

Cleveland Range
DUAL G306
Kettle System
Operator's Manual

Version 2.1



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The purpose of this manual is to guide the operator in the operation of Cleveland Range's kettle processing system. This manual is an overview and not intended to answer any and all questions concerning the operation and functions of the kettle processing system. Please contact Cleveland Range for any and all technical questions concerning this product.

Power-up the Kettle control panel

Turn on the power by switching the “Power” switch on the front of the control panel.


As the system powers up the operator interface screen will display the “Cleveland” logo.



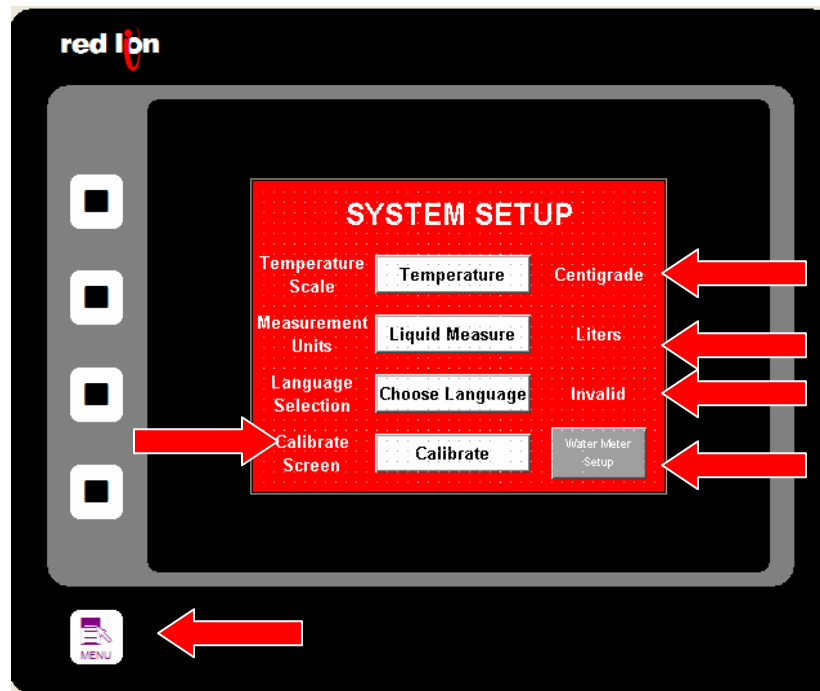
After about five (5) seconds the main menu screen will appear if the “Menu” button is not pressed. During the initial setup the “Menu” button needs to be pressed to access the “Setup Screen”.

Overview

Before we start the actual discussion of the operation of the system, we need to cover some points about the Operator Interface Panel or screen.

- ◆ There are five (5) keys on the face of the panel that are used to bring up various menus. On the kettle panel only the key labeled “Menu” is activated and available for use.
- ◆ The illuminated portion screen is touch activated. The areas that are active on any screen indicated by a colored box that will either jump to another screen, perform some action, or bring up a number pad for data entry.
- ◆ It should also be noted that some buttons or display objects on the various screens are not visible at all times. When a button or display object is not valid, pertinent or active, it will not be displayed.
- ◆ Finally, a couple of notes about this manual. This is not designed to be an inclusive guide for every situation encountered, although every attempt has been made to cover the everyday situations.
- ◆ On several of the screen images there are red arrows that point to buttons or areas of the screen being discussed in the text.  (example)

System Setup Screen



The setup screen allows the selection of temperature units (Centigrade or Fahrenheit), liquid measurement units (liters or gallons), language (English or Spanish), setup the water meter transmitter pulses, and calibrate the touch screen.

Pressing the white “Temperature” button will alternate the temperature units between Centigrade and Fahrenheit.

Pressing the white “Liquid Measure” button will alternate the measurement units between Liters and Gallons.

