



E1376B2

Thank you for choosing Space-Ray

SCB60B-E1111

UK

Programmable chrono-thermostat, suitable to operate 1 / 2 / 3 / 4 heating zones, made of radiants or warm air units with or without air recirculation.

QUICK GUIDE for using SCB60B-E1111

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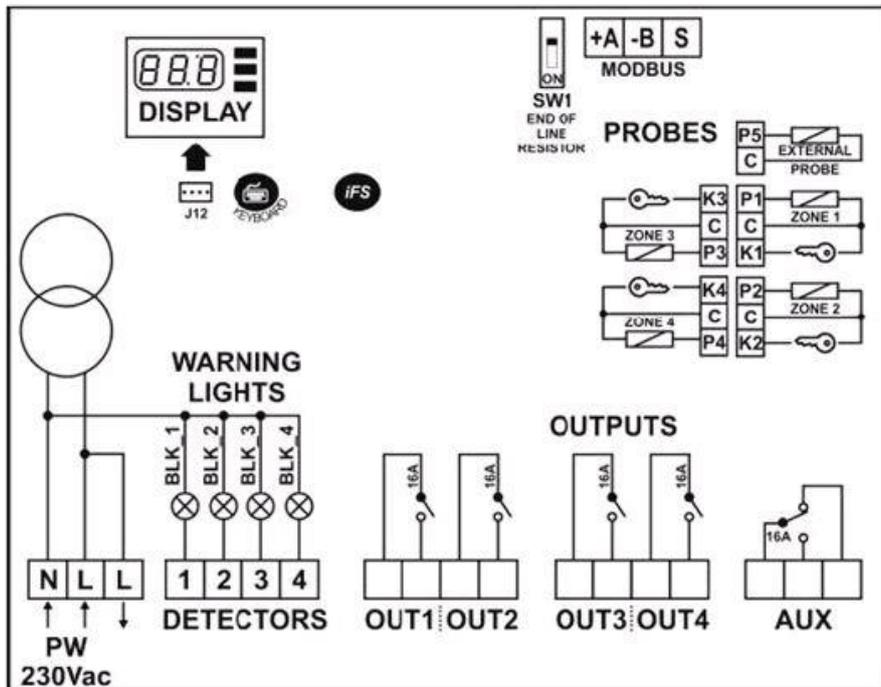
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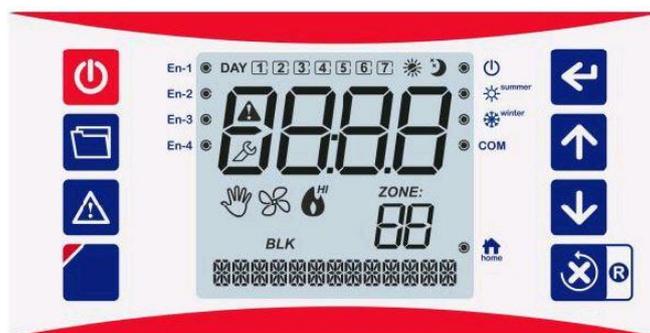
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WIRING DIAGRAM



1. PW = Mains Power Connection. (Live Link to Outputs 1-4 as required).
2. Detectors = Warning Lights if required.
3. Outputs = Burners or Zone Connections
4. AUX = Common Exhaust Fan Connection
5. Probes = Sensor/BMS Connection

FRONT PANEL



KEYBOARD

-  **ON / OFF:** to switch ON the controller or to put it in stand by mode. (ONLY IF *Hb*=YES)

-  **MENU:** push briefly for menus: tiME / SEt / inFo / PAr / Fnc.

-  **ALARM:** push for alarm menu / to silence the alarm buzzer if ON. You can only access the ALARM MENU during an alarm condition

-  **DISPLAY LCD:** display parameter list: language, backlight, buzzer, speed text

-  **ENTER:** During setup it works like "ENTER" button.
 - To enter the displayed menu/parameters;
 - To confirm/start the displayed functions.
 During the normal activity, press it briefly to see the thermometric scale

-  **UP:** During setup to scroll the menu and parameter lists, to increase displayed values. During the normal activity, it scrolls the available heating zones.

-  **DOWN:** During setup to scroll the menu and parameter lists, to decrease displayed values. During the normal activity, it scrolls the available heating zones.

-  **ESC / RST:** During setup it works like "Esc" button. During the normal activity hold it to reset lockout burners of the displayed zone.

