

# Water Heater Unit



**Thermo Top E Additional Heater**  00 0003

**Thermo Top C Additional Heater**  00 0002

## Installation Instructions

### Toyota IQ

Diesel  
from Model Year 2009  
Left-hand drive vehicle  
Manual transmission



#### **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 warnings.

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

## Table of Contents

Validity	2	Preparing installation location	12
Heater Unit/Installation Kit	3	Preparing heater unit	13
Foreword	3	Installing heater unit	14
General Instructions	3	Coolant for diesel engine	15
Special Tools	3	Exhaust gas	18
Explanatory Notes on Document	4	Combustion air	23
Preliminary Work	5	Fuel	24
Heater unit installation location	5	Final Work	26
Preparing electrical system	6	Template for Bracket	27
Electrical system	7	Operating Instructions for End Customer	28
Fan controller for manual air conditioning	8		
Automatic air-conditioning fan controller	9		
Remote option (Telestart)	11		

## Validity

Manufacturer	Model	Type	EG-BE No./ABE
Toyota	IQ	AJ1	e1 * 2001/116 * 0119 * ...

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
1ND-TV	Diesel	66	1364

Vehicle and engine types, equipment variants and national specifications not listed in these installation instructions have not been tested. However, installation according to these installation instructions may be possible.

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

## Heater Unit/Installation Kit

Quantity	Description	Order No.:
1	Retail accessories with desired heater control	See price list
1	Installation Kit for Toyota IQ 2009 Diesel	1314834A

### Heater unit recommended for the respective vehicle class:

Vehicle	Heater Unit
Compact car	Thermo Top E
Mid-size car, station wagon	Thermo Top C
Full-size car, van, offroader	Thermo Top P

The selection of the heater unit is based on the passenger compartment size of the vehicle and the level of comfort required by the customer!



## Foreword

These installation instructions apply to Toyota IQ Diesel vehicles - for validity, see page 2 - from model year 2009 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* must always be observed.

The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

## General Instructions

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

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).

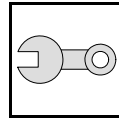
## Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit

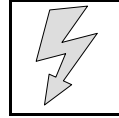
**Explanatory Notes on Document**

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

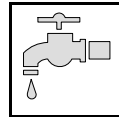
**Mechanical system**



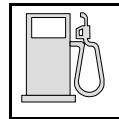
**Electrical system**



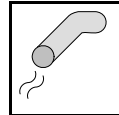
**Coolant**



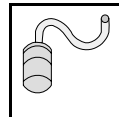
**Fuel**



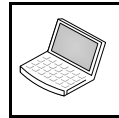
**Exhaust gas**



**Combustion air**



**Software**



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



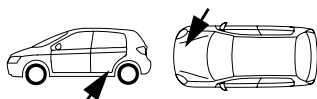
Specific risk of fire or explosion.



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.

**All dimensions are in mm!**

**Tightening torque of hose clamps = 2.0 + 0.5 Nm!**

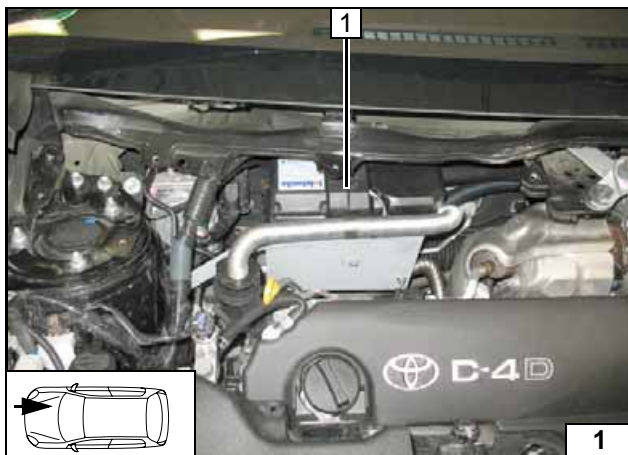
**Tightening torque of Ejet screws, Ejet studs = 10 Nm!**

## Preliminary Work

### WARNING!

- Open the fuel tank cap and vent the fuel tank.
- Close the tank cap again.
- Disconnect the battery "earth" or "ground" connection.
- Depressurize the cooling system!
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Remove the battery completely.
- Remove the battery carrier.
- Remove the windshield wiper.
- Remove the cover of the coolant reservoir.
- Remove the coolant reservoir.
- Remove the intake hose between the engine and the air filter.
- Remove the underride protection.
- Remove the entrance strip on the left
- Remove the lower A-pillar trim in the footwell on the left.
- Remove the instrument panel trim below the steering wheel.
- Remove the trim of the handbrake lever/gearshift (only with automatic air-conditioning).
- Remove the lower trim/storage compartment (center console) before the gearshift (only with automatic air-conditioning)
- Detach the lower trim of the center console (only with automatic air-conditioning).

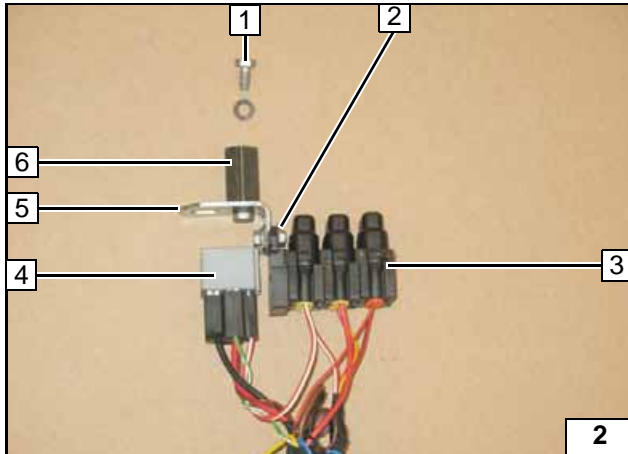
Remove page 28 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



### Heater unit installation location

1 Heater unit

Installation location



**Preparing electrical system**

- 1 M6x12 bolt, spring lockwasher
- 2 M5x16 bolt, washer, flanged nut
- 3 Fuse holder
- 4 Relay K3
- 5 Angle bracket
- 6 M6x30 spacer nut, spring lockwasher, M6x12 bolt



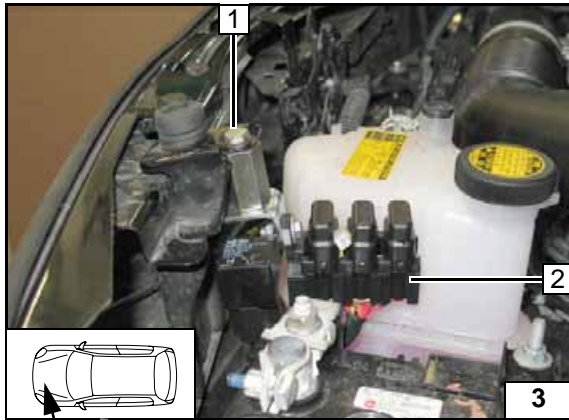
**Premounting fuse holder and K3 relay**



**Electrical system**

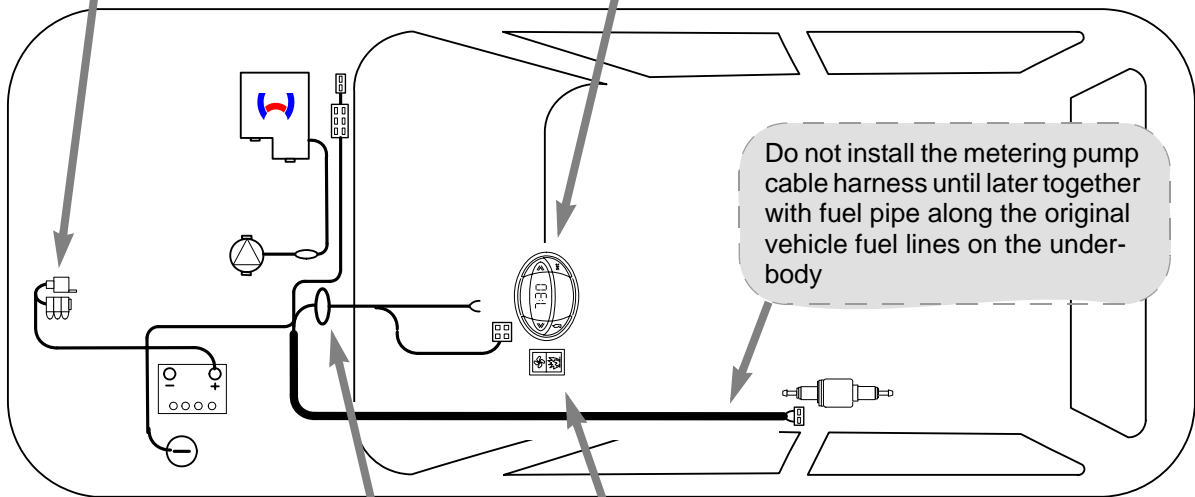
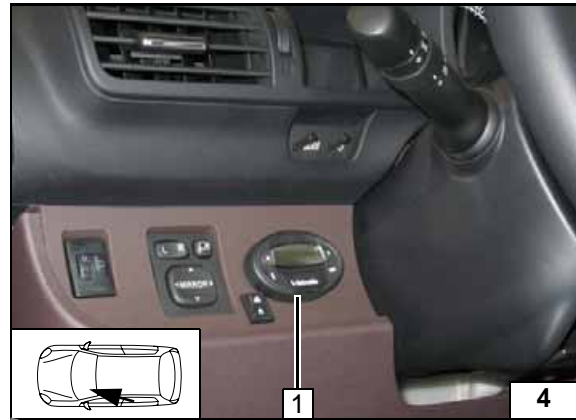
**Fuse holder, relay K3**

- 1 M6x12 bolt, spring lockwasher, original vehicle hole
- 2 Fuse holder and K3 relay premounted

