

# Water Heater Unit



**Thermo Top E Additional Heater** e1 00 0003

**Thermo Top C Additional Heater** e1 00 0002

**Thermo Top P Additional Heater** e1 00 0104

## Installation Instructions

### Nissan Qashqai

2.0LDiesel

from Model Year 2007

Left-hand drive vehicle



#### **WARNING!**

Hazard warning:

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

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

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

ALWAYS follow all Webasto installation and repair instructions and observe all warnings.

Webasto does not accept any liability for defects and damage that are attributable to installation by untrained staff.

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**Validity**

Manufacturer	Model	Type	EG-BE No./ABE
Nissan	Qashqai	J10	e11 * 2001/116 * 0295 * ...

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
M9R	Diesel	110	1994

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

The installation location of a digital timer and summer/winter switch should be confirmed with the end customer before installation.

**Heater Unit/Installation Kit**

Quantity	Description	Order No.:
1	Nissan-specific delivery scope	See Nissan price list
1	Installation kit for Nissan Qashqai 2.0 liter Diesel	1312667A

**Also required:**

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

**Heater unit recommended for the respective vehicle class:**

Vehicle	Heater unit
Compact car	Thermo Top E
Mid-size car, station wagon	Thermo Top C
Full-size car, van, offroader	Thermo Top P



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

**Foreword**

These installation instructions apply to Nissan Qashqai 2.0 liter Diesel vehicles - for validity, see page 2 - from model year 2007 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to these installation instructions.

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

The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

**General Instructions**

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties.

Sharp edges 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).

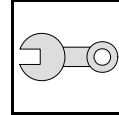
**Special Tools**

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers

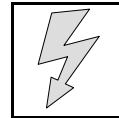
**Explanatory Notes on Document**

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.

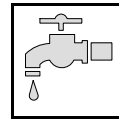
**Mechanical system**



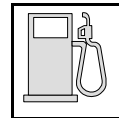
**Electrical system**



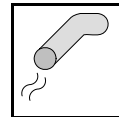
**Coolant connection**



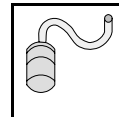
**Fuel connection**



**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!**

- Open the fuel tank cap, ventilate the tank.
- Close the tank cap again.
- Disconnect the battery "earth" or "ground" connection.
- Depressurize the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Completely remove the battery
- Remove the air filter together with the intake hose.
- Remove the engine design cover
- Detach the wheel well trim on the right and left.
- Remove the bumper.
- Remove the rear seat cushion.
- Open the tank-fitting service lid
- Remove the lower cover of the instrument panel in the footwell on the left
- Remove the side cover of the instrument panel on the left
- Remove the lower cover of the instrument panel on the left
- Detach the fuse carrier on the left in the passenger compartment
- Remove the lower A-pillar trim in the footwell on the left (only with Teleshart)
- Remove the A/C control panel (only with automatic air-conditioning)

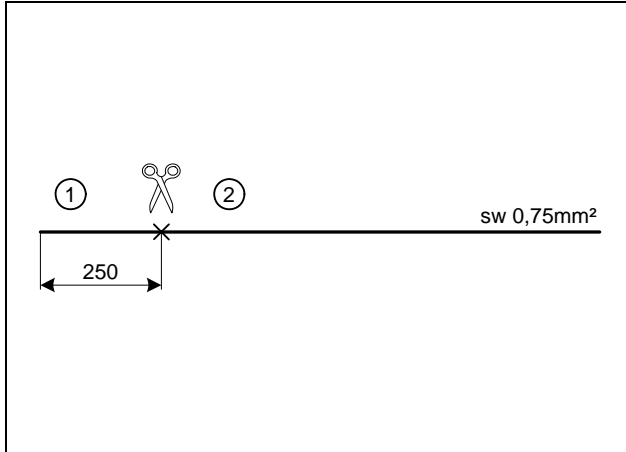
Remove page 24 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



**Heater unit installation location**

1 Heater unit

**Installation location**

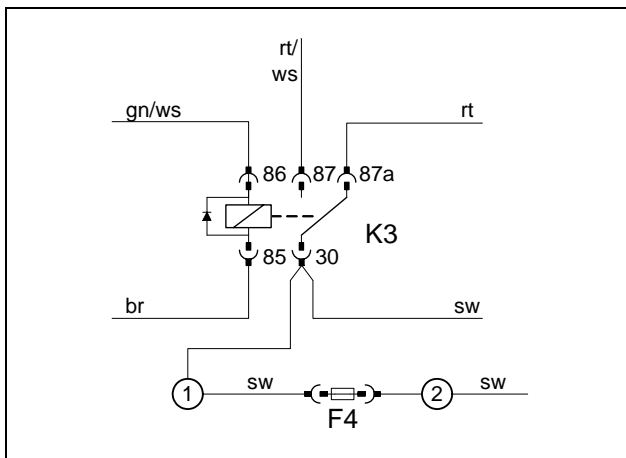


**Preparing electrical system**

Only with automatic air-conditioning



**Cutting wires to length**



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



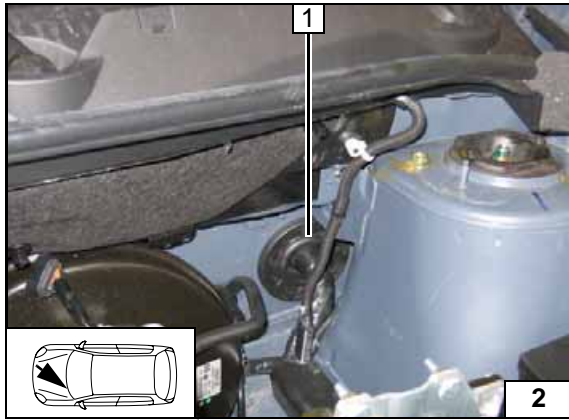
**Preparing fuse F4**



## Electrical Connections

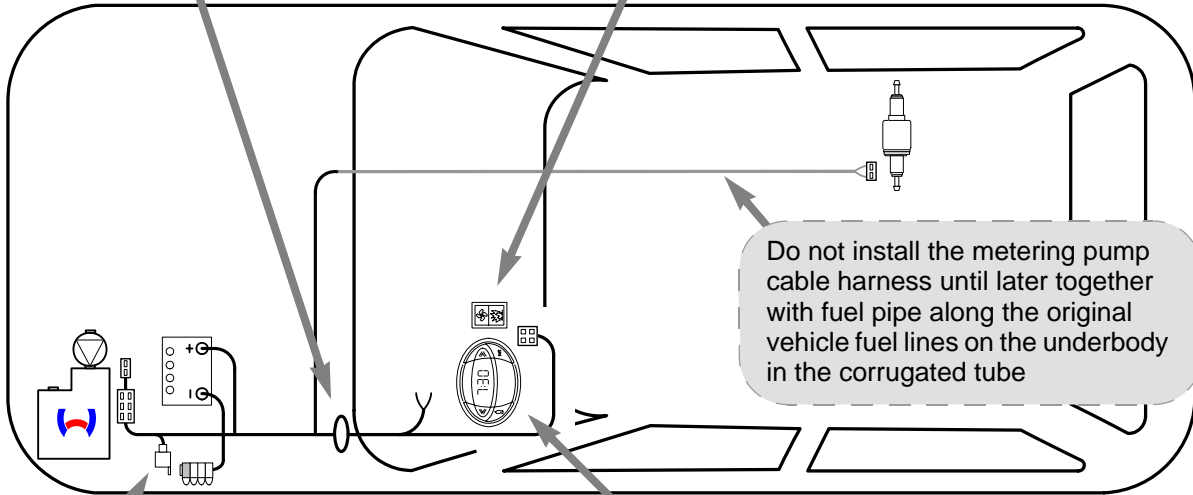
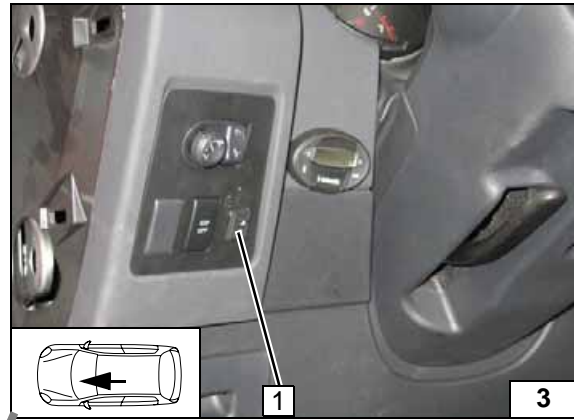
### Wiring harness pass through

