Water Heater

Thermo Top Evo Parking Heater

E1
00 0258

Installation Documentation
Mitsubishi L200

Validity

Manufacturer	Model	Type	EG BE No. / ABE
Mitsubishi	L200	KJ0T	e1 * 2007 / 46 * 1397 * ...

Motorisation	Fuel	Transmission type	Output in kW	Displacement in cm³	Engine code
2.4 DI-D	Diesel	6-speed SG	113	2442	4N15
2.4 DI-D	Diesel	5-speed SG	133	2442	4N15
2.4 DI-D	Diesel	AG	133	2442	4N15

SG = manual transmission
AG = automatic transmission

From model year 2016
Left-hand drive vehicle

Verified equipment variants:
Manual air-conditioning
Automatic air-conditioning
Single / Double Cab
Front fog lights
4WD
Start / Stop
Euro 5b

Not verified:
Passenger compartment monitoring

Total installation time:
approx. 7.5 hours in case of 133kW
approx. 8.0 hours in case of 113kW

Mitsubishi L200

Table of Contents

Necessary Components

- Basic delivery scope of Thermo Top Evo based on price list
- Installation kit for Mitsubishi L200 2016 Diesel: **1324324A**
- Heater control 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

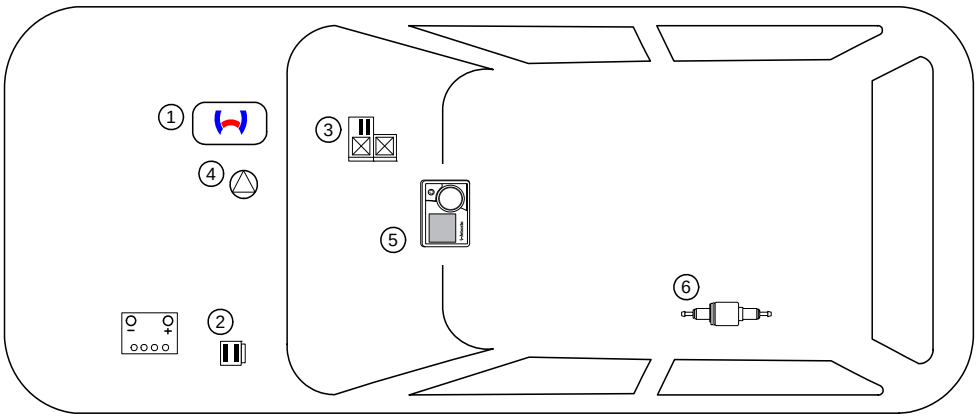
Installation instructions:

- Arrange for the vehicle to be delivered with the tank only about ¼ full.
- The installation location of the push button in case of Telestart or ThermoCall should be confirmed with the end customer.
- Depending on the space required and the vehicle manufacturer's instructions, we recommend the use of a vehicle battery with a higher electrical capacity.

Installation Overview

Legend:

1. Heater
2. Engine compartment fuse holder
3. Passenger compartment relay and fuse holder
4. Circulating pump
5. MultiControl CAR
6. Metering pump



Information on Total Installation Time

The total installation time includes the time needed for mounting and demounting 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 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 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).

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.

Mitsubishi L200

Information on Validity

This installation documentation applies to Mitsubishi L200 Diesel vehicles - for validity, see page 1 - from model year 2016 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 Information

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 cable lug / tab connector, 0.5 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Deep-hole marker
- Webasto Thermo Test Diagnosis with current software

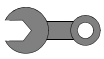
Dimensions
- All dimensions are in mm.

Tightening torque values
- Tightening torque values of 5x13 heater bolts and 5x11 heater stud bolts = 8Nm.
- Tightening torque value of 5x15 water connection piece retaining plate 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 damage to components.

Specific risk due to electrical voltage.

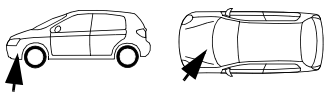
Specific risk of injury or fatal accidents.

Specific risk of fire or explosion.

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

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.

Preliminary Work

Vehicle

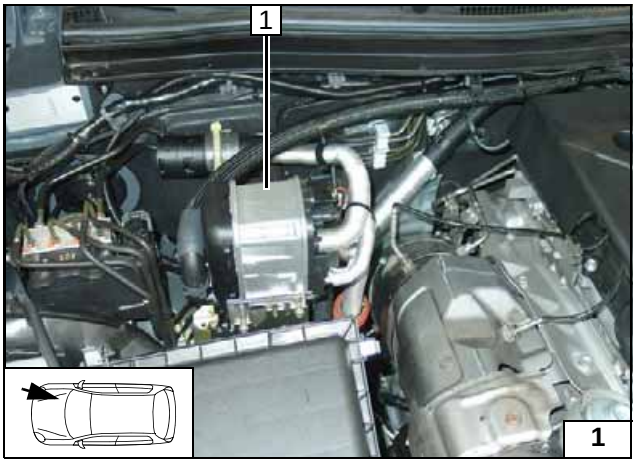
- Open the fuel tank cap.
- Ventilate the fuel tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Remove engine design cover.
- Disconnect and completely remove the battery.
- Remove the underride protection.
- Remove the A/C control panel (only for automatic air-conditioning).
- Remove the glove box.
- Remove the lower A-pillar trim on the right.
- Remove the footwell trim on the front passenger's side.

Also required for 113kW

- Remove the left rear wheel well trim.
- Detach the handbrake cable in the front area of the tank.
- Detach the hose of the filler neck and fuel tank ventilation.
- Dismantling fuel tank sending unit connector
- Lower the fuel tank.

Heater

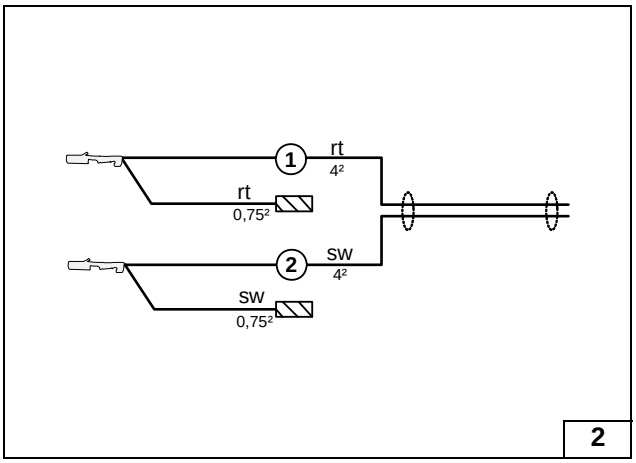
- Remove years that do not apply from the type and duplicate label.
- Attach the duplicate label (type label) visibly in the appropriate place in the engine compartment.



Heater Installation Location

1 Heater

Installation location



2

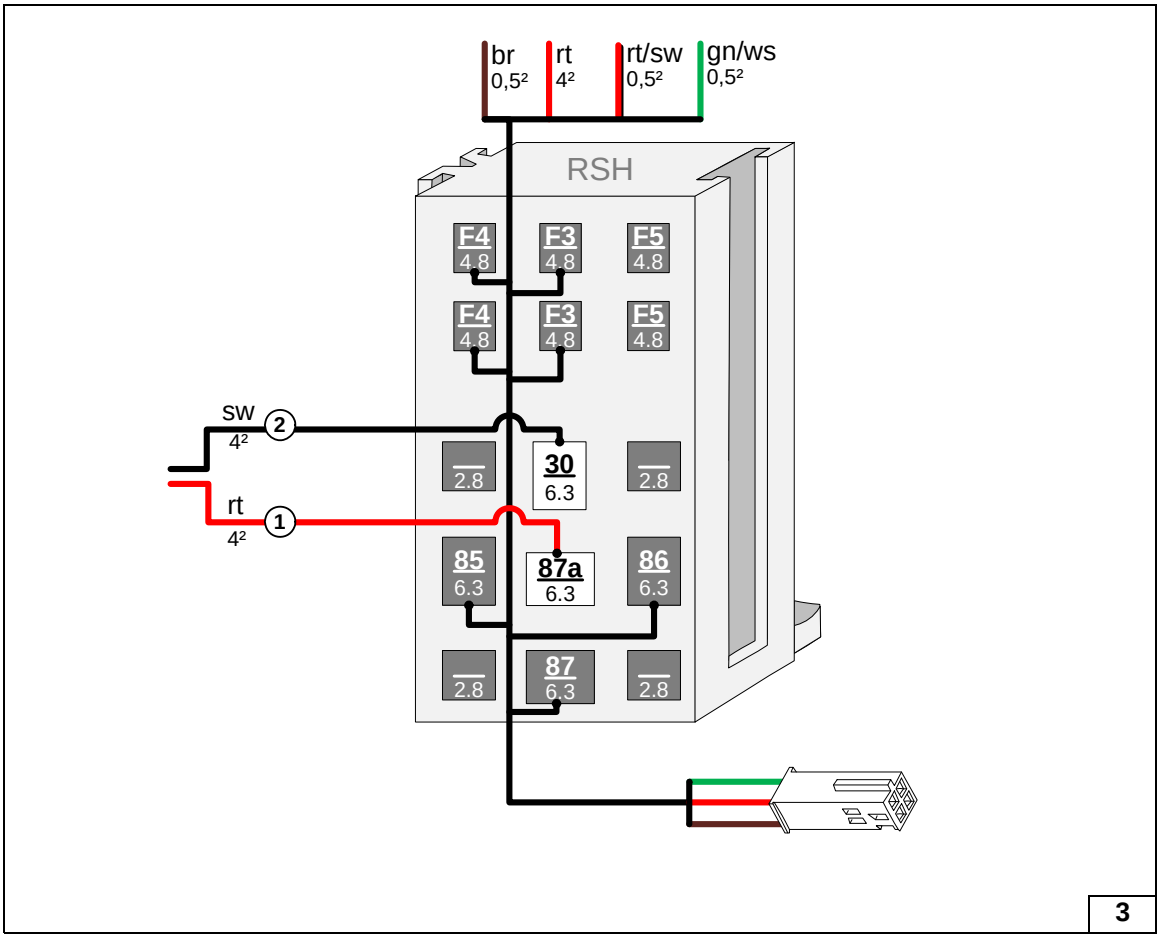
Preparing Electrical System

Manual air-conditioning

Wire sections retain their numbering in the entire document.

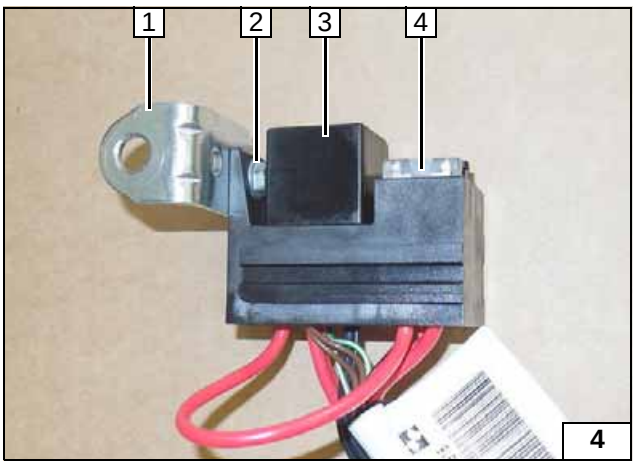
① Red (rt) wire of fan wiring harness
② Black (sw) wire of fan wiring harness

Assigning wires



3

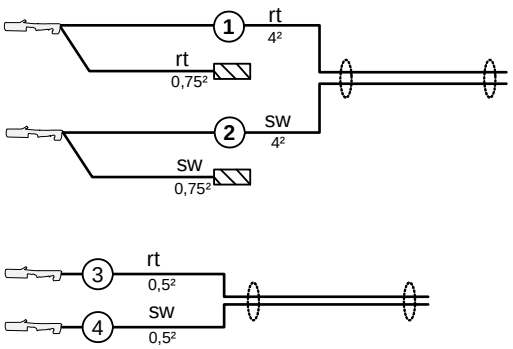
Connecting wires to passenger compartment relay and fuse holder



4

1 Angle bracket
2 M5x16 bolt, washer [2x], nut
3 Relay K1
4 25A fuse F4

Preparing passenger compartment relay and fuse holder



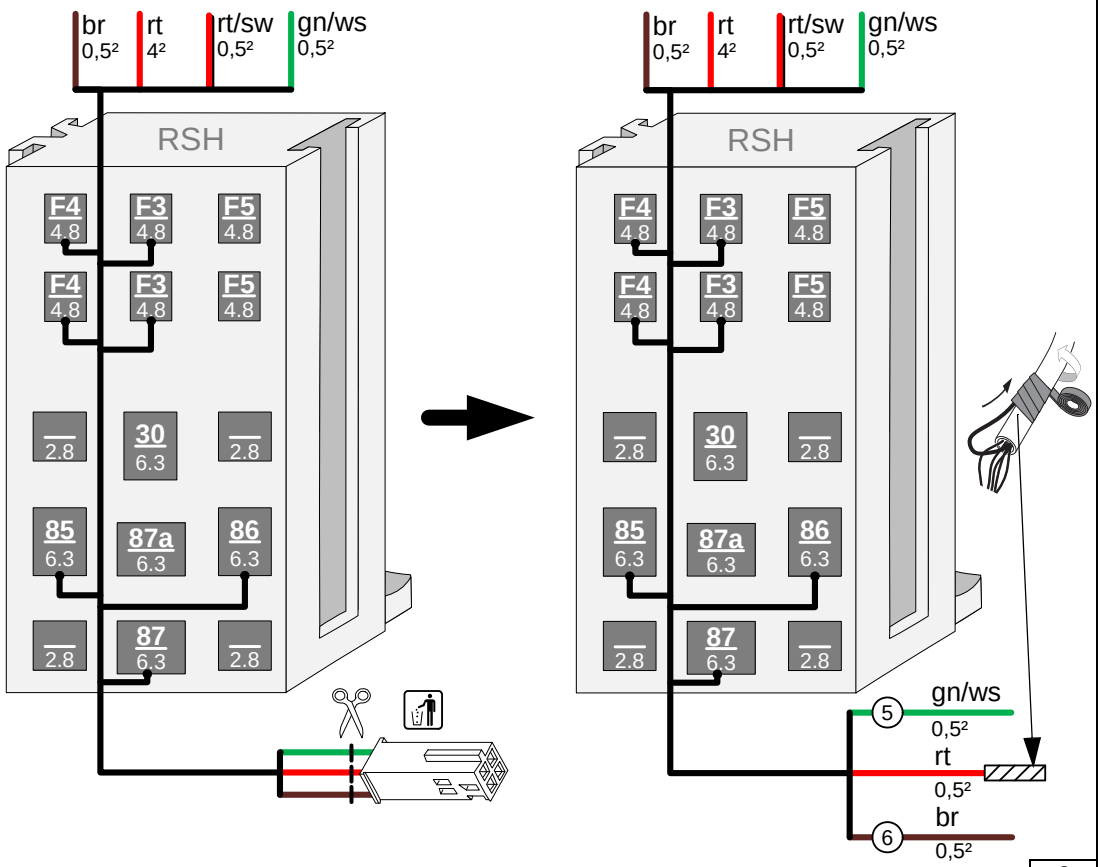
5

Automatic air-conditioning

Wire sections retain their numbering in the entire document.

