Water Heater



Thermo Top E Parking Heater
Thermo Top C Parking Heater

e1 00 0003 e1 00 0002

#### Installation documentation

#### Peugeot 207 / 207 SW / 207 CC

Petrol and Diesel from Model Year 2006 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.

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#### Validity

Manufacturer	Model	Туре	EG-BE No. / ABE
Peugeot	W	207	e2 * 2001 / 116 * 0340

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
KFU	Petrol	65	1360
NFU	Petrol	80	1587
5FW	Petrol	88	1598
5FX	Petrol	110	1598
5FY	Petrol	128	1598
9HV	Diesel	66	1560
9HX	Diesel	66	1560
9HY	Diesel	80	1560
9 Hz	Diesel	80	1560

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	Designation	Order No.:
1	Retail accessories of Thermo Top C / E	See price list
1	Heater control	See price list

#### Also required with manual air conditioning:

Quantity	Designation	Order No.:
1	Installation kit for Peugeot 207 / 207 SW / 207 CC Petrol and Diesel	1311147C
	with manual air conditioning	

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

Quantity	Designation	Order No.:
1	Installation kit for Peugeot 207 / 207 SW / 207 CC Petrol and Diesel	1311169D
	Automatic air-conditioning	

#### 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

This installation documentation applies to the vehicles Peugeot 207 / 207 SW / 207 CC with Petrol and Diesel engine - for validity, see page 2 - from model year 2006 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 this "installation documentation", the "operating instructions" and the "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 must be provided with rub protection (cut-open fuel hose).

Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329). While installing an IPCU, the corresponding settings must be checked or adjusted before the installation.

#### **Special Tools**

- Torque wrench for 2.0 10 Nm
- Hose clamping pliers
- Metric thread-setter kit

#### **Explanatory Notes on Document**

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

#### Mechanical system

**Electrical system** 

**Coolant circuit** 

Fuel

Exhaust gas

#### **Combustion air**











Special features are highlighted using the following symbols:



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Specific risk of injury or fatal accidents.

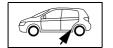
Specific risk of damage to components.

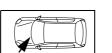
Specific risk of fire or explosion.

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



Reference to a special technical feature.





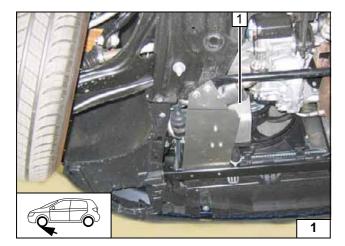
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

#### **Preliminary Work**

#### WARNING!

- Disconnect the battery.
- 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 battery completely.
- Remove the air filter together with the intake hose.
- Open the fuel tank cap, ventilate the tank.
- Close the fuel tank cap again.
- Remove the underride protection on the left.
- Remove the rear bench seat and backrest.
- Open the tank-fitting service lid
- Remove the fuel-tank sending unit in accordance with manufacturer's instructions.
- Remove the trim of the centre tunnel in the left-hand footwell
- Remove the lower instrument panel trim on the left.
- Remove the A/C control panel.

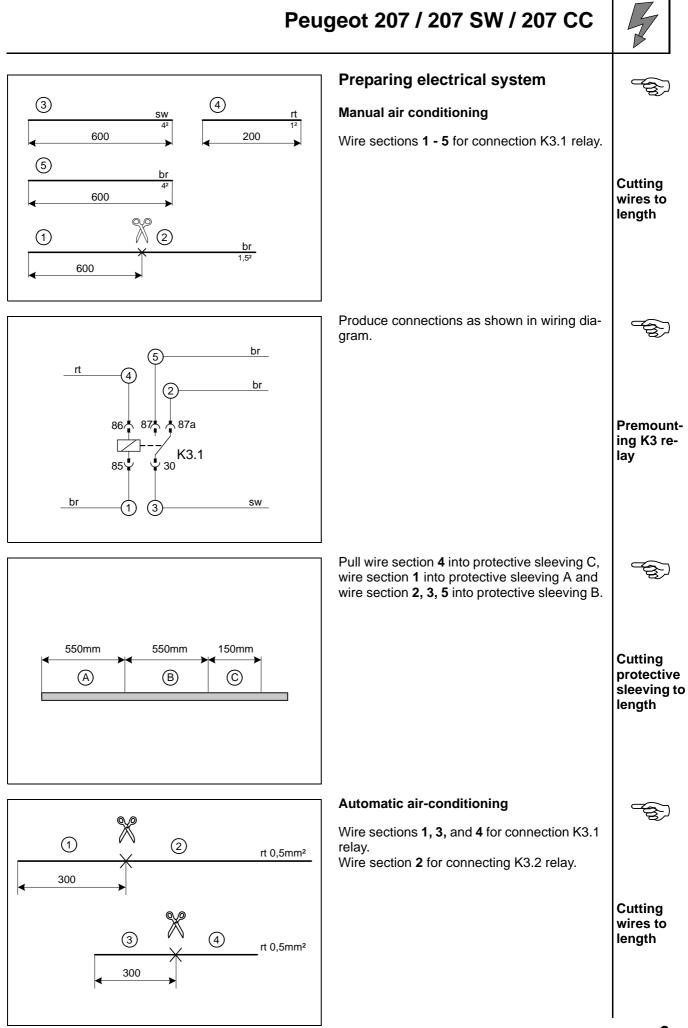
Please remove page 35 "Operating instructions for the end customer" and add this to the vehicle operating instructions.