DISPLAY:

-  **ALARM:** alarm in progress.

- ZONE:** Zone: it is the heating zone to which data on display are referred (i.e.: 02=zone 2)

- DAY**
 **Day of the week:** (1) = Monday... , (7) = Sunday).

- Manual / automatic mode:**
 -  ON: the displayed zone is in manual ON or OFF mode by parameter *A-M*;
 -  blinking: the displayed zone is in manual mode by key selector or BMS;
 -  OFF: the displayed zone is in automatic mode;

- BLK** **Burner lockout:**
BLK ON: the controller detects a flame failure in the zone

- En-1** **Burner 1: Enable / Disable**
En-1  burner 1 enabled

- En-2** **Burner 2: Enable / Disable**
En-2  burner 2 enabled

- En-3** **Burner 3: Enable / Disable**
En-3  burner 3 enabled

- En-4** **Burner 4: Enable / Disable**
En-4  burner 4 enabled

-  **Common exhaust fan output:**
 ON: output of common exhaust fan ON

MENU

Press the menu  followed by the  key to scroll through the menu SET, TIME, PAR, FN and INFO. The menu is in the following order:

1. SET, this is to set the Temperature Sensors.
2. TIME, used to set the Time, Date Month, Year, Weekday.
3. PAR, is to access all the parameters from Fan set up, Zone Qtys, Burner Qtys and more.
4. FN is to Enable the Zones, Automatically, Manually or via Time settings as well as Enable the Burners.
5. INFO shows the outside Temperature Sensors and any meters running.

You can access the above by pressing the following steps then Press the Enter key to access the option required.

1. SET, Used to set the desired temperature for each Sensor probe.

Press  (SET will be displayed), then Press  This will then display SP1 (Sensor Probe 1) to change to a desired Sensor Probe Press  until you find the required Sensor Probe, SP1, SP2, SP3 or SP4. This will depend on how many probes you have connected and determined by the H5 setting in Parameters. Once you have the desired Sensor Probe Press  then use the  or  to change the temperature to the required setting. Press  again to set the Temperatures then repeat for SP2, SP3 and SP4 if connected. Once all Probes are set Press  this will return you to the main menu.

See section 13 in the manual for more.

2. TIME Used to set the time, date, year, month.

Press  (SET will be displayed) then,  then,  this will display the current set time.

Press  then use the

 or  to change the Hour. Press  then use the

 or  to change the Minutes. . Press  then use the

 or  to change the Day (1 to 7. 1 being Monday). Press  then use the

 or  to change the Year. Press  then use the

 or  to change the Month. Press  then use the

 or  to change the Day of the month. Press  to complete the process or  to scroll through again.

Once all settings are complete Press  this will return you to the main menu.

See section 15 in the manual for more.

3.TIMER PROGRAMS

To set a timer program for a burner to come on or off first press  (SET will be displayed) then,  then,  then,  Fnc will be displayed then press . AN-1 will be displayed press  if Auto is not displayed then press  or  until it is. Once Auto is showing press . This will show --:-- . Press  followed by the  or  keys to set the hour. Once correct press  then use the  or  keys to set the minutes. Once the minutes are set press the  again this will show all the days flashing (1 to 7) using the  or  keys you can set each individual day (1 to 7), weekend (6 & 7) or Mon to Fri (1 to 5). Press , using the  or  keys you can then set the burners to ON or OFF. Press  again. you can now press the  to start the process again or press .

Once you have set all your ONs and OFFs you can review all the programs you have set by

Pressing  (SET will be displayed) then,  then,  then,  Fnc will be displayed then press . AN-1 will be displayed, press  and AUTO will be displayed. Press . Then using the  key you can scroll through all the timer settings that have been set up and add more if required.

See section 11.2 on page 5 of the manual for more information.

4.PAR Used to access all the parameters from Fan set up, Zone Qtys, Burner Qtys

Press  (SET will be displayed) then,  then,  this will display PAR. Press  this will then display PA. Press  Again. This is where you now enter the Password for the unit to change the

Parameters, this can be locked by the customer with there own password. Use Installer Password 95 or Factory Password 59. Please see page 7 of the manual under section 17.

Press the  to enter the passcode required then Press . You can then use the  or  to scroll through all the parameters found in section 17 on page 6 of the manual and section 4.2 on page 2 to find the desired H5 parameter.