1 Protective rubber plug

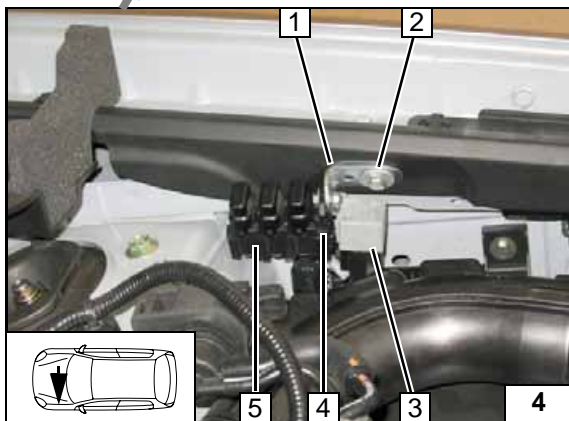


### Summer/winter switch option

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



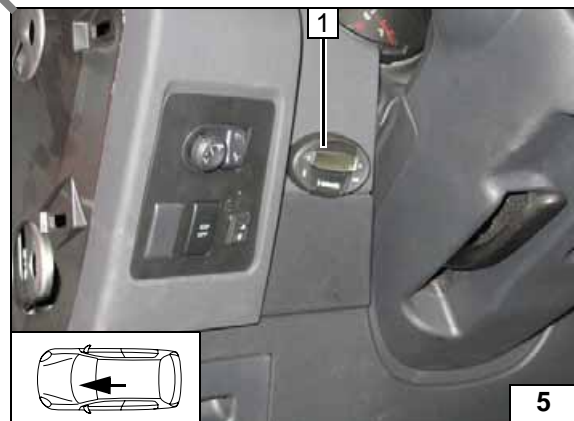
Wiring harness installation diagram



### Fuse holder, relay K3

7 mm dia. hole in plastic cover at position 2.

- 1 Angle bracket
- 2 M6x20 bolt, large diameter washer, flanged nut
- 3 Fan relay K3
- 4 M5x12 bolt, washer, retaining plate for fuse holder, washer, flanged nut on angle bracket
- 5 Fuse holder

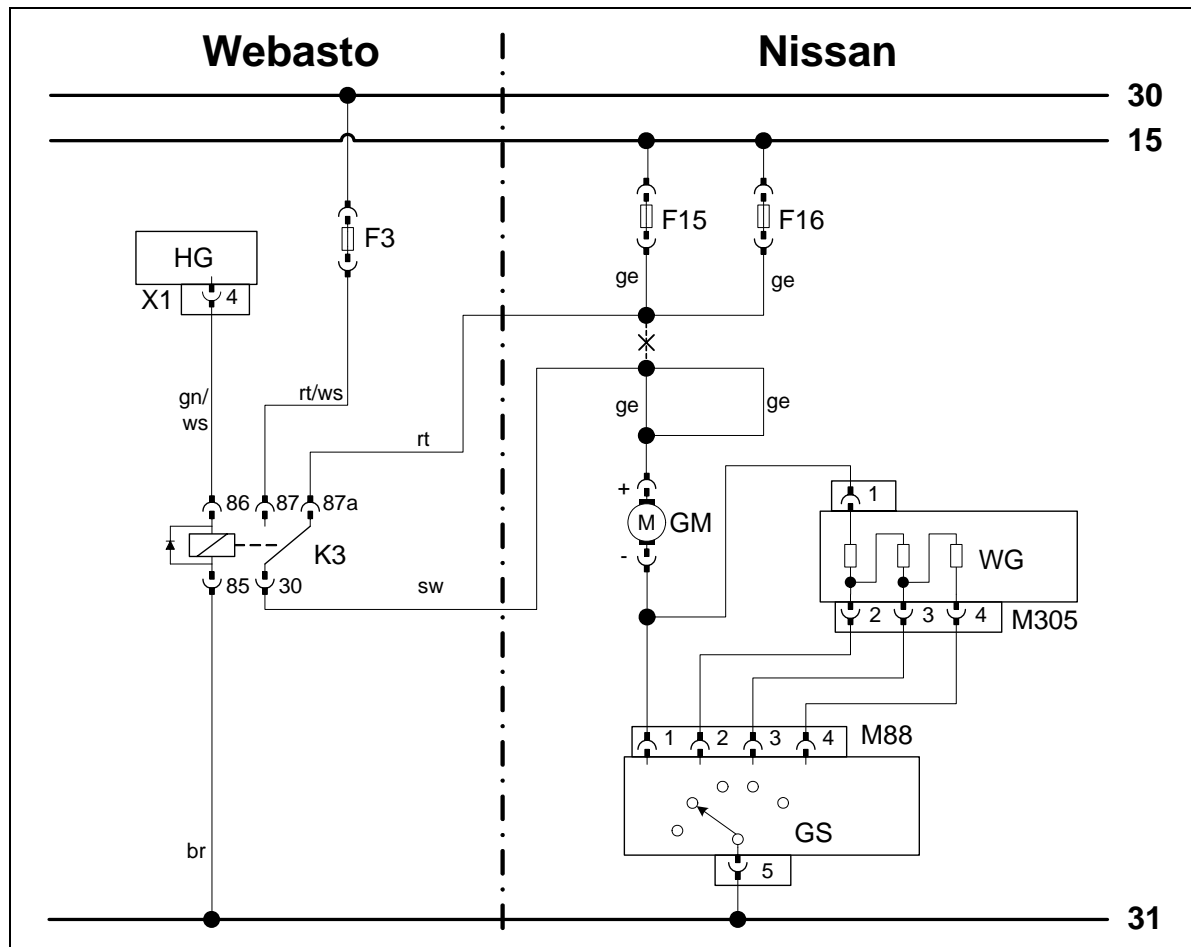


### Digital timer

1 Digital timer



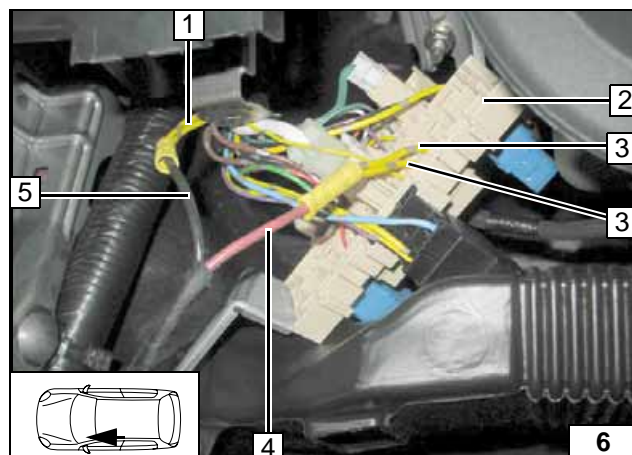
Fan controller for manual air conditioning



Wiring diagram

Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater unit connector	GS	Fan switch	ws	white
F3	25 A fuse	M88	8-pin connector GS	sw	black
K3	Fan relay	WG	Resistor group	gn	green
		M305	4-pin connector WG	ge	yellow
		F15	15 A fuse		
		F16	15 A fuse	X	Cutting point
				Wiring colors may vary.	

Legend



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

Produce connections as shown in wiring diagram.

