

# Water Heater Unit



Feel the drive

**Thermo Top E Additional Heater**



**Thermo Top C Additional Heater**



**Thermo Top P Additional Heater**



## Installation Instructions

### Nissan Pathfinder and Navara

2.5 liter 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, 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.**

# Nissan Pathfinder and Navara

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## Validity

| Manufacturer | Model      | Type | EG-BE No./ABE              |
|--------------|------------|------|----------------------------|
| Nissan       | Pathfinder | R51  | e9 * 2001/116 * 0051 * ... |
| Nissan       | Pathfinder | R51  | K492                       |
| Nissan       | Navara     | D40  | L617                       |

| Engine type | Engine model | Output in kW | Displacement in cm <sup>3</sup> |
|-------------|--------------|--------------|---------------------------------|
| YD25        | Diesel       | 128          | 2488                            |
| YD25        | Diesel/DPF   | 126          | 2488                            |

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.

# Nissan Pathfinder and Navara

## Heater Unit/Installation Kit

| Quantity | Description   | Order No.:            |
|----------|---|-----------------------|
| 1        | Nissan-specific heater unit delivery scope              | See Nissan price list |
| 1        | Installation Kit for Nissan Pathfinder 2.5 liter Diesel | 1303633C              |
| 1        | Heater control  | 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 Pathfinder and Navara vehicles with 2.5 liter Diesel engines - 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 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 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).

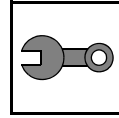
## Special Tools

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

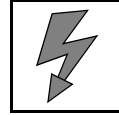
## Explanatory Notes on Document

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.

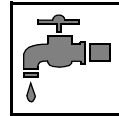
### Mechanical work



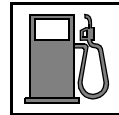
### Electrical system



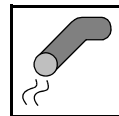
### Coolant connection



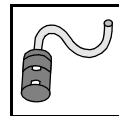
### Fuel connection



### 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.



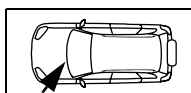
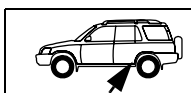
Specific risk of fire or explosion.



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



Reference to a special technical feature.

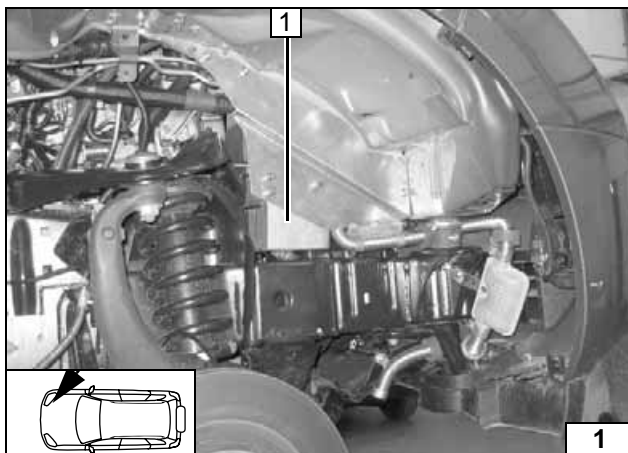


The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

## Preliminary Work

### WARNING!

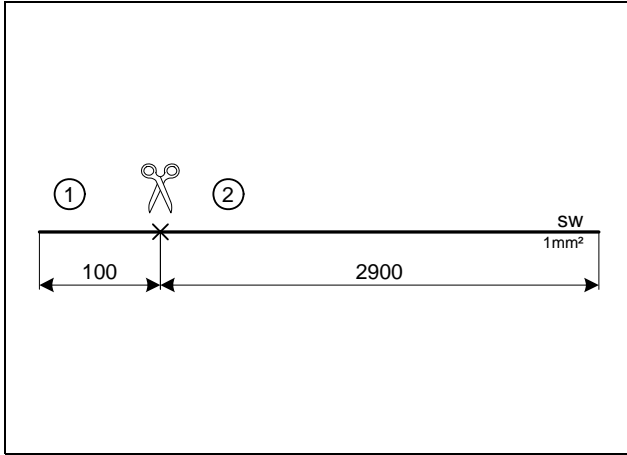
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Open the fuel tank cap and vent the fuel tank.
- Close the tank cap again.
- Disconnect and remove the battery.
- Depressurize the cooling system!
- Remove the engine cover.
- Remove the intake hose between the intercooler and the engine.
- Detach the fuel filter.
- Remove the right front wheel.
- Remove the right-hand wheel well trim.
- Remove the underride protection.
- Remove the lower footwell trim on the front passenger side (not with automatic air-conditioning).
- Remove the A-pillar trim on the front passenger side (with passenger compartment monitoring)
- Remove front interior lighting and monitoring sensors (with passenger compartment monitoring)
- Expose the A/C control panel (only with automatic air-conditioning).



### Heater unit installation location

1 Heater unit

Installation location

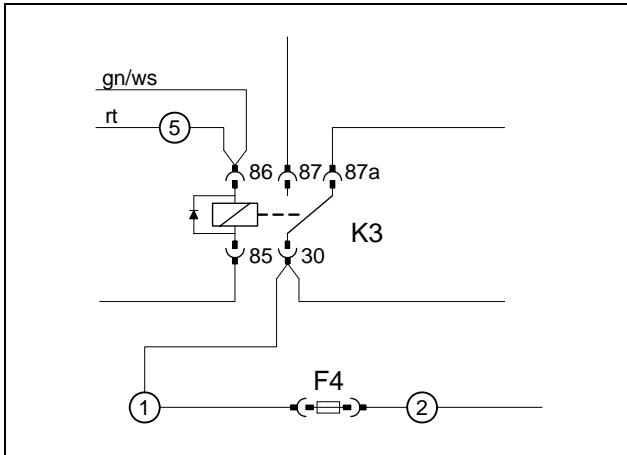


## Preparing electrical system



All equipment

Cutting wire to length



Produce connections as shown in wiring diagram.

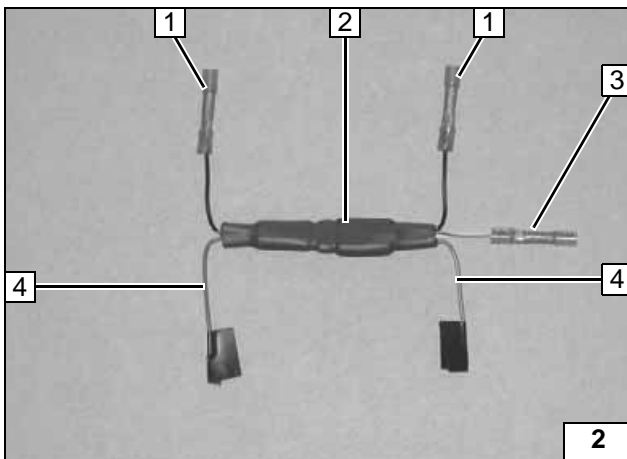
Cut included protective sleeving to length of 2,500 and push onto wire (2).



**Only with passenger compartment monitoring**

Also connect 3,000 mm long red (rt) wire (5) to K3/86 and pull into protective sleeving.

Connecting fuse F4

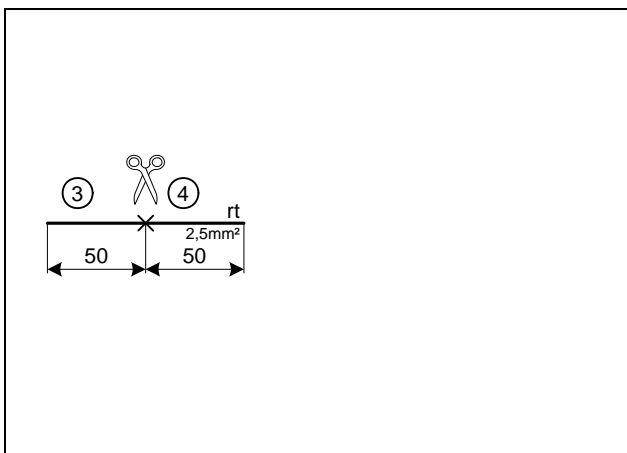


Cut off tab connector at Position 3 and crimp on connector.

- (2) Diode group
- (1) Connector [2x]
- (4) Insulate blue (bl) wire [2x] and tie back



Preparing diode group



**Only with automatic air-conditioning**

Wire sections (3) and (4) will be used later.



Cutting wire to length



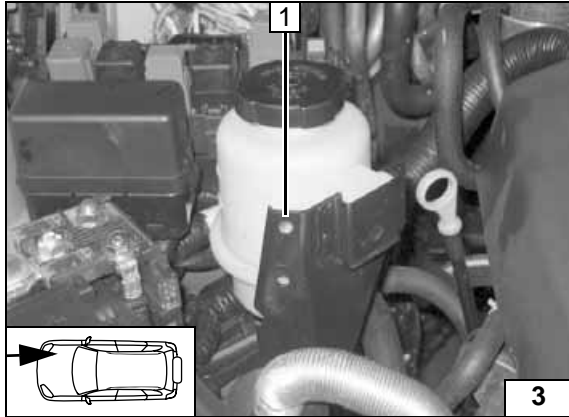
## Electrical Connections

### Fuse holder, relay K3

**WARNING:**

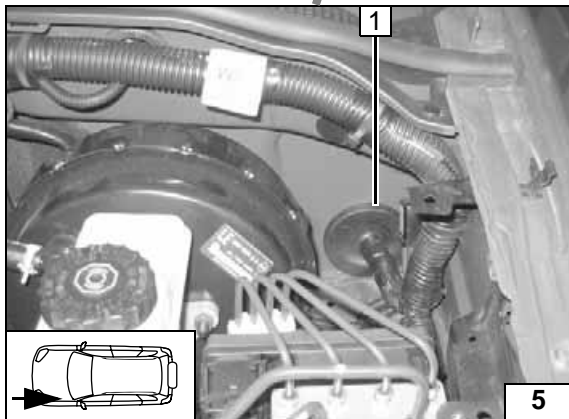
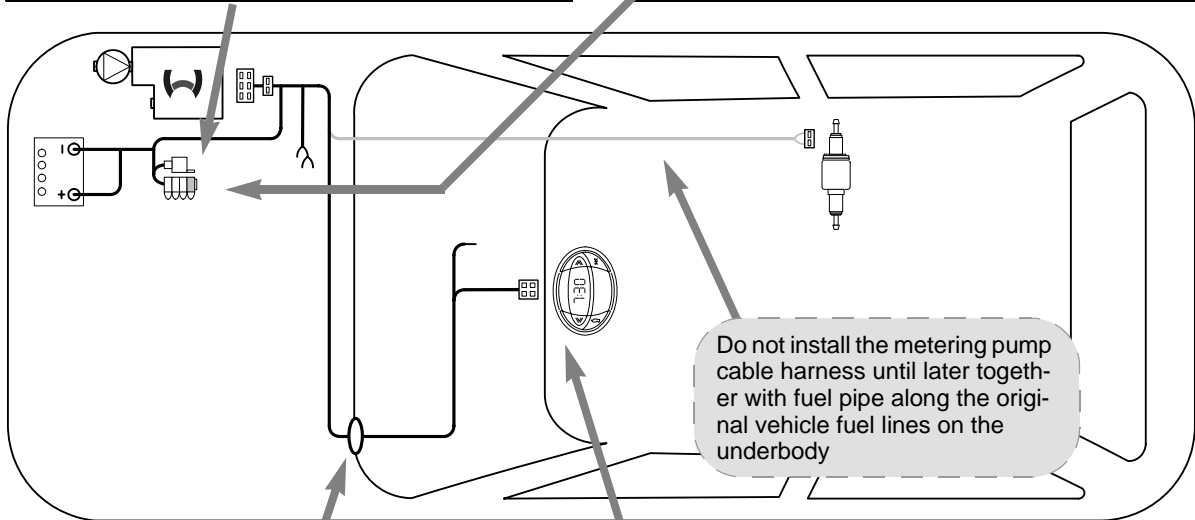
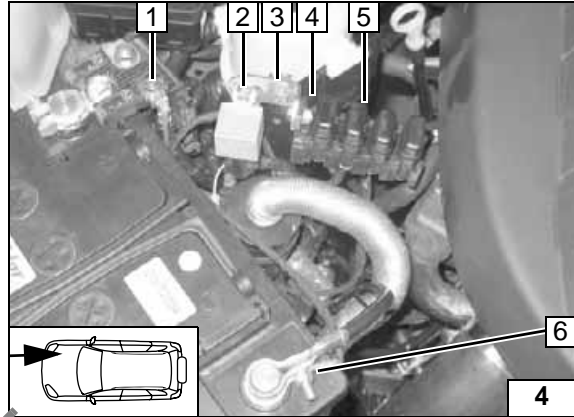
Do not damage tank

- (1) 6.5 mm dia. hole



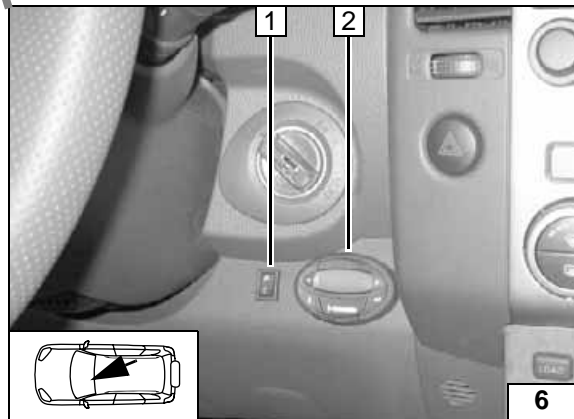
### Fuse holder, relay K3

- (3) M6x12 bolt, angle bracket, flanged nut
- (4) Retaining plate, M5x12 bolt, large diameter washer, flanged nut
- (5) Fuse holder mounted
- (2) K3 relay, M5x12 bolt, large diameter washer, flanged nut
- (1) Positive wire on positive support point
- (6) Ground wire on battery terminal



### Wiring harness pass through

- (1) Protective rubber plug

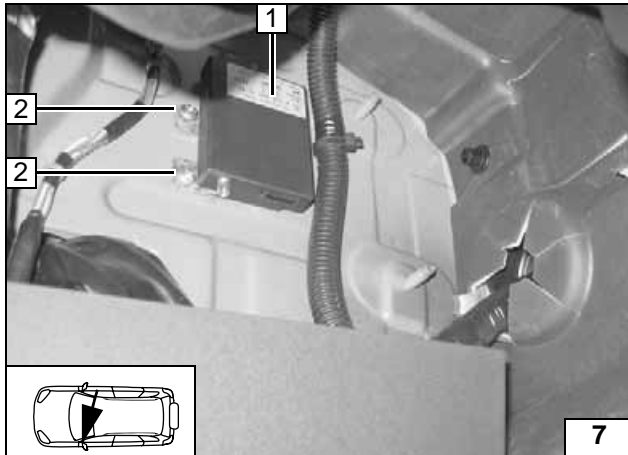


### Digital Timer and Summer/Winter Switch

- (1) Summer/winter switch, hole 12 mm dia.
- (2) Digital timer with extension wiring harness, drilling template



Wiring harness installation diagram

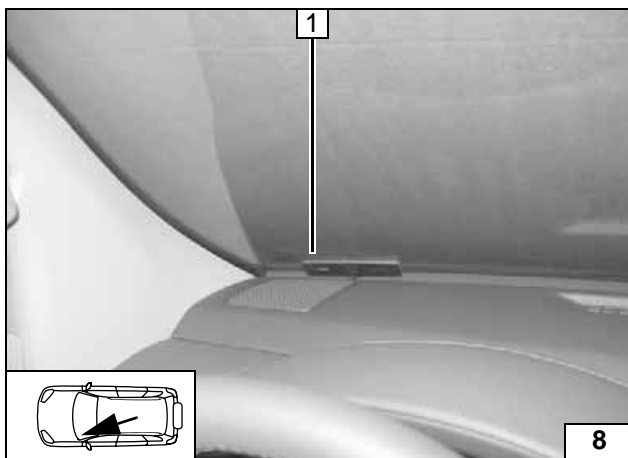


## Remote option (Telestart)

- (1) Receiver
- (2) 4 mm dia. hole; 5.5x13 self-tapping screw [2x]



**Installing receiver**



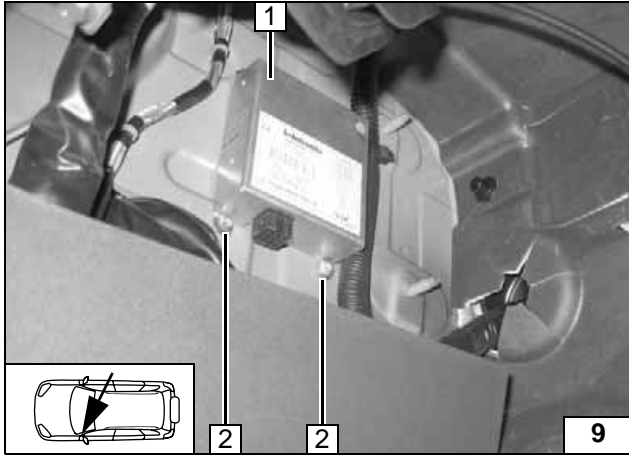
Produce all connections in accordance with general installation instructions provided and fasten wires with cable ties.

