G

‘Webasto Standard’ Air-Conditioning Control

Installation Documentation
Renault Koleos

Validity

Manufacturer	Model	Type	Model year	EG BE No. / ABE
Renault	Koleos	RZG	starting with 2017	e11 * 2007 / 46 * 3255 *...

Left-hand drive vehicle

Verified equipment variants: 2 zone automatic air-conditioning

Not verified: Manual air-conditioning

Renault Koleos

Table of Contents

Validity	1	Electrical System	5
Necessary Components	2	Preparing Electrical System	6
Information on Validity	2	System Wiring Diagram	8
Installation Overview	2	Fan Controller	9
Information on Operating and Installation Instructions	3	Final Work	11
Information on Validity	4	Operating Instructions	12
Technical Information	4		
Explanatory Notes on Document	4		
Preliminary Work	5		

Necessary Components

- Additional ‘Webasto Standard’ A/C control kit for Renault Koleos 2017: **1326272A**

Information on Validity

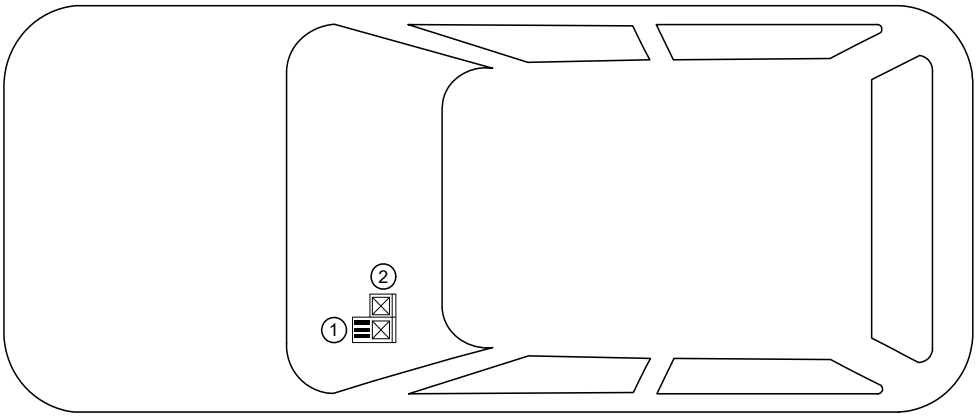
This installation documentation applies only in combination with:

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

Installation Overview

Legend:

1. Passenger compartment relay and fuse holder
2. PWM Gateway



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 from model year 2017 and later, - for validity, see page 1- 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

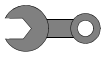
Special Tools
- Automatic wire stripper, 0.2 - 6mm²
- Crimping pliers for cable lug / tab connector, 0.5 - 6mm²
- Torque wrench for 2.0 - 10 Nm
- Webasto Thermo Test Diagnosis with current software

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.

Mechanical System 

Electrical System 

Software 

Special features are highlighted using the following symbols:

Specific risk of damage to components. 

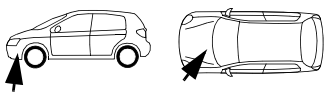
Specific risk due to electrical voltage. 

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. 

