



SmarTemp Control fx 2.0

Digital Timer Interface

Installation / Operation Instructions

General

Thank you for choosing Webasto to meet your heating needs. The Webasto SmarTemp Control fx 2.0 enables you to preset start-up cycles of your Webasto heater 7 days a week with 4 individual times each day.

Operation

The Webasto SmarTemp Control fx 2.0 is controlled using a rotary dial around the outside of the unit to scroll through menu options. Simply click the selection button (□) to make your choice. The following sections will define each menu item and its default setting.

Compatibility

All Coolant Heaters; the SmarTemp Control fx 2.0 has an output of 1A for the heaters ON/OFF signal. Heaters requiring a higher amperage signal will require a relay to accommodate different specifications. See electrical connections for details. **Note:** Relay not included.

Mounting Procedure

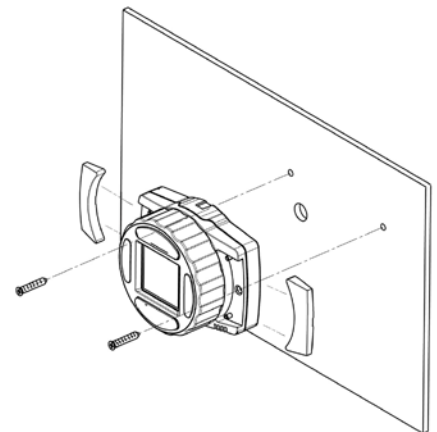
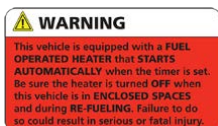
1. Find a suitable mounting location (on a flat surface if possible) in a visible area.

CAUTION: Always install in an area protected from the effects of weather and contamination.

2. Use the drilling dimensions to lightly mark the two mounting holes.
3. **(Optional Step)** To route wire harness through the mounting surface, drill a 17mm hole as notated on the drilling dimensions image.

NOTE: Always make sure there are no obstacles behind the mounting location prior to drilling.

4. Secure the Webasto SmarTemp Control fx 2.0 using the two supplied #4 screws.
5. Apply the supplied "Heater Off" warning sticker in a highly visible location to the driver's area. Refer to the example sticker below.

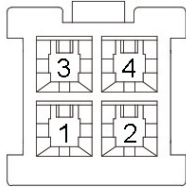


6. Observe the Menu Descriptions section for proper menu setup.

Electrical Connections

SmarTemp Connector Pin-out

Pin Number	Description	Wire Color
1	+12 / 24V	Red
2	GND	Brown
3	Heater Output	Black
4	*Diagnostic Blink Code	Green



**TERMINAL INSERT
SIDE OF CONNECTOR**

For terminal removal use: Molex terminal removal tool
P/N: 11-03-0044 (<http://www.molex.com>)

*Diagnostic Blink Code functionality does not apply to most coolant heaters. Refer to the Error Code section for additional information.

Relay Connection: (If applicable)

Heaters requiring higher amperage ON/OFF signal will require a relay to accommodate different specifications. If the connected heater requires more than a 1A ON/OFF signal to start, use the pin-out of a standard relay as described below.

Relay	Output
Relay Pin 30	Battery (B+) power source (Fused according to required heater amperage)
Relay Pin 85	Ground
Relay Pin 86	Heater ON/OFF signal wire from pin 3 of SmarTemp Control fx harness.
Relay Pin 87	Switched ON/OFF signal to heater.

Component Description



* The micro USB service port is not used for heater diagnostic purposes on SmarTemp Control fx 2.0.

