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

Nissan Micra / Micra C+C

Gasoline and Diesel
from 2005 model with front fog lights
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.

Table of Contents

Validity

Manufacturer	Model	Type	EG-BE No./ABE
Nissan	Micra	K12	e11 * 2001/116 * 0195 * ...
Nissan	Micra C+C	K12	e11 * 2001/116 * 0195 * ...
Nissan	Micra	K12	e11 * 2001/116 * 0196 * ...

Engine type	Engine model	Output in kW	Displacement in cm³
CR12	Gasoline	48	1240
CR12	Gasoline	59	1240
CR14	Gasoline	65	1386
HR16	Gasoline	81	1561
K9K	Diesel	48	1461
K9K	Diesel	60	1461
K9K	Diesel	63	1461

Vehicle and engine types and equipment variants 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	Heater control	See Nissan price list
1	Installation Kit for Nissan Micra / Micra C+C Gasoline and Diesel from Model Year 05 with Front Fog Lights	1310128C

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 Nissan Micra / Micra C+C vehicles with a Gasoline and Diesel engine
- For the validity, see page 2 - from model year 2005 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).

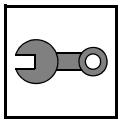
Special Tools

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

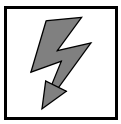
Explanatory Notes on Document

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

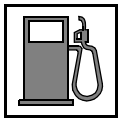


Electrical system

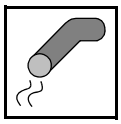


Coolant connection

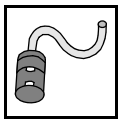
Fuel connection



Exhaust system



Combustion air



Special features are highlighted using the following symbols:

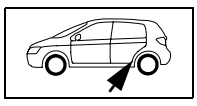
Specific risk of injury or fatal accidents.

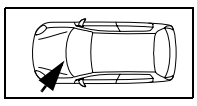
Specific risk of damage to components.

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.



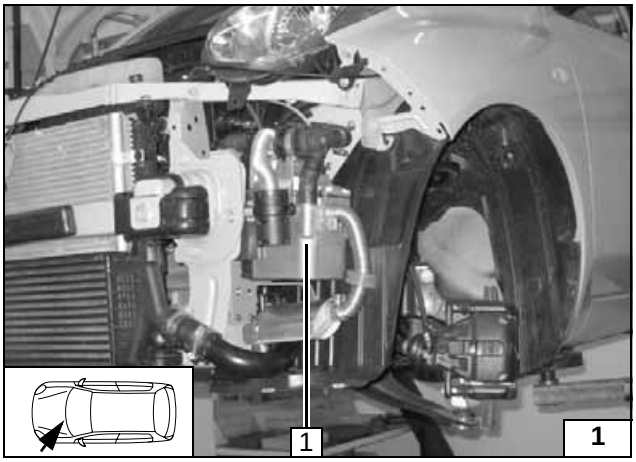


The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

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 with the box.
- Remove the air cleaner housing.
- Open fuel tank cap, ventilate tank.
- Close the tank cap again.
- Remove the left front wheel.
- Remove the left-hand wheel well trim.
- Remove the front bumper cover
- Remove the rear bench seat.
- Open the tank-fitting service lid.
- Completely remove the glove compartment on the front passenger side (only with manual air conditioning)
- Unclip the upper instrument panel trim (only with automatic air-conditioning).
- Expose the radio and A/C control panel according to the manufacturer's instructions (only with automatic air-conditioning) [see Page 8].
- Remove the lower footwell trim on the driver's side (only with automatic air-conditioning).
- Remove the fuse/relay carrier on the driver's side (only with automatic air-conditioning).



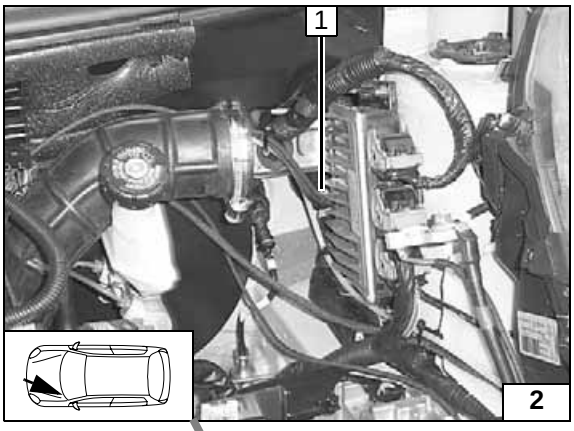
Heater unit installation location

1 Heater unit

Electrical Connections

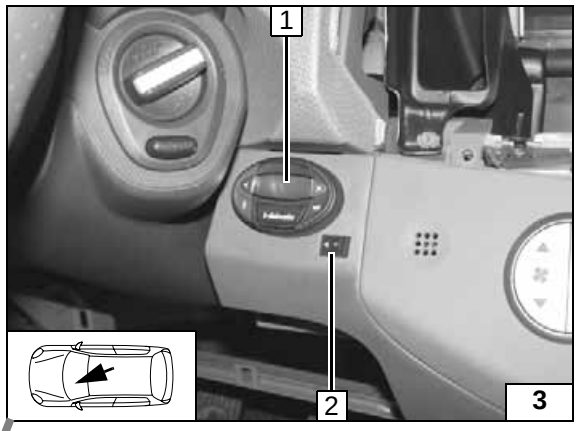
Wiring harness pass through

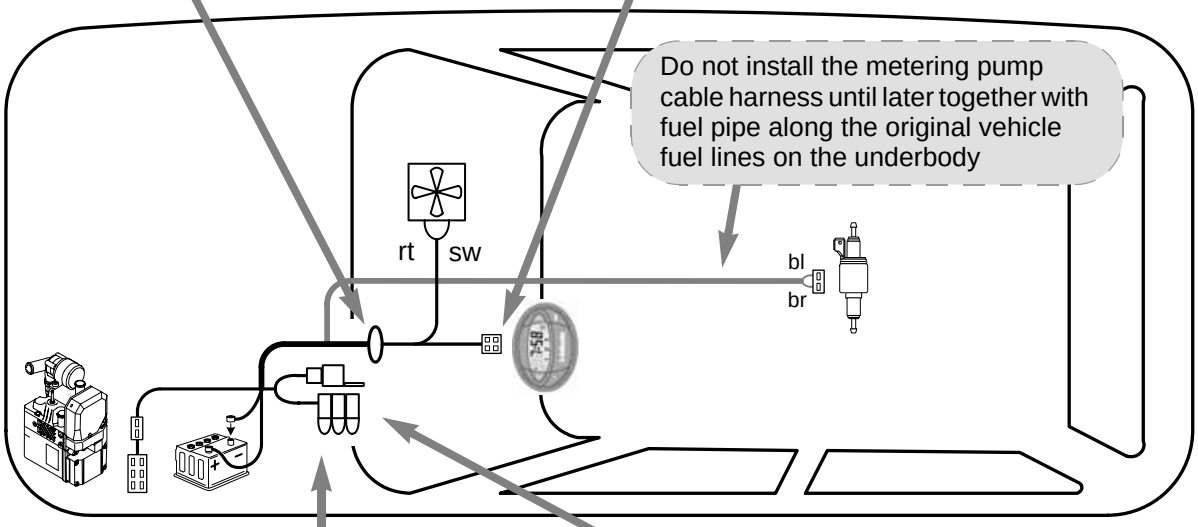
1 Protective rubber plug



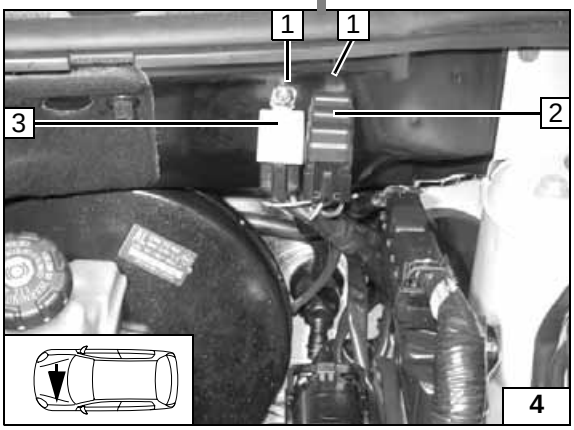
Digital timer and summer/winter switch option

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



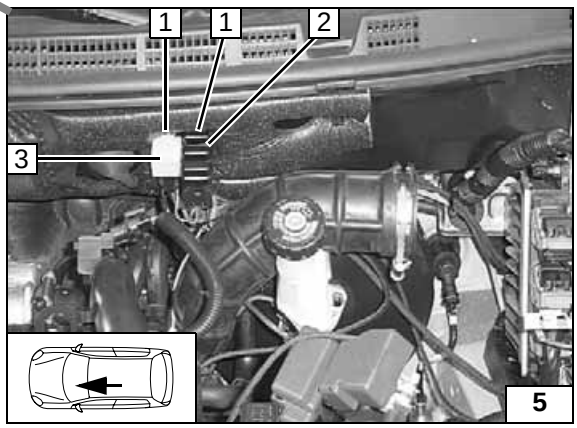


Wiring harness installation diagram



Fuse holder, relay K3 for gasoline vehicles

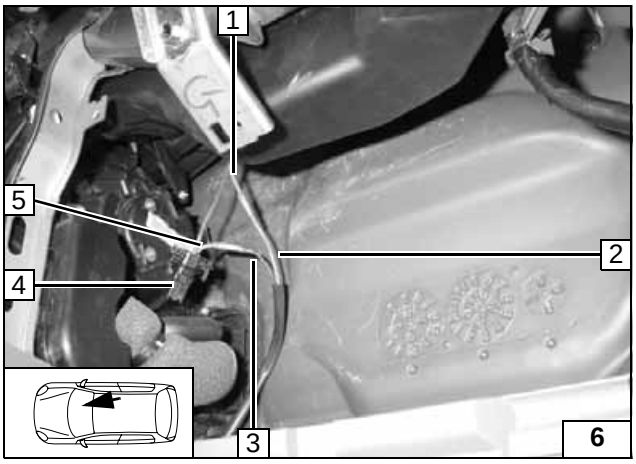
1 4 mm dia. hole, self-tapping screw 5.5x13 [2x each]
2 Retaining plate, fuse holder
3 K3 relay



Fuse holder, relay K3 for diesel vehicle

Cut out insulation mat in area of fastener.

