Water Heater

***Thermo Top E* Parking Heater** e1 00 0003

***Thermo Top C* Parking Heater** e1 00 0002

***Thermo Top P* Parking Heater** e1 00 0104

Installation documentation

Skoda Superb

Diesel - Common Rail with direct shifting transmission (DSG)

from Model Year 2008

Left-hand drive vehicle

Saloon and Estate car

Adjustment of the sensitivity of passenger compartment monitoring was not checked from model year 2010!



WARNING!

Hazard warning:

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



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

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

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

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

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

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Validity

Manufacturer	Model	Type	EG-BE No./ABE
Skoda	Superb	3T	e11 * 2001/116 * 0326 * ...

Engine type	Engine model	Output in kW	Displacement in cm³
CBBB	Diesel/Common Rail	125	1968

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

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

Heater / Installation Kit

Quantity	Description	Order No.:
1	Retail accessories with desired heater control	See price list
1	Installation kit for Skoda Superb Diesel - Common Rail with direct shifting transmission (DSG)	1314083B

To be ordered extra:

Quantity	Description		Order No.:
1	Additional bracket	Skoda No.:	1Z0 810 679
2	Bolt	Skoda No.:	N90 749 003
1	Quick-release coupling	VAG No.:	3B0 122 291 B

Also required for Climatronic:

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

Heater recommended for the respective vehicle class:

Vehicle	Heater
Compact car	Thermo Top E
Mid-size car, estate car	Thermo Top C
Full-size car, van, Offroader	Thermo Top P

The selection of the heater is based on the passenger compartment size of the vehicle and the level of comfort required by the customer!

Foreword

This installation documentation applies to Skoda Superb Diesel - Common Rail with direct shifting transmission (DSG) vehicles - for validity, see page 2 - from model year 2008 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this installation documentation.

However, the stipulations in this "installation documentation", the "operating instructions" and the "installation 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. Insulate loose wires and tie back.
Sharp edges should be fitted with rub protection (split-open plastic hose).
Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).
Check or adjust the corresponding settings before installing an IPCU!

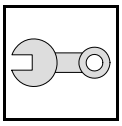
Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Hole saw 42mm dia.

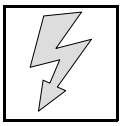
Explanatory Notes on Document

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

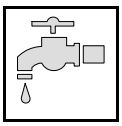
Mechanical system



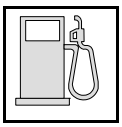
Electrical system



Coolant circuit



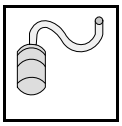
Fuel



Exhaust gas



Combustion air



Software



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



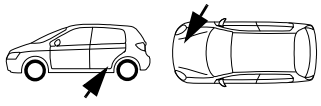
Specific risk of fire or explosion.



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.

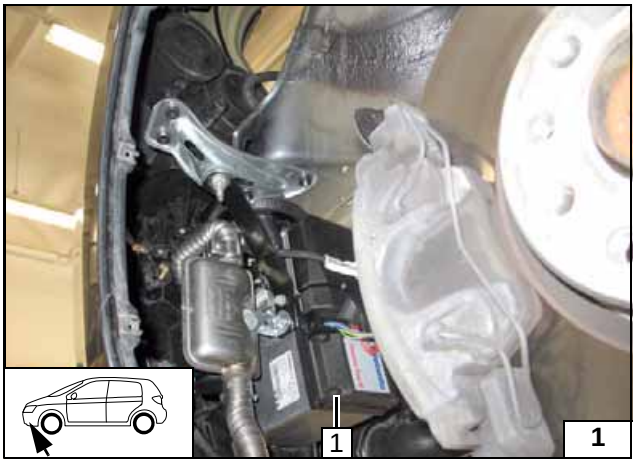
All dimensions are in mm!
Tightening torque of hose clamps = 2.0 + 0.5 Nm!
Tightening torque of Ejot screws, Ejot studs = 10 Nm!

Preliminary Work

WARNING!

- Open the fuel tank cap, ventilate the tank.
- Close the fuel tank cap again.
- Disconnect the battery "earth" or "ground" connection.
- Depressurise the cooling system!
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Remove the engine cover.
- Remove the charge-air hose.
- Remove the air filter together with the intake hose
- Completely remove the battery together with the carrier.
- Remove the cover of the fuse and relay box in the engine compartment.
- Remove the front left wheel.
- Remove the left-hand wheel well trim.
- Remove the underride protection
- Remove the right-hand underbody trim.
- Remove the rear bench seat
- Open the right-hand tank-fitting service lid
- Remove the left-hand instrument panel trim.
- Remove the lower instrument panel trim on the front passenger side (only with Climatronic).
- Remove the lower instrument panel trim from the centre console (only with Climatronic).
- Provide Skoda additional bracket with corrosion protection according to VAG repair manual

Remove page 32 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater installation location

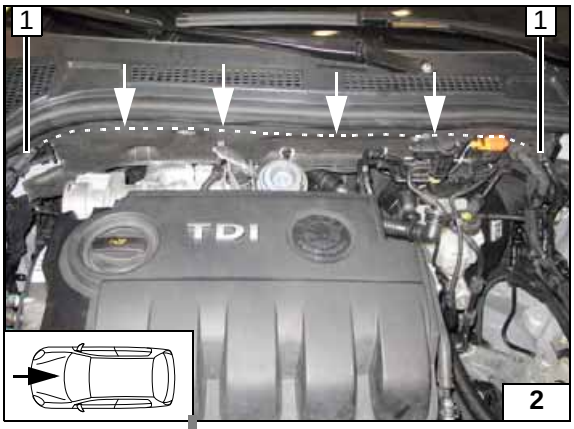
1 Heater

Installation location

Electrical system

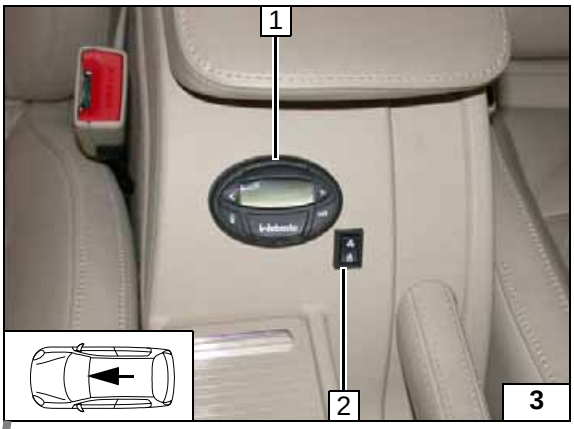
Wiring routing

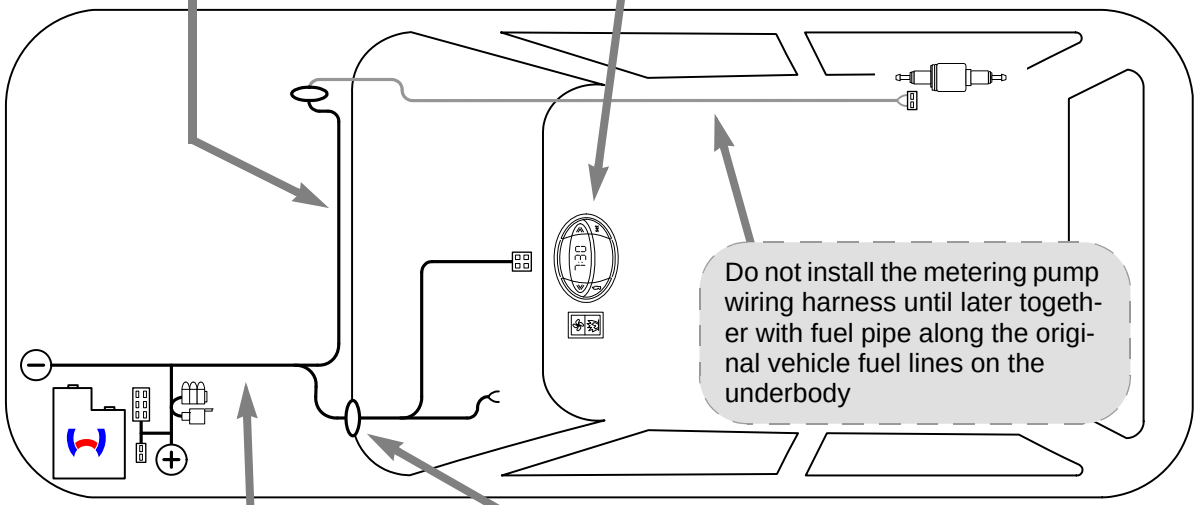
Route wiring harness of metering pump and fuel line **1** behind insulation mat to right-hand vehicle side.



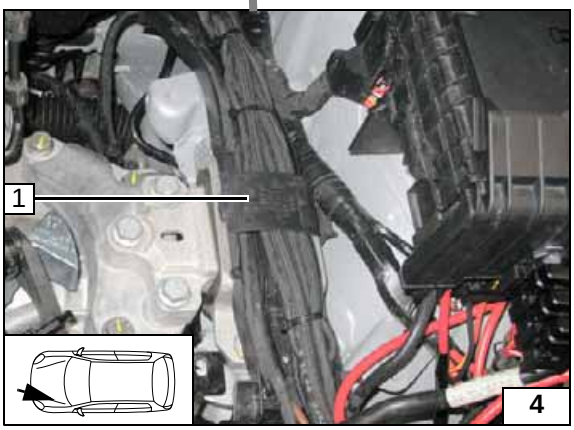
Digital timer and summer/winter switch option

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



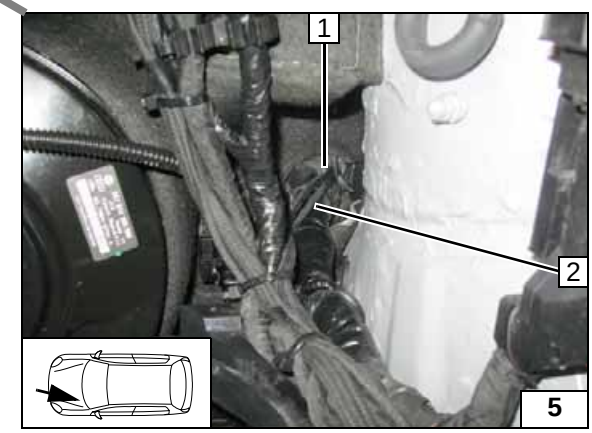


Wiring harness routing diagram



Wiring harness routing

Route wiring harnesses in original vehicle cable duct **1**.



Wiring harness pass through

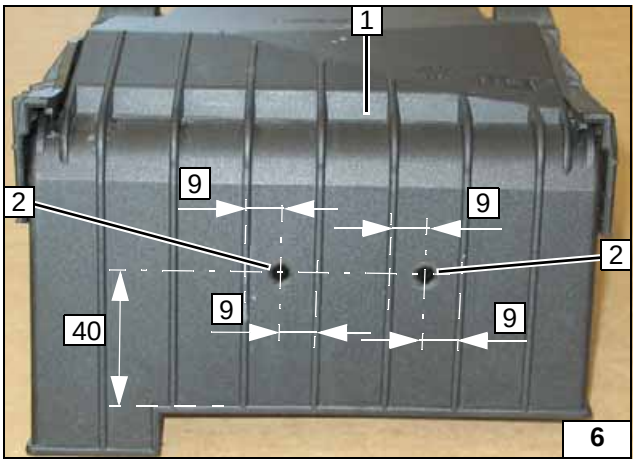
1 Protective rubber plug
2 Wiring harnesses of fan controller and heater control

Preparing fuse holder and K3 relay

Countersink 5.5 mm dia. hole [2x] **2** from behind.

1 Cover of fuse and relay carrier

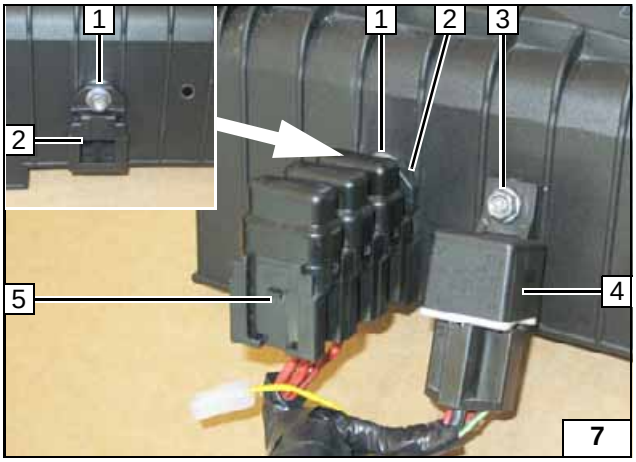
Holes in fuse carrier



Insulate wiring harness under the fuses with PVC tape. Insert large diameter washer between cover and retaining plate **2**.

