

Air heater



Air Top 2000 ST D Parking heater



00 0022

Installation documentation

Ford Transit

Diesel

from Model Year 2007

For left-hand drive vehicles only



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.

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Validity

Manufacturer	Model	Type	EG-BE No./ ABE
Ford	Transit	F*6	e11 * 2001 / 116 * 0284 * ...
Ford	Transit	F*6	e11 * 2001/116 * 0286 * ...
Ford	Transit	F*6	e11 * 2001 / 116 * 0289 * ...
Ford	Transit	F*6	L743
Ford	Transit	F*6	L744
Ford	Transit	F*6	L758
Ford	Transit	FAC6	L742
Ford	Transit	FAA6	U/00945

Engine type	Engine model	Output in kW	Displacement in cm ³
P8FA	Diesel	63	2198
QVFA	Diesel	81	2198
SRFA	Diesel	85	2198
QVFA	Diesel	96	2198
PGFA	Diesel	103	2198
PHFA	Diesel	74	2402
JXFA	Diesel	85	2402
JFXC	Diesel	85	2402
H9FB	Diesel	103	2402
SAFA	Diesel	147	3198

Foreword

This installation documentation applies to Ford Transit vehicles with a Diesel engine from model year 2007 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded.

Vehicles and equipment variants, which are not listed in this installation documentation, have not been tested. However, installation according to this installation documentation may be possible. Depending on the version and the equipment variants of the vehicle, changes may be necessary relative to this "installation documentation" during installation and must be adjusted accordingly.

However, where this is the case, the stipulations in this "installation documentation" the "operating instructions" and "maintenance instructions" of the *Air Top 2000 ST* should be observed.

The installation location of heater controls and the routing of the air ducting parts must be coordinated with the final customer prior to installation!

WARNING!

Original load-bearing components of the vehicle and/or component used for crash safety may not be modified for the hot air and recirculating air ducting!

Heaters

Quantity	Description	Order No.:
1	Basic delivery scope <i>Air Top 2000 ST</i>	9022047A
1	Standard installation kit for <i>Air Top 2000 ST</i>	9022050A
1	Installation kit for <i>Air Top 2000 ST</i> Diesel Ford Transit	1311683B

Optional heater control either:

Quantity	Description	Order No.:
1	Combination timer	1311691A
1	Uniselector (setpoint encoder)	82819B

General instructions

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties.

Sharp edges must be provided with rub protection (cut-open fuel hose)!

Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

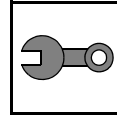
Special tools

- Torque wrench for 2.0 - 10 Nm

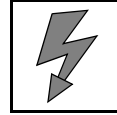
Explanatory Notes on Document

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.

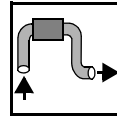
Mechanical system



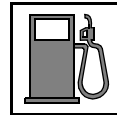
Electrical system



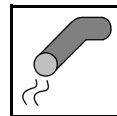
Hot air



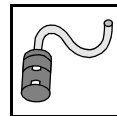
Fuel



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.



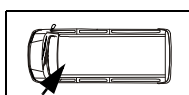
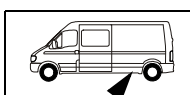
Specific risk of fire or explosion.



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



Reference to a special technical feature.

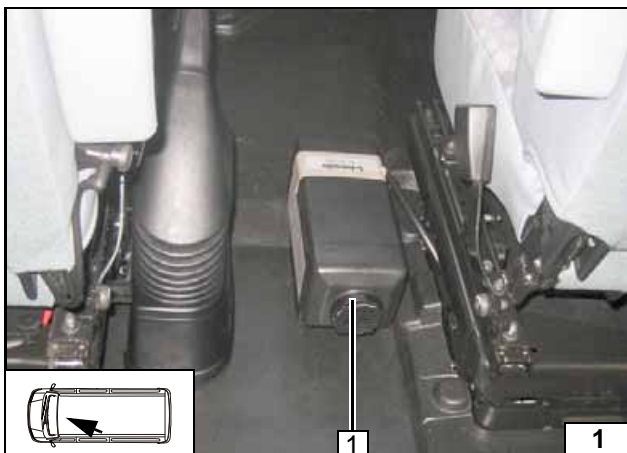


The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

Preliminary Work

WARNING!

