

# Water Heater Unit



**Thermo Top E Additional Heater**

  
00 0003

**Thermo Top C Additional Heater**

  
00 0002

**Thermo Top P Additional Heater**

  
00 0104

## Installation Instructions

### VW Golf V, Golf Plus, Touran

Gasoline

from Model Year 2006

Left-hand drive vehicle



#### **WARNING!**

Hazard warning:

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

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

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

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

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

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## Validity

Manufacturer	Model	Type	EG-BE No./ABE
VW	Golf V	1K	e1 * 2001/116 * 0242 * ...
VW	Golf Plus	1KP	e1 * 2001/116 * 0304 * ...
VW	Touran	1T	e1 * 2001/116 * 0211 * ...

## VW Golf V and Golf Plus

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
BMY	Gasoline/TSI	103	1390
BLG	Gasoline/TSI	125	1390

## VW Touran

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
BMY	Gasoline/TSI	103	1390
BLG	Gasoline/TSI	125	1390
BLF	Gasoline/FSI	85	1598

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

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

## Heater Unit/Installation Kit

Quantity	Description	Order No.:
1	Retail accessories with desired heater control	See price list
1	Installation kit for VW Golf V, Golf Plus, Touran Gasoline	1312759A

### Also required with Climatronic

Quantity	Description	Order No.:
1	IPCU Kit for Climatronic	9013645A

### 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 VW Golf V, Golf Plus, Touran Gasoline vehicles - for validity, see page 2 - from model year 2006 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to these installation instructions.

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

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

## General Instructions

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

Sharp edges should be fitted with edge protectors (split-open plastic hose).

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

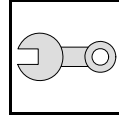
## Special Tools

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

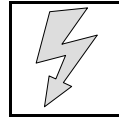
## Explanatory Notes on Document

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

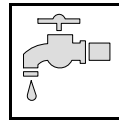
### Mechanical system



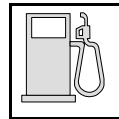
### Electrical system



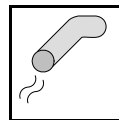
### Water



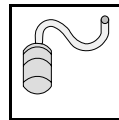
### Fuel



### Exhaust gas



### Combustion air



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



Specific risk of fire or explosion.



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



Reference to a special technical feature.



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

All dimensions are in mm!

Tightening torque of hose clamps = 2.0 + 0.5 Nm!

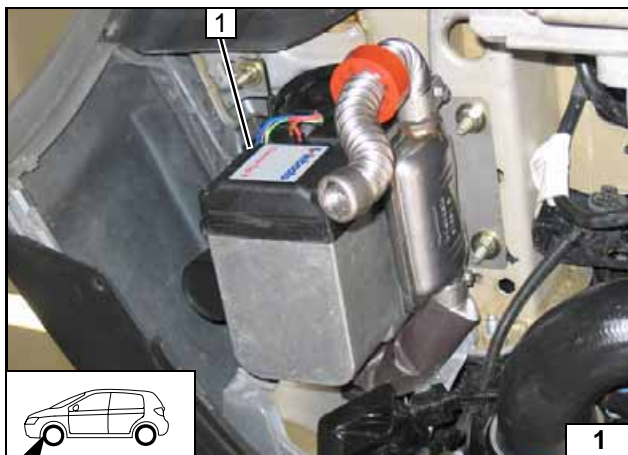
Tightening torque of Ejoy screws, Ejoy studs = 10 Nm!

## Preliminary Work

### WARNING!

- Open the fuel tank cap, ventilate the tank.
- Close the tank cap again.
- Depressurize the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Disconnect the battery "earth" or "ground" connection.
- Remove the battery
- Remove the battery carrier.
- Remove the engine cover
- Remove the left front wheel
- Remove the front section of the left front wheel well trim
- Remove the left-hand front fog light or, on vehicles without front fog lights, the left-hand cover
- Remove the underride protection
- Remove the right-hand underbody trim
- Golf only: Remove the rear bench seat
- Golf Plus only: Remove the right rear seat
- Open the right-hand fuel sender service lid.
- Remove the footwell trim on the driver's side
- Remove the lower instrument panel trim on the driver's side
- Only vehicles with Climatronic: Remove the footwell trim on the front passenger side

Remove page 35 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



### Heater unit installation location

- 1 Heater unit

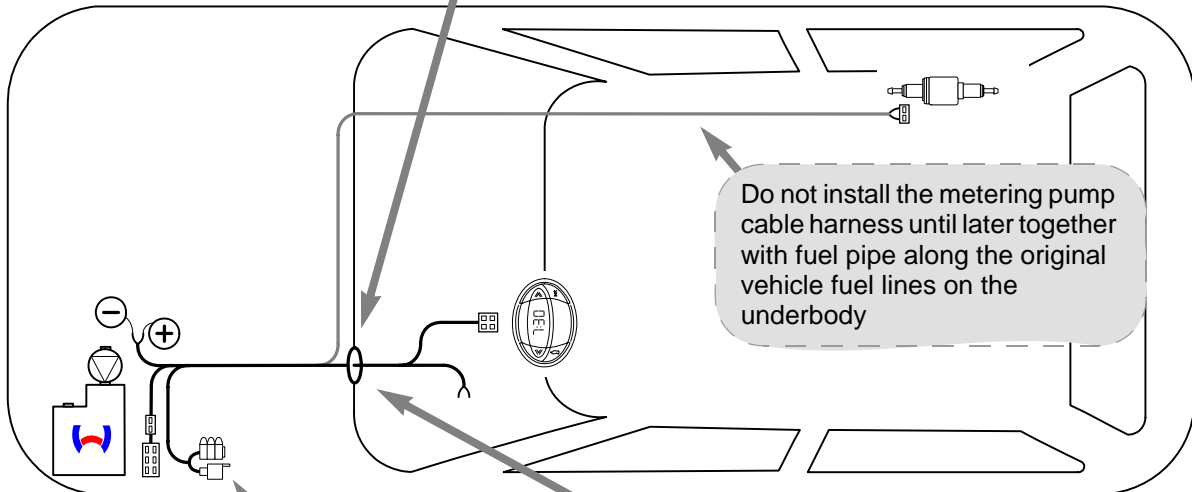
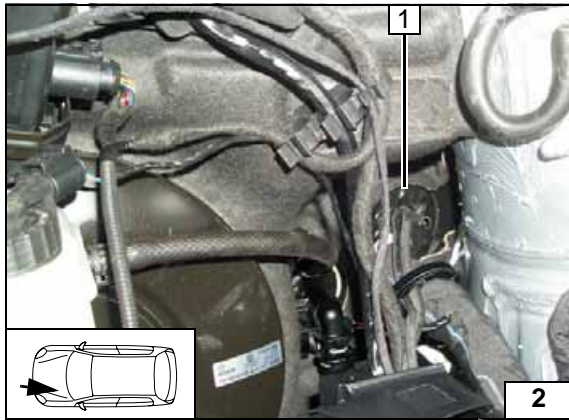
Installation location



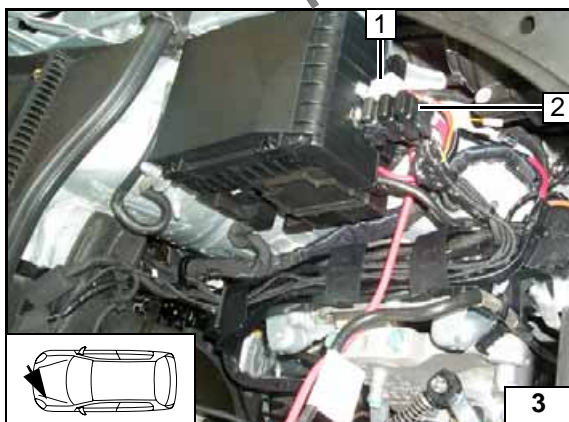
**Electrical system**

**Wiring harness pass through**

1 Original vehicle wiring harness pass through

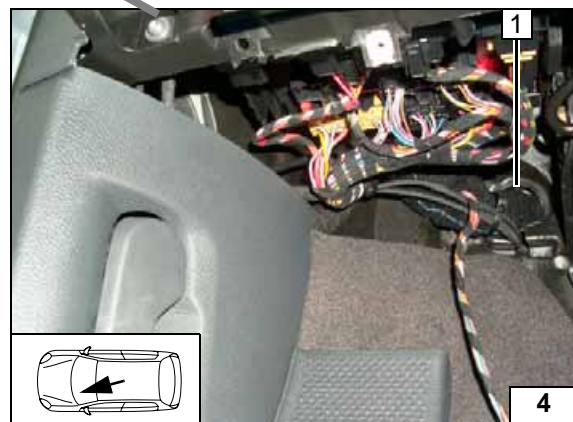


**Wiring harness installation diagram**



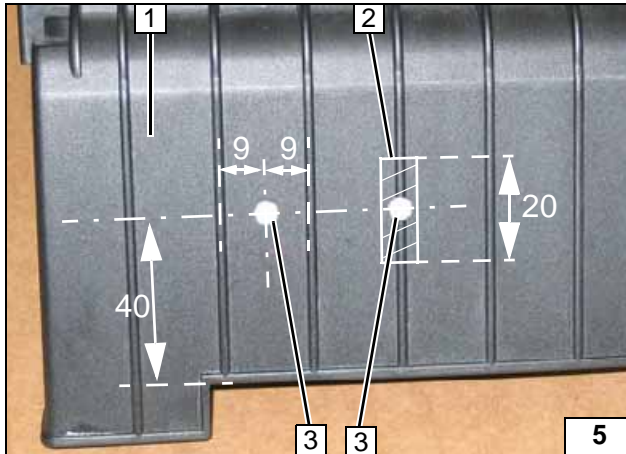
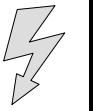
**Fuse holder, relay K3**

Description of installation for K3 relay 1 and fuse carrier 2 on Page 7



**Wiring harness pass through**

1 Original vehicle wiring harness pass through



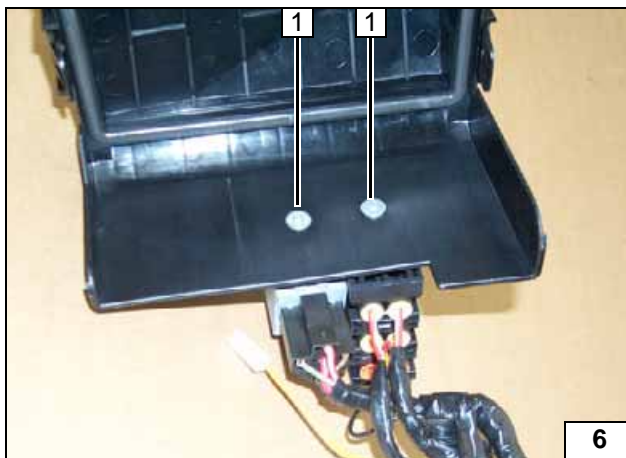
### Fuse holder and relay K3

Countersink holes **3** from behind for M5 countersunk head screws.

- 1** Cover of fuse/relay carrier in engine compartment
- 2** Cut away bar in shaded area
- 3** 5.0 mm dia. hole [2x]

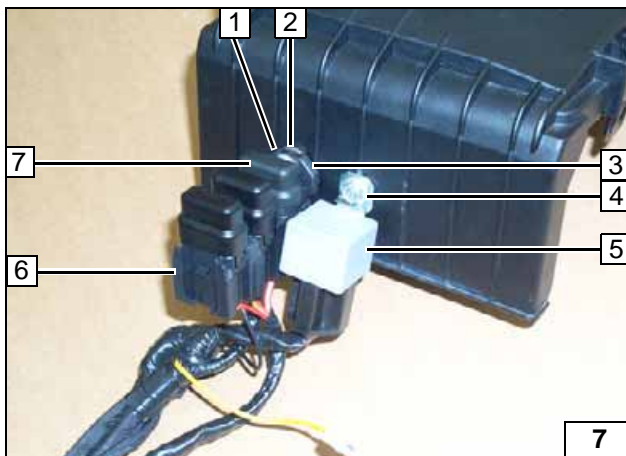


Holes in cover



- 1** M5x12 countersunk head screw [2x]

Installing fuse holder and K3 relay

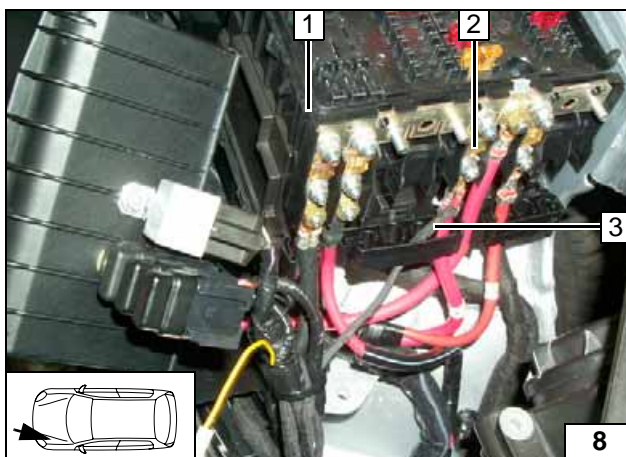


On vehicles with Climatronic, replace 25 A fuse F3 **7** with 3 A fuse provided.

- 1** M5 flanged nut
- 2** Large diameter washer (between cover and retaining plate)
- 3** Retaining plate
- 4** M5 flanged nut
- 5** Relay K3
- 6** Fuse holder



Installing fuse holder and K3 relay

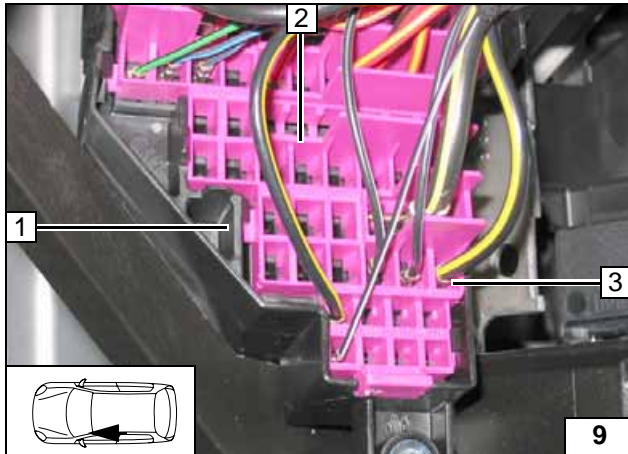
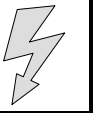


Route brown (br) ground wire to original vehicle ground support point below headlight and connect.

