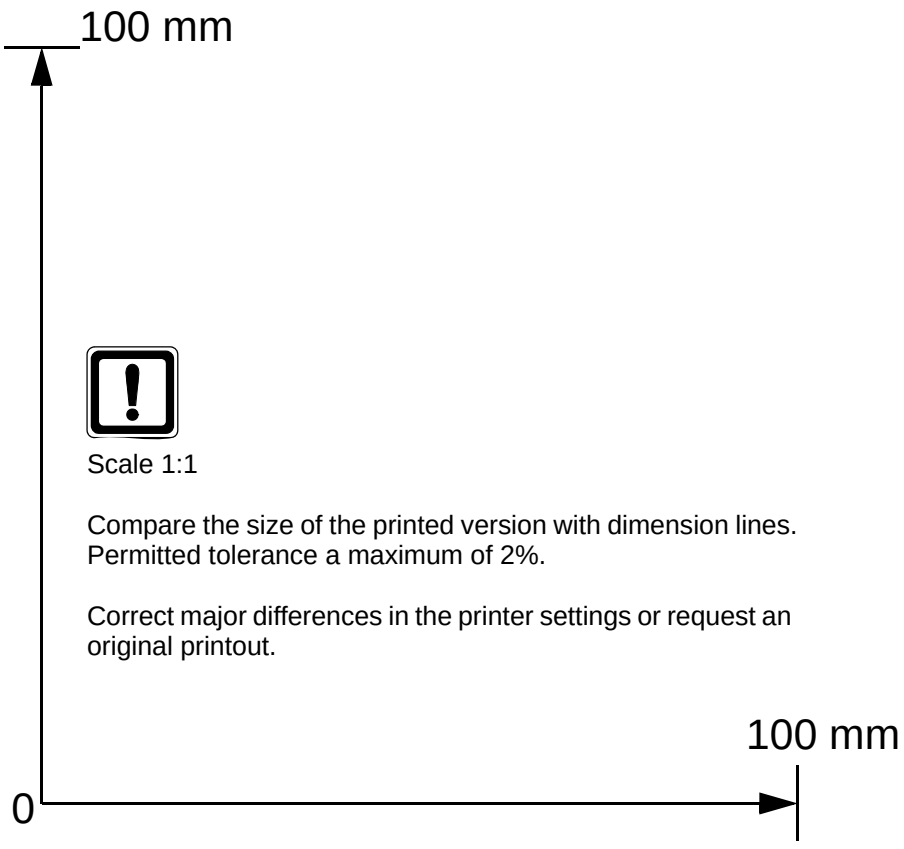
Connecting positive wire

Webasto AG
Postfach 80
D-82132 Stockdorf / Germany
National Hotline: 01805 93 22 78
(14 Cent aus dem deutschen Festnetz)
Hotfax: 0395 5592 353
Hotmail: hotline@webasto.de
http://www.webasto.de

