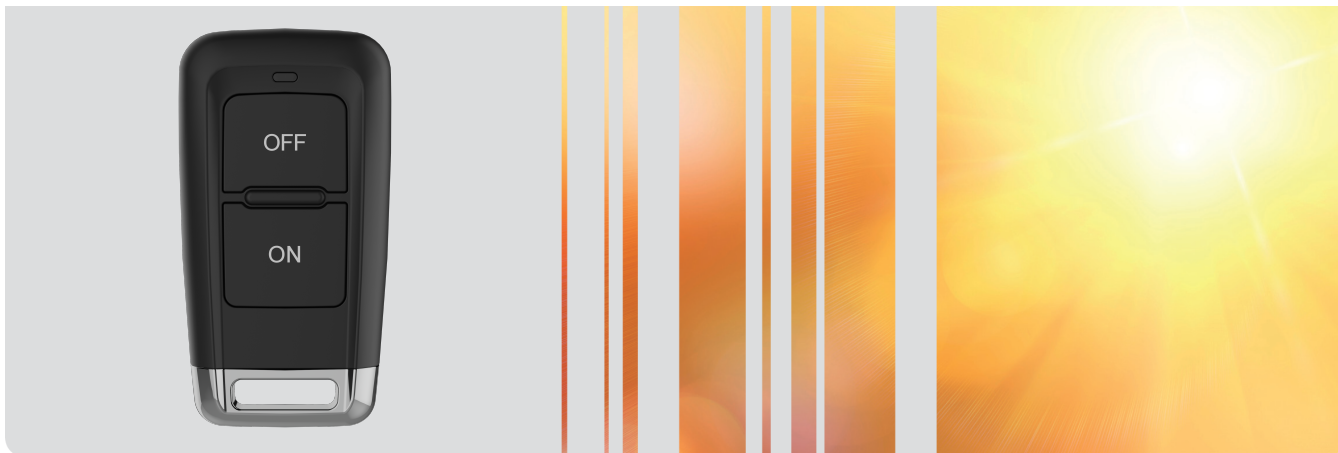


Operating- and Installation Instructions

Telestart T99



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1 About this document

1.1 Purpose of the document

These Operating and Installation Instructions are part of the product and provide the user with information on the safe operation of the Telestart T99. These Operating and Installation Instructions explain all the functions of the control element.



Carefully read through and follow the heater Operating and Installation Instructions and the safety information contained therein.



NOTE


The actual availability of these functions depends on each installed heater.


1.2 Using this document



■ Before operating the Telestart T99, carefully read and follow these Operating and Installation Instructions as well as the operating instructions for the heater.


■ Hand over these Operating and Installation Instructions to the next owner or user of the device.


1.3 Use of symbols and highlighting

Texts with the symbol  refer to separate documents which are enclosed or are available from Webasto at <https://dealers.webasto.com>.

■ Texts with the symbol  refer to technical features.

■ Texts with the symbol  or  refer to possible material damage, risk of accident or injury.

■ Texts with the symbol  describe a requirement for the following necessary action.

■ Texts with the symbol  describe an action.

2 Intended use

The control element Telestart T99 is currently approved for the following applications:

Switching Webasto water heaters on and off.

3 General safety information



DANGER

Danger of explosion

In environments with combustible vapours, flammable dust and hazardous goods (e.g., petrol stations, tank facilities, fuel store, coal bunkers, timber yard or grain warehouses).

▶ Do not switch on or operate the heater.



DANGER

Danger of poisoning and suffocation

Do not operate the heater in closed rooms that do not have an exhaust extraction unit.

▶ Do not switch on or operate the heater, also not with programmed heating start.



DANGER

Risk of injury from the defective unit

Do not operate a defective Telestart T99 and put it out of service by removing the fuse:

- damaged heater

► Contact a Webasto service workshop.

