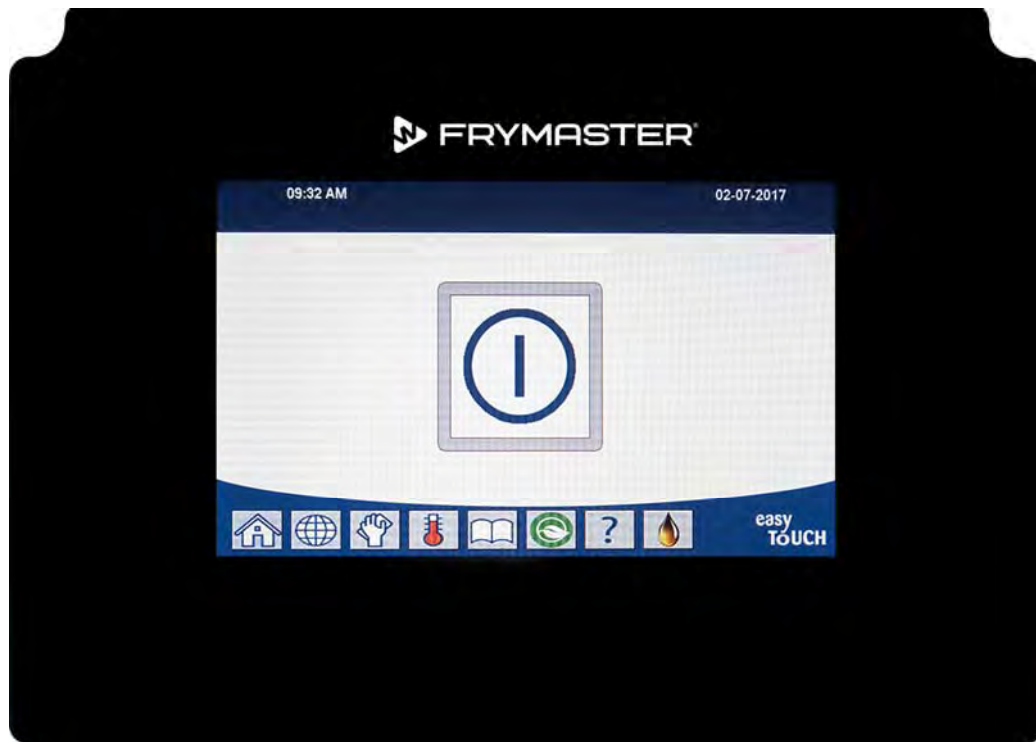


FilterQuick™ FQ4000 Controller

Operation Manual

This manual is updated as new information and models are released. Visit our website for the latest manual.



⚠ CAUTION
READ THE INSTRUCTIONS BEFORE USING.



Part Number: FRY_IOM_8197474 09/2017 rev. 9.22.17

Original Instructions

NOTICE

IF, DURING THE WARRANTY PERIOD, THE CUSTOMER USES A PART FOR THIS FRYMASTER FOOD SERVICE EQUIPMENT OTHER THAN AN **UNMODIFIED** NEW OR RECYCLED PART PURCHASED DIRECTLY FROM FRYMASTER, OR ANY OF ITS AUTHORIZED SERVICE CENTERS, AND/OR THE PART BEING USED IS MODIFIED FROM ITS ORIGINAL CONFIGURATION, THIS WARRANTY WILL BE VOID. FURTHER, FRYMASTER AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY CLAIMS, DAMAGES OR EXPENSES INCURRED BY THE CUSTOMER WHICH ARISE DIRECTLY OR INDIRECTLY, IN WHOLE OR IN PART, DUE TO THE INSTALLATION OF ANY MODIFIED PART AND/OR PART RECEIVED FROM AN UNAUTHORIZED SERVICE CENTER.

NOTICE

This appliance is intended for professional use only and is to be operated by qualified personnel only. A Frymaster Factory Authorized Servicer (FAS) or other qualified professional should perform installation, maintenance, and repairs. Installation, maintenance, or repairs by unqualified personnel may void the manufacturer's warranty.

NOTICE

This equipment must be installed in accordance with the appropriate national and local codes of the country and/or region in which the appliance is installed.

NOTICE TO OWNERS OF UNITS EQUIPPED WITH CONTROLLERS

U.S.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation. While this device is a verified Class A device, it has been shown to meet the Class B limits.

CANADA

This digital apparatus does not exceed the Class A or B limits for radio noise emissions as set out by the ICES-003 standard of the Canadian Department of Communications.

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites de classe A et B prescrites dans la norme NMB-003 édictée par le Ministre des Communications du Canada.

 DANGER

Prior to movement, testing, maintenance and any repair on your Frymaster fryer, disconnect ALL electrical power from the fryer.

NOTICE

The instructions in this manual for using a bulk oil system for filling and discarding oil are for Frontline or RTI systems. These instructions may not be applicable to other bulk oil systems.

 DANGER

Keep all items out of drains. Closing actuators may cause damage or injury.

 DANGER

Remove all drops of water from the frypot before filling with oil. Failure to do so will cause spattering of hot liquid when the oil is heated to cooking temperature.

 WARNING

Do not add HOT or USED oil to a JIB.

 **WARNING**

NEVER drain boil out or cleaning solution into a shortening disposal unit (SDU), a built-in filtration unit, a portable filter unit, or an OQS (Oil Quality Sensor). These units are not intended for this purpose, and will be damaged by the solution and void the warranty.

 **DANGER**

When draining oil into a disposal unit, do not fill above the maximum fill line located on the container.

 **DANGER**

Allow oil to cool to 100°F (38°C) before draining into an appropriate METAL container for disposal.

 **DANGER**

When draining oil into an appropriate SDU or METAL container, ensure the container will hold at least FOUR gallons (15 liters) or more for FQE30-T or FQG30-T fryers. Otherwise oil could overflow and can cause injury.

 **DANGER**

When draining boil out solution oil into an appropriate METAL container, ensure the container will hold at least FOUR gallons (15 liters) or more for FQE30-T or FQG30-T fryers. Otherwise boil out solution could overflow and can cause injury.

 **DANGER**

Open the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.

 **DANGER**

Ensure that the frypot and filter pan are completely dry and free of water before filling with oil. Failure to do so will cause splattering of hot liquid when the oil is heated to cooking temperature.

 **WARNING**

The on-site supervisor is responsible for ensuring that operators are made aware of the inherent hazards of operating a hot oil filtering system, particularly the aspects of oil filtration, draining and cleaning procedures.

 **DANGER**

Do not drain more than one frypot at a time into the built-in filtration unit to avoid overflow and spillage of hot oil that may cause severe burns, slipping and falling.

 **WARNING**

Never drain water into the filter pan. Water will damage the filter pump

 **WARNING**

Ensure a filter paper/pad is in place prior to filtering, draining or disposing of oil. Failure to insert a filter paper/pad may result in clogged lines and/or pumps.

 **DANGER**

DO NOT drain more than one full frypot or two split frypots into the SDU at one time to avoid overflow and spillage of hot oil that may cause severe burns, slipping and falling.

 **WARNING**

Never operate the filter system without oil in the system.

 **WARNING**

Never use the filter pan to transport old oil to the disposal area.

 **WARNING**

Never leave the fryer unattended during the boil out process. If the solution overflows, press the ON/OFF switch to the OFF position immediately.

 **WARNING**

This appliance is not intended for use by children under the age of 16 or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by a person responsible for their safety. Do not allow children to play with this appliance.



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Controller Manual
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CHAPTER 1: FILTERQUICK™ FQ4000 CONTROLLER INSTRUCTIONS

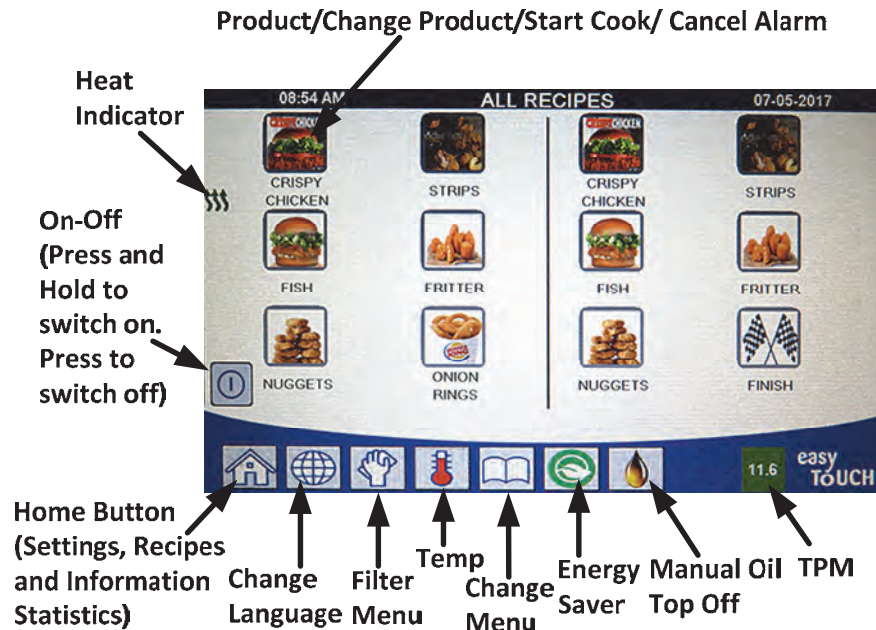
1.1 FQ4000 General Information

Welcome to the FQ4000, an easy to use touch screen controller with the utility of 40-product menu capability. One button push starts a cook cycle for a selected product. Just choose a menu item on a product button and press the START button under the display showing the desired item. The controller can move seamlessly from one product to another.

The FQ4000 will operate with electric and gas fryers, both full- and split-vat.

1.2 FQ4000 Button Description and Functions

1.2.1 Navigation Buttons



1.2.1.1 Main Menu Button Bar

The main menu button bar at the bottom of the screen is used to navigate the various FQ4000 menus (see Figure 1).



Figure 1

1.2.1.2 Home Button

The home button is used to switch to the home screen (see Figure 2). The home screen has Crew Mode, Menus, Recipes, Settings, Service, Change Language, Filter and Information Statistics buttons.



Figure 2

1.2.1.3 Crew Mode Button

The crew mode button switches from the home screen to the cooking mode (see Figure 3).



Figure 3

1.2.1.4 Menu Button

The menu button is used to set up multiple menus with specific products such as fry station, chicken, other products, breakfast, lunch or changeover menus (See Figure 4).

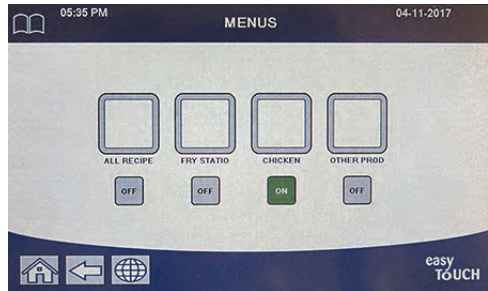


Figure 4

1.2.1.5 Recipes Button

The recipes button allows editing or adding of products (see Figure 5).

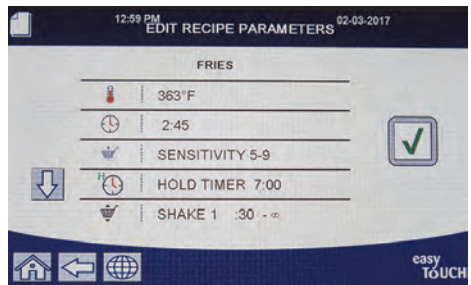


Figure 5

The settings button allows access to edit the settings of the fryer (see Figure 6).

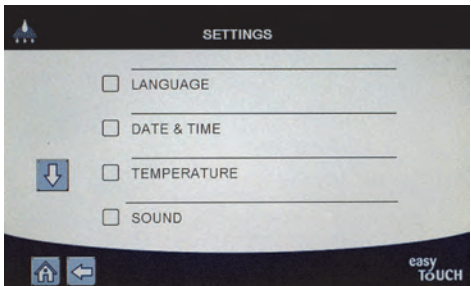


Figure 6

1.2.1.7 Service Button

The service button allows access to service functions in the fryer (see Figure 7).

During programming and other functions if no activity occurs within one minute, the controller returns to the previous operation mode.

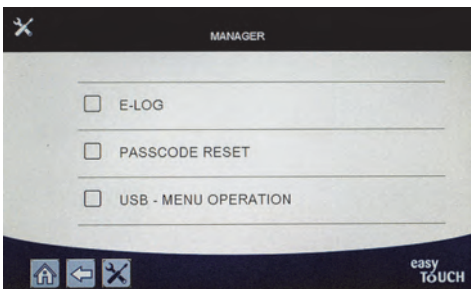


Figure 7

1.2.1.8 Power Button

Pressing and holding the power button soft powers up the user interface and fryer. Pressing the power button when the fryer is on turns the fryer off (see Figure 8).



Figure 8

1.2.1.9 Language Button

Pressing the language button switches between a primary language and a secondary language if the feature is configured in manager settings (see Figure 9).



Figure 9

1.2.1.10 Filter Menu Button

Pressing the filter menu button provides access to the functions associated with filtering, disposing, draining, filling as well as deep cleaning the vats (see Figure 10).



Figure 10

1.2.1.11 Temperature Button

Pressing the temperature button displays the actual vat temperature and the setpoint temperature (see Figure 11).



Figure 11

1.2.1.12 Menu Button

Pressing the menu button allows switching between different menus if configured (see Figure 12).



Figure 12

1.2.1.13 Energy Saver Button

Pressing the energy saver button switches the fryer from a standard setpoint to a lower temperature setpoint when the fryer is idle, to save energy costs (see Figure 13).



Figure 13

1.2.1.14 Information Statistics Button

Pressing the information statistics button provides information on filter statistics, oil statistics, life statistics, usage statistics, recovery time, last load statistics, and software versions (see Figure 14).



Figure 14

1.2.1.15 Manual Oil Top Off Button

Pressing the manual oil top off button allows the user to manually top off the vat of oil (see Figure 15).