Template for Petrol Fuel Standpipe Version A

Template for Petrol Fuel-Tank Sending Unit Version A



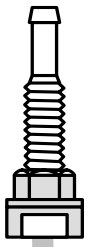


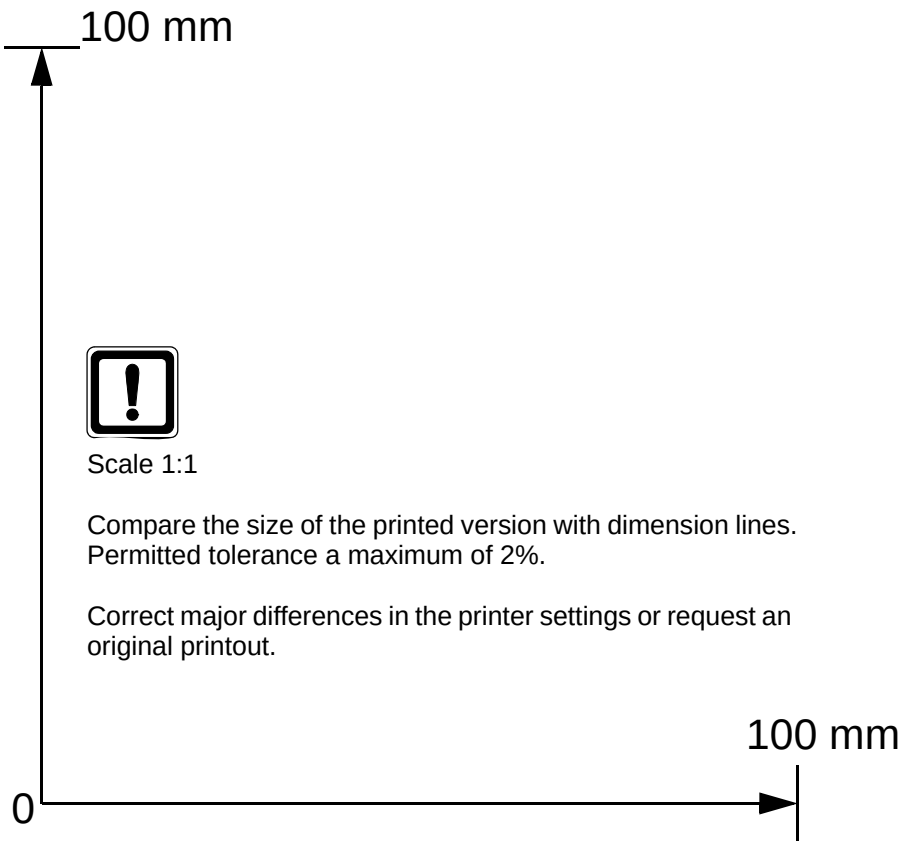
Scale 1:1

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

Correct major differences in the printer settings or request an original printout.

Template for Petrol Fuel Standpipe
Version B



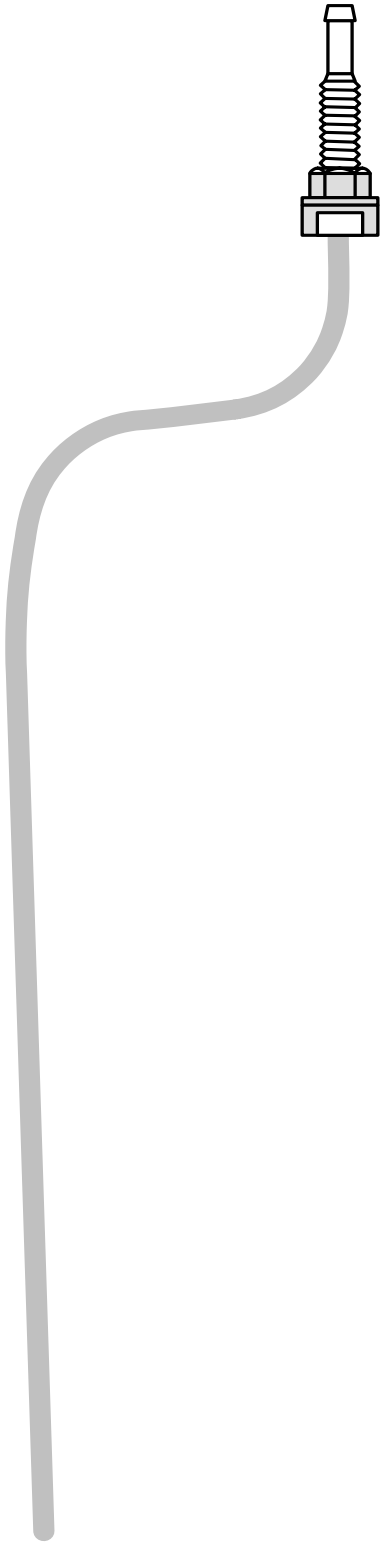


Scale 1:1

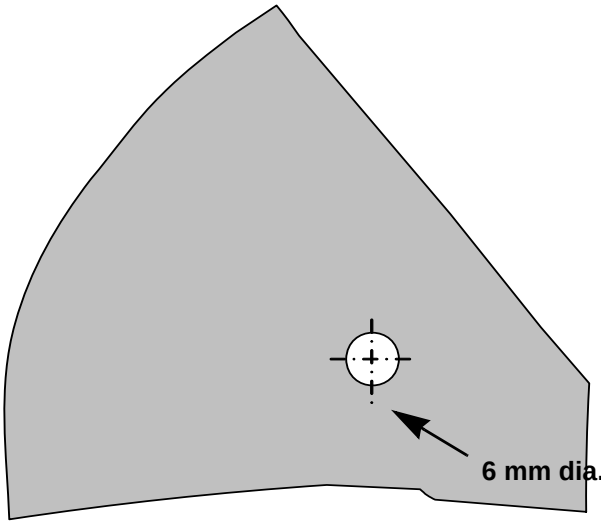
Compare the size of the printed version with dimension lines.
Permitted tolerance a maximum of 2%.

