Water Heater



Thermo Top E Parking Heater

Thermo Top C Parking Heater

00 0002

Installation documentation

Kia cee'd / cee'd sw / pro cee'd

Diesel from model year 2007 Left-hand drive vehicle Manual transmission



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.

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

Ident. No.: 1315281B_EN Fee Euro 10.00 © Webasto AG

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Validity

Manufacturer	Model	Туре	EG-BE No. / ABE
Kia	cee'd / cee'd sw	ED	e4 * 2001/116 * 0121 *

Engine type	Engine model	Output in kW	Displacement in cm ³
D4FB-L	Diesel	66	1582
D4FB	Diesel	85	1582
D4EA-F	Diesel	103	1991

Manufacturer	Model	Туре	EG-BE No. / ABE
Kia	pro cee'd	ED	e4 * 2001/116 * 0121 *

Engine type	Engine model	Output in kW	Displacement in cm ³
D4FB	Diesel	85	1582
D4EA-F	Diesel	103	1991

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

The installation location of the digital timer is to be coordinated with the end customer before installation.

Heater/Installation Kit

Quantity	Designation	Order No.:
1	Retail accessories Thermo Top E / C	See Price list
1	Heater control	See Price list
1	Installation Kit for Kia cee'd 2007 1.6 CRDI	1312744C

Also required for 2.0 lt CRDI:

Quantity	Designation	Order No.:
1	Installation Kit for Kia cee'd 2.0 CRDI	1313241A

Heater recommended for the respective vehicle class:

Vehicle	Heater
Compact car	Thermo Top E
Mid-size car, estate car	Thermo Top C

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

These installation instructions apply to Kia cee'd / cee'd sw / pro cee'd Diesel vehicles - for validity, see page 2 - from model year 2007 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to these installation instructions.

However, 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.

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
- Metric thread-setter kit
- Flexible socket wrench, 7 mm

Explanatory notes on document

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

Mechanical system



Electrical system



Coolant circuit



Fuel



Exhaust gas



Combustion air



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



Specific risk of fire or explosion.



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



Reference to a special technical feature.





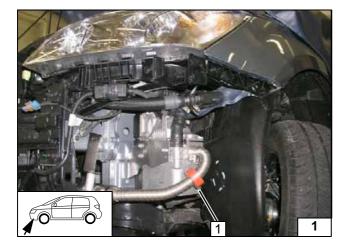
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

Preliminary work

WARNING!

- Open the fuel tank cap and vent the fuel tank.
- Close the fuel tank cap again.
- Disconnect the battery "earth" or "ground" connection.
- 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.
- Remove the door sill trim on the front passenger's side.
- Remove the A-pillar trim in the front passenger's side footwell.
- Remove the trim for radio/A/C control panel.
- Remove the lower instrument panel trim on the driver's side.
- Remove the rear bench seat.
- Open the tank-fitting service lid.
- Remove the air filter together with the intake hoses.
- Detach the trim of the cable pass through on the firewall.
- Detach the wheel well trim on the right and left.
- Remove the bumper.
- Remove the rear left tank trim.

Remove page 36 "Operating Instructions for the End Customer" and add to the vehicle operating instructions.



Heater installation location

1 Heater

Installation location



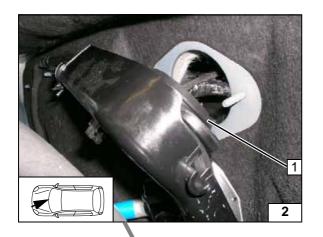
Electrical Connection

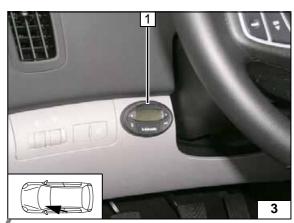
Wiring harness pass through

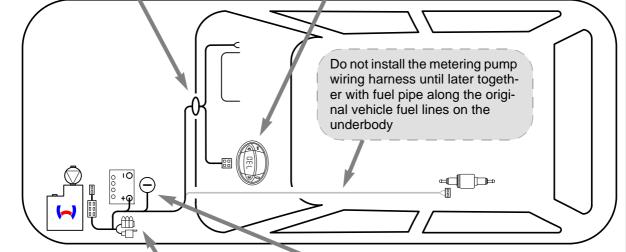
1 Protective rubber plug

Digital timer

1 Digital timer

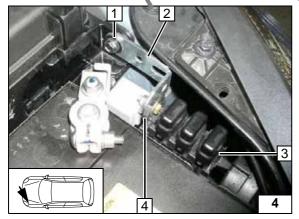


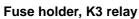






Wiring harness routing diagram





Angle down perforated bracket **2** according to template.



1 Earth point on strut tower

- 1 Original vehicle bolt
- **3** Fuse holder, replace F3 25 A fuse with 10 A fuse.
- **4** M5x16 bolt, washer, retaining plate of fuse holder, K3 relay, nut



Fan controller for manual air conditioning

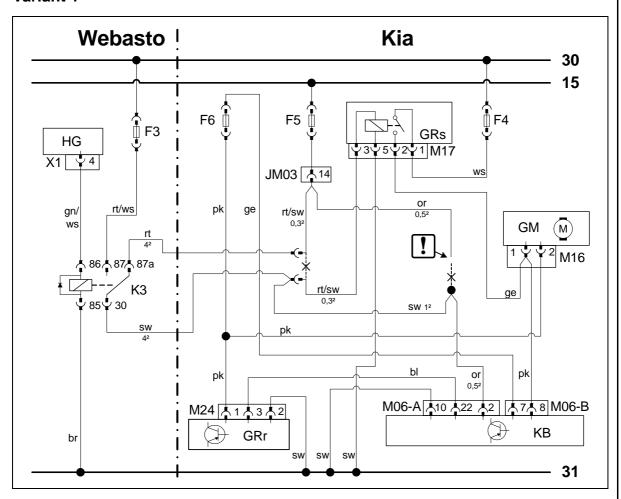
The triggering of the manual air conditioning depends on the respective vehicle equipment and one differentiates between two variants!



