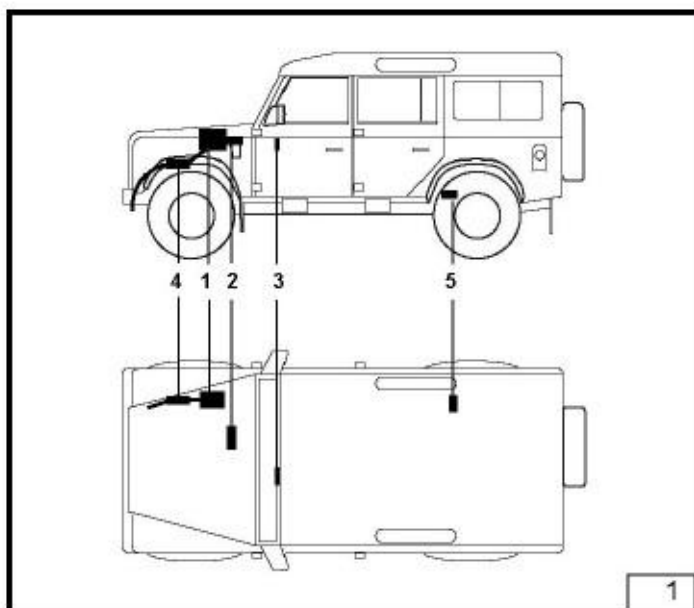


Additional heater Thermo Top Z / C Test Control ~ ~ ~ S 289



Legend of Figure 1

- 1Thermo Top Z / C-D
- 2Security system and fan relay
- 3Clock screening
- 4Muffler
- 5Dosing pump

Specific equipment

- Collets
- Torque wrench with a step from 2.0 to 10 Nm
- Seat E5 TORX 3/8 "
- Riveting pliers

Installation Instructions

(Guide for instructions)

TT9903/04

Land Rover DEFENDER Td5

Model Year 1999

Valid for all series (in terms accessories)

Type: RF

Only valid for flying models left

For more information on the validity, see page 2

Vehicles, engine types and series accessories that are not mentioned in these installation instructions have not been tested. However, mounting obeying these instructions may be considered. Anyway, the instructions on page 2 must be followed!

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Heating / mounting kit

Amount	Description	Number Order
1	Water heater Thermo Top Z / C-D and accessories	892 44A

Additional equipment required:

1	Mounting Kit Land Rover Defender Model 99 Thermo Top Z / C-D	675 02A
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Validity

Manufacturer	Type	Trade name	No. EG-BE / ABE No.
Land Rover	LD	Defender Td5	e11 * 96/79 * 0086 * 02 e11 * 96/79 * 0086 * 05 e11 * 96/79 * 0086 * 06 H571 (Car) K738 (car)

Engine Type	Category Engine	Performance in kW	Cm3 Cylinders
10P	Diesel	90	2,495
15P	Diesel	90	2,495

Preamble

These installation instructions refer to the Land Rover DEFENDER Td5 - For more information concerning the validity, see the front page-Models 1999 and following, to the extent that the technical changes of recent models have no influence on mounting. We disclaim all responsibility for mounting on a newer vehicle the models 1999. According to the standard vehicle and its accessories, additional instructions may be required during assembly. However, in all cases, it will be essential to follow requirements set forth in the "Installation and User's Guide" Thermo Top Z / C We will therefore follow the instructions editing techniques when they are not in contradiction with the "Installation and User's Guide."

CAUTION:

Additional instructions must be observed!

In Germany, obtaining permission to install additional heating Thermo Top Z / C is not required if you follow these installation instructions since a specific section of descriptive ABG addresses this point. Exemption from the requirement to obtain a new certificate of compliance after installation of additional heating is only valid if the installation is fully compliant instructions in the installation instructions below here. In case of non-compliance, however small it may be, these instructions, a new certificate of compliance must be submitted (see installation guidelines Thermo Top Z / C). The instructions in "Mounting and User's Guide," as well as those complete assembly instructions in this guide. All these elements should be retained and provided with the vehicle.

General Tips

- Protect the bare parts of the body, such as holes, with an anti-corrosive
- Pipes, ducts and cables should be covered by protective pipes where they are vulnerable
- The acute angles must be covered corner guards (supply pipe cut).

Preparatory tasks

- Report the number plate factory original identification plate on the new
- Remove the incorrect year on the new plate
- Amenerlanouvelleplaque (plate Identification) to the desired location.

Engine compartment

CAUTION:
Remove the battery!

