

# Water Heater Unit



Feel the drive

**Thermo Top E Auxiliary Heating**  00 0003

**Thermo Top C Auxiliary Heating**  00 0002

**Thermo Top P Auxiliary Heating**  00 0104

## Installation Instructions

### Peugeot 407 and 407 Coupe

2.7 l HDI

From model year 2006

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, specialized tools and equipment are required to install and repair Webasto heating and cooling systems.**

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

**ALWAYS follow all Webasto installation and repair instructions and observe all warning instructions.**

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

# Peugeot 407 and 407 Coupe

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## Validity

Manufacturer	Model	Type	EG-BE No. / ABE
Peugeot	407	6	e2 * 2001 / 116 * 029...
Peugeot	407 Coupe	6	e2 * 2001 / 116 * 0320 * ...

Engine type	Engine	Power in kW	Engine capacity in cm <sup>3</sup>
UHZ	Diesel	150	2720

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

The installation location of a time switch, summer / winter switch, and operation mode switch should be confirmed with the end customer before installation.

# Peugeot 407 and 407 Coupe

## Heater Unit / Installation Kit

Amount	Description	Order no.:
1	Commercial supply of required control	See price list
1	Installation kit for Peugeot 407 and 407 Coupe 2.7 I HDI	1310963A

### Recommended heater unit for the relevant vehicle class:

Vehicle	Heater unit
Compact car	Thermo Top E
Mid-class, station wagon	Thermo Top C
Luxury, van, off-roader	Thermo Top P

Select the heater unit based on the size of the vehicle passenger compartment and the customer's comfort requirements.



## Foreword

These installation instructions apply to vehicles Peugeot 407 and 407 Coupe with 2.7 I HDI engines. – Re. 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 these installation instructions.

However, the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top C/P/E* are to be observed in any event.

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 cable harnesses to original vehicle lines and cable harnesses using cable clips.

Sharp edges should be fitted with edge protectors (split open plastic hose).

Spray unfinished body areas, such as for example bore holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329)!

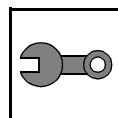
## Special Tools

- Torque spanner for 2.0 - 10 Nm
- Vise-grip wrench

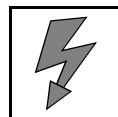
## Explanatory Notes on the Document

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

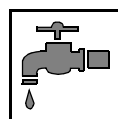
### Mechanics



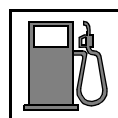
### Electrics



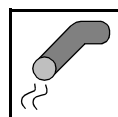
### Water connection



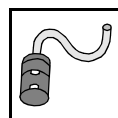
### Fuel connection



### Exhaust system



### Combustion air



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



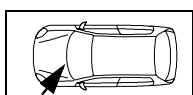
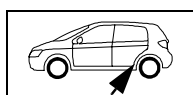
Specific risk of fire or explosion.



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



Reference to a special technical feature.

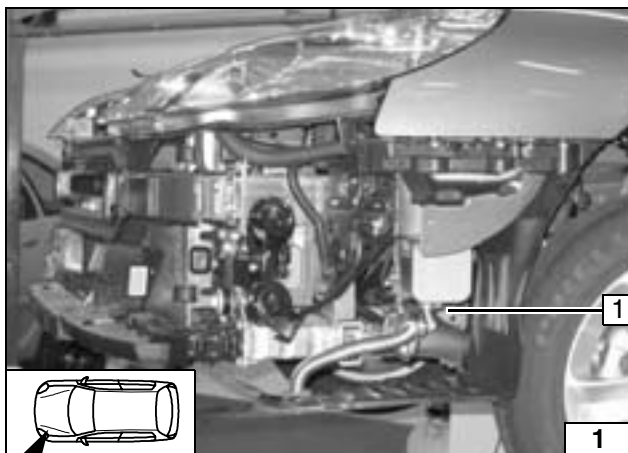


The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

## Preliminary Work

### WARNING!

- Let off pressure in the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Disconnect the battery and remove it completely.
- Remove the central electronics covers in the engine compartment.
- Loosen the controllers in the central electronics and place them aside.
- Completely remove the air filter with intake hose.
- Open the tank cap, ventilate the tank.
- Close the tank cap again.
- Remove the front underride protection.
- Remove the rear right underride protection.
- Remove the left wheel-house panel
- Remove the middle section of the rear seat bench (unclip).
- Move the right rear seat to the front and remove it (3 screws).
- Open right tank mounting service lid.
- Remove tank mounting according to manufacturer's instructions.
- Remove the left dashboard panel.
- Remove air conditioning control according to manufacturer's instructions.



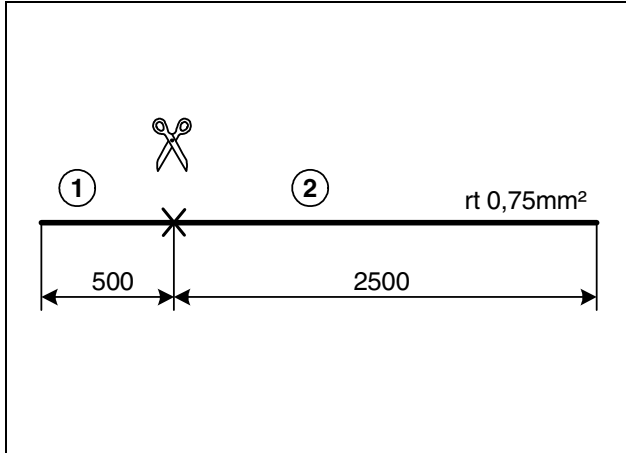
## Heater Unit Installation Location

For a better view, the bumper has been removed here.

1 Heater unit



Installation location

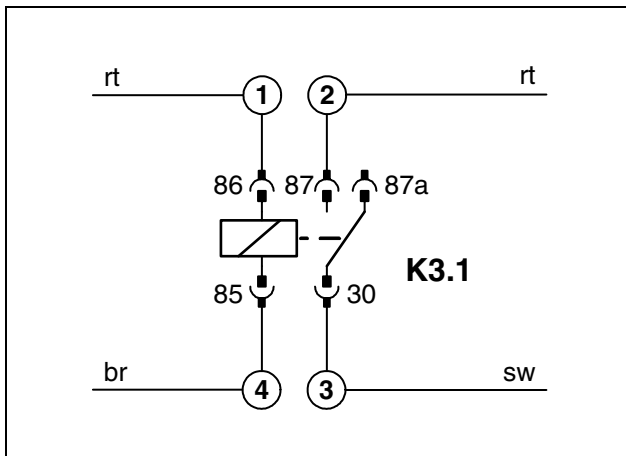


## Preparing the Electronics

Insert wire sections **2** and **4** in enclosed insulating hose.



**Cutting wires into sections**



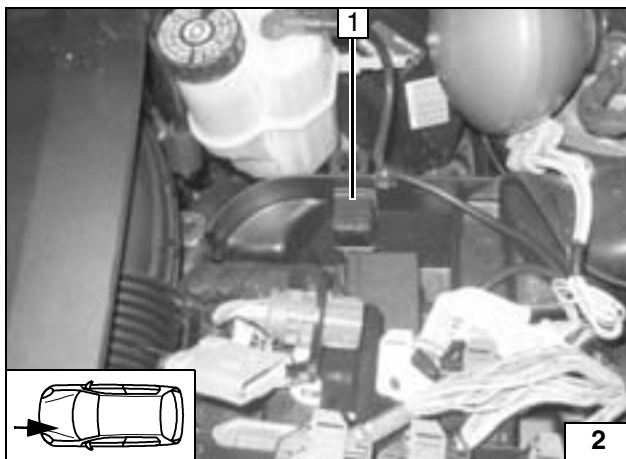
- 1 = Red (rt) wire 500 mm
- 2 = Red (rt) wire 2,500mm
- 3 = Black (sw) wire 2,500 mm
- 4 = Brown (br) wire 900 mm

Connect with enclosed blade receptacles. Connect brown (br) wire **4** from K3.1/85 to K3/85 according to the circuit diagram. Insert wires **2** and **3** in enclosed insulating hose.

Wire **1** will later be connected with clamp 15 without a turn-off delay.



