



'Webasto Comfort' air-conditioning control

Installation documentation Renault Koleos

Validity

Manufacturer	Model	Type	EG BE No. / ABE
Renault	Koleos	RZG	e11 * 2007 / 46 * 3255 * ...

From model year 2016

Left-hand drive vehicle

Verified equipment variants: Webasto ComfortTwo zone automatic air-conditioning
Webasto ComfortThree zone automatic air-conditioning

Not verified: Manual air-conditioning

Renault Koleos

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Necessary components

- Additional 'Webasto Comfort' A/C control kit for Renault 2016: **1325545B**

Information on validity

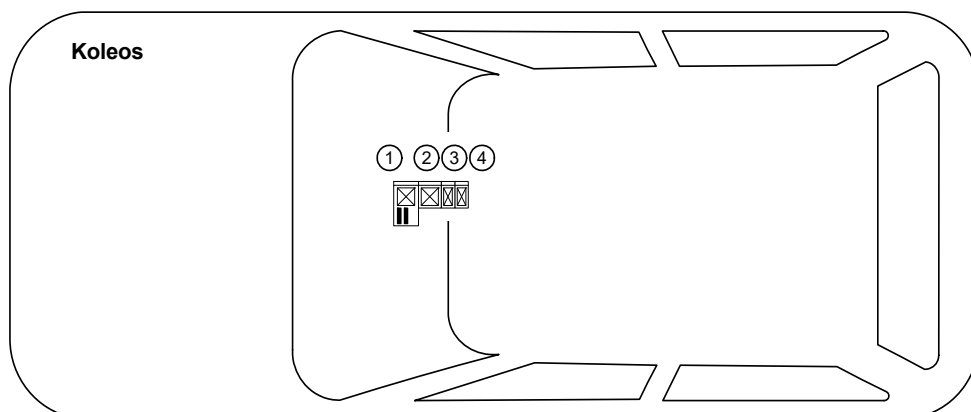
This installation documentation applies only in combination with:

- Installation kit for Renault Koleos 2017 diesel: **1326233_**
and installation documentation for Renault Koleos 2017 diesel: **1326234_**

Installation overview

Legend:

1. Passenger compartment relay and fuse holder
2. CCL Gateway
3. Relay K2
4. Relay K3



Information on operating and installation instructions

1 Important information (not complete)

1.1 Installation and repair



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.



Installation and repair may ONLY be carried out by persons trained and certified in a Webasto training course. NEVER try to install or repair Webasto heating or cooling systems if you have not completed a Webasto training course, you do not have the necessary technical skills and you do not have the technical documentation, tools and equipment available to ensure that you can complete the installation and repair work properly.

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

1.2 Operation

To ensure safe operation, we recommend having the heater checked every two years by an authorised Webasto dealer, especially when used over a long period and/or under extreme environmental conditions.

Do not operate the heater in closed rooms due to the danger of poisoning and suffocation.

Always switch off the heater before refuelling.

The heater may only be used with the prescribed fuel diesel (DIN EN 590) or petrol (DIN EN 228).

The heater may not be cleaned with a high-pressure cleaner.

1.3 Please note

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

To become familiar with and understand all functions and properties of the heater, the operating instructions must be read carefully and observed at all times.

For proper, safe installation and repair work, the installation instructions with all warnings and safety information must be carefully read and observed at all times. Please always contact a workshop authorised by Webasto for all installation and repair work.

Important

Webasto shall assume no liability for defects, damage and injuries resulting from a failure to observe the installation, repair and operating instructions of the information contained in them.

This liability exclusion particularly applies to improper installations and repairs, installations and repairs by untrained persons or in the case of a failure to use genuine spare parts.

The liability due to culpable disregard to life, limb or health and due to damage or injuries caused by a wilful or reckless breach of duty remain unaffected, as does the obligatory product liability.

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. Insulate loose wire ends and tie back. Connectors on electronic components must audibly snap into place during assembly.

Sharp edges should be fitted with rub protection. Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K).

Observe the instructions and guidelines of the respective vehicle manufacturer for demounting and mounting vehicle specific components!

The initial start-up is to be executed with the Webasto Thermo Test Diagnosis.

When installing a programmable control module (e.g. a PWM Gateway), the corresponding settings must be checked or adjusted.

2 Statutory regulations governing installation

Guidelines	Thermo Top Evo
Heating Directive ECE R122	E1 00 0258
EMC Directive ECE R10	E1 04 5627

Note

The regulations of these guidelines are binding in the scope of the Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries in which there are no special regulations.

Important

Failure to follow the installation instructions will result in the invalidation of the type approval for the heater and therefore invalidation of the general **homologation of the vehicle**.

Note

The heater is licensed in accordance with paragraph 19, section 3, No. 2b of the StVZO (German Road Traffic Licensing Authority).

2.1 Excerpt from ECE regulation 122 (heating system) paragraph 5 for the installation of the heater

Beginning of excerpt.

ANNEX VII

REQUIREMENTS FOR COMBUSTION HEATERS AND THEIR INSTALLATION

1. GENERAL REQUIREMENTS

1.7.1. A clearly visible tell-tale in the operator's field of view shall inform when the combustion heater is switched on or off.

2. VEHICLE INSTALLATION REQUIREMENTS

2.1. Scope

2.1.1. Subject to paragraph 2.1.2, combustion heaters shall be installed according to the requirements of this Annex.

2.1.2. Vehicles of category O having liquid fuel heaters are deemed to comply with the requirements of this Annex.

2.2. Positioning of heater

2.2.1. Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination.

2.2.2. The combustion heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be fulfilled if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields.

2.2.3. In the case of M2 and M3 vehicles, the heater must not be positioned in the passenger compartment. However, an installation in an effectively sealed envelope which also complies with the conditions in paragraph 2.2.2 may be used.

2.2.4. The label referred to in paragraph 1.4 or a duplicate, must be positioned so that it can be easily read when the heater is installed in the vehicle.

2.2.5. Every reasonable precaution should be taken in positioning the heater to minimise the risk of injury and damage to personal property.

2.3. Fuel supply

2.3.1. The fuel filler must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage.

2.3.2. In the case of liquid fuel heaters, where a supply separate to that of the vehicle is provided, the type of fuel and its filler point must be clearly labelled.

2.3.3. A notice, indicating that the heater must be shut down before refuelling, must be affixed to the fuelling point. In addition a suitable instruction must be included in the manufacturer's operating manual.

2.4. Exhaust system

2.4.1. The exhaust outlet must be located so as to prevent emissions from entering the vehicle through ventilators, heated air inlets or opening windows.

2.5. Combustion air inlet

2.5.1. The air for the combustion chamber of the heater must not be drawn from the passenger compartment of the vehicle.

2.5.2. The air inlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

2.6. Heating air inlet

2.6.1. The heating air supply may be fresh or recirculated air and must be drawn from a clean area not likely to be contaminated by exhaust fumes emitted either by the propulsion engine, the combustion heater or any other vehicle source.

