

Water Heater

Thermo Top E Parking Heater

(E1)
00 0003

Thermo Top C Parking Heater

(E1)
00 0002

Installation Documentation

Nissan NV200

Petrol
from model year 2010
Left-hand drive vehicle
Manual air-conditioning
Automatic air-conditioning
Manual transmission
Front fog light



WARNING!

Hazard warning:

The improper installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide, leading to serious injury or death.

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



Only use genuine Webasto parts. See the Webasto air and water heaters accessories catalogue for this purpose.

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.

The initial startup is to be executed with the Webasto Thermo Test Diagnosis.

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	NV200	AM20	e11 * 2007 / 46 * 0016 * ...

Engine type	Engine model	Output in kW	Displacement in cm ³
HR16	Petrol	81	1598

Vehicle and engine types, equipment variants and national specifications not listed in this installation documentation have not been tested. However, installation according to this installation documentation may be possible.

The installation location of the digital timer must be coordinated with the end customer before the installation!

Heater / Installation Kit

Quantity	Designation	Order No.:
1	Basic delivery scope of <i>Thermo Top E / C</i>	See Price list
1	Installation kit for Nissan Note / NV200 2010 Petrol	1310821B
1	Heater control	See Price list

Heater recommended for the respective vehicle class:

Vehicle	Heater
Compact car	Thermo Top E
Mid-size car, estate car	Thermo Top C

Foreword

This installation documentation applies to Nissan NV200 Petrol vehicles - for validity, see page 2 - from model year 2010 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 this installation documentation.

However, the stipulations in this "installation documentation" and "operating instructions" and the "installation instructions" for the *Thermo Top E / C* should 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. Insulate loose wires and tie back. Connectors on electronic components have to audibly click into place during installation.

Sharp edges must be provided with rub protection. Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

Check or adjust the corresponding settings before installation when installing an IPCU.

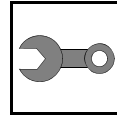
Special Tools

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

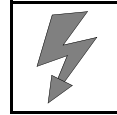
Explanatory Notes on Document

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.

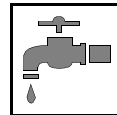
Mechanical system



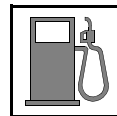
Electrical system



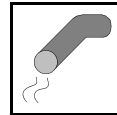
Coolant circuit



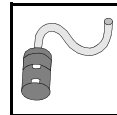
Fuel



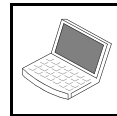
Exhaust gas



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.



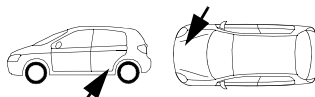
Reference to general installation instructions of Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.



Tightening torque according to the manufacturer's vehicle-specific documents



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!

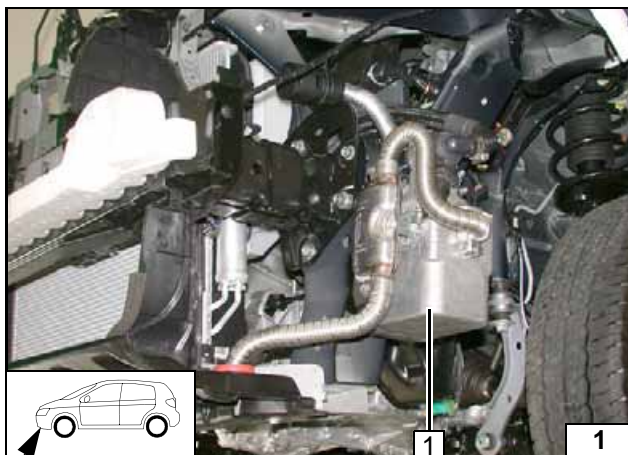
Tightening torque of Ejet screws, Ejet studs = 10 Nm!

Preliminary Work

WARNING!

- Open the fuel tank cap, ventilate the tank.
- Close the fuel tank cap again.
- Disconnect the battery.
- Depressurise 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.
- Disconnect the battery and remove it completely with the box.
- Remove the air filter housing.
- Remove the left front wheel.
- Detach the wheel well trim on the left and right.
- Remove the front bumper cover.
- Remove the rear bench seat.
- Remove the fuel-tank in accordance with the manufacturer's instructions.
- Remove the instrument panel trim on the driver's side.
- Remove the fuse and relay carrier on the driver's side.
- Remove the lower instrument panel trim on the driver's side and front passenger's side (only with automatic air-conditioning).
- Remove the radio and A/C control panel according to the manufacturer's instructions (only with automatic air-conditioning).

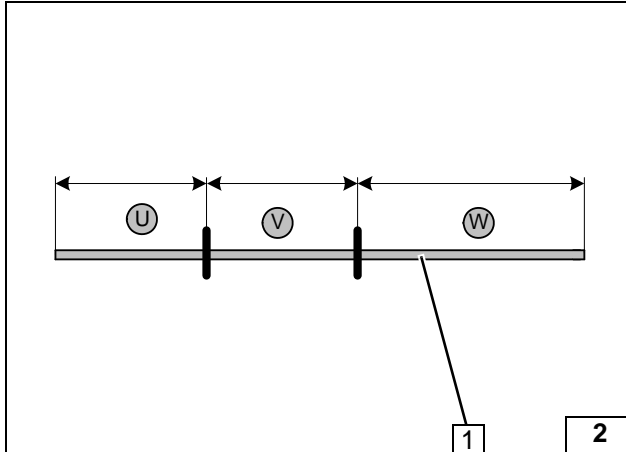
Remove page 28 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater Installation Location

- 1 Heater

Installation location

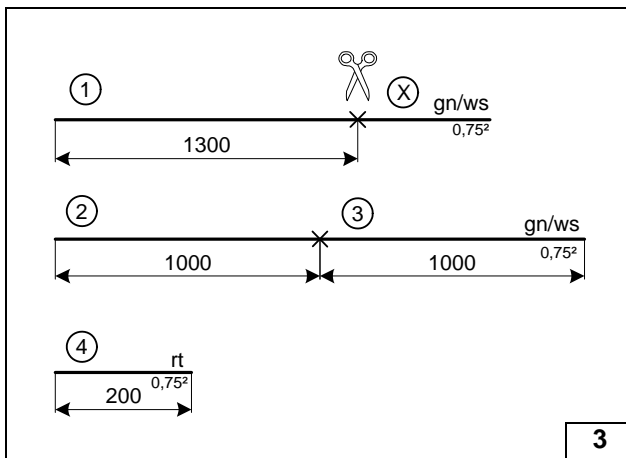


Preparing Electrical System for Automatic A/C

1 4mm dia. protective sleeving

U = 900
V = 900
W = 1200

✎
Cutting to length/as-signing protective sleeving



Wire sections retain their numbering in the entire document.

Produce all following electrical connections as shown in the wiring diagram.

Discard section X.

Draw wires into protective sleeving:

- ① Green/white (gn/ws) wire in **U**
- ② Green/white (gn/ws) wire in **V**
- ③ Green/white (gn/ws) wire in **W**

✎
Cutting to length/as-signing wires



Electrical System

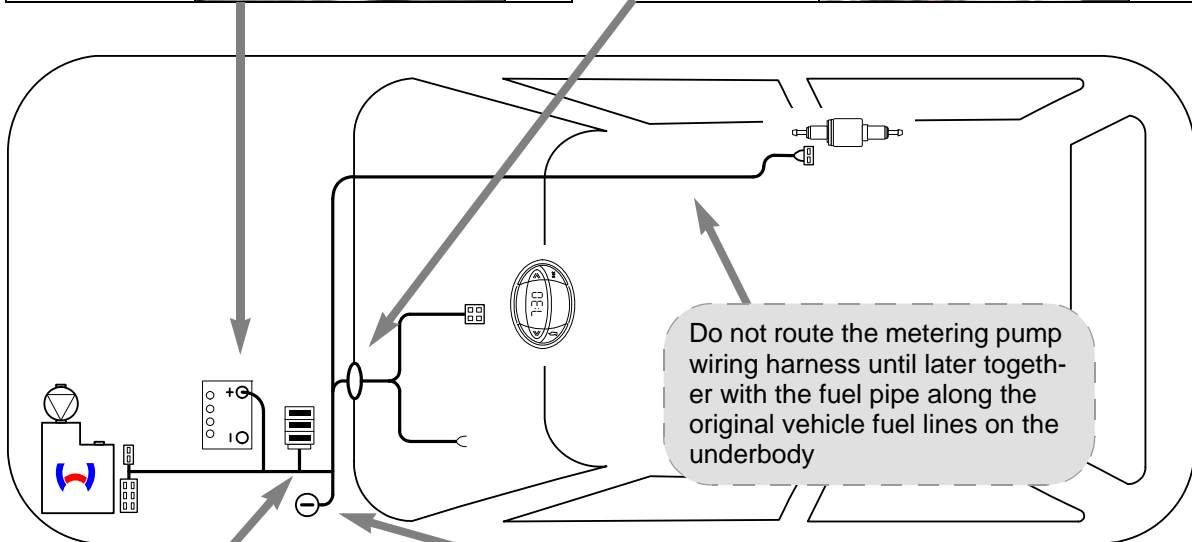
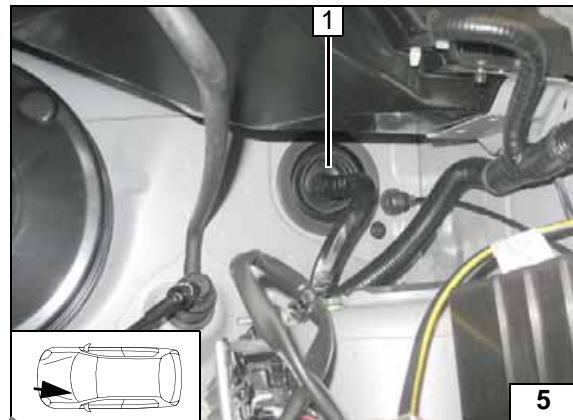
Positive wire

- 1 Positive wire, 8mm dia cable lug, positive battery terminal

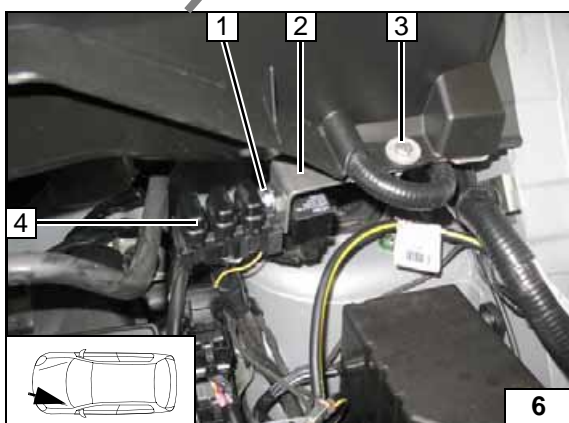


Wiring harness pass through

- 1 Protective rubber plug



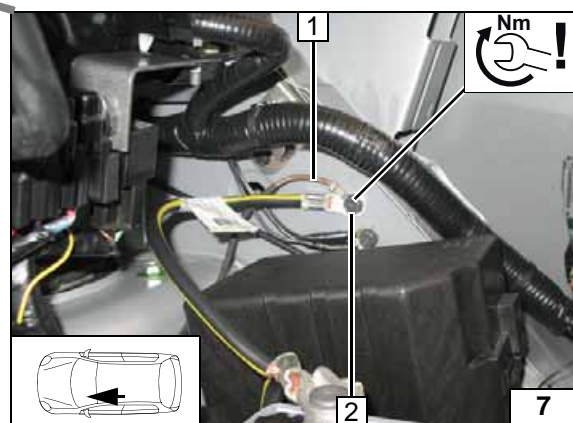
Wiring harness routing diagram



Fuse holder, K3 relay

Replace F3 25 A fuse with 10 A fuse.