- 1** Fuse/relay carrier
- 2** Original main vehicle fuse
- 3** Red (rt) positive wire



Connecting positive and ground wire



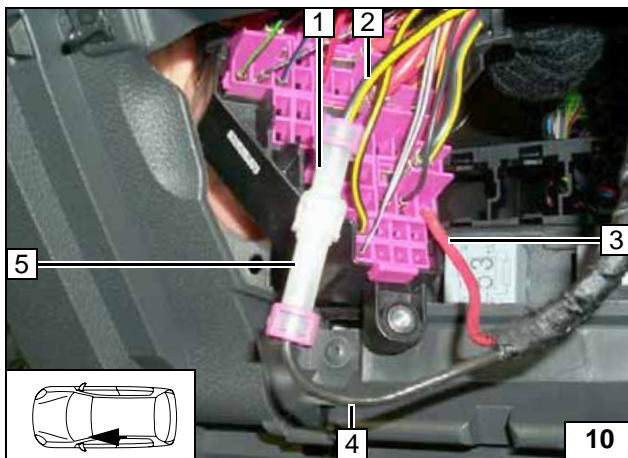
### Climatic fan controller

#### Golf V

Detach original vehicle fuse carrier 1 (instrument panel at upper left) and unlock contact lock 2.

Uncrimp 4<sup>2</sup> black/yellow (sw/ge) wire 3 on fuse output SC40

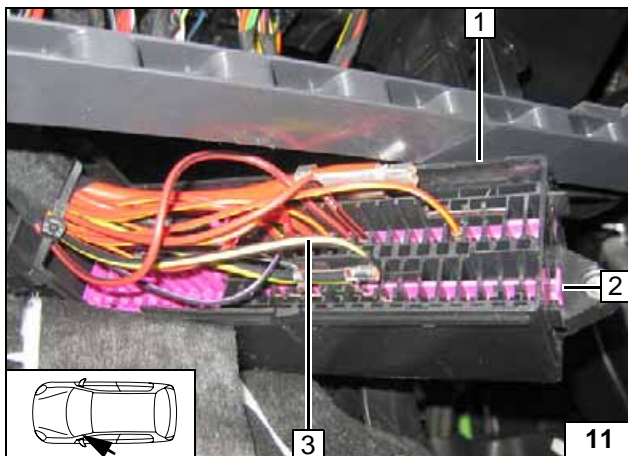
Un-crimping wire



Produce connections as shown in wiring diagram.

- 1 AMP housing
- 3 Red (rt) wire from K3/87a with crimped-on standard power timer engaged in fuse output SC40
- 2 Black/yellow (sw/ge) wire with original standard power timer
- 4 Black (sw) wire K3/30 with crimped-on tab connector
- 5 AMP housing

Connecting wires



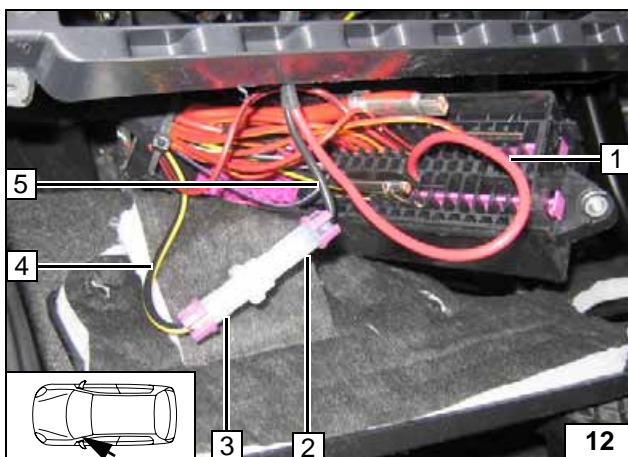
#### Golf Plus and Touran

Fuse socket dependent on vehicle equipment SC33 or SC 35; wire color black (sw) or black/yellow (sw/ge)

Detach original vehicle fuse carrier 1 (instrument panel at lower left) and unlock contact lock 2.

Uncrimp 4<sup>2</sup> black (sw) or black/yellow (sw/ge) wire 3 on fuse output SC33 or SC35

Un-crimping wire



Produce connections as shown in wiring diagram.

- 1 Red (rt) wire from K3/87a with crimped-on standard power timer engaged in fuse output SC33 or SC35
- 2 AMP housing
- 3 AMP housing
- 4 Black (sw) or black/yellow (sw/ge) wire 11/3 with original standard power timer
- 5 Black (sw) wire K3/30 with crimped-on tab connector

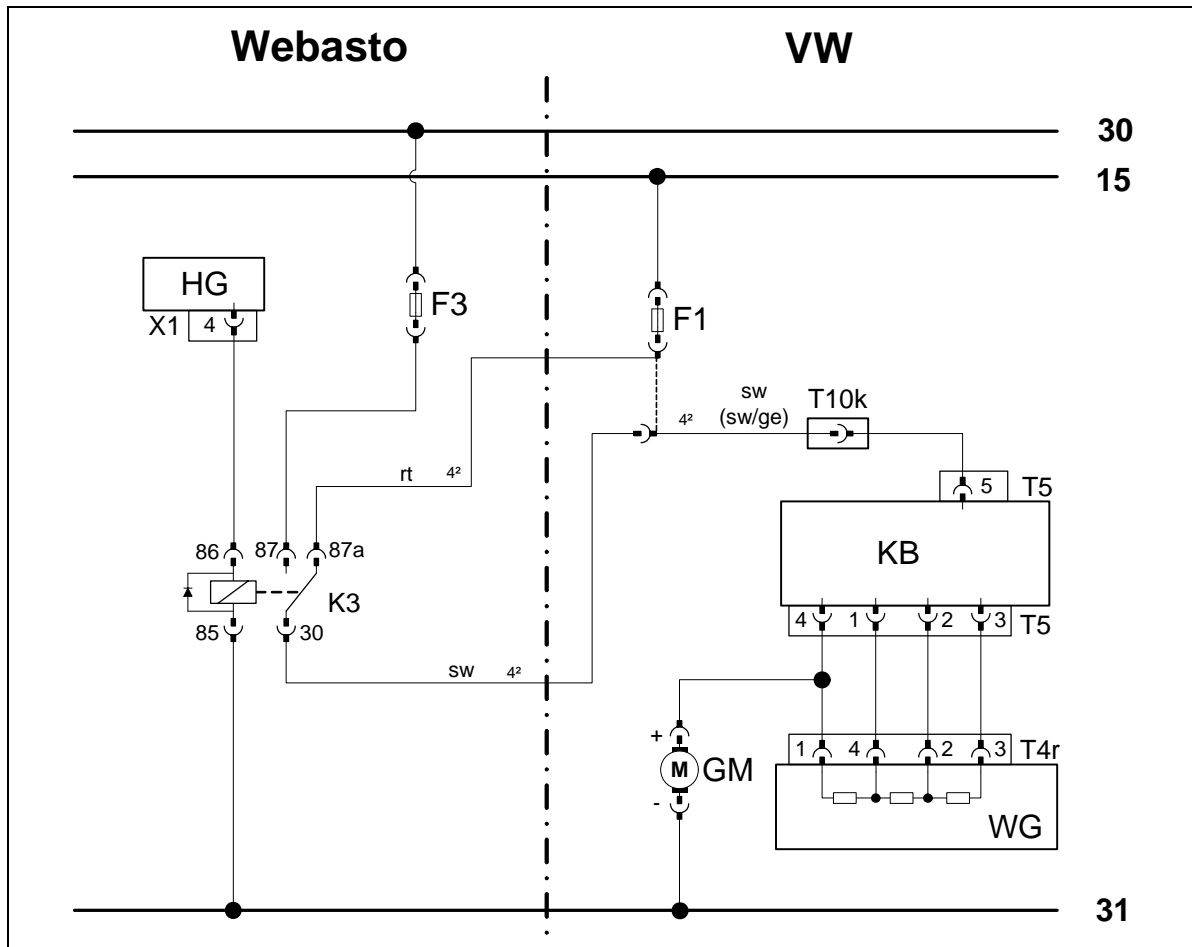
Connecting wires

Lock contact lock again.



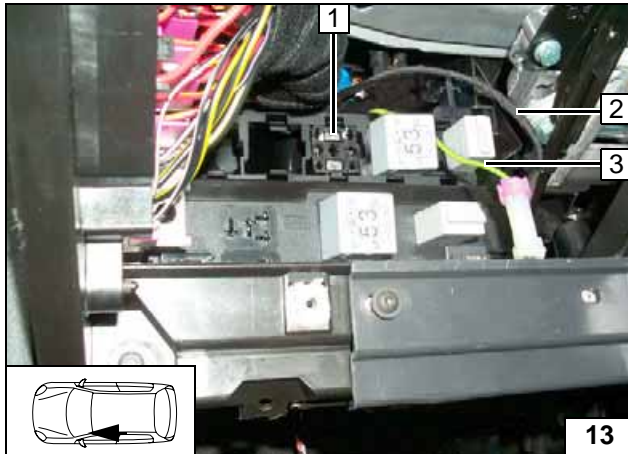
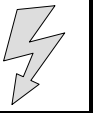


Wiring diagram



Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater unit connector	F1	Fuse SC33 or SC35 with 40 A	ws	white
F3	Fuse, 25 A			sw	black
K3	Fan relay	KB	Air-conditioning control unit or heater switch E16	br	brown
		WG	Resistor group N24	gn	green
		T10k	Connector	bl	blue
				ge	yellow
					Insulate wire ends and tie back
				X	Cutting point
					Wiring colors may vary.

Legend



**Climatronic fan controller**

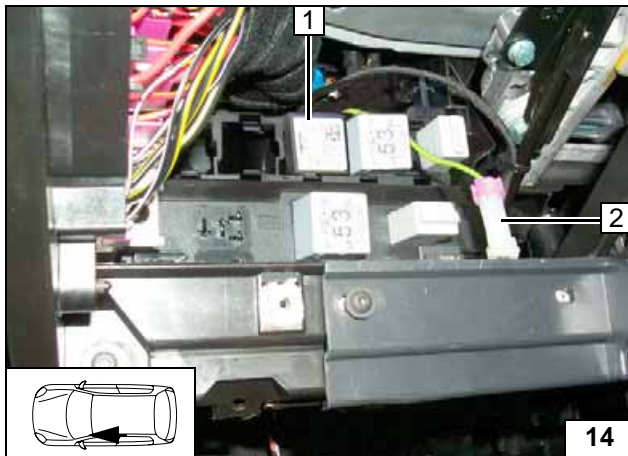
**Golf V**

Produce connections as shown in wiring diagram.  
Position of free sockets dependent on vehicle equipment.

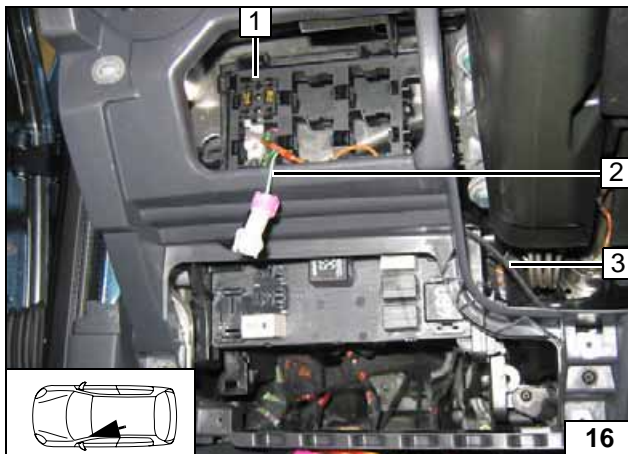
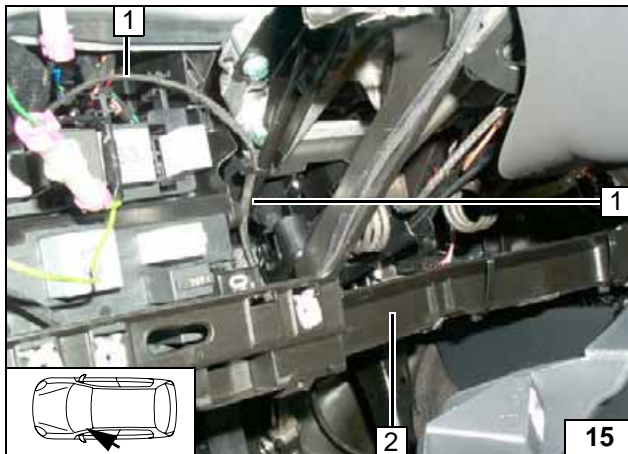
- 1 IPCU socket
- 2 Red (rt) and black/white (sw/ws) wires from IPCU
- 3 Green/white (gn/ws) wire to IPCU/86 with AMP connector

Brown (br) wire from IPCU/85 to original vehicle ground point.  
Insulate and tie back red (rt) wire from K3/87a.  
Connect black (sw) wire from K3/30 to green/white (gn/ws) wire (AMP connector) 2.

- 1 IPCU



Route wiring harness IPCU 1 along cross member 2 to center console



**Golf Plus**

Produce connections as shown in wiring diagram.  
Position of free sockets dependent on vehicle equipment.

- 1 IPCU socket
- 2 Green/white (gn/ws) wire to IPCU/86 with AMP connector
- 3 Red (rt) and black/white (sw/ws) wires from IPCU



**Installing wiring harness of Climatronic**



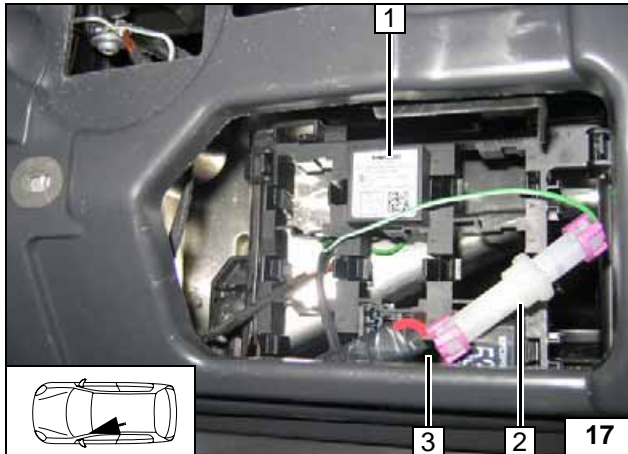
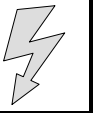
**Connecting wires**



**Routing wiring harness from IPCU**



**Installing wiring harness of Climatronic**

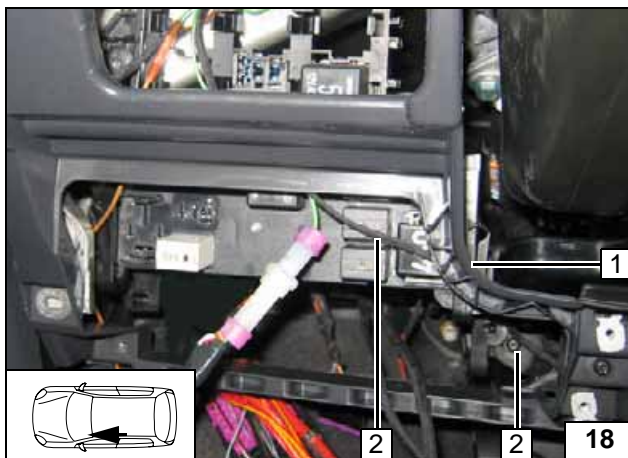


Brown (br) wire from IPCU/85 to original vehicle ground point.  
 Insulate and tie back red (rt) wire from K3/87a.  
 Connect black (sw) wire from K3/30 3 to green/white (gn/ws) wire (AMP connector) 2.