Wiring dia-

gram

Variant 1

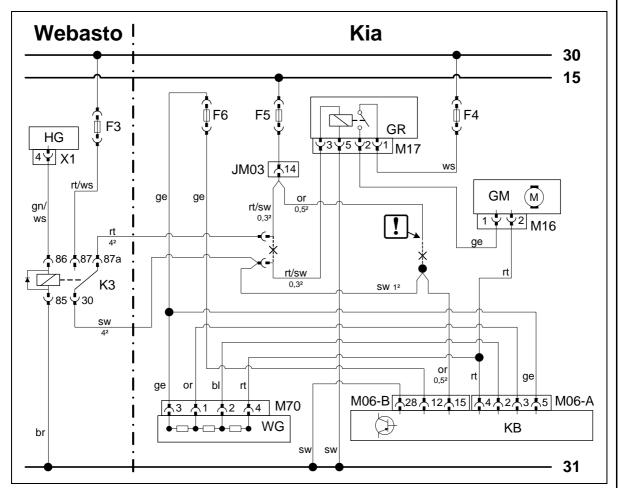


Webasto components		Vehicle	Vehicle components		rs and symbols
HG	TT-C/E Heater	GM	Fan motor	rt	red
X1	6-pin heater connector	M16	Connector GM	WS	white
F3	Replace 25 A with 10 A	KB	A/C control panel	sw	black
	fuse.	M06-A	23-pin connector KB	or	orange
K3	Fan relay	M06-B	8-pin connector KB	gn	green
		F4	Fuse, 40A	bl	blue
		F5	Fuse, 10A	ge	yellow
		F6	Fuse, 10A	pk	pink
		GRs	Fan relay		
		M17	5-pin connector GRs		
		JM03	Connector		Insulate wire end and tie
		GRr	Fan controller	ا ا	back
		M24	Connector GRr	Х	Cutting point
				Wiring	colours may vary.

Legend



Variant 2

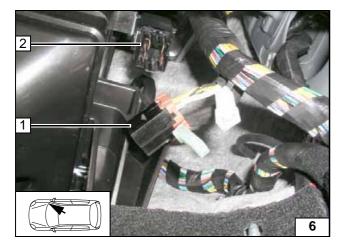


Webasto components		Vehicle	Vehicle components		s and symbols
HG	TT-C/E Heater	GM	Fan motor	rt	red
X1	6-pin heater connector	M16	Connector GM	ws	white
F3	Replace 25 A with 10 A	KB	A/C control panel	sw	black
	fuse.	M06-A	6-pin connector KB	or	orange
K3	Fan relay	M06-B	28-pin connector KB	gn	green
		F4	Fuse, 40A	bl	blue
		F5	Fuse, 10A	ge	yellow
		F6	Fuse, 10A	pk	pink
		GR	Fan relay		
		M17	5-pin connector GRs		
		JM03	Connector		Insulate wire end and tie
		WG	Resistor group	۳	back
		M70	WG connector	Х	Cutting point
				Wiring colours may vary.	

Wiring diagram

Legend





All vehicles:

Connection on connector M17 1 of fan relay 2 on right next to glove compartment. Pull off connector M17. Disconnect red/black (rt/sw) wire, 0.3², at Pin 3.



Connector of fan relay M17



Produce connection as shown in wiring diagram.

Install additional black (sw) wire **2** in protective sleeving.

- 1 Black (sw) wire from K3/30
- 3 Red (rt) wire from K3/87a



Preparing additional wire



Produce connections as shown in wiring diagram.

- 1 Red (rt) wire from K3/87a
- 2 Black (sw) wire from K3/30



Connecting fan relay



Variant 1:

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Connection on 23-pin M06-A connector **4** of A/C control panel. Produce connections as shown in wiring diagram.

- 1 Insulate orange (or) wire of connector JM03, PIN 14 and tie back
- 2 Black (sw) additional wire
- 3 Orange (or) wire, PIN 2

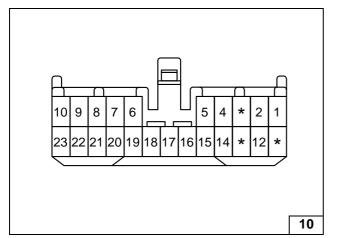


Connecting A/C control panel

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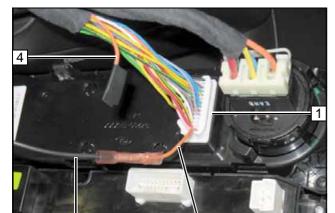




Connector M06A of A/C control panel on contact side.



Connector KB



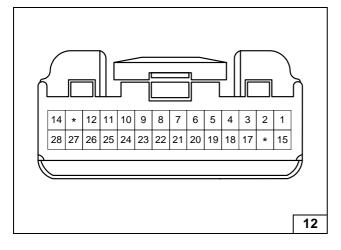
Variant 2:



Connection on 28-pin M06-B connector **1** of A/C control panel. Produce connections as shown in wiring diagram.