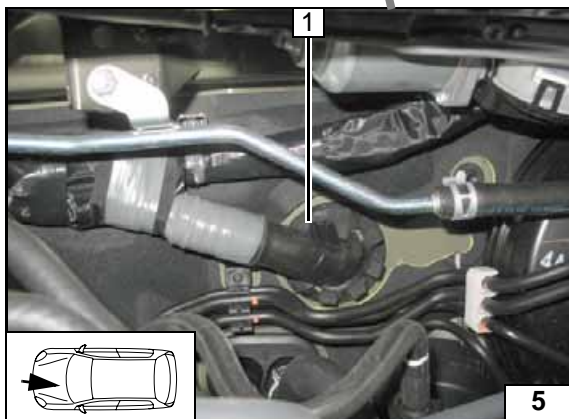


**Digital timer**

- 1 Digital timer



**Wiring harness installation diagram**



**Wiring harness pass through**

- 1 Protective rubber plug



**Summer/winter switch option**

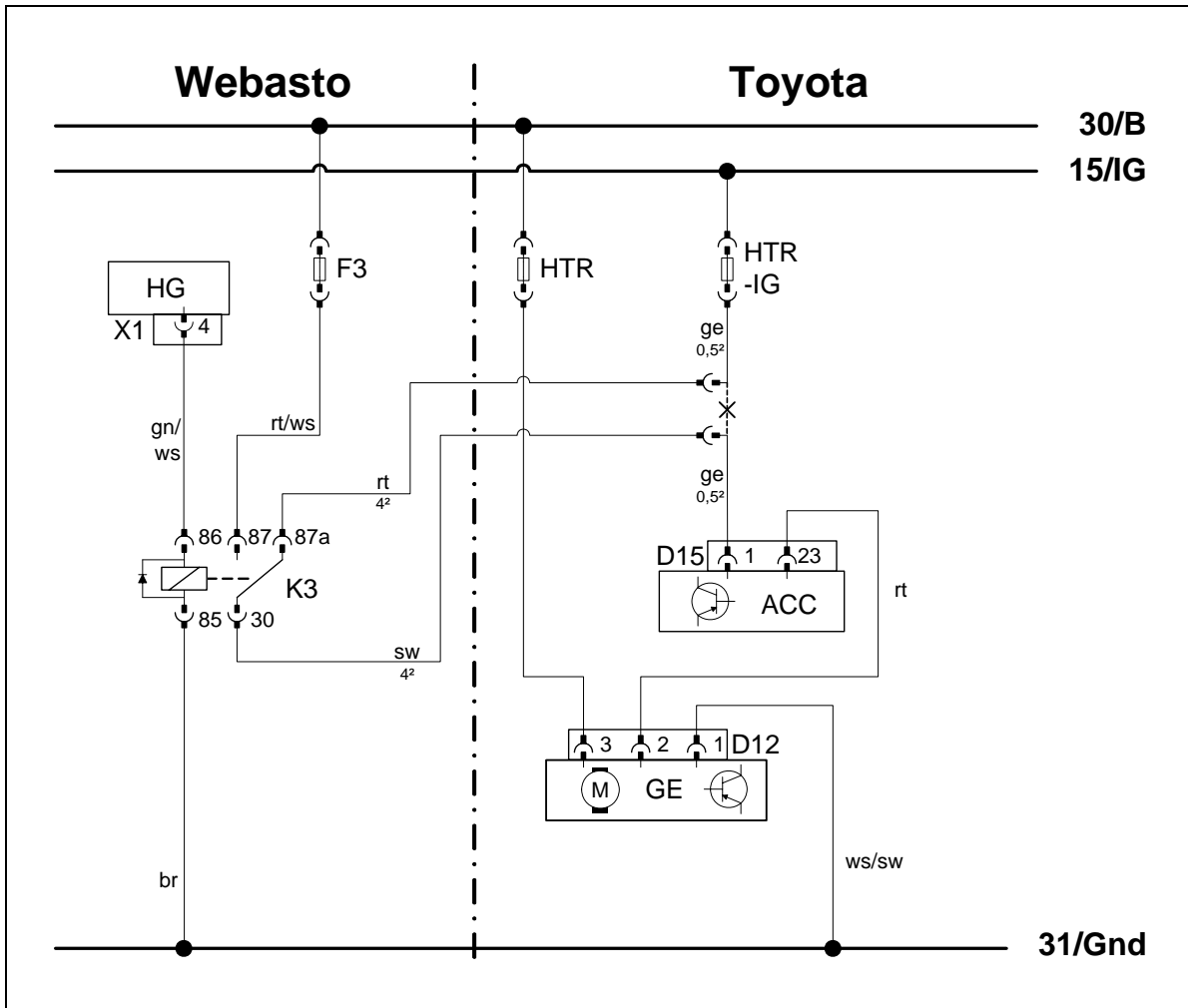
- 1 Summer/winter switch, drilled hole 12 mm dia.







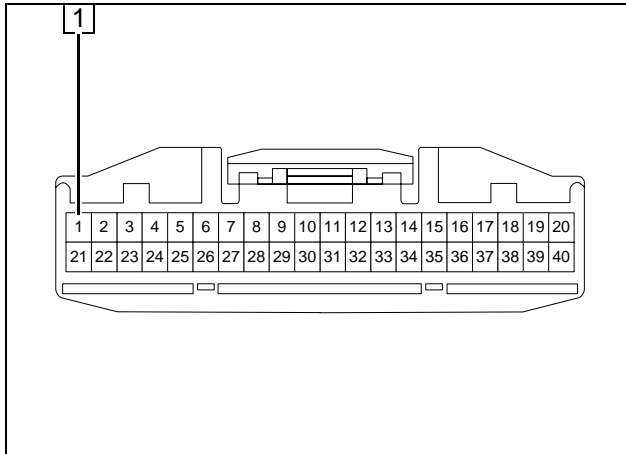
Automatic air-conditioning fan controller



Wiring diagram

Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	ge	Fan unit	rt	red
X1	6-pin heater unit connector	E12	GE connector	ws	white
F3	Replace 25 A with 10 A fuse.	ACC	AC control	sw	black
K3	Fan relay	D15	40-pin ACC connector	br	brown
		HTR	Fuse 40A	gn	green
		HTR-IG	10 A fuse	ge	yellow
				X	Cutting point
					Wiring colors may vary.

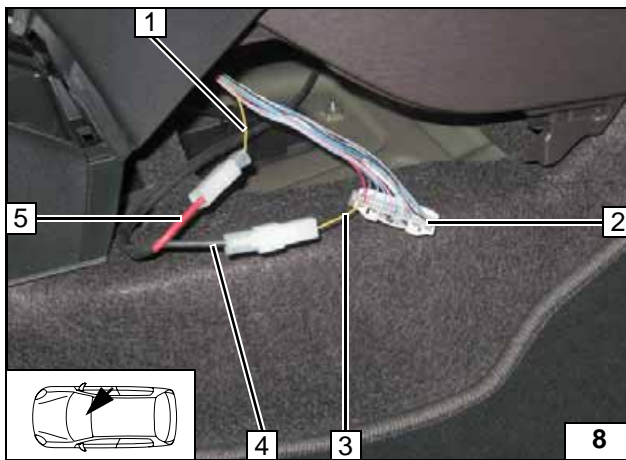
Legend



1 Connector D15 on contact side (Pin 1)



Connector D15

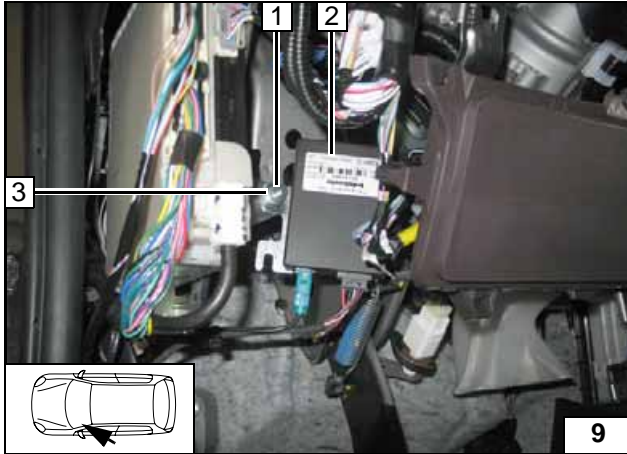


Connection to 40-pin connector 2 from ACC. Produce connections as shown in wiring diagram.



- 1 Yellow (ge) wire of Fuse HTR IG
- 3 Yellow (ge) connector D15
- 4 Black (sw) wire from K3/30
- 5 Red (rt) wire from K3/87a

Connecting A/C control panel

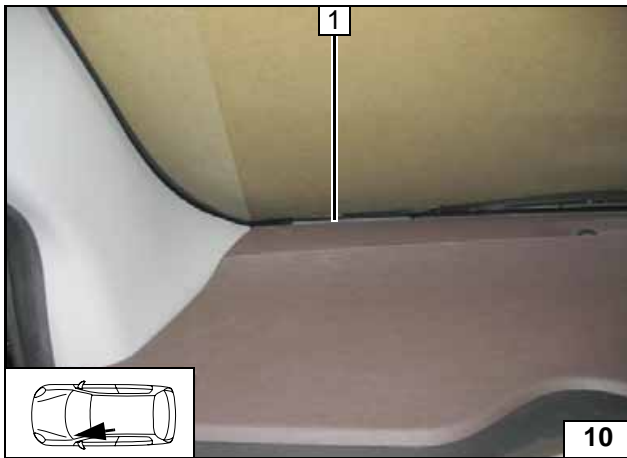


**Remote option (Telestart)**

- 1 Original vehicle bolt
- 2 Receiver
- 3 Bracket, hole drilled out to 6.5 mm dia.

