

Water heater

Thermo Top Evo parking heater

E1 00 0258

Upgrade documentation VW T6 / Amarok 2

Validity

Manufacturer	Model	Туре	Model year	EG BE No. / ABE
VW	Т6	7HC	From model year 2015	e1 * 2001 / 116 * 0220
VW	Amarok 2	2HZ	From model year 2016	e1 * 2007 / 46 * 0356

From model year 2016 Left-hand drive vehicle

 Verified equipment variants: Diesel

 Climatronic

 Vehicle with factory installed Webasto auxiliary heater

 Not verified:
 Passenger compartment monitoring

 Total installation time:
 approx. 2.5 hours

VW T6 / Amarok 2

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Necessary components

- Upgrade kit for VW T6 / Amarok 2 2016 Diesel Climatronic: 1324103B
- · Control element in accordance with price list and upon consultation with end customer

- In case of installation of MultiControl CAR: MultiControl installation frame: **9030077**
- In case of Telestart option, indicator lamp in accordance with price list and in consultation with end customer

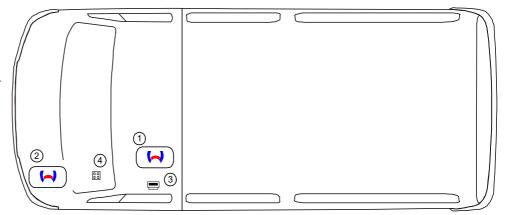
Installation instructions:

- The installation location of the push button in case of Telestart or ThermoCall should be confirmed with the end customer.
- Depending on the space required and the vehicle manufacturer's instructions, we recommend the use of a vehicle battery with a higher electrical capacity.

Installation overview

Legend:

- 1. OE heater for T6
- 2. OE heater for Amarok 2
- 3. Fuse holder in passenger compartment
- 4. Control element connector



Information on total installation time

The total installation time includes the time needed for mounting and demounting the vehicle-specific components, the heater specific installation time and all other times required for the system integration and initial start-up of the heater. The total installation time may vary for vehicle equipment other than provided.

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 or 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 StV-ZO (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.

VEHICLE INSTALLATION REQUIREMENTS

2.1. Scope

2.

- 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.

VW T6 / Amarok 2

Information on validity

This upgrade documentation applies to VW T6 Diesel vehicles from model year 2015 and later as well as VW Amarok 2 diesel vehicles from model year 2016 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 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
- · Deep-hole marker
- · Webasto Thermo Test Diagnosis with current software

Dimensions

All dimensions are in mm.

Tightening torgue values

 Tighten original vehicle bolt connections in accordance with manufacturer's instructions or in accordance with state-ofthe-art-technology.

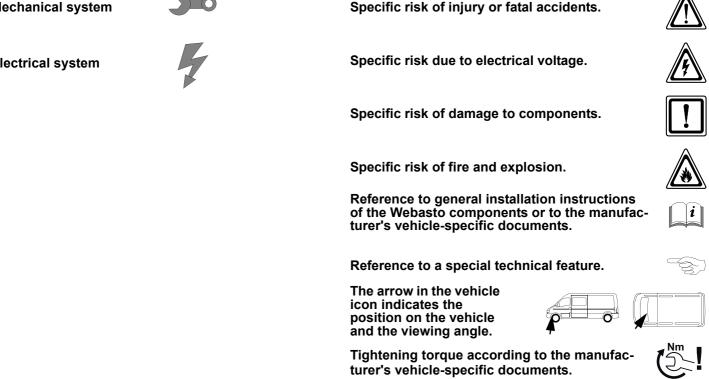
Explanatory notes on document

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

Special features are highlighted using the following symbols:



VW T6 / Amarok 2

Preliminary work

Т6

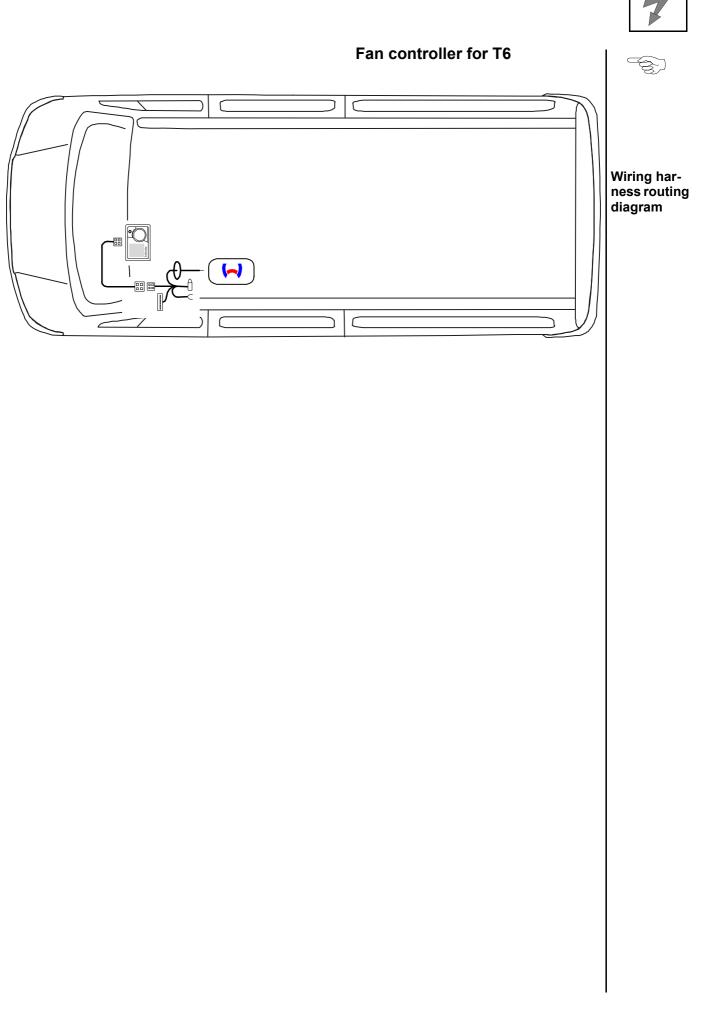
- Disconnect the battery.
- Remove the footwell trim on the driver's side (if present).
- Remove the lower instrument panel trim on the driver's side.
- Remove the side step cover on the driver's side.
- Remove the driver's seat (4x bolts).

