

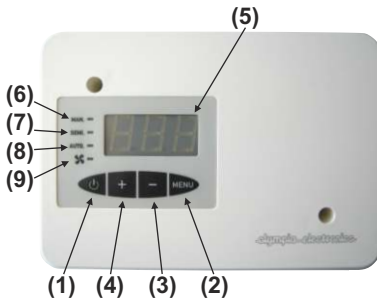
BS-841

PROGRAMMABLE THERMOSTAT FOR FIREPLACES



TECHNICAL CHARACTERISTICS

OPERATION VOLTAGE	220-240V AC/45-55Hz
CONSUMPTION (without the blower)	3VA / 2,5W max.
BLOWER OUTPUT RATING	200W max (0,85A)
BLOWER OUTPUT PROTECTION	Internal replaceable fuse
SENSOR RATING	Up to 250°C for the sensor head, up to 200°C for the cable
SENSOR MEASUREMENT RANGE	-40°C to 250 °C
BLOWER POWER ADJUSTMENT	20% - 90%
CONTROL BUTTONS	MENU, +, -, ON/OFF
INDICATORS	MANUAL, SEMIAUTOMATIC, AUTOMATIC, BLOWER
SETTING TYPES	2 Types. User and Installer
SENSOR LENGTH	250 cm
SENSOR CONSTRUCTION MATERIAL	Stainless steel head, silicon cable
DEGREES OF COVER PROTECTION	IP 20
PRODUCED IN ACCORDANCE WITH	EN 61000-6-1, EN 61000-6-3, EN 60730-1, EN 60730-2-9
OPERATION TEMPERATURE RANGE	-10 to 60 °C
RELATIVE HUMIDITY	0 - 90% RH
EXTERNAL DIMENSIONS	137 x 95 x 40 mm
TYPICAL WEIGHT (Main unit / + sensor)	240gr / 310gr
GUARANTEE	2 years



DESCRIPTIONS OF CONTROL BUTTONS-INDICATORS

- (1). ON-OFF button
- (2). Settings selection button
- (3). Decrease button
- (4). Increase button
- (5). LED screen
- (6). Manual operation indicator
- (7). Semiautomatic operation indicator
- (8). Automatic operation indicator
- (9). Blower operation indicator

OPERATION STANDBY MODE

When the product is connected for the first time to the mains power supply it goes into standby mode. In the opposite condition press the **ON/OFF** button. The display shows 3 dashes and all the indicators are OFF. In this mode, the device is practically not operational.

NORMAL OPERATION

By pressing the **ON/OFF (1)** button, the device enters normal operation mode. The display shows the current temperature of the hot air and the indicators show the operation mode of the blower.

OPERATION MODE SELECTION

By pressing the **MENU (2)** button we can select the operation mode between MANUAL, SEMIAUTOMATIC and AUTOMATIC. The operation mode is shown from the respective indicators (6), (7), (8).

MANUAL OPERATION (MAN)

In this mode of operation the only setting that can be adjusted is the blower speed. With the keys **“+” (4)** and **“-” (3)** we can select the desired speed which is steady and independent of the temperature.

SEMIAUTOMATIC OPERATION (SEMI)

It is basically the same operation as the manual operation mode with the only difference that the blower operates only when the temperature of the hot air is higher than the activation temperature **±5**.

AUTOMATIC OPERATION (AUTO)

In this mode of operation, the speed of the blower is automatically adjusted depending on the temperature of the hot air. The speed is minimum when the hot air temperature exceeds the

activation temperature **tES**, and gradually increase until it reaches its maximum value.

The buttons "+" and "-" do not operate.

If no button is not pressed for 3" during the setting mode, the device will automatically show the initial screen with the temperature of the hot air while simultaneously storing the settings. The buttons "+" and "-", have a repetition function.

KEYBOARD LOCK

If it is required that the keyboard is locked so as to prevent unauthorized usage (eg. From small children) it can be locked if the **MENU** button is pressed until the message **Loc** is shown (about 5"). After this, every press of a button shows this message and the device does not accept any commands. This lock function does not affect the **ON/OFF** button which operates normally. The keyboard can be unlocked by pressing the **MENU** button until the message **ULc** is shown on the display.

INSTALLER SETTINGS (*)

These settings do not refer to the user and must be done by qualified personnel. The device must be in standby mode (page 1). To enter this setting mode press the **ON/OFF** button for >5 seconds or more while the device is in standby mode. The display shows **Pro** (programming mode) and the device is ready to accept new settings.