1 IPCU



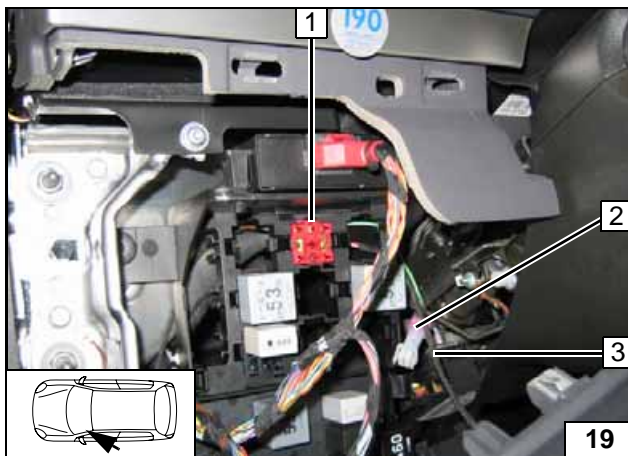
Con-necting wires



Route wiring harness IPCU 2 along cross member 1 to center console.



Routing wiring harness from IPCU



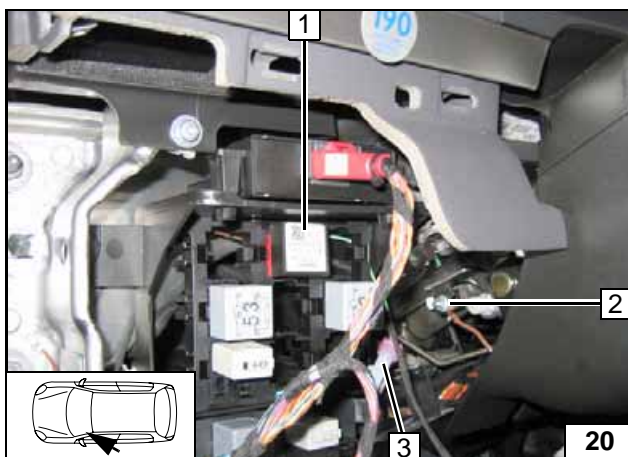
**Touran**

Produce connections as shown in wiring diagram.  
 Position of free sockets dependent on vehicle equipment.

- 1 IPCU socket
- 2 Green/white (gn/ws) wire to IPCU/86 with AMP connector
- 3 Red (rt) and black/white (sw/ws) wires from IPCU



Installing wiring harness of Climatronic

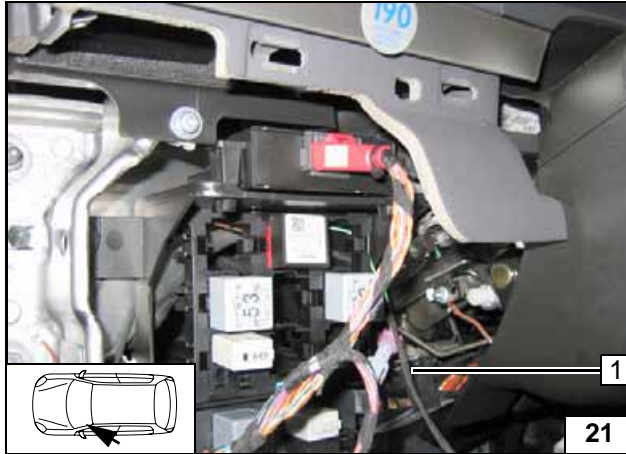
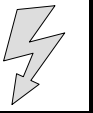


Fasten brown (br) wire from IPCU/85 to original vehicle ground point 2.  
 Insulate and tie back red (rt) wire from K3/87a.  
 Connect black (sw) wire from K3/30 to green/white (gn/ws) wire (AMP connector) 3.

1 IPCU



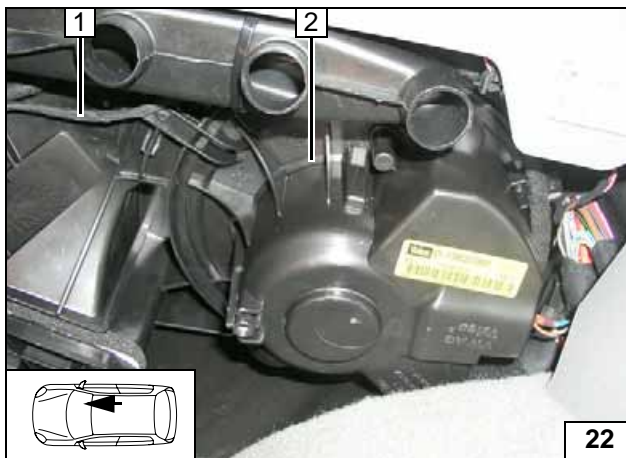
Con-necting wires



Route wiring harness from IPCU 1 to fan unit.



**Routing wiring harness from IPCU**

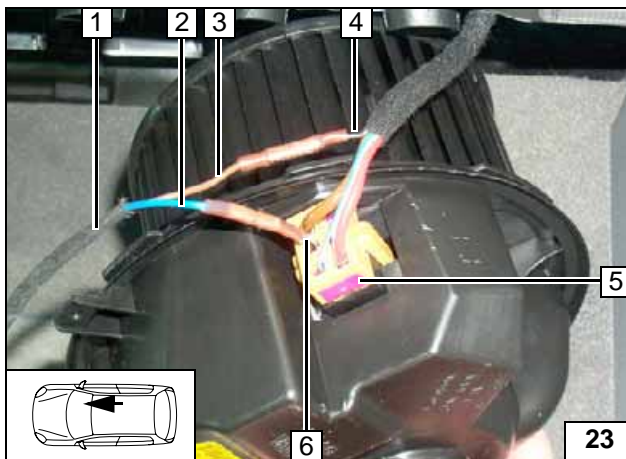


**Golf V, Golf Plus, Touran**



- 1 Wiring harness with red (rt) wire from IPCU/E and black/white (sw/ws) wire from IPCU/A
- 2 Fan unit

**Routing wiring harness from IPCU**

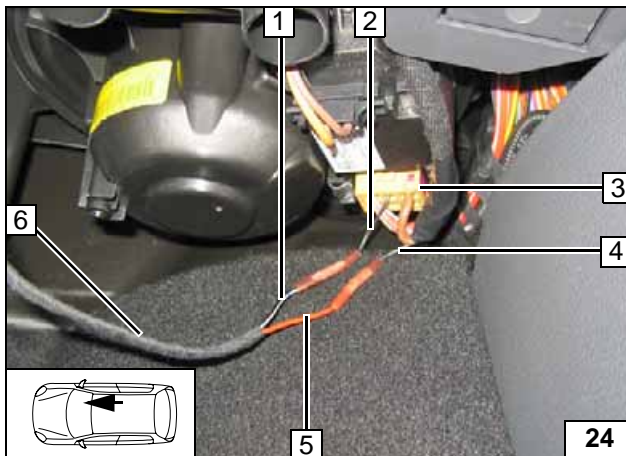


Position of connector T6t is dependent on vehicle. If necessary, disconnect fan unit in accordance with manufacturer's instructions. Produce connections as shown in wiring diagram.



- 1 Wiring harness from IPCU
- 2 Black/white (sw/ws) wire from IPCU/A
- 3 Red (rt) wire from IPCU/E
- 4 Black/white (sw/ws) wire from Climatronic control unit
- 5 Connector T6t
- 6 Black/white (sw/ws) wire to connector T6t/2

**Connecting wires**

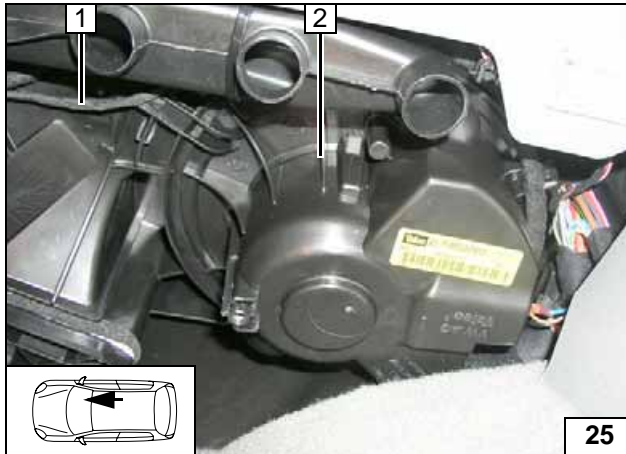
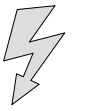


Picture shows version without having to disconnect fan unit.



- 1 Black/white (sw/ws) wire from IPCU/A
- 2 Black/white (sw/ws) wire to connector T6t/2
- 3 Connector T6t
- 4 Black/white (sw/ws) wire from Climatronic control unit
- 5 Red (rt) wire from IPCU/E
- 6 Wiring harness from IPCU

**Connecting wires**



If previously removed, reinstall fan unit.  
Fasten wiring harness on original vehicle wires with cable ties.

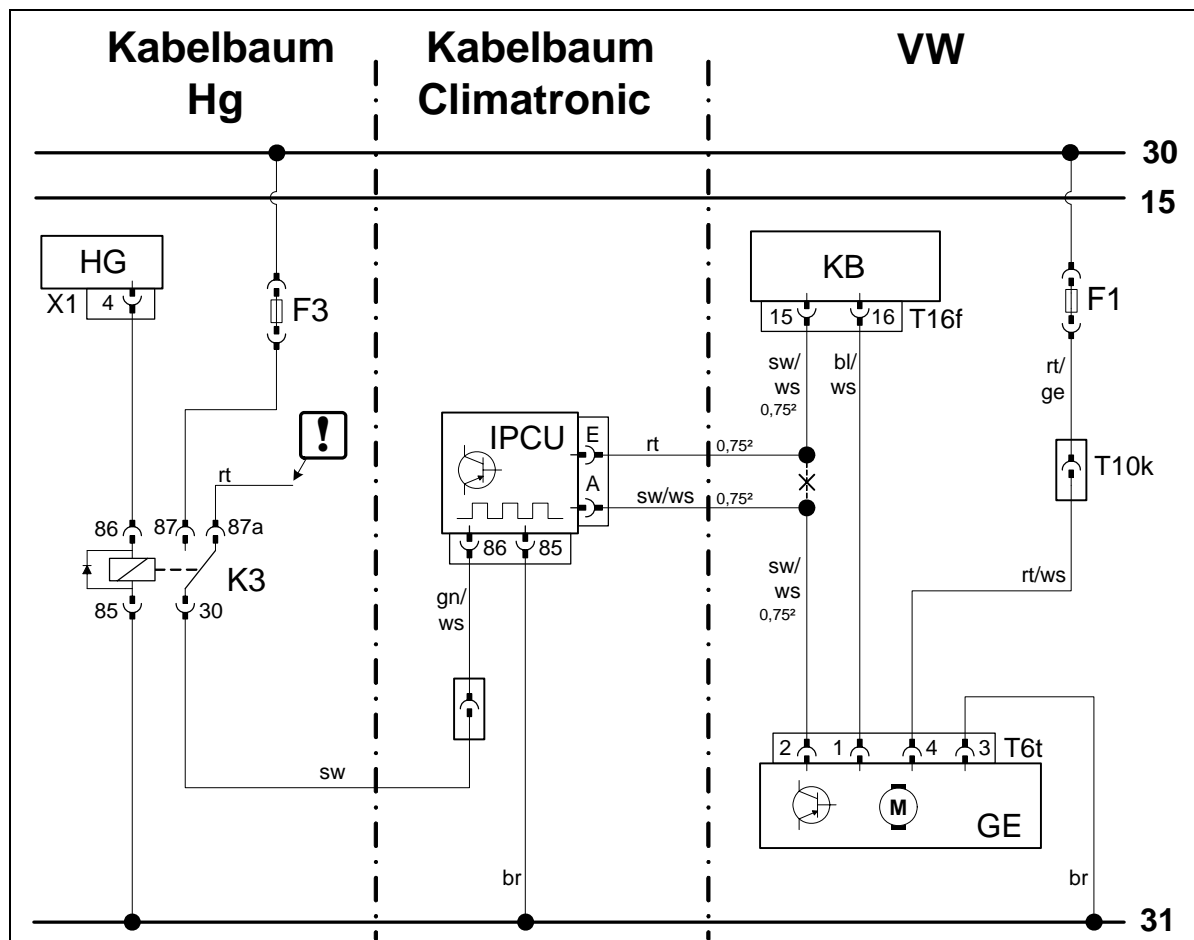
- 1 Wiring harness from IPCU
- 2 Fan unit



Installing fan unit

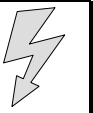


Wiring diagram



Webasto components		Vehicle components		Colors and symbols	
HG	Heater unit TT-C/E	F1	Fuse SC22 or SC56 with 40 A	rt	red
X1	6-pin heater unit connector	KB	Climatronic control unit - J255	ws	white
K3	Fan relay	T10k	Plug connections	sw	black
F3	Fuse (25 A replaced with 3 A!)	ge	Fan control unit - J126 and fan motor - V2	br	brown
IPCU	Pulse width modulator			gn	green
				ge	yellow
<b>IPCU adjustment values</b>				bl	blue
Voltage: 8 V					
Frequency: 400 Hz					
Duty cycle: 30 %					
Function: High-side				<b>!</b>	Insulate wire end and tie back
				<b>X</b>	Cutting point

Legend



**Digital timer, summer/winter switch option**

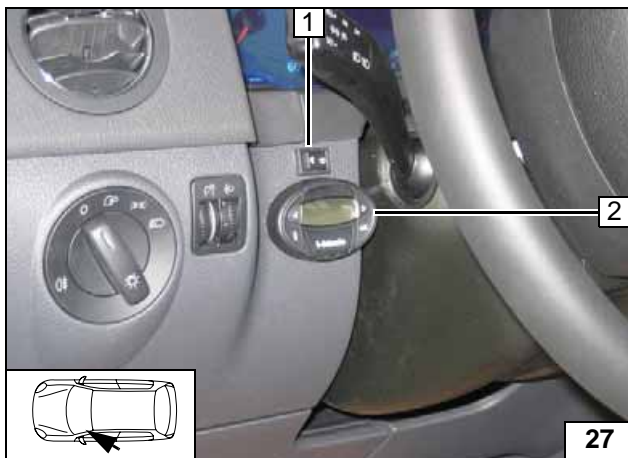
**Golf V**

Do not press on display!