Amarok 2

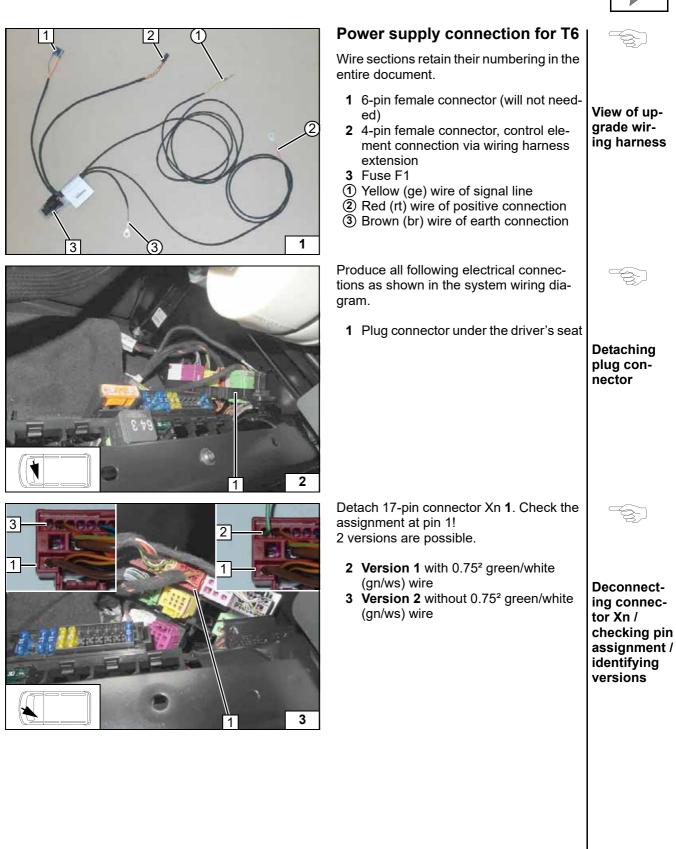
- Disconnect and remove the battery.
- Remove the footwell trim on the driver's side (if present).
- Remove the lower instrument panel trim on the driver's side.
- Remove the external instrument panel trim on the left.

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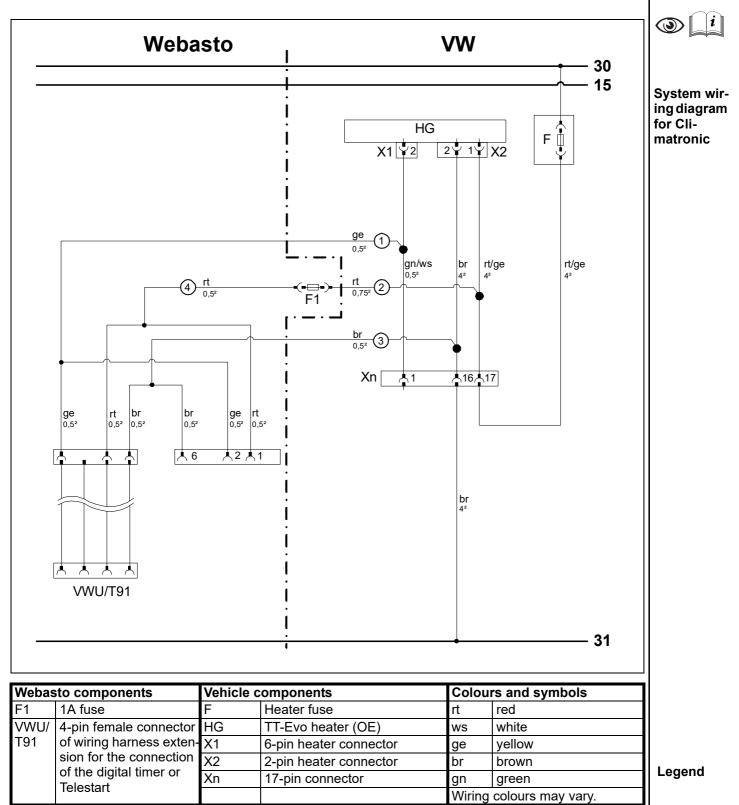


