



#### IMPORTANT INFORMATION FOR FUTURE REFERENCE

Record the following information from the appliance ID plate and retain this manual for the life of the equipment:

Model #: \_\_\_\_\_

Serial #: \_\_\_\_\_

Date Purchased: \_\_\_\_\_

English

## OPERATIONS MANUAL for Pitco P/N's 60198501 (Full/Split Vat)

**VS7 Infinity Cooking Computer**  
**w/ Options: Auto-Filter, Auto-Top-Off, Filter Data Function, and Oil Quality**



This control was developed specifically for Pitco fryer products. It utilizes the latest in microprocessor technology and is completely solid state. This control offers the latest cooking technology, including temperature and time compensation that requires no user adjustments for consistently cooked product. Other features include, drain valve interlock, faulty probe detection, selectable melt cycles, beeper volume, and cook temperature.

This manual details the operation and adjustment of the Solstice VS7 Cooking Computer For Solstice and ROV Fryers. The target audience for this text is the Service Technician. This manual reveals all adjustments that are possible by keyboard entry, including passwords.



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## 1 Basic Controller Functions

### 1.1 Turning Appliance On

If power is applied to the appliance, the display will show the screen in Figure 1, below.



Figure 1 - Home Screen



Press the  button and the screen will transition to Figure 2.



Figure 2- Main Menu

### 1.2 Turning off the appliance

At any time the operator can press  to turn off the appliance.

### 1.3 **Checking Fryer Status**

To check the fryer status the operator must select the “Cook Key” as shown in Figure 2 page 1. The control will transition to one of three possible screens Figure 3 Melt, Figure 4 Heating or Figure 5 Ready.

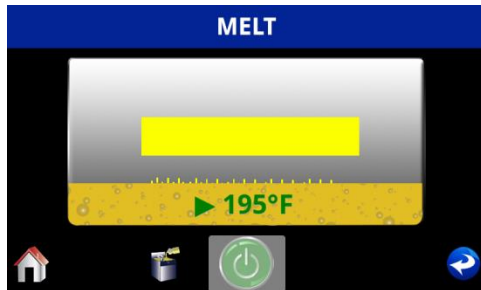


Figure 3 - Melt

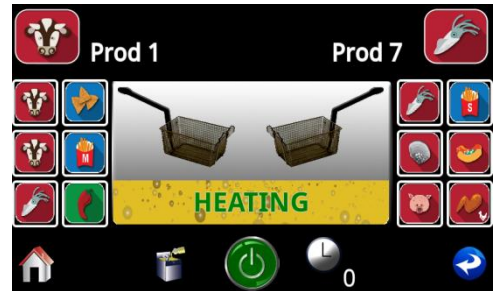


Figure 4 - Heating

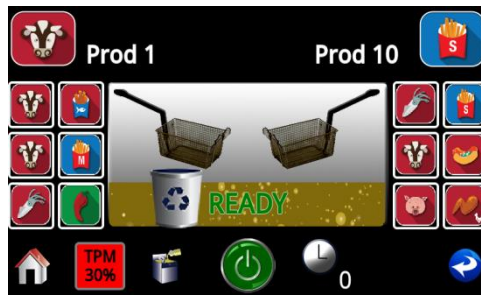


Figure 5 - Ready

### 1.4 **To Start a Cook**

With the control showing “Ready” as in Figure 5, the operator may select any of the six “quick” menu items shown in Figure 6.



Figure 6 - Quick Menu Buttons

Or the operator may select from all the programmed cook recipes by pressing either of the **Large** “Menu” item buttons, shown in Figure 7. Then selecting the appropriate menu item from the list Figure 8.



Figure 7 - All Recipe Options



Figure 8 - All Recipes

### 1.5 To Cancel a Cook

To cancel an active cook with the lowest time remaining, the operator can simply press the basket icon that corresponds with the cook the operator wishes to cancel Figure 9.



Figure 9 - Cancel A Cook


Additionally, the operator can press the  icon shown in Figure 10. This will show all active cooks that can be canceled Figure 11.



Figure 10 - Number of Active Cooks

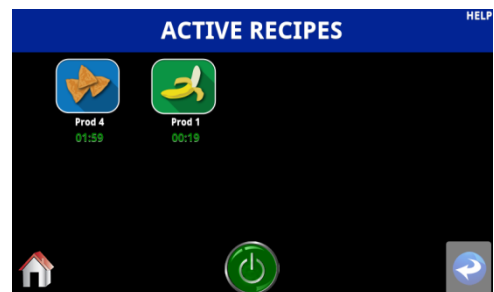


Figure 11 - Active Cooks

### 1.6 **To Start a Cook – Lane Control (Option)**

When “Lane Cooking” is enabled the operator must first choose the product to cook, Figure 12, and then basket, Figure 12. Once both have been selected the screen will show the basket cooking and the product in that basket, Figure 13.



Figure 12 - Lane Cooking



Figure 13 - Lane Cooking (Active)

### 1.7 **To Cancel a Cook – Lane Control (Option)**

See Section 1.5 for how to cancel a cook.

### 1.8 **No Recipe Mode – Option**

When “No Recipe Mode” is enabled, the controller will function as T-Stat control. No recipe times will be displayed to screen, only “Ready”, “Heating”, and actual/set point temperature.

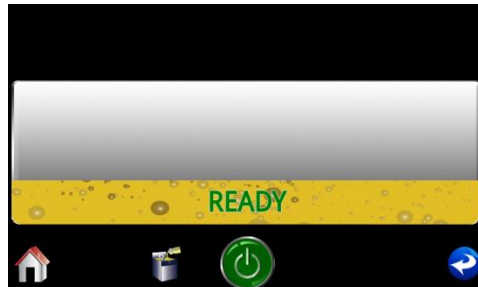


Figure 14 - No Recipe/Baskets



### 1.9 To Check Actual and Set Temperatures

With the unit showing “Ready”, “Melt”, or “Heating” the text can be pressed once to show the current temperature Figure 15 and pressed again to show the set point Figure 16.



Figure 15 - Current Temperature



Figure 16 - Current Set Point

### 1.10 To View Current Settings for Cook, Shake, Hold, and Hold Pre-Alarm

To view the current settings for a product key, the operator can, from the main menu, press the “Recipe Key” Figure 17. This will bring the user to the “Recipe Editor Screen” Figure 18. Here the operator can select any programmed recipe to view its settings Figure 19.

Editable Settings:

1. Recipe Name
2. Cook Time
3. Shake Time
4. Hold Time
5. Hold Pre-Alarm Time



Figure 17 - Enter Recipe



Figure 18 - Recipe to Edit



Figure 19 - Recipe Editor

### 1.11 **To Add or Change a Product Cook, Shake, Hold, and Pre-Alarm Time**

To add a product, press the check mark shown in Figure 18 a new blank recipe will show up at the end of the recipe list shown as . Or the operator can edit existing product recipes following the steps in Figure 17, Figure 18, and Figure 19 on page 8 and proceed with this section.



The user needs to press the key to save a modified recipe. The user may be prompted to “Create a New Recipe?” this is because the user has changed the recipe name, select the key to continue with recipe edits.

#### 1.11.1 Recipe Name

- Select Recipe name and the screen will transition to a keypad, Figure 20.
- Enter new recipe name, Figure 21.
- When complete use the to accept changes.



Figure 20 - Edit Old Recipe Name



Figure 21 - New Recipe Name

### 1.11.2 Cook Time


- From the recipe editor screen the operator can select cook time.
- The cook time can be modified by the keypad as show in Figure 22.
- When complete use the  to accept changes.



Figure 22 - Edit Recipe Time

### 1.11.3 Shake Time

Shake time is an alarm that sounds during the Cook Time to prompt the operators to shake the basket. Default from this value is zero, meaning that Shake Time is inactive. To use Shake time, the time value must be a non-zero value, and, must be set to a value less than the cook time.

*NOTE: The value entered for shake time is the time from the **END** of the cook*


- From the recipe editor screen the operator can select shake time.
- The shake time can be modified by the keypad as show in Figure 23.
- When complete use the  to accept changes.



Figure 23 - Shake Time

#### 1.11.4 Hold Time

Cook product may stand in holding bins for a period of time. This timer produces and audible alarm to inform operators to discard old product and start a new cook.

*Default for this value is zero, meaning the Hold Time is inactive.*


- From the recipe editor screen the operator can select hold time.
- The hold time can be modified by the keypad as show in Figure 24.
- When complete use the  to accept changes.



Figure 24 - Hold Time

#### 1.11.5 Hold Pre-Alarm

Hold Pre-Alarm is a time that is used to warn operators that the Hold Time is about to expire. To use Hold Pre-Alarm, the time value must be a non-zero value, and, must be set to a value less than the Hold Time.

*Default value is zero, meaning that the Hold Pre-Alarm Time is inactive.*



- From the recipe editor screen the operator can select Hold Pre-Alarm time.
- The Hold Pre-Alarm time can be modified by the keypad as show in Figure 25.
- When complete use the  to accept changes.



Figure 25 - Hold Pre-Alarm Time

### 1.12 To Delete a Recipe

From the “Select Recipe to Edit” screen, press and hold down on the recipe to delete until a “check mark” appears on the recipe Figure 27. Once this recipe selected press the “Minus” key and the message in Figure 28 will appear. Select  to delete the recipe.

*Note: Multiple recipes can be selected at one time.*



Figure 26 - Recipe to Edit



Figure 27 - Recipe to Delete



Figure 28 - Delete Recipe Y/N



Figure 29 - Recipe Removed

### 1.13 Perform a Boil Out Operation


Normal maintenance of a fryer requires regular tank cleaning. This process involves draining the vat of oil and filling with water. Cleaning solution is added, and the control is set to boil by one of the following methods.

#### 1.13.1 Automatic Boil Entry (Water Detection)

Fill the appliance with water and turn the appliance on. Heat will be applied to the vat warming the water. This control will detect the presence of water by temperatures not rising above the boiling point of water; 212°F (100°C). After a time at this temperature, display will show: Figure 30.



Figure 30 - Boil Mode Detection

Heat will be disabled until the operator responds to this prompt. Pressing  key accepts the boil not prompt. The screen will show "Boiling" Figure 31 and maintain a temperature of 190°F for cleaning as long as the control remains on. To exit boil mode the control must be turned off.

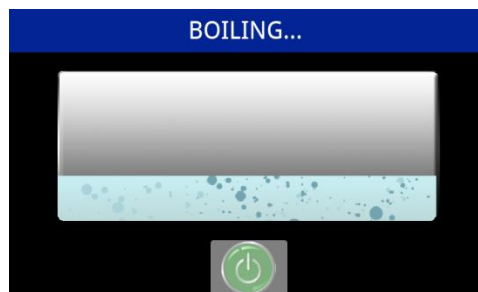



Figure 31 - Unit Boiling

**Warning: Pressing the  key at the "Detect Boil Mode" screen Figure 30 means the control will apply heat to the vat as if oil were present in the vat. With water in the vat, a rolling boiling will result. This will cause undesirable foam over condition and a potential steam burn hazard to operators performing cleaning operations.**

### 1.13.2 Manual Boil Entry

After filling an empty vat with water, turn the appliance on. Press the “Boil” on the Main Menu screen Figure 32.



**Figure 32 - Manual Boil Entry**

If the vat temperature is too high to enter boil mode the screen will show “Vat Temperature too High” Figure 33.



**Figure 33 - Cannot Boil**

## 2 Oil Handling and Fryer Operations

### 2.1 Fresh Oil Top off

The fresh oil top-off system allows the operator to add oil to the vat to compensate for loss due to normal product draw-out. The top-off system is not intended for the refilling of an empty vat.


To add fresh oil to the vat on-demand, press and hold the  key, which is located on the “Off Screen” Figure 34 and the cooking screen Figure 35.



Figure 34 - Off Screen Top off

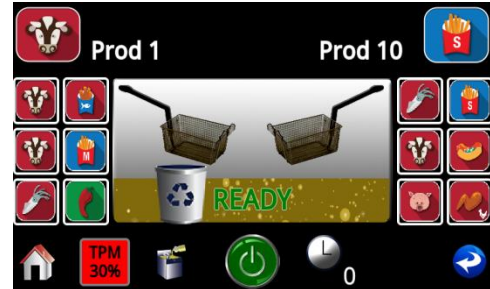


Figure 35 - Cook Screen Top off


- Release the Top-Off key when oil has reached an optimal level.
- Use the Left or Right  to top-off the Left or Right Vat, respectively, for split vat fryers Figure 36 and Figure 37.
- Manual top-offs are not permitted while there is an active cook.



Figure 36 - Off Screen Top off (Split)



Figure 37 - Cook Screen Top off (Split)

This computer also supports the Auto Top-Off system (Option), where low oil levels will automatically be detected and oil added. This system has no operator interface.

- To disable the Auto Top-Off system, see Section 8.9.



## 2.2 Manual Filtering

This section applies to fryer configurations **without** the Automatic Filtering Option.

### 2.2.1 Filter Control (Option)

The filter return pump can be activated and deactivated through the filter function displayed when the drain valve is pulled. Activating the filter return will move oil from the filter pan to the user selected fry vat.

With no cooks running and the display showing “Melt”, “Heating”, “Ready”, or “Off.”

To start the filter process from the filter menu select “Filter” or pull the drain handle. Then follow on screen prompts.

To start the return pump for the vat, press the “Filter” key Figure 38.

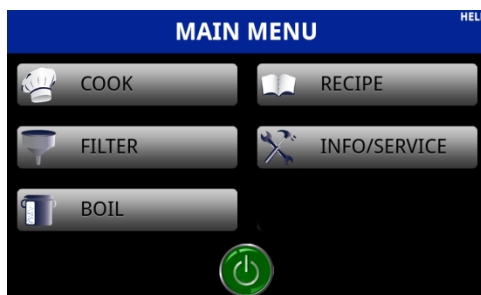


Figure 38 – Melt, Heating Ready

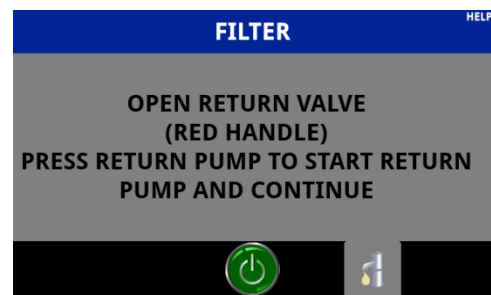





Figure 39 – Filter Return Pump

- If the fryer is a split vat screen will show Figure 39 will be displayed. To return oil to the Left vat, press the  for the left vat, or to return oil to the Right vat, press the  for the right vat. Figure 40.
- Screen will show “Filter Return.”  
To stop the return pump, press the  key. The controller will show the off screen.

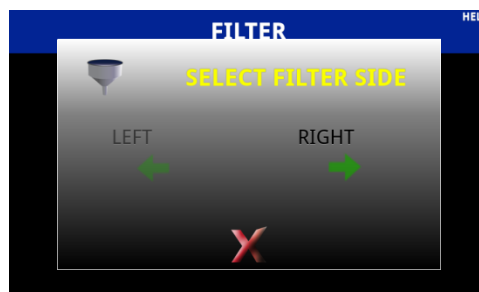


Figure 40 – Manual Filter Split

### 2.2.2 FDF Triggering (Option)

With the display showing “Heating” or “Ready”, and FDF is enabled, and the current vat temperature above the set minimum filter temperature. (Section 8.5)

- Pull the drain valve to begin a filter.
- Choose filter type:
  - The display will show “Filter”, “Polish”, and “Disposal.” Figure 41
  - Press the appropriate function the operator wishes to perform.

