

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

Gasoline

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	CBU	e11 * 2001 / 116 * 0299 * ...

Engine type	Engine model	Output in kW	Displacement in cm ³
1ZR-FE	Gasoline	91	1598
4ZZ-FE	Gasoline	71	1398

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 Gasoline	1311943A

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 Gasoline 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).

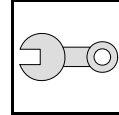
Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric Thread-Setter Kit

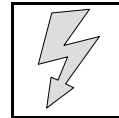
Explanatory Notes on Document

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.

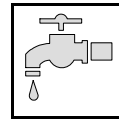
Mechanical system



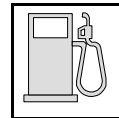
Electrical system



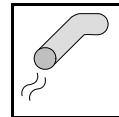
Coolant connection



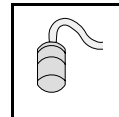
Fuel connection



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.



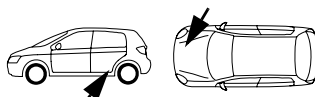
Specific risk of fire or explosion.



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



Reference to a special technical feature.



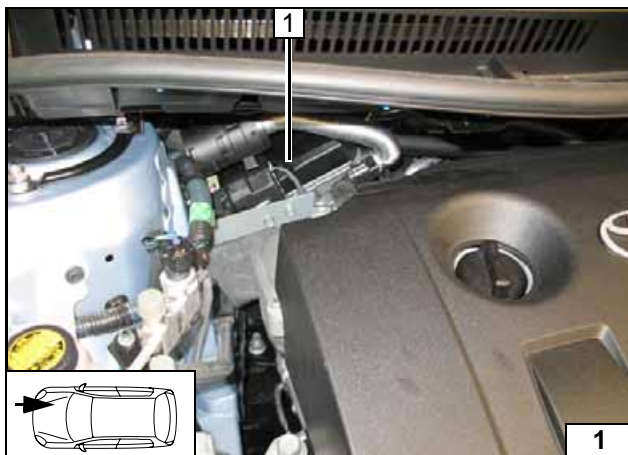
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

Preliminary Work

WARNING!

- Remove the engine design cover
- Remove the windshield wipers
- Remove the coolant reservoir cap
- Remove the coolant reservoir trim and windshield wiper linkage
- Disconnect the vacuum line of the brake booster (only with 1.6 liter engine)
- Open the fuel tank cap, ventilate the tank.
- Close the tank cap again.
- Disconnect the battery "earth" or "ground" connection.
- Remove the battery cover (only with 1.6 liter engine)
- 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 rear entrance strips on the left and right
- Remove the rear single seat and double seat bench
- Open the tank-fitting service lid
- Remove the fuel-tank sending unit in accordance with the manufacturers specifications
- Remove the side trim of the center console in the footwell on the left
- Remove the AC booster (only with automatic air-conditioning)
- Remove the left-hand trim next to the steering wheel (switch insert for mirror adjustment, ESP)
- Remove the cover behind the rear triangular window on the left

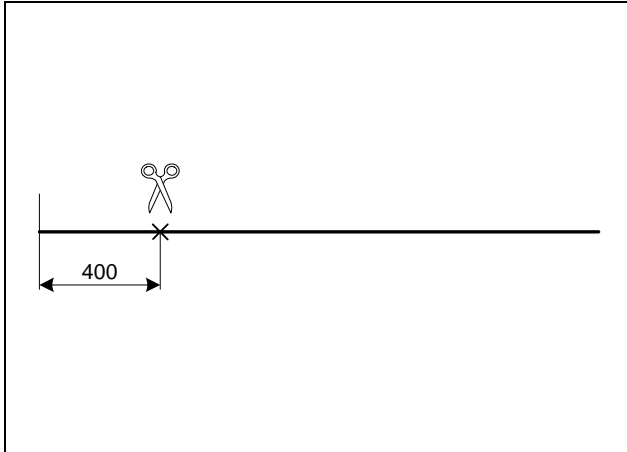
Remove page 24 "Operating Instructions for End Customer" and insert with vehicle operating instructions.



Heater unit installation location

- 1 Heater unit

Installation location



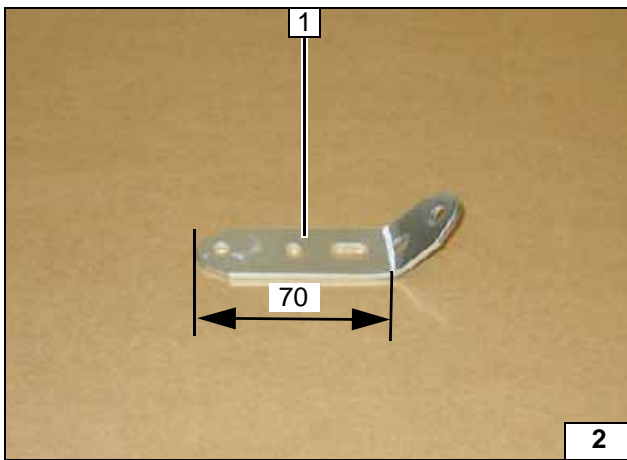
Preparing electrical system

All vehicles

Shorten corrugated tube provided as shown



Cutting wires to length



Bend perforated bracket **1** by approx. 45° as shown.



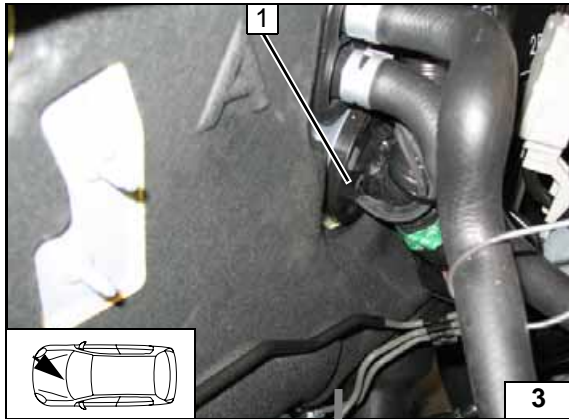
Preparing perforated bracket



Electrical Connections

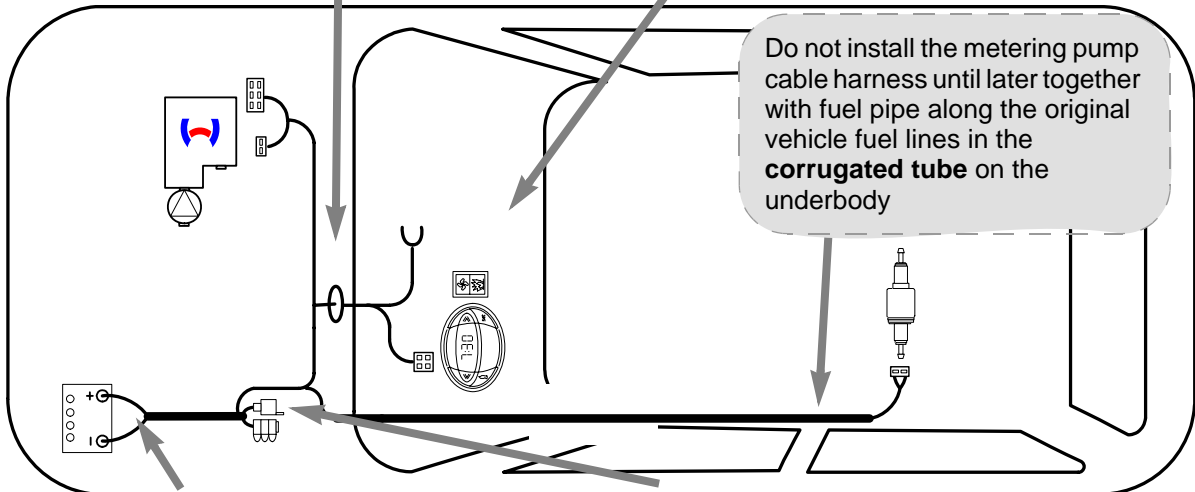
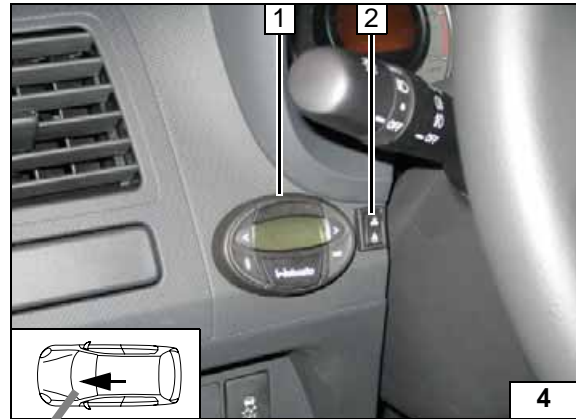
Wiring harness pass through