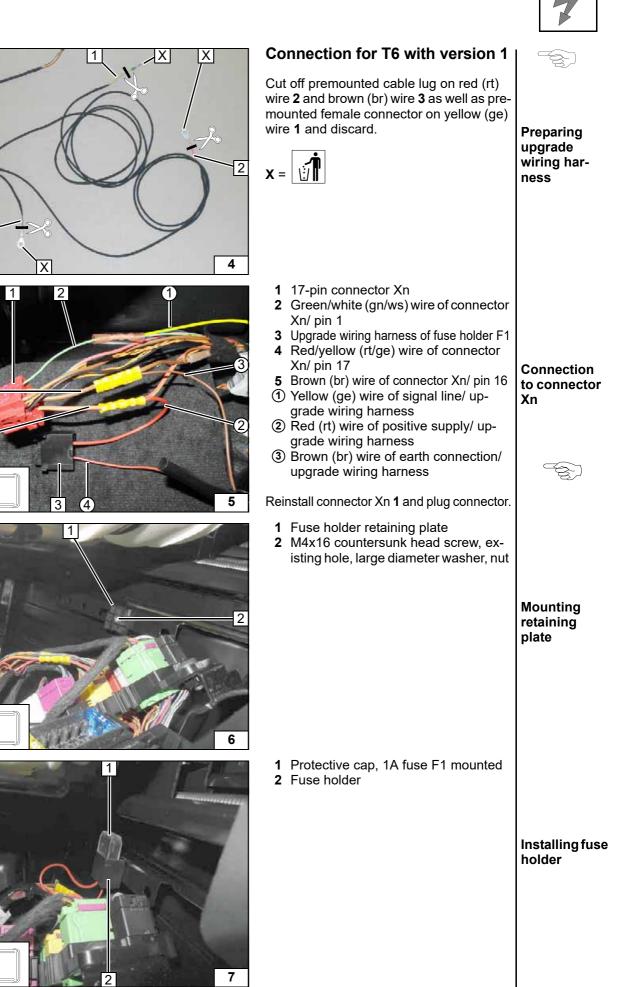




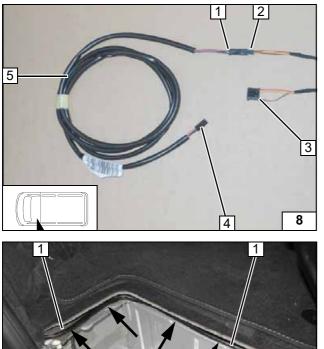


System wiring diagram for T6, version 1





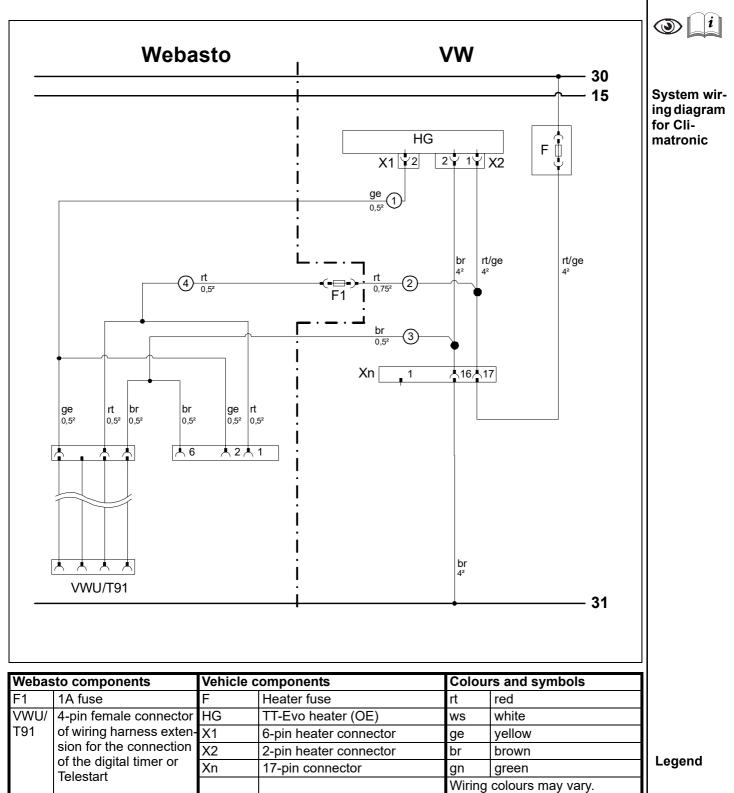




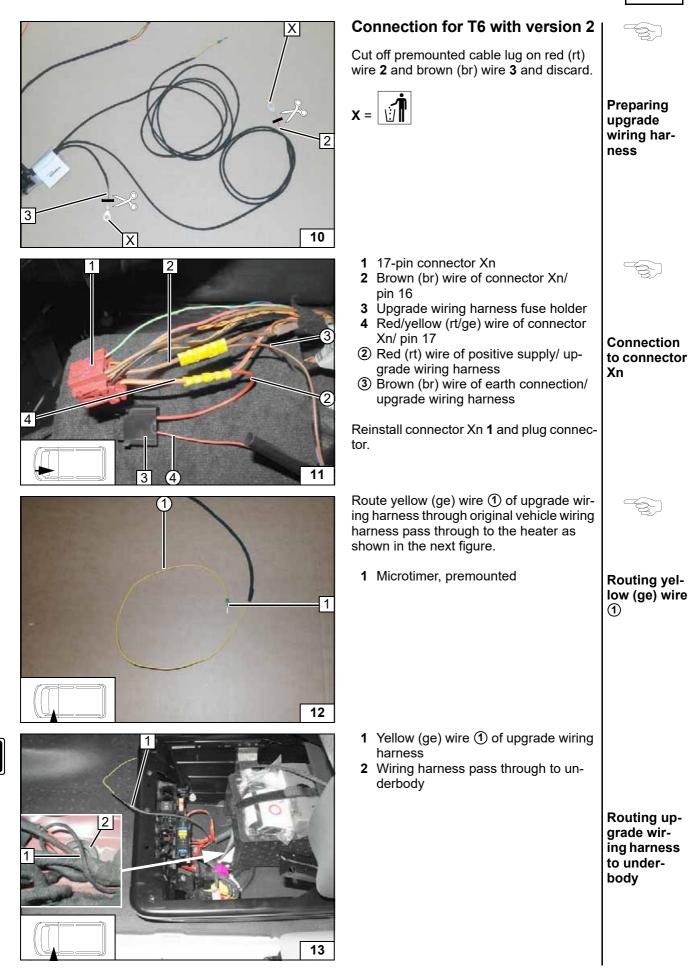
	Routing wiring harness extension for T6	
3	 Male plug of wiring harness extension 4-pin female plug of upgrade wiring harness 6-pin female plug of upgrade wiring harness (will not be used) Female plug of wiring harness extension for control element connection Wiring harness extension 	Connecting wiring har- nesses
	Route wiring harness extension 1 to the instrument panel as shown.	Routing wir- ing harness



