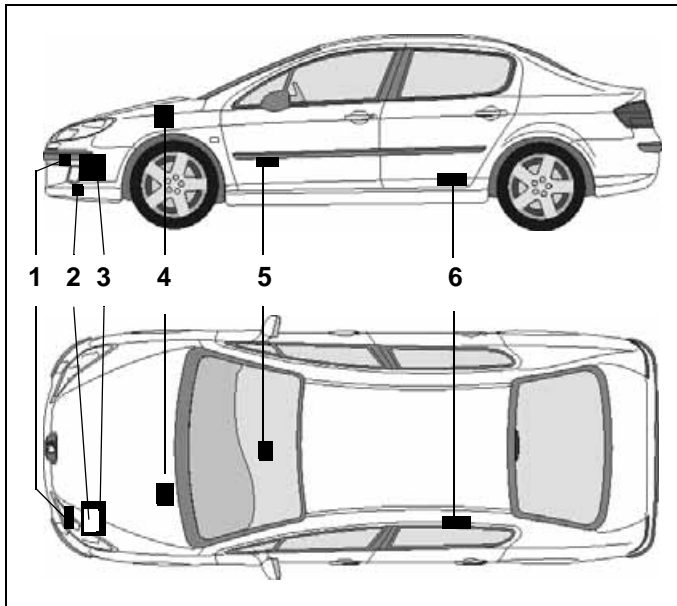


Water Heater Unit

Auxiliary heating *Thermo Top C* ^{e1}_{00 0002}



Installation Instructions

Peugeot 407 Peugeot 407 SW

Gasoline and diesel

from the 2004 model

For left-hand drive vehicles only

Legend for Figure 1:

- 1 Combustion air intake silencer
- 2 Exhaust silencer
- 3 Thermo Top C heater unit
- 4 Blade-type fuse holder
- 5 Time switch
- 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, 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 warning instructions.

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

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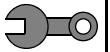
Validity

Manufacturer	Model	Type	EG-BE No. / ABE
Peugeot	407	6	e2*2001 / 116*029 e2*2001 / 116*0331 e2*2001 / 116*0346

Engine type	Engine type	Power in kW	Engine capacity in cm ³
6FZ	Gasoline	85	1749
RFN	Gasoline	100	1997
RFJ	Gasoline	100	1997
3FZ	Gasoline	116	2230
9 Hz	Diesel	80	1560
RHR	Diesel	100	1997
4HT	Diesel	125	2179

Vehicle types, engine types, equipment variants as well as national specifications not listed in these installation instructions have not been tested. Installation according to these installation instructions may, however, be possible.

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



Heater Unit / Installation Kit

Amount	Description	Order no.:
1	Commercial supply of required control	See price list
1	Installation kit for Peugeot 407 Gasoline and diesel	1303094C

Recommended heater unit for the relevant vehicle class:

Vehicle	Heater unit
Compact car	Thermo Top E
Mid-class, station wagon	Thermo Top C
Luxury, van, off-roader	Thermo Top P

Select the heater unit based on the size of the vehicle passenger compartment and the customer's comfort requirements.



Foreword

These installation instructions apply to Peugeot 407 vehicles with gasoline and diesel engines – re. validity, see page 2 – from model year 2004 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, where this is the case the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top C/E* should 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 cable harnesses to original vehicle lines and cable harnesses using cable clips.

Sharp edges should be fitted with edge protectors (split open plastic hose).

Spray unfinished body areas, such as bore holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

Special Tools

- Torque spanner for 2.0 - 10 Nm
- Vice-grip wrench

Explanatory notes on the 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.

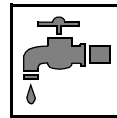
Mechanics



Electrics



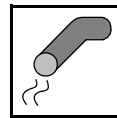
Water connection



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.



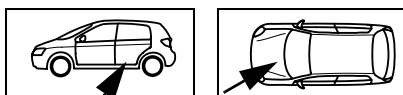
Specific risk of fire or explosion.



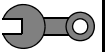
Reference to general installation instructions of Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.



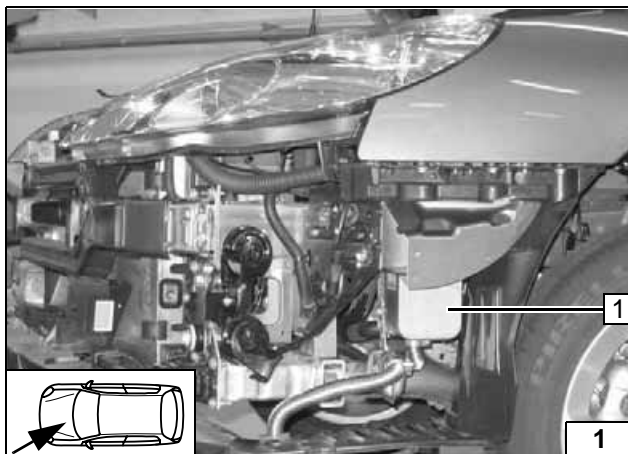
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle



Preliminary Work

Warning!

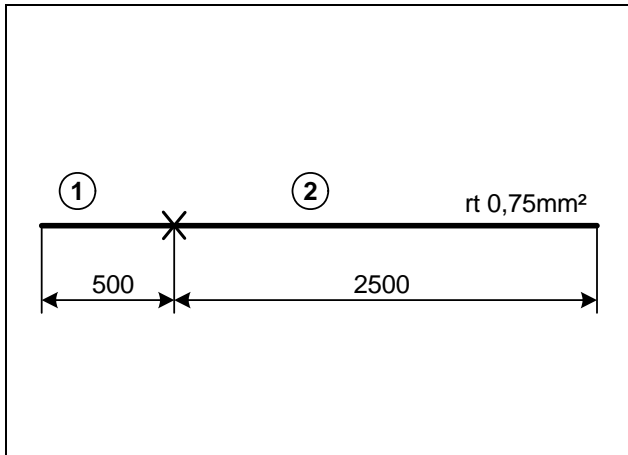
- Disconnect the battery.
- Let off pressure in the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Completely remove the battery.
- Remove the central electronics covers in the engine compartment.
- Completely remove the air filter with intake hose.
- Open the tank cap, ventilate the tank.
- Close the tank cap again.
- Remove the right underbody underride protection (diesel vehicles only).
- Remove the left underbody underride protection.
- Remove the underride protection.
- Remove the left wheel-house panel
- Remove the bumper.
- Remove the left underride protection
- Open right tank mounting service lid (only gasoline vehicles).
- Remove tank mounting according to manufacturer's instructions (only gasoline vehicles).
- Remove the left dashboard panel.
- Remove air conditioning control according to manufacturer's instructions.



Heater unit installation location

(1) Heater unit

Installation location

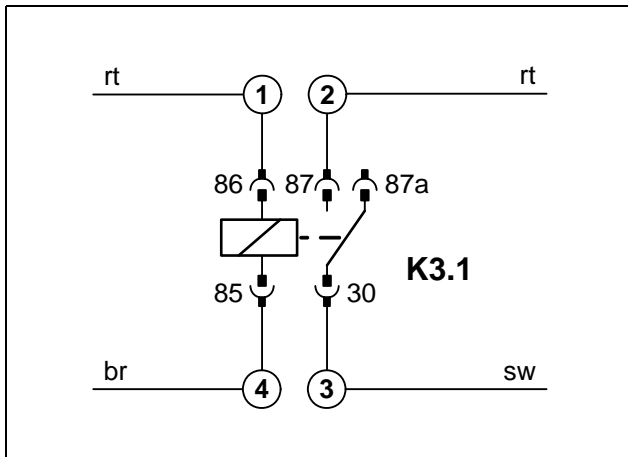


Preparing the electrics

Only for automatic air conditioning
Insert wire sections **2** and **4** in enclosed insulating hose.



Cutting wire into sections



- 1 = Red (rt) wire 500 mm
- 2 = Red (rt) wire 2,500mm
- 3 = Black (sw) wire 2,500 mm
- 4 = Brown (br) wire 900 mm

Connect with enclosed blade receptacles. Connect brown (br) wire **4** from K3.1/85 to K3/85 according to the circuit diagram. Insert wires **2** and **3** in enclosed insulating hose.



Pre-assembling the K3.1 relay

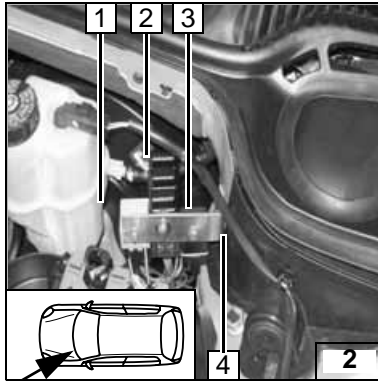


Electrical Connection



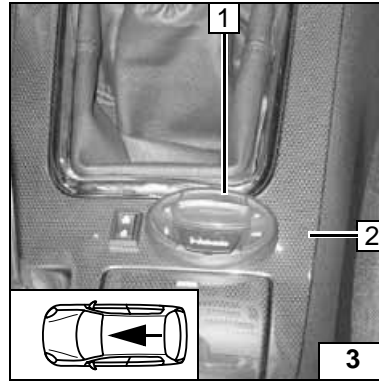
fuse holder, K3 relay

- (1) K3 relay, M5x12 bolt, flanged nut
- (2) Fuse holder, M4x12 bolt, washers, nuts
- (3) K3.1 relay, M5x12 bolt, flanged nut
- (4) Fuse holder on existing bolt



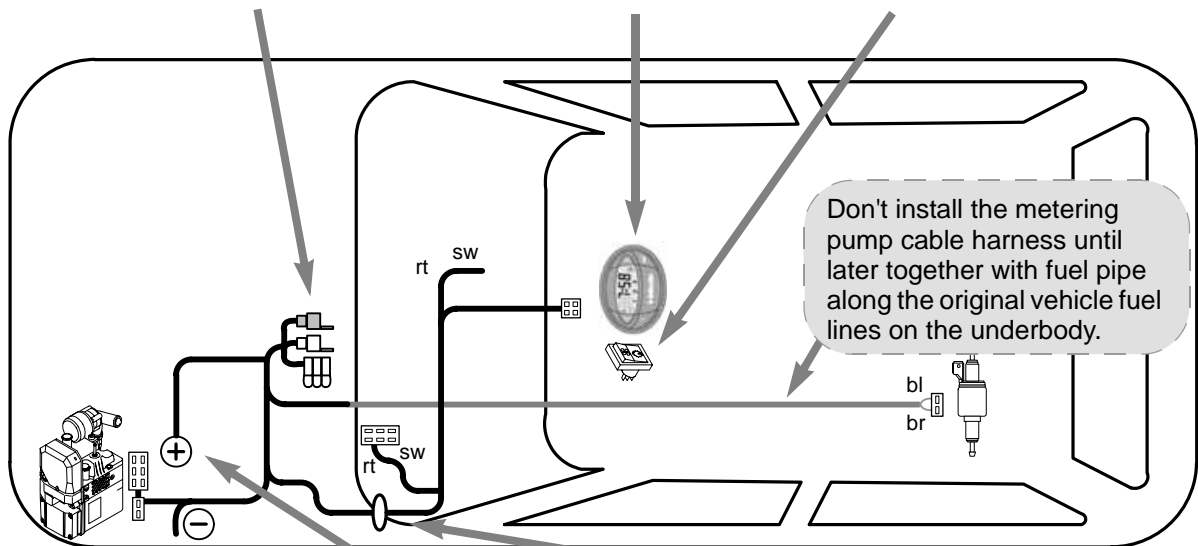
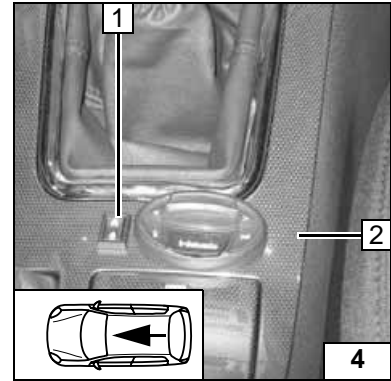
Time switch

