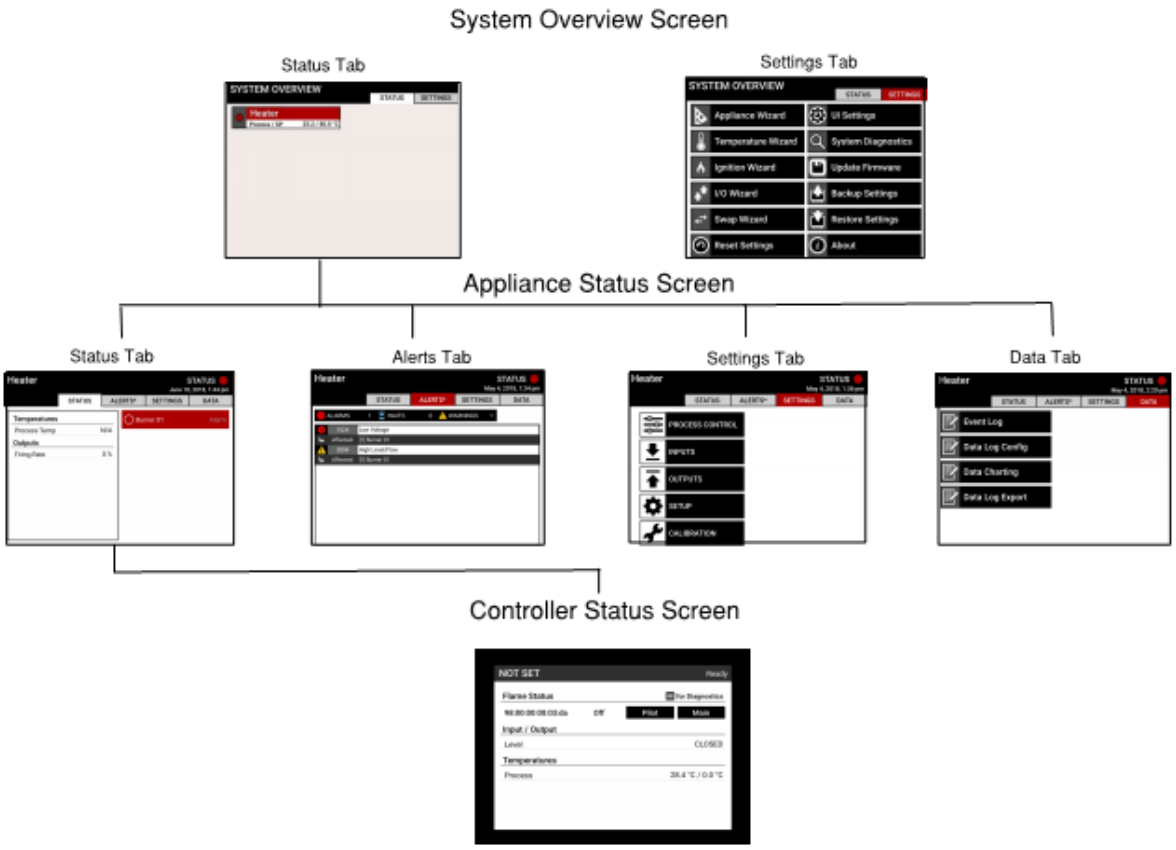
# PROFIRE PF3100

## Quick User Guide


PROFIRE
1.855.776.3473
solutions@profireenergy.com

# 1. System Overview




# 2. General Information

General navigation of the system is performed by using the buttons on the User Interface (UI). Of these, the most important are the **BACK** ( ) key, the arrow keys, and the **OK** key. An item highlighted in red is active; active items can be selected by pressing the **OK** key.

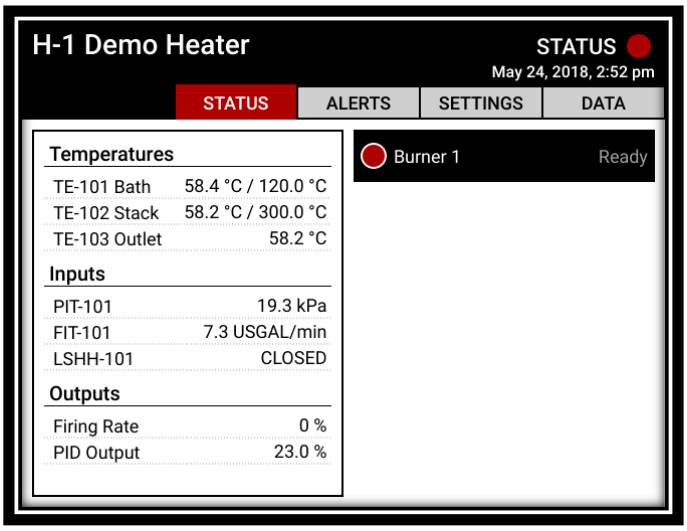
## 2.1. Status LED

The Status LED is located on the top left corner of the front of the UI enclosure and functions as follows:

Off = not powered.
Green = system is running or waiting.
Red = system is stopped.

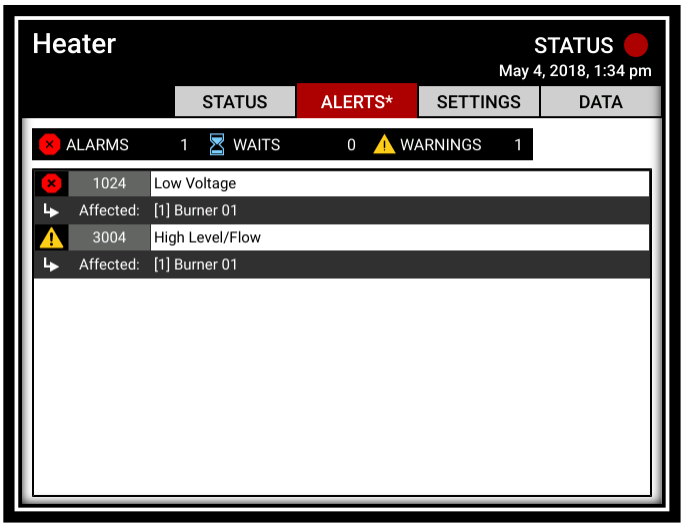
# 3. Interpreting System Information

The **Appliance Status** screen displays important information about the system. The **Status** tab shows the run status of each controller in the appliance, the system temperatures, input states/values, and output values.




## 3.1. Alerts Tab

The **Alerts** tab provides a list of error conditions that must be addressed prior to starting the system.



### Alarms

An alarm is an alert that causes the system to shut down or prevents the system from starting. An alarm requires operator acknowledgement before the system can be restarted.

### Waits

A wait is an alert that causes the system to stop, but not shut down; the valves will close and the system will purge, and once the wait condition has been met, the system will automatically restart.

### Warnings

A warning is an alert meant to direct the operator to a non-critical issue without shutting down the system. Warnings are for information or troubleshooting purposes only and do not affect the ability of the system to start or continue running.

### Alert Detail Screens

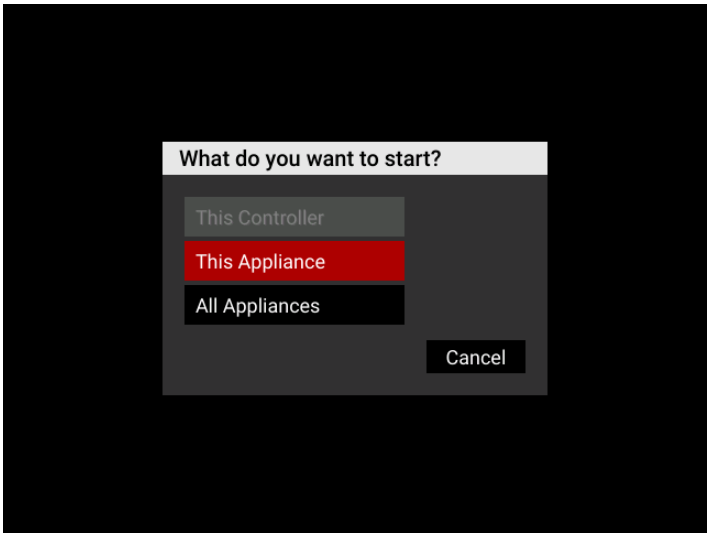
To access additional details about an alert, select the alert and press the **OK** key. If available, a dialog box with further information about the alert will be displayed.

# 4. Running the System

## 4.1. Starting the System

### Using the START Button

Press the **START** button on the keypad to bring up the Start menu.