- (1) Antenna



**Installing antenna**



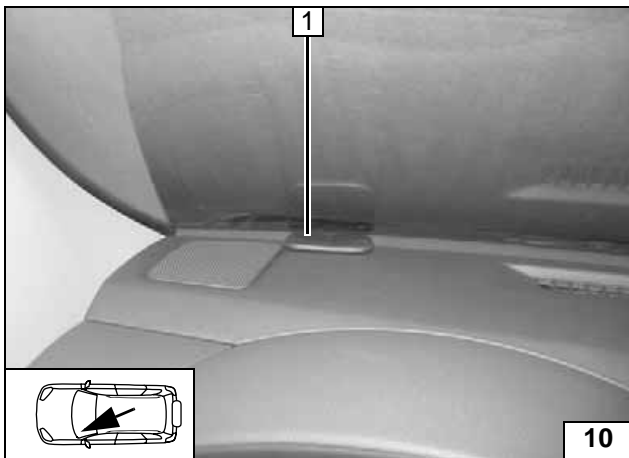


## Remote option (Thermo Call)

- (1) Receiver
- (2) 4 mm dia. hole; 5.5x13 self-tapping screw [4x]

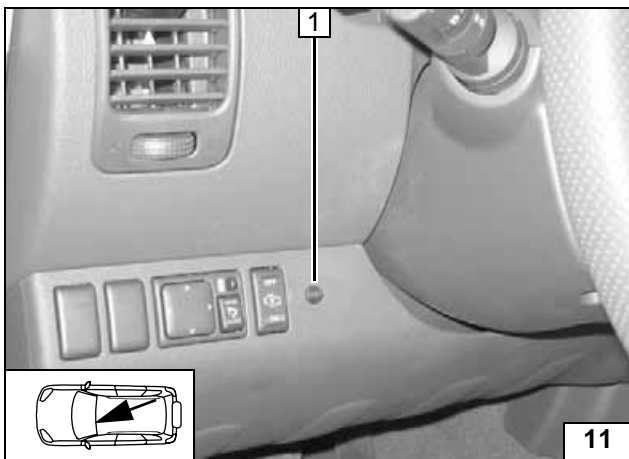


Installing receiver



- (1) Antenna

Installing antenna



Produce all connections in accordance with general installation instructions provided and fasten wires with cable ties.

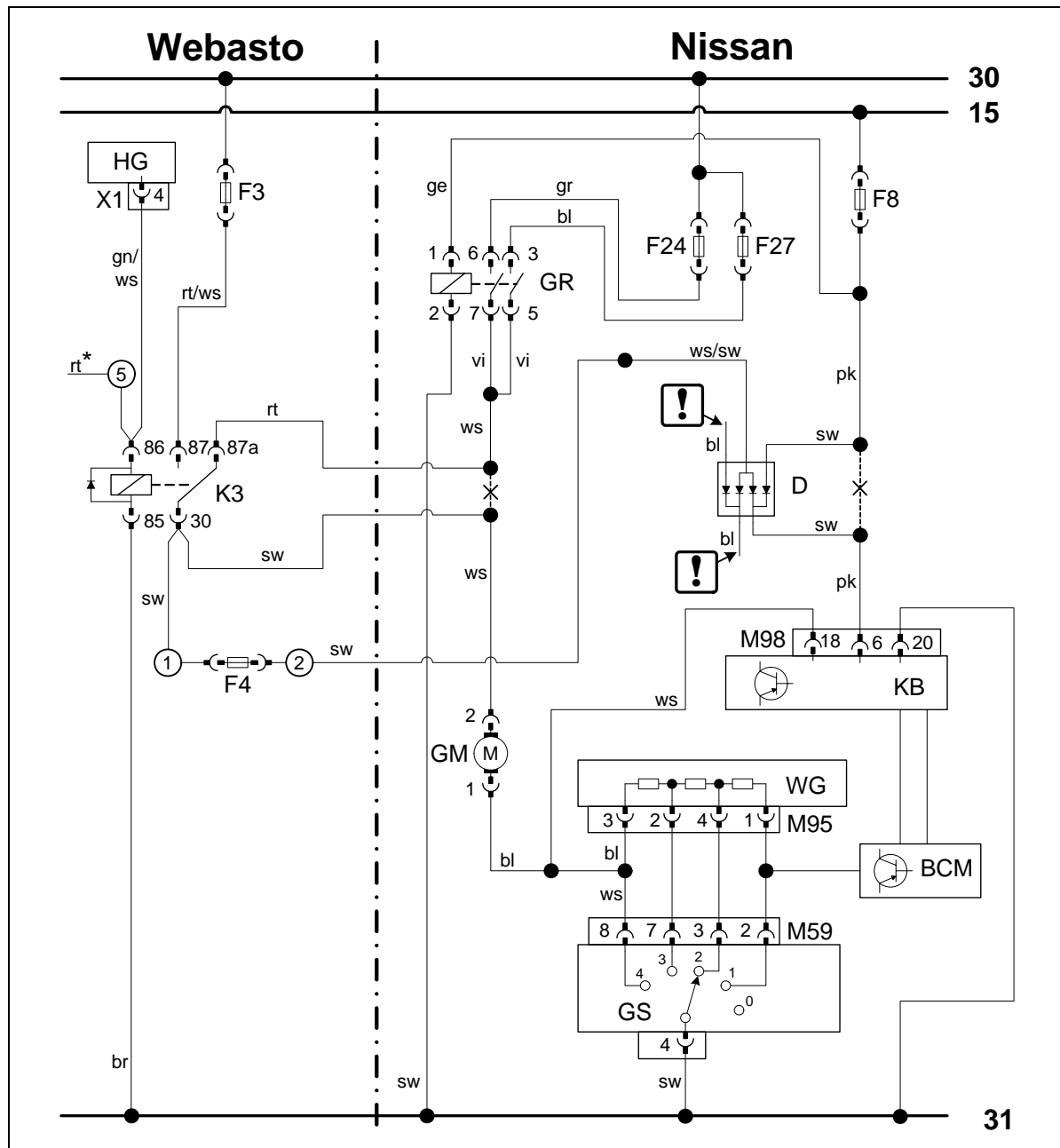
- (1) Push button



Installing push button



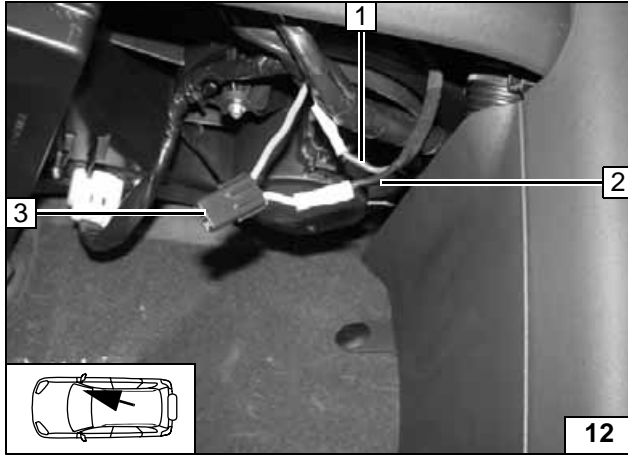
## Fan controller for manual air conditioning



Wiring diagram for manual air conditioning

| Webasto components |  | Nissan components |                     | Colors and symbols      |                                 |
|--------------------|--|-------------------|---------------------|-------------------------|---------------------------------|
| HG                 | Heater unit  | GM                | Fan motor           | rt                      | red                             |
| X1                 | 6-pin heater unit connector                                      | gr                | Fan relay           | ws                      | white                           |
| F3                 | 25 A fuse  | WG                | Resistor group      | sw                      | black                           |
| K3                 | Fan relay  | M95               | 4-pin connector WG  | br                      | brown                           |
| F4                 | 3 A fuse   | GS                | Fan switch          | gn                      | green                           |
| D                  | Diode group  | M59               | 8-pin connector GS  | bl                      | blue                            |
| *                  | Red (rt) wire only on veh. with passenger compartment monitoring | F24               | 15 A fuse           | gr                      | gray                            |
|                    |  | F27               | 15 A fuse           | vi                      | violet                          |
|                    |  | F8                | 10 A fuse           | pk                      | pink                            |
|                    |  | KB                | A/C control panel   | !                       | Insulate wire ends and tie back |
|                    |  | M98               | 26-pin connector KB | X                       | Cutting point                   |
|                    |  |                   |                     | Wiring colors may vary. |                                 |

Legend

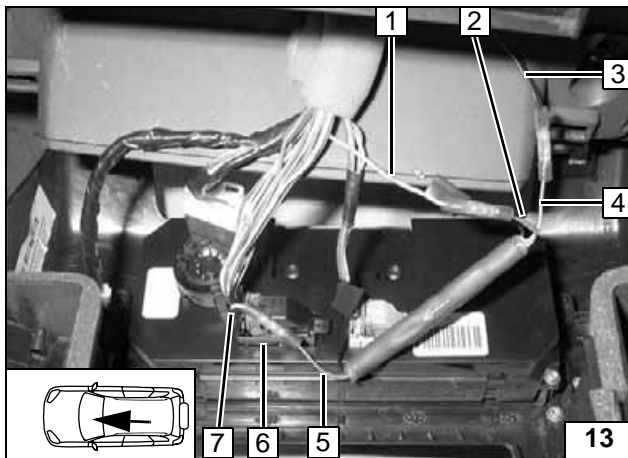


Connection to 2-pin connector from blower motor.  
Cut off white (ws) wire approx. 50 mm before connector. Produce connections as shown in wiring diagram.

- (3) 2-pin connector of fan motor, disconnected
- (1) Red (rt) wire from K3/87a
- (2) Black (sw) wire from K3/30



**Connect-  
ing fan  
motor**



Connection of A/C control panel is carried out on 26-pin connector M98 (6), Pin 6. Produce connections as shown in wiring diagram.

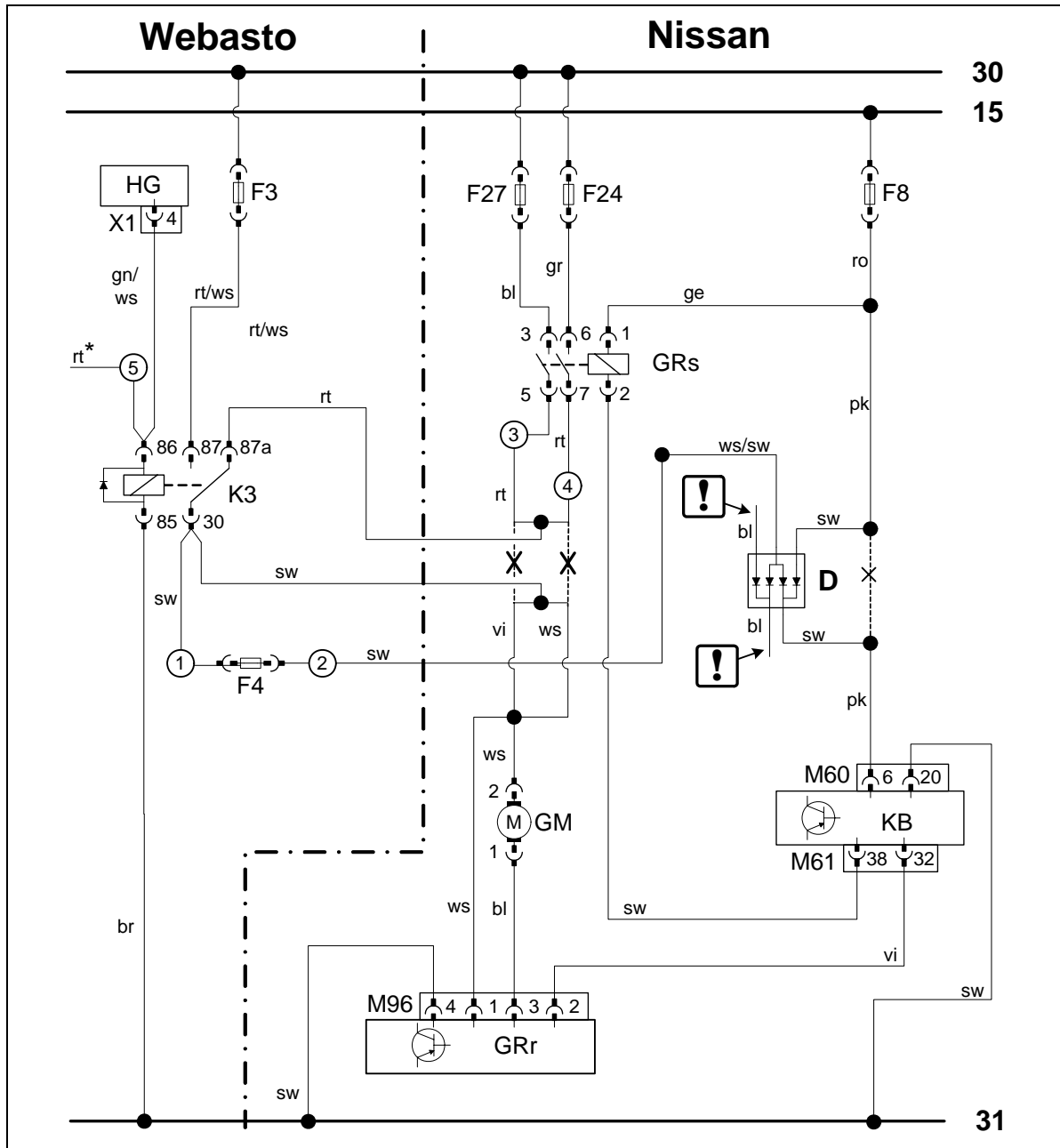
- (1) Pink (pk) wire from fuse F8
- (2) Black (sw) wire to diode group
- (3) Black (sw) wire (2) from F4
- (4) White/black (ws/sw) wire to diode group
- (5) Black (sw) wire from diode group
- (7) Pink (pk) wire to connector M98, Pin 6



**Connec-  
tion of A/C  
control  
panel**



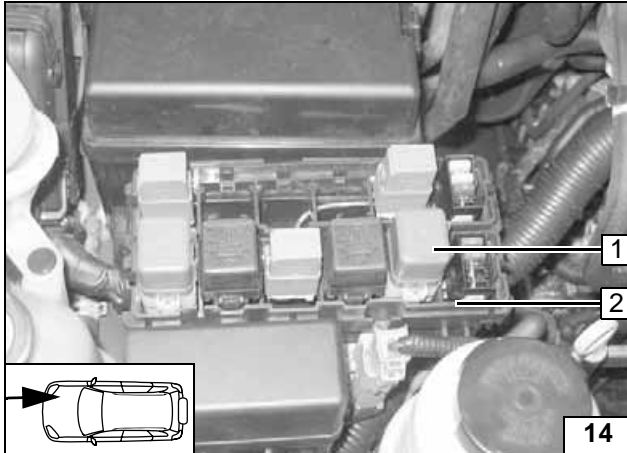
## Automatic air-conditioning fan controller



