D	Änderungen bezüglich Konstruktion, Ausstattung, Farbe sowie Irrtum vorbehalten. Angaben und Abbildungen unverbindilch.	<b>(D)</b>	Einbauanleitung
(B)	Subject to change in terms of construction, equipment and colour, and may contain errors.  The information and illustrations are non-binding.	(B)	Installation instructions
F	Sous réserve de modifications de la construction, de équipement, de la couleur et sous réserve d'erreurs. Les indications et les lilustrations sont sans engagement.	F	Consignes de montage
(NL)	Wijzigingen met betrekking tot constructie, uitvoering en kleur evenale vergissingen voorbehouden. Gegevens en afbeeldingen niet bindend.	(NL)	Montagehandleiding
OK)	Ændringer med hensyn til konstruktion, udstyr, førver samt føjl forbeholdes. Oplysninger og tilustrationer er uforpligtende.	(DK)	Montagevejledning
N	Endringer angående konstruksjon, utetyr, farge og felltagelse forbeholdes. Opplysninger og illustrasjoner uforbindtlig.	N	Monteringsinstruksjon
<u>S</u>	Med reservation för ändringar vad det gäller konstruktion, utrustning, färg samt för misstag. Uppgifterna och bilderna är inte bindande.	<u>S</u>	Installationsanvisning
(FIN)	Pidätämme olkeuden rakennette, varustusta, väriä koskeviin sekä erehdyksestä johtuviin muutoksiin. Tiedot ja kuvat elvät ole sitovia.	(FIN)	Asennusohje
	Con riserva di madifiche relative a progettazione, dotazione, colore ed errori. Le indicazioni e figure sono fornite sensa impegno.	①	Istruzioni per il montaggio
<b>E</b>	Reservadas las modificaciones respecto a diseño, equipamiento, color, así como error. Indicaciones y figuras ein compromiso.	E	Instrucciones de montaje
<b>P</b>	Reservamos o direito de alterações relativamente ao desenho, equipamento, cor, bem como de erro. Os dados e as gravuras não implicam compromisso da nossa parte.	P	Instruções de montagem
<b>GR</b>	Διατυπώνουμε κάθε επιφύλαξη ως προς αλλαγές σε σχέση με κατασκευή, εξοπλισμό, διαρρύθμιση, χρωματισμούς και λάθη παραδρομής.	<b>GR</b>	Οδηγίες εγκατάστασης
(CZ)	Změny, týkající se konstrukce, vybavení, barvy, jakož i omyly jsou vyhrazeny. Údeje a vyobrazení jsou nezávazné.	(CZ)	Návod k montáži
PL	Zastrzega się prawo do zmian dot. konstrukcji, wykończenia, kolorystyki oraz pomylek. Dane i ilustracje niewiążące.	PL	Instrukcja montażu
TR)	Tasarım, donanım ve renk bakımından değişiklik yapma hakkı ve hata ve eksiklik mahfuzdur. Veriler ve resimler bağlayıcı değildir.	TR	Montaj talimati
(H)	A szerkezet, a kivitel és a szín változtalása, valamint a változások joga fenntartva. Az adatok és az ábrák nem köteleiző érvényűek.	H	Beépítési útmutató
HR	Pravo promjena u svezi konstrukcije, opreme, boje kao i zabune oridžavamo. Podaci i ilustracije su neobavezne.	HR	Upute o ugradnji
(80)	Запазени права по стношение на конструкцията, обзавеждането, џвета и грешки. Данните и изображенията не са обвързващи.	(BUL)	Инструкция эа монтаж
RO	Ne rezervăm dreptul unor modificări ale construcțieu, dotării, culorii și dreptul la erori Datele indicate și imaginile sunt orientative.	RO	Instrucțiuni de montaj
(RUS)	Права на внесение изменений относительно конотрукции, оснащения, окраски, а также на ошибки сохраняются. Данные и иллюстрации имеют примерный херактер.	(RUS)	Инструкция по монтажу и установке
(IT)	Pasiliekama konstrukcijos, įrangos bei reikmenų, spalvos pakeitmų ir klaidų teisė. Duomenys ir ilistracijos neįpareigojantys.	(I)	Montavimo informacija
(LV)	Tiek paturētas tiesības uz konstrukcijas, lekārtu, krāsu izmalņām, kā arī kjūdīšanos. Dati un attāli bez salstībām.	(V)	lemontēšanas pamācība
<b>E</b>	Konstruktsiooni, varustuse ja værvi osas muudatused ning eksimine lubatud. Andmed ja joonised on mittesiduvad.	(EST)	Paigaldusjuhend
<b>SLO</b>	Zadržena pravica do sprememb glede konstrukcije, opreme, barve ter pomote. Podatki in elike so neobvezne.	(SLO)	Navodilo za vgradnjo
(SK)	Zmeny, ktoré sa týkajú konštrukcie, vybavenia, farby, ako aj omyly sú vyhradené. Údeje a zobrazenia sú nezáväzné.	(SK)	Montážny návod

# GM Europe GmbH Bahnhofsplatz 1, D-65423 Rüsselsheim, Germany

part number: 93199669

## **Water Heater Unit**



Thermo Top C Additional Heater 00 0002

Thermo Top P Additional Heater 00 0104

# **Installation Instructions**

# **Opel Antara**

Diesel from Model Year 2007 Left-hand drive vehicle Automatic 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, specialized tools and equipment are required to install and repair Webasto heating and cooling systems.