2.6.2. The inlet duct must be protected by mesh or other suitable means.

2.7. Heating air outlet

2.7.1. Any ducting used to route the hot air through the vehicle must be so positioned or protected that no injury or damage could be caused if it were to be touched.

2.7.2. The air outlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.

End of excerpt.

In multilingual versions the German language is binding.

Renault Koleos

Information on validity

This installation documentation applies to Renault Koleos vehicles - for validity, see page 1 - from model year 2016 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.

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

Technical information

Special tools

- Automatic wire stripper, 0.2 - 6mm²
- Crimping pliers for male connector, 0.14 - 6mm²
- Crimping pliers for cable lug, 0.5 - 10mm²
- Crimping pliers for connector, 0.25 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Webasto Thermo Test Diagnosis with current software

Dimensions

- All dimensions are in mm.

Tightening torque values

Tighten bolt connections in accordance with manufacturer's instructions or in accordance with state-of-the-art-technology.

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.

Special features are highlighted using the following symbols:

Mechanical system



Electrical system



Software



Specific risk of damage to components.



Specific risk due to electrical voltage.



Specific risk of injury or fatal accidents.



Specific risk of fire or explosion.



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



Reference to a special technical feature.



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



Tightening torque according to the manufacturer's vehicle-specific documents.



Renault Koleos

Preliminary work

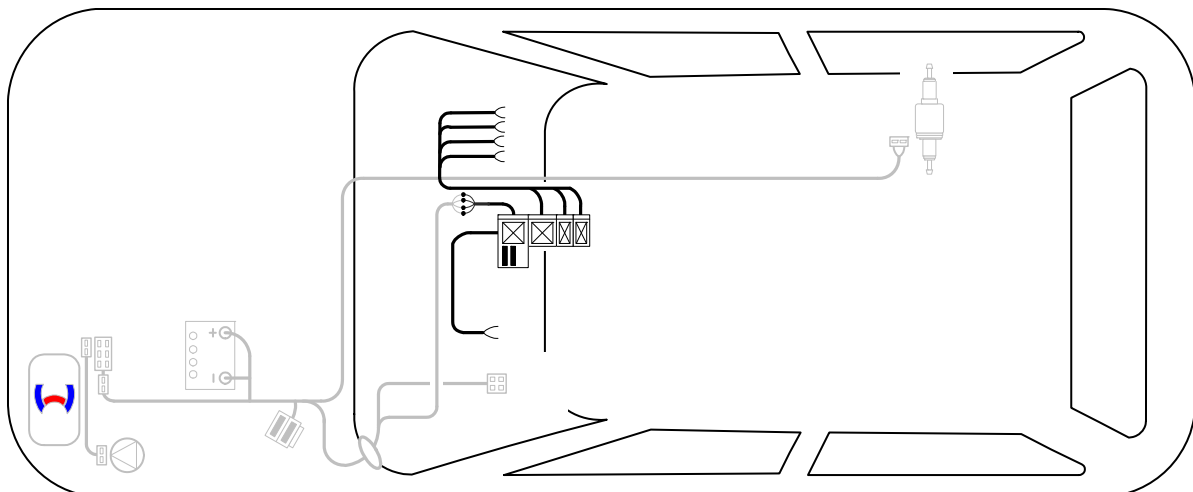
Vehicle



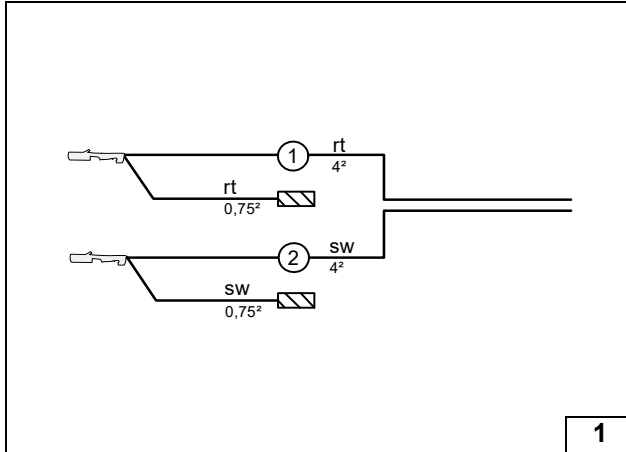
- Disconnect the battery.
- Remove the lateral instrument panel trim on the driver's side, on the left.
- Remove the lower instrument panel trim on the driver's side.
- Remove the centre console side trim the centre console the driver's and front passenger's side.
- Fold back the carpet on the driver's side.



Electrical system



Wiring harness routing diagram for passenger compartment



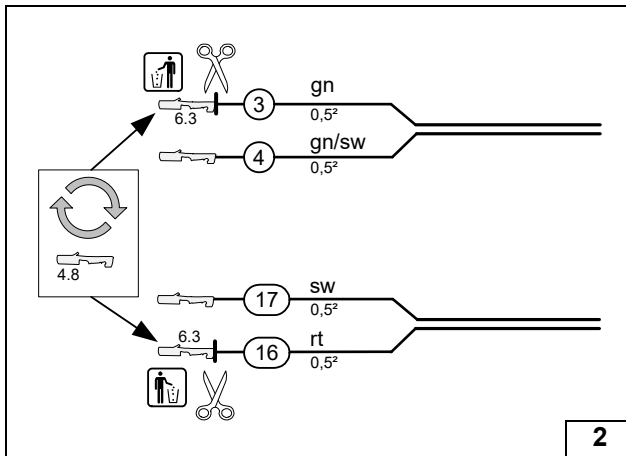
Preparing electrical system

Wire sections retain their numbering in the entire document.

- ① Red (rt) wire of fan wiring harness
- ② Black (sw) wire of fan wiring harness