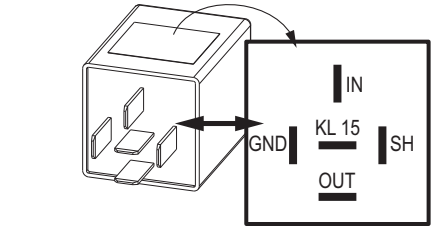
① Red (rt) wire of fan wiring harness
② Black (sw) wire of fan wiring harness
③ Red (rt) wire of PWM control system wiring harness
④ Black (sw) wire of PWM control system wiring harness

Assigning wires



6

Preparing passenger compartment relay and fuse holder/ assigning wires



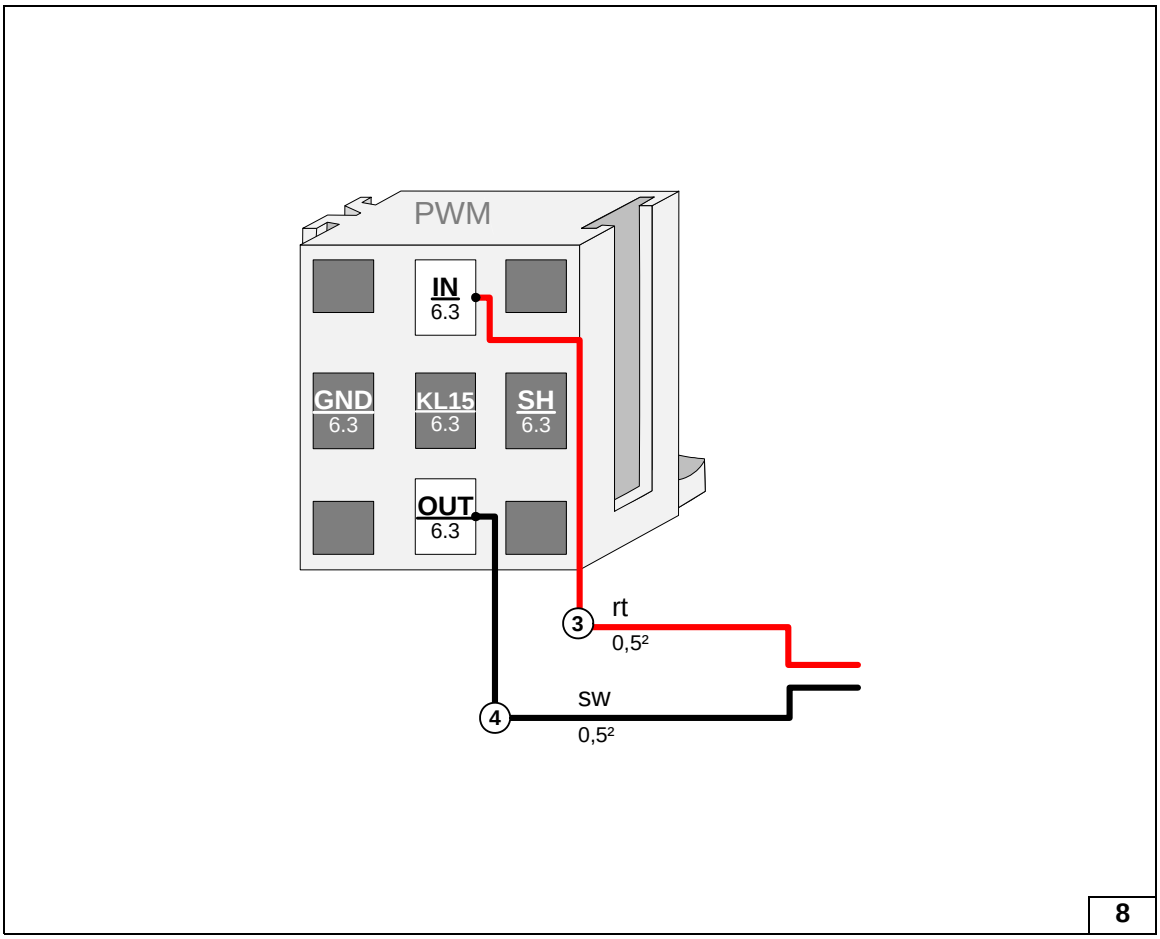
7

Check the PWM Gateway settings when starting up the heater and adjust if necessary.

Settings:

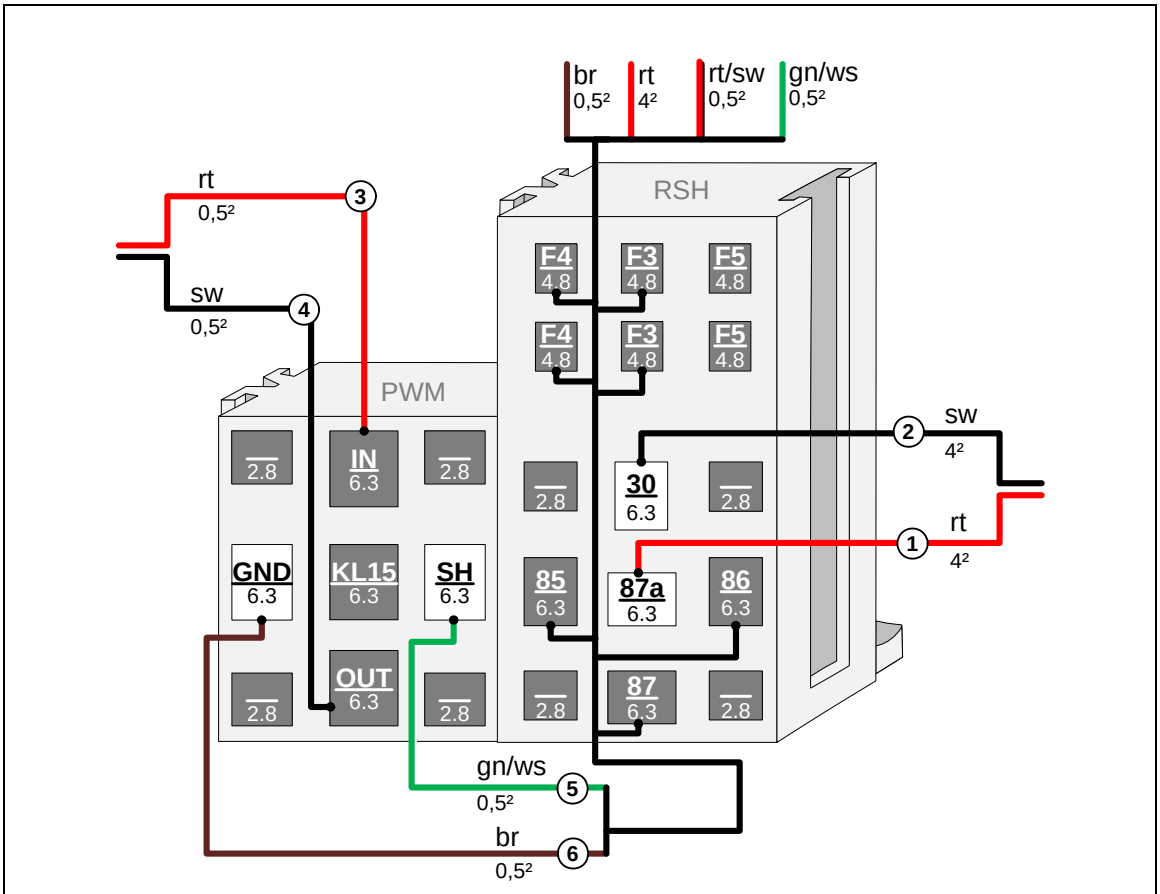
Duty cycle: 100% (DC)
Frequency: not relevant
Voltage: 4.2V
Function: High side

View of PWM GW



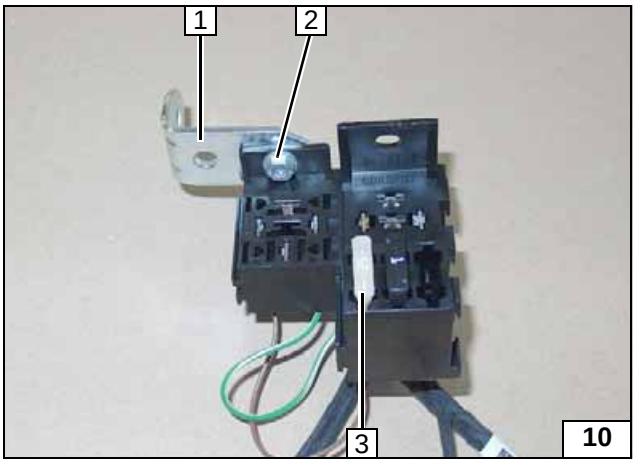
8

Connecting wires to socket of PWM GW



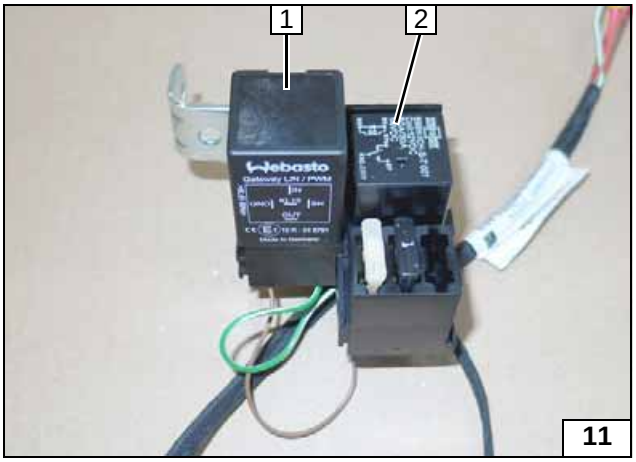
9

Interlocking PWM GW socket and passenger compartment relay and fuse holder, connecting wires



1 Angle bracket
2 M5x16 bolt, washer [2x], nut
3 25A fuse F4

Preparing passenger compartment relay and fuse holder



1 PWM GW
2 Fan relay K1

Installing PWM GW and relay K1

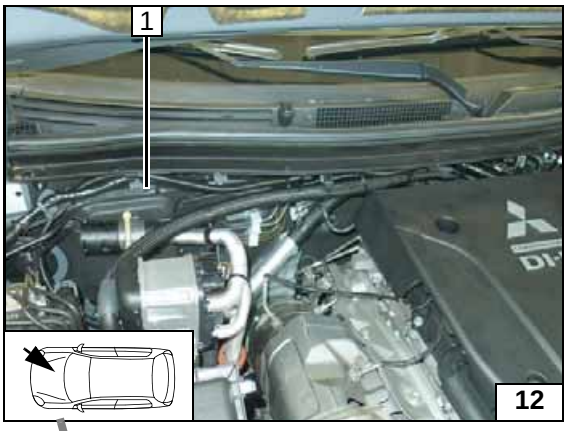
Electrical System

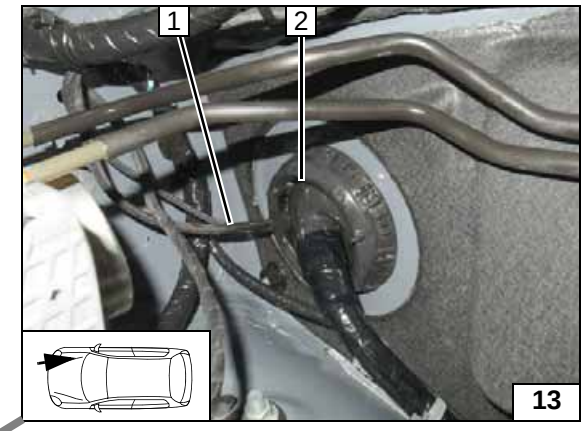
Routing Wiring Harness

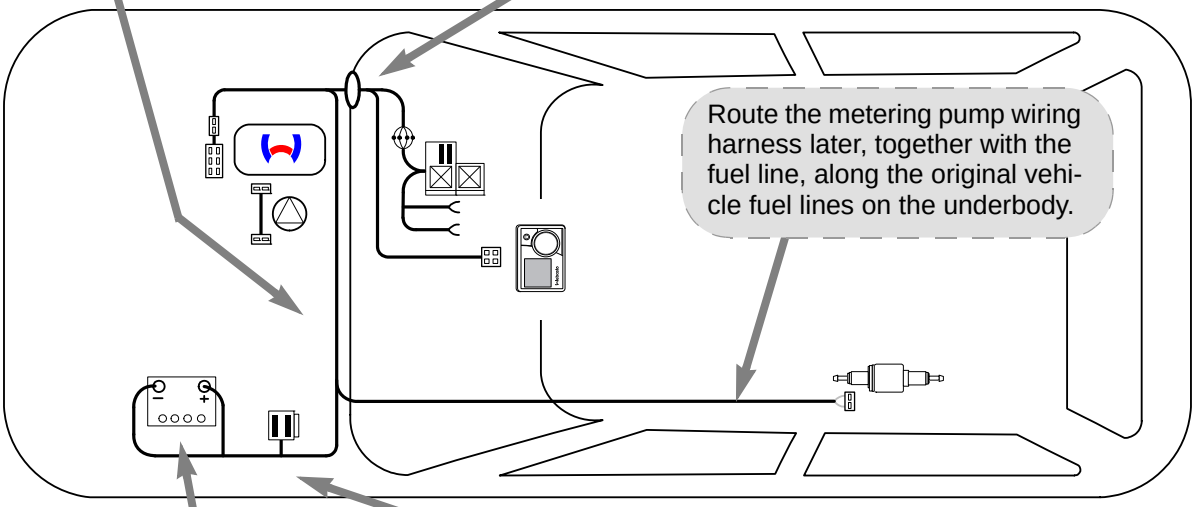
Route heater wiring harness **1** to the right side of the vehicle.

Wiring harness pass through

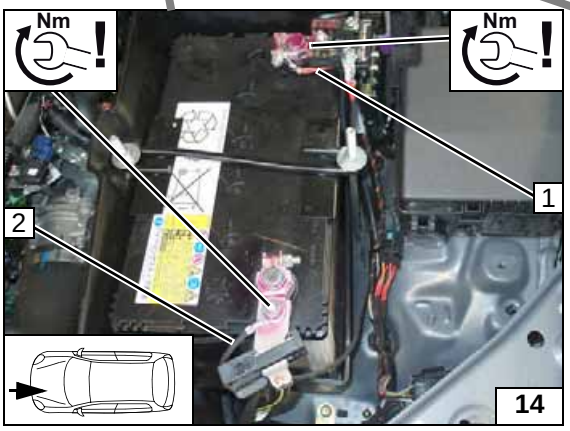
1 Heater wiring harnesses, heater control
2 Protective rubber plug





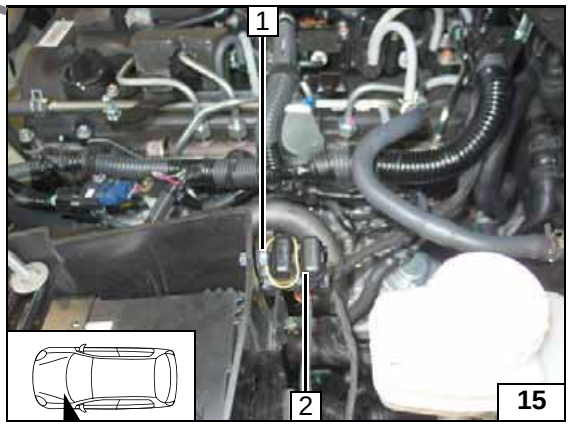


Wiring harness routing diagram



Positive and earth wire

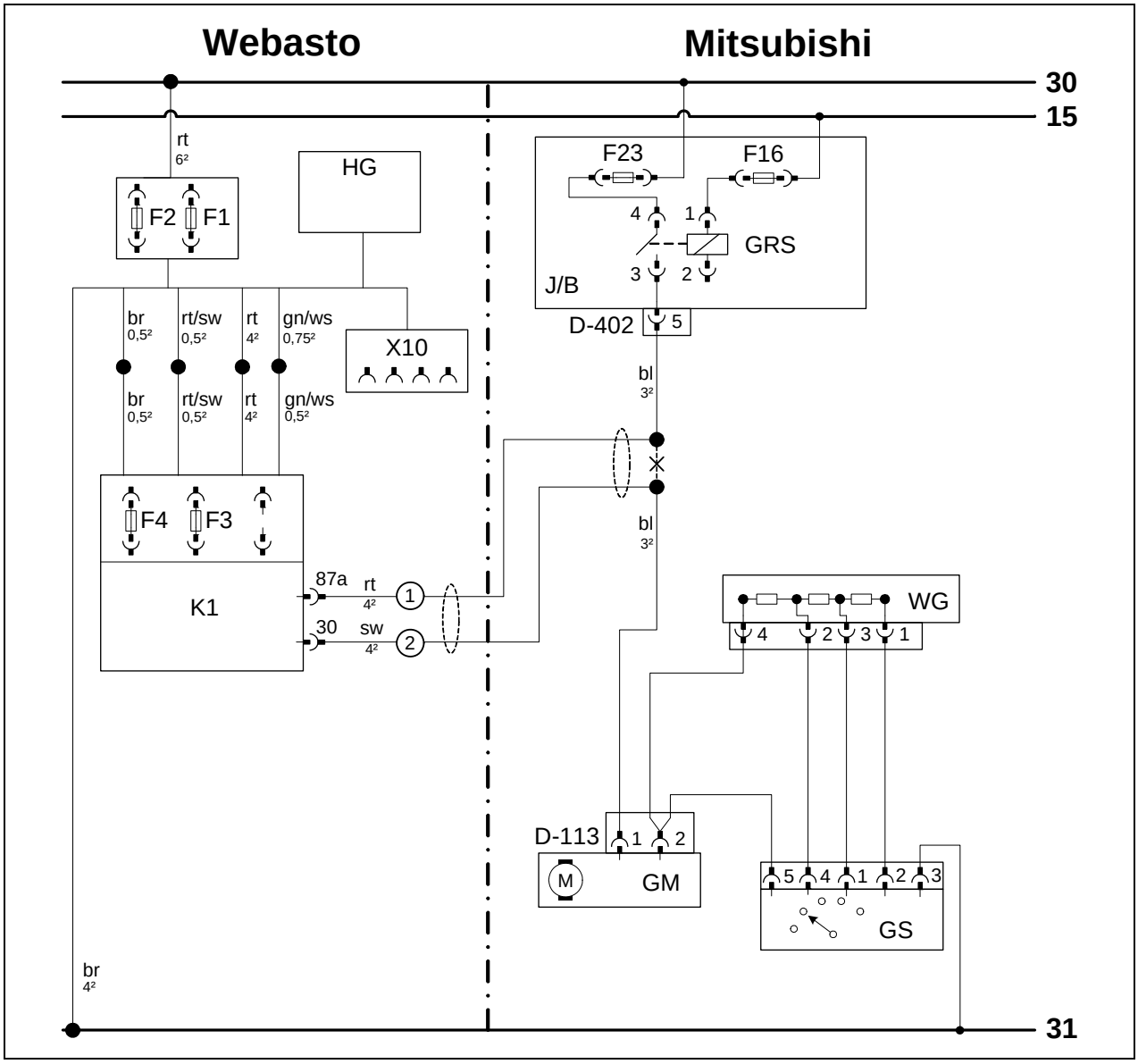
1 Positive wire on positive battery terminal
2 Earth wire on negative battery terminal



