

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

2,0L Diesel

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 ³ |
|-------------|--------------|--------------|---------------------------------|
| 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).

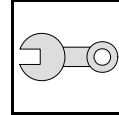
Special Tools

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

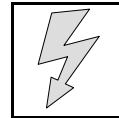
Explanatory Notes on Document

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.

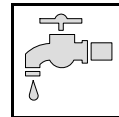
Mechanical system



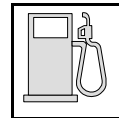
Electrical system



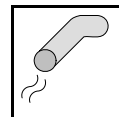
Coolant connection



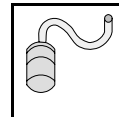
Fuel connection



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.



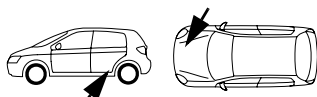
Specific risk of fire or explosion.



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 fuel tank cap, ventilate 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).

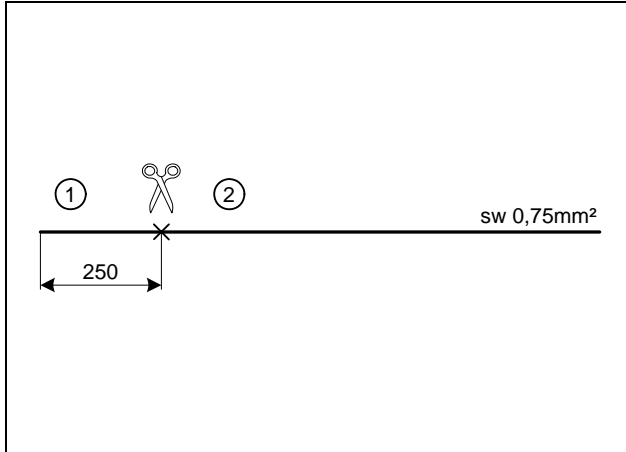
Remove page 23 "Operating Instructions for End Customer" and insert with vehicle operating instructions.



Heater unit installation location

1 Heater unit

Installation
location

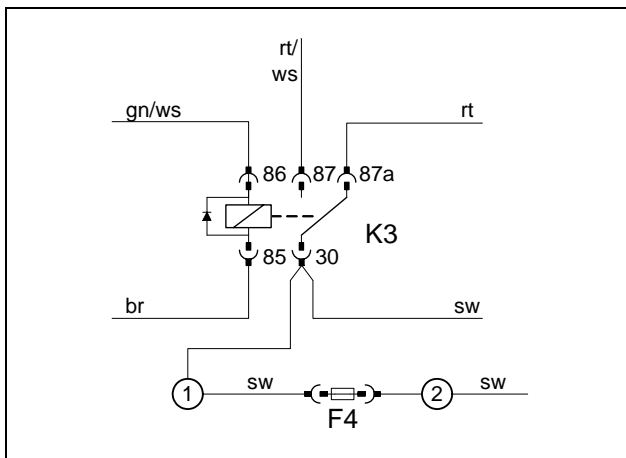


Preparing electrical system

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.



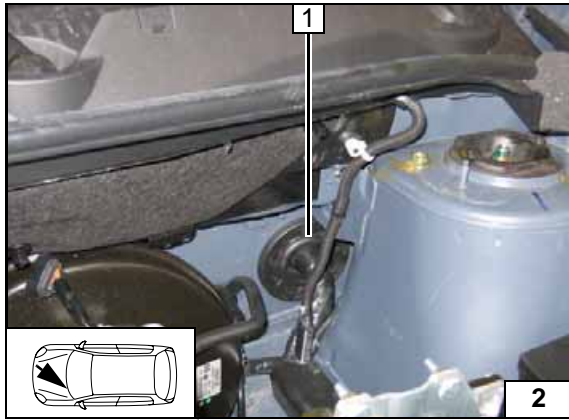
Preparing fuse F4



Electrical Connections

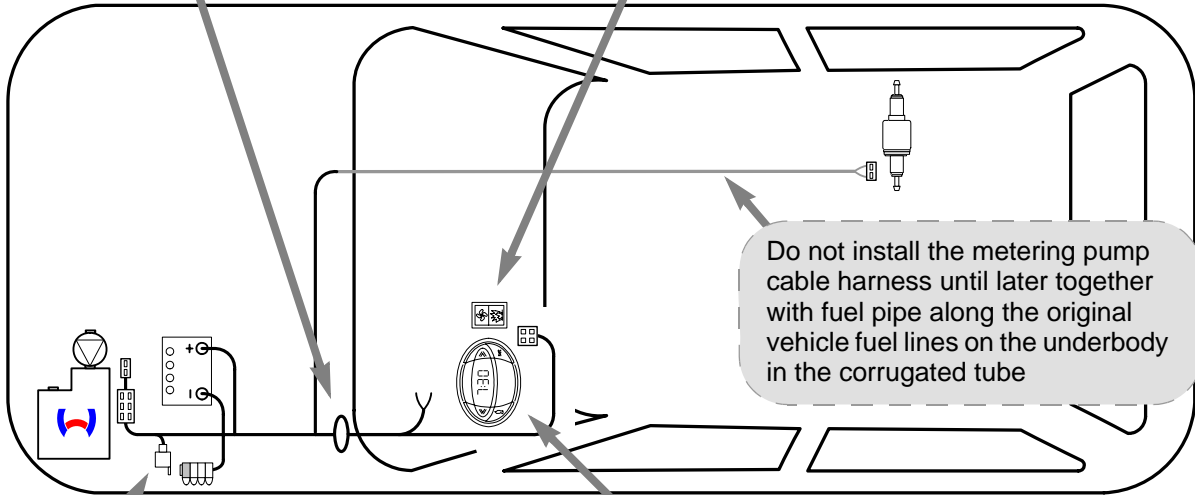
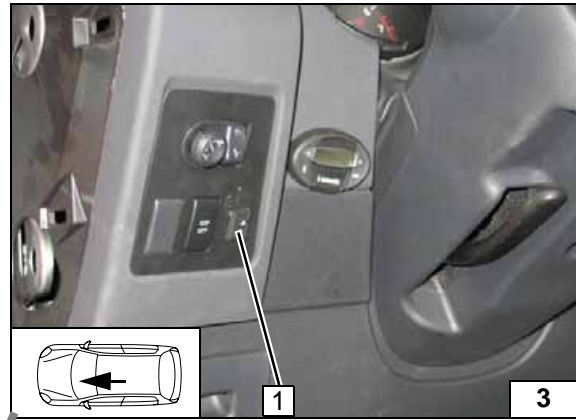
Wiring harness pass through