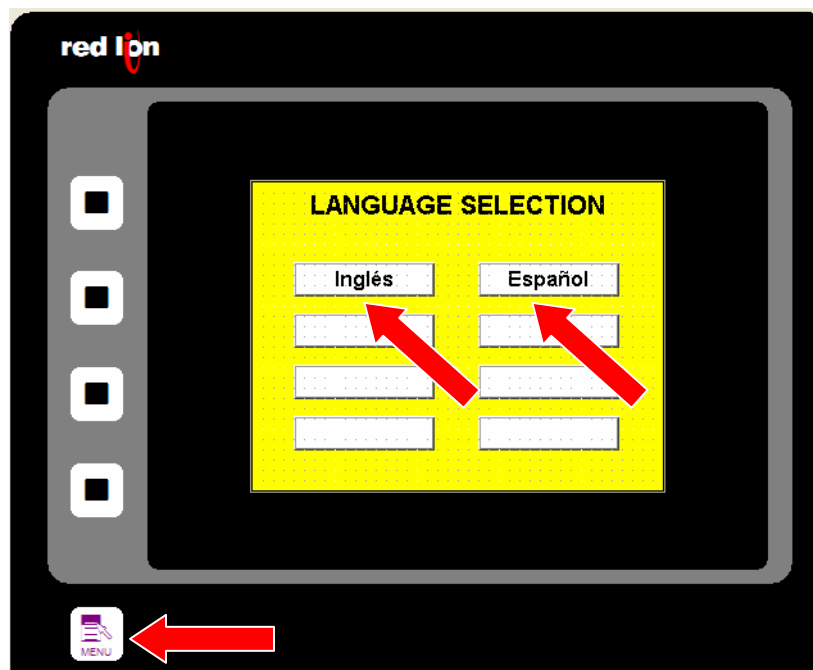
Pressing the white “Choose Language” button will cause the screen to change to the language selection screen.

Pressing the white “Calibrate” button will cause the screen to change to the touch calibrate screen. This screen is not shown and is self-explanatory.

Pressing the gray “Water Meter Setup” button will display the screen used to scale the water meter pulses to units.

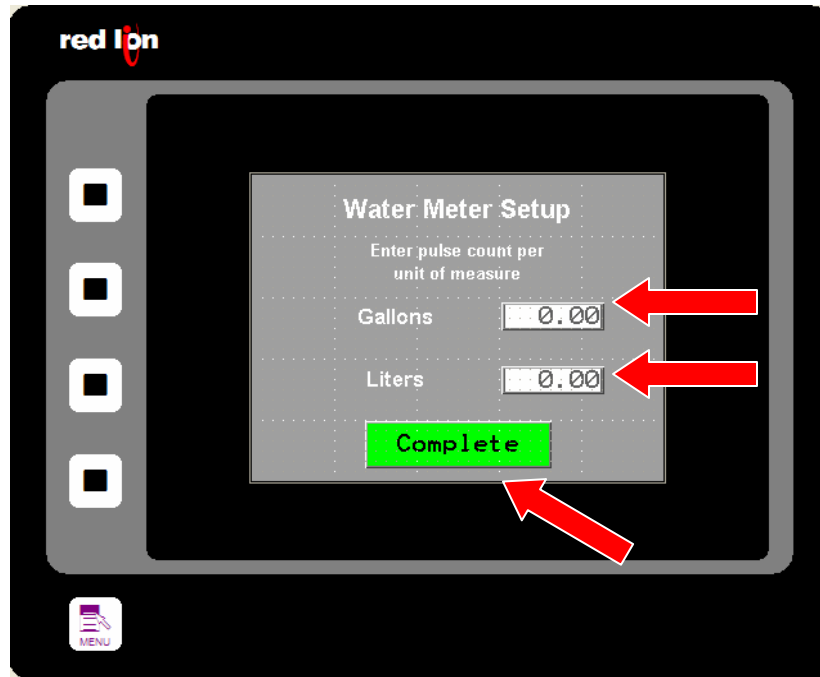
Pressing the “Menu” button will cause the display to jump to the main operating screen.

Language Selection Screen



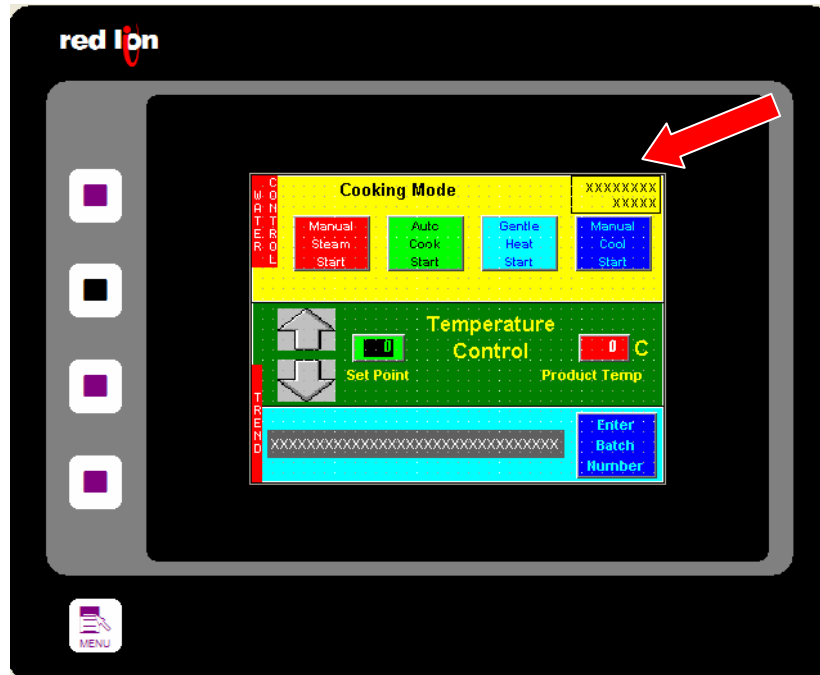
By selecting a language the text in the display unit will be translated to the selected language. While the unit is capable of holding eight (8) languages this unit is only programmed for English and Spanish. After the selection is made pressing the “Menu” button will return to the “Setup” screen.

