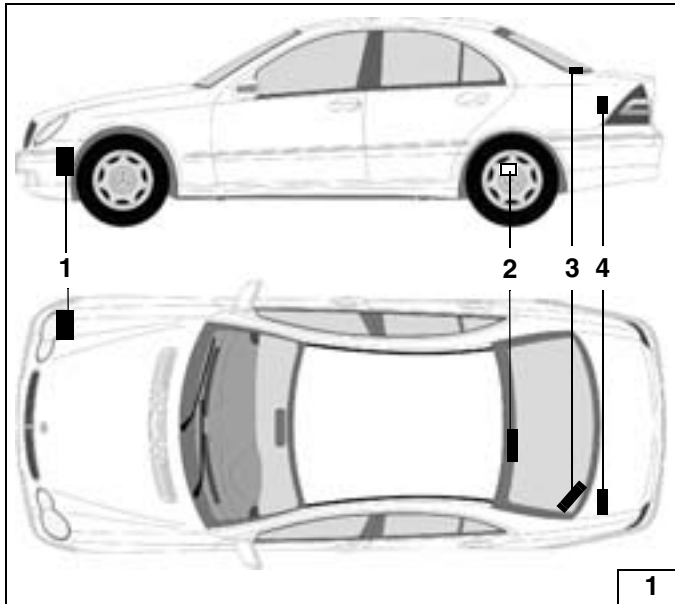


Water Heater Unit



Thermo Top C Auxiliary Heating e1 00 0002



Installation Instructions

Mercedes Benz W203 (C Class)

Gasoline and diesel

From model year 02

For left-hand drive vehicles only

Not for AMG look

Legend for figure 1:

- 1 Thermo Top C Heater Unit
- 2 Metering pump
- 3 Antenna Option
- 4 Receiver Option



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
Daimler Chrysler	Mercedes Benz C Class	W 203	e1*98 / 14*0139 to * 0159

Engine type	Engine	Power in kW	Engine capacity in cm ³
C 180	Gasoline	95	1998
C 180 K	Gasoline	105	1796
C 200	Gasoline	120	1998
C 200 K	Gasoline	120	1796
C 230 K	Gasoline	145	2295
C 240	Gasoline	125	2597
C 320	Gasoline	160	3199
C 350	Gasoline	200	3498
C 200 CDI	Diesel	85	2148
C 220 CDI	Diesel	105	2148
C 270 CDI	Diesel	125	2685
C 320 CDI	Diesel	165	2487

**Vehicle types, engine types and equipment variants, which are not listed in these installation instructions, have not been tested.
Installation according to these installation instructions may, however, be possible.**

Heater Unit / Scope of Delivery

Quantity	Name	Order No.
1	Scope of Delivery Water heater unit <i>Thermo Top C-B</i> W 203 sedan/station wagon up to model year 03	9011466A
1	Scope of Delivery Water Heater Unit <i>Thermo Top C-D</i> W 203 sedan/station wagon up to model year 03	9011465A
1	Scope of Delivery Water heater unit <i>Thermo Top C-B</i> W203 Sport coupé to model year 03	9011468A
1	Scope of Delivery Water Heater Unit <i>Thermo Top C-D</i> W203 Sport coupé to model year 03	9011467A
1	Scope of Delivery Water heater unit <i>Thermo Top C-B</i> W 203 sedan/station wagon up to model year 03	9010977A
1	Scope of Delivery Water Heater Unit <i>Thermo Top C-D</i> W 203 sedan/station wagon up to model year 03	9010976A
1	Scope of Delivery Water heater unit <i>Thermo Top C-B</i> W203 Sport coupé from model year 04	9011508A
1	Scope of Delivery Water Heater Unit <i>Thermo Top C-D</i> W203 Sport coupé from model year 04	9011509A

Optional:

Remote start: 9011461A

Thermo Call: 9001132B (only in connection with the Y adapter ID no. 9010325B
and remote start ID no. 9011461A)

Along with the remote start and thermo call options, the basic scope of delivery can also be equipped with a direct start button in the center console.

The required parts, press switch, center console, and UBF – OBF cable harness, can be ordered directly from DaimlerChrysler for the vehicle and are to be assembled according to the manufacturer's requirements.

Foreword

These installation instructions apply in respect of Mercedes W203 vehicles with gasoline/diesel engines – re. validity, see page 2 - as from model year 2002 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded.

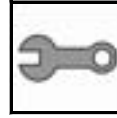
Special Tools

- Torque spanner for 2.0 - 10 Nm
- Vise-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.

Mechanical work



Electrical connection



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.



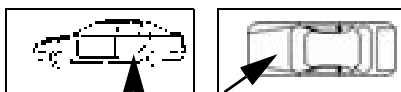
Specific risk of fire or explosion.



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



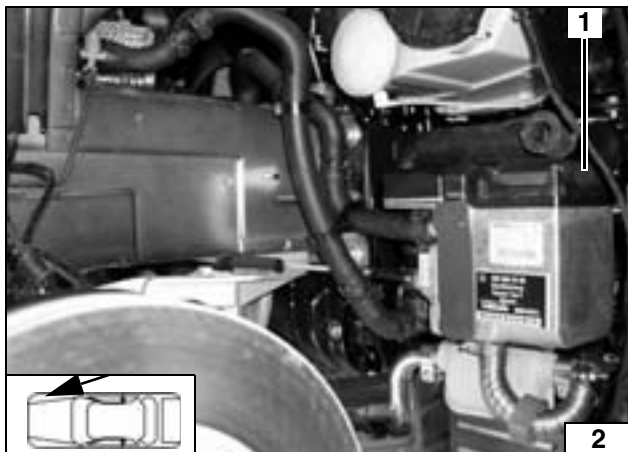
Reference to a special technical feature.