LCD Screen Legend

Mode (Auto or Manual)	Auto Mode	Manual Mode
<p>Day and Time → 8:15 AM ← Current Day (TU)</p> <p>Auto or Manual Mode → Manual or Auto</p> <p>NOTE: When Auto is visible, timers are enabled</p>	<p>Timer Active → 8:15 AM ← Current Time (TU)</p> <p>Auto Mode → Auto T2 ON → Heater ON</p> <p>00:59 ← Runtime Remaining</p>	<p>Manual Mode → Manual ON → Heater ON</p> <p>00:59 ← Runtime Remaining</p>

Menu Descriptions

	Definitions	Default
Mode	<p>Two modes are possible:</p> <ul style="list-style-type: none"> – Auto mode enables the pre-defined timer programs. Manual ON/OFF functionality is still possible while in this mode. – Manual Mode allows the heater to be operated via the Webasto button on the SmarTemp Control fx 2.0. While in Manual Mode, all Auto Mode functionality is permanently disabled. <p>Note: While in manual mode the heater will continue to operate based on the pre-defined "Duration" set by the user. See "Duration" for further detail.</p>	Manual
Language	Language changes between English, French, and Spanish	English
Duration	<p>Duration allows user to select the heater runtime of the heater. Set range is between 10 – 120 minutes selectable by 10 minute increments.</p> <p>Note: Duration time for all timers will default to the set duration time. User will have the ability to manually change duration for each timer.</p>	60 minutes
Error Code	<p>This section will log the last 5 error codes and the date that it was set. Highlight and select an error code for a full description.</p> <p>If the heater produces an error code, the status indicator lights will flash red and the error will display on the main screen. Error codes cannot be reset through the Webasto SmarTemp Control fx 2.0 on the heater, a Webasto PC Diagnostics tool needed. Refer to the heater service manual for resetting an error code.</p> <p>Note: Diagnostics via blink code is not available on <u>all</u> coolant heaters. Error Codes on products with no blink code functionality can still be obtained using the PC Diagnostics test tool. Refer to the applicable service manual by visiting www.techwebasto.com for detailed PC diagnostics information.</p>	No Errors
Options	Advanced Level adjustment; see below	
<i>Timer & Date</i>	Time & Date allows user to properly set the current date and time. User also has the ability to switch between AM/PM and 24 hour format. If the 24 hour format is selected the date format will change to dd/mm/yyyy. Use the rotary knob to choose the time / date and the selection button to confirm each entry. The Webasto button can be used to go back to the previous field if additional changes are needed.	AM/PM mm/dd/yyyy
<i>Timer</i>	<p>There are 4 heater start-up cycles possible 7 days per week. The timer is separated into to three categories. The user can select "Mon-Fri", set each specific timer (T1 – T4) for a typical work week all at once. A weekend "Sat-Sun" can be scheduled in the same manner or a full week by using the "Mon-Sun" selection. The "custom" link allows the user to set a specific timer (T1 – T4) for each individual day.</p> <p>When selecting a specific timer a sub-menu will appear (Edit, Skip, and Off). To change the timer cycle, select "edit". Changes are saved immediately. The "skip" feature allows a timer cycle to be skipped one time within a 7 day period. Timer will reactivate after this one-time skip cycle.</p> <p>Note: To turn a specific timer off permanently select "off".</p>	