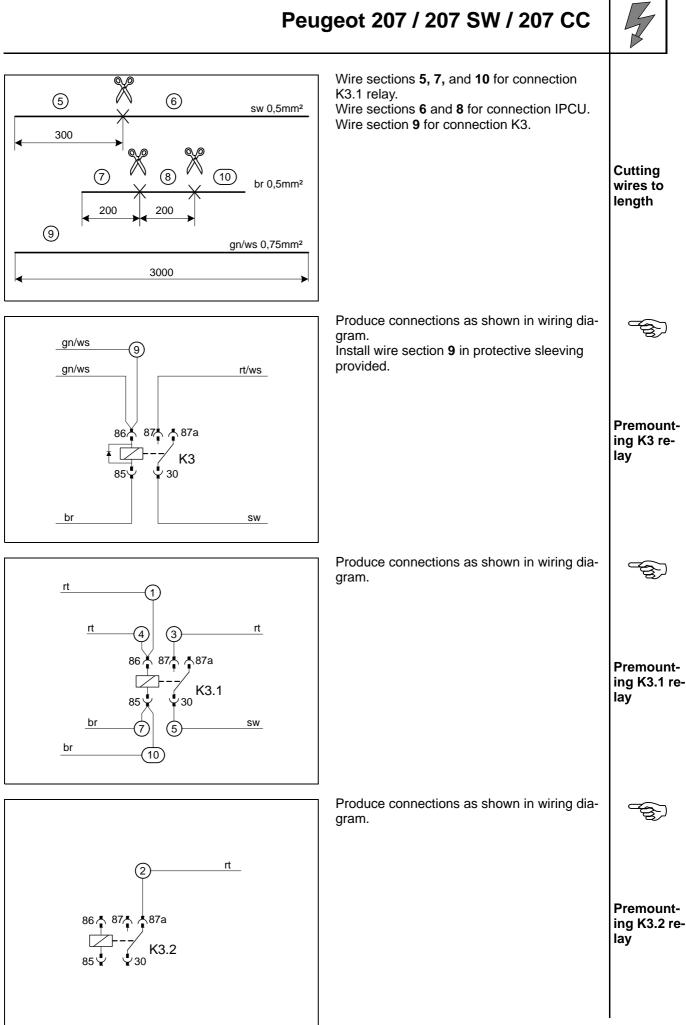


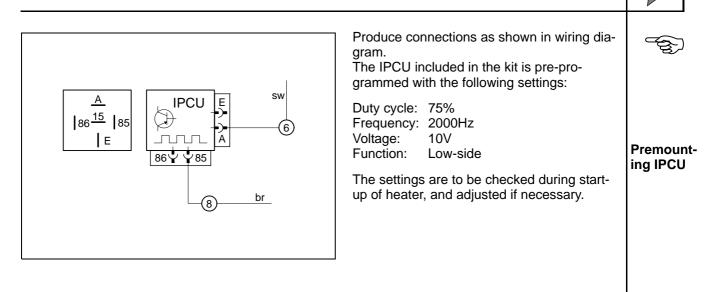
#### Heater installation location

1 Heater

Installation location







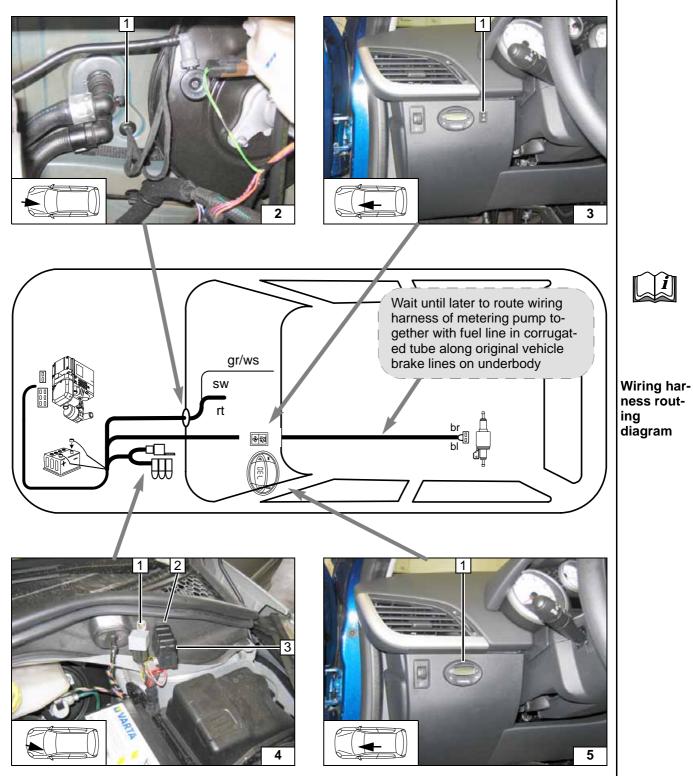
#### **Electrical system**

#### Wiring harness pass through

1 18 mm dia. hole, included protective rubber plug

#### Summer/winter switch option

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



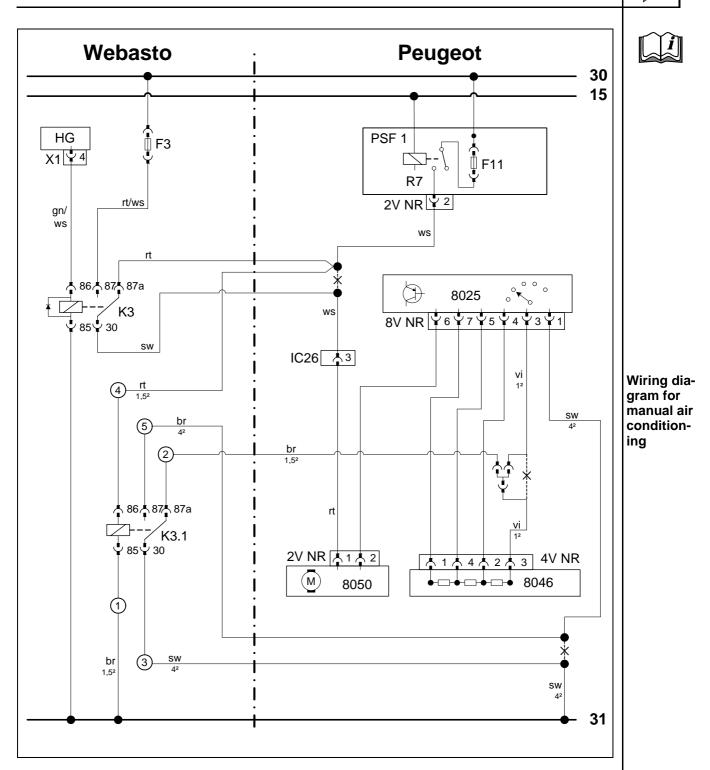
#### Fuse holder, K3 relay

- **1** K3 relay, 5.5x13 bolt, hole 4.5 mm dia.
- 2 Retaining plate of fuse holder, 5.5x13 bolt, 4.5 mm dia. hole
- 3 Fuse holder

