

H Installation documentation

"Webasto Comfort" A/C control for Thermo Top Evo water heater

Jeep Wrangler / Grand Cherokee / Compass / Renegade

Left-hand drive vehicle

Manufacturer	Model	Type	Model year	EG-BE-No. / ABE
Jeep	Wrangler	JL	from 2018	e4* 2001/116* 0116*...
Jeep	Grand Cherokee	WK	from 2014	e4* 2007/46* 0186*...
Jeep	Compass	MX	from 2014	e11* 2007/46* 4037*...
Jeep	Renegade	BU	from 04/2018	e11* 2007/46* 0300*...

Validity	Equipment variants	Model			
		Wrangler	Grand Cherokee	Compass	Renegade
Verified equipment variants	Manual air-conditioning			X	
	2 zone automatic air-conditioning	X	X	X	X

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1 List of abbreviations

CCL	CCL GW
CLR	Cold start module
KSG	Air-conditioning control unit
RSH	Relay and fuse holder of passenger compartment

2 Installation notes

2.1 Information on Validity

This installation documentation applies to vehicles listed on 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.

2.2 Components used

Designation	Order number
Additional 'Webasto Comfort' A/C control kit for Jeep with automatic A/C	1325260G

2.3 Validity Notes

This installation documentation applies only in combination with one of the following installation kits/sets:

Designation	Order number
Installation kit for Jeep Wrangler diesel 2018 TT-Evo	1327159_
Installation documentation for Jeep Wrangler diesel 2018 TT-Evo	1327160_
Installation kit for Jeep Wrangler petrol 2018 TT-Evo	1327264_
Installation documentation for Jeep Wrangler petrol 2018 TT-Evo	1327265_
Installation kit for Jeep Grand Cherokee petrol and diesel 2014 TT-Evo	1325292_
Installation documentation for Jeep Grand Cherokee CRD TT-Evo or Installation documentation for Jeep Grand Cherokee V6 TT-Evo	1325293_ 1325294_
Installation kit for Jeep Grand Cherokee 5.7 petrol V8 2014 TT-Evo	1325296_
Installation documentation for Jeep Grand Cherokee V8 TT-Evo	1325295_
Installation kit for Jeep Grand Cherokee 3.0 diesel 2019 TT-Evo	1327248_
Installation documentation for Jeep Grand Cherokee 3.0 diesel TT-Evo	1327249_
Installation kit for Jeep Compass 2017 petrol and diesel	1326108_
Installation documentation for Jeep Compass 2017 petrol and diesel	1326107_
Installation kit for Jeep Renegade 2015 diesel	1323609_
Installation documentation for Jeep Renegade 2015 diesel	1323610_
Installation kit for Jeep Renegade 2015 petrol	1323987_
Installation documentation for Jeep Renegade 2015 petrol	1323988_
Installation kit for Jeep Renegade 2019 petrol	1326998_
Installation documentation for Jeep Renegade 2019 petrol	1326999_

3 About this document

3.1 Purpose of the document

This installation documentation is part of the product and contains all the information required to ensure professional vehicle specific installation of the:

'Webasto Comfort' air-conditioning control installation kit

3.2 Warranty and liability

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 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.

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.

3.2.1 Statutory regulations governing installation

The Thermo Top Evo heater has been type-tested and approved in accordance with ECE-R 10 (EMC) and ECE-R 122 (heater). 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.

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

3.3 Safety

Qualifications of installation personnel

The installation personnel must have the following qualifications:

- Successful completion of Webasto training
- Corresponding qualification for working on technical systems

Regulations and legal requirements

The regulations from the heater's general installation and operating instructions must be observed.

3.3.1 Safety information on installation

Danger posed by live parts

- ▶ Prior to installation, disconnect the vehicle from the voltage supply.
- ▶ Make sure the electrical system is earthed correctly.
- ▶ Always comply with legal requirements.
- ▶ Observe data on type label.

Danger of fire and leaking toxic gases due to improper installation

- ▶ Vehicle parts in the vicinity of the heater must be protected against excessive heating by the following measures:
 - ⇒ Maintain minimum safety distances.
 - ⇒ Ensure adequate ventilation.
 - ⇒ Use fire-resistant materials or heat shields.

Danger due to sharp edges

- Lacerations
- Short circuit due to electrical wire damage
- ▶ Fit protectors on sharp edges.

3.4 Using this document

Before installing, read this installation documentation, the installation instructions of the heater, the operating instructions and supplementary sheets provided.

3.4.1 Explanatory Notes on the Document:

There is an identification mark near the respective work step to allow you to quickly allocate the other applicable documents to the Webasto components to be installed:

Generally valid Webasto documentation	
Vehicle-specific installation documentation	
Vehicle-specific installation documentation of the cold start kit	
Webasto Comfort A/C control	
Webasto Standard A/C control	
Tank extracting device (e.g. FuelFix)	
Exhaust end fastener (EFIX)	
Combustion air intake silencer	
Spacer bracket (ASH)	

3.4.2 Use of symbols



DANGER

Type and source of the risk

Consequences: Failure to follow the instructions can result in death

► Actions to protect yourself against risks.



WARNING

Type and source of the risk

Consequences: Failure to follow the instructions can lead to serious or even fatal injuries

► Actions to protect yourself against risks.



CAUTION

Type and source of the risk

Consequences: Failure to follow the instructions can lead to minor injuries

► Actions to protect yourself against risks.



Type and source of the risk

Consequences: Failure to follow the instructions can lead to material damage

► Actions to protect yourself against risks.



Reference to the vehicle manufacturer's specific documents.



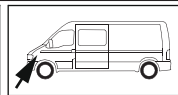
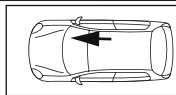
a note on a special technical feature

3.4.3 Work step identification marks

The ongoing work step is indicated on the outside top corner of the page:

Mechanical system	Electrical system	High-voltage	Coolant
Combustion air	Fuel	Exhaust	Software

3.4.4 Orientation aid



The arrow indicates the position on the vehicle and the viewing angle

3.4.5 Use of highlighting

Highlight	Explanation
►	Necessary action
⇒	Result of an action
1 / 12 / a1	Position numbers for the image descriptions
① / ⑫ / Ⓐ	Position numbers for the image descriptions for electrical wires and wiring harnesses and coolant hose sections

4 Technical Information

Dimension specifications

- All dimensions specified in mm
- Perforated brackets and mounting angles are shown to scale
- Observe data regarding scale on the templates

Tightening torque specifications

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

Necessary special tools

- Automatic wire stripper 0.2 - 6 mm²
- Crimping pliers for cable lugs 0.5 – 10 mm²
- Crimping pliers for male connector 0.14 – 6 mm²
- Crimping pliers for connector 0.25 – 6 mm²
- Torque wrench for 2.0 - 10 Nm
- Deep-hole marker