1 4 mm dia. hole, self-tapping screw 5.5x13 [2x each]
2 Retaining plate, fuse holder
3 K3 relay

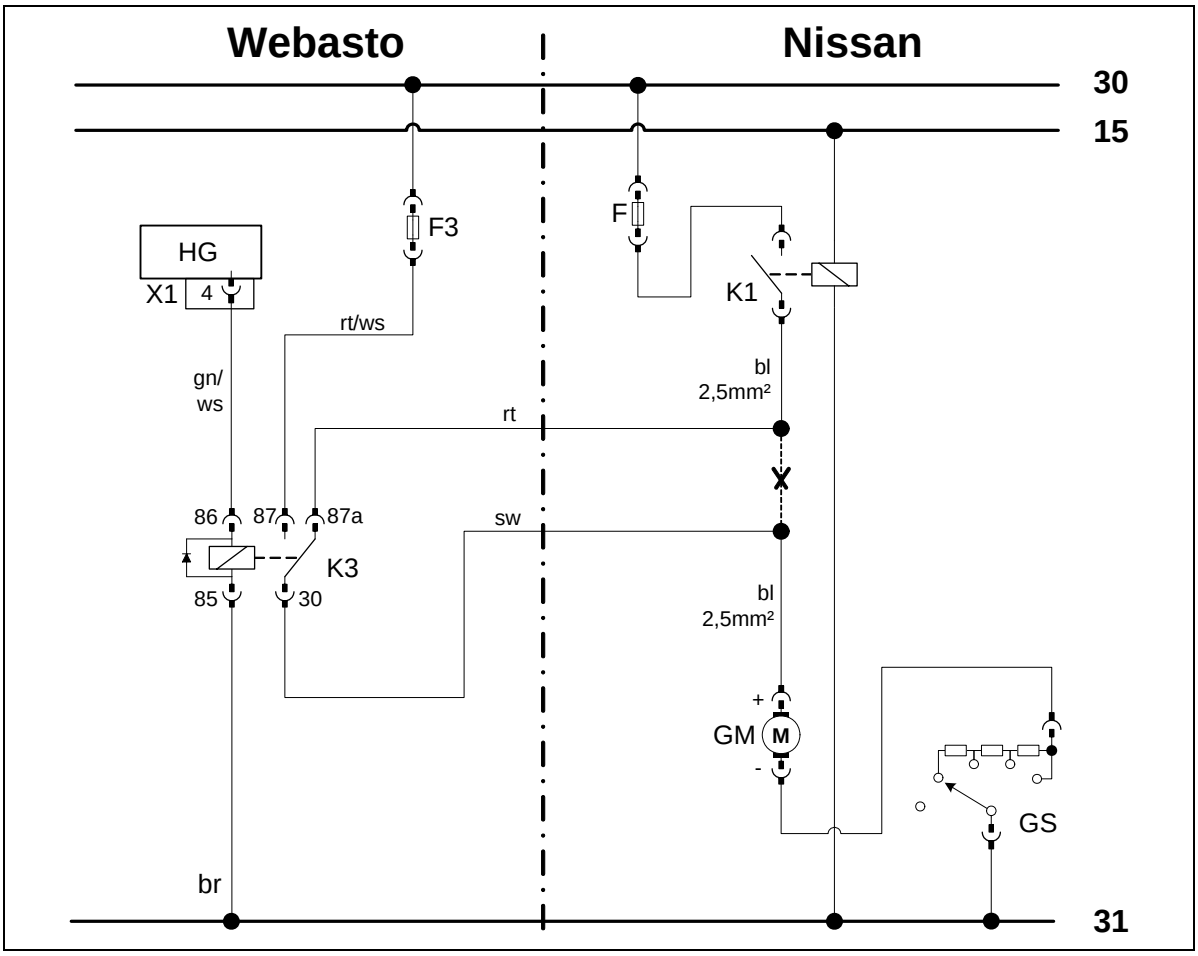


Fan controller for manual air conditioning

Connection on 2-pin connector **4** from fan motor behind glove compartment.
Produce connections as shown in wiring diagram.

1 Blue (bl) wire from fuse
2 Red (rt) wire from K3/87a
3 Black (sw) wire from K3/30
5 Blue (bl) wire to connector

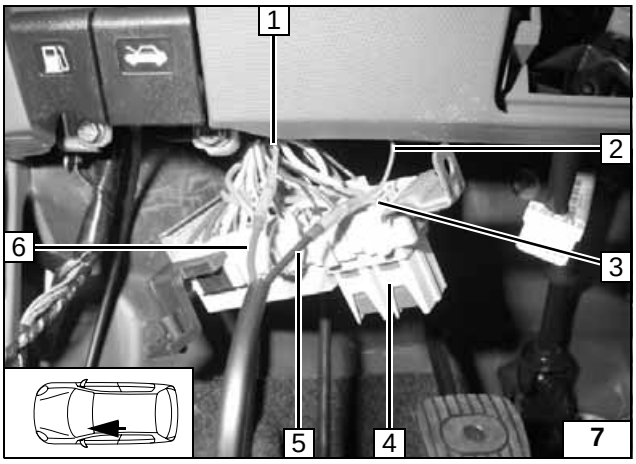
Connection on fan motor



Wiring diagram for manual air conditioning

Webasto components		Nissan components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater unit connector	K1	Fan relay	ws	white
F3	25 A fuse	F	Fan fuse	sw	black
K3	Fan relay	GS	Fan switch	br	brown
				gn	green
				bl	blue
				X	Cutting point

Legend

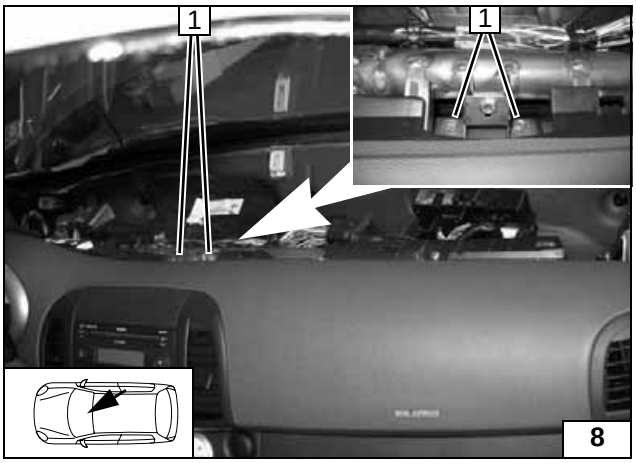


Automatic air-conditioning fan controller

Connection on fan relay K1 **4** Pin 1 behind fuse and relay carrier in driver's side footwell. Produce connections as shown in wiring diagram.

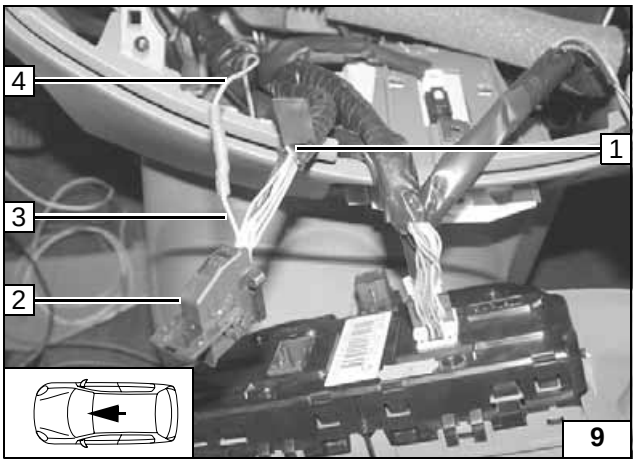
1 Yellow (ge) wire to ignition lock
3 Yellow (ge) wire to K1/1
5 Black (sw) wire from K3/30
6 Red (rt) wire from K3/87a
2 Additional green/white (gn/ws) wire

Connection on fan relay



Before removing A/C control panel, remove upper instrument panel trim.
Remove original vehicle bolts at position **1** (see miniature picture).

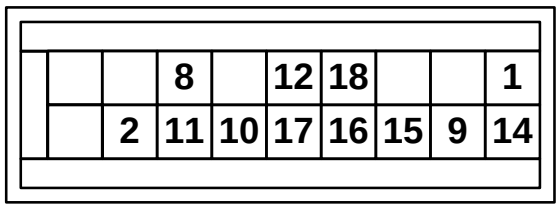
Removing A/C control panel



Connection on 18-pin connector M63 **2**, Pin 2 from A/C control panel.
Produce connection according to wiring diagram with included connector.

1 Insulate yellow (ge) wire to fuse and tie back
3 Yellow (ge) wire from connector M63, Pin 2
4 Additional green/white (gn/ws) wire from K1/1

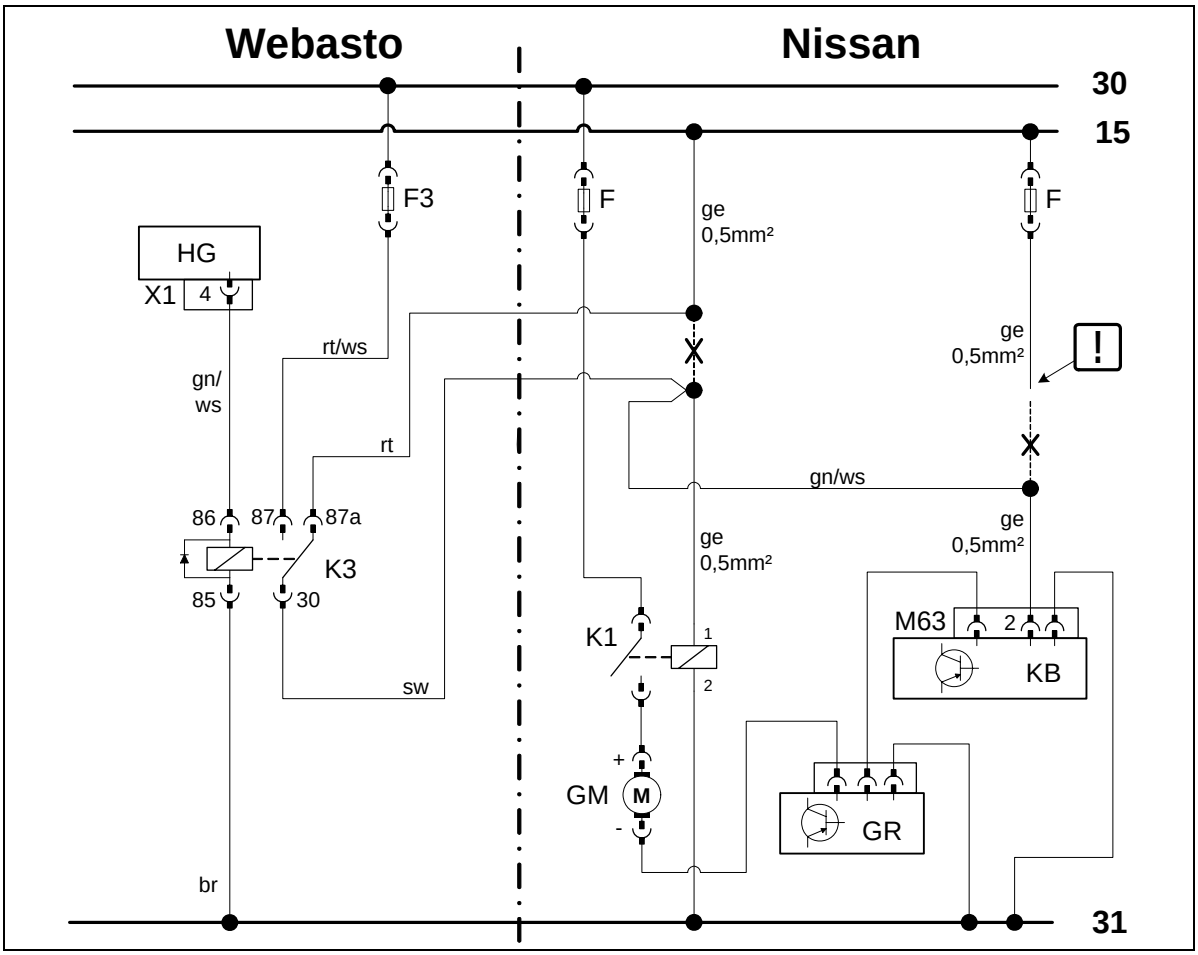
Connection on air-conditioning control element



View of connector M63 on contact side.
Connector imprint does not match vehicle wiring diagram!

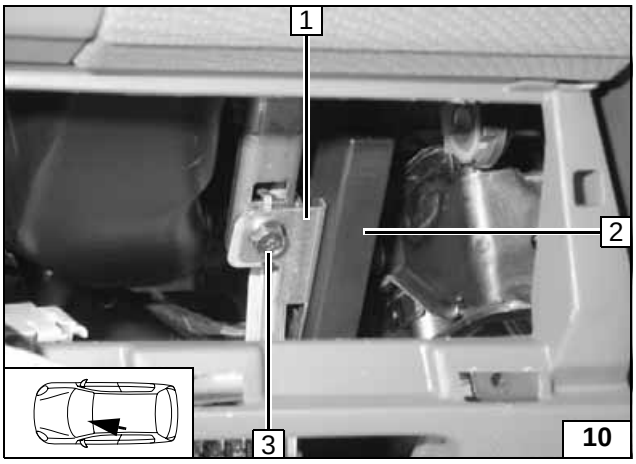
Connector M63

Automatic air-conditioning circuit diagram



Webasto components		Nissan components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater unit connector	K1	Fan relay	ws	white
K3	Fan relay	GR	Fan controller	sw	black
F3	Replace 10 A fuse.	KB	Air-conditioning control panel	br	brown
		M63	18-pin connector KB	gn	green
		F	Fan fuse	ge	yellow
		F	Fuse (Terminal 15)		
				X	Cutting point
				!	Insulate wire ends and tie back
				Wiring colors may vary.	

