

Water Heater Unit



Feel the drive

Thermo Top E Additional Heater


00 0003

Thermo Top C Additional Heater


00 0002

Thermo Top P Additional Heater


00 0104

Installation Instructions

Renault Clio / Clio Grandtour

international

Gasoline

from Model Year 2005

For left-hand drive vehicles only

Combination of automatic transmission with Xenon lights not tested!



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, specialized tools and equipment are required to install and repair Webasto heating and cooling systems.

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.

Renault Clio / Clio Grandtour

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Validity

Manufacturer	Model	Type	EG-BE No./ABE
Renault	Clio / Clio Grandtour	R	e2 * 2001/116 * 0327 * ...

Engine type	Engine model	Output in kW	Displacement in cm ³
D4F	Gasoline	55	1149
D4F	Gasoline	74	1149
K4M	Gasoline	65	1598
K4M	Gasoline	82	1598

Vehicle types, engine types and equipment variants, which are 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.

Renault Clio / Clio Grandtour

Heater Unit/Installation Kit

Quantity	Description	Order No.:
1	Retail accessories with desired heater control	See price list
1	Installation Kit for Renault Clio / Clio Grandtour Gasoline (Int.)	1310518C

Heater unit recommended for the respective vehicle class:

Vehicle	Heater unit
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 unit is based on the passenger compartment size of the vehicle and the level of comfort required by the customer!



Foreword

The installation instructions apply to the Renault Clio / Clio Grandtour vehicles with a Gasoline engine - For the validity, see page 2 - from model year 2005 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 edge protectors (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 work



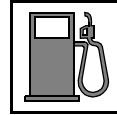
Electrical connection



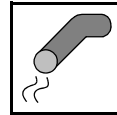
Coolant connection



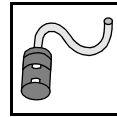
Fuel connection



Exhaust system



Combustion air



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



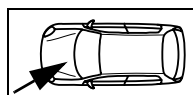
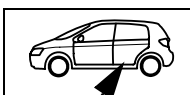
Specific risk of fire or explosion.



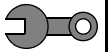
Reference to general installation instructions of Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.



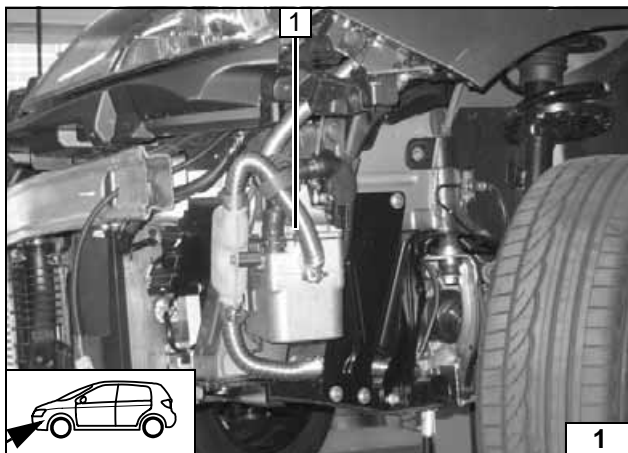
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.



Preliminary Work

WARNING!

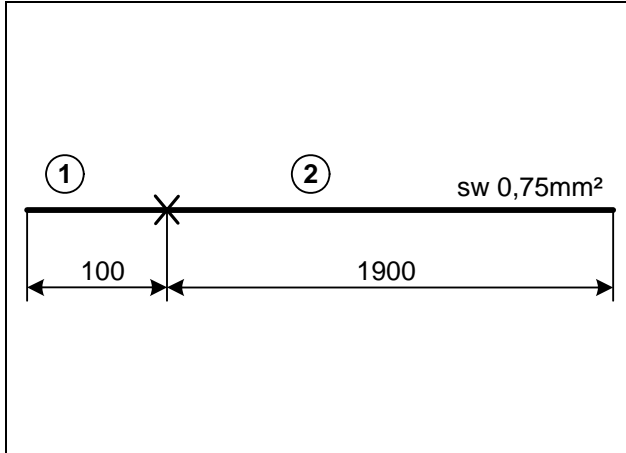
- Disconnect the battery "earth" or "ground" connection.
- Depressurize the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Completely remove the battery.
- Remove the air filter together with the intake hose.
- Open fuel tank cap, ventilate tank.
- Close the tank cap again.
- Remove the left wheel well trim.
- Remove the underride protection (if present).
- Remove the bumper.
- Detach the exhaust system.
- Remove the heat shield plate from the fuel tank.
- Remove fuel tank according to manufacturer's specifications.
- Remove the fuel-tank sending unit in accordance with the manufacturers specifications.
- Remove the glove compartment.
- Remove the left-hand instrument panel trim.



Heater unit installation location

(1) Heater unit

Installation location

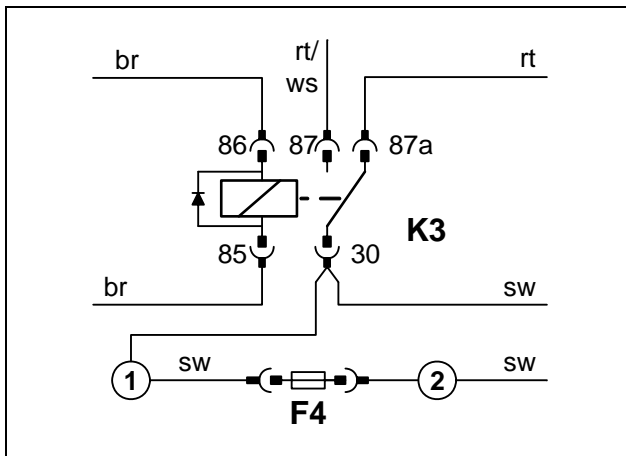


Preparing electrical system

Only with automatic air-conditioning

Wire section 1 will be required later for connection of fuse F4 and wire section 2 for connection of A/C control panel.

Cutting wires to length



Make connections as shown in the wiring diagram with the tab receptacles provided. Install wire section 2 in protective sleeving provided.

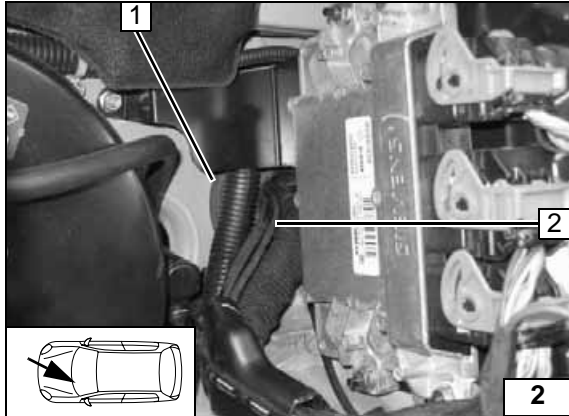
Preassembling K3.1 relay



Electrical Connections

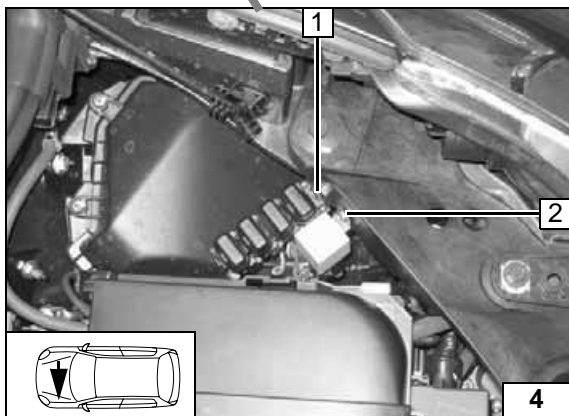
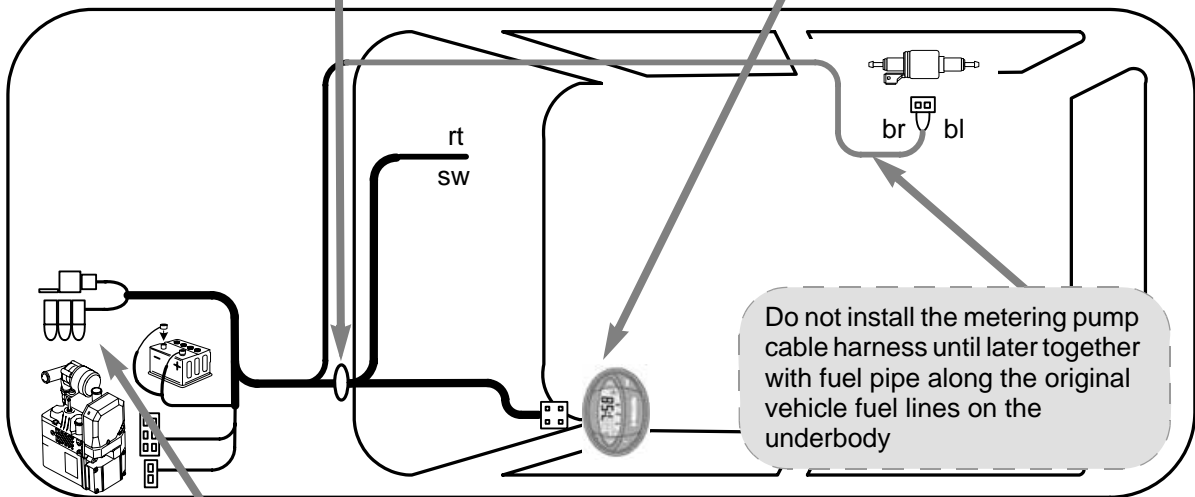
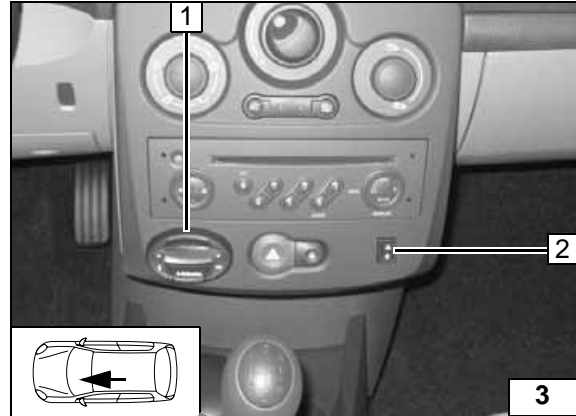
Wiring harness pass through

- (1) Protective rubber plug
- (2) Wiring harness of fan controller and Digital timer