Automatic air-conditioning circuit diagram

| Webasto components |  | Nissan components |                          | Colors and symbols      |                                 |
|--------------------|--|-------------------|--------------------------|-------------------------|---------------------------------|
| HG                 | Heater unit  | F24               | 15 A fuse                | rt                      | red                             |
| X1                 | 6-pin heater unit connector                                      | F27               | 15 A fuse                | ws                      | white                           |
| F3                 | 25 A fuse  | F8                | 10 A fuse                | sw                      | black                           |
| F4                 | 3 A fuse   | GRs               | Fan relay, front         | br                      | brown                           |
| K3                 | Fan relay  | GM                | Fan motor, front         | gn                      | green                           |
| D                  | Diode group  | KB                | A/C control panel, front | bl                      | blue                            |
|                    |  | M60               | 26-pin connector KB      | ge                      | yellow                          |
| *                  | Red (rt) wire only on veh. with passenger compartment monitoring | M61               | 40-pin connector KB      | pk                      | pink                            |
|                    |  | GRr               | Fan controller, front    | vi                      | violet                          |
|                    |  | M96               | Connector GRr            | !                       | Insulate wire ends and tie back |
|                    |  |                   |                          | X                       | Cutting point                   |
|                    |  |                   |                          | Wiring colors may vary. |                                 |

Legend

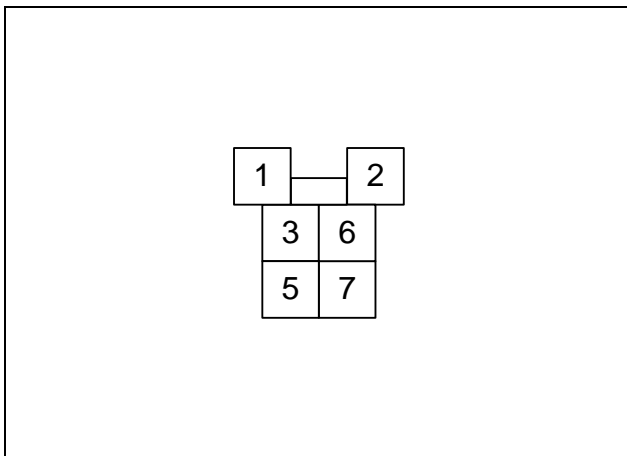


Fan motor is connected on original vehicle fan relay for front in engine compartment.

- (1) Fan relay, front
- (2) Relay carrier



Fan relay

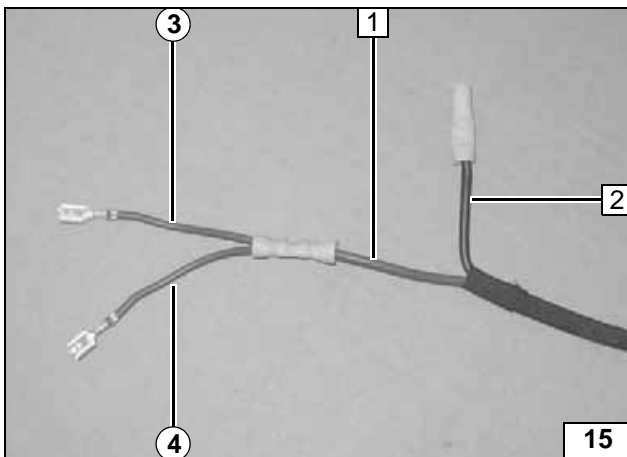


View of fan relay socket!  
Seen from above!

Imprint on relay or socket may differ from original vehicle wiring diagram, and is therefore irrelevant!



View of relay socket

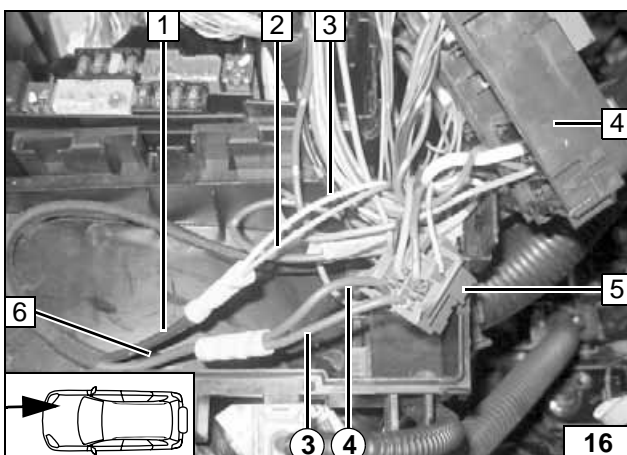


Route wiring harness from K3 relay to relay carrier and cut to length.  
Premount wiring harness with included yellow (ge) connector and wiring diagram.  
Connect prepared red (rt) wires (3) and (4).

- (1) Red (rt) wire from K3/87a
- (2) Black (sw) wire from K3/30



Preparing wiring harness



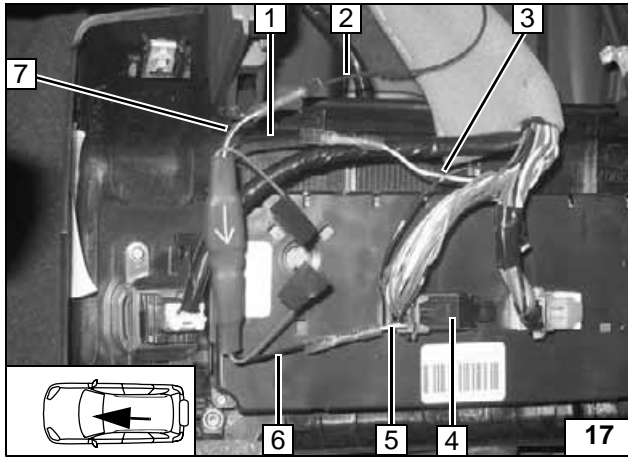
Expose relay carrier as shown.

Uncrimp original vehicle violet (vi) (2) and white (ws) (3) wires from relay socket (5), Pin 5 and 7, and cut off tab receptacles.  
Produce connections as shown in wiring diagram.

- (4) Relay carrier
- (5) Relay socket
- (3) White (ws) wire to fan motor and fan controller
- (2) Violet (vi) wire to fan motor and fan controller
- (1) Black (sw) wire from K3/30
- (6) Red (rt) wire from K3/87a



Connecting fan motor



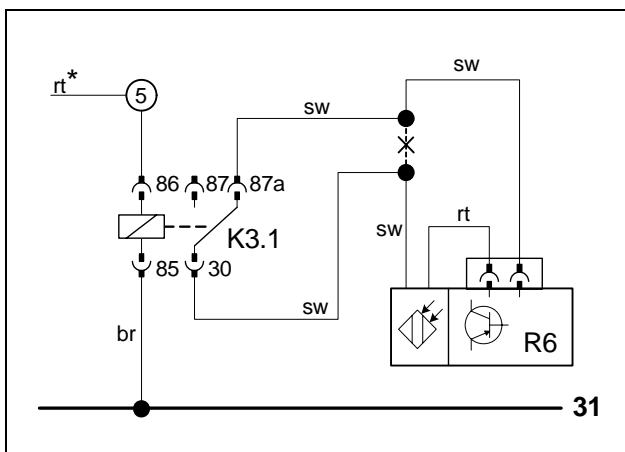
Connection of A/C control panel is carried out on left-hand 26-pin connector M98 (4), Pin 6. Produce connections as shown in wiring diagram.

- (1) Black (sw) wire to diode group
- (2) Black (sw) wire (2) from F4
- (3) Pink (pk) wire from fuse F8
- (5) Pink (pk) wire to connector M60, Pin 6
- (6) Black (sw) wire from diode group
- (7) White/black (ws/sw) wire to diode group



**Actuating  
A/C control panel**

## Switch-off function of passenger compartment monitoring



### Webasto components:

- K3.1 = Additional relay
- rt\* = Red (rt) wire from K3/86

### Vehicle components:

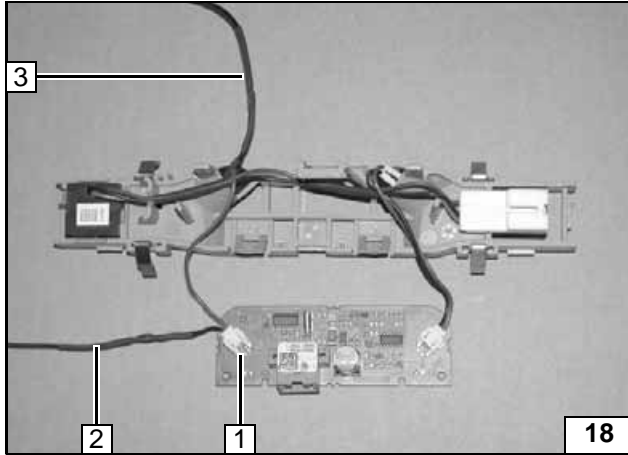
- R6 = Ultrasound sensor

### Legend:

- X = Cutting point
- rt = Red wire
- sw = Black wire
- br = Brown wire

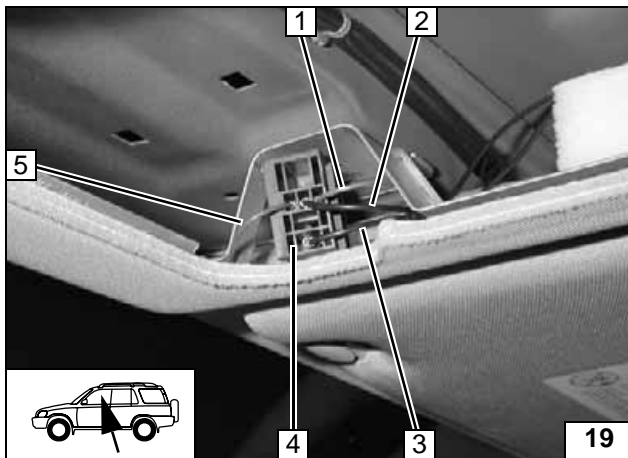


**Wiring diagram for passenger compartment monitoring**



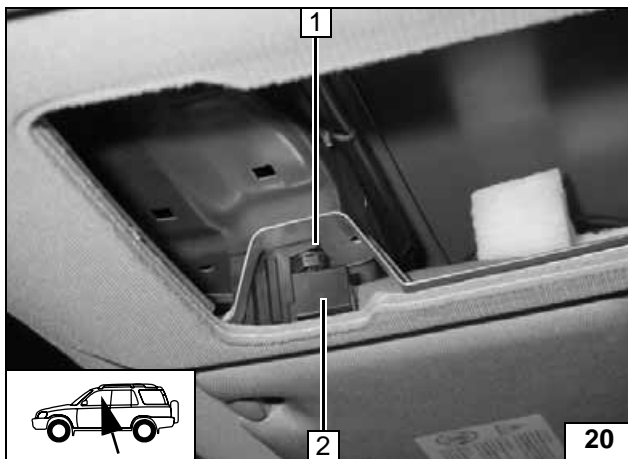
Connection is carried out on 2-pin connector of ultrasound sensor R6 (1). Disconnect black (sw) wire from 2-pin connector (1) and connect to black (sw) wires (2) and (3) provided (solder and insulate).

**Disconnecting and extending wire**



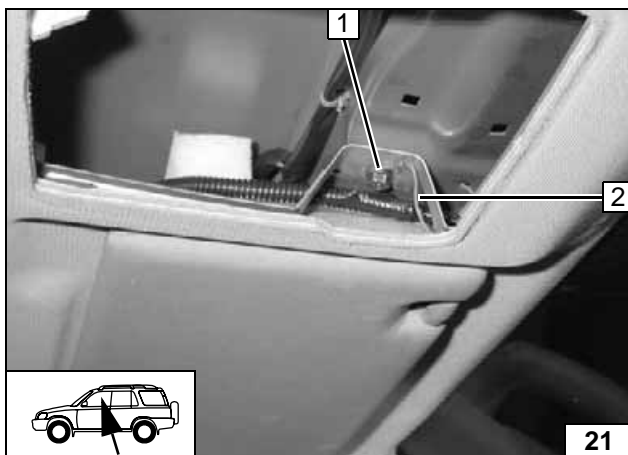
- (1) Brown (br) wire K3.1/85
- (2) Black (sw) wire from ultrasound sensor R6
- (3) Black (sw) wire from ultrasound sensor R6
- (4) K3.1 relay
- (5) Red (rt) wire (5) from K3/86

**Preparing K3.1 relay**



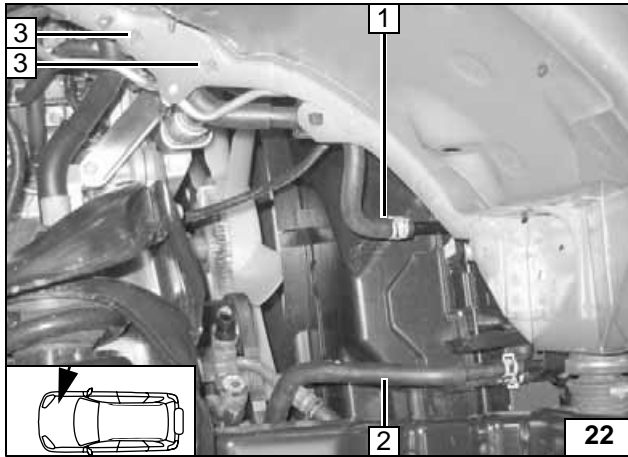
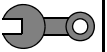
- (1) Original vehicle bolt
- (2) K3.1 relay

**Installing K3.1 relay**



- (1) Original vehicle bolt
- (2) Brown (br) wire K3.1/85

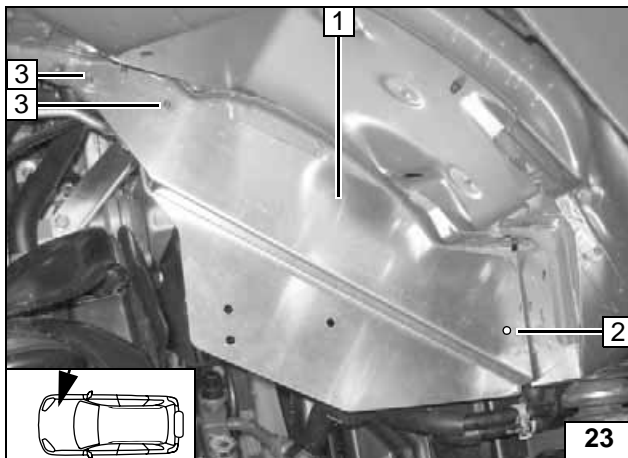
**Ground connection of K3.1 relay**



## Preparing installation location

- (1) Line from steering reservoir
- (2) Line to automatic-transmission oil cooler
- (3) Bolts from bracket of steering reservoir [2x]

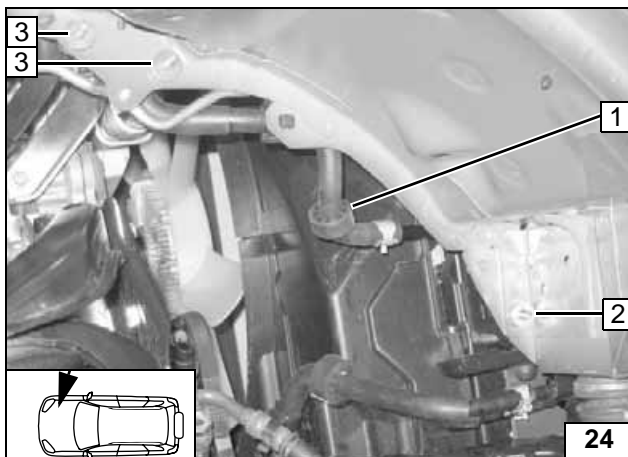
Original state



- (1) Bracket aligned as shown
- (3) Bolts from bracket of steering reservoir [2x]
- (2) Copy hole pattern