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



Connecting fan-motor

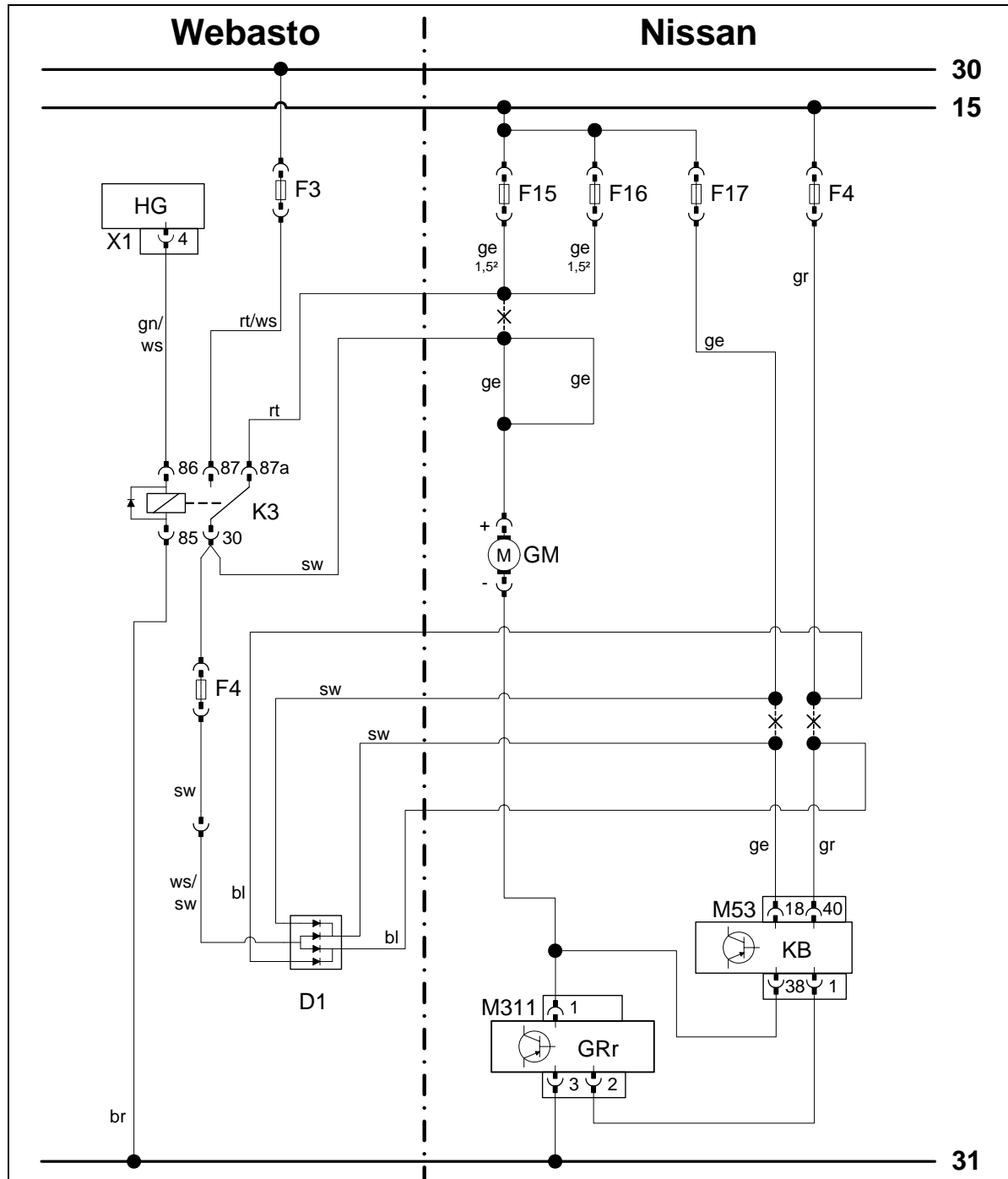




Automatic air-conditioning fan controller

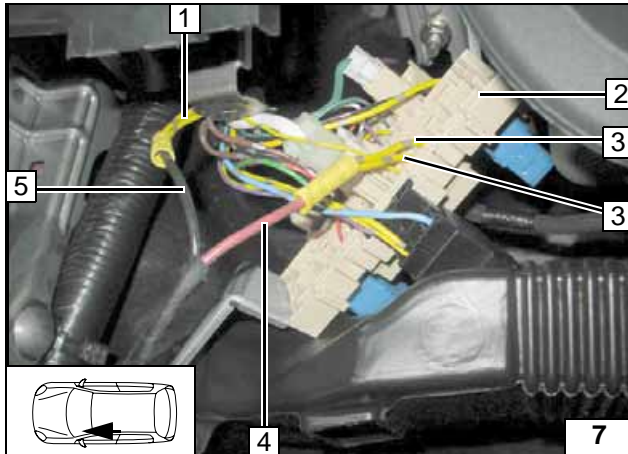


Wiring diagram



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

Legend

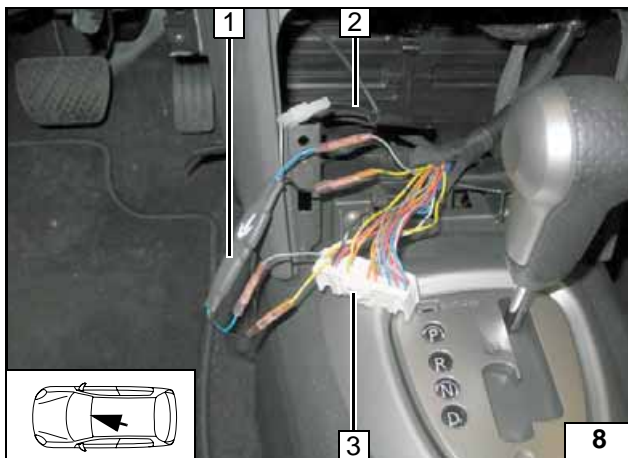


Connection on central electrical box **2** on driver's side.  
Produce connections as shown in wiring diagram.

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



**Con-necting fan motor**

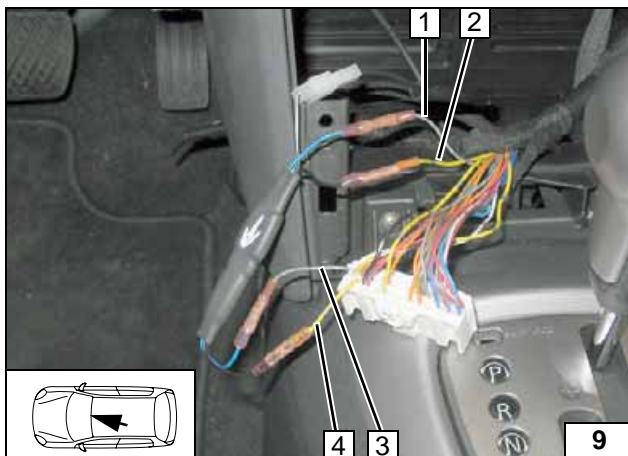


Connection to 40-pin connector M53 **2** from A/C control panel.  
Produce connections as shown in wiring diagram.  
Watch direction of flow of diode group D1 **3**.

- 1 Black (sw) wire of F4
- 4 White/black (ws/sw) of D1



**Con-necting A/C control panel**

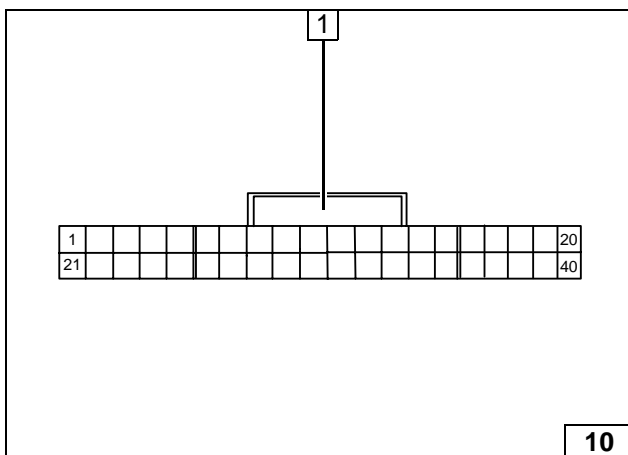


Produce connections as shown in wiring diagram.