4 Overview

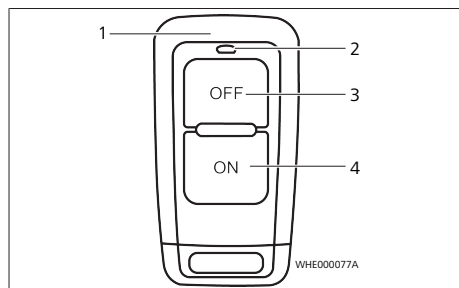


Fig.1

- 1 Housing with transmitter
- 2 Indicator lamp
- 3 Button **OFF**
- 4 Button **ON**

Button	Control
ON	Switching on heater or ventilation

OFF	Switching off heater or ventilation
ON + OFF	Changing the operating mode, see "Heating or ventilation operating mode" Changing the operating time, see "Operating time"

5 Functional description

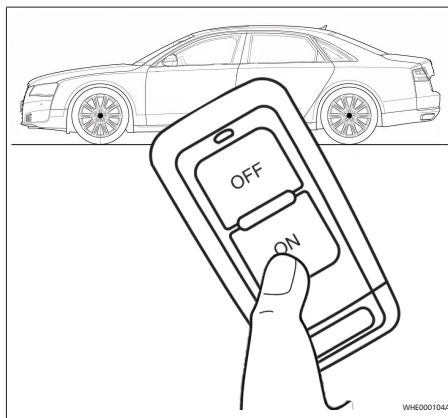


Fig.2

An optimum signal transmission is achieved in an open area or from elevated locations. This makes it possible to operate the parking heater at distance of approximately 1000 m from the vehicle.

When pressing the transmitter, hold it vertically upwards and do not cover the top (see figure).

If you determine, since there is no feedback, that the operating signal has not reached the vehicle, it frequently helps to change your location by a few meters. Reception in built-up areas is limited accordingly.



NOTE

When retrofitting heaters that are installed ex-works, the range of functions may be limited. Please consult your installation partner about this.

6 Setting up a vehicle heating system



NOTE

Depending on the type of vehicle, the air-conditioning system can perform these settings automatically or partly autonomously. Ask your specialist dealer to explain the optimum settings.

- Before switching on the heater (with the ignition on), set the vehicle heating system to "warm".

- ▶ Set the vehicle fan to the lowest setting (lower power consumption).

7 Heating or ventilation operating mode

Display operating mode

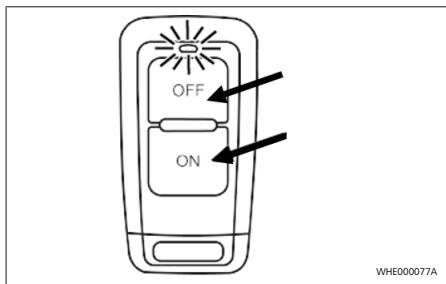


Fig.3

- ▶ **Press and hold** the **ON** and **OFF** push buttons simultaneously. The indicator lamp lights up; the operating mode is displayed:

■ Red for heating

■ Green for ventilation

- ▶ Release the **ON** and **OFF** push buttons (or after 3 s).

The indicator lamp goes out.



NOTE

The ventilation function is optional.

Change operating mode

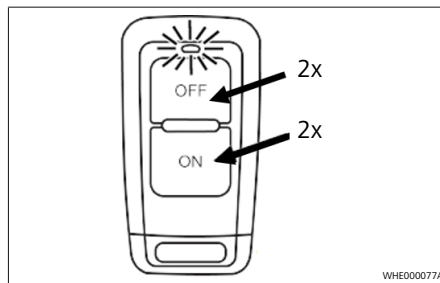


Fig.4

- ▶ **Briefly press** the **ON** and **OFF** push buttons simultaneously twice within 1 s.

The indicator lamp changes colour. During the next time when the hand-held transmitter is operated, the heater operates in the selected operating mode until the operating mode changes.

8 Operating time

The operating time of the heater or vehicle fan (ventilation) can be set on the transmitter in 10-minute increments. The operating time is set to 30 minutes at the factory.