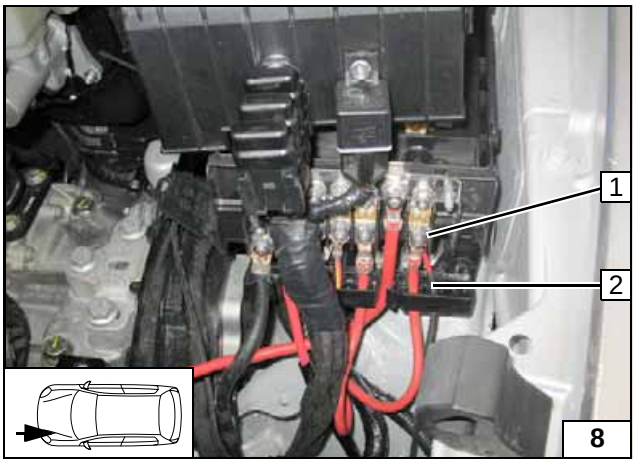
1 M5x12 countersunk head screw, large diameter washer, flanged nut
3 M5x12 countersunk head screw, flanged nut
4 K3 relay
5 Fuses pushed on

Installing fuse holder and K3 relay



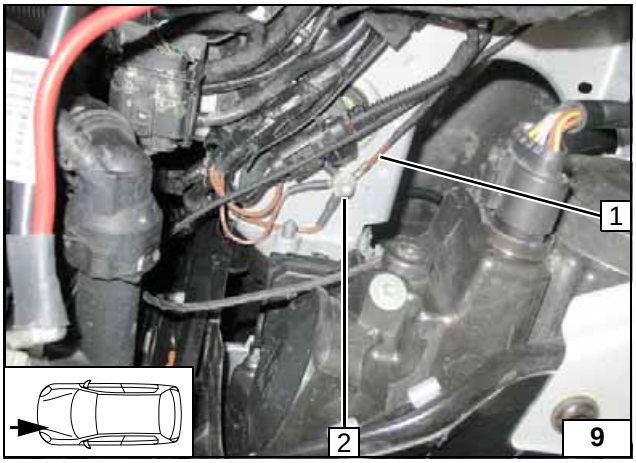
1 Original vehicle positive support point
2 Positive wire

Positive connection

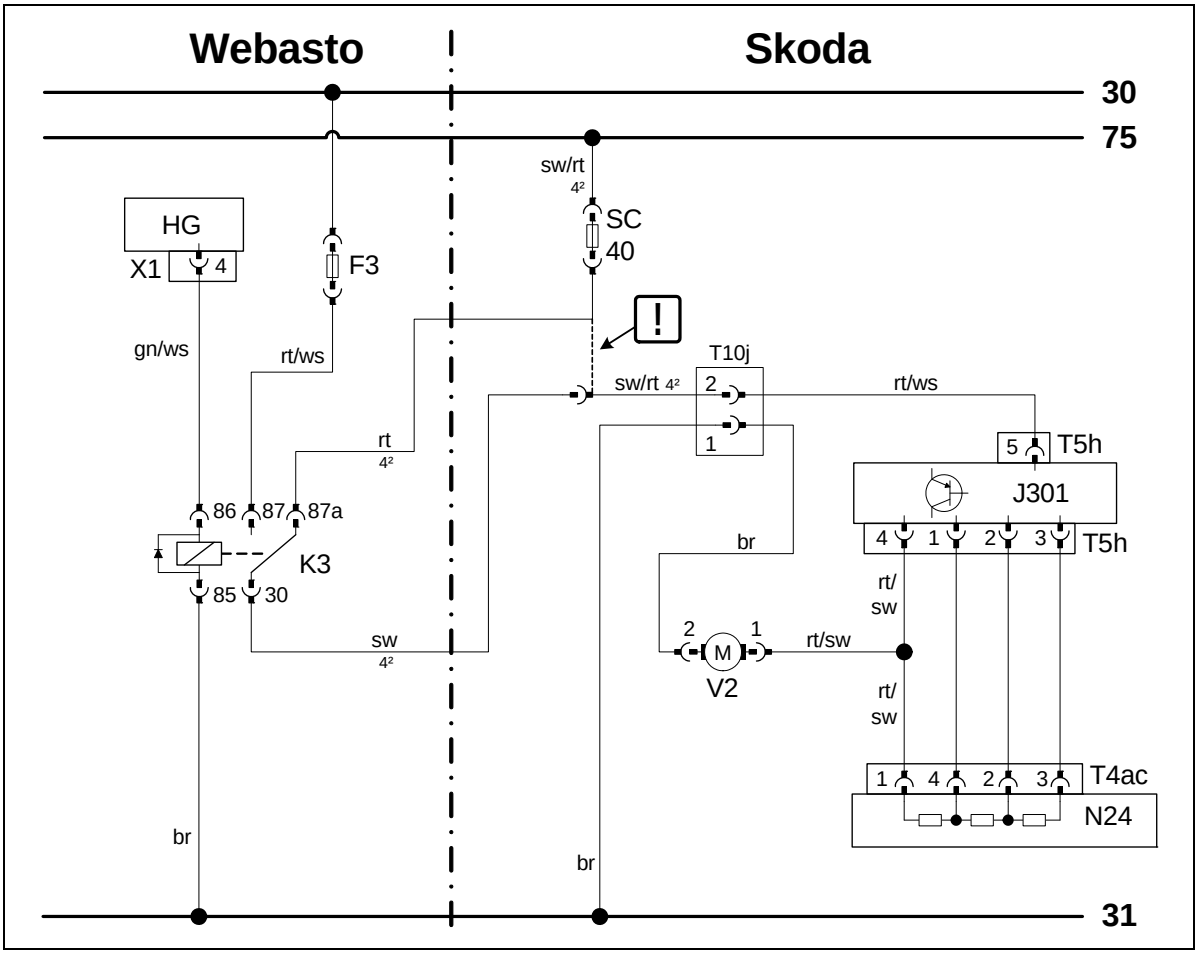


1 Earth wire
2 Original vehicle earth support point

Earth connection



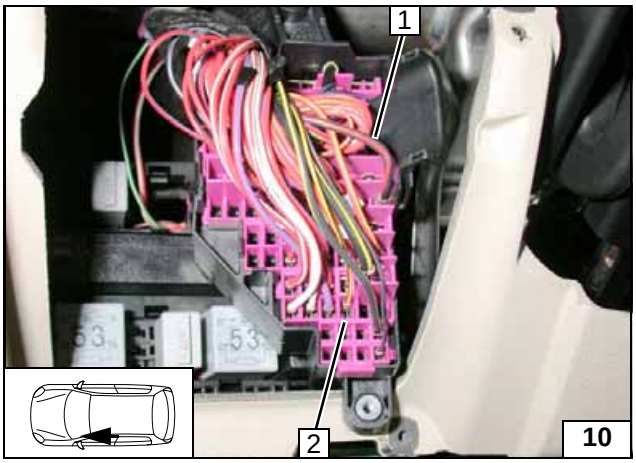
Climatic fan controller



Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	V2	Fan motor	rt	red
X1	6-pin heater connector	N24	Resistor group	ws	white
F3	Fuse, 25 A	J301	A/C control panel	sw	black
K3	Fan relay	T...	Plug connections	br	brown
		SC40	Fuse, 40A	gn	green
				!	Detach wire end from SC40
				X	Cutting point
				Wiring colours may vary.	

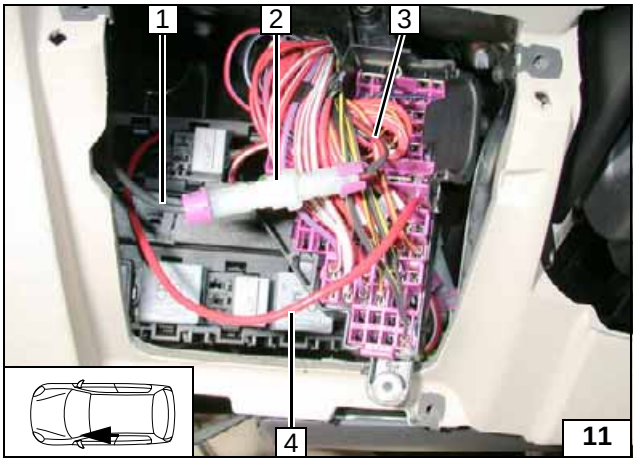
Wiring diagram

Legend



Detach fuse carrier **2** and unlock contact lock. Detach black/red (sw/rt) 4 mm² wire **1** on fuse output SC40.

Connecting central electrical box



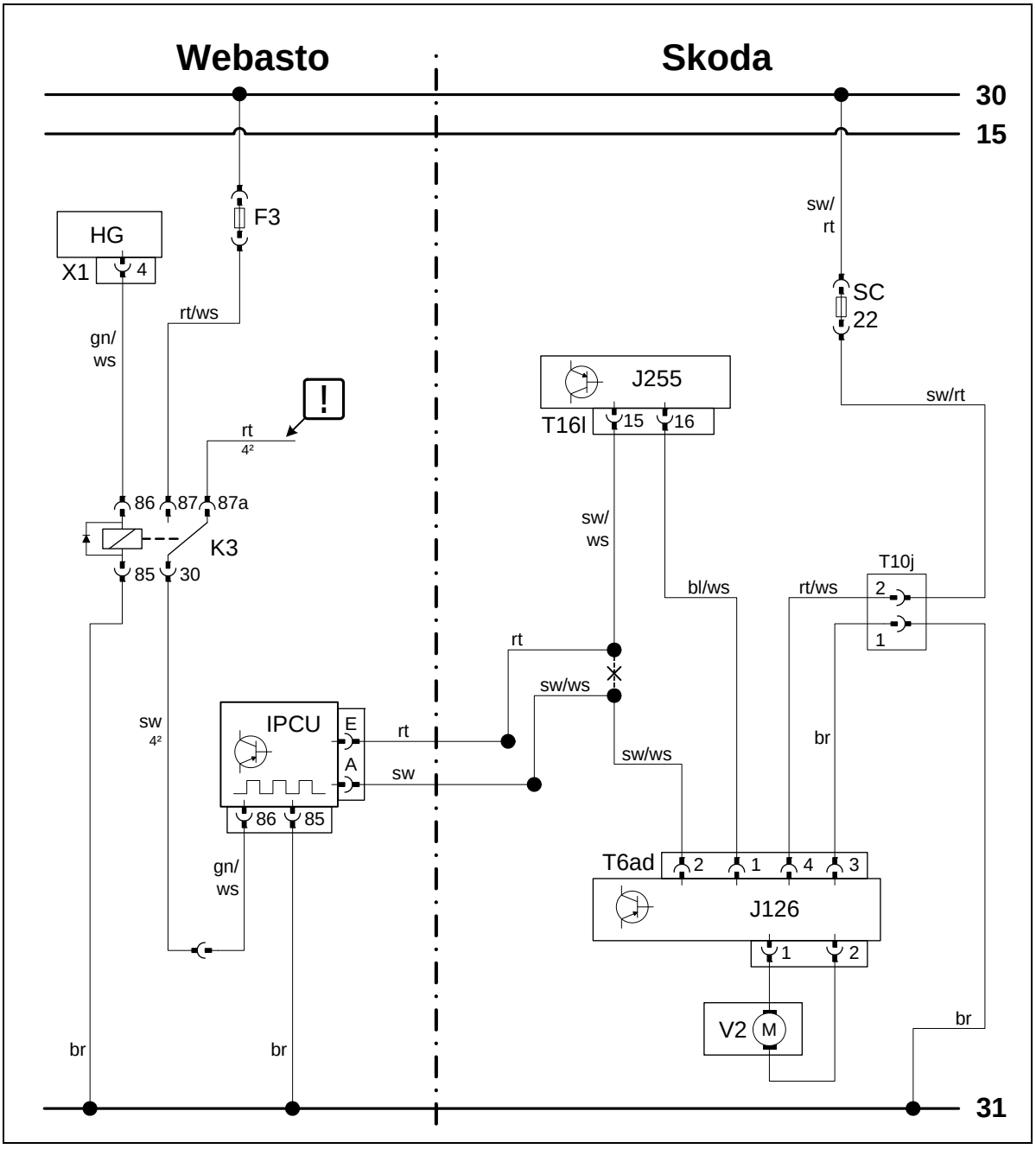
Mount red (rt) wire **4** K3/87a in fuse output SC40. Produce connections as shown in wiring diagram.

1 Black (sw) wire from K3/30
2 AMP housing
3 Black/red (sw/rt) wire of fuse SC40

Connecting central electrical box

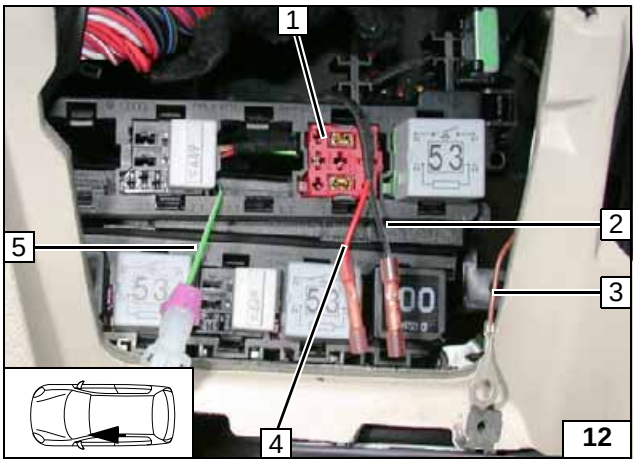
Climatronic fan controller

Wiring diagram



Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	SC22	40 A fan fuse	rt	red
X1	6-pin heater connector	T...	Plug connections	ws	white
F3	Replace 25A fuse with 3A fuse.	J126	Fan controller	sw	black
		J255	A/C control panel	br	brown
K3	Fan relay	V2	Fan motor	gn	green
IPCU	Pulse width modulator			bl	blue
IPCU adjustment values:					
Duty cycle: 30%				!	Insulate wire end and tie back
Frequency: 400Hz					
Voltage: 8V				**X**	Cutting point
Function: High-side active				Wiring colours may vary.	