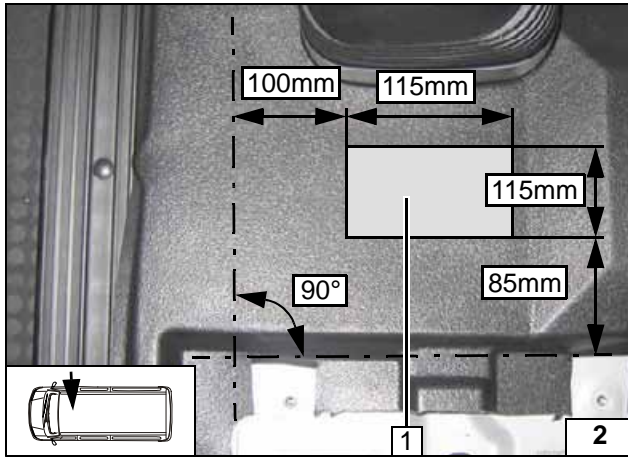
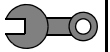
- Disconnect the battery "earth" or "ground" connection.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Remove the entrance trim on the driver's and front passenger side
- Remove the front passenger seat
- Detach the floor covering on the front passenger side
- Detach the A-pillar trim on the left (only when installing combination timer)
- Open the fuel tank cap and vent the fuel tank.
- Close the tank cap again.



Heater installation location

1 Heater

Installation location

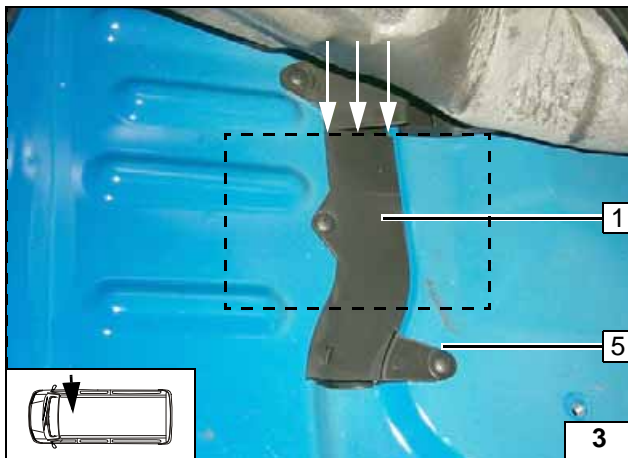


Preparing installation location

Fold up floor covering toward driver's side. Cut out floor covering **1** as shown.



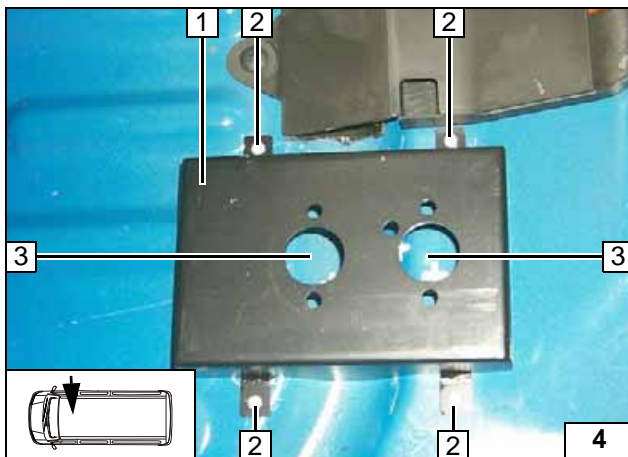
Cutting out floor covering



Cut off cable duct **1** at marking (arrows) and discard. Cut out insulation mat in area of bracket (shaded field) if installed on vehicle.

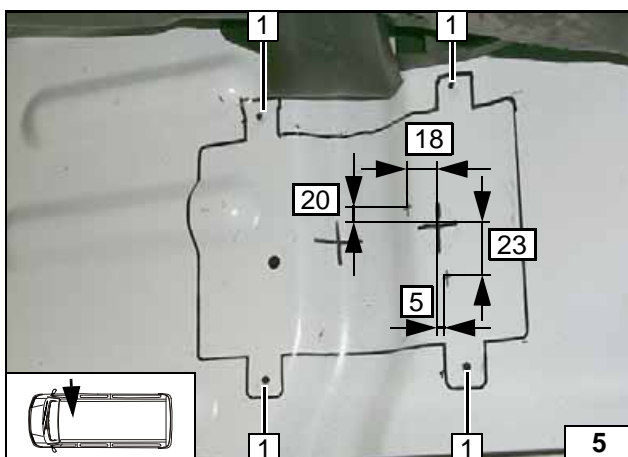


Cutting cable duct to shape



- 1** Lay on bracket and align
- 2** Copy hole pattern [4x] for fastening bracket
- 3** Copy centre point of hole [2x] for heater pass through

