Frymaster®

We Fit the Way You Fry™

FilterQuick™ FQ4000 RC
easyTouch® 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.

CE **WELBILT**
an Ali Group Company

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 numerique n'emet pas de bruits radioelectriques depassany les limites de classe A et B prescrites dans la norme NMB-003 edictee par le Ministre des Communcations du Canada.

⚠ **DANGER**

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

⚠ **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 FQE30U-T or FQG30U-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.

⚠ **WARNING**

Operation, installation, and servicing of this product may expose you to chemicals/products including [Bisphenol A (BPA), glass wool or ceramic fibers, and crystalline silica], which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**.**

Frymaster®

FilterQuick™ FQ4000RC
Controller Manual
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CHAPTER 1: FILTERQUICK™ FQ4000RC CONTROLLER INSTRUCTIONS
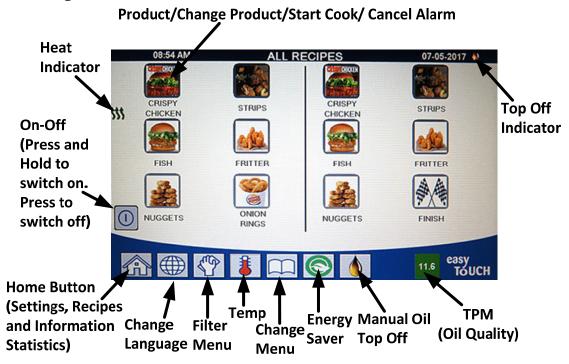
1.1 FQ4000RC General Information

Welcome to the FQ4000RC, 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. The controller can move seamlessly from one product to another.

The FQ4000 will operate with electric and gas full vat fryers.

1.2 FQ4000RC Button Description and Functions
1.2.1 Navigation Buttons

Product/Change Product/Start Cook/ Cancel Alarm

Heat Indicator

Top Off Indicator

On-Off (Press and Hold to switch on. Press to switch off)

Home Button (Settings, Recipes and Information Statistics)   Change Language   Filter Menu   Temp   Change Menu   Energy Saver   Manual Oil Top Off   TPM (Oil Quality)

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 Menus Button

The menus 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

1.2.1.6 Settings Button

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). When the hand is yellow, a filtration has been bypassed once. When it is red, a filtration has been bypassed more than once and requires filtration.

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

1.2.1.17　TPM (Total Polar Materials) OQS (Oil Quality Sensor) Button

Pressing the TPM button when solid, displays the last 30 days of TPM/OQS readings (see Figure 17). Pressing the TPM button when blinking, denotes it has been more than 24 hours since the last OQS filter and will prompt for an OQS filter.
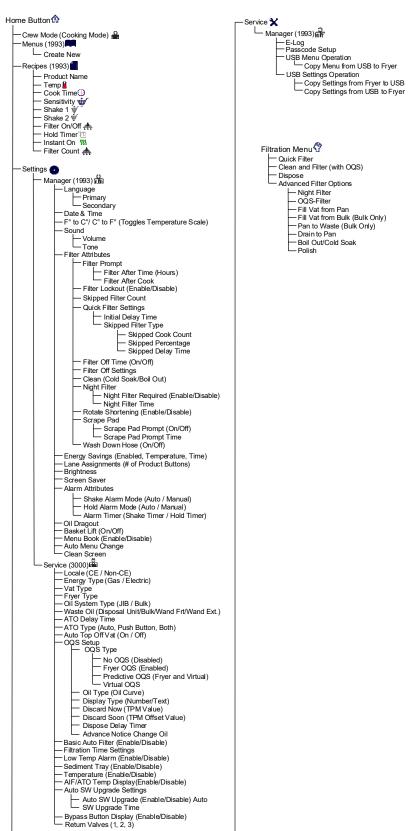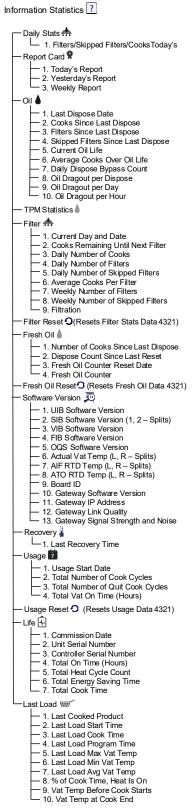

Figure 17

1.3 FQ4000RC Menu Summary Tree

Reflected below are the major programming sections in the FQ4000RC and the order in which submenu headings will be found under the sections in the Installation and Operation Manual.

Home Button 🏠
- Crew Mode (Cooking Mode) 👤
- Menus (1993) 📖
  - Create New
- Recipes (1993) 📘
  - Product Name
  - Temp 🌡
  - Cook Time ⏱
  - Sensitivity
  - Shake 1
  - Shake 2
  - Filter On/Off
  - Hold Timer ⏰
  - Instant On
  - Filter Count

- Settings ⚙
  - Manager (1993) 🔑
    - Language
      - Primary
      - Secondary
    - Date & Time
    - F° to C°/ C° to F° (Toggles Temperature Scale)
    - Sound
      - Volume
      - Tone
    - Filter Attributes
      - Filter Prompt
        - Filter After Time (Hours)
        - Filter After Cook
      - Filter Lockout (Enable/Disable)
      - Skipped Filter Count
      - Quick Filter Settings
        - Initial Delay Time
        - Skipped Filter Type
          - Skipped Cook Count
          - Skipped Percentage
          - Skipped Delay Time
      - Filter Off Time (On/Off)
      - Filter Off Settings
      - Clean (Cold Soak/Boil Out)
      - Night Filter
        - Night Filter Required (Enable/Disable)
        - Night Filter Time
      - Rotate Shortening (Enable/Disable)
      - Scrape Pad
        - Scrape Pad Prompt (On/Off)
        - Scrape Pad Prompt Time
      - Wash Down Hose (On/Off)
    - Energy Savings (Enabled, Temperature, Time)
    - Lane Assignments (# of Product Buttons)
    - Brightness
    - Screen Saver
    - Alarm Attributes
      - Shake Alarm Mode (Auto / Manual)
      - Hold Alarm Mode (Auto / Manual)
      - Alarm Timer (Shake Timer / Hold Timer)
    - Oil Dragout
    - Basket Lift (On/Off)
    - Menu Book (Enable/Disable)
    - Auto Menu Change
    - Clean Screen
  - Service (3000) 🔑
    - Locale (CE / Non-CE)
    - Energy Type (Gas / Electric)
    - Vat Type
    - Fryer Type
    - Oil System Type (JIB / Bulk)
    - Waste Oil (Disposal Unit/Bulk/Wand Frt/Wand Ext.)
    - ATO Delay Time
    - ATO Type (Auto, Push Button, Both)
    - Auto Top Off Vat (On / Off)
    - OQS Setup
      - OQS Type
        - No OQS (Disabled)
        - Fryer OQS (Enabled)
        - Predictive OQS (Fryer and Virtual)
        - Virtual OQS
      - Oil Type (Oil Curve)
      - Display Type (Number/Text)
      - Discard Now (TPM Value)
      - Discard Soon (TPM Offset Value)
      - Dispose Delay Timer
      - Advance Notice Change Oil
    - Basic Auto Filter (Enable/Disable)
    - Filtration Time Settings
    - Low Temp Alarm (Enable/Disable)
    - Sediment Tray (Enable/Disable)
    - Temperature (Enable/Disable)
    - AIF/ATO Temp Display(Enable/Disable)
    - Auto SW Upgrade Settings
      - Auto SW Upgrade (Enable/Disable) Auto
      - SW Upgrade Time
    - Bypass Button Display (Enable/Disable)
    - Return Valves (1, 2, 3)

Service ✖
- Manager (1993) 🔑
  - E-Log
  - Passcode Setup
  - USB Menu Operation
    - Copy Menu from USB to Fryer
  - USB Settings Operation
    - Copy Settings from Fryer to USB
    - Copy Settings from USB to Fryer

Filtration Menu 🔧
- Quick Filter
- Clean and Filter (with OQS)
- Dispose
- Advanced Filter Options
  - Night Filter
  - OQS-Filter
  - Fill Vat from Pan
  - Fill Vat from Bulk (Bulk Only)
  - Pan to Waste (Bulk Only)
  - Drain to Pan
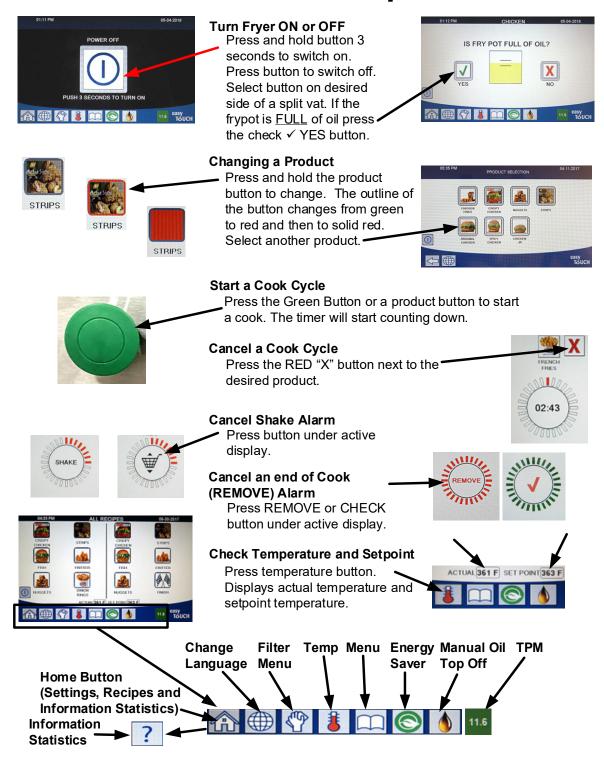 - Boil Out/Cold Soak
  - Polish

1.4 FQ4000RC Information Summary Tree

Reflected below are the information statistics in the FQ4000RC and the order in which submenu headings will be found in the controller.

Information Statistics [?]

```
— Daily Stats ⚑
    └── 1. Filters/Skipped Filters/Cooks Today's
— Report Card 🏆
    ├── 1. Today's Report
    ├── 2. Yesterday's Report
    └── 3. Weekly Report
— Oil 💧
    ├── 1. Last Dispose Date
    ├── 2. Cooks Since Last Dispose
    ├── 3. Filters Since Last Dispose
    ├── 4. Skipped Filters Since Last Dispose
    ├── 5. Current Oil Life
    ├── 6. Average Cooks Over Oil Life
    ├── 7. Daily Dispose Bypass Count
    ├── 8. Oil Dragout per Dispose
    ├── 9. Oil Dragout per Day
    └── 10. Oil Dragout per Hour
— TPM Statistics 💧
— Filter ⚑
    ├── 1. Current Day and Date
    ├── 2. Cooks Remaining Until Next Filter
    ├── 3. Daily Number of Cooks
    ├── 4. Daily Number of Filters
    ├── 5. Daily Number of Skipped Filters
    ├── 6. Average Cooks Per Filter
    ├── 7. Weekly Number of Filters
    ├── 8. Weekly Number of Skipped Filters
    └── 9. Filtration
— Filter Reset ↻ (Resets Filter Stats Data 4321)
— Fresh Oil 💧
    ├── 1. Number of Cooks Since Last Dispose
    ├── 2. Dispose Count Since Last Reset
    ├── 3. Fresh Oil Counter Reset Date
    └── 4. Fresh Oil Counter
— Fresh Oil Reset ↻ (Resets Fresh Oil Data 4321)
— Software Version 🔢
    ├── 1. UIB Software Version
    ├── 2. SIB Software Version (1, 2 – Splits)
    ├── 3. VIB Software Version
    ├── 4. FIB Software Version
    ├── 5. OQS Software Version
    ├── 6. Actual Vat Temp (L, R – Splits)
    ├── 7. AIF RTD Temp (L, R – Splits)
    ├── 8. ATO RTD Temp (L, R – Splits)
    ├── 9. Board ID
    ├── 10. Gateway Software Version
    ├── 11. Gateway IP Address
    ├── 12. Gateway Link Quality
    └── 13. Gateway Signal Strength and Noise
— Recovery 🌡
    └── 1. Last Recovery Time
— Usage 7
    ├── 1. Usage Start Date
    ├── 2. Total Number of Cook Cycles
    ├── 3. Total Number of Quit Cook Cycles
    └── 4. Total Vat On Time (Hours)
— Usage Reset ↻ (Resets Usage Data 4321)
— Life 📈
    ├── 1. Commission Date
    ├── 2. Unit Serial Number
    ├── 3. Controller Serial Number
    ├── 4. Total On Time (Hours)
    ├── 5. Total Heat Cycle Count
    ├── 6. Total Energy Saving Time
    └── 7. Total Cook Time
└── Last Load 🛒
    ├── 1. Last Cooked Product
    ├── 2. Last Load Start Time
    ├── 3. Last Load Cook Time
    ├── 4. Last Load Program Time
    ├── 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 Cook End
```

1.5 Basic Operation

FQ4000RC Basic Operation

Turn Fryer ON or OFF
Press and hold button 3 seconds to switch on. Press button to switch off. Select button on desired side of a split vat. If the frypot is <u>FULL</u> of oil 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 Green Button or a 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.