- 1 M5x16 bolt, retaining plate of fuse holder, K3 relay, washer, flanged nut
- 2 Drill out bracket to 7 mm dia. at position 3.
- 3 Original vehicle clip removed, M6x20 bolt, large diameter washer, flanged nut
- 4 F1-3 fuses mounted



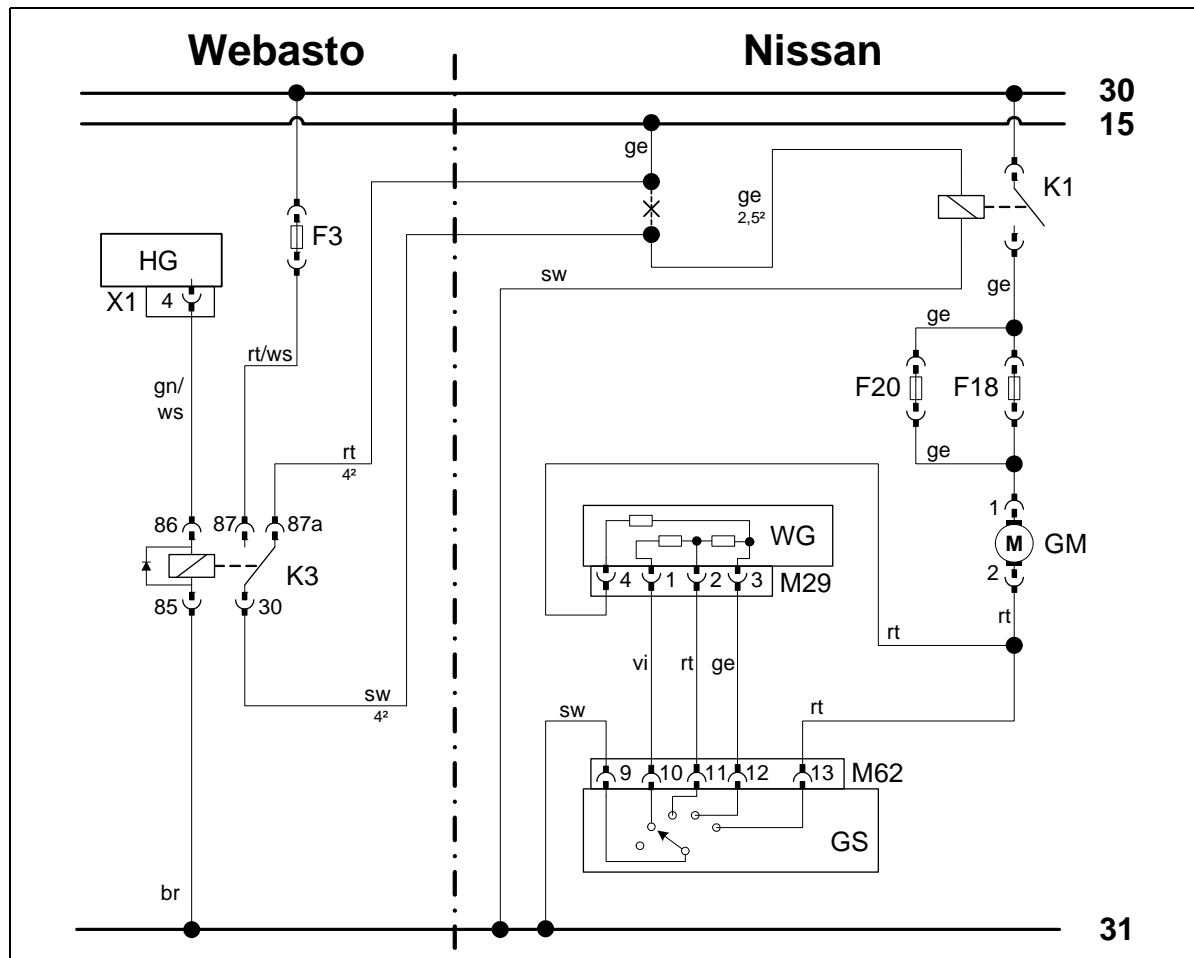
Earth wire

- 1 Earth wire
- 2 Original vehicle earth support point





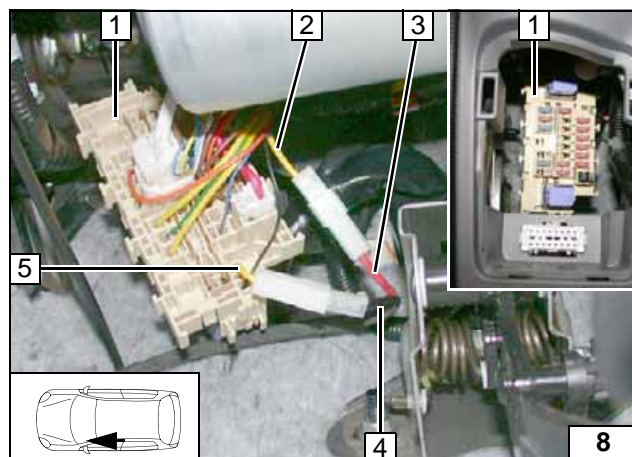
Manual Air-Conditioning Fan Controller



Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	K1	Fan relay	rt	red
X1	6-pin heater connector	F20	15A fuse	ws	white
F3	Replace 25 A with 10 A fuse.	F18	15A fuse	sw	black
K3	Fan relay	GM	Fan motor	br	brown
		WG	Resistor group	gn	green
		M29	4-pin connector WG	ge	yellow
		GS	Fan switch		
		M62	15-pin connector GS		
				X	Cutting point
				Wiring colours may vary.	

Legend



Connection at original vehicle fan relay K1.

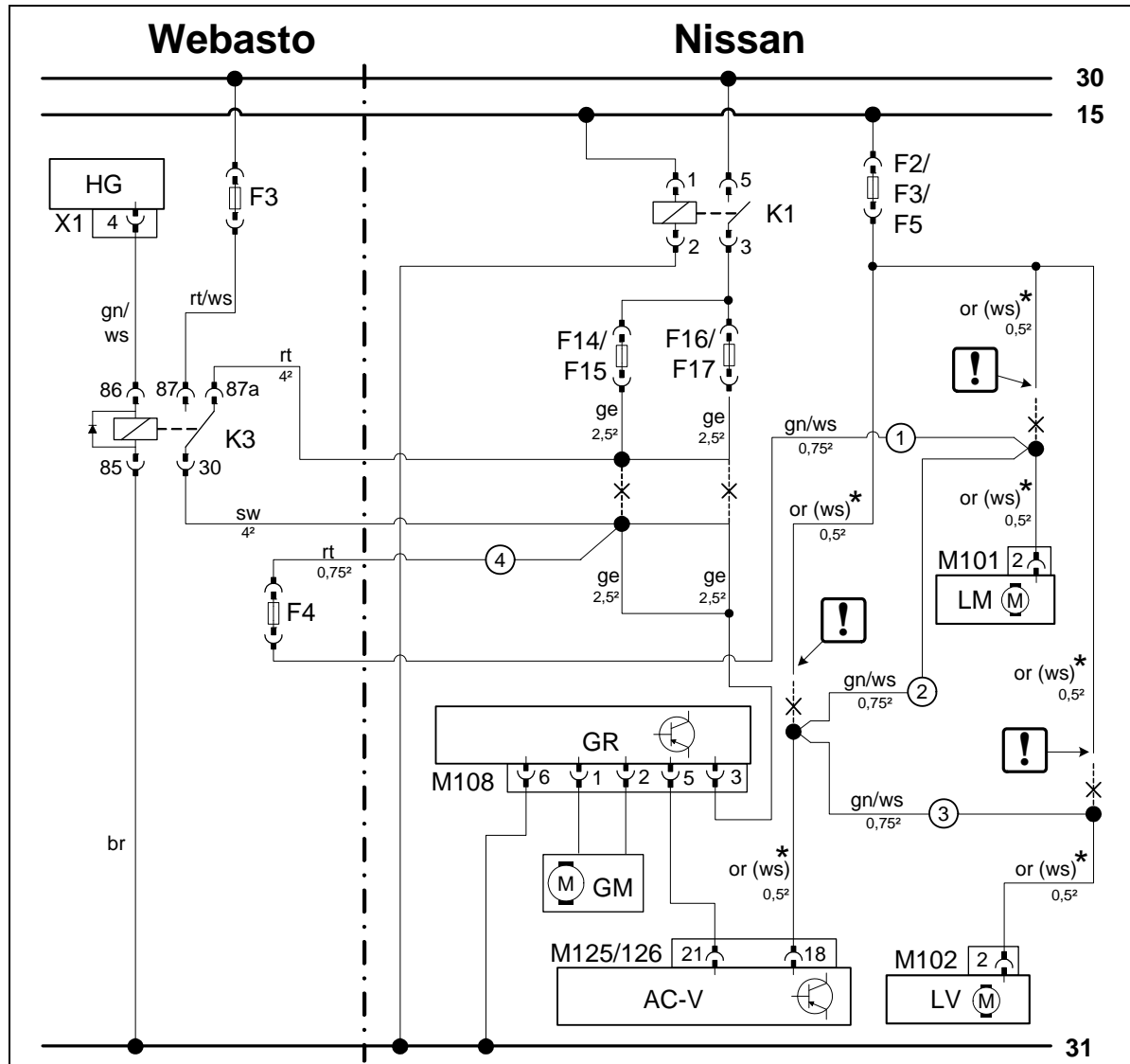
- 1 Passenger compartment central electrical box, detached
- 2 Yellow (ge) wire (Terminal 15)
- 3 Red (rt) wire from K3/87a
- 4 Black (sw) wire from K3/30
- 5 Yellow (ge) wire to fan relay K1