- (1) Time switch
- (2) Center console

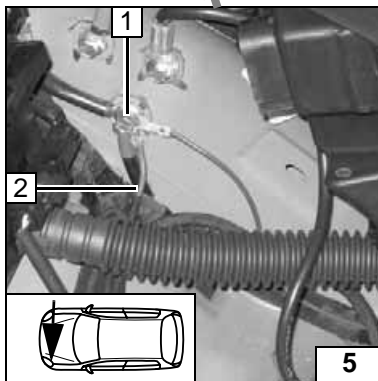


Option. summer / winter switch

- (1) Summer / winter switch, bore hole Ø 12 mm.
- (2) Center console

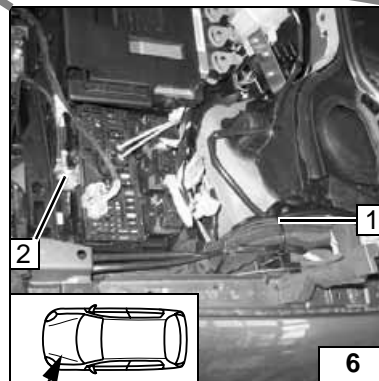


Electrics diagram



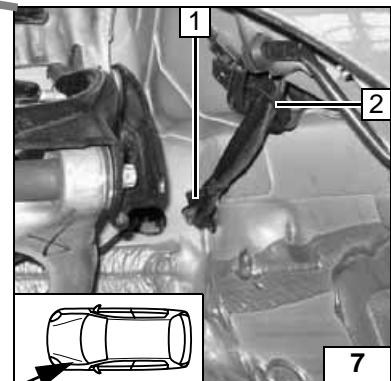
Ground connection

- (1) Original vehicle chassis ground point
- (2) Ground wire



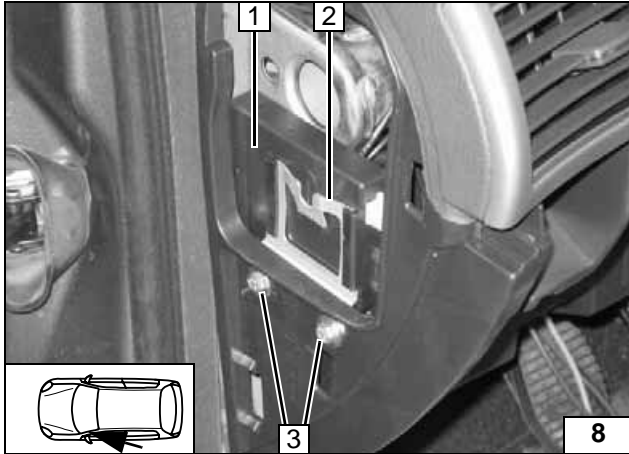
Installing the cable harness/ positive connection

- (1) Blower controller cable harness, clock cable harness
- (2) Positive line to the original vehicle positive base.



Cable harness feed-through

- (1) Protective rubber sleeve in left wheel housing
- (2) Cable feed-through from the engine compartment

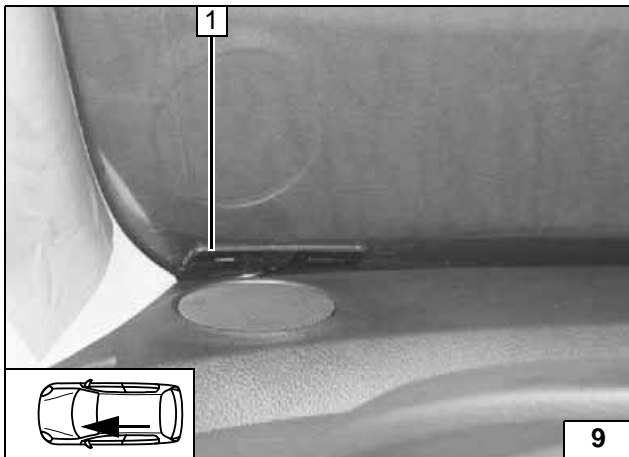


Remote Start T80 Option

- (1) Receiver
- (2) Bracket
- (3) 5.5 mm bore hole; M5x12 bolt, washer, M5 flanged nut [2x each]

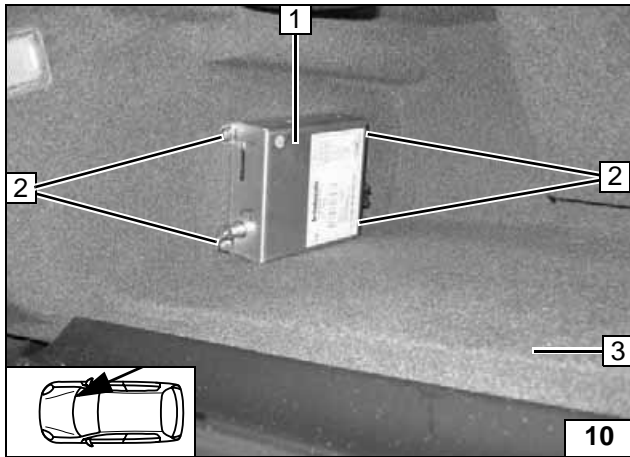


Assembling the receiver



- (1) Antenna

Assembling the antenna

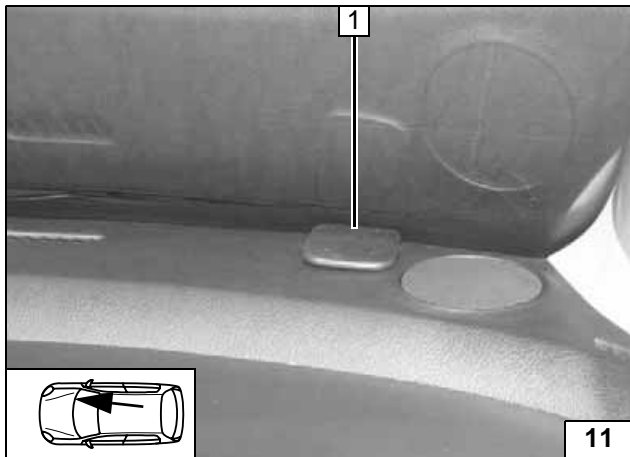


Thermo Call TC 1.1 option

- (1) Receiver
- (2) Self-tapping screws Ø 5.5x13 [4x]
- (3) Glove compartment

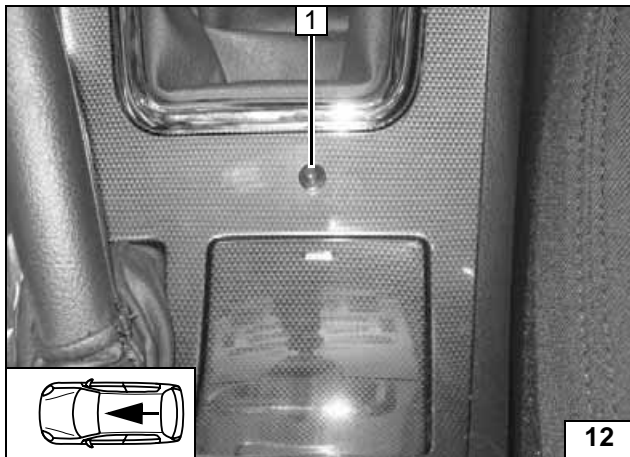


Assembling the receiver



- (1) Antenna

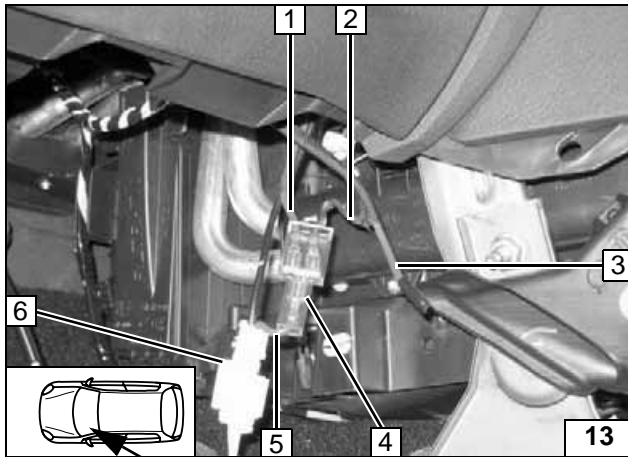
Assembling the antenna



- (1) Tip switch



Assembling the tip switch

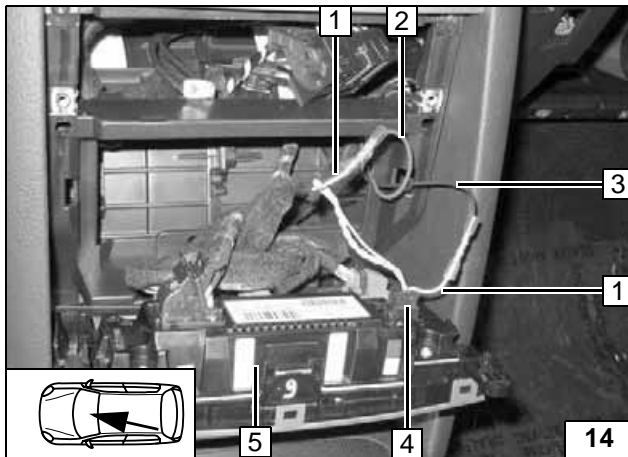


Automatic air conditioning blower control

Connect with enclosed 3-way splitter according to the circuit diagram.

- (1) Red (rt) wire from original vehicle fuse
- (2) Black (sw) wire from K3/30
- (3) Red (rt) wire from K3/87a, insulate and tie back
- (4) 3-way splitter
- (5) Red (rt) wire from blower motor connector
- (6) 2-pin blower motor connector

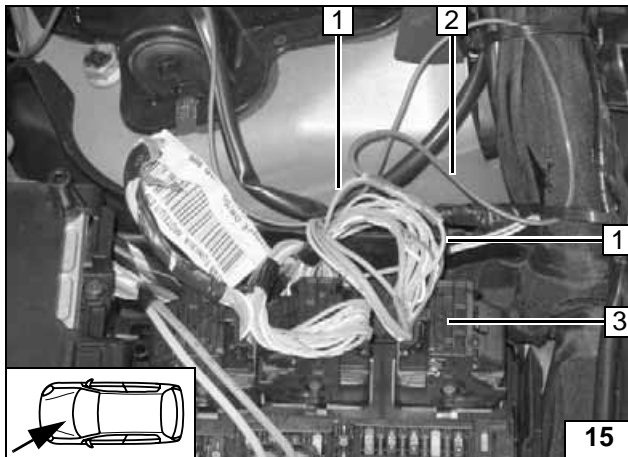
Blower motor controller



Connect with enclosed red butt connectors according to the circuit diagram.