**Preparing K3.1 relay**

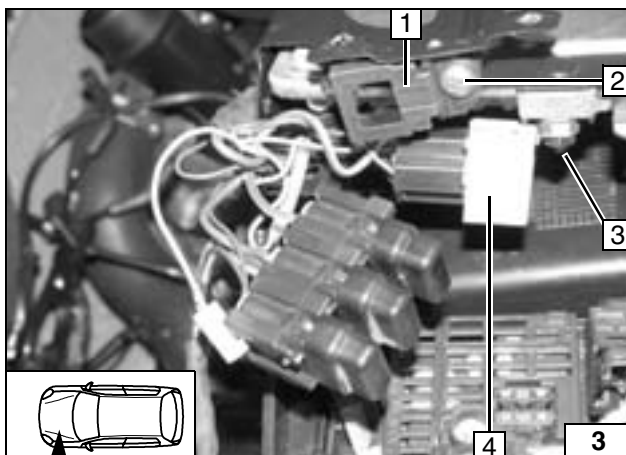


Cut the fastening lug off of the K3.1 relay. Attach the K3.1 to the central electronics with double-sided Velcro tape.

- 1 K3.1 relay



**Assembling K3.1**



Drill open the shackle from the K3 relay to  $\varnothing$  6 mm.

- 4 K3 relay
- 3 M6 flanged nut to original vehicle bolt
- 1 Fuse holder retaining plate
- 2  $\varnothing$  4 mm bore hole, self-tapping screw 5.5 x 9.5



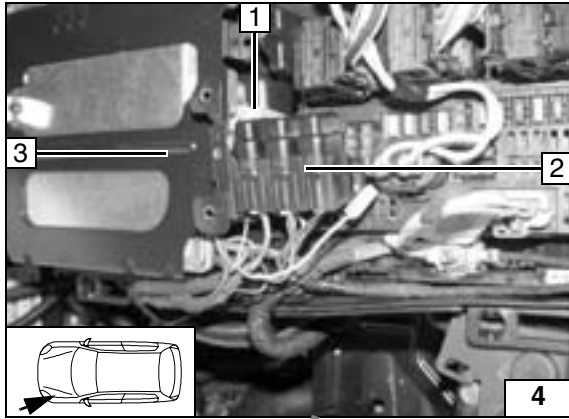
**Assembling the K3 relay and fuse holder**



## Electrical Connections

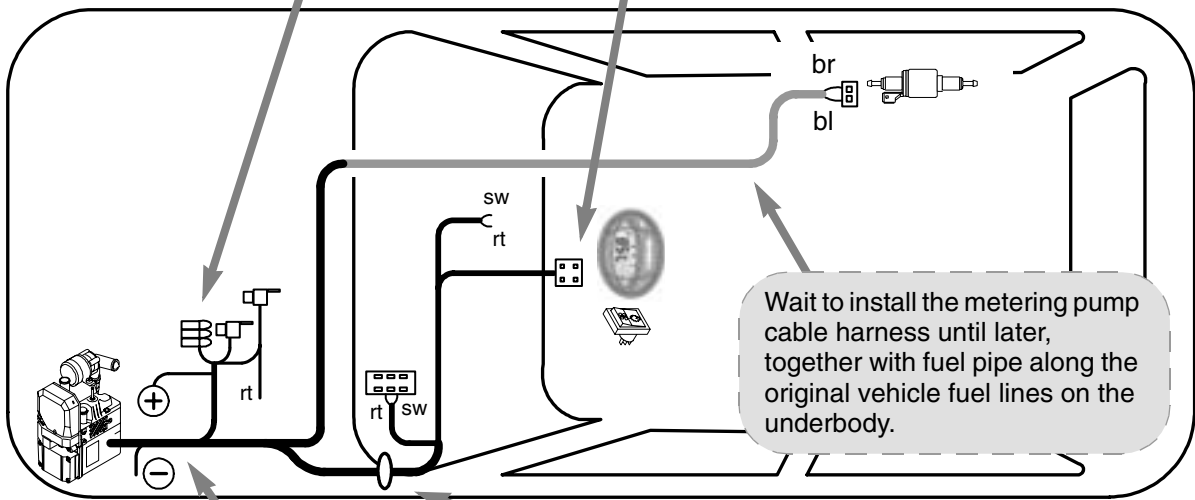
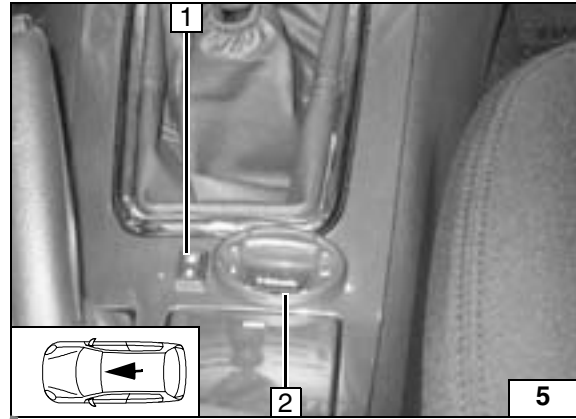
### Fuse holder, K3 relay

- 1 K3 relay
- 2 Fitted fuse holder
- 3 Controller on the central electrics

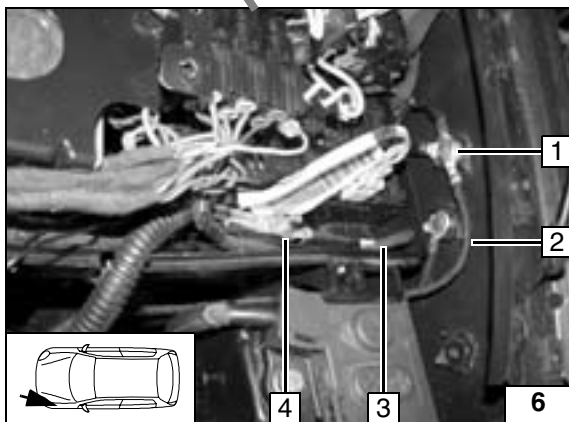


### Time switch and summer / winter switch option

- 2 Time switch
- 1 Bore hole Ø 12 mm, summer / winter switch

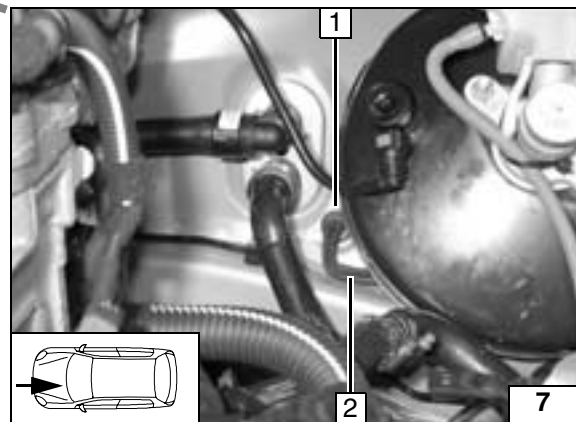


**Cable harness installation diagram**



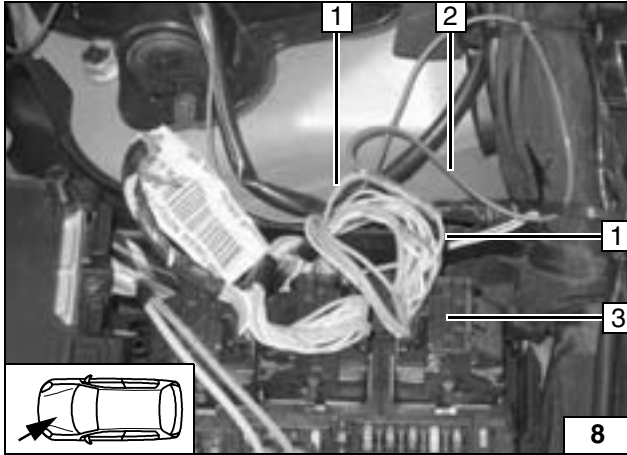
### Positive and ground connection

- 1 Original vehicle cable harness
- 2 Ground wire
- 3 Positive wire
- 4 Original vehicle positive base



### Cable harness feed-through

- 1 Protective rubber sleeve
- 2 Blower control cable harness, time switch and auxiliary cable harness from K3.1 relay.



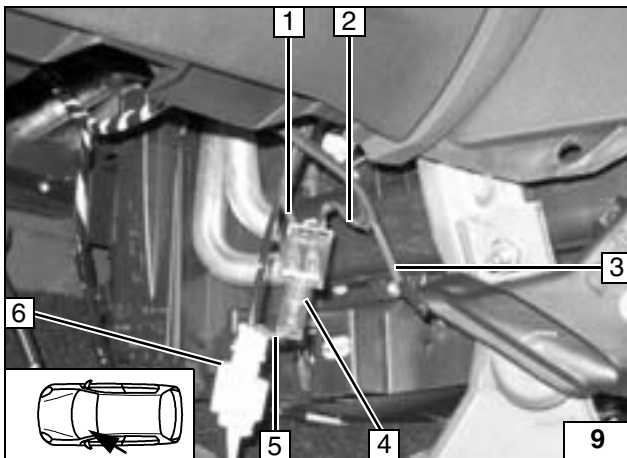
## Blower Control

Measure the directly switched terminal 15 without turn-off delay.  
Pin assignment may vary depending on vehicle equipment.