Engine compartment fuse holder

1 M5x16 bolt, large diameter washer [2x], 5.5mm hole, retaining plate of fuse holder, nut
2 Fuse F1-2

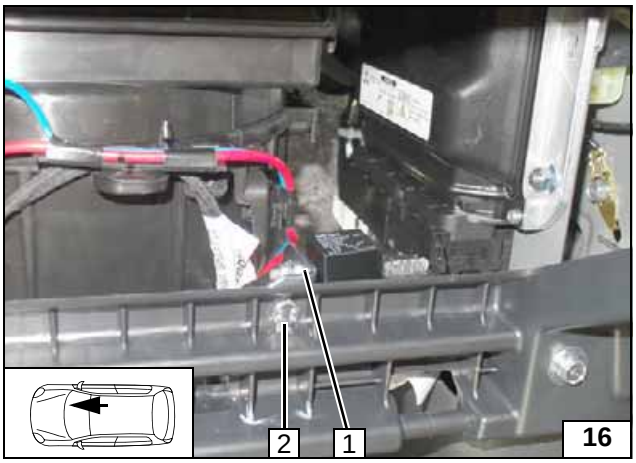
Manual Air-Conditioning Fan Controller



Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	J/B	Central electrical box	rt	red
F1	20A fuse	F23	30A fan motor fuse	ws	white
F2	30A fuse	F16	7.5A fan relay fuse	sw	black
X10	4-pin connector of heater control	GRs	Fan relay	br	brown
		D-402	6-pin connector of J/B	gn	green
F3	1A fuse	WG	Resistor group	bl	blue
F4	25A fuse	GM	Fan motor		
K1	Fan relay	D-113	2-pin connector of GM	**X**	Cutting point
		GS	Fan switch	Wiring colours may vary.	

System wiring diagram

Legend

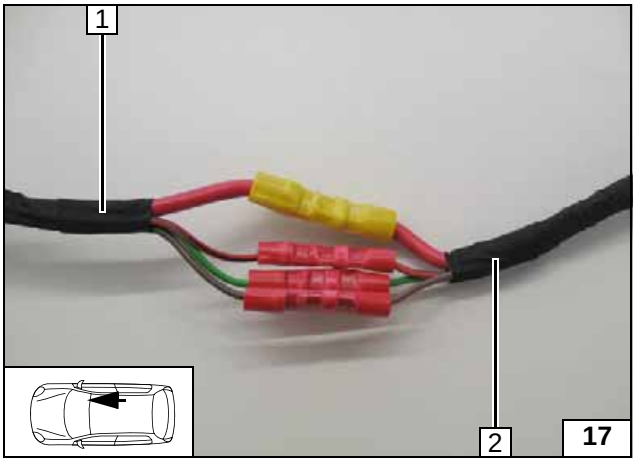


Fan controller

Produce all following electrical connections as shown in the wiring diagram.

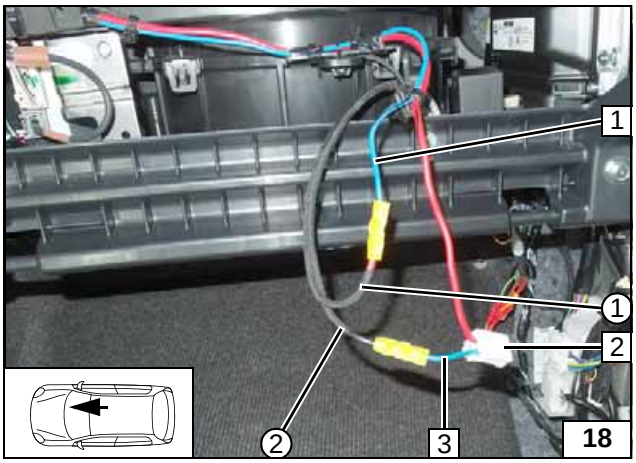
1 Angle bracket
2 M6x20 bolt, 6.5mm dia. hole, flanged nut

Installing passenger compartment relay and fuse holder



1 Passenger compartment relay and fuse holder wiring harness
2 Heater wiring harness

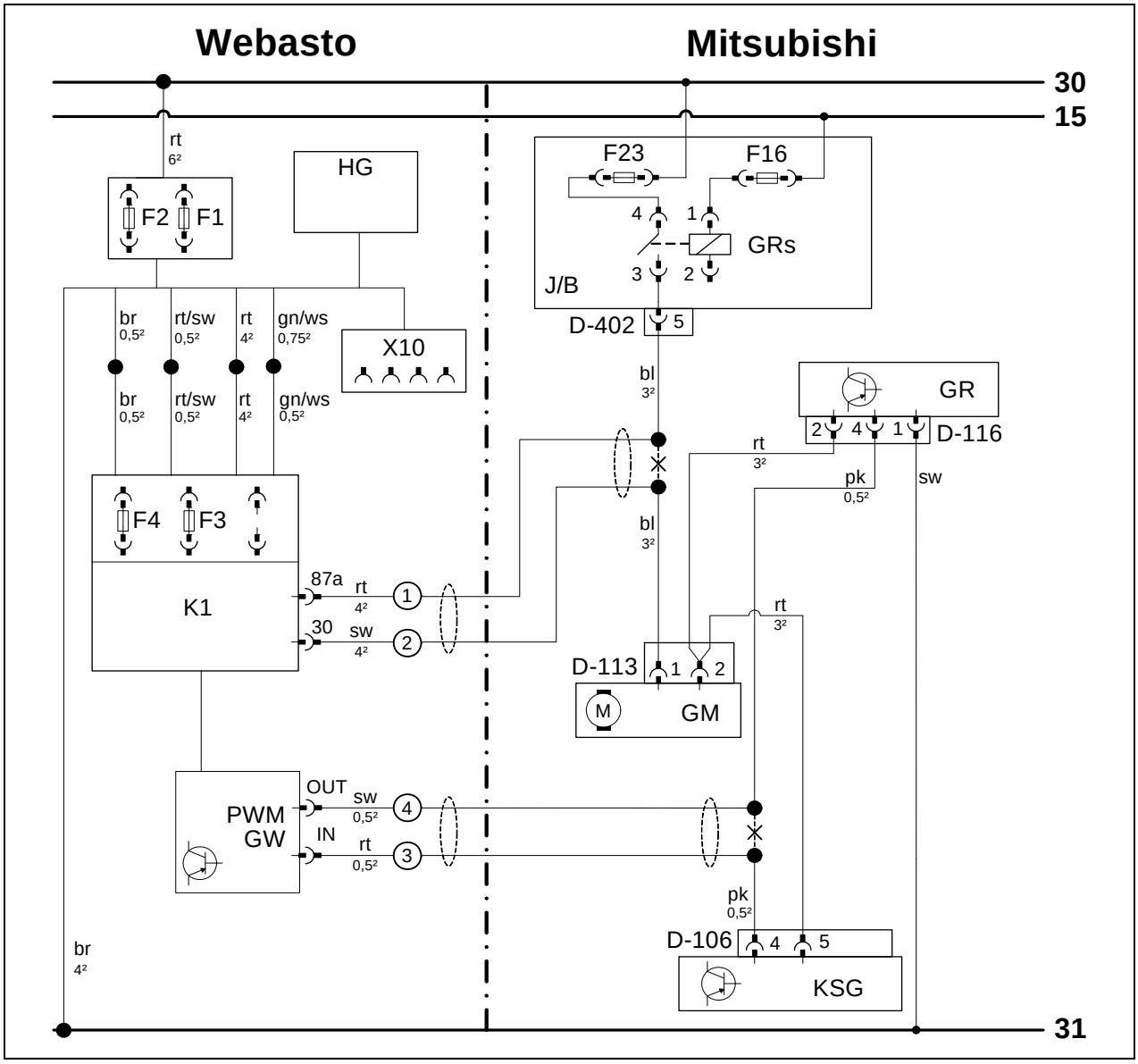
Connecting same colour wires of wiring harnesses



1 Blue (bl) wire of central electrical box connector D-402/Pin 5
2 2-pin fan motor connector D-113
3 Blue (bl) wire of fan motor connector D-113/pin 1
① Red (rt) wire from K1/87a of fan wiring harness
② Black (sw) wire from K1/30 of fan wiring harness

Connecting fan motor

Automatic Air-Conditioning Fan Controller



Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	J/B	Central electrical box	rt	red
F1	20A fuse	F23	30A fan motor fuse	ws	white
F2	30A fuse	F16	7.5A fan relay fuse	sw	black
X10	4-pin connector of heater control	GRs	Fan relay	br	brown
		D-402	6-pin connector of J/B	gn	green
F3	1A fuse	GR	Fan controller (power transistor)	bl	blue
F4	25A fuse			pk	pink
K1	Fan relay	D-116	4-pin connector of GR		
PWM GW	Pulse width modulator	GM	Fan motor		
		D-113	2-pin connector of GM		
PWM GW settings:		KSG	A/C control unit		
Duty cycle: 100% (DC)		D-106	32-pin connector of KSG		
Frequency: not relevant					
Voltage: 4.2V				**X**	Cutting point
Function: High side				Wiring colours may vary.	

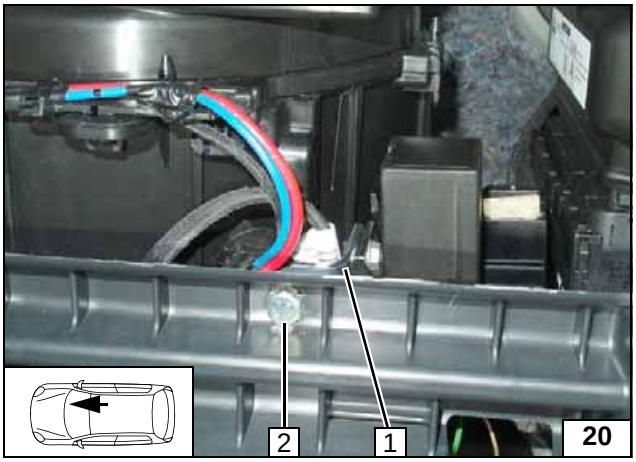
System wiring diagram

Legend

A/C control panel dismantling instructions

○ Disengage the clips at the fastening points (retaining clip) [8x]

Removing the A/C control panel

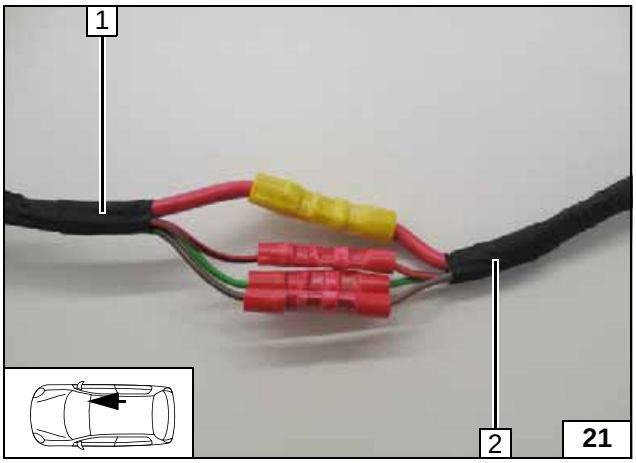


Fan controller

Produce all following electrical connections as shown in the wiring diagram.

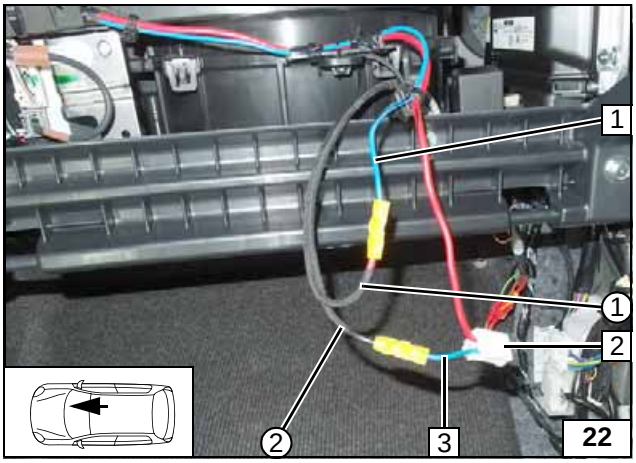
1 Angle bracket
2 M6x20 bolt, 6.5mm dia. hole, flanged nut

Installing passenger compartment relay and fuse holder



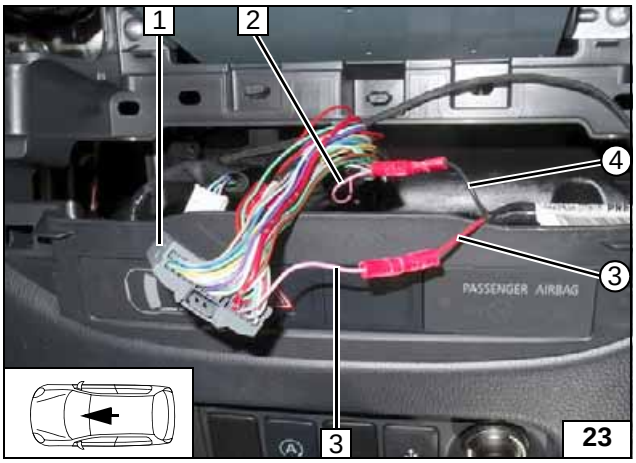
1 Passenger compartment relay and fuse holder wiring harness
2 Heater wiring harness

Connecting same colour wires of wiring harnesses



1 Blue (bl) wire of central electrical box connector D-402/Pin 5
2 2-pin fan motor connector D-113
3 Blue (bl) wire of fan motor connector D-113/pin 1
① Red (rt) wire from K1/87a of fan wiring harness
② Black (sw) wire from K1/30 of fan wiring harness

