

- (D)** Einbauanleitung / nur Händlereinbau
- (GB)** Installation instructions / Dealer installation only
- (F)** Consignes de montage / Montage uniquement par le concessionnaire
- (NL)** Montagehandleiding / Montage alleen door dealers
- (DK)** Montagevejledning / Montage kun hos forhandleren
- (N)** Monteringsinstruksjon / Montasje kun hos forhandleren
- (S)** Installationsanvisning / Får endast monteras av återförsäljaren
- (FIN)** Asennusohje / Asennus vain myyntiliikkeen toimesta
- (I)** Istruzioni per il montaggio / Installazione solo presso la concessionaria
- (E)** Instrucciones de montaje / Instalación exclusiva por el distribuidor
- (P)** Instruções de montagem / Montagem só no concessionário
- (GR)** Οδηγίες εγκατάστασης / Συναρμολόγηση μόνο από έμπο ρους
- (CZ)** Návod k montáži / Montáž pouze prodejcem
- (PL)** Instrukcja montażu / Montaż tylko u dealera
- (TR)** Montaj talimatı / Sadece satıcı tarafında monte edilir
- (H)** Beépítési útmutató / Csak a kereskedő építheti be
- (HR)** Upute o ugradnji / Ugradnja samo od strane trgovca
- (BUL)** Инструкция за монтаж / Монтажът може да се извърши само от търговеца
- (RO)** Instrucțiuni de montaj / Se va monta numai de către dealer
- (RUS)** Инструкция по монтажу и установке / Устанавливать только у дилера
- (LT)** Montavimo informacija / Montuoja tik prekybininkas
- (LV)** Iemontēšanas pamācība / Tikai pārdevēja iebūve
- (EST)** Paigaldusjuhend / Paigaldab ainult müüja
- (SLO)** Navodilo za vgradnjo / Vgradnja le od trgovca
- (SK)** Montážny návod / Montáž iba obchodníkom
- (J)** 取り付け説明書 / 販売業者取り付けのみ
- (ROK)** 장치 지시사항 / 오직 전문상인이 장치
- (THA)** คู่มือการติดตั้ง / ติดตั้งโดยตัวแทนจำหน่ายเท่านั้น
- (VR)** 安装说明书 / 仅供销售商安装用
- (VR)** 安裝說明書 / 僅供銷售商安裝用

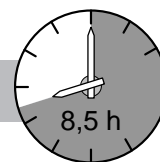
Part numbers: 13437784_eng_zafira / 13437785_eng_zafira / 13437789_eng

Wasser Heater

Thermo Top Evo Parking Heater



→ Check NEW UPDATES → www.ifz-berlin.de



Installation Documentation Opel Zafira

Validity

Manufacturer	Model	Type	EG-BE-No. / ABE
Opel	Zafira	P-J	e4 * 2007 / 46 * 0204 *...
Opel	Zafira	P-J	e4 * 2007 / 46 * 0308 *...

Motorisation	Fuel	Emission standard	Transmission type	Output in kW	Displacement in cm ³	Engine code
1.4 P	Petrol	Euro 5 / 6 / 6D temp.	6-speed MT	88	1364	A/B/D14NEL (LUJ)
1.4 P	Petrol	Euro 5 / 6	6-speed MT	103	1364	A/B14NET (LUJ)
1.4 P	Petrol	Euro 5 / 6	6-level AT	103	1364	A/B14NET (LUJ)
1.6 P	Petrol	Euro 5 / 6	6-speed MT	125	1598	A/B16XHT (LVP)
1.6 P	Petrol	Euro 5 / 6	6-level AT	125	1598	A/B16XHT (LVP)
1.6 P	Petrol	Euro 6	6-level AT	125	1598	B16SHL (LWC)
1.6 P	Petrol	Euro 5 / 6	6-speed MT	147	1598	A/B16SHT (LWC)
2.0 D	Diesel	Euro 5	6-speed MT	81	1956	A20DTL (LBQ)
2.0 D	Diesel	Euro 5	6-speed MT	96	1956	A20DT (LBR)
2.0 D	Diesel	Euro 5	6-speed MT	121	1956	A20DTH (LBS)
2.0 D	Diesel	Euro 5	6-level AT	121	1956	A20DTH (LBS)
2.0 D	Diesel	Euro 5	6-speed MT	143	1956	A20DTR (LBY)

MT = Manual transmission

AT = Automatic transmission

From Model Year 2011

Left-hand drive vehicle

Verified equipment variants: Manual air-conditioning (Option Code "C67")
 2-zone automatic air-conditioning (Option Code "CJ2")
 Front fog light
 Daytime running lights
 Daytime running lights
 LED daytime running lights
 Adaptive forward lights (Bi-Xenon)
 Headlight washer system
 Solar protect windscreen
 Start-Stop
 Alarm system with passenger compartment monitoring

Opel Zafira

Table of Contents

Validity	1	Electrical System	16
Table of Contents	2	Vehicle-Specific Wiring Harness	17
Necessary Components	2	Telestart	22
Installation Overview	2	Fuel	23
Notes on Total Installation Time	2	Coolant Circuit	28
Information on Operating and Installation Instructions	3	1.4 Petrol	29
Notes on Validity	4	1.6 Petrol	30
Technical Instructions	4	Diesel	31
Explanatory Notes on Document	4	Exhaust Gas	32
Preliminary Work	5	Combustion Air	35
Heater Installation Location	5	Final Work	36
Preparing Electrical System	6	Fuel Standpipe Template for 1.4 Petrol and Diesel	38
Preparing Installation Location	9	Fuel Standpipe Template for 1.6 Petrol	39
Preparing Heater	10		
Installing Heater	15		

Necessary Components

- Specific delivery scope of *Thermo Top Evo* petrol or diesel:
GM parts No. for petrol: 13 437 784
GM parts No. for diesel: 13 437 785
- Installation kit for Opel Zafira 2011 Petrol and diesel
GM parts No.: 13 437 789

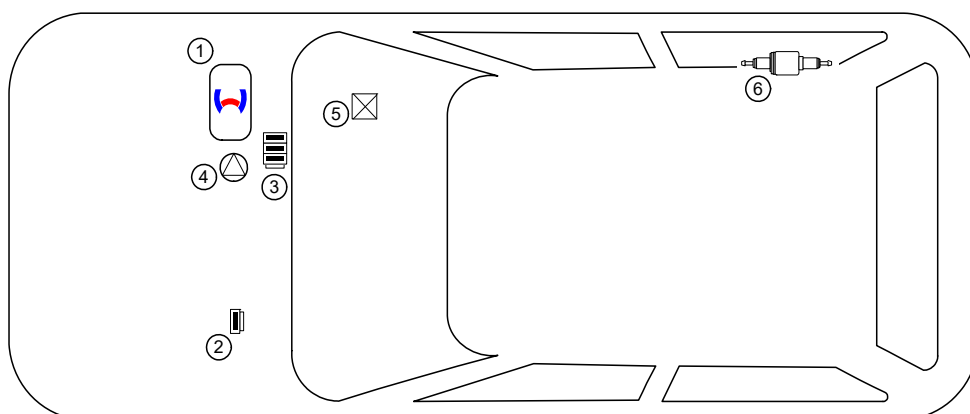
Note:

Heater control, Telestart T100 and push button are included in the installation kit.

Installation Overview

Legend:

1. Heater
2. Fuse F1
3. Fuses F2-4
4. Circulating pump
5. Temperature sensor/ Telestart / push button / SVM module
6. Metering pump



Notes on Total Installation Time

The total installation time includes the time needed for mounting and demounting of the vehicle-specific components, the heater specific installation time and all other times required for the system integration and initial start-up of the heater.

The total installation time may vary for vehicle equipment other than provided.

Opel Zafira

Information on Operating and Installation Instructions

1 Important information (not complete)

1.1 Installation and repair



The improper installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide, leading to serious injury or death.



To install and repair Webasto heating and cooling systems you need to have completed a special company training course and have the appropriate technical documentation, special tools and special equipment.



Installation and repair may ONLY be carried out by persons trained and certified in a Webasto training course. NEVER try to install or repair Webasto heating or cooling systems if you have not completed a Webasto training course, you do not have the necessary technical skills and you do not have the technical documentation, tools and equipment available to ensure that you can complete the installation and repair work properly.

Only use genuine Webasto parts. See the Webasto air and water heaters accessories catalogue for this purpose.

1.2 Operation

To ensure safe operation, we recommend having the heater checked every two years by an authorised Webasto dealer, especially when used over a long period and/or under extreme environmental conditions.

Do not operate the heater in closed rooms due to the danger of poisoning and suffocation.

Always switch off the heater before refuelling.

The heater may only be used with the prescribed fuel diesel (DIN EN 590) or petrol (DIN EN 228).

The heater may not be cleaned with a high-pressure cleaner.

1.3 Please note

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

To become familiar with and understand all functions and properties of the heater, the operating instructions must be read carefully and observed at all times.

For proper, safe installation and repair work, the installation instructions with all warnings and safety information must be carefully read and observed at all times. Please always contact a workshop authorised by Webasto for all installation and repair work.

Important

Webasto shall assume no liability for defects, damage and injuries resulting from a failure to observe the installation, repair and operating instructions of the information contained in them.

This liability exclusion particularly applies to improper installations and repairs, installations and repairs by untrained persons or in the case of a failure to use genuine spare parts.

The liability due to culpable disregard to life, limb or health and due to damage or injuries caused by a wilful or reckless breach of duty remain unaffected, as does the obligatory product liability.

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 wire ends and tie back. Connectors on electronic components have to audibly click into place during installation.

Sharp edges should be fitted with rub protection. Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K).

Observe the instructions and guidelines of the respective vehicle manufacturer for demounting and mounting vehicle specific components!

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

When installing a programmable control module (e.g. a PWM Gateway), the corresponding settings must be checked or adjusted.

2 Statutory regulations governing installation

Guidelines	Thermo Top Evo
Heating Directive ECE R122	E1 00 0258
EMC Directive ECE R10	E1 04 5627

Note

The regulations of these guidelines are binding in the scope of the Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries in which there are no special regulations.

Important

Failure to follow the installation instructions will result in the invalidation of the type approval for the heater and therefore invalidation of the general **homologation of the vehicle**.

Note

The heater is licensed in accordance with paragraph 19, section 3, No. 2b of the StVZO (German Road Traffic Licensing Authority).

2.1 Excerpt from ECE regulation 122 (heating system) paragraph 5 for the installation of the heater

Beginning of excerpt.

ANNEX VII

REQUIREMENTS FOR COMBUSTION HEATERS AND THEIR INSTALLATION

1. GENERAL REQUIREMENTS

1.7.1. A clearly visible tell-tale in the operator's field of view shall inform when the combustion heater is switched on or off.

2. VEHICLE INSTALLATION REQUIREMENTS

2.1. Scope

2.1.1. Subject to paragraph 2.1.2. combustion heaters shall be installed according to the requirements of this Annex.

2.1.2. Vehicles of category O having liquid fuel heaters are deemed to comply with the requirements of this Annex.

2.2. Positioning of heater

2.2.1. Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination.

2.2.2. The combustion heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be fulfilled if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields.

2.2.3. In the case of M2 and M3 vehicles, the heater must not be positioned in the passenger compartment. However, an installation in an effectively sealed envelope which also complies with the conditions in paragraph 2.2.2. may be used.

2.2.4. The label referred to in paragraph 1.4 or a duplicate, must be positioned so that it can be easily read when the heater is installed in the vehicle.

2.2.5. Every reasonable precaution should be taken in positioning the heater to minimise the risk of injury and damage to personal property.

2.3. Fuel supply

2.3.1. The fuel filler must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage.

2.3.2. In the case of liquid fuel heaters, where a supply separate to that of the vehicle is provided, the type of fuel and its filler point must be clearly labelled.

2.3.3. A notice, indicating that the heater must be shut down before refuelling, must be affixed to the fuelling point. In addition a suitable instruction must be included in the manufacturer's operating manual.

2.4. Exhaust system

2.4.1. The exhaust outlet must be located so as to prevent emissions from entering the vehicle through ventilators, heated air inlets or opening windows.

2.5. Combustion air inlet

2.5.1. The air for the combustion chamber of the heater must not be drawn from the passenger compartment of the vehicle.

2.5.2. The air inlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

2.6. Heating air inlet

2.6.1. The heating air supply may be fresh or recirculated air and must be drawn from a clean area not likely to be contaminated by exhaust fumes emitted either by the propulsion engine, the combustion heater or any other vehicle source.

2.6.2. The inlet duct must be protected by mesh or other suitable means.

2.7. Heating air outlet

2.7.1. Any ducting used to route the hot air through the vehicle must be so positioned or protected that no injury or damage could be caused if it were to be touched.

2.7.2. The air outlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

End of excerpt.

In multilingual versions the German language is binding.

Opel Zafira

Notes on Validity

This installation documentation applies to the Opel Zafira Petrol and diesel vehicles - for validity, see page 1 - from model year 2011 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.

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

Technical Instructions

Special Tools

- Hose clamp pliers for auto-tightening hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Automatic wire stripper 0.2 - 6mm²
- Crimping pliers for tab connector 0.14 - 6mm²
- Crimping pliers for cable lug 0.5 - 10mm²
- Crimping pliers for connector 0.25 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Deep-hole marker
- Hose clamping pliers
- Metric thread-setter kit
- Webasto Thermo Test Diagnosis with current software

Dimensions

- All dimensions are in mm

Tightening torque values

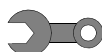
- Tightening torque values of 5x13 heater bolts = 8Nm.
- Tightening torque of 5x15 bolt of water connection piece retaining plate = 7Nm.
- Tighten other bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art-technology.

Explanatory Notes on Document

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

Special features are highlighted using the following symbols:

Mechanical system



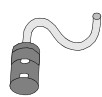
Electrical system



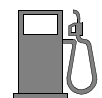
Coolant circuit



Combustion air



Fuel



Exhaust gas



Software



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



Specific risk of fire and explosion



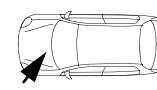
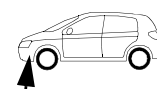
Reference to general installation instructions of the Webasto components or to the manufacturer's vehicle-specific documents.



Reference to a special technical feature



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



Tightening torque according to the manufacturer's vehicle-specific documents



Opel Zafira

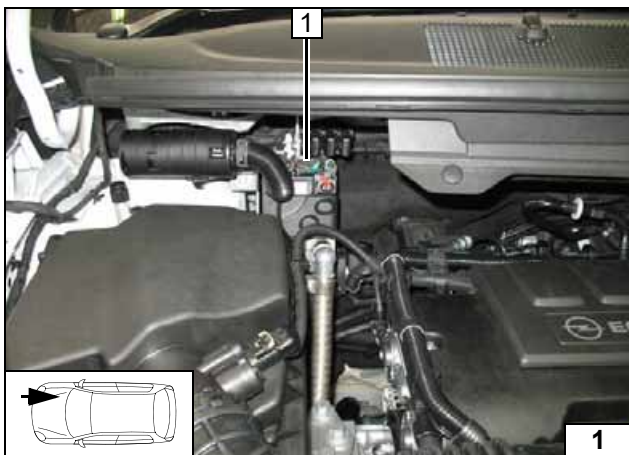
Preliminary Work

Vehicle

- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Disconnect the battery.
- Completely remove the air filter.
- Remove the windscreen wiper.
- Remove the coolant reservoir cap.
- Remove the coolant reservoir.
- Remove the windscreen wiper motors (left and right).
- Remove the upper engine cover (not in case of 1.4 petrol).
- Remove the insulation mat of the firewall on the right.
- Remove the right wheel.
- Loosen the right wheel-well inner panel.
- Remove the fuel-tank (petrol only).
- Remove the footwell trim on the front passenger's side.
- Remove the lower glove compartment.
- Remove the lateral instrument panel trim of the centre console on the driver's and front passenger's side.
- Remove the A-pillar trim on the front passenger's side.

Heater

- Remove dates that do not apply from the type and duplicate label.



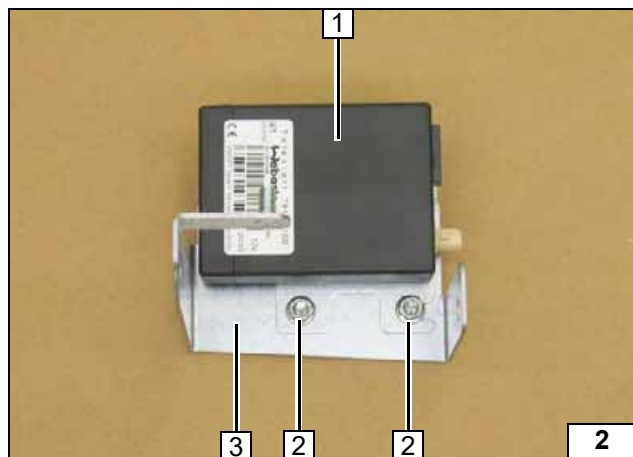
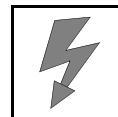
Heater Installation Location

Figure shows petrol vehicle.

- 1 Heater



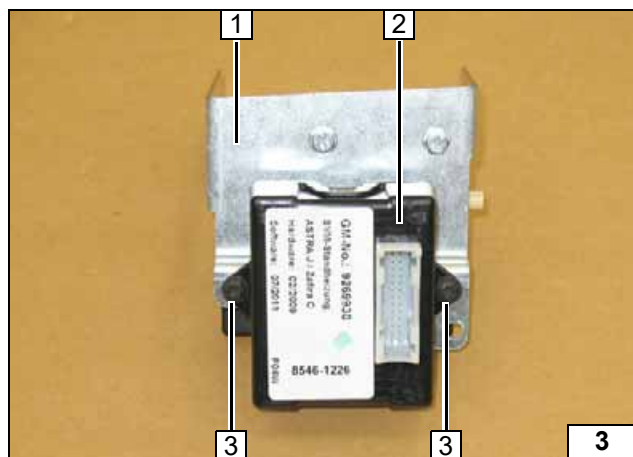
Installation
location



Preparing Electrical System

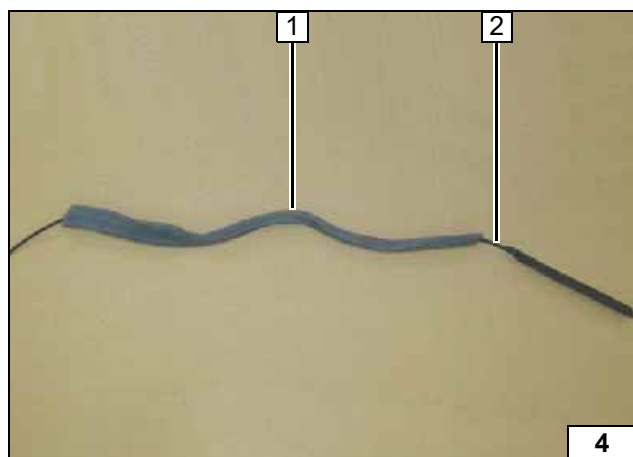
- 1 Receiver
- 2 M5x12 bolt, flanged nut [2x each]
- 3 Bracket of SVM module

Mounting receiver



- 1 Bracket of SVM module
- 2 SVM module
- 3 3.5x13 self-tapping screw [2x]

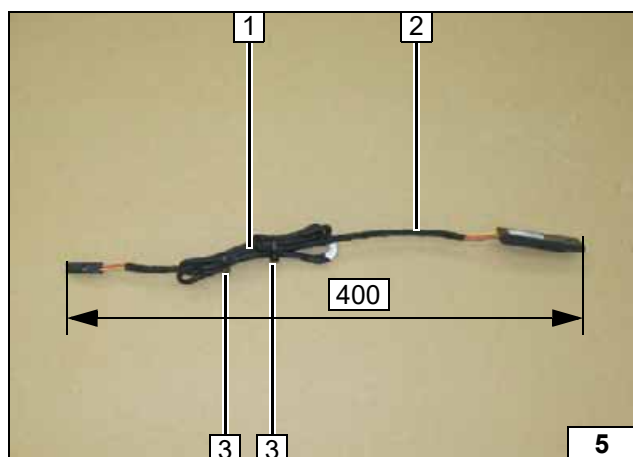
Installing SVM module



Stick 400mm of foam 1 around antenna cable 2.



