Water Heater

Webasto
Feel the Drive

***Thermo Top Evo 5+* Parking Heater** E1 00 0258

Installation Documentation
Mercedes Benz E-Class / CLS-Class
Saloon W212 / Estate car S212 / CLS C218

Validity

Manufacturer	Model	Type	EG-BE No. / ABE
Daimler AG	E-Class	W212	e1 * 2001 / 116 * 0501 * ...
Daimler AG	E-Class	S212	e1 * 2001 / 116 * 0501 * ...
Daimler AG	E-Class	S212K	e1 * 2007 / 46 * 0200 * ...
Daimler AG	CLS class	C218	e1 * 2007 / 46 * 0485 * ...

Saloon (W212)

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
E 200 CDI	Diesel / R4	AG / SG	100	2143	651.925
E 220 CDI	Diesel / R4	AG / SG	125	2143	651.924
E 250 CDI	Diesel / R4	AG / SG	150	2143	651.924
E 300 CDI	Diesel / V6	AG	170	2987	642.852/ .850
E 350 CDI	Diesel / V6	AG	155 170 195	2987	642.850 642.856/ .850 642.858/ .852
E 200 CGI	Petrol / R4	AG / SG	135	1796	271.820/ .977
E 200	Petrol / R4	AG	135	1991	
E 250 CGI	Petrol / R4	AG	150	1796	271.860
E 350	Petrol / V6	AG	200	3498	272.977/276.952
E 350 CGI	Petrol / V6	AG	215	3498	272.983

Estate Car (S212)

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
E 200 CDI	Diesel / R4	AG / SG	100	2143	651.925
E 220 CDI	Diesel / R4	AG / SG	125	2143	651.924
E 250 CDI	Diesel / R4	AG / SG	150	2143	651.924
E 300 CDI	Diesel / V6	AG	170	2987	642.850
E 350 CDI	Diesel / V6	AG	155 170 195	2987	642.850 642.856/ .850 642.858/ .852
E 200 CGI	Petrol / R4	AG / SG	135	1796	271.860/ .820
E 200	Petrol / R4	AG	135	1991	
E 250 CGI	Petrol / R4	AG	150	1796	271.860
E 250	Petrol / R4	AG	150	2496	272.923
E 300	Petrol / V6	AG	185	3498	276.952
E 350	Petrol / V6	AG	200	3498	272.977/ .980
E 350 CGI	Petrol / V6	AG	215	3498	272.983
E 350	Petrol / V6	AG	225	3498	276.952

CLS (C218)

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
CLS 250 CDI	Diesel / R4	AG / SG	150	2143	651.924
CLS 350 CDI	Diesel / V6	AG	195	2987	642.854/ .853
CLS 350	Petrol / V6	AG	225	3498	276.952

AG = 7G - Tronic
SG = Manual transmission

From Model Year 2009
Left-hand drive vehicle

Verified equipment variants:	Automatic air-conditioning
	Blue Efficiency / Blue Tec / 4 Matic
	Headlight washer system
Not verified:	AMG Optical package
Exclusion:	E 63 AMG
Total installation time:	approx. 12 hours

Mercedes Benz E-Class / CLS-Class

Table of Contents

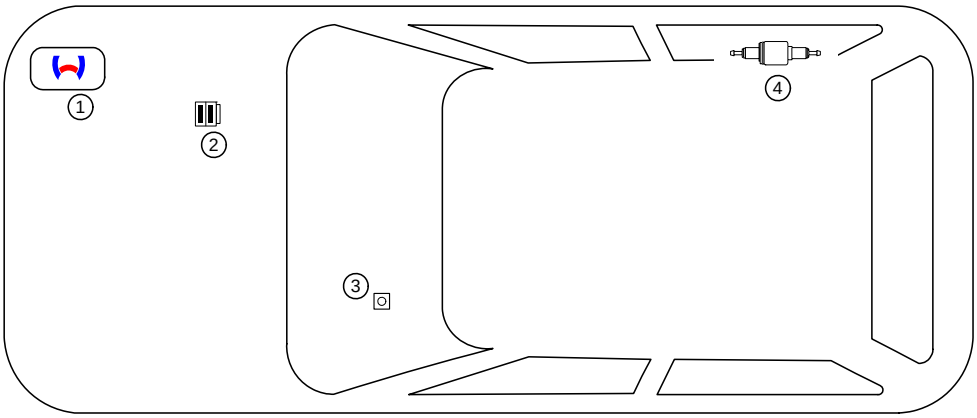
Necessary Components

- Basic delivery scope of *Thermo Top Evo* Mercedes Benz E-Class / CLS-Class 2009 Petrol (incl. T91) : **1315952B**
- Basic delivery scope of *Thermo Top Evo* Mercedes Benz E-Class / CLS-Class 2009 Diesel (incl. T91) : **1315953B**
- Optional heater controls in accordance with price list and upon consultation with end customer
- In case of Telestart, indicator lamp in accordance with price list and in consultation with end customer

Note:

When installing a parking heater, we recommend the use of the next larger vehicle battery.

Installation Overview



Legend:

1. Heater
2. Engine compartment fuse holder
3. Push button
4. Metering pump

Information 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.

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 227).

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 must audibly snap into place during assembly.

Sharp edges should be fitted with rub protection. Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

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 an IPCU, the corresponding settings must be checked or adjusted before the installation.

2 Statutory regulations governing installation

Guidelines	Thermo Top Evo
Heating Directive ECE R122	E1 00 0258
EMC Directive ECE R10	E1 03 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

For vehicles with an EU permit, no entry in accordance with § 19 Sub-Section 4 of Annex VIII b to the Road Traffic Act is required.

2.1 Excerpt from the directive 2001/56/EC Appendix VII 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.

Mercedes Benz E-Class / CLS-Class

Information on Validity

This installation documentation applies to Mercedes Benz E Class W212 / S212 Petrol and diesel vehicles from model year 2009 and later, as well as CLS Class C218 Petrol and diesel vehicles from model year 2011 and later - for validity see Page 1/2 - , assuming technical modifications to the vehicle do not affect the 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 Information

Special Tools
- Hose clamp pliers for self-clamping hose clamps
- Hose clamp pliers for Clic hose clamps of type W
- Automatic wire stripper 0.2 - 6mm²
- Crimping pliers for cable lug / tab connector 0.5 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Stepped drill bit
- Webasto Thermo Test diagnosis with current software

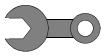
Dimensions
- All dimensions are in mm.

Tightening torque values
- Tightening torque values of 5x13 heater bolts = 8Nm
- Tightening torque value of 5x15 retaining plate of water connection piece bolt = 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.

Mechanical system



Electrical system

Coolant circuit

Combustion air

Fuel

Exhaust gas

Software

Special features are highlighted using the following symbols:

Specific risk of injury or fatal accidents

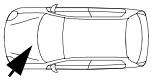
Specific risk of damage to components

Specific risk of fire 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



Mercedes Benz E-Class / CLS-Class

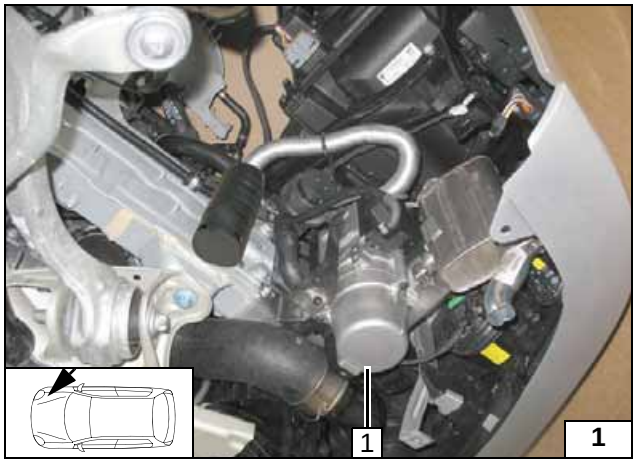
Preliminary Work

Vehicle

- Open the fuel tank cap.
- Ventilate the tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Disconnect the battery earth connection.
- Remove the trim of the passenger compartment fan air intake.
- Remove the windscreen wipers.
- Remove the coolant reservoir cap.
- Remove the strut brace on the left.
- Remove the windscreen wiper motor fully.
- Remove the cover of the air intake for the passenger compartment fan in the engine compartment on the right.
- Remove the battery with the carrier fully.
- Remove the battery control unit.
- Remove the engine design cover.
- Remove the intake manifold (right).
- Remove the lower engine cover.
- Remove the lower vehicle trim (right).
- Remove the right-hand front wheel.
- Remove the wheel well trim (right).
- Remove the seat bench of the rear bench seat.
- Remove the fuel-tank sending unit in accordance with the manufacturer's instructions (right).
- Cover below the instrument panel on the driver's side.
- Remove the door sill panel trim at the front right.
- Remove the lower A-pillar trim at the front right.
- Fold back the cover in the footwell on the front passenger's side, remove cover plate (plastic nuts) and turn to the rear.
- Remove the front A/C control panel.
- Remove the shift lever cover or storage compartment in case of 7-speed automatic.
- Remove the ashtray or storage compartment with the socket outlet below the A/C control panel.
- Drain off the engine coolant according to the manufacturer's instructions.

Heater

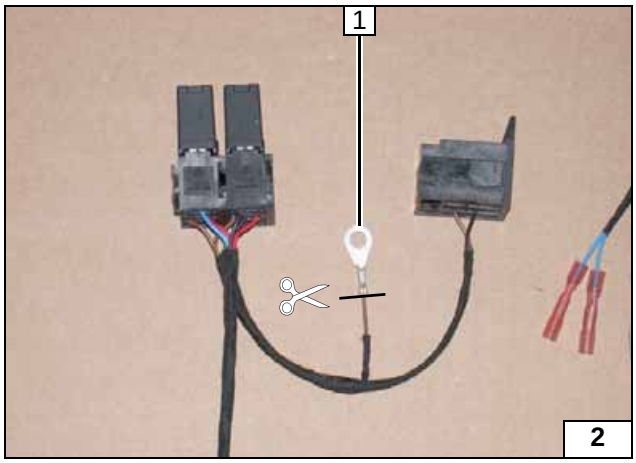
- Remove years that do not apply from the type and duplicate label.
- Attach the duplicate label (type label) in the appropriate place in the engine compartment.



Heater Installation Location

1 Heater

Installation location

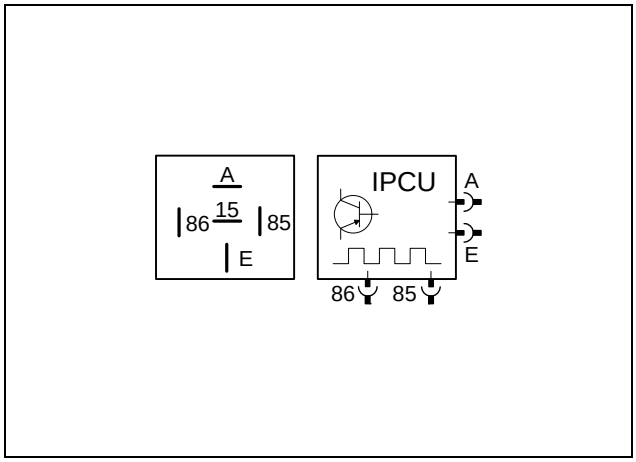


Preparing Electrical System

Wire sections retain their numbering in the entire document.

Detach 6mm dia. cable lug **1**.

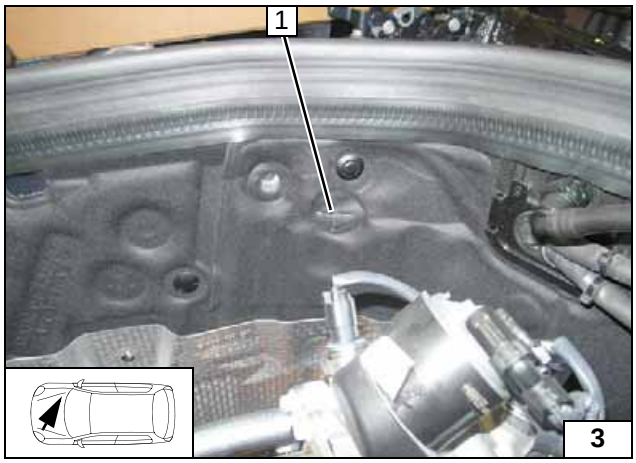
Preparing wiring harness of fan control



IPCU view on contact side.
The pre-programmed settings are to be checked during the function control of the vehicle and adjusted if necessary.

Duty cycle: 56%
Frequency: 400Hz
Voltage: 3.0V
Function: High-side

IPCU view



From model year 2013.

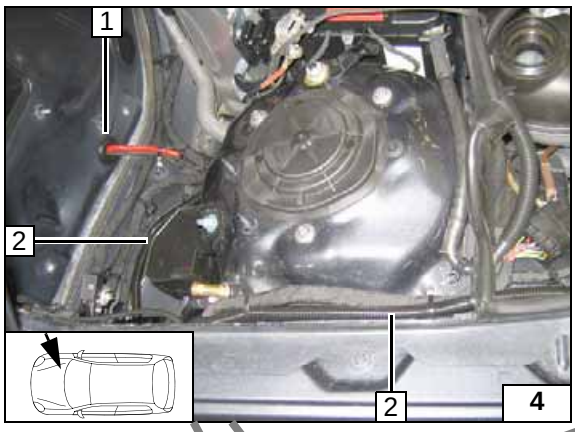
6.5mm dia. hole in middle of embossing **1**.
Watch components located behind!

Preparing installation location of engine compartment fuse holder

Electrical System

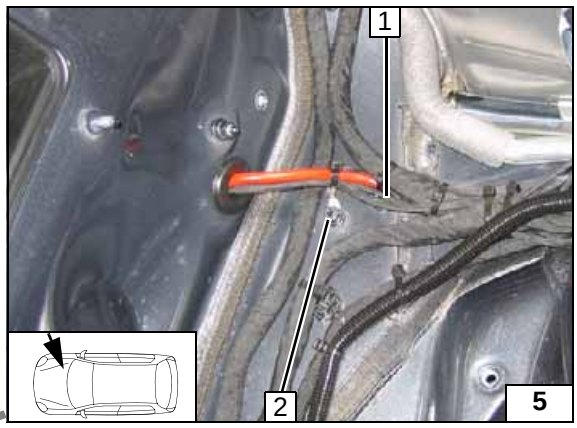
Wiring harness routing and pass through

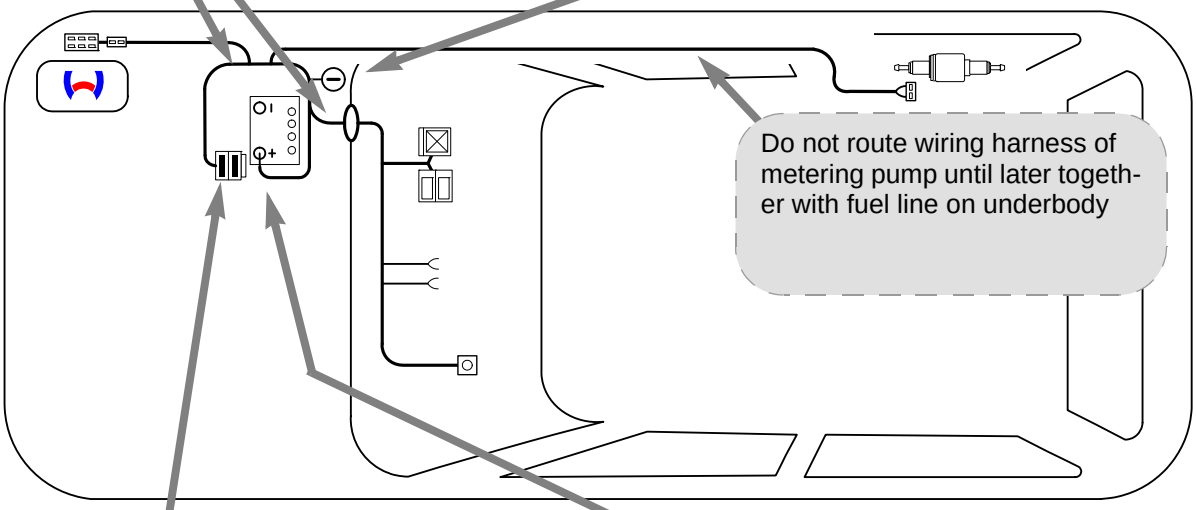
1 Protective rubber plug, wiring harnesses of heater and heater control
2 Wiring harness to heater in 10mm dia. corrugated tube



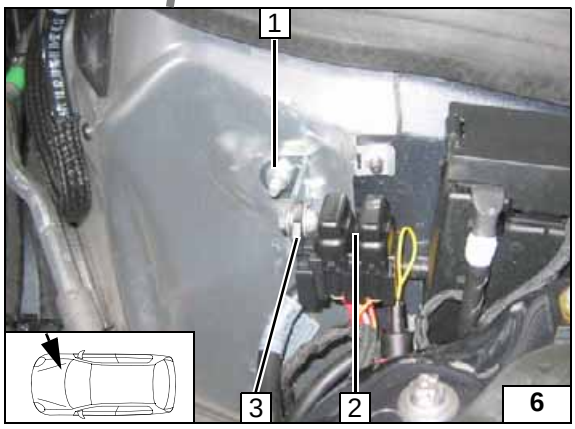
Earth wire

1 Earth wire, 6 mm dia. cable lug
2 Original vehicle earth support point





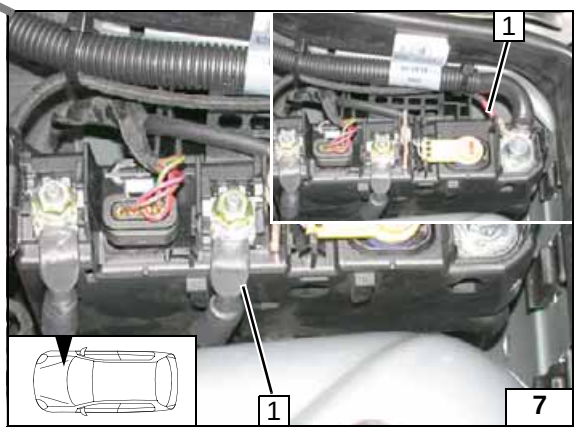
Wiring harness routing diagram



Fuse holder of engine compartment

Replace F2 with 1 A fuse.