- 1 Gray (gr) wire of F4
- 2 Yellow (ge) wire of F17
- 3 Gray (gr) wire of connector M53/40 KB
- 4 Yellow (ge) wire of connector M53/18 KB



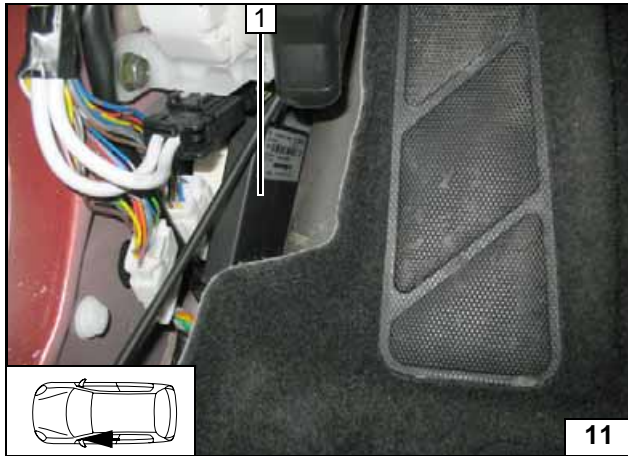
**Con-necting A/C control panel**



- 1 Connector M53 on contact side



**View of connector M53**

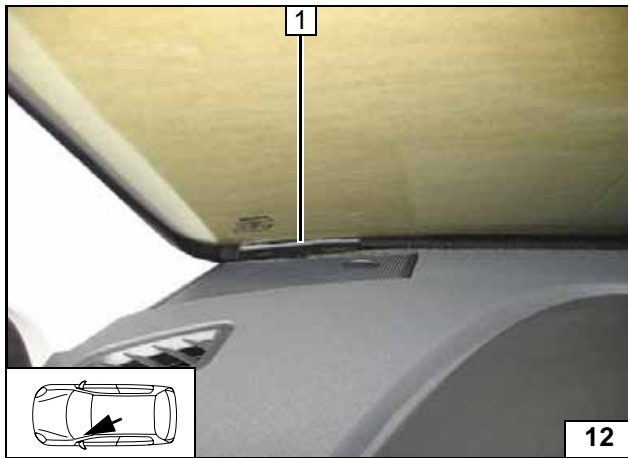


**Remote option (Telestart)**

Fasten receiver 1 with double-sided adhesive tape.

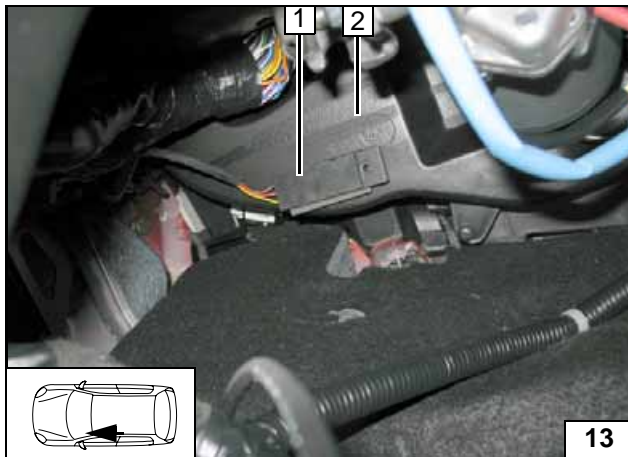


**Installing receiver**



1 Antenna

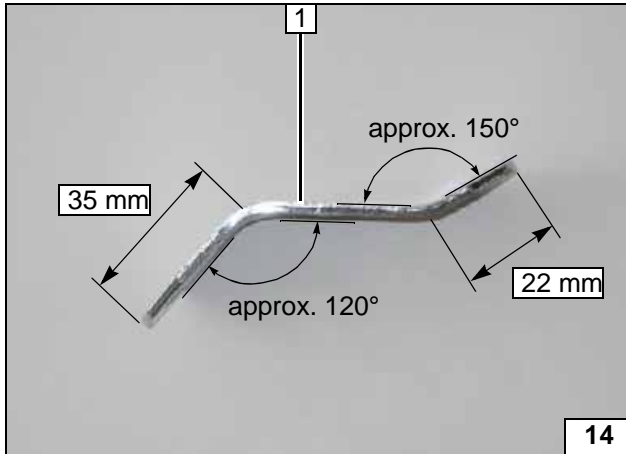
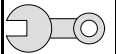
**Installing antenna**



**Temperature sensor for HTM100 only**

- 1 Fasten temperature sensor with double-sided adhesive tape
- 2 Air duct on driver's side

**Installing temperature sensor**



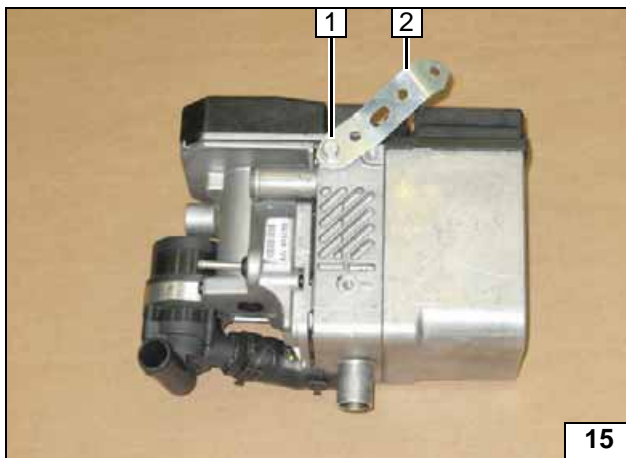
14

**Preparing heater unit**

Angle down perforated bracket 1.



**Bending perforated bracket**



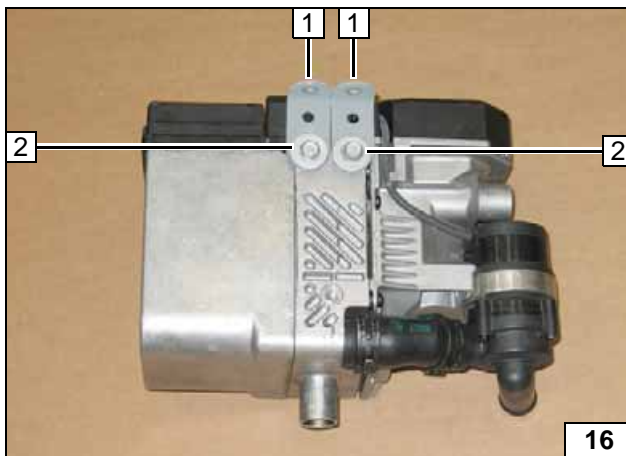
15

Eject screw bolt, tightening torque 10 Nm!

- 1 Eject screw
- 2 Perforated bracket, mount loosely



**Pre-mounting perforated bracket**



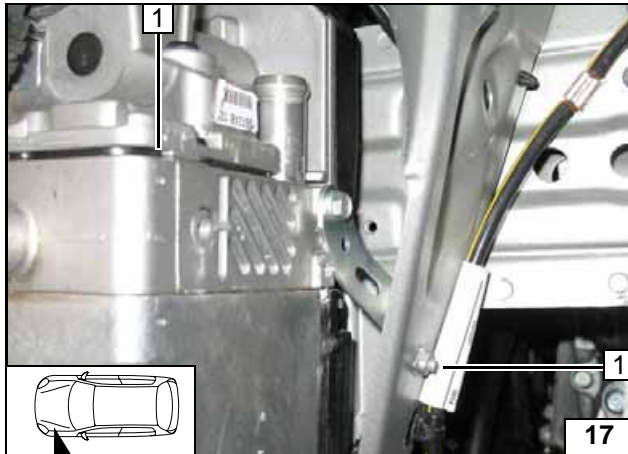
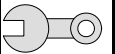
16

Eject screw bolt, tightening torque 10 Nm!

- 1 Eject screw, large diameter washer [2x each]
- 2 Angle bracket [2x]



**Pre-mounting angle bracket**

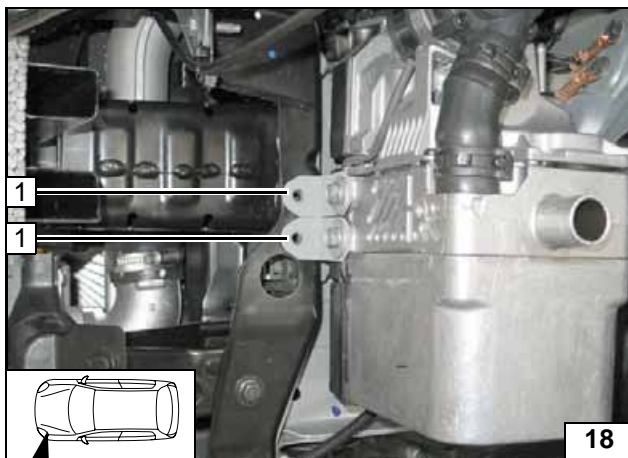


**Installing heater unit**

Before installing, push on wiring harness of heater unit.