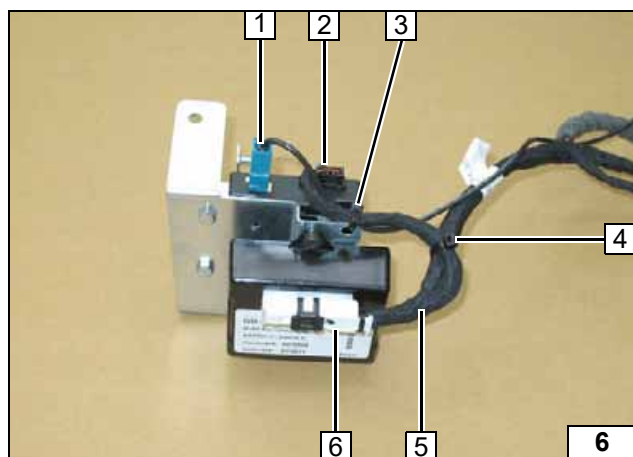
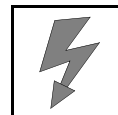
Preparing antenna



Lump together wiring harness of temperature sensor 2 at position 1 and fasten it using cable tie 3.

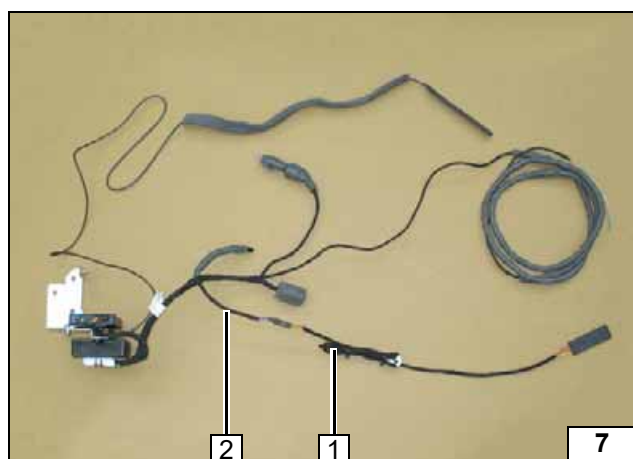


Preparing temperature sensor



- 1 Connector of antenna
- 2 Connector of receiver
- 3 Cable tie through hole of bracket
- 4 Cable tie
- 5 Wiring harness of passenger compartment
- 6 Connector of SVM module

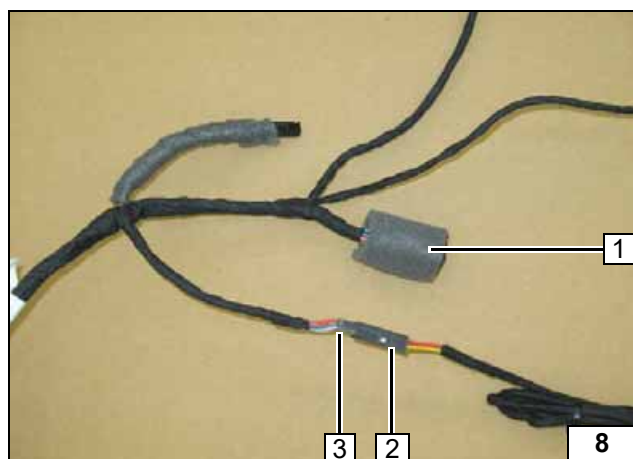
**Connect-
ing passen-
ger
compartment wir-
ing
harness**



Attach temperature sensor **1** to wiring harness of passenger compartment **2** (see following image).



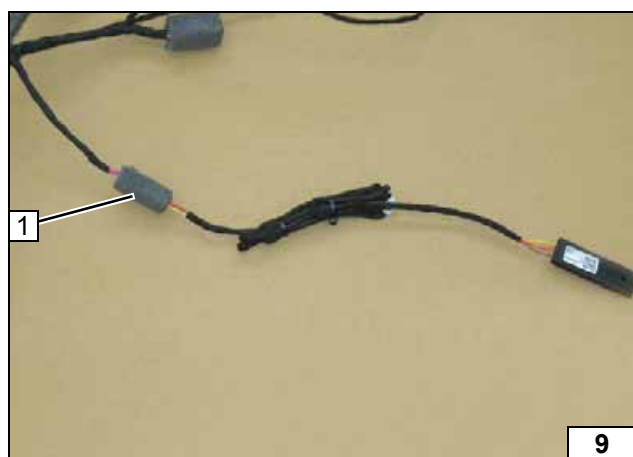
**Connect-
ing passen-
ger
compartment wir-
ing
harness**



Stick 40mm of foam **1** around connector of passenger compartment wiring harness with engine compartment wiring harness.



**Connect-
ing passen-
ger
compartment wir-
ing
harness**

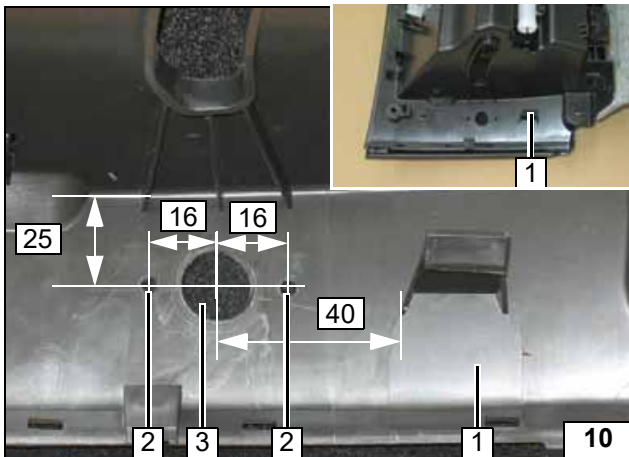
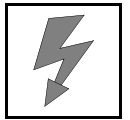


Stick 40mm of foam **1** around connector of temperature sensor.



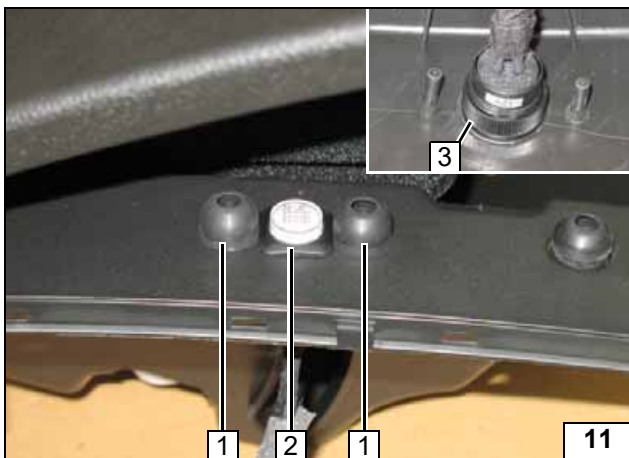
**Preparing
passenger
compartment wir-
ing
harness**

Opel Zafira



- 1 Glove compartment
- 2 4mm dia. hole [2x]
- 3 16mm dia. hole

Preparing glove compartment

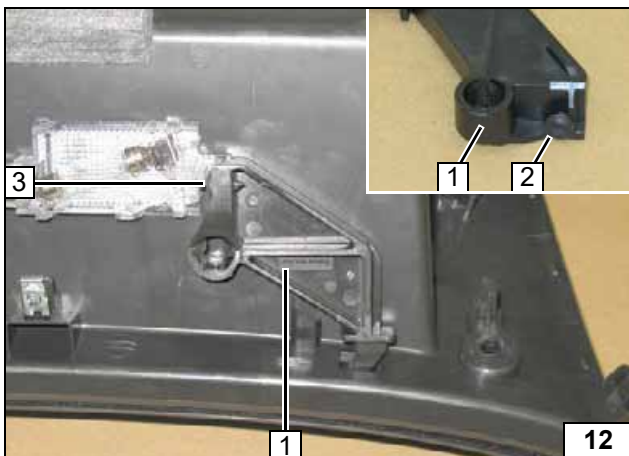


Stick foam around wiring harness of push button.



- 1 Rubber plug [2x]
- 2 Push button
- 3 Nut of push button

Installing push button

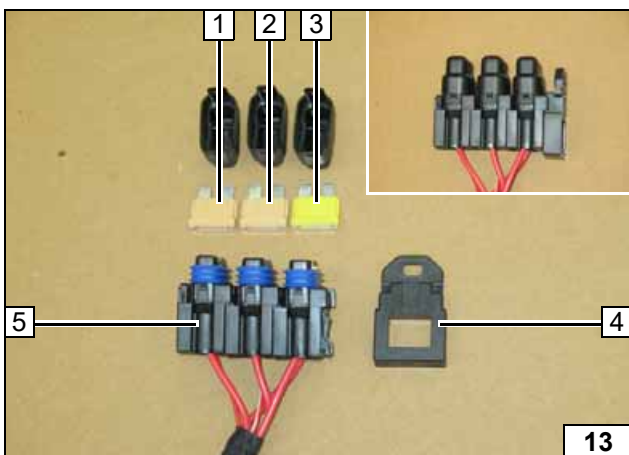


Check position of self-tapping screw 2 with respect to switch of glove compartment lighting at position 3.



- 1 Lever of glove compartment lighting
- 2 3mm dia. hole, 3.5x13 self-tapping screw

Preparing glove compartment

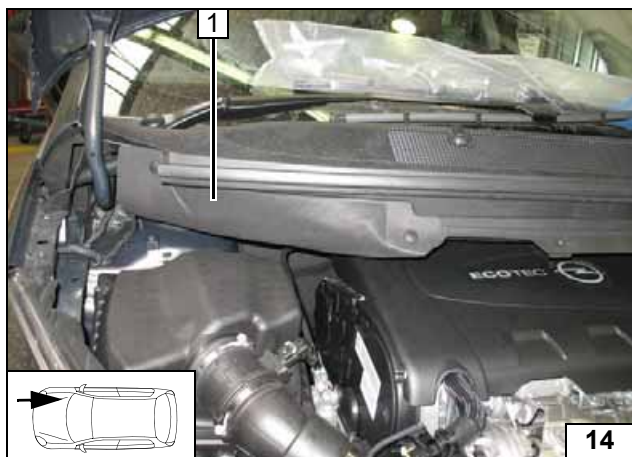
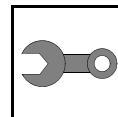


Remove fuses 1, 2, and 3 from fuse holder.



- 1 5A fuse
- 2 5A fuse
- 3 20A fuse
- 4 Retaining plate for fuse holder
- 5 Fuse holder

Preparing wiring harness of heater

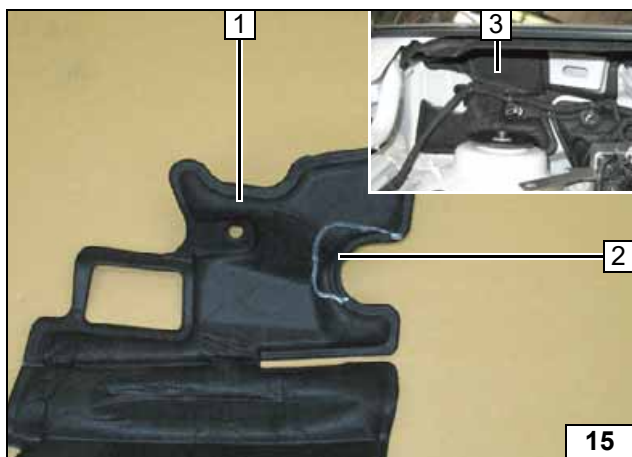


Preparing Installation Location

Remove insulation mat **1** and discard.



Removing insulation mat

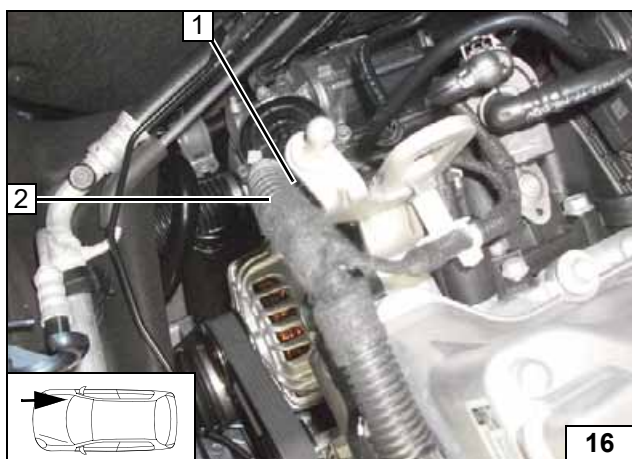


Cut out insulation mat **1** at position **2**.

3 Position of insulation mat on the right fire-wall



Cutting insulation mat to size

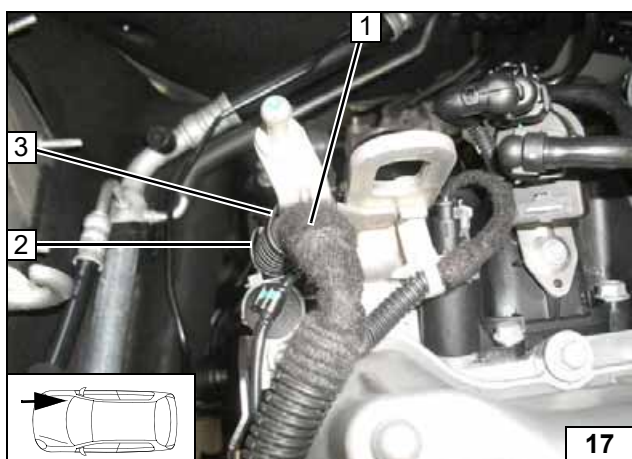


1.6 petrol

Unclip original vehicle wiring harness with bracket **2** in position **1** beneath the lifting lug of the engine and secure it again as shown in the following image.



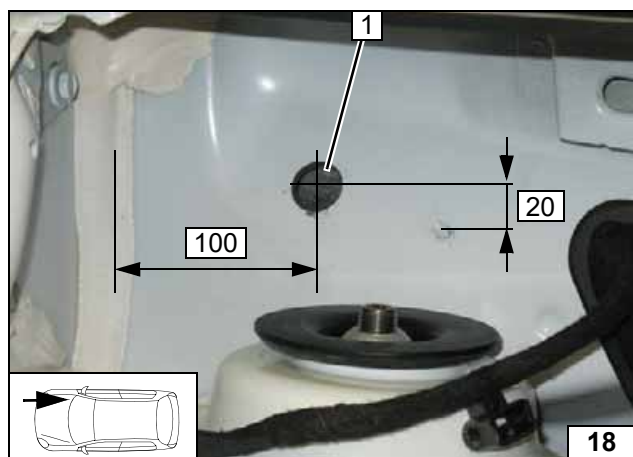
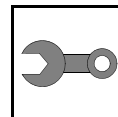
Repositioning original vehicle wiring harness



Twist bracket **2** of original vehicle wiring harness **1** by 180° and clip on again as shown. Secure furthermore tightly to the engine using cable tie **3**.



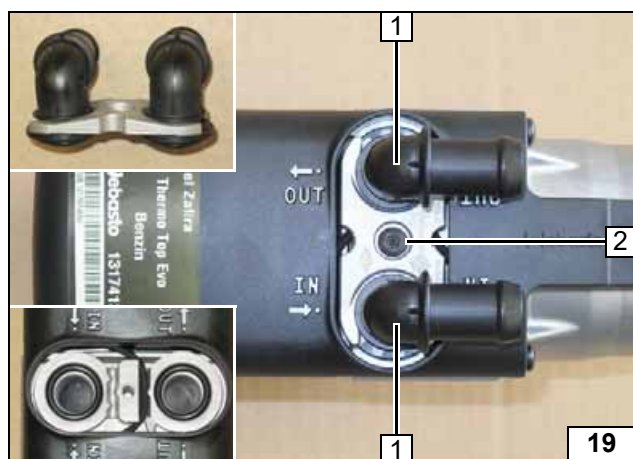
Repositioning original vehicle wiring harness



All vehicles.

- 1 20mm dia. hole

Hole in fire-wall



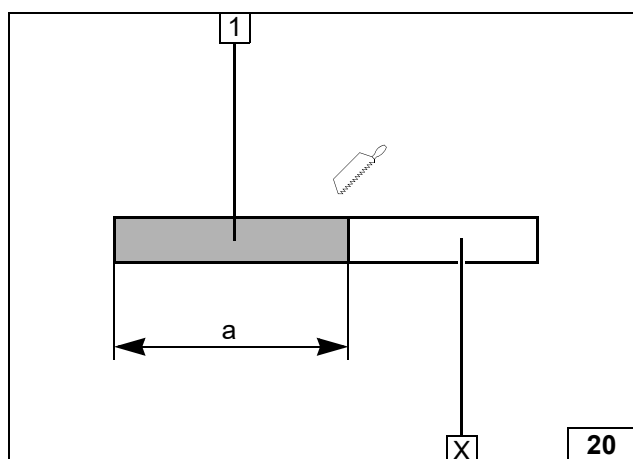
Preparing Heater

A petrol heater was used to describe the following work steps but these steps apply to all models.

- 1 Water connection piece, sealing ring [2x each]
- 2 5x15 self-tapping bolt, retaining plate of water connection pieces



Installing water connection pieces

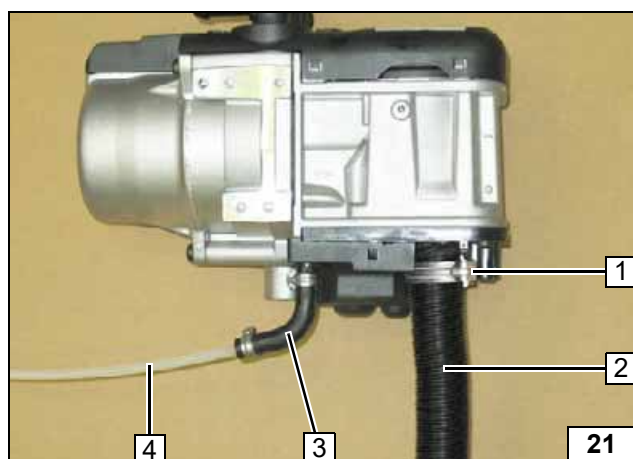


Discard section X.

