

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

Nissan Qashqai / Qashqai +2

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
Nissan	Qashqai	J10	e11 * 2001/116 * 0295 *
Nissan	Qashqai +2	J10	e11 * 2001/116 * 0295 *

Engine type	Engine model	Output in kW	Displacement in cm ³
HR16	Gasoline	84	1598
MR20	Gasoline	104	1997

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	Nissan-specific delivery scope	See Nissan price list
1	Installation kit for Nissan Qashqai / Qashqai +2 Gasoline	1311968B

Also required:

Quantity	Description	Order No.:
1	Heater control according to Nissan price list	See Nissan price list

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 Nissan Qashqai / Qashqai +2 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 must be provided with rub protection (cut-open fuel hose) !

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

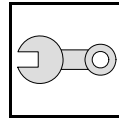
Special Tools

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

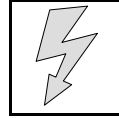
Explanatory Notes on Document

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

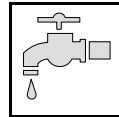
Mechanical system



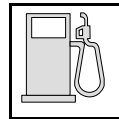
Electrical system



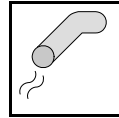
Coolant



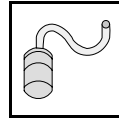
Fuel



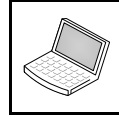
Exhaust gas



Combustion air



Software



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



Specific risk of fire or explosion.



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



Reference to a special technical feature.



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

All dimensions are in mm!

Tightening torque of hose clamps = 2.0 + 0.5 Nm!

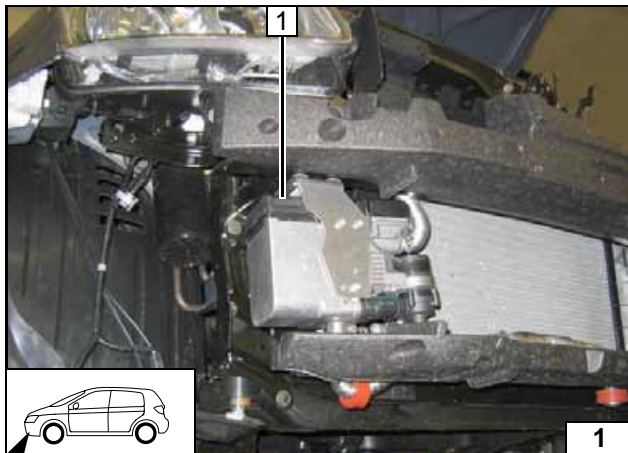
Tightening torque of Ejet screws, Ejet studs = 10 Nm!

Preliminary Work

WARNING!

- Open the fuel tank cap and vent the fuel tank.
- Close the tank cap again.
- Disconnect the battery "earth" or "ground" connection.
- Depressurize the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Remove the air filter together with the intake hose.
- Remove the bumper.
- Remove the trim of the right-hand air ducting.
- Remove the left-hand underride protection.
- Remove the rear seat bench
- Open the right-hand fuel sender service lid.
- Remove fuel-tank sending unit in accordance with manufacturer's instructions.
- Remove the A/C control panel (only with automatic air-conditioning).
- Remove the trim in the driver's side footwell
- Detach the fuse box in the passenger compartment

Remove page 30 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater unit installation location

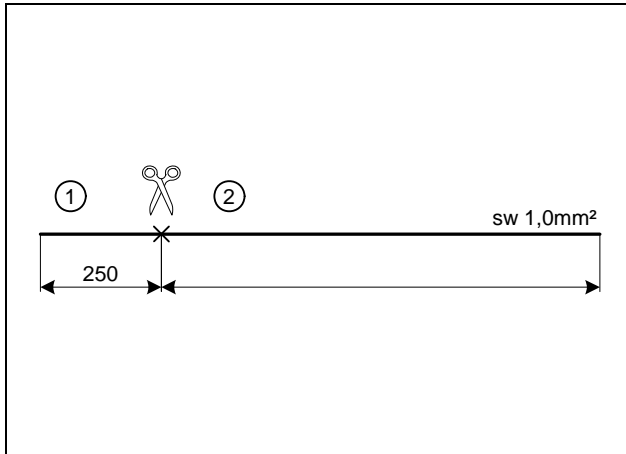
- 1 Heater unit

Installation location

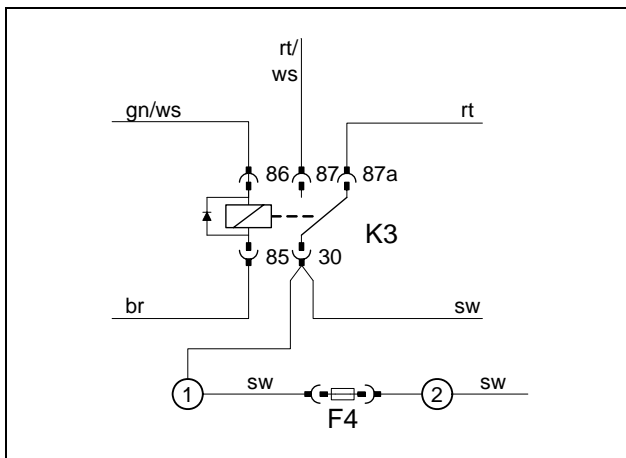


Preparing electrical system

Only with automatic air-conditioning



Cutting wires to length



Produce connections as shown in wiring diagram. Install wire section 2 in the protective sleeving provided.



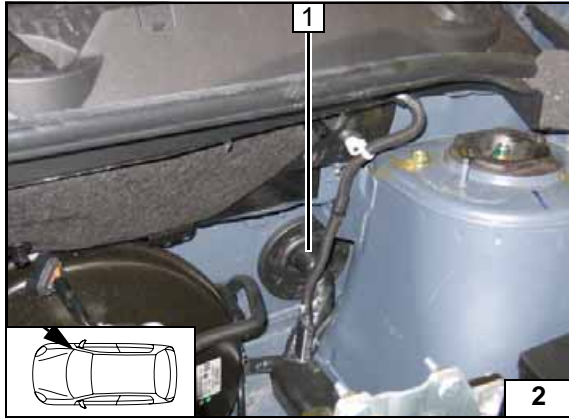
Preparing fuse F4



Electrical Connections

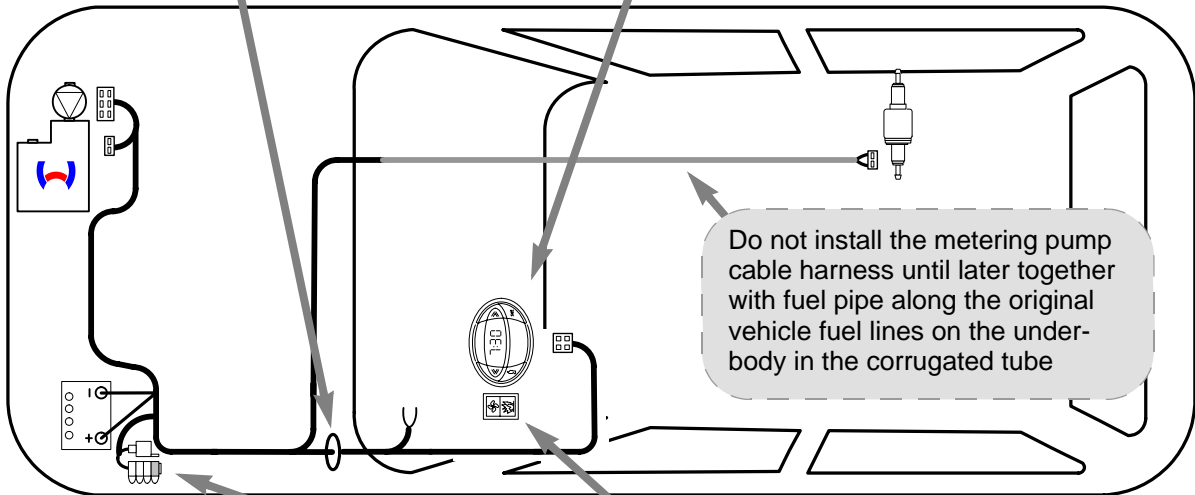
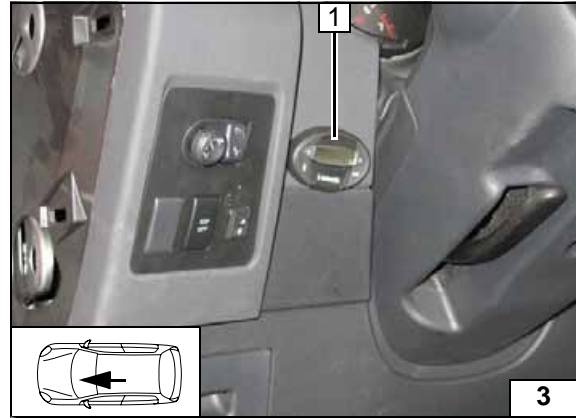
Wiring harness pass through