Connecting fan motor



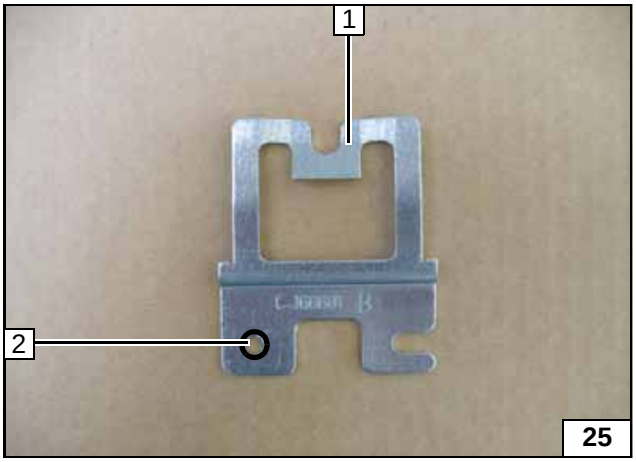
1 32-pin connector D-106 of KSG
2 Pink (pk) wire of fan controller connector D-116, pin 4
3 Pink (pk) wire of A/C control unit connector D-104, pin 4
③ Red (rt) wire from PWM GW/IN of PWM control wiring harness
④ Black (sw) wire from PWM GW/OUT of PWM control wiring harness

Connecting A/C control unit

MultiControl CAR Option

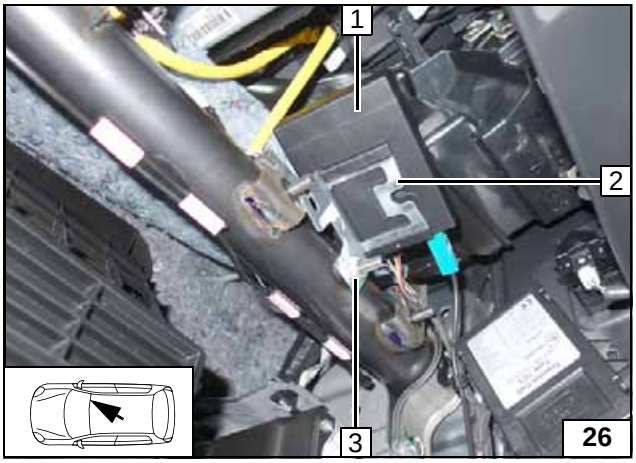
Installing MultiControl CAR with installation frame

Remote Option (Telestart)



1 Bracket of receiver
2 Drill out hole to 6.5mm dia.

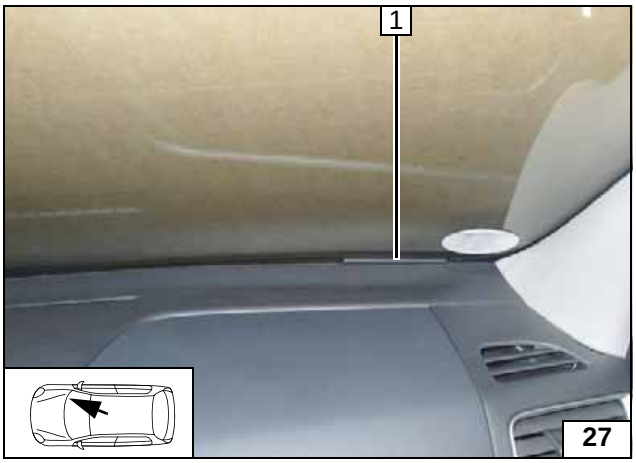
Preparing bracket



Angle down receiver bracket **2** by 90° as shown and install.

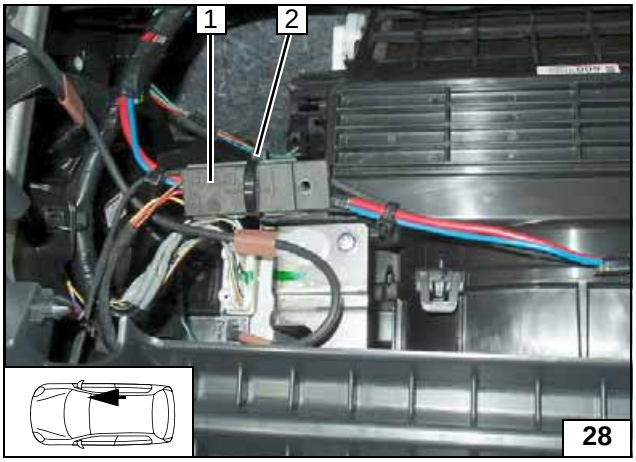
1 Receiver
3 Original vehicle stud bolt, M6 flanged nut

Installing receiver



1 Aerial

Installing aerial



Temperature sensor T100 HTM

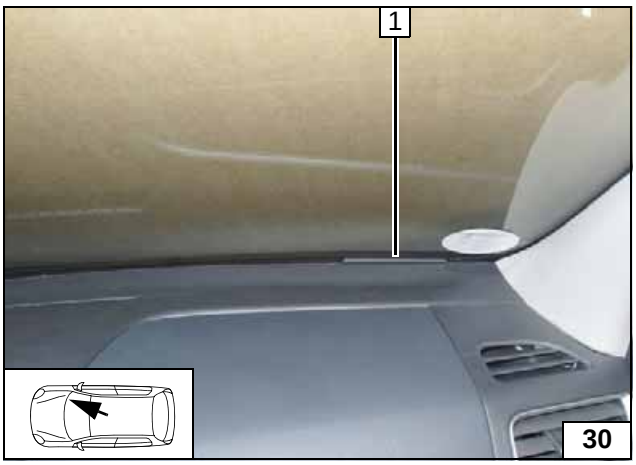
1 Temperature sensor
2 Cable tie

Installing temperature sensor

ThermoCall Option

Fasten receiver **1** using double-sided adhesive tape.

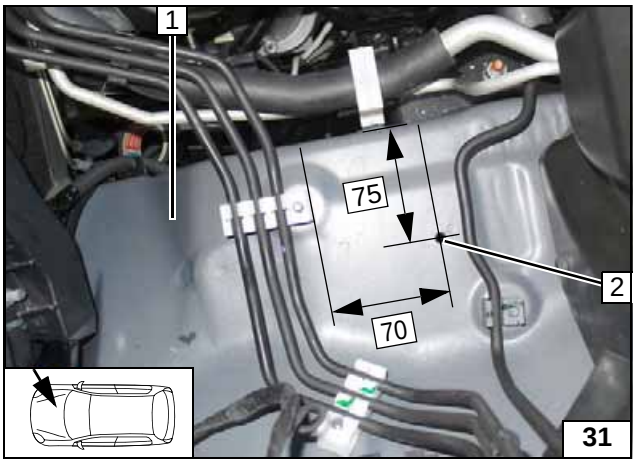
Installing receiver



1 Aerial (optional)

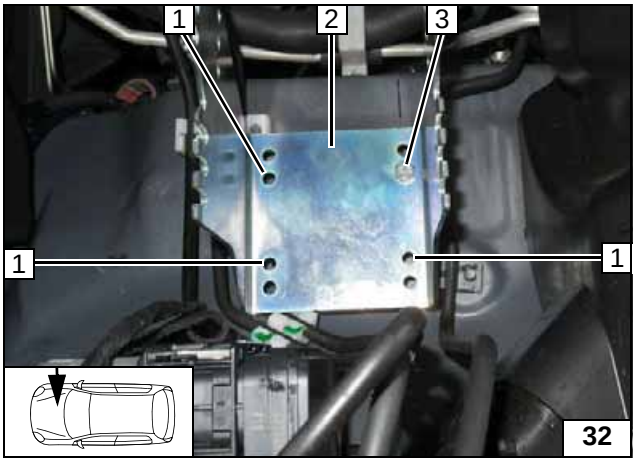
Installing aerial

Preparing Installation Location



1 Strut tower on the right
2 7 mm dia. hole

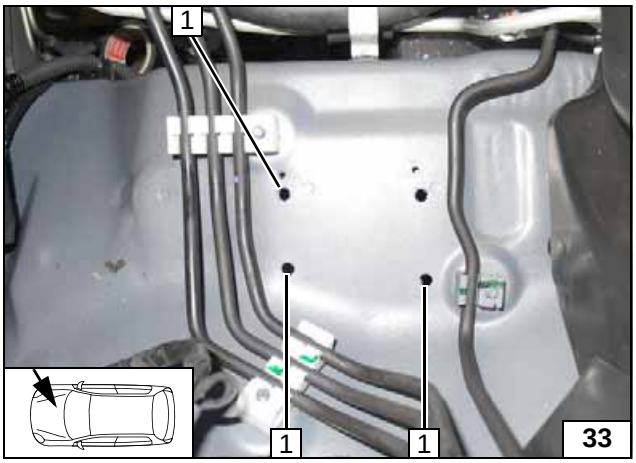
Drilling hole



Loosely mount bracket **2** and align as shown.

1 Copy hole pattern [3x]
3 M6x20 bolt, spring lockwasher, flanged nut

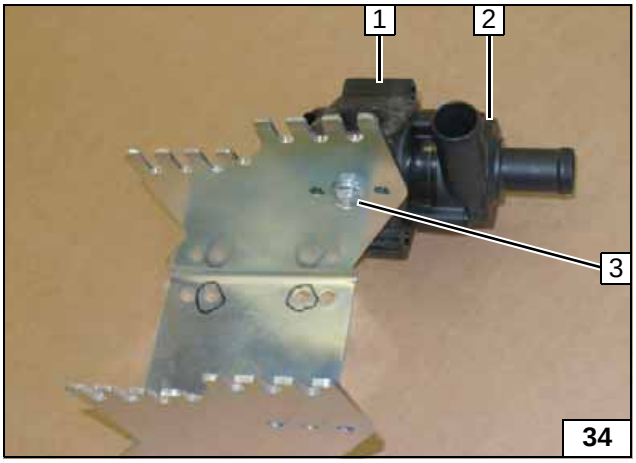
Copying hole pattern



Dismantle bracket. When drilling, be careful of components located behind!

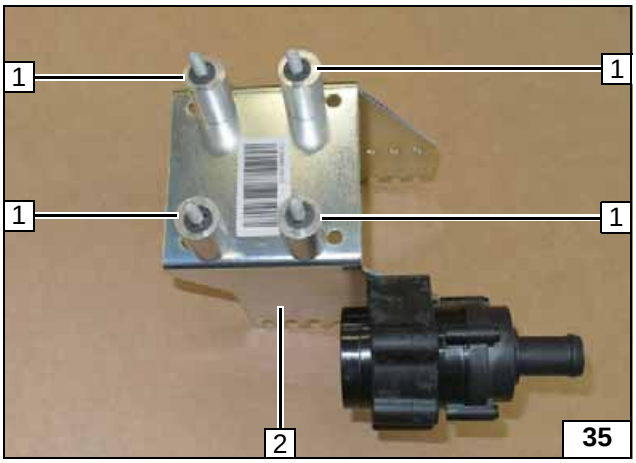
1 7mm dia. hole [3x]

Drilling hole



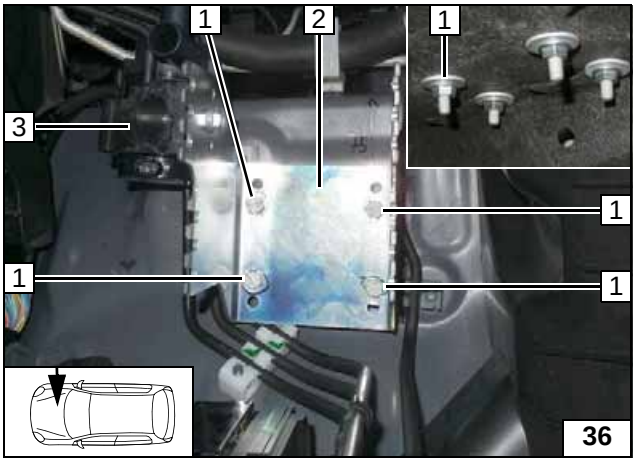
1 Circulating pump mount
2 Circulating pump
3 M6x25 bolt, flanged nut

Installing circulating pump on bracket



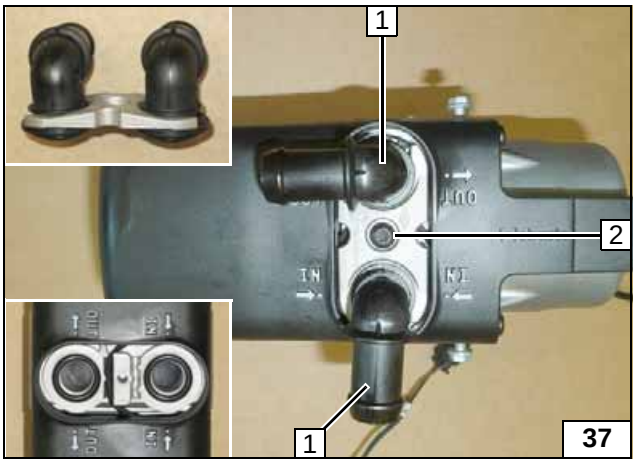
1 M6x50 bolt, 30mm spacer, pin lock [4x each]
2 Bracket

Installing spacer on bracket



1 M6x50 bolt, 30mm spacer, pin lock, large diameter washer, flanged nut [4x each]
2 Bracket
3 Circulating pump

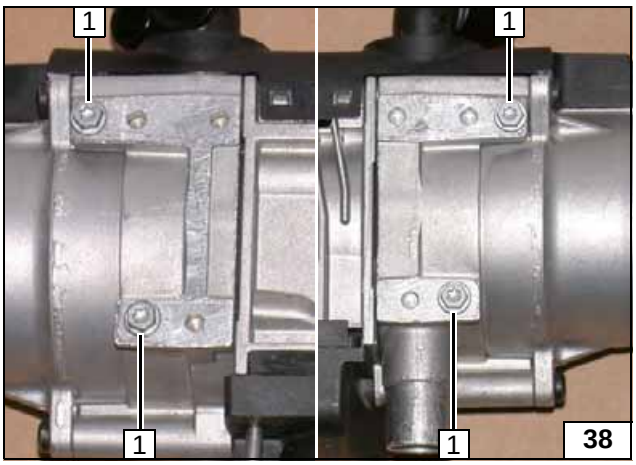
Installing bracket



Preparing Heater

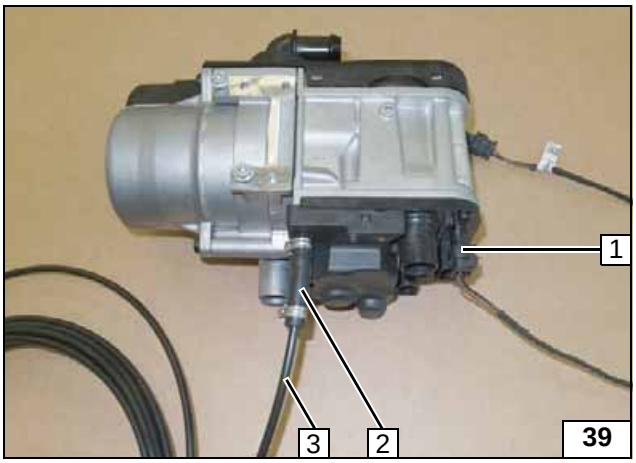
1 Water connection piece, sealing ring [2x each]
2 5x15 self-tapping bolt, retaining plate of water connection piece

Installing water connection piece



Screw 5x13 self-tapping bolts **1** [4x] into existing holes by a maximum of 3 thread turns.