- 2 Orange (or) wire, PIN 15
- 3 Black (sw) additional wire
- 4 Insulate orange (or) wire of connector JM03, PIN 14 and tie back

Connecting A/C control panel



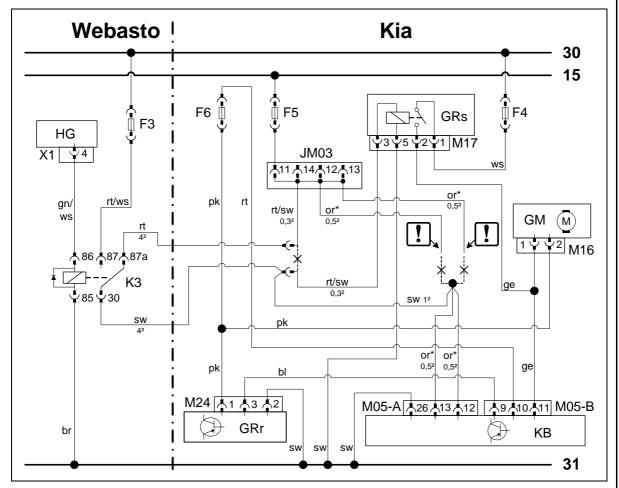
Connector M06B of A/C control panel on contact side. Connector imprint does not match wiring diagram!



Connector KB



Automatic air-conditioning fan controller



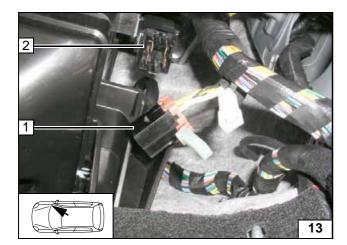
Webasto components		Vehicle	Vehicle components		s and symbols
HG	TT-C/E Heater	GM	Fan motor	rt	red
X1	6-pin heater connector	M16	Connector GM	ws	white
F3	25 A replaced with 10 A	KB	A/C control panel	sw	black
	fuse.	M05-A	26-pin connector KB	or	orange
K3	Fan relay	M05-B	22-pin connector KB	gn	green
		F4	Fuse, 40A	bl	blue
		F5	Fuse, 10A	ge	yellow
		F6	Fuse, 10A	pk	pink
		GRs	Fan relay		
		M17	5-pin connector GRs	*	orange (or) or red/black (rt/sw)
		JM03	Connector		Insulate wire end and tie
		GRr	Fan controller	انا	back
		M24	Connector GRr	Х	Cutting point
				Wiring colours may vary.	

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Wiring diagram

Legend





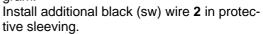
Connection on connector M17 1 of fan relay 2 on right next to glove compartment. Pull off connector M17. Disconnect red/black (rt/sw) wire, 0.32, at Pin 3.



Connector of fan relay M17



Produce connection as shown in wiring dia-





3 Red (rt) wire from K3/87a



Preparing additional wire



3

Produce connections as shown in wiring diagram.

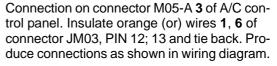


14

2 Black (sw) wire from K3/30



Connecting fan relay



- 2 Black (sw) additional wire
- 4 Orange (or) or red/black (rt/sw) wire, PIN 12
- 2 Orange (or) or red/black (rt/sw) wire, PIN 13



Connecting A/C control panel

6 5 4	3 16

13 12 11 10 9 8 6





Remote option (Telestart)

- 1 Receiver, bracket angled down2 5.5 mm dia. hole, M5x16 bolt, flanged nut

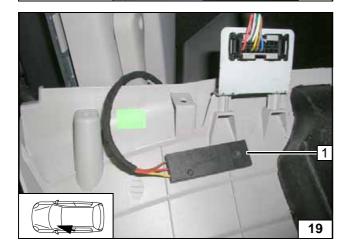


Mounting receiver



1 Antenna

Mounting antenna

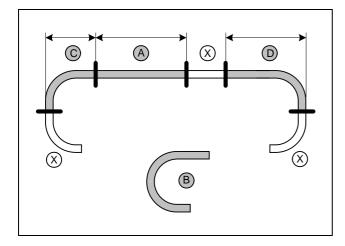


Temperature sensor only for T100 HTM

1 Temperature sensor, fasten with suitable means

> Mounting temperature sensor





Preparing heater

1.6 D

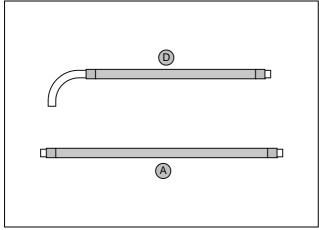
A = 840 mm

C = 130mm**D**= 790 mm

Discard section X



Cutting coolant hoses to length



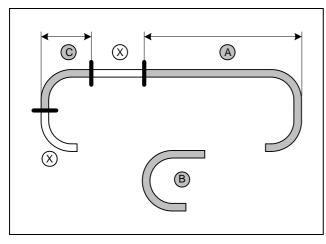
Push braided protection hoses onto hose A and **D** and cut to length.

Cut heat shrink plastic tubing to length.

1 25 mm heat shrink plastic tubing [4x]



Preparing coolant hoses



2.0 D

A = 1,510mm

C = 130 mm

Discard section X



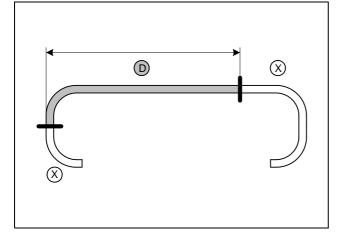
Cutting coolant hoses to length



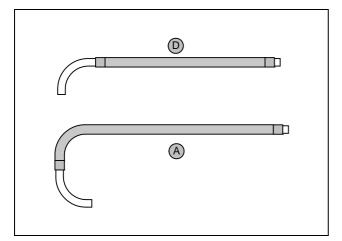
Cutting coolant hoses to length



Discard section X







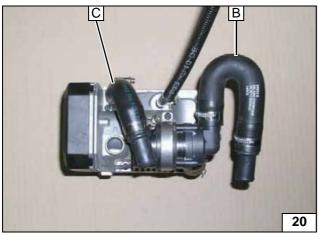
Push braided protection hoses onto hose A and **D** and cut to length.