Digital timer and summer/winter switch option

- (1) Digital timer
- (2) Summer/winter switch, 12 mm dia. hole

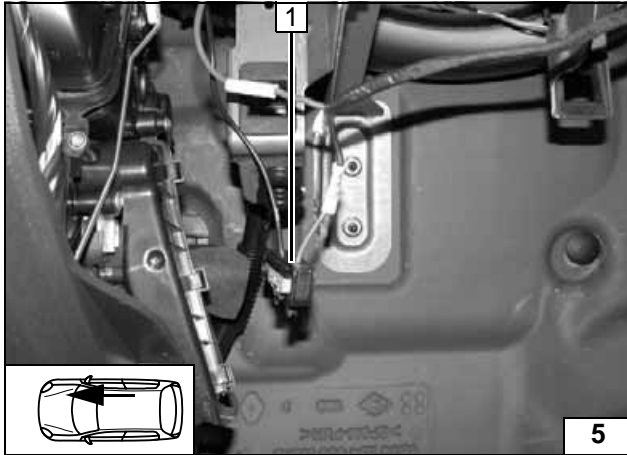


Fuse holder, relay K3

- (1) Retaining plate for fuse holder, bolt M5.5x9.5
- (2) K3 relay, M5.5x9.5 bolt



Wiring harness installation diagram



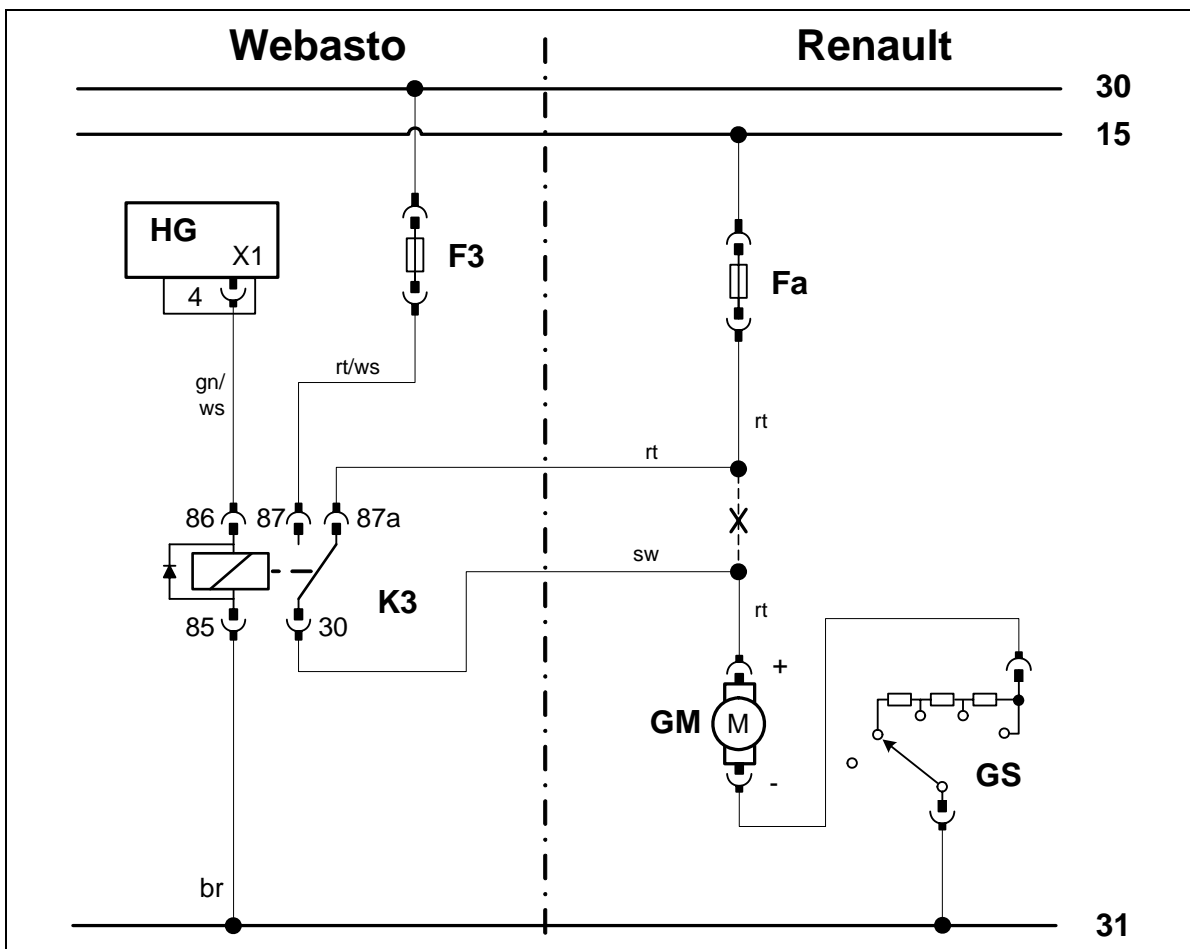
Only for manual air conditioning

Connection to 2-pin connector from blower motor. Make connections as shown in the wiring diagram with the connectors provided.

(1) Fan motor connector



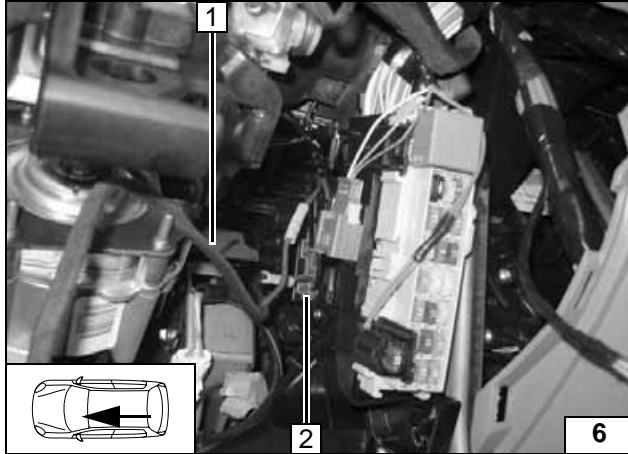
Fan controller



Wiring diagram for manual air conditioning

Webasto components		Renault components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
F3	25 A fuse	GS	Fan switch	ws	white
K3	Fan relay	Fa	Fan fuse	sw	black
				br	brown
				gn	green
				X	Cutting point

Legend

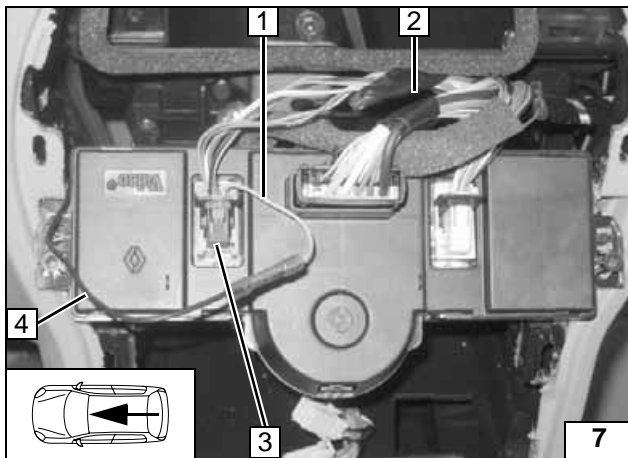


Only for automatic air-conditioning

Integration on green (gn) 2-pin connector on fan controller.
Make connections as shown in the wiring diagram with the connectors provided.

- (1) Wiring harness of fan controller
- (2) Green (gn) 2-pin connector on fan controller

Fan controller

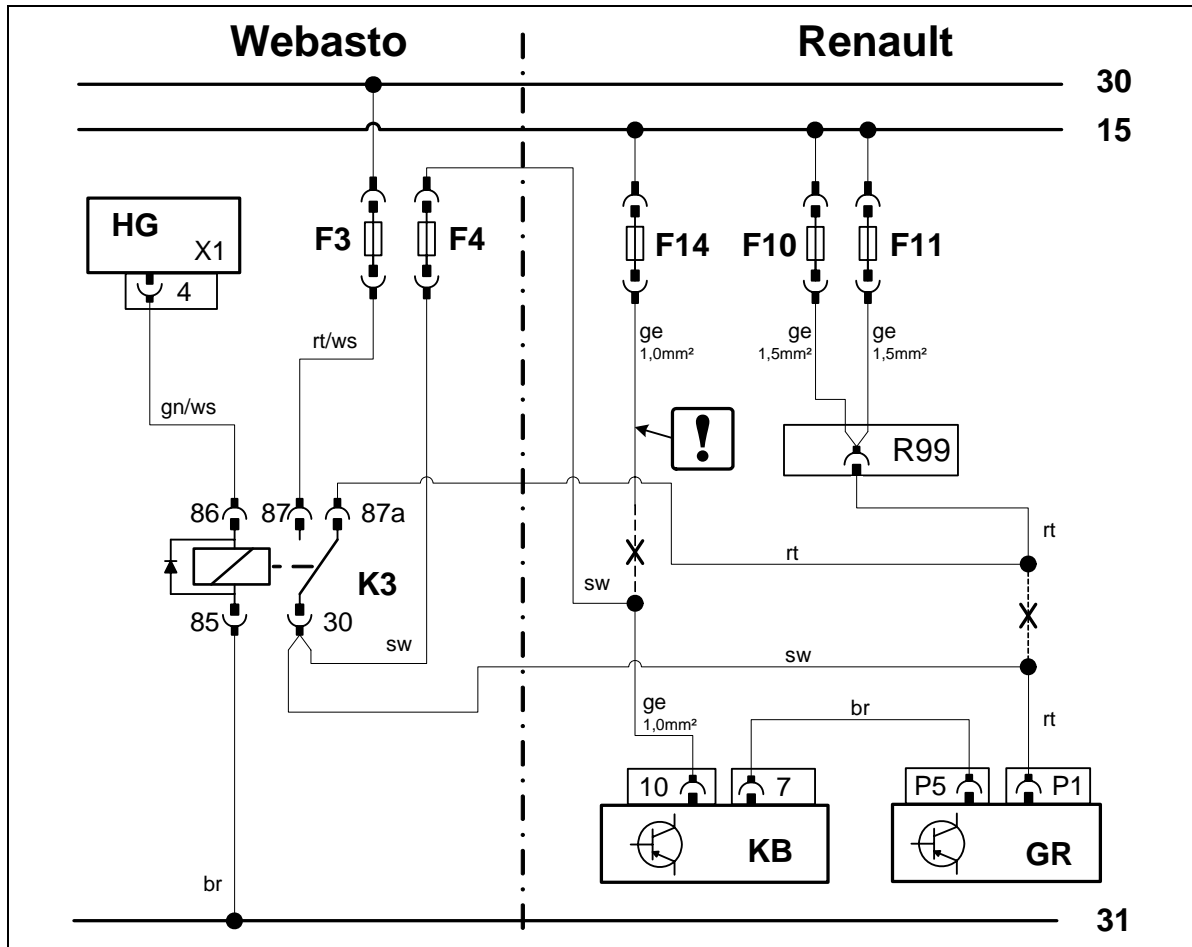


Connection to 12-pin blue (bl) connector from the air conditioning control.
Make connections as shown in the wiring diagram with the connectors provided.