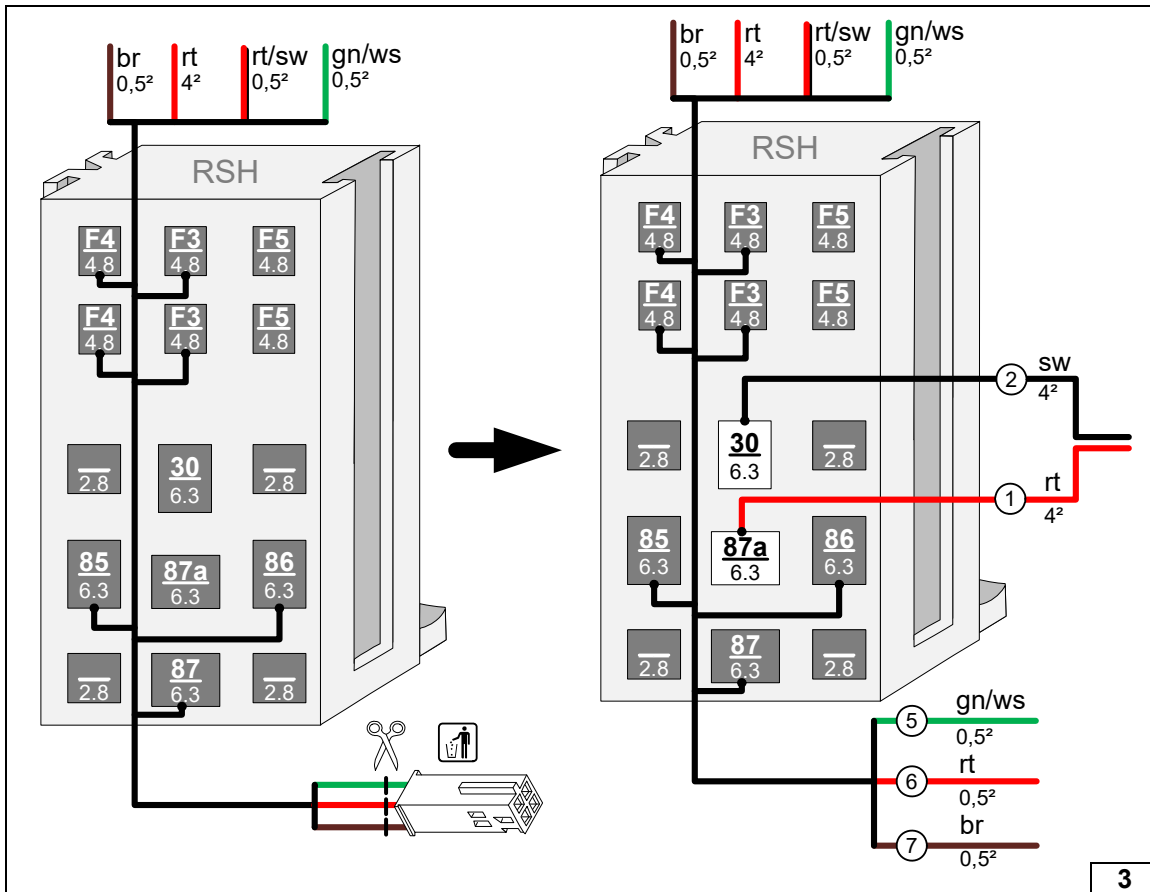


Assigning wiring harness

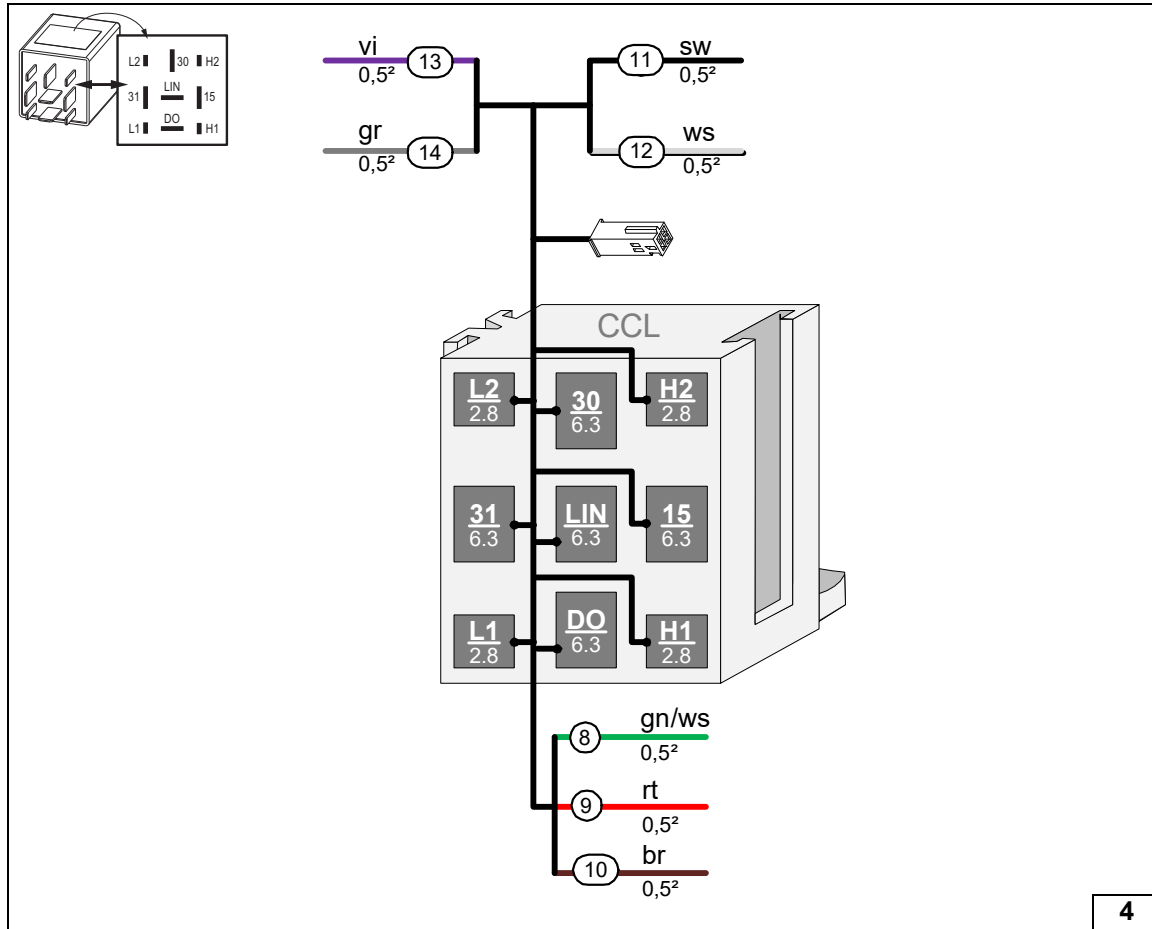


- ③ Green (gn) wire of A/C control wiring harness
- ④ Green/black (gn/sw) wire of A/C control wiring harness
- ⑬ Red (rt) wire of power supply wiring harness
- ⑭ Black (sw) wire of power supply wiring harness