- 1 Protective rubber plug

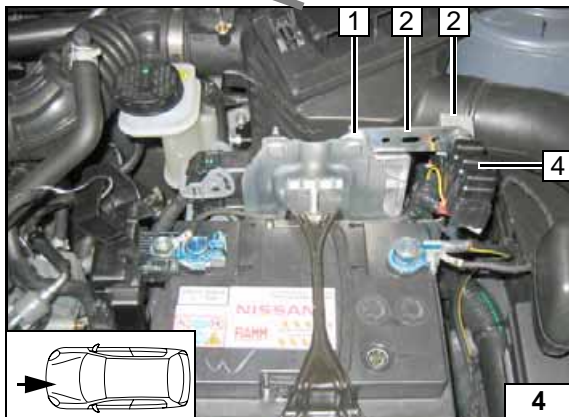


Digital timer

- 1 Digital timer

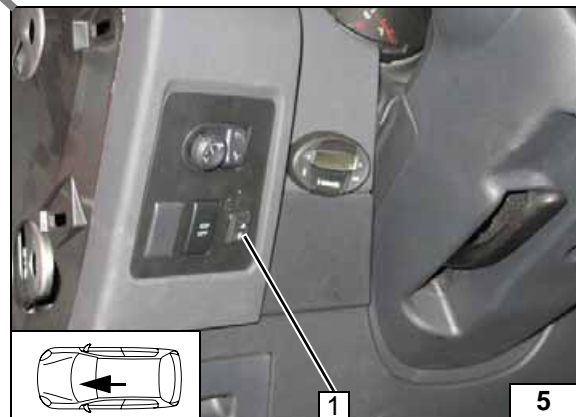


Wiring harness installation diagram



Fuse holder, K3 relay

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

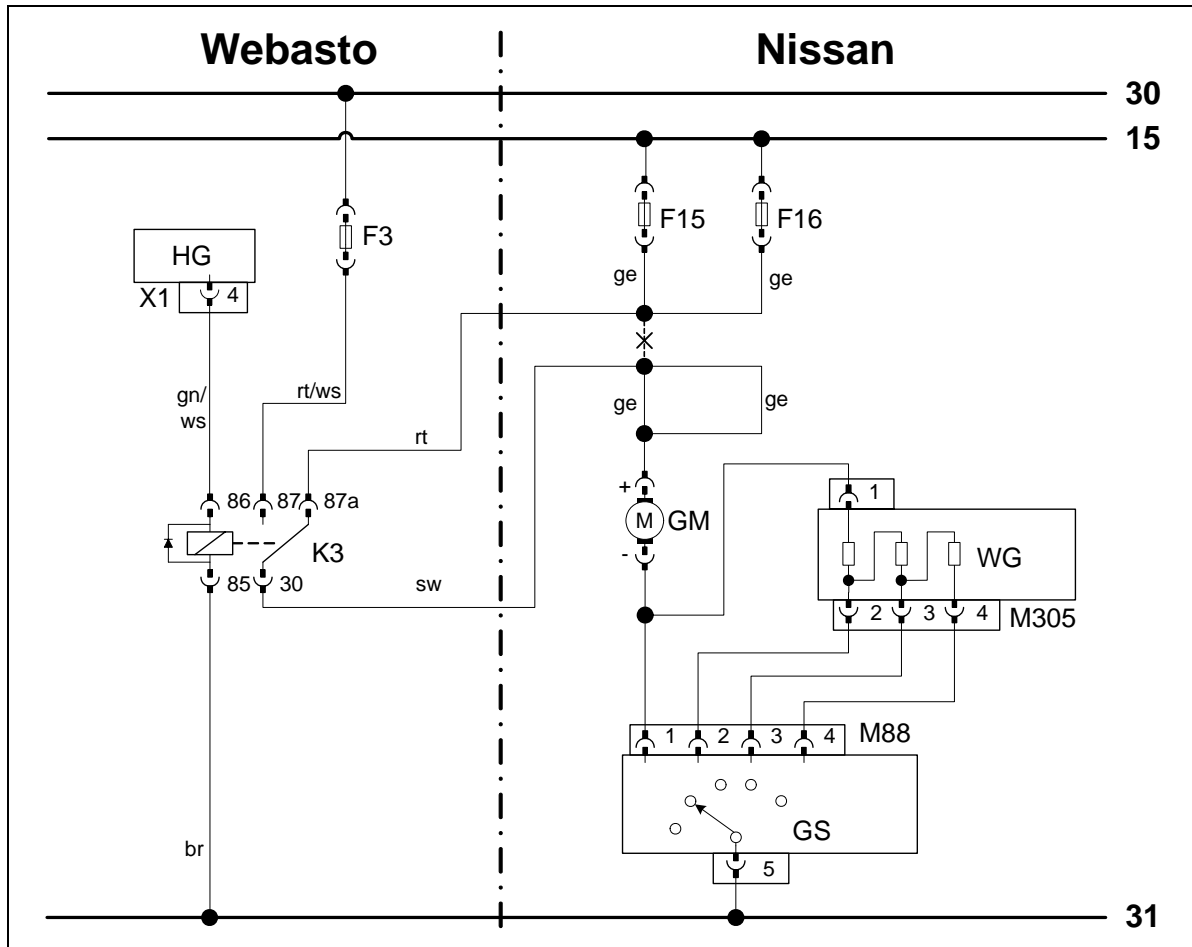


Summer/winter switch option

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



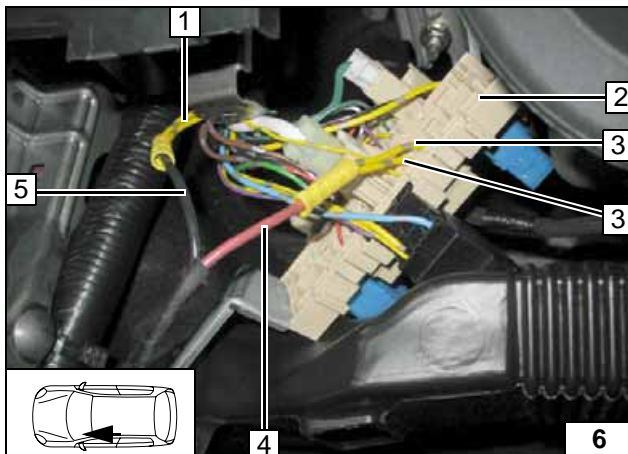
Fan controller for manual air conditioning



Wiring diagram

Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin connector	GS	Fan switch	ws	white
F3	25 A fuse	WG	Resistor group	sw	black
K3	Fan relay	F15	15 A fuse	gn	green
		F16	15 A fuse	ge	yellow
		M 88	8-pin connector		
		M305	4-pin connector	X	Cutting point
				Wiring colors may vary.	

Legend



Connection on central electrical box **2** on driver's side.

Produce connections as shown in wiring diagram.

- 1 Yellow (ge) wire [2x] to fan motor
- 3 Yellow (ge) wire [2x] for fuse F15 and F16
- 4 Red (rt) wire from K3/87a
- 5 Black (sw) wire from K3/30



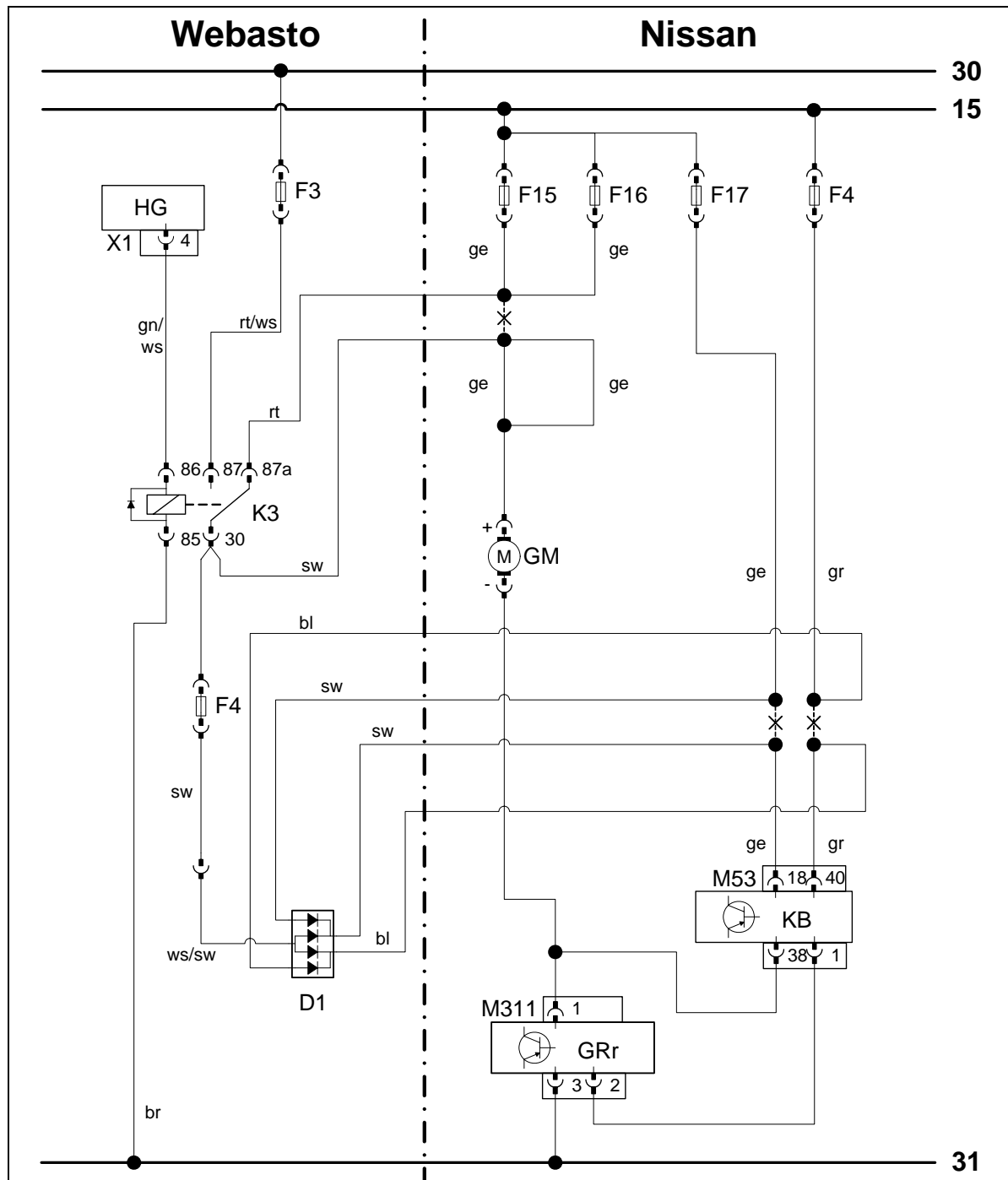
Connection for fan motor



Automatic air-conditioning fan controller

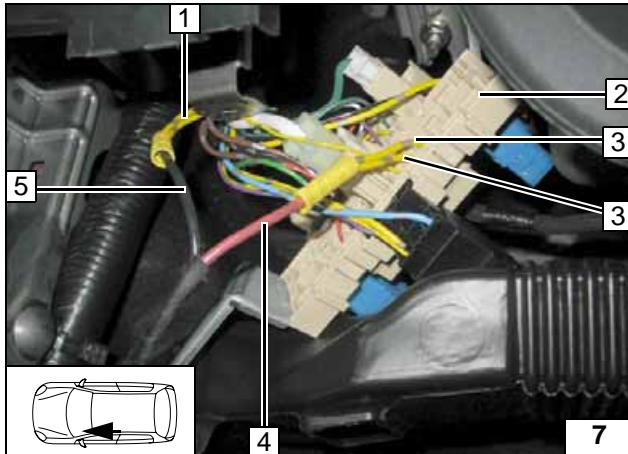


Wiring diagram



Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin connector	KB	A/C control panel	ws	white
F3	Fuse	GRr	Fan controller	sw	black
K3	Fan relay	F4	10 A fuse	br	brown
D1	Diode group	F15	15 A fuse	gn	green
F4	1 A fuse	F16	15 A fuse	bl	blue
		F17	10 A fuse	ge	yellow
		M53	40-pin connector	gr	gray
		M311	4-pin connector		
				X	Cutting point
				Wiring colors may vary.	