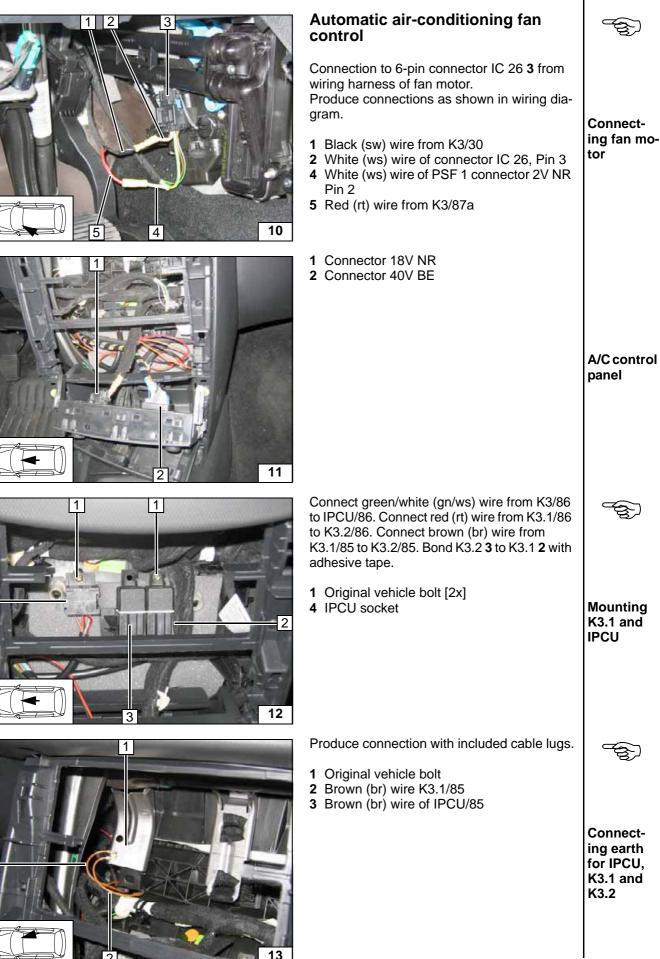
**Digital timer** 

1 Digital timer

Pe	Peugeot 207 / 207 SW / 207 CC		
	Fan control for manual air condi- tioning Fasten additional relay K3.1 1 with installa- tion strap.	Mounting K3.1	
	<ul> <li>Connection to 6-pin connector IC 26 2 from wiring harness of fan motor. Produce connections as shown in wiring diagram.</li> <li>1 White (ws) wire of connector IC 26</li> <li>3 White (ws) wire of PSF 1 connector 2V NR Pin 2</li> <li>4 Red (rt) wire to K3.1/86</li> <li>5 Red (rt) wire from K3/87a</li> <li>6 Black (sw) wire from K3/30</li> </ul>	Connect- ing fan mo- tor	
	<ul> <li>Make connection with the help of attached 6 mm dia. cable lug.</li> <li>1 Original vehicle earth point</li> <li>2 Brown (br) wire K3.1/85</li> </ul>	Earth con- nection of K3.1	
	<ul> <li>Connection on connector 8V NR 3 from fan switch/A/C control panel. Produce connections as shown in wiring diagram.</li> <li>1 Violet (vi) wire of connector 4V NR, Pin 3</li> <li>2 Violet (vi) wire of connector 8V NR, Pin 3</li> <li>4 Black (sw) wire of connector 8V NR, Pin 1</li> <li>5 Brown (br) wire of K3.1/87a</li> <li>6 Brown (br) wire K3.1/87</li> <li>7 Black (sw) wire of earth point</li> </ul>	Connect- ing A/C control panel	

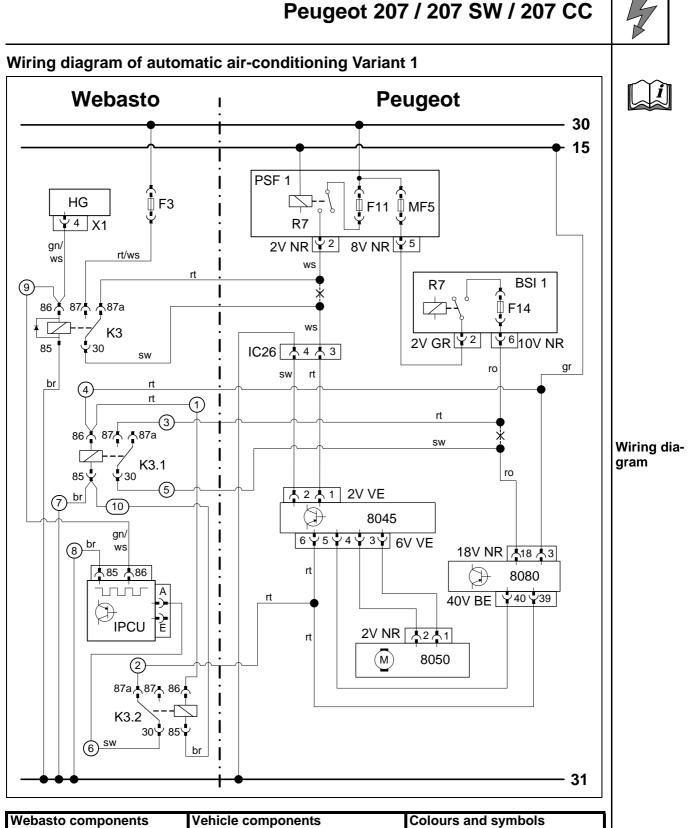


Weba	sto components	Vehicle	e components	Colo	urs and symbols		
HG	TT-C/E Heater	8050	Fan motor	rt	red		
X1	6-pin connector	8025	Fan switch/A/C control	WS	white		
F3	25 A fuse		panel	SW	black		
K3	Fan relay	8046	Resistor group	br	brown		
K3.1	Additional relay	PSF1	Main power supply	gn	green		aand
		IC26	6-pin connector	vi	violet	Le	gend
		2V NR	2-pin connector				
		4V NR	4-pin connector				
		8V NR	8-pin connector				
				Х	Cutting point		
				Wirin	g colours may vary.		