Connect with enclosed blue butt connector according to the circuit diagram.

- 1 Yellow (ge) wire to pin 3 [terminal 15]
- 2 Red (rt) wire 1 from K3.1/86
- 3 Central electronics connector 28V GR

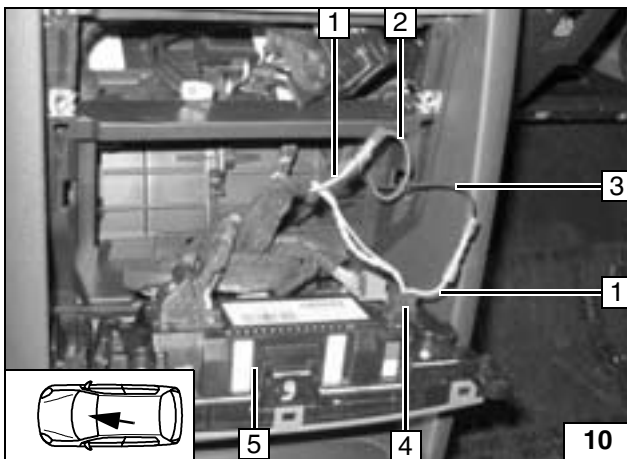
**Connecting the central electronics**



Connect with enclosed 3-way splitter according to the circuit diagram.

- 1 Red (rt) wire from original vehicle fuse
- 2 Black (sw) wire from K3/30
- 3 Red (rt) wire from K3/87a, insulate and tie back
- 4 3-way splitter
- 5 Red (rt) wire from blower motor connector
- 6 6-pin connector pin 6

**Connecting the blower motor**



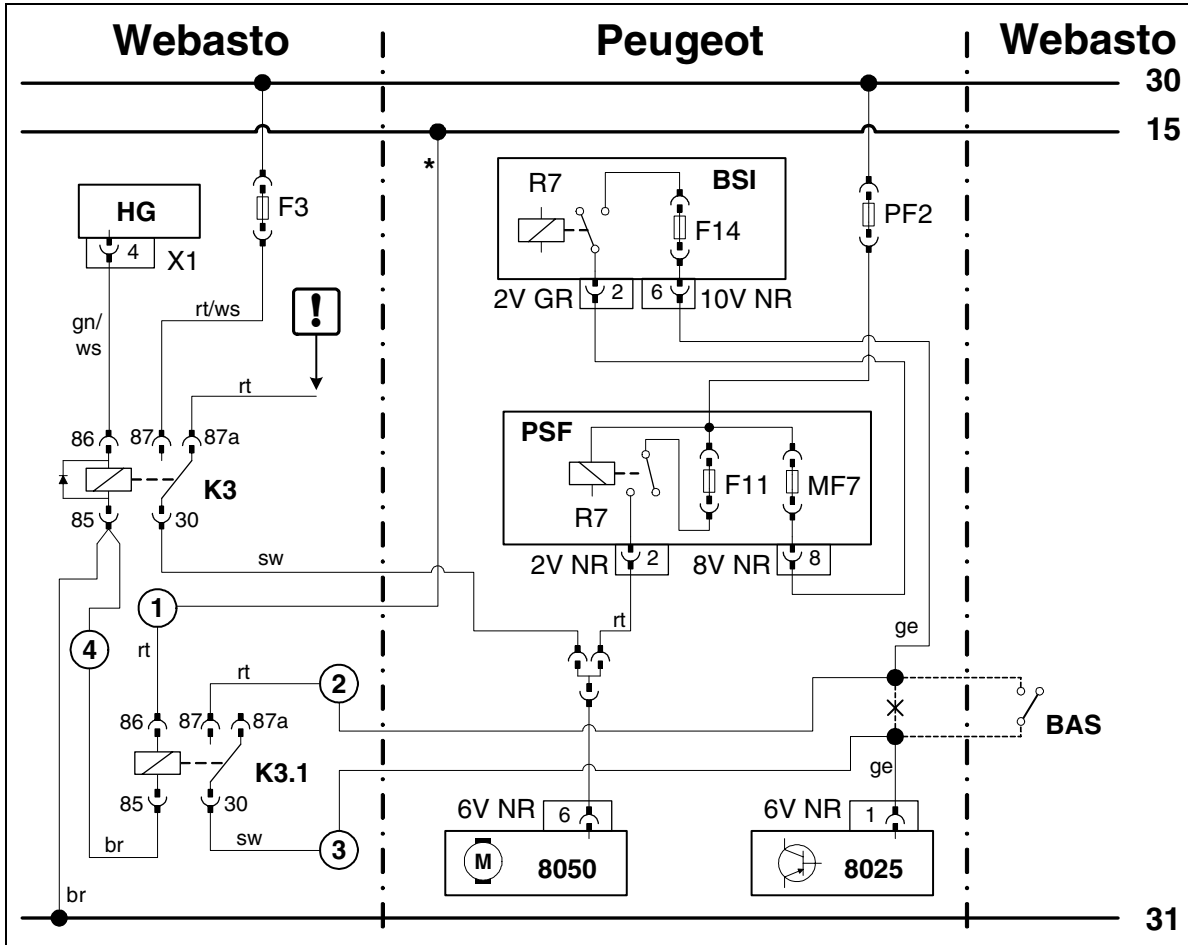
Connect with enclosed red butt connectors according to the circuit diagram.

- 1 Yellow (ge) wire
- 2 Red (rt) wire 2 from K3.1/87
- 3 Black (sw) wire 3 from K3.1/30
- 4 6-pin connector pin 1
- 5 Air conditioning control

**Connecting the air conditioning control**







Circuit diagram

Webasto components		Peugeot components		Colors and symbols	
HG	Heater unit TT-C/E	8050	Blower motor	rt	red
X1	6-pin heater unit connector	8025	Air conditioning control	ws	white
F3	Fuse, 25A	PSF	Main power supply	sw	black
K3	Blower relay	BSI	Central switch unit	br	brown
K3.1	Supplementary relay	6V NR	6-pin connector	gn	green
BAS	Operating mode switch option	2V NR	2-pin connector	ge	yellow
		2V GR	2-pin connector	*	Grind onto terminal 15 without turn-off delay.
		8V NR	8-pin connector		
		10V NR	10-pin connector		
		PF2	Main fuse		
					Insulate and tie back wire ends
				X	Splitting point

Legend

**Note:**

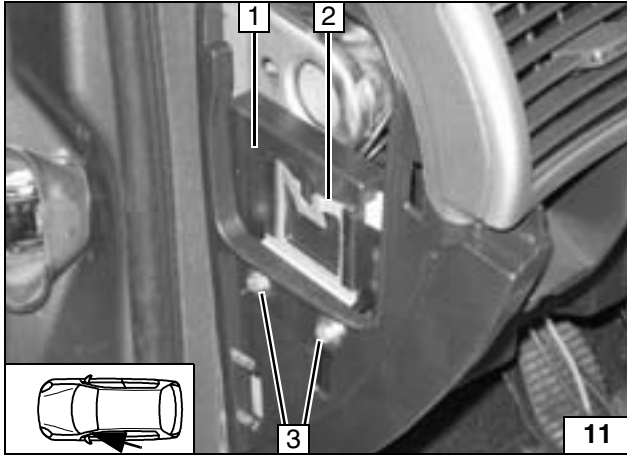
The operating mode switch (BAS) is used to switch the air conditioning control to standard or heating mode.

If the heating mode is desired, set the switch (BAS) to the "heat" symbol.

The standard mode prevents changes in the flap control and resetting the operating unit.

The installation location of the operating mode switch should be confirmed with the end customer before installation.



