

Water Heater

Thermo Top C Parking Heater



Installation Documentation

Dodge Journey

Petrol and diesel
From model year 2008
Left-hand drive vehicle

Fiat Freemont (JC)

Diesel
From model year 2011
Left-hand drive vehicle

Unverified equipment variants: 4 WD
Exclusion: not for automatic transmission!



WARNING!

Hazard warning:

The improper installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide, leading to serious injury or death.



To install and repair Webasto heating and cooling systems you need to have completed a special company training course and have the appropriate technical documentation, special tools and special equipment.

Only use genuine Webasto parts. See the Webasto air and water heaters accessories catalogue for this purpose.

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.

Dodge Journey (JC) / Fiat Freemont (JC)

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Validity

Manufacturer	Model	Type	EG-BE No./ ABE
Chrysler (USA)	Dodge Journey	JC	e11* 2001 / 116 * 0145 * ...
Fiat	Freemont	JC	e11* 2001 / 116 * 0145 * ...

Engine type	Engine model	Output in kW	Displacement in cm ³
B	Petrol	125	2360
BWD	Diesel	103	1968
EBD	Diesel	103	1956
EBD	Diesel	125	1956

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 should be confirmed with the end customer before installation.

Heater/Installation Kit

Quantity	Designation	Order No.:
1	Retail accessories with desired heater control	See price list
1	Installation kit for Dodge Journey (JC) / Fiat Freemont (JC)	1314071B
1	Kit for Automatic Air-Conditioning	1313906B

Note:

To facilitate working on the vehicle, it should be delivered with the tank filled by only about one quarter.



Foreword

This Installation Documentation applies to the Dodge Journey vehicle from model year 2008 and later as well as Fiat Freemont (JC) from model year 2011 and later - for validity, see Page 2, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to this "Installation Documentation".

However, the stipulations in the "installation documentation", the "operating instructions" and the "installation instructions" for the *Thermo Top C* 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).

When installing an IPCU, the corresponding adjustment values should be checked or configured prior to installation.

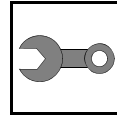
Special Tools

- Torque wrench for 2.0 - 10 Nm
- Hose clamping pliers
- Metric thread-setter kit
- Fiat / Chrysler special tools for fuel-tank sending unit

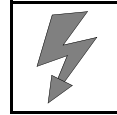
Explanatory Notes on Document

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.

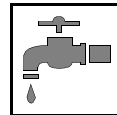
Mechanical system



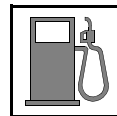
Electrical system



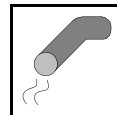
Coolant circuit



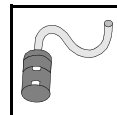
Fuel



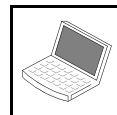
Exhaust gas



Combustion air



Software



Special features are highlighted using the following symbols:



Specific risk of injury or fatal accidents.



Specific risk of damage to components.



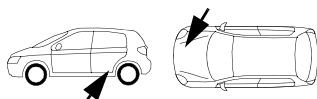
Specific risk of fire or explosion.



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.

All dimensions are in mm!

Tightening torque of hose clamps = 2.0 + 0.5 Nm!

Tightening torque of Ejet screws, Ejet studs = 10 Nm!

Preliminary Work

WARNING!

- Open the fuel tank cap and vent the fuel tank.
- Close the fuel tank cap again.
- Disconnect the battery "earth" 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 engine cover.
- Detach the servo reservoir.
- Detach the coolant expansion tank.
- Detach the fuse and relay box in the engine compartment.
- Detach and remove the right and left-hand wheel well trim.
- Remove the bumper.
- Remove the underride protection.
- Remove the fuel tank in accordance with the manufacturer's instructions (empty if necessary).
- Remove A/C control panel.
- Remove the lower trim of the footwell on the front passenger's side (Fiat only).
- Remove the glove compartment (Fiat only).
- Remove the decorative trim on the centre console (Fiat only).
- Remove the radio and A/C control panel (Fiat only).
- Remove the touchscreen (Fiat only).
- Remove the A/C control unit (Fiat only).
- Remove the lower instrument panel trim in the driver's side footwell.
- Remove the trim below the steering wheel.

Remove page 39 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



Heater Installation Location

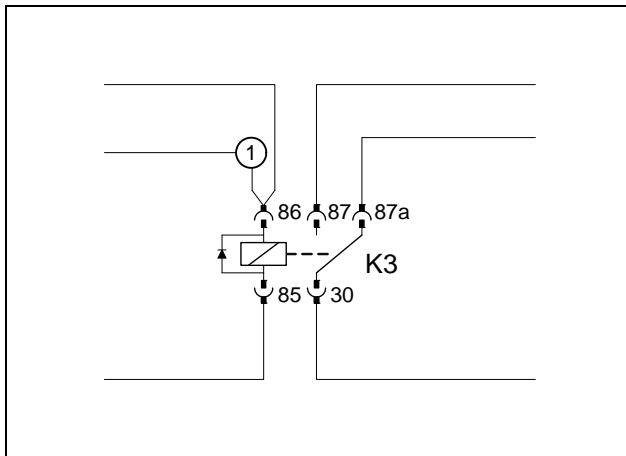
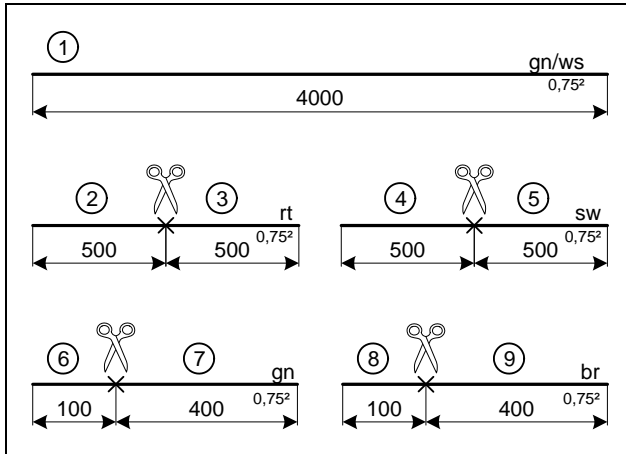
1 Heater

Installation location

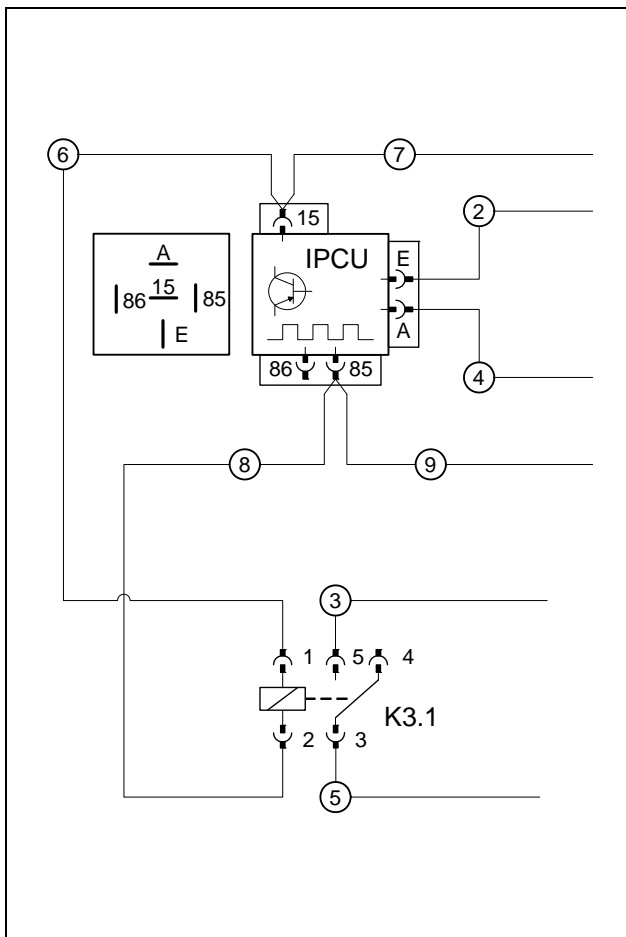


Preparing Electrical System

Dodge Journey automatic air-conditioning



Produce connections as shown in wiring diagram. Cut 400 mm from protective sleeving. Pull wire section 1 into 2100 mm protective sleeving.



Produce connections as shown in wiring diagram. Connect wires to IPCU. IPCU view on contact side. Pull wiring sections 3 and 5 into 400 mm protective sleeving.



Cutting wires to length



Preparing K3

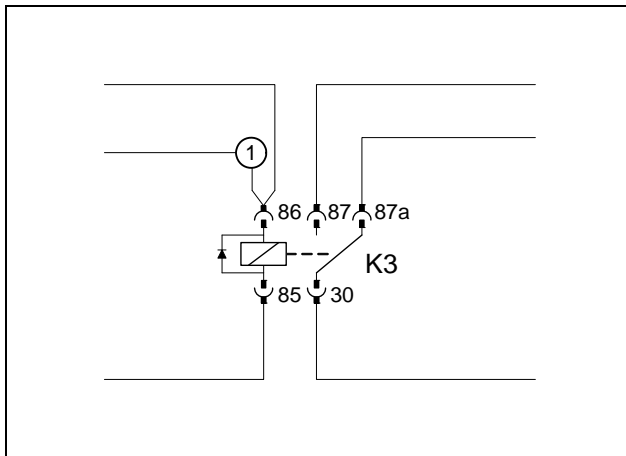
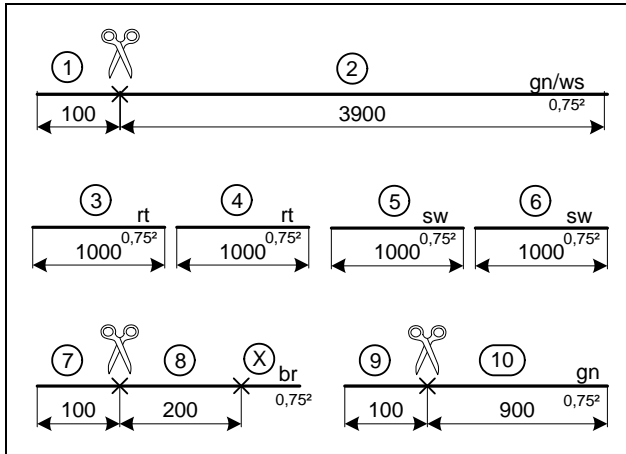


Preparing IPCU and K3.1



Preparing Electrical System

Fiat Freemont automatic air-conditioning

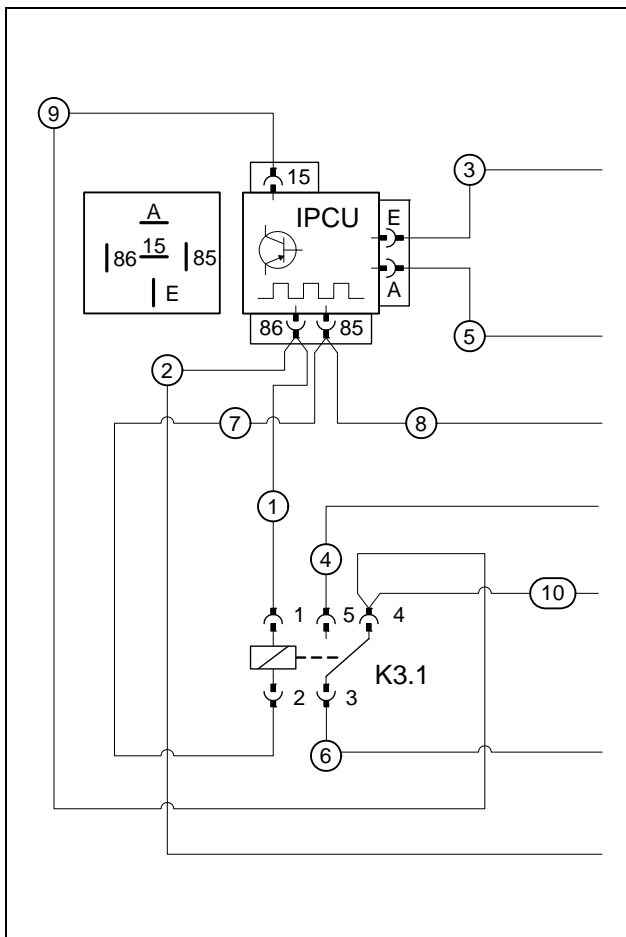


Produce connections as shown in wiring diagram. Cut 400 mm from protective sleeving. Pull wire section 1 into 2100 mm protective sleeving.



Cutting wires to length

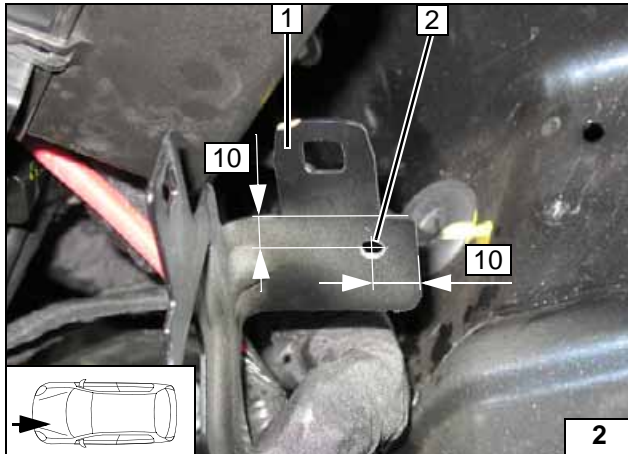
Preparing K3



Produce connections as shown in wiring diagram. Connect wires to IPCU. IPCU view on contact side. Pull wiring sections 3 and 5 into 400 mm protective sleeving.



Preparing IPCU and K3.1

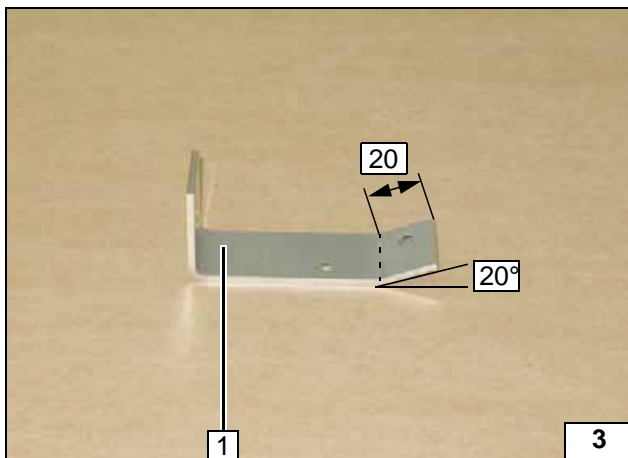


Dodge Journey

- 1 Bracket of fuse and relay box
- 2 5.5 mm dia. hole



Hole for angle bracket

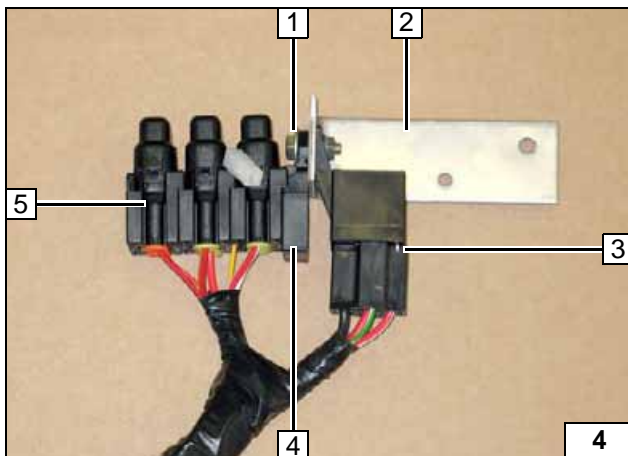


Fiat Freemont

Angle down bracket 1 as shown.