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.

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

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# **Validity**

Manufacturer	Model	Туре	EG-BE No./ABE
Opel	Antara	L-A	e1 * 2001 / 116 * 0118

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
Z20S	Diesel	110	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 a digital timer and summer/winter switch should be confirmed with the end customer before installation.

#### **Heater Unit/Installation Kit**

Quantity	Description	Order No.:
1	Opel-specific heater unit delivery scope	See price list
1	Installation kit for Opel Antara Diesel (basic kit)	1311919A
1	Additional kit for Opel Antara Diesel with Automatic Transmission	1311921A

#### **Optional heater control:**

Quantity	Description	Order No.:
1	Heater control	See Opel price list

#### Also required with automatic air-conditioning:

Quantity	Description	Order No.:
1	Kit for Opel Antara with Automatic Air-Conditioning	1311923A

#### Heater unit recommended for the respective vehicle class:

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

The selection of the heater unit 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 Opel Antara Diesel vehicles with an automatic transmission 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 instructions" and "operating and maintenance instructions" for the *Thermo Top C/P/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 edge protectors (split-open plastic 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

#### **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 connection** 



**Fuel connection** 



**Exhaust system** 



**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.





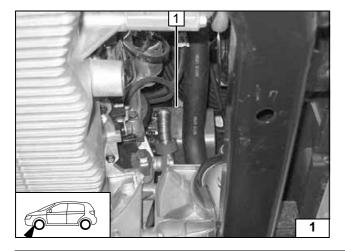
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

#### **Preliminary Work**

#### **WARNING!**

- Disconnect the battery "earth" or "ground" connection.
- Depressurize 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.
- Completely remove the battery
- Remove the fuse and relay box
- Remove the engine cover
- Remove the engine control unit
- Disconnect the power-steering fluid reservoir
- Disconnect the expansion tank
- Remove the charge-air tube between the air filter and the turbocharger
- Disconnect the air hose from the charge-air tube to the engine at the engine
- Remove the filler neck of the window washer system
- Remove the vent line at the top to the coolant expansion tank
- Open the fuel tank cap, ventilate the tank.
- Close the tank cap again.
- Remove the underride protection
- Open the left tank mounting service lid
- Remove the A/C control panel according to the manufacturer's instructions (only with manual air-conditioning)
- Remove the glove compartment (only with automatic air-conditioning)

Remove page 27 "Operating Instructions for End Customer" and insert with vehicle operating instructions.



#### **Heater unit installation location**

Picture shows vehicle without automatic transmission!

1 Heater unit



Installation location

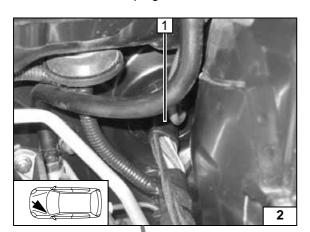




#### **Electrical Connections**

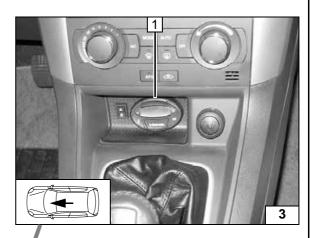
#### Wiring harness pass through

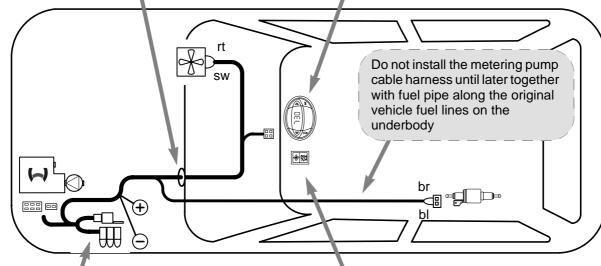
1 Protective rubber plug



#### **Digital timer**

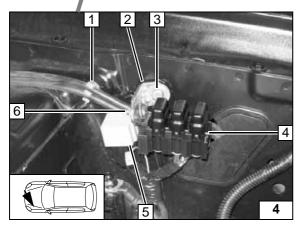
1 Digital timer





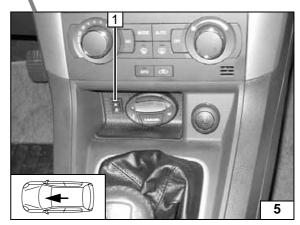


Wiring harness installation diagram



## Fuse holder, relay K3

- 1 Move original vehicle clip
- 2 Angle bracket
- 3 Drill out hole to 9 mm dia., mount M6 rivet nut, M6x20 bolt, spring lockwasher
- 4 Fuse holder
- 5 K3 relay
- **6** Align M5x16 bolt, large diameter washer, M5 flanged nut to right in oblong hole

