Water Heater



Thermo Top E Parking Heater

Thermo Top C Parking Heater

e1
00 0003
e1
00 0002

Installation documentation

Audi A3

1.2 and 1.4 TFSIfrom model year 2008Left-hand drive vehicle1.2 TFSI automatic transmission not checked!



WARNING!

Hazard warning:

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



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

Only original Webasto parts must be used. For this, also see the catalog of air and water heater accessories from Webasto.

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

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

The initial startup is to be executed with the Webasto Thermo Test Diagnosis. See section "Final Work".

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

Table of Contents

Fuse holder and K3 relay7Climatronic fan control8Climatic fan control9Digital timer10Summer/winter switch option10Remote option (Telestart)10	
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2	Premounting heater	11
5	Preparing installation location	12
5	Installing heater	13
5	Fuel Connection	15
5	Coolant circuit	18
	1.2 manual transmission	19
;	1.4 manual transmission	21
;	1.4 Automatic transmission	24
;	Exhaust gas	29
•	Final Work	30
5	Operating Instructions for End Customer	31

Validity

Manufacturer	Model	Туре	EG-BE No./ABE
Audi	A3	8P	e1 * 2001/116 * 0217 *

Engine type	Engine model	Output in kW	Displacement in cm ³
CBZB	Petrol TFSI	77	1197
CAXC	Petrol TFSI	92	1390

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

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

Heater/Installation Kit

Quantity	Description	Order No.:
1	Retail accessories for Thermo Top E / C	See price list
1	Installation kit for Audi A3 1.2 and 1.4 TFSI	1313621B
1	Heater control	See price list

Heater recommended for the respective vehicle class:

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

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

Foreword

This installation documentation applies to Audi A3 1.2 and 1.4 TFSI vehicles - for validity, see page 2 - from model year 2008 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this installation documentation.

However, the stipulations in the "installation documentation", the "operating instructions" and "installation instructions" for the *Thermo Top C/E* must always be observed.

The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

When installing an IPCU, the appropriate settings must be checked and set prior to the installation.

General Instructions

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

Sharp edges should be fitted with rub protection (split-open fuel hose).

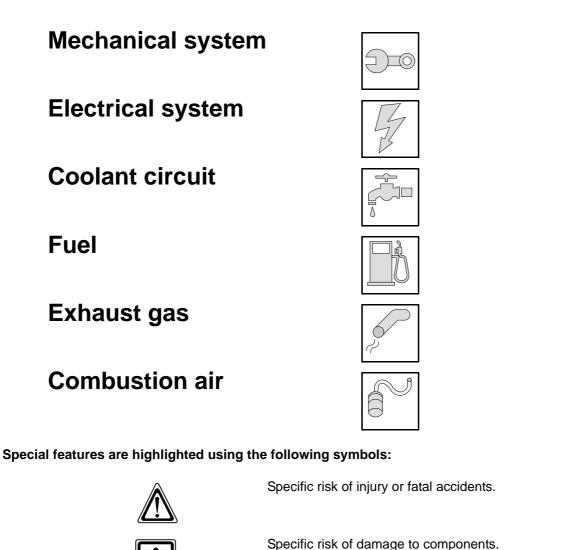
Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

Special Tools

- Torque wrench for 2.0 10 Nm
- Hose clamping pliers
- Unlocking tool

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.



Specific risk of fire or explosion.

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

Reference to a special technical feature.



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

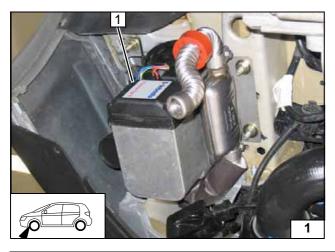
All dimensions are in mm! Tightening torque of hose clamps = 2.0 + 0.5 Nm! Tightening torque of Ejot screws, Ejot studs = 10 Nm!

Preliminary Work

Warning!

- Open the fuel tank cap, ventilate the tank.
- Close the fuel tank cap again.
- Depressurise the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Disconnect the battery "earth" or "ground" connection.
- Remove the air filter box
- Remove the battery
- Remove the battery carrier.
- Remove the left front wheel
- Remove the front section of the left front wheel well trim
- Remove the underride protection.
- Remove the right-hand underbody trim
- Remove the rear bench seat
- Open the right-hand tank-fitting service lid.
- Remove the footwell trim on the driver's side
- Remove the lower instrument panel trim on the driver's side
- Only with Climatronic: remove the A/C control panel.

Remove page 31 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater installation location

1 Heater

Installation location

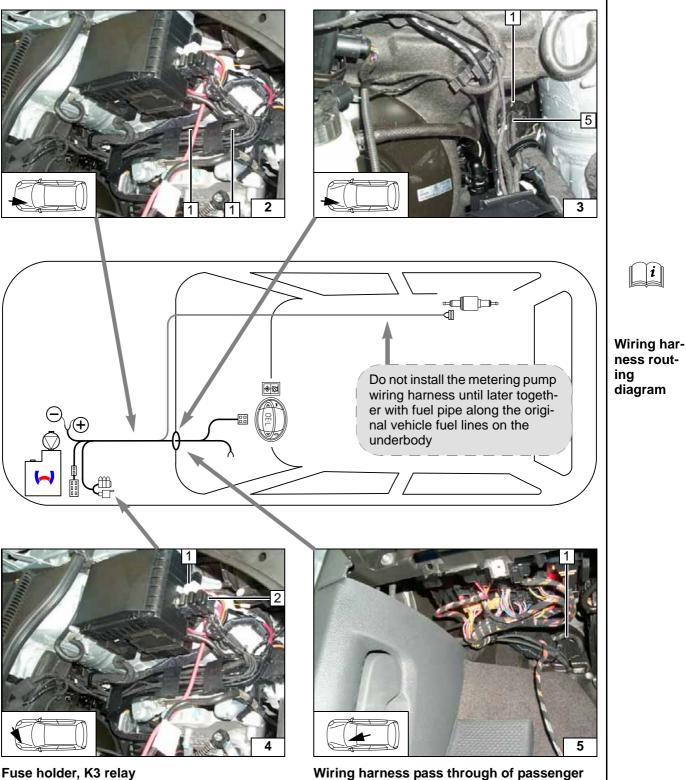
Electrical system

Wiring harness routing

Route excess lengths from wiring harness of heater 1 in cable duct below battery and secure with cable ties.