- (1) Yellow (ge) wire to blue (bl) connector, Pin 10
- (2) Yellow (ge) wire from fuse F14, insulate and tie back
- (3) 12-pin blue (bl) connector
- (4) Black (sw) wire from fuse F4

Fan controller

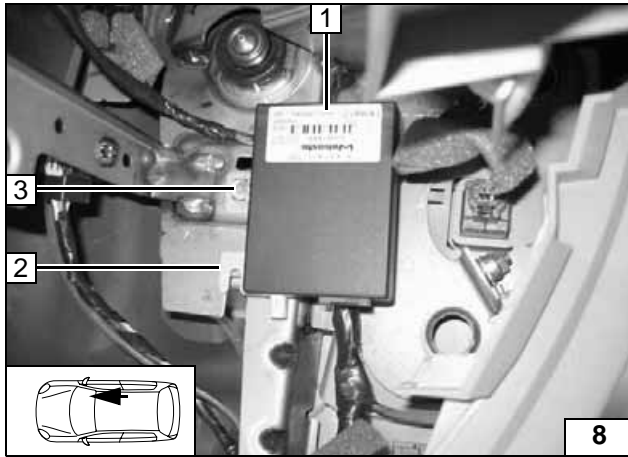




Automatic air-conditioning circuit diagram

Webasto components		Renault components		Colors and symbols	
HG	Heater unit TT-C/E	GR	Fan controller	rt	red
F3	25 A fuse	R99	Connector	ws	white
F4	Fuse 5A	F10	10 A fuse	sw	black
K3	Fan relay	F11	Fuse, 20 A	br	brown
		F14	15 A fuse	gn	green
		KB	A/C control panel, 12-pin blue (bl) connector, Pin 10	ge	yellow
				!	Insulate wire end and tie back
				X	Cutting point

Legend

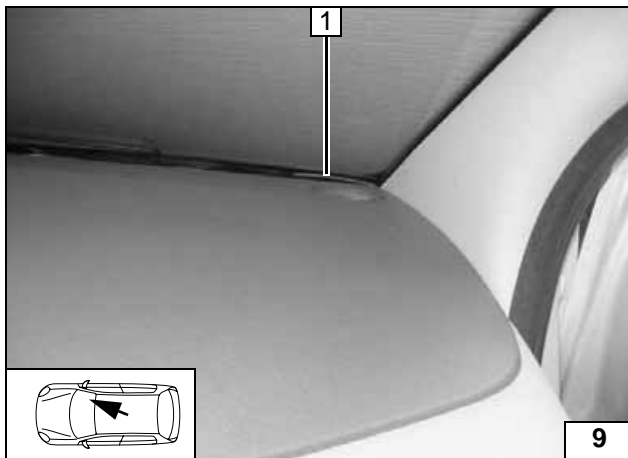


Remote option (Telestart)

- (1) Receiver
- (2) Bracket
- (3) 5.5x13 self-tapping screw

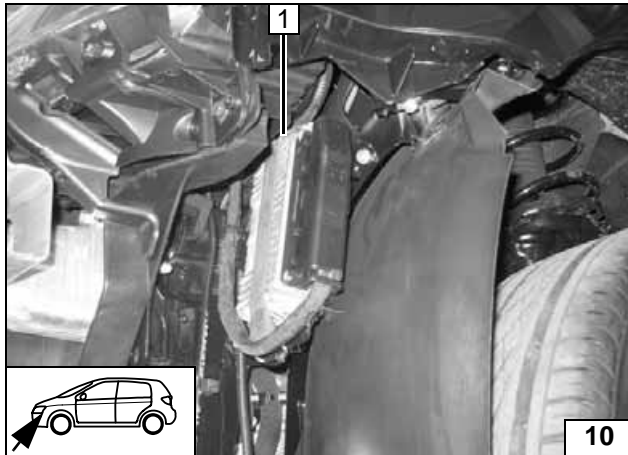
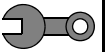


Installing receiver



- (1) Antenna

Installing antenna



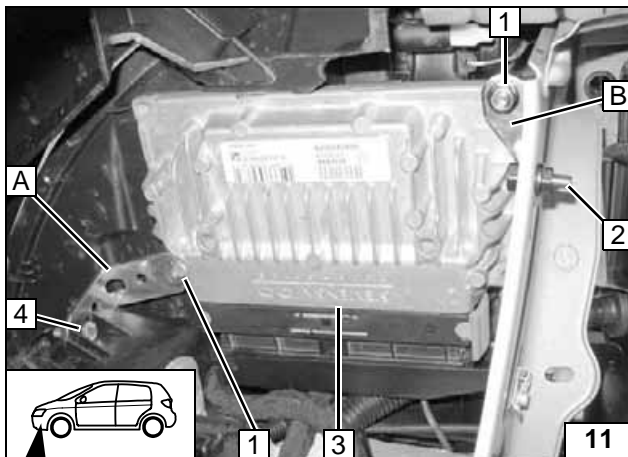
Preparing installation location

Only on vehicles with automatic transmission

Remove control unit for automatic transmission (1), discard bracket.



Preparing installation location



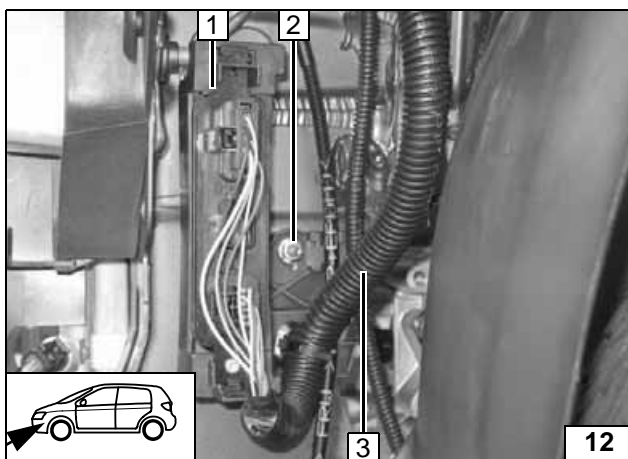
Combination Xenon lights not tested!

Cut perforated brackets **A** and **B** to length and bend in accordance with template. Install control unit for automatic transmission (3) below left-hand headlight with perforated brackets **A** and **B**. Remove clip from original vehicle wiring harness at position (4).

- (1) M6x20 bolt, flanged nut [2x each]
- (2) M6x20 bolt, large diameter washer [2x], flanged nut in original hole
- (4) M6x20 bolt, flanged nut on existing hole



Preparing installation location

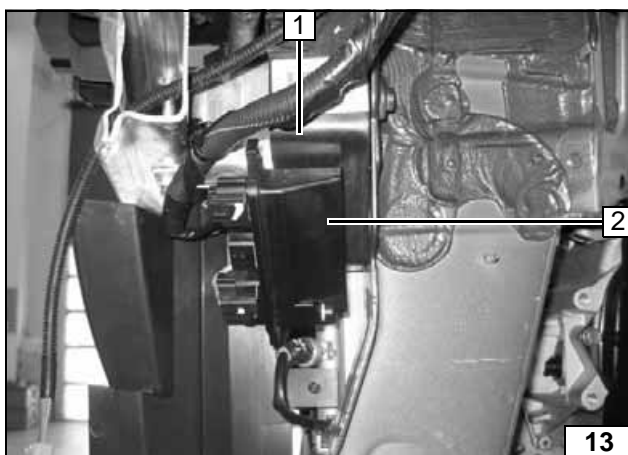


Only on vehicles with cornering light

- (1) Remove control unit
- (2) Original vehicle M6 nut



Preparing installation location

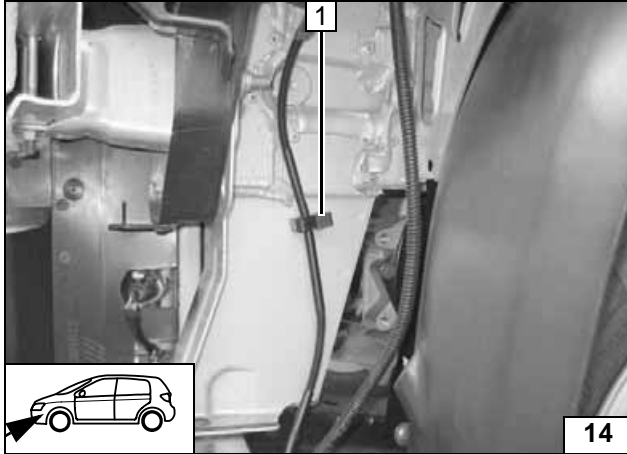
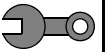


Remove control unit from frame and fasten with Velcro strip [2x]. Clean bonding surfaces beforehand. Discard frame.

- (1) Plastic trim
- (2) Control unit without frame



Preparing headlight

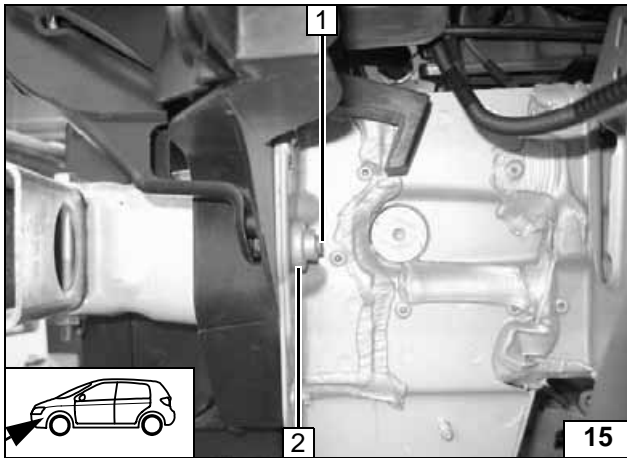


For all vehicles

- (1) Discard retaining clip

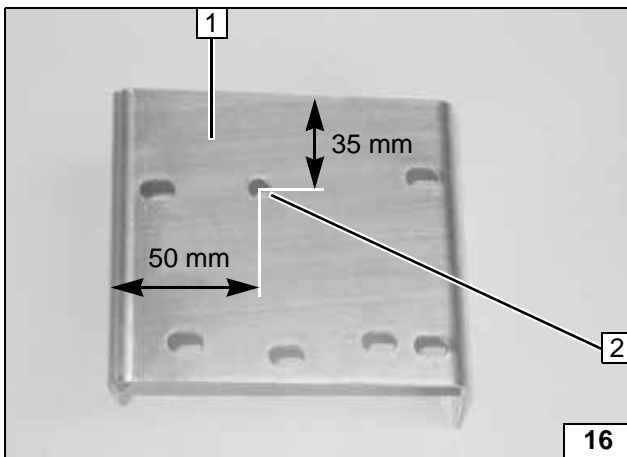


Preparing installation location



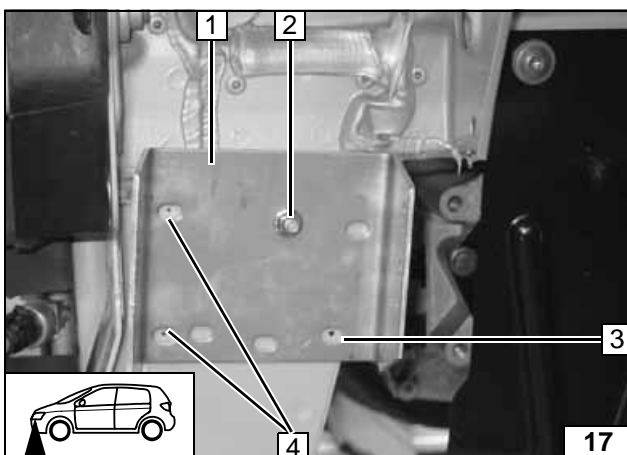
- (1) Shorten original vehicle bolt up to threaded sleeve
- (2) Threaded sleeve