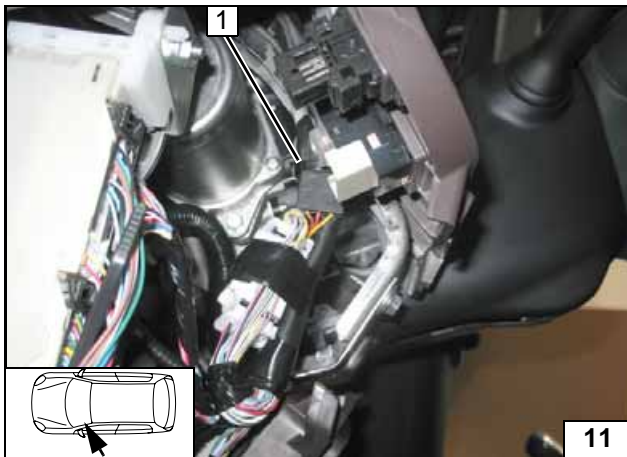


**Installing receiver**



- 1 Antenna

**Installing antenna**

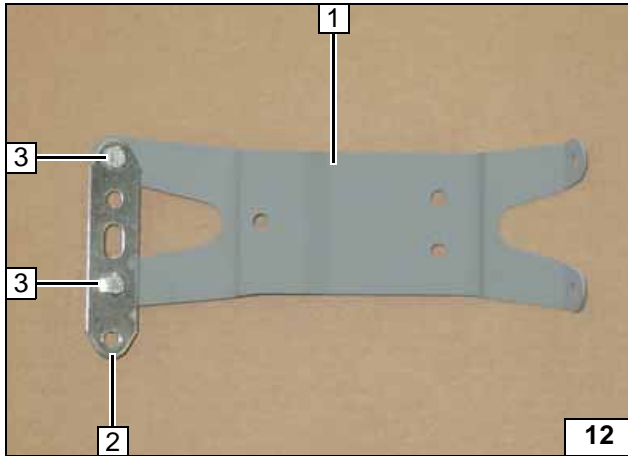
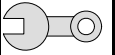


**Temperature sensor HTM100**

Fasten temperature sensor 1 to original vehicle wiring harness with cable tie.



**Installing temperature sensor**



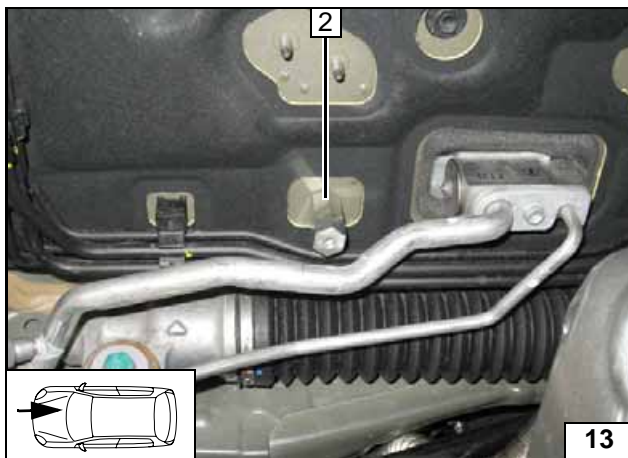
**Preparing installation location**

Bend bracket 1 according to template.

- 2 Perforated bracket
- 3 M6x20 bolt, flanged nut [2x]



**Preparing bracket**



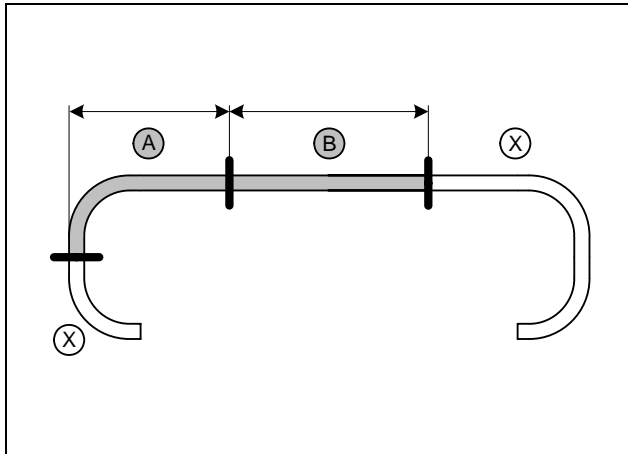
- 1 Original vehicle stud bolt, M6x40 spacer nut

**Preparing installation location**



- 1 Copy hole pattern, drill 7 mm hole [2x]
- 2 M6x16 bolt

**Copying hole pattern**

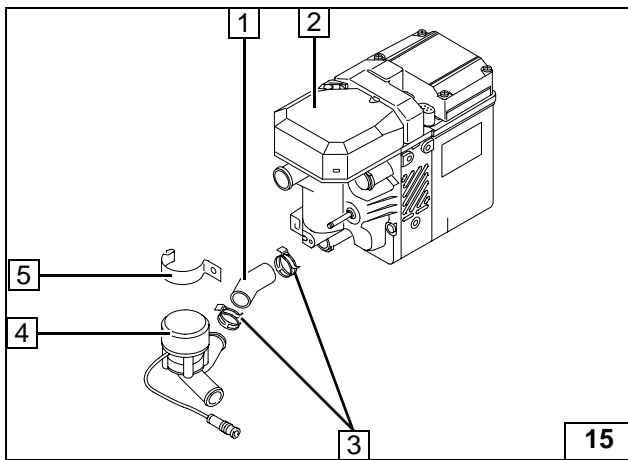


**Preparing heater unit**

a = 480  
b = 340

Discard section X

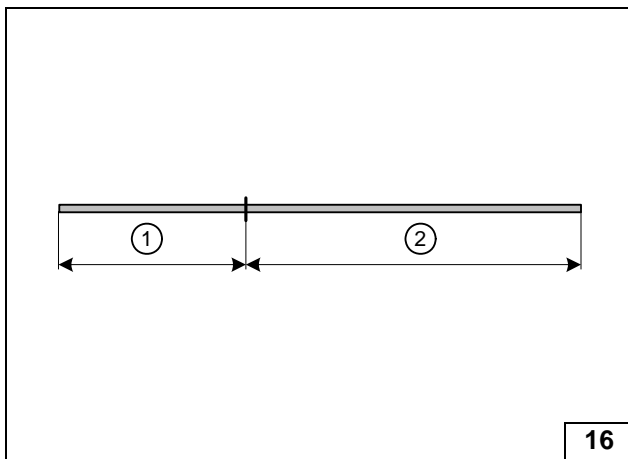
**Cutting coolant hose to length**



- 1 Molded hose, discard
- 2 Heater unit
- 3 27 mm dia. spring clip [2x], will be reused
- 4 Circulating pump
- 5 Discard retaining clip, bolt will be reused

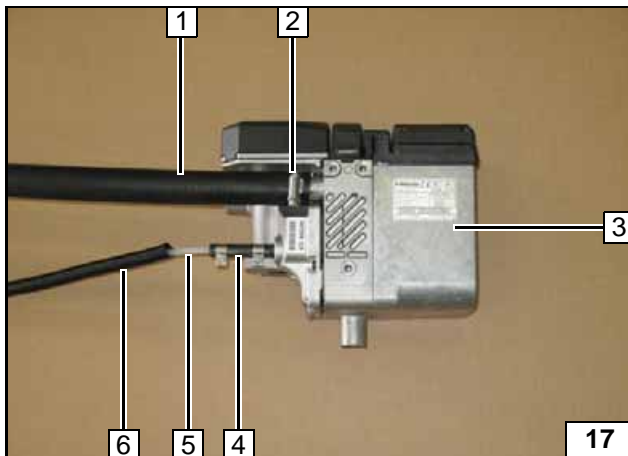


**Removing circulating pump**



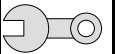
1 = 700  
2 = 1400

**Cutting corrugated tube to length**



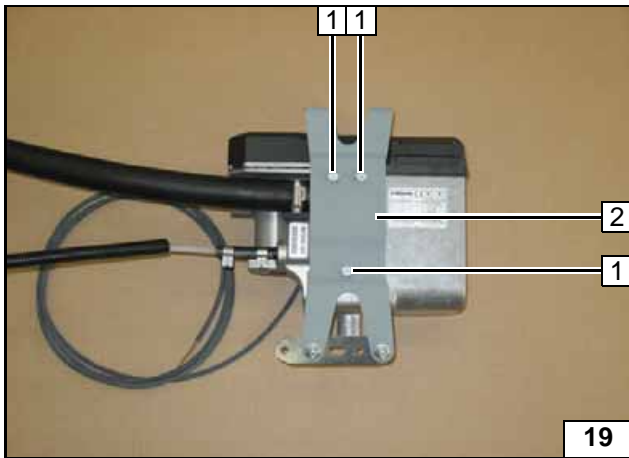
- 1 Hose B
- 2 27 mm dia. clamp
- 3 Heater unit
- 4 Hose section, 10 mm dia. clamp [2x]
- 5 Fuel line
- 6 Corrugated tube 1