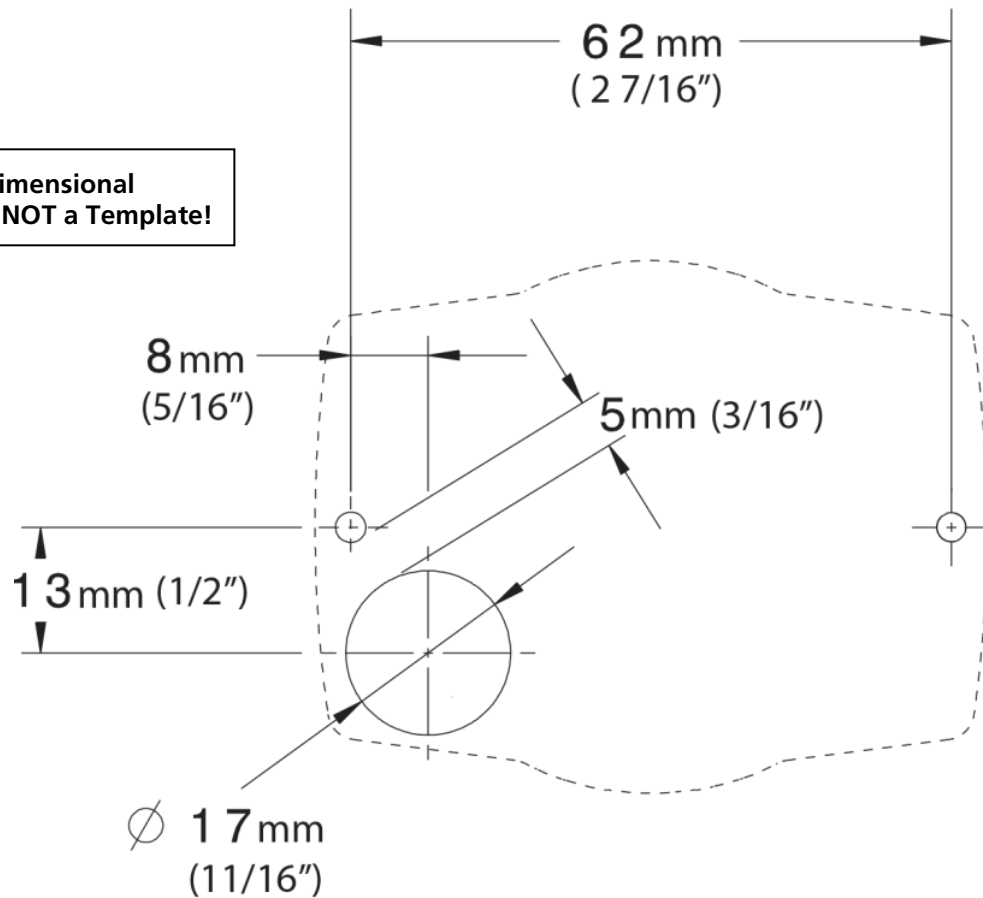
	Definitions	Default
<i>LVD</i>	<p>LVD “Low Voltage Disconnect” allows the user to adjust the battery voltage level at which the Webasto SmarTemp Control fx 2.0 will shut the heater off. A warning (LED and message) will appear after 8 minutes of low voltage. The warning will remain on for 2 minutes before the heater is shut off.</p> <p>If battery voltage is equal to or less than the threshold selected +0.1v, the heater will not start. i.e. if an 11.5v threshold is selected the heater cannot be started until B+ has reached 11.7v.</p> <p>12 volt - Range between 11v – 12.5v 24 volt - Range between 21v – 25.5v</p>	11.4v 24.2v
<i>Default</i>	<p>Default allows the user to perform a reset to all default values.</p> <p>Note: A power loss will not reset user programmed values.</p>	N/A
<i>Password</i>	<p>A password can be set to prevent access to the advanced “Options” menu. Enter a 4 digit code passcode to begin securing the Options menu. Note: This is typically used in fleet vehicle applications.</p>	OFF
Hour Meter	<p>The hour meter logs the operating hours of an active ON signal to the heater. This does not reflect the true runtime of the heater itself.</p> <p>Note: For warranty purposes a diagnostic printout is still required where applicable. This hour meter is for reference only!</p>	N/A
SW Version	<p>This displays the firmware version of the Webasto SmarTemp Control fx 2.0.</p>	Installed Version
Back	<p>Select this to return to the previous screen.</p>	N/A

IMPORTANT - The Red status indicators (heater "ON") and LCD screen backlight turn off after 30 seconds. A touch of any button or a turn of the rotary knob will re-activate these lights. If the "Webasto" button is used to re-activate these lights, an additional press of this button is necessary to turn the heater off. Note that when the heater is "ON" the display is active.

Technical Information

- Rated Voltage: 12 / 24V
- Operating Voltage Range: 9V - 32V
- Low Voltage Disconnect Range: 12V: 11 – 12.5V | 24V: 21 – 25.5V
- Operating Temperature: - 40° ... +185 °F (- 40° ... +85 °C)
- **NOTE:** Display visible to -22°F (-30°C)
- Installation Dimensions: (L x H x D) 2.7" x 2.2" x .60" (69.4mm x 55.5mm x 15.2mm)

Use this drawing for dimensional reference only! This is NOT a Template!



For a Spanish version of this document, scan this QR Code.



Notes:

Notes:



Feel the Drive

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