- 1 Digital timer
- 2 Summer/winter switch



**Digital timer**



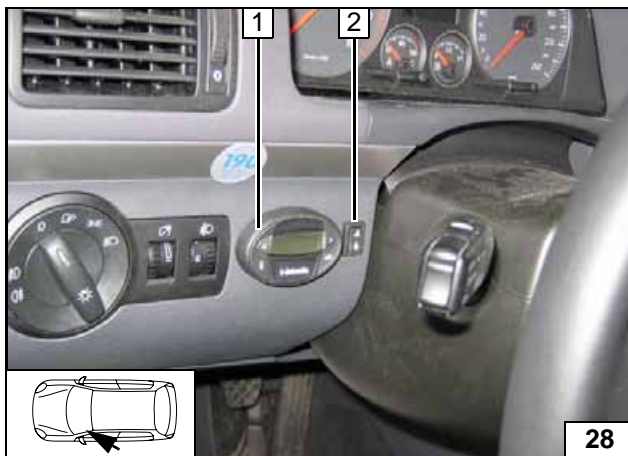
**Golf Plus**

Do not press on display!

- 1 Summer/winter switch
- 2 Digital timer



**Digital timer**

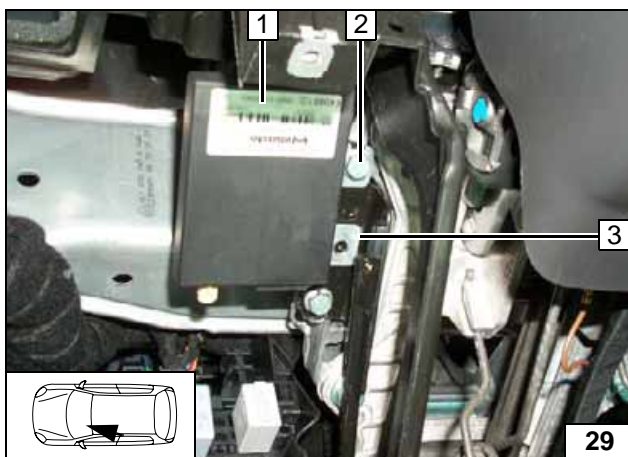


**Touran**

- 1 Digital timer
- 2 Summer/winter switch



**Summer/winter switch option**



**Remote option (Telestart)**

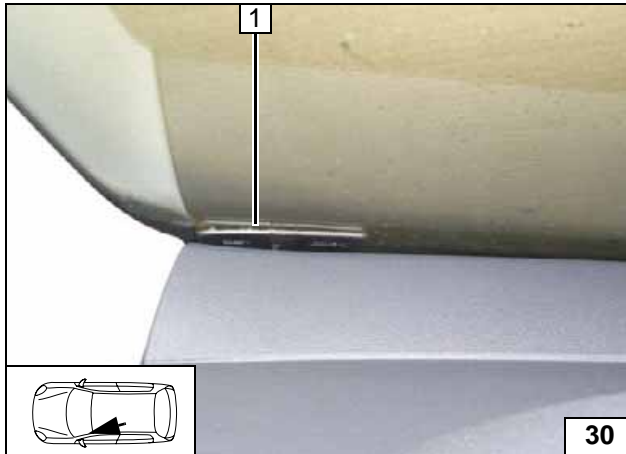
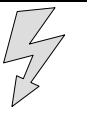
**Golf V**

If M6 screw 2 is not present, then use suitable M6 screw with spring lockwasher.  
Drill out upper hole of bracket to 6.5 mm dia.

- 1 Receiver
- 2 M6 bolt
- 3 Bracket



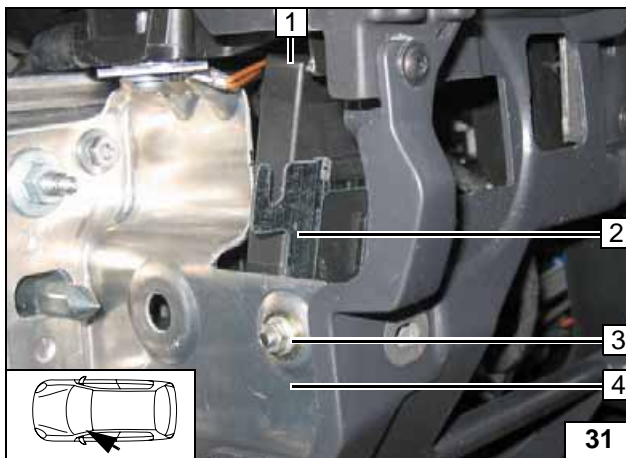
**Installing receiver**



1 Antenna



Installing antenna



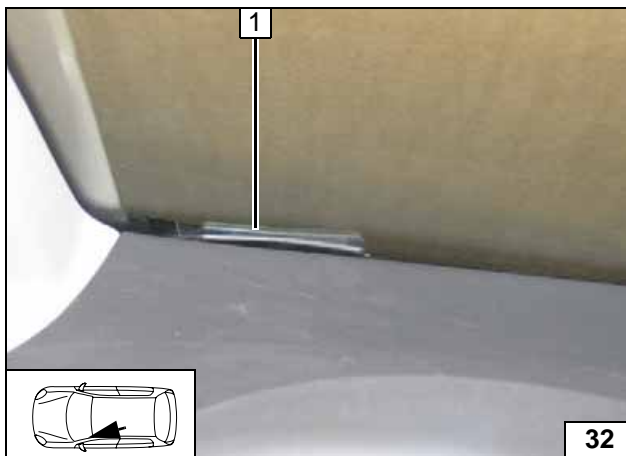
**Golf Plus**

Bend down lower tab of bracket by 90° and drill out hole to 6.5 mm dia. as shown.

- 1 Receiver
- 2 Bracket
- 3 M6 bolt, large diameter washer (between bracket instrument carrier), large diameter washer (from outside), flanged nut
- 4 Instrument carrier, existing hole



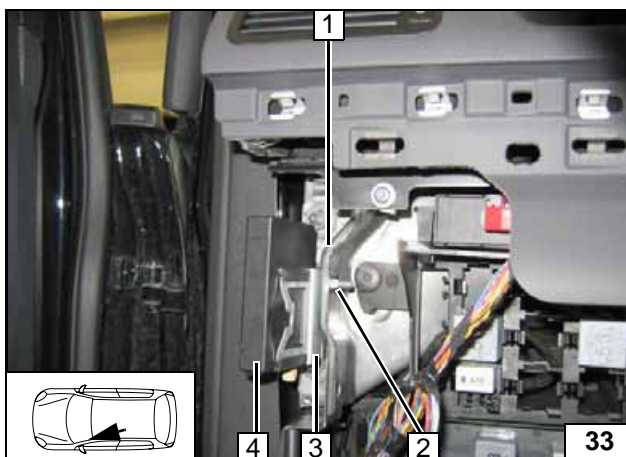
Installing receiver



1 Antenna



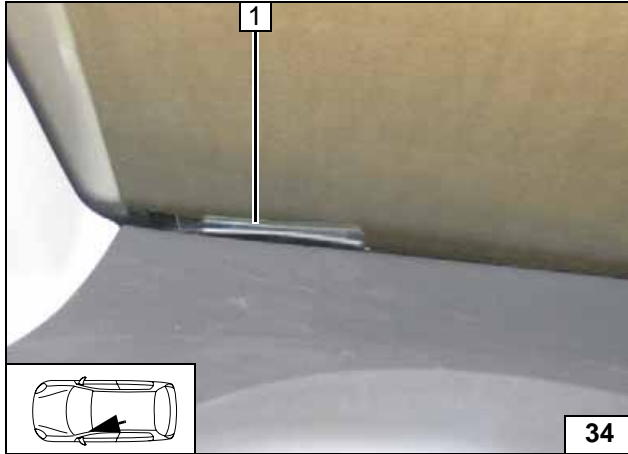
Installing antenna



**Touran**

- 1 Instrument carrier
- 2 Existing hole, M6x20 bolt, large diameter washer, flanged nut
- 3 Bracket, drill out hole to 6.5 mm dia.
- 4 Receiver

Installing receiver

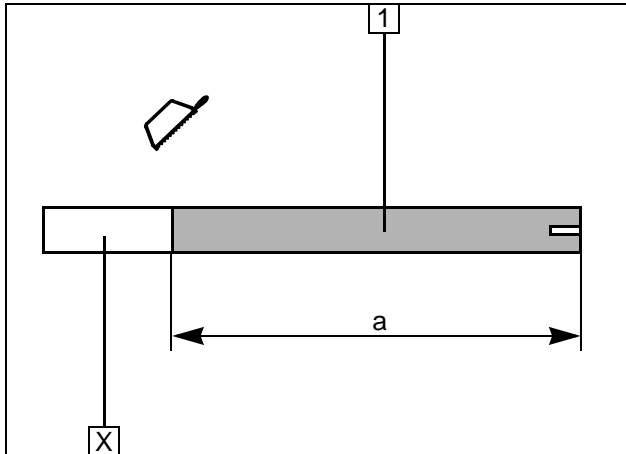
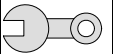


1 Antenna



Installing antenna



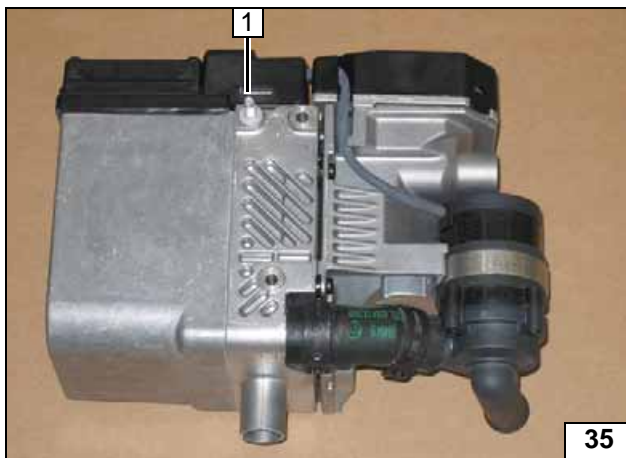


**Premounting heater unit**

- 1 Combustion air pipe  
a = 250

Discard section X

**Cutting combustion air pipe to length**

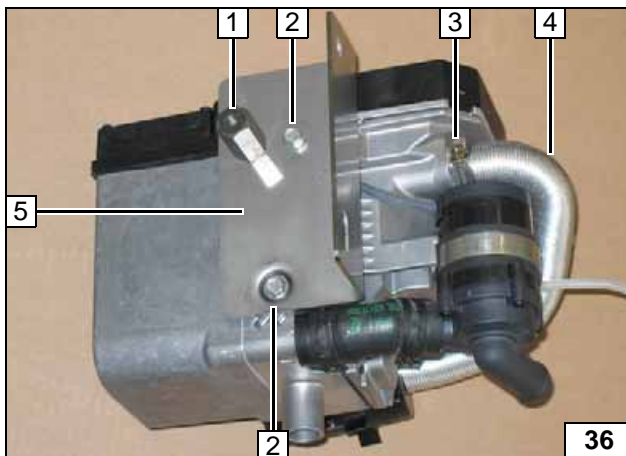


Eجت stud, tightening torque 10 Nm.

- 1 Eجت stud



**Pre-mounting heater unit**

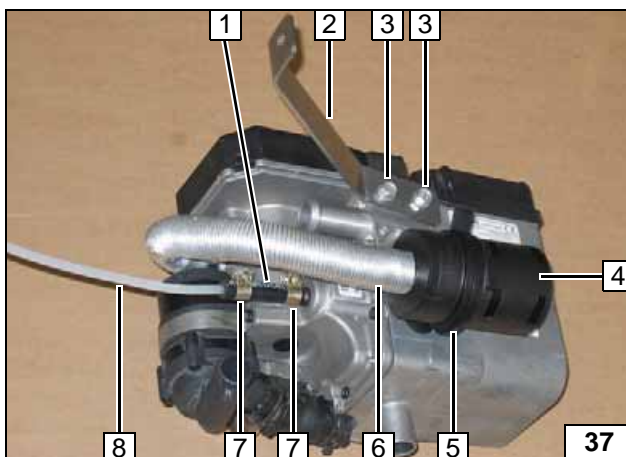


Insert one washer each between heater unit and bracket at positions 2

- 1 M6x30 spacer nut
- 2 Washer, Eجت screw [2x]
- 3 Hose clamp
- 4 Prepared combustion air pipe (slotted side on heater unit)
- 5 Bracket

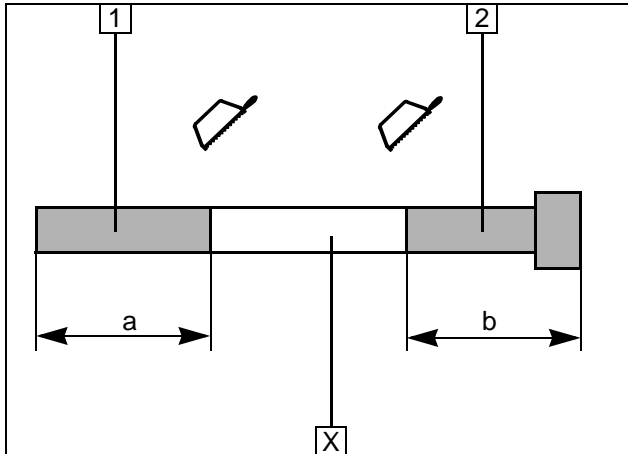
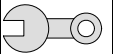