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

**Warning!**

- Remove the passenger compartment filter in the engine compartment
- Disconnect the battery and remove it!
- Remove the battery base plate.
- 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.
- Open the tank cap, ventilate the tank.
- Close the tank cap again.
- Remove the right front wheel.
- Remove front right headlight.
- Remove the cover strip for the towing hook on the front right bumper.
- Remove the underride protection on the right side of the vehicle.
- Remove the rocker panel strip on the front passenger side and the front and back of the driver's side.
- Remove the A-pillar panel in the driver's side and passenger side footwell.
- Remove the lower dashboard panel on the passenger side, loosen on the driver's side
- Remove the cover of the fuse box on the driver's side of the dash board.
- Remove the gas pedal.
- Remove the floor carpet on the driver and passenger side
- Remove the air channels for the rear seat heating in the driver's side and passenger side footwell.
- Remove the floor mat in the trunk.
- Remove the cover plate for the cable duct behind the rear seat bench.
- Remove the side trunk panelling on the driver's side.
- Loosen the fuse and relay box (SAM) in the trunk.
- Remove the antenna cable from the cable harness (is not required).

Pre-
liminary

(1) Heater unit

Heater Unit
Installation
Location

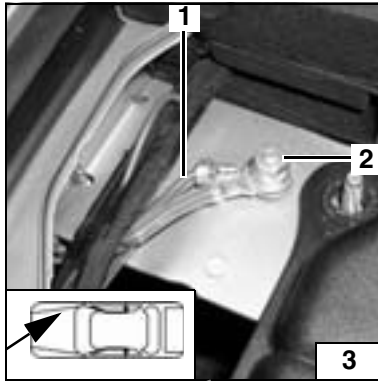


Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, you should fasten to original vehicle lines and cable harnesses using cable clips. Sharp edges should be fitted with edge protectors!

**Con-
nection
Electrics**

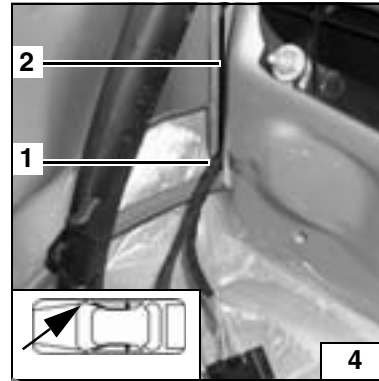
Grounding point in front

- (1) Grounding point
- (2) Grounding cable



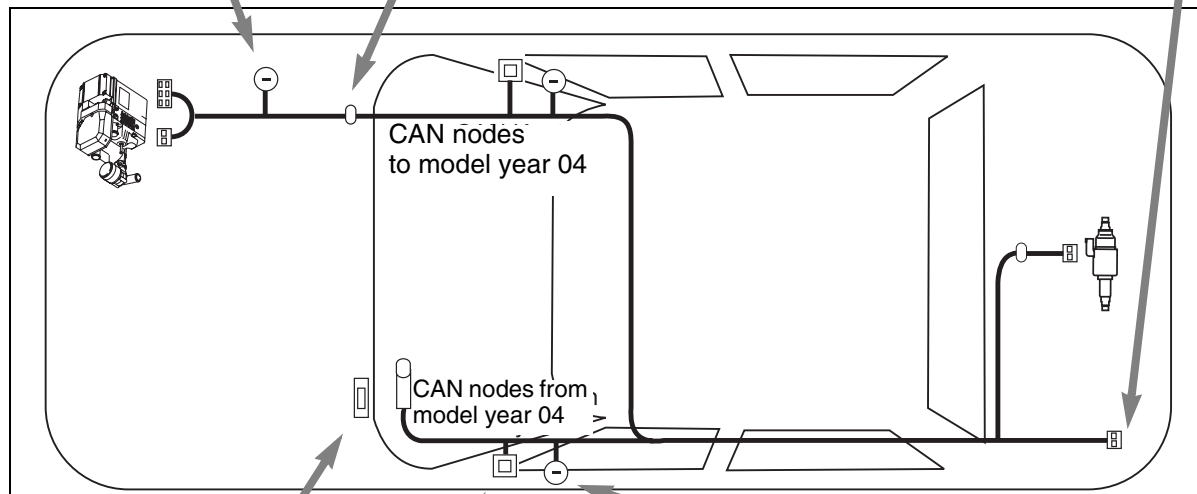
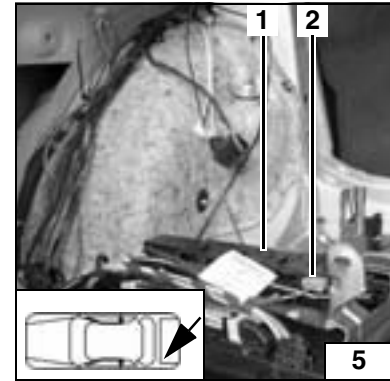
Cable harness duct in front

- (1) Cable harness to the heater unit
- (2) Cable feed-through

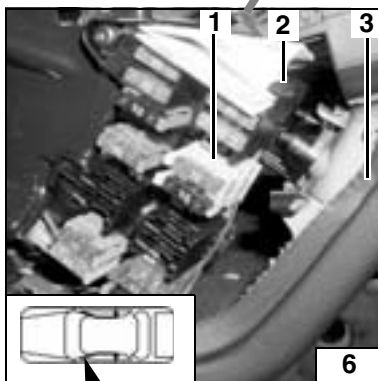


Connection to the SAM controller unit On the rear fuse and relay box

- (1) Fuse/relay module
- (2) Connector on the SAM controller (blue)