5 Electrical system, assigning wires

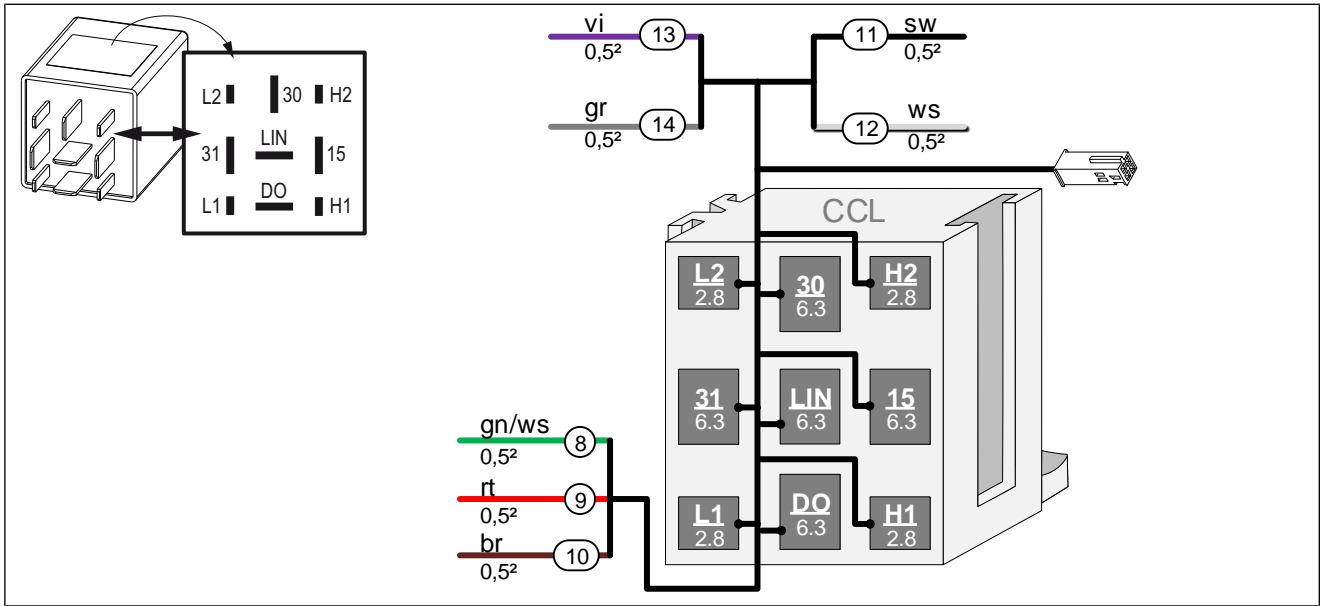


Fig. 1



6 Preparation of the electrical system, vehicles without cold start system integration

Assigning wires

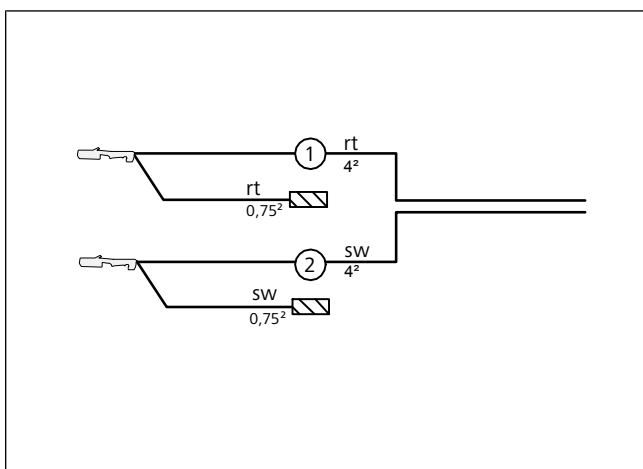


Fig. 2



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

Preparing RSH, connecting wires

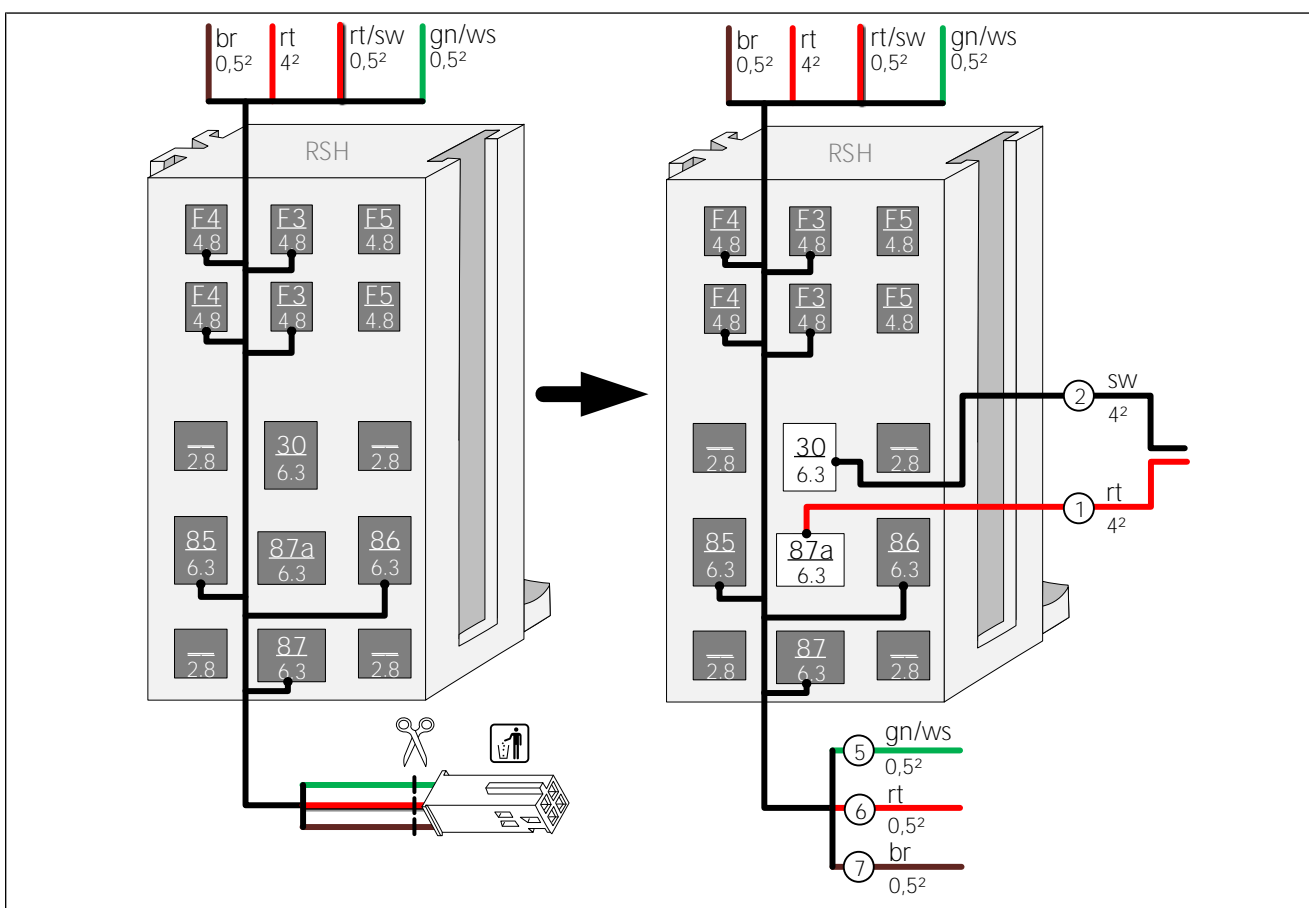


Fig. 3



7 Preparation of the electrical system, vehicles with cold start system integration

Assigning / preparing wires

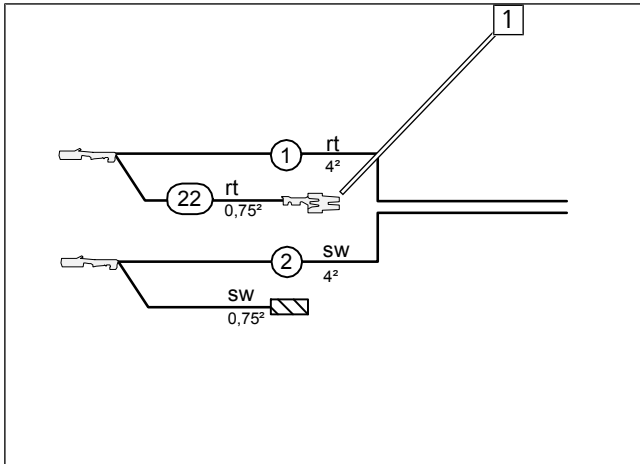


Fig. 4

Preparing RSH, connecting wires

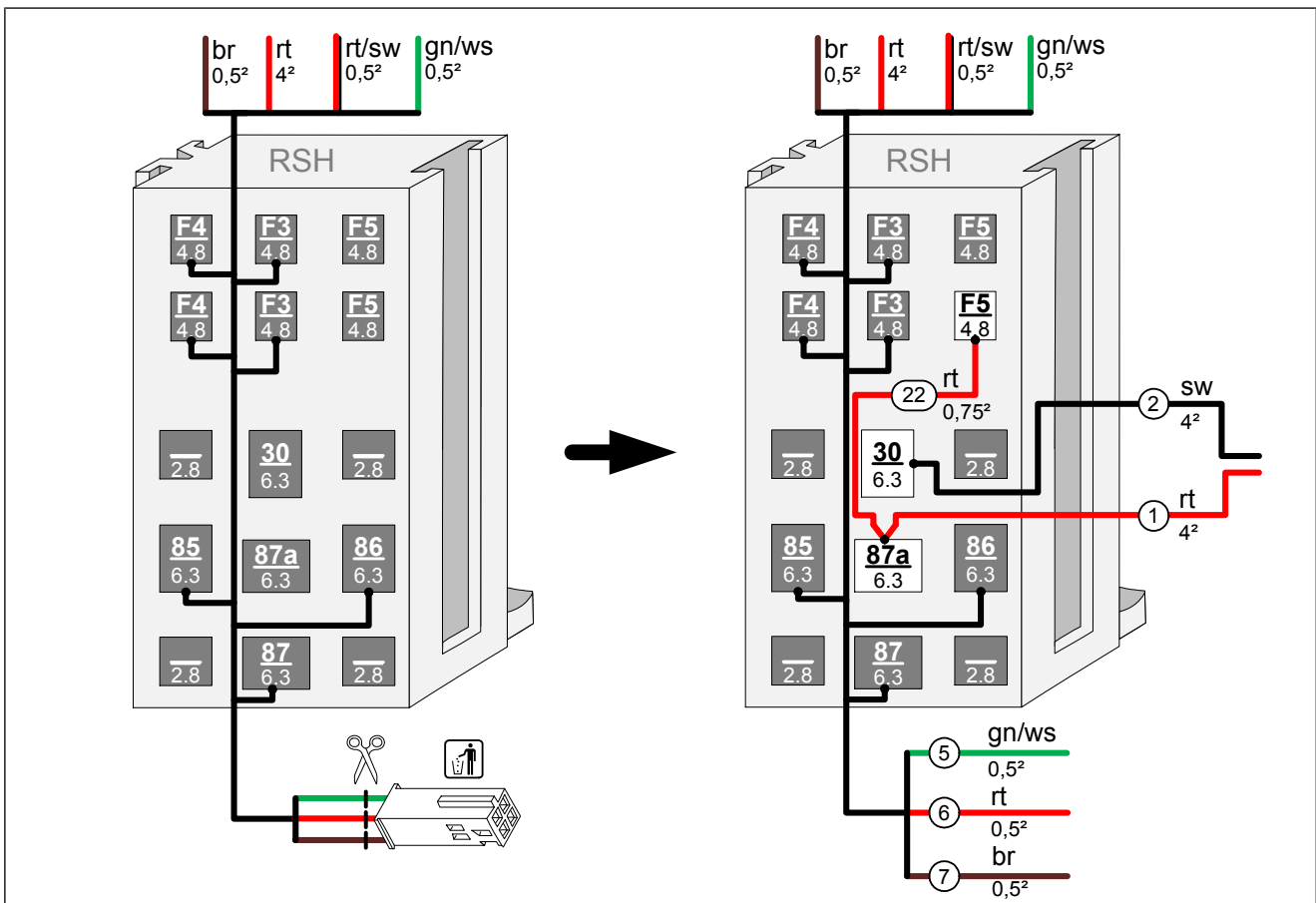


Fig. 5



8 Electrical system for Wrangler

8.1 Installation overview for Wrangler

Jeep Wrangler, vehicles without cold start system

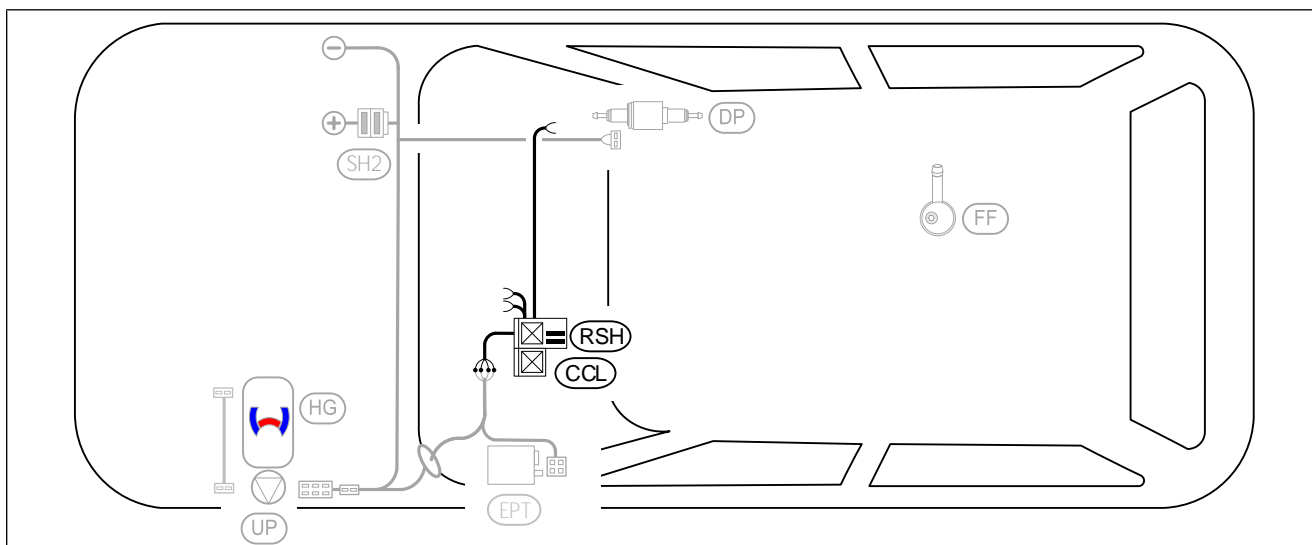


Fig. 6

Jeep Wrangler, vehicles with cold start system

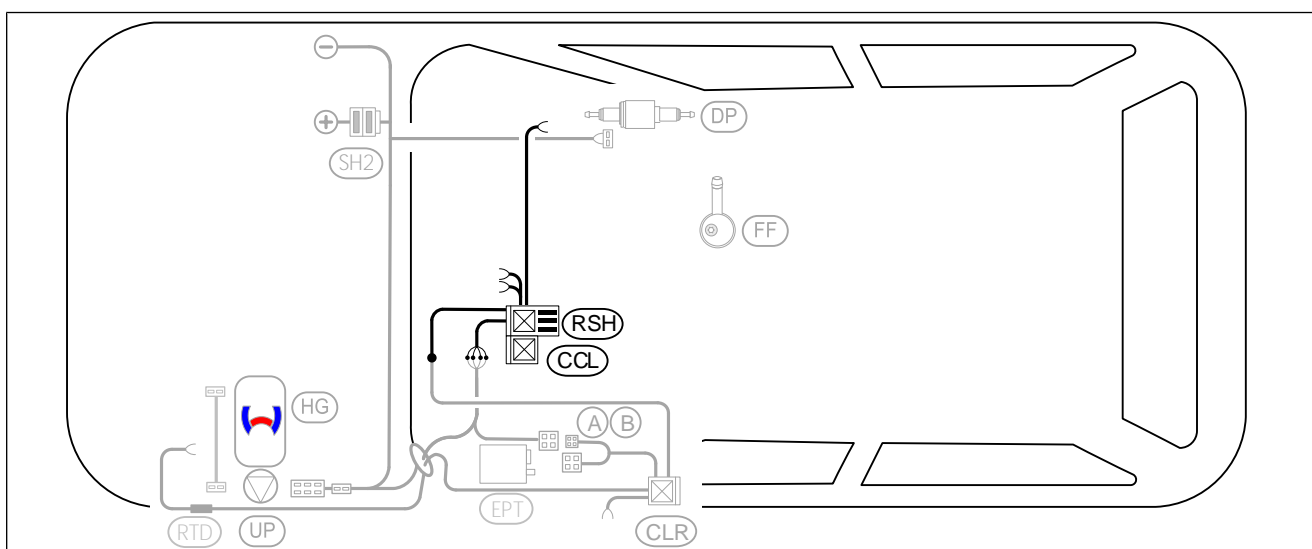


Fig. 7

Legend to installation overview

Abbreviation	Component
CCL	CCL-GW
RSH	Relay and fuse holder of passenger compartment



8.2 System wiring diagram for Wrangler, vehicles without cold start system

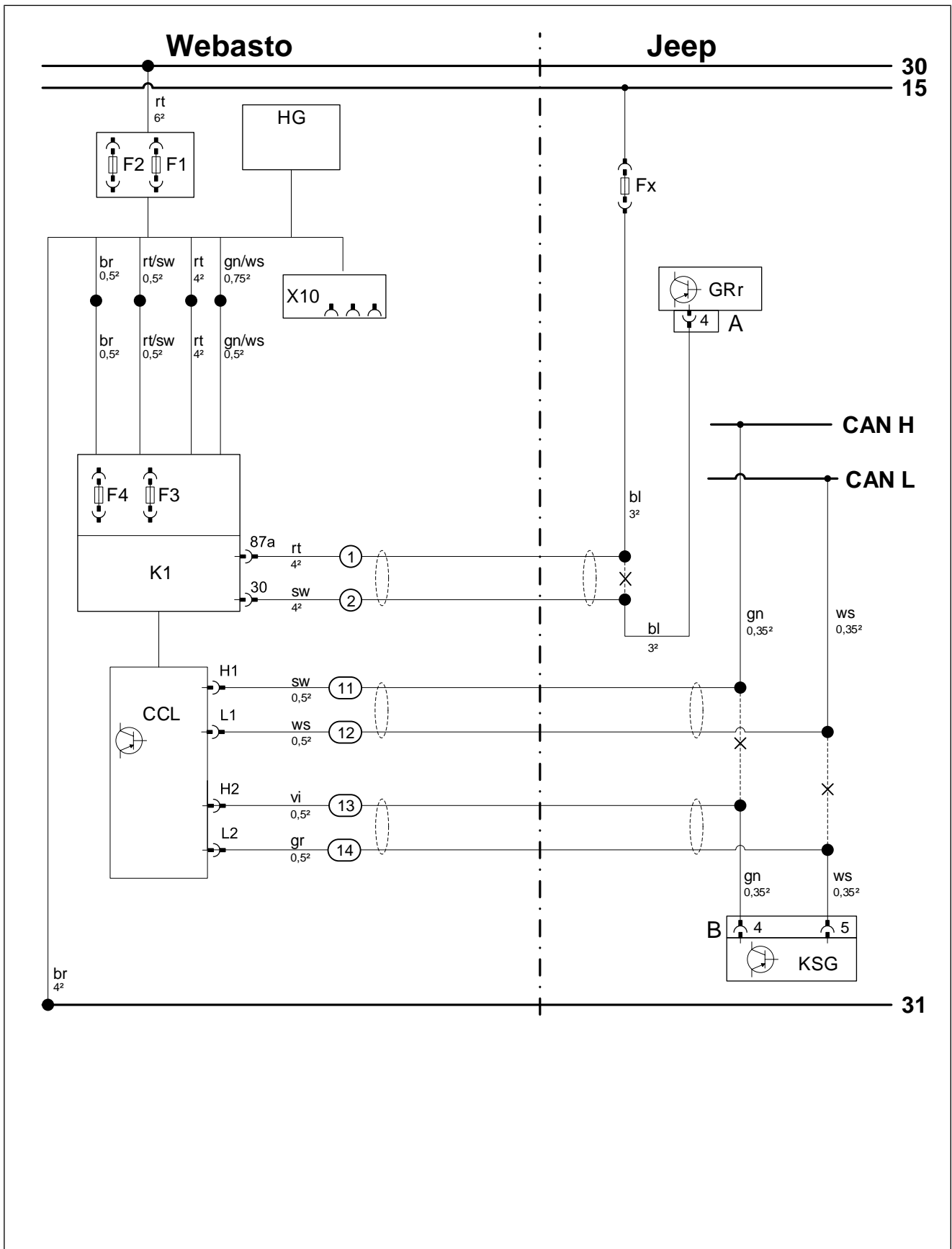


Fig. 8



8.3 System wiring diagram for Wrangler, vehicles with cold start system

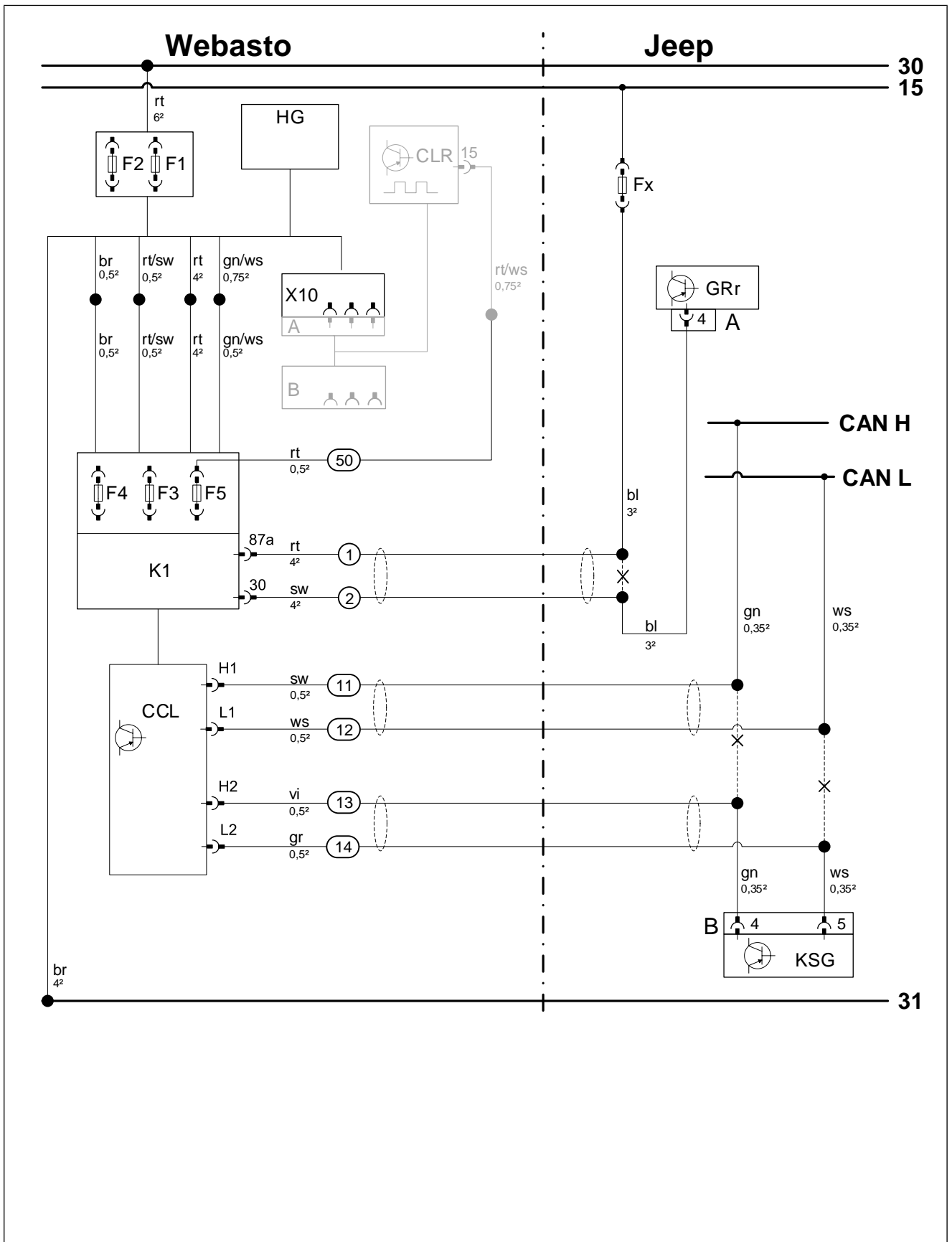


Fig. 9



8.4 Legend to the system wiring diagrams



The vehicle connector and component designations are freely chosen by Webasto.
Cable colours may vary.

Vehicle components		Symbols	
Abbreviation	Component	Abbreviation	Designation
Fx	GRr fuse	X	Cutting point
GRr	Fan controller		
A	Fan controller connector		
KSG	Air-conditioning control unit		
B	36-pin A/C control unit connector		

Webasto components		Cable colours	
Abbreviation	Component	Abbreviation	Colour
A	Male plug for CLR module wiring harness	bg	beige
B	Female plug for CLR module wiring harness	bl	blue
C	Male plug for adapter wiring harness	br	brown
D	Female plug for adapter wiring harness	dbl	dark blue
E	Male plug for Plug&Play wiring harness	dgn	dark green
F	Female plug for Plug&Play wiring harness	ge	yellow
CCL GW	CAN CAN LIN Gateway	gn	green
CL GW	CAN LIN Gateway	gr	grey
CLR	Cold start module	hbl	light blue
D1	Diode	hgn	light green
D2	Diode group	or	orange
F0	Additional fuse for power supply	pk	pink
F1	Heater main fuse	rt	red
F2	Passenger compartment fan controller main fuse	sw	black
F3	Control element fuse	vi	violet
F4	Fan controller fuse	ws	white
F5	Additional fuse		
HG	Heater TT-Evo		
K1	Relay K1		
K2	Relay K2		
K3	Relay K3		
LIN GW	LIN Gateway		
PWM GW	Pulse width modulator gateway		
RSH	Relay and fuse holder of passenger compartment		
RTD	Temperature sensor		
X10	Female plug for control element		
Y	Power adapter		



8.5 Connection to air-conditioning control unit

Bending angle bracket

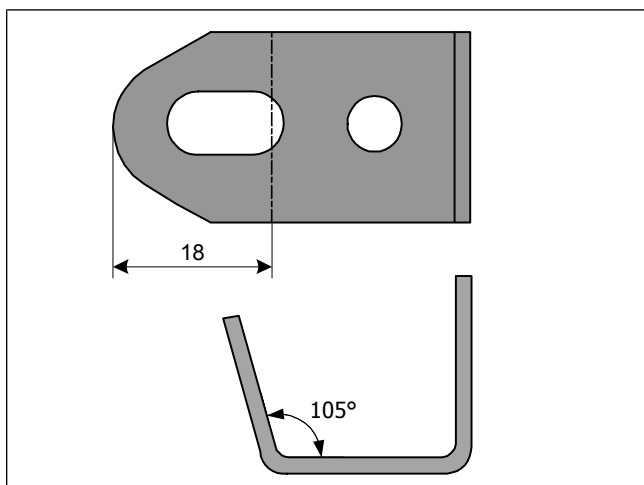
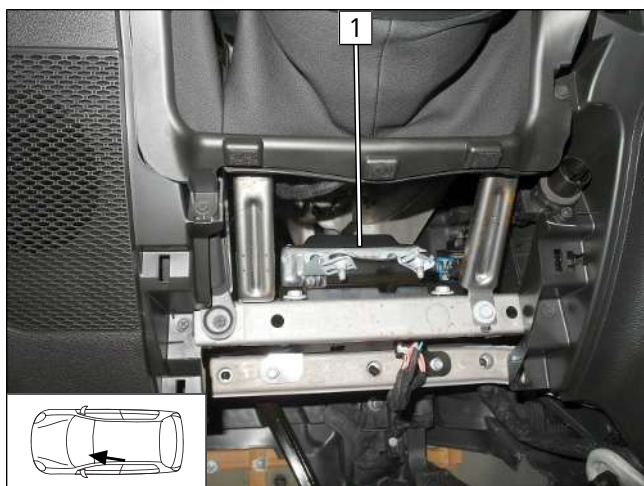


Fig. 10

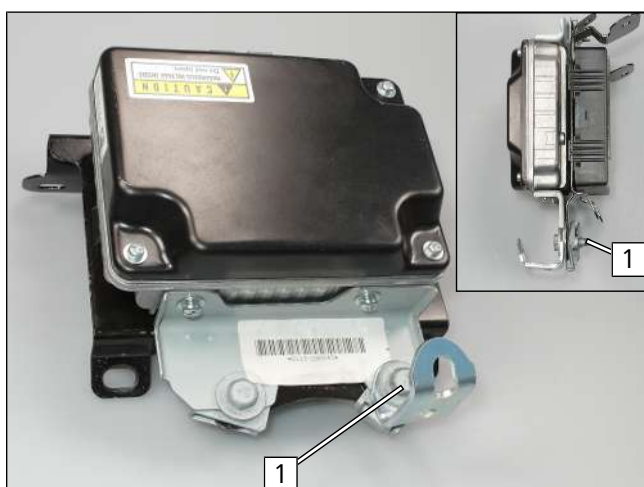
Removing control unit



► Remove original vehicle control unit with bracket **1**.

Fig. 11

Premounting angle bracket



1 Original vehicle bolt with washer, angle bracket, original vehicle control unit, original vehicle clamping nut

Fig. 12



Disconnecting connector B

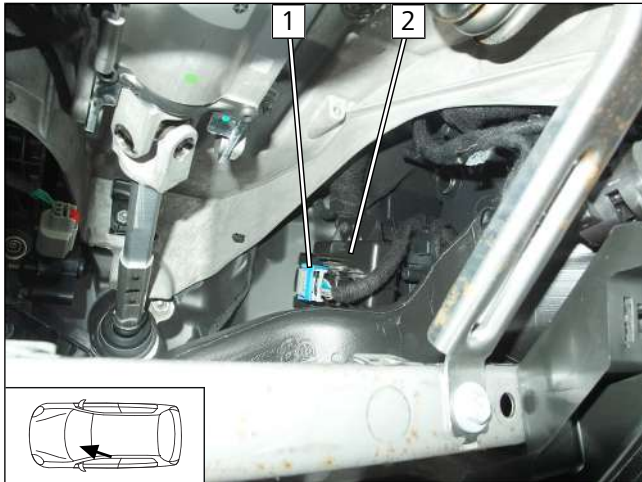


Fig. 13



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

- 1 36-pin connector B
- 2 KSG

View of connector B on wire side

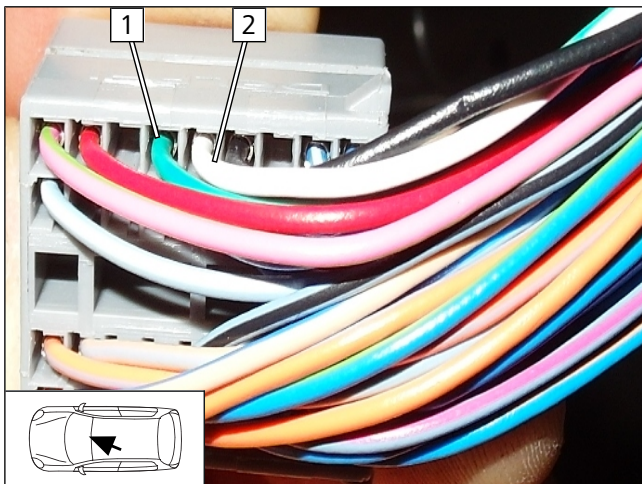


Fig. 14



Remove connector housing of connector B.

