

D	Änderungen bezüglich Konstruktion, Auestattung, Farbe sowie Irrtum vorbehalten. Angaben und Abbildungen unverbindlich.	D	Einbauanleitung
GB	Subject to change in terms of construction, equipment and colour, and may contain errors. The information and illustrations are non-binding.	GB	Installation instructions
F	Sous réserve de modifications de la construction, de l'équipement, de la couleur et sous réserve d'erreurs. Les indications et les illustrations sont sans engagement.	F	Consignes de montage
NL	Wijzigingen met betrekking tot constructie, uitoering en kleur evenals vergissingen voorbehouden. Gegevens en afbeeldingen niet bindend.	NL	Montagehandleiding
DK	Ændringer med hensyn til konstruktion, udstyr, farver samt fejl forbeholdes. Oplysninger og illustrationer er uforpligtende.	DK	Montagevejledning
N	Ændringer angående konstruktion, udstyr, farge og feiltagelse forbeholdes. Opplysninger og illustrasjoner uforbindelig.	N	Monteringsinstruksjon
S	Med reservation för ändringar vad det gäller konstruktion, utrustning, färg samt för misstag. Uppgifterna och bilderna är inte bindande.	S	Installationsanvisning
FIN	Pidätämme oikeuden rakennetta, varustusta, väriä koskeviin sekä erehdykseenä johtuviin muutoksiin. Tiedot ja kuvat eivät ole sitovia.	FIN	Asennusohje
I	Con riserva di modifiche relative a progettazione, dotazione, colore ed errori. Le indicazioni e figure sono fornite senza impegno.	I	Istruzioni per il montaggio
E	Reservadas las modificaciones respecto a diseño, equipamiento, color, así como error. Indicaciones y figuras sin compromiso.	E	Instrucciones de montaje
P	Reservamos o direito de alterações relativamente ao desenho, equipamento, cor, bem como de erro. Os dados e as gravuras não implicam compromisso da nossa parte.	P	Instruções de montagem
GR	Διατηνούμε κάθε επιφύλαξη ως προς αλλαγές σε σχέση με κατασκευή, εξοπλισμό, διαρρύθμιση, χρωματισμούς και λάθη παραδρομής.	GR	Οδηγίες εγκατάστασης
CZ	Změny, týkající se konstrukce, vybavení, barvy, jakož i omyly jsou vyhrazeny. Údaje a vyobrazení jsou nezávazné.	CZ	Návod k montáži
PL	Zastrzeżę się prawo do zmian dot. konstrukcji, wykończenia, kolorystyki oraz pomylek. Dane i ilustracje niewiążące.	PL	Instrukcja montażu
TR	Tasarım, donanım ve renk bakımından deęişiklik yapma hakkı ve hata ve eksiklik mahfuzdur. Veriler ve resimler bağlayıcı deęildir.	TR	Montaj talimatı
H	A szerkezet, a kivitel és a szín változtatása, valamint a változások joga fenntartva. Az adatok és az ábrák nem kötelező érvényűek.	H	Beépítési útmutató
HR	Pravo promjena u svezi konstrukcije, opreme, boje kao i zabune ostavljamo. Podaci i ilustracije su neobavezne.	HR	Upute o ugradnji
BUL	Запазени права по отношение на конструкцията, оборудването, цвета и грешки. Данните и изображенията не са обвързващи.	BUL	Инструкция за монтаж
RO	Ne rezervăm dreptul unor modificări ale construcției, dotării, culorii și dreptul la erori. Datele indicate și imaginile sunt orientative.	RO	Instrucțiuni de montaj
RUS	Права на внесение изменений относительно конструкции, оснащения, окраски, а также на ошибки сохраняются. Данные и иллюстрации имеют примерный характер.	RUS	Инструкция по монтажу и установке
LT	Pasilikama konstrukcijos, įrangos bei rėikmenų spalvos pakaitimų ir klaidų teisė. Duomenys ir iliustracijos neįpareigojantys.	LT	Montavimo informacija
LV	Tiek paturētas tiesības uz konstrukcijas, iekārtu, krāsu izmaiņām, kā arī kļūdīšanās. Dati un attēli bez saistībām.	LV	Iemontēšanas pamācība
EST	Konstruktsioonid, varustuse ja vevryl osas muudatused ning eksimline lubatud. Andmed ja joonised on mitteesiduvad.	EST	Paigaldusjuhend
SLO	Zadržana pravica do sprememb glede konstrukcije, opreme, barve ter pomote. Podatki in slike so neobvezne.	SLO	Navodilo za vgradnjo
SK	Zmeny, ktoré sa týkajú konštrukcie, vybavenia, farby, ako aj omyly sú vyhradené. Údaje a zobrazenia sú nezáväzná.	SK	Montážny návod

GM Europe GmbH

Bahnhofsplatz 1, D-65423 Rüsselsheim, Germany

Water Heater Unit



Feel the drive

Thermo Top E Additional Heater



Thermo Top C Additional Heater



Thermo Top P Additional Heater



Installation Instructions

Opel Zafira B

Gasoline and Diesel

from Model Year 2005

For left-hand drive vehicles only



WARNING!

Hazard warning:

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

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

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

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

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

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Validity

Manufacturer	Model	Type	EG-BE No./ABE
Opel	Zafira B	A-H/Monocab	e1 * 2001/116 * 0325 *

Engine type	Engine model	Output in kW	Displacement in cm ³
Z16XEP	Gasoline	77	1598
Z18XER	Gasoline	103	1796
Z20LEH	Gasoline (OPC)	177	1998
Z20LER	Gasoline	147	1998
Z22YH	Gasoline	110	2198
Z17DTJ	Diesel	81	1686
A17DTJ	Diesel	81	1686
Z17DTR	Diesel	92	1686
A17DTR	Diesel	92	1686
Z19DTL	Diesel	74	1910
Z19DT	Diesel	88	1910
Z19DTH	Diesel	110	1910

Vehicle and engine types and equipment variants 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	Delivery scope of Thermo Top C Gasoline Opel Catalog No.:	83343C 1734010
1	Delivery scope of Thermo Top C Diesel Opel Catalog No.:	83344C 1734011
1	Installation kit for Opel Zafira B Gasoline and Diesel Opel Catalog No.:	1303047F 1734115

Additionally required for 1.9 liter diesel vehicles

Quantity	Description	Opel Part No.:
1	Bracket of vacuum valve Opel Catalog No.:	9268928 1734144

Optional heater control either:

Quantity	Description	Order No.:
1	Heater control	See Opel price list

Foreword

The installation instructions apply to the Opel Zafira B vehicles with a Gasoline and Diesel engine - For the validity, see page 2 - from model year 2005 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to these installation instructions.

However, where this is the case the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top C* should be observed. The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

General Instructions

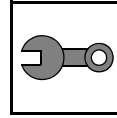
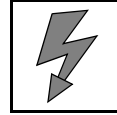
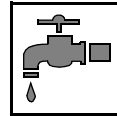
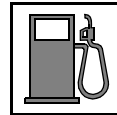
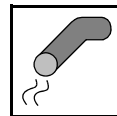
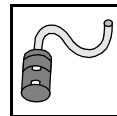
Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties.

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

Mechanical work**Electrical system****Coolant connection****Fuel connection****Exhaust system****Combustion air**

Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



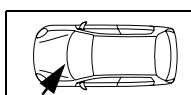
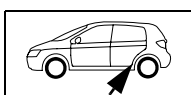
Specific risk of fire or explosion.



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



Reference to a special technical feature.



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

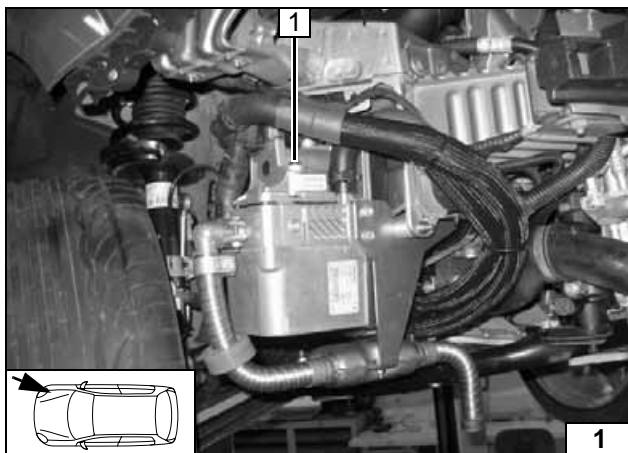
Explanatory Notes on Document

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.

Preliminary Work

WARNING!

- Disconnect the battery "earth" or "ground" connection.
- 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.
- Completely remove the battery (only on 1.9 liter diesel).
- Remove the air filter together with the intake hose.
- Remove the right/hand windshield wiper.
- Remove the coolant reservoir cap.
- Remove the fuel filter.
- Open fuel tank cap, ventilate tank.
- Close the tank cap again.
- Remove fuel tank according to manufacturer's specifications.
- Remove the bumper.
- Remove the front section of the wheel well trim on the right.
- Remove the underride protection (depending on vehicle equipment).
- Remove the horns.
- Remove the vacuum valve (only on 1.9 liter diesel).
- Remove the lower instrument panel trim on the driver's side.
- Remove the glove compartment.
- Remove the fuel-tank sending unit in accordance with the manufacturers specifications.
- Remove the glove compartment.
- Remove the A/C control panel (only with automatic air-conditioning).
- Remove the A-pillar trim in the footwell on the front passenger side.
- Remove the left-hand door sill cover completely (only on vehicles with alarm system).
- Open the cable duct under the door sill cover (only with alarm system).



Heater unit installation location

1 Heater unit

Installation
location

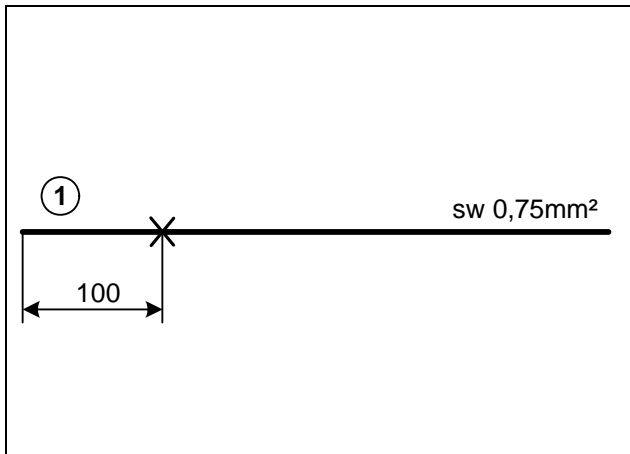


Preparing electrical system



Automatic air-conditioning (ECC and SAC)

Wire section 1 will be required later for connection on A/C control panel.

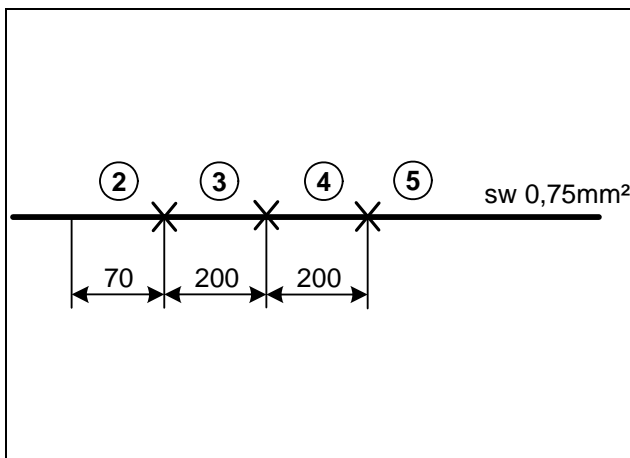


Cutting wires to length

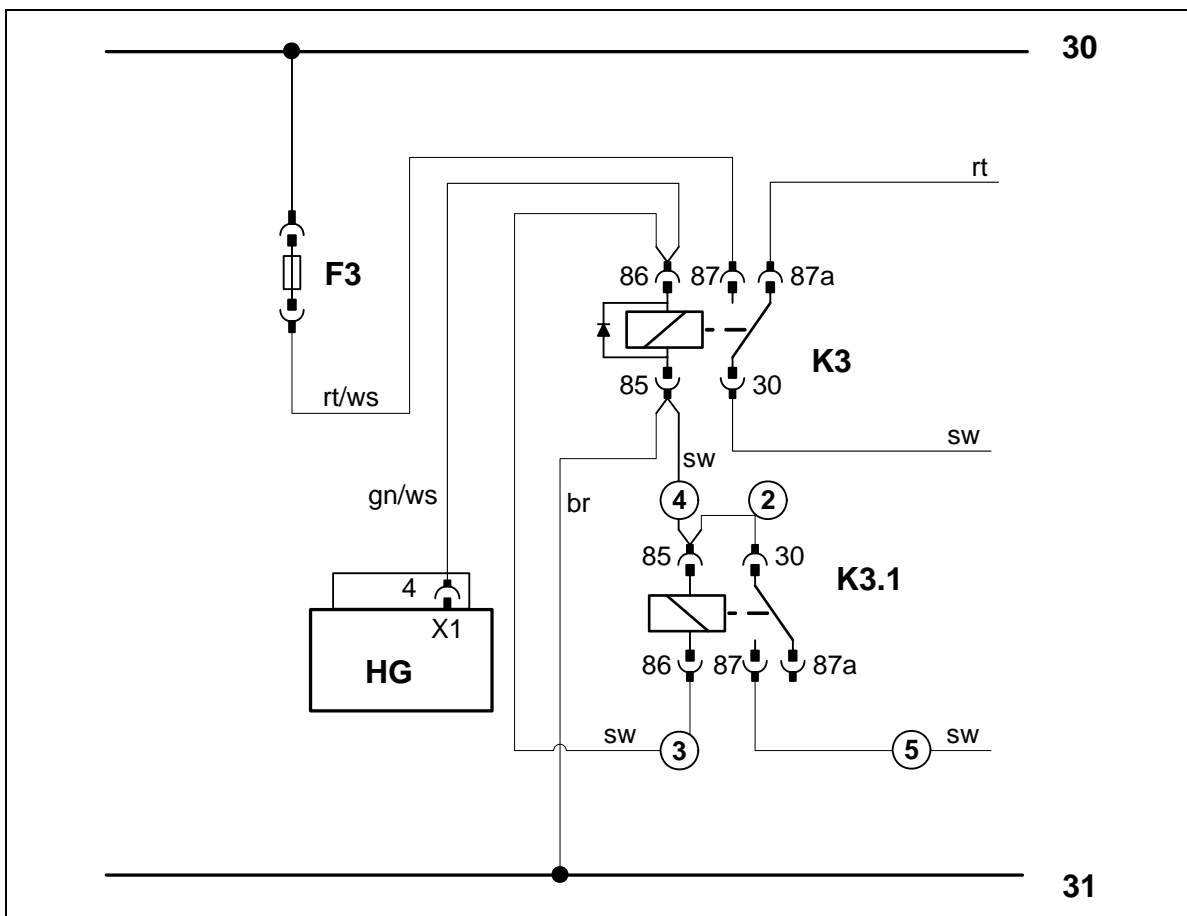
Vehicles with passenger compartment monitoring



Wire sections 2, 3, 4 and 5 will be required later for switching off passenger compartment monitoring.



Cutting wires to length



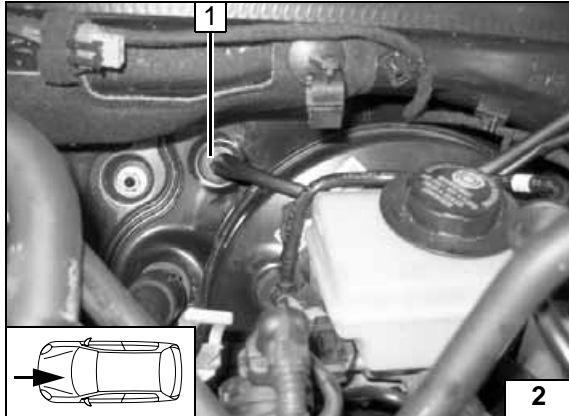
Premounting wiring harness



Electrical system

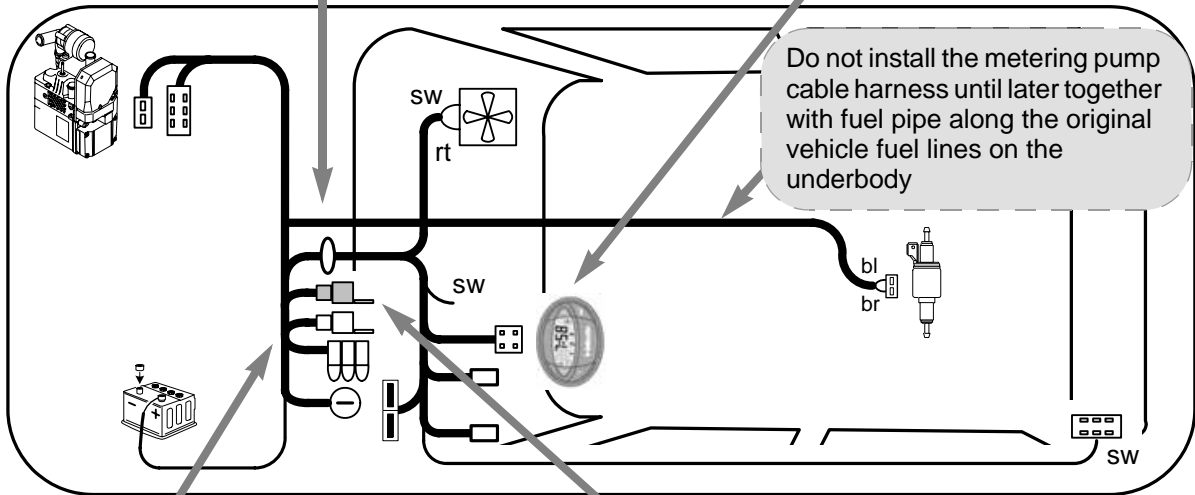
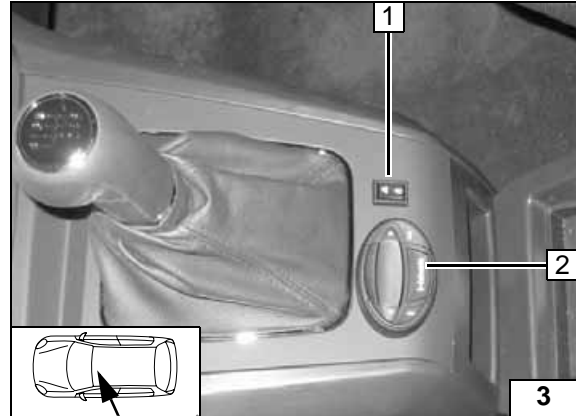
Wiring harness pass through

- 1 Protective rubber plug

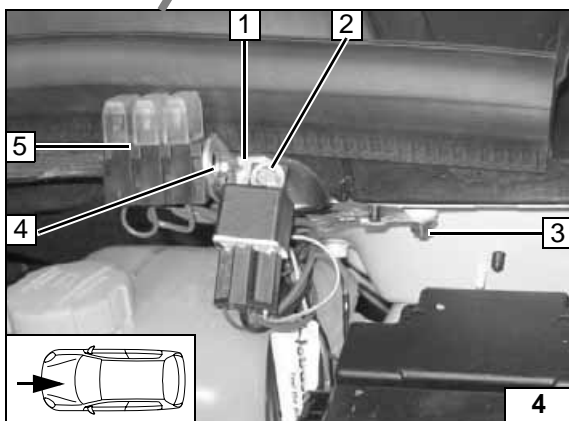


Digital timer, summer/winter switch option

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

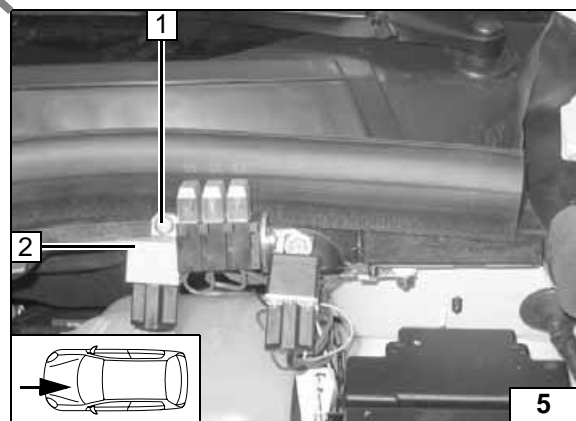


Wiring harness installation diagram



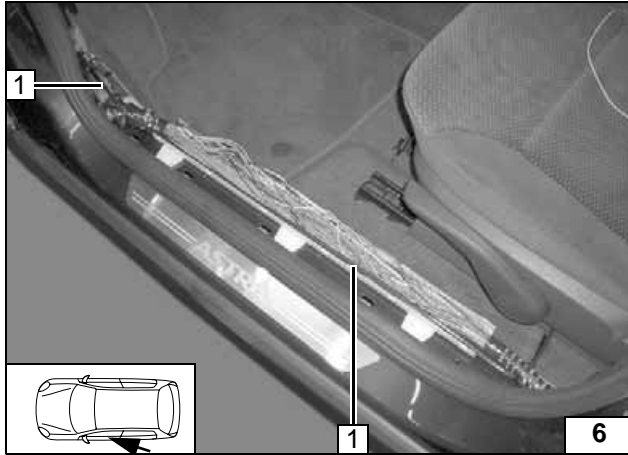
Fuse holder, relay K3

- 2 5.5 mm dia. hole
- 1 M5x12 bolt, large diameter washer [2x], K3 relay, angle bracket, M5 flanged nut
- 3 Ground support point, M6 flanged nut on existing stud bolt
- 4 Fuse holder retaining plate, M4x10 bolt, washer, M4 nut
- 5 Fuse holder