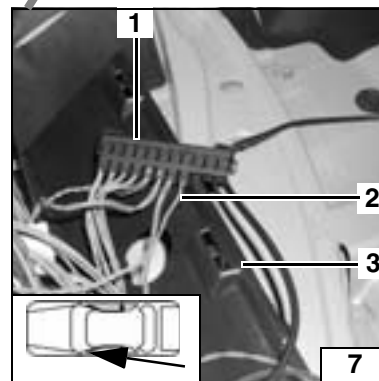


**Electrics
diagram**



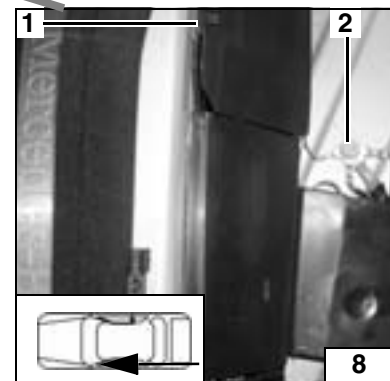
Fuse holder

- (1) Fuse holder (on yellow connector)
- (2) Fuse holder
- (3) Dashboard



CAN bus connection

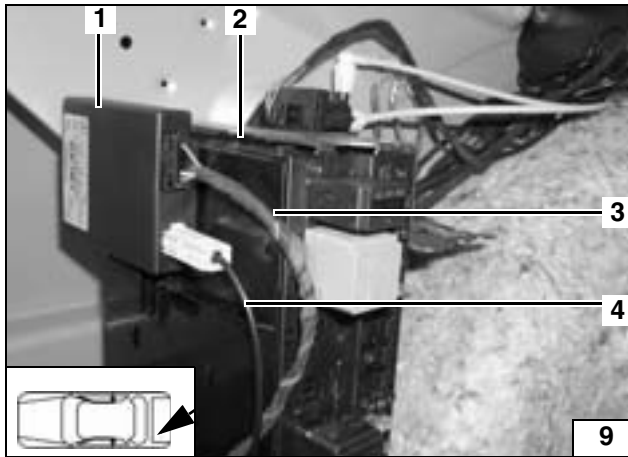
- (1) CAN plug connector
- (2) CAN cable harness
- (3) Rocker panel cable conduit



Left grounding point

- (1) Rocker panel cable conduit
- (2) Grounding point





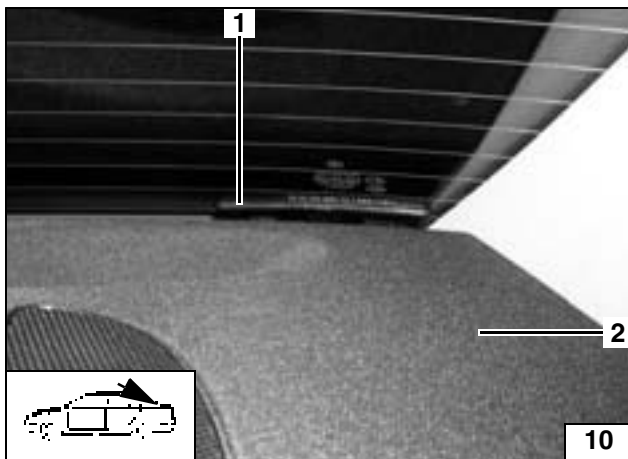
Remote start option

Slide the remote control receiver on the bracket tracks on the fuse and relay box.

- (1) Remote start receiver
- (2) Fuse and relay box
- (3) Remote start cable harness
- (4) Antenna cable

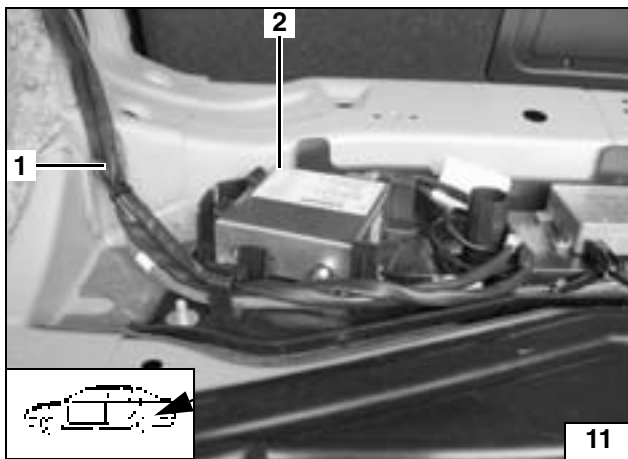


Remote start T90



- (1) Adhesive antenna remote start
- (2) Trunk ledge

Assembling the adhesive antenna



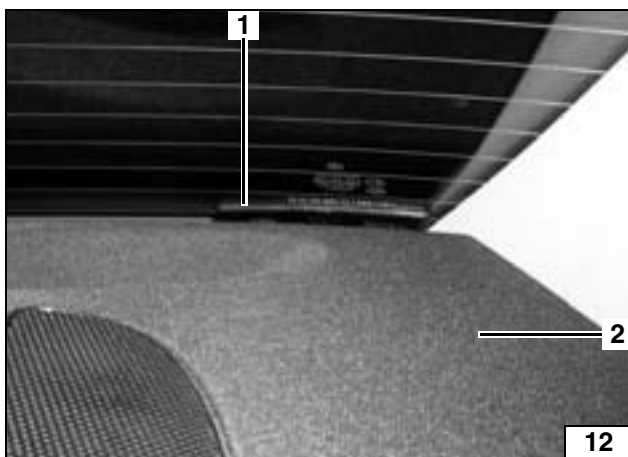
Thermo Call option 13

Connect the ThermoCall cable harness with the Y-adaptor and the remote start cable harness and insert in the remote start receiver.