- 1 Protective rubber plug



Digital timer and summer/winter switch option

- 1 Digital timer
- 2 Summer/winter switch

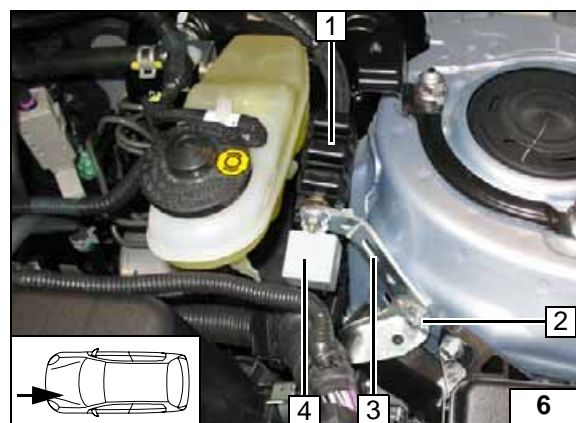


Wiring harness installation diagram



Connection to battery

- 1 400 mm long corrugated tube on line for power supply of heater-unit wiring harness
- 2 8 mm dia. claw cable lug, ground supply
- 3 8 mm dia. claw cable lug, positive supply



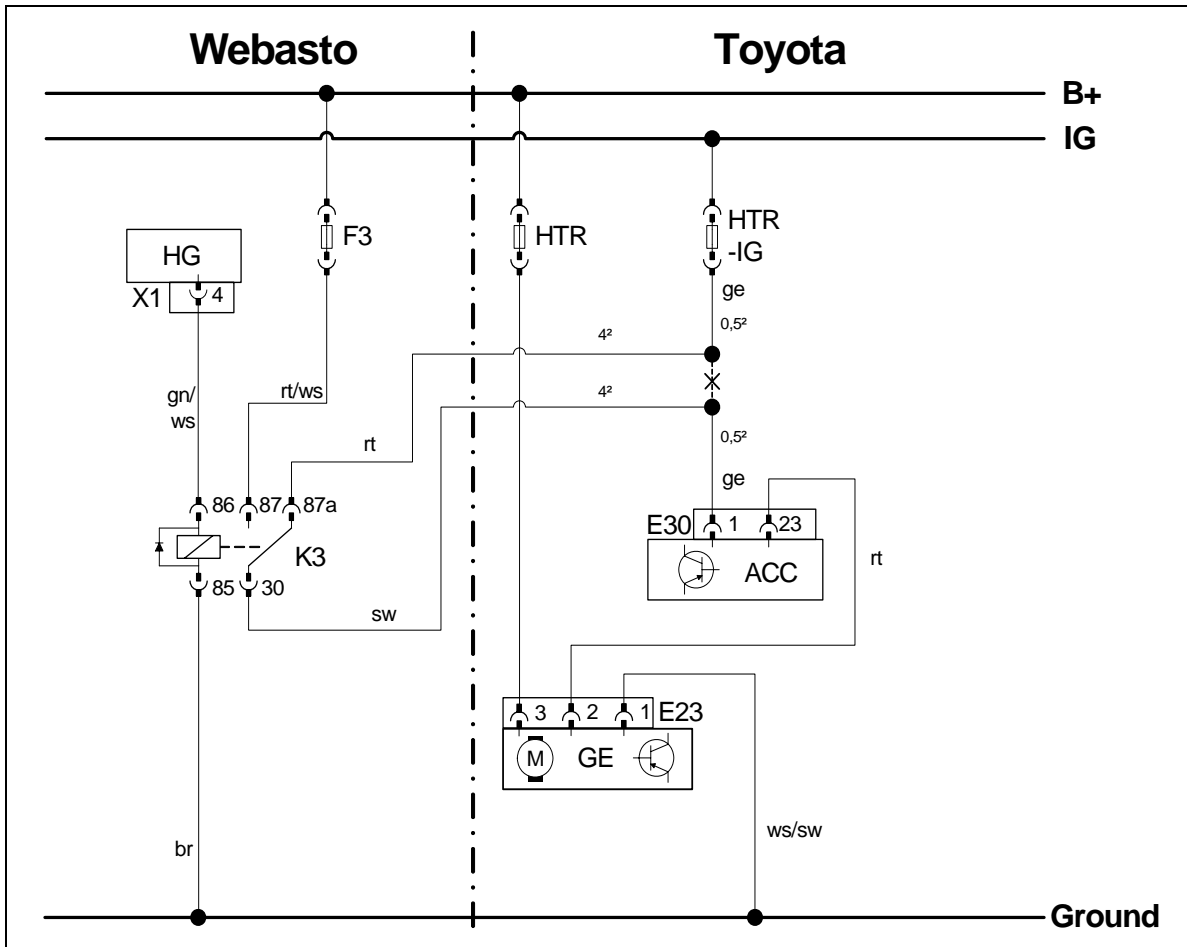
Fuse holder, relay K3

See wiring diagram.

- 1 Fuse holder
- 2 Original vehicle bolt
- 3 Perforated bracket
- 4 Relay K3, M5x20 bolt, washer, flanged nut



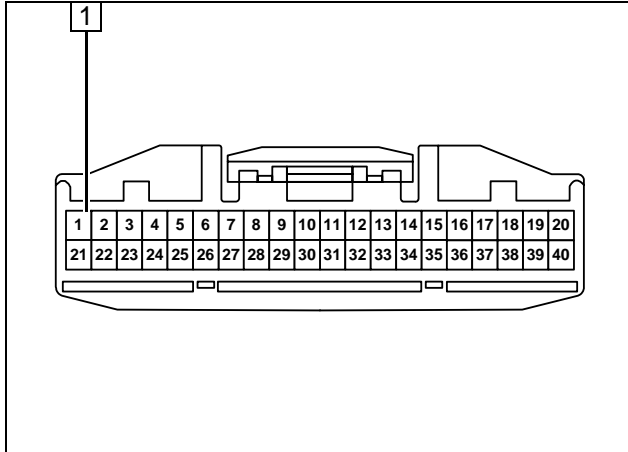
Automatic air-conditioning fan controller



Wiring diagram

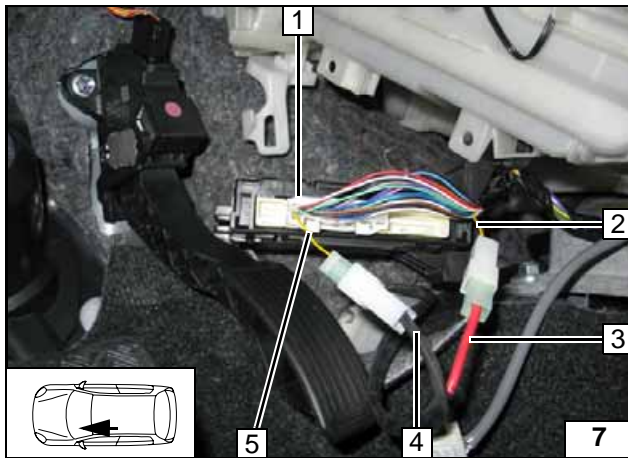
Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin connector	GRs	Fan relay	ws	white
F3	Replace 25 A with 10 A fuse.	GRr	Fan controller	sw	black
K3	Fan relay	KB	Air-conditioning control element	br	brown
		HTR	Fuse 50A	gn	green
		HTR-IGN	Fuse 10A	ge	yellow
				Insulate wire ends and tie back	
					X Cutting point
				Wiring colors may vary.	