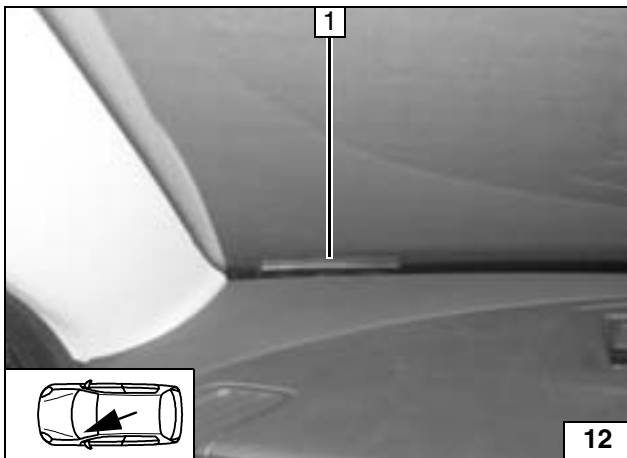


## Remote Start Option

- 1 Receiver
- 2 Bracket
- 3  $\varnothing$  5.5 mm bore hole; M5x12 bolt, M5 flanged nut [2x each]

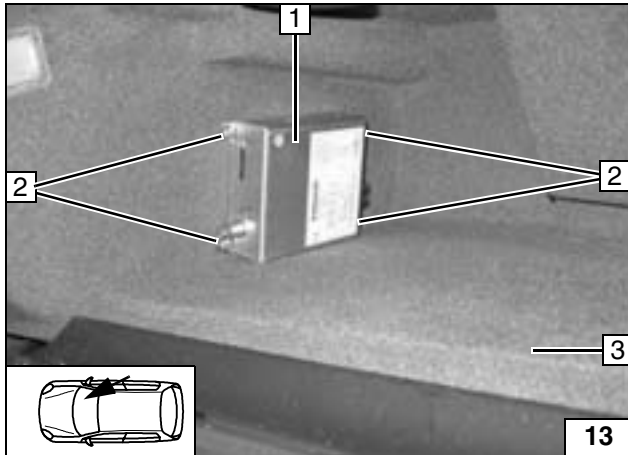


**Assembling the receiver**



- 1 Antenna

**Assembling the antenna**

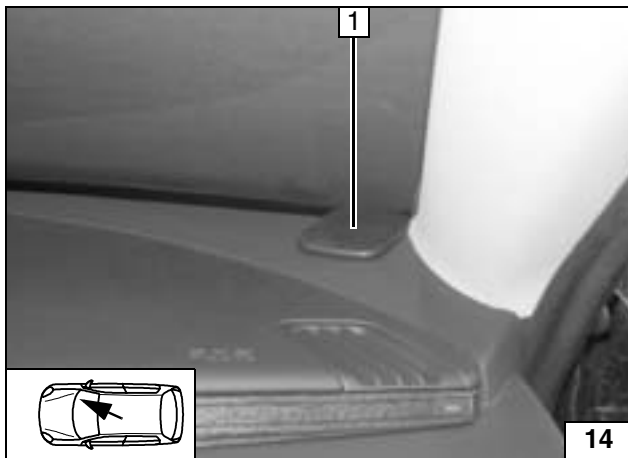


## Thermo Call Option

- 1 Receiver
- 2 Self-tapping screws 5.5x13 [4x]
- 3 Glove compartment

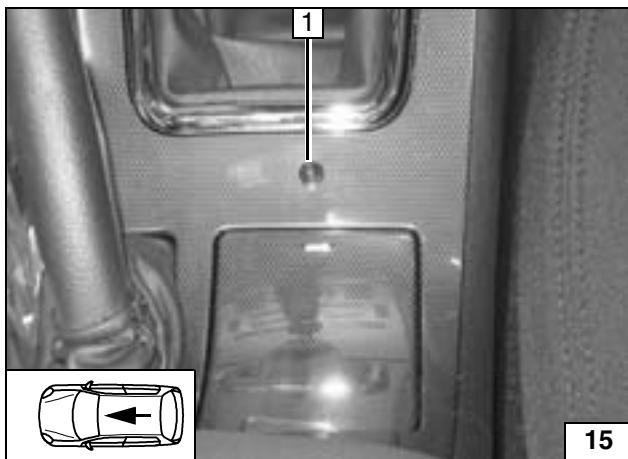


**Assembling the receiver**



- 1 Antenna

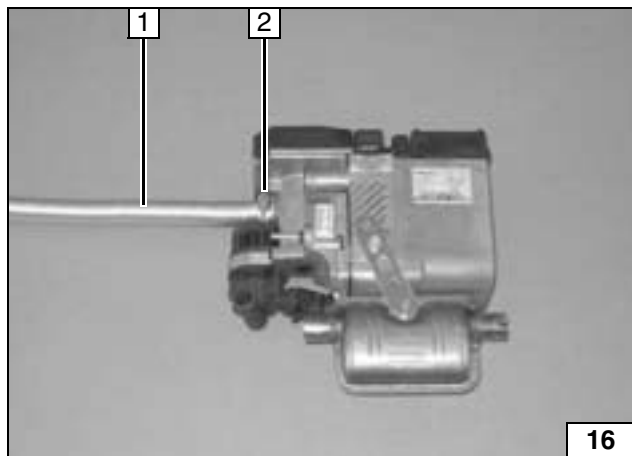
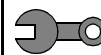
**Assembling the antenna**



- 1 Tip switch



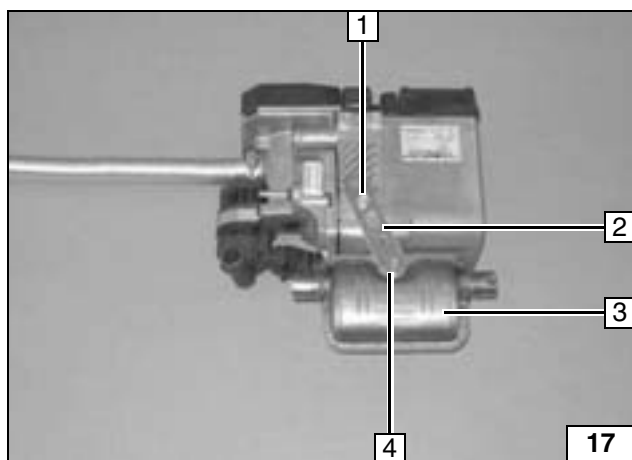
**Assembling the tip switch**



## Preparing the Heater Unit

- 1 Combustion air intake pipe
- 2 Ø 27 mm hose clamp

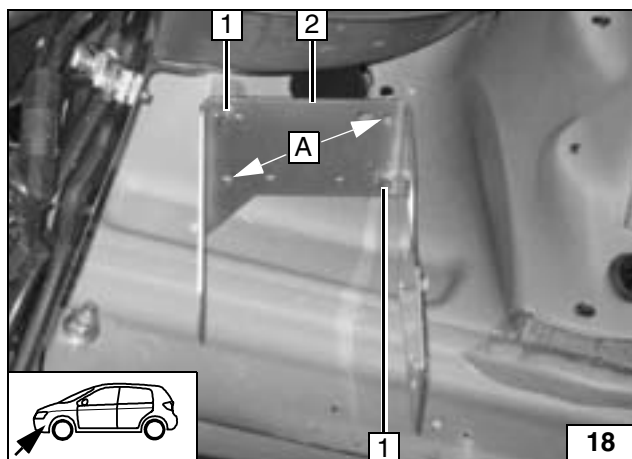
Pre-assembling the fuel pipe



Eجت screw bolts tightening torque 10 Nm!

- 2 Fastening strap with holes
- 1 Eجت screw bolt
- 3 Exhaust silencer
- 4 M6x20 bolt, washer, flanged nut

Pre-assembling the exhaust silencer

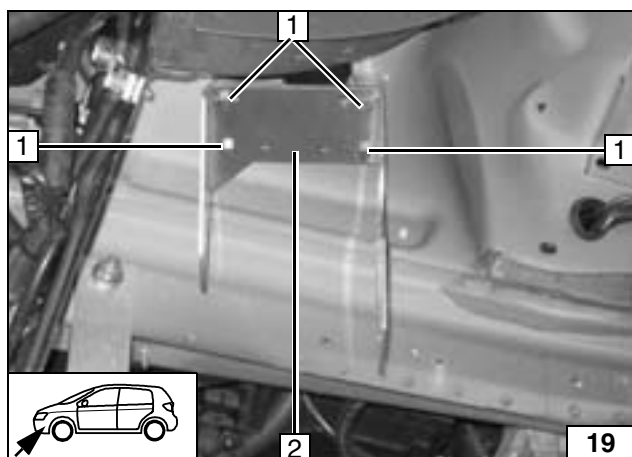


## Preparing the Installation Location

Loosely assemble the bracket on the existing bore hole position 1. Transfer hole image to position A and drill Ø 7 mm bore holes [2x].