- 1 Green (gn) wire of connector B/pin 4
- 2 White (ws) wire of connector B/pin 5

Connecting wires 11 and 12

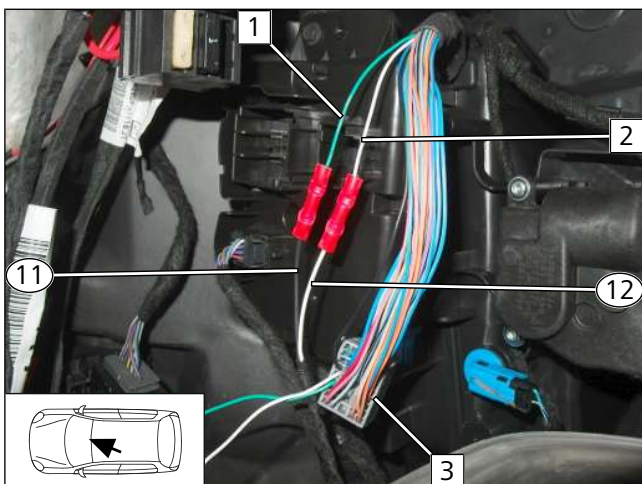


Fig. 15

- 1 Green (gn) wire of CAN H
- 2 White (ws) wire of CAN L
- 3 36-pin connector B
- 11 Black (sw) wire of CCL-GW/ H1
- 12 White (ws) wire of CCL-GW/ L1



Connecting wires 13 and 14

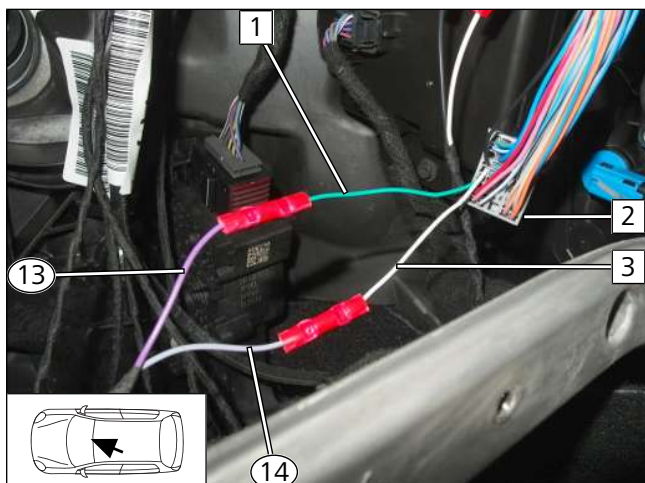


Fig. 16

- 1 Green (gn) wire of connector B/pin 4
- 2 36-pin connector B
- 3 White (ws) wire of connector B/pin 5
- 13 Violet (vi) wire of CCL-GW/ H2
- 14 Green (gr) wire of CCL-GW/ L2

► Reassemble connector B 2 and connect it to the KSG.

Mounting control unit

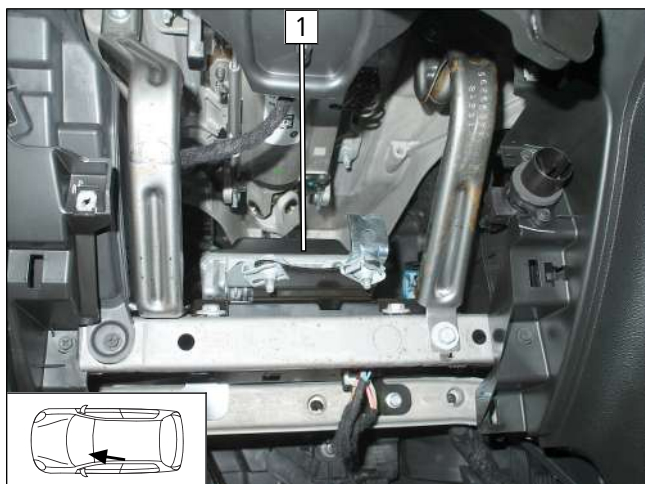


Fig. 17

- 1 Original vehicle control unit



8.6 RSH installation

Assembling CCL GW and RSH sockets in passenger compartment, connecting wires



Wire **22** is only available in vehicles with installed cold start system.

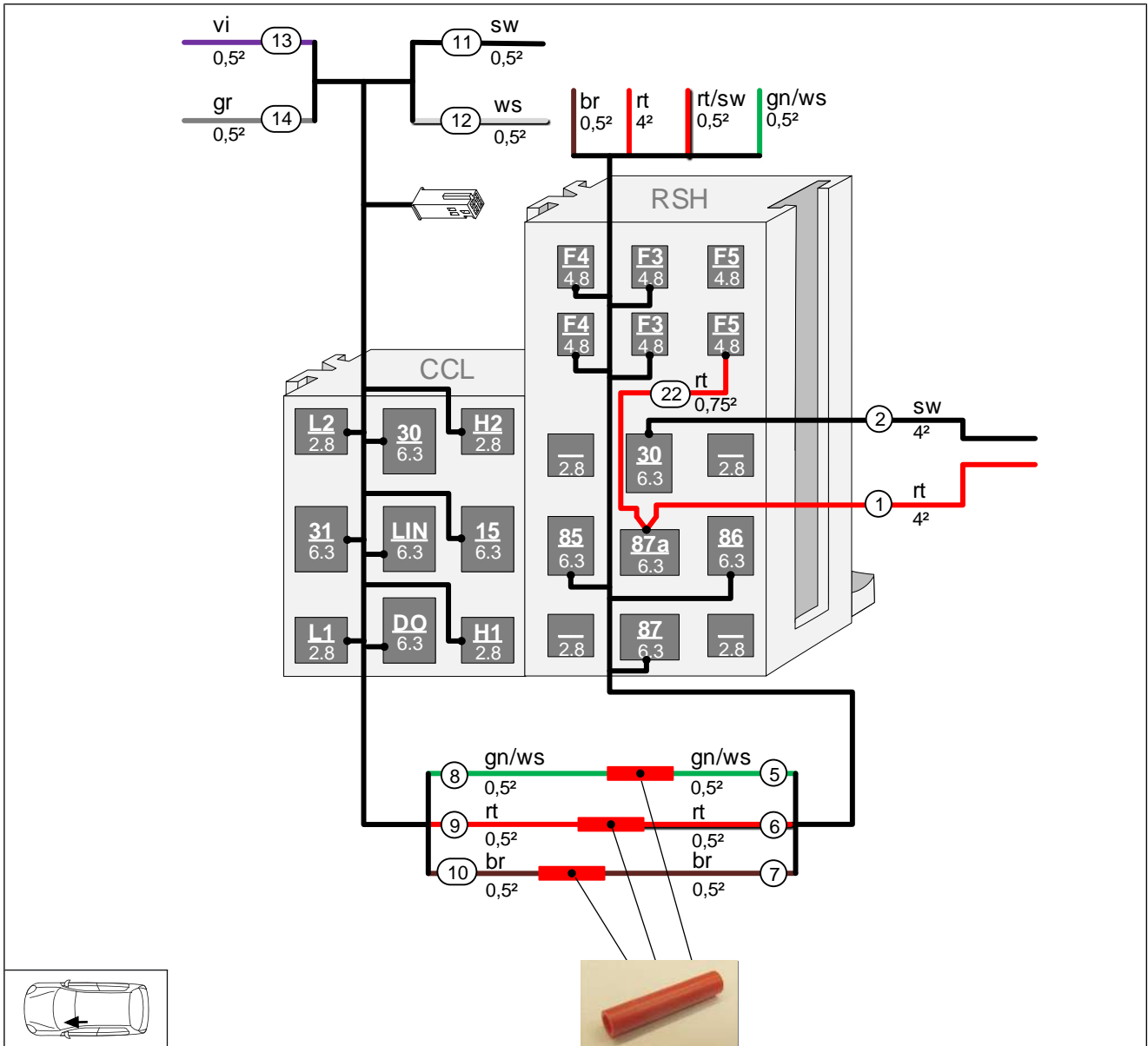


Fig. 18



Routing wire 50 from CLR to RSH installation location and connecting

Only in case of vehicles with installed cold start system.

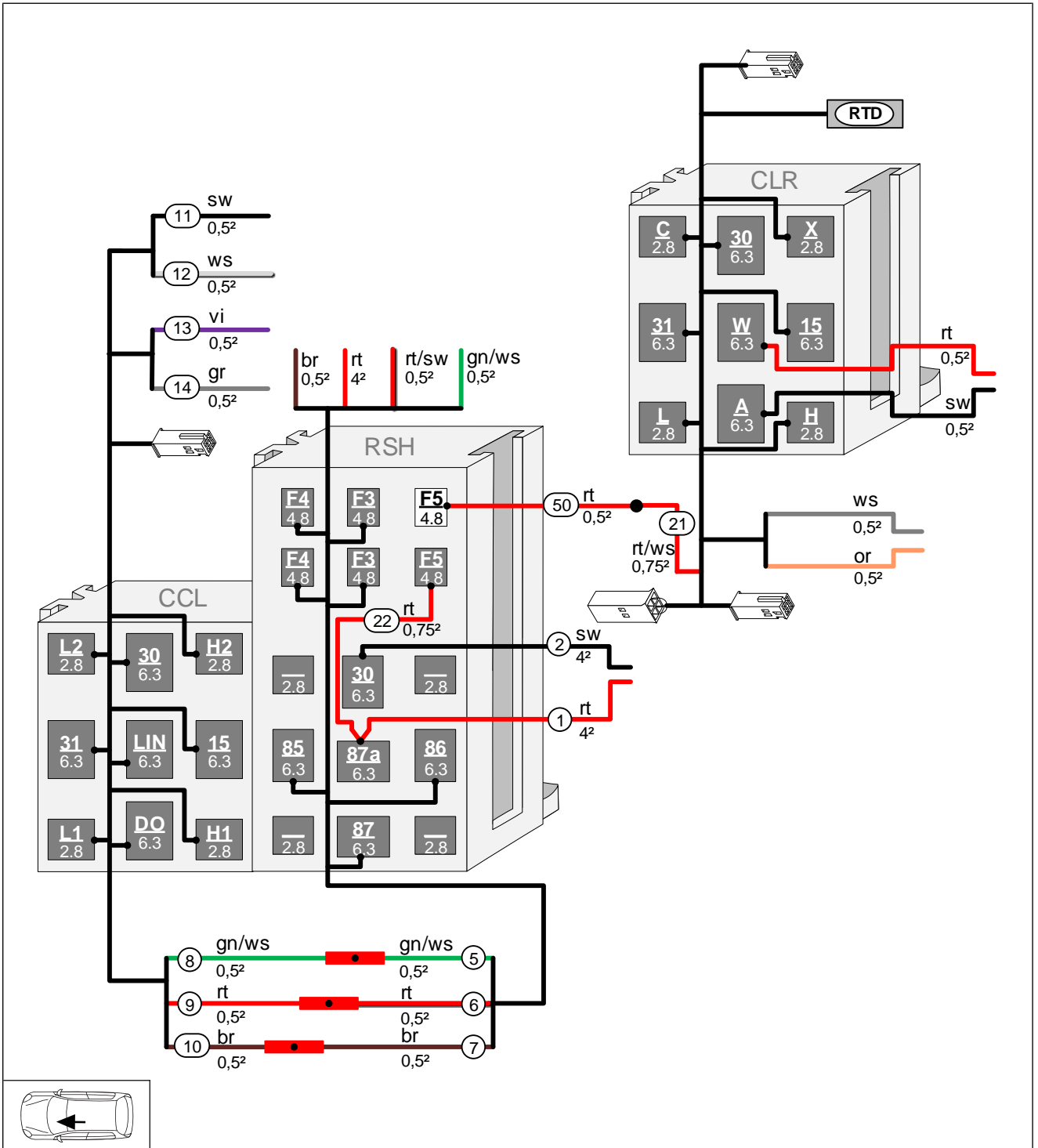


Fig. 19



Mounting RSH

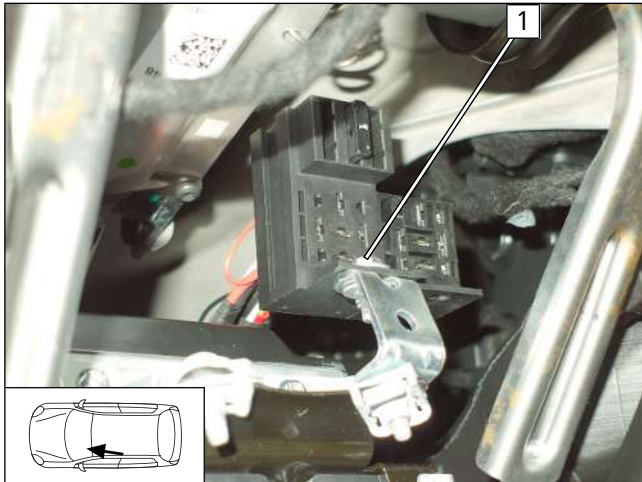


Fig. 20

- 1 M5x16 bolt, large diameter washer, RSH, pre-mounted angle bracket, large diameter washer, nut

Mounting relay K1, CCL GW and fuses

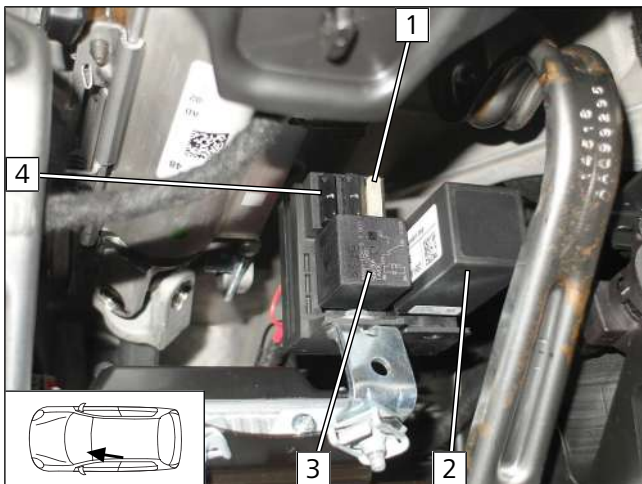


Fig. 21

- 1 25A fuse F4
- 2 CCL -GW
- 3 Relay K1
- 4 1A fuse F5 (only in case of vehicles with installed cold start system)

Connecting same colour wires of wiring harnesses

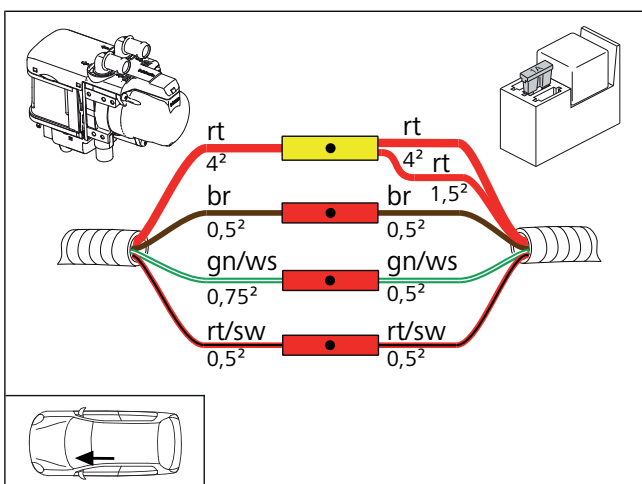


Fig. 22



8.7 Connection to fan controller

Position of connector A

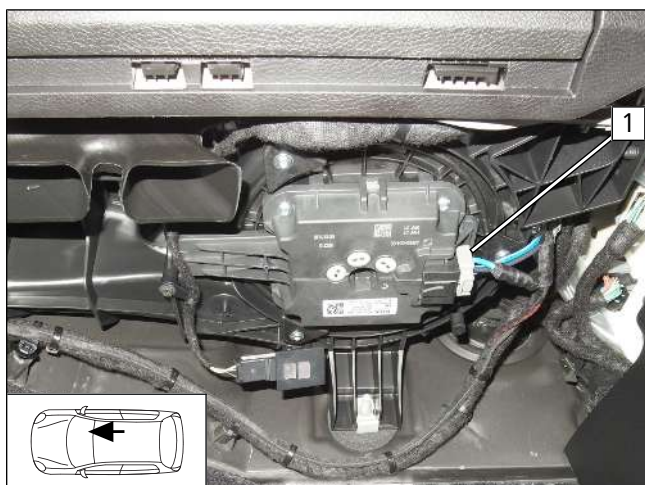


Fig. 23

- 1 Connector A

Connecting wires ① and ②

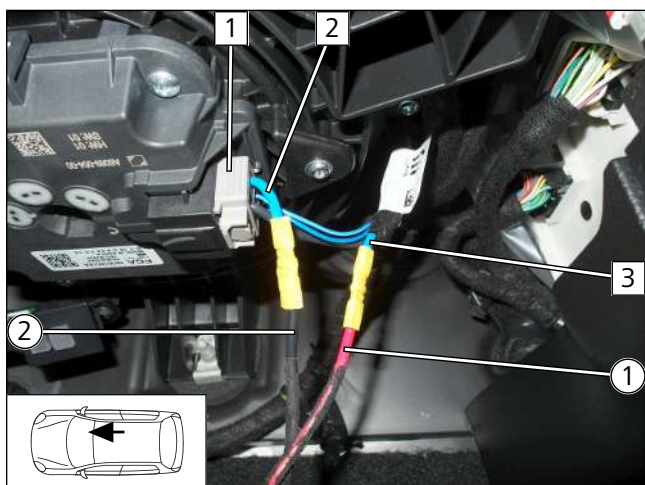


Fig. 24

- 1 Connector A
- 2 Blue (bl) wire of connector A/pin 4
- 3 Blue (bl) wire of fuse Fx
- ① Red (rt) wire of K1/87a fan wiring harness
- ② Black (sw) wire of K1/30 fan wiring harness



9 Electrical system for Compass

9.1 Installation overview for Compass

Jeep Compass

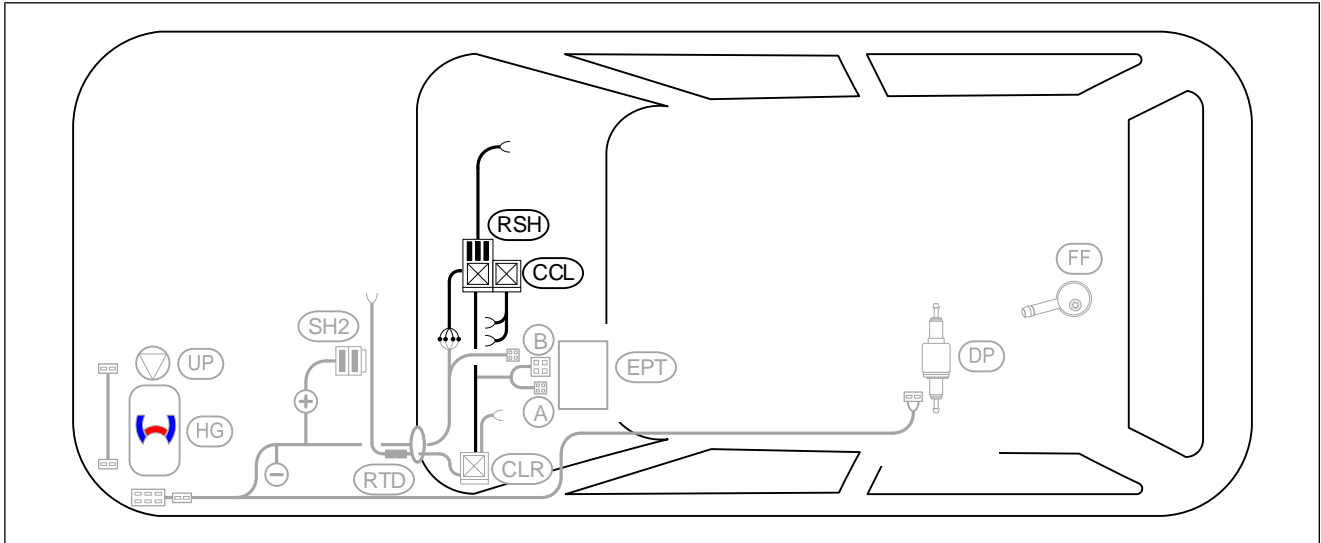


Fig. 25

Legend to installation overview

Abbreviation	Component
CCL	CCL-GW
RSH	Relay and fuse holder of passenger compartment