- (1) Thermo Call cable harness
- (2) Thermo Call housing



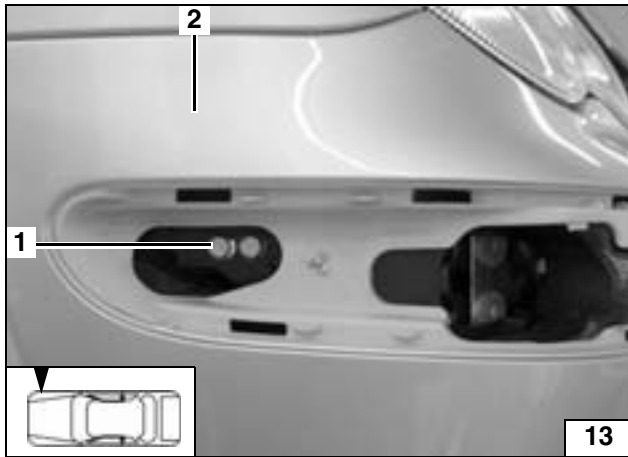
Thermo Call TC 1.1



- (1) Thermo Call adhesive antenna
- (2) Trunk ledge



Assembling the adhesive antenna

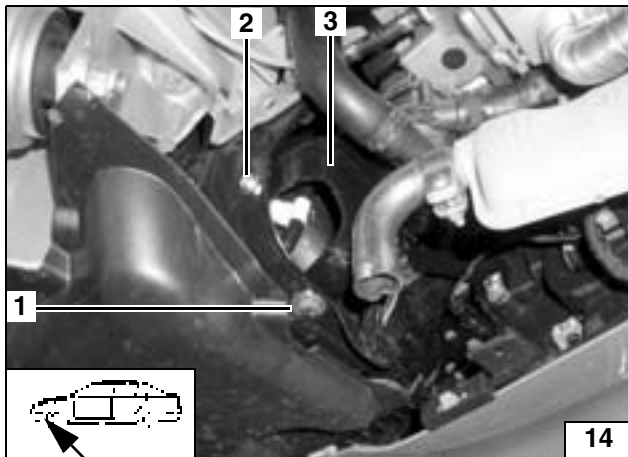


Fasten the heater unit bracket with edged bolts to the front frame.

- (1) M6x16 edge bolts [2x]
- (2) Front screen



Assembling the Heater Unit



Fasten the heater unit bracket with two edged bolts.

- (1) M6x16 edge bolts with body washer
- (2) M6x16 edge bolts
- (3) Heater unit bracket



Assembling the Heater Unit



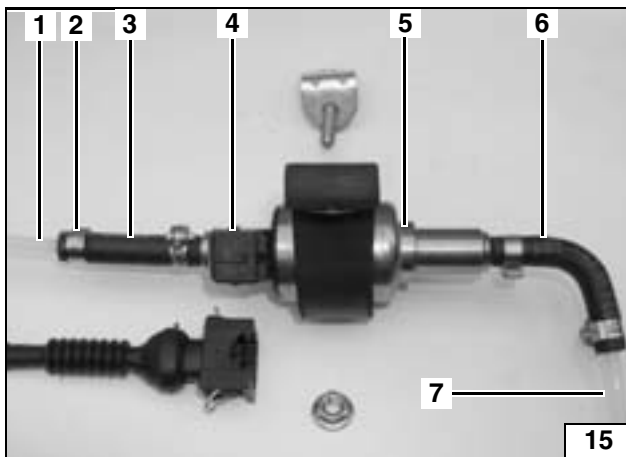
CAUTION!

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 the fuel line so that it is protected from impact by rocks!
Fit the fuel line with edge protectors around sharp edges.

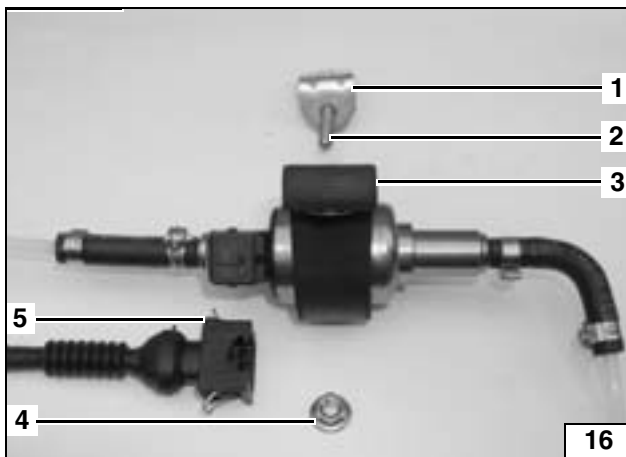
Fuel
connec-
tion



- (1) Mecanyl fuel pipe to the heater unit (pressure side)
- (2) Universal clip [4x]
- (3) Straight hose section
- (4) Connection to metering pump cable harness
- (5) Metering pump
- (6) 90° moulded hose
- (7) Mecanyl fuel pipe to the tank (suction side) shortened to 900 mm.



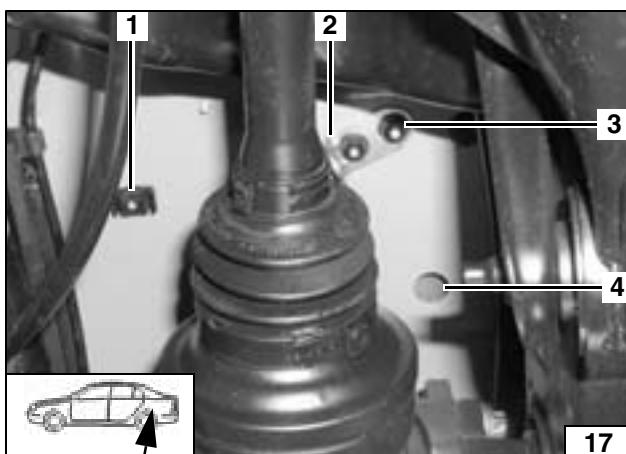
Pre-
assem-
bling the
metering
pump



- (1) Angle bracket
- (2) M6x30 bolt
- (3) Metering pump bracket
- (4) Flanged nut M6
- (5) Metering pump cable harness



Preassem-
bling the
metering
pump



Installation location to the left above the rear axle.

Screw on two brackets for the fuel line on the original vehicle stay bolts behind the rear axle mounting to the left and right of the differential housing.

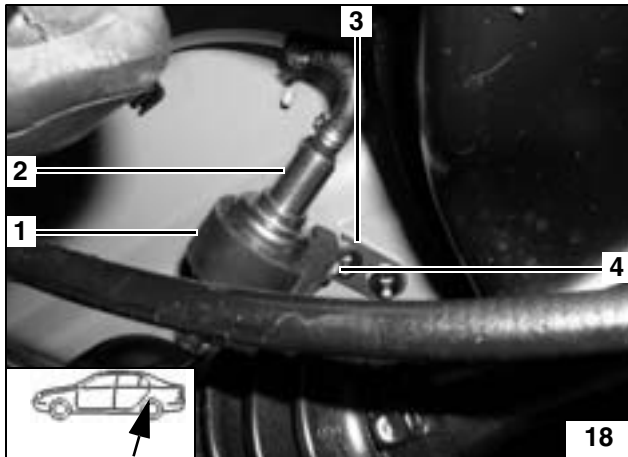
Assemble the bracket on the original vehicle stay bolts.

