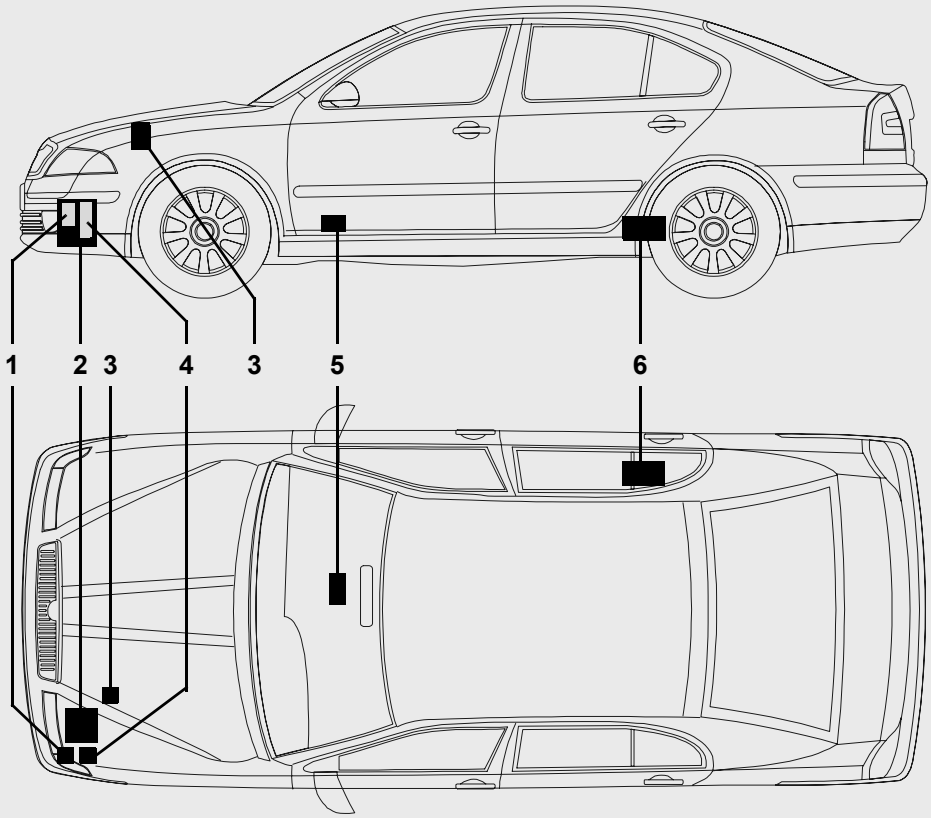

Key:

1 Combustion air intake silencer
2 Thermo Top C/E heater
3 Blade-type fuse holder
4 Exhaust silencer
5 Digital timer
6 Metering pump

SkodaOctavia II

SkodaOctavia II Estate

Installation

Water heater

Thermo Top C auxiliary heating system e1 00 0002

Thermo TopE auxiliary heating system e1 00 0003

Diesel – as from 2005 model – for LHD only
Front-wheel drive / 4x4

Order number:

BHW 609 003A, BHW 609 003B
(YHW 609 003A, YHW 609 003B)

Date 02.03.06 / Ident. No. 9014350A

IMPORTANT!

Danger warning:

The incorrect installation or repair of Webasto heating systems may cause a fire or the escape of fatal carbon monoxide. This may result in serious or fatal injuries.

Special company training, technical documentation, special tools and special equipment are required for the installation and repair of Webasto heating and cooling systems.

NEVER attempt to install or repair Webasto heating or cooling systems unless you have completed the company training and thus acquired the required technical skills and unless you have the technical documentation, tools and equipment available to you that are required for completing proper installation and repair work.

ALWAYS follow all Webasto installation and repair manuals and observe all the warnings.

Webasto cannot accept any liability for defects and damage caused by the system being installed by untrained personnel.

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Validity

Manufacturer	Trade name	Type	EC licence no. / General operating permit (homologation)
Skoda	Octavia	1Z	e11*2001 / 116*0230*...

Engine type	Engine type	Output in kW	Swept volume in cm³
BJB	Diesel	77	1896
BKC	Diesel	77	1896
BKD	Diesel	103	1968

The vehicle types, engine types and equipment versions not listed in these installation instructions have not been tested. It may nevertheless be possible to install the system using these installation instructions.
The installation site for the digital timer and summer / winter switch should be agreed with the end customer before installation.

Heater / installation kit

Quantity	Description	Order No.
1	LU *Thermo Top C-D for cars without air-conditioning system or with Climatic*	9011322E
	Skoda order No.	BHW 609 003A
		YHW 609 003A
or		
1	LU *Thermo Top C-D for cars with Climatic*	9011323F
	Skoda order No.	BHW 609 003B
		YHW 609 003B

Additional control elements required:

1	3-time digital timer	1301444B
	Skoda order No.	BHW 000 001
		YHW 000 001
and / or		
1	Telestart T80	9014428A
	Skoda order No.	BHW 000 002A
		YHW 000 0003

Foreword

These installation instructions apply to Skoda Octavia cars with diesel engines (see page 2 for validity) model year 2005 and later, unless technical modifications on the vehicle influence the installation, excluding all liability claims. Depending on the version and equipment in the vehicle, changes may be required to the installation work set out in these installation instructions.

In any event, however, the directives in the “installation instructions” and “operating and servicing instructions” for the *Thermo Top C/E* must be followed.
The appropriate engineering conventions and any instructions from the vehicle manufacturer must be observed for the installation work.

General

The installation work must comply with general technical principles. Unless specified to the contrary, hoses, cables and wiring harnesses must be secured to existing cables and wiring harnesses using cable ties.
Fit a chafe guard over sharp edges (slit fuel hose).
Bare areas of the body, such as drill holes must be sprayed with anti-corrosive wax (Tectyl 100K, order No. 111329).

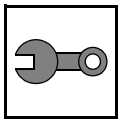
Special tools

- Peeling drill bits up to 42 mm
- Countersink drill bit
- Clamping claw
- Rivet pliers

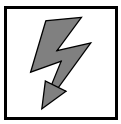
Notes on this document

Symbols are printed at the top right of each page to allow you to tell at a glance which particular working steps are involved.

Mechanics



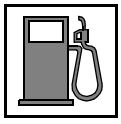
Electrics



Water connections



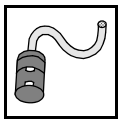
Fuel connections



Exhaust system



Combustion air



Special aspects are identified by the following symbols:



Specific danger of serious or fatal accidents



Special danger of damaging components



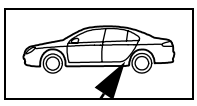
Specific fire and explosion hazard



Reference to the general installation instructions for Webasto components or to the manufacturer's documents for the specific vehicle



Reference to a special technical aspect

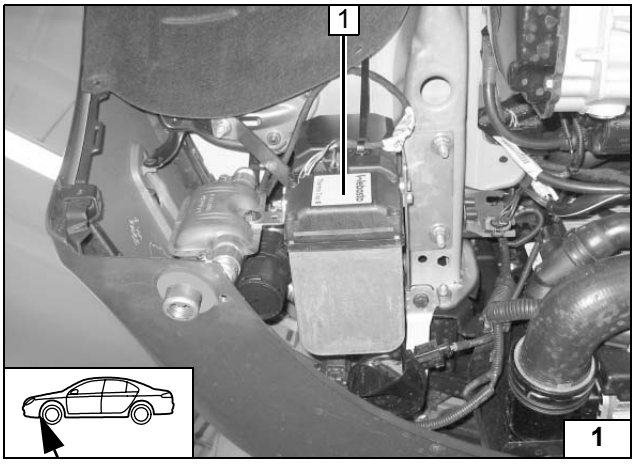


The arrow in the pictogram shows the position on the car and the viewing direction

Preparations

IMPORTANT!

- Open the tank cover and vent the tank
- Close the tank cover again
- Release the pressure from the cooling system.
- Transfer the factory number from the original rating plate to the duplicate rating plate
- Remove the inapplicable year number from the duplicate plate
- Fit the duplicate plate (model plate) in a suitable position where it is visible
- Disconnect the battery!
- Remove the battery
- Remove the battery holder
- Remove the complete air filter and the intake hose
- Remove the front left wheel
- Remove the front section of the front left wheel arch trim
- Remove the left fog light or, on cars without fog lights, remove the left fog light cover
- Remove the underride guard
- Remove the rear seat bench
- Remove the right tank fitting service flap
- Remove the footwell trim on the driver's side
- Remove the bottom trim from the instrument panel on the driver's side
- Cars with Climatronic only: Remove the footwell trim on the passenger's side



Installation site for the heater

1 Heater

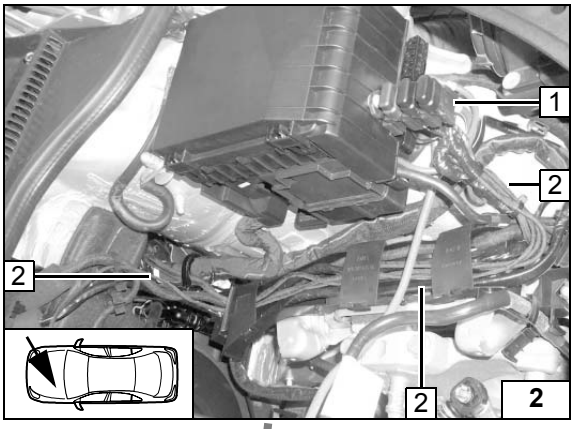
Electrical connections

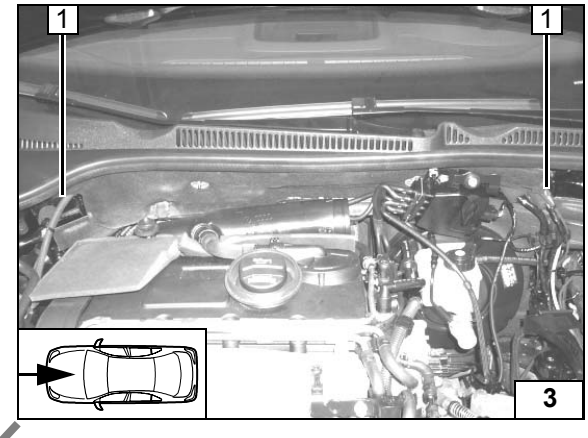
Fuse holder

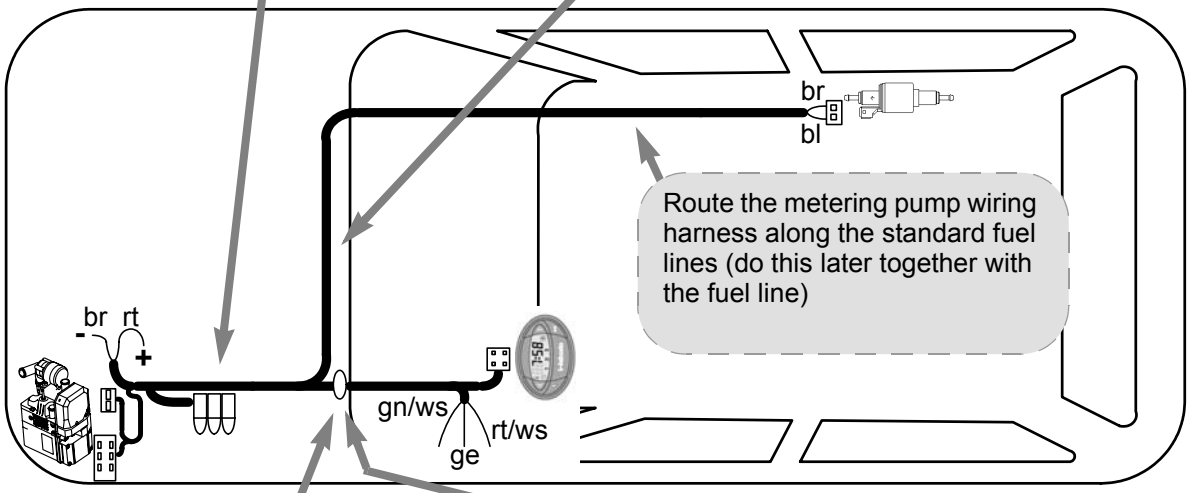
1 Fuse holder (see page 7 for installation instructions)
2 Route cable looms for control element, blower control and metering pump in the cable duct to the bulkhead [3x]