Connection of central electrical box



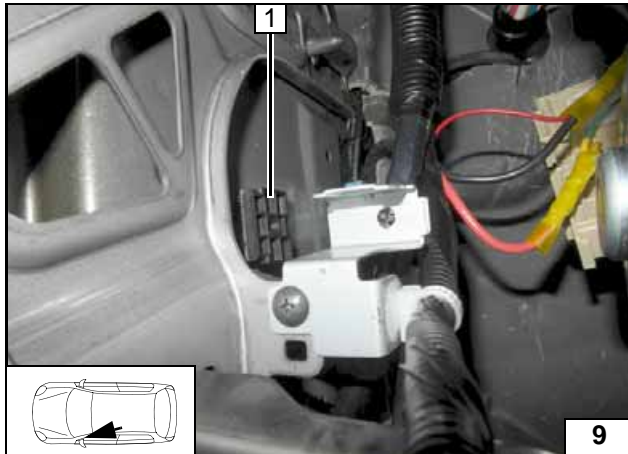
Automatic Air-Conditioning Fan Controller



Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	F2	10A fuse up to MY 2012	rt	red
X1	6-pin heater connector	F3	10A fuse from MY 2013 without start button	ws	white
F3	25A fuse	F5	10A fuse from MY 2013 with start button	sw	black
F4	10 A fuse	K1	Fan relay	or	orange
K3	Fan relay	F14	15A fuse from MY 2013 with start button	ge	yellow
		F15	15A fuse up to MY 2012, from MY 2013 without start button	gn	green
		F16	15A fuse from MY 2013 with start button	pk	pink
		F17	15A fuse up to MY 2012, from MY 2013 without start button	gr	grey
		LM	Blend air damper motor		
		M101	6-pin connector LM	*	Orange (or) wire up to MY 2012, white (ws) wire from MY 2013
		GR	Fan controller	!	Insulate wire end and tie back
		M108	6-pin connector GR	X	Cutting point
		GM	Fan motor		Wiring colours may vary.
		AC-V	A/C control panel		
		M125	20-pin AC-V connector		
		M126	16-pin AC-V connector		
		LV	Air distribution damper motor		
		M102	6-pin connector LV		

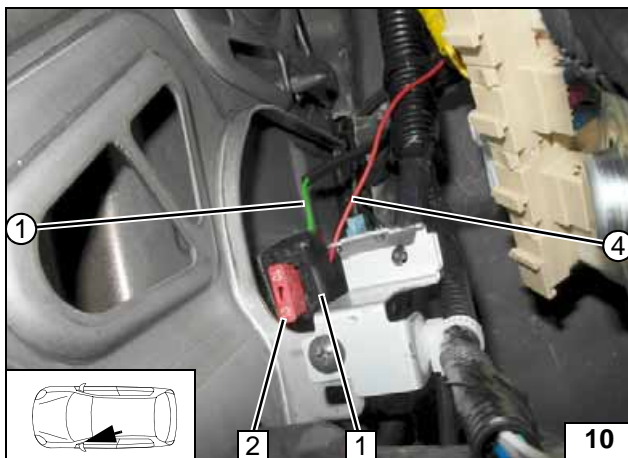
Legend



Fasten retaining plate of fuse holder 1 with double-sided adhesive tape.

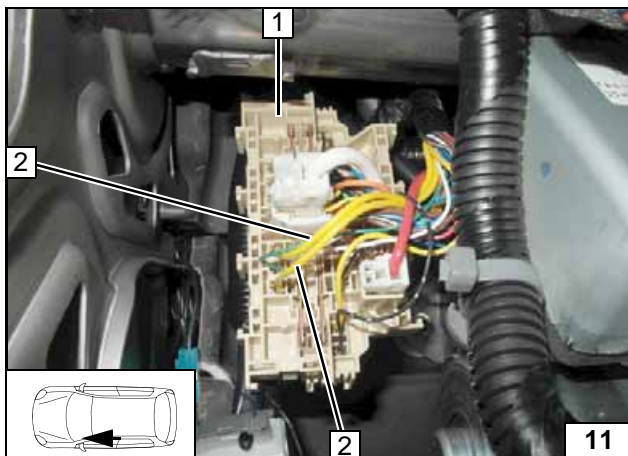


Installing fuse F4



- 1 Fuse holder of F4
- 2 10A fuse F4
- ① Green/white (gn/ws) wire of fuse F4
- ④ Red (rt) wire of fuse F4

Installing fuse F4

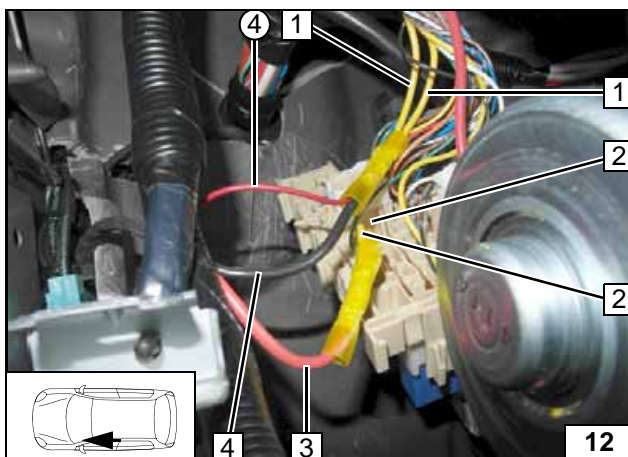


Assignment of fan fuses F14/F15/F16/F17, see wiring diagram!

- 1 Passenger compartment central electrical box, detached
- 2 Yellow (ge) wire [2x] of fan fuse

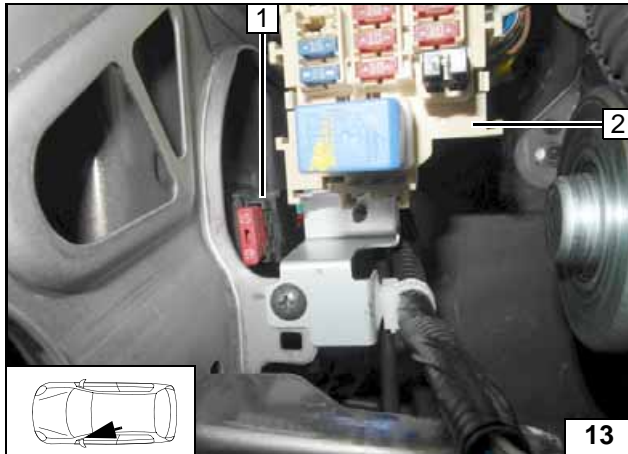


Connection of central electrical box



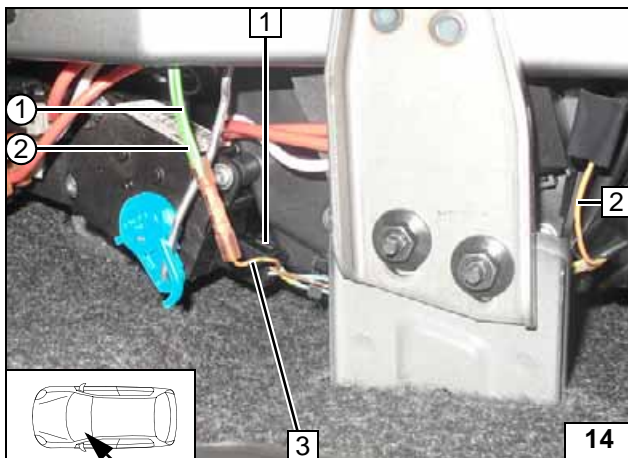
- 1 Yellow (ge) wire [2x] of GR connector M108/pin 3
- 2 Yellow (ge) wire [2x] of fan fuses F14/F15/F16/F17
- 3 Red (rt) wire from K3/87a
- 4 Black (sw) wire from K3/30
- ④ Red (rt) wire of fuse F4

Connecting fan controller



- 1 Fuse holder of F4 in retaining plate
- 2 Central electrical box

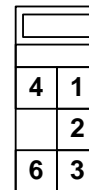
Installing central electrical box



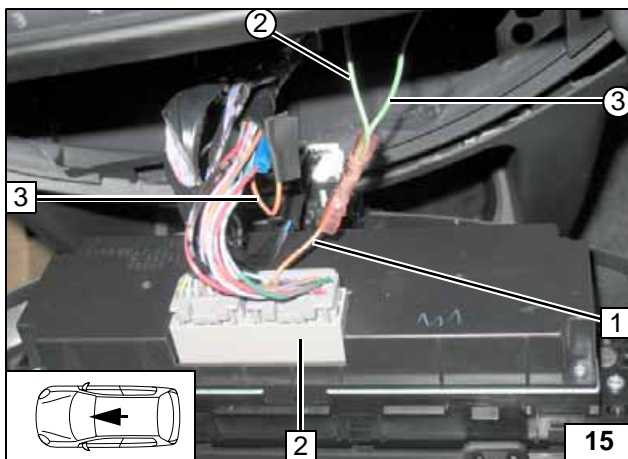
Insulate orange (or) or white (ws)* wire 2 of fuses F2/F3/F5 and tie back.

- 1 6-pin connector M101 LM
- 3 Orange (or) or white (ws)* wire of connector M101/pin 2
- ① Green/white (gn/ws) wire of fuse F4
- ② Green/white (gn/ws) wire of connector M125 AC-V

M101 connector on wiring side



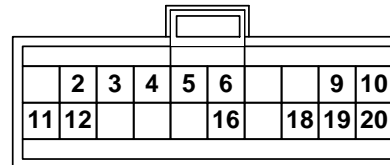
Connection to temperature damper motor



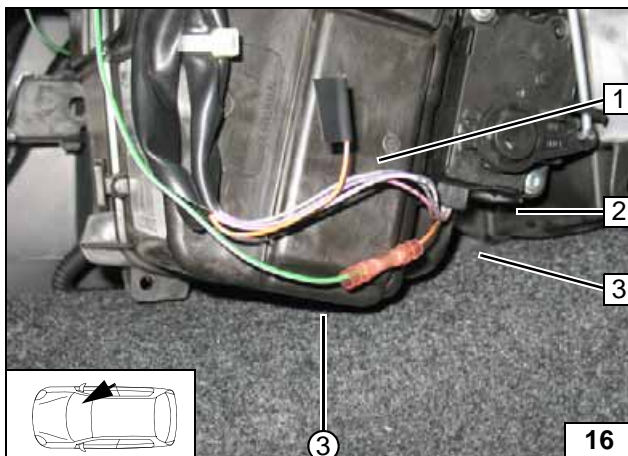
Insulate orange (or) or white (ws)* wire 3 of fuses F2/F3/F5 and tie back.