Water Meter Setup Screen



With this screen the water meter transmitter pulses are entered to scale the water unit readings. The pulse numbers are entered here from the transmitter documentation. Entries can be made for either gallons or liters or both. However, the entry must be made for the unit of measure that has been selected on the setup screen. Entry is made by pressing the desired white square twice. This will bring up a number pad where numbers can be entered. When the correct value has been entered press the green “Complete” button, this will store the value and return the display to the “Setup” screen.

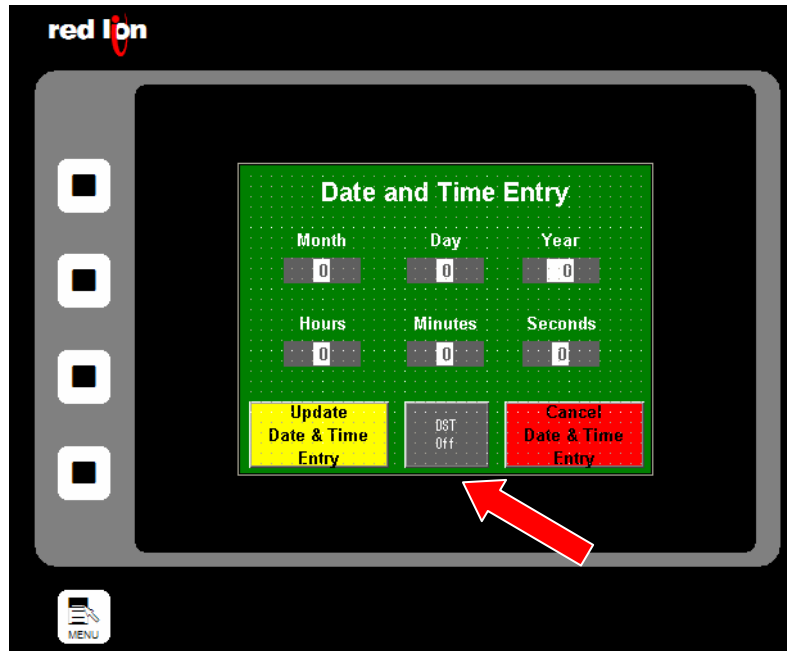
Run Screen



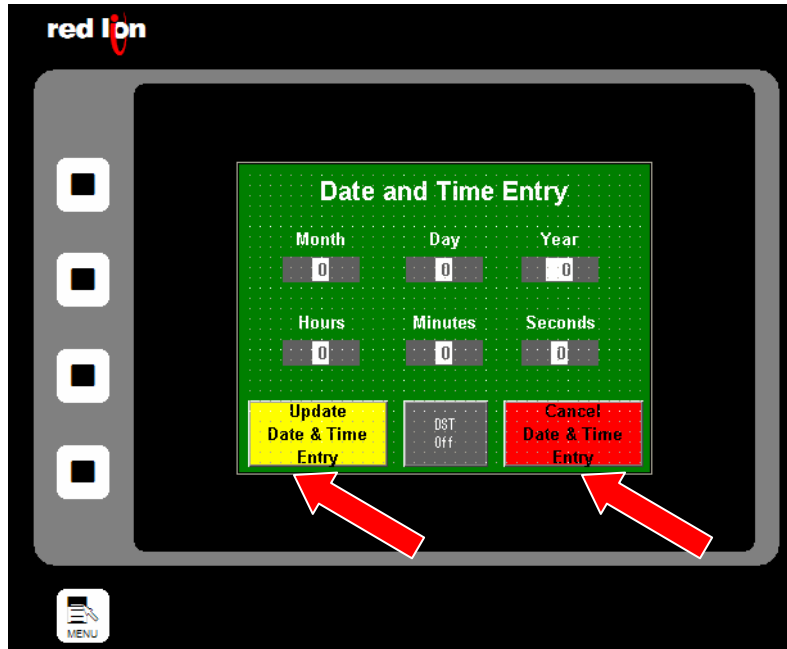
This screen is divided into three (3) sections as indicated by the background colors. The upper yellow section is used to select the operating mode. The center section is used to set and indicate the cooking temperature. And the lower section is used to select and display the batch name/number for the data acquisition process.

