

# Water Heater Unit



**Thermo Top E Additional Heater** e1 00 0003

**Thermo Top C Additional Heater** e1 00 0002

**Thermo Top P Additional Heater** e1 00 0104

## Installation Instructions

### Toyota Auris

Diesel

from Model Year 2007

For left-hand drive vehicles only



#### **WARNING!**

Hazard warning:

Incorrect installation or repair of Webasto heating systems may cause a fire or result in the emission of carbon monoxide, which can be fatal. Serious or fatal injuries can be caused as a result.

Specialist company training, technical documentation, 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.

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**Validity**

Manufacturer	Model	Type	EG-BE No./ABE
Toyota	Auris	E15	e11 * 2001 / 116 * 0299

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
1AD-FTV	Diesel	93	1998

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 Auris Diesel	1312801A

### 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 Auris Diesel vehicles - for validity, see page 2 - from model year 2007 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 should be fitted with edge protectors (split-open plastic hose).

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

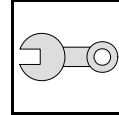
## Special Tools

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

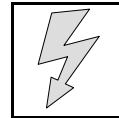
**Explanatory Notes on Document**

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.

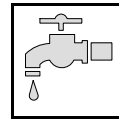
**Mechanical system**



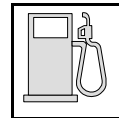
**Electrical system**



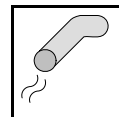
**Coolant connection**



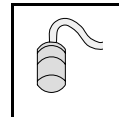
**Fuel connection**



**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.



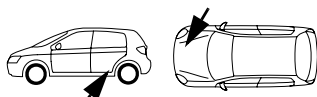
Specific risk of fire or explosion.



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



Reference to a special technical feature.



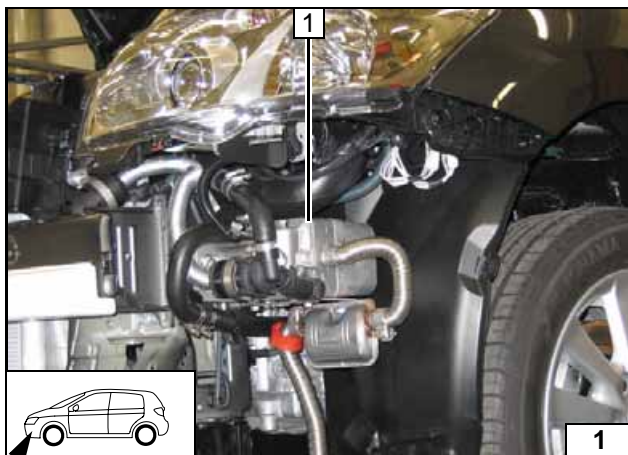
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

**Preliminary Work**

**WARNING!**

- Open the fuel tank cap, ventilate the 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.
- Completely remove the battery
- Remove the air filter together with the intake hose.
- Remove the coolant reservoir cap.
- Remove the bumper.
- Remove the underride protection
- Remove the side wheel well trim on the left
- Remove the footwell trim on the driver's side

Remove page 25 "Operating Instructions for End Customer" and insert with vehicle operating instructions.



**Heater unit installation location**

1 Heater unit

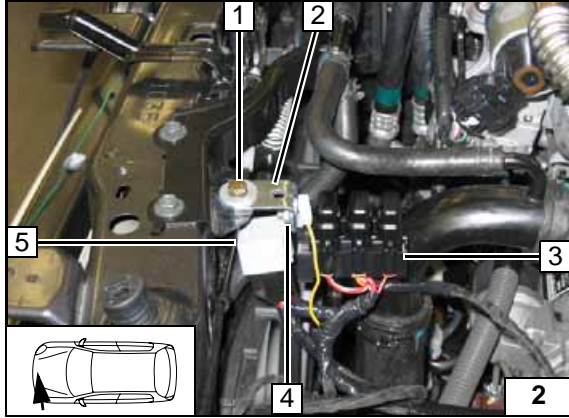
**Installation location**



**Electrical Connections**

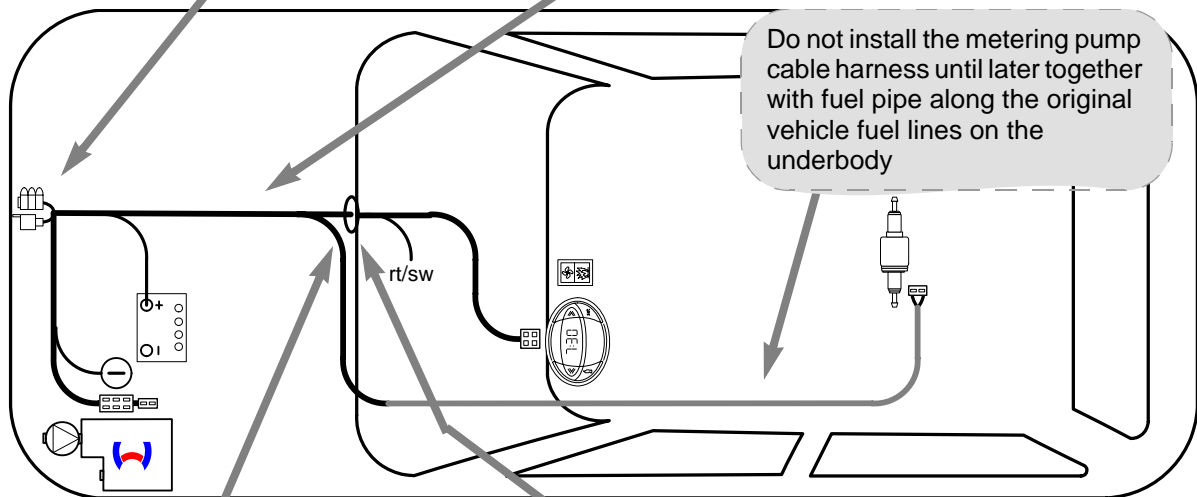
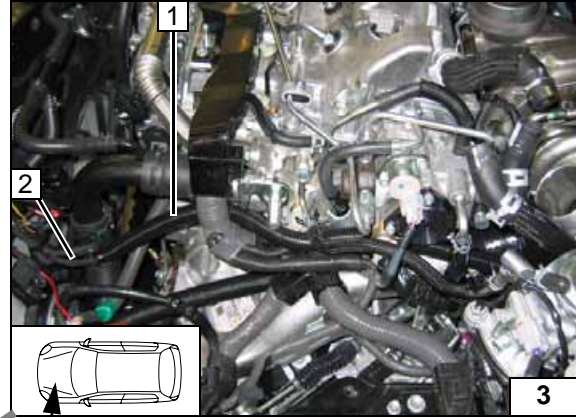
**Fuse holder, K3 relay**

- 1 M6x20 bolt, spring lockwasher, large diameter washer on existing thread
- 4 M5x16 bolt, large diameter washer, fuse holder 3, angle bracket 2, K3 relay 5, M5 flanged nut

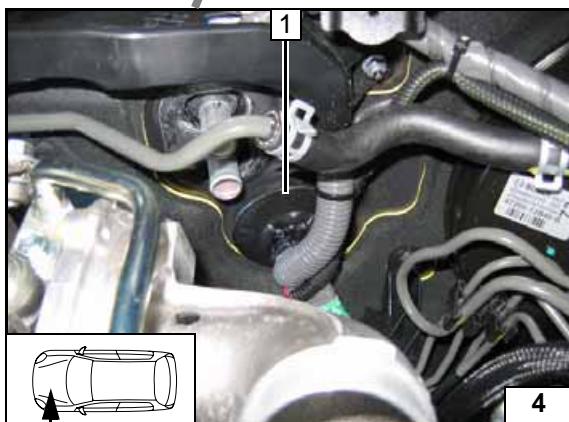


**Wiring harness routing**

- 1 Shorten corrugated tube to 700 mm
- 2 Pull wiring harness of fan controller and digital timer into corrugated tube and route to firewall together as shown