Cut heat shrink plastic tubing to length.

1 25 mm heat shrink plastic tubing [4x]



Preparing coolant hoses



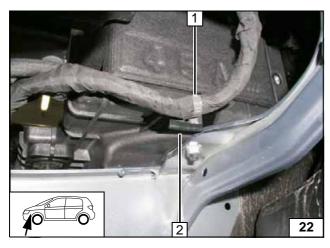
- C Hose section, connecting pipe dia. 20x20 mm, 27 mm dia. clamp [2x]
- B 180° moulded hose 29938, connecting pipe, 20x20 mm dia., 27 mm dia. clamp [2x]

Premounting coolant hoses on heater



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

Premounting fuel hose on heater

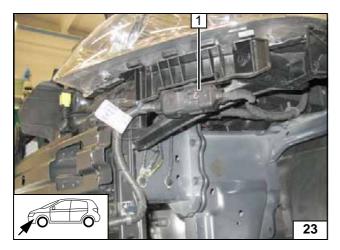


Preparing installation location

- 1 Original vehicle retaining clip released
- 2 Insert 30 mm edge protection

Moving wiring harness



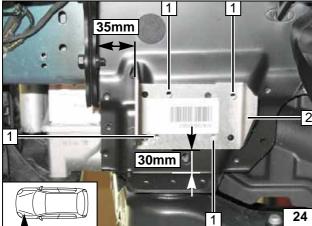


2.0 D

Fasten connector of front sensors **1** with double-sided adhesive tape.



Repositioning connector

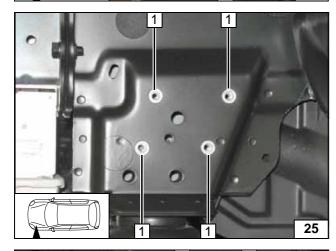


All vehicles

Align bracket 2, copy hole pattern 1 [4x]

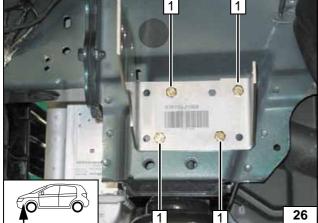


Copying hole pattern



1 9.1 mm dia. hole; mount rivet nut [4x each]

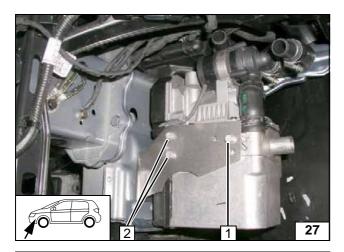
Installing rivet nuts



1 M6x25 bolt, spring lockwasher [4x each]

Installing bracket





Installing heater

Ejot screws, tightening torque 10 Nm. Insert two washers between heater and bracket at position 1.

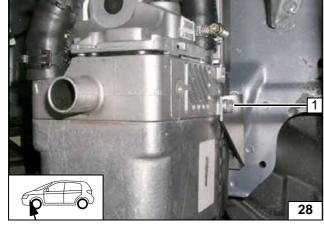
- 1 Ejot screw, washer [2x]2 Ejot screw [2x]







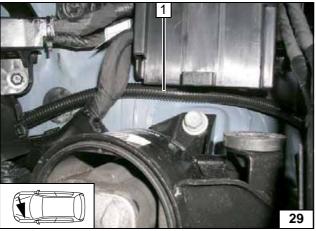




Route fuel line and wiring harness of metering pump in corrugated tube 1 to firewall and along original vehicle fuel lines to underbody. Cut fuel line to length at installation location of metering pump.



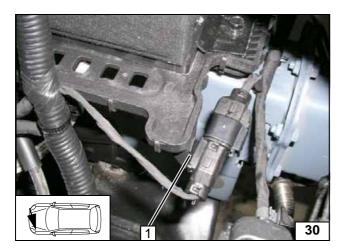
and wiring harness



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Routing fuel line

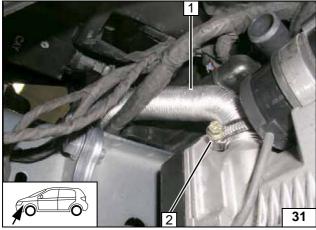




Combustion air

1 Retaining clip

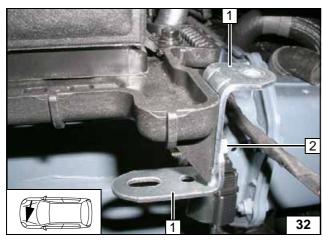
Releasing retaining clip of connector



- 1 Combustion-air intake pipe
- 2 27 mm dia. hose clamp



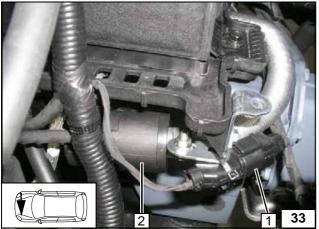
Installing intake pipe



1.6 D

- 1 Angle bracket [2x]2 M6x20 bolt, flanged nut

Installing angle bracket

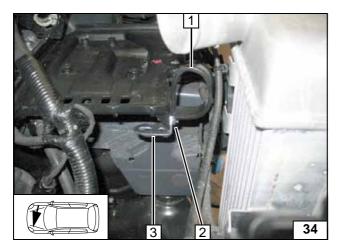


- 1 Original vehicle connector, cable tie on angle bracket
- 2 Combustion-air intake silencer, 25 mm dia. p-clamp, M6x20 bolt, flanged nut on angle bracket