Copying hole pattern

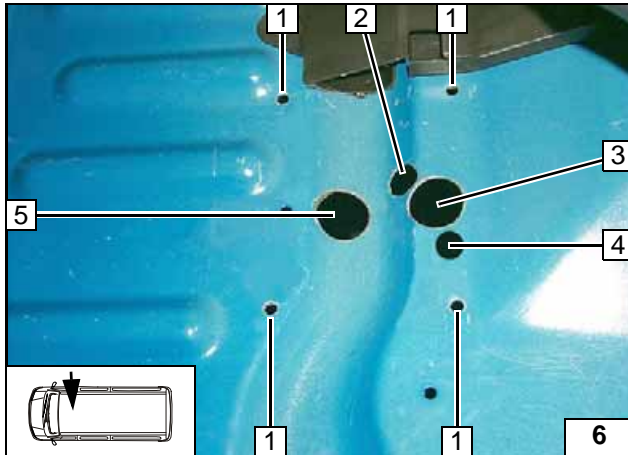
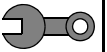


Remove bracket. Copy dimensions to floor panel.

- 1** 7 mm dia. hole [4x] for fastening bracket

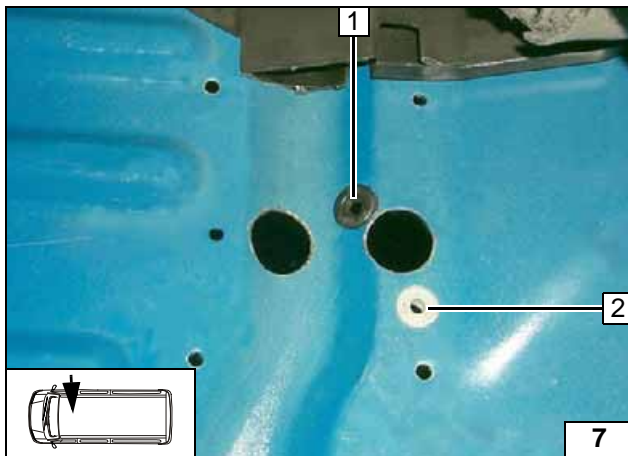


Copying dimensions



A bar of at least 2 mm must remain between holes **2** and **3** and **3** and **4**!
Use corrosion protection!

- 1 7 mm dia. hole [4x] for fastening bracket
- 2 Drill 18 mm dia. hole for fuel line
- 3 Drill 30 mm dia. hole for combustion-air intake pipe
- 4 Drill 14 mm dia. hole for metering pump wiring harness
- 5 Drill 46 mm dia. hole for exhaust pipe

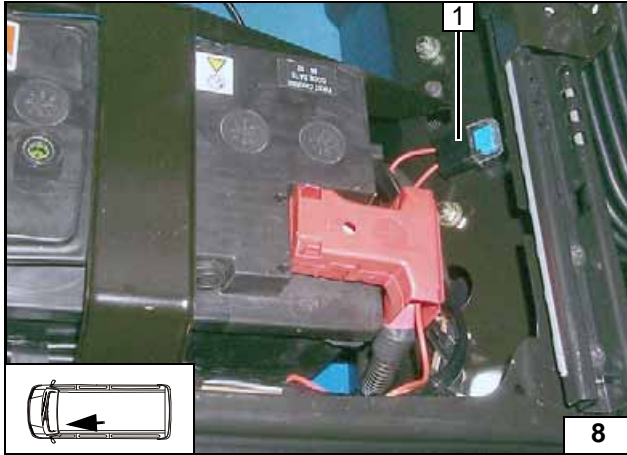


- 1 Mount 18mm dia. protective rubber plug
- 2 Mount 14 mm dia. protective rubber plug



Holes in the floor panel

Mounting protective rubber plugs



Installing blade-type fuse holder

- 1 2.5 mm dia. hole; self-tapping screw 3.5x13; fastening plate for blade-type fuse holder on battery box

Installing fuse holder



Route wiring harness of heater through cable duct to installation location of heater. Route wiring harness of heater control under left entrance trim toward front to instrument panel.