1 Remove clip (only up to MY 2012), hole, M6x20 bolt, angle bracket, large diameter washer [2x], flanged nut
2 F1+2 fuses mounted
3 M5x12 bolt, washers, retaining plate fuse holder, flanged nut

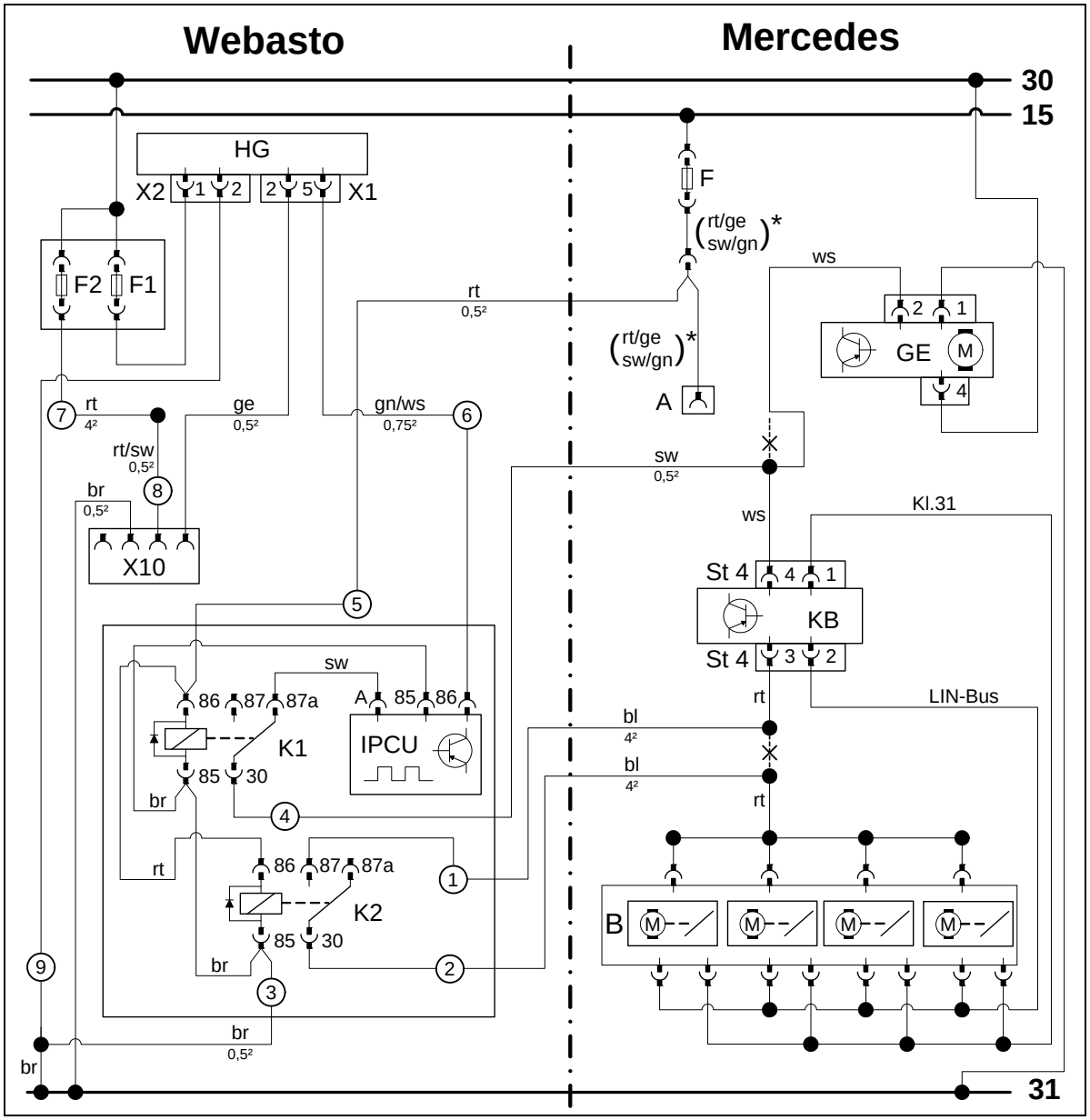


Positive wire

Manufacturer installs different positive support points. Connect power supply of heater **1** to permanent positive terminal (battery or starter cable of positive support point).

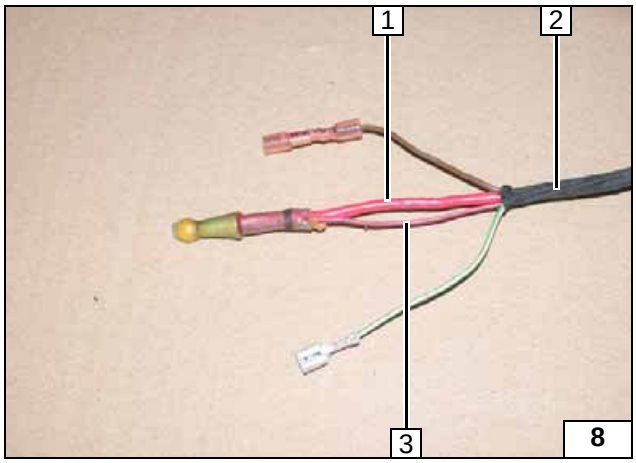
Fan Controller

Wiring diagram



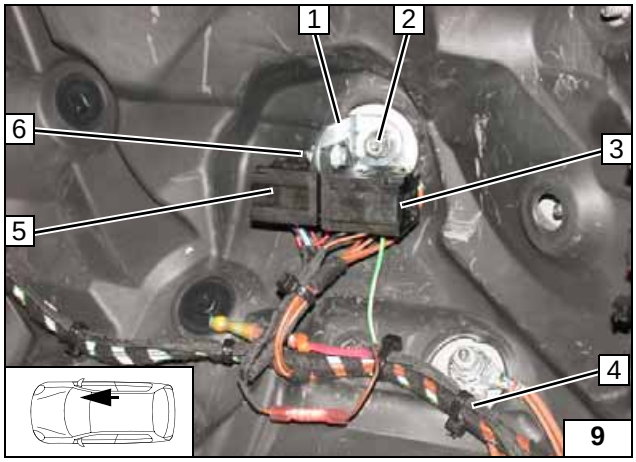
Legend

Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	F	fuse	rt	red
X1	6-pin heater connector	GE	Fan unit	ws	white
X2	2-pin heater connector	A	Socket outlet/lighter	sw	black
X10	4-pin connector of Heater control	ST 4	Connector, 4-pin, KB	bl	blue
		KB	A/C control panel	ge	yellow
K1	Fan relay	B	Flap positioning module	br	brown
K2	Additional relay			gn	green
F1	Fuse, 20A				
F2	30A fuse replaced with 1A.				
IPCU	Pulse width modulator				
IPCU adjustment values:					
Duty cycle:	56%				
Frequency:	400Hz			*	depending on equipment
Voltage:	3.0V			**X**	Cutting point
Function:	High-side			Wiring colours may vary.	



Prepare wiring harness of heater **2** in the passenger compartment. Connect red (rt) 4² wire **1** and red/black (rt/sw) 0,5² wire **3** using a solder wire terminator. Produce connections as shown in wiring diagram.

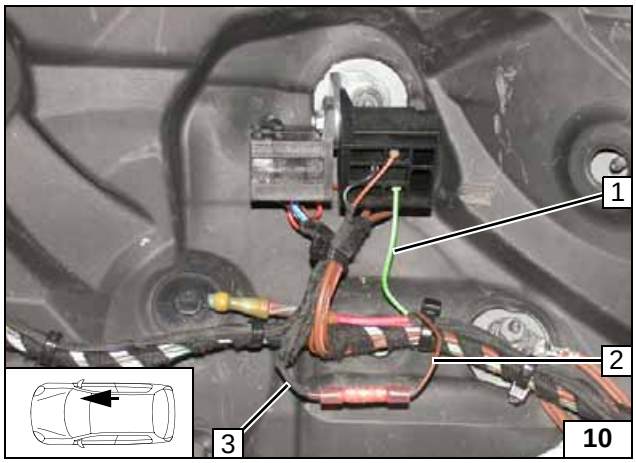
Preparing wiring harness of heater



Route wiring harness of heater **4** in the footwell on the front passenger's side, and secure with cable ties. Produce connections as shown in wiring diagram.

- **1** Angle bracket
- **2** Original vehicle stud bolt, original vehicle earth wires
- **3** IPCU socket
- **5** Relay socket
- **6** M5x16 bolt, washer, flanged nut

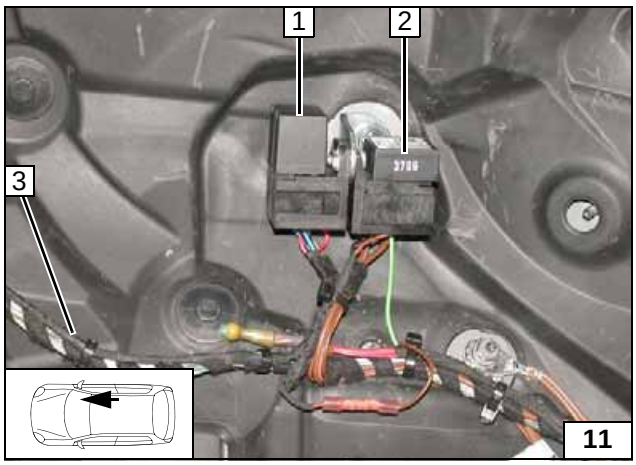
Installing relay socket and IPCU socket



Install green/white (gn/ws) wire ⑥ **1** in the IPCU/86 socket. Produce connections as shown in wiring diagram.

- **2** Brown (br) wire ③ of heater wiring harness
- **3** Brown (br) wire ⑨ of fan controller wiring harness

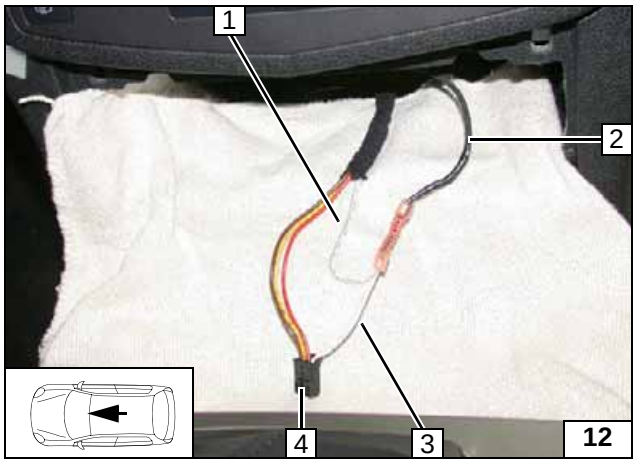
Connecting wiring harnesses



Route wiring harness of fan controller **3** to centre console and secure with cable ties.

- **1** K1 and K2 relay
- **2** IPCU

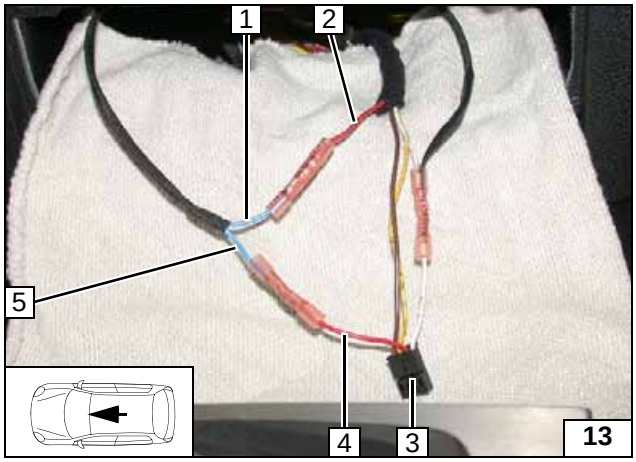
Mounting relay [2x] and IPCU



Connection to 4-pin connector **4** from A/C control panel. Produce connections as shown in wiring diagram.

1 White (ws) wire of fan unit
2 Black (sw) wire ④ K1/30
3 White (ws) wire of 4-pin KB connector

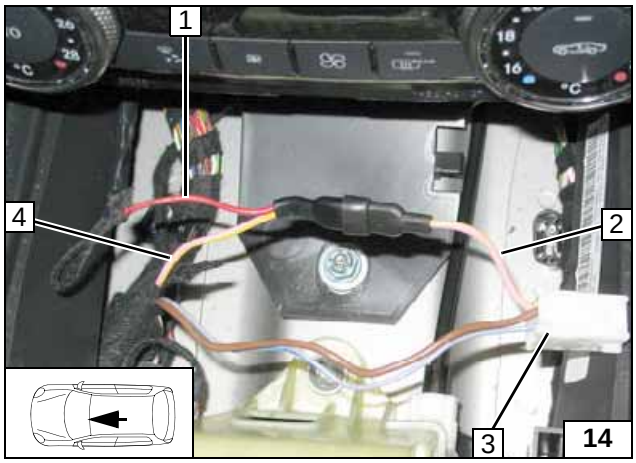
Connecting A/C control panel



Connection to 4-pin connector **3** from A/C control panel.
Produce connections as shown in wiring diagram.

1 Blue (bl) wire ② K2/30
2 Red (rt) wire of flap positioning module
4 Red (rt) wire of 4-pin KB connector
5 Blue (bl) wire ① K2/87

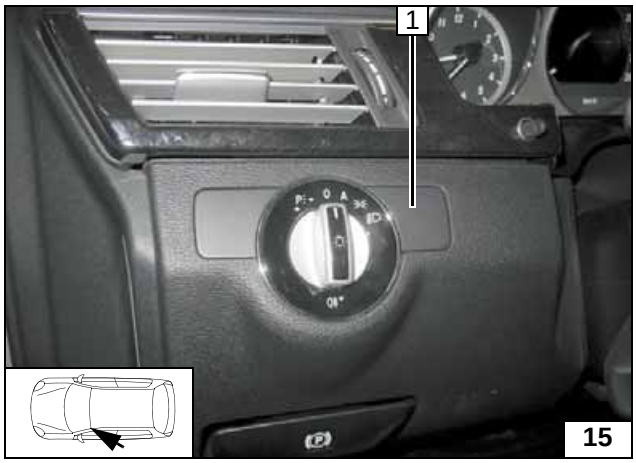
Connecting A/C control panel



Connection to plug-in connector **3** of socket outlet/lighter.
Produce connections as shown in wiring diagram.