Display operating time

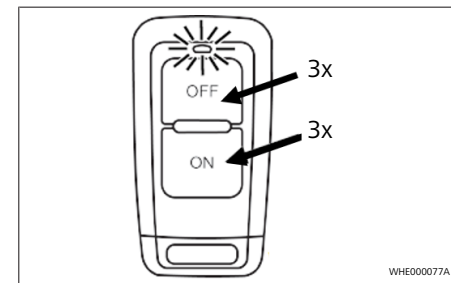


Fig.5

- ▶ **Briefly press** the **ON** and **OFF** push buttons simultaneously three times consecutively. The LED flashes according to the operating time. Count the number of flashing pulses. The corresponding operating time is specified in the table. Also count the first flashing pulse that appears immediately after the third time the **ON** and **OFF** push buttons are pressed.

Set operating time

- ▶ **Briefly press** the **ON** and **OFF** push buttons simultaneously three times consecutively. The LED flashes according to the set operating time (see table).

- ▶ Press the **OFF** push button within 10 s after the operating time indicator lights up. The indicator lamp flashes according to the next operating time.
- ▶ Press the **OFF** push button until the indicator lamp flashes according to the desired operating time.

**NOTE**

Save the setting: do not press any push button or the ON push button for 10 s.

Flashing pulses (number)	Operating time (minutes)	Flashing pulses (number)	Operating time (minutes)
1	10	8	80
2	20	9	90
3	30	10	100
4	40	11	110
5	50	12	120
6	60	Lights for 10 s	Permanent mode
7	70		

**NOTE**

Permanent mode is only suitable for use with continuous operation heaters.

If using a non-continuous heater, the maximum operating time of the respective heater is used.

**NOTE**

Reset to default settings.

- ▶ Press the **ON** and **OFF** push buttons simultaneously for at least 10 s. Ignore colour changes that occur in the LED. Factory setting: heating mode, operating time 30 minutes.

9 Switching the heater or ventilation on and off

Switching on heater or ventilation

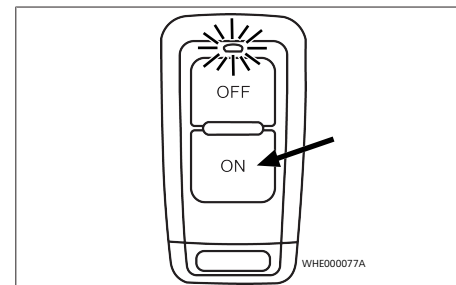


Fig.6

- ✓ Hold the hand-held transmitter vertically upward.
- ▶ Press the **ON** push button (> 1 s) until the indicator lamp lights up.
 - The indicator lamp lights up (confirmation of reception). The operating indicator then flashes until the set operating time is complete. (See chapter 8 *Operating time*)

**NOTE**

Secure the ON push button on the hand-held transmitter against being pressed unintentionally so that the heater is not started up accidentally.

**NOTE**

If the signal cannot be transmitted correctly, the LED flashes (approx. 4 s.) and then goes out.

- ▶ Repeat this procedure at a different location with better reception.

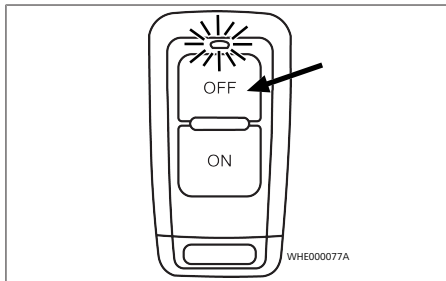
Switching off heater or ventilation

Fig.7



- ✓ Hold the hand-held transmitter vertically upward.
- ▶ Press the **OFF** push button (> 1 s) until the indicator lamp lights up (approx. 2 s). The indicator lamp then goes out.

**NOTE**

If the signal cannot be transmitted correctly, the LED flashes (approx. 4 s.) and then goes out.

- ▶ Repeat this procedure at a different location with better reception.

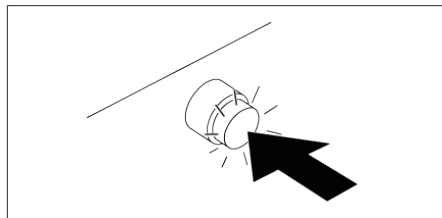


Fig.8

- ✓ The parking heater mode is displayed on the push button.
- ▶ Press the push button (switch the heater off).