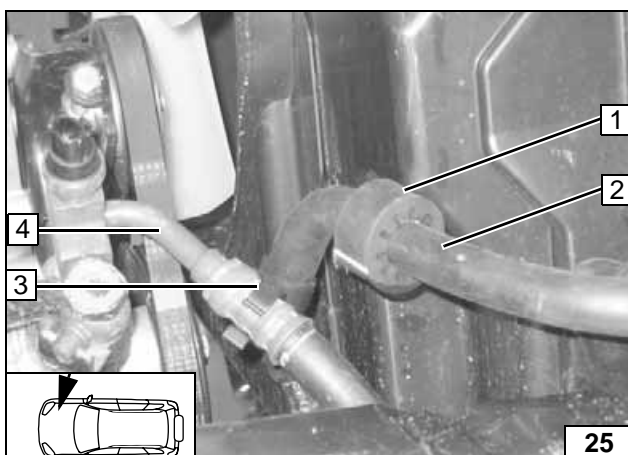
Preparing installation location

Remove bracket again



- (1) 15 mm dia. black (sw) rubber profile
- (2) 6.5 mm dia. hole, M6x20 bolt, large diameter washer (from inside), mm shim, pin lock (from outside)
- (3) Bolts replaced with M6x40 bolts, large diameter washers (from inside) and large diameter washer (from outside)[2x]

Preparing installation location



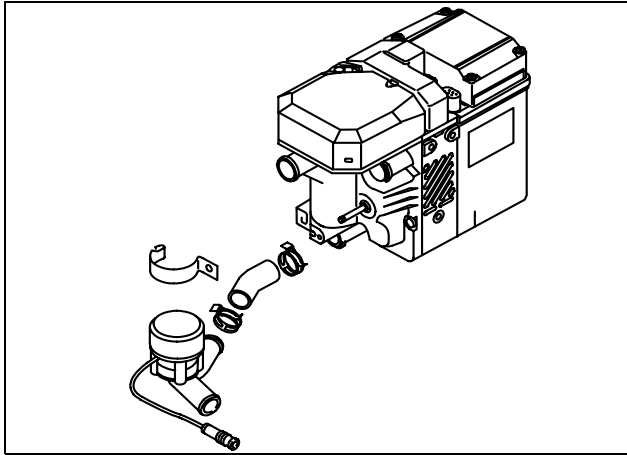
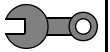
Route line to automatic-transmission oil cooler (2) before steering line (4)

- (1) 20 mm dia. black (sw) rubber profile
- (2) Line to transmission oil cooler
- (4) Steering line
- (3) 18/18 double clip



Preparing installation location



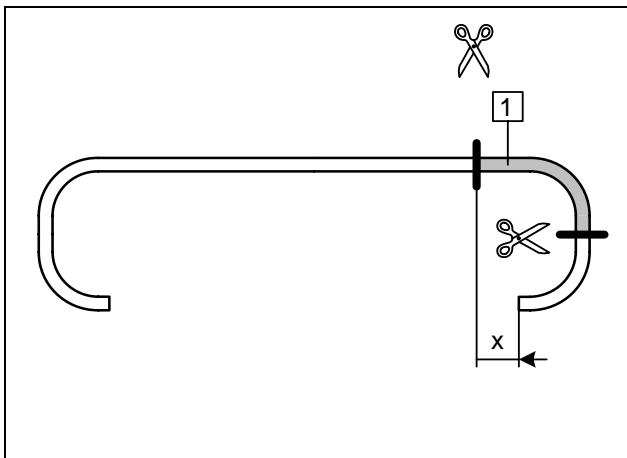


## Premounting heater unit

Spring clips [2x] will be reused!



Removing circulating pump

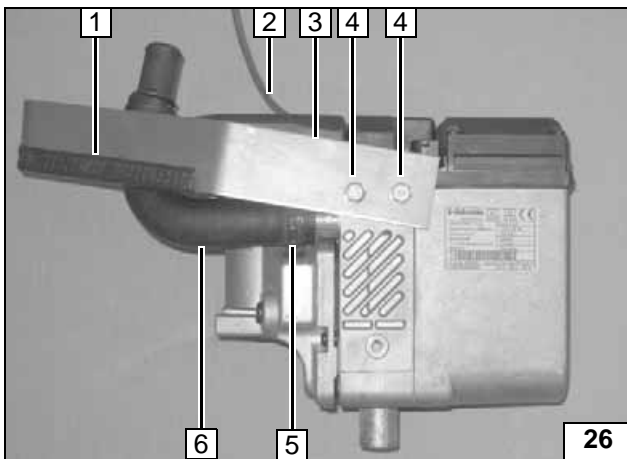


x = 60 mm

Remaining sections will be used later

(1) Hose on heater unit outlet

Cutting coolant hose on heater unit output to length

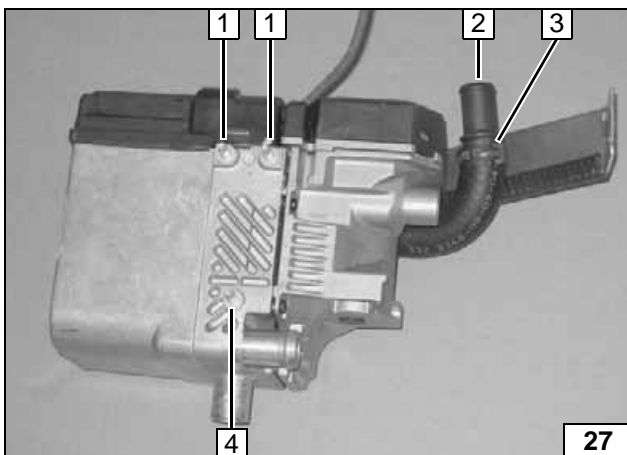


Ejot screws, tightening torque 10 Nm!

- (2) Extension wiring harness for circulating pump connected
- (5) 27 mm dia. spring band clamp
- (6) Hose on heater unit outlet
- (3) Strut
- (4) Ejot screws [2x]
- (1) 100 mm edge protection



Premounting heater unit

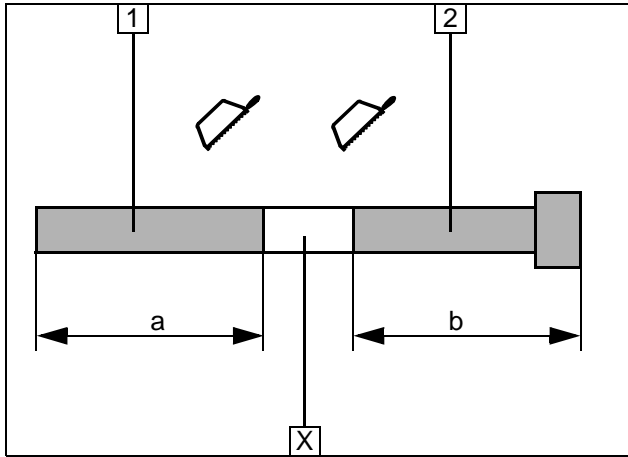
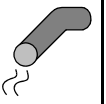


Ejot stud, tightening torque 10 Nm.  
Insert 2 washers between heater unit and Ejot studs at Position (4) as height compensation.

- (1) Ejot stud [2x]
- (4) Ejot stud, washer [2x]
- (2) 20/20 connecting pipe
- (3) 27 mm dia. spring band clamp



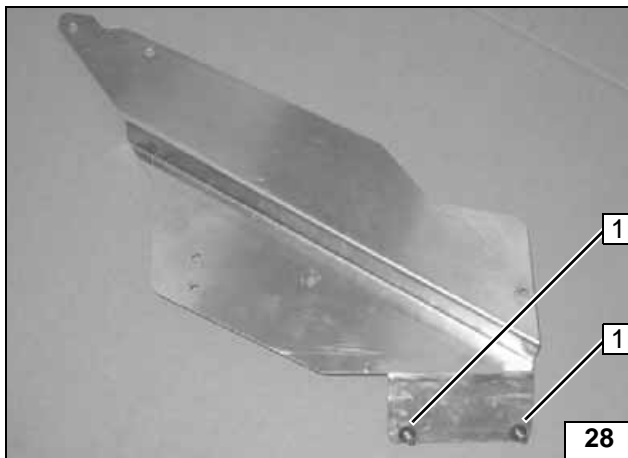
Premounting heater unit



- (1) Exhaust pipe  
a = 550 mm
- (2) Exhaust end section  
b = 350 mm

Discard section **X**

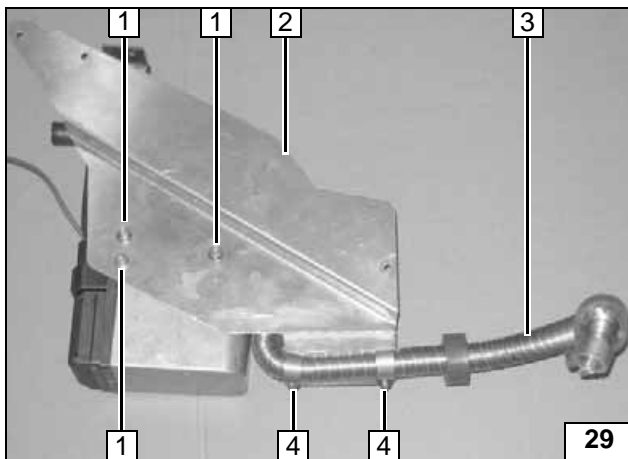
**Cutting exhaust pipe to length**



- (1) M6x12 bolt (from below), pin lock (from above) [2x]



**Preassembling bracket**

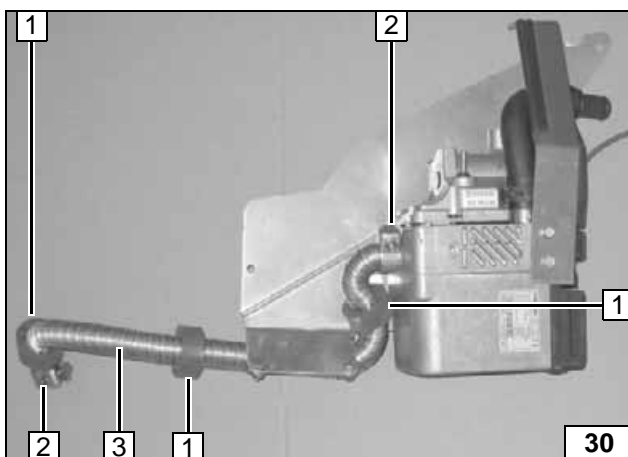


Shape exhaust pipe as shown  
Only loosely mount all components.

- (2) Bracket
- (1) Flanged nut [3x]
- (3) Exhaust pipe
- (4) P-clamp, flanged nut [2x]



**Preassembling exhaust pipe**



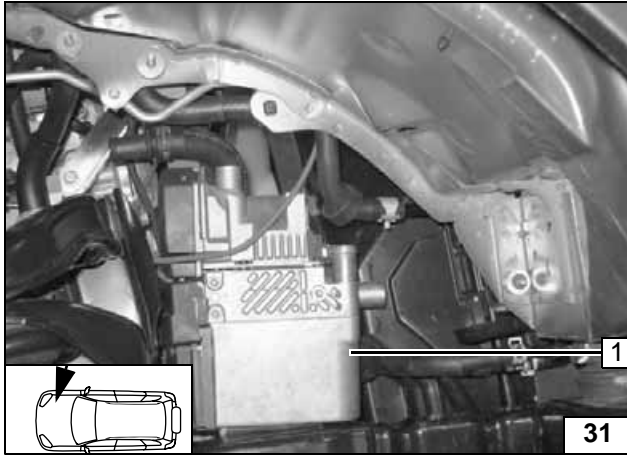
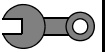
- (3) Exhaust pipe
- (1) Red (rt) rubber profile [3x]
- (2) Hose clamp [2x]



**Premounting exhaust pipe**

Remove bracket and exhaust pipe from heater unit again.





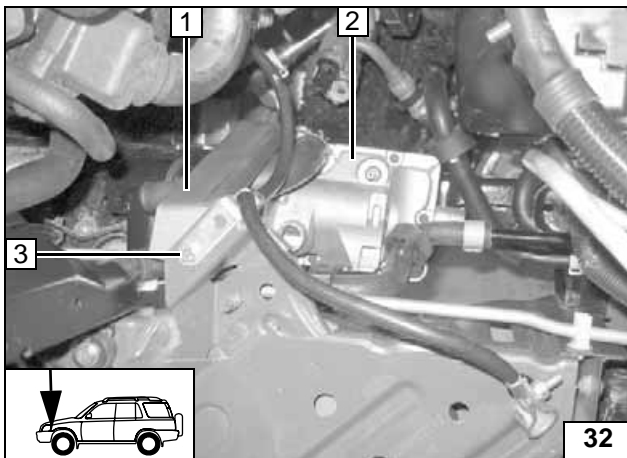
## Installing Heater Unit

Connect wiring harness on heater unit.

(1) Heater unit



Installing  
heater unit



(3) Original vehicle bolt replaced with M6x20 bolt, washer

(2) Heater unit

(1) Strut loosely mounted on bolt (3) with flanged nut



Installing  
heater unit



## Coolant connection with manual transmission

### WARNING!

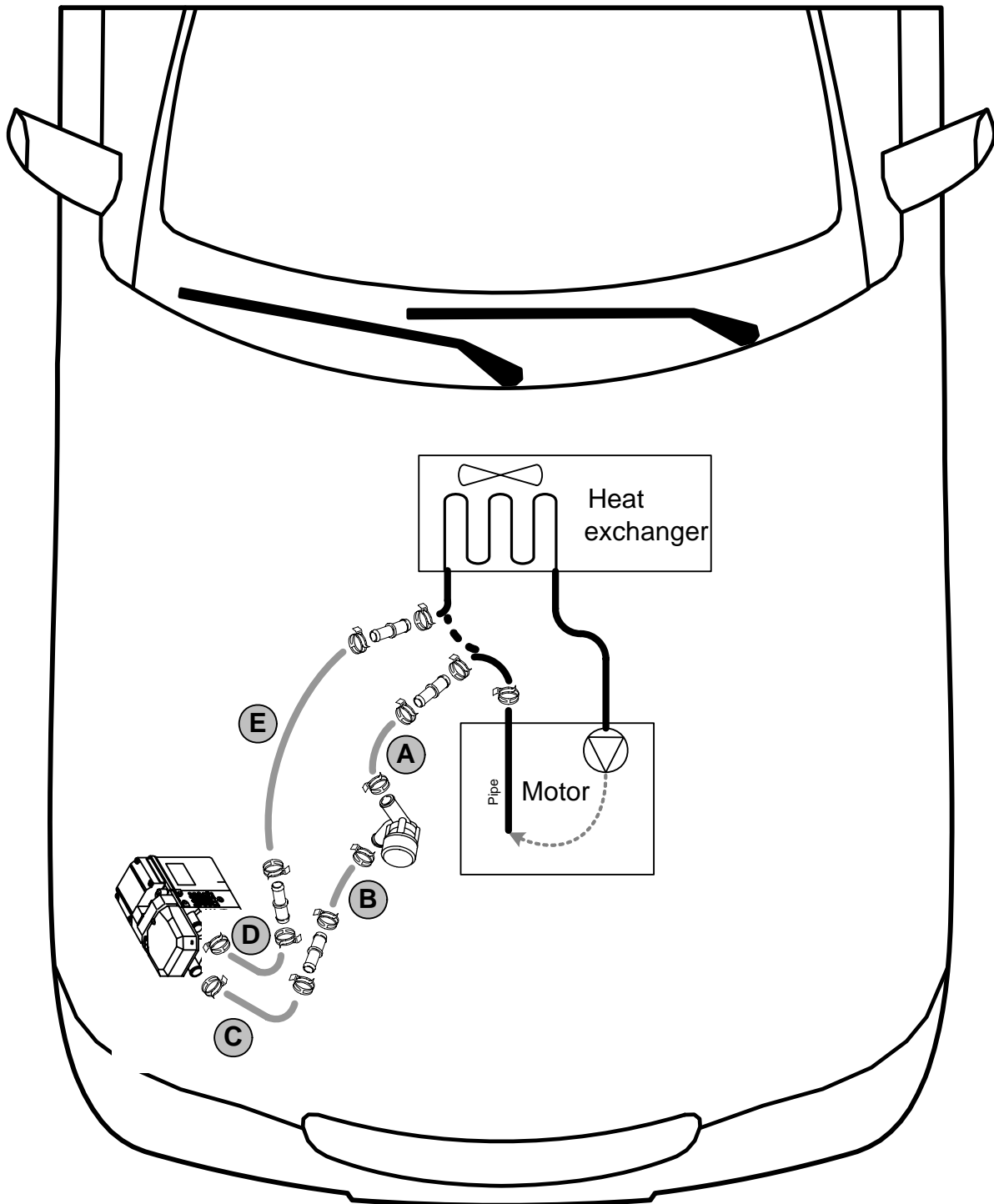
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any cold water running off should be collected using an appropriate container!

