

Water Heater



Thermo Top E Parking Heater


00 0003

Thermo Top C Parking Heater


00 0002

Installation documentation

Renault Clio / Clio Grandtour

International

Diesel

from Model Year: 2005

For left-hand drive vehicles only



WARNING!

Hazard warning:

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



Specialist company training, technical documentation, specialised tools and equipment are required to install and repair Webasto heating and cooling systems. Only original Webasto parts must be used. For this, also see the catalog of air and water heater accessories from Webasto.

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

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

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

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

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Validity

| Manufacturer | Model | Type | EG-BE No./ABE |
|--------------|-------|------|--------------------|
| Renault | Clio | R | e2* 2001/116* 0327 |

| Engine type | Engine model | Output in kW | Displacement in cm ³ |
|-------------|-----------------|--------------|---------------------------------|
| K9K | Diesel | 50 | 1461 |
| K9K | Diesel | 63 | 1461 |
| K9K | Diesel with FAP | 76 | 1461 |
| K9K | Diesel | 78 | 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 a digital timer and summer/winter switch should be confirmed with the end customer before installation.

Renault Clio / Clio Grandtour

Heater/Installation Kit

| Quantity | Description | Order No.: |
|----------|--|----------------|
| 1 | Retail accessories with desired heater control | See price list |
| 1 | Installation Kit for Renault Clio / Clio Grandtour Diesel (Int.) | 1310523B |

Heater recommended for the respective vehicle class:

| Vehicle | Heater |
|-----------------------------|--------------|
| Compact car | Thermo Top E |
| Mid-size car, station wagon | 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 Renault Clio / Clio Grandtour vehicles with a diesel engine - for validity, see page 2 - from model year 2005 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this installation documentation.

However, the stipulations in this "installation documentation", "operating instructions" and the "installation instructions" for the *Thermo Top C/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 must be provided with rub protection (cut-open fuel hose)!

Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

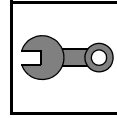
Special Tools

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

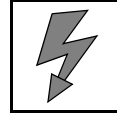
Explanatory Notes on Document

To provide you with a quick overview of the individual working steps, you will find an identification mark on the outside top right corner of the page in question.

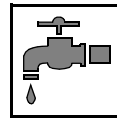
Mechanical system



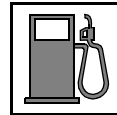
Electrical system



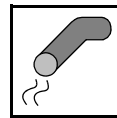
Coolant circuit



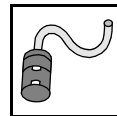
Fuel



Exhaust gas



Combustion air



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



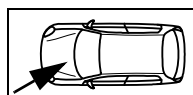
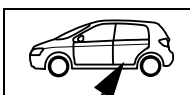
Specific risk of fire or explosion.



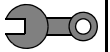
Reference to general installation instructions of Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature.



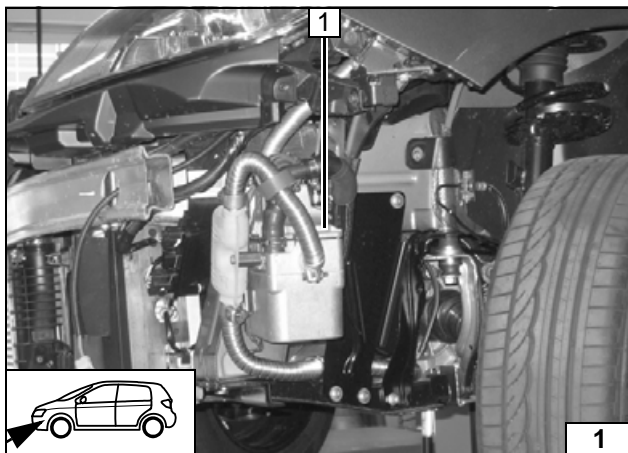
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.



Preliminary Work

WARNING!

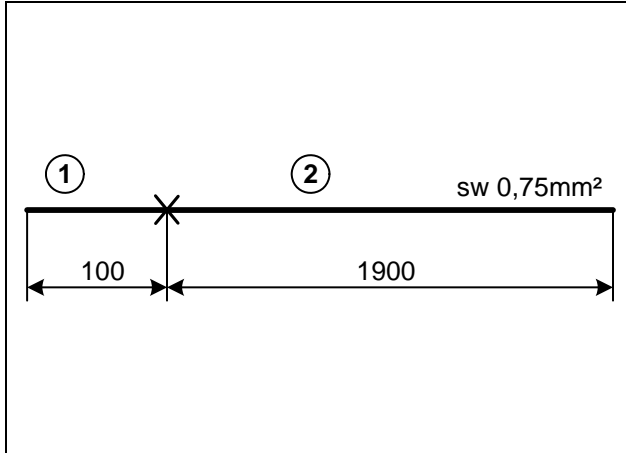
- Disconnect the battery "earth" or "ground" connection.
- Depressurise the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Remove the battery completely.
- Remove the air filter together with the intake hose.
- Open the fuel tank cap and vent the fuel tank.
- Close the fuel tank cap again.
- Remove the left wheel well trim.
- Remove the underride protection (if present).
- Remove the bumper.
- Open the tank-fitting service lid.
- Remove the glove compartment.
- Remove the left-hand instrument panel trim.



Heater installation location

(1) Heater

Installation location



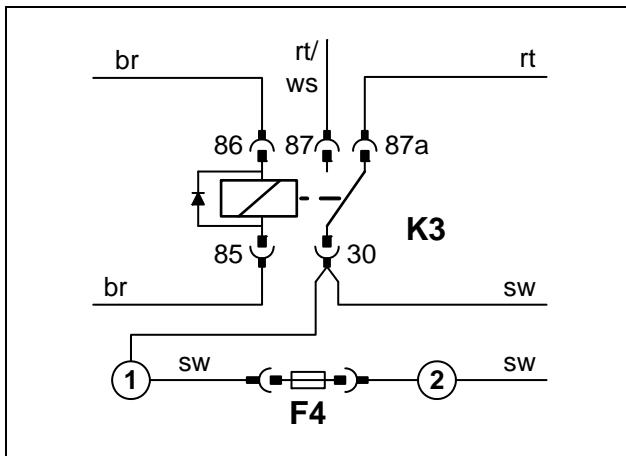
Preparing electrical system

Only with automatic air conditioning

Wire section 1 will be required later for connection of fuse F4 and wire section 2 for connection of A/C control panel.



Cutting wires to length



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



Premounting K3.1 relay

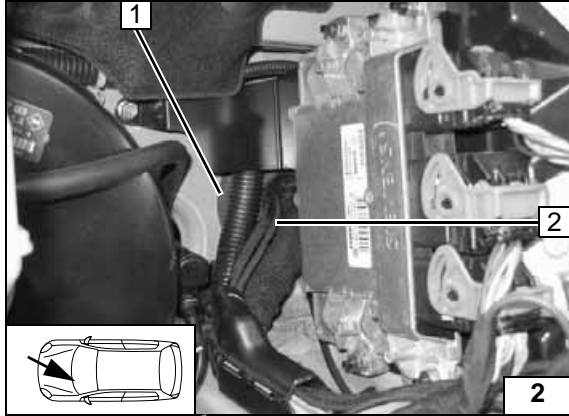


Electrical system



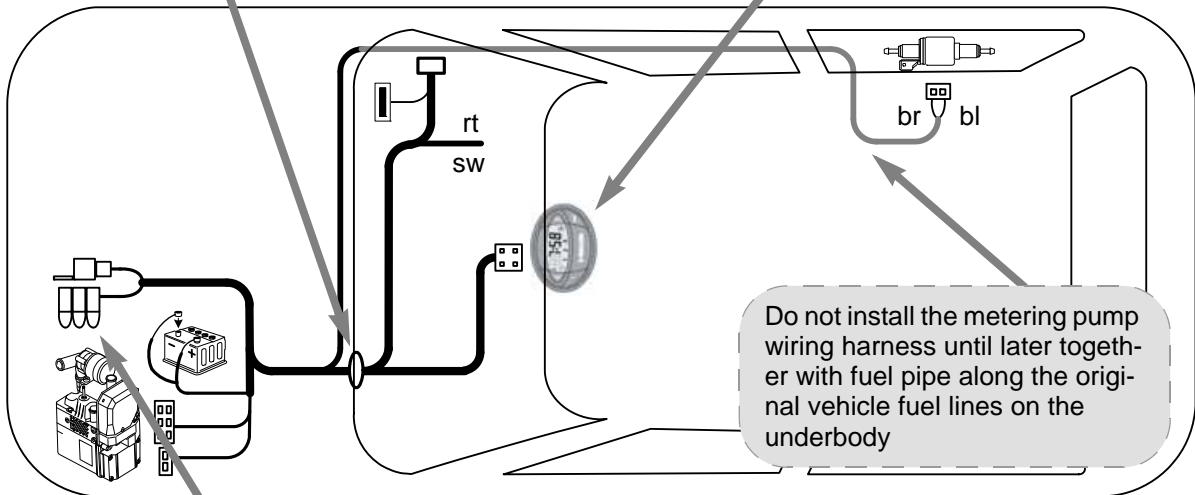
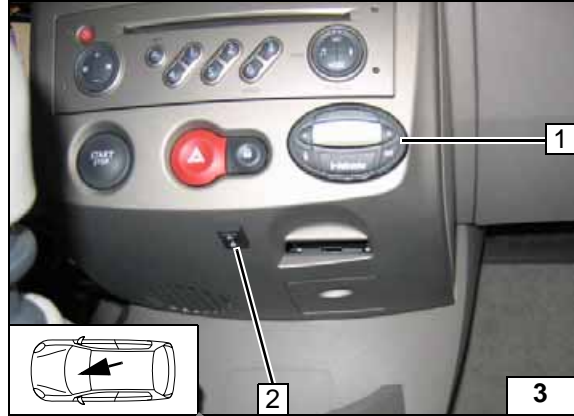
Wiring harness pass through

- (1) Protective rubber plug
- (2) Wiring harness of fan controller and Digital timer

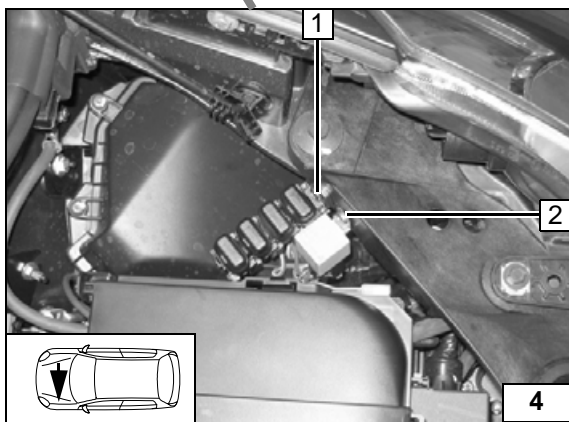


Digital timer / optional Summer/winter switch option

- (1) Digital timer
- (2) Summer/winter switch, 12 mm dia. hole

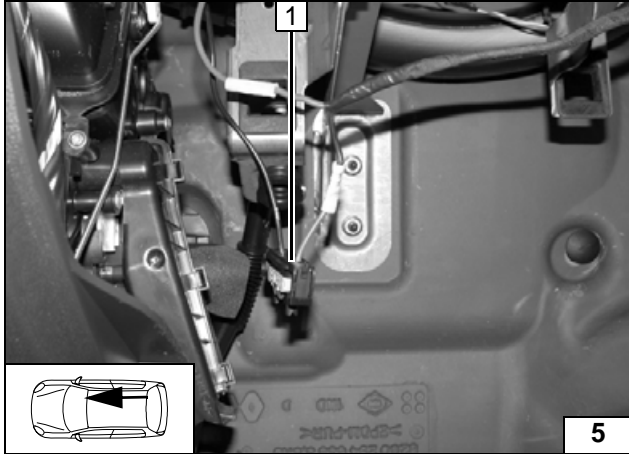


Wiring harness routing diagram



Fuse holder, K3 relay

- (1) Retaining plate for fuse holder, bolt M5.5x9.5
- (2) K3 relay, M5.5x9.5 bolt