Legend



1 E30 connector

E30 connector

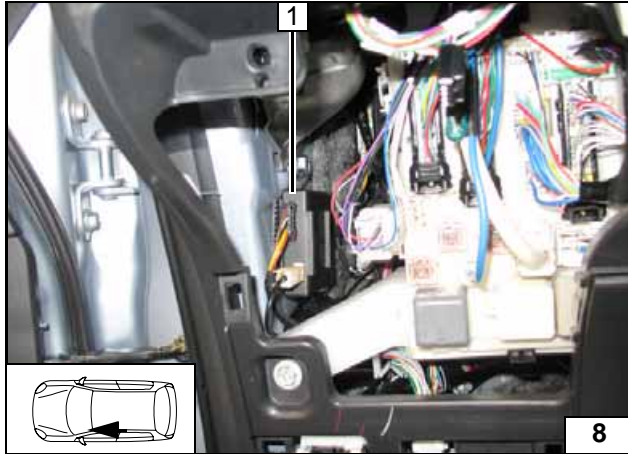


Connection to 40-pin connector 1 from ACC
Produce connections as shown in wiring diagram.



- 2 Yellow (ge) wire from 10 A HTR/IG
- 3 Red (rt) wire to K3/87a
- 4 Black (sw) wire from K3/30
- 5 Yellow (ge) wire to connector E30/1

Con-
nection to
ACC

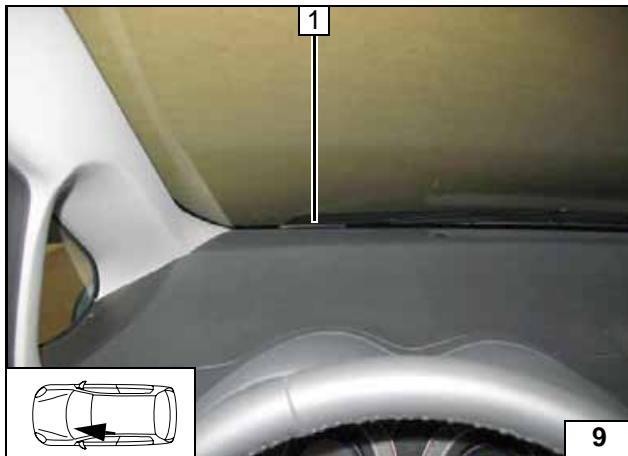


Remote option (Telestart)

1 Receiver, Dual Lock [2x]

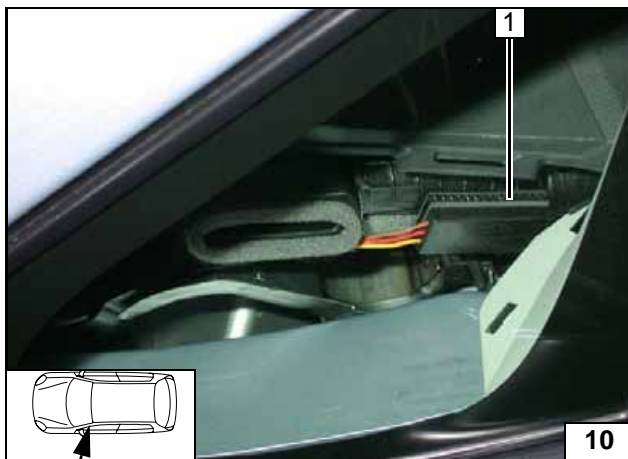


Installing receiver



1 Antenna

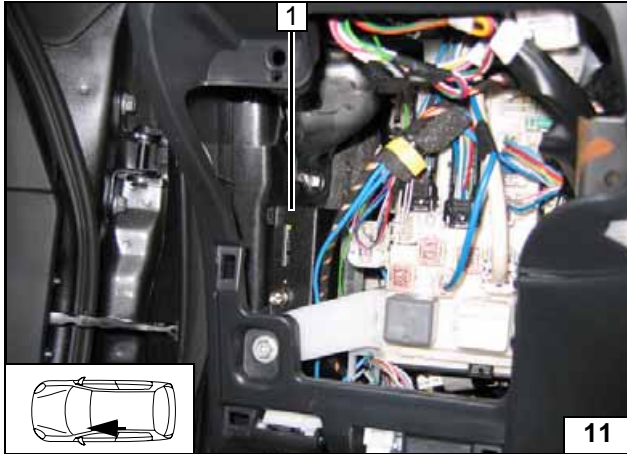
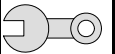
Installing antenna



Temperature sensor only with T100 HTM

1 Temperature sensor, Dual Lock

Installing temperature sensor

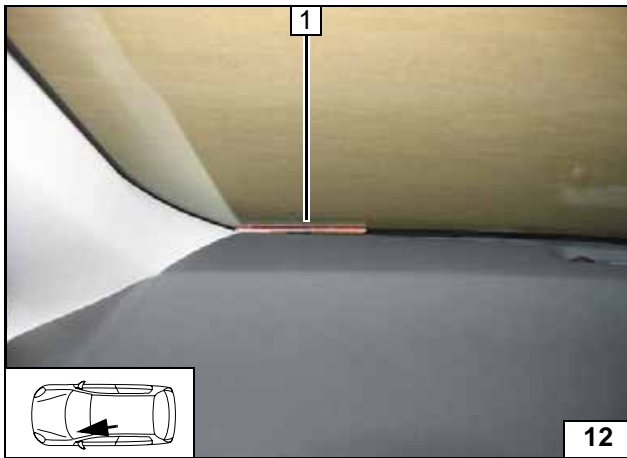


Remote option (Thermo Call)

1 Receiver, Dual Lock [2x]

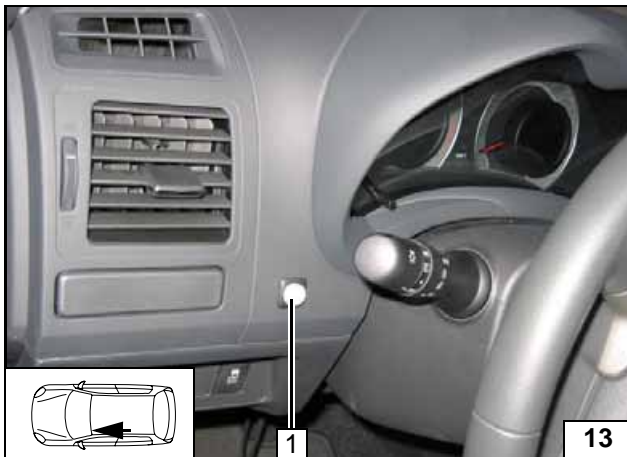


Installing receiver



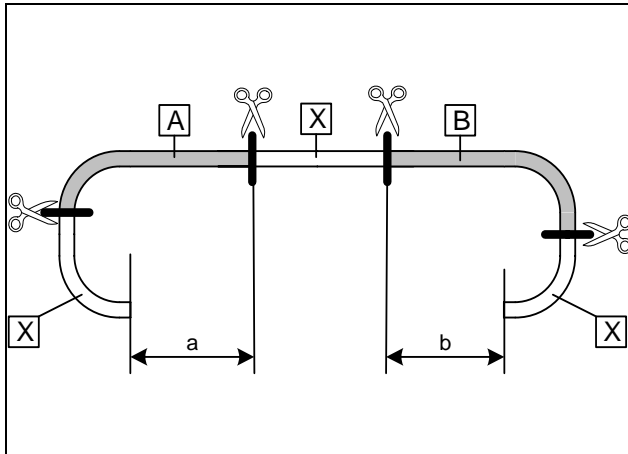
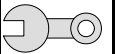
1 Antenna