Figure 15

1.2.1.16 Escape Menu Items

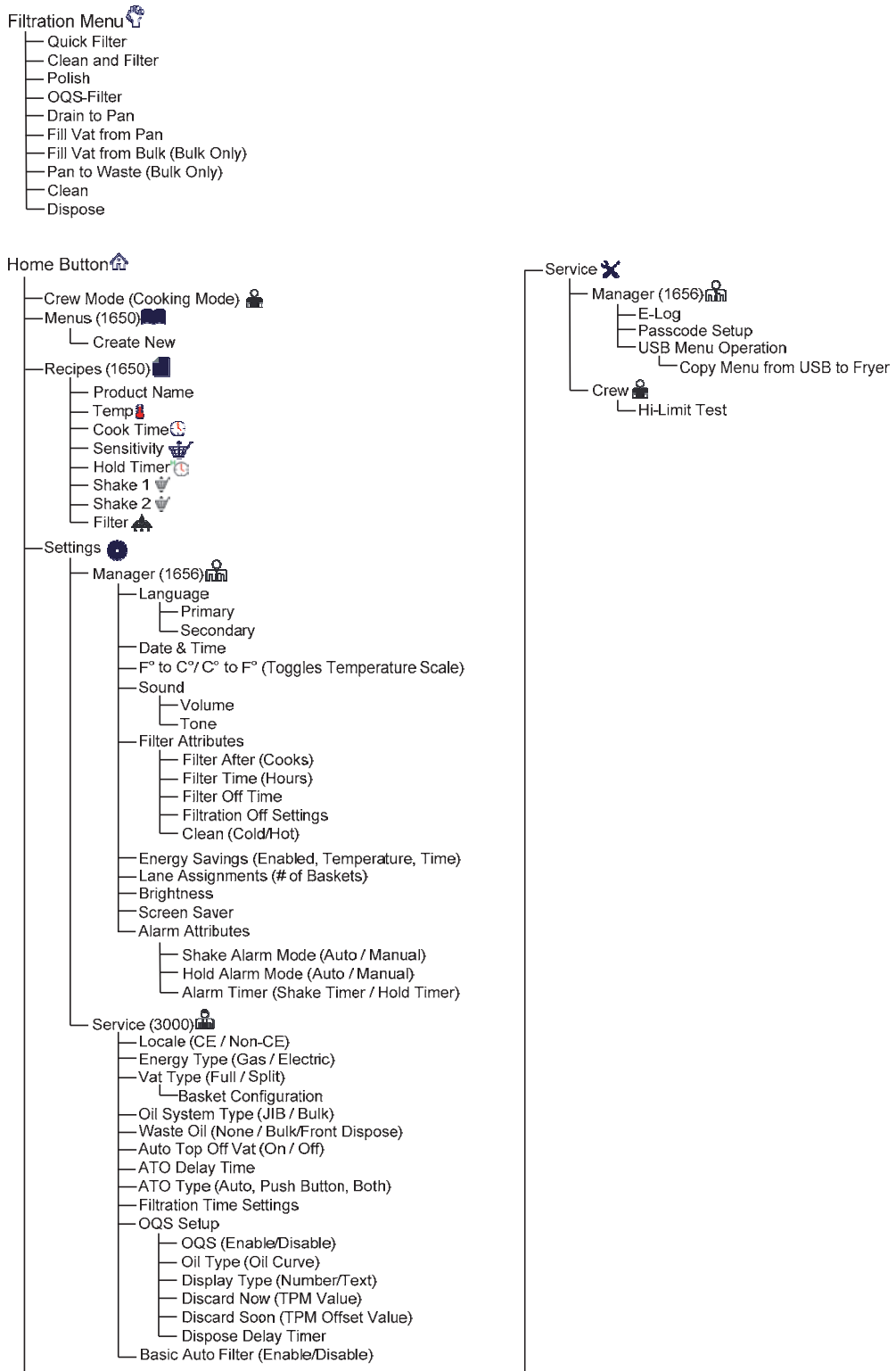
To escape or back out of MENUS and SUB-MENUS, press the Home or Back arrow button (see Figure 16).



Figure 16

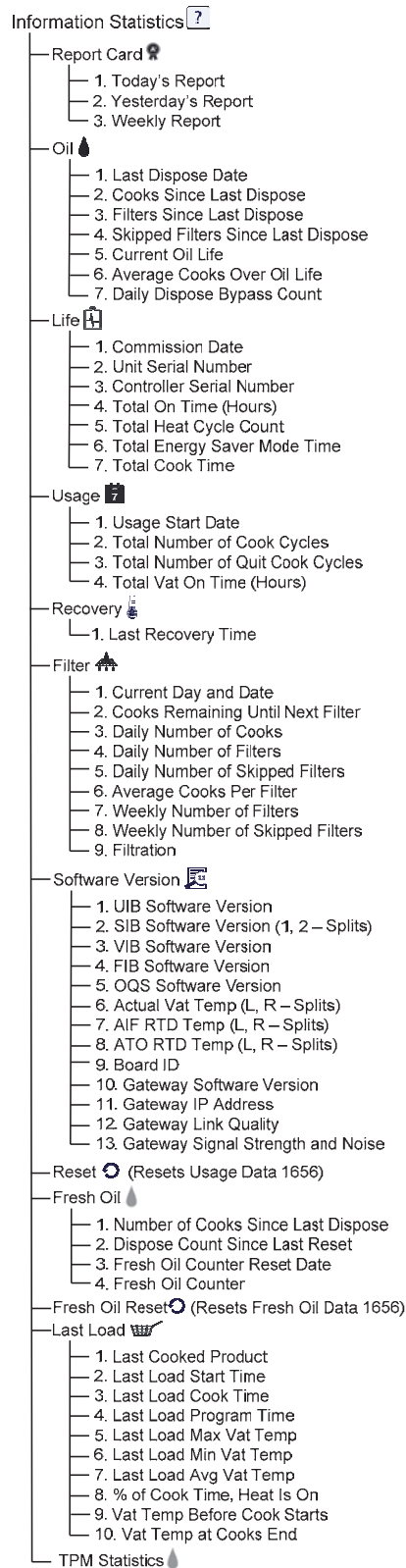
1.3 FQ4000 Menu Summary Tree

Reflected below are the major programming sections in the FQ4000 and the order in which submenu headings will be found under the sections in the Installation and Operation Manual.



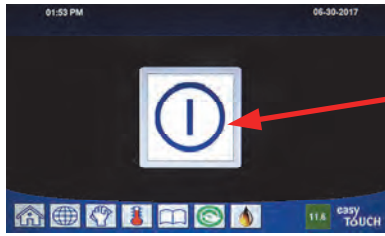
1.4 FQ4000 Information Summary Tree

Reflected below are the information statistics in the FQ4000 and the order in which submenu headings will be found in the controller.



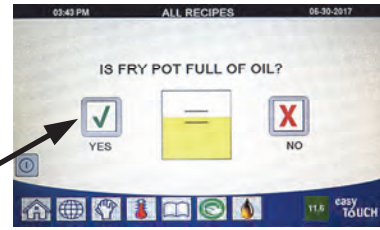
1.5 Basic Operation

FQ4000 Basic Operation



Turn Fryer ON or OFF

Press and hold button to switch on. Press button to switch off. Select button on desired side of a split vat. If the vat is **FULL** press the check ✓ YES button.



Changing a Product

Press and hold the product button to change. The outline of the button changes from green to red and then to solid red. Select another product.



Start a Cook Cycle

Press the product button to start a cook. The timer will start counting down.

Cancel a Cook Cycle

Press the RED "X" button next to the desired product.

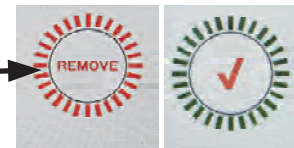


Cancel Shake Alarm

Press button under active display.

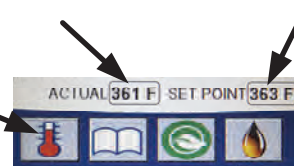
Cancel an end of Cook (REMOVE) Alarm

Press REMOVE or CHECK button under active display.



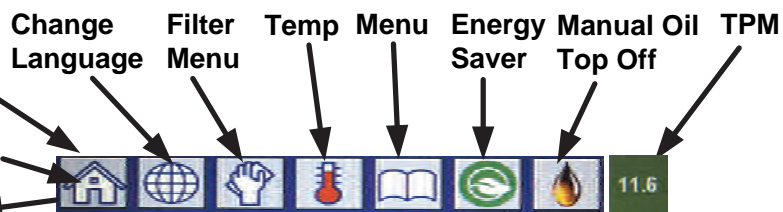
Check Temperature and Setpoint

Press temperature button. Displays actual temperature and setpoint temperature.



Home Button (Settings, Recipes and Information Statistics)

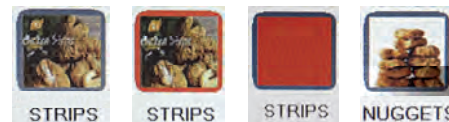
Information Statistics



1.6 Cooking

Cooking with the FQ4000

- 1** A product is shown in display. Choose a different product press and hold the product button to change. The outline of the button changes from green to red and then to solid red. Select another product.



- 2** Press the product button to begin the cook cycle.



- 3** Display changes to timer with remaining cook time.



- 4** SHAKE alternating with basket is displayed when it is time to shake the fry basket.



- 5** Press SHAKE/BASKET button to cancel SHAKE alarm.



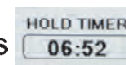
- 6** REMOVE alternating with the CHECKMARK is displayed when the cook cycle is complete.



- 7** Press the REMOVE/CHECKMARK button to cancel alarm.



- 8** HOLD TIMER is displayed below the product button as the hold timer counts down.



- 9** HOLD EXPIRED alternating with the CHECKMARK is displayed when the hold time has elapsed and expired.



















- 10** Pressing the HOLD EXPIRED/CHECKMARK button restores the display to the current selected product and the unit is ready for cooking.


















1.7 Fryer (Service) Setup Programming

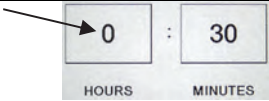












It is necessary upon initial power up or when changing out a controller to configure the parameters for the fryer. The setup includes locale, energy type, vat type, fresh oil type, waste oil type and auto top off settings. **NOTE:** These settings should **ONLY** be changed by a technician.

DISPLAY	ACTION
	1. With the controller at the off/standby position, press the Home button.
	2. Press the Settings button.
	3. Press the Service button.
3 0 0 0	4. Enter 3000
	5. Press the √ (check) button.
<input type="checkbox"/> LOCALE	6. Press the Locale button.
CE NON-CE	7. Select CE or NON-CE . CE (European Conformity standards) or Non-CE (non-European standards)
SETUP COMPLETE RESTART THE SYSTEM	8. No action.
	9. Press the √ (check) button.
<input type="checkbox"/> ENERGY TYPE	10. Press the Energy Type button.
GAS ELECTRIC	11. Select GAS or ELECTRIC
SETUP COMPLETE RESTART THE SYSTEM	12. No action.
	13. Press the √ (check) button.
<input type="checkbox"/> VAT TYPE	14. Press the Vat Type button.
FULL VAT SPLIT VAT	15. Select FULL VAT or SPLIT VAT .
6	16. Select Basket Configuration. Set for 2 to have 2 products per side available or 6 to have 6 products per side available.
	17. Press the Product icon and choose the desired product. Repeat for other lanes.
	18. Press the Save button when complete.
SETUP COMPLETE RESTART THE SYSTEM	19. No action.
	20. Press the √ (check) button.

DISPLAY	ACTION
	21. Press the Down arrow button.
<input type="checkbox"/> OIL SYSTEM TYPE	22. Press the Oil System Type button.
JIB BULK	23. Select JIB or BULK . NOTE: A JIB (Jug in a Box) or BIB (Bag in a Box) is a disposable type oil container. A bulk system has large storage oil tanks that are connected to the fryer that fills an onboard reservoir.
SETUP COMPLETE RESTART THE SYSTEM	24. No action.
	25. Press the √ (check) button.
<input type="checkbox"/> WASTE OIL	26. Press the Waste Oil button.
NONE BULK FRONT DISPOSE	27. Select NONE, BULK or FRONT DISPOSE . NOTE: Select NONE if disposing oil into an SDU or other METAL container. Select BULK if disposing oil into a bulk oil system, which has large storage oil tanks that are connected to the fryer. Select FRONT DISPOSE if disposing to a front type of disposal.
SETUP COMPLETE RESTART THE SYSTEM	28. No action.
	29. Press the √ (check) button.
<input type="checkbox"/> AUTO TOP OFF VAT	30. Press the Auto Top Off Vat button.
	31. Select LEFT VAT or RIGHT VAT for split vats.
ON OFF	32. Select ON unless top off is not desired for this vat. Default is ON .
	33. Press the Down arrow button.
<input type="checkbox"/> ATO DELAY TIME	34. Press the ATO Delay time button.
30 MINUTES 	35. Press the time to change the delay time after the top off oil reservoir has been changed before the system begins to top off. Press the √ (check) button. Enter a value greater than 0 for solid shortening. The default is 30 minutes to allow time for the shortening to start melting before top off begins. Set the value to 0 for liquid shortening.
SETUP COMPLETE	36. No action.
	37. Press the smaller √ (check) button inside the SETUP COMPLETE box.
<input type="checkbox"/> ATO TYPE	38. Press the ATO Type button.













DISPLAY	ACTION
AUTO PUSH BUTTON BOTH	39. Select AUTO if auto top if auto top off is installed. Select PUSH BUTTON if only manual top off is installed. Select BOTH if both auto and manual top off are installed and desired.
SETUP COMPLETE	40. No action.
	41. Press the ✓ (check) button inside the SETUP COMPLETE box.
□ FILTRATION TIME SETTINGS	42. Press the Filtration Time Settings button.
□ POLISH TIME □ CLEAN TIME □ AUTO FILTER FLUSH TIME □ CLEAN & FILTER FLUSH TIME 	43. These settings should only be adjusted if instructed by the factory. The default settings are: □ POLISH TIME -300 □ CLEAN TIME -3600 □ AUTO FILTER FLUSH TIME -25 □ CLEAN & FILTER FLUSH TIME -25 Press the back button when complete.
□ OQS SETUP	44. Press the OQS Setup button if an OQS sensor is installed.
□ OQS ENABLE/DISABLE	45. Press OQS ENABLE/DISABLE button to enable/disable the OQS sensor.
ENABLE DISABLE	46. Select ENABLE to enable the OQS sensor or DISABLE to disable the OQS sensor.
SETUP COMPLETE	47. No action.
	48. Press the ✓ (check) button inside the SETUP COMPLETE box.
□ OIL TYPE	49. Press the Oil Type button.
OC01v01, OC02v01, etc. 	50. Select the correct oil type curve. Press the down arrow button to scroll to additional oil type curves. Use the table on instruction sheet 8197316 to determine the oil type. Ensure the oil type matches what the store is using.
SETUP COMPLETE	51. No action.
	52. Press the ✓ (check) button inside the SETUP COMPLETE box.
□ DISPLAY TYPE	53. Press the Display Type button.
NUMBER TEXT	54. Select NUMBER or TEXT . NOTE: If set to NUMBER the Total Polar Materials is shown as a number. If set to Text, only DISCARD SOON/CONFIRM, OIL IS GOOD or DISCARD NOW is shown.
SETUP COMPLETE	55. No action.
	56. Press the ✓ (check) button inside the SETUP COMPLETE box.
□ DISCARD NOW	57. Press the Discard Now button.