Wiring harness pass through in engine compartment

1 Original vehicle wiring harness pass through



compartment

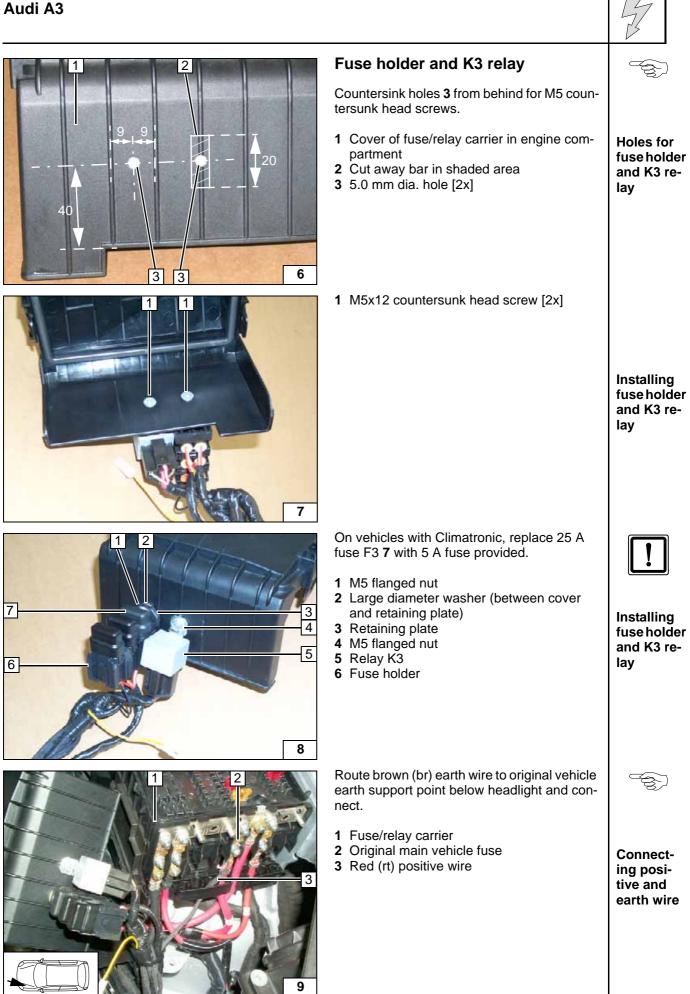
Fuse holder, K3 relay

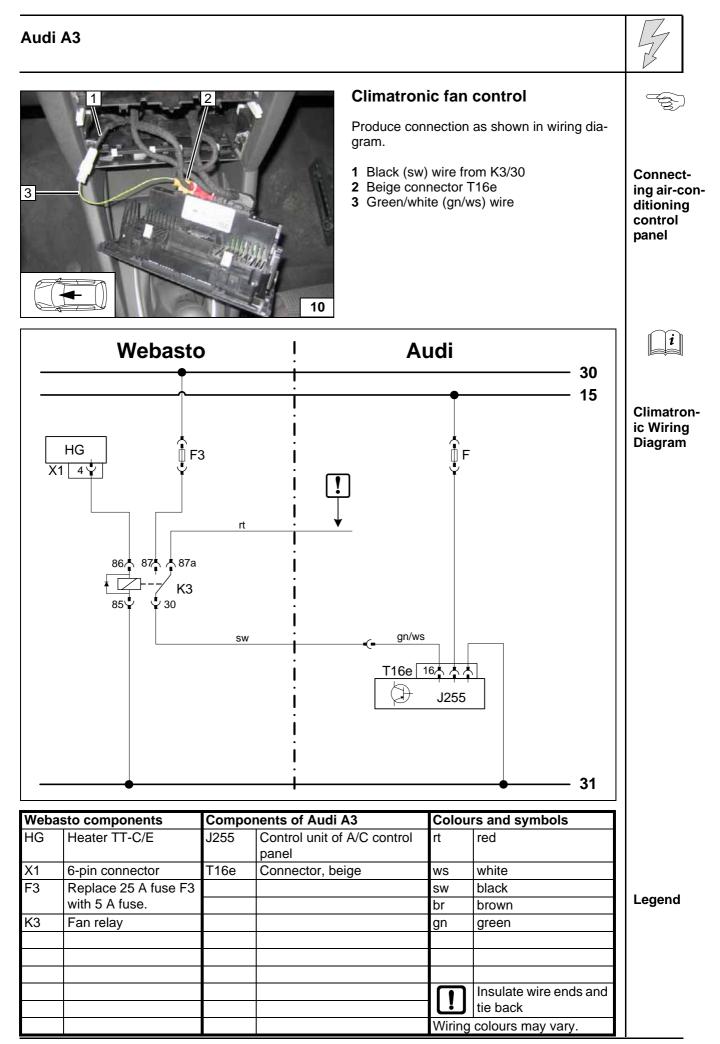
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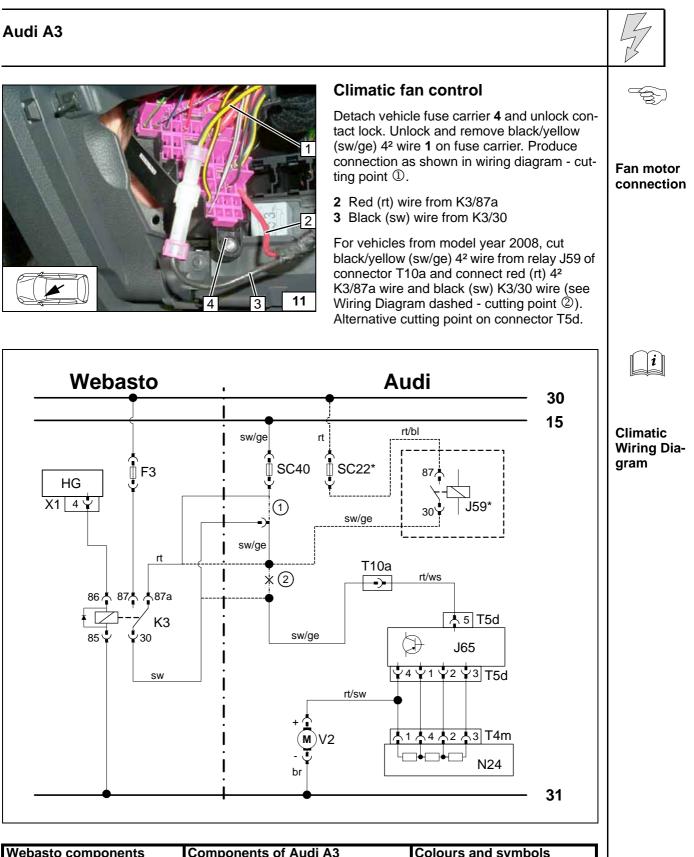
Description of installation for K3 relay 1 and fuse carrier 2 on Page 7