Legend

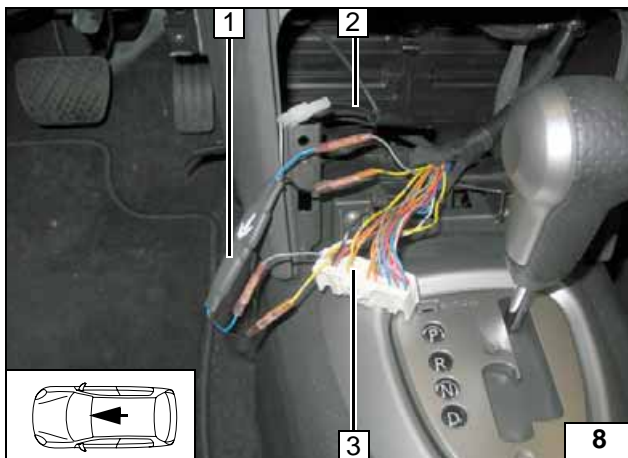


Connection on central electrical box **2** on driver's side.
Produce connections as shown in wiring diagram.

- 1 Yellow (ge) wire [2x] to fan motor
- 3 Yellow (ge) wire [2x] for fuse F15 and F16
- 4 Red (rt) wire to K3/87a
- 5 Black (sw) wire from K3/30



**Connec-
tion for fan
motor**

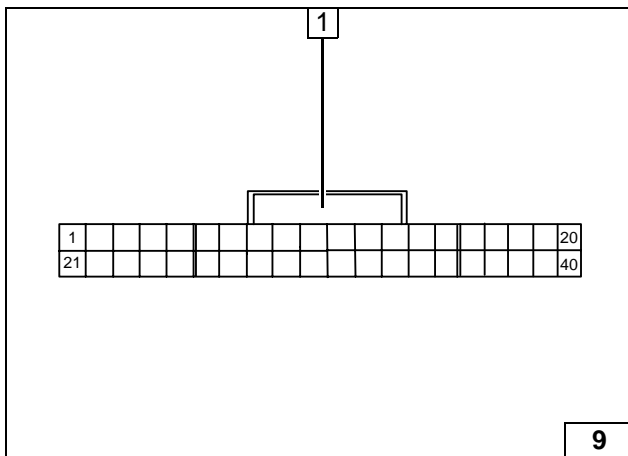


Connection on 40-pin connector M53 **3** from A/C control panel.
Produce connections as shown in wiring diagram.

- 1 Diode group
- 2 Black (sw) wire from F4



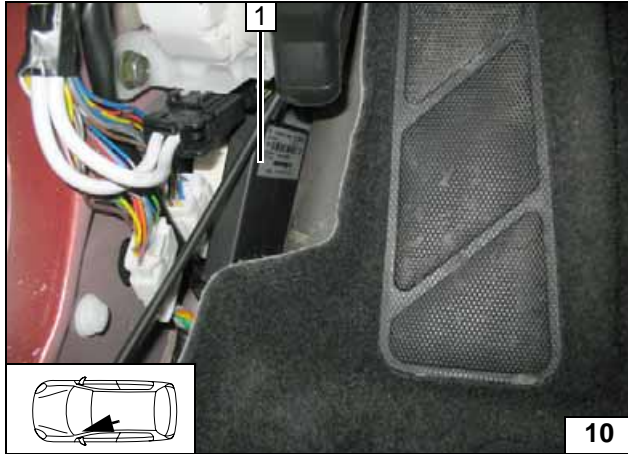
**Connect-
ing A/C
control
panel**



- 1 Connector M53 on cable side



**View of
connector
M53**

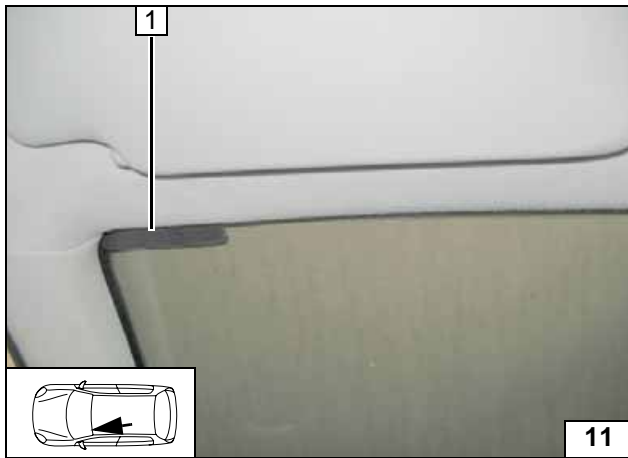


Remote option (Telestart)

Fasten receiver 1 with suitable means.

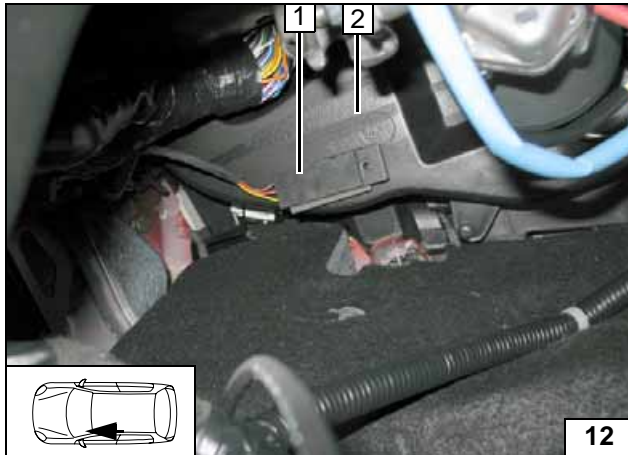


Installing receiver



1 Antenna

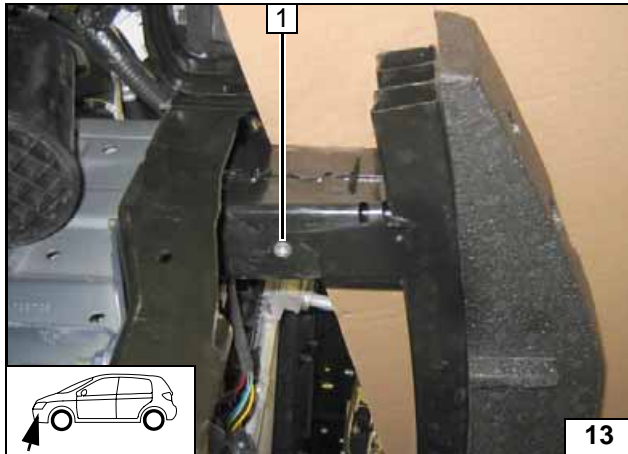
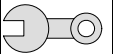
Installing antenna



Temperature sensor for HTM100 only

- 1 Fasten temperature sensor with suitable means
- 2 Air duct on driver's side

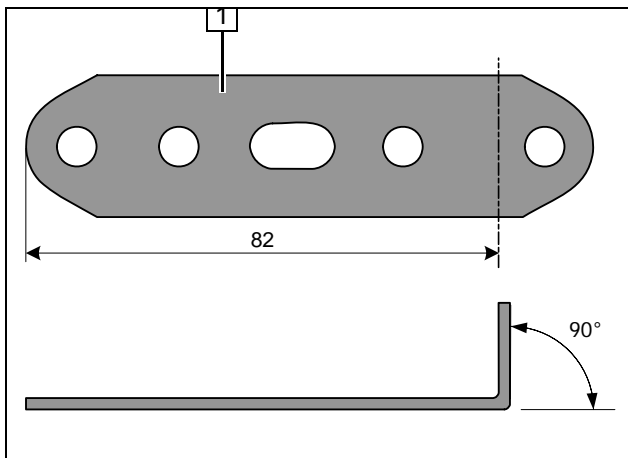
Installing temperature sensor



Preparing installation location

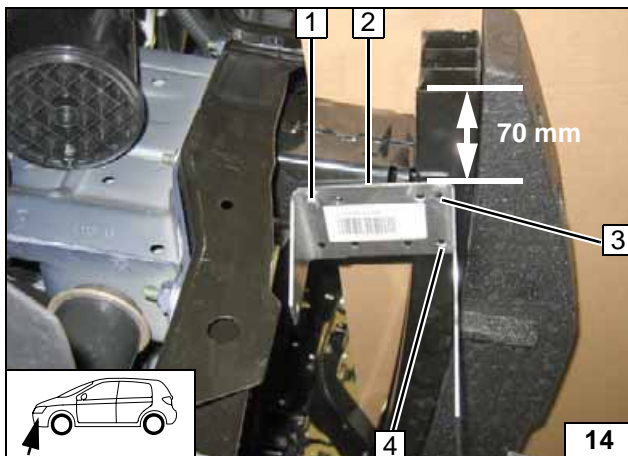
- 1 M6 rivet nut in existing hole

Installing rivet nut



- 1 Perforated bracket

Bending perforated bracket

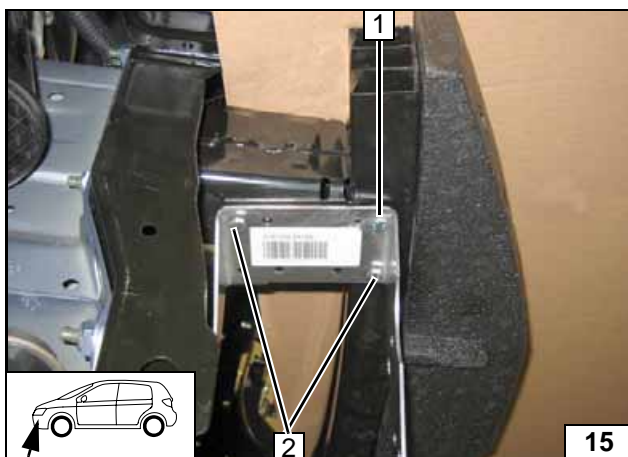


Align bracket 2 as shown and install at position 1. Copy hole patterns at position 3 and 4.

- 1 M6x20 bolt, spring lockwasher
- 3 7 mm dia. hole
- 4 Drill 9.1 mm dia. hole; install M6 rivet nut



Copying hole pattern



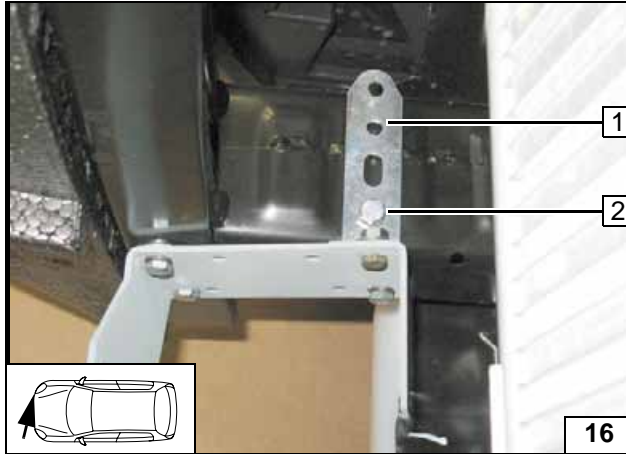
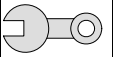
Installing bracket

Insert one large diameter washer between bracket and vehicle at position 1 and two large diameter washers at position 2.