Additional K3.1 relay with passenger compartment monitoring

- 2 K3.1 relay
- 1 4 mm dia. hole, 5.5x13 self-tapping screw

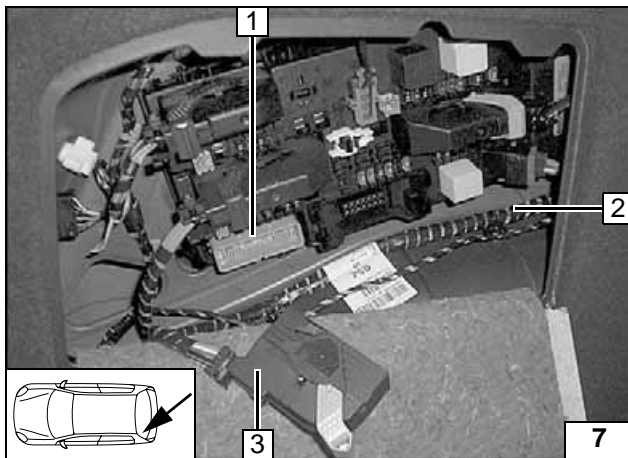


Only for vehicles with passenger compartment monitoring

Slide protective sleeving provided onto additional line (5) up to cable grommet in passenger compartment.
Route additional line along left-hand A-pillar in cable duct to rear

- 1 Wire section 5

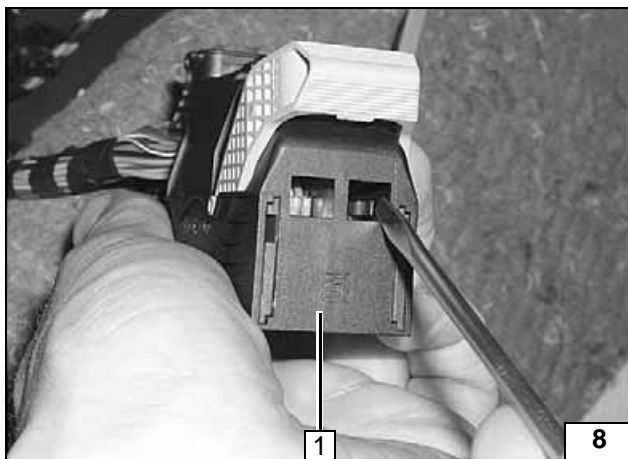
Installing additional line



Passenger compartment monitoring is switched off on rear zone module behind left-hand luggage compartment trim!

- 2 Wire section 5
- 3 Connector X5
- 1 Socket of connector X5

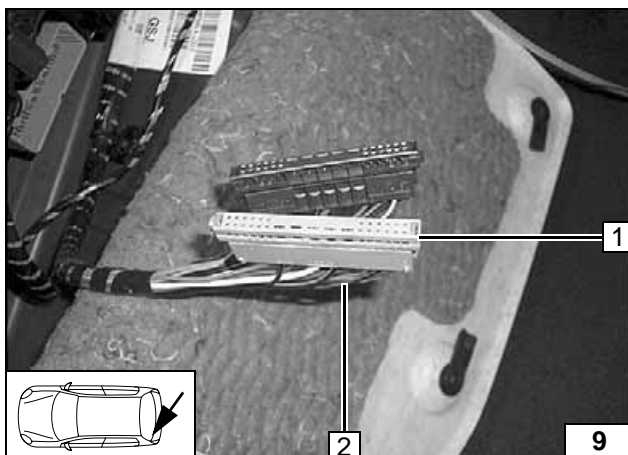
Disconnecting connector



Dismantle connector X5 according to manufacturer's instructions.
Cut off front cable ties. Press both unlocking lugs toward rear with small screwdriver and pull off connector housing.

- 1 Connector X5

Unlocking connector

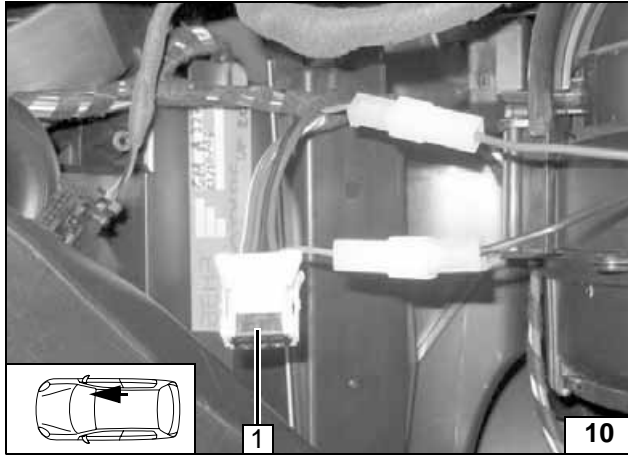


Connection on blue (bl) connector X5 from rear zone module.
Produce connections according to wiring diagram on Page 10 or 12, depending on equipment.

- 1 Connector X5, Pin 12
- 2 Wire section 5

Connecting line





Fan controller for manual air conditioning

Integration on 6-pin connector ZF 5-12 from fan motor.
Produce connections as shown in wiring diagram with blade connectors provided.

1 6-pin connector from resistor group

WARNING!

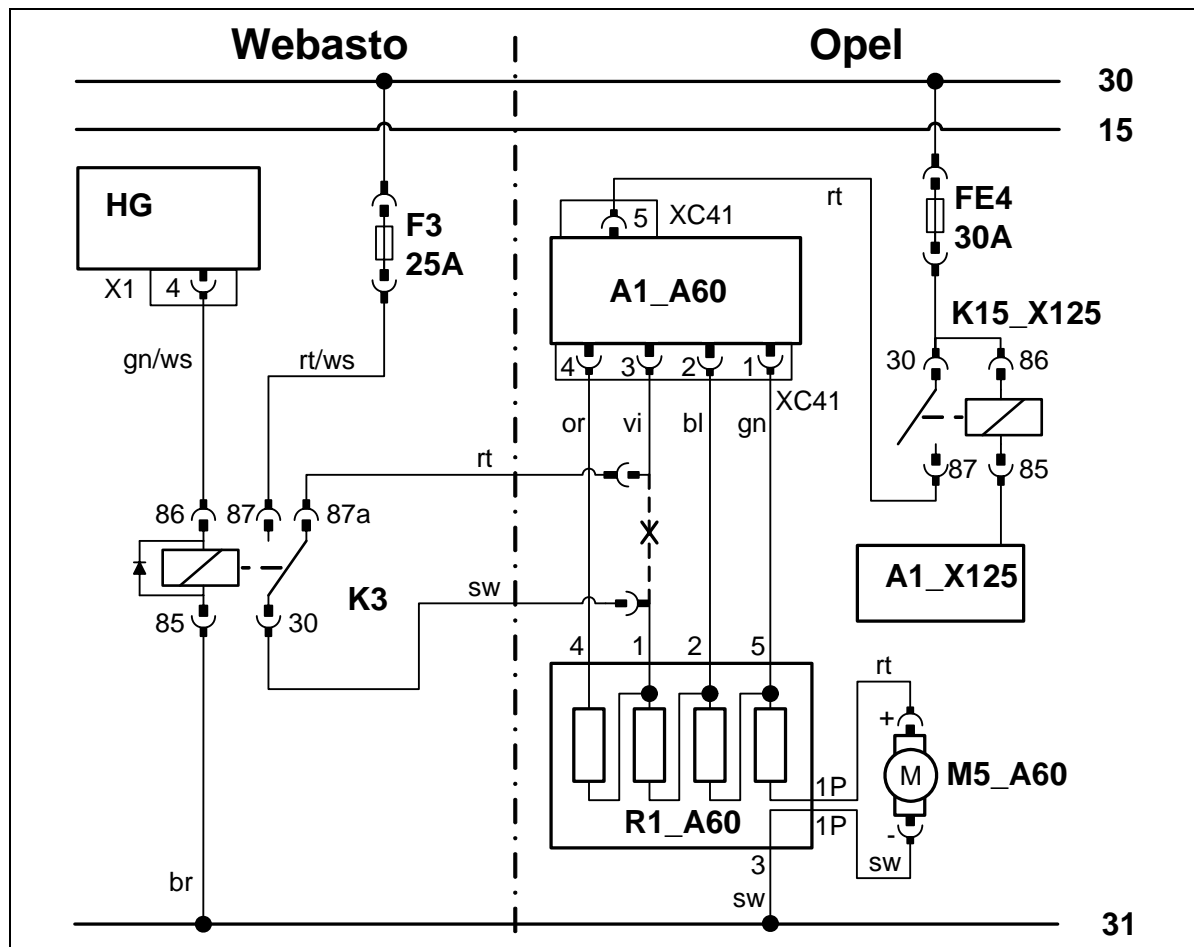
Wiring colors may vary.
Fan speed 2 must be controlled!



Connect-
ing fan mo-
tor



Wiring dia-
gram for
manual air con-
dition-
ing



Webasto components		Opel components		Colors and symbols	
HG	Heater unit TT-C/E	M5	Fan motor	rt	red
X1	6-pin heater unit connector	K15	Fan relay	ws	white
F3	Fuse	R1	Fan resistor	sw	black
K3	Fan relay	A1	Air-conditioning control panel	br	brown
		FE	Fuse	gn	green
				bl	blue
				ge	yellow
				or	orange
				vi	violet
				X	Cutting point
				Wiring colors may vary.	

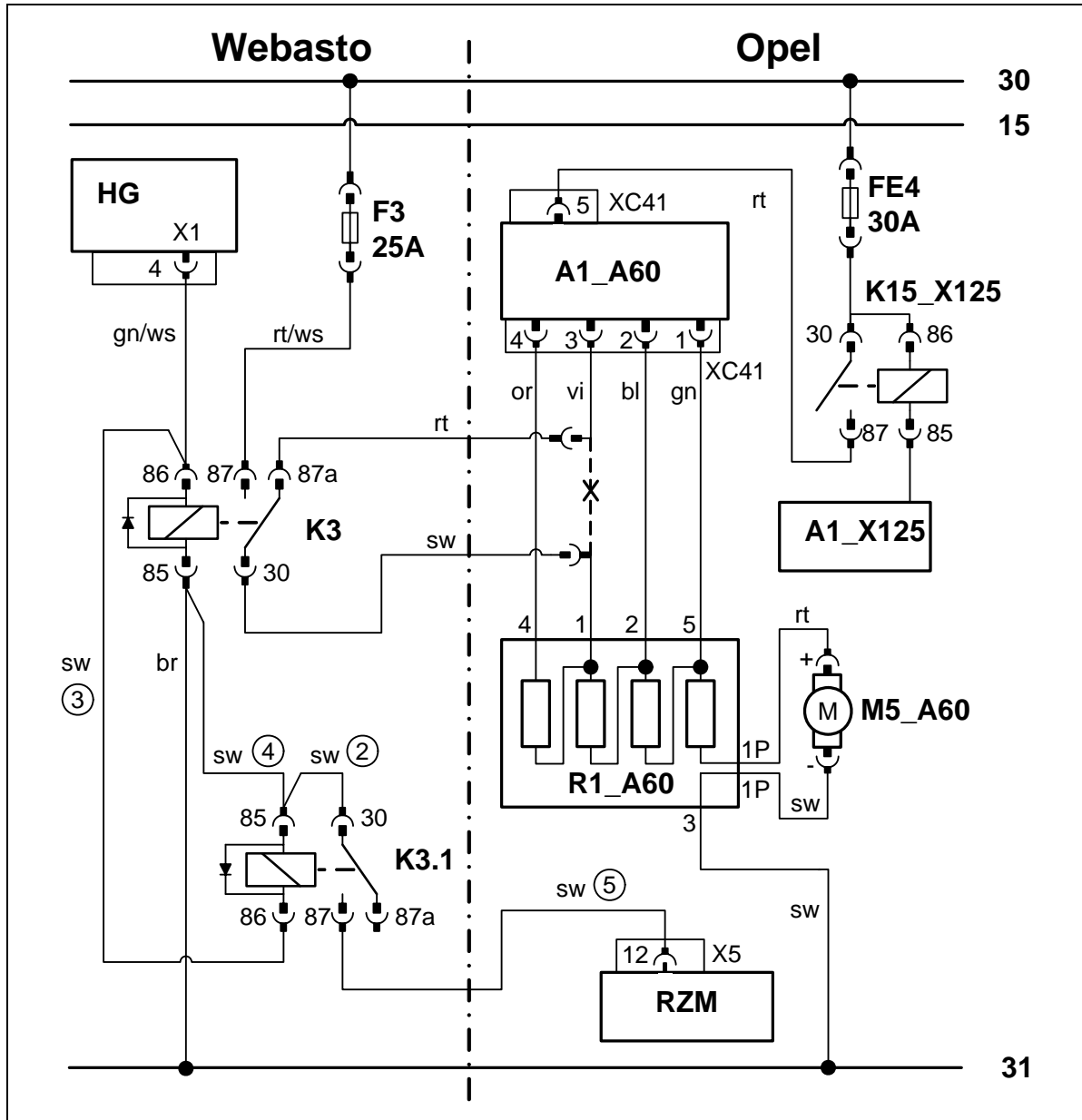
Legend



Only for manual air conditioning with passenger compartment monitoring

Produce connection as shown in wiring diagram with blade connectors provided.

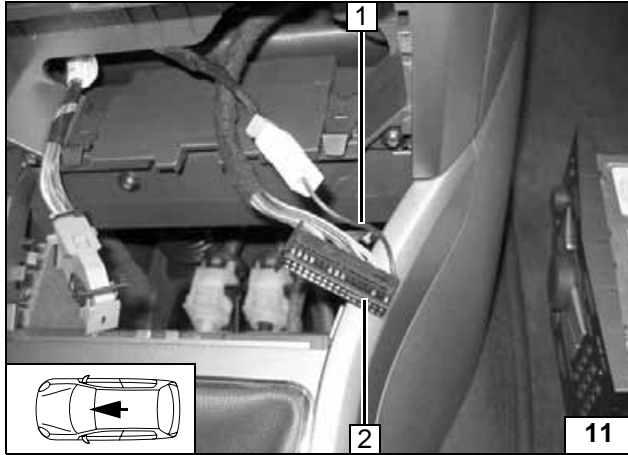
Connecting fan motor



Wiring diagram for manual air conditioning with passenger compartment monitoring

Webasto components		Opel components		Colors and symbols	
HG	Heater unit TT-C/E	M5	Fan motor	rt	red
X1	6-pin heater unit connector	K15	Fan relay	ws	white
F3	Fuse	R1	Fan resistor	sw	black
K3	Fan relay	A1	Air-conditioning control panel	br	brown
K3.1	Additional relay	FE	Fuse	gn	green
		RZM	Rear Zone module	bl	blue
				or	orange
				vi	violet
				X	Cutting point
				Wiring colors may vary.	

Legend



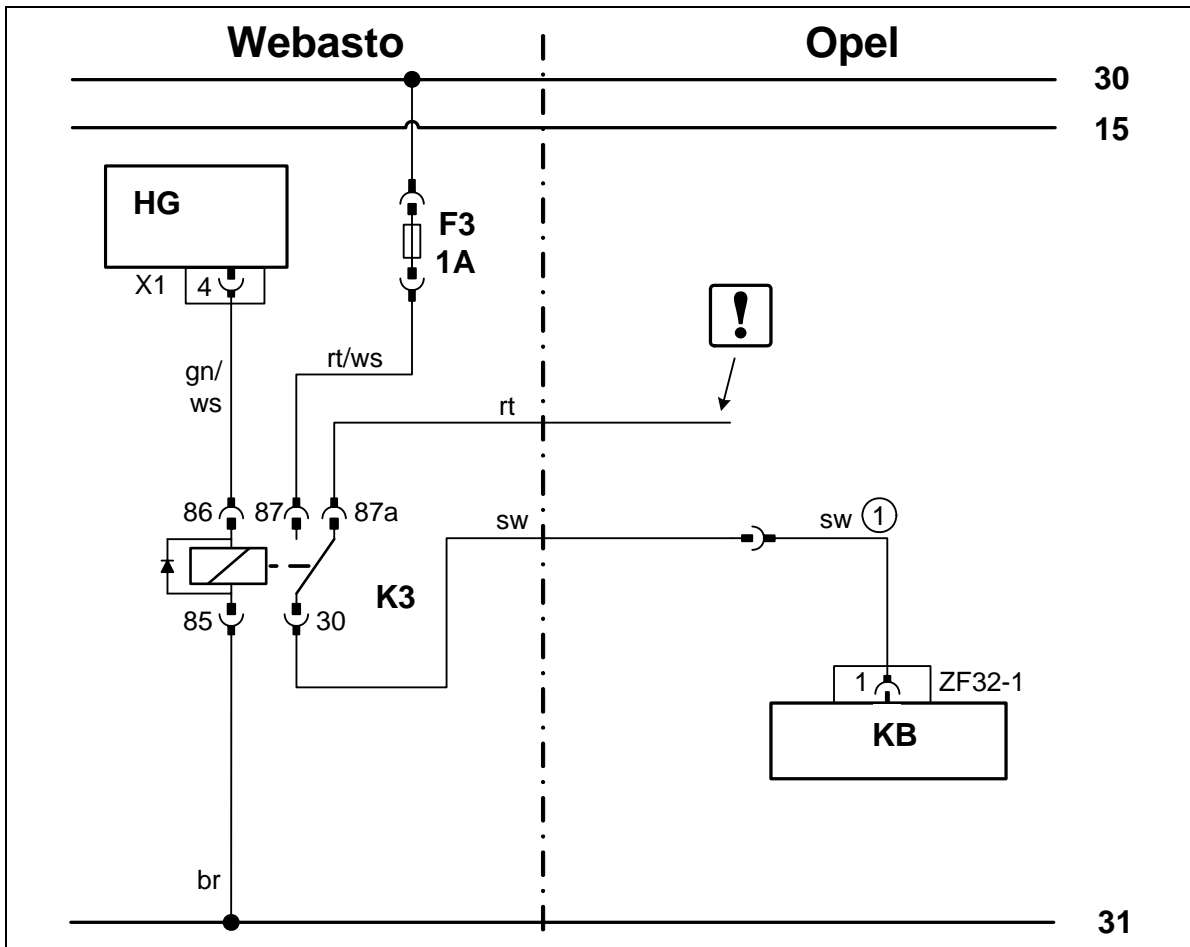
Fan controller of automatic air-conditioning (ECC and SAC)

Integration on 32-pin connector ZF 32 - 1 from A/C control panel.
Produce connections as shown in wiring diagram with blade connectors and micro-timer.


- 1 Wire section 1
- 2 32-pin connector



**Connect-
ing air-con-
ditioning
control ele-
ment**



**Wiring dia-
gram of au-
tomatic air-
condition-
ing (ECC
and SAC)**

Webasto components		Opel components		Colors and symbols	
HG	Heater unit TT-C/E	KB	Air-conditioning control panel	rt	red
X1	6-pin heater unit connector			ws	white
F3	Fuse			sw	black
K3	Fan relay			br	brown
				gn	green
					Insulate wire ends and tie back
				Wiring colors may vary.	