9.2 System wiring diagram for Compass

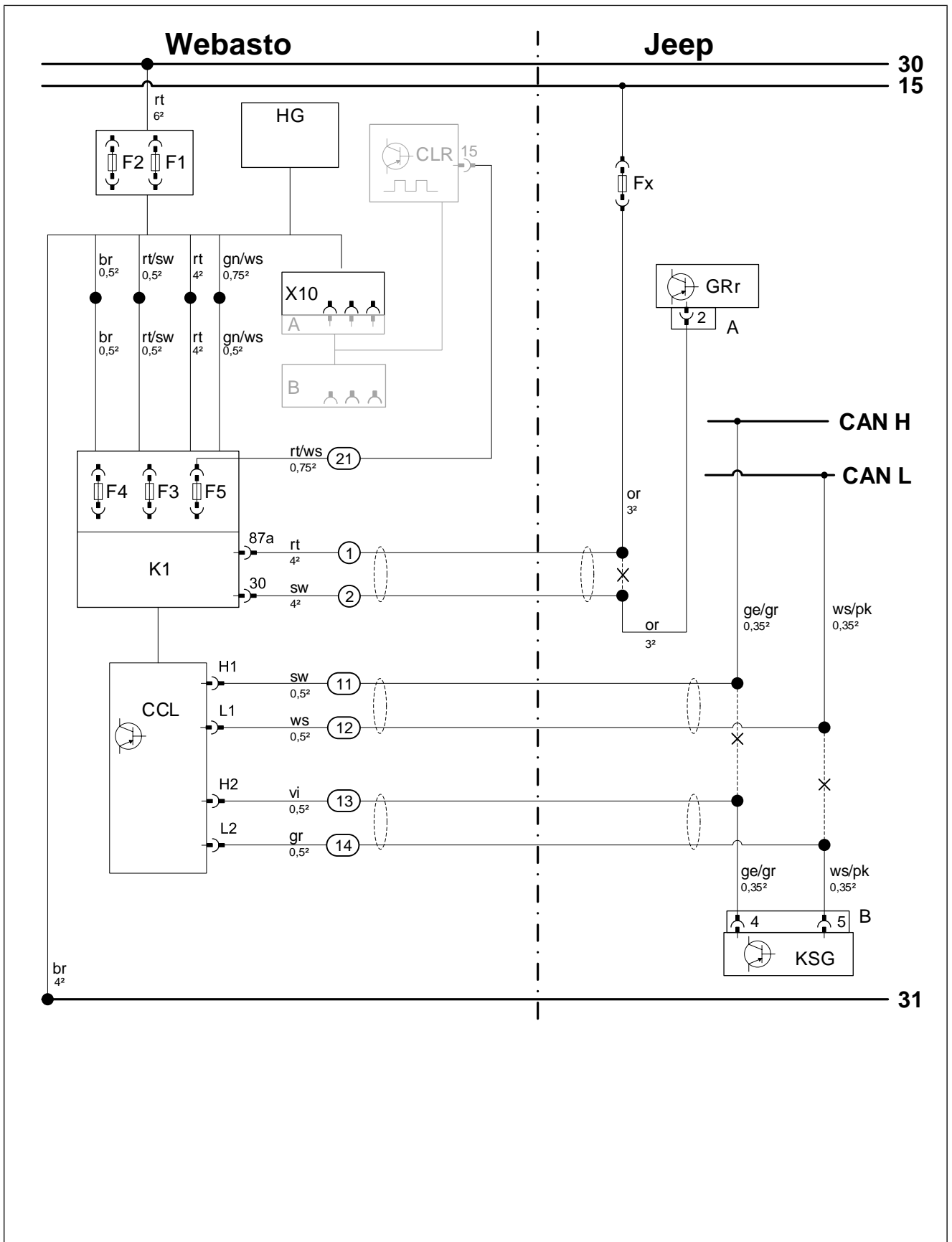


Fig. 26



Legend to wiring diagram



The vehicle connector and component designations are freely chosen by Webasto.
Cable colours may vary.

Vehicle components		Symbols	
Abbreviation	Component	Abbreviation	Designation
Fx	GRr fuse	X	Cutting point
GRr	Fan controller		
A	GRr connector		
KSG	Air-conditioning control unit		
B	36-pin KSG connector		

Webasto components		Cable colours	
Abbreviation	Component	Abbreviation	Colour
A	Male plug for CLR module wiring harness	bg	beige
B	Female plug for CLR module wiring harness	bl	blue
C	Male plug for adapter wiring harness	br	brown
D	Female plug for adapter wiring harness	dbl	dark blue
E	Male plug for Plug&Play wiring harness	dgn	dark green
F	Female plug for Plug&Play wiring harness	ge	yellow
CCL GW	CAN CAN LIN Gateway	gn	green
CL GW	CAN LIN Gateway	gr	grey
CLR	Cold start module	hbl	light blue
D1	Diode	hgn	light green
D2	Diode group	or	orange
F0	Additional fuse for power supply	pk	pink
F1	Heater main fuse	rt	red
F2	Passenger compartment fan controller main fuse	sw	black
F3	Control element fuse	vi	violet
F4	Fan controller fuse	ws	white
F5	Additional fuse		
HG	Heater TT-Evo		
K1	Relay K1		
K2	Relay K2		
K3	Relay K3		
LIN GW	LIN Gateway		
PWM GW	Pulse width modulator gateway		
RSH	Relay and fuse holder of passenger compartment		
RTD	Temperature sensor		
X10	Female plug for control element		
Y	Power adapter		



Preparing RSH and CCL-GW

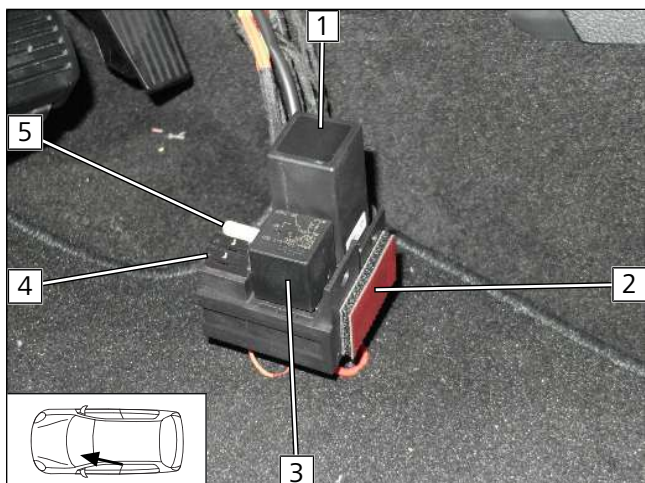


Fig. 29

- 1 CCL -GW
- 2 Double-sided adhesive tape
- 3 Relay K1
- 4 1A fuse F5
- 5 25A fuse F4

Connecting same colour wires of wiring harnesses

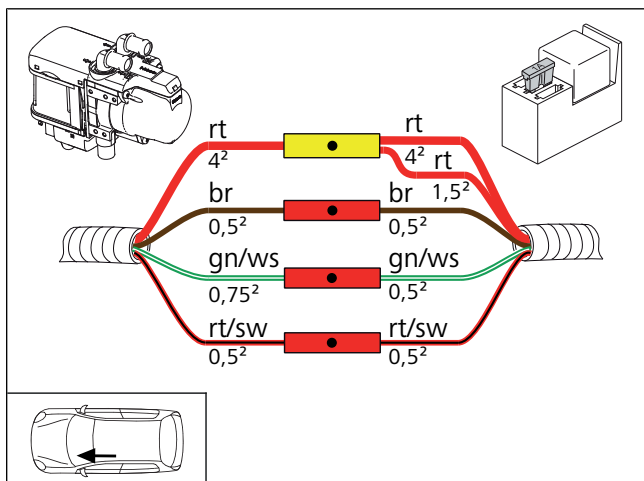


Fig. 30

Mounting RSH and CCL-GW

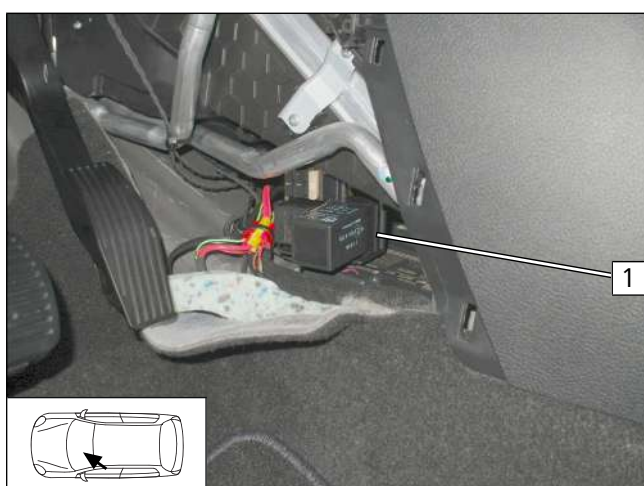


Fig. 31

► Affix RSH and CCL GW **1** as shown.



Position of KSG connector B

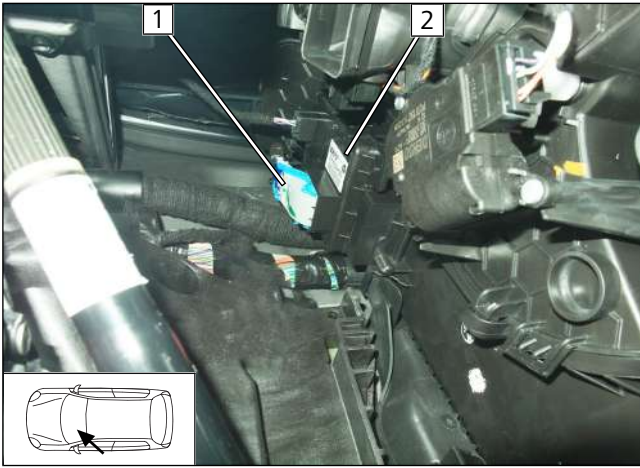


Fig. 32

- 1 36-pin KSG connector B
- 2 KSG

View of KSG connector B

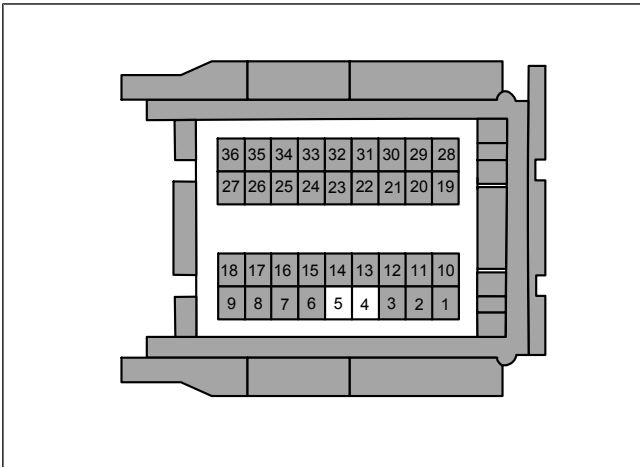


Fig. 33



Remove connector housing of connector B.

► KSG connector B assignment on wire side.

Connecting wires 13 and 14

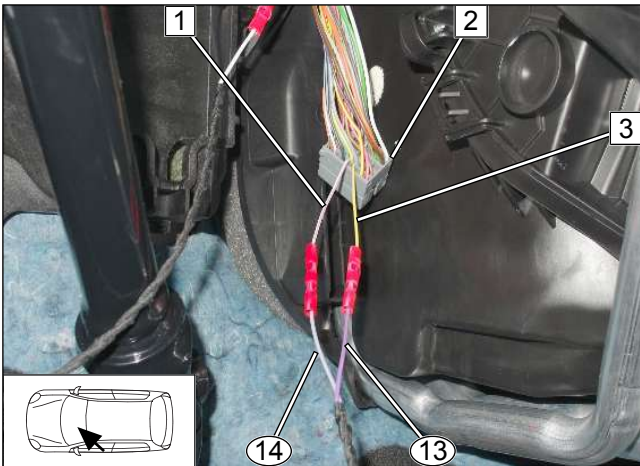


Fig. 34

- 1 White/pink (ws/pk) wire of KSG connector B/pin 5
- 2 Removed 36-pin KSG connector B
- 3 Yellow/grey (ge/gr) wire of KSG connector B/pin 4
- 13 Violet (vi) wire of CCL-GW/ H2
- 14 Green (gr) wire of CCL-GW/ L2



Connecting wires ⑪ and ⑫

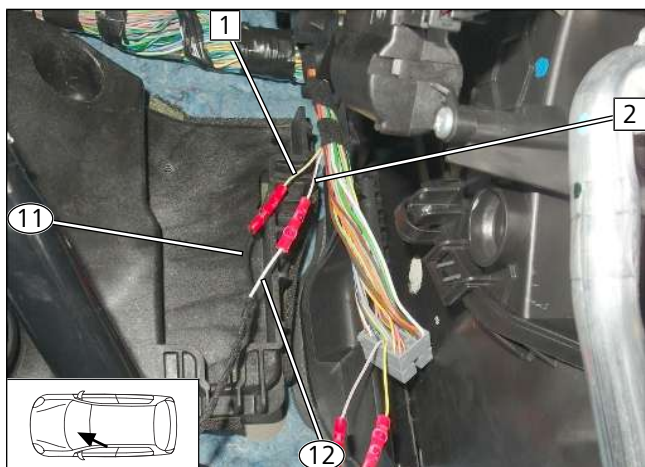


Fig. 35

- 1 Yellow/grey (ge/gr) wire of CAN H
- 2 White/pink ws/pk wire of CAN L
- ⑪ Black (sw) wire of CCL GW/ H1
- ⑫ White (ws) wire of CCL GW/ L1

Removing GRr cover

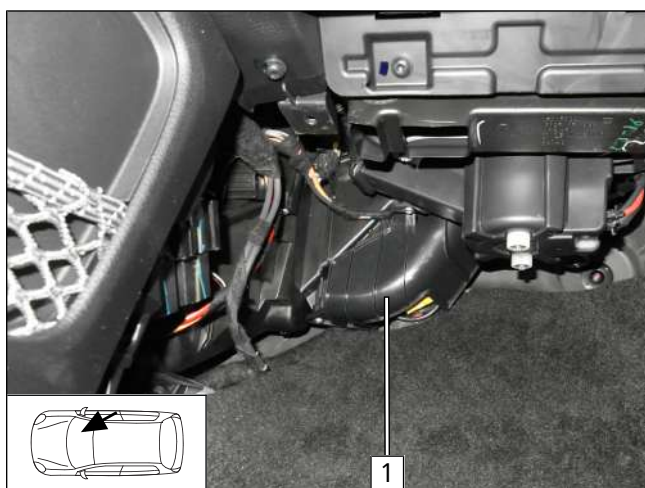


Fig. 36

- 1 GRr cover

Connection to GRr

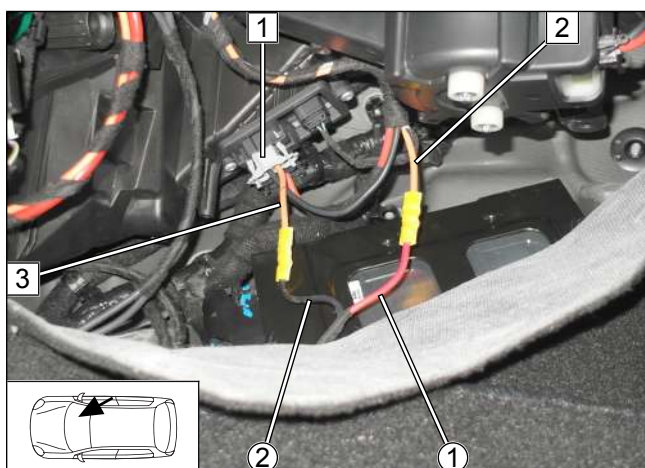


Fig. 37

- 1 2-pin GRr connector A, grey (gr)
- 2 Orange (or) wire of Fx
- 3 Orange (or) wire of GRr connector A/pin 2
- ① Red (rt) wire of K1/87a fan wiring harness
- ② Black (sw) wire of K1/30 fan wiring harness



10 Electrical system for Grand Cherokee

10.1 Installation overview for Grand Cherokee

Jeep Grand Cherokee, vehicles without cold start system

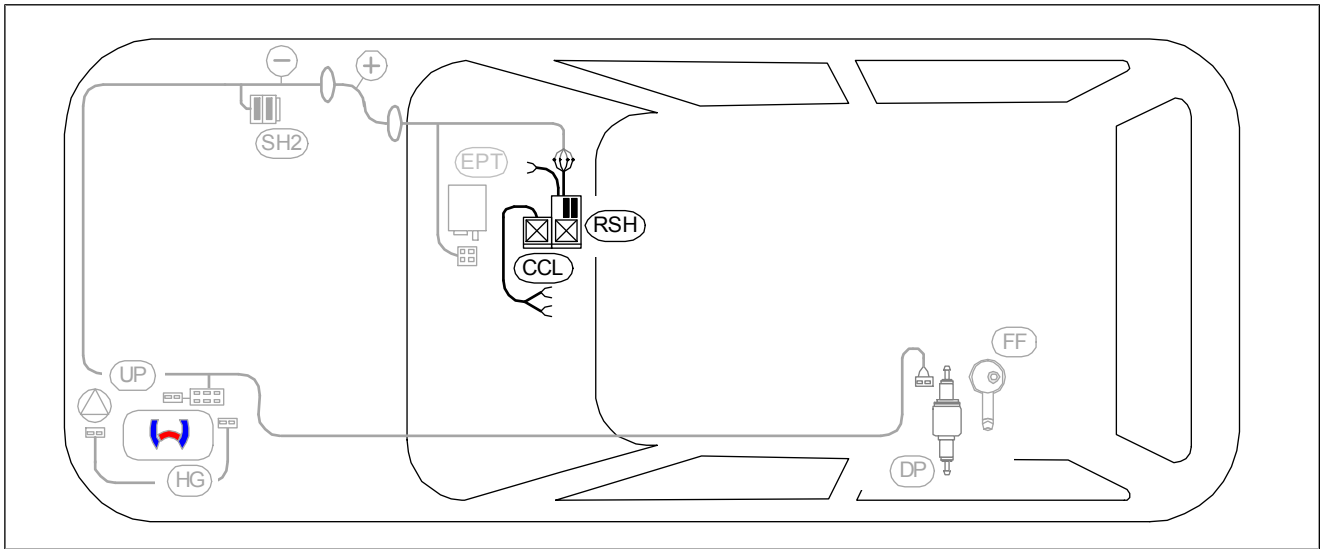


Fig. 38

Jeep Grand Cherokee, vehicles with cold start system

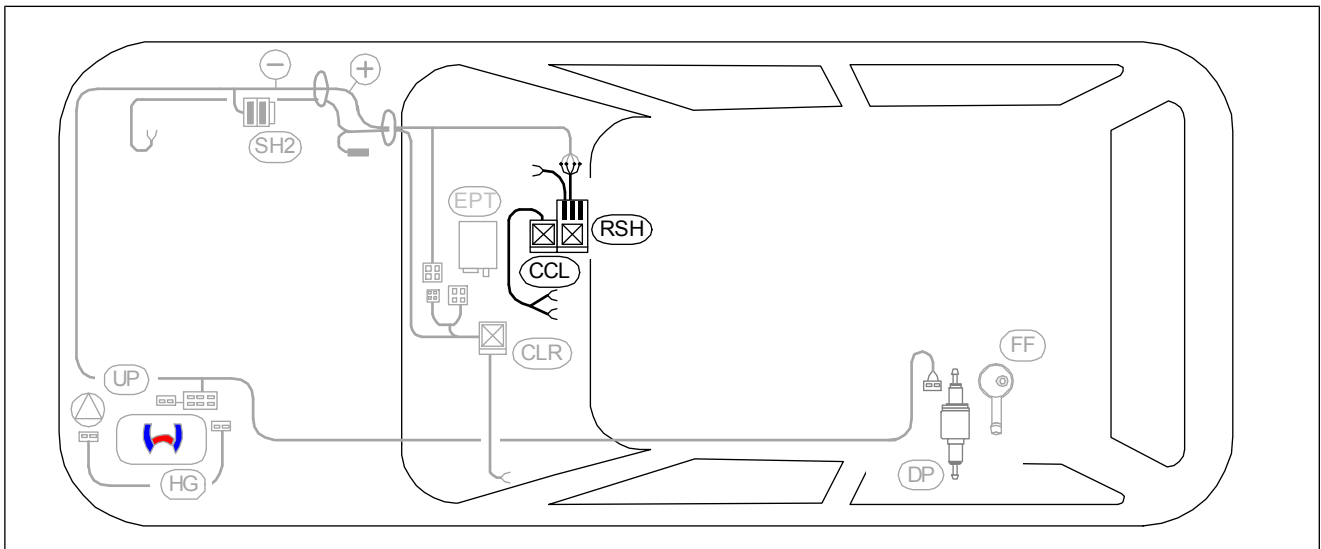


Fig. 39

Legend to installation overview

Abbreviation	Component
CCL	CCL-GW
RSH	Relay and fuse holder of passenger compartment