Mounting silencer

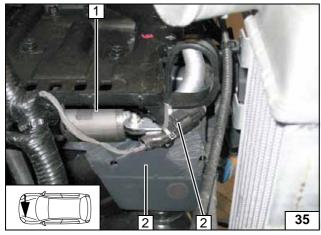




2.0 D

- 1 Rubber-coated pipe clamp, 48 mm dia.
- 2 M6x20 bolt, flanged nut3 Angle bracket

Installing angle bracket



- 1 Combustion-air intake silencer, 25 mm dia. p-clamp, M6x20 bolt, flanged nut on angle bracket
- 2 Original vehicle connector, cable tie on angle bracket



Mounting silencer





Coolant circuit 1.6 D

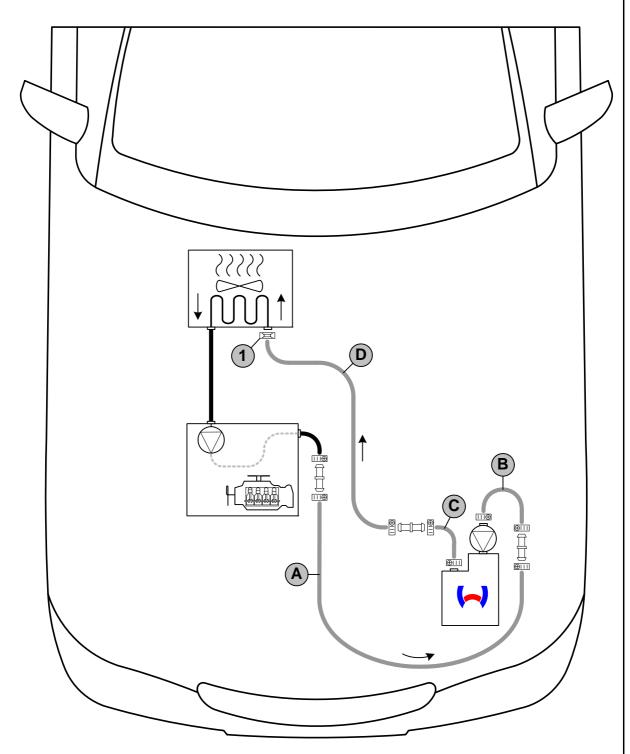
WARNING!

Tighten all hose clamps to 2.0 + 0.5 Nm.

Any coolant running off should be collected in a suitable container.

Install coolant hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position hose clamps so that no other hose can be damaged!

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



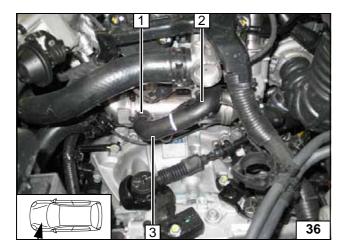
Hose installation diagram

All hose clamps \bigcirc = 20-27 mm dia. **1** = original vehicle spring clip \bigcirc

Al connecting pipes $\Box \Box = 20x20 \text{ mm}$





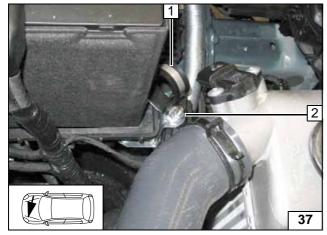


Remove hose section from heat exchanger inlet 3 and discard. Original vehicle spring clip 1 will be reused.



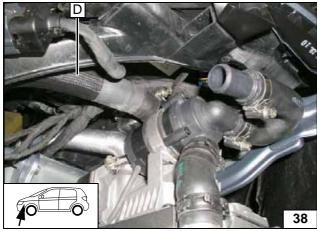
2 Engine outlet hose section

Cutting point



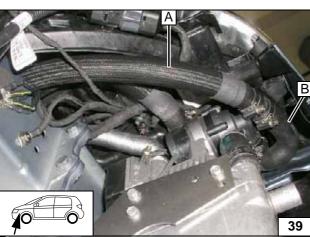
- 1 Rubber-coated pipe clamp, 48 mm dia.
- 2 M6x20 bolt, flanged nut

Installing p-clamp

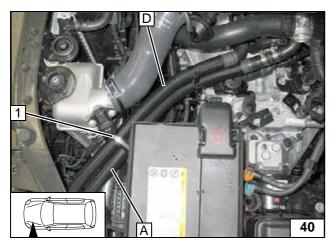


Connecting heater outlet

Connecting heater inlet







Route hose **A** and **D** through rubber-coated p-clamp 1.

Ensure sufficient distance from neighbouring components.

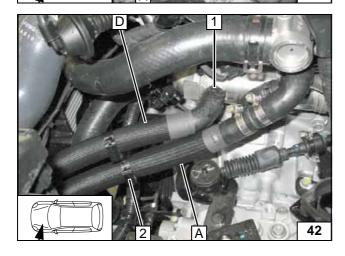


Routing in engine compartment



1 Engine outlet hose section





Before connecting, fill the coolant hoses with coolant.