Legend

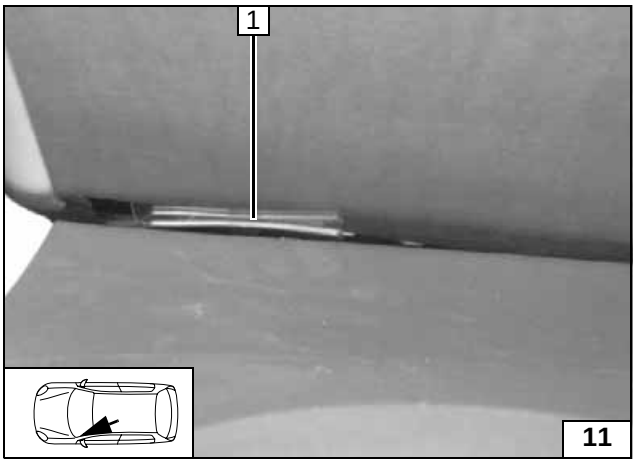


Remote option (Telestart)

Angle down bracket by 90°.

1 Bracket
2 Receiver
3 Original vehicle bolt

Installing receiver



1 Antenna

Installing antenna

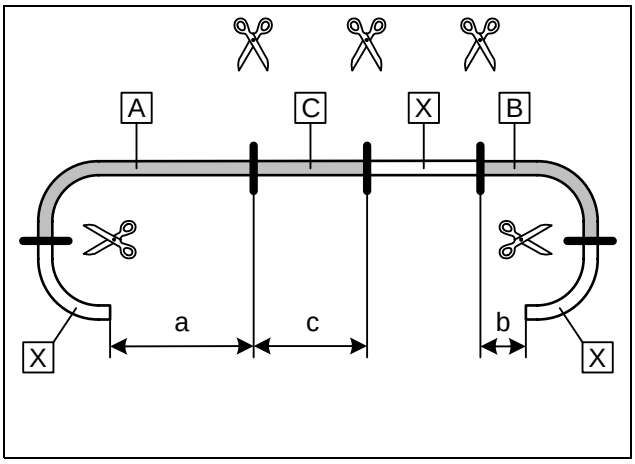
Preparing heater unit

Gasoline

a = 740 mm
b = 40 mm
c = 670 mm

Discard section **X**

Cutting coolant hoses to length



Diesel 48/60 kW

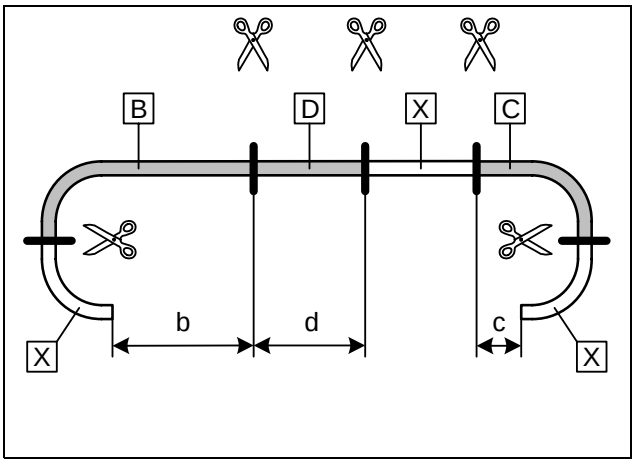
b = 650 mm
c = 40 mm
d = 660 mm

Diesel 63 kW

b = 730 mm
c = 40 mm
d = 740 mm

Discard section **X**

Cutting coolant hoses to length

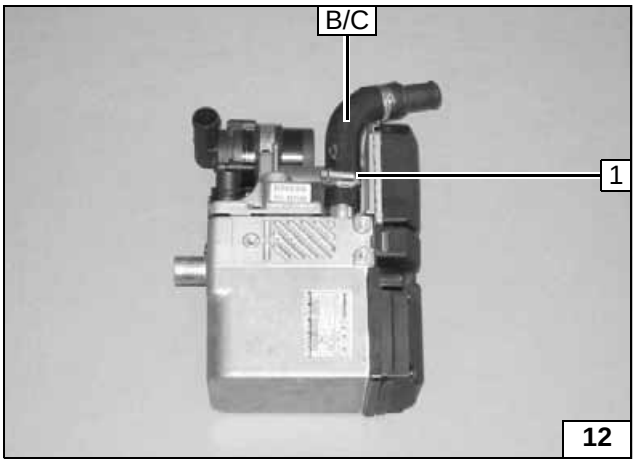


All vehicles

On gasoline vehicles hose **B**!
On diesel vehicles hose **C**!

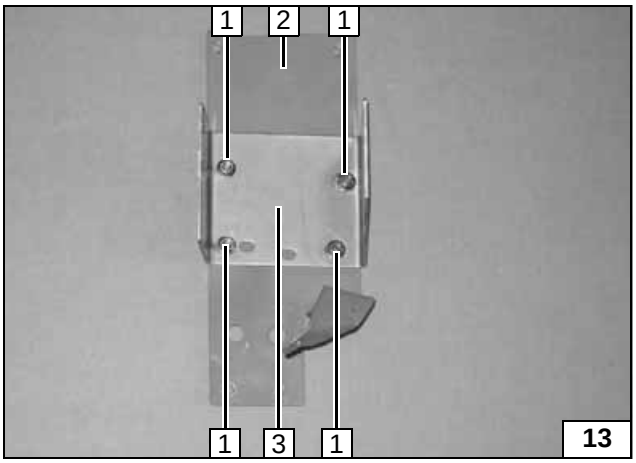
1 27 mm dia. hose clamp

Premounting 40 mm hose on heater unit



2 Additional bracket
3 Heating unit bracket
1 M6x12 bolt, flanged nut [4x each]

Installing bracket

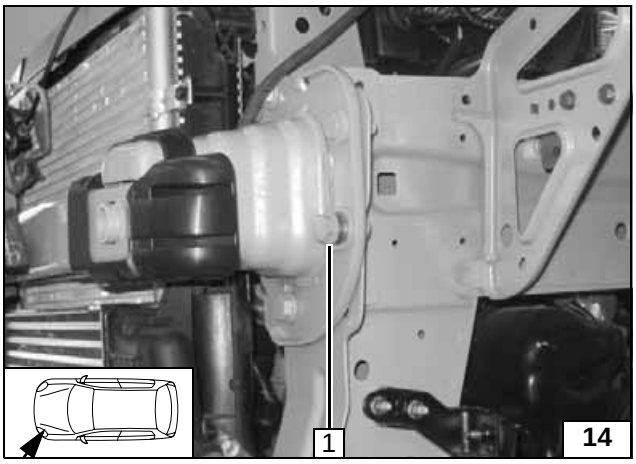


Preparing installation location

Three 10.5 mm dia. washers must be inserted at position **1**.
Original vehicle bolt, tightening torque 35 Nm!

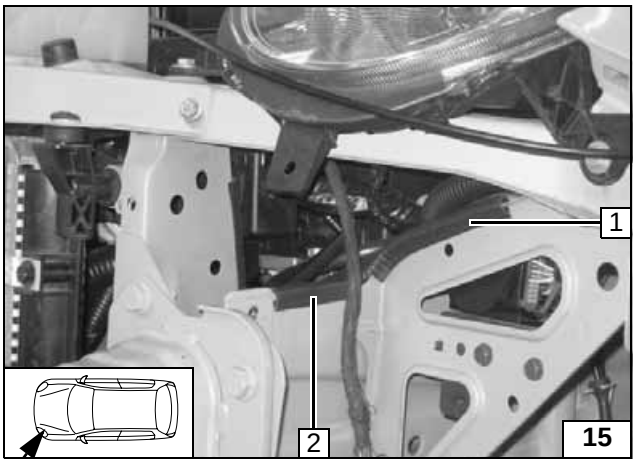
1 Original vehicle bolt

Inserting washers



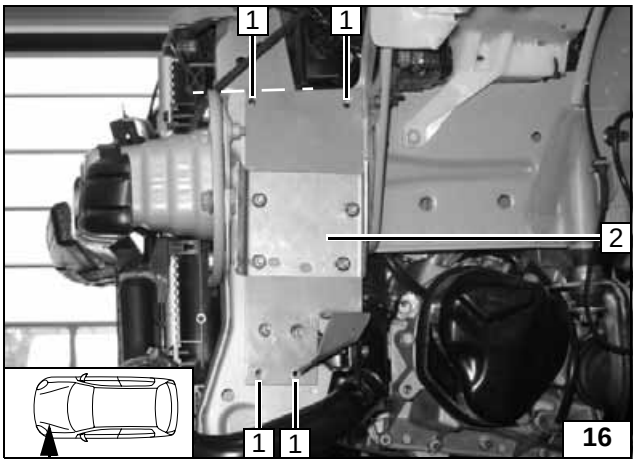
1 100 mm edge protection
2 80 mm edge protection

Installing edge protection



2 Prepared bracket
1 Copy hole pattern [4x]

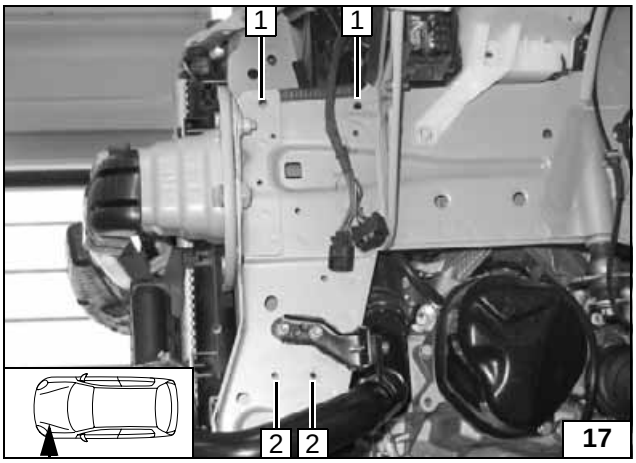
Holding on bracket



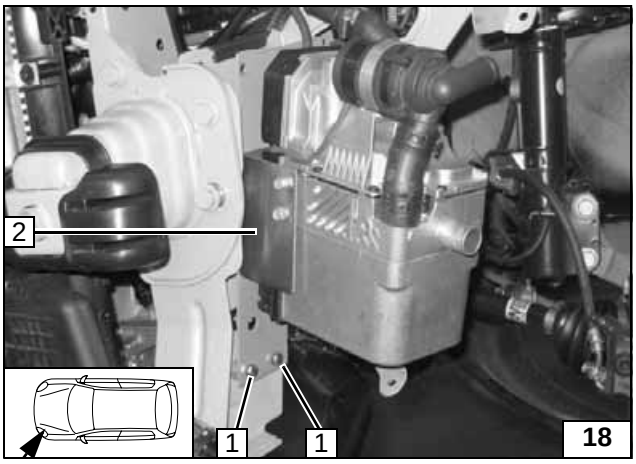
Remove bracket.