Using the arrow keys, navigate to the desired selection and press **OK**. If there are no alerts pertaining to the selection, the system will begin its ignition sequence immediately.

### Start Using Ignition Switch

The ignition switch can be used to start an individual burner, as there is one ignition switch for each burner in the system. It is located on the right side of each enclosure containing a BMS controller card.

Ensure that there are no alerts pertaining to the desired burner, then turn its ignition switch to the **Ignite** position. Hold it until the status light turns green (approximately 1 second) to begin the ignition sequence for that specific burner.

The ignition switch cannot be used to start multiple burners at once.

### Other Methods

The PF3100 can also be started via Modbus, or remotely using the BMS start contact.

## 4.2. Stopping the System

### Using the Ignition Switch

Turn any ignition switch on an appliance to the **STOP** position to immediately shut down the entire appliance.

### Using the BMS ESD Contact

The ESD contact can be wired to an appropriately rated emergency shutdown switch that can be used to shut down the entire appliance.

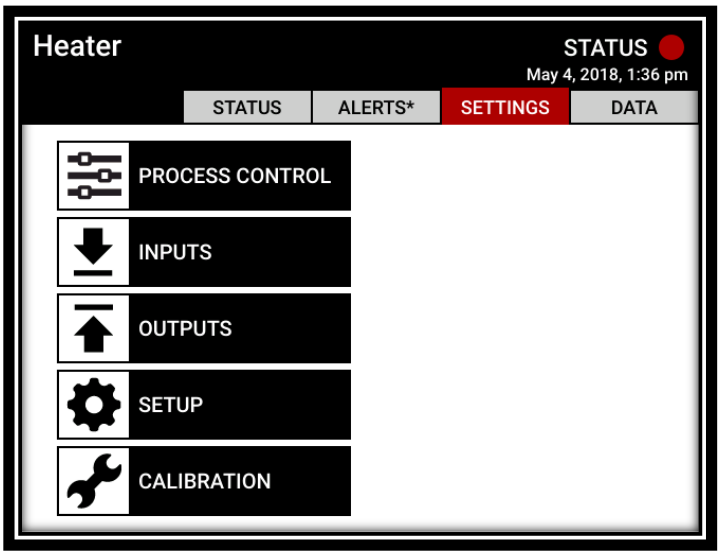
### Using the UI STOP Button

Press the **STOP** button to bring up the **STOP** menu. Use the arrow keys to navigate to the desired option and press **OK**. The selected appliance(s) or controller(s) will then shut down immediately.

**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.

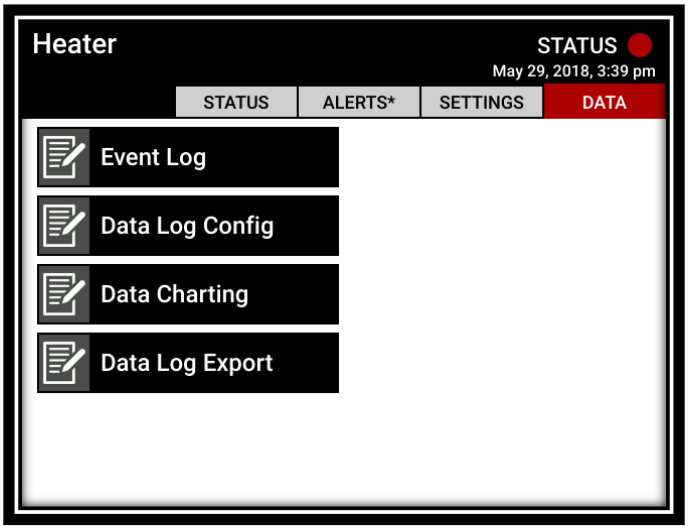
## 4.3. Settings Tab

The **Settings** tab contains a list of settings that can be configured to satisfy the requirements of the heating application.