1 Original vehicle wiring harness pass through

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Weba	Webasto components Components of Audi A3 Colours and symbols		urs and symbols			
HG	Heater TT-C/E	J65	Control unit of A/C control panel	rt	red	
X1	6-pin connector	N24	Resistor group	WS	white	
F3	25 A fuse F3	SC40	Fuse 40A	SW	black	
K3	Fan relay	SC22*	40A fuse from Model Year 2008	br	brown	
		J59*	Release relay	gn	green	
		Т	Connector	ge	yellow	
				*	from Model Year 2008	
		T10a	10-pin connector behind			
			glove compartment			
				Wiring colours may vary.		

Legend

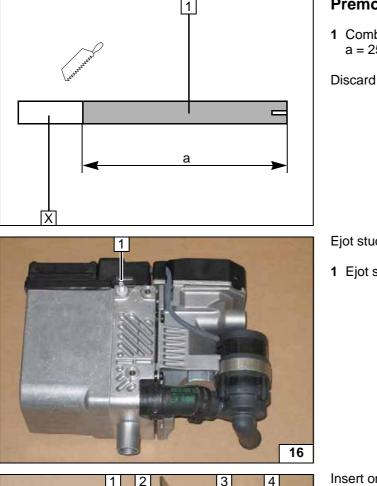
Audi A3 **Digital timer** Summer/winter switch option 1 Digital timer **2** 12 mm dia. hole, summer/winter switch Installing digital timer 12 **Remote option (Telestart)** If M6 bolt 2 is not present, then use suitable M6 bolt with spring lockwasher. Drill out upper hole of bracket to 6.5 mm dia. Installing 1 Receiver receiver 2 M6 bolt in existing threaded hole 3 3 Bracket 13 1 Antenna 1 Installing antenna 14 **Temperature sensor HTM100** 1 Fasten temperature sensor with adhesive tape Installing temperature sensor

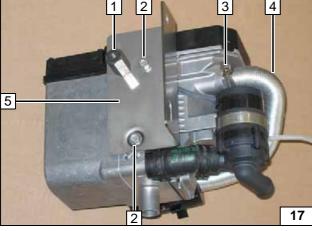
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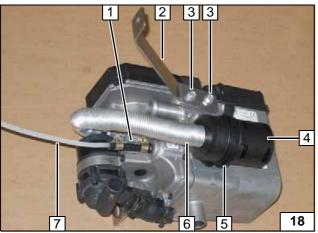
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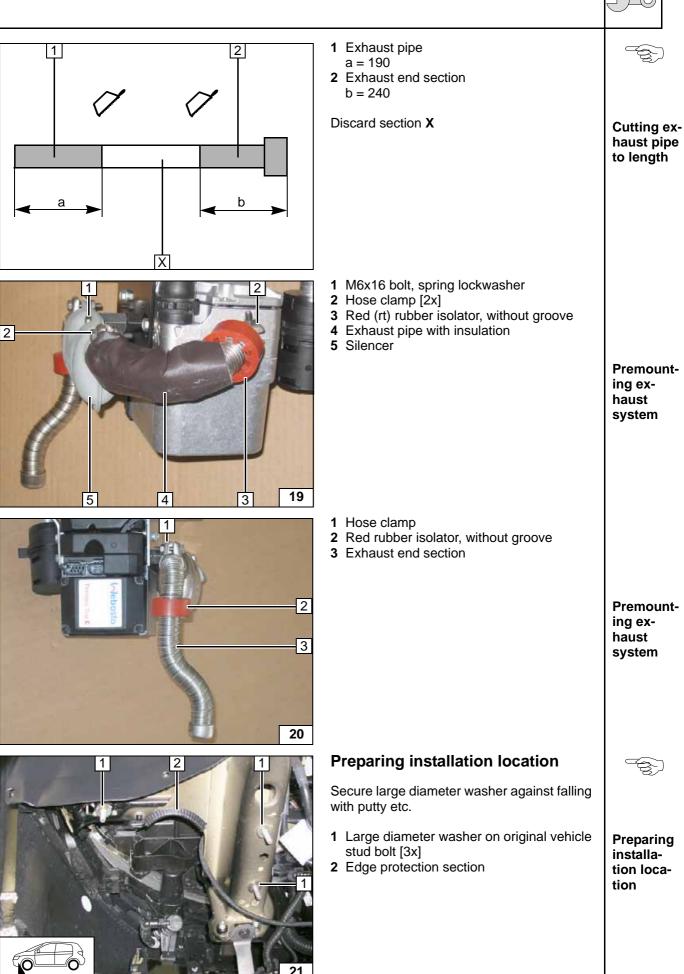