- 1 Orange (or) or white (ws)* wire of connector M125/pin 18
- 2 20-pin connector M125 AC-V
- ② Green/white (gn/ws) wire of connector M101 LM
- ③ Green/white (gn/ws) wire of connector M102 LV

Connector M125 on wiring side:



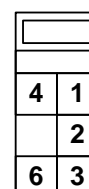
Connecting A/C control panel



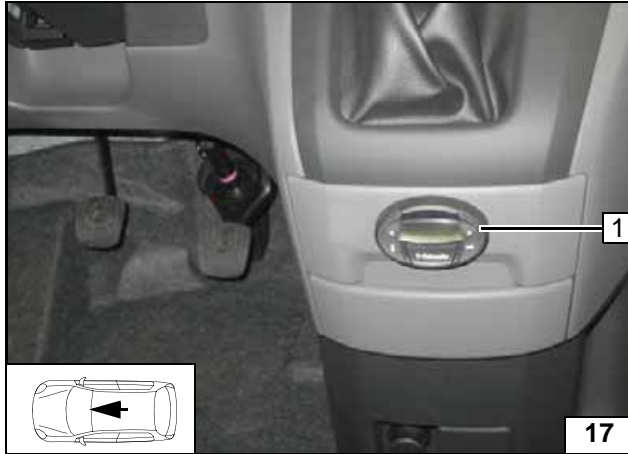
Insulate orange (or) or white (ws)* wire 1 of fuses F2/F3/F5 and tie back.

- 2 6-pin connector M102 LV
- 3 Orange (or) or white (ws)* wire of connector M102/pin 2
- ③ Green/white (gn/ws) wire of connector M102 LV

Connector M102 on wiring side:



Connection of air-distribution damper motor

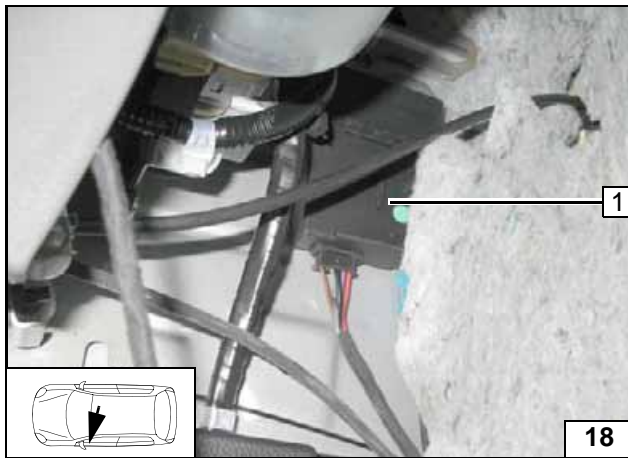


Digital Timer

1 Digital timer



Installing digital timer

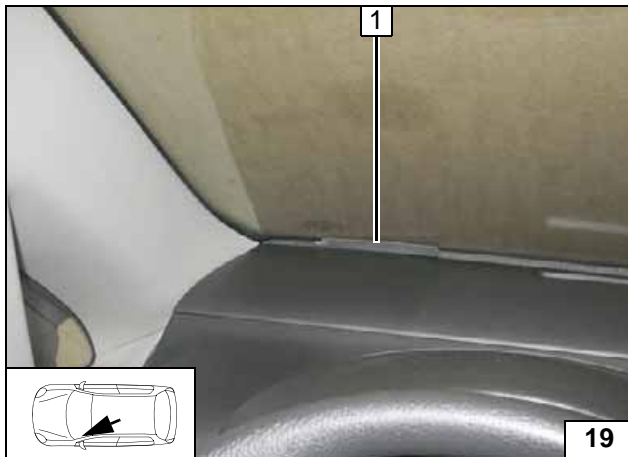


Remote Option (Telestart)

Fasten receiver 1 with adhesive tape.

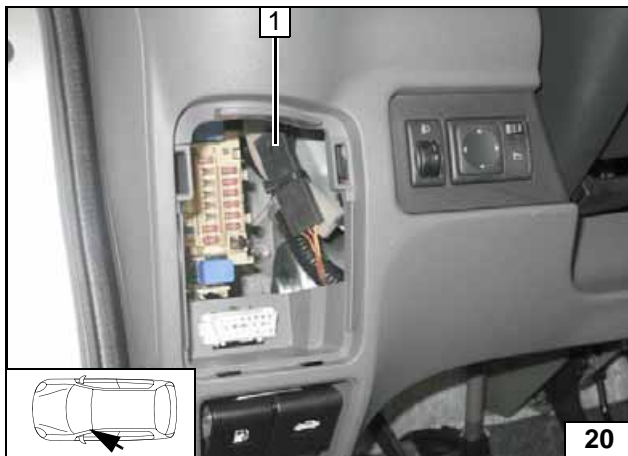


Installing receiver



1 Antenna

Mounting antenna

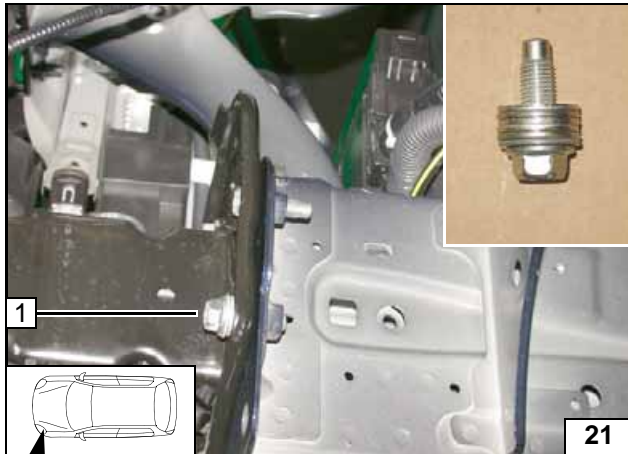
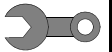


Temperature sensor T100 HTM

Fasten temperature sensor 1 with cable tie to original vehicle wiring harness!



Mounting temperature sensor

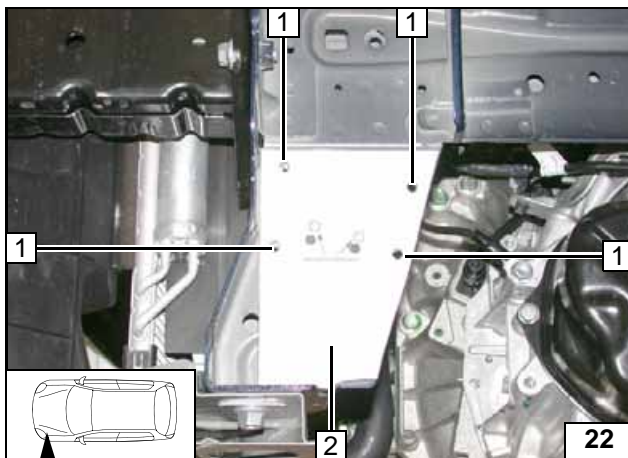


Preparing Installation Location

Remove original vehicle bolt 1, insert six plain washers of 10.5mm dia and reinstall.



Inserting washers

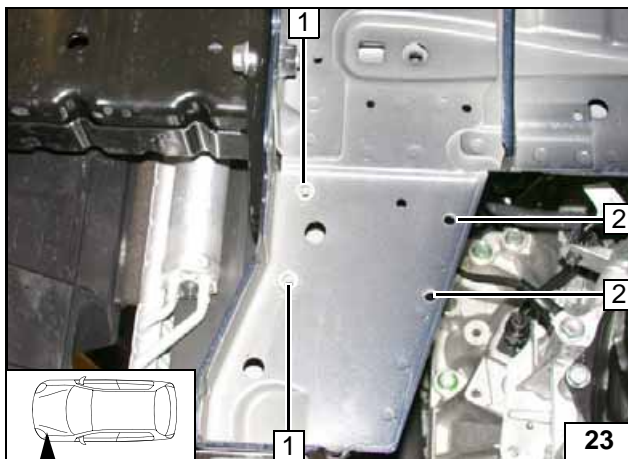


Cut out template 2 lay it on top!

- 1 Copy hole pattern [4x]

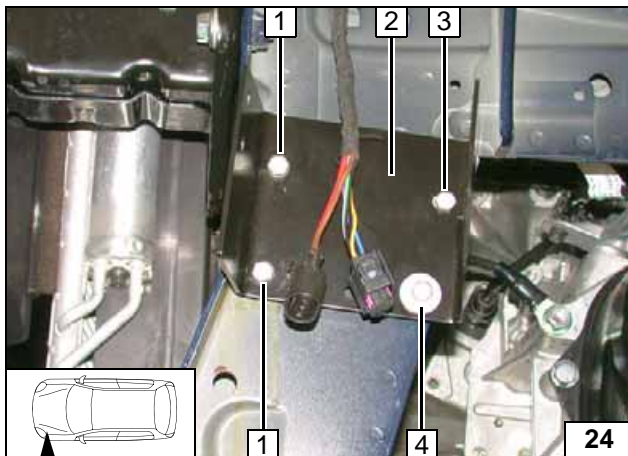


Copying hole pattern



- 1 9.1 mm dia. hole, rivet nut [2x]
- 2 7 mm dia. hole [2x]

Installing rivet nut

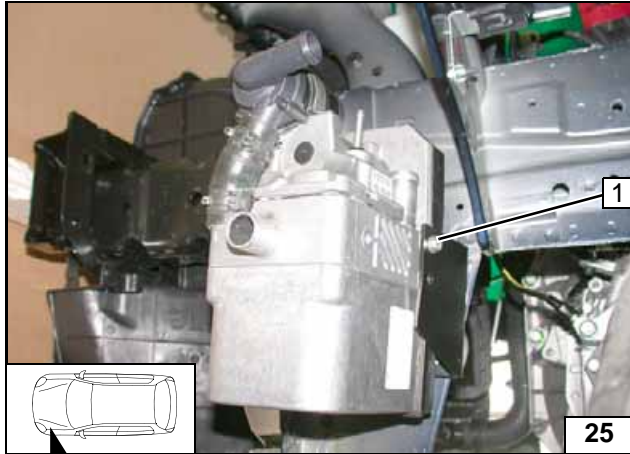
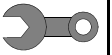


Insert one washer each between bracket 2 and body at position 1 as well as two washers each at positions 3 and 4!

- 1 M6x20 bolt, spring lockwasher, large diameter washer [2x each]
- 3 M6x20 bolt, large diameter washer [2x], flanged nut
- 4 M6x20 bolt, large diameter washer [3x], flanged nut



Installing bracket



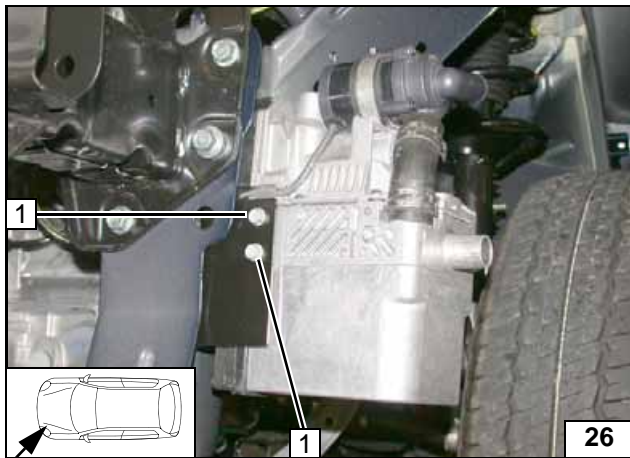
Installing Heater



Connect wiring harness for heater prior to installation.