- (1) White (ws) wire (code XC2B)
- (2) Red (rt) wire 2 from K3.1/87
- (3) Black (sw) wire 3 from K3.1/30
- (4) 6-pin connector pin 1
- (5) Air conditioning control

Blower motor control unit

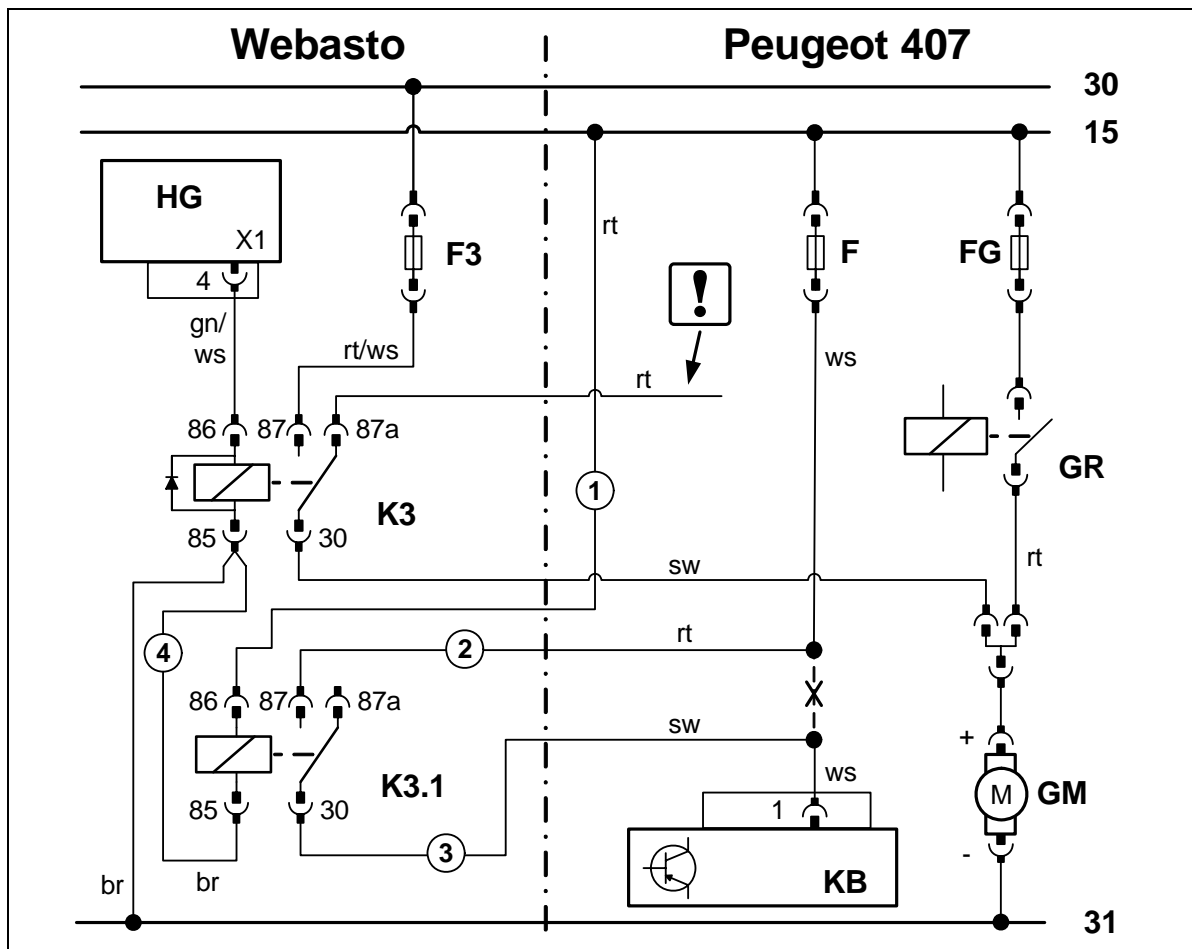


Measure the directly switched terminal 15 without turn-off delay. Pin assignment and cable colors may vary depending on vehicle equipment.

Connect with enclosed blue butt connector according to the circuit diagram.

- (1) Terminal 15 wire pin 3 [blue or pink]
- (2) Red (rt) wire 1 from K3.1/86
- (3) Central electric connector

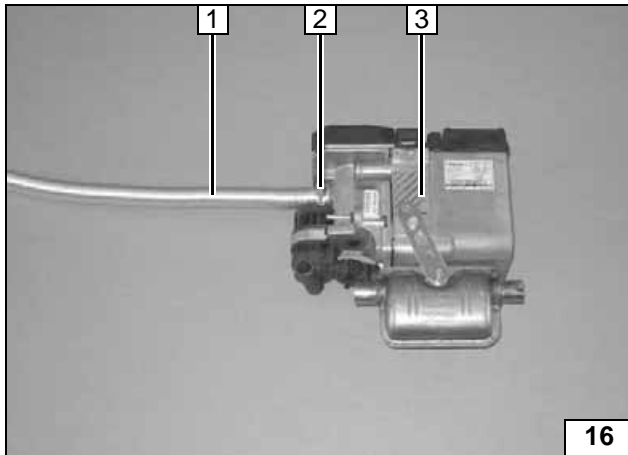
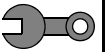
Connecting to central electrics



Circuit Diagram

Webasto components		Peugeot components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Blower motor	rt	red
F3	Fuse 25A	GR	Blower relay	ws	white
K3	Blower relay	KB	Air conditioning control	sw	black
K3.1	Supplementary relay	FG	Blower fuse	br	brown
		F	Fuse 10A	gn	green
					Insulate and tie back wire ends
				X	Splitting point

Legend



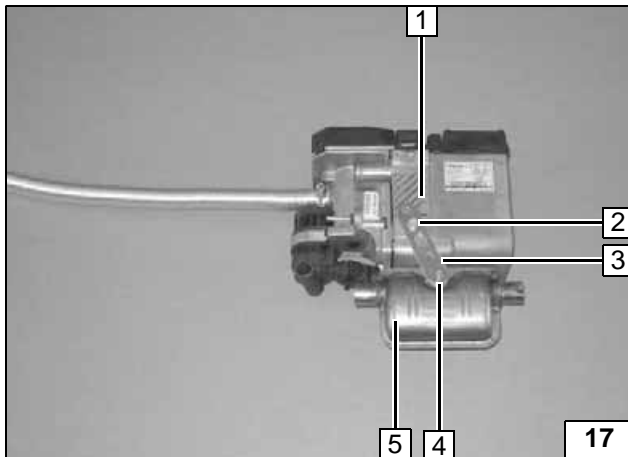
Pre-assemble the Heater Unit

Note the installation position of the air intake silencer, see the Installation Instructions.

- (1) Combustion air intake pipe
- (2) Ø 27 mm hose clamp
- (3) Heater unit



Pre-assembling the Combustion Air

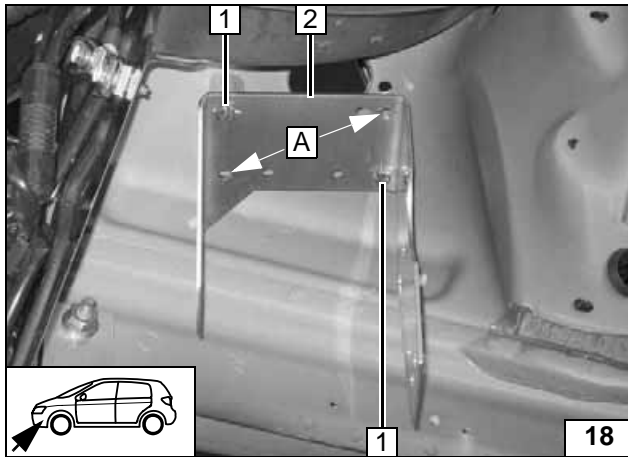
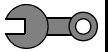


E-jot screw bolt tightening torque 10 Nm!

- (1) Heater unit
- (2) E-jot screw bolt
- (3) Fastening strap with holes
- (4) M6x20 bolt, M6 flanged nut
- (5) Exhaust silencer



Pre-assembling the exhaust silencer

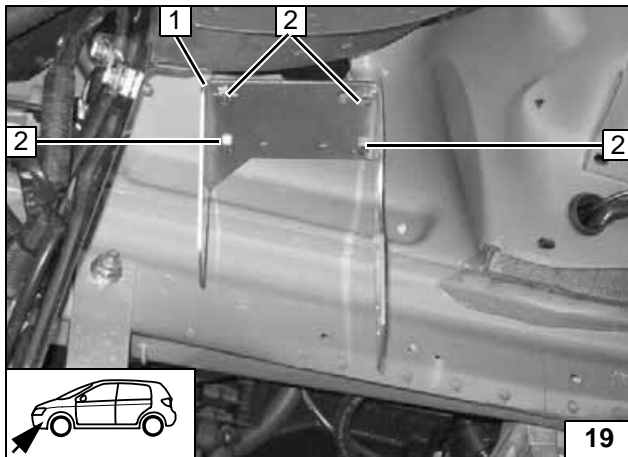


Preparing the installation location

Loosely assemble the bracket on the existing bore hole position 1. Transfer hole image to position A and drill Ø 7 mm bore holes [2x].

- (1) M6x30 bolt, spacer nut, M6 flanged nut [2x]
- (2) Bracket

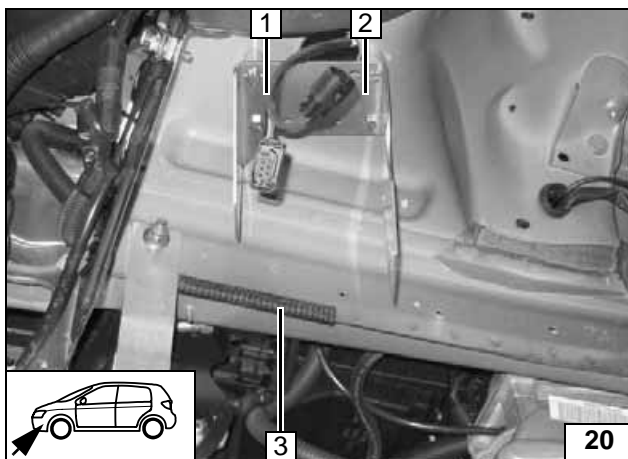
Preparing the Installation Location



Insert one 20 mm spacer each between the bracket and the vehicle at position 2.

- (1) Bracket
- (2) M6x30 bolt, 20 mm spacer, M6 flanged nut [2x]

Assembling the bracket

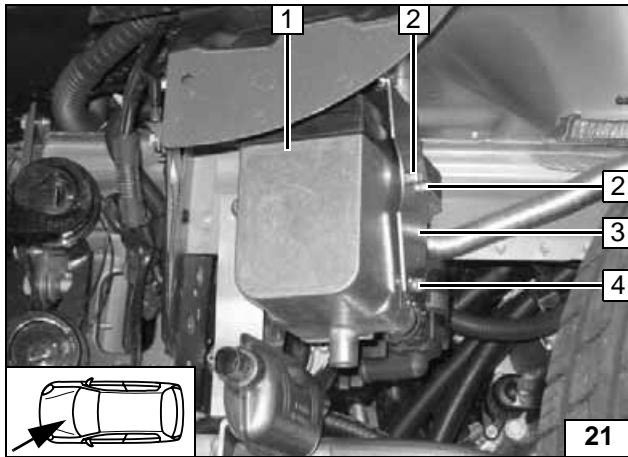
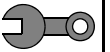


Run the heater unit cable harness to the installation location.

- (1) Heater unit cable harness
- (2) Bracket
- (3) Edge protection 100 long

Preparing the Installation Location





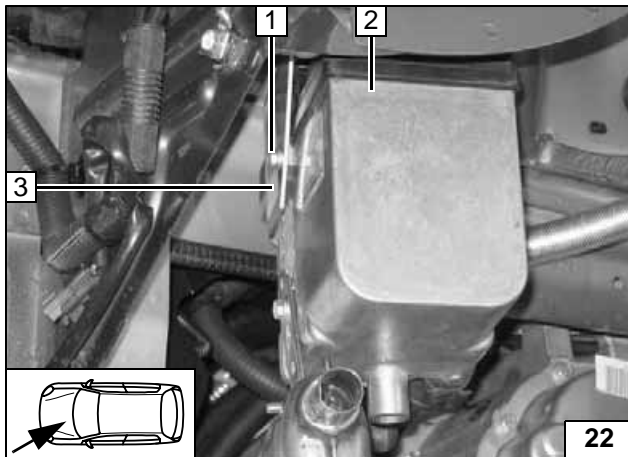
Installing the Heater Unit

E-jot screw bolts tightening torque 10 Nm!
Insert two washers between the heater unit and the bracket in position 4.

- (1) Heater unit
- (2) E-jot screw bolt [2x]
- (3) Bracket
- (4) E-jot screw bolt, washer [2x]



Assembling the heater unit



E-jot screw bolts tightening torque 10 Nm!

- (1) E-jot screw bolt
- (2) Heater unit
- (3) Bracket



Assembling the heater unit



Water connection for all vehicles



WARNING!