Date and Time Entry Screen

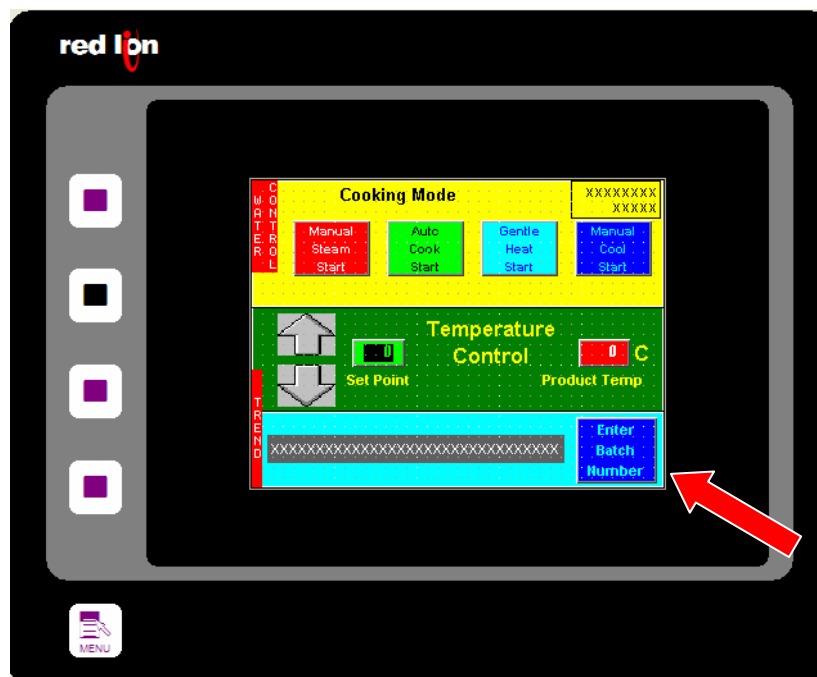
The upper right hand corner displays the current date and time. If these are not correct pressing the date and time block will display the date and time entry screen.



The “Month”, “Day”, “Year”, “Hours”, “Minutes”, and “Seconds” fields respond the same as the other data entry fields. Pressing the field twice will cause the number pad to be displayed for data entry. The “DST” button controls the daylight savings time feature. If the “DST” is ‘on’ one hour is added to the hour field and if the “DST” is ‘off’ an hour is subtracted. This allows the daylight savings time to be turned on or off without manually changing the time. However, the daylight savings time feature is not automatic.



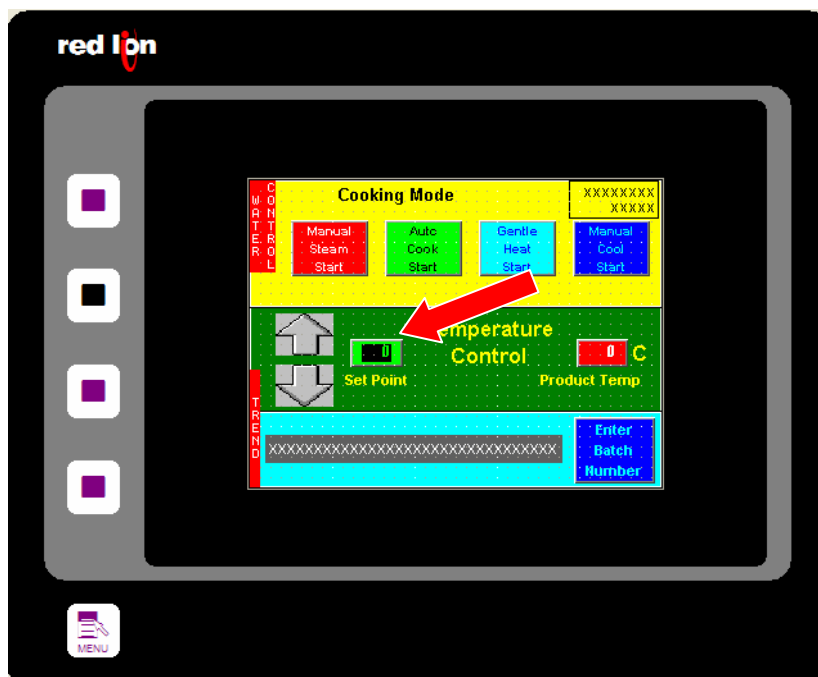
After the date and time has been input the yellow “Update” button must be pressed to save the entry and return the screen to the “Run” screen. If this screen has been selected by mistake the red “Cancel” button can be pressed to return to the previous screen.



First, press the blue “Enter Batch Number” button. This will switch the display to the screen that allows the entry of the batch number.