- 1 Ejot screw

Installing heater



- 1 Ejot screw [2x]

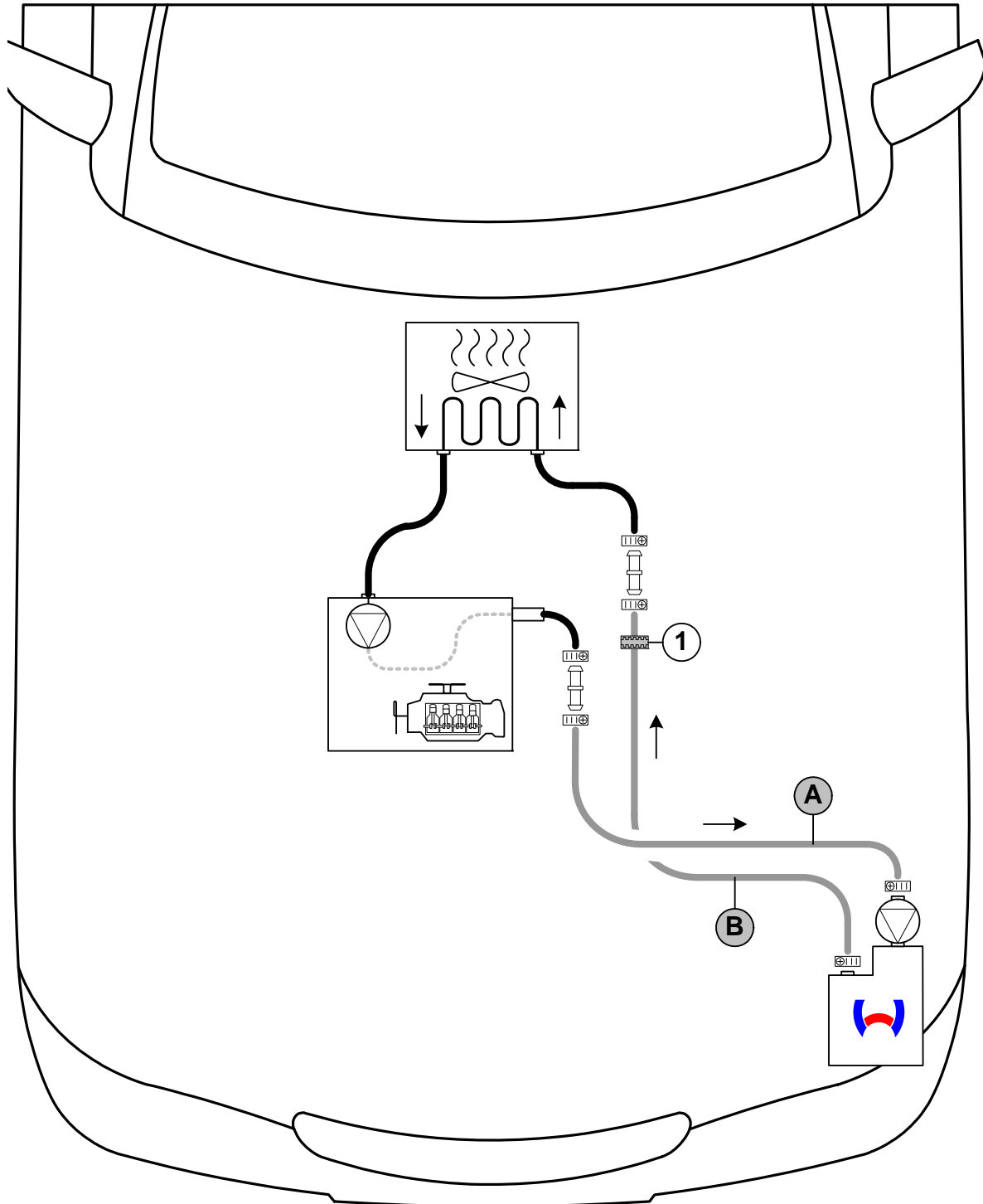
Installing heater






Coolant Circuit

WARNING!

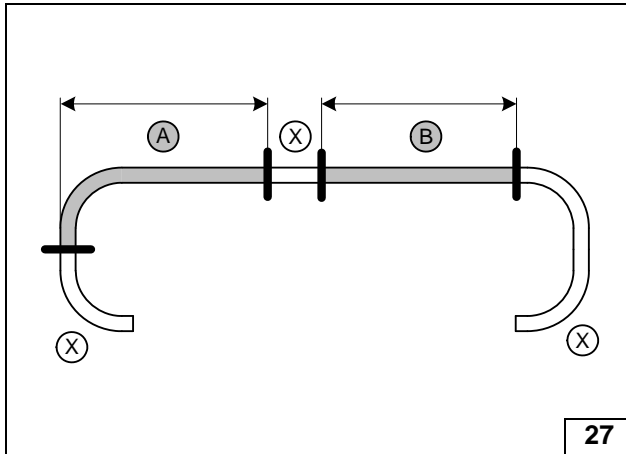
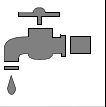
Any coolant running off should be collected in an appropriate container. Route hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hoses can be damaged. When installing the heater, the heater must be filled with coolant. The connection should be modelled on an "inline" circuit and based on the following diagram:



Hose routing diagram

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



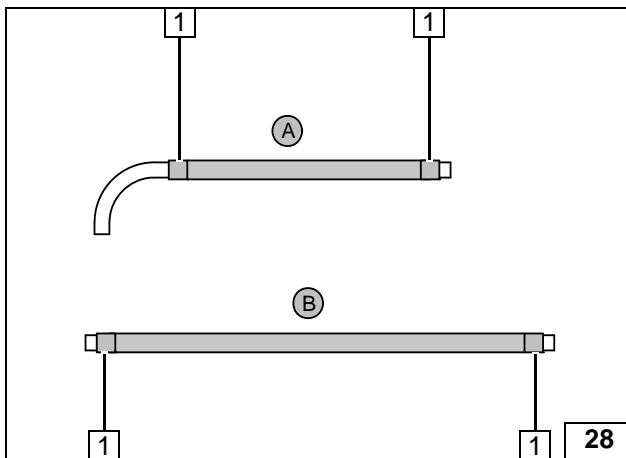


Discard section X.

A = 645
B = 930



Cutting hoses to length

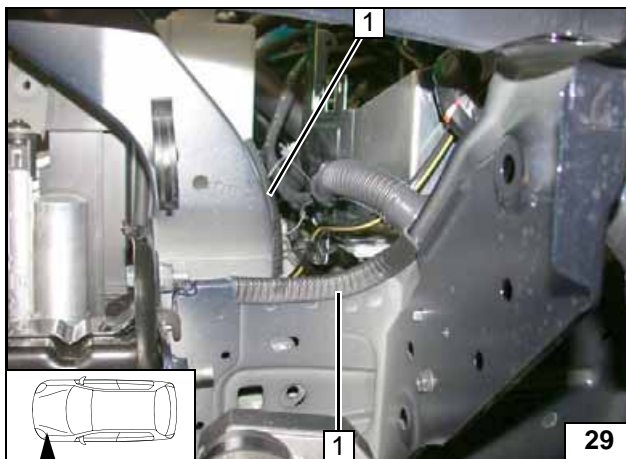


Push braided protection hoses onto hose A and B and cut to length.
Cut heat shrink plastic tubing to length.

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

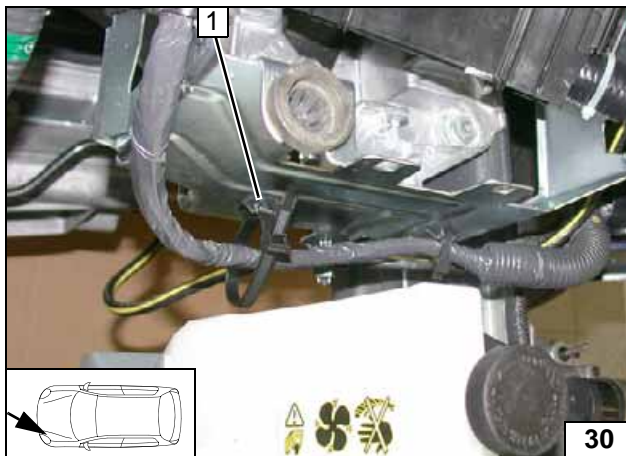


Preparing hoses



- 1 100mm edge protection [2x]

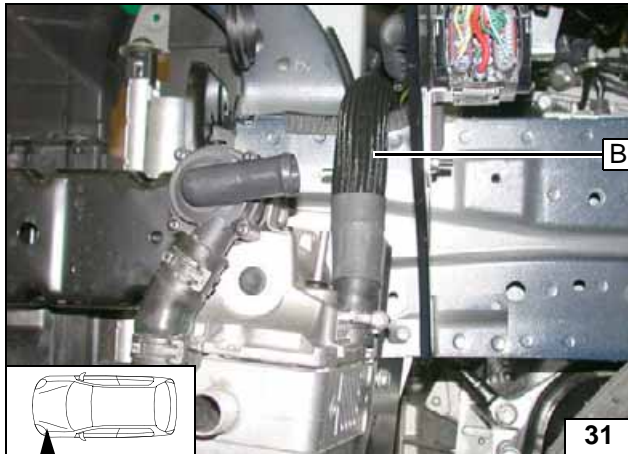
Installing edge protection



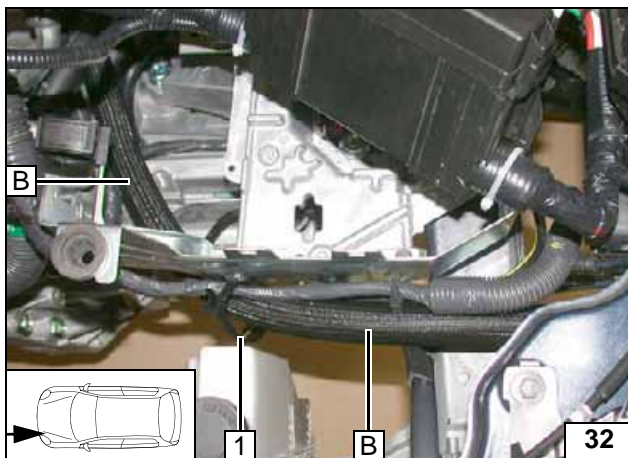
Remove original vehicle retaining clip at position 1 and replace with clip-type cable tie!