1 Drill 7 mm dia. hole [2x]
2 9.1 mm dia. hole; mount rivet nut [2x each]

Holes and rivet nuts

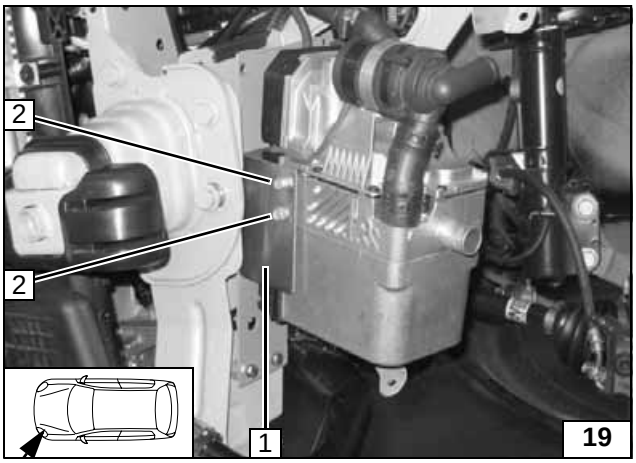


Installing heater unit



2 Loosely mount prepared bracket
1 Mount M6x25 bolt, spring lockwasher, 10 mm spacer sleeve on rivet nut [2x each]

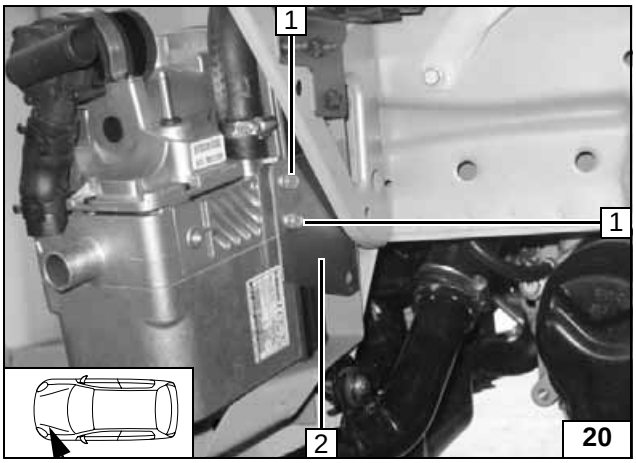
Loosely mount bracket



Connect wiring harness for heater unit before installation.
Tighten EJOT screws to 10 Nm!

1 Bracket
2 Ejot screw [2x]

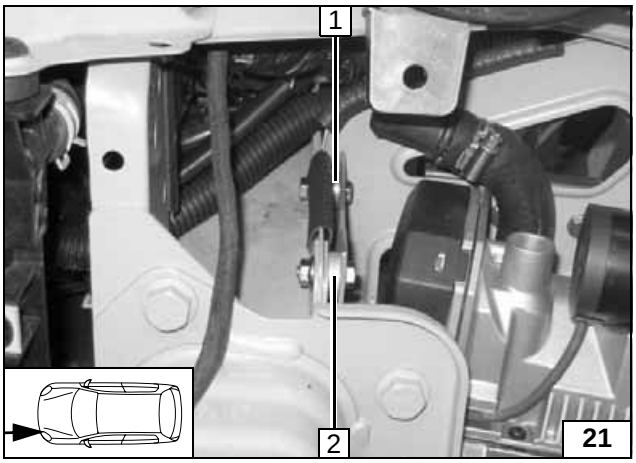
Installing heater unit



Tighten EJOT screws to 10 Nm!

2 Bracket
1 Ejot screw [2x]

Installing heater unit



Tighten lower fastening bolts of bracket.

1 M6x25 bolt, 8 mm spacer sleeve, M6 flanged nut
2 M6x20 bolt, 5 mm spacer sleeve, M6 flanged nut

Installing bracket

Coolant for gasoline engine

WARNING!
Tighten all hose clamps to 2.0 + 0.5 Nm.
Any cold water 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:

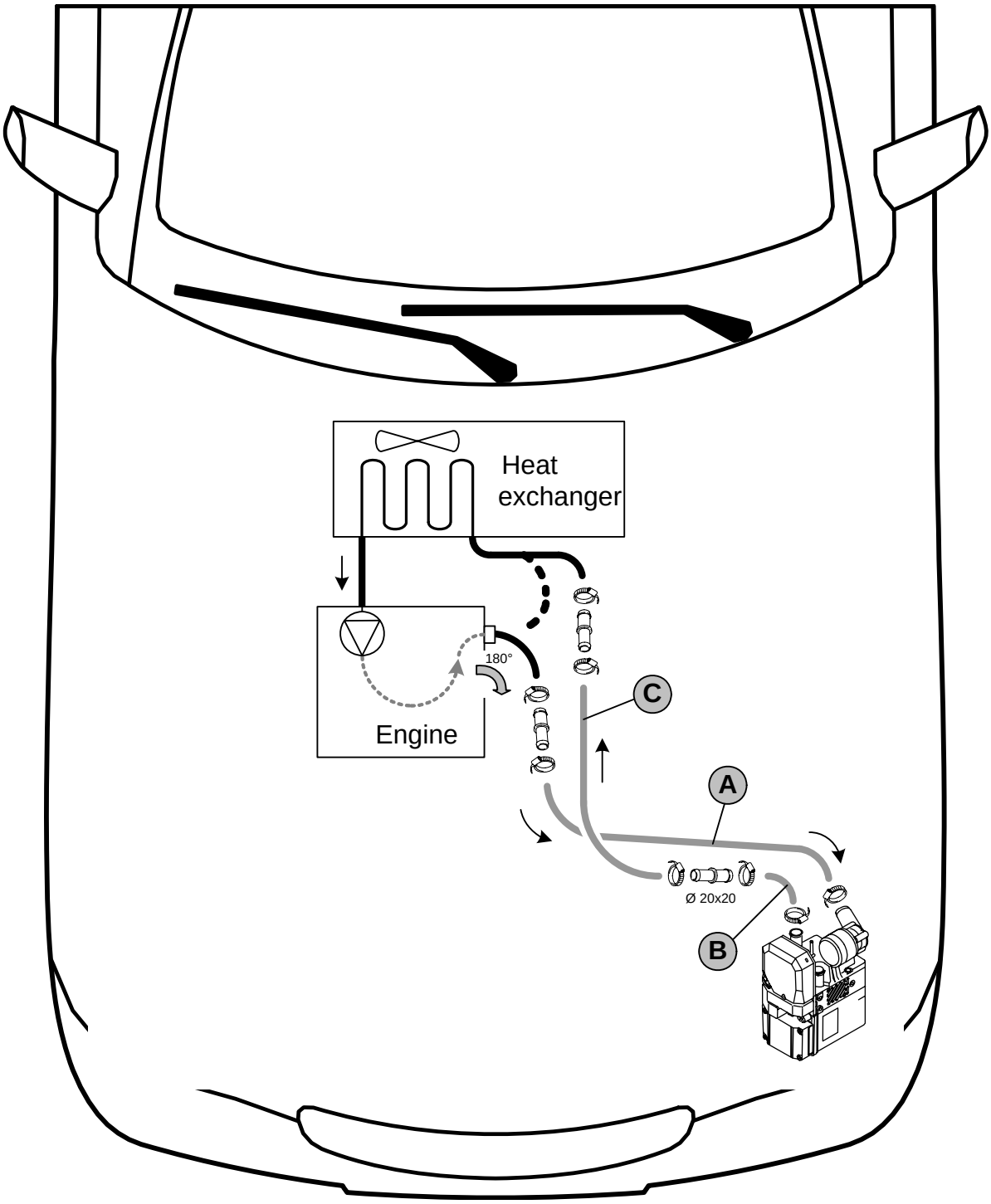
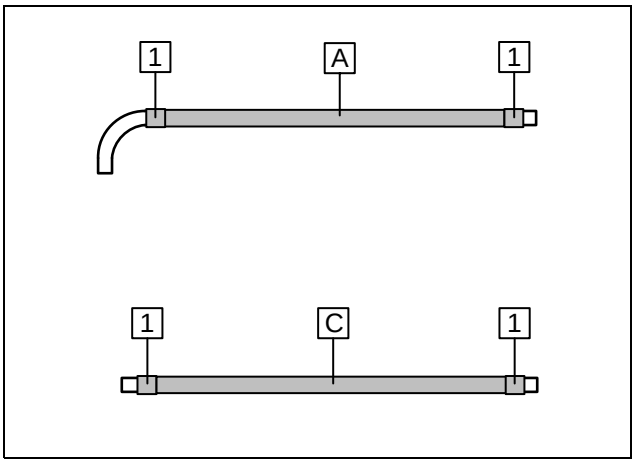


Diagram of coolant routing for gasoline engine

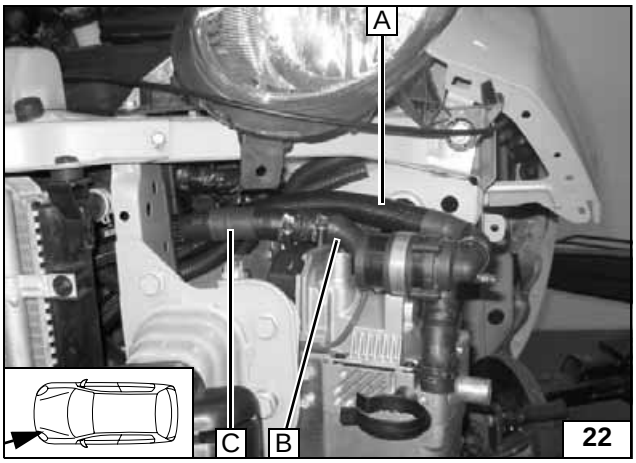
All clamps are 20-27 mm dia. hose clamps!
All connecting pipes without a specific designation are dia. 18x20!



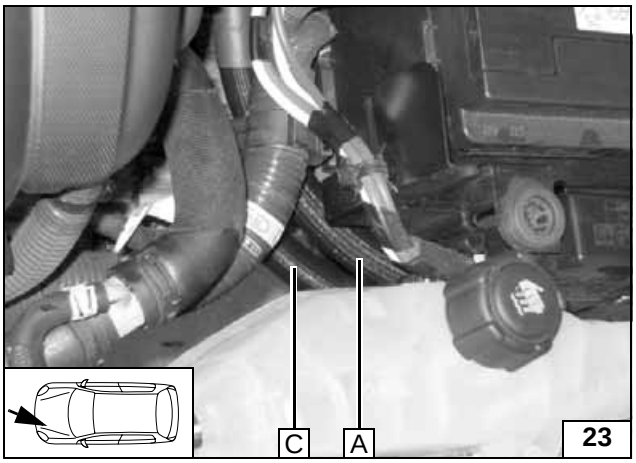
Push braided protection hoses onto hose **A** and **C** and cut to length.
Cut heat shrink plastic tubing to size.

1 25 mm heat shrink plastic tubing [4x]

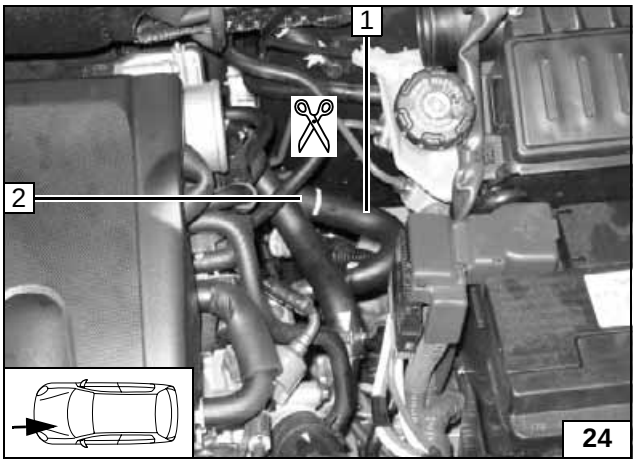
Preparing coolant hoses



Connection on heater unit



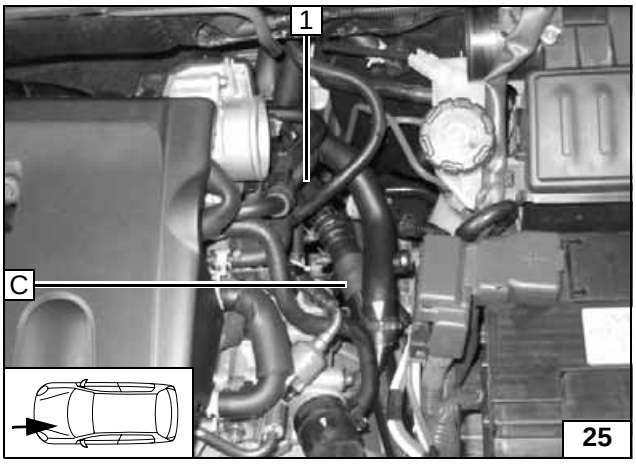
Routing in engine compartment



Turn hose section on connection piece of engine outlet toward front.