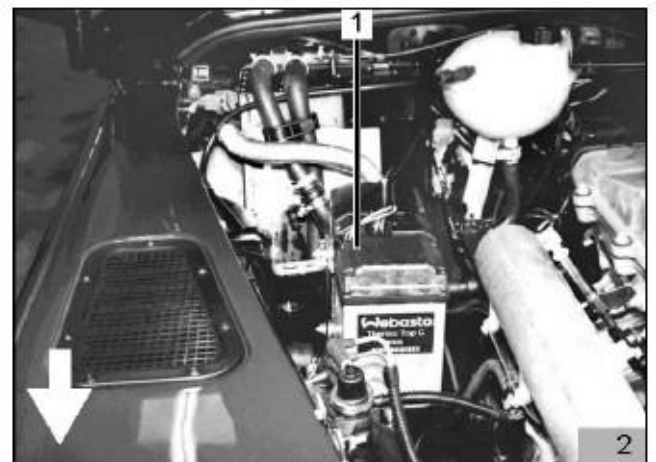
- Remove the engine cover
- Disable the cooling system

Outer part of the vehicle

- Open the tank cap, air tank
- Remove the tank in accordance with manufacturer's instructions
- Remove the insulation system sound on right side of the chest wheel.

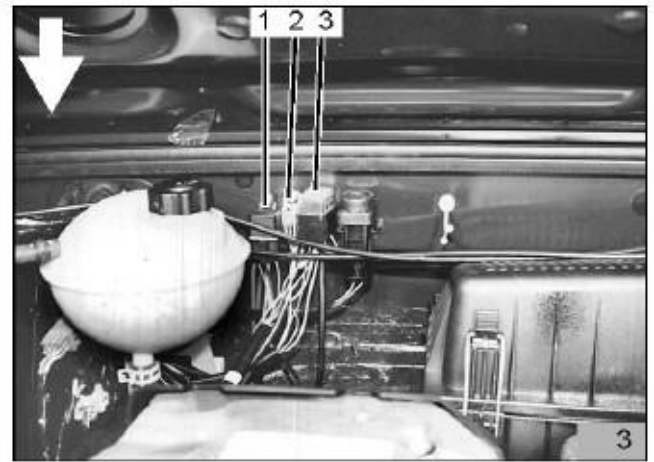
Location of heating

Heating (2/1) must be mounted horizontally in the engine compartment, to the right from the direction of travel.



Security system and relay fan

- Positioning the ends of the plate
Connection of the safety system (3/3) of fan relay (3/1) and the ground terminal on the mounting bracket as shown in Figure 3.
- Drill a bore of a diameter of 2.5 mm for the security system, and a diameter of 4.0 mm for the fan relay and backslash.
- Fix the plate terminal system security with metal screws 3,5 x13, and relay fan and backslash with metal screws 5.5 x9, 5
- Replace the security system on connecting plate
- Connect the positive terminal of connector the positive terminal of the starter
- Secure the wiring harness heating the installation location of the heating
- Secure the wiring harness from the clock screening and flush with fan cables available
- Set down the wiring harness from the pump metering, along the cables located on the brake headboard

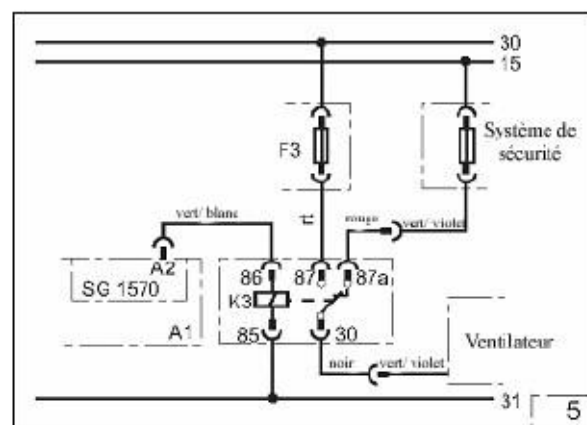
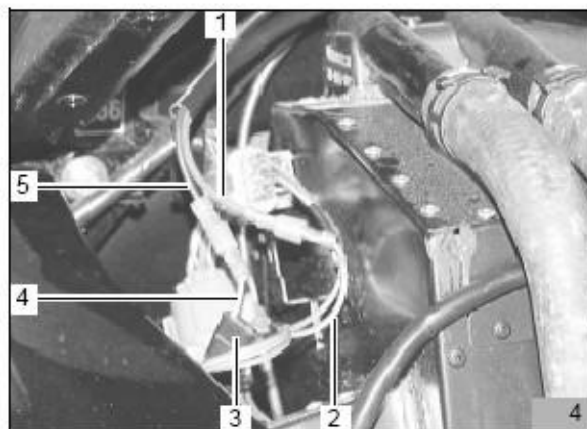


TIP:

For all work on the cables, ensure provide good protection against abrasion.

