## Water Heater



## Thermo Top C Parking Heater



## Installation documentation

# **Chrysler 300C**

Diesel from model year 2006 Left-hand drive vehicle



#### **WARNING!**

Hazard warning:

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



Specialist company training, technical documentation, specialised tools and equipment are required to install and repair Webasto heating and cooling systems.

Only original Webasto parts must be used. For this, also see the catalog of air and water heater accessories from Webasto.

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

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

The initial startup is to be executed with the Webasto Thermo Test Diagnosis.

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

Ident. No.: 9014469C\_EN Fee Euro 10.00 © Webasto AG

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# **Validity**

Manufacturer	Model	Туре	EG BE No. / ABE
Daimler Chrysler (USA)	300C	LE	e11 * 2001 / 116 * 0141 *

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
642982 (EXL)	Diesel	155 / 160	2987

Vehicle and engine types as well as equipment variants not listed in this Installation documentation have not been tested. However, installation according to this Installation documentation may be possible.

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

#### **Heater / Installation Kit**

Quantity	Description	Order No.:
1	Retail accessories Thermo Top C Diesel	See price list
1	Installation kit Chrysler 300C Diesel	9014467B
1	Heater control	see price list

#### **Foreword**

This installation documentation applies to Chrysler 300C Diesel vehicles - for validity, see page 2 - from model year 2006 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this "installation documentation."

In each case however, the specifications of this "installation documentation"; the "operating instructions" and the "installation instructions" of *Thermo Top C* must be followed.

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. Insulate loose lines and tie back.

Sharp edges should be fitted with rub protection (split-open fuel hose).

Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329). When installing an IPCU, the corresponding settings must be checked or adjusted before the installation.

#### Special tools

- Torque wrench for 2.0 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Angle drill
- Chrysler tank fitting tool 9340

### **Explanatory Notes on Document**

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

**Mechanical system** 

**Electrical system** 



**Coolant circuit** 



**Fuel** 



**Exhaust gas** 



**Combustion air** 



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



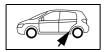
Specific risk of fire or explosion.

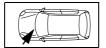


Reference to general installation instructions of Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.





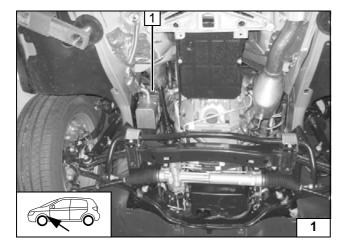
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

### **Preliminary Work**

#### **WARNING!**

- Disconnect the battery "earth" or "ground" connection.
- Depressurise the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Remove the engine cover
- Open the fuel tank cap and vent the fuel tank.
- Close the fuel tank cap again.
- Detach the wheel well trim at the left
- Remove the underride protection
- Remove the rear bench seat
- Open the tank-fitting service lid at the left
- Remove the glove compartment
- Remove the footwell trim on the front passenger side.
- Detach the A/C control panel according to the manufacturer's instructions

Remove page 23 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



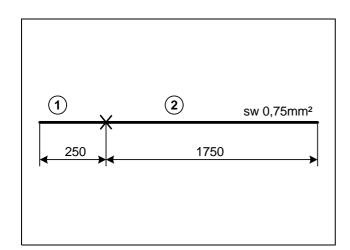
#### **Heater installation location**

1 Heater

Installation location



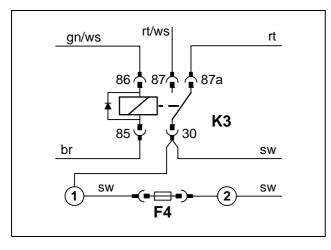




## **Preparing electrical system**



Cutting line to length



Produce connections as shown in wiring diagram.

Draw wire section **2** into the attached protective sleeving.