Route coolant hoses kink-free! Unless specified otherwise, always fasten using cable ties.

Position hose and spring clips so that no other hose can be damaged!

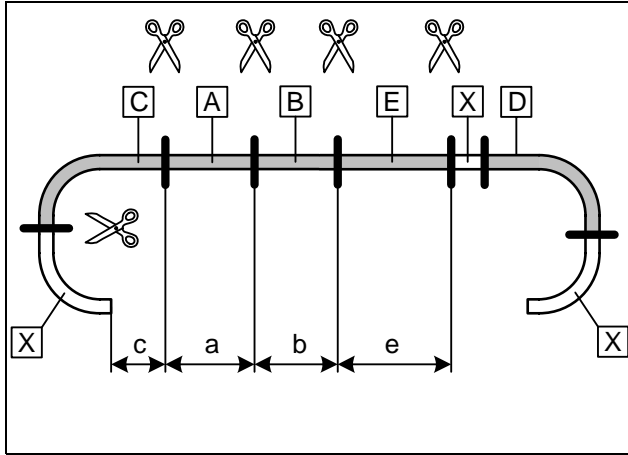
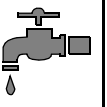
The connection should be "inline" based on the following diagram:



Coolant diagram for manual transmission

All clamps without a specific designation are 20-27 mm dia. hose clamps.  
All connecting pipe not specified are 20 mm x 20 mm dia.!





## Preparing coolant connection

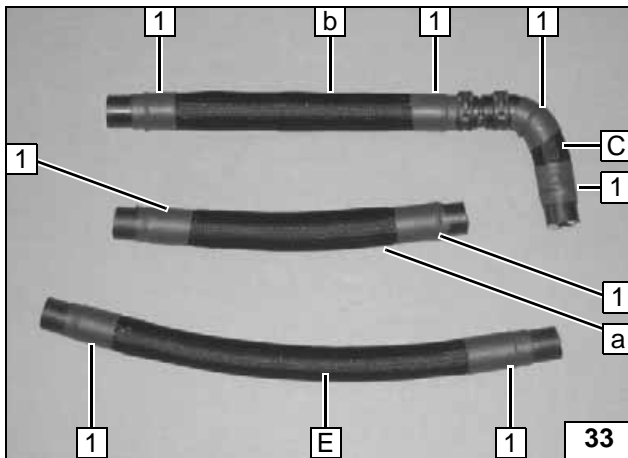
Hose **D** is already mounted on heater unit!

a = 270 mm  
b = 300 mm  
c = 50 mm  
e = 430 mm

Discard sections **X**



**Cutting coolant hoses to length**

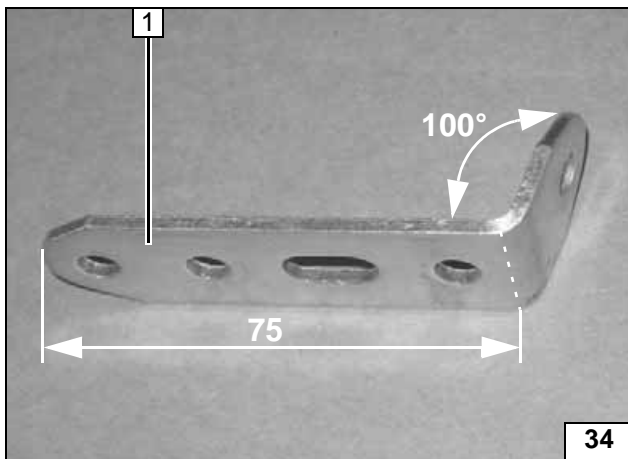


Push braided protection hose onto hose **A**, **B**, **C** and **E** and cut to length. Connect hose **B** and **C**.

(1) Heat shrink plastic tubing [8x]



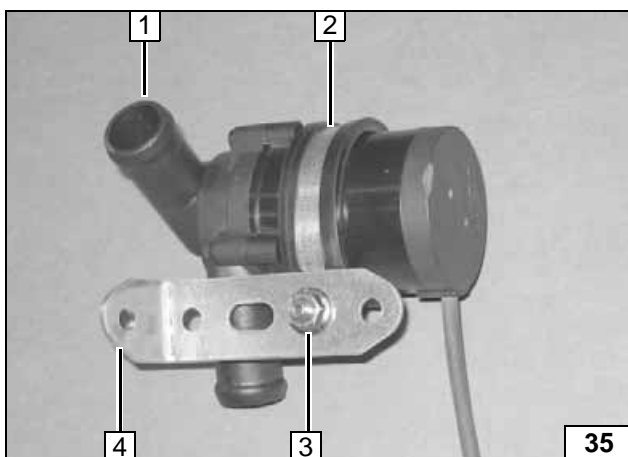
**Premounting coolant hoses**



Long hole spacing at Position (1)!



**Bending perforated bracket**

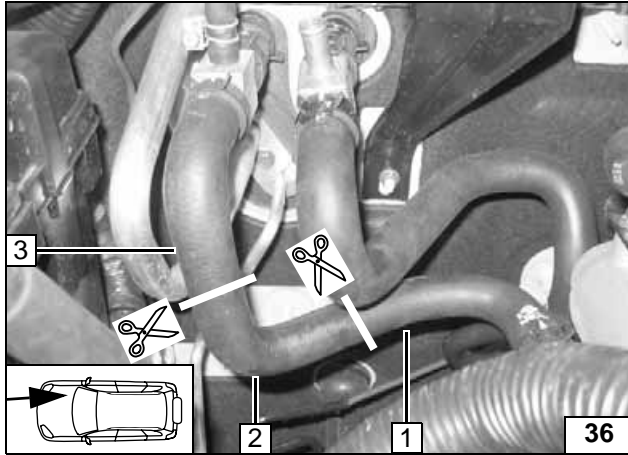
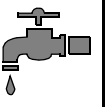


Observe direction of flow.

- (1) Intake side
- (2) 48 mm dia. rubber-coated p-clamp
- (3) M6x20 bolt, flanged nut
- (4) Perforated bracket



**Premounting circulating pump**

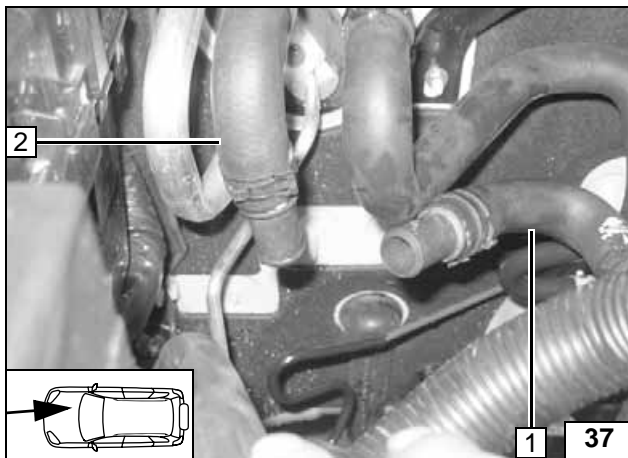


## Coolant connection

- (1) Hose section on engine outlet
- (2) Discard section
- (3) Hose section on heat exchanger inlet



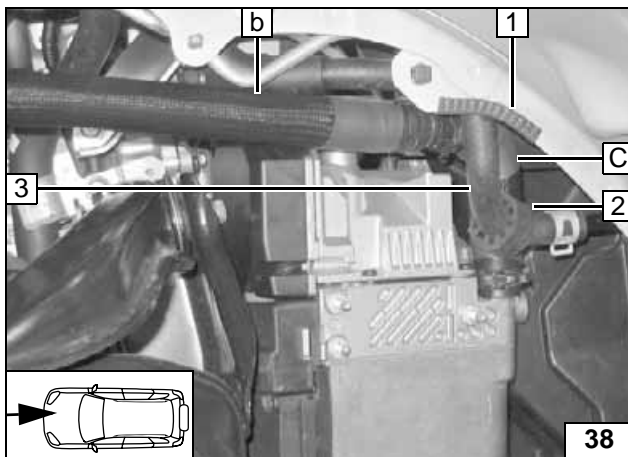
**Cutting point**



- (1) Hose section on engine outlet
- (2) Hose section on heat exchanger inlet



**Mounting connection pipes**

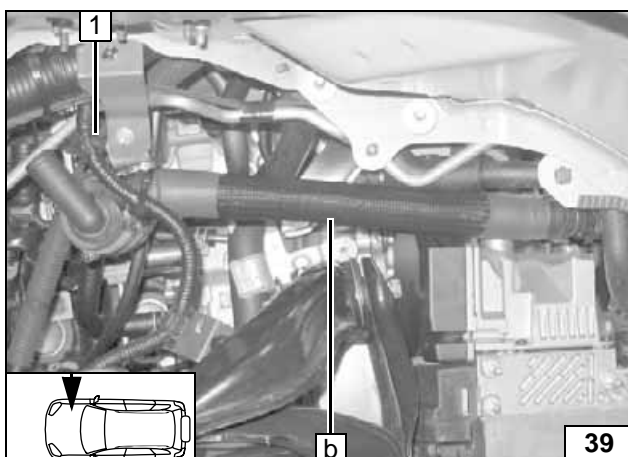


Align line (3) and rubber profile (2) as shown.

- (1) 50 mm edge protection

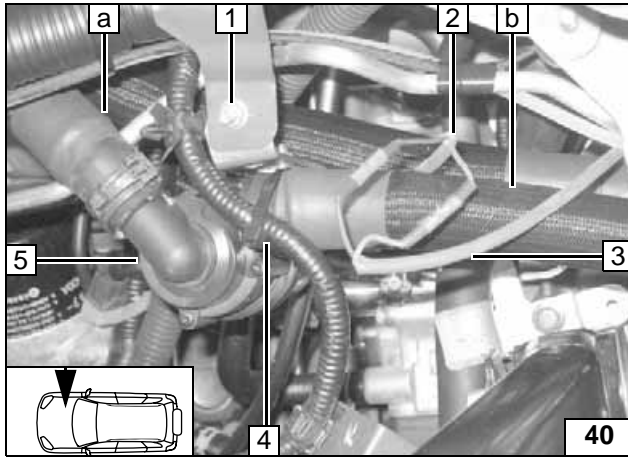


**Connection to heater unit inlet**



- (1) Unclip wiring harness

**Installation location of circulating pump**

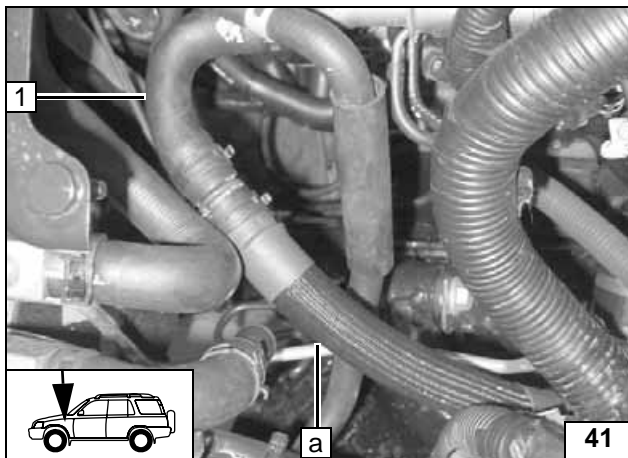


Observe direction of flow. Pressure side faces toward heater unit!  
Connect wiring harnesses to same colors with red (rt) shrink connectors (crimp and shrink).

- (5) Circulating pump, premounted
- (1) M6x12 bolt, large diameter washer, flanged nut
- (2) Wiring harness of circulating pump
- (3) Extension wiring harness from heater unit
- (4) Wiring harness fastened with cable tie



## Installing circulating pump

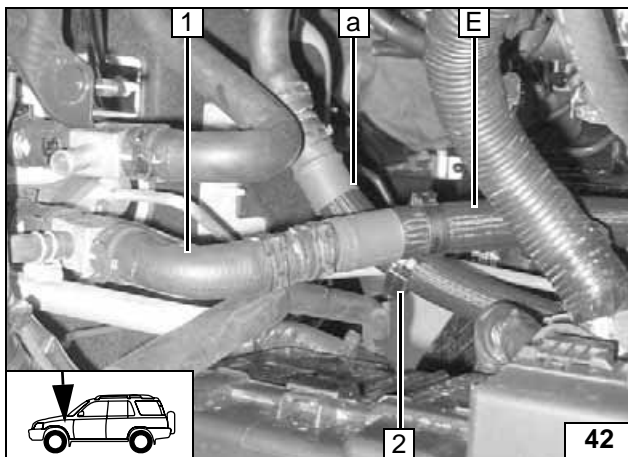


Before connecting, fill the coolant hoses with coolant.

- (1) Hose section on engine outlet



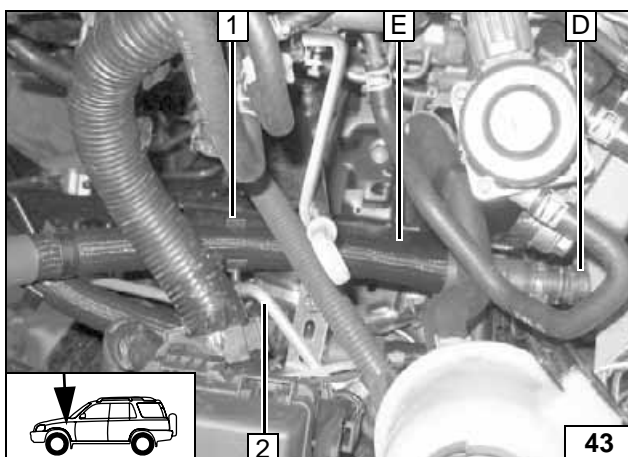
## Connection to engine outlet



- (1) Hose section on heat exchanger inlet
- (2) 27x27 double clip



## Connection to heat exchanger inlet



Before connecting, fill the coolant hoses with coolant.

- (1) 8x25 double clip on E and A/C line
- (2) A/C line



## Connection to heater unit outlet

Check positioning of coolant hoses A, B, C, D, E and circulating pump and correct if necessary.