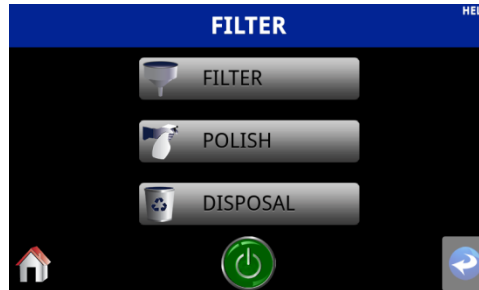


Figure 41 - Filter Functions (Drain Handle)

- This will change the display to show a countdown timer based on the filter operation selected and the user settings in Sections 7.
  - The drain must remain open while the countdown timer is running. Figure 42

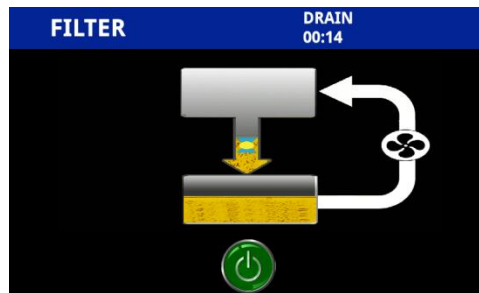



Figure 42 - Draining

- Follow the store procedures for filtering and wait until the timer completes.
  - To start the return pump follow the instructions on the screen Figure 43.
- Once the timer has expired, the display will show Figure 44, press the  and the fryer will go to “OFF”.

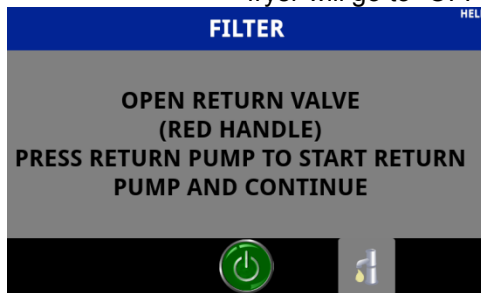


Figure 43 – Filter Return Pump ON

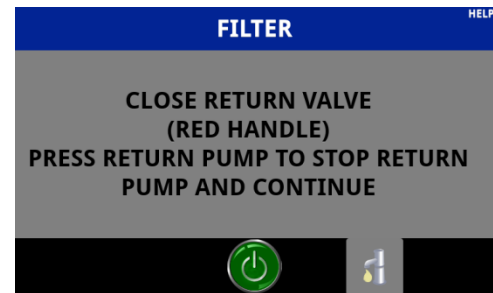


Figure 44 Return Filter Pump OFF

### 2.3 Automated Filtering (Option)

This computer supports the use of automated oil processes FILTER, POLISH, and DISPOSE Figure 45. After the selection of a process, the operator will be prompted with a series of questions verifying the current state of the fryer battery – as outlined by the “Initiate Check List” below. **Failure to properly comply with the check list may result in unsafe or undesirable conditions.** Once all prompts have been affirmed, the selected automated function will begin.



Figure 45 - Filter Function Selection

#### Initiate Check List



- **“Filter pan in-place and empty?”** – Check the filter pan and verify it is fully in place and empty. Figure 46
  - If the pan is ready, press the  key and continue.
  - If the pan is not ready, press the  key, resolve the filter pan condition, and start over.



Figure 46 - Filter Pan Empty?



- **“Sense Oil Quality?”** Figure 47
  - If the operator wants to perform an oil quality measurement, press the  key.
  - If the operator wants to skip/defer and oil quality measurement, press the  key.



Figure 47 - Sense Oil Quality?



- **“Auto Filter Now?”** - Confirm the selection. Figure 48
  - Press the  key to start.
  - Press the  to cancel.
  - Countdown process will begin. Figure 49



Figure 48 - Auto Filter Now?

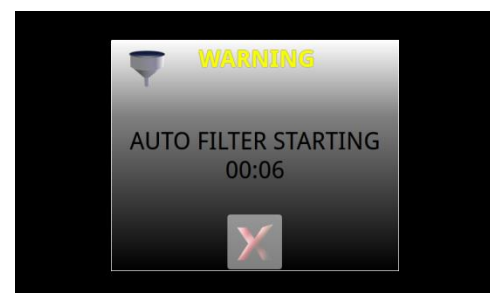


Figure 49 - Autofilter Countdown







When automated processes filter and polish are complete, the operator will be prompted to verify the current state of the battery – as outlined by the “Acknowledge Check List”. Once all prompts have been affirmed, the fryer will return to “OFF”.

Acknowledge Check List

- **“Is Vat Full?”** – verify the frypot has reached an appropriate oil level and the filter pan is completely empty. Figure 50



Figure 50 - Is vat full?

- If the filter pan is empty, press the  key to complete.
- If there is still oil in the filter pan, press the  key to run the pump for 20 additional seconds. “Is Vat Full?” will be prompted again when complete.
- Note:  may be selected from “Is Vat Full?” a maximum of three times.
- The fourth time  is selected, the fryer will turn “OFF” and display “Possible Filter Issue – Check and Resolve” Figure 51. Press either the  or the  to acknowledge.

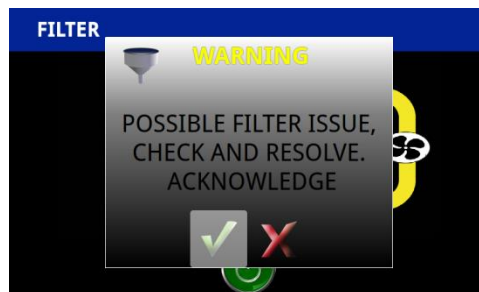


Figure 51 - Possible Filter Issue

### 2.3.1 Automatic Filtering

The automated filtering process will open the drain and move oil from the vat to the filter pan, close the drain, and pump oil back to the vat. This allows for a quick filter by passing oil through the filter medium once.

With no cook timers running and the display showing “Ready”.

To perform automatic filter, press the key Figure 52, Filter key Figure 53, Filter Key Figure 54.



Figure 52 - Select Home Key



Figure 53 - Select Filter Key

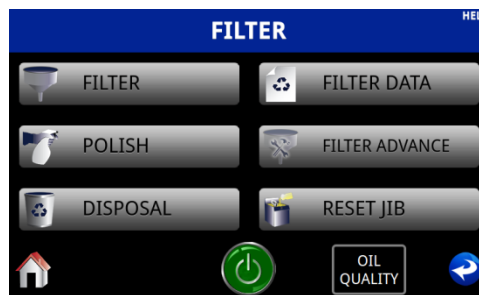


Figure 54 - Select Filter Key

- If the fryer is a split vat, the screen will display “Filter Left or Right”. To perform a filtering operation on the left vat, press the “LEFT ARROW”, or to perform a filtering operation of the right vat press the “RIGHT ARROW”. Figure 55

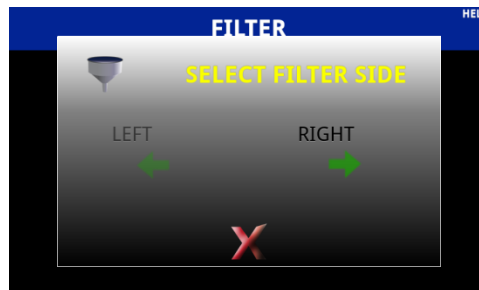


Figure 55 - Filter Left/Right (Split)

- Follow the “Initiate Check List” procedures outlined page 19.
- Wait until automated filter process completes.
- Follow the “Acknowledge Check List” procedure outlined page 21.
- Display will return to the “OFF” state when complete.

### 2.3.2 Auto Polishing

The automated polishing process will open the drain and move oil from the vat to the filter pan, and then the filter return pump. Oil will cycle through the vat and the filter pan, making multiple passes through the filter medium. After a set amount of time, the drain will close oil will be pumped back to the vat. This allows for a longer filtering period to remove more debris from the oil – extending oil life and increasing oil quality.

With no cook timers running and the display showing “Ready”.

To perform automatic filter, press the key Figure 56, Filter key Figure 57, and Polish Key Figure 58.



Figure 56 – Press Home Key



Figure 57 - Press Filter Key

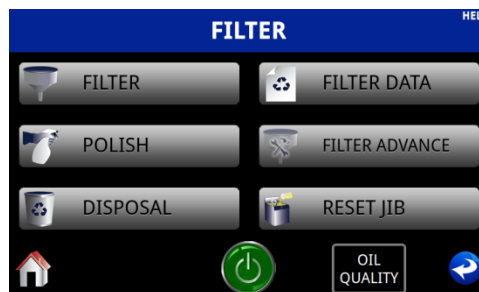


Figure 58 - Press Polish Key

- If the fryer is a split vat, the screen will display “Polish Left or Right”. To perform a polishing operation on the left vat, press the “LEFT ARROW”, or to perform a polishing operation of the right vat press the “RIGHT ARROW”. Figure 59

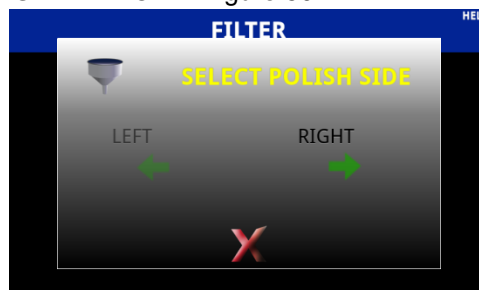


Figure 59 - Polish Left/Right (Split)

- Follow the “Initiate Check List” procedures outlined page 19.
- Wait until automated polishing process completes.
- Follow the “Acknowledge Check List” procedure outlined page 21.
- Display will return to the “OFF” state when complete.

### 2.3.3 Automatic Disposal

The automated disposal process will open the drain and move oil from the vat to the filter pan, or other disposal vessel and then close the drain once empty. The operator may now dispose of oil from the filter pan.

With no cook timers running and the display showing “Ready”.

To perform automatic filter, press the “HOME” key Figure 60, Filter key Figure 61, and Dispose Key Figure 62.



Figure 60 - Press Home Key



Figure 61 - Press Filter Key

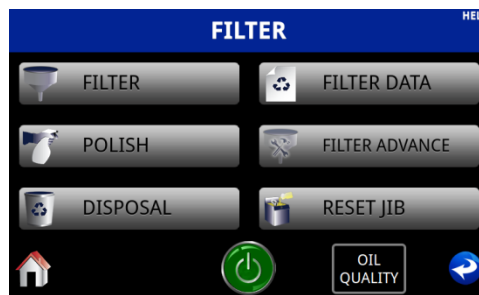


Figure 62 - Press Dispose Key

- If the fryer is a split vat, the screen will display “Dispose Left or Right”. To perform a dispose operation on the left vat, press the “LEFT ARROW”, or to perform a dispose operation of the right vat press the “RIGHT ARROW”. Figure 63

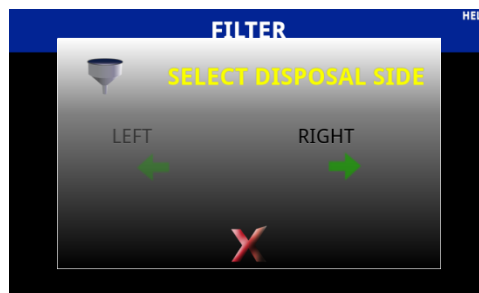


Figure 63 - Disposal Left/Right (Split)

- Follow the “Initiate Check List” procedures outlined page 19.
- Wait until automated dispose process completes.
- Follow the “Acknowledge Check List” procedure outlined page 21.
- Display will return to the “OFF” state when complete.



### 2.3.4 Blocked Drain

During all automatic sequences listed above, the message **ALERT – DRAIN CLOSING – REMOVE TOOLS** will appear with an audible alert for 10 seconds prior to the scheduled closure of the drain. Remove tools, such as a clean-out rod, from the drain. Failure to do so could cause damage to the equipment. Figure 64

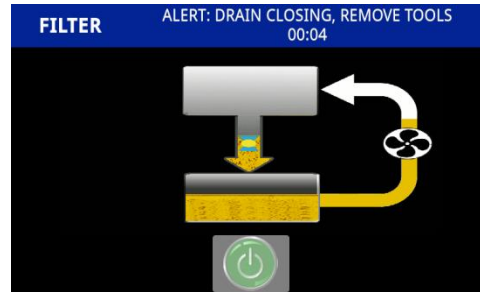


Figure 64 - Alert: Drain Closing

If a clean-out rod is accidentally caught in a closed drain, **DO NOT FORCEFULLY PULL OR OTHERWISE TRY TO REMOVE THE TOOL**. The drain will automatically reopen – remove caught tool at that time. After 10 seconds, the drain will close again and the automatic sequence will proceed normally. If the drain is unable to close for a second time, it will automatically reopen again and stop the return pump.

The display will show the message **CLEAR BLOCKED DRAIN – RETRY?**, Figure 65 If there is a tool still in the drain, remove it and press the YES key to continue. If there is no tool in the drain, use a clean-out rod to attempt to clear any drain obstruction, remove the clean-out rod, and press the YES key to continue. Once the drain is detected fully closed, the automatic sequence will complete normally.

If after 3 retry attempts, or if the NO key is pressed when prompted to *retry*, the drain will remain open and the fryer becomes inoperable. The display will show message **OFFLINE – CALL SERVICE – ERR 2002**, Figure 66. Call for service (603-225-6684) to resolve the blocked drain issue. Other fryers will be able to operate and filter normally.

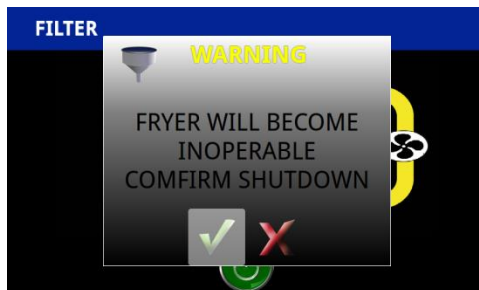


Figure 65 - Clear Blocked Drain

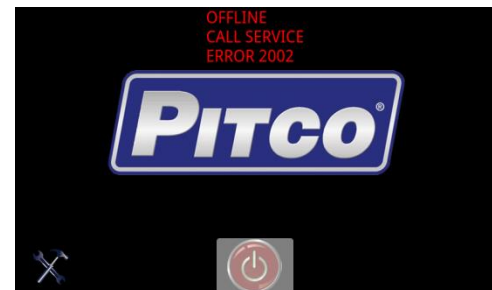


Figure 66 - Call Service

## 2.4 **Advanced Fryer Operations (For Automated Filtering Option)**

The advanced fryer operation menu can be used to manually control the drain valve and return pump for processes such as oil rotation, custom cleaning procedures, and recovery from an interrupted automatic process.

With no cook timers running and the display showing “Melting”, “Heating”, “Ready”, or “OFF”.

The advanced oil handling menu functions in a Select-and-Confirm interface. While in the advanced oil handling menu. Select “Filter Advanced” Figure 67 this will bring the operator to the advanced filtering options Figure 68.



Figure 67 - Filter Menu

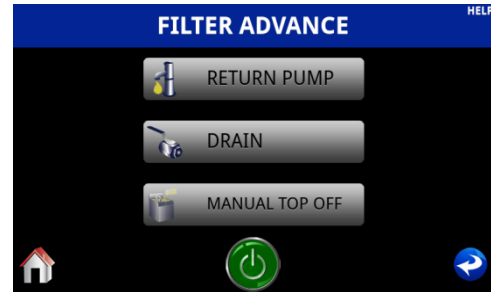


Figure 68 - Advanced Filtering

When a desired function has been selected Figure 68. The specific action is indicated on the display, which varies with the selected function Filter Return, Drain and Manual Return.