- 1 Combustion air pipe
a = 150

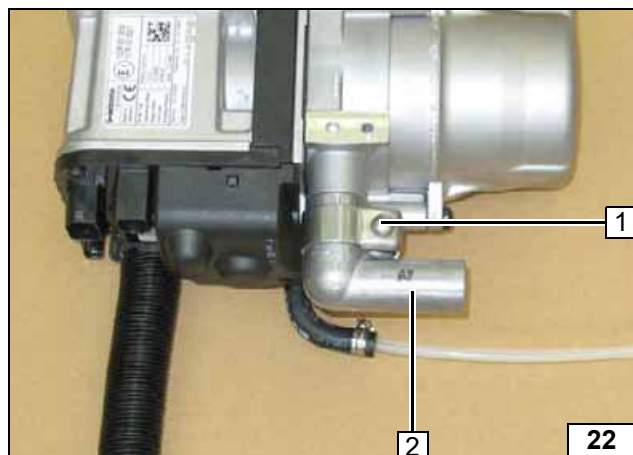
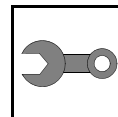


Cutting combustion air pipe to length



- 1 25mm dia. Caillau clamp
- 2 Combustion air pipe
- 3 90°, 4.5mm dia. moulded hose, clamp [2x]
- 4 Fuel line

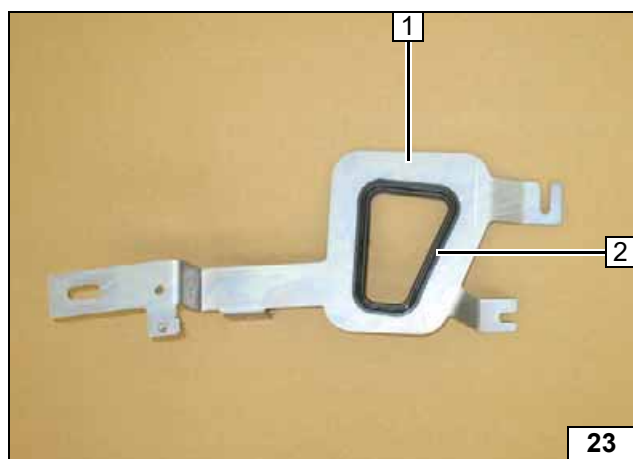
Premounting heater



1.4 petrol and diesel.

- 1 Hose clamp
- 2 Exhaust manifold

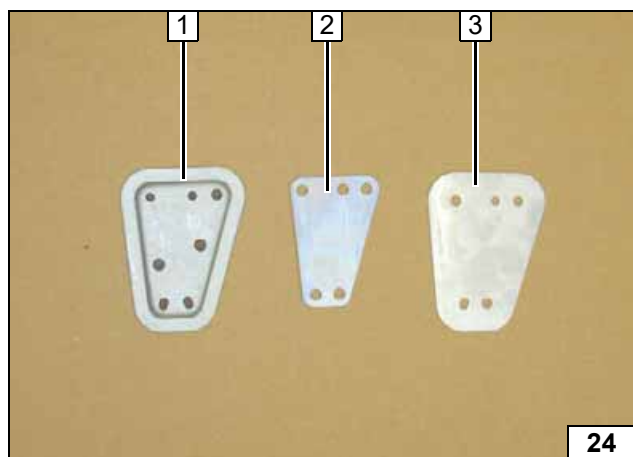
**Premount-
ing exhaust
elbow**



All vehicles.

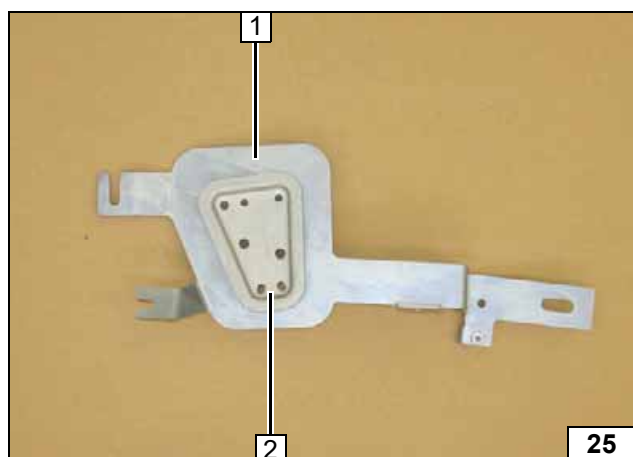
- 1 Bracket
- 2 Insert decoupling rubber

**Preparing
bracket**



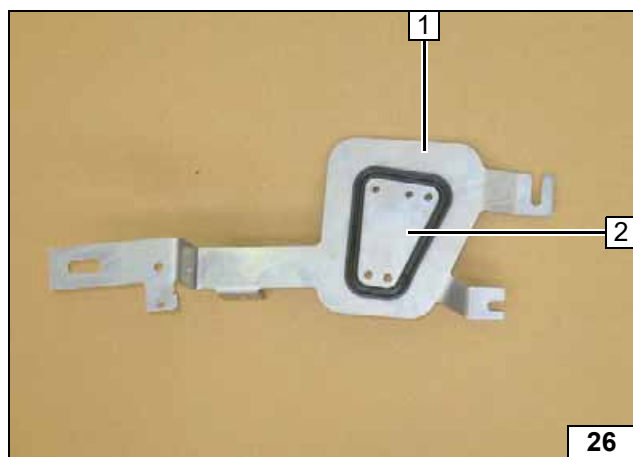
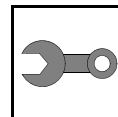
- 1 Clamping plate part 1
- 2 Intermediate plate
- 3 Clamping plate part 2

**Preparing
bracket**



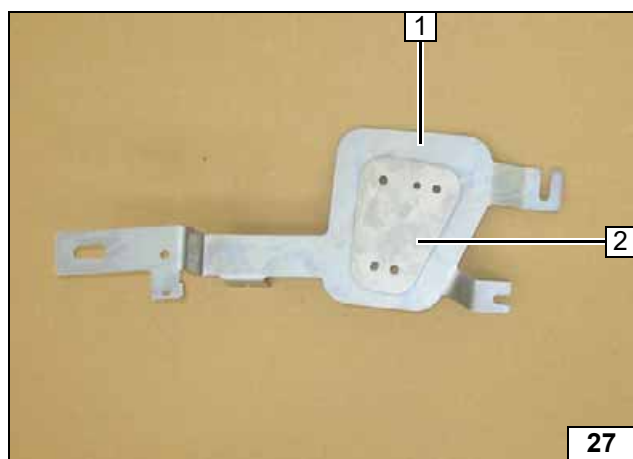
- 1 Bracket
- 2 Clamping plate part 1

**Preparing
bracket**



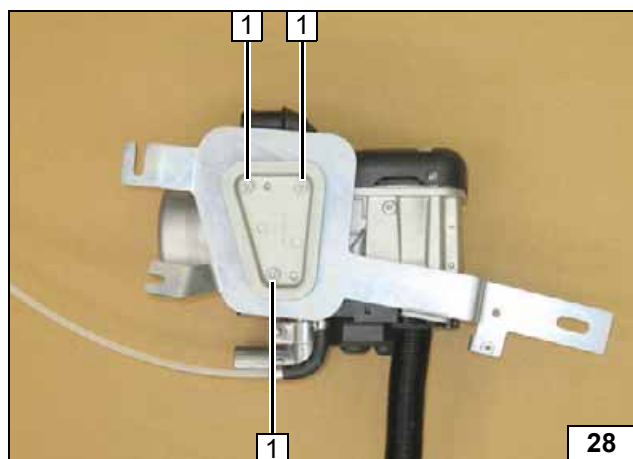
- 1 Bracket
- 2 Intermediate plate

**Preparing
bracket**



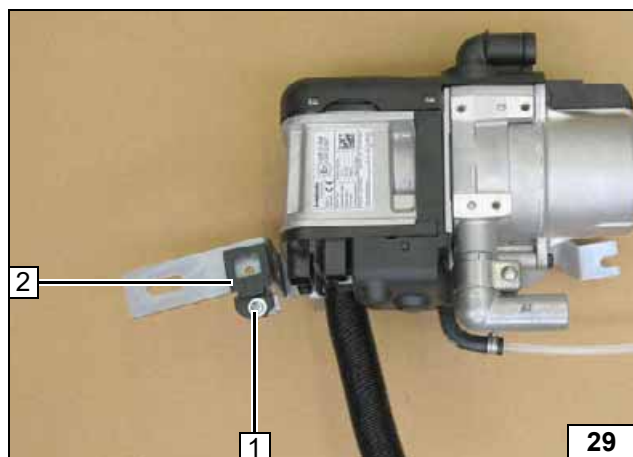
- 1 Bracket
- 2 Clamping plate part 2

**Preparing
bracket**



- 1 5x13 self-tapping bolt [3x]

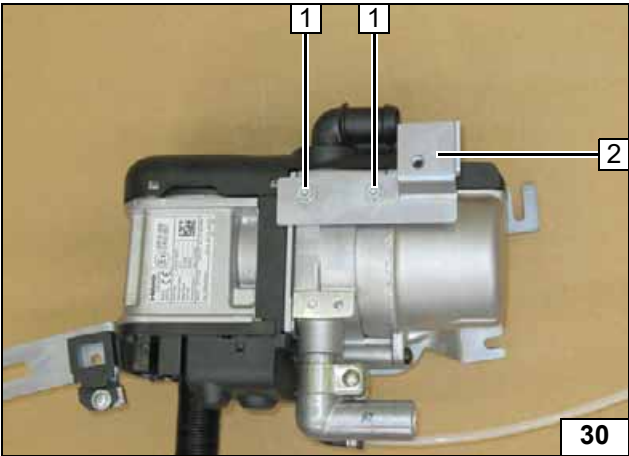
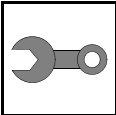
**Mounting
bracket**



- 1 M4x12 bolt, large diameter washer, nut
- 2 Retaining plate for fuse holder

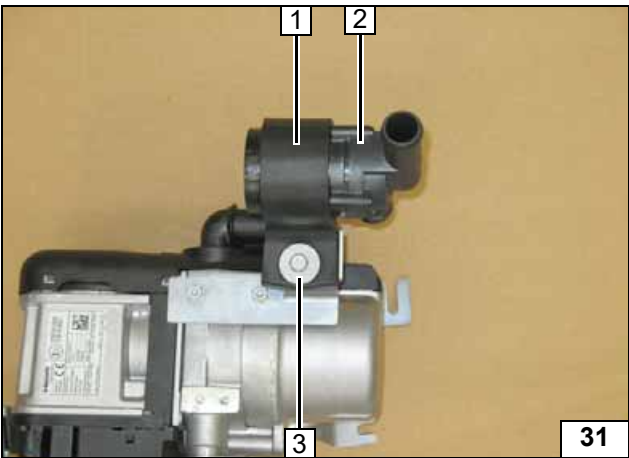
**Installing
retaining
plate of
fuse holder**

Opel Zafira



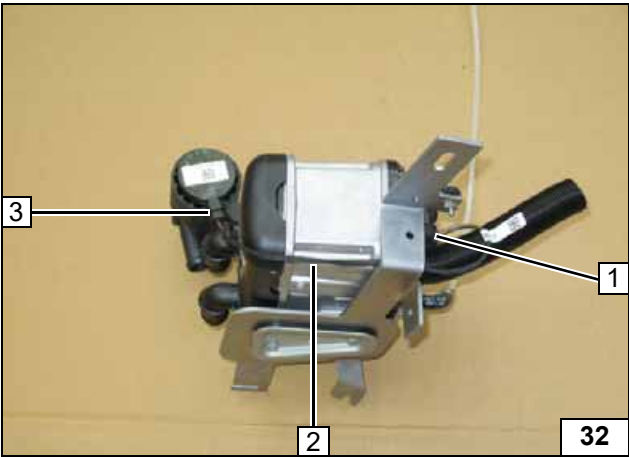
- 1 5x13 self-tapping bolt [2x]
- 2 Bracket of circulating pump

Installing bracket of circulating pump



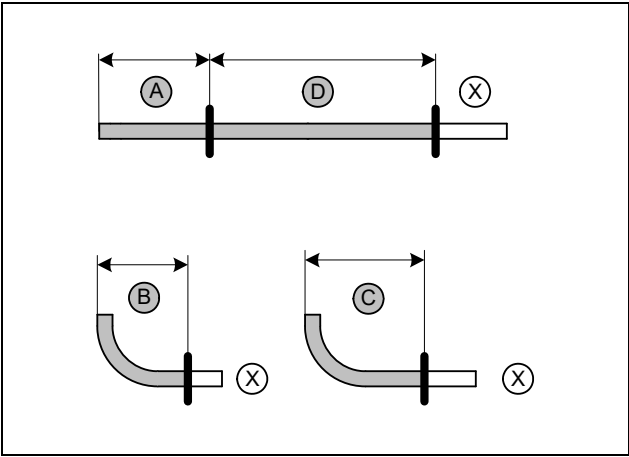
- 1 Mounting of circulating pump
- 2 Circulating pump
- 3 M6x25 bolt

Installing circulating pump



- 1 Connector on heater
- 2 Wiring harness of circulating pump
- 3 Connector on circulating pump

Mounting wiring harness of circulating pump



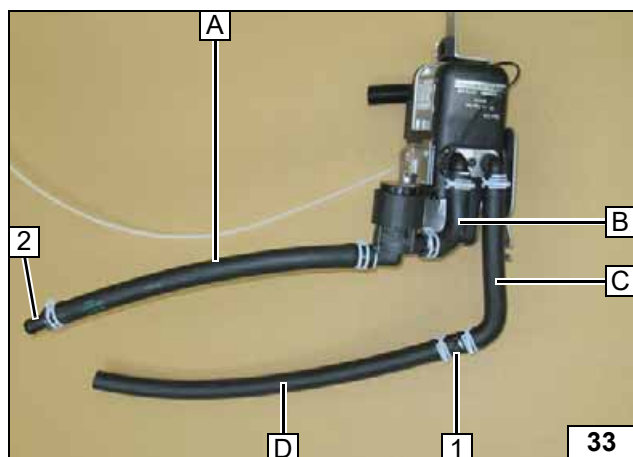
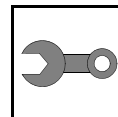
Discard section X.

	Petrol	Diesel
A =	400	360
B =	100	100
C =	210	210
D =	500	500



Cutting hoses to length

Opel Zafira

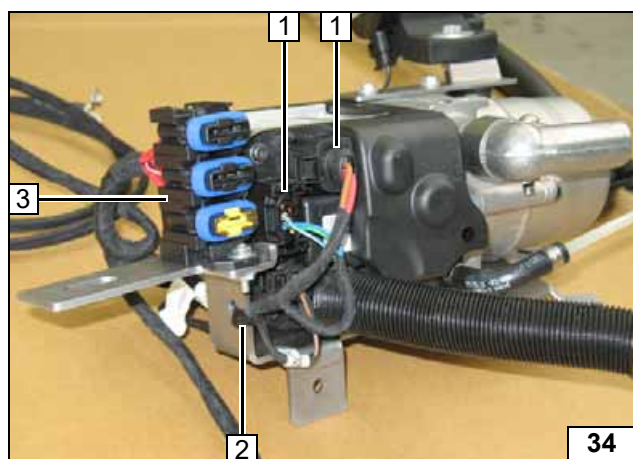


All spring clips = 27 mm dia.

- 1 20x20 connecting pipe
- 2 18x20mm connecting pipe



Installing hoses



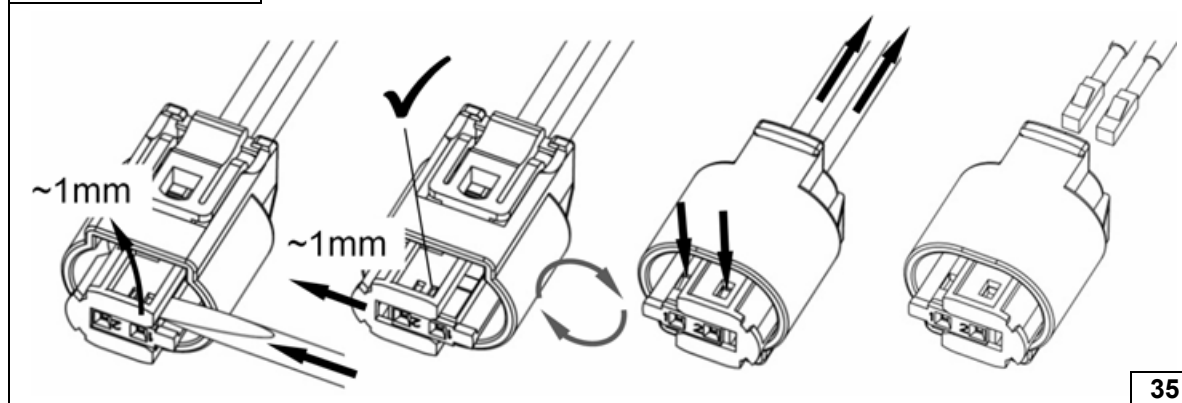
Cable tie 2 through hole of bracket and around wiring harness of circulating pump and heater.

- 1 Mount wiring harness of heater [2x]
- 3 Mount fuse holder on retaining plate

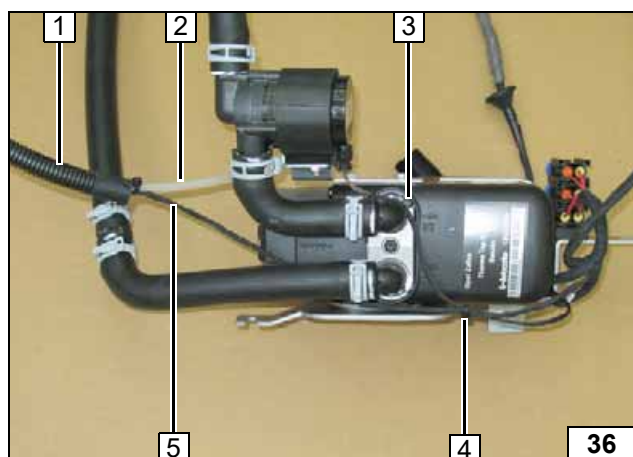


Installing wiring harness

Connector X7



Dismantling connector of metering pump

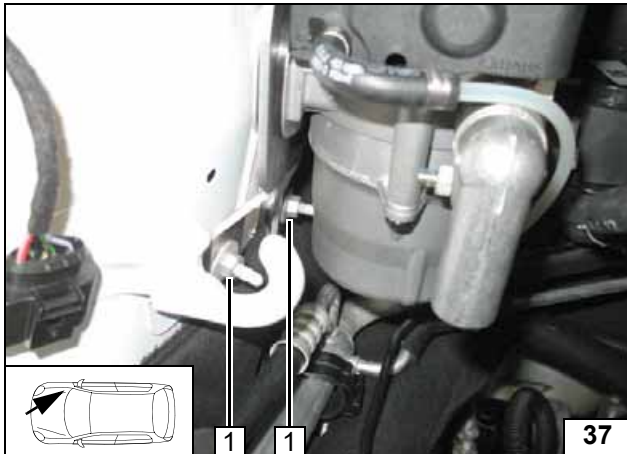
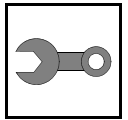


Pull fuel line 2 and wiring harness of metering pump 5 into corrugated tube 1.