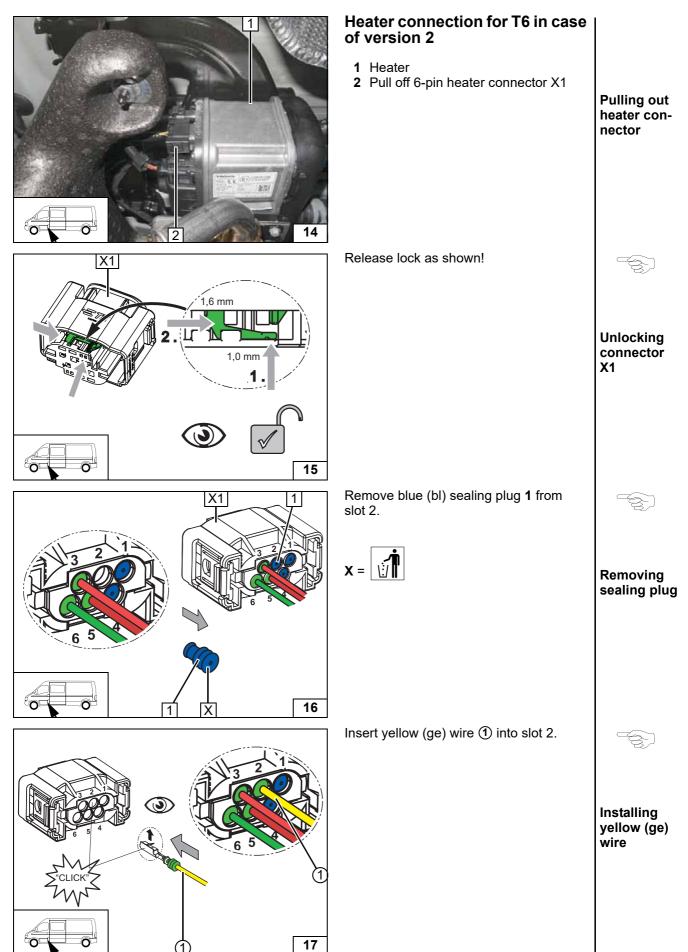
System wiring diagram for T6, version 2



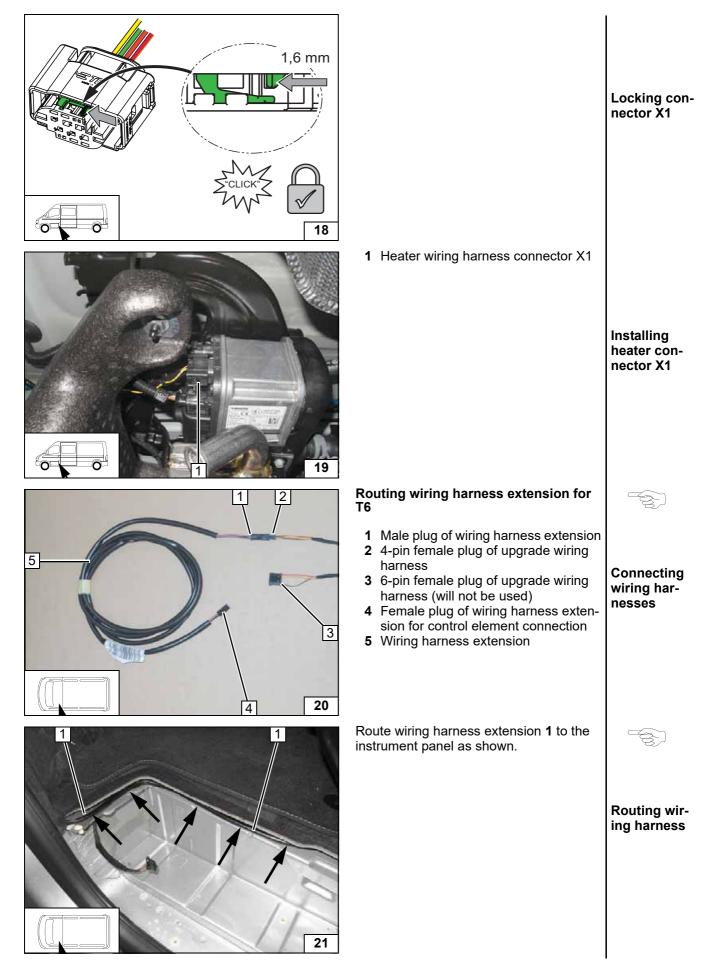














Installing MultiControl

CAR

Installing receiver

Mounting aerial

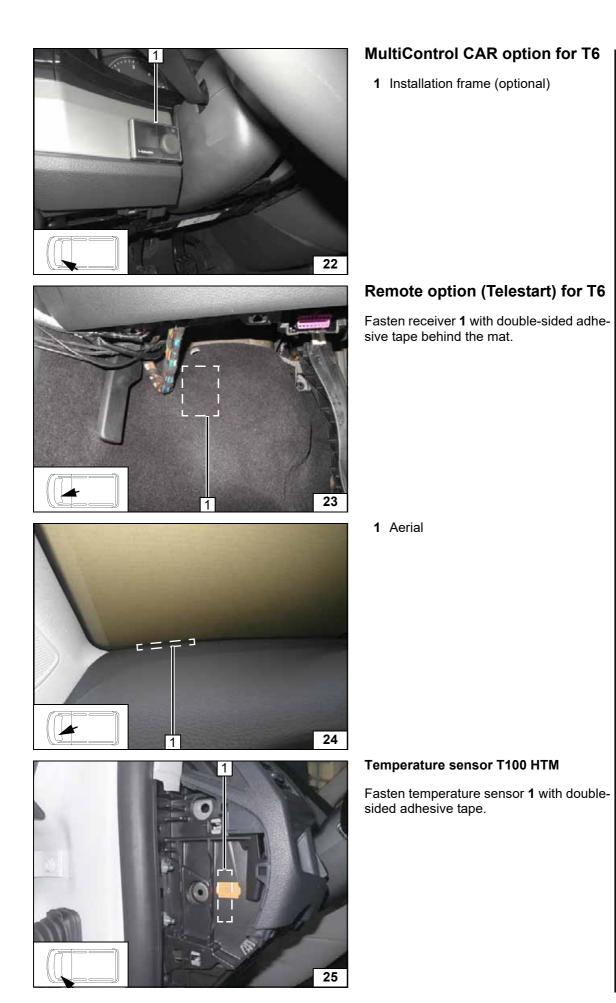
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Installing temperature sensor

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Installing operation indi-