- 1 M6x30 bolt, spacer sleeve, M6 flanged nut [2x]
- 2 Bracket

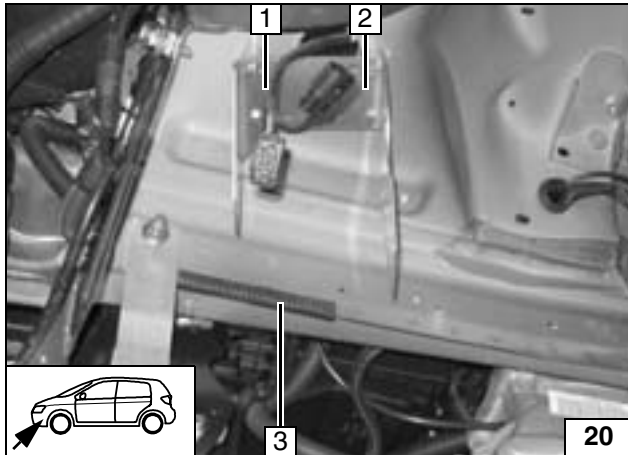
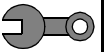
Preparing the bracket



Insert one 20 mm spacer sleeve each between the bracket and the frame side rail at position 1.

- 2 Bracket
- 1 M6x30 bolt, body washer, 20 mm spacer sleeve, M6 flanged nut [4x each]

Assembling the bracket

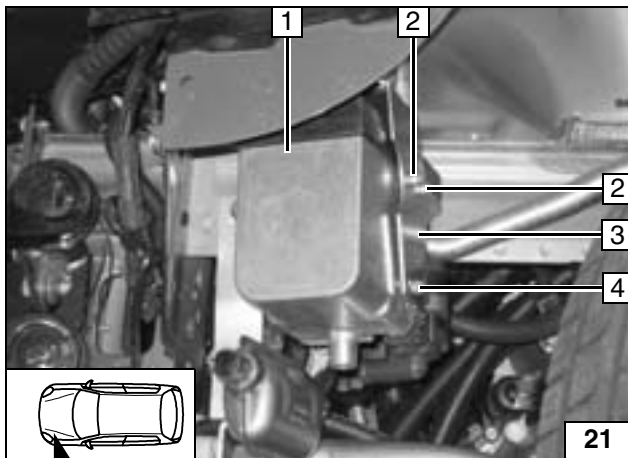


Run the heater unit cable harness to the installation location.

- 1 Heater unit cable harness
- 2 Bracket
- 3 Edge protection 100 long



**Inserting edge protection**



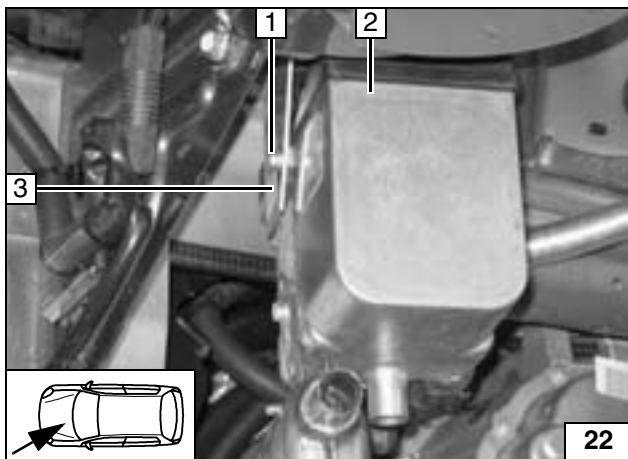
## Installing the Heater Unit

E-jot screw bolts tightening torque 10 Nm!  
Insert two washers between the heater unit and the bracket in position 4.

- 1 Heater unit
- 2 E-jot screw bolt [2x]
- 3 Bracket
- 4 E-jot screw bolt, washer [2x]



**Assembling the heater unit**



E-jot screw bolts tightening torque 10 Nm!

- 3 Bracket
- 2 Heater unit
- 1 E-jot screw bolt



**Assembling the heater unit**



## Water Connection

### WARNING!

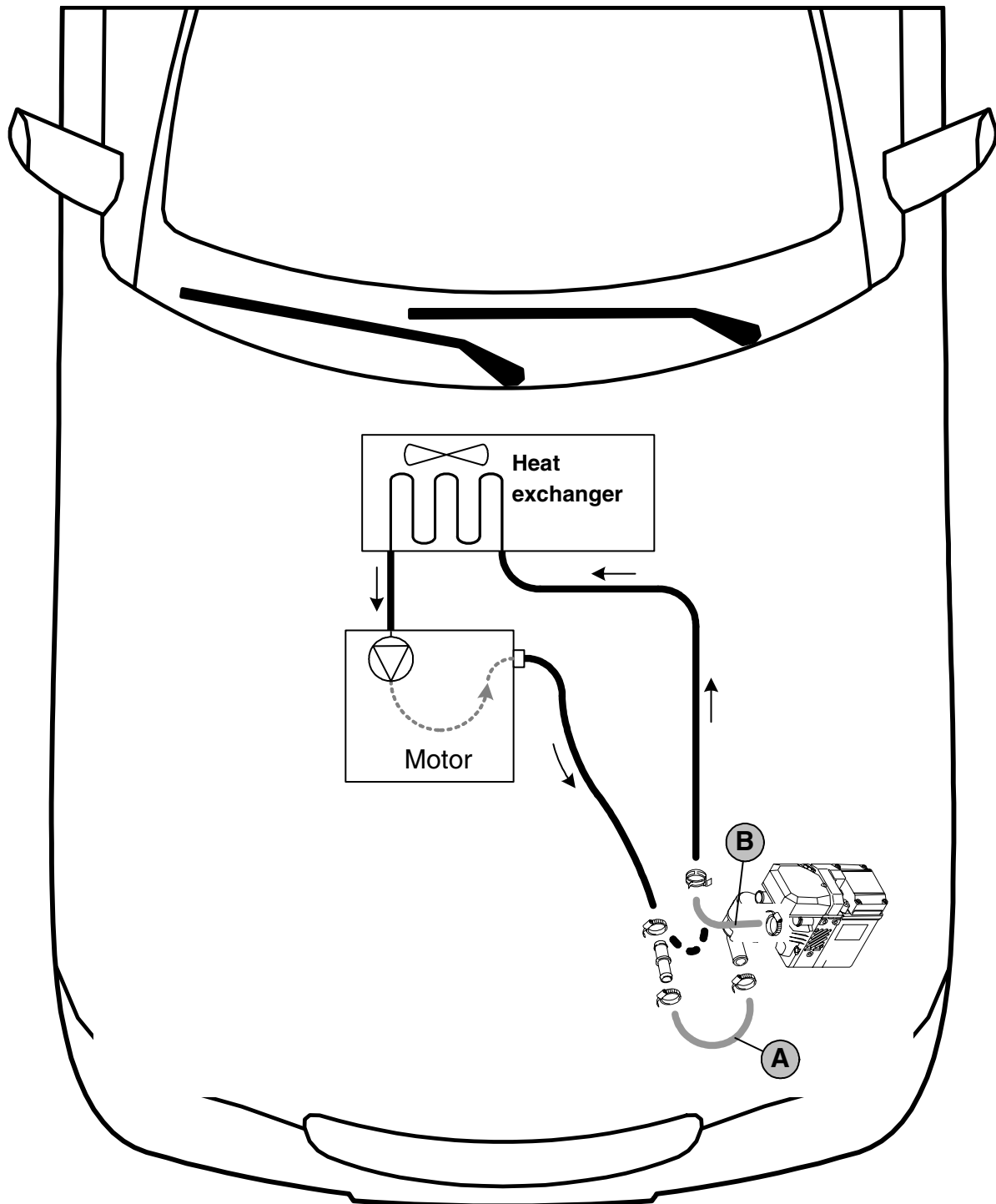
Tighten all hose clamps with  $2.0 + 0.5$  Nm.

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

Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable clips.

Position hose clamps and spring band clamps so that no other hose can be damaged.

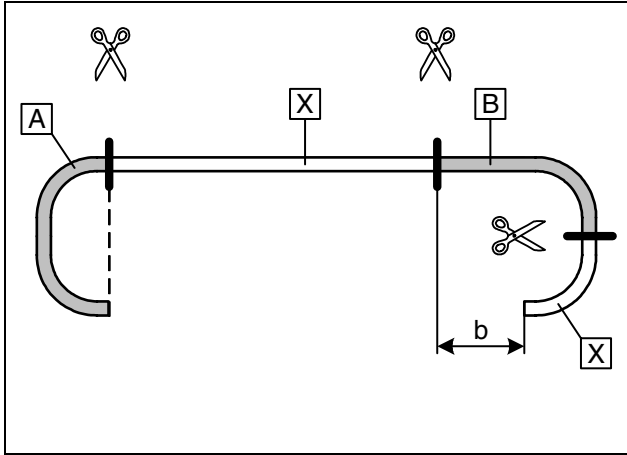
The connection should be "inline" based on the following diagram:



Water installation diagram

All hose clamps =  $\text{Ø}$  20-27 mm, original spring band clamp.  
All connecting pipes are  $\text{Ø}$  18x20.

