

Water heater



auxiliary heating *Thermo Top C*



installation instructions

Jeep Cherokee 2.8l CRD

Diesel exhaust model
2005Nur for LHD



ATTENTION!

Hazard warning:

Improper installation or repair of Webasto heating may cause fire or lead to leakage of deadly carbon monoxide. This Ki-NEN serious injury or death caused.

For installation and repair Webasto heating and cooling systems are needed ei-Specialist company training, technical documentation, special tools and special equipment.

NEVER attempt to install Webasto heating or cooling systems, or not repaired-Center, if you have the company training not completed successfully and thereby acquired the necessary technical skills and necessary for proper equitable th installation and repair technical documentation, tools and equipment To be available.

ALWAYS carefully follow Webasto installation and repair instructions and heed all warnings.

Webasto rejects any liability for problems and damage, which are due to installation by untrained personnel.

Cherokee 2.8l CRD

Table of Contents

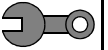
<p>validity 2</p> <p>Heater / Installation Kit 3</p> <p>foreword 3</p> <p>General information 3</p> <p>special tool 3</p> <p>Notes to the document 4</p> <p>Legislative history 5</p> <p>Tricks and tips 5</p> <p>Einbauort heater 5</p>	<p>2</p> <p>3</p> <p>3</p> <p>3</p> <p>3</p> <p>4</p> <p>5</p> <p>5</p>	<p>Exhaust system 14</p> <p>Exhaust silencer Preassemble 14 Abgasschalldämpfer mount 14</p> <p>Water involvement 15</p> <p>Scheme water laying 15 Trennstelle 16 Fahrzeugeigene hoses prepare 16 Wasserschlauch embarrassed 16 Rückschlagventil installing 17</p> <p>Combustion air integration 18</p> <p>Combustion air pipe to length 18 Brennluft mount 18</p> <p>Fuel Connection 19</p> <p>Connection on the heater 19 Leitungen embarrassed 19 Dosierpumpe Preassemble 19 Dosierpumpe mount 20 Brennstoffentnahme 20 Brennstoffentnehmer Connect 20</p> <p>Battery baseplate modify 21</p> <p>Baseplate modify 21 Bohrungen drill 21 Schwingmetallpuffer mount 22 Grundplatte mount 22 Sockel the fuse holder mount 22</p> <p>Final work 23</p> <p>Relais attach 23</p> <p>Operating instructions for end users 24</p>
<p>Integration Electrics 6</p> <p>Scheme harness laying 6</p> <p>blower control 7</p> <p>Blower control on relay carrier 7 Schaltplan 8</p> <p>Option Telestart 9</p> <p>Receiver Mount 9 Antenne mount 9</p> <p>prepare heater 10</p> <p>Water hoses to length 10 Wasserschläuche prepare 10 Abgasleitung prepare 10 Halter modify 11 Halter Preassemble 11 Halter hole image transmitted 12 Bohrungen drill 12 Heizgerät Preassemble 12</p> <p>installing heater 13</p> <p>Exhaust pipe mount 13 Bundmutter position 13 Heizgerät mount 13</p>	<p>6</p> <p>7</p> <p>9</p> <p>10</p> <p>13</p>	

validity

manufacturer	Tradename Type		EC type approval number. / ABE
DaimlerChrysler (USA) Cherokee		KJ	e4 * 98/14 * 0058 ...

engine type	Engine Type	Power in kW	Displacement in cc
30C and 31C (ENR)	diesel	120	2776

Vehicle and engine types and equipment variants, which are not listed in these installation instructions have not been tested. Installation according to these installation instructions may be sein. Der installation of timer and summer / winter switch should be confirmed prior to installation with the customer!



Heater / Installation Kit

amount	designation	Order No .:
1	Heater TTC-D with delivery	89244D

In addition:

amount	designation	Order No .:
1	Kit Chrysler Cherokee TTC-D from MJ05	90141 86A

NOTE: When installing the heater in vehicles of MJ 2005. Prod Date is earlier.

15/05/2005 (MDH 0515xx) after installation to the latest motor SG - It software fro's instructions to flash..

foreword

These installation instructions apply for the vehicles Chrysler Cherokee 2.8 CRD diesel

- Validity, see page 2 - from model year 2005 and later, when technical modifications to the vehicle do not affect installation, without any liability claims. Depending on the version and features of the vehicle may be necessary during installation with changes in relation to this "installation instructions".

In any case, however, the provisions of the "Installation Instructions" and "Operating and Wartungsan-instructions" for the *Thermo Top C* to be followed. Die relevant codes of practice and any information provided by the vehicle manufacturer must be observed during installation.

General information

Installation is carried out in accordance with the generally accepted rules of technology. Unless otherwise described-ben, fasten hoses, lines and wiring harnesses with cable ties to driving-generating own lines and Kabelbäumen. Scharfe edges are to be fitted with edge protectors (split fuel hose)! Bare body parts, such as holes, are with corrosion wax (Tectyl 100K, Order no. 111329).

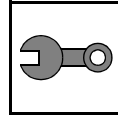
special tool

- Drehmomentschlüssel For 2.0 to 10 Nm
- Abklemmzangen
- Winkelbohrmaschine

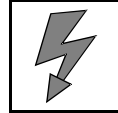
Notes to the document

To give you a quick overview of the individual steps, you will find an identification mark on the outside edge of the top right of each page.