1 Red (rt) wire ⑤ K1/86
2 Pink/yellow (ro/ge) wire or black/green (sw/gn) wire of socket outlet/lighter
4 Pink/yellow (ro/ge) wire or black/green (sw/gn) wire of fuse

Connection to socket outlet/lighter



Mounting Push Button

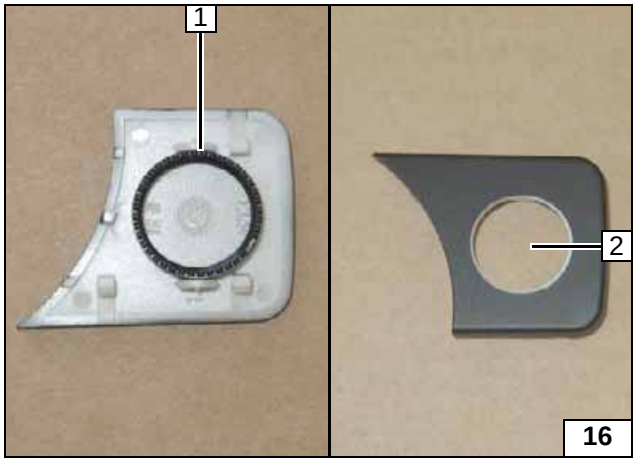
Mounting push button here is not possible in CLS C218.

Only in connection with Telestart. Use wiring harness extension.

WARNING:
If the push button cannot be installed in the trim piece due to parts lying behind it, the installation is done according to image 20.

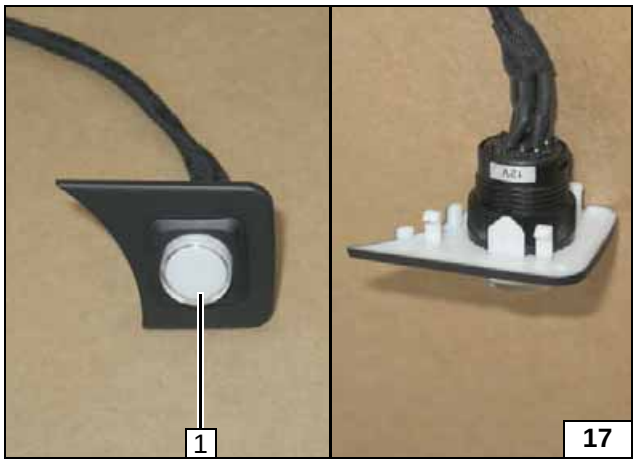
1 Cover

Removing cover



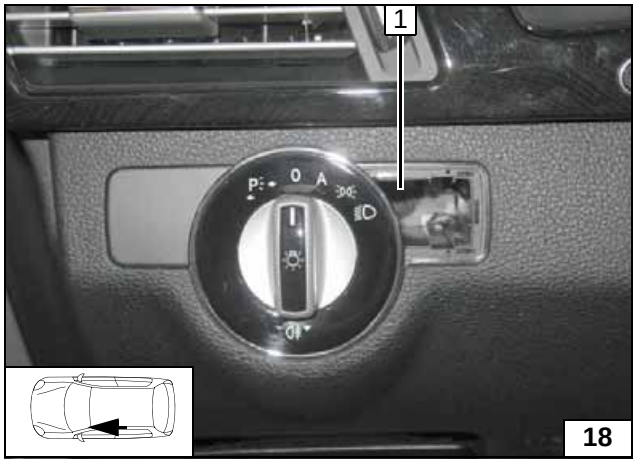
Mount union nut **1** of push button, align in centre and drill 16mm dia. hole **2** in the cover (stepped drill bit).

Hole in cover



Install push button **1**, align and secure it with union nut.

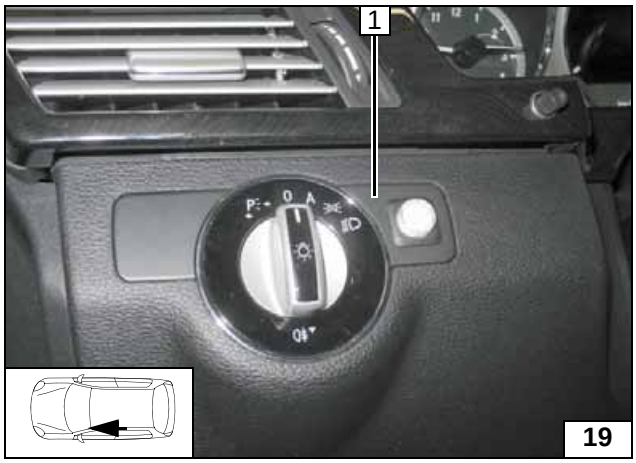
Mounting push button



When drilling, watch components located behind.

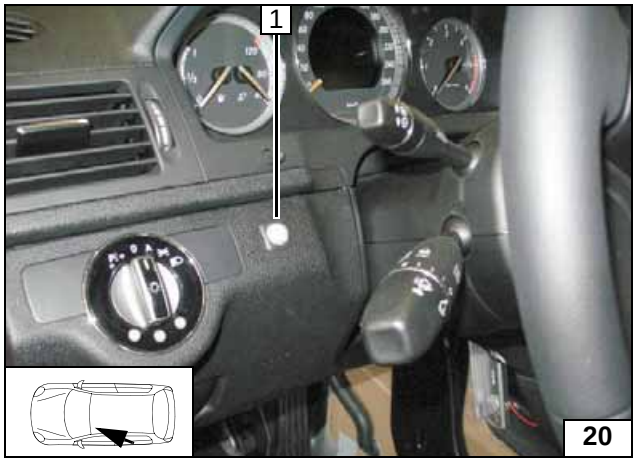
1 12mm dia. hole

Hole for wiring harness



1 Cover

Inserting cover



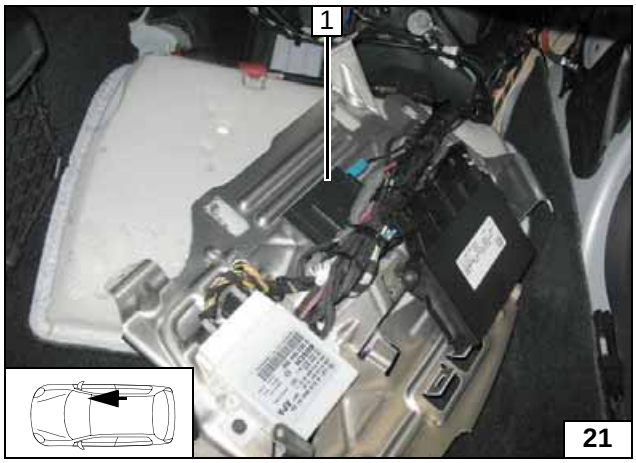
Alternative installation location

Only in connection with Telestart. Use wiring harness extension.

1 12mm dia. hole, push button

Mounting push button

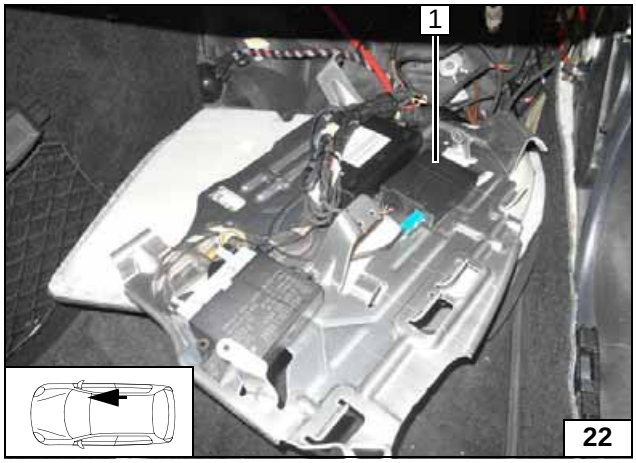
Telestart



Dependent on equipment, version 1

1 Receiver, adhesive tape

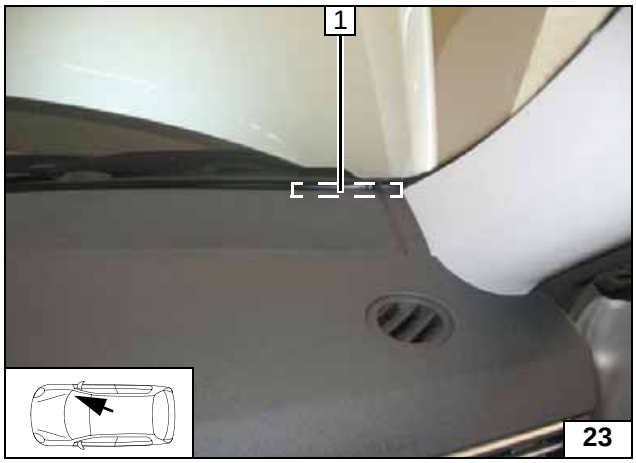
Mounting receiver



Dependent on equipment, version 2

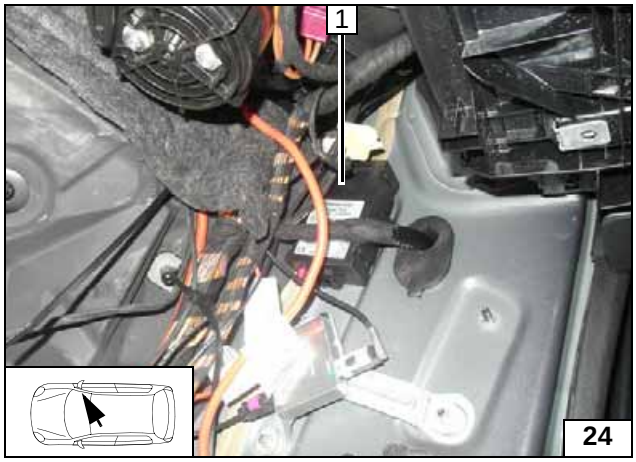
1 Receiver, adhesive tape

Mounting receiver



1 Antenna

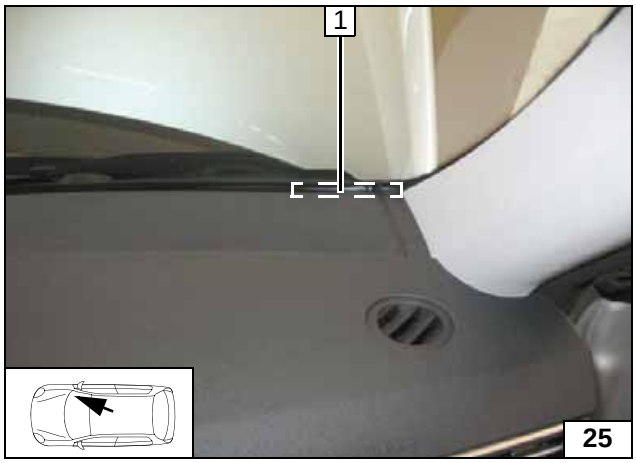
Mounting antenna



Remote Option (Thermo Call TC3)

1 Receiver, double-sided adhesive tape

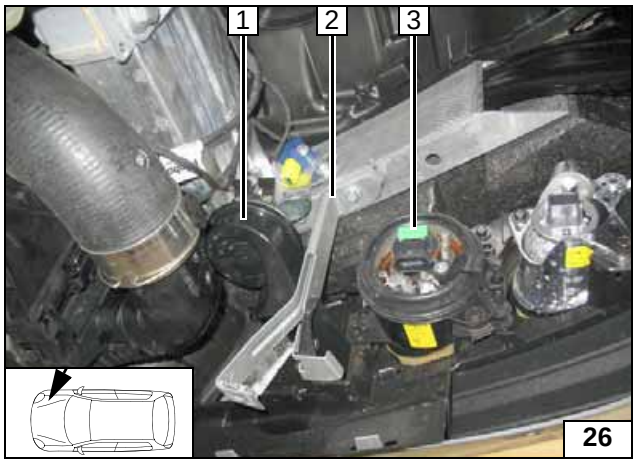
Mounting receiver



1 Antenna

Mounting antenna

Preparing Installation Location



WARNING!
Figure shows vehicle with front fog light. Use the same procedure for daytime running lights

Up to model year 2012.

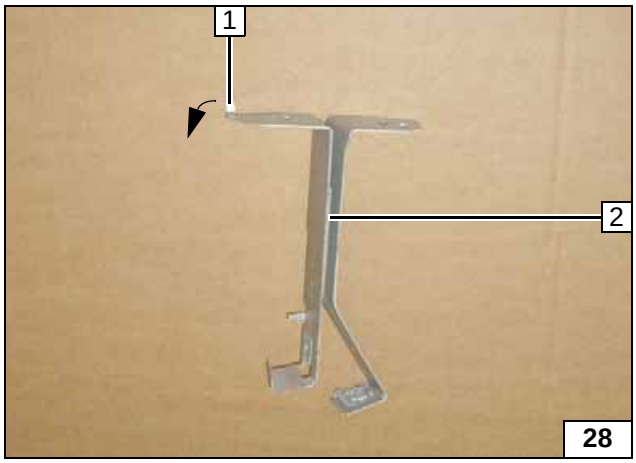
Remove horn **1**, bracket **2**, front fog light or daytime running light **3**.

Preparing installation location

From model year 2013.

Remove horn **1** and bracket **2**.

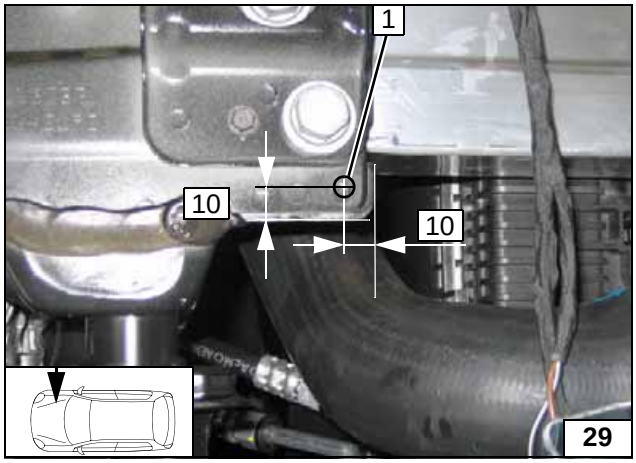
Preparing installation location



All vehicles

Bend back tab (twist protection) **1** of bracket **2**!

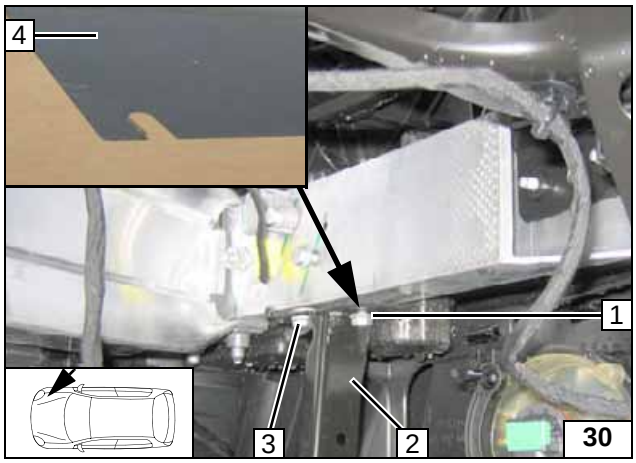
Preparing bracket



Remove joint sealer on inside of frame side member, in the area of hole **1**.

1 7 mm dia. hole

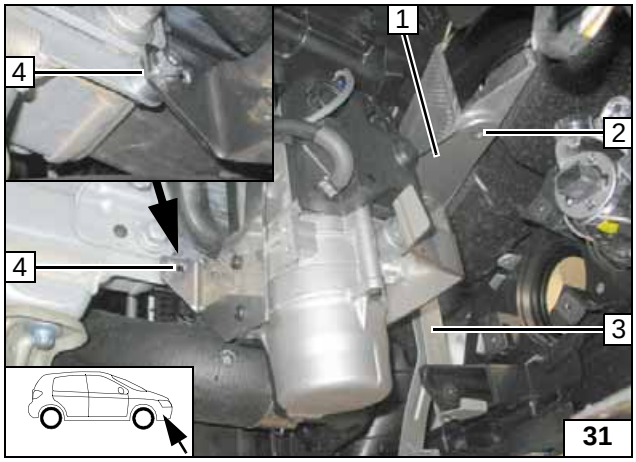
Hole in frame side member



Install bracket **2**. Insert large diameter washer between bracket **2** and bumper at position **3**. Mount heater bracket **4** with oblong hole between bracket **2** and bumper at position **1**.