**NOTE**

When switching the unit on with the push button, the operating mode (heater or ventilation) and the operating time, which were last used with the hand-held transmitter, are always selected.

10 Pairing the hand-held transmitter

The hand-held transmitter Telestart T99 must be paired with the Telestart receiver in the vehicle.

10.1 Determining the installation position of the fuse

Depending on the heater and its installation or application, the Telestart fuse is installed in the engine compartment or the vehicle interior.

10.2 Teaching the unit

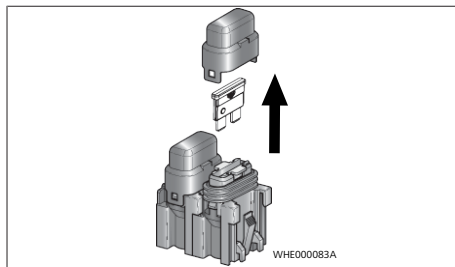


Fig. 9

- ▶ Determine the fuse installation position of the Telestart module (image serves as an example, in the heater's wiring harness).
- ▶ Pull the fuse of the Telestart module.

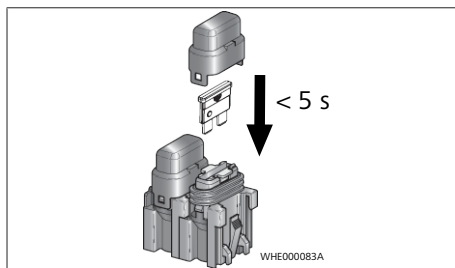


Fig. 10

- ▶ Reset the fuse within 5 s.

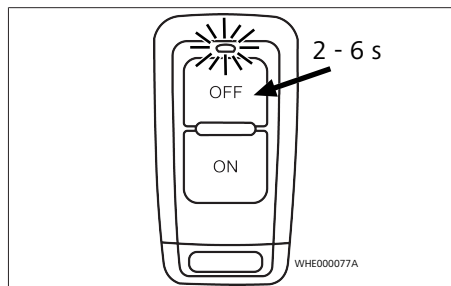


Fig. 11

- ▶ Press the OFF push button after 2 s (do not wait for longer than 6 s). The hand-held transmitter has now been paired.

11 Battery



ATTENTION

Improper use can cause the batteries to leak, overheat or explode.

- ▶ When handling the battery, follow all instructions and warnings that are supplied with or printed on the battery.
- ▶ The battery is not rechargeable therefore never attempt to charge the battery.
- ▶ Never short-circuit the battery.

- ▶ Never expose the battery to high heat.
- ▶ Do not transport the battery together with metal objects, e.g. necklaces or hair pins.
- ▶ The risk of the battery leaking is greatest when the battery is discharged. To avoid damage to the hand-held transmitter you should remove the battery when it is discharged or if the hand-held transmitter will not be used for a prolonged period.
- ▶ If liquid from a damaged battery comes in contact with clothing, the eyes or the skin, immediately flush the affected area with ample water.
- ▶ Dispose of the battery in accordance with locally applicable disposal regulations. Insulate the contacts with insulating tape.
- ▶ Keep new and used batteries out of the reach of children. Swallowing the battery can seriously damage your health. If a battery is swallowed immediately seek medical assistance.

11.1 Battery disposal

Batteries and electronic devices are subject to the current versions of the European Directive 2006/66/EC or 2002/96/EC and must not be disposed of as household waste. Every consumer is therefore legally obligated to dispose of batteries and used/scrap electronic devices in the marked recycling containers at a waste collection point or return to retail trade. Return is free of charge.



Dispose of packaging in corresponding recycling container in accordance with national regulations.

11.2 Changing the battery

If the indicator lamp in the hand-held transmitter flashes orange or does not light up when the button is pressed, the battery in the hand-held transmitter must be replaced.