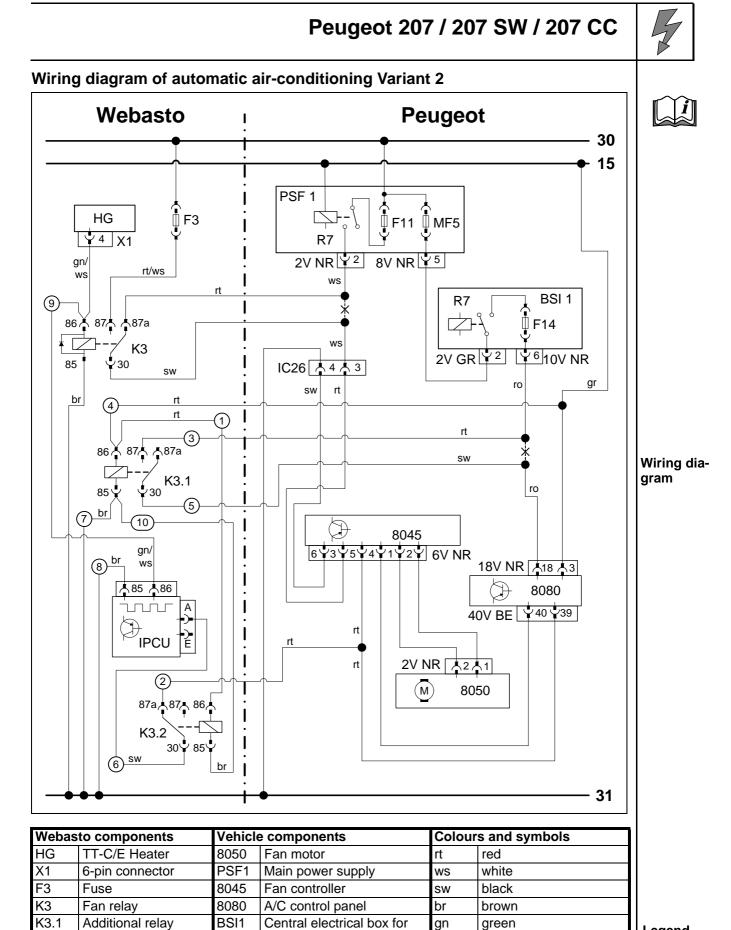
	Peugeot 207 / 207 SW / 207 CC	7
	Connection on 18-pin connector 18V NR 4 from A/C control panel. Produce connection as shown in wiring diagram. 1 Gray (gr) wire of terminal 15 2 Red (rt) wire to K3.1/86 3 Gray (gr) wire to connector 18V NR	Connect- ing termi- nal 15 for K3.1 and IPCU
	<ul> <li>14</li> <li>Connection on 18-pin connector 18V NR 5 from A/C control panel. Produce connections as shown in wiring diagram.</li> <li>Pink (ro) wire of BSI1 connector 10V NR, Pin 6</li> <li>Red (rt) wire to K3.1/87</li> <li>Black (sw) wire K3.1/30</li> <li>Pink (ro) wire of connector 18V NR, Pin 18</li> </ul>	Connect- ing relay K3.1
	<ul> <li>Variant 1</li> <li>Connection on green (gn) 6-pin connector 6V VE 2 from fan controller. Produce connections as shown in wiring dia- gram.</li> <li>8080 mm long red (rt) wire of connector 40V BE, Pin 39</li> <li>Red (rt) wire of connector 6V VE, Pin 6</li> <li>Red (rt) wire of K3.2/87a</li> </ul>	Connect- ing fan controller
	Variant 2 Connection on black (sw) 6-pin connector 6V NR 4 from fan controller. Produce connec- tions as shown in wiring diagram. 1 8080 mm long red (rt) wire of connector 40V BE, Pin 39 2 Red (rt) wire of K3.2/87a 3 Red (rt) wire of connector 6V NR, Pin 5	Connect- ing fan controller
and the second + state - the second		4.0

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Webas	sto components	Vehicl	e components	Colo	urs and symbols	
HG	TT-C/E Heater	8050	Fan motor	rt	red	
X1	6-pin connector	PSF1	Main power supply	WS	white	
F3	Fuse	8045	Fan controller	SW	black	
K3	Fan relay	8080	A/C control panel	br	brown	
K3.1	Additional relay	BSI1	Central electrical box for	gn	green	Le
			passenger compartment			
K3.2	Additional relay	IC 26	6-pin connector	ro	pink	
IPCU	Pulse width modula-			gr	gray	
	tor					
				Х	Cutting point	
				Wirin	g colours may vary.	

Legend



passenger compartment

pink

gray

Cutting point Wiring colours may vary.

ro

gr

Х

6-pin connector

IC 26

K3.2

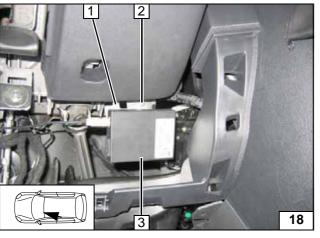
IPCU

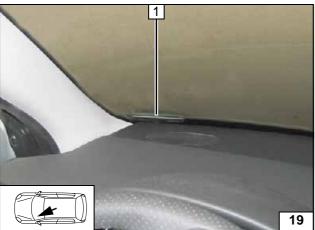
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Additional relay

Pulse width modula-

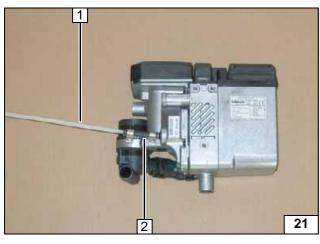
Legend
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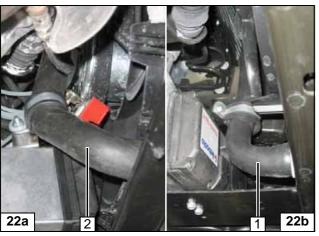


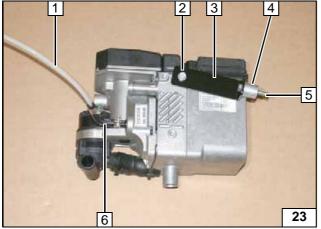


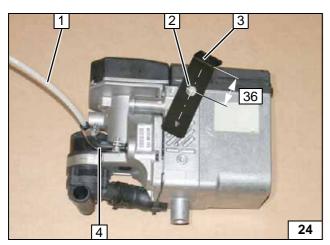
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#### **Remote option (Telestart) 1** Bracket, drill out hole to 7 mm dia. 2 Original vehicle bolt 3 Receiver Mounting receiver 1 Antenna Mounting antenna Temperature sensor for HTM100 only 1 Temperature sensor 2 Installation strap Mounting temperature sensor









#### **Preparing heater**

#### KFU/NFU

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

Mounting fuel line

#### 5FW/X/Y

The premounting of the strut differs according to the vehicle-specific routing of the coolant hose. One differentiates between variants **A** and **B**, depending on the equipment.

- 1 Coolant hose variant **B**
- 2 Coolant hose variant A

#### Preparing heater

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#### Variant A Ejot screw bolt, tightening torque 10 Nm. 1 Fuel line

- 2 Ejot screw
- 3 Strut
- 4 20 mm spacer sleeve
- 5 M6x40 bolt, pin lock
- 6 90° moulded hose, hose clamp 10 mm dia. [2x]

#### Variant B

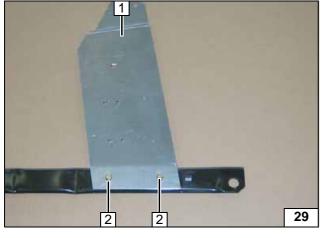
7 mm dia. hole at position **2** in strut **3**. Ejot screw bolt, tightening torque 10 Nm.

