Water Heater Unit

Webasto
Feel the drive

***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

Honda Civic

Diesel
from Model Year 2006
For left-hand drive vehicles only

WARNING!

Hazard warning:

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

Specialist company training, technical documentation, specialized tools and equipment are required to install and repair Webasto heating and cooling systems.

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

ALWAYS follow all Webasto installation and repair instructions and observe all 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
Honda	Civic	FK	e11 * 2001/116 * 0257

Engine type	Engine model	Output in kW	Displacement in cm³
N22A	Diesel	103	2204

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 Honda Civic Diesel	1311075B

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

The installation instructions apply to the Honda Civic vehicles with a Diesel engine
- For the validity, see page 2 - from model year 2006 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to these installation instructions.

However, the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top C/P/E* 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).

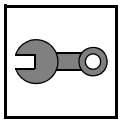
Special Tools

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

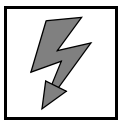
Explanatory Notes on Document

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

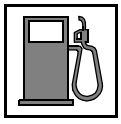


Electrical system

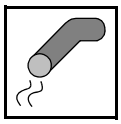


Coolant connection

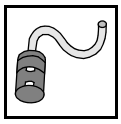
Fuel connection



Exhaust system



Combustion air



Special features are highlighted using the following symbols:

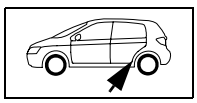
Specific risk of injury or fatal accidents.

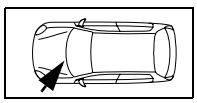
Specific risk of damage to components.

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.



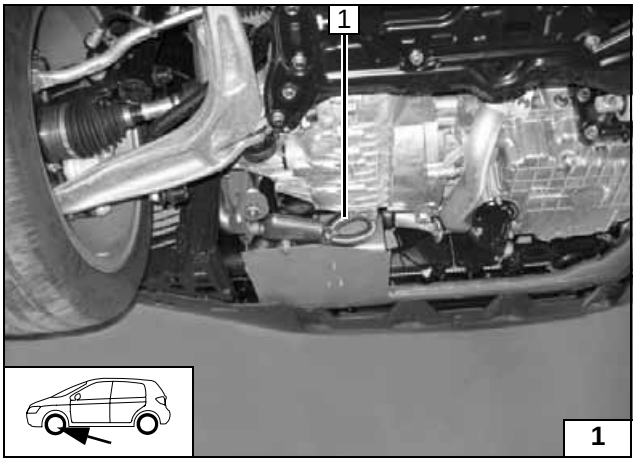


The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

Preliminary Work

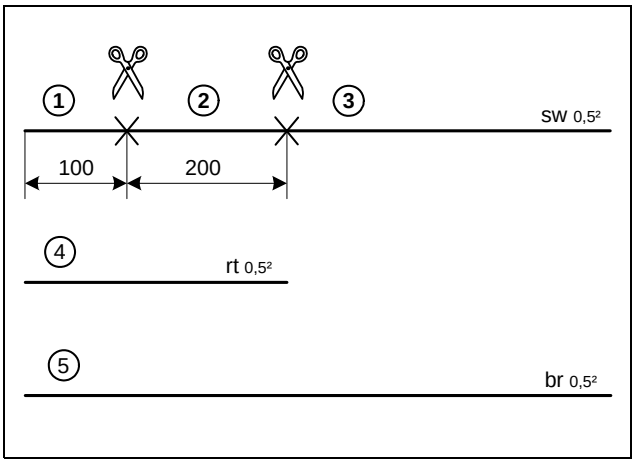
WARNING!

- 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.
- Open the fuel tank cap, ventilate the tank.
- Close the tank cap again.
- Remove the entire underride protection
- Remove the center console trim and the center tunnel
- Open the center fuel sender service lid.
- Remove the glove compartment (only with Telestart).
- Remove the trim below the steering column
- Remove the A/C control panel.
- Please remove page 23 of the “Operating instructions for the end customer” and add this to the vehicle operating instructions.



Heater unit installation location

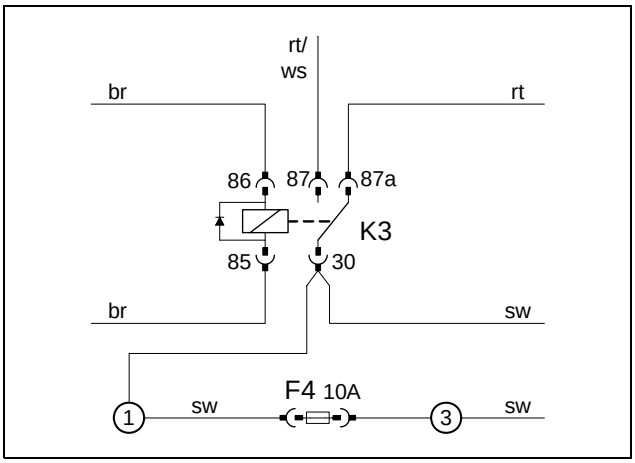
1 Heater unit



Preparing electrical system

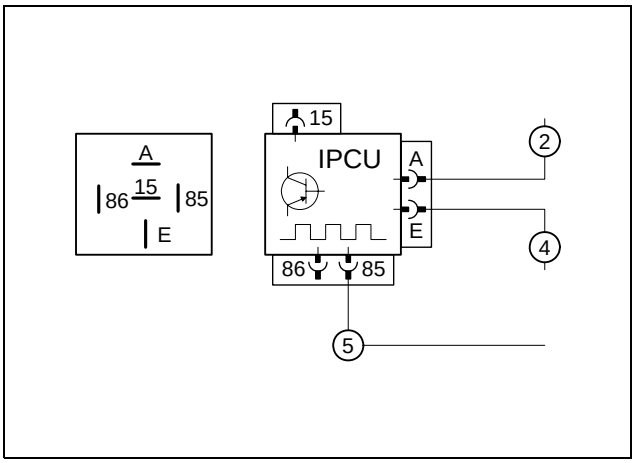
Cut included black (sw) wire to a length of 3,000 mm as shown.
All wire are required for connection of IPCU and fan controller!

Cutting wires to length



Pull wire section **3** into protective sleeving provided [2x] and route into passenger compartment together with clock and fan wiring harness.

Pre-mounting 4th fuse



Connect wires to IPCU.
Following adjustment values of IPCU must be checked and set if necessary prior to installation:

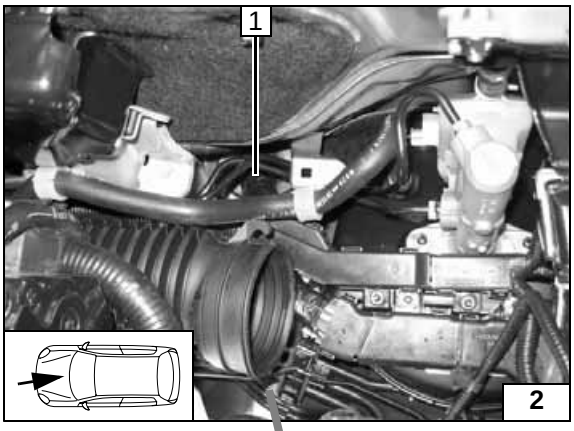
Duty cycle: 100 %
Frequency: 14000 Hz
Voltage: 2.8 V
Function: high-side active