Change Language   Filter Menu   Temp   Menu   Energy Saver   Manual Oil Top Off   TPM

Home Button (Settings, Recipes and Information Statistics)
Information Statistics

1.6　Cooking

Cooking with the FQ4000RC

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 GREEN 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.
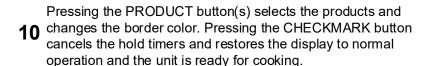
7 Press the REMOVE/CHECKMARK button to cancel alarm.

8 HOLD TIMERS run in the background and are not displayed until the hold timer expires.

9 A HOLD TIMER EXPIRED PRODUCTS screen displays products that have expired hold timers.

10 Pressing the PRODUCT button(s) selects the products and changes the border color. Pressing the CHECKMARK button cancels the hold timers and restores the display to normal operation 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 🏠	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.
□ **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.
□ **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.
⬇	14. Press the Down arrow button.
□ **FRYER TYPE**	15. Press the Fryer Type button.
FQ30 FQ60	16. Select **FQ30** for 30lb fryers or **FQ60** for 60lb fryers.
SETUP COMPLETE RESTART THE SYSTEM	17. No action.
✓	18. Press the √ (check) button.
□ **OIL SYSTEM TYPE**	19. Press the Oil System Type button.
JIB BULK	20. 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.

DISPLAY	ACTION
SETUP COMPLETE RESTART THE SYSTEM	21. No action.
✓	22. Press the √ (check) button.
□ **WASTE OIL**	23. Press the Waste Oil button.
DISPOSAL UNIT BULK WAND FRONT WAND EXTERNAL	24. Select **DISPOSAL UNIT, BULK, WAND FRONT or WAND EXTERNAL**. **NOTE:** Select DISPOSAL UNIT 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 WAND FRONT if disposing using a wand connected to the fryer. Select WAND EXTERNAL if using an external dispose system using a wand with suction to extract the oil from the frypot.
SETUP COMPLETE RESTART THE SYSTEM	25. No action.
✓	26. Press the √ (check) button.
⬇	27. Press the Down arrow button.
□ **ATO DELAY TIME**	28. Press the ATO Delay time button.
0 MINUTES ✓	29. 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. The default is 0 minutes for liquid shortening. Enter a value greater than 0 for solid shortening.
SETUP COMPLETE ✓	30. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ **ATO TYPE**	31. Press the ATO Type button.
AUTO PUSH BUTTON BOTH	32. 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 ✓	33. Press the √ (check) button inside the SETUP COMPLETE box.
□ **AUTO TOP OFF VAT**	34. Press the Auto Top Off Vat button.
⊞ ⊞	35. Select **LEFT VAT** or **RIGHT VAT** for split vats (Split Vats only).
ON OFF	36. Select **ON** unless top off is not desired for this vat. Default is **ON**.

DISPLAY	ACTION
⬇	37. Press the Down arrow button.
□ **OQS SETUP**	38. Press the OQS Setup button if an OQS sensor is installed.
□ **OQS TYPE**	39. Press OQS TYPE button for OQS sensor type.
NO OQS (Disabled) **FRYER OQS (Enabled)** **PREDICTIVE OQS (Fryer and Virtual)** **VIRTUAL OQS**	40. Select NO OQS if the OQS sensor is not present or disabled. Select FRYER OQS if sensor is present and enabled. Select PREDICTIVE OQS if the fryer is connected to the cloud and remaining oil life display is desired. Select VIRTUAL OQS if the fryer is connected to the cloud and no OQS sensor is used. This is approximate oil remaining life based on data.
✓ **SETUP COMPLETE**	41. Press the √ (check) button inside the SETUP COMPLETE box.
□ **OIL TYPE**	42. Press the Oil Type button.
OC01v01, OC02v02, etc. ⬇	43. 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**	44. Press the √ (check) button inside the SETUP COMPLETE box.
□ **DISPLAY TYPE**	45. Press the Display Type button.
NUMBER TEXT	46. 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**	47. Press the √ (check) button inside the SETUP COMPLETE box.
□ **DISCARD NOW**	48. Press the Discard Now button.
TPM VALUE	49. 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.
	50. Use the keypad to enter the TPM discard now value.
✓	51. Press the √ (check) button once the value is entered.
✓	52. Press the √ (check) button to save the value.

DISPLAY	ACTION
SETUP COMPLETE ✓	53. Press the √ (check) button inside the SETUP COMPLETE box.
⬇	54. Press the down arrow button.
□ **DISCARD SOON**	55. Press the Discard Soon button.
TPM VALUE	56. 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.
	57. Use the keypad to enter the TPM discard soon value.
✓	58. Press the √ (check) button once the value is entered.
✓	59. Press the √ (check) button to save the value.
SETUP COMPLETE ✓	60. Press the √ (check) button inside the SETUP COMPLETE box.
□ **DISPOSE DELAY TIMER**	61. 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.)
0 : 30 HOURS MINUTES	62. Press the hour's box to enter a delay time in hours.
	63. Using the key pad, enter the time in hours.
0 : 30 HOURS MINUTES	64. Press the minute's box to enter a delay time in minutes.
	65. Using the key pad enter the time in minutes.

DISPLAY	ACTION
✓	66. Press the √ (check) button to save the value.
SETUP COMPLETE ✓	67. Press the √ (check) button inside the SETUP COMPLETE box.
⇐	68. Press the back button when complete.
□ **BASIC AUTO FILTER**	69. Press the Basic Auto Filter button.
ENABLE DISABLE	70. Select **ENABLE** Basic Auto Filter (Auto Filtration for units **without** OIB sensors) or **DISABLE** Basic Auto Filtration (Auto Filtration for units **with** OIB sensors).
SETUP COMPLETE ✓	71. Press the √ (check) button inside the SETUP COMPLETE box.
□ **FILTRATION TIME SETTINGS**	72. Press the Filtration Time Settings button.
□ **POLISH TIME** □ **COLD SOAK/BOIL OUT (CLEAN) TIME** □ **AUTO FILTER FLUSH TIME** □ **CLEAN & FILTER FLUSH TIME** ⇐	73. These settings should only be adjusted if instructed by the factory. The default settings are: □ POLISH TIME -300 □ COLD SOAK/BOIL OUT (CLEAN TIME -3600 □ AUTO FILTER FLUSH TIME -25 □ CLEAN & FILTER FLUSH TIME -25 Press the back button when complete.
⇓	74. Press the down arrow button.
□ **LOW TEMP ALARM**	75. Press the Low Temp Alarm button.
ENABLE DISABLE	76. Select **ENABLE** to enable the low temperature alarm or **DISABLE** to disable the low temperature alarm.
SETUP COMPLETE ✓	77. Press the √ (check) button inside the SETUP COMPLETE box.
⇓	78. Press the down arrow button.
□ **SEDIMENT TRAY**	79. Press the Sediment Tray button.
ENABLE DISABLE	80. Select **ENABLE** if using sediment trays or **DISABLE** if sediment trays are NOT used.
SETUP COMPLETE ✓	81. Press the √ (check) button inside the SETUP COMPLETE box.
□ **TEMPERATURE**	82. Press the Temperature button.
ENABLE DISABLE	83. Select enable to enable the temperature button. Select disable to disable the temperature button and display constant temperature display.
SETUP COMPLETE ✓	84. Press the √ (check) button.

DISPLAY	ACTION
⬇	85. Press the down arrow button.
□ **AIF/ATO TEMP DISPLAY**	86. Press the AIF/ATO TEMP DISPLAY button. This is a tool to display AIF/ATO probe temperatures when troubleshooting.
ENABLE DISABLE	87. Select enable to enable the AIF/ATO temperature displays. Select disable to disable the AIF/ATO temperature displays.
SETUP COMPLETE ✓	88. Press the √ (check) button.
□ **AUTO SW UPGRADE SETTINGS**	89. Press the Auto SW (software) upgrade settings. This allows adjustment of the settings for auto software updates.
□ **AUTO SW UPGRADE ENABLE/ DISABLE**	90. Select enable to enable the auto software upgrades. Select disable to disable the auto software upgrades.
✓	91. Press the √ (check) button to save the value.
□ **AUTO SW UPGRADE TIME**	92. Press the Auto SW (software) upgrade settings. This allows adjustment of the settings for auto software updates.
ENTER THE TIME IN 24HRS FORMAT 4 : 15 HOURS MINUTES	93. Using the keypad, enter the time in hours and minutes in 24-hour format, when the automatic software upgrade should occur.
✓	94. Press the √ (check) button to save the value.
□ **BYPASS BUTTON DISPLAY ENABLE/ DISABLE**	95. Select enable to enable the bypass melt cycle button during melt cycle. Select disable to disable the bypass melt cycle button during melt cycle.
SETUP COMPLETE ✓	96. Press the √ (check) button.
□ **RETURN VALVES**	97. Select the number of return valves the frypot has. Select 1 if it has a single return valve. Select 2 if it has two (2) return ports (valves). Select 3 if it has three (3) return ports (valves).
SETUP COMPLETE ✓	98. Press the √ (check) button.
⌂	99. Press the Home button.
CREW MODE	100. Press the Crew Mode button.

DISPLAY	ACTION
	101. Press and hold the momentary reset switch. Ensure the switch is pressed and held for **one (1) minute**. In newer fryers the switch is located below the USB port. On older gas units, the button is located under the far-left control box. On older electric units, the button is located on the rear of the control box behind the JIB reset switch.
⏻	102. 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 9 9 3	4. Enter **1993**
✔ 🌐	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
➡ 08 : 22	14. Press the hour's box.

DISPLAY	ACTION
	15. Using the key pad, enter the time in hours.
08 : 22	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.
✓	19. Press the √ (check) button.
SETUP COMPLETE ✓	20. Press the smaller √ (check) button inside the SETUP COMPLETE box.
JAN **7**	21. Press the Set Date button
DD:MM:YY MM:DD:YY	22. Press the Date Format box to toggle between MM-DD-YY or DD-MM-YY.
◀ **2017** ▶	23. At the top of the screen, the year is shown. Press the left or right arrow to select the year.
◀ **MARCH** ▶	24. Below the year is the month. Press the left or right arrow to select the month.
✓	25. Select the date using the numbered keys and press the √ (check) button.
SETUP COMPLETE ✓	26. Press the smaller √ (check) button inside the SETUP COMPLETE box.
⏱	27. Press the DST (DAYLIGHT SAVINGS TIME) SETUP button.
▢ **DST ON/OFF**	28. Press the DST ON/OFF button.
ON OFF	29. Select ON to enable DST or OFF to disable DST.
SETUP COMPLETE ✓	30. Press the smaller √ (check) button inside the SETUP COMPLETE box.
▢ **DST SETTINGS**	31. Press the DST SETTINGS button.

DISPLAY	ACTION
□ **DST START MONTH** □ **DST START SUNDAY** □ **DST END MONTH** □ **DST END SUNDAY**	32. 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
✓	33. Press the √ (check) button when complete.
SETUP COMPLETE ✓	34. Press the smaller √ (check) button inside the SETUP COMPLETE box.
⇐	35. Press the Back button three (3) times.
□ **F° TO C°**	36. Press the F° TO C° or F° TO C° button. **NOTE: F** is used for Fahrenheit, **C** is used for Celsius
CONFIRM [YES] [NO]	37. Select YES to toggle the temperature scale.
COMPLETED SUCCESSFULLY ✓	38. Press the √ (check) button when complete.
□ **SOUND**	39. Press the Sound button.
△ ▽	40. 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.
✓	41. Press the √ (check) button when complete.
SETUP COMPLETE ✓	42. Press the smaller √ (check) button inside the SETUP COMPLETE box.
⇩	43. Press the Down button.
□ **FILTER ATTRIBUTES**	44. Press the Filter Attributes button.
□ **FILTER PROMPT**	45. Press the Filter Prompt button. The auto filtration mode uses two measures before prompting to filter. One checks for cook cycles which is adjusted in the FILTER AFTER COOK setting and the other checks for time which is adjusted in the following section FILTER AFTER TIME setting. The prompt for filtration is initiated by whichever occurs first; either the number of cycles elapsed or time elapsed.

DISPLAY	ACTION
□ **FILTER AFTER TIME**	46. Press the FILTER AFTER 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.
✓	47. 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 to disable)
✓	48. Press the √ (check) button.
SETUP COMPLETE ✓	49. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ **FILTER AFTER COOK**	50. Press the FILTER AFTER COOK button. The FILTER AFTER option is used to set the number of cooking cycles which occur on in the vat before the filtration prompt is displayed. If no prompts are desired set to 0 to disable. **NOTE: If using Filter Count prompts for individual products under recipes, this setting needs to be set to 1 to activate Recipe Filter Counts. Recipe Filter Counts override Filter After Cook values from 1-99 in this setting.**
✓	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. Press the smaller √ (check) button inside the SETUP COMPLETE box.
⇐	54. Press the Back button.
□ **FILTER LOCKOUT**	55. Press the FILTER LOCKOUT button.
ENABLE DISABLE	56. Select enable to enable the filter lockout. Select disable to disable the filter lockout. Filter lockout will lockout the fryer based off the settings in the skipped filter count setting.
SETUP COMPLETE ✓	57. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ **SKIPPED FILTER COUNT**	58. Press the SKIPPED FILTER COUNT button.