**Preparing heater unit**



1 Adapter cable of circulating pump

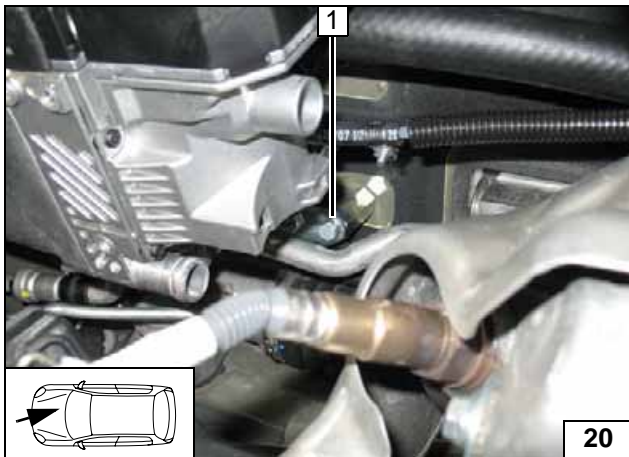
Preparing heater unit



1 Eject screw [3x]  
2 Bracket premounted



Preassembling intake muffler



**Installing heater unit**

1 M6x16 bolt, spring lockwasher

Installing heater unit



1 M6x20 bolt, flanged nut [2x]

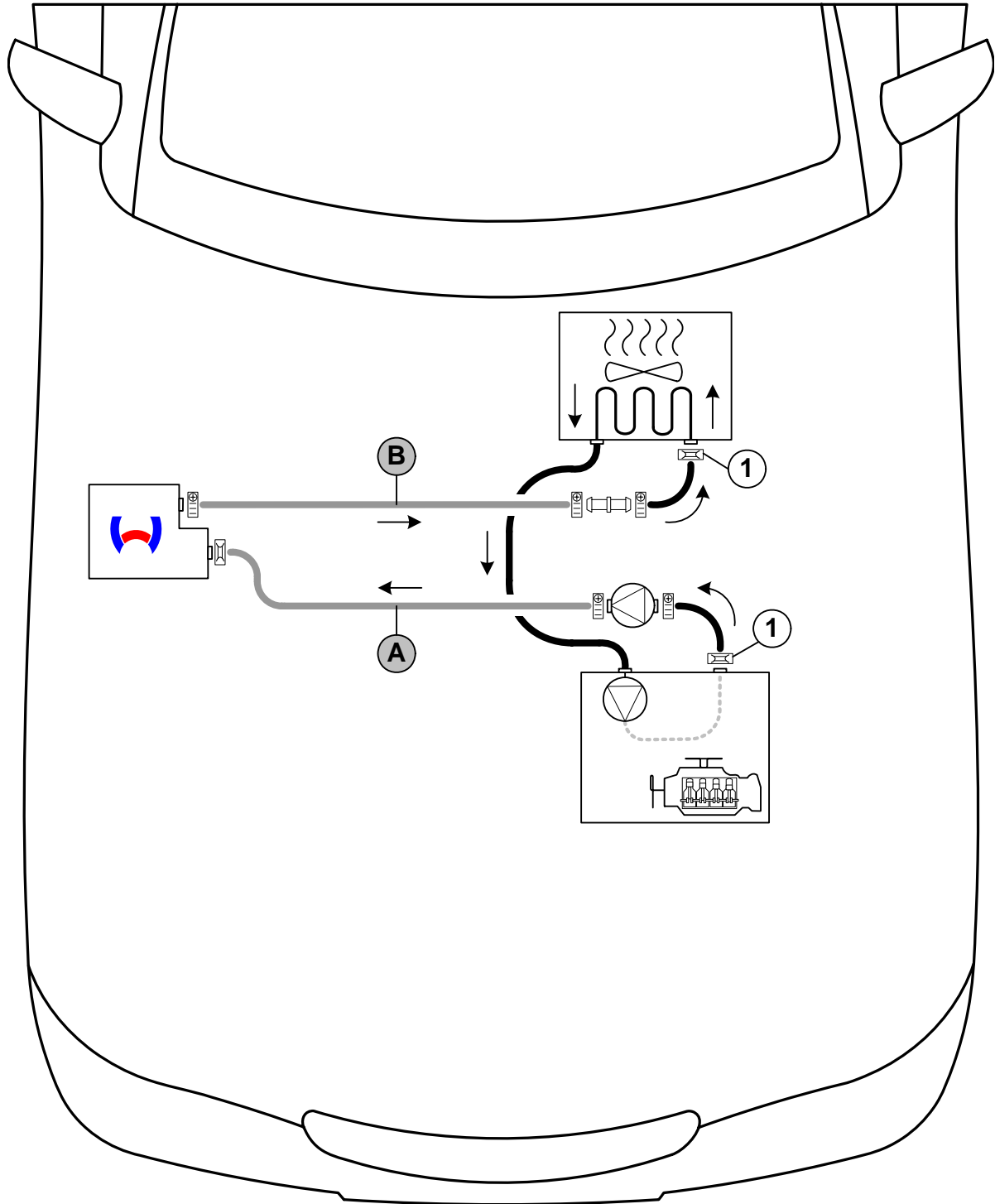
Installing heater unit







### Coolant for diesel engine

**WARNING!**

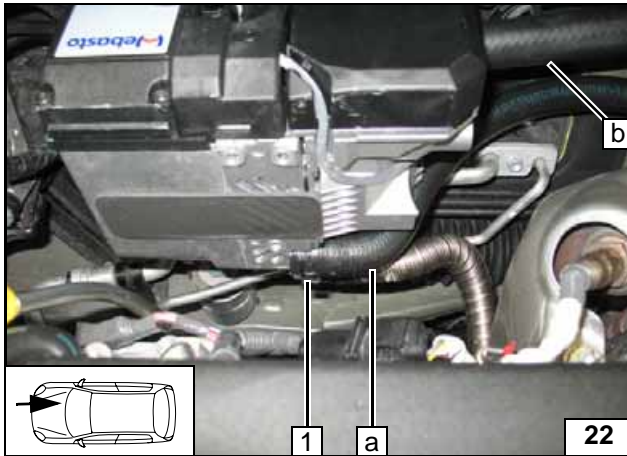
Any coolant running off should be collected using an appropriate container! Route coolant hoses kink-free! Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the coolant hose, the heater unit must be filled with coolant. The connection should be "inline" based on the following diagram:



Coolant routing diagram

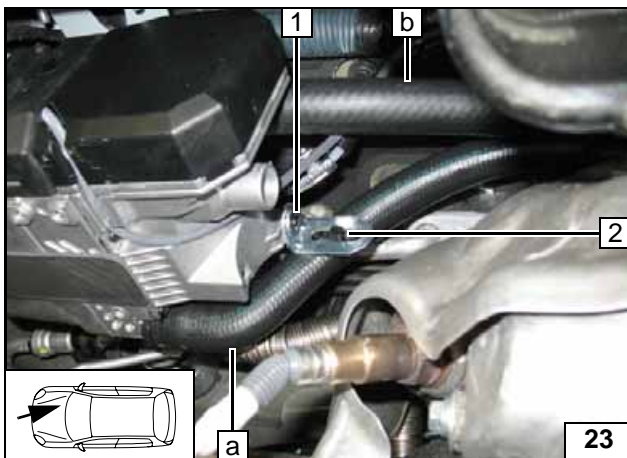
Non-designated spring clip  = 27 mm dia. Connecting pipe  = 18x20 dia.  
 All hose clamps without a specific designation  = 20-27 mm dia.  
 1 = Original vehicle spring clip !





- 1 27 mm dia. spring clip

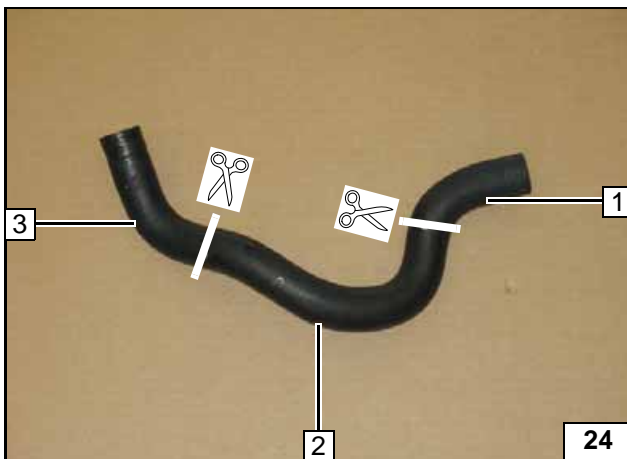
Con-  
nec-  
tion to  
heater unit



- 1 Angle bracket, large diameter washer, Torx screw from removal of circulating pump
- 2 Cable tie

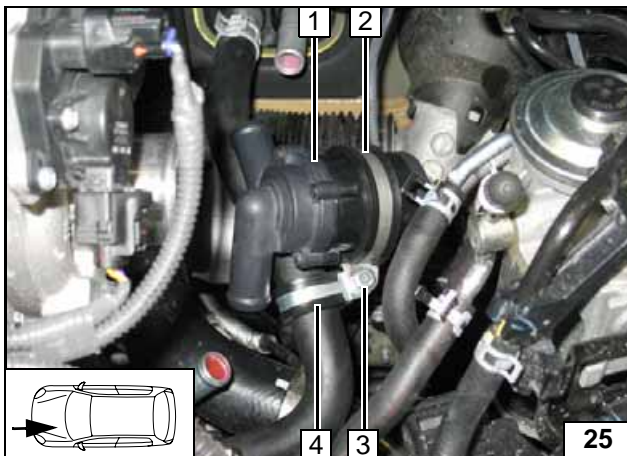


Install-  
ing  
angle  
bracket



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

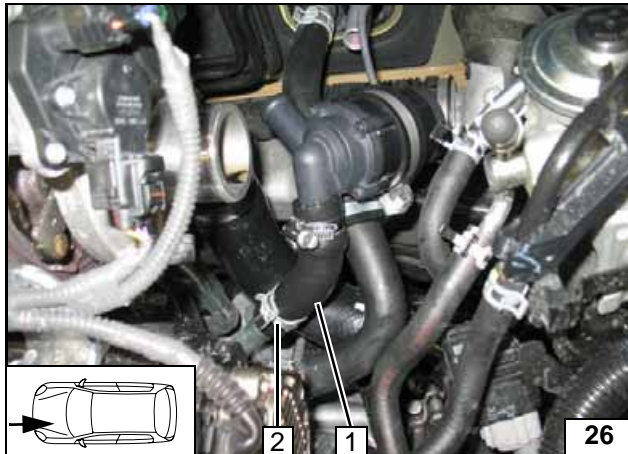
Cut-  
ting  
point



- 1 Circulating pump
- 2 48 mm dia. rubber-coated p-clamp
- 3 M6x20 bolt, flanged nut
- 4 25 mm dia. rubber-coated p-clamp