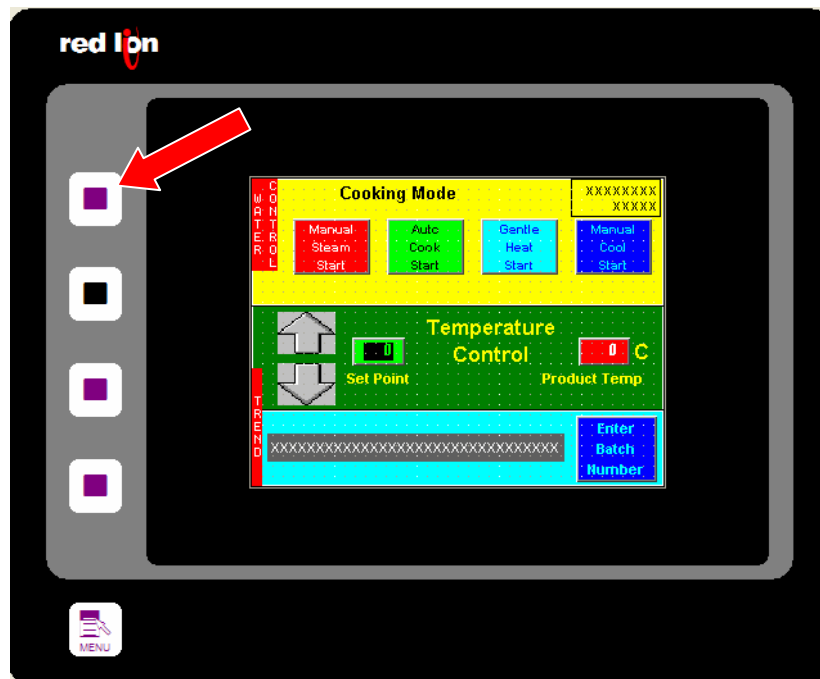


By pressing the gray bordered field an entry pad will appear that has alpha and numeric buttons to indicate the batch name or number used by your firm. Press the enter key on the entry pad to return to this screen. Pressing the “Menu” button will return the display to the “Run” screen.



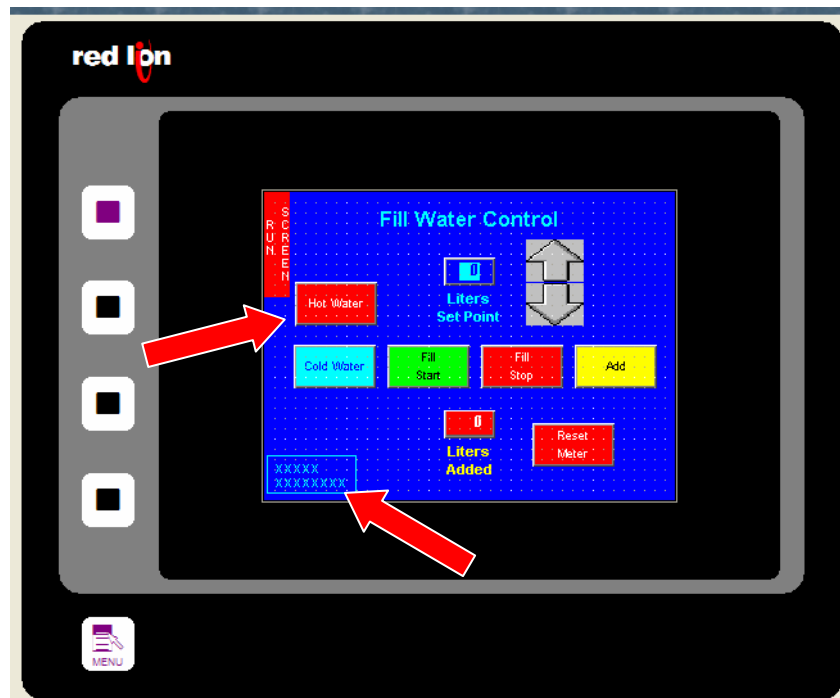
After entering the batch name/number it is now time to select the temperature set point. There are two (2) options for entering the temperature set point; press the green set point field twice which will bring up the number pad entry window; the alternate method is to use the up and down arrows next to the green set point field. The red field will display the temperature that is sensed by the rtd in the kettle

base. This field will be either Centigrade or Fahrenheit depending on the selection during the setup procedure.