Legend



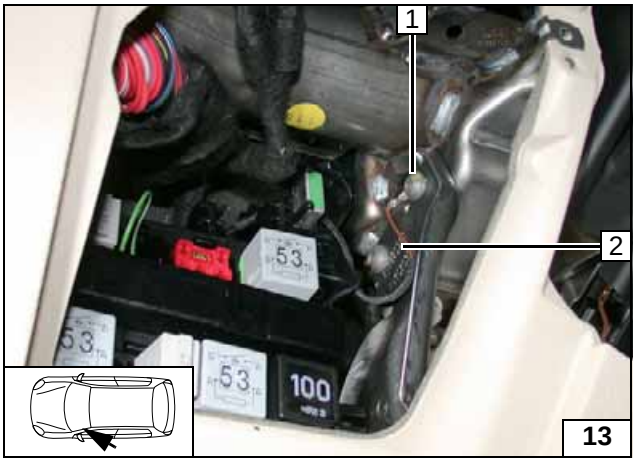
Produce connections as shown in wiring diagram. Insert IPCU socket **1** in free slot. Position of free sockets dependent on respective vehicle equipment.

Note:

If the shape of the IPCU socket fuse carrier **1** is new, fasten with cable ties.

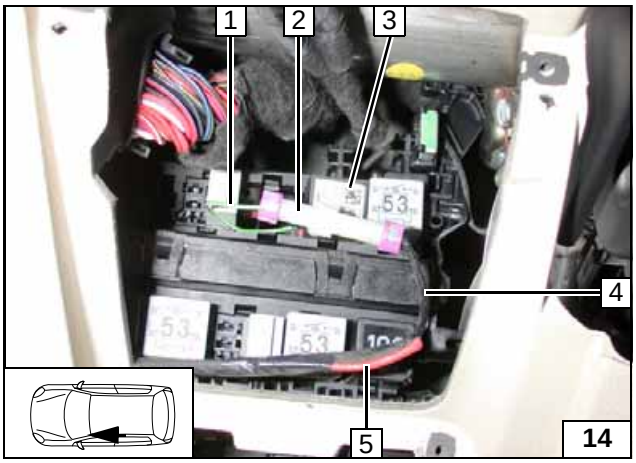
Installing IPCU

2 Black (sw) wire of IPCU/A
3 Brown (br) wire of IPCU/85, cable lug
4 Red (rt) wire of IPCU/E
5 Green/white (gn/ws) wire of IPCU/86, AMP connector



1 Original vehicle bolt
2 Brown (br) wire of IPCU/85

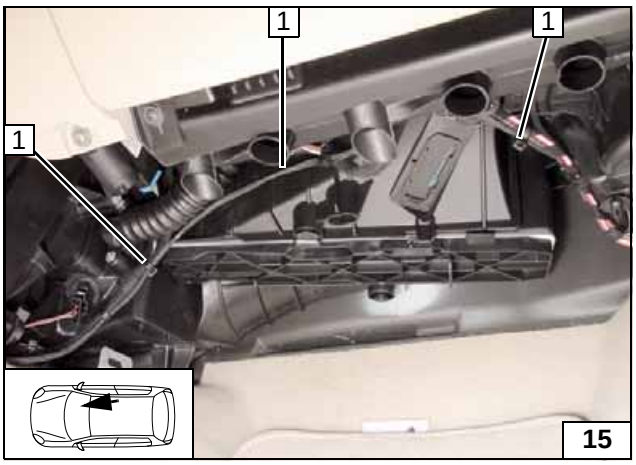
Earth connection of IPCU



Insulate red (rt) wire of K3/87a **5** and tie back. Replace 25 A fuse F3 with 3 A fuse. Produce connections as shown in wiring diagram.

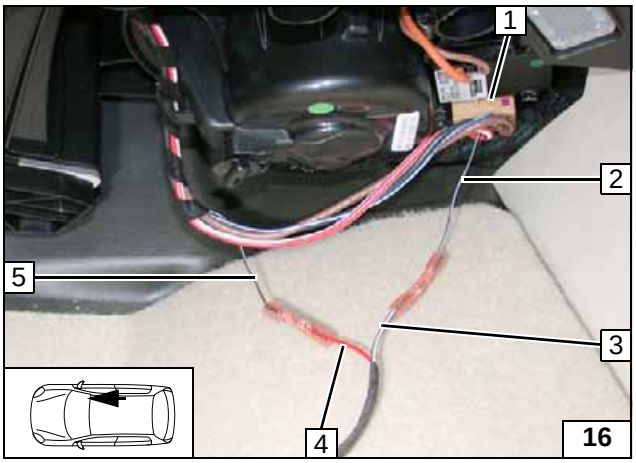
Connecting IPCU

1 Green/white (gn/ws) wire IPCU/86
2 AMP connector
3 Connect IPCU
4 Black (sw) wire from K3/30



1 Wiring harness of fan controller

Wiring routing



Connection on 6-pin connector **1** T6ad, Pin 2 from fan controller.
Produce connections as shown in wiring diagram.

2 Black/white (sw/ws) wire of 6-pin connector T6ad, Pin 2
3 Black/white (sw/ws) wire from IPCU/A
4 Red (rt) wire of IPCU/E
5 Black/white (sw/ws) wire of A/C control panel

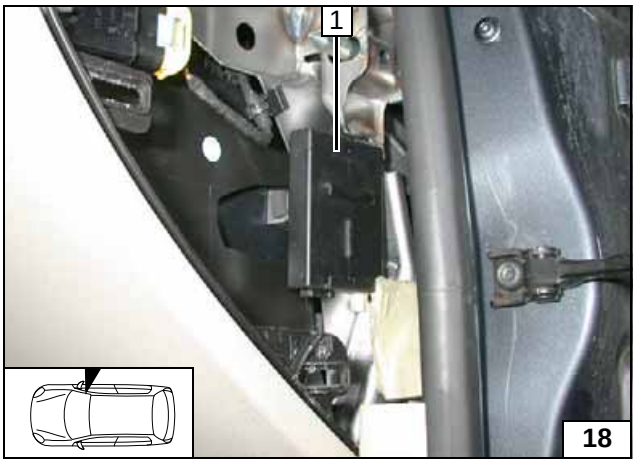
Connecting fan controller

Remote option Telestart



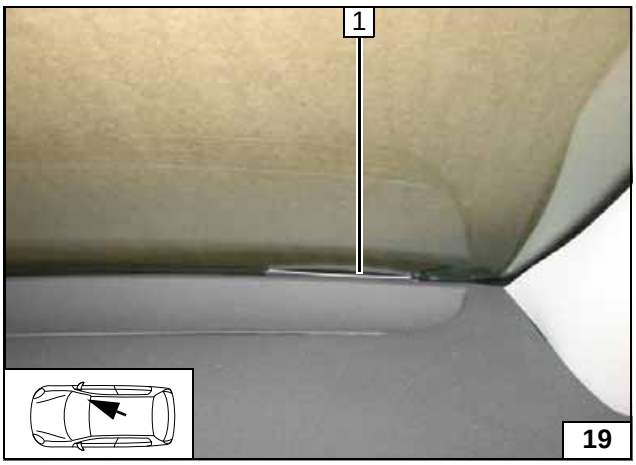
1 Apply double-sided adhesive tape

Fastening receiver



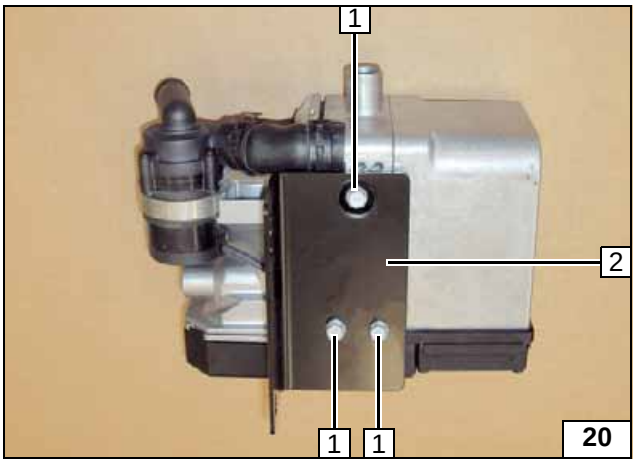
Fasten receiver **1** with double-sided adhesive tape, secure with cable tie, if necessary.

Installing receiver



1 Antenna

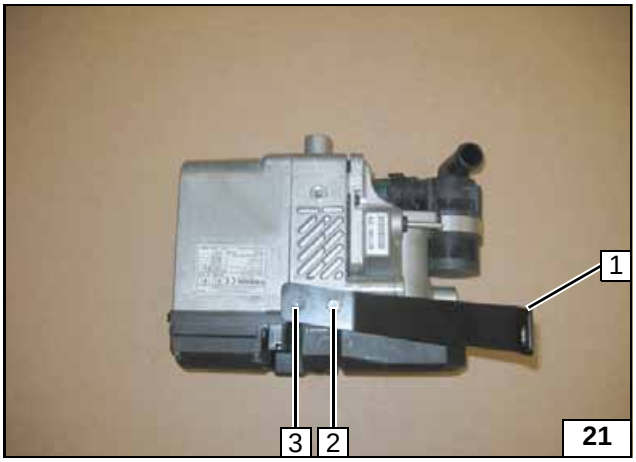
Installing antenna



Premounting heater

1 Ejot screw [3x]
2 Bracket

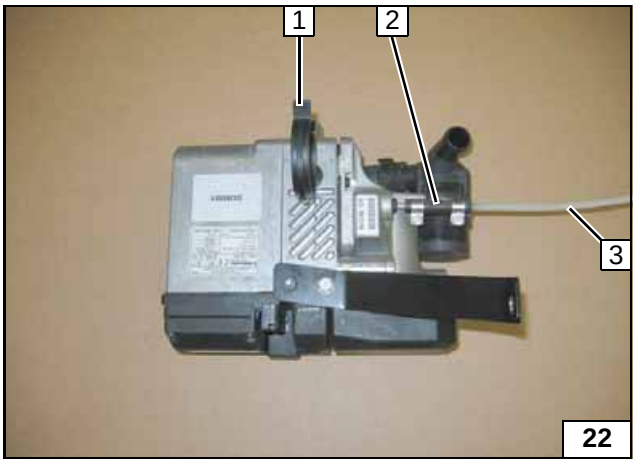
Premounting bracket on heater



Insert one washer each between heater and strut **1** at position **2**.

2 Ejot screw, washer
3 Ejot stud

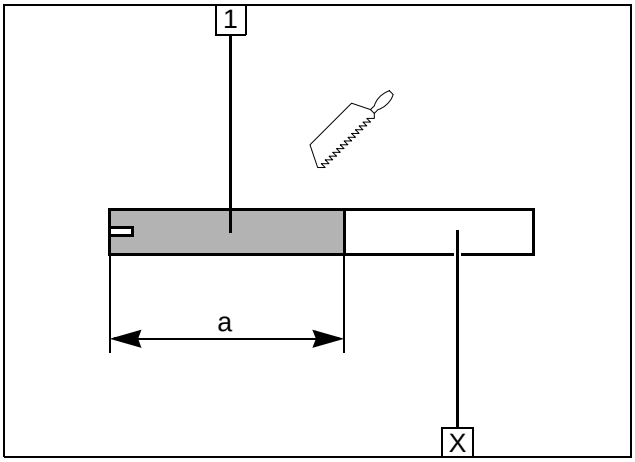
Premounting strut on heater



Insert retaining clip **1** in existing hole of heater.