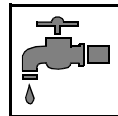
Mechanical work



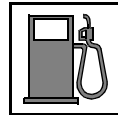
Electrical integration



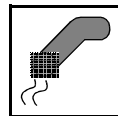
water involvement



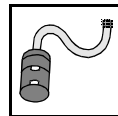
Fuel integration



exhaust system



combustion air



Special features are highlighted by the following symbols:



special risk of injury or death Un-cases



particular risk of damage to components



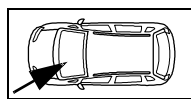
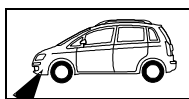
Special fire and explosion hazard



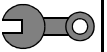
Reference to general installation instructions of Webasto component or to vehicle-specific documentation of the manufacturer



Recalling a technical feature



The arrow in the vehicle icon shows the position on the vehicle and the Blickrichtung



Removing battery!
-Pressure Drain the cooling system!
transmitted -Fabriknummer the nameplate original on the nameplate duplicate
Dismantle -Motorabdeckung
Do not remove -The correct year from the duplicate label
Attach -Duplikatschild (nameplate) at a suitable location visible
-Sicherungskasten From holder unclip and harnesses back to the bulkhead klap-pen

Removing -Batteriegrundplatte
Dismantle headlights left
Removing radiator grille dry and remove clips at the top and grill pull upwards
Removing -Fußraumverkleidung driver's side
Open -Tankdeckel, aerate tank
close -Tankdeckel again



Vorarbeit



1 Clips of the grille mounting

tricks and
Tips



1 heater

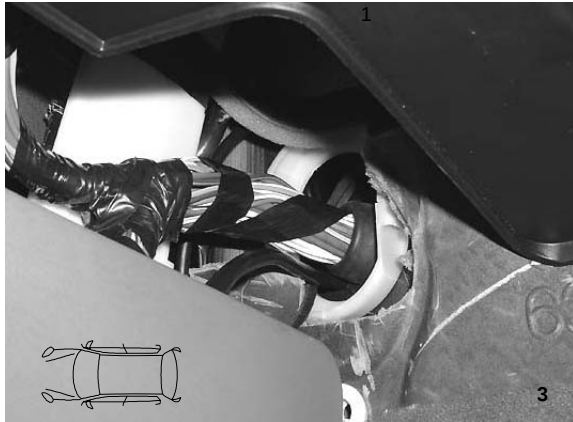
Fitting
heater



Electrical integration

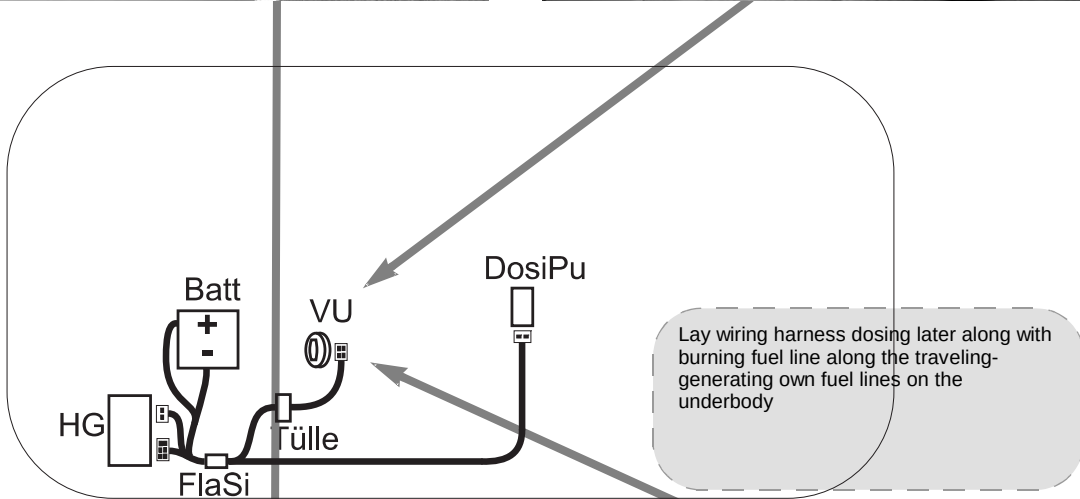
Harness implementing

1 grommet

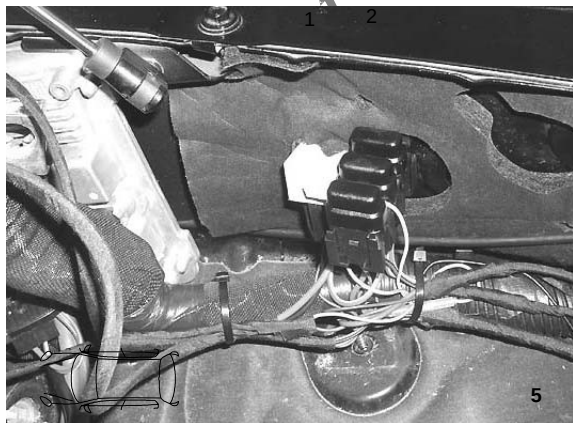


preselection

1 preselection



Scheme cable tree verlegung



Fuse holder, K3 relay

1 K3 relay, tapping screw 5,5x9,5, Slice 2 Retaining plate, fuse holder, tapping screw 5,5x9,5, Slice



Option summer / winter switch

1 Summer / winter switch, bore Ø 12mm

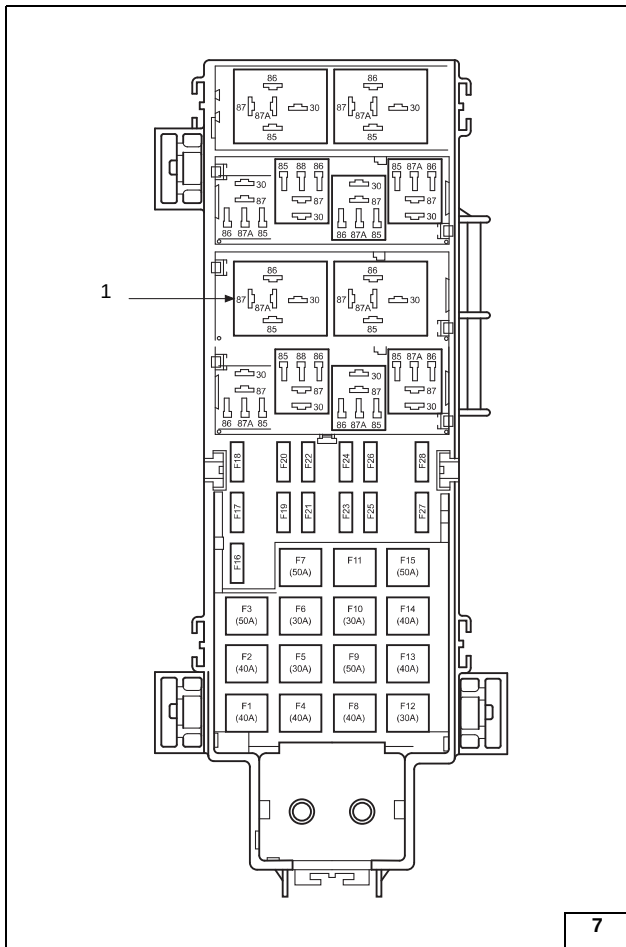


blower control:

The vehicles tested in auxiliary heating operation was not tripped Innenraumüberwachung. Eine control / switching off the inner-area monitoring is therefore not vorgesehen!