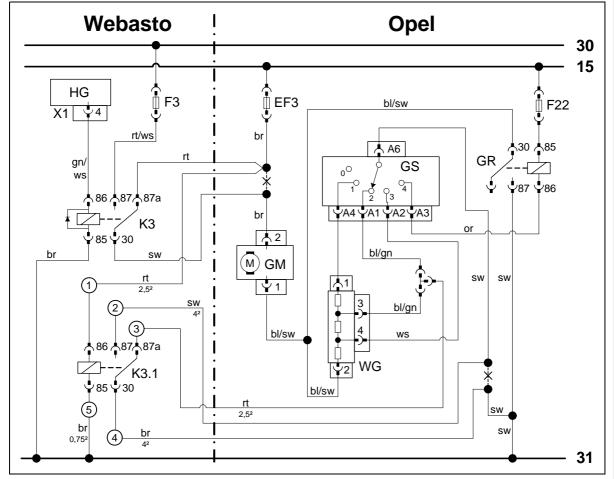


#### Summer/winter switch option

1 Summer/winter switch, drilled hole 12 mm dia.



## Fan controller for manual air conditioning

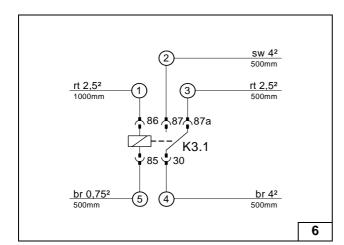


Webasto components		Comp	Components of Opel Antara		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red	
X1	6-pin connector	GS	Fan switch	ws	white	
F3	Fuse, 25 A	EF3	40 A fan fuse	sw	black	
K3	Fan relay	WG	Resistor group	br	brown	
K3.1	Additional relay	GR	Fan relay	gn	green	
				bl	blue	
				or	orange	
1						
				Х	Cutting point	
				Wiring colors may vary.		

Wiring diagram for manual air conditioning

Legend





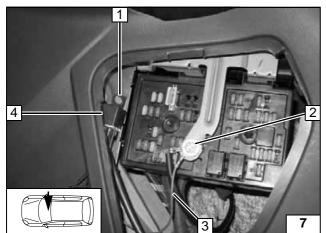
#### Preparing electrical system

Produce connections as shown in wiring diagram.

Cut 500 mm off included protective sleeving and push onto lines ②, ③ and ④. Push remaining end of protective sleeving onto line ①.



**Preparing** additional relay K3.1

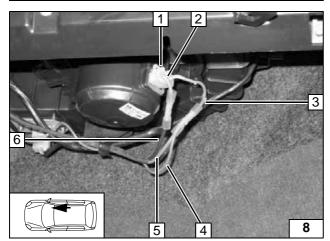


#### Fan controller

Produce connections as shown in wiring diagram.

- 1 Mount M5x16 bolt, flanged nut in existing
- 2 Original vehicle ground support point
- **3** Brown (br) wire © 0,75<sup>2</sup> from K3.1/85
- 4 Additional relay K3.1

Connecting additional relay

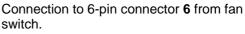


Connection to 2-pin connector 1 from fan

Produce connections as shown in wiring diagram (crimp and shrink).

- 2 Brown (br) wire to connector
- 3 Brown (br) wire from fuse EF3
- 4 Red (rt) wire ① 2.52 from K3.1/86
- 5 Red (rt) wire to K3/87a
- 6 Black (sw) wire from K3/30

Con-



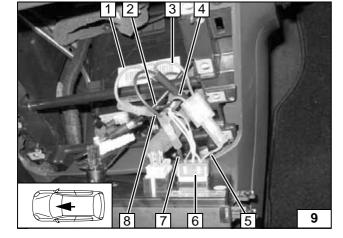
Produce connections as shown in wiring diagram (crimp and shrink).

- 1 Brown (br) wire 4 42 from K3.1/30
- 2 Black (sw) wire to original vehicle ground point
- 3 Red (rt) wire 3, 2.52 from K3.1/87a
- 4 Blue/green (bl/gn) wire to resistor group
- 5 Blue/green (bl/gn) wire from connector A1
- 7 Black (sw) wire from connector A6
- 8 Black (sw) wire ②, 42 from K3.1/87