DISPLAY	ACTION
<p style="text-align: center;">TPM VALUE</p>	<p>58. Press the number above TPM Value. Once the TPM (Total Polar Materials) value of the oil is attained, the fryer will prompt to discard the oil.</p>
	<p>59. Use the keypad to enter the TPM discard now value.</p>
	<p>60. Press the ✓ (check) button once the value is entered.</p>
	<p>61. Press the ✓ (check) button to save the value.</p>
<p style="text-align: center;">SETUP COMPLETE</p>	<p>62. No action.</p>
	<p>63. Press the ✓ (check) button inside the SETUP COMPLETE box.</p>
	<p>64. Press the down arrow button.</p>
<p style="text-align: center;"><input type="checkbox"/> DISCARD SOON</p>	<p>65. Press the Discard Soon button.</p>
<p style="text-align: center;">TPM VALUE</p>	<p>66. Press the number above Discard Soon TPM Value. This value is typically chosen as a number below the TPM Discard Now value. This value will display the Discard Soon message when the TPM Discard Soon value is attained. This serves as a notice to the staff that the oil will need to be discarded soon.</p>
	<p>67. Use the keypad to enter the TPM discard soon value.</p>
	<p>68. Press the ✓ (check) button once the value is entered.</p>
	<p>69. Press the ✓ (check) button to save the value.</p>
<p style="text-align: center;">SETUP COMPLETE</p>	<p>70. No action.</p>
	<p>71. Press the ✓ (check) button inside the SETUP COMPLETE box.</p>
<p style="text-align: center;"><input type="checkbox"/> DISPOSE DELAY TIMER</p>	<p>72. Press the Dispose Delay Timer button. This is the amount of time once the DISCARD NOW prompt is displayed and bypassed before the DISCARD NOW message returns. (Default is: 30 minutes. Minimum value is :00 = DISABLED, maximum value is 4:00 hours.)</p>












DISPLAY	ACTION
	73. Press the hour's box to enter a delay time in hours.
	74. Using the key pad, enter the time in hours.
	75. Press the minute's box to enter a delay time in minutes.
	76. Using the key pad enter the time in minutes.
	77. Press the √ (check) button to save the value.
<p>SETUP COMPLETE</p>	78. No action.
	79. Press the √ (check) button inside the SETUP COMPLETE box.
	80. Press the back button when complete.
	81. Press the down arrow button.
<p><input type="checkbox"/> BASIC AUTO FILTER</p>	82. Press the Basic Auto Filter button.
<p>ENABLE DISABLE</p>	83. Select ENABLE to enable Basic Auto Filter (Auto Filtration for units without AIF or OIB probes) or DISABLE to disable Basic Auto Filtration.
<p>SETUP COMPLETE</p>	84. No action.
	85. Press the √ (check) button inside the SETUP COMPLETE box.
	86. Press the Home button.
 <p>CREW MODE</p>	87. Press the Crew Mode button.
	88. Press and hold the reset switch inside the left door for thirty (30) seconds.
	89. The system reboots in approximately 45 seconds and returns to off/standby mode.












1.8 Fryer (Manager) Settings Programming











It is necessary upon initial power up or when changing out a controller to configure these local manager settings for the fryer. The setup includes language, date and time, temperature scale, sound settings, filter settings, energy savings, lane assignments and screen brightness. These settings should ONLY be changed by a manager or technician.










DISPLAY	ACTION
	1. With the controller at the off/standby position, press the Home button.
	2. Press the Settings button.
	3. Press the Manager button.
1 6 5 6	4. Enter 1656
	5. Press the √ (check) button.
□ LANGUAGE	6. Press the Language button.
	7. Press the Primary Language button.
□ ENGLISH	8. Select the language desired.
	9. Press the Secondary Language button.
□ SPANISH	10. Select the language desired.
	11. Press the Back button.
□ DATE & TIME	12. Press the Date & Time button.
	13. Press the Set Time button
	14. Press the hour's box.
	15. Using the key pad, enter the time in hours.
	16. Press the minute's box.
	17. Using the key pad enter the time in minutes.
AM PM 24hr	18. Press the AM, PM or 24HR button.



DISPLAY	ACTION
	19. Press the √ (check) button.
SETUP COMPLETE	20. No action.
	21. Press the smaller √ (check) button inside the SETUP COMPLETE box.
	22. Press the Set Date button
	23. Press the Date Format box to toggle between MM-DD-YY or DD-MM-YY.
	24. At the top of the screen, the year is shown. Press the left or right arrow to select the year.
	25. Below the year is the month. Press the left or right arrow to select the month.
	26. Select the date using the numbered keys and press the √ (check) button.
SETUP COMPLETE	27. No action.
	28. Press the smaller √ (check) button inside the SETUP COMPLETE box.
	29. Press the DST (DAYLIGHT SAVINGS TIME) SETUP button.
<input type="checkbox"/> DST ON/OFF	30. Press the DST ON/OFF button.
	31. Select ON to enable DST or OFF to disable DST.
SETUP COMPLETE	32. No action.
	33. Press the smaller √ (check) button inside the SETUP COMPLETE box.
<input type="checkbox"/> DST SETTINGS	34. Press the DST SETTINGS button.
<input type="checkbox"/> DST START MONTH <input type="checkbox"/> DST START SUNDAY <input type="checkbox"/> DST END MONTH <input type="checkbox"/> DST END SUNDAY	35. Select any of these and use the keypad to modify. The default settings for the US are: DST START MONTH -3 DST START SUNDAY -2 DST END MONTH -11 DST END SUNDAY -1
	36. Press the √ (check) button when complete.
SETUP COMPLETE	37. No action.
	38. Press the smaller √ (check) button inside the SETUP COMPLETE box.
	39. Press the Back button three (3) times.
<input type="checkbox"/> F° TO C°	40. Press the F° TO C° or F° TO C° button. NOTE: F is used for Fahrenheit, C is used for Celsius

DISPLAY	ACTION
CONFIRM  	41. Select YES to toggle the temperature scale.
COMPLETED SUCCESSFULLY 	42. Press the √ (check) button when complete.
<input type="checkbox"/> SOUND	43. Press the Sound button.
 	44. Use the up down arrows to change the volume level and tone. Volume has nine levels with 1 being the softest and 9 the loudest. Tone has three frequencies from 1-3. Use different frequencies to customize the sound.
	45. Press the √ (check) button when complete.
SETUP COMPLETE	46. No action.
	47. Press the smaller √ (check) button inside the SETUP COMPLETE box.
	48. Press the Down button.
<input type="checkbox"/> FILTER ATTRIBUTES	49. Press the Filter Attributes button. The auto filtration mode uses two measures before prompting to filter. One checks for cook cycles which is adjusted in the FILTER AFTER setting and the other checks for time which is adjusted in the following section FILTER TIME setting. The prompt for filtration is initiated by whichever occurs first; either the number of cycles elapsed or time elapsed.
<input type="checkbox"/> FILTER AFTER	50. Press the FILTER AFTER button. The FILTER AFTER option is used to set the number of cooking cycles which occur before the filtration prompt is displayed.
	51. Press the √ (check) button to continue or press the number button and enter the number of cooks and press the √ (check) button
	52. Press the √ (check) button.
SETUP COMPLETE	53. No action.
	54. Press the smaller √ (check) button inside the SETUP COMPLETE box.
<input type="checkbox"/> FILTER TIME	55. Press the Filter Time button. The Filter Time option is used to set the elapsed time before a filtration prompt. This option is useful in lower volume stores, where filtration is desired more often than the amount the cook cycles would generate.

DISPLAY	ACTION
	56. Press the √ (check) button to continue or press the number button and enter the number of hours in between filter prompts. (ex. after every two hours, enter as 2) and press the √ (check) button. (By default, the time is set to 0 hours.)
	57. Press the √ (check) button.
SETUP COMPLETE	58. No action.
	59. Press the smaller √ (check) button inside the SETUP COMPLETE box.
<input type="checkbox"/> FILTER OFF TIME	60. Press the Filter Off Time button. The Filter Off Time option is used to set times in which the filter prompt is disabled (ex. noon rush).
 	61. Select ON to enable FILTER OFF TIME. Select OFF to disable FILTER OFF TIME.
<input type="checkbox"/> FILTRATION OFF SETTINGS	62. Press the Filtration Off Settings button. The Filtration Off Settings option is used to set the times in which the filter prompt is disabled (ex. noon rush). NOTE: If FILTER OFF TIME is disabled (OFF), this option is grayed out and not available.
	63. Use the up down arrows to scroll between M-F 1 thru SUN 4. There are a total of 12 periods which can be programmed for filter prompt lockout. Select the field to edit the start and stop times of when the filter prompt should be suspended. Select AM/PM. Once the times are selected press the check button to save the setting. (The example at the left shows on Monday – Friday no filtering is desired during a lunch rush from 11:00 AM until 2:00 PM.)
	64. Once the times are selected press the √ (check) button.
SETUP COMPLETE 	65. Press the smaller √ (check) button inside the SETUP COMPLETE box.
	66. Press the Down button.
<input type="checkbox"/> CLEAN	67. Press the Clean button. Choose HOT (Boil Out) or COLD (Cold Soak).
SETUP COMPLETE RESTART THE SYSTEM 	68. Press the √ (check) button.
	69. Press the Back button.








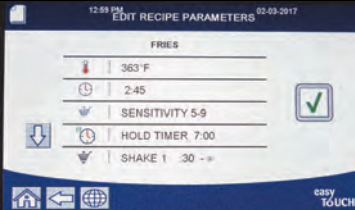

DISPLAY	ACTION
<p>□ ENERGY SAVINGS</p>	<p>70. Press the Energy Savings button. The Energy Savings option is used during idle periods to lower the frypot temperature to save energy.</p>
	<p>71. Press the Enable button to toggle the Energy Saving option on or off.</p>
	<p>72. Press the Set Back Temp button to change the setpoint of the Energy Saving option. Use the number pad to enter the Energy Saving setpoint temperature and press the √ (check) button.</p>
	<p>73. Press the Idle Time button to change the amount of time in minutes the vat sits idle before automatically entering the Energy Saving mode. Use the number pad to enter the Energy Saving setpoint temperature and press the √ (check) button.</p>
	<p>74. Press the √ (check) button.</p>
<p>SETUP COMPLETE</p>	<p>75. No action.</p>
	<p>76. Press the smaller √ (check) button inside the SETUP COMPLETE box.</p>
<p>□ LANE ASSIGNMENTS</p>	<p>77. Press the Lane Assignments button. This is used to set the number of products per vat.</p>
	<p>78. Press the 6 button to have 12 products per vat (6 per side) available, or 2 to have 2 products per side (4 per vat) available.</p>
	<p>79. Press the icon below each lane and choose the associated product to cook in that lane.</p>
	<p>80. Press the save button.</p>
<p>SETUP COMPLETE RESTART THE SYSTEM</p>	<p>81. No action.</p>
	<p>82. Press the smaller √ (check) button inside the SETUP COMPLETE RESTART THE SYSTEM box.</p>
<p>□ BRIGHTNESS</p>	<p>83. Press the Brightness button. This is used to set the brightness of the screen. Use the up down arrows to adjust. (Default is 100.)</p>
	<p>84. Press the √ (check) button.</p>
<p>SETUP COMPLETE</p>	<p>85. No action.</p>
	<p>86. Press the smaller √ (check) button inside the SETUP COMPLETE box.</p>










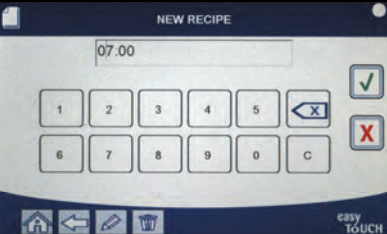

DISPLAY	ACTION
<p>□ SCREEN SAVER</p>	<p>87. Press the Screen Saver button. This is used to set the amount of time, after the controller is turned off, before going into a screen saver mode. Use the up down arrows to adjust time. (Default is 15 minutes.)</p>
<p></p>	<p>88. Use the up down arrows to change the brightness of the screen. Brightness has nine levels with 100 being the brightest and 10 the darkest.</p>
<p></p>	<p>89. Press the √ (check) button when complete.</p>
<p>SETUP COMPLETE</p>	<p>90. No action.</p>
<p></p>	<p>91. Press the smaller √ (check) button inside the SETUP COMPLETE box.</p>
<p>□ ALARM ATTRIBUTES</p>	<p>92. Press the Alarm Attributes button</p>
<p>□ SHAKE ALARM MODE</p>	<p>93. Press the Shake Alarm Mode button. Select Auto or Manual. The Shake Alarm Mode allows the user to select between auto or manual shake alarm cancel.</p>
<p>SETUP COMPLETE RESTART THE SYSTEM</p> <p></p>	<p>94. Press the √ (check) button.</p>
<p>□ HOLD ALARM MODE</p>	<p>95. Press the Hold Alarm Mode button. Select Auto or Manual. The Hold Alarm Mode allows the user to select between auto or manual hold alarm cancel.</p>
<p>SETUP COMPLETE RESTART THE SYSTEM</p> <p></p>	<p>96. Press the √ (check) button.</p>
<p>□ ALARM TIMER</p>	<p>97. Press the Alarm Timer button. These settings allow the user to select the amount of time before auto cancelling the shake alarm timer or hold alarm. Default settings are 5 seconds.</p>
<p>SETUP COMPLETE RESTART THE SYSTEM</p> <p></p>	<p>98. Press the √ (check) button.</p>
<p></p>	<p>99. Press the Back button.</p>
<p></p>	<p>100. Press the Home button.</p>
<p> CREW MODE</p>	<p>101. Press the Crew Mode button.</p>






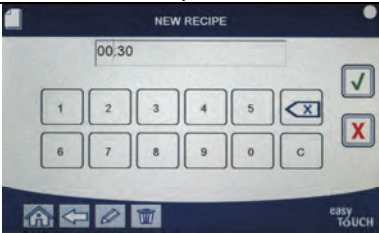






DISPLAY	ACTION
	102. Press and hold the reset switch inside the left door for thirty (30) seconds.
	103. The system reboots in approximately 45 seconds and returns to off/standby mode.



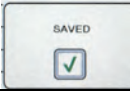



1.9 Adding or Editing Existing Products

This function is used to add additional products or edit existing products.

DISPLAY	ACTION
	1. Press the Home button.
	2. Press the Recipes button.
<p data-bbox="386 751 479 783">1 6 5 0</p>	3. Enter 1650
	4. Press the √ (check) button.
	5. Choose the product icon to edit or press the + to add a new product.
	6. Press the pencil icon at the bottom of the screen to edit an existing product.
	7. Enter or change the name of the product using the keyboard.
	8. Press the √ (check) button.
	9. This screen displays the current setpoint, cook time, sensitivity, hold timer, shake timers and filter settings. To edit a parameter, press the item to edit.
	10. To edit temperature, press the temp button.






DISPLAY	ACTION
	<p>11. Use the keypad to enter or edit the cook temperature for the product.</p>
	<p>12. Press the √ (check) button.</p>
	<p>13. Press the cook time button.</p>
	<p>14. Use the keypad to enter or edit the cook time in minutes and seconds.</p>
	<p>15. Press the √ (check) button.</p>
	<p>16. Press the load compensation or sensitivity button.</p>
	<p>17. Use the up and down arrows to change the load compensation or sensitivity setting recommended for this product.</p> <p>This setting allows the product compensation (sensitivity) to be changed. Some menu items may need an adjustment, depending on their cooking characteristics. NOTE: It is highly recommended to NOT adjust this setting, as it could have an adverse effect on the products cooking cycles.</p> <p>The default setting for product compensation is set to four.</p>
	<p>18. Press the √ (check) button.</p>
	<p>19. Press the Hold Timer button.</p>
	<p>20. Enter the time in minutes and seconds for the product hold time.</p>
	<p>21. Press the √ (check) button.</p>






DISPLAY	ACTION
	22. Press the Shake Timer 1 button.
	23. Enter the time in minutes and seconds for the first shake to be performed.
	24. Press the √ (check) button.
	25. Press the down arrow to scroll to more settings.
	26. Press the Shake Timer 2 button if an additional shake is needed, otherwise skip to step 30.
	27. Enter the time in minutes and seconds for the seconds shake to be performed.
	28. Press the √ (check) button.
	29. Press the Filter button.
	30. Ensure that the filter button is ON to enable auto filtration for this product. This setting is used to prevent co-mingling of product specific oils. For products such as FISH, select NO to prevent auto filtration if desired.
	31. Press the √ (check) button.
	32. Choose the icon to associate with the product recipe that is being entered or edited.
	33. Press the √ (check) button.