Preparing installation location



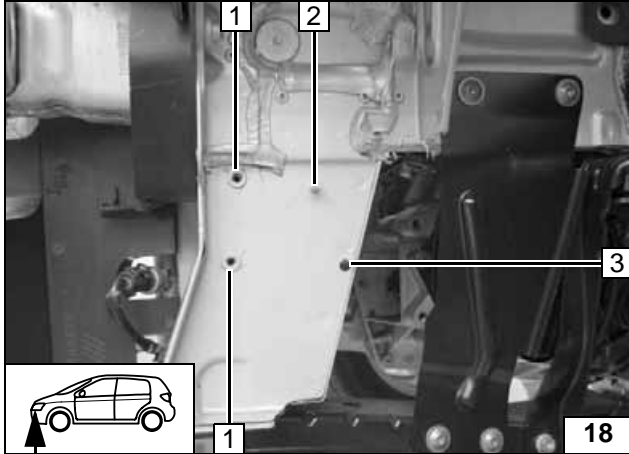
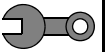
- (1) Bracket
- (2) 7 mm dia. hole

Preparing bracket



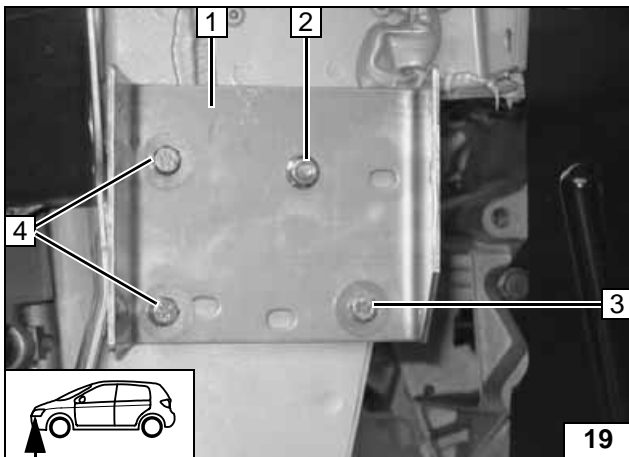
- (1) Loosely mount bracket
- (2) Original vehicle stud bolt, M6 flanged nut
- (3) 7 mm dia. hole
- (4) 9 mm dia. hole

Preparing installation location



- (1) M6 rivet nut [2x]
- (2) Original vehicle stud bolt
- (3) 7 mm dia. hole

Preparing installation location

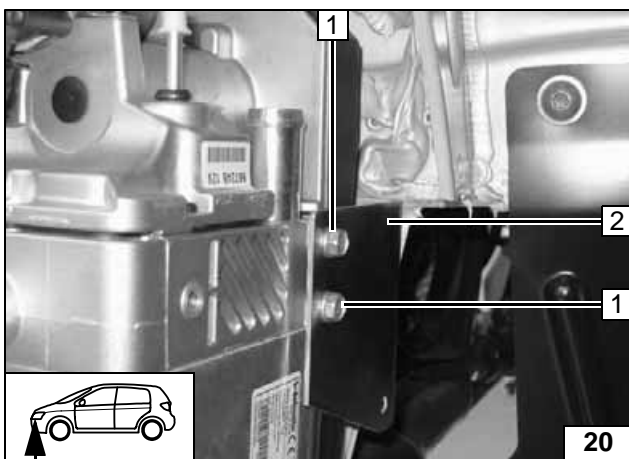


Insert 5 mm shim between bracket and vehicle at all four fastening points.

- (1) Bracket
- (2) M6 flanged nut
- (3) M6x20 bolt, large diameter washer, M6 flanged nut
- (4) M6x30 bolt, spring lockwasher, large diameter washer [2x each]



Installing bracket



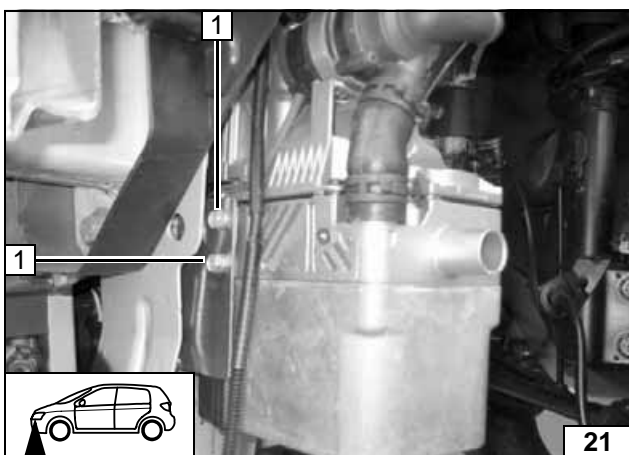
Installing heater unit

Tighten E-JOT screws to 10 Nm!

- (1) E-jot screw [2x]
- (2) Bracket

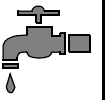


Installing heater unit



- (1) E-jot screw [2x]

Installing heater unit



Coolant connection



WARNING!

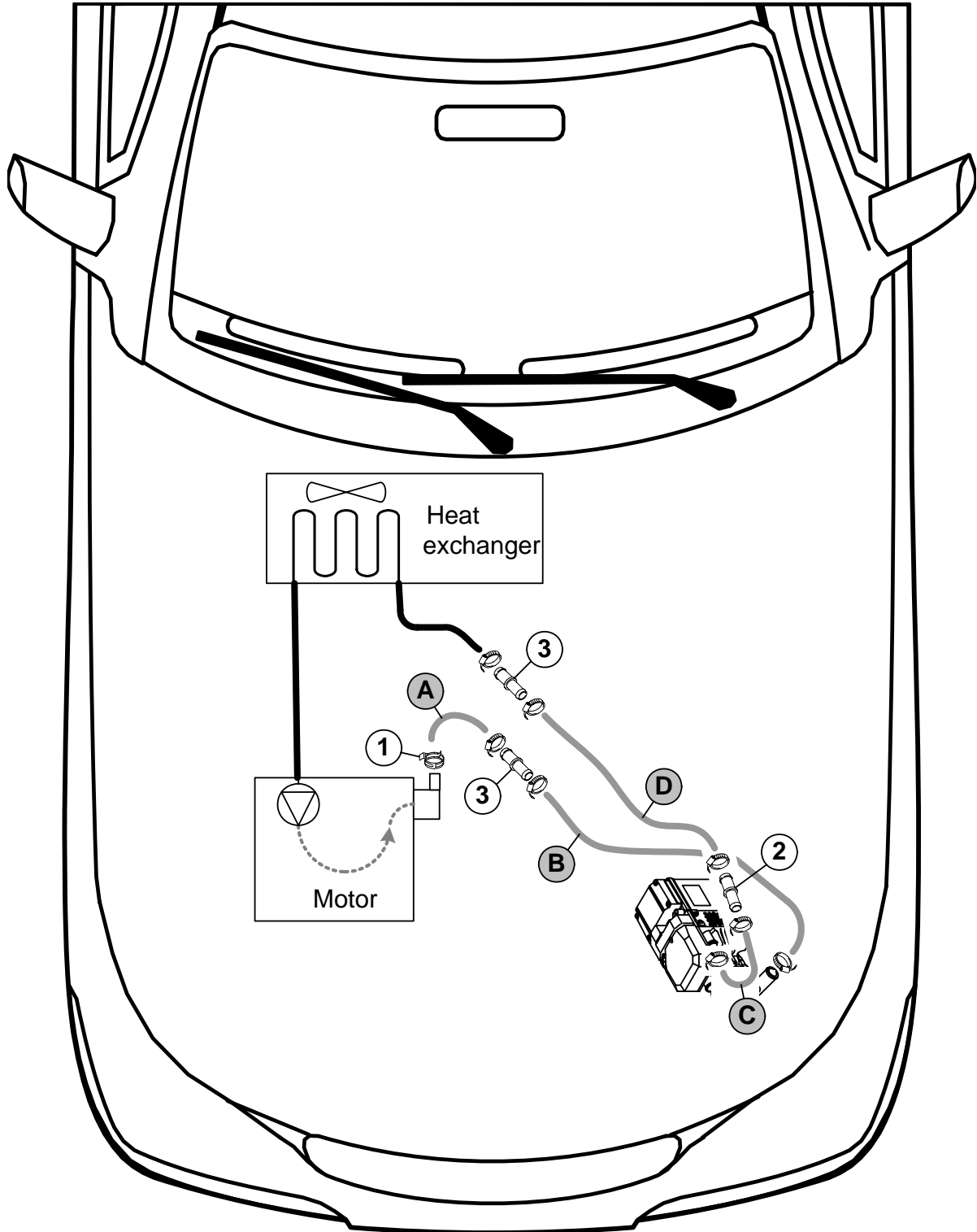
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any cold water running off should be collected using an appropriate container!

Install hoses so that they are kink-free.

Position hose clamps and spring band clamps so that no other hose can be damaged.

The connection should be "inline" based on the following diagram:

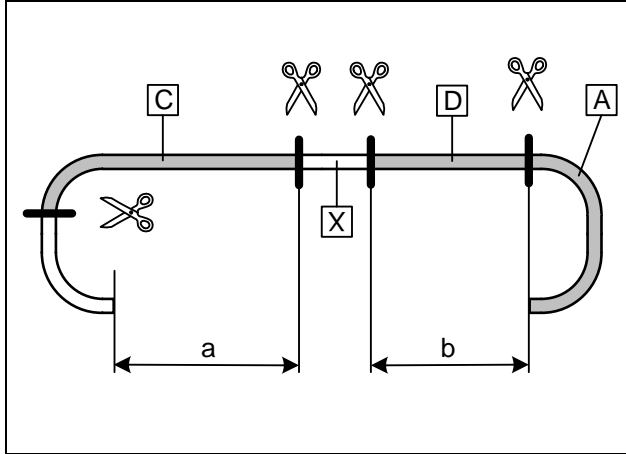


Coolant Diagram

All hose clamps = 20-27 mm dia.! 1 = Original vehicle spring clip 2 = 20x20 connecting pipe!