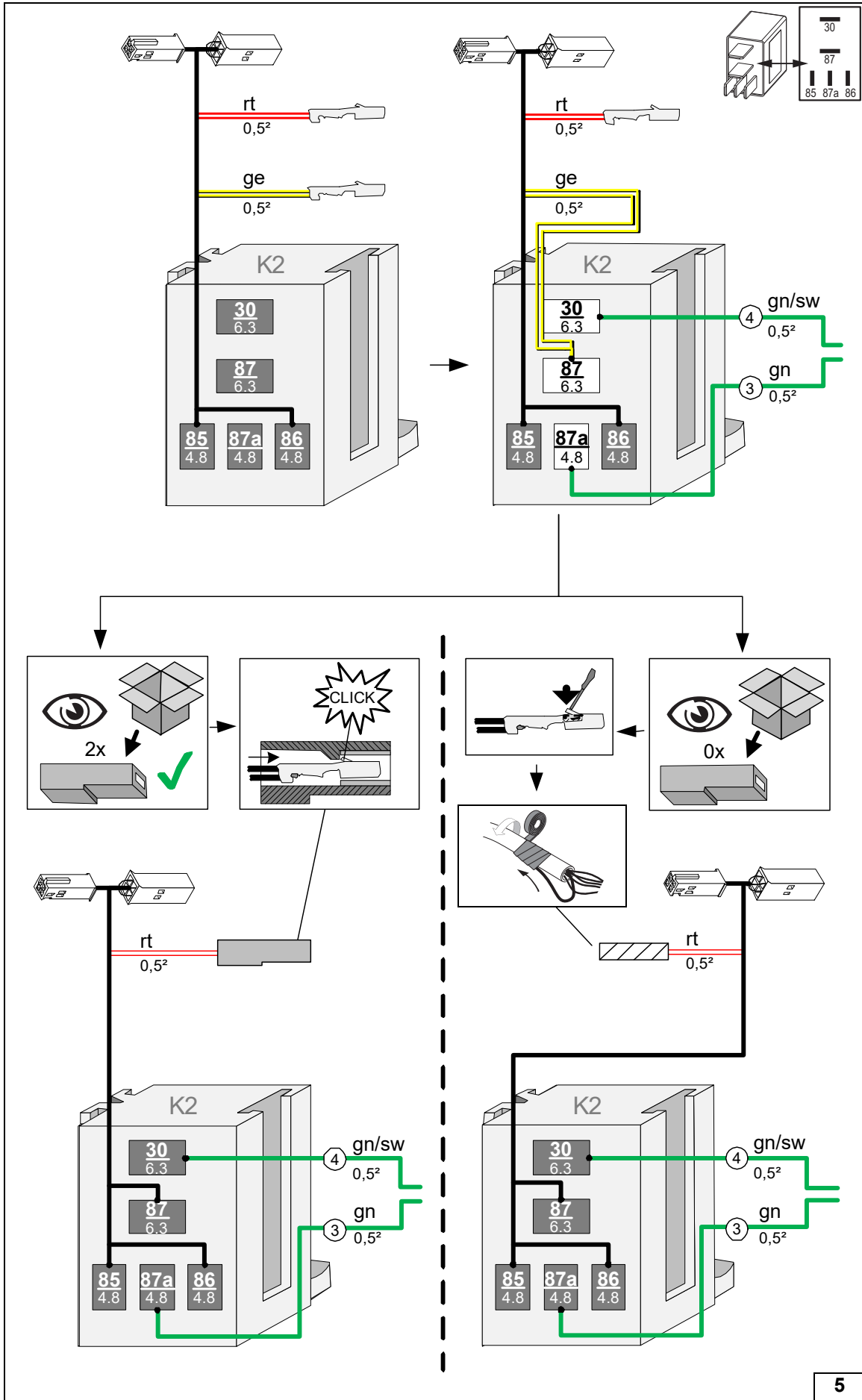
Preparing / assigning wiring harnesses



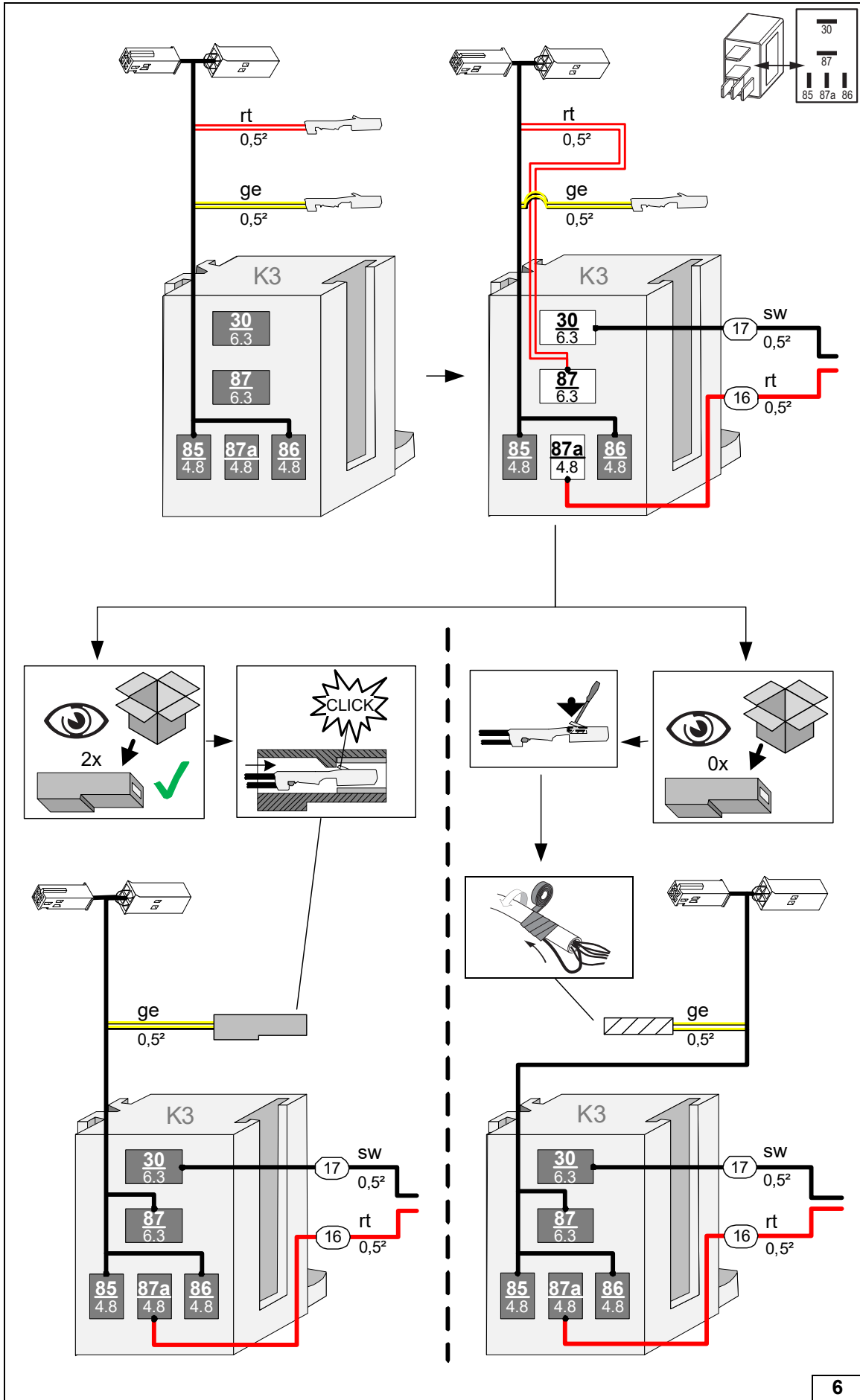
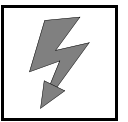
Preparing passenger compartment relay and fuse holder/ connecting / assigning wires