DISPLAY	ACTION
✓	59. Press the √ (check) button to continue or press the number button and enter the number of skipped filters allowed before the filter lockout locks out the fryer and press the √ (check) button. If set to 0, no skips or bypasses are allowed.
✓ SETUP COMPLETE	60. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ QUICK FILTER SETTINGS	61. Press the QUICK FILTER SETTINGS button.
□ INTIAL DELAY TIME	62. Press the Initial Delay Time button.
2 MINUTES	63. Press the minute's box to adjust the initial delay time. The initial delay time is the time the fryer sits idle, after filter after or filter cooks have been completed, before prompting for a filter. (Default is two (2) minutes.) 0=Disabled
02:58 PM INITIAL DELAY TIME 05-04-2018 1 2 3 4 5 ⟨X⟩ ✓ 6 7 8 9 0 C X ⬅ ⊕ easy TOUCH	64. Using the keypad to enter the time in minutes.
✓	65. Press the √ (check) button.
✓	66. Press the √ (check) button.
✓ SETUP COMPLETE	67. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ SKIPPED FILTER TYPE	68. Press the SKIPPED FILTER TYPE button.
□ SKIPPED COOK COUNT □ SKIPPED PERCENTAGE □ SKIPPED DELAY TIME	69. The selection highlighted is the current type configured. To edit, select the type of skipped filter type.
□ SKIPPED COOK COUNT	70. Press the SKIPPED COOK COUNT button.
3 NUMBER OF COOKS	71. Press the NUMBER OF COOKS box to adjust the skipped cook counts before re-prompting for a filter.
1 2 3 4 5 ⟨X⟩ ✓ 6 7 8 9 0 C X ⬅ ⊕ easy TOUCH	72. Using the keypad to enter the time in minutes.
✓	73. Press the √ (check) button.

DISPLAY	ACTION
✓	74. Press the √ (check) button.
✓ **SETUP COMPLETE**	75. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ **SKIPPED PERCENTAGE**	76. Press the % OF TIMER OR COOK COUNT button.
50 ← % OF TIMER OR COOK COUNT	77. Press the % OF TIMER OR COOK COUNT box to adjust the percentage of a filter time timer or cook count before re-prompting for a filter. Example: If set for 50%, after skipping it will half the time or cooks before re-prompting. If the original filter count was 6, setting to 50% will re-prompt at 3.
	78. Using the keypad to enter the time in minutes.
✓	79. Press the √ (check) button.
✓	80. Press the √ (check) button.
✓ **SETUP COMPLETE**	81. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ **SKIPPED DELAY TIME**	82. Press the Skipped Delay Time button.
5 ← MINUTES	83. Press the minute's box to adjust the skipped delay time. The skipped delay time is the time after the initial filter is skipped before it prompts again to filter. The first time the filter is skipped the filter button turns from white to yellow. The next time the filter is skipped, the filter button turns from yellow to red until the filter is performed. (Default is five (5) minutes.) 0=Disabled
	84. Using the keypad enter the time in minutes.
✓	85. Press the √ (check) button.
✓	86. Press the √ (check) button.

DISPLAY	ACTION
SETUP COMPLETE ☑	87. Press the smaller √ (check) button inside the SETUP COMPLETE box.
⬇	88. Press the Down button.
☐ **FILTER OFF TIME**	89. 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).
ON OFF	90. Select ON to enable FILTER OFF TIME. Select OFF to disable FILTER OFF TIME.
☐ **FILTER OFF SETTINGS**	91. Press the Filter Off Settings button. The Filter 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.**
	92. 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.)
☑	93. Once the times are selected press the √ (check) button.
SETUP COMPLETE ☑	94. Press the smaller √ (check) button inside the SETUP COMPLETE box.
☐ **CLEAN**	95. Press the Clean button. Choose BOIL OULT or COLD SOAK.
SETUP COMPLETE RESTART THE SYSTEM ☑	96. Press the √ (check) button.
☐ **NIGHT FILTER**	97. Press the Night Filter button. The Night Filter option, if enabled, prompts for nightly filters at a prescribed time.
☐ **NIGHT FILTER REQUIRED**	98. Press the Night Filter required button. The Night Filter option, if enabled, prompts for nightly filters at a prescribed time.
ENABLE DISABLE	99. Select enable to enable the nightly filter prompt. Select disable to disable the nightly filter prompt

DISPLAY	ACTION
√ **SETUP COMPLETE**	100. Press the √ (check) button inside the SETUP COMPLETE box.
□ NIGHT FILTER TIME	101. Press the Night Filter Time button.
NIGHT FILTER TIME ENTER THE TIME IN 24HRS FORMAT **20 : 30** HOURS MINUTES √	102. Enter the time in hours and minutes in 24-hour format when the nightly filter should prompt. **Example shown for 8:30PM (22:30).**
√	103. Once the times are entered press the √ (check) button.
⇐	104. Press the Back button.
⇩	105. Press the Down button.
□ ROTATE SHORTENING	106. Press the Rotate Shortening button. The Rotate Shortening option, if enabled, prompts to rotate shortening from another vat. This only occurs at the end of a dispose function on a vat.
ENABLE DISABLE	107. Select enable to enable the nightly filter prompt. Select disable to disable the nightly filter prompt
SETUP COMPLETE **√**	108. Press the √ (check) button inside the SETUP COMPLETE box.
□ SCRAPE PAD	109. Press the Scrape Pad button. The Scrape Pad option, if enabled, prompts the user to scrape the filter envelope pads during a filter if the oil doesn't return in a specified amount of time.
□ SCRAPE PAD PROMPT	110. Press the Scrape Pad Prompt button.
ON OFF	111. Select ON to enable the Scrape Pad prompt. Select OFF to disable the Scrape Pad prompt
SETUP COMPLETE **√**	112. Press the √ (check) button inside the SETUP COMPLETE box.
75 **SECONDS**	113. The time that prompts the user to scrape the filter envelope pads during a filter if the oil doesn't return the oil in the allotted time. *(This is the time from when the drain valve closes to the prompt to scrape the pad)*.

DISPLAY	ACTION
	114. Using the keypad to enter the time in seconds for the Scrape Pad Timer.
✓	115. Press the √ (check) button.
✓	116. Press the √ (check) button.
SETUP COMPLETE RESTART THE SYSTEM ✓	117. Press the smaller √ (check) button inside the SETUP COMPLETE box.
←	118. Press the Back button.
□ **WASH DOWN HOSE**	119. Press the Wash DOWN HOSE button. The WASH DOWN HOSE option, if enabled, prompts the user to use the wash down hose during the clean and filter.
ON OFF	120. Select ON to enable the Wash Down Hose option. Select OFF to disable the Wash Down Hose option.
SETUP COMPLETE RESTART THE SYSTEM ✓	121. Press the smaller √ (check) button inside the SETUP COMPLETE box.
←	122. Press the Back button.
□ **ENERGY SAVINGS**	123. Press the Energy Savings button. The Energy Savings option is used during idle periods to lower the frypot temperature to save energy.
OFF ON	124. Press the Enable button to toggle the Energy Saving option on or off.
✓	125. 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.
✓	126. 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.

DISPLAY	ACTION
✓	127. Press the √ (check) button.
SETUP COMPLETE ✓	128. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ **LANE ASSIGNMENTS**	129. Press the Lane Assignments button. This is used to set the number of products per vat.
2, 2S, 3, 3S, 4	130. Press the 2 button to have 2 lanes, 6 products per lane (side), 12 total products available; or 2S button to have 2 lanes, 6 products per side, 12 products per screen scrolling to 2 screens for 24 total products available; 3 button to have 3 lanes, 3 products in each lane, 9 per vat available; 3S button to have 3 lanes, 3 products in each lane, 9 products per screen scrolling for a total of 18 total products available; 4 button to have 4 lanes, 3 products per lane, 12 total products available. **NOTE: Hold timers are only visible when set to 2, 3, or 4. Hold timers are NOT visible when set to 2S or 3S.**
SETUP COMPLETE RESTART THE SYSTEM ✓	131. Press the √ (check) button.
□ **BRIGHTNESS**	132. Press the Brightness button. This is used to set the brightness of the screen. Use the up down arrows to adjust. (Default is 100.)
✓	133. Press the √ (check) button.
SETUP COMPLETE ✓	134. Press the smaller √ (check) button inside the SETUP COMPLETE box.
⬇	135. Press the Down button.
□ **SCREEN SAVER**	136. 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.)
△ ▽	137. 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.
✓	138. Press the √ (check) button when complete.

DISPLAY	ACTION
√ (check button in box) **SETUP COMPLETE**	139. Press the smaller √ (check) button inside the SETUP COMPLETE box.
□ **ALARM ATTRIBUTES**	140. Press the Alarm Attributes button
□ **SHAKE ALARM MODE**	141. 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.
SETUP COMPLETE RESTART THE SYSTEM **√**	142. Press the √ (check) button.
□ **HOLD ALARM MODE**	143. 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.
SETUP COMPLETE RESTART THE SYSTEM **√**	144. Press the √ (check) button.
□ **ALARM TIMER**	145. 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.
SETUP COMPLETE RESTART THE SYSTEM **√**	146. Press the √ (check) button.
⇐	147. Press the Back button two (2) times.
□ **OIL DRAGOUT**	148. The Oil Drag out function sets parameters that adjust flow and flow adjust. These parameters are used to calculate oil drag out usage for statistical information that is captured in the Information Statistics function under Oil statistics.
□ **FLOW**	149. Enter the oil drag out flow rate of pounds per minute (Default is 2.211) and press the √ (check) button. (Note: Enter values from 0100-4000 for ranges 0.100-4.000lbs).
√ (check button in box) **SETUP COMPLETE**	150. Press the √ (check) button when complete.
□ **FLOW ADJUST**	151. Enter the configurable flow rate (Default is 1) and press the √ (check) button. (Note: Enter values from 10-200 for ranges 0.10-2.00lbs).

DISPLAY	ACTION
SETUP COMPLETE ☑	152. Press the √ (check) button when complete.
☐ **BASKET LIFT**	153. Press the Basket Lift button.
ON OFF	154. Select ON to enable the basket lift or OFF to disable the basket lift.
SETUP COMPLETE RESTART THE SYSTEM ☑	155. Press the √ (check) button.
⬇	156. Press the Down button.
☐ **MENU BOOK**	157. Press the Menu button.
ENABLE DISABLE	158. Select enable to enable the menu book button on the bottom of the screens.
SETUP COMPLETE ☑	159. Press the √ (check) button when complete.
☐ **AUTO MENU CHANGE**	160. Press the Auto Menu Change button.
	161. Enabling Auto Menu Change is used to automatically change between different menus (ie. Breakfast, Changeover, Lunch, other). Press the OFF button to change to ON to enable a menu. Enter time in 24hr format for when the specific menu should start. See example left.
⇐	162. Press the Back button.
☐ **CLEAN SCREEN**	163. Press the Clean Screen button. This option if enabled, prompts the user to clean the screen at prescribed intervals. It locks the screen to enable cleaning.
# OF HOURS BEFORE PROMPT	164. Using the keypad to enter the time in hours (0-60 hours) for the clean screen prompts. 0=Disabled
SETUP COMPLETE ☑	165. Press the √ (check) button when complete.
⇐	166. Press the Back button.

DISPLAY	ACTION
	167. Press the Home button.
\n\n**CREW MODE**	168. Press the Crew Mode button.
	169. Press and hold the momentary reset switch. Ensure the switch is pressed and held for **one (1) minute**. In newer fryers the switch is located below the USB port. On older gas units, the button is located under the far-left control box. On older electric units, the button is located on the rear of the control box behind the JIB reset switch.
	170. 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.
1 9 9 3	3. Enter **1993**
	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.

1-26

DISPLAY	ACTION
✓	8. Press the √ (check) button.
EDIT RECIPE PARAMETERS 12:59 PM 02-03-2017 — FRIES — 363°F — 2:45 — SENSITIVITY 5-9 — HOLD TIMER 7:00 — SHAKE 1 :30 - ∞	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.
(thermometer icon)	10. To edit temperature, press the temp button.
NEW RECIPE — 350 — keypad 1 2 3 4 5 ⊠ ✓ / 6 7 8 9 0 C / ✗	11. Use the keypad to enter or edit the cook temperature for the product.
✓	12. Press the √ (check) button.
(clock icon)	13. Press the cook time button.
NEW RECIPE — 03.10 — keypad 1 2 3 4 5 ⊠ ✓ / 6 7 8 9 0 C / ✗	14. Use the keypad to enter or edit the cook time in minutes and seconds.
✓	15. Press the √ (check) button.
(basket icon)	16. Press the load compensation or sensitivity button.
NEW RECIPE — LOAD SIZE — ↑ ↓ — ✓ ✗	17. Use the up and down arrows to change the load compensation or sensitivity setting recommended for this product. 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.** (The default setting for product compensation is set to four (4).)
✓	18. Press the √ (check) button.