### 2.4.1 Full Vat/Left Return Pump

While in advanced oil handling menu, press the return pump (Left). Figure 68

- Display will change to Figure 69.
- Press the key to run the pump and return oil to the target vat from the filter pan.
- Display will show Figure 70.
- Press the key to stop the pump. (If the function is still running and the advanced oil handling menu is exited while the Return is active, the pump will stop automatically.)
- Press the or key to exit.

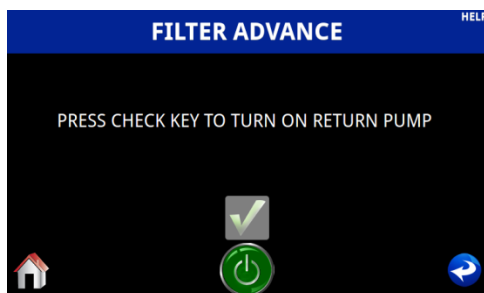


Figure 69 - Return Pump (Off)

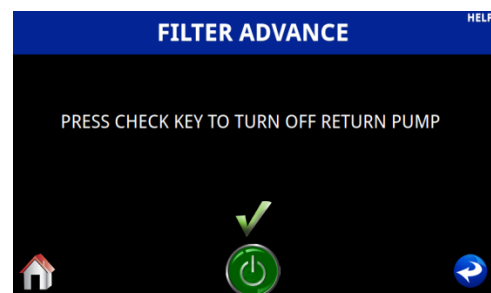






Figure 70 - Return Pump (On)

#### 2.4.2 Full Vat/Left Drain Valve

While in advanced oil handling menu press the Drain (Left). Figure 68 page 26

- Display will change to Figure 71.
- Press the  key to open the drain valve for oil to flow into the filter pan.
- Display will show Figure 72.
- Press the  key to Close the drain valve. (If the function is still running and the advanced oil handling menu is exited while the drain is open, the drain will close automatically.)
- Press the  or  key to exit.

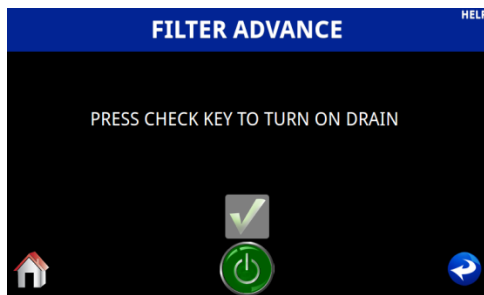


Figure 71 - Drain (Closed)

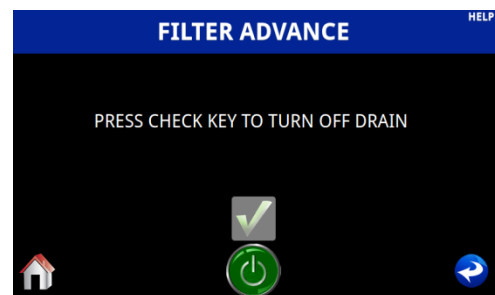






Figure 72 - Drain (Open)

#### 2.4.3 Full Vat/Left Manual Top-Off

While in advanced oil handling menu press the Drain (Left). Figure 68

- Display will change to Figure 73.
- Press and Hold the  key to manually add fresh oil to the vat.
- Display will show Figure 74.
- Release the  key to turn off the pump.
- Press the  or  key to exit.

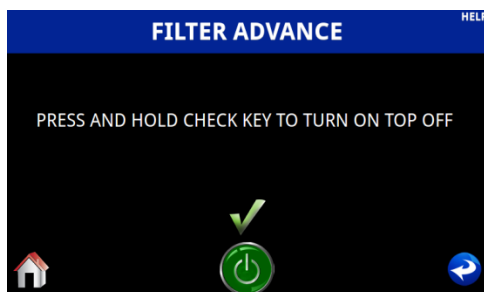


Figure 73 - Manual Top-Off (Off)

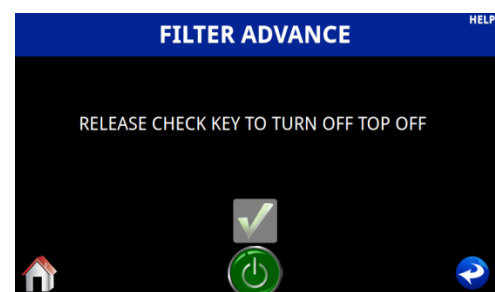






Figure 74 - Manual Top-Off (On)

#### 2.4.4 Right Return Pump (Split Vat Only)

While in advanced oil handling menu, press the return pump (Right) (Split Vat Only).  
Figure 75.



Figure 75 - Split Vat Return Pump

- Display will change to Figure 76.
- Press the  key to run the pump and return oil to the target vat from the filter pan.
- Display will show Figure 77.
- Press the  key to stop the pump. (If the function is still running and the advanced oil handling menu is exited while the Return is active, the pump will stop automatically.)
- Press the  or  key to exit.

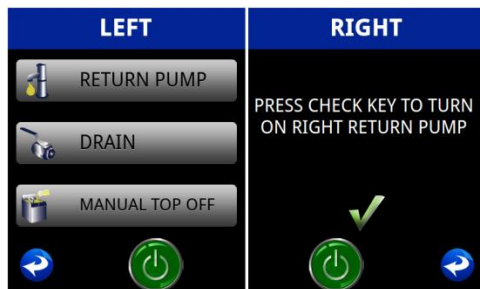


Figure 76 - Split Vat Return Pump (Off)

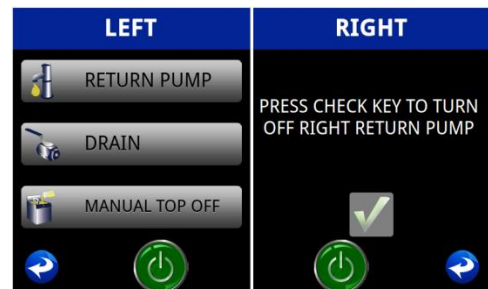


Figure 77 - Split Vat Return Pump (On)

#### 2.4.5 Right Drain Valve (Split Vat Only)

While in advanced oil handling menu press the Drain (Left) Figure 76 page 28

- Display will change to Figure 78.
- Press the key to open the drain valve for oil to flow into the filter pan.
- Display will show Figure 79.
- Press the key to Close the drain valve. (If the function is still running and the advanced oil handling menu is exited while the drain is open, the drain will close automatically.)
- Press the or key to exit.



Figure 78 - Split Vat Drain Closed

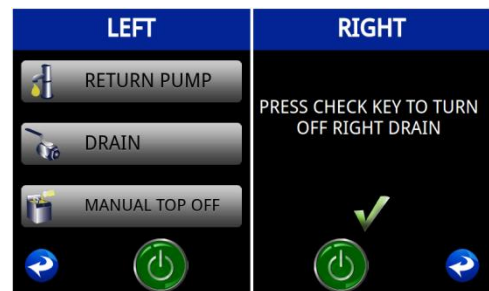


Figure 79 - Split Vat Drain Open

#### 2.4.6 Right Manual Top-Off (Split Vat Only)

While in advanced oil handling menu press the Drain (Left) Figure 76 page 28

- Display will change to Figure 80.
- Press and Hold the key to manually add fresh oil to the vat.
- Display will show Figure 81.
- Release the key to turn off the pump.
- Press the or key to exit.

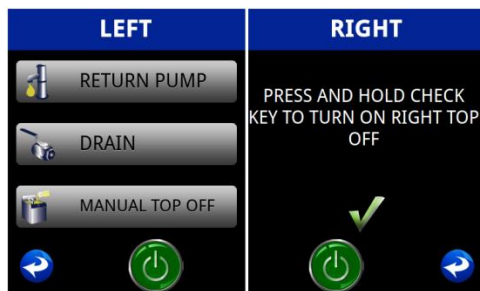


Figure 80 - Split Vat Manual Top-Off (Off)

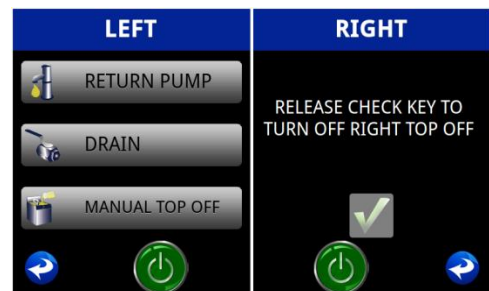



Figure 81 - Split Vat Manual Top-Off (On)

## 2.5 **Smart Oil Sensor(SOS) (Optional)**

Before or during the filtration process the operator may be prompted to opt in or out of a SOS oil quality reading. Opting in to the oil quality reading an automated system will take over and perform the process for the operator. If the appliance is an automatic system the SOS reading will be integrated into the automatic filtering process. If the system is a manual filter system the unit will wait for the next user input to continue after the reading is completed.

### 2.5.1 **SOS Manual Process**

- Select the  icon to perform a SOS reading Figure 82.
- The automated SOS process will begin taking a measurement Figure 83.
- After the process completes the SOS reading will be displayed in the upper left of the filter process screen Figure 84.

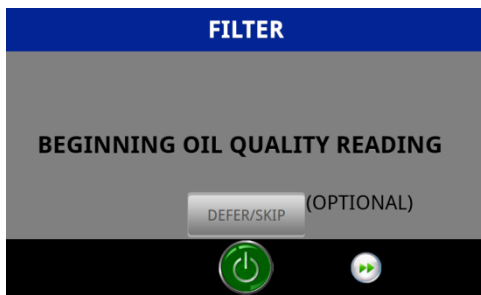


Figure 82 - SOS Yes/No

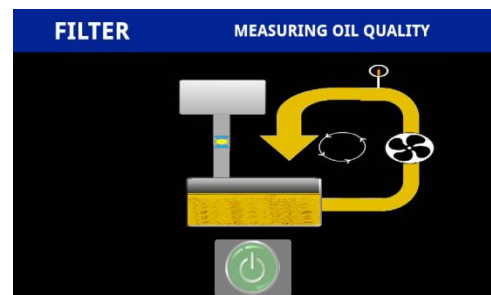


Figure 83 - SOS Measuring

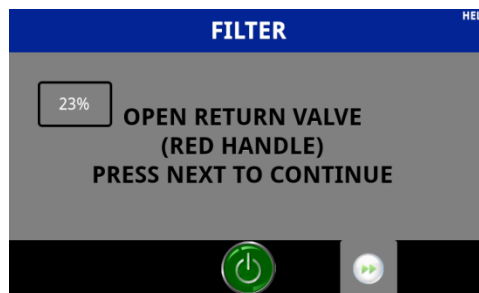


Figure 84 - SOS Measurement

### 2.5.2 SOS Automated Process


- Select  to perform a SOS reading during the automated filter process Figure 85.
- The automated SOS process will begin taking a measurement Figure 86.
- After the process completes the SOS reading will be displayed in the upper left of the filter process screen Figure 87.



Figure 85 - SOS Yes/No

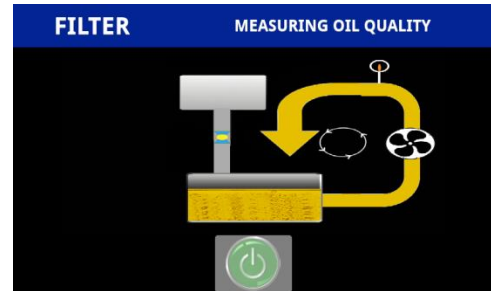


Figure 86 - SOS Measuring

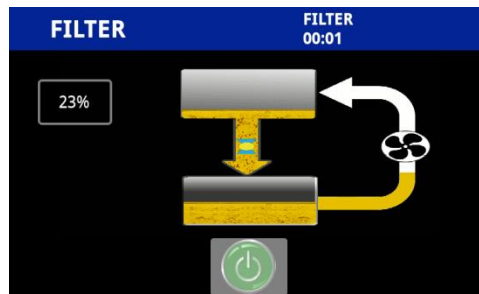


Figure 87 - SOS Measurement

### 2.5.3 SOS Errors

- Modbus Communication Error

This display means the controller is not able to communicate with the SOS system. Fryer will continue to function normally. CALL SERVICE to address communication issue.

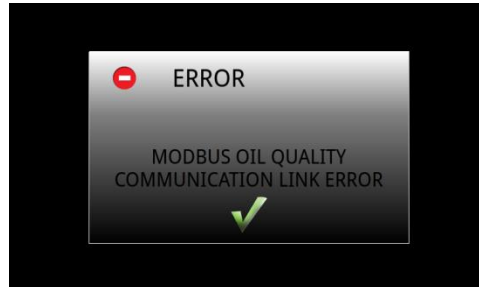


Figure 88 – SOS Modbus Com Error

- Measuring Oil Quality Process Error

This display means the controller is not able to retrieve information from the SOS system. Fryer will continue to function normally. CALL SERVICE to address communication issue.



Figure 89 - SOS Process Error

- Resource in Use

This display means the SOS system is currently in use by another device. Fryer will continue to function normally. If issue persists please CALL SERVICE to address this issue.

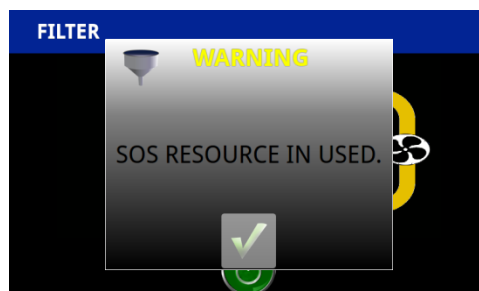


Figure 90 - SOS Resource in Use



### 3 **Control Filter Lockout (CFL) (Optional)**

This computer includes the Cook Count-based Control Filter Lockout (CFL) function which enforces operator compliance with regularly scheduled filtering based on the number of cooks performed since the last filter.

Performing any automated oil filter operation will reset the cook counter. Also, any manual operation that includes the opening of the drain valve for 20 seconds or more will also reset the cook counter. The cook counter may be reset at any time, where the computer does not have to be in a Filter Soon or Filter Now state.


To check the current cooks remaining cooks available before Filter Lockout, press the  key to display “Cooks Remaining” Figure 91. Press “Cooks Remaining” Figure 91 and Figure 92. To show the maximum number of cooks allowed.



Figure 91 - Number of Cooks Remaining

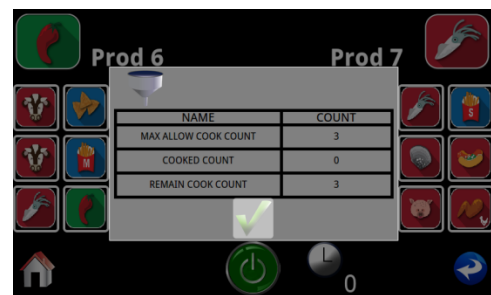


Figure 92 - Maximum Number of Cooks Remaining

#### 3.1 **Filter Soon**

Filter Soon icon will appear on the cook screen Figure 93 / Figure 94, will show when the number of cooks since the last filter operation is greater than the Cook Counts Allowed value (section 8.17). It is suggested to perform a filter operation when business levels permit.