1 Hose section from engine outlet
2 Hose section to heat exchanger inlet

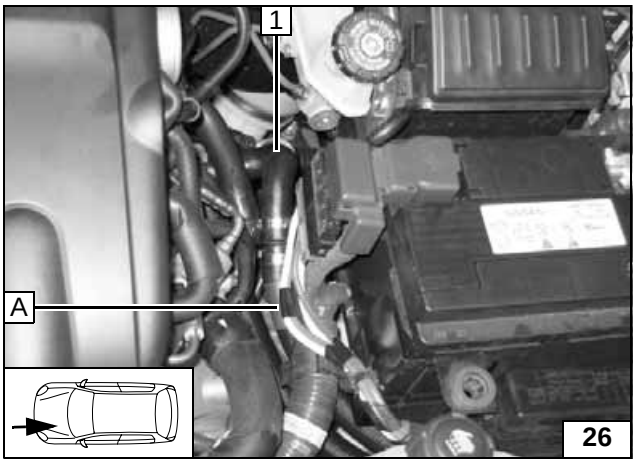
Cutting point



Before connecting, fill the water hoses with coolant.

1 Hose on heat exchanger inlet

Connection on heat exchanger inlet



Before connecting, fill the water hoses with coolant.

1 Hose on engine outlet turned

Connection on engine outlet

Coolant for diesel engine

WARNING!
Tighten all hose clamps to 2.0 + 0.5 Nm.
Any cold water 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:

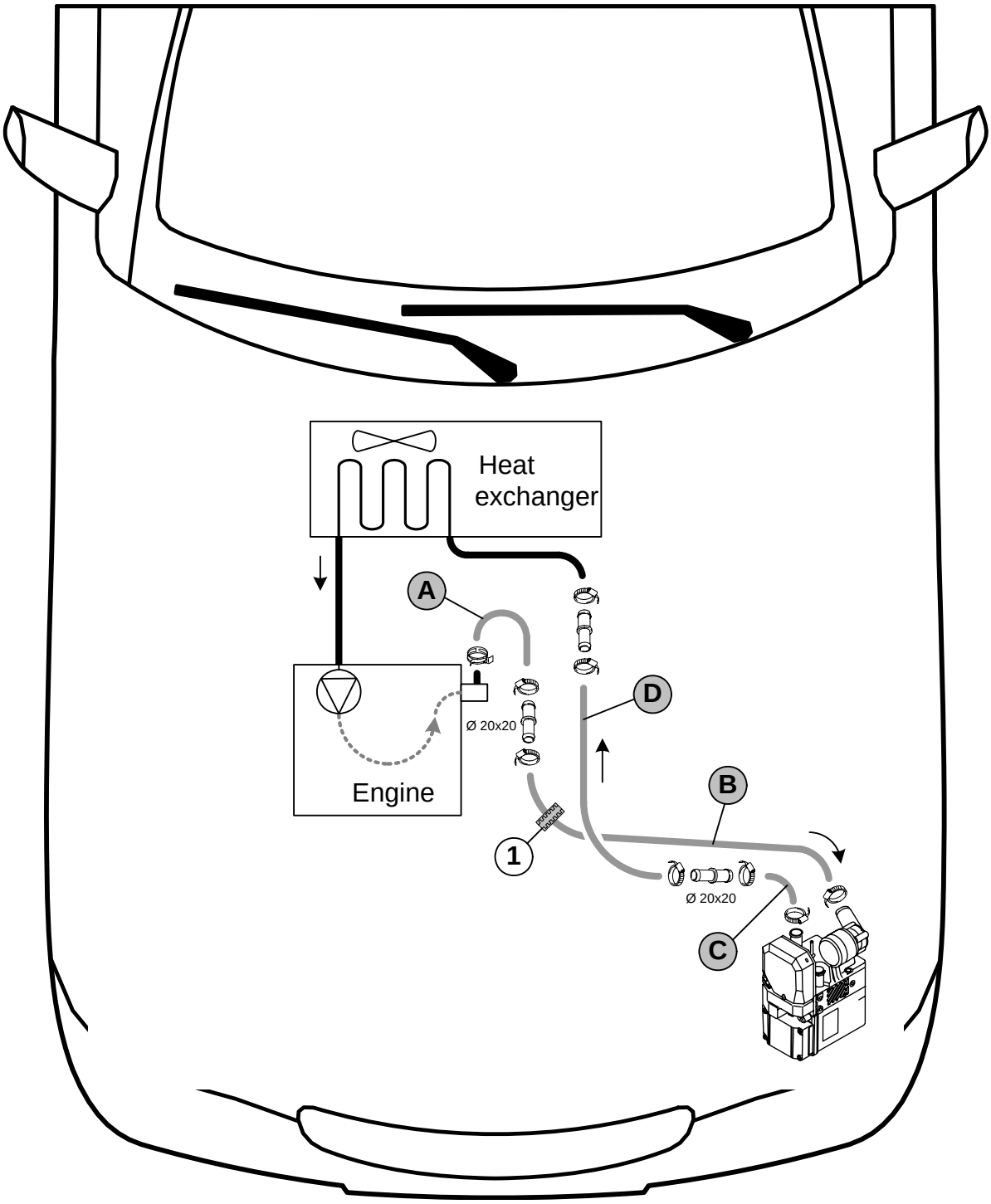
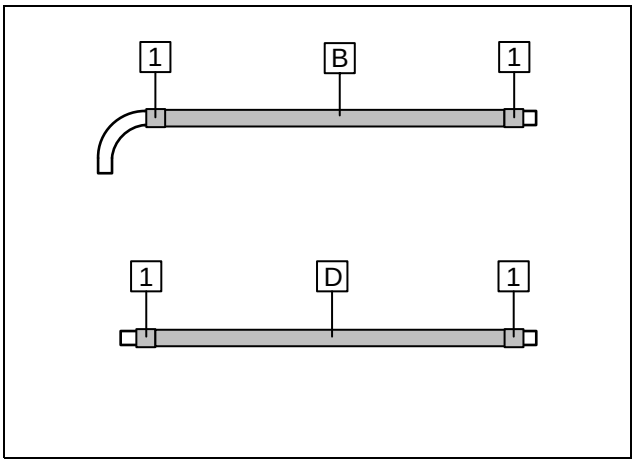


Diagram of coolant routing for diesel engine

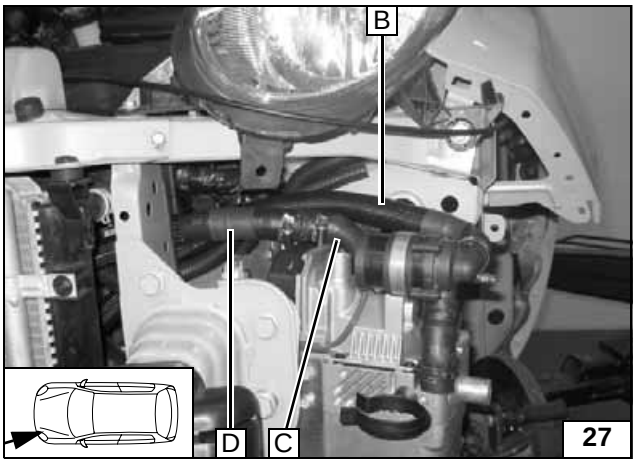
All hose clamps are 20-27 mm dia. All connecting pipes without a specific designation are dia. 18x20!
1 = Black (sw) rubber isolator (only with 63 kW engine!)



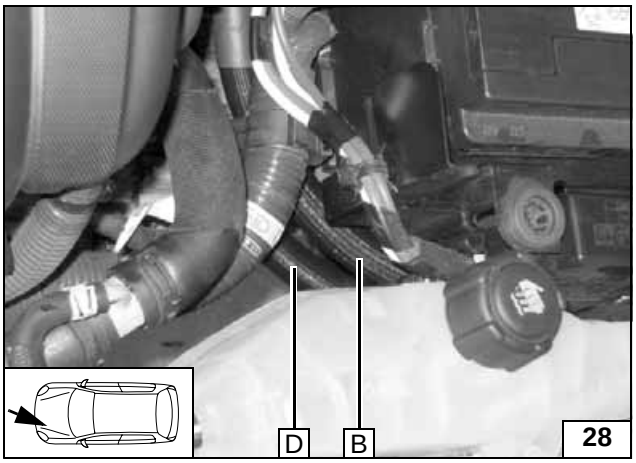
Push braided protection hoses onto hose **B** and **D** and cut to length.
Cut heat shrink plastic tubing to size.

1 25 mm heat shrink plastic tubing [4x]

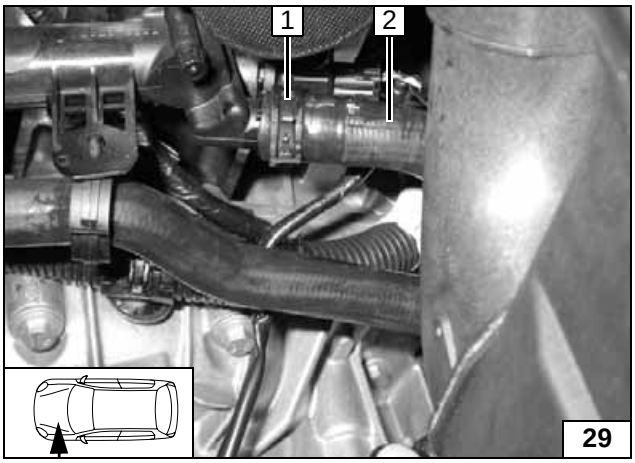
Preparing coolant hoses



Connection on heater unit



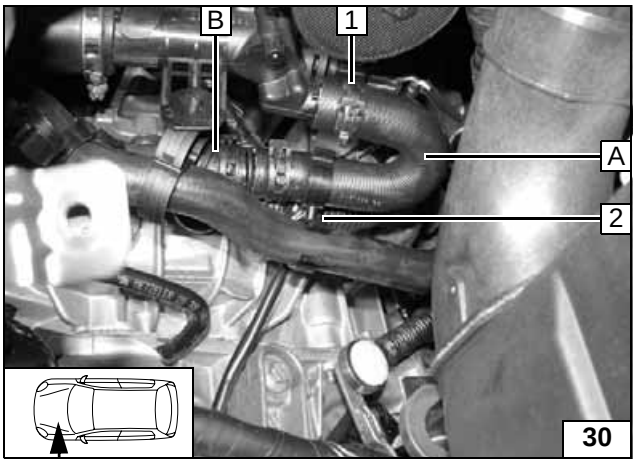
Routing in engine compartment



Diesel 48/60 kW

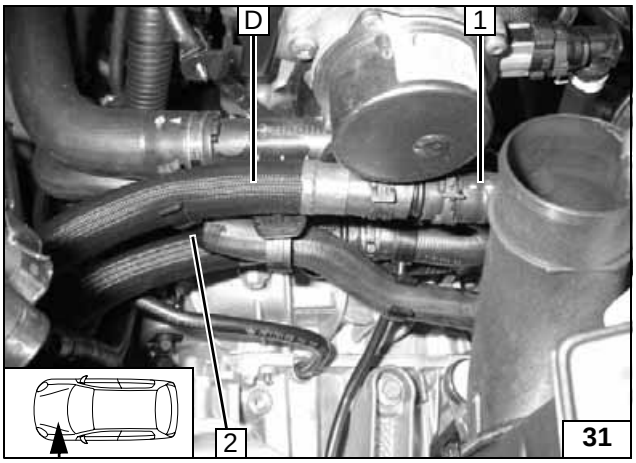
Disconnect hose to heat exchanger inlet **2** on connection piece of engine outlet.
Spring clip **1** will be reused

Cutting point



1 Original vehicle spring clip
2 Spacer bracket

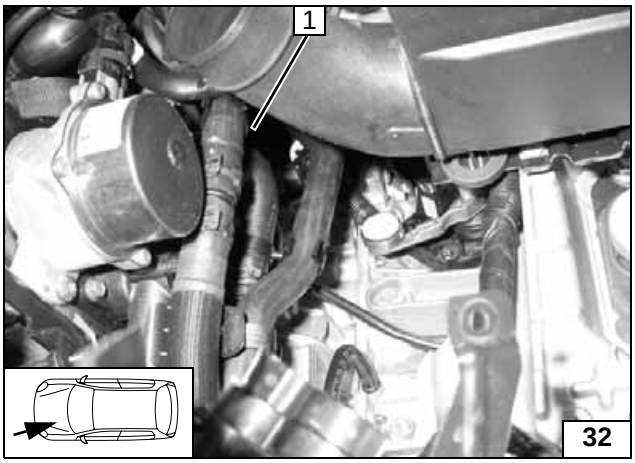
Connection to engine outlet



Before connecting, fill the water hoses with coolant.