Installing clip-type cable tie



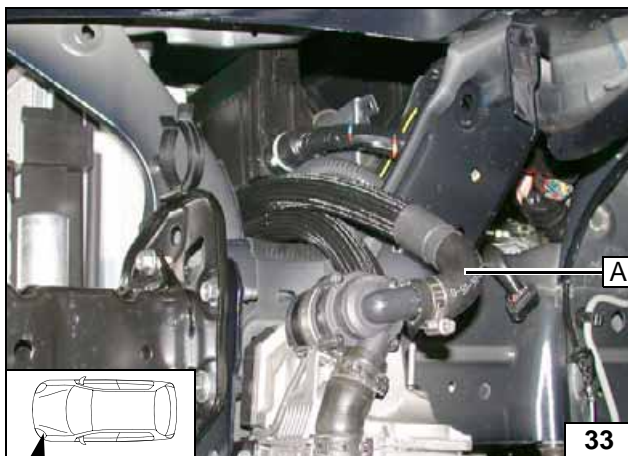
Connect-
ing heater
outlet



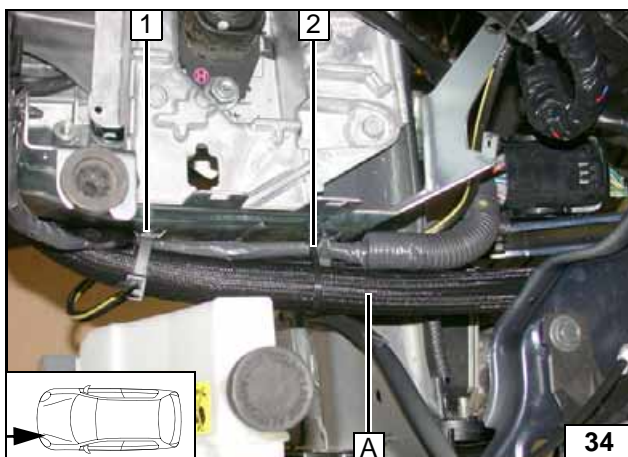
Route hose **B** through clip-type cable tie **1** to cutting point!



Routing in
engine
compart-
ment



Connect-
ing heater
inlet

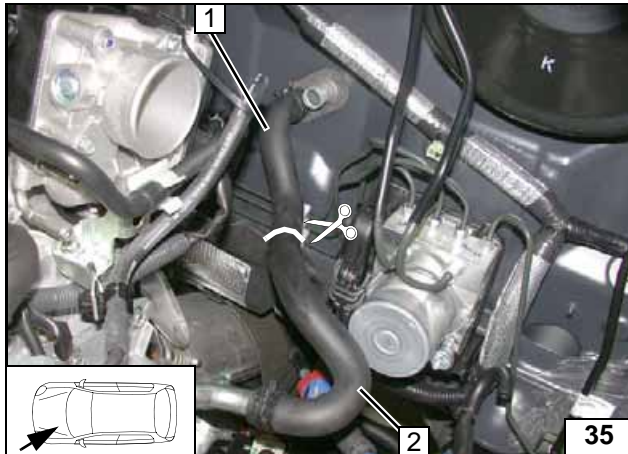


Route hose **A** over hose **B** through clip-type cable tie **1** to cutting point!

- 1 Close clip-type cable tie
- 2 Cable tie



Routing in
engine
compart-
ment

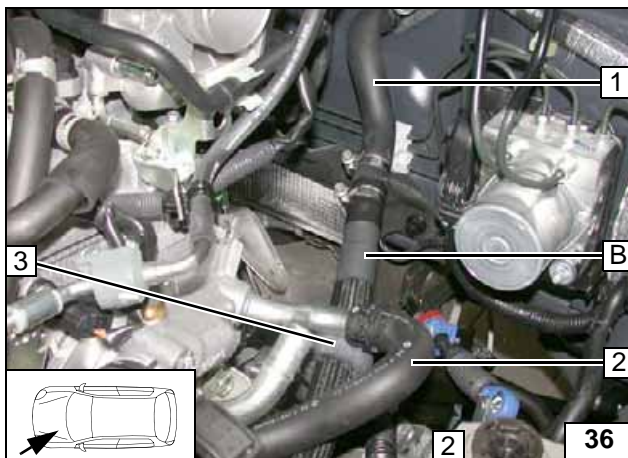


Original vehicle hose of heat exchanger outlet / engine inlet has been removed for better display.

- 1 Hose section of heat exchanger inlet
- 2 Engine outlet hose section



Cutting point

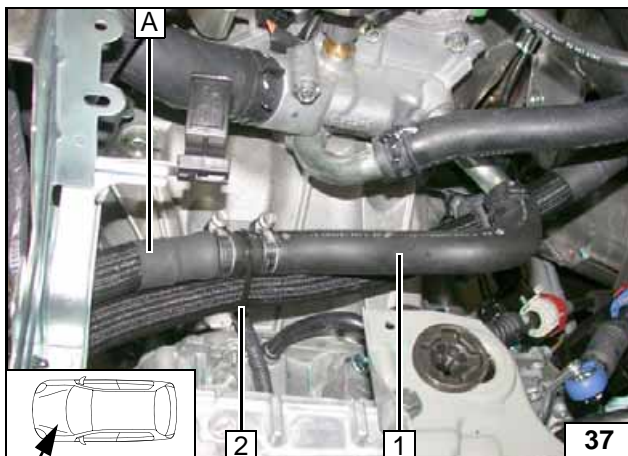


Turn hose section of engine outlet 2 by approx. 180° forward.
Slide on black (sw) rubber isolator 3 on to hose B and position below connection piece of engine outlet!

- 1 Hose on heat exchanger inlet



Connecting heat exchanger inlet



- 1 Hose on engine outlet turned
- 2 Cable tie

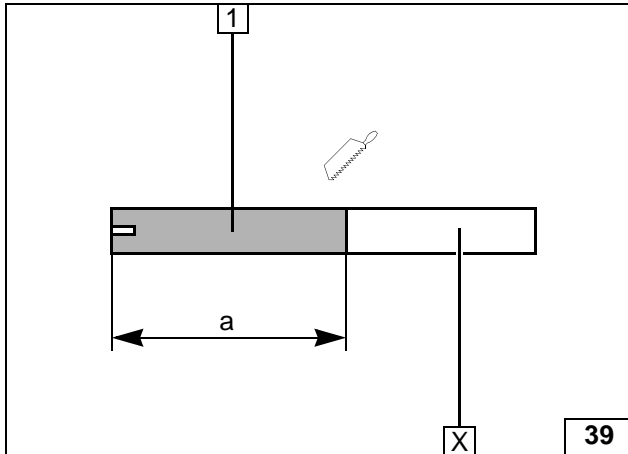
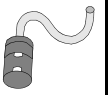
Connecting engine outlet



Ensure sufficient distance from neighbouring components.



Aligning hoses and rubber isolator



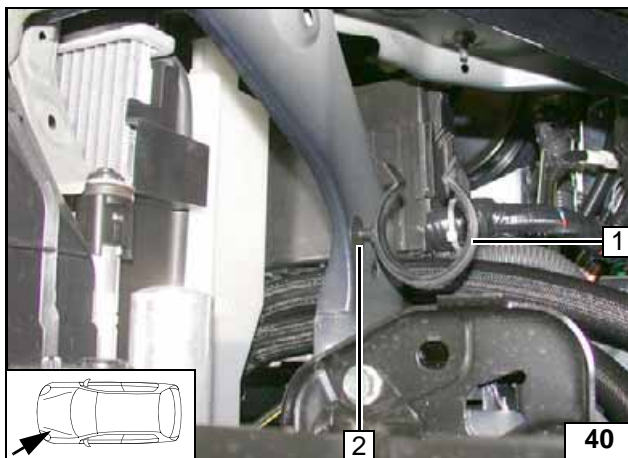
Combustion Air

Discard section X.

- 1 Combustion air pipe
a = 250



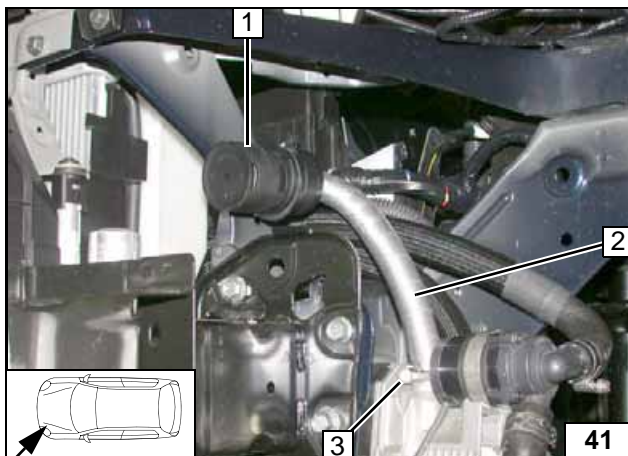
Cutting combustion air pipe to length



Install retaining clip 1 in existing hole at position 2.



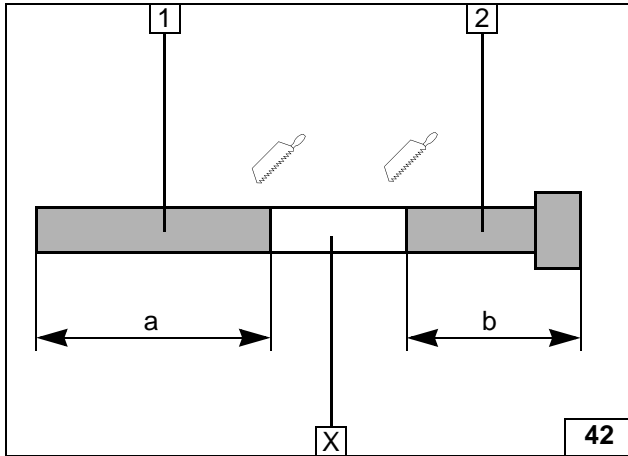
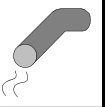
Installing retaining clip



- 1 Silencer in retaining clip
- 2 Combustion air pipe
- 3 27 mm dia. clamp



Mounting silencer



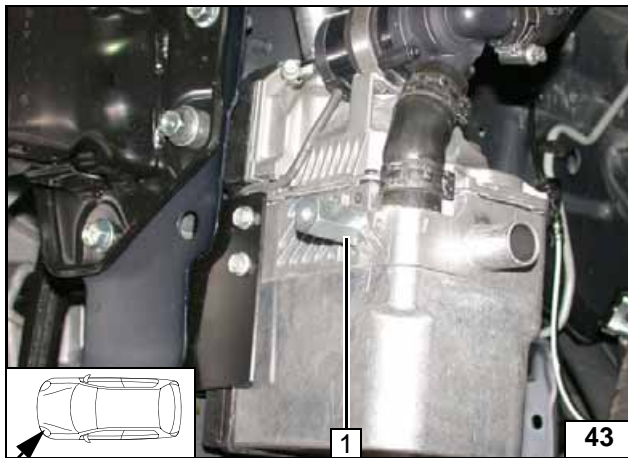
Exhaust Gas

Discard section X.