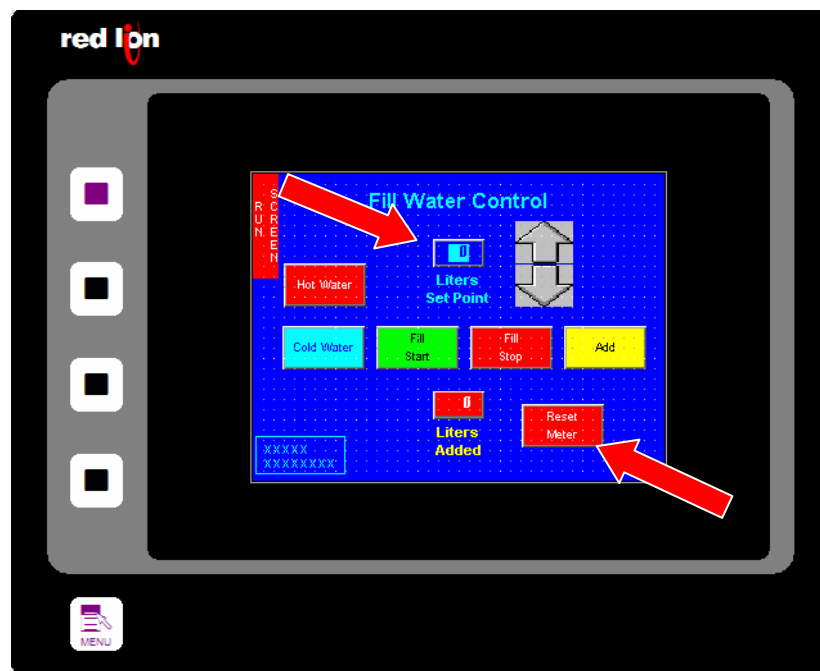


Selecting the “Water Control” button will cause the screen to switch to the “Water Control” screen to enter the water volume to be added to the kettle.

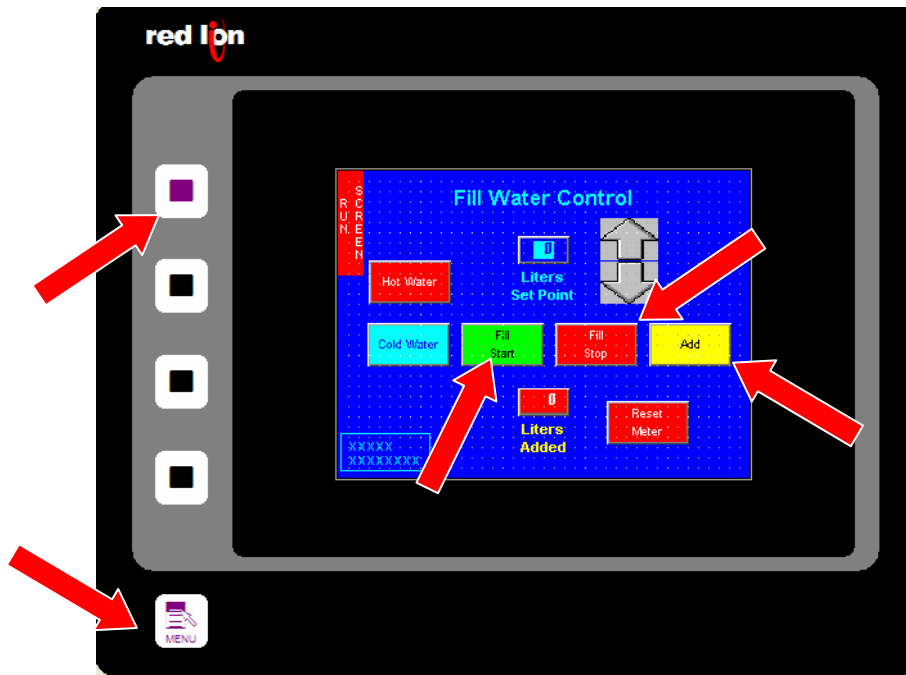
Water Control Screen



This screen controls the water entered into the kettle itself. The water type selection of hot or cold water is controlled here. If the “Hot Water” button is not present this indicates the hot water option is not available. The lower left corner of the screen displays the date and time again. Pressing this block will display the “Date and Time” screen. This screen was explained earlier in this document.