- 1 Fuel line
- 2 Ejot screw
- **4** 90° moulded hose, hose clamp 10 mm dia. [2x]

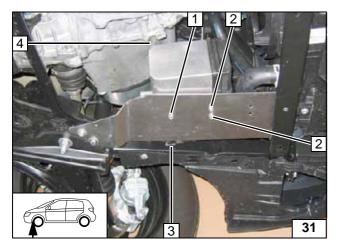
#### Preparing heater

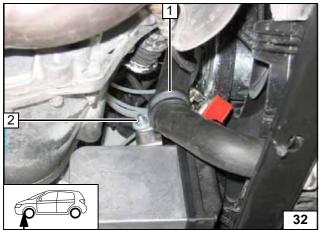
Preparing heater

#### Peugeot 207 / 207 SW / 207 CC **Preparing installation location** 1 Remove original vehicle strut Removing strut 25 Copy hole pattern as shown and drill 9.1 mm (AS) 1 235mm dia. holes [2x] in strut at pos. 1. 90mm Copying hole pat-tern 25mm 26 1 1 M6 rivet nut [2x] 1 1 Installing rivet nuts 27 Expand hole at position **1** to oblong hole. 2 1 1 3 2 Bracket 5 Preparing bracket









# Loosely mount bracket M6x16 bolt [2x], spring lockwasher [2x] Premounting bracket Tighten M6x16 bolt with spring lockwasher [2x] Original vehicle bolt [2x] Mounting bracket

#### Installing heater

#### Petrol

Tighten EJOT screws to 10 Nm. Insert two washers between heater and bracket at position **2**. Align heater. Ensure sufficiant distance from neighbouring components, especially between heat exchanger and transmission at position **4** as well as between circulating pump and carrier in position **3**. Correct if necessary.

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

#### 5FW/X/Y - Variant A

Align heater. Ensure sufficient distance from neighbouring components, especially from cooler hose. Correct if necessary. Tighten Ejot screws.

52 mm dia. rubber-coated p-clamp
 Flanged nut on prepared bolt

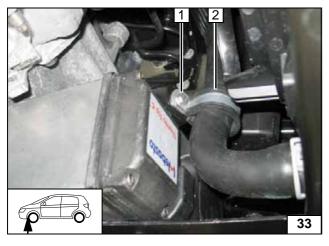


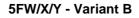
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Mounting heater



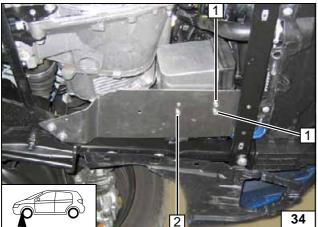
Mounting heater





Align heater. Ensure sufficient distance from neighbouring components, especially from cooler hose. Correct if necessary. Tighten Ejot screws.

- 1 M6x20 bolt, flanged nut on prepared strut
- 2 52 mm dia. rubber-coated p-clamp



#### Diesel

Tighten EJOT screws to 10 Nm. Insert two washers between heater and bracket at position 2.

- 1 Ejot screw [2x]2 Ejot screw

Mounting

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TS

Mounting

heater

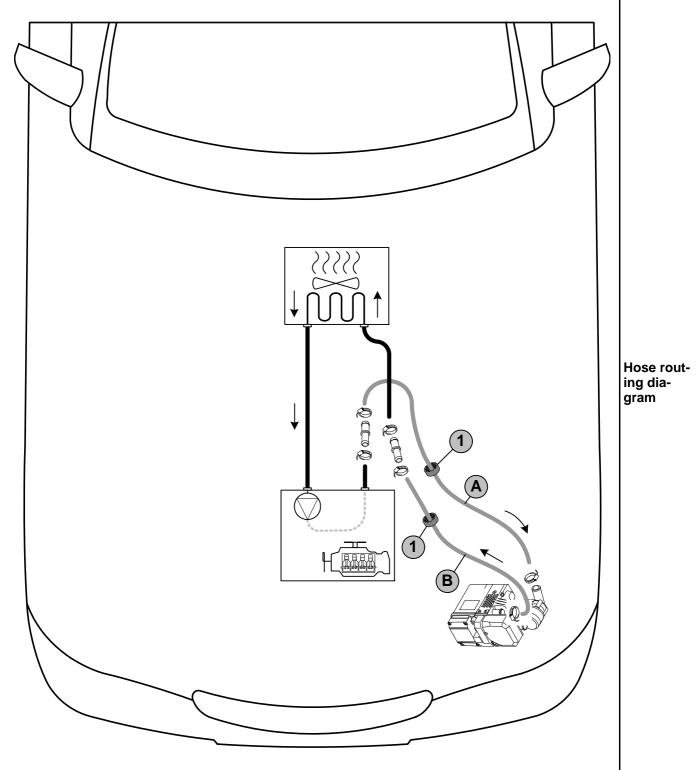
#### heater



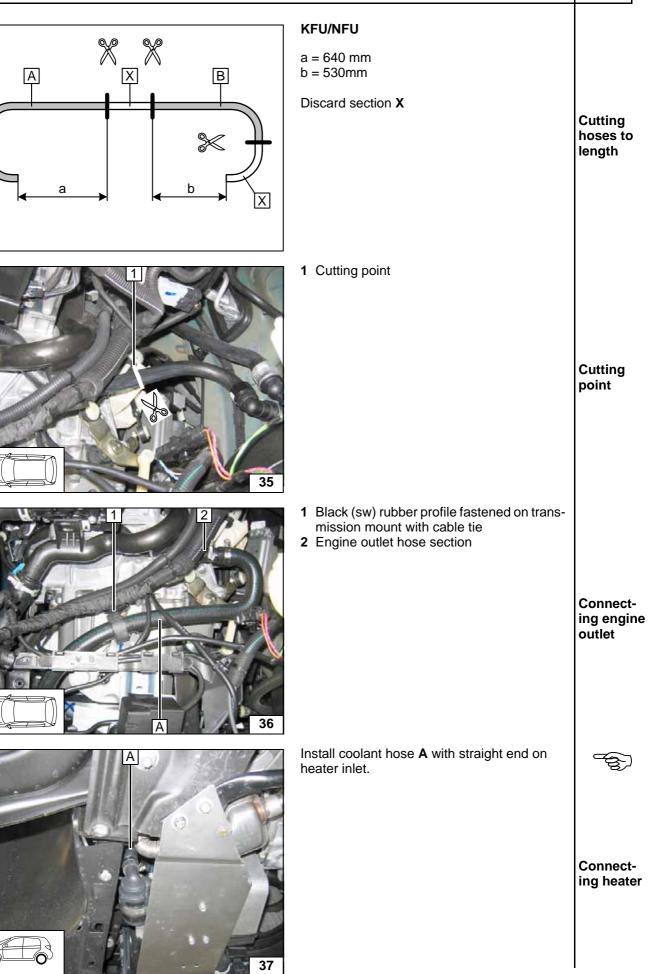
#### Petrol coolant circuit

#### WARNING!

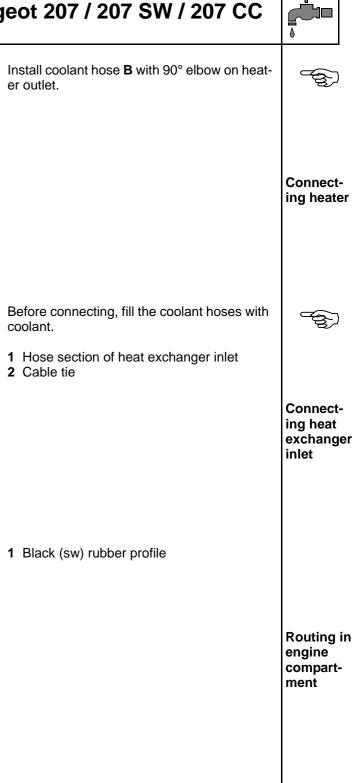
Any coolant running off should be collected in an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. The heater must be filled with coolant when installing the hoses. The connection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