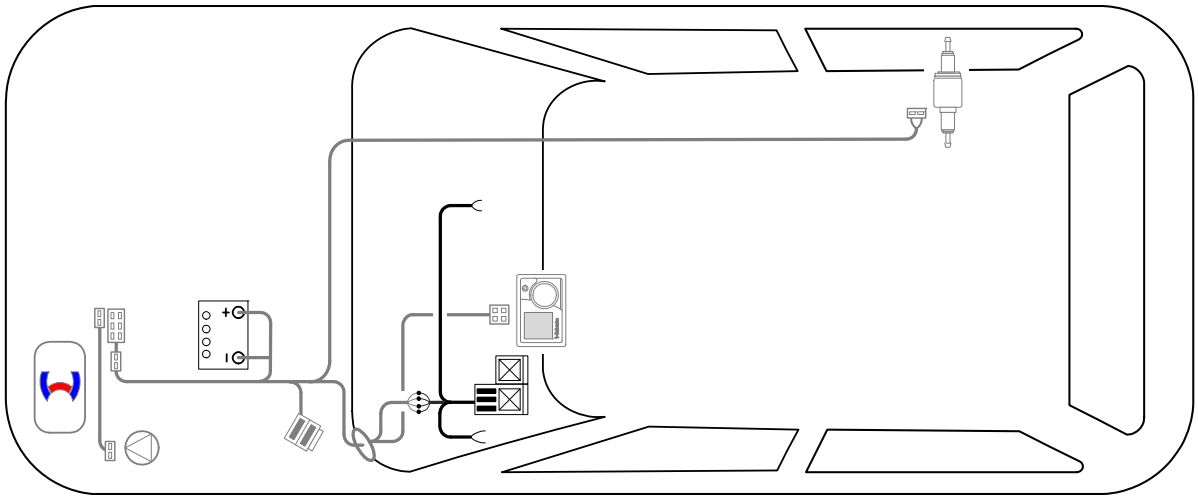
Renault Koleos

Preliminary Work

Vehicle

- Disconnect the battery.
- Remove the lateral instrument panel trim on the left.
- Remove the lower instrument panel trim on the driver's side.
- Remove the upper and lower side trim of the centre console on the right and left.

Electrical System



Wiring harness routing diagram for passenger compartment

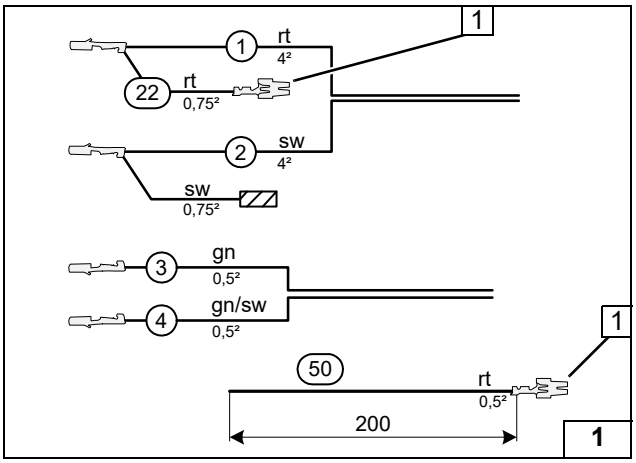
Preparing Electrical System

All vehicles

Wire sections retain their numbering in the entire document.

1 Flat spring contact
① Red (rt) wire of fan wiring harness
② Black (sw) wire of fan wiring harness
③ Green (gn) wire of PWM control system wiring harness
④ Green/black (gn/sw) wire of PWM control system wiring harness