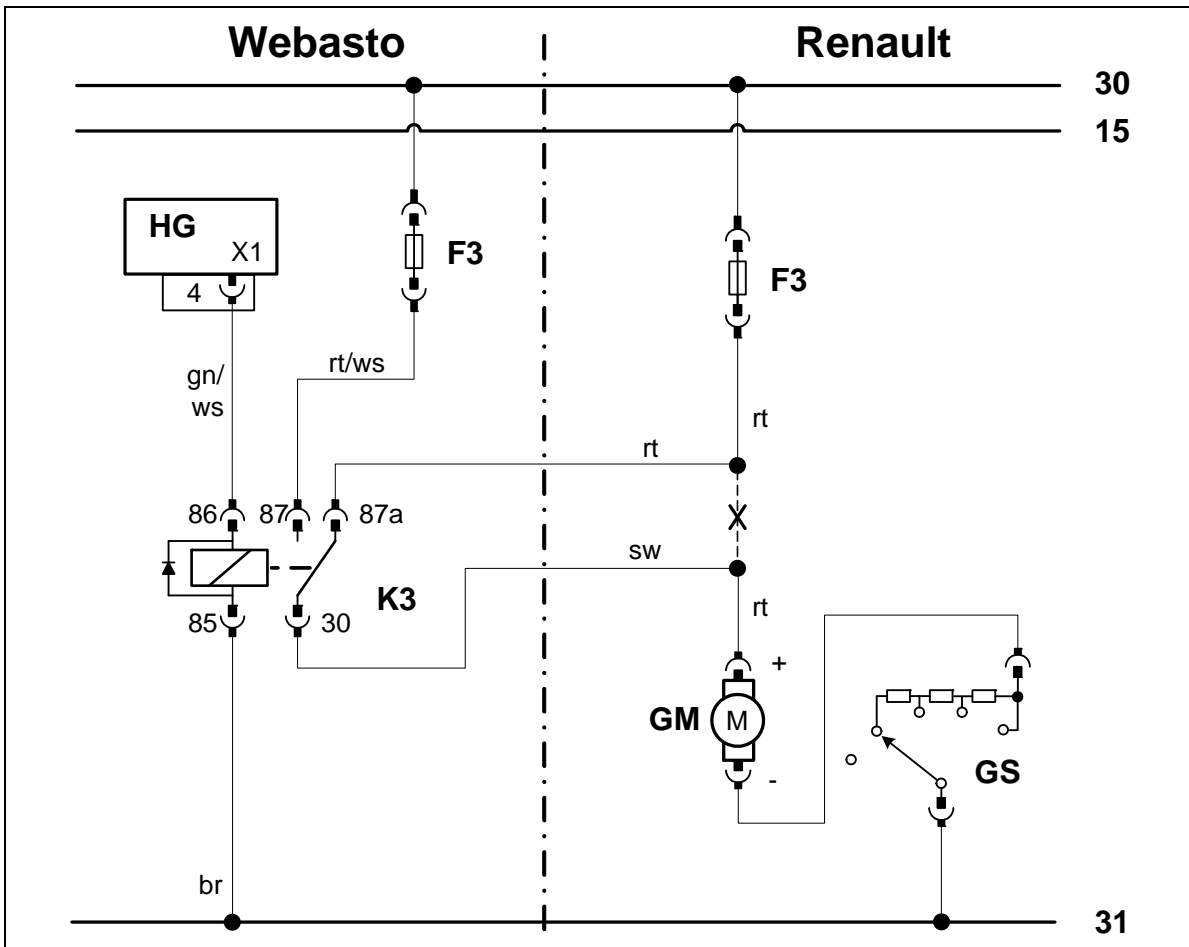
Fan controller for manual air conditioning

Connection to 2-pin connector from fan motor. Make connections as shown in the wiring diagram with the connectors provided.

(1) Fan motor connector



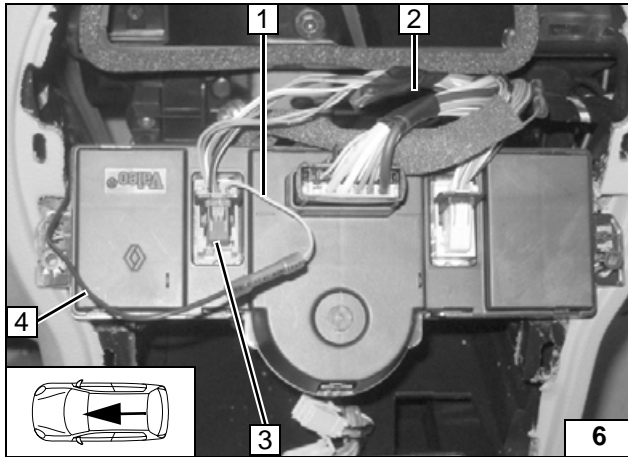
Fan controller



Wiring diagram for manual air conditioning

| Webasto components | | Renault components | | Colours and symbols | |
|--------------------|------------------------|--------------------|------------|---------------------|---------------|
| HG | Heater TT-C/E | GM | Fan motor | rt | red |
| X1 | 6-pin heater connector | GS | Fan switch | ws | white |
| F3 | 25A fuse | Fa | Fan fuse | sw | black |
| K3 | Fan relay | | | br | brown |
| | | | | gn | green |
| | | | | X | Cutting point |

Legend



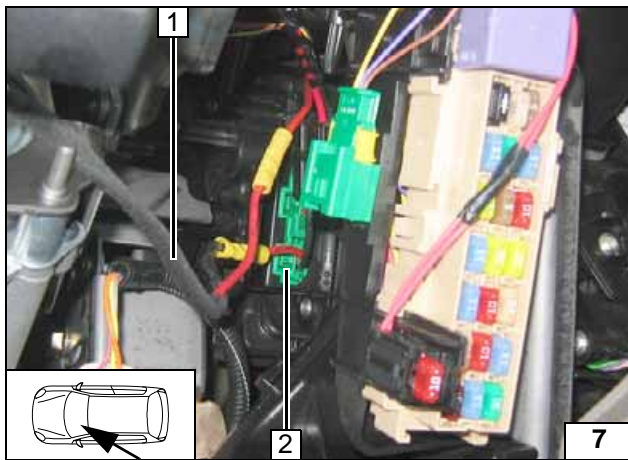
Fan controller for automatic air conditioning

Connection to 12-pin blue (bl) connector from the A/C control panel. Make connections as shown in the wiring diagram with the connectors provided.

- (1) Yellow (ge) wire to blue (bl) connector, Pin 10
- (2) Yellow (ge) wire from fuse F12, insulate and tie back
- (3) 12-pin blue (bl) connector
- (4) Black (sw) wire from fuse F4



**Control-
ling A/C
control
panel**



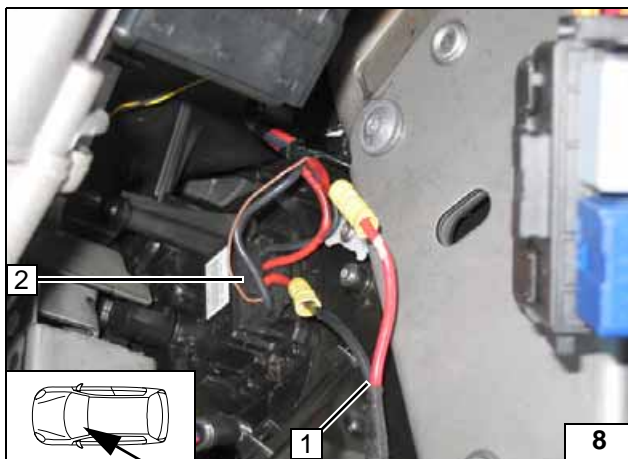
Version 1

Connection to green (gn) 2-pin connector Pin 1 on fan controller. Make connections as shown in the wiring diagram with the connectors provided.

- (1) Wiring harness of fan controller
- (2) Green (gn) 2-pin connector Pin 1 on fan controller



**Control-
ling fan
controller**



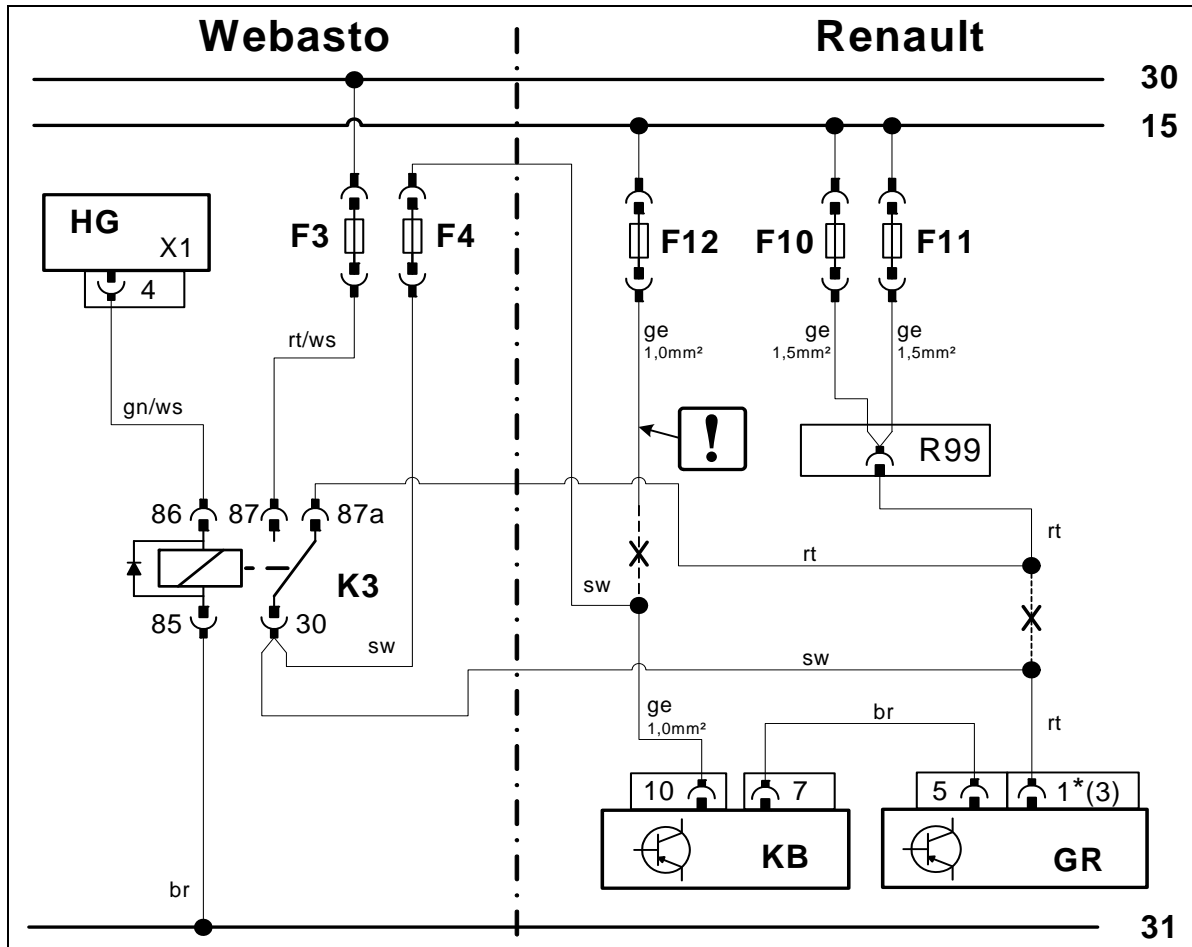
Version 2

Connection to black (sw) 6-pin connector Pin 3 on fan controller. Make connections as shown in the wiring diagram with the connectors provided.