Preparing bracket



All vehicles

- 1 M5x16 bolt, washer, flanged nut
- 2 Fuse holder
- 3 K3 relay
- 4 Retaining plate for fuse holder
- 5 Fuses pushed on



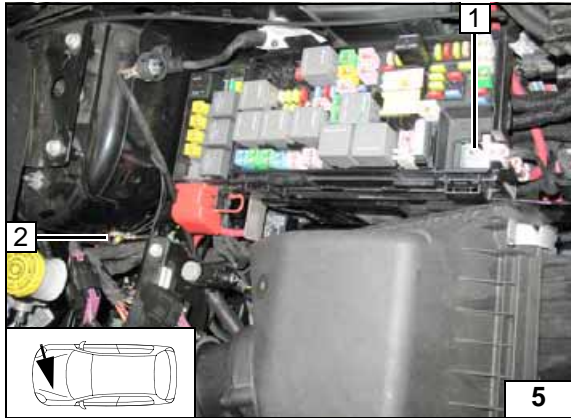
Premounting wiring harness



Electrical System of Dodge Journey

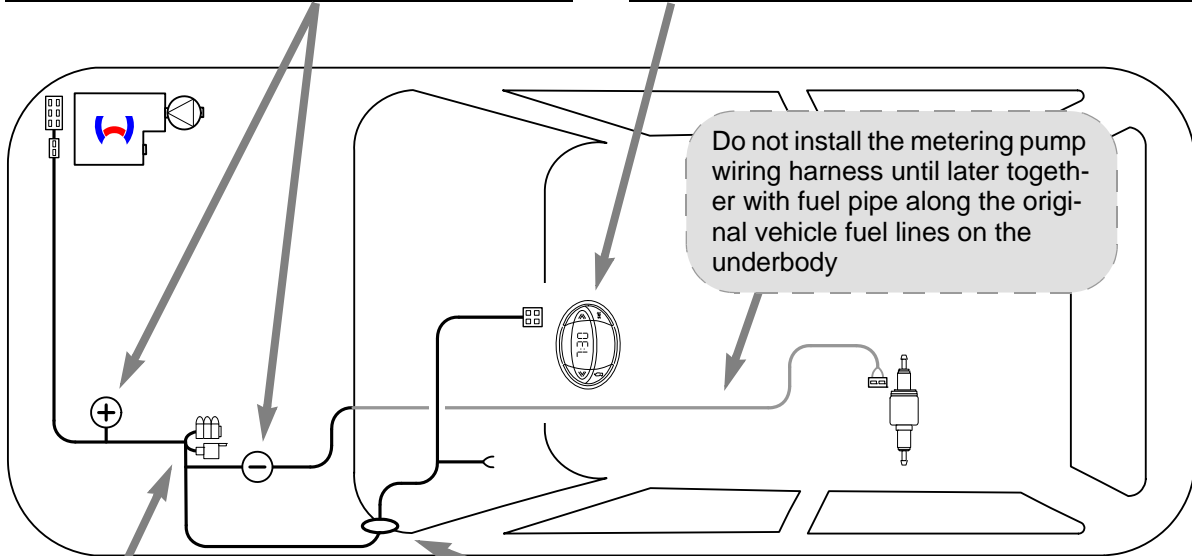
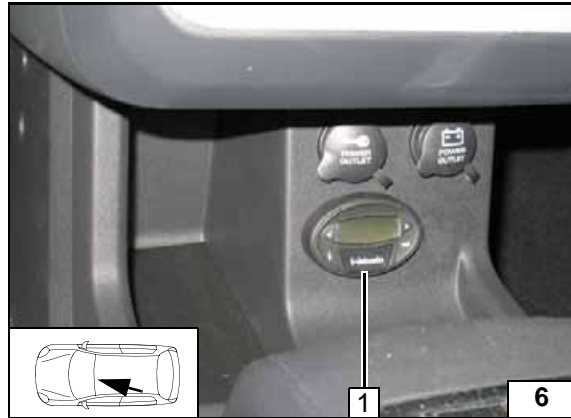
Positive and earth connection

- 1 Positive wire on original vehicle positive support point
- 2 Earth wire on original vehicle earth support point

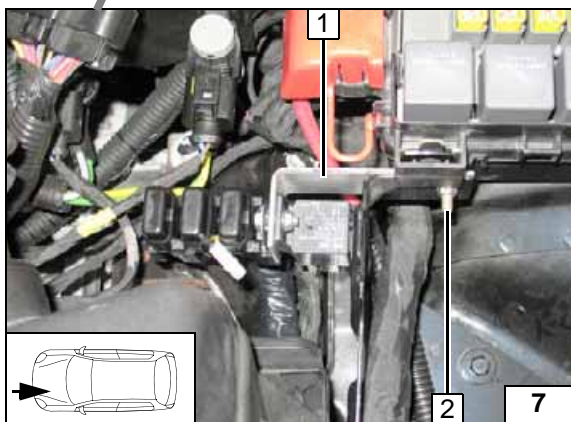


Digital timer

- 1 Digital timer

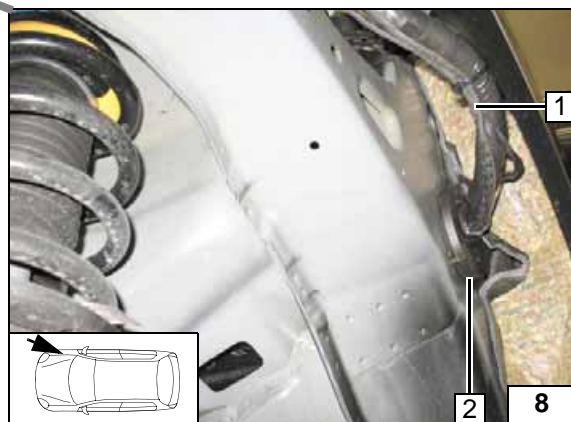


Wiring harness routing diagram



Fuse holder, K3 relay

- 1 Angle bracket
- 2 M5x16 bolt, washers, M5 flanged nut



Wiring harness pass through

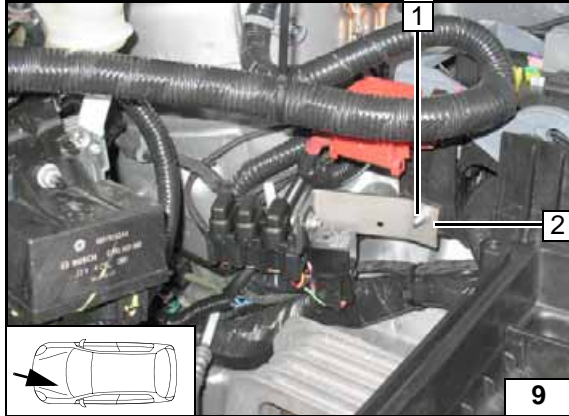
- 1 Wiring harness of fan control and digital timer
- 2 Protective rubber plug



Electrical System of Fiat Freemont

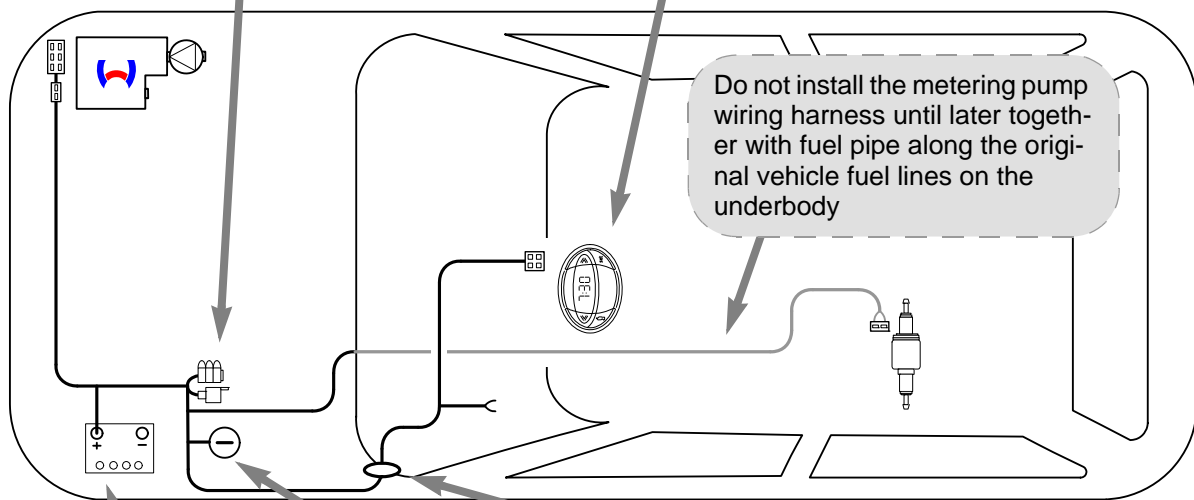
Fuse holder, K3 relay

- 1 M5x16 bolt, washer, original vehicle hole, flanged nut
- 2 Bracket

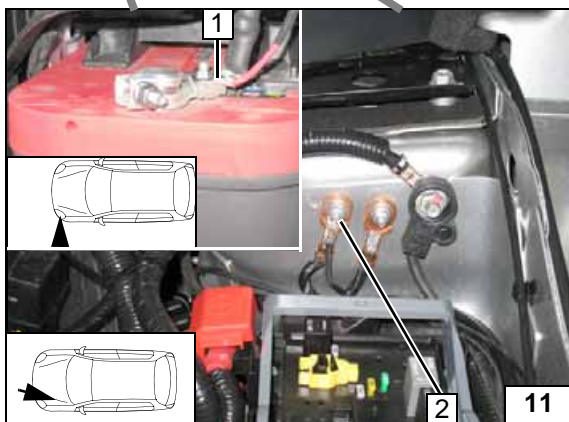


Digital timer

- 1 Digital timer

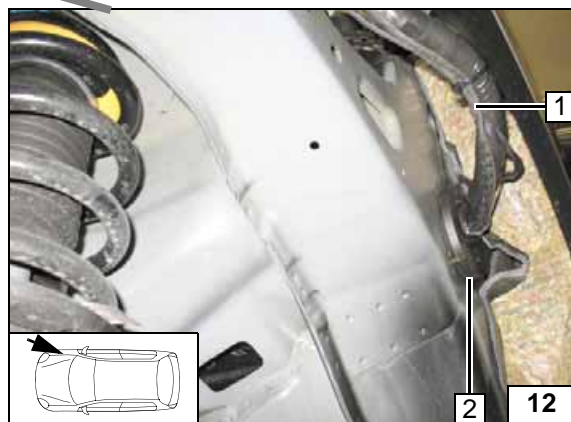


Wiring harness routing diagram



Positive and earth connection

- 1 Positive wire on positive battery terminal
- 2 Negative wire on original vehicle earth point

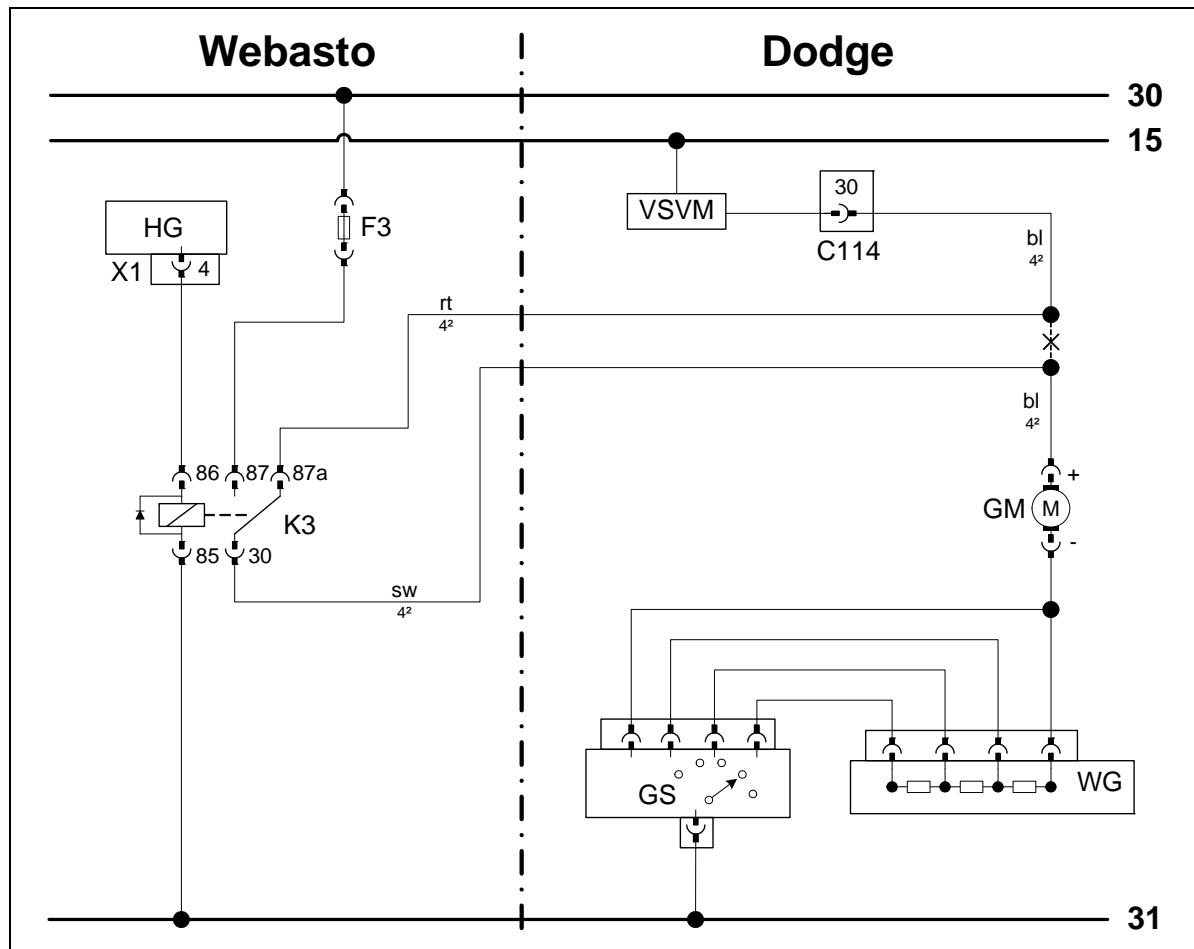


Wiring harness pass through

- 1 Wiring harness of fan control and digital timer
- 2 Protective rubber plug



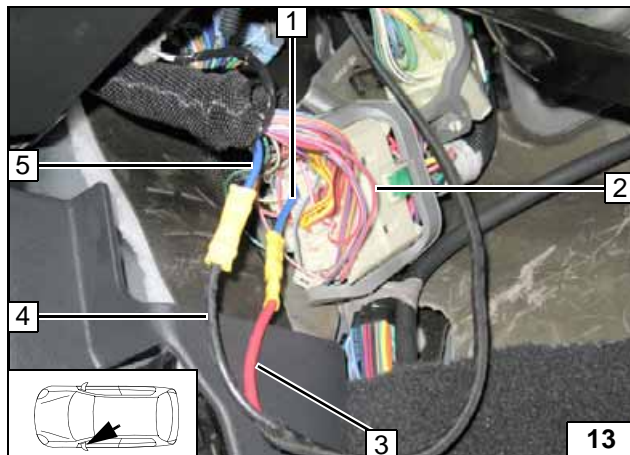
Fan Control of Dodge Manual A/C System



Wiring diagram

Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater connector	WG	Resistor group	bl	blue
F3	25A fuse	GS	Fan switch	sw	black
K3	Fan relay	VSVM	Power supply module		
		C114	57-pin connector		
				X	Cutting point
				Wiring colours may vary.	

Legend



Connection on 57-pin connector C114 2 in driver's side footwell. Produce connections as shown in wiring diagram.

- 1 Blue (bl) wire connector C114/30
- 3 Red (rt) wire from K3/87a
- 4 Black (sw) wire from K3/30
- 5 Blue (bl) wire of fan motor