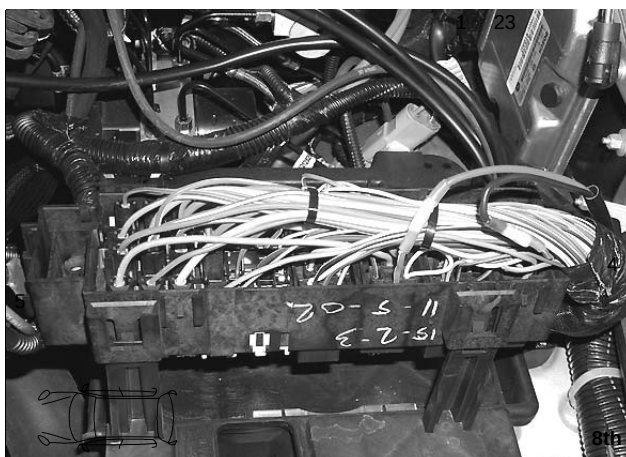
Note for driving vehicles with interior space over-monitoring



The fan unit is controlled at the output (terminal 87) of the vehicle's own Geblä-serelais (1) at the fuse / relay carrier (PDC) in Motorraum. Verbindungen with connectors as shown in wiring diagram produced (Crimp and Schrumpfen)



Blower dently or-tion on Siche-reNCy / Re-laisträger



1 Line rt from blower relay K3 / 87a2 Line sw from blower relay K3 / 30

3.4 Transmixers line green / red 5 Fuse / relay carrier

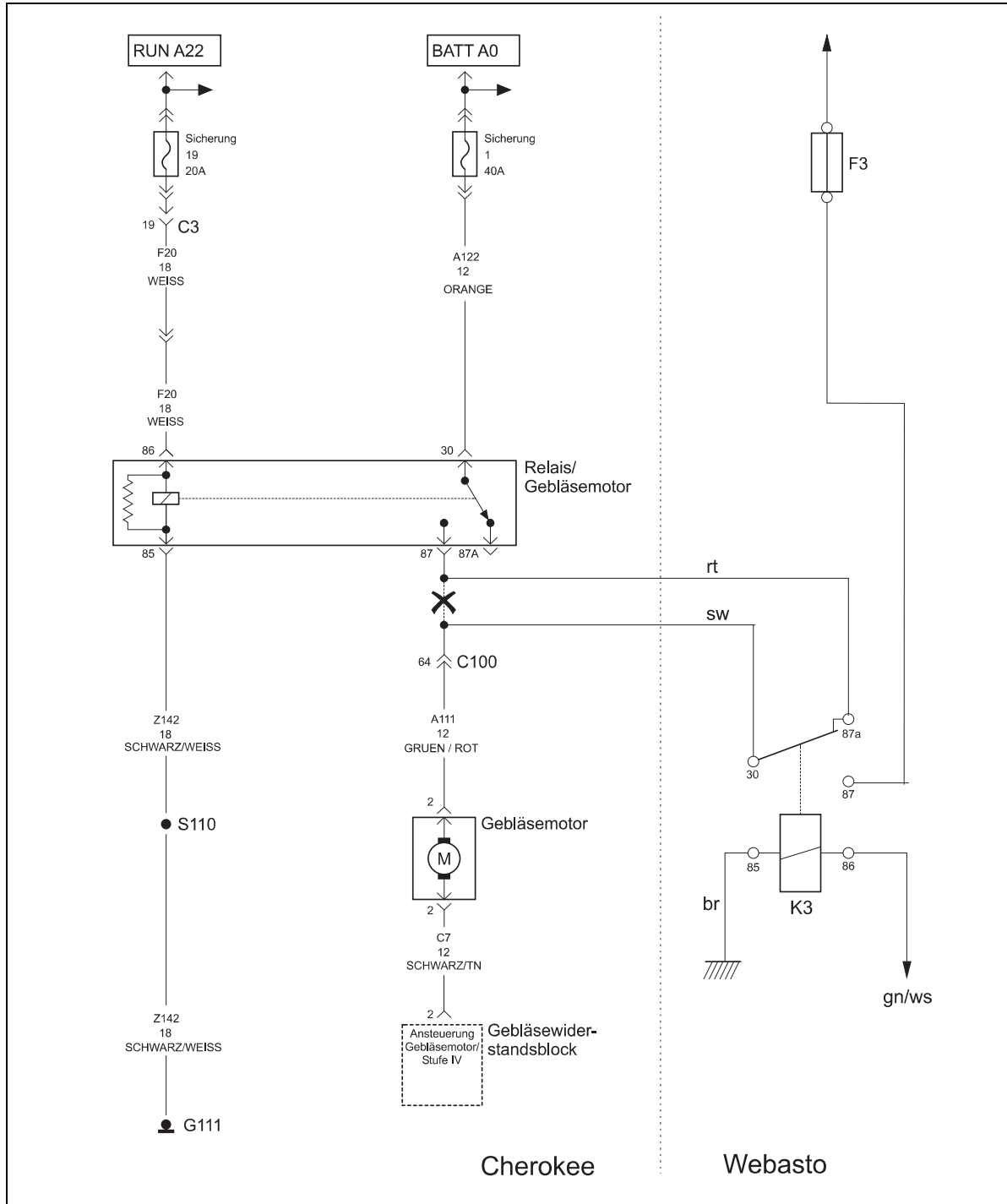
Fasten harness with cable ties

Blower dently or-tion on Siche-reNCy / Re-

laisträger



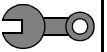
Cherokee 2.8l CRD



circuit diagram

Webasto components		components Cherokee		Colors and symbols	
F3	backup	M	blower motor	rt	red
K3	fan relay			ws	White
				sw	black
				br	brown
				gn	green
				X	separation point

legend



Option telestart

Attach bracket to the existing hole of the steering column on befestigen. Empfänger holder and producing electrical compounds.

