



PF3100: Quick User Guide



1. User Interface (UI) for the PF3100

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. Two button presses open

User Interface continued.....



+/- Keys: Used to adjust settings up or down.



Start Key: Used to start the system.



Number Pad: Used to key in changes in settings.



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

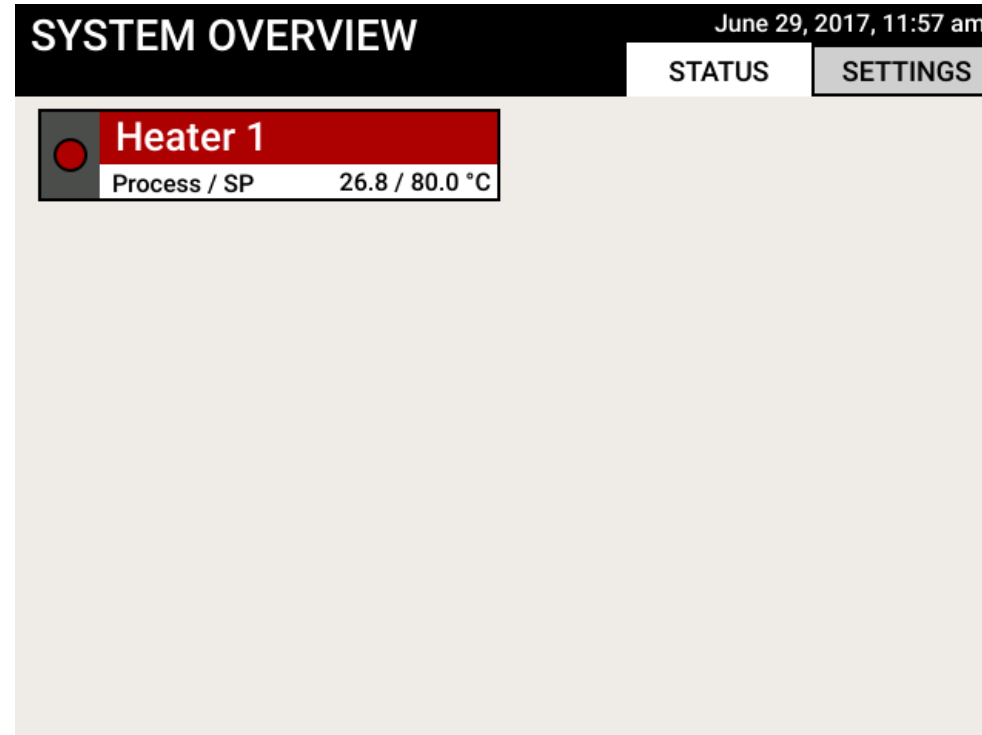


There is also a switch at the side of the box that can be used to turn the system off and on.

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.

Some systems may have more appliances listed as required.

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

3. Starting the System – 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		● Burner 1	Ready	
1	30.9 °C / 80.0 °C	● Burner 2	Ready	
Inputs		● Burner 3	Ready	
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.

4. Starting the System – Alert Screen

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

The screenshot shows the 'Heater 1' alert screen. At the top, it displays 'Heater 1' on the left and 'STATUS' with a red dot on the right. Below this, the date and time 'July 11, 2017, 4:02 pm' are shown. A navigation bar contains four buttons: 'STATUS', 'ALERTS*', 'SETTINGS', and 'DATA'. Below the navigation bar, a summary bar shows: 'ALARMS 1' (with a red 'x' icon), 'WAITS 0' (with an hourglass icon), and 'WARNINGS 1' (with a yellow triangle icon). The main area contains a list of alerts and warnings:

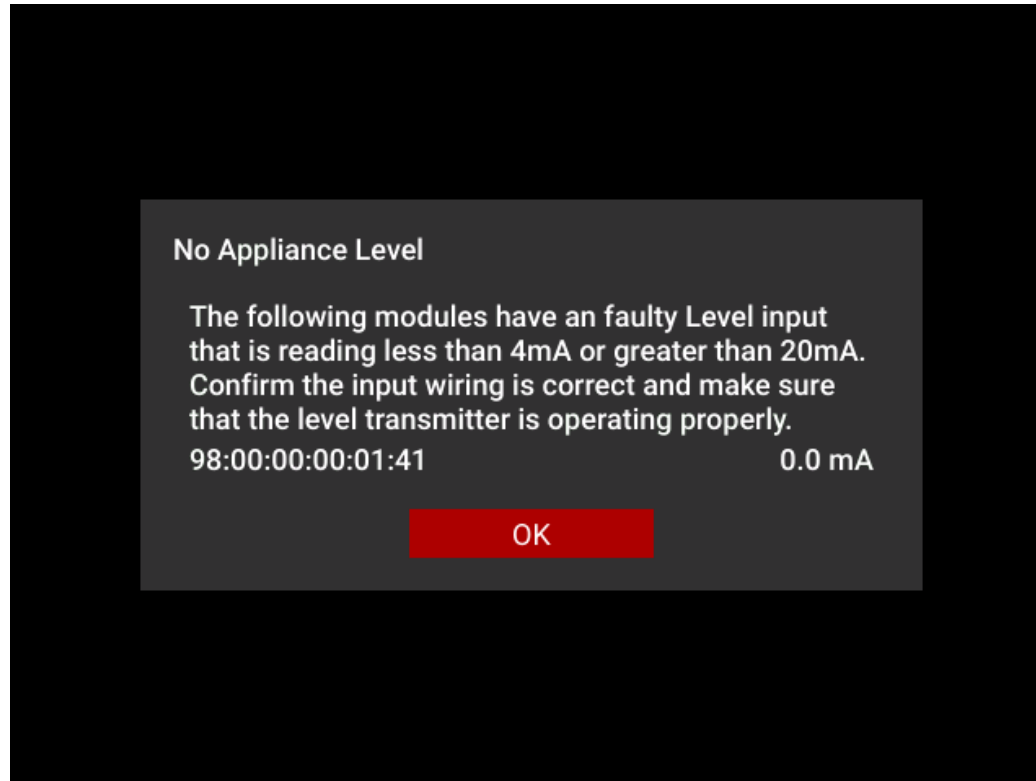
	1076	No Appliance Level
	Affected: [1] Burner 1, [2] Burner 2, [3] Burner 3	
	3000	Low Voltage
	Affected: [3] Burner 3, [1] Burner 1, [2] Burner 2	