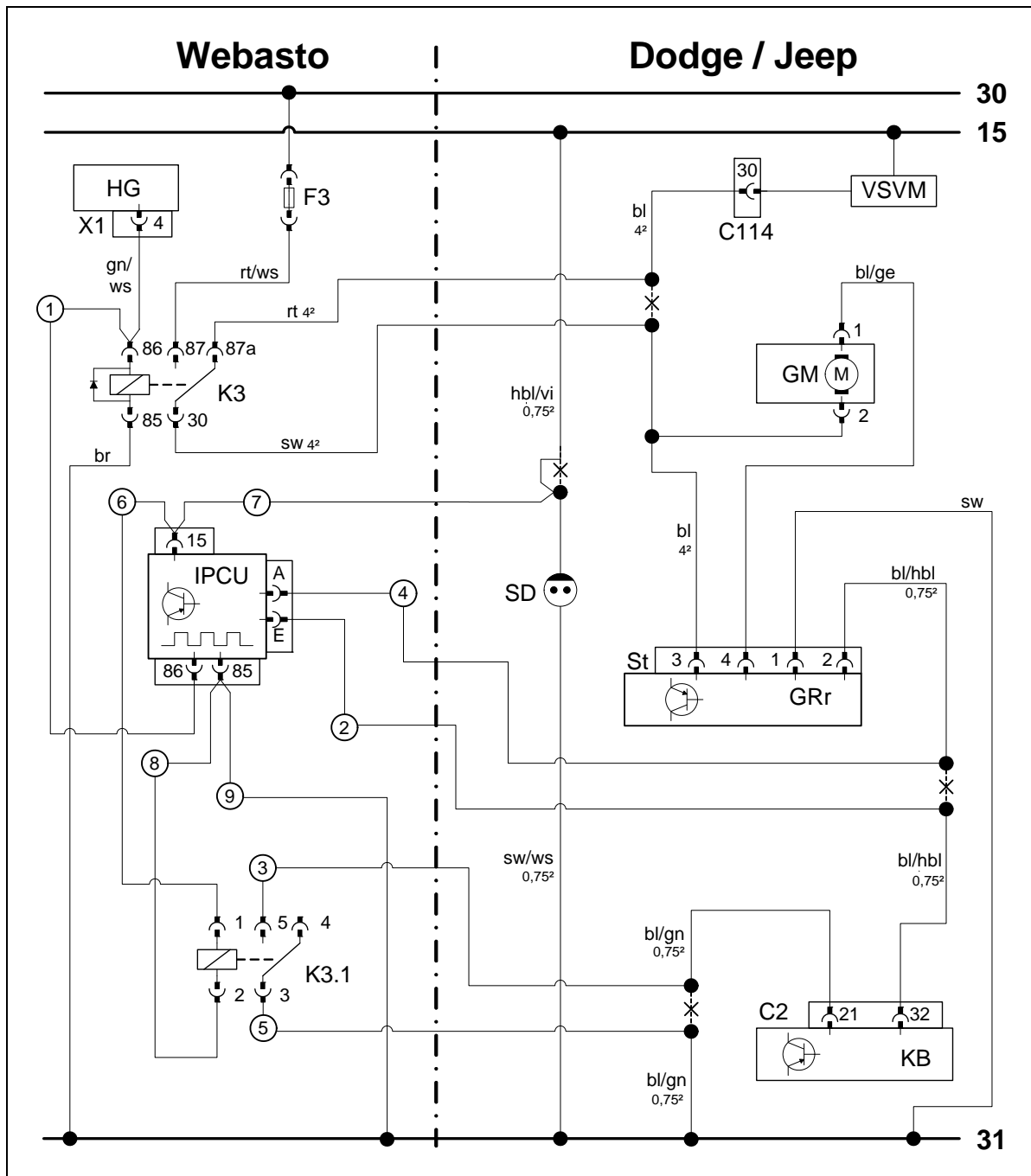
Connecting fan motor



Dodge Automatic A/C Fan Control

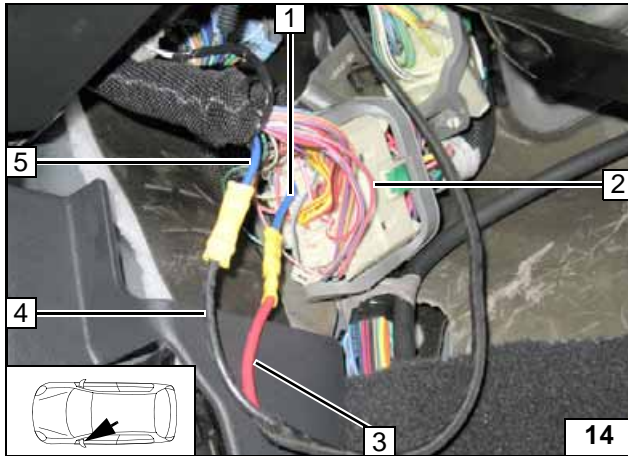


Wiring diagram



Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	GM	Fan motor	rt	red
X1	6-pin heater connector	GRr	Fan controller	ws	white
F3	25A fuse	KB	A/C control unit	sw	black
K3	Fan relay	ST	4-pin connector, GRr	br	brown
K3.1	Additional relay	C2	32-pin connector KB	ge	yellow
IPCU	Pulse width modulator	C114	57-pin connector	bl	blue
IPCU adjustment values:		VSVM	Power supply module	hbl	light blue
Duty cycle: 55%		SD	Socket outlet of instrument panel	vi	violet
Frequency: 100Hz				gn	green
Voltage: 6.2V				X	Cutting point
Function: Low-side				Wiring colours may vary.	

Legend

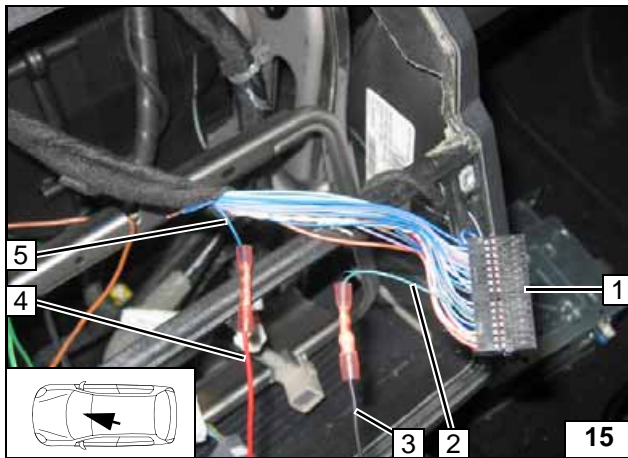


Connection on 57-pin connector C114 2 in driver's side footwell.
Produce connections as shown in wiring diagram.

- 1 Blue (bl) wire connector C114/30
- 3 Red (rt) wire from K3/87a
- 4 Black (sw) wire from K3/30
- 5 Blue (bl) wire of fan motor



**Connect-
ing fan mo-
tor**

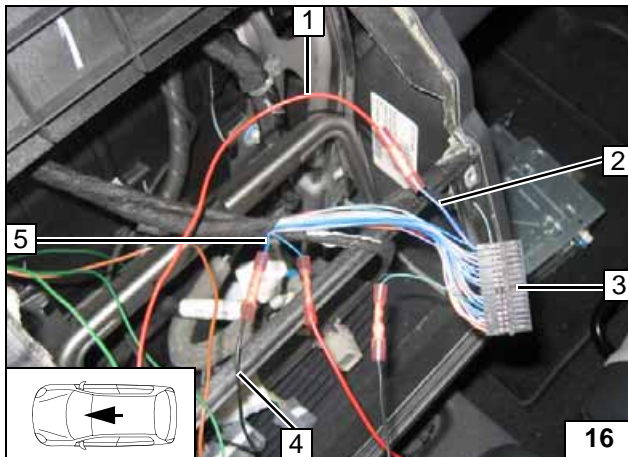


Connection of K3.1 on 32-pin connector 1 from A/C control unit. Connector housing removed.

- 2 Blue/green (bl/gn) wire, Pin 21
- 3 Black (sw) wire K3.1/3
- 4 Red (rt) wire to K3.1/5
- 5 Blue/green (bl/gn) wire of vehicle earth



**Connec-
tion to flap
controller**

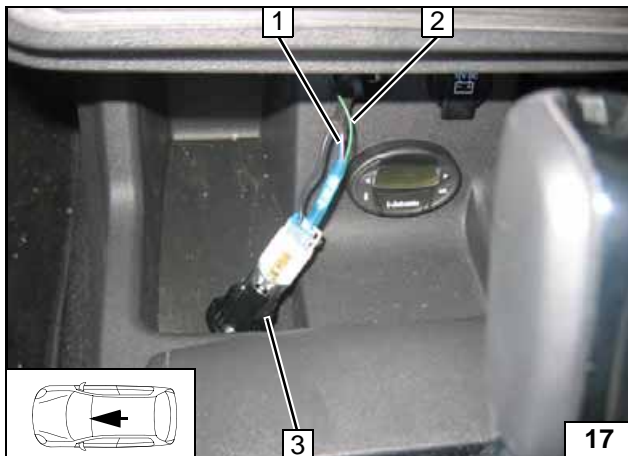


Connection of IPCU to 32-pin connector 3 from A/C control unit. Connector housing removed.

- 1 Red (rt) wire of IPCU/E
- 2 Blue/light blue (bl/hbl) wire, Pin 32
- 4 Black (sw) wire of IPCU/A
- 5 Blue/light blue (bl/hbl) wire of fan controller, Pin 2



**Connect-
ing fan
controller**

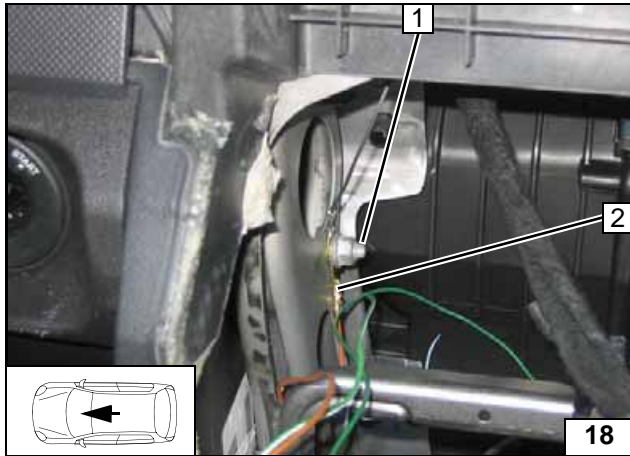


Connection on left-hand socket outlet 3 Terminal 15.

- 1 Light blue/violet (hbl/vi) positive wire of socket outlet (Terminal 15)
- 2 Green (gn) wire IPCU/15



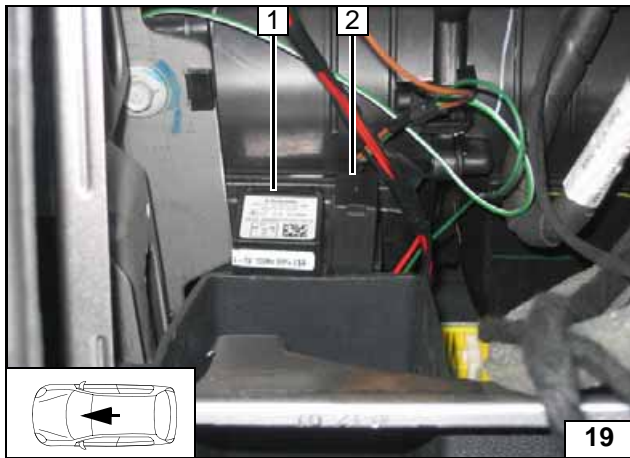
**Connec-
tion to ter-
minal 15**



- 1 Earth support point
- 2 IPCU earth wires, K3.1 relay



Conne-
ction to ter-
minal 31



Interconnect socket of IPCU 1 and socket of relay K3.1 2 and fasten with adhesive tape.



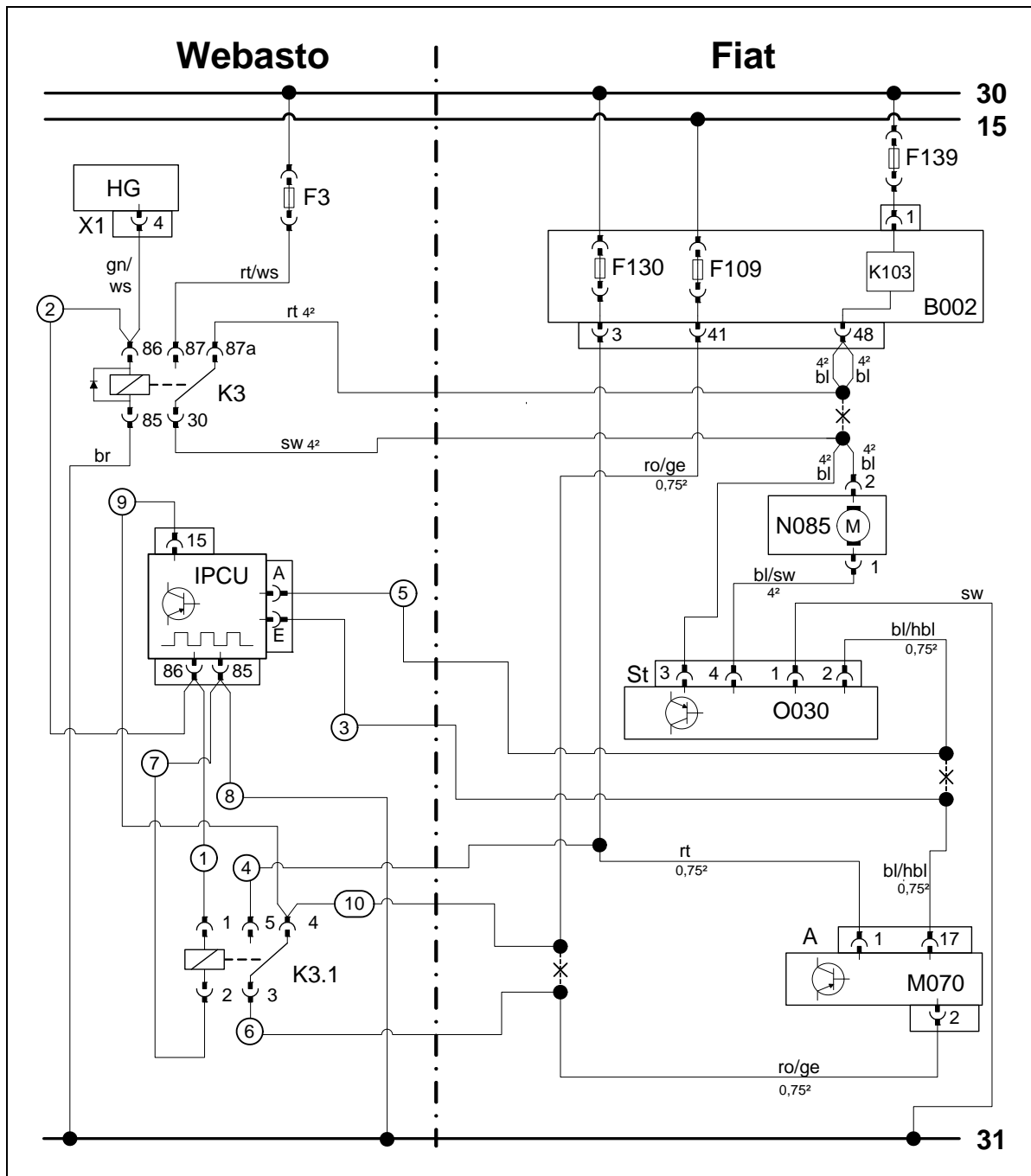
Fastening
IPCU



Dodge Automatic A/C Fan Control

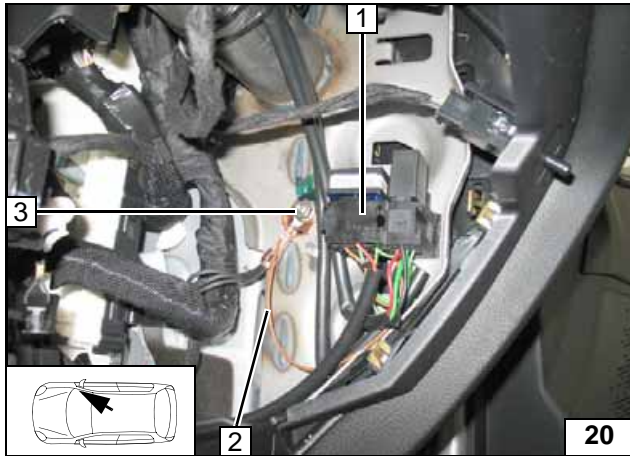


Wiring diagram



Webasto components		Vehicle components		Colours and symbols	
HG	Heater TT-C/E	N085	Fan motor	rt	red
X1	6-pin heater connector	O030	Fan controller	ws	white
F3	25A fuse	M070	A/C control unit	sw	black
K3	Fan relay	B002	Distributor control	br	brown
K3.1	Additional relay	ST	4-pin connector, O030	ge	yellow
IPCU	Pulse width modulator	A	24-pin connector M070	bl	blue
IPCU adjustment values:		F109	10A fuse	hbl	light blue
Duty cycle: 55%		F130	15A fuse	gn	green
Frequency: 100Hz		F139	60A fuse	ro	pink
Voltage: 6.2V				X	Cutting point
Function: Low-side				Wiring colours may vary.	

Legend

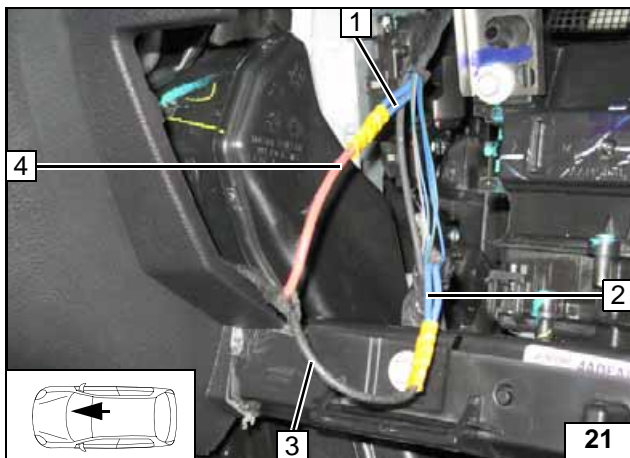


Fasten IPCU socket **1** and socket of K3.1 relay with double-sided adhesive tape.

- 2** Brown (br) wire of IPCU/85, relay K3.1/85
- 3** Original vehicle earth point



Installing IPCU and K3.1 relay

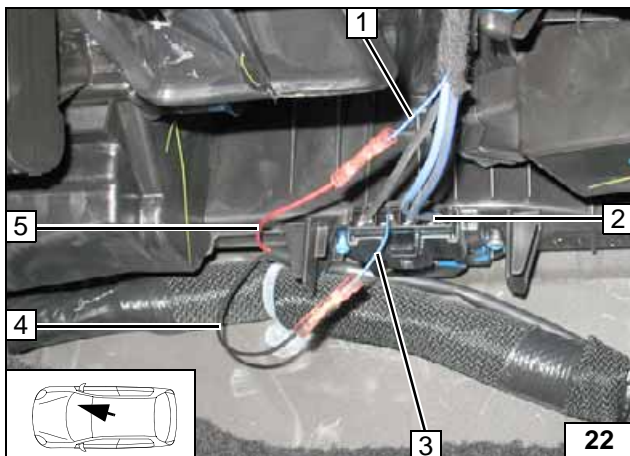


Produce connections as shown in wiring diagram.