Legend

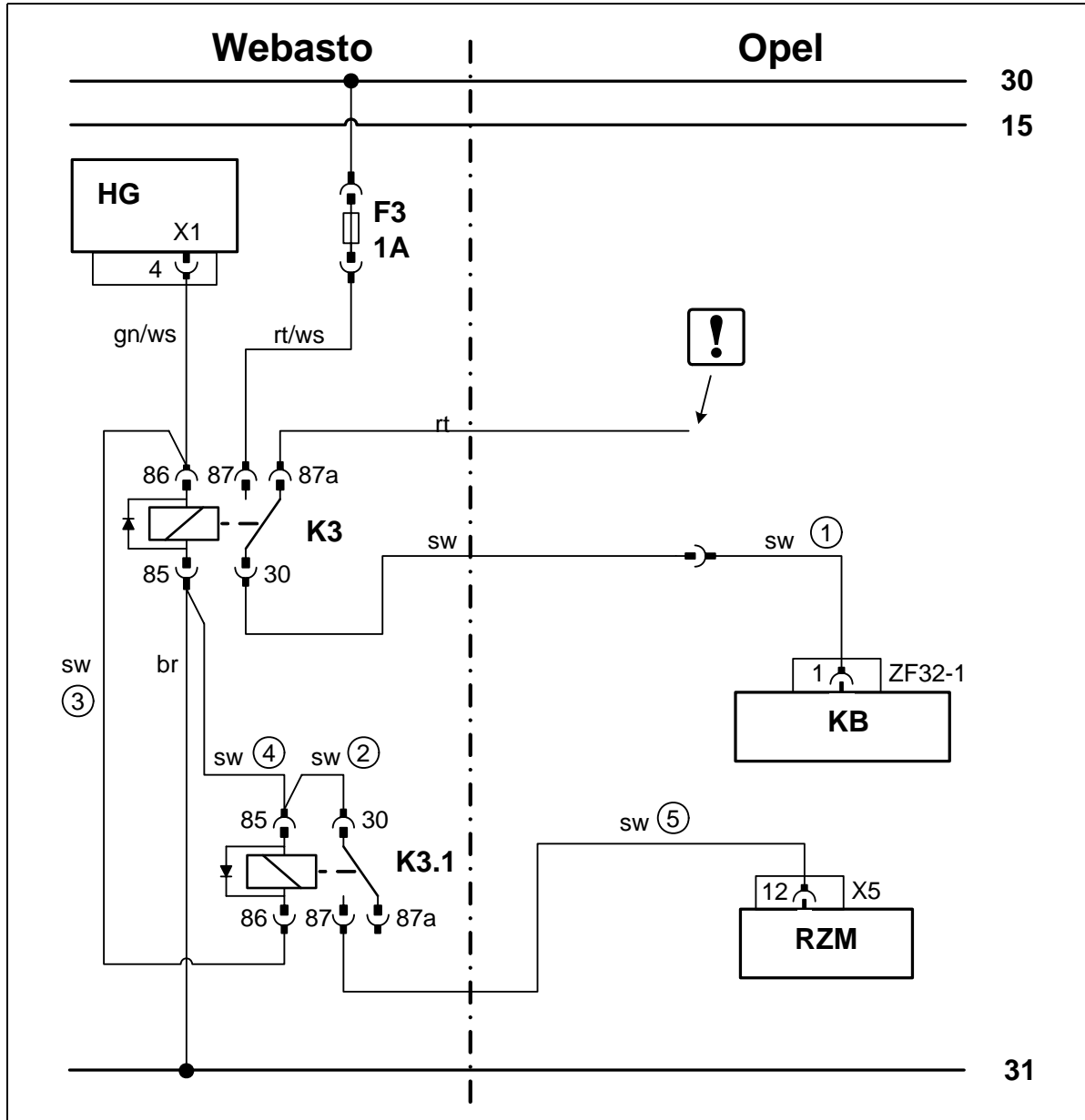


Only for automatic air-conditioning with passenger compartment monitoring (ECC and SAC)

Produce connection as shown in wiring diagram with blade connectors provided.



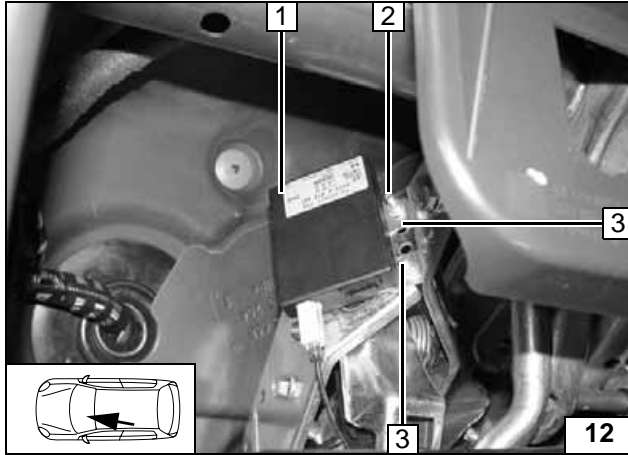
Connecting fan motor



Wiring diagram of automatic air-conditioning with passenger compartment monitoring (ECC and SAC)

Webasto components		Opel components		Colors and symbols	
HG	Heater unit TT-C/E	KB	Air-conditioning control panel	rt	red
X1	6-pin heater unit connector	RZM	Rear Zone module	ws	white
F3	Fuse			sw	black
K3	Fan relay			br	brown
K3.1	Additional relay			gn	green
					Insulate wire ends and tie back
				Wiring colors may vary.	

Legend

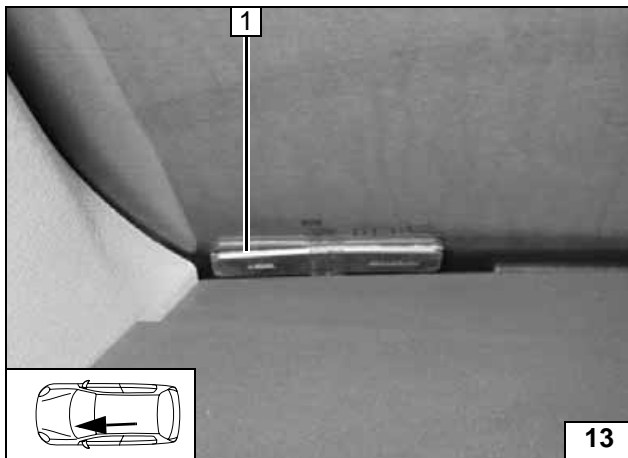


Remote option (Telestart)

- 1 Receiver
- 2 5.5 mm dia.hole, M5x12 bolt, flanged nut [2x]
- 3 Bracket

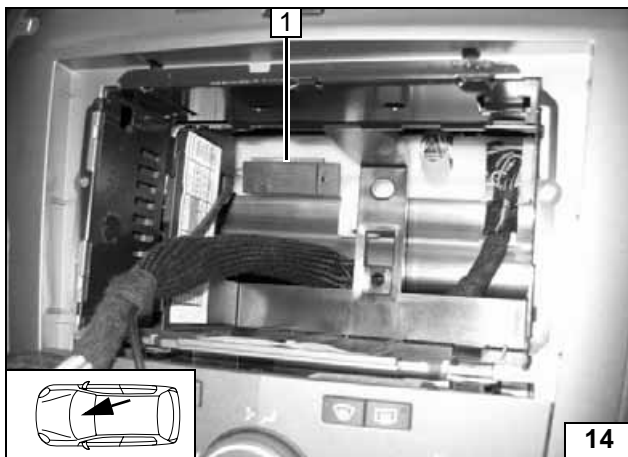


Installing receiver



- 1 Antenna

Installing antenna



Only with T100HTM

- 1 Temperature sensor T100HTM

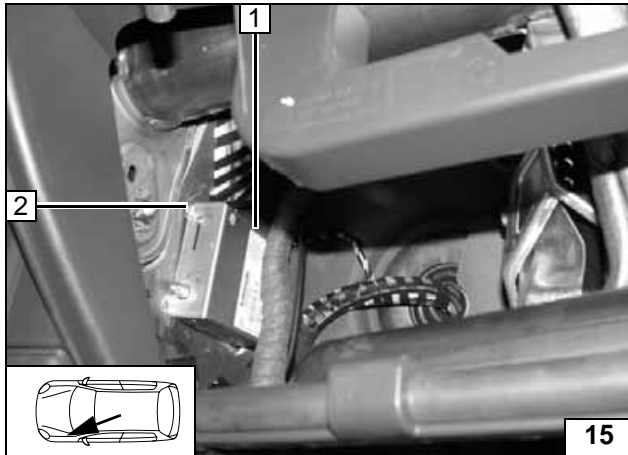


Installing temperature sensor

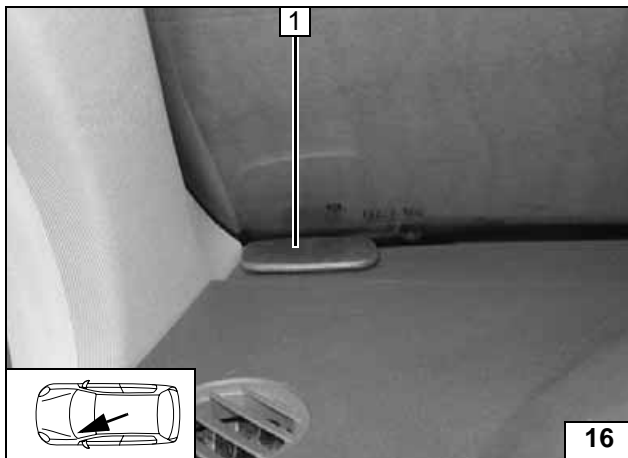


Remote option (Thermo Call)

- 1 Receiver
- 2 4 mm dia. hole, 5.5x9.5 self-tapping screw [4x]

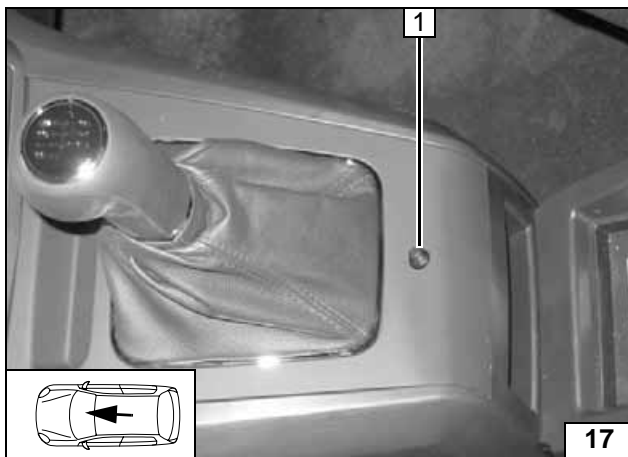


Installing receiver



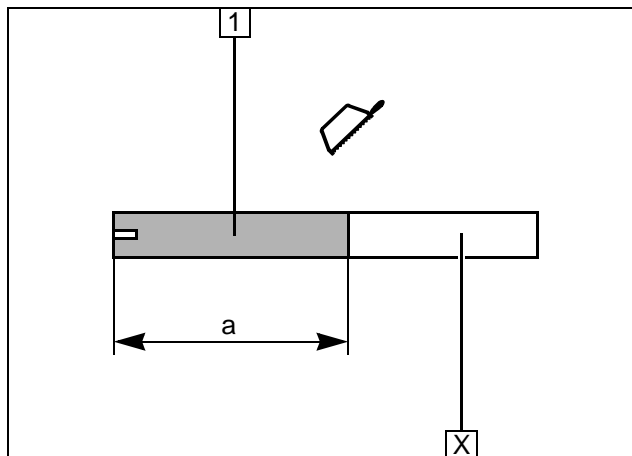
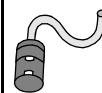
- 1 Antenna

Installing antenna



- 1 Pushbutton

Installing push button

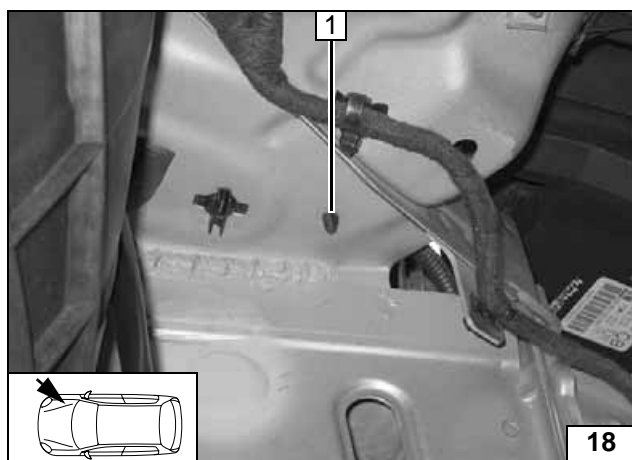


Combustion air

- 1 Combustion air pipe
a = 150 mm

Discard section X

Cutting combustion air pipe to length

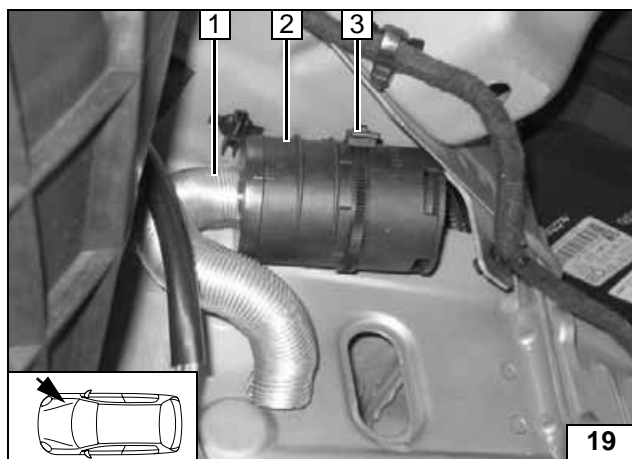


Ensure proper installation position of air intake muffler, see "Installation Instructions".

- 1 Remove retaining clip and fasten wiring harness above wheel well with cable tie

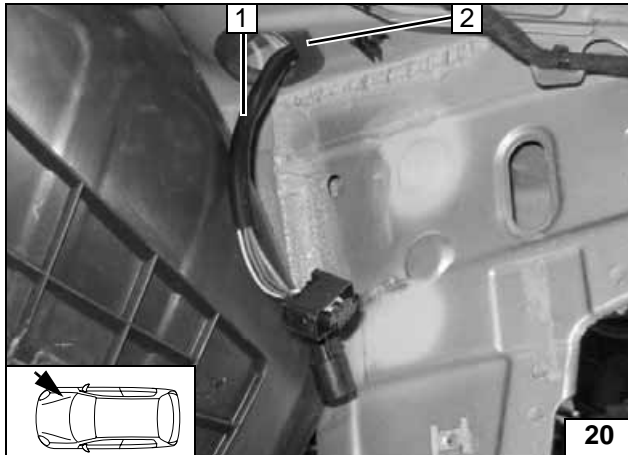
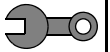


Preassembling intake muffler



- 1 Combustion-air intake hose shortened
- 2 Intake muffler
- 3 Included clip with cable tie in existing hole

Preassembling intake muffler



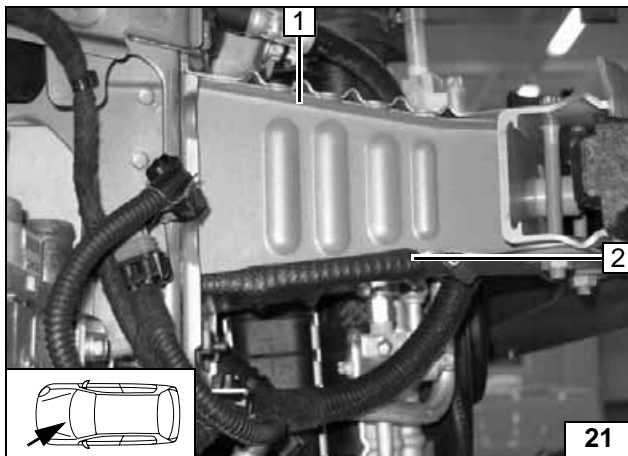
Preparing installation location

Cut included 200 mm long edge protection in center.

- 1 Wiring harness of heater unit
- 2 100 mm long edge protection

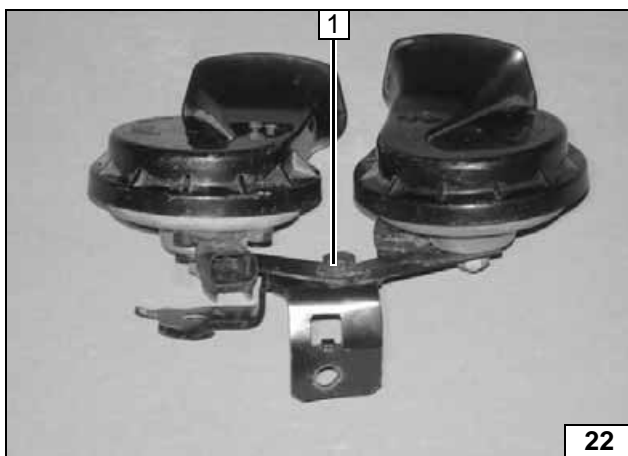


Installing edge protection



- 1 Cross member of bumper
- 2 100 mm long edge protection

Installing edge protection

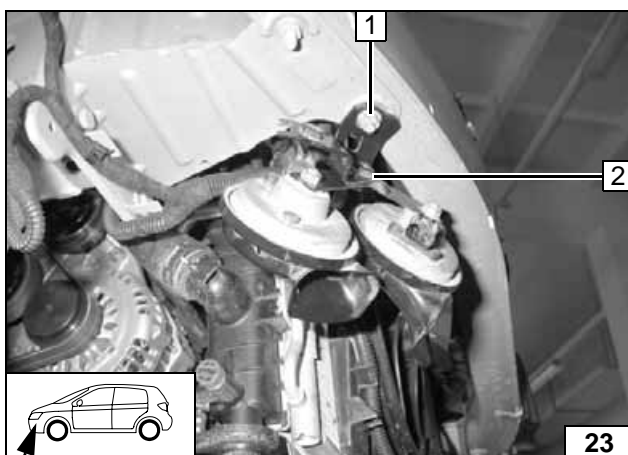


Remove the horns. Flanged nut will be reused.
With 2 horns, mount bracket as shown

- 1 Original vehicle bolt

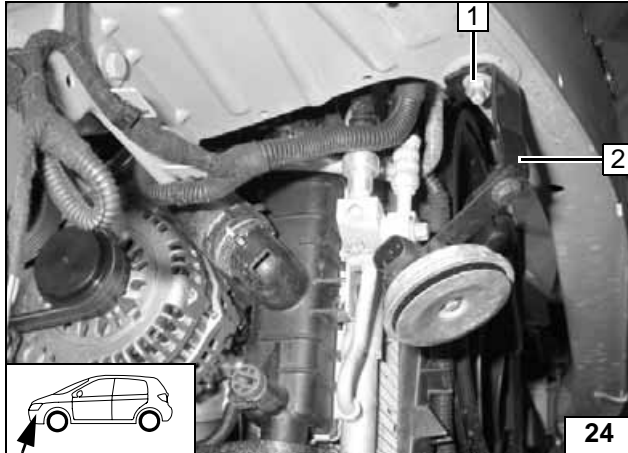
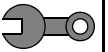


Preparing horns



- 1 Original vehicle stud bolt, flanged nut
- 2 Horn bracket

Installing horns

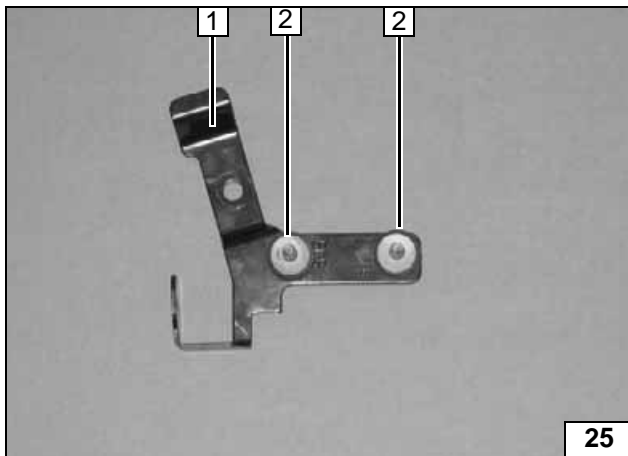


With 1 horn, mount bracket as shown. Ensure freedom of movement to adjacent components.