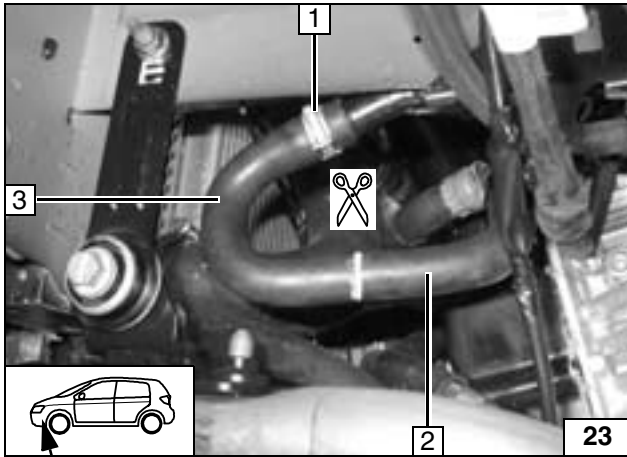




b = 70 mm

Dispose of section X

**Cutting water hoses into sections**

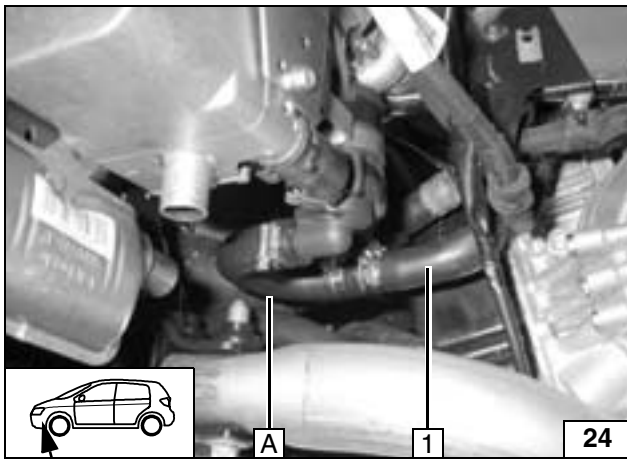


Separate original vehicle engine outlet hose from the heat exchanger inlet on the marking.

- 2 Hose section from engine outlet
- 3 Remove hose section on pipe group to the heat exchanger inlet and dispose.
- 1 Original vehicle spring band clamp will be used again.

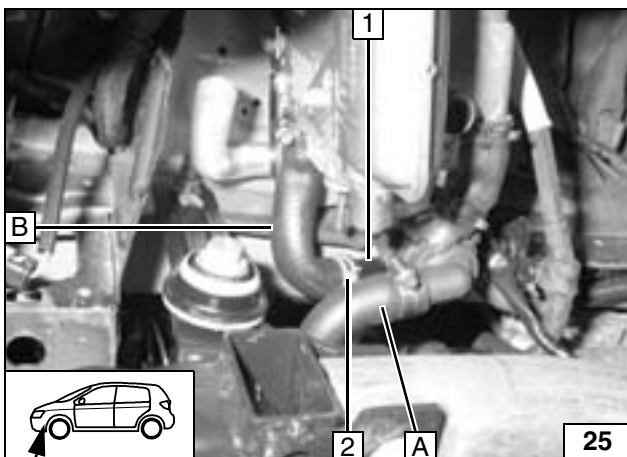


**Splitting point**



- 1 Engine outlet hose section

**Connecting the heater unit inlet**



- 1 Pipe group to the heat exchanger inlet.
- 2 Original vehicle spring band clamp.

**Connecting the heater unit outlet**



## Fuel Connection

### CAUTION!

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

Catch any fuel running off with an appropriate container.

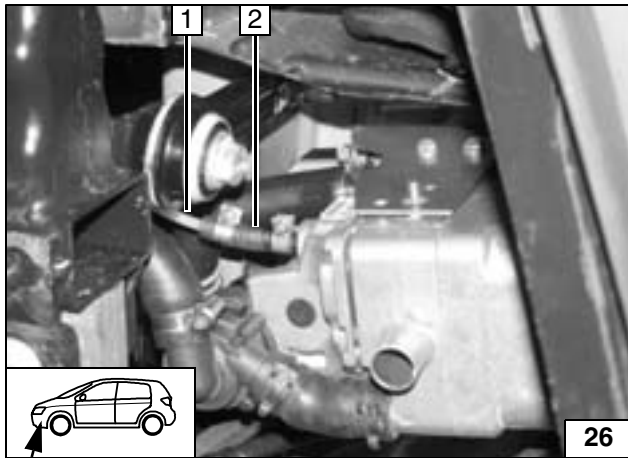
Install fuel line and metering pump cable harness so that they are protected against stone impact.

Unless specified otherwise, always fasten using cable clips.

Fit the fuel line and cable harness with edge protectors around sharp edges.

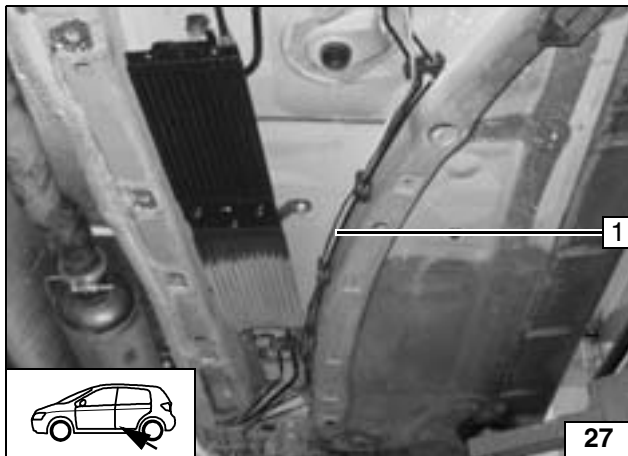
### WARNING!

The fuel line and cable harness to the metering pump should be installed based on the cable harness installation diagram.



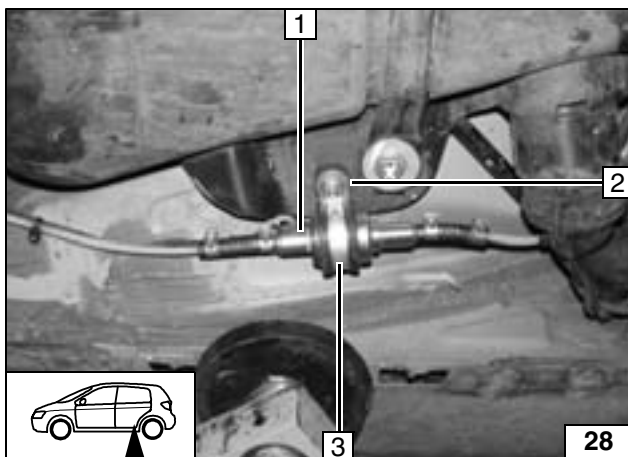
- 1 Mecanyl fuel line
- 2 Hose section, Ø 10 mm hose clamps [2x]

Connect-  
ing to the  
heater unit



- 1 Mecanyl fuel pipe, metering pump cable harness to original vehicle brake lines

Install-  
ing  
lines



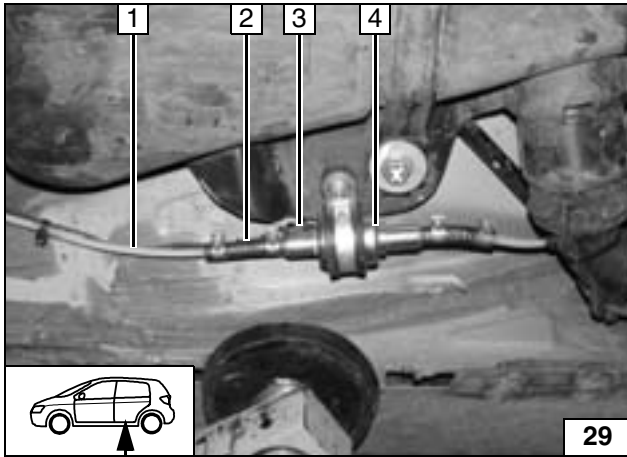
Note the installation position of the metering pump, see the Installation Instructions. Installation location is to the right next to the vehicle tank.