- 1 Original vehicle spring clip2 Spacer bracket

Connecting heat exchanger

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inlet



Coolant circuit 2.0 D

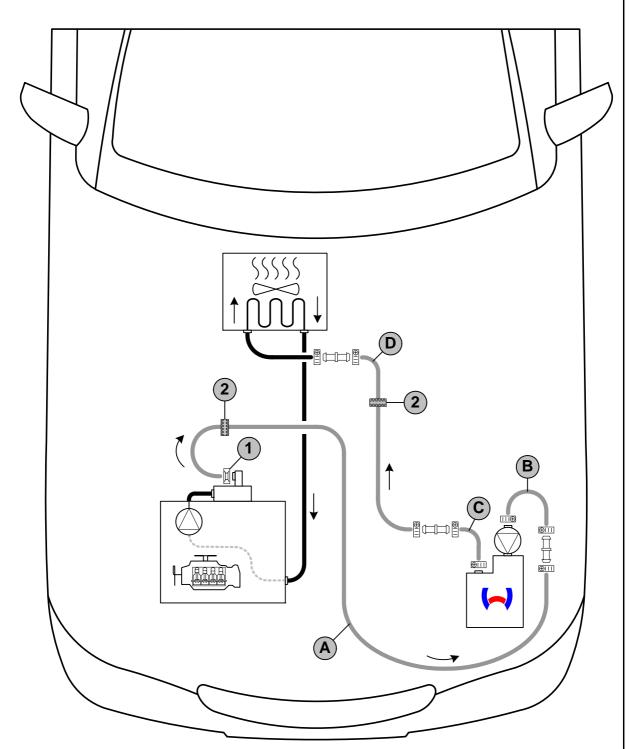
WARNING!

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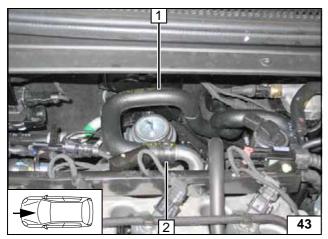
Hose installation diagram

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Al connecting pipes $\Box \Box = 20x20 \text{ mm}$



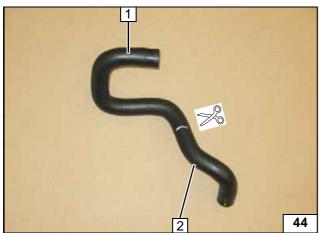




Remove original vehicle hose on engine outlet/heat exchanger inlet 1. Original vehicle spring clip 2 will be reused.

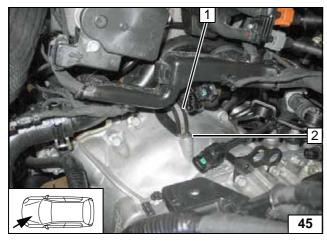


Cutting point



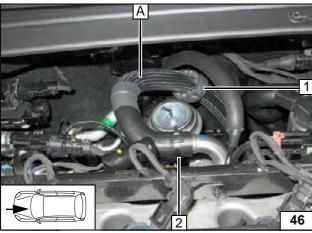
- 1 Discard hose section
- 2 Mount hose section on heat exchanger inlet again

Separating hose



- 1 Rubber-coated pipe clamp, 48 mm dia.
- 2 M6x20 bolt

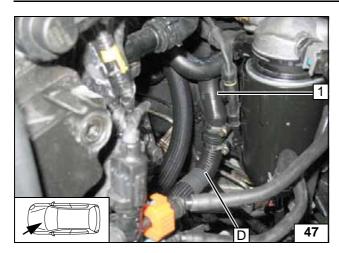
Installing p-clamp



- 1 Black (sw) rubber isolator
- 2 Original vehicle spring clip

Connecting engine outlet

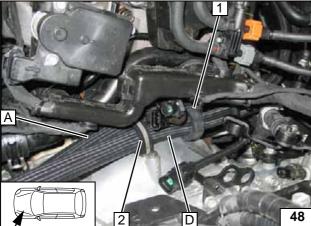




1 Hose section of heat exchanger inlet



Connecting heat exchanger inlet



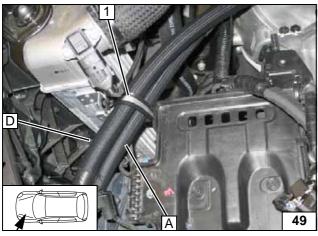
Route hose **A** and **D** through rubber-coated p-clamp **2**.

Ensure sufficient distance from neighbouring components.

1 Black (sw) rubber isolator



Routing in engine compart-ment

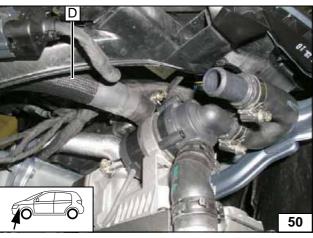


Route hose **A** and **D** through rubber-coated p-clamp **1**

Ensure sufficient distance from neighbouring components.

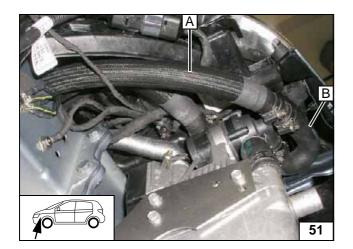


Routing in engine compart-ment



Connecting heater outlet





Connecting heater inlet



Fuel

CAUTION!

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

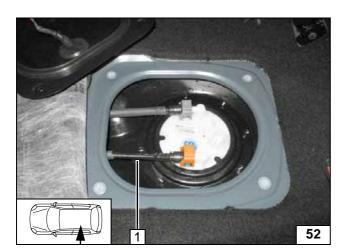
Catch any fuel running off in a suitable container.

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!

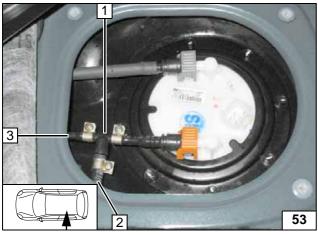
The fuel line and wiring harness are routed to the metering pump as shown in the wiring harness routing diagram.