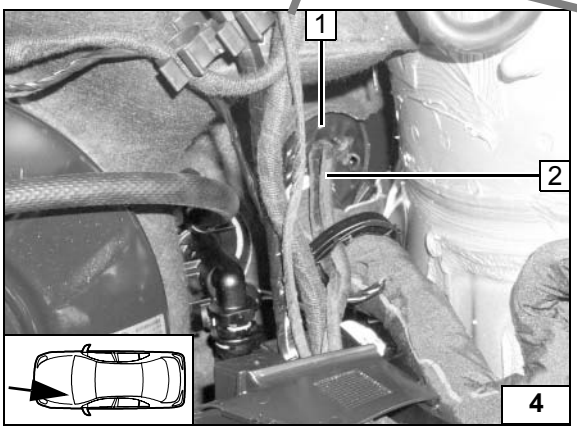
Cable routing

1 Route the metering pump wiring harness behind the insulation mat to the right [2x]



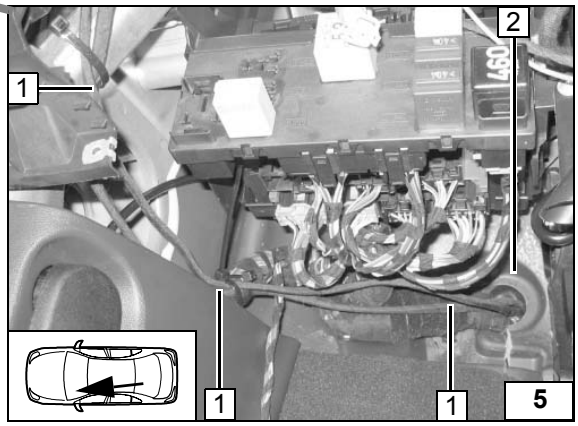






Wiring harness passage

1 Standard wiring harness passage
2 Blower control and control element wiring harnesses (see pages 8–12 doe blower connection instructions; see pages 13–14 for control element connection instructions)

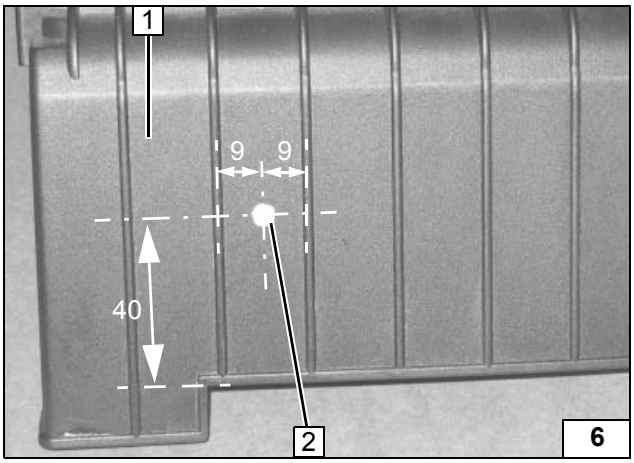


Wiring harness passage

2 Standard wiring harness passage
1 Blower control and control element wiring harnesses [3x]

Wiring harness routing diagram – all equipment versions

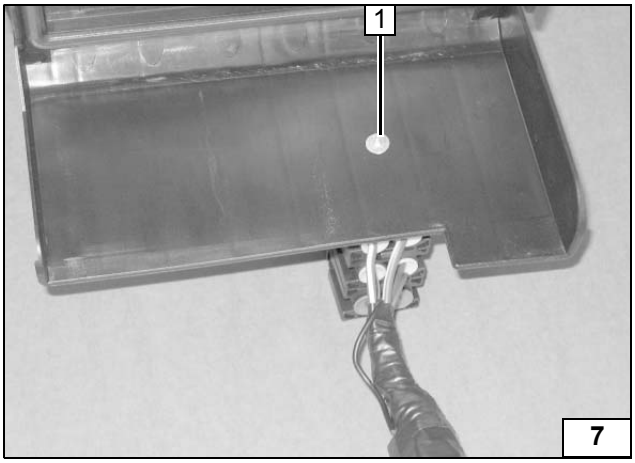
Wiring harness installation



Countersink hole (**2**) from the rear for countersunk screw M5.

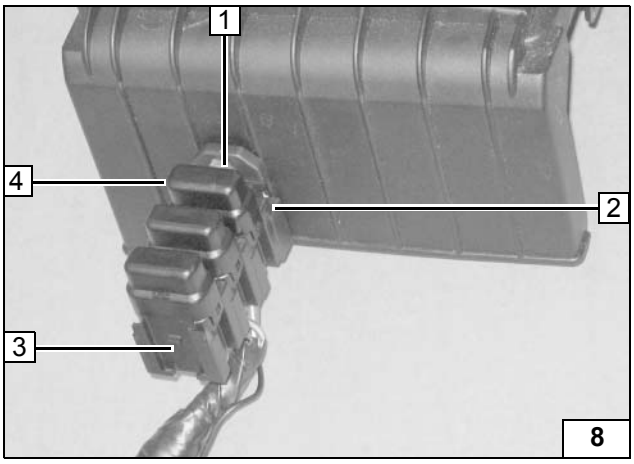
1 Cover for fuse/relay holder in engine compartment
2 Hole diameter 5.0 mm

Hole for fuse holder



1 Countersunk screw M5x10

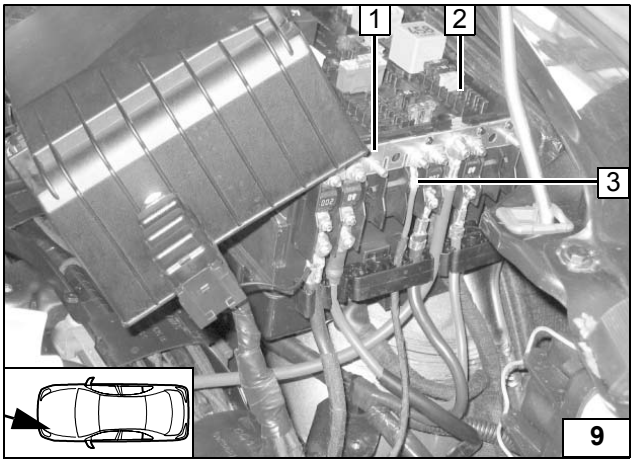
Fuse holder installation



Remove fuse F3 (25A) in cars with Climatronic.

1 Body washer (between cover and retaining plate), collar nut M5
2 Retaining plate
3 Fuse holder
4 Fuse F3

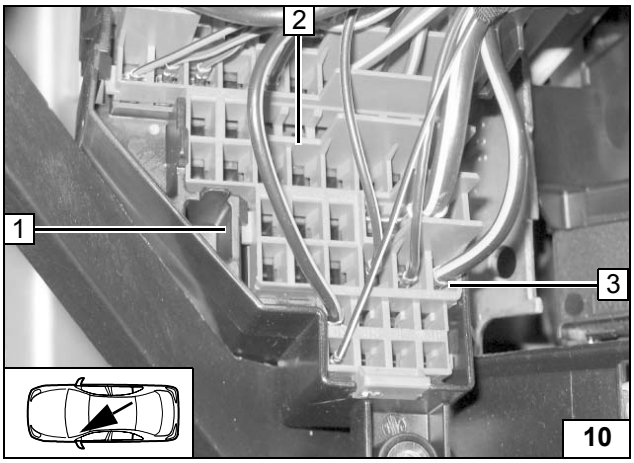
Fuse holder installation



Route brown earth cable to car's post below the headlight and connect it.

2 Fuse / Relay holder
3 Positive cable red
1 Positive bar

Positive and earth cable connection

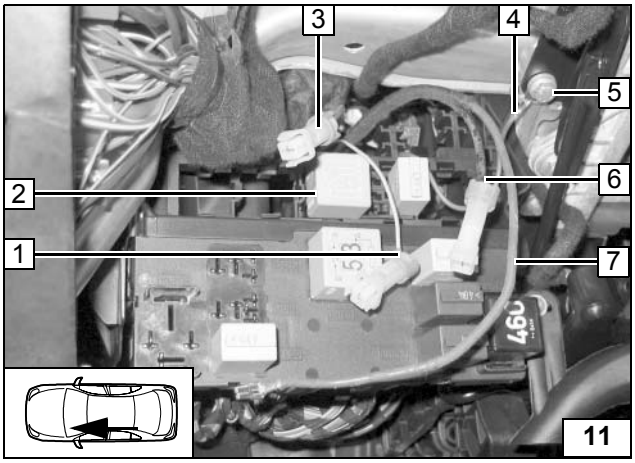


Blower activation for cars without Climatronic

Undo the car's own fuse holder (**1**) (top left of dashboard) and release contact fuse (**2**) Uncrimp the black/blue cable 4 mm² (**3**) at fuse output SC40

1 Fuse holder
2 Contact fuse
3 Black/blue cable 4 mm²

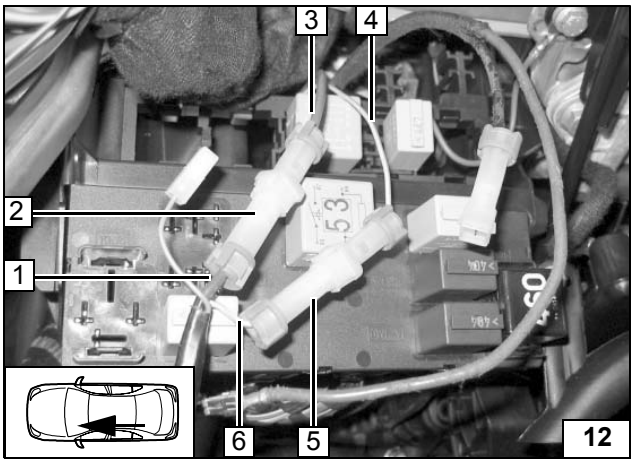
Uncrimp the cable



The position of the empty slot depends on the equipment in the car.

2 K3 relay
4 Brown cable from K3/85
5 Car's own screw
3 Red/white cable to K3/87
6 Black cable from K3/30
7 Red cable to K3/87a
1 Green/white cable to K3/86

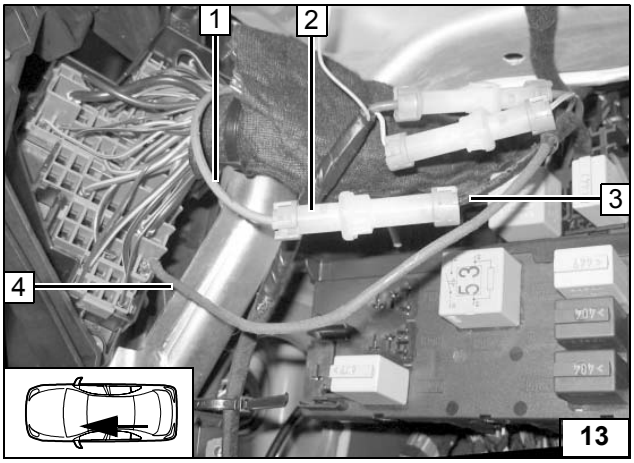
Install wiring harness in cars without Climatronic



Make the connections as shown on the circuit diagram.

1 Red/white cable from fuse F3
2 AMP casing
3 Red/white cable (**11/3**) to K3/87
6 Green/white cable from heating plug X1/4
5 AMP casing
4 Green/white cable (**11/1**) to K3/86

Connect cables to heating wiring harness



Make the connections as shown on the circuit diagram.

