Water Heater

***Thermo Top E* Parking Heater** E1 00 0003

***Thermo Top C* Parking Heater** E1 00 0002

Installation Documentation

Nissan NV200

Diesel
from model year 2010
Left-hand drive vehicle
Manual air-conditioning
Automatic air-conditioning
Manual transmission

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.

Table of Contents

Validity

Manufacturer	Model	Type	EG-BE-No. / ABE
Nissan	NV200	AM200	e11 * 2007 / 46 * 0016 * ...
Nissan	NV200	AM200	e11 * 2007 / 46 * 0017 * ...

Engine type	Engine model	Output in kW	Displacement in cm³
K9K	Diesel	63	1461
K9K	Diesel	66	1461
K9K	Diesel	81	1461

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 *Thermo Top E / C*	See Price list
1	Installation kit for Nissan Note / NV200 Diesel	1311200B
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

The selection of the heater is based on the passenger compartment size of the vehicle and the level of comfort required by the customer.

Foreword

This installation documentation applies to the Nissan NV200 Diesel 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.

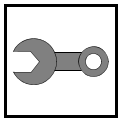
Special Tools

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

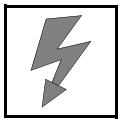
Explanatory Notes on Document

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

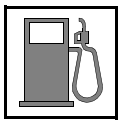


Electrical system

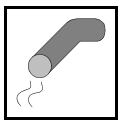


Coolant circuit

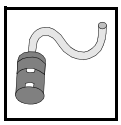
Fuel



Exhaust gas



Combustion air



Software

Special features are highlighted using the following symbols:

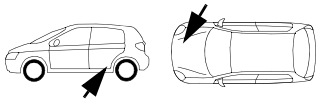
Specific risk of injury or fatal accidents.

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.



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

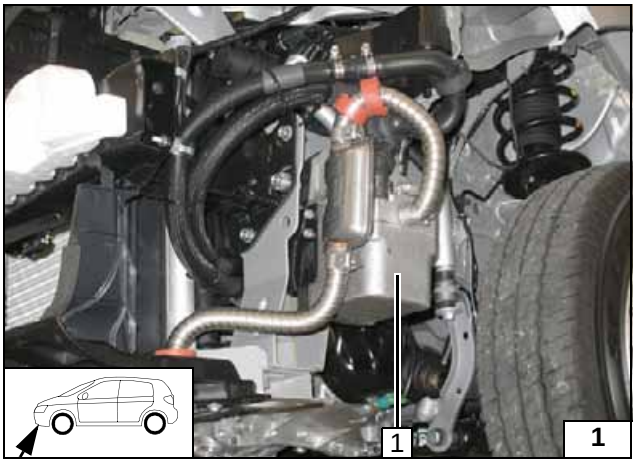
All dimensions are in mm!
Tightening torque of hose clamps = 2.0 + 0.5 Nm!
Tightening torque of Ejot screws, Ejot studs = 10 Nm!

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



Heater Installation Location

1 Heater

Installation location

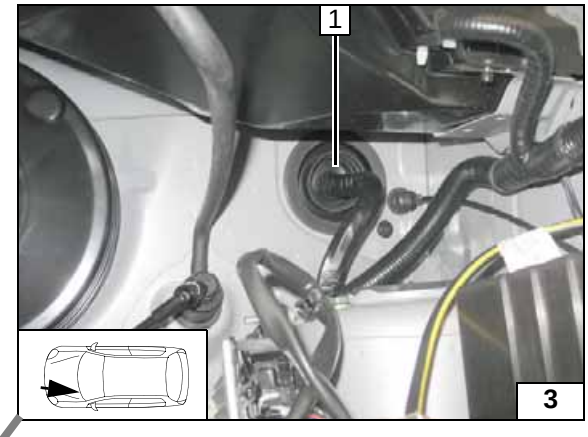
Electrical System

Positive wire

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

Wiring harness pass through

1 Protective rubber plug



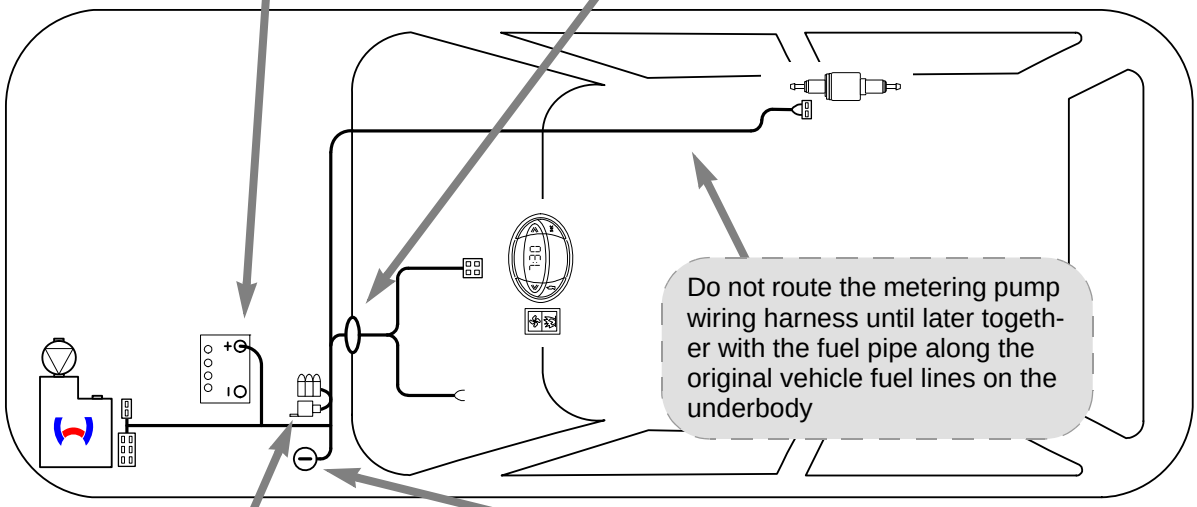
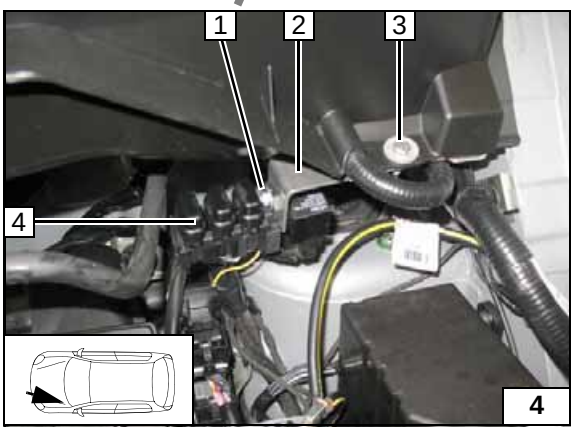


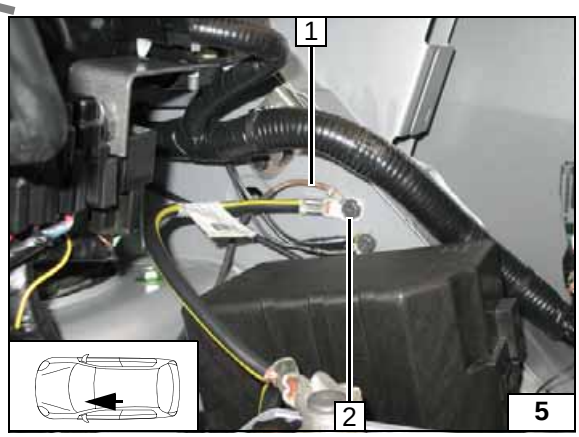
Diagram of wiring harness routing



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

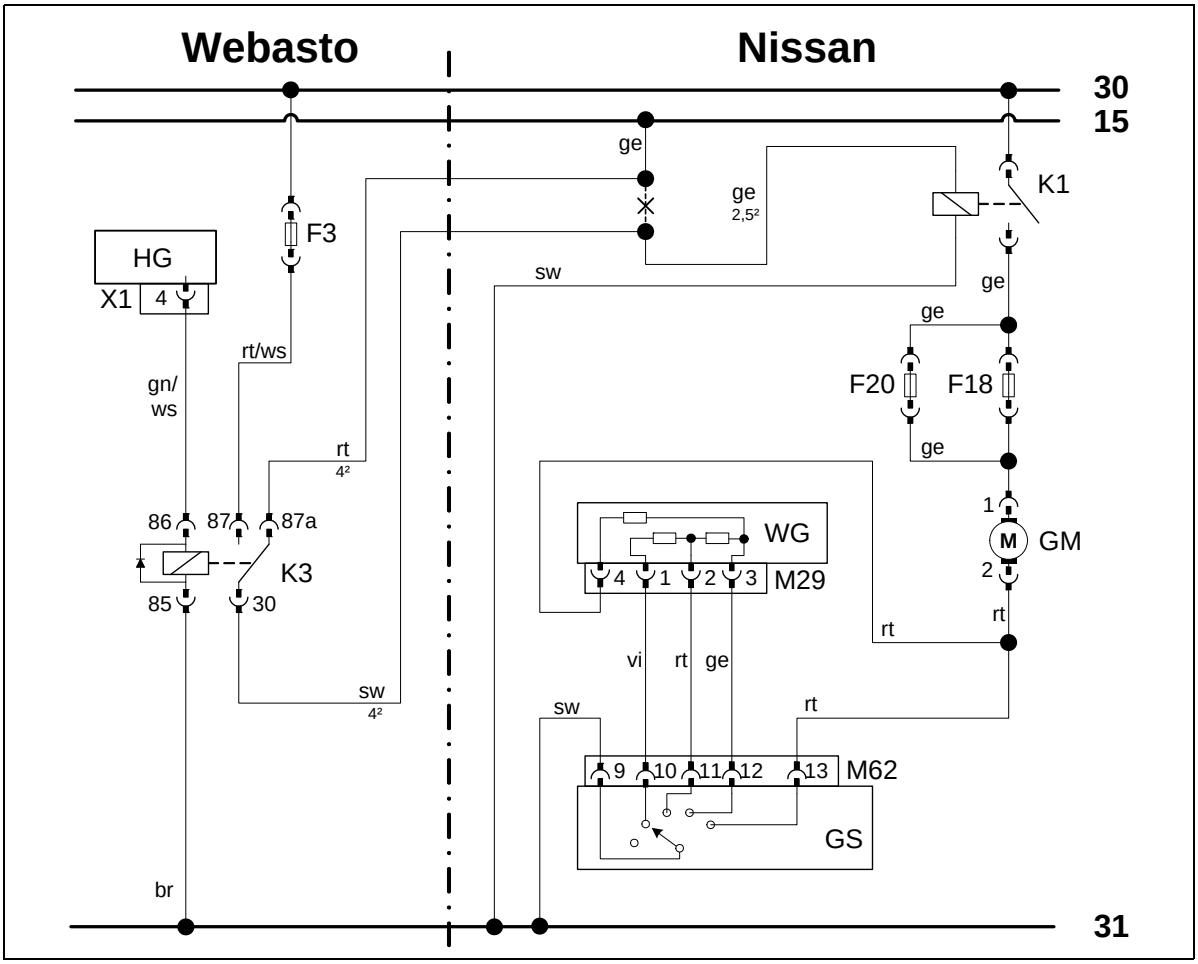


Earth wire

1 Earth wire
2 Original vehicle earth support point

Manual Air-Conditioning Fan Controller

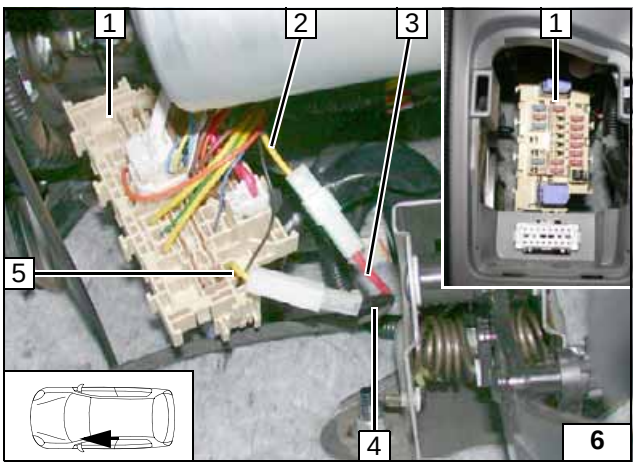
Wiring diagram



Legend

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E/P	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
		GM	Fan motor	br	brown
K3	Fan relay	WG	Resistor group	gn	green
		M29	4-pin connector WG	ge	yellow
		M62	15-pin connector GS	vi	violet
		GS	Fan switch		
				X	Cutting point
				Wiring colours may vary.	