**Pre-mounting heater unit**



- 1 Hose section
- 2 Strut
- 3 Eجت screw [2x]
- 4 Combustion-air intake muffler
- 5 Retaining clip in hole of heater unit
- 6 Combustion air pipe
- 7 10 mm dia. hose clamp [2x]
- 8 Mecanyl line

**Pre-mounting heater unit**

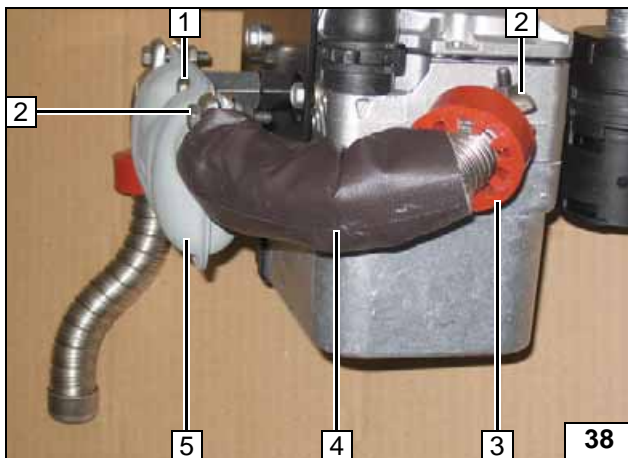


- 1 Exhaust pipe  
a = 190
- 2 Exhaust end section  
b = 240

Discard section X

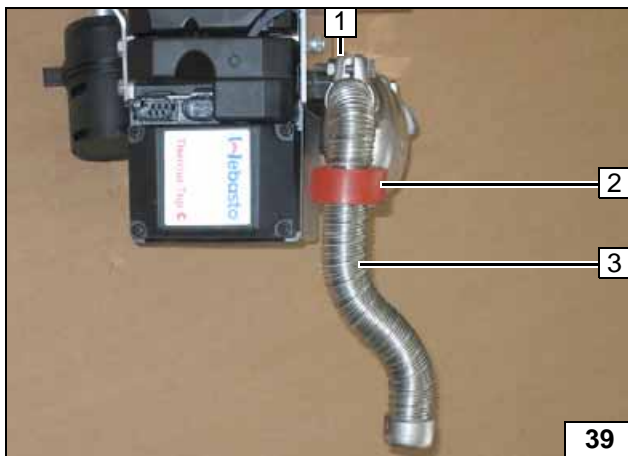


**Cutting exhaust pipe to length**



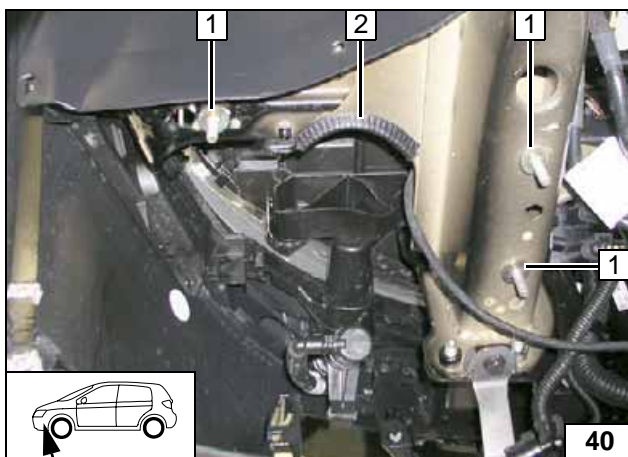
- 1 M6x16 bolt, spring lockwasher
- 2 Hose clamp [2x]
- 3 Red (rt) rubber isolator, without groove
- 4 Exhaust pipe with insulation
- 5 Muffler

**Pre-mounting exhaust system**



- 1 Hose clamp
- 2 Red (rt) rubber isolator, without groove
- 3 Exhaust end section

**Pre-mounting exhaust system**



**Preparing installation location**

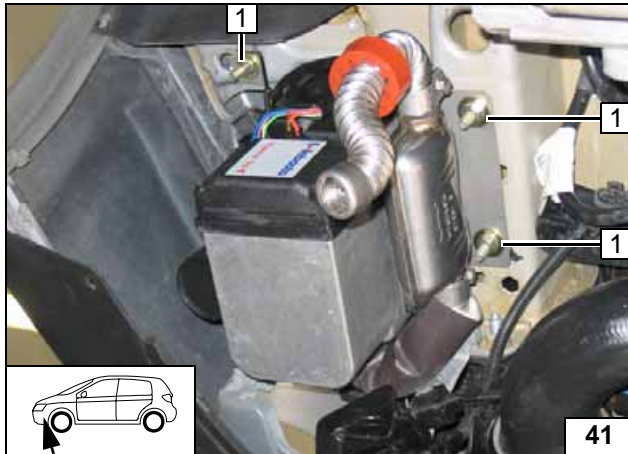
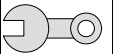
Secure large diameter washer against falling with putty etc.

- 1 Large diameter washer on original vehicle stud bolt [3x]
- 2 Edge protection section



**Preparing installation location**



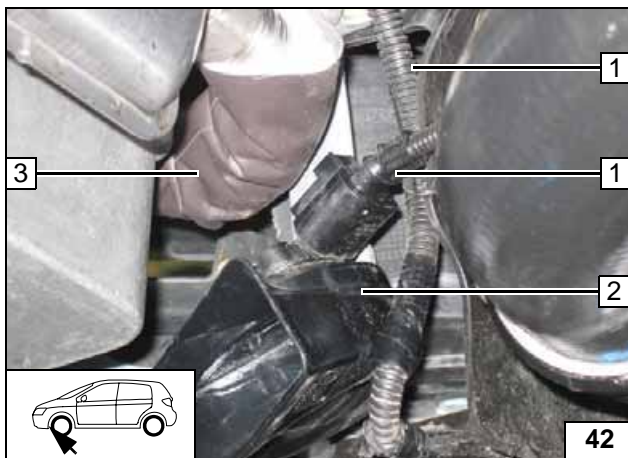


**Installing heater unit**

- 1 Large diameter washer, flanged nut M8 [3x]



**Installing heater unit**

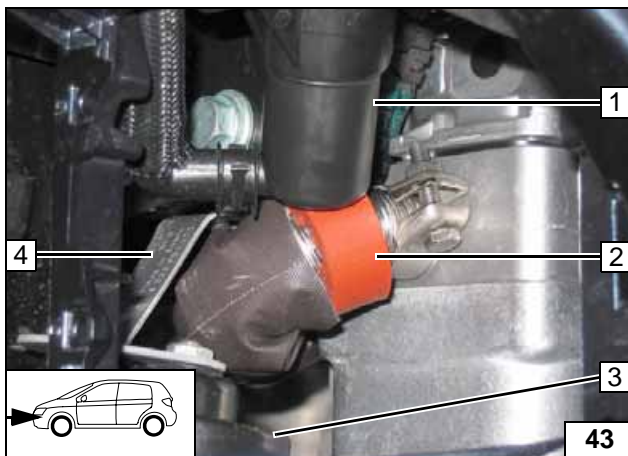


Ensure freedom of movement of exhaust system relative to original vehicle component and lines.

- 1 Original vehicle wiring harnesses (secured with cable ties)
- 2 Horn
- 3 Exhaust pipe



**Aligning exhaust system**

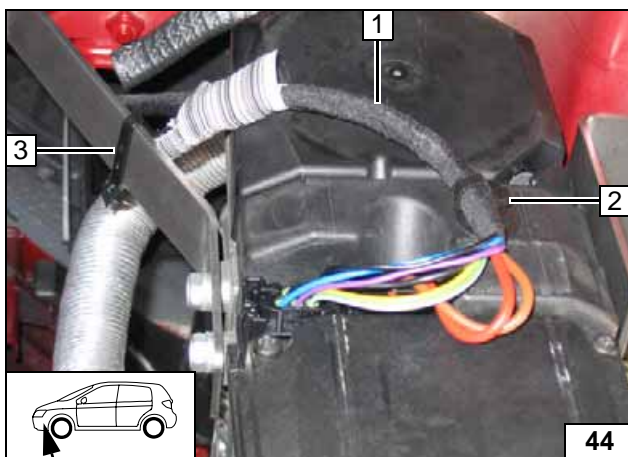


Ensure freedom of movement of exhaust system relative to original vehicle component and lines.  
Position rubber isolator 2 as shown. (Picture shows Golf Plus with headlight washer system)

- 1 Headlight washer system (Golf Plus)
- 3 Horn
- 4 Horn bracket



**Aligning exhaust system**

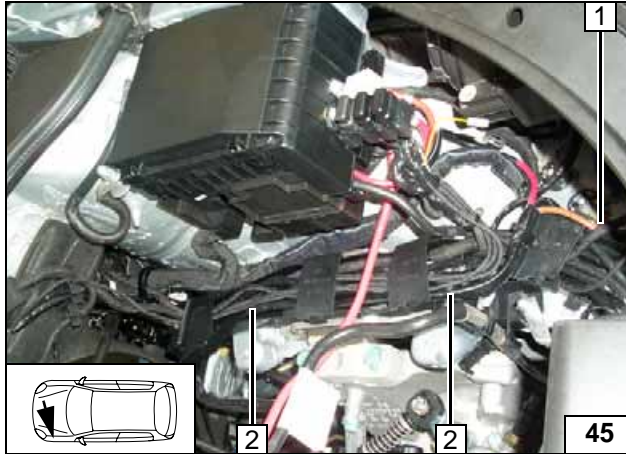
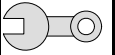


Watch routing of wiring harness. Danger of rubbing!

- 1 Wiring harness of heater unit
- 2 Clip cable tie in pre-perforated hole of heater unit cover
- 3 Cable tie



**Mounting and routing wiring harness**



Watch routing of wiring harness. Danger of rubbing!

Route excess lengths from wiring harness **1** in cable duct **2** below battery and secure with cable ties.

- 1** Wiring harness from heater unit
- 2** Cable duct



**Routing wiring harness**



**Fuel Connection**

**CAUTION!**

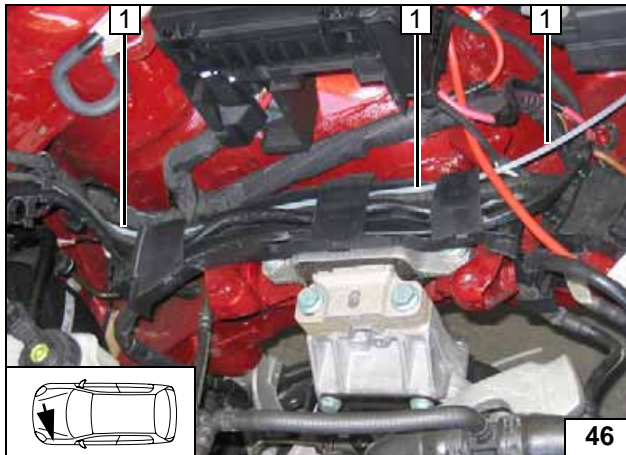
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

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.

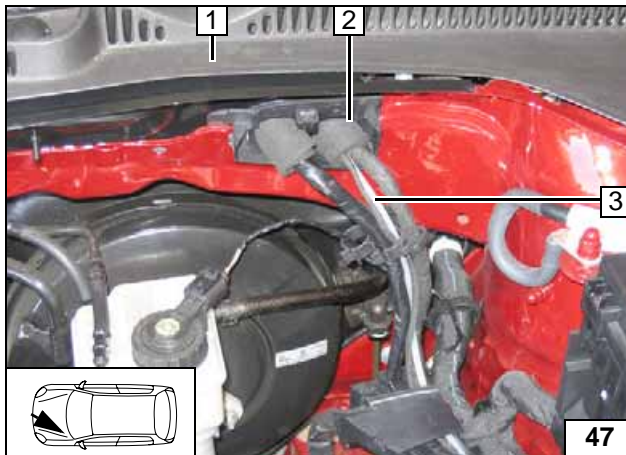
**WARNING!**

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



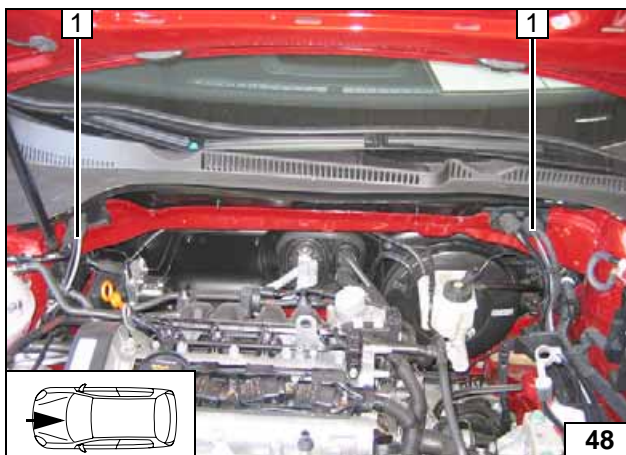
1 Mecanyl line

Routing mecanyl line to firewall



1 Coolant reservoir cap detached  
2 Existing pass through  
3 Mecanyl line and wiring harness of metering pump

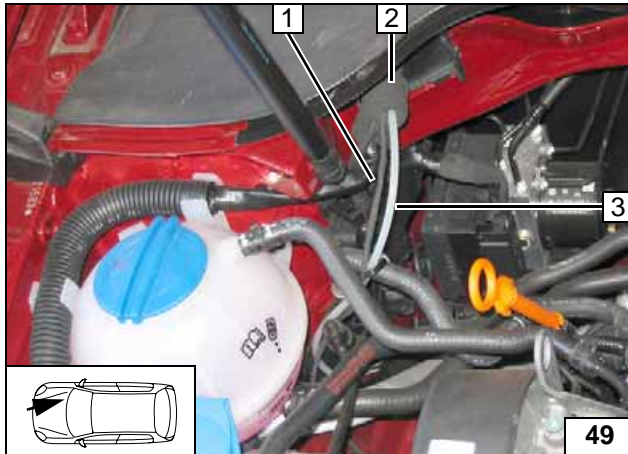
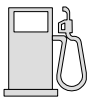
Routing mecanyl line and wiring harness of metering pump into coolant reservoir



Fasten mecanyl line and wiring harness of metering pump 1 in coolant reservoir on original vehicle lines with cable tie. Pay particular attention to freedom of movement of wiper linkage.