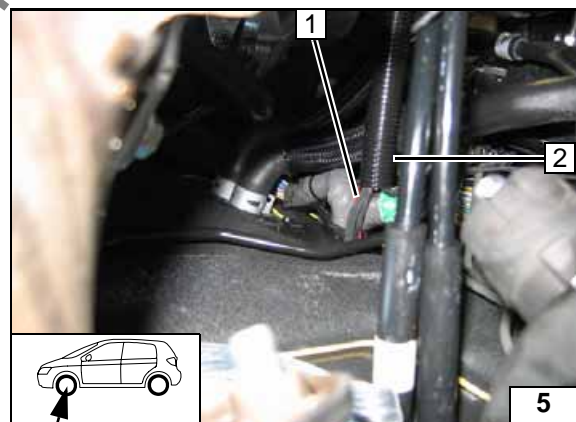


**Wiring harness installation diagram**



**Wiring harness pass through**

- 1 Protective rubber plug



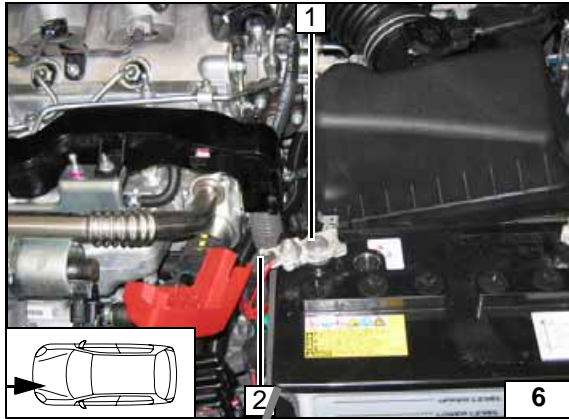
**Wiring harness pass through**

- 1 Wiring harness of digital timer and fan controller
- 2 Corrugated tube



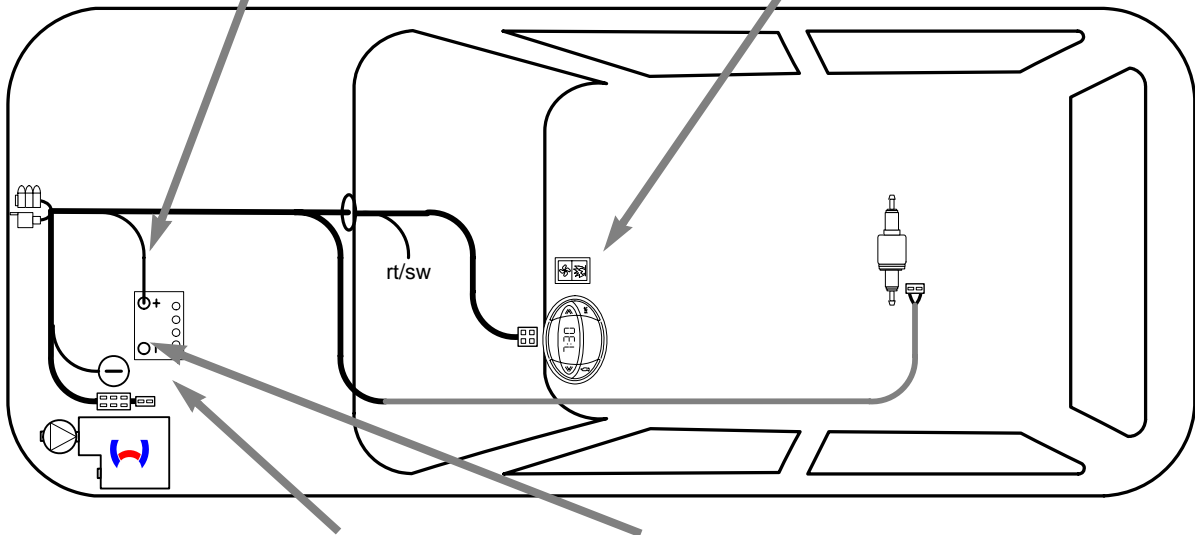
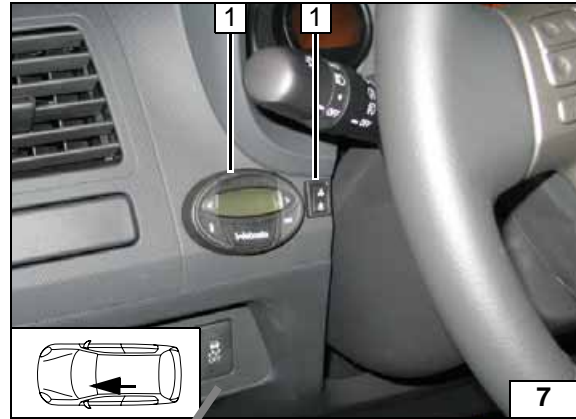
**Positive cable**

- 1 Positive battery terminal
- 2 Cut positive wire to length, 8 mm dia. cable lug

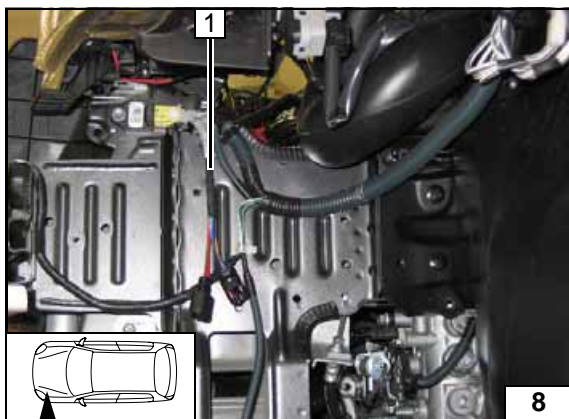


**Digital timer and summer/winter switch option**

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

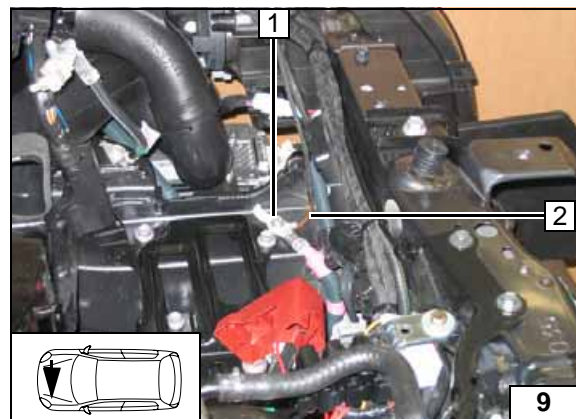


**Wiring harness installation diagram**



**Wiring harness routing**

- 1 Route wiring harness of heater unit to installation location

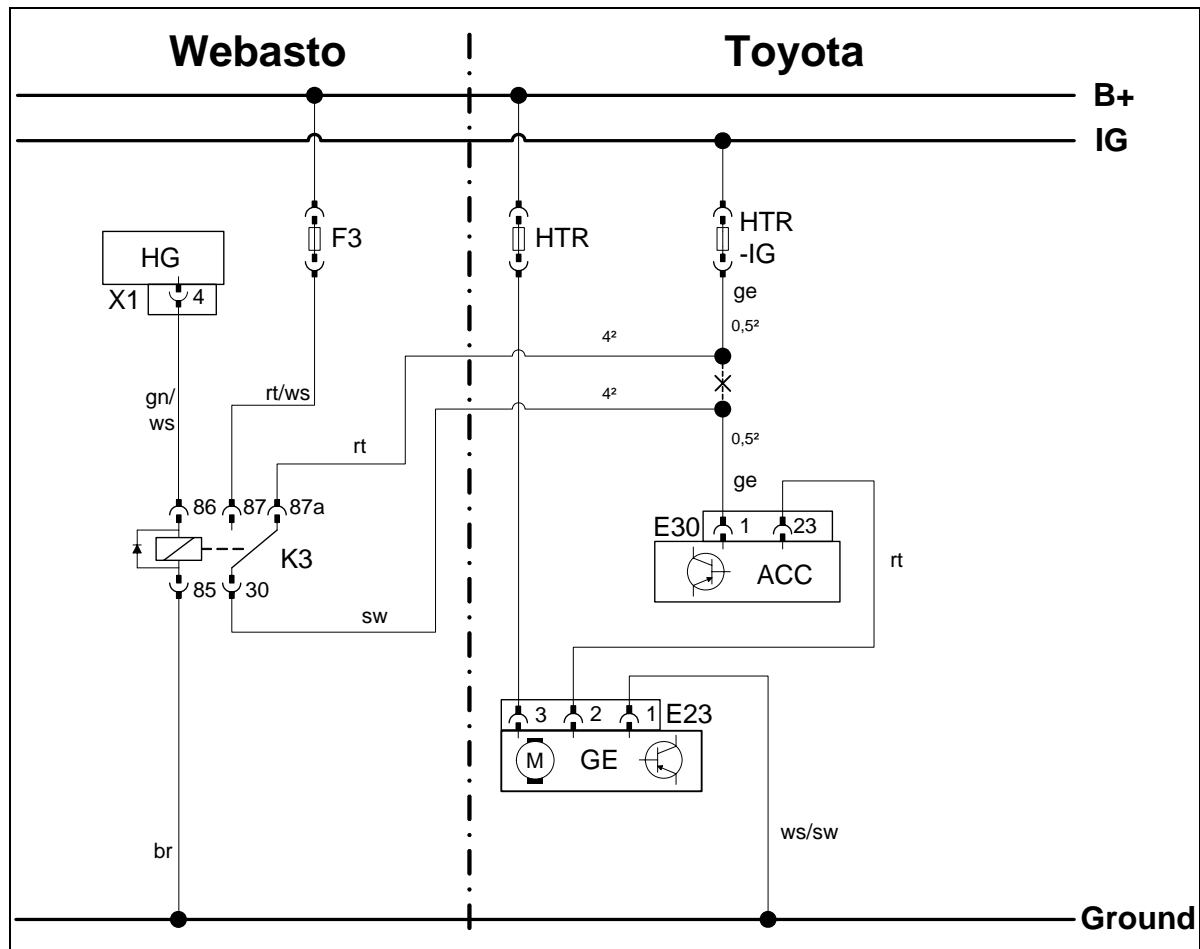


**Ground wire**

- 1 Original M6 bolt of vehicle
- 2 Ground wire



Automatic air-conditioning fan controller

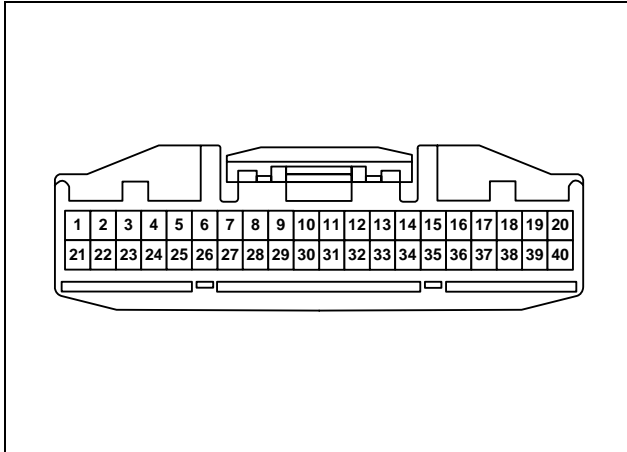


Wiring diagram

Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	ge	Fan unit	rt	red
X1	6-pin connector	ACC	AC control	ws	white
F3	Replace 25 A with 10 A fuse	HTR	Fuse 30A	sw	black
K3	Fan relay	HTR-IG	10 A fuse	br	brown
				gn	green
				ge	yellow
				X	Cutting point
				Wiring colors may vary.	