3 = 20x20 connecting pipe on 1.2 liter gasoline engine!

3 = 18x20 connecting pipe on 1.6 liter gasoline engine!

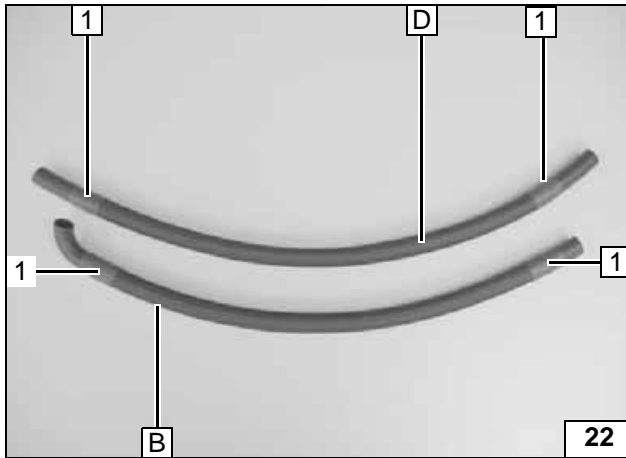


1.2 liter gasoline engine only

a = 680 mm
b = 740 mm

Cut off hose **B** shortly after elbow.
Discard section **X**

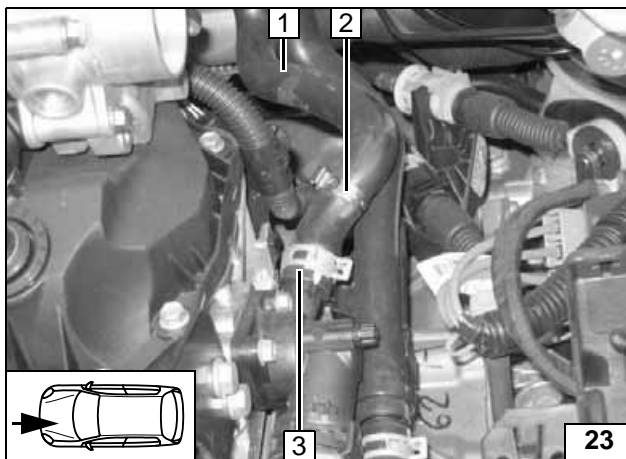
Cutting coolant hoses to length



Cut braided protection hoses to length and slide onto hose **B** and **D**.

(1) Cut heat shrink plastic tubing in middle, slide on and shrink

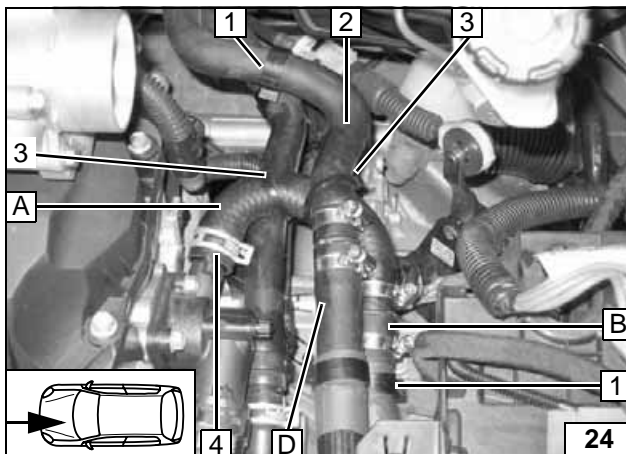
Preparing coolant



Original vehicle clamp (**3**) and hose
Pull off heat exchanger inlet. Original vehicle clamp will be reused!

(1) Hose on heat exchanger inlet
(2) Remove clamp and throttle installed in hose and discard

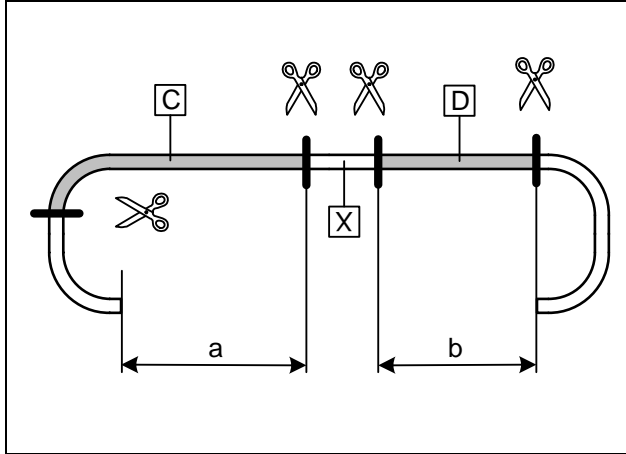
Cutting point



Before connecting, fill the water hoses with coolant.

(1) Hose bracket
(2) Original vehicle hose to heat exchanger inlet
(3) Cable tie
(4) Engine outlet with original vehicle hose clamp

Connection on engine outlet and heat exchanger inlet



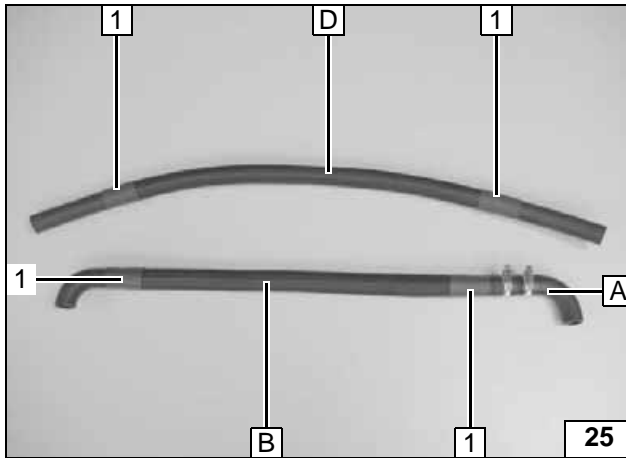
1.6 liter gasoline engine only

a = 650 mm
b = 650 mm

Cut off hose **B** shortly after elbow.
Discard section **X**



Cutting coolant hoses to length

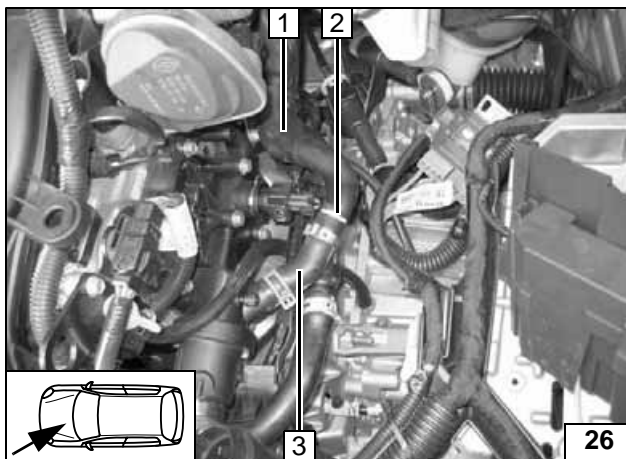


Cut braided protection hoses to length and slide onto hose **B** and **D**. Install included molded hose **A** according to diagram.

(1) Cut heat shrink plastic tubing in middle, slide on and shrink



Preparing coolant

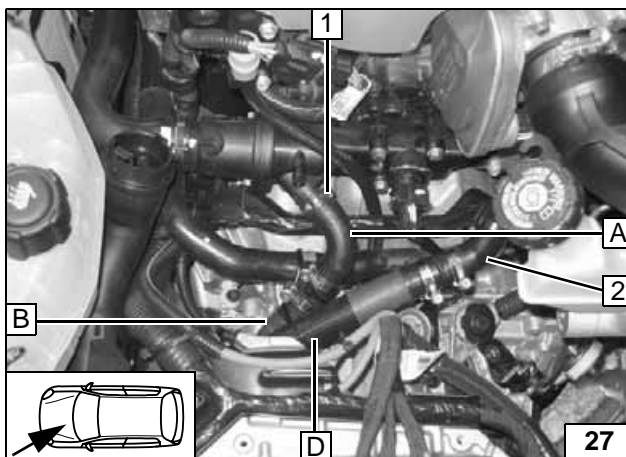


Discard original vehicle clamp (**3**) and hose section.

(1) Hose on heat exchanger inlet
(2) Cutting point



Cutting point

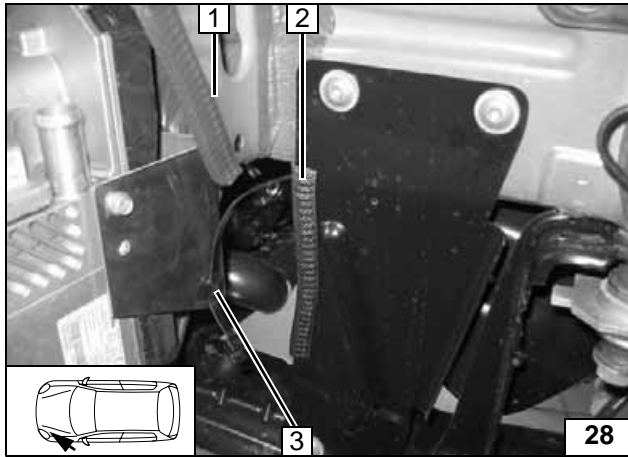


Before connecting, fill the water hoses with coolant.