1 Protective rubber plug

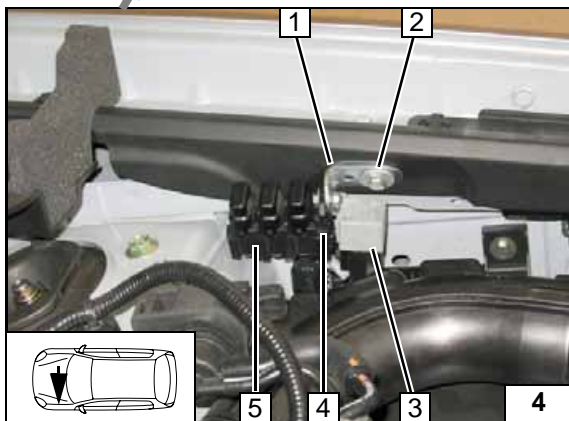


Summer/winter switch option

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



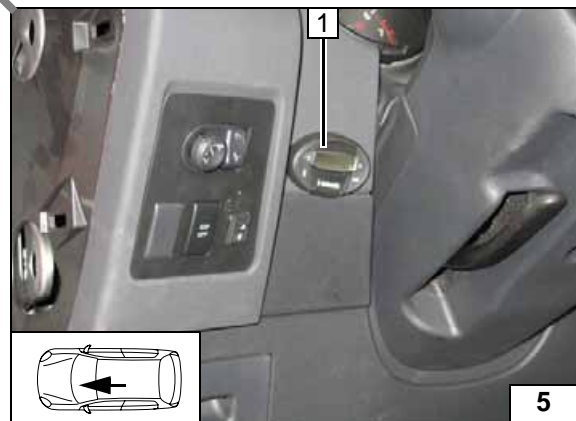
Wiring harness installation diagram



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

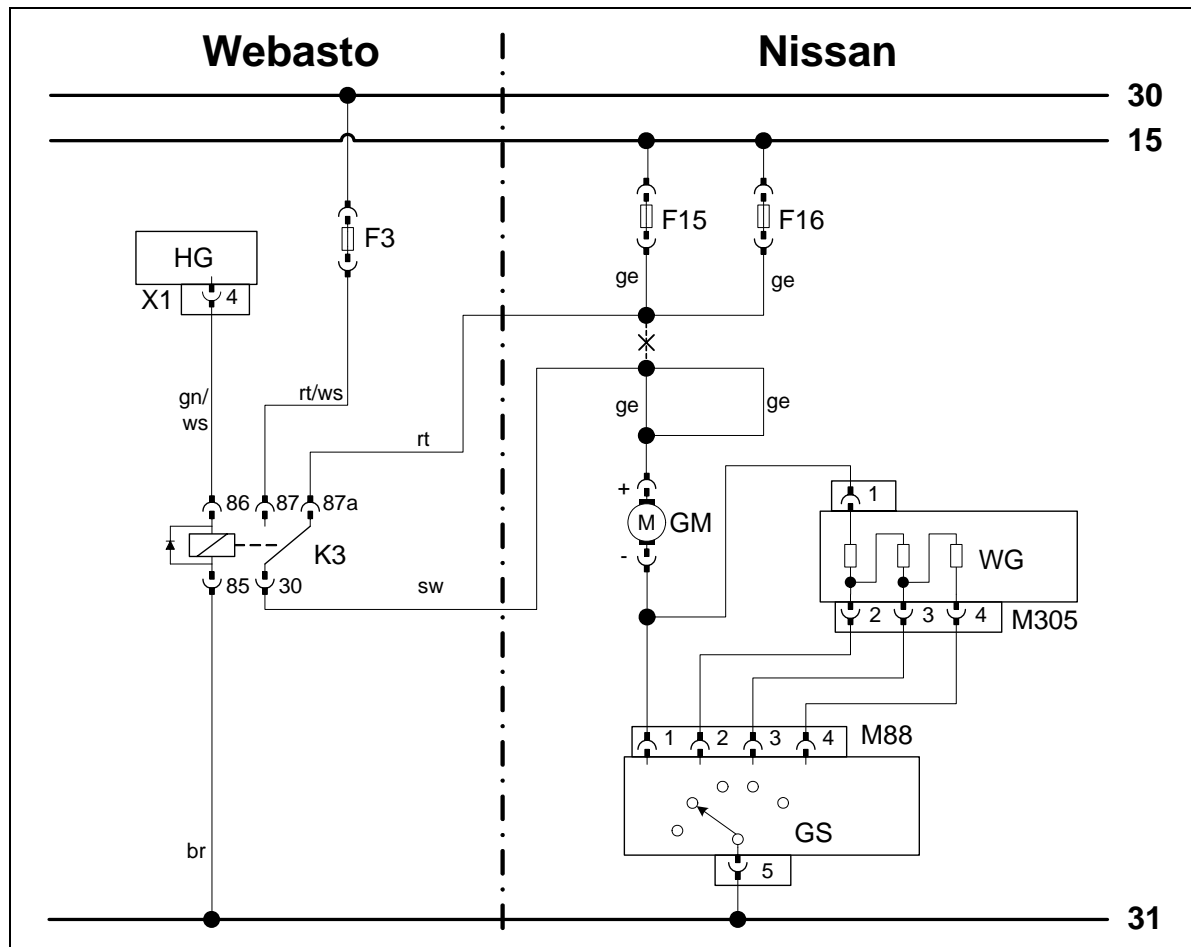


Digital timer

1 Digital timer



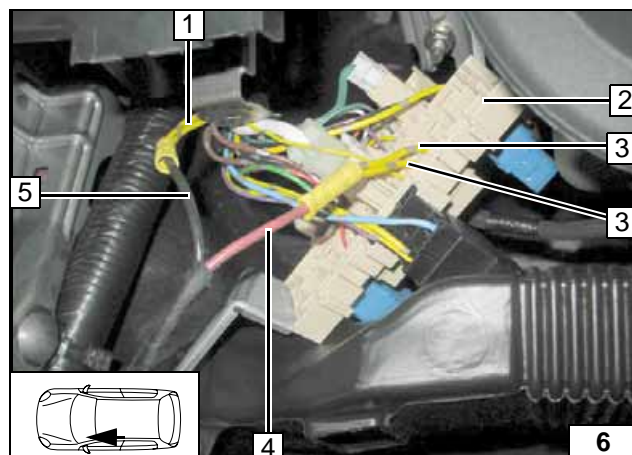
Fan controller for manual air conditioning