Installing operation indi-

Mounting and connect-

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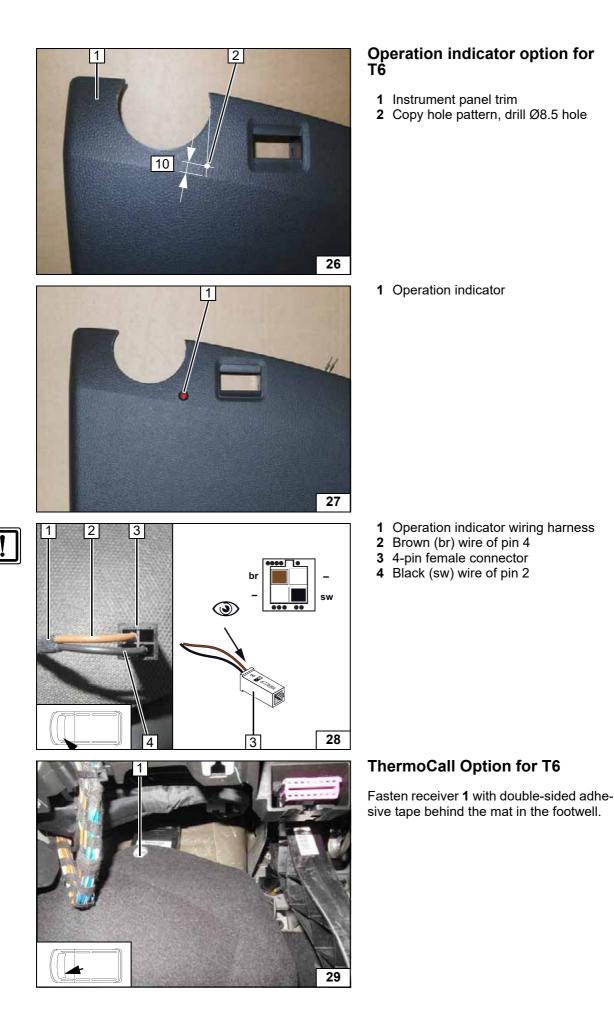
ing female plug

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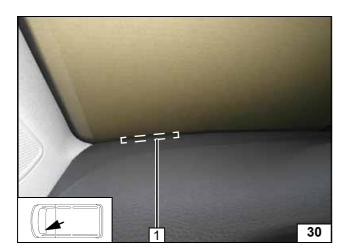
Installing receiver

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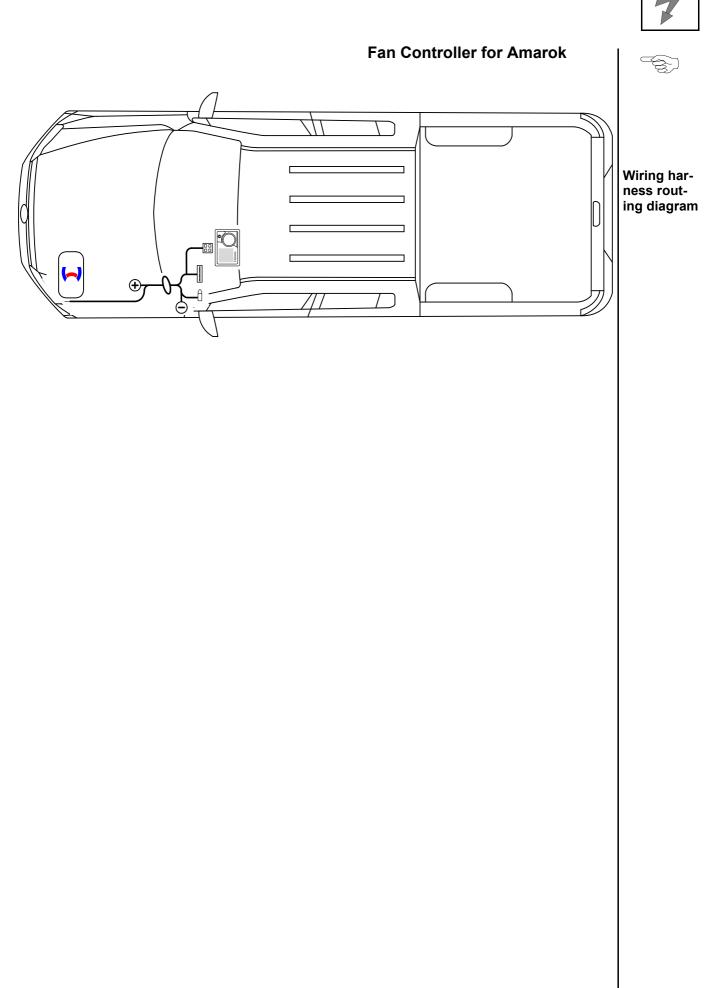