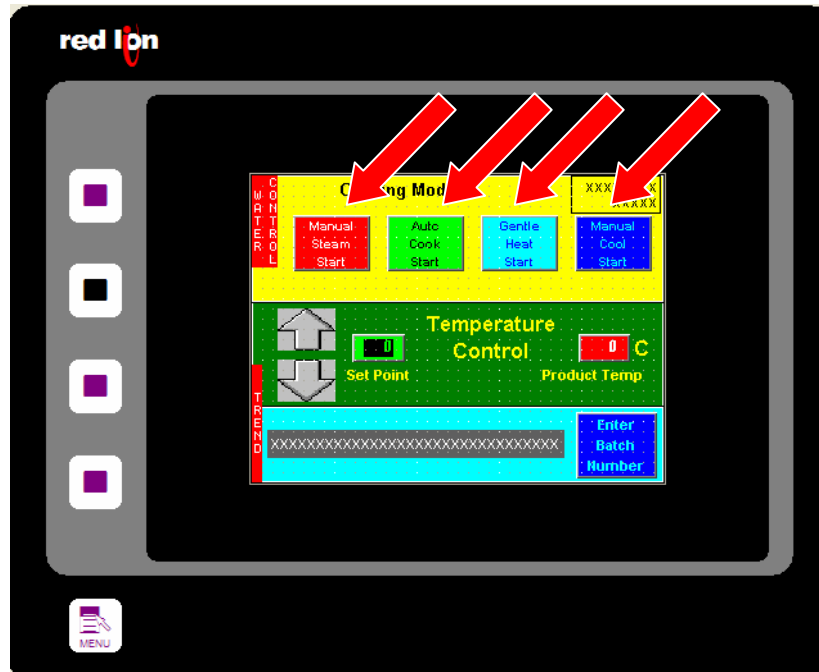


The water meter field must be zeroed prior to starting the fill process to insure the proper amount of water is added. This is accomplished by pressing the red “Reset Meter” button. The measurement will be in gallons or liters based on the setup selection. Select the amount of water to be added to the kettle by using the set point entry field. Again, the data may be entered via the number pad or the up/down arrows. Now select the water type, hot or cold. When one type is selected the other button will disappear.



Pressing the green “Fill Start” button will start the fill process. After the selected amount of water has been added the flow will stop. The fill process can be stopped by pressing the red “Fill Stop” button. Pressing the green “Fill Start” button will restart the filling process. The yellow “Add” button (momentary) will allow additional water to be added, but only while the “Add” button is pressed.

The upper left hand push button or the “Menu” button will return to the “Run” screen to continue processing.



It is now time to select the process mode that is desired. There are three (3) available; “Manual Steam”, “Manual Cool”, and “Auto Cook”.

The manual steam mode applies steam to the kettle. There is no temperature control applied during this mode.

The manual cool mode applies chilled water to the kettle jacket. There is no temperature control applied during this process either.

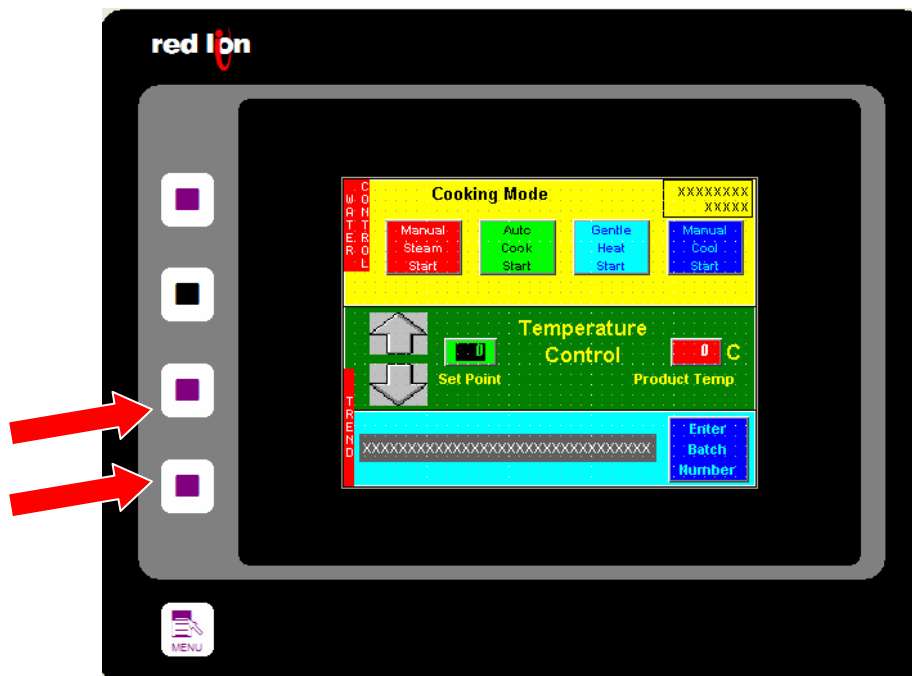
In the auto cook mode full steam is applied to the kettle until the product temperature is within 10^o F (or 4^o C) of the set point, at this time the large steam valve is closed and only the small steam is applied to the kettle. Should the temperature once again move outside the 10^o/4^o range the large steam valve may again open. This process will continue until stopped by the operator.

The “Gentle Steam” button will prevent the large steam valve from opening.

