# **Erasing Errors and Unblocking**

Press and hold button "<", additionally **#** press. The screen will display "Clr.X", where X is the number of the service function.

Use button "P" and choose the required function referring to the description:

- 1 Erase Thermo Top C/Z heater's errors;
- 2 Erase Thermo Top V/EVO/VEVO heater's errors;
- 3 Unblock VW T5 heater;
- 4 Unblock VW T5GP heater.

Then press the button **u** to execute the selected function.

Upon successful completion the screen will display symbols "-CL-".

Attention! Use unblocking only for Volkswagen T5 and T5GP.

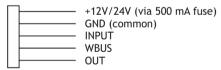
Using this function for other vehicles may result in blocking the heater with the subsequent replacement of the heater's electronic control unit!

# **Operation of Other Control Elements**

The device supports interfacing with other Webasto control elements using W-bus protocol. This function allows using different devices for switching the heater on and off. When the control signal of another control element is identified the screen will display the text "TELE".

### Technical parameters

Supply voltage - 10V-28V Standby current - 7mA Max current of the auxiliary output - 150mA



Attach the back cover to the installation place using double-sided tape or other fixing arrangements.

#### Note:

- Power supply wires to be connected via the fuse to the accumulator terminals or to the OBD-II wires (where 16pin is +12V, 4pin is common);
- INPUT to be connected to the external control element (waiting for the impulse GND signal not shorter than 200 ms);
- OUT commutates +12V/24V. It is used to control heaters and analog signals, coolant pump and the interior heater ventilator. It is switched on at the same time as the Webasto module, and it is switched off with a 60 seconds delay (except for settings h:00 and h:03).



Operational Manual

**ALTOX TIMER-1** 

### General Information

User can set up automatic switching on of the heater at any time of the day with accuracy of one minute (from 00.00 to 23.59). There are two programmable timers for automatic switching on: single and recurrent (for seven days in advance). The length of the heater's operation can be set up within a range of 10 to 55 minutes (in the settings menu for timers -1- and -2-).

#### Note:

- After switching on the screen will display all symbols.
- If the heater does not respond to commands, the screen displays "Err".
- If no buttons have been pressed the display will automatically switch off after 30 seconds

#### Switch the Heater On

Manually: pressing the start button "..."

Via auxiliary output: sending an impulse signal to INPUT.

By timer: by the advance setting of the switching on moment.

After it is switched on, the screen will display "On" and the remaining time for the operation of the heater. You can reduce or increase this time by pressing buttons "<" or ">", correspondingly.

#### Switch the Heater Off

Manually: pressing the start button **w**.

Via auxiliary output: sending an impulse signal to INPUT.

Automatically: upon the end of execution time.

After the heater is switched off, the screen will display "OFF".

## Displaying Time, Voltage and Temperature

When the heater is in operation: to display the remaining time of the heater's operation press button "<" or ">".

Then, to display current time, press button "P".

When the heater is not in operation: to display current time press button "<" or ">". In the current time display mode pressing "<" or ">" will display seconds value.

In the next 30 seconds, consecutive pressing of button "P" will display Webasto heater's supply voltage and temperature (only for digital heaters).

## Setting the Current Time

Press and hold down button "<" or ">", press button "P" additionally. The display will show current time and the symbol for the setting is flashing. Set up the current time using buttons "<" and ">".

The time is saved in the memory after button "P" is pressed.

#### **Built-in Clock Calibration**

Press button "<" or ">" twice to display seconds, then press and hold button "<" or ">" and additionally press "P".

The screen will display "C-00" — calibration value for corrective adjustment of clock rate, the symbol is flashing.

The adjustment allows entering values from -59 to 059 where the positive value increases the clock rate and the negative value decreases the clock rate. Set the calibration value pressing buttons "<" and ">".

One unit of the calibration value is 1.5 sec per 24 hours.

For example, if the clock gains 6 seconds every day, the calibration value should be "-04".

The pre-set value is saved by pressing button "P".

# Timer Programming

The device has two programmable timers:

- 1 Single-acting daily timer;
- 2 Recurring weekly timer for 7 days in advance.

To see the status of the timer (if it is enabled or disabled) press button "P" once / twice. The screen will display the timer's number: -1- or -2-, respectively. If the timer is enabled, there will be a lit point on the right hand side corner.

The user can activate/deactivate timer in this menu using button **u**. To change the timer's settings press button "<" or ">", the screen will display the time when the heater will switch on.

Using buttons "<", ">" and "P" set the required time of switching on and then set the operation time for the heater "t:30" from 10 to 55 minutes. Press button "P" to save settings and activate the timer.

Note: the operation time parameter "t:30" in the timers -1-  $\mu$  -2- menu is a common startup time by default (for both the start button  $\mathbf{w}$  and the external signal at the INPUT).

## Choosing the Heater Type

Press and hold button "<", additionally press button ">". The screen will display "h:XX", where XX - is the number of the heater's type. Set the type of the heater by pressing buttons "<" and ">" and referring to the description:

00 - automatic determination of the heater's type (WBUS or analog);

01 - Thermo Top C/Z/V/EVO/VEVO; 02 - Thermo Top V/VEVO;

03 - Analog heater; 04 - Timer 1533 emulation;

05 - Telestart (ver.1)emulation; 06 - Telestart (ver.2) emulation;

07 - Ventilation (summer mode); 08 - WTT emulation.

Press "P" to save the type of the heater.