- 2 Silent block, body washer from above, M6 flanged nut [2x] on existing bore hole.
- 1 Metering pump
- 3 Rubberized tube clamp



Metering  
pump  
installa-  
tion  
location



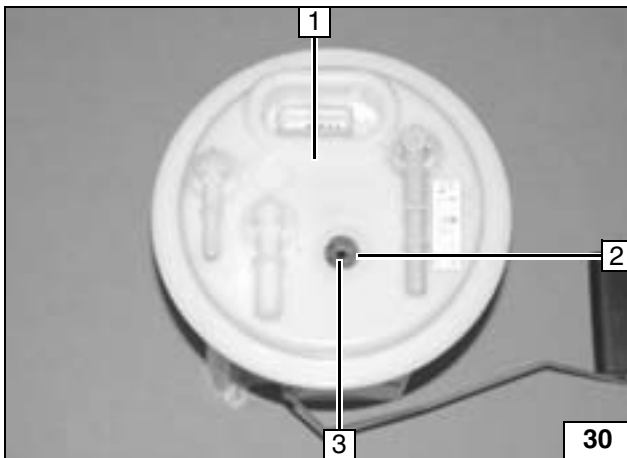


Fuel line from the heater unit on the pressure side of the metering pump [side with connector].

- 4 Metering pump
- 2 Hose section, Ø 10 mm hose clamps [2x]
- 1 Fuel line
- 3 Metering pump cable harness, protective rubber sleeve, flat connector, connector housing.



**Connecting to metering pump**

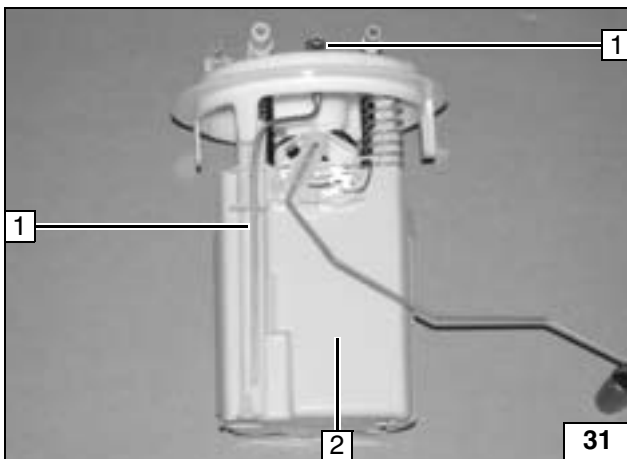


Remove tank mounting according to manufacturer's instructions. The bore hole for the tank extracting device must be in the middle of the cutout. First pre-drill Ø 2.5 mm.

- 1 Tank mounting
- 2 Body washer Ø 5 mm
- 3 Copy the hole image, Ø 6 mm bore hole.



**Fuel take-off**

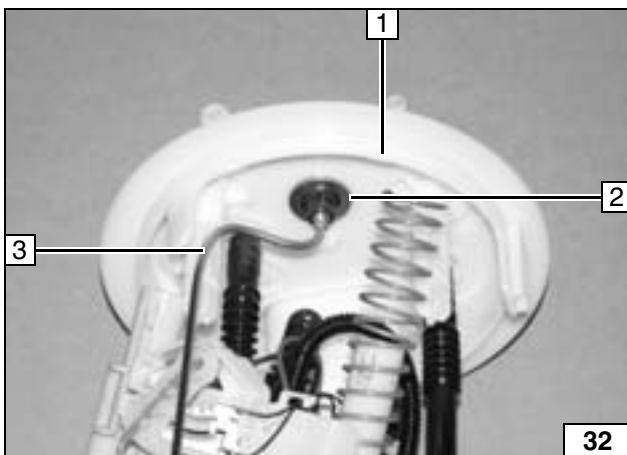


Shape, cut into sections, and insert the tank extracting device according to the template, see the Installation Instructions.

- 2 Tank mounting
- 1 Tank extracting device



**Inserting tank extracting device**

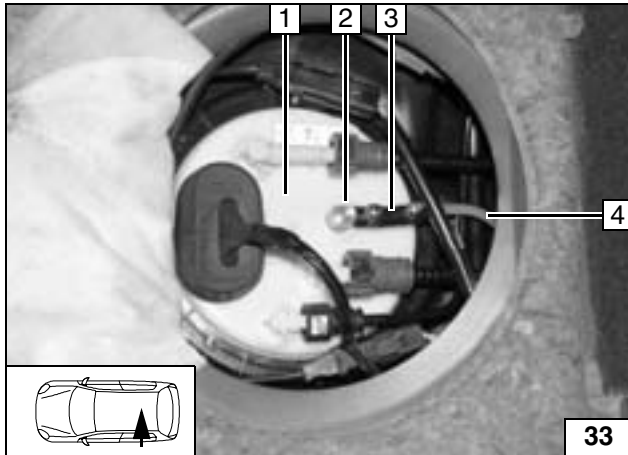


For assembly, insert the body washer from below.

- 1 Tank mounting
- 3 Tank extracting device
- 2 Body washer Ø 6 mm



**Inserting tank extracting device**

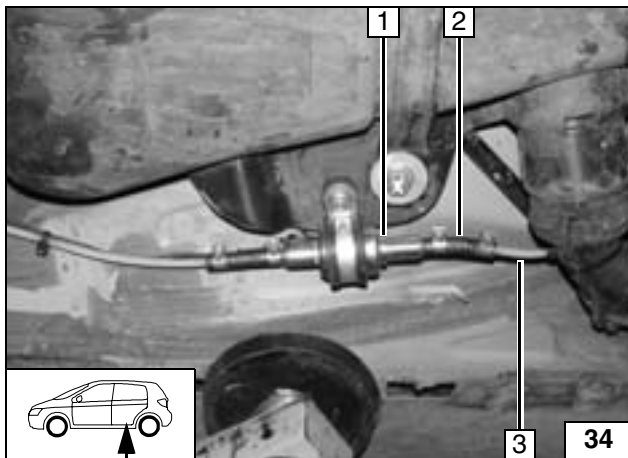


Install the tank mounting according to manufacturer's instructions.

- 1 Tank mounting
- 2 Tank extracting device
- 3 Hose section, Ø 10 mm hose clamps [2x]
- 4 Residual section of Mecanyl fuel line



**Connec-  
ting the  
fuel line**

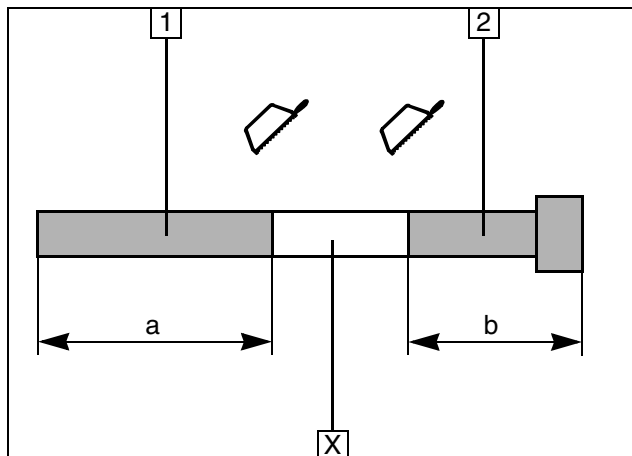
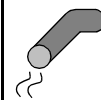


Fuel line from the tank extracting device on the intake side of the metering pump [side without connector].  
Check the position of the components; adjust if necessary. Check that these rotate freely.

