

SmartBox ECO Heater

GA3911

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1 SmartBox overview.

1.1 Buttons.

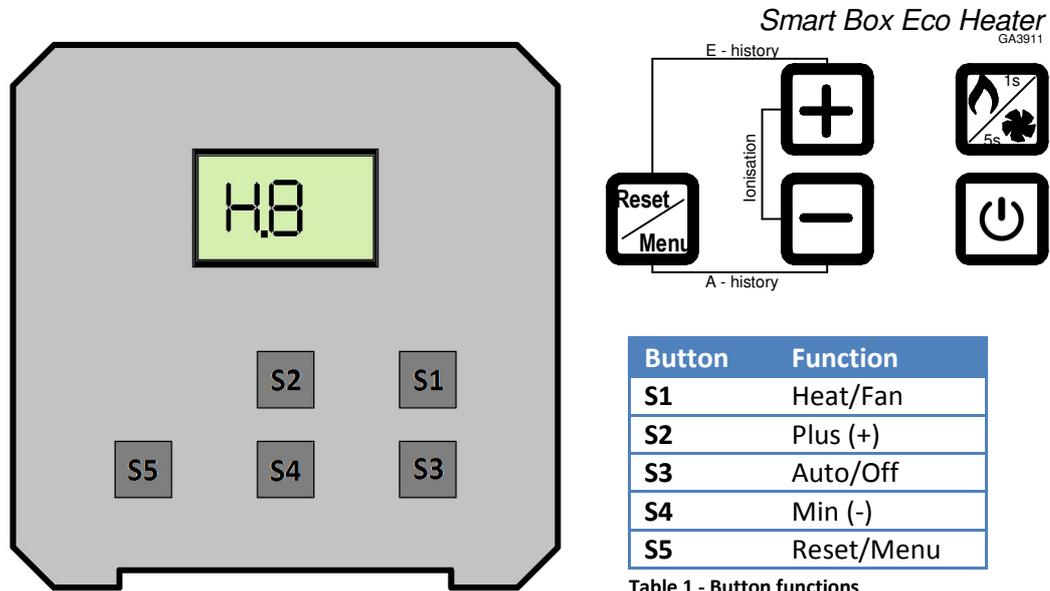


Figure 1 - 166RT SmartBox

The SmartBox uses 5 buttons that can control the system.

The general layout of the buttons is shown in “Figure 1 – 166RT SmartBox”. Their respective function are shown in “Table 1 – Button functions”.

1.2 Display icons.

The display is able to show icons that give a better view on the current status of the system. In “Table 2 – Display icons” the icons that can be displayed with the status of the system

Icon	Status
	System is burning.
	System is ventilating.
	System is in error.

Table 2 – Display icons

2 Status screen.

The SmartBox is able to display the status of the system. The status is shown with a status ID and 2 status codes.

Status ID	Code left	Code right	Status
-	0		Off.
S	0		Standby, no demand.
F	0		Ventilation demand.
H	1		Heat demand (Pre purge 0)
H	2		Heat demand (Pre purge 1)
H	3		Heat demand (Pre purge 2)
H	4		Heat demand (Pre purge 3)
H	5		Heat demand (Ignit 0)
H	6		Heat demand (Ignit 1)
H	7		Heat demand (Burn on ignition speed)
H	8		Heat demand (Burn on maximal speed)
H	9		Heat demand (Post purge)
A	X	Y	Locking error (XY is the error code, see chapter....)
E	X	Y	Blocking error (XY is the error code, see chapter....)

Table 3 – Status display

2.1 Startup

During startup of the SmartBox the display shows '---'. This means that the SmartBox did not receive any bytes over the communication.

2.2 No communication

When the communication is lost for 10 seconds the display will show the text 'no'/'conn'. This means that the SmartBox isn't able to start communication or the data is corrupted. When the communication is restored the message is cleared and the normal status is displayed.

3 Demand generation.

With the SmartBox it is possible to generate demand for heating or ventilation. These functions are controlled with button S1 Heat/Fan.

3.1 Manual heat demand.

To generate a manual heat demand the "Heat/Fan" button needs to be pressed until the display shows the text "brn".

After the button is released a heat demand is send to the main control.

During the heat demand the display shows the actual status of the system.

To stop the demand the button "Auto/Off" needs to be pressed.

3.2 Manual ventilation demand.

To generate a manual ventilation demand the "Heat/Fan" button needs to be pressed until the display shows the text "FAn". For this the button needs to be pressed at least 5 seconds.

After the button is released a ventilation demand is send to the main control.

During the ventilation demand the display shows the actual status of the system.

To stop the demand the button "Auto/Off" needs to be pressed.

4 Extra information.

The SmartBox is able to show additional information about the system. These menus can be accessed by using a combination of buttons.

4.1 Flamerod menu.

The flamerod value can be displayed on the SmartBox.

To enter the flamerod menu the buttons “Plus (+)” and “S4 Min (-)” have to be pressed simultaneously. When the menu is entered the display shows ‘ Ξ ’ followed by the current flamerod value.

To exit the flamerod menu the buttons “Plus (+)” and “Min (-)” have to be pressed simultaneously. The menu is automatically exited after 60 seconds.