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

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

5. Starting the System – 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.

6. Setpoints – Adjusting Setpoints from the Status Screen

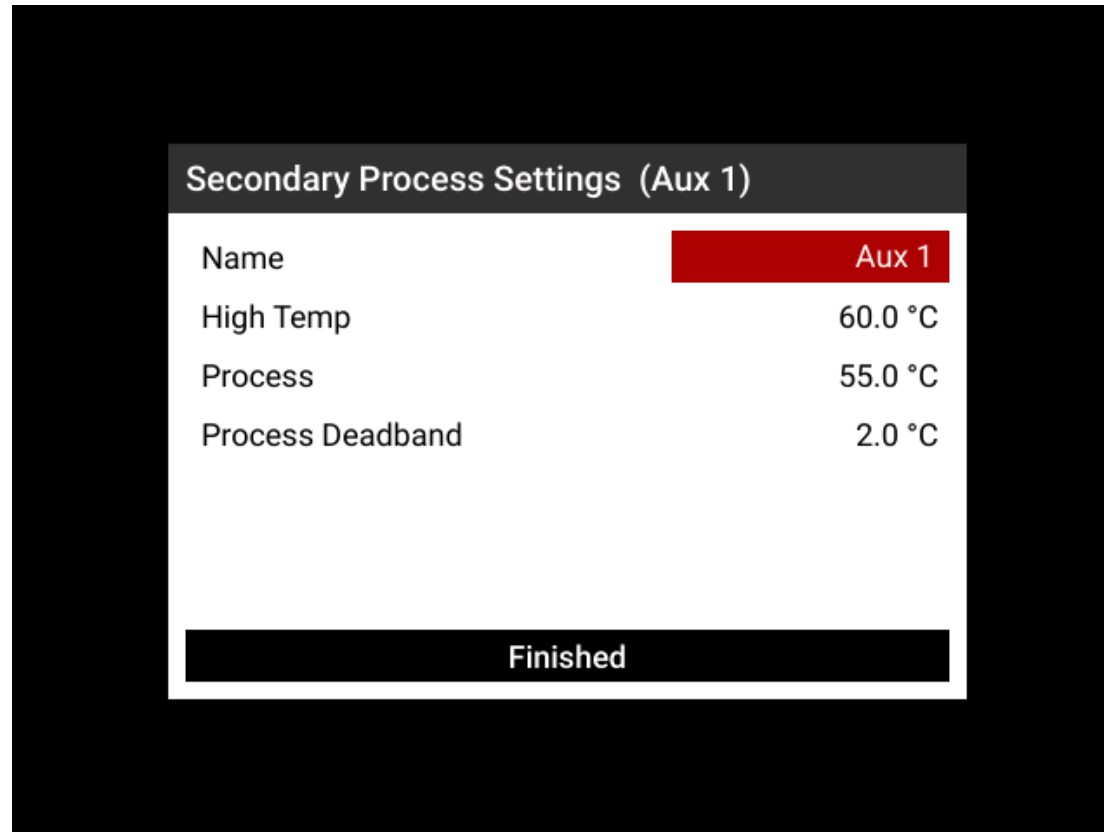
From this screen, you can use the **Arrow** keys to get to an item that you wish to view. Once the item is highlighted (red), press **OK**. This screen enables you to access any setpoints you may need.

The screenshot displays the 'Heater 1' STATUS screen. At the top right, it shows 'STATUS' with a red indicator light and the date/time 'July 17, 2017, 10:47 am'. Below this is a navigation bar with four tabs: 'STATUS' (selected), 'ALERTS', 'SETTINGS', and 'DATA'. The main content area is divided into two sections. On the left, under the heading 'Temperatures', there is a list of temperature readings: 'Primary Process 27.1 °C / 80.0 °C', 'Aux 1 27.0 °C / 55.0 °C' (highlighted in red), and 'StackTemp 27.0 °C / 200.0 °C'. Below this is the 'Outputs' section, which shows 'Firing Rate 0 %'. On the right side of the screen, there is a 'Burner 1' status indicator with a red light and the word 'Ready'.

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

Setpoints – Adjusting Settings

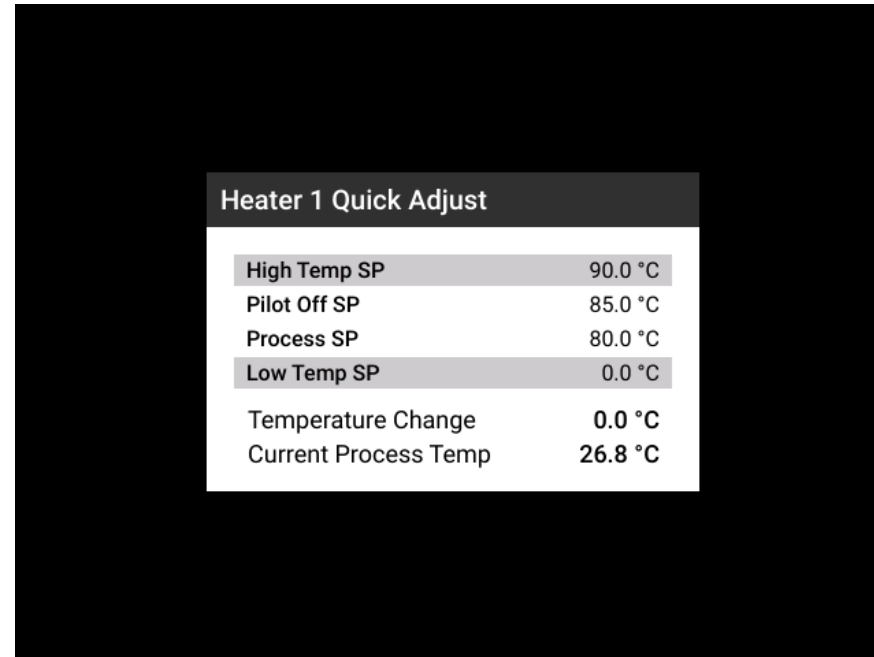
This screen tells you everything you need to know, and by using the **Arrow** keys you can navigate to your selection and adjust settings accordingly.