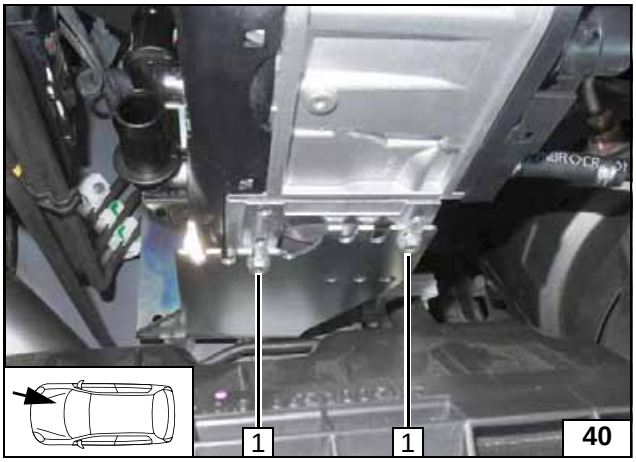
Premounting bolts loosely



1 Connector of circulating pump wiring harness
2 Hose section, 10mm dia. clamp [2x]
3 Fuel line

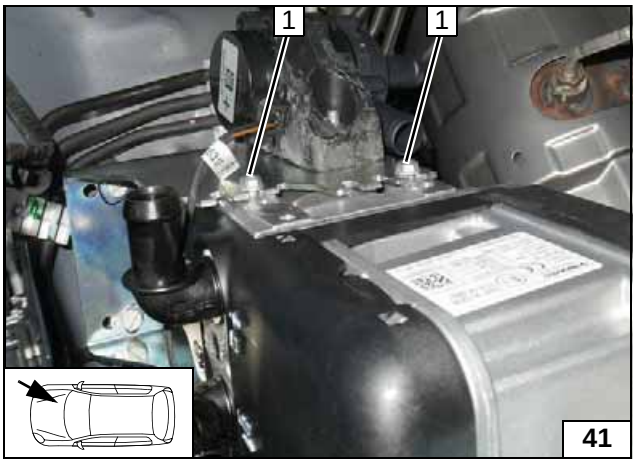
Premounting fuel line

Installing Heater



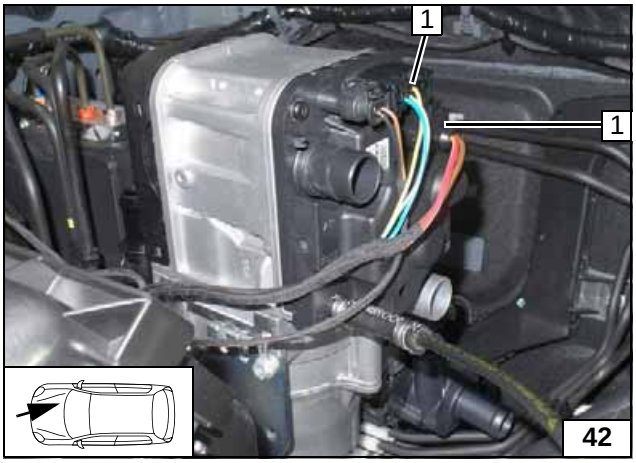
1 Tighten 5x13 self-tapping bolt [2x]

Installing heater



1 Tighten 5x13 self-tapping bolt [2x]

Installing heater



1 Heater wiring harness connector [2x]

Installing wiring harnesses

Fuel

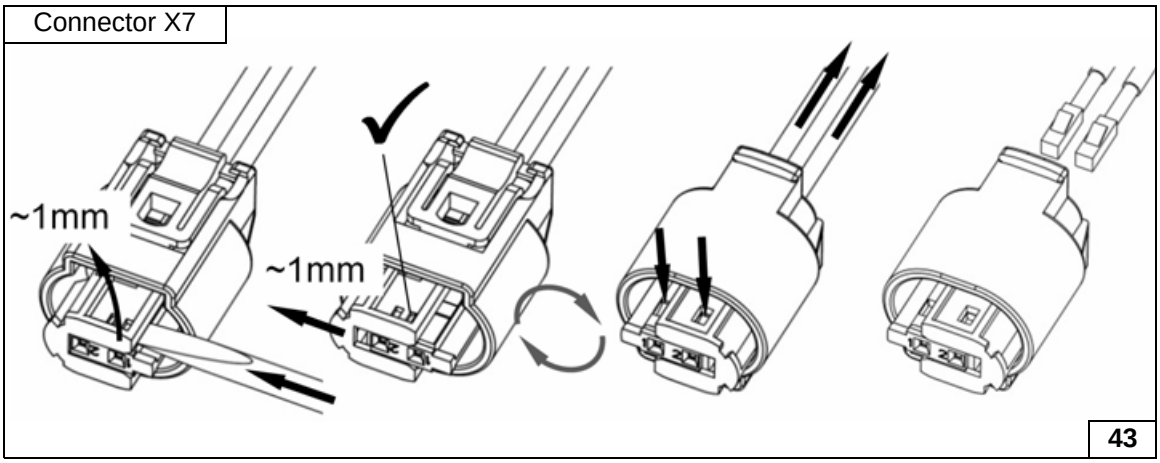
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off in an appropriate container.

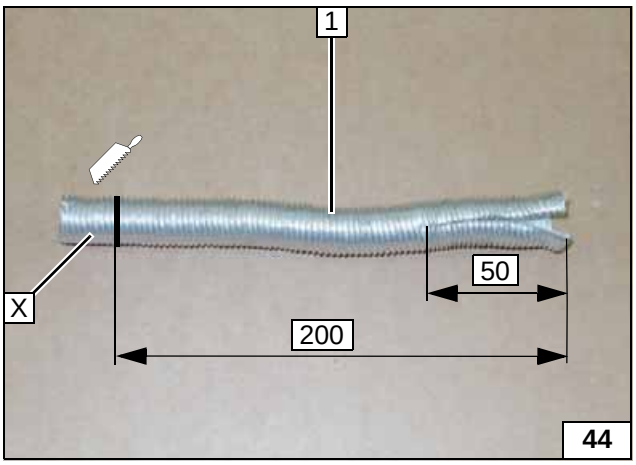
Route fuel line and metering pump wiring harness so that they are protected against stone impact.
Unless specified otherwise, always fasten using cable ties.
Provide rub protection for fuel line and wiring harness in areas where there are sharp edges.

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

Dismantling metering pump connector



Preparing fuel line heat protection hose

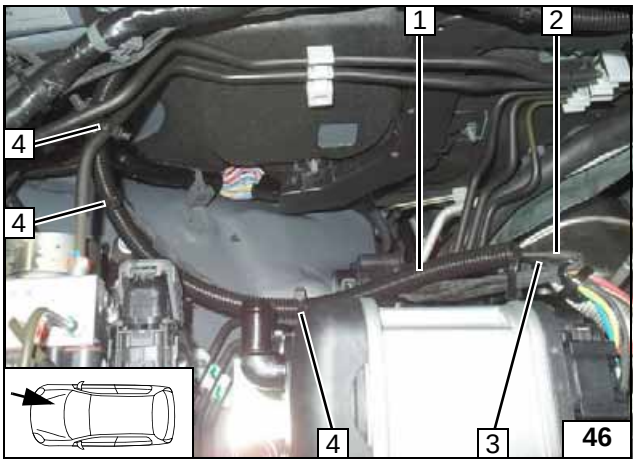


1 Make a 50mm long cut into 14mm dia. heat protection hose

X =

Installing heat protection hose

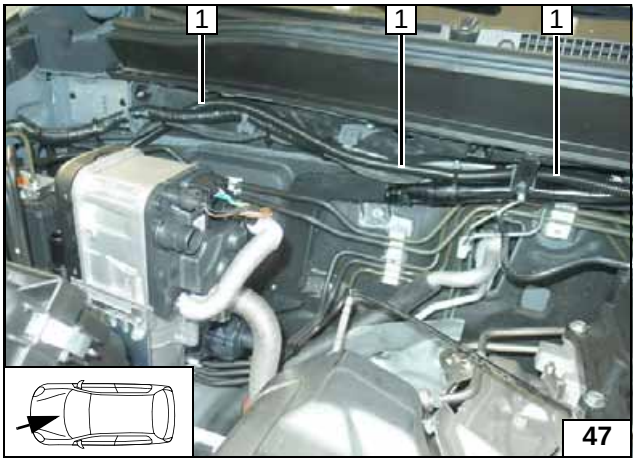
Slide heat protection hose **1** onto fuel line (incised side in direction of fuel connection piece).
Ensure sufficient distance from neighbouring components, correct if necessary.



Pull fuel line **2** and wiring harness of metering pump **3** into 10mm dia. corrugated tube **1**.

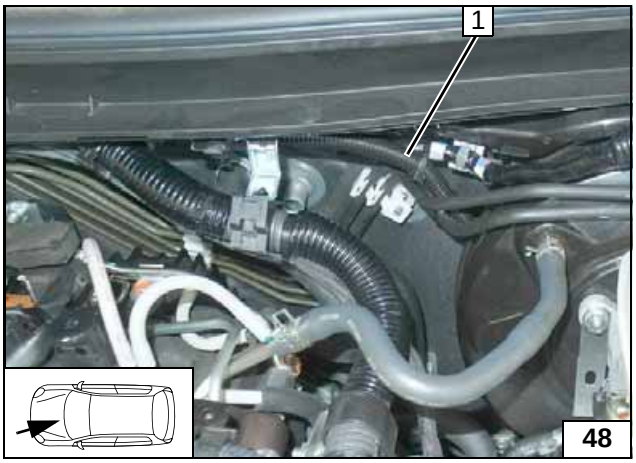
4 Cable tie [3x]

Routing and attaching lines



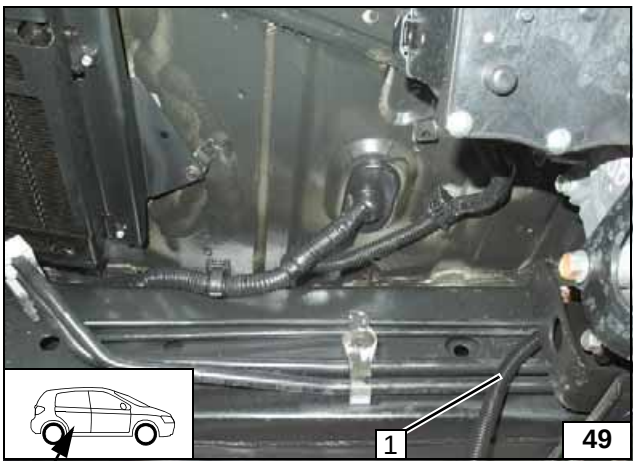
Route fuel line and metering pump wiring harness in 10mm dia. corrugated tube **1** to the right side of the vehicle.

Routing lines



Route fuel line and wiring harness of metering pump in 10mm dia. corrugated tube **1** to the underbody.

Routing lines

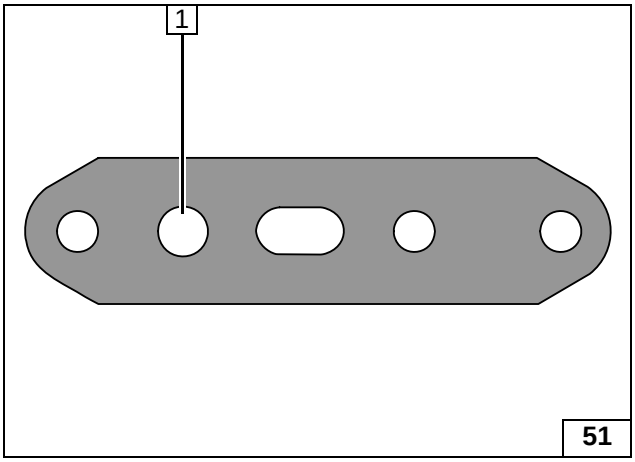


Route fuel line and metering pump wiring harness in 10 mm dia. corrugated tube **1** on original vehicle fuel lines to the installation location of the metering pump.

Routing lines

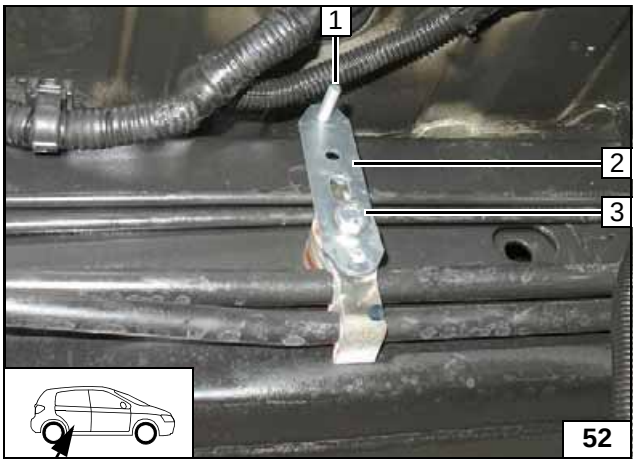
Remove and discard original vehicle bolt at position **1**, install 15mm shim

Preparing metering pump installation location



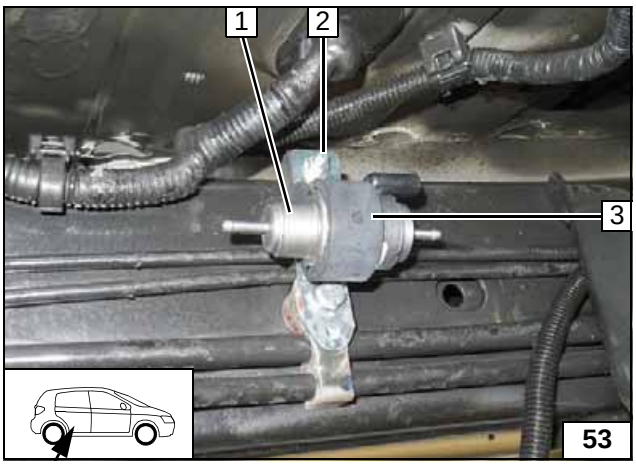
1 Drill out hole to 8.5 mm dia.

Preparing metering pump perforated bracket



1 M6x25 mm bolt
2 Perforated bracket
3 M8x40 bolt, spring lockwasher

Installing metering pump perforated bracket

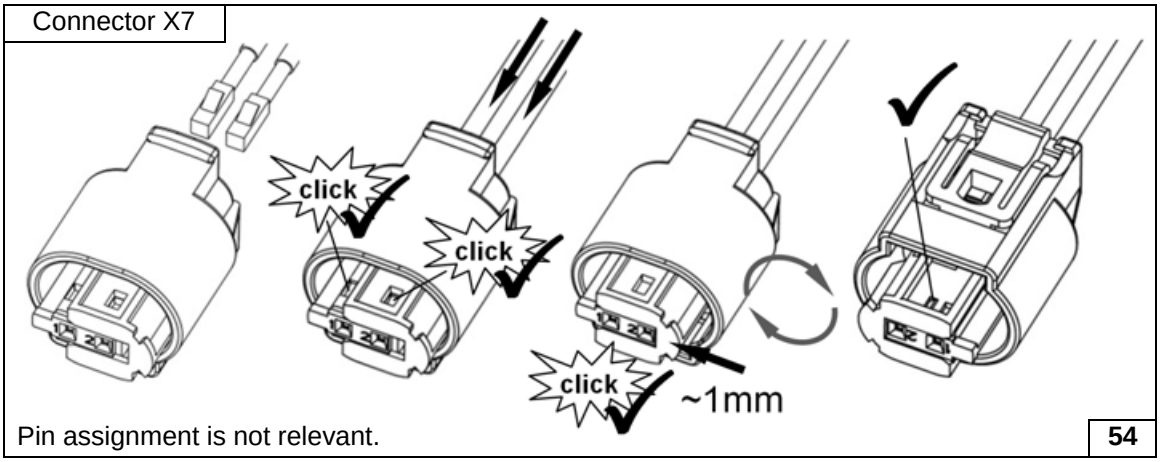


1 Metering pump
2 M6x25 bolt, support angle bracket, flanged nut
3 Metering pump mount

Installing metering pump

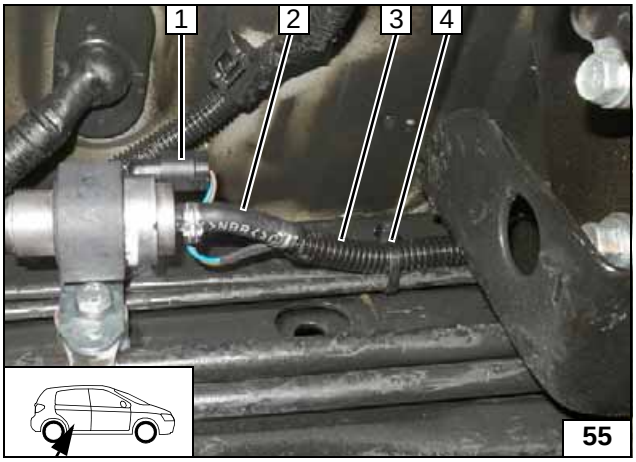
Completing metering pump connector

Connector X7



Pin assignment is not relevant.