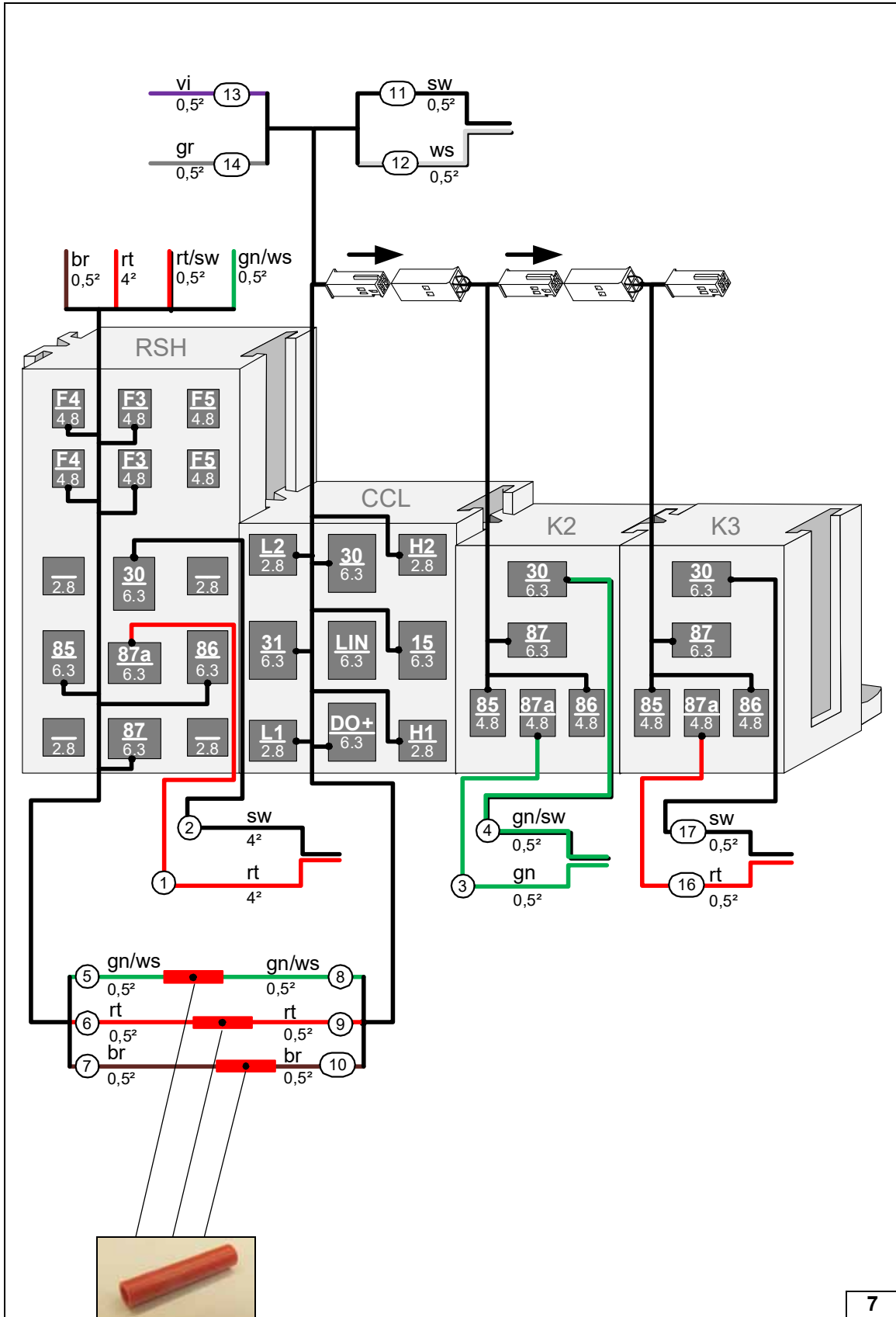
Assigning wires of CCL-Gateway wiring harness



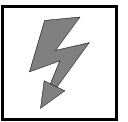
Premounting relay K2 wiring harness / connecting wires



Premounting relay K3 wiring harness / connecting wires



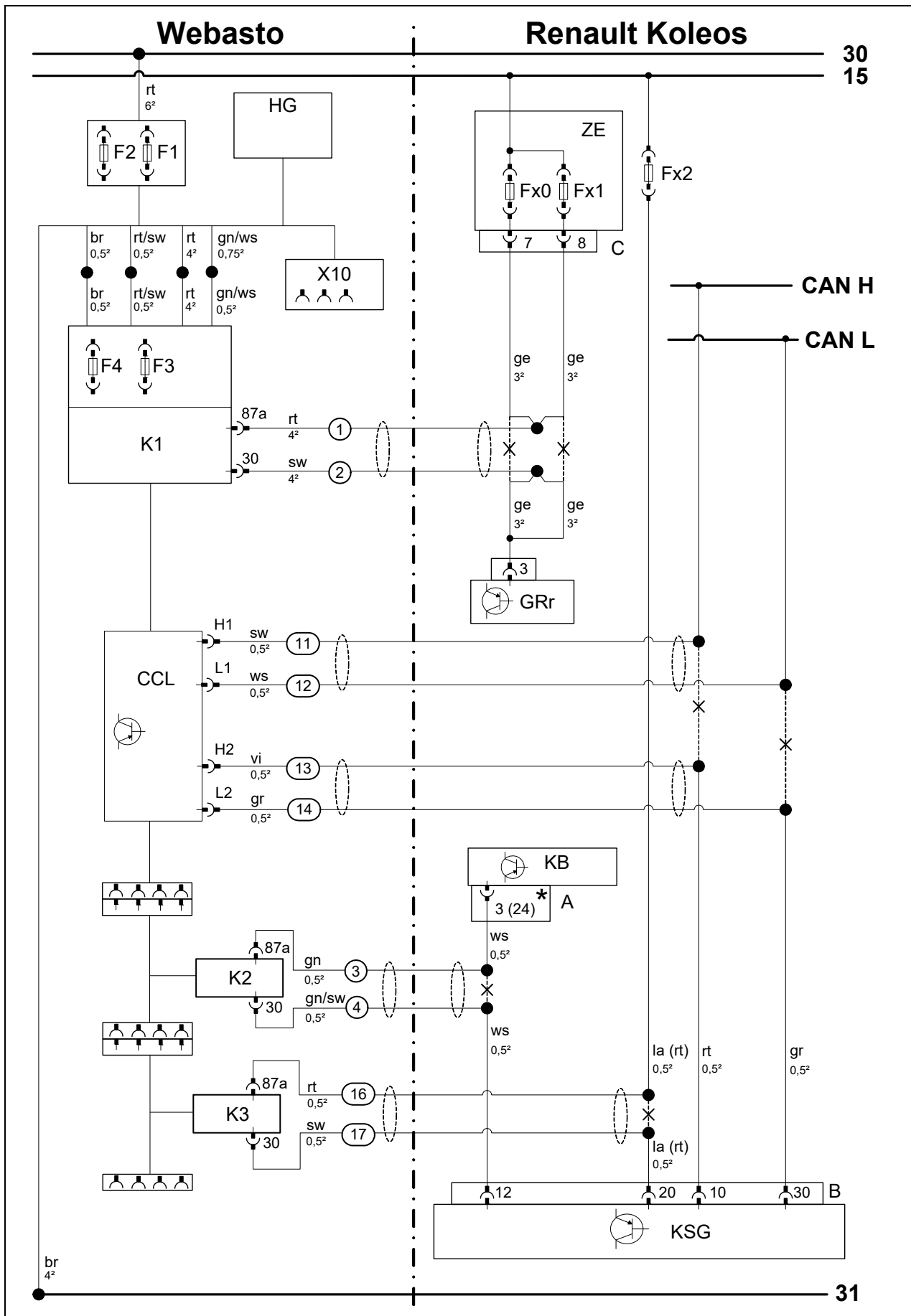
Assembling sockets / connecting male and female connectors / connecting wires