10.2 System wiring diagram for Grand Cherokee, vehicles without cold start system

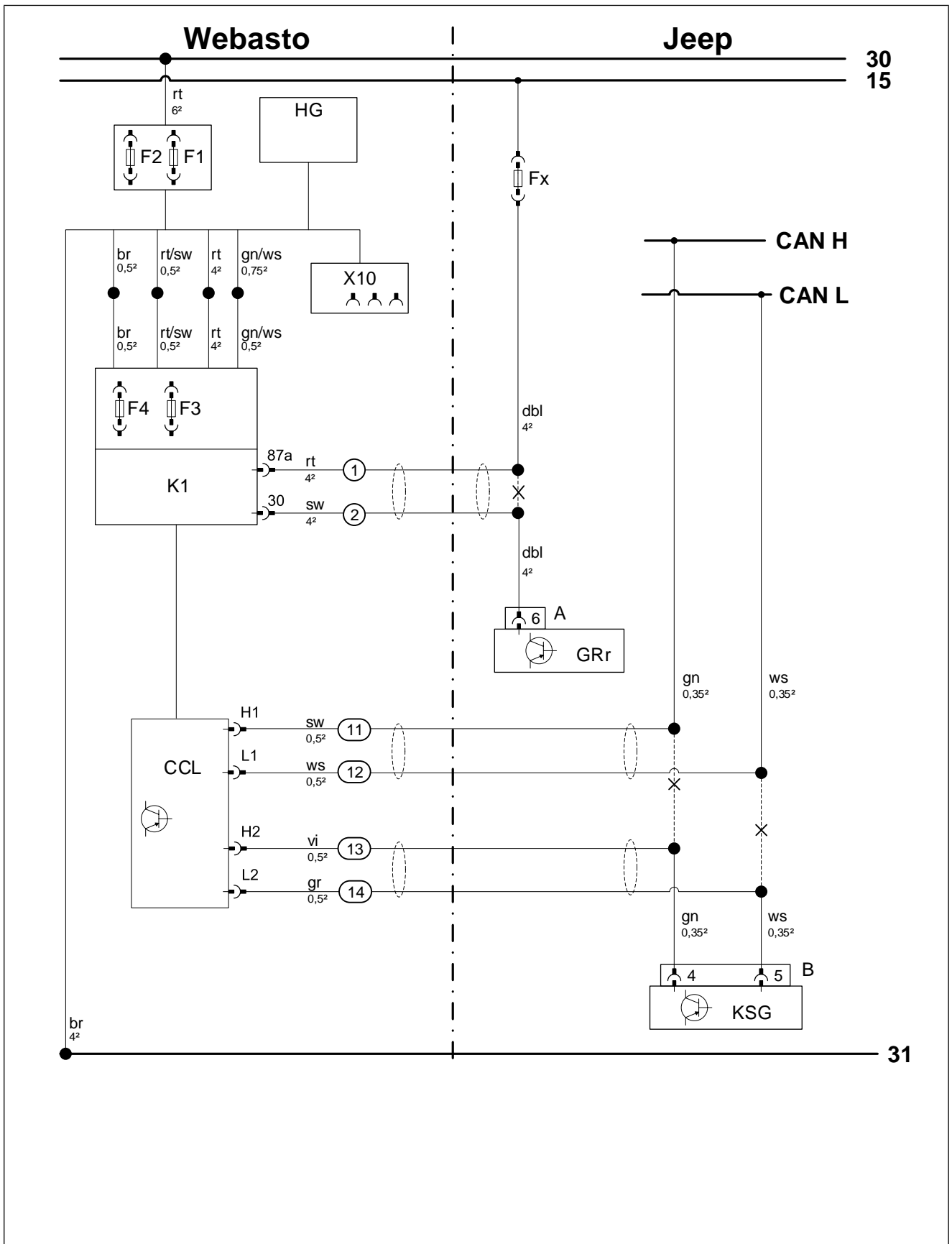


Fig. 40



10.3 System wiring diagram for Grand Cherokee, vehicles with cold start system

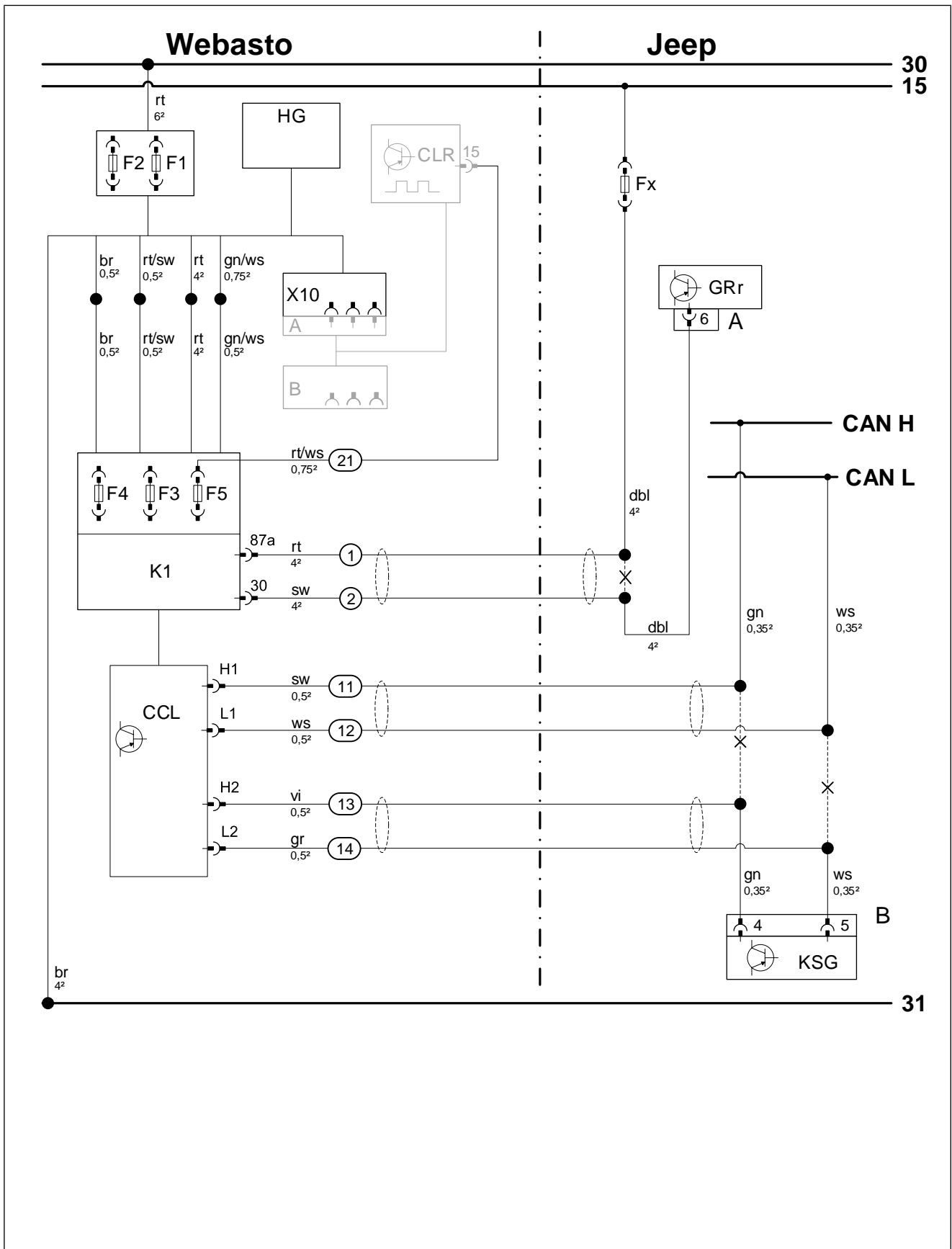


Fig. 41



10.4 Legend to the system wiring diagrams



The vehicle connector and component designations are freely chosen by Webasto.
Cable colours may vary.

Vehicle components		Symbols	
Abbreviation	Component	Abbreviation	Designation
Fx	Fan controller fuse	X	Cutting point
GRr	Fan controller		
A	6-pin GRr connector		
KSG	Air-conditioning control unit		
B	36-pin KSG connector		

Webasto components		Cable colours	
Abbreviation	Component	Abbreviation	Colour
A	Male plug for CLR module wiring harness	bg	beige
B	Female plug for CLR module wiring harness	bl	blue
C	Male plug for adapter wiring harness	br	brown
D	Female plug for adapter wiring harness	dbl	dark blue
E	Male plug for Plug&Play wiring harness	dgn	dark green
F	Female plug for Plug&Play wiring harness	ge	yellow
CCL GW	CAN CAN LIN Gateway	gn	green
CL GW	CAN LIN Gateway	gr	grey
CLR	Cold start module	hbl	light blue
D1	Diode	hgn	light green
D2	Diode group	or	orange
F0	Additional fuse for power supply	pk	pink
F1	Heater main fuse	rt	red
F2	Passenger compartment fan controller main fuse	sw	black
F3	Control element fuse	vi	violet
F4	Fan controller fuse	ws	white
F5	Additional fuse		
HG	Heater TT-Evo		
K1	Relay K1		
K2	Relay K2		
K3	Relay K3		
LIN GW	LIN Gateway		
PWM GW	Pulse width modulator gateway		
RSH	Relay and fuse holder of passenger compartment		
RTD	Temperature sensor		
X10	Female plug for control element		
Y	Power adapter		



10.5 Dismantling instructions for KSG, vehicles with VINs containing a model year-code letter up to letter 'J'



Only in case of vehicles with vehicle identification numbers (VINs) containing a model year-code letter up to letter 'J':
e.g.: 1C4RJFCM8J1C.).

Removing A/C control panel trim piece

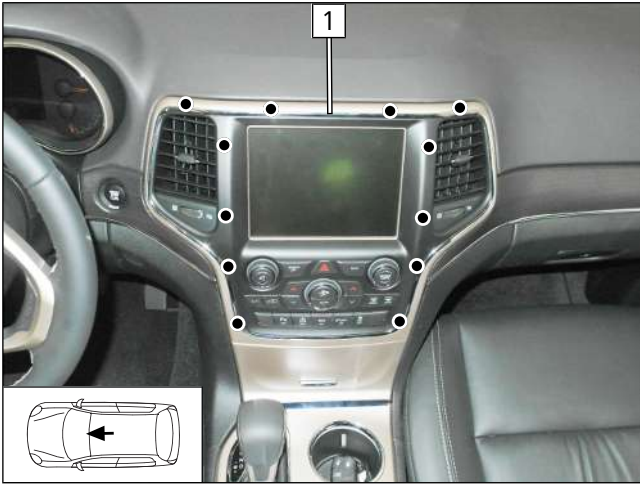


Fig. 42

- ▶ Detach trim piece **1** from clips by pulling it forwards.
- Fastening point

Removing display

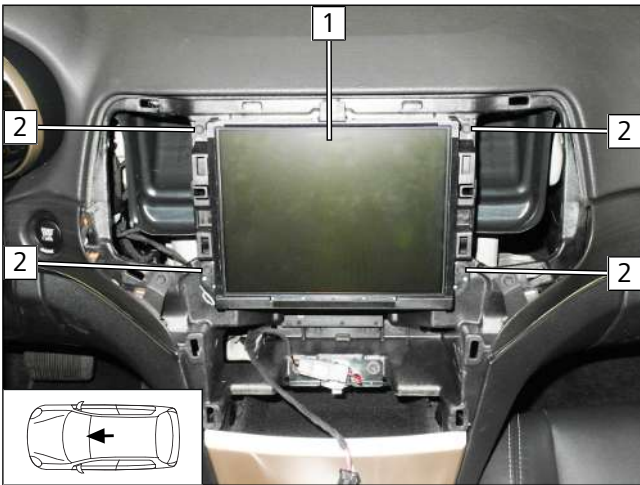


Fig. 43

- 1** Display
- 2** Original vehicle bolt



Disconnecting KSG connector B

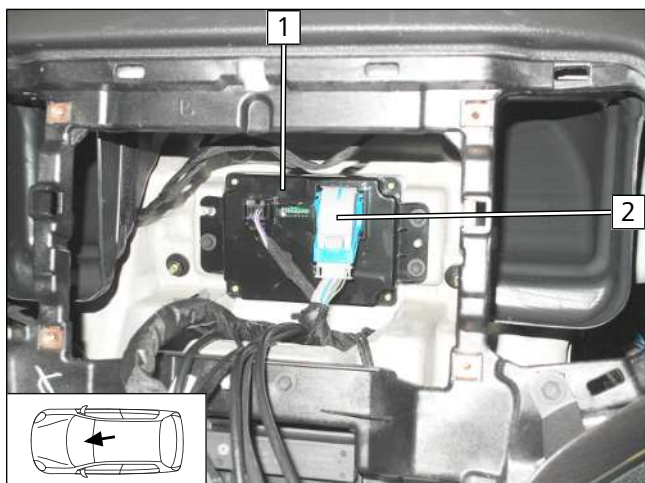


Fig. 44

- 1 Air-conditioning control unit KSG
- 2 36-pin KSG connector B

10.6 Dismantling instructions for KSG, vehicles with VINs containing a model year-code letter starting from letter 'K'



Only in case of vehicles with vehicle identification numbers (VINs) containing a model year-code letter starting from letter 'K':
e.g.: 1C4RJFCM8K.C.).

Detaching KSG

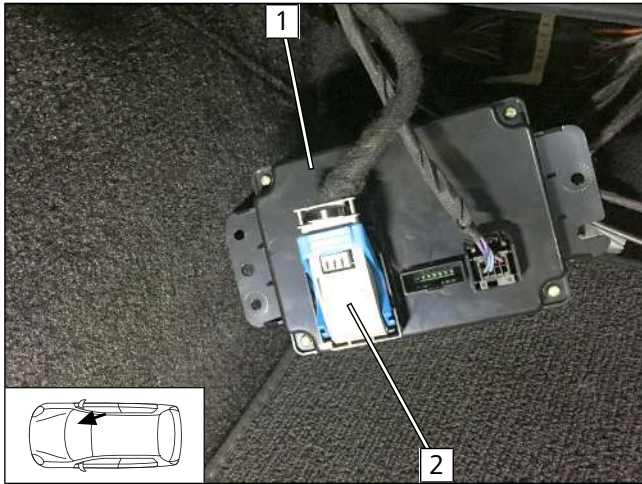


Fig. 45

- Remove KSG 1 from its installation location under the footwell cover on the front passenger's side as shown.



Disconnecting KSG connector B



- 1 Air-conditioning control unit KSG
- 2 36-pin KSG connector B

Fig. 46



10.7 Fan controller



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

Assembling CCL GW and RSH sockets, connecting wires



Wire 22 is only available in vehicles with installed cold start system.

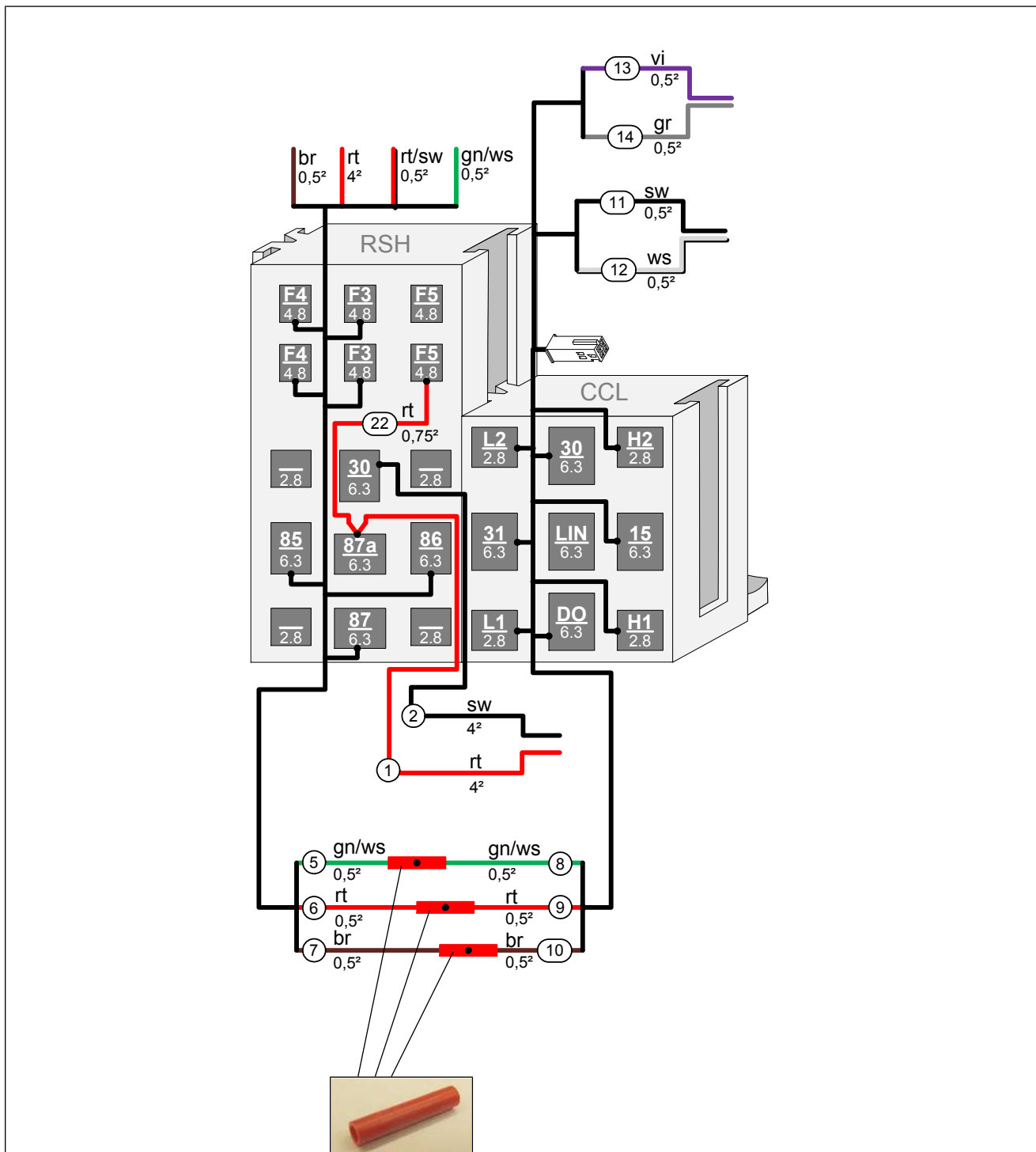


Fig. 47



Mounting relay K1, CCL GW and fuses

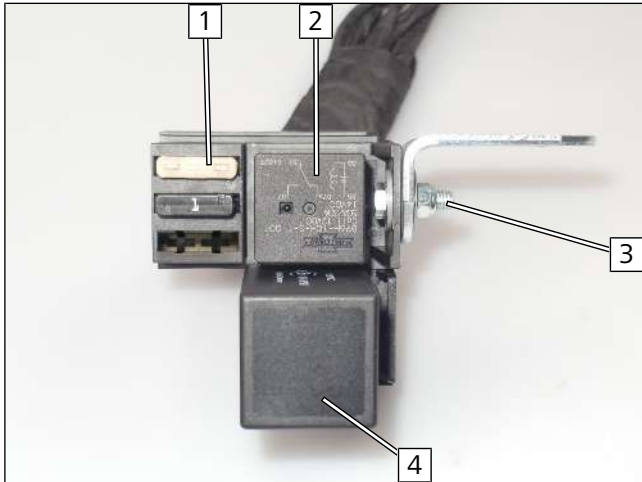


Fig. 48

- 1 25A fuse F4
- 2 Relay K1
- 3 M5x16 bolt, large diameter washer, RSH socket, angle bracket, large diameter washer, nut
- 4 CCL Gateway

Connecting wire 21 from CLR

Only in case of vehicles with installed cold start system.