1.6 D

1 Remove protective sleeving on fuel supply

Removing protective sleeving



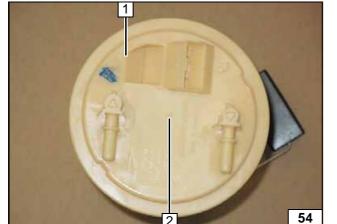
Cut off fuel supply line 3 approx. 50 mm before coupling and insert fuel standpipe.

- 1 6x5x6 fuel standpipe, clamp 8mm dia. [2x]
- 2 Fuel line, hose section, 10 mm dia. clamp [2x]



Mounting fuel standpipe





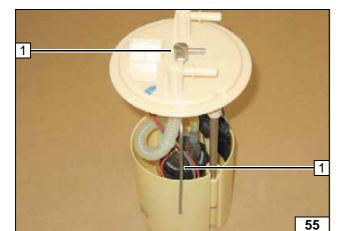
Remove fuel-tank sending unit 1 in accordance with manufacturer's instructions. Remove type label on fuel-tank sending unit. Drill 6mm dia. hole 2 in centre of cover perforation.



Drilling hole in fuel-tank sending unit



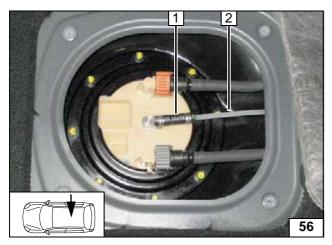




Shape fuel standpipe 1 according to template, cut to length and install, see "installation instructions".



Installing fuel standpipe



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







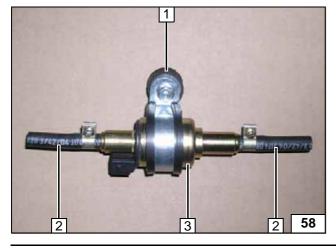
Connecting fuel line



All vehicles

- 1 Angle bracket, M6x20 bolt, large diameter washer, flanged nut on existing hole
- 2 Fuel line from fuel standpipe

Installing angle bracket

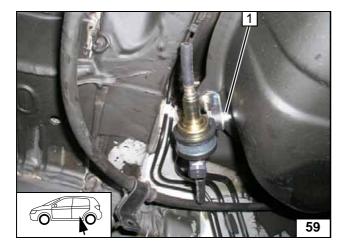


- 1 Silent block, rubber-coated p-clamp, flang-
- 2 Hose section, 10 mm dia. clamp [2x each]
- 3 Metering pump

ing meter-







Ensure proper installation position of metering pump, see "Installation Instructions".



1 M6 flanged nut on angle bracket

Mounting metering pump

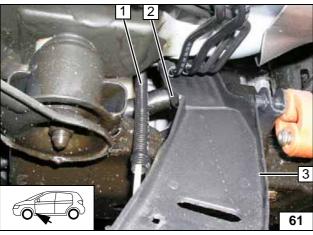


Fuel line from fuel standpipe on intake side of metering pump. Check the position of the components; adjust if necessary. Check that they have freedom of movement.



- 1 Hose section (rub protection), cable tie [2x]
- 2 10 mm dia. clamp

Connecting fuel line



Detach line duct **3** and fold down, cut out edge at Pos. **2** for corrugated tube.



1 Fuel line from heater in corrugated tube

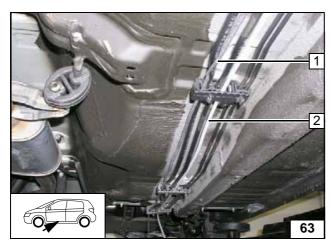
Cutting out line duct



- 1 Fuel line in corrugated tube
- 2 Metering pump wiring harness
- 3 Line duct

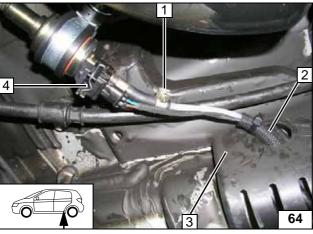
Guiding lines into cover





- 1 Metering pump wiring harness
- 2 Fuel line

Installing lines on underbody



Fuel line from heater on pressure side of metering pump.

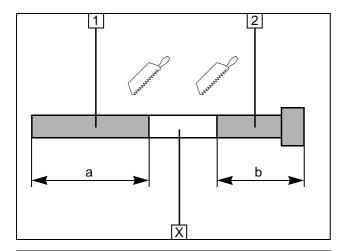
Check the position of the components; adjust if necessary. Check that they have freedom of movement.

- 1 10 mm dia. clamp
- 2 Hose section (rub protection), cable tie [2x]
- 3 Installed line duct
- 4 Wiring harness of metering pump, connector mounted



Connecting to metering pump



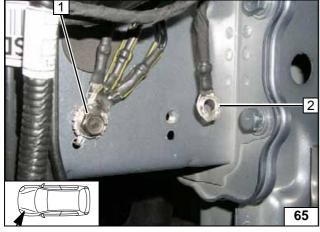


Exhaust gas

- 1 Exhaust pipe a = 310mm
- **2** Exhaust end section b = 175mm

Discard section X

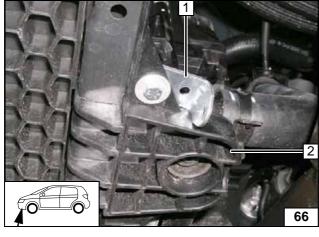
Preparing exhaust pipe



Disconnect earth cable **2** and fasten to adjacent earth point **1**.