Preassembling IPCU

Electrical Connections

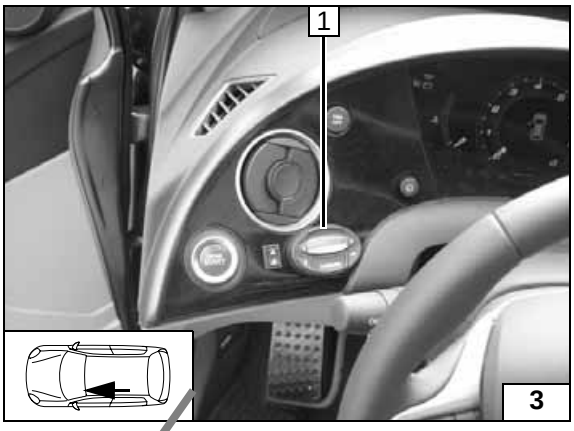
Wiring harness pass through

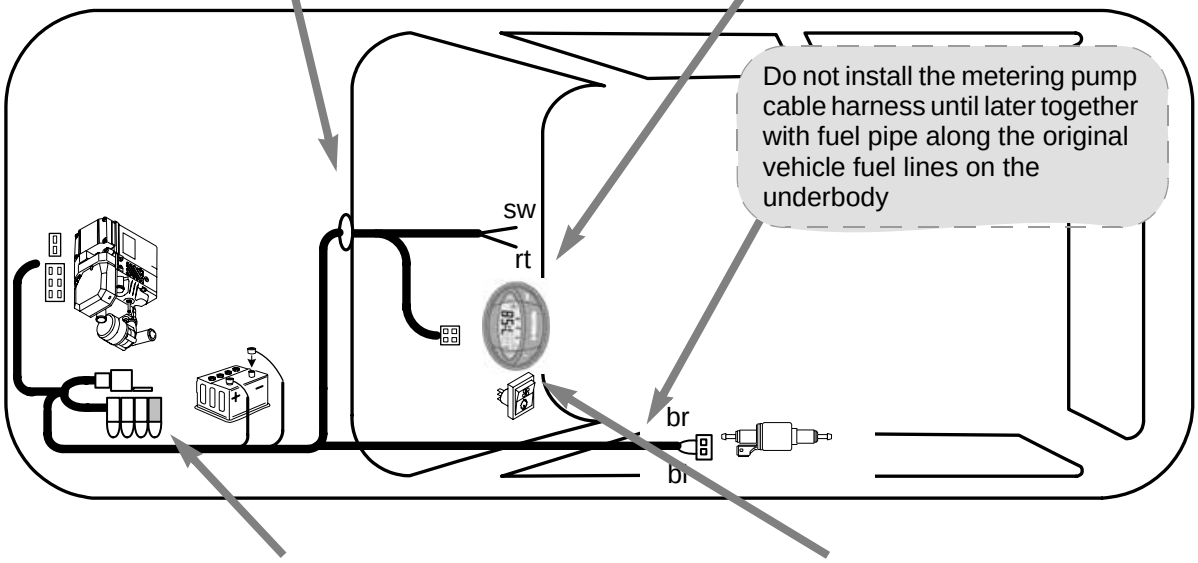
1 Protective rubber plug



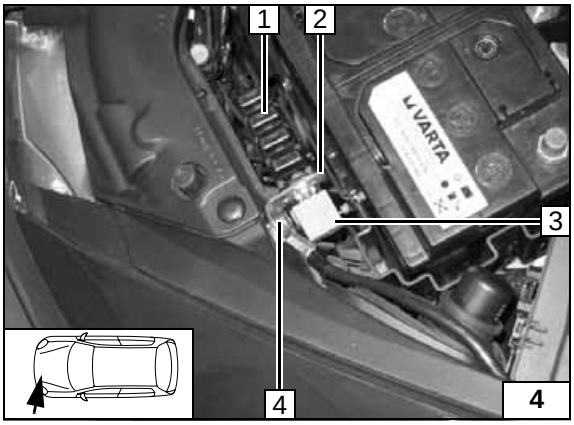
Digital timer

1 Digital timer



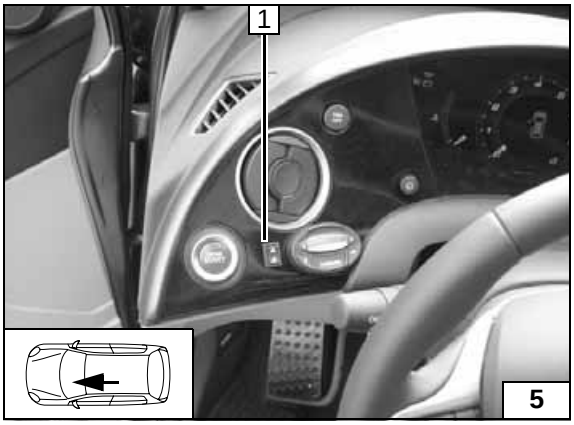


Wiring harness installation diagram



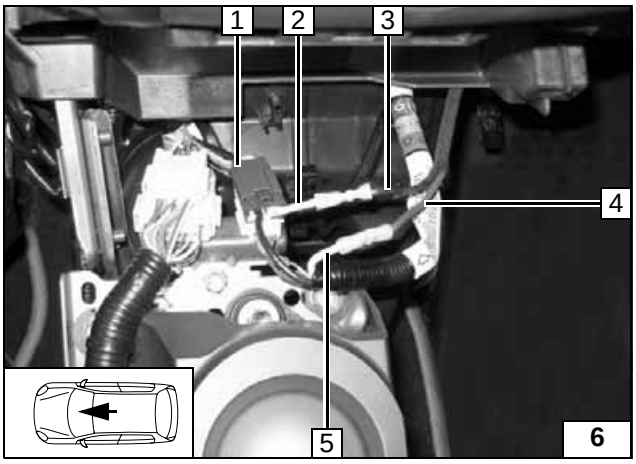
Fuse holder, relay K3

1 Fuse holder with retaining plate, M5x16 bolt, washer, angle bracket **2**, K3 relay **3**, M5 flanged nut
4 Original vehicle bolt



Summer/winter switch option

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

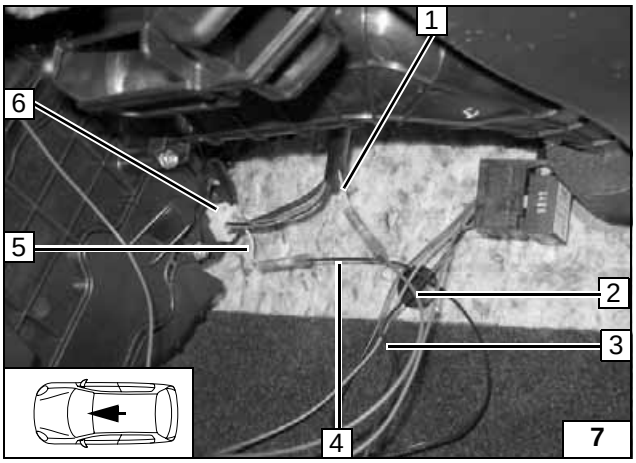


Fan controller

Connection on 2-pin connector **1** from wiring harness of fan relay to fan motor.
Make connections as shown in the wiring diagram with the connectors provided.

2 White (ws) wire from fan relay
3 Red (rt) wire to K3/87a
4 Black (sw) wire from K3/30
5 White (ws) wire to fan motor

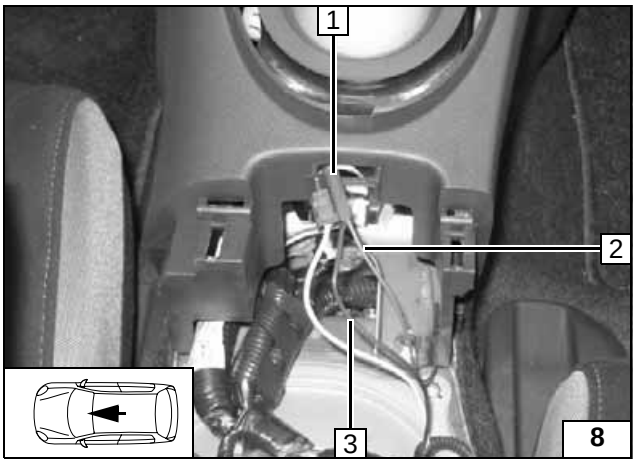
Connecting fan motor



Connection to 4-pin connector **6** from fan controller.