- The “Filter Soon Icon” is not visible when a cook is running on both sides of the screen.
- Additional cooks are allowed when in Filter Soon state.



Figure 93 - Filter Soon (Left)



Figure 94 - Filter Soon (Right)

### 3.2 **Filter Now**

The filter lockout screen Figure 95 will show on the display when the number of cooks since the last filter operation is equal to the sum of the Cook Counts Allowed value and the Cook Counts Deferred value (section 8.18). It is required to perform a filter operation at this time.

- The filter lock icon Figure 96 will be displayed when the final allowed cook is running. Perform the required filtering when this cook completes.
- When in Filter Lockout state, cooks are no longer allowed, the operator has the choice to filter or turn the unit off.
- To perform a filter, press the Filter icon on the screen Figure 95 and the operator will be brought to the filter option screen Figure 97.



Figure 95 - Filter Lockout

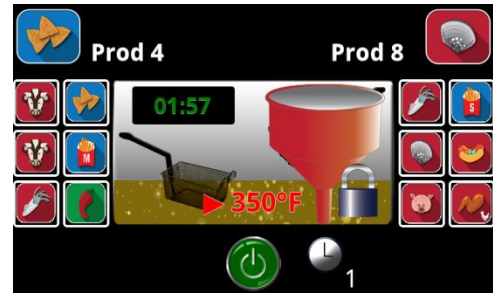


Figure 96 - Filter Lockout Warning

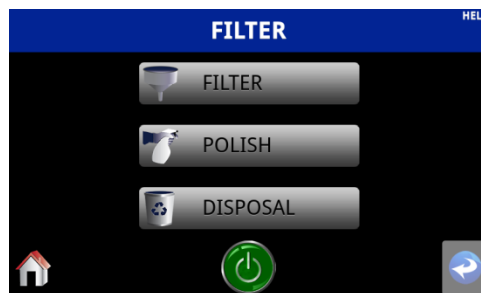


Figure 97 - Filter Options

#### 4 **Fresh Oil Supply Monitoring**

This computer monitors the Jug-in-Box (JIB) fresh oil supply for oil remaining estimation and oil supply problems. The computer will monitor utilization of the JIB from on-demand, manual top-offs, automatic top-offs, and top-off events from other fryers in the battery.

##### 4.1 **JIB Oil Remaining.**

Low JIB message will be displayed on the cook screen Figure 98 when the available fresh oil has dropped below the Low Jib configuration value (section 8.13).





Figure 98 - Low JIB Warning



Figure 99 - Empty JIB Warning

Replace JIB message will be displayed on the cook screen Figure 99, when the available fresh oil has been depleted. The operator at this time should replace the JIB with a new, full supply.

- It is not recommended to replace the JIB with a less-than-full supply
- To reset the JIB Oil remaining monitor once the supply has been replace:
- From the "Main Menu" Figure 100, press the filter key. Then select "Reset JIB" in Figure 101, this will bring up "Reset Jib Timer" Figure 102 select  to confirm a JIB reset, or  to decline Figure 102.

*NOTE: Only one cooking computer in a fryer battery needs to have the oil remaining monitor enabled (section 8.11)*



Figure 100 - Main Menu




Figure 101 - JIB Reset



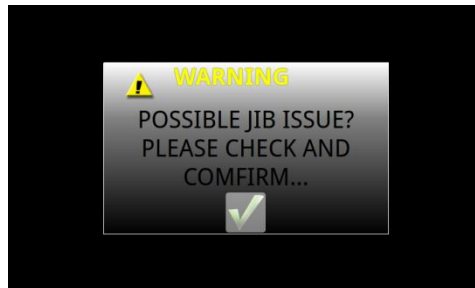
Figure 102 - Reset JIB?

#### 4.2 **JIB Check/Error**

For the configurations with the auto top-off option, the JIB error monitor displays the error message “Check JIB” Figure 103 when an auto top-off event has occurred three times within 15 minutes for a single frypot. This message indicates to the operator that a JIB or its hose has been installed improperly, the JIB has been emptied and not replaced, or there is some other fault condition.

Check the JIB and resolve any fault conditions. Press the  to clear the “Check JIB” message.

- When the “Check JIB” message is displayed, auto top-off for that frypot is temporarily disabled until the message is cleared and acknowledged.



**Figure 103 - Check JIB**

## 5 Filter Data Function (FDF) Data Logging

The FDF feature allows the managers to track oil usage and filtering events by operators. These features can be incorporated into an overall oil management strategy to extend oil life through and enforcement filtering regimen in combination with Cook Filter Lockout (CFL).

Only successfully completed filter events (Filter and Polish) for both manual filter and autofilter configurations increase the respective count for FDF data logging. Interrupted filtering sequences, or opened drains which do not meet FDF triggering criteria, will be logged as incomplete.

### 5.1 Data Logging

The FDF will store data for three batches of oil – the current batch, and the past two batches. The use for the Dispose function saves the current batch data to history and resets data logging values for the new oil batch.

For a batch of oil, the FDF logs the following data:



- Number of Filter Operations
- Number of Polish Operations
- Number of Incomplete Filters
- Number of Oil Hours
- Current Oil Quality Reading

Management of oil through methods other than functions Filter, Polish, and Dispose are logged as incomplete filters.

Additionally, drops since last filter process and drops since last disposal are also stored here.

### 5.2 Data Viewing

With no cooks running, and displays showing Melt, Heating, Ready, or Off.

- Press the  or  keys to get to the filter screen Figure 104, then selecting “Filter Data”.

#### 5.2.1 Filter Log Data

The display will show collected data on the current batch of oil, as indicated by “Current” “Previous” and “Past” Figure 105. The screen can be scrolled to see all available data.



Figure 104 - Filter Menu

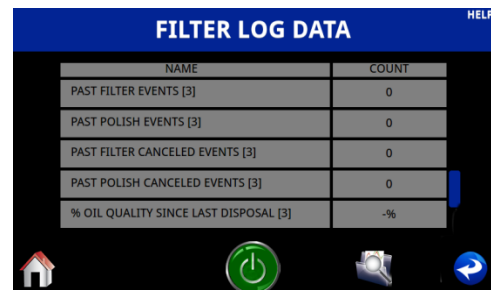
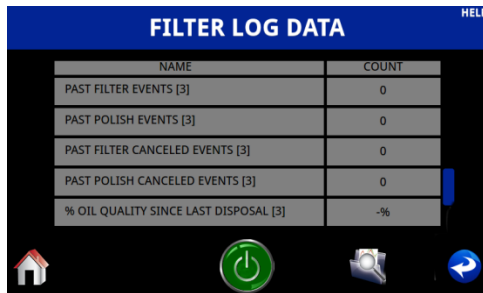


Figure 105 - Filter Data Log

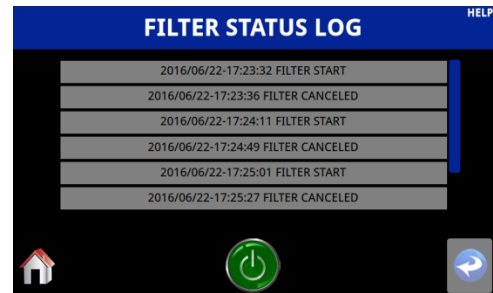
### 5.2.2 Filter Status Log

The display will show collected data on the current batch of oil, as indicated by “Current” “Previous” and “Past” Figure 105 page 37. The screen can be scrolled to see all available data.



NAME	COUNT
PAST FILTER EVENTS [3]	0
PAST POLISH EVENTS [3]	0
PAST FILTER CANCELED EVENTS [3]	0
PAST POLISH CANCELED EVENTS [3]	0
% OIL QUALITY SINCE LAST DISPOSAL [3]	-%

Figure 106 - Filter Data Log



2016/06/22-17:23:32 FILTER START
2016/06/22-17:23:36 FILTER CANCELED
2016/06/22-17:24:11 FILTER START
2016/06/22-17:24:49 FILTER CANCELED
2016/06/22-17:25:01 FILTER START
2016/06/22-17:25:27 FILTER CANCELED

Figure 107 - Filter Status Log

### 5.2.3 Oil Quality Logs

The display will show collected data on the current batch of oil, as indicated by “Current” “Previous” and “Past” Figure 105 page 37. The screen can be scrolled to see all available data.

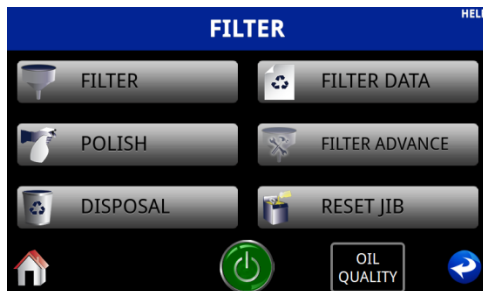
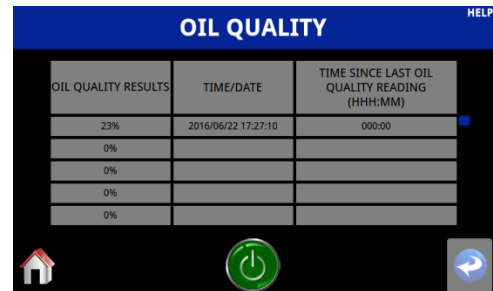


Figure 108 - Filter Menu



OIL QUALITY RESULTS	TIME/DATE	TIME SINCE LAST OIL QUALITY READING (HH:MM)
23%	2016/06/22 17:27:10	00:00
0%		
0%		
0%		
0%		

Figure 109 - Oil Quality Data Log

## 6 Data Logs

Multiple fryer data sets are available for review Figure 110. These include Cook Data, Run Time, Fryer Events, and Fryer Events. This data can be useful for diagnosing a potential fryer issue, or monitoring that the fryer is being used appropriately.

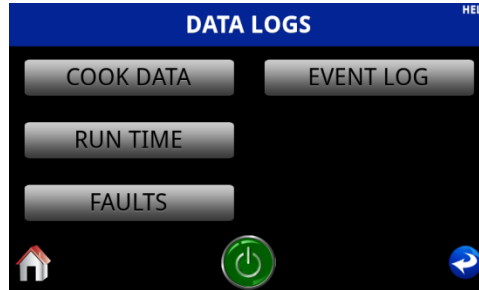

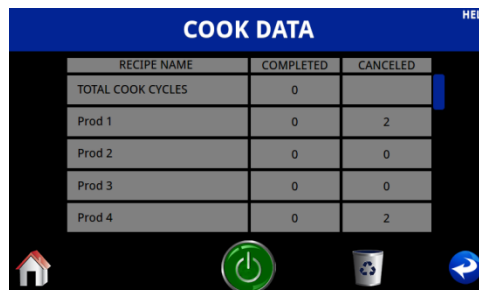


Figure 110 - Fryer Data Logs

### 6.1 Cook Data

Cook Data keeps track of how many times a particular recipe is used and canceled as well as the total number of products that have been cooked in the appliance Figure 111. Cook data will be deleted if the corresponding recipe is deleted. Additionally, all the cook data can be reset by using the  key.

The image shows a touch-screen interface titled "COOK DATA" with a "HELP" button in the top right corner. Below the title is a table with three columns: "RECIPE NAME", "COMPLETED", and "CANCELED". The table contains five rows of data. At the bottom of the screen, there are four icons: a house icon, a power button icon, a trash can icon, and a circular arrow icon.

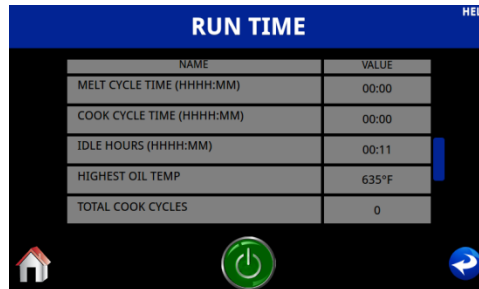
RECIPE NAME	COMPLETED	CANCELED
TOTAL COOK CYCLES	0	
Prod 1	0	2
Prod 2	0	0
Prod 3	0	0
Prod 4	0	2

Figure 111 - Cook Data Logs

## 6.2 Run Time

- Hour of Operation
- Drain Switch Open Counts
- Heat Relay Cycle Count
- Heat On Time
- Side On Relay Cycle Count
- Side On Relay On Time
- Power Up Count
- Melt Cycle Time
- Cook Cycle Time
- Idle Hours
- Highest Oil Temperature
- Total Cook Counts
- Filter Pump Cycle Time
- Filter Pump Run Time
- Probe Open Counts
- Probe Short Counts
- Boil Out Counts

Run Data, Figure 112, keeps track of many different fryer functions, listed above. Run data may be useful for service calls and to monitor proper operation of the appliance.



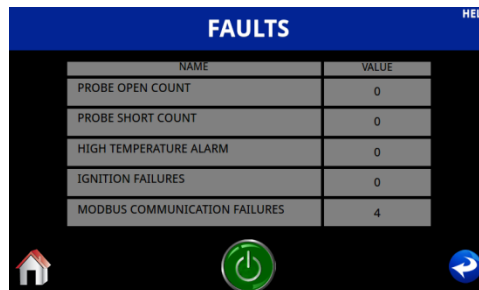
NAME	VALUE
MELT CYCLE TIME (HHHH:MM)	00:00
COOK CYCLE TIME (HHHH:MM)	00:00
IDLE HOURS (HHHH:MM)	00:11
HIGHEST OIL TEMP	635°F
TOTAL COOK CYCLES	0

Figure 112 - Run Time Data Log

## 6.3 Faults

- Probe Open Count
- Probe Short Count
- High Temperature Alarm
- Ignition Failure
- Modbus Communication Failure

Fault Data, Figure 113, keeps track of many different fryer faults, listed above. Fault data may be useful for service calls and to monitor proper operation of the appliance.



NAME	VALUE
PROBE OPEN COUNT	0
PROBE SHORT COUNT	0
HIGH TEMPERATURE ALARM	0
IGNITION FAILURES	0
MODBUS COMMUNICATION FAILURES	4

Figure 113 - Fault Data Log



#### 6.4 **Events**

“Event Log”, Figure 114, keeps track of many different fryer events, such as Power Fail/Off, Com Issues, and Open Probe Left/Right. “Event Log” data may be useful for service calls and to monitor proper operation of the appliance. This data is displayed with its status as well, some statuses include, Set, Active and Clear, these statuses also appear with the timestamp of when they happened. “Event Log” keeps track of the last ten (10) recordable fryer events. If necessary it is possible to clear all fryer events, this is accomplished by pressings the key will bring up Figure 115 the operator can select to confirm deletion. Figure 116

ID	NAME	STATUS	TIME
63	POWER FAIL/OFF		2016/3/2 14:25:47
2	SIB COMMUNICATION LINK ERROR	CLEAR	2016/3/3 12:15:30
1	SIB COMMUNICATION LINK ERROR	SET	2016/3/3 12:15:29
63	POWER FAIL/OFF		2016/3/2 14:25:47
2	SIB COMMUNICATION LINK ERROR	CLEAR	2016/3/3 12:10:27

Figure 114 - Event Data Log

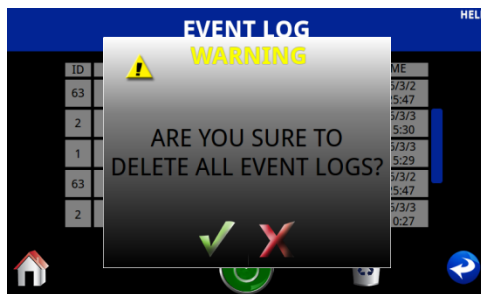




Figure 115 - Delete Event Logs?