- 1 Original vehicle stud bolt, flanged nut
- 2 Horn bracket



Installing horns

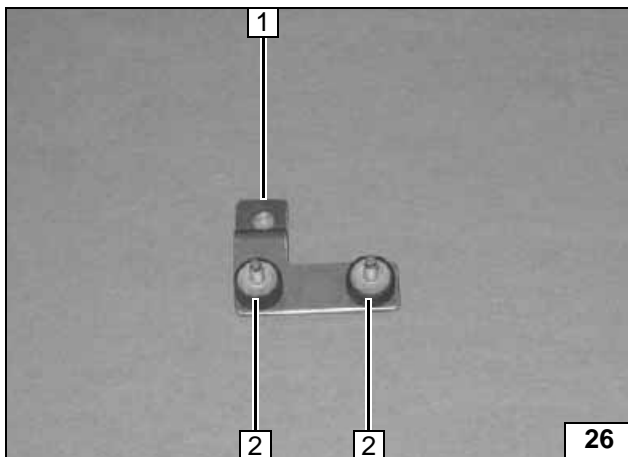


Only for 1.9 liter diesel vehicles

- 2 Screw out silent block
- 1 Discard original vehicle bracket of vacuum valve

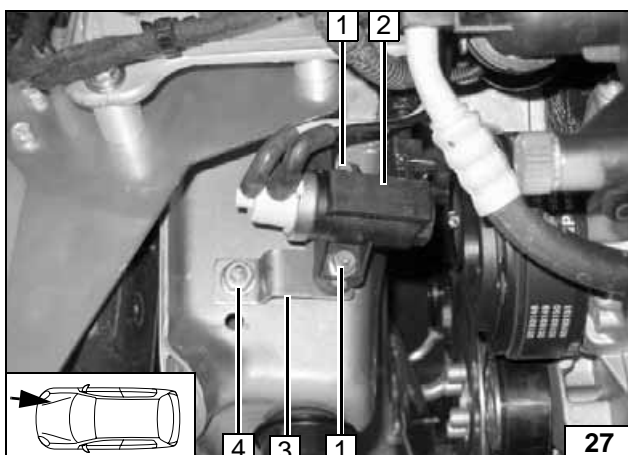


Removing bracket of vacuum valve



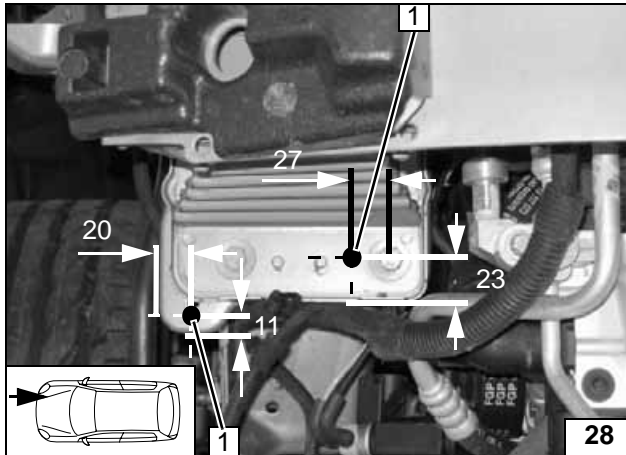
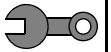
- 1 Bracket of vacuum valve (Opel Number: 9268928)
- 2 Screw in silent block [2x]

Complete bracket of vacuum valve



- 3 Bracket of vacuum valve
- 4 Original vehicle stud bolt, flanged nut of horn bracket
- 2 Vacuum valve
- 1 Original vehicle flanged nuts

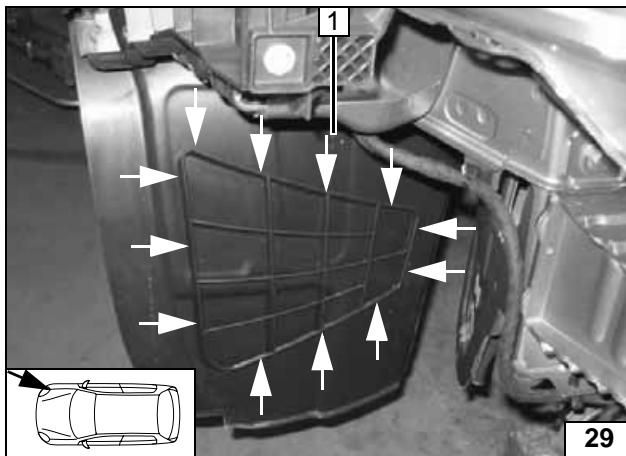
Installing vacuum valve



Dimensions in mm!

1 7 mm dia. hole [2x]

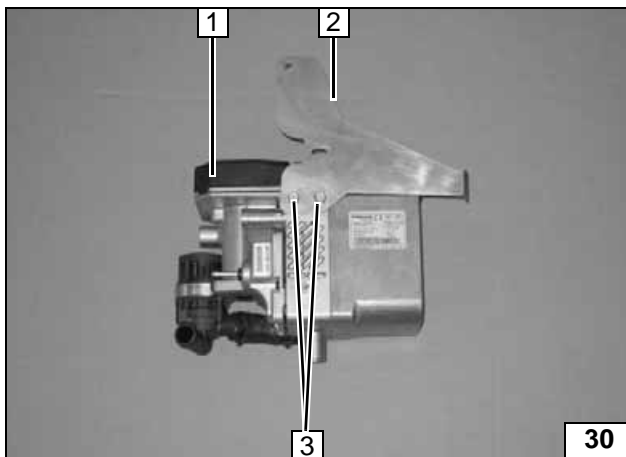
Preparing
installation
location



Completely remove embossed grid on wheel well trim.

1 Wheel well trim

Mounting
rubber
isolator

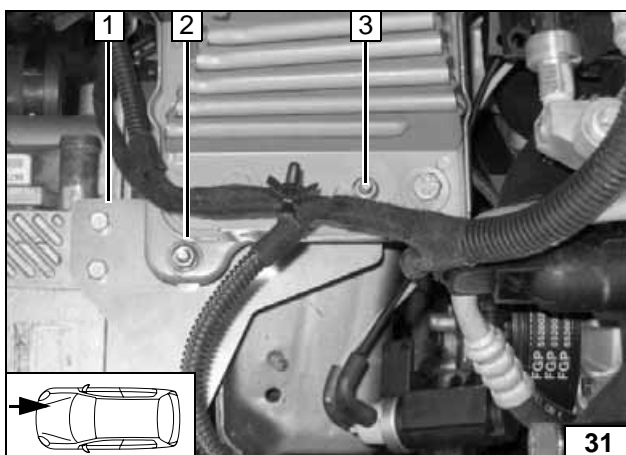


Preparing heater unit

Tighten E-JOT screws to 10 Nm!

1 Heater unit
2 Bracket
3 E-jot screw [2x]

Preparing
heater unit



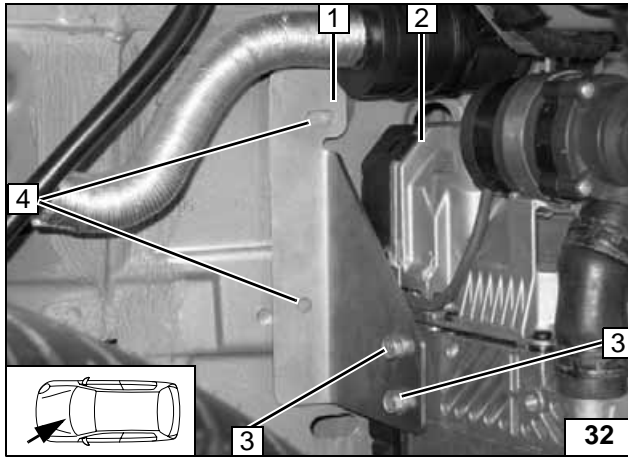
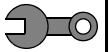
Installing heater unit

Install 30 mm long spacer sleeve between bracket and body

1 Pre-mounted bracket
2 M6x50 bolt, large diameter washer, outside 22 mm, 30 mm long spacer sleeve, large diameter washer, outside 17.6 mm, M6 flanged nut
3 M6x50 bolt, 30 mm long spacer sleeve, M6 flanged nut

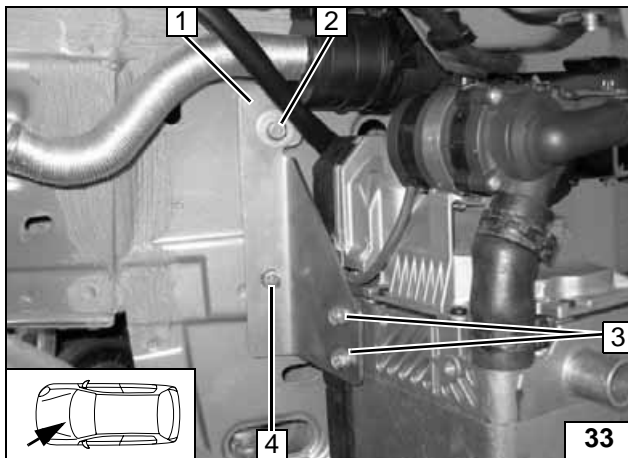
Preparing
heater unit





- 1 Loosely mount bracket
- 2 Heater unit
- 3 E-jot screw [2x]
- 4 Copy hole pattern, drill 9 mm hole [2x]

Preparing
heater unit

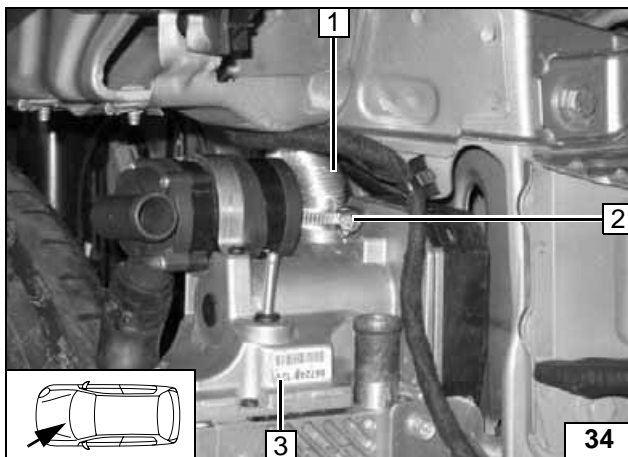


Install bracket **1** on heater unit again.
Tighten E-JOT screws to 10 Nm!

- 2 M6x20 bolt, spring lockwasher, large diameter washer, M6 rivet nut
- 3 E-jot screw [2x]
- 4 M6x20 screw, spring lock washer, M6 rivet nut



Installing
heater unit



- 1 Flexible tube
- 2 27 mm dia. clamp
- 3 Heater unit

Installing
combustion-air
intake pipe



Water

WARNING!

Tighten all hose clamps to 2.0 + 0.5 Nm.

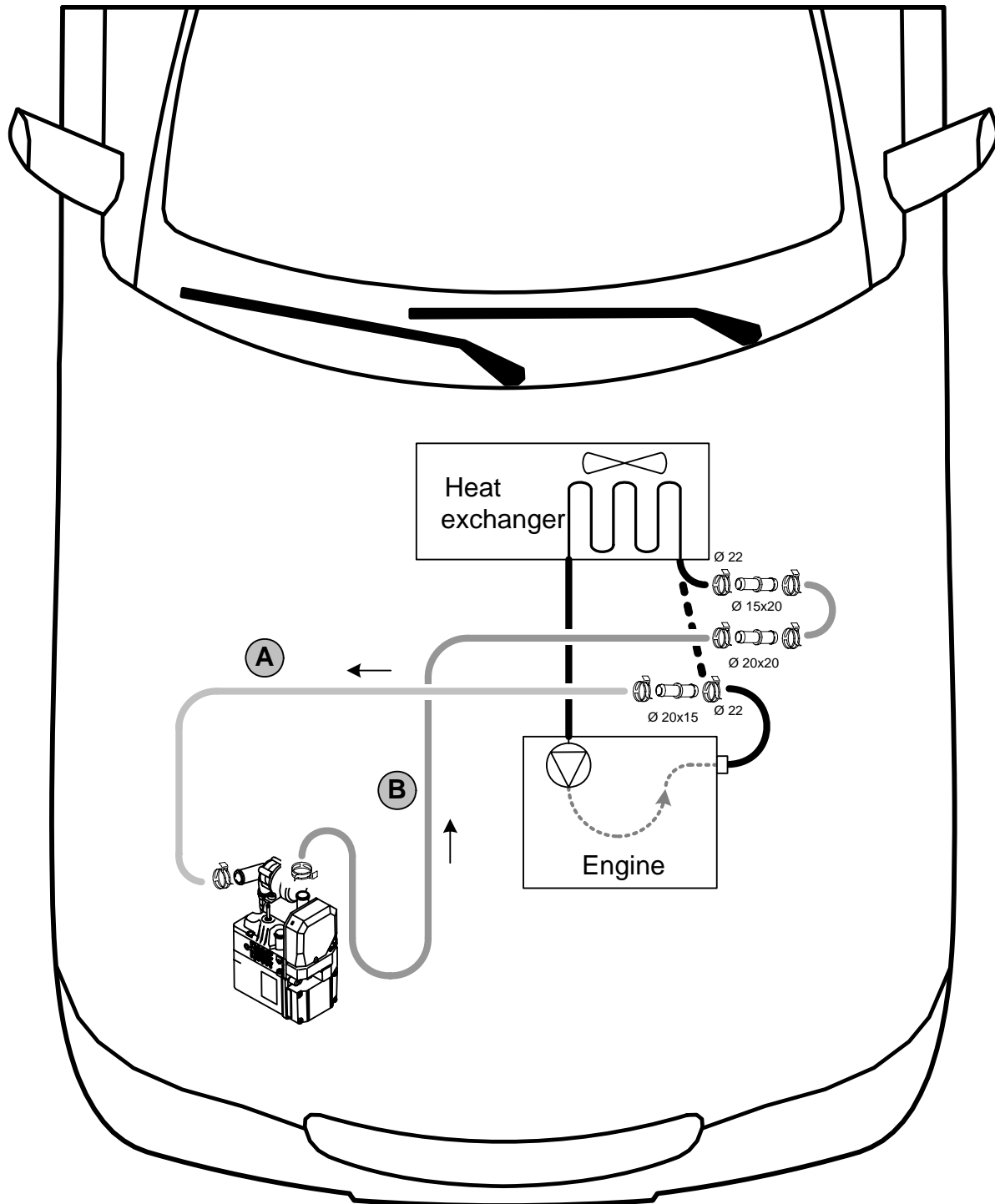
Any cold water running off should be collected using an appropriate container!

Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties.

Position hose clamps and spring band clamps so that no other hose can be damaged.

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

1.6 liter gasoline



All clamps without a specific designation = 27 mm dia. spring clips!

Coolant routing diagram

**WARNING!**

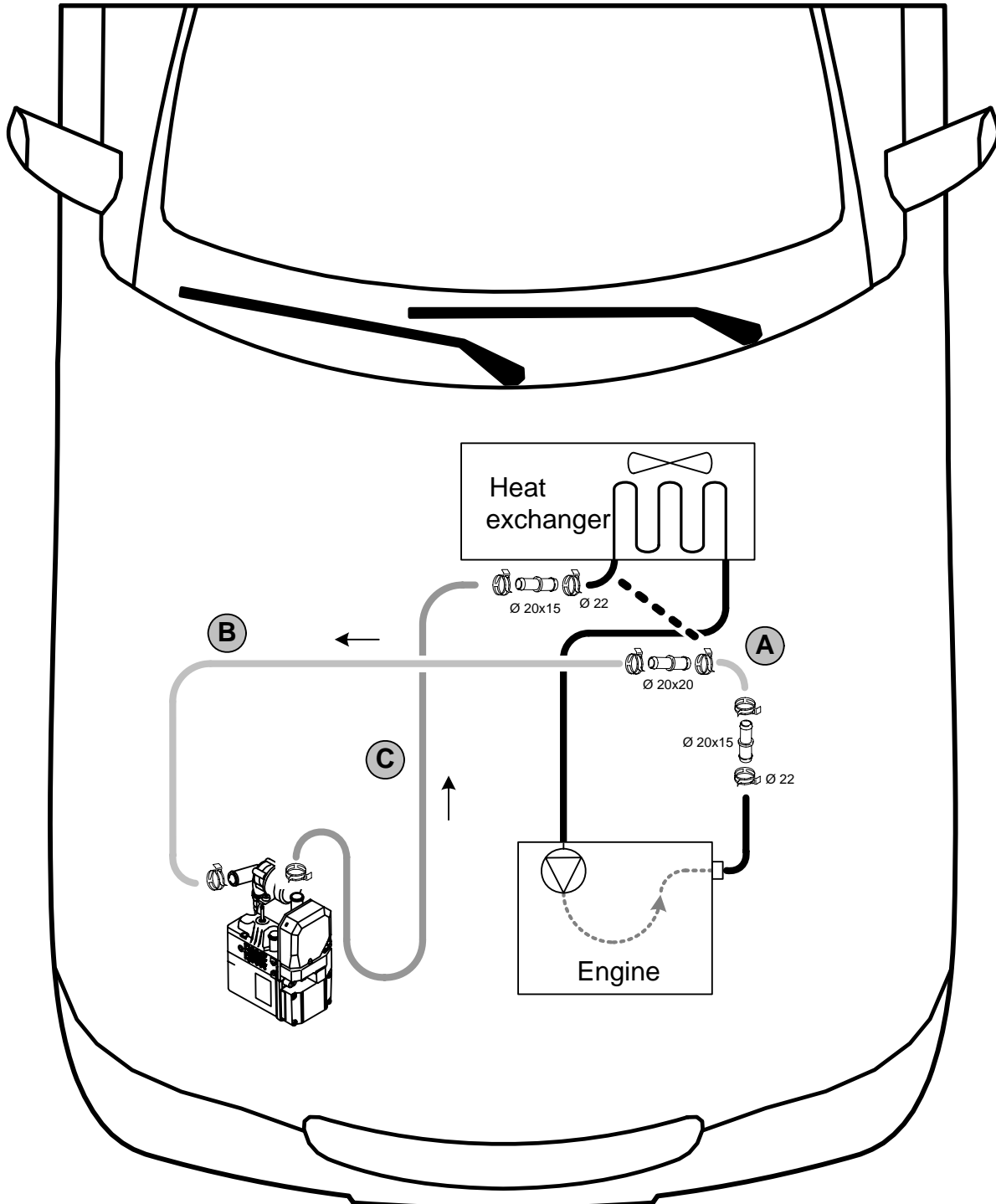
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any cold water 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 hose clamps and spring band clamps so that no other hose can be damaged.

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

1.8 liter gasoline

Coolant routing diagram

All clamps without a specific designation = 27 mm dia. spring clips!