- 3 Cable tie (water connection piece and wiring harness of circulating pump)
- 4 Cable tie (wiring harness of metering pump and wiring harness of circulating pump)



Preparing heater

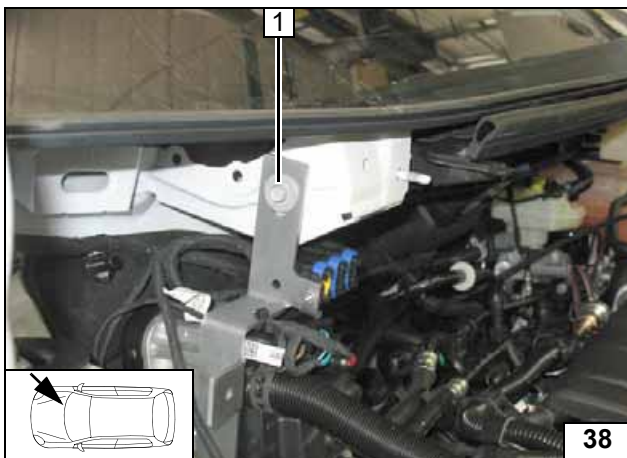


Installing Heater

Insert between bracket and body at position 1 one large diameter washer each.

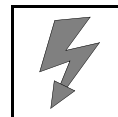
- 1 Large diameter washer, flanged nut [2x each]

Mounting heater



- 1 M6x16 bolt, large diameter washer, original vehicle threaded hole

Mounting heater

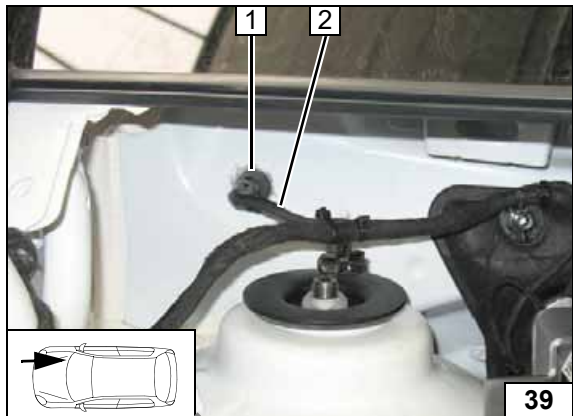


Electrical System



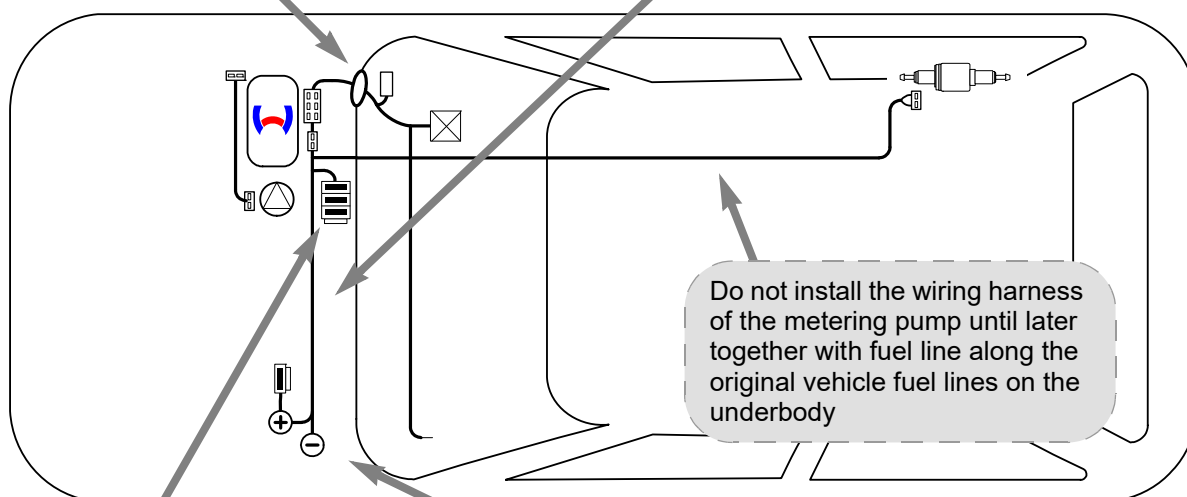
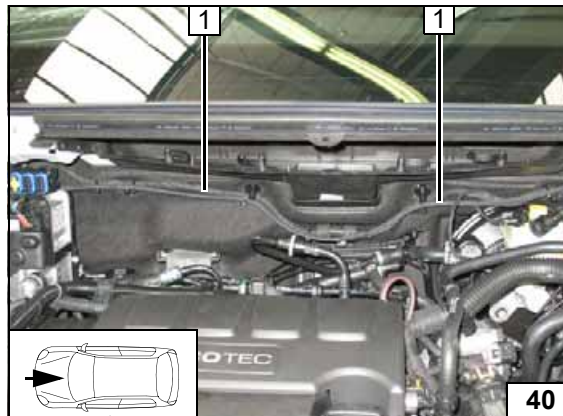
Wiring harness pass through

- 1 Protective rubber plug
- 2 Wiring harnesses of heater, SVM module

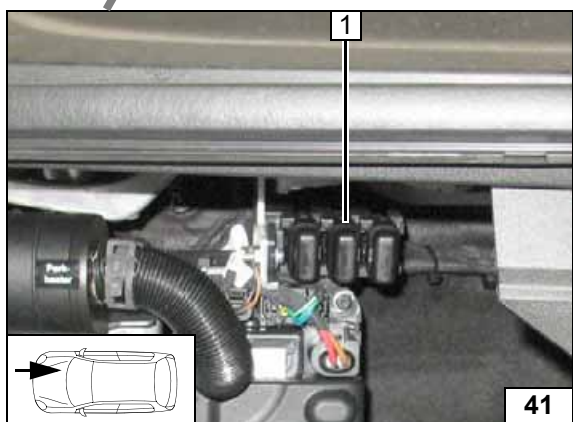


Wiring harness routing

- 1 Fasten wiring harness of heater to original vehicle wiring harness with cable tie

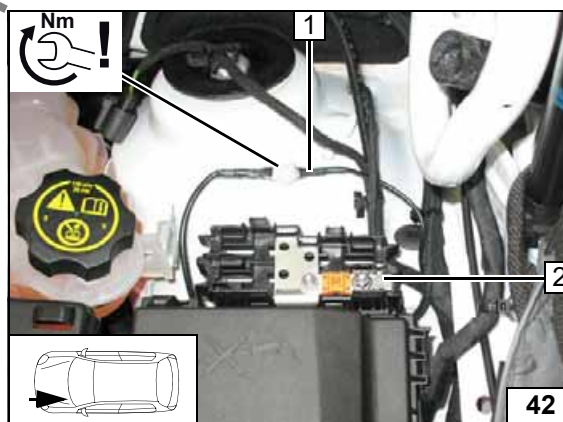


Wiring harness routing diagram



Engine compartment fuse holder

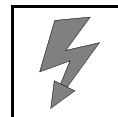
- 1 Fuses F2-4 (will be inserted later)



Positive and earth wire

- 1 Earth wire at original vehicle earth support point
- 2 Positive wire on positive support point

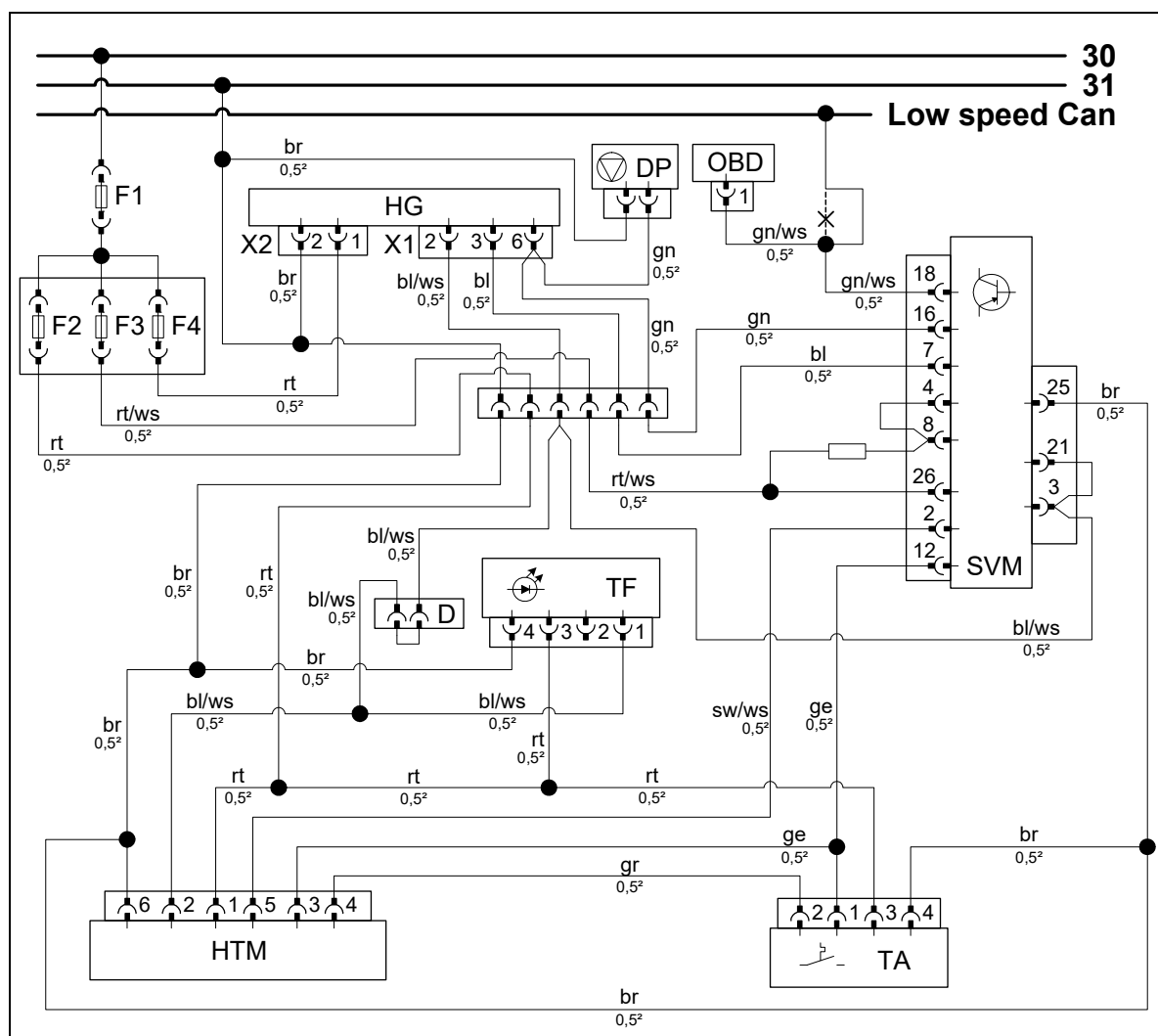




Vehicle-Specific Wiring Harness

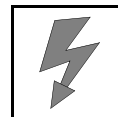


Wiring diagram



Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	SVM	Special Vehicle Module	rt	red
X1	6-pin heater connector	OBD	On Board Diagnosis	sw	black
X2	2-pin heater connector			ge	yellow
HTM	Telestart T 100 HTM			gn	green
TF	Temperature sensor			gr	grey
TA	Push button			ws	white
D	Diagnosis connector			bl	blue
F1	Fuse 30A			br	brown
F1	Fuse 30A				
F2	Fuse 5A				
F3	Fuse 5A				
F4	Fuse 20A				
				X	Cutting point
				Wiring colours may vary.	

Legend



**Wiring har-
ness rout-
ing**



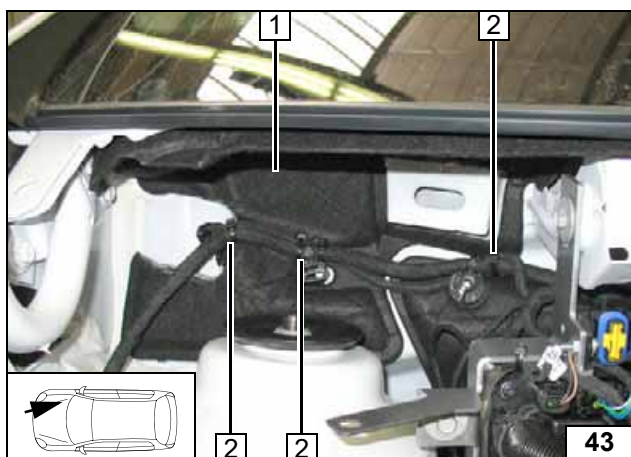
**Wiring har-
ness rout-
ing**



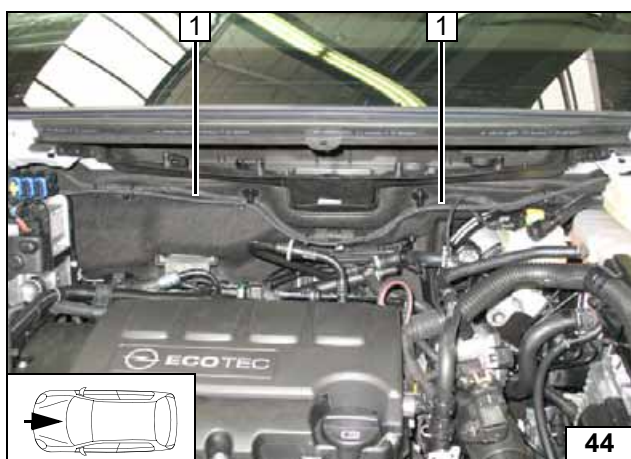
**Wiring har-
ness rout-
ing**



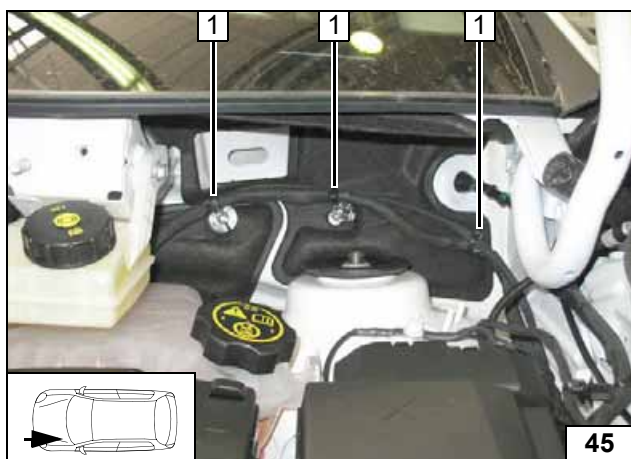
**Connec-
tion of pos-
itive
support
point**



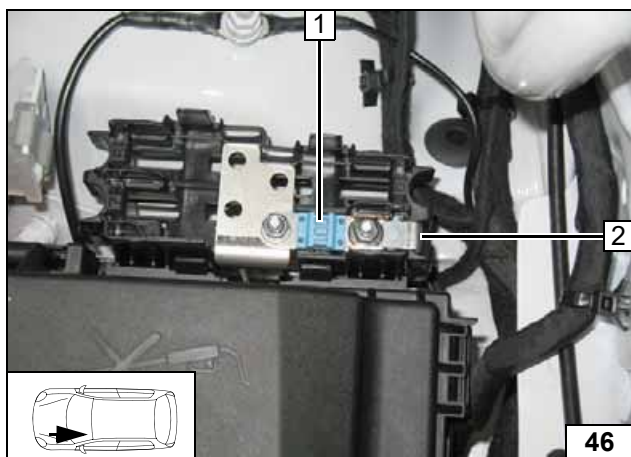
- 1 Install insulation mat
- 2 Cable tie [3x] on original vehicle wiring harness



Fasten wiring harness of heater **1** to original vehicle wiring harness with cable tie.

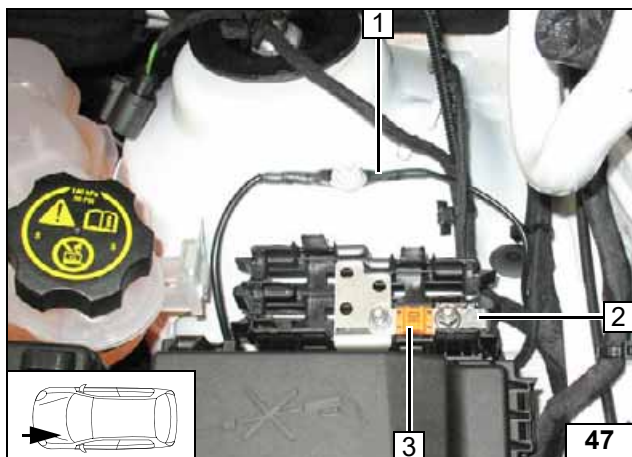
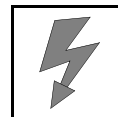


Fasten wiring harness of heater **1** to original vehicle wiring harness with cable tie.



Only in case of vehicles with electrical auxiliary heater

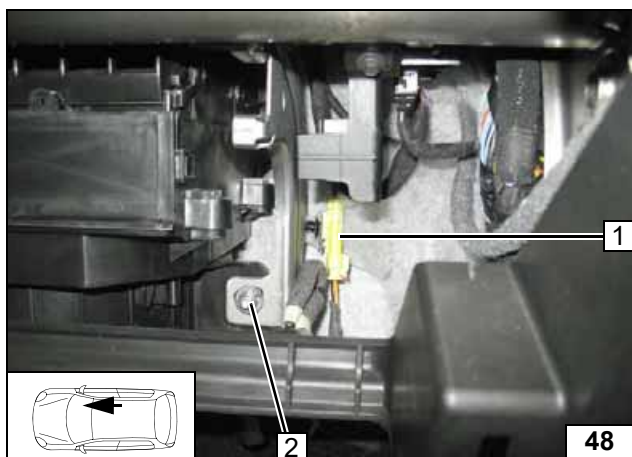
- 1 Remove 100A fuse
- 2 Remove positive wire of electrical auxiliary heater, insulate and tie it back



- 1 Earth wire at original vehicle earth support point
- 2 Positive wire on positive support point
- 3 F1 30A fuse



**Connec-
tion of pos-
itive
support
point**

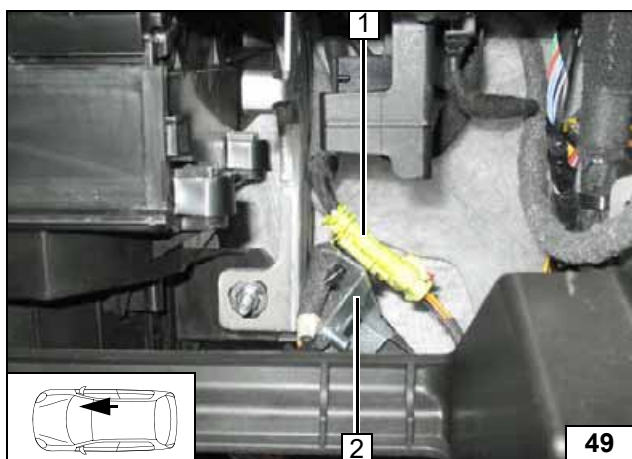


Replace original vehicle bolt at position 2 with M6x25 bolt and large diameter washer.