1 holder 2 receiver 3 Screw M5x16, large washer,

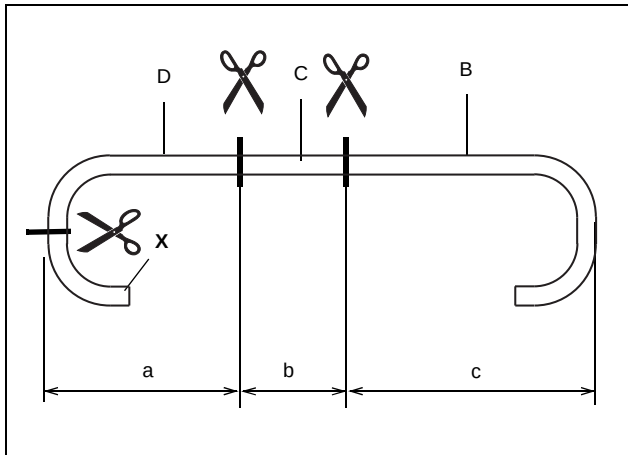
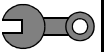
Bundmutter

1 antenna



Receivers-ger
Montie-ren

antenna
mount

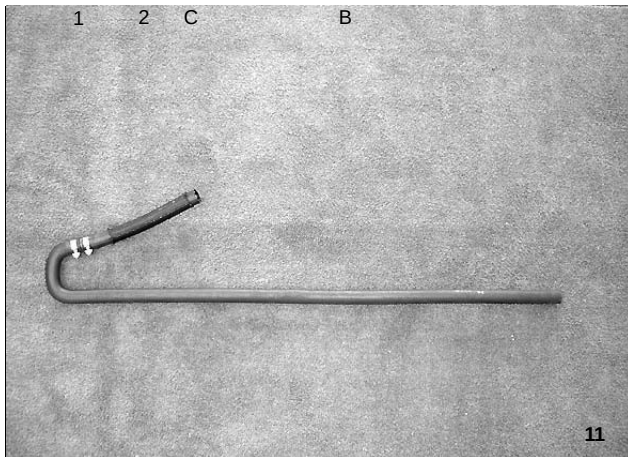


prepare heater

a = 1020b
= 190c =
940

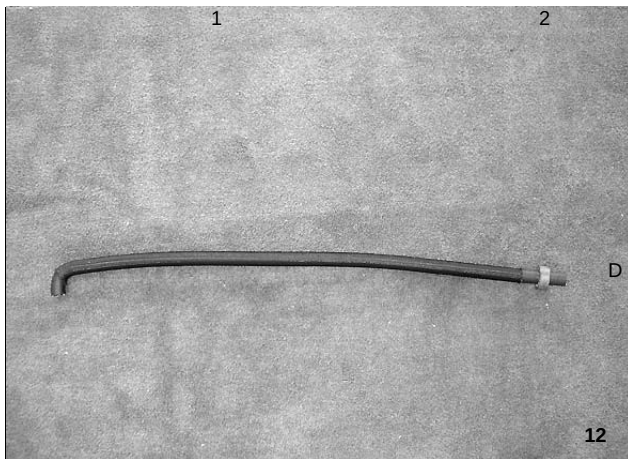
section X to dispose

Cut Water hoses



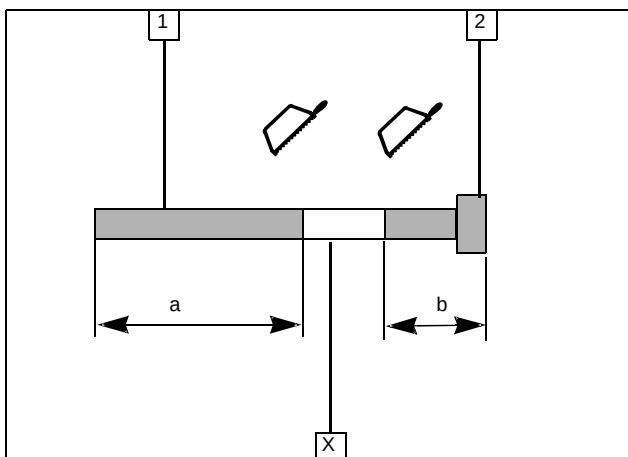
1 Connecting pipe 20/20, hose clamps
2 Flechtschutzschlauch

Water Tubing-che pre-prepare



1 Flechtschutzschlauch
2 Rubber profile black

Water Tubing-che pre-prepare

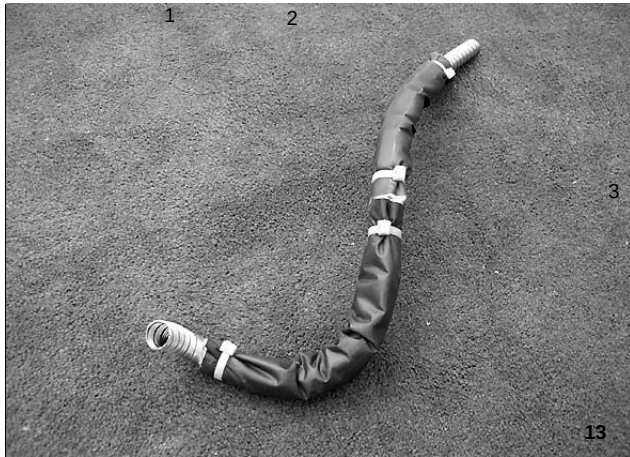
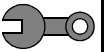


1 Abgasleitunga =
7702 Abgasendstückb
= 100

section X to dispose

Ready-Abgaslei-tung

Cherokee 2.8l CRD



Slide heat protection hoses for exhaust pipe and forms befestigen. Abgasleitung according image.