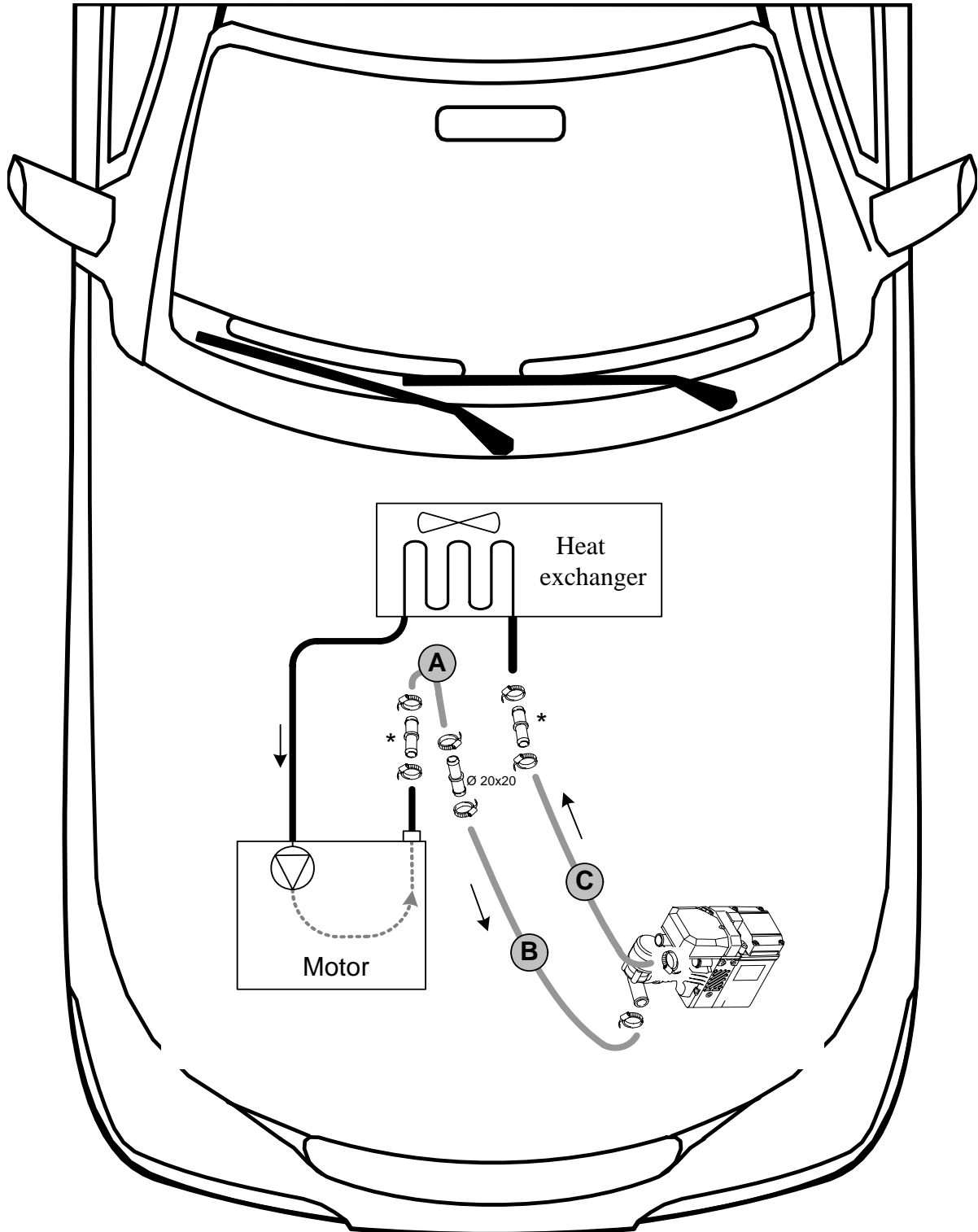
Tighten all hose clamps to 2.0 + 0.5 Nm.

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 clips.

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:

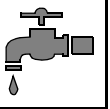


Water diagram

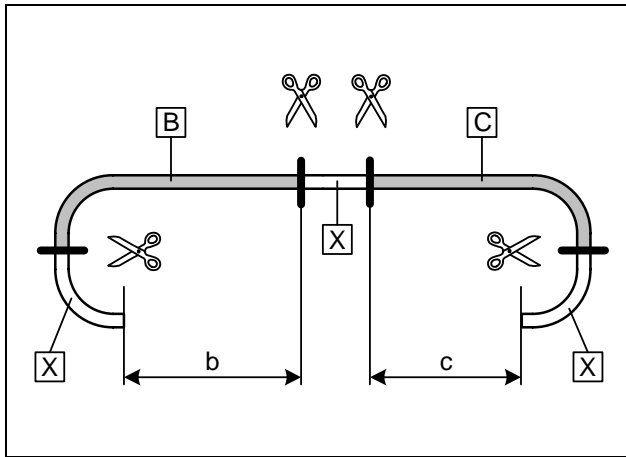
All undesignated clamps = Ø 20-27 mm hose clamps.

*! Connecting pipe for 1.6 l HDI = 17 x 20 mm, for all other vehicles = 18 x 20 mm [2x each]!





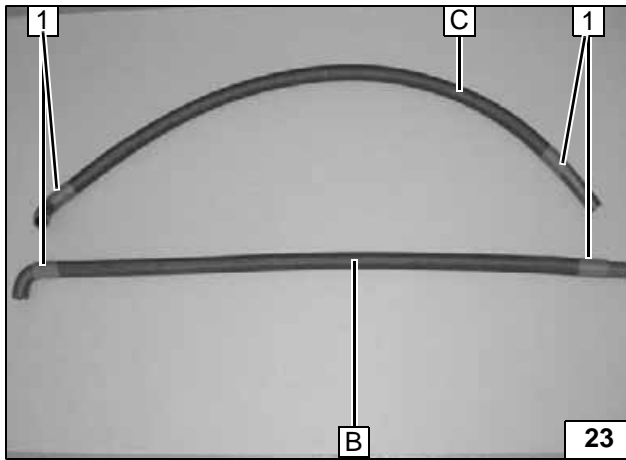
Gasoline vehicle water connection



b = 910mm
c = 1,030mm

Dispose of section X

Cutting water hoses to length

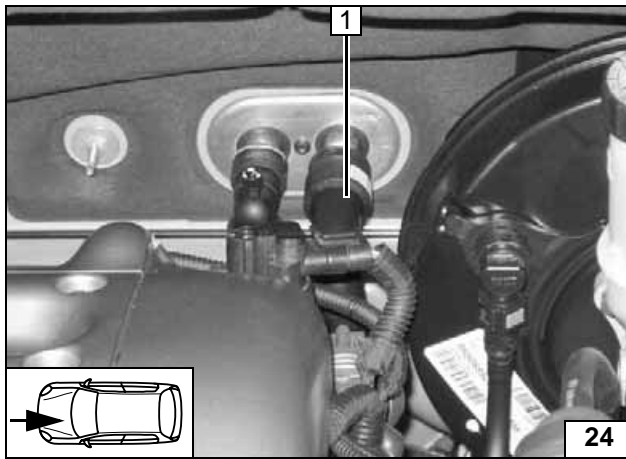


Slide the braided protective hoses onto hose **B** and hose **C**.

(1) Cut shrink fit hoses in the middle, slide on, shrink-fit

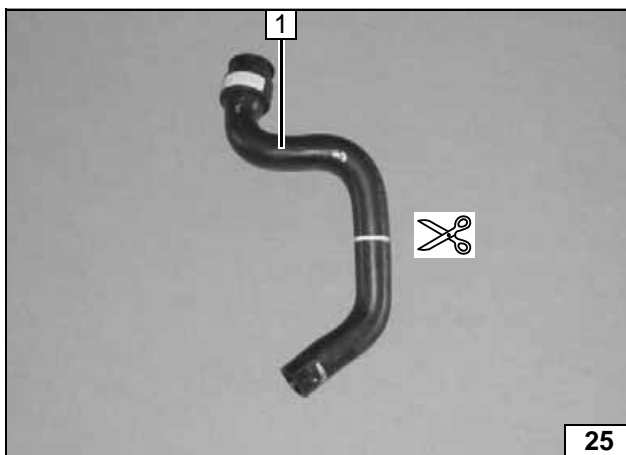


Preparing the water



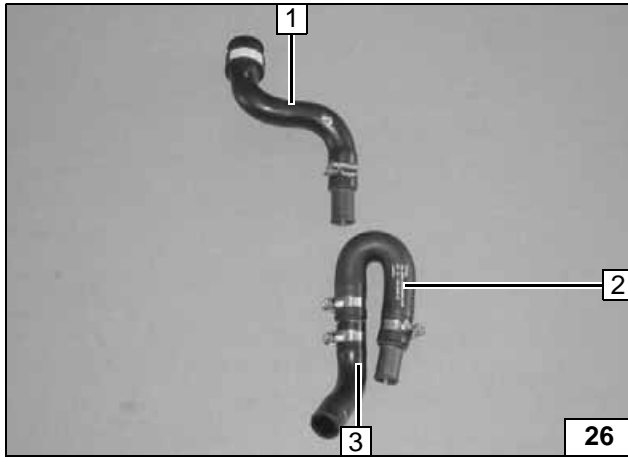
(1) Remove the original vehicle engine outlet hose to the heat exchanger inlet.

Preparing the water



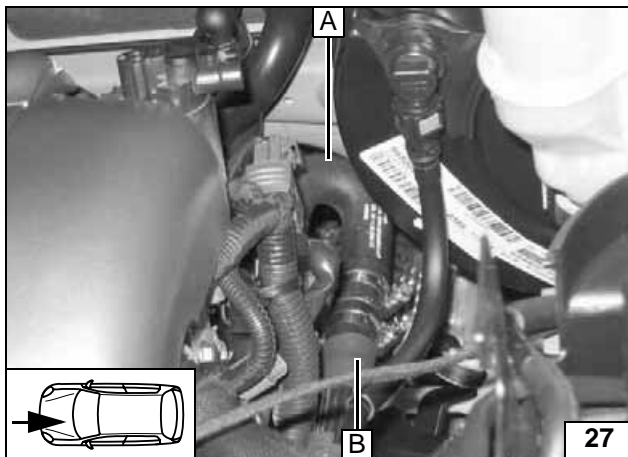
(1) Heat exchanger inlet hose
(2) Engine outlet hose

Splitting point



- (1) Original vehicle hose to the heat exchanger inlet
- (2) Enclosed moulded hose A 180°
- (3) Original vehicle hose from the engine outlet

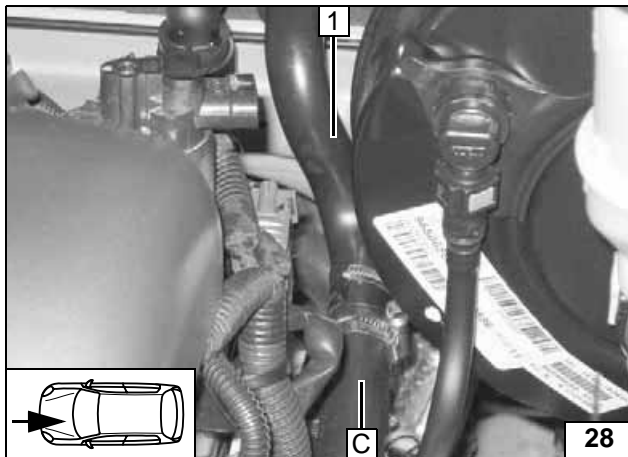
Preparing the water hoses



Place pre-assembled hose **26/2, 3** on the connecting piece for the engine outlet and fasten with spring band clamp.



Engine outlet connection

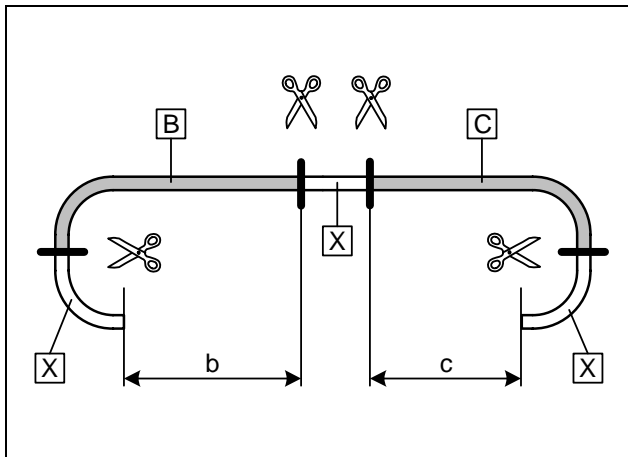
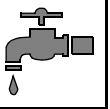


Slide pre-assembled hose **26/1** on heat exchanger inlet with quick coupling.