1 Mount original vehicle bolt loosely
3 Original vehicle bolt, large diameter washer

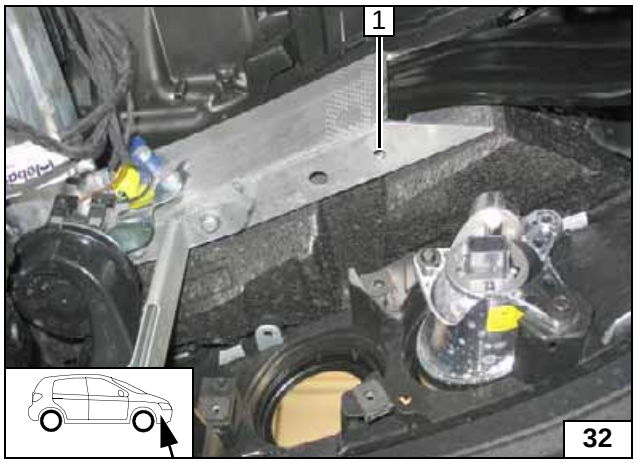
Installing heater



Mount heater bracket **1** with oblong hole between bracket **3** and bumper (see previous figure). Mount heater at position **4** loosely.

2 Copy hole pattern
4 M6x25 bolt, 8 mm shim, flanged nut

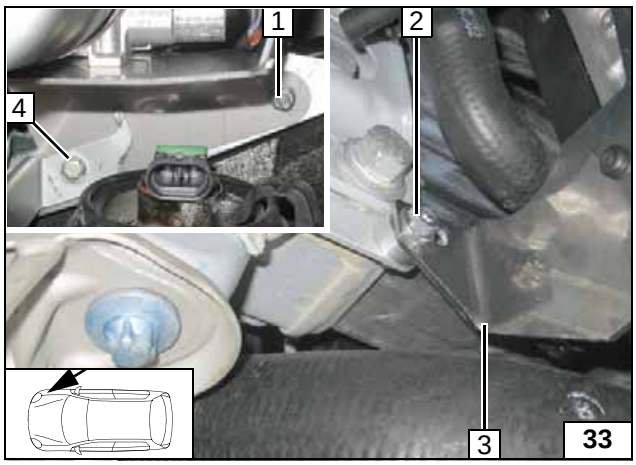
Copying hole pattern



Remove heater. Reinstall horn (all vehicles) and front fog light or daytime running light (only up to MY 2012) after drilling the hole.

1 7 mm dia. hole

Hole in bumper



Mounting Heater

Mount heater bracket with oblong hole between bracket and bumper and align (see previous work step). Insert shim 8 between bracket **3** and frame side member.

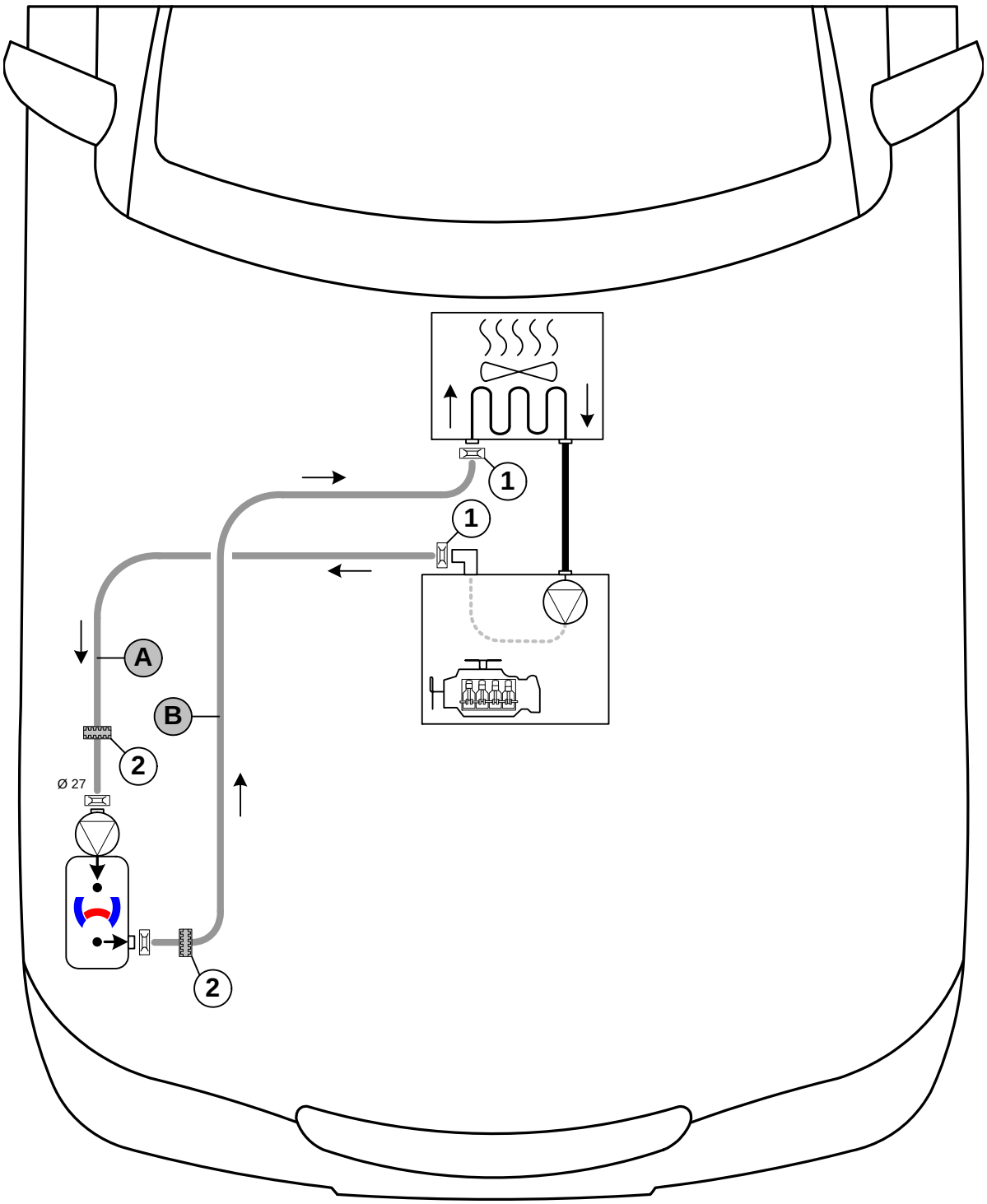
1 M6x20 bolt, flanged nut
2 M6x25 bolt, 8 mm shim, flanged nut
4 Tighten bolt

Mounting heater

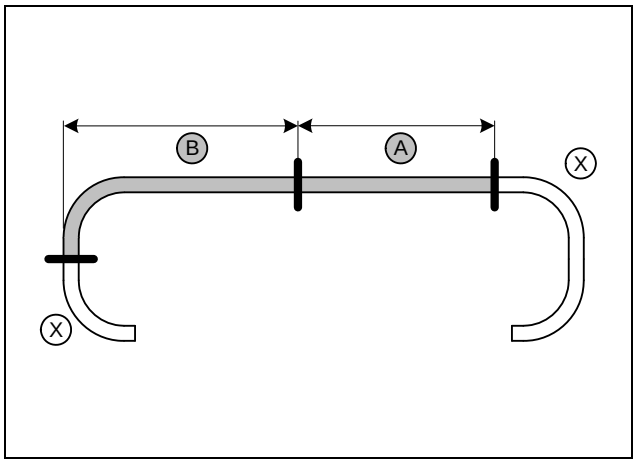
Coolant Circuit

WARNING!
Any coolant running off should be collected in an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. When installing the hoses, the heater must be filled with coolant.
The connection should be based on the following diagram:

Hose routing diagram



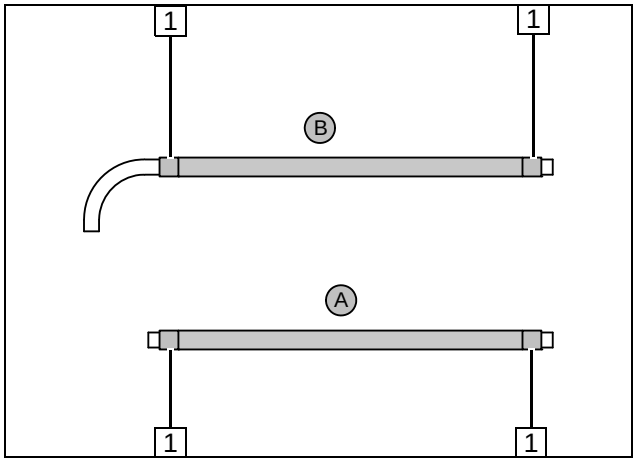
All spring clips without a specific designation = 25 mm dia. **1** = Original vehicle spring clip **2** = Black (sw) rubber isolator .



Discard section **X**.

A = 1270
B = 1580

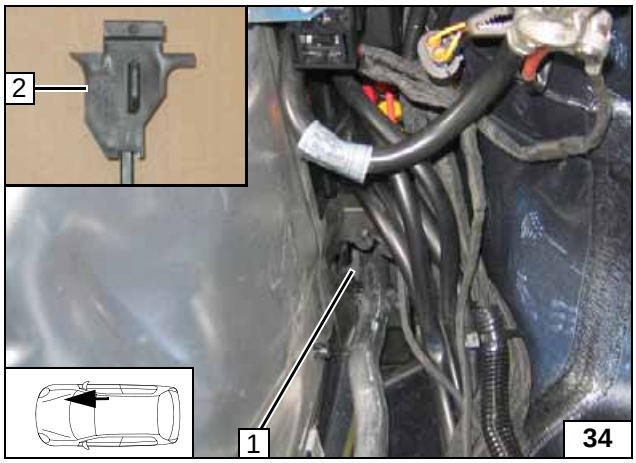
Cutting hoses to length



Slide braided protection hose onto hoses **A** and **B** and cut to length.
Cut heat shrink plastic tubing to size.

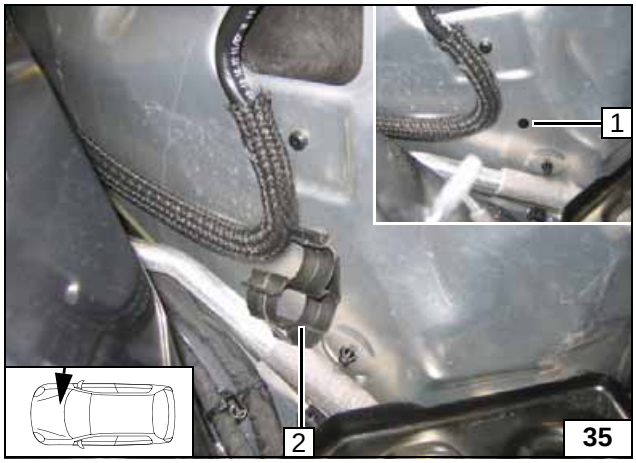
1 Heat shrink plastic tubing, length 50 [4x]

Preparing hoses



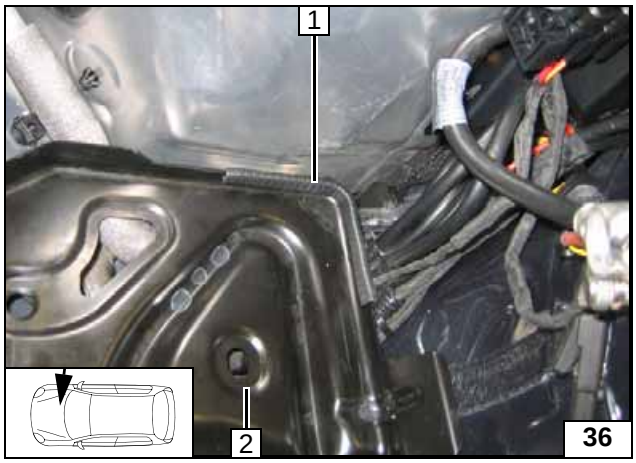
Remove pass through **2** at position **1**, will not be reused.

Removing cover



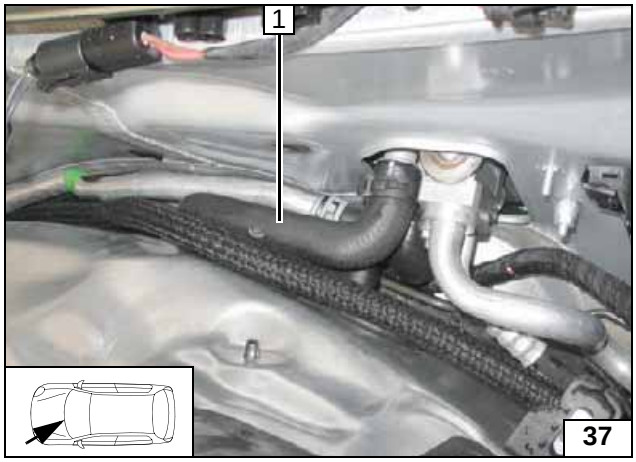
1 8 mm dia. hole
2 Double hose bracket (lockable)

Inserting hose bracket



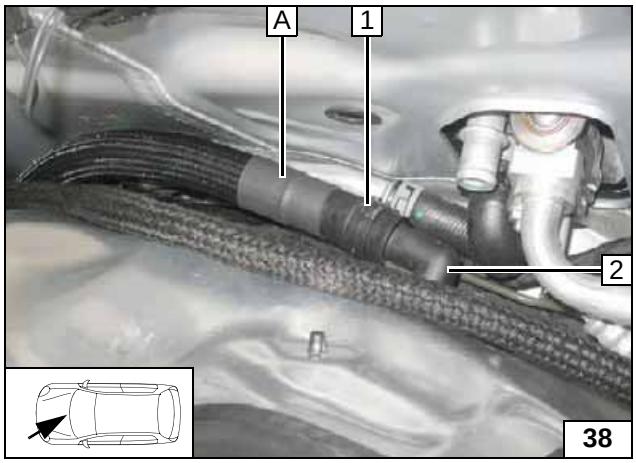
1 200mm edge protection
2 Battery carrier

Mounting edge protection



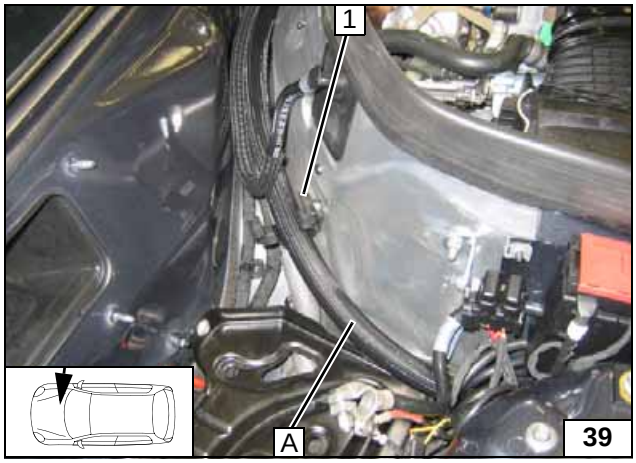
Remove original vehicle hose **1**.

Cutting point



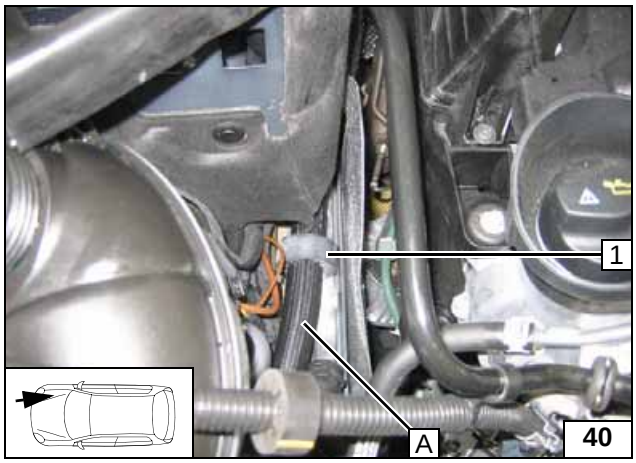
1 Original vehicle spring clip
2 Connection piece on engine outlet

Connecting motor outlet



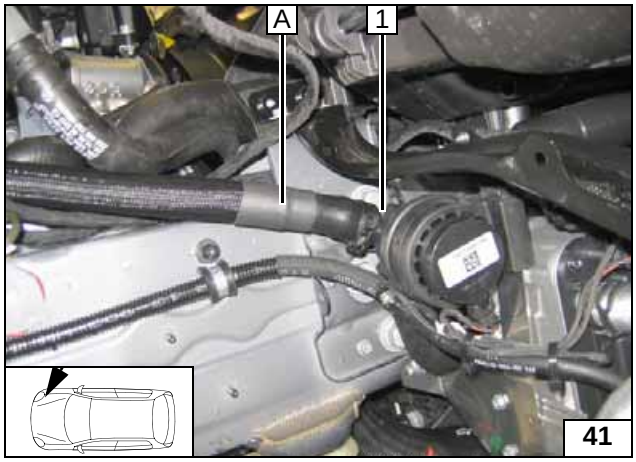
Route hose **A** into hose bracket **1** and route forward through pass through.