Implementation of the fan

- Separate connector green / purple (4/2, 4/4) theft security system (15A) near the fan, as shown in Figure 4
- Fix circular connectors
- Install connectors in accordance with the scheme of Figure 5
- Connect the black connector (4/5) Fan K3/30 and connector Green / Purple (4/2) near the fan
- Connect the red connector (4/1) relay K3/87a fan and connector green / purple (4/2) the anti-theft security system (15A)



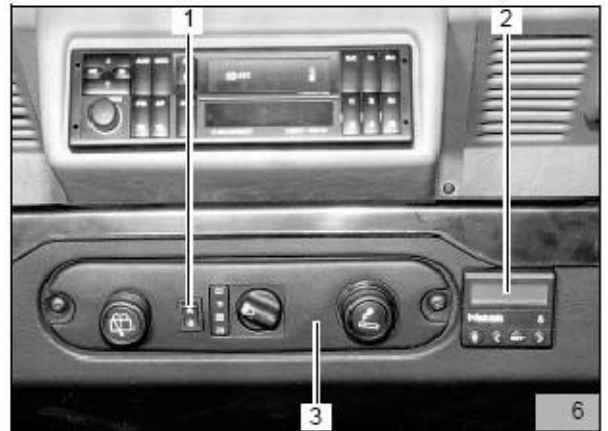
Clock and preset option setting summer / winter

CAUTION:

When mounting the clock preselection
not exert any pressure on the LCD screen.

TIP:

It is recommended to choose the location
presented to install the preset clock (6/2)
button and the summer / winter (6/1)! Please validate
installation location to your customers
before mounting.



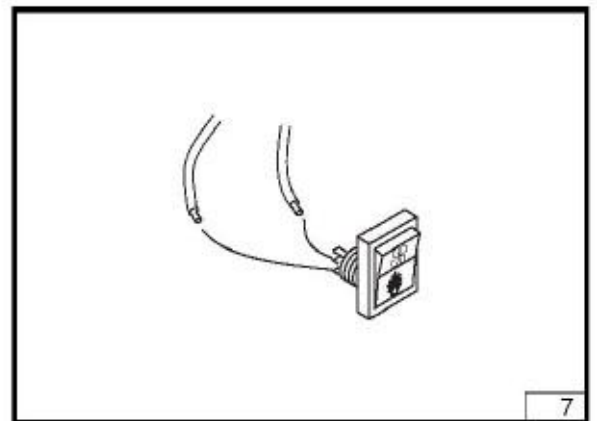
- Place the template for the clock
Preset the desired location
- Operate two holes along the template
- Remove the template
- Fit the guide tube with sheet metal screws

TIP:

Pay attention to the direction of the ratchet teeth (see instructions
mounting)! When replacing the beam
electrical, pay attention to the protection against
friction!

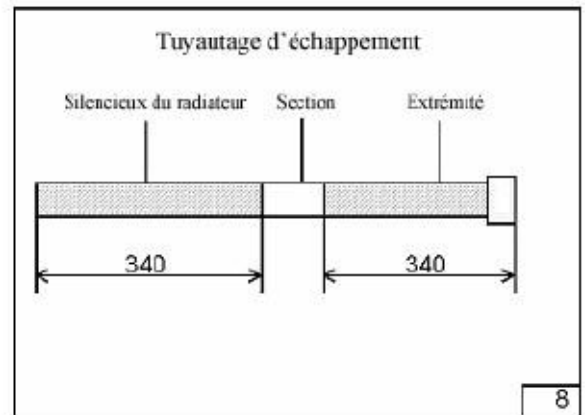
- Run the wiring harness clock
screening through the aperture and securing the
lid
- Replace the clock screening

- Remove the baffle (6/3)
- Set the drilling of the summer / winter switch (6/1)
in the desired position and perform a bore
12 mm diameter
- Fix the summer / winter switch with washer
notched and a nut
- Connect the brown and purple connectors in
the switch as shown in Figure 7 (taken
bottom)
- Refit the baffle