1 exhaust pipe
2 Heat protection tube (2x)
3 Refractory cable ties (4x)



Abgasleitung
pre-
prepare



Tabs bend 90 °



holder mo-
difizieren



Tongue twisting 90 °



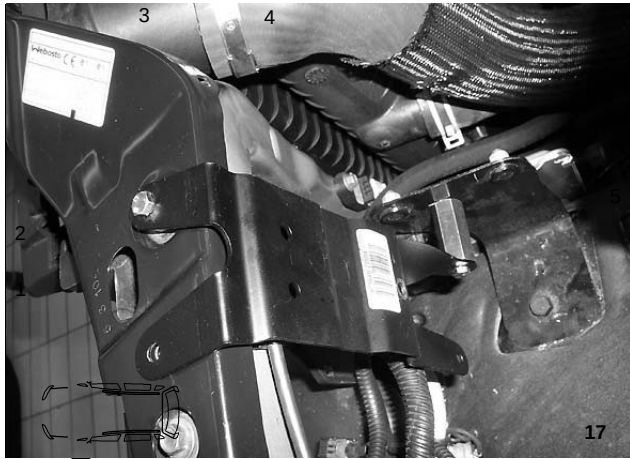
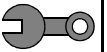
holder mo-
difizieren



1 holder
2 Spacer nut 40mm
3 M6x20 bolt, spring washer

holder pre-
mount

Cherokee 2.8l CRD



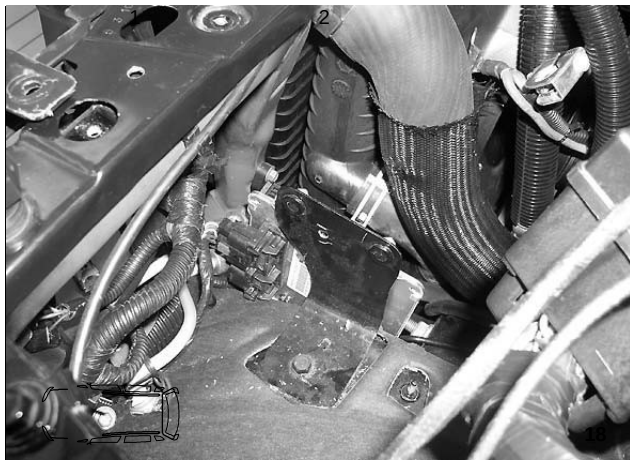
holder (4) with vehicle-own screw (3) loosely fix

1 transmitted hole pattern, thereby pierce the two matching other plates
 2 Spacer 8mm
 3 Transmixers screw
 4 holder
 5 transmitted Hole



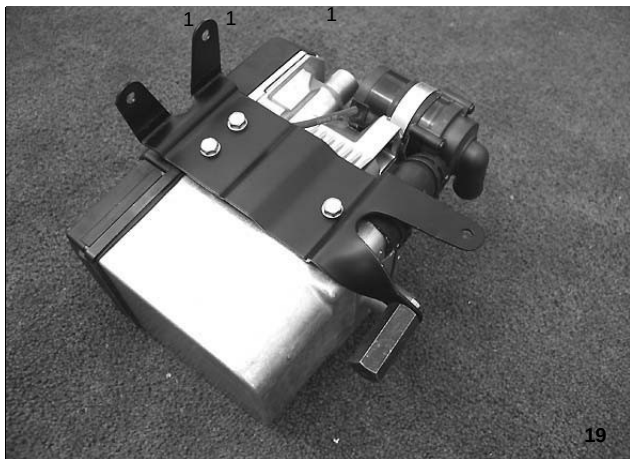
transmitted
Holder Hole

gene



1.2 drilling Ø7mm

Prepared
holes-gen
drill



Ejotschrauben, tightening torque 10 Nm!

1 Ejotschrauben (3x)

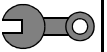


heater
preassemble
d
animals



1 hose clamp
 2 Connecting pipe
 20/203 Hose clamp 10mm
 4 hosepiece
 A molded hose

heater
preassemble
d
animals



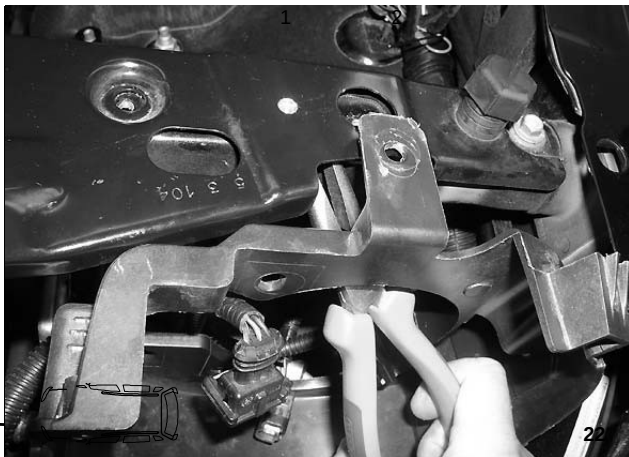
installing heater

exhaust pipe (1) embarrasment between longitudinal beams and radiator down.

1 exhaust pipe



Abgaslei-
tung
mounted
animals



solve transmixers screw and holder (2) Forward ziehen. Bundmutter with needle-nose pliers to bore plat-decorate.

1 Collar nut M6



Bundmut-ter
positioned
kidneys

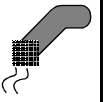


Heater with 3 M6x20 screws fasten-gen.

1 M6x20 bolt, spring washer
2 Spacer
8mm
3 exhaust pipe



heater
mount

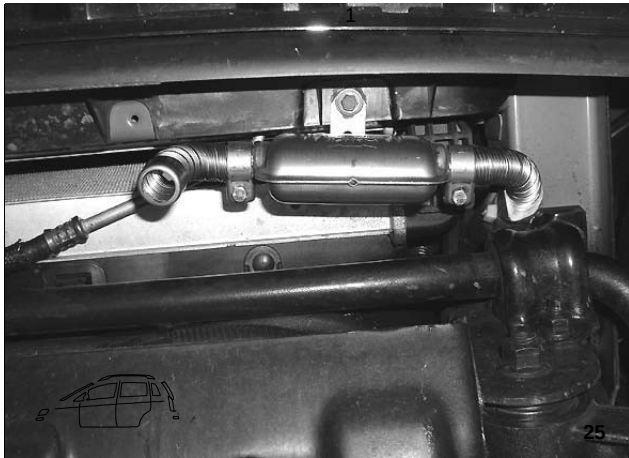


exhaust system

1 Abgasendstück
2 hose clamp
3 Exhaust silencer
4 M6x20 bolt, flanged nut
5 angle

Exhaust sound-absorber preassem-

animals



mounted exhaust silencer with vehicle own screw and connect exhaust pipe.