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

7. Setpoints - 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:

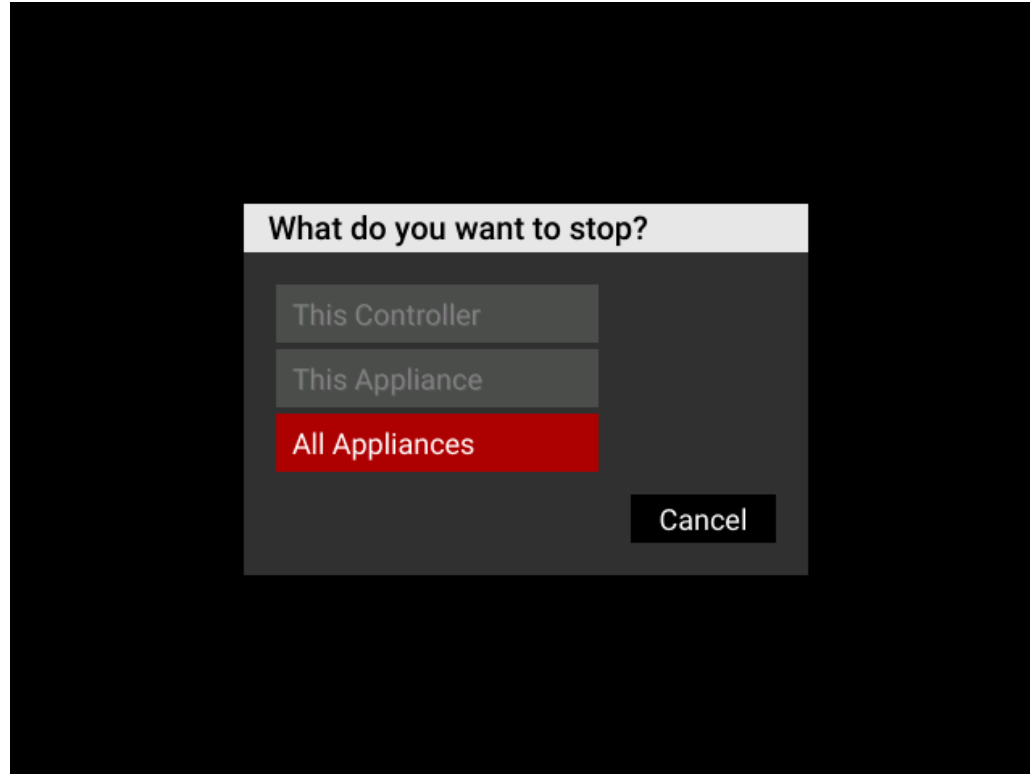


Heater 1 Quick Adjust	
High Temp SP	90.0 °C
Pilot Off SP	85.0 °C
Process SP	80.0 °C
Low Temp SP	0.0 °C
Temperature Change	0.0 °C
Current Process Temp	26.8 °C

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.

8. 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.

9. Stopping the System – 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.

10. Stopping the System – Shutdown Screen

The Shutdown Screen will appear after the system has shutdown for any reason, including once you have selected **STOP** as per Section 8 (page 11).

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.