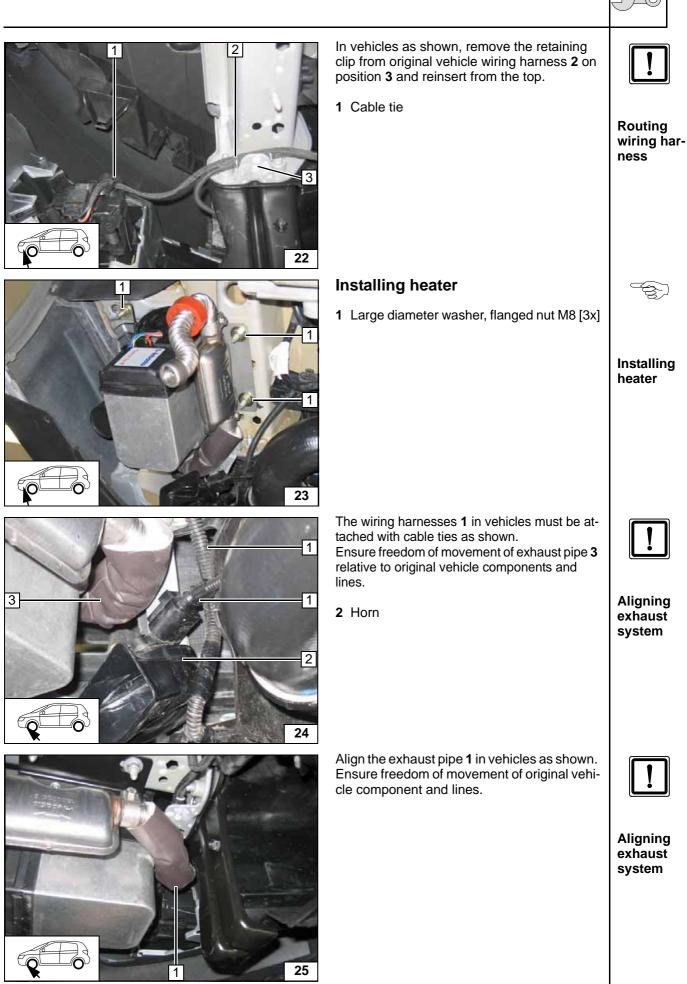




Premounting heater 1 Combustion air pipe a = 250 Discard section X Cutting combustion air pipe to length Ejot stud, tightening torque 10 Nm. 1 Ejot stud Premounting heater Insert one washer each between heater and S bracket at positions 2 1 M6x30 spacer nut 2 Washer, Ejot screw [2x] **3** 27 mm dia. clamp Premount-4 Prepared combustion air pipe (slotted side ing heater on heater) 5 Bracket 1 Hose section, 10 mm dia. clamp [2x] 2 Strut 3 Ejot screw [2x] 4 Combustion-air intake silencer 5 Retaining clip in hole of heater 6 Combustion air pipe 7 Fuel line Premounting heater

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1 Headlight washer system 3 Horn 4 Horn bracket

Position rubber isolator 2.

Punch through the perforation in the centre heater cover at position 2.

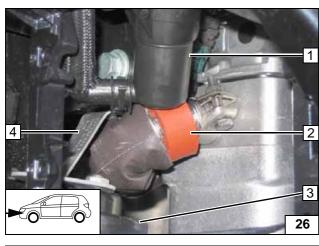
Ensure freedom of movement of exhaust system relative to original vehicle component

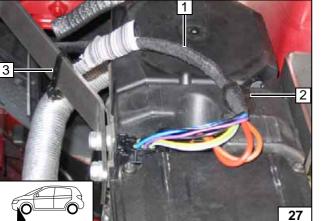
- Wiring harness of heater
 Insert clip-type cable tie
- 3 Cable tie

All vehicles

and lines.









Aligning exhaust

system



Fuel Connection

CAUTION!

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

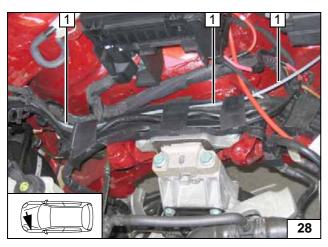
Catch any fuel running off with an appropriate container.

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

WARNING!

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

1 Fuel line



 Route Mecanyl line and wiring harness of metering pump **2** in coolant reservoir to right and fasten on original vehicle lines with cable ties. Pay particular attention to freedom of movement of wiper linkage.

Route Mecanyl line and wiring harness of metering pump to underbody in wiring duct.

2 Existing pass through [2x]

Route fuel line and wiring harness of metering pump along original vehicle fuel lines **2** to fuel tank.

1 Line duct

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Routing fuel line and wiring harness of metering pump



Routing to firewall

Routing in coolant reservoir

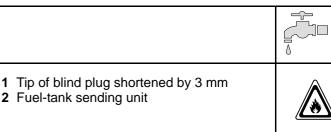






Audi A3 1 Silent block, large diameter washer, M6 flanged nut 2 Remove sealing plug Installing silent block Co 0 31 1 Wiring harness of metering pump, connec-2 3 1 tor mounted **2** Secure rubber-coated p-clamp on silent [i] block with flanged nut 3 Metering pump 4 Plug remounted **5** Hose section, 10 mm dia. clamp [2x] 6 Fuel line 6 Mounting metering pump and connecting pressure side Co Ô 32 1 Standpipe 2 1 2 Moulded hose dia. 4.5 mm Cutting standpipe Þ and moulddia. 7.5 mm ed hose to length 235 33 10 mm dia. Caillau clamp 2 in centre between 1 2 3 R beads on end of standpipe. 1 Standpipe 3 Moulded hose Premounting standdia. 7.5 mm pipe and moulded hose dia. 4.5 mm 34

4





Should the standpipe be slightly curved on delivery, then it must be aligned so that the end points toward the rear right. Otherwise there is a danger of the fuel gauge being impaired.