Legend

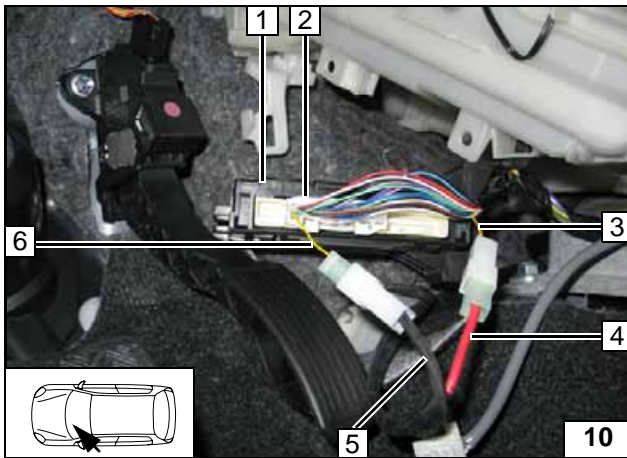




E30 connector on contact side.



**E30 connector**



Connection on Pin 1 from E30 40-pin connector **2** from ACC **1**.  
Produce connections as shown in wiring diagram.

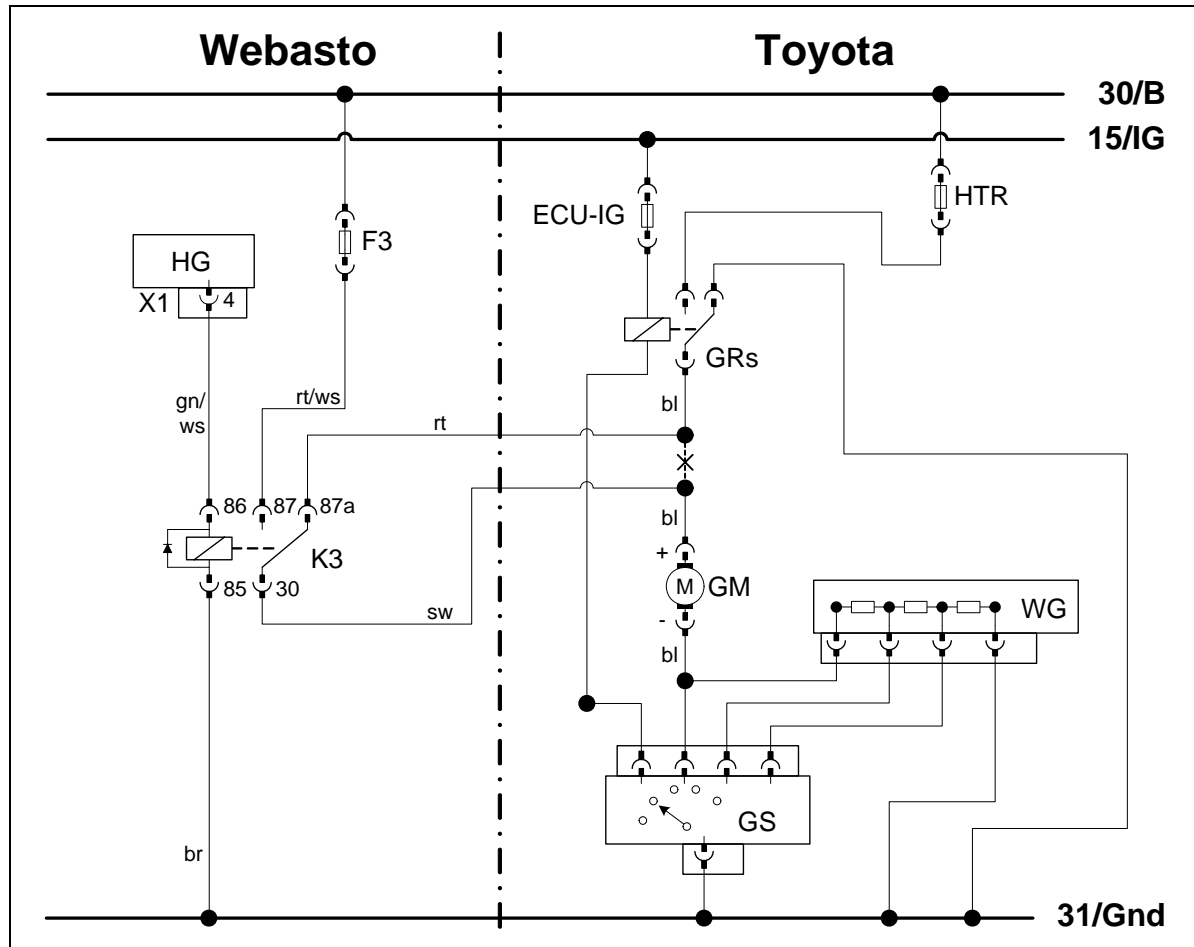


**Con-  
nection to  
ACC**

- 3** Yellow (ge) wire from HTR-IG fuse
- 4** Red (rt) wire to K3/87a
- 5** Black (sw) wire from K3/30
- 6** Yellow (ge) wire to Pin 1 of E30 40-pin connector



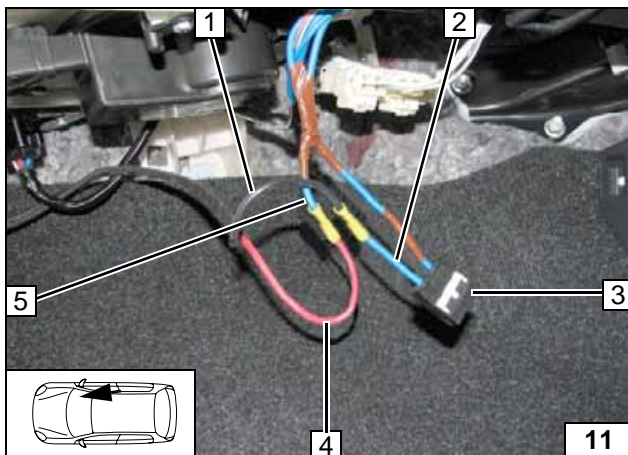
Fan controller for manual air conditioning



**Wiring diagram**

Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater unit connector	GRs	Fan relay	ws	white
F3	Fuse, 25 A	GS	Fan switch	sw	black
K3	Fan relay	WG	Resistor group	br	brown
		HTR	Fuse 50A	gn	green
		ECU-IG	10 A fuse	bl	blue
					Insulate wire ends and tie back
				X	Cutting point
				Wiring colors may vary.	

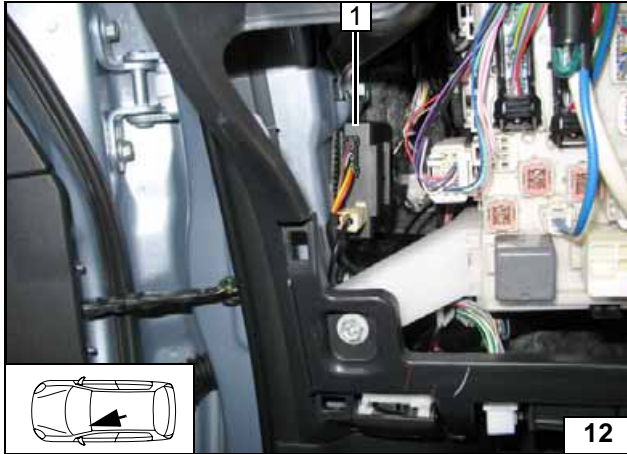
**Legend**



Connection to 2-pin connector 3 from the blower motor.  
Produce connections as shown in wiring diagram.

- 1 Black (sw) wire from K3/30
- 2 Blue (bl) wire fan motor connector
- 4 Red (rt) wire from K3/87a
- 5 Blue (bl) HTR wire