- 1 Detach connector of airbag from bracket
- 2 M6x25 bolt, large diameter washer



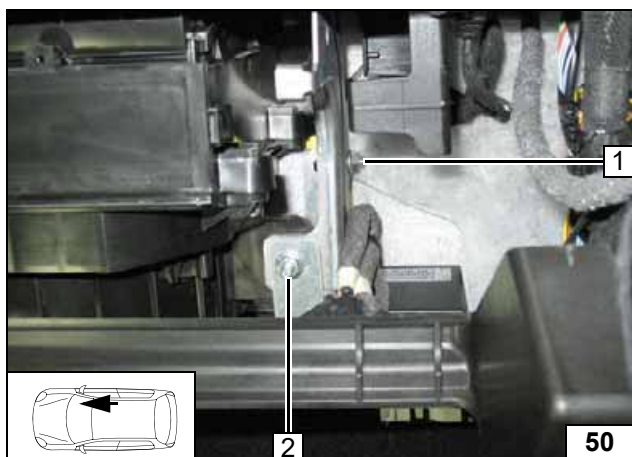
**Preparing
installation
location of
SVM mod-
ule**



Clip connector of airbag 1 into bracket of SVM module 2.



**Installing
SVM mod-
ule**

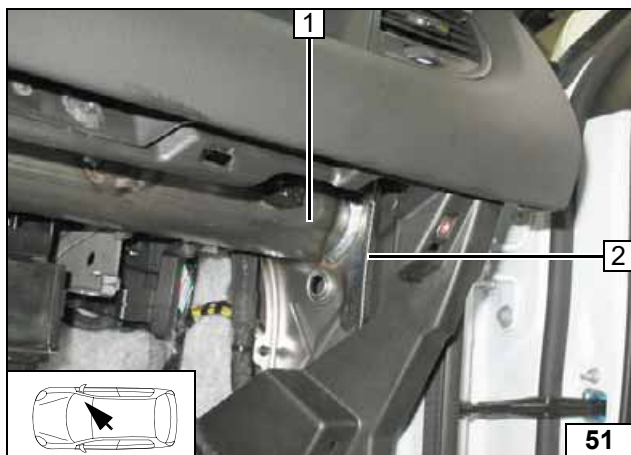
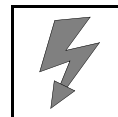


Insert stud bolt of SVM module bracket through hole of airbag connector and fasten it using flanged nut 1.

- 2 Flanged nut

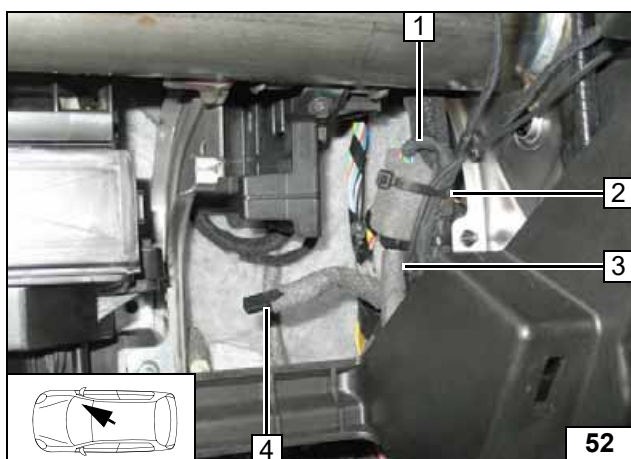


**Installing
SVM mod-
ule**



- 1 Carrier of instrument panel
- 2 Edge protection section

**Installing
edge pro-
tection**

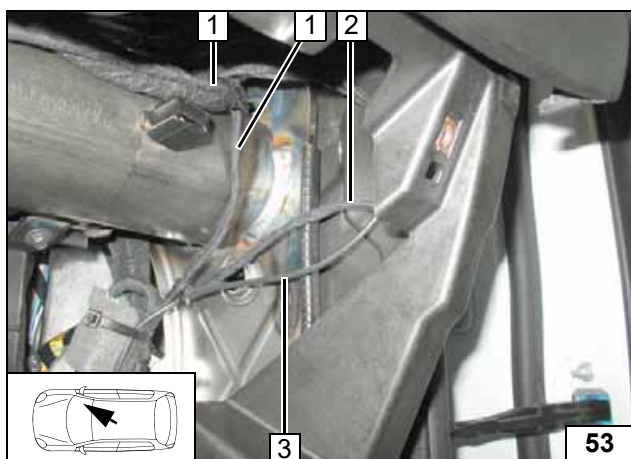


Connect wiring harness of heater **1** to wiring harness of passenger compartment **3** and fasten it to original vehicle wiring harness using cable tie **2**.



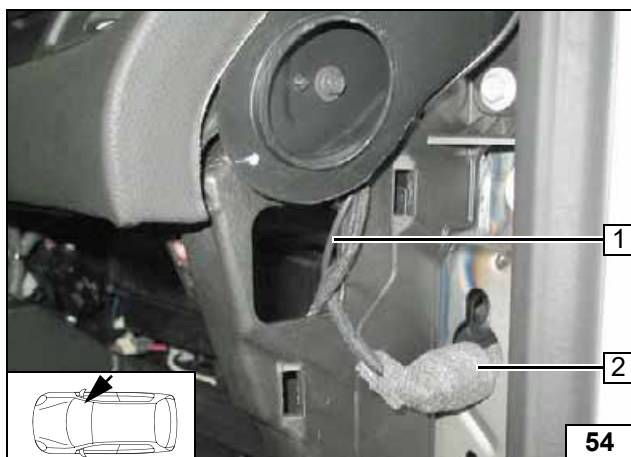
- 4 Connector of push button

**Connect-
ing the wir-
ing
harnesses**



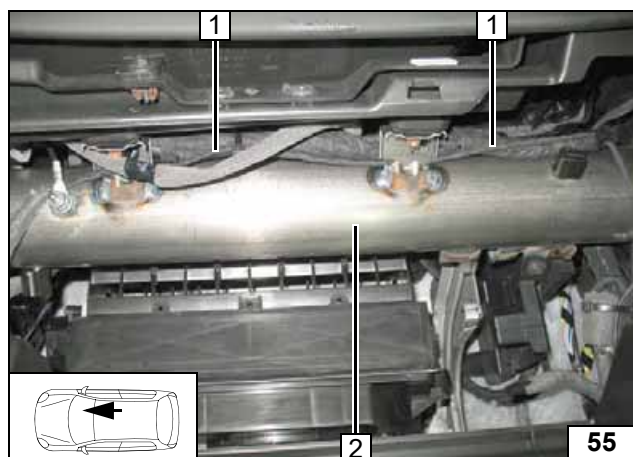
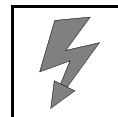
- 1 Green/white (gn/ws) wire of SVM mod-
ule/OBD socket outlet
- 2 Wire of diagnosis
- 3 Wire of antenna

**Wiring har-
ness rout-
ing**



- 1 Wire of antenna
- 2 Diagnosis connector

**Wiring har-
ness rout-
ing**

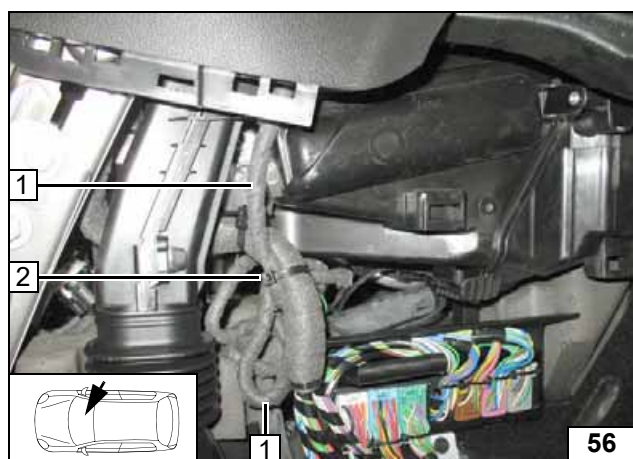


Fasten green/white (gn/ws) wire of SVM module/OBD socket outlet **1** to original vehicle wiring harness with cable tie.

2 Carrier of instrument panel



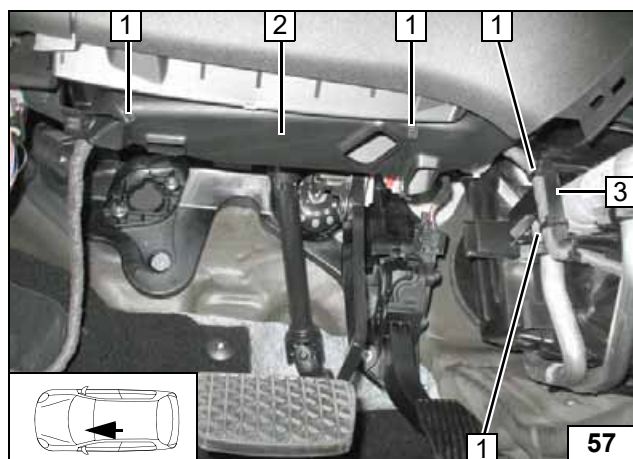
Wiring harness routing



Fasten green/white (gn/ws) wire of SVM module/OBD socket outlet **1** to original vehicle wiring harness with cable tie **2** and route it to the left side of the vehicle.



Wiring harness routing

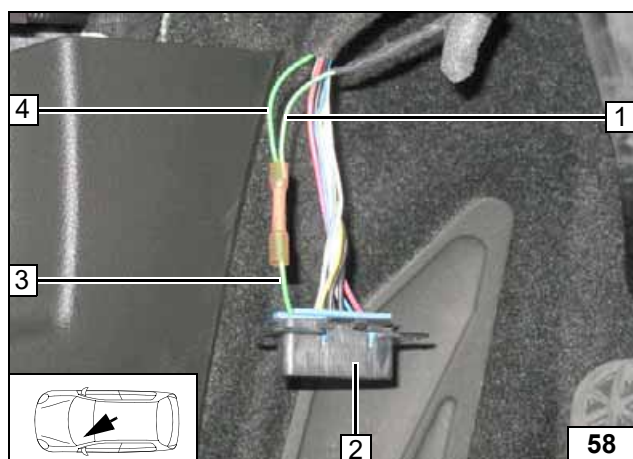


Fasten green/white (gn/ws) wire of SVM module/OBD socket outlet **1** [4x] with cable tie.

2 Ventilation duct
3 Strut



Wiring harness routing

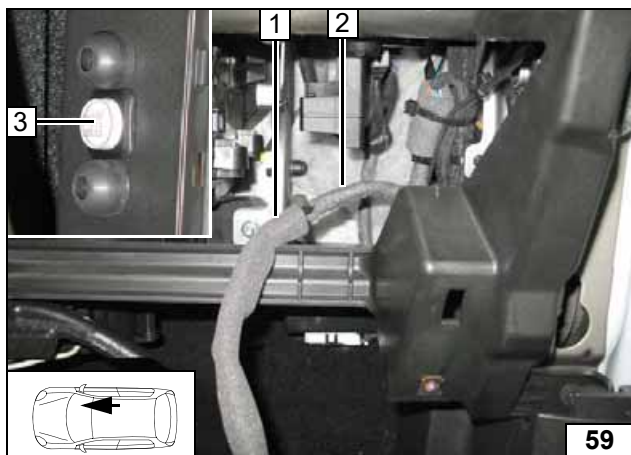
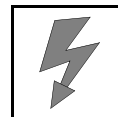


Connection to OBD socket outlet **2**. Produce connections as shown in wiring diagram (crimp and shrink connectors).

1 Green/white (gn/ws) wire of SVM module
3 Green (gn) wire of OBD socket outlet, pin 1
4 Green (gn) wire of Low Speed Can



Connection of OBD socket outlet



Telestart

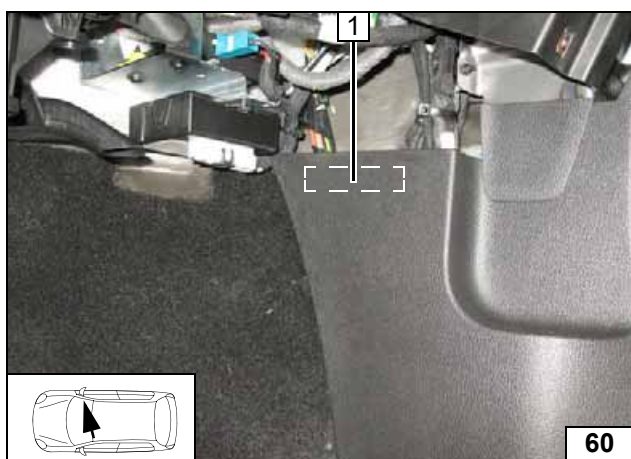
Push button

Connect wiring harness of push button 1 to wiring harness of SVM module 2.

3 Push button



Installing
push but-
ton



Installing T100 HTM temperature sensor

Fasten temperature sensor 1 (hidden) with adhesive tape.

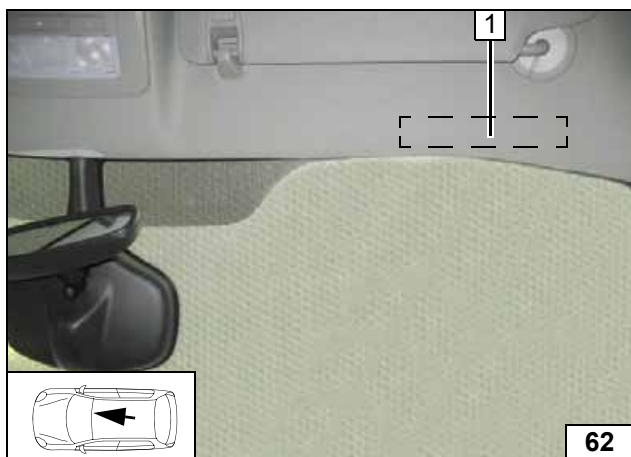


Installing
tempera-
ture sensor



1 Antenna with panorama roof

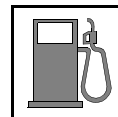
Mounting
antenna



1 Antenna without panorama roof

Mounting
antenna

Opel Zafira



Fuel

CAUTION!

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

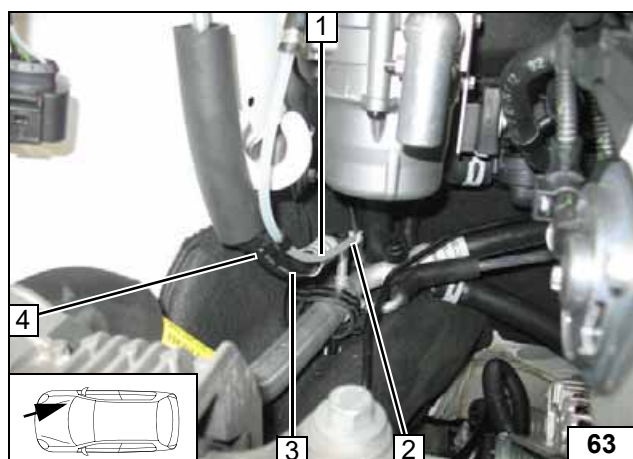
Catch any fuel running off with an appropriate container.

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

Provide rub protection for fuel line and wiring harness in areas where there are sharp edges.

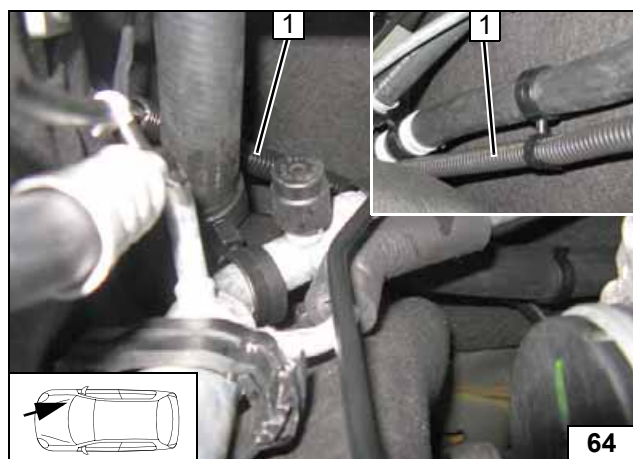
WARNING!

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



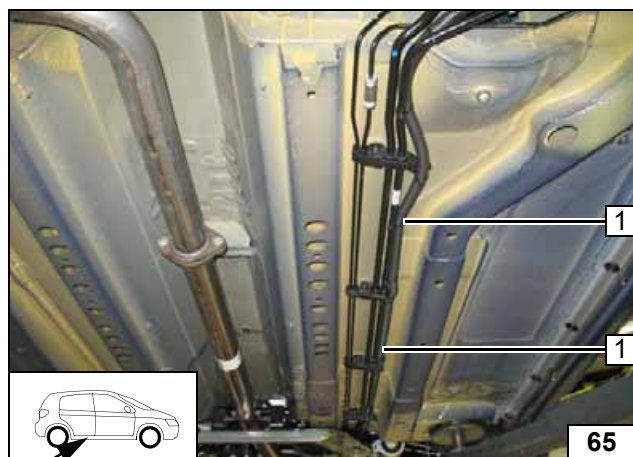
- 1 Fuel line
- 2 5x8mm hose bracket
- 3 A/C line
- 4 5x14.5mm hose bracket

Routing lines



- 1 Fuel line, wiring harness of metering pump in corrugated tube

Routing lines



Fasten fuel line and wiring harness of metering pump in corrugated tube 1 to the original vehicle fuel lines with cable tie.