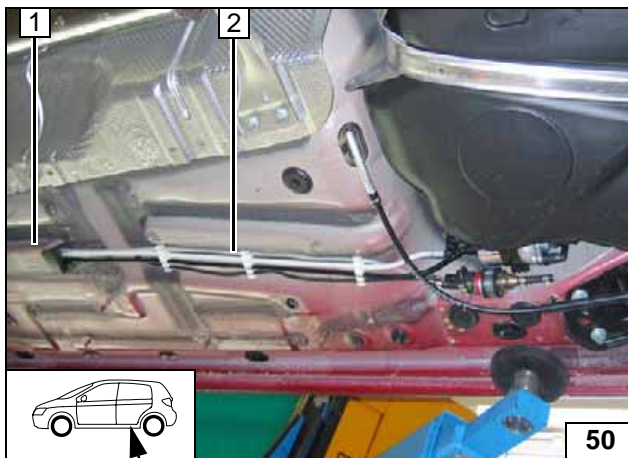


Routing mecanyl line and wiring harness of metering pump to right



- 1 Metering pump wiring harness
- 2 Existing pass through
- 3 Mecanyl line

Routing  
mecanyl  
line and  
wiring  
harness of  
metering  
pump

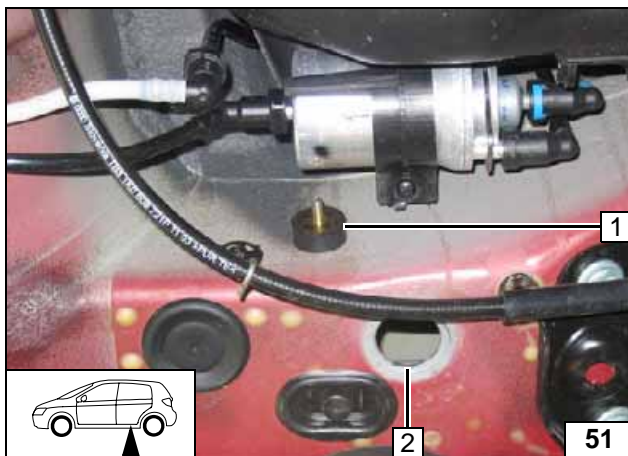


Route mecanyl line and wiring harness of metering pump along original vehicle fuel lines 2 to fuel tank.

- 1 Line duct

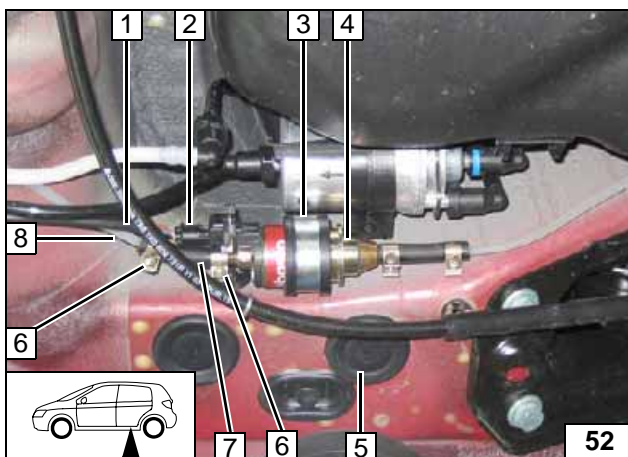


Routing  
mecanyl  
line and  
wiring  
harness of  
metering  
pump



- 1 Silentblock, large diameter washer, M6 flanged nut
- 2 Remove sealing plug

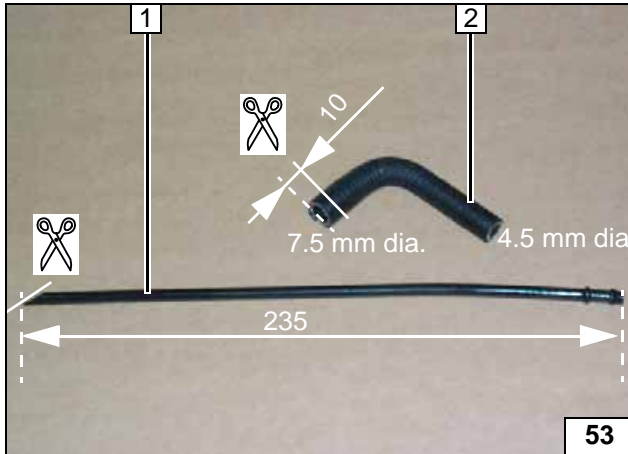
Installing  
noise  
isolation  
mount



- 1 Metering pump wiring harness
- 2 Connector housing, single-wire seals, plug-in contacts
- 3 Secure rubber-coated p-clamp on silent block with flanged nut
- 4 Metering pump
- 5 Plug remounted
- 6 10 mm dia. hose clamp [2x]
- 7 Hose section
- 8 Mecanyl line



Mounting  
metering  
pump and  
connecting  
pressure  
side



- 1 Standpipe
- 2 Molded hose

Cutting standpipe and molded hose to length

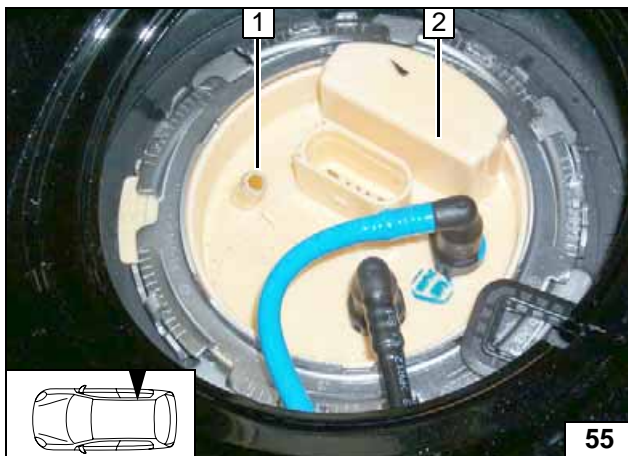


Caillau clamp 2 in center between beads on end of standpipe.



- 1 Standpipe
- 2 10 mm dia. Caillau clamp
- 3 Molded hose

Pre-mounting standpipe and molded hose

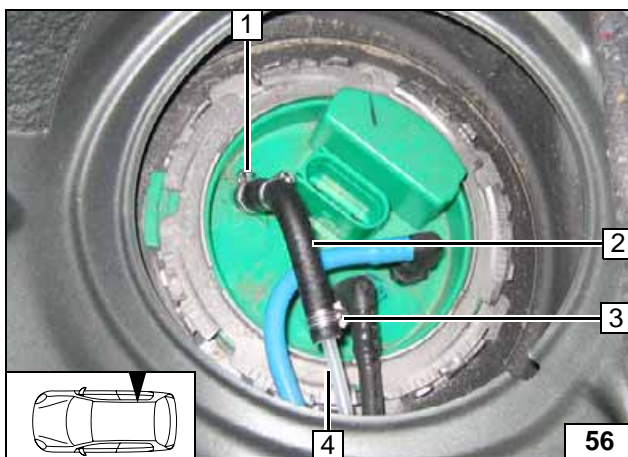


Cut 3 mm off blind plug.

- 1 Tip cut off blind plug
- 2 Fuel sender



Cutting off blind plug

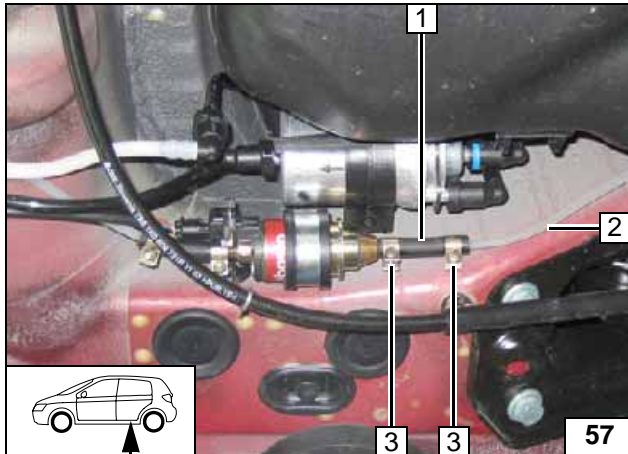


Should the standpipe be slightly curved on delivery, then it must be aligned so that the end points toward the rear right. Otherwise there is a danger of the fuel gauge being impaired.

- 1 13.5 mm dia. Caillau clamp
- 2 Preassembled molded hose with standpipe
- 3 10 mm dia. Caillau clamp
- 4 Remaining piece of mecanyl line



Connection to fuel-tank sending unit

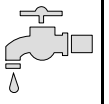


- 1 Hose section
- 2 Mecanyl line from fuel-tank sending unit
- 3 10 mm dia. hose clamp [2x]



**Con-  
necting  
intake side  
of metering  
pump**





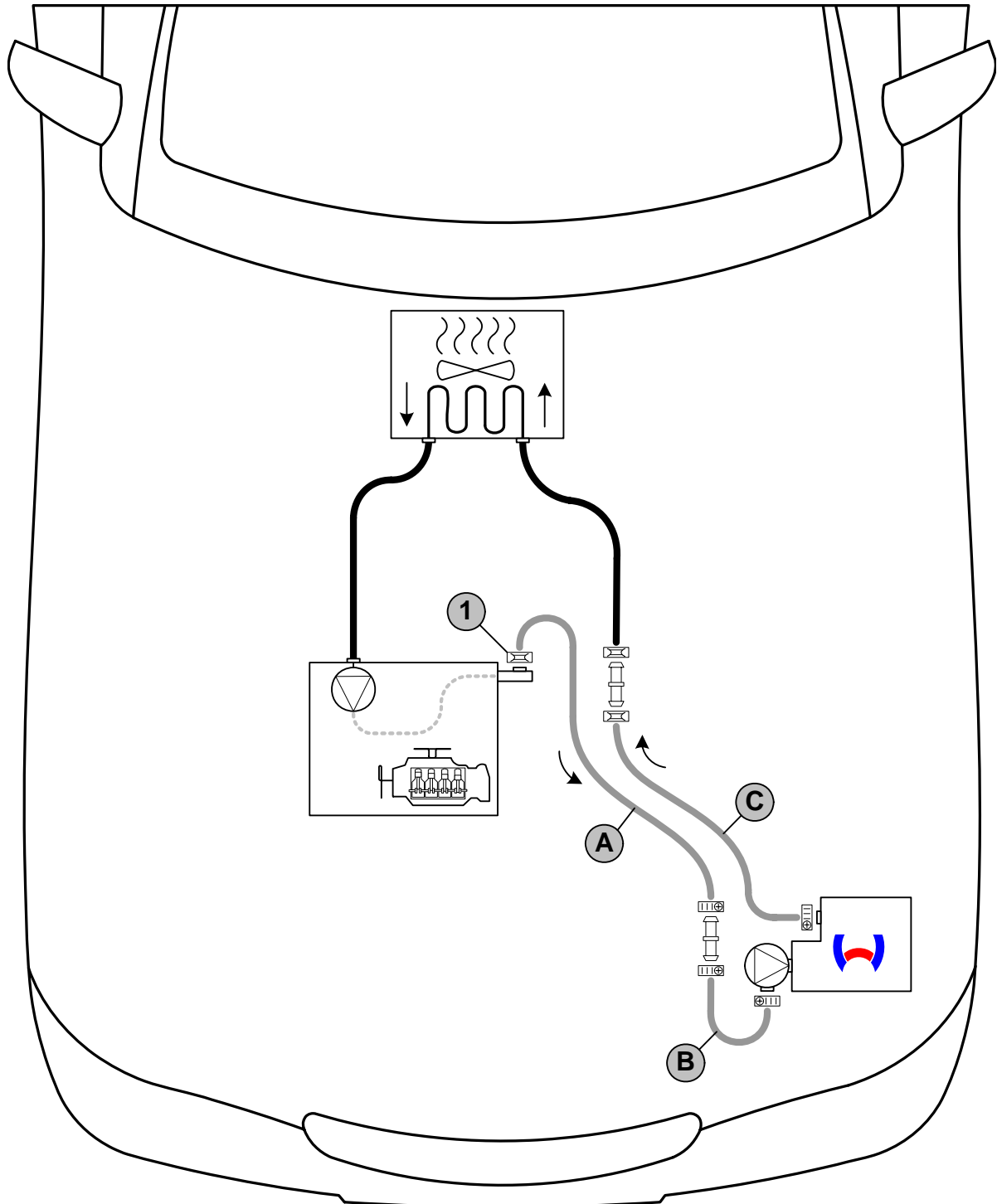
Coolant on 1.4 TSI







**WARNING!**

Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the coolant hose, the heater unit must be filled with coolant.

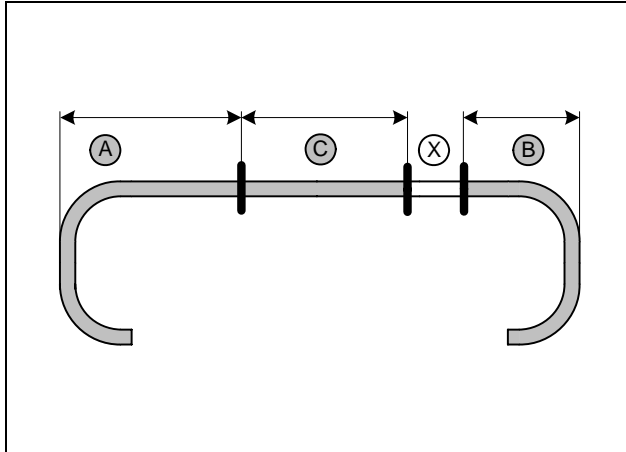
The connection should be "inline" based on the following diagram:



Coolant routing diagram

All spring clips without a specific designation  = 27 mm dia. 1 = Original vehicle spring clip  .  
 All hose clamps  = 20-27 mm dia.!  
 All connecting pipes  = 20x20 dia..





a = 600  
b = 50  
c = 770

Discard section X

**Cutting  
coolant  
hoses to  
length**

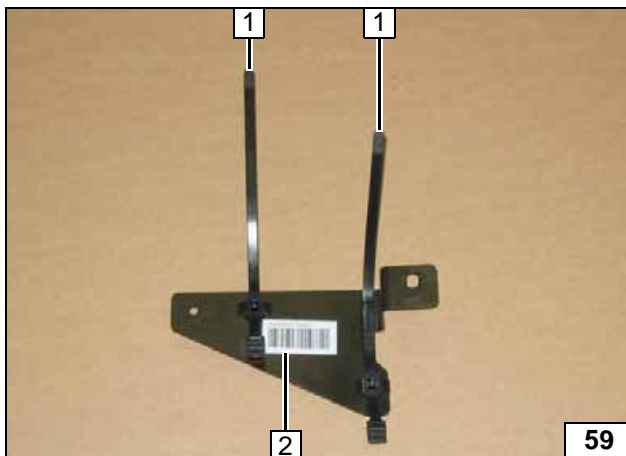


Push braided protection hoses onto hose A and C, cut to length and shrink.