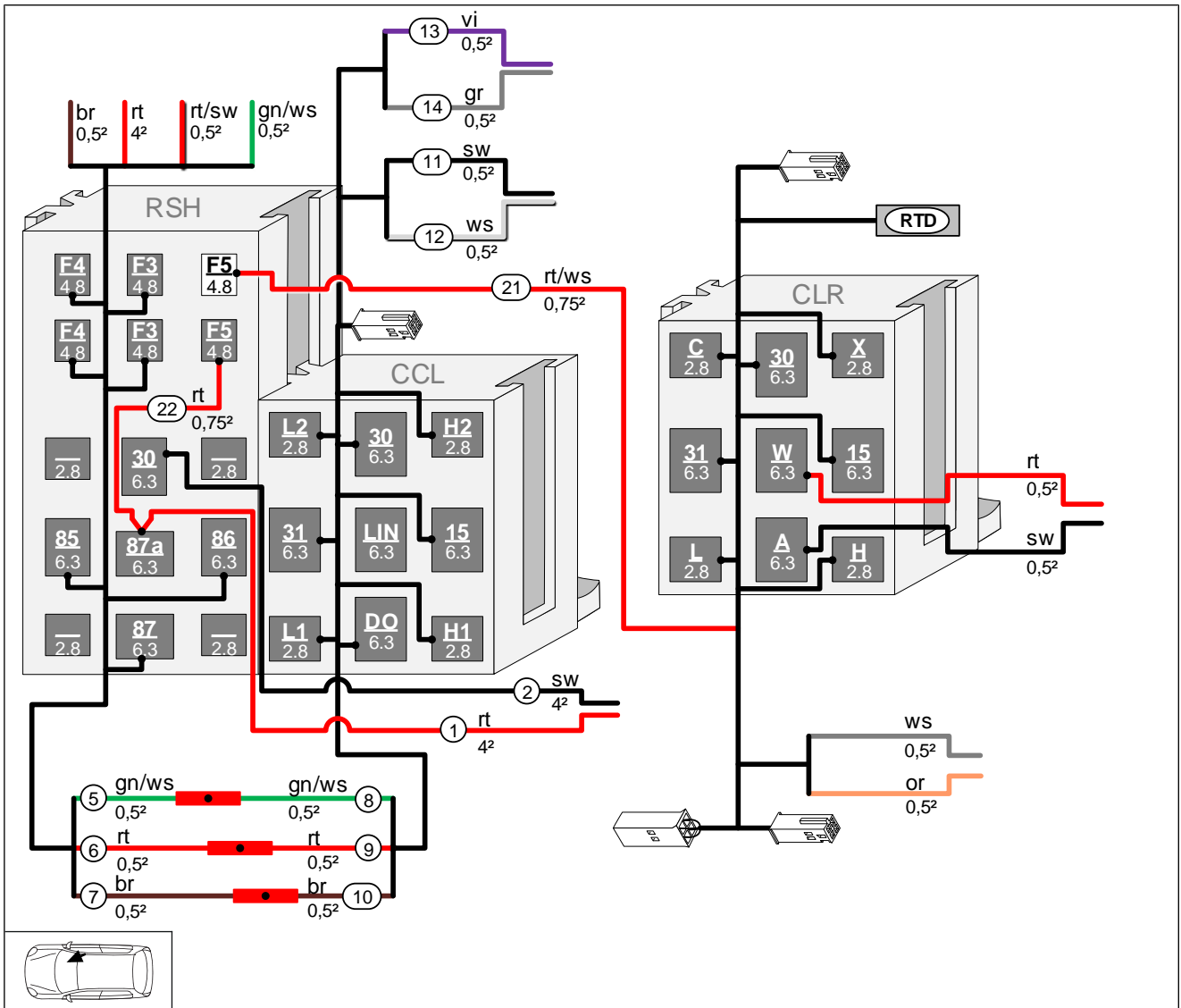


Fig. 49



Mounting fuse F5

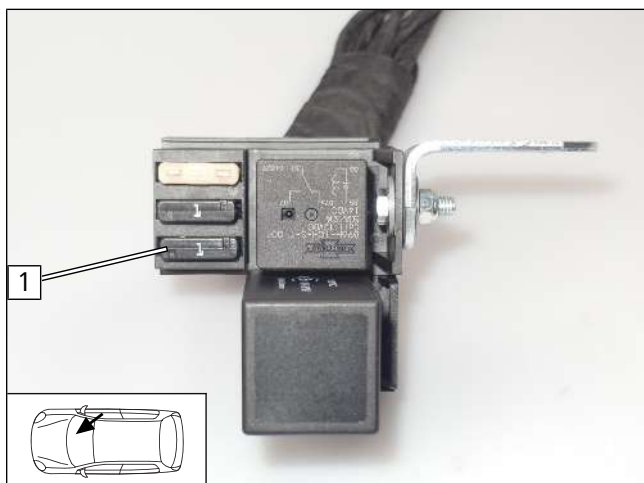


Fig. 50

- 1 1A fuse F5 (only in case of vehicles with installed cold start system)

Mounting RSH with CCL module

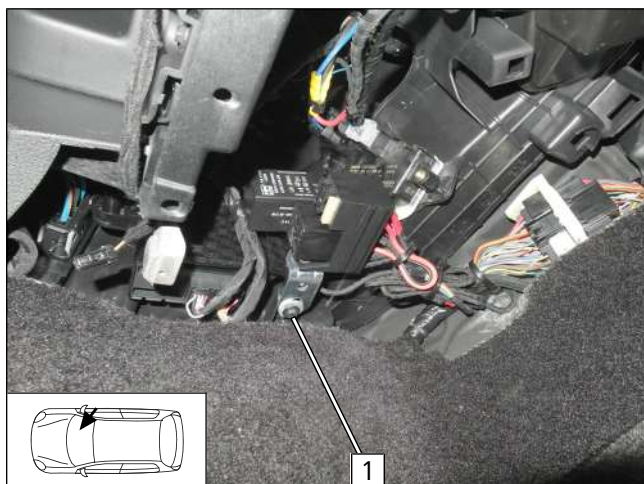


Fig. 51



Different types of installation can be found at position **1**:

- ▶ Original vehicle bolt, large diameter washer, pre-mounted angle bracket
- ▶ M6x20 bolt, large diameter washer, pre-mounted angle bracket, original vehicle hole, flanged nut

Connecting same colour wires of wiring harnesses

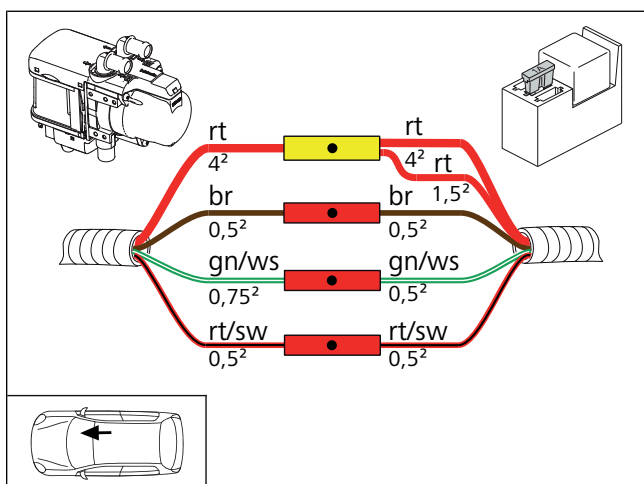


Fig. 52



Connecting fan controller

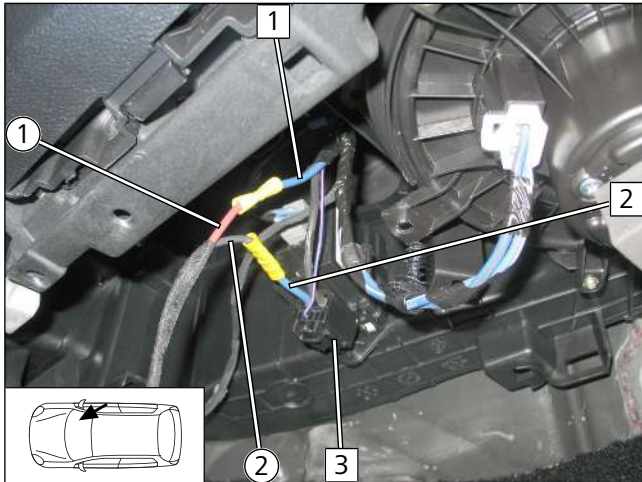


Fig. 53

- 1 Dark blue (dbl) wire of fuse Fx
- 2 Dark blue (dbl) wire of GRr connector A/pin 6
- 3 6-pin GRr connector A
- 1 Red (rt) wire of K1/87a fan wiring harness
- 2 Black (sw) wire of K1/30 fan wiring harness

View of KSG connector B

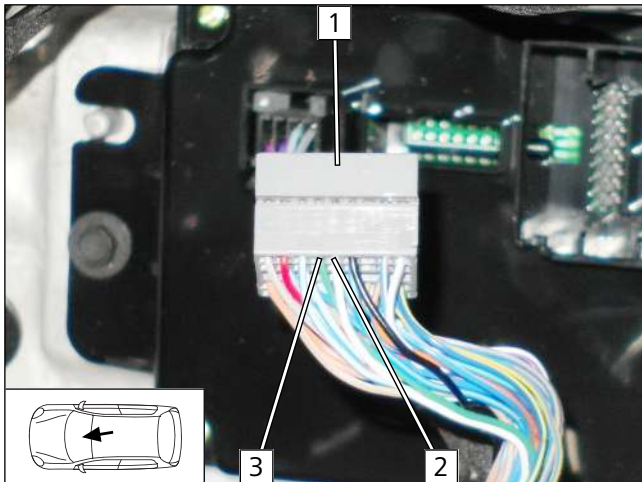




Fig. 54

 The next work steps are shown on a vehicle with model year-code letter 'J' in the vehicle identification number (VIN) but apply to all models.

 Remove connector housing of connector B.

- 1 36-pin KSG connector B
- 2 White (ws) wire of pin 5
- 3 Green (gn) wire of pin 4

Connection to KSG

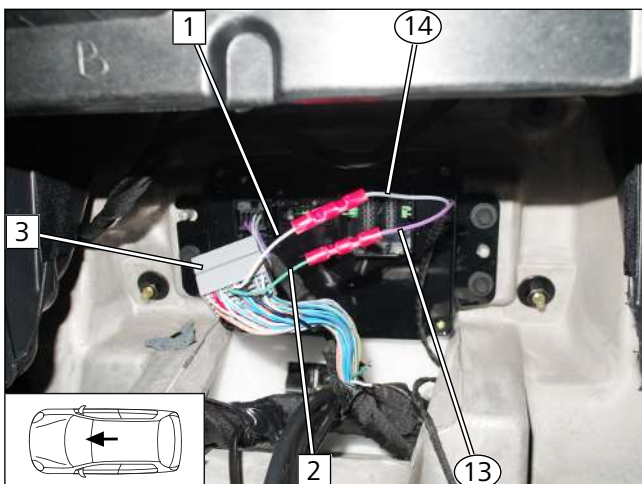
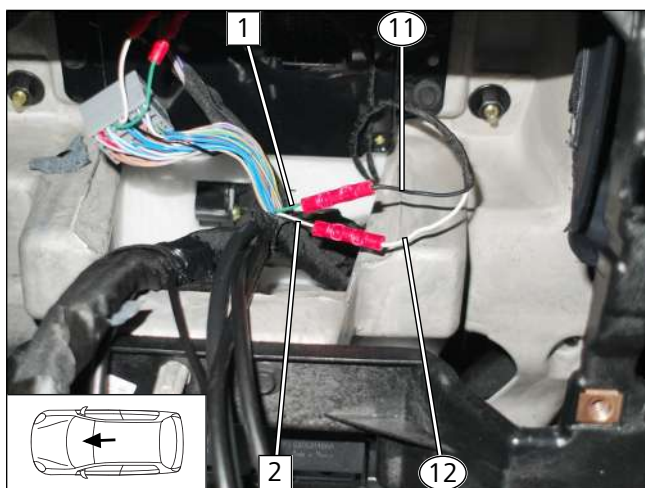


Fig. 55

- 1 White (ws) wire of KSG connector / pin 5
- 2 Green (gn) wire of KSG connector / pin 4
- 3 KSG connector
- 13 Violet (vi) wire of CCL/H2
- 14 Grey (gr) wire of CCL/L2



- 1 Green (gn) wire of CAN H
- 2 White (ws) wire of CAN L
- 11 Black (sw) wire of CCL/H1
- 12 White (ws) wire of CCL/L1

Fig. 56



11 Electrical system for Renegade

11.1 Installation overview for Renegade

Jeep Renegade, petrol vehicles up to MY 2018 without cold start system

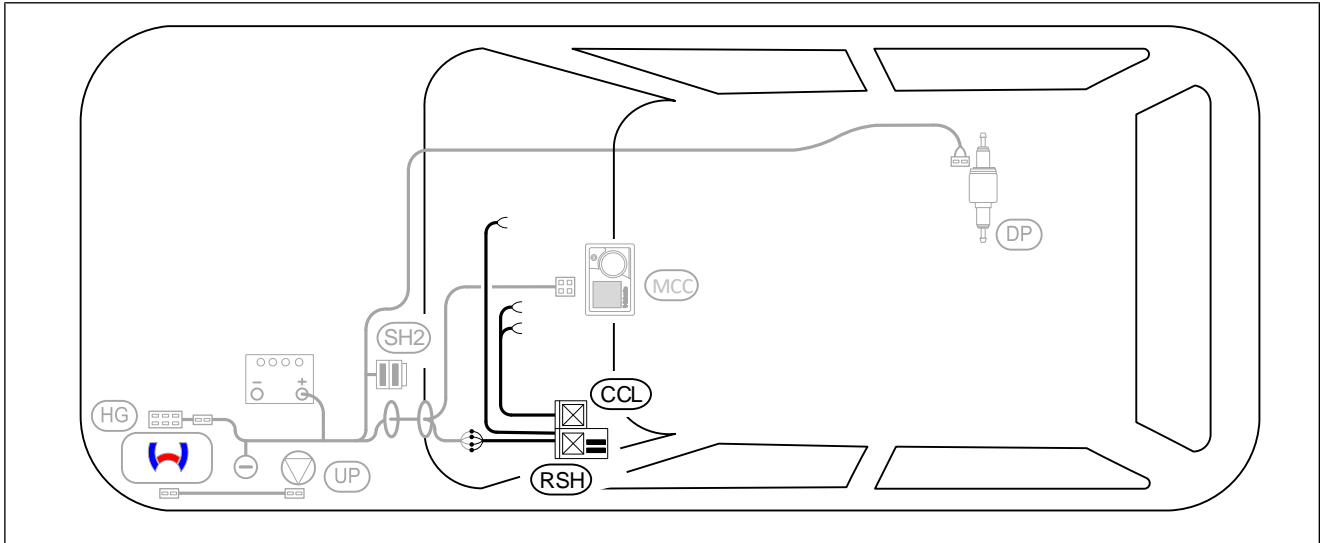


Fig. 57

Jeep Renegade, petrol vehicles starting from MY 2019 without cold start system

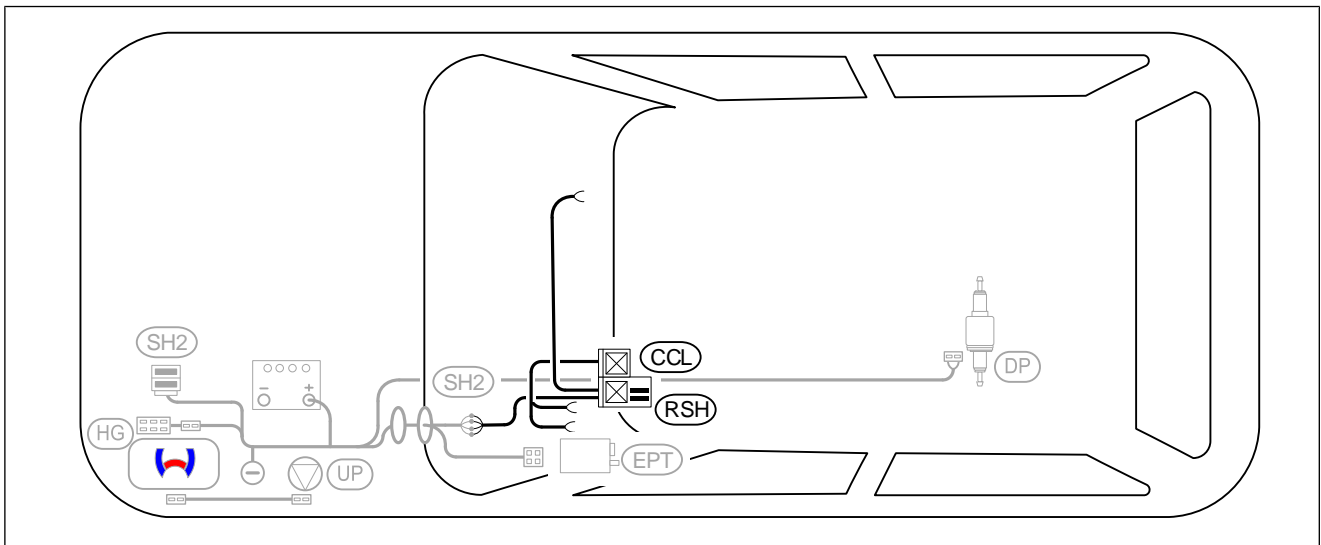


Fig. 58



Jeep Renegade, diesel vehicles with cold start system

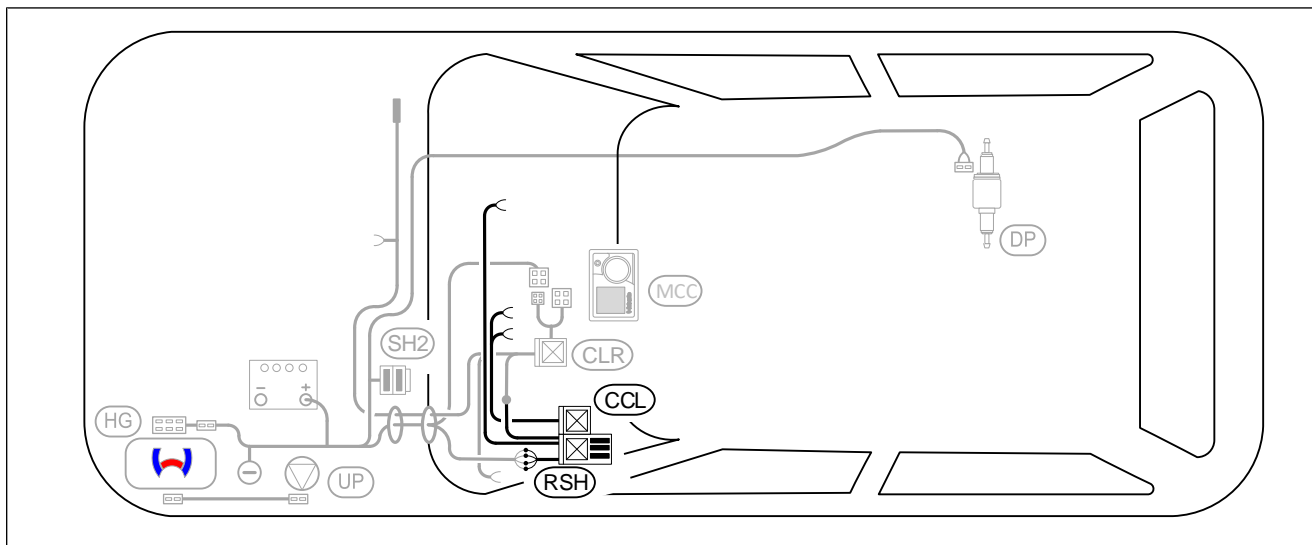


Fig. 59

Legend to installation overview

Abbreviation	Component
CCL	CCL-GW
RSH	Relay and fuse holder of passenger compartment