2 Hose section, 10 mm dia. clamp [2x]
3 Fuel line

Premounting heater

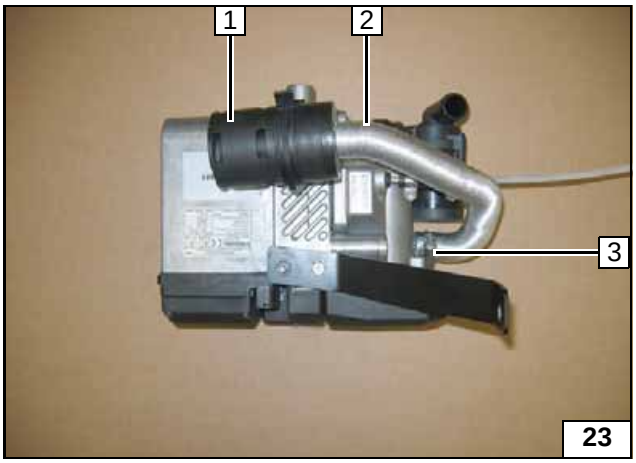


Premounting combustion air pipe

1 Combustion air pipe
a = 250

Discard section **X**

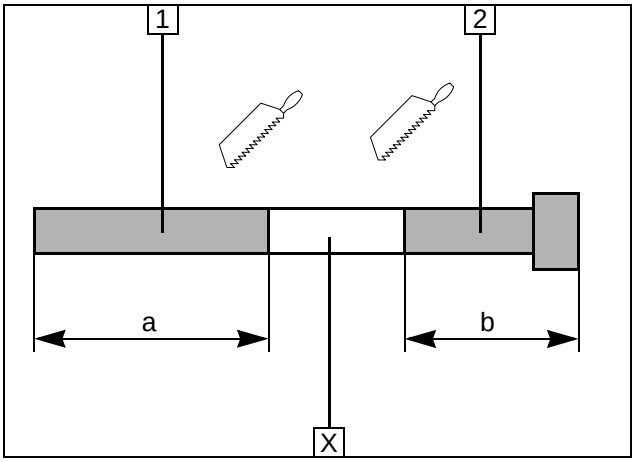
Cutting combustion air pipe to length



1 Intake silencer
2 Combustion air pipe
3 27 mm dia. clamp

Premounting combustion air pipe

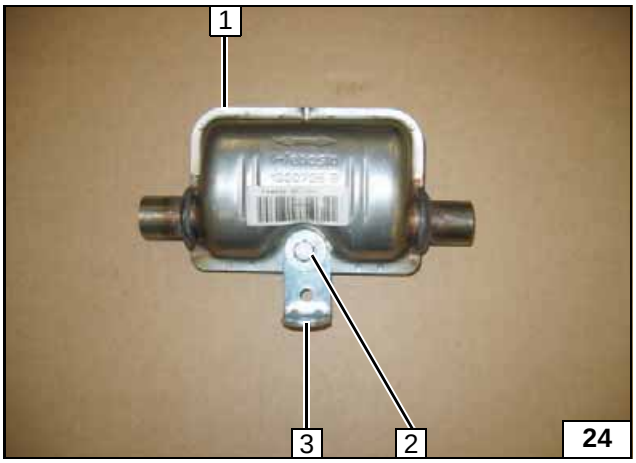
Premounting exhaust pipe



1 Exhaust pipe
a = 365
2 Exhaust end section
b = 125

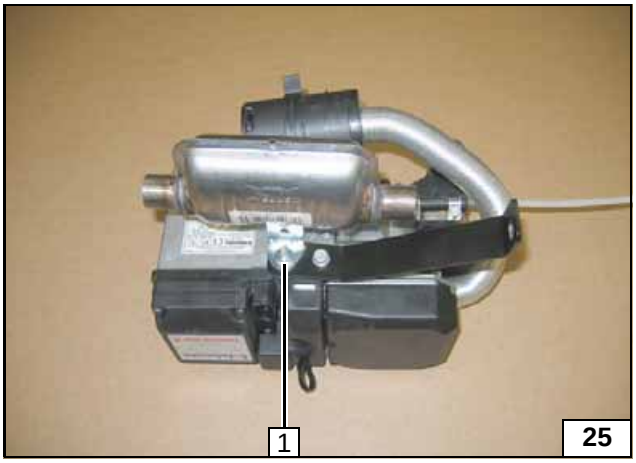
Discard section **X**

Preparing exhaust pipe



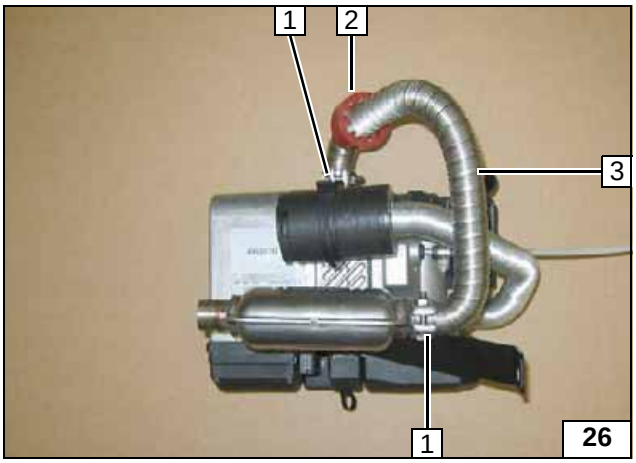
1 Exhaust silencer
2 M6x20 bolt, large diameter washer, M6 flanged nut
3 Angle bracket

Premounting exhaust silencer



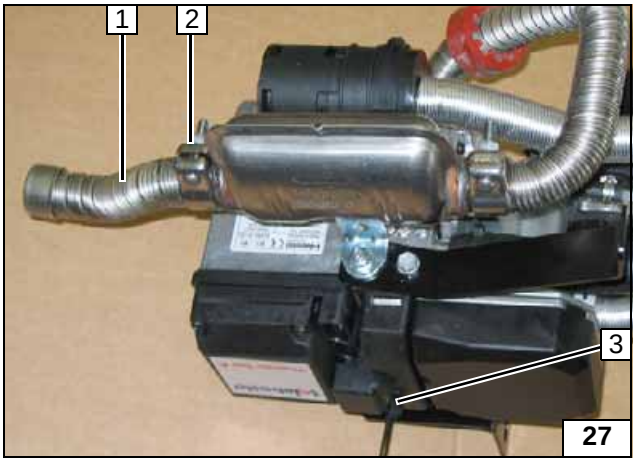
1 M6 flanged nut

Premounting exhaust system



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

Premounting exhaust system

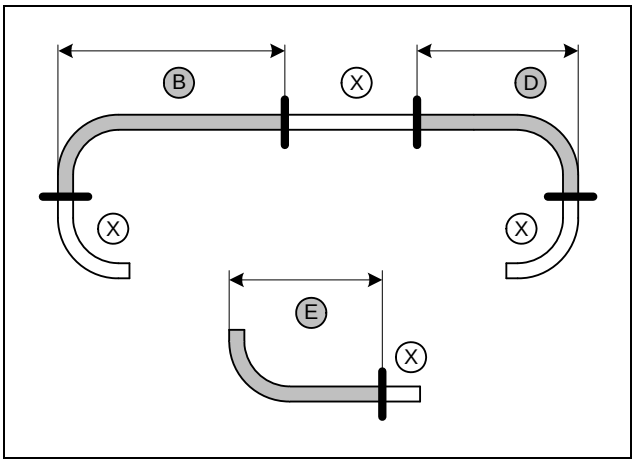


Punch through perforation at position **3**.

1 Exhaust end section
2 Hose clamp
3 Clip-type cable tie

Premounting exhaust system

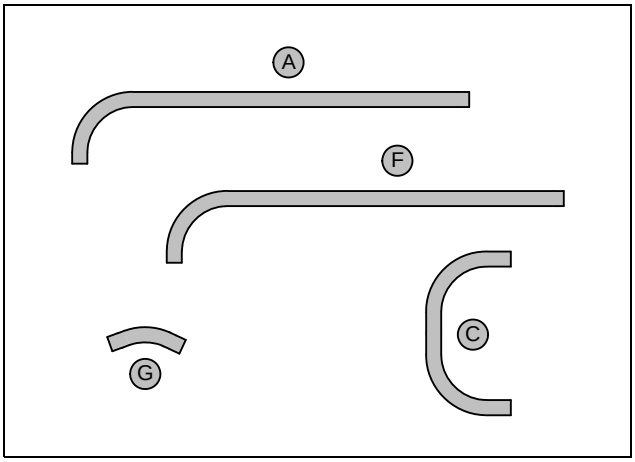
Premounting coolant hoses



Discard section **X**

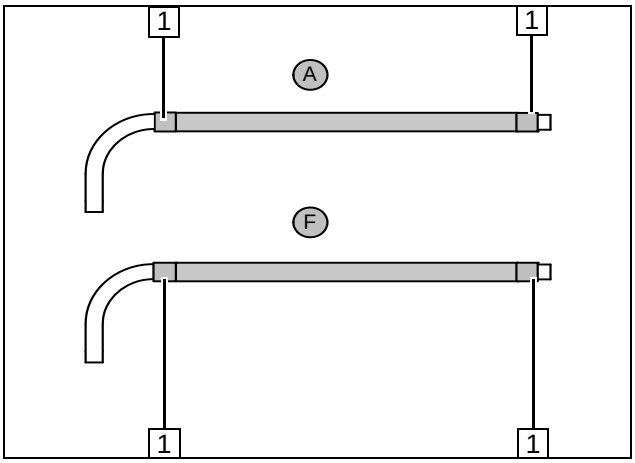
B = 180
D = 170
E = 210

Cutting hoses to length



Hose **A** = 90° moulded hose, 15 mm dia.
Hose **F** = 90° moulded hose, 15 mm dia.
Hose **C** = 180° moulded hose, 20 mm dia.
Hose **G** = 30° moulded hose, 20 mm dia.

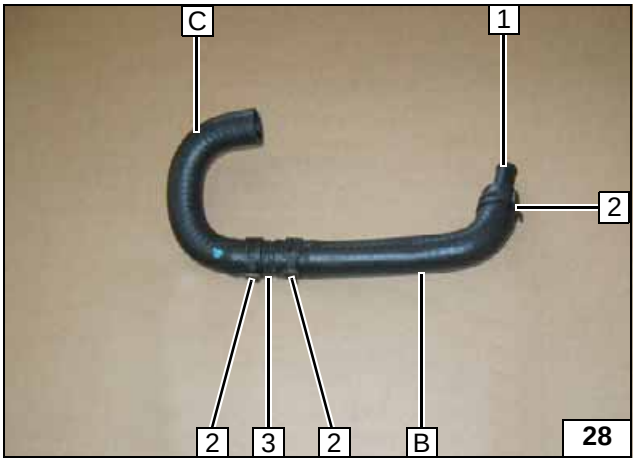
Preparing hoses



Push braided protection hoses onto hose **A** and **F**.
Cut heat shrink plastic tubing to length.

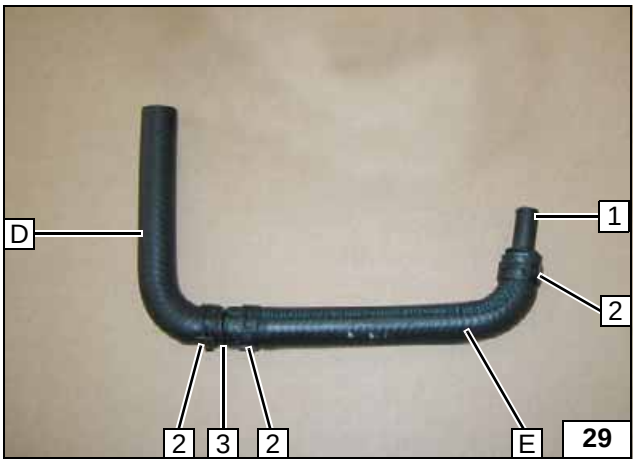
1 50 mm long heat shrink plastic tubing [4x]

Preparing 15mm dia. hoses



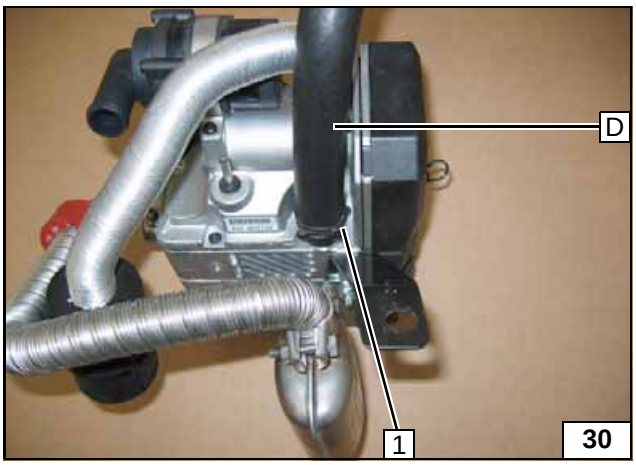
1 15x20 connecting pipe
2 27 mm dia. spring clip [3x]
3 20x20 connecting pipe

Premounting coolant hoses



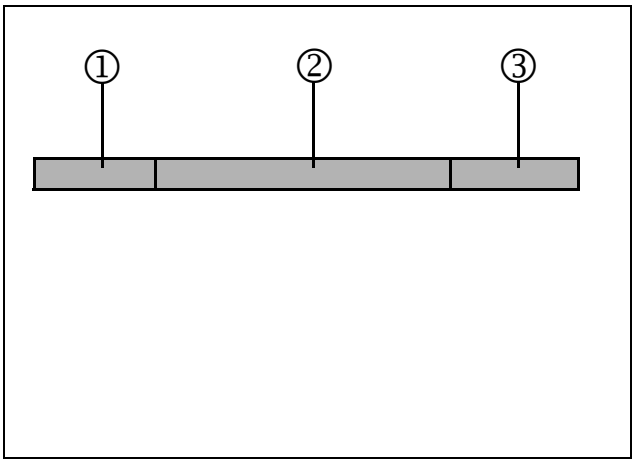
1 15x20 connecting pipe
2 27 mm dia. spring clip [3x]
3 20x20 connecting pipe

Premounting coolant hoses



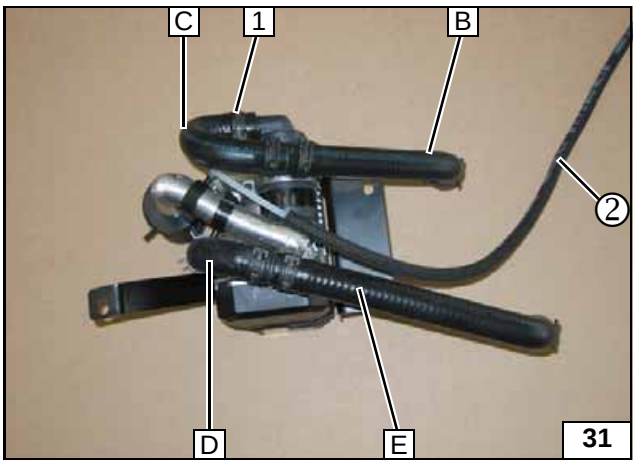
1 27 mm dia. spring clip

Premounting heater



①= 400
②= 1800
③= 600

Cutting fabric protective hose to length



Install and align coolant hoses.
Slide fabric protective hose ② onto fuel line.