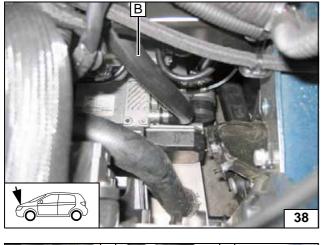


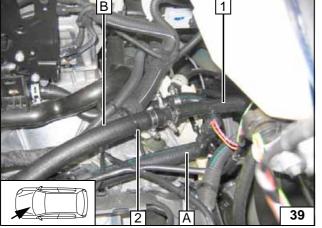
All hose clamps = 20-27 mm dia. **1** = Black (sw) rubber isolator [2x]. Connecting pipe KFU/NFU = dia. 15x20. Connecting pipe 5FW/X/Y = dia. 17x20.

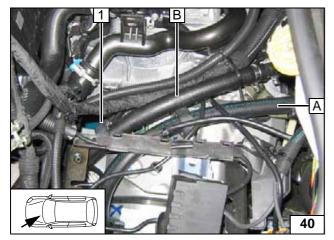


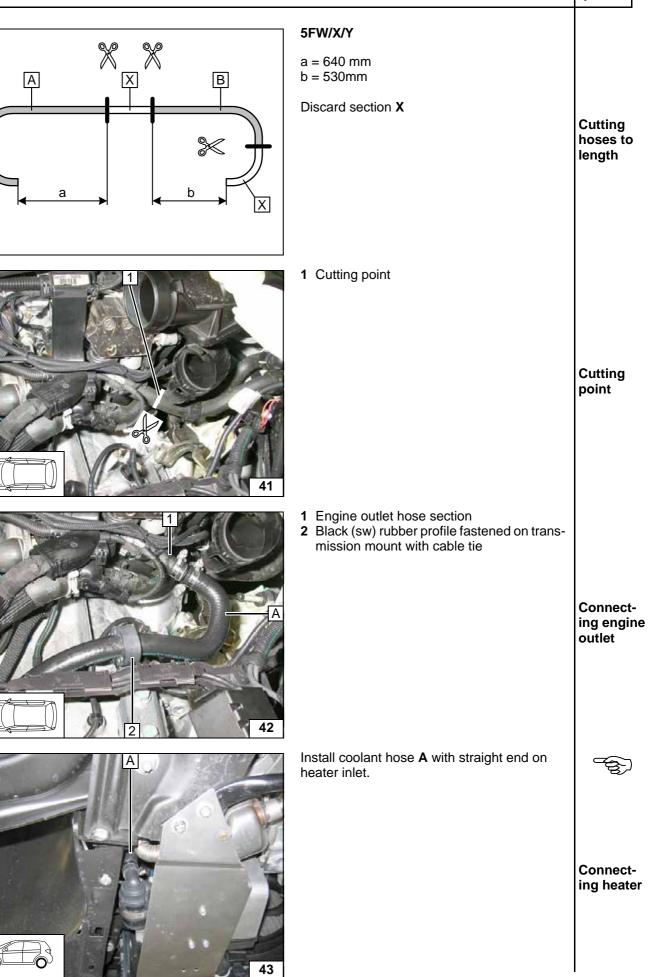
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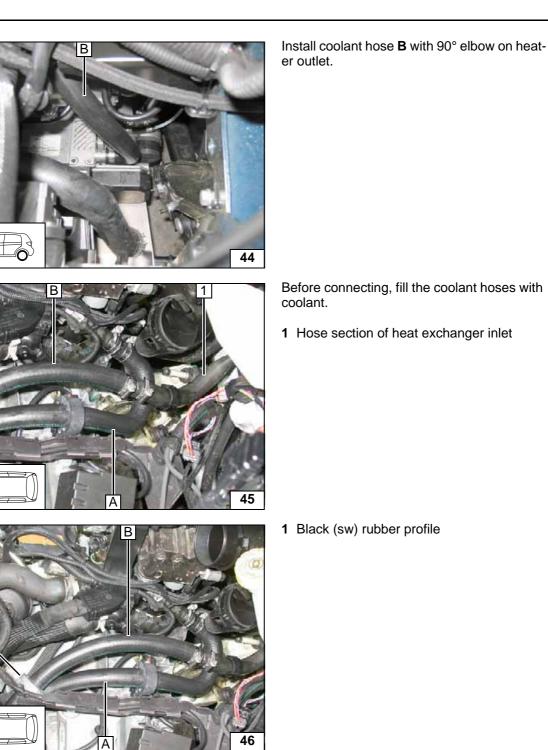