- 1** Blue (bl) wire [2x] B002 Pin 48
- 2** Blue (bl) wire [2x] of N085 fan motor, fan controller O030
- 3** Black (sw) wire from K3/30
- 5** Red (rt) wire from K3/87a



Connecting fan motor

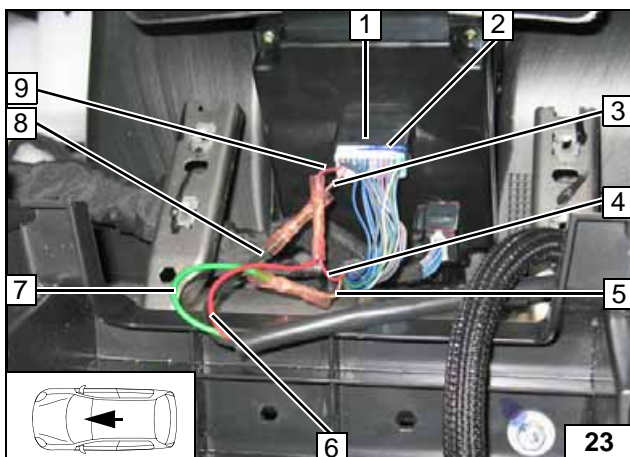


Connection of IPCU on 4-pin connector **2** from fan controller O030 Pin 2.

- 1** Blue/light blue (bl/hbl) wire of M070, Pin 17
- 3** Blue/light blue (bl/hbl) wire of O030 Pin 2
- 4** Black (sw) wire of IPCU/A
- 5** Red (rt) wire of IPCU/E



Connecting fan controller

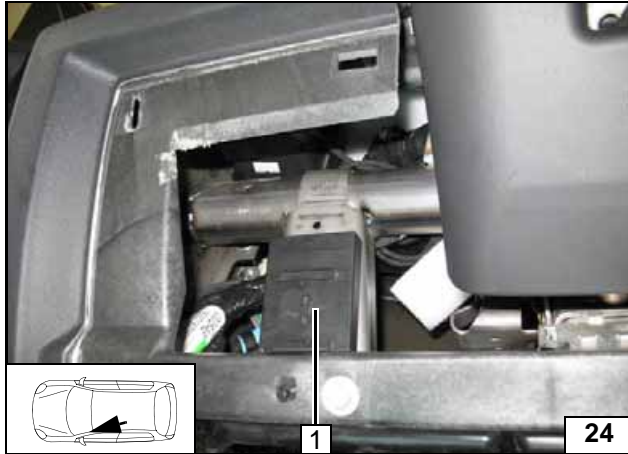


Connection of K3.1 relay to 24-pin connector **2** from A/C control unit **1**.

- 3** Pink/yellow (ro/ge) wire of 24-pin connector M070 Pin 2
- 4** Red (rt) wire from F130 B002
- 5** Pink/yellow (ro/ge) wire from F109 B002
- 6** Red (rt) wire to K3.1/5
- 7** Green (gn) wire of relay K3.1/4
- 8** Black (sw) wire K3.1/3
- 9** Red (rt) wire of 24-pin connector M070 Pin 1



Connecting A/C control unit

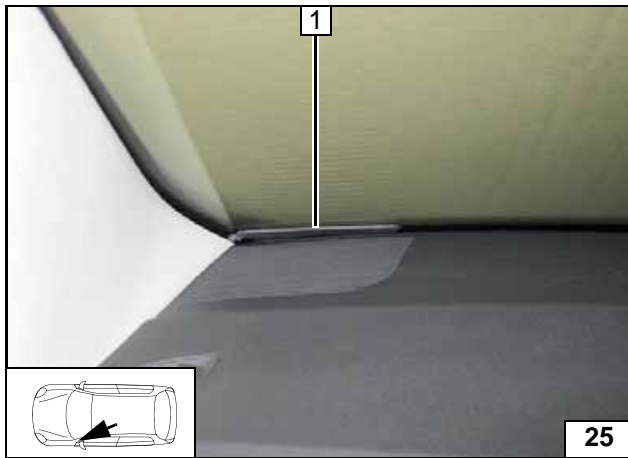


Remote Option (Telestart)

Fasten receiver 1 with adhesive tape.

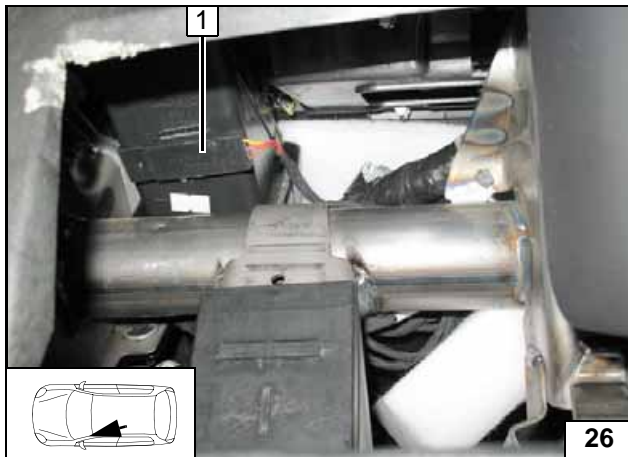


Mounting receiver



1 Antenna

Mounting antenna

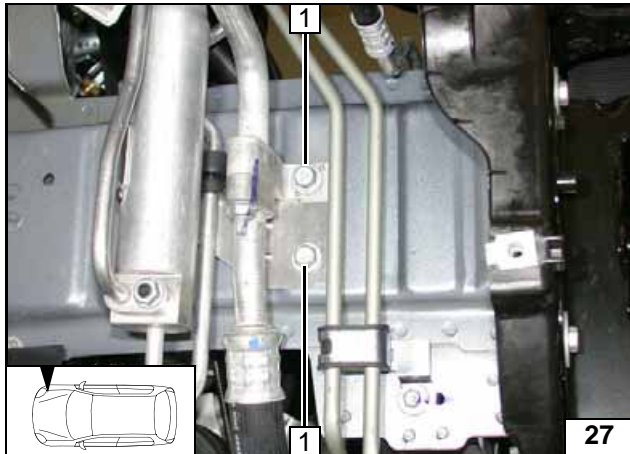
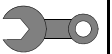


Temperature sensor for HTM100 only

Fasten temperature sensor 1 with adhesive tape.



Mounting temperature sensor

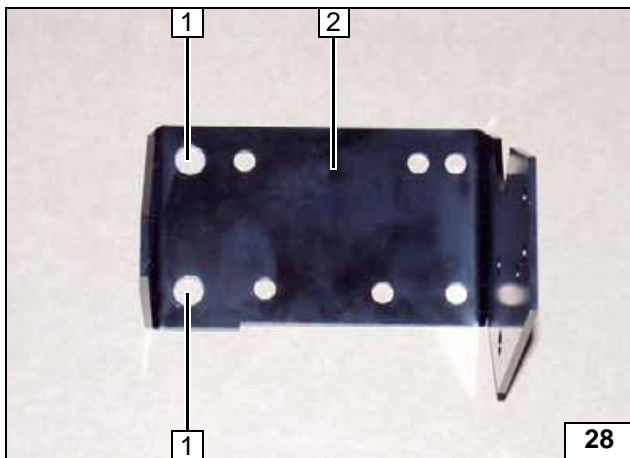


Preparing Installation Location

Remove original vehicle bolts at position 1 [2x] and discard.



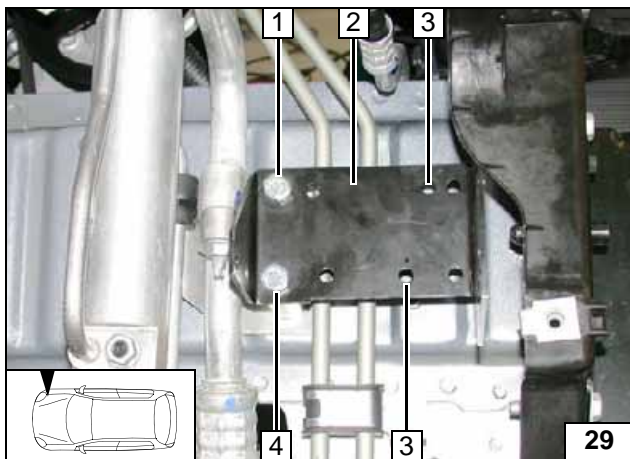
Removing bolts



Drill out bracket 2 to 9.5 mm dia. at position 1 [2x].



Preparing bracket

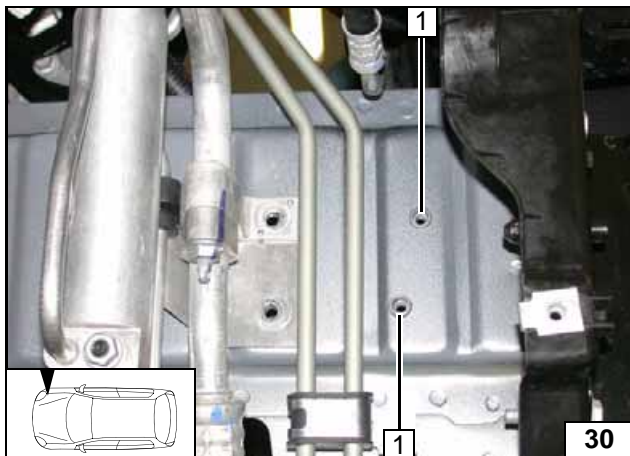


Copy hole pattern to battery tray at position 3 [2x] on frame side member.



Loosely mounting bracket

- 1 M8x70 bolt, 40 mm shim
- 2 Bracket
- 4 M8x70 bolt, 40 mm shim, 5 mm shim

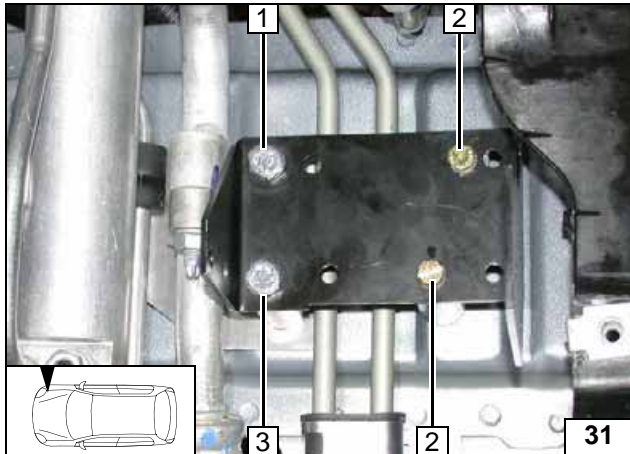
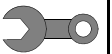


Remove bracket.



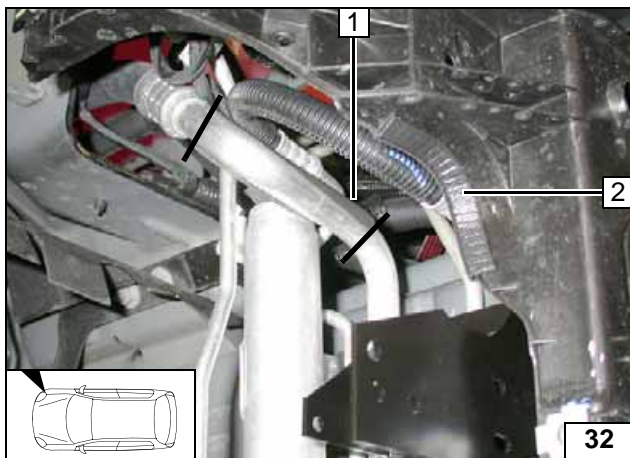
Installing rivet nut

- 1 9.1 mm dia. hole; rivet nut [2x each]



- 1 M8x70 bolt, spring lockwasher, 40 mm shim
- 2 M6x70 bolt, spring lockwasher, 40 mm shim, 5 mm shim [2x each]
- 3 M8x70 bolt, spring lockwasher, 40 mm shim, 5 mm shim

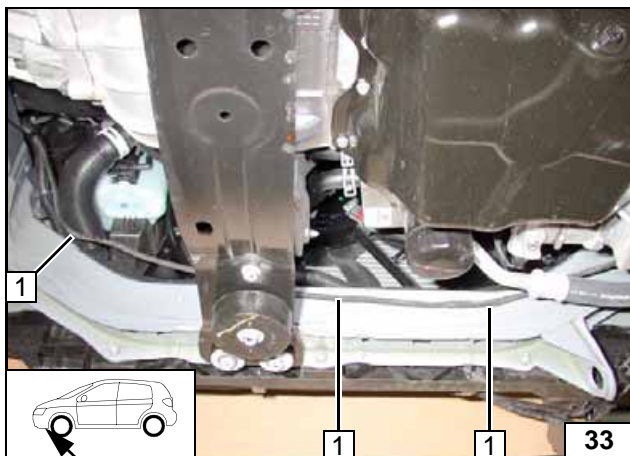
Mounting bracket



Glue on a foam strip in area of marking at position 1. Cut 120 mm off edge protection 2 and insert.



Premounting bracket on heater



Installing Heater

Loosely route wiring harness of heater 1 (will be fastened later with fuel line).



Routing wiring harness

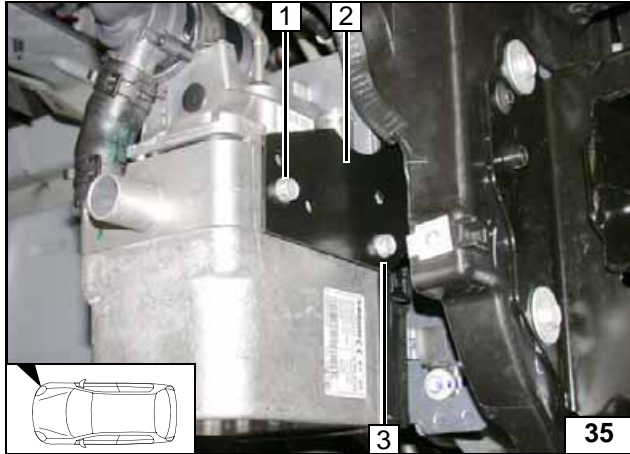
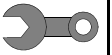


Mount connector before installing heater.

- 1 Wiring harness of heater



Routing wiring harness

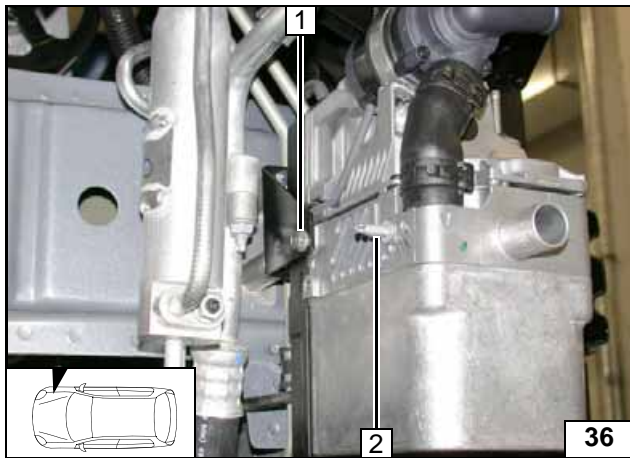


Insert two washers between heater and bracket 2 at Position 1.

- 1 Ejet screw, washer [2x]
- 3 Ejet screw



Mounting heater



- 1 Ejet screw
- 2 Ejet stud

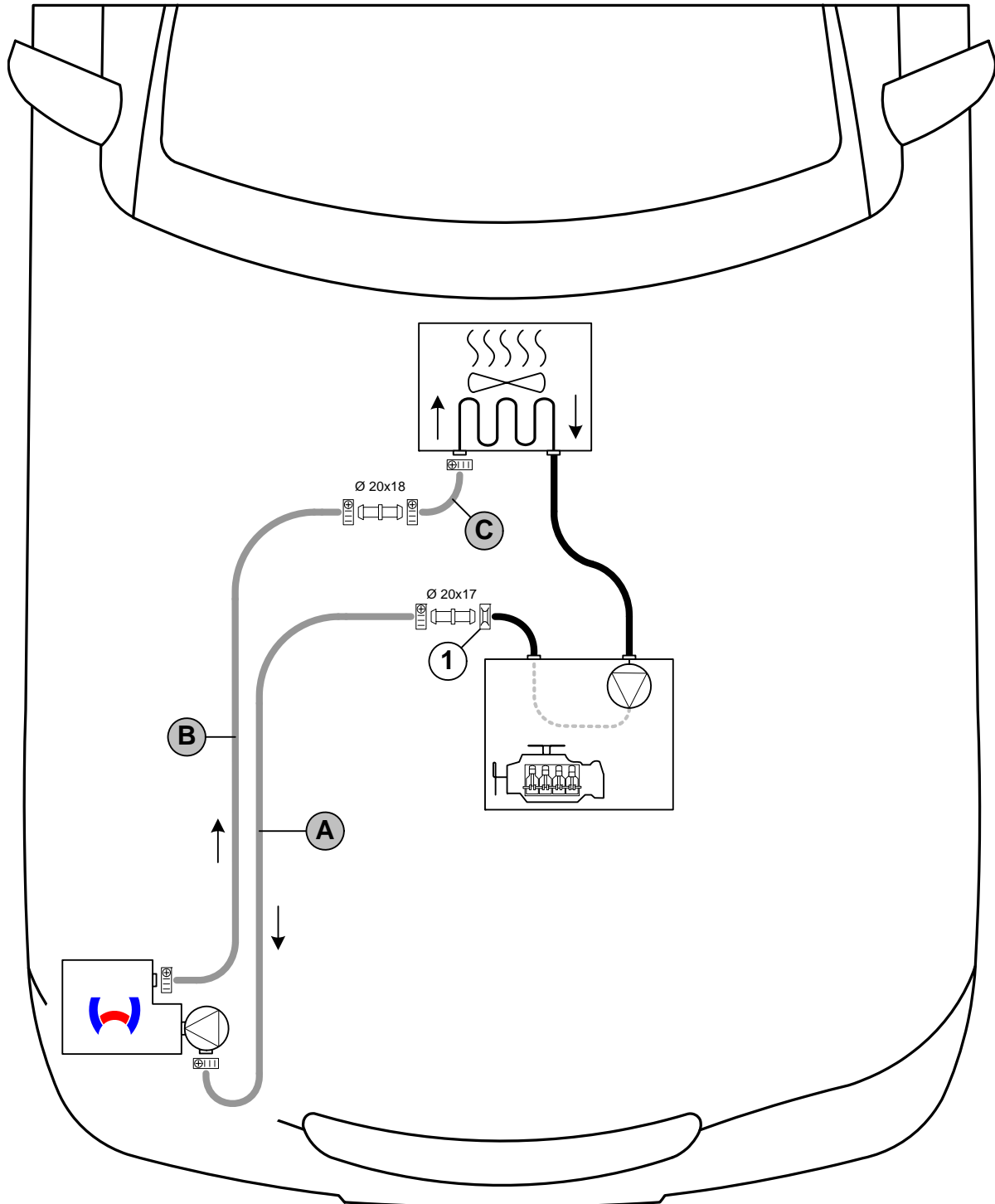
Mounting heater



Coolant Circuit

WARNING!