FACTORY SETTINGS

Operation mode : Automatic
Blower speed MAN-SEMI : 50%
Blower activation temp. SEMI-AUTO : 45°C
Minimum blower activation temp. : 35°C
Maximum blower activation temp. : 80°C
Blower speed influencing temp. : 50°C
Buzzer activation temp..... : 120°C
Minimum blower speed..... : 20%
Maximum blower speed..... : 90%
Overheating temperature..... : 140°C
Blower activation temp. hysteresis : 2°C

To reset to factory default setting see paragraph 8 (page 3).

1. ADJUSTING THE BLOWER ACTIVATION TEMPERATURE in programming mode (*)

With the first press of the **MENU** button, the display shows the message **tES** for 2 seconds and after that the temperature that the blower is activated can be adjusted. When the hot air temperature exceeds this temperature then the blower is activated. This is used for manual and semiautomatic operation. The value can be adjusted between 35°C and 80°C.

2. ADJUSTING THE BLOWER SPEED INFLUENCING TEMPERATURE in programming mode (*)

With the second press of the **MENU** button the display shows the message **toF** for 2 seconds and after that the blinking current value. This value only influences the automatic operation mode and can be adjusted between 20°C and 80°C by using the buttons "+" and "-". This temperature regards the influence of the temperature to the speed of the blower. If you have selected the blower activation temperature of 45°C and **toF** 50°C, then the blower will be activated with a minimum speed at 45°C and will gradually increase to maximum speed at 95°C.

3. ADJUSTING THE BUZZER ACTIVATION TEMPERATURE in programming mode (*)

With a third press of the **MENU** button the display shows the message **RbL** (Acoustic buzzer Limit) for 2 seconds and after that the blinking current value. The value refers to the temperature above which the buzzer is activated. It can be adjusted between 80°C and 180°C, **a value of 79 disables the buzzer.** If the buzzer is sounding and a button is pressed then the buzzer stops. After 5 minutes the temperature is checked and if it is still above the set value the buzzer will re-sound. If not then the buzzer will not sound.

4. ADJUSTING THE MINIMUM BLOWER SPEED LIMIT in programming mode (*)

With a fourth press of the **MENU** button the display shows the message **FLU** (Fan Low Limit) for 2 seconds and after that, the blinking current value. This value refers to the lower speed limit of the blower during the manual and semiautomatic operation. This value can be adjusted between 20% and 50% by using the buttons "+" and "-".

5. ADJUSTING THE MAXIMUM BLOWER SPEED LIMIT in programming mode (*)

With a fifth press of the **MENU** button the display shows the message **FHL** (Fan High Limit) for 2 seconds and after that the blinking current value. This value refers to the upper speed limit of the blower during the manual and semiautomatic operation. This value can be adjusted between 50% and 90% by using the buttons "+" and "-".

6. ADJUSTING THE OVERHEAT LIMIT in programming mode (*)

With a sixth press of the **MENU** button the display shows the message **tHR** (temperature High Alarm) for 2 seconds and after that the blinking current value. The value refers to the overheating level of the fireplace and can be adjusted between 100°C and 200°C using the buttons "+" and "-". When the temperature of the hot air exceeds this limit, the buzzer sounds and the blower is activated with a maximum

speed. The display shows the message *bu* (burn) until the temperature is decreased to an acceptable level where the device returns to the previous operation mode. If a button is pressed, the buzzer is deactivated for 5 minutes. The buzzer will be reactivated if after 5 minutes the temperature is still above the alarm limits. This procedure will be continued until the temperature levels are normal.

7. ADJUSTING THE HYSTERESIS TEMPERATURE in programming mode (*)

With a seventh press of the **MENU** button, the display shows the message *YS* (Hysteresis) for 2 seconds and after that the blinking current value. This level refers to the temperature where the blower is deactivated in regards to the activation temperature. If the activation temperature is set to 45°C and the hysteresis temperatures is set to 5°C, then the blower will be activated at 45°C and will be deactivated when the hot air temperature drops to 40°C. This value can be adjusted between 1°C and 30°C by using the buttons '+' and '-'.

8. RESETTING TO FACTORY DEFAULT SETTINGS in programming mode (*)

With a ninth press of the **MENU** button, the display shows the message *FR* (Factory). If one of the buttons '+' or '-' is pressed then all the settings are restored to factory defaults.

Every new press of the **MENU** button, from this point on repeats the setting cycle. In order to complete and store the settings press the **ON/OFF** button and the device will enter normal operation mode.