Routing lines

Opel Zafira

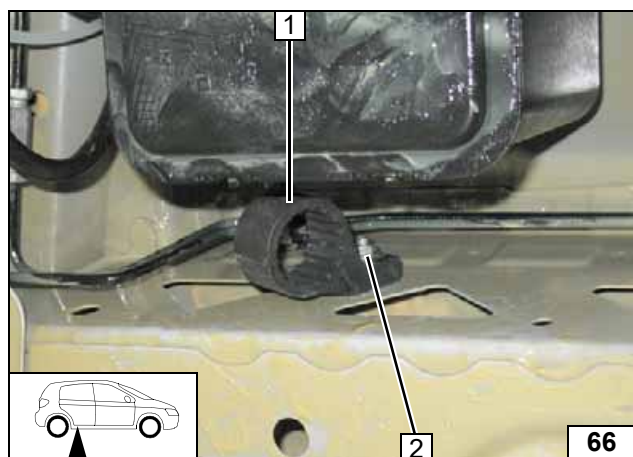
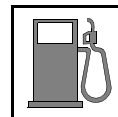
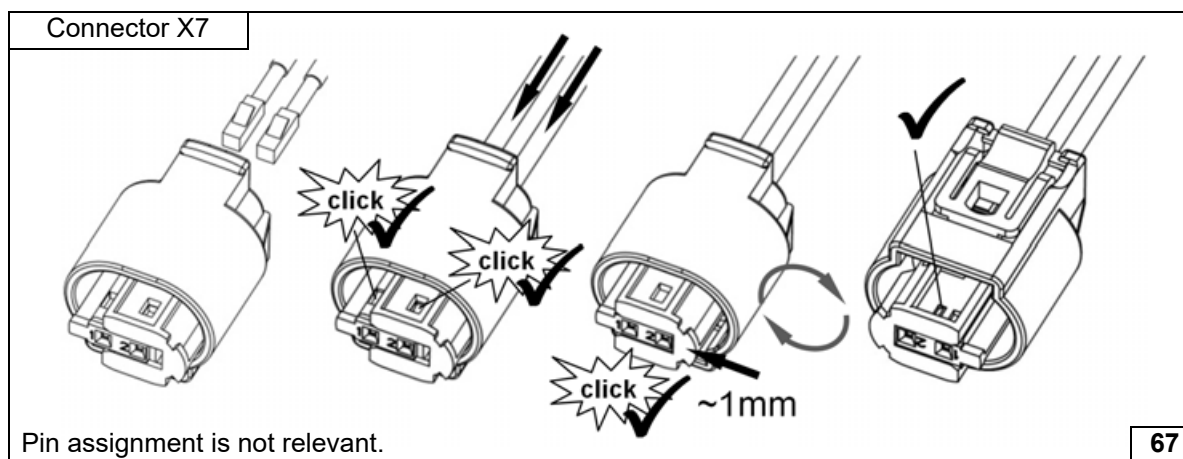


Figure shows petrol vehicle.

- 1 Mounting of metering pump
- 2 M6x25 bolt, support angle bracket, flanged nut, existing hole



Installing metering pump mounting



Pin assignment is not relevant.

67

Completing metering pump connector

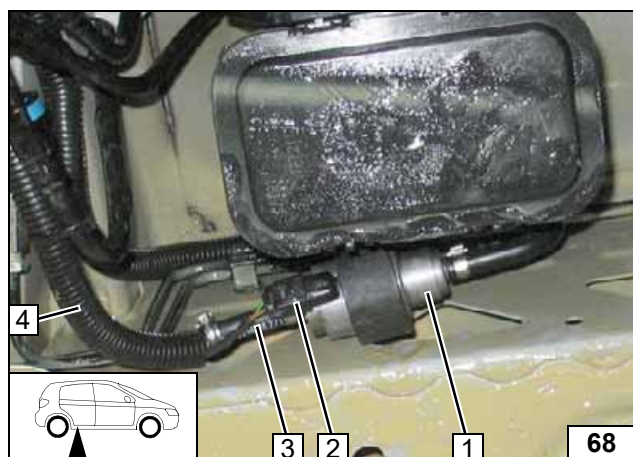
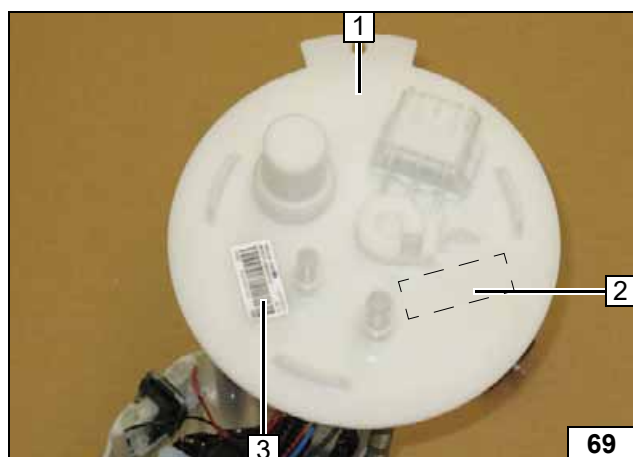


Figure shows petrol vehicle.

- 1 Metering pump
- 2 Wiring harness of metering pump, connector mounted
- 3 Hose section, 10 mm dia. clamp [2x]
- 4 Fuel line and wiring harness of metering pump in corrugated tube



Mounting metering pump



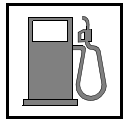
1.4 petrol

Remove fuel tank and fuel-tank sending unit 1 according to manufacturer's instructions! Move label 3 from position 2 to position 3!



Preparing fuel-tank sending unit

Opel Zafira



**Fuel ex-
traction**



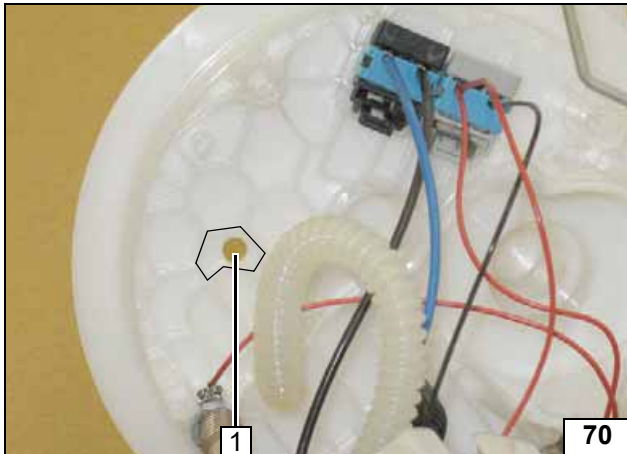
**Installing
fuel stand-
pipe**



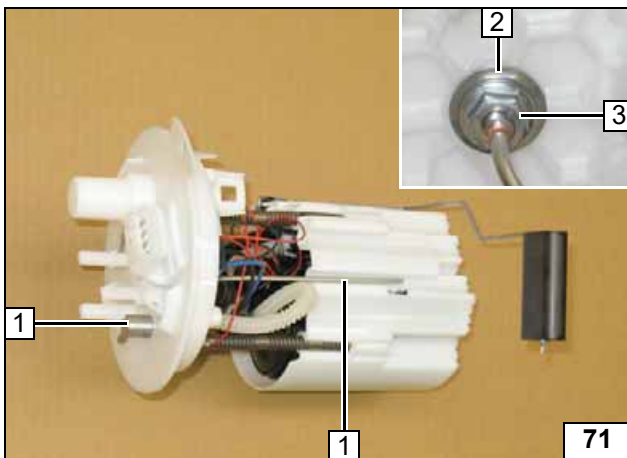
**Installing
fuel stand-
pipe**



**Routing
fuel line**



1 Copy hole pattern, 6 mm dia. hole

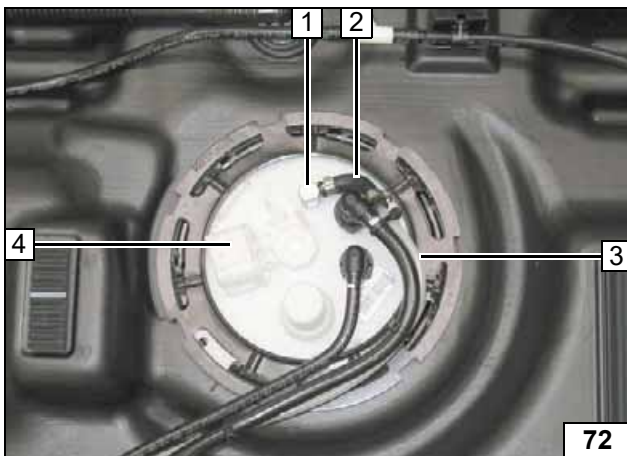


Shape fuel standpipe **1** according to template and cut to length.

Caution

Use clamp nut **3** provided with the kit. The nut with plastic safeguard supplied with the fuel standpipe will not be inserted.

2 Washer with outer dia. = 21.6mm



Install fuel-tank sending unit **4** in accordance with manufacturer's instructions.

1 Fuel standpipe

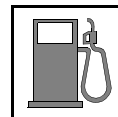
2 90° moulded hose, 10 mm dia. clamp [2x]

3 Fuel line



Fasten fuel line **1** to original vehicle fuel lines with cable tie. Install fuel-tank according to manufacturer's instructions.

Opel Zafira



Preparing fuel-tank sending unit



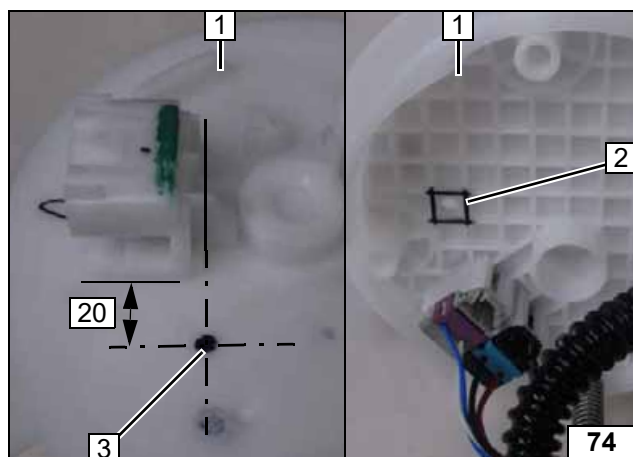
Installing fuel stand-pipe



Routing fuel line



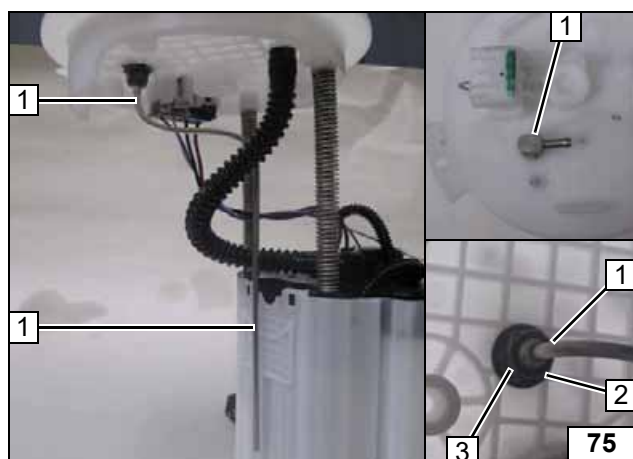
Connecting metering pump



1.6 petrol

Remove fuel tank and fuel-tank sending unit **1** in accordance with manufacturer's instructions. Mark hole pattern **3** and locate it as shown on the right centrally in position **2**, adjust if necessary.

3 6 mm dia. hole

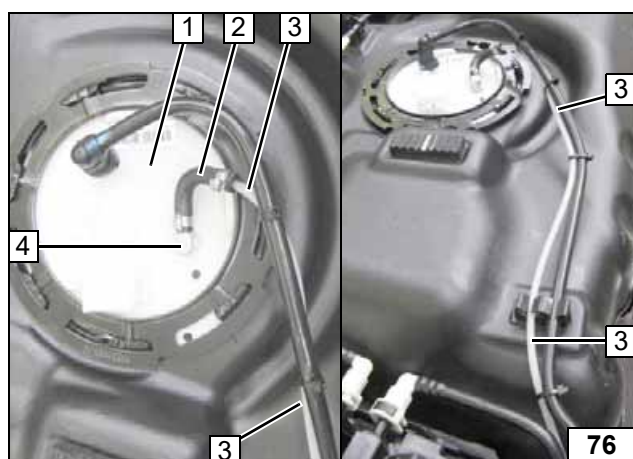


Shape fuel standpipe **1** according to template and cut to length.

Caution

Use clamp nut **3** provided with the kit. The nut with plastic safeguard supplied with the fuel standpipe will not be inserted.

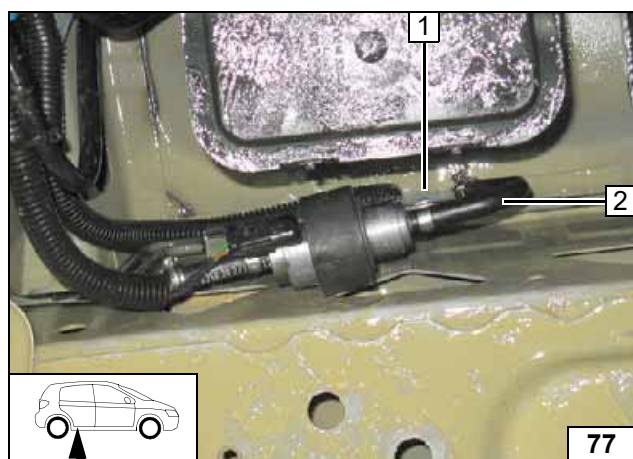
2 Washer with outer dia. = 21.6mm



Install fuel-tank sending unit **1** in accordance with manufacturer's instructions.

Fasten fuel line **3** to original vehicle fuel lines with cable tie. Install fuel-tank according to manufacturer's instructions.

2 90° moulded hose, 10 mm dia. clamp [2x]
4 Fuel standpipe

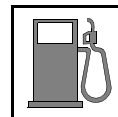


All petrol vehicles.

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

1 Fuel line
2 180° moulded hose, 10 mm dia. clamp [2x]

Opel Zafira



Fuel ex- traction

Cutting moulded hose to length



Installing fuel stand- pipe



Connect- ing meter- ing pump

Diesel

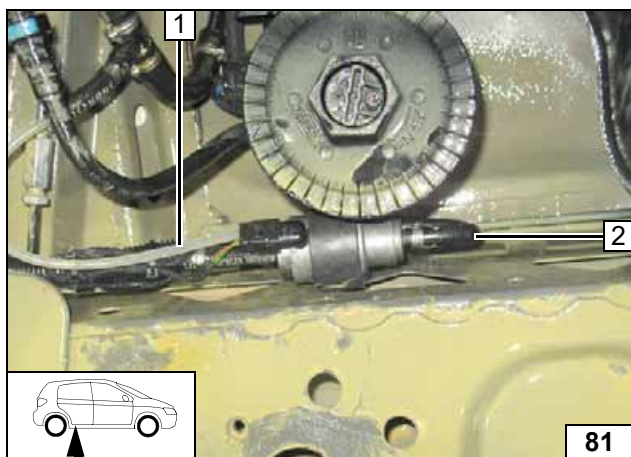
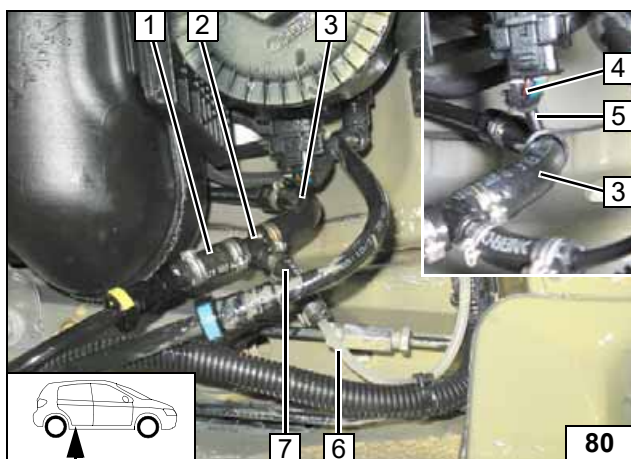
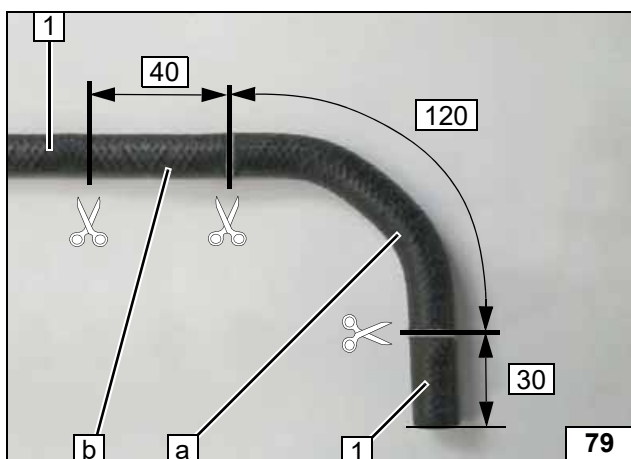
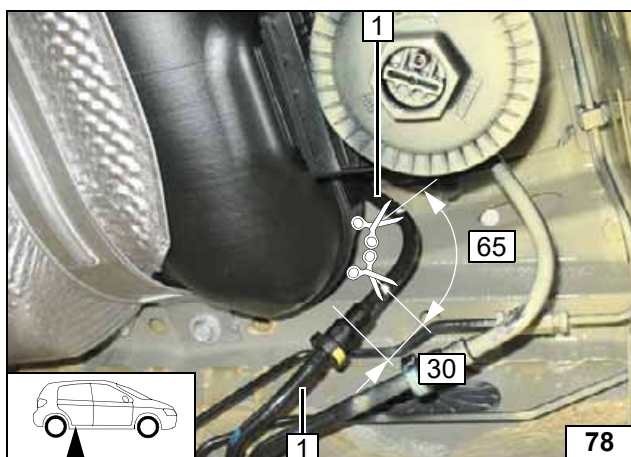
Separate fuel return line **1** at the markings [2x]. Discard section. Insert 8mm dia. support sleeve [2x] into both wire ends.