Connection of central electrical box

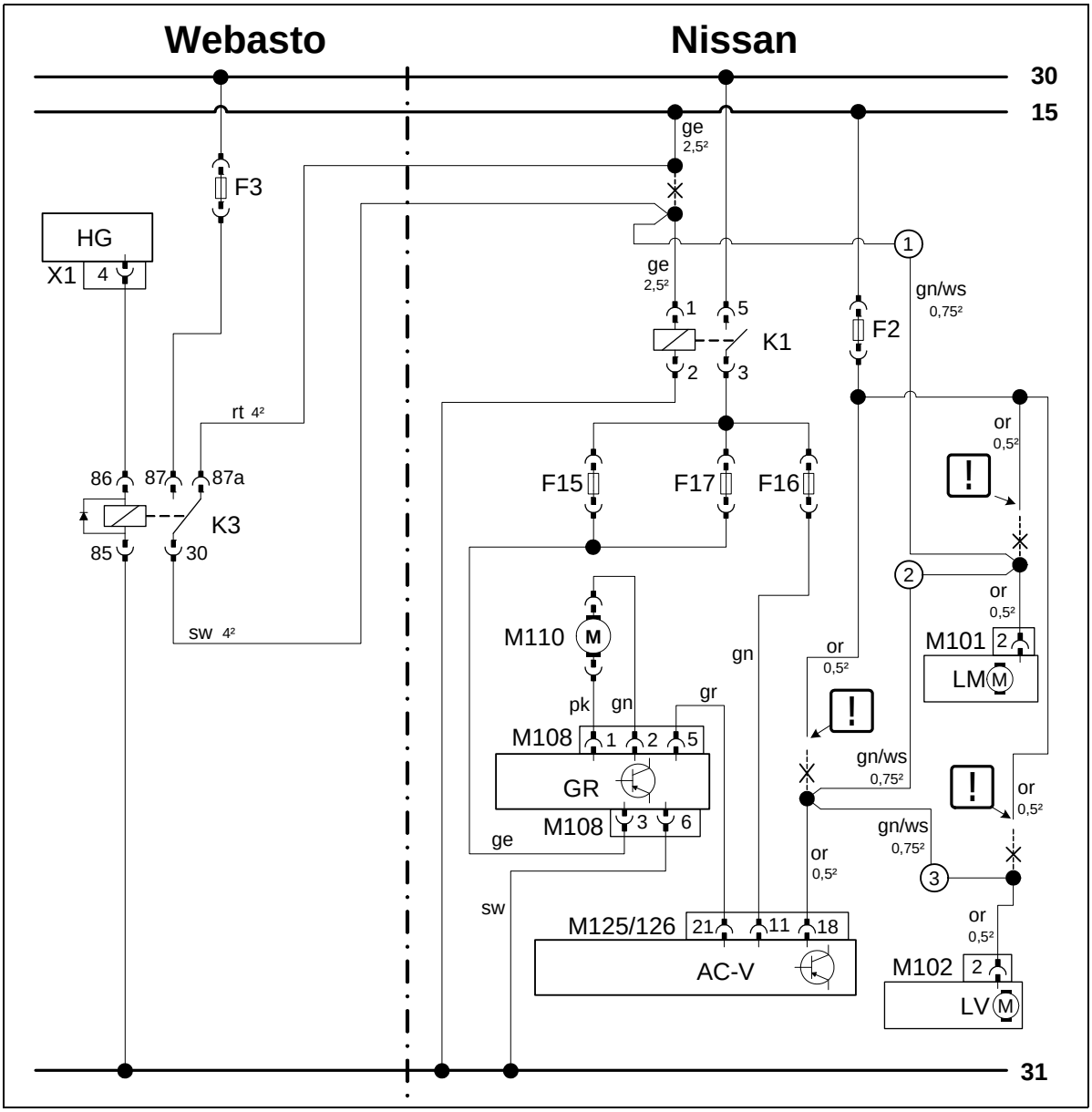


Disconnect the central electrical box **1**. Connection to fan relay K1. Produce connections as shown in wiring diagram.

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

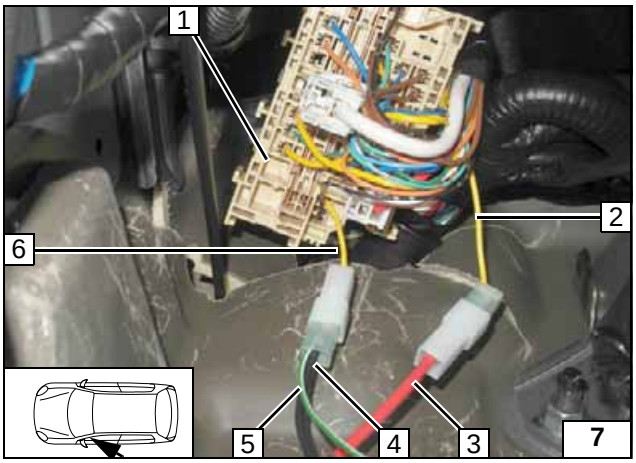
Automatic Air-Conditioning Fan Controller

Wiring diagram



Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	K1	Fan relay	rt	red
X1	6-pin heater connector	F2	10A fuse	ws	white
K3	Fan relay	F15	15A fuse	sw	black
F3	Replace 25 A fuse with 10 A fuse	F17	15A fuse	or	orange
		F16	10A fuse	ge	yellow
		M110	Fan motor	gn	green
		M101	6-pin connector LM	pk	pink
		LM	Blend air damper motor	gr	grey
		M108	6-pin connector GR		
		GR	Fan controller		
		M125 / 126	36-pin AC-V connector (two parts)		
		AC-V	A/C control panel	!	Insulate wire end and tie back
		M102	6-pin connector LV		
		LV	Air distribution damper motor	X	Cutting point
				Wiring colours may vary.	

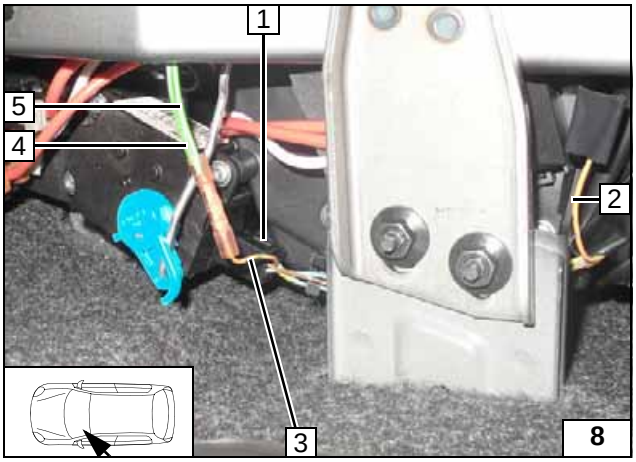
Legend



Connection of K1 fan relay to original vehicle fuse and relay carrier **1**.
Produce connections as shown in wiring diagram.

2 Yellow (ge) wire of terminal 15
3 Red (rt) wire from K3/87a
4 Black (sw) wire from K3/30
5 Additional green/white (gn/ws) wire ① of K1/1
6 Yellow (ge) wire to fan relay K1/1

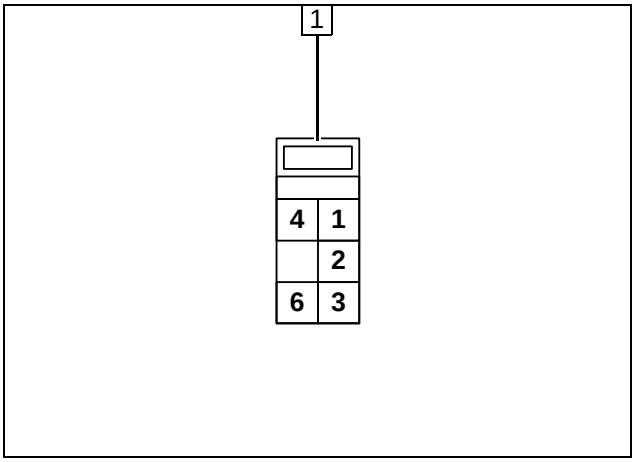
Connecting fan relay



Connection on 6-pin connector M101 **1** from temperature damper motor. Insulate orange (or) wire **2** of fuse F2 and tie back.
Produce connections as shown in wiring diagram.

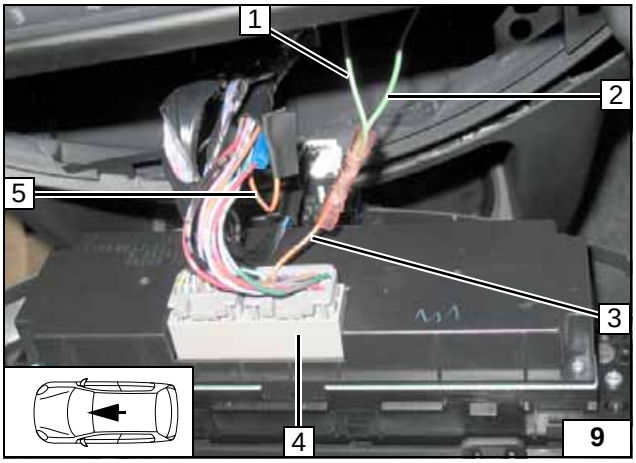
3 Orange (or) wire of M101/2 connector
4 Additional green/white (gn/ws) wire ②
5 Additional green/white (gn/ws) wire ③

Connection of temperature damper motor



1 Connector M101 on line side

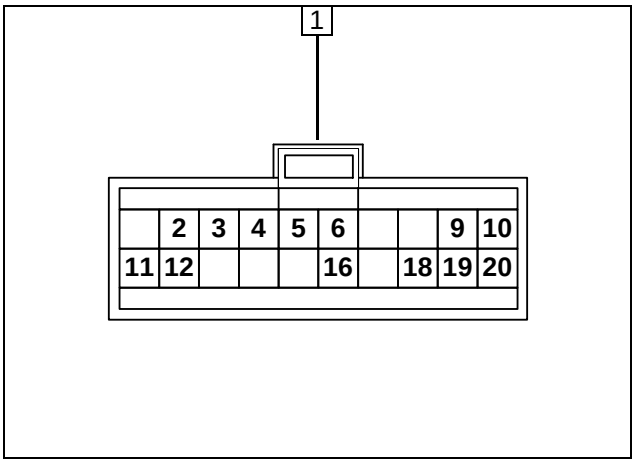
Connector M101



Connection to 20-pin connector M125 **4** from A/C control panel. Insulate orange (or) wire **5** of fuse F2 and tie back.
Produce connection as shown in wiring diagram.