**WARNING!**

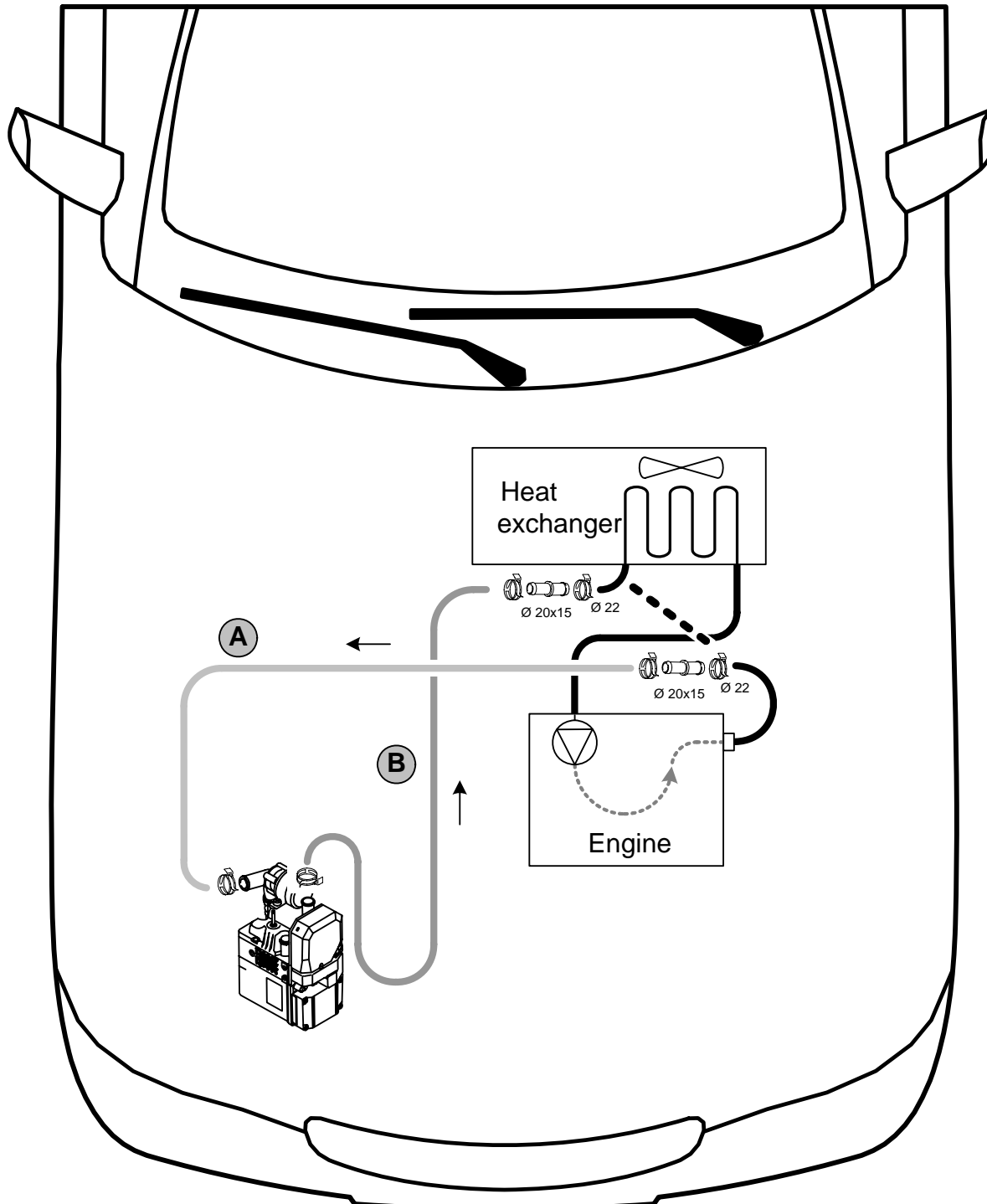
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any cold water 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 hose clamps and spring band clamps so that no other hose can be damaged.

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

2.0 liter gasoline

Coolant routing diagram

All clamps without a specific designation = 27 mm dia. spring clips!



**WARNING!**

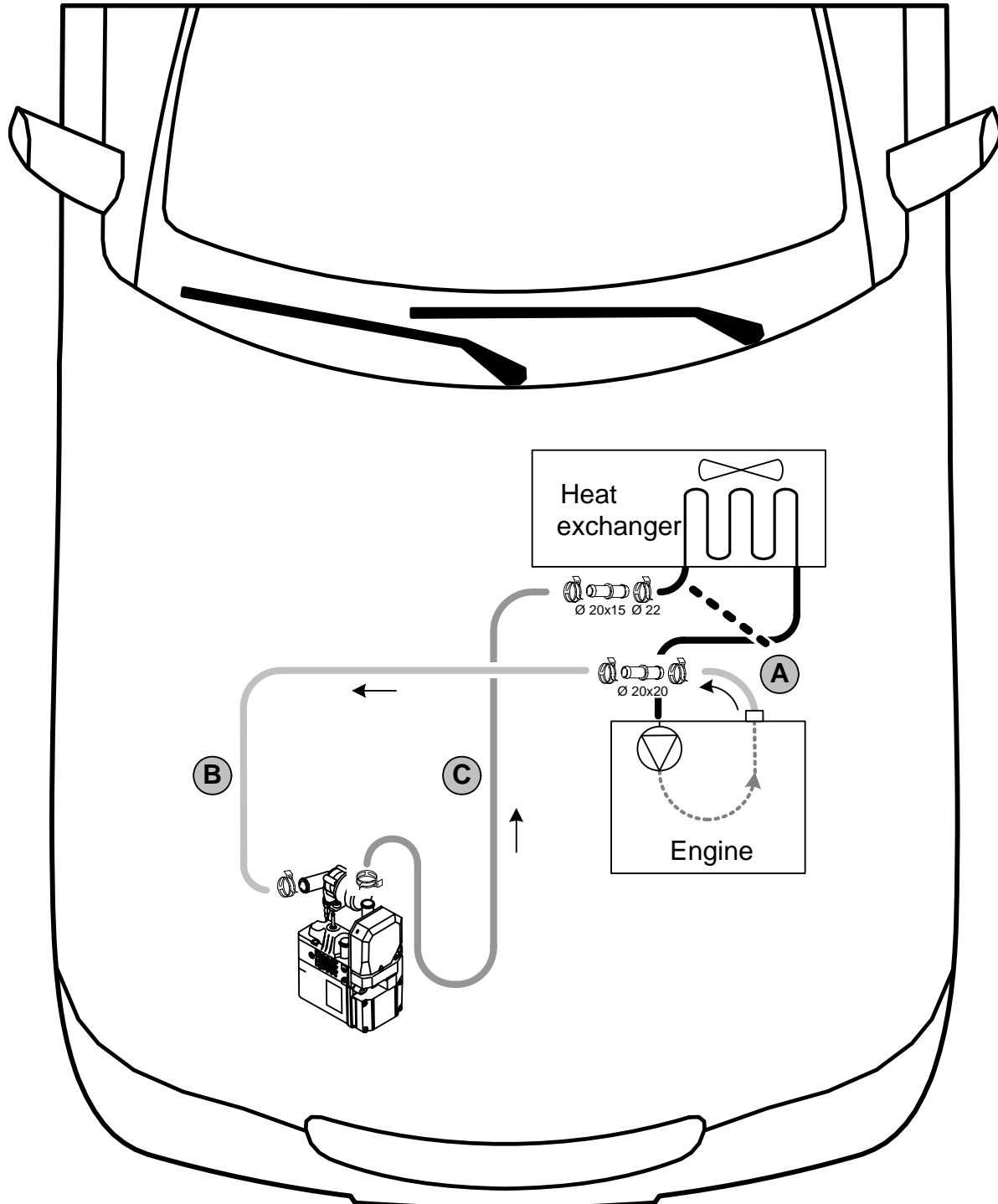
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any cold water 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 hose clamps and spring band clamps so that no other hose can be damaged.

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

2.2 liter gasoline

Coolant routing diagram

All clamps without a specific designation = 27 mm dia. spring clips!

**WARNING!**

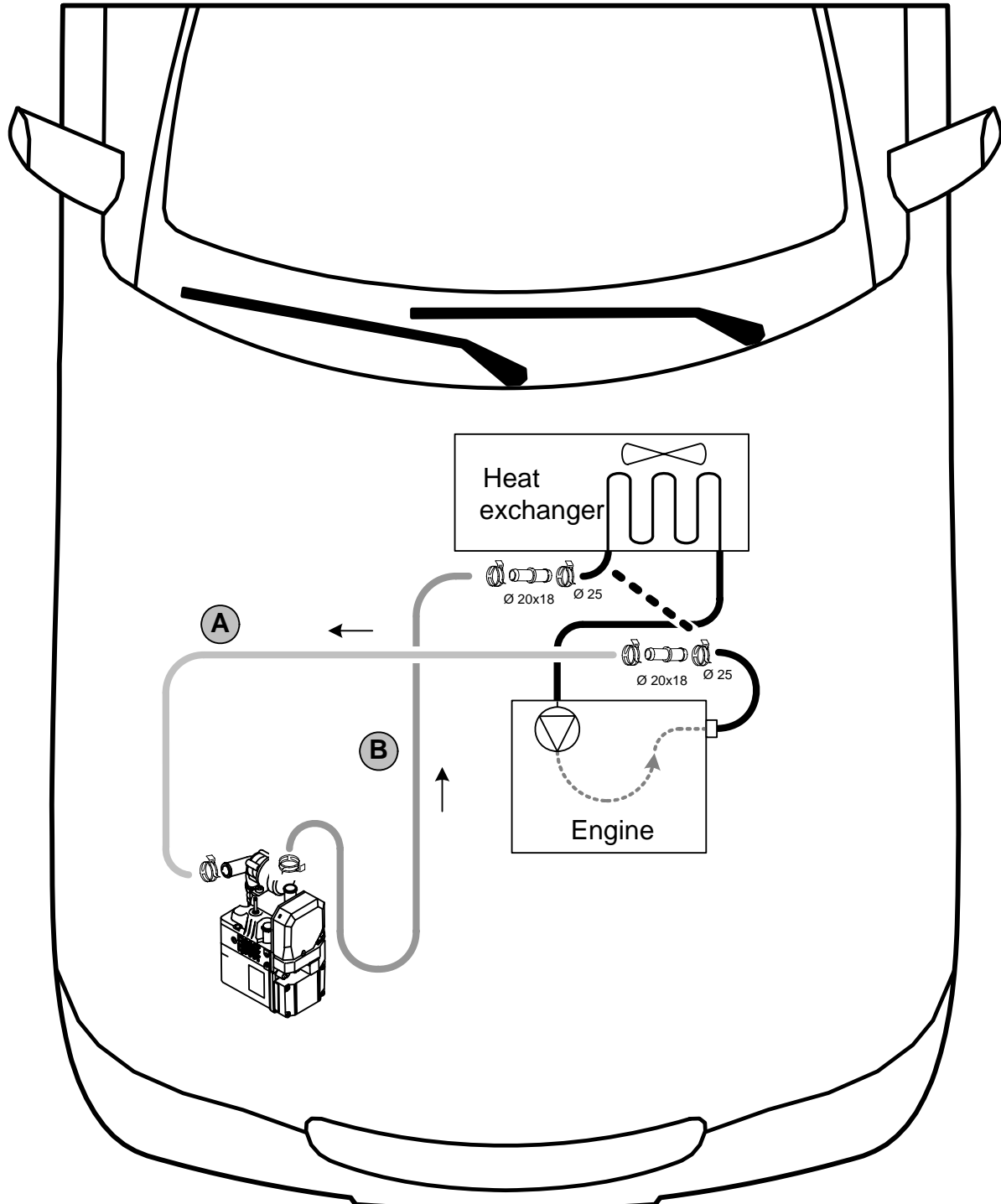
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any cold water 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 hose clamps and spring band clamps so that no other hose can be damaged.

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

1.9 liter diesel

Coolant routing diagram

All clamps without a specific designation = 27 mm dia. spring clips!

**WARNING!**

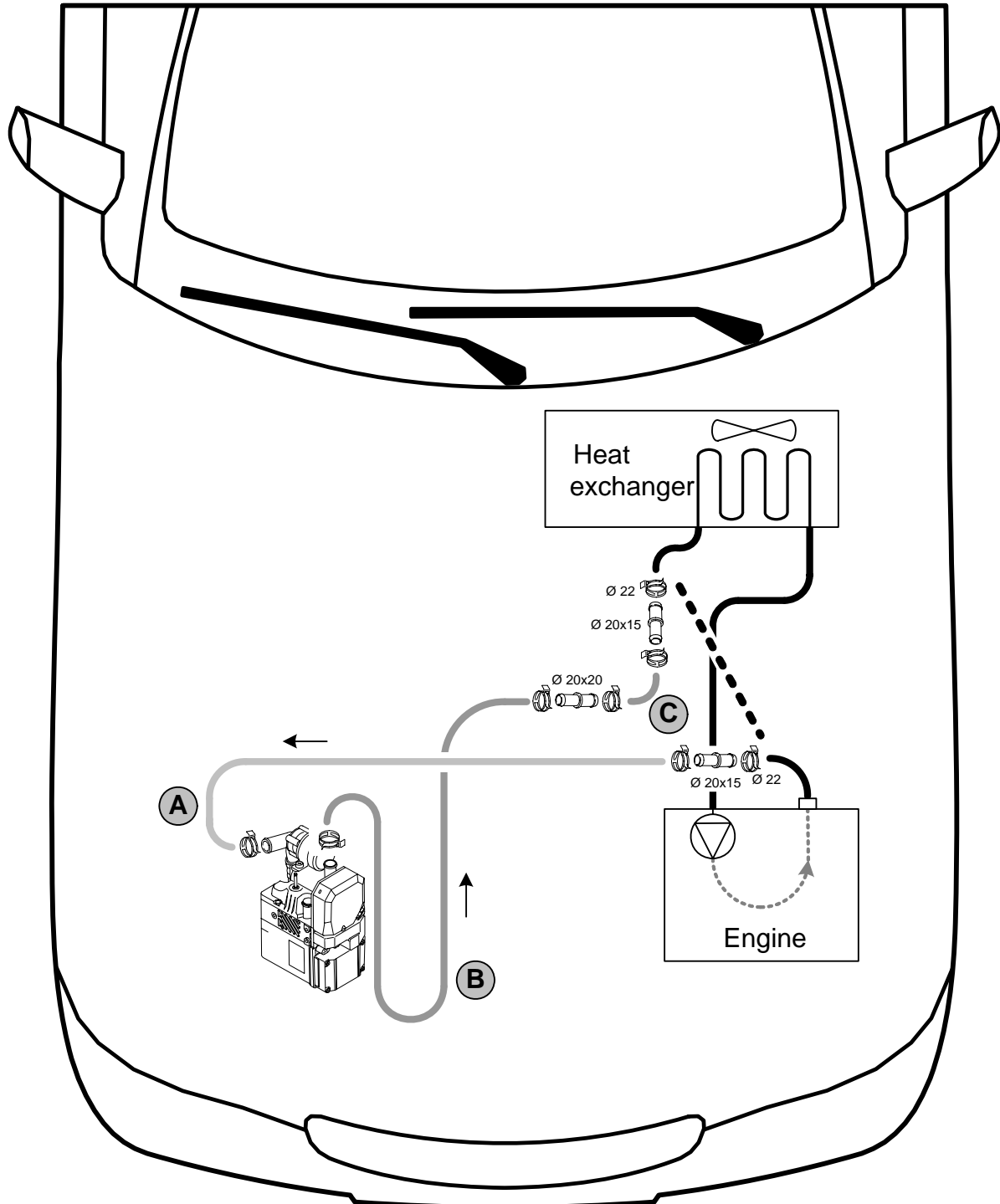
Tighten all hose clamps to 2.0 + 0.5 Nm.

Any cold water 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.

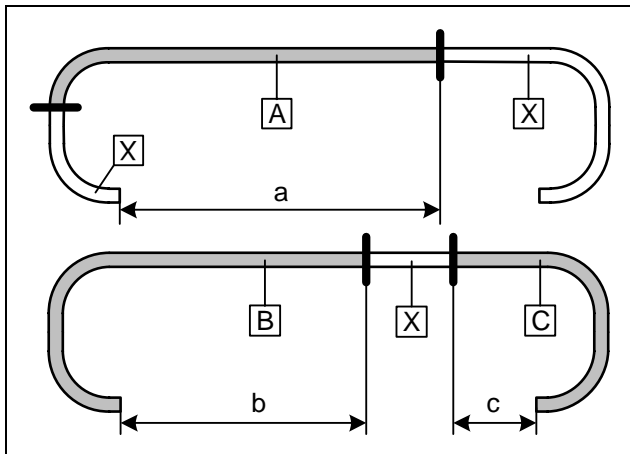
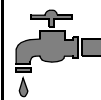
Position hose clamps and spring band clamps so that no other hose can be damaged.

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

1.7 liter diesel

Coolant routing diagram

All clamps without a specific designation = 27 mm dia. spring clips!



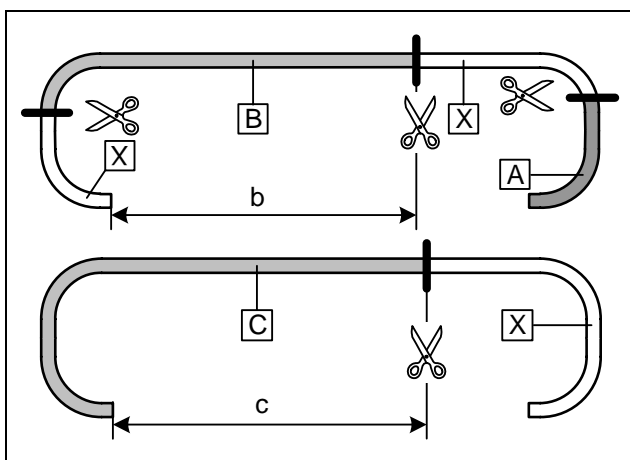
Cut hoses to length

1.6 liter gasoline

a = 1,500 mm
b = 1,250 mm
c = 100 mm

Discard section **X**

Cutting coolant hoses to length



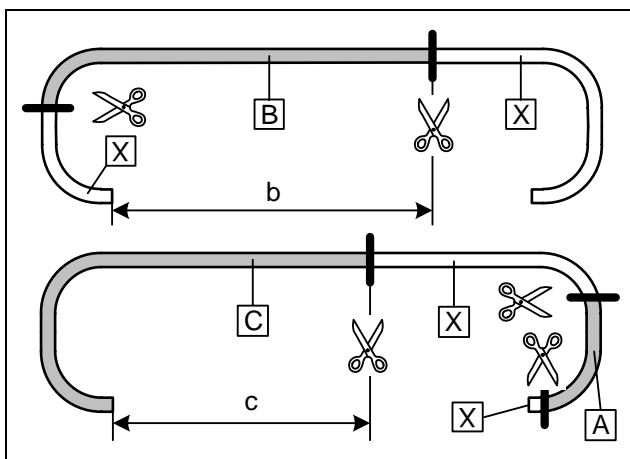
1.8 liter gasoline

b = 1,500 mm
c = 1,150 mm

Discard section **X**



Cutting coolant hoses to length



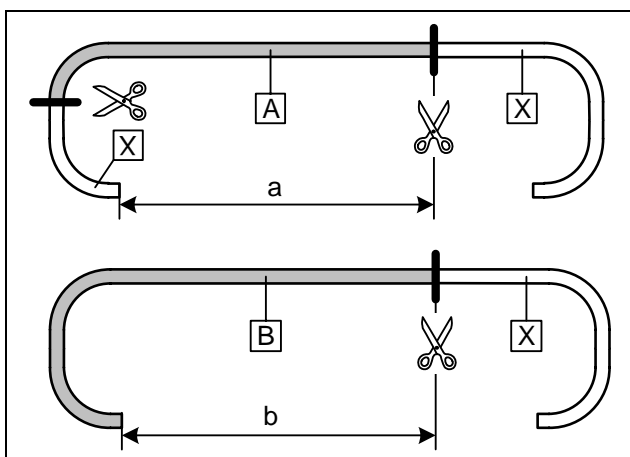
2.2 liter gasoline

Shorten hose section **A** according to diagram
b = 1,570 mm
c = 1,350 mm

Discard section **X**



Cutting coolant hoses to length



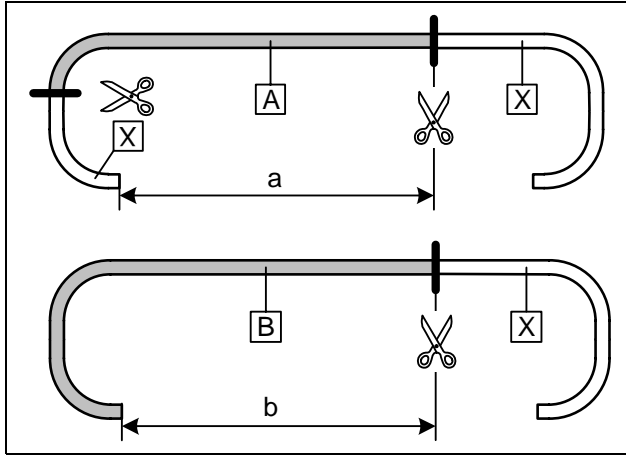
2.0 liter gasoline

a = 1,500 mm
b = 1,250 mm

Discard section **X**



Cutting coolant hoses to length



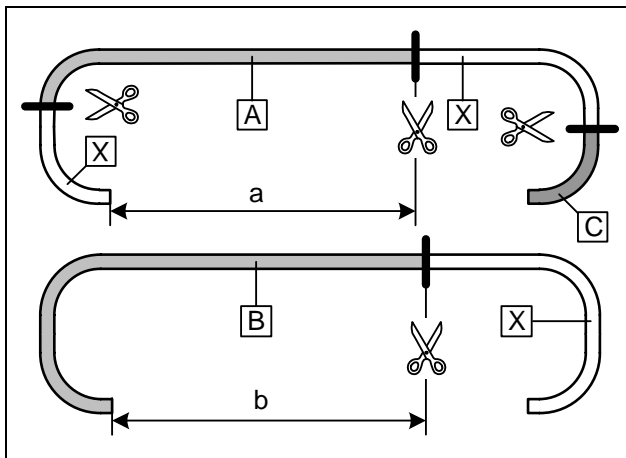
1.9 liter diesel

a = 1,750 mm
b = 1,350 mm

Discard section X



Cutting coolant hoses to length



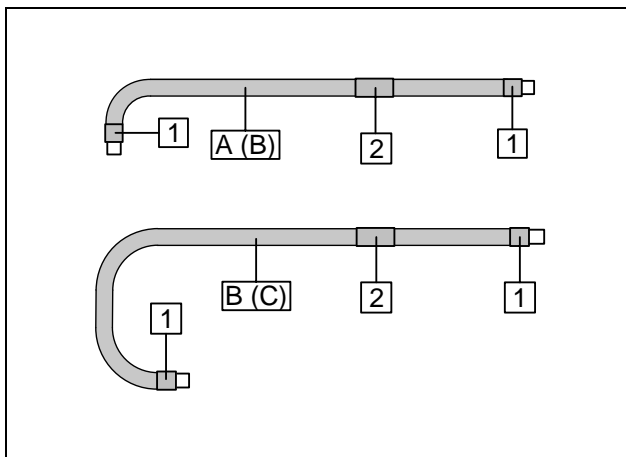
1.7 liter diesel

a = 1,530 mm
b = 1,250 mm

Discard section X



Cutting coolant hoses to length



Braided protection

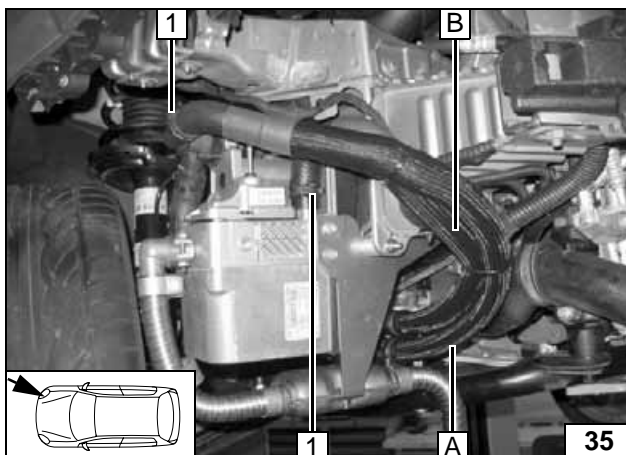
All vehicles

Cut one of the included braided protection hoses and 2 pieces of heat shrink plastic tubing in half. Mount braided protection hoses as shown and shrink.