Routing in engine compartment



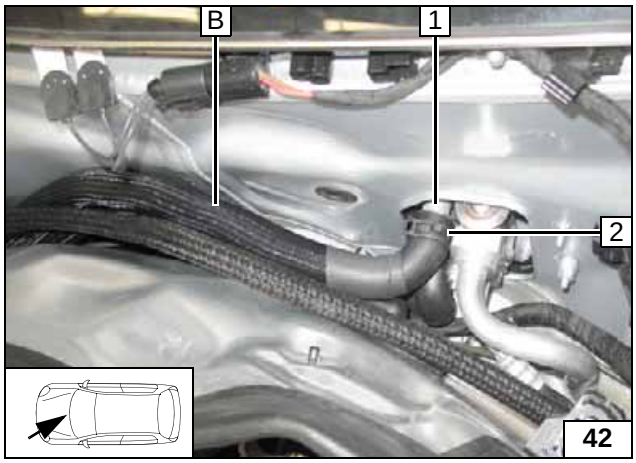
Slide black (sw) rubber isolator **1** onto hose **A**.

Routing in engine compartment



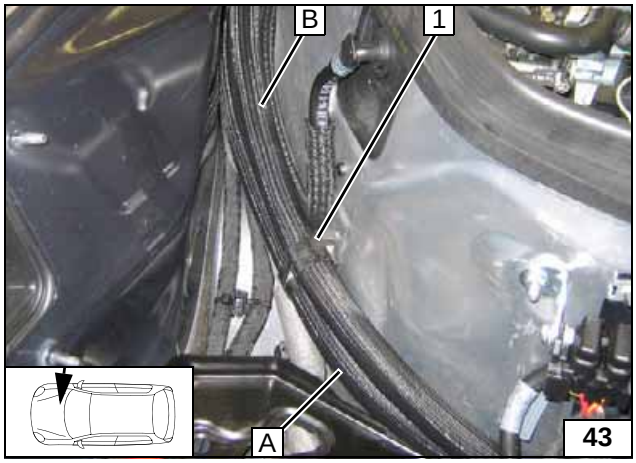
1 Connection piece of circulating pump

Connection of heater inlet



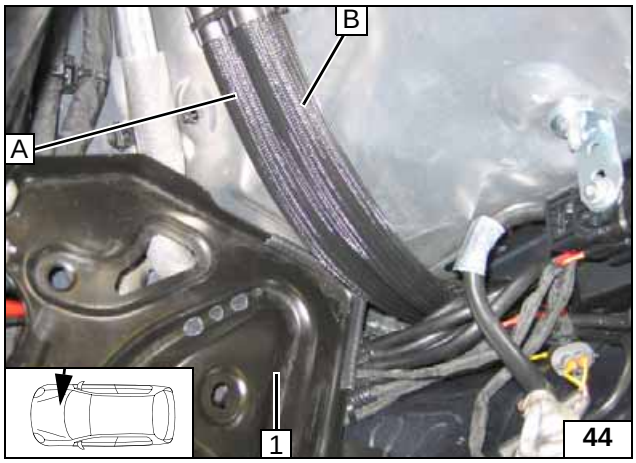
1 Connection piece on heat exchanger inlet
2 Original vehicle spring clip

Connecting heat exchanger inlet



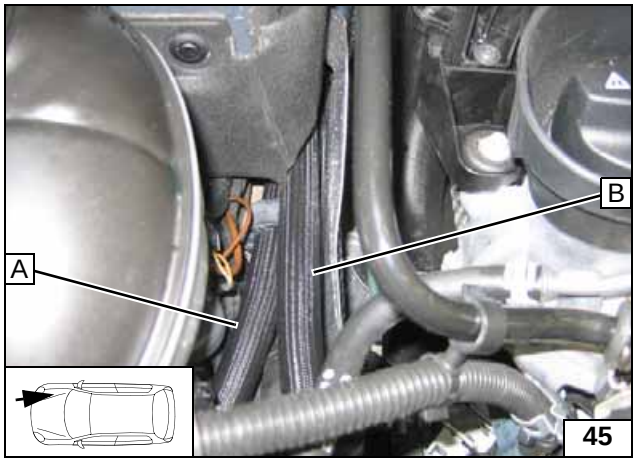
Route hose **B** into hose bracket **1** and route forward through pass through. Close lock.

Routing in engine compartment

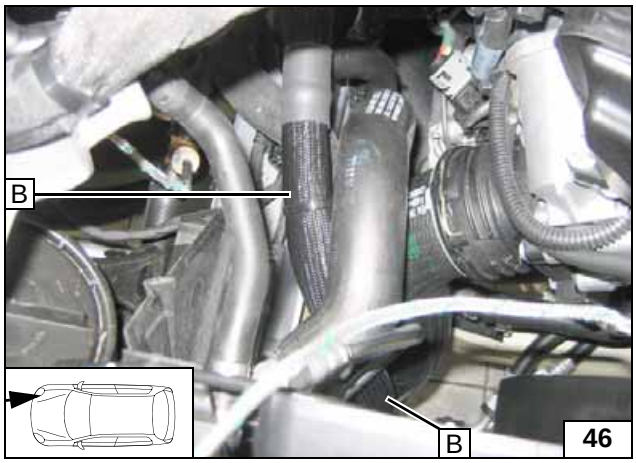


1 Battery carrier

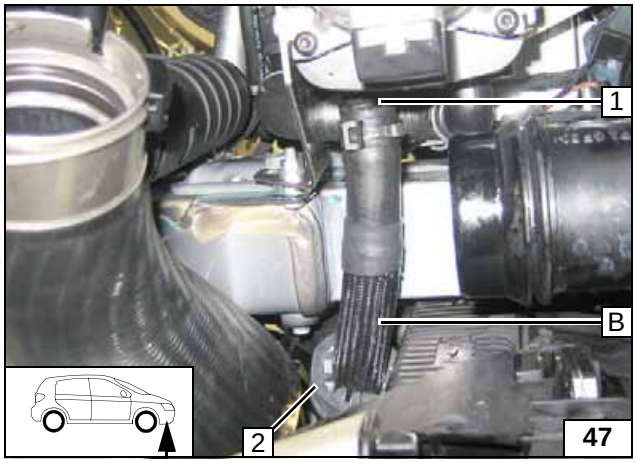
Routing in engine compartment



Routing in engine compartment



Routing in engine compartment

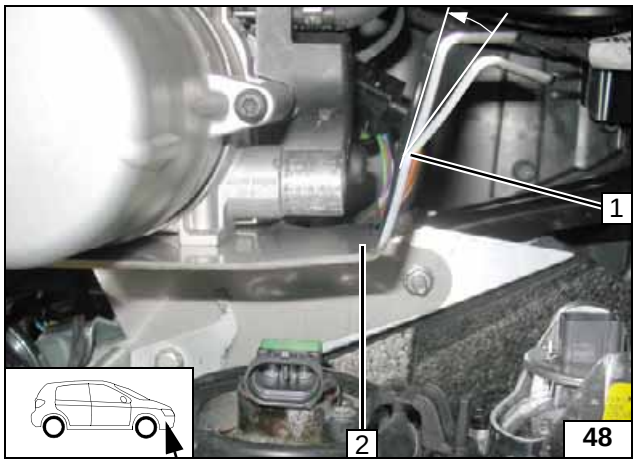


Align hoses. Ensure sufficient distance from neighbouring components, correct if necessary.

1 Connection piece on heater outlet
2 Slide black (sw) rubber isolator and align

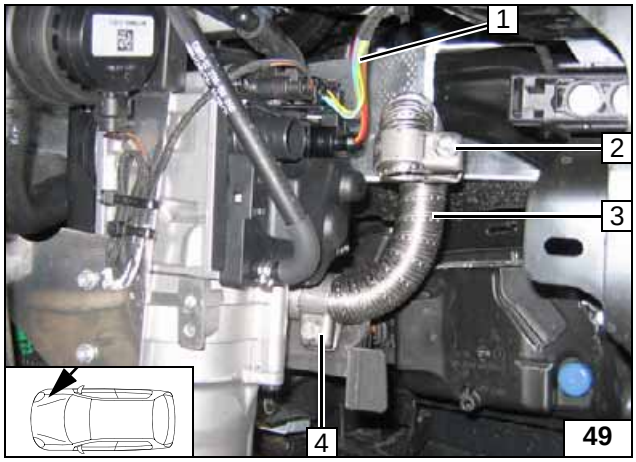
Connection of heater outlet

Exhaust Gas



Bend bracket **2** at position **1** straight.

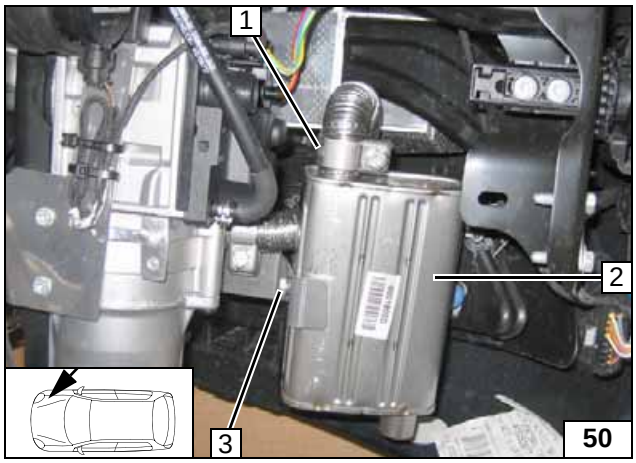
Aligning bracket



Mount wiring harness **1** on heater. Mould exhaust pipe **3** as shown.

2 Premount hose clamp loosely
4 Hose clamp

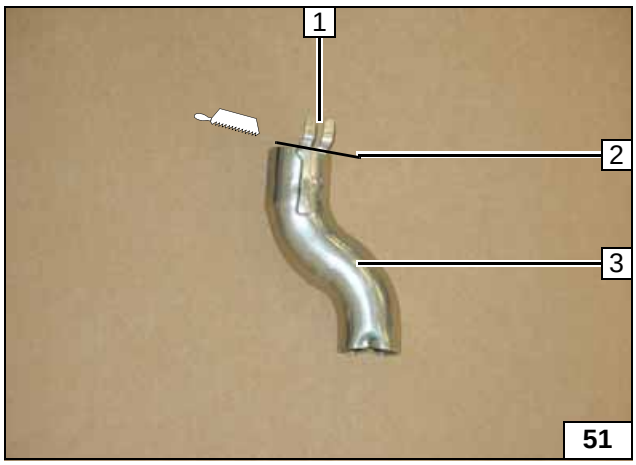
Mounting exhaust pipe



Ensure sufficient distance from neighbouring components, correct if necessary.

1 Hose clamp
2 Exhaust silencer
3 M6x12 bolt, spring lockwasher

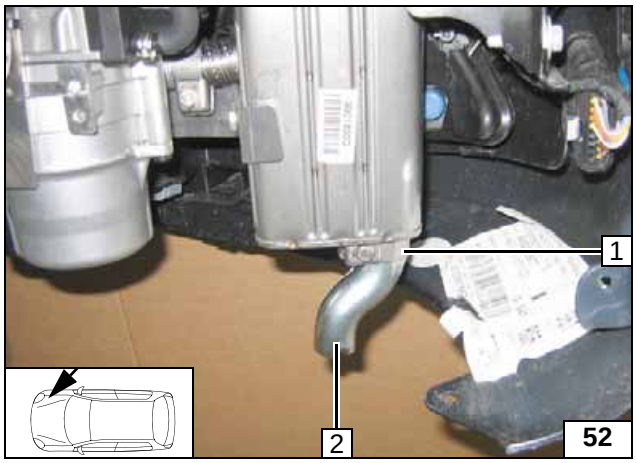
Mounting silencer



Cut tab **1** off exhaust end section **3**.

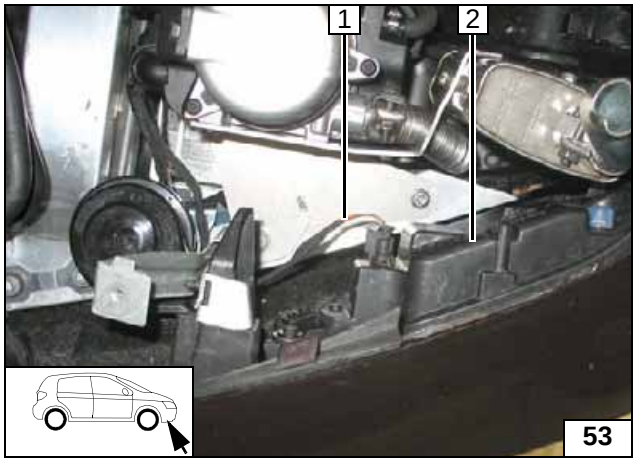
2 Cutting point

Preparing exchaust end section



1 Hose clamp
2 Exhaust end section

Mounting exhaust end section

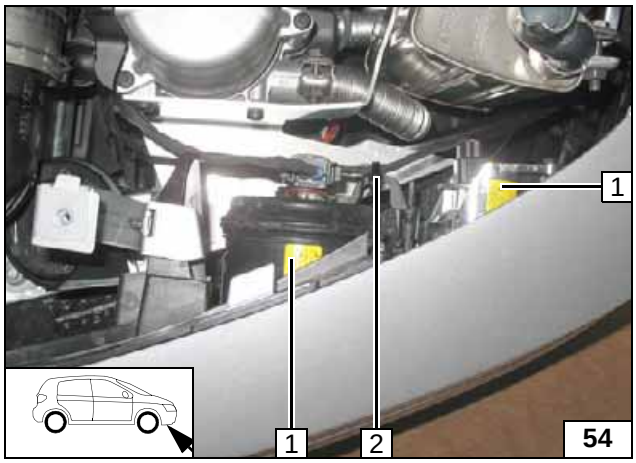


Up to model year 2012

Version with LED daytime running light

Fix wiring harness **1** of LED TFL **2** with cable ties.

Fixing wiring harness



Version with front fog light and cornering light

Fix wiring harness **2** of front fog light and cornering light **1** with cable ties.

Fixing wiring harness

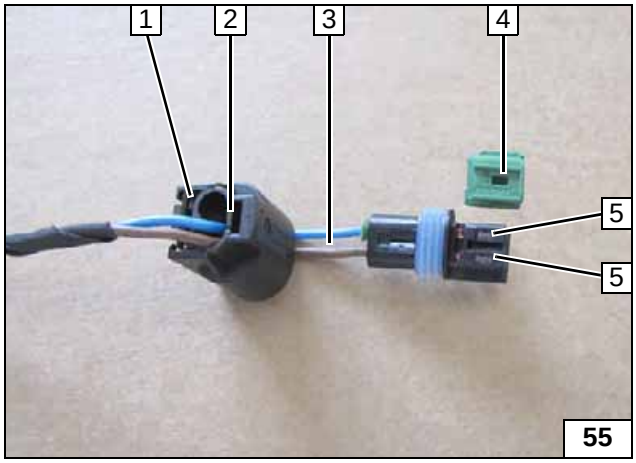
Fuel

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

Catch any fuel running off in 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.