## Coolant connection for automatic transmission



### WARNING!

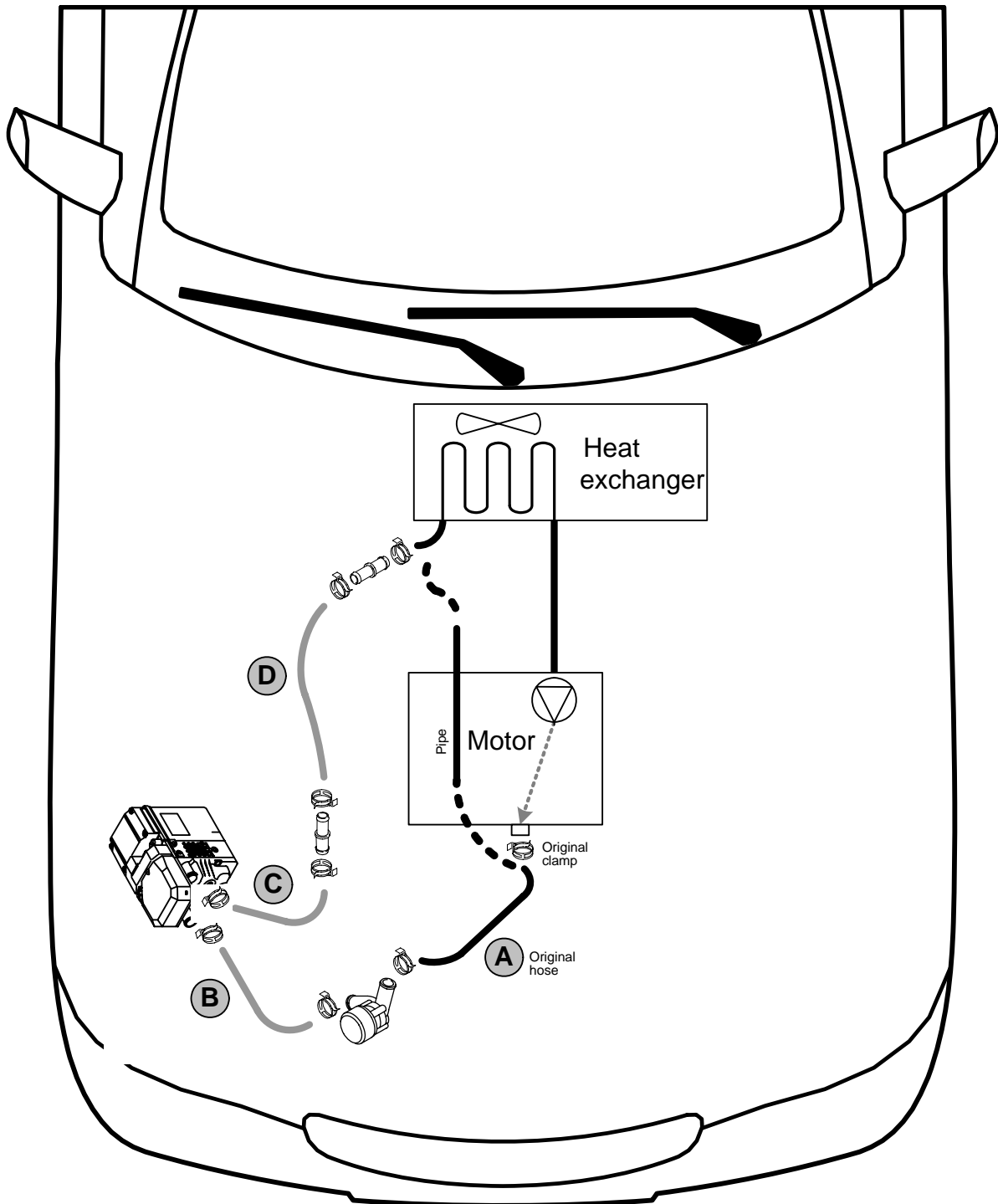
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any cold water running off should be collected using an appropriate container!

Route coolant hoses kink-free! Unless specified otherwise, always fasten using cable ties.

Position hose and spring clips so that no other hose can be damaged!

The connection should be "inline" based on the following diagram:

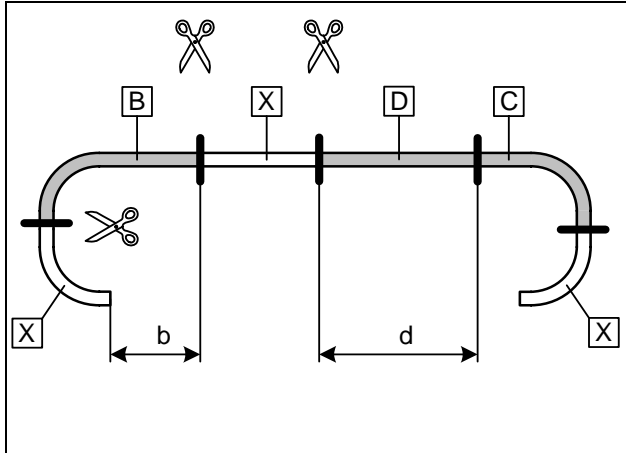


Coolant diagram for automatic transmission

All clamps without a specific designation are 20-27 mm dia. hose clamps.  
All connecting pipe not specified are 20 mm x 20 mm dia.!







## Preparing coolant connection

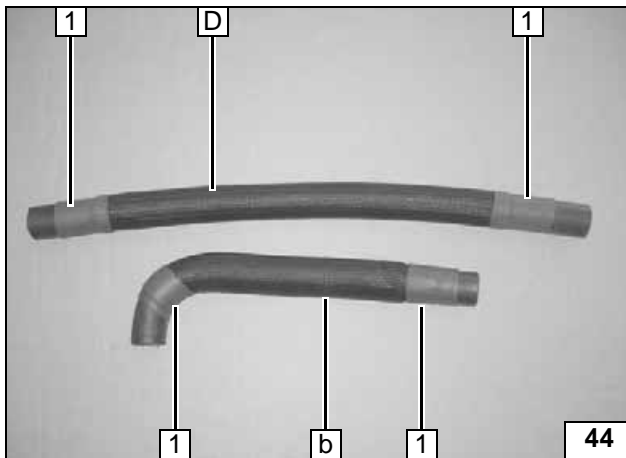
Hose **C** is already mounted on heater unit!

b = 200 mm  
d = 450 mm

Discard sections **X**



**Cutting coolant hoses to length**

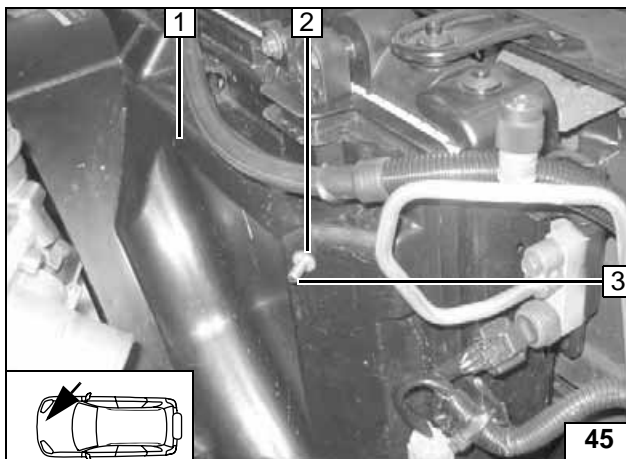


Push braided protection hose onto hose **B** and **D** and cut to length!

(1) Heat shrink plastic tubing [4x]



**Premounting coolant hoses**

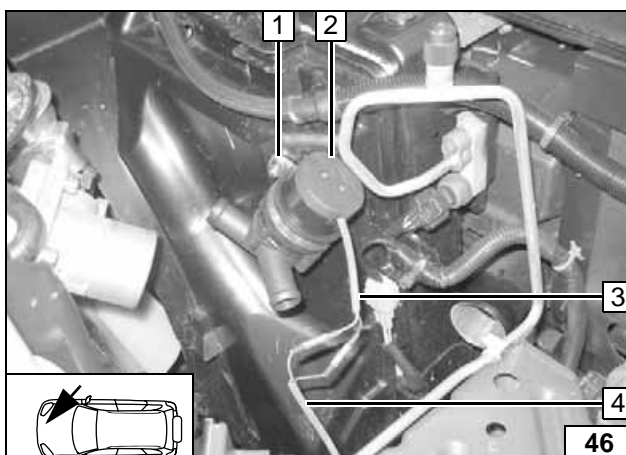


Do not damage radiator!

- (1) Detach radiator trim
- (2) 6.5 mm dia. hole
- (3) M6x20 bolt, large diameter washer (from inside), pin lock (from outside)



**Installing circulating pump**



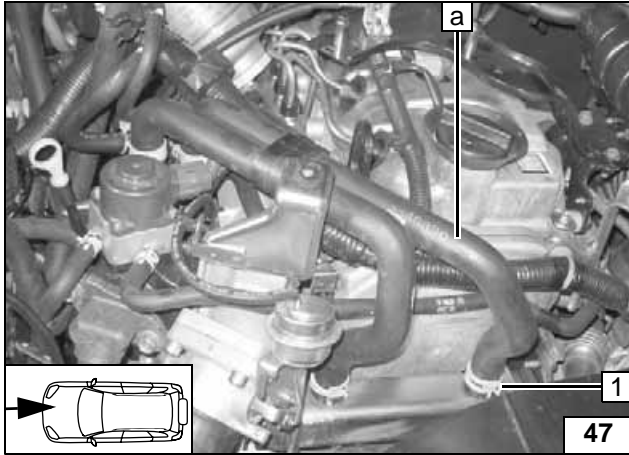
Observe direction of flow. Pressure side faces toward heater unit!

Connect wiring harnesses to same colors with red (rt) shrink connectors (crimp and shrink).

- (2) Circulating pump
- (1) 48 mm dia. rubber-coated p-clamp, flanged nut
- (3) Wiring harness of circulating pump
- (4) Extension wiring harness from heater unit



**Installing circulating pump**

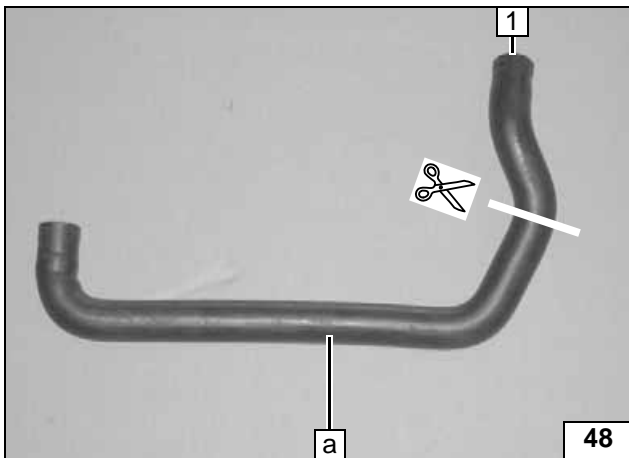


## Coolant connection

Remove hose A. Hose A and clamp (1) will be reused!

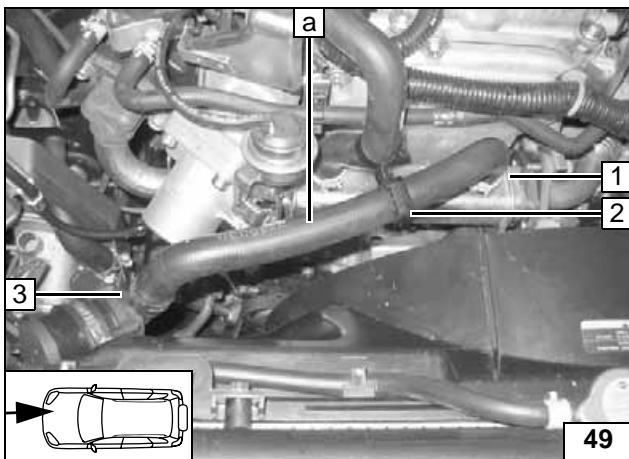


Removing original hose



(1) Discard section

Cutting point

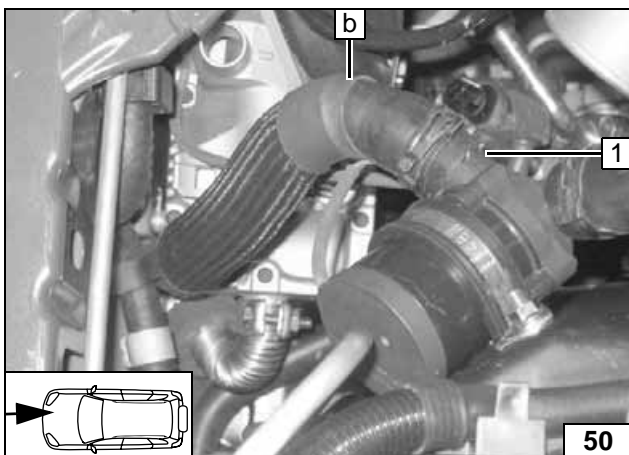


Side of hose A cut to length is connected to intake side of circulating pump

- (1) Engine outlet
- (2) 27x27 double clip
- (3) Intake side of circulating pump

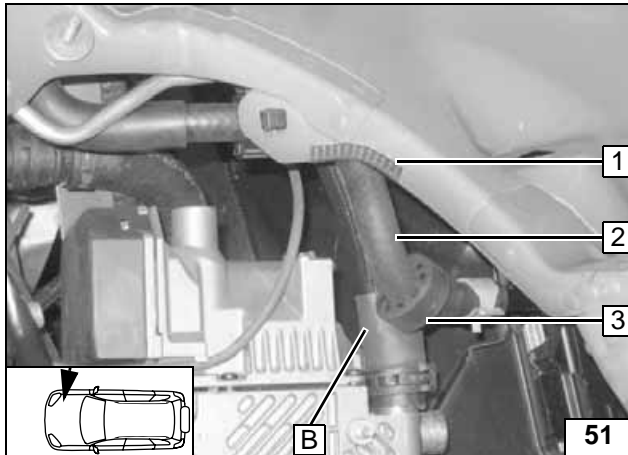


Connecting engine outlet and circulating pump



(1) Pressure side of circulating pump

Connecting pressure side of circulating pump

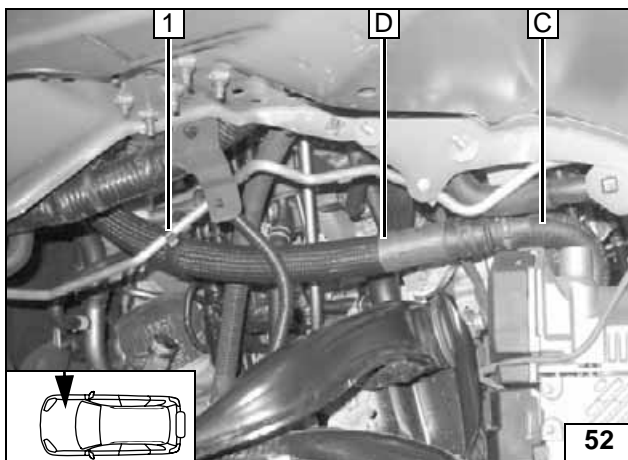


Align line (1) and rubber profile (2) as shown.

- (1) 50 mm edge protection
- (2) Line from steering reservoir
- (3) Rubber profile (premounted)

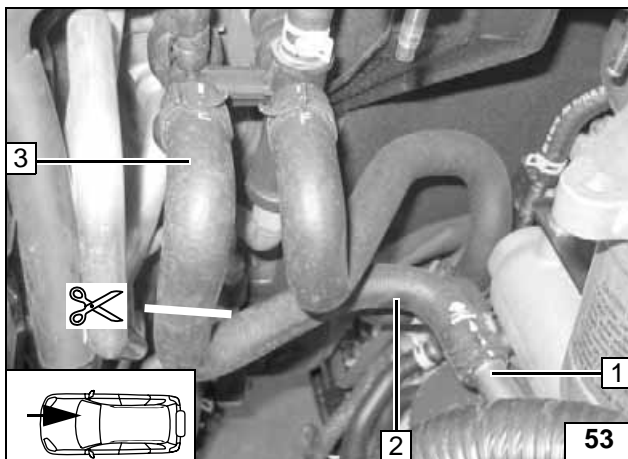


Conne-  
ction to  
heater unit  
inlet



(1) 8x25 double clip on D and A/C line

Conne-  
ction to  
heater unit  
outlet

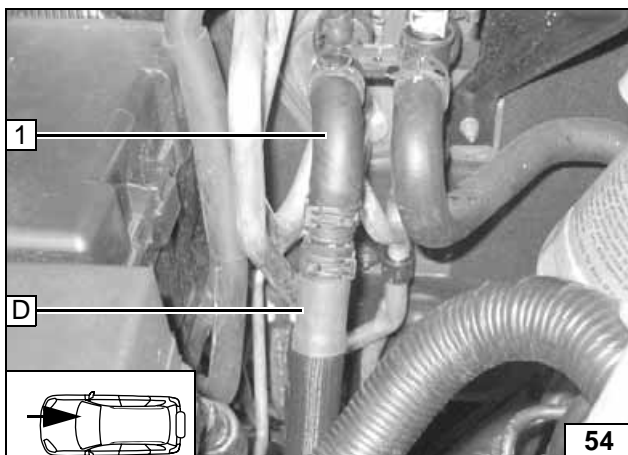


Pipe (1) remains without function!