**Con-necting fan motor**

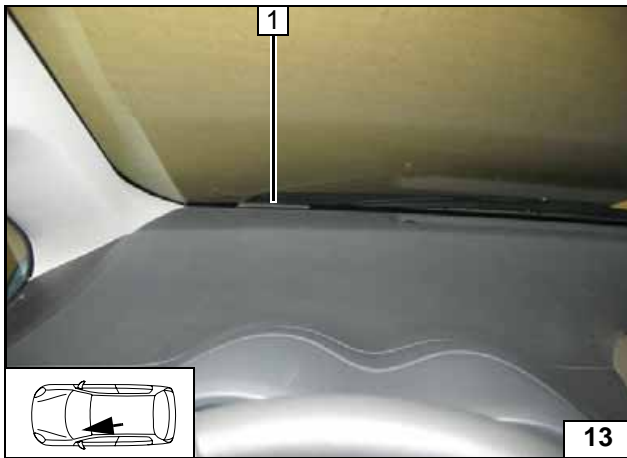


**Remote option (Telestart)**

- 1 Receiver, adhesive tape

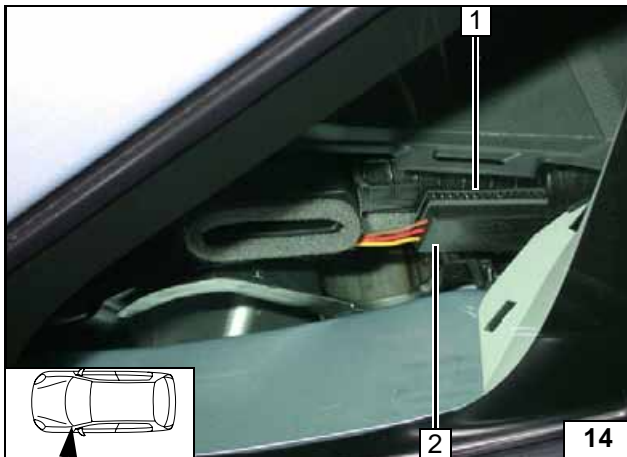


**Installing receiver**



- 1 Antenna

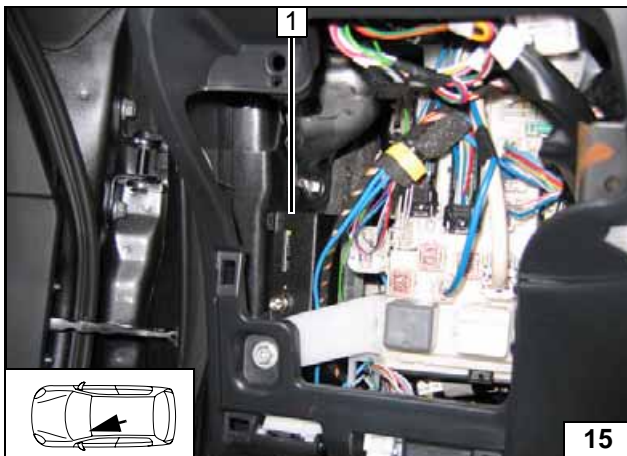
**Installing antenna**



**Temperature sensor for HTM100 only**

- 1 Adhesive tape
- 2 Temperature sensor

**Installing temperature sensor**

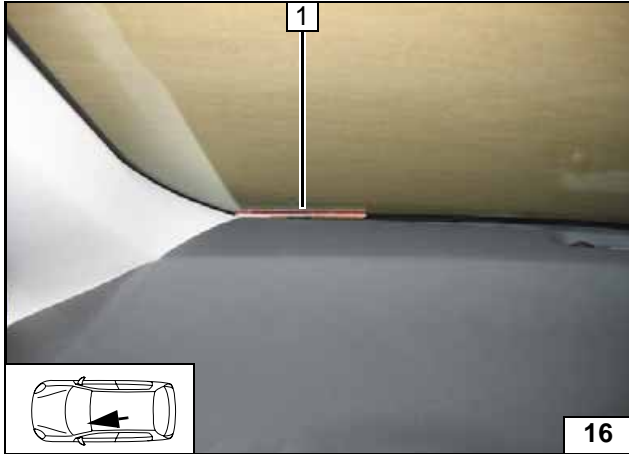


**Remote option (Thermo Call)**

- 1 Receiver, adhesive tape

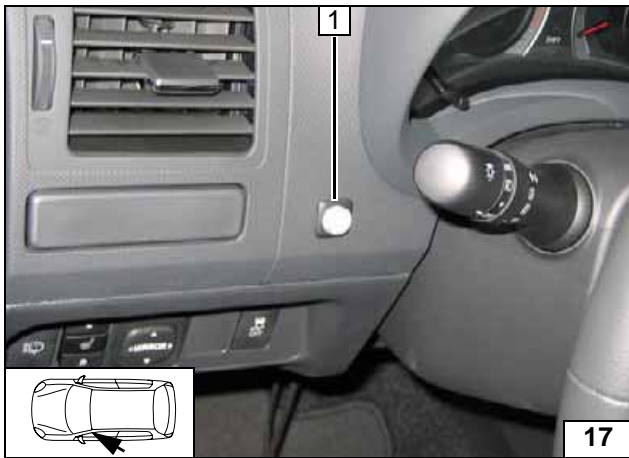


**Installing receiver**



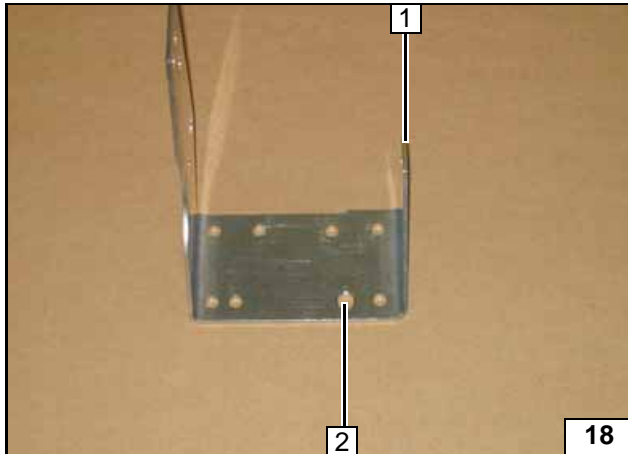
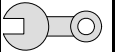
1 Antenna

Installing antenna



1 Pushbutton

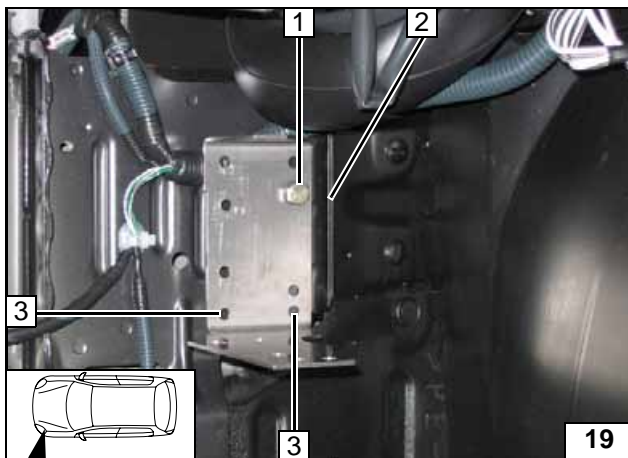
Installing push button



**Preparing installation location**

- 1 Bracket
- 2 Drill out hole to 8.5 mm dia.

Drilling bracket

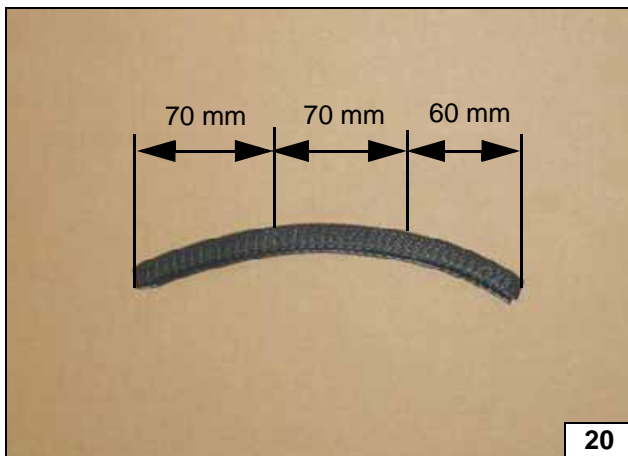


When installing bracket, align it parallel to original vehicle edge 2.

- 1 M8x40 bolt
- 3 Copy hole pattern, drill 7 mm dia. hole



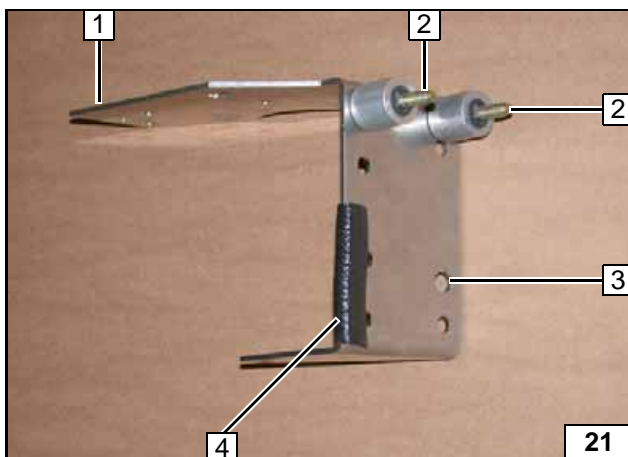
Copying hole pattern



Cut edge protection to length as shown



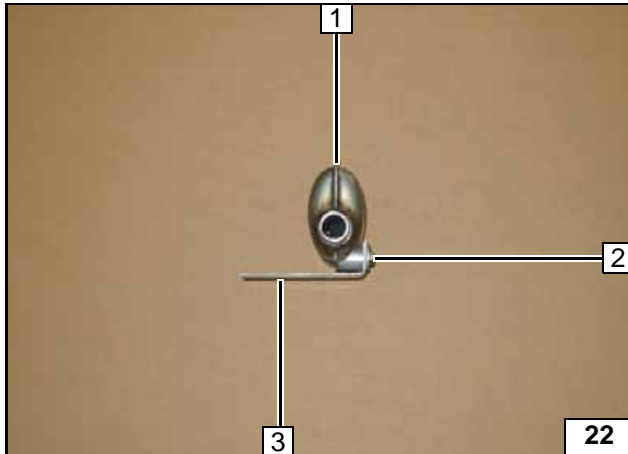
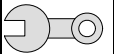
Cutting edge protection to length



**Preparing and installing bracket**

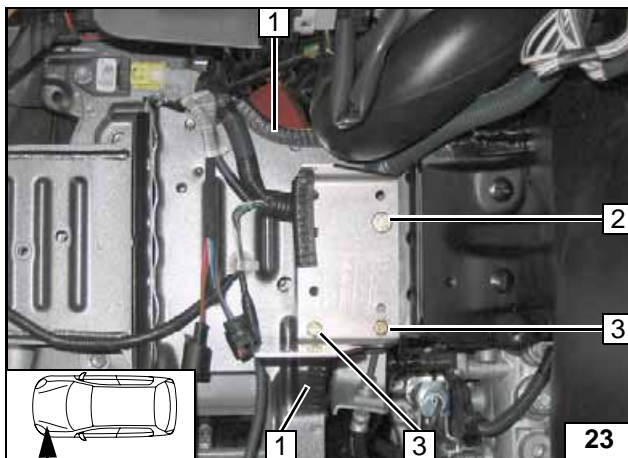
- 1 Bracket
- 2 M6x35 bolt [2x], 20 mm spacer [2x], pin lock [2x]
- 3 Drill out hole to 8.5 mm dia.
- 4 60 mm edge protection

Preparing bracket



- 1 Exhaust muffler
- 2 M6x35 bolt, large diameter washer, angle bracket 3, 20 mm spacer, flanged nut