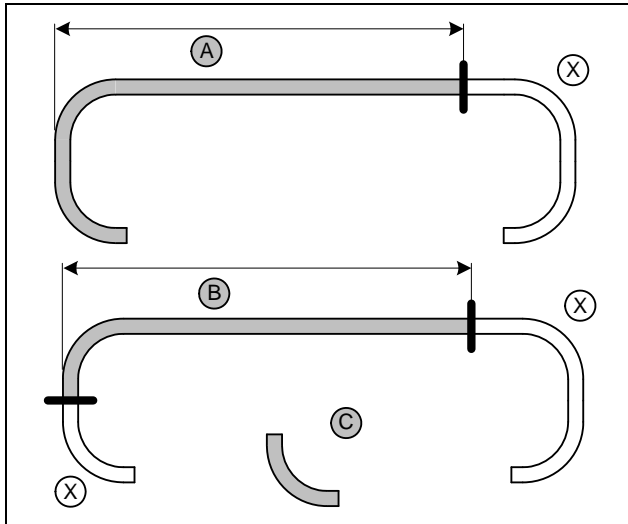
Any coolant running off should be collected using an appropriate container. Route coolant hoses kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that other hoses cannot be damaged. The heater must be filled with coolant when installing the hoses. The connection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



Hose routing diagram

Connecting pipe . All hose clamps = 20-27 mm dia.
 1 = Original vehicle spring clip .

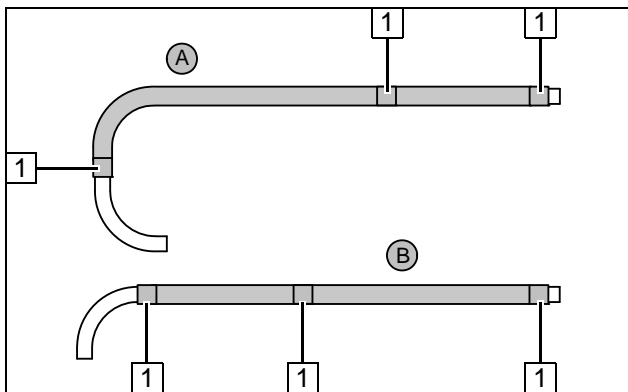




Petrol

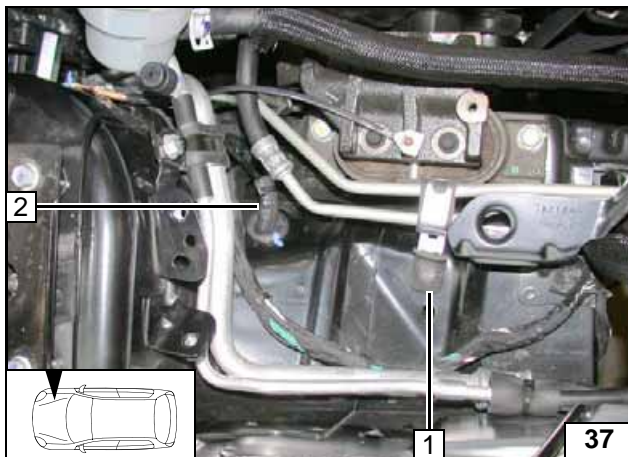
Hose **C** = 90° elbow, 18x18
Discard section **X**

A = 1300
B = 1440

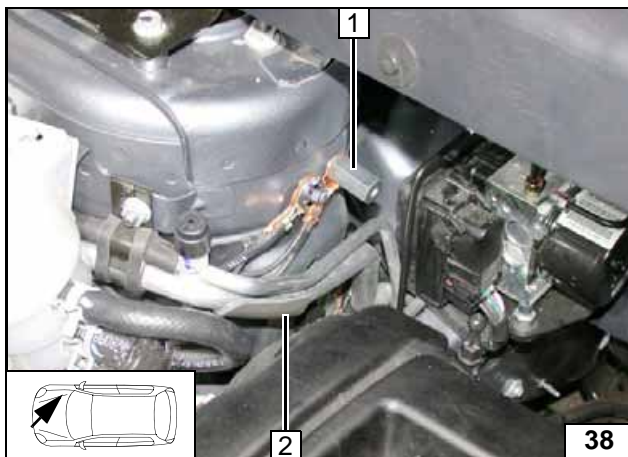


Push braided protection hoses onto hose **A** and **B** and cut to length.
Cut heat shrink plastic tubing to length.

1 50 mm long heat shrink plastic tubing [6x]



Cut 40 mm off second foam strip and glue onto original vehicle bolt **1**. Cut open fabric protective hose **2** and fasten on brake line with cable tie.



Remove original vehicle nut at position **1** and discard.

1 Original vehicle stud bolt, M6x30 spacer nut
2 85 mm foam strip



Cutting hoses to length



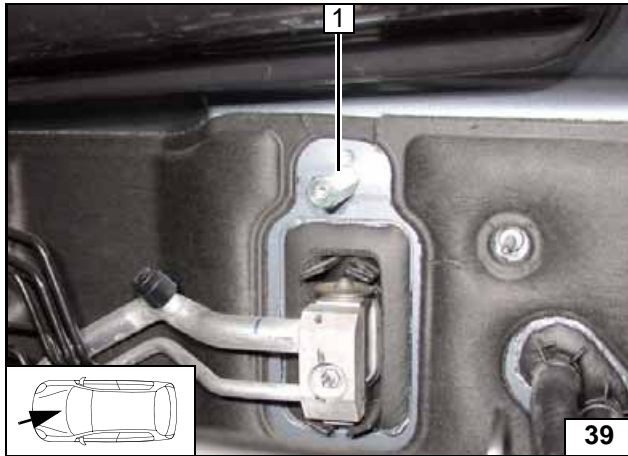
Preparing hoses



Mounting rub protection

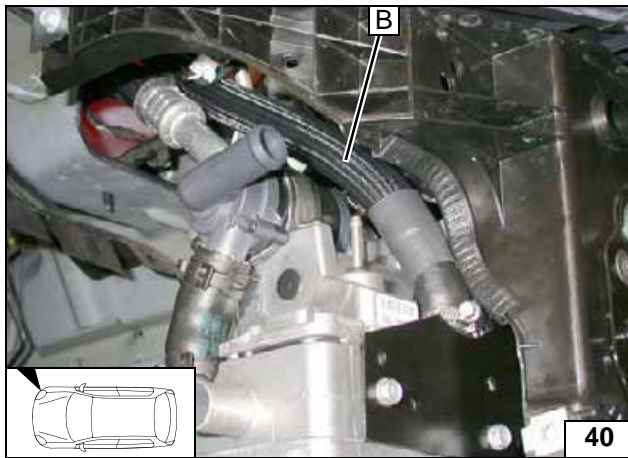


Mounting spacer nut

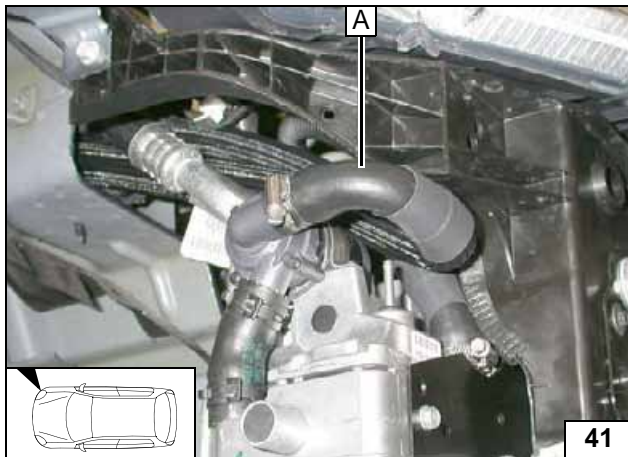


1 Original vehicle stud bolt, M6x40 spacer nut

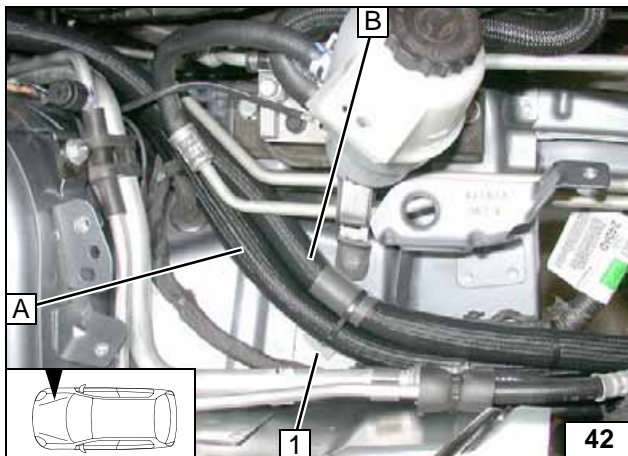
Mounting spacer nut



Connecting heater outlet



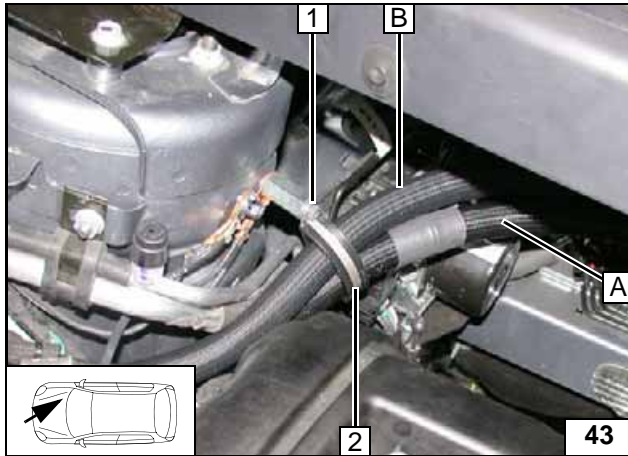
Connecting heater inlet



Glue on adhesive base 1, secure hoses A and B with cable tie

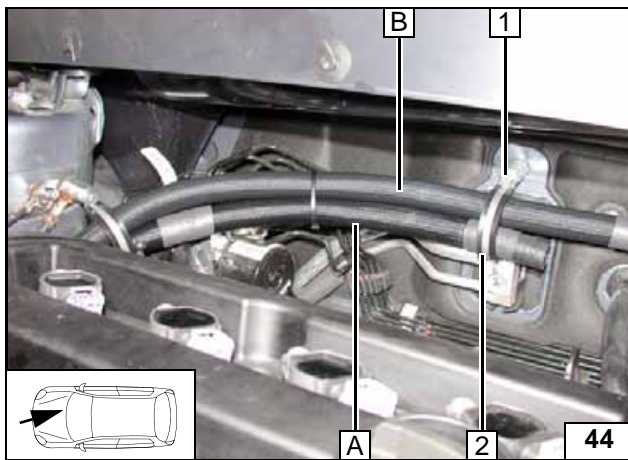


Routing in engine compartment



- 1 Spacer nut, M6x20 bolt, spring lockwasher
- 2 48 mm dia. rubber-coated p-clamp

Routing in engine compartment



- 1 Spacer nut, M6x20 bolt, spring lockwasher
- 2 48 mm dia. rubber-coated p-clamp

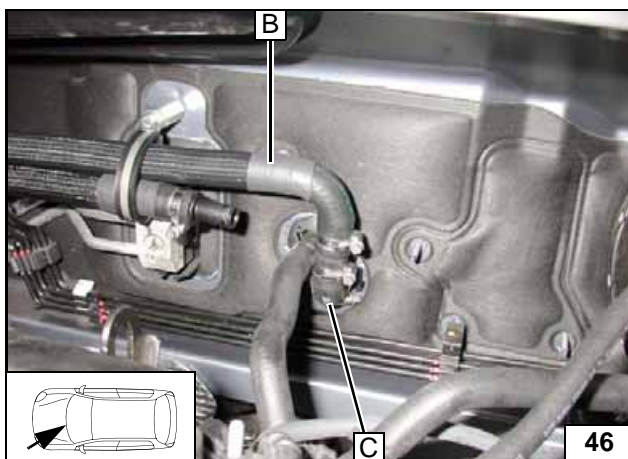
Routing in engine compartment



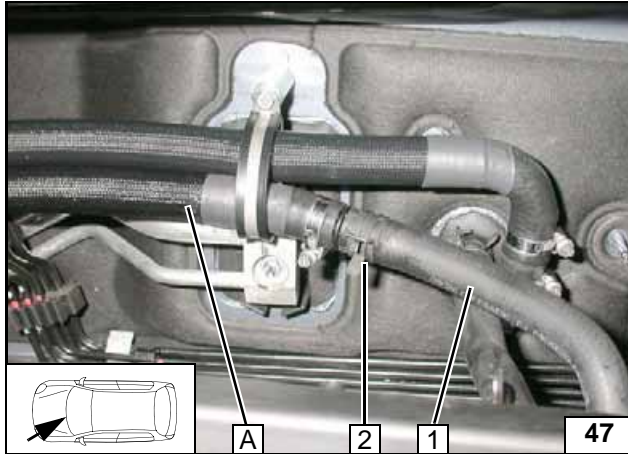
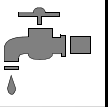
Disconnect hose to engine outlet/heat exchanger inlet 2 at connection piece on heat exchanger inlet. Spring clip 1 will be reused.



Cutting point



Connecting heat exchanger inlet

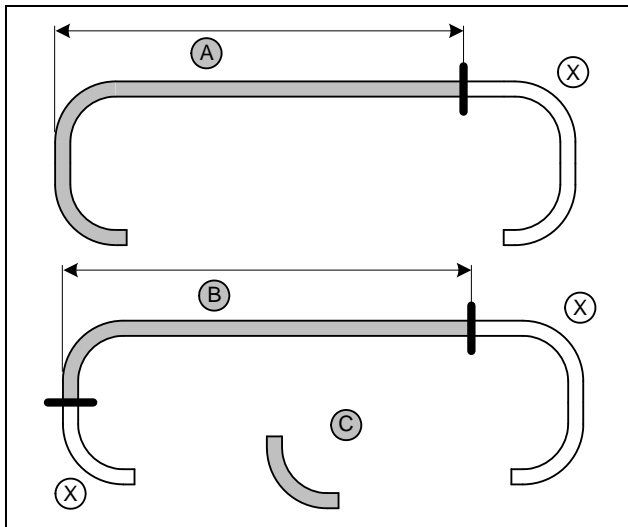


Ensure sufficient distance from neighbouring components.