1 Black/blue cable (**10/3**) to original standard power timer
2 AMP casing
3 Black cable (**11/6**) from K3/30
4 Red cable (**11/7**) from K3/87a locked in fuse output SC40

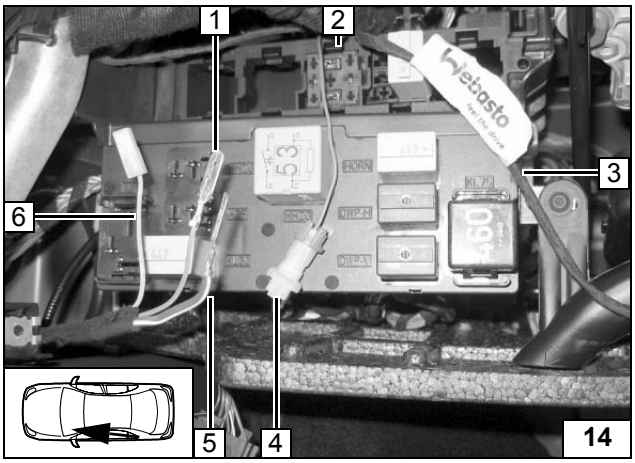
Connect cables to standard wiring harness

Circuit diagram without Clima-tronic

Legend without Clima-tronic

Original accessory components		Standard components		Colours and symbols	
HG	Heater TT-C/E	SC40	Blower fuse	rt	red
F3	Fuse	J301	Air-conditioning control unit	ws	white
K3	Blower relay	N24	Resistance group	sw	black
Dg	Diagnostic connector	V2	Blower motor	br	brown
				gn	green
				ge	yellow
				bl	blue

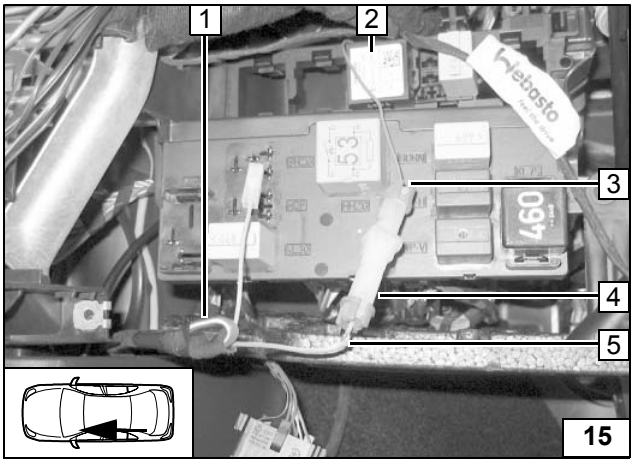
Blower activation for cars with Climatronic



The position of the empty slot depends on the equipment in the car.

1 Green/white cable from heating plug X1/4
5 Red/white cable from fuse holder F3
6 Diagnostic cable, yellow
2 Socket for IPCU module
3 Wiring harness with red cable from IPCU/E and black/white cable from IPCU/A
4 Green/white cable from IPCU/86

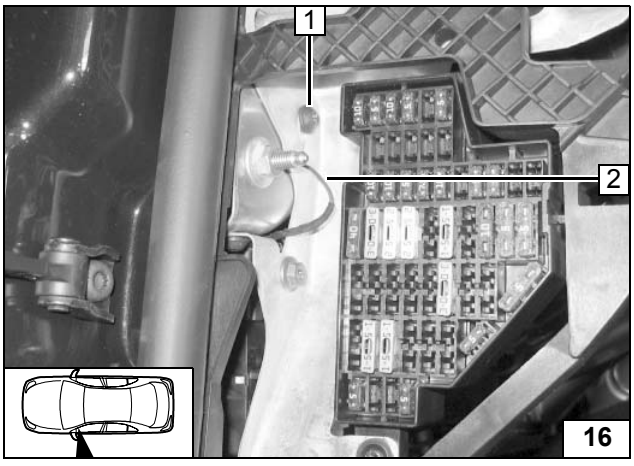
Install wiring harnesses



Make the connections shown on the circuit diagram, insulate and tie back the red/white cable **(1)** from fuse holder F3.

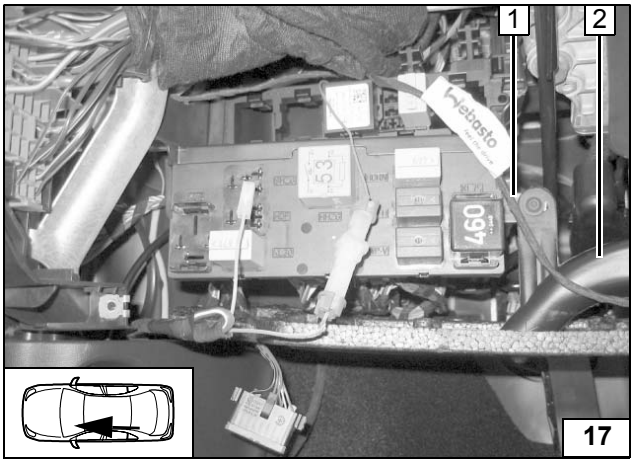
2 IPCU module
3 Green/white cable (**14/4**) to IPCU/86
5 Green/white cable (**14/1**) from heating plug X1/4
4 AMP casing
1 Red/white cable from fuse holder F3

Connect cables



1 Car's own screw
2 Brown cable from IPCU/85

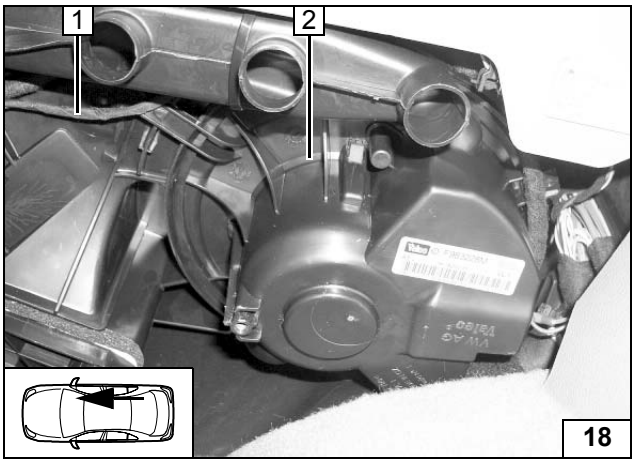
Earth post



Route wiring harness from IPCU module (**1**) on air duct (**2**) to centre console.

1 Wiring harness with red cable from IPCU/E and black/white cable from IPCU/A
2 Air duct

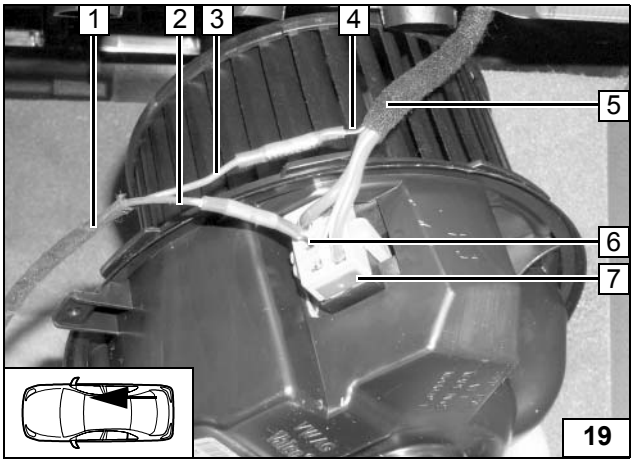
Route wiring harness from IPCU module



Route wiring harness from IPCU module to car's own cables to blower unit

1 Wiring harness with red cable from IPCU/E and black/white cable from IPCU/A
2 Blower unit

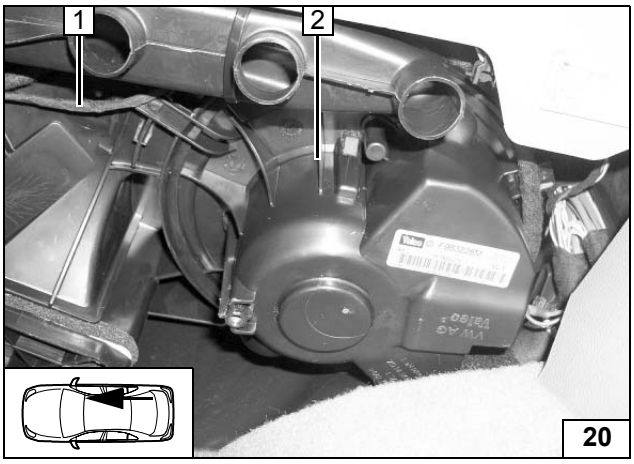
Route the cable harness



Undo the blower unit.
Cut black/white cable (**4**, **6**) in front of plug T6t/2.
Make the connections as shown in the circuit diagram using butt connectors (crimp and shrink connectors).

1 Wiring harness from IPCU module
2 Black/white cable from IPCU/A
6 Black/white cable to plug T6t/2
3 Red cable from IPCU/E
4 Black/white cable from Climatronic control unit
5 Standard wiring harness passage
7 Plug T6t

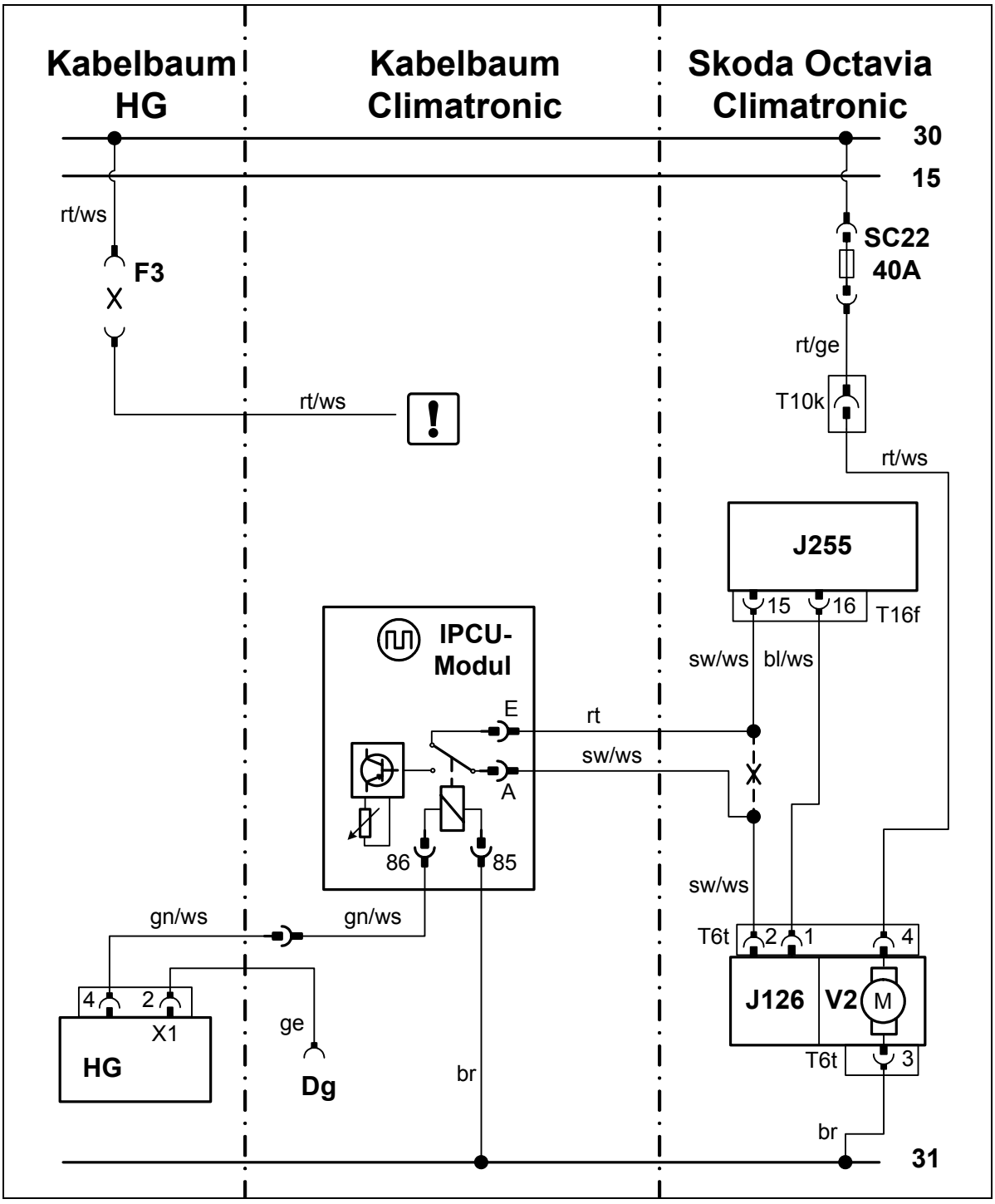
Connect cables



Install blower unit again.
Secure wiring harness to car's own cables using a cable tie.