1 27 mm dia. spring clip

Premounting heater



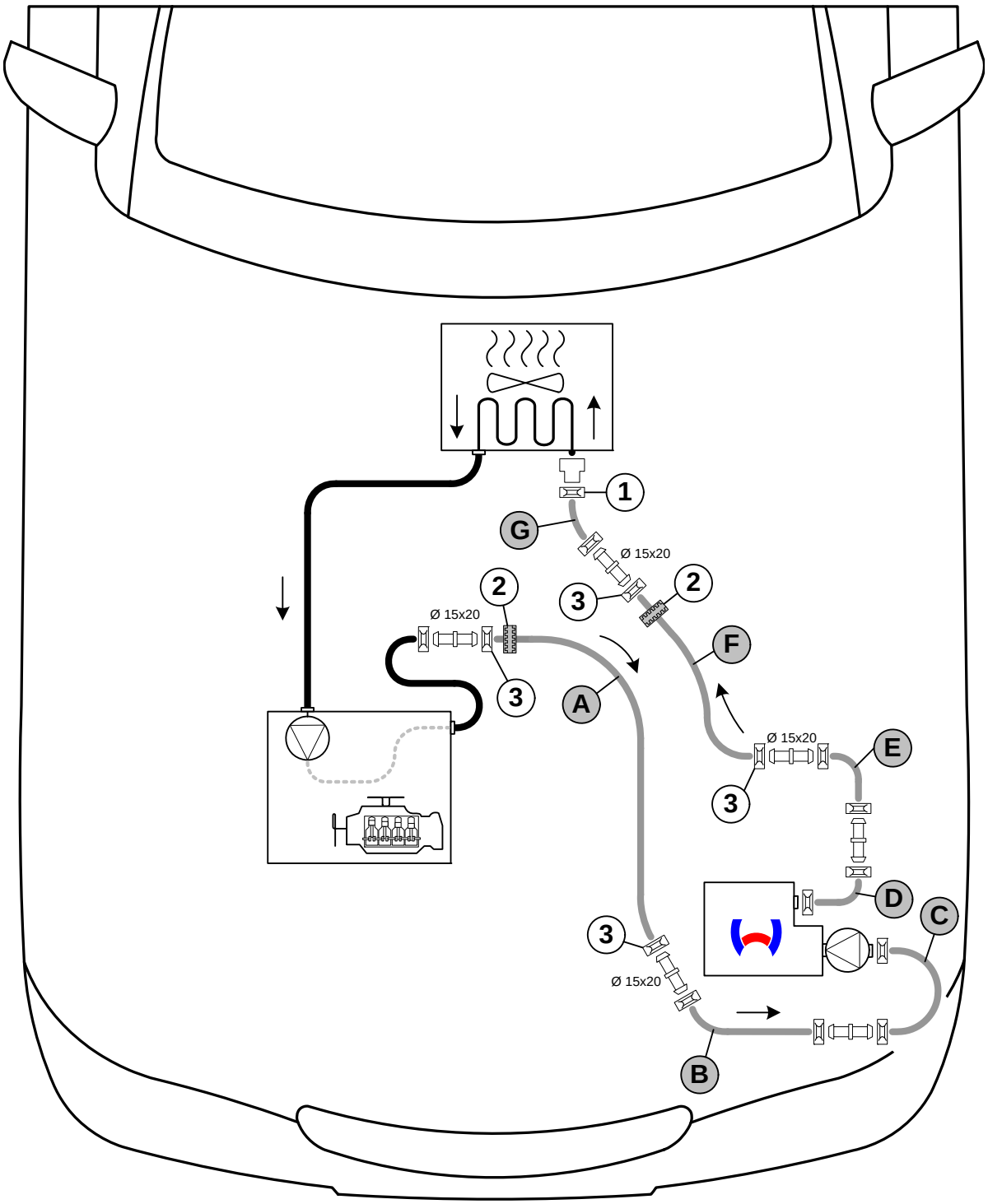
1 20x20 mm hose bracket
2 5x20 mm hose bracket

Premounting heater

Coolant circuit

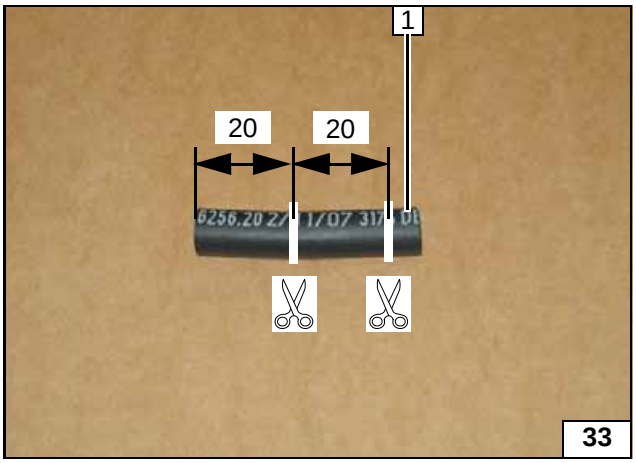
WARNING!
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the hoses, the heater must be filled with coolant.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

Hose routing diagram



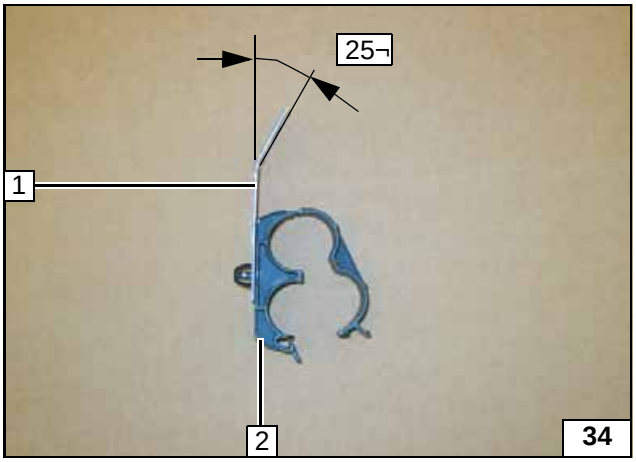
All connecting pipes without a specific designation = dia. 20x20 mm. **1** = Original vehicle spring clip.
All spring clips without a specific designation = 27 mm dia. **2** = Black (sw) rubber isolator [2x]!
3 = 22 mm dia. spring clip

Preparing hose routing



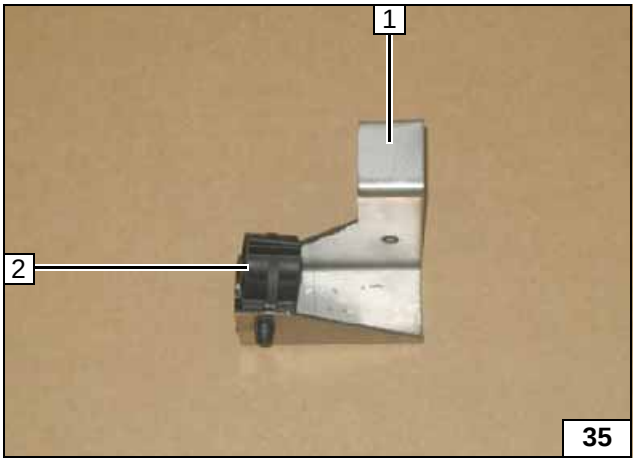
1 Clip bracket ❶
2 Hose bracket

Installing hose bracket



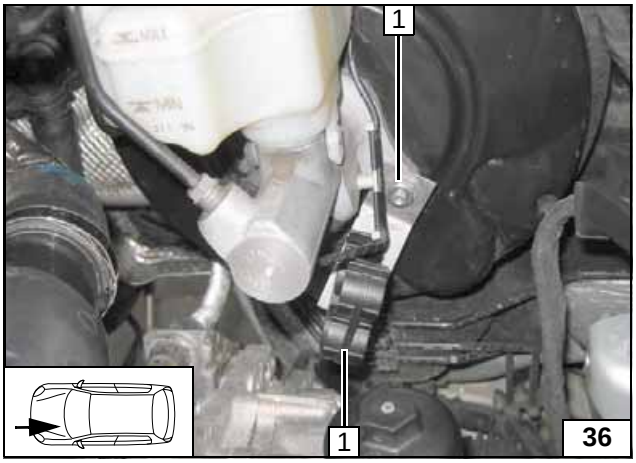
1 Clip bracket ❶
2 Hose bracket

Installing hose bracket



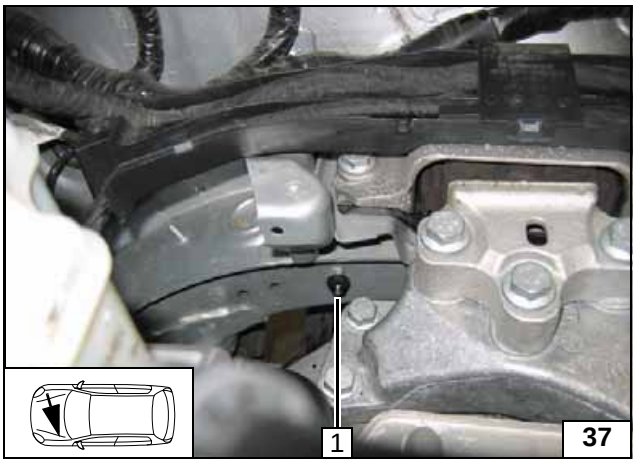
1 Clip bracket ❷
2 Hose bracket

Installing hose bracket



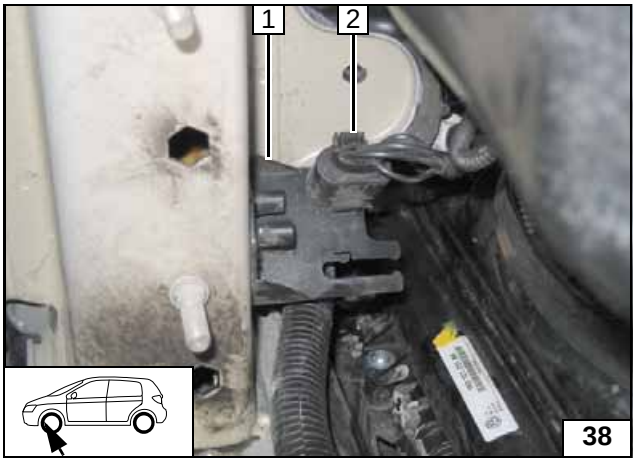
1 Original vehicle nut
2 Clip bracket ❶

Installing clip bracket ❶



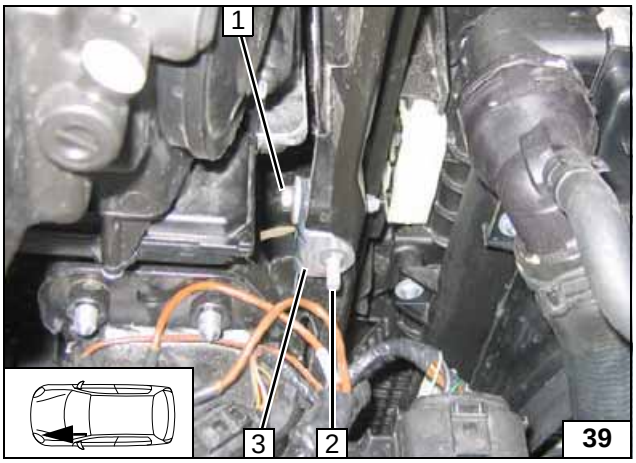
Precut thread of plastic nut **1** on original vehicle stud bolt.

Preparing plastic nut



Remove bracket **1** for connector **2** and discard. Fasten connector on original vehicle wiring harness with cable tie.

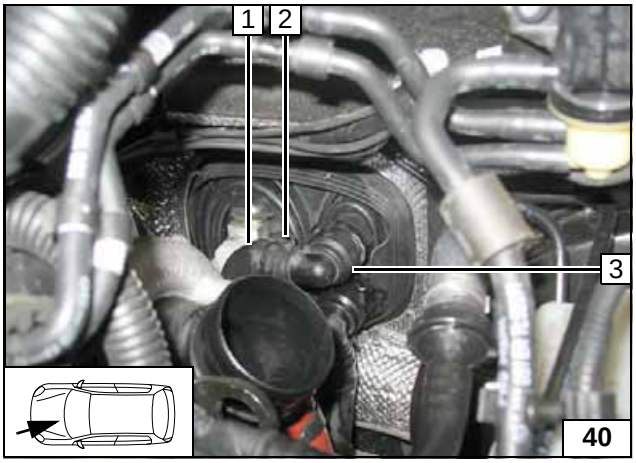
Premounting coolant hoses



Insert 10mm shim and 5mm shim between body and angle bracket **3**. Use M6x40 bolt **1** on threaded hole (if available), otherwise use flanged nut.

1 M6x40 bolt, spring lock washer, large diameter washer, 10mm shim, 5mm shim, flanged nut
2 M6x30 bolt, pin lock

Premounting angle bracket



Remove coupling piece from heat exchanger inlet **3** and discard. Spring clip **2** will be reused.