Remove the original vehicle grommet.

- (1) Line clips [2x]
- (2) Angle bracket
- (3) Plastic nuts [2x]
- (4) Bore grommet



Preparing
the
metering
pump
installation
location

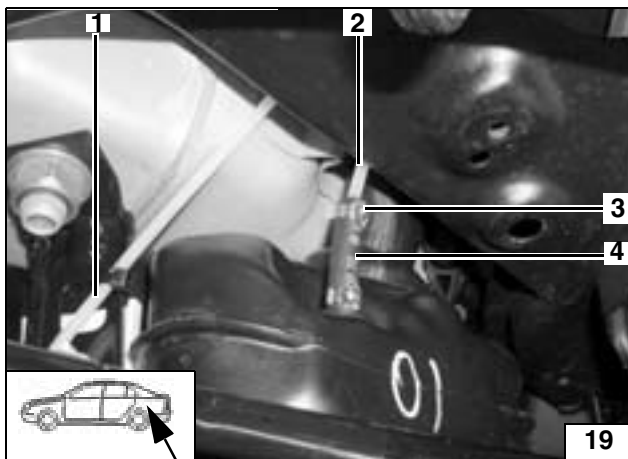


Note the installation position of the metering pump, see the "installation instructions"
Fasten the pre-assembled metering pump to the angled bracket with bolt M6x25 and flanged nut.

- (1) Metering pump bracket
- (2) Metering pump
- (3) Angle bracket
- (4) M6x20 bolt



Assembling the metering pump

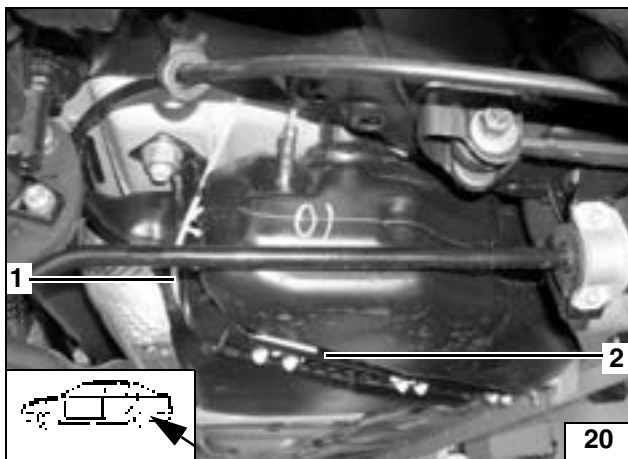


Cut off the nipple on the fuel take-off for the fuel container with a knife.
Place the hose section on the fuel take-off and fasten with universal clips.
Insert the preassembled fuel line to the metering pump intake in the hose section for the tank extracting device and fasten with universal clips.
Clip the Mecanyl fuel line into the pre-assembled line bracket.

- (1) Fuel pipe to the heater unit
- (2) Shortened Mecanyl line to the metering pump
- (3) Universal clips [2x]
- (4) Hose section



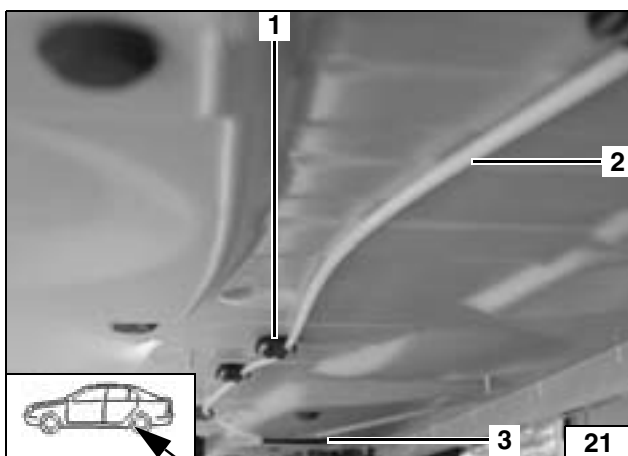
Fuel take-off



Run the Mecanyl fuel pipe along the tank belt and fasten with cable clips.
(1) Mecanyl fuel pipe to the heater unit
(2) Tank fastening belt



Running the lines

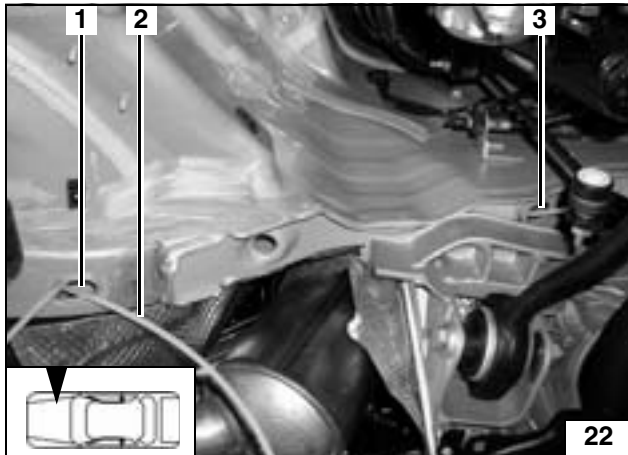


Screw the bracket for fuel lines onto the existing stay bolts. Clip the Mecanyl fuel line into the bracket and run to the front in the opening for the frame side rail.