- 1 M6x20 bolt, spring lockwasher in existing threaded hole

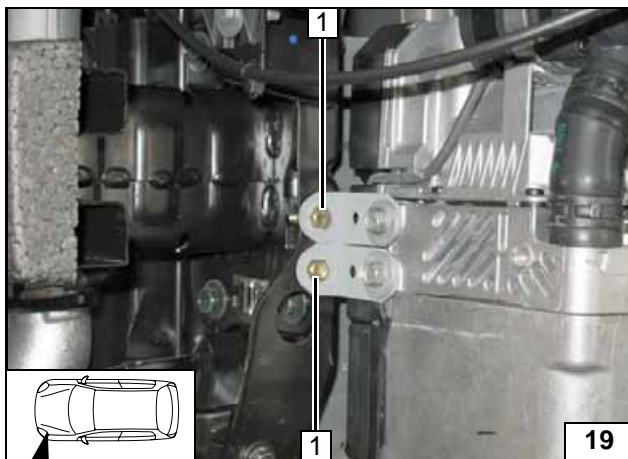
**Loosely mounting heater unit**



Align heater unit. 6.5 mm dia. hole [2x] at position 1!



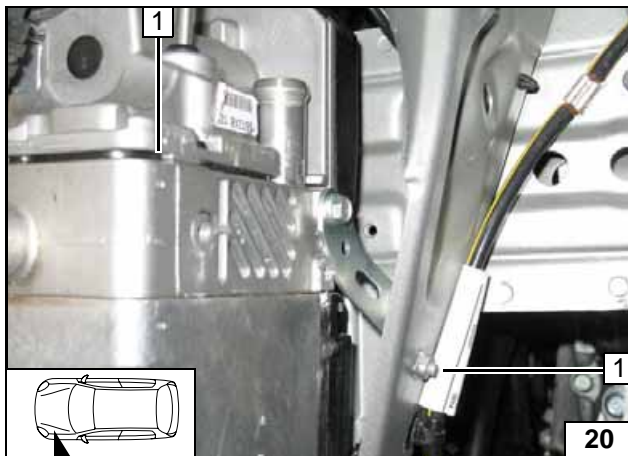
**Drilling hole in cross member**



- 1 M6x20 bolt, flanged nut [2x each]



**Installing heater unit**



- 1 Tighten M6x20 bolt

**Installing heater unit**



### Coolant connection

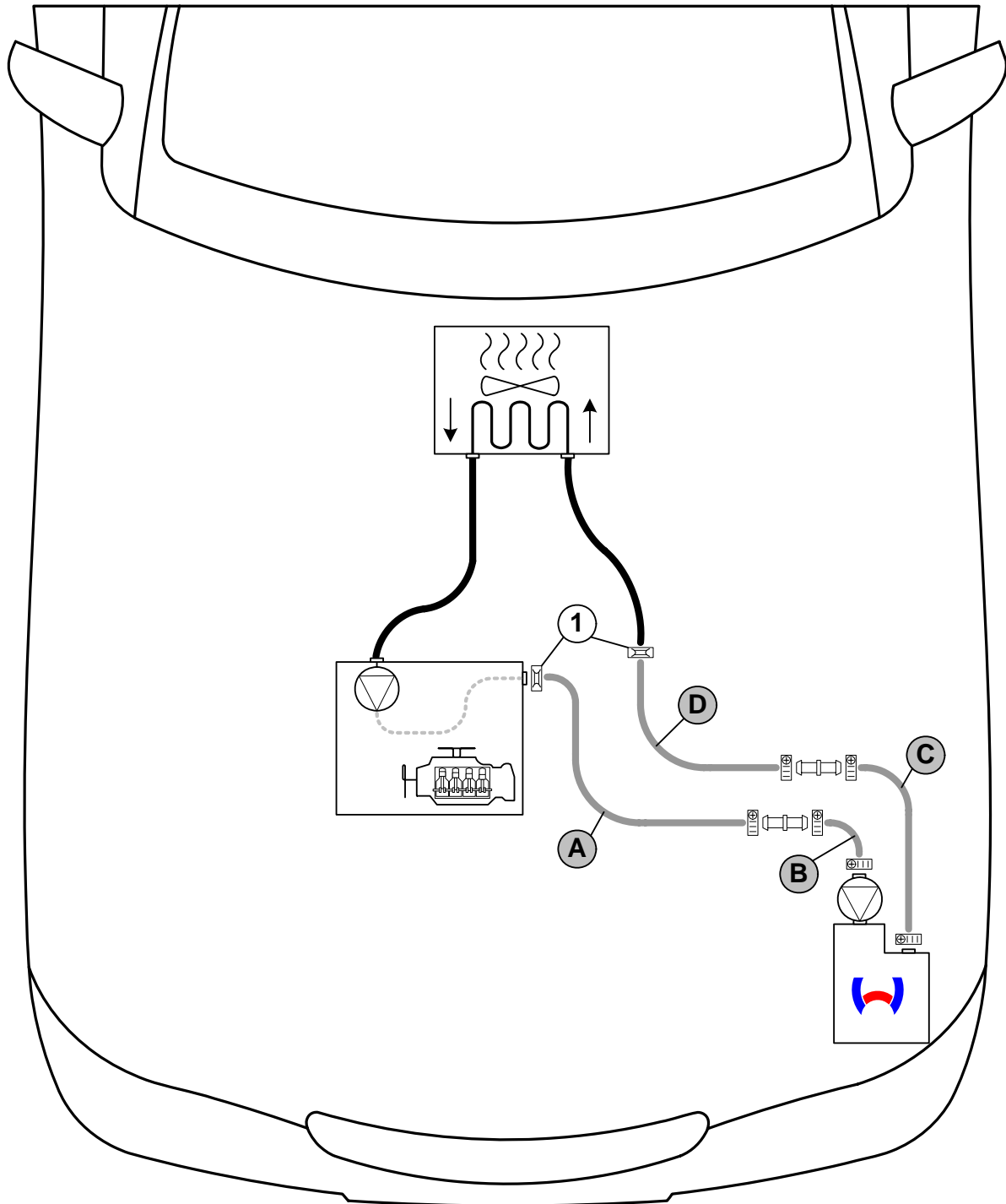
**WARNING!**

Tighten all hose clamps to 2.0 + 0.5 Nm.


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


Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties.


Position hose clamps and spring band clamps so that no other hose can be damaged. The connection should be "inline" based on the following diagram:



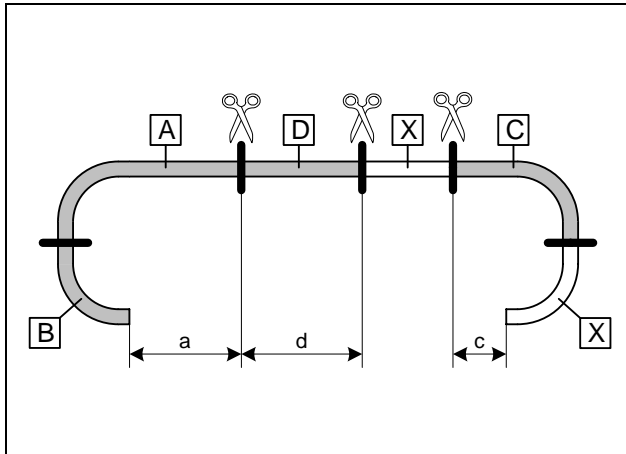
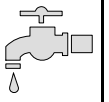
Coolant routing diagram

All connecting pipes  = 20x20 dia..

All hose clamps  = 20-27 mm dia.

1 = Original vehicle spring clips .



