

PROFIRE PF3100

Quick User Guide



1. PF3100 User Interface (UI)

The PF3100 User Interface is intuitive and easy to read:

Power LED

On = powered.

Off = not powered.

Status LED

Off = not powered.

Flashing green = start-up sequence.

Green = system is running.

Red = system is stopped.

Amber = warning or alarm is present.

LCD Screen

Displays diagnostics, current settings, and options when navigating through menus.

Stop Key



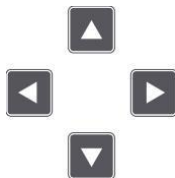
Used to stop the system; this immediately turns off the burner.

Back Key



Used to go back one screen and cancel out of dialog boxes.

Arrow Keys



Used to navigate through menus.

Multi-Button



Menu key that opens a menu of global options.

OK Key



Used to enter a menu, acknowledge a prompt, save an edited setting, or return to the home screen.

Help Key



Allows access to system help. One button press brings up tooltips for items on the current screen.

+/- Keys



Used to adjust settings up or down.

Start Key



Used to start the system.

Number Pad



Used to start the system.

Delete Key



Used to delete the last character entered when using the number pad.

Start/Stop Switch



This switch is located at the side of the box and can be used to turn the system off and on.

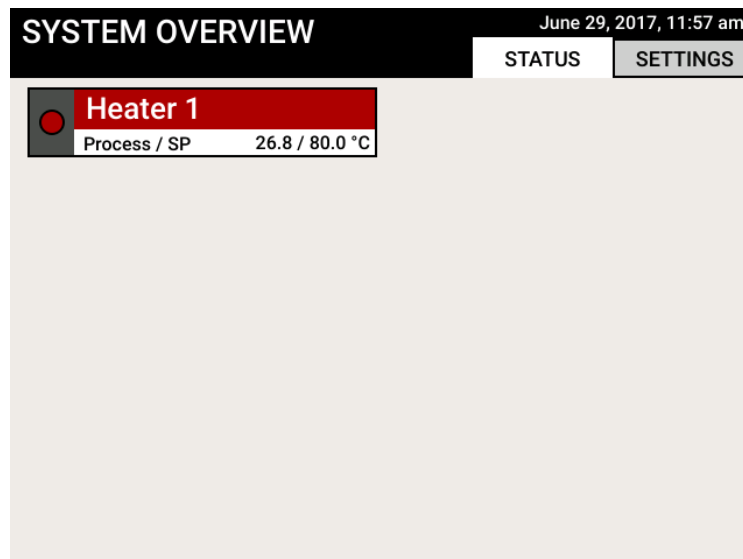
Enclosure Door Lock (not pictured)

Mechanism for securing the door. A flat-head (standard or slotted) screwdriver is needed to open and close the enclosure.

2. Starting the System

System Overview

When the system first powers up, the **System Overview** screen will be visible:



On this screen, only one appliance is visible (**Heater 1**).

Some systems may have more appliances listed as required.

Select the required appliance by pressing **OK**. This will bring up the **Appliance Status** screen.

Appliance Status Screen

The **Appliance Status** screen allows you to view the status of the entire appliance you have selected, including temperatures, input states, output states, and overall status.

Heater 1

STATUS ●
July 11, 2017, 3:55 pm

STATUS

ALERTS

SETTINGS

DATA

Temperatures		<div style="display: flex; justify-content: space-between; align-items: center; border-bottom: 1px solid black;"> ● Burner 1 Ready </div> <div style="display: flex; justify-content: space-between; align-items: center; border-bottom: 1px solid black;"> ● Burner 2 Ready </div> <div style="display: flex; justify-content: space-between; align-items: center;"> ● Burner 3 Ready </div>
1	30.9 °C / 80.0 °C	
Inputs		
Flow (BMS)	82.0 L/min	
Outputs		
Firing Rate	0 %	