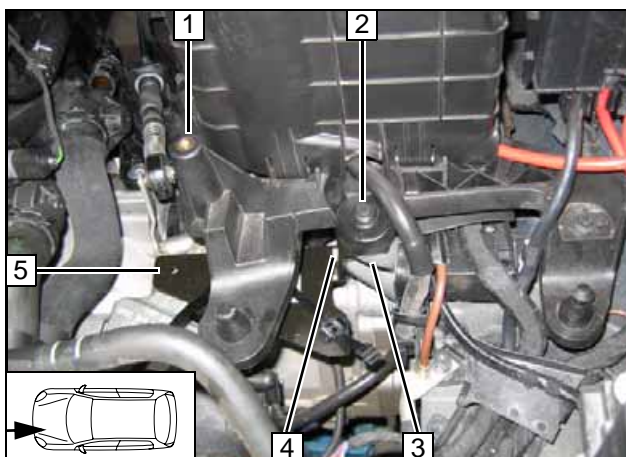
1 Heat shrink plastic tubing [4x]

**Pre-  
mounting  
coolant  
hoses**



1 Cable ties with clip [2x]  
2 Bracket for coolant hoses

**Preparing  
bracket for  
coolant  
hoses**

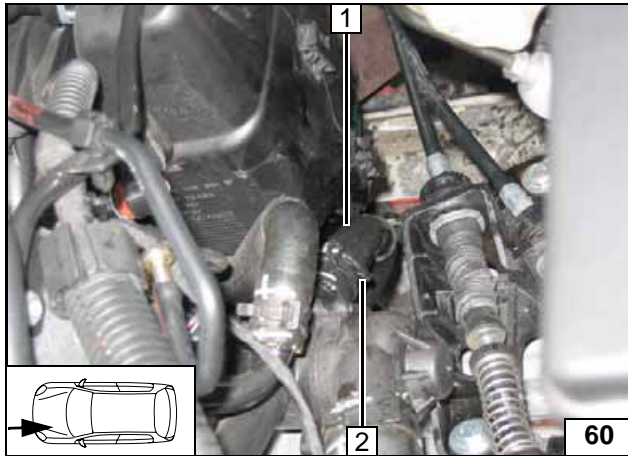


Loosen original vehicle bolt 2 and position bracket for coolant hoses 5 between battery carrier 1 and body 3.



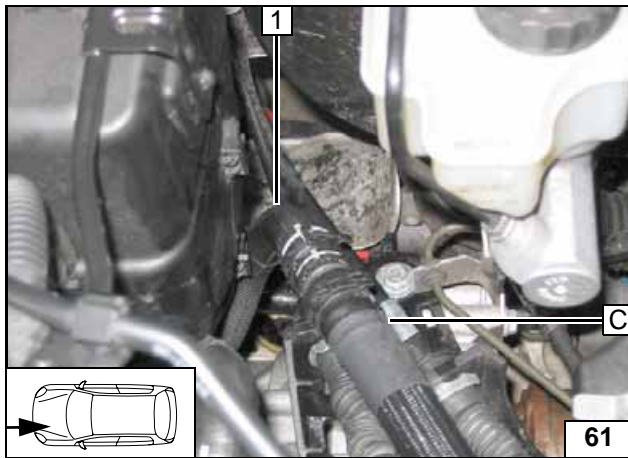
4 M6x20 bolt, original vehicle hole, flanged nut

**Installing  
bracket for  
coolant  
hoses**



- 1 Pull hose off heat exchanger inlet
- 2 Original spring clip will be reused

Cutting point

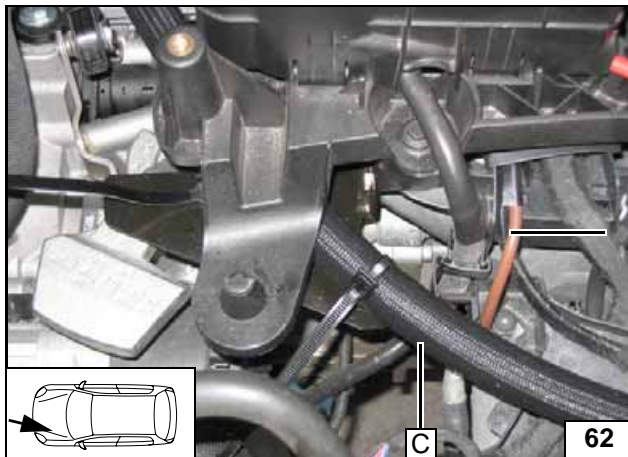


Ensure sufficient distance to neighboring components.

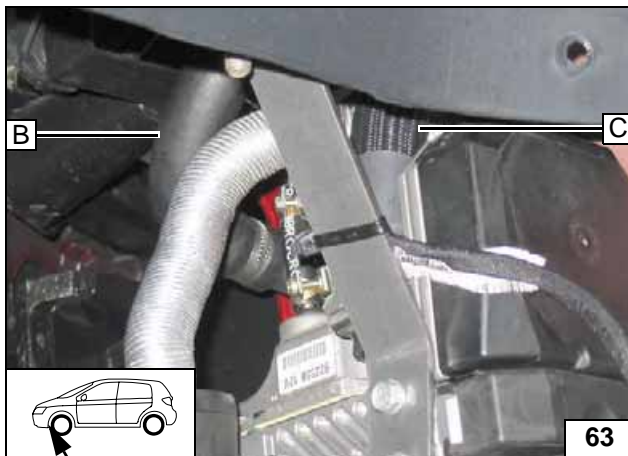
- 1 Hose on heat exchanger inlet



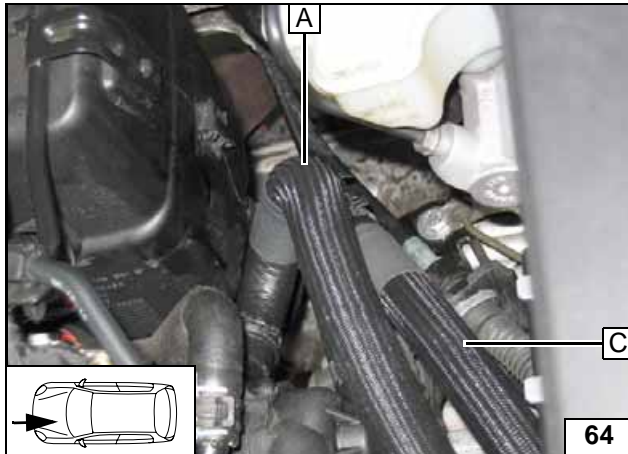
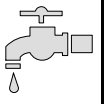
Connecting heat exchanger inlet



Routing in engine compartment



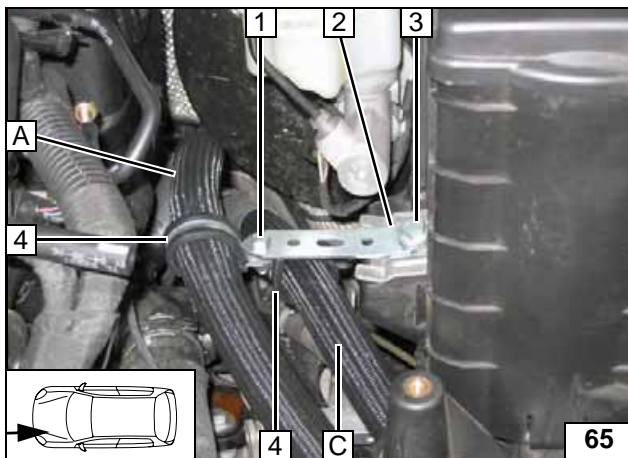
Connection to heater unit



Install hose **A** with 180° elbow on connection piece of engine outlet.



**Con-necting engine outlet**

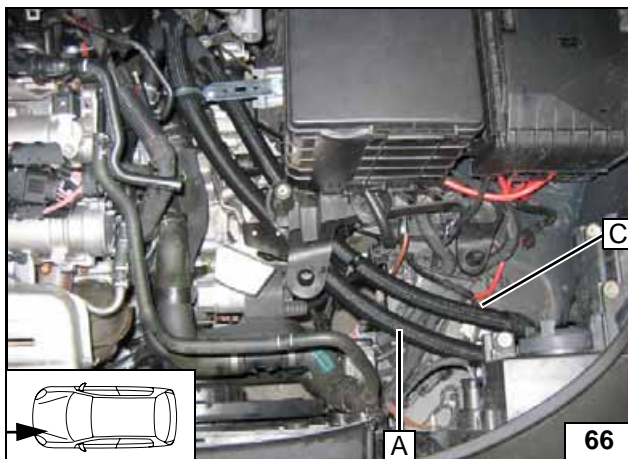


Drill out perforated bracket **2** to 8.5 mm dia. at position **3**.

- 1** M6x20 bolt, flanged nut
- 3** Original vehicle bolt
- 4** 29 mm dia. rubber-coated p-clamp [2x]



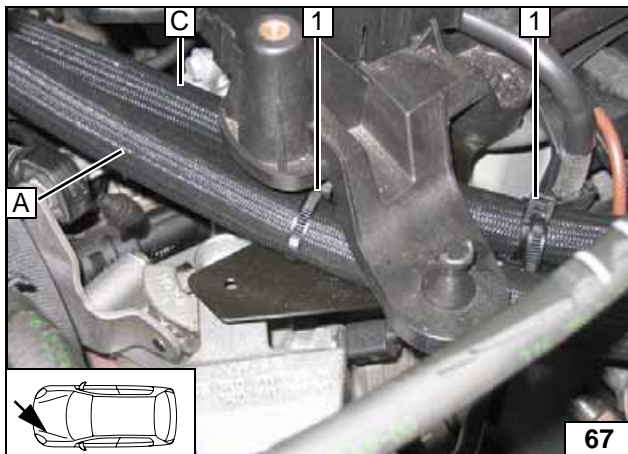
**Fastening hoses**



Ensure sufficient distance to neighboring components.



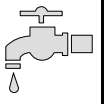
**Aligning hoses**



Fix hose **A** and **C** in place with clip-type cable ties **1** [2x].



**Fastening hoses**

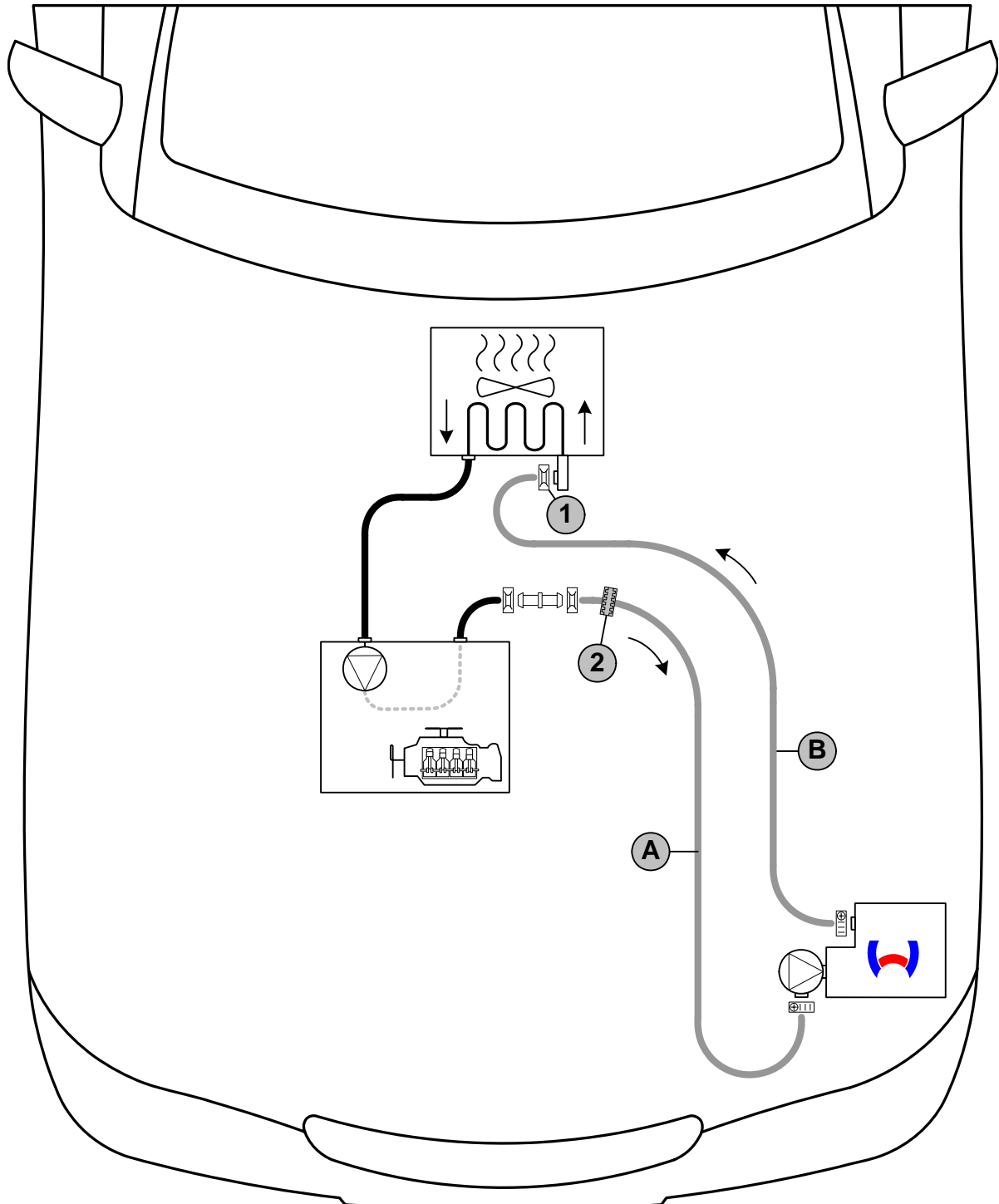


**Coolant on 1.6 FSI**






**WARNING!**

Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the coolant hose, the heater unit must be filled with coolant.