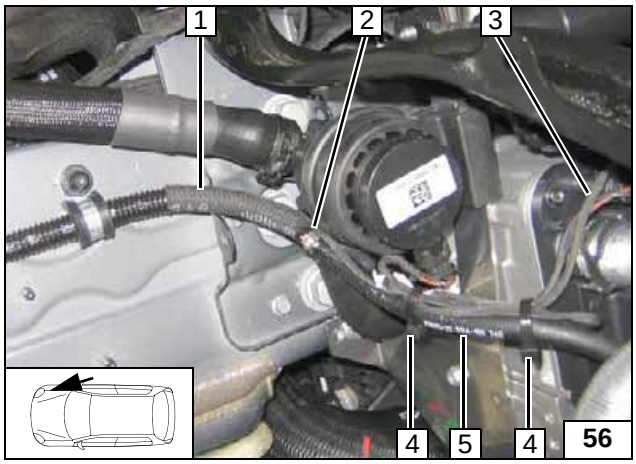
WARNING!
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



Dismantling connector

Complete connector of metering pump after routing. Pin assignment is not relevant.

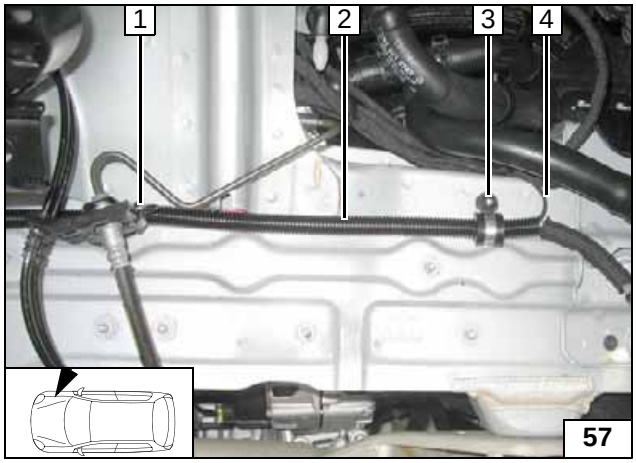
1 Connector housing
2 Lock
3 Blue/brown (bl/br) wires
4 Coding
5 Timer lock



Connecting heater

Fix moulded hose **5** and wiring harness of circulating pump **3** with cable ties **4** [2x].

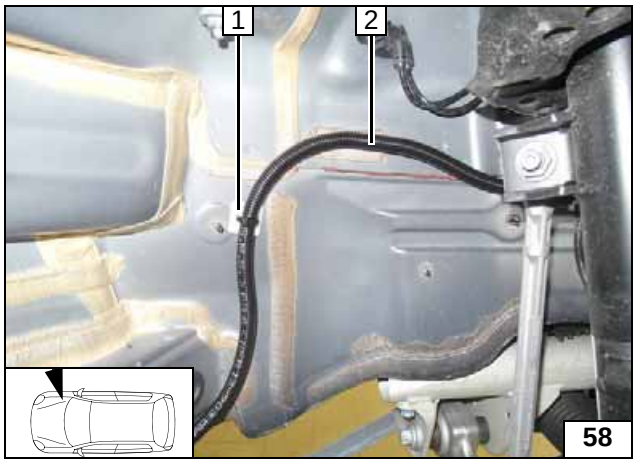
1 8x12 dia. hose section as rub protection
2 Fuel line, 10mm dia. clamp



Routing lines

Cut 10mm dia. corrugated tube to length by 950 mm.
Route fuel line and wiring harness of metering pump **4** in 10mm dia. corrugated tube **2** (950mm long) inside the wheel well.

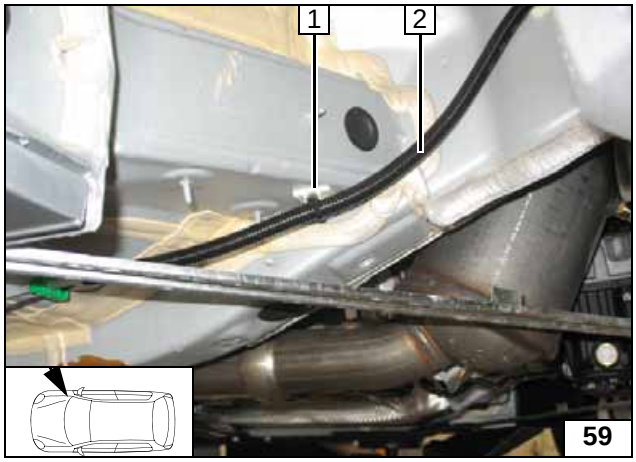
1 Cable tie
3 Original vehicle stud bolt, 15mm dia. rubber-coated p-clamp, plastic nut



Degrease adhesive surface for adhesive base **1**.

1 Adhesive base, cable tie
2 Corrugated tube

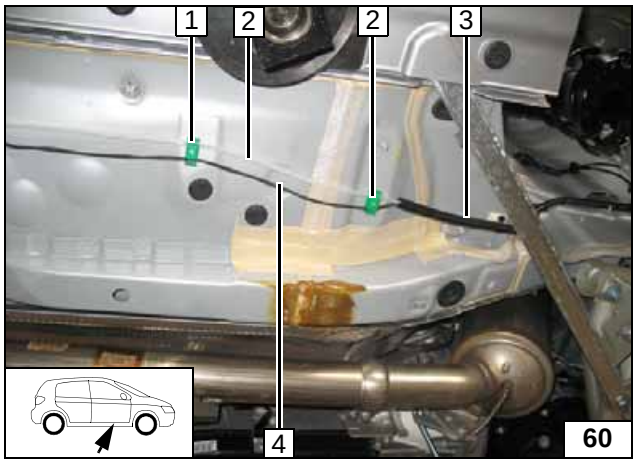
Routing lines



Degrease adhesive surface for adhesive base **1**.
Route corrugated tube **2** to vehicle underbody.

1 Adhesive base, cable tie

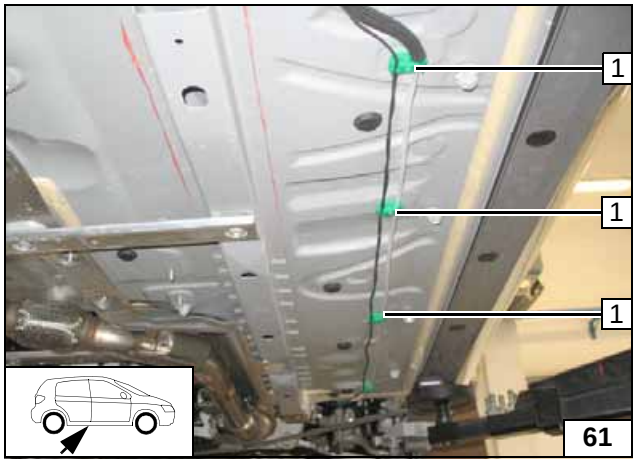
Routing lines



Attach double line holder **1** [2x] on existing stud bolts and install fuel line **2** and wiring harness of metering pump **4**.

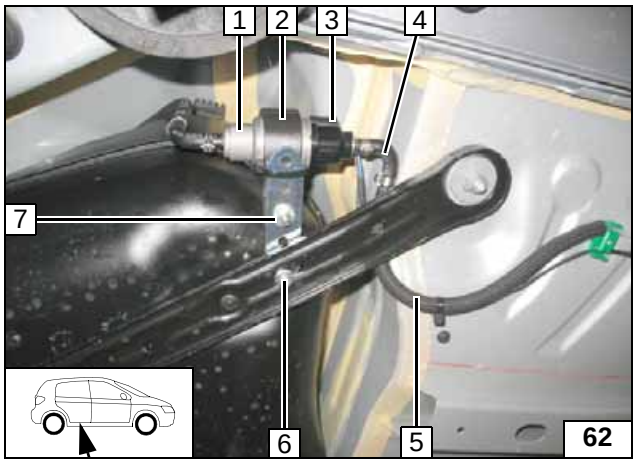
3 Corrugated tube

Routing lines



Slide double line holder **1** [3x] onto existing stud bolts and install fuel line and wiring harness of metering pump.

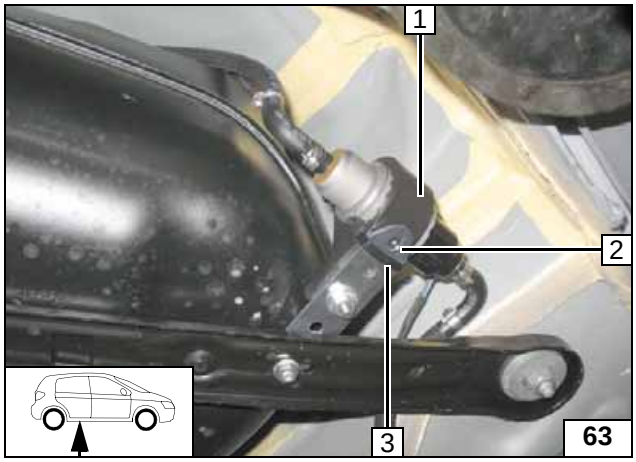
Routing lines



60L Fuel Tank Metering Pump

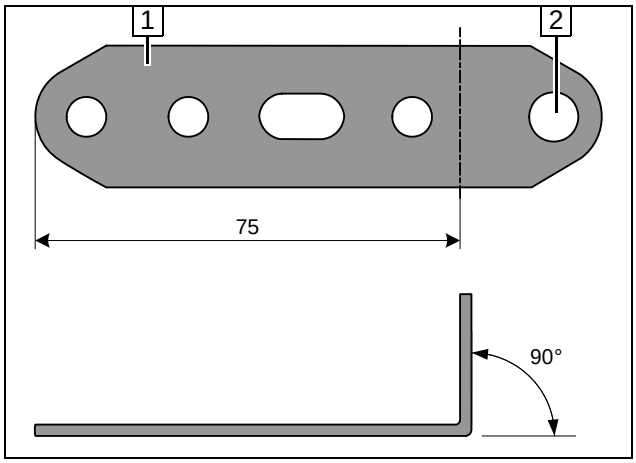
1 Metering pump
2 Mounting of metering pump
3 Metering pump cable connector
4 90° moulded hose, 10 mm dia. clamp [2x], fuel line
5 6x11 350mm fabric-reinforced hose
6 Original vehicle hole, M6x12 bolt, flanged nut
7 Perforated bracket, M6x25 bolt, flanged nut

Mounting and connecting metering pump



Install cable ties **3** through mounting of metering pump **1** and around perforated bracket **2**.

Mounting metering pump

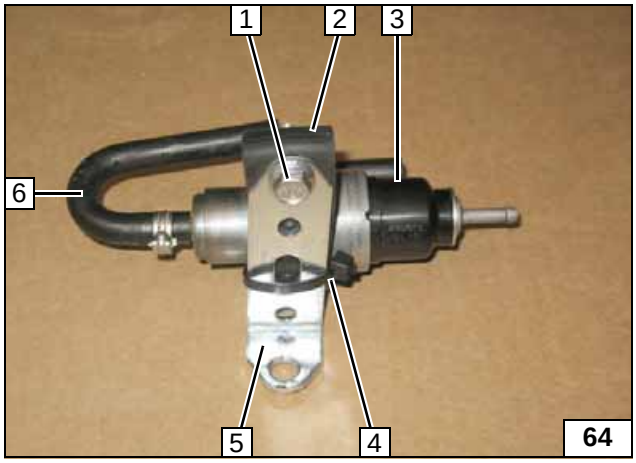


80L Fuel Tank and BR 218 Metering Pump

Up to model year 2012.

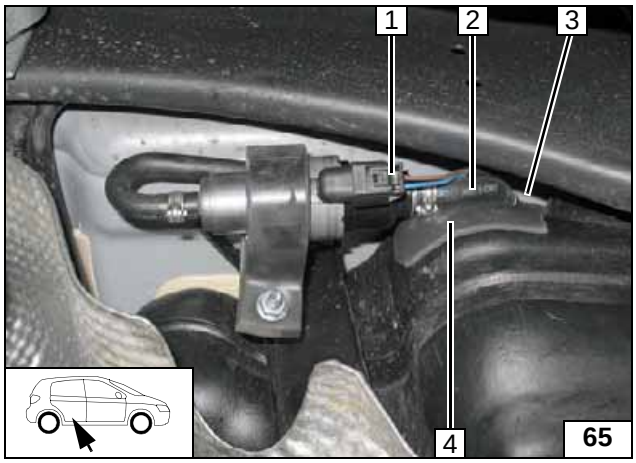
Angle down perforated bracket **1** and drill hole at position **2** to 8.5mm dia.

Preparing perforated bracket



1 M6x25 bolt, flanged nut
2 Mounting of metering pump
3 Metering pump
4 Cable tie
5 Perforated bracket
6 180° moulded hose, 10 mm dia. clamp

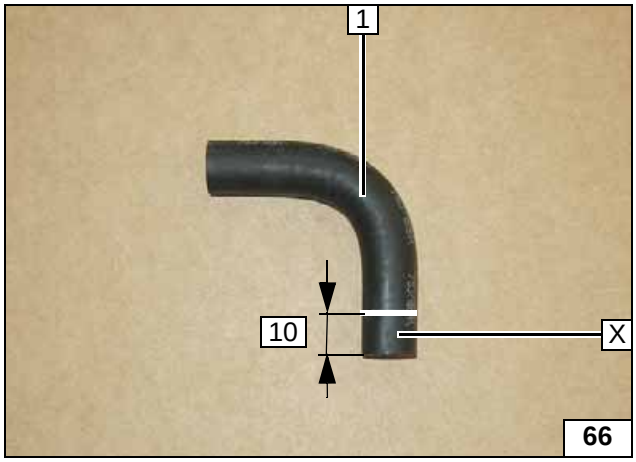
Premounting metering pump



Mount perforated bracket on original vehicle bolt of fuel tank fastening. Glue on insulation strip **4**.

1 Metering pump wiring harness, connector mounted
2 90° Moulded hose, 10 mm dia. clamp [2x]
3 Fuel line of heater

Mounting metering pump

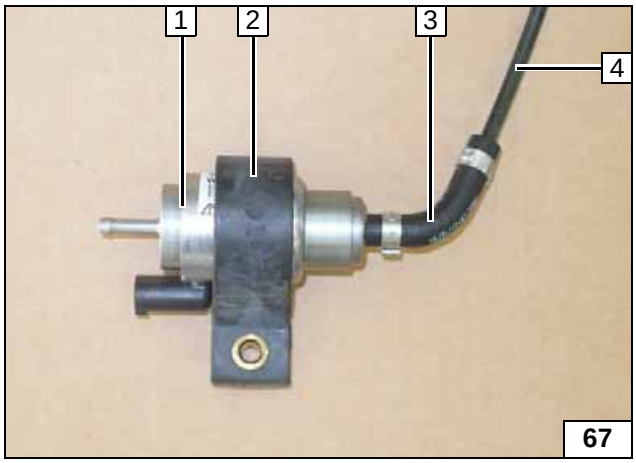


From model year 2013.

Discard section **X**.

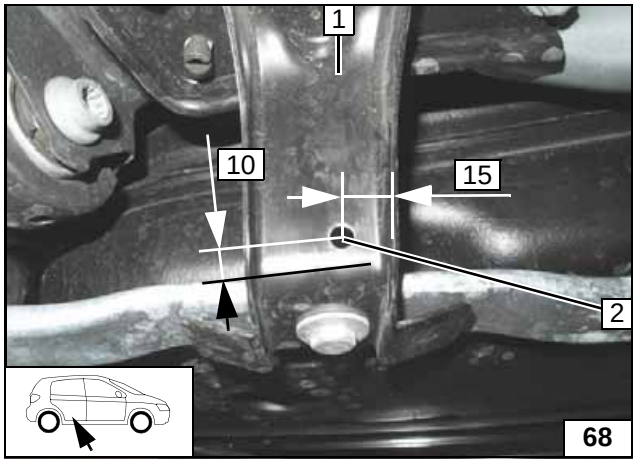
1 90° moulded hose

Processing moulded hose



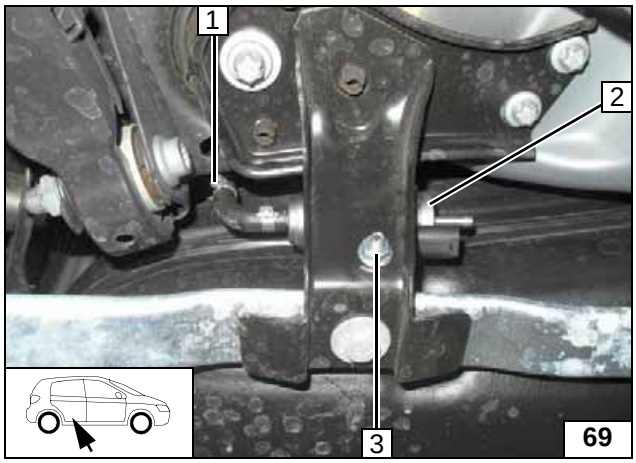
1 Metering pump
2 Mounting of metering pump
3 90° moulded hose (short end on metering pump), 10 mm dia. clamp [2x]
4 Fuel line fuel standpipe

Premounting metering pump



1 Original vehicle strut
2 6.5 mm dia. hole

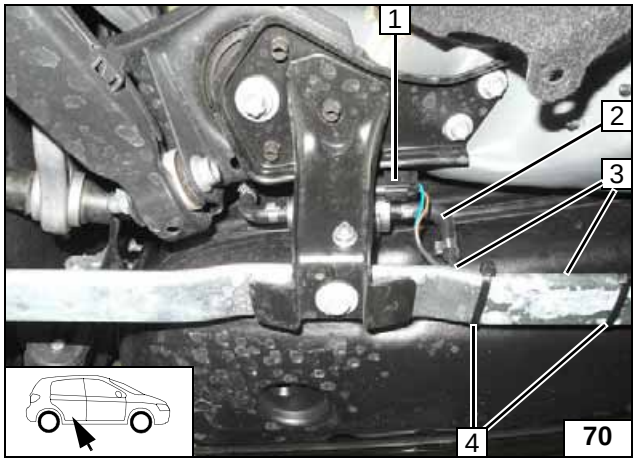
Preparing installation location



Route fuel line **1** to installation location of fuel standpipe.