1 Yellow (ge) wire from A/C control panel
2 Red (rt) wire from IPCU/E
3 ③ wire from F4 to IPCU/86
4 Black (sw) wire from IPCU/A
5 Yellow (ge) wire to fan controller

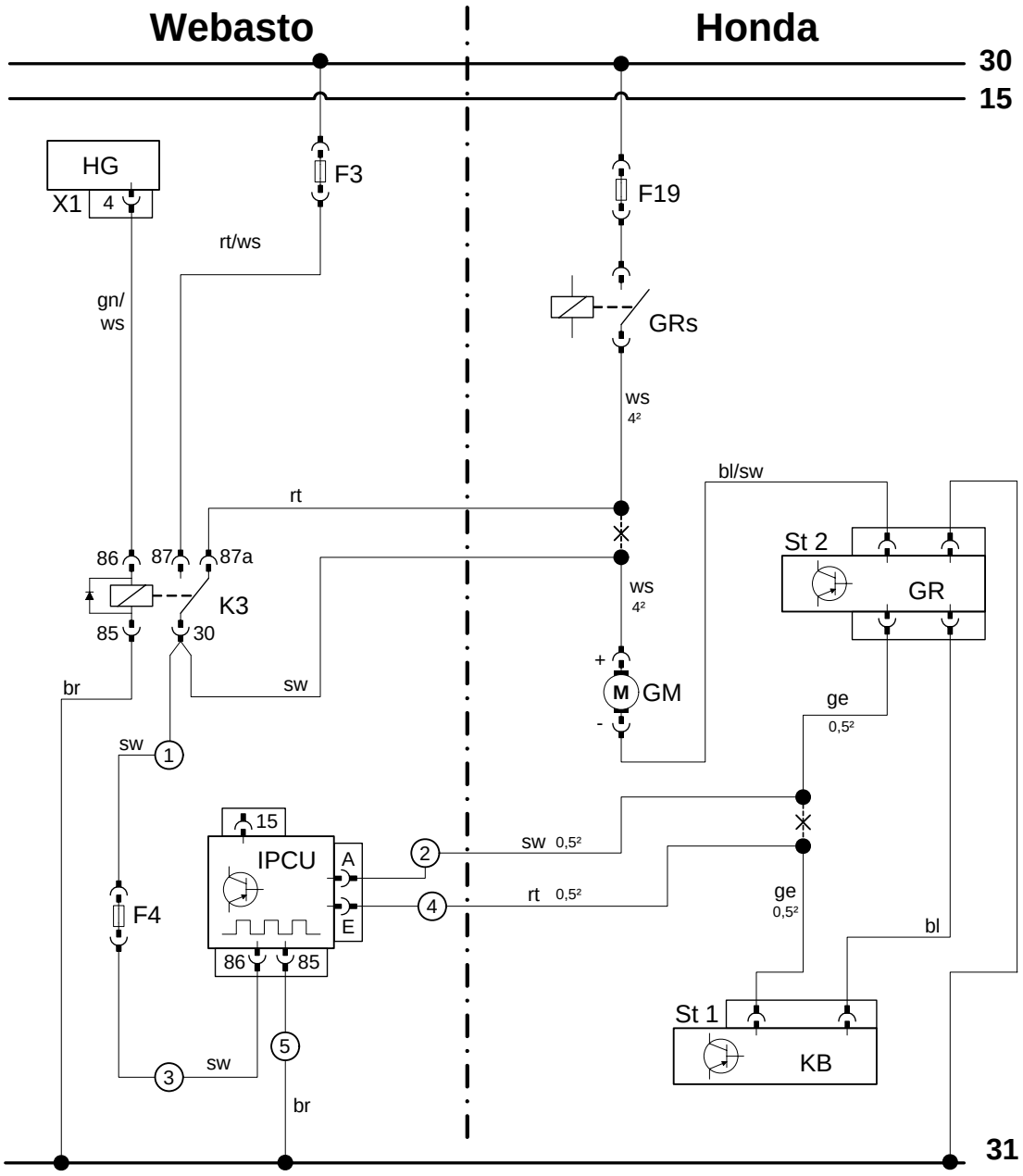
Connection of IPCU on fan controller



Connect brown (br) wire **2** from IPCU/85 and black (sw) wire **3** from cigarette lighter.

1 Connector of cigarette lighter

Connecting ground wire



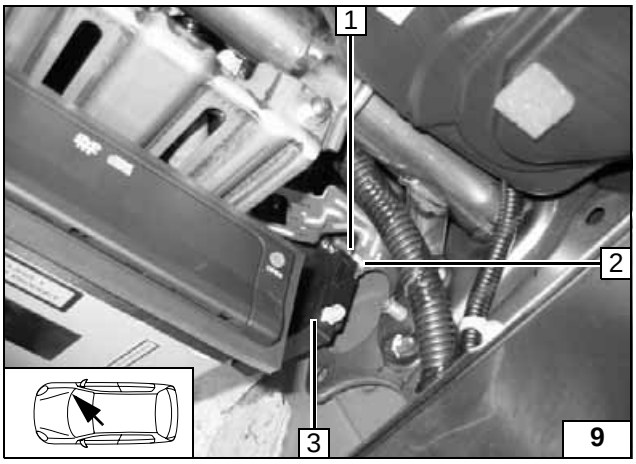
Automatic air-conditioning circuit diagram

Webasto components		Components of Honda Civic		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin connector	GR	Fan relay	ws	white
F3	Fuse	KB	Air-conditioning control panel	sw	black
K3	Fan relay	F19	Fuse 40A	br	brown
F4	1 A fuse	ST 1	32-pin connector	ge	yellow
IPCU	Pulse width modulator	ST 2	4-pin connector	bl	blue
				X	Cutting point
				Wiring colors may vary.	

Legend

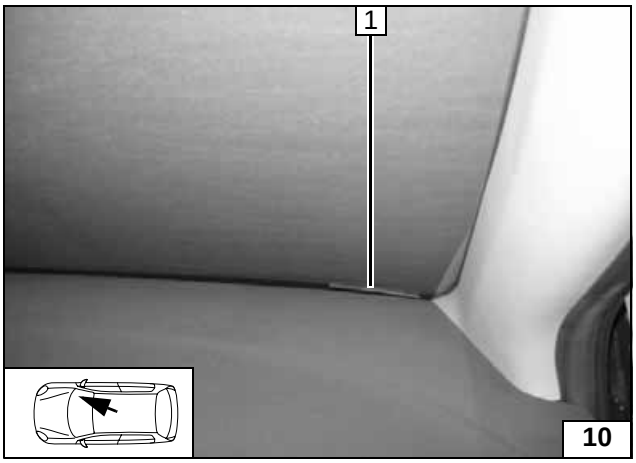
Remote option (Telestart)

Installing receiver



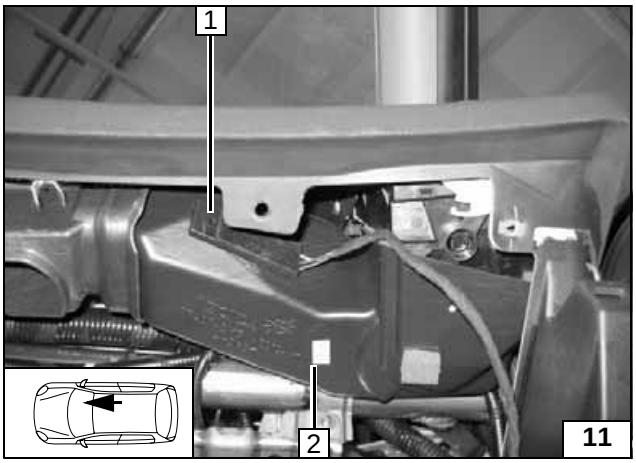
3 Receiver
1 Original vehicle bolt
2 Telestart bracket, drill out hole to 7 mm dia.

Installing antenna



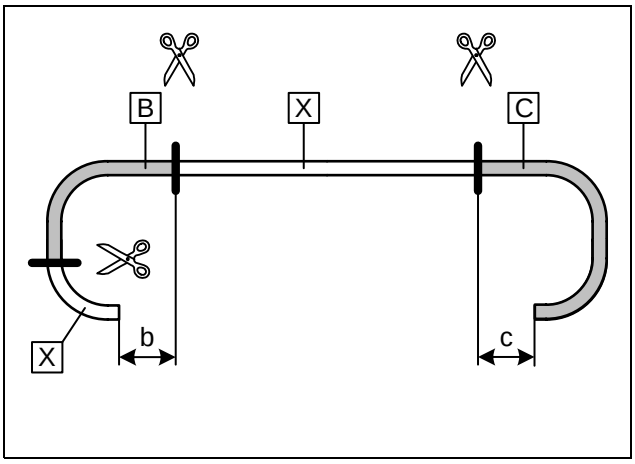
1 Antenna

Installing temperature sensor



Temperature sensor for HTM100 only

1 -Fasten temperature sensor with installation tape
2 Original vehicle air duct



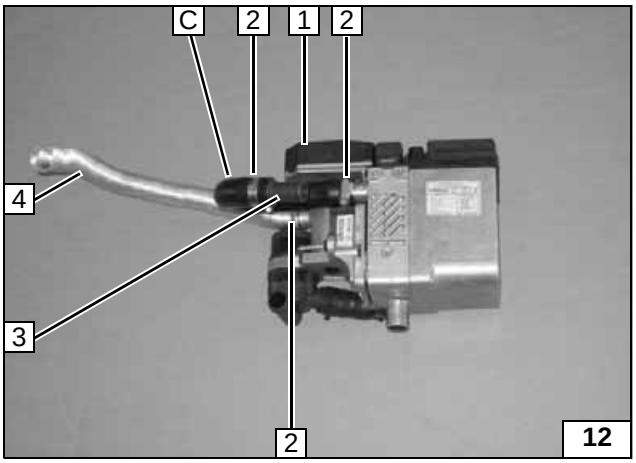
Preparing heater unit

Coolant hose 1 = 20 mm dia.