ID	NAME	STATUS	TIME

Figure 116 - Empty Even Logs

## 7 To Enter Programming Level 1 (For Store Manager)

*Note: The factory default setting for this control does not require a password to be entered. However, the operator password requirement and value may be changed in (section 7.12.) Entry of a password when NOT required will not interfere with the programming process.*

With no cook timers running, displays will show one of the following displays: Melt, Heating, Ready, or Off. Press the  or  to enter the fryer menus. Next select “Info/Service” and then “Menu”. Press “Manager” to enter the manager level programming Figure 118 and Figure 117.

If the screen shows enter password Figure 118. Enter password **6684** using the keypad. When a correct password is entered the screen will transition to the Manager menu.

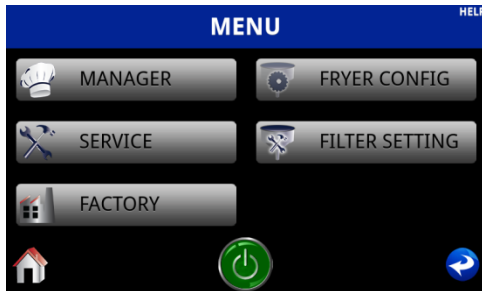


Figure 117 - Main Menus



Figure 118 - Manager Password Screen

### 7.1 Copy Recipe To and From USB

Recipes can be downloaded and uploaded to the controller via the USB port on the rear of the controller Figure 119. Once the USB drive is inserted the operator can select either:

- Copy Recipe From USB – To upload recipes to the controller Figure 120
- Copy Recipe To USB – To download recipes from the controller to the USB drive Figure 120 .



Figure 119 - USB Location



Figure 120 - Copy Recipe To/From USB



Figure 121 - USB Copying



Figure 122 - USB Not Installed

- DO NOT unplug USB while the unit is reading the USB drive Figure 121.
- If “USB not plugged in” is displayed to screen wait a moment then retry Figure 122.

### 7.2 Language Selection

The controller can display in multiple languages. The default language is English. With display showing the “Manager Menu” scroll until “Language” is available Figure 123. Press the “Language” key to toggle between available languages. Available languages are:

- Arabic
- Dutch
- English
- French
- German
- Hindi
- Italian
- Portuguese
- Russian
- Spanish



Figure 123 - Language Selection

### 7.3 Display Brightness

The overall brightness can be controlled through the “Display Brightness” options Figure 124. There are three (3) available setting 1, 2, or 3. With 1 being the dimmest and 3 bring the brightest. These options can be toggled by pressing the “Display Brightness” key.



Figure 124 - Display Brightness

### 7.4 Beeper Volume

Volume of the beeper alarm may be changed in this selection. Volume ranges are 1, 2, and 3, with 3 being the loudest. The volume can be toggled by pressing the “Beeper Volume” key, Figure 125.



Figure 125 - Beeper Volume

### 7.5 Fahrenheit or Celcius Display

The controller will display temperatures in the Fahrenheit or Celsius scales. The default scale is F. With display showing the “Manager Menu” scroll until “Temperature Units” is available Figure 126. Press the “Temperature Unit” key to toggle between Fahrenheit and Celsius.



Figure 126 - Temperature Units

## 7.6 Filter Heat Lockout

Filter Heat Lockout options can be selected in this menu. Filter Heat Lockout is available in three (3) different modes. Figure 127

1. Idle – With the unit in filter lockout and the unit is at the filter lockout screen the unit will idle at the vat temperature set point.
2. Off Ready – With the unit in filter lockout and the unit is at the filter lockout screen the unit will transition to the off state when the temperature of the oil reaches the fryers ready band.
3. Off Filter – With the unit in filter lockout and the unit is at the filter lockout screen the unit will transition to the off state when the temperature of the oil reaches the fryers filter temperature.



Figure 127 - Filter Lockout Heat

## 7.7 To Change Fryer Time

In order to properly account for “time of day” based computer events, a proper time needs to be set. This can be accomplished by selecting “Time” Figure 128 then inputting the correct system time Figure 129.



Figure 128 - Time

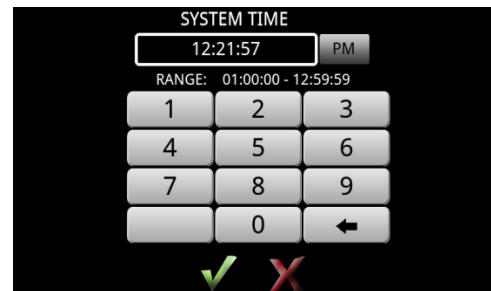


Figure 129 - Set Time of Day

## 7.8 Set Current Date

In order to properly account for the day of the week a proper date needs to be set. This can be accomplished by selecting “Date” Figure 130 then inputting the correct date Figure 131.



Figure 130 - Date

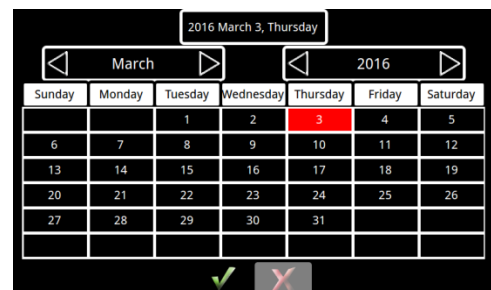


Figure 131 - Set Current Date

### 7.9 Set Control Type

Press “Control” to toggle between “Control” and “Timer” Figure 132.

*Note: If “Timer” is selected, heat control outputs are disabled, leaving only the timer functions active. Do not make this selection on Solstice fryer models.*



Figure 132 - Control Config

### 7.10 To Set Cook Temperature


- Under that manager menu select “Temperature Set Point” as shown in Figure 133.
- This will bring up a keypad shown in Figure 134.
- Enter a valid set point and press  to confirm.



Figure 133 - Temperature Set point

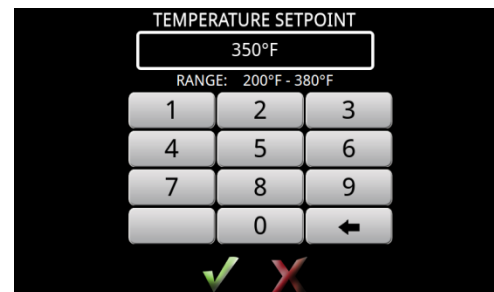


Figure 134 - Set Temperature

### 7.11 Set Recipe Password

In order to properly protect recipes from being modified a “Recipe Passcode” can be used. This is accomplished by selecting “Recipe Passcode?” Figure 135. This will bring up the passcode screen to turn ON or OFF and to set a passcode, Figure 136. If a new passcode is to be entered the operator can select the passcode and enter a new passcode, Figure 137.

*NOTE: Default passcode of 1234 will always work regardless of the new passcode.*



Figure 135 - Recipe Passcode



Figure 136 - Passcode Y/N



Figure 137 - Enter New Recipe Passcode

### 7.12 **Set Manager Passcode**

In order to properly protect fryer setting from being modified a “Manager Passcode” can be used. This is accomplished by selecting “Manager Passcode?” Figure 138. This will bring up the passcode screen to turn ON or OFF and to set a passcode, Figure 139. If a new passcode is to be entered the operator can select the passcode and enter a new passcode, Figure 140.

*NOTE: Default passcode of 6684 will always work regardless of the new passcode.*



Figure 138 - Manager Passcode

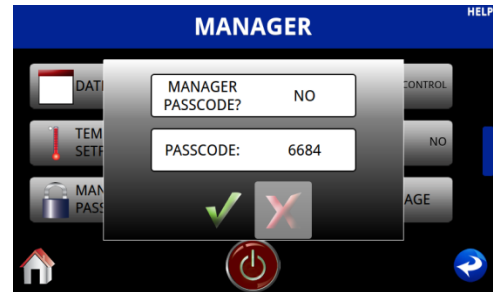


Figure 139 - Manager Passcode Y/N



Figure 140 - Enter New Manager Passcode



### 7.13 Edit Recipe Image



It is possible to add or remove custom food images to the controller for use in custom recipes. This is accomplished by selecting “Edit Recipe Image”, Figure 141, then selecting to add or delete icons, Figure 142. Once an image is selected it can be added or deleted by selecting either the  to add or the  to delete. If no USB is installed the screen will show Figure 145 prompting the operator to install a thumb drive with approved images.



Figure 141 - Edit Recipe Image

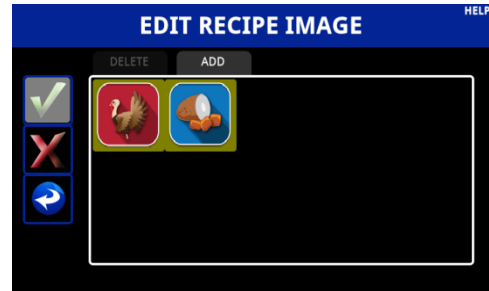


Figure 142 - Add or Delete Image



Figure 143 -Delete Images?



Figure 144 - Add Images?



Figure 145 - No USB Installed.

#### 7.13.1 Creating Recipe Images

- File Format - .png
- Resolution - 113 x 96 pixels
- Size – Smaller than 200 kilobytes
- No spaces or special characters

#### 7.14 **Demo Mode (For Display And Training Purposes Only)**

“Demo Mode” can be used as a training tool and/or for the display of the unit on a show room floor. When “Demo Mode” is enabled all functions are simulated. This allows for simulated cooking, filter lockouts, and filtering procedure training. Figure 146

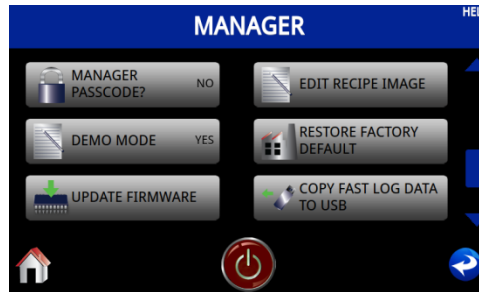


Figure 146 - Demo Mode

#### 7.15 **Restore Factory Defaults**

“Factory Reset” Figure 147 provides a quick way to erase all setup changes and restore control to factory settings. The control will prompt the operator to confirm the factory reset Figure 148.

*Warning: Any settings made prior to a factory reset will be lost. This includes customer specific downloads performed a Pitco Frialator. Heat profiles after a reset will be Generic 1 for gas appliances.*

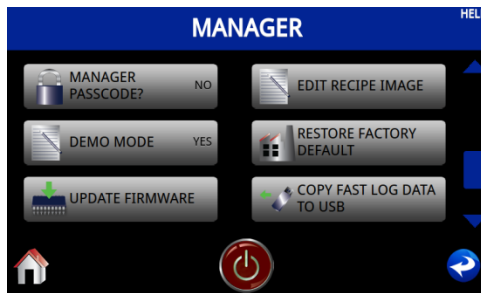


Figure 147 - Factory Reset

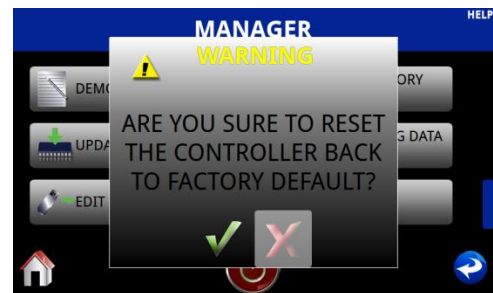


Figure 148 - Factory Reset -Are You Sure?

### 7.16 Update Firmware

It is possible to perform a firmware update to add additional features and future expansions Figure 149. This is accomplished by inserting a USB drive into the rear of the touch screen controller. The operator then selects “Update Firmware”, Figure 150. The operator is then presented with three options.

**Warning: Be sure to back up recipes, see section 7.1, and factory settings before performing any of the below task.**

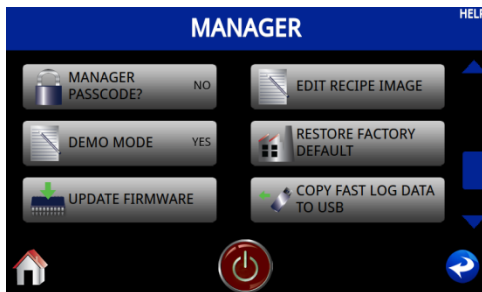


Figure 149 - Update Firmware

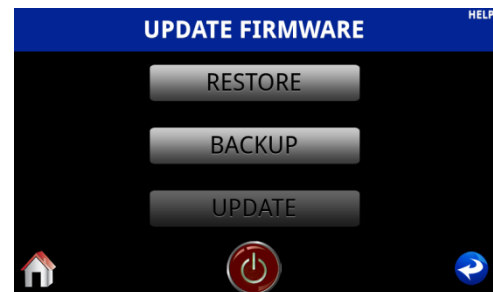



Figure 150 - Backup, Restore, or Update

#### 7.16.1 Restore

Reload a system back up, to potentially recover from an unwanted condition due to a firmware update.

- To perform a “Restore” select “Restore” from the Update Firmware menu, Figure 150.
- You will be asked “Are you sure you want to restore from backup” select  to accept, Figure 151
- Control will reboot and the backup will be loaded
- Recommend performing a “Factory Reset” after performing a restore function.
- Reload recipes and factory settings.

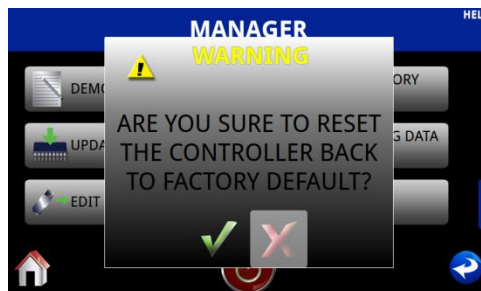


Figure 151 - Restore, Are you Sure?

### 7.16.2 Backup

Create a backup for the current state of the fryer. Including system settings and firmware.


- To perform a “Backup” select “Backup” from the Update Firmware menu, Figure 150 page 51.
- You will be asked “Are you sure you want to create a restore point” select  to accept, Figure 152
- Recommend performing a “Factory Reset” after performing a restore function.
- Reload recipes and factory settings.



Figure 152 - Backup, Are you Sure?

### 7.16.3 Update

Loads new Firmware from a USB thumb drive to the controller. Recommend performing a factory reset after performing a restore function.





- To perform an “Firmware Update” select “Update” from the Update Firmware menu, Figure 150 page 51.
- You will be asked “Are you sure you want to create a restore point.”
- Select  to accept, or  to move on, Figure 153.
- You will be asked “Are you sure you want to update firmware from the USB?”
- Select  to accept, or  to move on, Figure 154.
- Control will reboot, this may take up to 3 minutes.
- Recommend performing a “Factory Reset” after performing a restore function
- Reload recipes and factory settings.



Figure 153 - Backup, Are you Sure?



Figure 154 - Firmware Update, Are you Sure?

### 7.17 Copy FAST Log Data to USB

Function is unused at this time.

### 7.18 Edit Help Videos

Function is unused at this time.

### 7.19 Smart Oil Sensor Settings (SOS) (Optional)

When Smart Oil Sensing (SOS) is enabled the operator is allowed to perform oil quality reading during the fryer's filter functions. For one hour after a reading the TPM will be displayed on the cook screen shown in Figure 156.