Installing antenna



1 Pushbutton

Installing push button



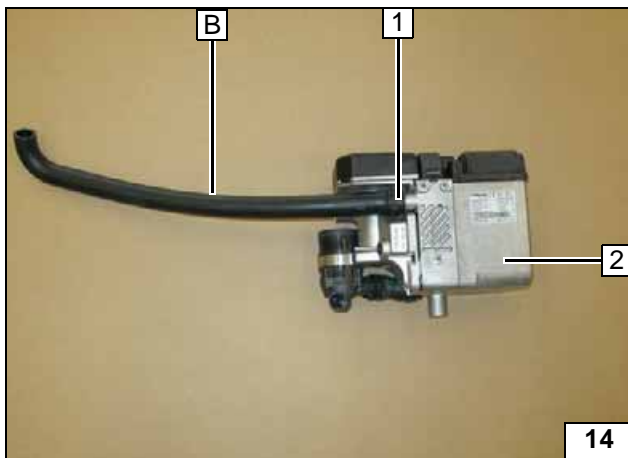
Preparing heater unit

a = 330 mm
b = 410 mm

Discard section X



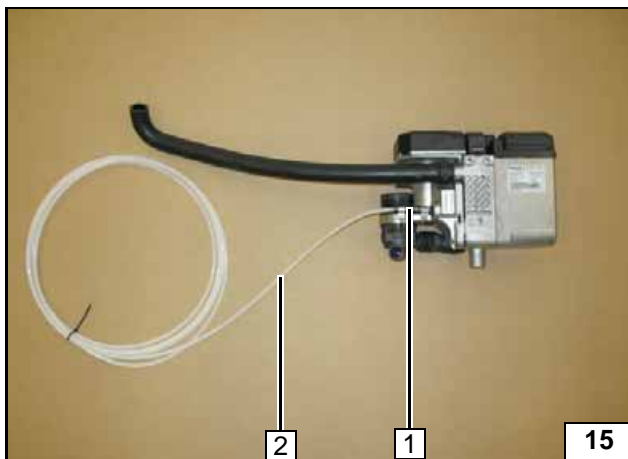
Cutting coolant hoses to length



1 27 mm dia. spring clip
2 Heater unit

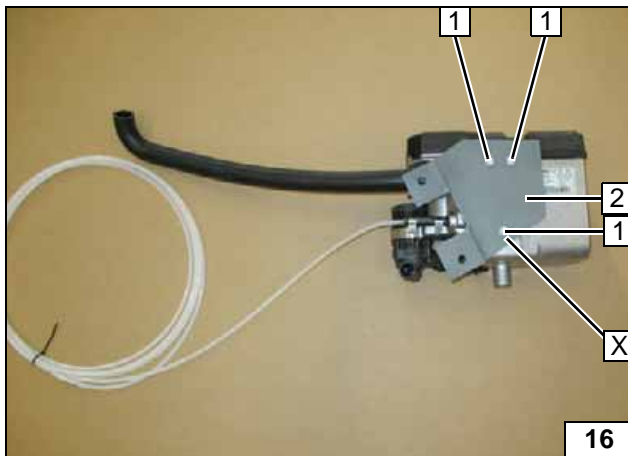


Preassembling water hose B on heater unit



1 Hose section, 10 mm dia. hose clamp [2x]
2 Fuel line

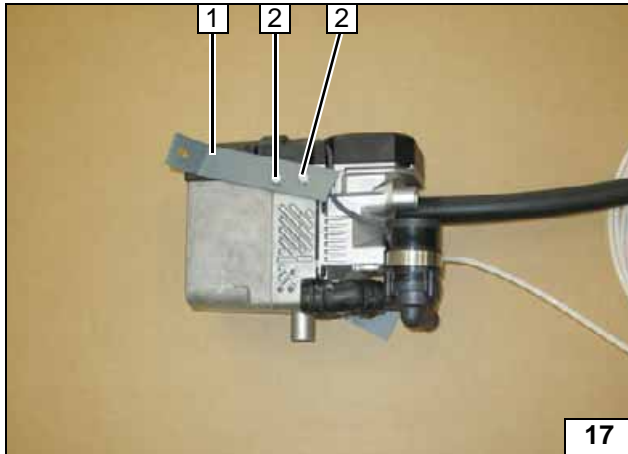
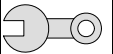
Preassembling fuel line on heater unit



E-jot screws 1 [3x], tightening torque 10 Nm!
Insert two washers between heater unit and bracket at position x.

2 Bracket

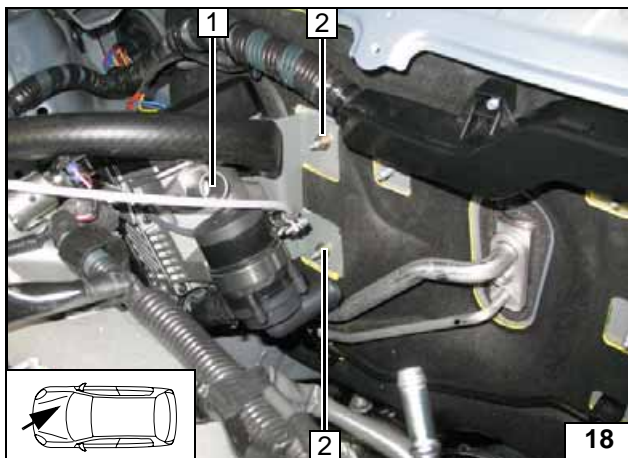
Preassembling bracket



Loosely mount E-jot screw **2** [2x].

- 1** Strut

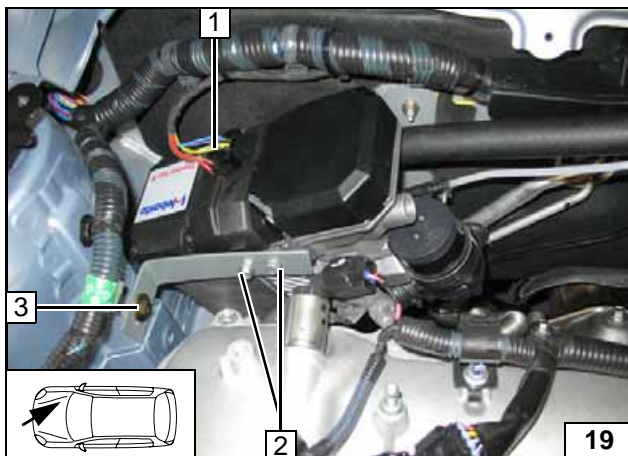
Pre-assembling strut



Installing heater unit

- 1** Preassembled heater unit
- 2** Original vehicle stud bolt, M6 flanged nut

Installing pre-assembled heater unit



E-jot screws **2** [2x], tightening torque 10 Nm!
Connect connector **1** on wiring harness of heater unit.

- 3** Original vehicle threaded insert, M6x20 bolt, spring lockwasher, large diameter washer

Installing pre-assembled heater unit



Fuel Connection

CAUTION!

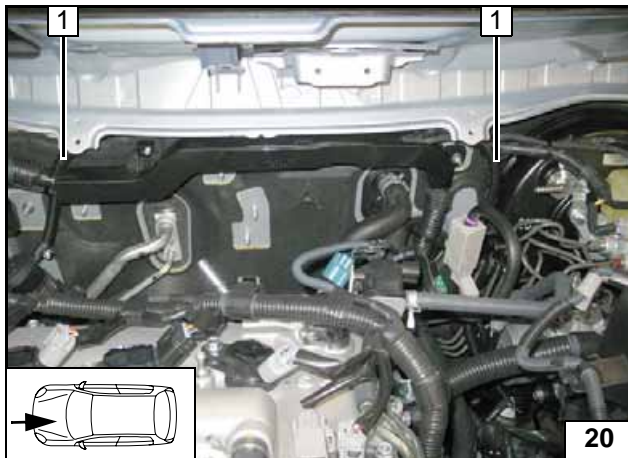
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

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.