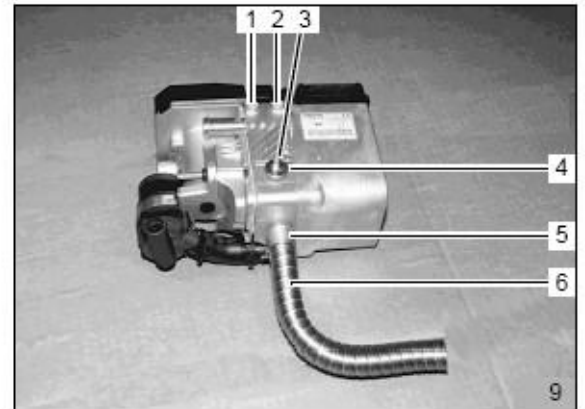


Pre-assembly of heating

- Shorten the exhaust piping as shown in Figure 8

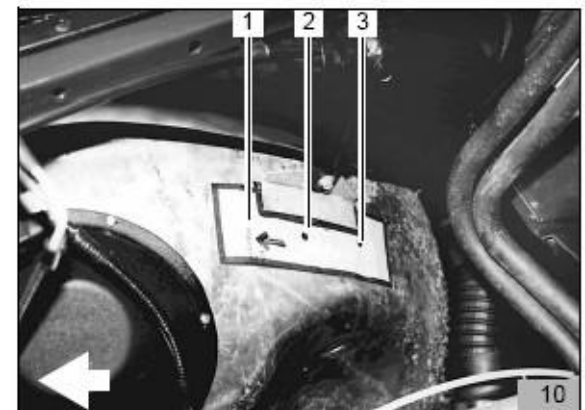


- Tighten the bolts (9/1, 2, 3) in the heating (No 10 Nm)
- Replace the exhaust piping (9/6) heating and secure it with a clamp (9/5)
- Train the exhaust piping as shown in Figure 9
- Put two washers (9/4) on the lower studs (9/3)

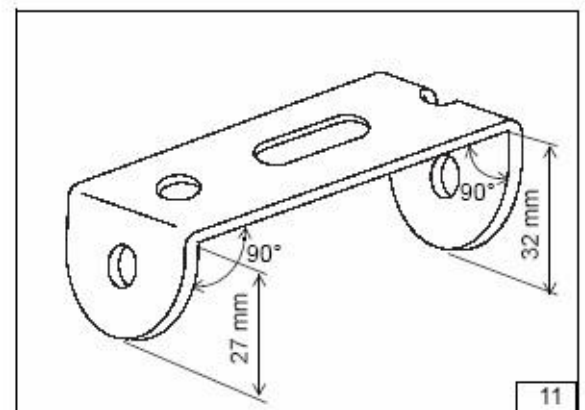


Installation of heating

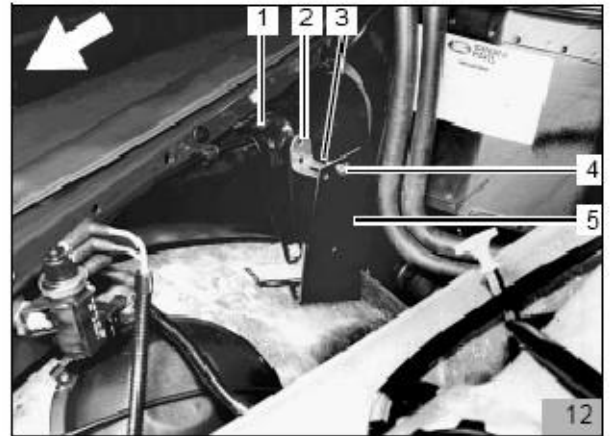
- Move the template (10/1) on the trunk Wheel as shown in Figure 10 and the position bore (10/2, 3)
- Make a hole (10/2, 3) 8 mm diameter in the trunk wheel



- Fold the ends drilled as indicated Figure 11



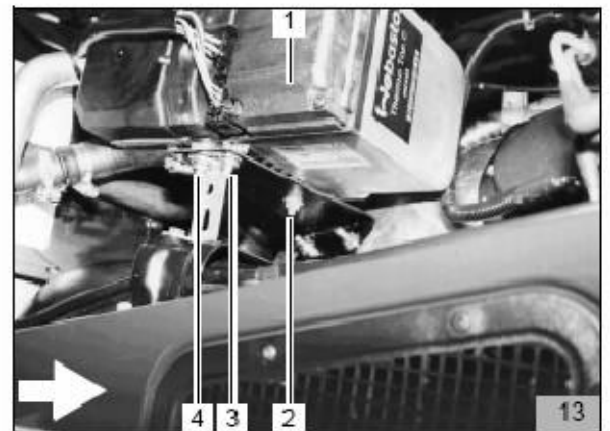
- Mount the bracket (12/5) on the wheel as safe shown in Figure 12, using 2 M6x20 screws, 2 washers and 2 nuts collars
- Attach the strap (12/3) at the short ends support with a screw M6x20 (12/4) and a nut collar as shown in Figure 12
- Align the support and position the bore (12/2) on the support rod (12/1)
- Remove again the support and the belt
- Make a hole diameter of 7 mm (12/2) the support rod
- Mount the bracket (12/5) on the wheel as safe shown in Figure 12, using 2 M6x20 screws, 2 washers and 2 nuts collars
- Mount the belt (12/3) ends the long support rod (12/1) with a screw M6x16 (12/2) and one flange nut
- Insert the heater (13/1) on the bracket and secure with 3 nuts collars (13/2, 3, 4)



TIP:

Pay attention to the two washers on both lower studs (13/2)

- Align the bracket with heating belt and perform the set screw connections
- Replace the harness on heating
- Connect the power supply to the socket Mecanyl heating through a flexible cable and clamps clamping
- Leading power and beam Mecanyl electric metering pump down