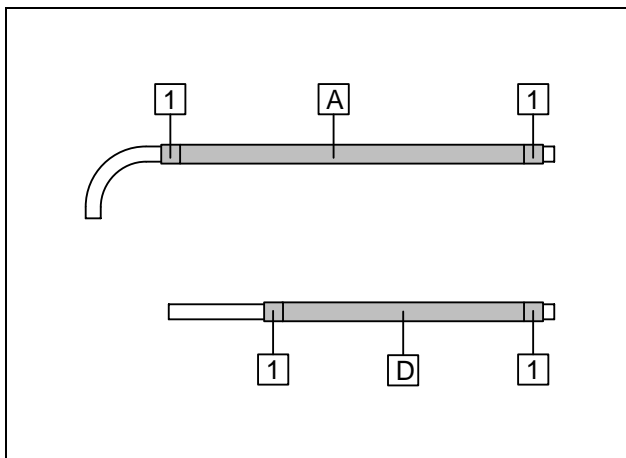


a = 630 mm  
c = 110 mm  
d = 660 mm

Hose B = 90° elbow  
Discard section X



**Cutting coolant hoses to length**

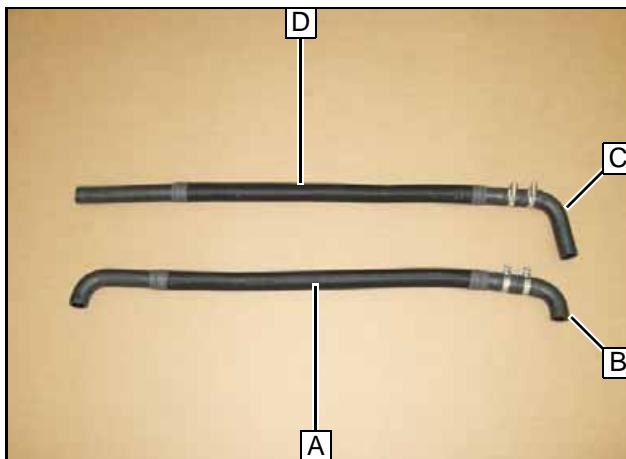


Cut braided protection hose in middle and, push onto hose A and D and cut to length. Cut heat shrink plastic tubing to size and shrink.

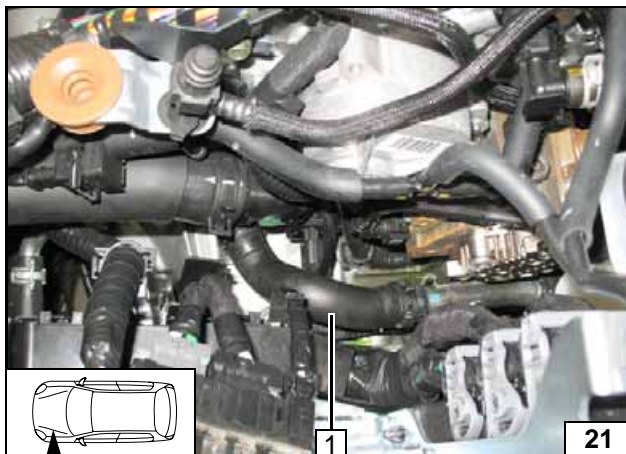
1 25 mm heat shrink plastic tubing [4x]



**Slide on braided protection**



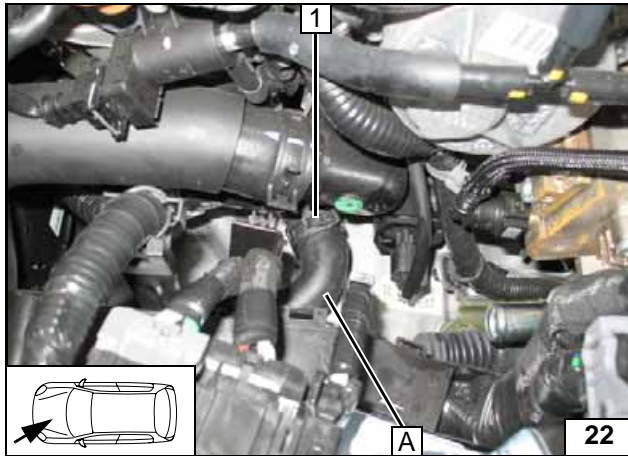
**Preparing coolant hoses**



Remove original vehicle hose on engine outlet/heat exchanger inlet 1 and discard. Spring clip will be reused!

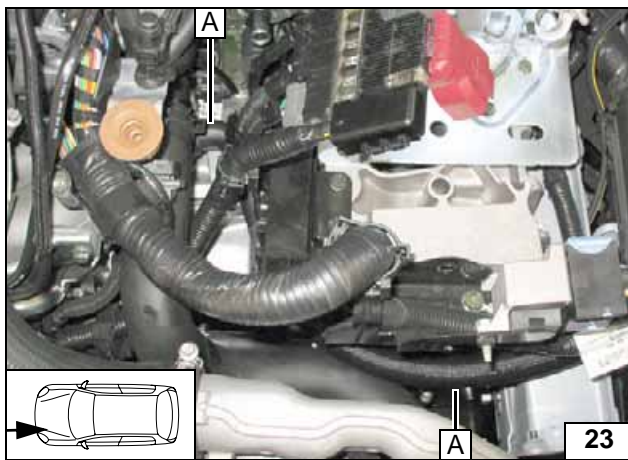


**Cutting point**

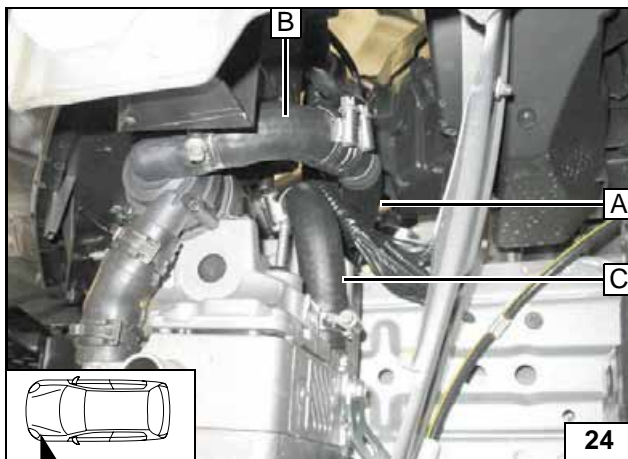


1 Original vehicle spring clip

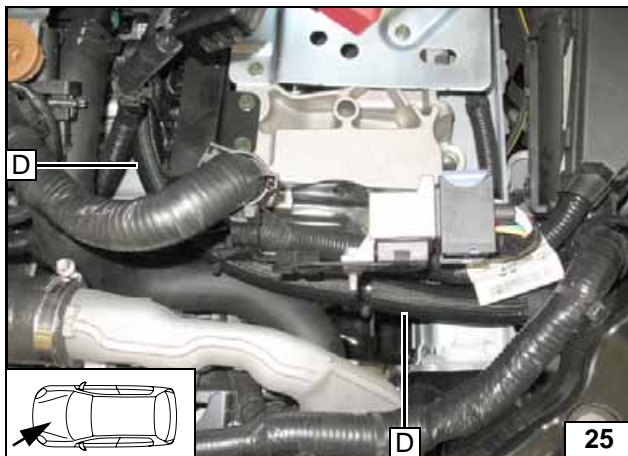
Con-  
nection on  
engine  
outlet



Routing in  
engine  
compart-  
ment

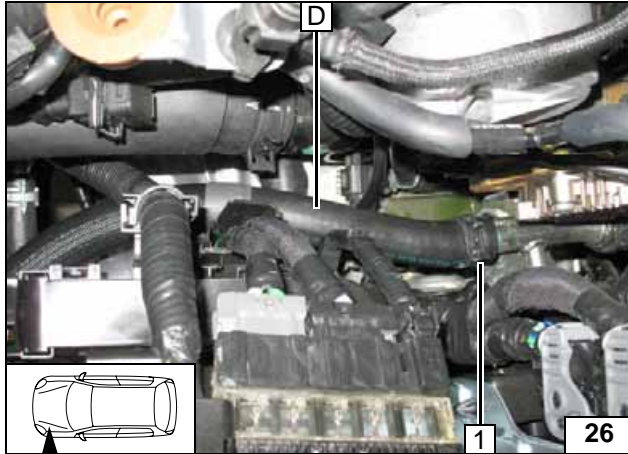


Con-  
nection to  
heater unit



Routing in  
engine  
compart-  
ment





Before connecting, fill the coolant hoses with coolant.