1 Wiring harness from IPCU module
2 Blower unit

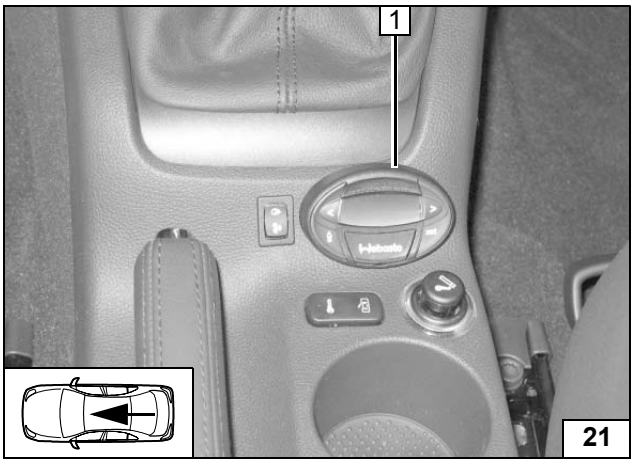
Install blower unit



Circuit diagram with Clima-tronic

Original accessory components		Standard components		Colours and symbols	
HG	Heater TT-C/E	SC22	Blower fuse	rt	red
F3	Fuse removed	J255	Climatronic control unit	ws	white
Dg	Diagnostic connector	V2	Blower motor	sw	black
IPCU	Intelligent Pulse Control Unit	J126	Blower control unit	br	brown
				gn	green
				ge	yellow
				bl	blue
				!	Cable end insulate and tie back
				X	Disconnecting point

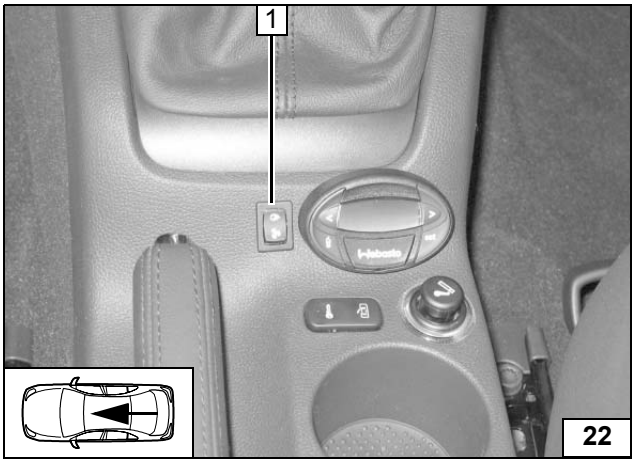
Legend with Clima-tronic



Timer option

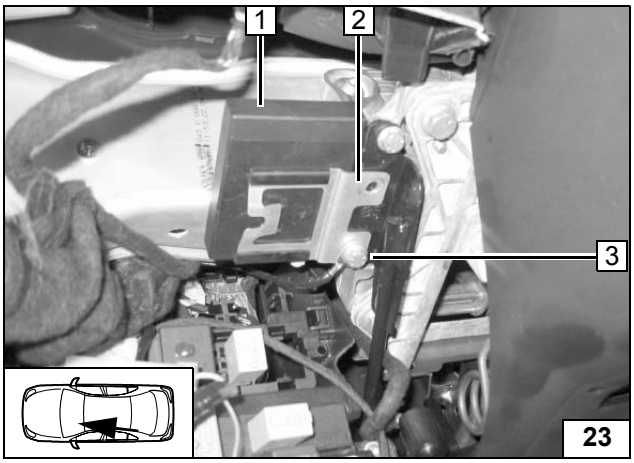
Do not press on the display.

1 Timer, drilling template



Optional summer/winter switch

1 Summer/winter switch
Hole diameter 12.0 mm

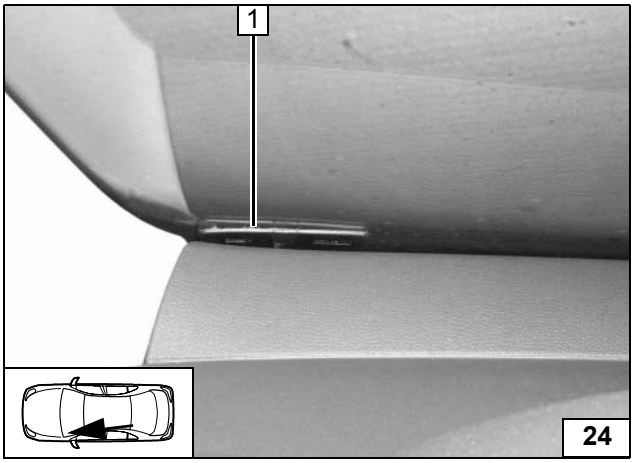


Remote control option

If there is no screw M6 (**3**), use a suitable screw M6 with spring ring.

2 Holder, bottom hole expanded to 6.5 mm
1 Receiver
3 Screw M6

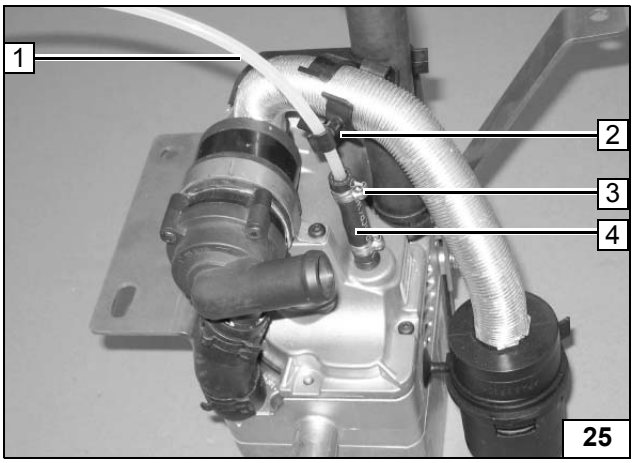
Install the receiver



1 Aerial

Affix the aerial

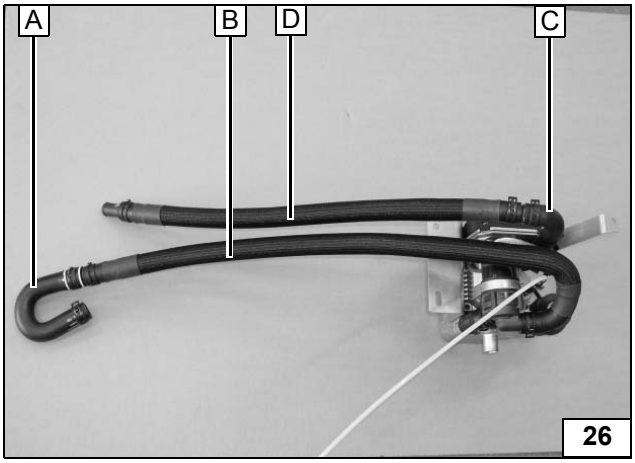
Make all the connections in accordance with the general “Installation instructions” and secure the cables using cable ties.



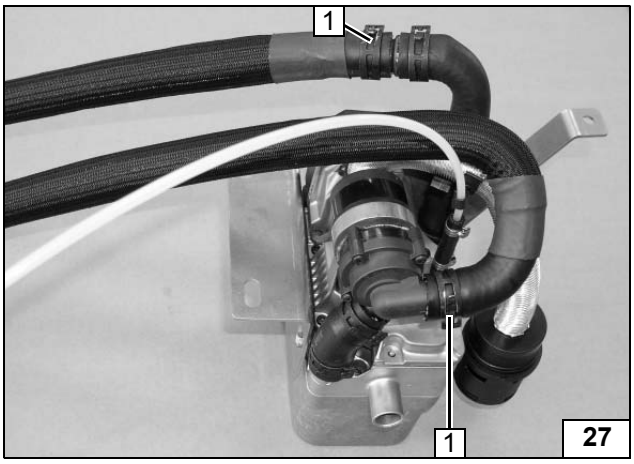
To prepare the heater

1 Mecanyl line
3 Caillau clip diameter 10 mm
4 Fuel hose (ready-fitted)
2 Line holder 18x5 for Mecanyl line (ready-fitted)

Connect Mecanyl line to heater

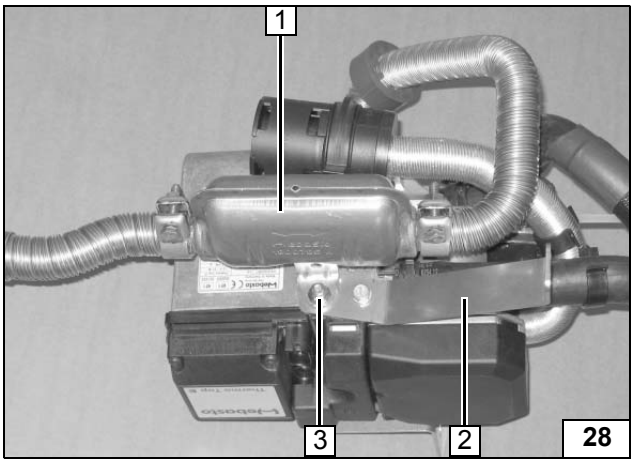


Connect ready-fitted water hoses to heater



1 Spring clip 27 mm [2x]

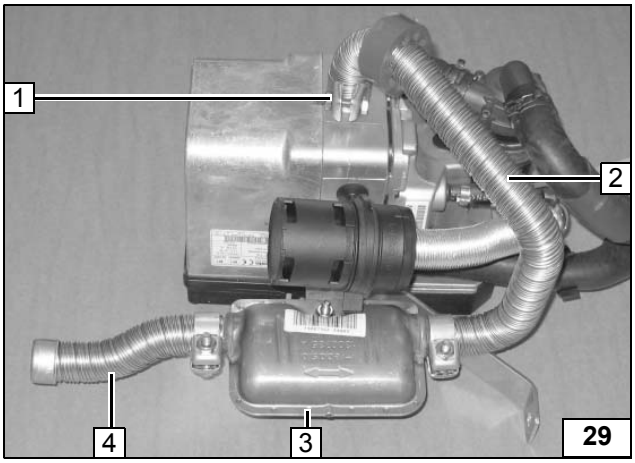
Connect ready-fitted water hoses to heater



Before installation undo collar nut in position (**3**).