Assigning / preparing wires

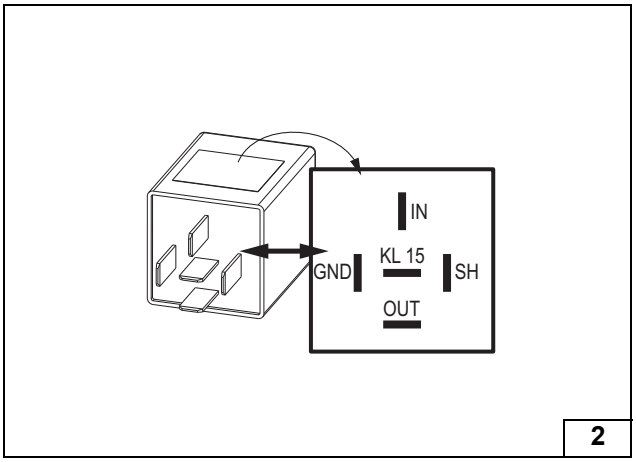


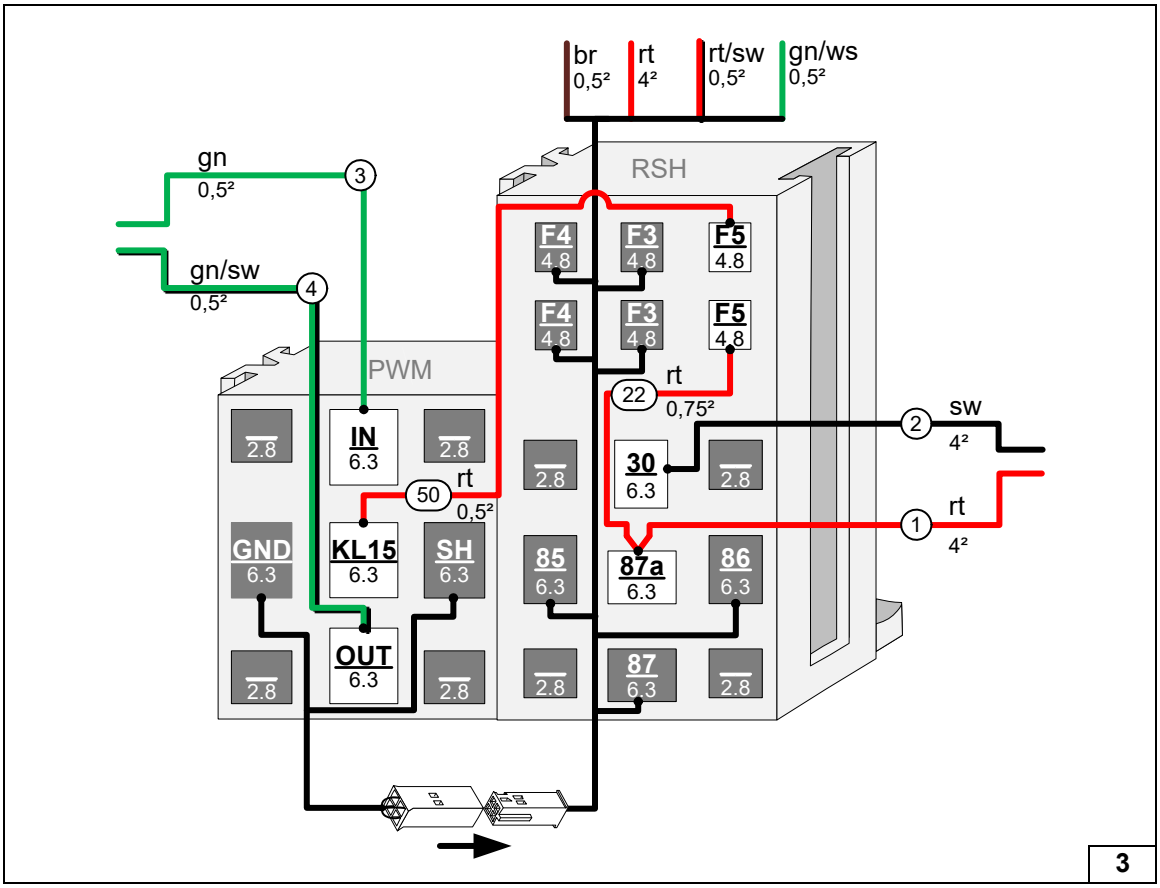
Check the PWM Gateway settings when starting up the heater and adjust if necessary.

Settings:

Duty cycle: 70%
Frequency: 400Hz
Voltage: not relevant
Function: Low side

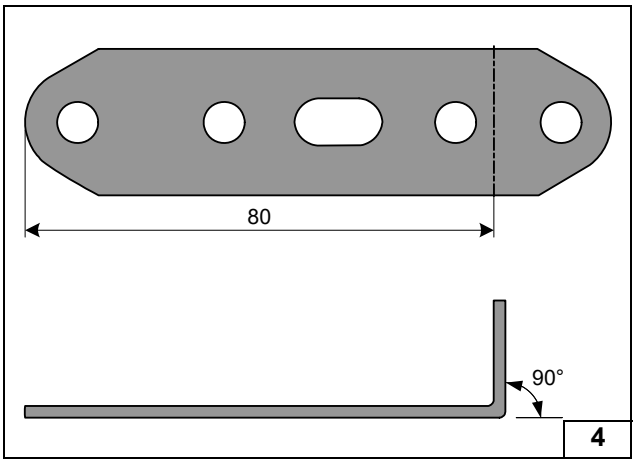
View of PWM GW





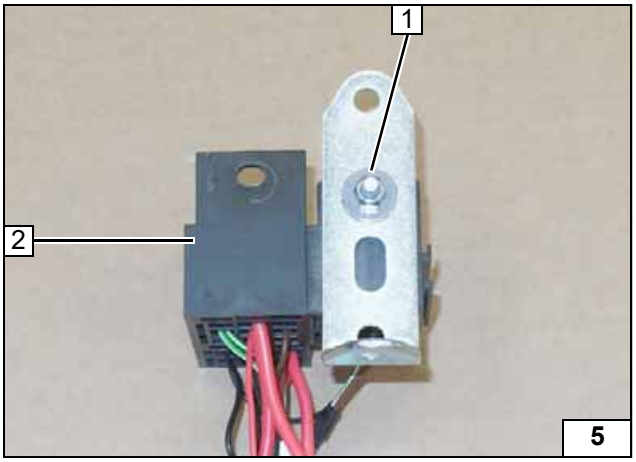
Assembling PWM GW socket and passenger compartment relay and fuse holder/ inserting connector in socket/ connecting wires