- 1 Hose of engine outlet
- 2 Original vehicle spring clip



Connect-
ing engine
outlet



Diesel

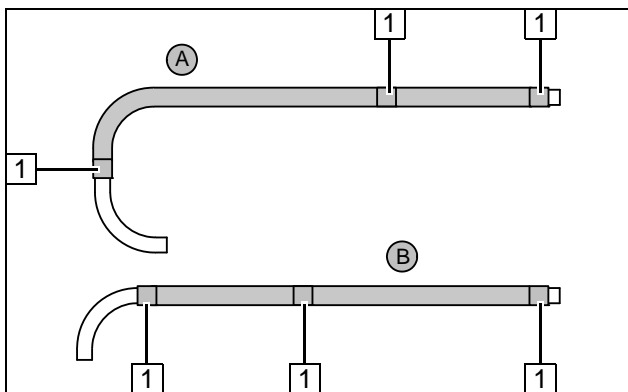
All vehicles

Hose C = 90° elbow, 18x18mm
Discard section X

- A = 1420
- B = 1460



Cutting
hoses to
length

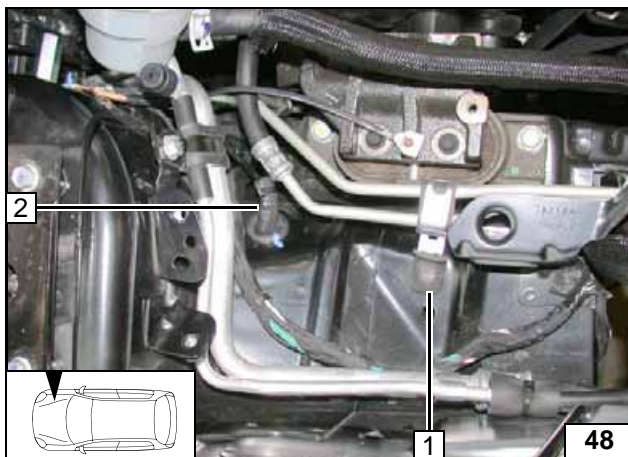


Push braided protection hoses onto hose A and B and cut to length.
Cut heat shrink plastic tubing to length.

- 1 50 mm long heat shrink plastic tubing [6x]



Preparing
hoses

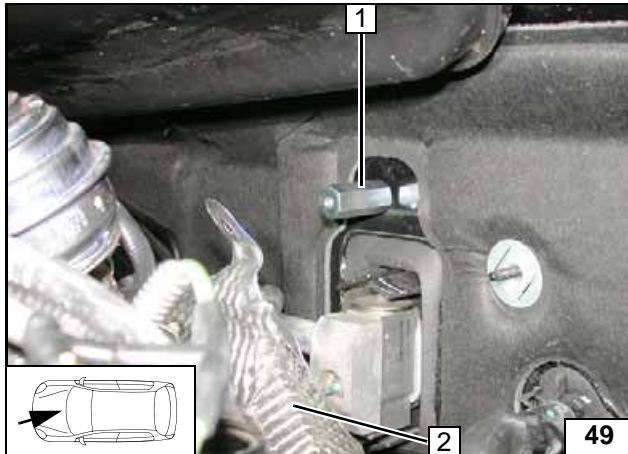


Cut 30 mm off second foam strip 1 and glue onto original vehicle bolt. Cut open fabric protective hose 2 and fasten on brake line with cable tie.



Mounting
rub protec-
tion

Dodge Journey (JC) / Fiat Freemont (JC)

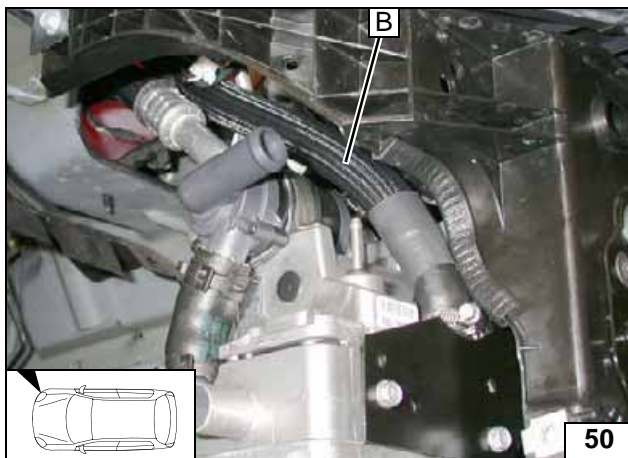


Remove original vehicle nut at position 1 and discard.
Heat guard plate 2 is not removed for Fiat Freemont.

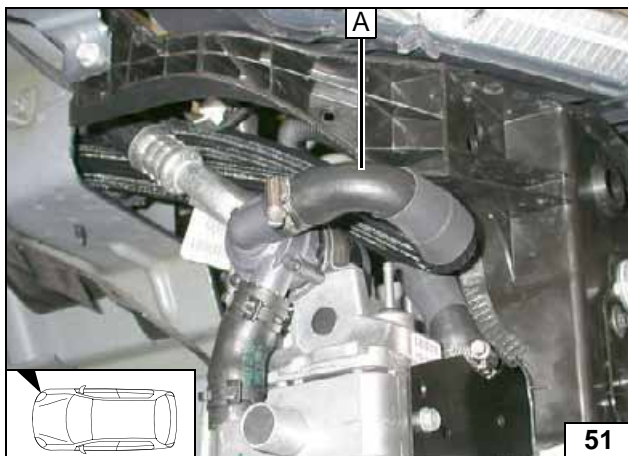
- 1 Original vehicle stud bolt, M6x40 spacer nut
- 2 Heat guard plate detached



Mounting spacer nut



**Connect-
ing heater outlet**



**Connect-
ing heater inlet**

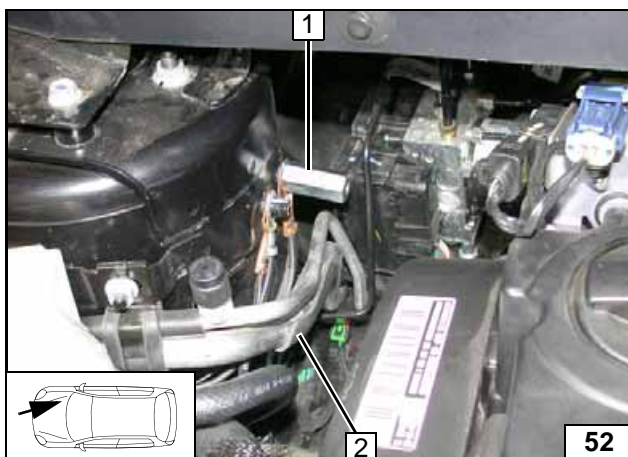


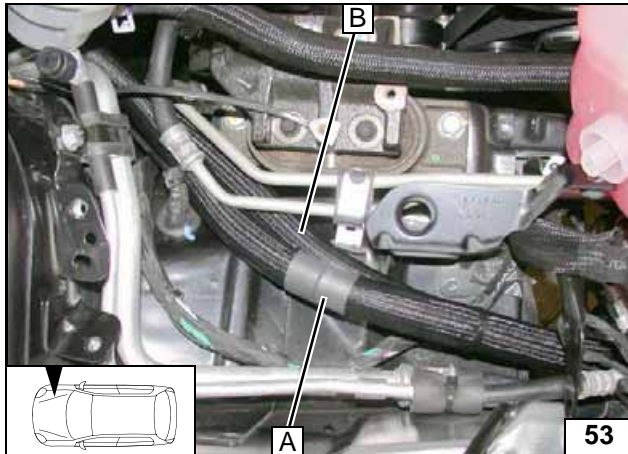
Figure shows Dodge Journey.

Remove original vehicle nut at position 1 and discard.

- 1 Original vehicle stud bolt, M6x30 spacer nut
- 2 85 mm foam strip



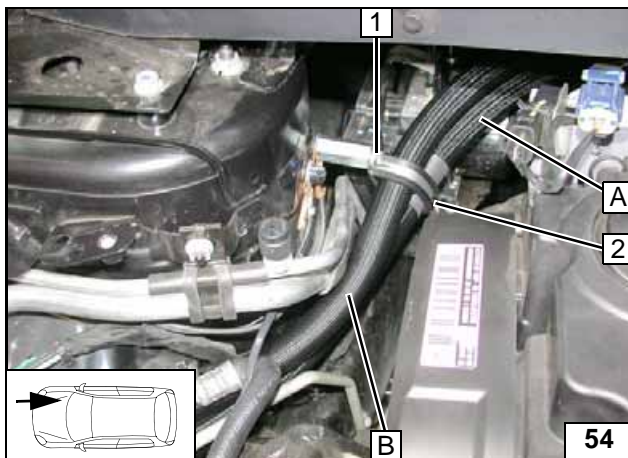
Mounting spacer nut



Dodge Journey

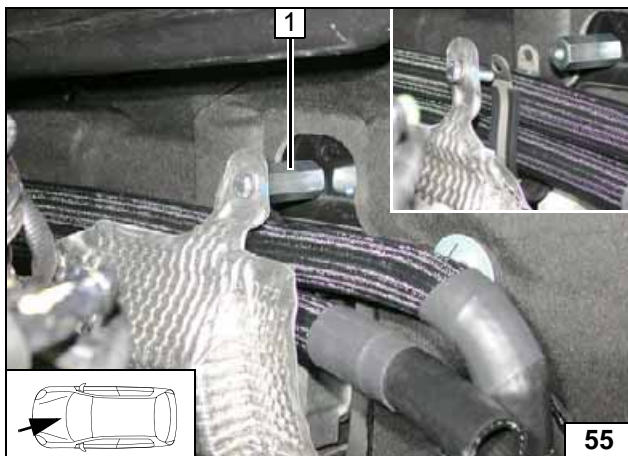


Routing in engine compartment



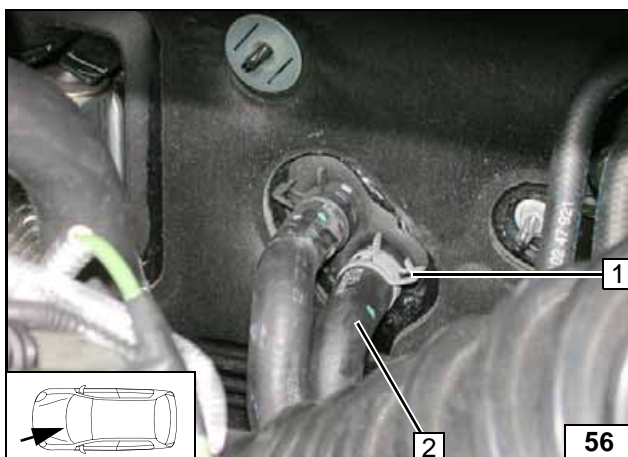
- 1 Spacer nut, M6x20 bolt, spring lockwasher
- 2 48 mm dia. rubber-coated p-clamp

Routing in engine compartment



- 1 Spacer nut, M6x20 bolt, spring lockwasher, 48 mm dia. rubber-coated p-clamp, heat guard plate

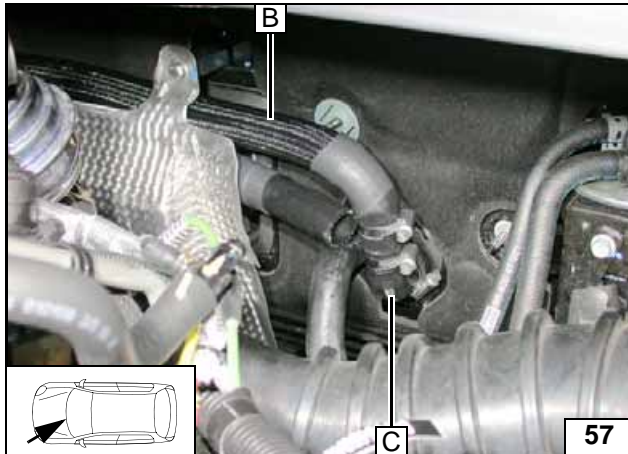
Routing in engine compartment



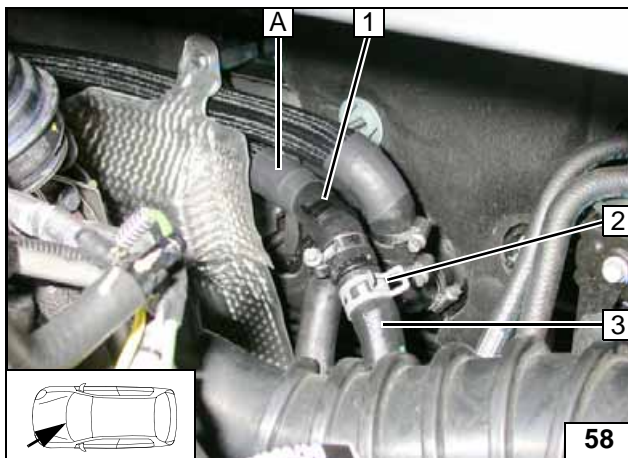
Disconnect hose to engine outlet/heat exchanger inlet 2 at connection piece on heat exchanger inlet. Spring clip 1 will be reused.



Cutting point



Connect-
ing heat
exchanger
inlet

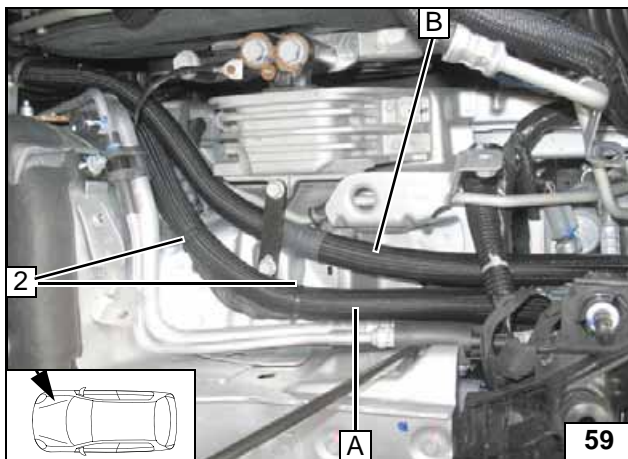


Ensure sufficient distance from neighbouring components.

- 1 Spacer bracket
- 2 Original vehicle spring clip
- 3 Hose of engine outlet



Connect-
ing engine
outlet

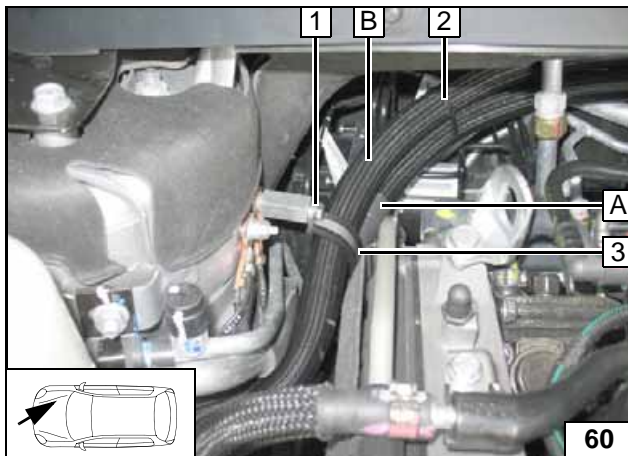


Fiat Freemont

Ensure sufficient distance from neighbouring components.
Fix hose A with cable ties 2 [2x] to original vehicle wiring harness.



Routing in
engine
compartment

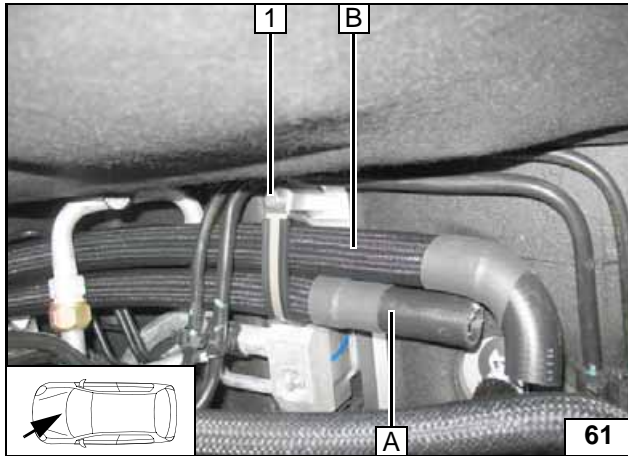


Ensure sufficient distance from neighbouring components.

- 1 Spacer nut, M6x20 bolt, spring lockwasher
- 2 Cable tie
- 3 48 mm dia. rubber-coated p-clamp

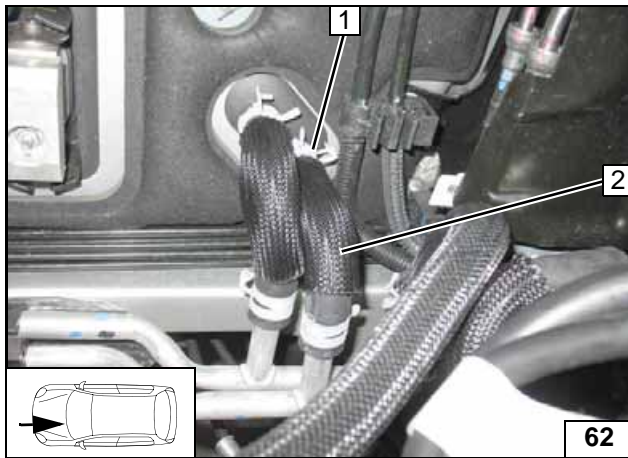


Routing in
engine
compartment



1 Spacer nut, M6x20 bolt, spring lockwasher, 48 mm dia. rubber-coated p-clamp

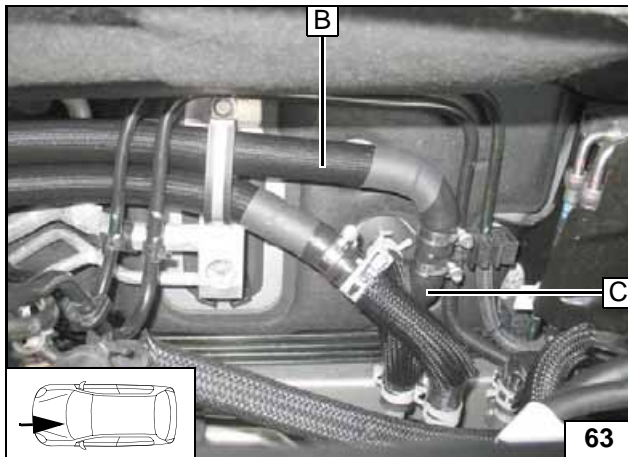
Routing in engine compartment



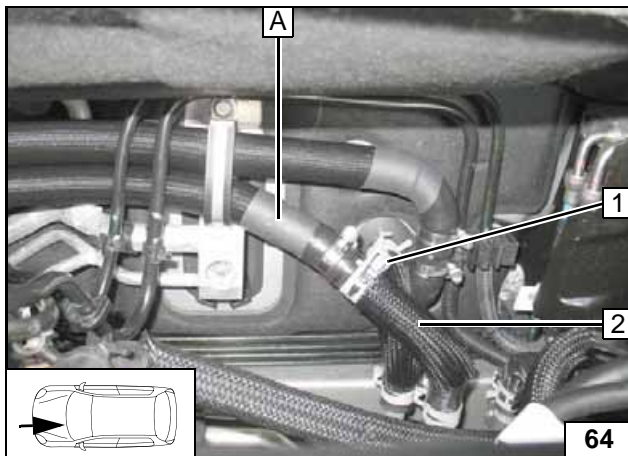
Disconnect hose to engine outlet/heat exchanger inlet 2 at connection piece on heat exchanger inlet. Spring clip 1 will be reused.