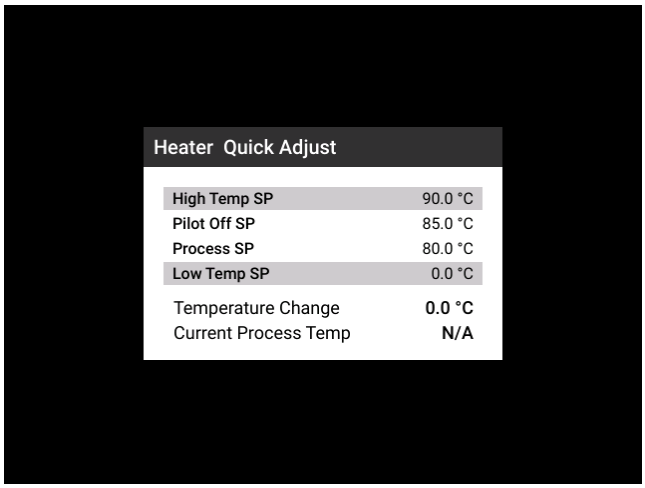

## 4.4. Data Tab

The **Data** tab provides useful information to assist with troubleshooting and temperature tracking.



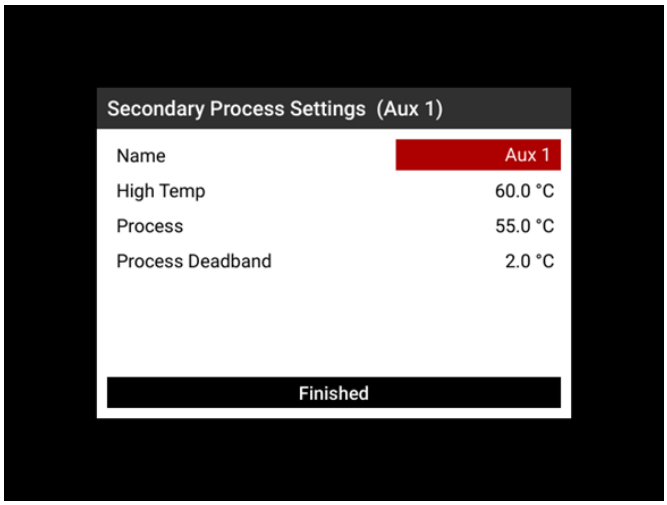
## 4.5. Quick Adjust Screen

To access the **Quick Adjust** screen from the **Appliance Status** screen, highlight the primary process temperature and press **OK**. The **Quick Adjust** screen displays the current setpoints for the primary process temperature of the system. Us the **+** and **–** keys to adjust the primary process setpoint.



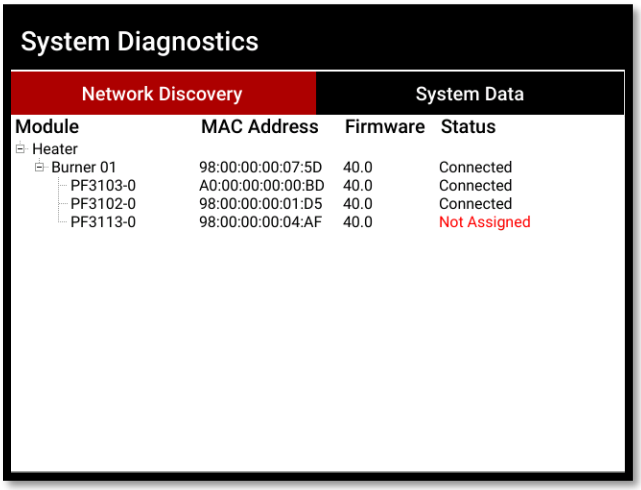

### Setpoint Adjustment Screen

To update the setpoints of the other temperature and inputs shown on the **Appliance Status** screen, highlight the desired item and press **OK**. The setpoint adjustment screen will appear, allowing the name and setpoints to be changed.



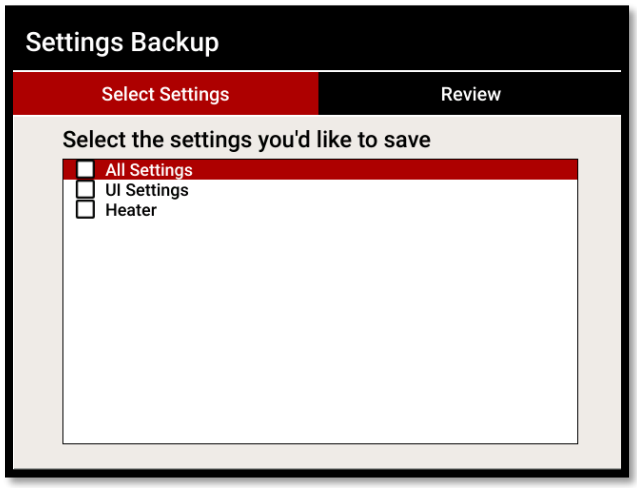
## 4.6. System Diagnostics

Select **System Diagnostics** from the **System Overview Settings** tab. The system diagnostics screen shows information about all connected modules as well as key system data.