- 1 M6x20 bolt, large diameter washer [2x], flanged nut
- 2 Rivet nut, M6x20 bolt, spring lockwasher, large diameter washer [2x each]



Installing bracket

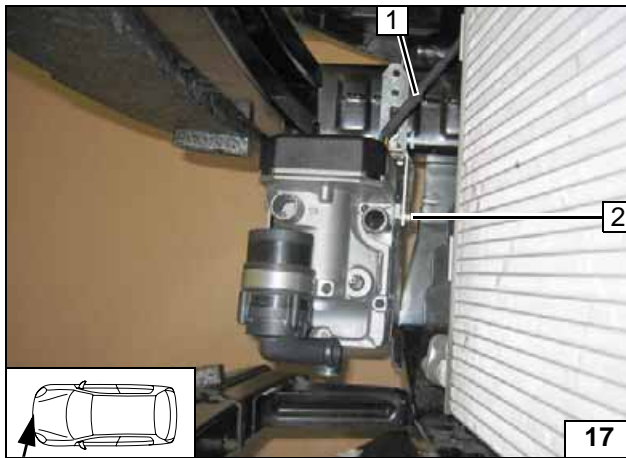


Install perforated bracket **1**. Copy hole pattern at position **2**.

2 Rivet nut, M6x20 bolt, spring lockwasher



Installing bracket



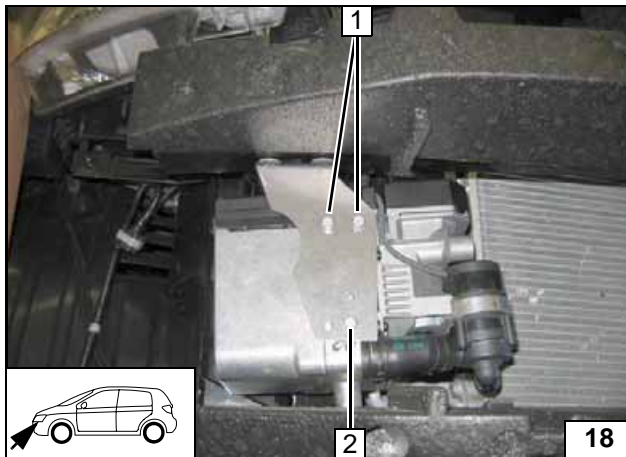
Installing heater unit

E-jot screw bolt, tightening torque 10 Nm! Before installing heater unit, wiring harness **1** must be connected.

2 E-jot screw



Installing heater unit



Insert two washers between heater unit and bracket at Position **2**.

E-jot screws, tightening torque 10 Nm!

1 E-jot screw [2x]

2 E-jot screw



Installing heater unit



Coolant on 1.6 liter gasoline engine

WARNING!

Tighten all hose clamps to 2.0 + 0.5 Nm.

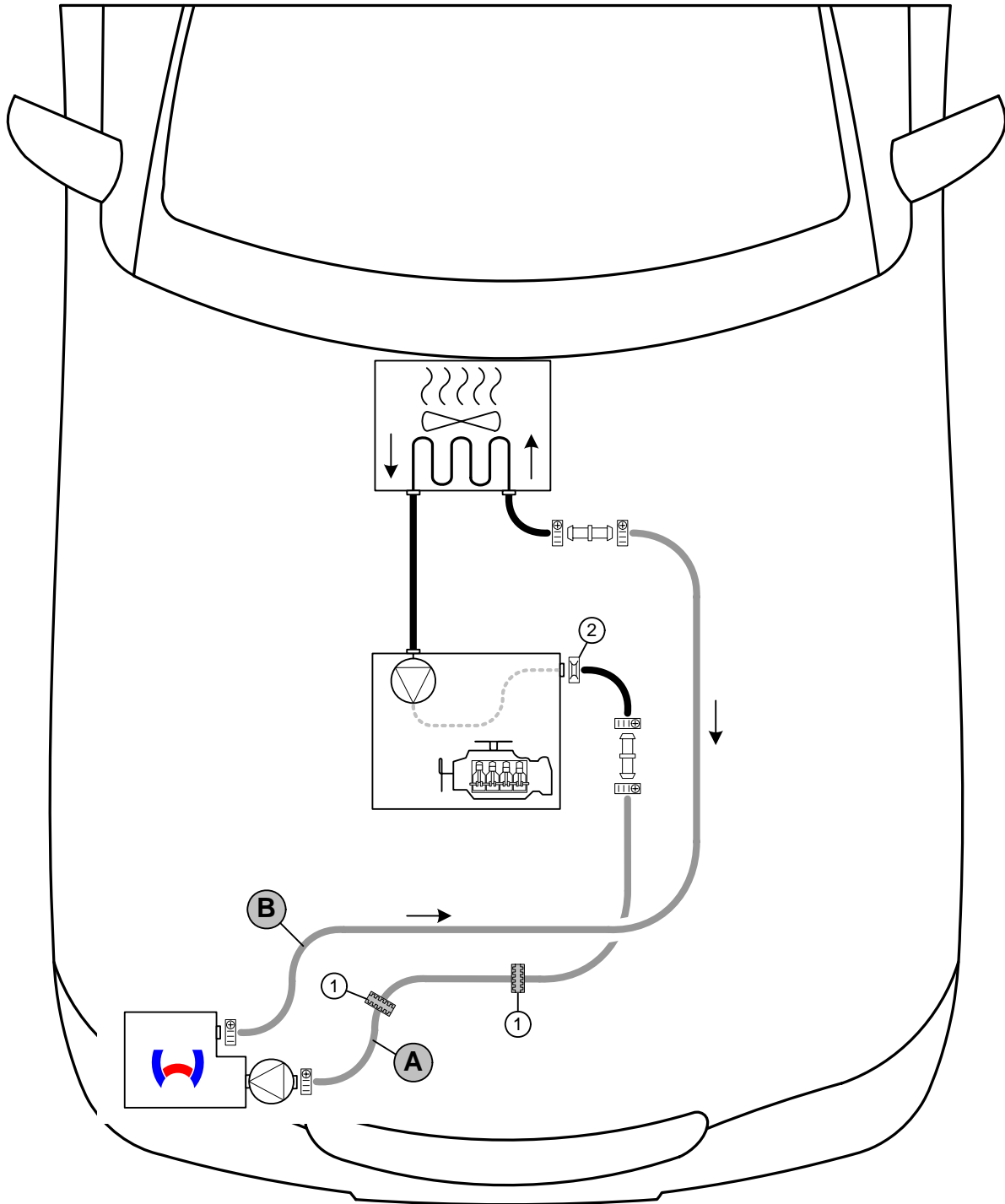
Any coolant running off should be collected using an appropriate container!





Route coolant hoses kink-free! Unless specified otherwise, always fasten using cable ties. Position hose and spring clips so that no other hose can be damaged!

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

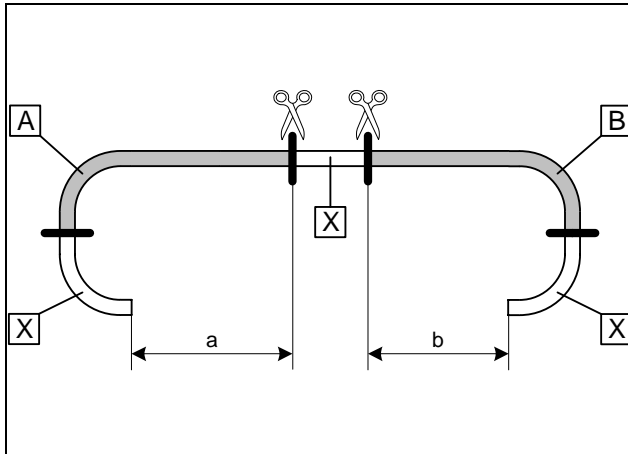


Coolant routing diagram



All connecting pipes  = 18x20 mm dia. All hose clamps  = 20-27 mm dia.
 1 = Black (sw) rubber isolator  [2x]! 2 = Original vehicle spring clip 

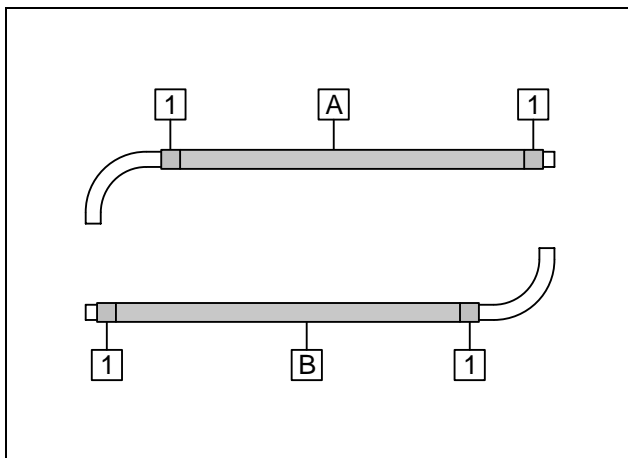




a = 930
b = 1030

Discard section X

Cutting coolant hoses to length

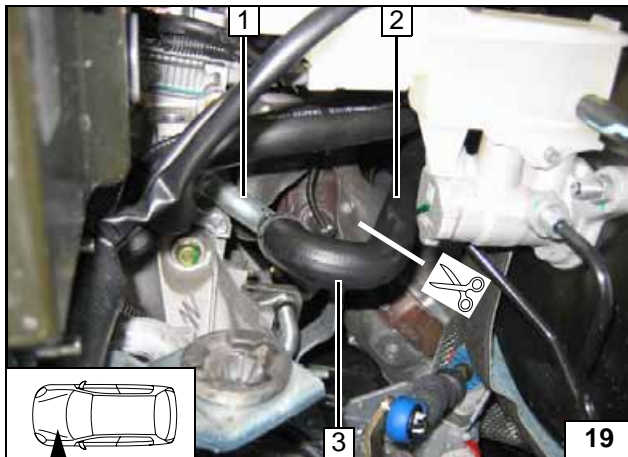


Push braided protection hoses onto hose A and B and cut to length.
Cut heat shrink plastic tubing to length.