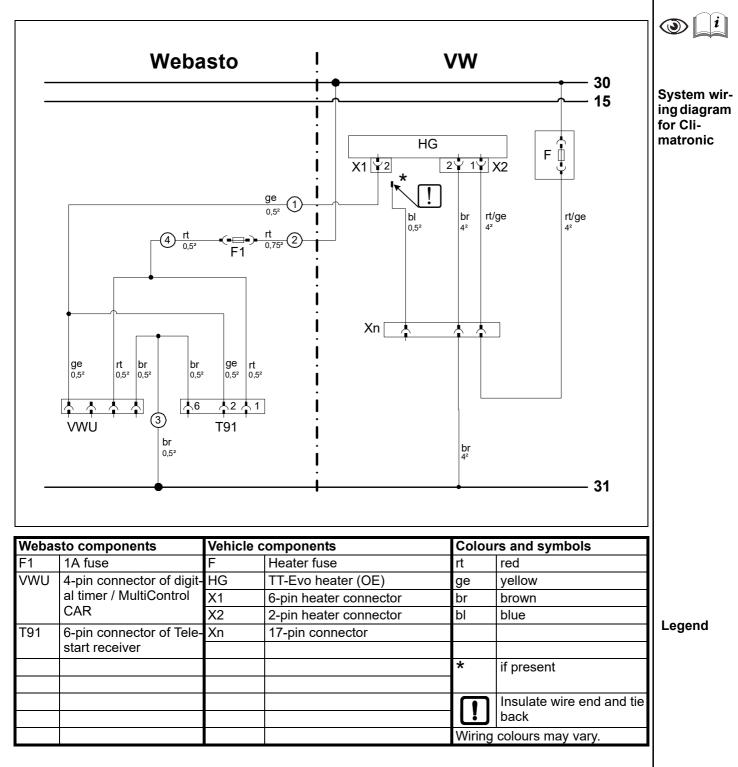
1 Aerial (optional)