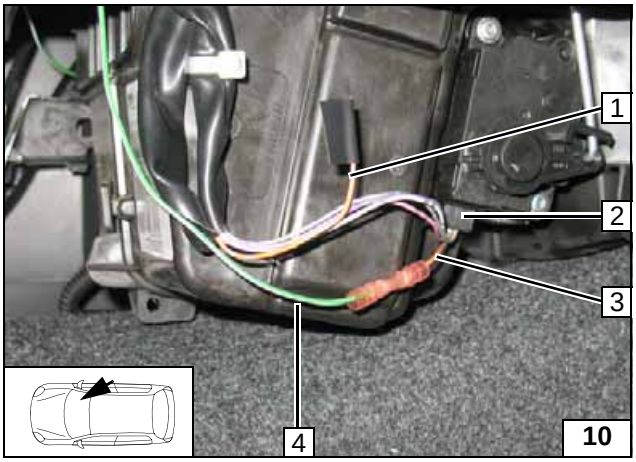
1 Additional green/white (gn/ws) wire ②
2 Additional green/white (gn/ws) wire ③
3 Orange (or) wire to connector M125/18

Connecting A/C control panel



1 Connector M125 on line side

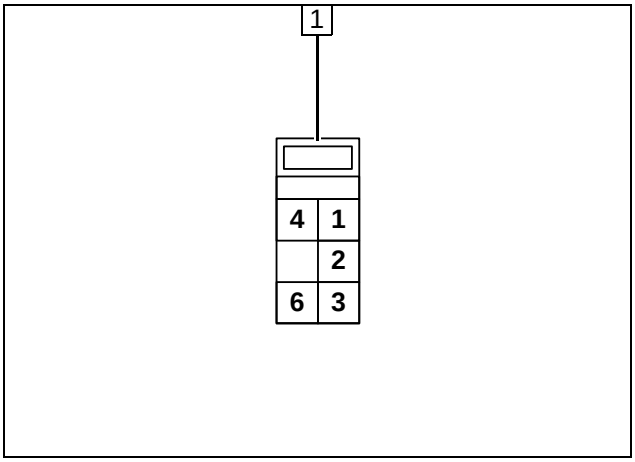
M125 connector



Connection on 6-pin connector M102 **2** from air distribution damper motor. Insulate wire or **1** fuse F2 and tie back.
Produce connections as shown in wiring diagram.

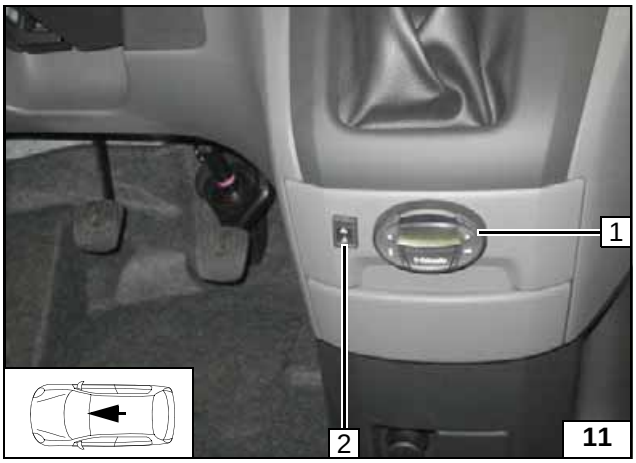
3 Orange (or) wire of M102/2 connector
4 Additional green/white (gn/ws) wire ③

Connection of air distribution damper motor



1 Connector M102 on line side

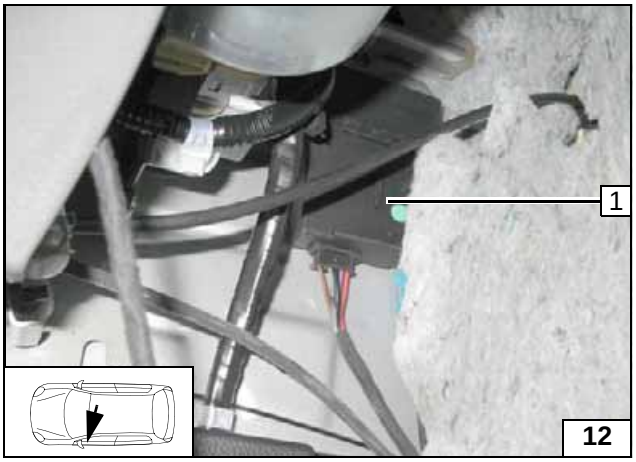
M102 connector



Digital Timer and Summer/Winter Switch Option

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

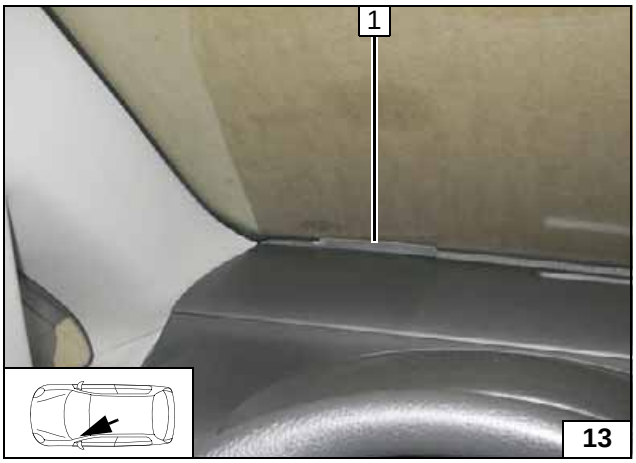
Installing digital timer



Remote Option (Telestart)

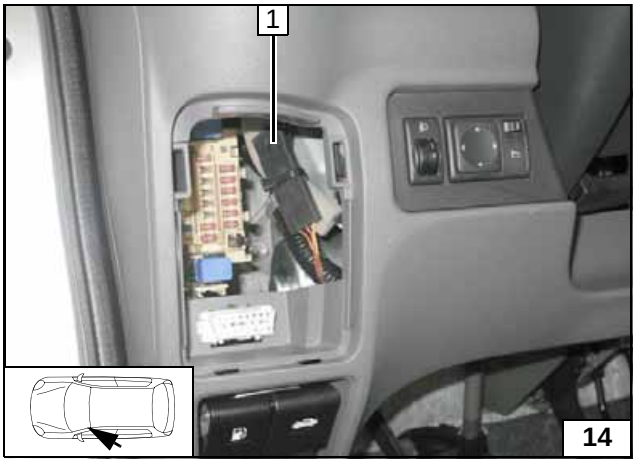
Fasten receiver **1** with adhesive tape.

Mounting receiver



1 Antenna

Mounting antenna



Temperature sensor T100 HTM

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

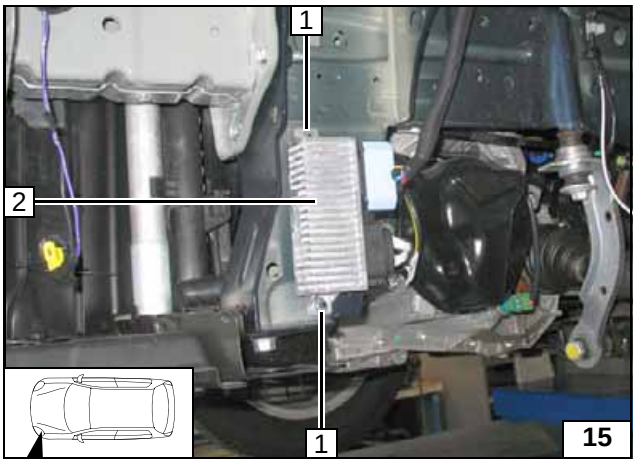
Installing temperature sensor

Preparing Installation Location

Remove control unit if available

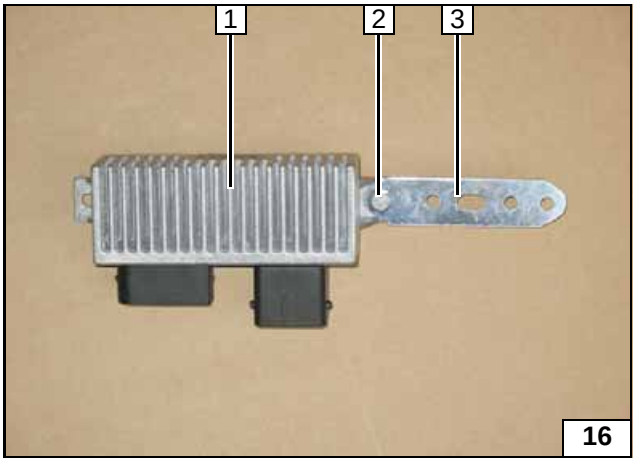
Flanged nut [2x] **1** will be reused!

Removing control unit



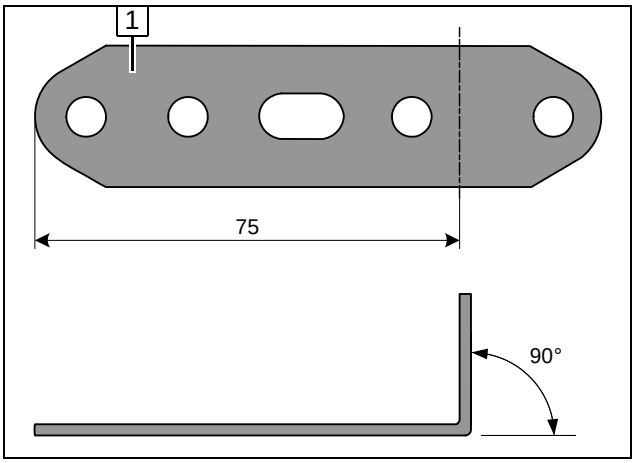
2 Control unit

Premounting control unit



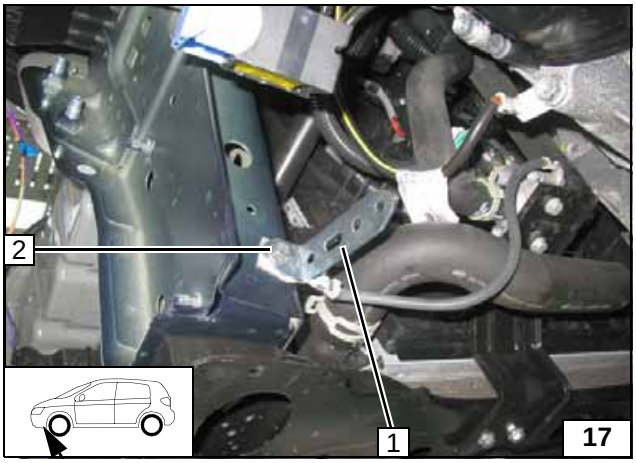
1 Control unit
2 M6x20 bolt, original vehicle flanged nut
3 Perforated bracket

Angling down perforated bracket

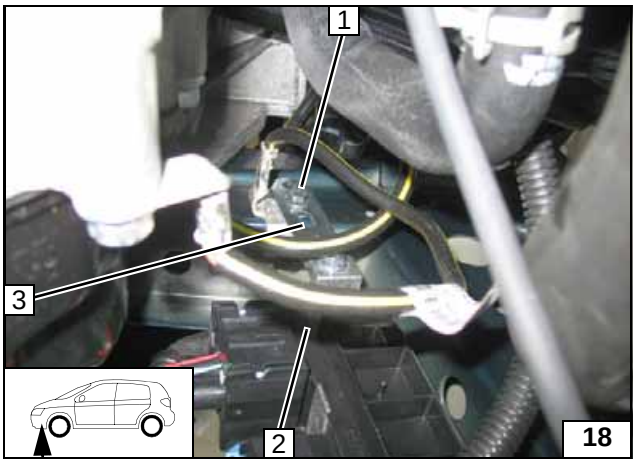


1 Perforated bracket

Installing perforated bracket

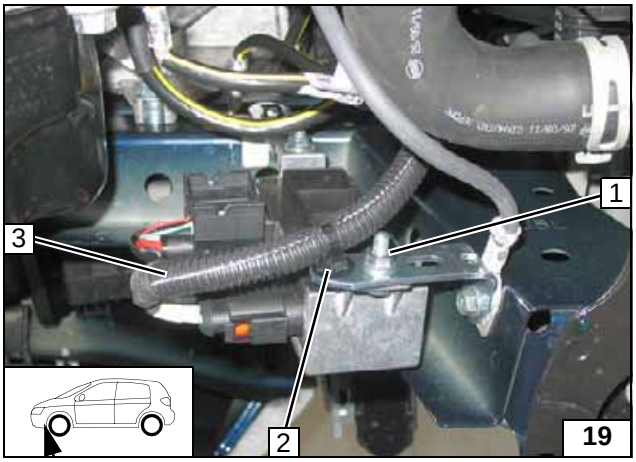


1 Perforated bracket
2 Original vehicle bolt earth support point



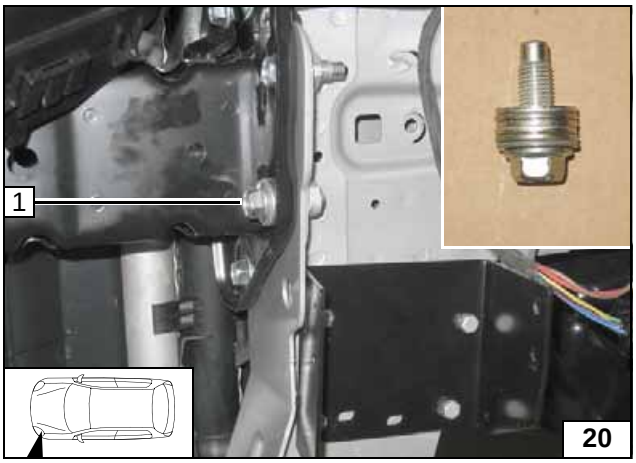
1 Original vehicle bolt earth support point
2 Control unit
3 Perforated bracket