Preparing fuse F4



### **Electrical system**

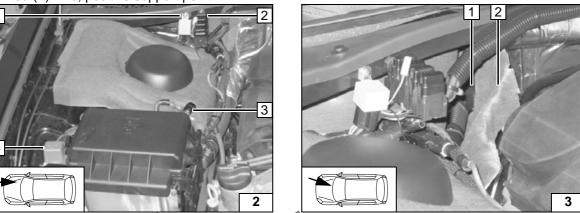
#### Fuse holder, K3 relay

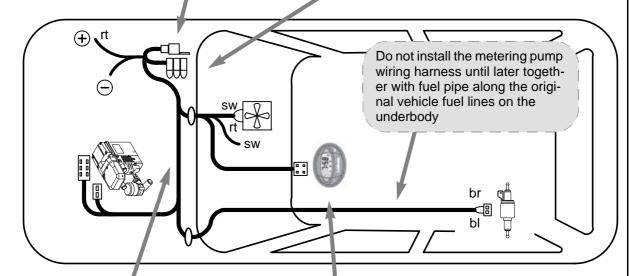
- 1 K3 relay, 4mm dia. hole, 5.5x13 self-tapping screw
- 2 Fuse holder, retaining plate, 4mm dia. hole, 5.5x13 self-tapping screw
- 3 Brown (br) wire, earth support point
- 4 Red (rt) wire, positive support point

### Wiring harness pass through

- 2 Insulation mat detached
- 1 Original vehicle wiring harness pass through, fan pass through, clock and line from F4

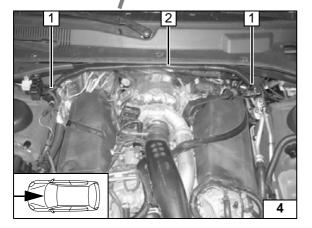






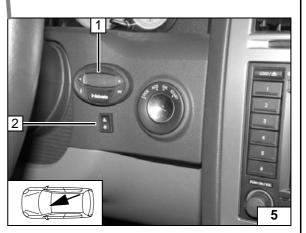


Wiring harness routing installation diagram



### Wiring harness routing

- 2 Corrugated tube (cut open) fastened with cable tie to cross beam
- 1 Wiring harnesses of heater and metering pump



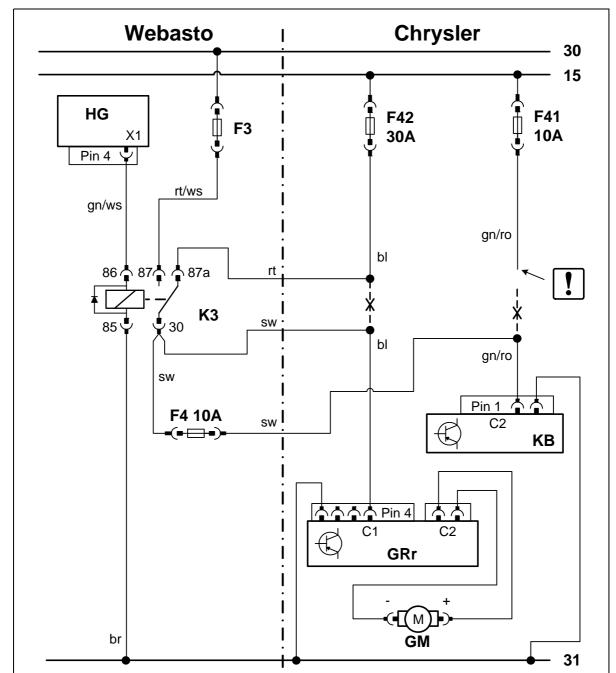
#### Digital timer, summer/winter switch option

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





## Fan control

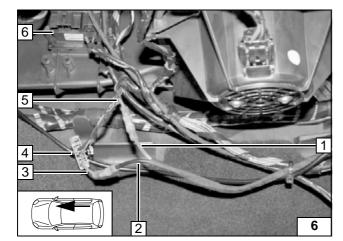




Wiring diagram

Webasto components		Chrys	Chrysler components		Colours and symbols	
HG	Heater TT-C/E/P	F42	Fan fuse	rt	red	
F3	Fan fuse	F41	A/C control panel fuse	ws	white	
K3	Fan relay	GRr	Fan controller	SW	black	
F4	Additional fuse	KB	A/C control panel	br	brown	
		GM	Fan motor	gn	green	
				ro	pink	
				bl	blue	
					Insulate wire ends and	
				ت ر	tie back	
				Х	Cutting point	



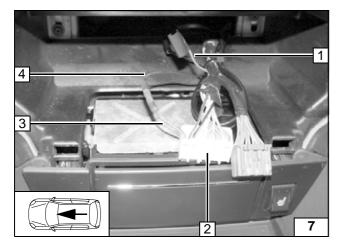


Connection to 4-pin connector C1 from fan controller Pin 4.