- 1 Premounted moulded hose with standpipe
- **2** 10 mm dia. clamp
- 3 Fuel line

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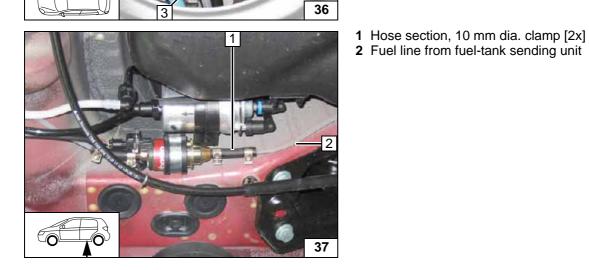
4 13.5 mm dia. clamp

2 Fuel-tank sending unit

Connection to fueltank sending unit



Connecting intake side of metering pump

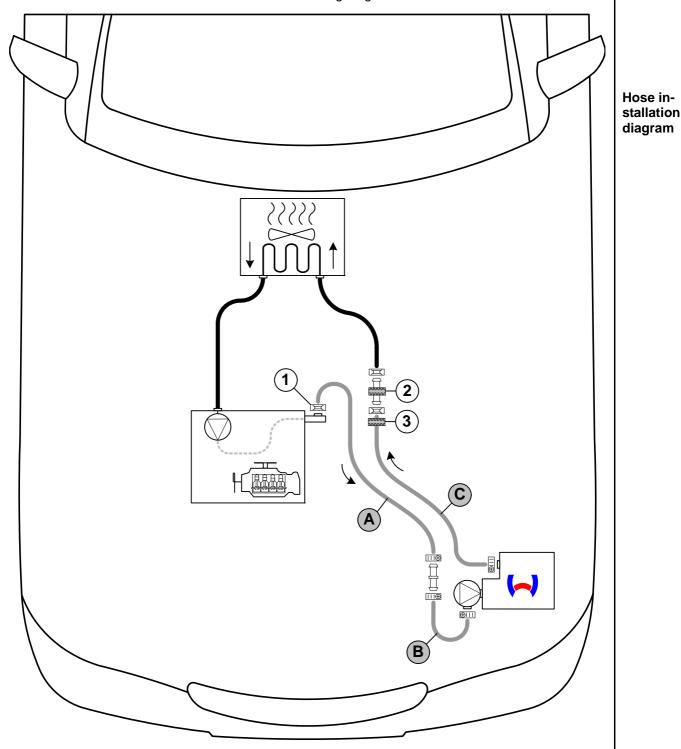


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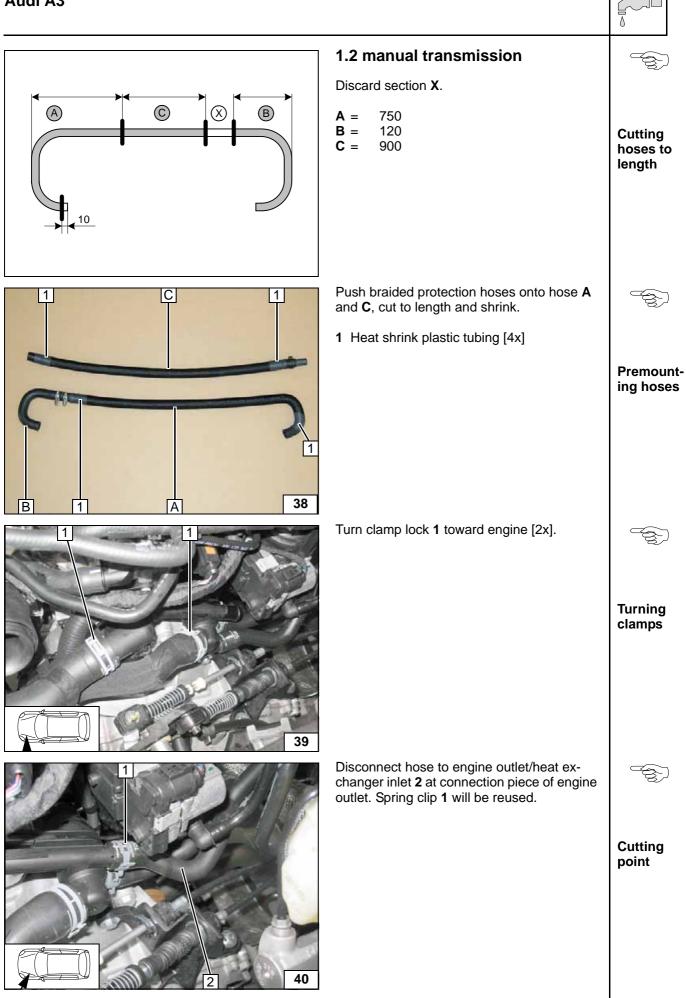
WARNING!