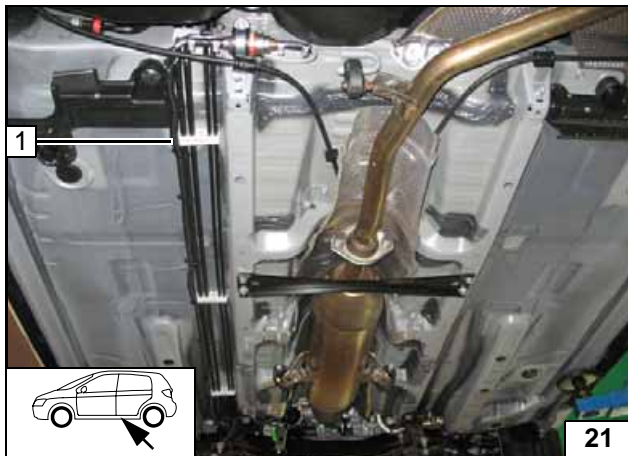
WARNING!

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



Push 730 mm corrugated tube **1** onto fuel line from heater unit and route as shown.

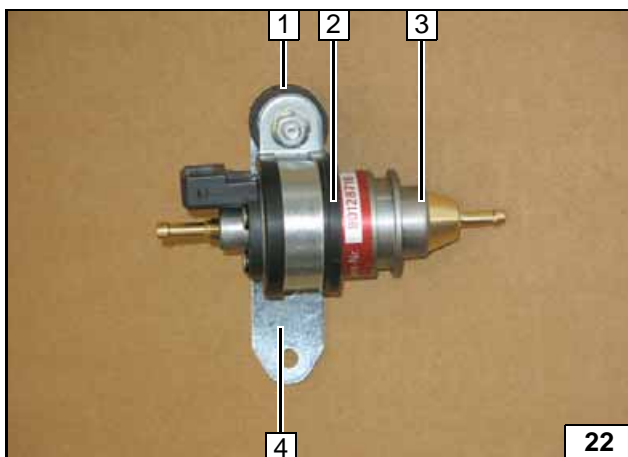
Installing fuel line in engine compartment



Route fuel line and wiring harness of metering pump in 1,130 mm corrugated tube **1** [2x] along original vehicle lines and secure with cable ties.



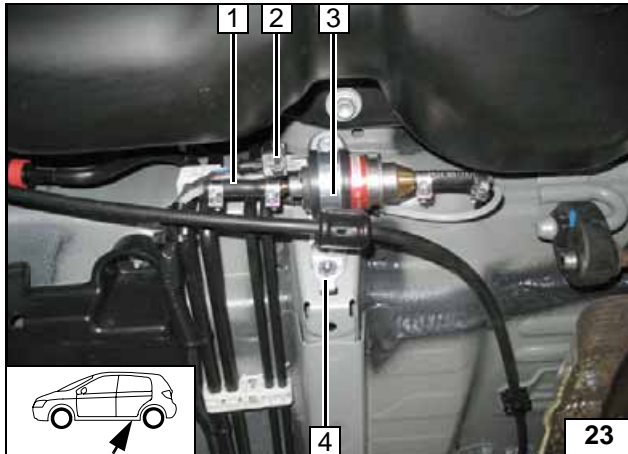
Installing lines



- 1 Silent block, flanged nut [2x]
- 2 Rubber-coated pipe clamp
- 3 Metering pump
- 4 Perforated bracket



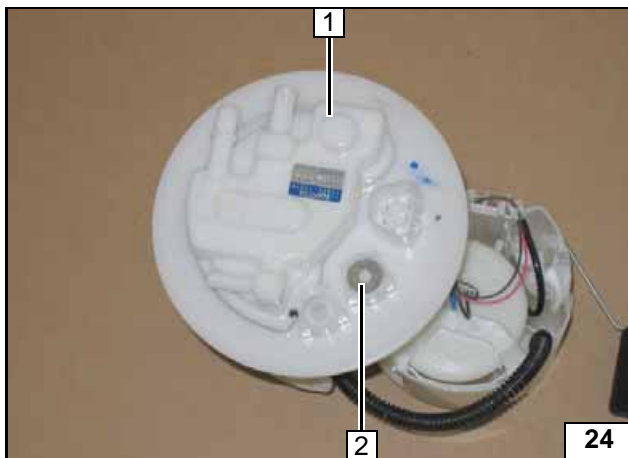
Preassembling metering pump



Ensure proper installation position of metering pump, see "Installation Instructions".
Fuel line from heater unit on pressure side of metering pump [side with connector].

- 1 Hose section, 10 mm dia. hose clamps [2x], fuel line from heater unit
- 2 Metering pump connector
- 3 Preassembled metering pump
- 4 Original vehicle bolt

Installing and connecting metering pump

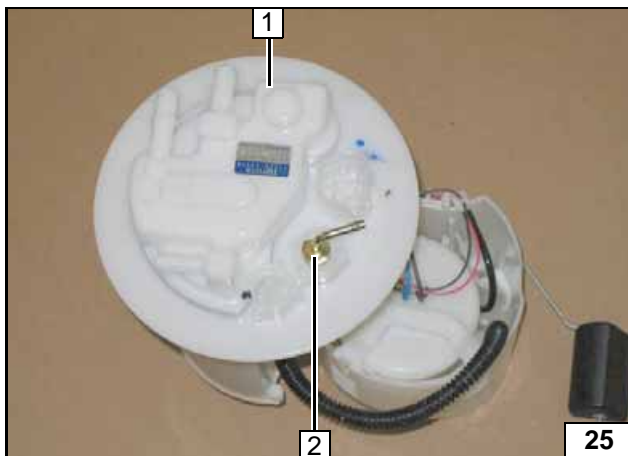


Remove fuel-tank sending unit 1 in accordance with manufacturer's specifications.

- 2 Washer, outside dia. = 17.6 mm; copy hole pattern, 6 mm dia. hole



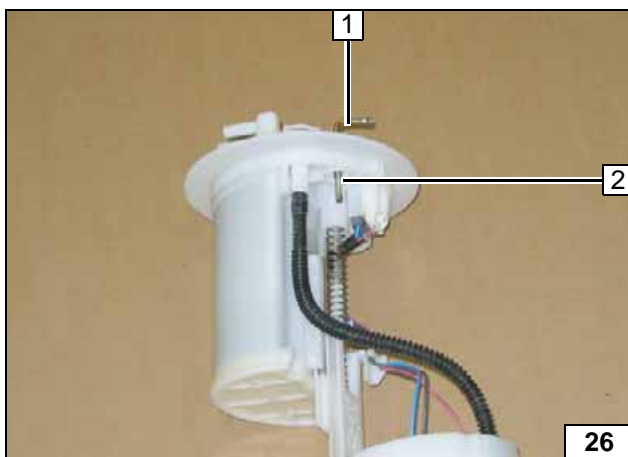
Removing fuel



- 1 Fuel-tank sending unit
- 2 Fuel standpipe



Installing fuel standpipe

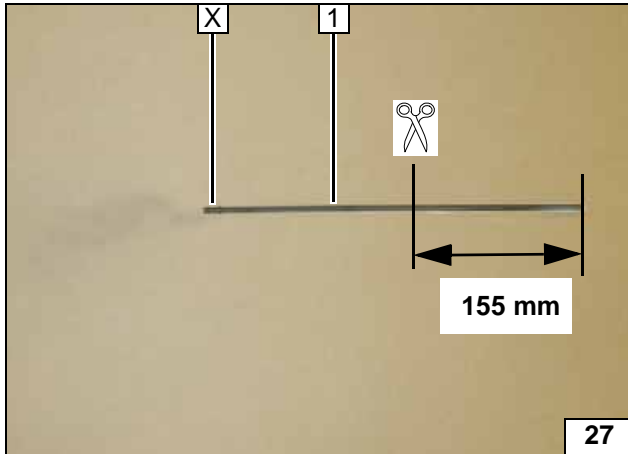


Observe 5 Nm tightening torque of fuel standpipe 1.