- (1) Bracket for fuel lines [4x]
- (2) Mecanyl fuel pipe
- (3) Frame side rail opening



Run the fuel line along the underbody panel and fasten

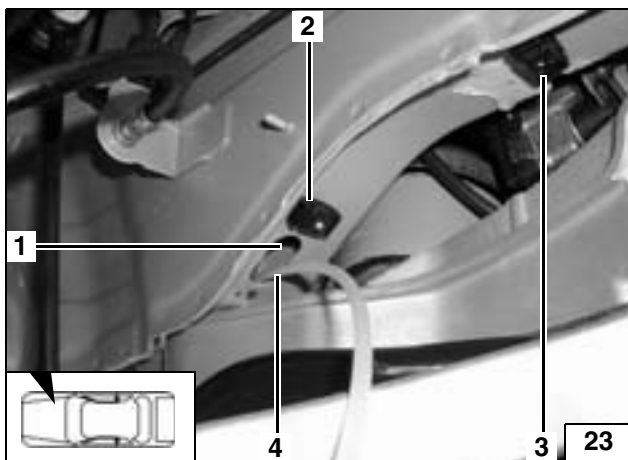


Remove both oval protective rubber sleeves in the frame side rail, run the Mecanyl fuel line through the rear opening and pull through. Then lead this back into the rear opening, push out to the front and lead through the front grommet opening.

- (1) Rear grommet opening
- (2) Mecanyl fuel pipe
- (3) Front grommet opening



Running lines



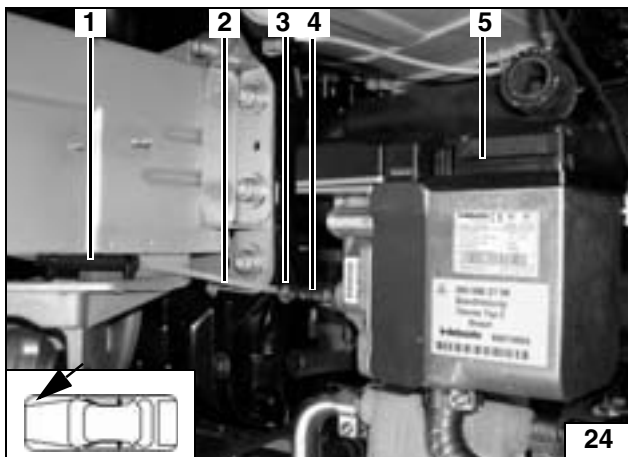
Reinsert the rear grommet, drill d= 5 mm in the front grommet, place on the Mecanyl fuel line and insert again.

Screw the hose bracket onto the existing stay bolts.

Clip the Mecanyl fuel line into the hose bracket.

- (1) Front grommet opening in frame side rail
- (2) Hose bracket [2x]
- (3) Hose bracket
- (4) Mecanyl fuel pipe

Installing the fuel line



Shorten the Mecanyl fuel pipe on the heater unit and connect.

Add the wear protection hose and fasten with cable clips.

- (1) Wear protection hose
- (2) Mecanyl fuel pipe
- (3) Universal clip [2x]
- (4) Hose section
- (5) Heater unit



Fuel on heater unit



WARNING!

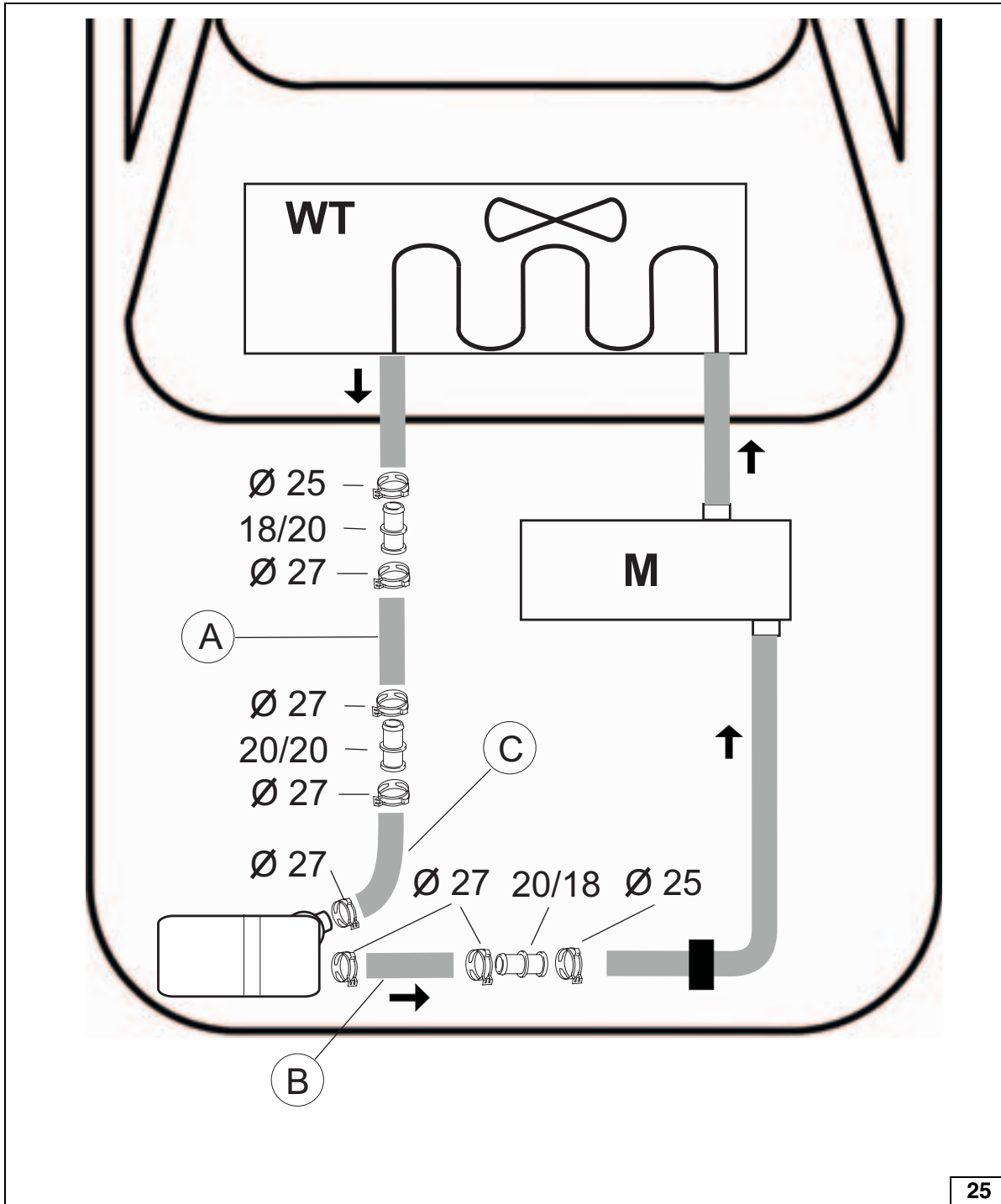
Tighten all hose clamps with 2.0 + 0.5 Nm.