necting fan motor

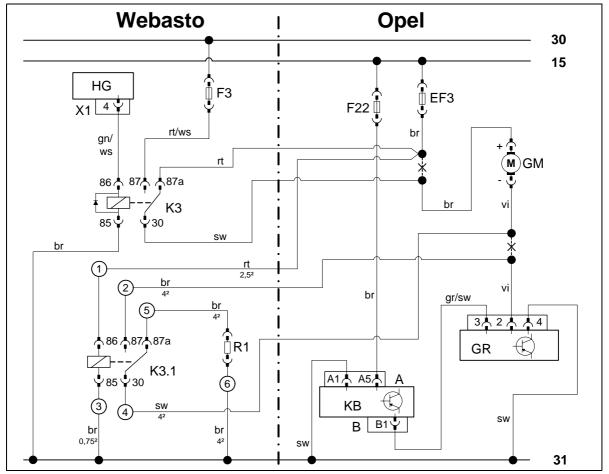


Connection to fan switch





# Automatic air-conditioning fan controller



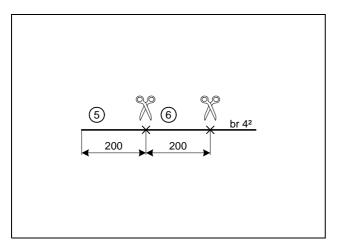
Webasto components		Comp	Components of Opel Antara		Colors and symbols	
HG	Heater unit TT-C/E	GM	Fan motor	rt	red	
X1	6-pin heater unit connector	GR	Fan controller	ws	white	
F3	Fuse, 25 A	KB	Air-conditioning control element	sw	black	
K3	Fan relay	F22	Fuse 10A	br	brown	
K3.1	Additional relay	EF3	Fuse 40A	gn	green	
R1	0.9 ohm resistor	А	Connector for A/C control panel	bl	blue	
		В	Connector for A/C control panel	GR	gray	
				vi	violet	
				Х	Cutting point	
				Wirin	g colors may vary.	

i

Automatic airconditioning circuit diagram

Legend





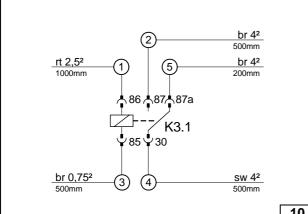
#### **Preparing electrical system**

Produce connections as shown in wiring diagram.

Crimp cable lug onto brown (br) wire ③ 0.75² provided and onto brown (br) wire section ⑥ 4²



Cutting brown (br) wire to length

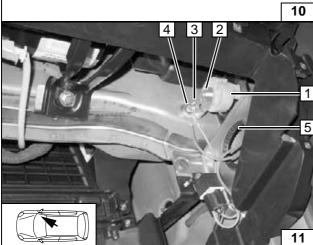


Produce connections as shown in wiring diagram.

Pull wires 1, 2 and 4 in protective sleeving provided.

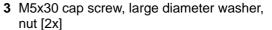


Preparing additional relay K3.1



#### Fan controller

Resistor 1 becomes hot! Ensure sufficient spacing (at least 20 mm) to neighboring components.

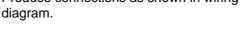


- 2 Angle bracket
- 1 M6x20 bolt, spring lockwasher, brown (br) ground wires ③ 0.75² and ⑥ br 4² on existing threaded hole
- 5 Mount edge protection



Installing resistor and additional relay

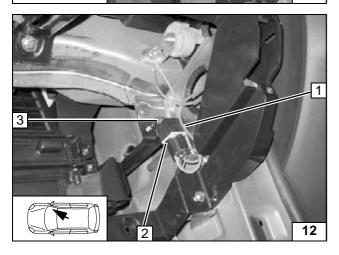
Produce connections as shown in wiring



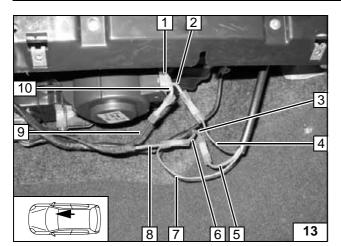
- 1 Brown (br) wire 5 42 from K3/87a to resistor
- 2 Additional relay K3.1
- 3 M5x16 bolt, flanged nut on existing hole



Connecting resistor and additional relay





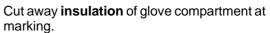


Connection to 2-pin connector 1 from fan

Produce connections as shown in wiring diagram (crimp and shrink).

- Violet (vi) wire from connector
  Violet (vi) wire to fan controller
  Black (sw) wire ⊕, 4² from K3.1/30
  Brown (br) wire ② 4² from K3.1/87
  Brown (br) wire from fuse EF3
  Pod (tt) wire ① 2.53 from K3.4/86

- **7** Red (rt) wire ① 2.52 from K3.1/86
- 8 Red (rt) wire to K3/87a
- 9 Black (sw) wire from K3/30
- 10Brown (br) wire to connector

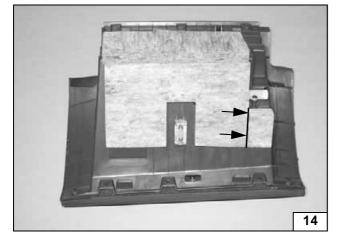




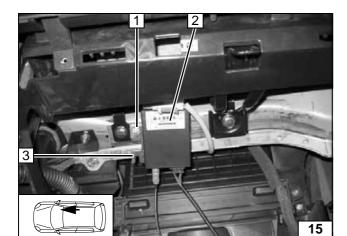
Connecting fan motor



Cutting away insulation





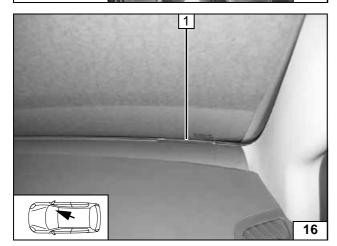


## **Remote option (Telestart)**

- 1 Existing hole, M5x16 bolt, washer, flanged nut
- 2 Receiver
- 3 Telestart bracket