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

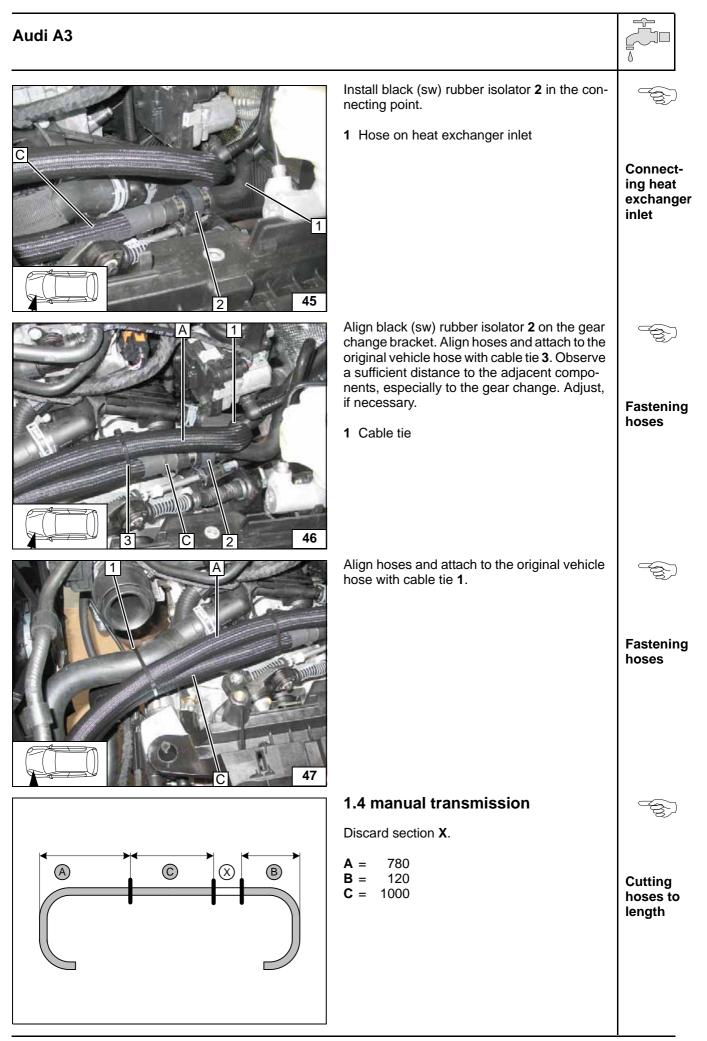


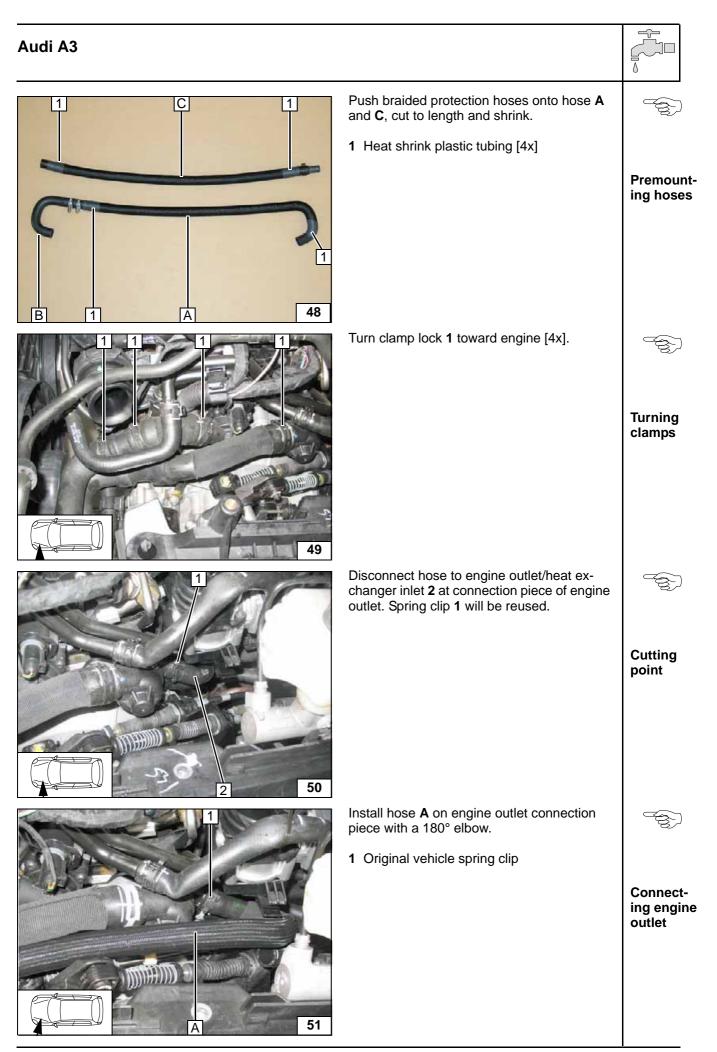
All spring clips without a specific designation $\square = 27$ mm dia. **1** = Original vehicle spring clip \square . All hose clamps $\bigcirc \square = 20.27$ mm dia. All connecting pipes $\square \square = 20x20$ mm dia. **2** = Black (sw) rubber isolator \blacksquare (only for 1.2 manual transmission and 1.4 automatic transmission). **3** = Black (sw) rubber isolator \blacksquare (only for 1.4 manual transmission).

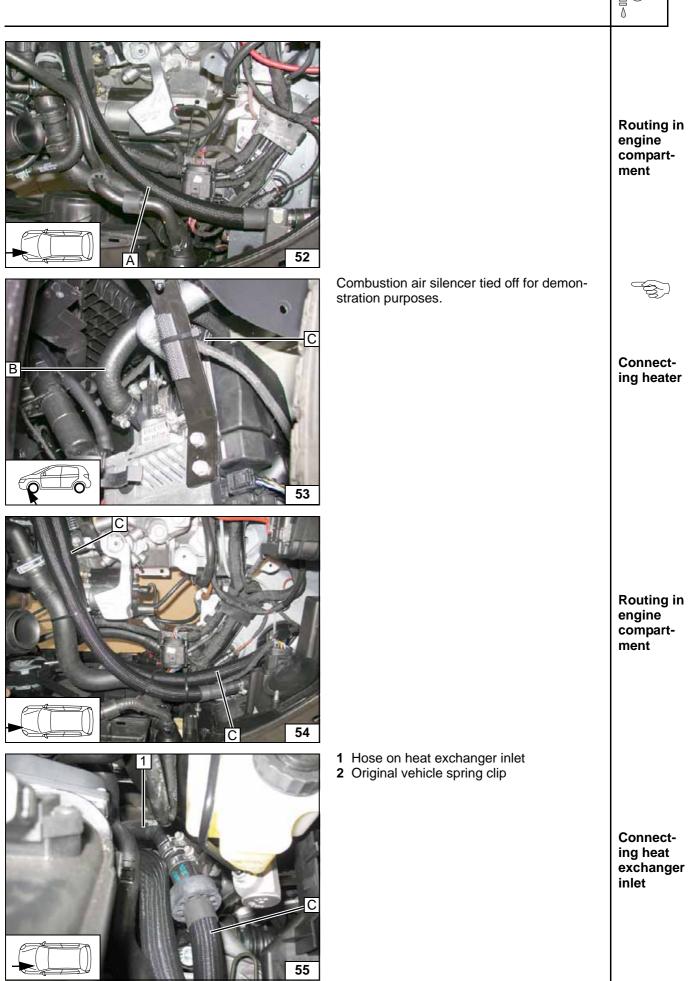
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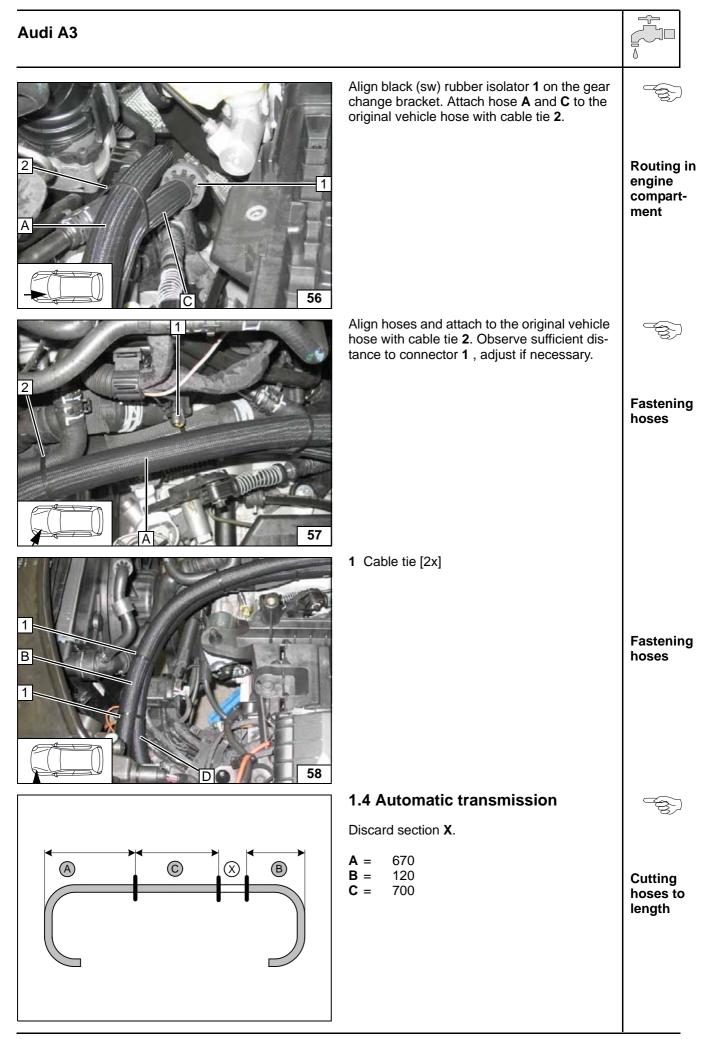