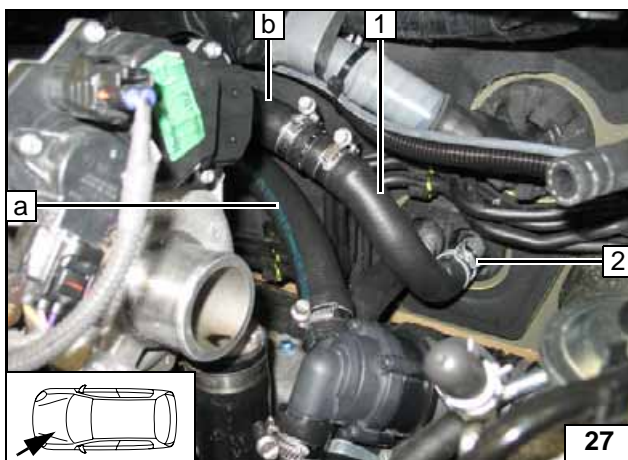
Install-  
ing  
circulating  
pump





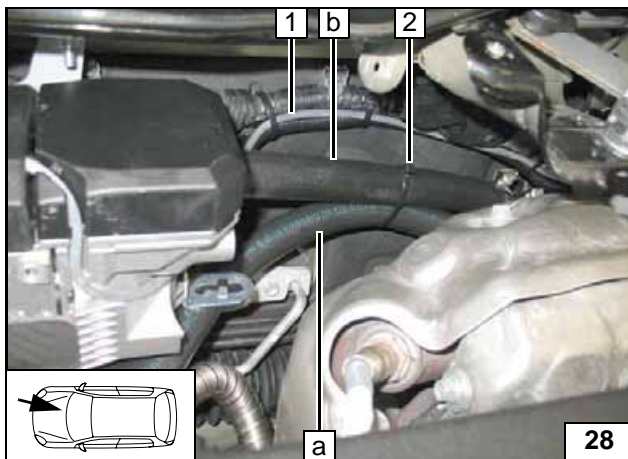
- 1 Engine-outlet hose section
- 2 Original vehicle spring clip

Connect-  
ing engine  
outlet



- 1 Hose section of heat exchanger inlet
- 2 Original vehicle spring clip

Connect-  
ing heat  
exchanger  
inlet

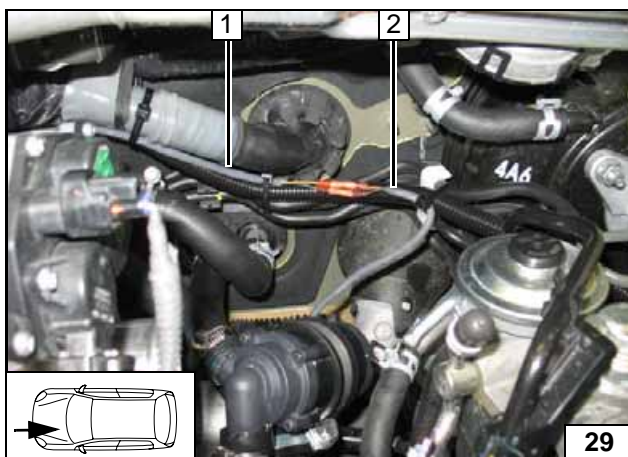


Fasten adapter cable of circulating pump, fuel line in corrugated tube and wiring harness of heater unit **1** on original vehicle wiring harness with cable tie.

- 2 Cable tie



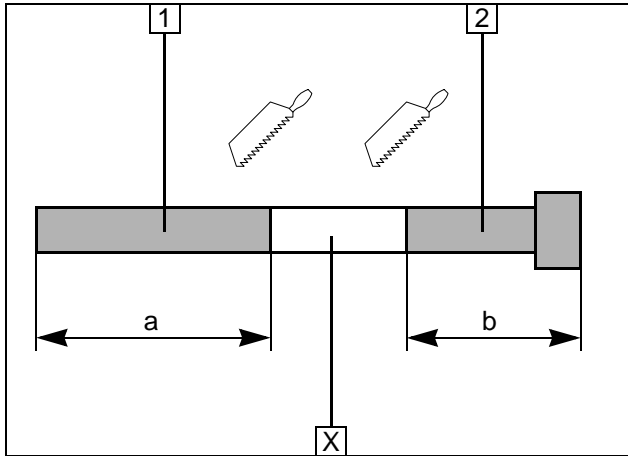
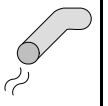
Routing in  
engine  
compartment



Connect cable of circulating pump **2** to same colors of adapter wiring harness of circulating pump **1**.



Connec-  
tion of  
adapter  
wiring har-  
ness of cir-  
culating  
pump

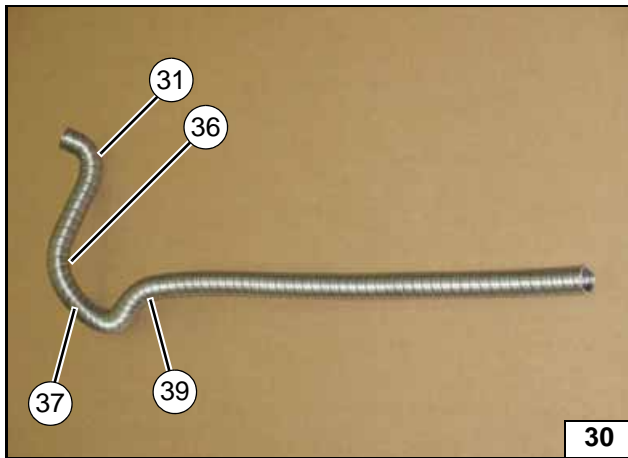


**Exhaust gas**

- 1 Exhaust pipe  
a = 920
- 2 Exhaust end section  
b = 80

Discard section X

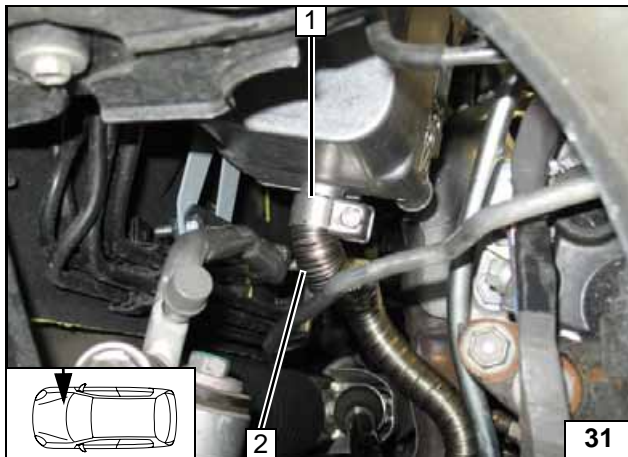
**Preparing exhaust pipe**



Position numbers show following figure numbers with routing of exhaust pipe to be specially observed.

Distance between position 31 and 36 is approx. 150 mm!

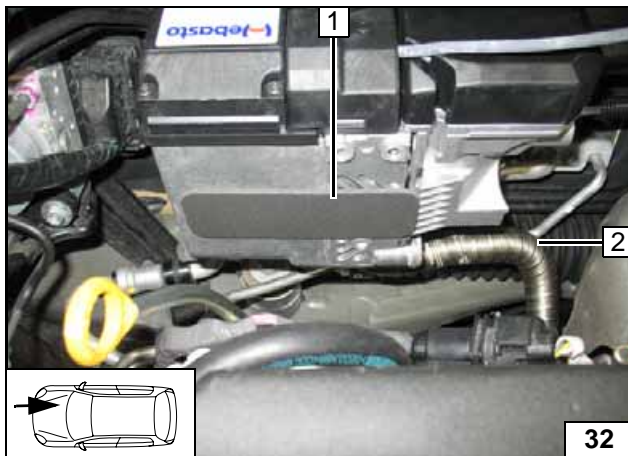
**Shaping exhaust pipe**



Bend exhaust pipe by 90° at position 2. Ensure freedom of movement to air conditioner line.

- 1 Hose clamp
- 2 Exhaust pipe

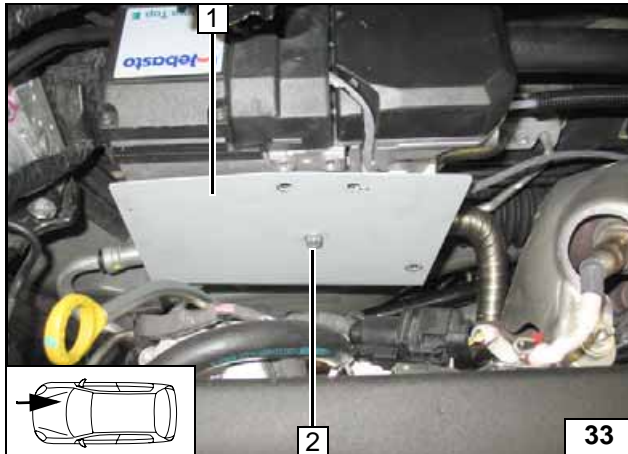
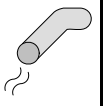
**Installing exhaust pipe**



Bend exhaust pipe by 90° at position 2.

- 1 Pad

**Gluing on pad**

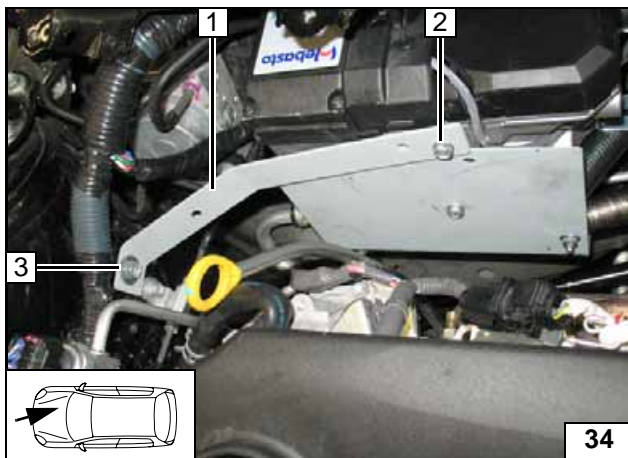


Ensure freedom of movement to air conditioner line.