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



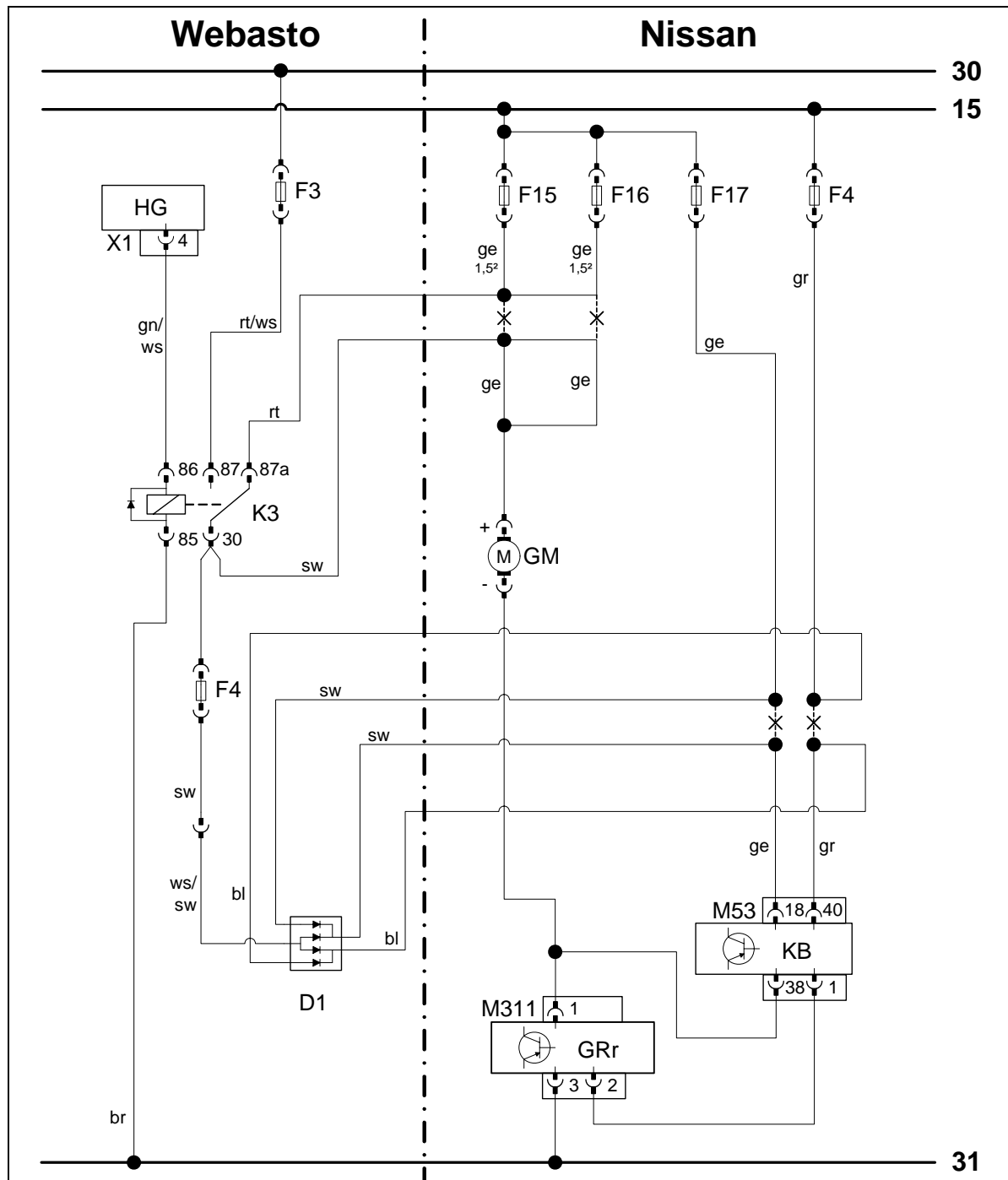
Connecting fan-motor



Automatic air-conditioning fan controller

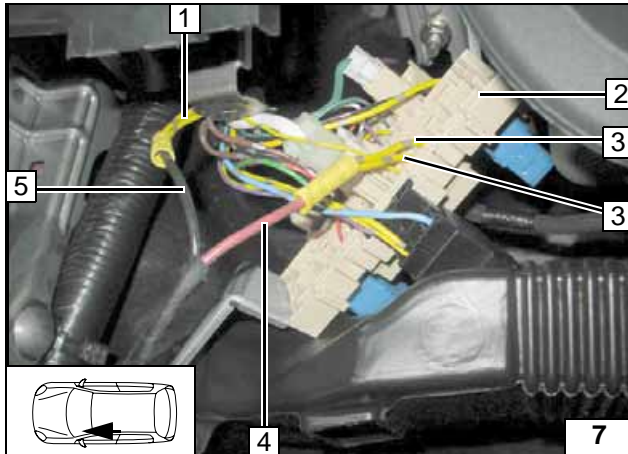


Wiring diagram



| 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

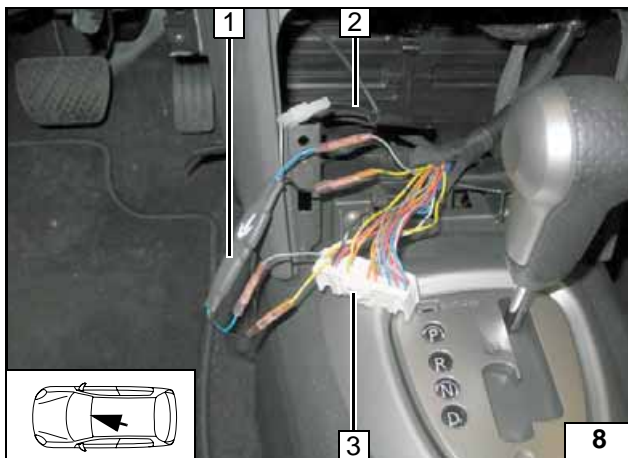


Connection on central electrical box **2** on driver's side.
Produce connections as shown in wiring diagram.

- 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



**Connect-
ing fan mo-
tor**

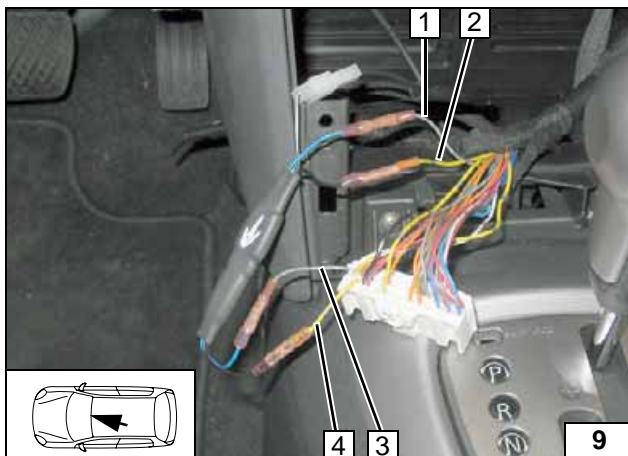


Connection to 40-pin connector M53 **2** from A/C control panel.
Produce connections as shown in wiring diagram.
Watch direction of flow of diode group D1 **3**.

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



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

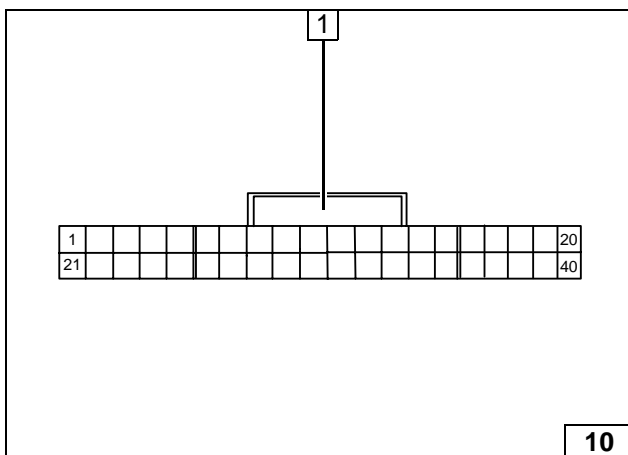


Produce connections as shown in wiring diagram.

- 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



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

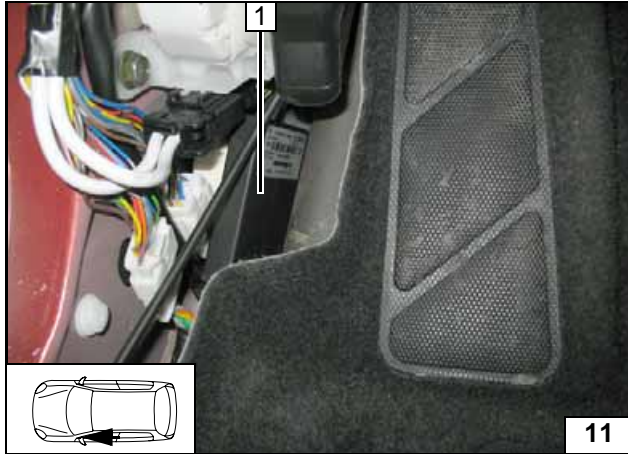
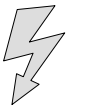


Connector imprint may differ from wiring diagram!