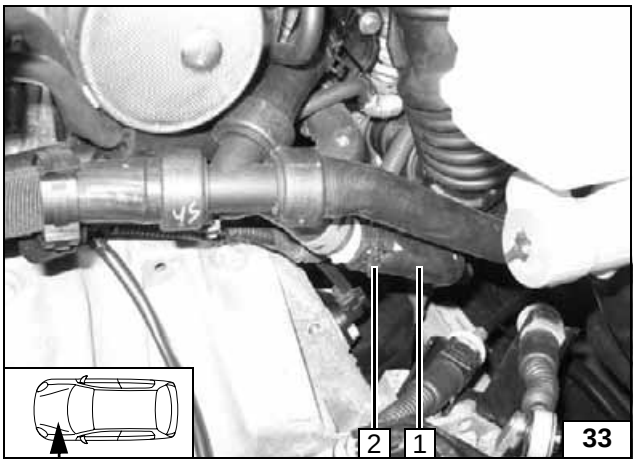
1 Hose to heat exchanger inlet
2 Spacer bracket

Connection on heat exchanger inlet



1 Spacer bracket

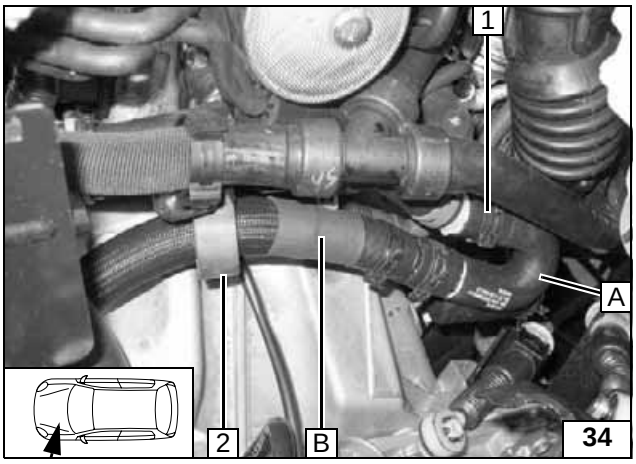
Installing spacer bracket



Diesel 63 kW

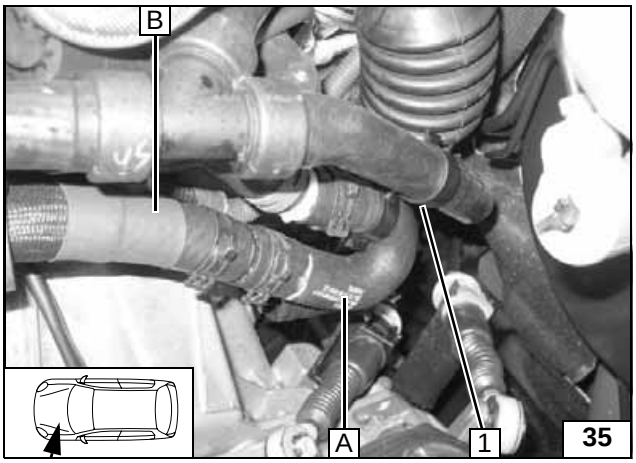
Disconnect hose to heat exchanger inlet **1** on connection piece of engine outlet.
Spring clip **2** will be reused

Cutting point



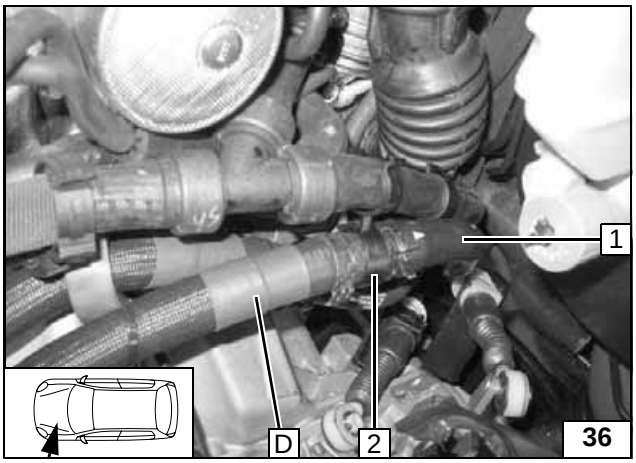
1 Original vehicle spring clip
2 Black (sw) rubber isolator

Connection to engine outlet



1 Spacer bracket

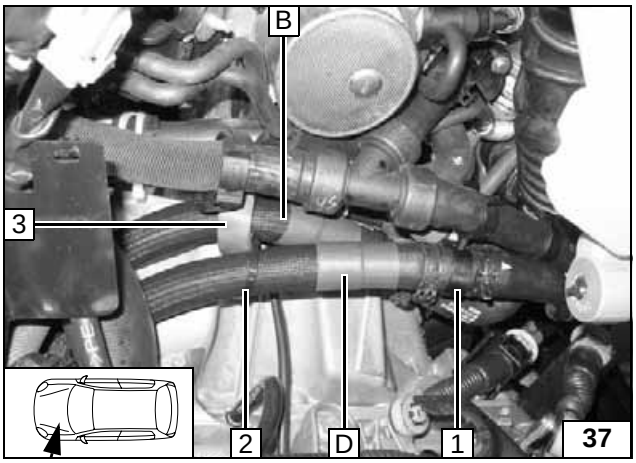
Installing spacer bracket



Before connecting, fill the water hoses with coolant.

1 Hose on heat exchanger inlet
2 Spacer bracket

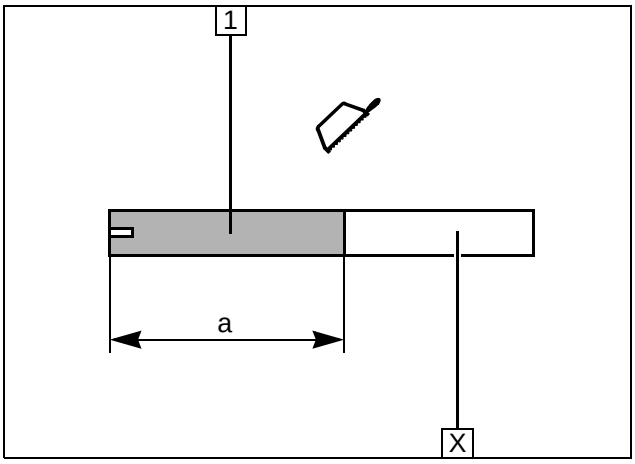
Connection on heat exchanger inlet



Fix hose **D** and black (sw) rubber isolator **3** in place with cable tie **2**.

1 Spacer bracket

Installing spacer bracket

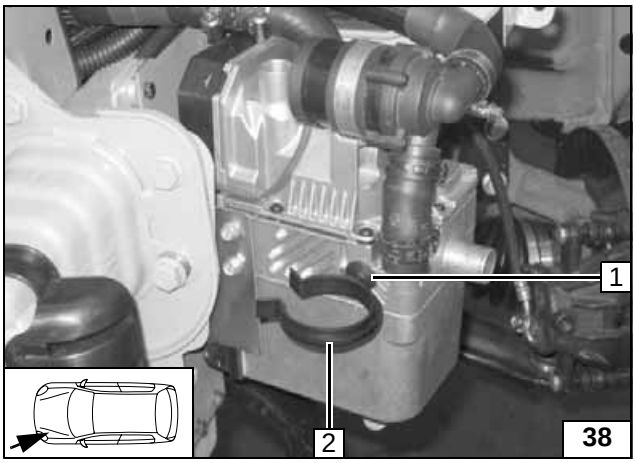


Combustion air

1 Combustion air pipe
a = 180 mm

Discard section **X**

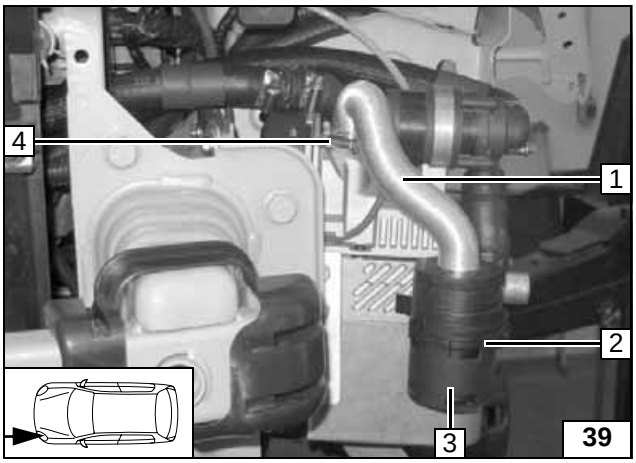
Cutting combustion air pipe to length



Precut thread with Ejot screw at hole in heater unit at position **1**

2 Retaining clip in threaded hole

Installing retaining clip



1 Combustion-air intake pipe
4 27 mm dia. hose clamp
3 Combustion-air intake muffler
2 Retaining clip

Installing muffler

Fuel Connection

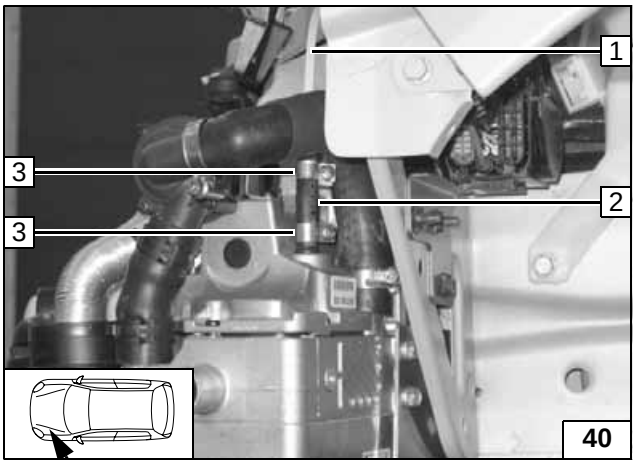
CAUTION!
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

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.

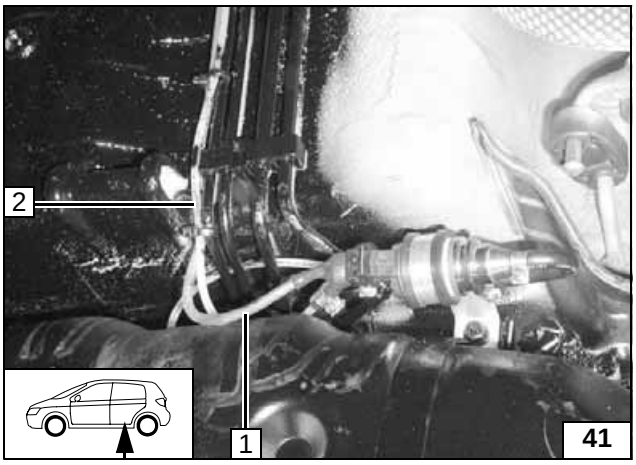
WARNING!
The fuel line and wiring harness are routed to the metering pump in as shown in the wiring harness routing diagram.