Connecting heater

Connecting heat exchanger inlet

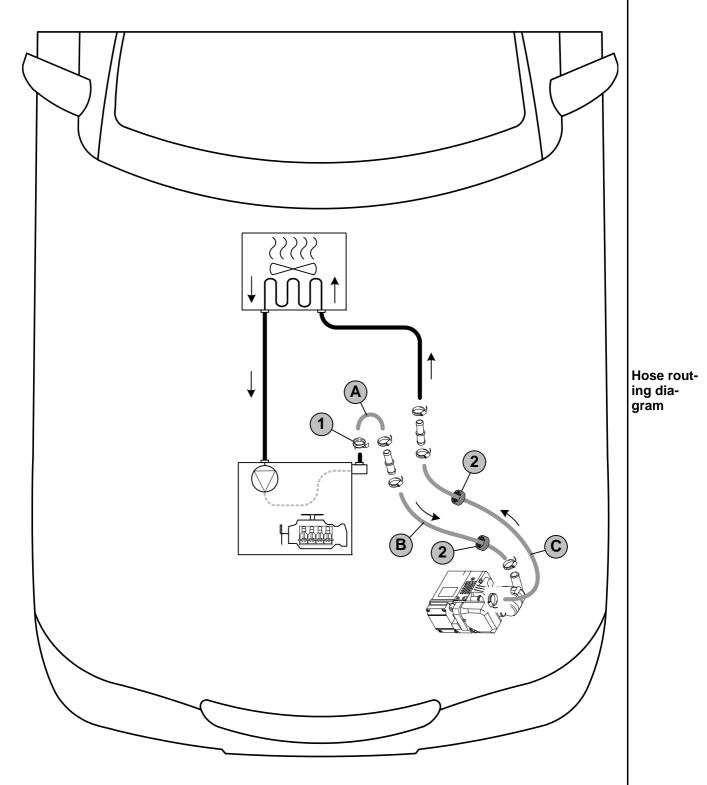
Routing in engine compartment



#### **Diesel coolant circuit**

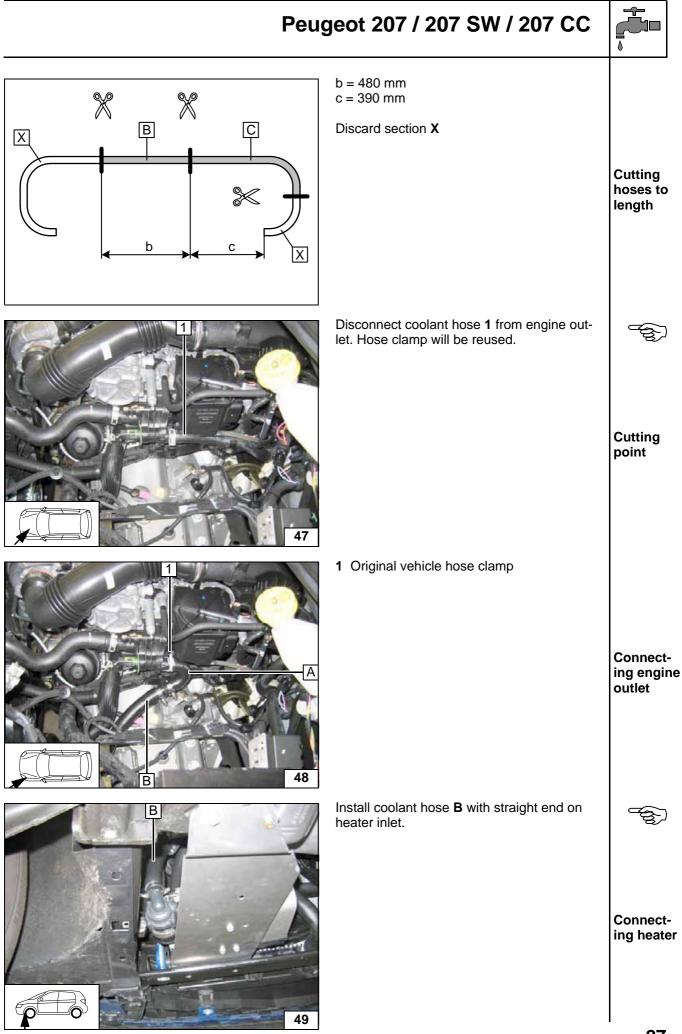
#### WARNING!

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

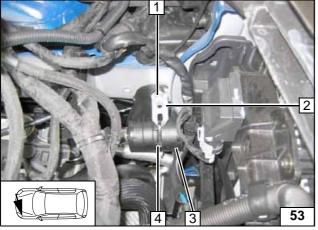


All hose clamps = 20-27 mm dia. **1** = Original vehicle clamp All connecting pipes = 18x20 dia.. **2** = Black (sw) rubber isolator [2x].

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#### Peugeot 207 / 207 SW / 207 CC Install coolant hose C with 90° elbow on heat-Р er outlet. 1 Black (sw) rubber profile **Connect**ing heater 50 Before connecting, fill the coolant hoses with Level and the second se coolant. Hose on heat exchanger inlet Black (sw) rubber profile **Connect**ing heat exchanger inlet 51 Routing in engine compart-. ment 52



#### **Combustion air**

- 1 Original vehicle bolt
- 2 Angle bracket3 Intake silencer
- 4 Cable tie

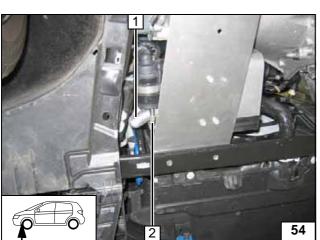
Installing intake silencer

A

- Intake pipe
   27 mm dia. hose clamp

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Mounting intake pipe



#### Fuel

#### **CAUTION!**

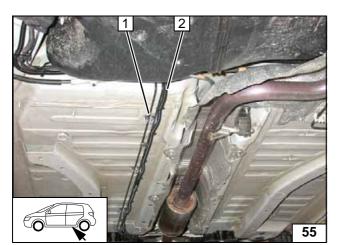
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off in an appropriate container.

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

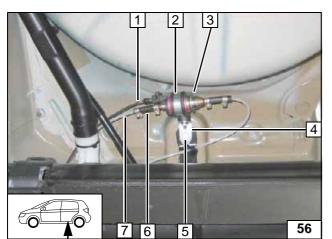
#### WARNING!

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



- 1 Original vehicle brake lines
- 2 Fuel line, wiring harness of metering pump in corrugated tube

Routing lines



Ensure proper installation position of metering pump, see "Installation Instructions". Installation location behind vehicle fuel tank. Fuel line from heater on pressure side of metering pump [side with connector].

- 1 Metering pump wiring harness
- 2 Rubber-coated p-clamp, silent block, flanged nut [2x]
- 3 Metering pump
- 4 Angle bracket
- 5 Original vehicle bolt
- 6 Hose section, 10 mm dia. hose clamps [2x].
- 7 Fuel line from heater

#### Petrol

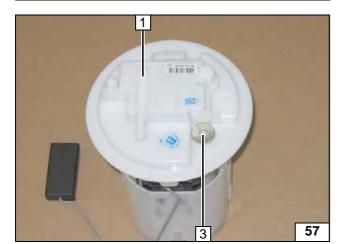
Remove fuel-tank sending unit 1 in accordance with manufacturer's instructions.