2 Angle bracket placed on stud bolt
1 Exhaust system
3 Collar nut

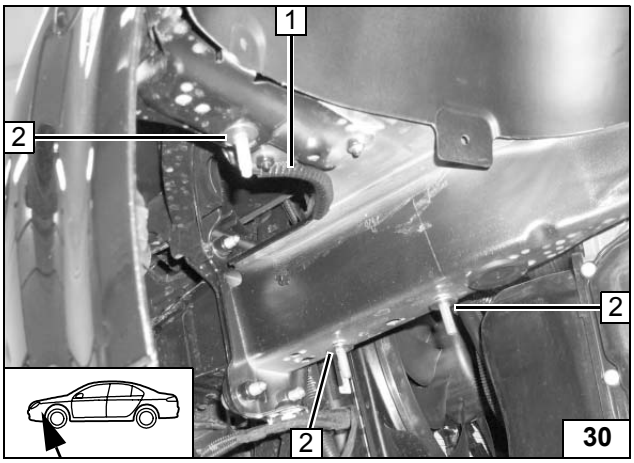
Connect ready-fitted exhaust system to heater



Undo exhaust system end piece (**4**) on silencer (**3**), turn it as shown and secure it again.
Install the exhaust assembly with no stress.

2 Exhaust pipe
1 Hose clip
3 Silencer
4 Exhaust pipe end piece

Connect ready-fitted exhaust system to heater

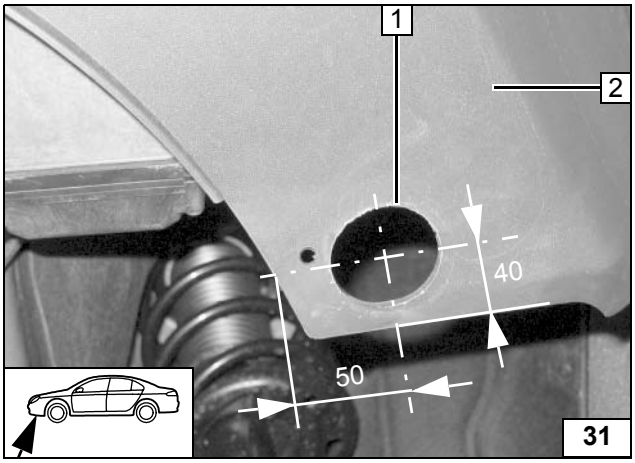


To prepare the installation site

Secure the body washers with putty or the like to prevent them falling.

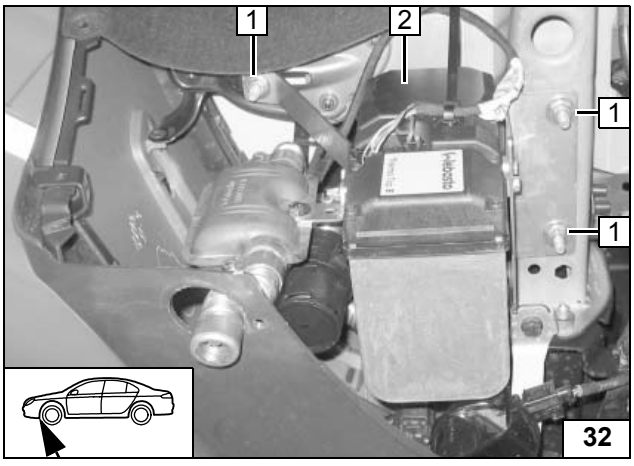
2 Body washed on standard stud bolt [3x]
1 Edge protection section

Prepare the installation site



2 Bumper
1 Hole diameter 42 mm

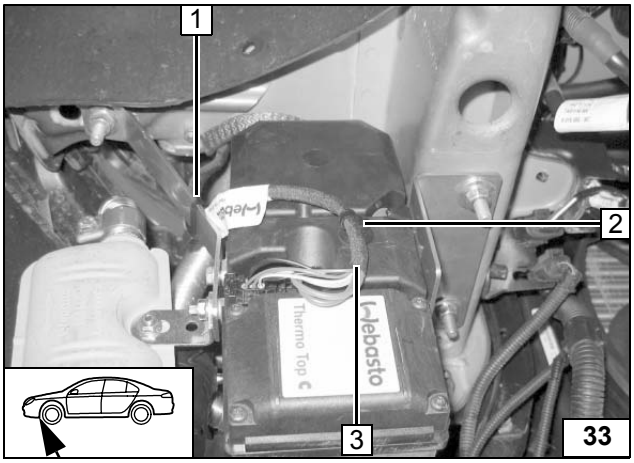
Prepare the installation site



To install the heater

2 Heater (ready-assembled)
1 Body washer, collar nut M8 [3x]

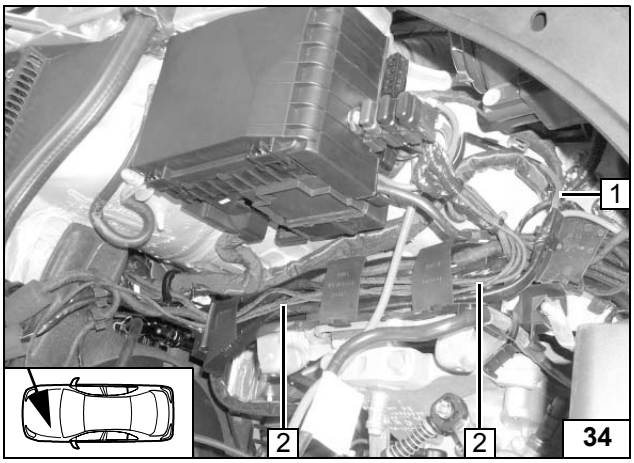
Install the heater



Refer to the routing for the wiring harness. Danger of chafing.

3 Heater wiring harness
2 Clip cable tie in perforated hole in the heater cover
1 Cable tie on strut

Connect and route the wiring harness

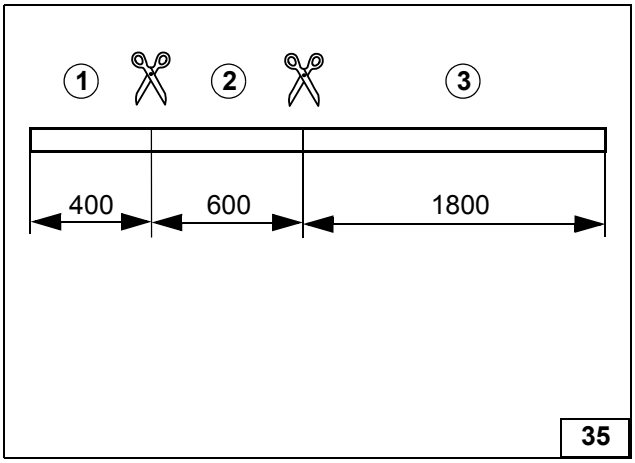


Refer to the routing for the wiring harness. Danger of chafing.

Route excess lengths of wiring harness (**1**) in cable duct (**2**) below the battery and secure them with cable ties.

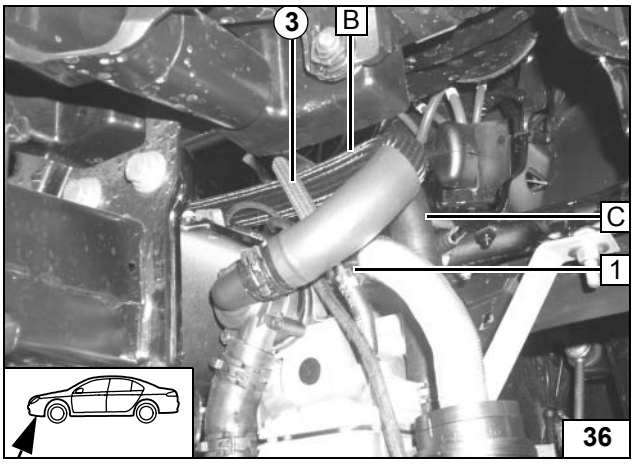
1 Heater wiring harness
2 Cable duct

Route the cable harness



Protective hose 6x11

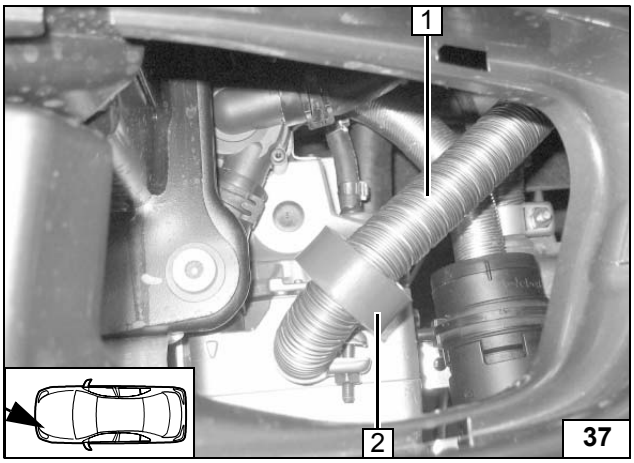
Cut the protective hose to length



Push protective hose (3) on to Mecanyl line.

1 Mecanyl line
3 Protective hose (3)

Route water hoses and Mecanyl line in engine compart-ment

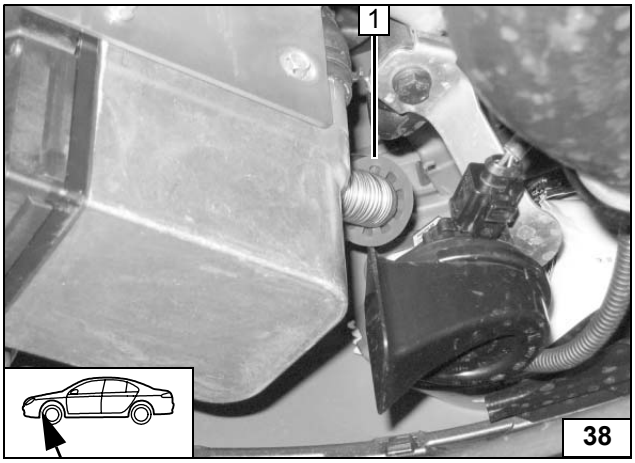


To install the exhaust system

Ensure that you maintain an adequate distance from the components and cables in the car.

1 Exhaust pipe
2 Red rubber section (**38/1**)

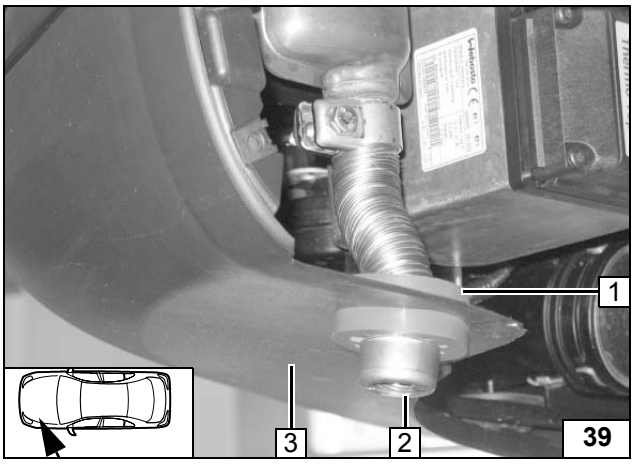
Position rubber section



Ensure that you maintain an adequate distance from the components and cables in the car.
Position rubber section on left fog light.

1 Red rubber section (**37/2**)

Position rubber section



First position red rubber section (**1**) from below on exhaust end piece (**2**), then insert it in bumper (**3**) using the groove.