System wiring diagram



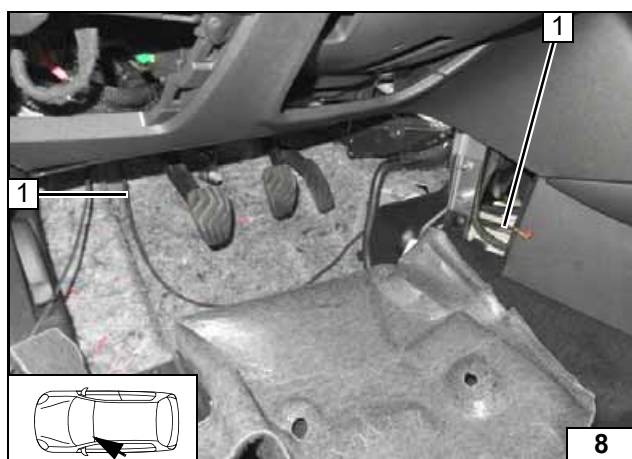
System wiring diagram





Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	ZE	Passenger compartment fuse box	rt	red
F1	20A fuse	Fx0	20A fuse	sw	black
F2	30A fuse	Fx1	20A fuse	ge	yellow
X10	4-pin female connector of control element	C	Connector of ZE	gn	green
		Fx2	10A fuse	ws	white
F3	1A fuse	GRr	Fan controller 1023	br	brown
F4	25A fuse	KB	A/C control panel 2402	la	salmon
K1	Fan relay	A	Black connector of KB	vi	violet
CCL	CCL Gateway	KSG	A/C control unit 419	gr	grey
K2	Additional relay	B	Black connector of KSG		
K3	Additional relay				
				*	Pin numbering depends on the equipment
				X	Cutting point
				Wiring colours may vary.	

Legend



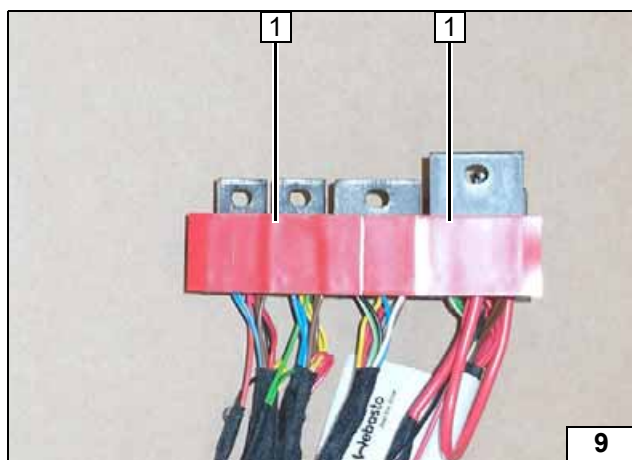
Fan controller

Produce all following electrical connections as shown in the system wiring diagram.

Route heater wiring harness 1 to the centre console.

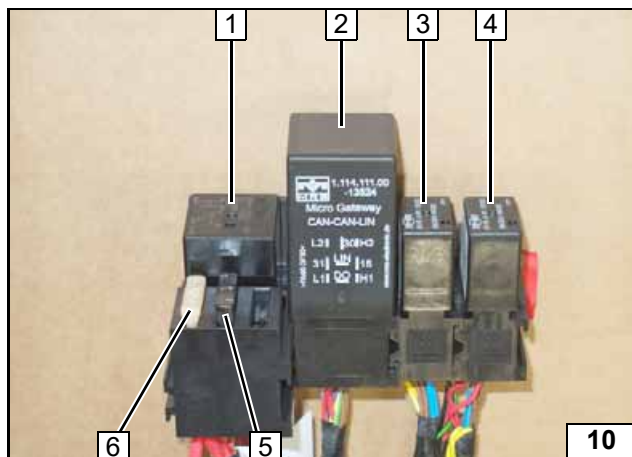


Routing wiring harness of heater



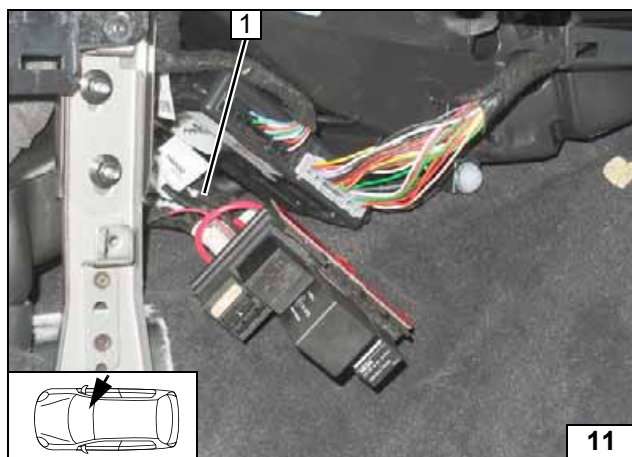
1 Double-sided adhesive tape

Preparing relay socket



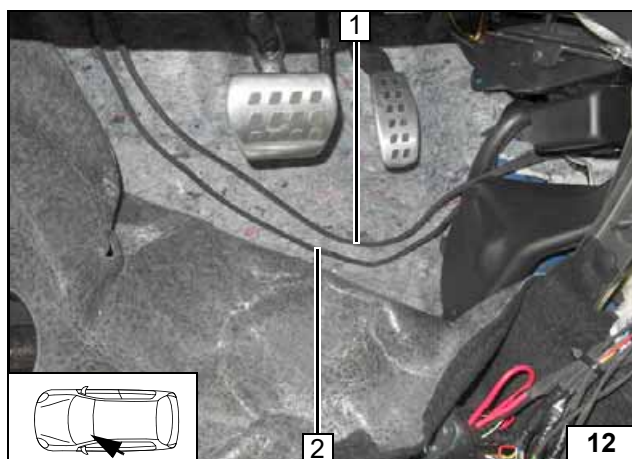
- 1 Relay K1
- 2 CCL Gateway
- 3 Relay K2
- 4 Relay K3
- 5 1A fuse F3
- 6 25A fuse F4