b = 100 mm
c = 40 mm

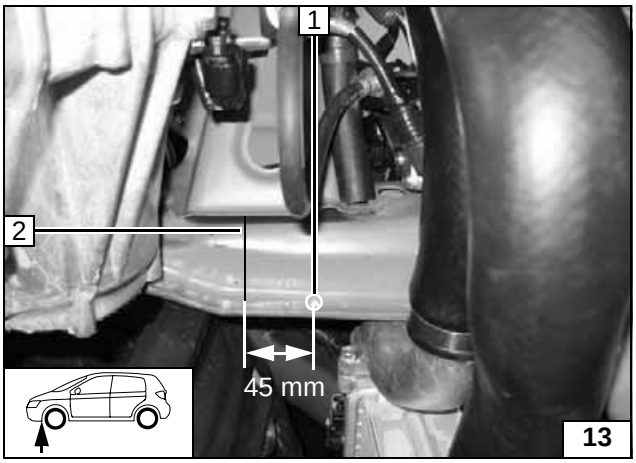
Discard section **X**

Cutting coolant hose 1 to length



1 Heater unit
2 Hose clamp [3x]
3 18x20 connecting pipe
4 Combustion-air intake pipe

Preassembling heater unit

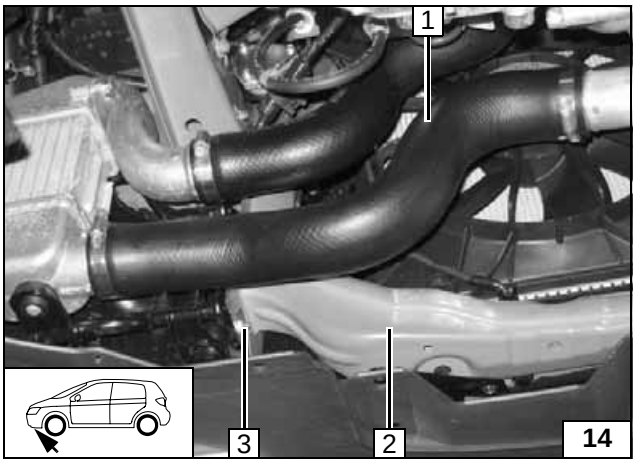


Preparing installation location

Copy hole pattern as shown in to center of fold and drill 7 mm dia. hole **1**.

2 Weld seam

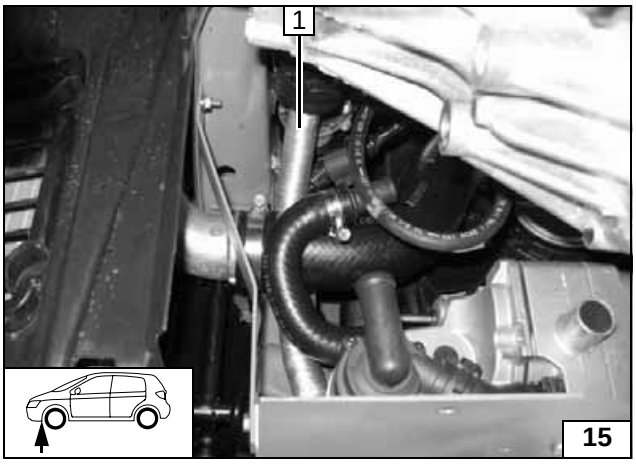
Copying hole pattern



Remove lower hose of turbocharger **1**.

2 Radiator carrier
3 Replace original vehicle bolt with M6x20 bolt

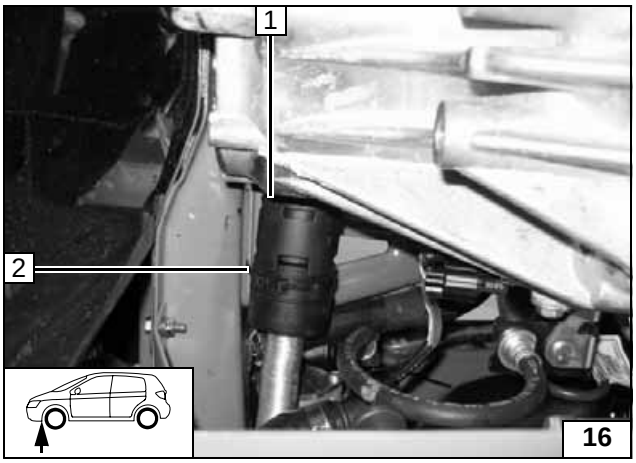
Preparing installation location



Combustion air

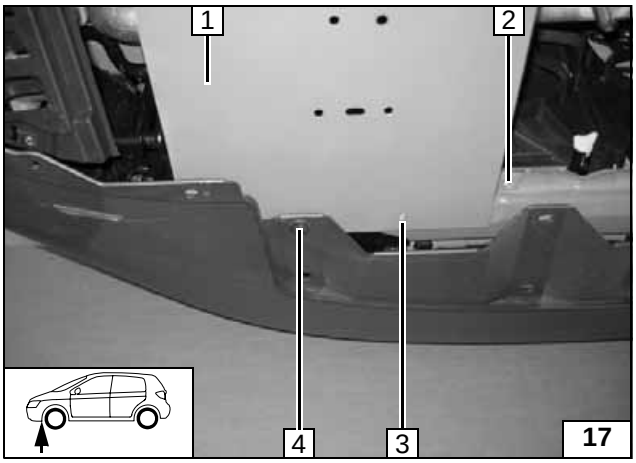
1 Combustion-air intake pipe

Installing intake pipe



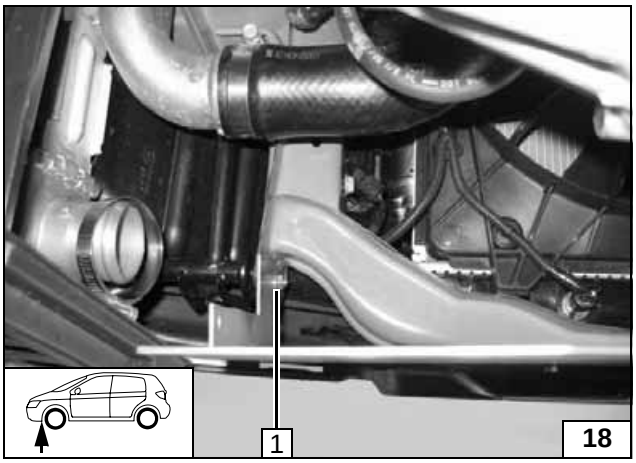
1 Combustion-air intake muffler
2 Cable tie

Installing muffler



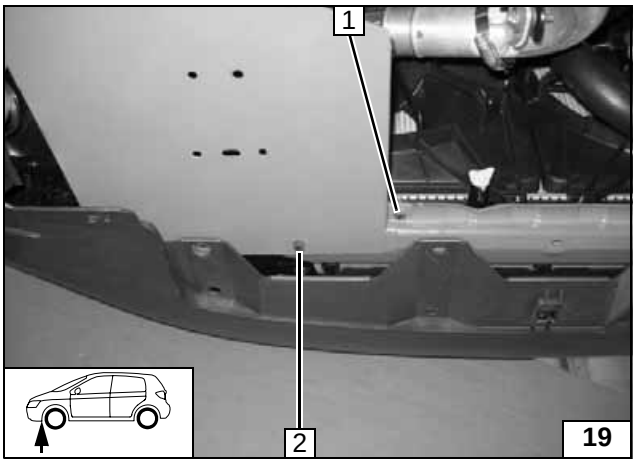
1 Bracket
2 Copy hole pattern, 7 mm dia. drilled hole
3 Copy hole pattern, drill 9 mm dia. hole and mount M6 rivet nut
4 Original vehicle bolt