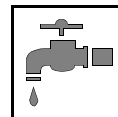
- 1** Discard hose section [2x]
 - a** 120mm, 90°, 9.5mm dia. moulded hose section
 - b** 40mm, 9.5mm, dia. moulded hose section

- 1** Moulded hose section **b**, support sleeve, 15.5mm clamp [2x]
- 2** 10x5x10mm fuel standpipe
- 3** Moulded hose section **a**, support sleeve, 15.5mm clamp [2x]
- 4** Original vehicle wiring harness
- 5** 12x15mm hose bracket
- 6** Fuel line
- 7** Hose section, 10 mm dia. clamp [2x]

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

- 1** Fuel line
- 2** 180° moulded hose, 10 mm dia. clamp [2x]



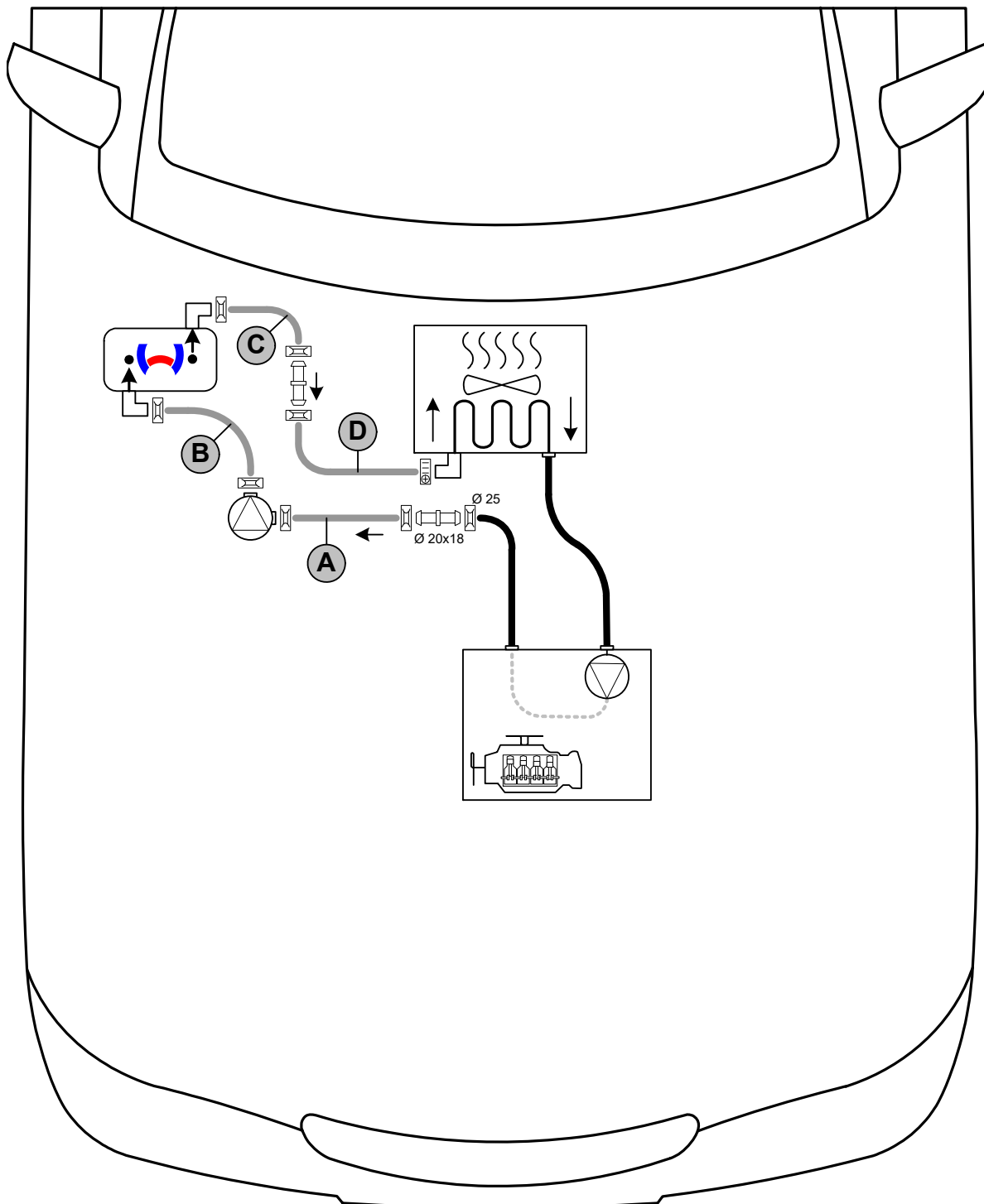


Coolant Circuit




WARNING!

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

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

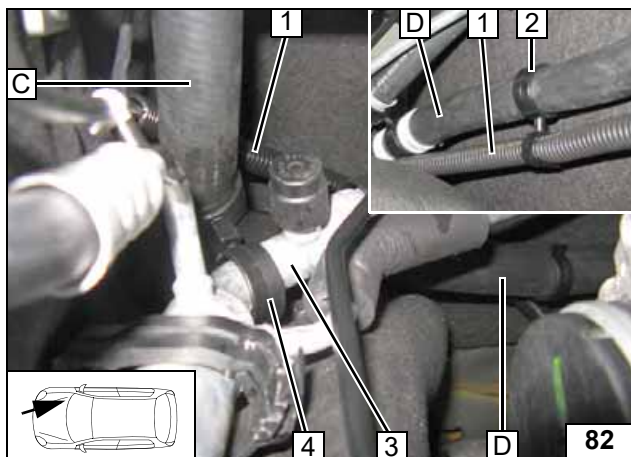
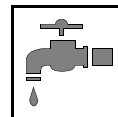


Hose installation diagram

All spring clips without a specific designation  = 27 mm dia. Hose clamp  = 28x35mm dia. Undesignated connecting pipe  = 20x20mm dia.

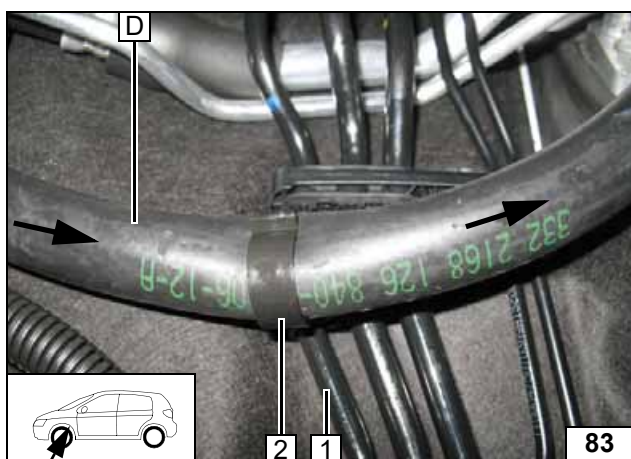
All hose brackets not designated in the following section = lockable twice 25-27.





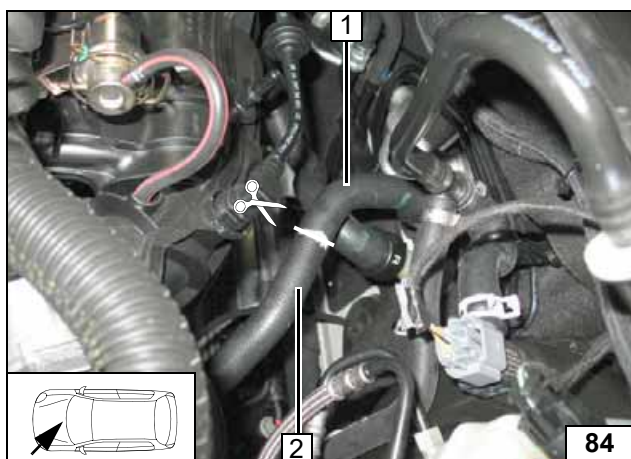
- 1 Fuel line, wiring harness of metering pump in corrugated tube
- 2 14x27mm hose bracket
- 3 A/C line
- 4 Hose bracket

Routing lines



- 1 Original vehicle fuel line
- 2 8x27mm hose bracket

Routing

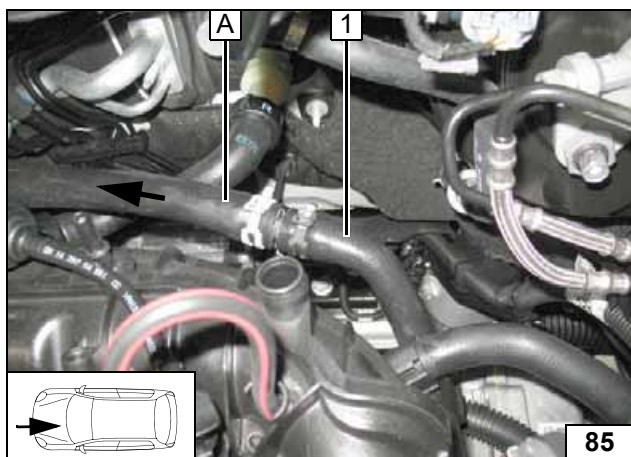


1.4 Petrol

Cut the engine outlet hose / heat exchanger inlet at the marking. Remove hose section of heat exchanger inlet 1 and discard.

- 2 Engine outlet hose section

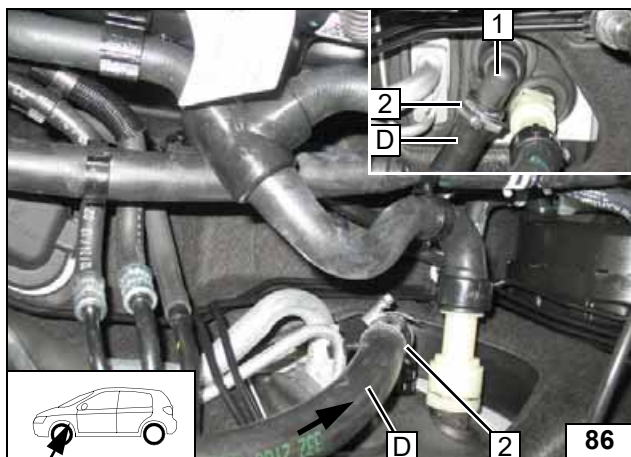
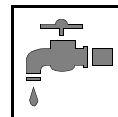
Cutting point



- 1 Engine outlet hose section

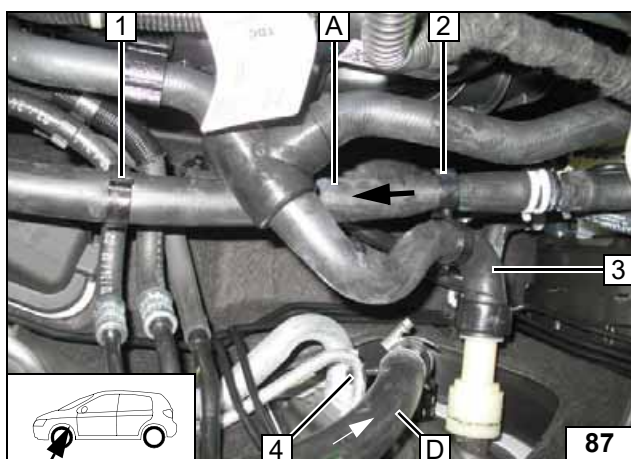
Connect-
ing engine
outlet

Opel Zafira



- 1 Coupling of heat exchanger inlet
- 2 Clamp 28-35

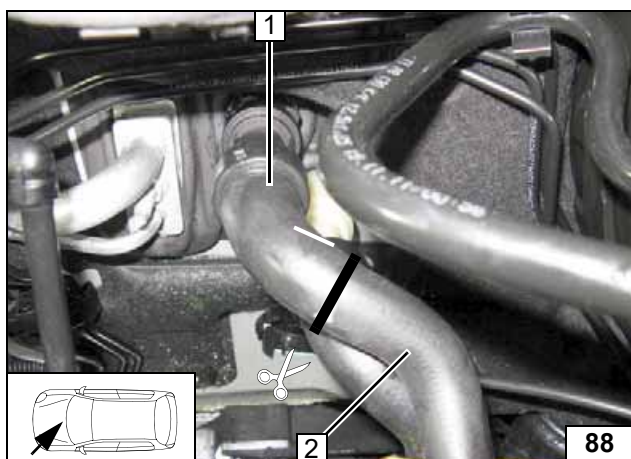
**Connect-
ing heat ex-
changer
inlet**



Align hoses. Ensure sufficient distance from adjacent components; correct if necessary.

- 1 14x27mm hose bracket on fuel line and hose A
- 2 Hose bracket
- 3 Hose of heat exchanger outlet
- 4 8x27mm hose bracket on A/C line and hose D

Routing

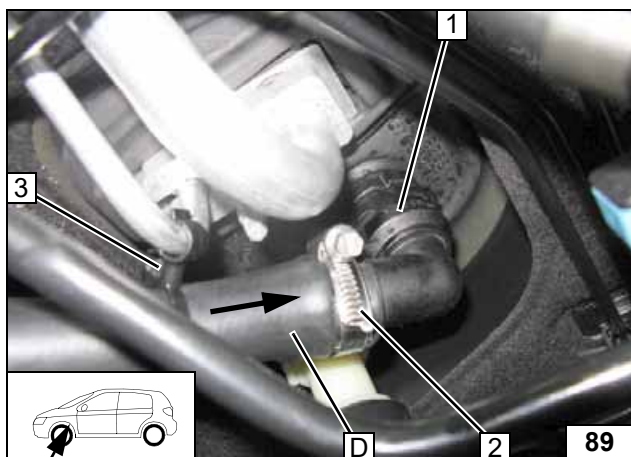


1.6 Petrol

Cut the engine outlet hose / heat exchanger inlet at the marking. Remove hose section of heat exchanger inlet 1 and discard.

- 2 Engine outlet hose section

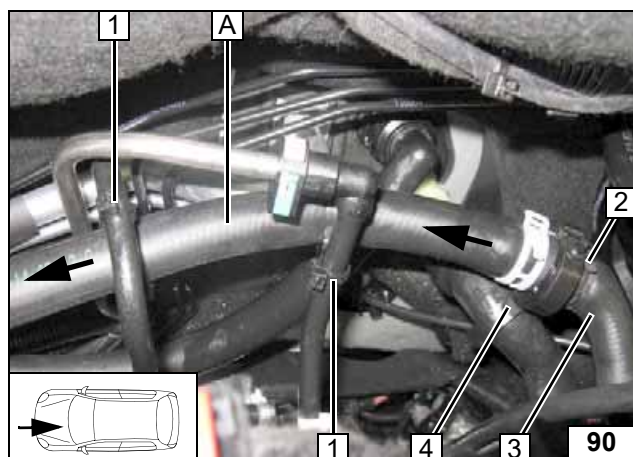
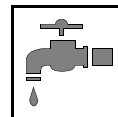
**Cutting
point**



- 1 Coupling of heat exchanger inlet
- 2 Clamp 28-35
- 3 8x27mm hose bracket on original vehicle A/C line and hose D

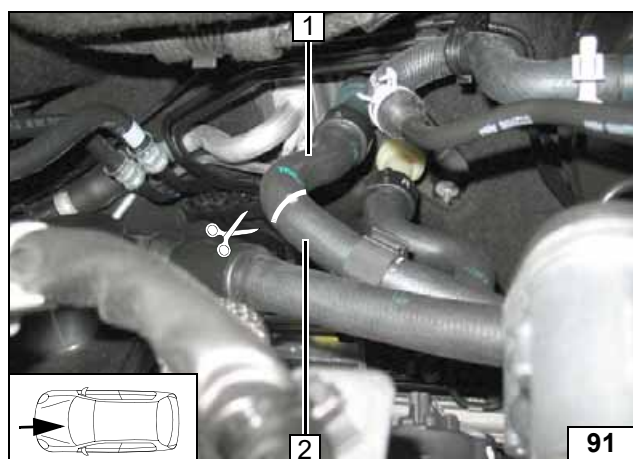
**Connect-
ing heat ex-
changer
inlet**

Opel Zafira



- 1 8x27mm hose bracket [2x] between hose A and original vehicle fuel line
- 2 25 mm dia. spring clip
- 3 Engine outlet hose section
- 4 27x27mm hose bracket between hose A and heat exchanger outlet hose

**Connect-
ing engine
outlet**

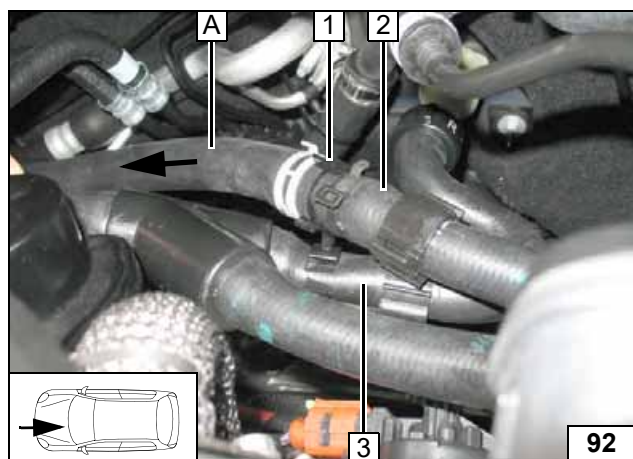


Diesel

Cut the engine outlet hose / heat exchanger inlet at the marking. Remove hose section of heat exchanger inlet 1 and discard.

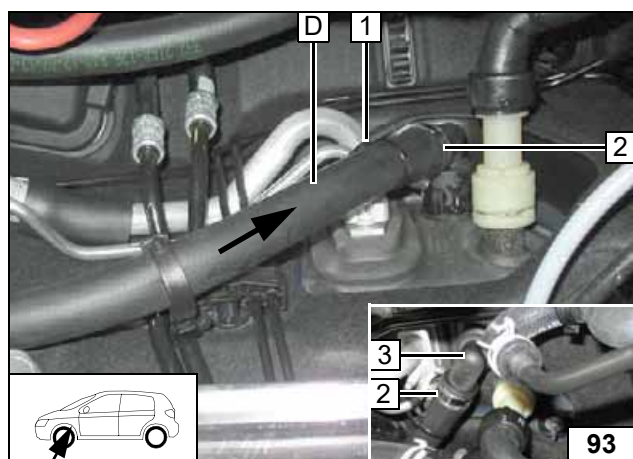
- 2 Engine outlet hose section

**Cutting
point**



- 1 Hose bracket
- 2 Engine outlet hose section
- 3 Hose of heat exchanger outlet

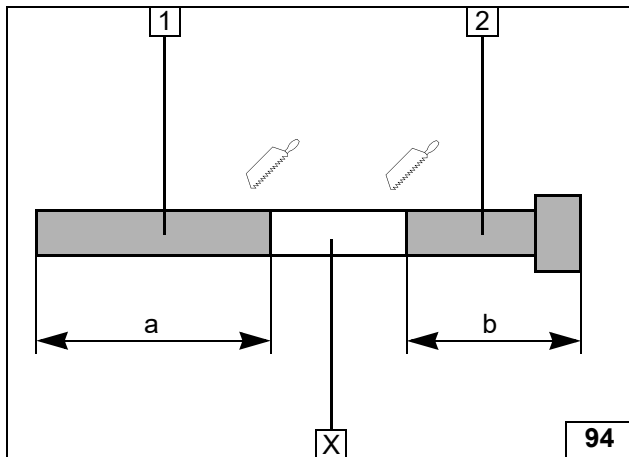
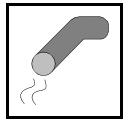
**Connect-
ing engine
outlet**



- 1 8x27mm hose bracket on A/C line and hose D
- 2 Clamp 28-35
- 3 Coupling of heat exchanger inlet

**Connect-
ing heat ex-
changer
inlet**

Opel Zafira



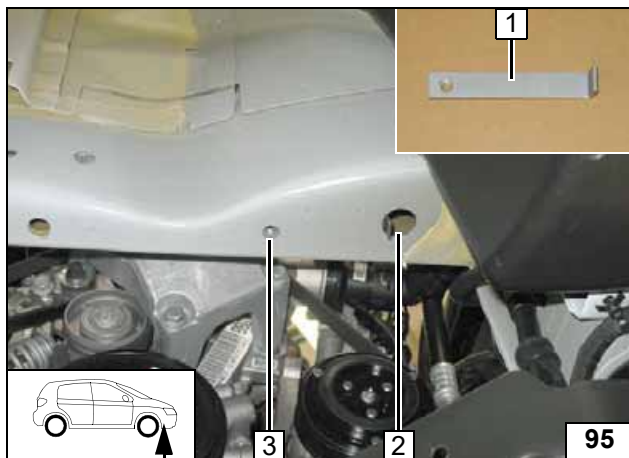
Exhaust Gas

Discard section X.