Cutting point



Connecting heat exchanger inlet



Ensure sufficient distance from neighbouring components.

1 Original vehicle spring clip
2 Hose of engine outlet turned



Connecting engine outlet



Fuel

CAUTION!

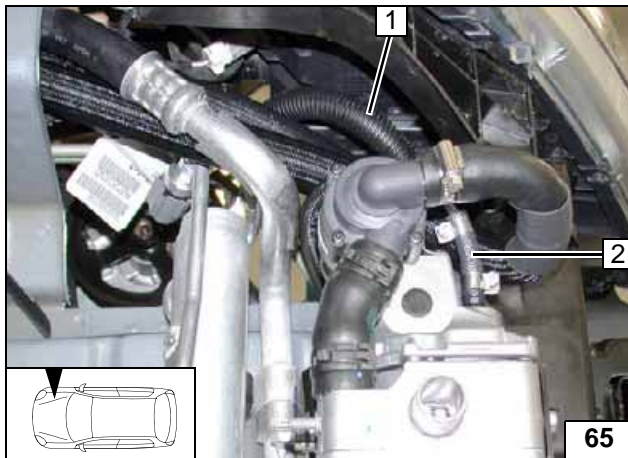
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

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.

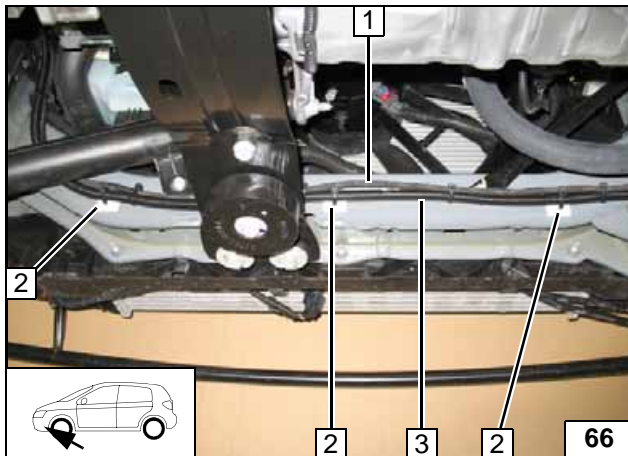
WARNING!

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



- 1 Fuel line in 2100 mm corrugated tube
- 2 Hose section, 10 mm dia. clamp [2x]

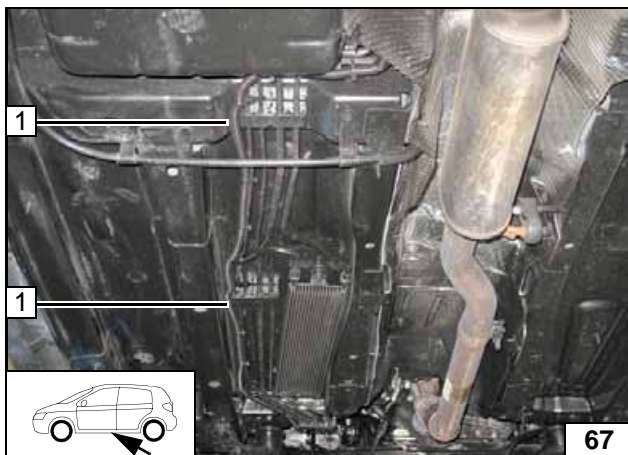
Connect-
ing heater



Fasten wiring harness of heater 1 and fuel line in corrugated tube 3 with adhesive base 2 and cable tie.



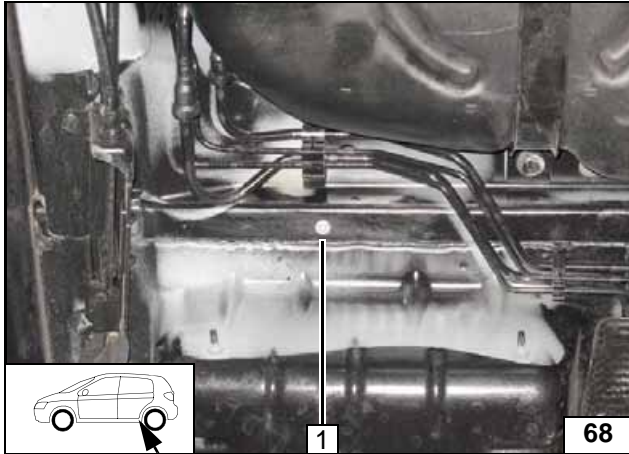
Routing
lines



Fasten wiring harness of metering pump and fuel line in corrugated tube 1 on original vehicle lines.

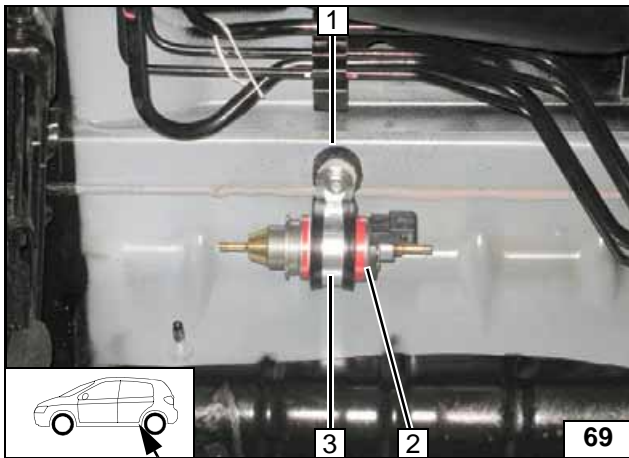


Routing
lines



1 Drill 9.1 mm dia. hole; install rivet nut

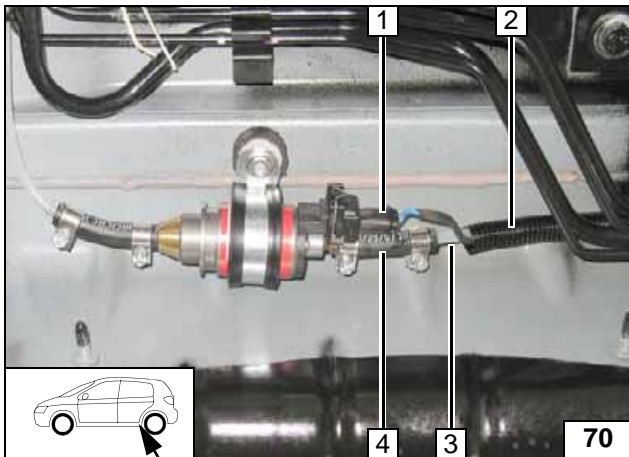
Installing rivet nut



1 Silent block, flanged nut, rivet nut
2 Metering pump
3 Rubber-coated p-clamp



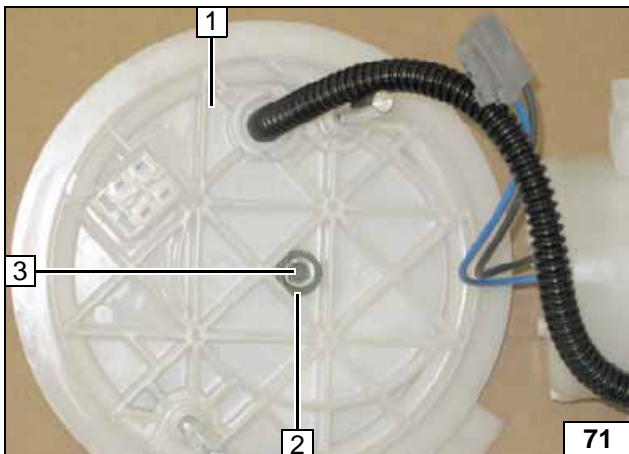
Mounting metering pump



1 Wiring harness of metering pump, connector mounted
2 Wiring harness of metering pump, fuel line in corrugated tube
3 Fuel line
4 Hose section, 10 mm dia. clamp [2x]



Connecting metering pump



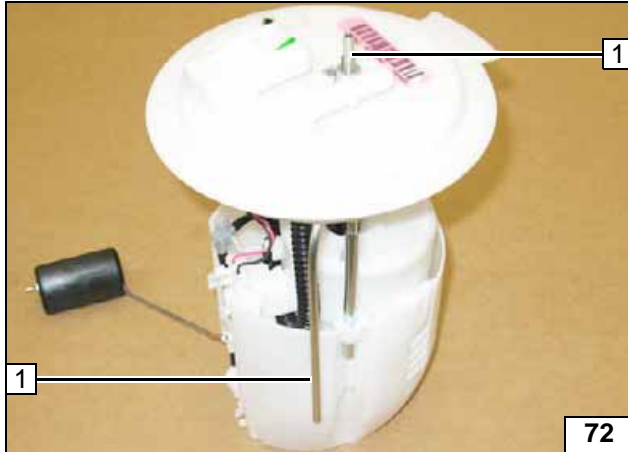
Petrol

Remove and dismantle fuel-tank sending unit 1 according to manufacturer's instructions.

2 Flanged nut
3 Copy hole pattern, 6 mm dia. hole



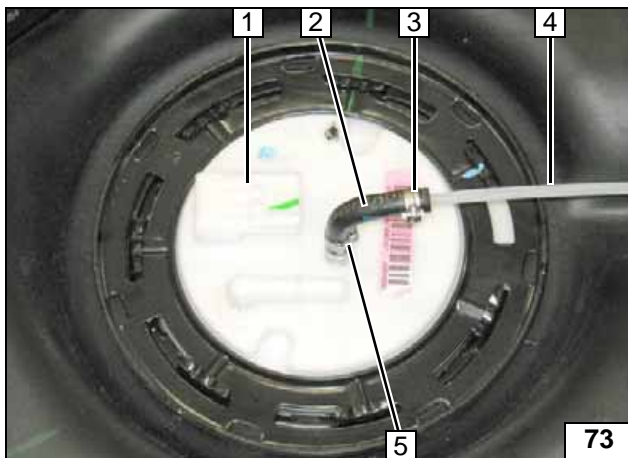
Fuel extraction



Shape fuel standpipe 1 according to template, cut to length and install.



Installing fuel standpipe

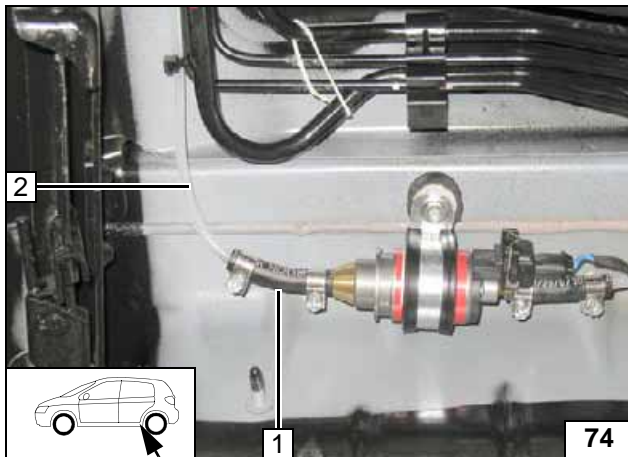


Install fuel-tank sending unit 1 in accordance with manufacturer's instructions. Install fuel tank in accordance with manufacturer's instructions.



Connecting fuel line

- 2 90° moulded hose
- 3 10mm dia. clamp
- 4 Fuel line
- 5 9mm dia. clamp

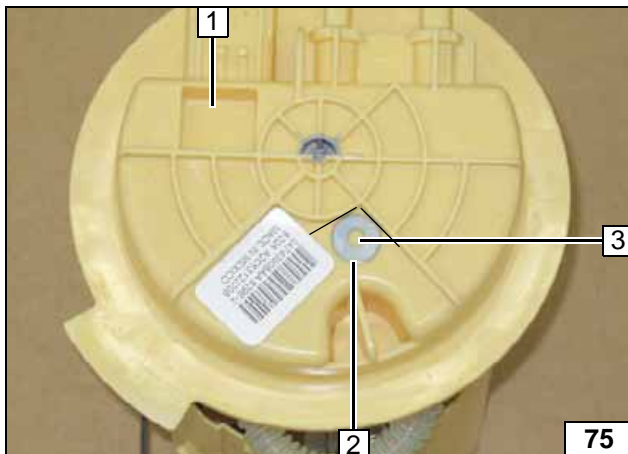


Check the position of the components; adjust if necessary. Check that they have freedom of movement.



Connecting metering pump

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



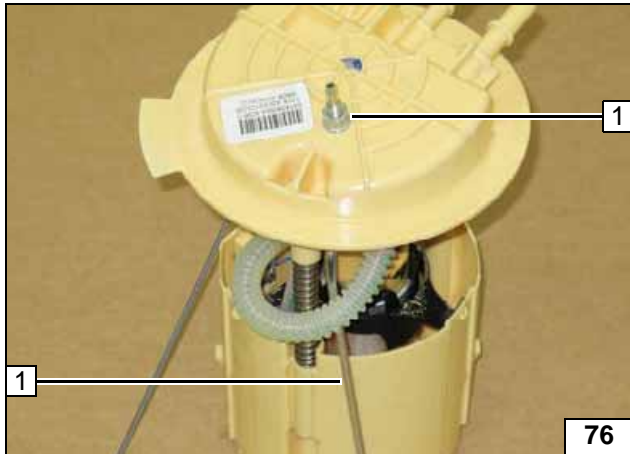
Diesel

Remove fuel-tank sending unit 1 according to manufacturer's instructions. Place 5.5 mm dia. large diameter washer 2 on bars.



Fuel extraction

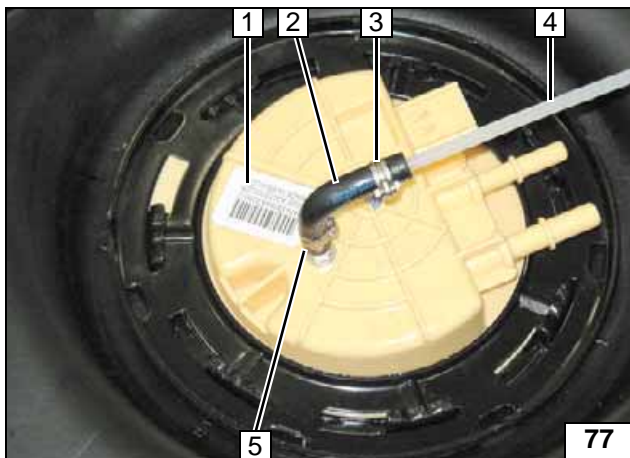
- 3 Copy hole pattern, 6 mm dia. hole



Shape fuel standpipe 1 according to template, cut to length and install.



Installing fuel standpipe

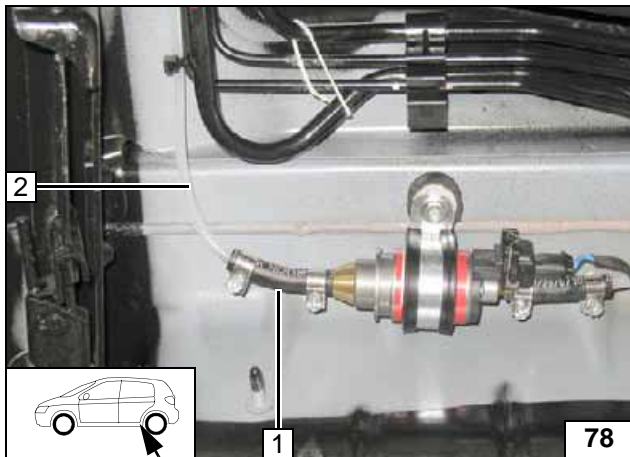


Install fuel-tank sending unit 1 in accordance with manufacturer's instructions. Install fuel tank in accordance with manufacturer's instructions.