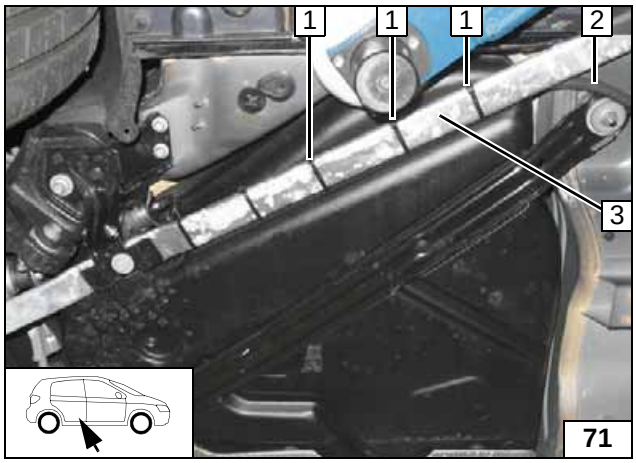
2 Metering pump
3 M6x25 bolt, flanged nut

Mounting metering pump



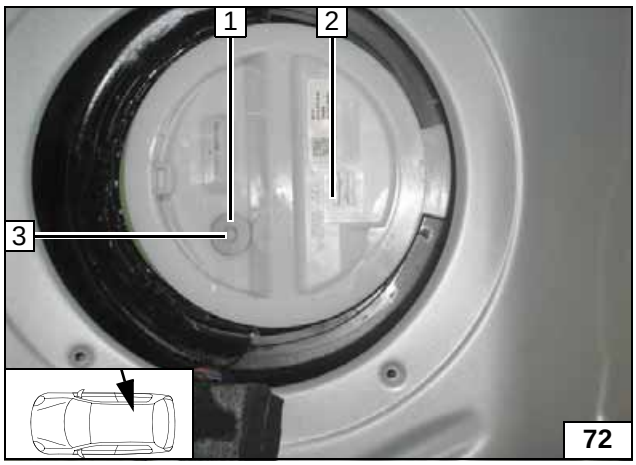
1 Metering pump wiring harness, connector mounted
2 90° moulded hose, 10 mm dia. clamp [2x]
3 Fuel line of heater (hidden view)
4 Fuel line with cable ties on original vehicle strut

Mounting metering pump



Fasten fuel line of heater **2** along original vehicle strut **3** using cable tie **1**.
Ensure sufficient distance from neighbouring components.

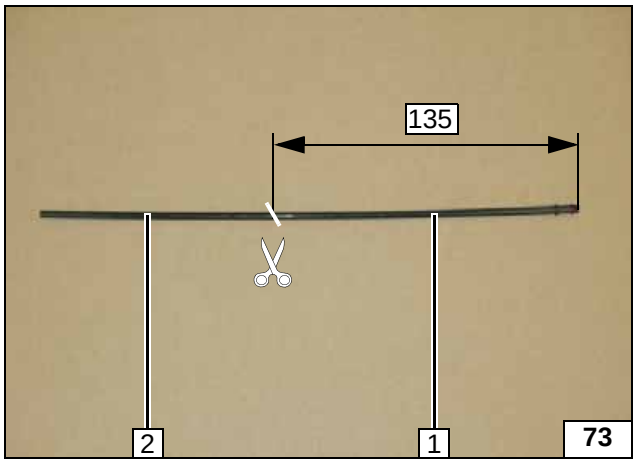
Mounting metering pump



Diesel Fuel Standpipe

Remove fuel-tank sending unit **2** in accordance with manufacturer's instructions.
Mount large diameter washer **1** as shown, copy hole pattern **3** for 6mm dia. hole.
When drilling, make sure drilling chips do not get into the fuel tank or fuel-tank sending unit.

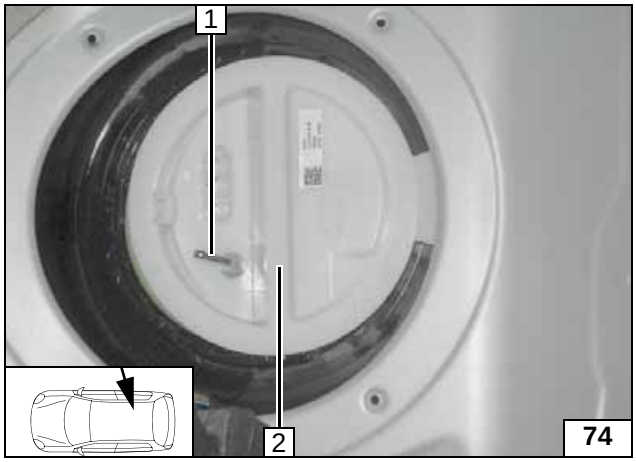
Fuel extraction



Cut standpipe **1** at an angle.

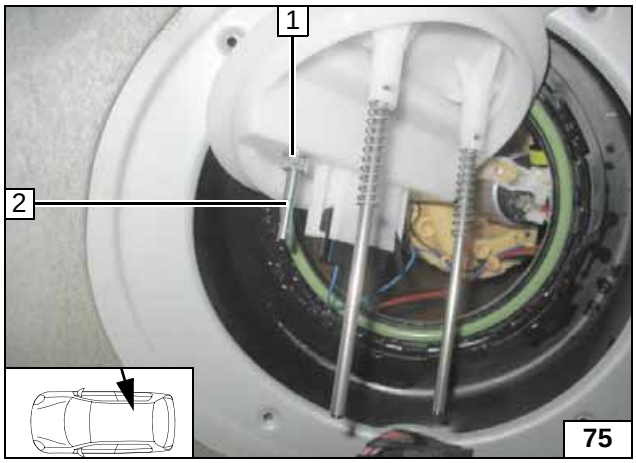
2 Section, discard

Cutting standpipe to size



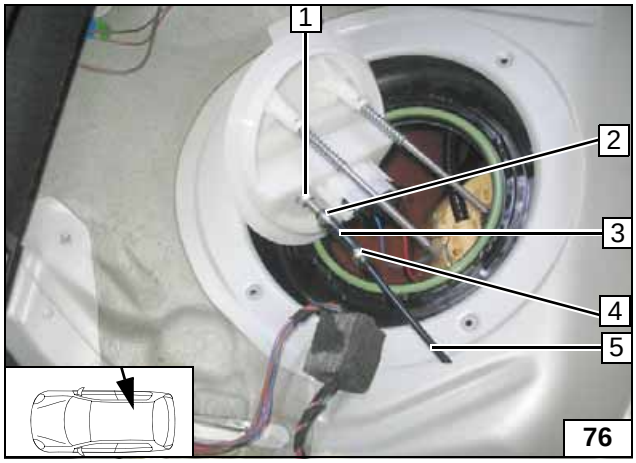
Insert fuel standpipe **1** into fuel-tank sending unit **2**.

Installing fuel stand pipe



Observe tightening torque of 5 Nm of the flanged nut **1** from fuel standpipe **2**.

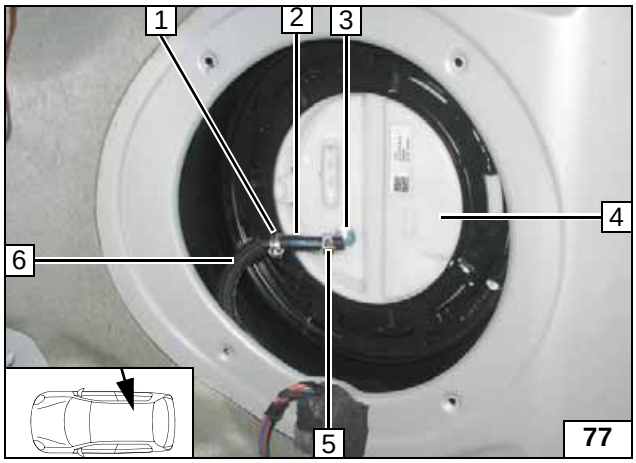
Mounting fuel stand-pipe



Mount 3.5mm dia. moulded hose **3** on fuel standpipe **1**.

2 8 mm dia. clamp
4 10 mm dia. clamp
5 Standpipe

Mounting standpipe



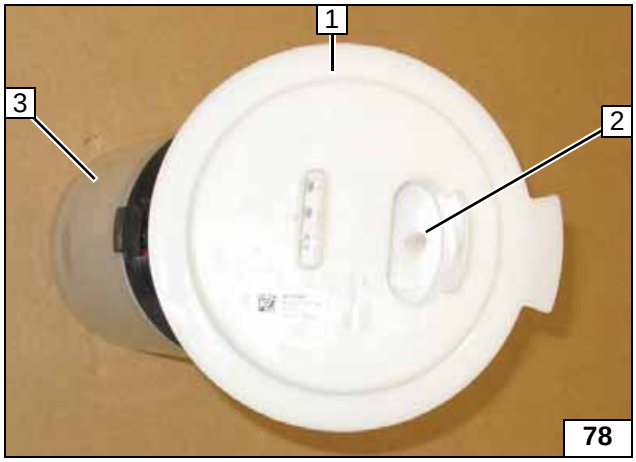
Mount fuel-tank sending unit **4** in accordance with manufacturer's instructions.
Mount 3.5mm dia. moulded hose **2** on fuel standpipe **3**.

1 10 mm dia. clamp, fuel line
5 8 mm dia. clamp
6 6x11 fabric-reinforced hose, rattle protection

Mounting fuel line

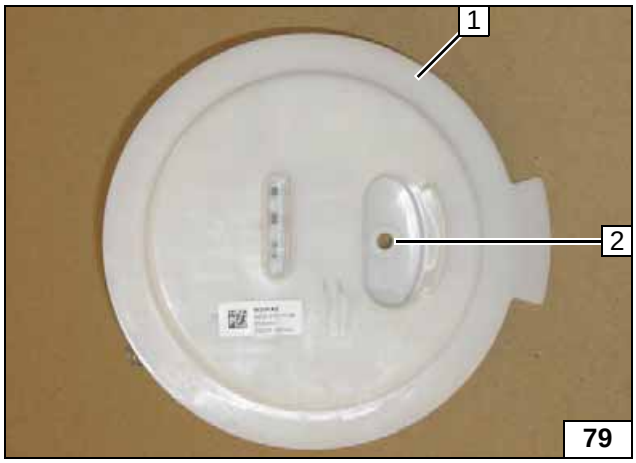
Petrol Fuel Standpipe

Up to model year 2012



Remove fuel-tank sending unit in accordance with manufacturer's instructions.
Remove upper section **1** from lower section **3** in accordance with manufacturer's instructions.
Cut off original vehicle connection piece **2** flush (see next figure).

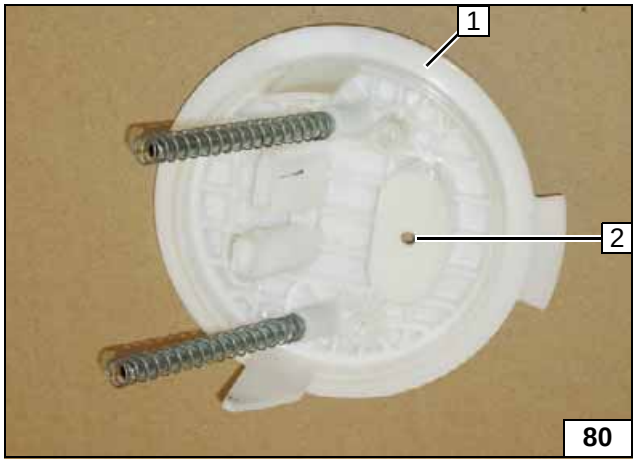
Fuel extraction



Ensure an even surface in area **2**.

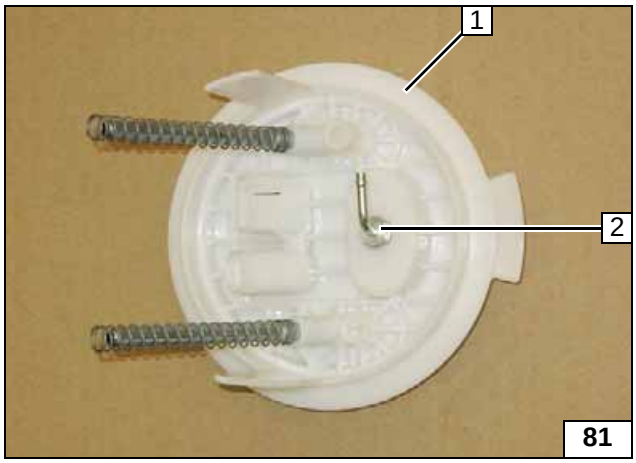
1 Upper section of fuel-tank sending unit, outside

Preparing fuel-tank sending unit



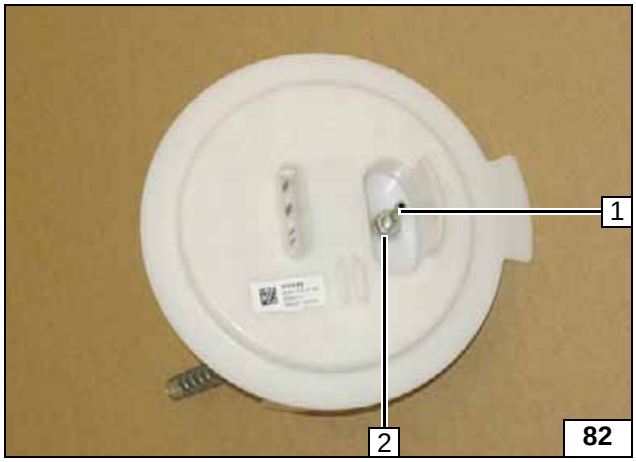
1 Upper section of fuel-tank sending unit, inside
2 6mm dia. hole (in the middle of the area where the connection piece was removed)

Preparing fuel-tank sending unit



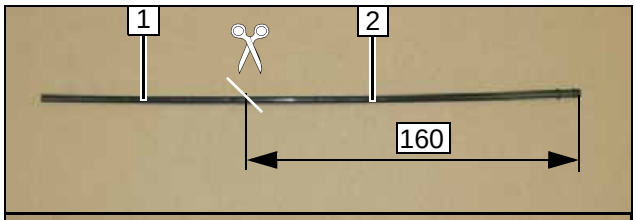
1 Upper section of fuel-tank sending unit, inside
2 Fuel standpipe

Mounting fuel standpipe



Observe 5 Nm tightening torque on flanged nut **2** of fuel standpipe **1**.

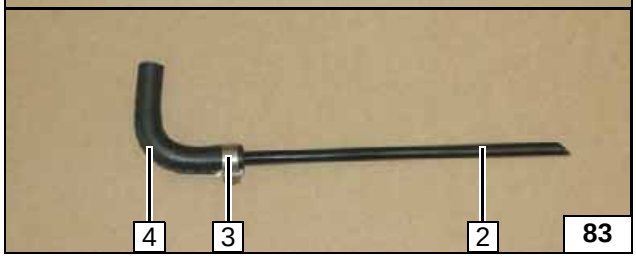
Mounting fuel standpipe



Cut standpipe **2** at an angle.