Preparing perforated bracket



4

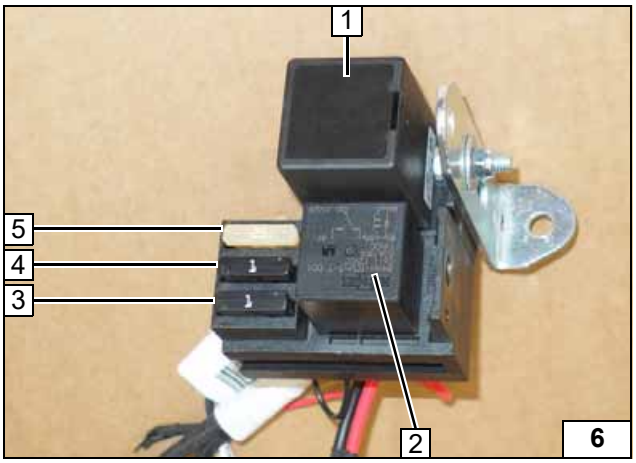
Installing perforated bracket



5

1 M5x16 bolt, large diameter washer, PWM Gateway socket, perforated bracket, large diameter washer, nut
2 Passenger compartment relay and fuse holder

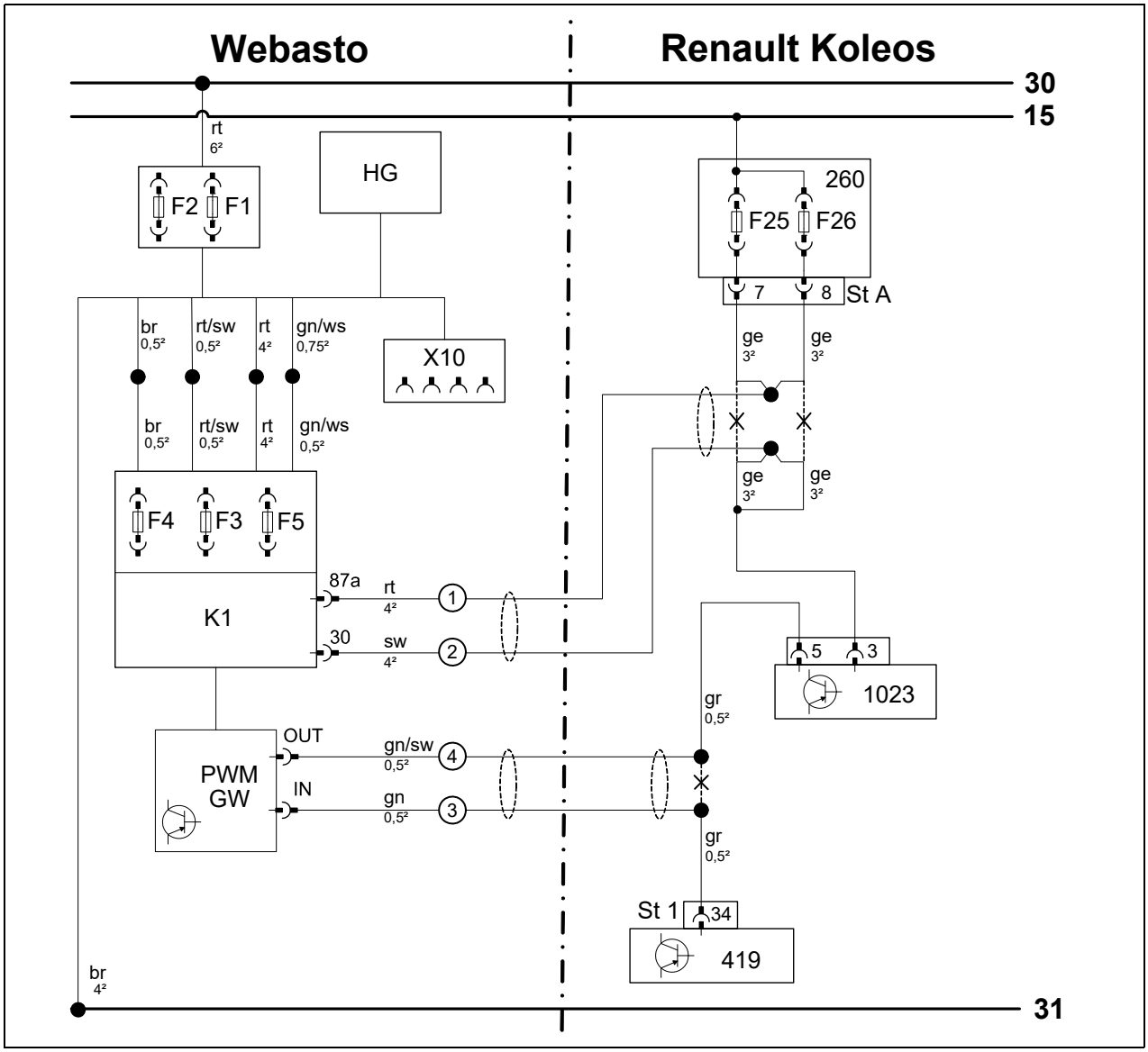
Completing socket



6

1 PWM Gateway
2 Relay K1
3 Additional fuse F5 1A
4 1A fuse F3
5 25A fuse F4

System Wiring Diagram



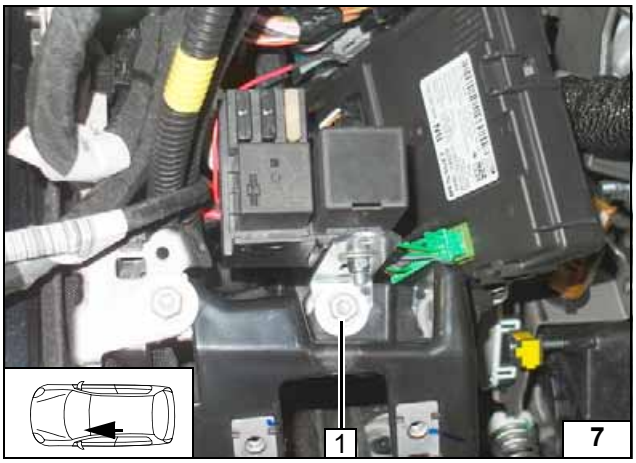
Webasto components		Vehicle components		Colours and symbols	
HG	TT-Evo heater	260	Passenger compartment relay and fuse box	rt	red
F1	20A fuse			sw	black
F2	30A fuse	F25	20A fuse	ge	yellow
X10	4-pin socket of control element	F26	20A fuse	ws	white
		St A	White connector 260	br	brown
F3	1A fuse	1023	Fan controller	gr	grey
F4	25A fuse	419	A/C control unit	gn	green
F5	1A fuse	St 1	40-pin connector 419 (grey)		
K1	Fan relay				
PWM GW	PWM Gateway				
PWM GW settings:					
Duty cycle:	70%				
Frequency:	400Hz				
Voltage:	not relevant			**X**	Cutting point
Function:	Low side			Wiring colours may vary.	