DISPLAY	ACTION
	19. Press the Shake Timer 1 button.
	20. Enter the time in minutes and seconds for the first shake to be performed.
	21. Press the √ (check) button.
	22. Press the Shake Timer 2 button if an additional shake is needed, otherwise skip to step 26.
	23. Enter the time in minutes and seconds for the second shake to be performed.
	24. Press the √ (check) button.
	25. Press the down arrow to scroll to more settings.
	26. Press the Filter button. (NOTE: ON or OFF is displayed for current selection.)
	27. 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.
	28. Press the Hold Timer button.
	29. Enter the time in minutes and seconds for the product hold time.
	30. Press the √ (check) button.
	31. Press the Instant On button.

DISPLAY	ACTION
	32. This is the time, in seconds, the fryer heats at 100%, after the product button is pressed before the controller adjusts the temperature. Enter the time in minutes and seconds for the instant on time (ie. 00:30=30 seconds). (0=OFF). NOTE: Instant on time may need to be adjusted for light cooking loads.
	33. Press the √ (check) button.
	34. Press the Filter Count button.
	35. Enter the number of cooking cycles which occur for this product before the filtration prompt is displayed. This setting is for product only and is not to be confused with a global or Filter After Count under Filter Attributes in Manager settings. If no prompts are desired set to 0 to disable. **If any product recipe has a filter count value > 0, Filter After Counts are overridden and filter prompts are averaged between products with different filter count values. A value >0 must exist in Filter After Counts under Filter Attributes in Manager settings, for recipe filter counts to function.**
	36. Press the √ (check) button.
	37. Choose the icon to associate with the product recipe that is being entered or edited.
	38. Press the √ (check) button.
	39. Choose the menu(s) to associate with the product recipe that is being entered or edited.
	40. Press the √ (check) button.
	41. The controller displays SAVED.

DISPLAY	ACTION
✓	42. Press the √ (check) button.
🏠	43. Select another product to edit or press the + key to add additional products. If finished press the home button.
CREW MODE	44. Press the Crew Mode button to return to main screen.

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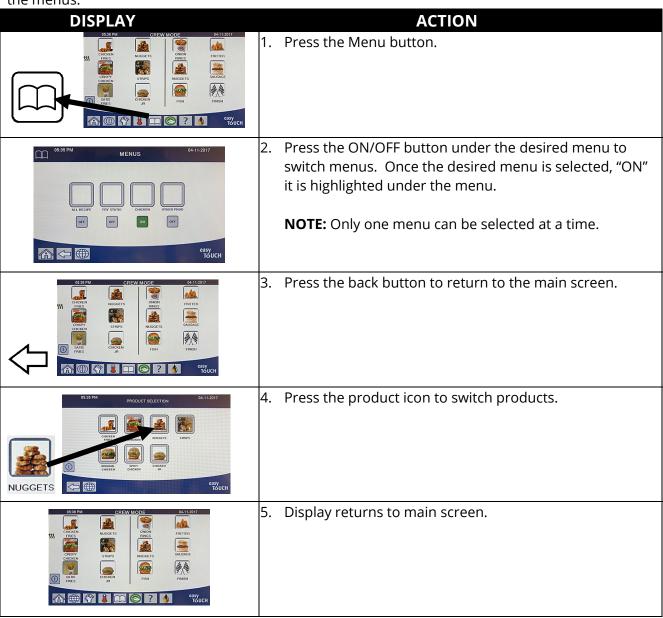
 This function is used to add or edit menus. Menus allow the operator to group certain products together. For example, setting up a breakfast menu allows grouping of breakfast only products. This is helpful when switching products by narrowing the number of products to choose from.

DISPLAY	ACTION
🏠	1. Press the Home button.
📖	2. Press the Menus button.
1 9 9 3	3. Enter **1993**
✓	4. Press the √ (check) button.
MENUS screen	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.
✏️	6. Press the pencil icon at the bottom of the screen to edit an existing menu.
PRODUCT SELECTION screen	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.
✓	8. Press the √ (check) button when finished to save selected products to menu.
⬅	9. Press the Back button to edit additional menus starting with step 5, otherwise advance to the next step

DISPLAY	ACTION
	10. Press the Home button.
 CREW MODE	11. Press the Crew Mode button.

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
	1. Press the Menu button.
	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. **NOTE:** Only one menu can be selected at a time.
	3. Press the back button to return to the main screen.
	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   Manager Functions

1.12.1.1   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 3.2.5 of this manual.

DISPLAY	ACTION
	1. Press the Home button.
	2. Press the Service button.
	3. Press the Manager button.
1 9 9 3	4. Enter **1993**
	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.

1.12.1.2   Passcode Setup

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

DISPLAY	ACTION
	1. Press the Home button.

DISPLAY	ACTION
✗	2. Press the Service button.
👤	3. Press the Manager button.
1 9 9 3	4. Enter **1993**
✓	5. Press the √ (check) button.
□ **PASSCODE SETUP**	6. Press the PASSCODE SETUP button.
□ **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 1993 RECIPES 1993 SETTINGS MANAGER 1993 DIAGNOSTICS MANAGER 1993
	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.
□ **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.

1.12.1.3 USB – Menu Operation/Settings Operation

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

DISPLAY	ACTION
	1. Press the Home button.
	2. Press the Service button.
	3. Press the Manager button.
1 9 9 3	4. Enter **1993**
	5. Press the √ (check) button.
□ **USB – MENU OPERATION**	6. Press the USB – MENU OPERATION button.
□ **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.
MENU.CBR or other *.cbr file	11. A list appears with a list of menu files ending in .cbr. Select the menu file to load.
SELECT THE VATS FOR MENU UPGRADE	12. Select **ONLY** the vats to be updated. If all vats are updating the same menu, select each vat.
UI-UI MENU DATA TRANSFER IN PROGRESS	13. No action required while the file is loading.
MENU UPGRADE IN PROGRESS	14. No action required while the upgrade is in progress.
UPGRADE COMPLETE? YES	15. Press YES.
MENU UPGRADE COMPLETED, REMOVE THE USB AND RESTART THE SYSTEM.	16. Remove the USB drive. Press and hold the momentary reset switch. Ensure the switch is pressed and held for **one (1) minute**. In newer fryers the switch is located below the USB port. On older gas units, the button is located under the far-left control box. On older electric units, the button is located on the rear of the control box behind the JIB reset switch.
□ **USB – SETTINGS OPERATION**	17. Press the USB – SETTINGS OPERATION button.
□ **COPY SETTINGS FROM FRYER TO USB**	18. Insert a blank USB drive into the USB port behind the far-left fryer door. Press the COPY SETTINGS FROM FRYER TO USB button.
DOWNLOAD COMPLETE	19. Press the √ (check) button.

DISPLAY	ACTION
☑	
⇐	20. Press the Back button.
☐ **COPY SETTINGS FROM USB TO FRYER**	21. Insert the USB drive with GM.ini into the USB port behind the far-left fryer door. Press the COPY SETTINGS FROM USB TO FRYER button.
UPGRADE COMPLETE RESTART ☑	22. Press the √ (check) button.
🏠	23. Press the Home button.
	24. Remove the USB drive. Press and hold the momentary reset switch located below the USB port. Ensure the switch is pressed and held for **one (1) minute**. On older gas units, the button is located under the far-left control box. On older electric units, the button is located on the rear of the control box behind the JIB reset switch.

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.
☐ **TODAY'S REPORT** ☐ **YESTERDAY'S REPORT** ☐ **WEEKLY REPORT**	3. Select the desired report
	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.

DISPLAY	ACTION
⬅ 🏠	5. Press the back button to return to menu or the home button to exit.

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
🏠 ?	1. Press the Home button and then the Information button.
🌢	2. Press the Oil button.
1. LAST DISPOSE DATE **2. COOKS SINCE LAST DISPOSE** **3. FILTERS SINCE LAST DISPOSE** **4. SKIPPED FILTERS SINCE LAST DISPOSE** ⬇	3. Press the down arrow to scroll to more statistics.
5. CURRENT OIL LIFE **6. AVERAGE COOKS OVER OIL LIFE** **7. DAILY DISPOSE BYPASS COUNT** **8. OIL DRAGOUT PER DISPOSE** **9. OIL DRAGOUT PER DAY** **10. OIL DRAGOUT PER HOUR** ⬆ ⬅ 🏠	4. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.

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**	3. Press the back button to return to menu or the home button to exit.

DISPLAY	ACTION
4. TOTAL ON TIME (HOURS) 5. TOTAL HEAT CYCLE COUNT 6. TOTAL ENERGY SAVING TIME 7. TOTAL COOK TIME ⬅ 🏠	

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.
JAN 7	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.
▲ (filter icon)	2. Press the Filter button.
☐ **DAY 1** ☐ **DAY 2** ☐ **DAY 3** ☐ **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.) 6. **AVERAGE COOKS PER FILTER -** (Average number of cook cycles per filter that day.) 7. **WEEKLY NUMBER OF FILTERS -** (Number of times vat filtered in the past week.) 8. **WEEKLY NUMBER OF SKIPPED FILTERS** (Number of times filters were bypassed in the past week.) ⬇ 9. **FILTRATION –** (Displays if filtration is enabled or disabled. Diagnostic tool to determine status of FIB board.) ⬆ ⬅	5. Press the up arrow to scroll up or the back button to return to select another day.
⬅ 🏠	6. Press the back button to return to menu or the home button to exit.

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
🏠 ❓	1. Press the Home button and then the Information button.
⬇	2. Press the down arrow button.
🔍 1.1	3. Press Software Version button.
INITIALIZING ...	4. No action needed.
1. UIB SOFTWARE VERSION **2. SIB SOFTWARE VERSION** **3. VIB SOFTWARE VERSION** **4. FIB SOFTWARE VERSION** ⬇	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.**
5. OQS SOFTWARE VERSION **6. ACTUAL VAT TEMP** **7. AIF RTD TEMP** **8. ATO RTD TEMP** **9. BOARD ID** ⬇ **10. GATEWAY SOFTWARE VERSION** **11. GATEWAY IP ADDRESS** **12. GATEWAY LINK QUALITY** **13. GATEWAY SIGNAL STRENGTH AND NOISE** ⬆ ⬅ 🏠	6. Press the down arrow to scroll to additional software versions and information. 7. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.

1.13.8 Usage Reset 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 Usage Reset button.

DISPLAY	ACTION
4 3 2 1	4. Enter **4321**
✓	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 RESET **2. DISPOSE COUNT COOKS SINCE LAST RESET** **3. FRESH OIL COUNTER RESET DATE** **4. FRESH OIL COUNTER** ⬅ 🏠	4. Press the back button to return to menu or the 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.
4 3 2 1	4. Enter **4321**
✓	5. Press the √ (check) button.
FRESH OIL DATA HAS BEEN RESET	6. Press the √ (check) button.

DISPLAY	ACTION
✓	
⬅ 🏠	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 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 COOK 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 (Total Polar Material) Statistics

The TPM statistics provides data from the OQS (Oil Quality Sensor). The same data can be accessed by pressing the TPM button on the front of the controller when the TPM button is solid.

DISPLAY	ACTION
🏠	1. Press the Home button.
?	2. Press the Information button.
⬇	3. Press the down arrow.

DISPLAY	ACTION
⬤	4. Press the TPM Statistics button. The TPM values for the previous valid thirty (30) days are listed.
⬆ ⬅ 🏠	5. Press the up arrow to scroll up; the back button to return to menu or the home button to exit.

1.13.13 Filter Reset Statistics

The reset function resets all filter statistics.

DISPLAY	ACTION
🏠 ?	1. Press the Home button and then the Information button.
⬇	2. Press the down arrow button two (2) times.
↺	3. Press Filter Reset button.
4 3 2 1	4. Enter **4321**
✓	5. Press the √ (check) button.
CONFIRM? YES NO	6.
FILTER RESET HAS BEEN DONE ✓	7. Press the √ (check) button.
⬅ 🏠	8. Press the back button to return to menu or the home button to exit.

CHAPTER 2: FILTERQUICK™ FQ4000RC
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 filtration button changes to yellow on the first bypass and the QUICK FILTER is highlighted in yellow in the filter menu. On the second bypass, the filtration button changes to red. The controller will prompt again soon to filter the oil. This sequence repeats until a filter is completed. Pressing the filter button when the color has changed will allow a filter to be started.
OIL LEVEL TOO LOW	2. 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.
SKIM DEBRIS FROM VAT	3. 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. Press the X button to cancel the filter.
START FILTRATION 🔵	4. Press the BLUE button to start filtration or the X button to cancel the filter.
DRAINING	5. No action required.
FLUSHING	6. No action required.
ALERT DRAIN CLOSING REMOVE TOOLS	7. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠️ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
FILLING	8. No action required.
PREHEAT	9. No action required. Displayed until the fryer reaches setpoint.
	10. Fryer is ready for use. Displayed once fryer reaches setpoint.

The complete filtering process takes approximately four minutes with a clean filter.

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 or if **ALL** the oil isn't completely returned during filtration, the system may proceed to an incomplete filtration function. In some cases, an error message may be generated. Follow the instructions on the controller to clear the error, complete the filter and return **ALL** the oil.