- 1 Ground wire on negative battery terminal
- 2 Positive wire on positive battery terminal



Installing wiring harnesses

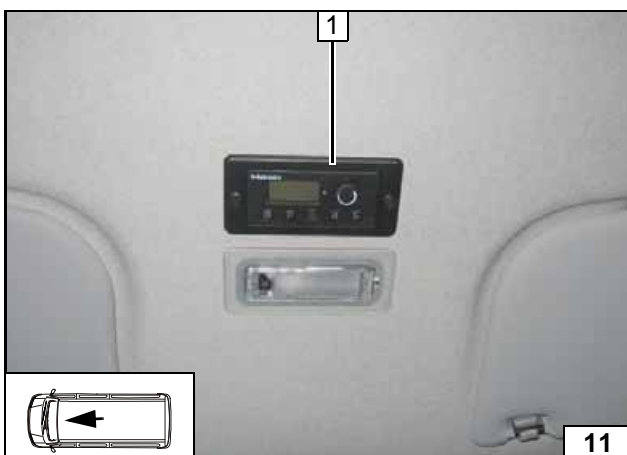


Installing heater control

- 1 12 mm dia. hole, heater control



Installing heater control



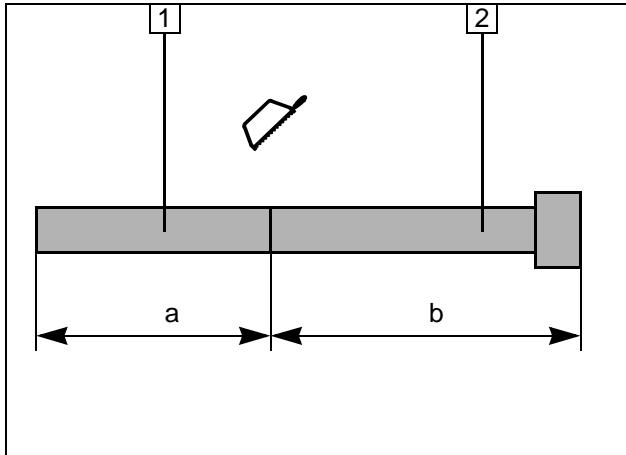
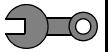
Installing combination timer (option)

Use installation frame as template. Copy hole pattern for fastening [2x] and cut-out.

- 1 Combination timer



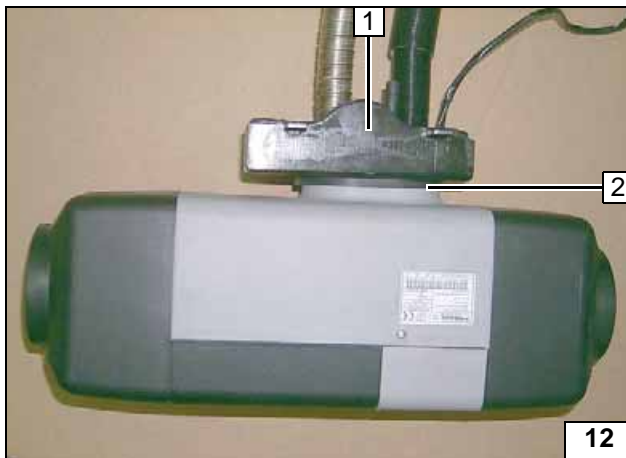
Installing combination timer



Premounting heater

- 1 Exhaust pipe
a = 650mm
- 2 Exhaust end section
b = 50mm

Preparing exhaust pipe

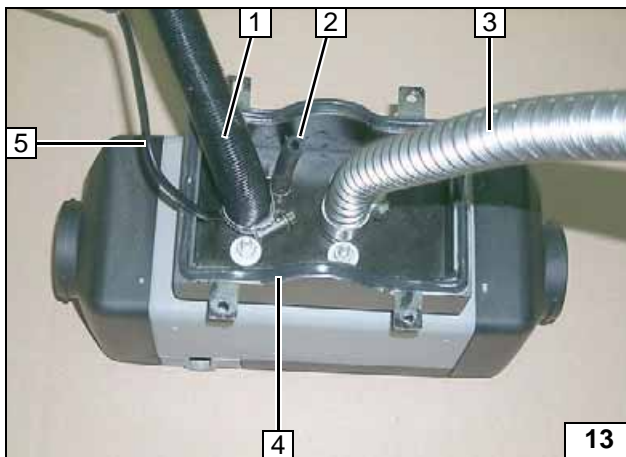


First push on gasket **2**. Install bracket with washers and nut on heater as described in installation instructions.