- 1 Connector M53 on line side



**View of
connector
M53**

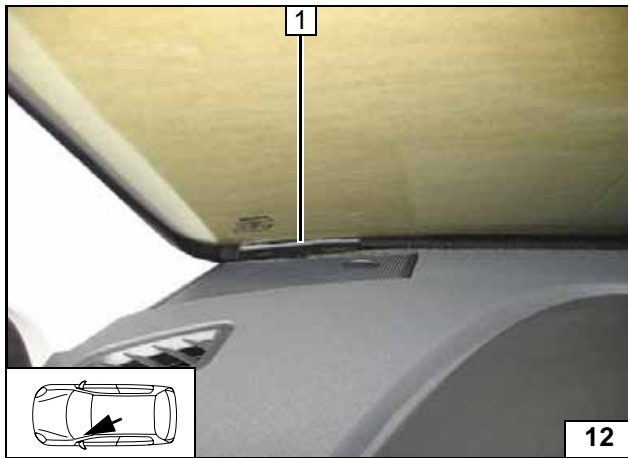


Remote option (Telestart)

Fasten receiver 1 with double-sided adhesive tape.

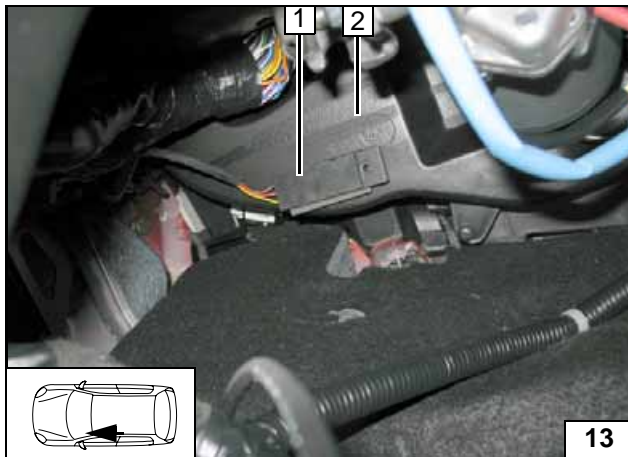


Installing receiver



1 Antenna

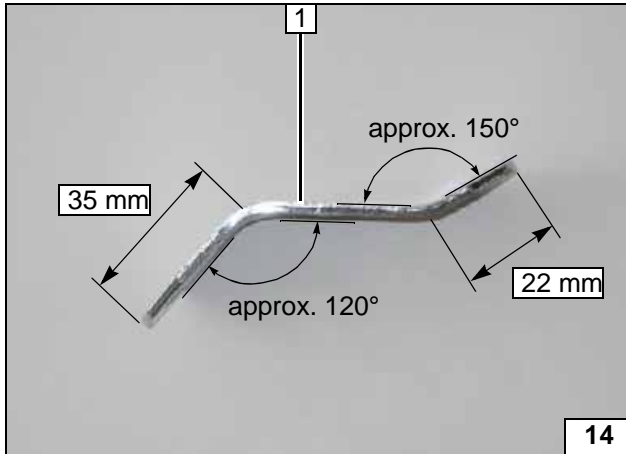
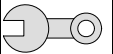
Installing antenna



Temperature sensor for HTM100 only

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

Installing temperature sensor



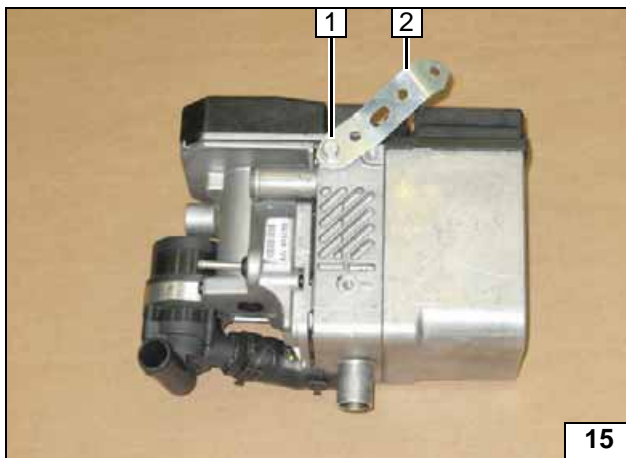
14

Preparing heater unit

Angle down perforated bracket 1.



Bending perforated bracket



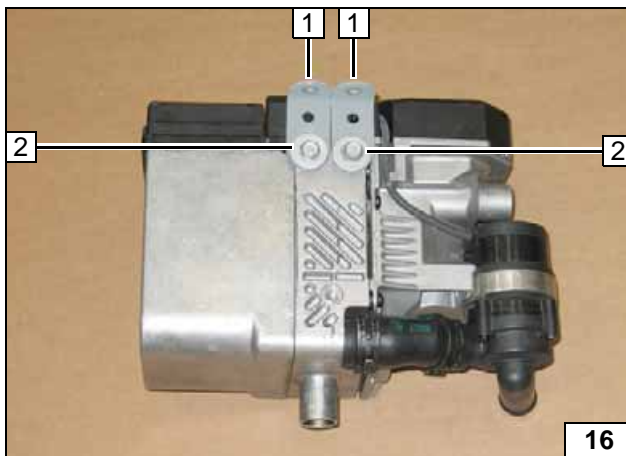
15

Ejot screw bolt, tightening torque 10 Nm!

- 1 E-jot screw
- 2 Perforated bracket, mount loosely



Premounting perforated bracket



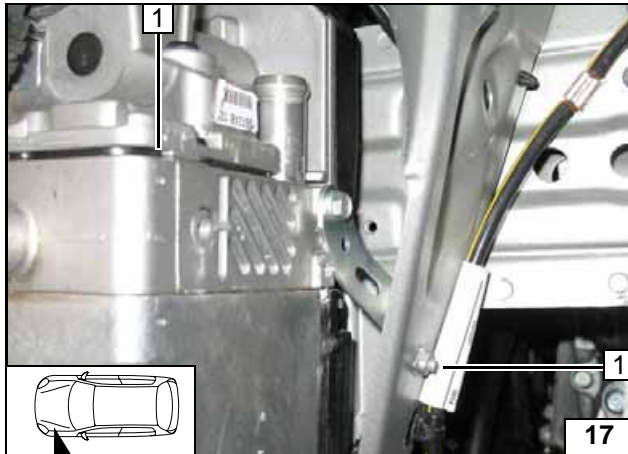
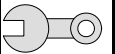
16

Ejot screw bolt, tightening torque 10 Nm!

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



Premounting angle bracket

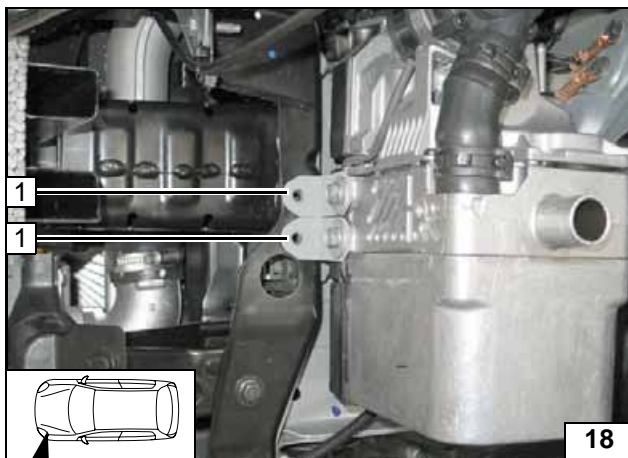


Installing heater unit

Before installing, push on wiring harness of heater unit.