- 2 M6 nut, self-locking

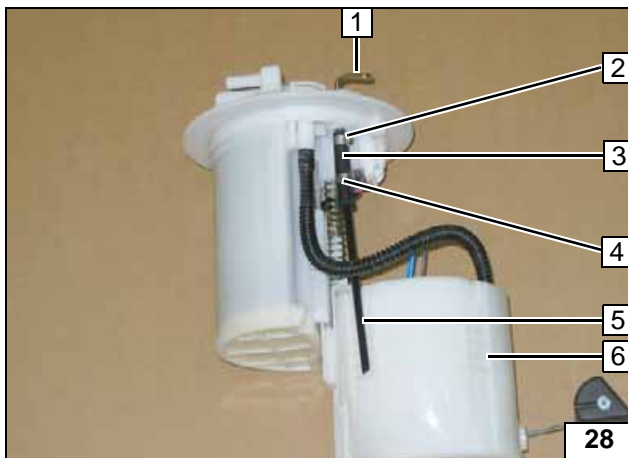


Installing fuel standpipe



Cut standpipe to length as shown, discard section X.

Cutting standpipe to length

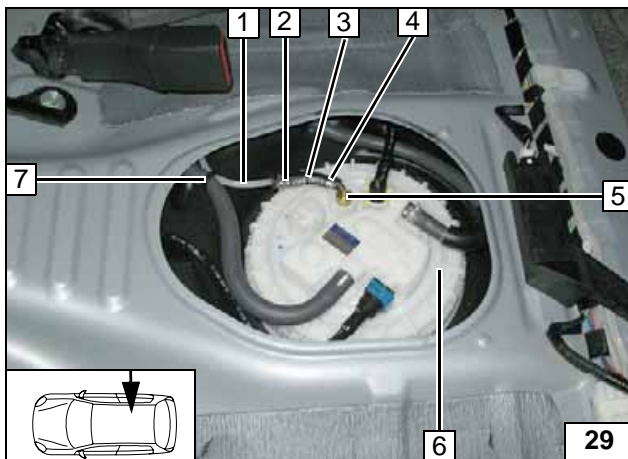


3.5 mm dia. molded hose 3 on fuel standpipe 1.

- 2 8 mm Caillau clamp
- 4 10 mm Caillau clamp
- 5 Standpipe
- 6 Fuel-tank sending unit



Installing standpipe

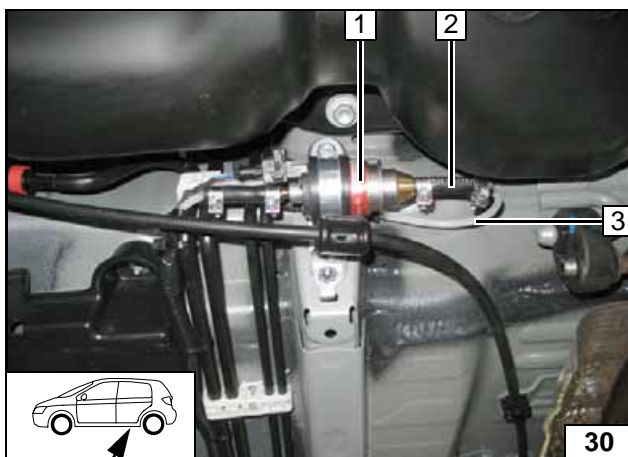


Install fuel-tank sending unit 6 in accordance with manufacturer's instructions. 3.5 mm dia. molded hose 3 on fuel standpipe 5.

- 1 Fuel line to metering pump
- 2 10 mm Caillau clamp
- 4 8 mm Caillau clamp
- 7 Cable tie



Removing fuel

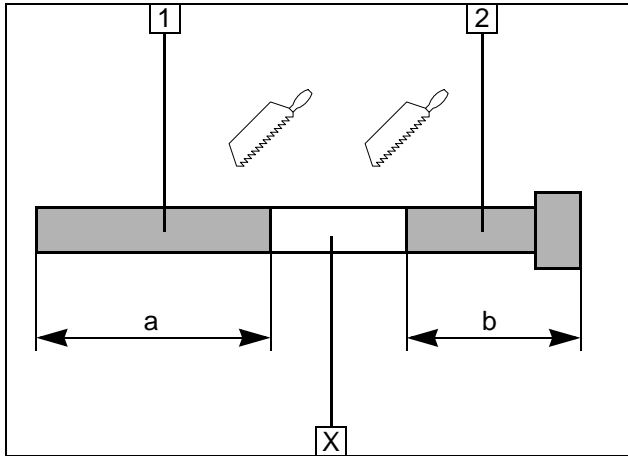
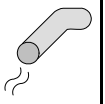


Fuel line 3 from fuel standpipe on intake side of metering pump [side without connector]. Check the position of the components; adjust if necessary. Check that they have free clearance.

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



Connecting to metering pump

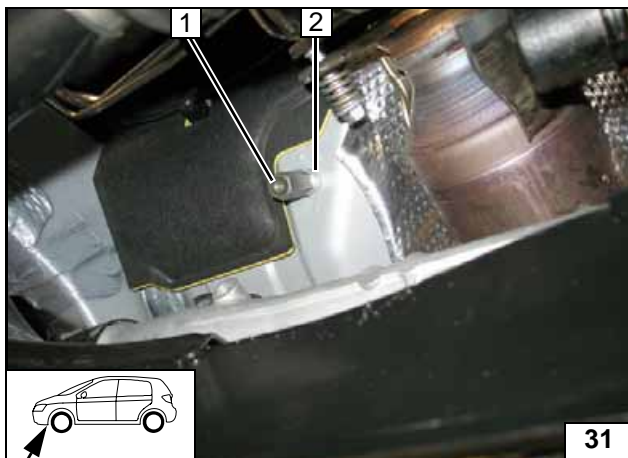


Exhaust system

- 1 Exhaust pipe
a = 250 mm
- 2 Exhaust end section
b = 440 mm

Discard section X

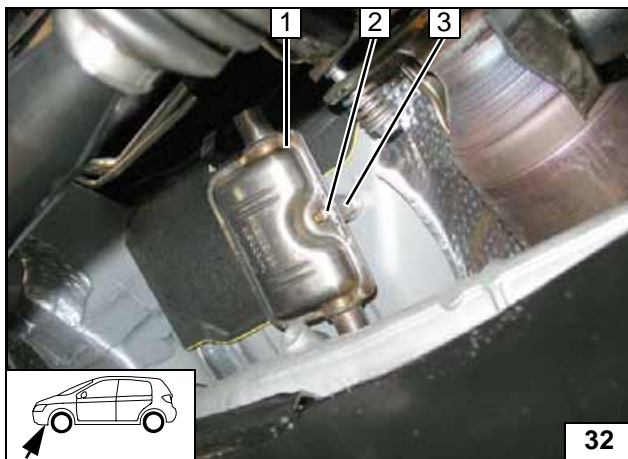
Preparing exhaust pipe



Mount 10 mm shim 2 and M6x40 spacer nut 1 on original vehicle stud bolt.