- 1 Bracket

Installing bracket

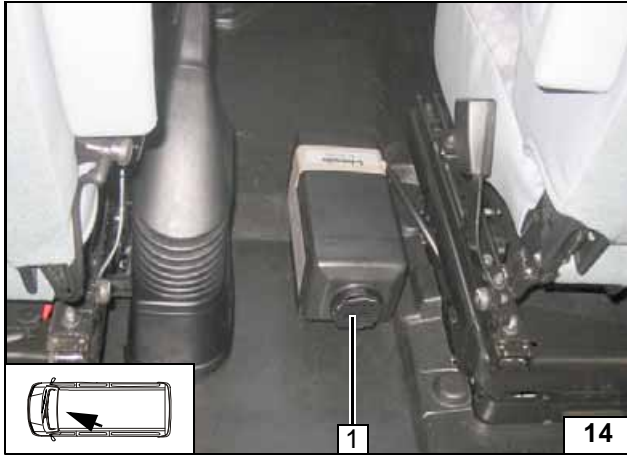
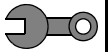


First route wiring harness of metering pump **5** through groove in combustion-air intake connection piece.



- 1 Combustion-air intake pipe, hose clamp
- 2 Hose section (cut to length to 70 mm), 10mm dia. hose clamp
- 3 Exhaust pipe, hose clamp
- 4 Lay sealing cord in groove around circumference of heating unit bracket

Connecting heater

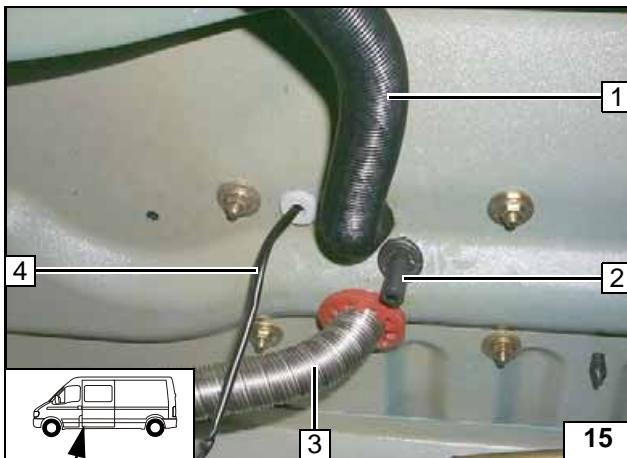


Installing heater

Check sealing cord for proper seating. Position heater with bracket 1 on floor panel.



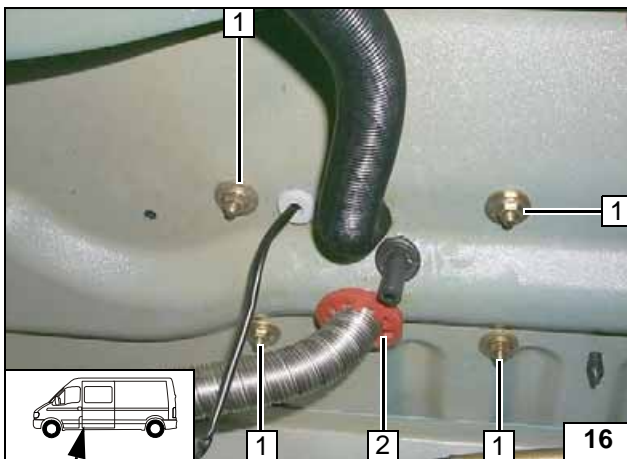
Installing heater



Route exhaust pipe 3, combustion-air intake pipe 1, wiring harness of metering pump 4 and hose section 2 through prepared holes.



Routing lines



Push red (rt) rubber isolator 2 onto exhaust pipe and mount in hole.

1 M6x20 bolt, large diameter washer, M6 flanged nut [4x each]

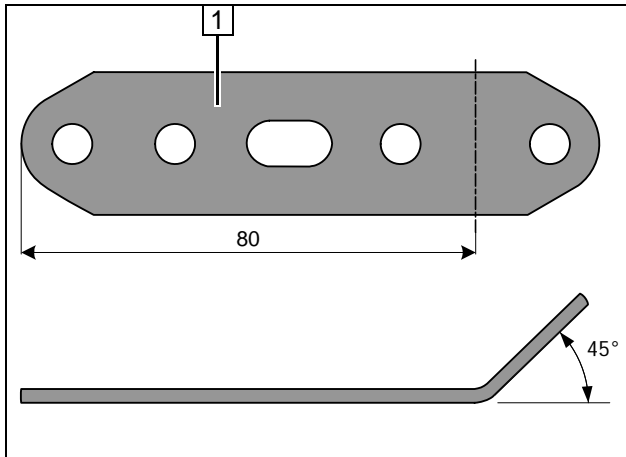


Installing heater

Warning!

Sealing cord and rubber gasket must be replaced after every removal.