- (1) Wiring harness of fan controller
- (2) Black (sw) 6-pin connector Pin 3 on fan controller



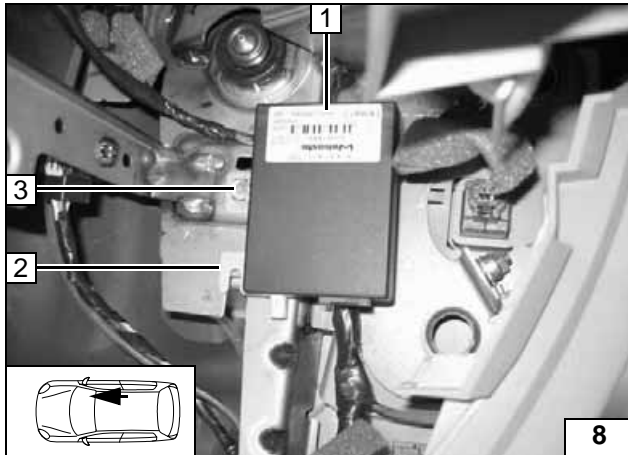
**Control-
ling fan
controller**



Automatic air-conditioning wiring diagram

| Webasto components | | Renault components | | Colours and symbols | |
|--------------------|------------------------|--------------------|-------------------|---------------------|--|
| HG | Heater TT-C/E | GR | Fan controller | rt | red |
| X1 | 6-pin heater connector | R99 | Connector | ws | white |
| F3 | 25A fuse | F10 | 10A fuse | sw | black |
| F4 | 5A fuse | F11 | 20A fuse | br | brown |
| K3 | Fan relay | F14 | 15 A fuse | gn | green |
| | | KB | A/C control panel | ge | yellow |
| | | | | * | Green (gn) 2-pin connector Pin1 or black (sw) 6-pin connector Pin 3. |
| | | | | | Insulate wire end and tie back |
| | | | | X | Cutting point |

Legend

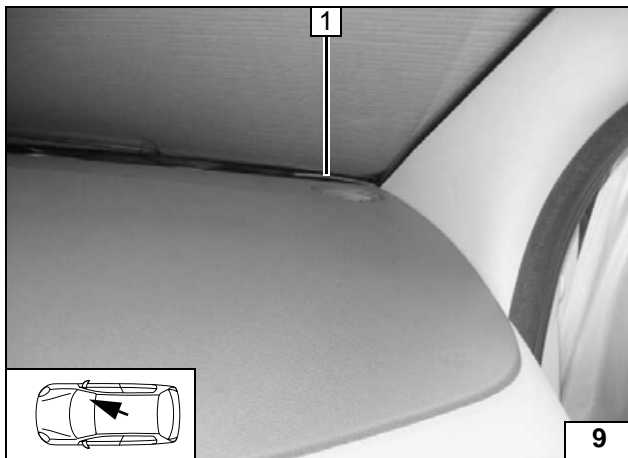


Remote option Telestart

- (1) Receiver
- (2) Bracket
- (2) 5.5x13 self-tapping screw

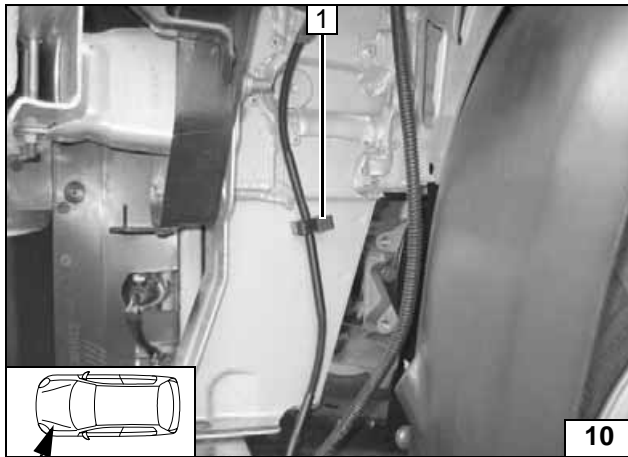
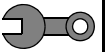


Installing receiver



- (1) Antenna

Installing antenna

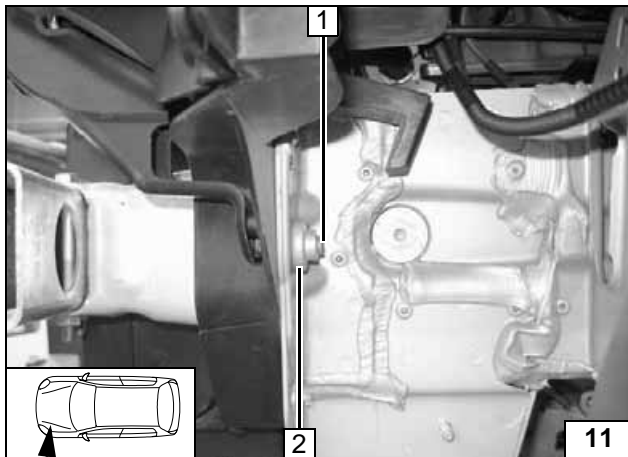


Preparing installation location

- (1) Discard retaining clip

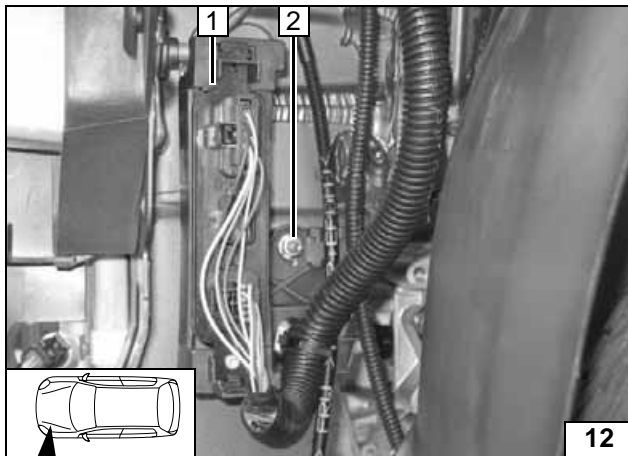


Preparing installation location



- (1) Shorten original vehicle bolt up to threaded sleeve
- (2) Threaded sleeve

Preparing installation location

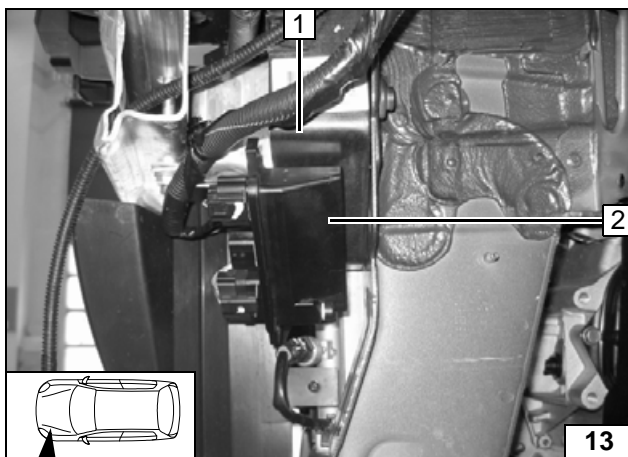


Only on vehicles with cornering light

- (1) Remove control unit
- (2) Original vehicle M6 nut



Preparing installation location

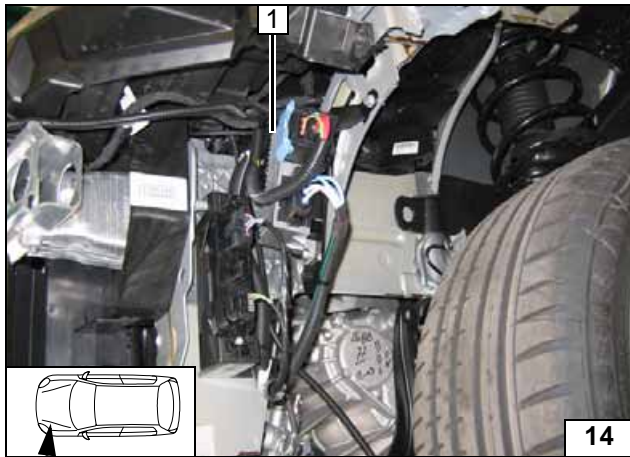
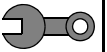


Remove control unit from frame and fasten with Velcro strip [2x]. Clean bonding surfaces beforehand. Discard frame.

- (1) Plastic trim
- (2) Control unit without frame



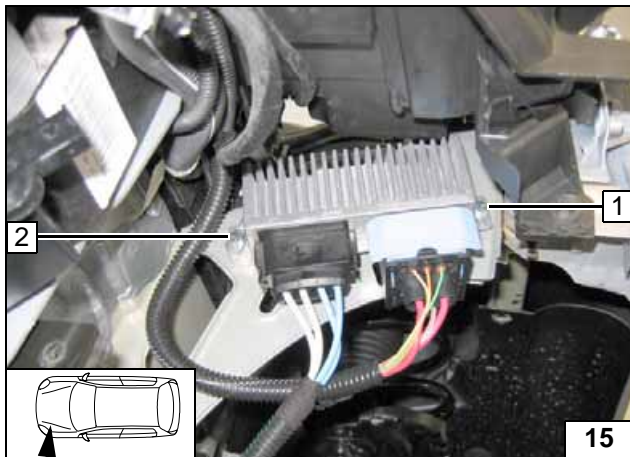
Preparing installation location



Only on vehicles with FAP

- (1) Remove control unit with bracket

Preparing installation location

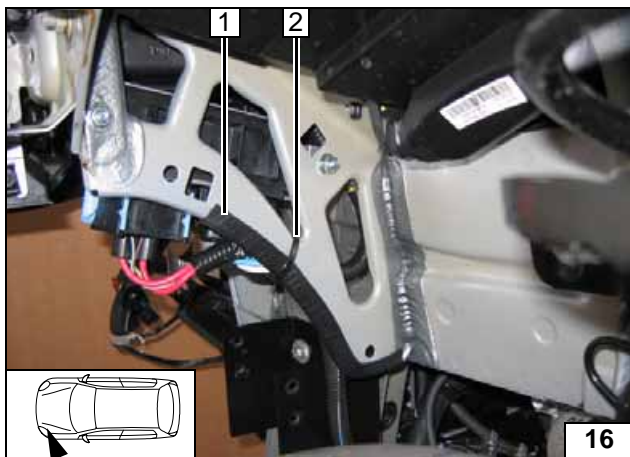


Remove control unit from frame and discard frame. Mount one 5 mm dia. shim each between control unit and body at position 1 and 2.