Mounting control unit



1 M6x20 bolt, original vehicle flanged nut
2 Clip-type cable tie in hole
3 Original vehicle wiring harness

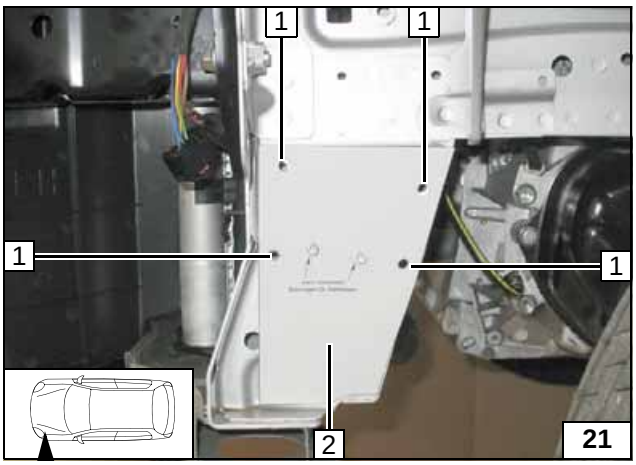
Mounting control unit



All vehicles

All images show vehicle with 63 kW. Remove original vehicle bolt **1**, insert six 10.5mm dia. plain washers and install again.

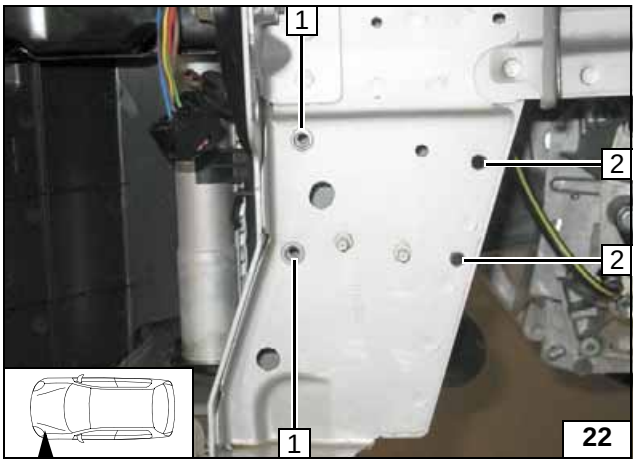
Inserting washers



Cut out template **2** lay it on top!

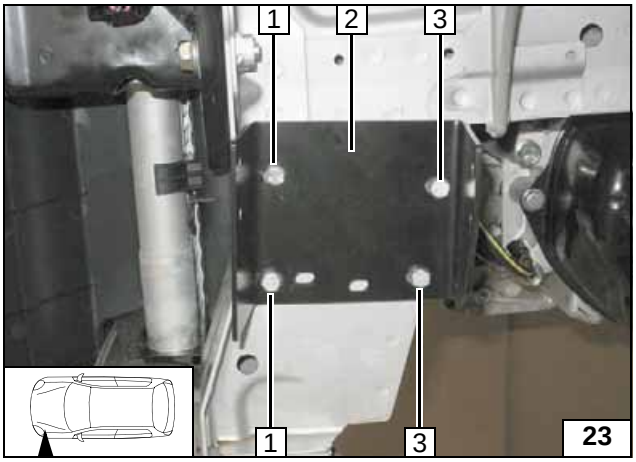
1 Copy hole pattern [4x]

Copying hole pattern



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

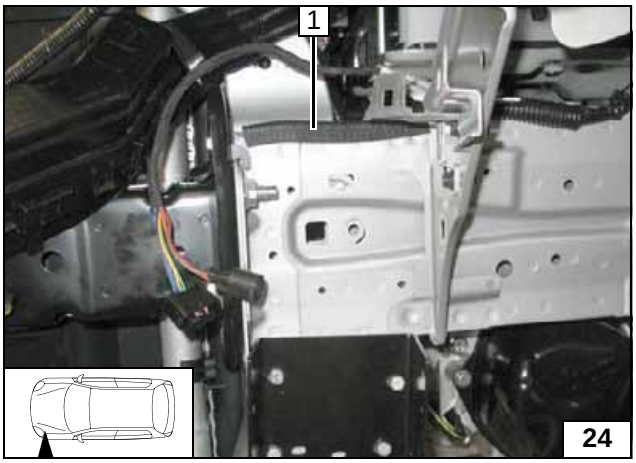
Installing rivet nut



Insert one large diameter washer and 15 mm shim each between body and bracket **2** at position **3** and one 15 mm shim at position **1**.

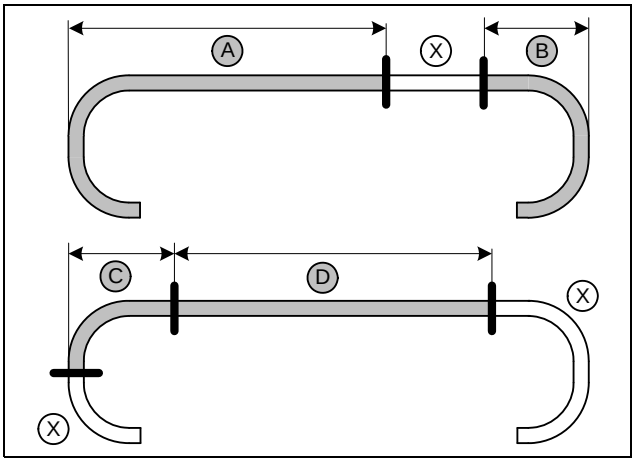
1 M6x40 bolt, spring lockwasher, 15mm shim [2x each]
3 M6x40 bolt, spring lockwasher, large diameter washer, 15mm shim, flanged nut [2x each]

Installing bracket



1 100mm edge protection

Installing edge protection

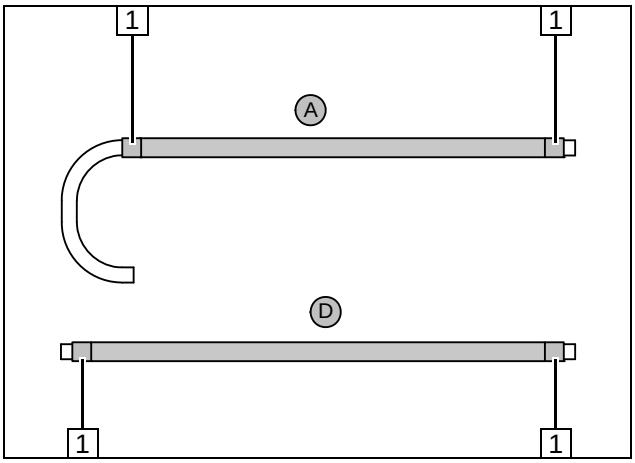


Preparing Heater

Discard section **X**

63 kW	66 kW / 81 kW
A = 1150	**A** = 1250
B = 130	**B** = 130
C = 130	**C** = 130
D = 1150	**D** = 1250

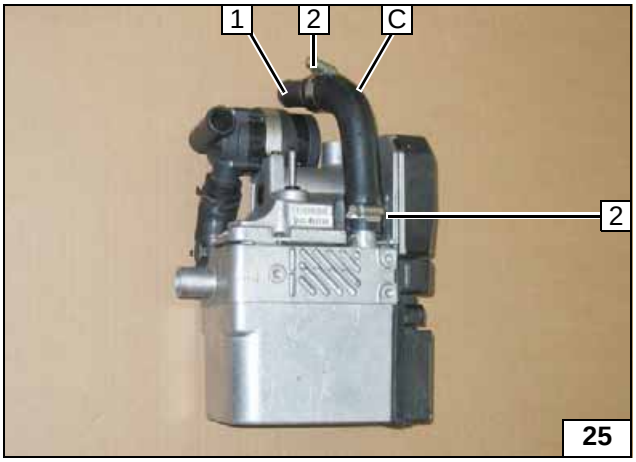
Cutting hoses to length



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

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

Preparing hoses

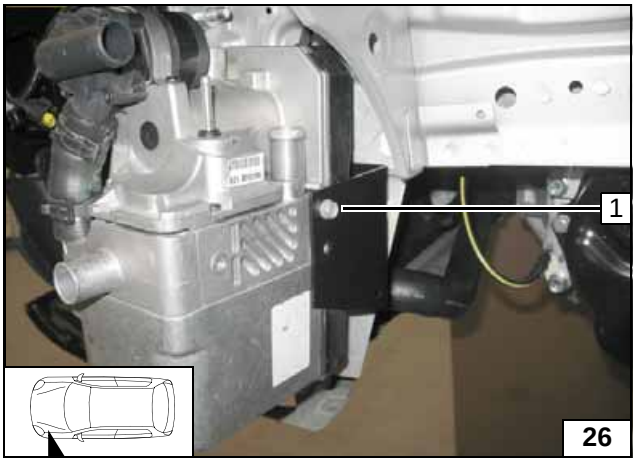


1 20x20 connecting pipe
2 27 mm dia. hose clamp [2x]

Premounting hose C

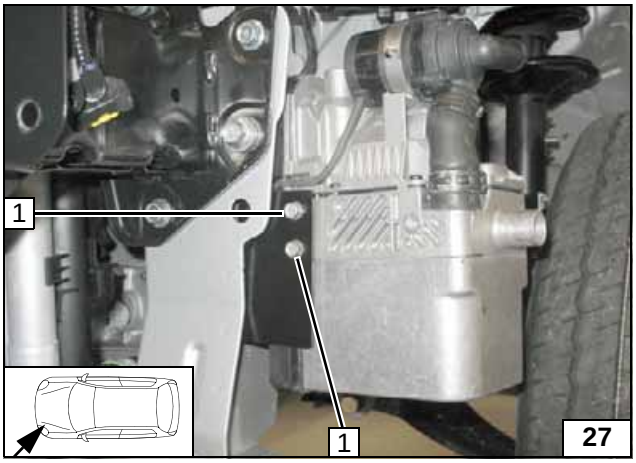
Installing Heater

Connect wiring harness for heater before installation.