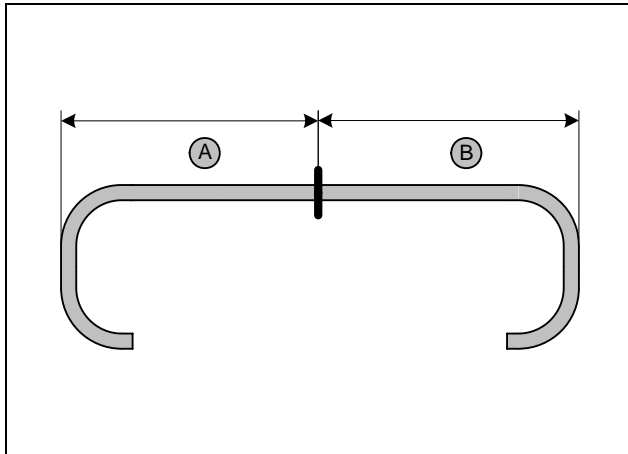
The connection should be "inline" based on the following diagram:



Coolant routing diagram

All spring clips without a specific designation  = 27 mm dia. **1** = Original vehicle spring clip  .  
 All hose clamps  = 20-27 mm dia.! Connecting pipe  = 20x20 dia.  
**2** = Black (sw) rubber isolator  .

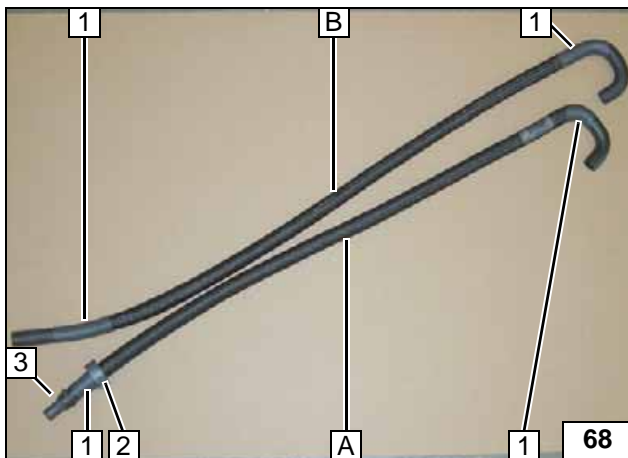




a = 1000  
b = 1050

Discard section X

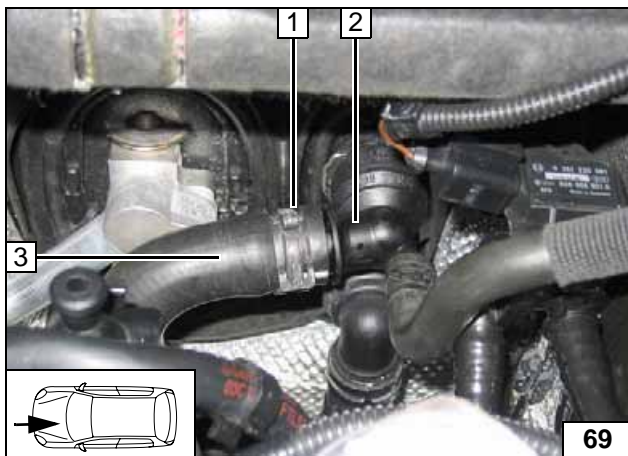
**Cutting  
coolant  
hoses to  
length**



Push braided protection hoses onto hose A and B, cut to length and shrink.

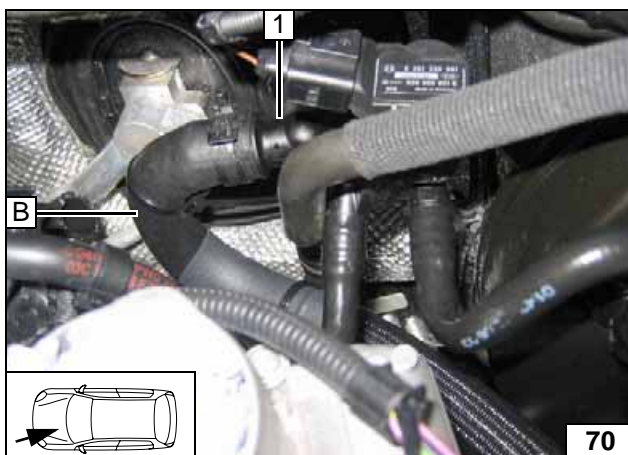
1 Heat shrink plastic tubing [4x]

**Pre-  
mounting  
coolant  
hoses**



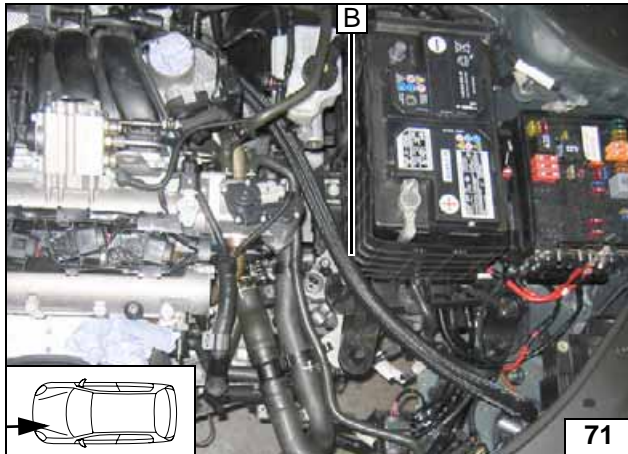
Pull off hose on engine outlet to heat exchanger inlet 3 on connection piece of heat exchanger inlet 2. Spring clip 1 will be reused. Install battery carrier.

**Cutting  
point**

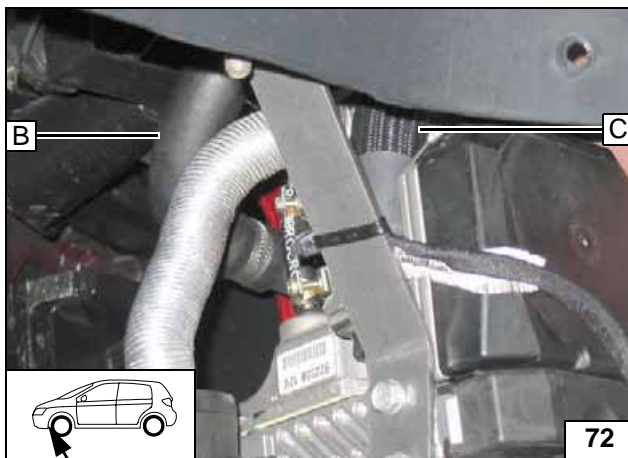


1 Connection piece of heat exchanger inlet

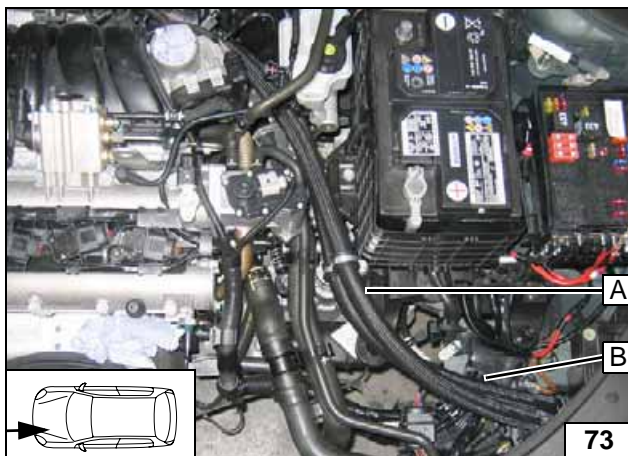
**Con-  
necting  
heat  
exchanger  
inlet**



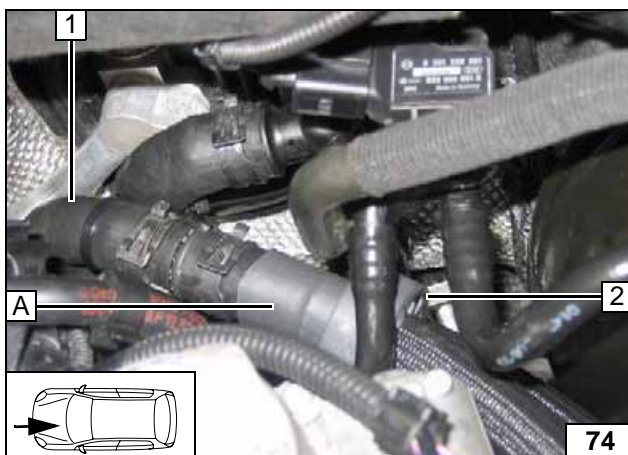
Routing in engine compartment



Connection to heater unit

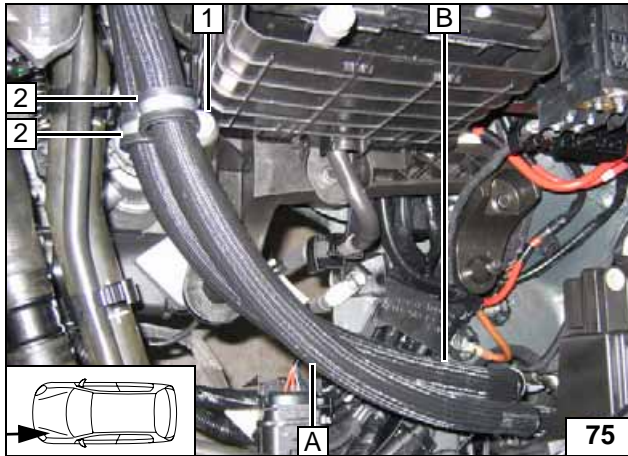


Routing in engine compartment



- 1 Engine-outlet hose section
- 2 Align rubber profile

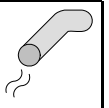
Connecting engine outlet



- 1 M6x20 screw, spring lockwasher on existing thread
- 2 29 mm dia. rubber-coated p-clamp [2x]

**Fastening hoses**





**Exhaust gas**

Align exhaust end section and rubber isolator as shown.

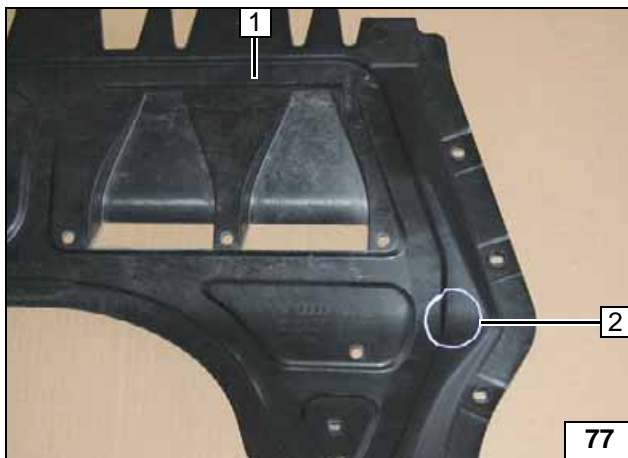
Ensure sufficient spacing of exhaust end section to transmission and to wheel well trim.

(Picture shows vehicle with direct shift transmission)

- 1 Wheel well trim

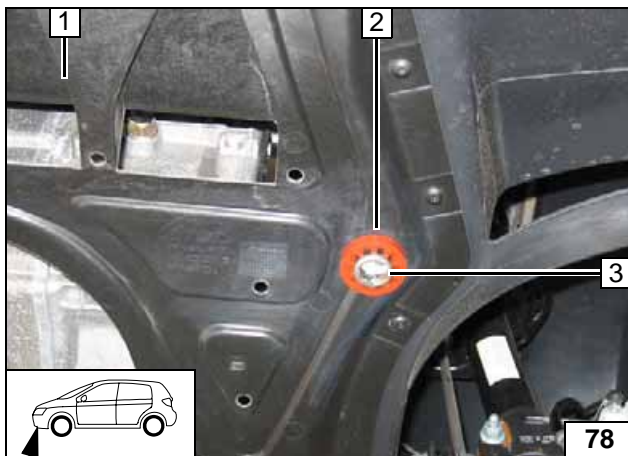


**Installing wheel well trim**



- 1 Underride protection
- 2 42 mm dia. hole

**Hole in underdrive protection**



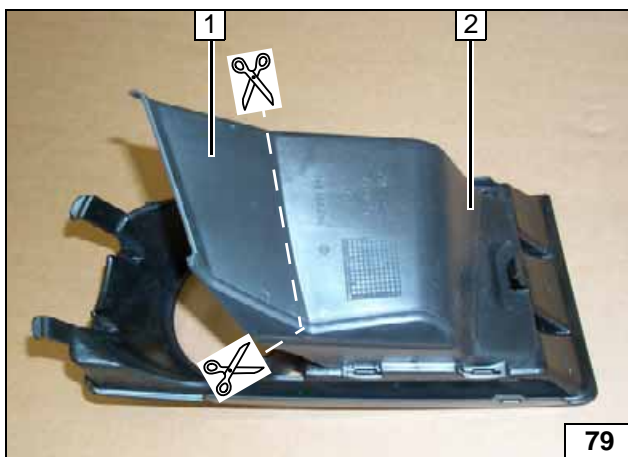
Picture shows Golf VI!

Align exhaust end section **3** flush on red rubber isolator **2**.

- 3 Underride protection

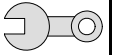


**Mounting rubber isolator**



- 1 Cut off section
- 2 Front fog light trim piece (depending on equipment)

**Cutting front fog light trim piece to size**



## Final Work

### WARNING!

Reassemble the disassembled components in reverse order.

Check all hoses, 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. 111 329).

- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer.
- Adjust vehicle heater in accordance with "Operating Instructions for End Customer"
- Check the proper operation of the additional heater, see the operating instructions/installation instructions.
- File included vehicle-specific "Operating Instructions for End Customer" in vehicle logbook
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.



## Adjust the sensitivity of the passenger compartment monitoring

### WARNING!

This can only be carried out at an authorized workshop! Observe the applicable repair manual of the respective vehicle.

- Connect the VAS tester.
- Open Item 46 (Central Module of Comfort System)
- Go to Item 10 (Adjustment)
- Follow the request for the code entry and enter the code 15
- Reduce the sensitivity of the passenger compartment monitoring to 50 %
- Save this setting
- The adjustment of the sensitivity of the passenger compartment monitoring is completed.



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## Operating Instructions for End Customer



Please remove page and add to the vehicle operating instructions.



### Note:

We recommend matching the heating time to the driving time.

Heating time = driving time

### Example:

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

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



Before parking the vehicle, make the following settings:



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

Climatic



- 1 Set temperature to "HI" [2x]
- 2 Air outlet faces upward

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