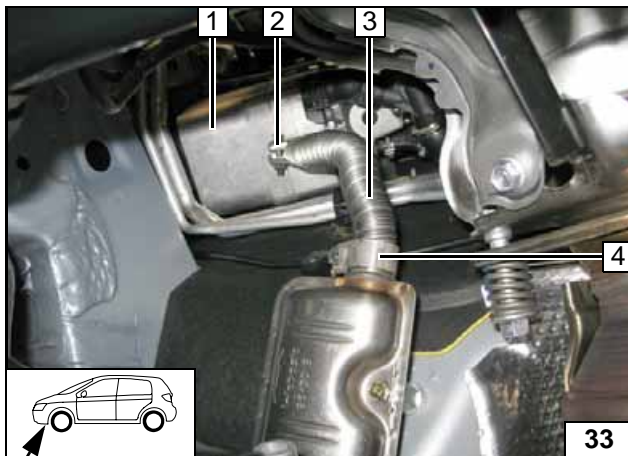


Preparing muffler installation



- 1 Exhaust muffler
- 2 Spring lockwasher, M6x20 bolt
- 3 M6x40 spacer nut

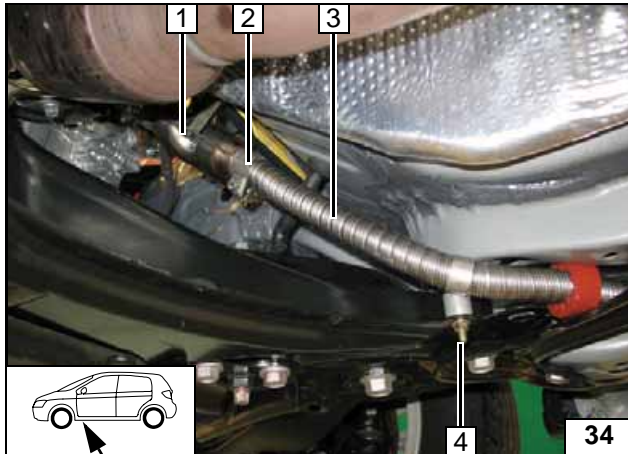
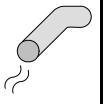
Installing muffler



Check position of all components and adjust if necessary. Check that they have free clearance.



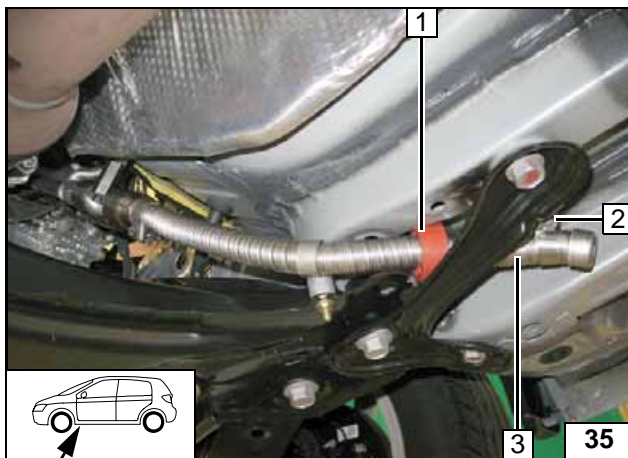
Installing exhaust pipe



- 1 Exhaust muffler
- 2 Hose clamp
- 3 Exhaust-pipe end section
- 4 M6x40 bolt, p-clamp, 20 mm shim, flanged nut, original vehicle hole



Installing exhaust pipe end section

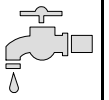


Check position of all components and adjust if necessary. Check that they have free clearance. Aligning red (rt) rubber isolator 1.

- 2 Original vehicle hole, M6x20 bolt, p-clamp, flanged nut
- 3 Align exhaust-gas end section



Installing exhaust pipe end section



Coolant connection for 1.4/1.6 gasoline engine

WARNING!

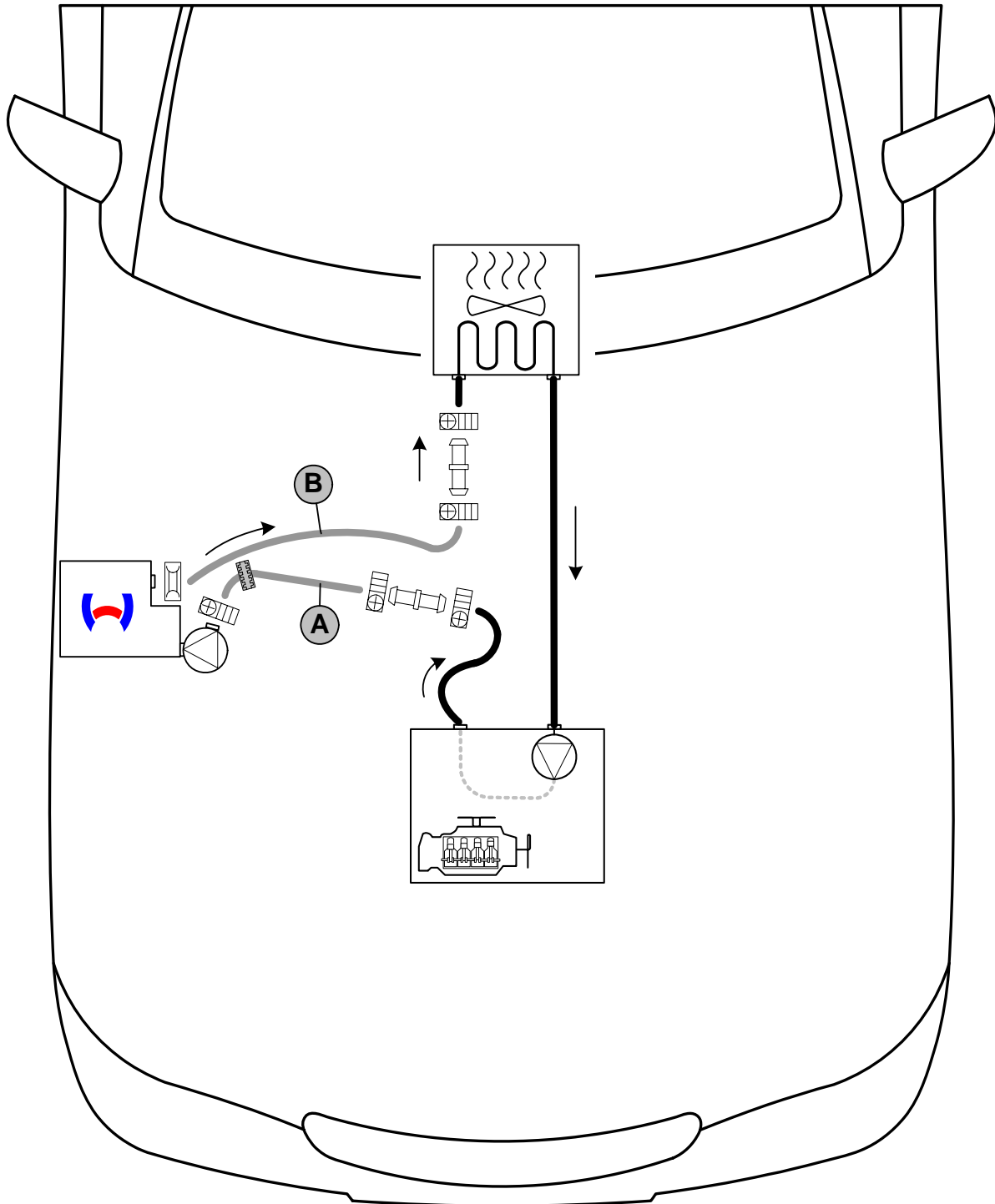
Tighten all hose clamps to 2.0 + 0.5 Nm.

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.