- 1 Metering pump
- 3 Residual section of Mecanyl fuel line
- 2 Hose section, Ø 10 mm hose clamps [2x]



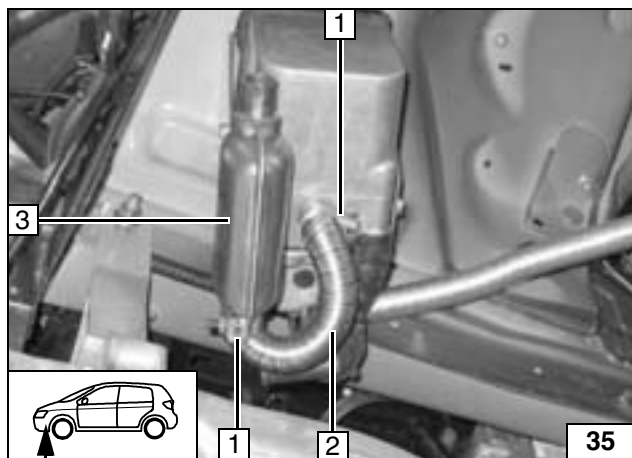
**Connec-  
ting to the  
metering  
pump**



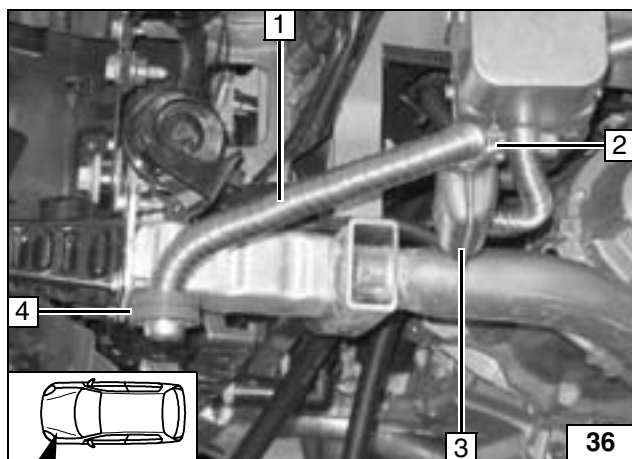
## Exhaust System

- 1 Exhaust pipe  
a = 200mm
- 2 Exhaust end section  
b = 350mm

Dispose of section X



- 3 Exhaust silencer
- 2 Exhaust pipe
- 1 Hose clamp [2x]

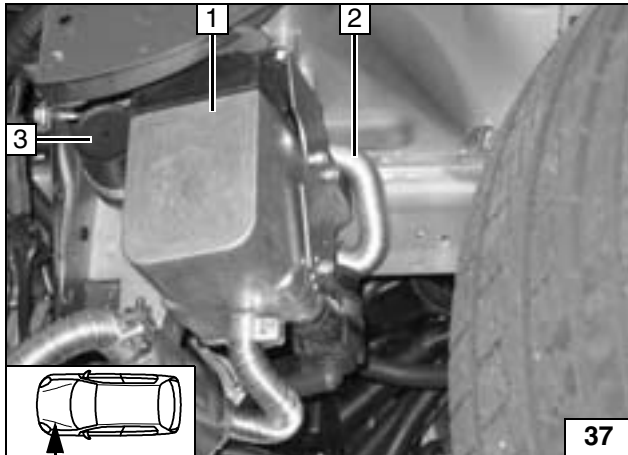
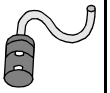


- 3 Exhaust silencer
- 1 Exhaust pipe
- 2 Hose clamp
- 4 Red (rt) rubber profile with groove

**Preparing the exhaust pipe**

**Assembling the exhaust pipe.**

**Assembling the exhaust end section**



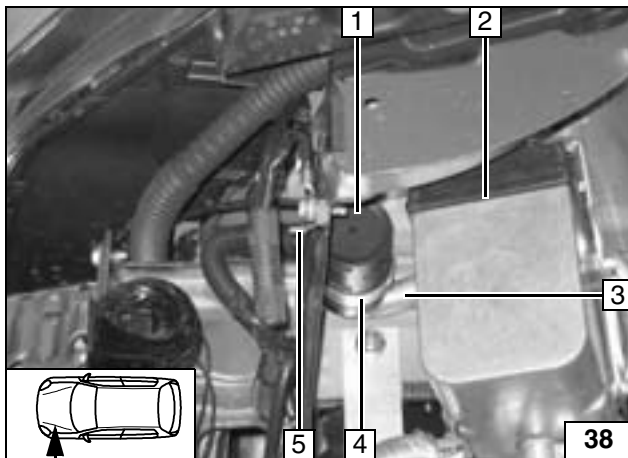
## Combustion Air

Install the combustion air intake line to the air intake silencer.

- 1 Heater unit
- 2 Combustion air intake pipe
- 3 Combustion air intake silencer



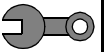
**Assembling the vacuum line**



- 2 Heater unit
- 3 Combustion air intake pipe
- 1 Combustion air intake silencer
- 4 Tube clamp Ø 48 mm without rubber
- 5 M6x20 bolt, M6 flanged nut on existing hole



**Assembling the silencer**



## Final Work

### WARNING!

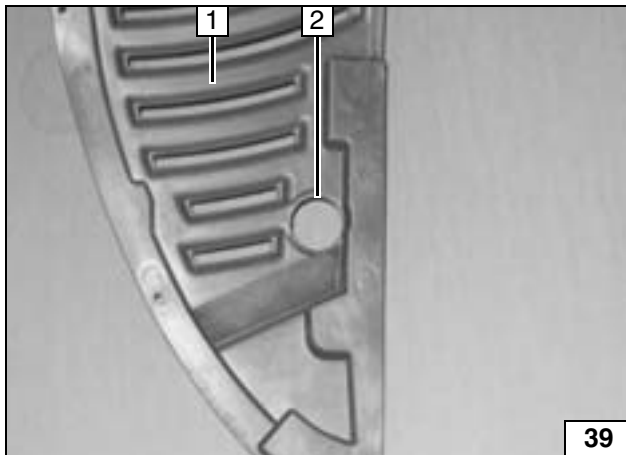
Reassemble disassembled components in reverse order.

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

Secure all loose lines using cable clip.

Spray heating unit components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect battery.
- Start engine, bleed water circuit according to the vehicle manufacturer's specifications, top up with cold water.
- Set the time switch.
- Set the vehicle heating with automatic air conditioning or without automatic air conditioning according to the "operating instructions for the end customer".
- Operation mode switch to "Heat".
- Check that the auxiliary heating operates properly, see operating instructions / installation instructions.
- Attach the "Switch off auxiliary heating before re-fuelling" sticker onto the left side of the B-pillar.



(1) Underride protection

(2) Ø 42 mm bore hole, cut out on perforation

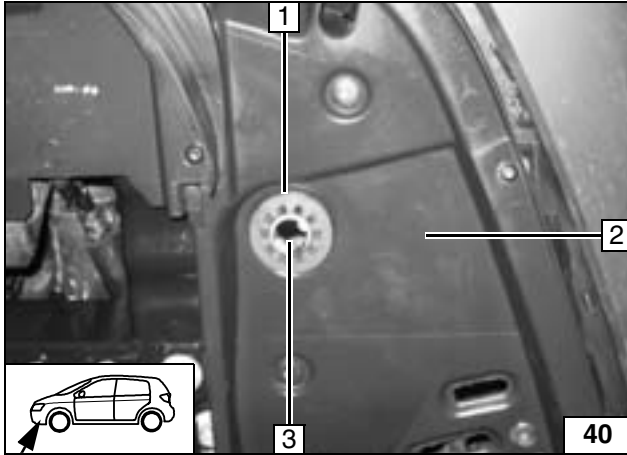


**Cut out  
the  
underride  
protection**

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First position the red (rt) rubber profile **1**, from below onto the exhaust end section **3**, then insert with groove in the underbody protection **2**. Align the end cap from the exhaust end section **3** flush with the red (rt) rubber profile **1** according to the illustration.



**Inserting rubber profile**

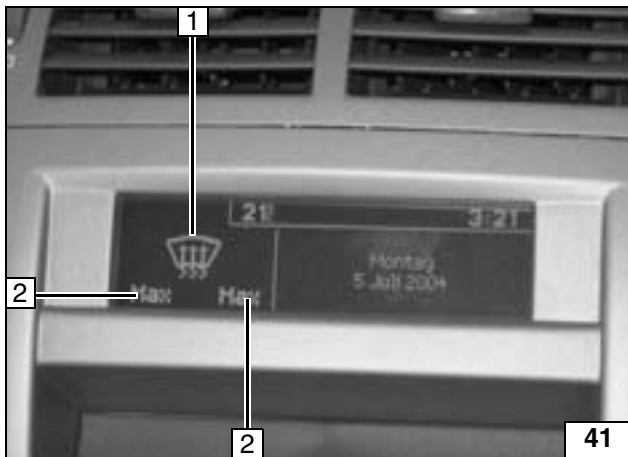
## Operating instructions for the end customer

Please remove page and add to the vehicle operating instructions.

Before parking the vehicle, make the following settings:

### Note:

1. The passenger compartment monitoring must be manually deactivated for heating to start.
2. The operating mode switch (BAS) is used to switch the air conditioning control to standard or heating mode.  
If the heating mode is desired, set the switch (BAS) to the "heat" symbol.  
The standard mode prevents changes in the flap control and resetting the operating unit.



After making the setting, wait about 60 seconds until the engine stops.

- (1) Air outlet to windscreen
- (2) Left and right temperature to "max."



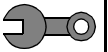
**For vehicles with automatic air conditioning**



When the ignition is activated, the air conditioning control will start in automatic mode.



**For vehicles with automatic air conditioning**



Tank Extracting Device Template