Connection on heater unit



1 Mecanyl fuel line
2 Hose section
3 10 mm dia. hose clamp [2x]

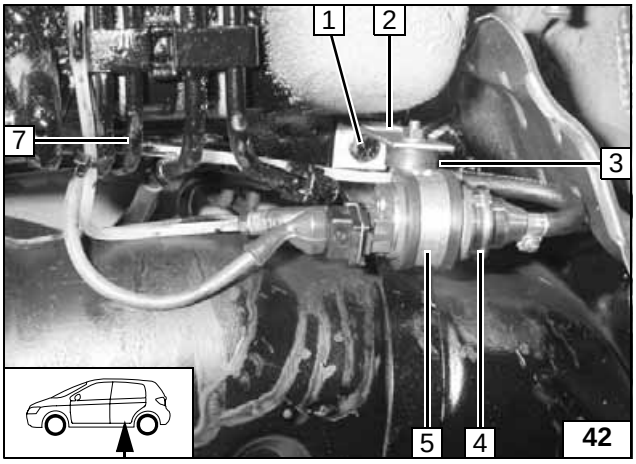
Installation location of metering pump



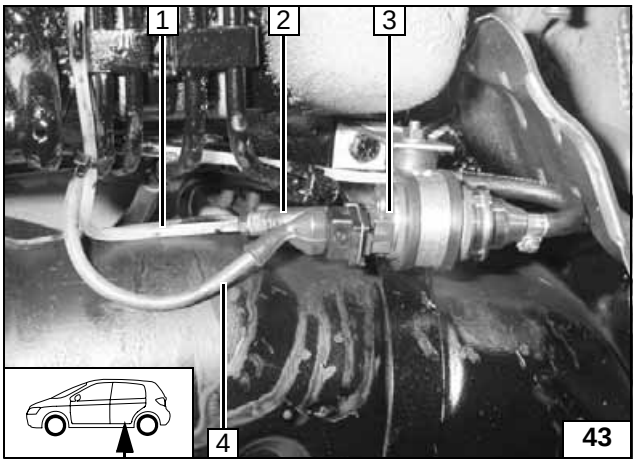
Ensure proper installation position of metering pump, see "Installation Instructions".
Installation location in front of vehicle fuel tank!

1 Metering pump wiring harness
2 Mecanyl fuel line

Installing metering pump



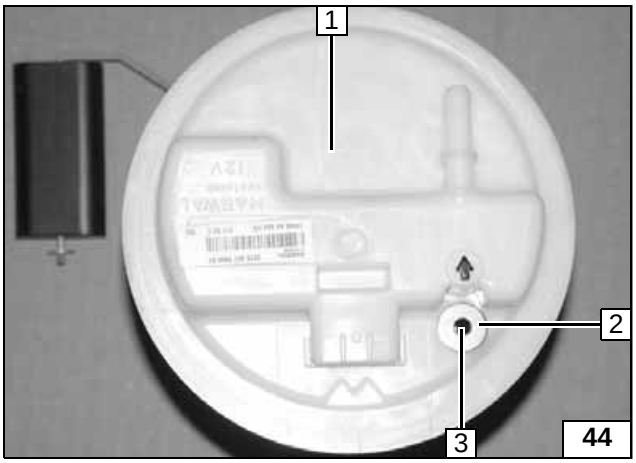
2 Angle bracket
1 Original vehicle bolt
3 Silent block, flanged nut [2x]
4 Metering pump
5 Rubber-coated pipe clamp



Fuel line from heater unit on pressure side of metering pump [side with connector].

3 Metering pump
1 Fuel line
2 Hose section, 10 mm dia. hose clamps [2x]
4 Wiring harness of metering pump, single-wire seal, tab connector, connector housing

Connecting metering pump

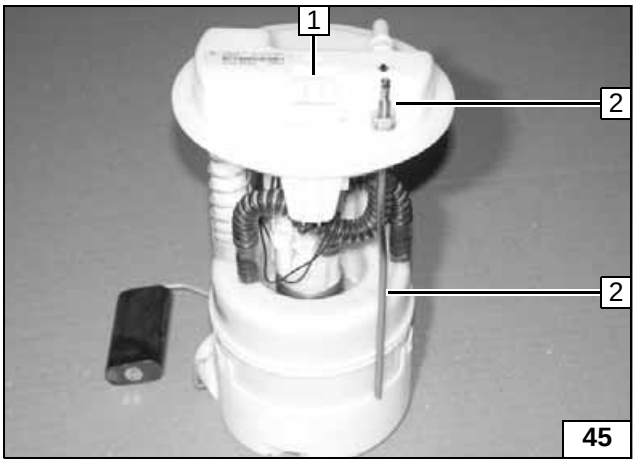


Gasoline

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

1 Fuel-tank sending unit
2 Washer, outside dia. = 17.6 mm
3 Copy hole pattern, 6 mm dia. hole

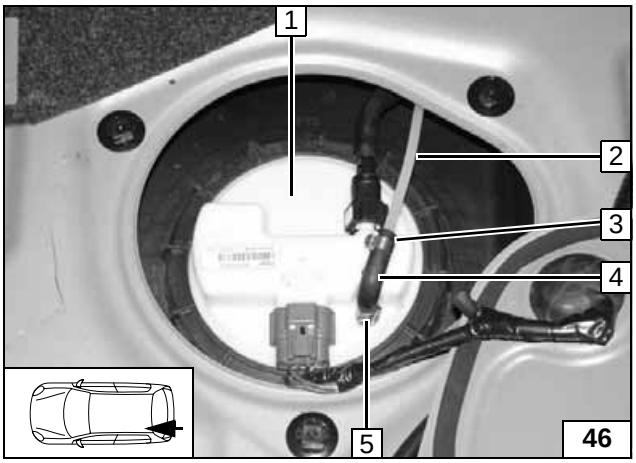
Removing fuel



Shape fuel standpipe according to template, cut to length and install, see "installation instructions".
Tightening torque of fuel standpipe is 5 Nm.

1 Fuel-tank sending unit
2 Fuel standpipe

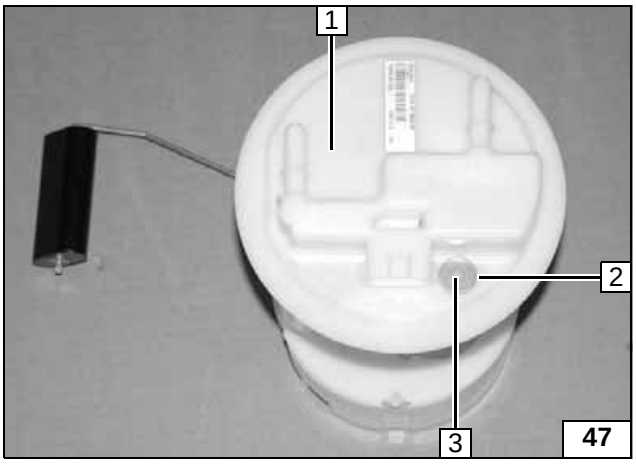
Installing fuel standpipe



Install fuel-tank sending unit according to manufacturer's specifications. Shorten molded hose 10 mm at 3.5 mm dia. and mount on fuel standpipe.

1 Fuel sender
2 Remaining end of Mecanyl fuel line
4 Molded hose, 3.5 mm dia. 4.5 mm
5 9 mm dia. Caillau clamp
3 10 mm dia. Caillau clamp

Connecting fuel line

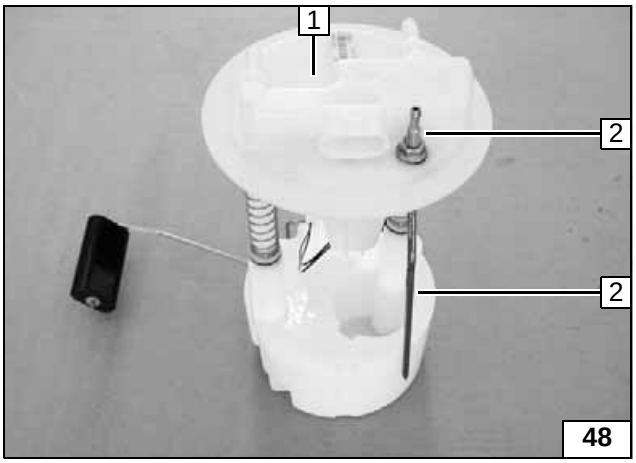


Diesel

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

1 Fuel-tank sending unit
2 Washer, outside dia. = 17.6 mm
3 Copy hole pattern, 6 mm dia. hole

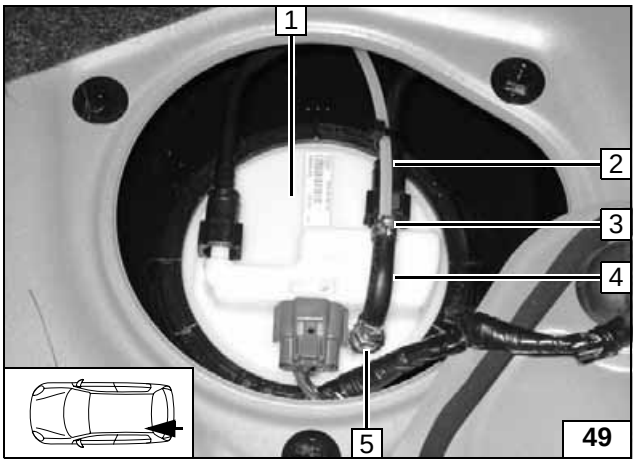
Removing fuel



Shape fuel standpipe according to template, cut to length and install, see "installation instructions".
Tightening torque of fuel standpipe is 5 Nm.

1 Fuel-tank sending unit
2 Fuel standpipe

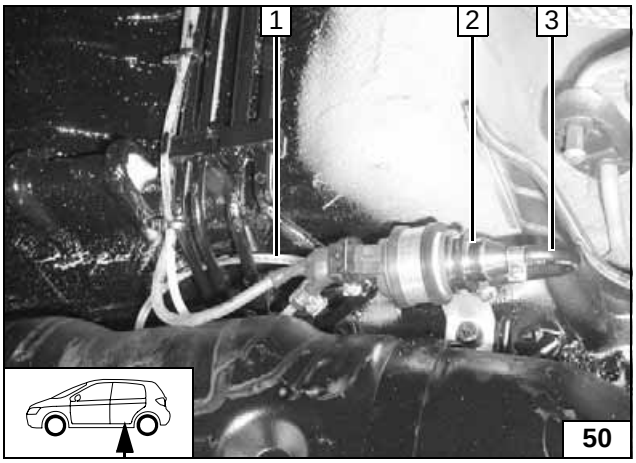
Installing fuel standpipe



Install fuel-tank sending unit according to manufacturer's specifications. Shorten molded hose 10 mm at 3.5 mm dia. and mount on fuel standpipe.

1 Fuel sender
2 Remaining end of Mecanyl fuel line
4 Molded hose, 3.5 mm dia. 4.5 mm
5 9 mm dia. Caillau clamp
3 10 mm dia. Caillau clamp

Connecting fuel line

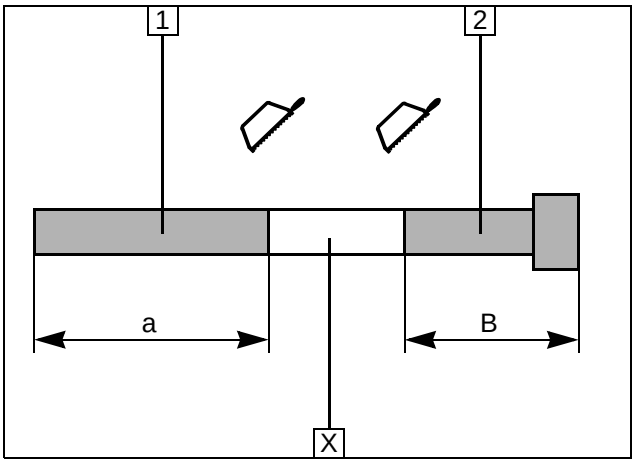


All vehicles

Fuel line from fuel standpipe on intake side of metering pump [side without connector].