**Preassembling exhaust muffler**

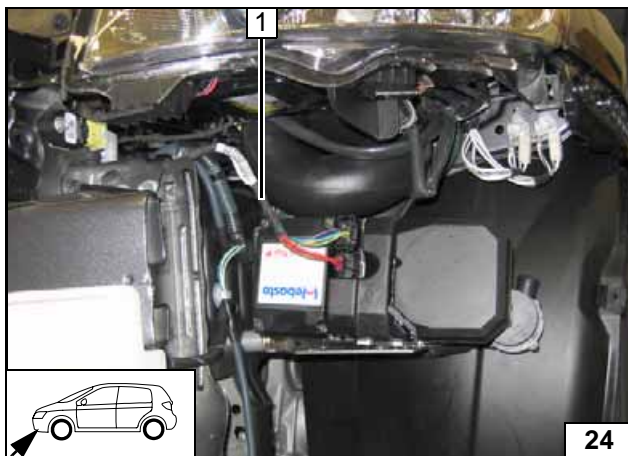


A 20 mm spacer must be positioned between bracket and vehicle at position 2

- 1 Edge protection 70 mm long [2x]
- 2 M8x40 bolt, spring lockwasher, existing thread
- 3 M6x35 bolt [2x], M6 flanged nut [2x]



**Installing bracket**

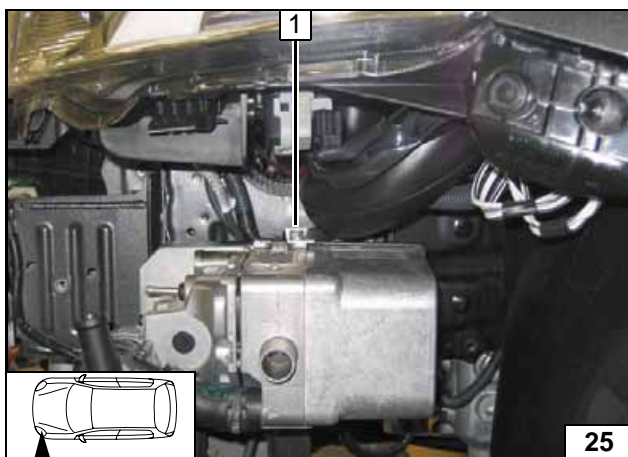


**Installing heater unit**

Wiring harness 1 must be connected before fastening heater unit.

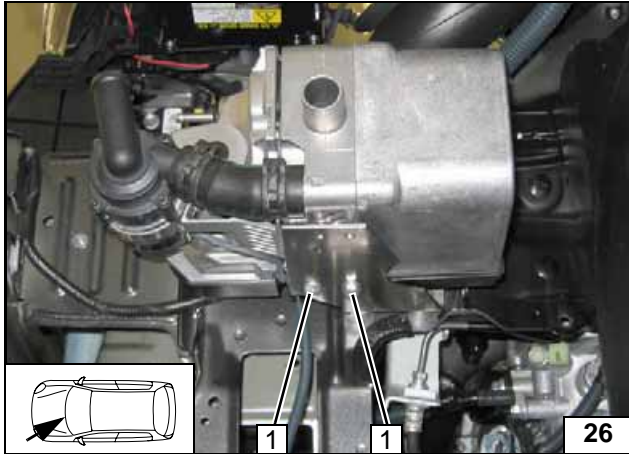
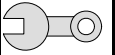


**Connecting wiring harness**



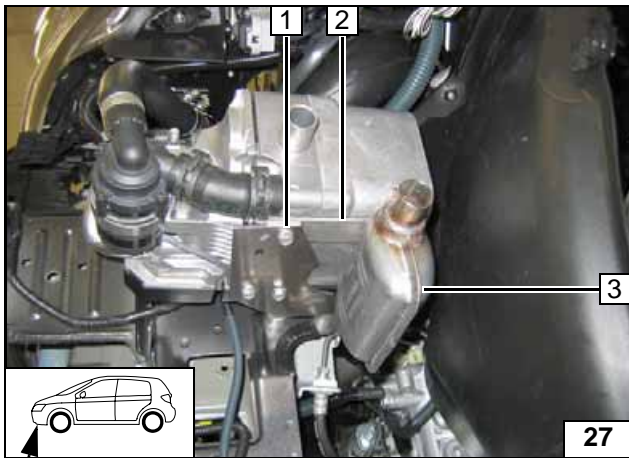
- 1 Loosely mount Eject screw

**Installing heater unit**



1 Loosely mount E-jot screw [2x]

Installing  
heater unit



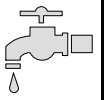
Position angle bracket 2 between heater unit and bracket.



- 1 E-jot screw
- 3 Preassembled exhaust muffler

Tighten all E-jot screws.  
Tighten E-JOT screws to 10 Nm!

Installing  
heater unit  
and  
exhaust  
muffler



### Coolant connection

**WARNING!**

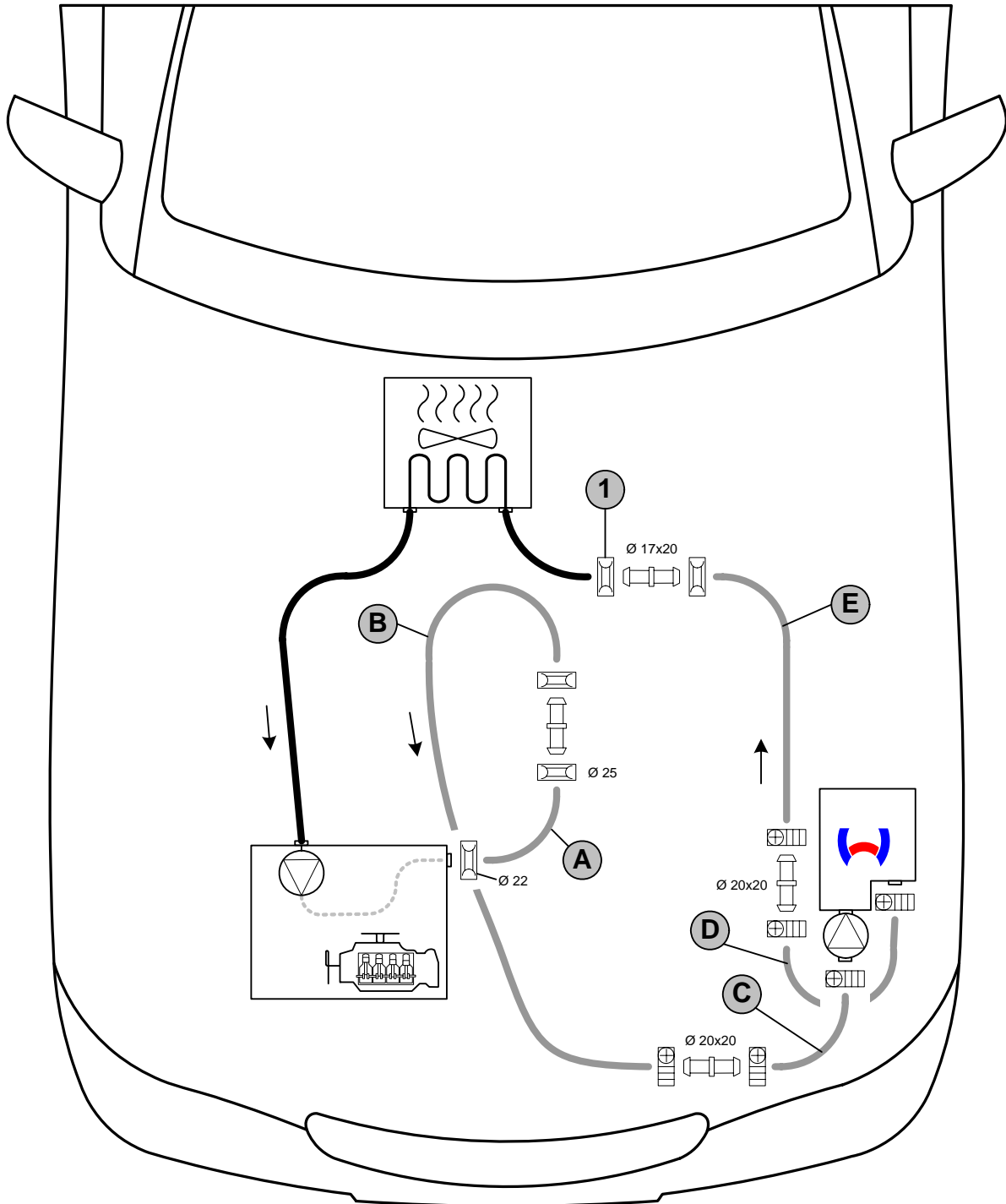
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any coolant running off should be collected using an appropriate container.



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

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:

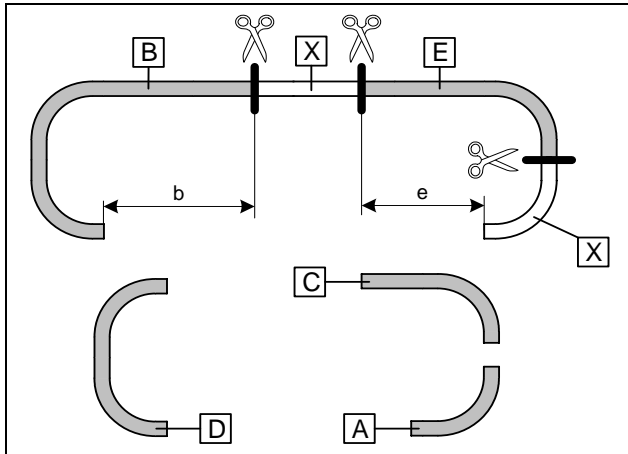


Coolant routing diagram

All spring clips without a specific designation  = 27 mm dia. All connecting pipes without a specific designation = dia. 18x20. All hose clamps without a specific designation  = 20-27 mm dia 1 = original vehicle spring clip