DISPLAY	ACTION
	<p>34. Choose the menu(s) to associate with the product recipe that is being entered or edited.</p>
	<p>35. Press the √ (check) button.</p>
	<p>36. The controller displays SAVED.</p>
	<p>37. Press the √ (check) button.</p>
	<p>38. Select another product to edit or press the + key to add additional products. If finished press the home button.</p>
 <p>CREW MODE</p>	<p>39. Press the Crew Mode button to return to main screen.</p>

1.10 Adding or Editing Menus




This function is used to add or edit menus. Menus allow the operator to group certain products together. For example, setting up a breakfast menu allows grouping of breakfast only products. This is helpful when switching products by narrowing the number of products to choose from.


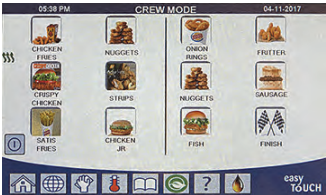
DISPLAY	ACTION
	<p>1. Press the Home button.</p>
	<p>2. Press the Menu button.</p>
<p>1 6 5 0</p>	<p>3. Enter 1650</p>
	<p>4. Press the √ (check) button.</p>
	<p>5. Select a menu by pressing the button above the ON/OFF button to edit products (highlighted in green) or press the + button to add a new menu. If adding a new menu, enter name of menu on next screen and press the √ (check) button. If deleting a menu, highlight the menu and press the trash can at the bottom of the screen.</p>
	<p>6. Press the pencil icon at the bottom of the screen to edit an existing menu.</p>

DISPLAY	ACTION
	<p>7. Select the desired products by pressing their icons to be added to the chosen menu. The selected products will be highlighted in green. To unselect a product, press the icon and the highlight will change from green to gray.</p>
	<p>8. Press the ✓ (check) button when finished to save selected products to menu.</p>
	<p>9. Press the Back button to edit additional menus starting with step 5, otherwise advance to the next step</p>
	<p>10. Press the Home button.</p>
 CREW MODE	<p>11. Press the Crew Mode button.</p>

1.11 Changing Menus

If separate menus are created for Fry Station, Chicken or Other Product, pressing the MENU button from the main screen shall display menu change options. Pressing the desired menu shall switch the menus.

DISPLAY	ACTION
	<p>1. Press the Menu button.</p>
	<p>2. Press the ON/OFF button under the desired menu to switch menus. Once the desired menu is selected, "ON" it is highlighted under the menu.</p> <p>NOTE: Only one menu can be selected at a time.</p>
	<p>3. Press the back button to return to the main screen.</p>

DISPLAY	ACTION
	4. Press the product icon to switch products.
	5. Display returns to main screen.





1.12 Service Tasks


Covered in this section are crew and manager service tasks used in stores such as High Limit Test, E-Log (error log), password setup, and functions to copy menus to and from the fryer from USB using menu connect.

1.12.1 High Limit Test

The high-limit test mode is used to test the high limit circuit. The high-limit test will destroy the oil. It should only be performed with old oil. Shut the fryer off and call for service immediately if the temperature reaches 460°F (238°C) without the second high-limit tripping and the controller displays HIGH LIMIT FAILURE DISCONNECT POWER with an alert tone during testing.

The test is cancelled at any time by turning the fryer off. When the fryer is turned back on, it returns to the operating mode and displays the product.

DISPLAY	ACTION
	1. With the controller at the off/standby position, press the Home button.
	2. Press the Service button.
	3. Press the Crew button.
	4. Select LEFT VAT or RIGHT VAT for split vats.
<p>PRESS AND HOLD</p>	5. Press and hold the Press and Hold button to begin high limit test.
<p>RELEASE</p>	6. While pressing and holding the button the vat begins to heat. The controller displays the actual vat temperature during the test. When the temperature reaches 410°F ± 10° F (210°C ± 12°C)*, the controller displays HOT HI-1 (ex. 410F) and continues heating. *NOTE: In controllers used in the European Union (those with the CE mark), the temperature is 395°F (202°C) when the controller displays HOT HI-1.
<p>HOT HI-1</p>	7. While continuing to press and hold the button, the fryer continues heating until the high limit opens. Generally this happens once the









DISPLAY	ACTION
	temperature reaches 423°F to 447°F (217°C to 231°C) for non-CE high limits and 405°F to 426°F (207°C to 219°C) for CE high limits.
HELP HI-2	8. Release the button. The vat stops heating and the controller displays the current temperature setting until the temperature cools below 400°F (204°C). Press the power button to cancel the alarm.
HIGH LIMIT FAILURE DISCONNECT POWER	9. If the controller displays this message, disconnect power to the fryer and immediately call for service.
	10. After a high limit test, once the vat cools below 400°F (204°C), dispose of the oil.

1.12.2 Manager Functions

1.12.2.1 E-Log












The E-LOG function is used to view the ten (10) most recent error codes encountered on the fryer. These codes are displayed with the most recent errors displayed first. The error code, time and date are displayed.

If no errors exist, the controller is blank in this function. Errors are displayed with the side of the error if a split vat, error code, time and date. An error code displaying an "L" indicates left side of a split vat while an "R" indicates right side of a split vat where the error occurred (R E19 06:34AM 04/22/2014). An error code displaying a "G" indicates this was a global error not specifically linked to a particular vat. Error codes are listed in section 7.6 of this manual.

DISPLAY	ACTION
	1. Press the Home button.
	2. Press the Service button.
	3. Press the Manager button.
1 6 5 6	4. Enter 1656
	5. Press the ✓ (check) button.
E-LOG	6. Press the E-LOG button. The three most recent errors are shown.
	7. Press the Down button. The next three errors are shown. Continue pressing the down arrow to view additional errors.
 	8. Press the Back button to return to menu or press the Home button to exit.
 CREW MODE	9. Press the Crew Mode button.





1.12.2.2 Passcode Setup

The password mode allows a restaurant manager to change passwords for various modes.

DISPLAY	ACTION
	1. Press the Home button.
	2. Press the Service button.
	3. Press the Manager button.
1 6 5 6	4. Enter 1656
	5. Press the ✓ (check) button.
□ PASSCODE SETUP	6. Press the PASSCODE SETUP button.
<ul style="list-style-type: none"> □ MENUS □ RECIPES □ SETTINGS MANAGER □ DIAGNOSTICS MANAGER 	7. Select the desired passcode to modify. Use the down arrow to scroll to additional setting. Defaults are: MENUS 1650 RECIPES 1650 SETTINGS MANAGER 1656 DIAGNOSTICS MANAGER 1656
	8. Use the keypad to enter new passcode for the selected item.
	9. Press the ✓ (check) button.
RETYPE PASSWORD	10. Use the keypad to enter the new passcode again to verify.
	11. Press the ✓ (check) button.
PASSCODE SETUP SUCCESSFUL 	12. Press the ✓ (check) button.
<ul style="list-style-type: none"> □ MENUS □ RECIPES □ SETTINGS MANAGER □ DIAGNOSTICS MANAGER  	13. Press the Back button to return to menu or press the Home button to exit.
 CREW MODE	14. Press the Crew Mode button.

1.12.2.3 USB – Menu Operation



This option allows the ability to upload menus to the controller. This allows products to be created in MenuSync to be saved to a USB drive and uploaded to the fryer.

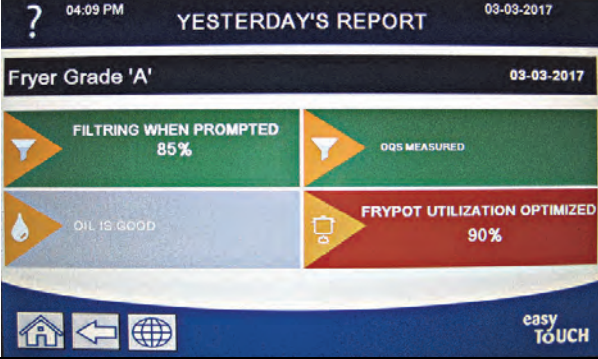

DISPLAY	ACTION
	1. Press the Home button.
	2. Press the Service button.
	3. Press the Manager button.
1 6 5 6	4. Enter 1656
	5. Press the ✓ (check) button.
<input type="checkbox"/> USB – MENU OPERATION	6. Press the USB – MENU OPERATION button.
<input type="checkbox"/> COPY MENU FROM USB TO FRYER	7. Press the COPY MENU FROM USB TO FRYER button.
INSERT USB...	8. Insert the USB drive into the connector behind the far left fryer door.
IS USB INSERTED? YES NO	9. Press YES once the USB drive is inserted.
READING FILE FROM USB PLEASE DO NOT REMOVE USB WHILE READING	10. No action required.
UI-UI MENU DATA TRANSFER IN PROGRESS	11. No action required while the file is loading.
MENU UPGRADE IN PROGRESS	12. No action required while the upgrade is in progress.
UPGRADE COMPLETE? YES	13. Press YES.
MENU UPGRADE COMPLETED, REMOVE THE USB AND RESTART THE SYSTEM.	14. Remove the USB drive and power cycle the entire fryer battery using the reset switch behind the far left fryer door below the USB connector. NOTE: Ensure the switch is pressed and held for at least 30 seconds.

1.13 Information Statistics

1.13.1 Report Card Statistics





The report card statistics function is used to view a quick report on filtering, OQS, oil quality and frypot utilization.

DISPLAY	ACTION
	1. Press the Information button.
	2. Press the Report Card button.
<input type="checkbox"/> TODAY'S REPORT <input type="checkbox"/> YESTERDAY'S REPORT <input type="checkbox"/> WEEKLY REPORT	3. Select the desired report

DISPLAY	ACTION
	<p>4. The report will display the grade based on if the crew is filtering when prompted; if OQS is being measured regularly; the current quality of the oil; and the fryer usage.</p>
	<p>5. Press the back button to return to menu or the home button to exit.</p>






1.13.2 Oil Statistics

The oil statistics function is used to view the date of last dispose, the number of cooks since last dispose, filters since last dispose, skipped filters since last dispose, current oil life and average number of cooks over the oil life.

DISPLAY	ACTION
	<p>1. Press the Home button and then the Information button.</p>
	<p>2. Press the Oil button.</p>
<p>1. LAST DISPOSE DATE 2. COOKS SINCE LAST DISPOSE 3. FILTERS SINCE LAST DISPOSE 4. SKIPPED FILTERS SINCE LAST DISPOSE</p> 	<p>3. Press the down arrow to scroll to more statistics.</p>
<p>5. CURRENT OIL LIFE 6. AVERAGE COOKS OVER OIL LIFE 7. DAILY DISPOSE BYPASS COUNT</p> 	<p>4. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.</p>






1.13.3 Life Statistics

The life statistics function is used to view the commission date of the fryer which is automatically set once the fryer has completed 25 cooks, the serial number of the controller, the total time the fryer has operated in hours and the total heat cycle count of the fryer (the amount of times the controller has turned the heat on/off).

DISPLAY	ACTION
 	1. Press the Home button and then the Information button.
	2. Press the Life Stats button.
1. COMMISSION DATE 2. UNIT SERIAL NUMBER 3. CONTROLLER SERIAL NUMBER 4. TOTAL ON TIME (HOURS) 5. TOTAL HEAT CYCLE COUNT 6. TOTAL ENERGY SAVER MODE TIME 7. TOTAL COOK TIME  	3. Press the back button to return to menu or the home button to exit.





1.13.4 Usage Statistics

The usage statistics displays total cook cycles per vat, number of cook cycles per vat, number of cook cycles exited prior to completion, the number of hours the vat(s) have been on and the date of last usage reset.

DISPLAY	ACTION
 	1. Press the Home button and then the Information button.
	2. Press the Usage Stats button.
1. USAGE START DATE 2. TOTAL NUMBER OF COOK CYCLES 3. TOTAL NUMBER OF QUIT COOK CYCLES 4. TOTAL VAT ON TIME (HOURS)  	3. Press the back button to return to menu or the home button to exit.






1.13.5 Recovery Time






Recovery is used to determine if the fryer is operating correctly. Recovery is the time required for the fryer to raise the temperature of the oil 50°F (28°C) between 250°F (121°C) and 300°F (149°C). Maximum recovery time should not exceed 1:40 for electric or 3:15 for gas.

DISPLAY	ACTION
 	1. Press the Home button and then the Information button.
	2. Press the Recovery button. The time is displayed in minutes and seconds.
1. LAST RECOVERY TIME  	3. Press the back button to return to menu or the home button to exit.

1.13.6 Filter Statistics






The filter statistics function is used to view the number of cooks remaining until the next filter, the number of cooks per vat, the number of filters per vat, the number of skipped or bypassed filters per vat and the average number of cook cycles per filter per day.



DISPLAY	ACTION
 	1. Press the Home button and then the Information button.
	2. Press the Filter button.
<input type="checkbox"/> DAY 1 <input type="checkbox"/> DAY 2 <input type="checkbox"/> DAY 3 <input type="checkbox"/> DAY 4 	3. Select and press the desired day. Press the down arrow to scroll back additional days.
1. DAY AND DATE (Day and date of filter statistics displayed) 2. COOKS REMAINING UNTIL NEXT FILTER (Number of times cooks that remain until the next filter prompt.) 3. DAILY NUMBER OF COOKS (Number of cooks that day) 4. DAILY NUMBER OF FILTERS (Number of times vat filtered that day.) 	4. Press the down arrow to scroll to more statistics.
5. DAILY NUMBER OF SKIPPED FILTERS (Number of times filter was bypassed that day.)	5. Press the up arrow to scroll up or the back button to return to select

DISPLAY	ACTION
<p>6. AVERAGE COOKS PER FILTER - (Average number of cook cycles per filter that day.)</p> <p>7. WEEKLY NUMBER OF FILTERS - (Number of times vat filtered in the past week.)</p> <p>8. WEEKLY NUMBER OF SKIPPED FILTERS (Number of times filters were bypassed in the past week.)</p>  <p>9. FILTRATION - (Displays if filtration is enabled or disabled. Diagnostic tool to determine status of FIB board.)</p>  	<p>another day.</p>
 	<p>6. Press the back button to return to menu or the home button to exit.</p>

1.13.7 Software Version






The software version function provides the software versions of the controller and circuit boards in the fryer system; the values of the temperature probe; the values of the AIF RTD probe and the ATO RTD probe and information on any attached gateway.

DISPLAY	ACTION
 	<p>1. Press the Home button and then the Information button.</p>
	<p>2. Press the down arrow button.</p>
	<p>3. Press Software Version button.</p>
<p>INITIALIZING ...</p>	<p>4. No action needed.</p>
<p>1. UIB SOFTWARE VERSION 2. SIB SOFTWARE VERSION 3. VIB SOFTWARE VERSION 4. FIB SOFTWARE VERSION</p> 	<p>5. Press the down arrow to scroll to additional software versions and probe temperatures. NOTE: Split vats will have an SIB2 and left and right vat, AIF, and ATO temperatures.</p>
<p>5. OQS SOFTWARE VERSION 6. ACTUAL VAT TEMP 7. AIF RTD TEMP 8. ATO RTD TEMP 9. BOARD ID</p>	<p>6. Press the down arrow to scroll to additional software versions and information.</p> <p>7. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.</p>

DISPLAY	ACTION
 <p> 10. GATEWAY SOFTWARE VERSION 11. GATEWAY IP ADDRESS 12. GATEWAY LINK QUALITY 13. GATEWAY SIGNAL STRENGTH AND NOISE </p> 	




1.13.8 Reset Usage Statistics



The reset function resets all usage data in the usage statistics.