1 Transmixers screw

Exhaust sound-absorber

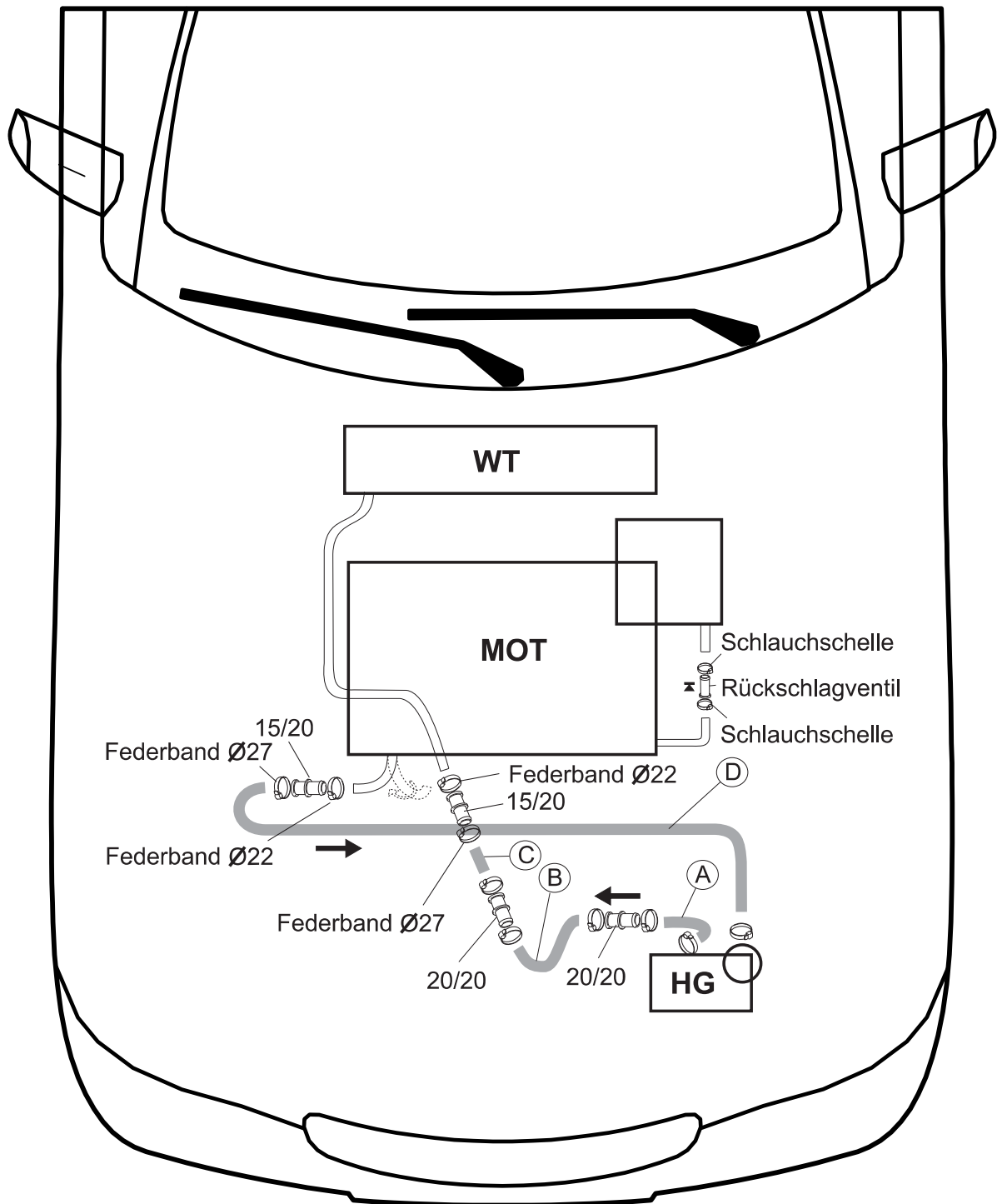
mount



water involvement

**ATTENTION!**

All hose clamps with 2.0 + 0.5 Nm Tighten! Leaks cooling water is collected using an appropriate container! Embarrassed water hoses without any kinks! Unless stated otherwise, the attachment is with Ka-belbindern! Hose and hose clamps position so that no other tube can be beschä-interred The connection should be "inline" based on the following scheme!:

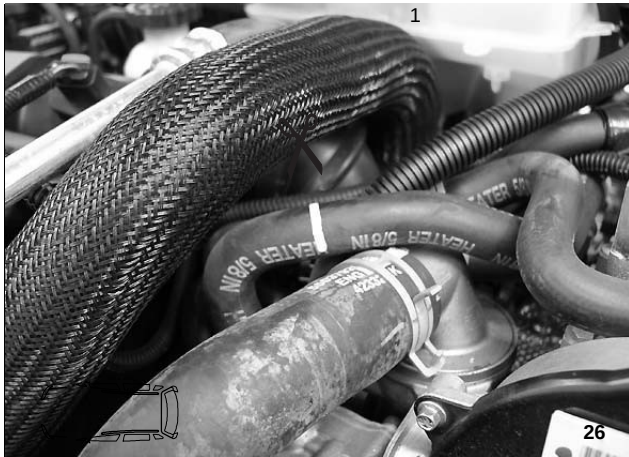


Scheme water
supply-
interpretation

All clamps are not designated hose clamps Ø 20-27mm!