1 Ejot screw

Mounting heater



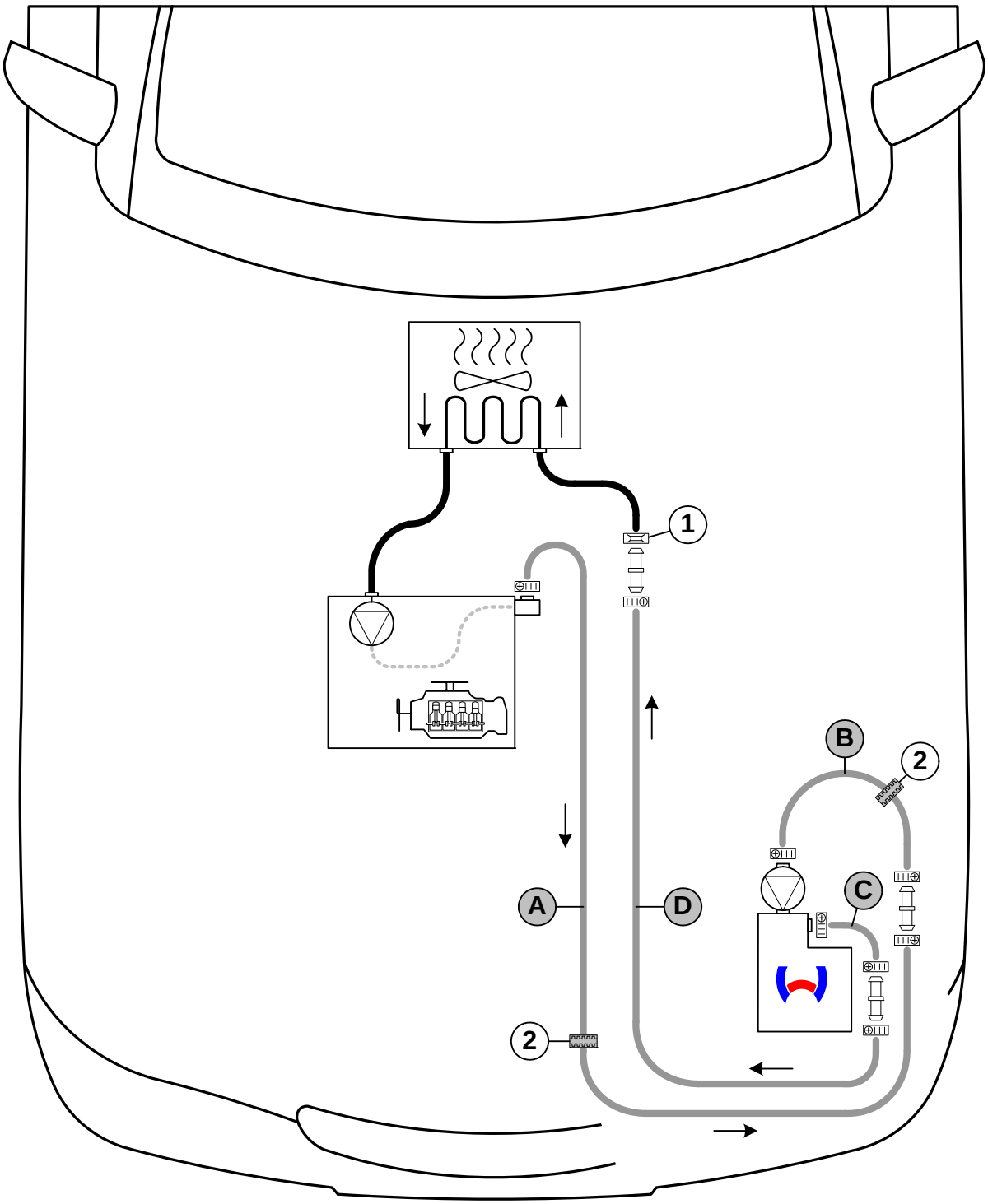
1 Ejot screw [2x]

Mounting heater

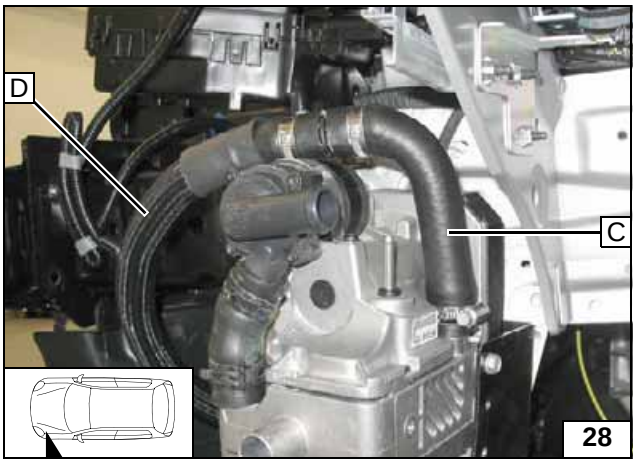
Coolant Circuit

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 other hoses cannot be damaged. The heater must be filled with coolant when installing the coolant hose.
The connection should be "inline" based on the following diagram:

Hose routing diagram

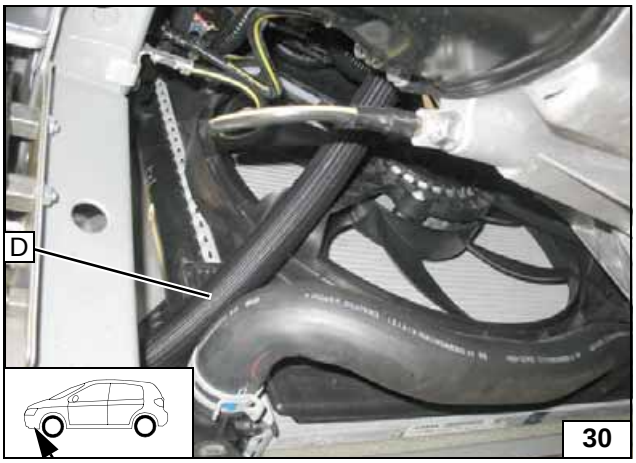


All hose clamps = 20-27 mm dia. All connecting pipes = dia. 20x20.
1 = Original vehicle spring clip. **2** = Black (sw) rubber isolator [2x]!

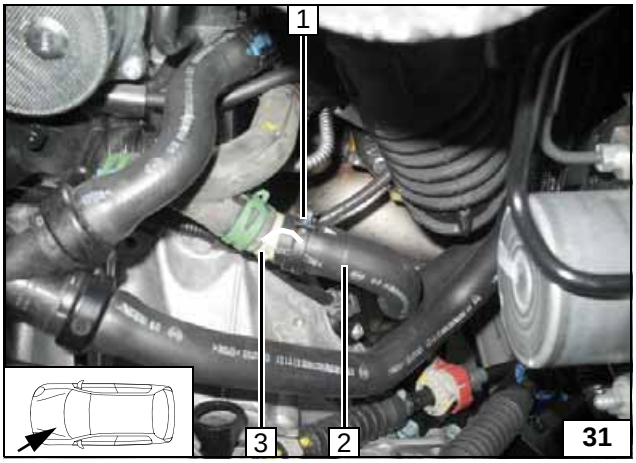


Connecting heater outlet

Routing into engine compartment



Routing in engine compartment



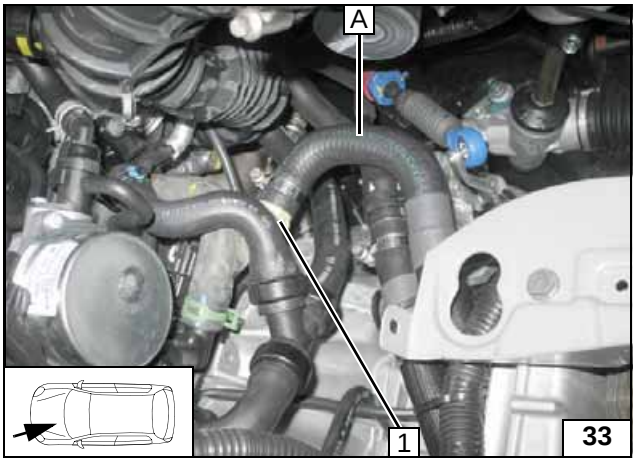
63 kW

Pull out hose section of heat exchanger inlet **2** from engine outlet connection piece **3**! Spring clip **1** will be reused.

Cutting point

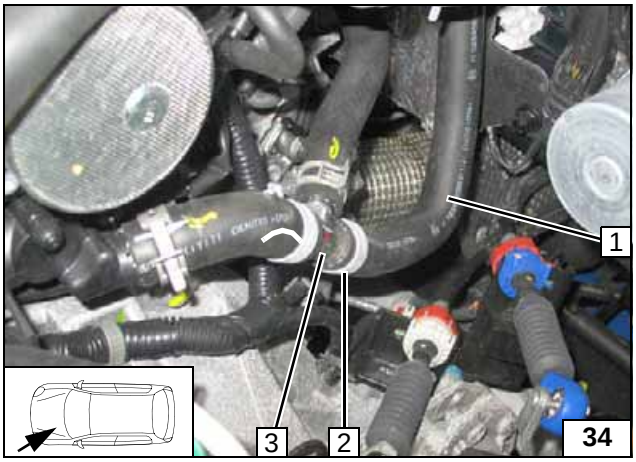
1 Hose on heat exchanger inlet
2 Original vehicle spring clip

Connection to heat exchanger inlet



1 Connection piece for engine outlet

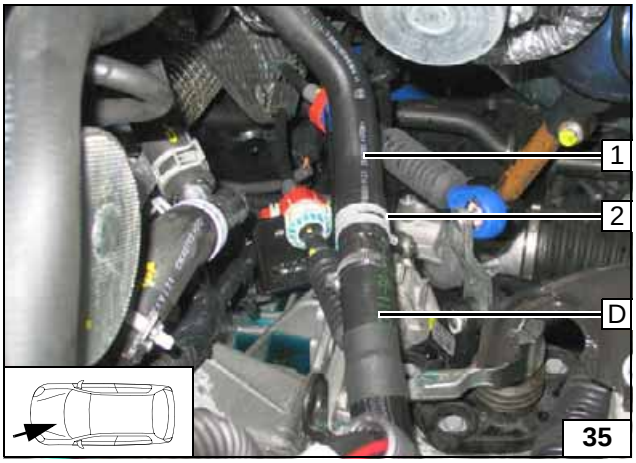
Connecting engine outlet



66 kW / 81 kW

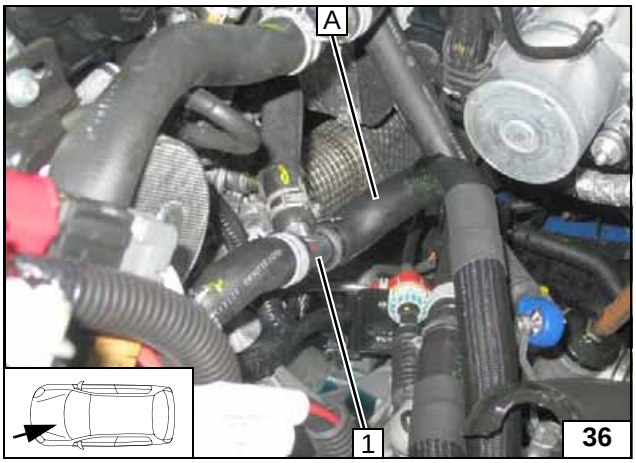
Pull out hose section of heat exchanger inlet **1** from engine outlet T-piece **3**! Spring clip **2** will be reused.