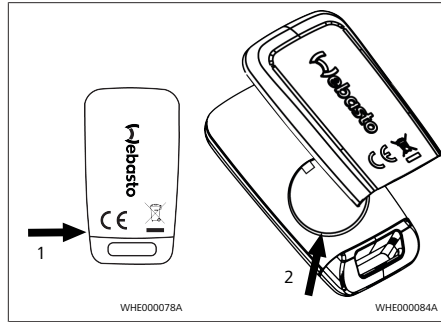


Fig.12

- ▶ Insert a suitable object, e.g. screwdriver, into the recess on the side (1) in the direction of the arrow.
- ▶ Pry open the battery cover upwards with the object.
- ▶ Remove the battery cover.
- ▶ Remove the battery (2).



NOTE

Ensure the correct polarity when inserting the battery into the hand-held transmitter.

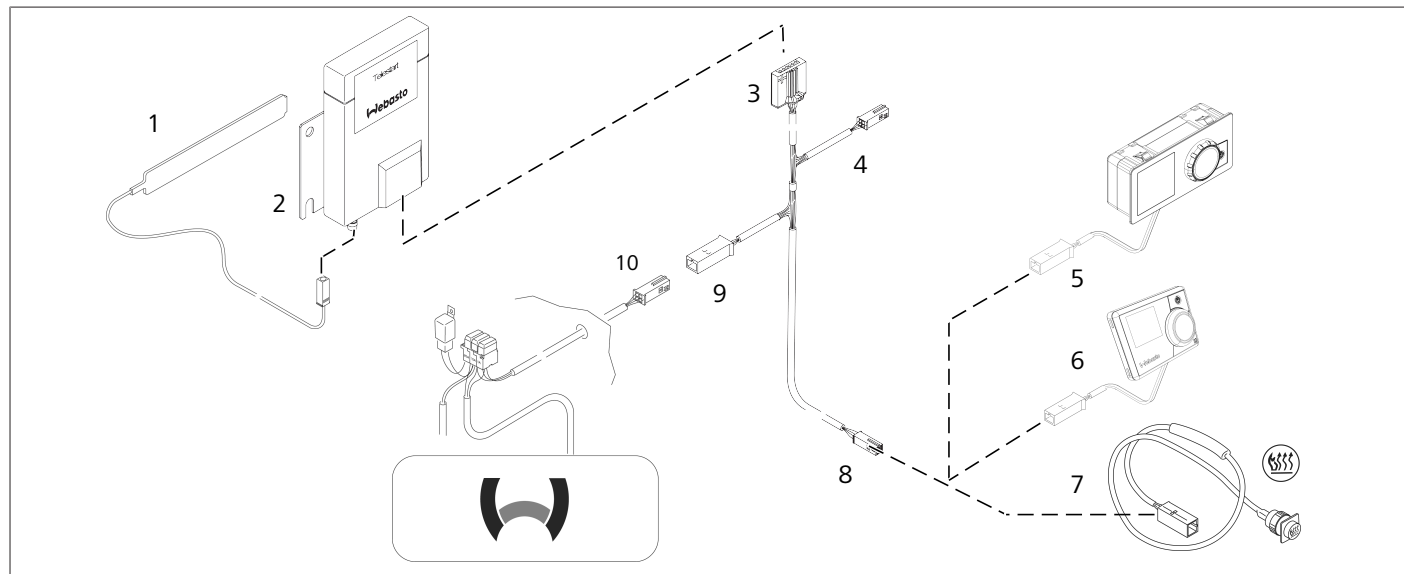
- ▶ The new battery must be the same type of battery.
- ▶ Clip the battery cover back onto the radio remote control housing.

12 Maintenance and handling

Battery and hand-held transmitter:

- Avoid damage
- Do not let it heat up over 70 °C (e.g. direct sunlight)
- Operating temperature 0 °C to +50 °C
- Only store the unit in a dry and dust-free environment
- Protect against moisture
- Store at room temperature

13 Installation overview Telestart T99



- | | | | | | |
|---|---|---|--|----|--|
| 1 | Disc antenna | 5 | UniControl (option) | 9 | Male connector for heaters |
| 2 | Telestart receiver | 6 | MultiControl (option) | 10 | Control element connection of the heater |
| 3 | ESVT adapter (Telestart wiring harness) | 7 | Push button (option) | | |
| 4 | Extra control element (optional) | 8 | Female connector ESVT cable for second control element | | |