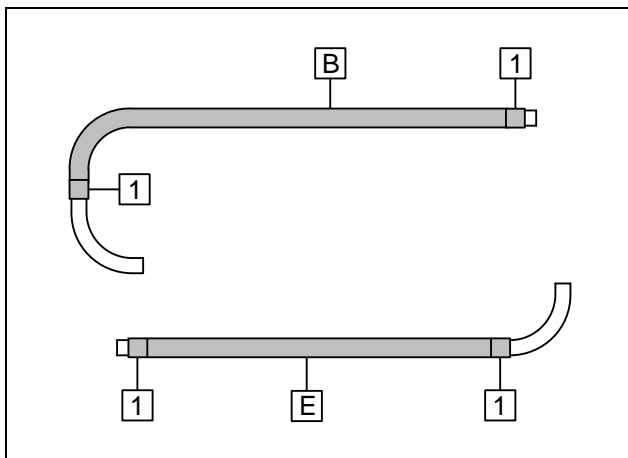


b = 900 mm  
e = 560 mm

Discard section **X**

- A** 15x18 90° molded hose provided
- C** 20x20 90° molded hose provided
- D** 20x20 180° molded hose provided

**Cutting coolant hoses to length**

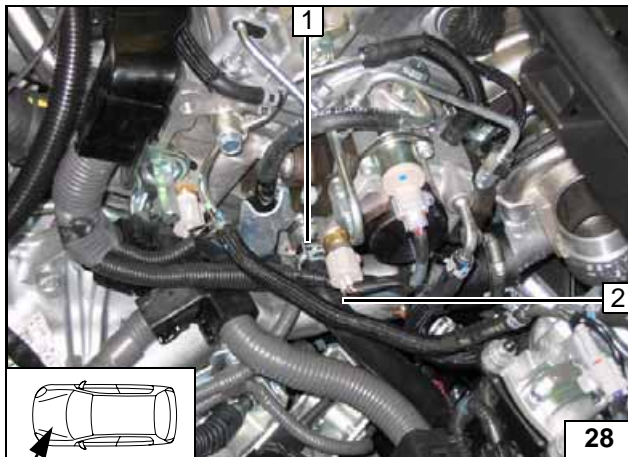


Push braided protection hose onto hose **B** and **E** and cut to length.  
Cut heat shrink plastic tubing to length.

- 1** 25 mm heat shrink plastic tubing [4x]



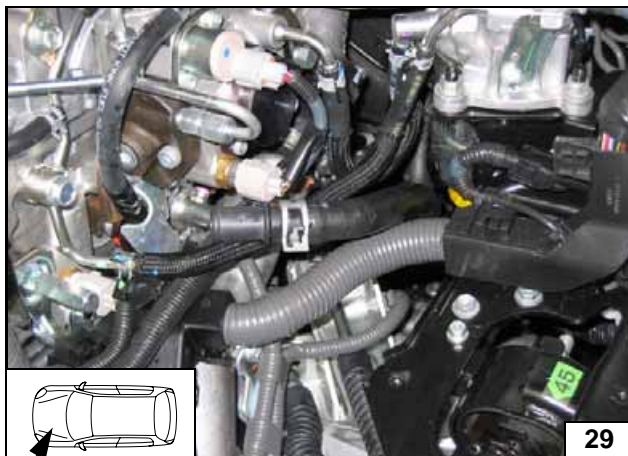
**Preparing coolant hoses**



Pull hose of heat exchanger inlet **2** off engine outlet. Spring clip **1** will be reused.



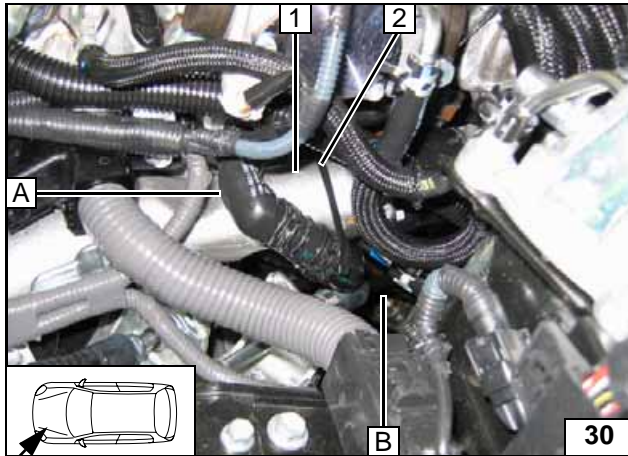
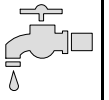
**Cutting point**



Preassemble hose of heat exchanger inlet as shown and then route to firewall.



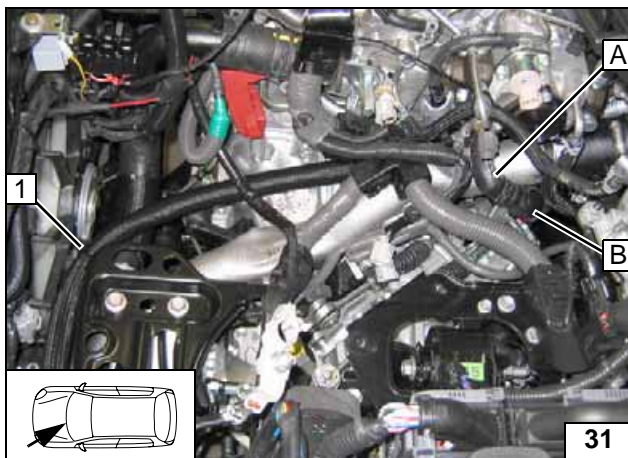
**Preparing hose of heat exchanger inlet**



Route hose **B** between engine and charge-air tube **1** to radiator and connect to hose **A**.

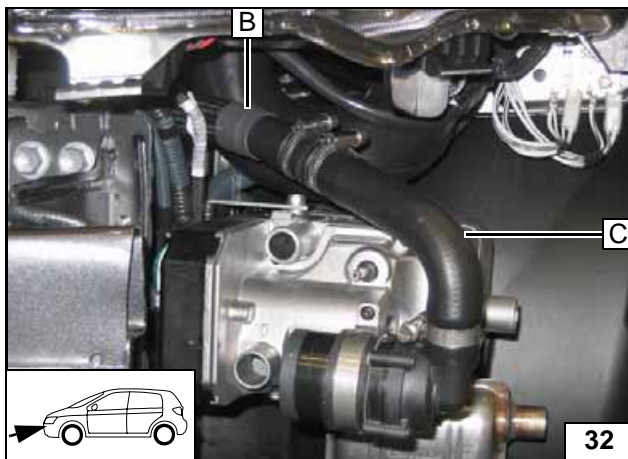
2 Cable tie [2x]

Con-  
nection on  
engine  
outlet

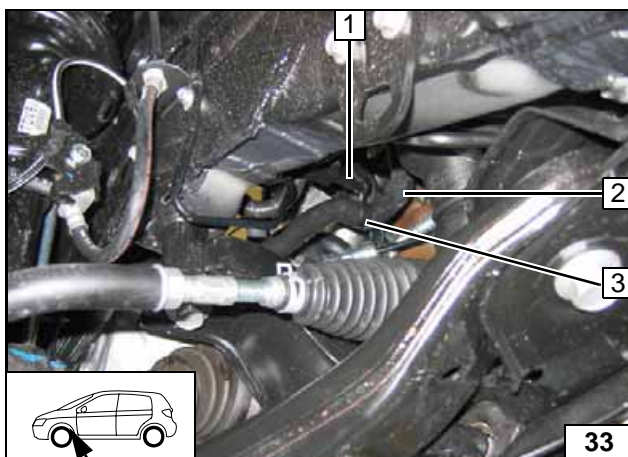


1 Cable tie

Routing in  
engine  
compart-  
ment

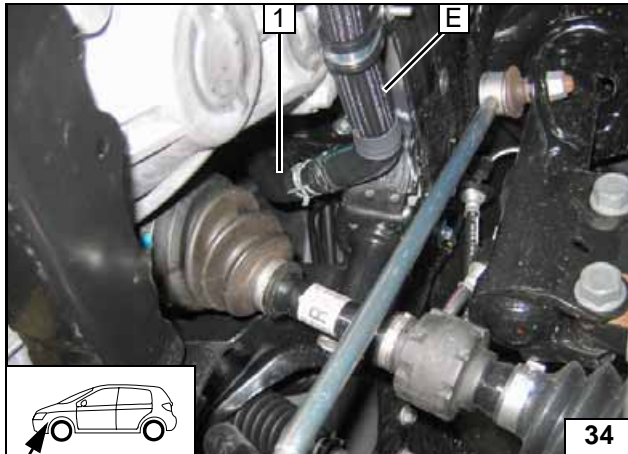
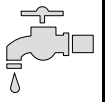


Con-  
necting on  
heater unit  
inlet



1 Original vehicle line  
2 Hose on heat exchanger inlet  
3 Hose bracket

Fastening  
hose to  
heat  
exchanger  
inlet

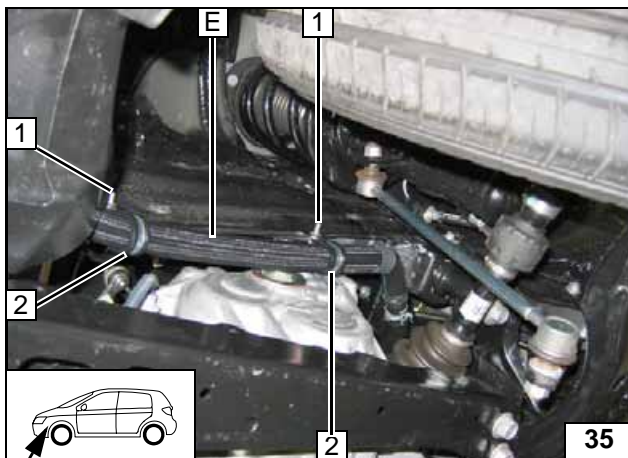


Before connecting, fill the coolant hoses with coolant.