⚠️ **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
	1. The fryer **MUST** be at setpoint temperature. Press the filtration menu button. The filtration button is yellow if a bypass has occurred. If the filtration button is red, more than one bypass has occurred.
	2. Select LEFT VAT or RIGHT VAT for split vats.
	3. Select QUICK FILTER. QUICK FILTER is highlighted in yellow in the filter menu if a bypass has occurred.
QUICK FILTER NOW?	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. The filtration button changes to yellow on the first bypass and the QUICK FILTER is highlighted in yellow in the filter menu. On the second bypass, the filtration button changes to red. The controller will prompt again soon to filter the oil. This sequence repeats until a filter is completed. Pressing the filter button when the color has changed will allow a filter to be started.
OIL LEVEL TOO LOW	5. 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
SKIM DEBRIS FROM VAT	6. 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. Press the X button to cancel the filter.
START FILTRATION ●	7. Press the BLUE button to start filtration or the X button to cancel the filter.
DRAINING	8. No action required as oil drains into filter pan.
FLUSHING	9. No action required as debris is flushed from the vat.
ALERT DRAIN CLOSING REMOVE TOOLS	10. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
FILLING	11. No action required as the vat refills.
PREHEAT	12. No action required as the fryer heats to setpoint.
	13. Fryer is ready for use. Displayed once fryer reaches setpoint.

The complete filtering process takes approximately four minutes with a clean filter.

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 or if **ALL** the oil isn't completely returned during filtration, the system may proceed to an incomplete filtration function. In some cases, an error message may be generated. Follow the instructions on the controller to clear the error, complete the filter and return **ALL** the oil.

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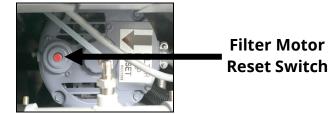
⚠ **WARNING**
The filter motor is equipped with a manual reset switch in case the filter motor overheats or an electrical fault occurs. If this switch trips, turn off power to the filter system and allow the pump motor to cool 20 minutes before attempting to reset the switch (see photo below).

Filter Motor Reset Switch

2.1.3 Clean and Filter (with OQS [if installed]) (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, unless scraping the pad, 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, unless scraping the pad.
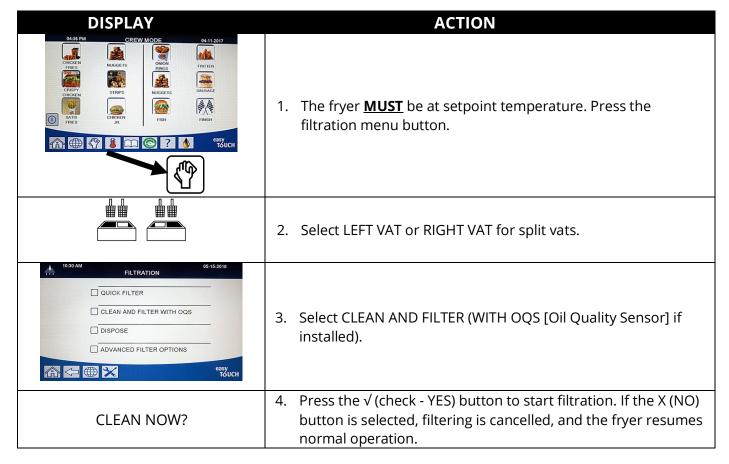
If CLOSE DISPOSE VALVE is displayed, close the dispose valve. Press the X (NO) button to exit. Some filtration function options aren't available in all fryers.

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 CLEAN AND FILTER (WITH OQS [Oil Quality Sensor] if installed).
CLEAN NOW?	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.

DISPLAY	ACTION
SKIM DEBRIS FROM VAT -	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 of the oil. Press the √ (check - YES) button when complete. Press the X button to cancel the filter.
ADD FILTER POWDER	6. Add filter powder if prompted.
WEAR PROTECTIVE GLOVES –	7. Press the √ (check - YES) button once all personal protection equipment including heat resistant gloves are in place. Press the X button to cancel the filter.
START FILTRATION ●	8. Press the BLUE button to start filtration or the X button to cancel the filter.
DRAINING	9. No action required as oil drains into filter pan.
SCRUB INSIDE VAT – PRESS YES WHEN COMPLETE	10. Scrub the vat. Press the √ (check - YES) button when complete. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
FLUSHING	11. No action required while the return valve opens, and the vat is flushed with oil from the filter pan. Skip to step 16 if a washdown hose is NOT used.
CONNECT FRONT WASH DOWN HOSE AND PULL HANDLE TO START RINSING	12. Connect the front wash down hose to the quick disconnect of the fryer, by pulling back on the female end collar and pushing firmly onto the male disconnect. Once in place, release the disconnect and ensure that the quick disconnect is fully locked into place. Pull the handle to start rinsing. Press the √ (CHECK) button.
PULL BLUE HANDLE	13. Pull the BLUE handle completely forward to start rinsing.

DISPLAY	ACTION
USE WASHDOWN HOSE TO CLEAN FRYPOT WASH COMPLETE? ✓	14. Use the washdown hose to clean the frypot. Press the √ (check -YES) button when complete.
PUSH WASH DOWN HANDLE IN. REMOVE AND STORE WASH DOWN HOSE. ✓	15. Press the wash down handle in to stop the flow of oil. Disconnect the front wash down hose to the quick disconnect of the fryer. Press the √ (CHECK) button and skip to step 20.
FLUSH AGAIN?	16. 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	17. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
RINSING IN PROGRESS	18. 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?	19. 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	20. 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	21. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
FILLING	22. No action required while the vat is refilled. If an OQS sensor is installed proceed to next step, otherwise proceed to step 29.
MEASURING OIL QUALITY	23. No action required while the OQS sensor calculates the oil quality value of the oil.

DISPLAY	ACTION
FILLING	24. No action required while the vat is refilled.
11.6 (green) **21.1** (orange) **28.3** (red)	25. If OQS = Text and if TPM reading is below OQS SETUP – DISCARD NOW and DISCARD SOON limits, the TPM value is shown in the green TPM box in lower right corner. Proceed to step 29. If OQS = Text and if TPM reading is below OQS SETUP – DISCARD NOW but above DISCARD SOON limits, the TPM value is shown in the orange TPM box in lower right corner. Proceed to DISCARD SOON in step 26. If OQS = Text and if TPM reading is above OQS SETUP – DISCARD NOW limits; the TPM value is shown in the red TPM box in lower right corner. Proceed to DISCARD NOW in step 26. If OQS = Number proceed to TPM - XX in step 27.
DISCARD SOON ✓	26. Press the √ (check -YES) button to continue. Skip 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 step 28, otherwise proceed to step 29.
DISCARD NOW ✓	28. Press the √ (check -YES) button to continue. Proceed to DISPOSE in section 2.1.5/6. Press X (NO) to delay the DISPOSE.
IS FRYPOT FULL OF OIL?	29. 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.
⏻	30. 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 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.
	3. Select DISPOSE OIL.
DISPOSE NOW?	4. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the previous state. ⚠ **DANGER** **Allow oil to cool to 100°F (38°C) before draining into an appropriate <u>METAL</u> container for disposal.**
REMOVE FILTER PAN	5. Carefully remove the filter pan from the fryer. ⚠ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
IS FILTER PAN EMPTY?	6. 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 previous state and use the FILL VAT FROM PAN function to return the oil to the vat.

DISPLAY	ACTION
INSERT DISPOSAL UNIT	7. Carefully remove the filter pan from the fryer and insert the disposal unit. ⚠ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.** ⚠ **DANGER** **When draining oil into a disposal unit, do not fill above the maximum fill line located on the container.**
IS DISPOSE UNIT IN PLACE?	8. 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. ⚠ **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, make sure the container will hold at least FOUR gallons (15 liters) or more. Otherwise oil could overflow and can cause injury.**
START DISPOSE	9. Press the BLUE button to start filtration or the X button to cancel the dispose.
DISPOSING	10. No action is required while the vat disposes the oil.
IS FRYPOT EMPTY?	11. Once the frypot is empty, press the √ (check - YES) button to continue.
SCRUB FRYPOT COMPLETE?	12. Clean the frypot with a scrub brush and when complete press the √ (check - YES) button to continue.
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. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.** If using a JIB fresh oil system skip to step 19. If using a bulk fresh oil system type, continue to next step.
FILL VAT FROM BULK?	14. 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	15. 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	16. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	17. Press the √ (check - YES) button to continue filling. Otherwise press the X (NO) button once the vat is full, to exit and skip to step 19.

DISPLAY	ACTION
REMOVE DISPOSAL UNIT?	18. Remove the disposal unit and press the √ (check - YES) button to continue.
INSERT FILTER PAN	19. Insert the clean and assembled filter pan into place. If shortening rotation is enabled, continue to next step. If not, skip to step 28.
ROTATE SHORTENING NOW?	20. Press the √ (check - YES) button to rotate shortening from another vat to the current vat. If the X (NO) button is selected, continue to step 28.
SELECT VAT TO ROTATE SHORTENING FROM	21. Select the vat to rotate the shortening from and press the press the √ (check - YES) button to continue.
OIL DRAINING TO PAN FROM SELECTED FRYPOT	22. No action is required while the other vat drains oil into the filter pan. Once the shortening is drained into the filter pan, the display of the other vat displays IS VAT EMPTY? Press the √ (check - YES) button to continue.
FILLING	23. No action required while the vat is refilled.
REMOVE FILTER PAN	24. Carefully remove the filter pan from the fryer. ⚠ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
IS FILTER PAN EMPTY?	25. 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 previous state.
INSERT FILTER PAN	26. Insert the filter pan into place and skip to step 29.
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. Reinsert the filter pan if not previously inserted.

2.1.5 Dispose for Bulk, Wand Front, and Wand External Dispose Waste Oil Systems

This option is used to dispose of exhausted 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. Wand Front Dispose systems use a wand, that is connected to the front of the fryer, to pump the oil into a disposal container. Wand External Dispose systems use a wand, with an external pump, that pumps the oil from the frypot.

⚠ 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.
	3. Select DISPOSE OIL. If disposing to bulk proceed to the next step. If using a front dispose (Wand Front) system, skip to step 5. If using an external wand system to pump the oil from the fryer, skip to step 6.
DISPOSE NOW?	4. Press the √ (check - YES) button to continue and skip to step 8. If the X (NO) button is selected, the user returns to the previous state.
IS DISPOSE FROM FILTER PAN WITH WAND?	5. Press the √ (check - YES) button to continue and skip to step 8. If the X (NO) button is selected, the user returns to the previous state.
IS DISPOSE FROM FRYPOT WITH WAND?	6. Press the √ (check - YES) button to continue and skip to step 7. If the X (NO) button is selected, the user returns to the previous state.
IS WAND DISPOSAL SYSTEM IN PLACE?	7. Ensure the external wand disposal system is in place and press the √ (check - YES) button to continue and skip to step 11.
REMOVE FILTER PAN	8. Remove the filter pan.
IS FILTER PAN EMPTY?	9. 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.

DISPLAY	ACTION
INSERT FILTER PAN	10. Push the filter pan fully into place and continue to next step. Displayed if the filter pan is not fully engaged.
START DISPOSE 🔵	11. Press the BLUE button to start filtration or the X button to cancel the dispose. If using an external wand skip to step 23.
BULK TANK FULL?	12. 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.
INSERT FILTER PAN	13. Push the filter pan fully into place. Displayed if the filter pan is not fully engaged.
DRAINING	14. No action required as oil drains into filter pan.
IS FRYPOT EMPTY?	15. Once the frypot is empty, press the √ (check - YES) button to continue.
SCRUB FRYPOT COMPLETE?	16. Clean the frypot with a scrub brush and when complete press the √ (check - YES) button to continue.
ALERT DRAIN CLOSING REMOVE TOOLS	17. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. If using front dispose (Wand Front) proceed to the next step. If disposing to bulk skip to step 24. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
POSITION DISPOSAL UNIT	18. Position the disposal unit in front of the fryer and press the √ (check - YES) button to continue.
IS DISPOSE WAND AND DISPOSAL UNIT IN PLACE? 	19. Attach the dispose wand by pulling back on the female end collar and pushing firmly onto the male disconnect. Once in place, release the disconnect and ensure that the quick disconnect is fully locked into place. Ensure the disposal unit is in place in front of the fryer and press the √ (check - YES) button to continue. ⚠ **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.**
OPEN DISPOSE VALVE PRESS AND HOLD THE FRONT WAND SWITCH 	20. 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.

DISPLAY	ACTION
	21. Ensure the wand is in place prior to pressing and holding the dispose switch to start disposing.
DISPOSING RELEASE WAND SWITCH AND CLOSE DISPOSE VALVE WHEN FULL 	22. The oil transfers from the filter pan to the disposal unit. When the pan is empty, release the switch to stop the pump. 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 27.
USE WAND TO EXTRACT OIL FROM FRYPOT	23. Use the external wand to pump oil from the frypot to the disposal unit. Press √ (check - YES) button when complete and proceed to the next step.
OPEN DISPOSE VALVE 	24. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal and continue to next step.
DISPOSING	25. No action is required while the pump transfers the waste oil from the pan to the waste container. If disposing to bulk proceed to step 27. If using an external wand to pump oil from the frypot proceed to the next step.
IS FRYPOT EMPTY?	26. Once the frypot is empty, press √ (check - YES) button when complete and proceed to the next step.
REMOVE FILTER PAN	27. Carefully pull the filter pan from the fryer. ⚠ **DANGER** **Open the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
IS FILTER PAN EMPTY?	28. If the filter pan is empty press the √ (check - YES) button. If using front wand dispose continue to step 31. If disposing to bulk skip to step 34. If disposing to external wand skip to step 30. If the pan is not empty, press the X (NO) button; return to step 20 for front dispose; step 24 for bulk; or step 30 for external wand. If the filter pan is not empty and using an external wand continue to next step.
USE WAND TO EXTRACT OIL FROM THE FILTER PAN	29. Use the external wand to pump oil from the filter pan to the disposal unit. Press √ (check - YES) button when complete and proceed to the next step.