(1) Included 25 mm spring clip
(A) Included 18x18 molded hose on engine outlet
(2) Hose on heat exchanger inlet



Connection on engine outlet and heat exchanger inlet

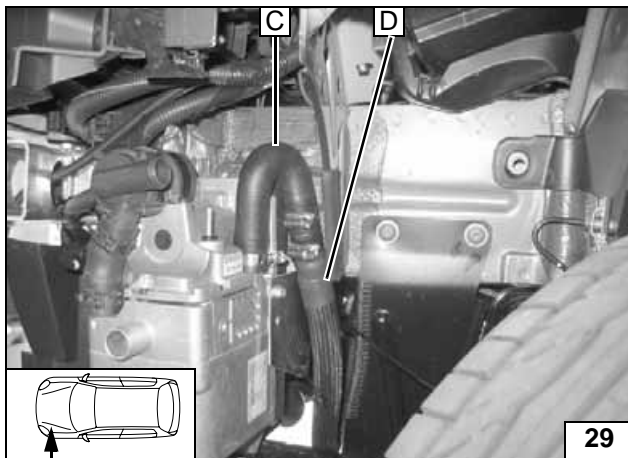


All vehicles

- (1) Edge protection 100 mm long
- (2) Edge protection 200 mm long
- (3) Included clip with cable tie in existing hole



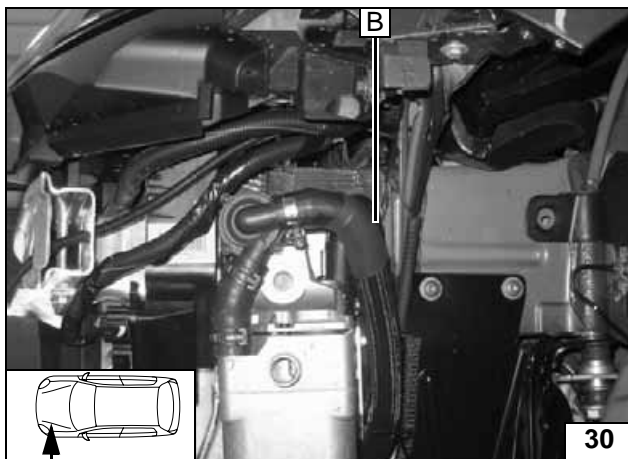
Installing clip and edge protection



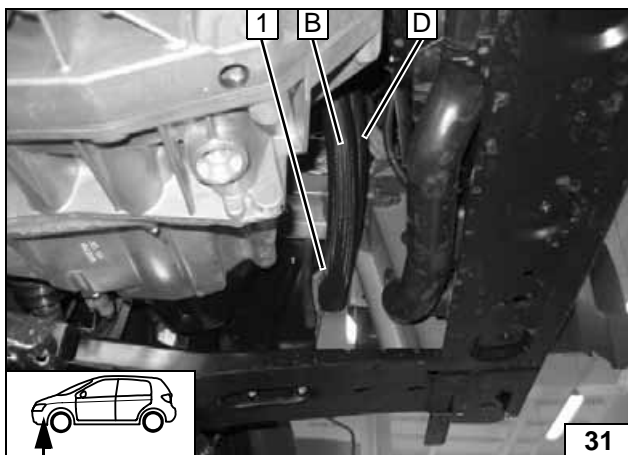
Before connecting, fill the water hoses with coolant.



Connection on heater unit

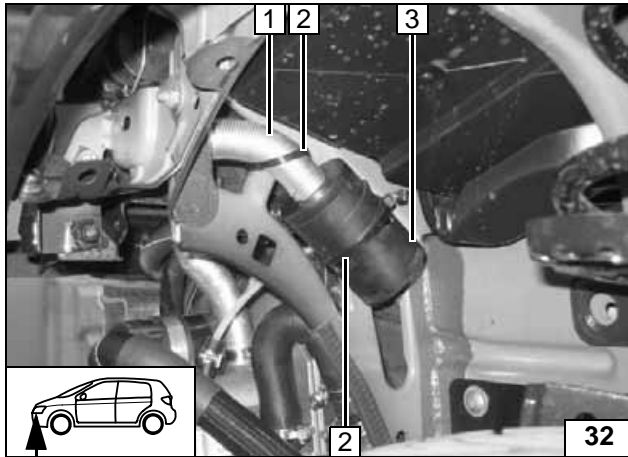
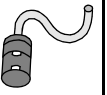


Connection on heater unit



- (1) Clip with cable tie

Routing in engine compartment



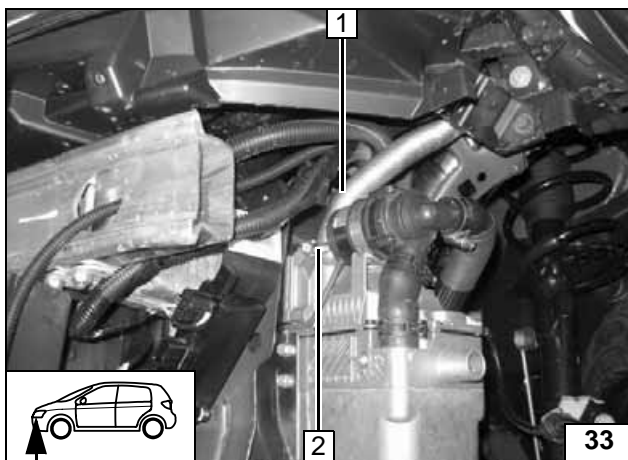
Combustion air connection

Ensure proper installation position of intake muffler, see "Installation Instructions".
Shorten intake pipe by 60 mm.

- (1) Intake pipe
- (2) Cable tie [2x]
- (3) Intake muffler



Installing muffler



- (1) Combustion air pipe
- (2) 27 mm dia. hose clamp



Installing combustion air pipe



Fuel Connection

CAUTION!

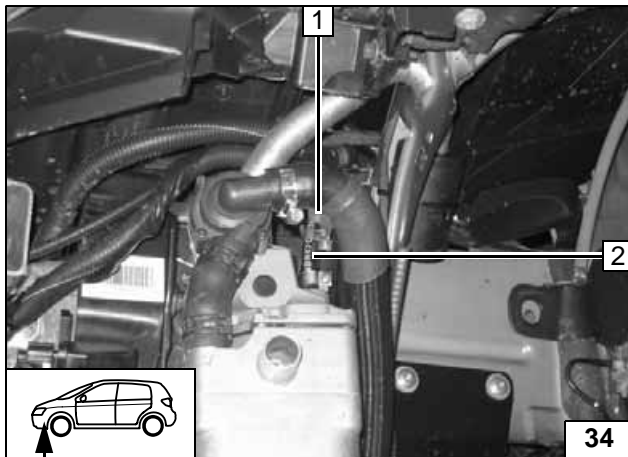
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off with an appropriate container.

Install fuel line and wiring harness so that they are protected against stone impact.
Mount the fuel line and wiring harness with rub protection on sharp edges.

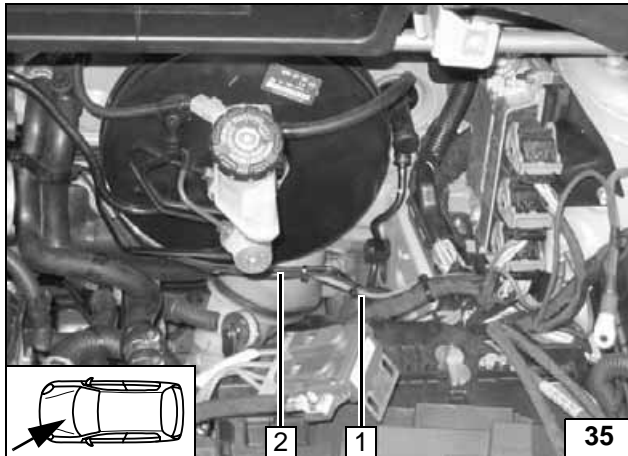
WARNING!

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



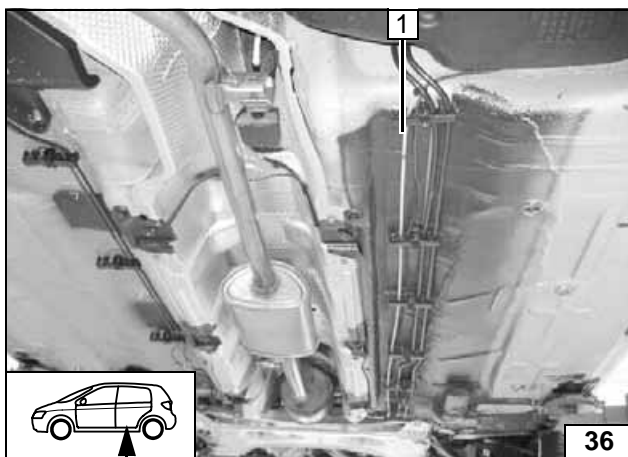
- (1) Mecanyl fuel line
- (2) Hose section, 10 mm dia. hose clamp [2x]

Con-
nec-
tion on
heater unit



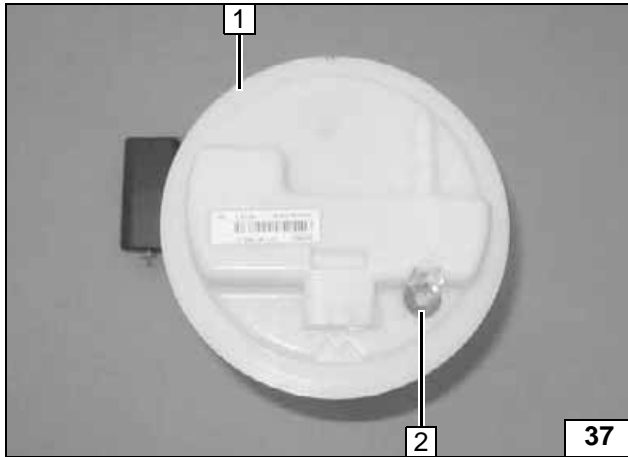
- (1) Mecanyl fuel line
- (2) Metering pump wiring harness

Install-
ing
lines



- (1) Wiring harness of metering pump, fuel line from heater unit

Install-
ing
lines

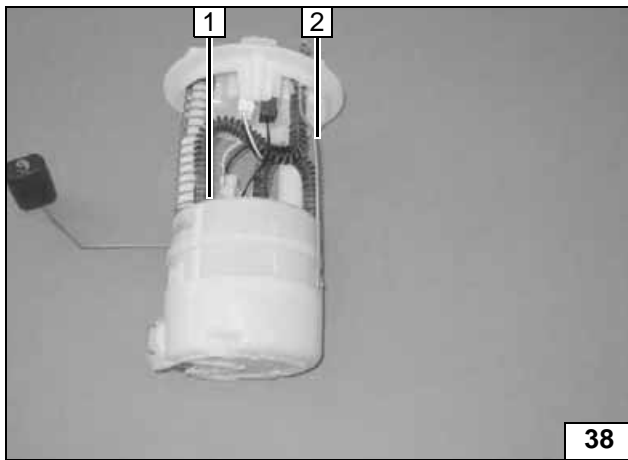


Remove fuel tank and fuel-tank sending unit according to manufacturer's information. Copy hole pattern as shown and drill 6 mm dia. hole.

- (1) Fuel-tank sending unit
- (2) 5 mm dia. large diameter washer



Preparing fuel-tank sending unit

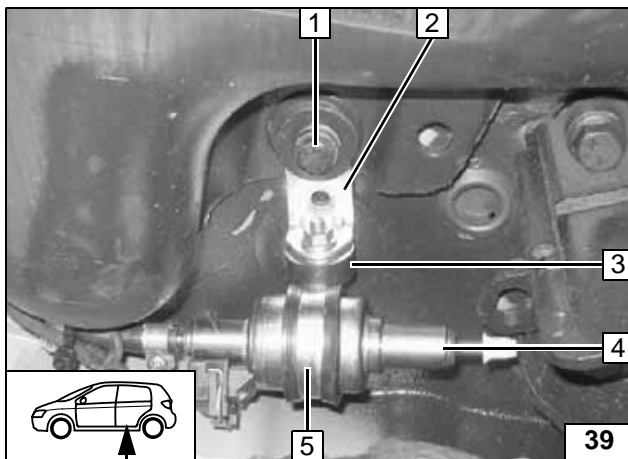


Shape fuel standpipe according to template, cut to length and install, see "installation instructions".