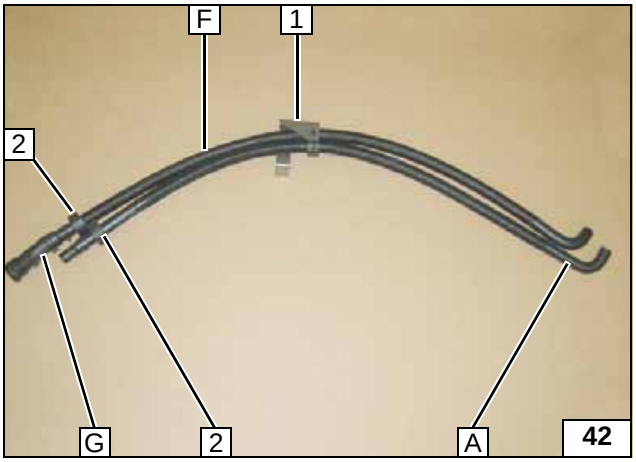
1 Engine outlet hose section

Cutting point



1 Coupling piece on heat exchanger inlet (VAG Order No.: 3B0 122 291 B)
2 Original vehicle spring clip

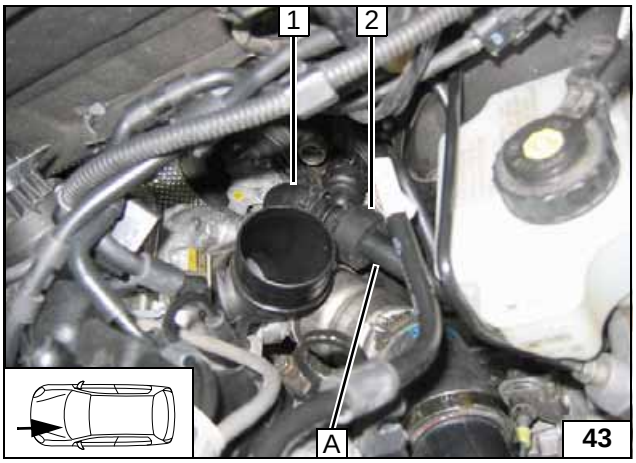
Premounting coolant hoses



1 Clip bracket ❷
2 Black (sw) rubber isolator [2x]

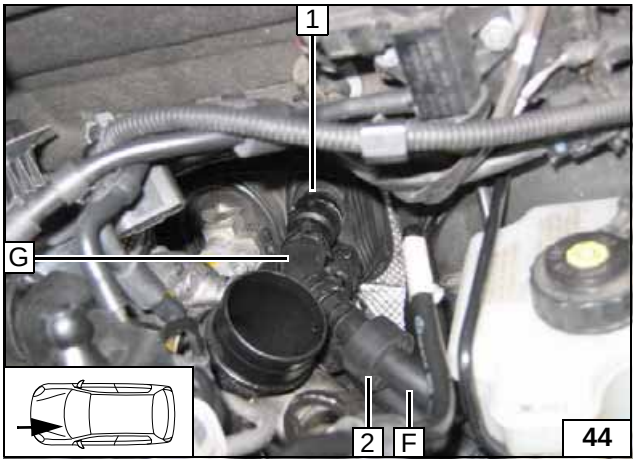
Premounting coolant hoses

Hose routing



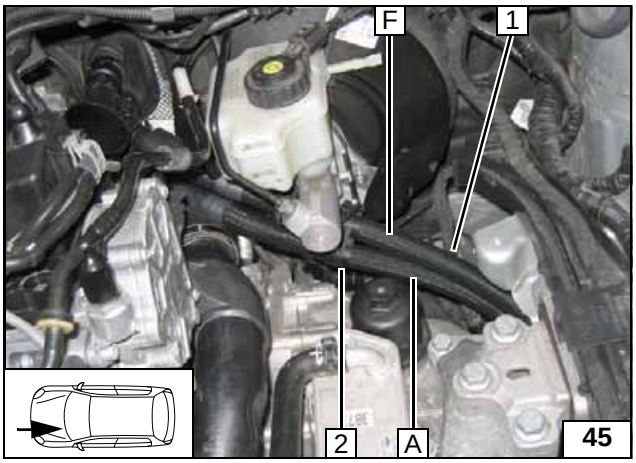
1 Engine outlet hose section
2 Position black (sw) rubber isolator

Connection to engine outlet



1 Original vehicle coupling piece on heat exchanger inlet, original vehicle spring clip
2 Position black (sw) rubber isolator

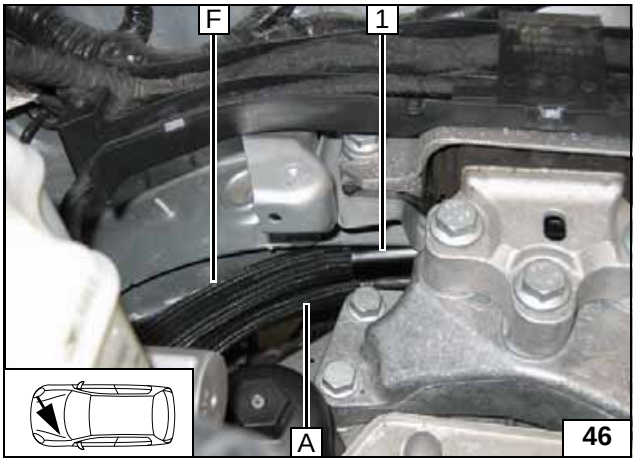
Connection to heat exchanger inlet



Ensure sufficient spacing between coolant hoses and wiring harness at position **1**.

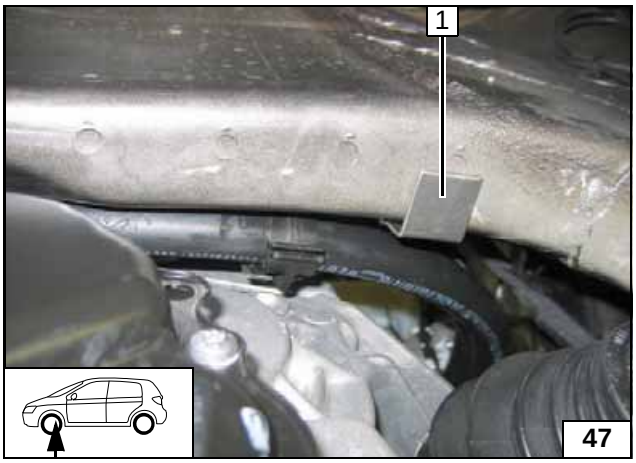
2 Hose and clip bracket ❶

Installing coolant hoses



1 Hose and clip bracket ❷

Installing coolant hoses



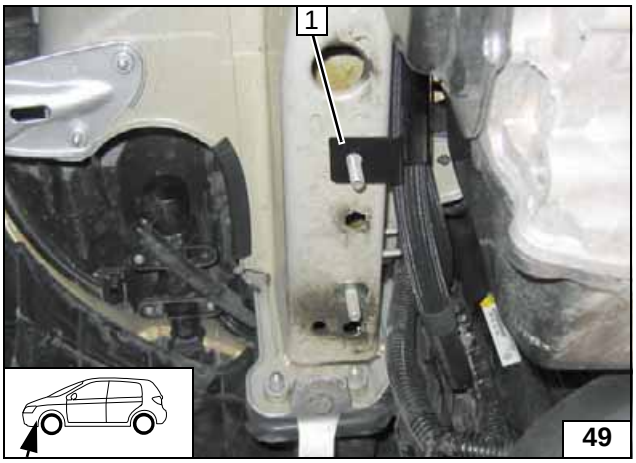
1 Anti-twist protection **1** of clip bracket ❷

Premounting coolant hoses



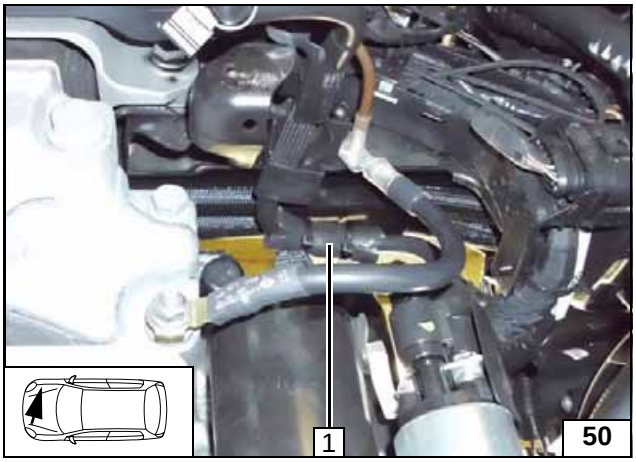
Route hoses **A** and **F** over transmission.

Premounting coolant hoses



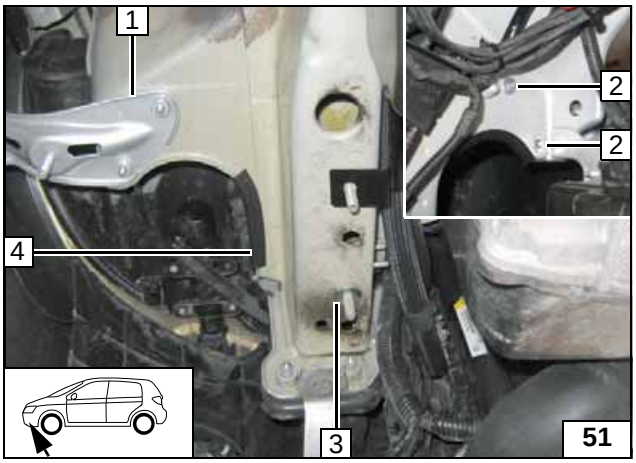
1 Premount hose bracket

Premounting coolant hoses



Ensure sufficient distance from neighbouring components. Slide split-open protective hose **1** onto positive wire leading from the starter to the battery and secure with a cable tie.

Installing protective hose

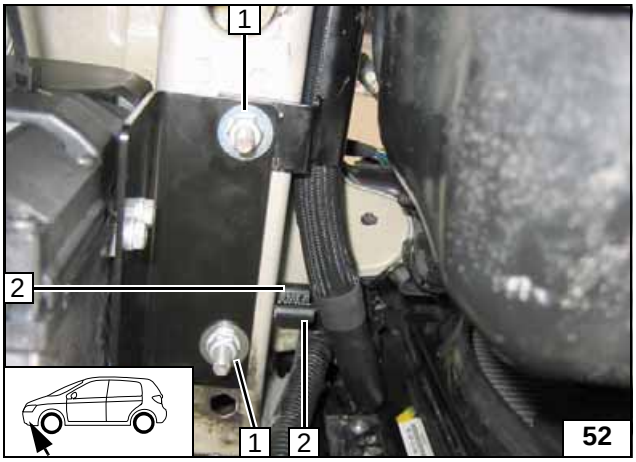


Preparing installation location

Installing additional bracket

Install additional bracket **1** (Skoda Order No.: 1Z0 810 679) at existing holes from above with two bolts **2** (Skoda Order No.: N90 749 003) and large diameter washers.

3 Large diameter washer
4 50 mm edge protection

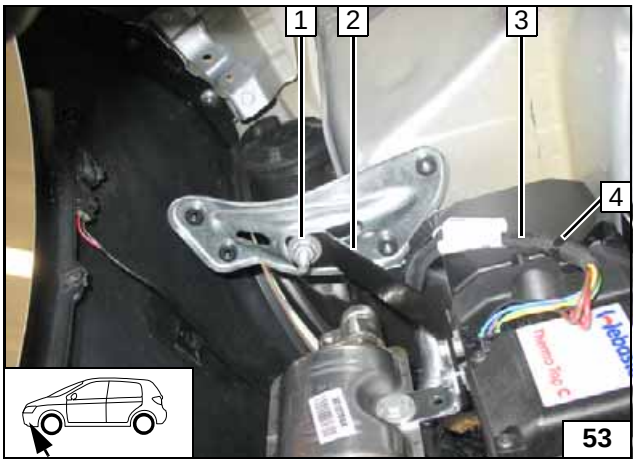


Installing heater

Installing heater

Install hose section **2** on stud bolt [2x].

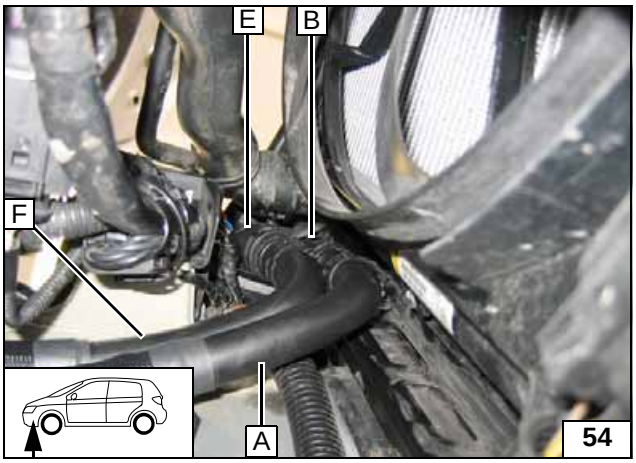
1 Original vehicle stud bolt, large diameter washer, M8 flanged nut [2x each]



Mount wiring harness of heater **3**; tighten clip-type cable tie **4**.