DISPLAY	ACTION
REMOVE WAND DISPOSAL SYSTEM	30. Remove the external wand disposal system and skip to next step.
CLEAN FILTER PAN?	31. Clean the filter pan and press √ (check - YES) button when complete and skip to step 34. If using an external wand, proceed to next step.
SCRUB FRYPOT COMPLETE?	32. Clean the frypot with a scrub brush and when complete press the √ (check - YES) button to continue.
IS FILTER PAN DRY?	33. Dry the filter pan and press √ (check - YES) button when complete.
INSERT FILTER PAN	34. Insert the filter pan. If using front wand dispose continue to next step. If disposing to bulk skip to step 37. If using an external wand skip to step 49.
REMOVE DISPOSAL UNIT AND DETACH WAND	35. Disconnect the disposal wand and remove the disposal unit and press √ (check - YES) button when complete. If using a JIB fresh oil system skip to step 49. If using a bulk fresh oil system type, skip to step 38.
CLOSE DISPOSE VALVE	36. 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 49. If using a bulk fresh oil system type, continue to next step.
FILL VAT FROM BULK?	37. 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	38. 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	39. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	40. Press the √ (check - YES) button to continue filling. Otherwise press the X (NO) button once the vat is full, to skip to step 50.
ROTATE SHORTENING NOW?	41. Press the √ (check - YES) button to rotate shortening from another vat to the current vat. If the X (NO) button is selected, continue to step 49.
SELECT VAT TO ROTATE SHORTENING FROM	42. Select the vat to rotate the shortening from and press the press the √ (check - YES) button to continue.
OIL DRAINING TO PAN FROM SELECTED FRYPOT	43. No action is required while the other vat drains oil into the filter pan. Once the shortening is drained into the filter pan, the display of the other vat displays IS VAT EMPTY? Press the √ (check - YES) button to continue.
FILLING	44. No action required while the vat is refilled.
REMOVE FILTER PAN	45. Carefully remove the filter pan from the fryer. ⚠ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**

DISPLAY	ACTION
IS FILTER PAN EMPTY?	46. 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 previous state.
INSERT FILTER PAN	47. Insert the filter pan into place and skip to step 50.
MANUALLY FILL VAT	48. 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.
⏻	49. The controller switches off.

2.1.6   Night Filter – Prompted

Night Filter is a quick filter, if enabled, that automatically prompts for nightly filters on all vats, starting at a preset time, once the vat is soft powered off. 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
⚠️ NIGHT FILTER REQUIRED? POWER ON AND WAIT FOR FILTER FILTER NOW?	1. Press the √ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is cancelled, and the fryer turns OFF. The next time the fryer is powered up, if a filter has not occurred and cooks have occurred since the last filter, it will prompt for a Quick Filter (see Section 2.1.1). Other vats may prompt Power On and Wait for Filter or Waiting to Filter until the filter is complete.
OIL LEVEL TOO LOW MANUALLY FILL VAT	2. Displayed if the oil level is too low. Manually top off the vat with oil. 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.
SKIM DEBRIS FROM VAT	3. 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. Press the X button to cancel the filter.
START FILTRATION 🔵	4. Press the BLUE button to start filtration or the X button to cancel the filter.
DRAINING	5. No action required.
FLUSHING	6. No action required.
ALERT DRAIN CLOSING REMOVE TOOLS	7. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ┌──────────────────────────┐ ⚠️ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.** └──────────────────────────┘
FILLING	8. No action required.
⏻	9. The controller switches off. Once a vat completes filtration, press the √ (check - YES) button to start filtration on another vat.

The complete filtering process takes approximately four minutes with a clean filter.

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

Should the filtration procedure fail or if **ALL** the oil isn't completely returned during filtration, the system may proceed to an incomplete filtration function. In some cases, an error message may be generated. Follow the instructions on the controller to clear the error, complete the filter and return **ALL** the oil.

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

2.1.7 Night Filter on Demand

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

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 ADVANCED FILTER OPTIONS.
	4. Select NIGHT FILTER.
⚠ NIGHT FILTER NOW?	5. Press the √ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is cancelled, and the fryer returns to previous state.
OIL LEVEL TOO LOW MANUALLY FILL VAT	6. Displayed if the oil level is too low. Manually top off the vat with oil. 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
SKIM DEBRIS FROM VAT	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 in the oil. Press the √ (check-YES) button when complete. Press the X button to cancel the filter.
START FILTRATION	8. Press the BLUE button to start filtration or the X button to cancel the filter.
DRAINING	9. No action required as oil drains into filter pan.
FLUSHING	10. No action required as debris is flushed from the vat.
ALERT DRAIN CLOSING REMOVE TOOLS	11. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
FILLING	12. No action required as the vat refills.
PREHEAT	13. No action required as the fryer heats to setpoint.
	14. Fryer is ready for use. Displayed once fryer reaches setpoint.

The complete filtering process takes approximately four minutes with a clean filter.

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

Should the filtration procedure fail or if **ALL** the oil isn't completely returned during filtration, the system may proceed to an incomplete filtration function. In some cases, an error message may be generated. Follow the instructions on the controller to clear the error, complete the filter and return **ALL** the oil.

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.

2.1.8 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, unless scraping the pad 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, unless scraping the pad.

NOTICE
The filter pad or paper must be replaced daily, unless scraping the pad.

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

DISPLAY	ACTION
	1. The fryer **MUST** be at setpoint temperature. Press the filtration menu button or if the TPM button is blinking, press the TPM button.
	2. Select LEFT VAT or RIGHT VAT for split vats.
	3. Select ADVANCED FILTER OPTIONS.
	4. Select OQS (Oil Quality Sensor) - FILTER.
OQS – FILTER NOW?	5. Press the √ (check - YES) button to start filtration. If the X (NO) button is selected, filtering is cancelled, and the fryer resumes normal operation.
OIL LEVEL TOO LOW	6. 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.
SKIM DEBRIS FROM VAT	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. Press the X button to cancel the filter.

DISPLAY	ACTION
START FILTRATION	8. Press the BLUE button to start filtration or the X button to cancel the filter.
DRAINING	9. No action required as oil drains into filter pan.
FLUSHING	10. No action required while the return valve opens, and the vat is flushed with oil from the filter pan.
ALERT DRAIN CLOSING REMOVE TOOLS	11. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
FILLING	12. No action required while the vat is refilled.
MEASURING OIL QUALITY	13. No action required while the OQS sensor calculates the oil quality value of the oil.
FILLING	14. No action required while the vat is refilled.
11.6 21.1 28.3	15. If OQS = Text and if TPM reading is below OQS SETUP – DISCARD NOW and DISCARD SOON limits, the TPM value is shown in the green TPM box in lower right corner. Proceed to step 20. If OQS = Text and if TPM reading is below OQS SETUP – DISCARD NOW but above DISCARD SOON limits, the TPM value is shown in the orange TPM box in lower right corner. Proceed to DISCARD SOON in step 16. If OQS = Text and if TPM reading is above OQS SETUP – DISCARD NOW limits; the TPM value is shown in the red TPM box in lower right corner. Proceed to DISCARD NOW in step 18. If OQS = Number, proceed to TPM - XX in step 17.
DISCARD SOON ✓	16. Press the √ (check -YES) button to continue. Skip to step 20
TPM - XX	17. Press the √ (check - YES) button to continue. If the TPM reading is above OQS SETUP – DISCARD limits, proceed to step 18, otherwise proceed to step 20.
DISCARD NOW ✓	18. Press the √ (check -YES) button to continue. Proceed to DISPOSE in section 2.1.5/6. Press X (NO) to delay the DISPOSE.
PREHEAT	19. No action required as the fryer heats to setpoint.
	20. Fryer is ready for use. Displayed once fryer reaches setpoint.

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

2.1.9 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. Select ADVANCED FILTER OPTIONS.
	5. Select FILL VAT FROM PAN. If no pan is detected, the controller displays INSERT PAN until the pan is detected.
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 FRYPOT FULL OF OIL?	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 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.
	9. The controller switches off.

2.1.10 Fill Vat from Bulk
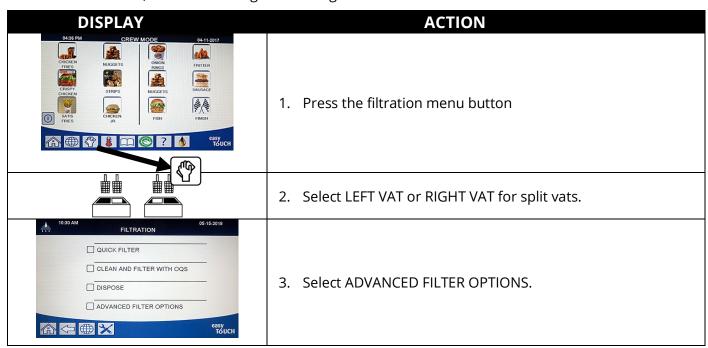
The fill vat from bulk function is used to fill the vat from a bulk oil fresh source.

DISPLAY	ACTION
	1. The fryer **MUST** be OFF.
	2. Press the filtration menu button

DISPLAY	ACTION
	3. Select LEFT VAT or RIGHT VAT for split vats.
	4. Select ADVANCED FILTER OPTIONS.
	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.
	10. The controller switches off.

2.1.11   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.
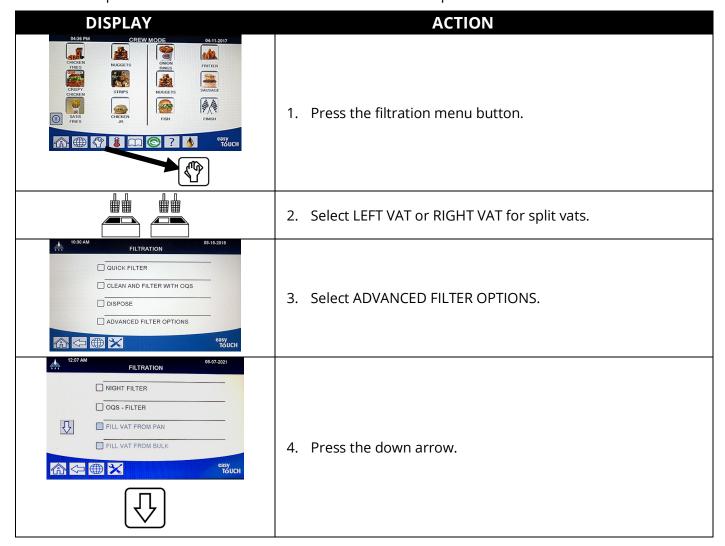
DISPLAY	ACTION
	1. Press the filtration menu button
	2. Select LEFT VAT or RIGHT VAT for split vats.
	3. Select ADVANCED FILTER OPTIONS.

DISPLAY	ACTION
	4. Press the down arrow.
	5. Select PAN TO WASTE.
PAN TO WASTE?	6. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the previous state. If no pan is detected, the controller displays INSERT PAN until the pan is detected.
BULK TANK FULL?	7. Press the √ (check - YES) button to acknowledge and call the bulk oil waste provider. The display returns to previous state.
OPEN DISPOSE VALVE	8. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal.
DISPOSING	9. 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	10. Carefully pull the filter pan from the fryer. ⚠ **DANGER** **Open the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
IS PAN EMPTY?	11. 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	12. Insert the filter pan.

DISPLAY	ACTION
CLOSE DISPOSE VALVE	13. 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.
	14. The controller returns to the starting state.

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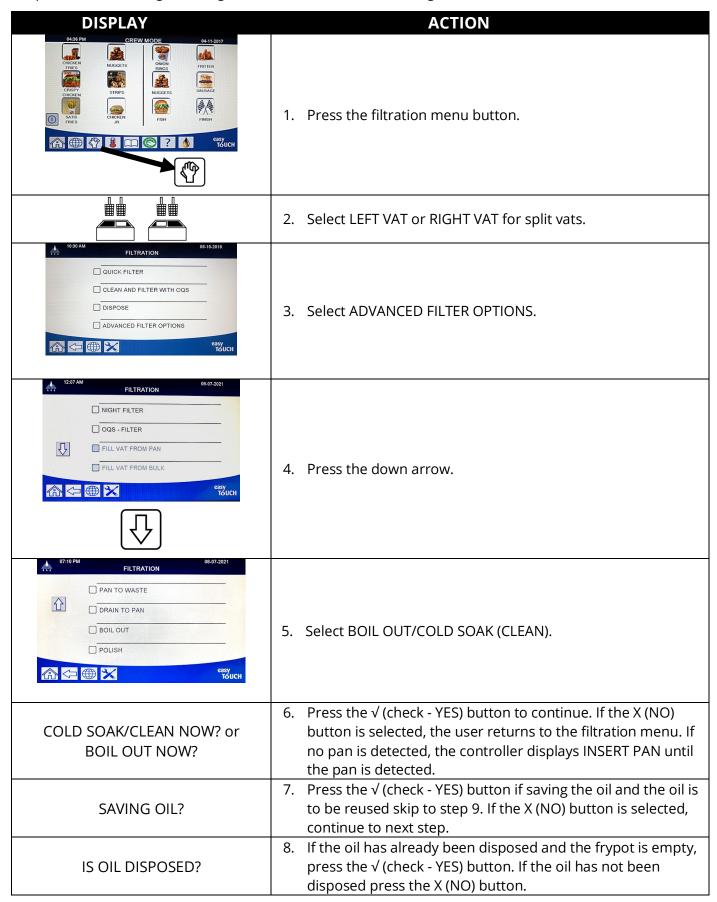
The drain to pan function drains the oil from the vat to the filter pan.