1 25 mm heat shrink plastic tubing [4x]



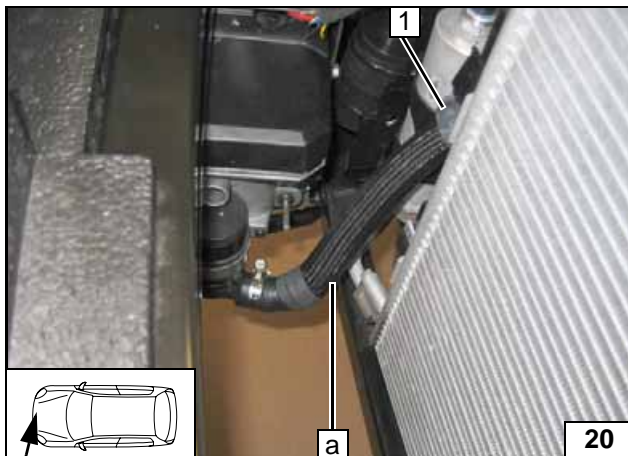
Preparing coolant hoses



Separate original vehicle coolant hose 2 as shown and turn hose section 3 on connection piece of engine outlet 1 by approx. 180°.

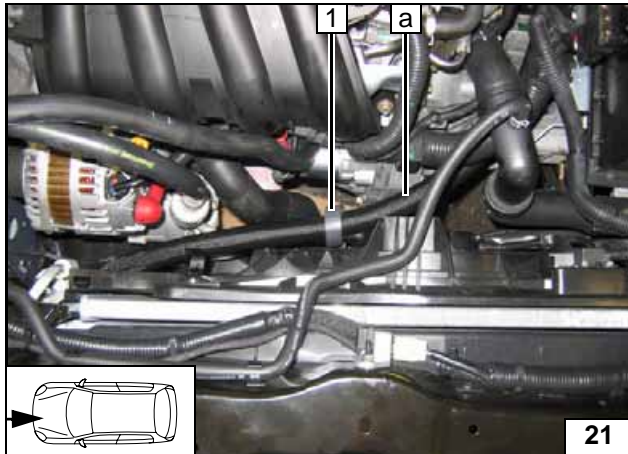


Cutting point



1 Black (sw) rubber isolator

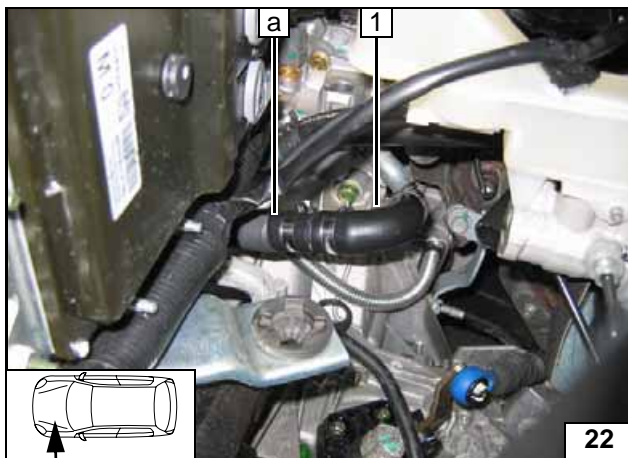
Connec-tion of hose A on heater unit



Align black (sw) rubber isolator 1 and fasten on strut of radiator trim with cable ties.

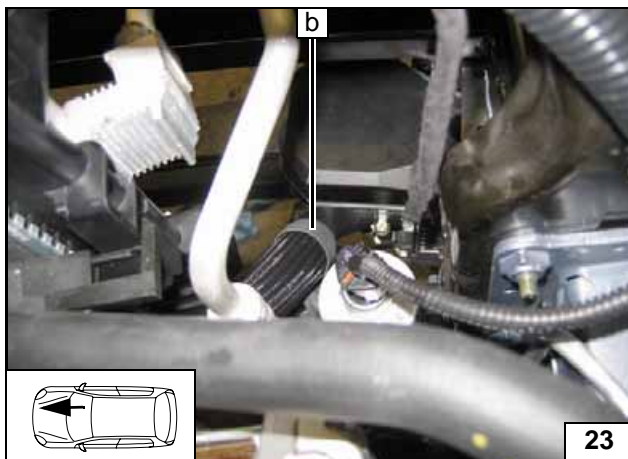


Routing in engine compartment

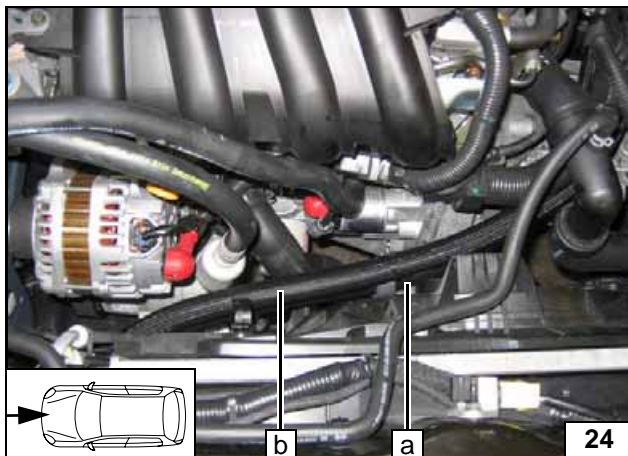


1 Hose section of engine outlet turned

Connecting engine outlet



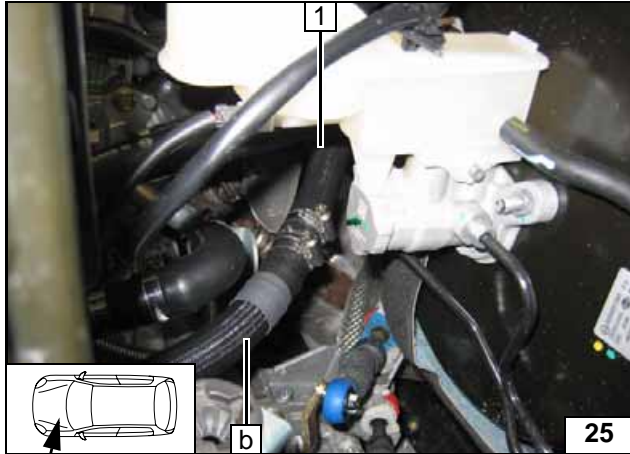
Connection of hose B on heater unit



Align hose B and fasten on hose A with cable ties.



Routing in engine compartment



Before connecting, fill the coolant hoses with coolant.



1 Hose on heat exchanger inlet

**Con-
nec-
tion on
heat ex-
changer in-
let**



Coolant on 2.0 liter gasoline engine

WARNING!

Tighten all hose clamps to 2.0 + 0.5 Nm.

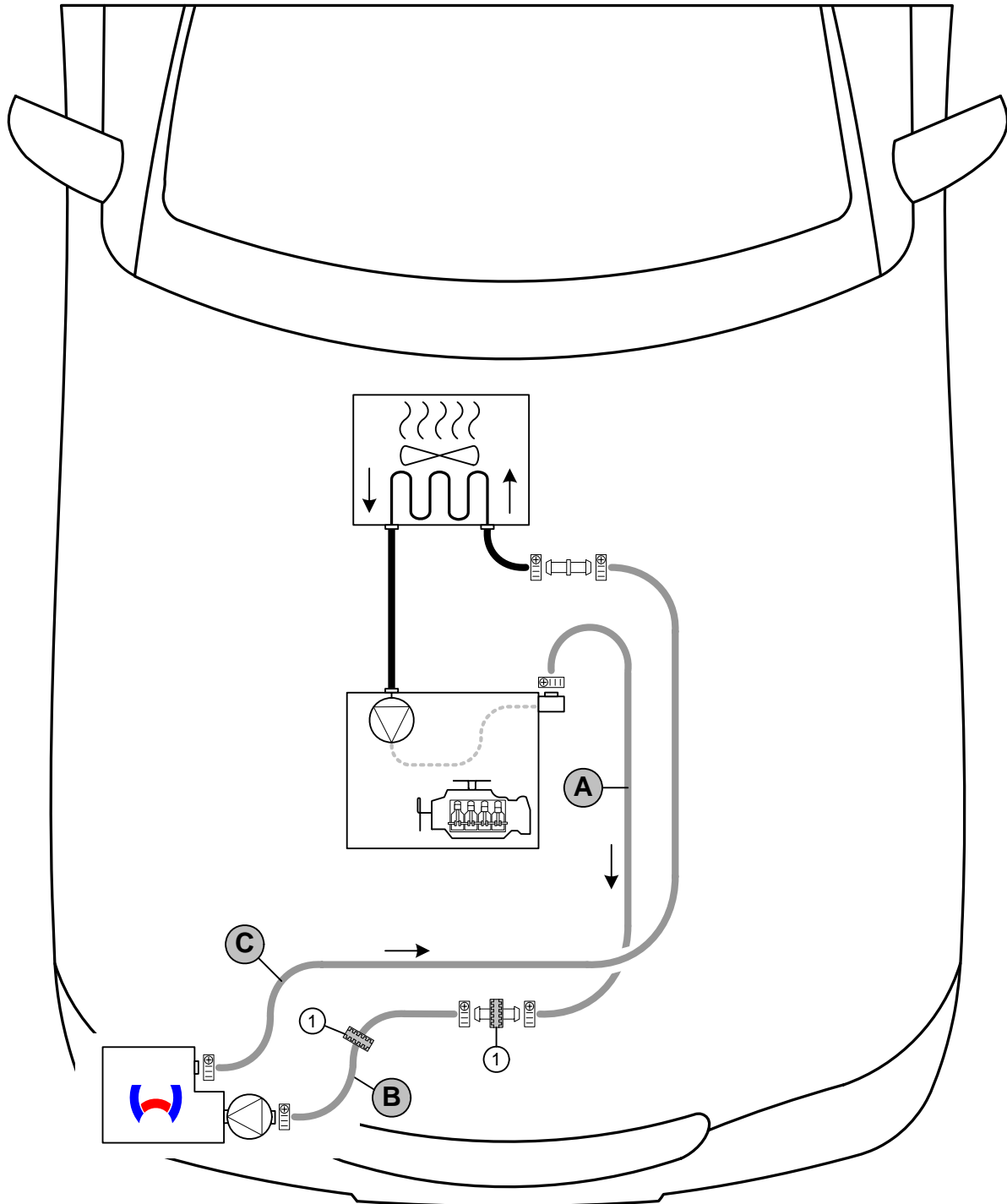
Any coolant running off should be collected using an appropriate container!




Route coolant hoses kink-free! Unless specified otherwise, always fasten using cable ties. Position hose and spring clips so that no other hose can be damaged!