54



55

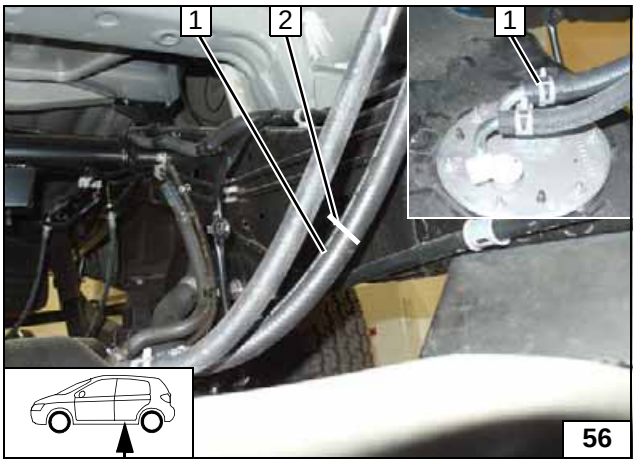
1 Metering pump wiring harness, connector X7 mounted
2 Hose section, 10mm dia. clamp [2x]
3 Fuel line of heater in corrugated tube
4 Cable tie

Connecting metering pump

113kW

Lower the fuel tank.
Cut fuel supply line **1** at position **2**.

Cutting point

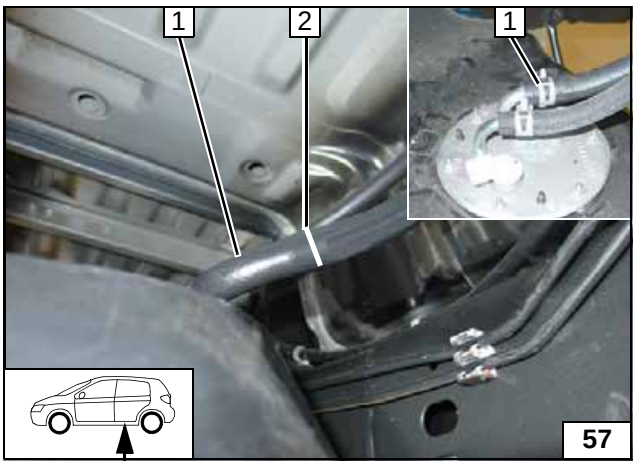


56

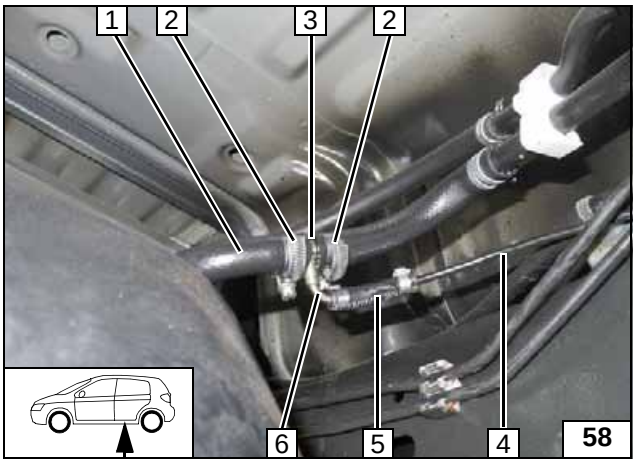
133kW

Cut fuel supply line **1** at position **2**.

Cutting point



57

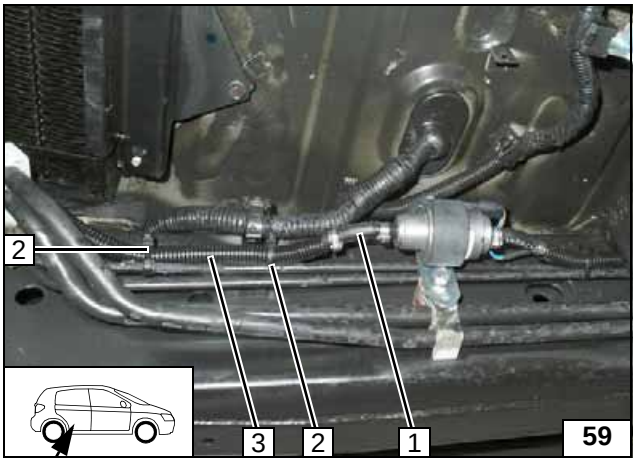


All vehicles

Shown on 133kW!

216-27mm dia. p-clamp [2x]
3 Cutting point
4 Fuel line
5 Hose section, 10mm dia. clamp [2x]
6 12x5x12 T-piece

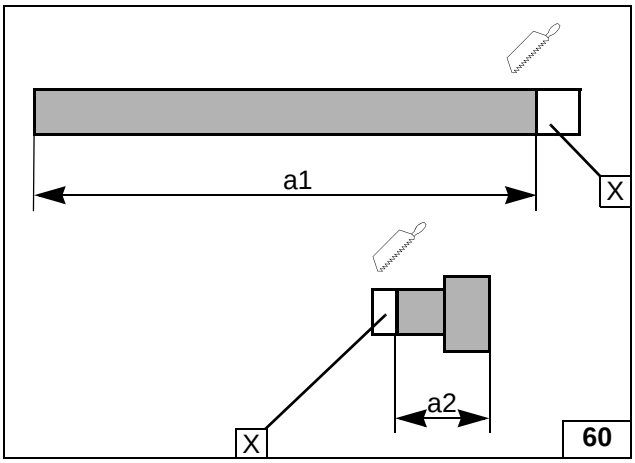
Installing fuel standpipe



Ensure sufficient distance from neighbouring components, correct if necessary.

1 Hose section, 10mm dia. clamp [2x]
2 Cable tie [2x]
3 Fuel line of fuel standpipe in corrugated tube

Connecting metering pump

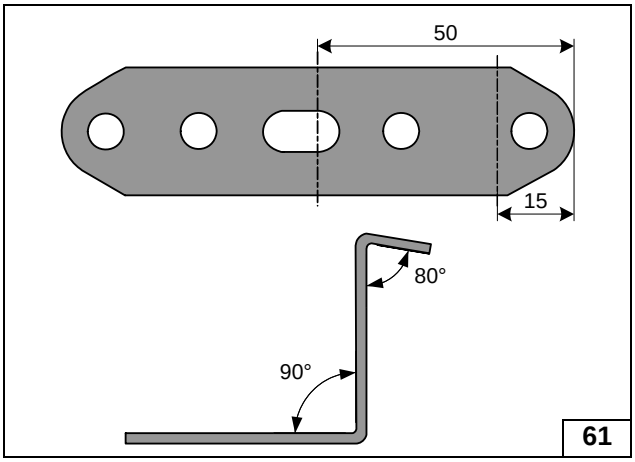


Exhaust Gas

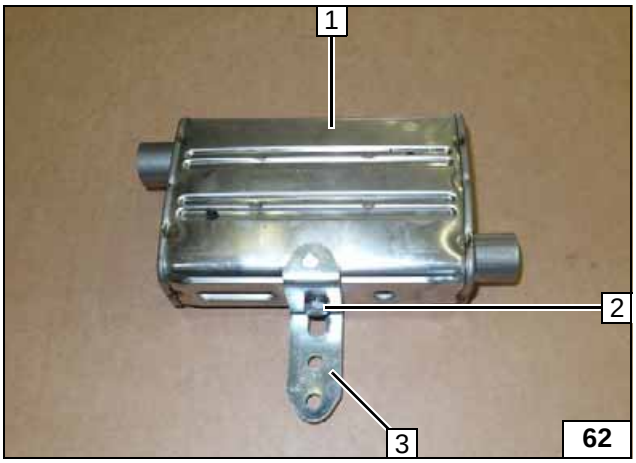
a1 = 945
a2 = 70

X = 

Preparing exhaust pipe

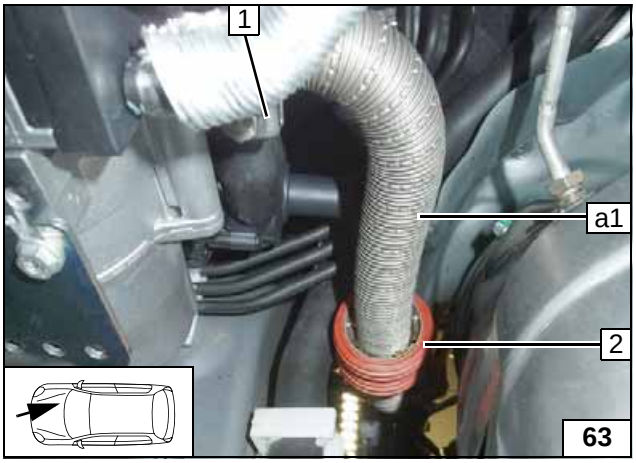


Preparing exhaust silencer perforated bracket



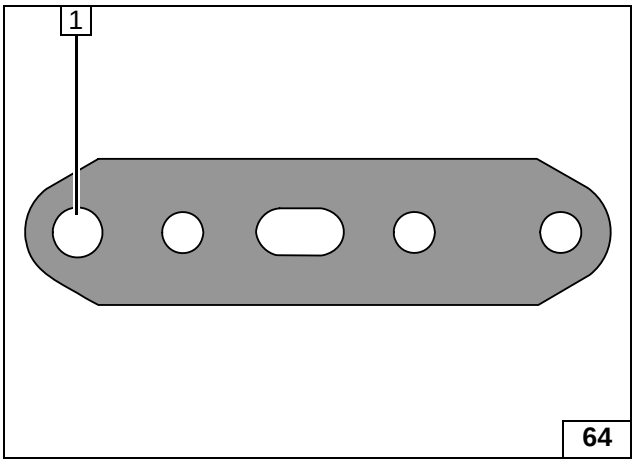
1 Silencer
2 M6x16 bolt, spring lockwasher
3 Perforated bracket

Premounting exhaust silencer



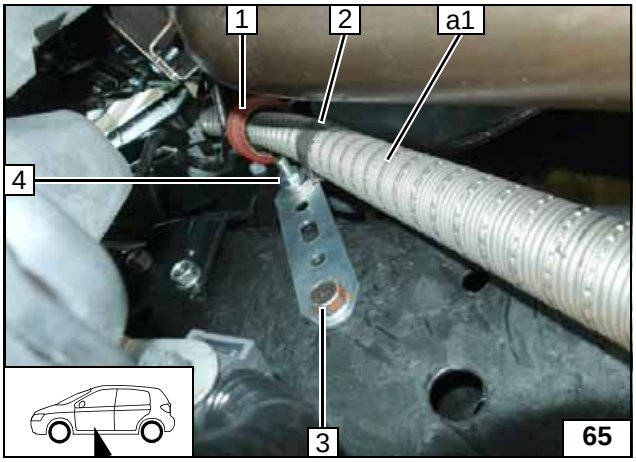
1 Hose clamp
2 Spacer bracket [2x]

Installing exhaust pipe a1



1 Drill out hole to 8.5 mm dia.

Preparing exhaust pipe perforated bracket

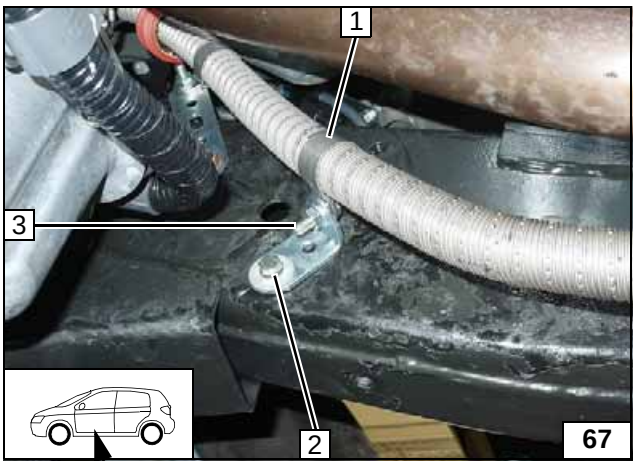


1 Spacer bracket [2x]
2 P-clamp
3 Original vehicle M8 bolt, perforated bracket, existing thread
4 M6x16 bolt, flanged nut

Installing exhaust pipe a1

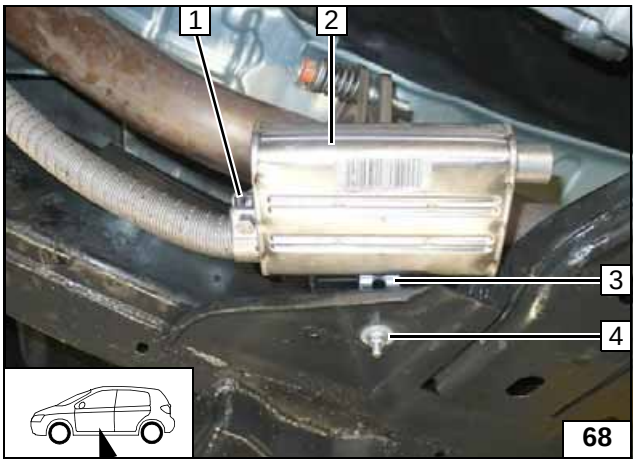
1 M6 rivet nut, existing hole

Installing rivet nut



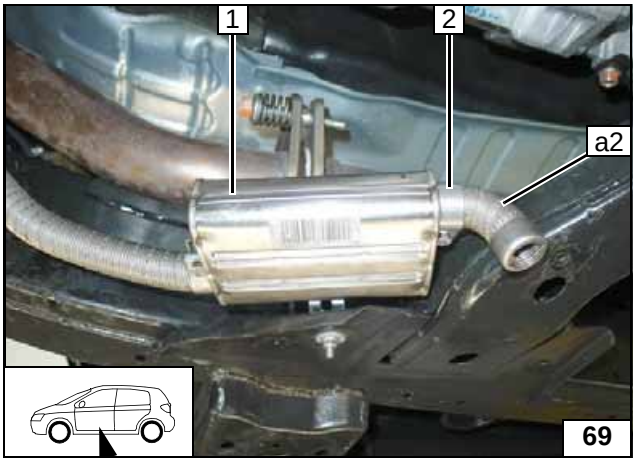
1 P-clamp
2 M6x20 bolt, spring lockwasher, large diameter washer, angle bracket
3 M6x16 bolt, flanged nut

Installing exhaust pipe angle bracket



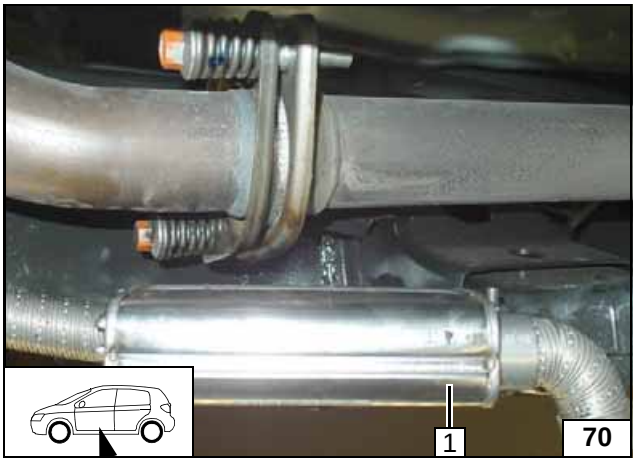
1 Hose clamp
2 Silencer
3 Premounted perforated bracket
4 M6x20 bolt, existing hole, large diameter washer, flanged nut

Installing silencer



1 Silencer
2 Hose clamp

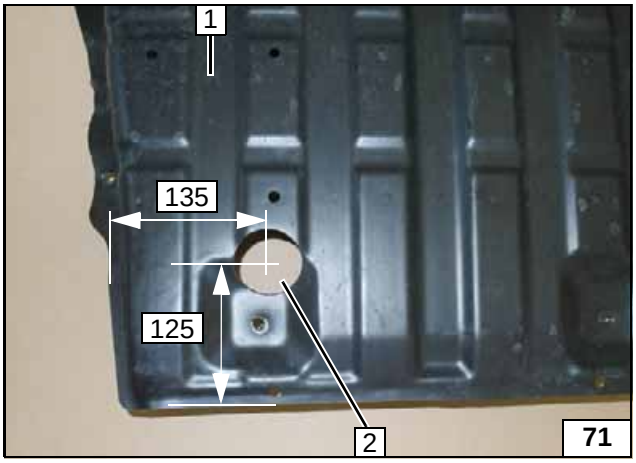
Installing exhaust pipe a2



Ensure sufficient distance from neighbouring components, correct if necessary.