**Mounting
CCL GW
and relay**



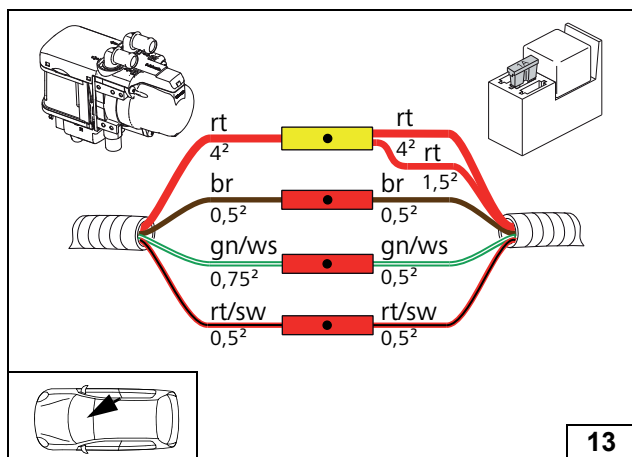
- 1 A/C control and power supply wiring harnesses

**Positioning relay
socket on
front passenger's
side**

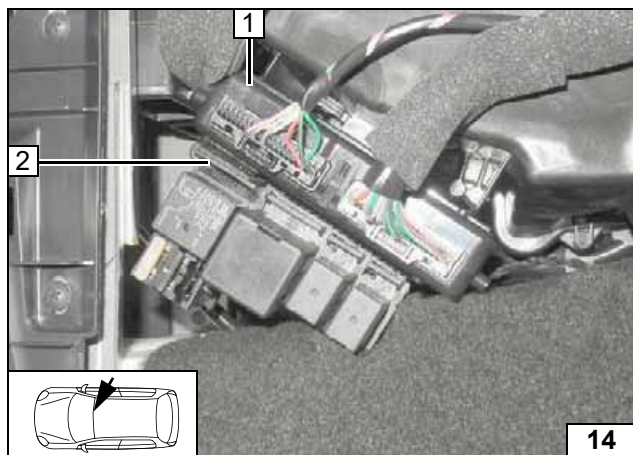


- 1 Heater wiring harness
- 2 Fan controller wiring harness

**Routing fan
controller wiring
harness to
driver's side
A-pillar**



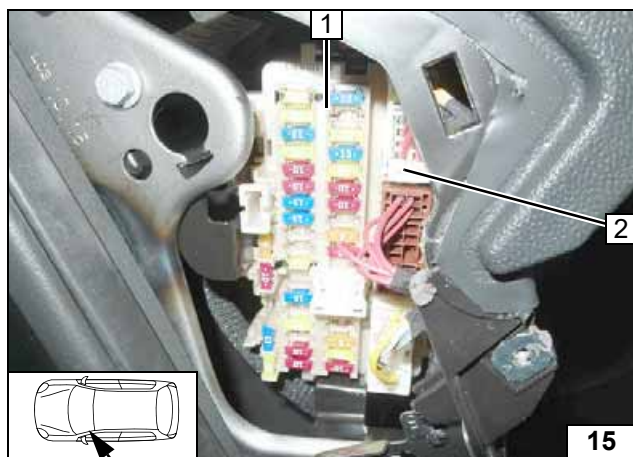
**Connecting
same colour
wires of wiring
harnesses**



Stick premounted relay and fuse block 2 onto A/C control unit 1 (clean bonding surfaces).

Mounting passenger compartment relay and fuse holder, CCL module, relays K2 and K3

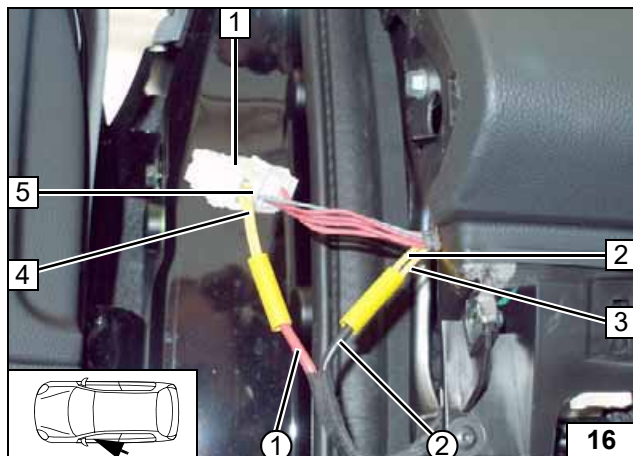
- 1 Passenger compartment fuse box
- 2 Connector C

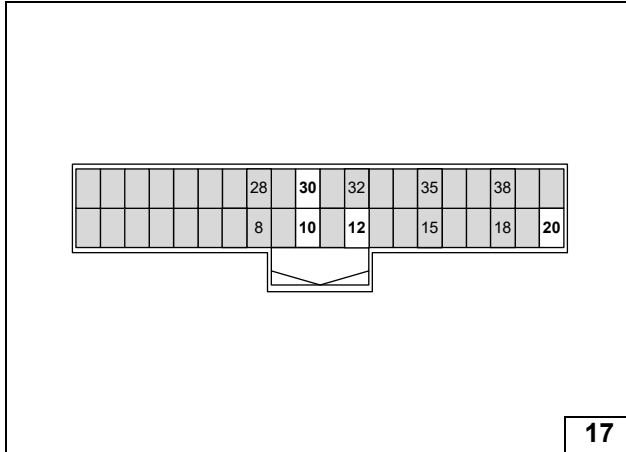


View of connector C on passenger compartment fuse box

- 1 Connector C, disconnected
- 2 Yellow (ge) wire of fan controller connector/ pin 3
- 3 Yellow (ge) wire of fan controller connector, pin 3
- 4 Yellow (ge) wire of connector C/ pin 7/ fuse Fx0
- 5 Yellow (ge) wire of connector C/ pin 8/ fuse Fx1
- ① Red (rt) wire of K1/87a, fan wiring harness
- ② Black (sw) wire of K1/30, fan wiring harness

Connecting fan controller



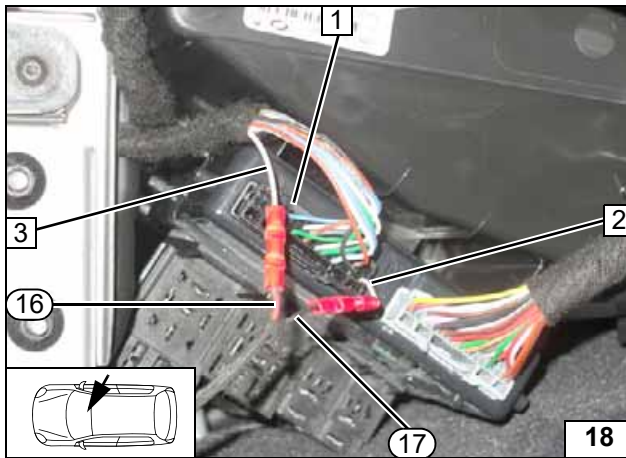


Connecting A/C control unit

Connector B on wire side.