14 Scope of delivery

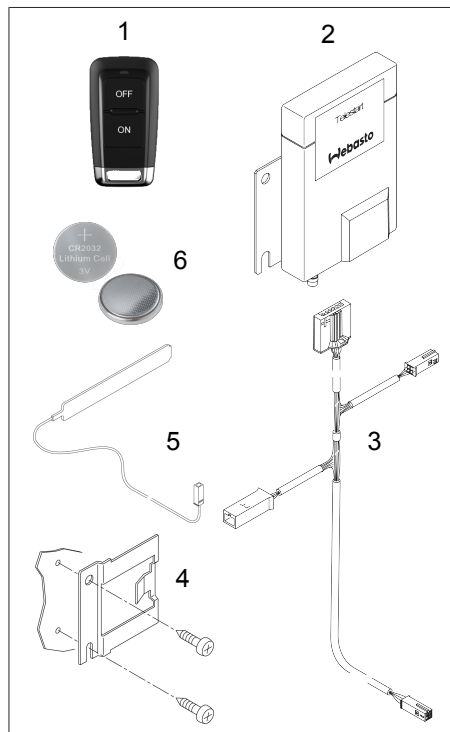


Fig. 13

No.	Individual parts	Number
-----	------------------	--------

- | | | |
|---|---|---|
| 1 | Telestart T99 transmitter (incl. battery) | 1 |
| 2 | Telestart T99 receiver | 1 |
| 3 | ESVT adapter
Telestart wiring harness | 1 |
| 4 | Mounting bracket | 1 |
| 5 | Disc antenna | 1 |
| 6 | CR2032 lithium cell 3 V 1 | |

Not pictured:

Telestart T99 Operating and installation instructions

Webasto Service Contact Information

- ▶ Remove Telestart from the packaging.
- ▶ Check the completeness of the delivery.
- ▶ Check the complete delivery for damage.

14.1 Control elements (optional)

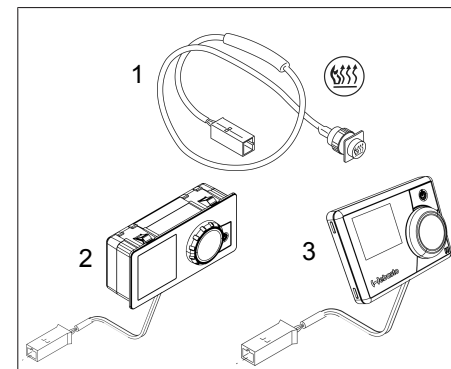


Fig. 14 Operation examples

- 1 Push button (optional)
- 2 UniControl (optional)
- 3 MultiControl (optional)



DANGER

Danger of fire and explosion

- ▶ One of the control elements shown must be installed in addition to the Telestart T99 to be able to switch off the heater in an emergency.

15 General

These installation instructions describe the initial installation and upgrade of a Webasto Telestart receiver for Webasto heaters.



NOTE

If another Webasto control element is not provided, the push button must be installed.

16 Installation

16.1 Installing the Telestart receiver



NOTE

The Telestart T99 must be installed in the interior of the vehicle.

- ▶ Determine the installation location of the Telestart T99 in the passenger compartment of the vehicle (when retrofitting, preferably near the control element or push button).
- ▶ Fasten the mounting bracket using self-tapping screws



NOTE

Do not damage any electric cables or pipes while drilling.

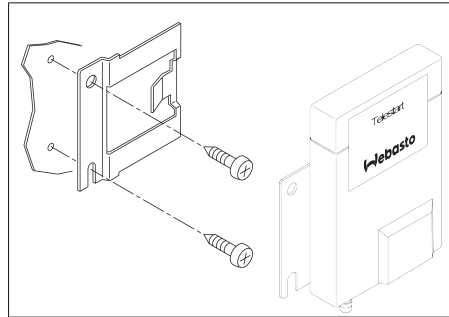


Fig.15 Mounting bracket

- ▶ Install the receiver on the mounting bracket.