- 1 M6x20 bolt, spring lockwasher in existing threaded hole

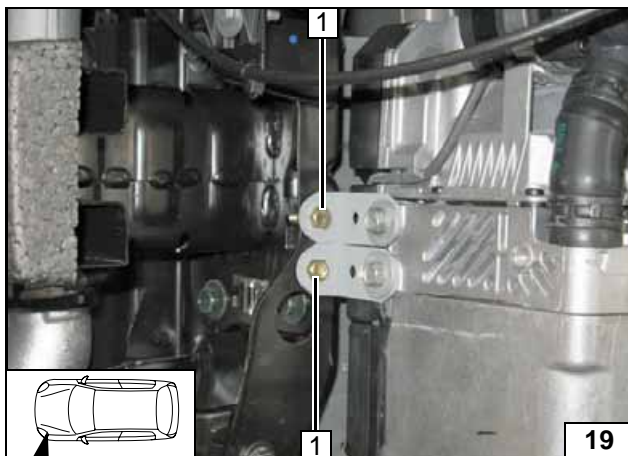
Loosely mounting heater unit



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



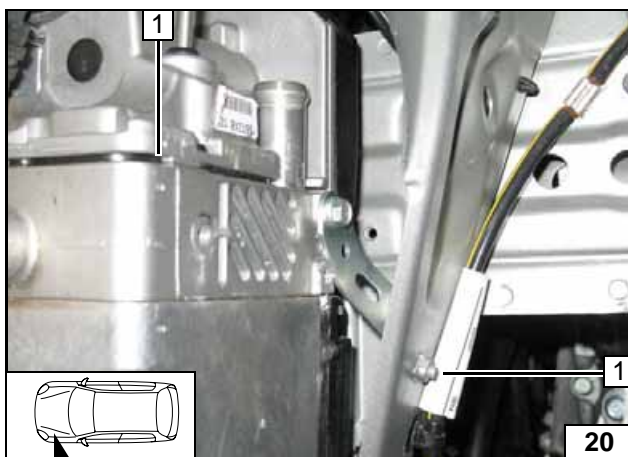
Drilling hole in cross member



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

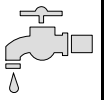


Installing heater unit



- 1 Tighten M6x20 bolt

Installing heater unit



Coolant connection

WARNING!

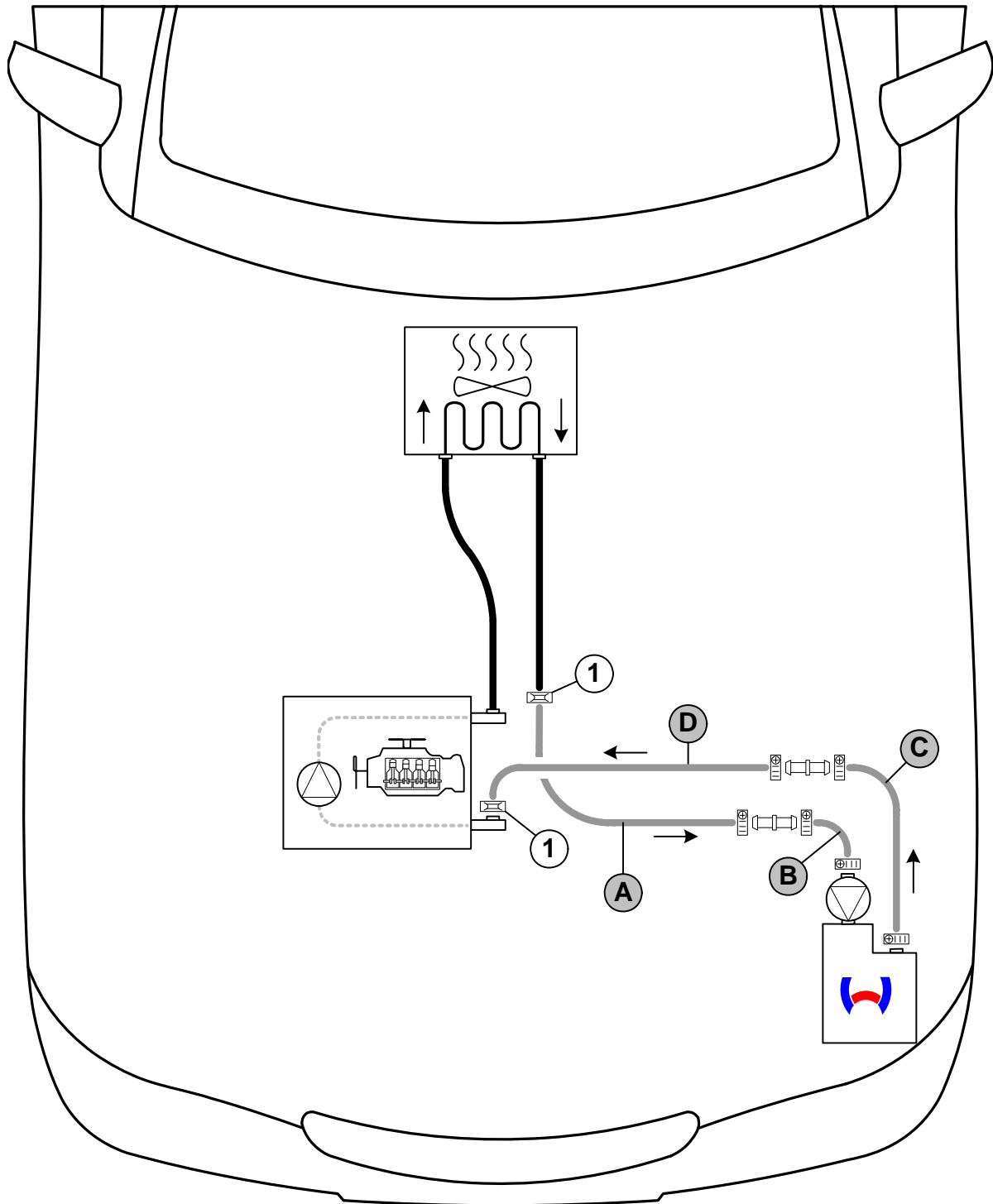
Tighten all hose clamps to 2.0 + 0.5 Nm.

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:

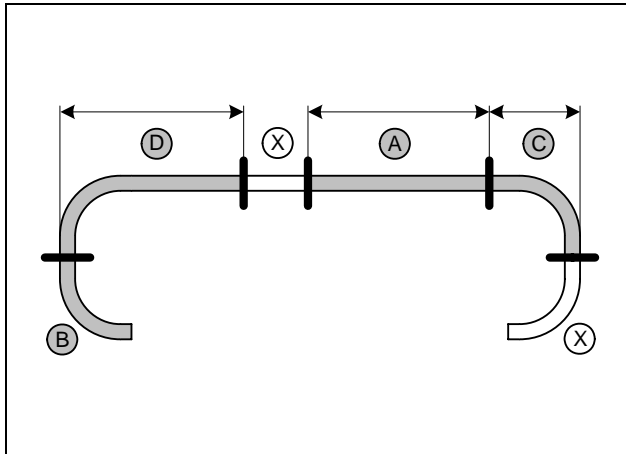
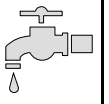
The coolant connection which differs from the standard for routing-related reasons!