11.3 System wiring diagram for Renegade, vehicles with cold start system

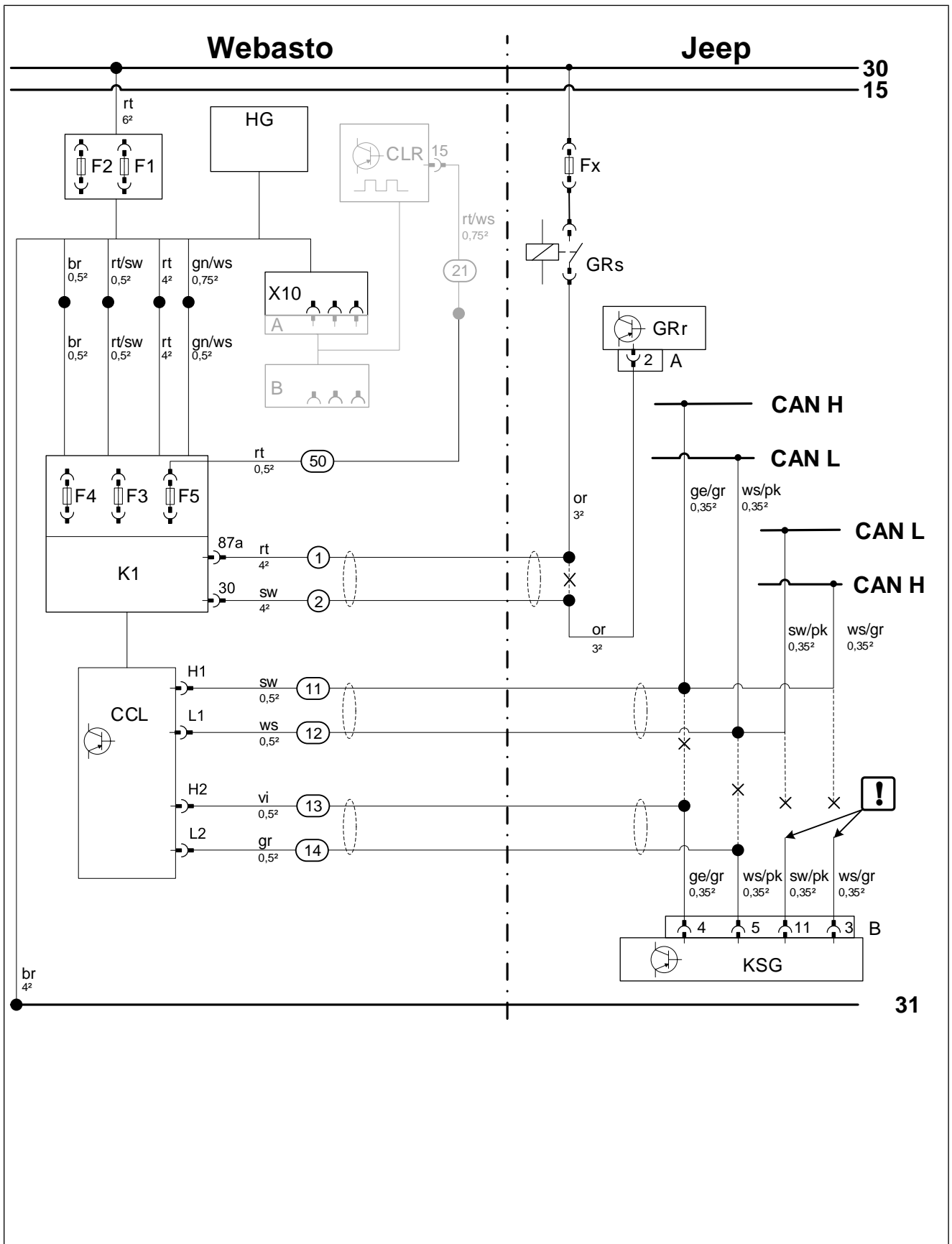


Fig. 61



11.4 Legend to the system wiring diagrams



The vehicle connector and component designations are freely chosen by Webasto.
Cable colours may vary.

Vehicle components		Symbols	
Abbreviation	Component	Abbreviation	Designation
Fx	Fan fuse	X	Cutting point
GRs	Fan relay		insulate and tie back
GRr	Fan controller		
A	2-pin GRr connector		
KSG	Air-conditioning control unit		
B	36-pin KSG connector		

Webasto components		Cable colours	
Abbreviation	Component	Abbreviation	Colour
A	Male plug for CLR module wiring harness	bg	beige
B	Female plug for CLR module wiring harness	bl	blue
C	Male plug for adapter wiring harness	br	brown
D	Female plug for adapter wiring harness	dbl	dark blue
E	Male plug for Plug&Play wiring harness	dgn	dark green
F	Female plug for Plug&Play wiring harness	ge	yellow
CCL GW	CAN CAN LIN Gateway	gn	green
CL GW	CAN LIN Gateway	gr	grey
CLR	Cold start module	hbl	light blue
D1	Diode	hgn	light green
D2	Diode group	or	orange
F0	Additional fuse for power supply	pk	pink
F1	Heater main fuse	rt	red
F2	Passenger compartment fan controller main fuse	sw	black
F3	Control element fuse	vi	violet
F4	Fan controller fuse	ws	white
F5	Additional fuse		
HG	Heater TT-Evo		
K1	Relay K1		
K2	Relay K2		
K3	Relay K3		
LIN GW	LIN Gateway		
PWM GW	Pulse width modulator gateway		
RSH	Relay and fuse holder of passenger compartment		
RTD	Temperature sensor		
X10	Female plug for control element		
Y	Power adapter		



11.5 Fan controller



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

Assembling CCL GW and RSH sockets, connecting wires



Wire 22 is only available in vehicles with installed cold start system.

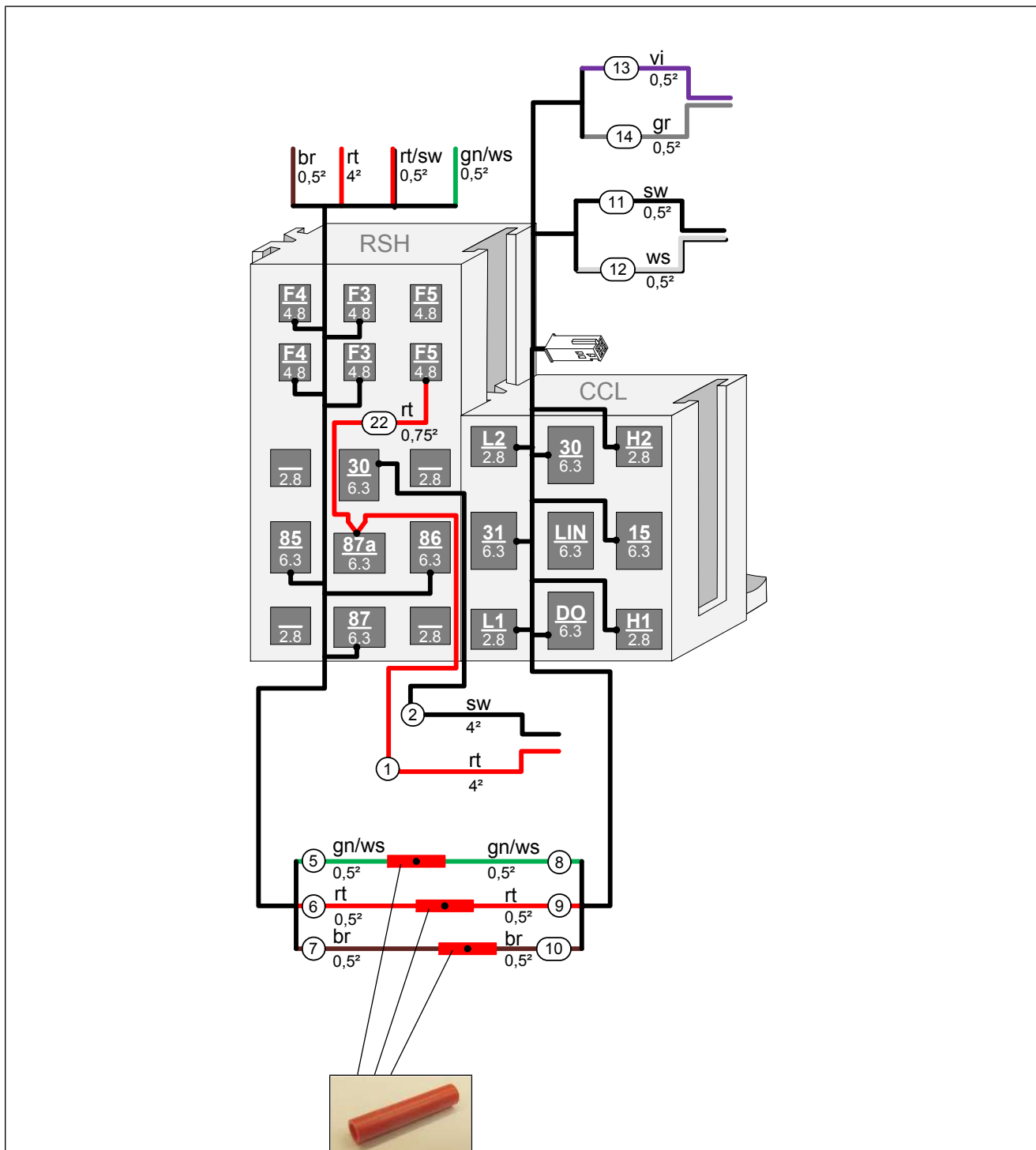


Fig. 62



Premounting perforated bracket

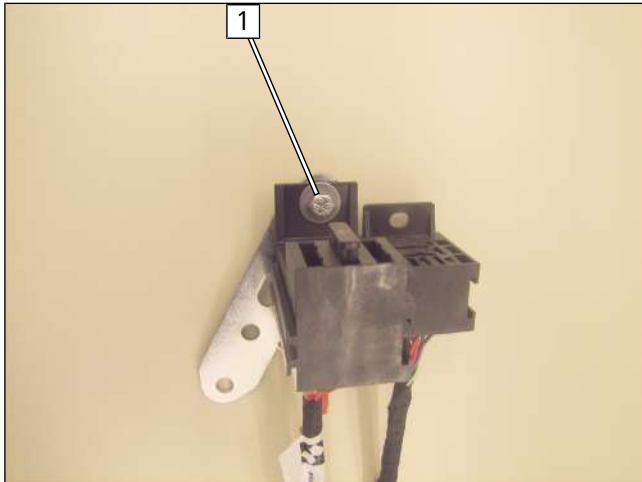


Fig. 63

- 1 M5x16 bolt, large diameter washer, RSH, perforated bracket, large diameter washer, nut

Routing wire 50 from CLR to RSH installation location and connecting

Only in case of vehicles with installed cold start system.

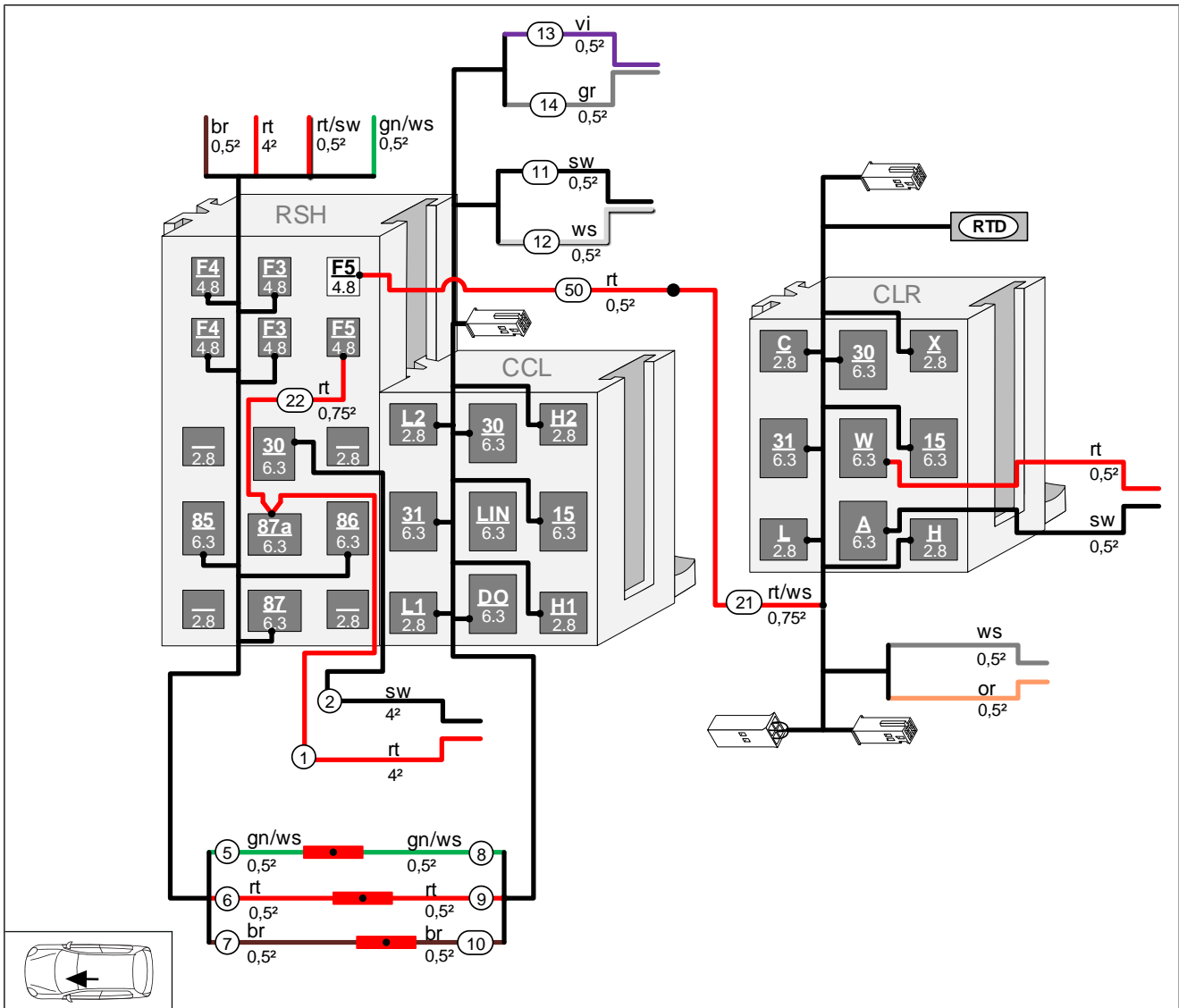


Fig. 64



Mounting relay K1, CCL GW and fuses

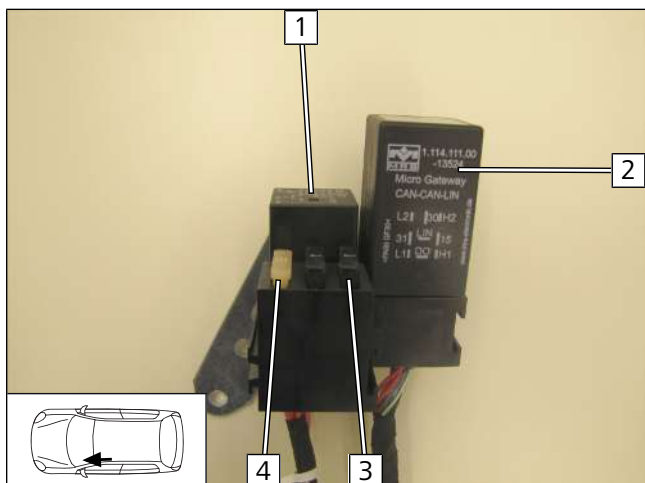


Fig. 65

- 1 Relay K1
- 2 CCL -GW
- 3 1A fuse F5 (only in case of vehicles with installed cold start system)
- 4 25A fuse F4

Mounting RSH



Fig. 66

- 1 Original vehicle bolt, premounted RSH

Connecting same colour wires of wiring harnesses

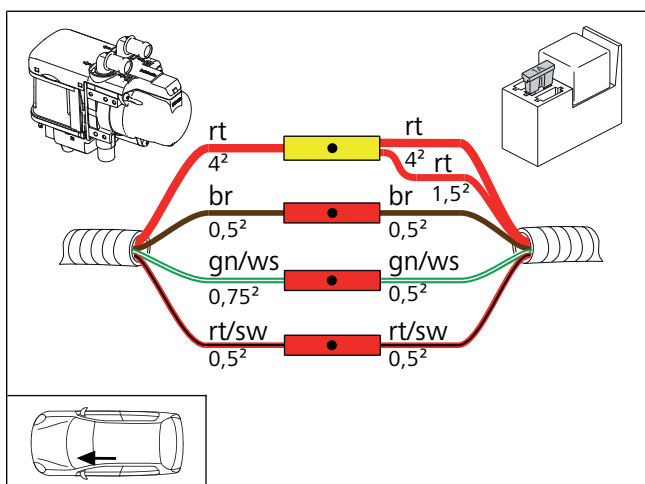


Fig. 67



Removing GRr cover

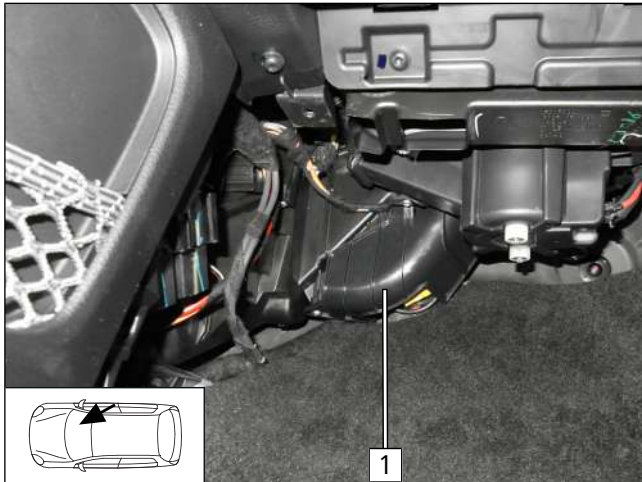


Fig. 68

- 1 GRr cover

Connecting relay K1

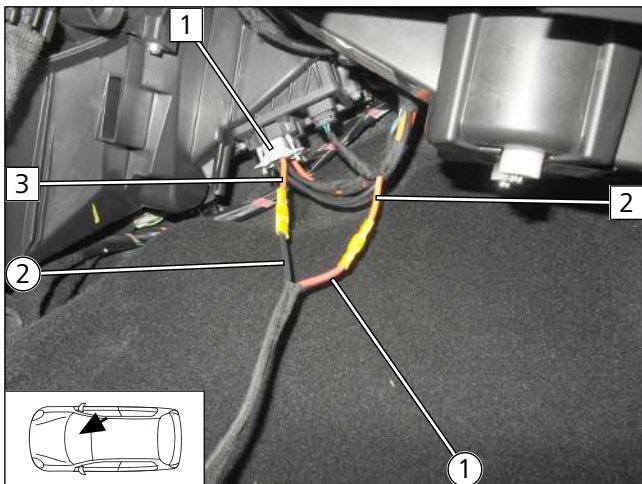


Fig. 69

- 1 2-pin GRr connector A, grey (gr)
- 2 Orange (or) wire of GRs
- 3 Orange (or) wire from connector A/pin 2
- 1 Red (rt) wire of K1/87a fan wiring harness
- 2 Black (sw) wire of K1/30 fan wiring harness