Positioning relative to the circuit water and non-return valve

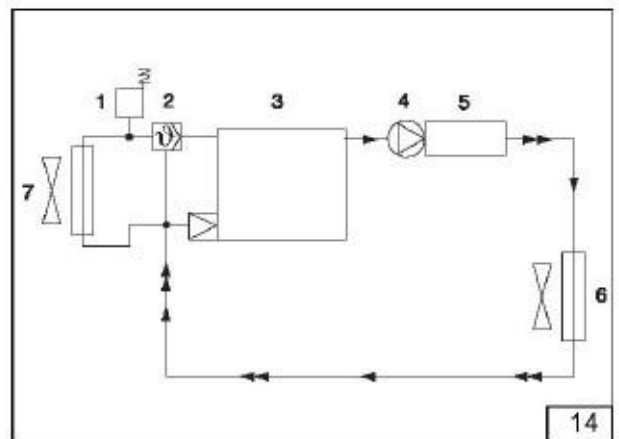
TIP:

Secure all hose clamps with a pitch of 2.0
+ 0.5 Nm!
Recovering the liquid flowing cooling
with an appropriate container!
Install flexible water pipes without twisting!

Below you will find the representation
installing the heating circuit in line
Cooling of the vehicle (Figure 14)

Legend to Figure 14:

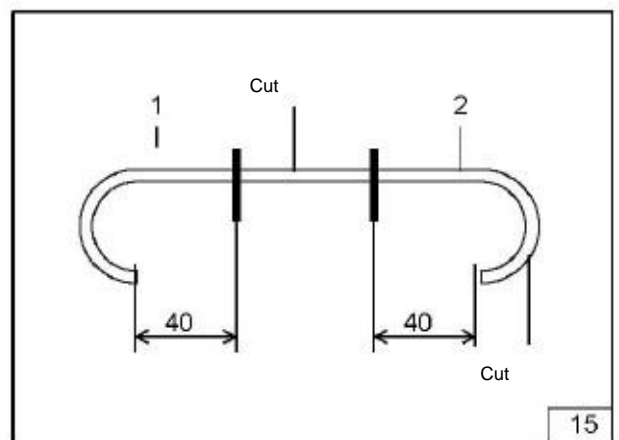
- 1 Expansion
- 2 Cooling Thermostat
- Motor Vehicle 3
- 4 Circulation pump (heating)
- 5 Heating
- 6 Heat exchanger heating (vehicle)
- 7 Cooler



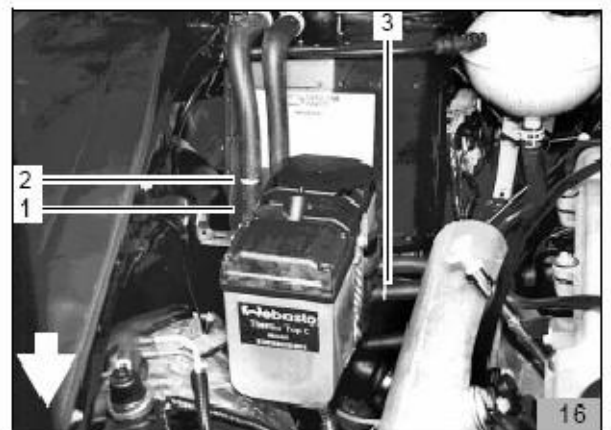
- Shorten the contour of the water pipe flexible two sections as shown in Figure 15:

1 x 40 mm + 180 ° bend (15/1) (input water heating to the engine output)

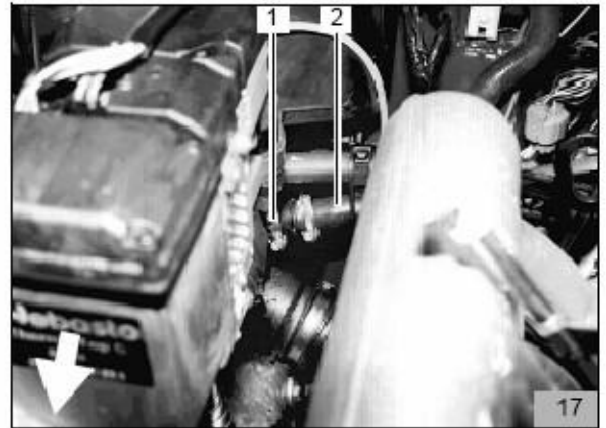
1 x 40 mm + 90 ° bend (15/2) (the output water heating of the heat exchanger vehicle)



- Disconnect the water hose flexible vehicle (16/1) of the engine of the heat exchanger vehicle with forceps and discarding the support pipe (keep the pipe support)
- Cut the water pipe flexible vehicle (16/1) level marks indicated on Figure 16
- Clean the hose (16/1)