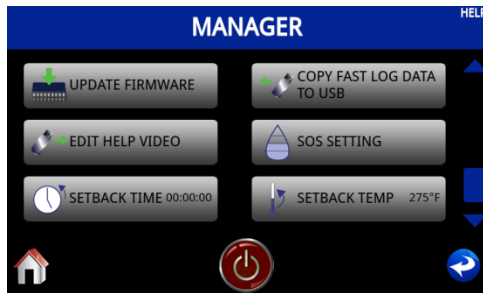


Figure 155 - SOS Settings



Figure 156 - SOS Cook Screen

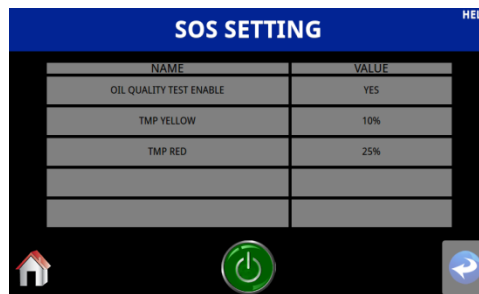


Figure 157 - SOS Settings Menu

- Oil Quality Sensing Enabled Figure 157
  - No – Oil Quality Sensing Disabled, will not prompt operator to perform an oil quality reading.
  - Yes – Oil Quality Sensing Enabled, will ask operator to perform an oil quality reading.
- TPM Yellow Figure 157
  - Describes the TPM% after which a green TPM reading will begin to display as a yellow TPM reading. This color can be viewed on the cooking screen, Figure. *Default 10%*
- TPM Red Figure 157
  - Describes the TPM% after which a yellow TPM reading will begin to display as a red TPM reading. This color can be viewed on the cooking screen, Figure. *Default 23%*

### 7.20 **Setback Time (Optional)**

When Setback is enabled the operator is allowed to set an amount of idle time when the control will temporarily change the control's setpoint to a lower predetermined temperature.

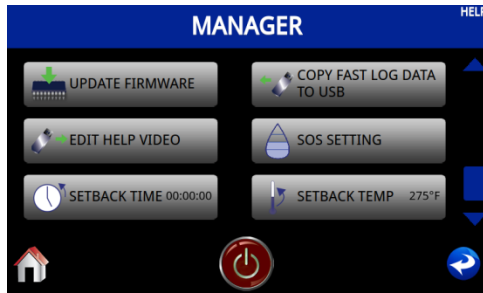


Figure 158 – Setback Time Settings



Figure 159 – Setback Time Keypad

Setback Time range is between 0:00:00 (OFF) up to two hours.

### 7.21 **Setback Temp (Optional)**

When Setback is enabled the operator is allowed to set a temperature the control will temporarily change to when the idle time is met.

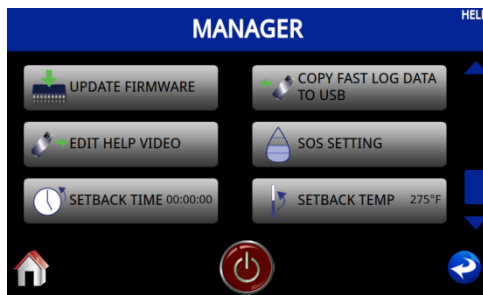


Figure 160 - Setback Temperature

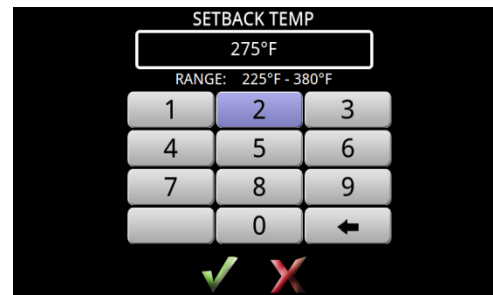


Figure 161 - Setback Temperature Keypad

Setback Temperature range is between 225 - 380.

## 8 To Enter Filter Settings Menu (For the Store Manager)

Not all menu options will be available. Available menu options are determined by your fryer configuration and optional features.

With no cooks running and the display will show one of the following displays, Melt, Heating, Ready, or Off.

- Press the “HOME” or “Maintenance”, followed by the “Info/Service”, and then “Menu” Figure 162.
- Select “Filter Settings”, Figure, and enter password “5599” if prompted. Required? Figure 163
- Display will show FIGURE. This section details parameters that may be changed in “Filter Settings.” Figure 164

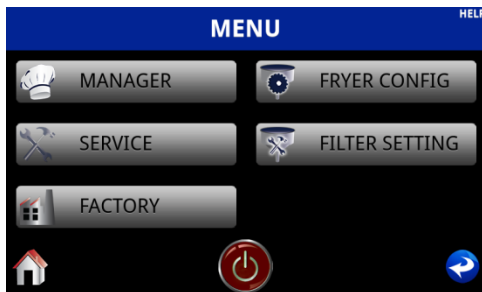


Figure 162 - Main Menu

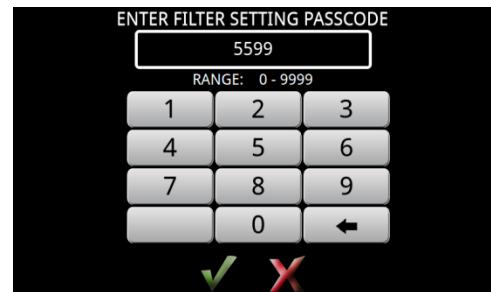


Figure 163 - Filter Settings Password Required?

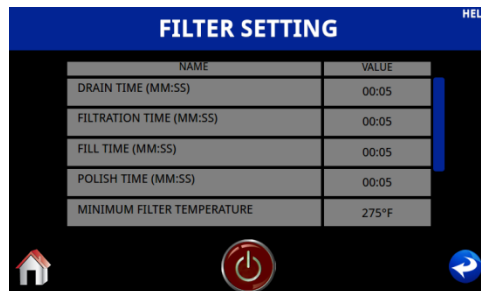


Figure 164 - Filter Settings Options

### 8.1 Drain Time

This adjustment controls the drain time for auto-filter operations, FILTER, POLISH, and DISPOSE. This value should be selected to allow adequate time for the vat to completely drain into the filter pan before continuing the automatic process. Factory default: Full - 0:30, Split - 0:20.

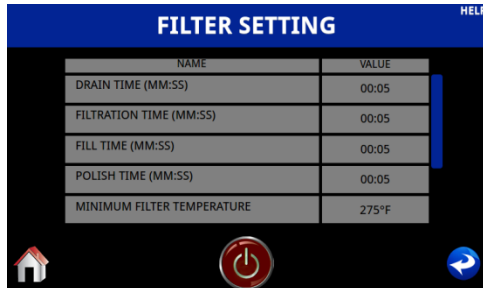


Figure 165 - Filter Settings (Drain)

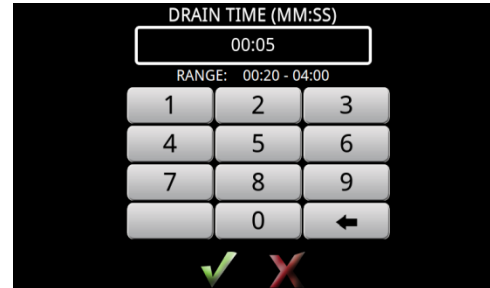


Figure 166 - Enter Drain Time

With the display showing filter settings Figure 165.

- Select Drain Time, Figure. This will bring up a keypad to enter a new drain time in, Figure 166.
- Drain time is shown in MM:SS, acceptable entry range is 0:20 to 4:00.
- Once a new acceptable time is entered, press the key to accept, or to not save changes.

### 8.2 Filter Time

This adjustment controls the oil cycle time for filter operation FILTER. This value should be selected to allow oil to make multiple passes through the filter pan. Factory default – 1:00.

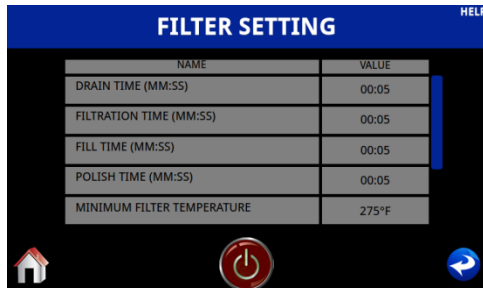


Figure 167 - Filter Settings (Filter)

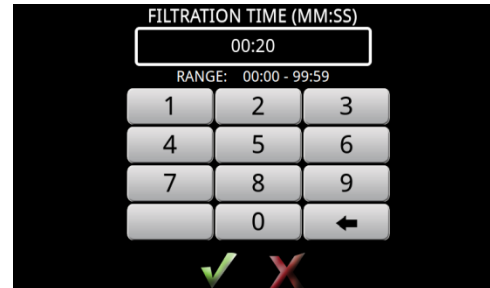


Figure 168 - Enter Filter Time

With the display showing filter settings Figure 167.

- Select "Filtration Time". This will bring up a keypad to enter a new Filtration Time in, Figure 168.
- Filtration Time is shown in MM:SS, acceptable entry range is 00:00 to 99:59.
- Once a new acceptable time is entered, press the key to accept, or to not save changes.



### 8.3 Fill Time

This adjustment control the vat fill time for auto-filter operations FILTER and POLISH. This value should be selected to allow adequate time for the filter pan to be completely emptied and returned lines cleared of oil. Factory default: Full – 1:15, Split – 0:45.

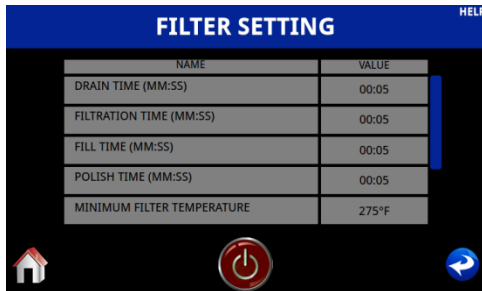


Figure 169 - Filter Settings (Fill Time)



Figure 170 - Enter Fill Time

With the display showing filter settings Figure 169.

- Select Fill Time, Figure. This will bring up a keypad to enter a new Fill Time in, Figure 170.
- Fill Time is shown in MM:SS, acceptable entry range is 0:30 to 4:00.
- Once a new acceptable time is entered, press the key to accept, or to not save changes.

### 8.4 Polish Time

This adjustment controls the oil cycle time for filter operation POLISH. This value should be selected to allow oil to make multiple passes through the filter pan. Factory default – 30:00.

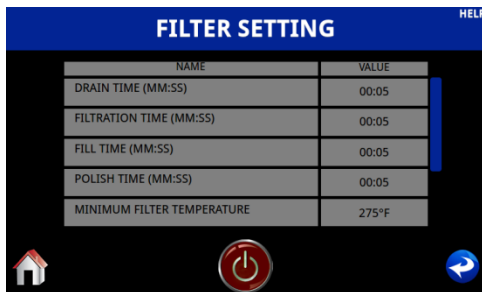


Figure 171 - Filter Settings (Polish)



Figure 172 - Enter Polish Time

With the display showing filter settings Figure 171.

- Select Polish Time, Figure. This will bring up a keypad to enter a new Polish Time in, Figure 172.
- Polish Time is shown in MM:SS, acceptable entry range is 00:00 to 99:59.
- Once a new acceptable time is entered, press the key to accept, or to not save changes.

## 8.5 **Filter Temperature**

This adjustment selects the minimum oil temperature allowed for auto-filter operations to be initiated. Manual filter operations are unaffected by this value. Factory default - 275 °F

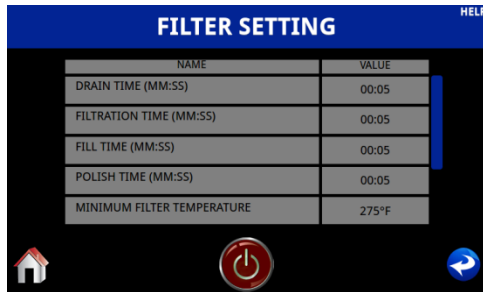


Figure 173 - Filter Settings (Filter Temperature)

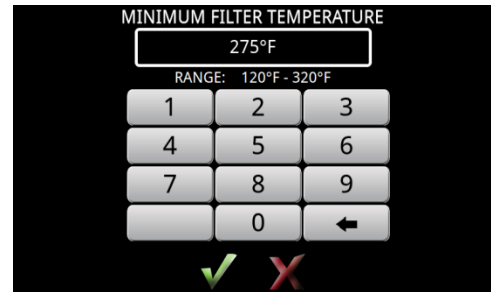




Figure 174 - Enter Filter Temperature

With the display showing filter settings Figure 173.

- Select Minimum Filter Temperature, Figure. This will bring up a keypad to enter a new Minimum Filter Temperature in, Figure 174.
- Minimum Filter Temperature is shown in either °F or °C. Acceptable entry range is 120°F to 320°F.
- Once a new acceptable temperature is entered, press the  key to accept, or  to not save changes.

## 8.6 Cook Filter Lockout

This adjustment allows for the selection of the filter lockout mode the operator would like to use. The choices are NONE, COUNT and TIME. Each time a new selection is made the menu will jump back to the top of the Filter Settings menu as options have been added or removed. Factory default is NONE.

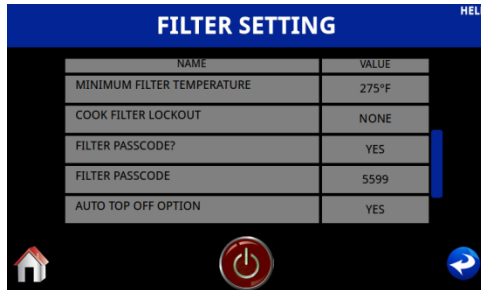


Figure 175 - Filter Settings (FDF None)

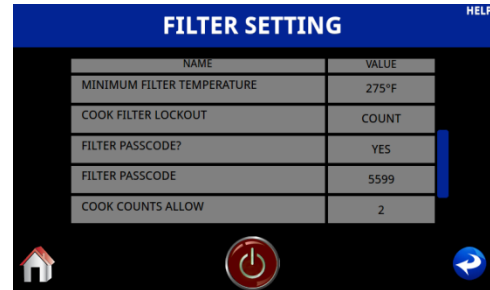


Figure 176 - Filter Settings (FDF Count)

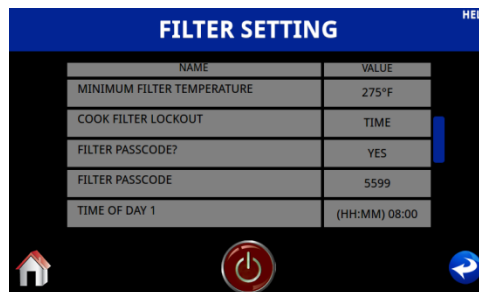


Figure 177- Filter Settings (FDF Time)

With the display showing filter settings Figure 175.

- Select Cook Filter Lockout. This will cause the screen to reload adding or removing options. Figure 175, Figure 176, or Figure 177

## 8.7 Filter Passcode? (NO/YES)

This adjustment allows for the filter passcode to be turned “ON” or “OFF.” Factory Default is “ON.”

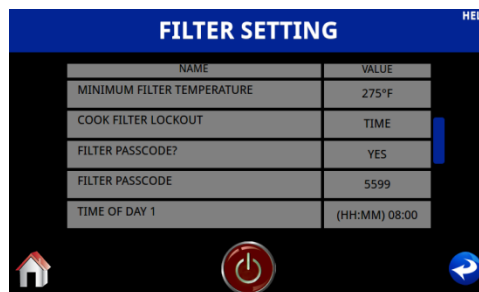


Figure 178 - Filter Settings (Passcode)

With the display showing filter settings Figure 178.