2 Metering pump
1 Fuel line
3 180° molded hose, 10 mm dia. hose clamps [2x]

Connecting metering pump

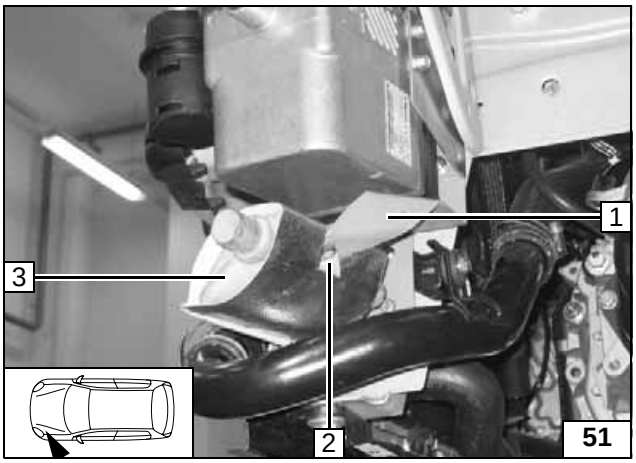


Exhaust system

1 Exhaust pipe
a = 250 mm
2 Exhaust end section
b = 210 mm

Discard section **X**

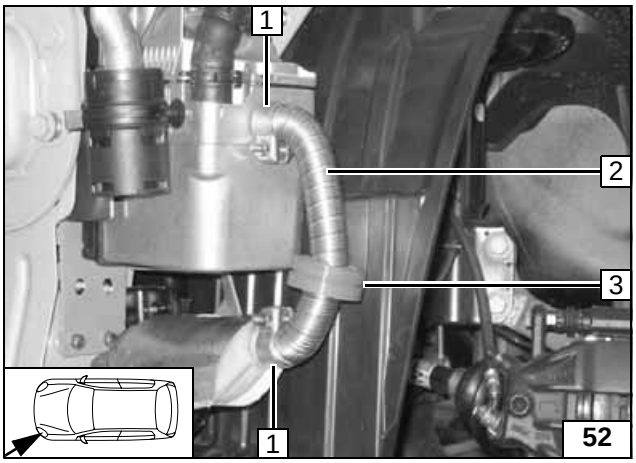
Preparing exhaust pipe



Slide on insulation for muffler before installation.

1 Bracket
3 Muffler with insulation
2 M6x20 bolt, flanged nut

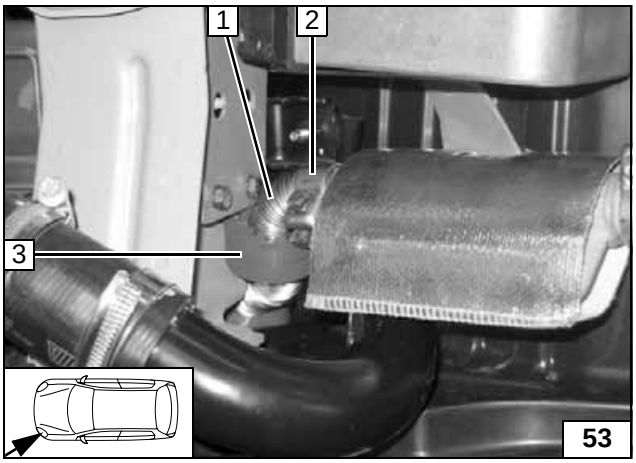
Installing muffler



Slide on rubber isolator before installation.

2 Exhaust pipe
3 Red (rt) rubber isolator with groove
2 Hose clamp [2x]

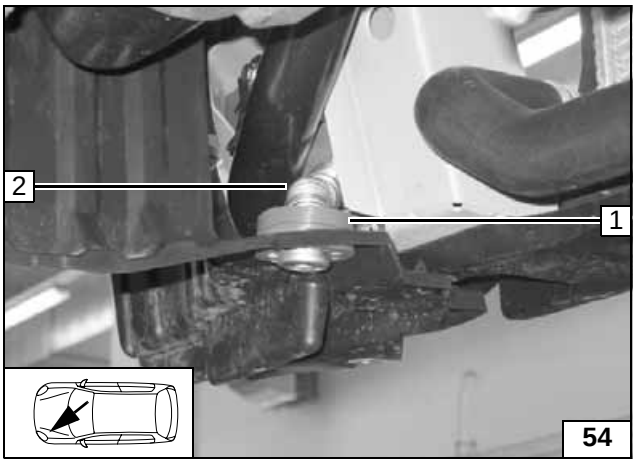
Installing exhaust pipe



Slide on rubber isolator before installation.

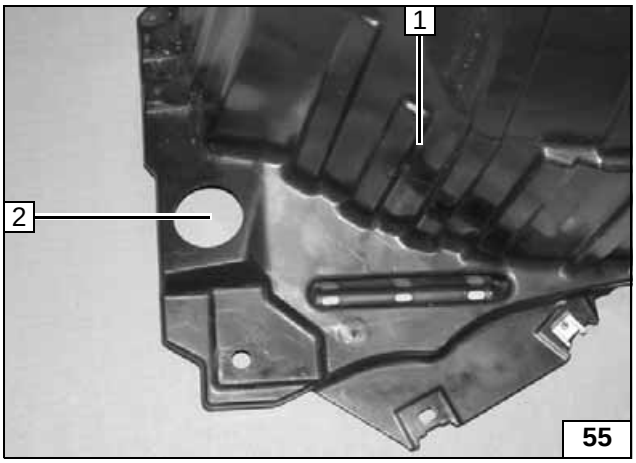
1 Exhaust end section
3 Position red (rt) rubber isolator
2 Hose clamp

Installing exhaust end section



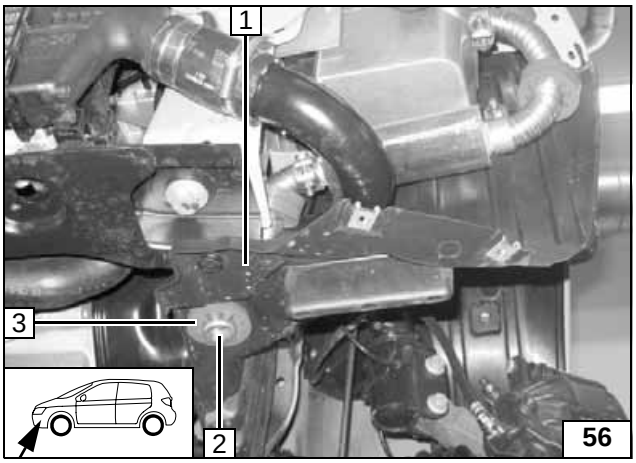
2 Exhaust end section
1 Red (rt) rubber isolator

Installing exhaust end section



1 Wheel well trim
2 42 mm dia. hole

Cutting out wheel well trim



First position red (rt) rubber isolator **3** on exhaust end section **2** from below, then insert with groove in underride protection **1**. Align end cap of exhaust end section **2** flush on red (rt) rubber isolator **3** as shown.
Check the position of the components; adjust if necessary. Check that they have free clearance.

1 Wheel well trim
2 Exhaust end section
3 Red (rt) rubber isolator with groove

Mounting rubber isolator

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.
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 instructions of the vehicle manufacturer and add coolant
- Set the digital timer.
- Adjust the vehicle heater with automatic air-conditioning or without automatic air-conditioning according to "Operating Instructions for End Customer".
- Check the proper operation of the additional heater, see the operating instructions/installation instructions.
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.

Webasto
Feel the drive

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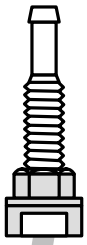
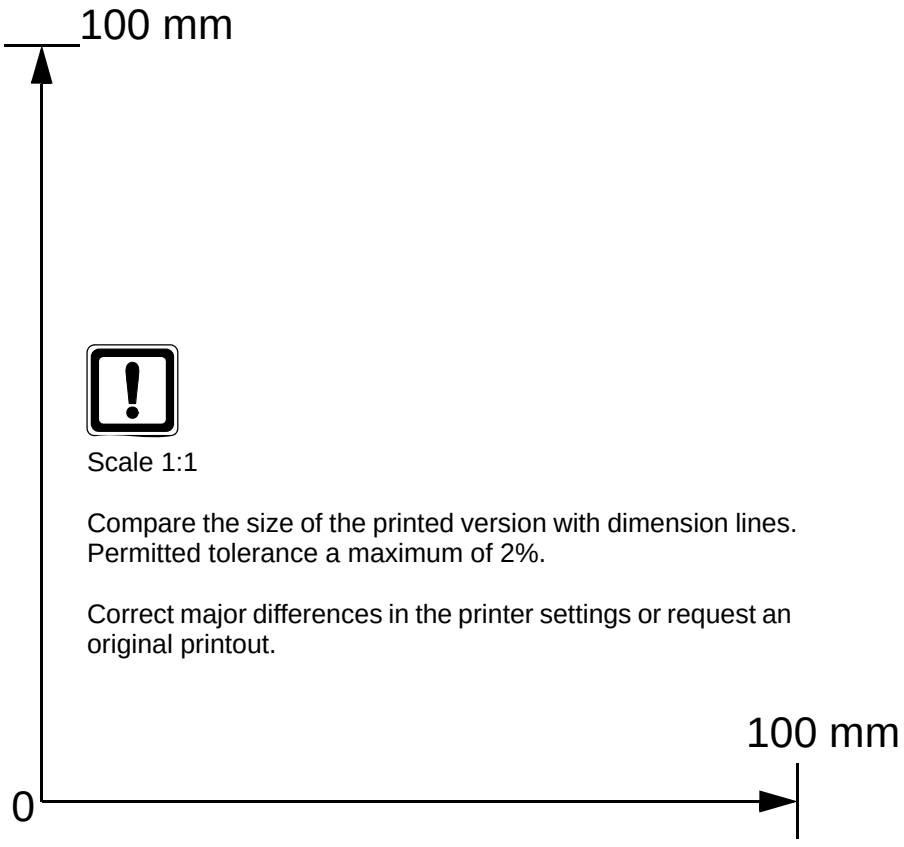
Template for Fuel Standpipe





Scale 1:1

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

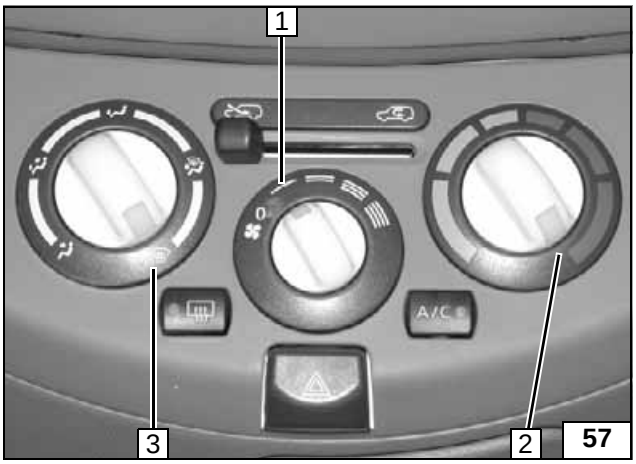
Correct major differences in the printer settings or request an original printout.

Operating Instructions for End Customer

Please remove page and add to the vehicle operating instructions.

Before parking the vehicle, make the following settings:

Manual air conditioning



3 Direct air outlet toward windshield
1 Set fan controller to level "1"
2 Set thermostat to "max."

Automatic air-conditioning

3 Direct air outlet toward windshield
1 Set fan controller to level "1"
2 Set thermostat to "32°C"