16.2 Installing the aerial

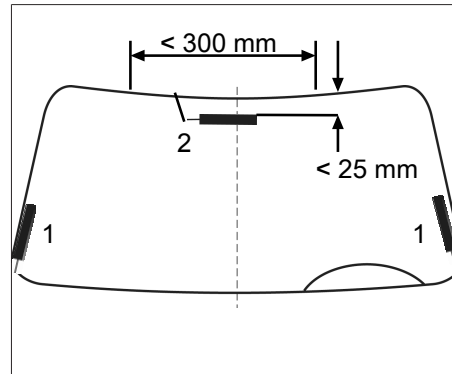


Fig.16 Installation location of the aerial, front or rear window

- 1 Preferred installation position
- 2 Optional installation position



NOTE

The aerial must not be mounted more than 150 mm away from the centre of the window on the left or right side.

If it is installed at a different location, a loss of range must be expected.

- ▶ Maintain a minimum distance of 20 mm ± 5 from the body panel (for optimum reception).
- ▶ Install the aerial cable as follows: route the aerial cable under the vehicle headliner trim, along the left or right under the crossbeam trim to under the instrument panel to the Telestart receiver and plug it in.



NOTE

Clean the windscreen with a degreasing cleaner (e.g. spirit).




NOTE

Do not shorten or bend the aerial cable (smallest winding diameter 50 mm).

16.3 Installing the ESVT adapter (Telestart wiring harness)

- ✓ The ESVT adapter has been adapted (for W-bus or analogue mode). For wires at the ESVT adapter: see Installation overview.
- ▶ Route the ESVT adapter in the passenger compartment under the vehicle's instrument panel.
- ▶ Connect the heater wiring harness: route the 4-pin connector from the heater wiring harness (control element connection) into the vehicle interior. See wiring diagram and installation instructions for the heater.
- ▶ Connect the control element connector: connect the ESVT adapter to the 4-pin connector of the control element or push button.
- ▶ Connect the Telestart receiver: connect the ESVT adapter to the Telestart receiver

Adjusting the ESVT adapter (Telestart wiring harness) pin assignment

 **NOTE**
The pins are factory fitted on the wires of the W-bus.

- ▶ Adjust the ESVT adapter provided by "pinning" it to the existing installation situation (select control elements and heater).
- ▶ Please note chapter 16.1 *Installing the Telestart receiver* .

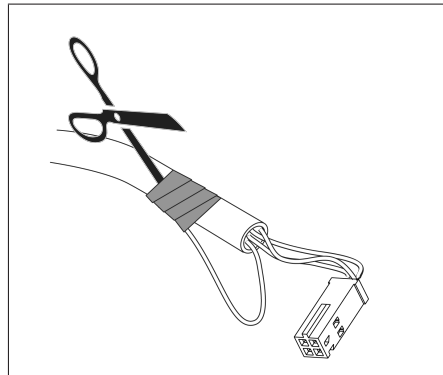


Fig.17 Detaching the ESVT cable insulation

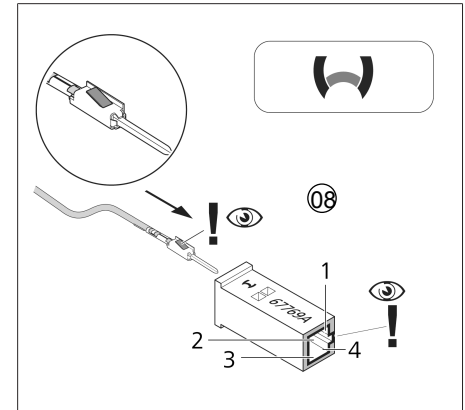


Fig.18 Male connector for heaters

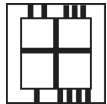
⑧		I	II	III	IIII
	Analog	---	sw	rt	br
	W-Bus	ge	---	rt	br