Copying hole pattern



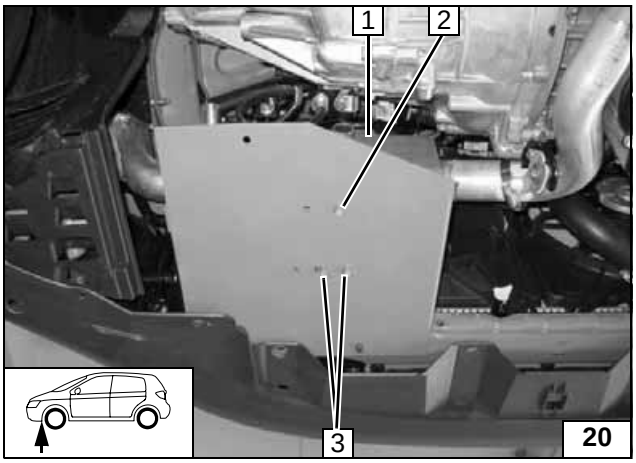
1 Premounted M6x20 bolt, M6 flanged nut

Installing bracket



1 M6x20 bolt, large diameter washer, M6 flanged nut
2 M6x20 screw, spring lock washer, M6 rivet nut

Installing bracket

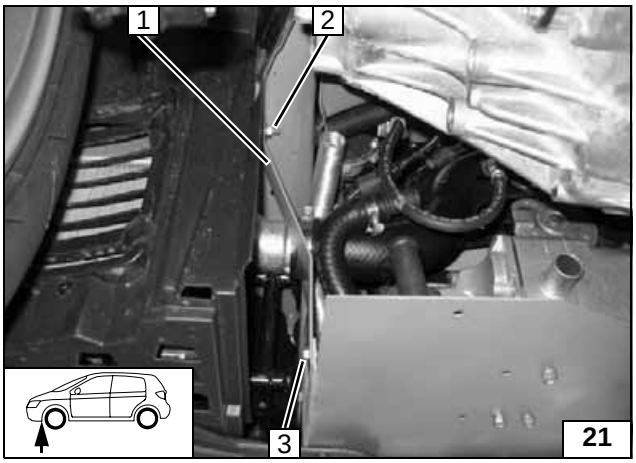


Installing heater unit

Tighten EJOT screws to 10 Nm!
Insert two washers between heater unit and bracket at position **2**.

1 Heater unit
2 Ejot screw
3 Ejot screw [2x]

Installing heater unit

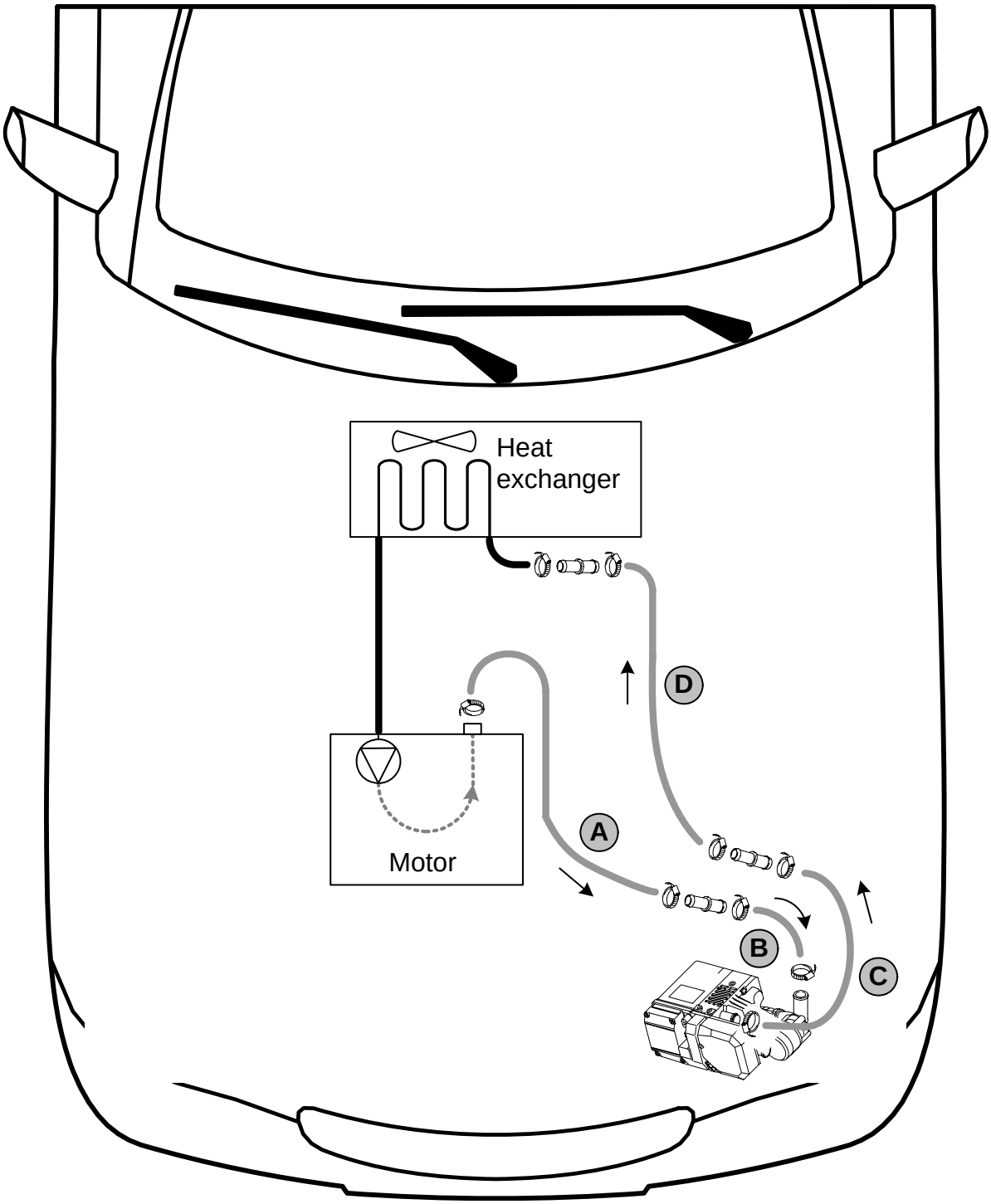


1 Strut
2 M6x20 bolt, flanged nut M6
3 M6x12 screw, spring lock washer, M6 rivet nut

Installing strut

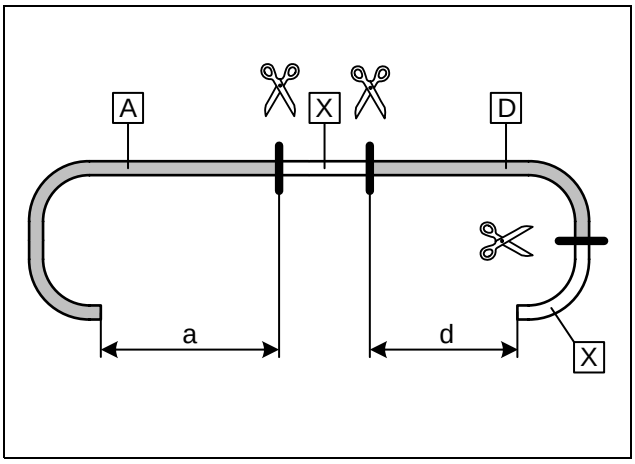
Coolant connection

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 clamps without a specific designation = 20-27 mm dia. hose clamps!
All connecting pipes = 18x20 dia..

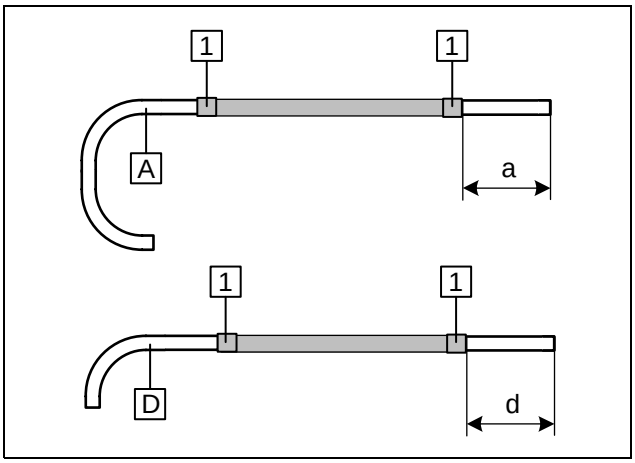


Coolant hose 2 = 18 mm dia.

a = 580 mm
d = 620 mm

Discard section **X**

Cutting coolant hose 2 to length

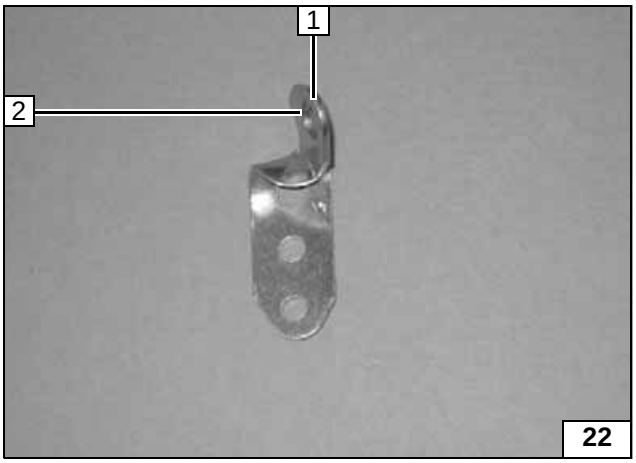


Cut braided protection hose in half and push onto hose **A** and **D**.
Cut heat shrink plastic tubing into 4 pieces.