	1.4 petrol / diesel	1.6 petrol
Exhaust pipe a =	550	630
Exhaust end section b =	160	160



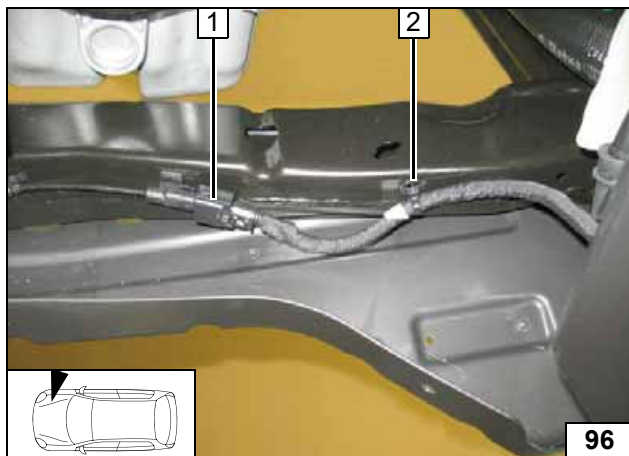
**Preparing
exhaust
pipe**



Insert bracket 1 into hole 2 and align with threaded hole at position 3.

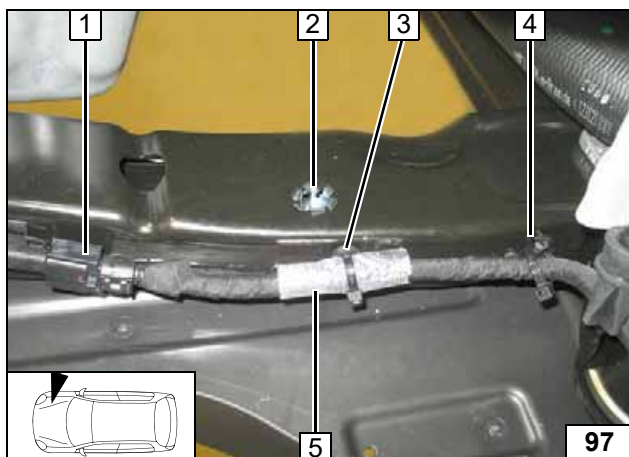


**Preparing
installation
location**



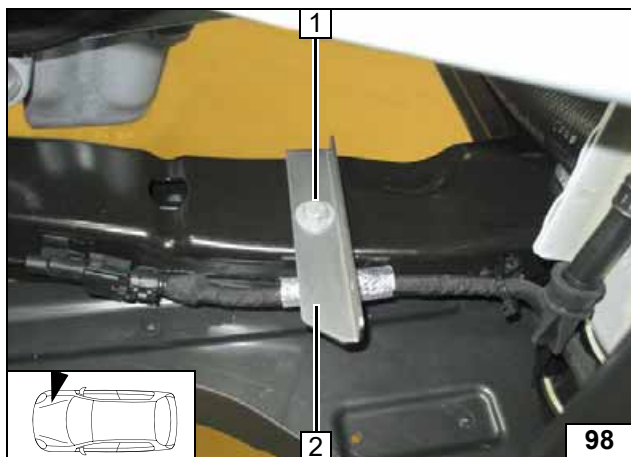
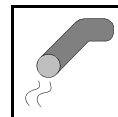
- 1 Separate ABS connector
- 2 Remove hole cable tie

**Preparing
ABS wire**



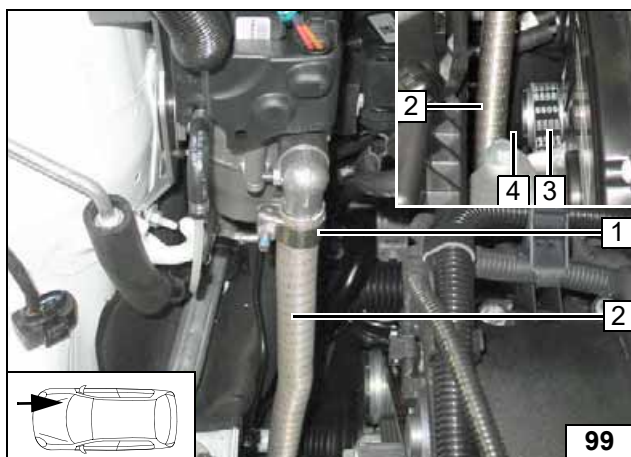
- 1 Connect ABS connector
- 2 Cage nut, existing hole
- 3 Cable tie with hole
- 4 Only tighten hole cable tie slightly (serves as ducting)
- 5 Insulation on ABS wire

**Insulating
ABS wire**



- 1 M8x20 bolt, spring lockwasher, washer in cage nut
- 2 Bracket of exhaust end section

Installing bracket of exhaust end section



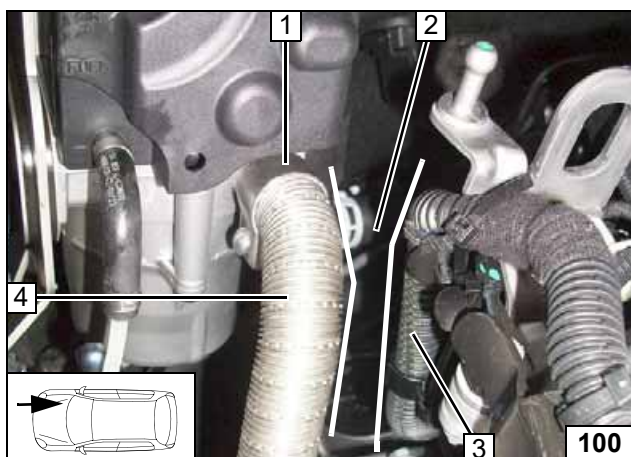
1.4 petrol and diesel

In case of diesel, ensure freedom of movement (at least 20mm) between exhaust pipe 2 and belt drive 3 at position 4, correct if necessary.

- 1 Hose clamp
- 2 Exhaust pipe



Mounting exhaust pipe



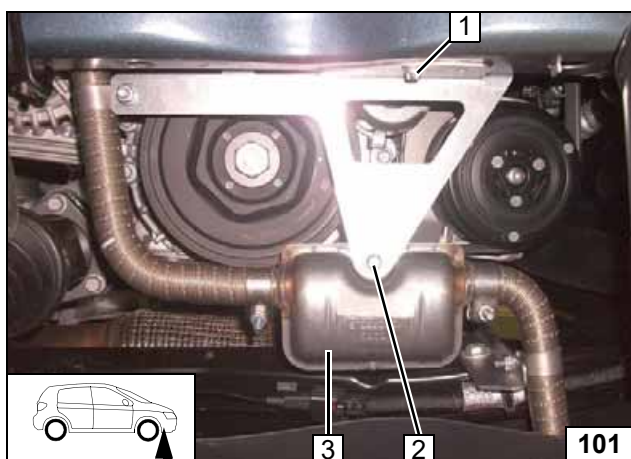
1.6 petrol

Ensure freedom of movement (at least 20mm) between exhaust pipe 4 and original vehicle wiring harness 3 at position 2, correct if necessary.

- 1 Hose clamp
- 4 Exhaust pipe



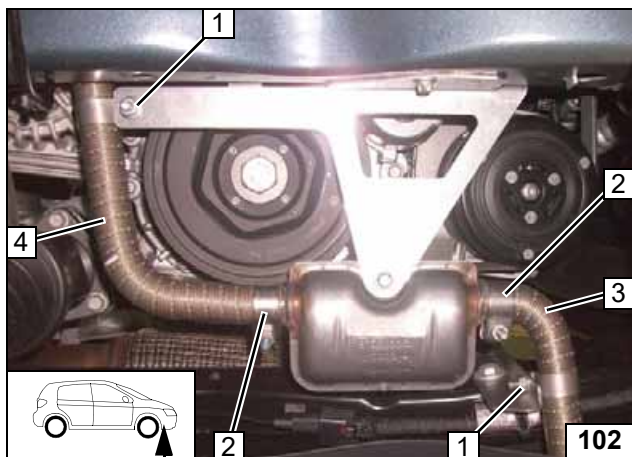
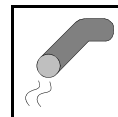
Mounting exhaust pipe



All vehicles

- 1 M6x25 bolt in threaded hole of premounted bracket
- 2 M6x16 bolt, flanged nut
- 3 Silencer

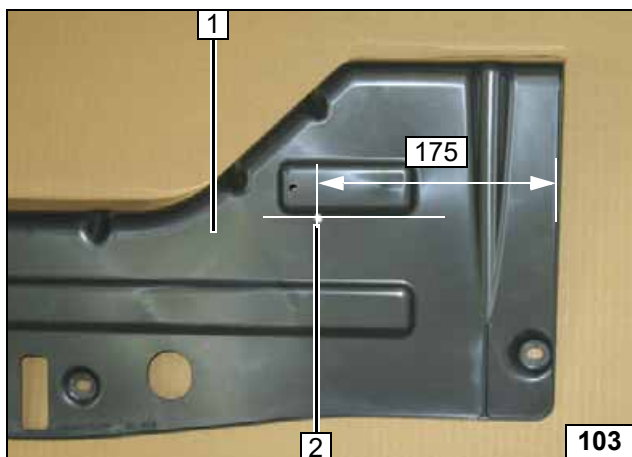
Installing silencer



Shape and install exhaust pipe **4** and exhaust end section **3** as shown.

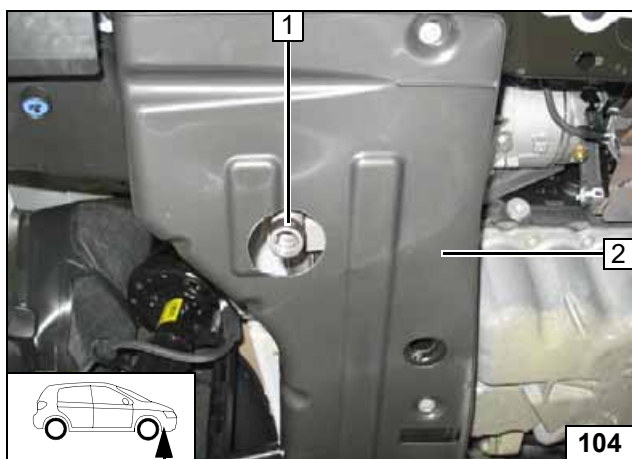
- 1** M6x16 bolt, pipe clamp, flanged nut [2x each]
- 2** Hose clamp [2x]
- 3** Exhaust end section
- 4** Exhaust pipe

Mounting exhaust pipe and exhaust end section



- 1** Underride protection
- 2** 60 mm dia. hole

Hole in underride protection

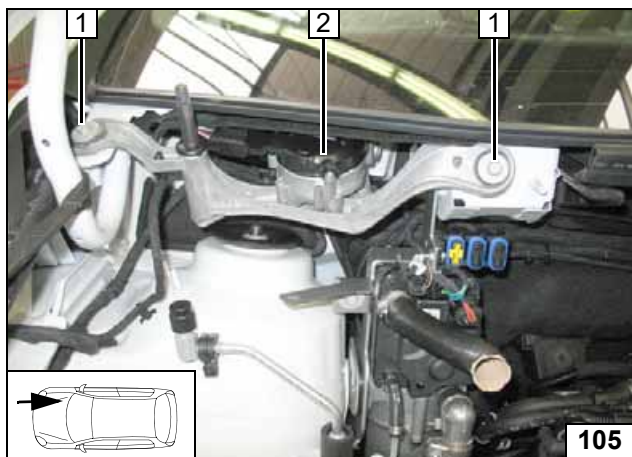
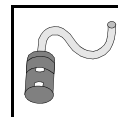


Align exhaust end section **1** in the middle of the hole and flush on underride protection **2**.



Aligning exhaust end section

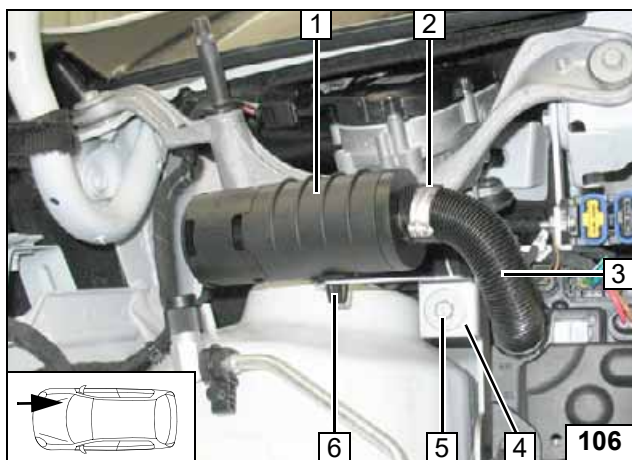
Opel Zafira



Combustion Air

- 1 Original vehicle bolt [2x]
- 2 Windscreen wiper motor

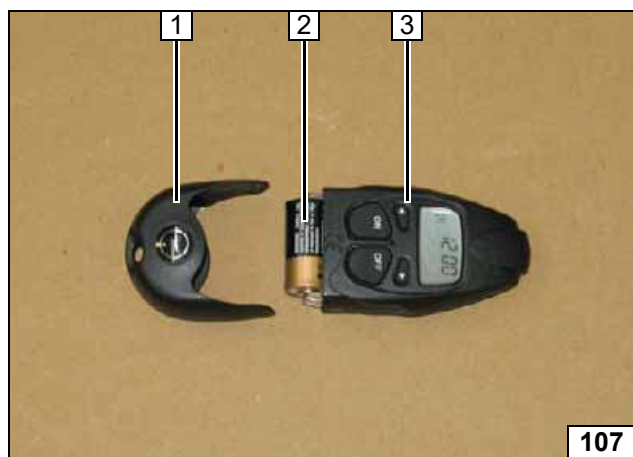
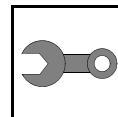
**Installing
wind-
screen wip-
er motor**



- 1 Silencer
- 2 25mm dia. Caillau clamp
- 3 Combustion air pipe
- 4 Bracket of combustion air
- 5 M6x20 bolt, spring lockwasher, large diameter washer, flanged nut
- 6 Retaining clip of silencer in hole



**Installing
silencer**

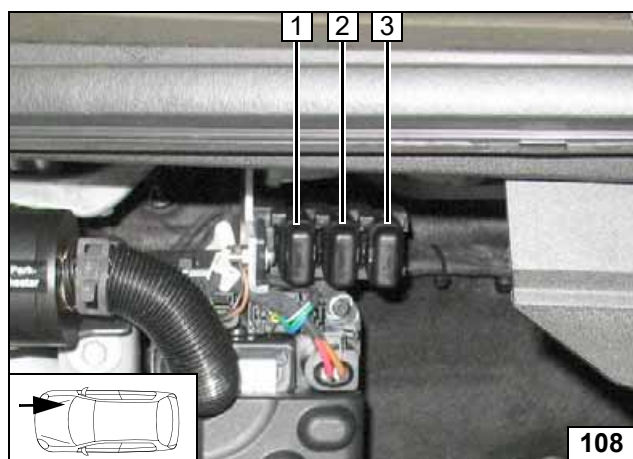


Final Work

When inserting battery 2, ensure correct polarity!

- 1 Cover of battery compartment
- 2 Battery
- 3 Transmitter

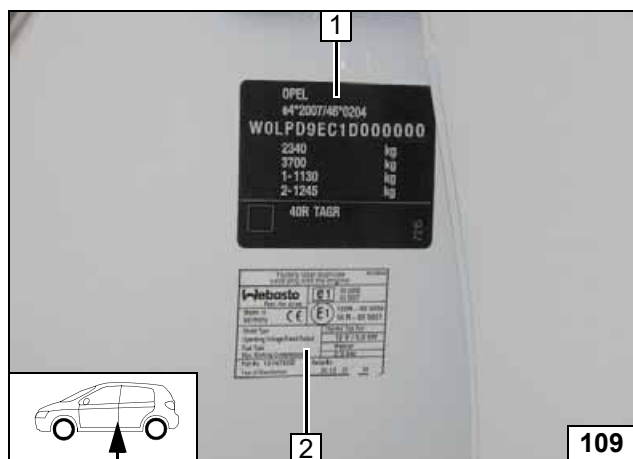
Preparing transmitter



Transmitter and push button are to be taught prior to insertion of fuse F2 3.

- 1 Fuse F4 - 20A
- 2 Fuse F3 - 5A
- 3 Fuse F2 - 5A

Inserting fuses



- 1 Type label of vehicle
- 2 Duplicate label (type label) of heater

Affixing duplicate label



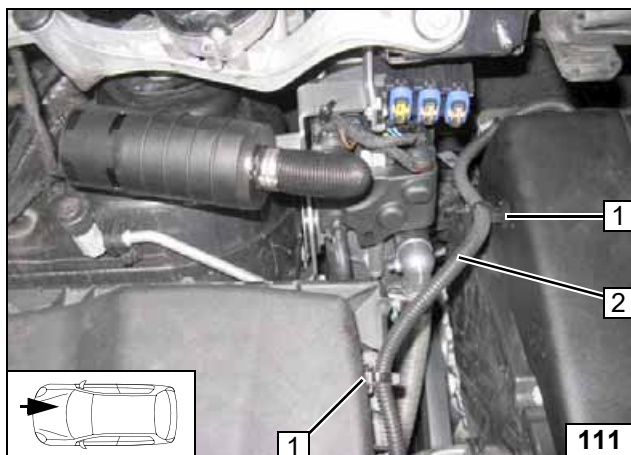
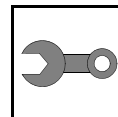
Only for 1.6 petrol

Cut off engine cover 1 at the marking.

Adapting engine cover



Opel Zafira



All vehicles

6mm dia. hole at position **1** [2x]. When drilling, watch components located behind. Ensure sufficient distance (min. 20mm) to the exhaust pipe.

- 1** Hole cable tie [2x]
- 2** Wiring harness of air-mass sensor



Fastening wiring harness

WARNING!

Mount removed parts in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back all loose wires.

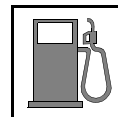
Only use manufacturer-approved coolant. Spray heater components with anti-corrosion wax (Tectyl 100K).



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

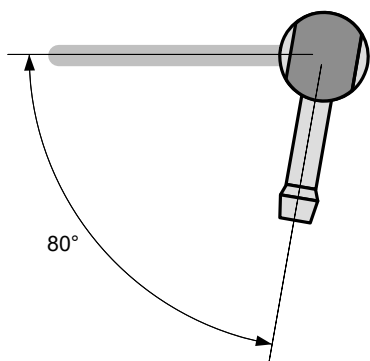


Opel Zafira



Fuel Standpipe Template for 1.4 Petrol and Diesel

Top view



100mm

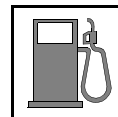


Scale 1:1

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

Set the printer settings to "no margin" or "minimise margins" and 100% of the normal size.

100mm



Fuel Standpipe Template for 1.6 Petrol

Top view