Make connections according to wiring diagram with attached yellow joint connectors.

- 4 Connector C1, removed
- 6 Socket of connector C1
- 1 Red (rt) wire from K3/87a
- 5 Blue (bl) wire from original vehicle fuse F42
- 2 Black (sw) wire from K3/30
- 3 Blue (bl) wire to fan controller





Connection to 22-pin white connector C2 from A/C control panel Pin 1. Make connections according to wiring diagram with attached red joint connector.

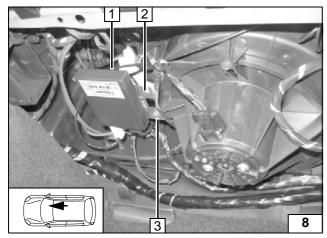


### Warning!

Wiring colours may vary.

- 2 Connector C2, removed
- 3 Green/pink (gn/ro) wire to A/C control panel
- 4 Black (sw) wire from F4
- 1 Insulate and tie back green/pink (gn/ro) wire from original vehicle fuse F41

Connecting A/C control panel

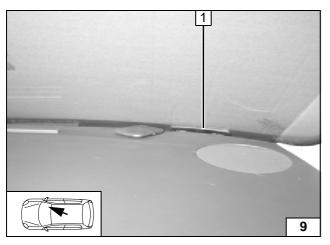


## **Remote option (Telestart)**

- 1 Receiver
- 2 Bracket
- 3 Original vehicle bolt



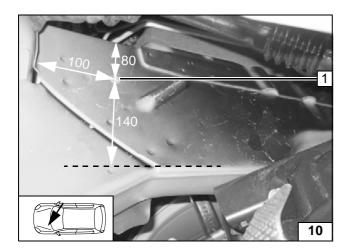
Installing receiver



1 Antenna

Installing antenna

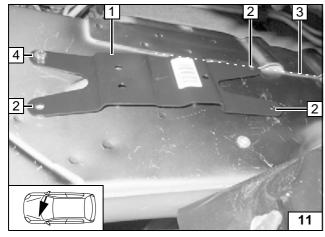




## **Preparing installation location**

1 9mm dia. hole, M6 steel rivet nut

Mounting rivet nut



First fasten bracket 1 at position 4. Then place bracket 1 from below on edge 3.



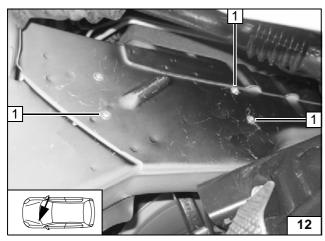
- 1 Bracket
- 4 M6x20 bolt on rivet nut
- **3** Edge of the side member
- 2 Copy hole pattern [3x]

Copying hole pattern



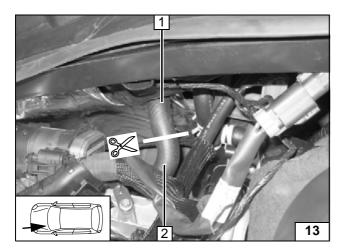


1 9mm dia. hole, M6 steel rivet nut [3x]



Mounting rivet nuts





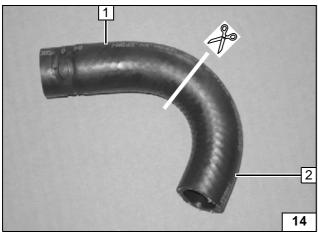
## Preparing coolant circuit

Remove hose section 2.

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



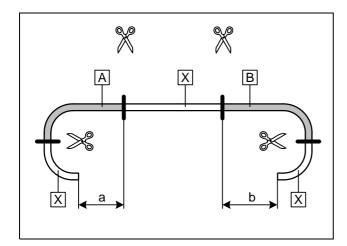
Cutting point



- 1 Engine outlet hose section2 Discard hose section

Cutting hose section to length





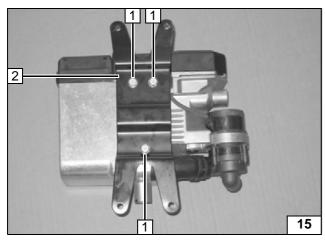
## **Preparing heater**

**A** = 150mm

B = 230 mm



Cutting coolant hoses to length



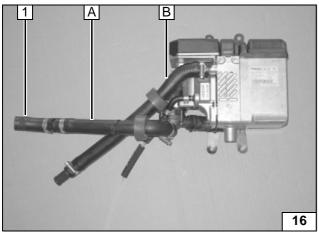
Ejot screw, 10Nm tightening torque

2 Bracket

1 Ejot screw [3x]

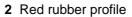


Premounting heater



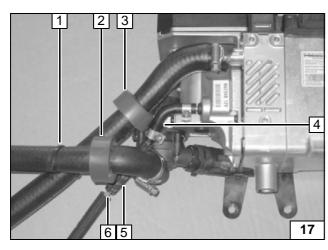
1 Hose section of engine outlet (bend faces upwards)