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

Install hoses so that they are kink-free and to prevent wear.

Position hose clamps so that no other hose can be damaged!

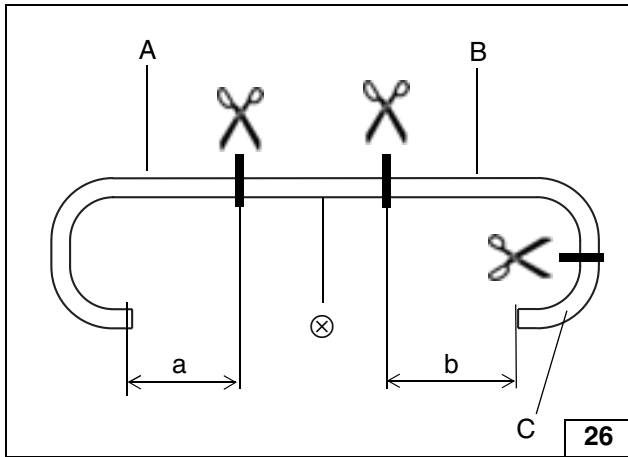
The connection should be "inline" based on the following diagram:



Water diagram
(shown on 230K hose system)
without residual heat pump

On vehicles with a residual heat pump, the hose placement in the engine area may vary slightly.





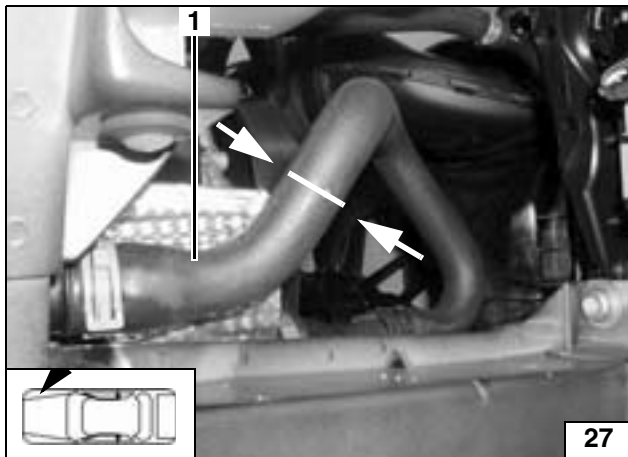
a = 210 mm
b = 70 mm
c = 90° bend (remaining)

Dispose of section ⊗



Cutting water hoses into sections

(230K without residual heat pump)



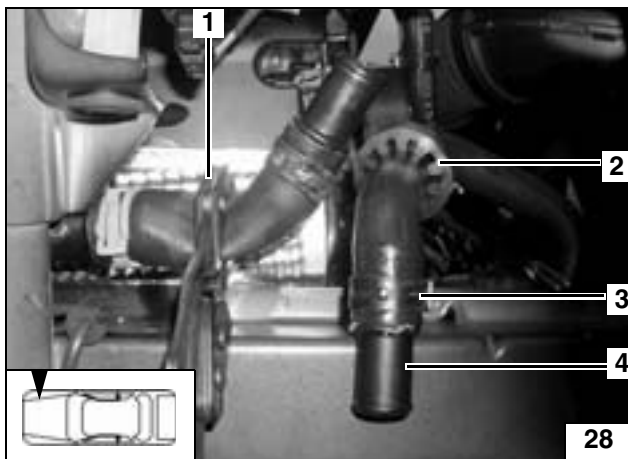
Separate the original vehicle engine hose on the marking.

(1) Original vehicle hose



Splitting point.

(230K without residual heat pump)



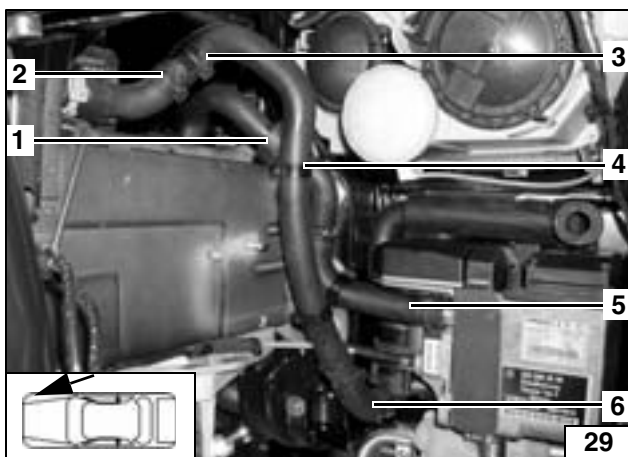
Insert the connecting pipe in the hose ends and fasten with clips.

Slide the rubber ring onto the hose to the engine.

- (1) Vise-grip wrench
- (2) rubber ring
- (3) Clips d=25 [2x]
- (4) Connecting pipe 18-20 [2x]

Connec-ting pipe

(230K without residual heat pump)



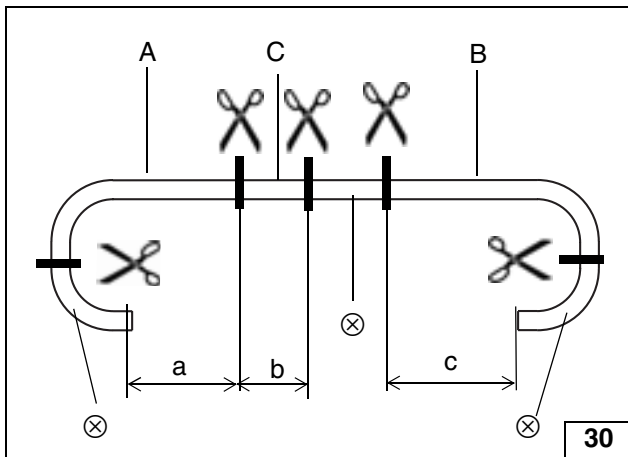
Connect the water hoses with the connecting pipe and clips according to the figure and diagram.