Data Logging

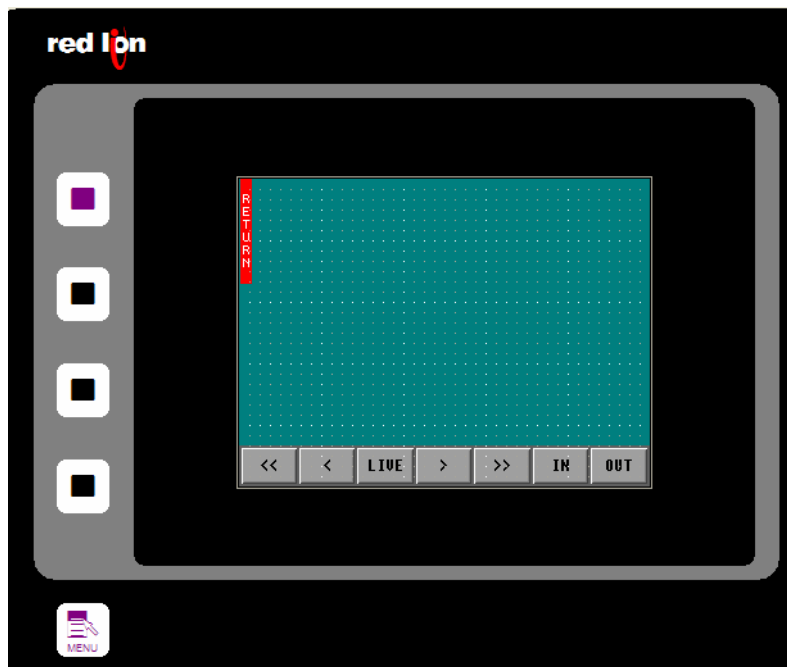
When any of the three (3) processing modes are selected the screen will start logging data on to the memory card and will continue to do so until the selected mode is stopped.

The data log files are in the industry standard comma separated variable (.csv) format. This allows the data files to be opened and viewed with Microsoft Excel. The card must be removed from the display screen to extract and view the files. To read these files requires a compact flash card reader. This card reader may be purchased from most office supply stores. Spare cards are advisable so the log files can be retrieved without interrupting the operation of the kettle systems. Additional information about the compact flash cards and their removal from the display see the Red Lion G306 data sheet.



Anytime one of the processing modes is active the “Trend” screen will be active. This screen is viewable by pressing one of the two (2) lower left display buttons. It should be noted that this screen is viewable at anytime, but it is only active during an operating mode of heating or cooling.

Trend Screen

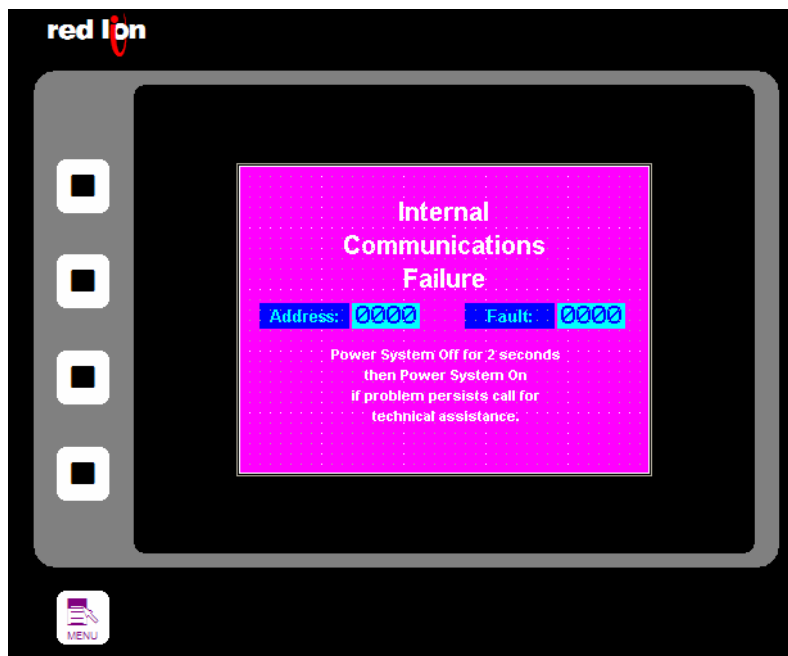


The following five (5) item values are displayed in the lower third of the “Trend” screen: Product ID (batch name/number), Kettle activity (processing mode), Gentle heat (on or off), Product temperature set point, and Product temperature. The temperature set point and product temperature are also plotted on the upper two-thirds of the screen over time.

The buttons across the lower portion of the screen allow changes in the on screen plot; varying the time scale of the plot, reviewing past data of the current plot, and returning to the active plot mode.

The upper left button will return the screen to the “Run” screen.

Communications Failures



If there is a communications failure between the processor and the analog card which measures the product temperature the above screen will be displayed. Please note the values in the “Address” field and the “Fault” field. This information will be valuable in troubleshooting any persistent communication problem.