Premounting heater

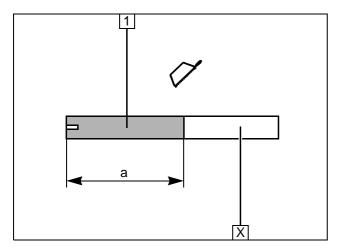


- **3** Red rubber profile, fastened with cable tie and circulating pump
- 1 Hoses A and B connected with cable ties
- 4 10mm hose clamp [2x], 90° moulded hose
- 6 Mecanyl fuel line
- 5 Fabric hose section as protective hose [2x]

Premounting heater





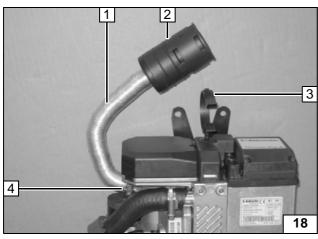


### **Combustion air**

1 Combustion air pipe a = 230mm

Discard section X

Cutting combustion air pipe to length



Mount slit side on heater Silencer is inserted into the retaining clip only after installing the heater.



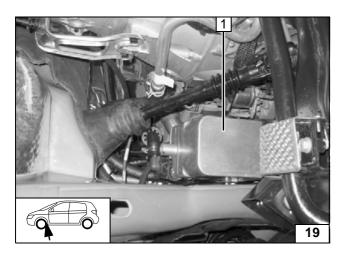
- 4 Hose clamp
- 2 Silencer
- **3** Retaining clip in pre-perforated hole of heater cover





Installing combustion air pipe





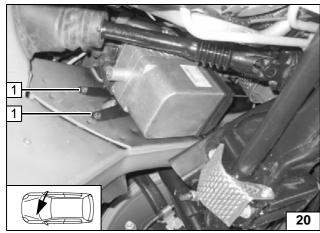
## Installing heater

Ensure sufficient distance of heater from steering column.



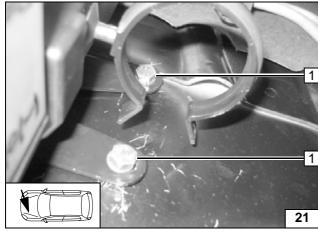


Mounting heater



1 M6x20 bolt, spring lockwasher [2x]



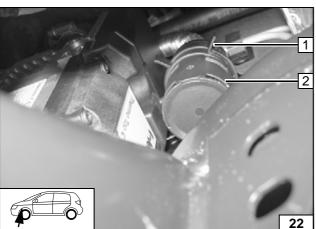


Mount wiring harness on heater. Fasten wiring harness to original vehicle lines with cable ties.