- 1 Heat shrink plastic tubing cut in half
- 2 Heat shrink plastic tubing completely at cutting point



Mounting braided protection hose

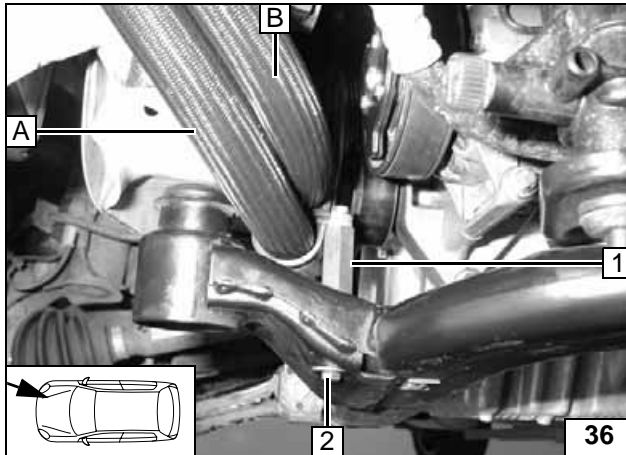


Routing

All vehicles

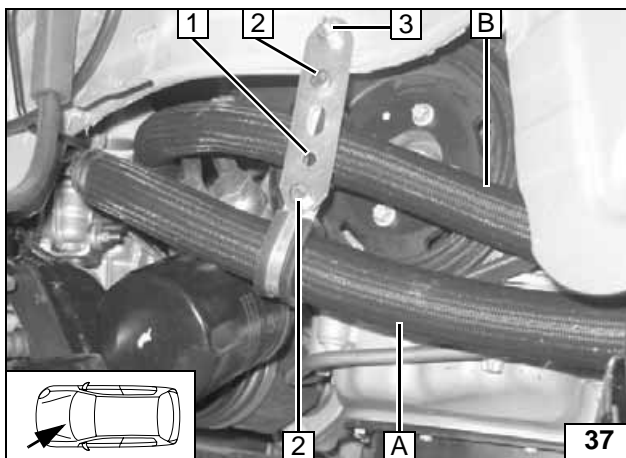
- 1 27 mm dia. hose clamp [2x]

Connection on heater unit



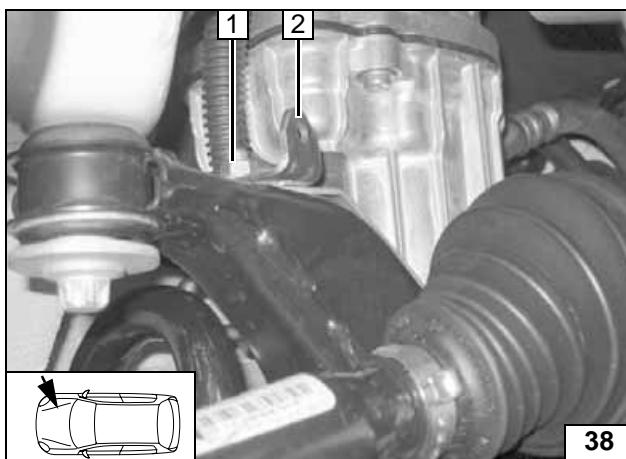
- 1 40 mm spacer nut, rubber-coated p-clamp [2x], M6x20 bolt, spring lockwasher
- 2 M6x50 bolt, spring lockwasher, large diameter washer

**Fastening
on engine
support**



- 1 Perforated bracket
- 3 M6x20 bolt (from inside to outside), large diameter washer, flanged nut
- 2 M6x20 bolt (from outside to inside), rubber-coated p-clamp, flanged nut [2x]

**Fastening
on engine
support**

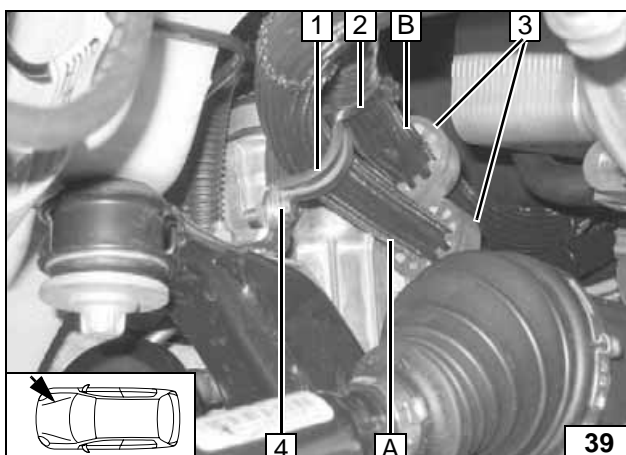


1.6 liter ; 1.8 liter; 2.0 liter gasoline and 1.9 liter diesel

- 1 Original vehicle nut
- 2 Angle bracket

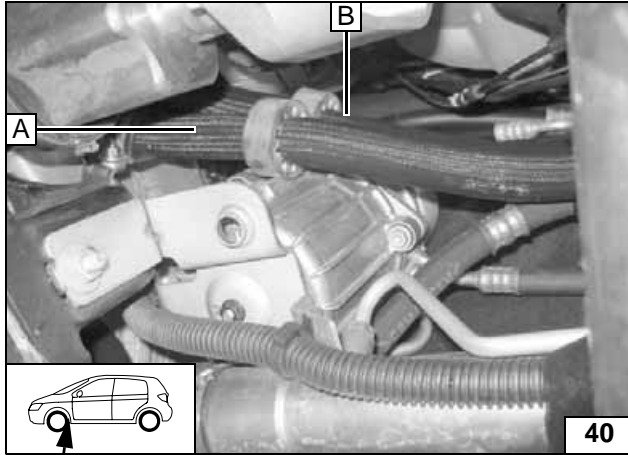


**Routing in
engine
compartment**



- 1 Rubber-coated pipe clamp
- 4 M6x20 bolt, flanged nut
- 2 Cable tie
- 3 Black (sw) rubber profile [2x]

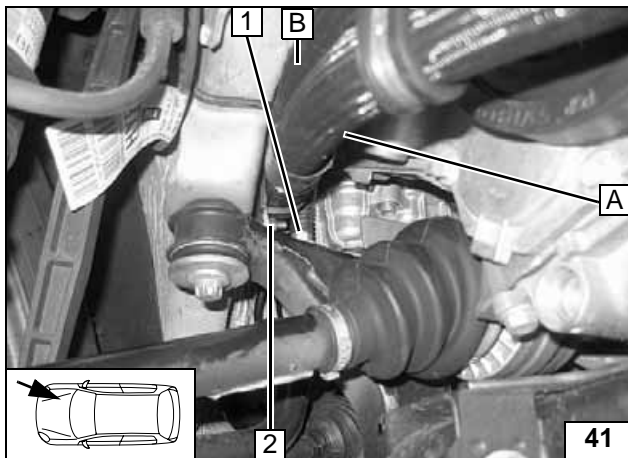
**Routing in
engine
compartment**



Position rubber profile as shown in picture.



Routing in engine compartment

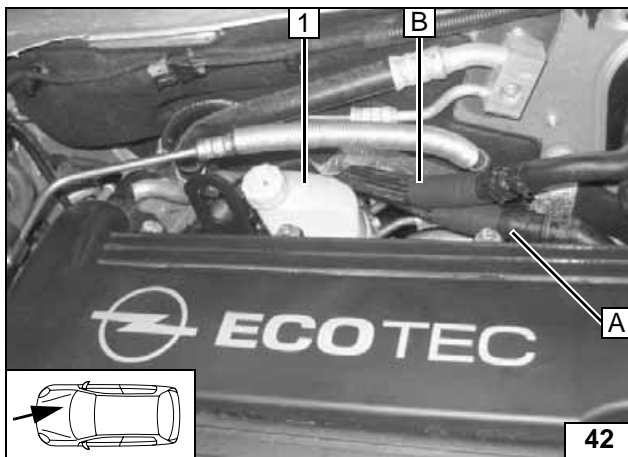


2.2 liter gasoline

- 2 M6x20 bolt, rubber-coated p-clamp, angle bracket, flanged nut
- 1 Original vehicle bolt

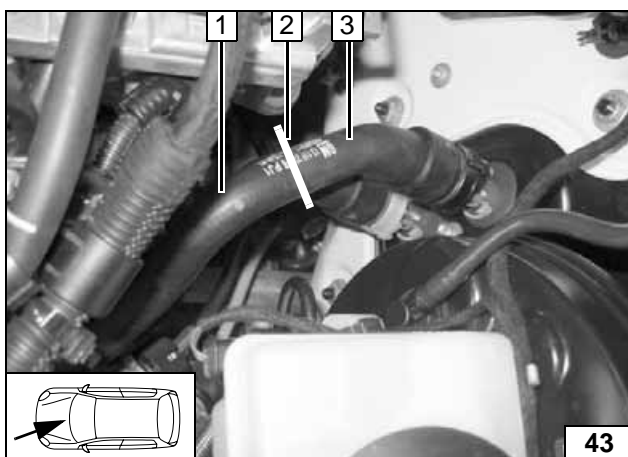


Routing in engine compartment



1 Servopump

Routing in engine compartment

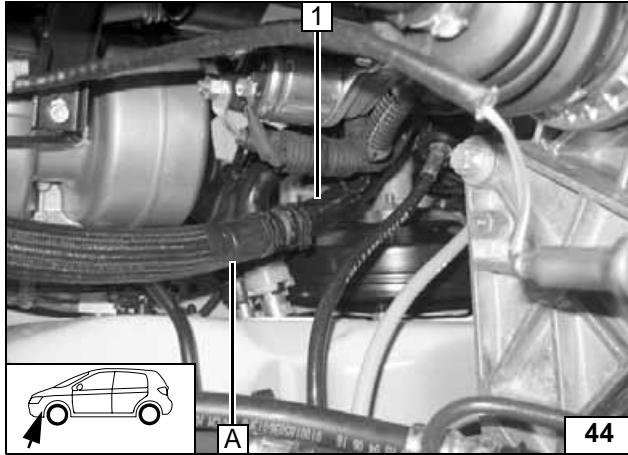


1.6 liter gasoline

- 1 Hose of engine outlet
- 2 Cutting point
- 3 Hose section of heat exchanger inlet

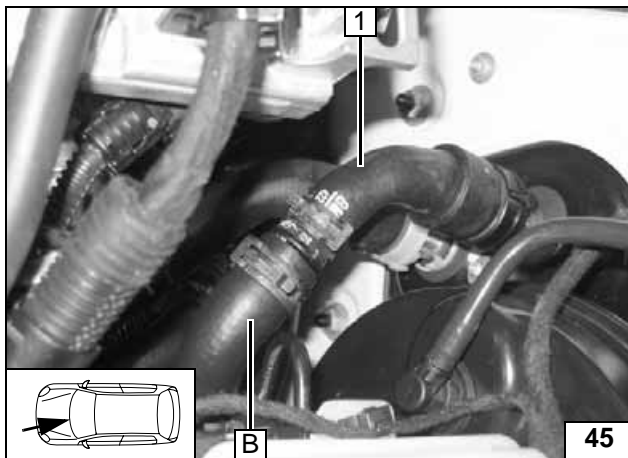


Cutting point



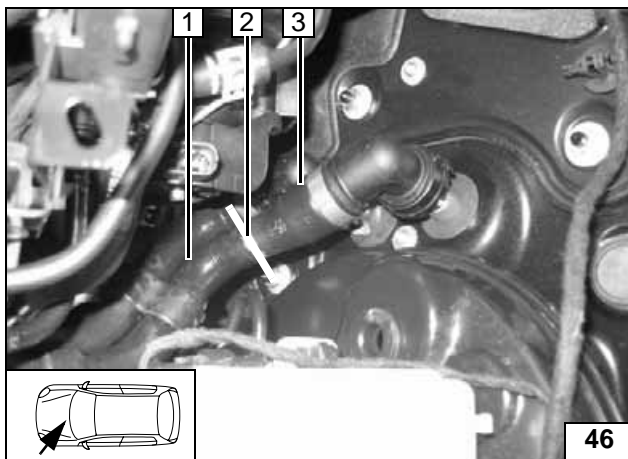
1 Hose of engine outlet

Conne-
ction to en-
gine outlet



1 Hose section of heat exchanger inlet

Conne-
ction on
heat ex-
changer in-
let

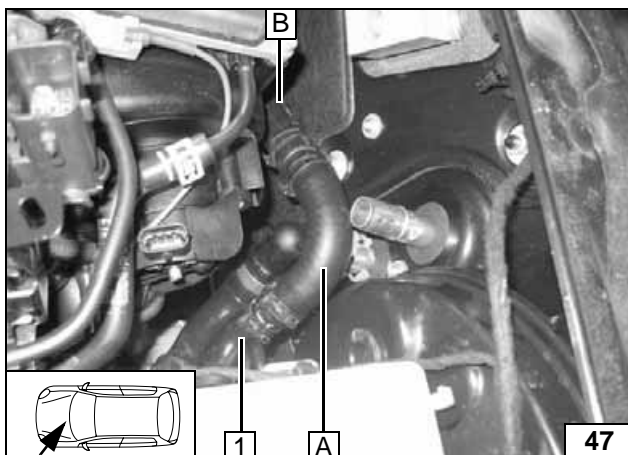


1.8 liter gasoline

- 1 Hose of engine outlet
- 2 Cutting point
- 3 Hose section of heat exchanger inlet

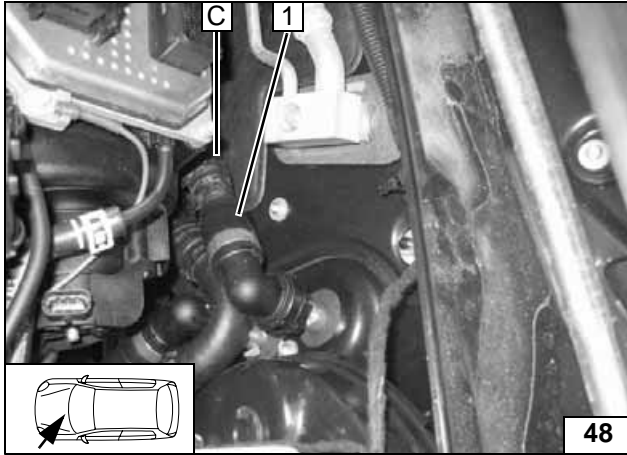


Cutting
point



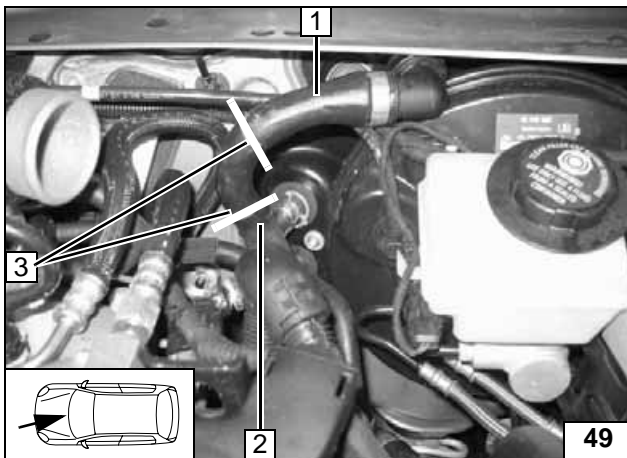
1 Hose of engine outlet

Conne-
ction to en-
gine outlet



1 Hose section of heat exchanger inlet

Connec-
tion on
heat ex-
changer in-
let



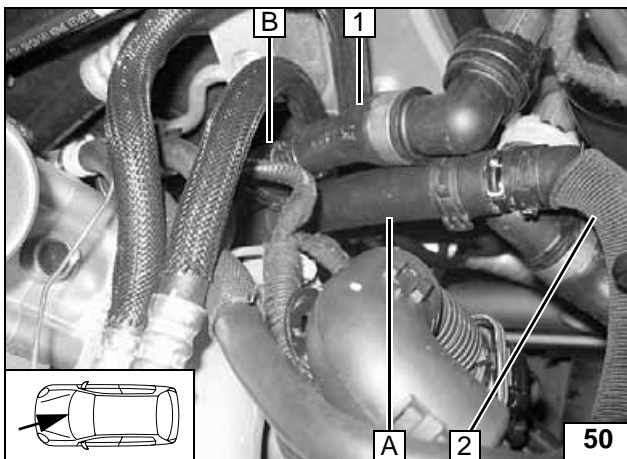
2.0 liter gasoline

Hose has been disconnected from heat exchanger inlet!