Coolant routing diagram

All connecting pipes  = 20x20 dia..
 All hose clamps  = 20-27 mm dia.
 1 = Original vehicle spring clips .



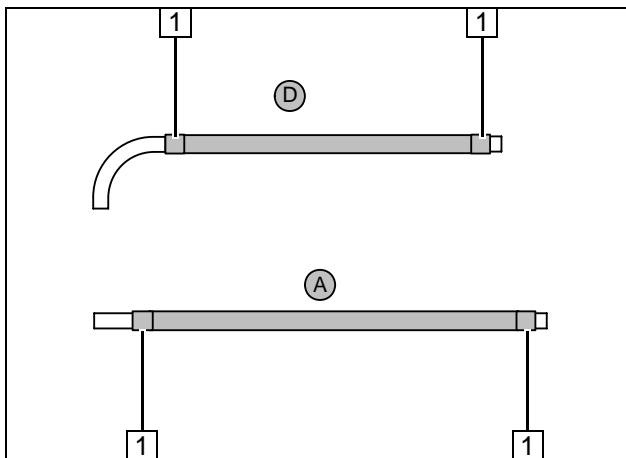


a = 680 mm
c = 110 mm
d = 520 mm

Hose B = 90° elbow
Discard section X



Cutting coolant hoses to length

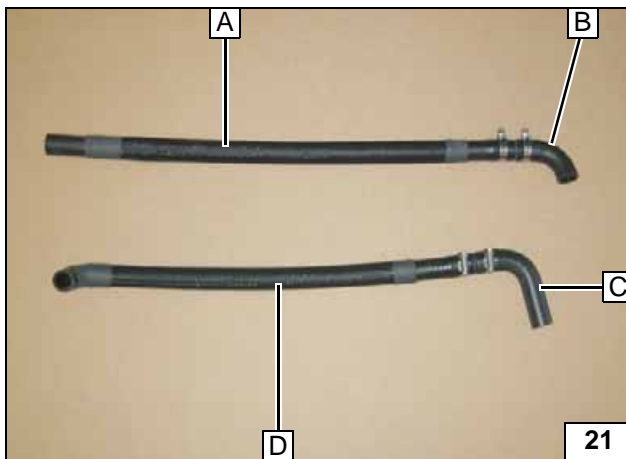


Cut braided protection hose in middle and, push onto hose A and D and cut to length. Cut heat shrink plastic tubing to size and shrink.

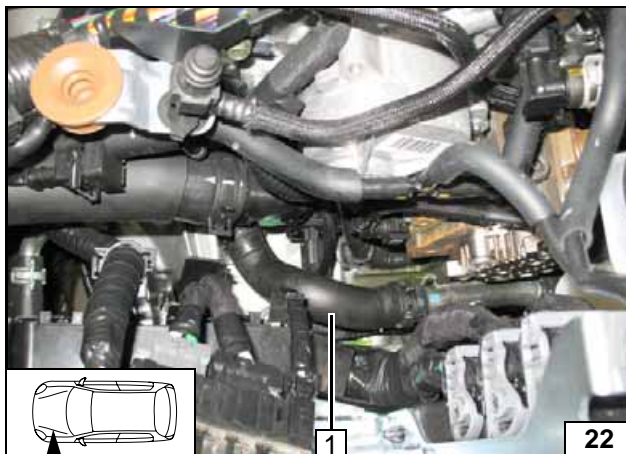
1 25 mm heat shrink plastic tubing [4x]



Slide on braided protection



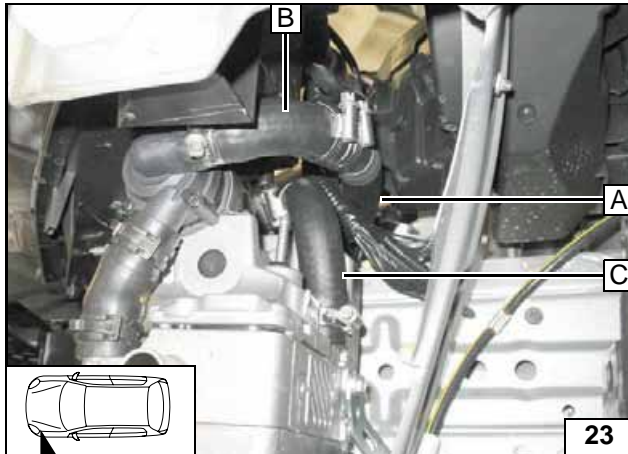
Premounting hoses



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

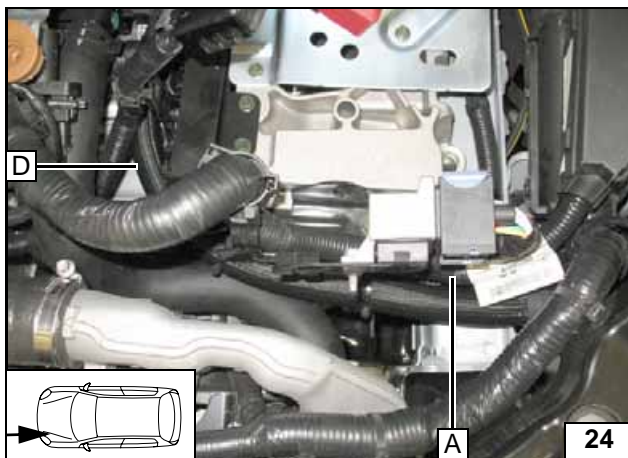


Cutting point



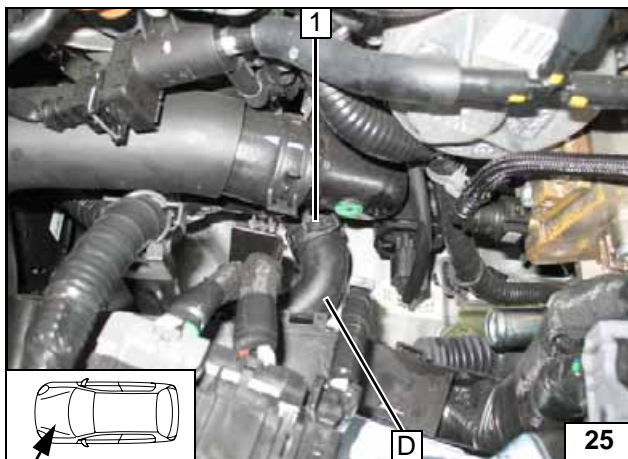
23

Conne-
ction to
heater unit



24

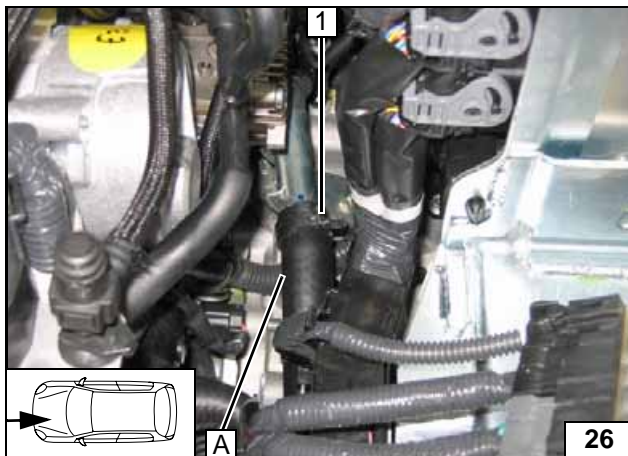
Routing in
engine
compart-
ment



25

Conne-
ction on en-
gine inlet

1 Original vehicle spring clip



26

Conne-
ction on
heat ex-
changer
outlet

Before connecting, fill the coolant hoses with coolant.