1 M6x20 bolt, spring lockwasher [2x]



Mounting heater



- 1 Retaining clip
- 2 Silencer

Mounting combustion air silencer

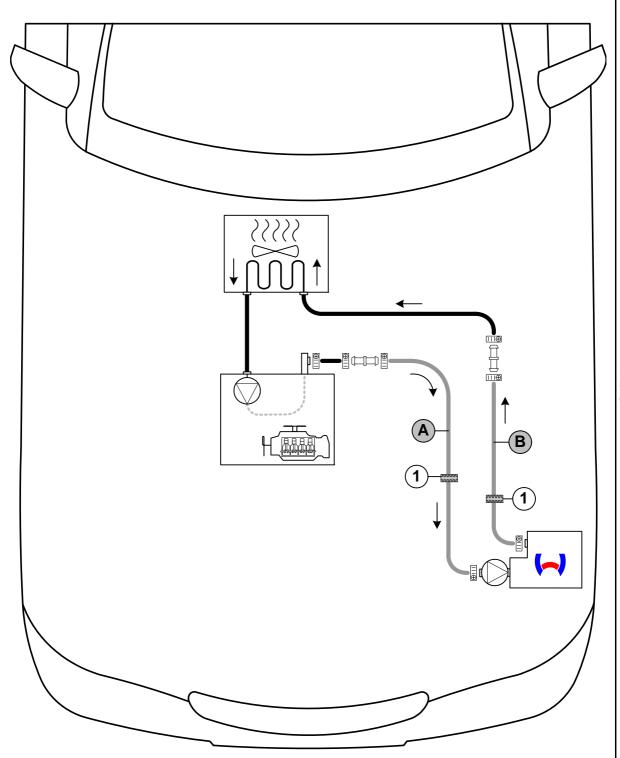


#### **Coolant circuit**

### **WARNING!**

Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. The heater must be filled with coolant when installing the hose. The connection should be "inline" according to the following diagram:



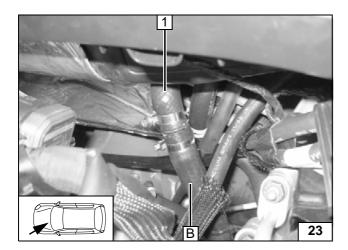


Hose installation diagram

All hose clamps  $\bigcirc$  = 20-27 mm dia. All connecting pipes  $\bigcirc$  = 18x20 mm dia. 1= Black (sw) rubber isolator







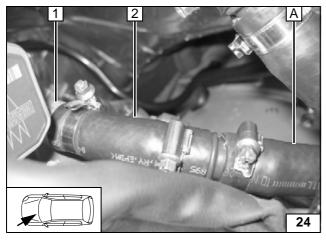
Fill coolant hoses with coolant before connecting them.

1 Hose section of heat exchanger inlet

cting them.



Connecting heat exchanger inlet

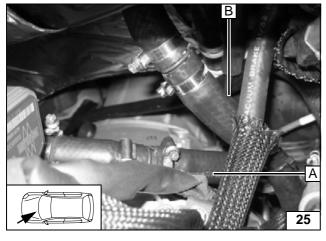


Fill coolant hoses with coolant before connecting them.

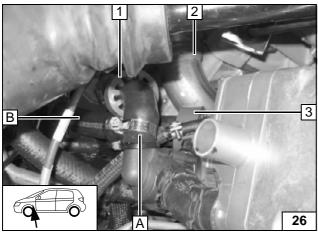


- 1 Engine outlet connection piece
- 2 Engine outlet hose section

Connecting engine outlet



Aligning hoses



Check the position of the hoses A, B and rubber profiles 1, 3 and correct if necessary. Ensure sufficient distance from steering column and original vehicle exhaust pipe 2. Position rubber profile 1 in the area of the exhaust pipe 2.

Fasten the hoses with cable ties.

- 1 Rubber profile
- 2 Exhaust pipe
- 3 Rubber profile



Aligning hoses and rubber profiles



#### **Fuel**

#### **CAUTION!**

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



Catch any fuel running off with an appropriate container.

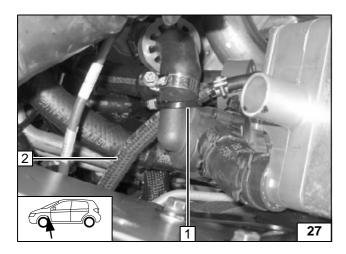
Install fuel line and metering pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.

Mount the fuel line and wiring harness with rub protection on sharp edges.



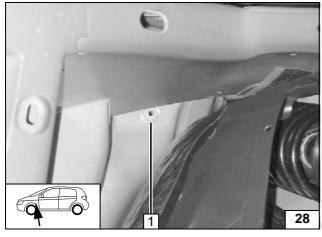
#### **WARNING!**

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



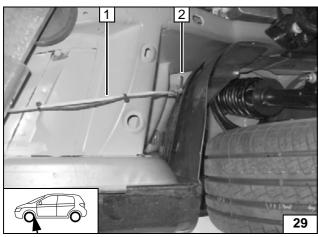
- 1 Fuel line fastened to the circulating pump with cable ties
- 2 Mecanyl fuel line in protective hose

Installing lines



1 Protective rubber plug in existing hole

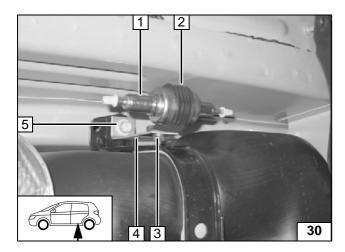
Mounting grommet



- Wiring harness of metering pump and Mecanyl fuel line
- 2 Protective rubber plug

Installing lines



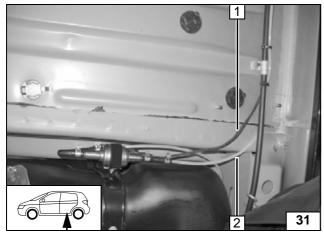


The installation location is at the left before the tank.