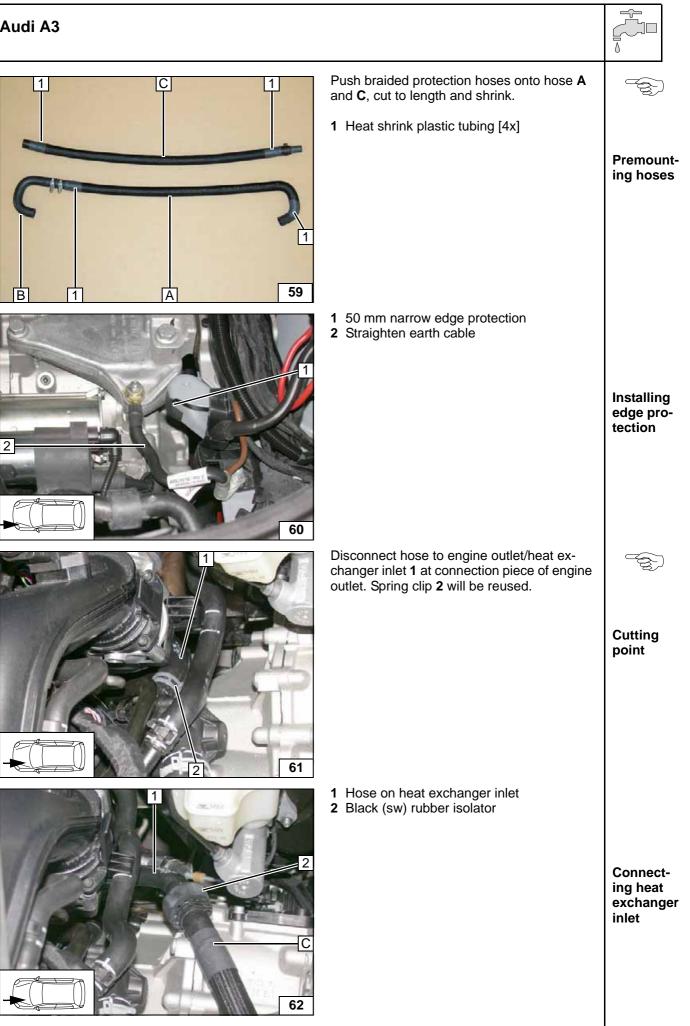
Audi A3		
	 Install hose A on engine outlet connection piece with a 180° elbow. 1 Original vehicle spring clip 	Connect- ing engine outlet
		Routing in engine compart- ment
	Combustion air silencer tied off for demon- stration purposes.	Connect- ing heater
		Routing in engine compart- ment