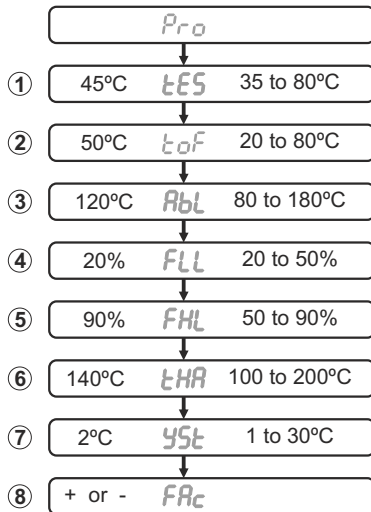
9. SENSOR ERROR

If for any reason the temperature sensor has a short circuit the the display shows *ErL* (Error Low) the buzzer is sounded and the blower is deactivated. This state is active for as long as the problem exists. If the temperature sensor has an open circuit then the display shows *ErH* (Error High). If the device is set to standby mode with the **ON/OFF** button, the buzzer is deactivated.

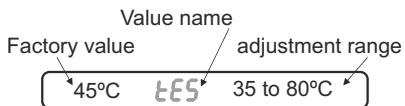
INSTALLATION

To install the device follow the installation instructions described on page 4.

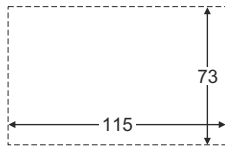
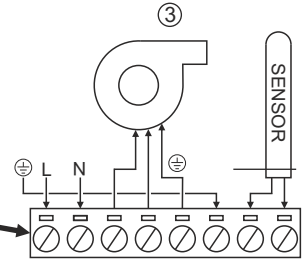
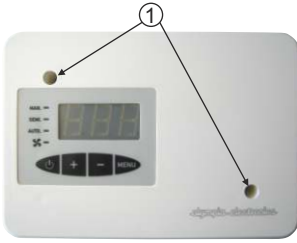
Quick programming guide



Value explanation



Installation instructions

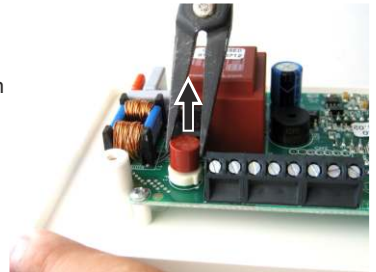


The required opening to install the plastic base in mm.

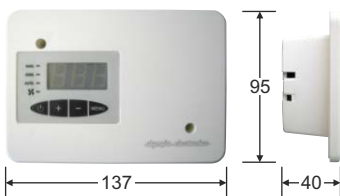
- ① To install the device, remove the front plastic cover by unfastening the retaining screws.
- ② Produce the required opening to install the plastic base, after opening the pre etched cable entries.
ATTENTION!!! Make sure that the operation temperature of the device in the installation area, must not exceed the operation limits.
- ③ Make the electrical connections as shown in the diagram. Connect the neutral cable to the **N** terminal, connect the phase terminal to the **L** terminal and connect the ground cable to the **POWER EARTH** terminal.
WARNING!!! Every metallic part of the fireplace should be connected to the ground terminal.
The **SENSOR** is connected to the **S1, S2** terminals and it is installed in the measuring point with the included screw. The **BLOWER** cables are connected to the **M1, M2** terminals.
- ④ After all the connections are finished, replace the front plastic cover and install the fastening screws. Place the included cups and the device is now ready to be activated.

REPLACING THE FUSE

If the blower is not operating then the most usual cause is a faulty fuse. To replace the fuse, the top cover must be removed according to step 1 of the installation instructions. Use a needle nose plier to remove the faulty fuse (as show in the photo) and replace it with a new fuse of the same type and rating. Refit the top cover according to step 4 of the installation instructions.



Dimensions in mm



WARRANTY

Olympia Electronics guarantees the quality, condition and operation of the goods. The period of warranty is specified in the official catalogue of Olympia Electronics and also in the technical leaflet, which accompanies each product. This warranty ceases to exist if the buyer does not follow the technical instructions included in official documents given by Olympia Electronics or if the buyer modifies the goods provided or has any repairs or re-setting done by a third party, unless Olympia Electronics has fully agreed to them in writing. Products that have been damaged can be returned to the premises of our company for repair or replacement, as long as the warranty period is valid. Olympia Electronics reserves the right to repair or to replace the returned goods and to or not charge the buyer depending on the reason of defection. Olympia Electronics reserves the right to charge or not the buyer the transportation cost.

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