The intake side of the metering pump [side without connector] faces vehicle centre. Watch installation position of the metering pump, see "installation instructions".

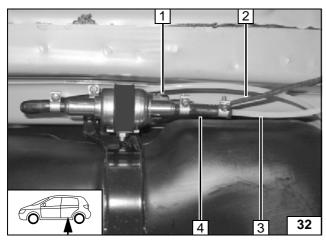
- 5 Original vehicle bolt
- 4 Angle bracket
- 1 Metering pump
- 2 Rubber holder
- 3 M6x20 bolt, flanged nut



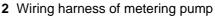


- 1 Wiring harness of metering pump
- 2 Fuel line from heater

Wiring routing



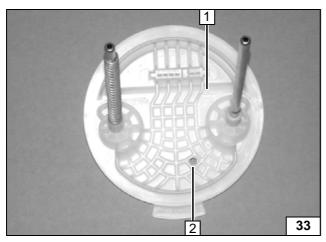
Fuel line from heater on pressure side of metering pump [side with connector].



- 1 Connector housing completed
- 3 Fuel line from heater
- 4 Hose section, 10mm dia. hose clamp [2x]



Connection to metering pump



Remove and dismantle left fuel-tank sending unit with Chrysler special tool 9340.

The tank should be filled max. up to half. If necessary, remove fuel in advance.

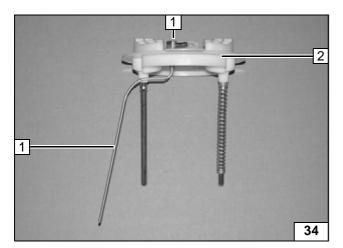
Drill at the exact centre between the bars.

- 1 Fuel-tank sending unit
- 2 6mm dia. hole, at centre between the bars



Fuel extraction





5

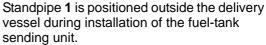
3

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



- 2 Fuel-tank sending unit
- 1 Fuel standpipe





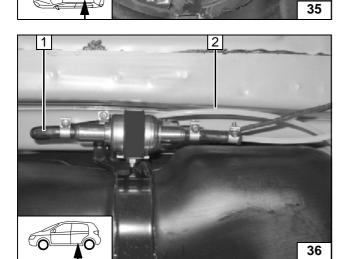


Install fuel-tank sending unit in accordance with manufacturer's instructions. Position Caillau clamp 4 over edge of sealing ring.



- 2 Fuel standpipe
- 5 Hose section
- 1 10mm dia. Caillau clamp
- 4 10mm dia. Caillau clamp
- 3 Mecanyl fuel line





Fuel line from fuel standpipe to intake side of metering pump [side without connector].



- 2 Fuel line from fuel standpipe
- 1 180° moulded hose, 10mm dia. hose clamp [2x]

Connection to metering pump

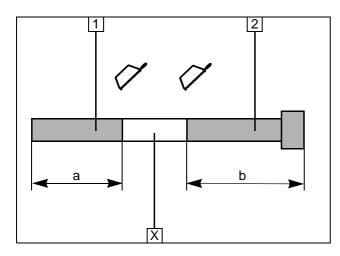
Check the position of the components; adjust if necessary. Check that they have freedom of movement.



Check the positioning of the fuel lines and wiring harness along the entire length, correct if necessary.

Fasten wiring harness and fuel lines with cable ties.