Cutting point



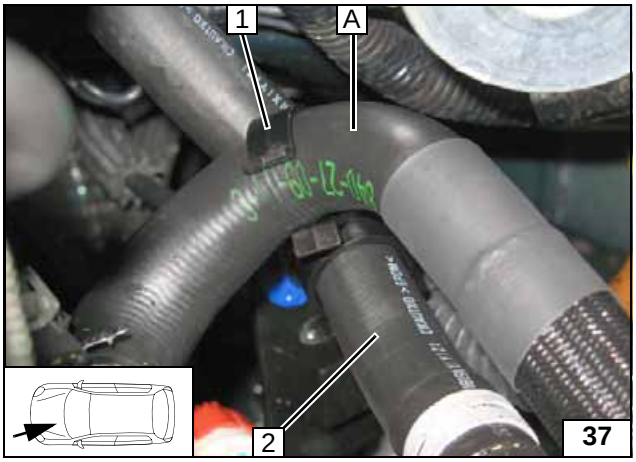
1 Hose on heat exchanger inlet
2 Original vehicle spring clip

Connection to heat exchanger inlet



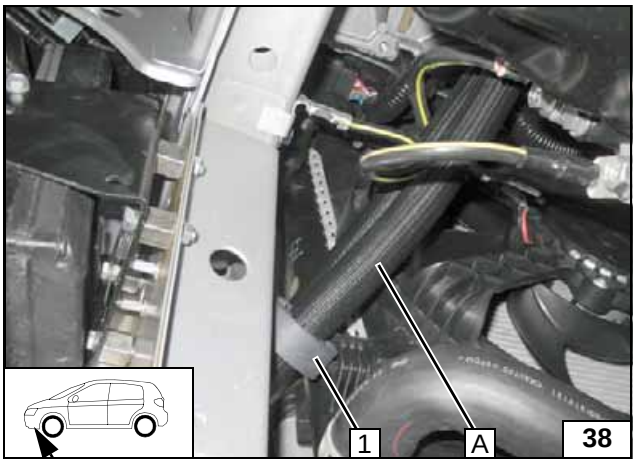
1 Engine outlet T-piece

Connecting engine outlet



1 Spacer bracket
2 Hose on heat exchanger inlet

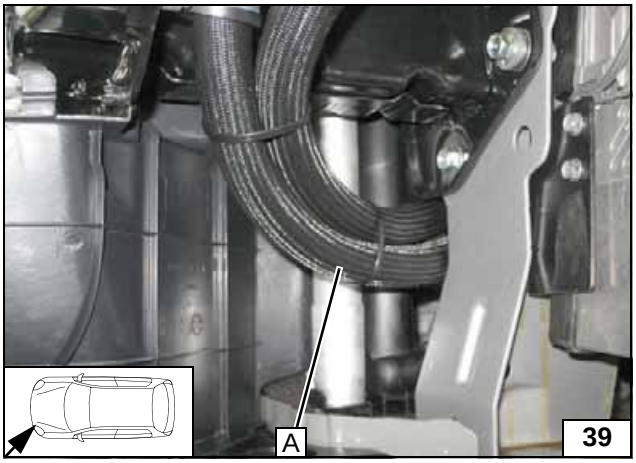
Installing spacer bracket



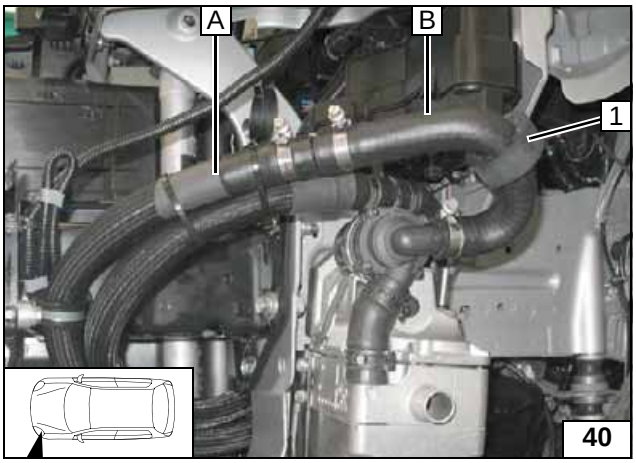
All vehicles

Slide black (sw) rubber isolator **1** onto hose **A** and align with cross member.

Routing in engine compartment

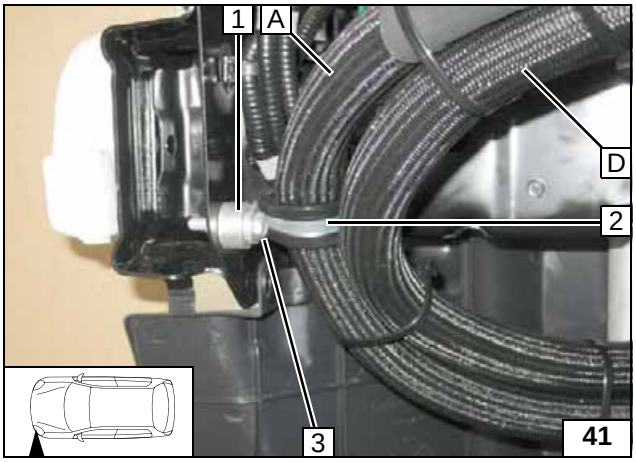


Routing to heater



Slide black (sw) rubber isolator **1** onto hose **B**.

Connecting heater inlet



Align hoses. Ensure sufficient distance from neighbouring components.

1 10 mm shim
2 Rubber-coated pipe clamp
3 Mount M6x30 bolt, flanged nut, existing hole in bumper

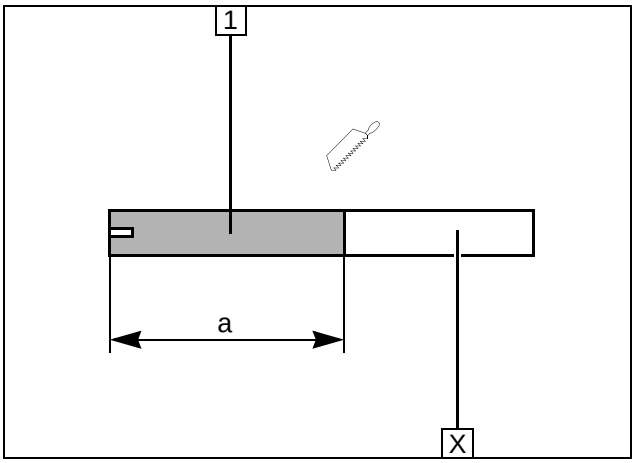
Aligning hoses and rubber isolator

Combustion Air

Discard section **X**

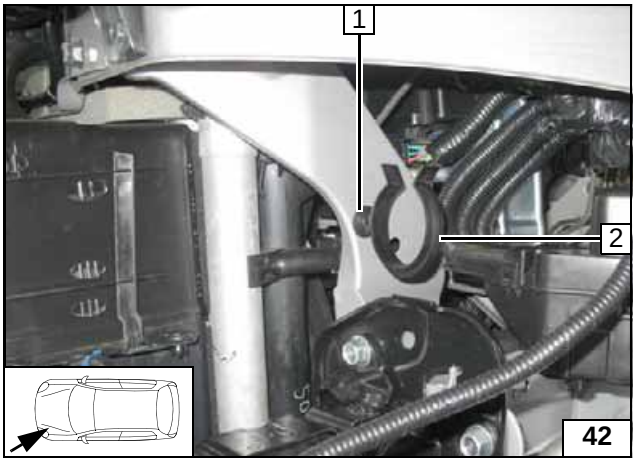
1 Combustion air pipe
a = 280

Cutting combustion air pipe to length



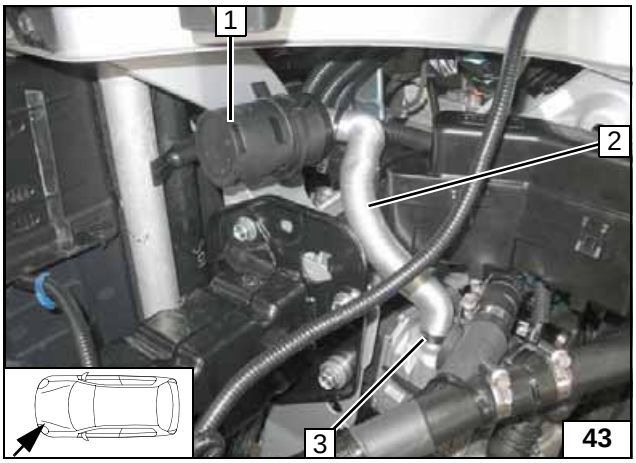
Install retaining clip **2** in existing hole at position **1**.

Installing retaining clip



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

Mounting silencer



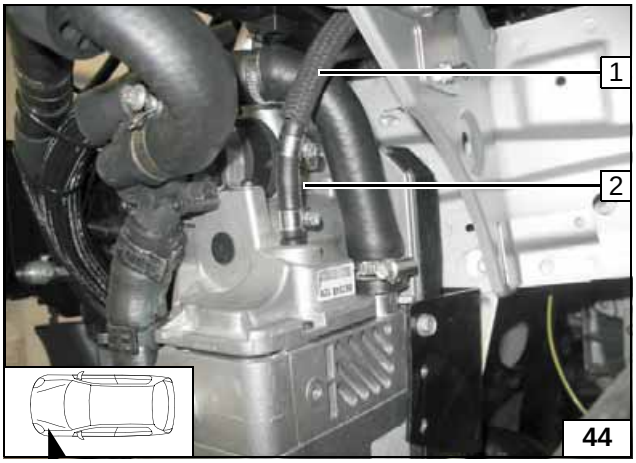
Fuel

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.

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.

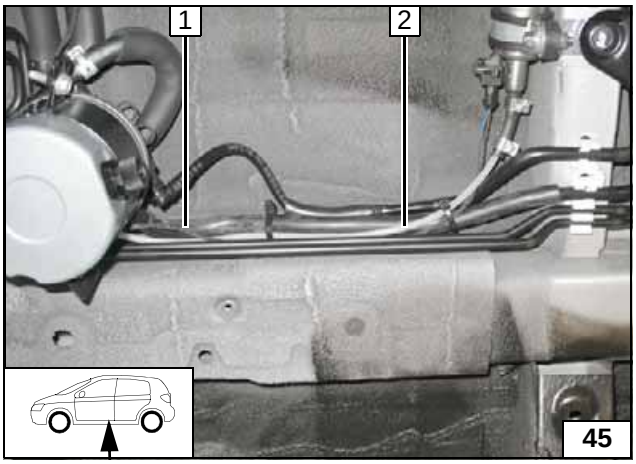
WARNING!
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



Slide fabric protective hose **1** as rub protection onto fuel line and secure with cable tie.
Route fuel line to firewall and further with wiring harness of metering pump to original vehicle lines in the underbody.

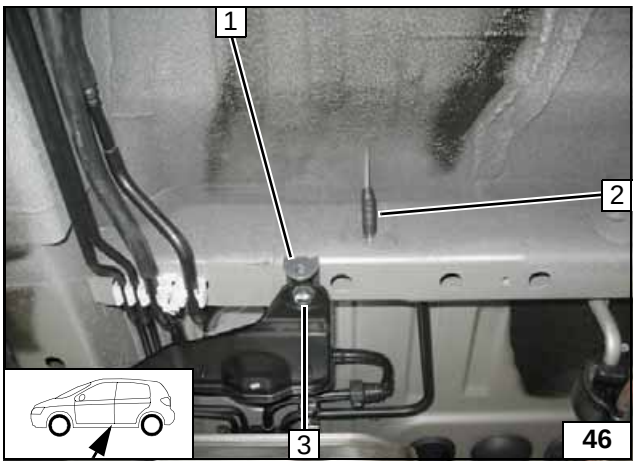
2 Hose section, 10 mm dia. clamp [2x]

Connecting heater



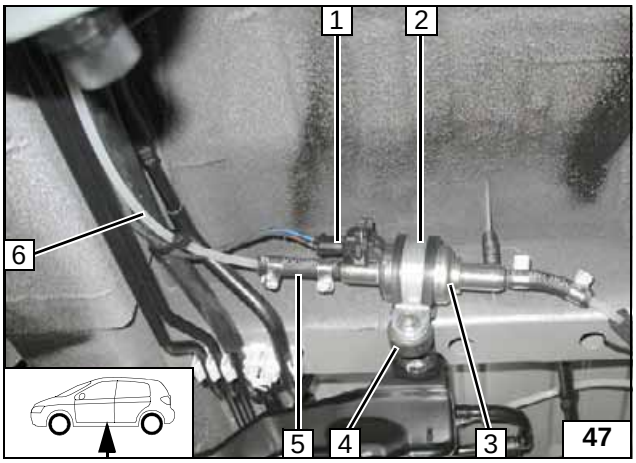
Route wiring harness of metering pump **1** and fuel line **2** to installation location of metering pump!
All images of metering pump installation and connection show vehicle with 63 kW.