DISPLAY	ACTION
	1. Press the Home button and then the Information button.
	2. Press the down arrow button.
	3. Press Reset button.
1 6 5 6	4. Enter 1656
	5. Press the √ (check) button.
ALL USAGE DATA HAS BEEN RESET	6. Press the √ (check) button.
	7. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.

1.13.9 Fresh Oil Statistics









The fresh oil statistics function is used to view information on the current fresh oil.

DISPLAY	ACTION
	1. Press the Home button and then the Information button.
	2. Press the down arrow button.
	3. Press the Fresh Oil button.
1. NUMBER OF COOKS SINCE LAST	4. Press the back button to return to menu or the

DISPLAY	ACTION
DISPOSE 2. DISPOSE COUNT COOKS SINCE LAST RESET 3. FRESH OIL COUNTER RESET DATE 4. FRESH OIL COUNTER  	home button to exit.




1.13.10 Fresh Oil Reset Usage Statistics




The reset function resets all fresh oil data in the fresh oil statistics.

DISPLAY	ACTION
 	1. Press the Home button and then the Information button.
	2. Press the down arrow button.
	3. Press Fresh Oil Reset button.
1 6 5 6	4. Enter 1656
	5. Press the √ (check) button.
FRESH OIL DATA HAS BEEN RESET 	6. Press the √ (check) button.
 	7. Press the back button to return to menu or the home button to exit.

1.13.11 Last Load Statistics




The last load statistics provides data for the last cook cycle.

DISPLAY	ACTION
 	1. Press the Home button and then the Information button.
	2. Press the Last Load button.
1. LAST COOKED PRODUCT 2. LAST LOAD START TIME 3. LAST LOAD COOK TIME 4. LAST LOAD PROGRAM TIME	3. Press the down arrow to

DISPLAY	ACTION
	scroll to more statistics.
5. LAST LOAD MAX VAT TEMP 6. LAST LOAD MIN VAT TEMP 7. LAST LOAD AVG VAT TEMP 8. % OF COOK TIME, HEAT IS ON  9. VAT TEMP BEFORE COOK STARTS 10. VAT TEMP AT COOKS END	4. Press the down arrow to scroll to more statistics.
	5. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.

1.13.12 TPM Statistics

The last load statistics provides data for the last cook cycle.

DISPLAY	ACTION
	1. Press the Home button and then the Information button.
	2. Press the TPM Statistics button. The TPM values for the previous valid seven (7) days are listed.
	3. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.

CHAPTER 2: FILTERQUICK™ FQ4000

FILTRATION MENU FUNCTIONS INSTRUCTIONS



2.1 Filtration Menu

The filtration menu selections are used for filtering, draining, filling, disposing and cleaning the vats.

2.1.1 Quick Filter – Filter Prompt

Quick Filter is a feature that, after a number of preset cook cycles or time, will automatically prompt to filter the frypots. This function can also be performed on demand as well and is covered in the next section.

Note: Simultaneous filtering of multiple vats does not occur.

DISPLAY	ACTION
FILTRATION REQUIRED  FILTER NOW?	1. Press the √ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is cancelled and the fryer resumes normal operation. The controller will prompt again soon to filter the oil. This sequence repeats until a filter is completed.
OIL LEVEL TOO LOW	2. On some configurations, this message may not appear. Displayed if the oil level is too low. Press the √ (check - YES) button to acknowledge issue and return to idle cook mode. Check to see if the JIB is low on oil. If JIB is not low and this continues to occur, contact your FAS.
REMOVE FILTER PAN	3. Carefully pull the filter pan from the fryer. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
IS FILTER PAN EMPTY?	4. If the filter pan is empty press the √ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. Filtering is cancelled and the fryer resumes normal operation. Remove the oil from the pan and after inserting the filter pan, retry the function.
SKIM DEBRIS FROM VAT - PRESS CONFIRM WHEN COMPLETE	5. Skim the crumbs from the oil with the skimmer using a front to back motion, removing as many crumbs as possible from each vat. This is critical to optimizing usable oil life and quality in the oil. Press the √ (check- YES) button when complete.
START FILTRATION 	6. Press the BLUE button to start filtration.
INSERT PAN	7. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
DRAINING	8. No action required.
FLUSHING	9. No action required.
FILLING	10. No action required.
IS VAT FULL?	11. On some configurations, this message may not appear. Press the √ (check -YES) button if the vat is full to continue. The controller returns to idle cook mode. Press X (NO) if the

DISPLAY	ACTION
	vat is not filled completely and the pump will run again.
PREHEAT	12. No action required. Displayed until the fryer reaches setpoint.
START	13. Fryer is ready for use. Displayed once fryer reaches setpoint.

The complete filtering process takes roughly four minutes.


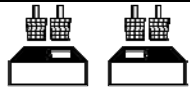

If the oil isn't completely returned during filtration, the system may proceed to an incomplete filtration function.


NOTE: If during filtration the filter pan is removed, the filtration process stops and resumes once pan is reset into place.

⚠ DANGER
Keep all items out of drains. Closing actuators may cause damage or injury.

2.1.2 Quick Filter on Demand

Quick Filter on demand filtration is used to manually start a quick filter. **Note:** Simultaneous filtering of multiple vats cannot occur.

DISPLAY	ACTION
	<p>1. The fryer MUST be at setpoint temperature. Press the filtration menu button.</p>
	<p>2. Select LEFT VAT or RIGHT VAT for split vats.</p>
	<p>3. Select QUICK FILTER.</p>
<p>QUICK FILTER NOW?</p>	<p>4. Press the ✓ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is cancelled and the fryer resumes normal operation.</p>
<p>OIL LEVEL TOO LOW</p>	<p>5. On some configurations, this message may not appear. Displayed if the oil level is too low. Press the ✓ (check - YES) button to acknowledge issue and return to idle cook mode. Check to see if the JIB is low on oil. If JIB is not low and this continues to occur, contact your FAS.</p>

REMOVE FILTER PAN	6. Carefully pull the filter pan from the fryer. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
IS FILTER PAN EMPTY?	7. If the filter pan is empty press the √ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. Filtering is cancelled and the fryer resumes normal operation. Remove the oil from the pan and after inserting the filter pan, retry the function.
SKIM DEBRIS FROM VAT - PRESS CONFIRM WHEN COMPLETE	8. Skim the crumbs from the oil with the skimmer using a front to back motion, removing as many crumbs as possible from each vat. This is critical to optimizing usable oil life and quality of the oil. Press the √ (check - YES) button when complete.
START FILTRATION 	9. Press the BLUE button to start filtration.
INSERT PAN	10. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
DRAINING	11. No action required as oil drains into filter pan.
FLUSHING	12. No action required as debris is flushed from the vat.
FILLING	13. No action required as the vat refills.
ALERT DRAIN CLOSING REMOVE TOOLS	14. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Keep all items out of drains. Closing actuators may cause damage or injury.</p> </div>
IS VAT FULL?	15. On some configurations, this message may not appear. Press the √ (check - YES) button if the vat is full to continue. The controller returns to idle cook mode. Press X (NO) if the vat is not filled completely and the pump will run again.
PREHEAT	16. No action required as the fryer heats to setpoint.
START	17. Fryer is ready for use. Displayed once fryer reaches setpoint.

The complete filtering process takes approximately four minutes.

NOTE: If the filter pan is removed during filtration, the filtration process stops and resumes once pan is reseated into place.

Should the quick filtration procedure fail, an error message is generated. Follow the instructions on the controller to clear the error.

If the oil isn't completely returned during filtration, the system may proceed to an incomplete filtration function.

When FILTER BUSY is displayed, the system is waiting on another vat to be filtered or waiting on

another issue to clear. Press the √ (check - YES) button and wait 15 minutes to see if problem is corrected. If not, call your local FAS.

⚠ DANGER

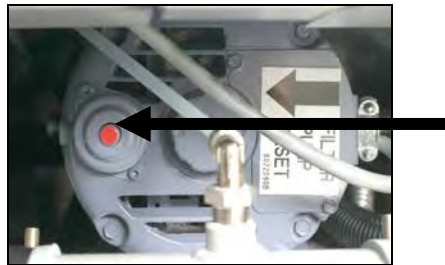
Do not drain more than one frypot at a time into the built-in filtration unit to avoid overflow and spillage of hot oil that may cause severe burns, slipping and falling.

⚠ WARNING

The filter motor is equipped with a manual reset switch in case the filter motor overheats or an electrical fault occurs. If this switch trips, turn off power to the filter system and allow the pump motor to cool 20 minutes before attempting to reset the switch (see photo below).

⚠ WARNING

Use caution and wear appropriate safety equipment when resetting the filter motor reset switch. Resetting the switch must be accomplished with care to avoid the possibility of a serious burn from careless maneuvering around the drain tube and frypot.



Filter Motor Reset Switch

2.1.3 Clean and Filter (or End of Day Filter)

The clean and filter operation is an extended filtration with additional prompts to thoroughly clean the vat. This typically is done once a day or at the end of the day. Ensure that the filter pad or paper is replaced daily to keep the system operating correctly. For proper operation in high volume or 24-hour stores, the filter pad or paper must be changed twice a day.

If CLOSE DISPOSE VALVE is displayed, close the dispose valve. Press the X (NO) button to exit.

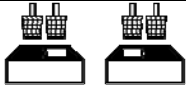
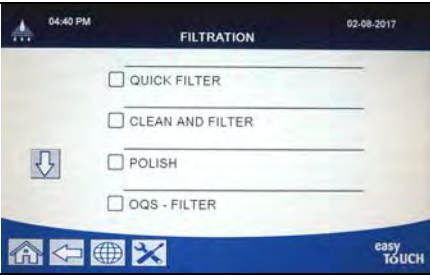

NOTICE



The filter pad or paper must be replaced daily.


⚠ WARNING

Do not drain more than one frypot at a time into the built-in filtration unit to avoid overflow and spillage of hot oil that may cause severe burns, slipping and falling.

DISPLAY	ACTION
	<ol style="list-style-type: none"> The fryer MUST be at setpoint temperature. Press the filtration menu button.

DISPLAY	ACTION
	<p>2. Select LEFT VAT or RIGHT VAT for split vats.</p>
	<p>3. Select CLEAN AND FILTER.</p>
<p>CLEAN NOW?</p>	<p>4. Press the ✓ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is cancelled and the fryer resumes normal operation.</p>
<p>REMOVE FILTER PAN</p>	<p>5. Carefully pull the filter pan from the fryer.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
<p>IS FILTER PAN EMPTY?</p>	<p>6. If the filter pan is empty press the ✓ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. Filtering is cancelled and the fryer resumes normal operation. Remove the oil from the pan and after inserting the filter pan, retry the function.</p>
<p>SKIM DEBRIS FROM VAT - PRESS CONFIRM WHEN COMPLETE</p>	<p>7. Skim the crumbs from the oil with the skimmer using a front to back motion, removing as many crumbs as possible from each vat. This is critical to optimizing usable oil life and quality of the oil. Press the ✓ (check - YES) button when complete.</p>
<p>WEAR PROTECTIVE GLOVES – PRESS CONFIRM WHEN COMPLETE</p>	<p>8. Press the ✓ (check - YES) button once all personal protection equipment including heat resistant gloves are in place.</p>
<p>START FILTRATION</p> 	<p>9. Press the BLUE button to start filtration.</p>
<p>INSERT PAN</p>	<p>10. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.</p>
<p>DRAINING</p>	<p>11. No action required as oil drains into filter pan.</p>
<p>SCRUB INSIDE VAT – PRESS CONFIRM WHEN COMPLETE</p>	<p>12. Scrub the vat. Press the ✓ (check - YES) button when complete.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Keep all items out of drains. Closing actuators may cause damage or injury.</p> </div>
<p>CLEAN SENSORS – PRESS CONFIRM WHEN COMPLETE</p>	<p>13. On some configurations, this message may not appear. (Gas Only) Clean the oil level sensor with a no scratch pad. (All Fryers) Clean around AIF and ATO sensors with a screwdriver or similar object to remove any sediment from around the sensors and press the ✓ (check - YES) button when complete.</p>


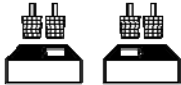

DISPLAY	ACTION
FLUSHING	14. No action required while the return valve opens and the vat is flushed with oil from the filter pan.
FLUSH AGAIN?	15. The filter pump shuts off. If the vat is clean of debris, press the X (NO) button to continue. If crumbs are still present, press the √ (check - YES) button and the filter pump runs again. This cycle repeats until the X (NO) button is pressed.
ALERT DRAIN CLOSING REMOVE TOOLS	16. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;"> DANGER</p> <p>Keep all items out of drains. Closing actuators may cause damage or injury.</p> </div>
RINSING IN PROGRESS	17. No action required while the drain valve closes and the filter pump refills the vat. The drain valve opens and rinses the vat.
RINSE AGAIN?	18. If the vat is clean of debris, press the X (NO) button to continue. If an additional rinse is desired, press the √ (check - YES) button and the rinse repeats until the X (NO) button is pressed.
POLISHING	19. No action required while the drain and return valves are open and oil is pumped through the frypot for five minutes.
ALERT DRAIN CLOSING REMOVE TOOLS	20. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;"> DANGER</p> <p>Keep all items out of drains. Closing actuators may cause damage or injury.</p> </div>
FILLING	21. No action required while the vat is refilled.
MEASURING OIL QUALITY	22. No action required while the OQS sensor calculates the oil quality value of the oil.
FILLING	23. No action required while the vat is refilled.
IS VAT FULL?	24. On some configurations, this message may not appear. Press the X (NO) button to run the pump again if the oil level is below the top oil level full line. * Press the √ (check - YES) button once the oil level is at the top oil level full line. If the vat oil level is not completely filled, check the filter pan to see if most of the oil has returned. The pan may have a small amount of oil. Press the √ (check - YES) button once no oil remains in the filter pan. If OQS = Text and if the TPM reading is below OQS SETUP – DISCARD NOW and DISCARD SOON limits, proceed to OIL IS GOOD in step 25. If OQS = Text and if the TPM reading is below OQS SETUP – DISCARD NOW value but above DISCARD SOON limits, proceed to DISCARD SOON in step 26. If OQS = Text and if the TPM reading is above OQS SETUP – DISCARD limits, proceed to DISCARD NOW in step 26. If OQS = Number proceed to TPM - XX step in step 27.




DISPLAY	ACTION
OIL IS GOOD	25. Shown if OQS is set to text. Press the √ (check - YES) button to continue to step 29.
DISCARD SOON	26. Shown if OQS is set to text. Press the √ (check - YES) button to continue to step 29.
TPM - XX	27. Press the √ (check - YES) button to continue. If the TPM reading is above OQS SETUP – DISCARD limits, proceed to next step, otherwise proceed to step 29.
DISCARD NOW?	28. Presses the √ (check - YES) button to continue to DISCARD NOW function (go to Dispose function for fresh oil/waste type). Press the X (NO) button to continue to the next step.
	29. The controller switches off.

***NOTE: After a clean and filter it is normal to leave some oil in the pan and the level of oil may not return to the level prior to starting clean and filter. Answering YES after two attempts at refilling the vat enables auto top off, if available, to compensate for any loss of oil during filtration.**

2.1.4 Polish

The polish mode is used as an extended filtration to remove impurities from the oil.