- 1 Exhaust pipe
a =300
- 2 Exhaust end section
b =250

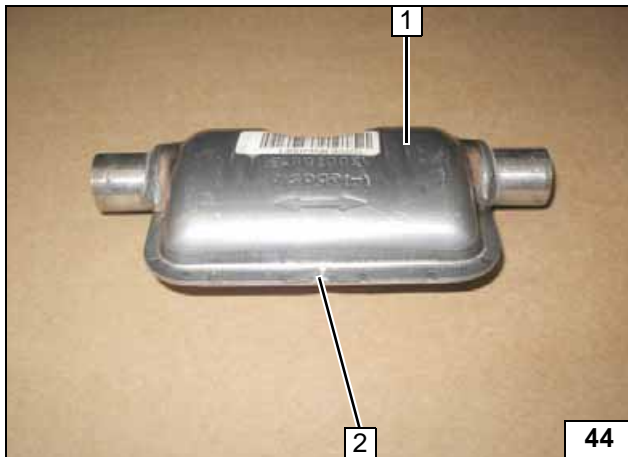


Preparing exhaust pipe



- 1 E-jot studs, 30 mm dia. spacer nut

Installing spacer nut

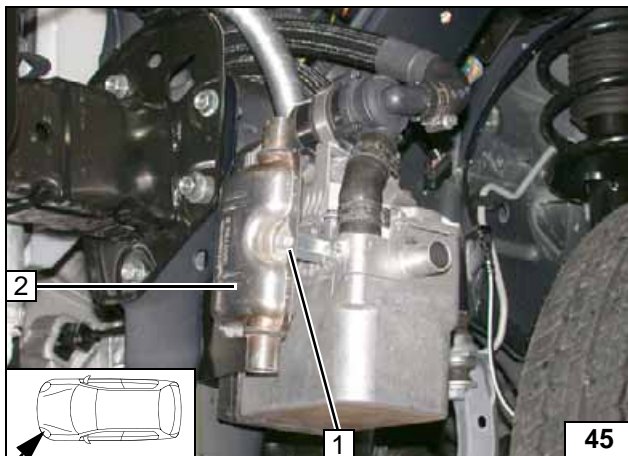


Seal condensed-water drain hole at Position 2!

- 1 Silencer

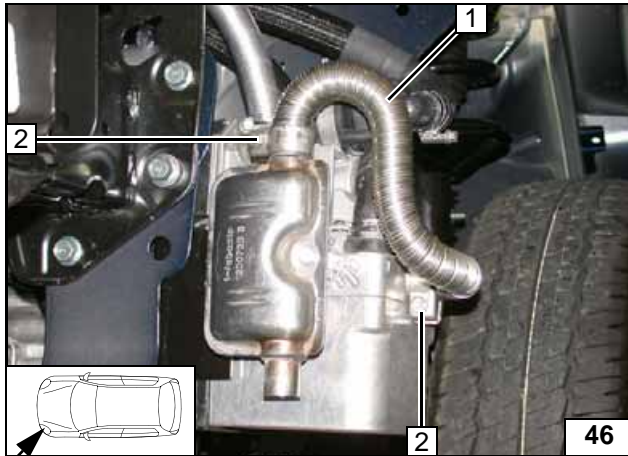
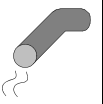


Sealing drain



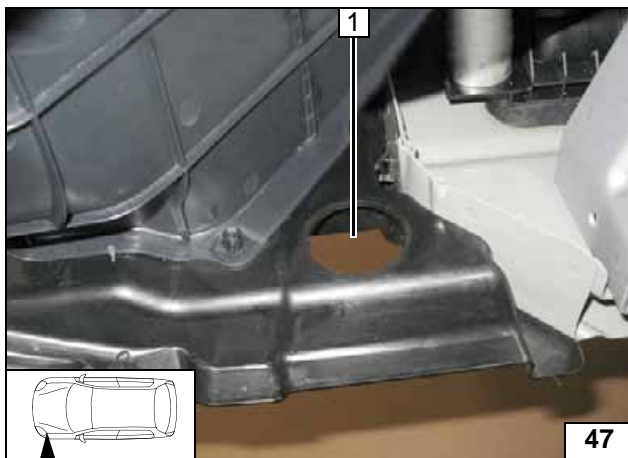
- 1 M6x12 bolt, spring lockwasher
- 2 Silencer

Mounting silencer



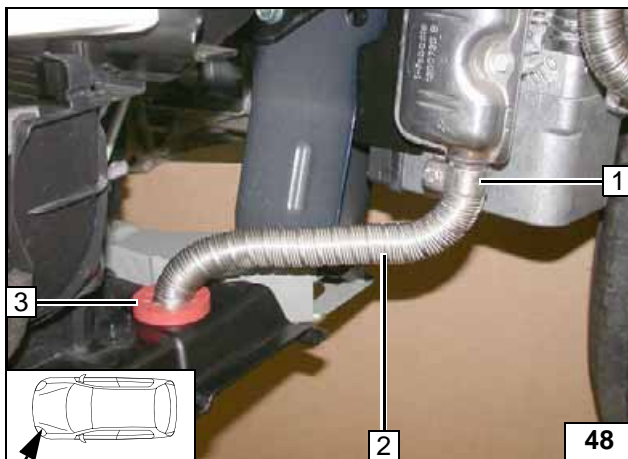
- 1 Exhaust pipe
- 2 Hose clamp [2x]

Mounting exhaust pipe



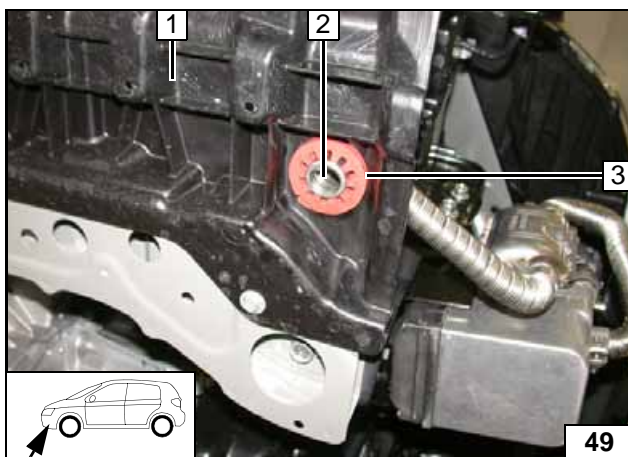
- 1 42 mm dia. hole

Hole in under-ride protection



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

Mounting exhaust end section



Align exhaust end section 2 flush on red rubber isolator 3. Ensure sufficient distance from neighbouring components.

- 1 Under-ride protection



Mounting rubber isolator



Fuel

CAUTION!

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

Catch any fuel running off in an appropriate container.

Route fuel line and metering pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.

Provide rub protection for fuel line and wiring harness in areas where there are sharp edges.

WARNING!

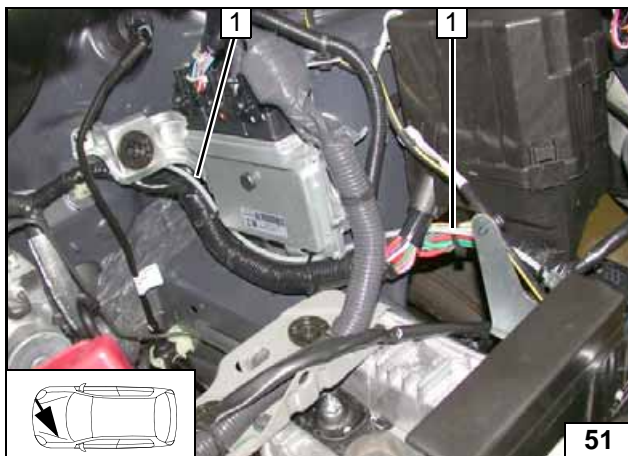
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



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



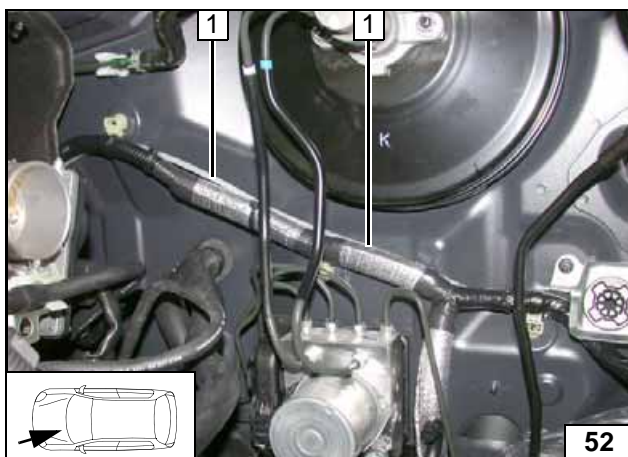
Connect-
ing heater



Route fuel line 1 to firewall!



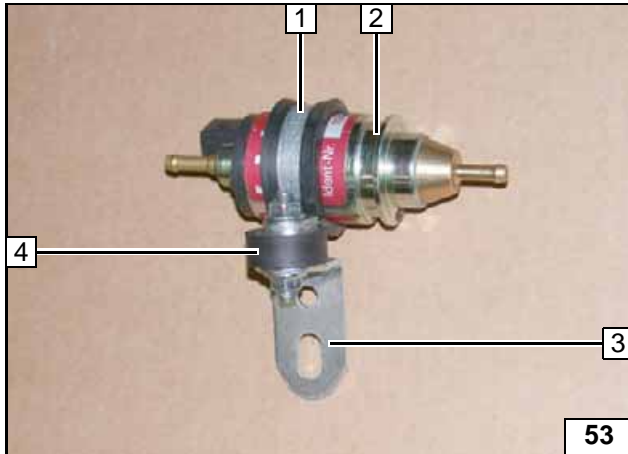
Routing
line



Route fuel line and wiring harness of metering pump 1 to underbody!