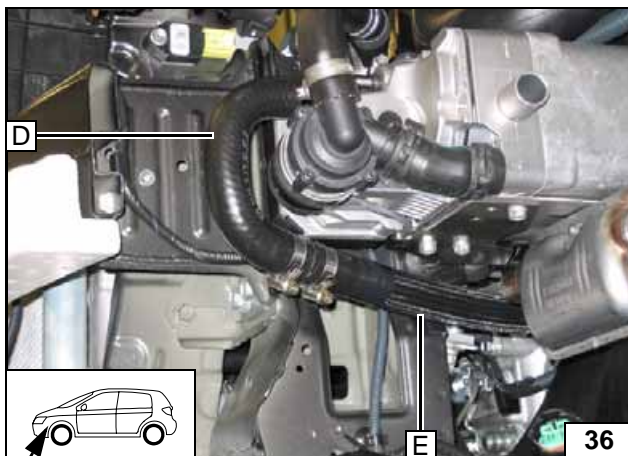
1 Hose on heat exchanger inlet

Con-  
nection to  
hose E

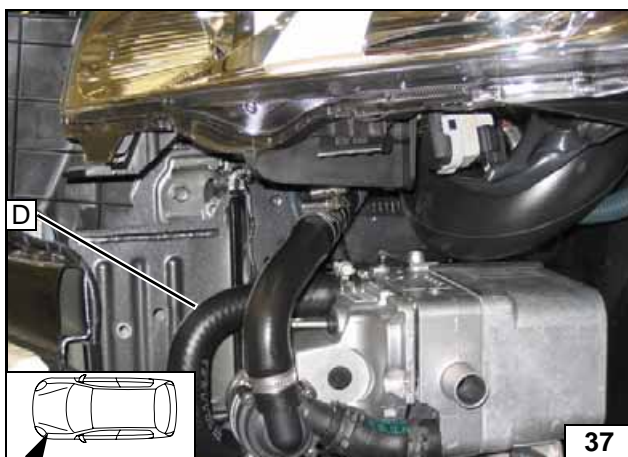


1 M6x20 bolt [2x], rubber-coated p-clamp 2 [2x], pin lock [2x] in existing hole [2x]

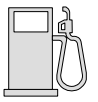
Installing  
hose E



Installing  
hose D and  
E



Con-  
necting to  
heater unit  
outlet



## Fuel Connection

### CAUTION!

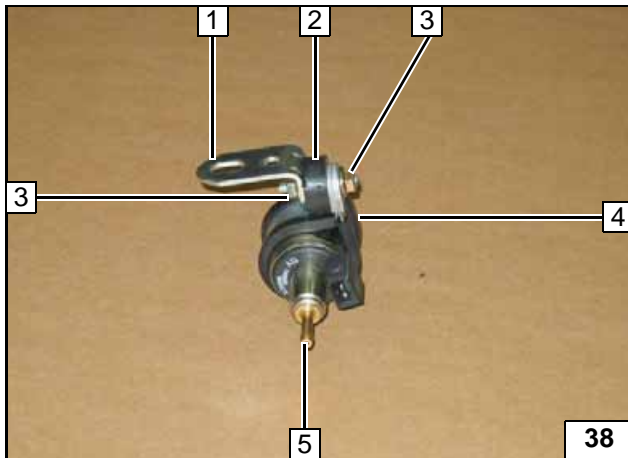
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off with an appropriate container.

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

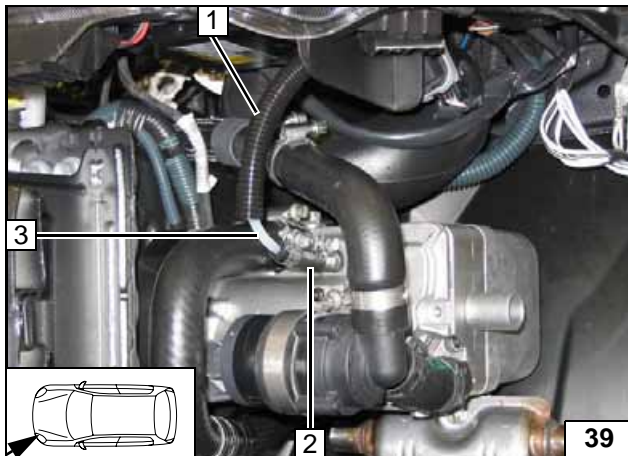
### WARNING!

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



- 1 Angle bracket
- 2 Silentblock
- 3 M6 flanged nut [2x]
- 4 Rubber-coated pipe clamp
- 5 Metering pump

Preassembling metering pump



Connect fuel line 3 to heater unit and pull into 10 mm dia. corrugated tube 1

- 2 Hose section, 10 mm dia. hose clamps [2x]

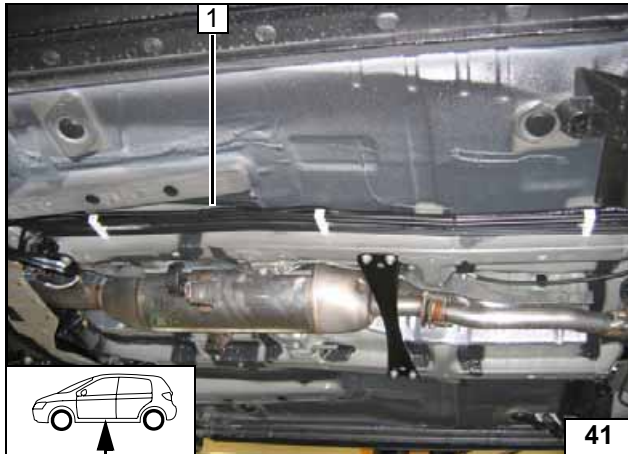
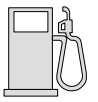
Connection to heater unit



Route corrugated tube with fuel line to firewall.



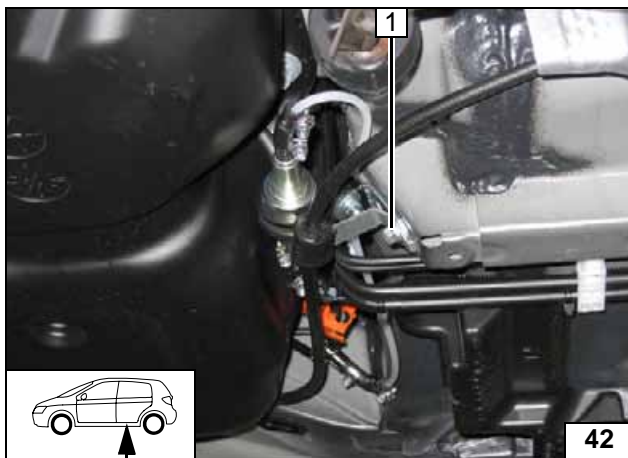
Installing lines



Pull wiring harness of metering pump and fuel line into 2x 10 mm dia. corrugated tube **1** from firewall, route along original vehicle fuel lines to installation location of metering pump and fasten with cable tie.



**Installing lines**

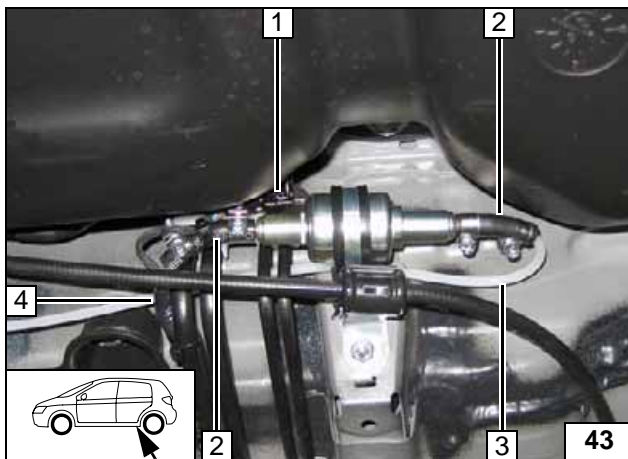


Ensure proper installation position of metering pump, see "Installation Instructions".  
Installation location in front of vehicle fuel tank!  
Fuel line from heater unit on pressure side of metering pump [side with connector].



**Installing metering pump**

**1** Original vehicle bolt

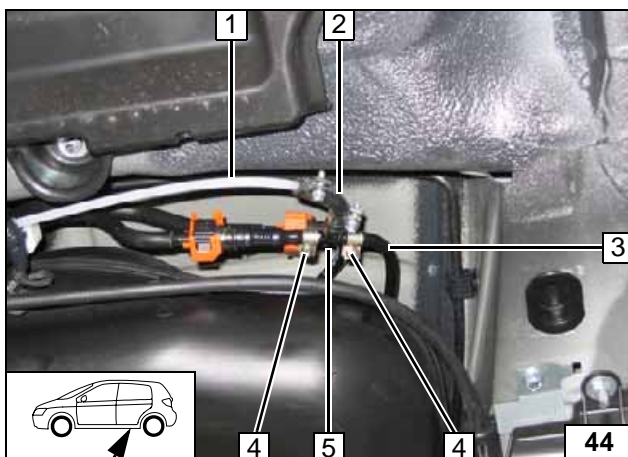


Fuel line from fuel standpipe on intake side of metering pump [side without connector].  
Check the position of the components; adjust if necessary. Check that they have free clearance.