- (1) Heat exchanger inlet hose



Connecting to the heat exchanger inlet



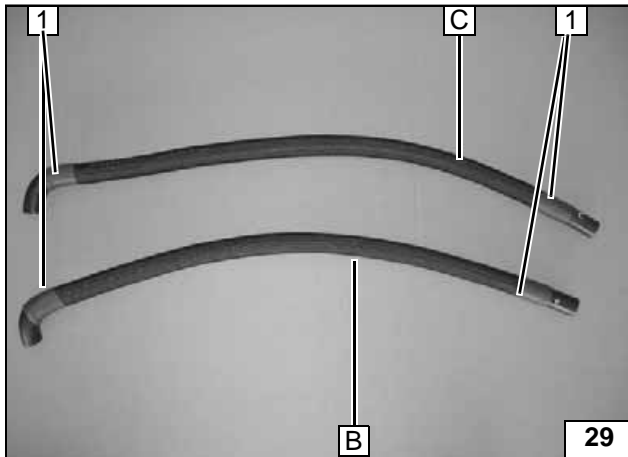
Diesel vehicle water connection

RHR diesel vehicles only.

b = 1,000mm
c = 1,100mm

Dispose of section X

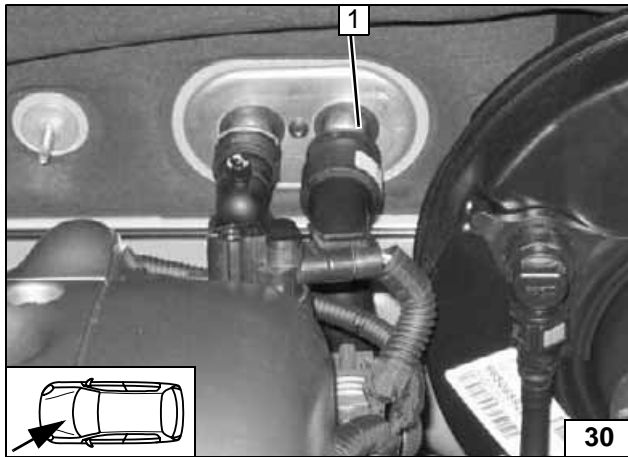
Cutting water hoses to length



Slide the braided protective hoses onto hose B and hose C.

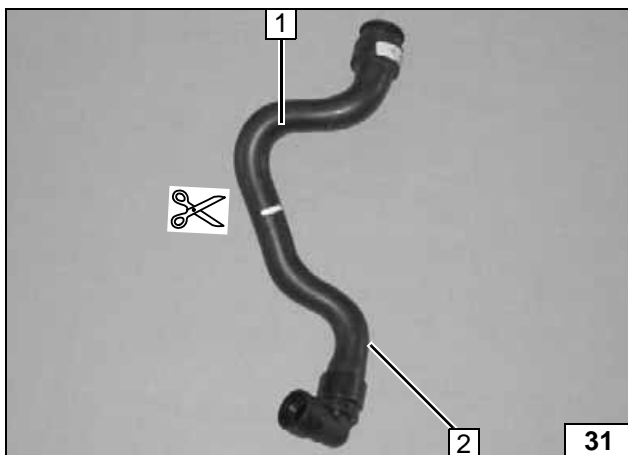
(1) Cut shrink fit hoses in the middle, slide on, shrink-fit

Preparing the water



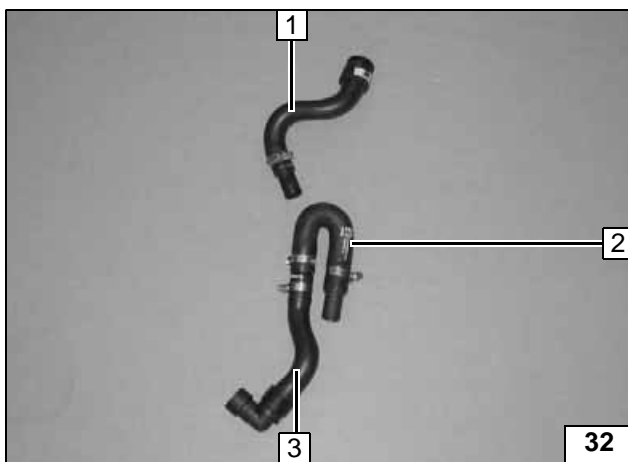
(1) Remove the original vehicle engine outlet hose to the heat exchanger inlet.

Preparing the water



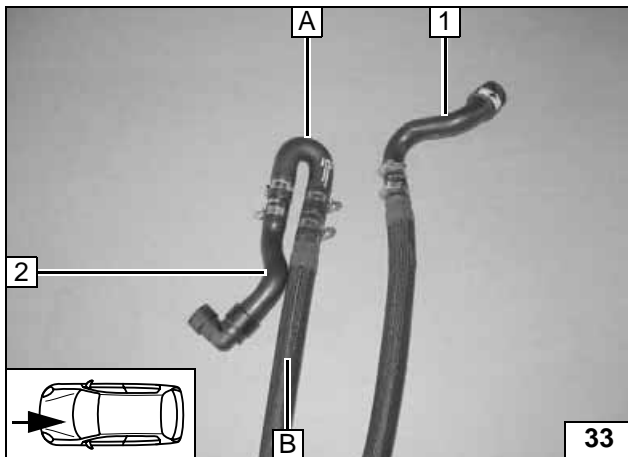
(2) Heat exchanger inlet hose section
(1) Engine exhaust hose section

Splitting point



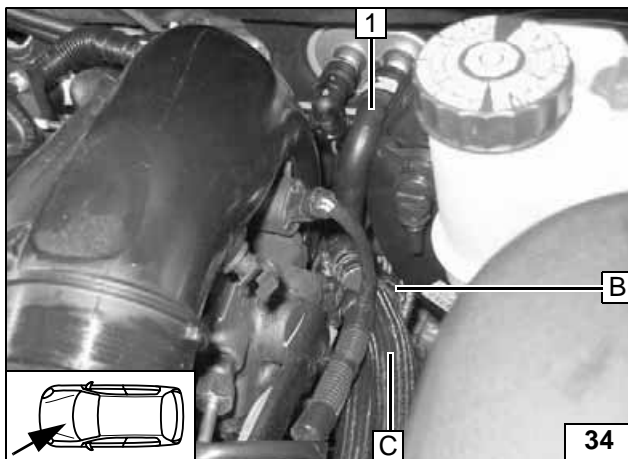
- (1) Original vehicle hose to the heat exchanger inlet
- (2) Enclosed moulded hose A 180°
- (3) Original vehicle hose from the engine outlet

Preparing the water hoses



- (1) Heat exchanger inlet hose
- (2) Engine exhaust hose

Preparing the water hoses

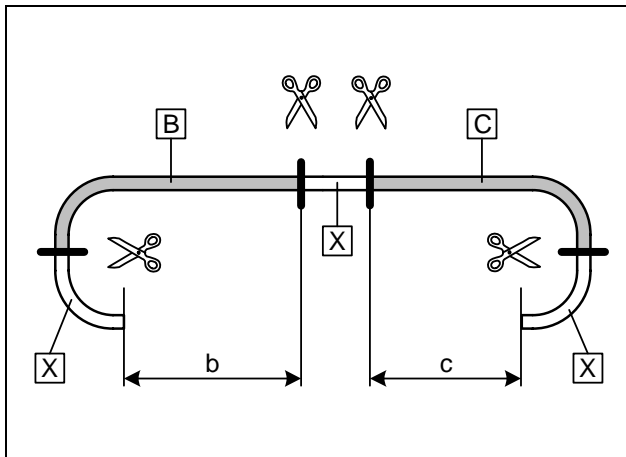
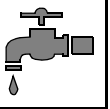


Slide pre-assembled hose **32/2** on engine exhaust connecting piece with quick coupling.
Slide pre-assembled hose **32/1** on heat exchanger inlet with quick coupling.

- (1) Heat exchanger inlet hose



Connecting the engine outlet to the heat exchanger inlet



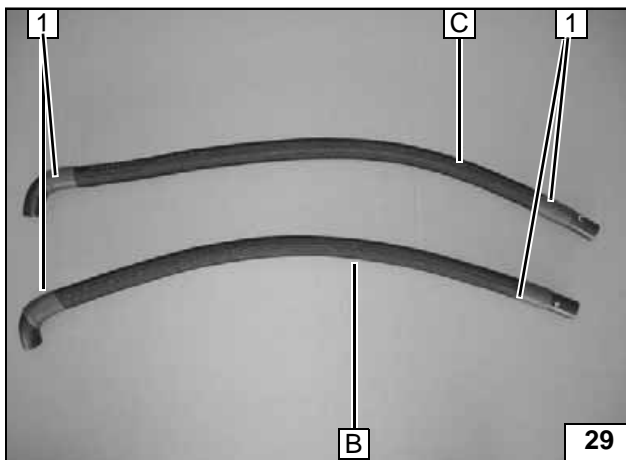
9 Hz diesel vehicles only.

b = 720mm

c = 760mm

Dispose of section X

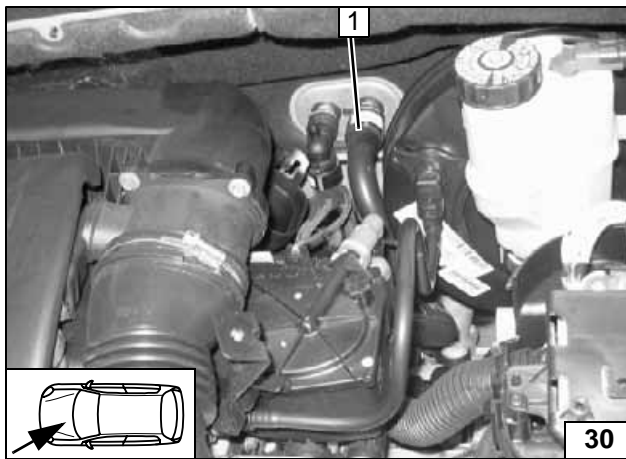
Cutting water hoses to length



Slide the braided protective hoses onto hose B and hose C.

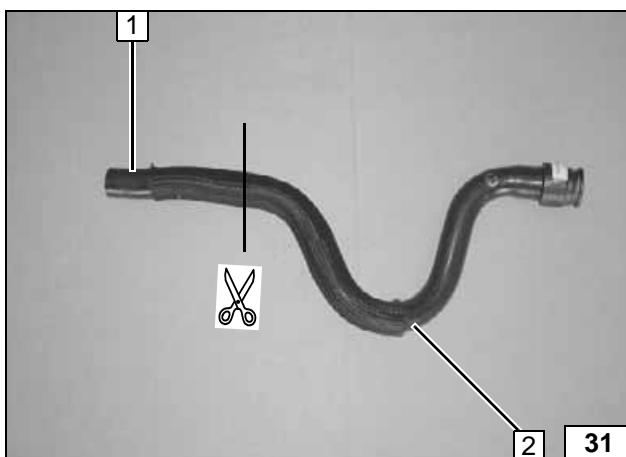
(1) Cut shrink fit hoses in the middle, slide on, shrink-fit

Preparing the water



(1) Remove the original vehicle engine outlet hose to the heat exchanger inlet.

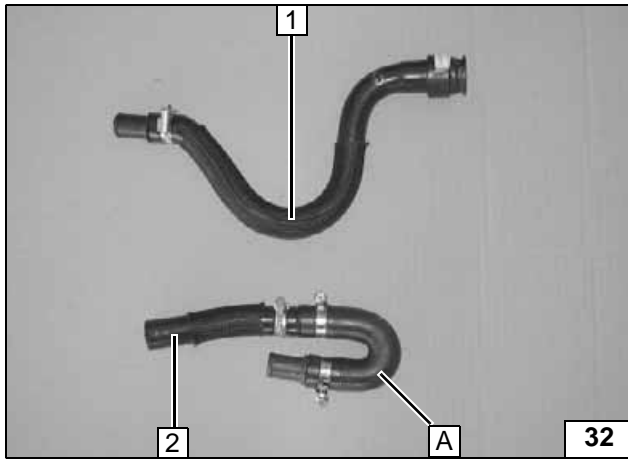
Preparing the water



Remove protective hose and cut off 70 mm, parts will be used again.