1 25 mm heat shrink plastic tubing [4x]

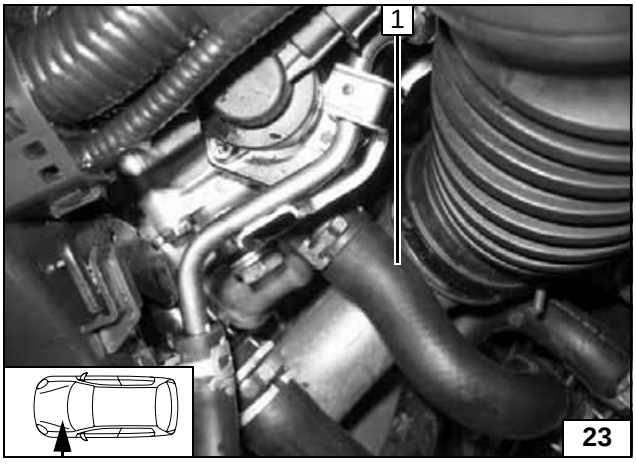
a = 90 mm
d = 100 mm

Preparing coolant hoses



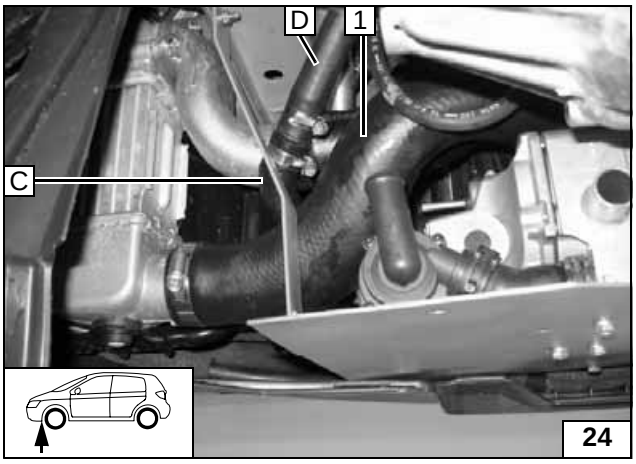
1 Perforated bracket
2 Drill out hole to 10 mm dia.

Bending perforated bracket



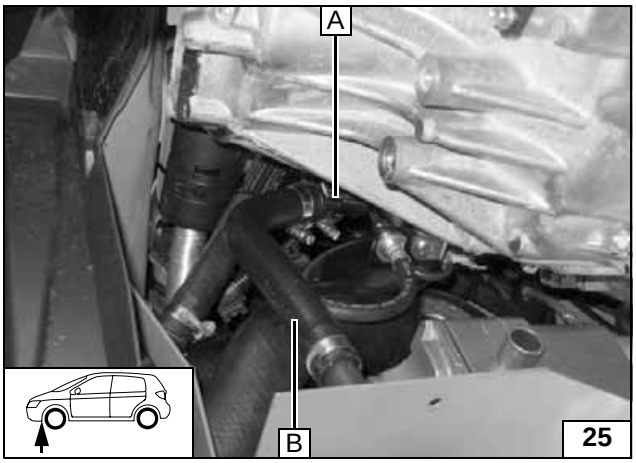
1 Pull off hose between engine outlet and heat exchanger inlet and discard clamp

Cutting point

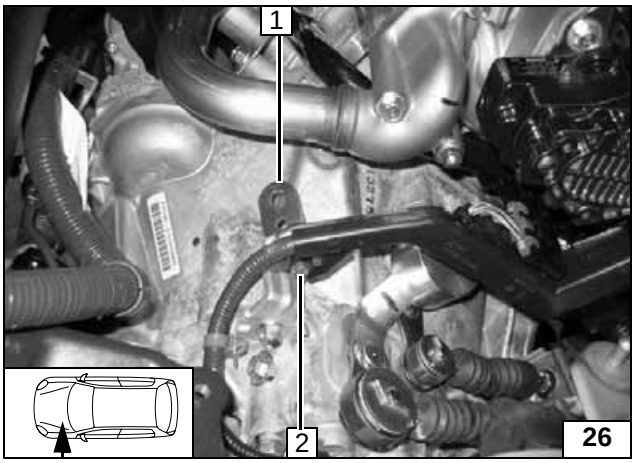


Install lower hose of turbocharger **1** turned by 180°.

Connection on heater unit

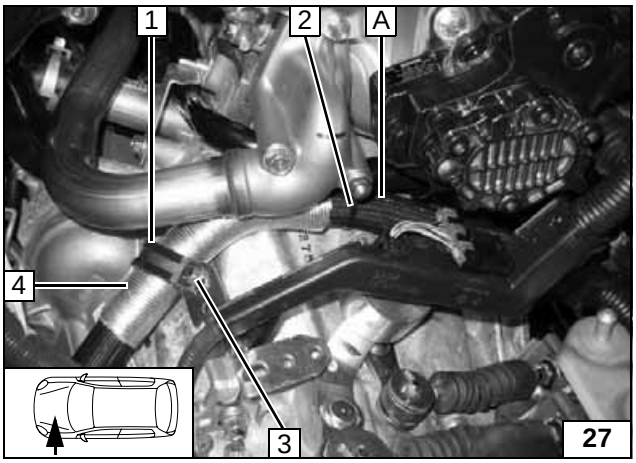


Connection on heater unit



1 Angle bracket
2 Replace original vehicle bolt with M6x20 bolt

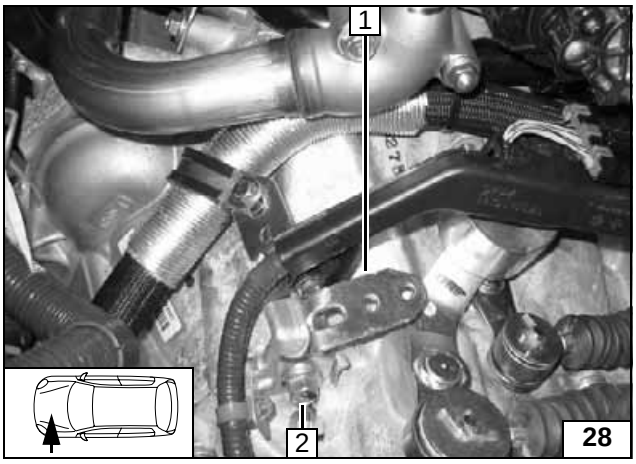
Preparing routing



Ensure sufficient distance to neighboring parts.