View of connector B of KSG

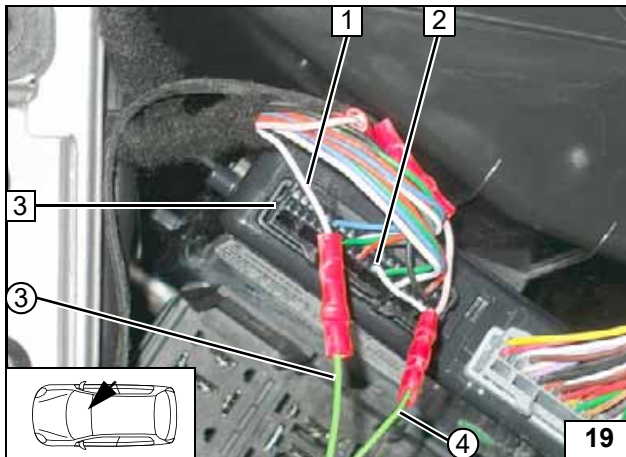


See system wiring diagram for wire colours.

- 1 A/C control unit connector B
- 2 Wire of connector B / pin 20
- 3 Wire of fuse Fx2
- ⑩ Red (rt) wire of K3/87a, power supply wiring harness
- ⑪ Black (sw) wire of K3/30, power supply wiring harness

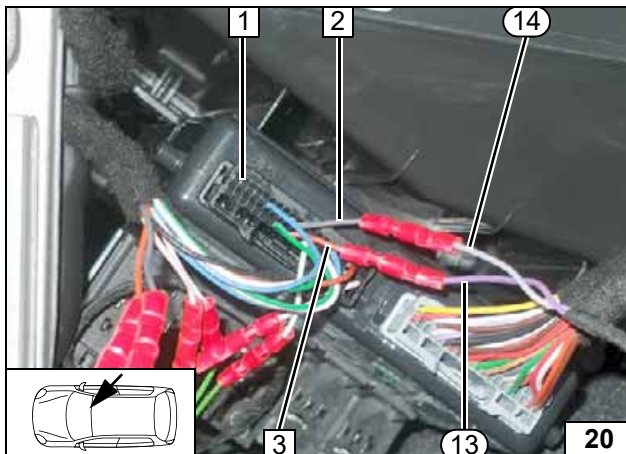


Connecting A/C control unit



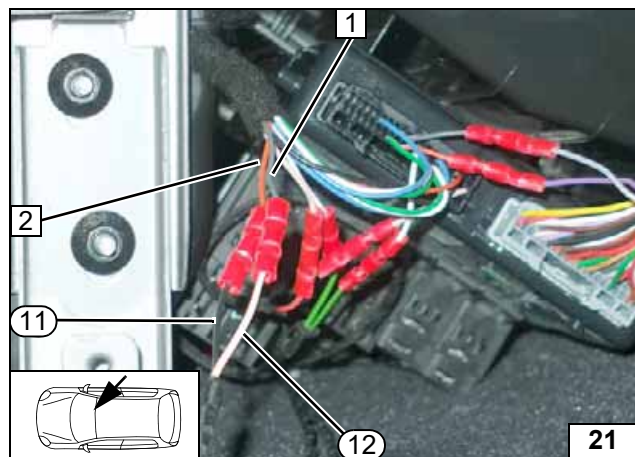
- 1 Wire of connector A/ pin 3(24), A/C control panel
- 2 Wire of connector B / pin 12
- 3 A/C control unit connector B
- ⑫ Green (gn) wire of K2/87a, A/C control wiring harness
- ⑬ Green/black (gn/sw) wire of K2/30, A/C control wiring harness

Connecting A/C control unit



- 1 A/C control unit connector B
- 2 Wire of connector B / pin 30
- 3 Wire of connector B / pin 10
- ⑭ Violet (vi) wire of CCL Gateway/ H2
- ⑮ Grey (gr) wire of CCL Gateway/ L2

Connecting A/C control unit



- 1 Wire of CAN L
- 2 Wire of CAN H
- ① Black (sw) wire of CCL Gateway/ H1
- ② White (ws) wire of CCL Gateway/ L1

Connecting
A/C control
unit



Final work



Warning:

Final work is not carried out until the installation of the heater in the vehicle has been completed. Check all electrical connections for firm seating. Insulate loose wire ends and tie back.

- **Make settings on the A/C control panel according to the operating instructions.**



Operating instructions

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 for the heating operation.

For instructions on deactivation, please refer to the operating instructions of the vehicle.



Information on the active parking heating mode:

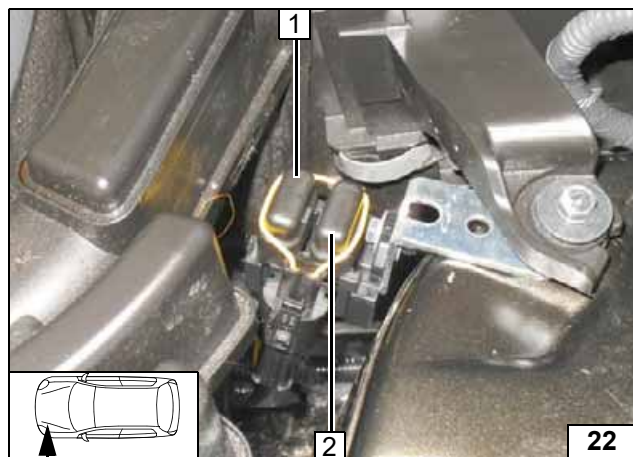
The vehicle fan is deactivated when the vehicle is opened and is available again when the ignition is switched on.

After re-closing the vehicle it may take several minutes before it becomes active again.

Your vehicle is equipped with a Comfort air-conditioning control system.

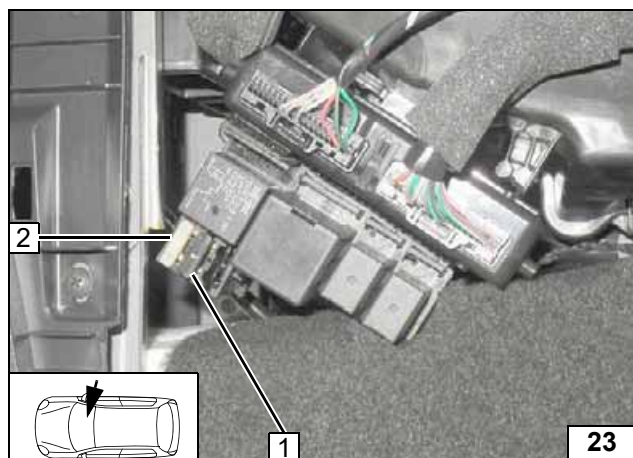
This means that **no** settings are required on the A/C control panel before parking the vehicle.

All necessary presettings like the fan speed, temperature and flap positioning will be automatically set.



- 1 20A heater fuse F1
- 2 30A passenger compartment main fuse F2

Engine compartment fuses



- 1 1A control element fuse / fan controller fuse F3
- 2 25A fan fuse F4

Passenger compartment fuses