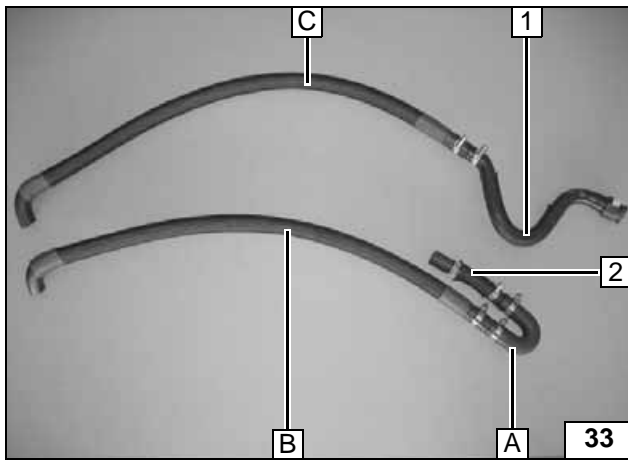
(2) Heat exchanger inlet hose section
(1) Engine exhaust hose section

Splitting point



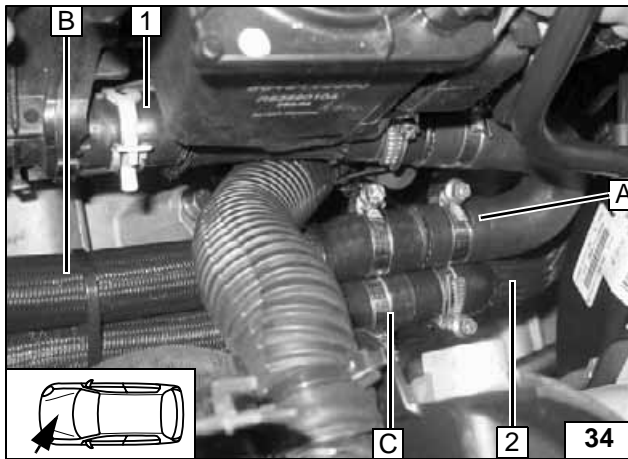
- (1) Original vehicle hose to the heat exchanger inlet, protective hose remnant
- (A) Enclosed moulded hose A 180°
- (2) Original vehicle hose from the engine exhaust, 70 mm protective hose remnant

Preparing the water hoses



- (1) Heat exchanger inlet hose section
- (2) Engine exhaust hose section

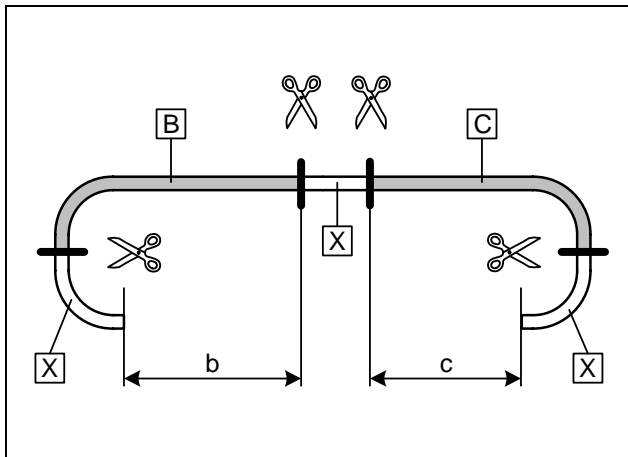
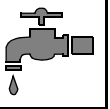
Preparing the water hoses



- (1) Engine exhaust hose section
- (2) Heat exchanger inlet hose section



Connecting the engine outlet to the heat exchanger inlet



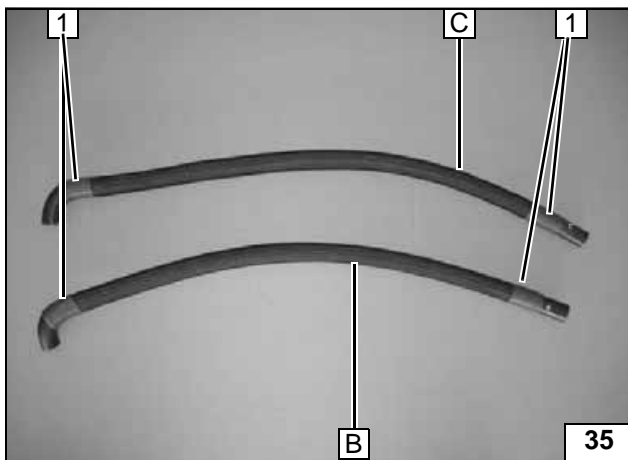
4 HT diesel vehicles only.

b = 640mm
c = 800mm

Dispose of section X



Cutting water hoses to length

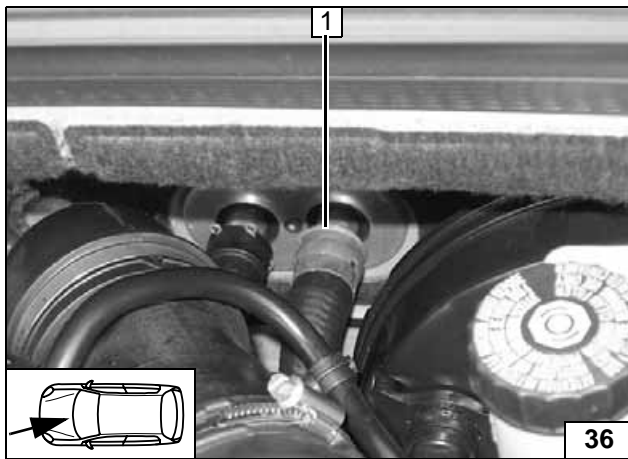


Slide the braided protective hoses onto hose B and hose C.

(1) Cut shrink fit hoses in the middle, slide on, shrink-fit

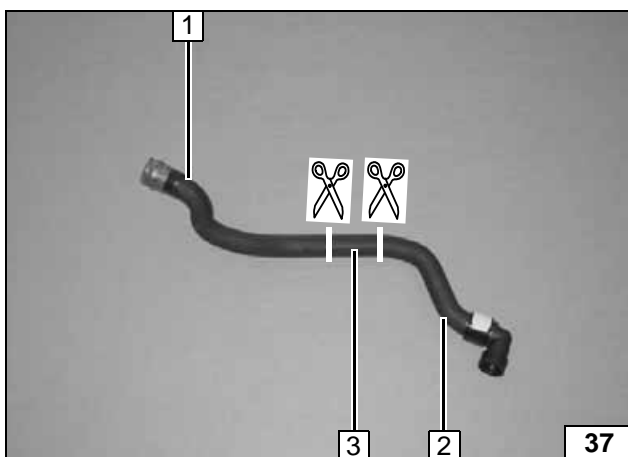


Preparing the water



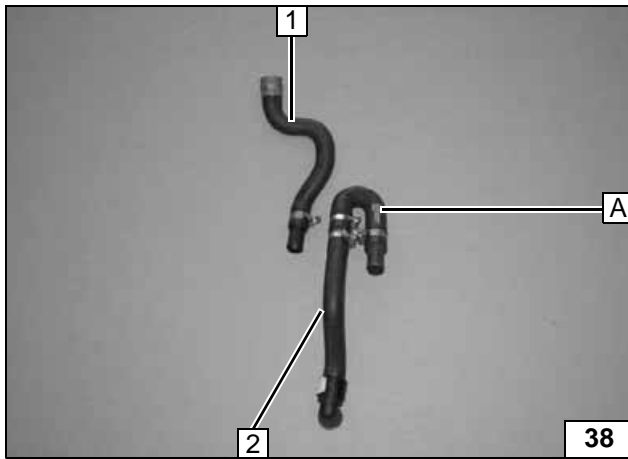
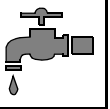
(1) Remove the original vehicle engine outlet hose to the heat exchanger inlet.

Preparing the water



(1) Engine exhaust hose section
(2) Heat exchanger inlet hose section
(3) Dispose of remnant

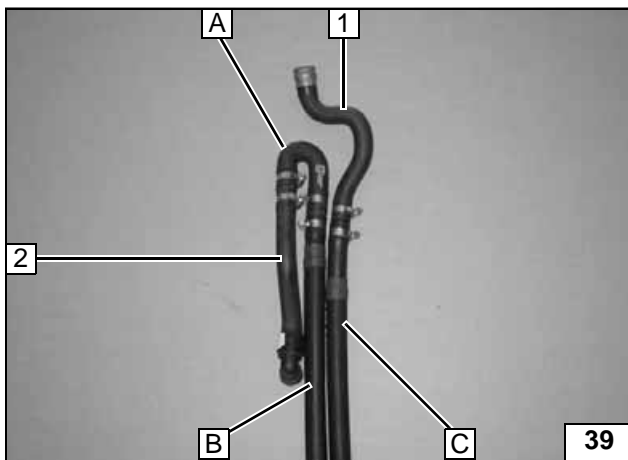
Splitting point



- (1) Original vehicle hose to the heat exchanger inlet
- (A) Enclosed moulded hose A 180°
- (2) Original vehicle hose from the engine outlet



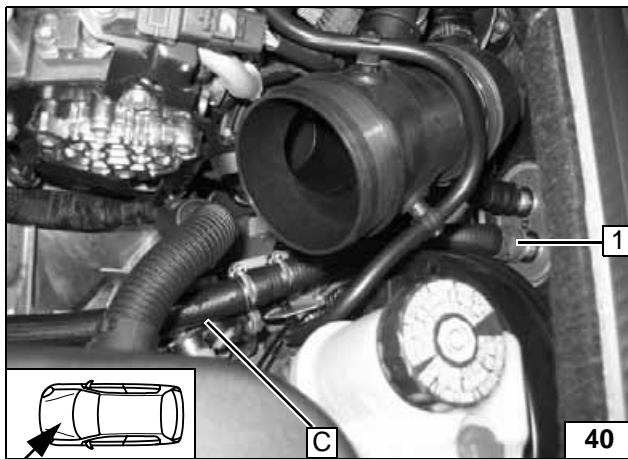
Preparing the water hoses



- (1) Heat exchanger inlet hose section
- (2) Engine exhaust hose section

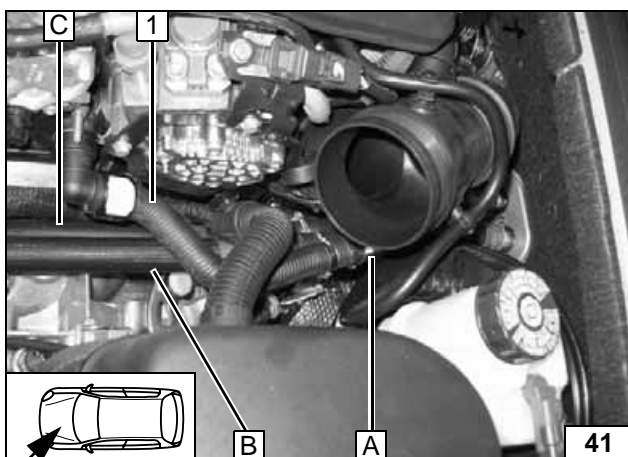


Preparing the water hoses



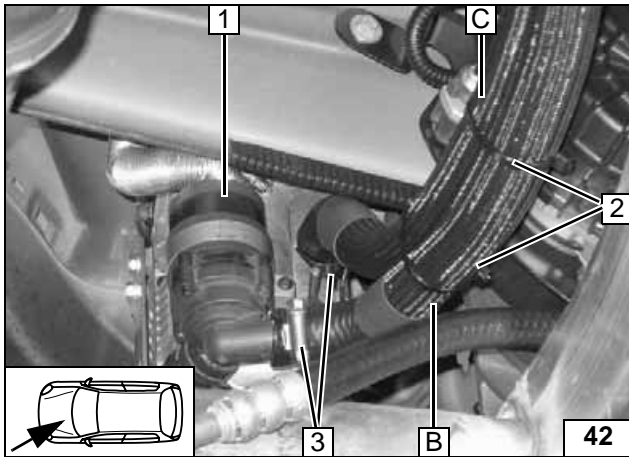
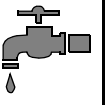
- (1) Heat exchanger inlet hose

Connecting to the heat exchanger inlet



- (1) Engine exhaust hose section

Engine outlet connection

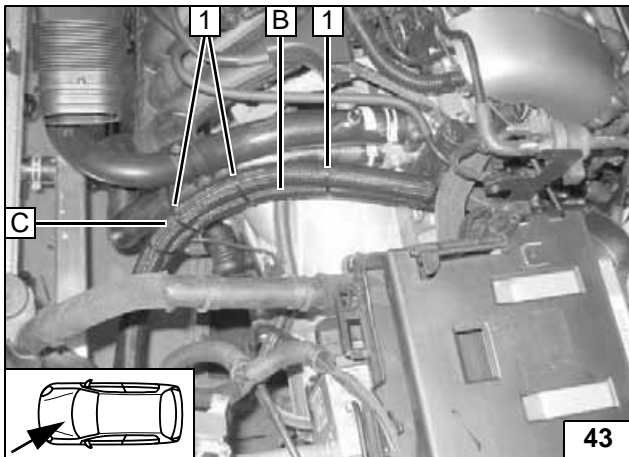


For all vehicles.