- Select Filter Passcode?. This will cause the option to toggle “ON” or “OFF”.

## 8.8 Filter Passcode

This adjustment allows for the filter passcode to be changed to a none default password. Factory Default is “5599.” **NOTE: 5599 will always work no matter what the password is changed to.**

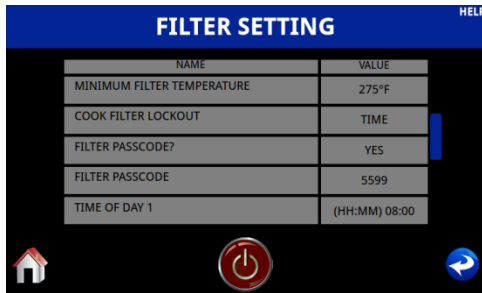


Figure 179 - Filter Settings (Filter Passcode)

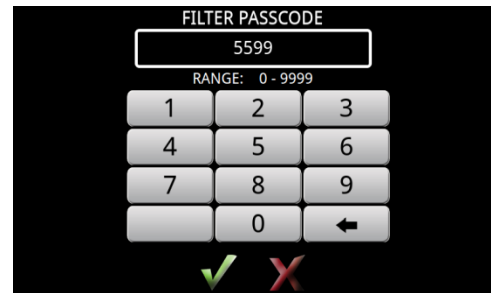


Figure 180 - Enter New Passcode

With the display showing filter settings Figure 179.

- Select Filter Passcode? This will bring up a keypad to enter a new Filter Passcode, Figure 180.

## 8.9 Auto Top Off Option

This adjustment allows the enabling and disabling of the auto Top-Off feature.

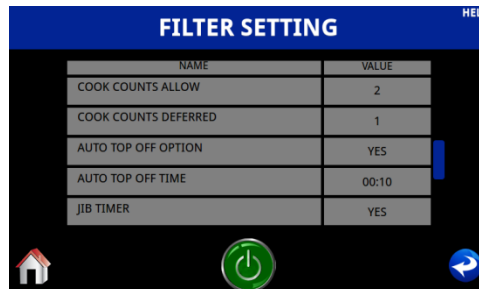


Figure 181 - Filter Settings (Auto Top-Off)

With the display showing filter settings.

- Select Auto Top-Off options to toggle between “NO” and “YES”.

### 8.10 Auto Top Off Time

This adjustment selects the amount of time fresh oil is added to the vat during Auto Top-Off events. An event can only occur once every three (3) minutes. Factory default: Full – 0:09, Split – 0:05.

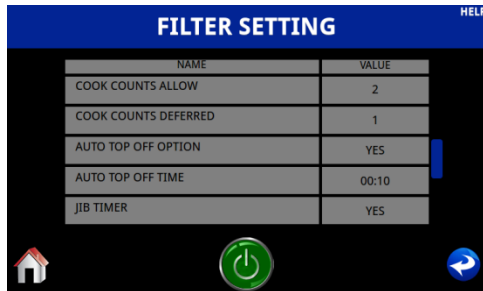


Figure 182 - Filter Settings (Auto Top-Off Time)



Figure 183 - Enter Auto Top-Off Time

With the display showing filter settings Figure 182.

- Select Auto Top-Off Time, Figure. This will bring up a keypad to enter a new Auto Top-Off Time in, Figure 183.
- Auto Top-Off Time is shown in MM:SS, acceptable entry range is 00:09 to 00:20.
- Once a new acceptable time is entered, press the key to accept, or to not save changes.

### 8.11 JIB Timer (Oil Remaining) Enable

This selection allows the enabling and disabling of the JIB monitor for oil remaining feature.

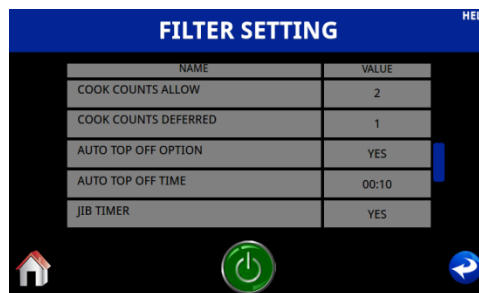


Figure 184 - Filter Settings (JIB Timer)

With the display showing filter settings Figure 184.

- Select JIB Timer option to toggle between “NO” and “YES”.

### 8.12 Max JIB Time

This adjustment selects the amount of oil in terms of “pump time” for a full JIB. Factory default 1:30.

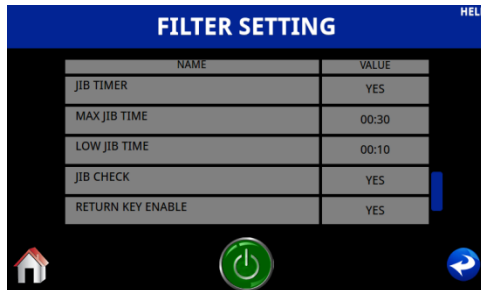




Figure 185 - Filter Settings (Max JIB Time)



Figure 186 - Enter Max JIB Time

With the display showing filter settings Figure 185.

- Select Max JIB Time, Figure. This will bring up a keypad to enter a new Max JIB Time in, Figure 186.
- Max JIB Time is shown in MM:SS, where MM:SS is the time the reset value for a new JIB. Acceptable entry range is 0:00 to 4:00.
- Once a new acceptable time is entered, press the  key to accept, or  to not save changes.

### 8.13 Low JIB Time

This adjustment selects the amount of oil remaining in terms of “pump time” for a low JIB. Factory default 0:00.

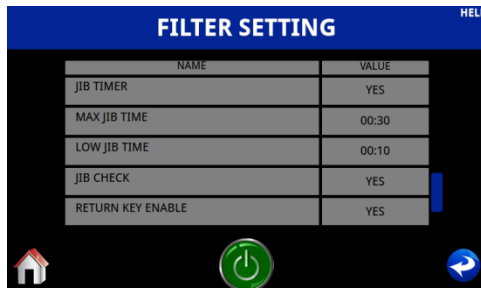




Figure 187 - Filter Settings (Low JIB Time)



Figure 188 - Enter Low JIB Time

With the display showing filter settings Figure 187.

- Select Low JIB Time, Figure. This will bring up a keypad to enter a new Low JIB Time in, Figure 188.
- Low JIB Time is shown in MM:SS, where MM:SS is the time remaining when “LOW JIB” is displayed. Acceptable entry range is 0:00 to 4:00. Figure 188
- Once a new acceptable time is entered, press the  key to accept, or  to not save changes.

#### 8.14 JIB Check

This selection allows the enabling and disabling of the JIB monitor for error conditions feature.

With the display showing filter settings Figure 189.

- Select JIB Check option to toggle between “NO” and “YES”.

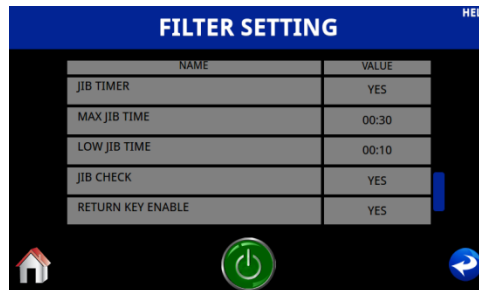


Figure 189 - Filter Settings (JIB Check Y/N)

#### 8.15 Return Key Enable

This selection allows the enabling and disabling of the Return Key Enable for manual filter configurations.

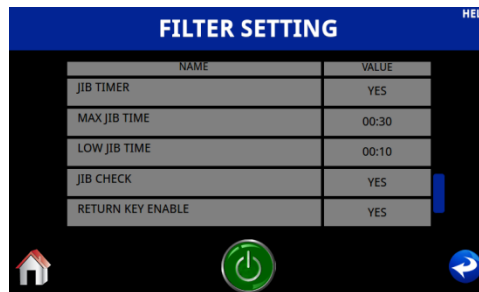


Figure 190 - Filter Settings (Return Key Enabled Y/N)

With the display showing filter settings Figure 190.

- Select Return Key Enable option to toggle between “NO” and “YES”.

#### 8.16 Top-Off Key Enable

This selection allows the enabling and disabling of the Top-Off Key.

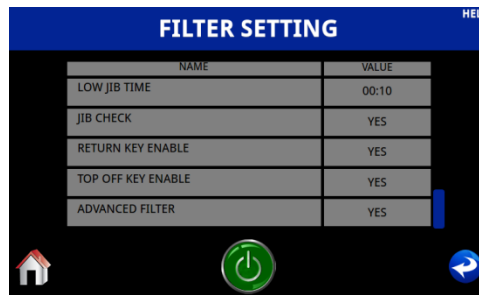


Figure 191 - Filter Settings (Top-Off Key)

With the display showing filter settings Figure 191.

- Select Top-Off Key Enable option to toggle between “NO” and “YES”.

#### 8.17 Cook Counts Allowed

This adjustment selects the number of cooks allowed before “Filter Soon” is displayed to the operator. Factory default: Full – 10, Split – 5.

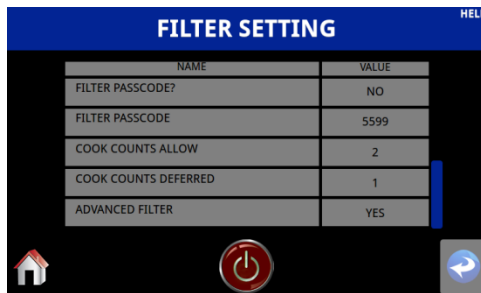


Figure 192 - Filter Settings (Cook Counts Allowed)



Figure 193 - Enter Cook Counts Allowed

With the display showing filter settings Figure 192.

- Select Cook Counts Allow, Figure 193. This will bring up a keypad to enter the number of cooks allowed before recommended filtering.
- A value of zero (0) will disable Cook Filter Lockout. Acceptable entry range is 0 to 99.
- Once a new acceptable number of cooks are entered, press the key to accept, or to not save changes.



### 8.18 Cook Counts Deferred

This adjustment selects the number of defers allowed before “Filter Now” is displayed and additional cooks are prohibited. The total number of cooks allowed after a filter event is the sum of Cook Counts Allowed and Cook Counts Deferred. Factory default: – 2.

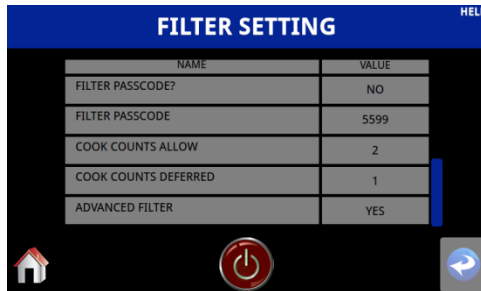


Figure 194 - Filter Settings (Cook Counts Deferred)



Figure 195 - Enter Cook Counts Deferred

With the display showing filter settings Figure 194.

- Select Cook Counts Deferred, Figure 194. This will bring up a keypad to enter the number of cooks that can be deferred before filter lockout, Figure 195.
- A value of zero (0) will not prevent operator from performing additional cooks once the Cook Counts Allowed value has been reached. Acceptable entry range is 0 to 99.
- Once a new acceptable number of deferred cooks is entered, press the key to accept, or to not save changes.

### 8.19 Set Time of Day (TOD) Filter Trigger

Filter triggers will prompt the user to perform a filtering action at a specified time of day. The drain must be open for longer than 20 seconds for the filter trigger to be cleared.

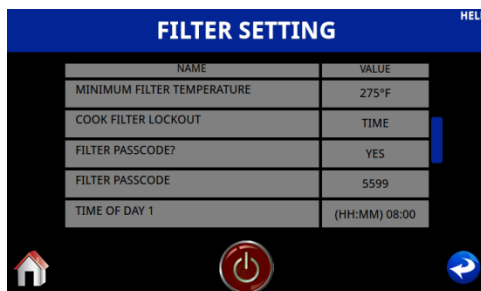


Figure 196 - Filter Settings (Set Time Of Day)



Figure 197 - Enter New Time

Up to five (5) different filter triggers may be configured. Filter triggers times are entered in a HH:MM, 24-hour format. Valid range is 00:01(12:01 AM) to 24:00 (Midnight). An entered value of 00:00 will disable that filter trigger. Figure 196 and Figure 197

The location of all five (5) TOD options can be seen.

## 8.20 Set Time of Day (TOD) Pre-Filter Trigger

A pre-filter time, Figure 198, will allow an operator to perform a filter prior to a filter trigger. If a filter is performed during the pre-filter time, there will be no prompt to filter at the actual filter trigger time. There is no display or indication to the operator when the controller is in the Pre-Filter period.

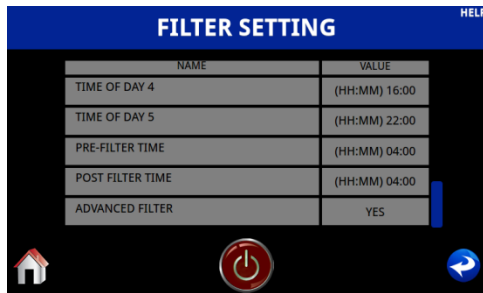


Figure 198 - Filter Settings (Set Pre-Filter)



Figure 199 - Enter Pre-Filter Time

Times are entered in HH:MM format. Valid range is 00:00 to 04:00. Figure 199

## 8.21 Set Time of Day (TOD) Post Trigger

A post-filter time, Figure 202 will allow the operator a window to filter after the filter trigger event has occurred. If the post-filter time is greater than zero (0), the display will show the filter soon icon Figure 200 when the filter trigger even occurs, where the controller will continue to allow normal operations. Once the post-filter timer expires, the display will show the filter lockout screen, Figure 201, where the controller will lockout all cooking operations.



Figure 200 - Filter Warning



Figure 201 - Filter Lockout

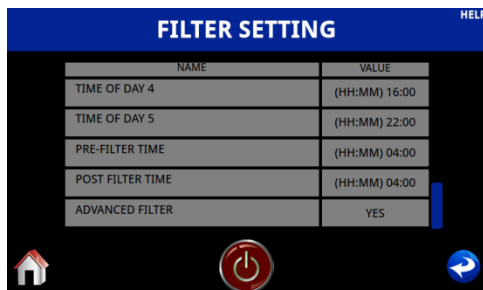


Figure 202 - Filter Settings (Post Trigger)

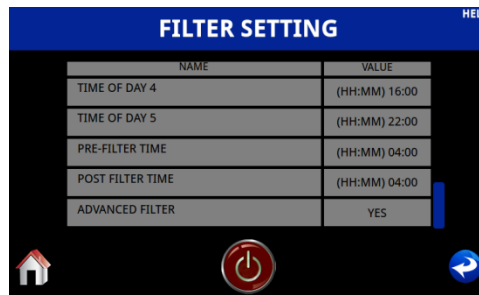


Figure 203 - Enter Post Filter Trigger

Times are entered in HH:MM format. Valid range is 00:00 to 04:00. Figure 203

## 8.22 **Advanced Filter (Filter Pan Interlock YES/NO)**

This selection allows the enabling and disabling of the Filter Pan Interlock.