1 Original vehicle spring clip





Fuel Connection

CAUTION!

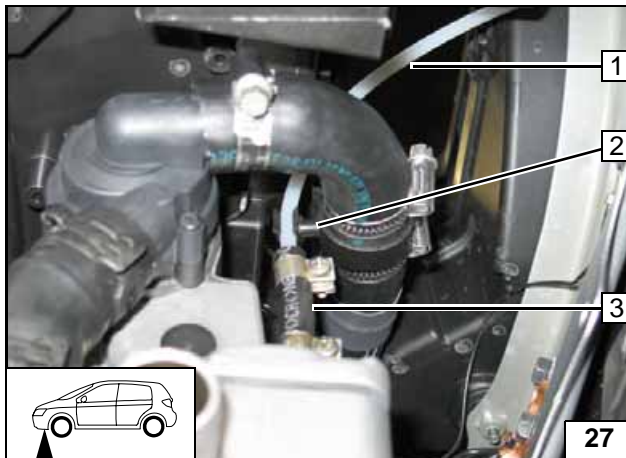
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

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.

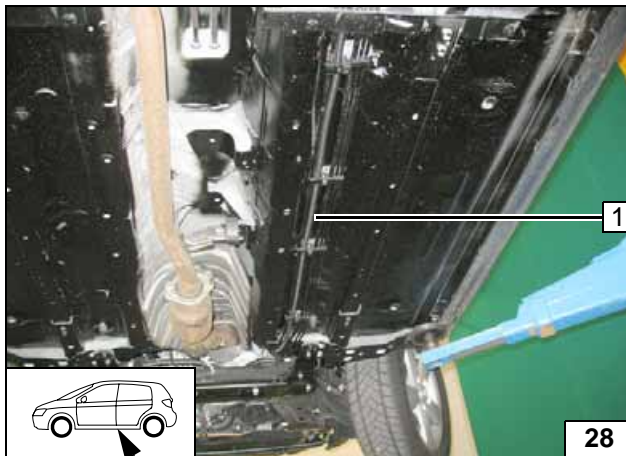
WARNING!

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]

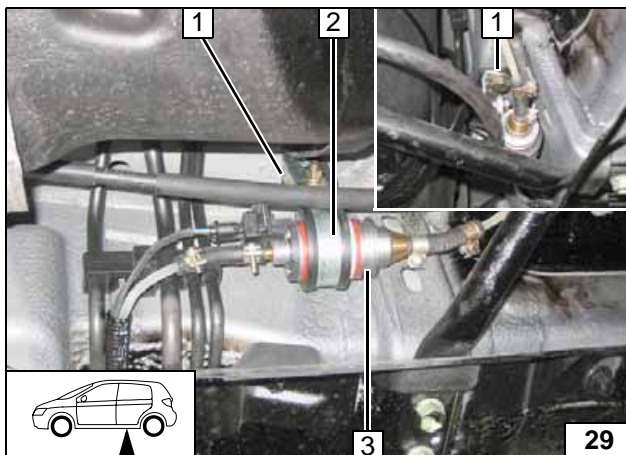
Con-
nection
to
heater unit



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

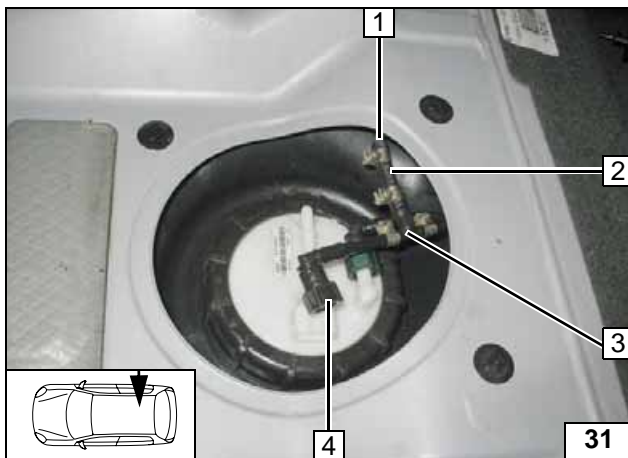
Installation
location of
metering
pump



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

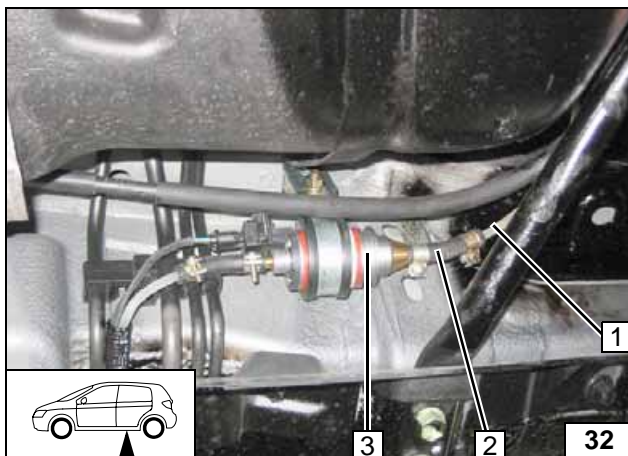
Connecting to metering pump



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

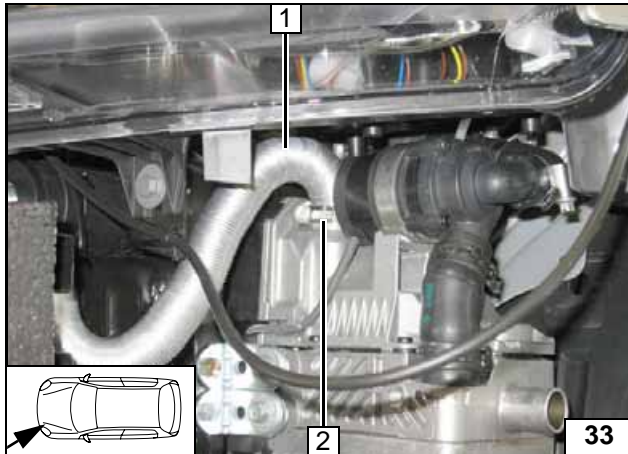
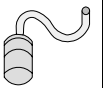


Fuel line **1** from fuel standpipe on intake side of metering pump **3**.
Check the position of the components; adjust if necessary. Check that they have free clearance.