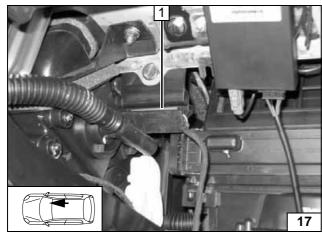


Installing receiver



1 Antenna

Installing antenna



#### Temperature sensor for HTM100 only

1 Fasten temperature sensor with suitable means (here double-sided adhesive tape)

Installing temperature sensor

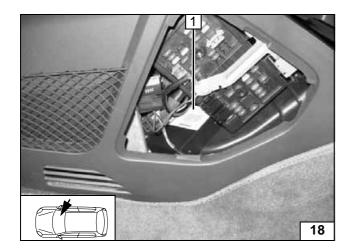




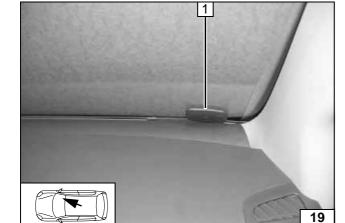
# Remote option (Thermo Call)

1 Fasten receiver with suitable means (here double-sided adhesive tape)

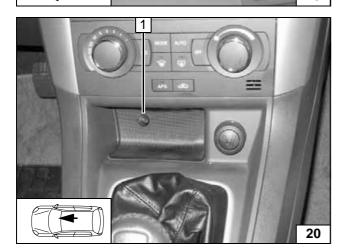




1 Antenna



Installing antenna



I Pushbutton

Installing push button



#### **Coolant connection diagram**

#### **WARNING!**

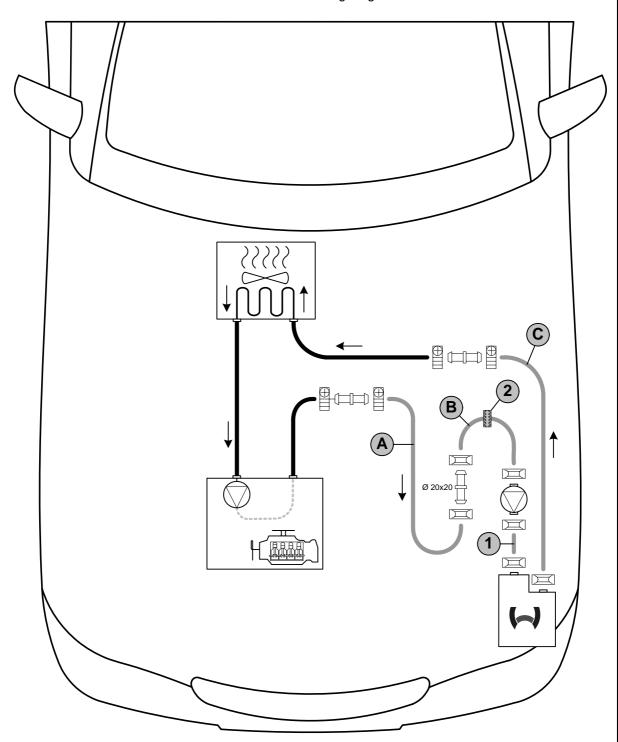
Tighten all hose clamps to 2.0 + 0.5 Nm.

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 hose clamps and spring band clamps so that no other hose can be damaged.

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

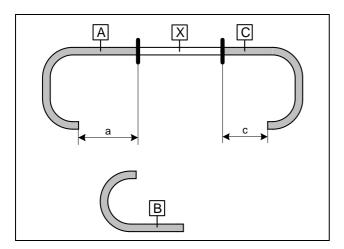


All spring clips without a specific designation = 27 mm dia. 2 = Black (sw) rubber isolator = 20. All hose clamps without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes without a specific designation = 20-27 mm dia All connecting pipes = 20-27 mm dia

Coolant routing diagram





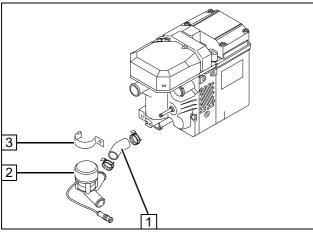


#### Preparing heater unit

a = 620 mmc = 540 mm

Discard section X

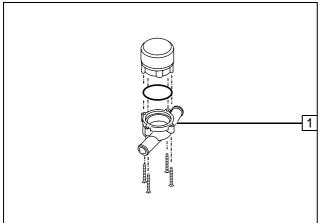




Remove water pump 2 from heater unit. Hose section 1 and spring clip will be reused. Discard retaining clip 3 and bolt.



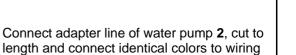
Removing water pump



Replace 193° lid 1.



Replacing pump lid

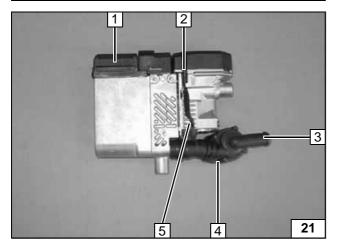


harness of water pump 5 using connectors (crimp and shrink).