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

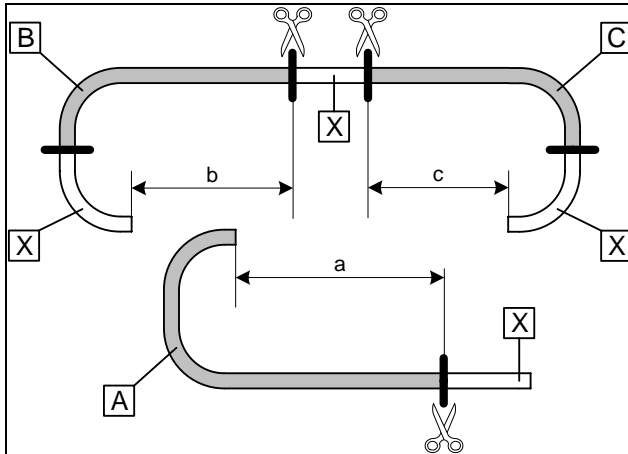


Coolant routing diagram



All connecting pipes  = 18x20 mm dia. All hose clamps  = 20-27 mm dia.
 1 = Black (sw) rubber isolator  [2x]



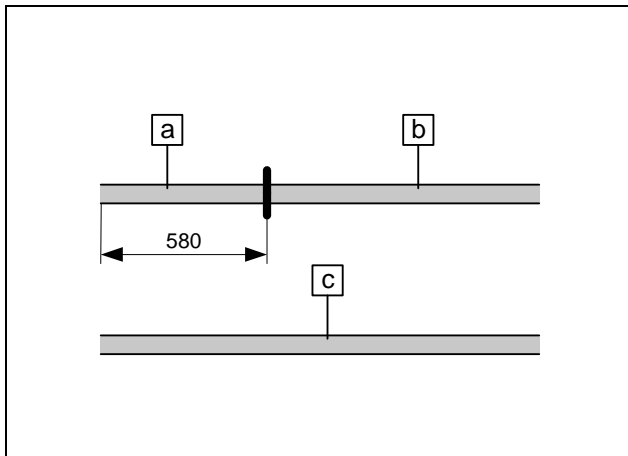


18 mm dia. hose A
Discard section X

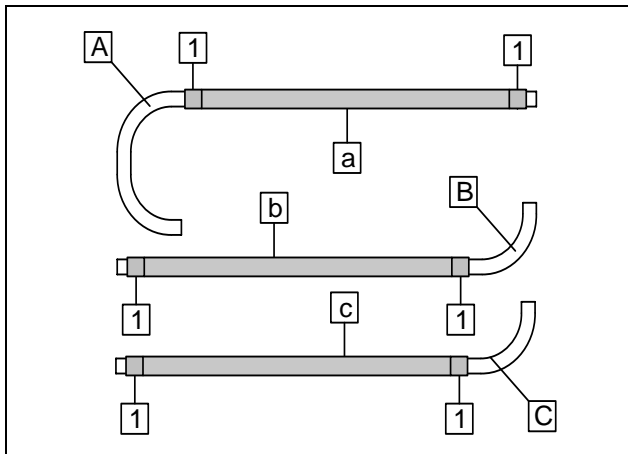
a = 530
b = 610
c = 1100



Cutting coolant hoses to length



Cutting braided protection hose to length

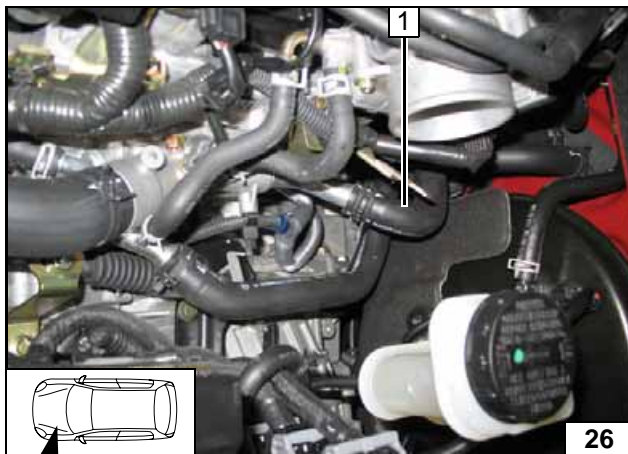


Push braided protection hoses onto hose A, B and C and cut to length.
Cut 100 mm long heat shrink plastic tubing and 50 mm long heat shrink plastic tubing to size.

1 25 mm heat shrink plastic tubing [6x]

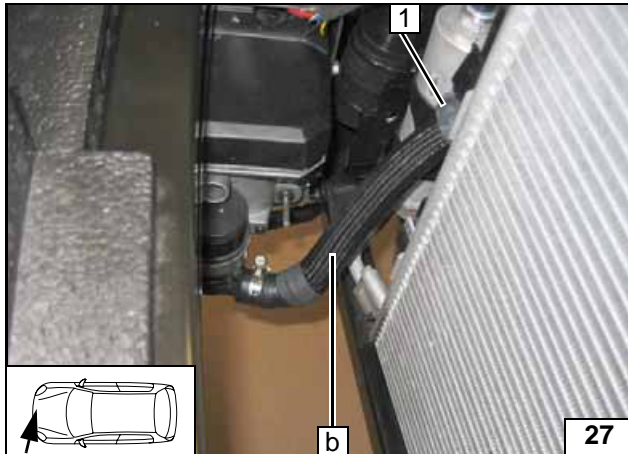


Preparing coolant hoses



Pull original vehicle coolant hose 1 off engine outlet. Discard clamp.

Cutting point

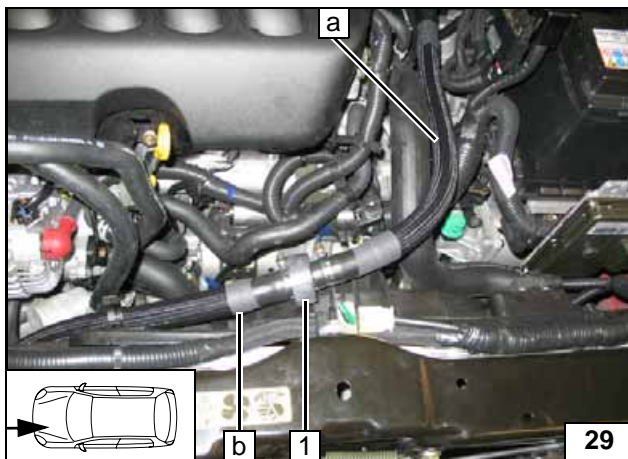


1 Black (sw) rubber isolator

Conne-
tion of
hose B on
heater unit

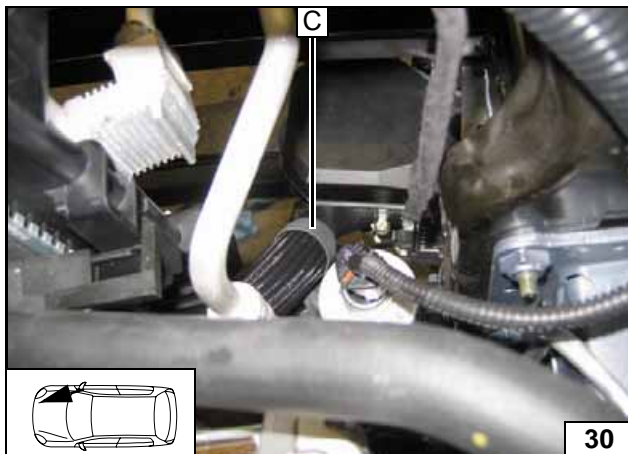


Conne-
tion of
hose A on
engine out-
let



1 Position black (sw) rubber isolator on con-
necting pipe

Routing in
engine
compart-
ment



Conne-
tion of
hose C on
heater unit

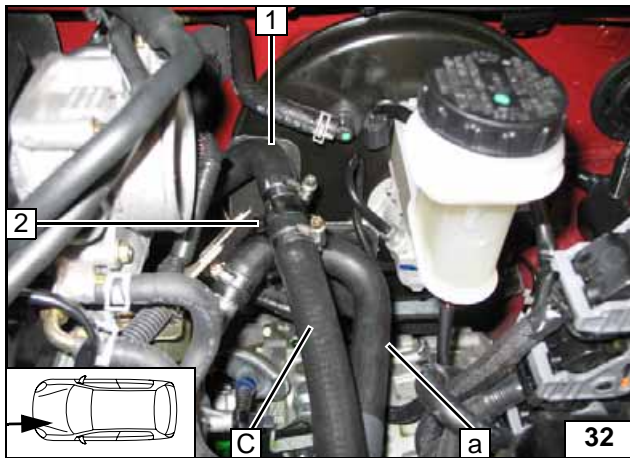


Before connecting, fill the coolant hoses with coolant.

- 1 Cable tie [2x]



Routing in engine compartment

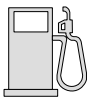


Before connecting, fill the coolant hoses with coolant.

- 1 Hose on heat exchanger inlet
- 2 Hose bracket



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.

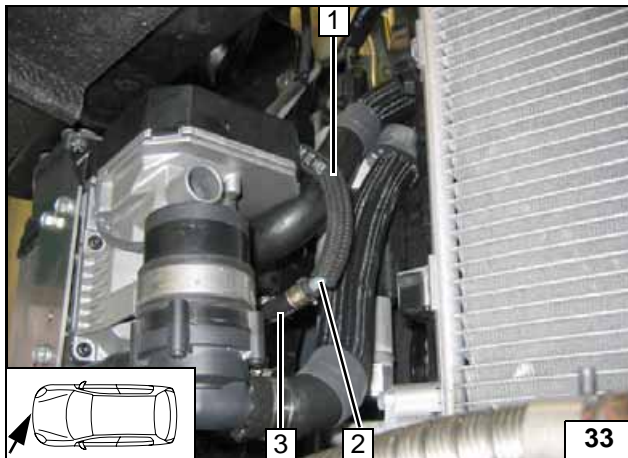
Catch any fuel running off with an appropriate container.

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.

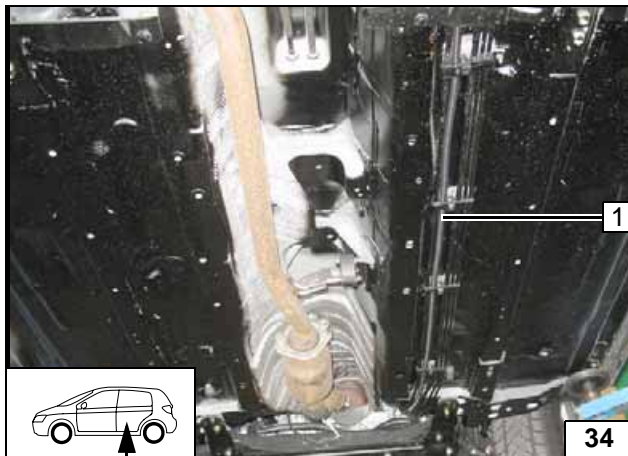


Push 2x 8 mm fuel hose, 70 long 1 onto fuel line 2 as scuff guard and then route fuel line to firewall.