- (1) Fuel-tank sending unit
- (2) Fuel standpipe



Installing fuel standpipe

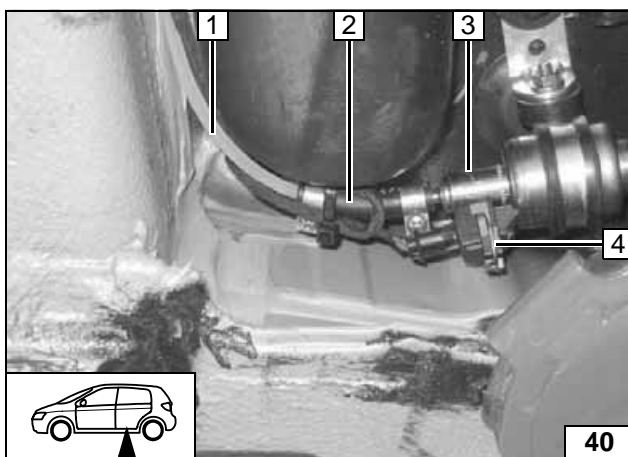


Install tank and fuel-tank sending unit according to manufacturer's specifications.

- (1) Original vehicle bolt
- (2) Angle bracket
- (3) Silent block, M6 flanged nut [2x]
- (4) Metering pump
- (5) Rubber-coated p-clamp

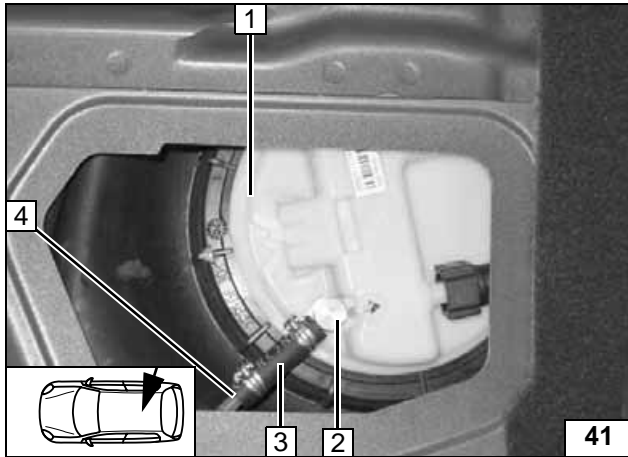


Installing metering pump



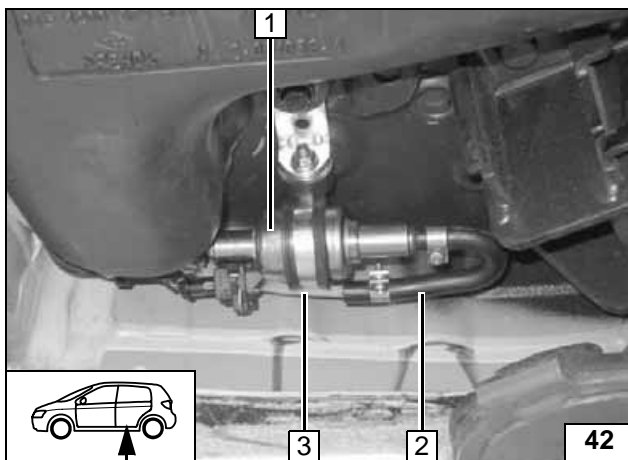
- (1) Fuel line
- (2) Hose section, 10 mm dia. hose clamp [2x]
- (3) Metering pump
- (4) Wiring harness of metering pump with connector

Connection to metering pump



- (1) Fuel-tank sending unit
- (2) Fuel standpipe
- (3) Hose section, 10 mm dia. Caillau clamp [2x]
- (4) Remaining section of fuel line

**Connect-
ing fuel
line**

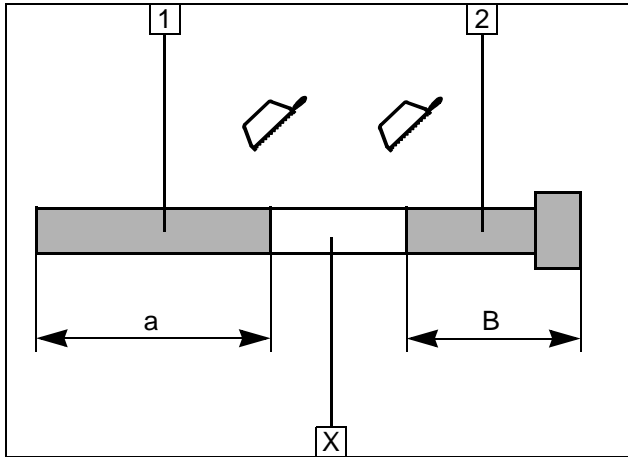
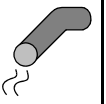


Fuel line from fuel standpipe on intake side of metering pump [side without connector]. Check the position of the components; adjust if necessary. Check that they have free clearance.

- (1) Metering pump
- (2) 180° molded hose elbow, 10 mm dia. clamp [2x]
- (3) Remaining section of fuel line



**Conne-
ction to me-
tering
pump**

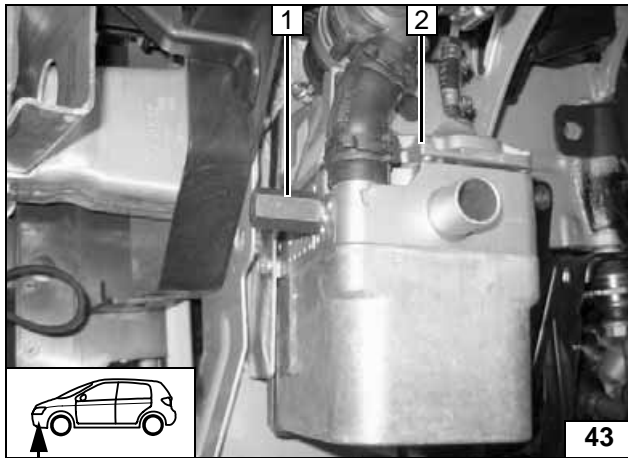


Exhaust-gas connection

- (1) Exhaust pipe
a = 280 mm
- (2) Exhaust end section
b = 520 mm

Discard section X

Preparing
exhaust
pipe

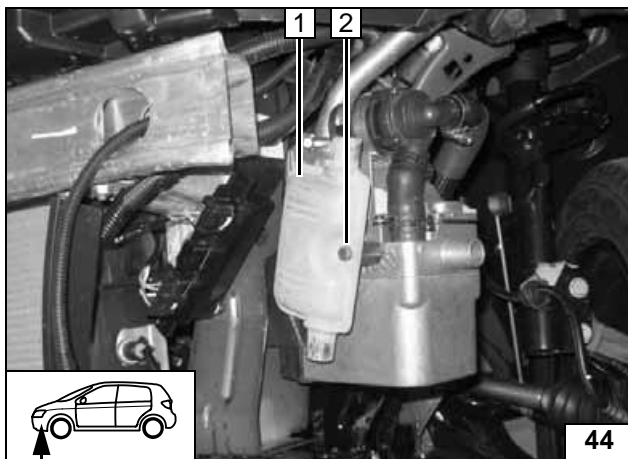


E-jet stud, tightening torque 10 Nm.

- (1) E-jet stud, M6x30 spacer bolt
- (2) Heater unit

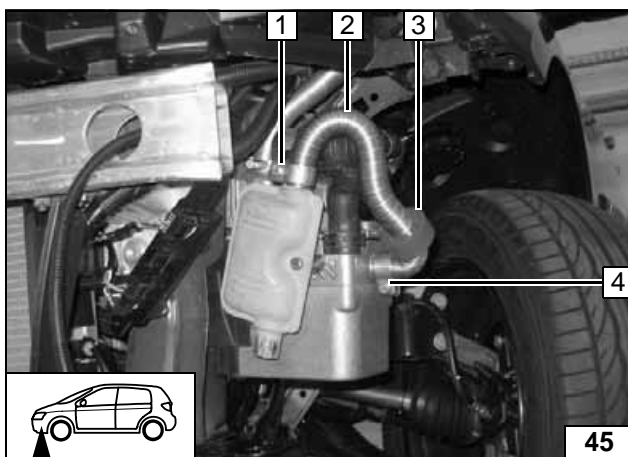


Installing
muffler



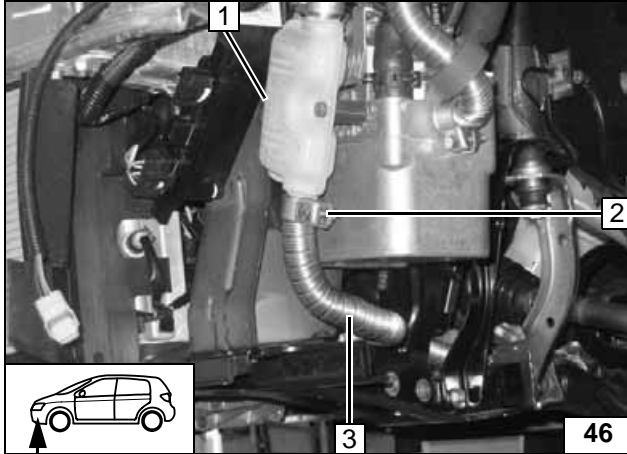
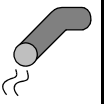
- (1) Exhaust muffler
- (2) M6x12 bolt, spring lockwasher

Installing
muffler



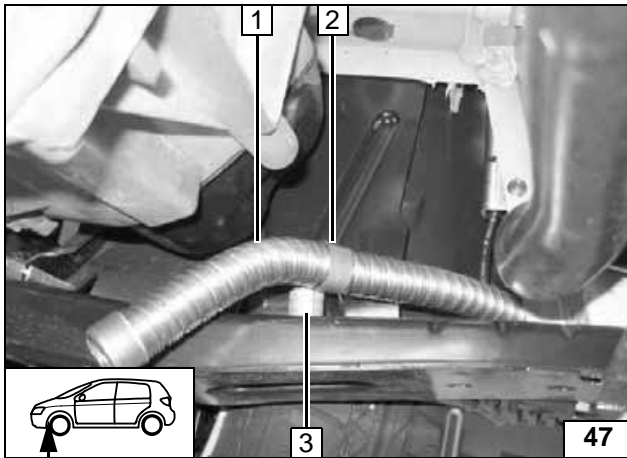
- (1) Hose clamp
- (2) Exhaust pipe
- (3) Position red (rt) rubber isolator
- (4) Hose clamp

Installing
exhaust
pipe



- (1) Exhaust muffler
- (2) Hose clamp
- (3) Exhaust end section

Installing exhaust end section

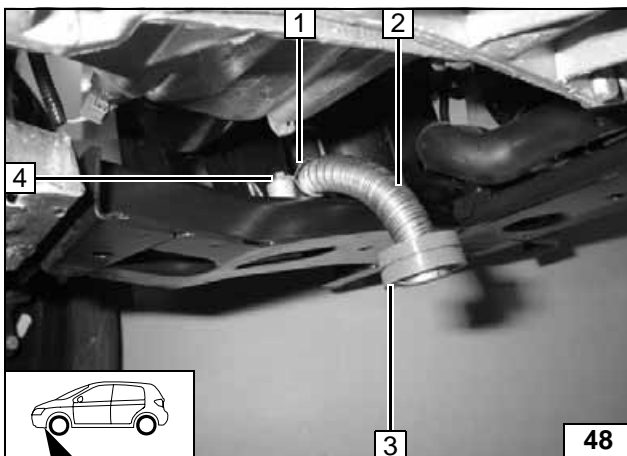


On vehicles without underride protection!