DISPLAY	ACTION
	1. The fryer MUST be at setpoint temperature. Press the filtration menu button.
	2. Select LEFT VAT or RIGHT VAT for split vats.
	3. Select POLISH.
POLISH NOW?	4. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu. If no pan is detected, the controller displays INSERT PAN until the pan is detected.
OIL LEVEL TOO LOW	5. On some configurations, this message may not appear. Displayed if the oil level is too low. Press the √ (check - YES) button to acknowledge issue and return to idle cook mode. Check to see if the JIB is low on oil. If JIB is not low and this continues to occur, contact your FAS.

DISPLAY	ACTION
REMOVE FILTER PAN	6. Carefully pull the filter pan from the fryer. <div style="border: 1px solid black; padding: 5px; text-align: center;">  DANGER Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling. </div>
IS FILTER PAN EMPTY?	7. If the filter pan is empty press the √ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. Filtering is cancelled and the fryer resumes normal operation. Remove the oil from the pan and after inserting the filter pan, retry the function.
SKIM DEBRIS FROM VAT - PRESS CONFIRM WHEN COMPLETE	8. Skim the crumbs from the oil with the skimmer using a front to back motion, removing as many crumbs as possible from each vat. This is critical to optimizing usable oil life and quality of the oil. Press the √ (check - YES) button when complete.
START POLISH 	9. Press the BLUE button to start a polish.
INSERT PAN	10. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
DRAINING	11. No action required as oil drains into filter pan.
POLISHING	12. No action required while the drain and return valves are open and oil is pumped through the frypot for an extended period of time.
ALERT DRAIN CLOSING REMOVE TOOLS	13. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. <div style="border: 1px solid black; padding: 5px; text-align: center;">  DANGER Keep all items out of drains. Closing actuators may cause damage or injury. </div>
FILLING	14. No action required as the vat refills.
IS VAT FULL?	15. On some configurations, this message may not appear. Press the √ (check - YES) button if the vat is full to continue. The controller returns to idle cook mode. Press X (NO) if the vat is not filled completely and the pump will run again.
PREHEAT	16. No action required as the fryer heats to setpoint.
START	17. Fryer is ready for use. Displayed once fryer reaches setpoint.


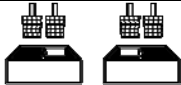

2.1.5 OQS (Oil Quality Sensor) Filter




The OQS filter is a function that filters the vat that takes an oil reading to test the TPM (Total Polar Materials) in the oil using the built in OQS sensor. This function is used to determine when the oil has reached the end of its life and when to dispose. Ensure that the filter pad or paper is replaced daily to keep the system operating correctly. For proper operation in high volume or 24-hour stores, the filter pad or paper must be changed twice a day.

NOTICE
The filter pad or paper must be replaced daily.

⚠ WARNING
Do not drain more than one frypot at a time into the built-in filtration unit to avoid overflow and spillage of hot oil that may cause severe burns, slipping and falling.

If CLOSE DISPOSE VALVE is displayed, close the dispose valve. Press the X (NO) button to exit.







DISPLAY	ACTION
	<p>1. The fryer MUST be at setpoint temperature. Press the filtration menu button.</p>
	<p>2. Select LEFT VAT or RIGHT VAT for split vats.</p>
	<p>3. Select OQS (Oil Quality Sensor) - FILTER.</p>
<p style="text-align: center;">OQS – FILTER NOW?</p>	<p>4. Press the ✓ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is cancelled and the fryer resumes normal operation.</p>
<p style="text-align: center;">OIL LEVEL TOO LOW</p>	<p>5. On some configurations, this message may not appear. Displayed if the oil level is too low. Press the ✓ (check - YES) button to acknowledge issue and return to idle cook mode. Check to see if the JIB is low on oil. If JIB is not low and this continues to occur, contact your FAS.</p>
<p style="text-align: center;">REMOVE FILTER PAN</p>	<p>6. Carefully pull the filter pan from the fryer.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
<p style="text-align: center;">IS FILTER PAN EMPTY?</p>	<p>7. If the filter pan is empty press the ✓ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. Filtering is cancelled and the fryer resumes normal operation. Remove the oil from the pan and after inserting the filter pan, retry the function.</p>


DISPLAY	ACTION
SKIM DEBRIS FROM VAT - PRESS CONFIRM WHEN COMPLETE	8. Skim the crumbs from the oil with the skimmer using a front to back motion, removing as many crumbs as possible from each vat. This is critical to optimizing usable oil life and quality of the oil.  Press the √ (check - YES) button when complete.
START FILTRATION 	9. Press the BLUE button to start filtration.
INSERT PAN	10. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
DRAINING	11. No action required as oil drains into filter pan.
FLUSHING	12. No action required while the return valve opens and the vat is flushed with oil from the filter pan.
ALERT DRAIN CLOSING REMOVE TOOLS	13. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. <div style="border: 1px solid black; padding: 5px; text-align: center;"> DANGER Keep all items out of drains. Closing actuators may cause damage or injury.</div>
FILLING	14. No action required while the vat is refilled.
MEASURING OIL QUALITY	15. No action required while the OQS sensor calculates the oil quality value of the oil.
FILLING	16. No action required while the vat is refilled.
IS VAT FULL?	17. On some configurations, this message may not appear. Press the X (NO) button to run the pump again if the oil level is below the top oil level full line. Press the √ (check - YES) button once the oil level is at the top oil level full line. If OQS = Text and if the TPM reading is below OQS SETUP – DISCARD NOW and DISCARD SOON limits, proceed to OIL IS GOOD in step 18. If OQS = Text and if the TPM reading is below OQS SETUP – DISCARD NOW value but above DISCARD SOON limits, proceed to DISCARD SOON in step 19. If OQS = Text and if the TPM reading is above OQS SETUP – DISCARD limits, proceed to DISCARD NOW in step 21. If OQS = Number proceed to TPM - XX step in step 20.
OIL IS GOOD	18. Shown if OQS is set to text. Press the √ (check - YES) button to continue to step 22.
DISCARD SOON	19. Shown if OQS is set to text. Press the √ (check - YES) button to continue to step 22.
TPM - XX	20. Press the √ (check - YES) button to continue. If the TPM reading is above OQS SETUP – DISCARD limits, proceed to next step, otherwise proceed to step 22.
DISCARD NOW?	21. Presses the √ (check - YES) button to continue to DISCARD NOW function (go to Dispose function for fresh oil/waste type). Press the X (NO) button to continue to the next step.
PREHEAT	22. No action required as the fryer heats to setpoint.
START	23. Fryer is ready for use once fryer reaches setpoint.

NOTE: If the oil isn't completely returned during filtration, the system may proceed to an incomplete filtration function.

2.1.6 Drain to Pan



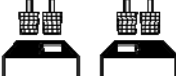



The drain to pan function drains the oil from the vat to the filter pan.


DISPLAY	ACTION
	<p>1. Press the filtration menu button</p>
	<p>2. Select LEFT VAT or RIGHT VAT for split vats.</p>
 	<p>3. Press the down arrow.</p>
	<p>4. Select DRAIN TO PAN.</p>
<p>DRAIN NOW?</p>	<p>5. Press the ✓ (check - YES) button to continue. If the X (NO) button is selected, the controller goes to OFF.</p>
<p>REMOVE FILTER PAN</p>	<p>6. Carefully pull the filter pan from the fryer.</p> <div style="border: 2px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
<p>IS FILTER PAN EMPTY?</p>	<p>7. If the filter pan is empty press the ✓ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. Filtering is cancelled and the fryer resumes normal operation. Remove the oil from the pan and after inserting the filter pan, retry the function.</p>
<p>START DRAINING</p> 	<p>8. Press the BLUE button to start draining.</p>

DISPLAY	ACTION
INSERT PAN	9. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
DRAINING	10. No action is required while the vat drains the oil into the filter pan.
VAT EMPTY?	11. Once the vat is empty, press the ✓ (check - YES) button to continue.
ALERT DRAIN CLOSING REMOVE TOOLS	12. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Keep all items out of drains. Closing actuators may cause damage or injury.</p> </div>
FILL FROM PAN?	13. Press the ✓ (check - YES) button to refill the vat, otherwise skip to step 20.
FILLING	14. No action is required while the vat is filling.
IS VAT FULL?	15. Press the X (NO) button to run the pump again if the oil level is below the top oil level full line. Press the ✓ (check - YES) button once the vat is full.
	16. The controller switches off.

2.1.7 Fill Vat from (Filter) Pan




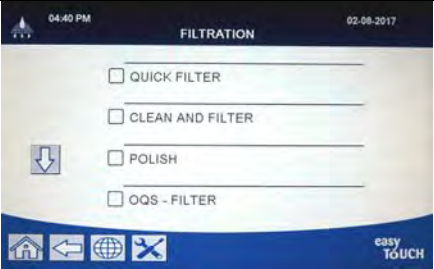


The fill vat from pan function fills the vat from the filter pan.


DISPLAY	ACTION
	1. The fryer MUST be OFF.
	2. Press the filtration menu button
	3. Select LEFT VAT or RIGHT VAT for split vats.
 	4. Press the down arrow.
	5. Select FILL VAT FROM PAN. If no pan is detected, the controller displays INSERT PAN until the pan is detected.

DISPLAY	ACTION
FILL FROM PAN?	6. Press the ✓ (check - YES) button to continue. If the X (NO) button is selected, the controller goes to OFF.
FILLING	7. No action is required while the vat is filling.
IS VAT FULL?	8. Press the X (NO) button to run the pump again if the oil level is below the top oil level full line. Press the ✓ (check - YES) button once the vat is full.
	9. The controller switches off.

2.1.8 Fill Vat from Bulk






The fill vat from bulk function is used to fill the vat from a bulk oil fresh source.




DISPLAY	ACTION
	1. The fryer MUST be OFF.
	2. Press the filtration menu button
	3. Select LEFT VAT or RIGHT VAT for split vats.
 	4. Press the down arrow.
	5. Select FILL VAT FROM BULK.
FILL VAT FROM BULK?	6. Press the ✓ (check - YES) button to continue. If the X (NO) button is selected, the controller goes to OFF.
START FILLING? PRESS AND HOLD	7. Press and hold the button to fill the vat. The bulk oil refill pump uses a momentary switch. It only pumps if the switch is depressed.
RELEASE BUTTON WHEN FULL	8. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	9. Press the ✓ (check - YES) button to continue filling. Otherwise press the X (NO) button once the vat is full to exit and return to OFF.

DISPLAY	ACTION
	<p>10. The controller switches off.</p>

2.1.9 Pan to Waste (Bulk Only)

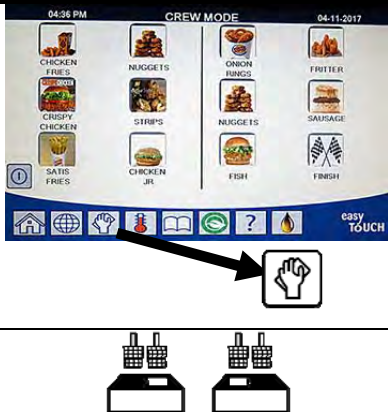

The pan to waste function is an option that allows bulk oil systems to pump excess oil in the pan, to the bulk oil waste tanks, without draining the existing oil in the vat.



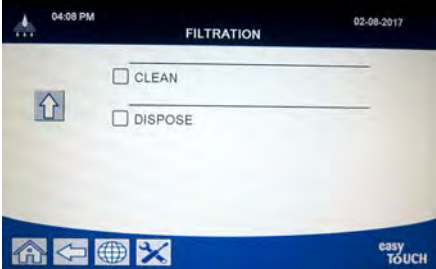

DISPLAY	ACTION
	<p>1. Press the filtration menu button</p>
	<p>2. Select LEFT VAT or RIGHT VAT for split vats.</p>
 	<p>3. Press the down arrow.</p>
	<p>4. Select PAN TO WASTE.</p>
<p>PAN TO WASTE?</p>	<p>5. Press the ✓ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu. If no pan is detected, the controller displays INSERT PAN until the pan is detected.</p>
<p>BULK TANK FULL?</p>	<p>6. Press the ✓ (check - YES) button to acknowledge and call the bulk oil waste provider. The display returns to OFF.</p>
<p>OPEN DISPOSE VALVE</p>	<p>7. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal.</p>


DISPLAY	ACTION
	
DISPOSING	8. No action is required while the pump transfers the waste oil from the pan to the bulk oil waste tanks for four (4) minutes.
REMOVE PAN	9. Carefully pull the filter pan from the fryer. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Open the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
IS PAN EMPTY?	10. If the filter pan is empty press the √ (check - YES) button. If the pan is not empty, press the X (NO) button and return to step 8.
INSERT PAN	11. Insert the filter pan.
CLOSE DISPOSE VALVE 	12. Close the dispose valve by pushing the valve handle toward the rear of the fryer until it stops. Relock the valve if required by your manager.
	13. The controller switches off.

2.1.10 Clean (Boil-Out [Hot] or Cold Clean) for Non-Bulk Oil Systems

The clean mode is used to remove carbonized oil from the frypot. The type of clean (hot or cold) will depend on the manager settings - filter attributes - clean settings (see section 1.8).

DISPLAY	ACTION
	1. Press the filtration menu button
	2. Select LEFT VAT or RIGHT VAT for split vats.