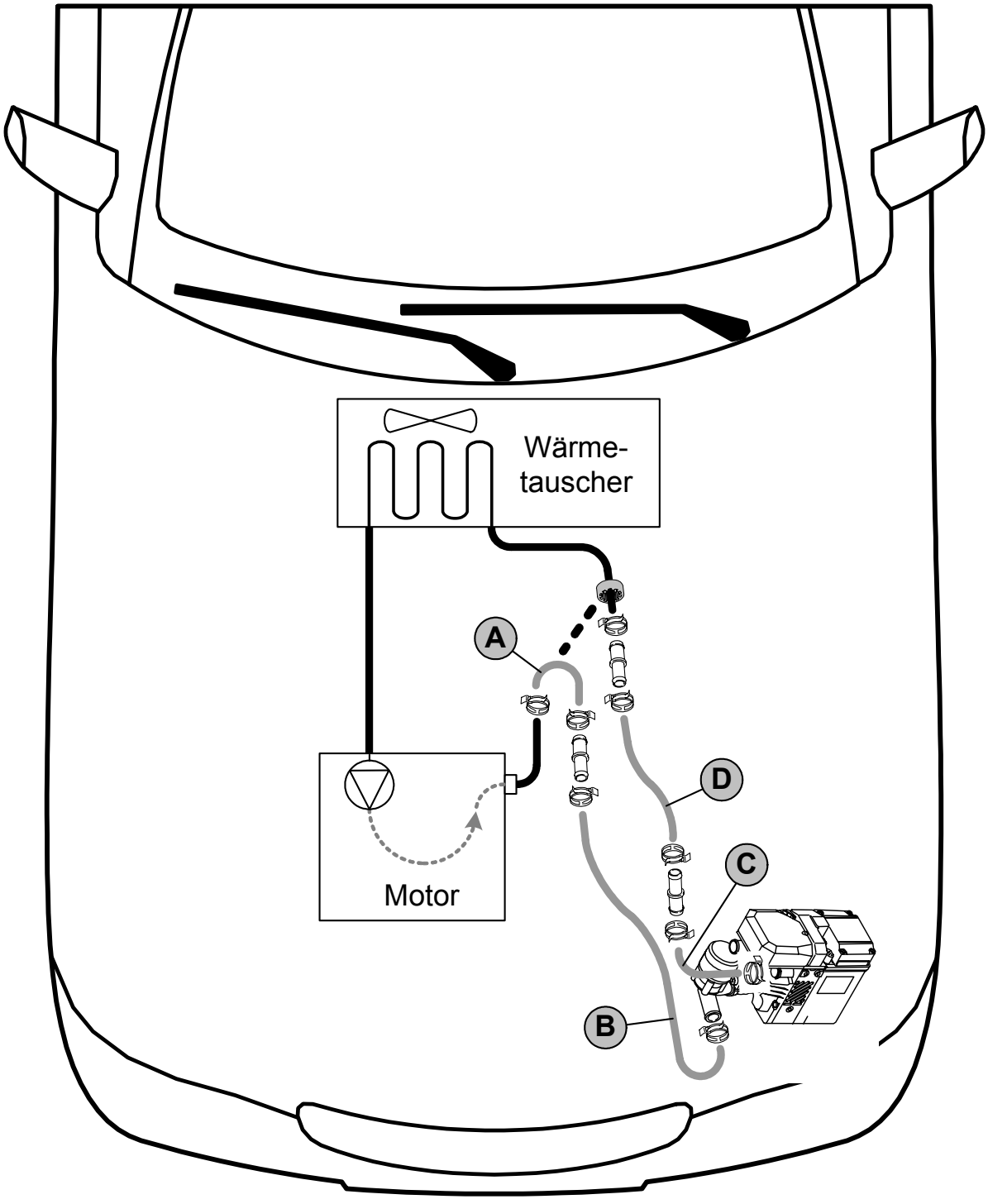
1 Red rubber section with groove
2 Exhaust end piece
3 Bumper

Install rubber section

Water connections

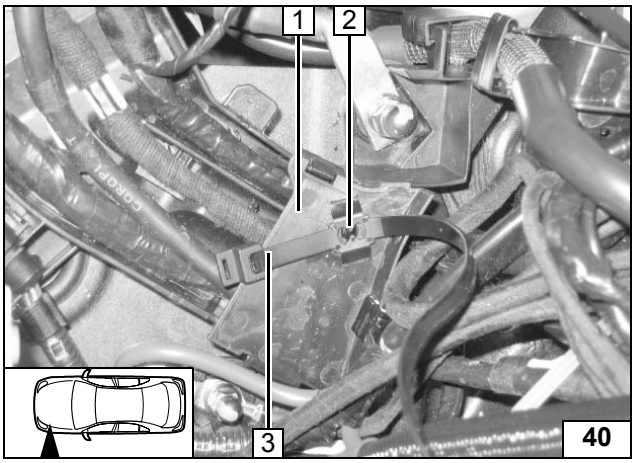
IMPORTANT.
Catch escaping coolant water in a suitable container.
Install the water hoses with no kinks.
Position spring clamps so that no other hose can be damaged.
The connection is “inline” as shown in the following diagram

For all cars



Water connections diagram

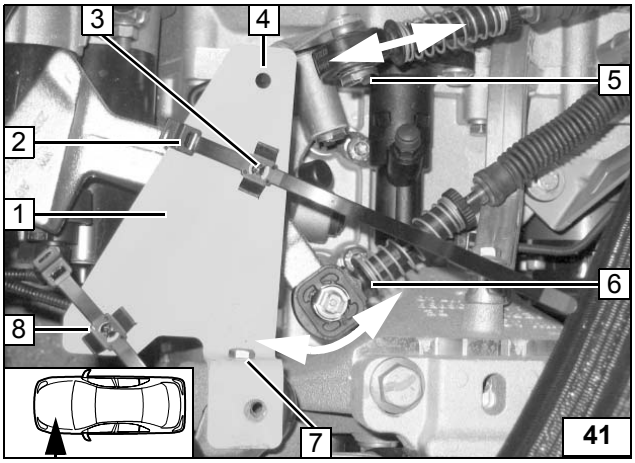
All clips are 27 mm diameter spring clips unless marked otherwise.
All connection pipes are 20 mm x 20 mm.



Remember that there are cables behind the positions of the holes. The seal on clip cable tie (**3**) must point forwards.

1 Cover
2 Hole diameter 6 mm
3 Clip cable tie

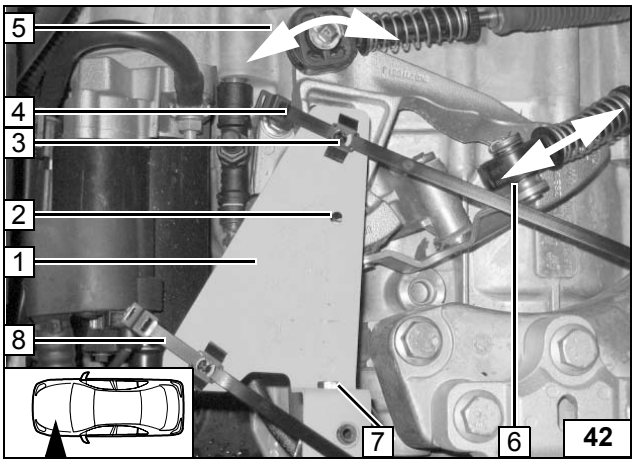
Fit clip cable tie



On cars with a manual gearbox (**5, 6**) as shown in the figure the clip cable tie (**2**) must be fitted in hole (**3**). The seals on clip cable ties (**2 and 8**) must point forwards.
Hole (**4**) must be left empty.

1 Holder
7 Standard hole**,** screw M6x12, washer, lock nut
2 Clip cable tie
8 Clip cable tie
4 Empty hole
5 Manual gearbox
6 Manual gearbox

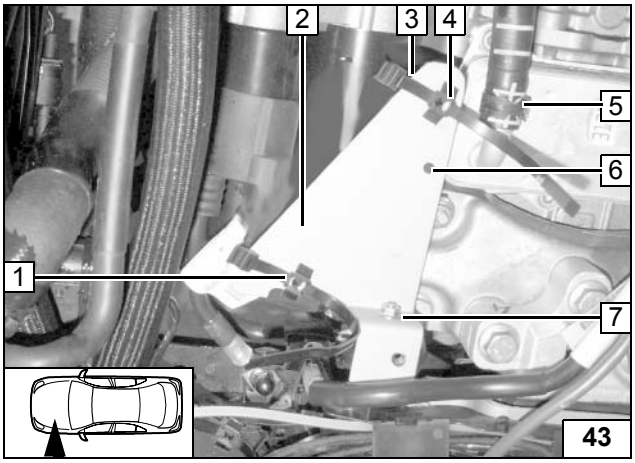
Version 1: Fit holder and clip cable tie



On cars with a manual gearbox (**5, 6**) as shown in the figure the clip cable tie (**4**) must be fitted in hole (**3**). The seals on clip cable ties (**4 and 8**) must point forwards.
Hole (**2**) must be left empty.

1 Holder
7 Standard hole**,** screw M6x12, washer, lock nut
4 Clip cable tie
8 Clip cable tie
2 Empty hole
5 Manual gearbox
6 Manual gearbox

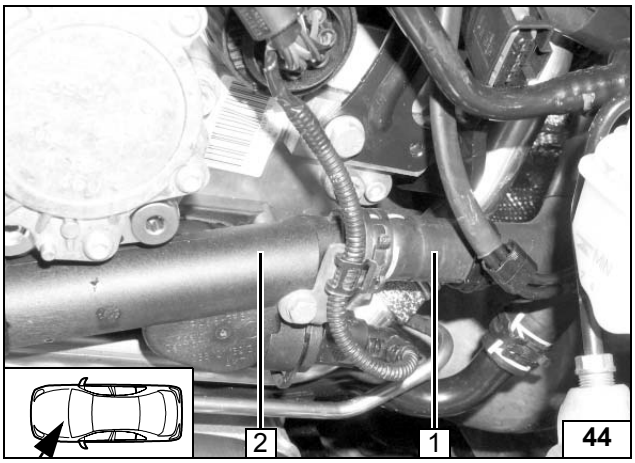
Version 2: Fit holder and clip cable tie



On cars with a direct manual gearbox (DSG), clip cable tie (**3**) must be fitted in hole (**4**). The seals on clip cable ties (**1 and 3**) must point forwards.
Hole (**6**) must be left empty.

2 Holder
7 Standard hole**,** screw M6x12, washer, lock nut
1 Clip cable tie
3 Clip cable tie
6 Empty hole
5 Upwards pointing spring clip turned downwards

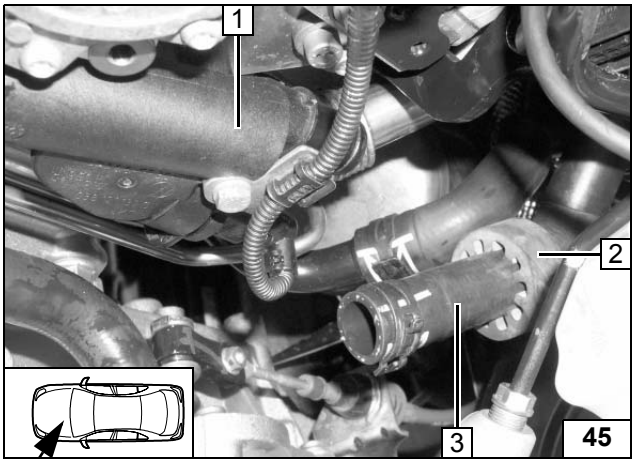
Version 3: Fit holder and clip cable tie



Disconnect the hose from the engine output to the heat exchanger input from the engine output port. The spring clip must be retained for future use.