Fig.19 Male connector ESVT cable

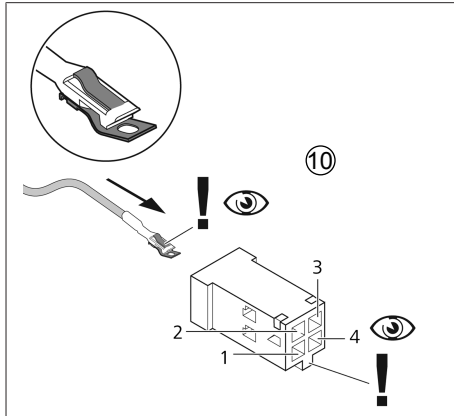


Fig.20 Female connector ESVT cable for second control element

⑩		1	2	3	4
Analog	---	sw	rt	br	
W-Bus	ge	---	rt	br	
	sw	gr	rt	br	

Fig.21 Female connector ESVT cable

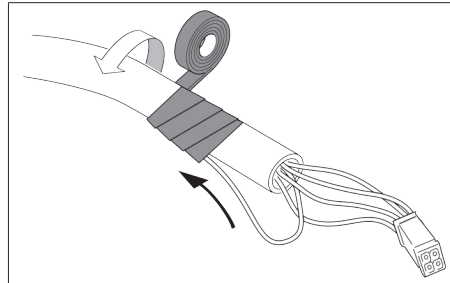


Fig.22

► Observe the following requirements:

1. Remove the wrap from the tied-back wires on both connection plugs to the heater and control element.
2. Pin the required wires into the connection plugs according to the specifications in the figures.
3. Tie back and re-insulate the unnecessary wire ends.

16.4 Cable colours

Abbreviation	Colour	Abbreviation	Colour
br	brown	rt	red
ge	yellow	sw	black
gr	grey		

16.5 Installing the control element

The analogue switch input on the Telestart T99 is set at the factory for operation together with a push button.

MultiControl and UniControl

- Connect the control element to the connector of the ESVT adapter.

Installing the control element push button

- ✓ The ESVT adapter is pinned according to the specifications for push buttons, see Installing the ESVT adapter (Telestart wiring harness).
- Route and install the ESVT adapter.
- Drill a 16mm dia. hole at the installation location agreed with the customer.
- Install the push button.
- Connect the ESVT adapter to the connection plug on the push button.

17 Annex

17.1 Declaration of Conformity

CE-Declaration of Conformity and UKCA-Declaration of Conformity

The Telestart T99 was developed, manufactured, tested and supplied in accordance with the relevant directives, regulations and standards for safety, EMC and environmental compatibility.

Webasto declares that the product Telestart T99 is manufactured and delivered in accordance with the directives and regulations.

The complete CE Declaration of Conformity and UKCA Declaration of Conformity can be found in the download area at <https://dealers.webasto.com>.

17.2 Statutory regulations governing installation

Regulation Typ approval number

ECR R10	E1 10 R - 059049
---------	------------------

The stipulations of these regulations are binding in the area covered by EU Directive 70/156/EEC and/or 2007/46/EC (for new vehicle models from 29/04/2009) and should also be observed in countries where there are no specific regulations. Failure to follow the installation instructions and the notes contained therein will lead to all liability being refused by Webasto.

17.3 Technical data

Hand-held transmitter	
Basic functions	ON, OFF, heating, ventilation
Status indicator	LED (red/green/orange)
Size L/W/H [mm]	61.8 x 32.9 x 13.9
Weight [g]	32 (including battery)
Transmitting power [dBm]	+5
Transmitting frequency [MHz]	869.0
Reception sensitivity [dBm]	-118
Battery [V]	3 (recommended: Varta battery CR2032)
Operating temperature / Storage temperature (without battery) [°C]	0 to +50 / -40 to +85
Protection class	IP44
Receiver	
Operating voltage [V]	9 to 16
Current consumption [mA]	< 2 (no-load current)
Size L/W/H [mm]	92.0 x 64.0 x 24.2
Weight (g)	66
Transmitting frequency [MHz]	869.0
Transmitting power [dBm]	+14
Reception sensitivity [dBm]	-128
Operating temperature / Storage temperature [°C]	-40 to +85
Protection class	IP42
Range [m]	General: ≥ 1000 (outdoors)
Aerial connector	Aerial connector with FAKRA interface, I-coded
Connections	MQS 6-pin socket housing
No. of transmitters	Up to 4 transmitters can be paired to one receiver.

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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