- (1) Copy hole pattern, 7 mm dia. hole, M6x20 bolt, M6 flanged nut
- (2) Existing hole, M6x20 bolt, M6 flanged nut

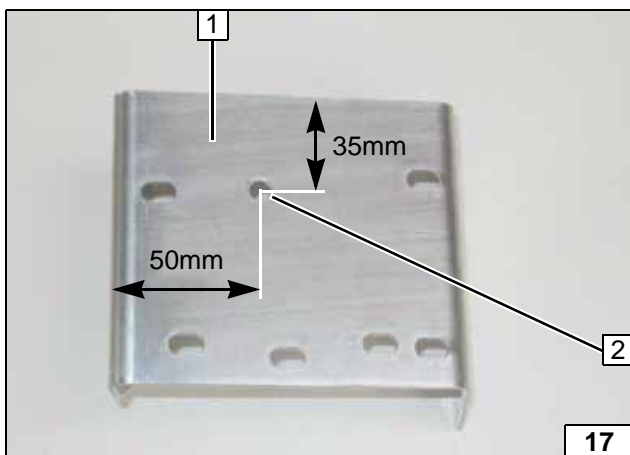


Preparing installation location



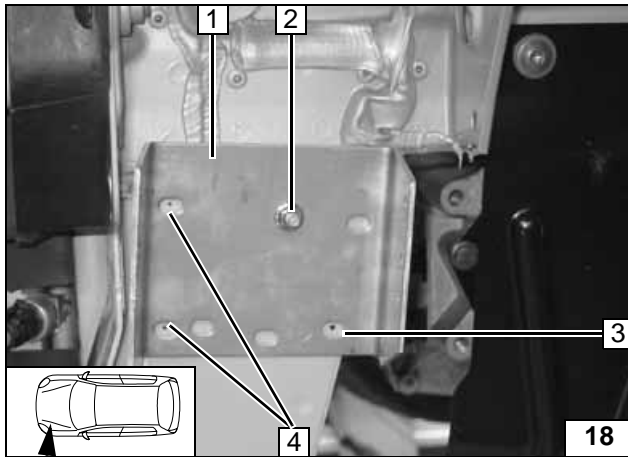
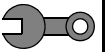
- (1) Edge protection 200 mm long
- (2) Wiring harness of control unit fastened with cable tie

Installing edge protection



- (1) Bracket
- (2) 7 mm dia. hole

Preparing bracket

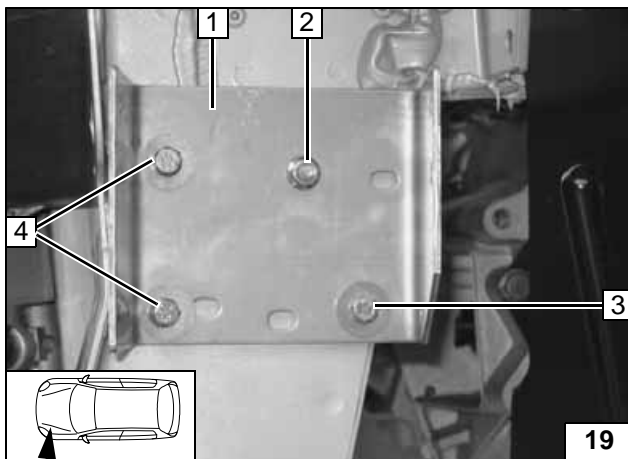


After drilling, install M6 rivet nut [2x] at position 4.

- (1) Loosely mount bracket
- (2) Original vehicle stud bolt, M6 flanged nut
- (3) 7 mm dia. hole
- (4) 9 mm dia. hole [2x]



Copying hole pattern



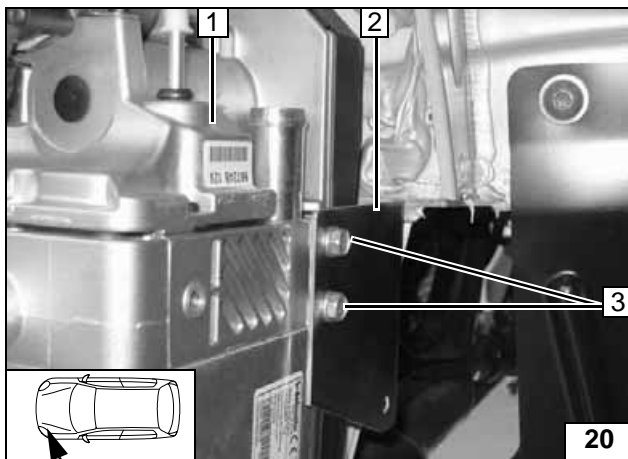
Installing heater

Position 5 mm shim between bracket and vehicle at all four fastening points.

- (1) Bracket
- (2) M6 flanged nut
- (3) M6x20 bolt, large diameter washer, M6 flanged nut
- (4) M6x30 bolt [2x], spring lockwasher [2x], large diameter washer [2x]



Installing heater

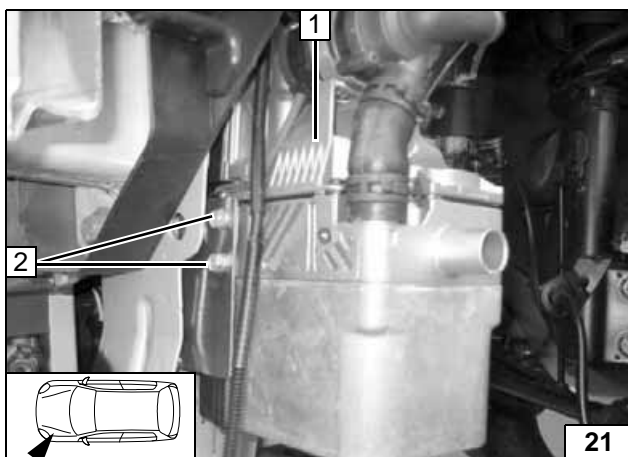


Tighten E-JOT screws to 10 Nm!

- (1) Heater
- (2) Bracket
- (3) E-jot screws [2x]

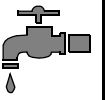


Installing heater



- (1) Heater
- (2) E-jot screws [2x]

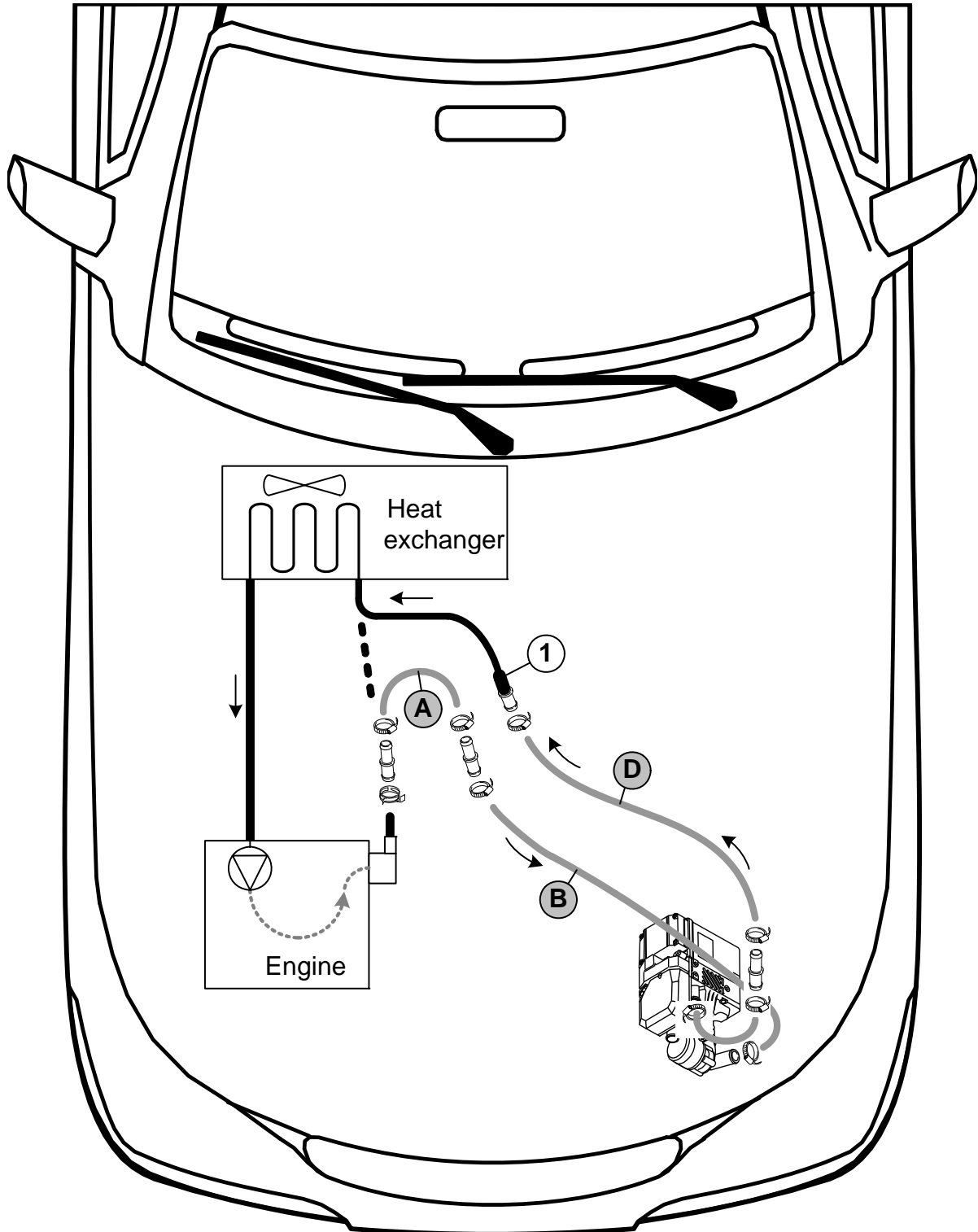
Installing heater



Coolant circuit without FAP

WARNING!

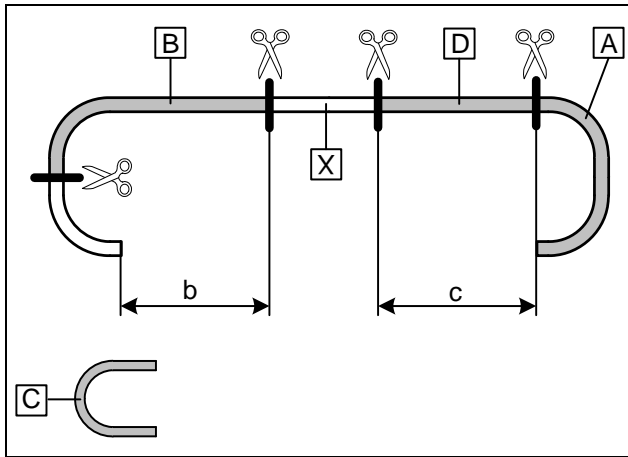
Tighten all hose clamps to 2.0 + 0.5 Nm.
 Catch any coolant running off in an appropriate container.
 Install hoses so that they are kink-free.
 Position hose and spring clips so that no other hose can be damaged!
 The connection should be "inline" based on the following diagram:



Coolant diagram

All hose clamps = 20-27 mm dia. All connecting pipes not specified = 20x20 mm!
 1 Original vehicle connecting pipe

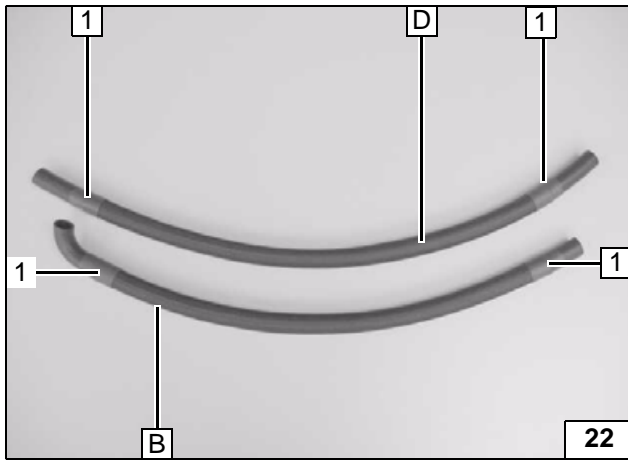




a = 830mm
b = 760mm

Discard section X

Cutting coolant hoses to length

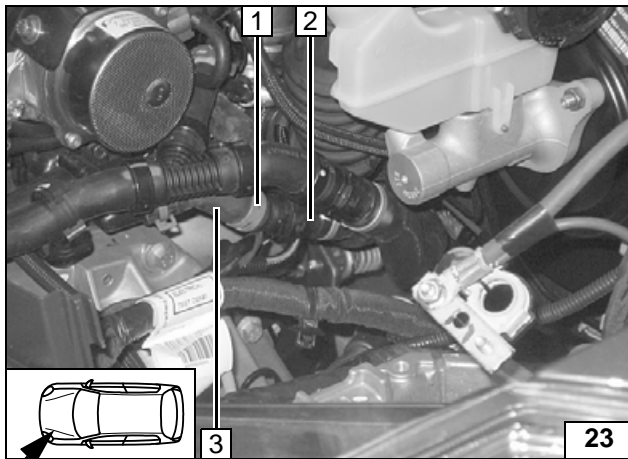


Cut braided protection hoses to length and slide onto hose B and D.