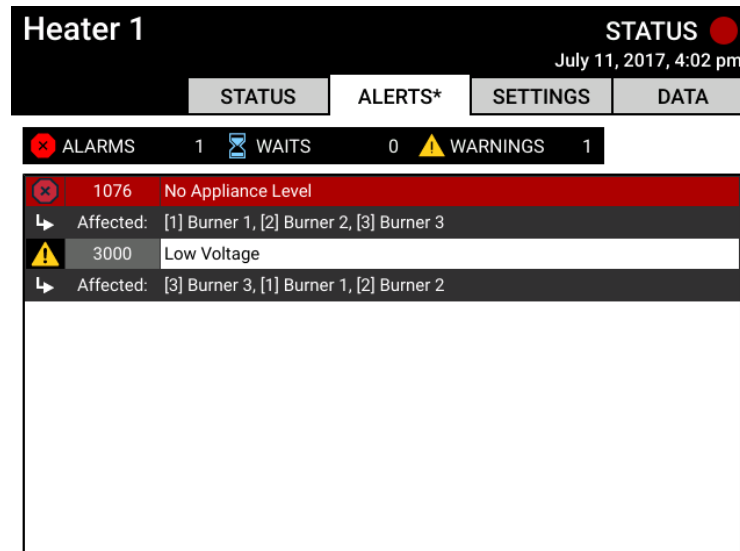
If there are any alerts, a star symbol (*) will appear next to the **Alerts** tab.

The red dot next to **Burner 1** will blink a number of different colors, depending on the alarm, and the status will change from **Ready** to **Waiting** or **Alarm**.

Selecting the **Alerts** tab (using the arrow keys) will take you to the **Alert Screen**.

Alert Screen

The **Alert Screen** indicates the presence of any active alarms, waits, and warnings.

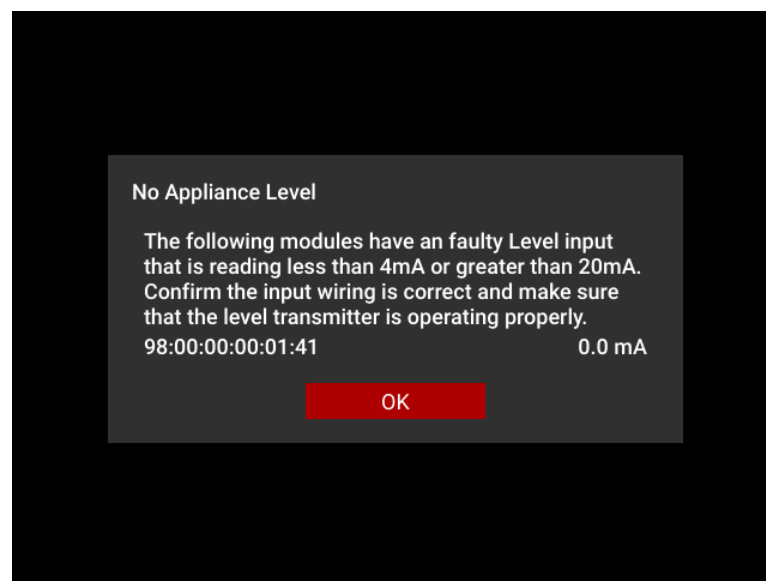


Use the arrow keys to select whichever alarm, wait, or warning you would like to see and press **OK**.

In the above example, if you select the alarm **No Appliance Level**, the **No Appliance Level Alert** alarm screen would appear.

No Appliance Level Alert

When an alert such as the one below appears, **DON'T PANIC!**



Pressing **OK** or the **BACK** key will return you to the **Alert Screen** and will **NOT** affect the system in any negative way.

3. Setpoints

Adjusting Setpoints from the Status Screen

From this screen, you can use the arrow keys to get to an item that you wish to view. Once the item is highlighted (red), press **OK**. This screen enables you to access any setpoints you may need.

Heater 1 **STATUS** ●
July 17, 2017, 10:47 am

STATUS	ALERTS	SETTINGS	DATA
Temperatures			
Primary Process	27.1 °C / 80.0 °C		
Aux 1	27.0 °C / 55.0 °C		
StackTemp	27.0 °C / 200.0 °C		
Outputs			
Firing Rate	0 %		

● Burner 1 Ready

In the above example, **Aux 1** has been highlighted. This will take you to the **Settings Adjust** screen.

Adjusting Settings

This screen tells you everything you need to know, and by using the arrow keys, you can navigate to your selection and adjust settings accordingly.