- 1 Heater unit
- 3 193° water pump
- 4 Water pump



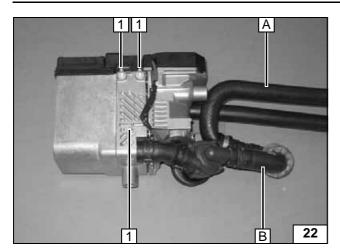
bling water pump



1311935A\_EN 15

Preassem-



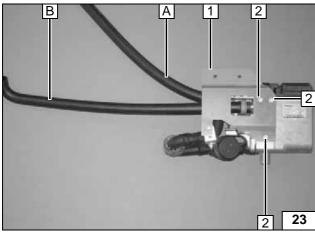


Tighten EJOT screws to 10 Nm!

1 Ejot stud [3x]

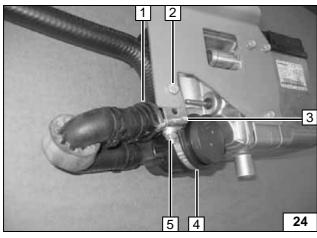


Preassembling heater unit



- 1 Bracket part 1
- 2 Ejot screw [3x]

Preassembling heater unit



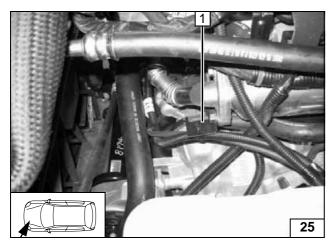
- 1 Rubber-coated pipe clamp, 29 mm dia.2 M6x20 bolt, flanged nut M6
- 3 Angle bracket
- 4 Rubber-coated pipe clamp, 48 mm dia.5 M6x12 bolt, flanged nut M6

bling

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Preassemheater unit

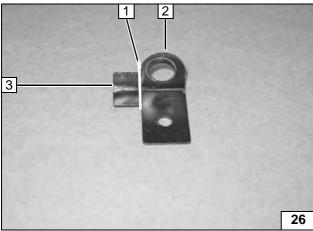




## **Preparing installation location**

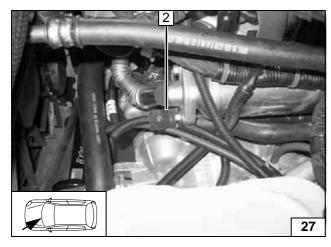
1 Remove bracket for wiring harness

Removing bracket for wiring harness



- 1 Cutting point2 Bracket for wiring harness
- 3 Discard section

Machining bracket for wiring harness



1 Mount bracket for wiring harness as shown

Installing bracket for wiring harness



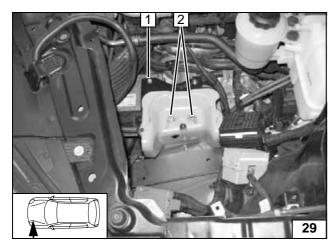
- 1 Cross member for battery carrier2 Drill out thread to 10 mm dia. [2x]

**Drilling out** holes

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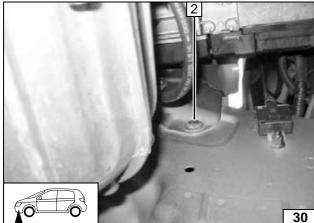




#### Installing heater unit

- 1 Preassembled heater unit
- 2 Loosely mount M8x30 bolt

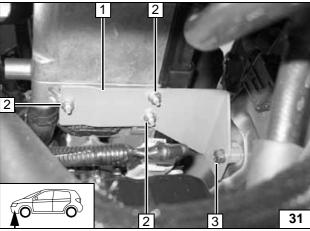
Installing heater unit



Remove original vehicle screw 1 and discard.



Removing original vehicle screw



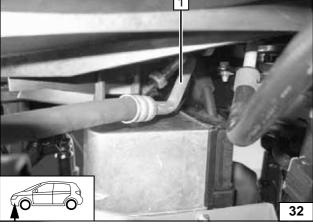
- 1 Bracket part 2
- 2 M6 flanged nut [3x]3 M8x40 bolt, spring lockwasher, large diameter washer

Installing bracket part 2

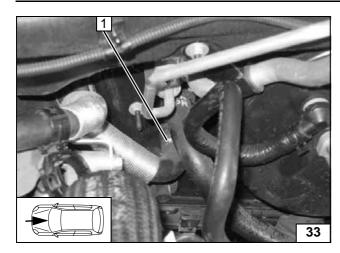




**Aligning** heater unit





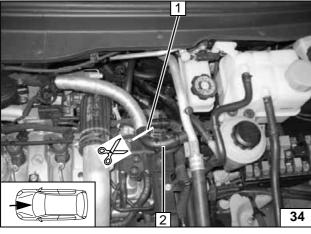


#### **Coolant connection**

Pull off hose between engine outlet and heat exchanger inlet 1 on heat exchanger.



Cutting point

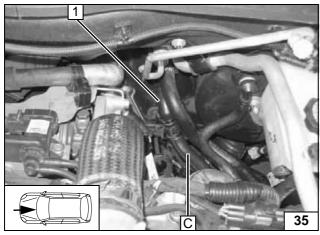


Push back heat guard.