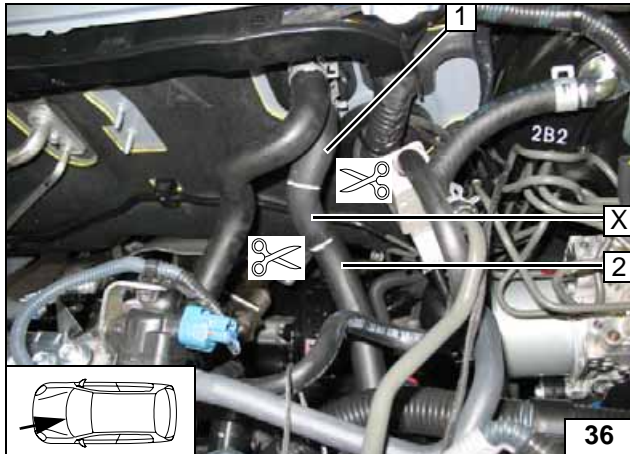
The connection should be "inline" based on the following diagram:



Coolant routing diagram

All spring clips without a specific designation  = 27 mm dia. All connecting pipes = Ø 17x20.
 All hose clamps without a specific designation  = 20-27 mm dia 1 = Black (sw) rubber isolator 

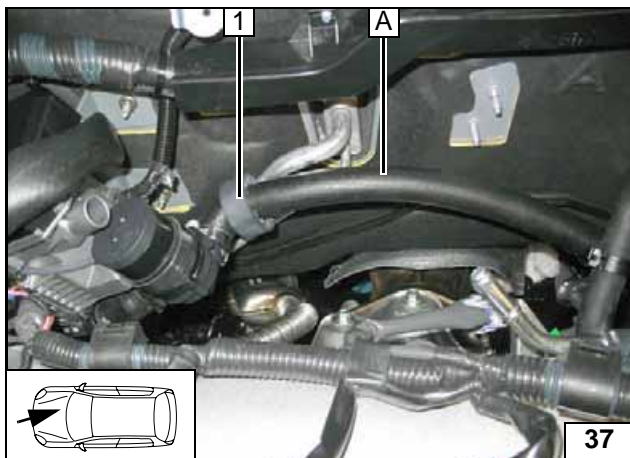




Discard section X.

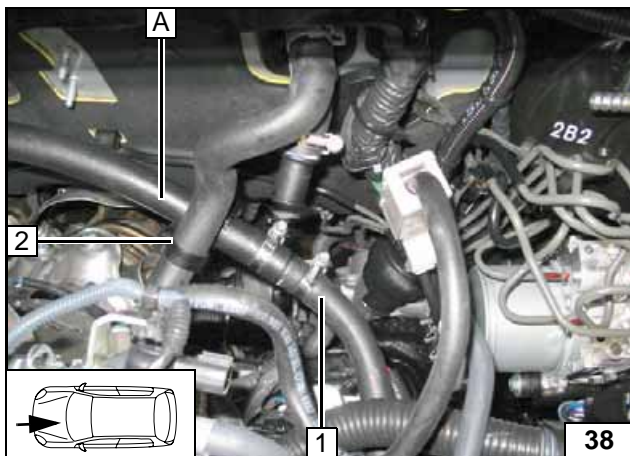
- 1 Hose on heat exchanger inlet
- 2 Hose of engine outlet

Cutting point



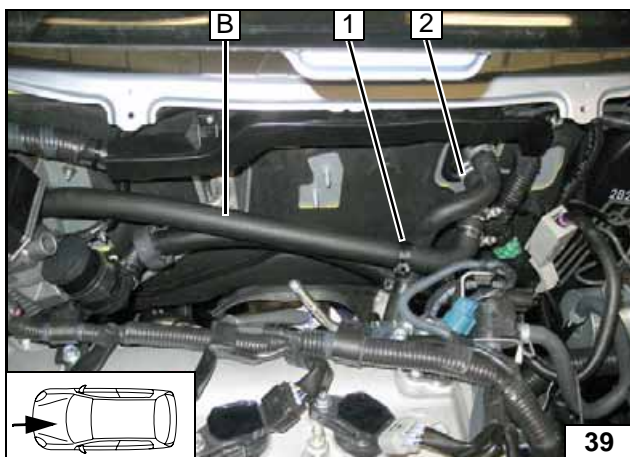
Aligning black (sw) rubber isolator 1.

Con-
nection to
heater unit



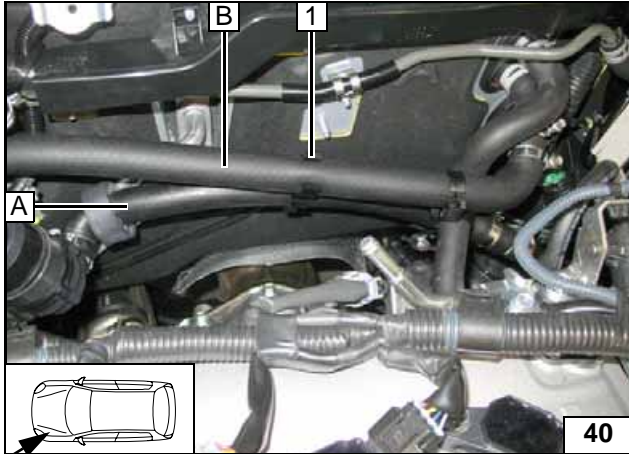
- 1 Hose section on engine outlet
- 2 Hose bracket

Con-
nection to
engine
outlet



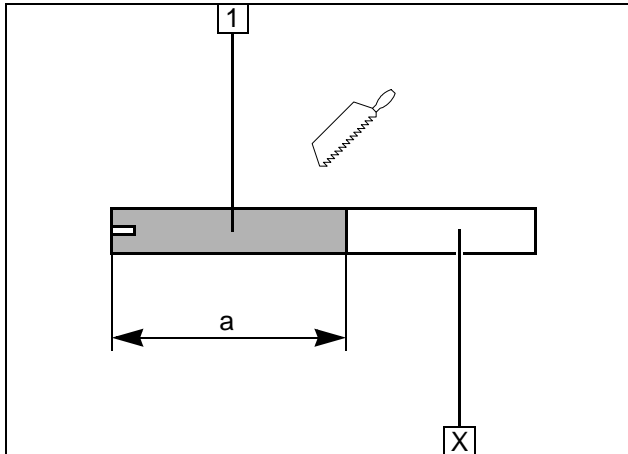
- 1 Hose bracket
- 2 Hose section on heat exchanger inlet

Con-
nection to
heat
exchanger
inlet



1 Hose bracket

Mounting
hose
bracket

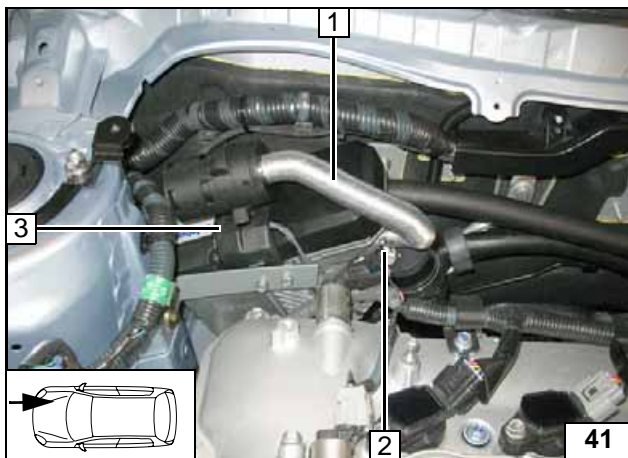


Combustion air

- 1 Combustion air pipe
a = 250 mm

Discard section X

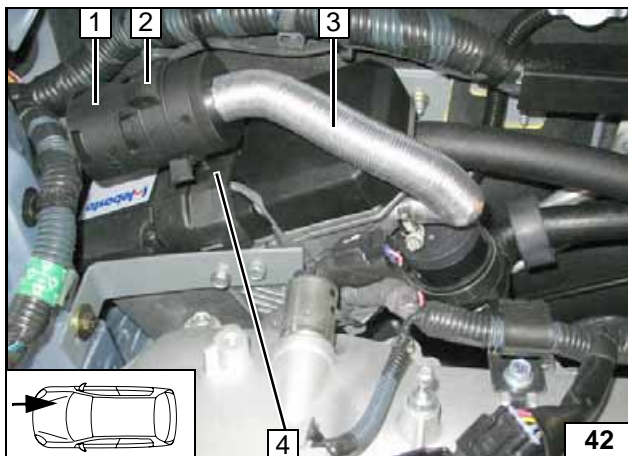
Cutting combustion air pipe to length



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



Installing intake pipe

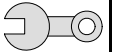


Break out perforation 4.

- 1 Combustion-air intake muffler
- 2 Retaining clip in hole 4
- 3 Combustion-air intake pipe



Installing muffler



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.



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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!



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

For vehicles with automatic air conditioning