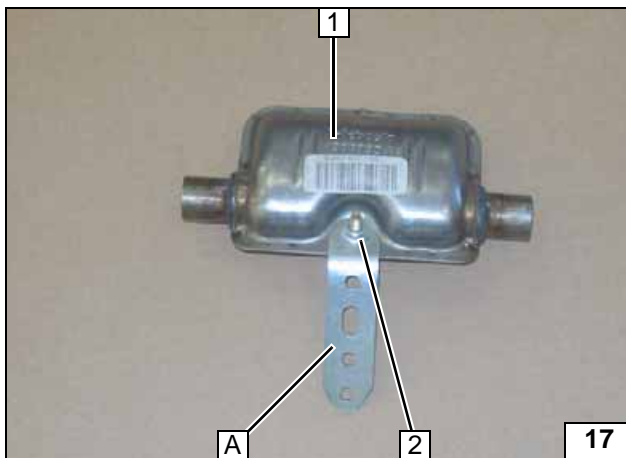




Exhaust system

1 Perforated bracket A

Angling down perforated bracket

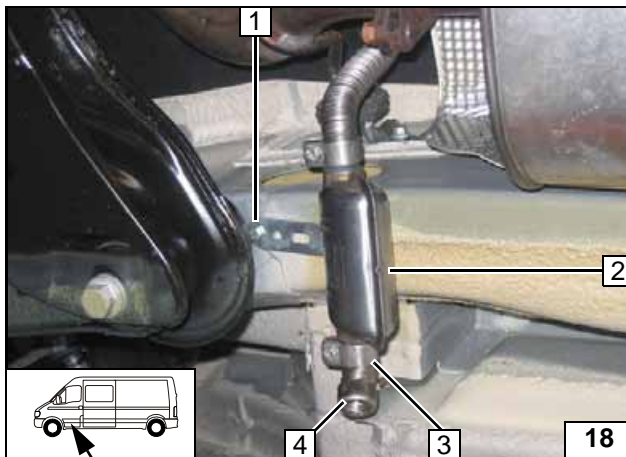


Angle down perforated bracket A according to template.

- 1 Muffler
- 2 M6x20 bolt, flanged nut



Preassembling muffler

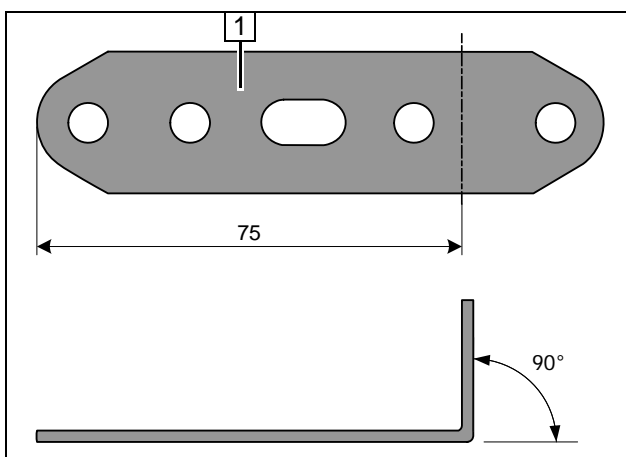


Use existing hole in frame side member for fastening.

- 1 Mount M6x16 bolt, flanged nut in existing hole
- 2 Preassembled muffler
- 3 Hose clamp
- 4 Exhaust end section

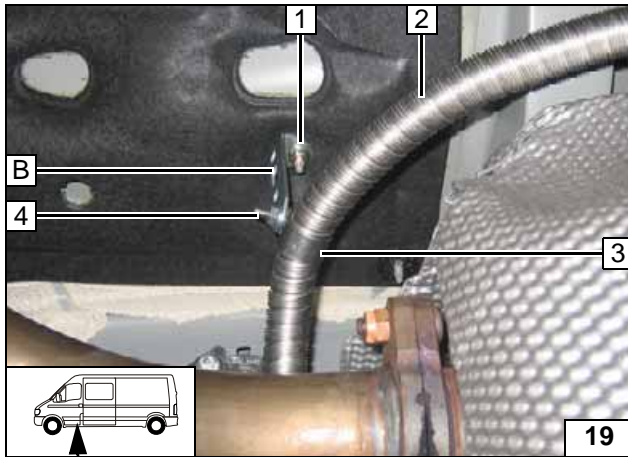
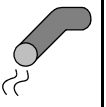