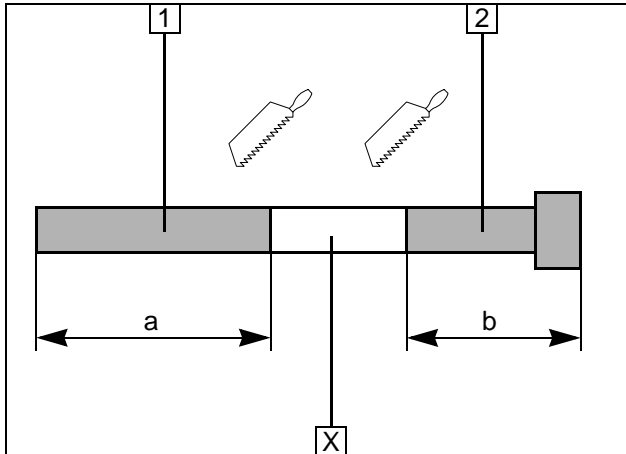
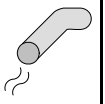
**Connecting to metering pump**

- 1** Wiring harness of metering pump, connector mounted
- 2** Hose section, 10 mm dia. hose clamp [2x]
- 3** Fuel line
- 4** Corrugated tube with fuel line and wiring harness for metering pump



- 1** Fuel line
- 2** Hose section, 10 mm dia. hose clamp [2x]
- 3** Original vehicle fuel return line
- 4** 8 mm dia. hose clamp [2x]
- 5** 6x5x6 fuel standpipe

**Mounting fuel standpipe**

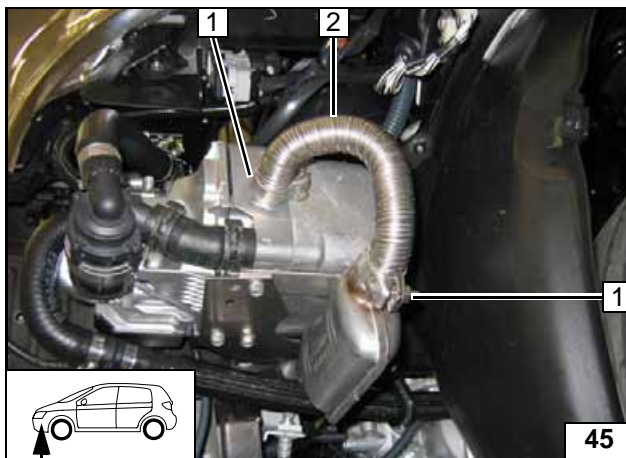


**Exhaust system**

- 1 Exhaust pipe  
a = 210 mm
- 2 Exhaust end section  
b = 260 mm

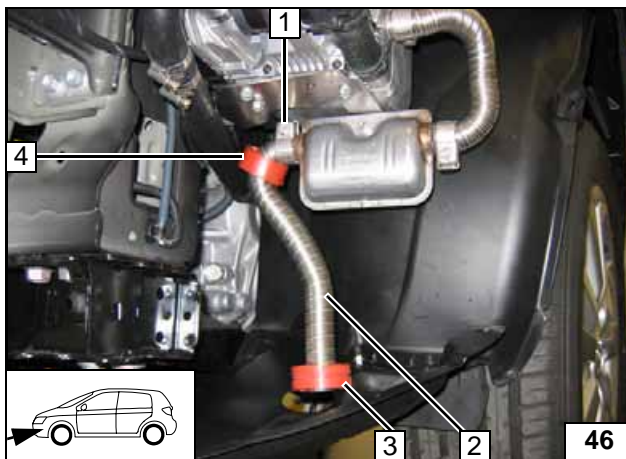
Discard section X

**Preparing exhaust pipe**



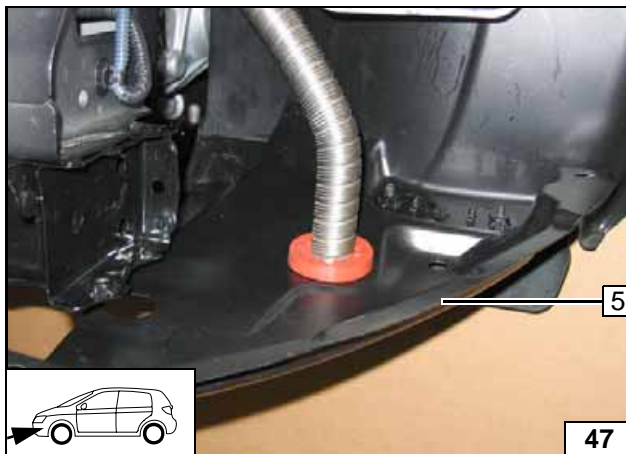
- 1 Hose clamp [2x]
- 2 Exhaust pipe

**Installing exhaust pipe**



- 1 Hose clamp
- 2 Exhaust end section
- 3 Position red (rt) rubber isolator
- 4 Red (rt) rubber isolator with groove

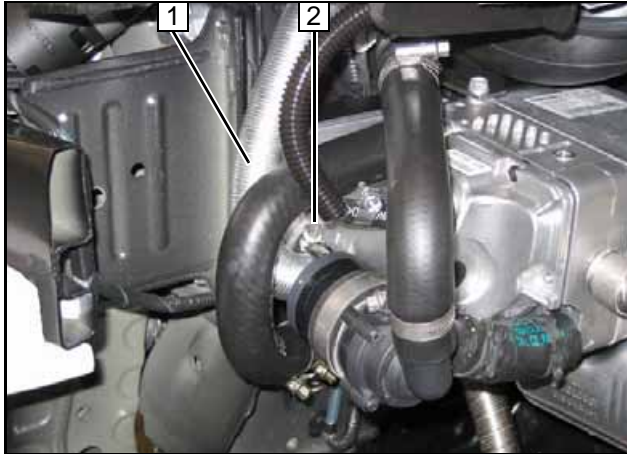
**Installing end section**



Drill out existing hole to 42 mm dia. and mount exhaust end section with red (rt) rubber isolator with groove.



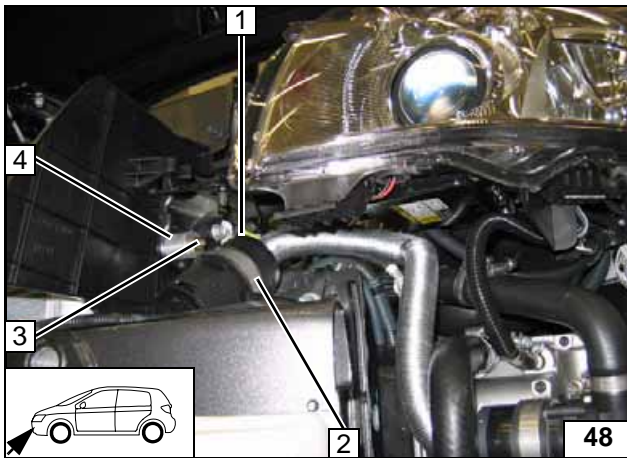
**Installing exhaust end section**



**Combustion air**

- 1 Combustion-air intake pipe
- 2 27 mm dia. hose clamp

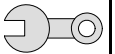
**Cutting combustion air pipe to length**



- 1 Combustion-air intake muffler
- 2 51 mm dia. p-clamp
- 3 M5x35 cap screw, large diameter washer, M5 flanged nut
- 4 20 mm spacer



**Installing intake pipe**

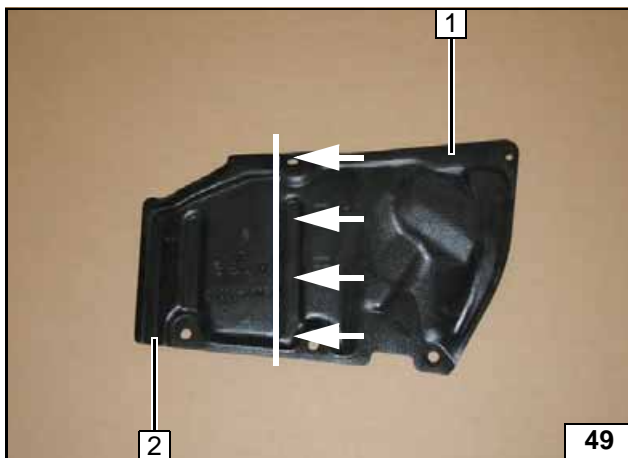


**Final Work**

**WARNING!**

Reassemble the disassembled components 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).

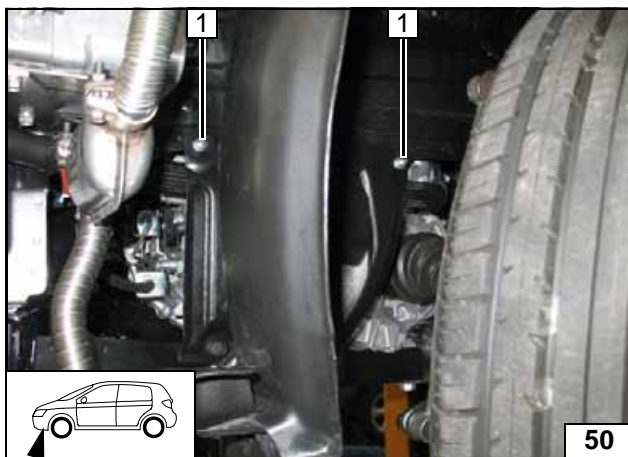
- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer.
- Set the manual air conditioning or automatic air conditioning according to the "operating instructions for the end customer".
- Check the proper operation of the additional heater, see the operating instructions/installation instructions.
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.



Shorten side wheel well trim **1** as shown.

**2** Discard section

**Shortening side wheel well trim**



**1** M6 flanged nut [2x]

**Installing side wheel well trim**



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 Postfach 80 - 82132 Stockdorf  
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<http://www.webasto.de>



**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.

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:



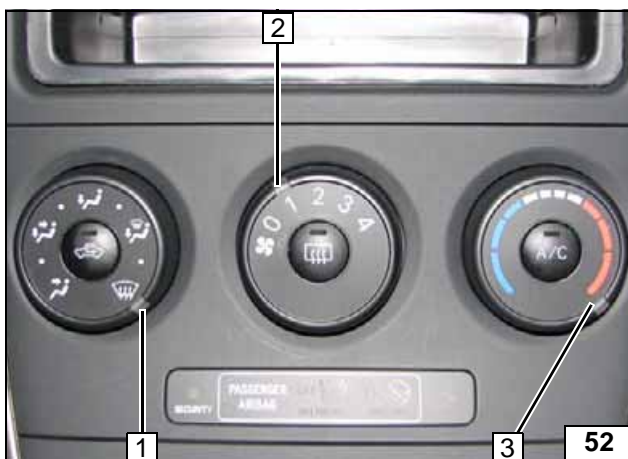
No display appears in A/C control panel during heating!



**Order of setting:**

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

**Automatic air-conditioning**



**Order of setting:**

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



**Manual air conditioning**