DISPLAY	ACTION
	1. Press the filtration menu button.
	2. Select LEFT VAT or RIGHT VAT for split vats.
	3. Select ADVANCED FILTER OPTIONS.
	4. Press the down arrow.

DISPLAY	ACTION
	5. Select DRAIN TO PAN.
DRAIN NOW?	6. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the controller goes to OFF.
START DRAINING ⬤	7. Press the BLUE button to start draining or the X button to cancel the function.
DRAINING	8. No action is required while the vat drains the oil into the filter pan.
VAT EMPTY?	9. Once the vat is empty, press the √ (check - YES) button to continue.
ALERT DRAIN CLOSING REMOVE TOOLS	10. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
FILL FROM PAN?	11. Press the √ (check - YES) button to refill the vat, otherwise skip to step 14.
FILLING	12. No action is required while the vat is filling.
IS FRYPOT FULL OF OIL?	13. 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 and skip to step 17. 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.
REMOVE PAN	14. Carefully pull the filter pan from the fryer. ⚠ **DANGER** **Open the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
IS PAN EMPTY?	15. 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 11.
INSERT PAN	16. Insert the filter pan.
[power symbol]	17. The controller switches off.

2.1.13 Boil-Out or Cold Soak (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.
	3. Select ADVANCED FILTER OPTIONS.
	4. Press the down arrow.
	5. Select BOIL OUT/COLD SOAK (CLEAN).
COLD SOAK/CLEAN NOW? or BOIL OUT NOW?	6. 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.
SAVING OIL?	7. Press the √ (check - YES) button if saving the oil and the oil is to be reused skip to step 9. If the X (NO) button is selected, continue to next step.
IS OIL DISPOSED?	8. If the oil has already been disposed and the frypot is empty, press the √ (check - YES) button. If the oil has not been disposed press the X (NO) button.

DISPLAY	ACTION
REMOVE FILTER PAN	9. Carefully pull the filter pan from the fryer. If the oil is not being saved, skip to step 16. ⚠️ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
IS FILTER PAN EMPTY?	10. If the oil **IS NOT** being saved and the filter pan is empty press the √ (check - YES) button and skip to step 24. If the oil **IS** being saved and the filter pan is empty, press the √ (check - YES) button and continue to next step. Press the X (NO) button if oil is in the filter pan and continue to step 15.
INSERT FILTER PAN	11. Insert the filter pan and continue to next step.
DRAINING	12. No action is required while the vat drains the oil into the filter pan.
IS FRYPOT EMPTY?	13. Press the √ (check - YES) button when the frypot is empty to continue.
REMOVE FILTER PAN	14. Carefully pull the filter pan from the fryer and set aside and skip to step 24. ⚠️ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
EMPTY FILTER PAN AND START CLEAN AGAIN	15. Press the √ (check - YES) button and skip to step 48. Dispose of the oil in the filter pan by using the fill vat from pan option and then the dispose option. Once finished start the clean function again.
INSERT DISPOSAL UNIT 	16. Insert the disposal unit. ⚠️ **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. Otherwise, oil could overflow and can cause injury.**
IS DISPOSE UNIT IN PLACE?	17. 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. ⚠️ **DANGER** **Allow oil to cool to 100°F (38°C) before draining into an appropriate METAL container for disposal.** ⚠️ **DANGER** **When draining oil into a disposal unit, do not fill above the maximum fill line located on the container.**
DRAINING	18. No action is required while the vat drains the oil into the disposal container.
IS FRYPOT EMPTY?	19. Press the √ (check - YES) button when the frypot is empty to continue.

DISPLAY	ACTION
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. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
REMOVE DISPOSAL UNIT?	21. Remove the disposal unit and press the √ (check - YES) button.
IS FILTER PAN EMPTY?	22. Press the √ (check - YES) button if the filter pan is empty and skip to step 24. Press the X (NO) button if oil is in the filter pan and continue to next step.
DISPOSE OIL IN FILTER PAN AND RESTART CLEAN AGAIN	23. Press the √ (check - YES) button and skip to step 48. Dispose of the oil in the filter pan by using the fill vat from pan option and then the dispose option. Once finished start the clean function again.
SOLUTION ADDED?	24. Fill the vat to be cleaned with water and cleaning solution mix. Press the √ (check - YES) button to start the cleaning procedure.
CLEANING or BOIL OUT	25. 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.
CLEAN DONE or BOIL OUT DONE	26. Press the √ (check - YES) button to silence the alarm.
CLEAN FILTER PAN	27. Remove the crumb basket and hold down ring. Remove the filter paper or pad and dispose. Remove the screen. Clean all the filter pan components and filter pan.
INSERT CLEANING DISPOSAL UNIT changing to IS CLEANING DISPOSAL UNIT IN PLACE?	28. Insert the cleaning disposal unit or disposal pan large enough to contain FOUR gallons (15 liters) or more under the drain and press √ (check-YES).
DRAINING	29. No action is required while the vat drains.
RINSE COMPLETE?	30. Rinse excess solution from vat. Press the √ (check - YES) button when the vat is completely rinsed.
IS SOLUTION REMOVED?	31. Ensure the solution is removed and press the √ (check - YES) button when the vat is completely rinsed.
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. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
REMOVE THE CLEANING SOLUTION UNIT	33. Remove the cleaning solution unit or disposal pan and press the √ (check - YES) button when finished. If oil was saved, skip to step 38.
IS FILTER PAN CLEAN?	34. Ensure the filter pan and components are clean. Press the √ (check - YES) button when complete. Pressing the X (NO) button if the filter pan is not clean prompts to Clean Filter Pan. Press the √ (check - YES) button when the filter pan is clean and continue to next step.

DISPLAY	ACTION
IS FRYPOT AND FILTER PAN DRY?	35. Ensure the frypot, filter pan and components are completely dry. Press the √ (check - YES) button when finished. ⚠ **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.**
INSERT FILTER PAN	36. Reinstall screen, filter paper or pad, hold down ring and crumb basket removed in step 27. Insert the filter pan.
MANUALLY FILL VAT	37. 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 and skip to step 48.
IS FRYPOT DRY?	38. Ensure the frypot is completely dry. Press the √ (check - YES) button when finished. ⚠ **DANGER** **Ensure that the frypot is 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.**
RETURNING SAVED OIL?	39. Press the √ (check - YES) button to continue returning the saved oil.
INSERT FILTER PAN	40. Insert the filter pan with the saved oil removed in step 14.
FILL FRYPOT FROM FILTER PAN?	41. Press the √ (check - YES) button to fill the frypot.
FILLING	42. No action is required while the vat is filling.
IS FRYPOT FULL OF OIL?	43. 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.
REMOVE FILTER PAN	44. Carefully pull the filter pan from the fryer. ⚠ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
CLEAN FILTER PAN	45. Remove the crumb basket and hold down ring. Remove the filter paper or pad and dispose. Remove the screen. Clean all the filter pan components and filter pan.
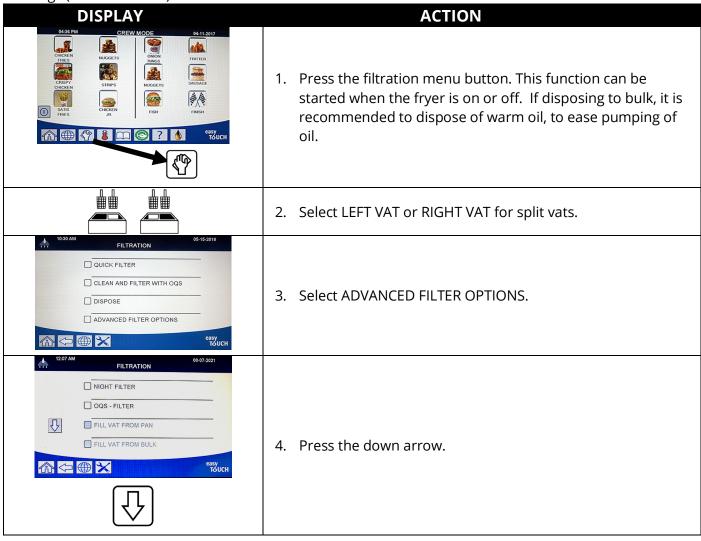
DISPLAY	ACTION
IS FILTER PAN DRY?	46. Ensure the filter pan and components are completely dry. Press the √ (check - YES) button when finished. **⚠ DANGER** **Ensure that the filter pan is completely dry and free of water before filling with oil. Failure to do so will cause splattering of hot liquid when the oil is heated to cooking temperature.**
INSERT FILTER PAN	47. Reinstall screen, filter paper or pad, hold down ring and crumb basket removed in step 45. Insert the filter pan.
	48. The controller switches off.

2.1.14 Boil-Out or Cold Soak (Clean) for Bulk, Wand Front, and Wand External 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 1.8).

⚠ 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
	1. Press the filtration menu button. This function can be started when the fryer is on or off. If disposing to bulk, it is recommended to dispose of warm oil, to ease pumping of oil.
	2. Select LEFT VAT or RIGHT VAT for split vats.
	3. Select ADVANCED FILTER OPTIONS.
	4. Press the down arrow.

| DISPLAY	ACTION
	5. Select BOIL OUT/COLD SOAK (CLEAN).
COLD SOAK/CLEAN NOW? or BOIL OUT NOW?	6. 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.
SAVING OIL?	7. Press the √ (check - YES) button if saving the oil and the oil is to be reused skip to step 10. If the X (NO) button is selected, continue to next step.
IS OIL DISPOSED?	8. If the oil **HAS** already been disposed and the frypot is empty, press the √ (check - YES) button and skip to step 10. If the oil **HAS NOT** been disposed, and is a bulk or front wand dispose, press the X (NO) button and skip to step 15. If the oil **HAS NOT** been disposed, and is an external wand dispose, press the X (NO) button and skip to step 24. If disposing to bulk and the bulk tank is full, proceed to next step.
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.
REMOVE FILTER PAN	10. Carefully pull the filter pan from the fryer. ⚠ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
IS FILTER PAN EMPTY?	11. If the oil **IS NOT** being saved, the filter pan is empty, and a bulk or front wand dispose, press the √ (check - YES) button and skip to step 37. If the oil **IS NOT** being saved, the filter pan is empty, and an external wand dispose, press the √ (check - YES) button and skip to step 24. If the oil **IS** being saved and the filter pan is empty, press the √ (check - YES) button and continue to next step. Press the X (NO) button if oil is in the filter pan and continue to step 13.
INSERT FILTER PAN	12. Push the filter pan fully into place and continue to step 14.
EMPTY FILTER PAN or EMPTY FILTER PAN AND START CLEAN AGAIN	13. Press the √ (check - YES) button and skip to step 65. Dispose of the oil in the filter pan by using the fill vat from pan option and then the dispose option. Once finished start the clean function again.
DRAIN TO FILTER PAN?	14. Press the √ (check - YES) button to drain the oil to the filter pan.

2-30

DISPLAY	ACTION
DRAINING	15. No action required as oil drains into filter pan.
IS FRYPOT EMPTY?	16. Press the √ (check - YES) button when the frypot is empty to continue. If the oil **IS NOT** being saved and if disposing to bulk, skip to step 26. If the oil **IS NOT** being saved and if using front wand dispose, proceed to the next step. If the oil **IS** being saved, proceed to step 18.
SCRUB FRYPOT COMPLETE?	17. Clean the frypot with a scrub brush and when complete press the √ (check - YES) button to continue.
ALERT DRAIN CLOSING REMOVE TOOLS	18. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. If the oil **IS** being saved, proceed to step 29. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
POSITION DISPOSAL UNIT	19. Position the disposal unit in front of the fryer and press the √ (check - YES) button to continue.
IS DISPOSE WAND AND DISPOSAL UNIT IN PLACE?	20. Attach the dispose wand by pulling back on the female end collar and pushing firmly onto the male disconnect. Once in place, release the disconnect and ensure that the quick disconnect is fully locked into place. Ensure the disposal unit is in place, in front of the fryer and press the √ (check - YES) button to continue. ⚠ **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.**
OPEN DISPOSE VALVE PRESS AND HOLD THE FRONT WAND SWITCH	21. 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.