- 1 Heat guard plate
- 2 Eject screw, washer [2x]

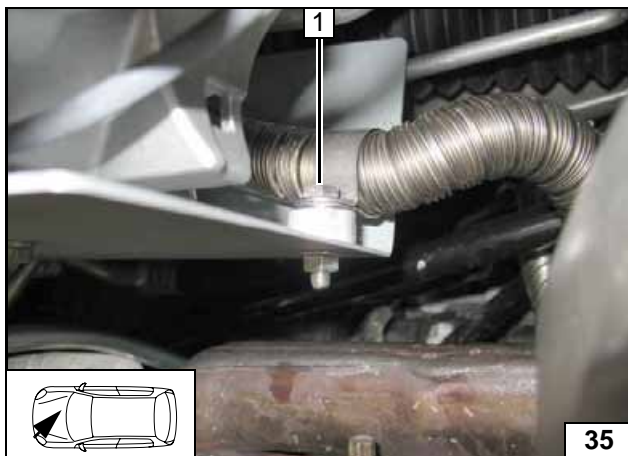


Installing heat guard plate



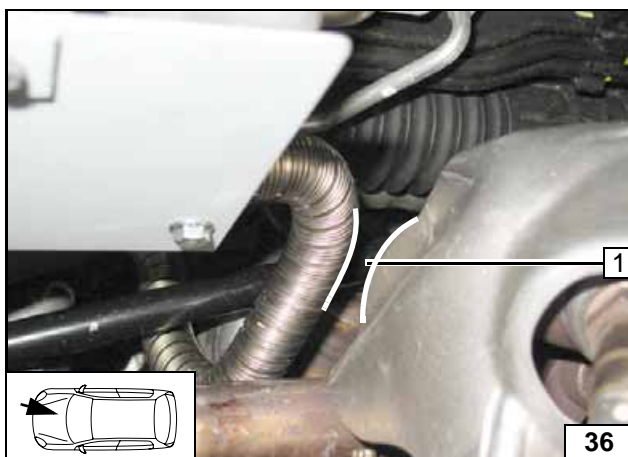
- 1 Strut
- 2 Eject screw
- 3 Original vehicle bolt

Installing strut



- 1 M6x25 bolt, p-clamp, 10 mm shim, flanged nut

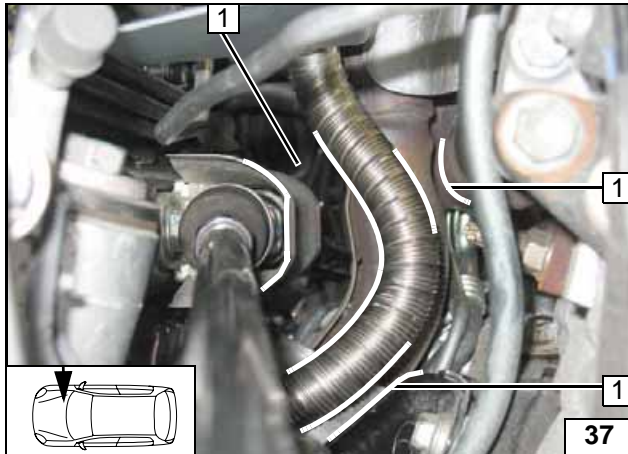
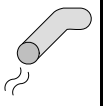
Installing exhaust pipe



Ensure sufficient spacing [20 mm] to adjacent components at position 1.



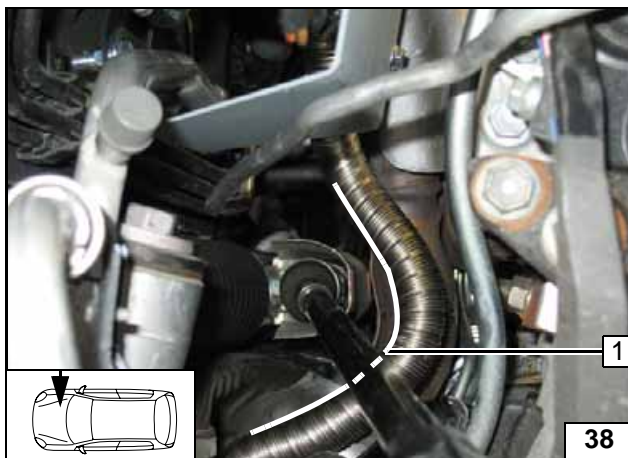
Aligning exhaust pipe



Ensure sufficient spacing [20 mm] to adjacent components at position 1 [3x] in loaded and unloaded state.  
Steering gear has **left-hand stop!**



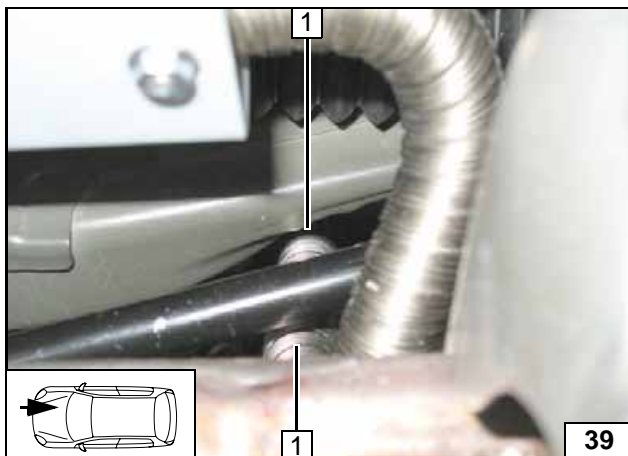
Aligning exhaust pipe



Ensure sufficient spacing [20 mm] to steering track rod at position 1 in loaded and unloaded state.  
Steering gear has **right-hand stop!**



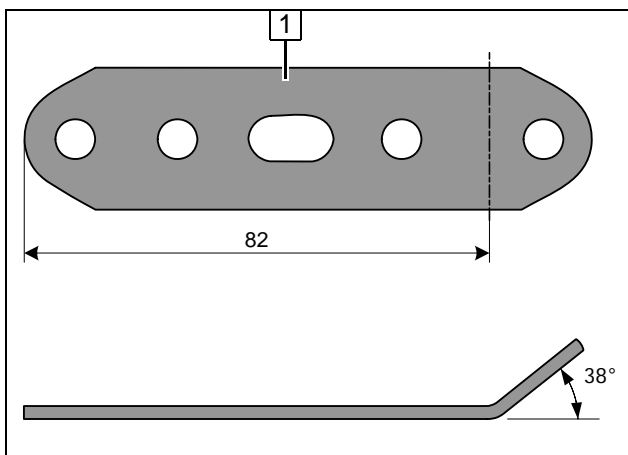
Aligning exhaust pipe



Ensure sufficient spacing [20 mm] to adjacent components at position 1 [2x] in loaded and unloaded state.  
Steering gear has **right-hand stop!**



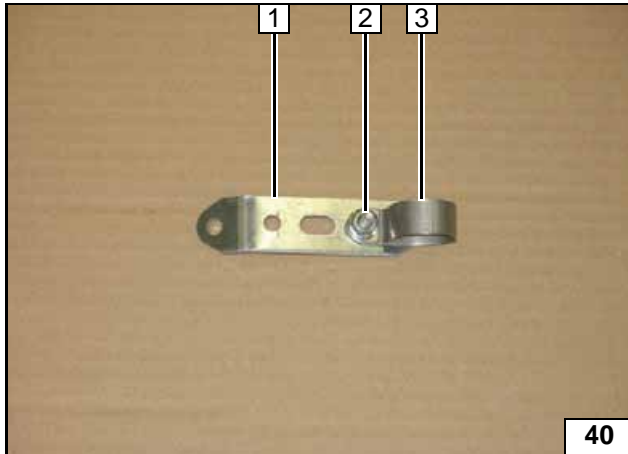
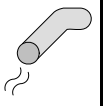
Aligning exhaust pipe



1 Perforated bracket A



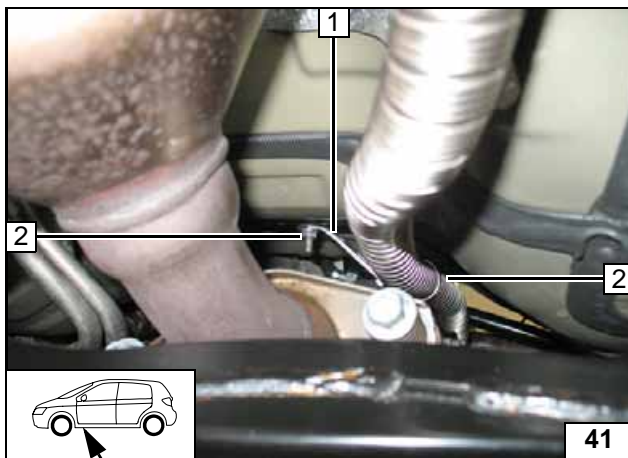
Bending perforated bracket



- 1 Perforated bracket A
- 2 M6x20 bolt, flanged nut
- 3 P-clamp



**Premounting perforated bracket**



Ensure sufficient spacing [20 mm] to adjacent components at position 2.