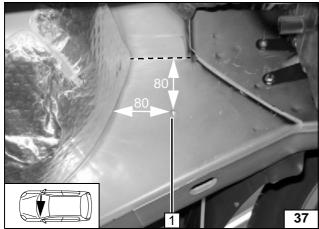


#### **Exhaust gas**

- 1 Exhaust pipe a = 130mm
- 2 Exhaust end section b = 390 mm

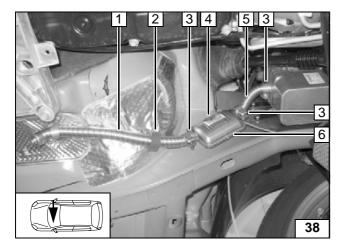
Discard section X

**Preparing** exhaust pipe



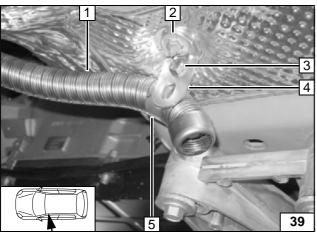
1 9mm dia. hole, M6 rivet nut (steel)

Mounting rivet nut

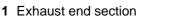


- 5 Exhaust pipe
- 3 Hose clamp [3x]
- 6 Exhaust silencer
- 4 M6x55 bolt; spring lockwasher; large diameter washer; 30mm spacer sleeve
- 2 Red (rt) rubber isolator
- 1 Exhaust end section

Mounting exhaust system



First insert bolt 3 into angle bracket 4, then fasten angle bracket with nut 2.



- 2 Original vehicle plate nut
- 3 M6x20 bolt, flanged nut
- 4 Angle bracket
- 5 P-clamp

Align exhaust system, as shown. Ensure freedom of movement of vehicle body and the trims to be reinstalled.

Position rubber profile accordingly.



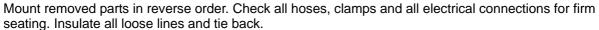
Mounting exhaust end section





### **Final Work**

#### **WARNING!**



Only use manufacturer-approved coolant. Spray heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Adjust digital timer, teach Telestart transmitter
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Place message signboard "Switch off parking heater before refilling" in the area of the filler neck.
- For start-up and function check, see Installation instructions

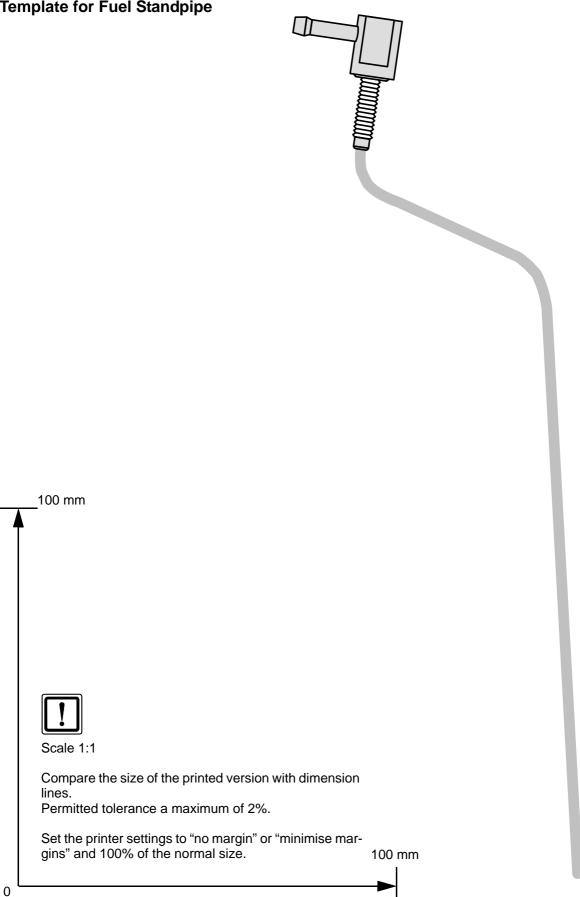




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## **Template for Fuel Standpipe**



### **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.

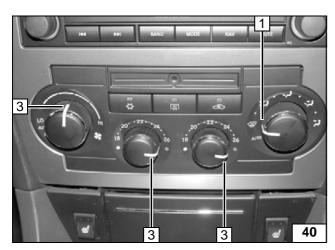
If vehicles have passenger compartment monitoring , it must be deactivated in addition to the vehicle settings for the heating operation .



Instructions about deactivation can be taken from the operating instructions of the vehicle.

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

Before parking the vehicle, make the following settings:



- 1 Direct air outlet toward windscreen
- 2 Set temperature to "max." [2x]
- 3 Set fan to level "3", or possibly "4"

Automatic air-conditioning