- (3) Hose section on heat exchanger inlet
- (2) Discard hose section
- (1) Pipe



Cutting  
point



Before connecting, fill the coolant hoses with coolant.

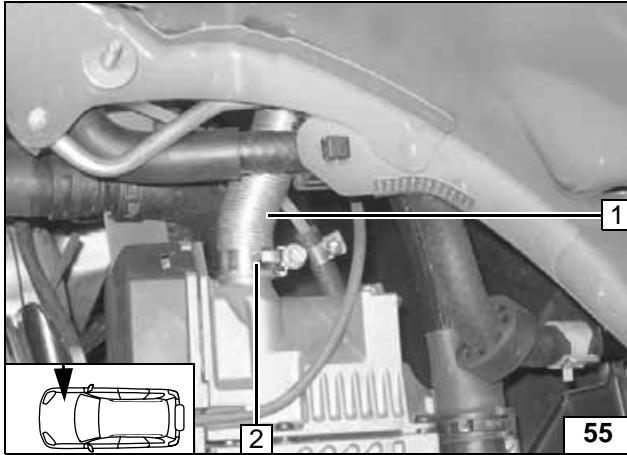
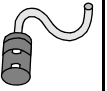
(1) Hose section on heat exchanger inlet



Conne-  
ction to  
heat ex-  
changer  
inlet

Check positioning of coolant hoses A, B, C, D and circulating pump and correct if necessary.

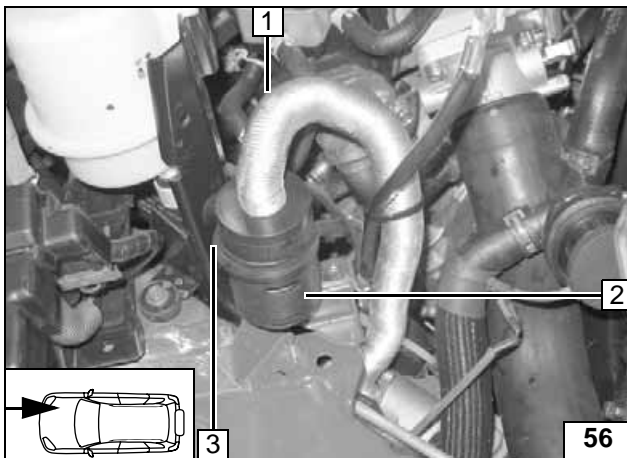




## Combustion air

- (1) Combustion-air intake pipe (slotted side on heater unit)
- (2) 27 mm dia. hose clamp

Installing combustion air pipe



For improved overview, fuse holder is not shown!  
Shape combustion-air intake pipe as shown in picture.

- (1) Combustion-air intake pipe
- (2) Intake muffler
- (3) Retaining clip engaged in existing hole



Installing intake muffler



## Fuel Connection

### CAUTION!

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

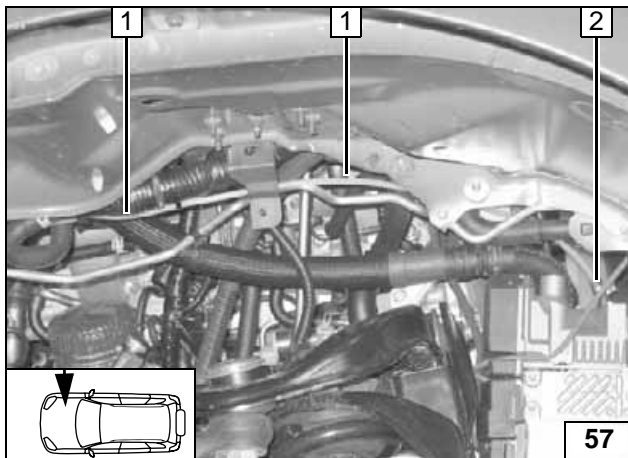
Catch any fuel running off with an appropriate container.

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!

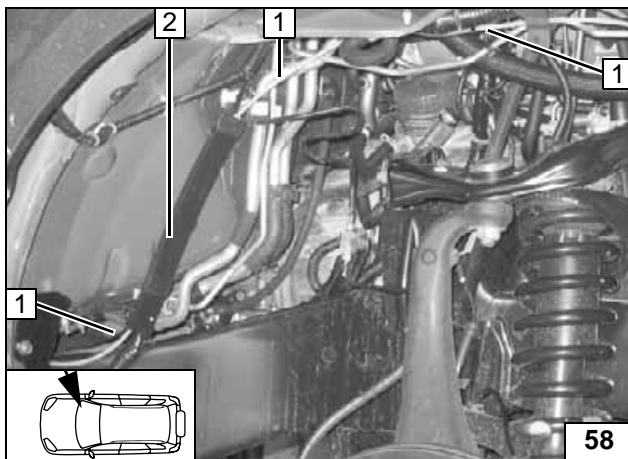
The fuel line and wiring harness are routed to the metering pump in as shown in the wiring harness routing diagram.



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

Con-  
nection on  
heater unit

Route Mecanyl line and wiring harness of metering pump along vehicle wiring harness to firewall.

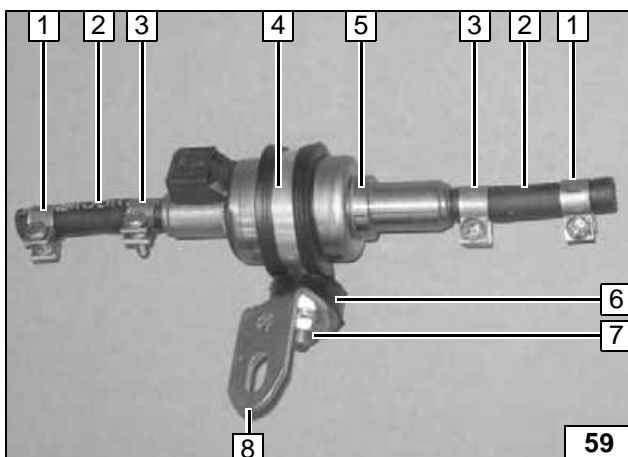


Route Mecanyl line and wiring harness of metering pump downward through cable duct (2).

- (1) Mecanyl line, wiring harness of metering pump
- (2) Cable duct

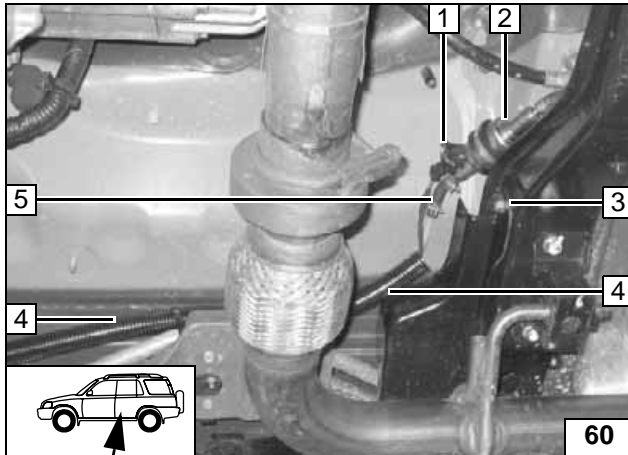


Routing  
Mecanyl  
line and  
wiring har-  
ness of  
metering  
pump



- (5) Metering pump
- (4) Rubber-coated p-clamp
- (6) Silent block
- (7) Flanged nut [2x]
- (8) Angle bracket
- (2) Hose section [2x]
- (1) 10 mm dia. hose clamp [2x] loosely mounted
- (3) 10 mm dia. hose clamp [2x]

Premount-  
ing meter-  
ing pump

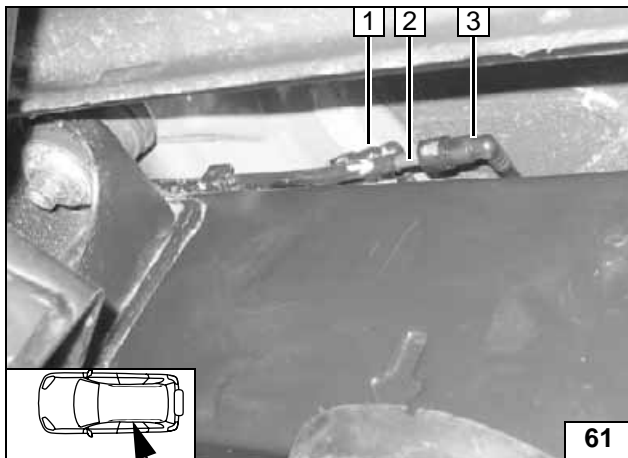


Ensure proper installation position of metering pump, see "Installation Instructions". Fuel line from heater unit on pressure side of metering pump [side with connector]. Route Mecanyl line and wiring harness of metering pump in included protective pipe (4).

- (2) Premounted metering pump
- (3) Original vehicle bolt, flanged nut
- (4) Protective pipe
- (1) Wiring harness of metering pump, connector housing completed
- (5) Mecanyl line, 10 mm dia. hose clamp tightened



## Installing metering pump

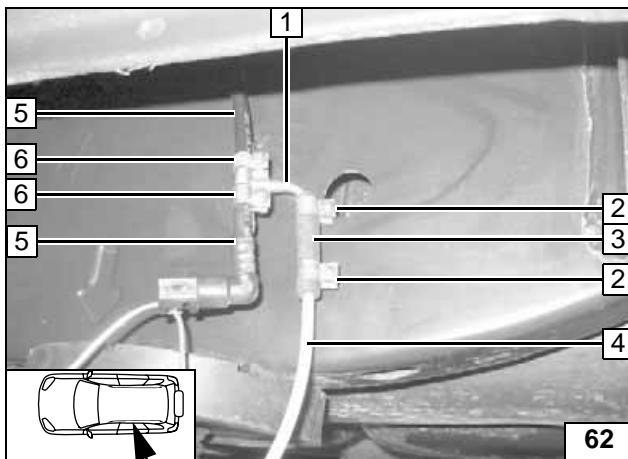


Fuel is removed from return line!  
Disconnect return line at coupling.

- (1) Supply line
- (2) Return line from fuel cooler
- (3) Return line to fuel tank



## Disconnecting return line

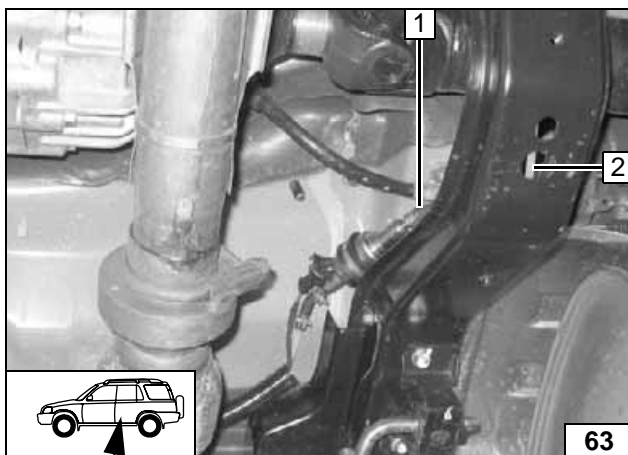


Cut off return line as shown.

- (5) Return line
- (1) Metal 6x5x6 T-piece
- (6) 8 mm dia. hose clamp [2x]
- (3) Hose section
- (4) Remaining section of Mecanyl fuel line
- (2) 10 mm dia. hose clamp [2x]



## Fuel removal



Fuel line from T-piece on intake side of metering pump [side without connector]. Check position of components; adjust if necessary. Check that they have free clearance.

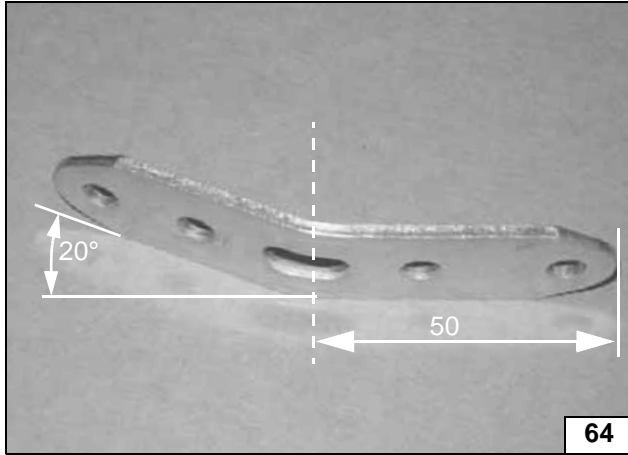
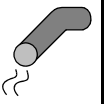
- (2) Mecanyl line from T-piece
- (1) Hose section, 10 mm dia. hose clamp tightened



## Connection to metering pump

Align Mecanyl line and wiring harness of metering pump over entire length and fasten with cable ties



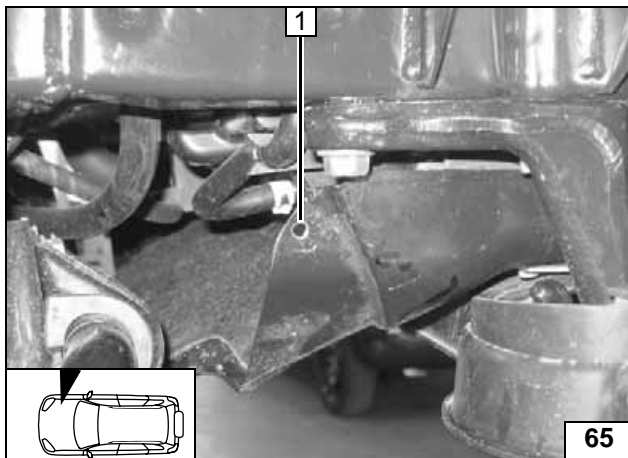


## Exhaust system

Bend perforated bracket as shown!

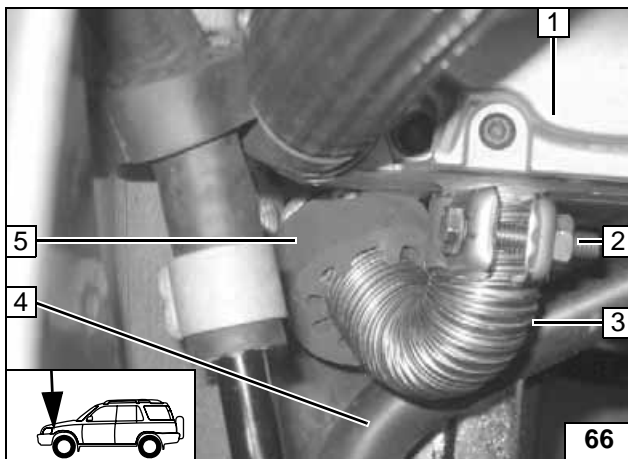


Bending perforated bracket



(1) 6.5 mm dia. hole

Hole in under-ride protection



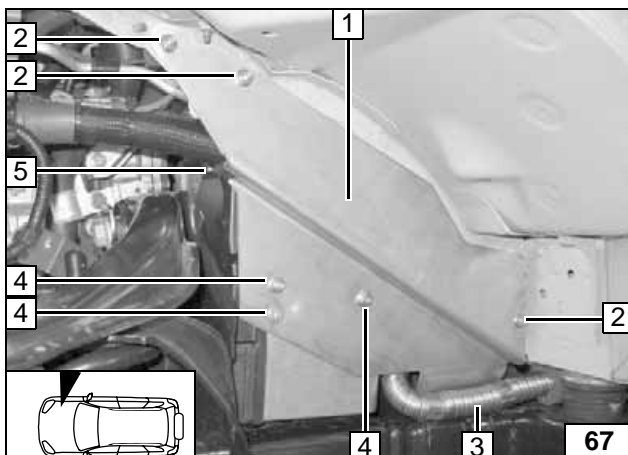
First guide preshaped exhaust pipe to heater unit, then insert bracket.