4.2 History menu.

The SmartBox can view the last 9 locking errors and the last 9 blocking errors.

The error codes that can be shown are detailed in chapter 4.2.3.

4.2.1 Locking errors

To access the locking error screen the system first has to be set to OFF. To do this the button “Auto/Off” has to be pressed for 5 seconds until the display shows “OFF”.

The system is OFF when the display shows the status “-0”.

To enter the locking menu buttons “Plus (+)” and “Reset/Menu” have to be pressed simultaneously for 3 seconds.

The first character on the display now shows the index number of the error.

The other 2 characters on the display alternately show “A” and the error code.

By pressing buttons “Plus(+)” or “Min(-)” it is possible to navigate through the last 9 locking errors.

To exit the menu the button “Reset/Menu” can be pressed. The menu is also exited automatically after 15 seconds.

4.2.2 Blocking errors

To access the locking error screen the system first has to be set to OFF. To do this the button “Auto/Off” has to be pressed for 5 seconds until the display shows “OFF”.

The system is OFF when the display shows the status “-0”.

To enter the blocking menu buttons “Min (-)” and “Reset/Menu” have to be pressed simultaneously for 3 seconds.

The first character on the display now shows the index number of the error.

The other 2 characters on the display alternately show “E” and the error code.

By pressing buttons “Plus(+)” or “Min(-)” it is possible to navigate through the last 9 blocking errors.

To exit the menu the button “Reset/Menu” can be pressed. The menu is also exited automatically after 15 seconds.

4.2.3 Error codes

When the display is in error an error code is displayed. The error code consists of 2 characters on the display.

The left character shows the state of the control in which the error was stored. The right character shows one of the following error codes.

Error code	Details
0	Internal error.
1	Transport fan air switch error.
2	Burner fan air switch error.
3	Flame detection error.
4	Too high gas pressure.
5	Too low gas pressure.
6	Too low supply voltage.
7	Not used.
8	Overheat.

Table 4 –Error codes

4.3 Settings menu.

To access the settings menu the system first has to be set to OFF. To do this the button “Auto/Off” has to be pressed for 5 seconds until the display shows “OFF”.

The system is OFF when the display shows the status “-0”.

To enter the settings menu the buttons “Reset/Menu” has to be pressed for 3 seconds. By pressing buttons “Plus(+)” or “Min(-)” it is possible to navigate through the menu.

Settings can be changed by pressing the “Reset/Menu” button for 3 seconds. The setting will start blinking. When the setting is blinking the setting can be changed with the buttons “Plus(+)” or “Min(-)”.

The image below shows the menus and the settings. The **bold** items are the default settings.

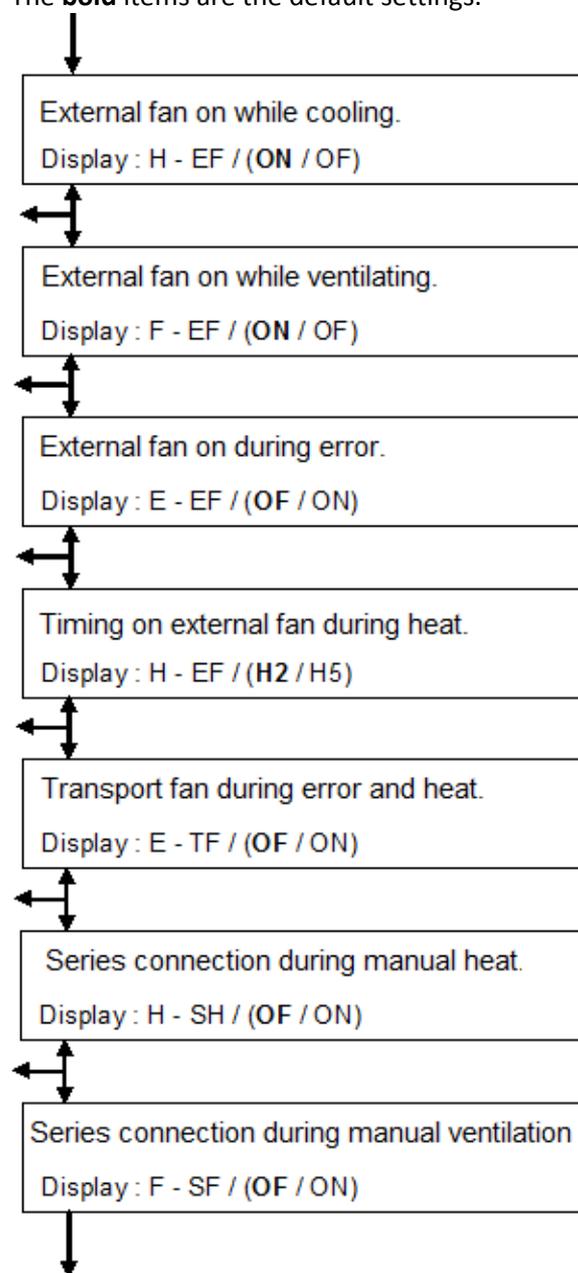


Figure 2- Settings menu flow