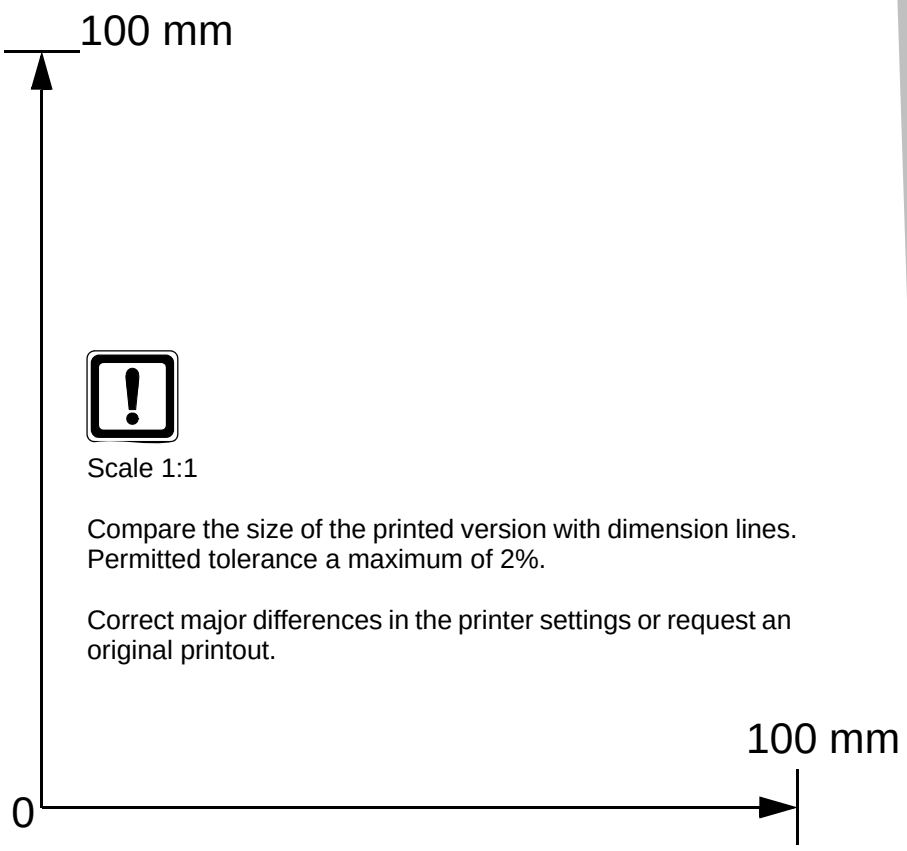
Correct major differences in the printer settings or request an original printout.

Template for Diesel Fuel Standpipe



Template for Fuel-Tank Sending Unit diesel





Operating Instructions for End Customer

Please remove page and add to the vehicle operating instructions.

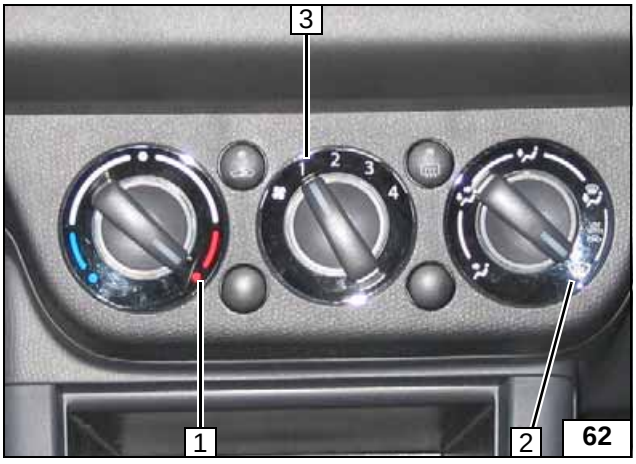
Note:
We recommend matching the heating time to the driving time.
Heating time = driving time

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

If the summer/winter switch option has been installed, this must be switched in accordance with the time of year. The heater will then heat in the position Winter and in the position Summer it will only switch on the vehicle fan to ventilate the vehicle interior.

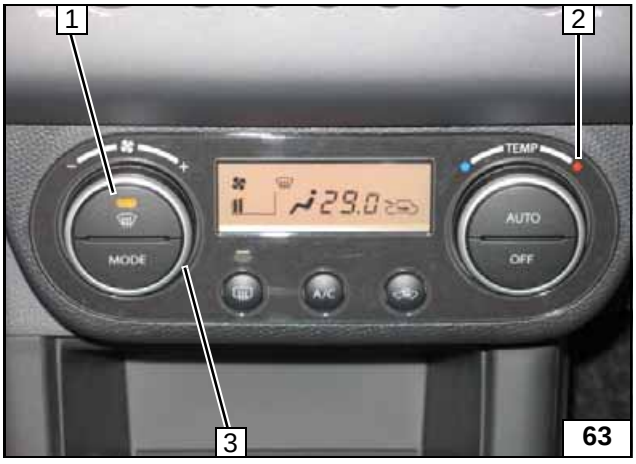
Before parking the vehicle, make the following settings:

Manual air conditioning



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

Automatic air-conditioning



1 Air outlet to windscreen
2 Set temperature to "29°C"
3 Set fan speed to "1" or max. "2"