3 Hose section, 10 mm dia. hose clamp [2x]



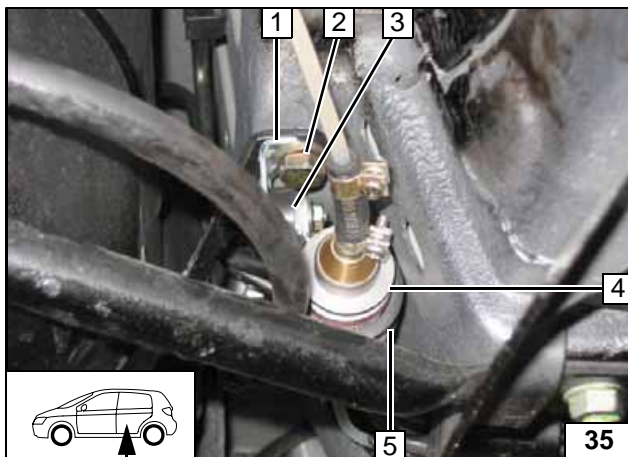
Con-
nec-
tion to
heater unit



From firewall, pull fuel line together with wiring harness of metering pump into 2x corrugated tube 1 and route along original vehicle fuel lines to installation location of metering pump.



Install-
ing
lines

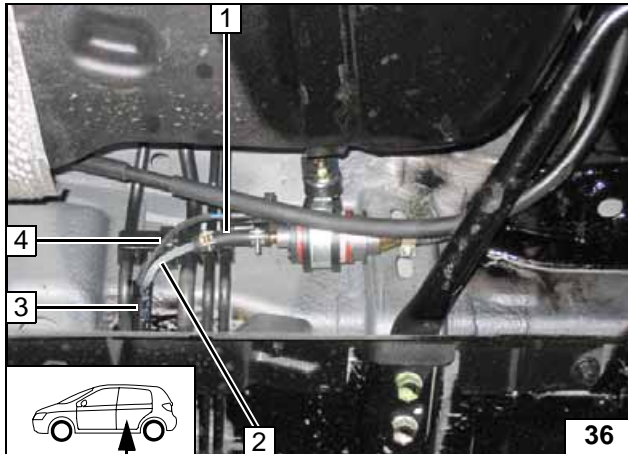


Ensure proper installation position of metering pump, see "Installation Instructions". Installation location in front of vehicle fuel tank!

- 1 Angle bracket, drilled out to 10.5 mm dia.
- 2 Original vehicle bolt
- 3 Silent block, flanged nut [2x]
- 4 Metering pump
- 5 Rubber-coated pipe clamp

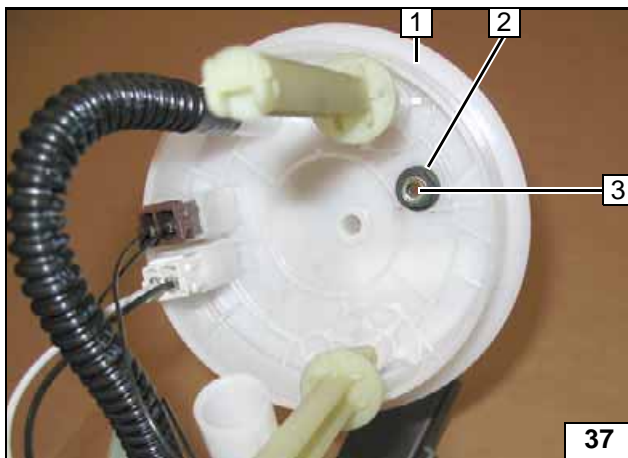


Install-
ing
metering
pump



- 1 Hose section, 10 mm dia. hose clamps [2x]
- 2 Fuel line
- 3 Corrugated tube
- 4 Wiring harness of metering pump, connector mounted

Connect-
ing meter-
ing pump

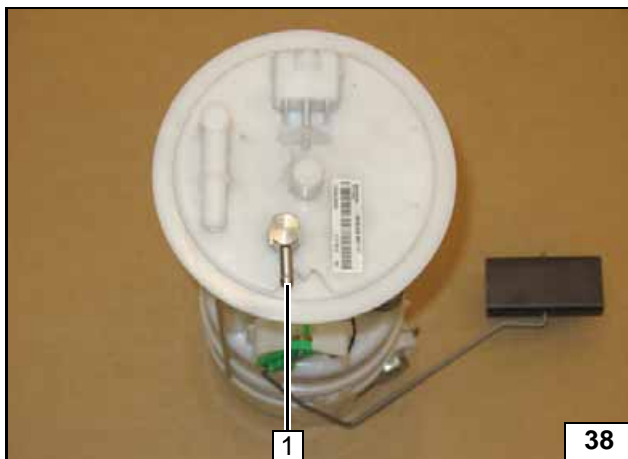


Remove and dismantle fuel-tank sending unit 1 according to manufacturer's instructions.

- 2 Position nut of fuel standpipe
- 3 Copy hole pattern, 6 mm dia. hole



Removing
fuel



Shape fuel standpipe according to template, cut to length and install, see "installation instructions".

- 1 Fuel standpipe



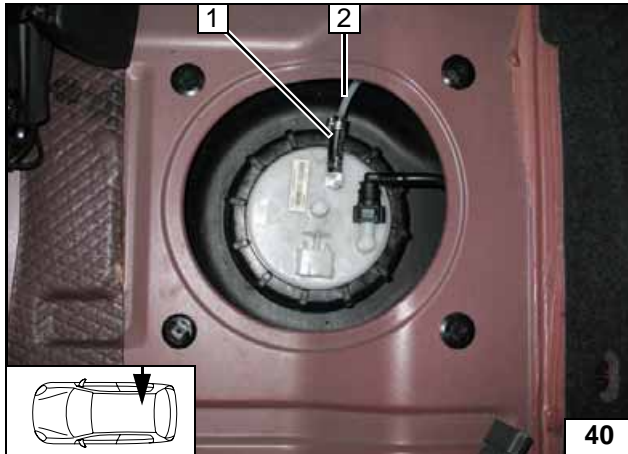
Installing
fuel stand-
pipe



39

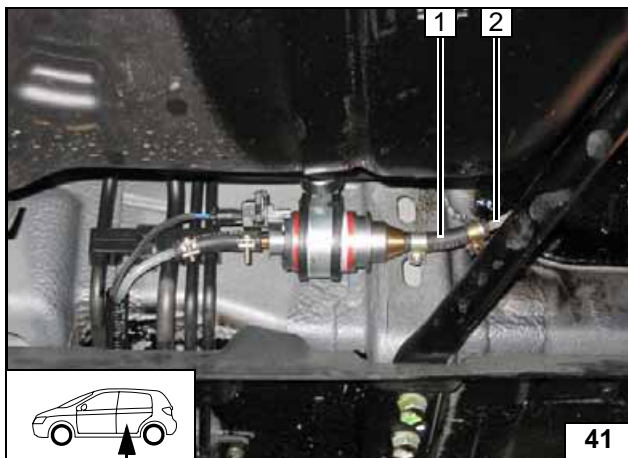


Installing
fuel stand-
pipe



- 1 Hose section, 10 mm dia. hose clamp
- 2 Remaining end of fuel line

**Connect-
ing fuel
line**

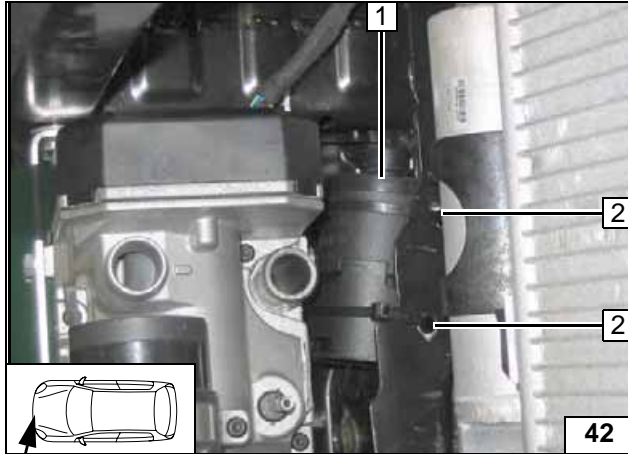


Fuel line from fuel standpipe on intake side of metering pump.
Check the position of the components; adjust if necessary. Check that they have free clearance.

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



**Connect-
ing meter-
ing pump**



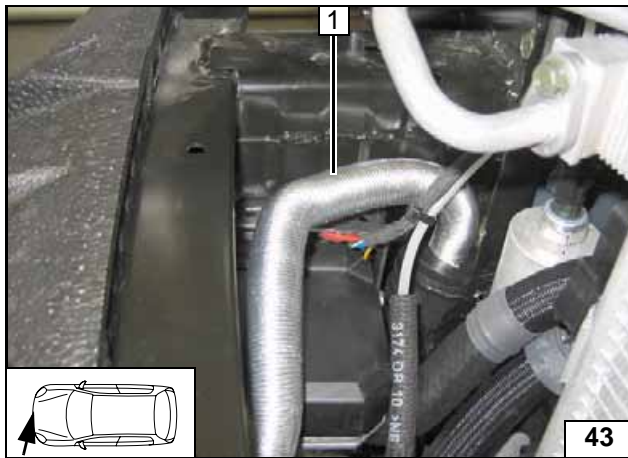
Combustion air

Fuel line and coolant hoses removed for better illustration!

- 1 Combustion-air intake muffler
- 2 Cable tie in existing hole [2x]



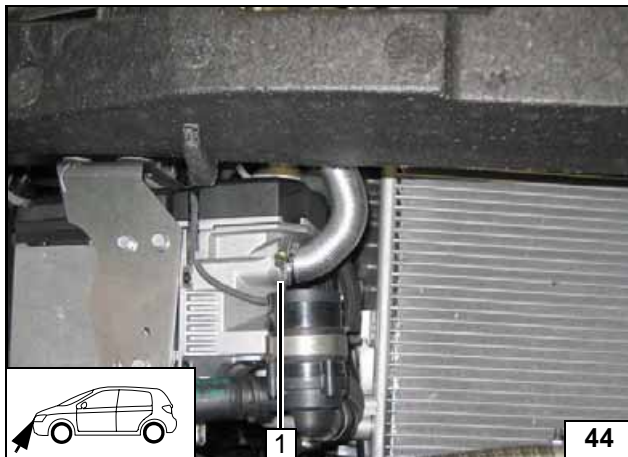
Installing muffler



Install combustion-air intake pipe 1 on combustion-air intake muffler route to heater unit as shown.