Installing muffler



1 Perforated bracket B

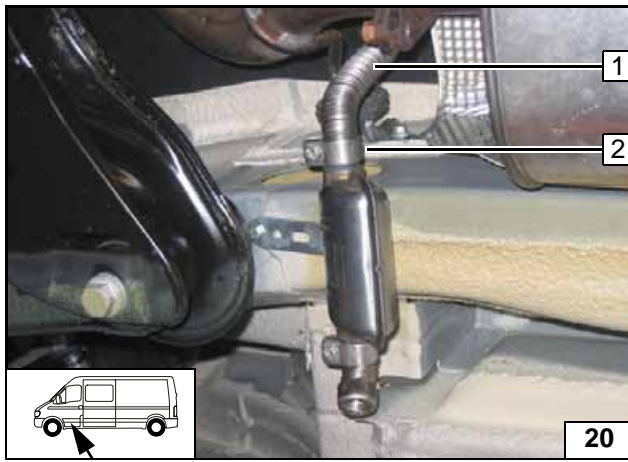
Angling down perforated bracket



Remove lock washer at position 1.
Angle down perforated bracket **B** according to template.

- 1 Original vehicle stud bolt
- 2 Exhaust pipe
- 3 P-clamp
- 4 Mount M6x20 bolt, flanged nut on perforated bracket **B**

Installing exhaust pipe



- 1 Exhaust pipe
- 2 Hose clamp

Installing exhaust pipe



Fuel connection

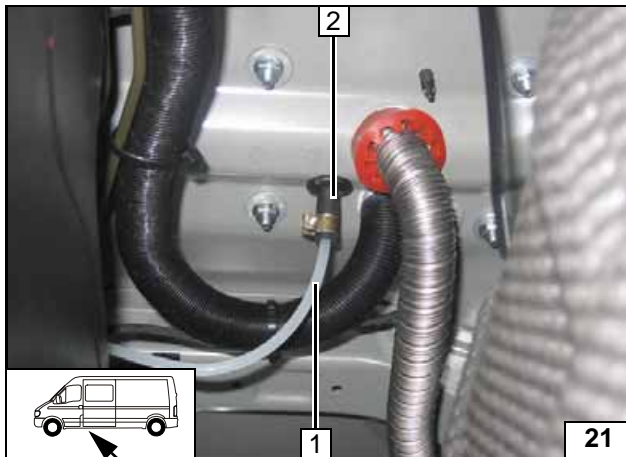
CAUTION!

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

Catch any fuel running off with an appropriate container.

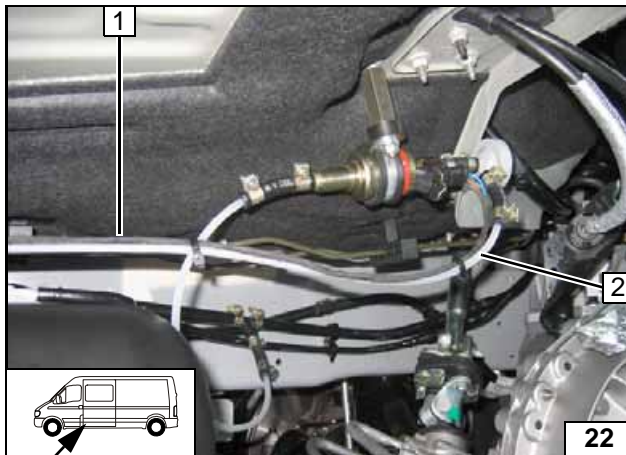
Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.

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



- 1 Mecanyl fuel line
- 2 Mount 10 mm dia. hose clamp on hose section

Conne-
ction to
heater

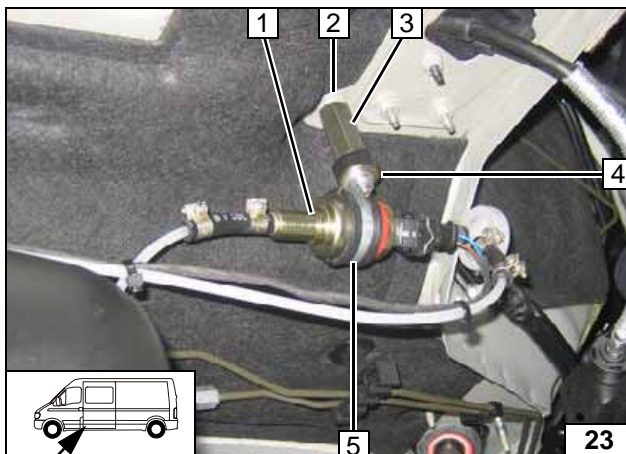


Ensure proper installation position of metering pump, see "Installation Instructions". Installation location in front of vehicle fuel tank!