- 1 Hose section of heat exchanger inlet
- 2 Hose of engine outlet
- 3 Cutting point [2x]

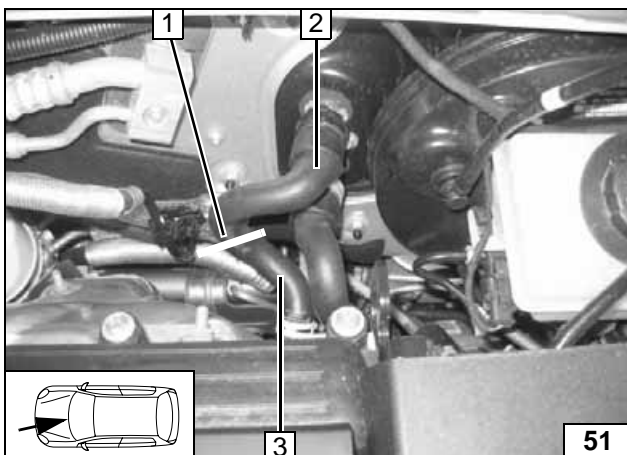


Cutting
point



- 1 Hose section of heat exchanger inlet
- 2 Hose of engine outlet

Connec-
tion on en-
gine out-
let and heat
exchanger
inlet

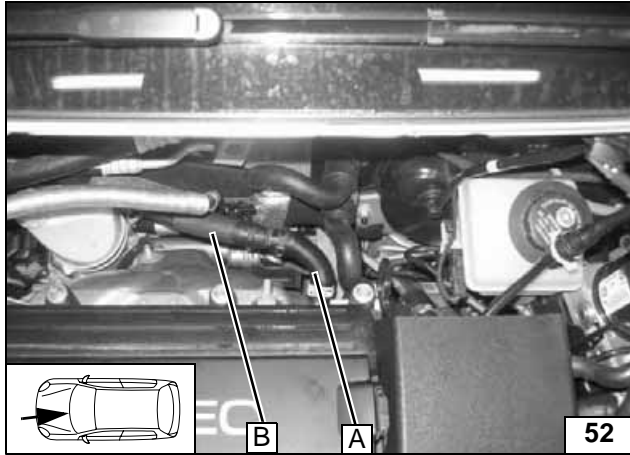


2.2 liter gasoline

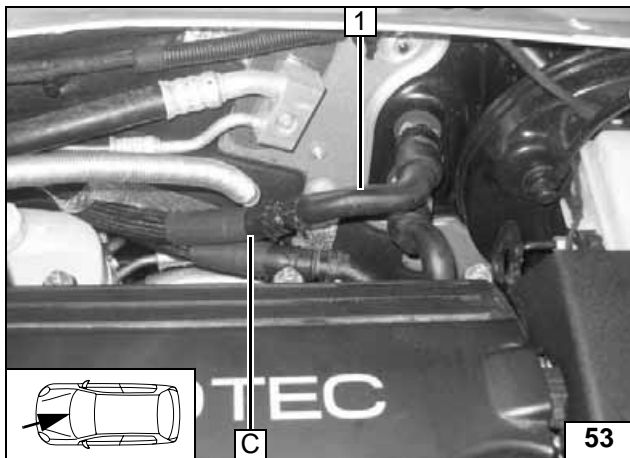
- 1 Cutting point
- 2 Hose section of heat exchanger inlet
- 3 Discard hose on engine outlet, original vehicle clamp will be reused



Cutting
point

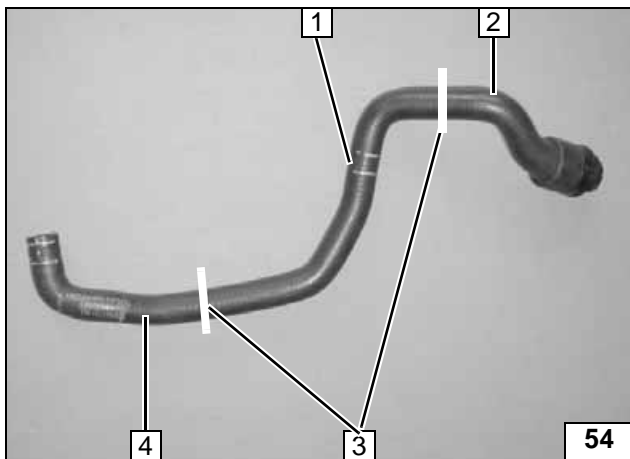


Conne-
tion to en-
gine outlet



1 Hose section of heat exchanger inlet

Conne-
tion on
heat ex-
changer in-
let



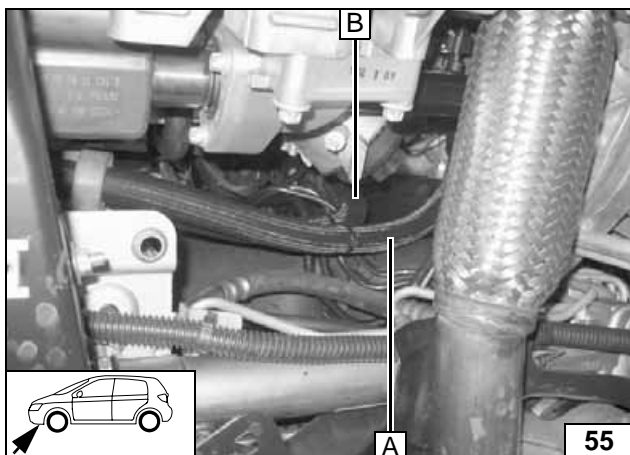
1.9 liter diesel

Remove hose 1 from engine outlet/heat exchanger inlet.

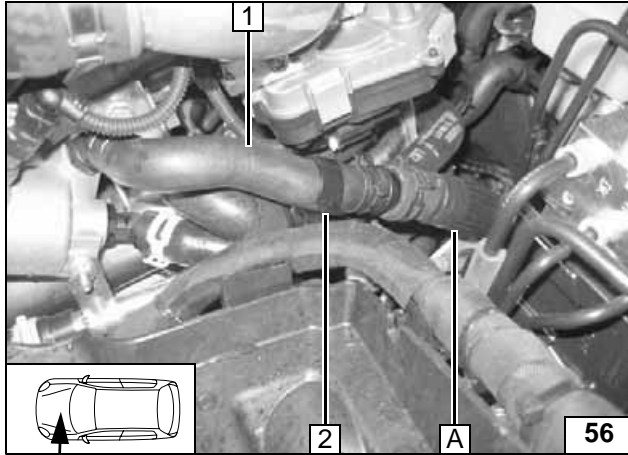
- 3 Cutting point [2x]
- 1 Discard hose section
- 2 Hose section of heat exchanger inlet
- 4 Hose of engine outlet



Cutting
point

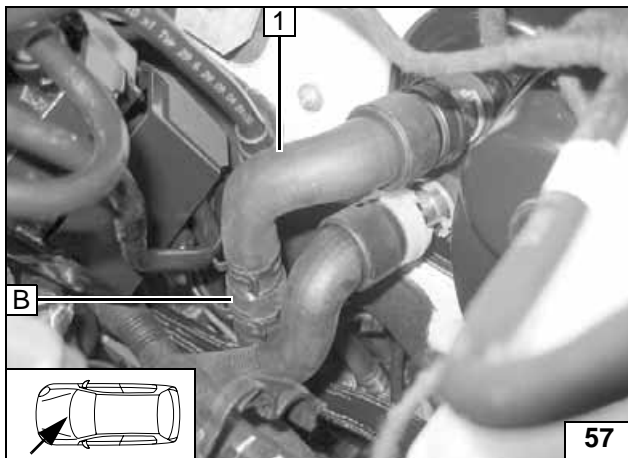


Routing on
firewall



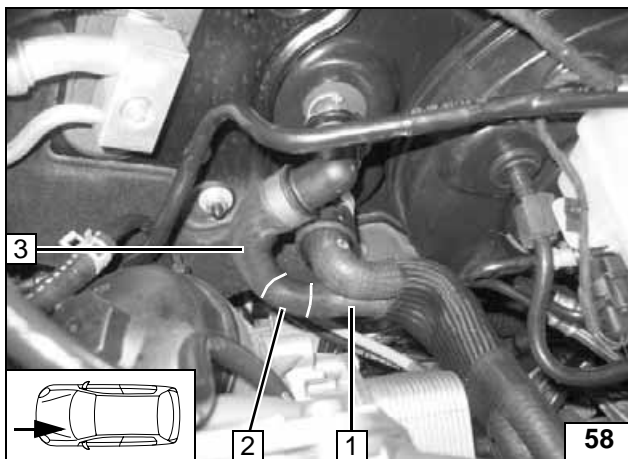
- 1 Hose of engine outlet
- 2 Spacer bracket

Conne-
tion to en-
gine outlet



- 1 Hose section of heat exchanger inlet

Conne-
tion on
heat ex-
changer in-
let



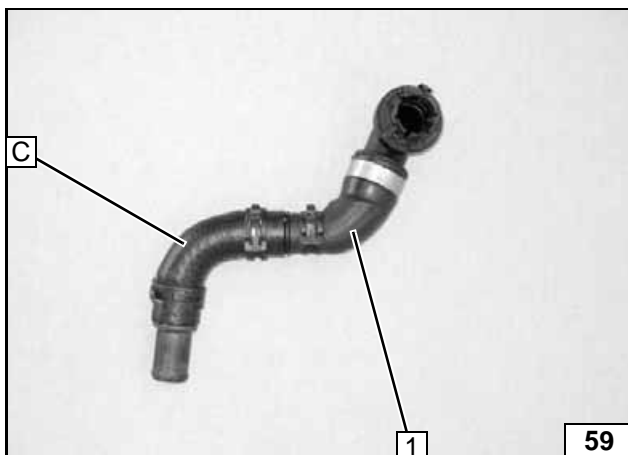
1.7 liter diesel

Cut off hose on engine outlet/heat exchanger inlet 1 at markings.

- 1 Engine-outlet hose section
- 2 Discard hose section
- 3 Remove hose section on heat exchanger inlet



Cutting
point

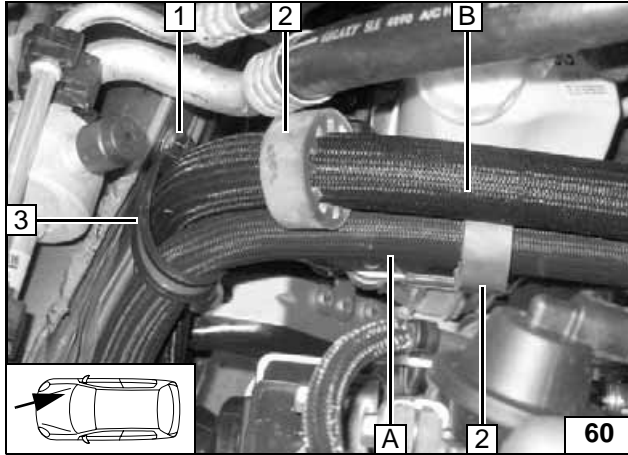


Reinstall hose on heat exchanger inlet.

- 1 Hose section of heat exchanger inlet



Premount-
ing hose C

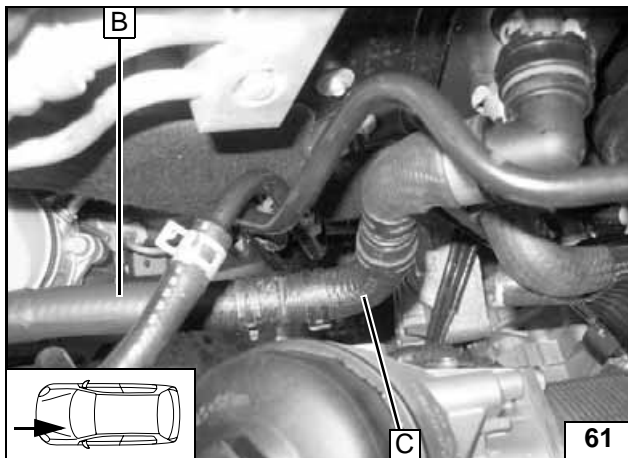


Slide on 48 mm dia. rubber-coated p-clamp **3** over hose **A** and **B** and fasten on original vehicle stud bolt with plastic nut **1**.

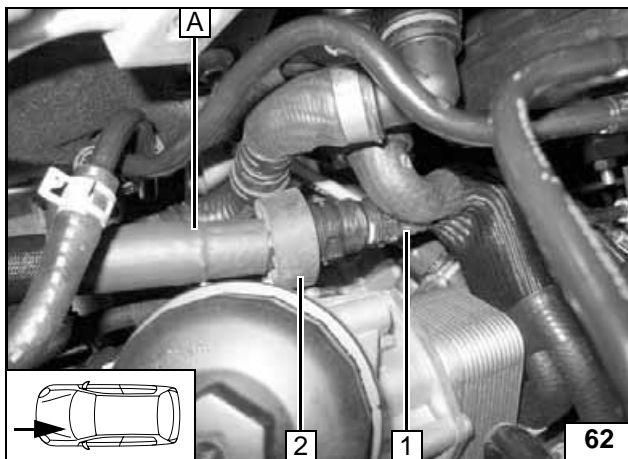
2 Black (sw) rubber isolator [2x]



Routing on firewall

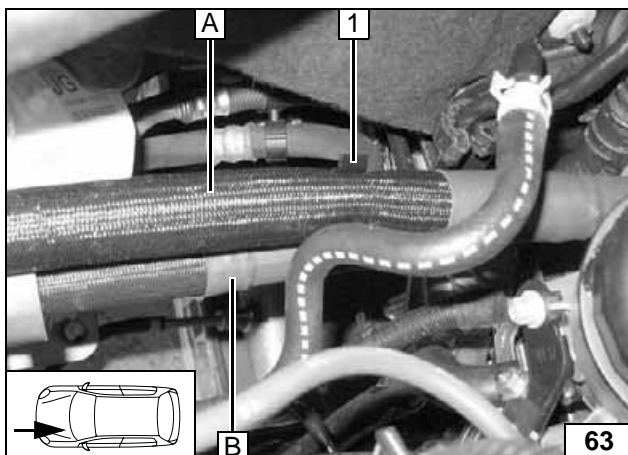


Connec-
tion on
heat ex-
changer in-
let



1 Hose of engine outlet
2 Black (sw) rubber isolator

Connec-
tion to en-
gine outlet



1 Spacer bracket

Installing
spacer
bracket



Fuel

CAUTION!

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

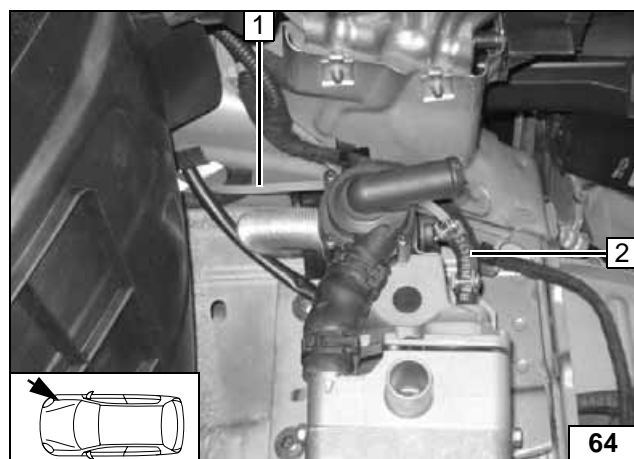
Catch any fuel running off with an appropriate container.

Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.

Mount the fuel line and wiring harness with rub protection on sharp edges.

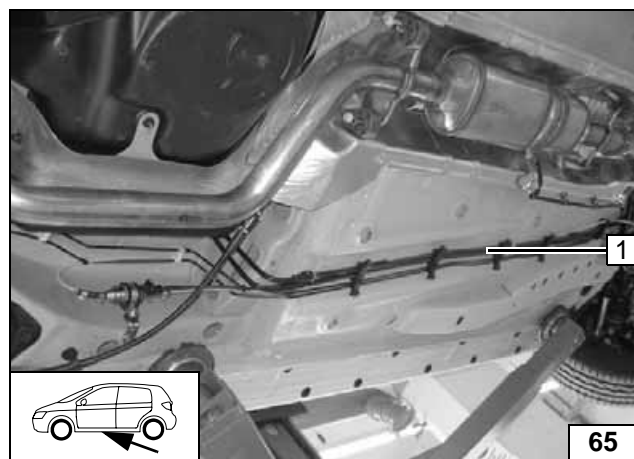
WARNING!

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



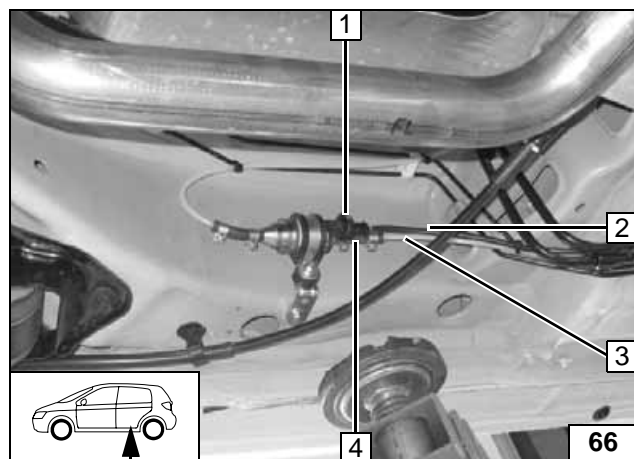
- 1 Mecanyl fuel line
- 2 Hose section, 10 mm dia. hose clamp [2x]

Conne-
tion on
heater unit



- 1 Mecanyl fuel line and wiring harness of metering pump, original vehicle lines

Install-
ing
lines

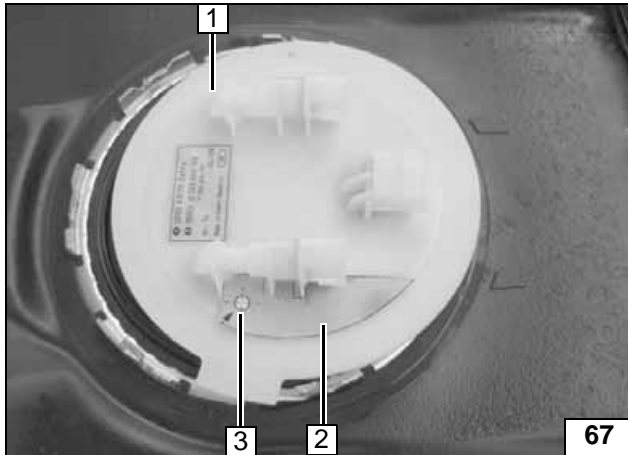
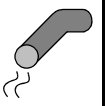


Fuel line from fuel standpipe on intake side of metering pump [side without connector]. Check the position of the components; adjust if necessary. Check that they have free clearance.

- 3 Mecanyl fuel line
- 4 Hose section, 10 mm dia. hose clamp [2x]
- 2 Metering pump wiring harness
- 1 Plug-in contacts, single wire seal, connector housing

Conne-
tion to me-
tering
pump





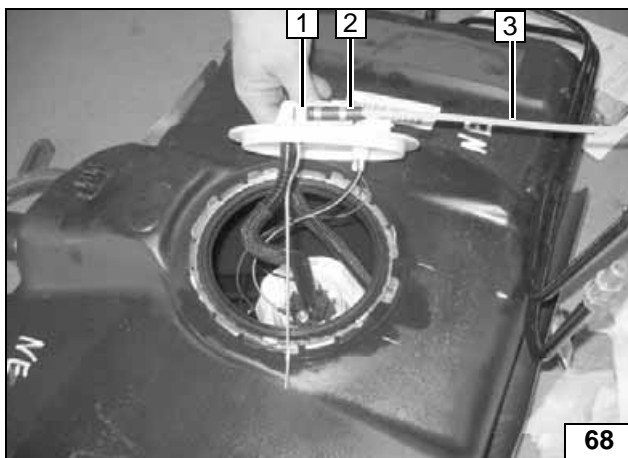
All vehicles except 1.7 liter diesel

Remove and dismantle fuel tank and fuel-tank sending unit 1 according to manufacturer's instructions.

- 2 Cut out template and lay on
- 3 Copy hole pattern, 6 mm dia. hole

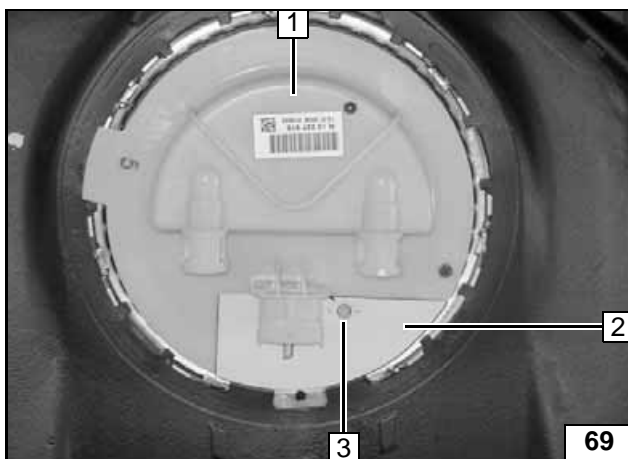


Removing fuel



- 1 Fuel standpipe
- 2 Hose section, 10 mm dia. Caillau clamp [2x]
- 3 Fuel line

Mounting fuel standpipe



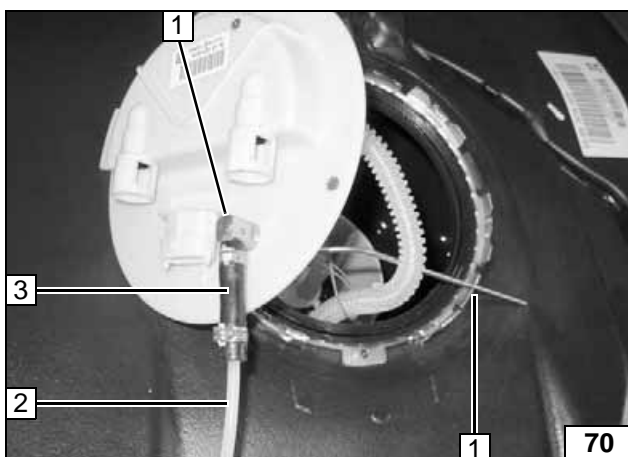
1.7 liter diesel

Remove and dismantle fuel tank and fuel-tank sending unit 1 according to manufacturer's instructions.