- Replace the hose water hose curvature 180 ° (17/1) on the water inlet of the heating, tilt down and secure it with a clamp
- Connecting the flexible water pipe (17/1) in water pipe flexible vehicle (17/2) at the output motor using a connection pipe 20x15 and 2 clamps

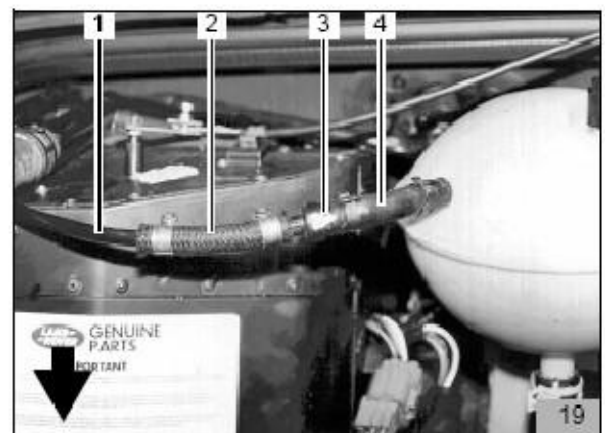


- Connecting the flexible water hose of a curvature of 90 ° (18/3) of flexible water pipe of the vehicle (18/1), level of the heat exchanger, using a connecting tube 20x15 and 2 clamps
- Put the flexible water pipe (18/3) on the output water heating and connect with a hose Tightening
- Replace the plastic support (18/2) of the vehicle



CAUTION:
During assembly of the non-return valve, to
Note the direction of conduction!

- Disconnect the connector (19/1) from the end of pipe (19/4) of the expansion vessel
- Insert the check valve (19/3) at the end the pipe (19/4) (direction of conduction from the engine to the expansion) and secure with a hose Tightening
- Secure the vehicle connector (19/1) using a hose (19/2) and two clamps



Exhaust duct

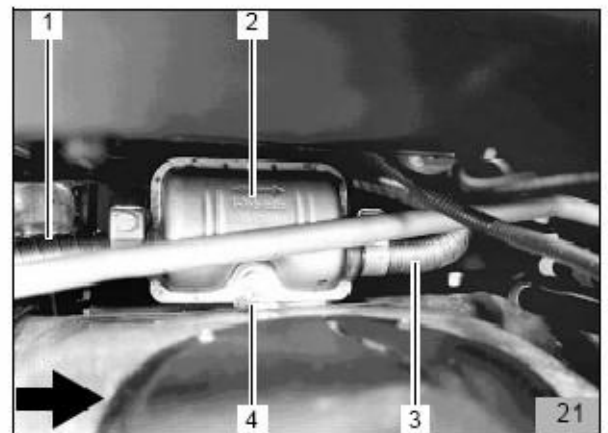
- Place the cover (20/1) of the conduit exhaust ports (20/2)
- Put the exhaust conduit (20/2) on the heating, and secure it with a clamp, as shown in Figure 20
- Attach the exhaust duct (20/2) with a cord cable



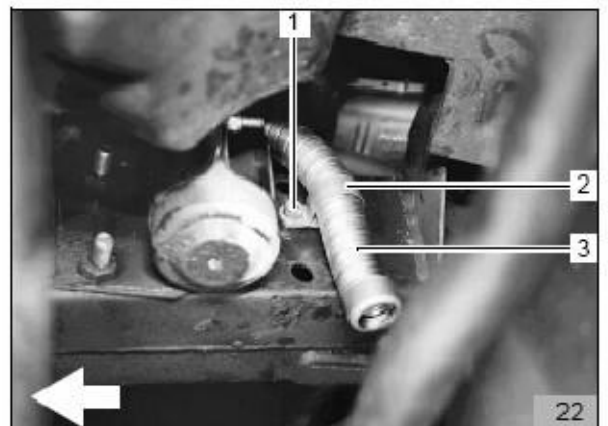
Flue

CAUTION:
When assembling the flue, ensure that there has a sufficient distance between the pipes and cables! especially careful to maintain this sufficient distance cables for vehicles provided with an air conditioning system!