- 1 Perforated bracket A premounted
- 2 Original vehicle stud bolt, flanged nut

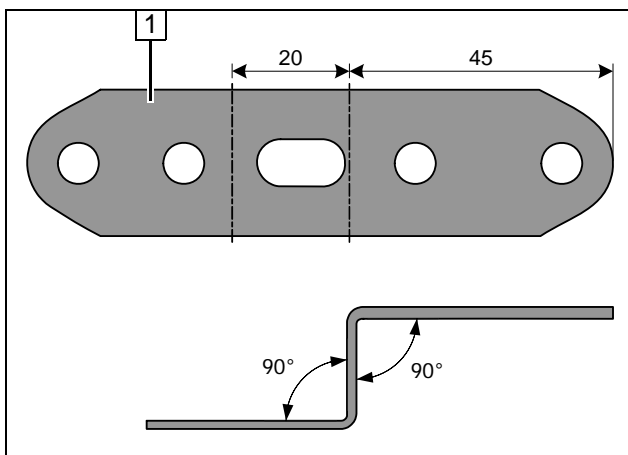


**Installing perforated bracket**



- 1 Original vehicle hole; mount rivet nut

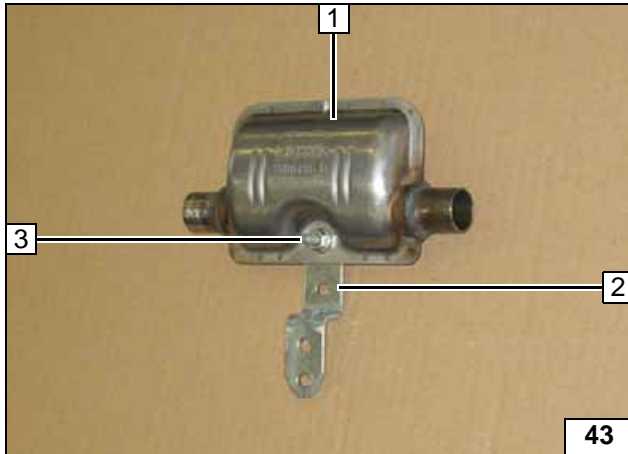
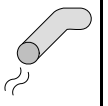
**Installing rivet nut**



- 1 Perforated bracket B



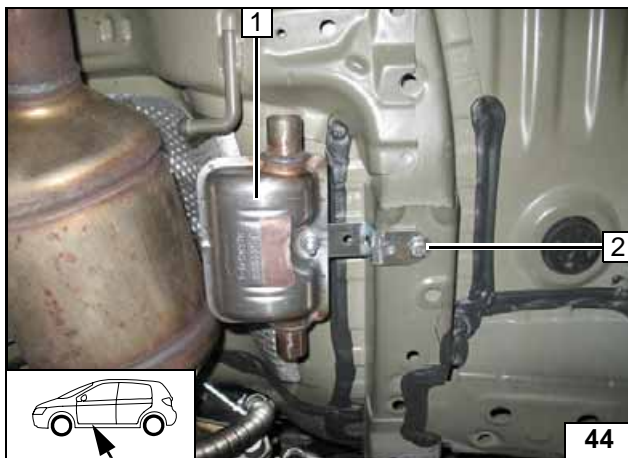
**Bending perforated bracket**



- 1 Muffler
- 2 Perforated bracket B
- 3 M6x20 bolt, M6 flanged nut

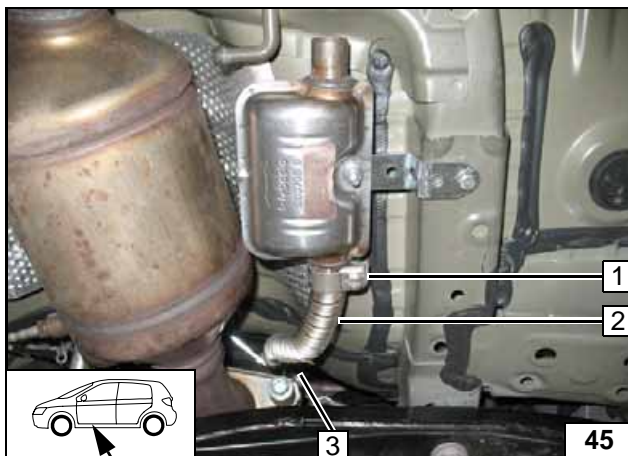


**Preassembling muffler**



- 1 Muffler premounted
- 2 M6x20 bolt, spring lockwasher

**Installing muffler**

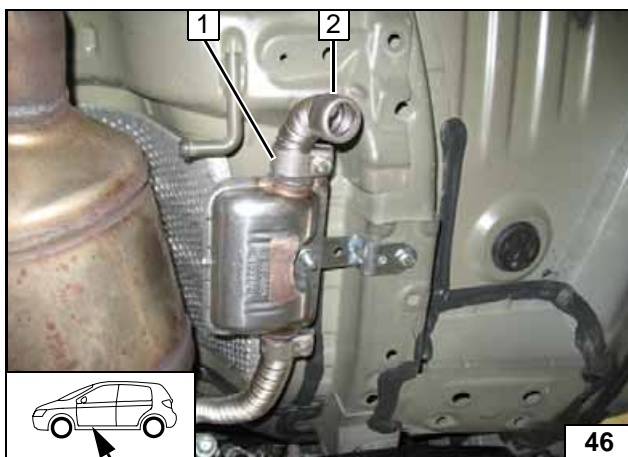


Ensure sufficient spacing [20 mm] to adjacent components at position 3.

- 1 Hose clamp
- 2 Exhaust pipe

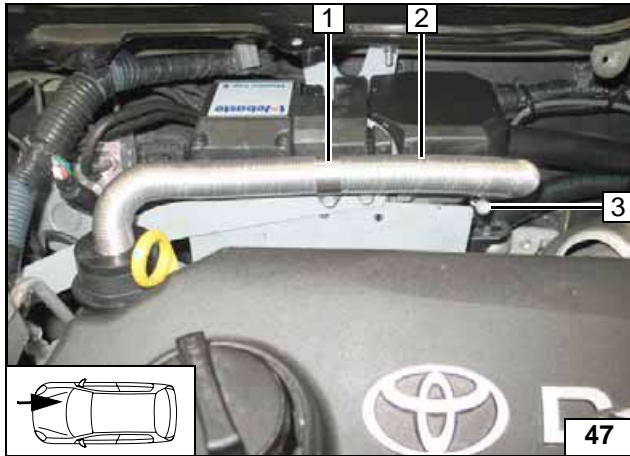
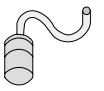


**Installing exhaust pipe**



- 1 Hose clamp
- 2 Exhaust end section

**Installing exhaust end section**



**Combustion air**

- 1 P-clamp, Ejot screw
- 2 Combustion air pipe
- 3 27 mm dia. clamp

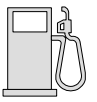
Installing intake pipe



- 1 Muffler
- 2 Retaining clip in hole



Installing muffler



**Fuel**

**CAUTION!**

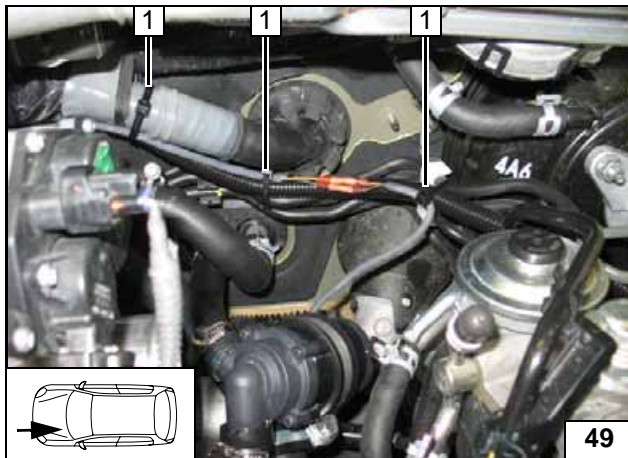
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off with an appropriate container.

Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties. Mount the fuel line and wiring harness with rub protection on sharp edges.

**WARNING!**

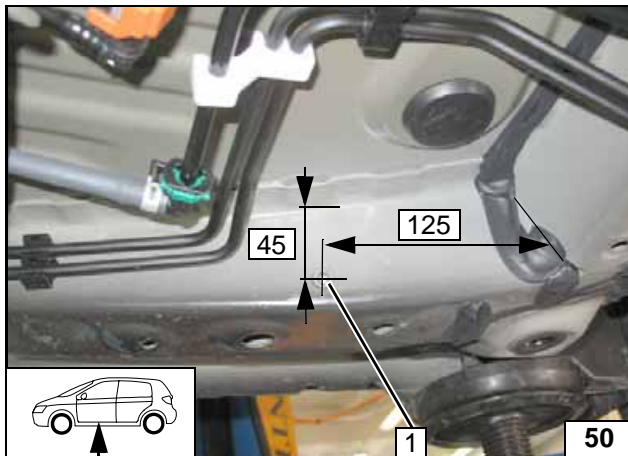
The fuel line and wiring harness are routed to the metering pump in as shown in the wiring harness routing diagram.



Fasten adapter cable of circulating pump, fuel line in corrugated tube and wiring harness of heater unit 1 on original vehicle wiring harness with cable tie.