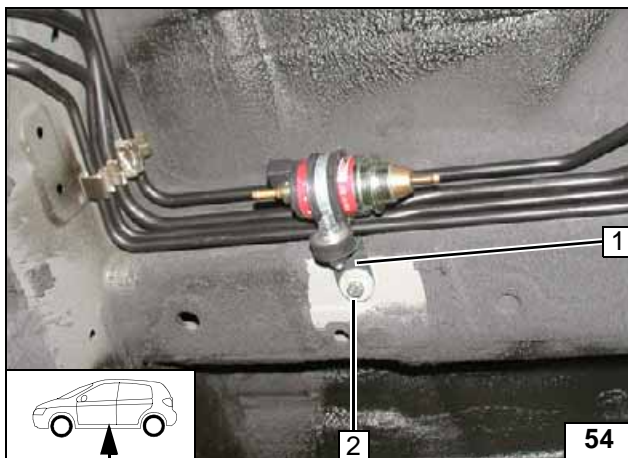


Routing
lines



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

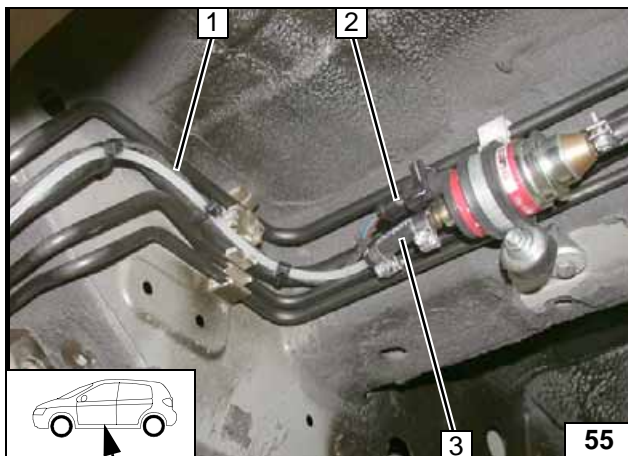
Premounting metering pump



- 1 Angle bracket
- 2 M6x20 bolt, large diameter washer, original vehicle threaded hole



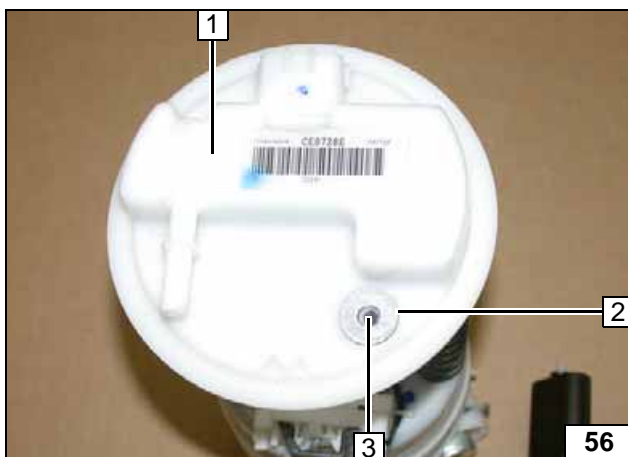
Installing metering pump



- 1 Fuel line
- 2 Wiring harness of metering pump, connector mounted
- 3 Hose section, 10 mm dia. clamp [2x]



Connecting metering pump



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

- 2 Large diameter washer, outer dia. d_a = 21.6mm
- 3 Copy hole pattern, 6 mm dia. hole



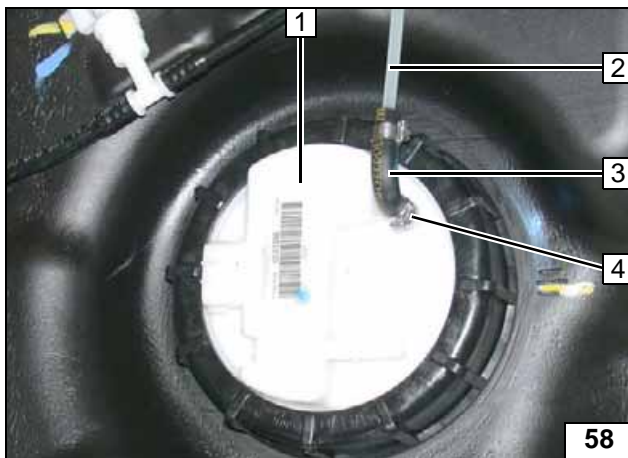
Fuel extraction



Bend fuel standpipe 1 according to template and cut to length.



Installing fuel standpipe

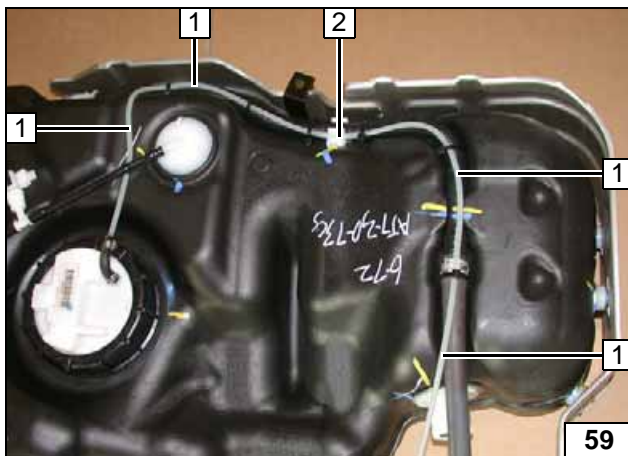


Install fuel-tank sending unit 1 in accordance with manufacturer's instructions.



- 2 Fuel line
- 3 90°, moulded hose, Caillau clamp 9mm dia, Caillau clamp 10mm dia
- 4 Fuel standpipe

Connecting fuel line

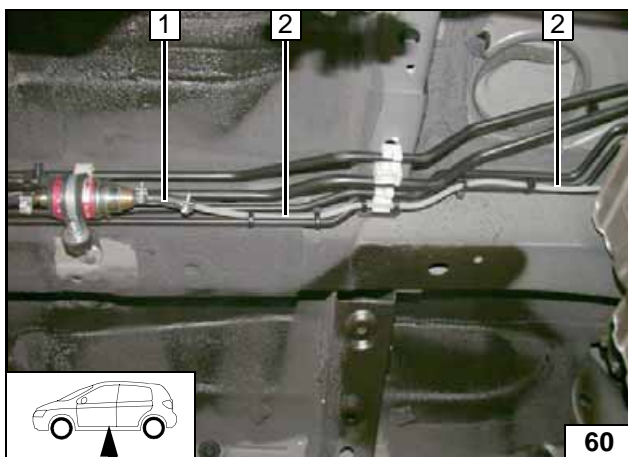


Fasten fuel line 1 with cable tie to original vehicle lines! Remove fuel-tank in accordance with manufacturer's instructions.



- 2 Original vehicle retaining clip

Routing fuel line

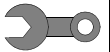


Check the position of the components; adjust if necessary. Check that they have freedom of movement.



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

Connecting metering pump



Final Work

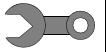
WARNING!

Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate all loose lines and tie back.

Only use manufacturer-approved coolant. Spray the heater 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**
- **Adjust digital timer, teach Telestart transmitter.**
- **Make settings on A/C control panel according to the "Operating Instructions for End Customer".**
- **Apply the caution label "Switch off parking heater before refuelling" in the area of the filler neck**
- **See installation instructions for initial start-up and function check**





Template for Bracket



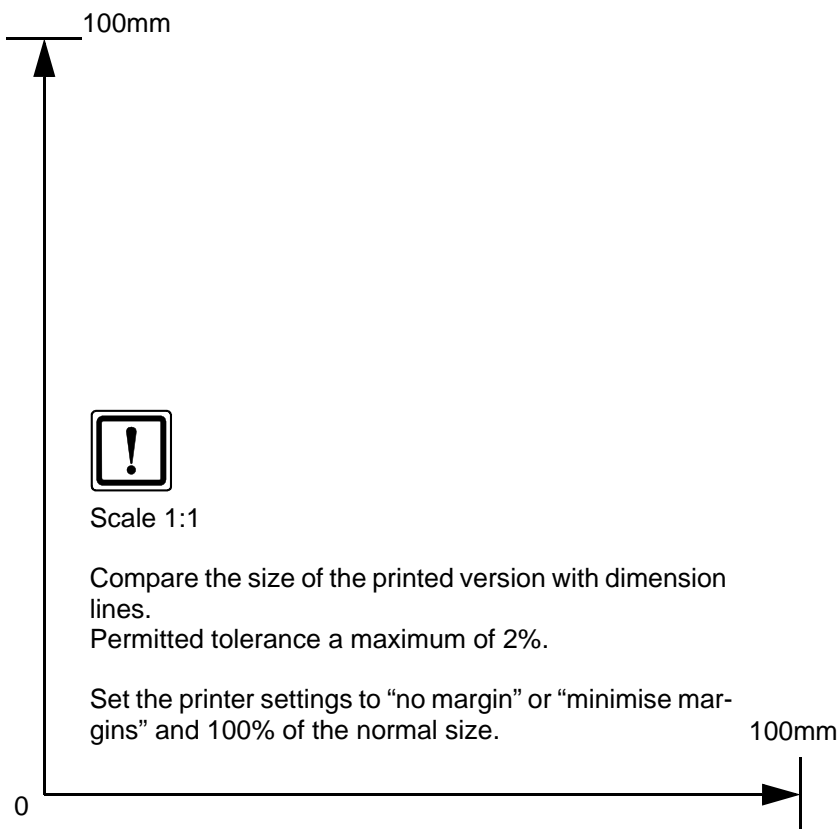
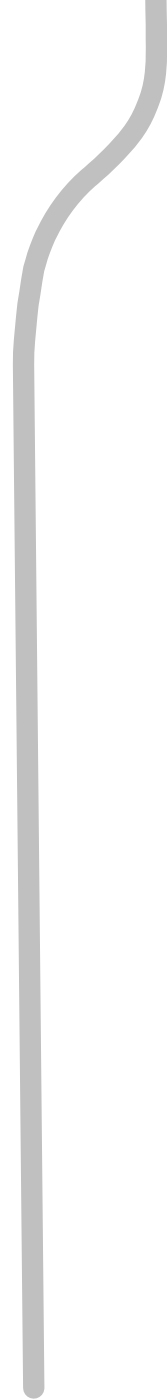
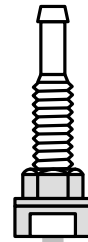
Scale 1:1

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

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



Template for Fuel Standpipe



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.

Passenger compartment monitoring, if installed, must be deactivated in addition to vehicle settings for the heating cycle.



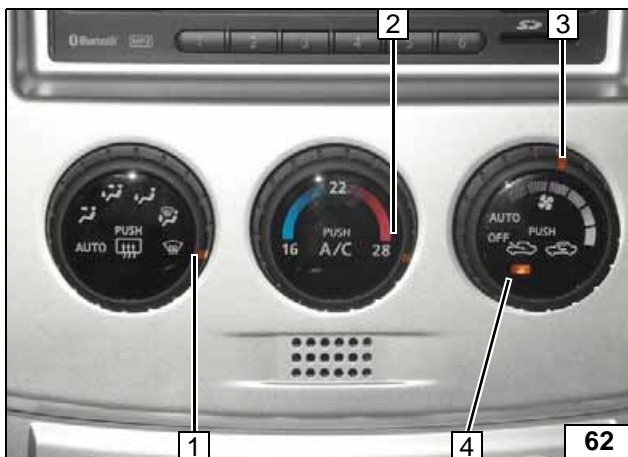
Deactivation instructions can be found in the operating instructions of the vehicle.

Before parking the vehicle, make the following settings:



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

Manual air-conditioning



- 1 Air outlet to windscreen
- 2 Set temperature to "max."
- 3 Set fan to level "1" or max. "2"
- 4 Fresh air supply activated

Automatic air-conditioning