- Remove the securing bolt of the fairing wheel
- In space, attach the elbow (21/4) the fairing wheel using the center hole, as shown in Figure 21, using a screw M6x20, a nut body and a collar nut
- Fasten the exhaust silencer (21/2) at room angled (21/4) as shown in Figure 21, with M6x20 screw and flange nut
- Put the exhaust conduit (21/1) Heating of the muffler, and set with a clamp
- Place the end of the exhaust duct (21/3) exhaust silencer, attach a collar tightening and towards the bottom, as shown in Figures 21 and 22



- Make a hole diameter of 9 mm (22/1) in the chassis as shown in Figure 22, and insert a nut M6
- Attach the end of the exhaust duct (22/3) with a clamp (22/2), a screw and a M6x20 spring washer for the nut (22/1)
- Align the end of the exhaust pipe as shown in Figure 22



Fuel inlet

CAUTION:

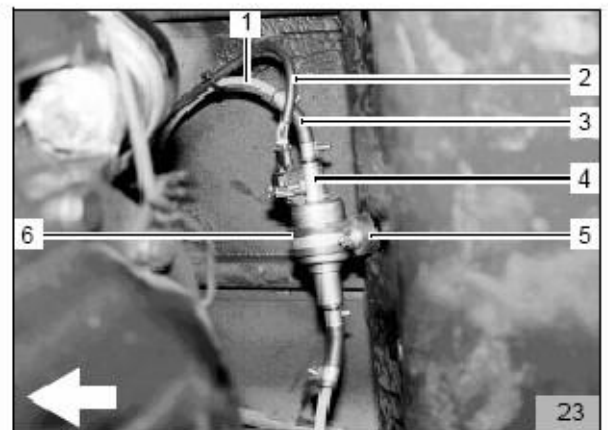
Install the fuel conduit so that it can be protected in case of falling rocks! In sharp edges, protect against friction the fuel conduit and the harness!

TIP:

Be sure to install the metering pump in the correct location, To do this, refer to the "Installation Guide".

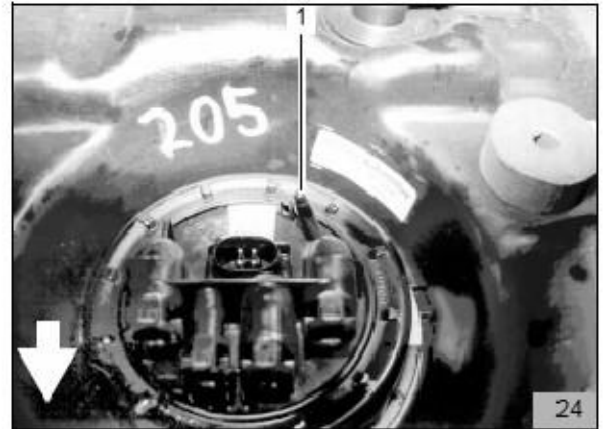
Dosing pump

- Make a hole diameter of 9 mm fixing the metering pump (23/4) and insert a M6 nut.
- Attach the metering pump (23/4) metal stamp with a flexible clamp (23/6) and a nut collar, as shown in Figure 23
- Lead the electrical harness (23/2) of the dosing pump and the fuel conduit Mecanyl (23/1) along the fuel lines of the vehicle, of the spar frame right to the dosing pump
- Shorten the harness (23/2) at the dosing pump, the duct away rubber, position the lid, close and secure the harness to the dosing pump.
- Shorten the fuel line (23/1) Mecanyl, and connect it to the upper face of the metering pump (side of the cover), with a cable hose (23/3) and a clamp

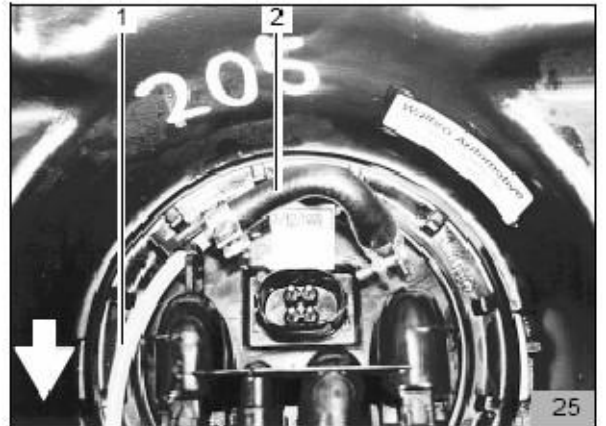


Fuel levy

- Cut the end of the sampling line fuel (24/1)
- Shorten the riser 300 mm
- Insert the riser in the removal of fuel (24/1)

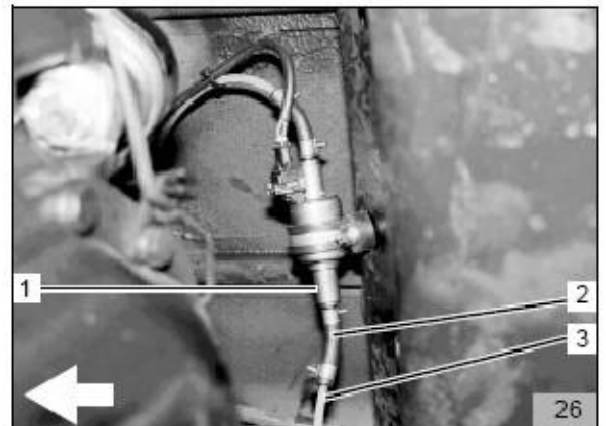


- Replace the hose (25/2) on the riser and secure with a clamp
- Insert the fuel line Mecanyl (25/1) in the hose and secure with a clamp
- Attach fuel line Mecanyl (25/1) on the tank of the vehicle along the vehicle's connectors and fix with a power cable