1 Cable tie [3x]

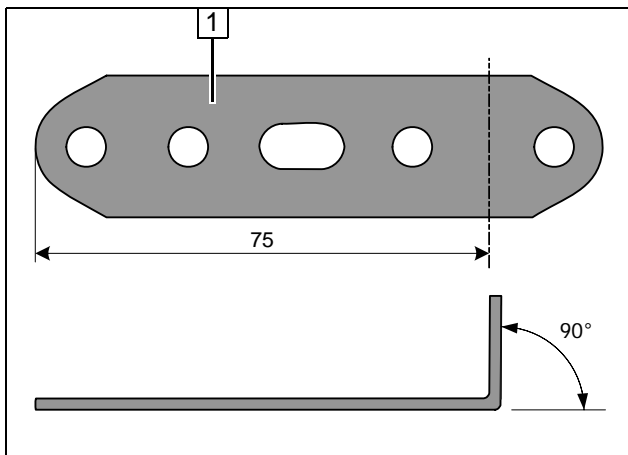
Installing lines



1 9.1 mm dia. hole; M6 rivet nut



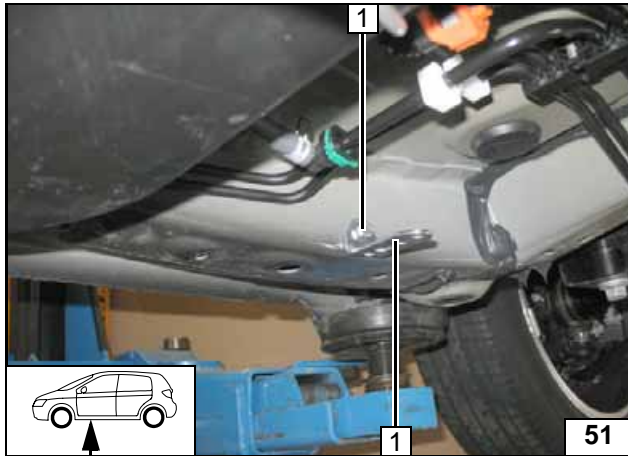
Installation location of metering pump



1 Perforated bracket

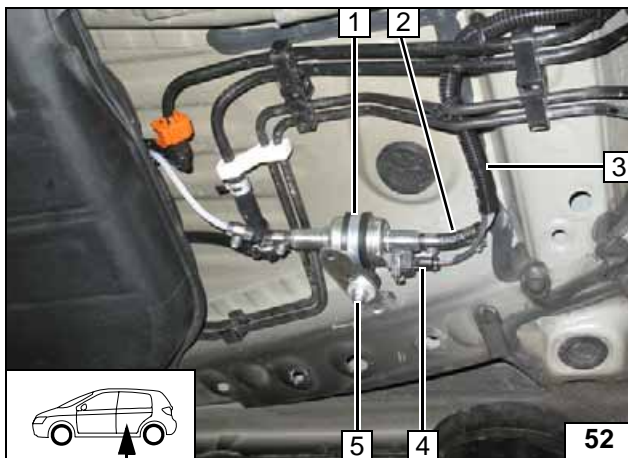
Bending perforated bracket





- 1 M6x20 bolt, spring lockwasher
- 2 Perforated bracket

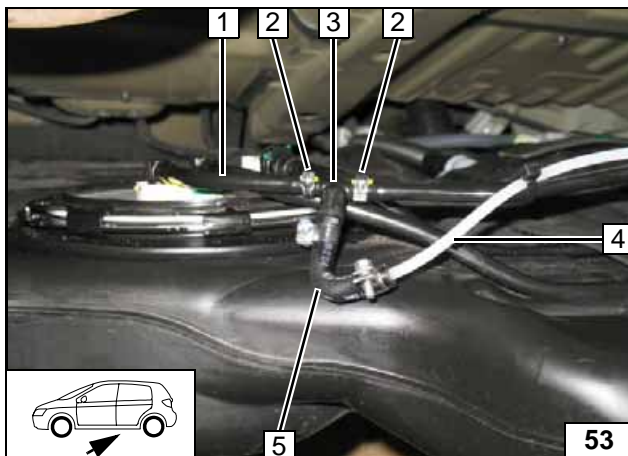
**Installing perforated bracket**



- 1 Metering pump, rubber-coated p-clamp, silent block, flanged nut
- 2 Hose section, 10 mm dia. clamp [2x], fuel line
- 3 Corrugated tube 2, fuel line, wiring harness of metering pump
- 4 Wiring harness of metering pump, connector mounted
- 5 Flanged nut, large diameter washer



**Installing and connecting metering pump**

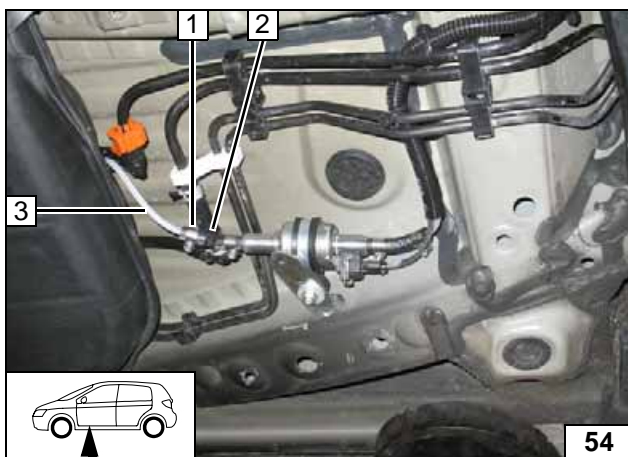


Lower fuel tank in accordance with manufacturer's specifications.  
Cut off fuel supply line 1 at position 3.

- 2 8 mm dia. clamp [2x]
- 3 6x5x6 fuel standpipe
- 4 Fuel line
- 5 90° hose section, 10 mm dia. clamp [2x]



**Removing fuel**

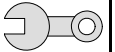


Install fuel tank in accordance with manufacturer's specifications.  
Check the position of the components; adjust if necessary. Check that they have free clearance.

- 1 Hose section, 10 mm dia. clamp [2x]
- 2 Cable tie
- 3 Fuel line



**Connecting metering pump**



## Final Work

### WARNING!

Mount removed parts in reverse order.

Check all hoses, clamps and all electrical connections for firm seating.

Secure all loose cables using cable ties.

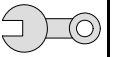
Only use manufacturer-approved coolant.

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

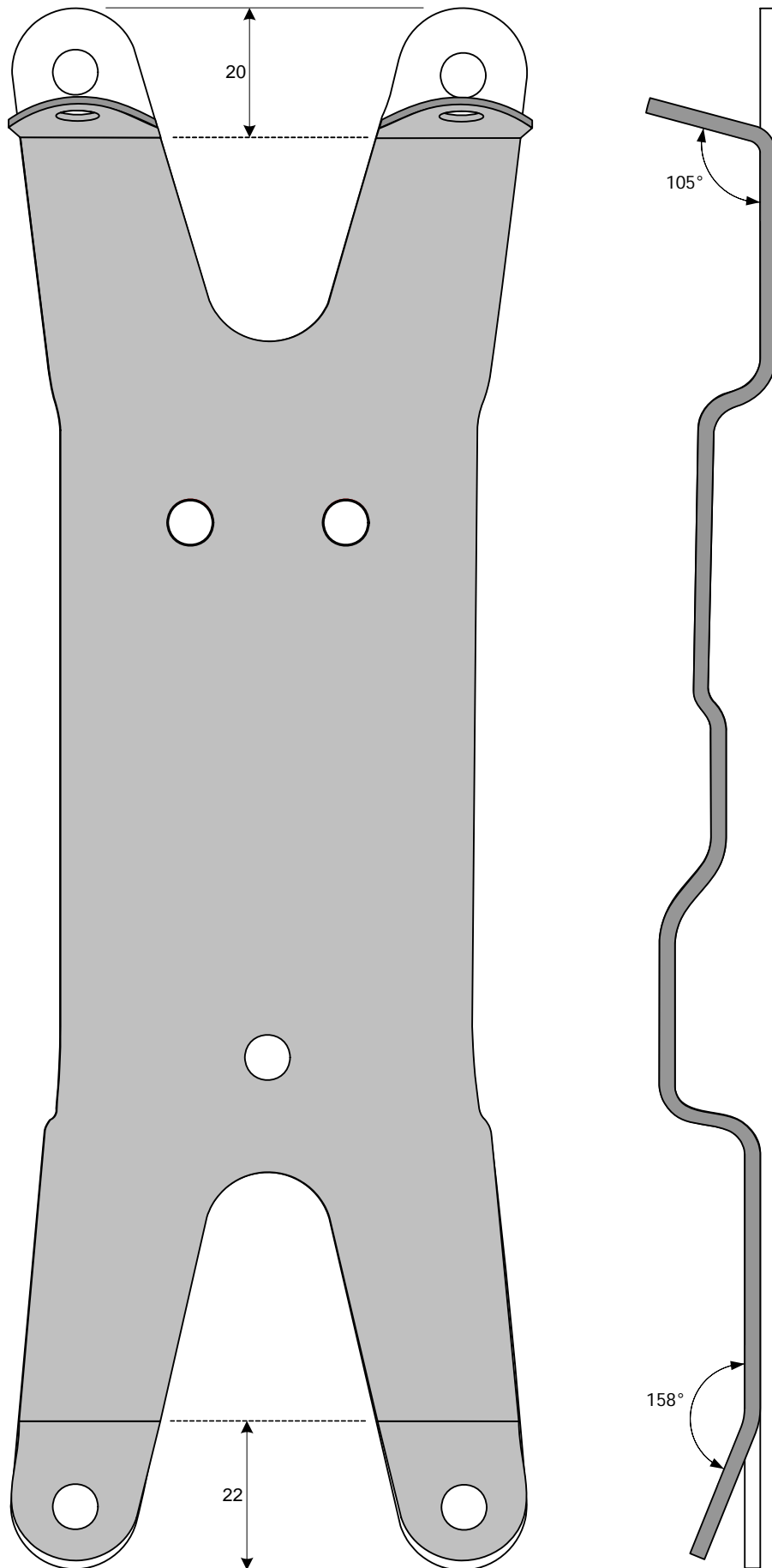
- Connect the battery.
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer.
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Check the proper operation of the additional heater, see the operating instructions/installation instructions.
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.



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<http://www.webasto.de>



Template for Bracket



## Operating Instructions for End Customer

Please remove page and add to the vehicle operating instructions.

**Note:**



We recommend matching the heating time to the driving time.

Heating time = driving time

**Example:**

For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

On vehicles with passenger compartment monitoring, this must be deactivated during heating!

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

Before parking the vehicle, make the following settings:



The display of the A/C control panel is not active during heater unit operation!

- 1 Set temperature to "HI"
- 2 Set fan to level "1" or max. "2"
- 3 Direct air outlet toward windshield



- 1 Set fan to level "1" or max. "2"
- 2 Air outlet to windshield
- 3 Set temperature to "max."



**Automatic air-conditioning**

**Manual air-conditioning**