When we set these up to send to the customer we will only set the H5, FB and FBF codes.

The H5 code is the code to set the Operation mode for heating zones, sensor connections and common AUX fan if fitted. Scroll through the parameters until you come to H5 then Press

, using  or  scroll to the desired operation mode as shown in section 4.2 on page 2 and 3, for example H5=12 is 3xZones made of 1x single stage independent heater each +

Common exhaust fan. Press  again, this will take you back to the H5 Display. Press . Then reset the unit by pressing and holding the power button  until OFF is displayed then press the power button  to turn the unit back on.

The FB code is the stop time of the common fan and burners before any burner ignition. We Factory set this at 8 but can be adjusted to anything between 2 and 250 seconds. To set this Scroll through the parameters until you come to FB then Press , using  or  scroll to the desired setting, we factory set this to 8 if a common fan is used.

The FBF code is the stop time of common fan and burners after any burner ignition. We Factory set the at 8 but can be adjusted to anything between 2 and 250 seconds. To set this Scroll through the parameters until you come to FBF then Press , using  or  scroll to the desired setting, we factory set this to 8 if a common fan is used.

Once you have set both the FB and FBF settings reset the unit by pressing and holding the power button  until OFF is displayed then press the power button  to turn the unit back on.

See section 4.2 on page 2 and 3 as well as Section 17 on page 6 in the manual for more help.

5. FN is to Enable the Zones, Automatically, Manually or via Time settings as well as Enable the Burners.

Press  (SET will be displayed) then ,  then,  then,  this will display FNC.
Press  this will display AN-1, this is

ZONE 1, (if there is more than one they will be AN-2, AN-3 or AN-4) if then press  this will give you the first option which will be ON, if you press  you can change this to Auto or OFF. Press  once you have set the zone. See Section 11.2 on page 4 of the manual.

Once you have the Zones set to Manual. Auto Or Off. If you continue to scroll through the menu options from AN-1 by pressing  then  again En-1 will display. This is your Burner Enable options. Press  then the  key you can enable or disable the burner. See section 11.3 on page 5. You can repeat this to set EN-1 to En-4.

6.KEYPAD Lock

To lock the keypad go into the PAR (section 4 above) and scroll through until you find the HL, set this to YES.

When the keypad is locked, the message LOC will be displayed anytime a key is pressed.

To temporarily unlock the keypad hold  or  for at least 3 secs until the message UnL is displayed. The Keypad re-locks automatically after 15secs of inactivity.

These are the only basic functions we set up here in the factory, for all other parameters and settings it is advised that you read the manual fully.

ALARM SIGNALS

When an alarm is displayed Press  followed by the  or  to scroll through the below signals

ALARM SIGNALS

<i>Display</i>	<i>LED</i>	<i>Description</i>
A 10		Eeprom fault, switch the thermostat off and on again
A 13		Clock error. Check date and time.
A 60		Burner lockout, warning light 1.
A 61		Burner lockout, warning light 2.
A 62		Burner lockout, warning light 3.
A 63		Burner lockout, warning light 4.
A 20		Probe P1 in short-circuit or not connected or temperature beyond limits. In case of faulty P1, all outputs related to zone 1 are OFF.
A 21		(IF AVAIL.) Probe P2 in short-circuit or not connected or temperature beyond limits. In case of faulty P2, all outputs related to zone 2 are OFF.
A 22		(IF AVAIL.) Probe P3 in short-circuit or not connected or temperature beyond limits. In case of faulty P3, all outputs related to zone 3 are OFF.
A 23		(IF AVAIL.) Probe P4 in short-circuit or not connected or temperature beyond limits. In case of faulty P4, all outputs related to zone 4 are OFF.
A 30		(IF AVAIL.) Outside probe in short-circuit or not connected or temperature beyond instrument limits. Check the cable to the probe. The alarm stops when the temperature goes back to normal values.
A 40		Temperature alarm.
A 64		ZONE 1: High temperature alarm.
A 65		ZONE 1: Low temperature alarm.
A 66		ZONE 2: High temperature alarm.
A 67		ZONE 2: Low temperature alarm.
A 68		ZONE 3: High temperature alarm.
A 69		ZONE 3: Low temperature alarm.
A 70		ZONE 4: High temperature alarm.
A 71		ZONE 4: Low temperature alarm.

To mute the buzzer (if **Ab**= 1), press any key; the alarm condition keeps showing on display until removal of the alarm cause.