- 2 Large diameter washer
- 3 Copy hole pattern, 6 mm dia. hole

Installation location of metering pump



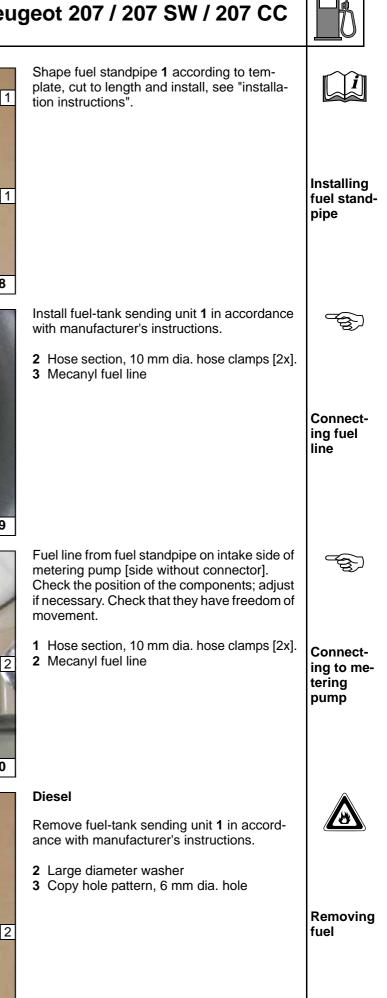
Removing fuel



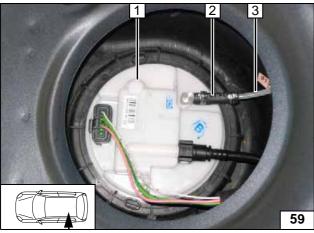


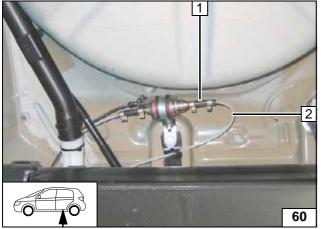


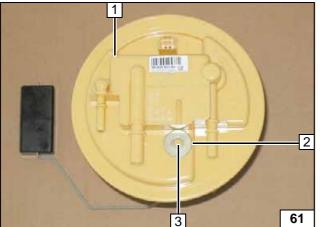












#### Peugeot 207 / 207 SW / 207 CC Shape fuel standpipe 1 according to template, cut to length and install, see "installation instructions". 1 Installing 1 fuel standpipe 62 Install fuel-tank sending unit 1 in accordance 1 2 S with manufacturer's instructions. 2 Hose section, 10 mm dia. hose clamps [2x]. 3 Mecanyl fuel line 3 Connecting fuel line 63 Fuel line from fuel standpipe on intake side of 1 metering pump [side without connector]. Check the position of the components; adjust if necessary. Check that they have freedom of movement. 1 Hose section, 10 mm dia. hose clamps [2x]. **Connect-**2 Mecanyl fuel line 2 ing to metering pump 64

#### Peugeot 207 / 207 SW / 207 CC 2 Exhaust gas 1 2 Petrol 1 Exhaust pipe a =230mm Preparing exhaust 2 Exhaust end section b = 100mm pipe Discard section X b а Х 1 Silencer 1 2 M6x55 bolt, flanged nut 3 40 mm spacer Mounting silencer 3 65 1 Exhaust end section 1 2 2 Exhaust pipe **3** Hose clamp [2x] Mounting exhaust pipe 66 1 Hose clamp 2 Exhaust pipe Preparing exhaust pipe

Diesel

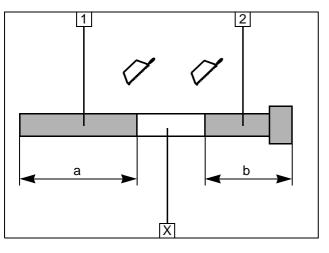
 Exhaust pipe a =170mm
 Exhaust end section b = 100mm

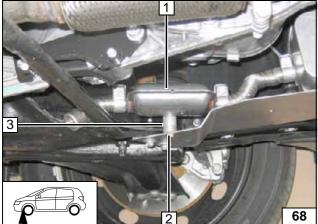
Discard section X

1 Silencer

3 40 mm spacer

2 M6x55 bolt, flanged nut





## 

Ensure sufficient distance from neighbouring components.

- 1 Hose clamp [3x]
- 2 Exhaust pipe
- 3 Exhaust end section

Positioning rubber isolator

To-

Preparing exhaust

Mounting exhaust end section

pipe

#### **Final Work**

#### WARNING!

Mount removed parts in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate all loose wires 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.
- Adjust digital timer, teach Telestart transmitter
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Place the "Switch off parking heater before refuelling" signboard near the filler neck.
- For initial start-up and function check, see installation instructions



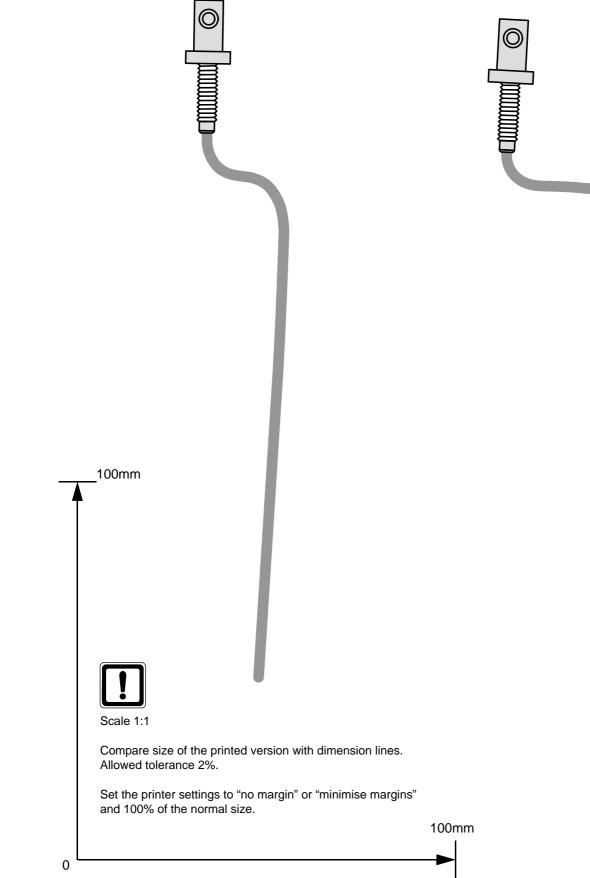


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#### Template for petrol fuel standpipe



#### Template for diesel fuel standpipe

#### **Operating Instructions for End Customer**

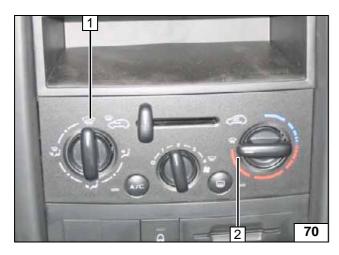
Please remove page and add to the vehicle operating instructions.

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 will then heat in the position Winter 💥 and in the position Summer <u>s</u> it will only switch on the vehicle fan to ventilate the vehicle interior.

Before parking the vehicle, make the following settings:



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

Manual air conditioning



- 1 Set temperature on both sides to "max."
- 2 Air outlet to windscreen

Automatic air-conditioning