Routing lines



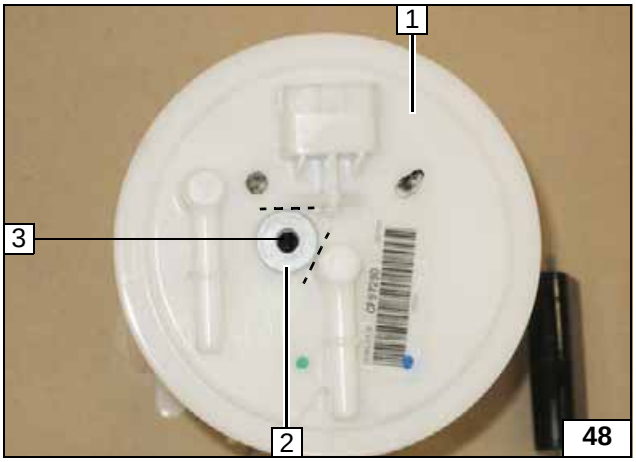
1 Angle bracket
2 50mm edge protection
3 Original vehicle bolt

Installing angle bracket



1 Wiring harness of metering pump, connector mounted
2 Rubber-coated pipe clamp
3 Metering pump
4 Silent block, flanged nut [2x]
5 Hose section, 10 mm dia. clamp [2x]
6 Fuel line

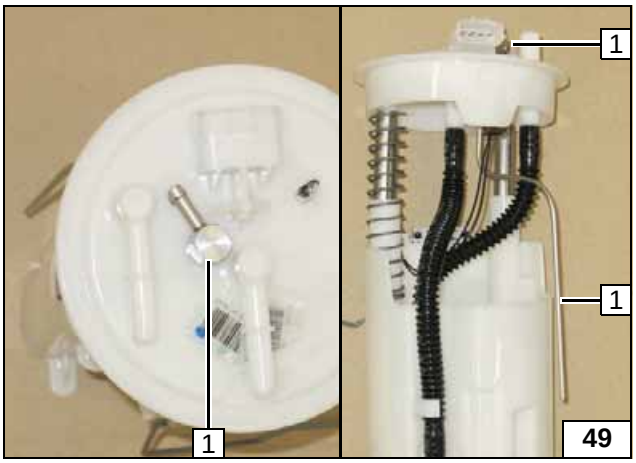
Installing metering pump



Remove fuel-tank sending unit **1** according to manufacturer's instructions. Place large diameter washer **2** dia. d_a =21.6 on top as shown

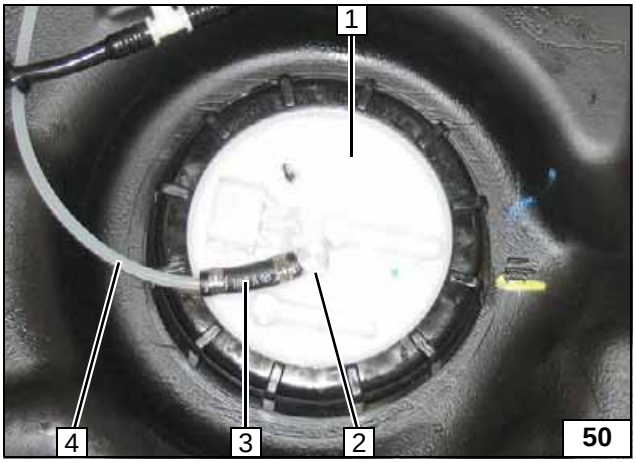
3 Copy hole pattern, 6 mm dia. hole

Fuel extraction



Shape fuel standpipe **1** according to template and cut to length.

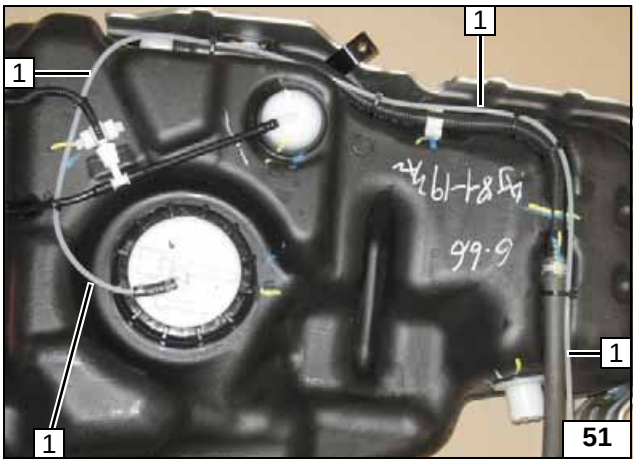
Installing fuel standpipe



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

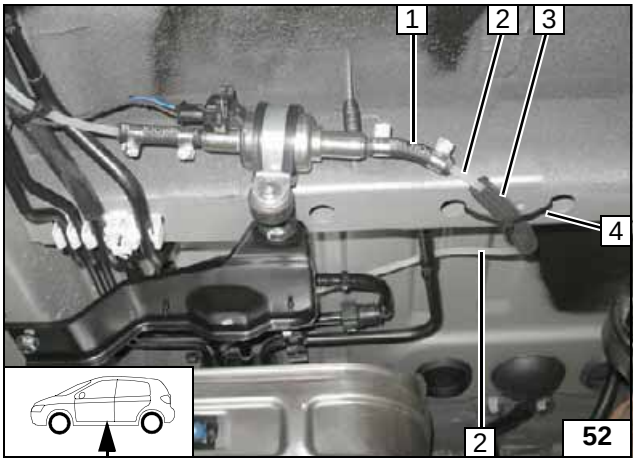
2 Fuel standpipe
3 Hose section, 10 mm dia. clamp [2x]
4 Fuel line

Connecting fuel line



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

Routing fuel line

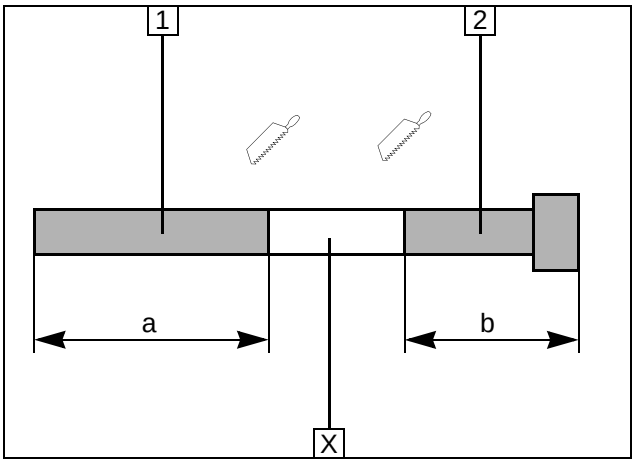


Slide fabric protective hose **3** as rub protection onto fuel line **2** and secure with cable tie **4**.

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

Connecting metering pump

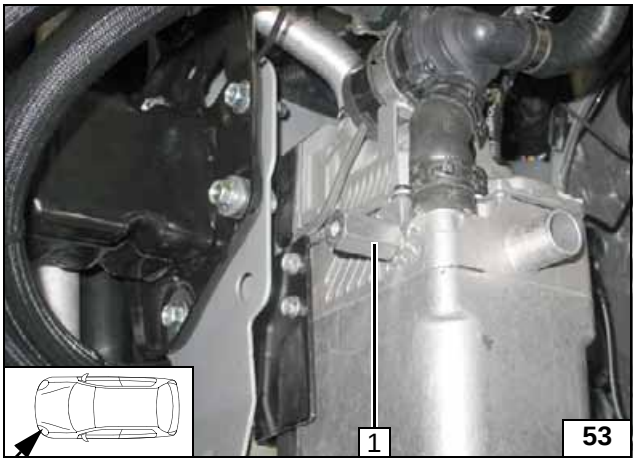
Exhaust Gas



Discard section **X**

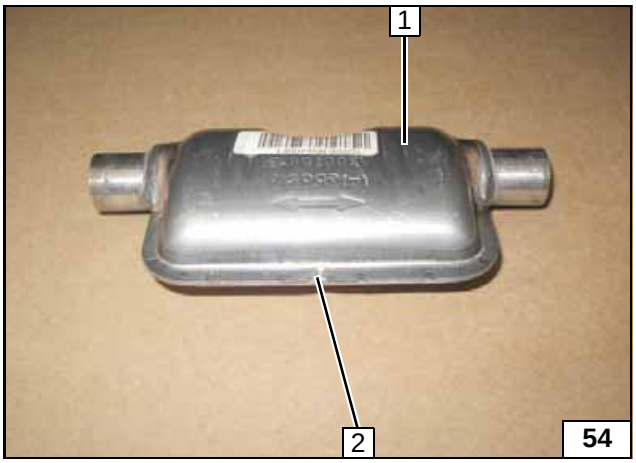
1 Exhaust pipe
a = 280
2 Exhaust end section
b = 310

Preparing exhaust pipe



1 Ejot studs, 30 mm dia. spacer nut

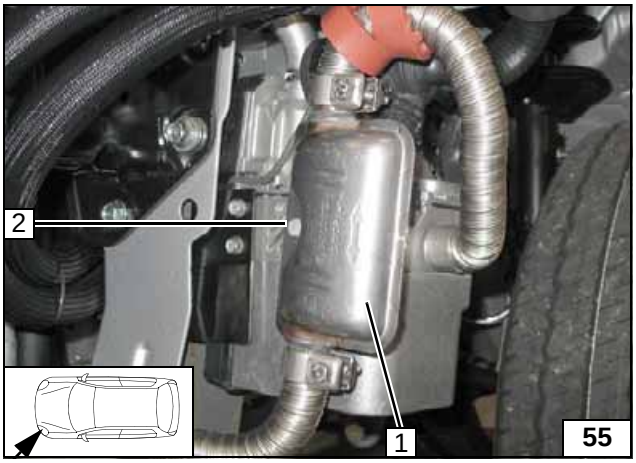
Installing spacer nut



Seal condensed-water drain hole at Position **2**!

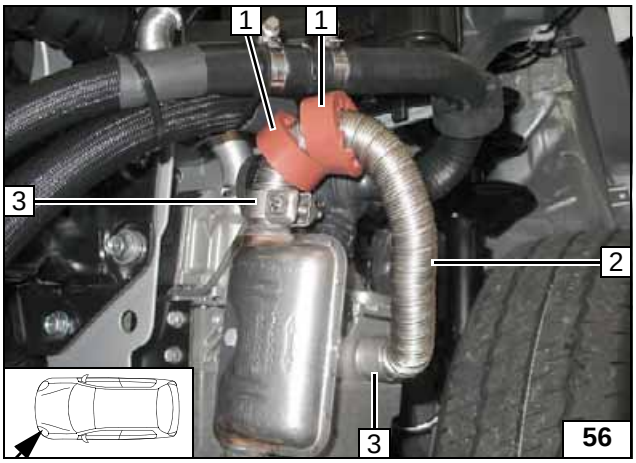
1 Silencer

Sealing drain



1 Silencer
2 M6x12 bolt, spring lockwasher

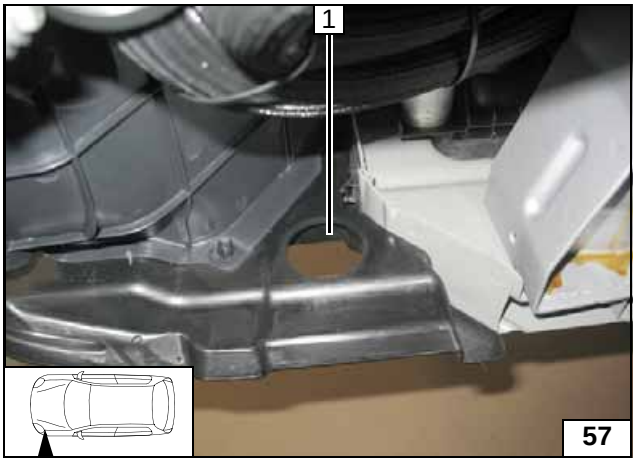
Mounting silencer



Slide red (rt) rubber isolator **1** [2x] on to exhaust pipe **2** and align with to hoses.