Automatic air-conditioning wiring diagram

Legend

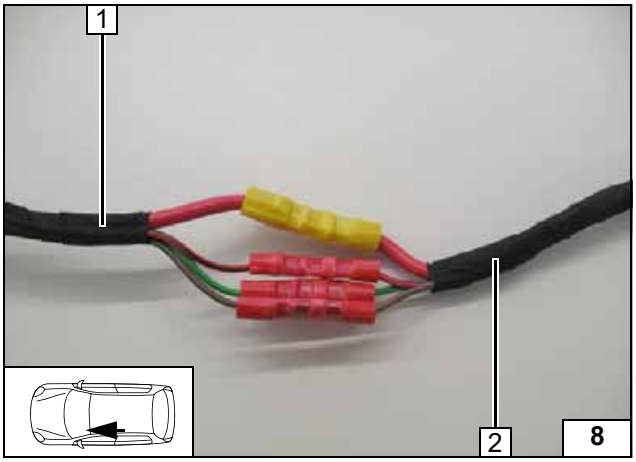
Fan Controller

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



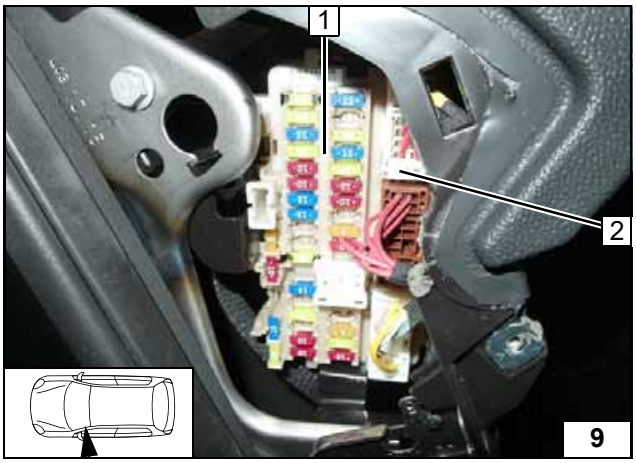
1 Original vehicle bolt, premounted perforated bracket

Installing passenger compartment relay and fuse holder



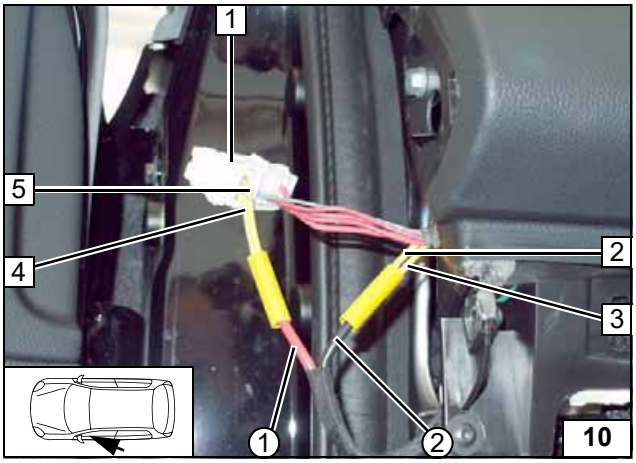
1 Passenger compartment relay and fuse holder wiring harness
2 Heater wiring harness

Connecting same colour wires of wiring harnesses



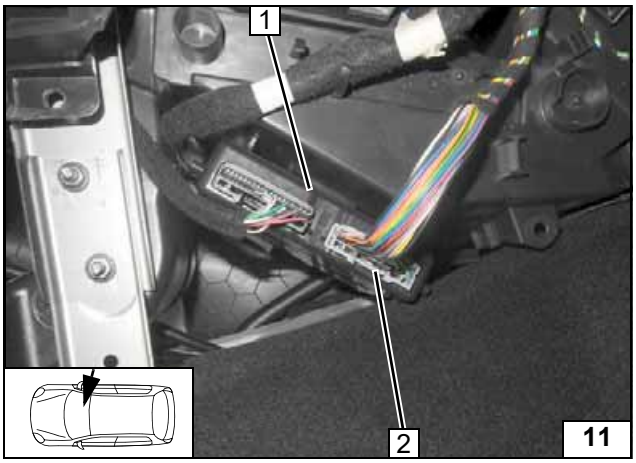
1 Passenger compartment relay and fuse box
2 Connector St A

View of passenger compartment relay and fuse box connector St A



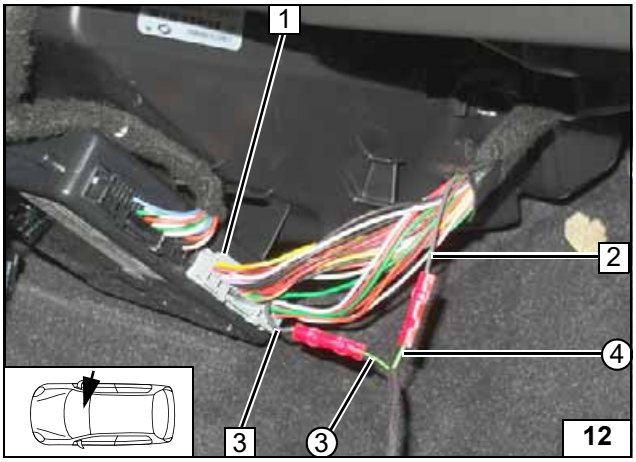
1 Connector St A, disconnected
2 Yellow (ge) wire of fan controller connector, pin 3
3 Yellow (ge) wire of fan controller connector, pin 3
4 Yellow (ge) wire of connector St A, pin 7
5 Yellow (ge) wire of connector St A, pin 8
① Red (rt) wire of K1/87a, fan wiring harness
② Black (sw) wire of K1/30,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