View of KSG connector B

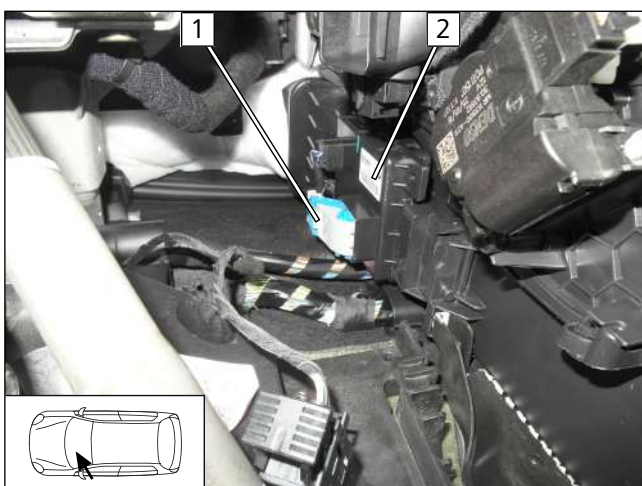


Fig. 70

- 1 36-pin KSG connector B
- 2 KSG



Connector B assignment on wiring side

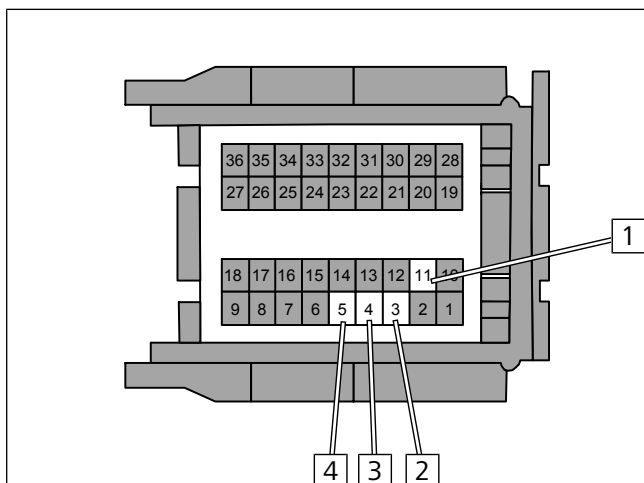


Fig. 71



Remove connector housing of connector B.

- 1 Black/pink (sw/pk) wire of connector B/pin 11
- 2 White/grey (ws/gr) wire of connector B/pin 3
- 3 Yellow/grey (ge/gr) wire of connector B/pin 4
- 4 White/pink (ws/pk) wire of connector B/pin 5

Cutting CAN bus wires

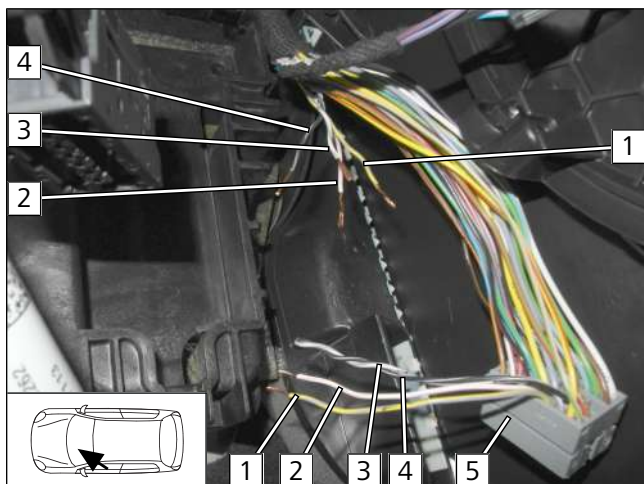


Fig. 72

- 1 Yellow/grey (ge/gr) wire of CAN H
- 2 White/pink (ws/pk) wire of CAN L
- 3 White/grey (ws/gr) wire of CAN H
- 4 Black/pink (sw/pk) wire of CAN L
- 5 Removed connector B

Connecting CCL GW

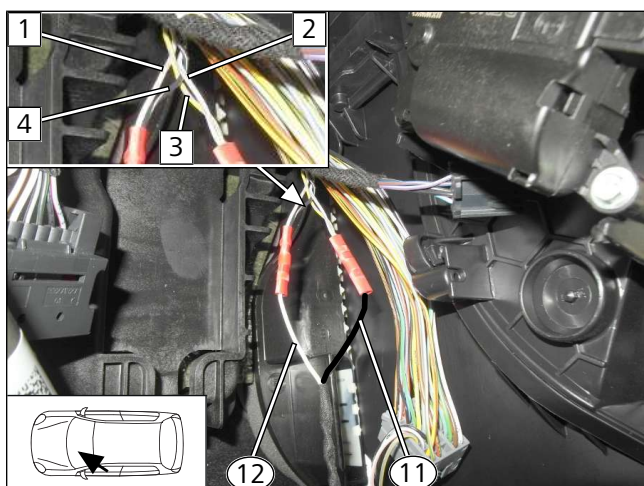
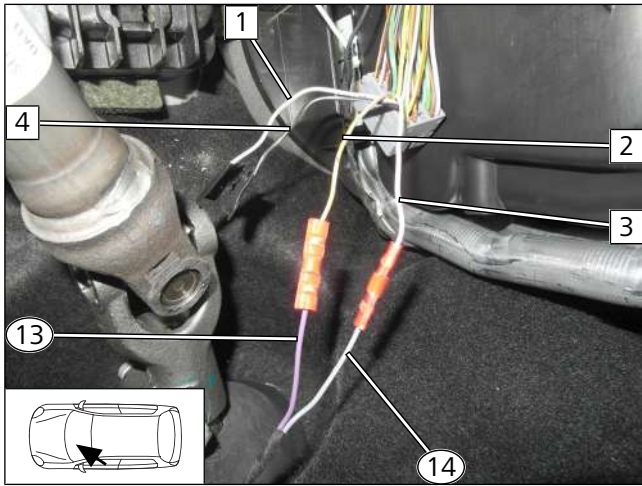


Fig. 73

- 1 White/pink ws/pk wire of CAN L
- 2 White/grey (ws/gr) wire of CAN H
- 3 Yellow/grey (ge/gr) wire of CAN H
- 4 Black/pink (sw/pk) wire of CAN L
- 11 Black (sw) wire of CCL/H1
- 12 White (ws) wire of CCL/L1



- 1 White/grey (ws/gr) wire of connector B/pin 3, insulate and tie back
- 2 Yellow/grey (ge/gr) wire of connector B/pin 4
- 3 White/pink (ws/pk) wire of connector B/pin 5
- 4 Black/pink (sw/pk) wire connector B/pin 11, insulate and tie back
- 13 Violet (vi) wire of CCL/H2
- 14 Grey (gr) wire of CCL/L2

Fig. 74



12 Final work



- ▶ 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 and tie back loose lines



These are the original instructions. The German language is binding.
You can request your language if it is missing. The telephone number of each country can be found in the Webasto service centre leaflet or the website of the respective Webasto representative of your country.

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13 Operating instructions for Jeep Wrangler



Vehicles with passenger compartment monitoring:

Further information can be found in the vehicle operating instructions.

- ▶ Deactivate passenger compartment monitoring for the heating operation



Information regarding the heating time:

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.



Notes about the A/C control panel presettings

Your vehicle is equipped with a comfort air-conditioning control. As a result, **no** settings are required on the A/C control panel when switching off the vehicle. All necessary presettings, such as fan speed, temperature and flap positions are set automatically.



Notes about the active parking heating mode

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

After the vehicle is closed again, it can take several minutes for it to be active again.



Note for parking heater function

Your vehicle is equipped with a passenger compartment and engine preheating unit.

13.1 Installation location of fuses

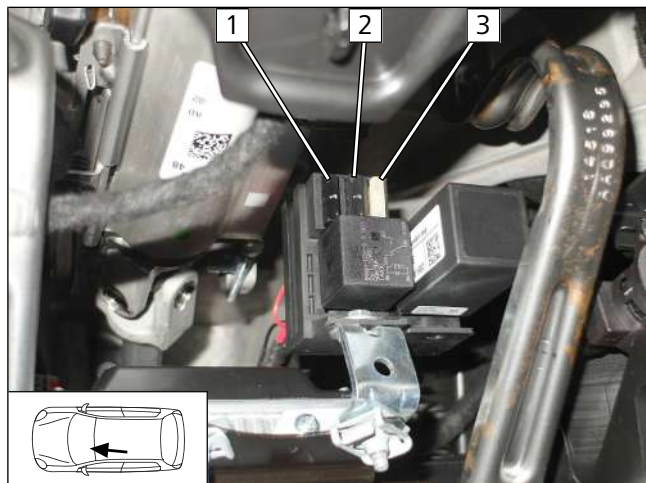
Fuses in engine compartment



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

Fig. 75

Fuses in passenger compartment



- 1 F5 - 1A additional fuse (only for diesel vehicles)
- 2 F3 - 1A control element fuse
- 3 F4 - 25A fan controller fuse

Fig. 76

14 Operating instructions for Jeep Compass



Vehicles with passenger compartment monitoring:

Further information can be found in the vehicle operating instructions.

- ▶ Deactivate passenger compartment monitoring for the heating operation



Information regarding the heating time:

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.



Notes about the A/C control panel presettings

Your vehicle is equipped with a comfort air-conditioning control. As a result, **no** settings are required on the A/C control panel when switching off the vehicle. All necessary presettings, such as fan speed, temperature and flap positions are set automatically.



Notes about the active parking heating mode

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

After the vehicle is closed again, it can take several minutes for it to be active again.

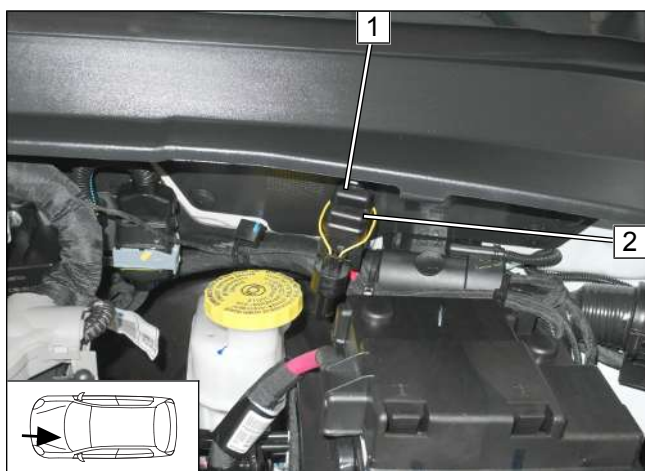


Note for parking heater function

Your vehicle is equipped with a passenger compartment and engine preheating unit.

14.1 Installation location of fuses

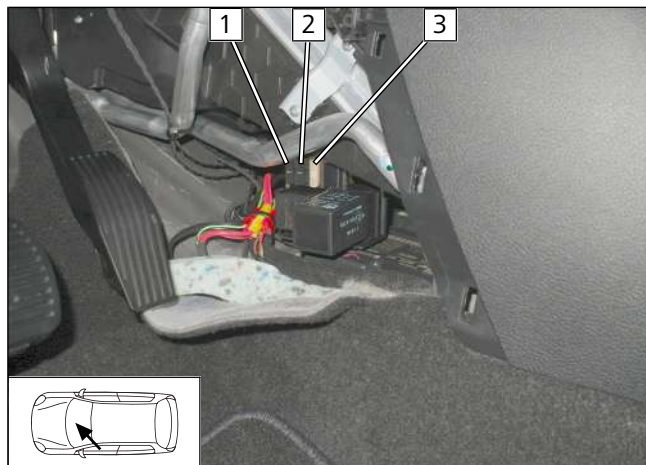
Fuses in engine compartment



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

Fig. 77

Fuses in passenger compartment



- 1 F5 – 1A additional fuse
- 2 F3 - 1A control element fuse
- 3 F4 - 25A fan controller fuse

Fig. 78

15 Operating instructions for Jeep Grand Cherokee



Vehicles with passenger compartment monitoring:

Further information can be found in the vehicle operating instructions.

- ▶ Deactivate passenger compartment monitoring for the heating operation



Information regarding the heating time:

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.



Notes about the A/C control panel presettings

Your vehicle is equipped with a comfort air-conditioning control. As a result, **no** settings are required on the A/C control panel when switching off the vehicle. All necessary presettings, such as fan speed, temperature and flap positions are set automatically.



Notes about the active parking heating mode

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

After the vehicle is closed again, it can take several minutes for it to be active again.

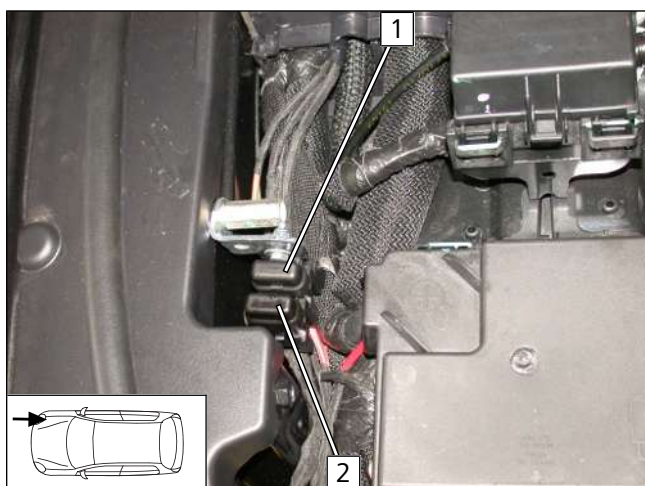


Note for parking heater function

Your vehicle is equipped with a passenger compartment and engine preheating unit.

15.1 Installation location of fuses

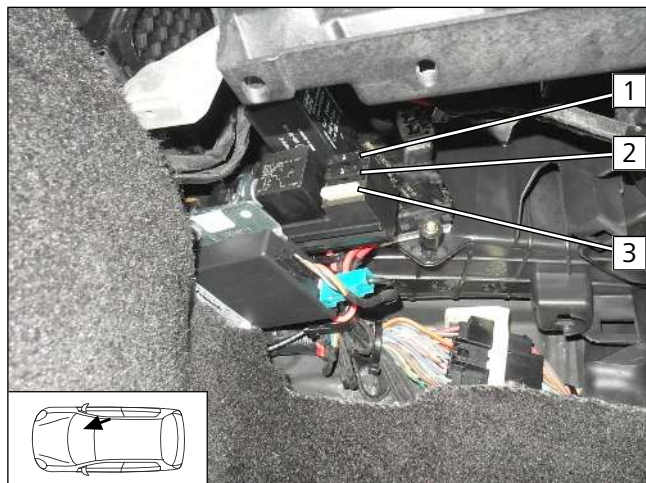
Fuses in engine compartment



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

Fig. 79

Fuses in passenger compartment



- 1 F5 - 1A additional fuse (only in case of vehicles with installed cold start system)
- 2 F3 - 1A control element fuse
- 3 F4 - 25A fan controller fuse

Fig. 80

16 Operating instructions for Jeep Renegade



Vehicles with passenger compartment monitoring:

Further information can be found in the vehicle operating instructions.

- ▶ Deactivate passenger compartment monitoring for the heating operation



Information regarding the heating time:

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.



Notes about the A/C control panel presettings

Your vehicle is equipped with a comfort air-conditioning control. As a result, **no** settings are required on the A/C control panel when switching off the vehicle. All necessary presettings, such as fan speed, temperature and flap positions are set automatically.



Notes about the active parking heating mode

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

After the vehicle is closed again, it can take several minutes for it to be active again.



Note for parking heater function for diesel vehicles

Your vehicle is equipped with a passenger compartment and engine preheating unit.



Note for parking heater function for petrol vehicles

Your vehicle is equipped with a passenger compartment preheating unit. There is **no** engine pre-heating.

16.1 Installation location of fuses

Fuses in engine compartment

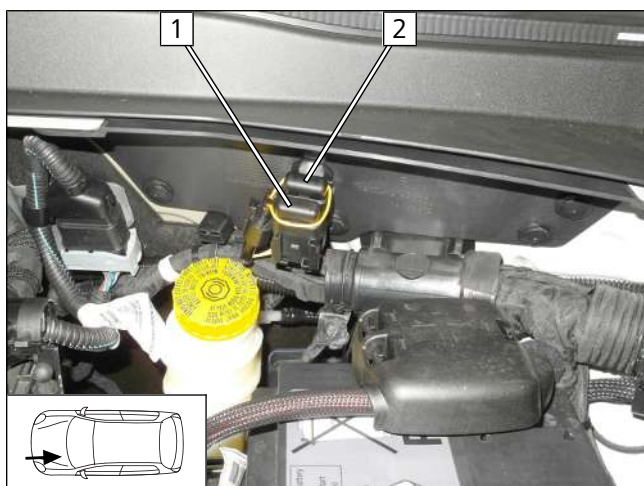


Fig. 81



Version 1

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

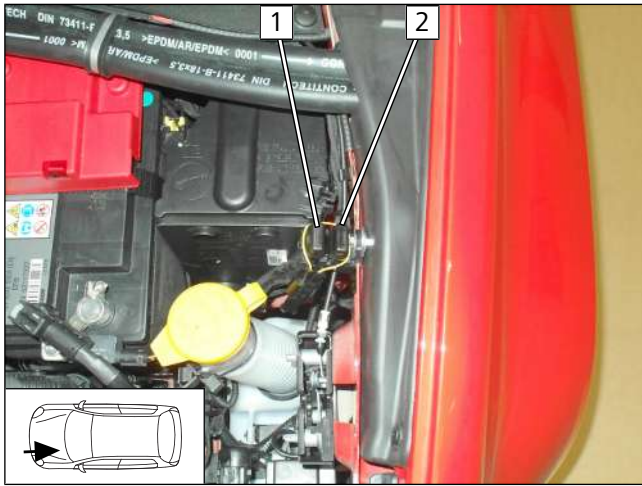


Fig. 82

Fuses in passenger compartment

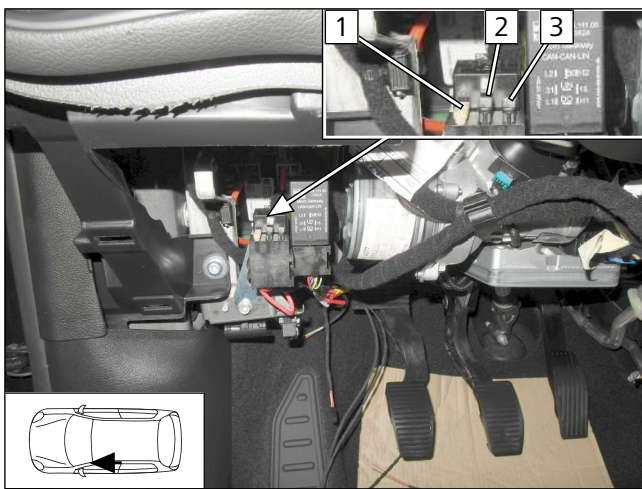



Fig. 83

 Version 2

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

- 1 F4 - 25A fan controller fuse
- 2 F3 - 1A control element fuse
- 3 F5 - 1A additional fuse (only for diesel vehicles)