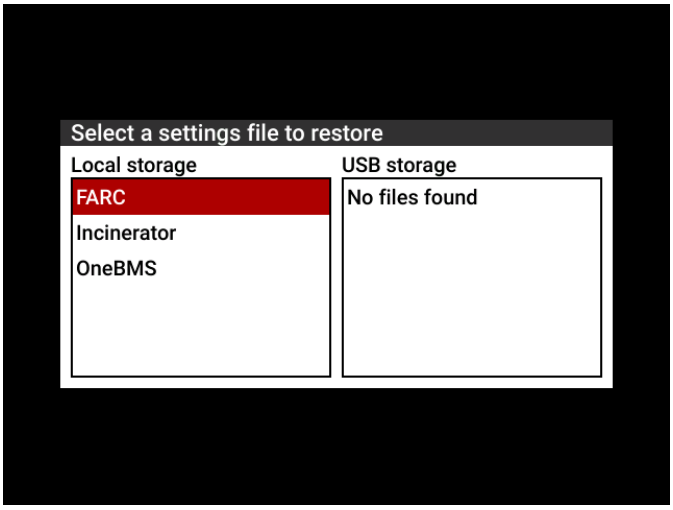

## 4.7. Backup Settings

Select **Backup Settings** from the **System Overview Setting**s tab. Follow the on-screen instructions to name and save system settings. Settings will be saved to the internal memory of the User Interface, as well as to a USB drive (if installed).



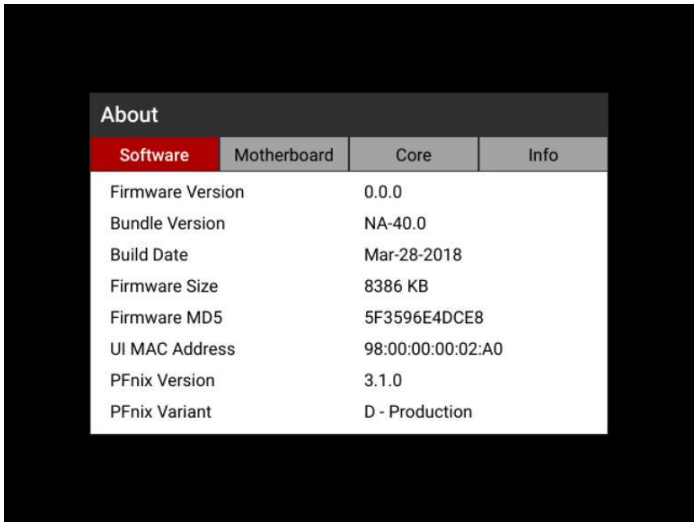
## 4.8. Restore Settings

Select **Restore Settings** from the **System Overview Settings** tab. Follow the on-screen instruction to load the desired settings file and assign the settings to specific controllers.




## 4.9. About Screen

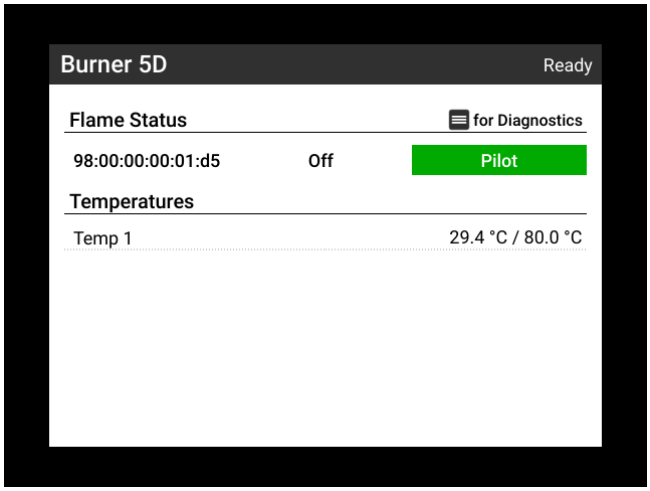
Select **About** from the **System Overview Settings** tab. To view important system information including firmware version and licensing information.