- 1 Cutting point
- 2 Hose section of heat exchanger inlet

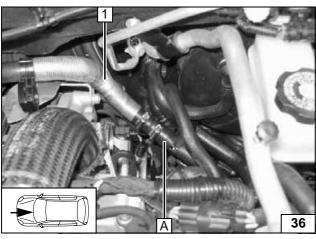


Cutting point



1 Hose on heat exchanger inlet

Connection on heat exchanger inlet



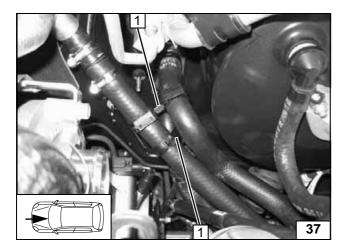
Before connecting, fill the coolant hoses with coolant.

1 Hose of engine outlet



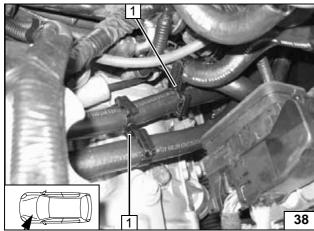
Connection to engine outlet





1 Spacer bracket [2x]

Installing spacer bracket



1 Spacer bracket [2x]

Installing spacer bracket



#### **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.

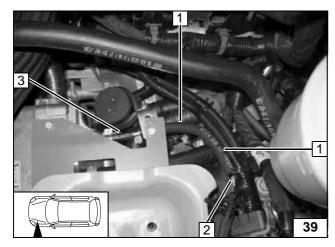
Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties.

Mount the fuel line and wiring harness with rub protection on sharp edges.

# !

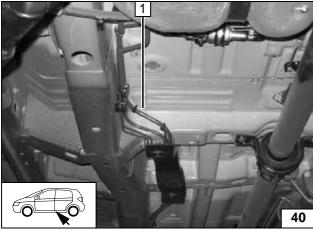
#### **WARNING!**

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



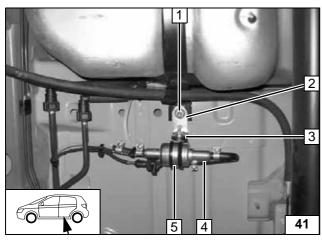
- 1 Included hose section as scuff guard [2x]
- 2 Fuel line
- **3** Hose section, 10 mm dia. hose clamp [2x]

Connection on heater unit



1 Mecanyl fuel pipe and metering pump cable harness

Installing lines



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

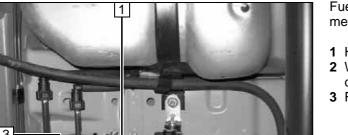
Installation location in front of vehicle fuel

Installation location in front of vehicle fuel tank!

- 1 Original vehicle nut
- 2 Angle bracket
- 3 Silent block, flanged nut [2x]
- 4 Metering pump
- 5 Rubber-coated pipe clamp

Installation location of metering pump





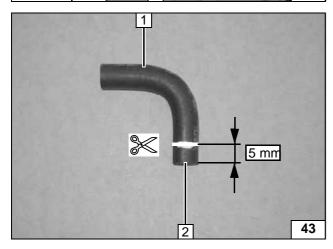
Fuel line from heater unit on pressure side of metering pump [side with connector].



- 1 Hose section, 10 mm dia. hose clamps [2x]
- 2 Wiring harness of metering pump, connector mounted
- 3 Fuel line

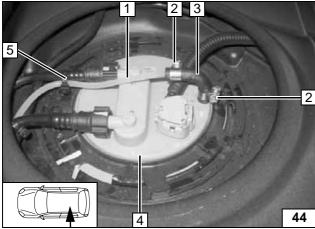
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Installing metering pump



- 1 Separate 90° molded hose at marking
- 2 Discard section

**Preparing** fuel standpipe



Cut closure off existing removal connection piece and push on short end of 90° molded hose 3.



- 1 Fuel line
- 2 10 mm dia. hose clamp [2x]
- 4 Fuel sender
- 5 Cable tie

Removing fuel

Fuel line 1 from fuel standpipe on intake side of metering pump [side without connector]. Check the position of the components; adjust if necessary. Check that they have free clearance.