- 1 Original vehicle spring clip



**Con-  
nection to  
heat  
exchanger  
inlet**



## Fuel Connection

### CAUTION!

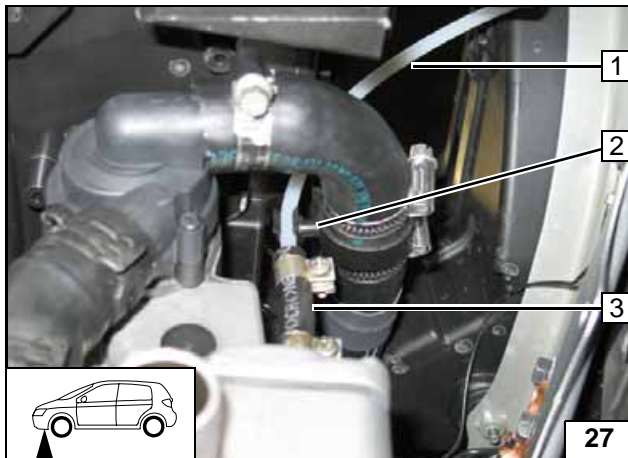
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off with an appropriate container.

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

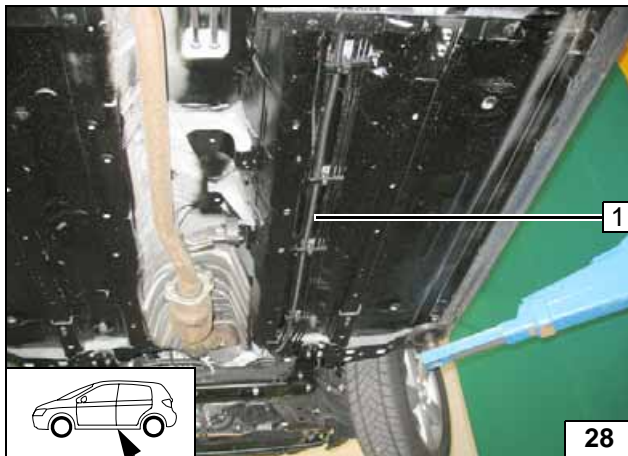
### WARNING!

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



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

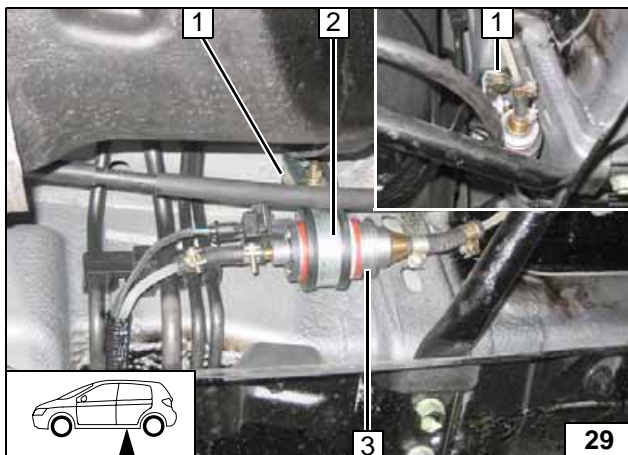
Con-  
nection to  
heater unit



Route fuel line from heater unit and wiring harness of metering pump in corrugated tube 1 as shown and secure with cable ties.



Installing  
lines

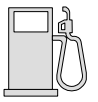


Check the position of the components; adjust if necessary. Check that they have free clearance.

- 1 Original vehicle bolt for fastening fuel tank, angle bracket on short leg drilled out to 10.5 mm dia.
- 2 Rubber-coated p-clamp, silent block, flanged nut [2x]
- 3 Metering pump



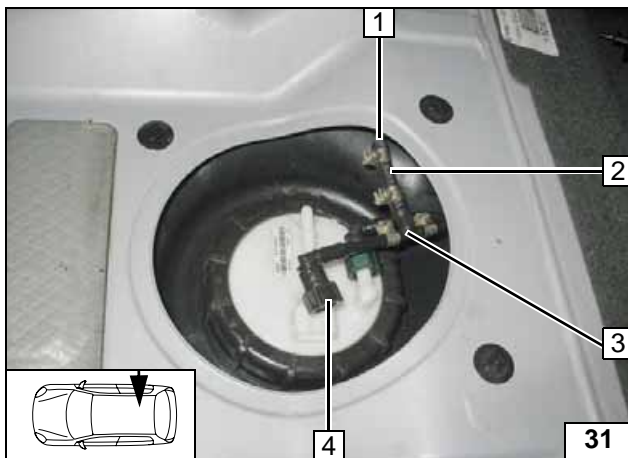
Installation  
location of  
metering  
pump



Fuel line **3** from heater unit on pressure side of metering pump **1**.  
Check the position of the components; adjust if necessary. Check that they have free clearance.

- 2** Hose section, 10 mm dia. hose clamps [2x]
- 4** Wiring harness of metering pump, connector mounted

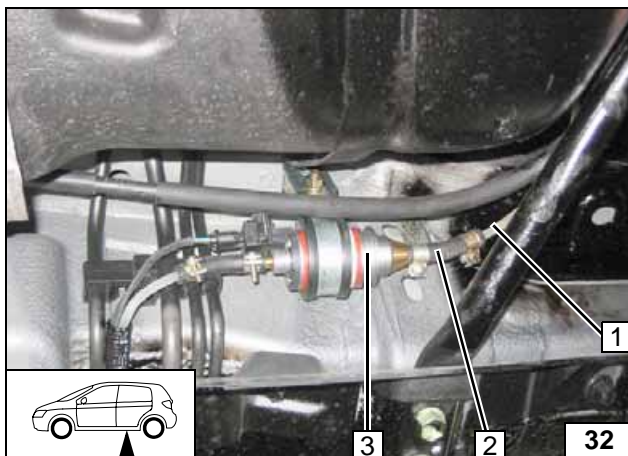
**Connecting to metering pump**



Separate fuel return line **4** approx. 50 mm before coupling.

- 1** Fuel line
- 2** Hose section, 10 mm dia. hose clamp [2x]
- 3** 6x5x6 fuel standpipe, 8 mm dia. hose clamp [2x]

**Removing fuel**

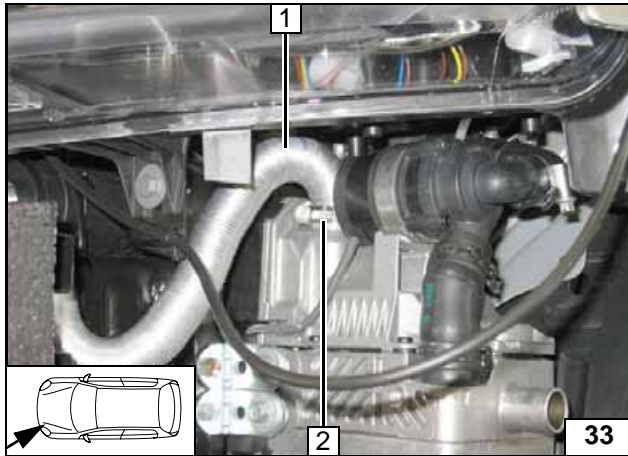
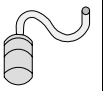


Fuel line **1** from fuel standpipe on intake side of metering pump **3**.  
Check the position of the components; adjust if necessary. Check that they have free clearance.