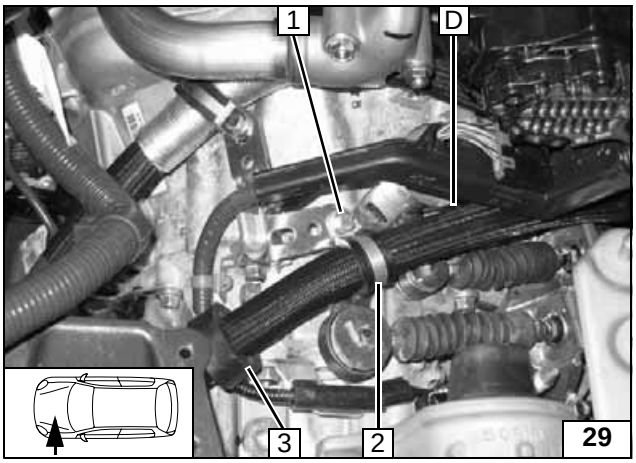
1 Rubber-coated pipe clamp, 34 mm dia.
2 Cable tie
3 M6x20 bolt, M6 flanged nut
4 Position heat protection hose

Routing in engine compartment



1 Perforated bracket
2 Original vehicle bolt

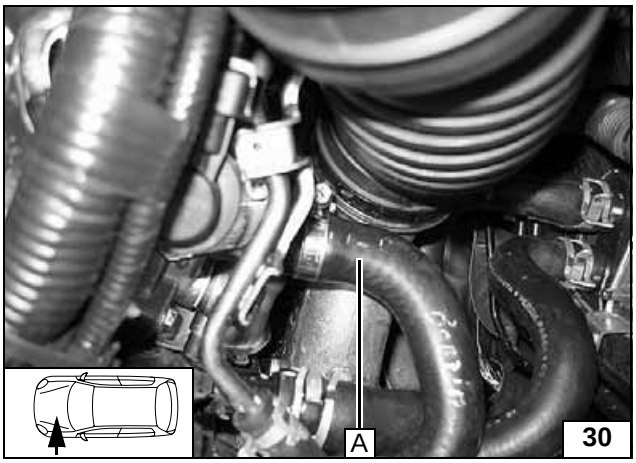
Preparing routing



Ensure sufficient distance to neighboring parts.

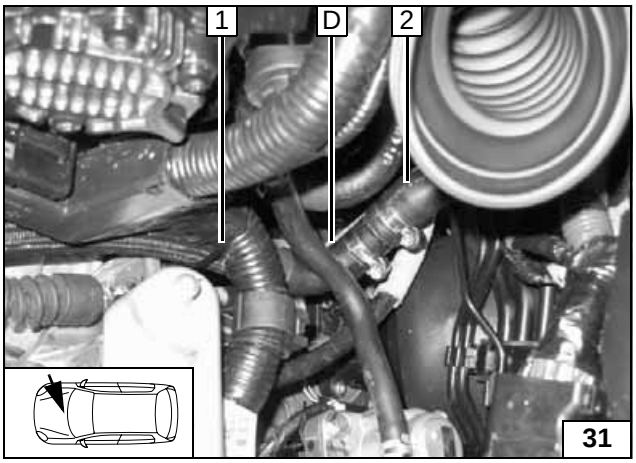
1 M6x20 bolt, M6 flanged nut
2 Rubber-coated pipe clamp, 34 mm dia.
3 Black (sw) rubber isolator

Routing in engine compartment



Before connecting, fill the coolant hoses with coolant. Install hose **A** with 180° elbow on engine outlet.

Connection to engine outlet



Install hose **D** with 90° elbow on hose of heat exchanger inlet **2**.

1 Cable tie

Connection on heat exchanger inlet

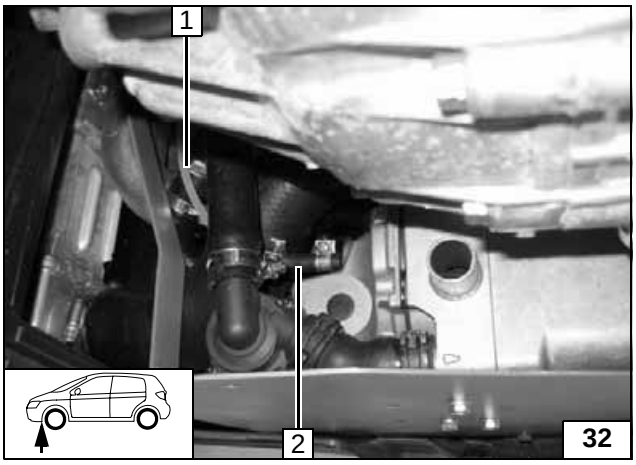
Fuel Connection

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.

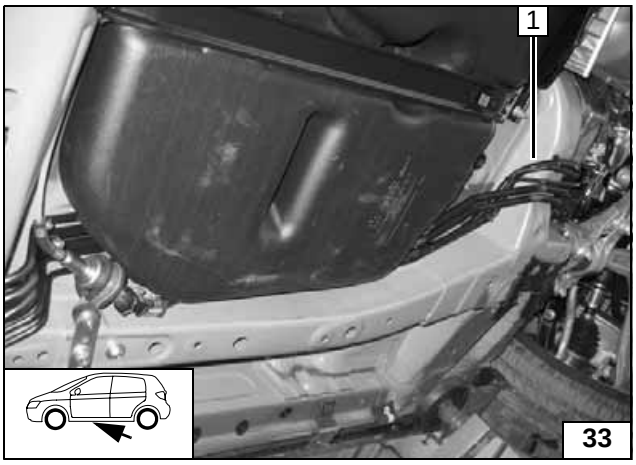
Install fuel line and metering-pump wiring harness so that they are protected against stone impact.
Unless specified otherwise, always fasten using cable ties.
Mount the fuel line and wiring harness with rub protection on sharp edges.

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



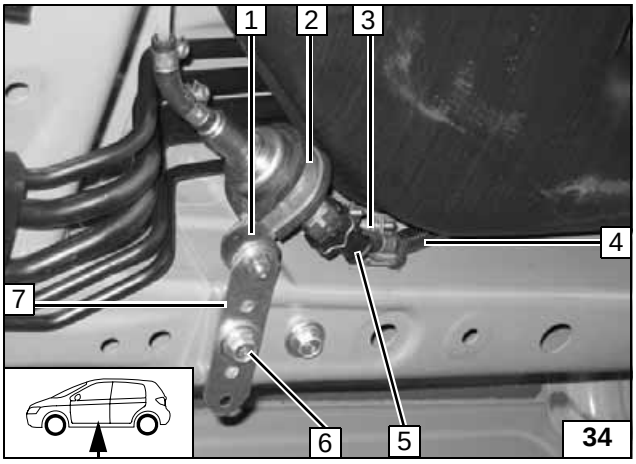
1 Mecanyl fuel line
2 Hose section, 10 mm dia. hose clamp [2x]

Connection on heater unit



Route Mecanyl fuel line and wiring harness of metering pump together along original vehicle fuel lines to installation location of metering pump. Pull both into corrugated tube on underbody at position **1**.

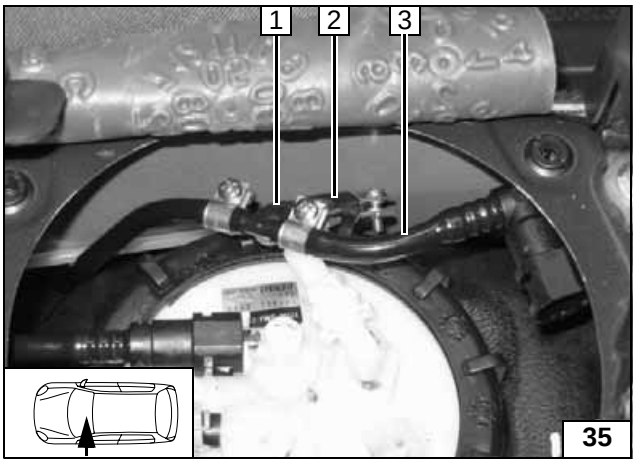
Installing lines



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

1 Noise isolation mounts, flanged nut M6 [2x]
2 Rubber-coated pipe clamp
3 Hose section, 10 mm dia. hose clamp [2x]
4 Corrugated tube
5 Wiring harness with connector
6 Original vehicle bolt, large diameter washer between perforated bracket **7** and vehicle

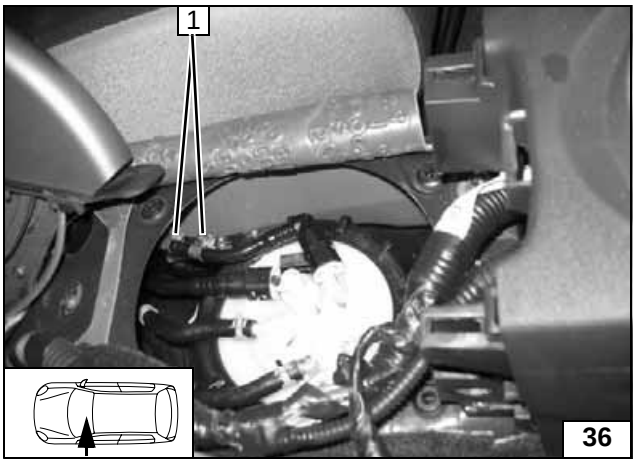
Installation location of metering pump



Cut off fuel supply line approx. 70 mm before coupling.