(1) Cut heat shrink plastic tubing in middle, slide on and shrink



Preparing coolant

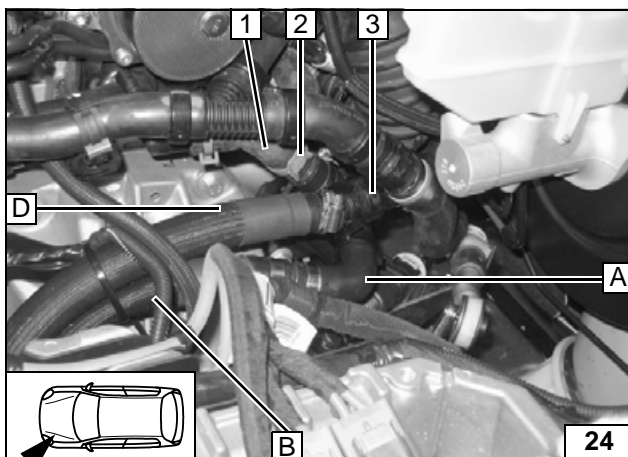


Original vehicle clamp (1) will be reused, original vehicle connecting pipe remains in hose on heat exchanger inlet (2).

(3) Hose on engine outlet



Cutting point

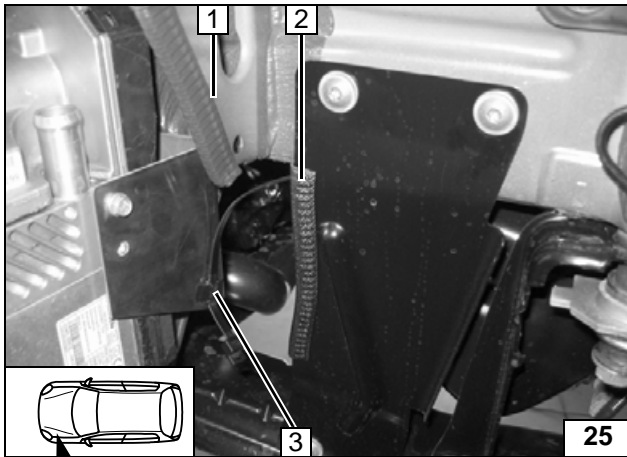


Before connecting, fill the coolant hoses with coolant.

(1) Hose on engine outlet
(2) Original vehicle clamp
(3) Hose on heat exchanger inlet

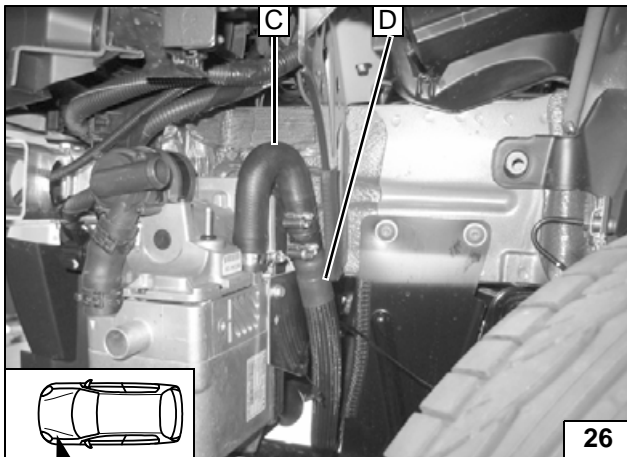


Connection to engine outlet and heat exchanger inlet



- (1) Edge protection 100 mm long
- (2) Edge protection 200 mm long
- (3) Clip with cable tie in existing hole

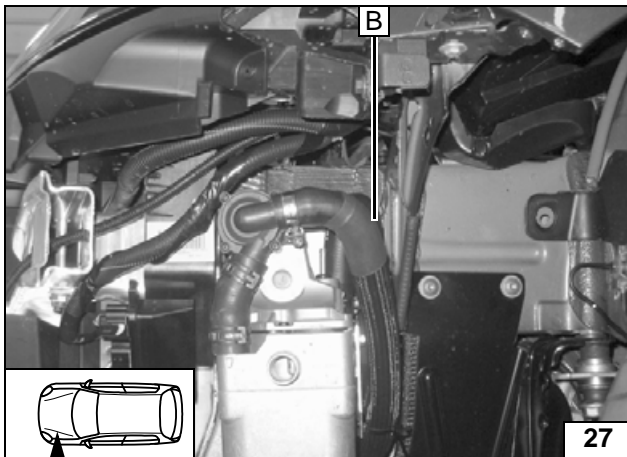
Installing clip and edge protection



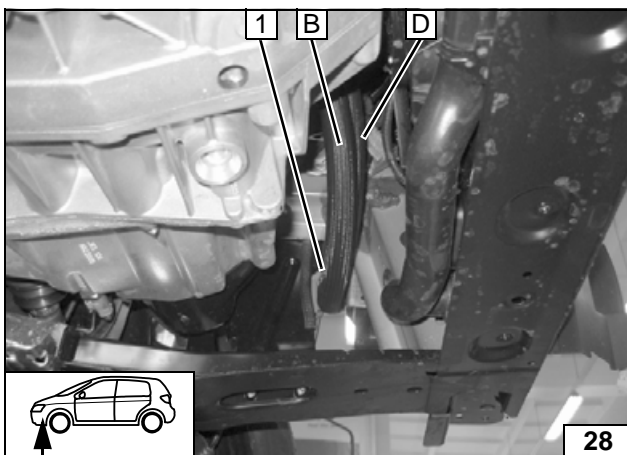
Before connecting, fill the coolant hoses with coolant.



Connection on heater

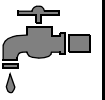


Connection on heater



- (1) Clip with cable tie

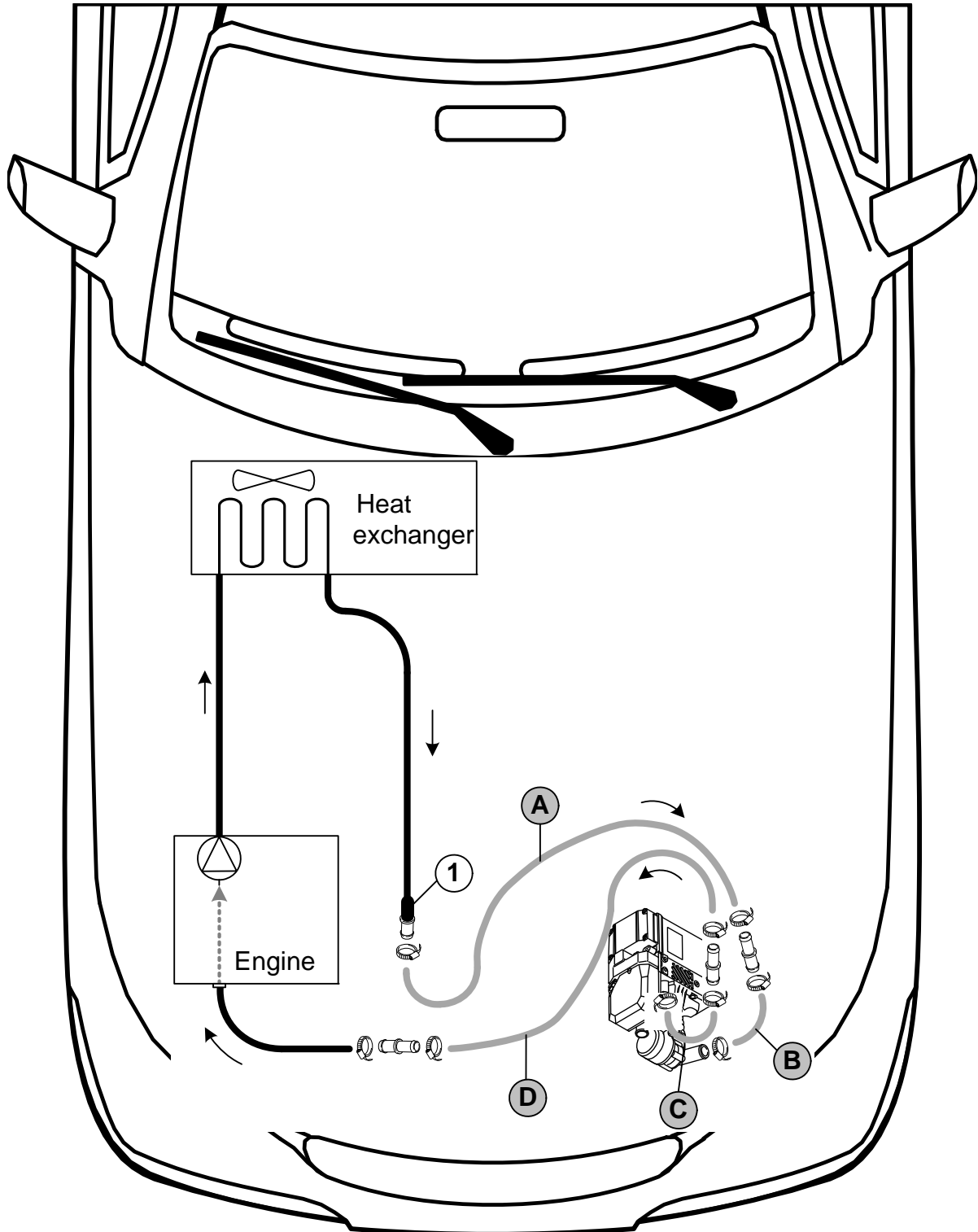
Routing in engine compartment



Coolant circuit with FAP

WARNING!