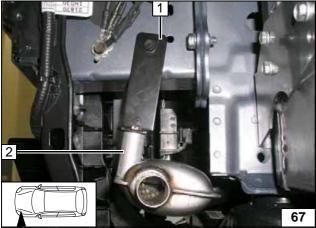


Refastening earth wire



- 1 Angle bracket, M6x20 bolt, large diameter washer, flanged nut
- 2 Radiator cross member

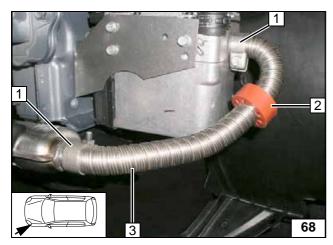
Installing angle bracket



- 1 Angle bracket, original vehicle bolt
- 2 Exhaust silencer, 40 mm spacer, M6x50 bolt, flanged nut

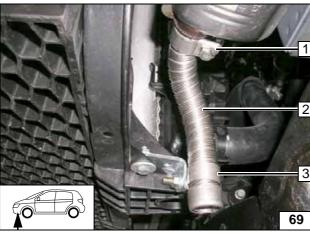
Mounting silencer





- Hose clamp [2x]
 Red (rt) rubber isolator
 Exhaust pipe

Installing exhaust pipe



- 1 Hose clamp
- 2 Exhaust end section
- 3 P-clamp, M6x20 bolt, flanged nut on angle bracket

Installing exhaust end section



Final Work

WARNING!

Reassemble the components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate all loose lines and tie back.

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, teach telestart transmitter
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Place signboard "Switch off parking heater before refuelling" in the area of the filler neck
- See installation instructions for initial start-up and function test



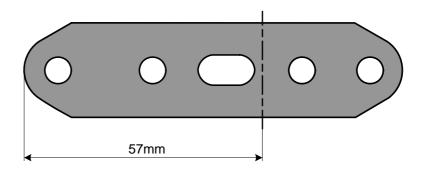


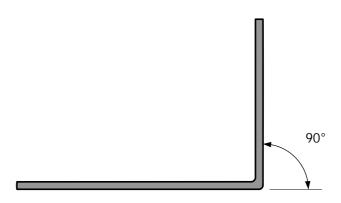


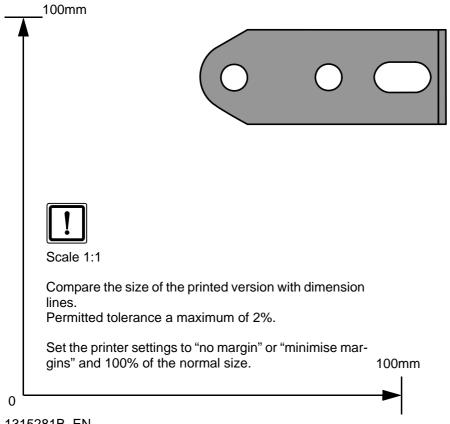
Webasto AG Postfach 80 D-82132 Stockdorf / Germany National Hotline: 01805 93 22 78 (14 Cent aus dem deutschen Festnetz) Hotfax: 0395 5592 353 Hotmail: hotline@webasto.de http://www.webasto.de



Template for Perforated Bracket

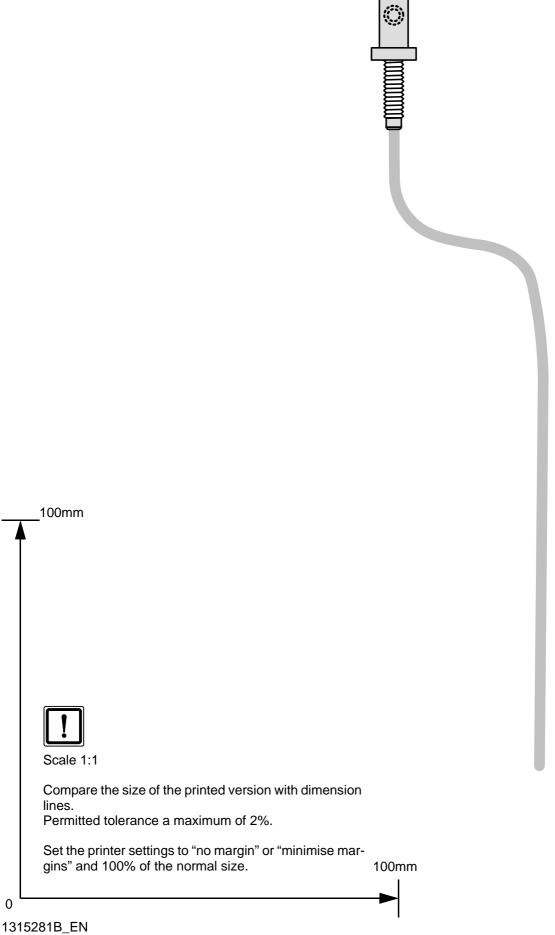








Template for fuel standpipe



35

Operating Instructions for the 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

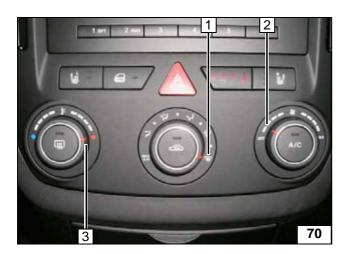
Example:

For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

The passenger compartment monitoring is to be disabled for vehicles with burglar alarm. For instructions on deactivation, please refer to the operating instructions of the vehicle.



Before parking the vehicle, make the following settings:



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

Manual air conditioning



- 1 Air outlet faces "upward"
- 2 Set fan to level "1", or possibly "2"
- 3 Set temperature to "HI"