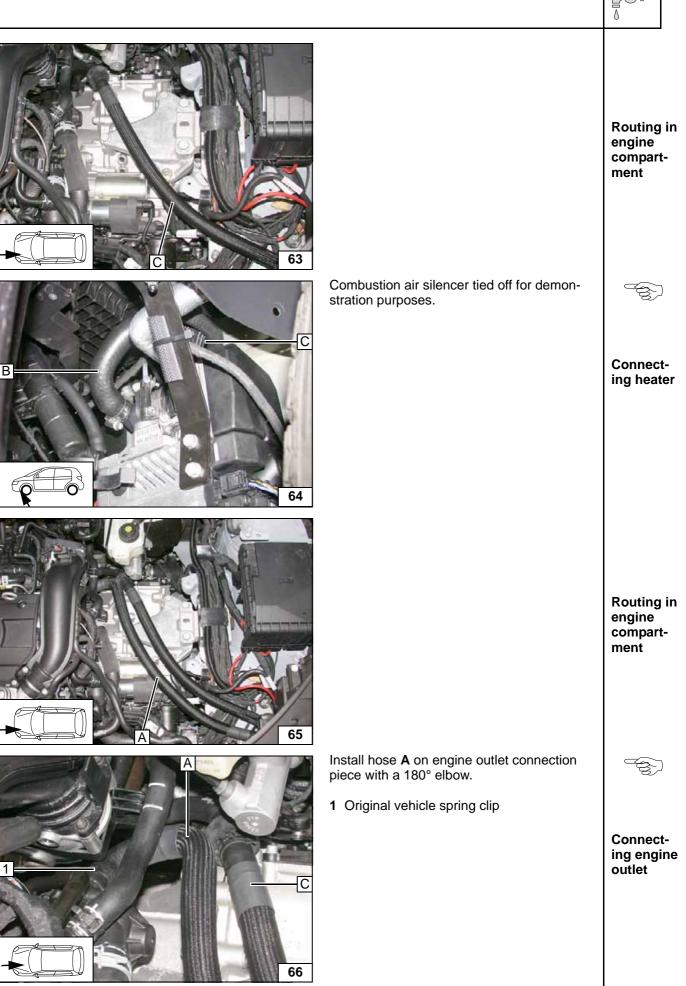


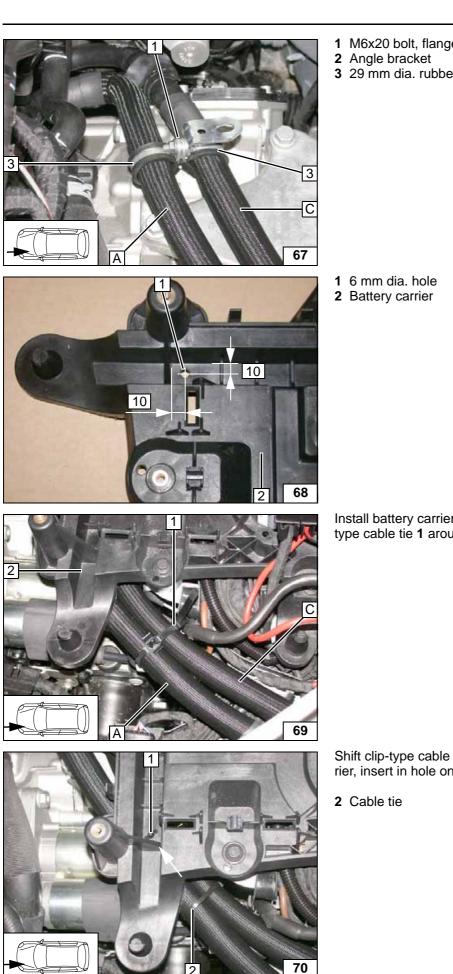




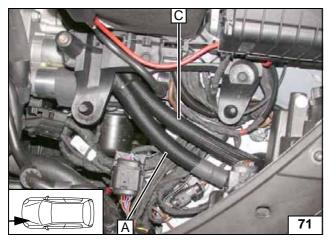


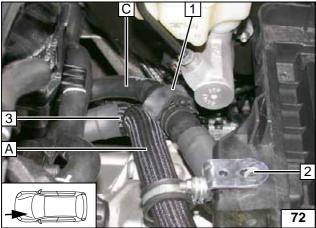


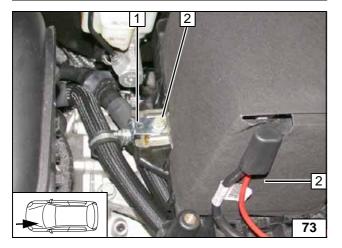




 M6x20 bolt, flanged nut
 Angle bracket
 29 mm dia. rubber-coated p-clamp [2x] Fastening hoses Preparing battery carrier Install battery carrier **2**. Loosely install clip-type cable tie **1** around hose **A** and **C**. Ś Fastening hoses Shift clip-type cable tie under the battery carrier, insert in hole on position ${\bf 1}$ and tighten. Ś Fastening hoses







Aligning hoses Attach black (sw) rubber isolator **1** with cable tie **3** to hose A. Align angle bracket at position 2 on original vehicle hole. Fastening hoses

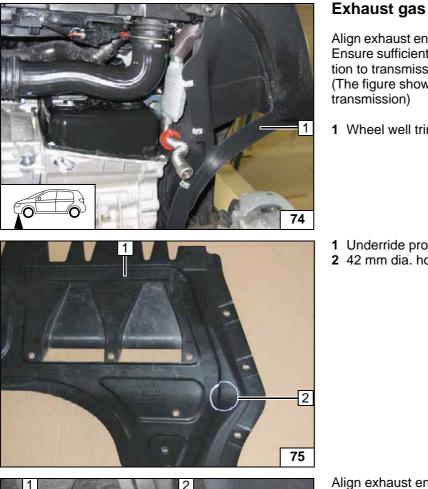
Install battery. Ensure sufficient distance to neighbouring components.

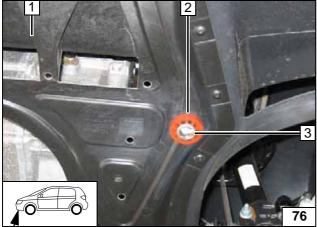
- Angle bracket
 Original vehicle bolt



Fastening hoses







Align exhaust end section and rubber isolator. Ensure sufficient spacing of exhaust end section to transmission and to wheel well trim. (The figure shows the vehicle with automatic Installing wheel well transmission) trim 1 Wheel well trim 1 Underride protection 2 42 mm dia. hole Hole in underride protection Align exhaust end section 3 flush on red rubber isolator 2. 1 Underride protection Mounting rubber isolator

Final Work

WARNING!

Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Secure all loose lines using cable ties.

Only use manufacturer-approved coolant. Spray the heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect the battery
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer.
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Place the "Switch off parking heater before refueling" signboard in the area of the filler neck
- Check the proper function of the parking heater, see the operating instructions/installation instructions.
- Proceed with the Webasto Thermo Test Diagnostics as follows at the initial start-up:
 - Pump up fuel for heater under the pipeline filling button
 - CO₂- Check setting, adjustment values are listed in the General Installation Instructions
 - During the test run, check all water and fuel connections for leaks and firm seating
 - Conduct troubleshooting in case of any malfunctions

Adjust the sensitivity of the passenger compartment monitoring

WARNING!

Pass through can only be carried out at an authorized workshop. Observe the applicable repair manual of the respective vehicle.

- Connect the VAS tester.
- Open Item 46 (Central Module of Comfort System)
- Go to Item 10 (Adjustment)
- Follow the request for the code entry and enter the code 15
- Reduce the sensitivity of the passenger compartment monitoring to 50 %
- Save this setting
- The adjustment of the sensitivity of the passenger compartment monitoring is completed.



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Operating Instructions for End Customer

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.

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

Before parking the vehicle, make the following settings:



- 1 Set temperature to "max."
- 2 Air outlet to windscreen
- 3 Set fan to level "1", or possibly "2"



1 Set temperature on both sides to "HI".

Climatronic

Climatic

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