Mounting aerial

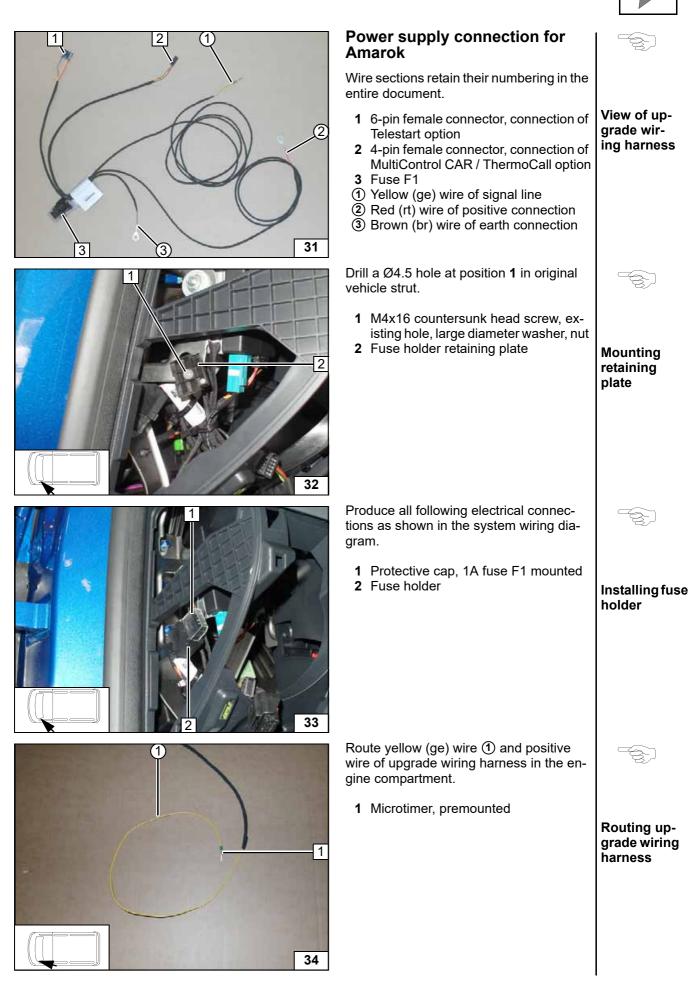


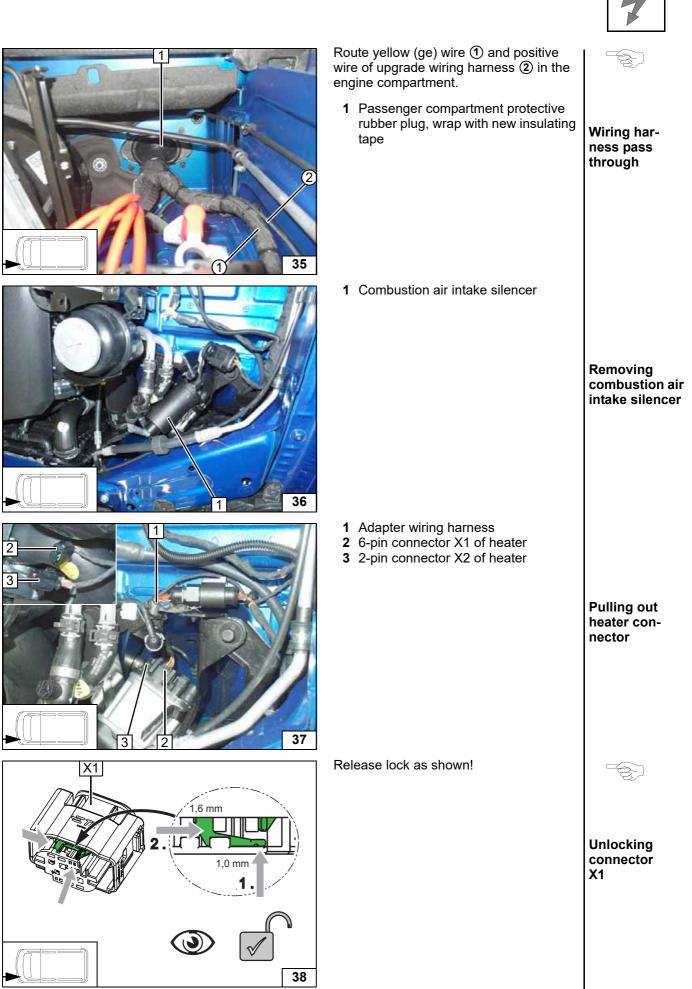


System wiring diagram for Amarok

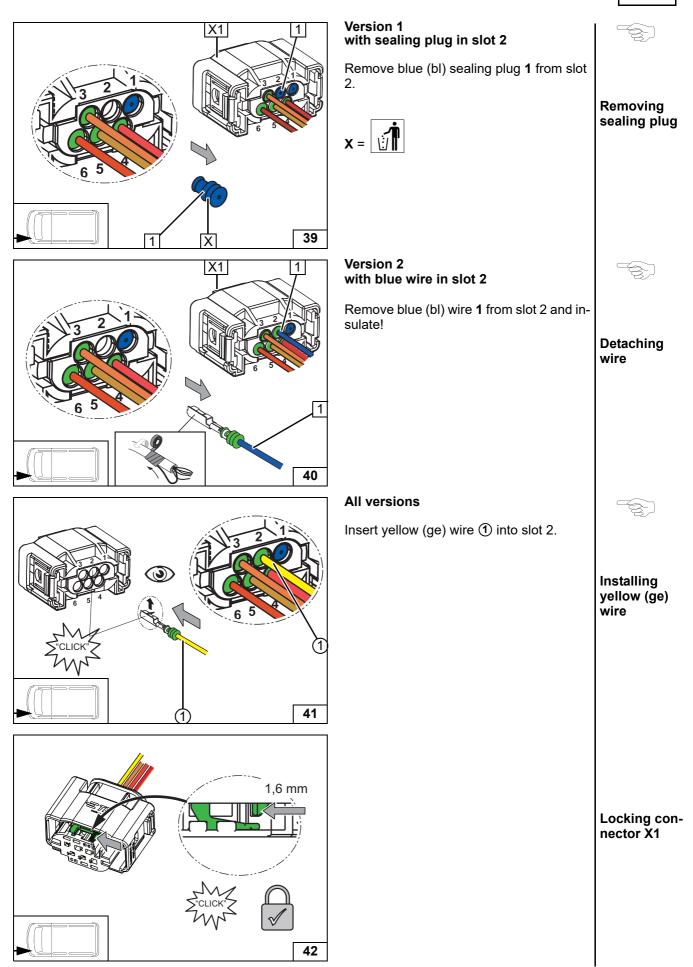










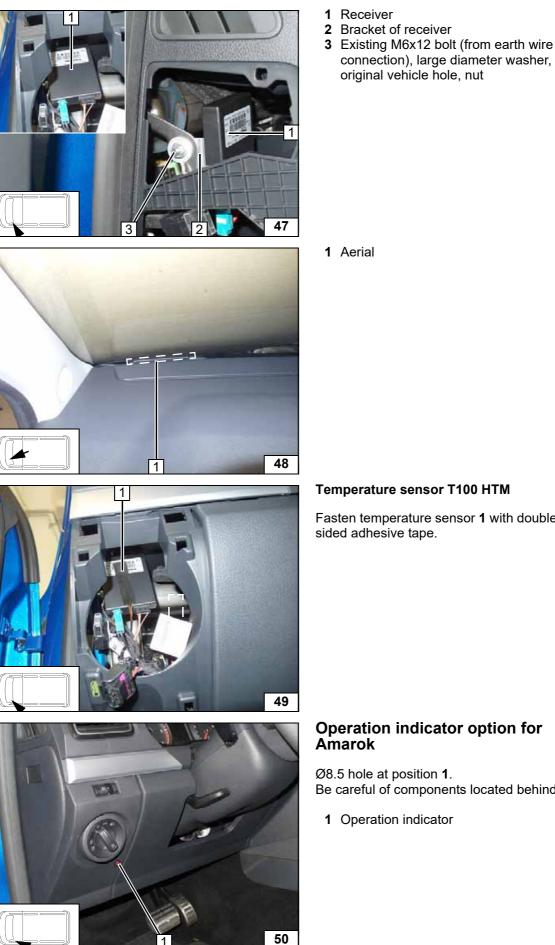




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② Positive wire on positive battery support point	Connecting positive wire
 M6x12 bolt, large diameter washer, original vehicle hole, nut Earth wire of upgrade wiring harness 	Connecting earth wire
MultiControl CAR option for Amarok 1 Installation frame	() Installing MultiControl CAR
 Remote option (Telestart) for Amarok 1 Bracket of receiver 2 Bend by 90° 3 Enlarge hole to Ø6.5 	Preparing bracket