Cherokee 2.8l CRD



1 A vehicle-onboard water hose from Motor outlet to the heat exchanger-a-enters

separating office



Vehicle own water hose (2) Turn the engine water outlet



- 1 Connecting pipe 15/20 (2x)2 A vehicle-onboard water hose from Motor-water outlet
- 3 A vehicle-onboard water hose from Heat exchanger water inlet
- 4 Clamps Ø 22mm (2x)

Vehicle own water hoses preparatory

th



1 hose clamp2 Water hose "D"

Water hose embarrassed



1 cable ties2 Rubber profile black3 Hose clip Ø 27mmD Water hose "D"

Water hose embarrassed

Cherokee 2.8l CRD



A Molded hose "A"1 hose clamp
B Water hose "B"2
Cable ties (3x)

Water hose
embarrassed



B Water hose "B"1 Hose clip Ø 27mm
C Water hose "C"

Water hose
embarrassed



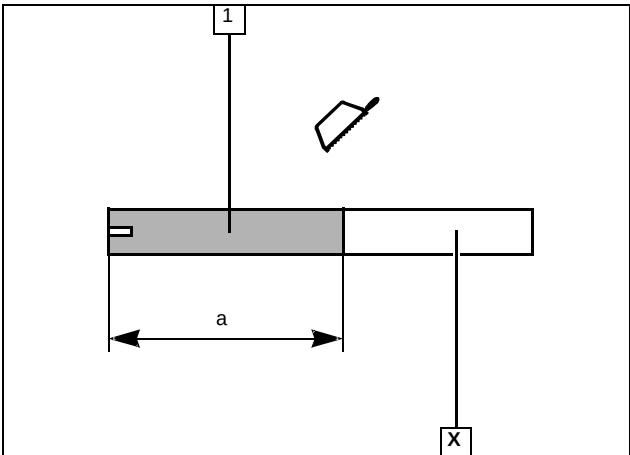
Check valve 2 x 12 acc. Figure in line to the reservoir einsetzen. Achtung: Pay attention to flow of the check-valve!



1 Check valve 2 x 12 2 Hose clamp [2x]

Re-shock
valve

install



Combustion air integration

1 Combustion air pipe
a = 300mm

section X to dispose

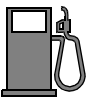
Combustion air line from-lengths



1 Brennlufansaugerschalldämpfer
2 cable ties
3 combustion air intake



combustion air mount



fuel Connection

CAUTION!

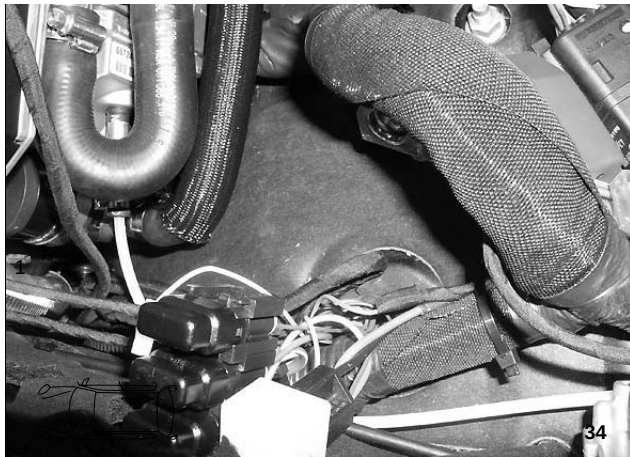
Open tank lid lock of the vehicle, vent the tank and close tank cap again!

Escaping fuel with an appropriate container!

Install fuel line and wiring harness dosing pump so that they are protected against falling rocks! Unless stated otherwise, always fasten using cable ties to sharp edges fuel line and wiring harness with chafing protection provided!

ATTENTION!

Laying the fuel line and wiring harness to the dosing pump is done according to scheme Kabelbaumver-interpretation.



Mecanyl fuel line with hose clamp 10mm at the heater plug.

1 Mecanyl fuel line



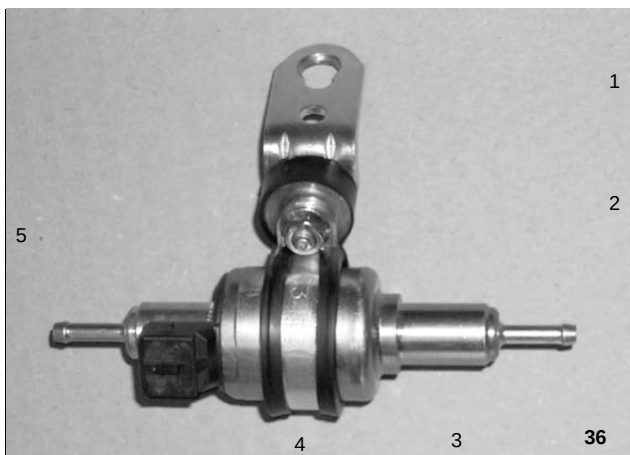
advises
Heizge port on

embarrassed Mecanyl fuel line and metering pump wiring harness under the brake booster and from there INTR-gen along the vehicle's own on the bulkhead down



1 Mecanyl fuel line, wiring harness
metering pump
2 cable ties

Lay cables

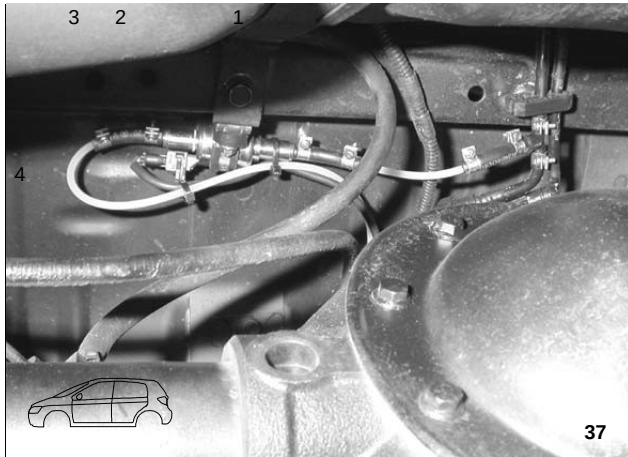


angle (1) the long hole to Ø 10mm aufboh-ren

1 angle
2 Vibration mounts, flanged nut
3 metering pump
4 Rubber pipe clamp
5 Bundmutter

Dosing pump
pre-
mount





- 1 Transmixers M10 screw the tank holder
- 2 Hose, hose clamps Ø10mm 3 Mecanyl fuel line (on pressure side the metering pump)
- 4 Harness dosing pump

Dosing pump mount

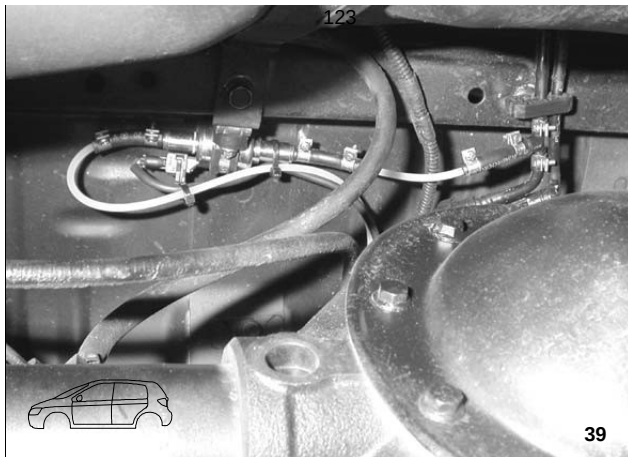


The tank in the picture is expanded only to documentation purposes! Fuel supply line (2) disconnect according image before coupling! Make sure that the Tank max. is filled to 3/4. Otherwise, previously taken in accordance with fuel.