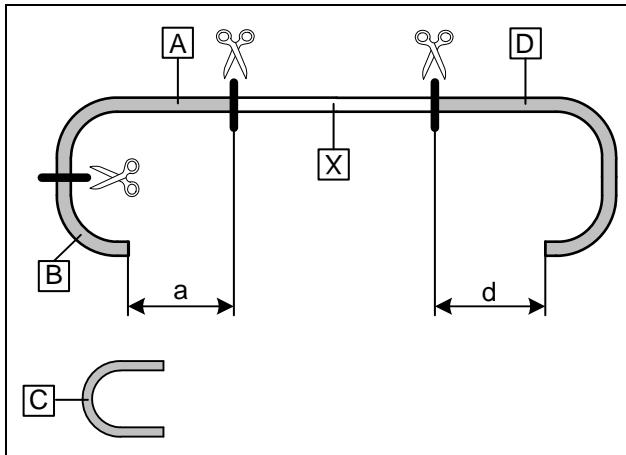
Tighten all hose clamps to 2.0 + 0.5 Nm.
 Catch any coolant running off in an appropriate container.
 Install hoses so that they are kink-free.
 Position hose and spring clips so that no other hose can be damaged!
 The connection should be "inline" based on the following diagram:



Coolant diagram

All hose clamp = 20-27 mm dia. All connecting pipes = 20x20 mm! 1 = Original vehicle connecting pipe

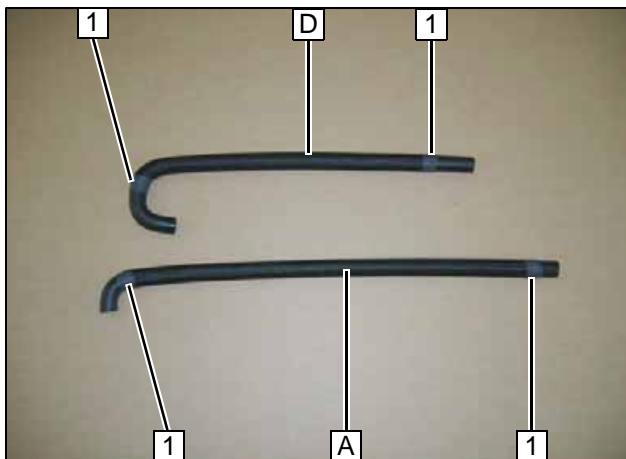




a = 700mm
d = 500mm

Discard section X

Cutting coolant hoses to length

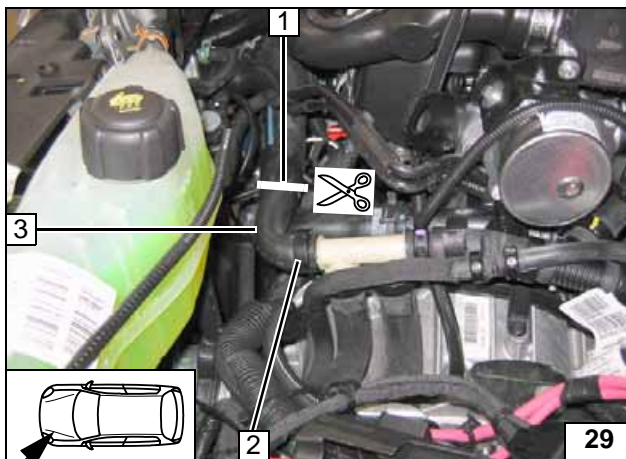


Cut braided protection hoses to length and slide onto hose A and D.

(1) Cut heat shrink plastic tubing in middle, slide on and shrink [4x]



Preparing coolant

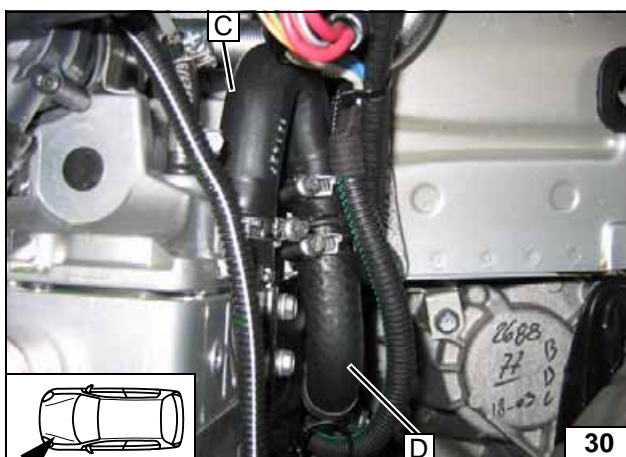


Cut open original vehicle plastic clamp (2), discard hose section (3).

(1) Cutting point



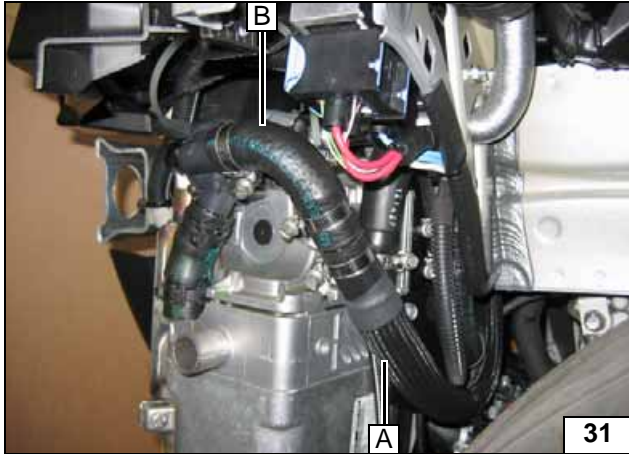
Cutting point



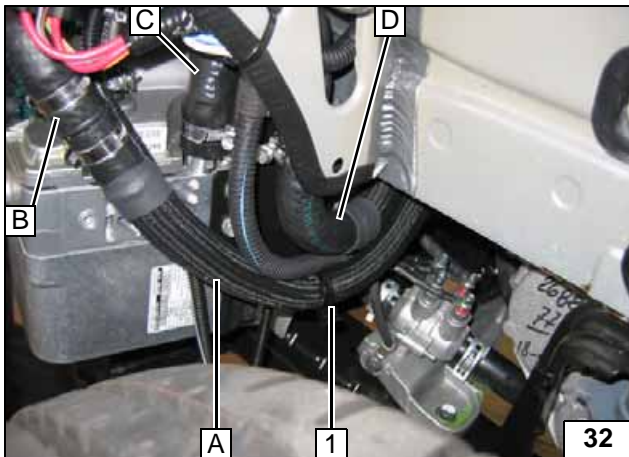
Install hose D with 180° elbow on hose C.



Connection to heater

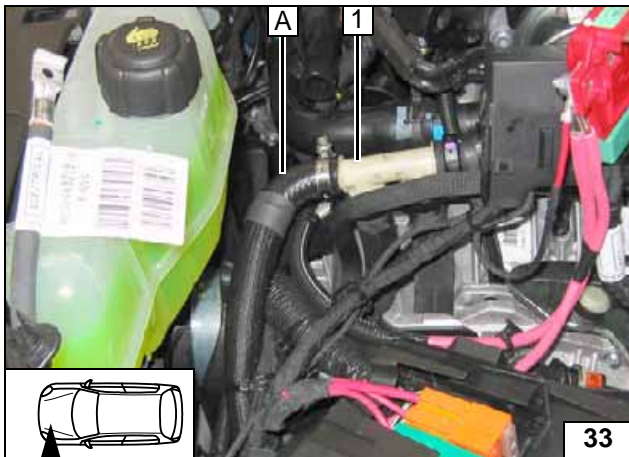


Con-
nection to
heater



(1) Clip-type cable tie in hole

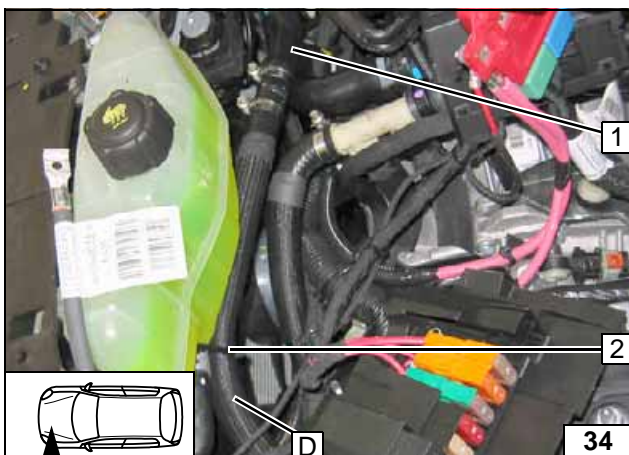
Routing of
coolant
hoses



(1) Hose with moulded part on engine outlet



Con-
nection
on
heat ex-
changer
outlet

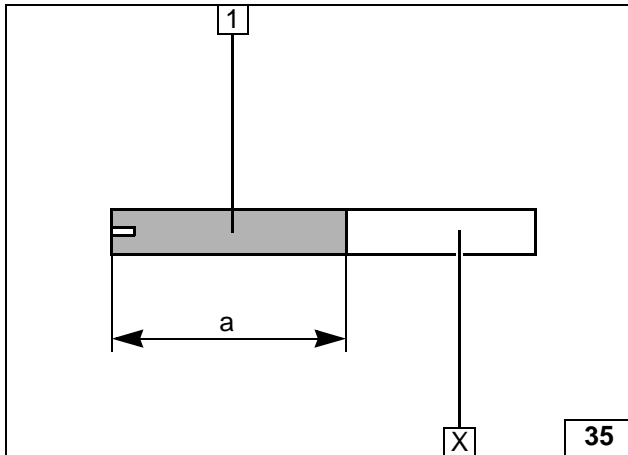
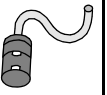


Before connecting, fill the coolant hoses with coolant.

(1) Hose on engine inlet
(2) Cable tie



Con-
nection on en-
gine inlet



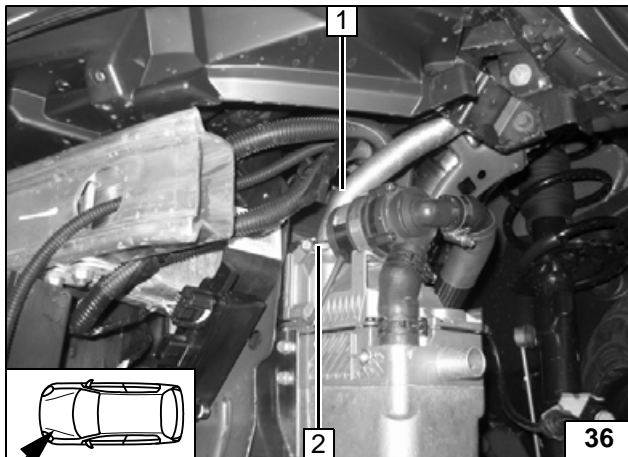
Combustion air

- 1 Combustion air pipe
a = 310mm

Discard section X

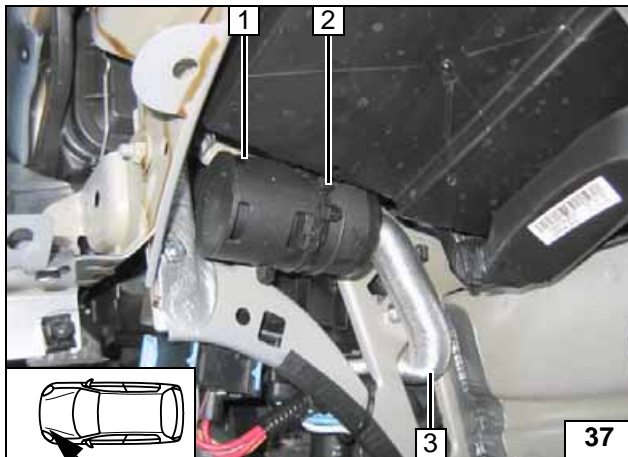


Cutting combustion air pipe to length



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

Installing combustion air pipe



Ensure proper installation position of air intake silencer, see "Installation Instructions".

- (1) Combustion air intake silencer
(2) Cable tie [2x]
(3) Combustion air pipe



Installing combustion air silencer



Fuel

CAUTION!

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

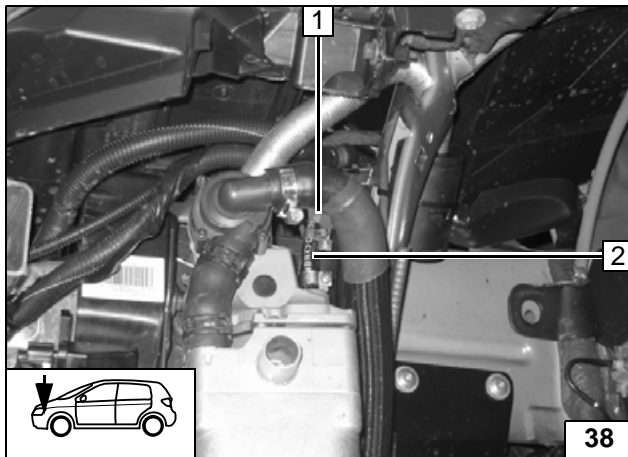
Catch any fuel running off with an appropriate container.