DISPLAY	ACTION
	22. The wand front dispose pump uses a momentary switch. It only pumps if the switch is depressed. Ensure the wand is in place prior to pressing and holding the dispose switch to start disposing. Continue to press and hold the switch until the pan is empty. When the pan is empty, release the switch to stop the pump.
DISPOSING RELEASE WAND SWITCH AND CLOSE DISPOSE VALVE WHEN FULL 	23. The oil transfers from the filter pan to the disposal unit. When the pan is empty, release the switch to stop the pump. 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 29.
IS WAND DISPOSAL SYSTEM IN PLACE?	24. Ensure the external wand disposal system is in place and press the √ (check - YES) button to continue.
USE WAND TO EXTRACT OIL FROM FRYPOT	25. Use the external wand to pump oil from the frypot to the disposal unit. Press √ (check - YES) button when complete and proceed to step 27.
OPEN DISPOSE VALVE 	26. Open the left cabinet door and unlock the valve if necessary. Pull the dispose valve completely forward to start disposal and continue to next step.
DISPOSING	27. No action is required while the pump transfers the waste oil from the pan to the bulk oil waste tanks for four (4) minutes or wand external system for two (2) minutes. If disposing to bulk or front wand skip to step 29. If disposing to external wand proceed to next step.
IS FRYPOT EMPTY?	28. Once the frypot is empty, press √ (check - YES) button when complete and proceed to the next step.
REMOVE FILTER PAN	29. Carefully pull the filter pan from the fryer. If oil **IS NOT** being saved proceed to next step. If the oil **IS** being saved and the filter pan if full of oil, remove the filter pan from the fryer and skip to step 37. ⚠ **DANGER** **Open the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
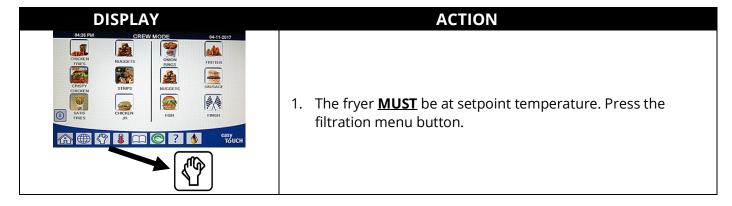
DISPLAY	ACTION
IS FILTER PAN EMPTY?	30. If the filter pan **IS** empty press the √ (check - YES) button. If disposing to bulk skip to step 35. If using front wand dispose continue to step 33. If disposing to external wand skip to step 32. If the filter pan **IS NOT** empty, press the X (NO) button; return to step 27 for bulk; step 21 for front dispose; or continue to next step for external wand.
USE WAND TO EXTRACT OIL FROM THE FILTER PAN	31. Use the external wand to pump oil from the filter pan to the disposal unit. Press √ (check - YES) button when complete and proceed to the next step.
REMOVE WAND DISPOSAL SYSTEM	32. Remove the external wand disposal system and proceed to next step.
INSERT FILTER PAN	33. Insert the filter pan. If disposing to bulk or using an external wand, skip to step 37. If using front wand dispose continue to next step.
REMOVE DISPOSAL UNIT AND DETACH WAND	34. Disconnect the disposal wand and remove the disposal unit and press √ (check - YES) button when complete and skip to step 37.
CLOSE DISPOSE VALVE	35. 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.
ALERT DRAIN CLOSING REMOVE TOOLS	36. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
SOLUTION ADDED?	37. Fill the vat to be cleaned with water and cleaning solution mix. Press the √ (check – YES) button to start the cleaning procedure.
CLEANING or BOIL OUT	38. 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.
CLEAN DONE or BOIL OUT DONE	39. Press the √ (check - YES) button to silence the alarm. If saving oil skip to step 41.
CLEAN FILTER PAN	40. Remove the crumb basket and hold down ring. Remove the filter paper or pad and dispose. Remove the screen. Clean all the filter pan components and filter pan.
INSERT CLEANING DISPOSAL UNIT changing to IS CLEANING DISPOSAL UNIT IN PLACE?	41. Insert the cleaning disposal unit or disposal pan large enough to contain FOUR gallons (15 liters) or more under the drain and press √ (check-YES).
DRAINING	42. No action is required while the vat drains.
RINSE COMPLETE?	43. Rinse excess solution from vat. Press the √ (check - YES) button when the vat is completely rinsed.

DISPLAY	ACTION
IS SOLUTION REMOVED?	44. Ensure the solution is removed and press the √ (check - YES) button when the vat is completely rinsed.
ALERT DRAIN CLOSING REMOVE TOOLS	45. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
REMOVE THE CLEANING SOLUTION UNIT	46. Remove cleaning solution unit or disposal pan and press the √ (check - YES) button when finished. If oil was saved, skip to step 50.
IS FILTER PAN CLEAN?	47. Ensure the filter pan and components are clean. Press the √ (check - YES) button when complete. Pressing the X (NO) button if the filter pan is not clean prompts to Clean Filter Pan. Press once filter pan is clean and continue to next step.
IS FRYPOT AND FILTER PAN DRY?	48. Ensure the frypot, filter pan and components are completely dry. Press the √ (check - YES) button when finished. ⚠ **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.**
INSERT FILTER PAN	49. Reinstall screen, filter paper or pad, hold down ring and crumb basket. Insert the filter pan. If using a JIB fresh oil system skip to step 64. If using a bulk fresh oil system type, skip to step 60.
IS FRYPOT DRY?	50. Dry the frypot, ensuring it is completely dry. Press the √ (check - YES) button when finished. ⚠ **DANGER** **Ensure that the frypot is 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.**
RETURNING SAVED OIL?	51. Press the √ (check - YES) button to continue returning the saved oil.
INSERT FILTER PAN	52. Insert the filter pan with the saved oil removed in step 29.
FILL FRYPOT FROM FILTER PAN?	53. Press the √ (check - YES) button to fill the frypot.
FILLING	54. No action is required while the vat is filling.
IS FRYPOT FULL OF OIL?	55. Press the X (NO) button to return to previous step and run the pump again, if the oil level is below the bottom oil level line. Press the √ (check - YES) button once the oil level is at or above the bottom oil level line. If the frypot oil level is not at or above the bottom oil level line, check the filter pan to see if most of the oil has returned. The pan may have a small amount of remaining oil.

DISPLAY	ACTION
REMOVE FILTER PAN	56. Carefully pull the filter pan from the fryer. ⚠️ **DANGER** **Remove the filter pan slowly to avoid splashing of hot oil that may cause severe burns, slipping and falling.**
CLEAN FILTER PAN	57. Remove the crumb basket and hold down ring. Remove the filter paper or pad and dispose. Remove the screen. Clean all the filter pan components and filter pan. Press the √ (check - YES) button when finished.
IS FILTER PAN DRY?	58. Ensure the filter pan and components are completely dry. Press the √ (check - YES) button when finished. ⚠️ **DANGER** **Ensure that the filter pan is 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.**
INSERT FILTER PAN	59. Reinstall screen, filter paper or pad, hold down ring and crumb basket removed in step 57. Insert the filter pan and skip to step 65.
FILL VAT FROM BULK?	60. 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	61. 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	62. Release the button when the vat is filled to the lower fill line.
CONTINUE FILLING?	63. 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	64. 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.
⏻	65. The controller switches off.

2.1.15 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.

DISPLAY	ACTION
	2. Select LEFT VAT or RIGHT VAT for split vats.
	3. Select ADVANCED FILTER OPTIONS.
	4. Press the down arrow.
	5. Select POLISH.
POLISH?	6. Press the √ (check - YES) button to continue. If the X (NO) button is selected, the user returns to the previous state.
SKIM DEBRIS FROM VAT	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. Press the X button to cancel the filter.
START POLISH	8. Press the BLUE button to start a polish or the X button to cancel the function. If no pan is detected, the controller displays INSERT PAN until the pan is detected.
DRAINING	9. No action required as oil drains into filter pan.
POLISHING	10. 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	11. Ensure that all tools are removed from the frypot prior to the drain closing to prevent damage to the drain. ⚠ **DANGER** **Keep all items out of drains. Closing actuators may cause damage or injury.**
FILLING	12. No action required as the vat refills.
PREHEAT	13. No action required as the fryer heats to setpoint.
START	14. Fryer is ready for use. Displayed once fryer reaches setpoint.

CHAPTER 3: FILTERQUICK™ FQ4000RC
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 410ºF (210ºC) or, in CE countries, 395ºF (202ºC).	Shut the fryer down immediately and call your FAS for assistance.
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.

PROBLEM	PROBABLE CAUSES	CORRECTIVE ACTION
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.	**Check the following items and perform another OQS filter.** • 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.
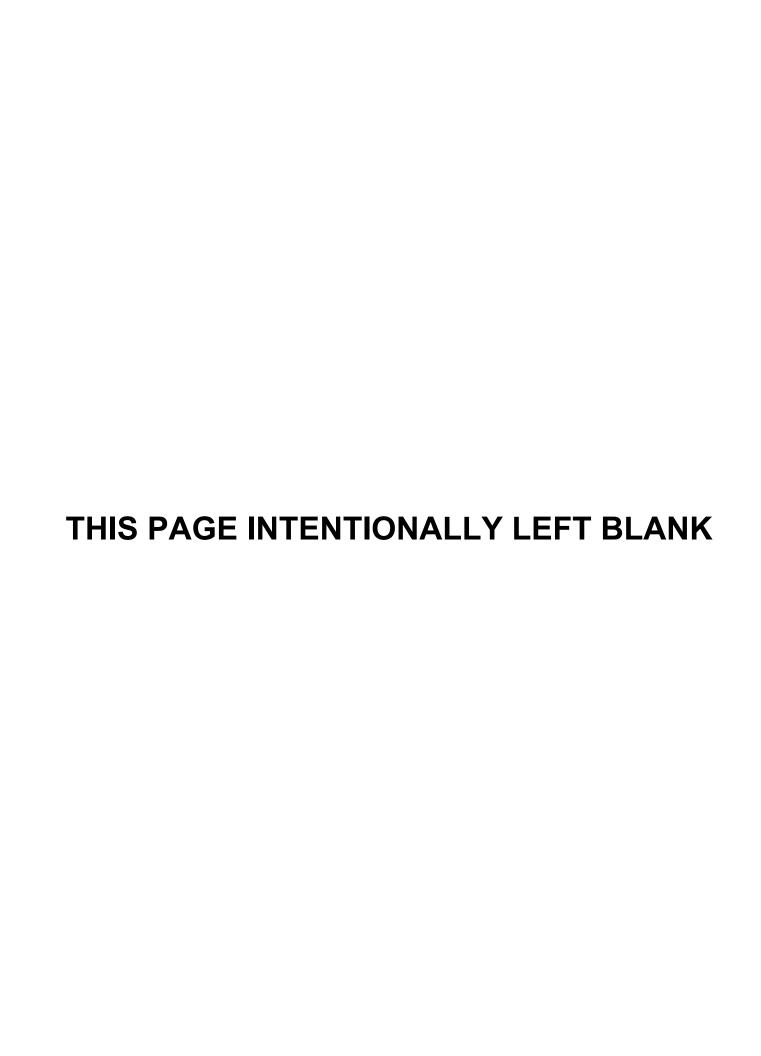
3.2.5 Error Log Codes

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. Press high limit switch reset under control box if applicable.
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 or RIGHT VALVE NOT OPEN for multi- return valve systems.	Return valve or Right valve (multi-return valve systems) was trying to open and confirmation is missing
E35	RETURN VALVE NOT CLOSED - FILTRATION AND TOP OFF DISABLED - CALL SERVICE or RIGHT VALVE NOT CLOSED for multi- return valve systems.	Return valve or Right valve (multi-return valve systems) 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

Code	ERROR MESSAGE	EXPLANATION
		the drain is not clogged and follow prompts.
E43	OIL SENSOR FAILURE - CALL SERVICE	Oil level sensor may have failed. Call service.
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.
E56	FLOAT SWITCH STUCK ERROR	Clean the float switch, ensuring it moves freely up and down.
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 or CLEAN FLOAT SWITCH	Gas -The oil is back sensor or float switch does not detect oil. Clean optional oil sensor or float switch.
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.

Code	ERROR MESSAGE	EXPLANATION
E70	OQS TEMP HIGH	Oil temperature is too high for a valid OQS reading. Filter at a temperature between 300ºF (149ºC) and 375ºF (191ºC).
E71	OQS TEMP LOW	Oil temperature is too low for a valid OQS reading. Filter at a temperature between 300ºF (149ºC) and 375ºF (191ºC).
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.
E81	SAFE MODE FAILURE ERROR	The system has detected the fryer is not heating properly due to low oil conditions. Ensure the fryer has oil to the bottom fill line or higher. If not, add oil to the bottom fill line. If issue continues contact a FAS.
E85	LEFT RETURN VALVE or LEFT VALVE NOT OPEN - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Left return valve was trying to open, and confirmation is missing
E86	LEFT RETURN VALVE or LEFT VALVE NOT CLOSED - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Left Return valve was trying to close, and confirmation is missing.
E87	CENTRAL VALVE NOT OPEN - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Central Valve was trying to open, and confirmation is missing.
E88	CENTRAL VALVE NOT CLOSED - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Central Valve was trying to close, and confirmation is missing.
E89	RIGHT RETURN VALVE NOT OPEN - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Right return valve was trying to open, and confirmation is missing.
E90	RIGHT RETURN VALVE NOT CLOSED - FILTRATION AND TOP OFF DISABLED - CALL SERVICE	Right return valve was trying to close, and confirmation is missing.

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