DISPLAY	ACTION
 	<p>3. Press the down arrow two (2) times.</p>
	<p>4. Select CLEAN.</p>
<p>COLD CLEAN NOW? or BOIL OUT NOW?</p>	<p>5. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu. If no pan is detected, the controller displays INSERT PAN until the pan is detected.</p>
<p>REMOVE FILTER PAN</p>	<p>6. Carefully pull the filter pan from the fryer.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
<p>IS VAT OIL REMOVED?</p>	<p>7. Press the X (NO) button if oil is in the vat. Press the √ (check - YES) button if the vat is empty and skip to step 12.</p>
<p>INSERT DISPOSAL UNIT</p>	<p>8. Remove the filter pan and insert the disposal unit.</p>  <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Ensure a SDU (Shortening Disposal Unit) or suitable metal container is in place under the drain with a capacity of FOUR (4) gallons (15 liters) or more.</p> </div>
<p>IS DISPOSE UNIT IN PLACE?</p>	<p>9. Ensure the SDU or a METAL container with a capacity of FOUR gallons (15 liters) or larger is in place. Press the √ (check - YES) button to continue.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Allow oil to cool to 100°F (38°C) before draining into an appropriate METAL container for disposal.</p> </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER When draining oil into a disposal unit, do not fill above the maximum fill line located on the container.</p> </div>


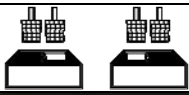
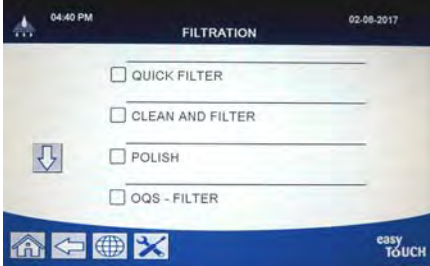

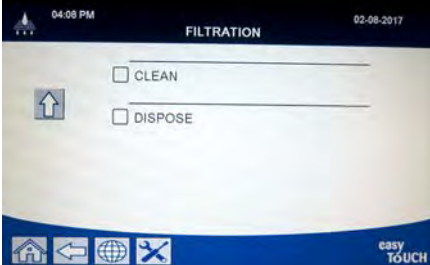
DISPLAY	ACTION
	<p style="text-align: center;">⚠ DANGER</p> <p>When draining oil into an appropriate SDU or METAL container, make sure the container will hold at least FOUR gallons (15 liters) or more. Otherwise oil could overflow and can cause injury.</p>
DRAINING	10. No action is required while the vat drains the oil into the disposal container.
VAT EMPTY?	11. Once the vat is empty, press the √ (check - YES) button to continue.
SOLUTION ADDED?	12. Fill the vat to be cleaned with water and cleaning solution mix. Press the √ (check - YES) button to start the cleaning procedure.
COLD CLEAN or BOIL OUT	13. Scrub the vat and then let the solution soak while the cold clean or boil out timer counts down. If a boil out is selected the vat heats to 195° F (91° C) for one hour.
COLD CLEAN DONE or BOIL OUT DONE	14. Press the √ (check - YES) button to silence the alarm.
REMOVE FILTER PAN	15. Remove the filter pan and clean the pan and components.
INSERT DISPOSAL PAN. IS DISPOSAL PAN IN PLACE?	16. Insert the disposal pan large enough to contain FOUR gallons (15 liters) or more under the drain and press √ (check-YES).
DRAINING	17. No action is required while the vat drains.
CLEANING COMPLETE?	18. Press the √ (check - YES) button once the vat is scrubbed.
RINSE COMPLETE?	19. Rinse excess solution from vat. Press the √ (check - YES) button when the vat is completely rinsed.
REMOVE DISPOSAL PAN	20. Remove the disposal pan.
VAT AND PAN DRY?	<p>21. Ensure the vat and filter pan are completely dry. Press the √ (check - YES) button when finished.</p> <p style="text-align: center;">⚠ DANGER</p> <p>Ensure that the frypot and filter pan are completely dry and free of water before filling with oil. Failure to do so will cause splattering of hot liquid when the oil is heated to cooking temperature.</p>
ALERT DRAIN CLOSING REMOVE TOOLS	<p>22. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain.</p> <p style="text-align: center;">⚠ DANGER</p> <p>Keep all items out of drains. Closing actuators may cause damage or injury.</p>
INSERT PAN	23. Reinstall screen, filter pad, hold down ring and crumb basket removed in step 15. Insert the filter pan.
MANUALLY FILL VAT	24. Carefully pour oil into the vat until it reaches the low-level fill line in the fryer. Press the √ (check - YES) button once the vat is full.
	25. The controller switches off.




2.1.11 Clean (Boil-Out [Hot] or Cold Clean) for Bulk/Front Dispose Waste Oil Systems


The clean mode is used to remove carbonized oil from the frypot. The type of clean (hot or cold) will depend on the manager settings - filter attributes - clean settings (see section 4.8).


⚠ WARNING

Ensure filter paper or pad is in place prior to draining or disposing of oil. Failure to insert filter paper or pad may result in clogged lines and/or pumps.

DISPLAY	ACTION
	<ol style="list-style-type: none"> 1. Press the filtration menu button
	<ol style="list-style-type: none"> 2. Select LEFT VAT or RIGHT VAT for split vats.
 	<ol style="list-style-type: none"> 3. Press the down arrow two (2) times.
	<ol style="list-style-type: none"> 4. Select CLEAN.
<p>COLD CLEAN NOW? or BOIL OUT NOW?</p>	<ol style="list-style-type: none"> 5. Press the ✓ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu.
<p>REMOVE FILTER PAN</p>	<ol style="list-style-type: none"> 6. Carefully pull the filter pan from the fryer. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">⚠ DANGER</p> <p>Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
<p>IS FILTER PAN EMPTY?</p>	<ol style="list-style-type: none"> 7. If the filter pan is empty press the ✓ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. The clean function is cancelled and returns to the filtration menu. Remove the oil from the pan and after inserting the filter pan, retry the function. If no pan is detected, the controller displays INSERT PAN until the pan is

DISPLAY	ACTION
	detected.
INSERT PAN	8. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
BULK TANK FULL?	9. This message is only displayed if the bulk tank on bulk waste systems is full. Press the √ (check - YES) button to acknowledge and call the bulk oil waste provider. The display returns to OFF.
IS VAT OIL REMOVED?	10. Press the X (NO) button if oil is in the vat. Press the √ (check - YES) button if the vat is empty and skip to step 19.
DRAINING	11. No action required as oil drains into filter pan.
VAT EMPTY?	12. Once the vat is empty, press the √ (check - YES) button to continue. If using front dispose proceed to the next step. If disposing to bulk skip to step 15.
CLEAN VAT COMPLETE?	13. Clean the vat with a scrub brush and when complete press the √ (check - YES) button to continue.
IS DISPOSE ATTACHMENT AND CONTAINER IN PLACE? 	14. Attach the dispose attachment and ensure that the METAL disposal can is in place under the discharge nozzle. Press the √ (check - YES) button to continue. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER</p> <p>When draining oil into an appropriate METAL container, make sure the container will hold at least FOUR gallons (15 liters) or more, otherwise hot liquid could overflow and cause injury.</p> </div>
OPEN DISPOSE VALVE 	15. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal. If using front dispose continue to next step. If disposing to bulk skip to step 17.
DISPOSING CLOSE DISPOSE VALVE WHEN FULL 	16. No action is required while the pump transfers the waste oil from the pan to the front dispose container. Close the dispose valve when full by pushing the valve handle toward the rear of the fryer until it stops. Relock the valve if required by your manager. Skip to step 18.



DISPLAY	ACTION
DISPOSING	17. No action is required while the pump transfers the waste oil from the pan to the bulk oil waste tanks for four (4) minutes.
REMOVE PAN	18. Carefully pull the filter pan from the fryer. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">⚠ DANGER</p> <p style="text-align: center;">Open the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
IS PAN EMPTY?	19. If the filter pan is empty press the √ (check - YES) button. If the pan is not empty, press the X (NO) button; insert the filter pan and return to step 14.
INSERT PAN	20. Insert the filter pan. If disposing to front skip to step 22. If disposing to bulk continue to next step.
CLOSE DISPOSE VALVE 	21. Close the dispose valve by pushing the valve handle toward the rear of the fryer until it stops. Relock the valve if required by your manager.
SOLUTION ADDED?	22. Fill the vat to be cleaned with water and cleaning solution mix. Press the √ (check - YES) button to start the cleaning procedure.
COLD CLEAN or BOIL OUT	23. Scrub the vat and then let the solution soak while the cold clean or boil out timer counts down. If a boil out is selected the vat heats to 195° F (91° C) for one hour.
COLD CLEAN DONE or BOIL OUT DONE	24. Press the √ (check - YES) button to silence the alarm.
INSERT DISPOSAL PAN. IS DISPOSAL PAN IN PLACE?	25. Insert the disposal pan large enough to contain FOUR gallons (15 liters) or more under the drain and press √ (check-YES).
DRAINING	26. No action is required while the vat drains.
CLEANING COMPLETE?	27. Press the √ (check - YES) button once the vat is scrubbed.
RINSE COMPLETE?	28. Rinse excess solution from vat. Press the √ (check - YES) button when the vat is completely rinsed.
RINSE COMPLETE?	29. Rinse excess solution from vat. Press the √ (check - YES) button when the vat is completely rinsed.
REMOVE DISPOSAL PAN	30. Remove the disposal pan.
VAT AND PAN DRY?	31. Ensure the vat and filter pan are completely dry. Press the √ (check - YES) button when finished. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">⚠ DANGER</p> <p style="text-align: center;">Ensure that the frypot and filter pan are completely dry and free of water before filling with oil. Failure to do so will cause splattering of hot liquid when the oil is heated to cooking temperature.</p> </div>



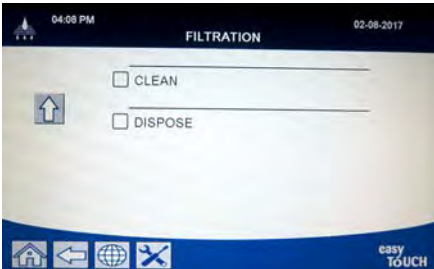


DISPLAY	ACTION
ALERT DRAIN CLOSING REMOVE TOOLS	32. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Keep all items out of drains. Closing actuators may cause damage or injury.</p> </div>
INSERT PAN	33. Reinstall screen, filter pad, hold down ring and crumb basket removed in step 25. Insert the filter pan. If using a JIB fresh oil system skip to step 38. If using a bulk fresh oil system type, continue to next step.
FILL VAT FROM BULK?	34. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu.
START FILLING? PRESS AND HOLD	35. Press and hold the button to fill the vat. The bulk oil refill pump uses a momentary switch. It only pumps if the switch is depressed.
RELEASE BUTTON WHEN FULL	36. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	37. Press the √ (check - YES) button to continue filling. Otherwise press the X (NO) button once the vat is full, to exit and return to OFF.
MANUALLY FILL VAT	38. Carefully pour oil into the vat until it reaches the low-level fill line in the fryer. Press the √ (check - YES) button once the vat is full.
	39. The controller switches off.


2.1.12 Dispose for Non-Bulk Oil Systems

This option is used to dispose of old oil into either a SDU or a **METAL** container.

When cooking oil is exhausted, dispose the oil into an appropriate container for transport to the waste oil container. Frymaster recommends a Shortening Disposal Unit (SDU). Refer to the documentation furnished with your disposal unit for specific operating instructions. **NOTE:** If using an SDU built before January 2004 the unit will not fit under the drain. If a shortening disposal unit is not available, allow the oil to cool to 100°F (38°C), then drain the oil into a **METAL** container with a capacity of FOUR gallons (15 liters) or larger to prevent oil from spilling.

DISPLAY	ACTION
	1. Press the filtration menu button
	2. Select LEFT VAT or RIGHT VAT for split vats.

DISPLAY	ACTION
 	<p>3. Press the down arrow two (2) times.</p>
	<p>4. Select DISPOSE</p>
<p>DISPOSE NOW?</p>	<p>5. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER Allow oil to cool to 100°F (38°C) before draining into an appropriate <u>METAL</u> container for disposal.</p> </div>
<p>INSERT DISPOSAL UNIT</p>	<p>6. Insert the disposal unit.</p>  <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER When draining oil into a disposal unit, do not fill above the maximum fill line located on the container.</p> </div>
<p>IS DISPOSE UNIT IN PLACE?</p>	<p>7. Ensure the SDU or a METAL container with a capacity of FOUR gallons (15 liters) or larger is in place. Press the √ (check - YES) button to continue.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER When draining oil into an appropriate METAL container, make sure the container will hold at least FOUR gallons (15 liters) or more, otherwise hot liquid could overflow and cause injury.</p> </div>
<p>START DISPOSE</p> 	<p>8. Press the BLUE button to start draining.</p>
<p>DISPOSING</p>	<p>9. No action is required while the vat disposes the oil.</p>
<p>VAT EMPTY?</p>	<p>10. Once the vat is empty, press the √ (check - YES) button to continue.</p>
<p>CLEAN VAT COMPLETE?</p>	<p>11. Clean the vat with a scrub brush and when complete press the √ (check - YES) button to continue.</p>



DISPLAY	ACTION
ALERT DRAIN CLOSING REMOVE TOOLS	12. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">⚠ DANGER</p> <p>Keep all items out of drains. Closing actuators may cause damage or injury.</p> </div> If using a JIB fresh oil system skip to step 17. If using a bulk fresh oil system type, continue to next step.
FILL VAT FROM BULK?	13. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu.
START FILLING? PRESS AND HOLD	14. Press and hold the button to fill the vat. The bulk oil refill pump uses a momentary switch. It only pumps if the switch is depressed.
RELEASE BUTTON WHEN FULL	15. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	16. Press the √ (check - YES) button to continue filling. Otherwise press the X (NO) button once the vat is full, to exit and return to OFF.
MANUALLY FILL VAT	17. Carefully pour oil into the vat until it reaches the low-level fill line in the fryer. Press the √ (check - YES) button once the vat is full.
	18. The controller switches off. Reinsert the filter pan.



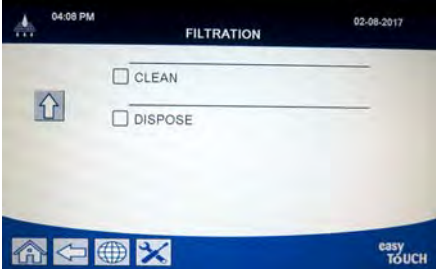


2.1.13 Dispose for Bulk/Front Dispose Waste Oil Systems

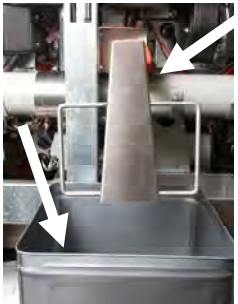



This option is used to dispose of old oil into a bulk waste oil system. Bulk oil systems use a pump to move exhausted oil from the fryer to a holding tank. Additional plumbing is used to connect the bulk oil systems to the fryers.


⚠ WARNING

Ensure filter paper or pad is in place prior to draining or disposing of oil. Failure to insert filter paper or pad may result in clogged lines and/or pumps.

DISPLAY	ACTION
	1. Press the filtration menu button
	2. Select LEFT VAT or RIGHT VAT for split vats.

DISPLAY	ACTION
 	<p>3. Press the down arrow two (2) times.</p>
	<p>4. Select DISPOSE.</p>
<p>DISPOSE NOW?</p>	<p>5. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu.</p>
<p>REMOVE FILTER PAN</p>	<p>6. Remove the filter pan.</p>
<p>IS FILTER PAN EMPTY?</p>	<p>7. If the filter pan is empty press the √ (check - YES) button and proceed to the next step. If the pan is not empty, press the X (NO) button. The clean function is cancelled and returns to the filtration menu. Remove the oil from the pan and after inserting the filter pan, retry the function. If no pan is detected, the controller displays INSERT PAN until the pan is detected.</p>
<p>START DISPOSE</p> 	<p>8. Press the BLUE button to start draining.</p>
<p>BULK TANK FULL?</p>	<p>9. This message is only displayed if the bull tank is full. Press the √ (check - YES) button to acknowledge and call the bulk oil waste provider. The display returns to OFF.</p>
<p>INSERT PAN</p>	<p>10. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.</p>
<p>DRAINING</p>	<p>11. No action required as oil drains into filter pan.</p>
<p>VAT EMPTY?</p>	<p>12. Once the vat is empty, press the √ (check - YES) button to continue.</p>
<p>CLEAN VAT COMPLETE?</p>	<p>13. Clean the vat with a scrub brush and when complete press the √ (check - YES) button to continue.</p>
<p>ALERT DRAIN CLOSING REMOVE TOOLS</p>	<p>14. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. If using front dispose proceed to the next step. If disposing to bulk skip to step 16.</p> <div style="border: 2px solid black; padding: 5px; text-align: center;">  DANGER Keep all items out of drains. Closing actuators may cause damage or injury. </div>

DISPLAY	ACTION
<p>IS DISPOSE ATTACHMENT AND CONTAINER IN PLACE?</p> 	<p>15. Attach the dispose attachment and ensure that the METAL disposal can is in place under the discharge nozzle. Press the √ (check - YES) button to continue.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER</p> <p>When draining oil into an appropriate METAL container, make sure the container will hold at least FOUR gallons (15 liters) or more, otherwise hot liquid could overflow and cause injury.</p> </div>
<p>OPEN DISPOSE VALVE</p> 	<p>16. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal. If using front dispose continue to next step. If disposing to bulk skip to step 18.</p>
<p>DISPOSING CLOSE DISPOSE VALVE WHEN FULL</p> 	<p>17. No action is required while the pump transfers the waste oil from the pan to the front dispose container. Close the dispose valve when full by pushing the valve handle toward the rear of the fryer until it stops. Relock the valve if required by your manager. Skip to step 19.</p>
<p>DISPOSING</p>	<p>18. No action is required while the pump transfers the waste oil from the pan to the bulk oil waste tanks for four (4) minutes.</p>
<p>REMOVE PAN</p>	<p>19. Carefully pull the filter pan from the fryer.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>⚠ DANGER</p> <p>Open the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.</p> </div>
<p>IS PAN EMPTY?</p>	<p>20. If the filter pan is empty press the √ (check - YES) button. If the pan is not empty, press the X (NO) button and return to step 15 for front dispose or step 16 for bulk.</p>
<p>INSERT PAN</p>	<p>21. Insert the filter pan. If disposing to front skip to step 23 if a bulk fresh oil system is used. For fresh oil from JIB skip to step 27. If disposing to bulk continue to next step.</p>
<p>CLOSE DISPOSE VALVE</p> 	<p>22. Close the dispose valve by pushing the valve handle toward the rear of the fryer until it stops. Relock the valve if required by your manager. If using a JIB fresh oil system skip to step 25. If using a bulk fresh oil system type, continue to next step.</p>

DISPLAY	ACTION
FILL VAT FROM BULK?	23. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the filtration menu.
START FILLING? PRESS AND HOLD	24. Press and hold the button to fill the vat. The bulk oil refill pump uses a momentary switch. It only pumps if the switch is depressed.
RELEASE BUTTON WHEN FULL	25. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	26. Press the √ (check - YES) button to continue filling. Otherwise press the X (NO) button once the vat is full, to exit and return to OFF.
MANUALLY FILL VAT	27. Carefully pour oil into the vat until it reaches the low-level fill line in the fryer. Press the √ (check - YES) button once the vat is full.
	28. The controller switches off.