- (1) Heater unit
- (2) Hose clamp
- (3) Exhaust pipe (premounted)
- (4) Line to transmission oil cooler
- (5) Red (rt) rubber profile



Installing exhaust pipe

Position rubber profile (5) in area of line (4)



Ejot stud, tightening torque 10 Nm.  
Position exhaust pipe as shown

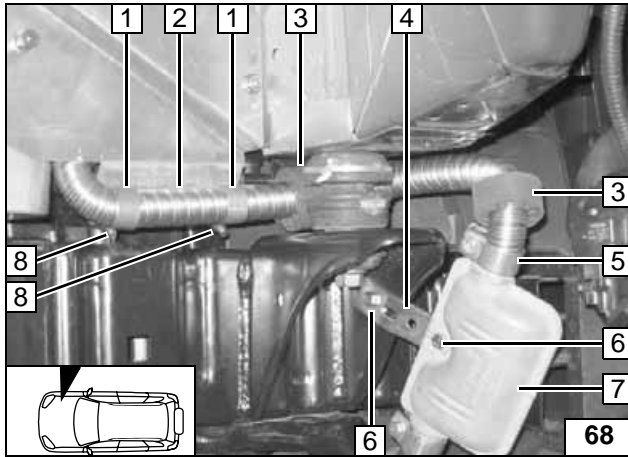
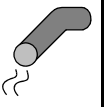
- (1) Bracket
- (2) Flanged nut on premounted bolt [3x]
- (4) Flanged nut on Ejot stud bolt [3x]
- (3) Exhaust pipe
- (5) 30 mm edge protection



Installing bracket

Cut included 4.5 mm dia. fuel hose to length and connect to Ejot stud (4) as rub protection [3x].





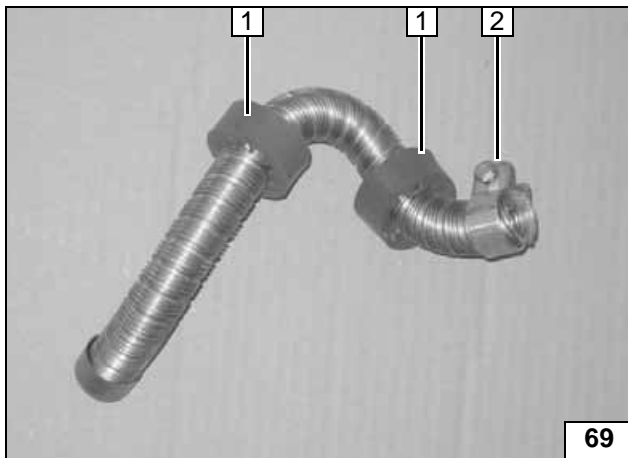
Fasten long hole spacing of perforated bracket (4) on muffler.

- (2) Exhaust pipe
- (1) P-clamp [2x]
- (8) Flanged nut on premounted bolt [2x]
- (5) Hose clamp
- (7) Muffler
- (4) Perforated bracket (preshaped)
- (6) M6x20 bolt, large diameter washer, flanged nut [2x each]

Position rubber profiles (3) as shown [2x].



**Installing exhaust pipe and muffler**

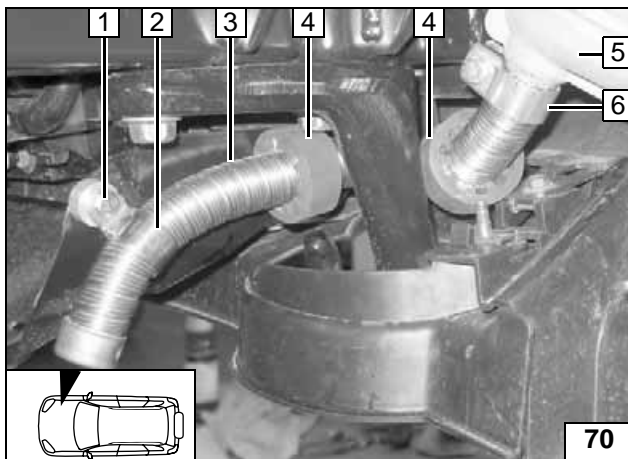


Shape exhaust end section as shown.

- (1) Red (rt) rubber profile [2x]
- (2) Hose clamp loosely mounted



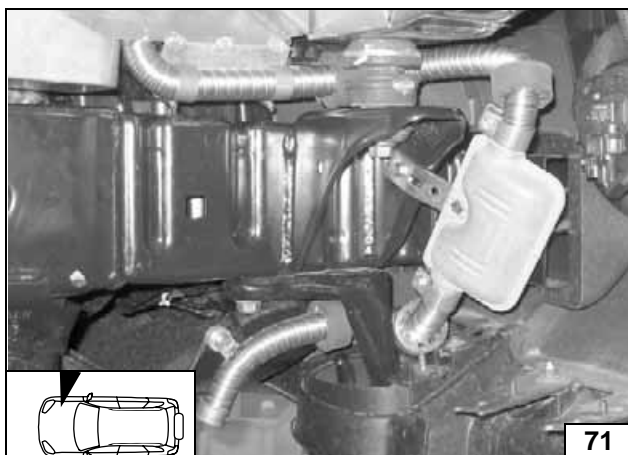
**Premounting exhaust end section**



- (3) Exhaust end section
- (5) Muffler
- (6) Hose clamp
- (2) P-clamp
- (1) M6x20 bolt, 10 mm shim, flanged nut

Position rubber profiles (4) as shown [2x].

**Installing exhaust end section**



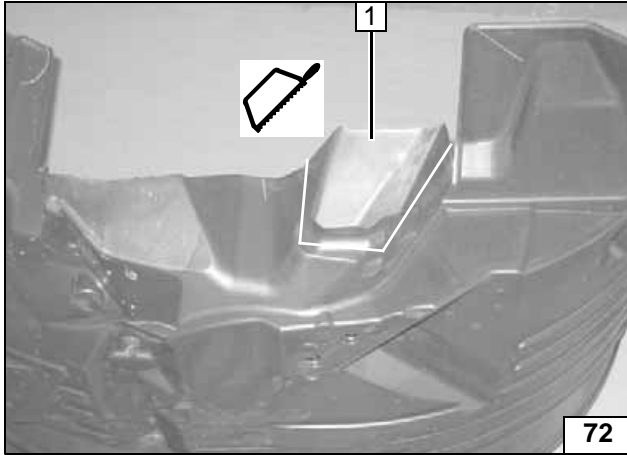
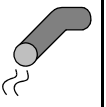
Check positioning of exhaust pipe and t-pipe end section over entire length and position of muffler and rubber profiles [5x] and correct if necessary.

In particular, ensure sufficient distance of exhaust pipe, t-pipe end section and muffler from original vehicle lines and plastic parts.



**Positioning exhaust system**





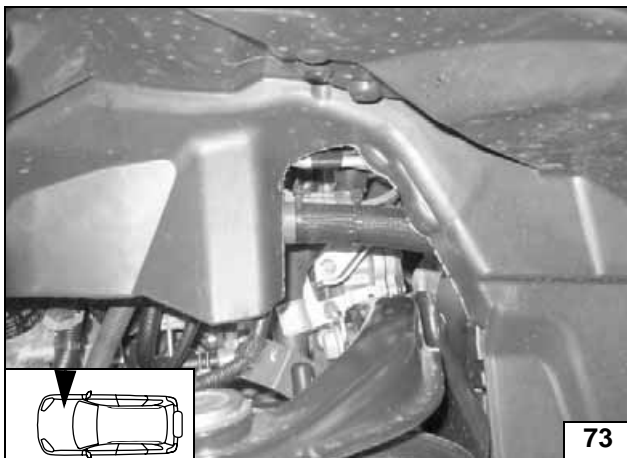
## Installing wheel well trim

Cut out wheel well trim as shown.

(1) Discard section



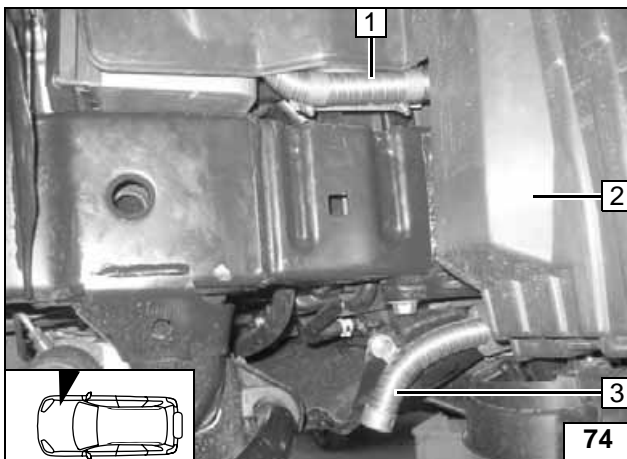
**Cutting out wheel well trim**



Rework cut-out if necessary.



**Installing wheel well trim**

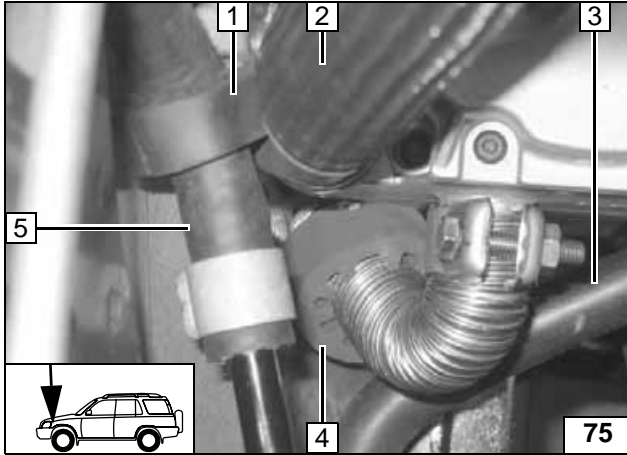
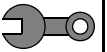


Ensure sufficient distance of wheel well trim from exhaust system.  
If necessary, cut out wheel well trim accordingly.

- (1) Exhaust pipe
- (2) Wheel well trim
- (3) Exhaust end section



**Installing wheel well trim**



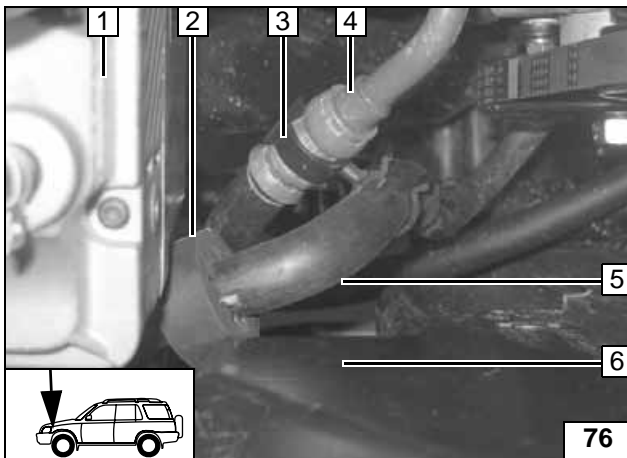
## Final Work

Position rubber profiles and lines as shown.

- (1) Black (sw) rubber profile positioned on hose of heater unit inlet (2)
- (4) Red (rt) rubber profile positioned on line (3)
- (3) Line to automatic-transmission oil cooler
- (5) Line from steering reservoir



**Positioning rubber profiles and lines**

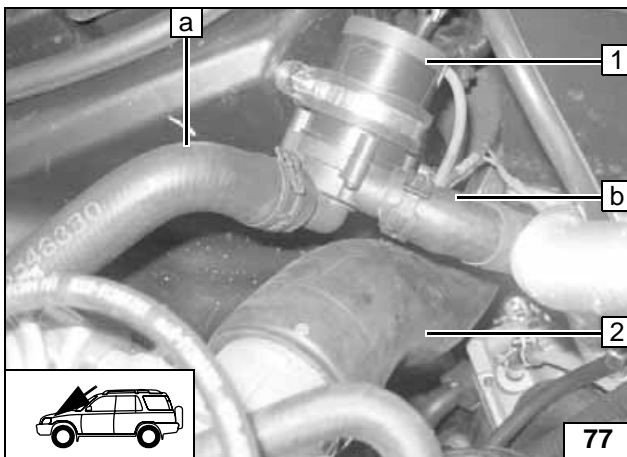


Position rubber profile, lines and spacer bracket as shown.

- (1) Heater unit
- (2) Black (sw) rubber profile positioned between heater unit and radiator trim (6)
- (3) Spacer bracket
- (4) Steering line
- (5) Line to transmission oil cooler
- (6) Radiator trim



**Positioning rubber profiles and lines**



## Only with automatic transmission

Ensure freedom of movement of intake hose. If necessary, correct position of circulating pump and of hose **A** and **B**.

- (1) Circulating pump
- (2) Intake hose



**Installing intake hose**

## Nissan Pathfinder and Navara

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

- Connect the battery.
- Bleed and fill the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer.
- Adjust the vehicle heater with automatic air-conditioning or without automatic air-conditioning according to "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.



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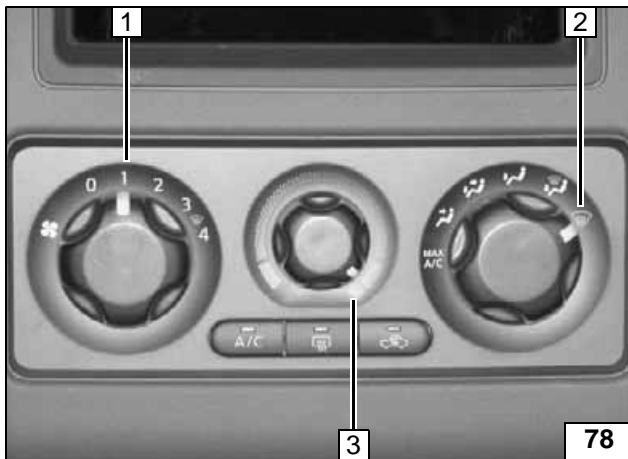
## Operating Instructions for End Customer

Please remove page and add to the vehicle operating instructions.



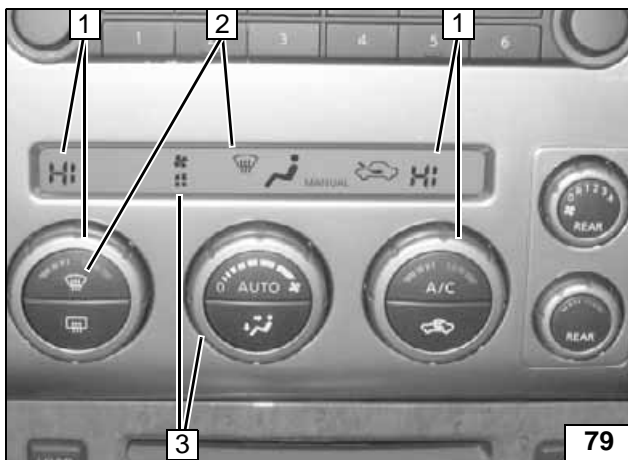
On vehicles with passenger compartment monitoring, the ultrasound passenger compartment monitoring is deactivated simultaneously with the control of the passenger compartment fan to prevent an alarm from being triggered.

Before parking the vehicle, make the following settings:



- (2) Direct air outlet toward windshield
- (1) Set fan to level "1", or possibly "2"
- (3) Set temperature to "max."

**Manual air conditioning**



- (1) Set temperature to "HI." [2x]
- (2) Direct air outlet toward windshield
- (3) Set fan speed to level 2 (possibly to 3)



**Automatic air-conditioning**