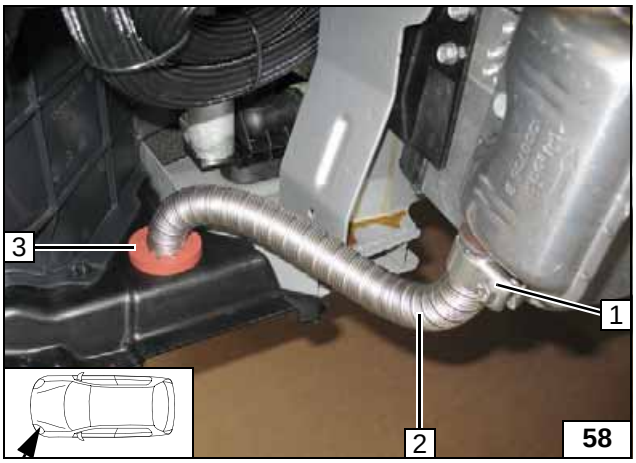
3 Hose clamp [2x]

Mounting exhaust pipe



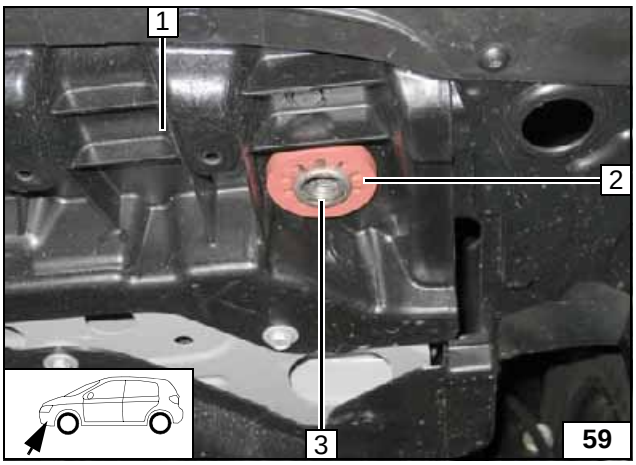
1 42 mm dia. hole

Hole in underride protection



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

Mounting exhaust end section



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

1 Underride protection

Inserting rubber isolator

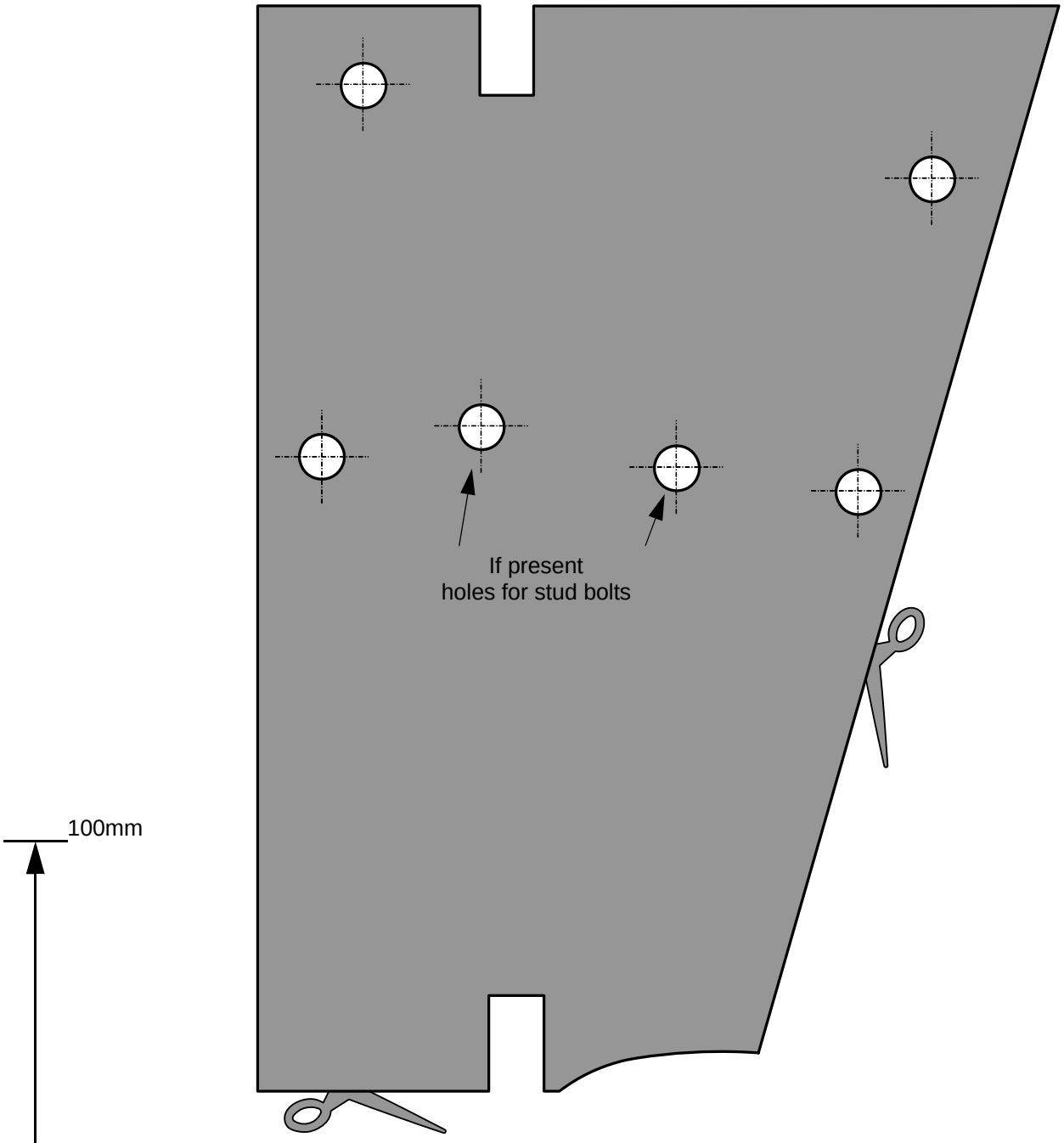
Final Work

WARNING!
Mount removed parts 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 refilling" in the area of the filler neck**
- **See installation instructions for initial start-up and function check**

Webasto Thermo & Comfort SE
Postfach 1410
82199 Gilching
Germany
Internet: www.webasto.com
Technical Extranet:
http://dealers.webasto.com

Template for Bracket



100mm

Scale 1:1

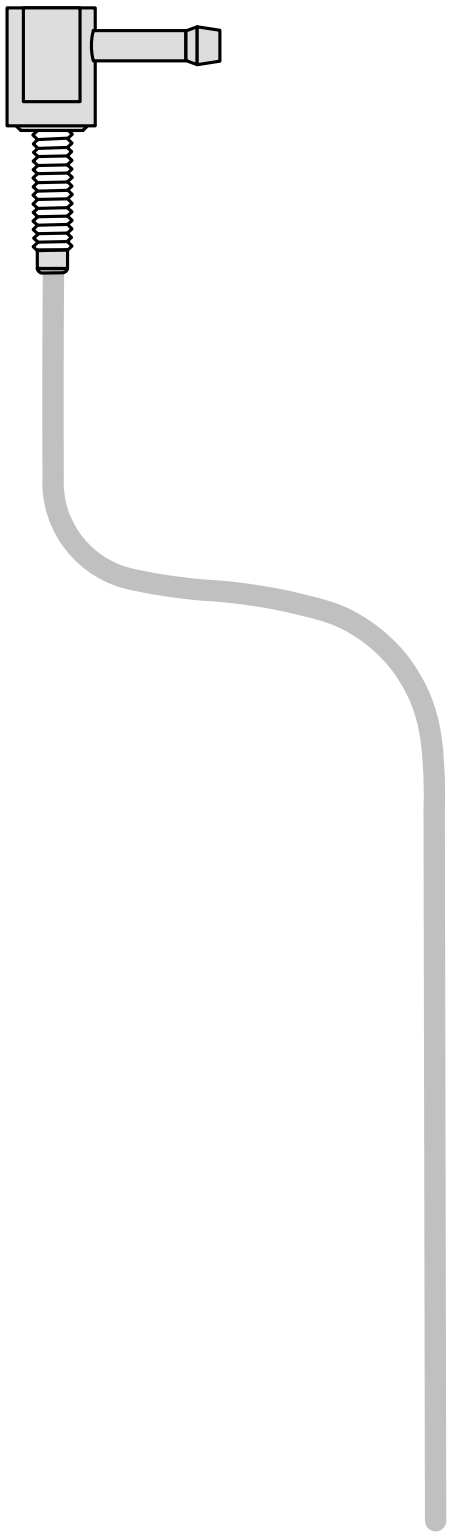
Compare the size of the printed version with dimension lines.
Permitted tolerance a maximum of 2%.

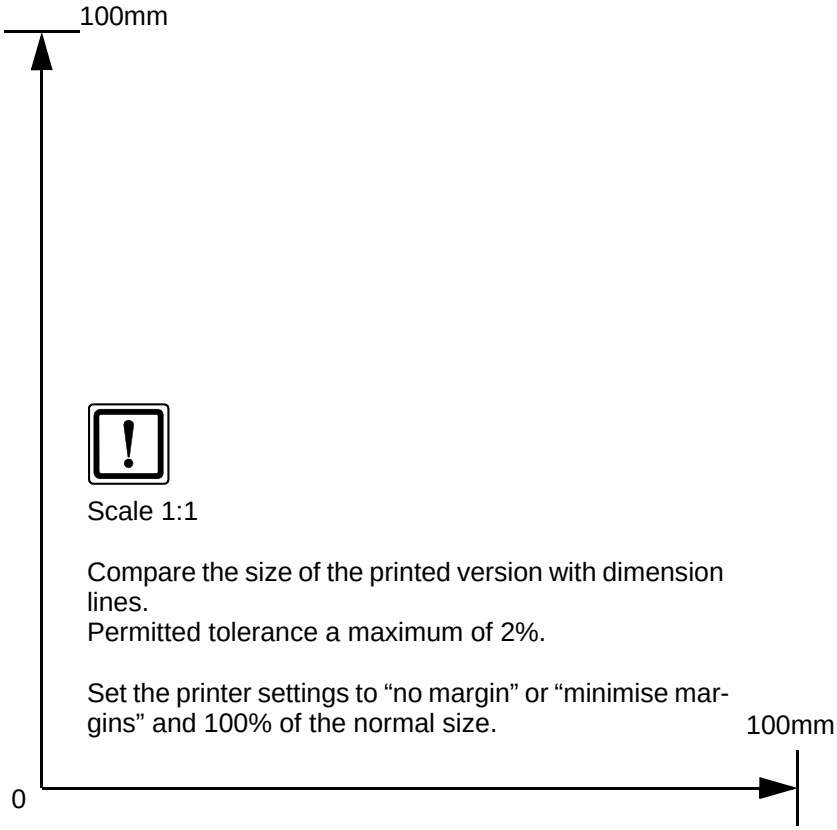
Set the printer settings to “no margin” or “minimise margins” and 100% of the normal size.

100mm

0

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 the vehicle settings for the heating cycle.
Deactivation instructions can be taken from the operating instructions of the vehicle.

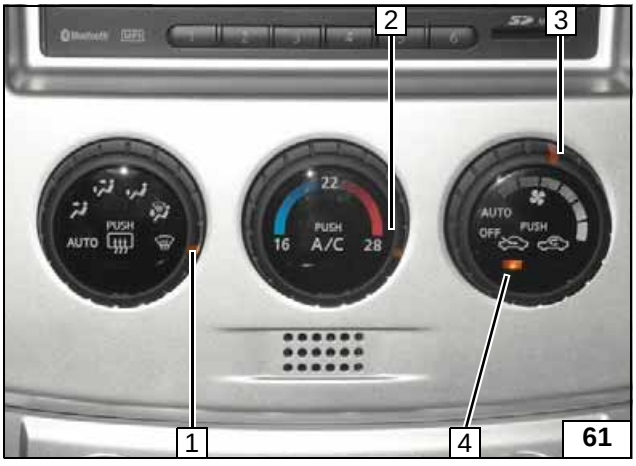
If the summer/winter switch option has been installed on the heater, this must be switched in accordance with the time of year. The heater will then heat in the position Winter and in the position Summer it will only switch on the vehicle fan to ventilate the vehicle interior.

Before parking the vehicle, make the following settings:

Manual air-conditioning

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

Automatic 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