- 1 Metering pump wiring harness
- 2 Fuel line from heater

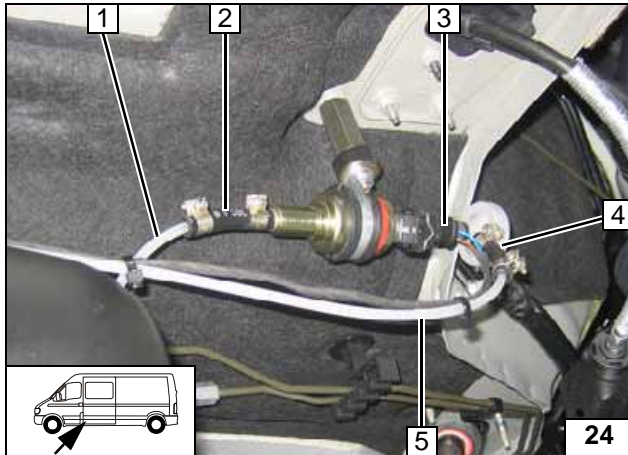


Installa-
tion loca-
tion of
metering
pump



- 1 Metering pump
- 2 Original vehicle stud bolt
- 3 Spacer nut on stud bolt
- 4 Silent block, flanged nut
- 5 Rubber-coated pipe clamp

Install-
ing
metering
pump

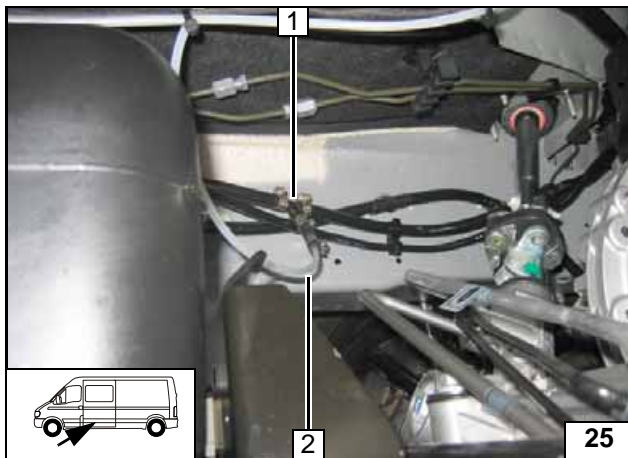


Fuel line from heater **5** on pressure side of metering pump [side with connector].
 Fuel line to fuel standpipe **1** on intake side of metering pump [side without connector].
 Check the position of the components; adjust if necessary. Check that they have free clearance.

- 2** Hose section, 10 mm dia. hose clamps [2x]
- 3** Wiring harness of metering pump, single-wire seal, tab connector, connector housing
- 4** Hose section, 10 mm dia. hose clamps [2x]



Connecting metering pump

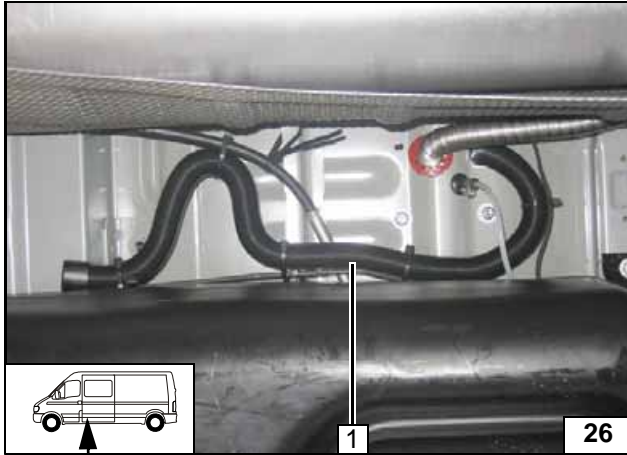
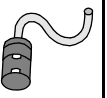


Separate fuel supply line at position **1**. Mount fuel standpipe with 2 12mm dia. hose clamps in cutting point.

- 2** Fuel line from metering pump, hose section, 10 mm dia. hose clamp [2x] on fuel standpipe



Removing fuel

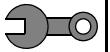


Combustion air

Route combustion-air intake pipe 1 as shown and fasten with cable ties.



Installing combustion air pipe



Final Work

WARNING!

Mount removed parts in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back all loose wires.

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

- **Connect the battery.**
- **Adjust digital timer, try out Telestart sender**
- **Place signboard "Switch off parking heater before refuelling" in the area of the filling connecting piece**
- **See installation instructions for initial startup and function check**



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