Ensure sufficient distance to neighboring components.

- (1) Exhaust end section
- (2) P-clamp
- (3) M6x40 bolt, 20 mm long spacer sleeve, M6 flanged nut on existing hole

Installing exhaust end section

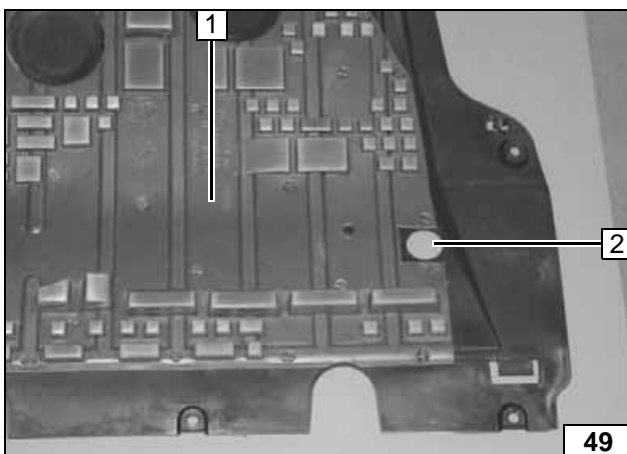


On vehicles with underride protection!

Ensure sufficient distance to neighboring components.

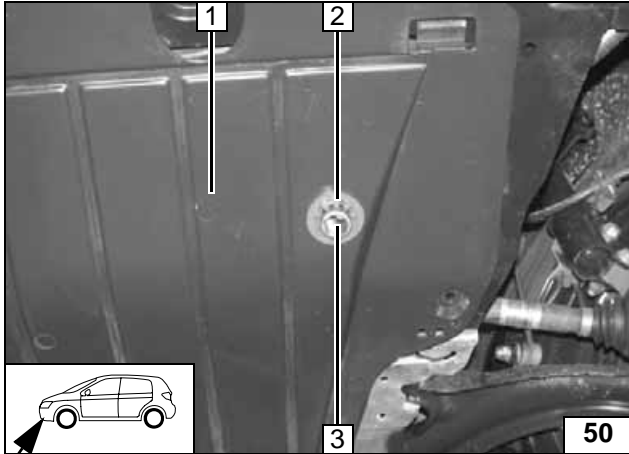
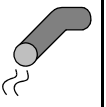
- (1) P-clamp
- (2) Exhaust end section
- (3) Red (rt) rubber isolator
- (4) M6x40 bolt, 20 mm long spacer sleeve, large diameter washer, M6 flanged nut on existing hole

Installing exhaust end section



42 mm dia. hole (2) in underride protection (1)!

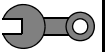
Cutting out underride protection



Align exhaust end section (2) flush on red (rt) rubber isolator (1).



**Installing
underide
protection**



Final Work

WARNING!

Reassemble the disassembled components in reverse order.
Check all hoses, hose, spring and Caillau clamps, as well as all electrical connections for firm seating.
Secure all loose cables using cable ties.
Spray heater unit components with anti-corrosion wax (Tectyl 100K, Order No. 111 329).

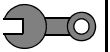
- Connect battery
- Start the engine, bleed the coolant circuit according to the instructions of the vehicle manufacturer and add coolant
- Set the digital timer.
- Adjust the vehicle heater with automatic air-conditioning or without automatic air-conditioning according to "Operating Instructions for End Customer".
- Check the proper operation of the additional heater, see the operating instructions/installation instructions.
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.



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Template for Fuel Standpipe

View A



100 mm



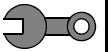
Scale 1:1

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

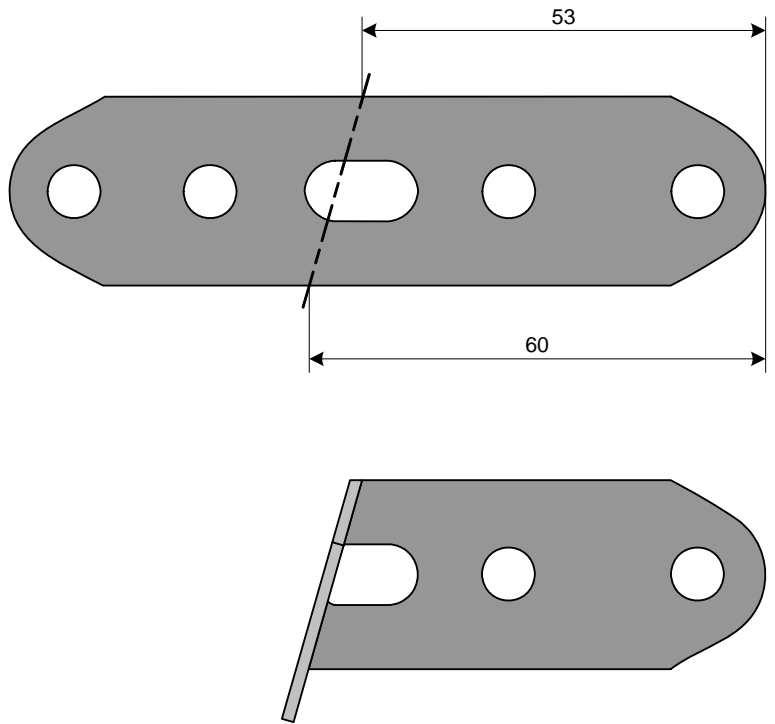
Correct major differences in the printer settings or request an original printout.

100 mm

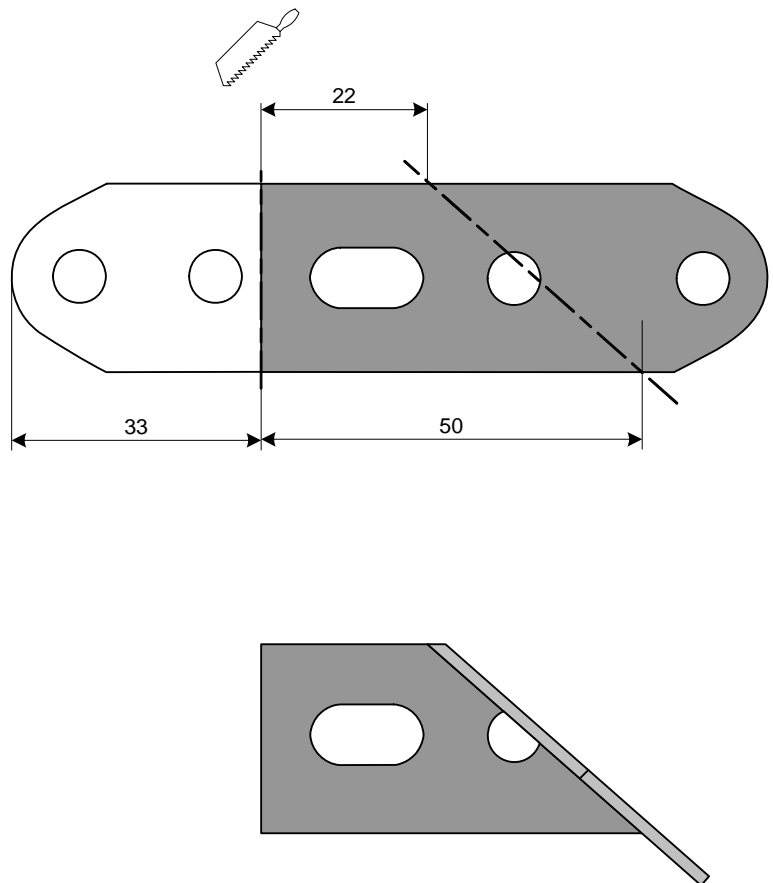
0



Template for Perforated Bracket A



Template for Perforated Bracket B



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.

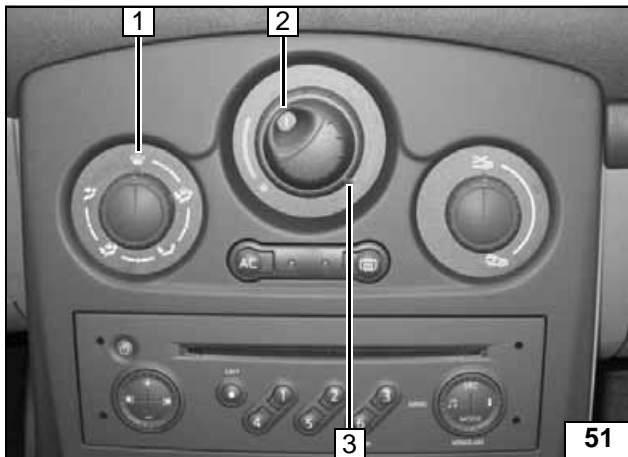
Heating time = driving time

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 unit will then only switch on the vehicle fan to ventilate the vehicle interior in the position Winter  heat and in the position Summer .

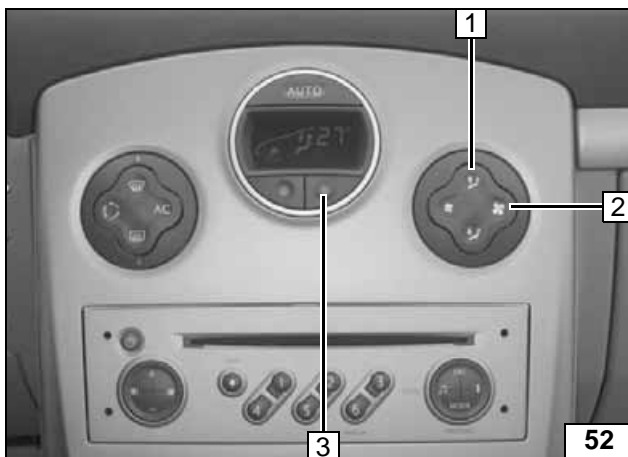
Before parking the vehicle, make the following settings:



- (1) Direct air outlet toward windshield
- (2) Set fan to level "1", or possibly "2"
- (3) Set temperature to "max."



For vehicles without automatic air-conditioning



- (1) Air outlet to "upward"
- (2) Set fan to level "2", or possibly "3"
- (3) Temperature to "27°C"



For vehicles with automatic air conditioning