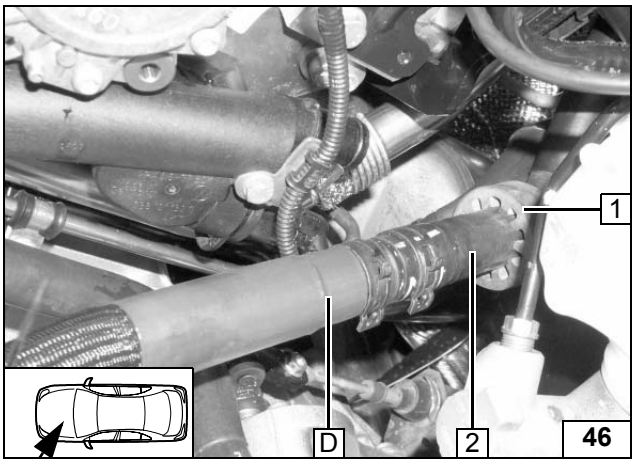
1 Hose from engine output to heat exchanger input
2 Engine output port

Disconnecting point



3 Hose to heat exchanger input disconnected
1 Engine output port
2 Black rubber section connected

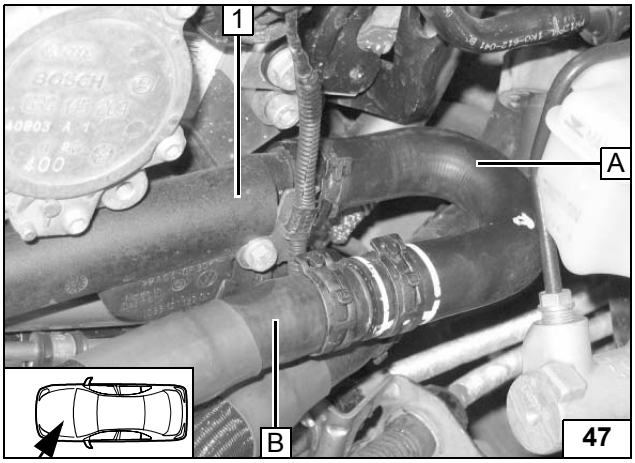
Disconnect hose from engine output



Fill the water hoses with cooling water before connecting!

2 Hose to heat exchanger input
1 Align black rubber section

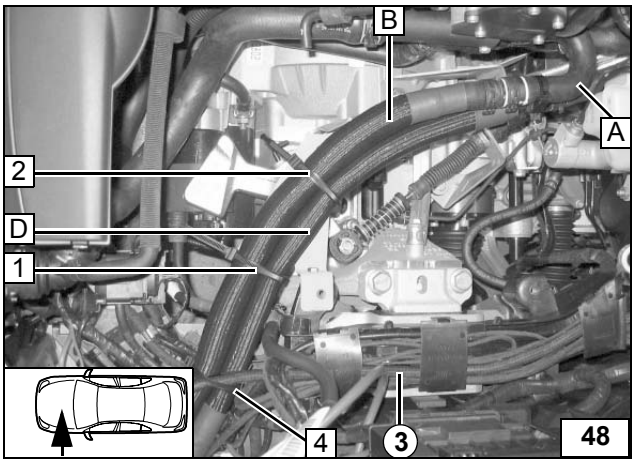
Connect to heat exchanger input



Fill the water hoses with cooling water before connecting them.

1 Engine output port

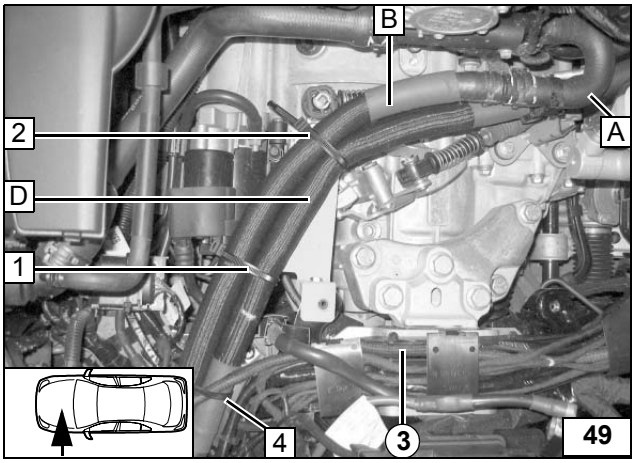
Connection to engine output



Secure the Mecanyl line in protective hose (3) to the water hoses in position (**4**). Ensure that the manual gearbox can move easily.

1 Clip cable tie
2 Clip cable tie
3 Mecanyl line in protective hose (3)
4 Clip cable tie

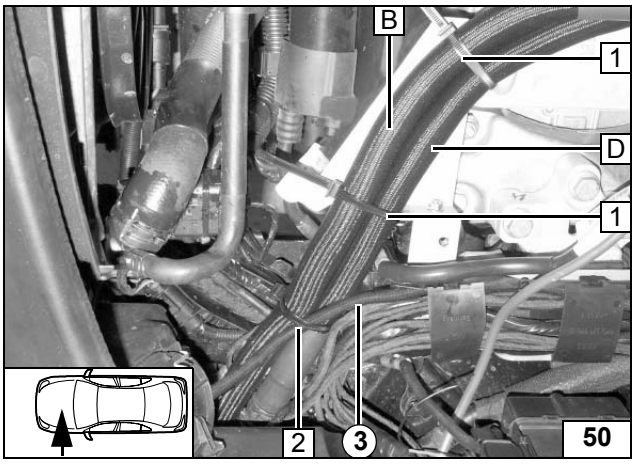
Version 1: Routing in engine compartment



Secure the Mecanyl line in protective hose (3) to the water hoses in position (**4**). Ensure that the manual gearbox can move easily.

1 Clip cable tie
2 Clip cable tie
3 Mecanyl line in protective hose (3)
4 Clip cable tie

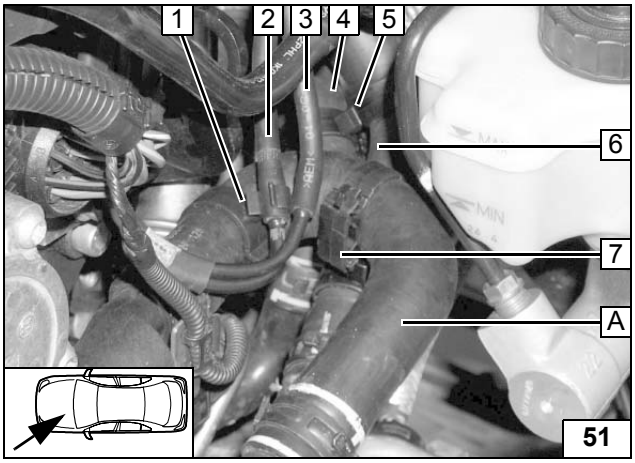
Version 2: Routing in engine compartment



Secure the Mecanyl line in protective hose (3) to the water hoses in position (**3**).

1 Clip cable tie [2x]
3 Mecanyl line in protective hose (3)
2 Clip cable tie

Version 3: Routing in engine compartment



The cables (**2**, **3**) and double clip (**1**) depend on the equipment in the car.

5 Double clip 27x27 on the hose to heat exchange input (**6**) and output (**4**)
7 Double clip 27x27 on hose A and heat exchanger input (**6**)
1 Double clip 27x9 on hose A and standard line (**2**)
4 Hose from heat exchanger output
6 Hose to heat exchanger input
2 Standard line
3 Standard line

Fit spacers

Integration in the fuel system

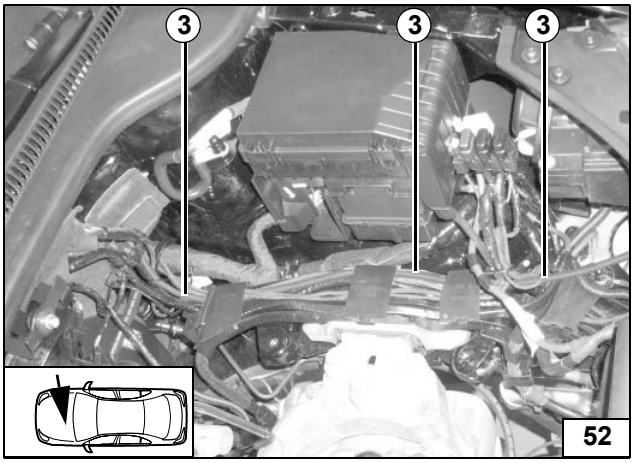
WARNING!

Open the car's filler cap, vent the tank and close the filler cap again!

Catch escaping fuel using a suitable container!

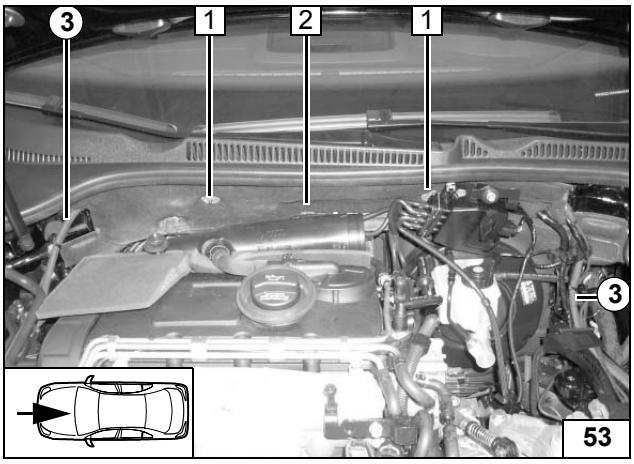
Route the fuel line and wiring harness so that they are protected from stones.

Fit a chafing guard on the fuel line and wiring harness around sharp edges.



3 Mecanyl line in protective hose (3)

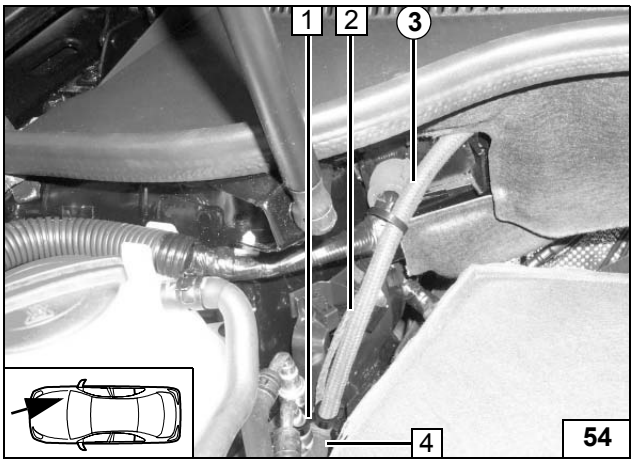
Route Mecanyl line to bulkhead



Route Mecanyl line with protective hose (3) behind insulating mat (**2**) below the two securing points (**1**).

2 Insulating mat
1 Insulating mat mounting [2x]

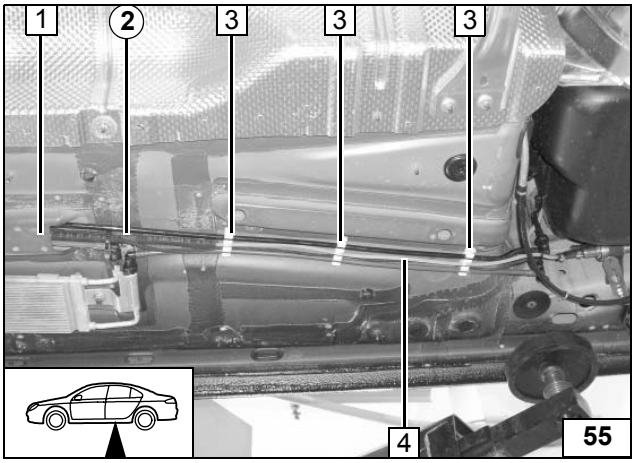
Route Mecanyl line to the right to the bulkhead



Route Mecanyl line with protective hose (3) and metering pump wiring harness (**2**) in standard cable duct (**4**). Route Mecanyl line with the metering pump wiring harness (**2**) in standard cable duct (**55/1**) to the underbody.

2 Metering pump wiring harness
1 Double clip 9x10 on Mecanyl line in protective hose (3) and standard fuel line
4 Standard cable duct

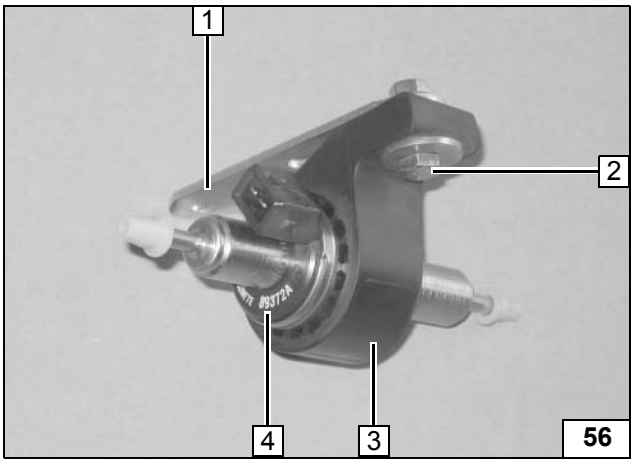
Route Mecanyl line and metering pump wiring harness



Push protective hose (2) on to Mecanyl line in cable duct (**1**).
Route Mecanyl line and metering pump wiring harness in empty line holder (**3**) along the standard fuel lines.