Position the rubber ring on the frame side rail. Fasten the hoses with spacers (clips).

- (1) Rubber ring (wear protection)
- (2) Clips d=25 [2x]
- (3) Clips d=27 [6x]
- (4) Hose spacers [2x]
- (5) Hose from header unit outlet to engine inlet
- (6) Hose from heat exchanger outlet to heater unit inlet

Connect hoses

(230K without residual heat pump)

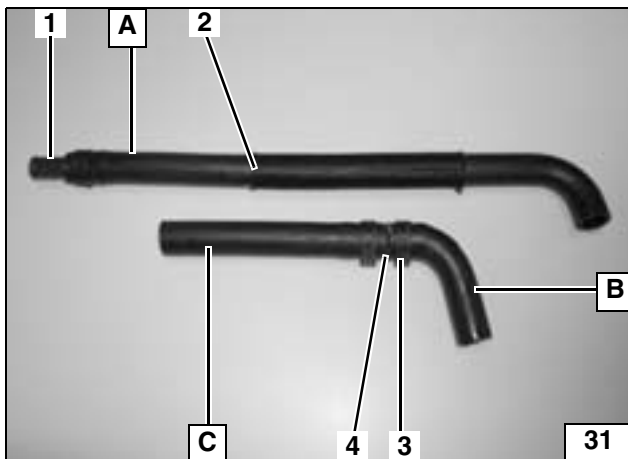


a = 360 mm
b = 170 mm
c = 20 mm

Dispose of section ⊗

Cutting water hoses into sections

(220 CDI without residual heat pump)



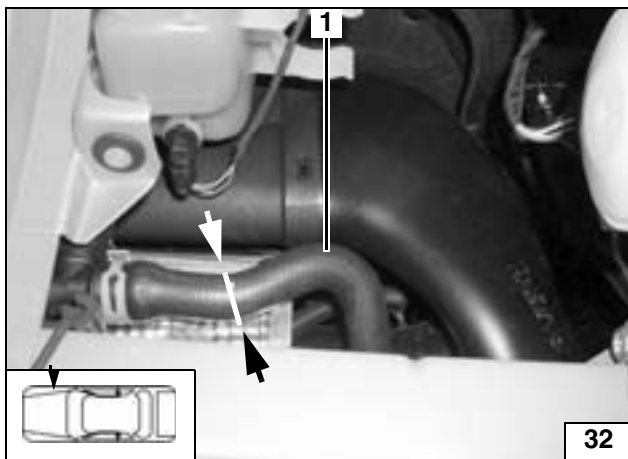
Only 220 CDI/320 CDI

Cut the braided protective hoses to 220 mm and slide onto hose A.

- (1) Connecting pipe 18-20
- (2) Braided protective hose
- (3) Clips d=27 [3x]
- (4) Connecting pipe 20-20

Pre-assembling the hoses

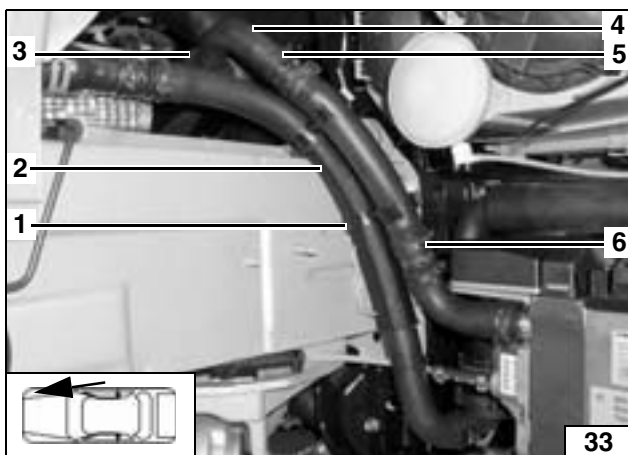
(220 CDI without residual heat pump)



- (1) Original vehicle hose for the engine inlet

Splitting point

(220 CDI without residual heat pump)



- (1) Spacer bracket [2x]
- (2) Braided protective hose
- (3) Rubber ring
- (4) Original vehicle hose to the engine inlet
- (5) Clips d=25 [2x]
- (6) Clips d=27 [6x]

Connect hoses

(220 CDI without residual heat pump)

**WARNING!**

Reassemble disassembled components in reverse order.

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

Secure all loose lines using cable clip.

Spray heating unit components with anti-corrosion wax (Tectyl 100K, Order No. 111 329).

- Connect battery.
- Start engine, bleed water circuit according to the vehicle manufacturer's specifications, top up with cold water, check that the cooling system is sealed according to the manufacturer's recommendations.

Release the auxiliary heater function:

After assembly, follow the manufacturer's instructions for star diagnosis to code the auxiliary heater.

- Set the vehicle heating with automatic air conditioning or without automatic air conditioning according to the "operating instructions for the end customer".
- Check that the auxiliary heating operates properly, see operating instructions / installation

Final
work



(Please remove page and insert with vehicle operating instructions.)

**Operating
instruc-
tions for
the end
customer**

Before parking the vehicle, make the following settings:

Set the heater times with the steering wheel buttons when the key is in position 1 or 2 (ignition) or when the engine is running.

- Press the up or down steering wheel menu buttons until the "Settings" menu appears.
- Move the arrow buttons up or down until the "Auxiliary Heating" menu appears.
- Press +/- to set the start times 1 to 3.
- Use the arrow button to select the time setting
- Press +/- to set the start time for the auxiliary heat.
- Exit the menu, the start time is saved.

Options:

- The optional "Auxiliary heat/vent" button in the center console is for immediate heating and ventilation (see also the vehicles operating manual).
- Use the optional remote start to directly start the auxiliary heat. (see also the vehicle operating instructions).
- Use the optional Thermo Call to start the auxiliary heat over the telephone.



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