CHAPTER 3: FILTERQUICK™ FQ4000

OPERATOR TROUBLESHOOTING

3.1 Introduction

This chapter provides an easy reference guide to some of the common problems that may occur during the operation of your equipment. The troubleshooting guides that follow are intended to help you correct, or at least accurately diagnose, problems with your equipment. Although the chapter covers the most common problems reported, you may encounter problems that are not covered. In such instances, the Frymaster Technical Services staff will make every effort to help you identify and resolve the problem.

When troubleshooting a problem, always use a process of elimination starting with the simplest solution and working through to the most complex. Most importantly, always try to establish a clear idea of why a problem has occurred. Part of your corrective action involves taking steps to ensure that it doesn't happen again. If a controller malfunctions because of a poor connection, check all other connections. If a fuse continues to blow, find out why. Always keep in mind that failure of a small component may often be indicative of potential failure or incorrect functioning of a more important component or system.

If you are in doubt as to the proper action to take, do not hesitate to call the Frymaster Technical Service Department or your local Frymaster Factory Authorized Servicer for assistance.

Before calling a servicer or the Frymaster HOTLINE (1-800-551-8633):

- **Verify that electrical cords are plugged in and that circuit breakers are on.**
- **Verify that gas line quick-disconnects are properly connected.**
- **Verify that any gas line cutoff valves are open.**
- **Verify that frypot drain valves are fully closed.**
- **Have your fryer's model and serial numbers ready to give the technician assisting you.**

 **DANGER**

Hot oil will cause severe burns. Never attempt to move this appliance when filled with hot oil or to transfer hot oil from one container to another.

 **DANGER**

This equipment should be unplugged when servicing, except when electrical circuit tests are required. Use extreme care when performing such tests.

This appliance may have more than one electrical power supply connection point. Disconnect all power cords before servicing.

Inspection, testing, and repair of electrical components should be performed by an authorized service agent only.

3.2 Troubleshooting

3.2.1 Error Messages and Display Problems

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
No display on the controller.	A. No power to fryer. B. Failed controller or other component	A. Verify that the fryer is plugged in and that the circuit breaker is not tripped. B. Call your FAS for assistance.
FQ4000 displays IS VAT FULL? YES NO after a filtration.	A. Normal operation during most at the beginning or end of most filtration functions. B. If the display appears many times during a filter it could be an indication of slow oil return.	A. Ensure the vat is full of oil and press the ✓ button. B. See section 2.3 troubleshooting in the FQx30-T IO Manual –Filter Pump runs, but oil return is very slow.
FQ4000 displays IS DRAIN CLEAR?	Drain is clogged and oil failed to drain.	Clear drain with Fryers Friend and press ✓ button. Filtration will resume.
FQ4000 displays CHANGE FILTER PAPER/PAD?	Filter error has occurred, filter paper/pad clogged, 25-hour filter paper/pad change prompt has occurred or change filter paper/pad was ignored on a prior prompt.	Change the filter paper/pad and ensure the filter pan has been removed from the fryer for a minimum of 30 seconds. Do NOT ignore CHANGE FILTER PAPER/PAD prompts.
Controller locks up.	Controller error.	Remove and restore power to the controller. If problem persists, call your FAS for assistance.
FQ4000 displays MISCONFIGURED ENERGY TYPE	Energy type in fryer setup is incorrect.	Ensure that the fryer is configured properly for the correct energy type.
FQ4000 displays VAT ID CONNECTOR NOT CONNECTED	Controller locator missing or disconnected.	Ensure the 6-pin locator is connected to rear of controller and it properly grounded in control box.
FQ4000 displays E19 or E28 HEATING FAILURE.	Gas valve off, failed controller, failed transformer, contactor or open high-limit thermostat.	It is normal for this message to appear during startup if the lines have air in them. Check that the gas valve is on. If the gas is on and it continues shut the fryer down and call your FAS for assistance.
FQ4000 display shows HOT-HI-1.	Frypot temperature is more than 410°F (210°C) or, in CE countries, 395°F (202°C).	Shut the fryer down immediately and call your FAS for assistance.

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
FQ4000 displays RECOVERY FAULT and alarm sounds.	Recovery time exceeded maximum time limit.	Clear error and silence the alarm by pressing the check ✓ button. Maximum recovery time for gas is 3:15, electric is 1:40. If the error continues call your FAS for assistance.
FQ4000 display is in wrong temperature scale (Fahrenheit or Celsius).	Incorrect display option programmed.	Toggle between F° to C° by entering Manager settings, temperature and toggling the temperature scale. Turn the controller on to check temperature. If the desired scale is not displayed, repeat.
FQ4000 displays HELP HI-2 or HIGH LIMIT FAILURE DISCONNECT POWER.	Failed high limit	Shut the fryer down immediately and call your FAS for assistance.
FQ4000 displays TEMPRATURE PROBE FAILURE.	Problem with the temperature measuring circuitry including the probe or damaged controller wiring harness or connector.	Shut the fryer down and call your FAS for assistance.
FQ4000 displays SERVICE REQUIRED followed by an error message.	An error has occurred which requires a service technician.	Press X to continue cooking and call your FAS for assistance. In some cases, cooking may not be allowed.
FQ4000 displays NO MENU GROUP AVAILABLE FOR SELECTION	All menu groups have been deleted. NOTE: ALL RECIPES is not a group that can be used to cook recipes.	Create a new MENU group. Once a new menu is created, add recipes to the group (see section 1.10).

3.2.2 Troubleshooting the Auto Filtration

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
Fryer filters after each cook cycle.	Filter after setting incorrect.	Change or overwrite the filter after setting by re-entering the filter after value in Manager Settings, Filter Attributes in section 1.8.
CLEAN AND FILTER won't start.	Temperature too low.	Ensure fryer is at setpoint before starting Clean and Filter.
FQ4000 display shows FILTER BUSY.	A. Another filtration cycle or filter pad change is still in process. B. Filter interface board has not cleared checking system.	A. Wait until the previous filtration cycle ends to start another filtration cycle. Change filter pad if prompted. B. Wait 15 minutes and try again.

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
FQ4000 displays INSERT PAN.	A. Filter pan is not fully set into fryer. B. Missing filter pan magnet. C. Defective filter pan switch.	A. Pull filter pan out and fully reinsert into fryer. Ensure controller does not display P. B. Ensure the filter pan magnet is in place and replace if missing. C. If the filter pan magnet is fully against the switch and controller continues to display INSERT PAN, switch is possibly defective.
Auto filtration won't start.	A. Oil level too low. B. Oil temperature is too low. C. Filter Pan out. D. Filtration in recipe settings is set to OFF. E. Filter relay has failed.	A. Ensure oil level is at the top oil fill line (at the top oil level sensor). B. Ensure the oil temperature is at setpoint. C. Ensure controller does not display P. Ensure the filter pan is fully seated into fryer. Power cycle the fryer. D. Set filtration in recipes to ON. E. Call your FAS for assistance.

3.2.3 Filter Busy

When **FILTER BUSY** is displayed the filter interface board is waiting on another vat to be filtered or waiting on another function to finish. Wait 15 minutes to see if problem is corrected. If not, call your local FAS.

3.2.4 OQS (Oil Quality Sensor) Troubleshooting

Problem	Corrective Action
No TPM results displayed.	<p>Check the following items and perform another OQS filter.</p> <ul style="list-style-type: none"> • Ensure the vat is at setpoint temperature. • Inspect the pre-screen filter and ensure it is screwed in tightly with the wrench. • Inspect the O-rings on the filter pan and ensure they are both present and that they are not missing, cracked or worn. If so replace them. • Ensure the filter paper is not clogged and clean filter paper is used. Did the vat refill the first time for the previous filter? If not change the filter paper.

3.2.5 Error Log Codes

See section 1.12.2.1 for instructions to access the Error Log.

Code	ERROR MESSAGE	EXPLANATION
E13	TEMPERATURE PROBE FAILURE	TEMP Probe reading out of range. Call service.
E16	HIGH LIMIT 1 EXCEEDED	High limit temperature is past more than 410°F (210°C), or in CE countries, 395°F (202°C)
E17	HIGH LIMIT 2 EXCEEDED	High limit switch has opened.
E18	HIGH LIMIT PROBLEM DISCONNECT POWER	Vat temperature exceeds 460°F (238°C) and the high limit has failed to open. Immediately disconnect power to the fryer and call service.
E19	HEATING FAILURE - XXX F or XXX C	Heating Control latch circuit failed. Heat Contactor failed to latch.
E25	HEATING FAILURE - BLOWER	The air pressure switch(s) failed to close.
E27	HEATING FAILURE - PRESSURE SWITCH - CALL SERVICE	The air pressure switch has failed closed.
E28	HEATING FAILURE - XXX F or XXX C	The fryer has failed to ignite and has locked out the ignition module.
E29	TOP OFF PROBE FAILURE - CALL SERVICE	ATO RTD reading out of range. Call service
E32	DRAIN VALVE NOT OPEN - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Drain valve was trying to open and confirmation is missing
E33	DRAIN VALVE NOT CLOSED - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Drain valve was trying to close and confirmation is missing
E34	RETURN VALVE NOT OPEN - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Return valve was trying to open and confirmation is missing
E35	RETURN VALVE NOT CLOSED - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Return valve was trying to close and confirmation is missing
E36	VALVE INTERFACE BOARD FAILURE - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Valve Interface Board connections lost or board failure. Call service.
E37	AUTOMATIC INTERMITTENT FILTRATION PROBE FAILURE - FILTRATION DISABLED - CALL SERVICE	AIF RTD reading out of range. Call service.
E39	CHANGE FILTER PAD	25 hour timer has expired or dirty filter logic has activated. Change the filter paper or pad.
E41	OIL IN PAN ERROR	The system detects that oil may be present in the filter pan.
E42	CLOGGED DRAIN (Gas)	Vat did not empty during filtration. Ensure the drain is not clogged and follow prompts.
E43	OIL SENSOR FAILURE - CALL SERVICE	Oil level sensor may have failed. Call service.

Code	ERROR MESSAGE	EXPLANATION
E44	RECOVERY FAULT	Recovery time exceeded maximum time limit.
E45	RECOVERY FAULT – CALL SERVICE	Recovery time exceeded maximum time limit for two or more cycles. Call service.
E46	SYSTEM INTERFACE BOARD 1 MISSING - CALL SERVICE	SIB board 1 connection lost or board failure. Call service.
E51	DUPLICATE BOARD ID - CALL SERVICE	Two or more controllers have the same location ID. Call service.
E52	USER INTERFACE CONTROLLER ERROR - CALL SERVICE	The controller has an unknown error. Call service.
E53	CAN BUS ERROR - CALL SERVICE	Communications are lost between boards. Call service.
E54	USB ERROR	USB connection lost during an update.
E55	SYSTEM INTERFACE BOARD 2 MISSING - CALL SERVICE	SIB board 2 connection lost or board failure. Call service.
E61	MISCONFIGURED ENERGY TYPE	The fryer is configured for the incorrect energy type. Call service.
E62	VAT NOT HEATING – CHECK ENERGY SOURCE – XXXF OR XXXC	The vat is not heating properly.
E63	RATE OF RISE	Rate of rise error occurred during a recovery test. Ensure the oil level is at the bottom oil level when cold and at the top oil level line when at setpoint. On electric fryers ensure the probe is not touching the elements.
E64	FILTRATION INTERFACE BOARD FAILURE - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Filtration Interface Board connections lost or board failure. Call service.
E65	CLEAN OIB SENSOR – XXX F OR XXX C - CALL SERVICE	Gas -The oil is back sensor does not detect oil. Clean optional oil sensor.
E66	DRAIN VALVE OPEN – XXXF OR XXXC	Drain valve is opened during cooking.
E67	SYSTEM INTERFACE BOARD NOT CONFIGURED - CALL SERVICE	Controller is turned on when the SIB board is not configured. Call service.
E68	OIB FUSE TRIPPED – CALL SERVICE	The VIB board OIB fuse has tripped and didn't reset. Call service.
E69	RECIPES NOT AVAILABLE – CALL SERVICE	The controller has not been programmed with product recipes. Replace controller with factory programmed controller.
E70	OQS TEMP HIGH	Oil temperature is too high for a valid OQS reading. Filter at a temperature between 300°F (149°C) and 375°F (191°C).
E71	OQS TEMP LOW	Oil temperature is too low for a valid OQS reading. Filter at a temperature between 300°F (149°C) and 375°F (191°C).

Code	ERROR MESSAGE	EXPLANATION
E72	TPM RANGE LOW	The TPM is too low for a valid OQS reading. This may also be seen with fresh new oil. The incorrect oil type may be selected in the setup menu. The sensor may not be calibrated for the oil type. See oil type chart in instruction document 8197316. If issue continues contact a FAS.
E73	TPM RANGE HIGH	The TPM reading is too high for a valid OQS reading. Dispose the oil.
E74	OQS ERROR	The OQS has an internal error. If issue continues contact a FAS.
E75	OQS AIR ERROR	The OQS is detecting air in the oil. Check the O-rings and check/tighten prescreen filter to ensure no air is entering the OQS sensor. If issue continues contact a FAS.
E76	OQS ERROR	The OQS sensor has a communication error. Check connections to the OQS sensor. Power cycle the entire fryer battery. If issue continues contact a FAS.

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