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

**Connecting to metering pump**

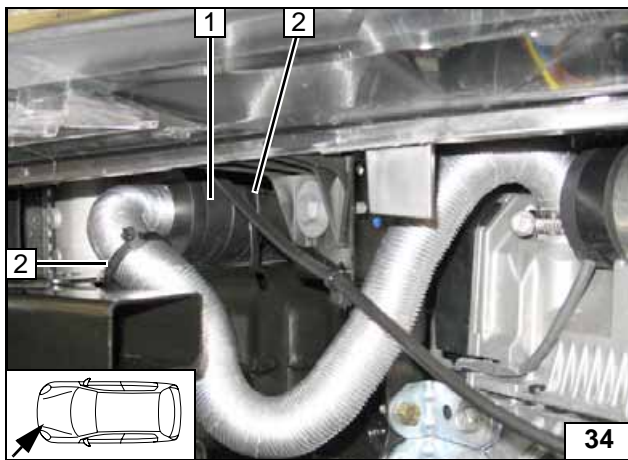




**Combustion air**

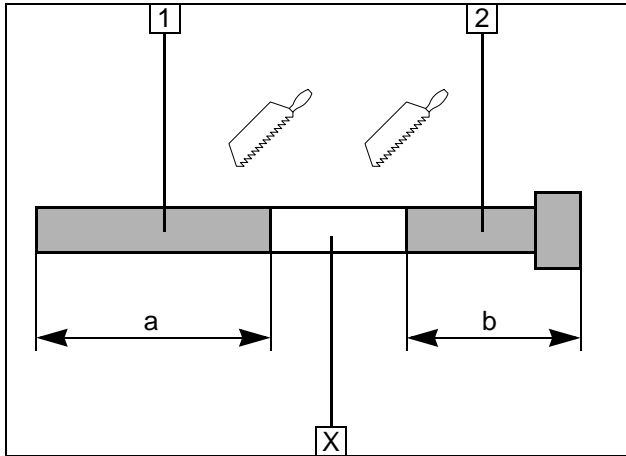
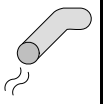
- 1 Combustion-air intake pipe
- 2 27 mm dia. hose clamp

**Installing combustion air pipe**



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

**Installing muffler**

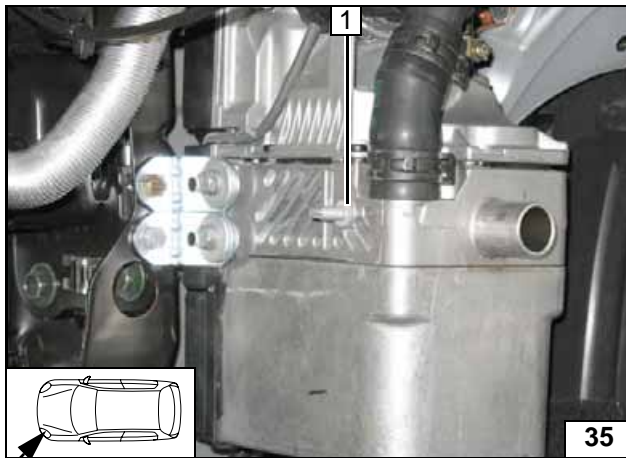


**Exhaust system**

- 1 Exhaust pipe  
a = 290 mm
- 2 Exhaust end section  
b = 280 mm

Discard section X

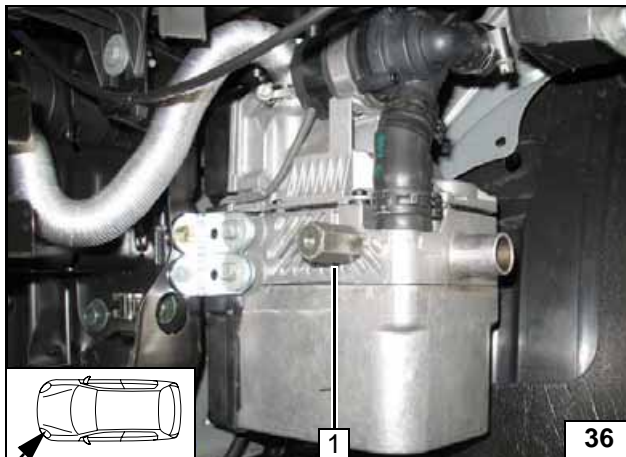
**Preparing exhaust pipe**



Eject stud 1, tightening torque 10 Nm.

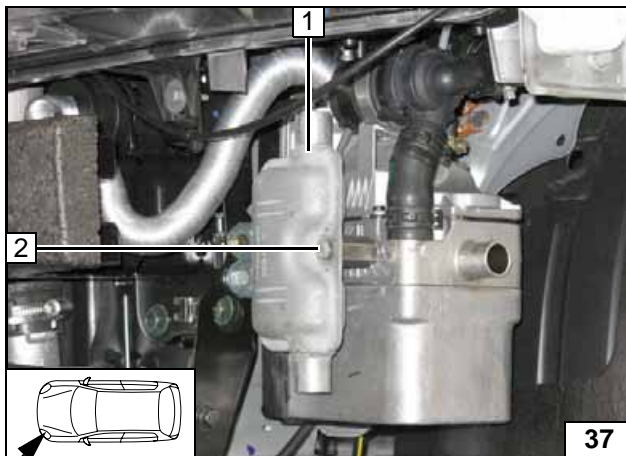


**Installing stud bolt**



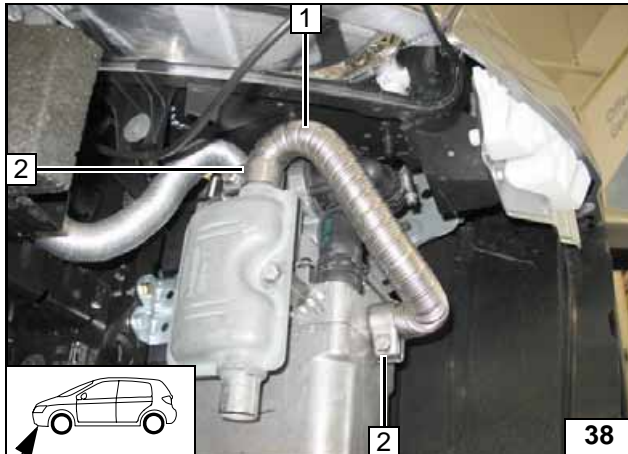
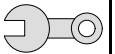
1 30 mm spacer nut on Eject stud

**Installing spacer nut**



- 1 Exhaust muffler
- 2 M6x12 bolt, spring lockwasher on spacer nut

**Installing muffler**

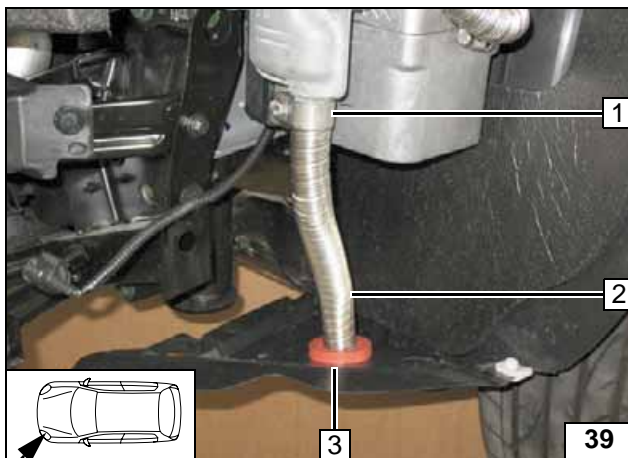


Ensure sufficient distance to neighboring components.

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



**Installing exhaust end section**

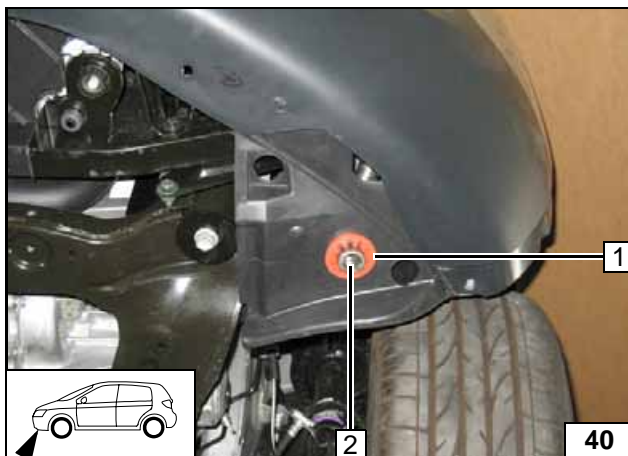


42 mm dia. hole in wheel well trim at position 3.

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



**Installing exhaust end section**



Align exhaust end section 2 flush on red rubber isolator 1.



**Installing exhaust end section**



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

**Final Work****WARNING!**

Reassemble the disassembled components in reverse order.

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

Secure all loose cables using cable ties.

Only use manufacturer-approved coolant.

Spray the heater unit components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer.
- Make settings according to the "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.



## Operating Instructions for End Customer



Please remove page and add to the vehicle operating instructions.



**Note:**

We recommend matching the heating time to the driving time.

Heating time = driving time

**Example:**

For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

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



Before parking the vehicle, make the following settings:



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

Automatic  
air-con-  
ditioning