Connecting fuel line

- 2 90° moulded hose
- 3 10mm dia. clamp
- 4 Fuel line
- 5 9mm dia. clamp

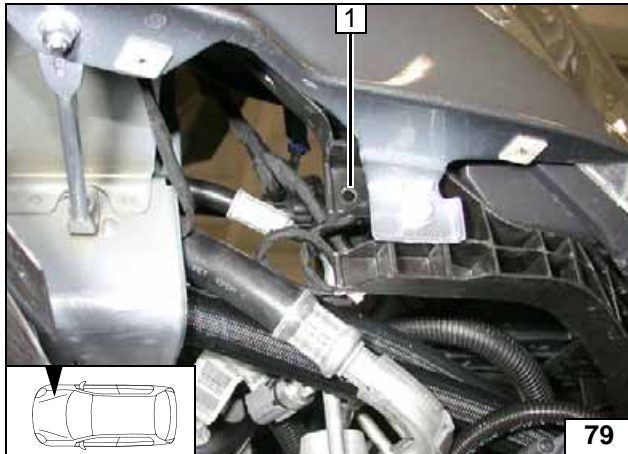
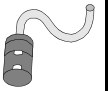


Check the position of the components; adjust if necessary. Check that they have freedom of movement.



Connecting metering pump

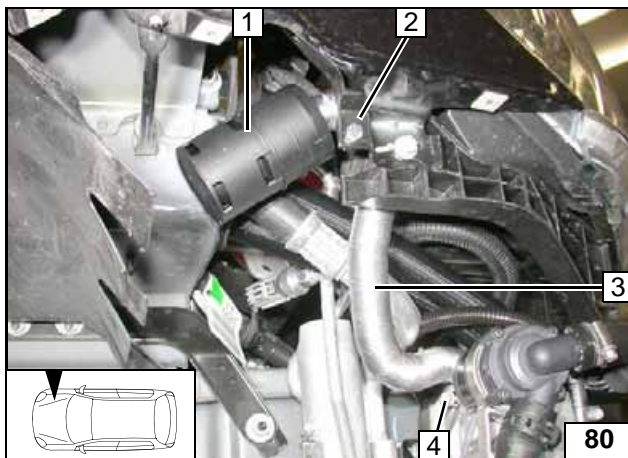
- 1 Hose section, 10 mm dia. clamp [2x]
- 2 Fuel line



Combustion Air

- 1 6.5 mm dia. hole

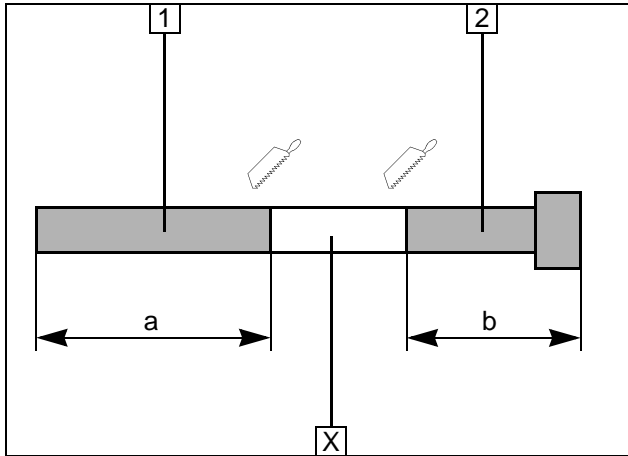
Hole in bumper trim



- 1 Silencer
- 2 M6x20 bolt, p-clamp, flanged nut
- 3 Combustion air pipe
- 4 27 mm dia. clamp



Mounting silencer

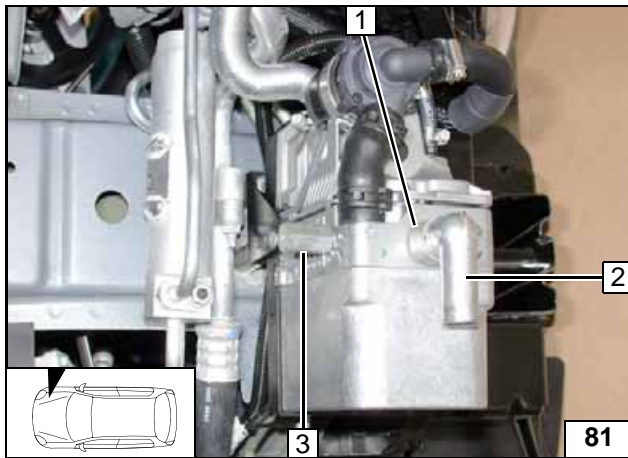


Exhaust Gas

- 1 Exhaust pipe
a = 360
- 2 Exhaust end section
b = 240

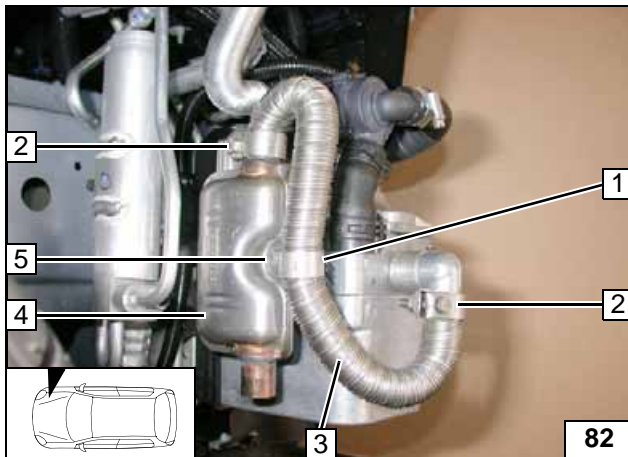
Discard section X.

Preparing exhaust pipe



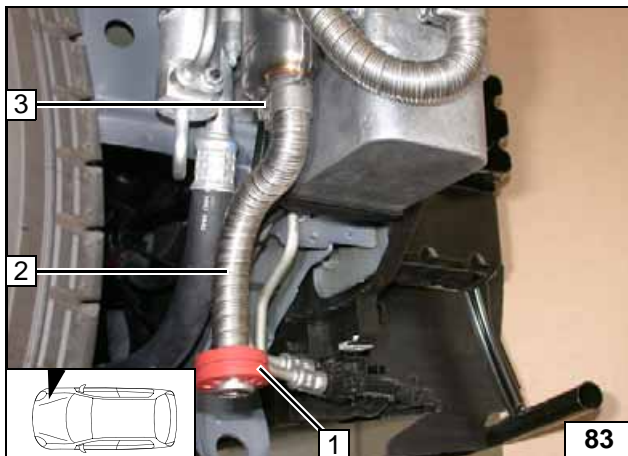
- 1 Hose clamp
- 2 Exhaust manifold
- 3 M6x30 spacer nut, E-jot stud

Mounting exhaust manifold



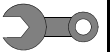
- 1 P-clamp
- 2 Hose clamp [2x]
- 3 Exhaust pipe
- 4 Silencer
- 5 Spacer nut, M6x16 bolt, spring lockwasher

Mounting exhaust pipe and silencer



- 1 Red (rt) rubber isolator with groove
- 2 Exhaust end section
- 3 Hose clamp

Mounting exhaust end section



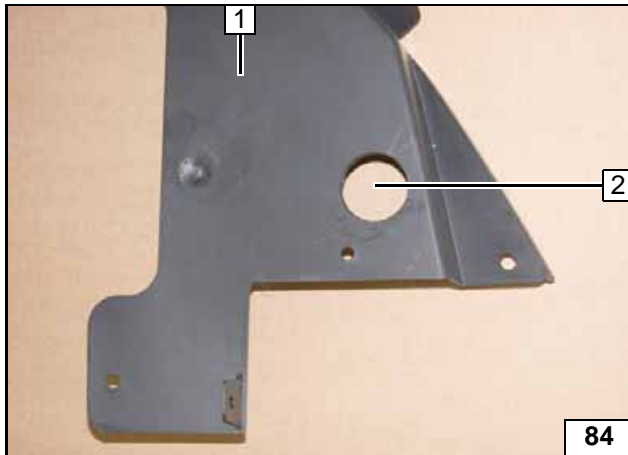
Final Work

WARNING!

Mount removed parts in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Insulate and tie back all loose lines.

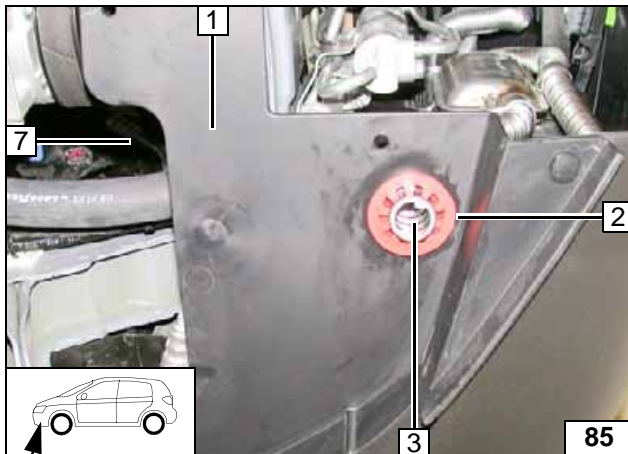
Only use manufacturer-approved coolant. Spray heater components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect the battery.
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Set digital timer, teach Telestart transmitter.
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Place instruction signboard "Switch off parking heater before refuelling" in the area of the filler neck.
- For initial start-up and function test, see installation instructions.



- 1 Underride protection
- 2 42 mm dia. hole

**Cutting out
underride
protection**

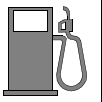


Align exhaust end section 3 flush on red rubber isolator 2.

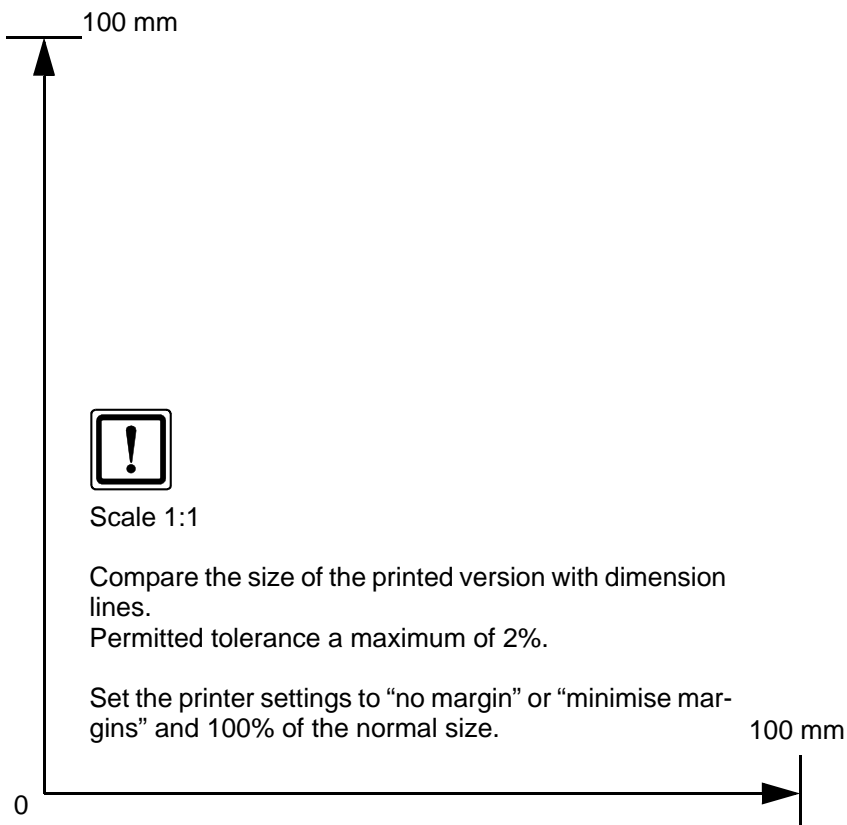
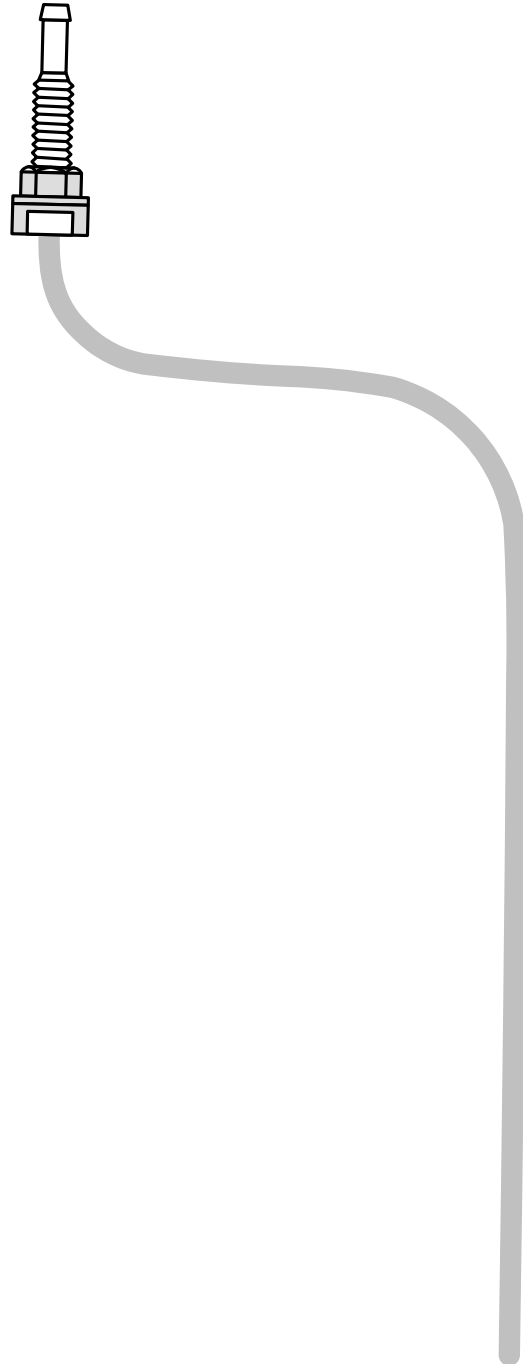
- 1 Underride protection

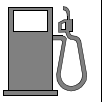


**Mounting
rubber iso-
lator**



Template for Petrol Fuel Standpipe





Template for Diesel Fuel Standpipe



100 mm



Scale 1:1

Compare the size of the printed version with dimension lines.

Permitted tolerance a maximum of 2%.

Set the printer settings to "no margin" or "minimise margins" and 100% of the normal size.

100 mm

0

Operating Instructions for End Customer

Please remove page and add to the vehicle operating instructions.

Note:

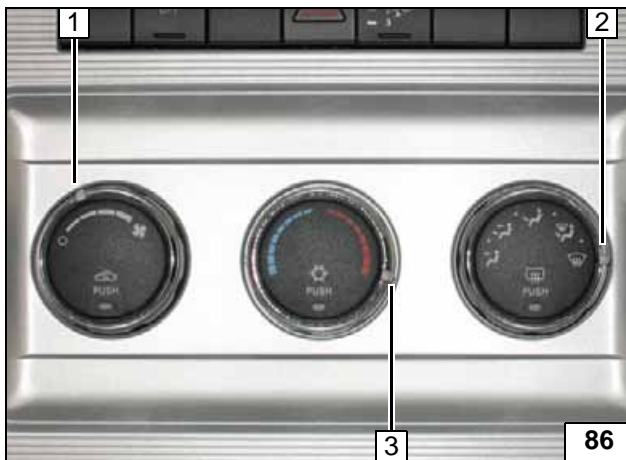
We recommend matching the heating time to the driving time.
Heating time = driving time

Example:

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

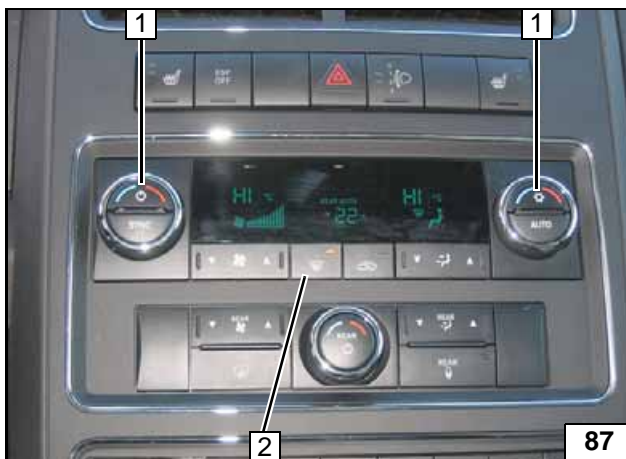
Passenger compartment monitoring, if installed, must be deactivated in addition to vehicle settings for the heating operation.

Before parking the vehicle, make the following settings:



Dodge Journey

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



Dodge Journey

The fan speed need not be pre-selected.

- 1 Set temperature to "HI" [2x]
- 2 Air outlet to windscreen



Fiat Freemont

The fan speed need not be pre-selected.

- 1 Air outlet to windscreen
- 2 Set temperature to "HI"



Manual air-conditioning



Automatic air-conditioning



Automatic air-conditioning