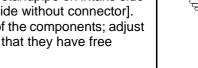


Connecting to metering pump

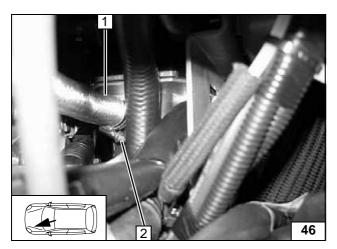
2 180° molded hose, 10 mm dia. hose clamp [2x]

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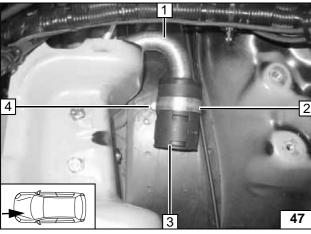




# **Combustion air**

- 1 Combustion air pipe2 Hose clamp

Installing combustion air pipe

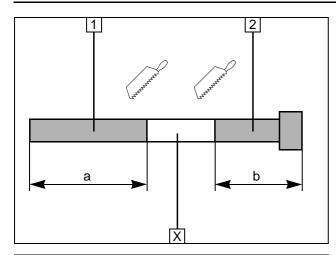


- 1 Combustion air pipe2 48 mm dia. p-clamp; rubber coating removed
- 3 Combustion-air intake muffler
- 4 Existing hole, M6 rivet nut, M6x20 bolt, spring lock washer



Installing muffler



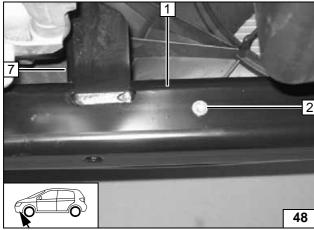


#### **Exhaust system**

- 1 Exhaust pipe a = 420 mm
- **2** Exhaust end section b = 120 mm

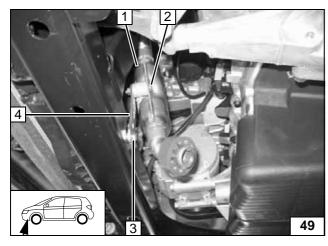
Discard section X

Preparing exhaust pipe



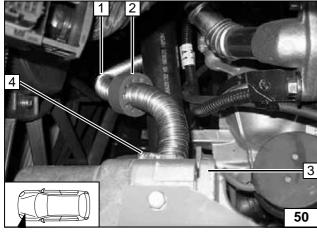
- 1 Radiator cross member
- 2 Drill out existing hole to 9.1 mm dia., mount M6 rivet nut

Installing muffler



- 1 Exhaust muffler
- 2 M6x35 bolt, 20 mm spacer, M6 flanged nut
- 3 M6x20 bolt, spring lockwasher
- 4 Perforated bracket

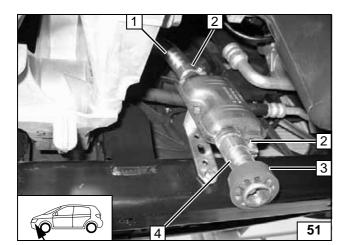
Installing muffler



- 1 Exhaust pipe
- 2 Position red (rt) rubber isolator
- 3 Heater unit
- 4 Hose clamp

Installing exhaust pipe



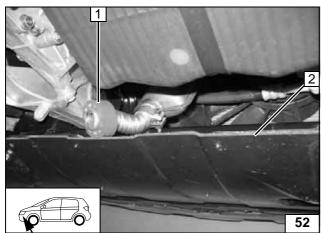


Ensure sufficient distance to neighboring components.

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



Installing exhaust pipe and end section



- 1 Red (rt) rubber isolator
- 2 Bumper cover

Positioning rubber isolator



#### **Final Work**

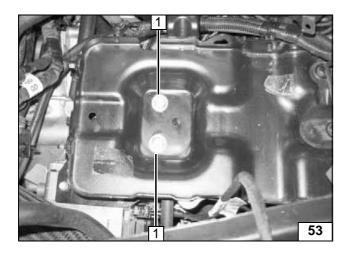
#### WARNING!

Reassemble the disassembled components in reverse order.

Check all hoses, hose, spring and Caillau clamps, as well as all electrical connections for firm seating. Secure all loose cables using cable ties.

Only use manufacturer-approved coolant.

Spray the heater unit components with anti-corrosion wax (Tectyl 100K, Order No. 111329).



1 M8x30 bolt, spring lockwasher, flanged nut [2x each]

Installing battery carrier

- Connect the battery
- Bleed and fill the coolant circuit according to the vehicle manufacturer's specifications.
- Set the digital timer.
- Set the manual air conditioning or automatic air conditioning according to the "operating instructions for the end customer".
- Check the proper operation of the additional heater, see the operating instructions/installation instructions.
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.





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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.

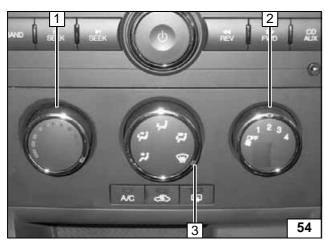
Heating time = driving time

#### Example:

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

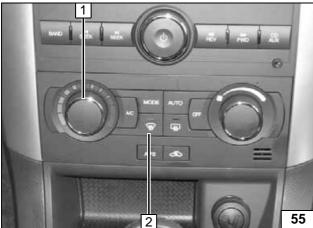
If the summer/winter switch option has been installed, this must be switched in accordance with the time of year. The heater unit will then only switch on the vehicle fan to ventilate the vehicle interior in the position Winter heat or in the position Summer.

Before parking the vehicle, make the following settings:



- 1 Set temperature to "max."
- 2 Set fan to level "1", or possibly "2"
- 3 Direct air outlet toward windshield

Manual air conditioning



- 1 Set temperature to "max."
- 2 Air outlet to windshield

Automatic air-conditioning