- Reassemble the vehicle tank in accordance with manufacturer's instructions and the lead pipe Mecanyl fuel along the fuel lines vehicle, to the right side member and moving to the metering pump (26/1)
- Cut the fuel conduit Mecanyl (26/3) at the low pressure plug of the dosing pump and attach the metering pump with a flexible hose (26/2) and clamp

- Attach the fuel lines and wiring harness with bead wires



Thermo Top Z / C_____Land Rover

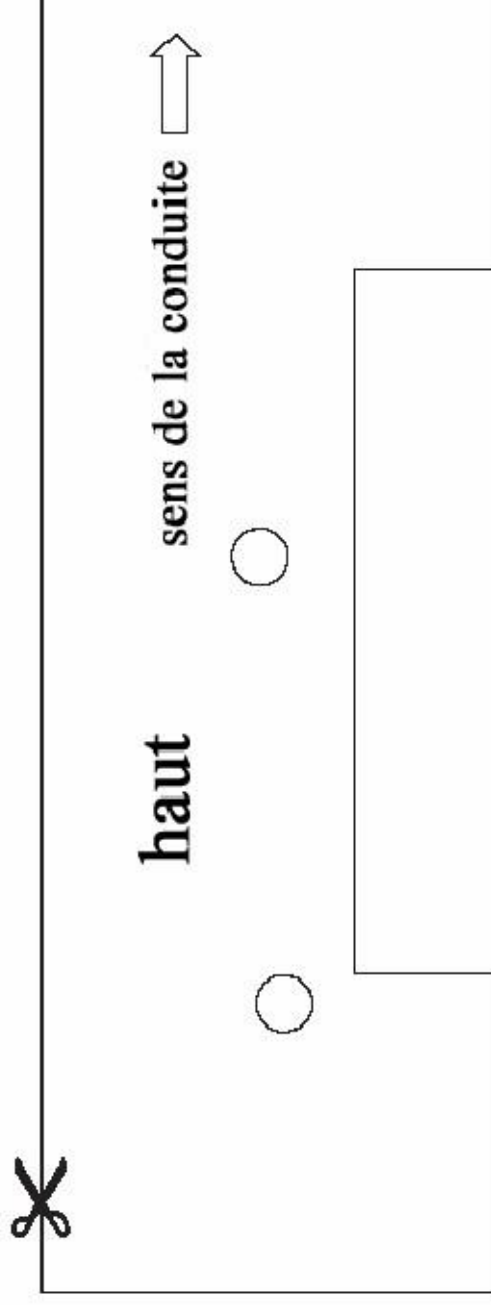
Thermo Top Z / C_____Land Rover

Final tasks

- Reinstall the vehicle battery
- Reinstall the removed parts in the reverse order of disassembly
- Check that all cables, hoses, connectors and clamps, as well as all connections power are secured
- Cover all connectors with a loose cable cord
- Protect the components of heating with anti-corrosive wax (Tectyl ML, No. Command: 111329)
- Start the engine and bleed the water according to the instructions of the vehicle manufacturer, refilling the liquid cooling
- Set the vehicle heater to "warm" and adjust the fan level 2
- Switch on the Webasto heater, see the "installation instructions / manual"



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



Liste des composants



Kit de montage N° d'identification 67502A

Thermo Top Z/C

Rover Defender

No. order	Description	Amount
67366A	RISER FOR ROVER DISCOVERY TD5	1
67503A	BAG SMALL PARTS LAND ROVER DEFENDER TD5	1
152560	SPRING WASHER DIN128-A6-PHRF	1
19445A	COLLET NUT M6	3
242780	ELBOW ROOM	1
24304A	WASHER DIN9021-A7 0.4 ST-A3G	1
337749	NUT M6 x15.5	2,
36189A	6kt-SCHR.DIN933-M6X16-8.8-A3G	1
67365A	SUPPLY PIPE 4.5 bis 7.5 x3	1
88837A	WAY VALVE 2X8 K-PROT ENVELOPE.	1
90290B	CONNECTING TUBE 20 X 15	2
91885A	FIX. EJOT DG60X14, 5/M6X15, 5 / E5DACRO500	3
67504A	SUPPORT LAND ROVER DEFENDER TD5	1
67505A	ABB LAND ROVER DEFENDER TD5 TT-C	1
67506A	ABG LAND ROVER DEFENDER TD5 TT-C	1