Assemble hose **B** with 90° bend on the heater unit inlet and hose **C** with 90° bend on the heater unit outlet.

- (1) Circulation pump
- (2) Cable clip
- (3) Hose clamps Ø 20-27 mm

**Connect-
ing to the
heater unit**



Align hoses **B** and **C** in the engine compartment.

- (1) cable clip

**Installing
in the en-
gine com-
partment**





Fuel Connection

CAUTION!

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

Catch any fuel running off with an appropriate container.

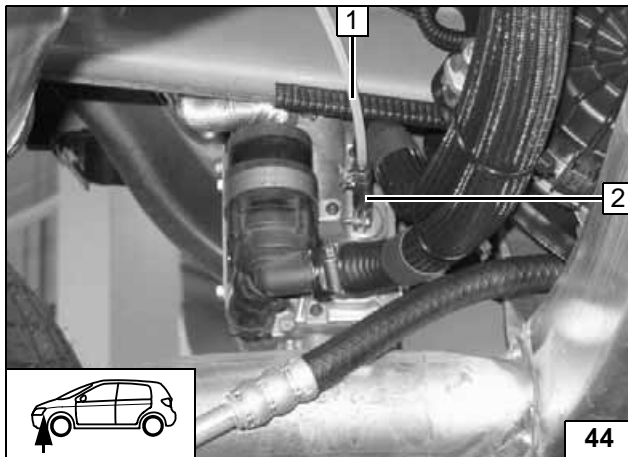
Install fuel line and metering pump cable harness so that they are protected against stone impact.

Unless specified otherwise, always fasten using cable clips.

Fit the fuel line and cable harness with edge protectors around sharp edges.

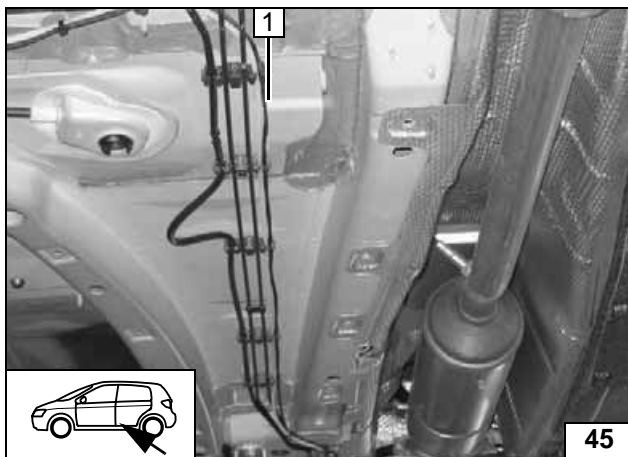
WARNING!

The fuel line and cable harness to the metering pump should be installed based on the cable harness installation diagram.

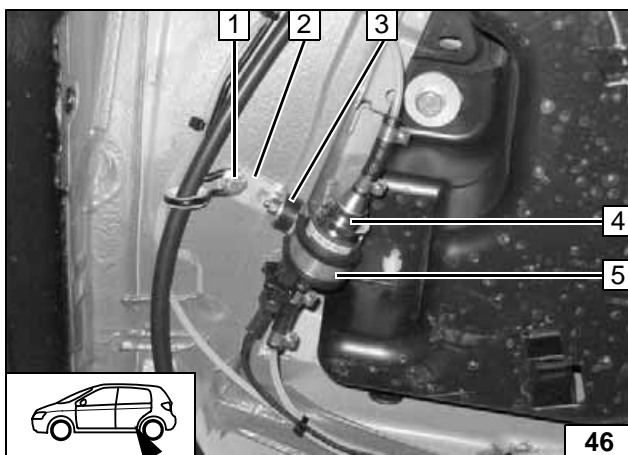


For all vehicles.

- (1) Mecanyl fuel pipe
- (2) Hose section, Ø 10 mm hose clamps [2x]



- (1) Install the Mecanyl fuel pipe and the metering pump cable harness on the original vehicle fuel lines to the metering pump installation location.



Note the installation position of the metering pump, see the Installation Instructions. The installation location is on the left next to the vehicle tank.

- (1) Original vehicle bolt
- (2) Angle bracket
- (3) Silent block, spring washer [2x] nuts M6 [2x]
- (4) Metering pump
- (5) Rubberized tube clamp

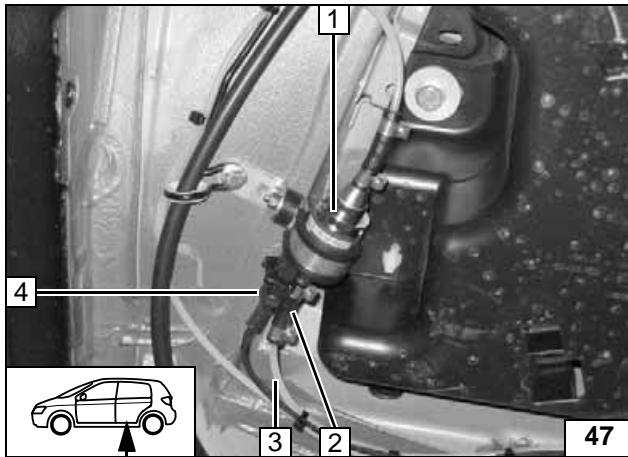


Connect-
ing to the
heater unit

Installing
lines



Assem-
bling the
metering
pump

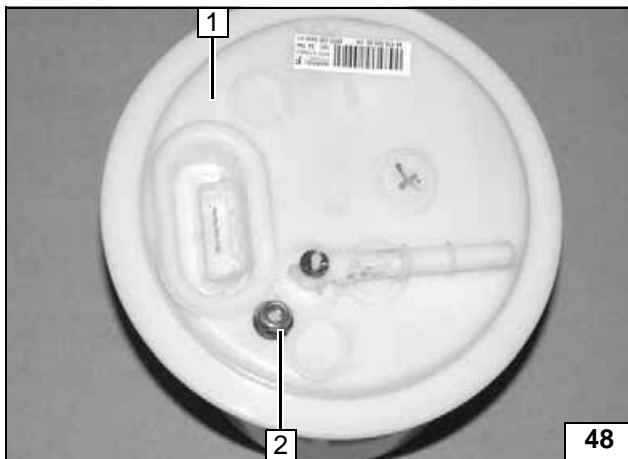


Fuel line from the heater unit on the pressure side of the metering pump [side with connector].

- (1) Metering pump
- (2) Hose section, Ø 10 mm hose clamps [2x]
- (3) Mecanyl fuel pipe from the heater unit
- (4) Metering pump cable harness, protective rubber sleeve, flat connector, connector housing



Connecting to the metering pump



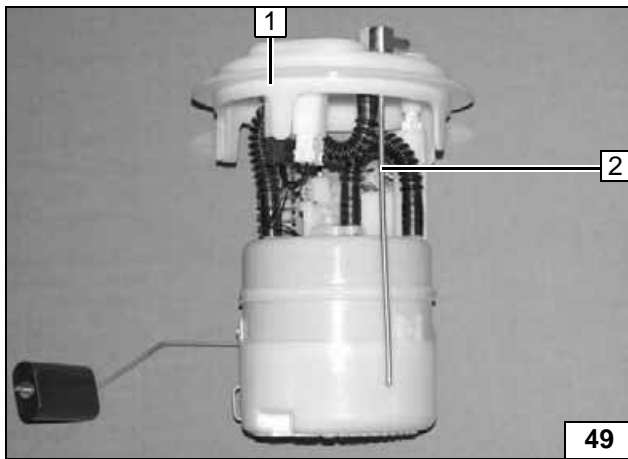
For gasoline vehicles only.

Remove the tank mounting according to the manufacturer's instructions and take it apart.

- (1) Tank mounting
- (2) M6 nut from the tank extracting device, copy the hole image, Ø 6 mm bore hole



Preparing the Tank Mounting

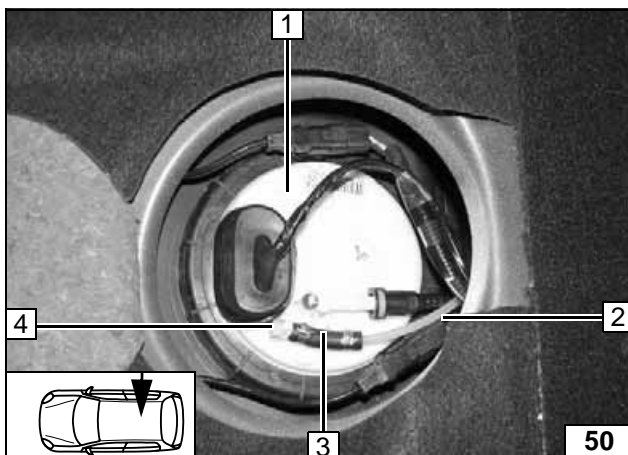


Cut the tank extracting device into sections based on the template, see the "Installation Instructions".

- (1) Tank mounting
- (2) tank extracting device



Inserting tank extracting device

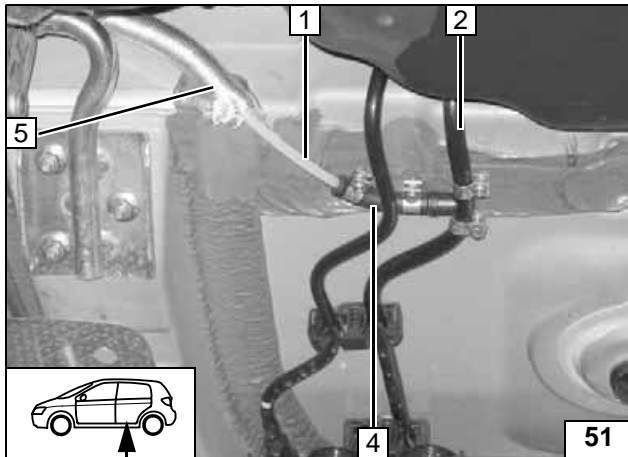


Install the tank mounting according to manufacturer's instructions.

- (1) tank mounting
- (2) remaining Mecanyl fuel line
- (3) Hose section, Ø 10 mm hose clamps [2x]
- (4) tank extracting device



Connecting and disconnecting the fuel line



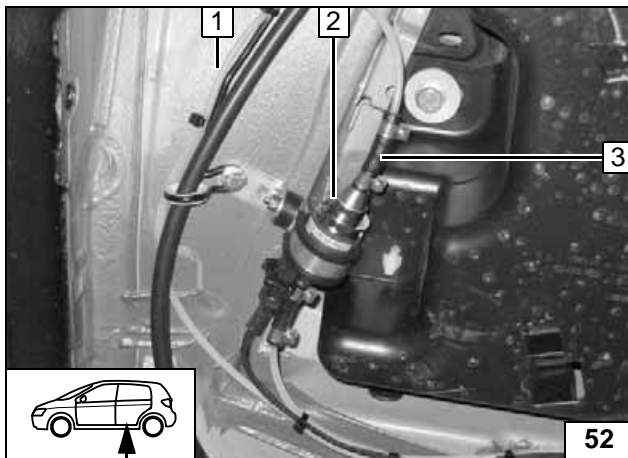
For diesel vehicles only.