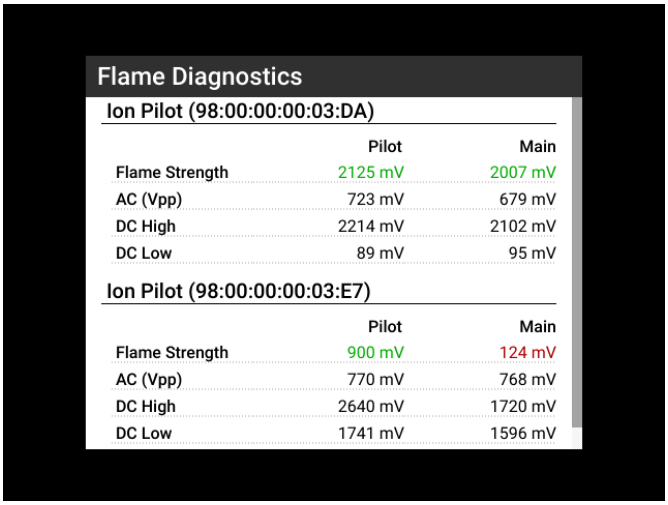
# 5. Troubleshooting

## 5.1. Access the Flame Diagnostics Screen

To access the **Flame Diagnostics** screen, navigate to the controller and press the multi button ( ).

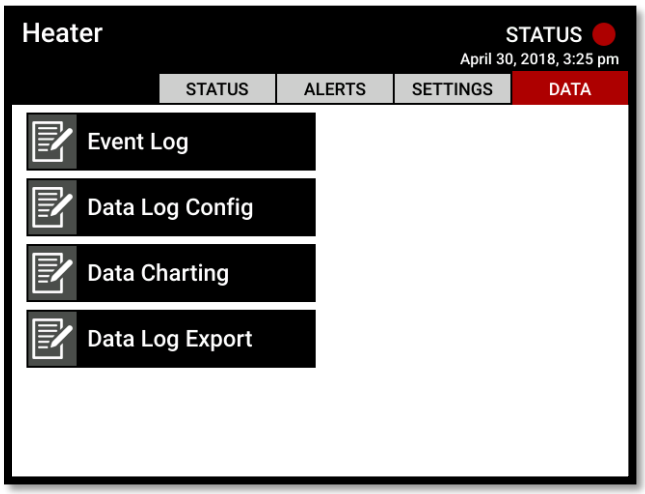



The flame diagnostics screen displays information required to troubleshoot flame quality issues.

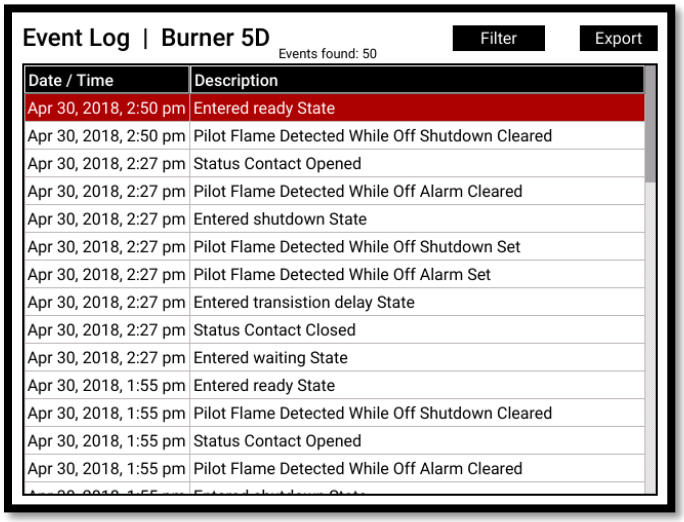


## 5.2. Event Log

The **Event Log** can be found in the **Data Tab** of the **Appliance Status** screen.




Follow the on-screen instructions to select a controller and use the filter to refine the log items. The export option will save the data log to a USB drive (if a USB drive is installed in the User Interface).




For detailed help with troubleshooting follow the link below:

http://3100.profireenergy.com/pf3100-documentation/

# 6. Profire Contact Information

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

**U.S.**

1.801.796.5127
321 South, 1250 West Suite 1
Lindon, UT
84042, USA

solutions@profireenergy.com

**CANADA**

1.780.960.5278
Box 3313, Bay 12, 55 Alberta Ave
Spruce Grove, AB
T7X 3A6, Canada

solutions@profireenergy.com

https://www.profireenergy.com/