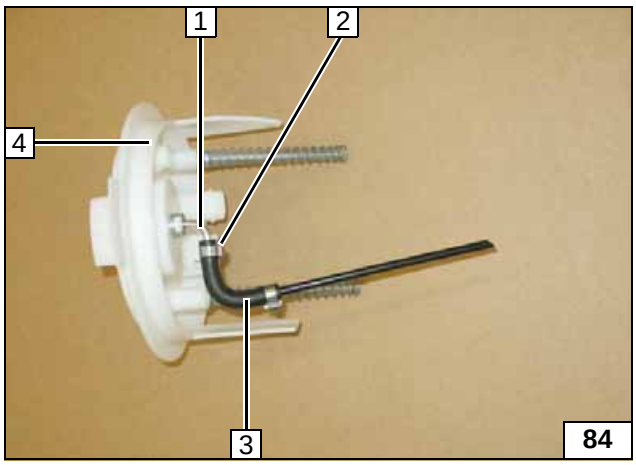
1 Section, discard

Cutting to length and premounting standpipe



Mount standpipe **2** in 4.5mm dia. moulded hose **4**.

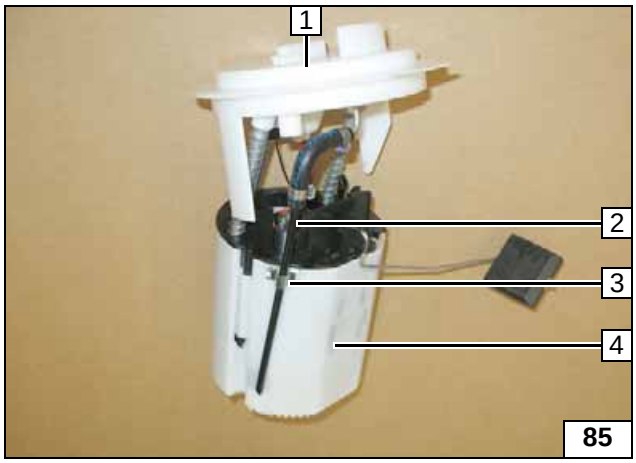
3 10 mm dia. clamp



Attach premounted standpipe **3** on fuel standpipe **1** and secure with 8 mm dia. clamp **2**.

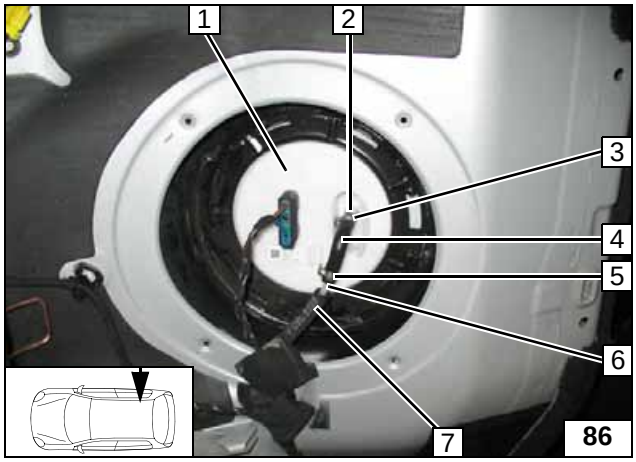
4 Fuel-tank sending unit

Mounting standpipe



Mount fuel-tank sending unit **1** in accordance with manufacturer's instructions.
Insert retaining clamp **3** for guiding standpipe **2** in lower section of fuel-tank sending unit **4**.

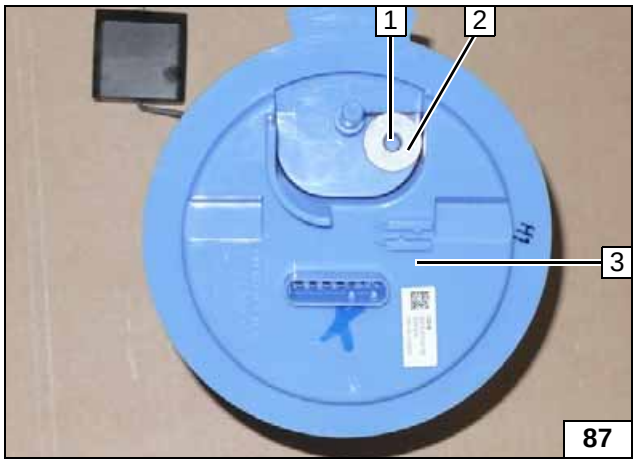
Mounting standpipe



Mount fuel-tank sending unit **1** in accordance with manufacturer's instructions.
Mount 3.5mm dia. moulded hose **4** on fuel standpipe **2**.

3 8 mm dia. clamp
5 10 mm dia. clamp
6 Fuel line
7 Fabric-reinforced hose (rattle protection)

Mounting line



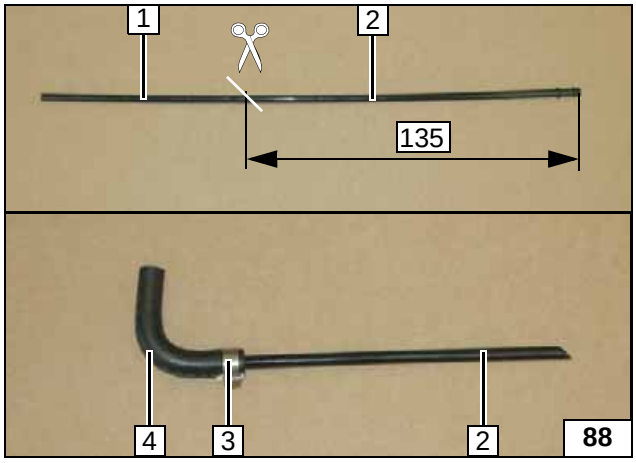
From model year 2013.

Remove fuel-tank sending unit **3** in accordance with manufacturer's instructions.

Place large diameter washer **2** flush against the edges as shown, copy hole pattern **1**.

1 6 mm dia. hole

Fuel extraction



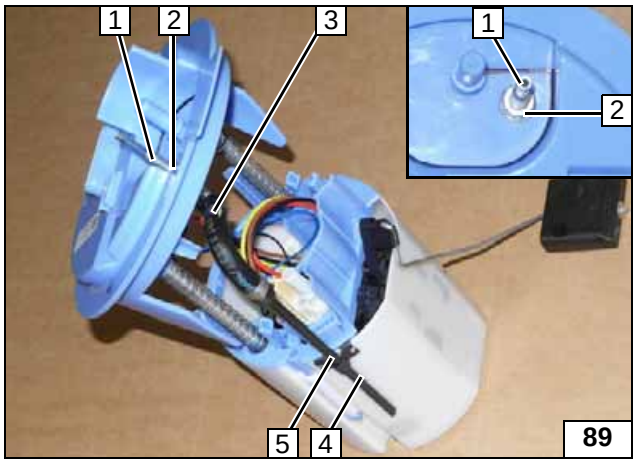
Cut standpipe **2** at an angle.

1 Section, discard

Mount standpipe **2** in 4.5mm dia. moulded hose **4**.

3 10 mm dia. clamp

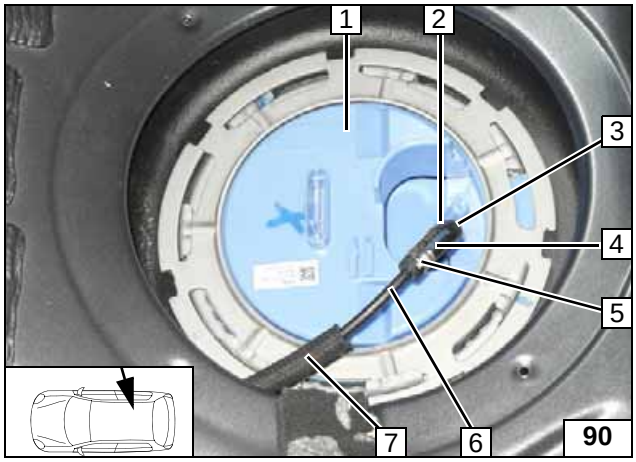
Cutting to length and premounting standpipe



Observe 5Nm tightening torque on flanged nut **2**.

1 Fuel standpipe
3 8 mm dia. clamp
4 Standpipe (premounted)
5 Retaining clamp

Mounting fuel standpipe

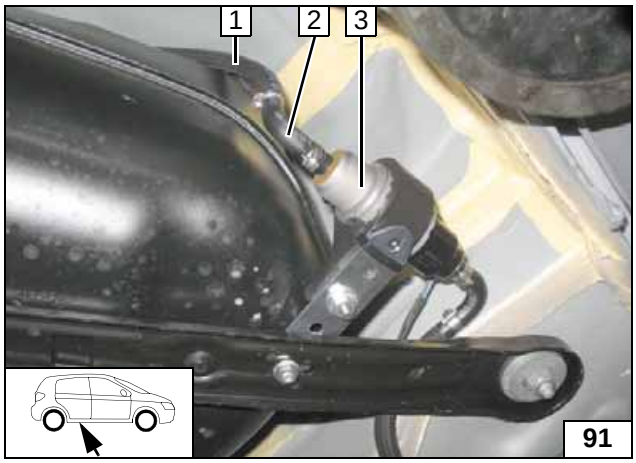


Mount fuel-tank sending unit **1** in accordance with manufacturer's instructions.
Mount 3.5 mm dia. moulded hose **4** on fuel standpipe **2**.

3 8 mm dia. clamp
5 10 mm dia. clamp
6 Fuel line of metering pump
7 Fabric-reinforced hose (rattle protection)

Mounting fuel line

Connecting Metering Pump

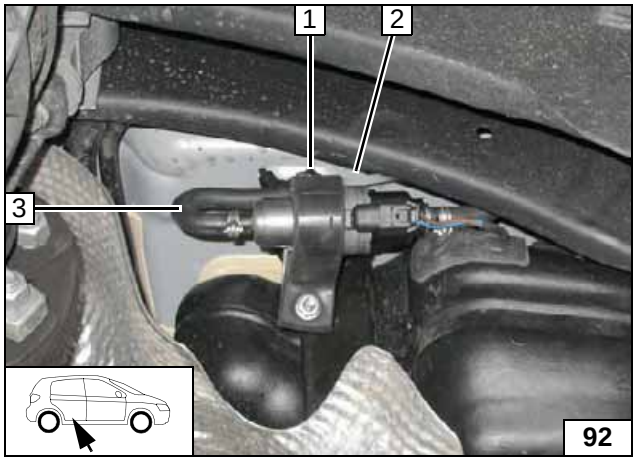


60l fuel tank

Ensure sufficient distance from neighbouring components.

1 Fabric-reinforced hose, fuel line
2 90° moulded hose, 10 mm dia. clamp [2x]
3 Metering pump

Connecting metering pump



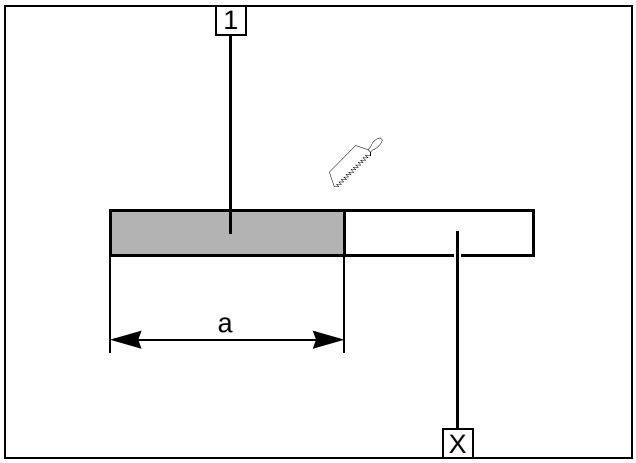
80l fuel tank

Up to model year 2012

Ensure sufficient distance from neighbouring components.

1 10 mm dia. clamp
2 Fuel line
3 180° moulded hose

Connecting metering pump

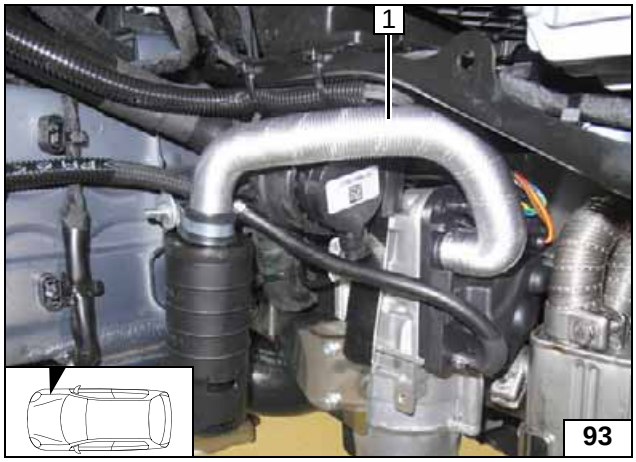


Combustion Air

Discard section **X**.

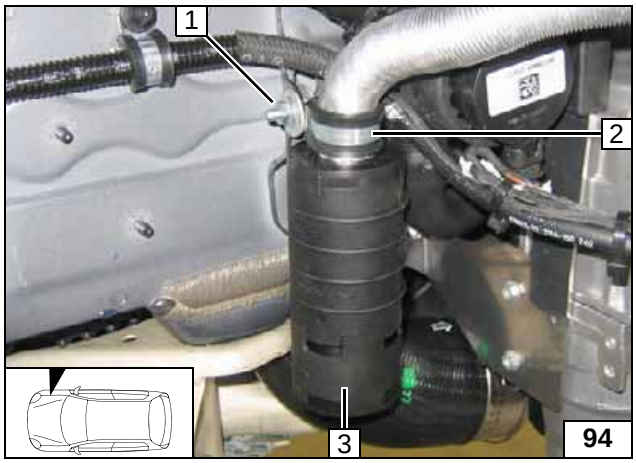
1 Combustion air pipe
a = 300

Cutting combustion air pipe to length



1 Combustion air pipe

Mounting combustion air pipe



1 Existing hole, M6x20 bolt, large diameter washer [2x], flanged nut
2 25 mm dia. rubber-coated p-clamp
3 Silencer

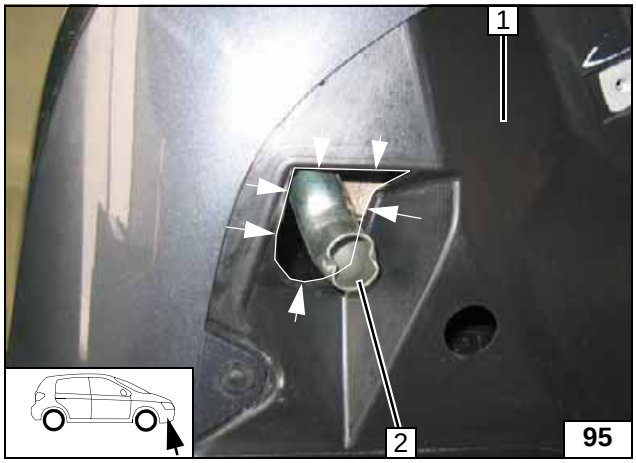
Mounting silencer

Final Work

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

- **Connect battery**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.**
- **Teach Telestart according to "Installation documentation T91 / T100 HTM", adjust digital timer if necessary**
- **Activate push button according to "Installation documentation T91 / T100 HTM" (Repositioning of switch input)**
- **Define settings of A/C control panel according to the "operating and maintenance instructions of TT-Evo".**
- **Mount signboard "Switch off parking heater before refueling" in area of filler neck.**
- **For initial startup and function check, please see installation instructions**

WARNING:
After conducting an operating test of the parking heater, carry out an "input short test" with the "Diagnosis assistance system" of the manufacturer on the vehicle.
Reprogram the positioning motors in the KLA air conditioner.



Cut out wheel well trim **1** at the marking. Exhaust end section **2** must be placed in the middle of the recess and it must be aligned flush with wheel well trim **1**, realign exhaust end section **2** if necessary.

Aligning exhaust end section

Webasto Thermo & Comfort SE
Postfach 1410
82199 Gilching
Germany
Internet: www.webasto.com
Technical Extranet:
http://dealers.webasto.com