Run the Mecanyl fuel pipe to the metering pump installation location by using the heat protection hose.

- (1) remaining Mecanyl fuel line
- (2) leading fuel line
- (3) Fuel tank extractor, Ø 10mm hose clamps [2x]
- (4) Hose section, Ø 10 mm hose clamps [2x]
- (5) Heat protection hose



Inserting the fuel tank extractor

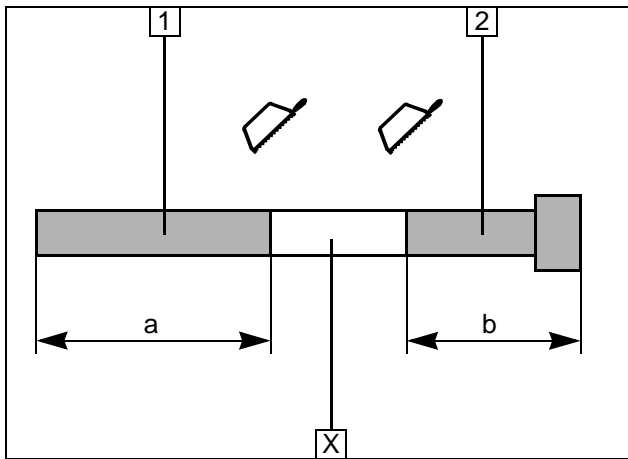
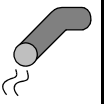


For All Vehicles

- (1) Remaining Mecanyl fuel line
- (2) Metering pump
- (3) Hose section, Ø 10 mm hose clamps [2x]



Connecting to the metering pump

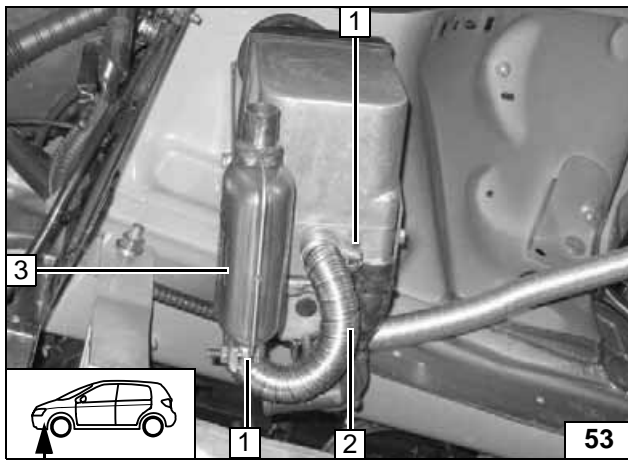


Exhaust connection

- (1) Exhaust pipe
a = 200mm
- (2) Exhaust end section
b = 310mm

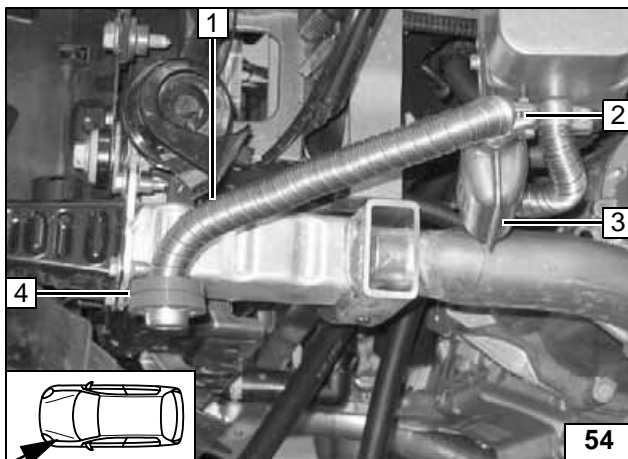
Dispose of section X

Preparing the ex-
haust pipe



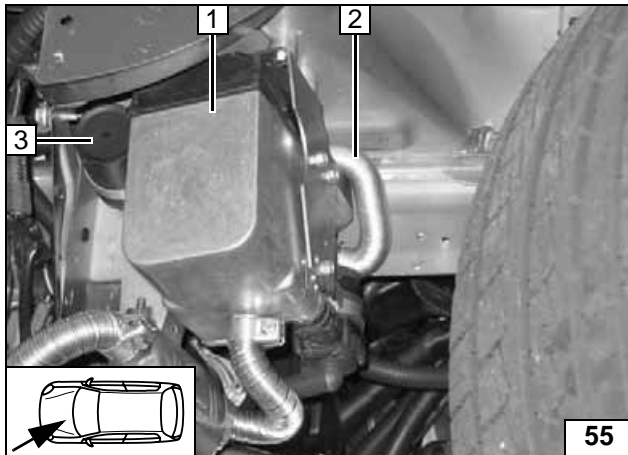
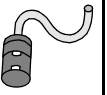
- (3) Exhaust silencer
- (2) Exhaust pipe
- (1) Hose clamp [2x]

Assem-
bling the
exhaust
pipe.



- (1) Exhaust end section
- (2) Hose clamp
- (3) Exhaust silencer
- (4) Red (rt) rubber profile with groove

Assem-
bling the
exhaust
end sec-
tion



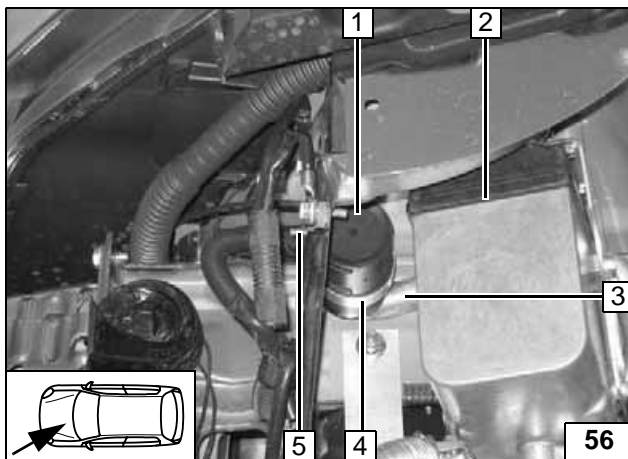
Combustion Air Connection

Install the combustion air intake line to the air intake silencer.

- (1) Heater unit
- (2) Combustion air intake pipe
- (3) Combustion air intake silencer



Assembling the combustion air

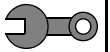


Note the installation position of the air intake silencer, see the Installation Instructions.

- (1) Combustion air intake silencer
- (2) Heater unit
- (3) Combustion air intake pipe
- (4) Tube clamp Ø 48 mm without rubber
- (5) M6x20 bolt, M6 flanged nut on existing hole



Assembling the combustion air



Final work

WARNING!

Reassemble disassembled components in reverse order.

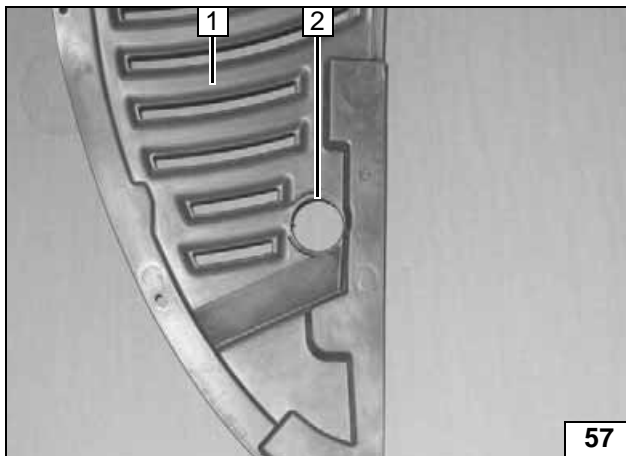
Check that all hose lines, hose, spring band clamps and universal clips, and all electrical connections are securely fastened.

Secure all loose cables using cable clips.

Only use manufacturer-approved coolant.

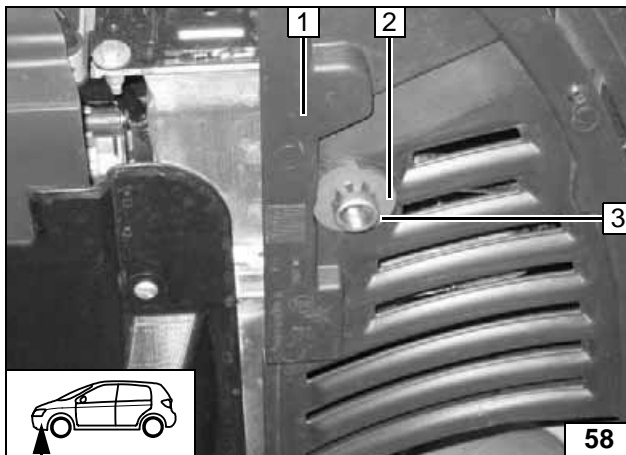
Spray heating unit components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the time switch.
- Set the manual air conditioning or automatic air conditioning according to the "operating instructions for the end customer".
- Check that the auxiliary heating operates properly, see operating instructions / installation instructions.
- Attach the "Switch off auxiliary heating before re-fuelling" sticker onto the left side of the B-pillar.



- (1) Underride protection
- (2) Ø 42 mm bore hole, cut out on perforation

Cut out the under-ride protection



- (1) Underride protection
- (2) Red (rt) rubber profile with groove
- (3) Exhaust end section

Inserting rubber profile

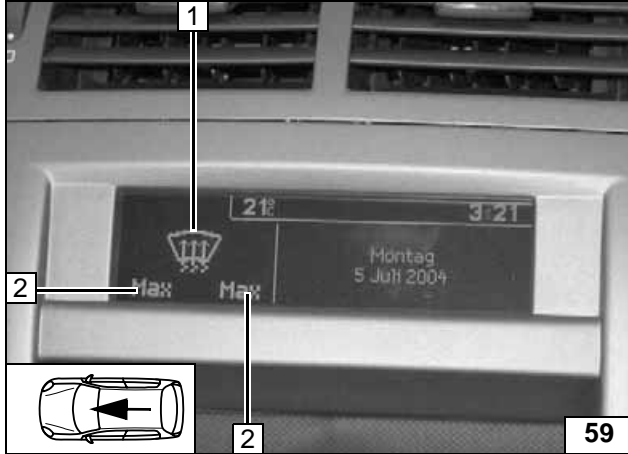
Webasto
Feel the drive

Webasto AG
Postfach 80 - 82132 Stockdorf - Hotline 0 18 05 / 93 22 78
Hotfax (0395) 55 92-353 - <http://www.webasto.de>

Operating instructions for the end customer

Please remove page and add to the vehicle operating instructions.

Before parking the vehicle, make the following settings:

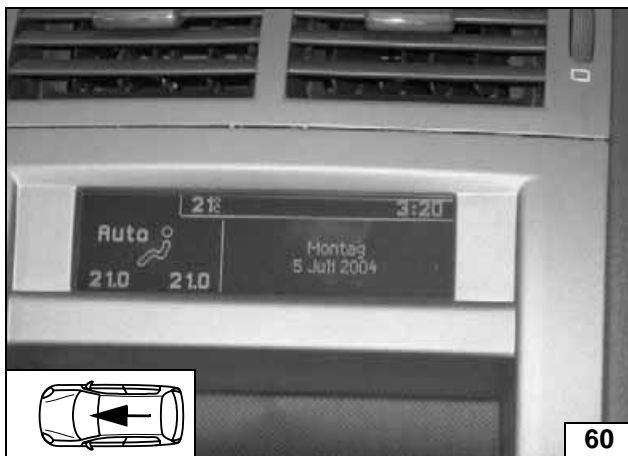


After making the setting, wait about 60 seconds until the engine stops.

- (1) Air outlet to windscreen
- (2) Left and right temperature to "max."



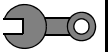
For vehicles with automatic air conditioning



When the ignition is activated, the air conditioning control will start in automatic mode.



For vehicles with automatic air conditioning



Tank extracting device template