1 Silencer

Aligning silencer



1 Underride protection
2 60 mm dia. hole

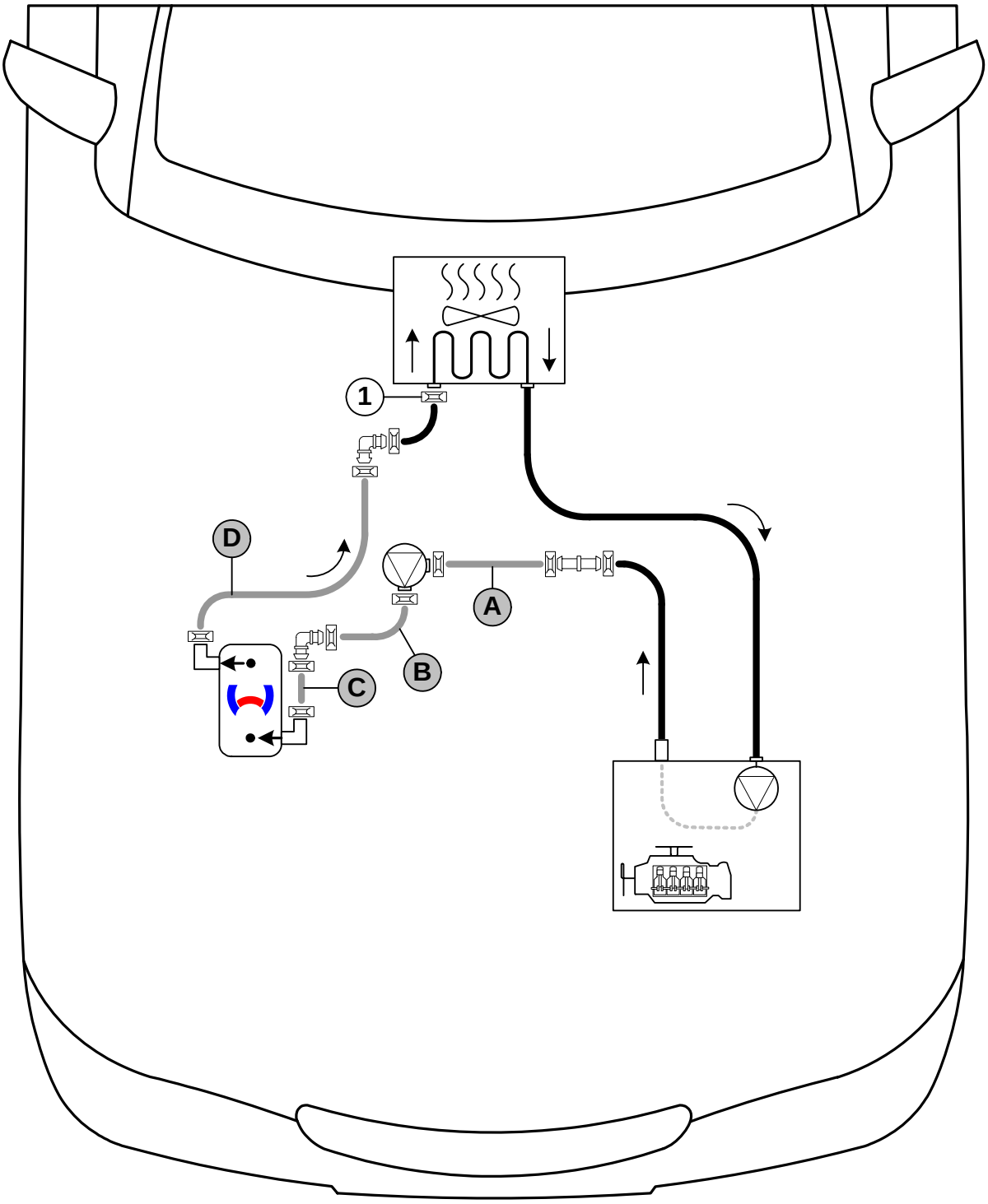
Hole in underride protection

Coolant Circuit

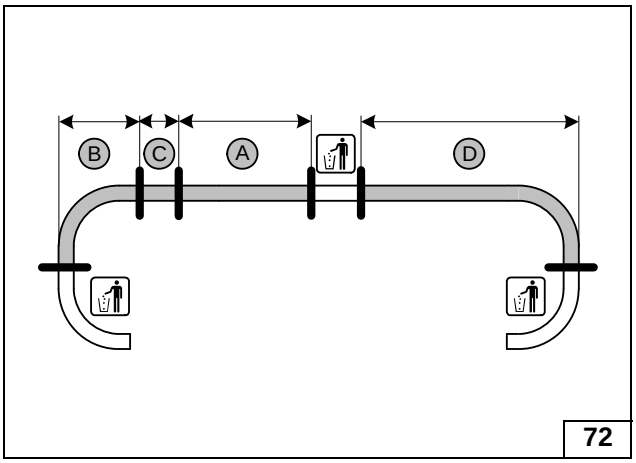
Any coolant running off should be collected in an appropriate container. Route hoses kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. The heater must be filled with coolant when installing the hoses.

The connection should be modelled on an ‘inline’ circuit and based on the following diagram:

Hose routing diagram

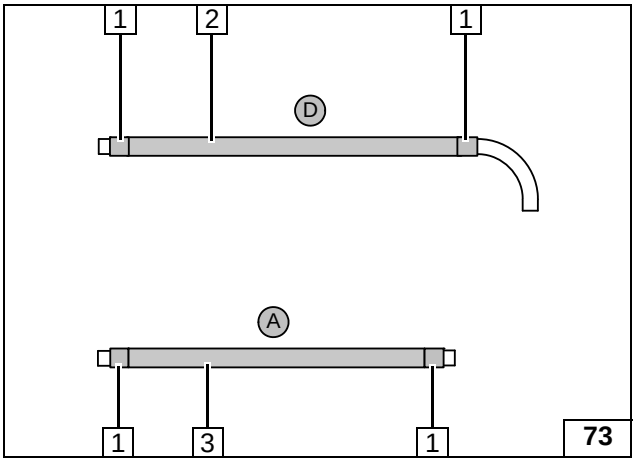


All spring clips without a specific designation = 25 mm dia. **1** = Original vehicle spring clip .
All connecting pipes and = 18x18 mm dia.



A = 680
B = 130
C = 60
D = 820

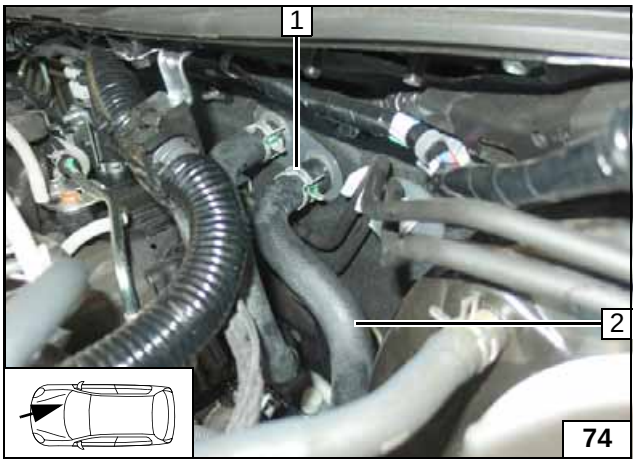
Cutting hoses to length



Push braided protection hoses onto hoses **A** and **D** and cut to length. Cut heat shrink plastic tubing to size.

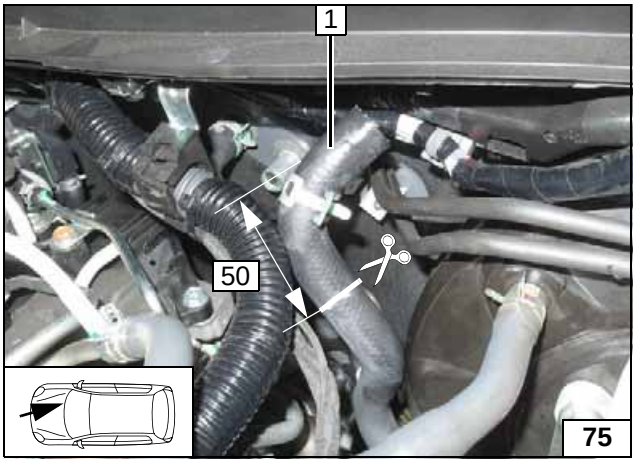
1 50 mm long heat shrink plastic tubing [4x]
2 1100mm braided protection hose
3 860mm braided protection hose

Preparing hoses



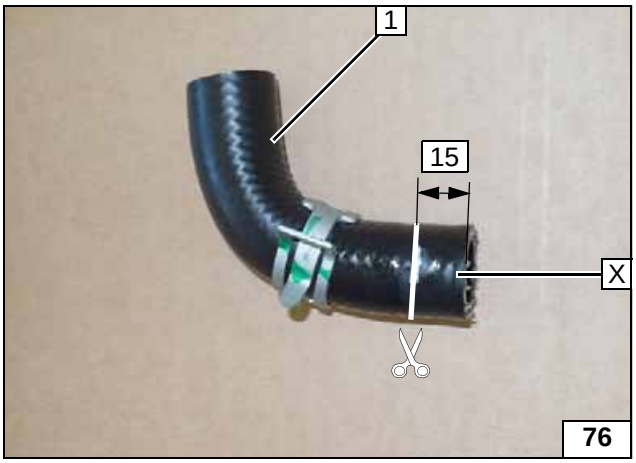
Pull original vehicle engine outlet / heat exchanger inlet hose **2** from heat exchanger inlet connection piece. Spring clip **1** will be reused.

Pulling off original vehicle hose



Cut original vehicle engine outlet / heat exchanger inlet hose **1** at the marking.

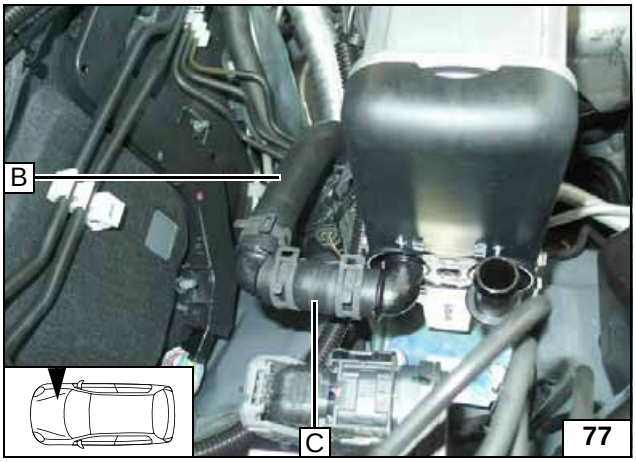
Cutting point



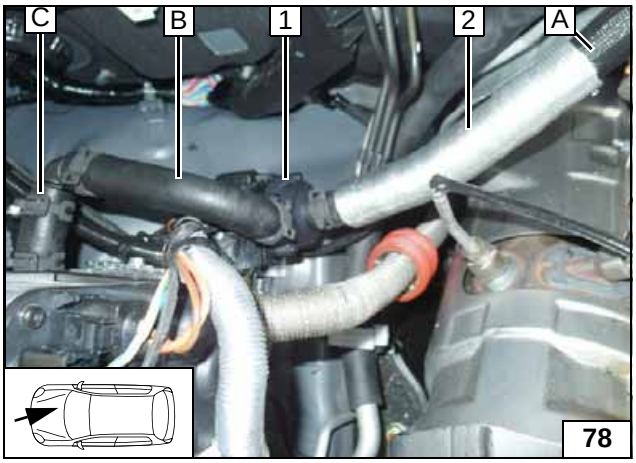
1 Heat exchanger inlet hose section

X = 

Preparing original vehicle hose



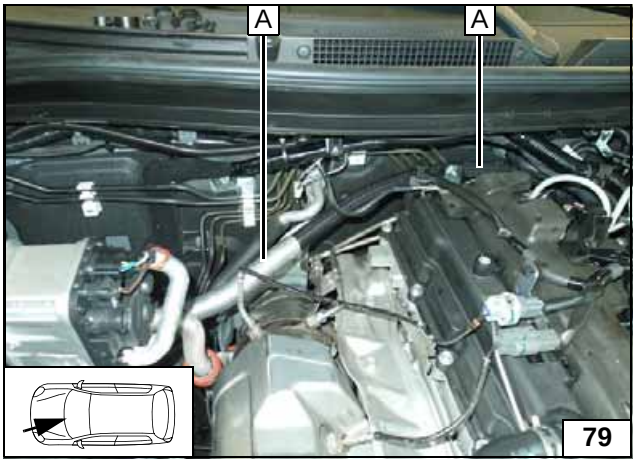
Connecting heater inlet



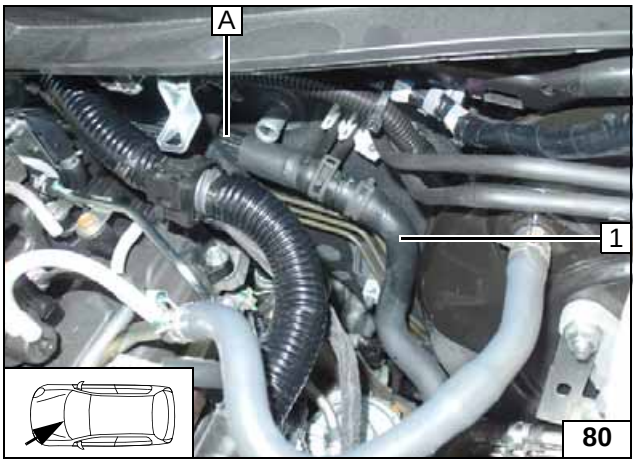
Install 200mm heat protection hose **2** on hose **A**.

1 Circulating pump

Connecting heater inlet

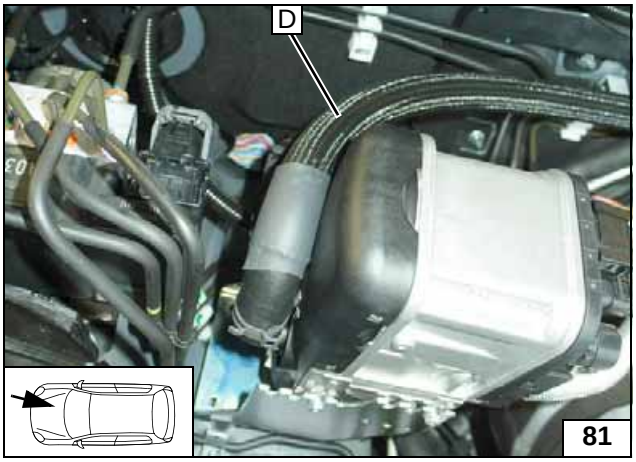


Routing in engine compartment

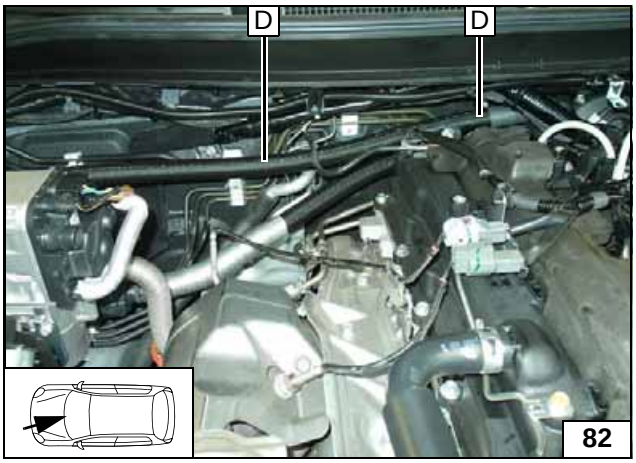


1 Engine outlet hose section

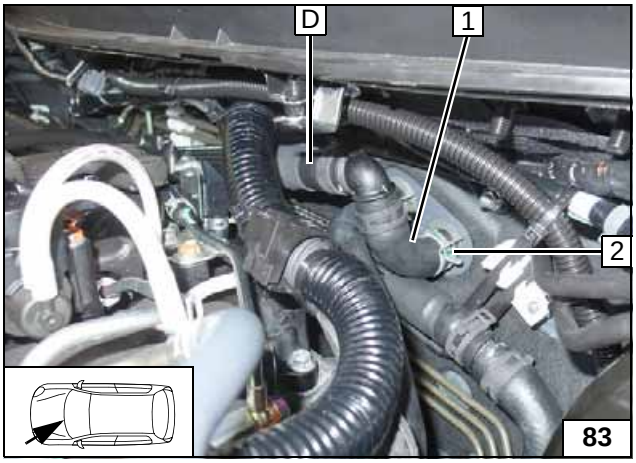
Connecting engine outlet



Connecting heater outlet

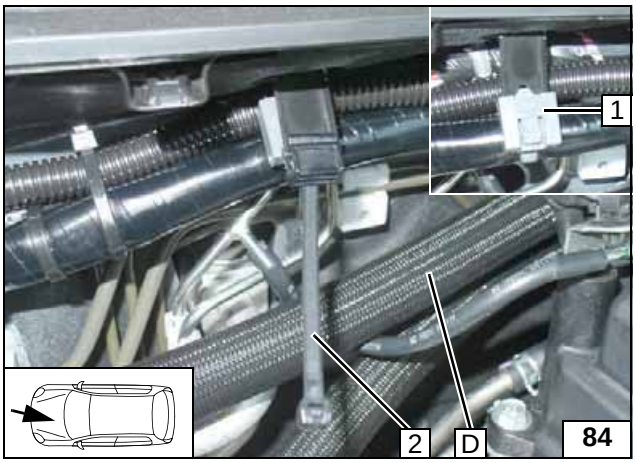


Routing in engine compartment



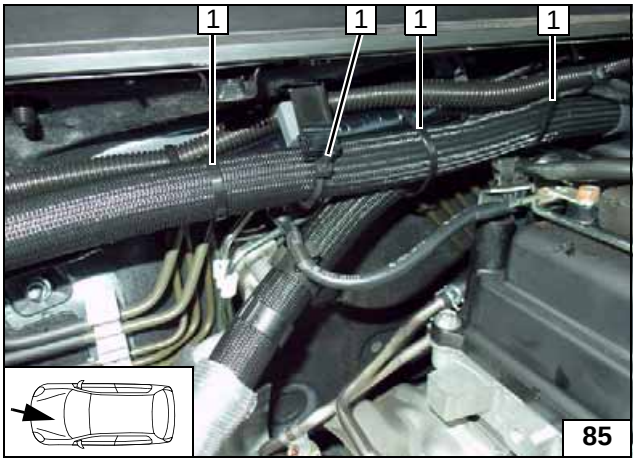
1 Heat exchanger inlet hose section
2 Original vehicle spring clip