- 1 Fuel supply line 2 Fuel pickup 8x5x8 metal 3 Hose clamps Ø10mm



fuels fentnahme



- 1 Hose, hose clamps Ø10mm 2 Mecanyl fuel line (on the suction side the metering pump)
- 3 Hose, hose clamps Ø10mm

Brennstoffentnehmer subse-

KISSING



modify battery baseplate

cut base plate as shown in figure



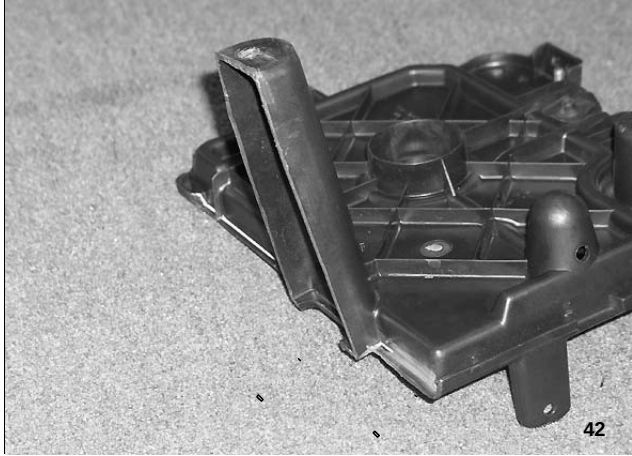
Grundplat th modified
decorate



cut base plate as shown in figure



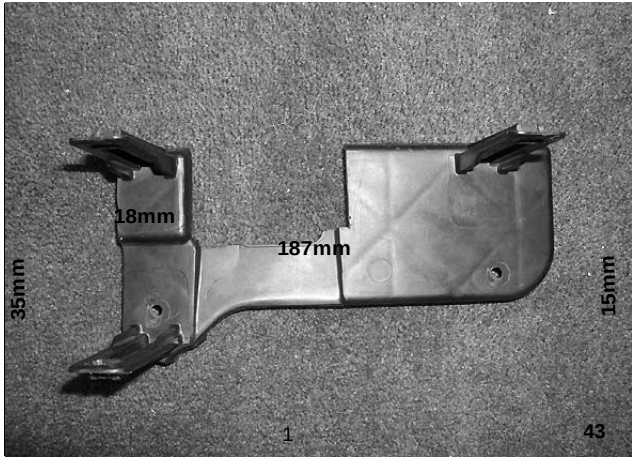
Grundplat th modified
decorate



cut base plate as shown in figure



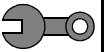
Grundplat th modified
decorate



1 Drilling Ø7mm (2x)

Prepared holes-gen
drill

Cherokee 2.8l CRD



1 Drilling $\varnothing 7\text{mm}$ (2x)



Prepared holes-gen drill



1 Anti-vibration mounts (2x), collar nut (2x) 2 Spacer 5mm (2x)

Swing metallpuffer mount

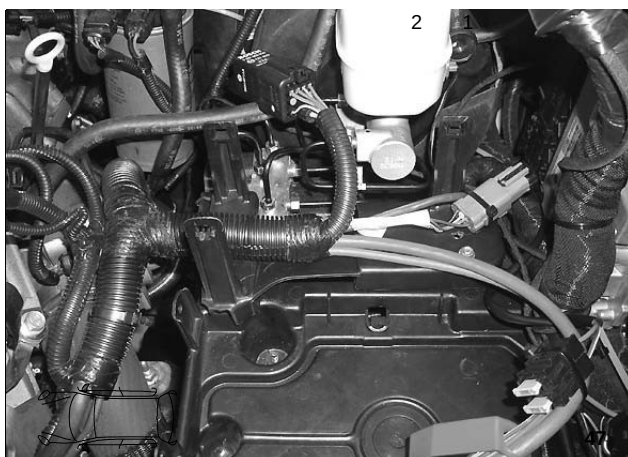


When mounting the base plate to ensure that the exhaust pipe is installed around the front support of the base plate in the form (see Figure 23) .After installation reshape the base plate exhaust pipe and possibly align insulation.



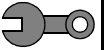
Grundplat th ATTACHING reindeer

1 Transmixers screw (3x) 2 baseplate



1 Flanged nuts (2x) 2 Modified base fuse holder

Base of Sicherungshal-ters mount

**Final work****ATTENTION!**

Spray removed parts in reverse order montieren. Alle hoses, hose, spring and Caillau clamps, as well as all electrical connec-se prüfen. Alle tightness loose cables with cable ties sichern. Heizgerätekomponenten with corrosion wax (Tectyl 100K, Order no. 111329) ,

connect battery

Start -Motor, coolant circuit venting according to the vehicle manufacturer, add coolant. Coolant circuit check for leaks by the manufacturer's instructions.

Set -Vorwahluhr

Set -Fahrzeugheizung with climate control and without automatic climate control under "Operating instructions for the end user"

Function of auxiliary heater check, see operating instructions / installation instructions

"Switch off the auxiliary heating system before refueling" -Aufklebeschild attach to the B-pillar, left



Clip the fuse box in base to new Position, align harnesses and if necessary install befestigen. Batterie and secure.

1 Private Vehicle relay
2 cable ties

relay
fix

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 user

Please refer to page and add to the vehicle operating instructions



Before parking the vehicle make the following settings:



- 1 Temperature control to "max./high"
- 2 Fan to position "1", possibly "2"
- 3 Air outlet to "windscreen"