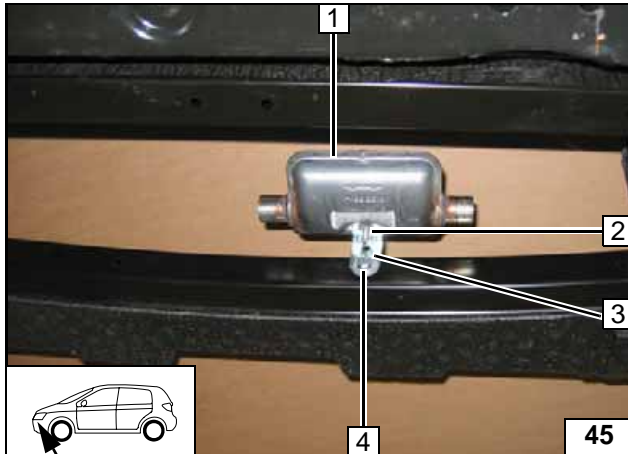
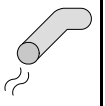


Installing intake pipe



- 1 27 mm dia. hose clamp

Installing intake pipe

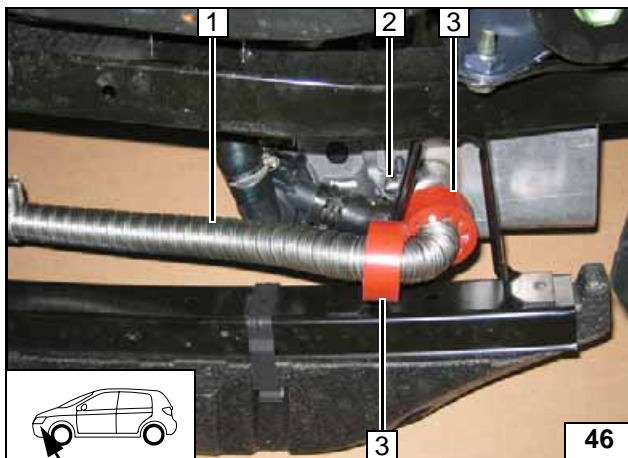


Exhaust gas

Drill out existing hole to 9.1 mm dia. at position 4 and mount rivet nut.

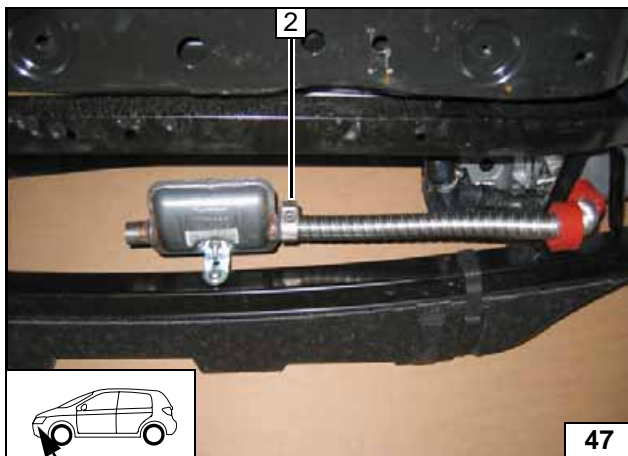
- 1 Muffler
- 2 M6x20 bolt, flanged nut
- 3 Angle bracket
- 4 M6x20 bolt, spring lockwasher

Installing muffler



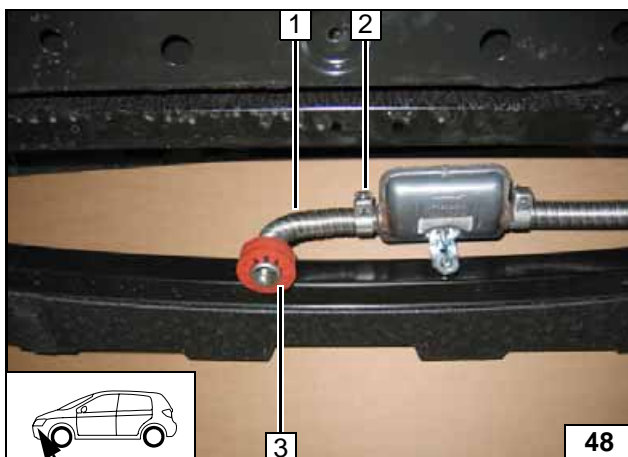
- 1 Exhaust pipe
- 2 Hose clamp
- 3 Red (rt) rubber profile [2x]

Installing exhaust pipe



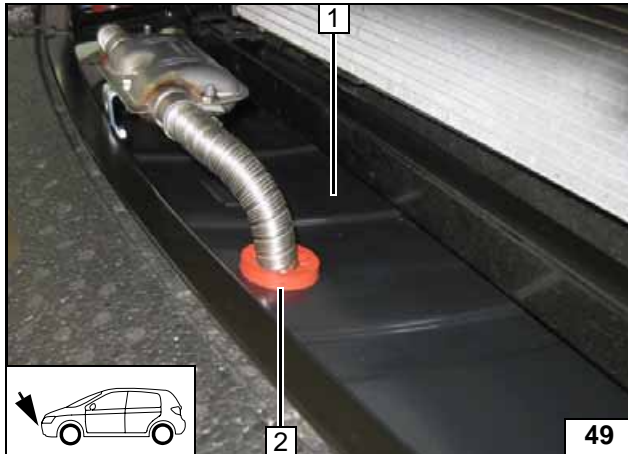
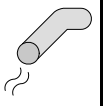
- 1 Hose clamp

Installing exhaust pipe



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

Installing exhaust end section



Mount underride protection.

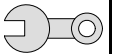
- 1 Underride protection
- 2 42 mm dia. hole



**Cutting out
underride
protection**



**Mounting
rubber iso-
lator**



Final Work

WARNING!

Mount removed parts in reverse order.

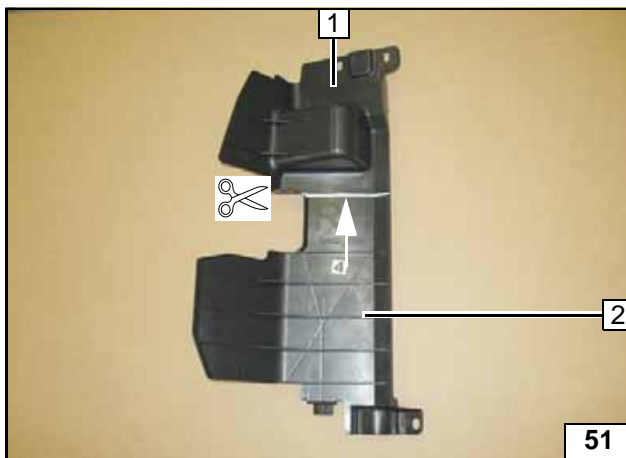
Check all hoses, clamps and all electrical connections for firm seating.

Secure all loose cables using cable ties.

Only use manufacturer-approved coolant.

Spray 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.

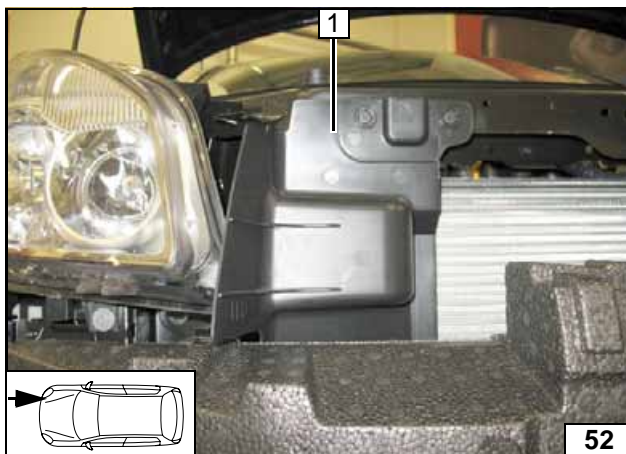


Cut off trim of air ducting **1** at marking.

2 Discard section



**Cutting off
air ducting**

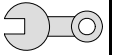


1 Trim of air ducting

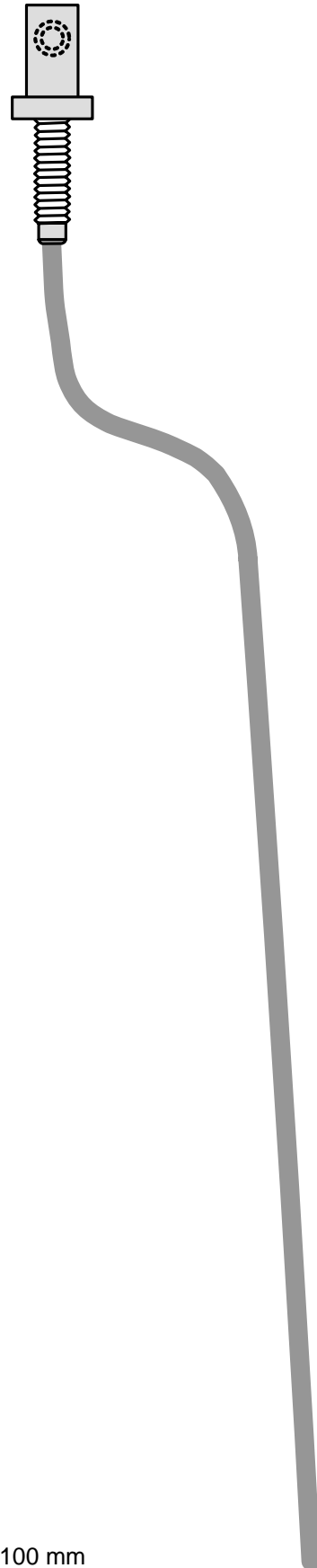
**Installing
air ducting**

Webasto
Feel the drive

Webasto AG
Postfach 80 - 82132 Stockdorf
Hotline 01805 / 932278 - Hotfax 0395 / 5592-353
<http://www.webasto.de>



Template for Fuel Standpipe



100 mm



Scale 1:1

Compare the size of the printed version with dimension lines.
Permitted tolerance a maximum of 2%.

Set the printer settings to "no margin" or "minimize margins" and 100% of the normal size.

100 mm

0

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:



- 1 Air outlet to windshield
- 2 Set temperature on both sides to "HI".
- 3 Set fan to level "1", or possibly "2"

**Automatic
air-conditioning**