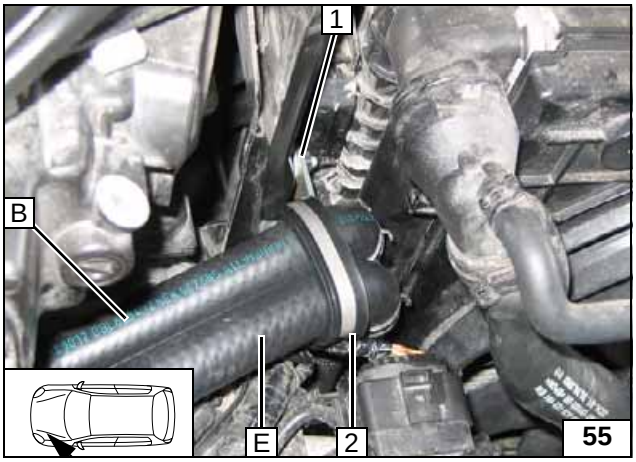
1 Large diameter washer, M8 flanged nut
2 Strut

Installing heater



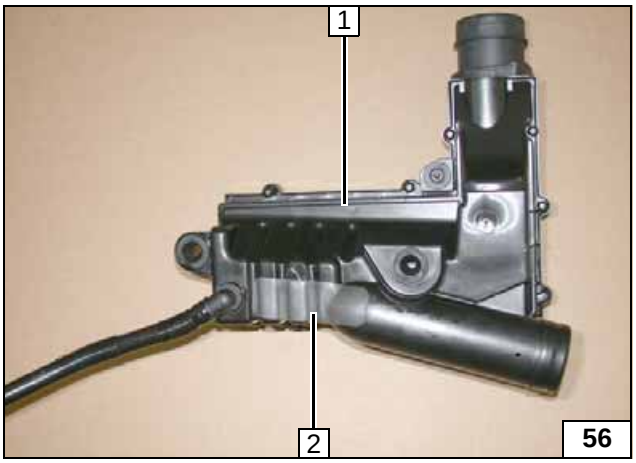
Connecting point preassembled hoses

Connection to heater



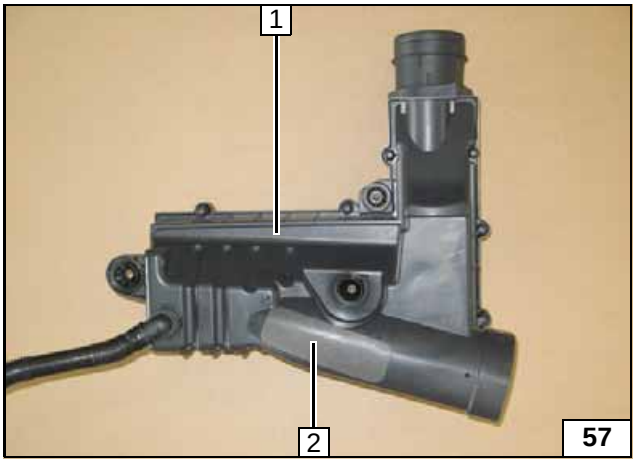
Install 48mm dia. rubber-coated p-clamp **2** with M6 flanged nut at angle bracket **1** (M6x30 bolt).
Ensure sufficient spacing between coolant hose **B** and headlight washer system.

Fastening coolant hose



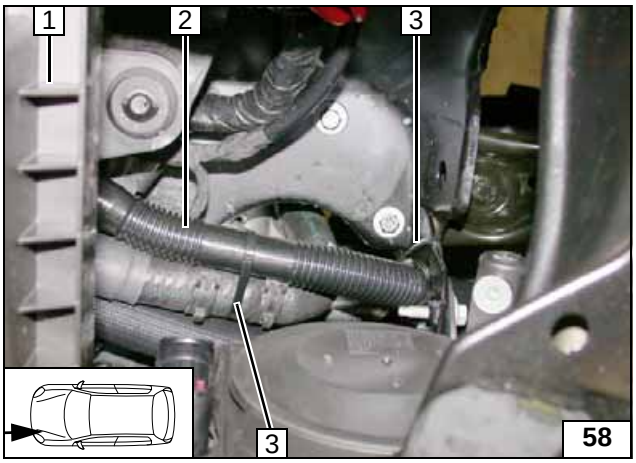
1 Air filter box version **1**
2 Glue on insulation protection strip

Preparing air filter box version 1



1 Air filter box version **2**
2 Glue on insulation protection strip

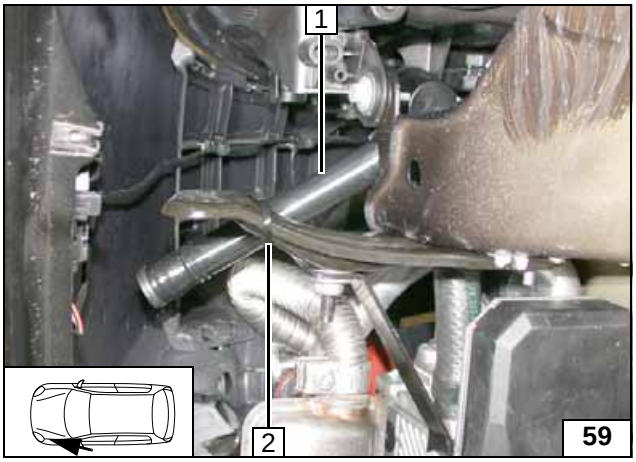
Preparing air filter box version 2



Install air filter box **1**.

2 Align drain pipe
3 Cable tie [2x]

Fastening drain pipe

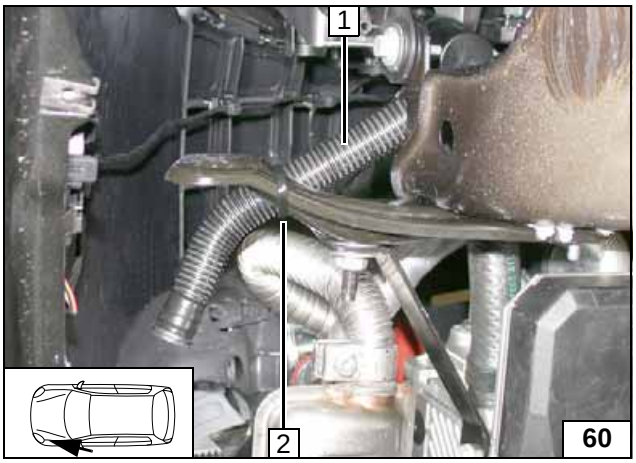


Ensure sufficient spacing to neighbouring components, especially to exhaust system; correct if necessary.

Version 1

1 Align drain pipe
2 Cable tie

Fastening drain pipe



Ensure sufficient spacing to neighbouring components, especially to exhaust system; correct if necessary.

Version 2

1 Align drain pipe
2 Cable tie

Fastening drain pipe

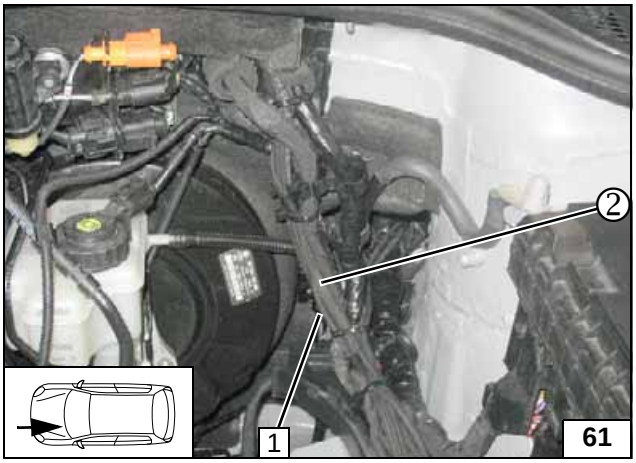
Fuel

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

Catch any fuel running off with an appropriate container.

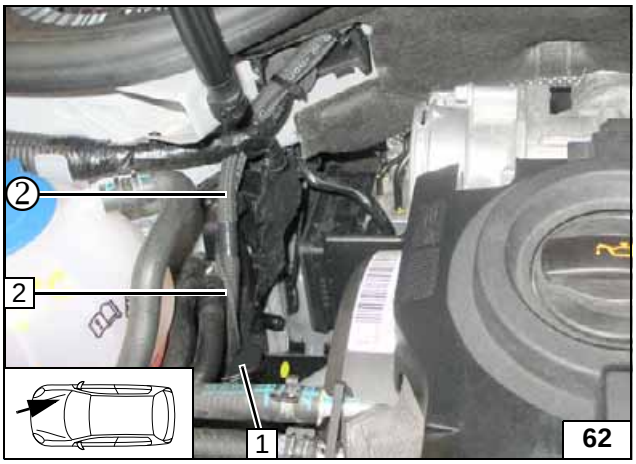
Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.
Mount the fuel line and wiring harness with rub protection on sharp edges.

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



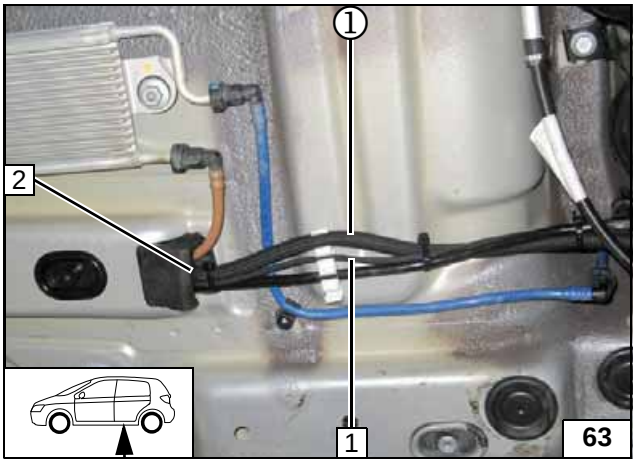
Route wiring harness of metering pump **1** and fuel line in fabric protective hose ② behind insulation mat to right-hand side of vehicle.

Installing lines



Route wiring harness of metering pump **2** and fuel line in fabric protective hose ② in original vehicle line duct **1** to underbody.

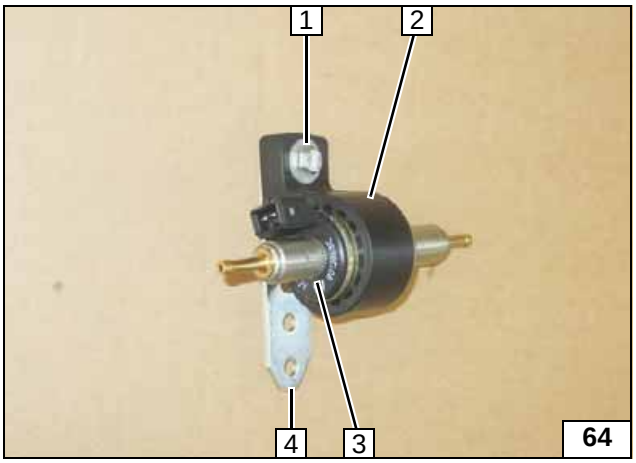
Installing lines



Guide fuel line out of original vehicle wiring duct **2** and slide on fabric protective hose ①.

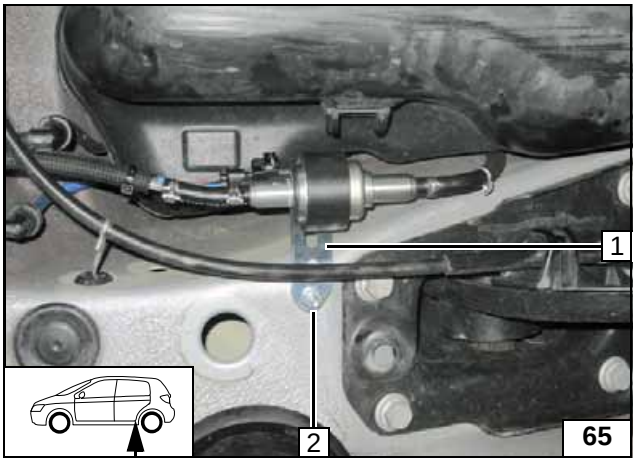
1 Metering pump wiring harness

Installing lines



1 M6x20 bolt, large diameter washer, flanged nut
2 Bracket of metering pump
3 Metering pump
4 Perforated bracket

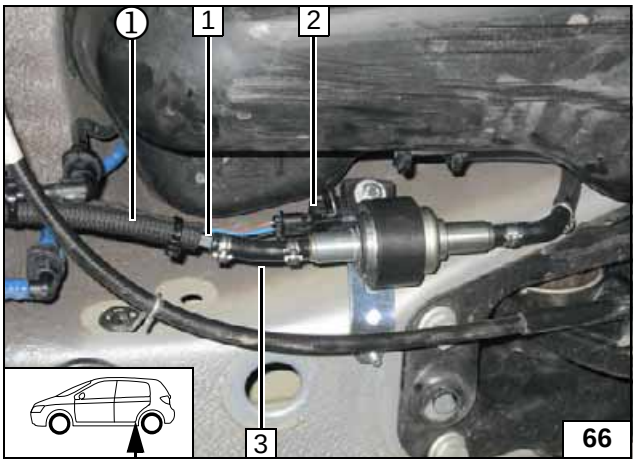
Premounting metering pump



Align metering pump and bend perforated bracket **1** upward.