Secondary Process Settings (Aux 1)

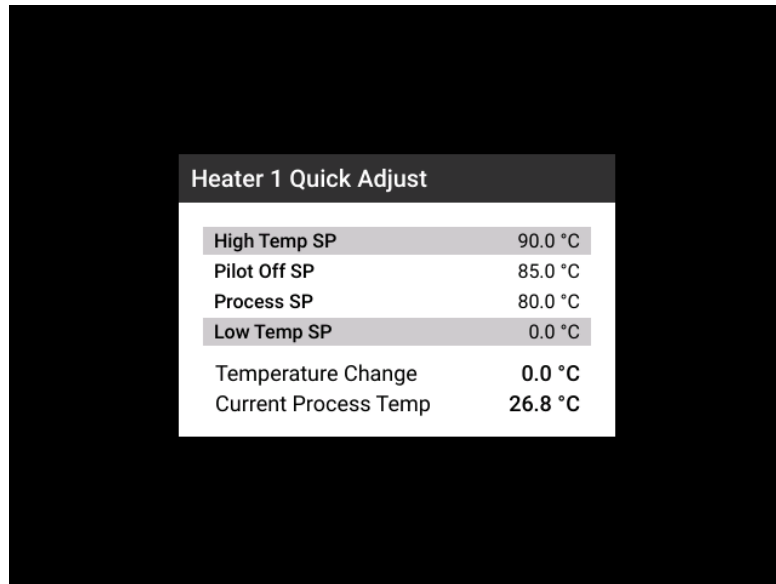
Name	Aux 1
High Temp	60.0 °C
Process	55.0 °C
Process Deadband	2.0 °C

Finished

If any items are grey, you may not have the correct security level required to change that setting.

Quick Adjust Screen

From the [System Overview](#) or [Appliance Status](#) screen, the primary process temperature may be adjusted in small increments. Press the [Multi-Button](#) when on one of these screens to open up the quick adjust dialog as shown below:

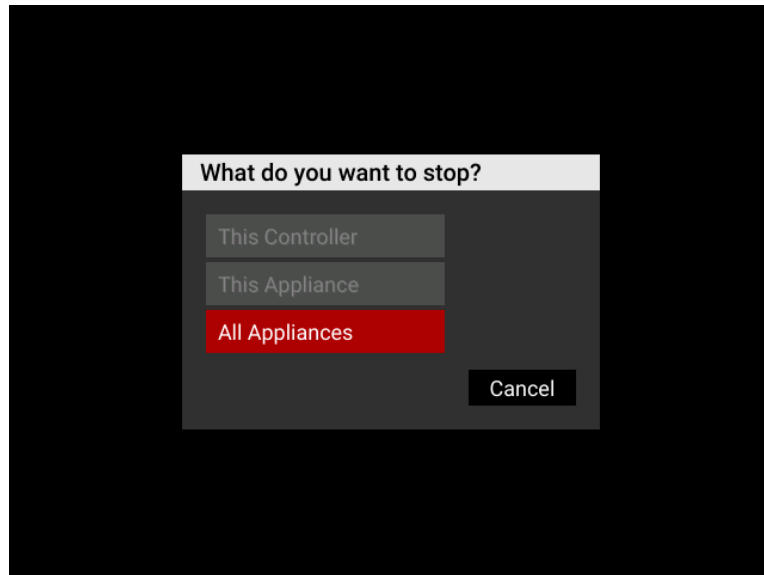


All setpoints scale together but are limited on the top end by the [High Temperature Setpoint](#) and on the low end by the [Low Temperature Setpoint](#).

4. Stopping the System

Stop Query Screen

From any screen on the UI, press the STOP key on the keypad and this screen will appear:





You will be prompted to confirm that you want to stop. Press the **OK** key to confirm, or the **BACK** key to cancel.

Safety Rated Shutdown

It is important to note: the STOP function on the UI is NOT safety rated. This function may be unavailable if the UI is offline, disconnected from the network, or otherwise incapacitated.

Safety Rated Shutdown can be achieved as follows:

- Use the switch on the side of the box. 
- Connect an appropriately rated mushroom switch. 
- Use the manual valves on the fuel train.
- Remove the power source.

Shutdown Screen

The **Shutdown Screen** will appear after the system has shutdown for any reason, including once you have selected **STOP** (as per the **Stop Query Screen** section above).

Shutdowns

Date/Time	Appliance	Controller	Shutdown
07/11 16:04	Heater 1	Burner 3	High Fuel Pressure After Main On
07/11 16:04	Heater 1	Burner 2	High Fuel Pressure After Main On
07/11 16:04	Heater 1	Burner 1	High Fuel Pressure After Main On

Acknowledge

It is recommended that you take note immediately of the reason(s) for the shutdown. Once you have selected **Acknowledge**, this information will no longer be available. Ever. So write it down.

5. Profire Contact Information

If you have any concerns or questions about this information, please contact PROFIRE as follows:

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