Connecting heat exchanger inlet



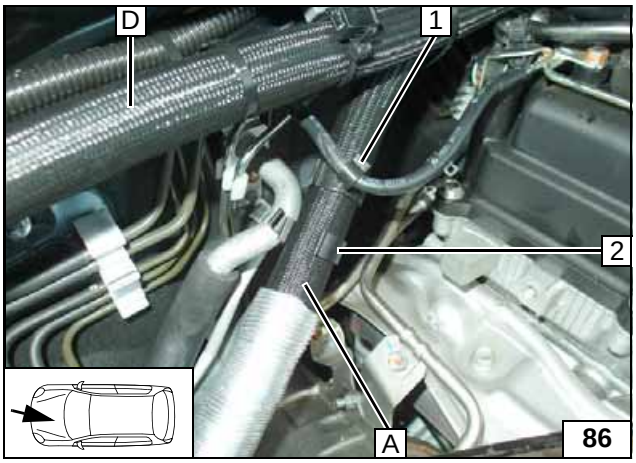
1 Pull off cable holder
2 Cable tie

Preparing fastening of hose D



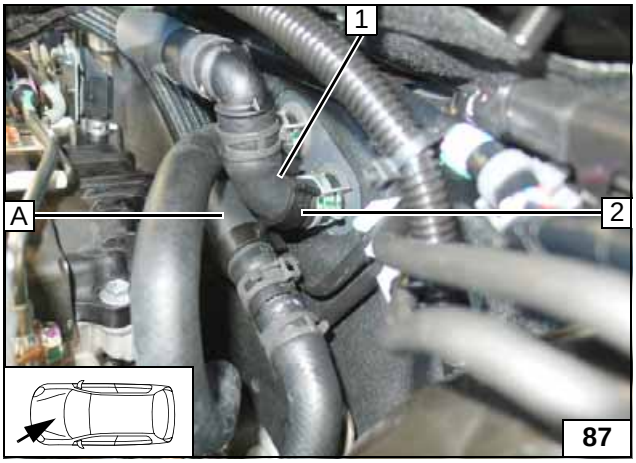
1 Cable tie [4x]

Fastening hose D to original vehicle wiring harness



1 9x24 hose bracket
2 13x22 hose bracket

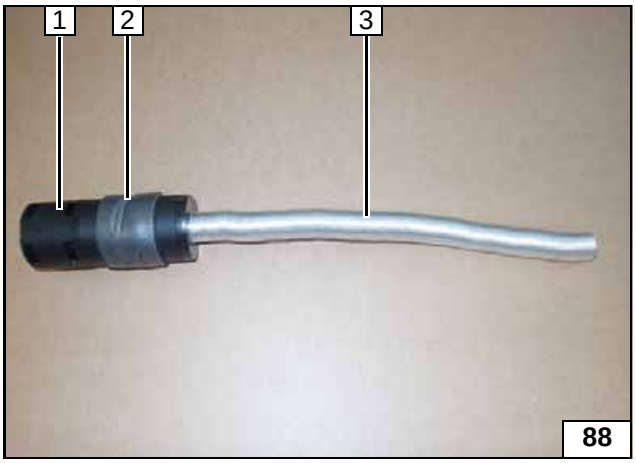
Aligning hoses



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

1 Heat exchanger inlet hose section
2 25x25mm hose bracket

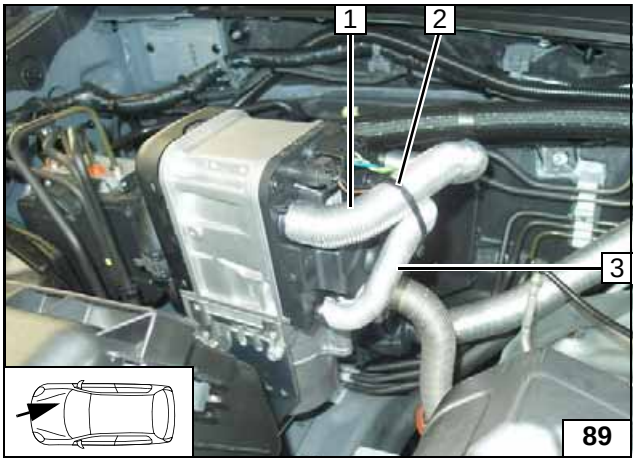
Aligning hoses



Combustion Air

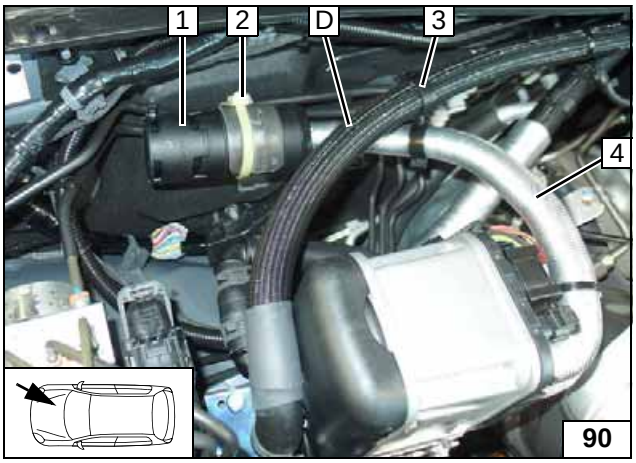
1 Silencer
2 Insulation protection strip, affixed
3 Combustion air pipe

Premounting combustion air silencer



1 Combustion air pipe
2 Cable tie
3 Fuel line in heat protection hose

Installing combustion air pipe



Attach silencer to original vehicle line using yellow cable tie **2**.

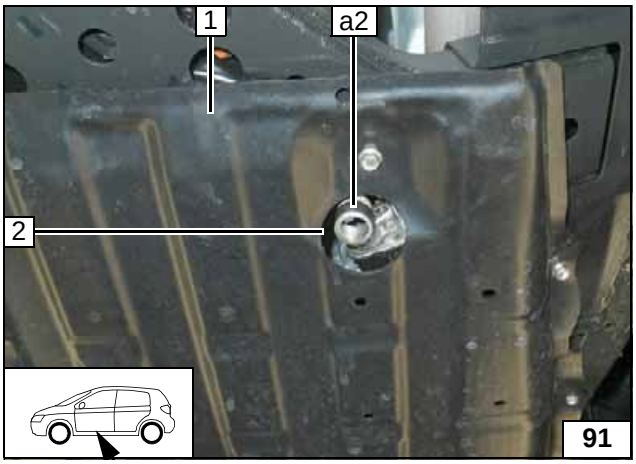
1 Silencer
3 25x25mm hose bracket
4 Combustion air pipe

Installing combustion air pipe

Final Work

Reassemble the components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back loose lines.
Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K).

- **Connect the battery.**
- **Fill and bleed the coolant circuit according to the vehicle manufacturer's instructions.**
- **Program MultiControl CAR, teach Telestart transmitter.**
- **Make settings on the A/C control panel according to the 'operating instructions'.**
- **Place the 'Switch off parking heater before refuelling' caution label near the filler neck.**
- **For initial startup and function check, please see installation instructions.**



Align exhaust pipe **a2** with the centre of the pass through.
Ensure sufficient distance from neighbouring components, correct if necessary.

1 Underride protection
2 Hole

Mounting underride protection

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

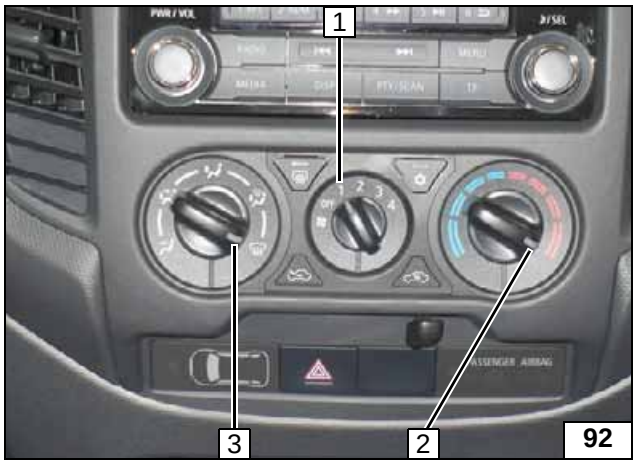
Operating Instructions for Manual Air-Conditioning

Please remove page and add to the vehicle operating instructions.

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

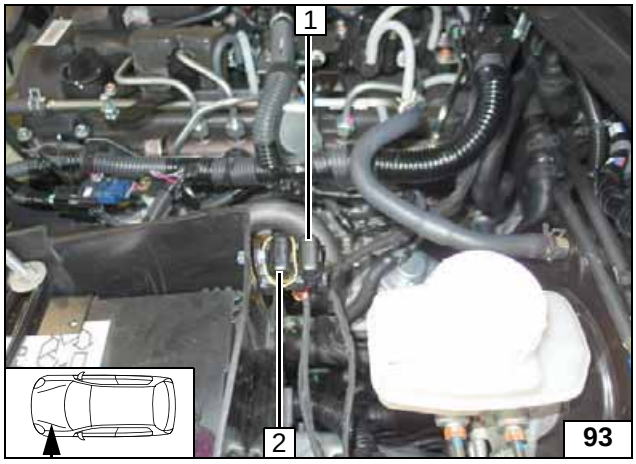
Passenger compartment monitoring, if installed, must be deactivated in addition to the vehicle settings for the heating operation.
For instructions on deactivation, please refer to the operating instructions of the vehicle.

Before parking the vehicle, make the following settings:



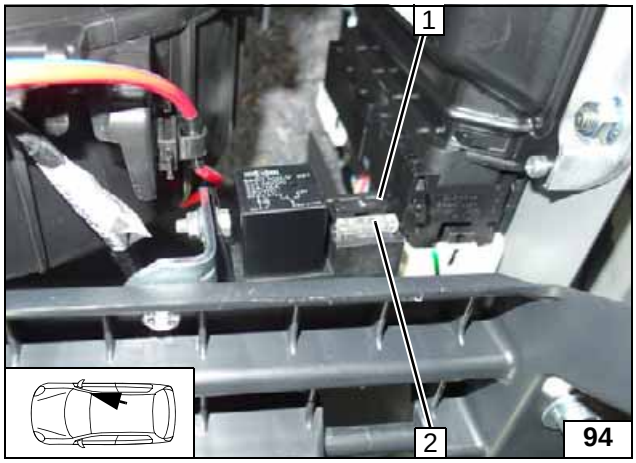
1 Set fan to level ‘1’, or max. ‘2’
2 Set temperature to ‘max.’
3 Air outlet to windscreen

A/C control panel



1 20A heater fuse F1
2 30A passenger compartment main fuse F2

Engine compartment fuses



1 1A heater control fuse F3
2 25A fan fuse F4

Passenger compartment fuses

Operating Instructions for Automatic Air-Conditioning

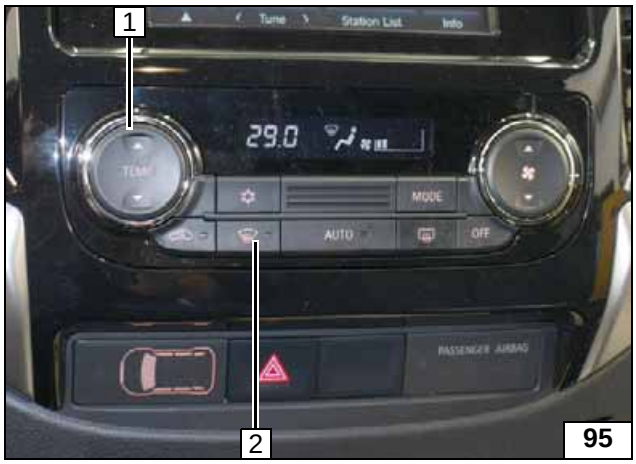
Please remove page and add to the vehicle operating instructions.

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

Passenger compartment monitoring, if installed, must be deactivated in addition to the vehicle settings for the heating operation.
For instructions on deactivation, please refer to the operating instructions of the vehicle.

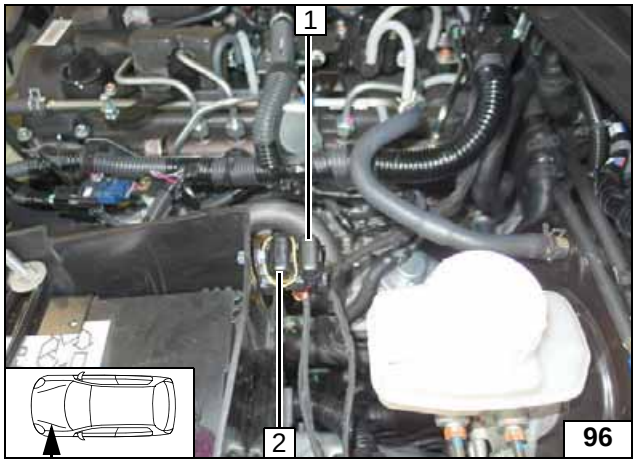
Before parking the vehicle, make the following settings:

A/C control panel



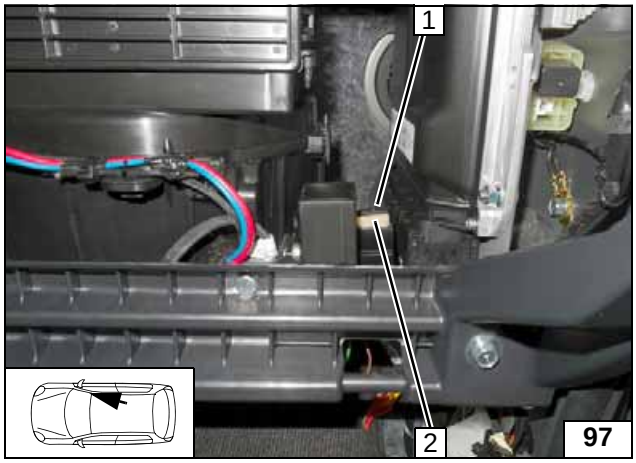
1 Set temperature to ‘max.’
2 Air outlet to windscreen

Engine compartment fuses



1 20A heater fuse F1
2 30A passenger compartment main fuse F2

Passenger compartment fuses



1 1A heater control fuse F3
2 25A fan fuse F4