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

Connecting to metering pump

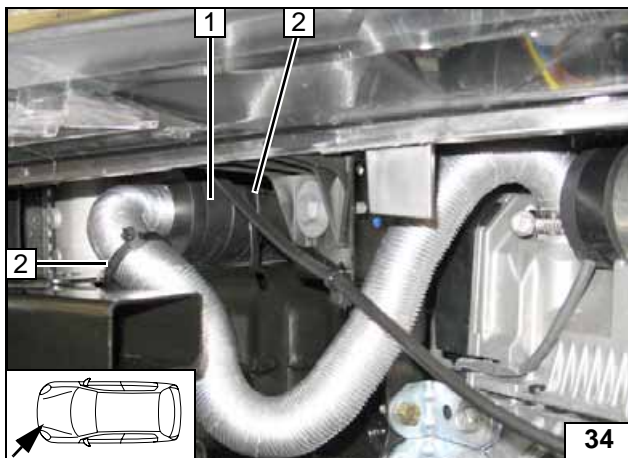




Combustion air

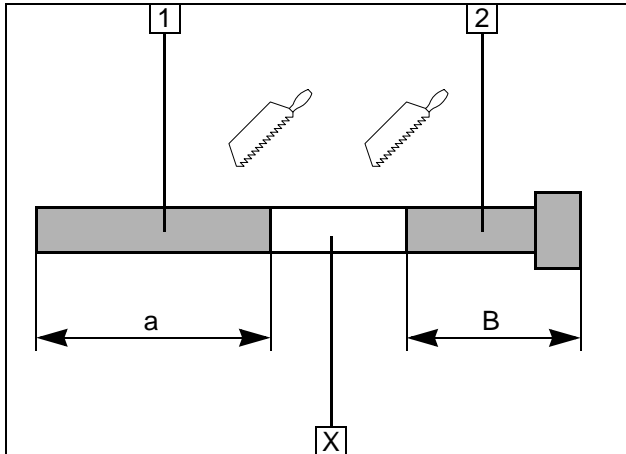
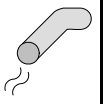
- 1 Combustion-air intake pipe
- 2 27 mm dia. hose clamp

Installing combustion air pipe



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

Installing muffler

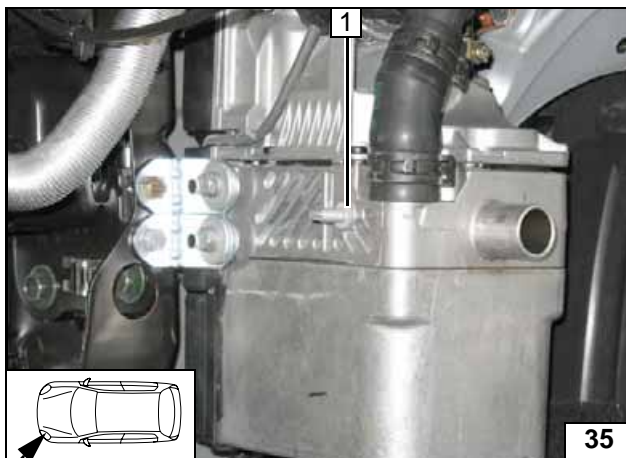


Exhaust system

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

Discard section X

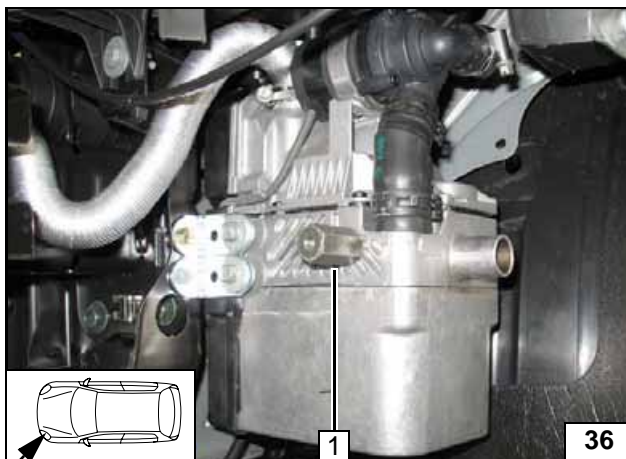
Preparing exhaust pipe



Eject stud 1, tightening torque 10 Nm.

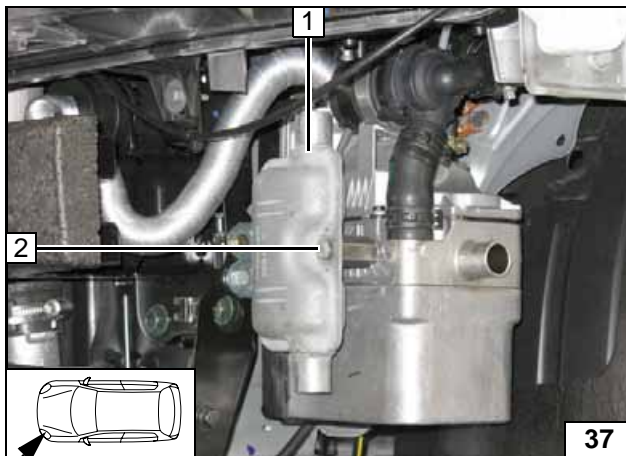


Installing stud bolt



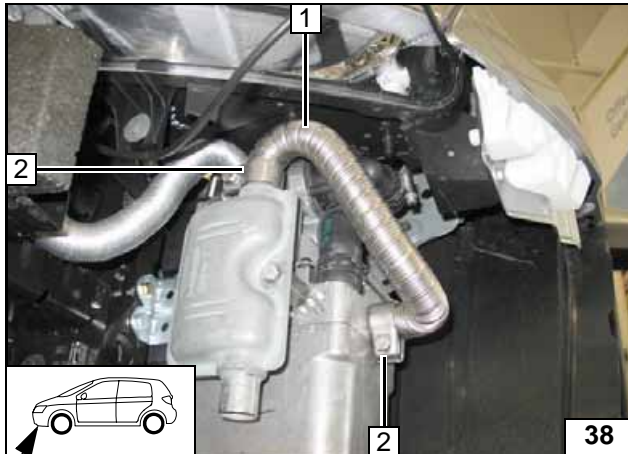
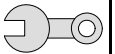
- 1 30 mm spacer nut on Eject stud

Installing spacer nut



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

Installing muffler

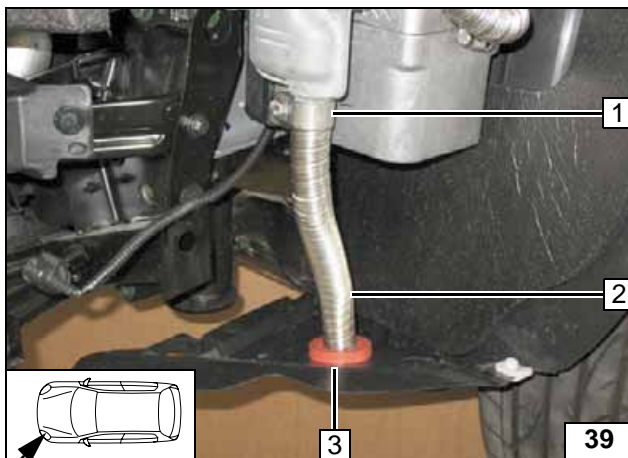


Ensure sufficient distance to neighboring components.

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



Installing exhaust end section

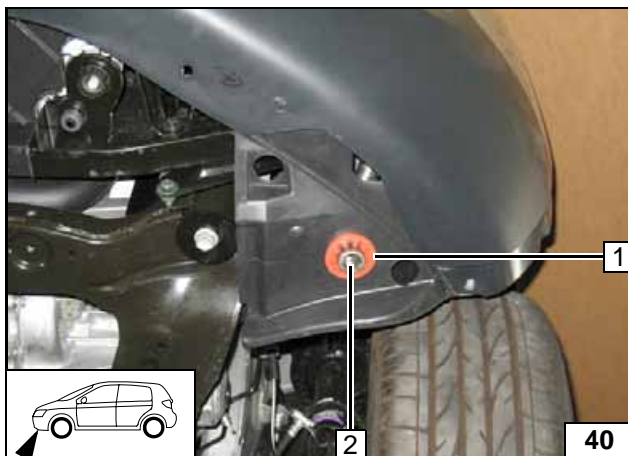


42 mm dia. hole in wheel well trim at position 3.

- 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-condi-
tioning**