Installing receiver



Mounting aerial

Temperature sensor T100 HTM

Fasten temperature sensor 1 with double-

Installing temperature sensor

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Operation indicator option for

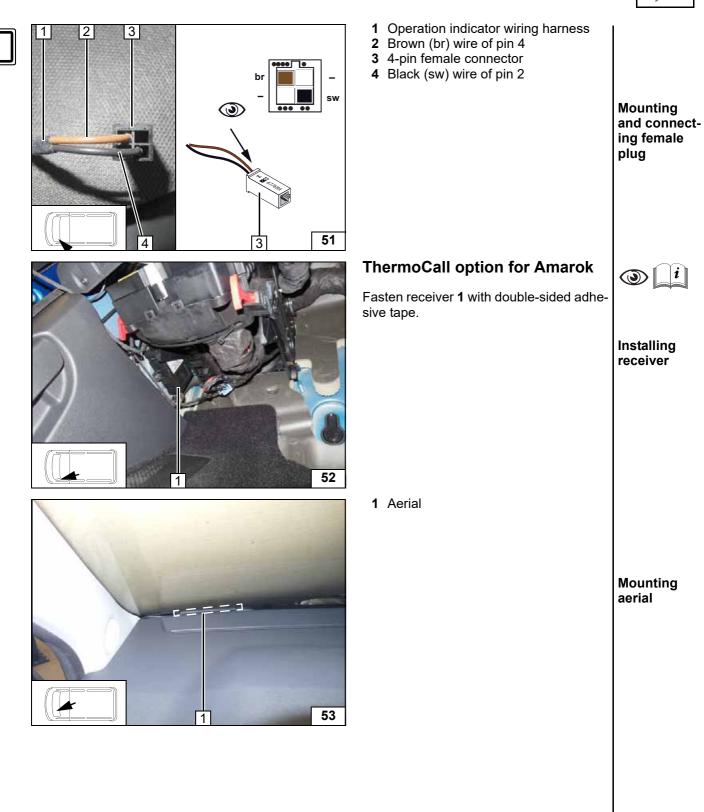
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Be careful of components located behind!

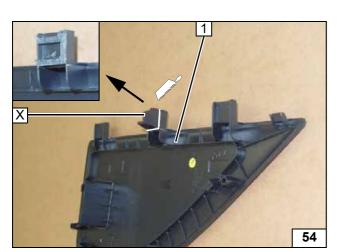
Installing operation indicator

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Final work

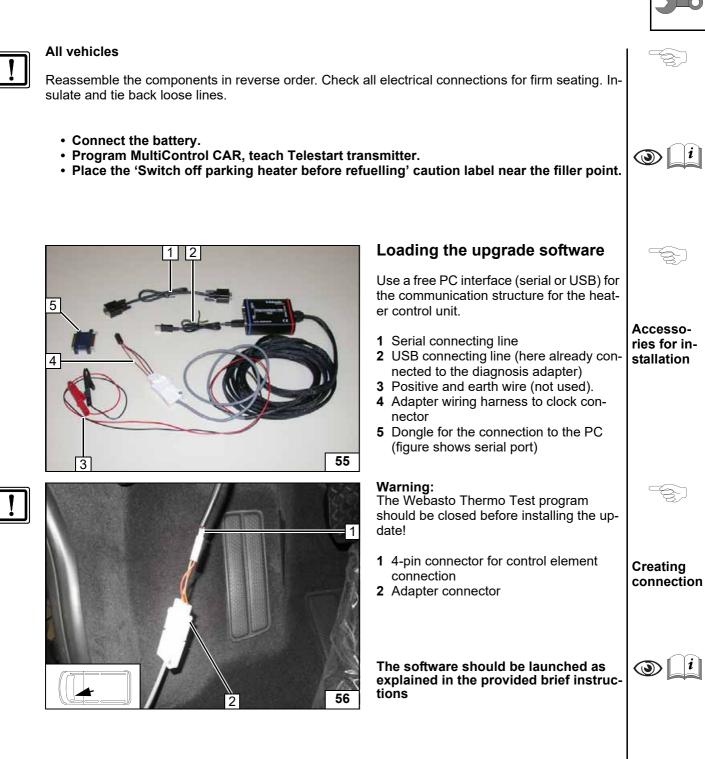
Amarok only

1 Instrument panel side trim on the left



Adapting side trim





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



Operating instructions for Climatronic on T6

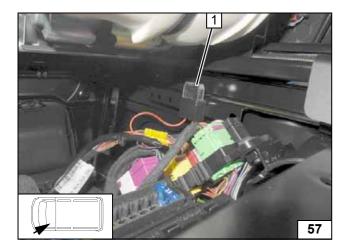
Please remove page and add to the vehicle operating instructions.

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.



1 1A control element fuse F1 (single seat box, driver's seat)

Passenger compartment fuse



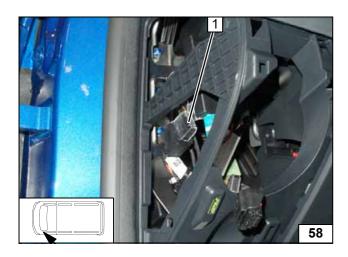
Operating instructions for Climatronic on Amarok

Please remove page and add to the vehicle operating instructions.

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Passenger compartment fuse

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