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.

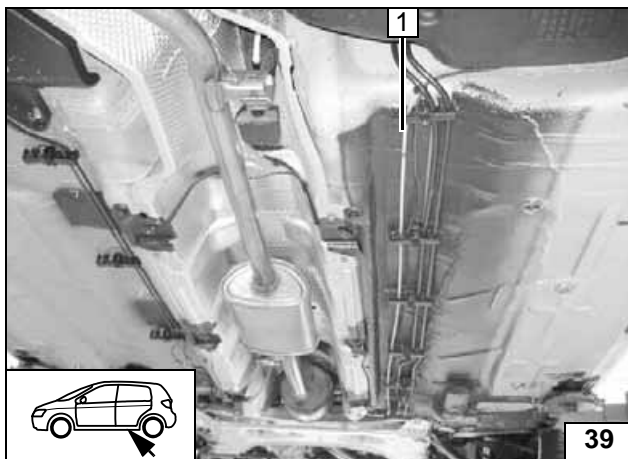
WARNING!

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



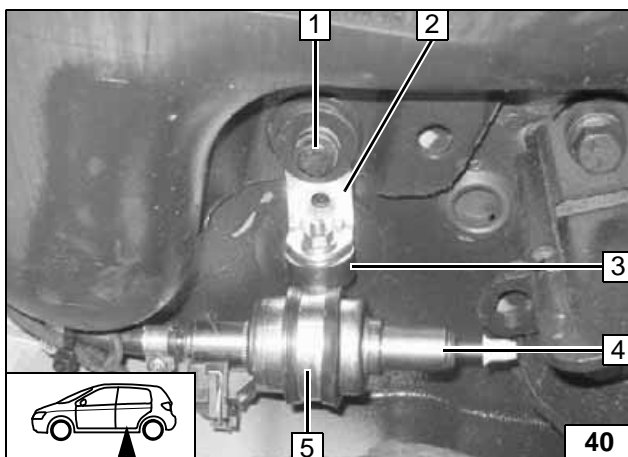
- (1) Mecanyl fuel line
- (2) Hose section, 10 mm dia. hose clamp [2x]

Conne-
tion on
heater



- (1) Wiring harness of metering pump, fuel line from heater

Installing
lines

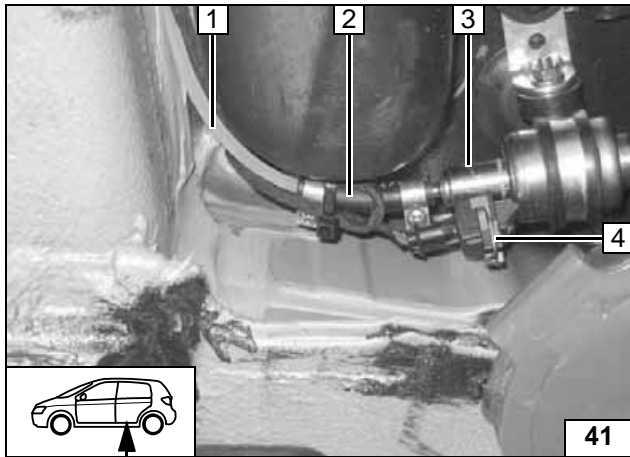


Observe installation position of metering pump, see "Installation Instructions".

- (1) Original vehicle bolt
- (2) Angle bracket
- (3) Silent block, M6 flanged nut [2x]
- (4) Metering pump
- (5) Rubber-coated p-clamp

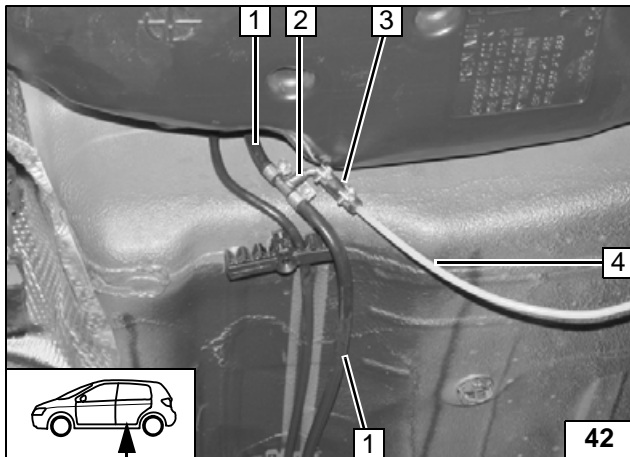


Installing
metering
pump



- (1) Fuel line
- (2) Hose section, 10 mm dia. hose clamp [2x]
- (3) Metering pump
- (4) Wiring harness of metering pump with connector

**Conne-
ction to me-
tering
pump**

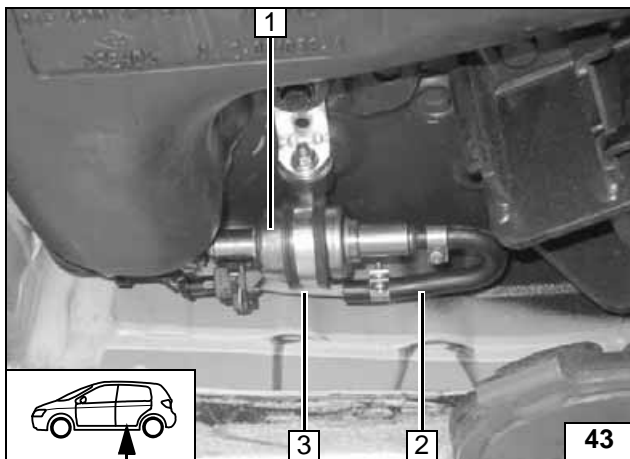


Detach fuel supply line on connection of fuel-tank sending unit from line holder and pull downward for installation.

- (1) Fuel supply line [2x]
- (2) Fuel standpipe
- (3) Hose section, 10 mm dia. hose clamp [2x]
- (4) Remaining section of fuel line



**Fuel re-
moval**

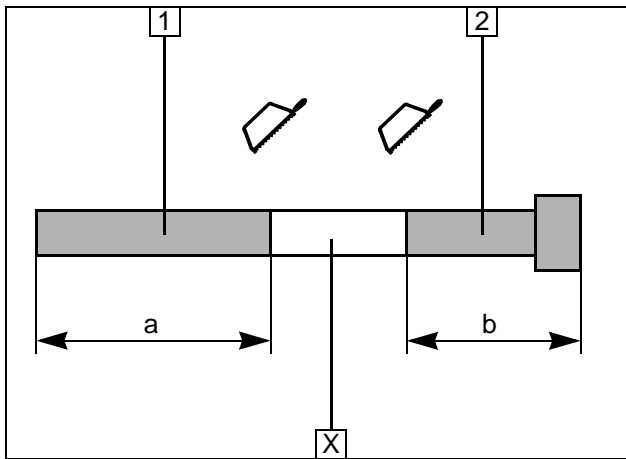
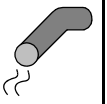


Fuel line from fuel standpipe on intake side of metering pump [side without connector]. Check the position of the components; adjust if necessary. Check that they have freedom of movement.

- (1) Metering pump
- (2) 180° moulded hose elbow, 10mm dia. clamp [2x]
- (3) Remaining section of fuel line



**Conne-
ction to me-
tering
pump**



Exhaust gas

Without FAP

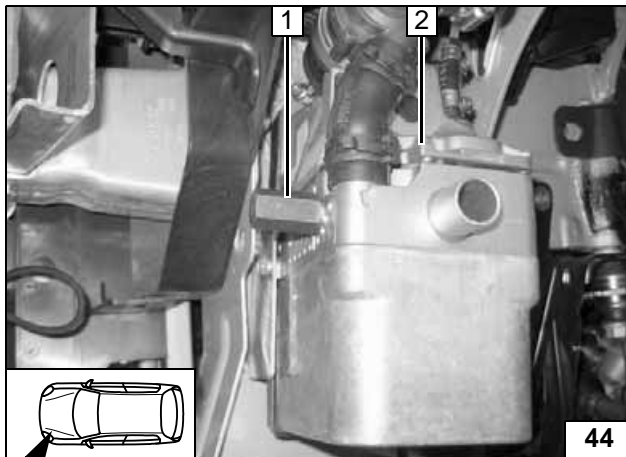
- (1) Exhaust pipe
a = 280mm
- (2) Exhaust end section
b = 520mm

With FAP

- (1) Exhaust pipe
a = 280mm
- (2) Exhaust end section
b = 160mm

Discard section X

Preparing
exhaust
pipe



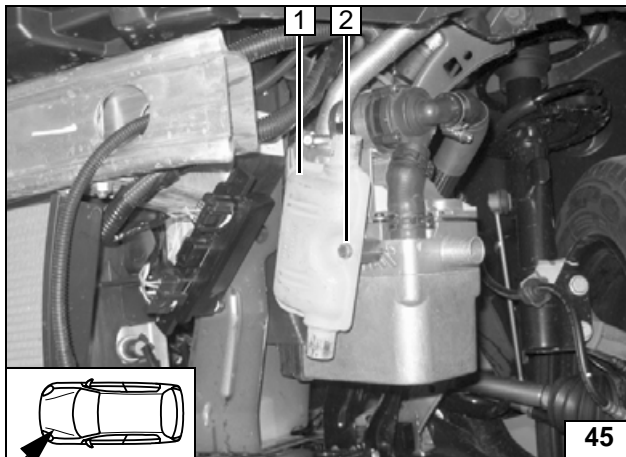
All vehicles

Tighten E-JOT screws to 10 Nm!