1 Cable duct
3 Standard cable holder [3x]
4 Mecanyl line, metering pump wiring harness

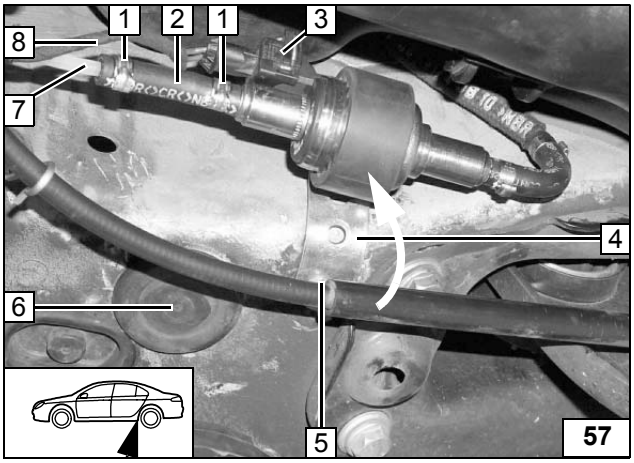
Route Mecanyl line and metering pump wiring harness



To install the metering pump

4 Metering pump
3 Rubber holder
1 Perforated strip
2 Screw M6x20, body washer, rubber holder (3), collar nut M6

Prepare metering pump



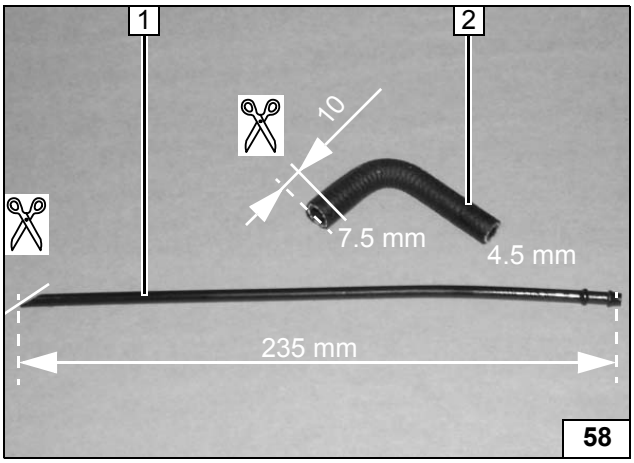
6 Remove sealing stopper
5 **Insert** screw M6x12 with body washer into the hole from above
4 Secure perforated strip in position **5** using lock nut

Bend metering pump with perforated strip upwards and align as shown in the figure.

7 Mecanyl line
2 Hose section
1 Caillau clip 10 mm [2x]
8 Metering pump wiring harness
3 Plug casing, single wire seals, plug contacts
6 Stopper installed again

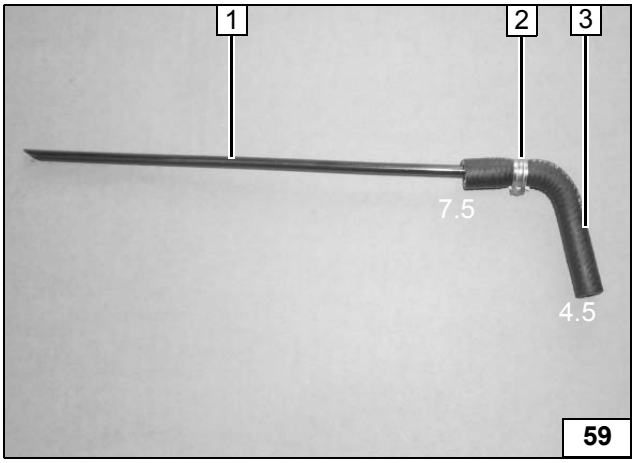
Connect metering pump discharge side

Fuel extraction



1 Riser pipe
2 Shaped hose 90°; 4.5 mm to 7.5 mm

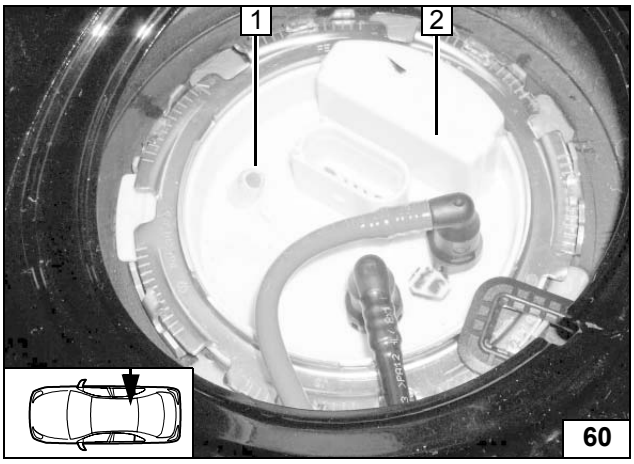
Cut riser pipe and shaped hose to length



Caillau clip (**2**) in the centre between the beads on the riser pipe end

1 Riser pipe
2 Caillau clip diameter 10 mm
3 Shaped hose

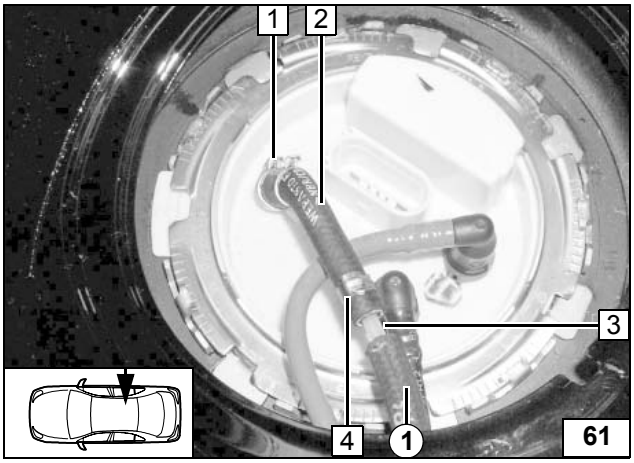
Prepare riser pipe and shaped hose



Cut off 3 mm from blind seal.

1 Tip of blind seal cut off
2 Tank fitting

Cut off blind seal

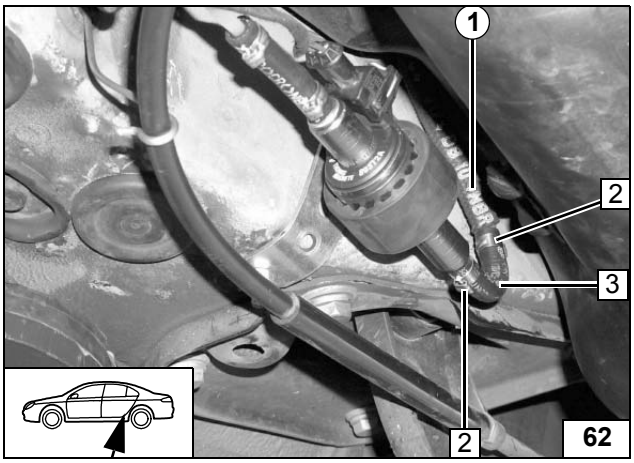


If the riser pipe is slightly curved when supplied it must be aligned so that the end points to the rear right.
Otherwise there is a danger that the level indicator will not work correctly.

1 Caillau clip diameter 13.5 mm
2 Prepared shaped hose with riser pipe
4 Caillau clip diameter 10 mm
3 Mecanyl line

Push protective hose (1) on to Mecanyl line.

Fuel extraction



1 Mecanyl line with protective hose (1)
3 Shaped hose 90°; 4.5 mm
2 Caillau clip 10 mm [2x]

Connect metering pump intake side

Concluding work

IMPORTANT.

Install all the removed parts in reverse order.
Check that all hose lines, hose clips, spring and Caillau clips and all electrical connections are secure.
Secure all loose lines and cables with cable ties.
Spray the heater components with anti-corrosive wax (Tectyl 100K, order no. 111329).

- Connect the battery
- Start the engine, bleed the water system as described in the vehicle manufacturer's instructions, top up the coolant
- Set the digital timer
- Set the heating system as described in "Operating instructions for the end customer"
- Check the function of the auxiliary heating system, see owner's manual / installation instructions
- Insert "Operating instructions for the end customer" in the car's manual
- Affix sticker "Switch off auxiliary heating system before refuelling" on the left B pillar

Adjustment to the sensitivity of the interior surveillance system

IMPORTANT.

Refer to the latest repair guidelines for the relevant car.

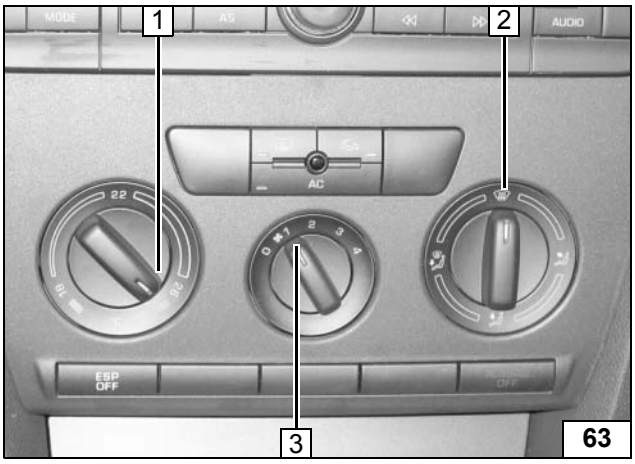
- Connect the VAG tester
- Open item 46 (central comfort system module)
- Go to item 10 (adjustment)
- Follow the request to enter a code and enter code 15
- Reduce the sensitivity of the interior surveillance system to 50 %
- Save this setting
- This concludes the adjustment to the sensitivity of the interior surveillance system.

Operating instructions for the end customer

Remove this page and insert it into the car's manual.

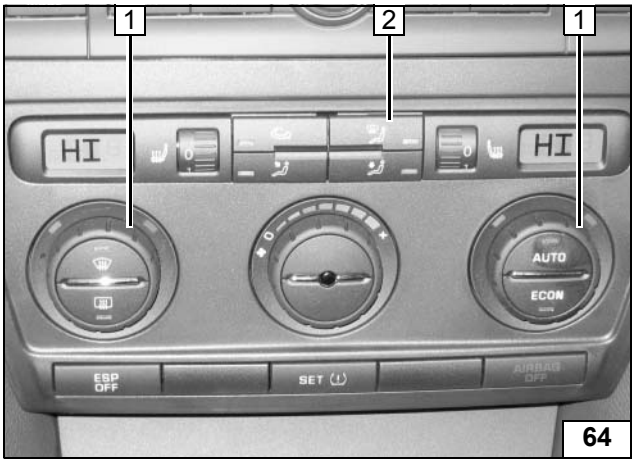
Make the following settings before you park the car:

For cars without air-conditioning and cars with Climatic



1 Set temperature to "max."
2 Air vent to windscreen
3 Blower to level "1" or "2"

For cars with Climatronic



1 Set temperature to "HI." [2x]
2 Air vent to windscreen

Information about technical information, the construction of equipment, materials, warranties and external appearance refer to the time at which these installation instructions went to press. The manufacturer reserves the right to make changes (including changes to the technical parameters and changes to the work required for the various models).

Manufacturer: Webasto AG, Germany

No. BHW 609 003A, BHW 609 003B - Germany / 12.2005
(YHW 609 003A, YHW 609 003B)