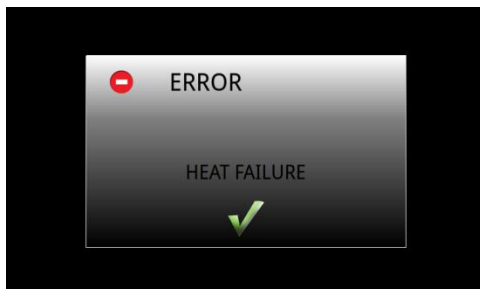
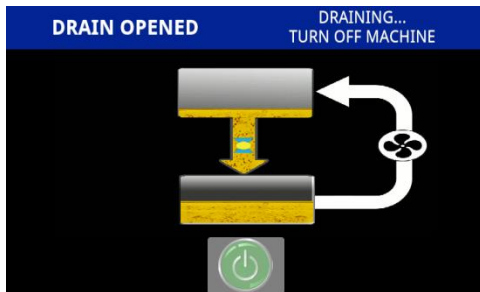
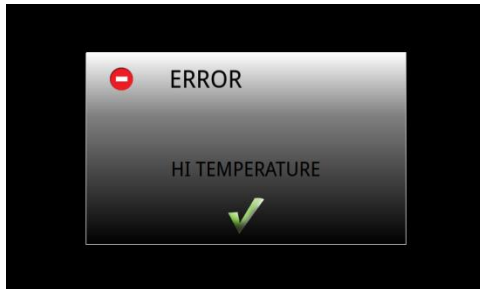
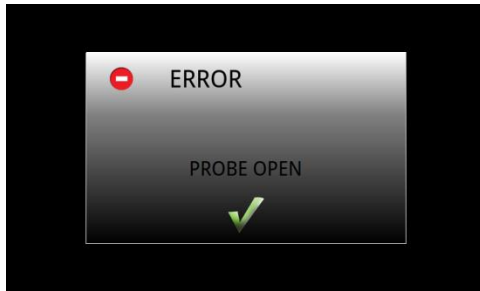


**Figure 204 Filter Settings - Filter Pan Interlock**

With the display showing filter settings Figure 204.

- Select Advanced Filter Key option to toggle between “NO” and “YES”.

## 9 Other Displays

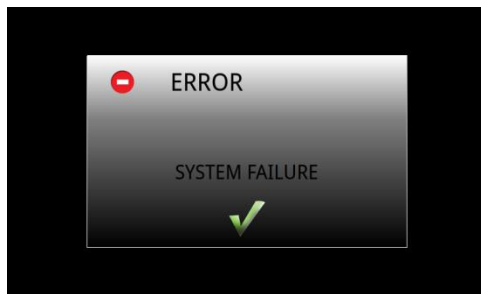


Open probe detection is standard on all Pitco controls. If probe is detected open, normal heating and cooking activities are suspended.

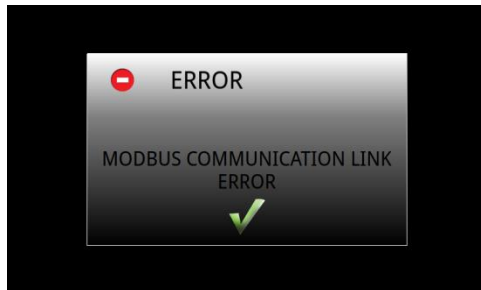
This display warns operators that the vat temperature has exceeded set temperature by +40°F (+22°C), or an absolute maximum of 410°F (210°C). The alarm will also sound. This display does not show the status of the mechanical high limit switch.

This message indicates that the drain valve has been opened, the vat is assumed to be empty by the controller. Normal heat control activities are suspended. To restore normal operation close drain valve and turn off. Refill vat and continue normal operations.

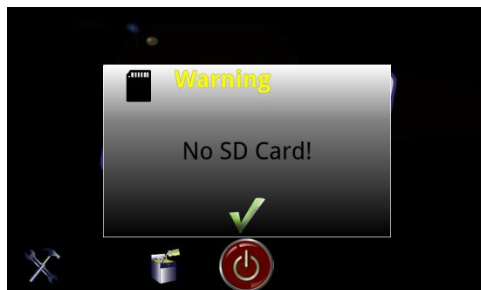
This message indicates that the heating system failed to respond. Typically, the high temperature limit switch has tripped and is in need of resetting. In the case on gas fired appliances, this message will display if the pilot fails to light or is detected marginal by the ignition module.



This message indicates a shorted probe. If probe is detected as a short circuit, normal heating and cooking activities are suspended.

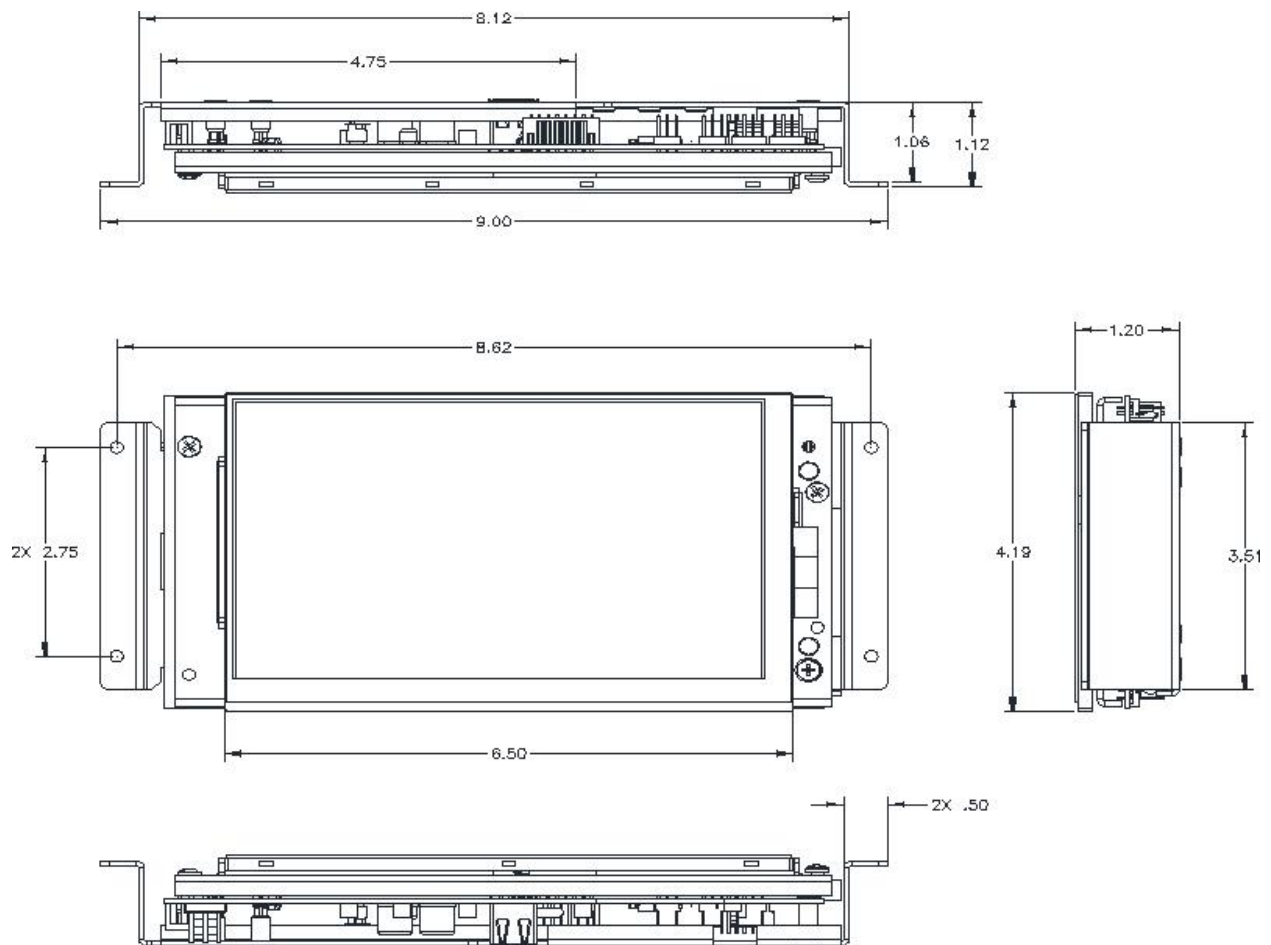


This message indicates the computer has lost communication with the autofilter control board and oil management operations are suspended. Normal cooking activities are unaffected.



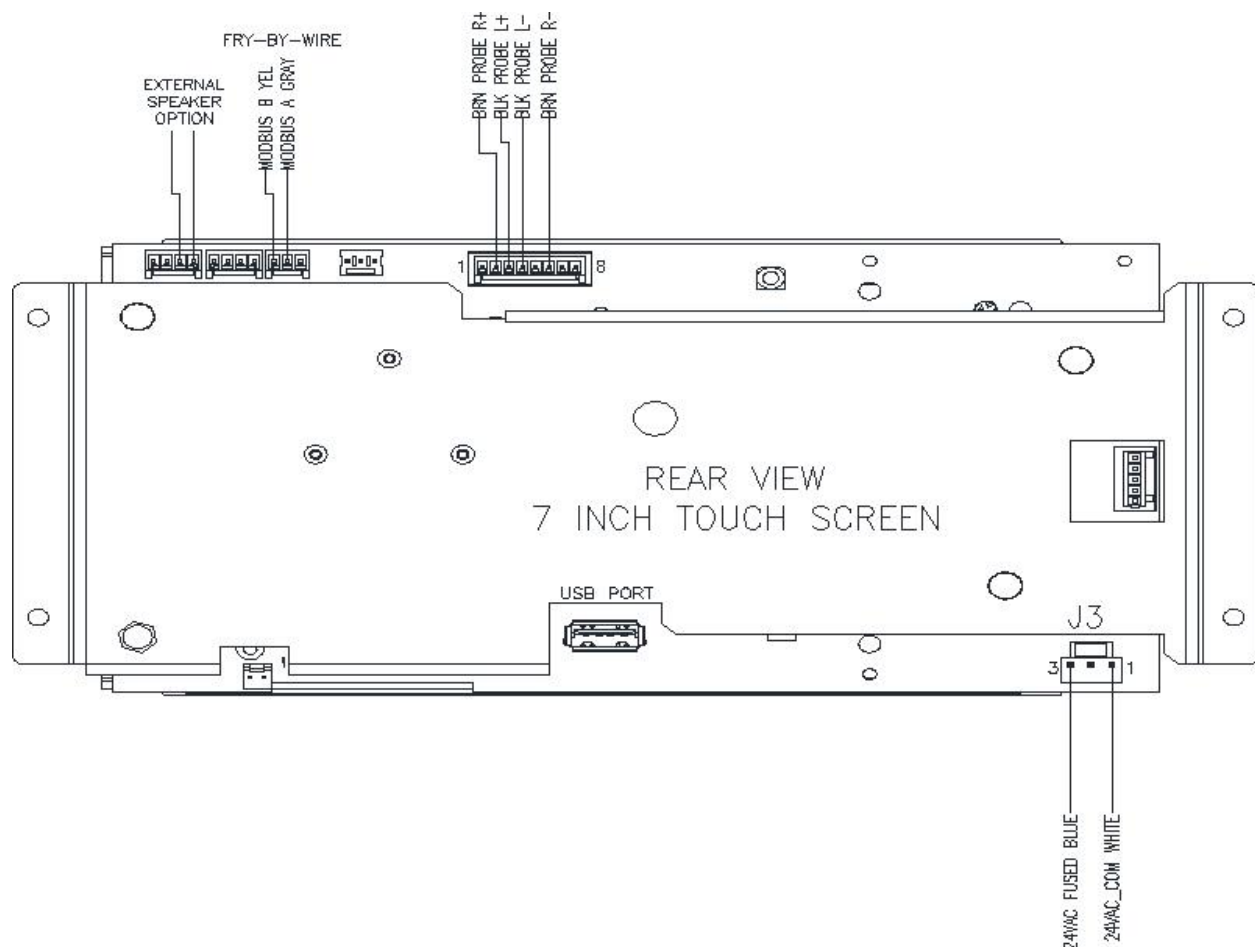
This message indicates the SD card is not properly installed or missing. Unit will function properly, but long-term data storage will be unavailable until SD card is replaced.

## 10 Mechanical Dimensions



## 11 Electrical Connections

Header	Inputs	Type	Nominal	Notes
J3-1	ACN	PWR	24VACN	24VAC Return
J3-3	ACH	PWR	24VAC	24VAC +20%/-15% 50/60 Hz
J8-3	Probe+(L)	Thermistor Probe (Left)	Resistance varies with vat temperature. 942 Ohms @ 350°F	
J8-4	Probe-(L)			
J8-2	Probe+(R)	Thermistor Probe (Right)	Resistance varies with vat temperature. 942 Ohms @ 350°F	
J8-6	Probe-(R)			



## 12 Probe Resistance Chart

Probe Resistance in 5°F Increments.								
Probe Temp (°F)	Probe Temp (°C)	Resistance (Ohms)	Probe Temp (°F)	Probe Temp (°C)	Resistance (Ohms)	Probe Temp (°F)	Probe Temp (°C)	Resistance (Ohms)
10	-12.2	562734	175	79.4	11719	340	171.1	1058.23
15	-9.4	483875	180	82.2	10716	345	173.9	998.09
20	-6.7	417167	185	85.0	9812	350	176.7	942.00
25	-3.9	360589	190	87.8	8995	355	179.4	889.67
30	-1.1	312474	195	90.6	8255	360	182.2	840.78
35	1.7	271446	200	93.3	7586	365	185.0	795.10
40	4.4	236370	205	96.1	6979	370	187.8	752.38
45	7.2	206311	210	98.9	6427	375	190.6	712.41
50	10.0	180491	215	101.7	5926	380	193.3	674.95
55	12.8	158252	220	104.4	5470	385	196.1	639.87
60	15.6	139055	225	107.2	5055	390	198.9	606.96
65	18.3	122489	230	110.0	4675	395	201.7	576.09
70	21.1	108051	235	112.8	4329	400	204.4	547.09
75	23.9	95539	240	115.6	4013	405	207.2	519.86
80	26.7	84644	245	118.3	3723	410	210.0	494.24
85	29.4	75136	250	121.1	3458	415	212.8	470.16
90	32.2	66823	255	123.9	3214	420	215.6	447.49
95	35.0	59540	260	126.7	2991	425	218.3	426.13
100	37.8	53146	265	129.4	2785	430	221.1	406.02
105	40.6	47523	270	132.2	2597	435	223.9	387.04
110	43.3	42569	275	135.0	2422	440	226.7	369.14
115	46.1	38195	280	137.8	2262	445	229.4	352.24
120	48.9	34328	285	140.6	2113.9	450	232.2	336.29
125	51.7	30902	290	143.3	1977.3	455	235.0	321.21
130	54.4	27862	295	146.1	1851.0	460	237.8	306.94
135	57.2	25161	300	148.9	1734.3	465	240.6	293.46
140	60.0	22755	305	151.7	1626.1	470	243.3	280.69
145	62.8	20610	310	154.4	1525.9	475	246.1	268.61
150	65.6	18695	315	157.2	1433.0	480	248.9	257.15
155	68.3	16981	320	160.0	1346.7	485	251.7	246.30
160	71.1	15446	325	162.8	1266.6	490	254.4	236.00
165	73.9	14069	330	165.6	1192.1	495	257.2	226.24
170	76.7	12823	335	168.3	1122.8	500	260.0	216.96

Notes: Resistance, of either probe lead, to the frame of the appliance should read as "open" on the meter. Typically this is 1Meg ohm or more.

$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F}-32)$$

$$^{\circ}\text{F} = (9/5 * ^{\circ}\text{C}) + 32$$





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