- 2 Cut out template and lay on
- 3 Copy hole pattern, 6 mm dia. hole

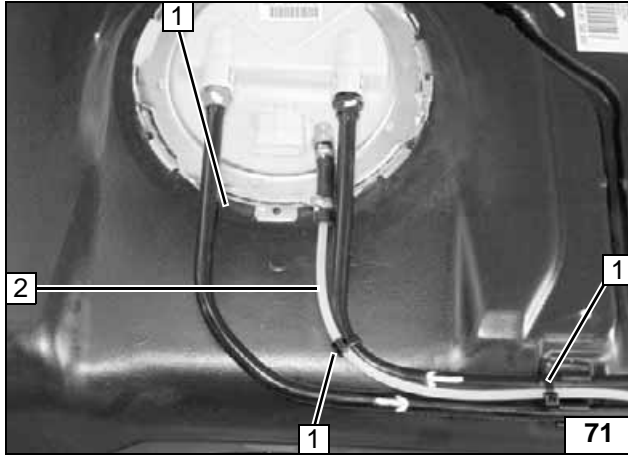


Removing fuel



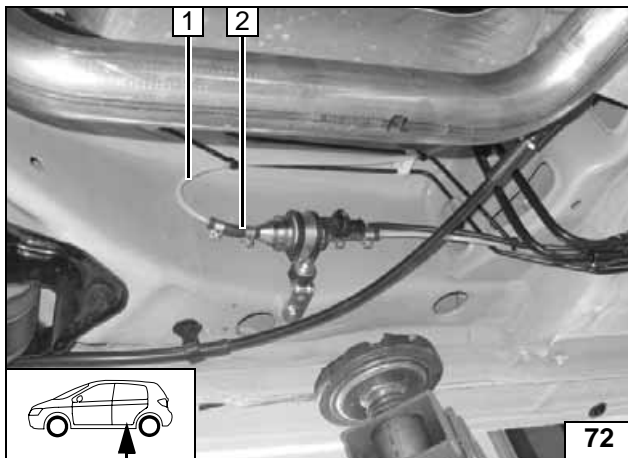
- 1 Fuel standpipe
- 2 Fuel line
- 3 Hose section, 10 mm dia. Caillau clamp [2x]

Mounting fuel standpipe



- 1 Cable tie [2x]
- 2 Fuel line

**Mounting
fuel-tank
sending
unit**



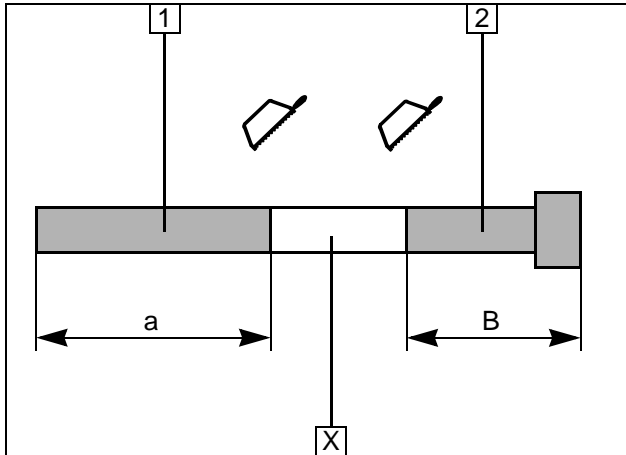
All vehicles

Route fuel line along original vehicle fuel lines to installation location of metering pump. Fuel line from fuel standpipe on intake side of metering pump [side without connector]. Check the position of the components; adjust if necessary. Check that they have free clearance.

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



**Connec-
tion to me-
tering
pump**

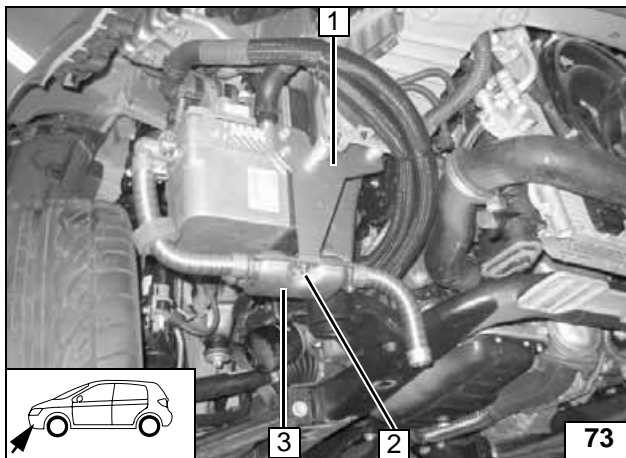


Exhaust gas

- 1 Exhaust pipe
a = 200 mm
- 2 Exhaust end section
b = 150 mm

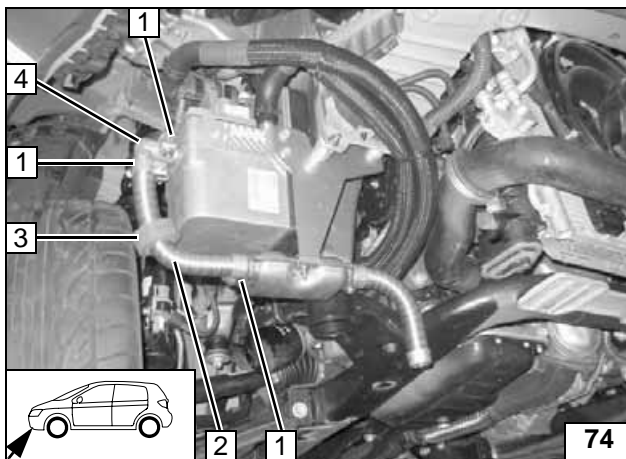
Discard section X

Preparing
exhaust
pipe



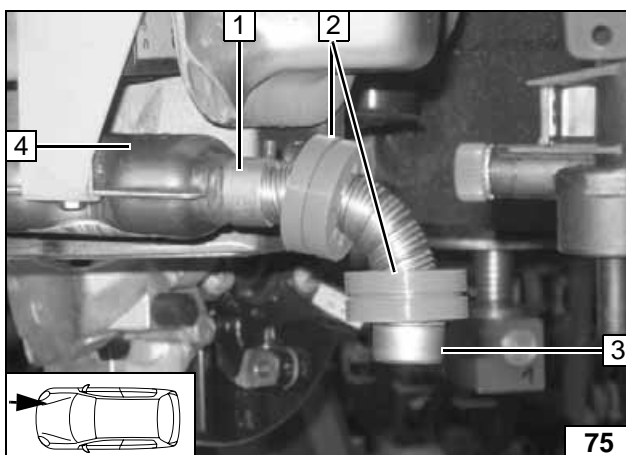
- 1 Bracket
- 2 M6x16 bolt, flanged nut
- 3 Muffler

Installing
muffler



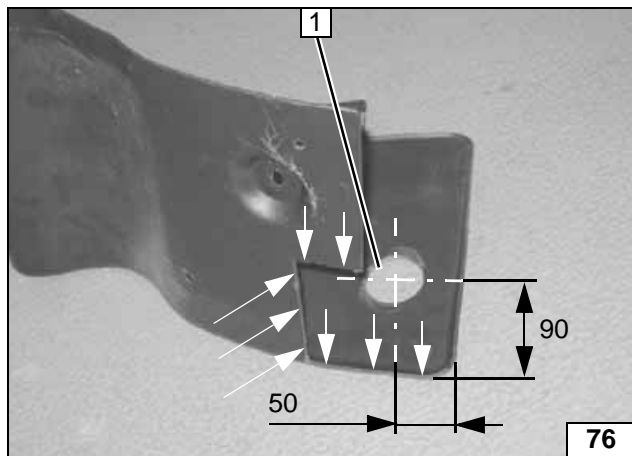
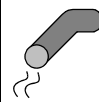
- 4 Exhaust elbow
- 2 Exhaust pipe
- 3 Red (rt) rubber isolator
- 1 Hose clamp [3x]

Installing
exhaust
pipe



- 4 Exhaust muffler
- 3 Exhaust end section
- 1 Hose clamp
- 2 Position red (rt) rubber isolator [2x]

Installing
exhaust
pipe and
end
section



Gasoline

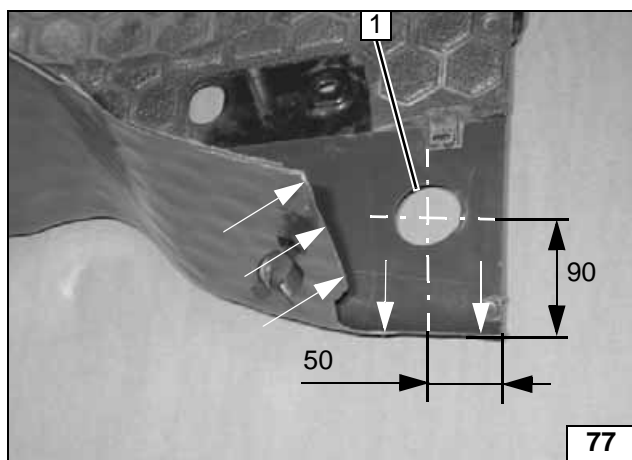
Design of underide protection/wheel well trim is dependent on vehicle equipment

Cut out underide protection/wheel well trim on marking. Dimensions in mm!

- 1 42 mm dia. hole



Cutting out underide protection

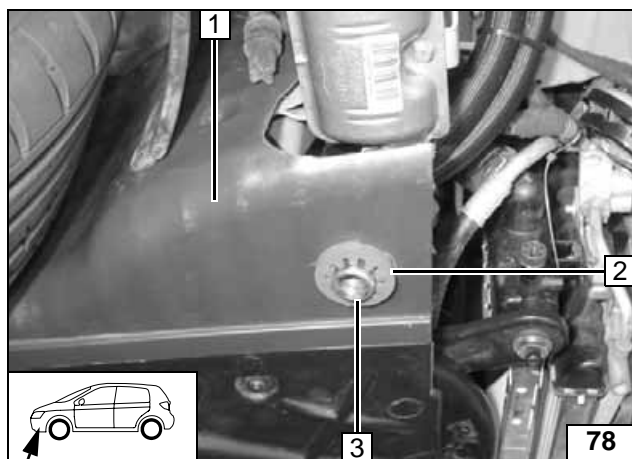


Diesel

- 1 42 mm dia. hole



Cutting out underide protection



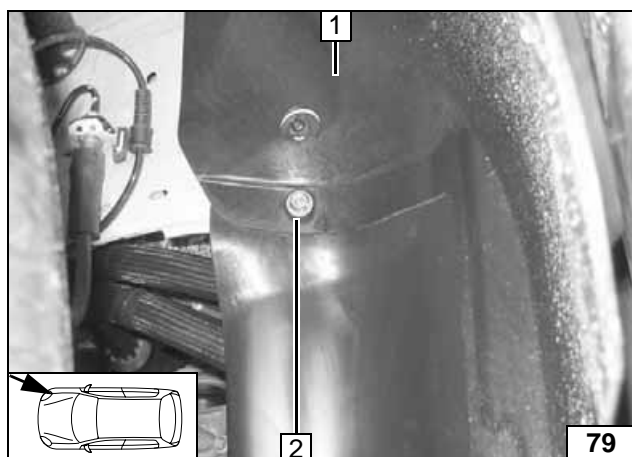
All vehicles

First position red (rt) rubber isolator 2 on exhaust end section 3 from below, then insert with groove in underide protection 1. Align end cap of exhaust end section 3 flush on red (rt) rubber isolator 2 as shown.

- 1 Underide protection/wheel well trim
- 2 Red (rt) rubber isolator with groove
- 3 Exhaust end section

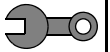


Mounting rubber isolator



- 1 Wheel well trim
- 2 Premounted bolt from fastener of coolant hoses, M6 flanged nut

Mounting wheel well trim



Final Work

WARNING!

Reassemble the disassembled components in reverse order.

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

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

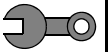
- Connect the battery
- Start the engine, bleed the coolant circuit according to the instructions of the vehicle manufacturer and add coolant
- Set the digital timer.
- Adjust the vehicle heater with automatic air-conditioning or without automatic air-conditioning according to "Operating Instructions for End Customer".
- Check the proper operation of the additional heater, see the operating instructions/installation instructions.
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.



Webasto

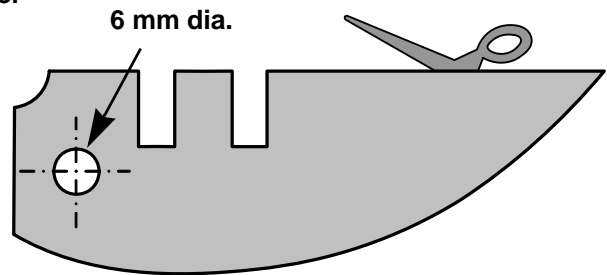
Feel the drive

Webasto AG
Postfach 80 - 82132 Stockdorf, Germany - Hotline +49-
(0)1805-932278
Hotfax +49-(0)395-5592-353 - <http://www.webasto.de>

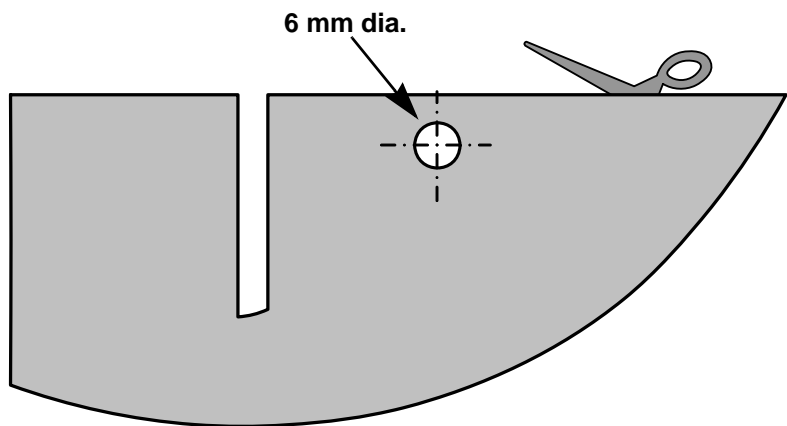


Template for Fuel Sender

All vehicles except 1.7 liter diesel



1.7 liter diesel



100 mm



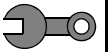
Scale 1:1

Compare the size of the printed version with dimension lines.
Permitted tolerance a maximum of 2%.

Correct major differences in the printer settings or request an
original printout.

0

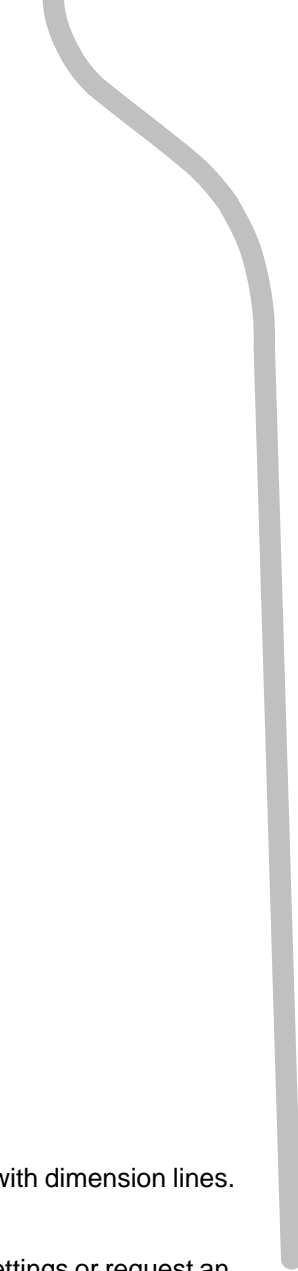
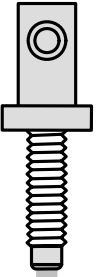
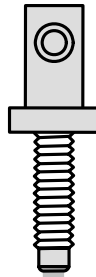
100 mm



Template for Fuel Standpipe

All vehicles except 1.7 liter diesel

1.7 liter diesel



100 mm



Scale 1:1

Compare the size of the printed version with dimension lines. Permitted tolerance a maximum of 2%.

Correct major differences in the printer settings or request an original printout.

100 mm

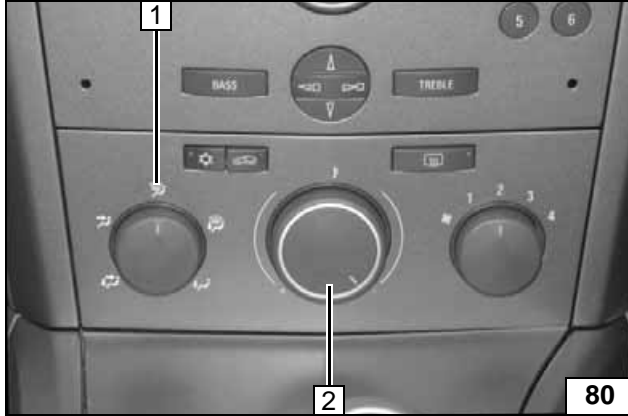
0

Operating Instructions for End Customer

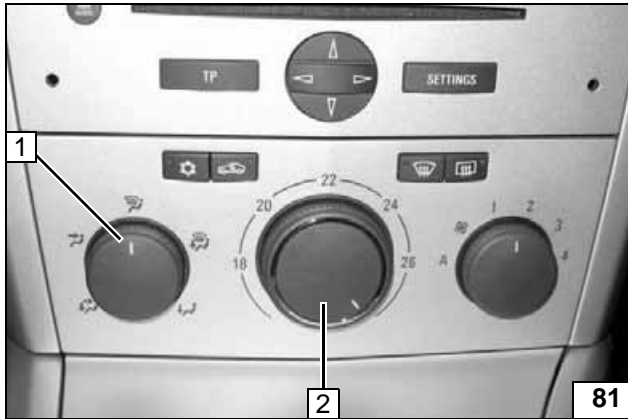
Please remove page and add to the vehicle operating instructions.

On vehicles with passenger compartment monitoring, this is deactivated when operating the additional heater!

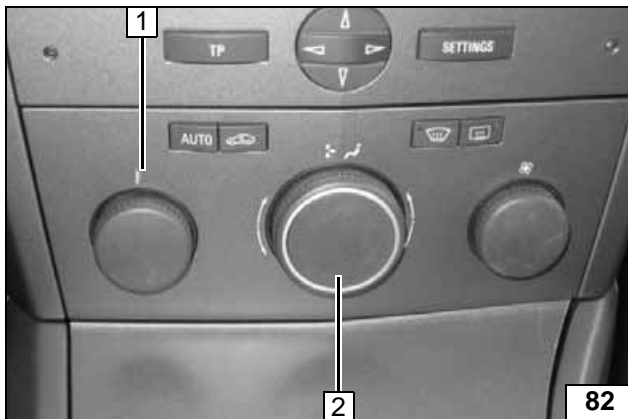
Before parking the vehicle, make the following settings:



- 1 Air outlet at windshield for "Defrost"
- 2 Set temperature to "max."



1. Air outlet at windshield for "Defrost"
- 2 Set temperature to "max."



- 1 Set temperature to "max."
- 2 Air distribution upward



83



For vehicles without automatic air-conditioning

Vehicles with "Automatic air conditioning" (SAC)

For vehicles with automatic air-conditioning (ECC)

For vehicles with automatic air-conditioning (ECC)