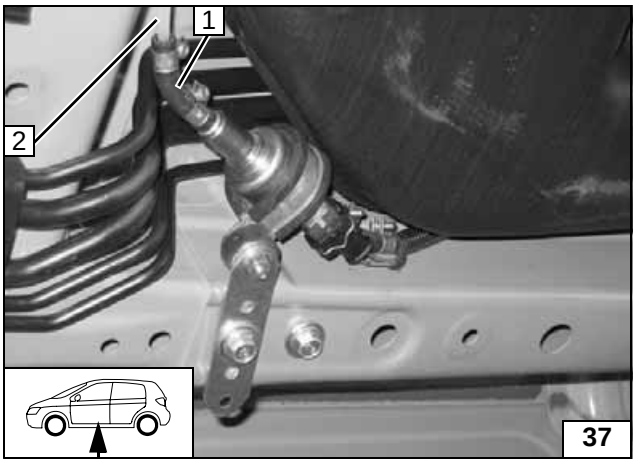
1 Fuel standpipe, 6x5x6
2 T Hose section, 10 mm dia. hose clamp [2x], remaining end of Mecanyl fuel pipe
3 Original vehicle fuel supply line

Removing fuel



1 8 mm dia. hose clamp [2x]

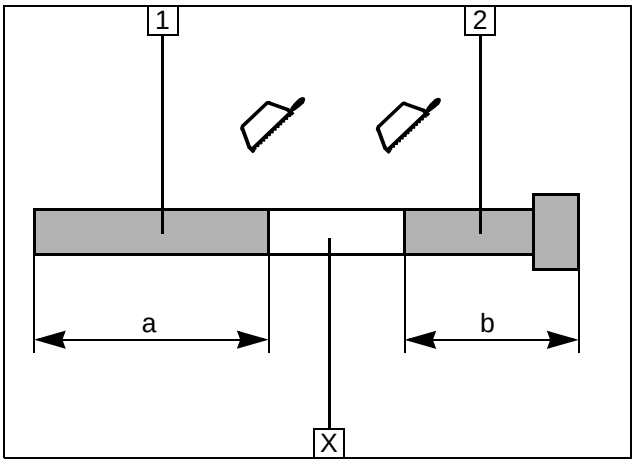
Mounting fuel standpipe



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.

1 Hose section, 10 mm dia. hose clamps [2x].
3 Metering pump
4 Original vehicle bolt

Con-nection to metering pump

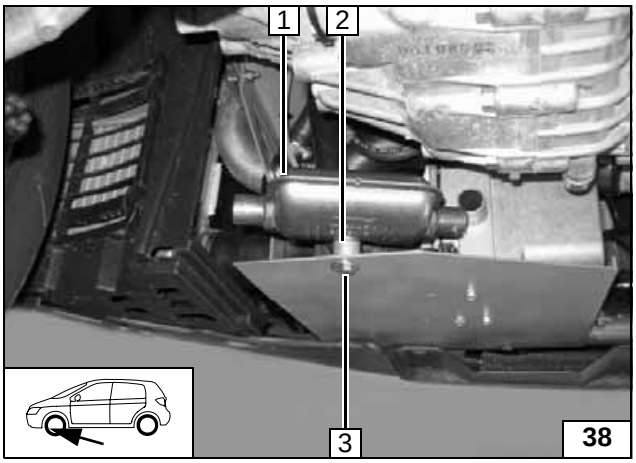


Exhaust system

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

Discard section **X**

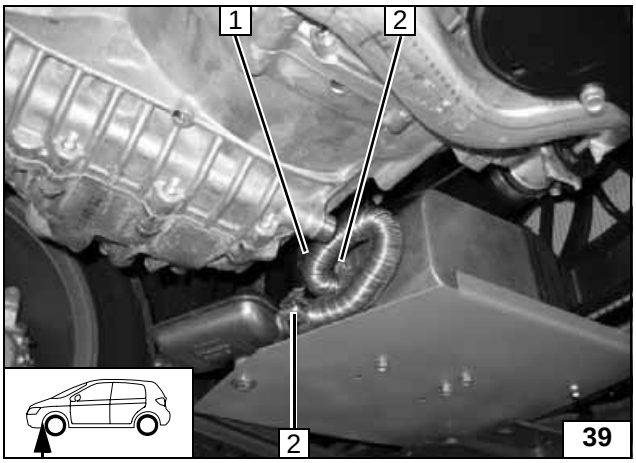
Preparing exhaust pipe



Ejot screw bolt, tightening torque 10 Nm!

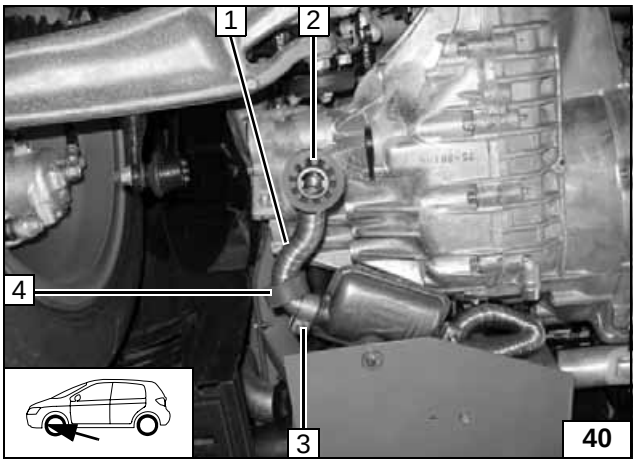
1 Muffler
2 30 mm long spacer
3 M6x50 bolt, large diameter washer, M6 flanged nut

Installing muffler



1 Exhaust pipe
2 Hose clamp [2x]

Installing exhaust pipe



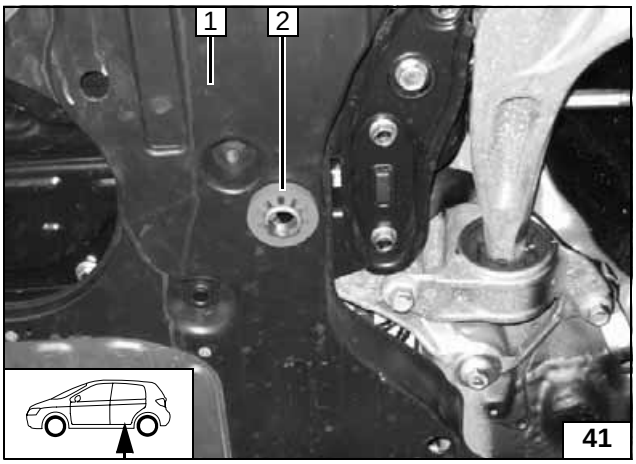
1 Exhaust end section
2 Red (rt) rubber isolator with groove
3 Hose clamp
4 Red (rt) rubber isolator

Installing exhaust end section

Final Work

WARNING!
Reassemble the disassembled components in reverse order.
Check all hoses, hose, spring and Caillau clamps, as well as 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
- Start the engine, bleed the coolant circuit according to the vehicle manufacturer's instructions and top up coolant
- 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.



1 Underride protection
2 Drill out existing hole to 42 mm dia., red (rt) rubber isolator with groove

Mounting rubber isolator

Webasto

Feel the drive

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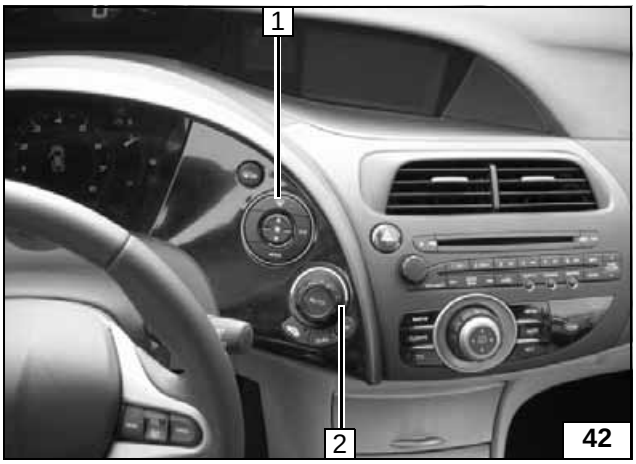
Operating Instructions for End Customer

Please remove page and add to the vehicle operating instructions.

Before parking the vehicle, make the following settings:



1 Air outlet to windshield
2 Set temperature to "max."