2 Existing hole, M6x20 bolt, large diameter washer, flanged nut

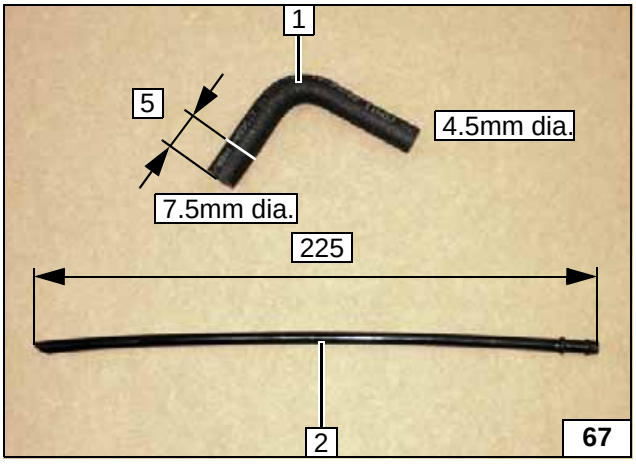
Installing metering pump



Secure fabric protective hose ① with cable tie.

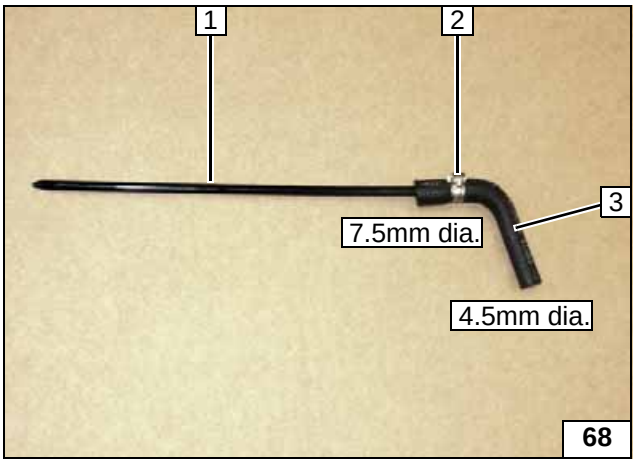
1 Fuel line
2 Wiring harness of metering pump, connector mounted
3 Hose section, 10 mm dia. clamp [2x]

Connecting metering pump



1 90° moulded hose
2 Standpipe

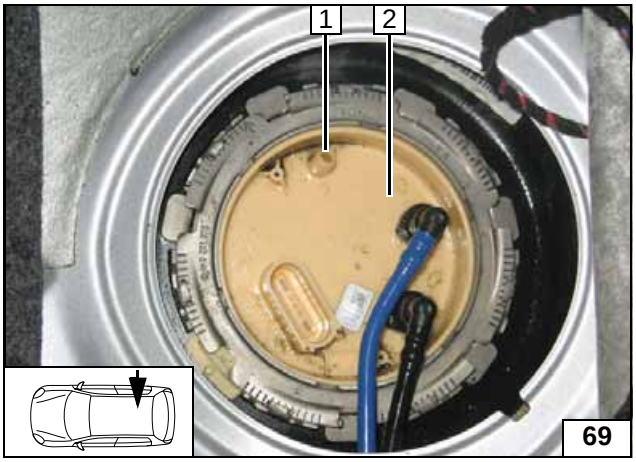
Cutting standpipe and moulded hose to length



10 mm dia. Caillau clamp **2** in centre between beads on end of standpipe.

1 Standpipe
3 90° moulded hose

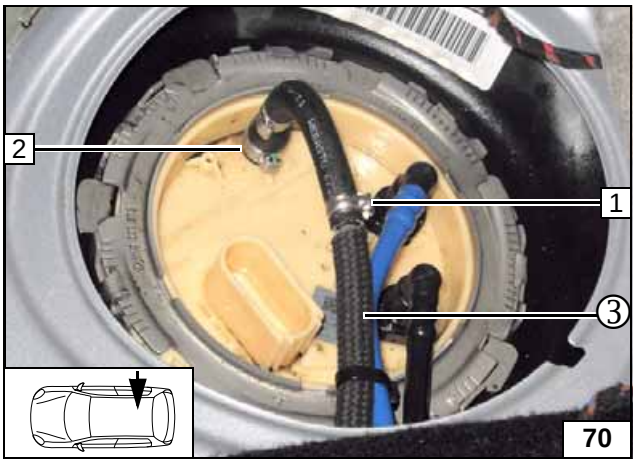
Premounting fuel standpipe



Cut 3 mm off blind plug 1.

2 Fuel-tank sending unit

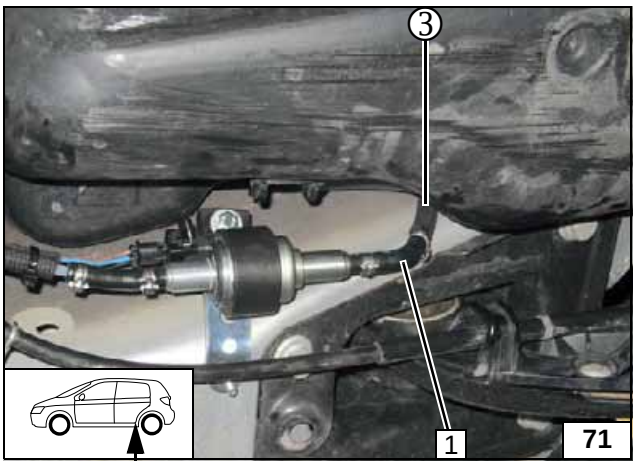
Cutting off blind plug



Slide fabric protective hose ③ onto fuel line.

1 10 mm dia. clamp
2 13.5 mm dia. Caillau clamp

Installing fuel standpipe

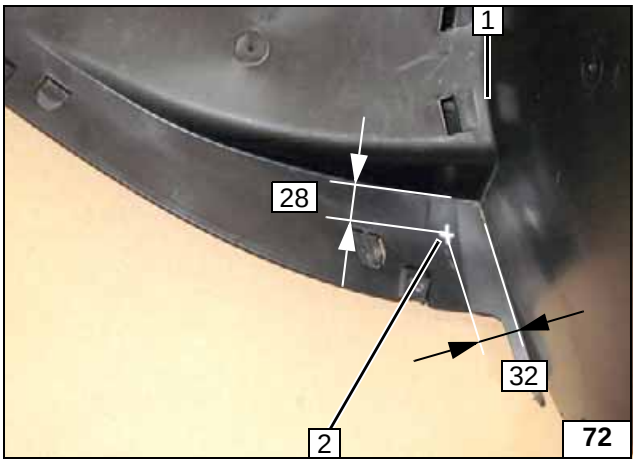


Check the position of the components; adjust if necessary. Check that they have freedom of movement.

1 90° moulded hose, 10 mm dia. Caillau clamp [2x]

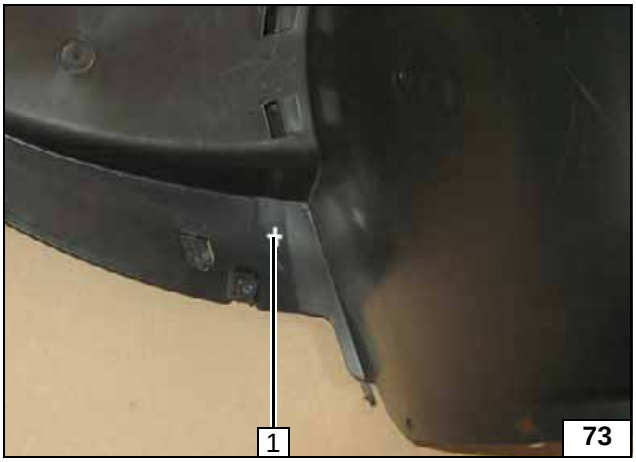
Connecting fuel line

Exhaust gas



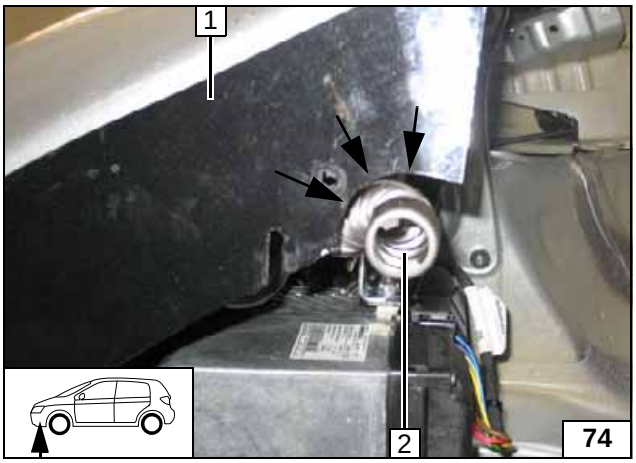
1 Wheel well trim
2 Mark hole pattern

Hole pattern on wheel well trim



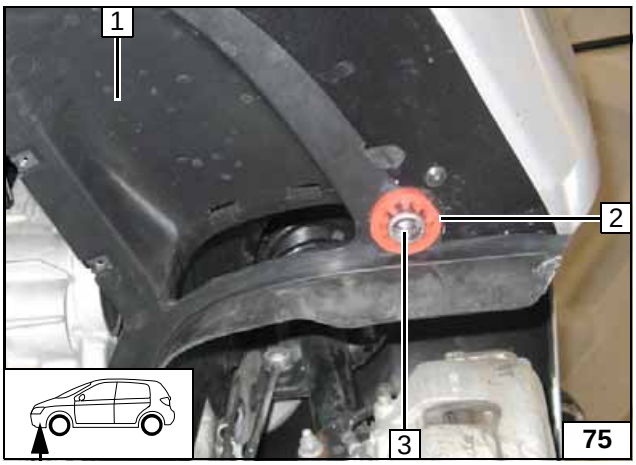
1 42 mm dia. hole

Cutting out wheel well trim



Cut out bumper trim **1** at the marking (min. 10mm from exhaust end section **2**)!

Mounting rubber isolator



Mount underride protection **1**. Align exhaust end section **3** flush on red (rt) rubber isolator **2**.

Mounting rubber isolator

Final Work

WARNING!
Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate all loose wires and tie back.
Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

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

Adjust the sensitivity of the passenger compartment monitoring

WARNING!
Observe the applicable repair manual of the respective vehicle.
The adjustment of the sensitivity of the passenger compartment monitoring from model year 2010 was not checked!

- Connect the VAS tester.
- Open Item 45 (Central Module of Comfort System)
- Go to Item 12 (Adjustment)
- Select adjustment duct 15
- Reduce the sensitivity of the passenger compartment monitoring to 50 %
- Save this setting

Webasto
Feel the drive

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Operating Instructions for End Customer

Please remove page and add to the vehicle operating instructions.

To ensure proper operation of the parking heater, the fuel level in the tank must be above the "Reserve" level.

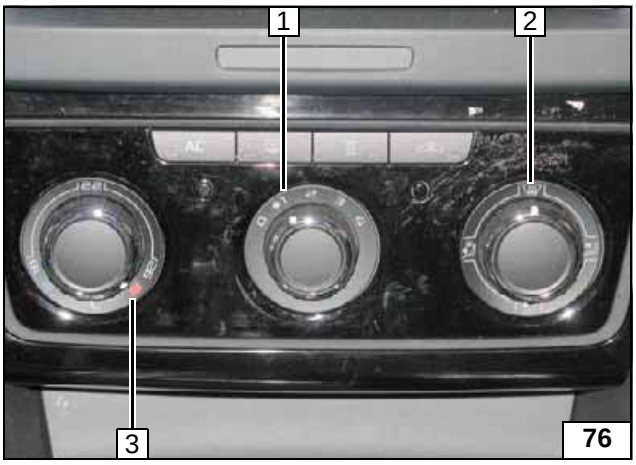
Note:
We recommend matching the heating time to the driving time.
Heating time = driving time
Example:
For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

The sensitivity of the passenger compartment monitoring has been reduced up to model year 2009. For vehicles with passenger compartment monitoring , this is to be deactivated in addition to the vehicle settings of the heating operation from model year 2010.
For information on deactivation, please see the vehicle owner's manual.

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

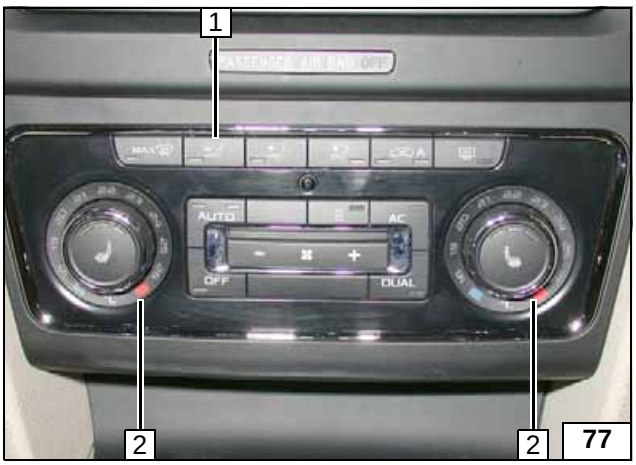
Before parking the vehicle, make the following settings:

Climatic



1 Set fan to level "1", or possibly "2"
2 Direct air outlet toward windscreen
3 Set temperature to "max."

Climatron-ic



1 Direct air outlet toward windscreen
2 Set temperature on both sides to "max.".