Connecting fan controller



1 A/C control unit
2 Grey (gr) 40-pin connector St 1

View of A/C control unit connector



1 A/C control unit connector St 1
2 Grey (gr) wire of fan controller 1023/ pin 5
3 Grey (gr) wire of A/C control unit connector St 1/ pin 34
③ Green (gn) wire from PWM GW/ IN of PWM control wiring harness
④ Green/black (gn/sw) wire from PWM GW/OUT of PWM control wiring harness

Connector St 1 on wiring side:

21	22	23		25	26		28	29	30	31			34	35	36			39	40
1			4	5	6	7	8	9	10	11	12				16			19	20

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’.**

Webasto Thermo & Comfort SE
Postfach 1410
82199 Gilching
Germany
Internet: www.webasto.com
Technical Extranet:
http://dealers.webasto.com

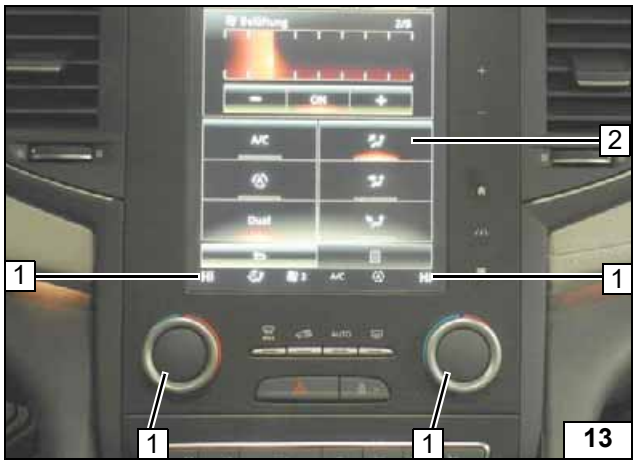
Operating Instructions

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 in addition to the vehicle settings for the heating operation.
For instructions on deactivation, please refer to the operating instructions of the vehicle.

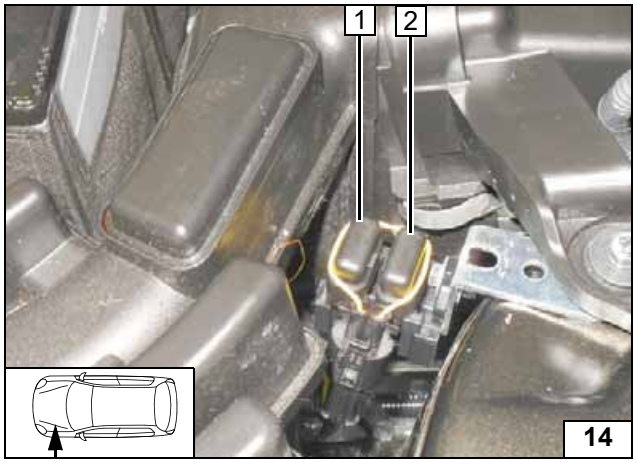
Before parking the vehicle, make the following settings:



Adjustment of fan speed not necessary, will be automatically set to approx. 1/3!

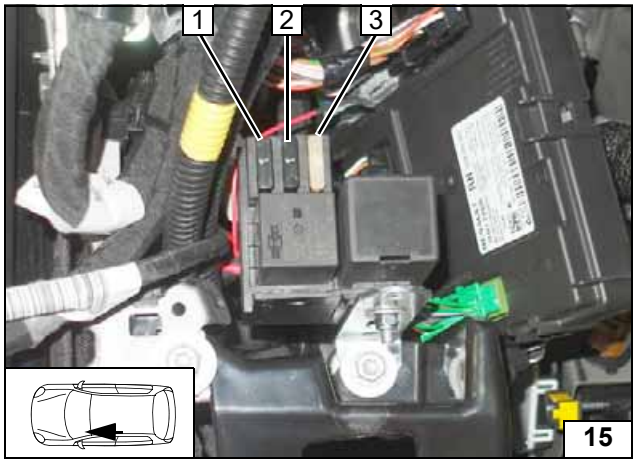
1 Set temperature on both sides to 'HI'
2 Air outlet faces upward

A/C control panel



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

Engine compartment fuses



1 Additional fuse F5 1A
2 1A control element fuse F3
3 25A fan fuse F4

Passenger compartment fuses