- (1) E-jot stud, M6 spacer nut
- (2) Heater

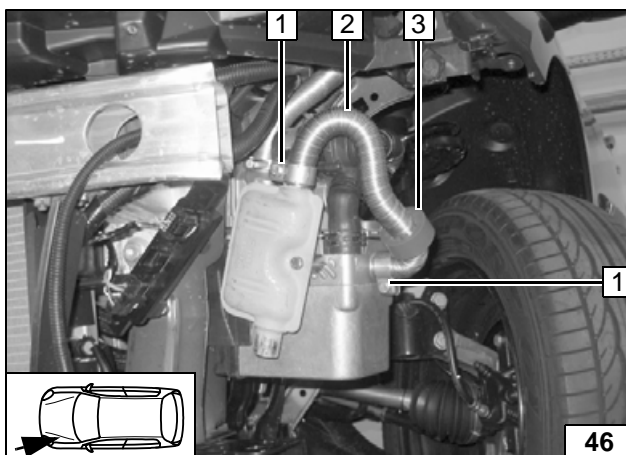


Installing
silencer



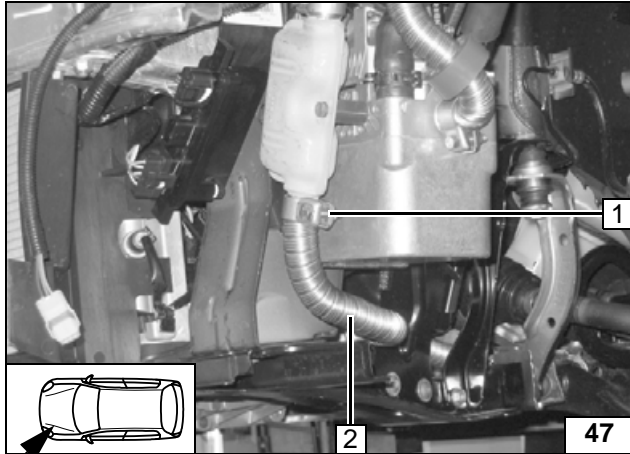
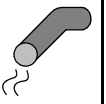
- (1) Exhaust silencer
- (2) M6x12 bolt, spring lockwasher

Installing
silencer



- (1) Hose clamps [2x]
- (2) Exhaust pipe
- (3) Position red (rt) rubber isolator

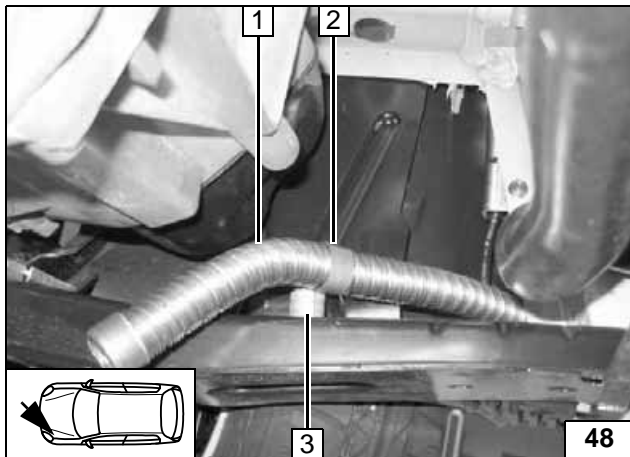
Installing
exhaust
pipe



Without FAP

- (1) Hose clamp
- (2) Exhaust end section

Installing exhaust end section

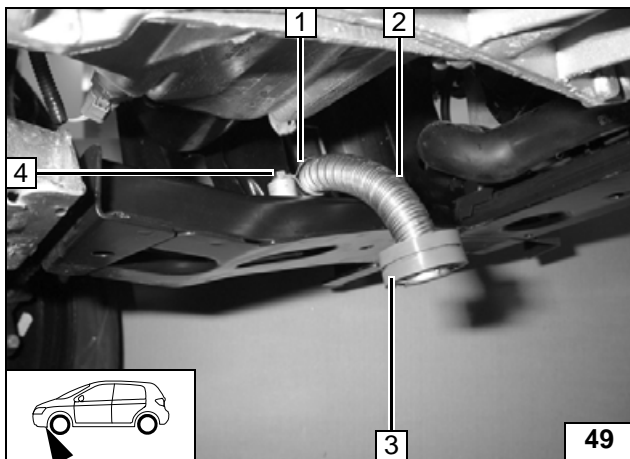


On vehicles without underride protection.
Ensure sufficient distance from neighbouring components.

- (1) Exhaust end section
- (2) P-clamp
- (3) M6x40 bolt, 20 mm dia. shim, A7.4 large diameter washer, M6 flanged nut on existing hole



Installing exhaust end section

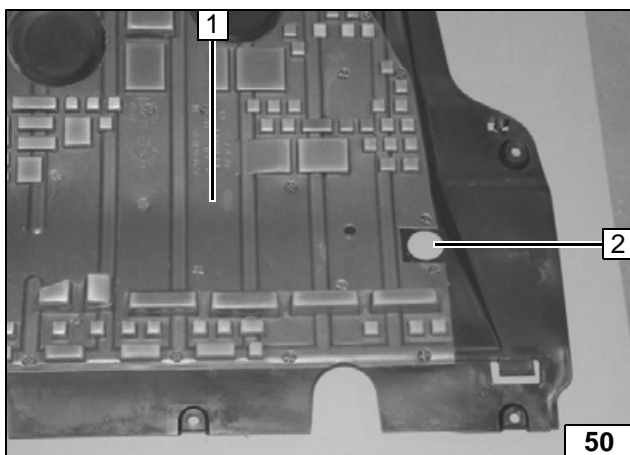


On vehicles with underride protection.
Ensure sufficient distance from neighbouring components.

- (2) Exhaust end section
- (1) P-clamp
- (4) M6x40 bolt, 20 mm long spacer sleeve, large diameter washer, M6 flanged nut on existing hole
- (3) Red (rt) rubber isolator



Installing exhaust end section

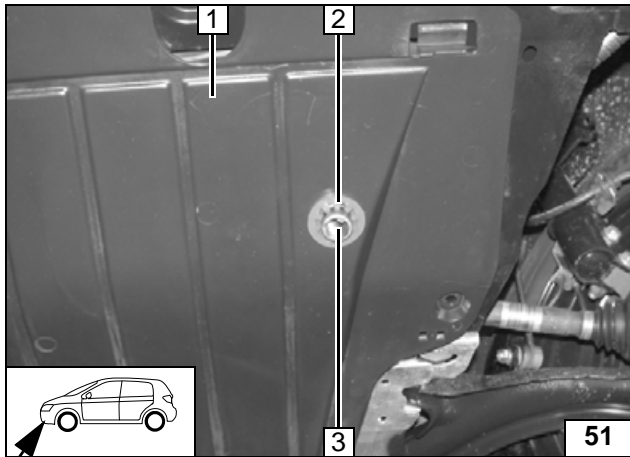
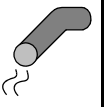


Cut 42 mm dia. hole in underride protection at Position (2).

- 1 Underride protection



Cutting out underride protection

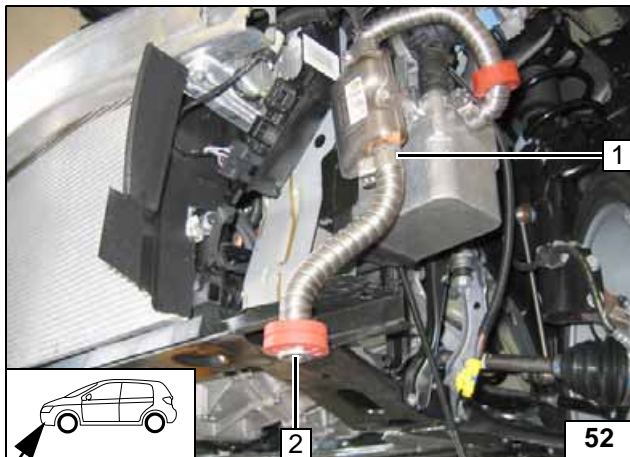


Align end cap of exhaust end section (3) flush on red (rt) rubber isolator (2) as shown.

- 1 Underride protection
- 2 Red (rt) rubber isolator with groove



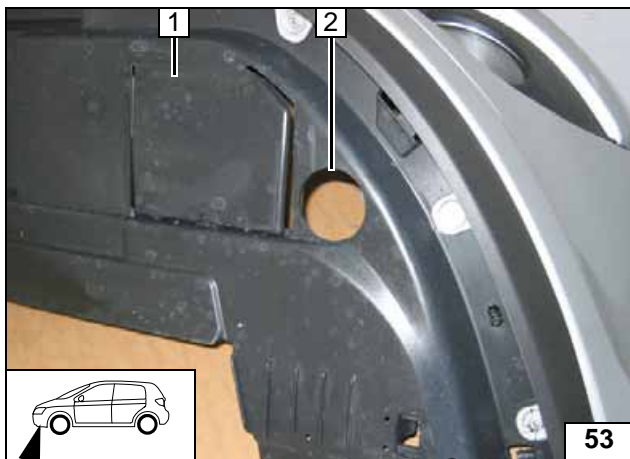
Inserting rubber isolator



With FAP

- (1) Hose clamp
- (2) Exhaust end section

Installing exhaust end section

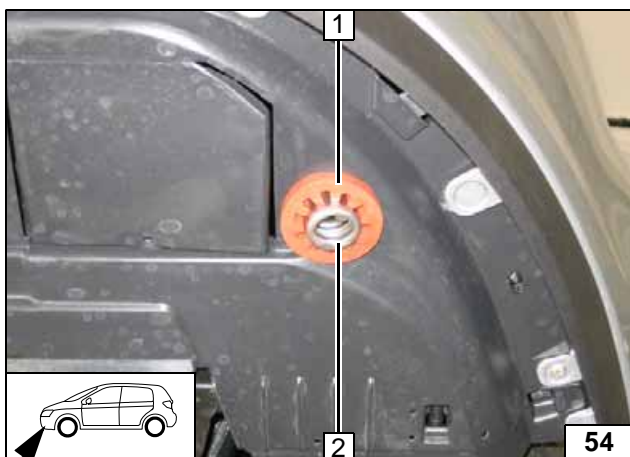


Cut 42 mm dia. hole in underride protection at Position (2).

- 1 Underride protection



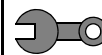
Installing exhaust end section



Align end cap of exhaust end section (2) flush on red (rt) rubber isolator (2) as shown.



Inserting rubber isolator



Final Work

WARNING!

Mount removed parts in reverse order.

Check all hoses, hose, spring and Caillau clamps, as well as all electrical connections for firm seating. Secure all loose cables using cable ties.

Spray heater components with anti-corrosion wax (Tectyl 100K, Order No. 111,329).

- **Connect the battery.**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.**
- **Set digital timer, teach telestart transmitter.**
- **Make settings on A/C control panel according to the "Operating Instructions for End Customer".**
- **Place the "Switch off parking heater before refuelling" signboard in the area of the filler neck.**
- **See installation instructions for initial start-up and function test.**



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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.

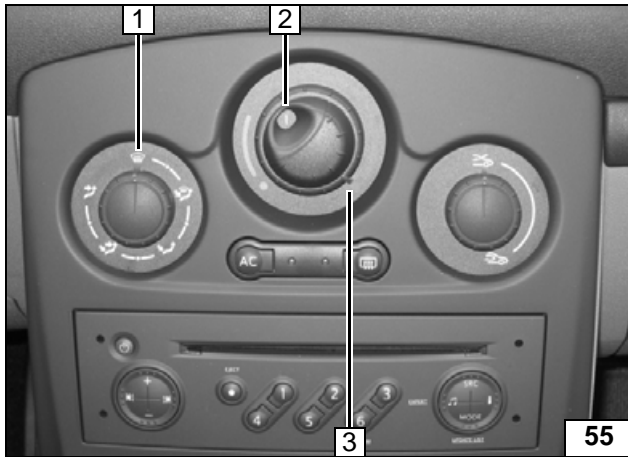
Heating time = driving time

Example:

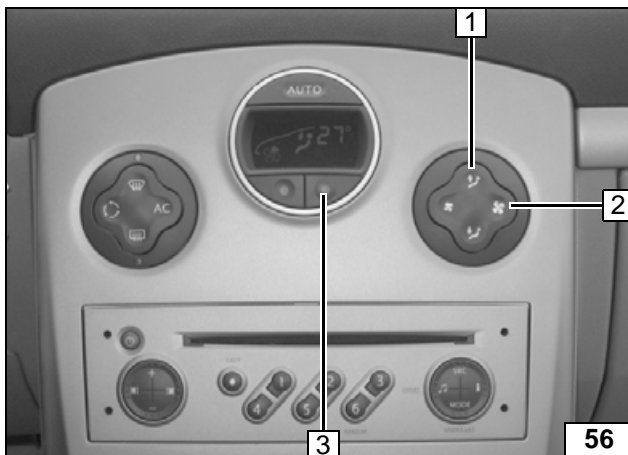
For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

If the summer/winter switch option has been installed, this must be switched in accordance with the time of year. The heater 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:



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



- (1) Air outlet to "upward"
- (2) Set fan to level "2", or possibly "3"
- (3) Set temperature to "27°C"



For vehicles without automatic air conditioning



For vehicles with automatic air conditioning